DOCKETED	
Docket Number:	21-TPG-01
Project Title:	Roseville Energy Park Temporary Power Generators
TN #:	251362
Document Title:	Roseville Energy Park Temporary Generators Quarterly Report - Q2 2023
Description:	N/A
Filer:	Roseville Electric Compliance
Organization:	Roseville Electric
Submitter Role:	Public Agency
Submission Date:	7/28/2023 11:50:03 AM
Docketed Date:	7/28/2023

Roseville Electric Utility
2090 Hilltop Circle
Roseville, California 95747-9704
Reliable Energy. Dependable Service.

City of Roseville

Roseville Energy Park Temporary Power Generators

(21-TPG-01)

California Energy Commission

Quarterly Operational Report

Second Quarter 2023

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RPEAK Condition #	Description
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CRR-02	Provide evidence, as depicted in the condition, if cultural resource or human remains founds at project cite. Construction and reporting requirement.
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CRR-04	Implementation of a Workers Environmental Awareness Program (WEAP)
CRR-05	Implementation of project site design, installation, and maintenance
CRR-06	Construction and reporting requirement.
CRR-07	Copy of SWPPP previously submitted
CRR-08	Notify the CPM of any receive noise complaints and documentation within 3 business day
CRR-09	Semi-Annual report every Jan and July
CRR-10	Report and provide copies of evidence for all complaints, notices of violation, notices of fines, official warnings, and citations within 7 days of receipt
CRR-11	At end of life of permit, create closure plan, and submit 6 months prior to closure, stipulating how the project operator will ensure that the closure does not create adverse environmental, health, and safety impacts (Planned facility closure activities)
CRR-12	Notify the CPM of any violations of the Authority to Construct (ATC)/Permit to Operate (PTO) and the measures taken to return to compliance, within 5 days
CRR-13	Quarterly emissions, fuel use, hours of operation, times of operation, and energy produced by that use and operation. (CEC 1304 reflects fuel use & energy produced)
CRR-14	Within one month of cessation of operation, the project operator must provide a final report documenting removal of project facilities (Cessation of operation facility report.)

CRR-01

CRR-01: Running list of all person who have completed the Workers Environmental Awareness Program training to date.

Verification: The project operator shall provide a quarterly compliance report to the CEC Compliance Project Manager (CPM) including a record of the number of persons who have completed the Workers Environmental Awareness Program training in the prior quarter and a running total of all persons who have completed the training to date.

Total number of individuals who completed WEAP training in Q2 2023: 99

Total number of individuals who completed WEAP training since Roseville took over operation: 239

CRR-02

CRR-02: If a cultural resource is found during installation of the project, the project operator shall provide the following documentation to the CPM:

- A description of the cultural resource, the circumstances surrounding its discovery, actions taken to protect the resource, and the disposition of any artifacts or features that came into the project operator's possession
- A confidential map of the discovery location on an aerial photograph or project plans
- Photographs of the cultural resource and constituent artifacts or features

If human remains are found during installation of the project, the project operator shall document the discovery as described in the bulleted list above and demonstrate compliance with California Health and Safety Code, Section 7050.5(b). Demonstration of compliance may include:

- Telephone conversation logs
- Copies of email exchanges
- Minutes from field meetings

Verification: The project operator shall provide the documentation described in the previous paragraphs with the reports required under CRR-1, in a confidential appendix. The project operator shall keep this documentation on file for at least 6 months following the start of commercial operation.

No cultural resources or human remains were found during project installation, or since project installation.

CRR-03

CRR-03: The Environmental Coordinator (EC) shall be retained by the project operator. The EC will have the authority to review and approve the following materials and assume the following duties:

- Per CCR-4, design the Worker Environmental Awareness Program;
- Issue stop-work orders as per CCR-4;
- Report to the CPM, CDFW or USFWS any take of special status plants, wildlife, or habitat (per CCR-6);
- The EC shall have the following qualifications: at minimum, will hold a bachelor's degree in in Environmental Science, Environmental Planning, Urban Planning, or a related field, as well as a minimum of 3 years of applicable, relevant experience; and
- The EC shall be available to the CPM or their CEC staff-designee, for consult and updates upon request.

No changes in Q2 2023.

CRR-04

CRR-04: Implementation of a Workers Environmental Awareness Program (WEAP).

Verification: The project operator shall provide a quarterly compliance report to the CPM a record of the number of persons who have completed the training in the prior months and a running total of all persons who have completed the training to date. The signed training acknowledgment forms from construction shall be kept on file by the project operator for a period of at least 6 months after the start of commercial operation. During project operation, signed statements for active project operational personnel shall be kept on file for 6 months following the termination of an individual's employment.

Total number of individuals who completed WEAP training in Q2 2023: 99

Total number of individuals who completed WEAP training since Roseville took over operation: 239

CRR-05

CRR-05: The project operator shall undertake the following:

- Provide representative schematics, diagrams, or shapefiles of the final package unit configuration and linear connections;
- The project operator shall design, install, and maintain project-related features such as access roads and storage and parking areas to avoid identified sensitive resources;
- Stake or fence the limits of the work zone and access roads, and prohibit any offsite use or impacts;
- Eliminate from landscaping or revegetation plans any List A California exotic pest plants of concern as defined by the California Exotic Pest Plant Council;
- Prescribe a road sealant that is non-toxic to wildlife and plants; and
- Design, install, and maintain any additional necessary facility lighting to prevent side casting of light toward native habitat.

Verification: The project operator is to report the proof of the implementation of the measures above on the quarterly compliance reports. This condition and reporting requirement was satisfied during the construction phase and all requirement documentation was submitted to the CPM prior to Roseville assuming operator status on August 29, 2022.

CRR-06

CRR-06: The project operator shall implement the following measures to manage its construction site (and related facilities) in a manner to avoid or minimize impacts to local biological and cultural resources:

- Install temporary fencing and provide wildlife escape ramps for construction areas that contain steep-walled holes or trenches if outside an approved, permanent exclusionary fence. The temporary fence shall be hardware cloth or similar material that is approved by the CPM, and CDFW;
- ensure that all food-related trash is disposed of in closed containers and removed at least once a week;
- prohibit feeding of wildlife by staff and subcontractors;
- prohibit non-security-related firearms or weapons on site;
- prohibit pets on site;
- report all inadvertent deaths of sensitive species to the Environmental Coordinator, who will, within 24 hours, notify the CPM, CDFW or United States Fish and Wildlife Service, as appropriate; and
- minimize use of rodenticides and herbicides in the project area.

Verification: Implementation of the measures shall be reported in the quarterly compliance reports by the Environmental Coordinator. Within 30 days after completion of project deployment, the project operator shall provide to the CPM, for review and approval, a written construction termination report identifying how environmental resource measures have been completed. This report may or may not be coincidental with the quarterly monitoring report.

The written construction termination report was submitted and accepted by the CEC on September 29th, 2022. Facility is operational and construction has been completed.

CRR-07

CRR-07: The project has been issued a waiver of the requirements of a construction stormwater pollution prevention plan (SWPPP) by the State Water Resources Control Board based on the low rain erosivity of the site. However, the project operator shall implement stormwater best management practices (BMPs) to ensure that no contaminated water is discharged off-site. Examples of contaminated water include dust suppression water, equipment wash water, and contact stormwater or sediment laden stormwater in the unlikely event that significant rain falls on the project site during construction.

Copy of SWPPP previously submitted on Q3 2022 CEC QAQR report.

CRR-08

CRR-08: Prior to operation of the temporary power generators, the project operator shall notify the residences within 2500 feet from the project site, by mail or by other effective means, of the commencement of project operation. The notification shall include a telephone number for use by the public to report any undesirable noise conditions during the operation of the project. Within five business days, project personnel shall notify the CPM that the above notification has been sent.

If the project receives a noise complaint, project personnel shall document and investigate the complaint to determine the source of the noise. If the investigation determines that the noise is project related, project personnel shall attempt to resolve the complaint to the satisfaction of the complainant.

The project operator shall use the attached Noise Complaint Resolution Form or a functionally equivalent procedure, to document and respond to the noise complaint. The completed form shall be submitted to the CPM within three business days following its completion.

If project personnel and complainant cannot reach consensus, project Personnel shall notify the CPM.

No complaints received in Q2 2023.

CRR-09

CRR-09: After construction is complete, the project operator shall submit Semi-Annual Compliance Reports; the project may be required to submit additional compliance reports as mandated by the technical areas. The reports are due to the CPM at a date agreed to by the CPM. Each Semiannual Compliance Report shall identify the reporting period and shall contain the following:

- An updated compliance matrix, in a spreadsheet format. The compliance matrix must identify the following:
    - the technical area and number of the conditions and reporting requirements;
    - a brief description of the submittal required;
    - the date when the submittal is required and the expected or actual submittal date; and
    - the compliance status of each condition and reporting requirement.
- A summary of the current project operating status and an explanation of any significant changes to facility operations;
- Documents required by specific conditions and reporting requirements to be submitted along with the Semi-Annual Compliance Report as attachments; and
- A listing of filings made to, or permits issued by, other governmental agencies during the year.

Submitted in Semi-Annual Report every January and July.

CRR-10

CRR-10: The project operator shall report and provide copies of all incidents, complaints, notices of violation, notices of fines, official warnings, and citations, within seven days of receipt or occurrence, to the CPM. Complaints shall be logged and numbered.

No incidents, complaints, notices of violation, notices of fines, officials warnings, and citations in Q2 2023.

CRR-11

CRR-11: At the end of the life of the permit, to ensure that a planned facility closure does not create adverse environmental, health, and safety impacts, the project operator shall submit a facility closure plan to the CEC for review and approval at least 6 months (or other time period agreed to by the CPM) prior to commencement of closure activities.

Facility is currently operational.

CRR-12

CRR-12: The project operator shall comply with the terms and conditions of the Authority to Construct (ATC) and the Permit to Operate (PTO) issued by the Placer County Air Pollution Control District (PCAPCD).

In the event that the air district finds the project to be out of compliance with the terms and conditions of the ATC/PTO, the project operator shall notify the CPM of the violation, and the measures taken to return to compliance, within five days.

No violations for Q2 2023.

CRR-13

CRR-13: The project operator shall provide an emissions reporting protocol to the CPM for review and approval. The emissions reporting protocol shall explain the procedures for estimating criteria pollutant emissions during emergency operation and reliability testing. The protocol shall list the calculation methodologies, operational parameters used to quantify emissions (e.g., fuel flow, gross calorific value of fuel, predetermined emission factors, water injection, megawatts, etc.), and any assumptions made in the estimate. The protocol shall be submitted at the end of each operating quarter for approval. Upon approval of the protocol, the operational emissions shall be reported using and presenting the same calculation methodologies, operational parameters and assumptions used to quantify emissions. Emissions shall be reported to the CPM quarterly. In addition to emissions reporting, the reported data shall include fuel use, hours of operation and times of operation, and energy produced by that use and operation.

(CEC 1304 reflects fuel use & energy produced)

Source Test Report for 2022 Compliance Testing
GT 3 and 4
GE Gas Power
Roseville Energy Park
Roseville, CA

Prepared For:

GE Gas Power
5120 Phillip Rd
Roseville, CA 95747

Prepared By:

Montrose Air Quality Services, LLC
1351 Brummel Ave
Elk Grove Village, IL 60007

For Submission To:

Placer County Air Pollution Control District
110 Maple Street
Auburn, California 95603

Document Number: 414AS-017008-RT-53
Test Dates: July 1 through 3, 2022
Submittal Date: August 22, 2022

MONTROSE AIR QUALITY SERVICES

STAC STACK TESTING ACCREDITATION COUNCIL

ACCREDITED TO ASTM D7036 ONLY CERT #3925.01

Review and Certification

All work, calculations, and other activities and tasks performed and presented in this document were carried out by me or under my direction and supervision. I hereby certify that, to the best of my knowledge, Montrose operated in conformance with the requirements of the Montrose Quality Management System and ASTM D7036-04 during this test project.

Signature:		**Date:**	8/22/2022
Name:	John Hamner	**Title:**	Account Manager

I have reviewed, technically and editorially, details, calculations, results, conclusions, and other appropriate written materials contained herein. I hereby certify that, to the best of my knowledge, the presented material is authentic, accurate, and conforms to the requirements of the Montrose Quality Management System and ASTM D7036-04.

Signature:		**Date:**	8/22/2022
Name:	Roy Slick	**Title:**	Reporting QC Specialist II

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1.0 Introduction

1.1 Summary of Test Program

GE Gas Power (GE) contracted Montrose Air Quality Services, LLC (Montrose) to perform a compliance emissions test program on the sources listed in Table 1-1 at the Roseville Energy Park facility located in Roseville, CA.

The tests were conducted to determine compliance with the emission limits listed in permit number AC-REPR-21C and AC-REPR-21D issued by Placer County Air Pollution Control District.

The specific objectives were to:

- Measure emissions of Nitrogen Oxides (NO_x) at the outlet of the GT 3 and GT 4 stacks
- Measure emissions of Carbon Monoxide (CO) at the outlet of the GT 3 and GT 4 stacks
- Measure emissions of Oxygen (O_2) at the outlet of the GT 3 and GT 4 stacks
- Measure emissions of Volatile Organic Compounds (VOC) at the outlet of the GT 3 and GT 4 stacks
- Measure emissions of Ammonia (NH_3) at the outlet of the GT 3 and GT 4 stacks
- Measure emissions of Particulate Matter (PM) at the outlet of the GT 3 and GT 4 stacks
- Measure emissions of Sulfur Oxides (SO_x) at the outlet of the GT 3 and GT 4 stacks
- Conduct the test program with a focus on safety

Montrose performed the tests to measure the emission parameters listed in Table 1-1.

Table 1-1
Summary of Test Program

Test Date(s)	Unit ID/ Source Name	Activity/Parameters	Test Methods	No. of Runs	Duration (Minutes)
7/1-7/2 7/2-7/3	GT 3 GT 4	Velocity/Volumetric Flow Rate	EPA 1, 2 and 19	3	180
7/1-7/2 7/2-7/3	GT 3 GT 4	O_2, CO_2	EPA 3A	3	60/180
7/1-7/2 7/2-7/3	GT 3 GT 4	Moisture	EPA 4	3	180
7/1-7/2 7/2-7/3	GT 3 GT 4	TPM	EPA 5/202	3	180
7/1 7/3	GT 3 GT 4	NO_x	EPA 7E	3	60
7/1 7/3	GT 3 GT 4	CO	EPA 10	3	60
7/1 7/3	GT 3 GT 4	VOC	EPA 25A/18	3	60
7/1 7/3	GT 3 GT 4	NH_3	EPA 320	3	60
7/1 7/3	GT 3 GT 4	SO_x	ASTM D3246, D1945 and D3588	1	Grab Sample
7/1-7/2 7/2-7/3	GT 3 GT 4	Post-test meter calibration check	EPA ALT-009	--	--
7/1-7/2 7/2-7/3	GT 3 GT 4	Post-test thermocouple calibration check	EPA ALT-011	--	--

To simplify this report, a list of Units and Abbreviations is included in Appendix D.1. Throughout this report, chemical nomenclature, acronyms, and reporting units are not defined. Please refer to the list for specific details.

This report presents the test results and supporting data, descriptions of the testing procedures, descriptions of the facility and sampling locations, and a summary of the quality assurance procedures used by Montrose. The average emission test results are summarized and compared to their respective permit limits in Table 1-2 and Table 1-3. Detailed results for individual test runs can be found in Section 4.0. All supporting data can be found in the appendices.

The testing was conducted by the Montrose personnel listed in Table 1-4. The tests were conducted according to the test plan (protocol) dated April 29, 2022 that was submitted to and approved by the Placer County Air Pollution Control District.

Table 1-2
Summary of Average Compliance Results – GT 3

July 1 and 2, 2022

Parameter/Units	Average Results	Emission Limits
Particulate Matter (PM)		
gr/dscf	0.000454	--
lb/hr	0.65	4.0
Sulfur Dioxide (SO_2)		
ppmvd	0.048	--
lb/hr	0.077	0.20
Sulfur Dioxide (SO_x)		
ppmvd	0.048	--
lb/hr	0.077	0.20
Nitrogen Oxides (NO_x)		
ppmvd	1.58	--
ppmvd @ 15% O_2	1.82	2.5
lb/hr	1.85	2.71
Carbon Monoxide (CO)		
ppmvd	0.35	--
ppmvd @ 15% O_2	0.40	4.0
lb/hr	0.25	2.64
Total Non-Methane/Non-Ethane Hydrocarbons, as Methane (VOC)		
ppmvd	0.00	--
lb/hr	0.00	0.66
Ammonia (NH_3)		
ppmvd	2.80	--
ppmvd @ 15% O_2	3.23	10

Table 1-3
Summary of Average Compliance Results – GT 4

July 2 and 3, 2022

Parameter/Units	Average Results	Emission Limits
Particulate Matter (PM)		
gr/dscf	0.000361	--
lb/hr	0.45	4.0
Sulfur Dioxide (SO_2)		
ppmvd	0.050	--
lb/hr	0.072	0.20
Sulfur Dioxide (SO_x)		
ppmvd	0.050	--
lb/hr	0.072	0.20
Nitrogen Oxides (NO_x)		
ppmvd	1.97	--
ppmvd @ 15% O_2	2.11	2.5
lb/hr	2.05	2.71
Carbon Monoxide (CO)		
ppmvd	0.40	--
ppmvd @ 15% O_2	0.44	4.0
lb/hr	0.26	2.64
Total Non-Methane/Non-Ethane Hydrocarbons, as Methane (VOC)		
ppmvd	0.00	--
lb/hr	0.00	0.66
Ammonia (NH_3)		
ppmvd	0.83	--
ppmvd @ 15% O_2	0.90	10

1.2 Key Personnel

A list of project participants is included below:

Facility Information

Source Location:	GE Gas Power Roseville Energy Park 5120 Phillip Rd Roseville, CA 95747
Project Contact:	Joshua Williams
Role:	Senior Project Manager
Company:	GE Gas Power
Telephone:	860-830-8720
Email:	Joshua.williams1@ge.com

Agency Information

Regulatory Agency:	Placer County Air Pollution Control District
Agency Contact:	Erik C. White
Telephone:	530-745-2330

Testing Company Information

Testing Firm:	Montrose Air Quality Services, LLC
Contact:	John Hamner
Title:	Account Manager
Telephone:	630-715-3259
Email:	jhamner@montrose-env.com

Laboratory Information

Laboratory:	Enthalpy Analytical Labs
City, State:	Raleigh, NC
Method:	18/5/202

Test personnel and observers are summarized in Table 1-3.

Table 1-3
Test Personnel and Observers

Name	Affiliation	Role/Responsibility
John Hamner	Montrose	Project Manager
Justin Merryman	Montrose	Qualified Individual (QI)/Trailer operator
Alfred Stewart	Montrose	Sample train operator
Randal Stancil	Montrose	Sample train operator
Zach Le Fever	Montrose	Sample train operator
Nestor Gonzalez	Montrose	Sample train operator
Roy Slick	Montrose	Calculations and report preparation
Joshua Williams	GE Gas Power	Observer/Client Liaison/Test Coordinator
Erik C. White	Regulatory Agency Name	Observer

2.0 Plant and Sampling Location Descriptions

2.1 Process Description, Operation, and Control Equipment

The Roseville Energy Park consists of two (2) natural gas fired TM2500-G4 simple cycle GE combustion turbine generators (Units #3 and #4) with single annular combustors with water injection. The CTGs also include selective catalytic reduction (SCR) and carbon monoxide (CO) catalyst systems. The units have a nominal megawatt (MW) rating of 33.6MW and a heat input rating (HHV) of 366.1 MMBtu/hr.

2.2 Flue Gas Sampling Locations

Information regarding the sampling locations is presented in Table 2-1.

Table 2-1
Sampling Locations

Sampling Location	Stack Inside Diameter (in.)	Distance from Nearest Disturbance		Number of Traverse Points
		Downstream EPA "B" (in./dia.)	Upstream EPA "A" (in./dia.)	
GT 3	108	319/2.95	68/0.63	Isokinetic: 24 (6/port) Gaseous: 3
GT 4	108	319/2.95	68/0.63	Isokinetic: 24 (6/port) Gaseous: 3

Sample locations were verified in the field to conform to EPA Method 1. Acceptable cyclonic flow conditions were confirmed prior to testing using EPA Method 1, Section 11.4. See Appendix A.1 for more information.

2.3 Operating Conditions and Process Data

Emission tests were performed while the source/units and air pollution control devices were operating at the conditions required by the permit. The units were tested when operating normally at maximum load.

Plant personnel were responsible for establishing the test conditions and collecting all applicable unit-operating data. The process data that was provided is presented in Appendix B. Data collected includes the following parameters:

- Fuel flow rates
- Load, MW
- Water injection rate
- Heat input
- NH_3 injection rate

3.0 Sampling and Analytical Procedures

3.1 Test Methods

The test methods for this test program have been presented in Table 1-1. Additional information regarding specific applications or modifications to standard procedures is presented below.

3.1.1 EPA Method 1 – Sample and Velocity Traverses for Stationary Sources

EPA Method 1 is used to assure that representative measurements of volumetric flow rate are obtained by dividing the cross-section of the stack or duct into equal areas, and then locating a traverse point within each of the equal areas. Acceptable sample locations must be located at least two stack or duct equivalent diameters downstream from a flow disturbance and one-half equivalent diameter upstream from a flow disturbance. Pertinent information regarding the performance of the method is presented below:

The sample port and traverse point locations are detailed in Appendix A.

3.1.2 EPA Method 2 – Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S Pitot Tube)

EPA Method 2 is used to measure the gas velocity using an S-type pitot tube connected to a pressure measurement device, and to measure the gas temperature using a calibrated thermocouple connected to a thermocouple indicator. Typically, Type S (Stausscheibe) pitot tubes conforming to the geometric specifications in the test method are used, along with an inclined manometer. The measurements are made at traverse points specified by EPA Method 1. The molecular weight of the gas stream is determined from independent measurements of O_2, CO_2, and moisture. The stack gas volumetric flow rate is calculated using the measured average velocity head, the area of the duct at the measurement plane, the measured average temperature, the measured duct static pressure, the molecular weight of the gas stream, and the measured moisture.

Pertinent information regarding the performance of the method is presented below:

- Method Options:
  - S-type pitot tube coefficient is 0.84

The typical sampling system is detailed in Figure 3-2.

3.1.3 EPA Methods 3A, 7E, and 10, Determination of Oxygen, Carbon Dioxide, Nitrogen Oxides, and Carbon Monoxide Concentrations in Emissions from Stationary Sources (Instrumental Analyzer Procedures)

Concentrations of O_2, CO_2, NO_x, and CO are measured simultaneously using EPA Methods 3A, 6C, 7E, and 10, which are instrumental test methods. Conditioned gas is sent to a series

of analyzers to measure the gaseous emission concentrations. The performance requirements of the method must be met to validate the data.

Pertinent information regarding the performance of the method is presented below:

- Method Options:
  - No filter is used since low PM is expected
  - A dry extractive sampling system is used to report emissions on a dry basis
  - A paramagnetic analyzer is used to measure O_2
  - A nondispersive infrared analyzer is used to measure CO_2
  - A chemiluminescent analyzer is used to measure NO_x
  - A gas filter correlation nondispersive infrared analyzer is used to measure CO
  - NO and NO_2 are measured separately and summed to report NO_x emissions
  - Calibration span values are 20.05% O_2, 19.85% CO_2, 6.03 ppmvd NO_x, and 5.86 ppmvd CO
- Target and/or Minimum Required Sample Duration: 60 minutes

The typical sampling system is detailed in Figure 3-2.

3.1.4 EPA Method 4 – Determination of Moisture Content in Stack Gas

EPA Method 4 is a manual, non-isokinetic method used to measure the moisture content of gas streams. Gas is sampled at a constant sampling rate through a probe and impinger train. Moisture is removed using a series of pre-weighed impingers containing methodology-specific liquids and silica gel immersed in an ice water bath. The impingers are weighed after each run to determine the percent moisture.

Pertinent information regarding the performance of the method is presented below:

- Method Options:
  - The reference method is used to measure moisture
  - Moisture sampling is performed as part of the pollutant sample trains
  - Since it is theoretically impossible for measured moisture to be higher than psychrometric moisture, the psychrometric moisture is also calculated, and the lower moisture value is used in the calculations
- Target and/or Minimum Required Sample Duration: 180 minutes
- Target and/or Minimum Required Sample Volume: 21 scf

The typical sampling system is detailed in Figure 3-1.

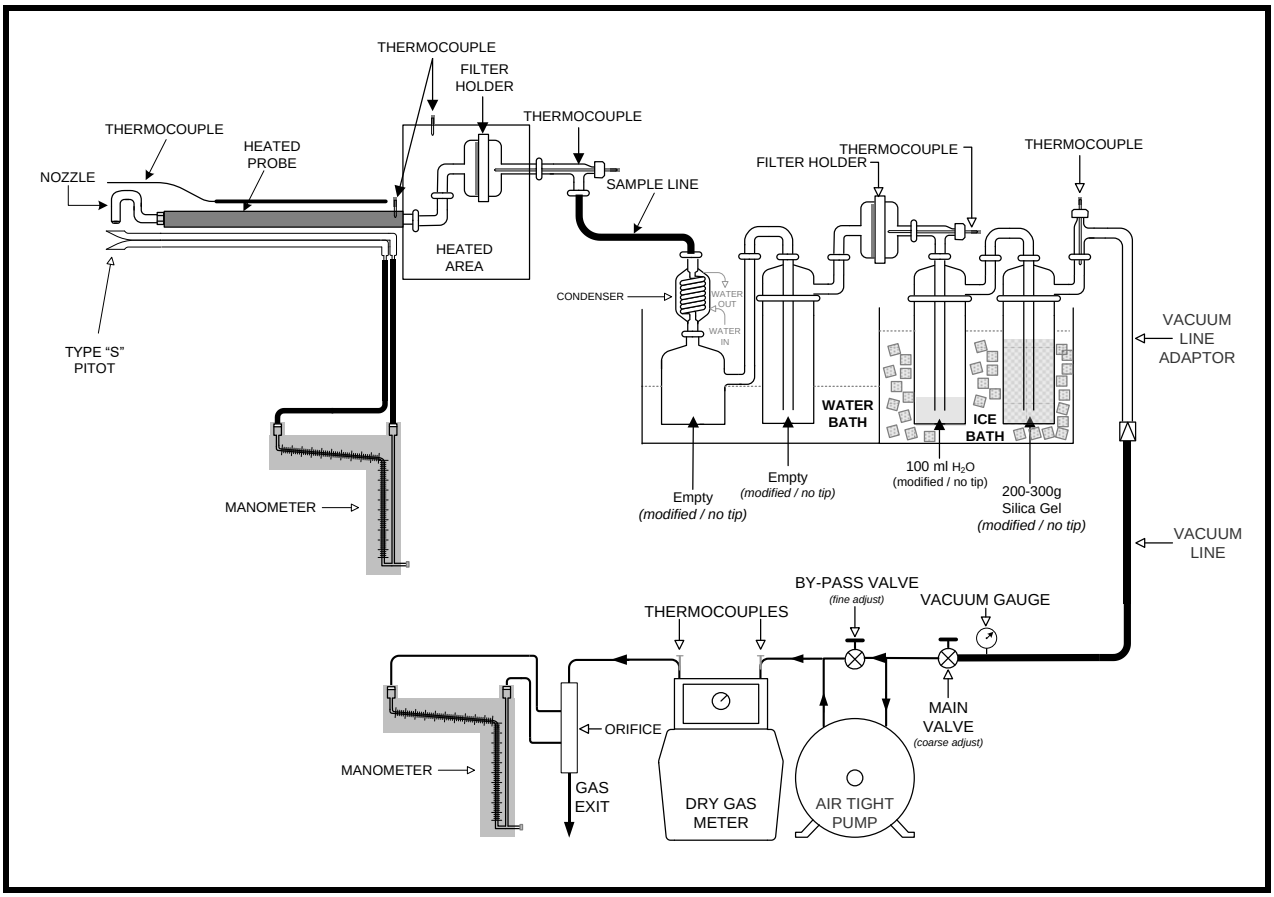
3.1.5 EPA Method 5 and 202 – Determination of Particulate Matter from Stationary Sources and Dry Impinger Method for Determining Condensable Particulate Emissions from Stationary Sources

EPA Methods 5 and 202 are manual, isokinetic methods used to measure FPM and CPM emissions. The methods are performed in conjunction with EPA Methods 1 through 4. The stack gas is sampled through a nozzle, probe, heated filter, unheated CPM filter, condenser, and impinger train. FPM is collected from the probe and heater filter. CPM is collected from the unheated CPM filter and the impinger train. The samples are analyzed gravimetrically. The sum of FPM and CPM represents TPM. The FPM, CPM, and TPM results are reported in emission concentration and emission rate units. Pertinent information regarding the performance of the method is presented below:

- Method Options:
  - Glass sample nozzles and probe liners are used
  - Condensed water is measured gravimetrically
- Target and/or Minimum Required Sample Duration: 180 minutes
- Target and/or Minimum Required Sample Volume: 125 dscf
- Analytical Laboratory: Enthalpy Analytic, Durham, North Carolina

The typical sampling system is detailed in Figure 3-1.

Figure 3-1
US EPA METHOD 5/202 SAMPLING TRAIN



3.1.6 EPA Method 25A and 18 – Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer and Measurement of Gaseous Organic Compound Emissions by Gas Chromatography

EPA Method 25A is an instrumental test method used to measure the concentration of THC in stack gas. A gas sample is extracted from the source through a heated sample line and glass fiber filter to an FIA. Results are reported as volume concentration equivalents of the calibration gas or as carbon equivalents.

EPA Method 18 is used to measure gaseous organic compounds from stationary sources. The major organic components of a gas mixture are separated by GC and are individually quantified using a FID, PID, ECD, or other appropriate detection principles. The retention times of each separated component are compared with those of known compounds under identical conditions. The GC analyst confirms the identity and approximate concentrations of the organic emission components beforehand. With this information, the analyst then prepares or purchases commercially available standard mixtures to calibrate the GC under conditions identical to those of the samples. The analyst also determines the need for sample dilution to avoid detector saturation, gas stream filtration to eliminate particulate matter, and prevention of moisture condensation.

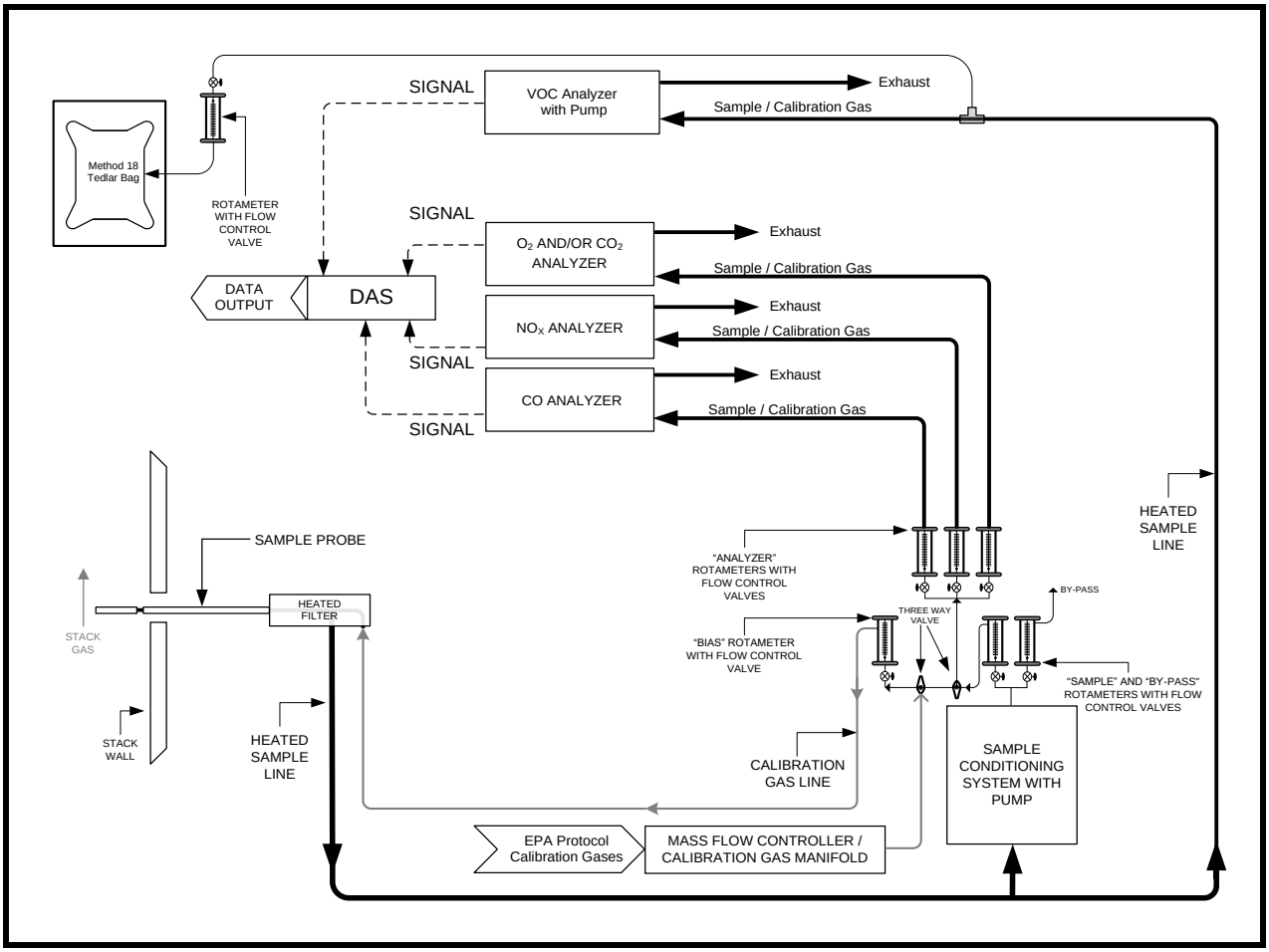
Total non-methane/non-ethane hydrocarbons concentrations are determined by subtracting methane and ethane from THC.

Pertinent information regarding the performance of the method is presented below:

- Method Options:
  - Results are reported in terms of propane
  - Span value for THC is 17.13 ppmvw
  - VOC emissions on a CH_4 basis will be calculated by multiplying the concentrations as C_3H_8 by a factor of 3
  - Integrated bag sampling and analysis is performed for Method 18
- Method Exceptions:
  - If the gas bags are not analyzed within 48 hours of sampling time, one sample is spiked for the recovery study after analysis. The spiked bag is stored for the same period of time as the samples before analysis.
- Target Analytes: Total non-methane, non-ethane hydrocarbons excluding exempt compounds as defined by Placer County Air Pollution Control District
- Target and/or Minimum Required Sample Duration: 60 minutes
- Analytical Laboratory: Enthalpy Analytic, Durham, North Carolina

The typical sampling system is detailed in Figure 3-2.

Figure 3-2
US EPA METHOD 3A, 7E, 10, 18 (BAG), AND 25A SAMPLING TRAIN



3.1.10 EPA Method 320 – Measurement of Vapor Phase Organic and Inorganic Emissions by Extractive FTIR Spectroscopy

EPA Method 320 is an instrumental test method used to measure specific analyte concentrations for which EPA reference spectra have been developed or prepared. Extractive emission measurements are performed using FTIR spectroscopy. The FTIR analyzer is composed of a spectrometer and detector, a high optical throughput sampling cell, analysis software, and a quantitative spectral library. The analyzer collects high resolution spectra in the mid infrared spectral region (400 to 4,000 cm-1), which are analyzed using the quantitative spectral library. This provides an accurate, highly sensitive measurement of gases and vapors.

Pertinent information regarding the performance of the method is presented below:

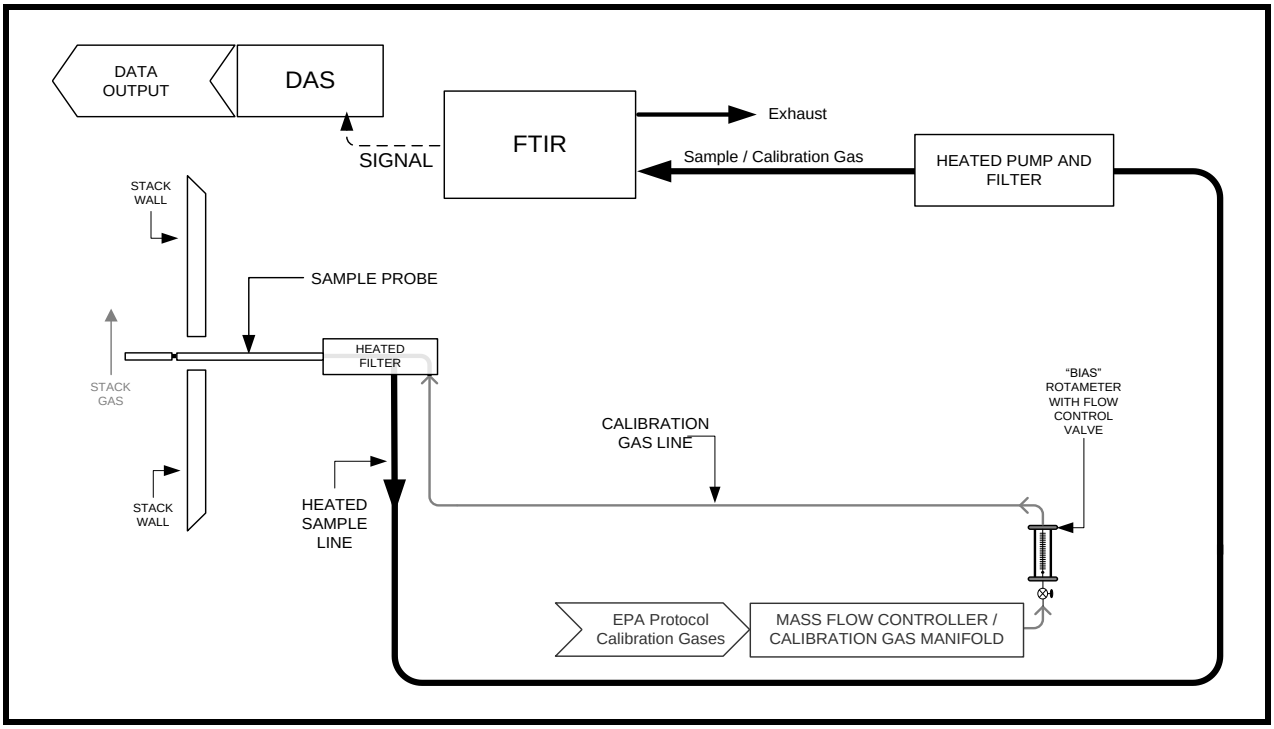
- Method Options:
  - The specific analyte concentrations include Ammonia

- Continuous static sampling is performed at a flow rate of approximately 6 liters per minute
- Surrogate analyte gas standards are used for direct analyte measurement and QA spikes
- Previous spiking studies validate the use of FTIR spectroscopy to accurately measure the concentrations of the specific analytes from similar sources
- A dynamic matrix spike is performed using ammonia and SF_6 as a tracer gas

- Method Exceptions:
  - To calculate the MDL for the target analytes, the guidelines in Appendix B of 40 CFR 136 are followed using the Student t-test to calculate the MDL for each analyte at a 99% confidence level. This follows EPA guidelines for reporting of zeroes or non-detects and also meets the NELAC requirements for determination of MDL values.
  - The minimum detectable concentration values are determined using the MDC2 calculation specified in ASTM Method D6348-12
  - Independent calculations of optical path length are not performed because the instrument has a fixed path of 5.11 meters
- Target and/or Minimum Required Sample Duration: 60 minutes
- Analytical Laboratory: Montrose Air Quality Services, Mount Pleasant, Michigan

The typical sampling system is detailed in Figure 3-3.

Figure 3-3
US EPA METHOD 320 SAMPLING TRAIN



3.2 Process Test Methods

Process natural gas samples will be collected during this test program.

4.0 Test Discussion and Results

4.1 Field Test Deviations and Exceptions

No field deviations or exceptions from the test plan or test methods occurred during this test program.

4.2 Presentation of Results

The average results are compared to the permit limits in Table 1-2 and Table 1-3. The results of individual compliance test runs performed are presented in Tables 4-1 through 4-6. Emissions are reported in units consistent with those in the applicable regulations or requirements. Additional information is included in the appendices as presented in the Table of Contents.

Table 4-1
NH_3, NO_x, CO, and VOC Emissions Results - GT 3

Parameter/Units	Run 1	Run 2	Run 3	Average
Date	7/1/2022	7/1/2022	7/1/2022	
Time	8:19-9:25	9:43-10:43	11:02-12:02	
Process Data				
Heat Input, MMBtu/hr	279.25	279.25	279.25	
Sampling & Flue Gas Parameters				
sample duration, minutes	60	60	60	60
O_2, % volume dry	15.66	15.78	15.89	15.78
CO_2, % volume dry	3.19	3.10	3.04	3.11
Ammonia (NH_3)				
ppmvd	2.50	2.90	3.00	2.80
ppmvd @ 15% O_2	2.82	3.34	3.54	3.23
Nitrogen Oxides (NO_x)				
ppmvd	1.69	1.56	1.49	1.58
ppmvd @ 15% O_2	1.91	1.80	1.76	1.82
lb/MMBtu	0.007	0.007	0.006	0.007
lb/hr	1.94	1.83	1.79	1.85
Carbon Monoxide (CO)				
ppmvd	0.37	0.39	0.28	0.35
ppmvd @ 15% O_2	0.42	0.45	0.33	0.40
lb/MMBtu	0.001	0.001	0.001	0.001
lb/hr	0.26	0.28	0.21	0.25
Total Non-Methane/Non-Ethane Hydrocarbons, as Methane (VOC)				
ppmvd	0.00	0.00	0.00	0.00
lb/MMBtu	0.000	0.000	0.000	0.000
lb/hr	0.00	0.00	0.00	0.00

Table 4-2
PM Emissions Results -
GT 3

Parameter/Units	Run 1	Run 2	Run 3	Run 4	Average
Date	7/1/2022	7/1/2022	7/2/2022	7/2/2022	
Time	7:16-11:23	11:37-14:43	6:30-9:38	10:00-13:10	
Process Data					
Heat Input, MMBtu/hr	278.0	280.5	276.5	278.1	
Sampling & Flue Gas Parameters					
sample duration, minutes	180	180	180	180	180
sample volume, dscf	147.325	146.734	142.450	146.078	145.647
isokinetic rate, %	96.68	98.39	99.71	98.70	98.37
O_2, % volume dry	15.78	16.23	15.75	15.85	15.90
CO_2, % volume dry	3.11	2.83	3.12	3.04	3.03
flue gas temperature, °F	316.1	319.0	322.1	310.2	316.9
moisture content, % volume	9.19	9.30	9.63	9.10	9.31
volumetric flow rate, dscfm	162,899	180,200	161,040	165,215	167,339
Filterable Particulate Matter (PM)					
mg	0.9	1.0	0.8	0.9	0.9
gr/dscf	0.000088	0.000100	0.000079	0.000093	0.000090
lb/hr	0.12	0.15	0.11	0.13	0.13
Condensable PM					
mg	3.6	4.0	2.9	3.2	3.4
gr/dscf	0.000372	0.000425	0.000315	0.000341	0.000364
lb/hr	0.52	0.66	0.44	0.48	0.52
Total PM					
mg	4.4	5.0	3.6	4.1	4.3
gr/dscf	0.000460	0.000525	0.000394	0.000434	0.000454
lb/hr	0.64	0.81	0.54	0.61	0.65

Table 4-3
SO_2/SO_x Emissions Results -
GT 3

Parameter/Units	Grab 1	Grab 2	Average
Date	7/1/2022	7/2/2022	
Process Data			
Fuel Flow, scfh	267,795	268,000	267,898
Sampling & Flue Gas Parameters			
O_2, % volume dry	15.66	15.75	15.71
volumetric flow rate, dscfm	159,169	162,007	160,588
Sulfur Dioxide (SO_2)			
ppmvd	0.050	0.046	0.048
lb/hr	0.079	0.075	0.077

Table 4-4
NH_3, NO_x, CO, and VOC Emissions Results - GT 4

Parameter/Units	Run 1	Run 2	Run 3	Average
Date	7/3/2022	7/3/2022	7/3/2022	
Time	7:17-8:29	8:49-9:49	10:05-11:05	
Process Data				
Heat Input, MMBtu/hr	266.8	266.8	266.8	
Sampling & Flue Gas Parameters				
sample duration, minutes	60	60	60	60
O_2, % volume dry	15.30	15.45	15.49	15.41
CO_2, % volume dry	3.39	3.30	3.24	3.31
Ammonia (NH_3)				
ppmvd	0.70	0.90	0.90	0.83
ppmvd @ 15% O_2	0.74	0.97	0.98	0.90
Nitrogen Oxides (NO_x)				
ppmvd	2.14	1.91	1.85	1.97
ppmvd @ 15% O_2	2.26	2.06	2.02	2.11
lb/MMBtu	0.008	0.008	0.007	0.008
lb/hr	2.19	2.01	1.96	2.05
Carbon Monoxide (CO)				
ppmvd	0.24	0.51	0.46	0.40
ppmvd @ 15% O_2	0.26	0.55	0.50	0.44
lb/MMBtu	0.001	0.001	0.001	0.001
lb/hr	0.15	0.33	0.30	0.26
Total Non-Methane/Non-Ethane Hydrocarbons, as Methane (VOC)				
ppmvd	0.00	0.00	0.00	0.00
lb/MMBtu	0.000	0.000	0.000	0.000
lb/hr	0.00	0.00	0.00	0.00

Table 4-5
PM Emissions Results -
GT 4

Parameter/Units	Run 1	Run 2	Run 3	Run 4	Average
Date	7/2/2022	7/3/2022	7/3/2022	7/3/2022	
Time	13:51-17:04	6:21-9:35	10:00-13:09	13:30-16:38	
Process Data					
Heat Input, MMBtu/hr	267.3	266.5	267.4	266.5	
Sampling & Flue Gas Parameters					
sample duration, minutes	180	180	180	180	180
sample volume, dscf	143.122	146.132	143.614	143.407	144.069
isokinetic rate, %	96.93	104.79	102.32	100.68	101.18
O_2, % volume dry	15.32	15.35	15.42	15.36	15.36
CO_2, % volume dry	3.18	3.33	3.27	3.30	3.27
flue gas temperature, °F	816.6	819.0	822.0	821.3	819.7
moisture content, % volume	9.88	9.61	10.07	9.79	9.84
volumetric flow rate, dscfm	143.122	146.132	143.614	143.407	144.069
Filterable Particulate Matter (PM)					
mg	0.6	0.8	0.7	0.7	0.7
gr/dscf	0.000065	0.000077	0.000075	0.000076	0.000073
lb/hr	0.08	0.10	0.09	0.09	0.09
Condensable PM					
mg	1.8	2.9	3.0	3.0	2.7
gr/dscf	0.000193	0.000310	0.000320	0.000325	0.000287
lb/hr	0.24	0.38	0.40	0.40	0.36
Total PM					
mg	2.4	3.7	3.7	3.7	3.4
gr/dscf	0.000258	0.000388	0.000395	0.000401	0.000361
lb/hr	0.32	0.48	0.50	0.50	0.45

Table 4-6
SO_2/SO_x Emissions Results -
GT 4

Parameter/Units	Grab 1	Grab 2	Average
Date	7/2/2022	7/3/2022	
Process Data			
Fuel Flow, scfh	257,600	256,800	257,200
Sampling & Flue Gas Parameters			
O_2, % volume dry	15.32	15.30	15.31
volumetric flow rate, dscfm	143,720	142,783	143,251
Sulfur Dioxide (SO_2)			
ppmvd	0.050	0.050	0.050
lb/hr	0.072	0.072	0.072

5.0 Internal QA/QC Activities

5.1 QA/QC Audits

The meter boxes and sampling trains used during sampling performed within the requirements of their respective methods. All post-test leak checks, minimum metered volumes, minimum sample durations, and percent isokinetics met the applicable QA/QC criteria, except where noted in Section 5.2.

EPA Method 3A, 7E, and 10 calibration audits were all within the measurement system performance specifications for the calibration drift checks, system calibration bias checks, and calibration error checks, except where noted in Section 5.2.

EPA Method 25A FIA calibration audits were within the measurement system performance specifications for the calibration drift checks and calibration error checks, except if noted in Section 5.2.

The NO_2 to NO converter efficiency check of the analyzer was conducted per the procedures in EPA Method 7E, Section 8.2.4. The conversion efficiency met the criteria, except where noted in Section 5.2.

EPA Method 5 analytical QA/QC results are included in the laboratory report. The method QA/QC criteria were met, except if noted in Section 5.2. An EPA Method 5 reagent blank was analyzed. The maximum allowable amount that can be subtracted is 0.001% of the weight of the acetone used. The blank did not exceed the maximum residue allowed, except where noted in Section 5.2.

EPA Method 202 analytical QA/QC results are included in the laboratory report. The method QA/QC criteria were met, except where noted in Section 5.2. An EPA Method 202 Field Train Recovery Blank (FTRB) was performed for each source category.

EPA Method 18 analytical QA/QC results are included in the laboratory report. The method QA/QC criteria were met, except where noted in Section 5.2.

The EPA Method 320 performance parameters measured included signal to noise tests, noise equivalent absorbance (NEA), detector linearity, background spectra, potential interferents, and cell and system leakage. Quality assurance procedures included baseline measurement with ultra-high purity nitrogen, measurement of a calibration transfer standard (~100 ppm ethylene), direct analyte calibration measurements, and measurements to determine baseline shift. SF_6 was also used as a tracer gas in the calibration gases to evaluate dilution ratios and verify the sample delivery system integrity. A dynamic matrix spike was performed using SF_6 as a tracer gas. The method QA/QC criteria were met, except where noted in Section 5.2.

5.2 QA/QC Discussion

All QA/QC criteria were met during this test program.

5.3 Quality Statement

Montrose is qualified to conduct this test program and has established a quality management system that led to accreditation with ASTM Standard D7036-04 (Standard Practice for Competence of Air Emission Testing Bodies). Montrose participates in annual functional assessments for conformance with D7036-04 which are conducted by the American Association for Laboratory Accreditation (A2LA). All testing performed by Montrose is supervised on site by at least one Qualified Individual (QI) as defined in D7036-04 Section 8.3.2. Data quality objectives for estimating measurement uncertainty within the documented limits in the test methods are met by using approved test protocols for each project as defined in D7036-04 Sections 7.2.1 and 12.10. Additional quality assurance information is included in the report appendices. The content of this report is modeled after the EPA Emission Measurement Center Guideline Document (GD-043).

Appendix A
Field Data and Calculations

Appendix A.1
Sampling Locations

MONTROSE AIR QUALITY SERVICES — TRAVERSE POINT LOCATIONS FOR CIRCULAR AND RECTANGULAR STACKS AND DUCTS

Facility Roseville, CA
Date 6/30/22
Sampling Location Stack GT3
Inside of Far Wall to
Outside of Port (Distance C) 122 in.
Inside of Near Wall to
Outside of Port (Distance D) 14 in
Stack ID (Distance C- Distance D) 108 in.
Port Distance Downstream From Disturbance (B) 354 in.
Port Distance Upstream From Disturbance (A) 68 in.
Equivalent Diameters Downstream From Disturbance (B) 3.27 (≥ 2.0)
Equivalent Diameters Upstream From Disturbance (A) .63 (≥ 0.5)
Number of Ports Used 4 Traverse Points / Port 6

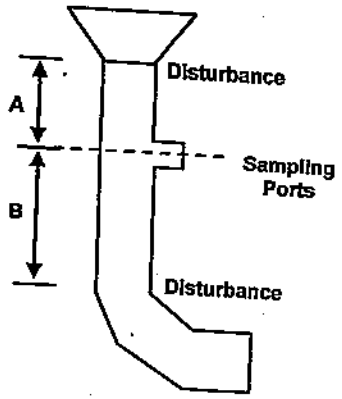
Note: Sketch Stack/Ports/Control Device on Back of Form

Equivalent Diameters Downstream From Disturbance (B) =
[Distance B / Stack ID]

Equivalent Diameters Upstream From Disturbance (A) =
[Distance A / Stack ID]

Equivalent Diameter For a Square or Rectangular Stack =
[(2 x L x W) / (L + W)]

Port ID_____ in. (for monorail bracket specs.)
Port Length Outside of Stack _____ in. (for monorail bracket specs.)



1 Port Traverse Point Number	2 Fractional % of Stack I.D. (frac. %)	3 Stack I.D. (inches)	4 Product of Columns 2 and 3 (inches)	5 Port Depth (inches)	6 Traverse Point Location From Outside of Port (Sum of 4 and 5 in inches)
1	.021	108	2.27	14	16.27
2	.067	108	7.24	14	21.24
3	.118	108	12.74	14	26.74
4	.177	108	19.12	14	33.12
5	.250	108	27.0	14	41.0
6	.356	108	38.45	14	52.45
7					
8					
9					
10					
11					
12					

For Stacks / Ducts ≤ 24 inches ID – No traverse point shall be located less than 0.5 inches from stack wall

For Stacks / Ducts > 24 inches ID – No traverse point shall be located less than 1.0 inches from stack wall

QA/QC Check
Completeness_____ Legibility_____ Accuracy_____ Specifications_____

Method 1 Calculator Signature/Date

Field Supervisor Signature/Date

LOCATION OF TRAVERSE POINTS IN CIRCULAR STACKS

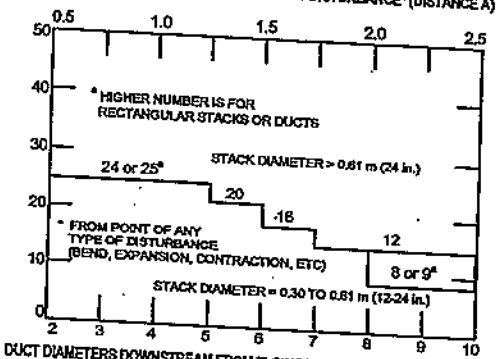
Pts	4	6	8	10	12
1	6.7	4.4	3.2	2.6	2.1
2	25.0	14.6	10.5	8.2	6.7
3	75.0	29.6	19.4	14.6	11.8
4	93.3	70.4	32.3	22.8	17.7
5		85.4	67.7	34.2	25.0
6		95.6	80.6	65.8	35.6
7			89.5	77.4	64.4
8			96.8	85.4	75.0
9				91.8	82.3
10				97.4	88.2
11					93.3
12					97.9

LOCATION OF TRAVERSE POINTS IN RECTANGULAR STACKS
CEMS*

Pts	2	3	4	5	6	7	8	9
1	25.0	16.7	12.5	10.0	8.3	7.1	6.3	5.6
2	75.0	50.0	37.5	30.0	25.0	21.4	18.8	16.7
3		83.3	62.5	50.0	41.7	35.7	31.3	27.8
4			87.5	70.0	58.3	50.0	43.8	38.9
5				90.0	75.0	64.3	56.3	50.0
6					91.7	78.6	68.8	61.1
7						92.9	81.3	72.2
8							93.8	83.3
9								94.4

*3 point CEMS RATA traverse point locations (valid for rectangular and round stacks)

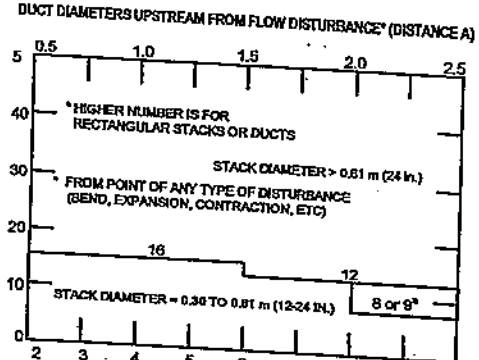
DUCT DIAMETERS UPSTREAM FROM FLOW DISTURBANCE* (DISTANCE A)



DUCT DIAMETERS DOWNSTREAM FROM FLOW DISTURBANCE* (DISTANCE B)

MINIMUM NUMBER OF TRAVERSE POINTS
ISOKINETIC TESTING

DUCT DIAMETERS UPSTREAM FROM FLOW DISTURBANCE* (DISTANCE A)



DUCT DIAMETERS DOWNSTREAM FROM FLOW DISTURBANCE* (DISTANCE B)

MINIMUM NUMBER OF TRAVERSE POINTS
FOR VELOCITY (NON-ISOKINETIC) TRAVERSES

Form FDF 4000.00

MONTROSE AIR QUALITY SERVICES — TRAVERSE POINT LOCATIONS FOR CIRCULAR AND RECTANGULAR STACKS AND DUCTS

Facility Roseville, CA
Date 6/30/22
Sampling Location Stack GT4
Inside of Far Wall to
Outside of Port (Distance C) 122 in.
Inside of Near Wall to
Outside of Port (Distance D) 14 in
Stack ID (Distance C- Distance D) 108 in.
Port Distance Downstream From Disturbance (B) 354 in.
Port Distance Upstream From Disturbance (A) 68 in.
Equivalent Diameters Downstream From Disturbance (B) 3.27 (≥ 2.0)
Equivalent Diameters Upstream From Disturbance (A) .63 (≥ 0.5)
Number of Ports Used 4 Traverse Points / Port 6

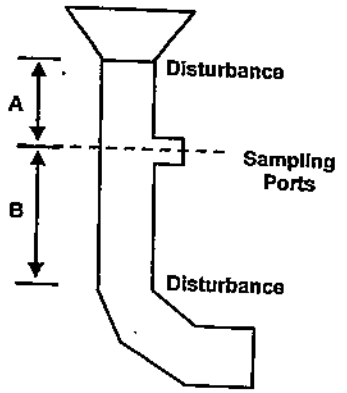
Note: Sketch Stack/Ports/Control Device on Back of Form

Equivalent Diameters Downstream From Disturbance (B) =
[Distance B / Stack ID]

Equivalent Diameters Upstream From Disturbance (A) =
[Distance A / Stack ID]

Equivalent Diameter For a Square or Rectangular Stack =
[(2 x L x W) / (L + W)]

Port ID _____ in. (for monorail bracket specs.)
Port Length Outside of Stack _____ in. (for monorail bracket specs.)



1 Port Traverse Point Number	2 Fractional % of Stack I.D. (frac. %)	3 Stack I.D. (inches)	4 Product of Columns 2 and 3 (inches)	5 Port Depth (inches)	6 Traverse Point Location From Outside of Port (Sum of 4 and 5 in inches)
1	.021	108	2.27	14	16.27
2	.067	108	7.24	14	21.24
3	.118	108	12.74	14	26.74
4	.177	108	19.12	14	33.12
5	.250	108	27.0	14	41.0
6	.356	108	38.45	14	52.45
7					
8					
9					
10					
11					
12					

For Stacks / Ducts ≤ 24 inches ID – No traverse point shall be located less than 0.5 inches from stack wall

For Stacks / Ducts > 24 inches ID – No traverse point shall be located less than 1.0 inches from stack wall

QA/QC Check:
Completeness _____ Legibility _____ Accuracy _____ Specifications _____

Method 1 Calculator Signature/Date _____

Field Supervisor Signature/Date _____

LOCATION OF TRAVERSE POINTS IN CIRCULAR STACKS

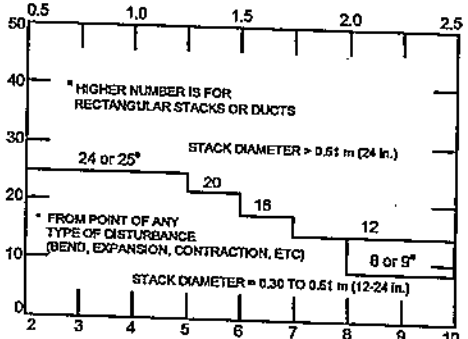
Pts	4	6	8	10	12
1	6.7	4.4	3.2	2.6	2.1
2	25.0	14.6	10.5	8.2	6.7
3	75.0	29.6	19.4	14.6	11.8
4	93.3	70.4	32.3	22.6	17.7
5		85.4	67.7	34.2	25.0
6		95.6	80.6	65.8	35.6
7			89.5	77.4	64.4
8			96.8	85.4	75.0
9				91.8	82.3
10				97.4	88.2
11					93.3
12					97.9

LOCATION OF TRAVERSE POINTS IN RECTANGULAR STACKS CEMS*

Pts	2	3	4	5	6	7	8	9
1	25.0	16.7	12.5	10.0	8.3	7.1	6.3	5.6
2	75.0	50.0	37.5	30.0	25.0	21.4	18.8	16.7
3		83.3	62.5	50.0	41.7	35.7	31.3	27.8
4			87.5	70.0	58.3	50.0	43.8	38.9
5				90.0	75.0	64.3	56.3	50.0
6					91.7	78.6	68.8	61.1
7						92.9	81.3	72.2
8							93.8	83.3
9								94.4

*3 point CEMS RATA traverse point locations (valid for rectangular and round stacks)

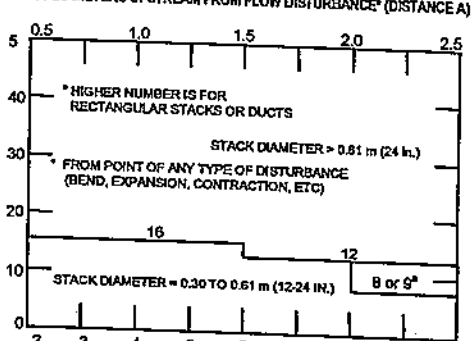
DUCT DIAMETERS UPSTREAM FROM FLOW DISTURBANCE* (DISTANCE A)



DUCT DIAMETERS DOWNSTREAM FROM FLOW DISTURBANCE* (DISTANCE B)

MINIMUM NUMBER OF TRAVERSE POINTS ISOKINETIC TESTING

DUCT DIAMETERS UPSTREAM FROM FLOW DISTURBANCE* (DISTANCE A)



DUCT DIAMETERS DOWNSTREAM FROM FLOW DISTURBANCE* (DISTANCE B)

MINIMUM NUMBER OF TRAVERSE POINTS FOR VELOCITY (NON-ISOKINETIC) TRAVERSES

Form FDF 4000.00

Appendix A.2
Particulate Data Sheets

MONTROSE AIR QUALITY SERVICES

EPA Method 5/202 Field Datasheet (Isokinetic)

Page 1 of 1

Project Information

Date 7-1-22 Project # 017008

Customer/Facility Roseville

Unit ID/Sample Location GT 3

Run # 1 Operator AD

Sampling Conditions

Static Pressure, in. H_2O +.85 Ambient Temp, °F 63

Barometric Pressure, in. Hg 29.70 Ref. Barometer ID NWS

Wind Speed / Direction N/A Precipitation, Y / N, type N/A

Probe / Filter Temp Range, °F 248 ± 25

ALT 011 TC ID: Ambient °F / Ref. °F

Stack

Probe

Filter Box

Filter Exit

Meter outlet

Impinger Exit

Other

Ref. Thermometer ID

Continuity Check ☐ Continuity w/ Proper Polarity

Notes:

Sampling Equipment IDs

Meterbox ID CS3

Umbilical ID MM-UMB-90-3

Nozzle ID N/A

Pitot / Probe ID 6-4

Manometer ID CS3

Sensitivity

Calibration

Meterbox Y .9977

Meterbox ΔH@, in. H_2O 1.840

Nozzle diameter, Dn, in. 0.240

Pitot coefficient, Cp .84

Manometer zero and level ☑ yes

K-Factor 1.32

Equipment Checks

	Pre	Mid	Post
Pitot (+), pass @ in. H_2O	☑ @ 5	☐ @	☑ @ 5
Pitot (-), pass @ in. H_2O	☑ @ 4	☐ @	☑ @ 4
Pitot visual Inspection	☑ pass	☐ pass	☑ pass
Nozzle visual inspection	☑ pass	☐ pass	☑ pass
Meter, cfm @ in. Hg	<.002 @ 10	@	<.002 @ 20
Intermediate leak check volume, ft^3	/	/	/

Traverse Point #	Elapsed Time	Clock Time 24hr	DGM Reading, Vm, ft^3	Velocity Head, ΔP in H_2O	Orifice Pressure Differential, ΔH Target	Orifice Pressure Differential, ΔH Actual	Stack Temp, °F	Probe Temp, °F	Filter Temp, °F Box	Filter Temp, °F Exit	Impinger Exit Temp, °F	Dry Gas Meter Temperature, °F Inlet	Dry Gas Meter Temperature, °F Outlet	Cyclone / Filter, °F	Pump Vacuum, in. Hg
1	0	8:16	84.986	1.5	1.98	2.0	809	240	258	260	63	73	72	72	7
2	7:30		91.000	1.6	2.11	2.1	804	244	253	258	63	73	72	71	7
3	15:00		96.840	1.6	2.11	2.1	803	246	257	259	63	75	72	71	7
4	22:30		102.770	1.6	2.11	2.1	801	247	252	258	64	77	73	73	7
5	30:00		108.700	1.6	2.11	2.1	802	247	250	257	64	79	74	75	7
6/10	37:30 / 45:00	9:01	114.620 / 120.680	1.7	2.24	2.2	806	251	252	258	63	80	75	77	7.5
1	0	9:04	120.680	1.6	2.11	2.1	830	250	253	259	61	78	79 *	77	7
2	7:30		126.480	1.8	2.37	2.4	838	248	254	258	62	81	77	75	8
3	15:00		132.830	1.8	2.37	2.4	836	249	251	257	63	82	77	76	8
4	22:30		139.210	1.7	2.24	2.2	843	251	252	258	63	82	78	77	8
5	30:00		145.570	1.5	1.98	2.0	843	248	254	259	63	84	78	79	8
6/10	37:30 / 45:00	9:49	151.475 / 157.250	1.3	1.71	1.7	843	249	252	259	63	83	79	81	7
1	0	10:50	157.250	1.8	2.37	2.4	815	251	250	257	61	84	80	79	7
2	7:30		163.370	2.0	2.64	2.6	814	249	252	259	62	86	81	75	8
3	15:00		169.930	2.0	2.64	2.6	813	250	251	258	62	87	81	76	8
4	22:30		176.560	2.0	2.64	2.6	815	251	253	260	63	87	82	77	8
5	30:00		183.140	1.9	2.50	2.5	816	246	250	255	63	88	83	78	8
6/10	37:30 / 45:00	11:35	189.210 / 196.085	2.0	2.64	2.6	824	249	252	257	64	87	83	82	8
1	0	11:38	196.085	2.1	2.77	2.8	808	251	252	258	63	88	83	85	8
2	7:30		202.530	2.7	3.56	3.6	816	253	253	260	60	89	84	81	9.5
3	15:00		209.510	2.5	3.30	3.3	818	247	250	258	60	90	85	82	9.5
4	22:30		216.890	2.8	3.69	3.7	833	248	251	258	61	91	85	83	10
5	30:00		223.810	1.9	2.50	2.5	841	246	252	258	61	92	86	85	8.5
6	37:30		230.260	1.8	2.37	2.4	845	249	250	257	61	93	87	87	8
End	45:00	12:23	236.625												
Averages															

QA/QC Check: Completeness ✓ Legibility ✓ Accuracy ✓ Specifications ✓ Checked By ✓ Team Leader

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Project Information
Date 7-1-22 Project # 017008
Customer/Facility Roseville
Unit ID/Sample Location GT3
Run # 2 Operator AS

Sampling Conditions
Static Pressure, in. H_2O +1.6 Ambient Temp, °F 89
Barometric Pressure, in. Hg 29.70 Ref. Barometer ID NWS
Wind Speed / Direction N/A Precipitation, Y / (N) type N/A
Probe / Filter Temp Range, °F 248 ± 25

Sampling Equipment IDs
Meterbox ID CS3
Umbilical ID MN-UMB-90-3
Nozzle ID N/A
Pitot / Probe ID 6-4
Manometer ID CS3
Sensitivity

Calibration
Meterbox Y .9977
Meterbox ΔH@, in. H_2O 1.84
Nozzle diameter, Dn, in. 0.240
Pitot coefficient, Cp .84
Manometer zero and level ☑ yes
K-Factor 1.32, 1.4

Equipment Checks

	Pre	Mid	Post
Pitot (+), pass @ in. H_2O	☑ @ 5	☐ @	☑ @ 5
Pitot (-), pass @ in. H_2O	☑ @ 4	☐ @	☑ @ 4
Pitot visual inspection	☑ pass	☐ pass	☑ pass
Nozzle visual inspection	☑ pass	☐ pass	☑ pass
Meter, cfm @ in. Hg	.002 @ 15	@	.002 @ 15
Intermediate leak check volume, ft^3	/	/	/

ALT 011 TC ID:

	Ambient °F	Ref. °F
Stack		
Probe		
Filter Box		
Filter Exit		
Meter outlet		
Impinger Exit		
Other		
Ref. Thermometer ID		

Continuity Check ☐ Continuity w/ Proper Polarity

Notes:

	Traverse Point #	Elapsed Time	Clock Time 24hr	DGM Reading, Vm, ft^3	Velocity Head, ΔP in H_2O	Orifice Pressure Differential, ΔH Target	Orifice Pressure Differential, ΔH Actual	Stack Temp, °F	Probe Temp, °F	Filter Temp, °F Box	Filter Temp, °F Exit	Impinger Exit Temp, °F	Dry Gas Meter Temperature, °F Inlet	Dry Gas Meter Temperature, °F Outlet	CTM Filter	Pump Vacuum, in. Hg
11:37	1	0	~~11:37~~ *	237.430	2.1	2.77	2.8	805	246	249	252	60	89	87	76	6
	2	7:30		244.250	2.6	3.43	3.4	820	249	250	253	60	89	87	77	9
	3	15:00		251.500	2.5	3.30	3.3	830	251	250	256	60	89	87	77	9
	4	22:30		259.050	2.1	2.77	2.8	840	252	251	259	62	88	87	77	8
12:22	6/0	~~37:30~~ 45:00	~~13:22~~ *	~~273.050~~ 279.510	1.8	2.52	2.5	844	248	253	258	61	90	87	81	8
12:25	1	0	~~13:25~~ *	279.510	1.8	2.52	2.5	818	251	252	259	61	91	87	83	7
	2	7:30		285.980	1.9	2.66	2.7	814	252	256	260	62	93	88	83	7
	3	15:00		292.710	1.9	2.66	2.7	818	251	255	259	62	94	88	82	8
	4	22:30		299.585	1.8	2.52	2.5	818	252	256	259	61	94	89	83	7.5
	5	30:00		306.280	1.9	2.66	2.7	823	251	255	259	62	94	89	82	7
13:10	6/0	~~37:30~~ 45:00	~~14:10~~ *	~~313.000~~ 319.925	2.0	2.80	2.8	826	253	251	258	62	95	89	82	7.5
13:11	1	0	~~14:11~~ *	319.925	1.7	2.38	2.4	832	247	250	257	61	94	90	82	7.0
	2	7:30		326.380	1.5	2.10	2.1	837	249	252	259	60	95	90	82	7.0
	3	15:00		332.690	1.5	2.10	2.1	836	250	253	256	60	96	91	81	7.0
	4	22:30		338.690	1.4	1.96	2.0	837	252	258	260	60	96	91	80	6.0
	5	30:00		344.670	1.3	1.82	1.8	838	250	257	261	61	97	91	82	6
13:56	6/0	~~37:30~~ 45:00	~~14:56~~ *	~~350.320~~ 355.855	1.2	1.68	1.7	840	248	253	260	63	97	91	82	5.5
13:58	1	0	~~14:58~~ *	355.855	1.9	2.66	2.7	813	250	252	259	61	96	92	82	6.5
	2	7:30		362.190	1.6	2.24	2.2	805	246	250	257	62	98	92	82	5.5
	3	15:00		367.930	1.7	2.38	2.4	803	249	252	258	61	99	92	82	6.0
	4	22:30		373.530	1.5	2.10	2.1	800	253	253	260	63	99	92	83	6
	5	30:00		379.130	1.6	2.24	2.2	802	256	252	258	61	97	92	83	6
	6	37:30		385.200	1.5	2.10	2.1	799	250	252	259	61	97	92	82	6
14:43	0	45:00	~~15:43~~ *	391.338												
	Averages															

QA/QC Check: Completeness ✓ Legibility ✓ Accuracy ✓ Specifications ✓ Checked By [signature] Team Leader

*AS 7-1-22

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MONTROSE AIR QUALITY SERVICES

EPA Method 5/202 Field Datasheet (Isokinetic)

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Project Information

Date 7-2-22 Project # 017008

Customer/Facility Roseville

Unit ID/Sample Location GT3

Run # 3 Operator AS

Sampling Conditions

Static Pressure, in. H_2O +1.5 Ambient Temp, °F 63

Barometric Pressure, in. Hg 29.69 Ref. Barometer ID NWS

Wind Speed / Direction N/A Precipitation, Y / (N) type N/A

Probe / Filter Temp Range, °F 248±25

Sampling Equipment IDs

Meterbox ID CS3

Umbilical ID MM-UMB-90-3

Nozzle ID N/A

Pitot / Probe ID 6-4

Manometer ID CS3

Sensitivity

Calibration

Meterbox Y .9977

Meterbox ΔH@, in. H_2O 1.840

Nozzle diameter, Dn, in. .240

Pitot coefficient, Cp .84

Manometer zero and level ☑ yes

K-Factor .29

Equipment Checks

	Pre	Mid	Post
Pitot (+), pass @ in. H_2O	☑ @ 5	☐ @	☑ @ 5
Pitot (-), pass @ in. H_2O	☑ @ 4	☐ @	☑ @ 4
Pitot visual inspection	☑ pass	☐ pass	☑ pass
Nozzle visual inspection	☑ pass	☐ pass	☑ pass
Meter, cfm @ in. Hg	<.002 @ 12	@	<.002 @ 15
Intermediate leak check volume, ft^3	/	/	/

ALT 011 TC ID:

	Ambient °F	Ref. °F
Stack		
Probe		
Filter Box		
Filter Exit		
Meter outlet		
Impinger Exit		
Other		

Ref. Thermometer ID

Continuity Check ☐ Continuity w/ Proper Polarity

Notes:

Traverse Point #	Elapsed Time	Clock Time 24hr	DGM Reading, Vm, ft^3	Velocity Head, ΔP in H_2O	Orifice Pressure Differential, ΔH Target	ΔH Actual	Stack Temp, °F	Probe Temp, °F	Filter Temp, °F Box	Filter Temp, °F Exit	Impinger Exit Temp, °F	Dry Gas Meter Temperature, °F Inlet	Dry Gas Meter Temperature, °F Outlet	Filter	Pump Vacuum, in. Hg
6	0	6:30	391.640	1.5	1.93	1.9	802	241	243	246	60	61	60	66	5
5	7:30		397.190	1.6	2.06	2.1	804	246	246	247	61	65	61	68	6
4	15:00		402.840	1.6	2.06	2.1	804	247	244	247	60	65	61	68	6
3	22:30		408.500	1.6	2.06	2.1	805	242	245	249	60	66	62	68	6
2	30:00		414.140	1.6	2.06	2.1	802	245	246	250	60	66	62	68	6
1/0	37:30 / 45:00	7:15	419.340 / 426.040	1.9	2.45	2.5	812	247	249	250	60	68	64	67	7.5
6	0	7:17	426.040	1.7	2.19	2.2	835	249	249	253	61	68	64	68	8
5	7:30		432.400	1.2	1.54	1.5	837	251	253	256	61	68	65	68	5
4	15:00		438.660	1.2	1.54	1.5	841	250	256	258	62	68	65	68	5
3	22:30		443.830	1.1	1.41	1.4	840	251	253	257	61	69	66	68	5
2	30:00		449.790	1.0	1.29	1.3	840	250	256	256	61	69	66	68	5
1/0	37:30 / 45:00	8:02	453.375 / 458.125	1.1	1.41	1.4	832	251	253	257	61	70	67	68	5
6	0	8:04	458.125	1.7	2.19	2.2	808	252	255	256	63	70	67	68	6
5	7:30		463.650	1.7	2.19	2.2	809	251	254	257	63	70	67	68	6
4	15:00		469.420	1.7	2.19	2.2	811	253	250	256	63	71	68	68	7
3	22:30		475.420	1.8	2.32	2.3	818	251	250	257	63	73	69	68	8
2	30:00		481.550	2.0	2.58	2.6	821	251	253	255	63	73	69	68	8
1/0	37:30 / 45:00	849	488.040 / 494.640	1.8	2.32	2.3	820	247	251	256	64	72	69	68	7
6	0	8:53	494.640	2.3	2.96	3.0	811	249	250	257	64	72	69	69	9
5	7:30		501.630	2.4	3.09	3.1	824	250	253	258	64	73	69	69	9.5
4	15:00		508.770	2.2	2.83	2.8	835	252	250	257	64	75	70	69	9.5
3	22:30		516.020	1.9	2.45	2.5	837	253	252	258	64	75	71	69	8.5
2	30:00		522.540	1.6	2.06	2.1	846	250	252	259	64	76	71	69	7.5
1	37:30		528.680	1.6	2.06	2.1	846	254	250	257	64	76	72	68	7
0	45:00	938	534.815												
Averages															

QA/QC Check: Completeness ___ Legibility ___ Accuracy ___ Specifications ___ Checked By ___ Team Leader ___

MONTROSE AIR QUALITY SERVICES

EPA Method 5/202 Field Datasheet (Isokinetic)

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Project Information

Date 7-2-22 Project # 017008

Customer/Facility Rosarito

Unit ID/Sample Location GT3

Run # 4 Operator AS

Sampling Conditions

Static Pressure, in. H_2O +1.6 Ambient Temp, °F 70

Barometric Pressure, in. Hg 29.70 Ref. Barometer ID NWS

Wind Speed / Direction — Precipitation, Y / (N) type N/A

Probe / Filter Temp Range, °F 248 ± 25

Sampling Equipment IDs

Meterbox ID CS3

Umbilical ID MM-UMB-90-3

Nozzle ID N/A

Pitot / Probe ID 6-4

Manometer ID CS3

Sensitivity

Calibration

Meterbox Y .9977

Meterbox ΔH@, in. H_2O 1.840

Nozzle diameter, Dn, in. .240

Pitot coefficient, Cp .84

Manometer zero and level ☑ yes

K-Factor 1.29 / 1.33

Equipment Checks

	Pre	Mid	Post
Pitot (+), pass @ in. H_2O	☑ @ 5	☐ @	☑ @ 5
Pitot (-), pass @ in. H_2O	☑ @ 4	☐ @	☑ @ 4
Pitot visual inspection	☑ pass	☐ pass	☑ pass
Nozzle visual inspection	☑ pass	☐ pass	☑ pass
Meter, cfm @ in. Hg	<.002 @ 15	@	<.002 @ 15
Intermediate leak check volume, ft^3	/	/	/

ALT 011 TC ID: Ambient °F / Ref. °F

Stack

Probe

Filter Box

Filter Exit

Meter outlet

Impinger Exit

Other

Ref. Thermometer ID

Continuity Check ☐ Continuity w/ Proper Polarity

Notes:

Traverse Point #	Elapsed Time	Clock Time 24hr	DGM Reading, Vm, ft^3	Velocity Head, ΔP in H_2O	Orifice Pressure Differential, ΔH Target	Orifice Pressure Differential, ΔH Actual	Stack Temp, °F	Probe Temp, °F	Filter Temp, °F Box	Filter Temp, °F Exit	Impinger Exit Temp, °F	Dry Gas Meter Temperature, °F Inlet	Dry Gas Meter Temperature, °F Outlet	Aux	Pump Vacuum, in. Hg
6	0	10:00	535.300	2.3	2.96	3.0	806	243	246	246	60	75	72	66	8
5	7:30		542.110	2.4	3.19	3.2	824	247	248	249	61	78	73	67	8
4	15:00		548.925	2.5	3.32	3.3	822	249	249	252	61	80	74	67	9
3	22:30		555.910	2.2	2.92	2.9	829	251	248	253	62	81	75	68	10
2	30:00		563.520	1.5	1.99	2.0	842	253	250	256	62	80	75	68	6
1/0	37:30 / 45:00	10:45	569.200 / 575.160	1.5	1.99	2.0	845	253	252	258	62	80	76	68	6
6	0	10:49:30	575.100	1.8	2.39	2.4	813	251	253	259	62	79	76	68	7.5
5	7:30		581.270	1.8	2.39	2.4	815	253	255	259	62	80	76	68	7.5
4	15:00		587.440	1.8	2.39	2.4	816	250	256	258	62	79	76	68	7
3	22:30		594.100	1.7	2.26	2.3	818	252	254	258	62	79	76	68	7
2	30:00		600.330	1.8	2.39	2.4	820	252	252	257	62	80	76	68	7
1/0	37:30 / 45:00	11:34:30	606.950 / 612.900	2.0	2.66	2.7	830	253	250	258	62	80	76	68	7.5
6	0	11:37	612.900	1.5	1.99	2.0	829	250	252	259	61	80	76	69	7.5
5	7:30		618.930	1.3	1.72	1.7	831	251	253	258	61	80	76	68	6
4	15:00		624.390	1.3	1.72	1.7	837	248	250	257	63	80	76	69	6
3	22:30		629.840	1.3	1.72	1.7	838	249	252	258	63	81	77	69	6
2	30:00		635.300	1.5	1.99	2.0	841	247	252	259	63	81	77	69	6
1/0	37:30 / 45:00	12:22	640.748 / 646.460	1.5	1.99	2.0	841	249	250	256	63	81	77	69	6
6	0	12:25	646.460	1.6	2.12	2.1	812	251	253	258	63	80	77	69	7
5	7:30		652.660	1.7	2.26	2.3	807	250	251	257	64	80	77	69	7
4	15:00		658.840	1.6	2.12	2.1	803	252	250	256	63	81	77	69	7
3	22:30		665.100	1.6	2.12	2.1	801	250	248	257	64	81	77	69	7
2	30:00		671.760	1.9	2.52	2.5	805	251	249	255	64	81	77	69	7.5
1	37:30		677.570	2.0	2.66	2.7	800	250	253	256	64	80	77	69	8
Ø	45:00	13:10	684.355												
Averages															

QA/QC Check: Completeness ___ Legibility ___ Accuracy ___ Specifications ___ Checked By ___ Team Leader ___

MONTROSE AIR QUALITY SERVICES

EPA ___ Method 5/202 Field Datasheet (Isokinetic)

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Project Information

Date 7/12/22 Project # Proj-017008

Customer/Facility Roseville

Unit ID/Sample Location 4

Run # 1 Operator ZLoFever

Sampling Conditions

Static Pressure, in. H_2O +0.86 Ambient Temp, °F 79°F

Barometric Pressure, in. Hg 29.69 Ref. Barometer ID NWS

Wind Speed / Direction NW / 12mph Precipitation, Y (N) Type ___

Probe / Filter Temp Range, °F 248 ± 25

Sampling Equipment IDs

Meterbox ID C57

Umbilical ID MMUmb-50

Nozzle ID N/A

Pitot / Probe ID C6-5

Manometer ID C57

Sensitivity 0.01

Calibration

Meterbox Y 0.986

Meterbox ΔH@, in. H_2O 1.685

Nozzle diameter, Dn, in. 0.249

Pitot coefficient, Cp 0.84

Manometer zero and level ☑ Yes

K-Factor 1.22

Equipment Checks

	Pre	Mid	Post
Pitot (+), pass @ in. H_2O	☑ @ 6.3"	☐ @	☑ @ 5.0"
Pitot (-), pass @ in. H_2O	☑ @ 5.4"	☐ @	☑ @ 3.9"
Pitot visual inspection	☑ pass	☐ pass	☑ pass
Nozzle visual inspection	☑ pass	☑ pass	☑ pass
Meter, cfm @ in. Hg	0.008 @ 17"	@	0.002 @ 17"
Intermediate leak check volume, ft^3	/	/	/

ALT 011 TC ID: ___ Ambient °F ___ Ref. °F

Stack ___ Probe ___ Filter Box ___ Filter Exit ___ Meter outlet ___ Impinger Exit ___ Other ___

Ref. Thermometer ID ___

Continuity Check ☐ Continuity w/ Proper Polarity

Notes: ___

Traverse Point #	Elapsed Time	Clock Time 24hr	DGM Reading, Vm, ft^3	Velocity Head, ΔP in H_2O	Orifice Pressure Differential, ΔH Target	Orifice Pressure Differential, ΔH Actual	Stack Temp, °F	Probe Temp, °F	Filter Temp, °F Box	Filter Temp, °F Exit	Impinger Exit Temp, °F	Dry Gas Meter Temperature, °F Inlet	Dry Gas Meter Temperature, °F Outlet	CRM Filter	Pump Vacuum, in. Hg
		13:51	381.632												
1A	7.5		387.90	1.3	1.59	1.6	806	248	252	250	63	76	78	81	4
2	15		394.26	1.7	2.07	2.1	796	250	250	251	60	77	78	78	4
3	22.5		400.98	1.8	2.22	2.2	798	252	251	249	62	78	78	77	4
4	30		407.13	1.6	1.95	2.0	798	253	254	250	61	78	78	81	4
5	37.5		413.28	1.6	1.95	2.0	799	254	253	251	62	78	79	82	4
6	45	19:36	419.589	1.6	1.95	2.0	800	256	254	250	63	78	79	83	4
1B	52.5	14:41	424.73	1.5	1.83	1.8	822	252	251	253	62	79	80	82	4
2	60		431.65	1.5	1.83	1.8	824	260	260	252	62	79	80	82	4
3	67.5		438.78	1.7	2.07	2.1	828	263	253	250	62	79	80	81	4
4	75	2 hours	444.68	1.7	2.07	2.1	832	261	260	252	63	79	80	80	4
5	82.5	15:26	449.32	1.5	1.83	1.8	835	260	252	256	64	79	81	80	4
6	90	15:36	456.384	1.5	1.83	1.8	842	260	255	252	63	79	81	82	4
1C	97.5	15:31	462.59	1.7	2.07	2.1	809	263	251	250	65	79	81	83	4
2	105		468.34	1.7	2.07	2.1	814	260	253	249	66	79	81	80	4
3	112.5		474.99	1.7	2.07	2.1	808	261	250	252	65	79	81	81	4
4	120		481.37	1.7	2.07	2.1	811	260	252	254	63	80	82	80	4
5	127.5		487.71	1.7	2.07	2.1	808	262	254	253	64	80	82	80	4
6	135	16:16	494.86	1.8	2.20	2.2	815	263	256	250	65	80	82	80	4
1D	142.5	16:10	501.53	2.2	2.68	2.7	821	264	256	251	66	79	81	81	4
2	150		507.69	2.2	2.68	2.7	824	260	253	249	65	79	81	83	5
3	157.5		516.28	2.5	3.05	3.1	820	262	254	260	64	79	80	82	5
4	165		523.39	2.2	2.68	2.7	825	262	250	261	63	79	80	83	6
5	172.5		530.30	2.0	2.44	2.4	833	260	254	260	64	80	80	82	6
6	180	17:04		1.9	2.32	2.3	833	262	250	260	65	80	81	82	6
Averages															

QC Check Completeness ✓ Legibility ✓ Accuracy ✓ Specifications ✓ Checked By: ___ Team Leader

MONTROSE AIR QUALITY SERVICES

EPA Method 5/202 Field Datasheet (Isokinetic)

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Project Information

Date 7-3-22 Project # 017008

Customer/Facility Roseville

Unit ID/Sample Location GT4

Run # 2 Operator AS

Sampling Conditions

Static Pressure, in. H_2O -.8 Ambient Temp, °F 58

Barometric Pressure, in. Hg 29.78 Ref. Barometer ID NVS

Wind Speed / Direction N/A Precipitation, Y / N, type N/A

Probe / Filter Temp Range, °F 248 ± 25

Sampling Equipment IDs

Meterbox ID CS7

Umbilical ID MM-UMB-S

Nozzle ID N/A

Pitot / Probe ID S-5

Manometer ID CS7

Sensitivity

Calibration

Meterbox Y .986

Meterbox ΔH@, in. H_2O 1.625

Nozzle diameter, Dn, in. .240

Pitot coefficient, Cp .84

Manometer zero and level ☑ yes

K-Factor 1.17

Equipment Checks

	Pre	Mid	Post
Pitot (+), pass @ in. H_2O	☑ @ 5	☐ @	☑ @ 5
Pitot (-), pass @ in. H_2O	☑ @ 4	☐ @	☑ @ 4
Pitot visual inspection	☑ pass	☐ pass	☑ pass
Nozzle visual inspection	☑ pass	☑ pass	☑ pass
Meter, cfm @ in. Hg	<.002 @ 15	@	<.002 @ 26

Intermediate leak check volume, ft^3 / /

ALT 011 TC ID:

	Ambient °F	Ref. °F
Stack		
Probe		
Filter Box		
Filter Exit		
Meter outlet		
Impinger Exit		
Other		

Ref. Thermometer ID

Continuity Check ☐ Continuity w/ Proper Polarity

Notes:

Traverse Point #	Elapsed Time	Clock Time 24hr	DGM Reading, Vm, ft^3	Velocity Head, ΔP in H_2O	Orifice Pressure Differential, ΔH Target	ΔH Actual	Stack Temp, °F	Probe Temp, °F	Filter Temp, °F Box	Filter Temp, °F Exit	Impinger Exit Temp, °F	Dry Gas Meter Temperature, °F Inlet	Dry Gas Meter Temperature, °F Outlet	Filter	Pump Vacuum, in. Hg
6	0	6:21	~~537.210~~ *	.1	2.45	2.5	811	248	250	252	60	58	57	65	8
5	7:30		543.790	2.1	2.45	2.5	816	250	252	251	60	58	57	65	8
4	15:00		550.370	1.7	1.98	2.0	822	245	251	252	64	59	58	65	7
3	22:30		556.780	1.5	1.75	1.8	823	248	255	258	64	59	58	65	8
2	30:00		563.260	1.3	1.52	1.5	832	249	242	252	64	59	58	65	6.5
1/0	~~37:30~~ 45:00	7:06	~~567.860~~ 574.560	1.2	1.40	1.4	833	249	244	254	64	60	60	65	5
6	0	7:11	574.560	1.5	1.75	1.8	808	255	262	263	62	60	59	65	5
5	7:30		579.950	1.5	1.75	1.8	811	246	251	256	63	60	59	65	6
4	15:00		585.620	1.5	1.75	1.8	805	248	252	257	65	61	60	65	6
3	22:30		591.280	1.5	1.75	1.8	806	249	252	257	68	61	60	65	6
2	30:00		596.930	1.7	1.98	2.0	809	251	260	261	68	61	60	67	7.5
1/0	~~37:30~~ 45:00	7:56	~~603.010~~ 609.230	1.7	1.98	2.0	806	249	243	253	68	61	60	67	7
6	0	8:05	609.230	1.5	1.98	2.0	809	250	251	255	66	61	61	67	8
5	7:30		615.530	1.5	1.98	2.0	824	250	254	258	70	63	61	68	8
4	15:00		621.860	1.5	1.98	2.0	830	250	252	257	65	63	62	69	7.5
3	22:30		628.170	1.5	1.98	2.0	829	250	254	259	66	63	62	70	7.5
2	30:00		634.480	1.4	1.63	1.6	830	249	255	258	66	63	62	71	6
1/0	~~37:30~~ 45:00	8:50	~~640.330~~ 646.025	1.4	1.63	1.6	832	250	246	250	59	64	64	72	6
6	0	8:53	646.025	1.6	1.87	1.9	810	250	244	251	60	64	64	72	6
5	7:30		652.190	1.6	1.87	1.9	811	252	249	252	57	66	64	72	7
4	15:00		658.480	1.5	1.98	2.0	810	249	253	256	58	65	64	74	7
3	22:30		664.760	1.5	1.98	2.0	811	248	254	259	60	65	65	74	7
2	30:00		671.030	1.5	1.98	2.0	811	249	249	255	61	66	66	74	7.5
1	~~37:30~~		677.290	1.9	2.22	2.2	820	248	249	254	62	67	65	73	8
0	~~45:00~~	9:35	683.880												
Averages															

QA/QC Check: Completeness ✓ Legibility ✓ Accuracy ✓ Specifications ✓ Checked By ✓ Team Leader

* AS 7-3-22 537.210

001AS-QMS-FM-225

MONTROSE AIR QUALITY SERVICES

EPA Method 5/202 Field Datasheet (Isokinetic)

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Project Information
Date 7-3-22 Project # 017008
Customer/Facility Roseville
Unit ID/Sample Location GT4
Run # 3 Operator AS

Sampling Conditions
Static Pressure, in. H_2O -.8 Ambient Temp, °F 64
Barometric Pressure, in. Hg 29.72 Ref. Barometer ID NWS
Wind Speed / Direction N/A Precipitation, Y / (N) type N/A
Probe / Filter Temp Range, °F 248 ± 25

Sampling Equipment IDs
Meterbox ID CS7
Umbilical ID MM-UMB-5
Nozzle ID N/A
Pitot / Probe ID 6-5
Manometer ID CS7
Sensitivity

Calibration
Meterbox Y .986
Meterbox ΔH@, in. H_2O 1.685
Nozzle diameter, Dn, in. .240
Pitot coefficient, Cp .84
Manometer zero and level ☑ yes
K-Factor 1.17

Equipment Checks

	Pre	Mid	Post
Pitot (+), pass @ in. H_2O	☑ @ 5	☐ @	☑ @ 5
Pitot (-), pass @ in. H_2O	☑ @ 4	☐ @	☑ @ 4
Pitot visual inspection	☑ pass	☐ pass	☑ pass
Nozzle visual inspection	☑ pass	☐ pass	☑ pass
Meter, cfm @ in. Hg	4.002 @ 15	@	4.002 @ 20
Intermediate leak check volume, ft^3			

ALT 011 TC ID:

	Ambient °F	Ref. °F
Stack		
Probe		
Filter Box		
Filter Exit		
Meter outlet		
Impinger Exit		
Other		
Ref. Thermometer ID		

Continuity Check ☐ Continuity w/ Proper Polarity

Notes:

Traverse Point #	Elapsed Time	Clock Time 24hr	DGM Reading, Vm, ft^3	Velocity Head, ΔP in H_2O	Orifice Pressure Differential, ΔH Target	Orifice Pressure Differential, ΔH Actual	Stack Temp, °F	Probe Temp, °F	Filter Temp, °F Box	Filter Temp, °F Exit	Impinger Exit Temp, °F	Dry Gas Meter Temperature, °F Inlet	Dry Gas Meter Temperature, °F Outlet	Filter	Pump Vacuum, in. Hg
6	0	10:00	684.280	1.5	1.75	1.8	809	244	247	250	60	67	66	68	6
5	7:30		690.300	1.5	1.75	1.8	808	249	244	250	60	69	67	70	6
4	15:00		696.270	1.5	1.75	1.8	812	250	253	254	55	70	68	70	6
3	22:30		702.260	1.7	1.98	2.0	815	252	251	255	54	69	68	69	7
2	30:00		708.480	1.8	2.10	2.1	814	248	252	256	55	70	68	70	7.5
1/0	34:30 / 45:00	10:45	714.940 / 721.390	1.8	2.10	2.1	814	249	248	253	57	70	69	70	7.5
6	0	10:48	721.390	1.4	1.63	1.6	835	249	256	258	57	70	69	70	6
5	7:30		727.250	1.5	1.75	1.8	834	250	254	257	58	70	70	71	6.5
4	15:00		733.220	1.7	1.98	2.0	834	251	247	257	59	70	70	69	6.5
3	22:30		739.500	1.8	2.10	2.1	834	254	251	257	60	70	70	71	7
2	30:00		745.770	1.6	1.87	1.9	834	248	252	256	60	71	70	71	7
1/0	34:30 / 45:00	11:33	751.830 / 757.770	1.4	1.63	1.6	833	249	246	253	60	70	70	70	6.5
6	0	11:37	757.770	1.4	1.63	1.6	813	245	249	253	61	70	70	72	6
5	7:30		763.390	1.5	1.75	1.8	810	252	247	251	60	72	71	71	6.5
4	15:00		769.300	1.0	1.17	1.2	807	251	249	254	60	70	71	70	6
3	22:30		774.480	1.2	1.40	1.4	806	252	252	255	59	70	69	72	6
2	30:00		779.470	1.2	1.40	1.4	815	250	247	252	59	70	69	72	6
1/0	34:30 / 45:00	12:22	784.540 / 790.180	1.5	1.75	1.8	812	251	252	254	60	70	70	72	6
6	0	12:24	790.180	1.7	1.98	2.0	815	247	250	254	60	71	70	77	7.5
5	7:30		796.350	2.0	2.34	2.3	822	252	253	257	60	71	70	76	8
4	15:00		803.150	2.6	3.04	3.0	832	255	252	256	60	74	72	76	11
3	22:30		810.880	2.1	2.45	2.5	837	253	255	257	60	73	72	73	9
2	30:00		818.020	1.8	2.10	2.1	841	251	253	255	60	73	72	72	8
1	37:30		824.550	1.6	1.87	1.9	842	253	250	257	60	73	72	75	7
0	45:00		830.815												
Averages		13:09													

QA/QC Check: Completeness ✓ Legibility ✓ Accuracy ✓ Specifications ✓ Checked By ✓ Team Leader

MONTROSE AIR QUALITY SERVICES

EPA Method 5/202 Field Datasheet (Isokinetic)

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Project Information

Date 7-3-22 Project # 017008
Customer/Facility Rosville
Unit ID/Sample Location GT4
Run # 4 Operator AS

Sampling Conditions

Static Pressure, in. H_2O -.8 Ambient Temp, °F 72
Barometric Pressure, in. Hg 29.72 Ref. Barometer ID NRWS
Wind Speed / Direction N/A Precipitation, Y / (N) type N/A
Probe / Filter Temp Range, °F 248 ± 25

Sampling Equipment IDs

Meterbox ID CS7
Umbilical ID MMRUMB-5
Nozzle ID N/A
Pitot / Probe ID 6-5
Manometer ID CS7
Sensitivity

Calibration

Meterbox Y .986
Meterbox ΔH@, in. H_2O 1.685
Nozzle diameter, Dn, in. .240
Pitot coefficient, Cp .84
Manometer zero and level ☑ yes
K-Factor 1.17

Equipment Checks

	Pre	Mid	Post
Pitot (+), pass @ in. H_2O	☑ @ 5	☐ @	☑ @ 5
Pitot (-), pass @ in. H_2O	☑ @ 4	☐ @	☑ @ 4
Pilot visual inspection	☑ pass	☐ pass	☑ pass
Nozzle visual inspection	☑ pass	☐ pass	☑ pass
Meter, cfm @ in. Hg	1.002 @ 15	@	1.000 2@20
Intermediate leak check volume, ft^3	/	/	/

ALT 011 TC ID:

	Ambient °F	Ref. °F
Stack		
Probe		
Filter Box		
Filter Exit		
Meter outlet		
Impinger Exit		
Other		

Ref. Thermometer ID
Continuity Check ☐ Continuity w/ Proper Polarity
Notes:

Traverse Point #	Elapsed Time	Clock Time 24hr	DGM Reading, Vm, ft^3	Velocity Head, ΔP in H_2O	Orifice Pressure Differential, ΔH Target	Orifice Pressure Differential, ΔH Actual	Stack Temp, °F	Probe Temp, °F	Filter Temp, °F Box	Filter Temp, °F Exit	Impinger Exit Temp, °F	Dry Gas Meter Temperature, °F Inlet	Dry Gas Meter Temperature, °F Outlet	Filter	Pump Vacuum, in. Hg
6	0	13:30	831.085	2.4	2.80	2.8	819	244	247	249	60	75	74	72	10
5	7:30		838.300	2.7 *	2.57	2.6	829	247	250	252	59	76	74	72	10
4	15:00		845.530	1.9	2.22	2.2	833	249	255	255	55	75	74	72	9
3	22:30		852.330	2.0	2.34	2.3	840	249	251	256	51	75	74	73	9
2	30:00		859.110	1.6	1.87	1.9	841	249	245	250	55	75	74	73	8
1/0	~~37:30~~ 45:00	14:15	~~865.490~~ 871.255	1.4	1.63	1.6	825	250	254	258	56	76	75	75	6.5
6	0	14:19	871.255	1.0	1.17	1.2	817	248	253	259	57	77	76	73	5
5	7:30		876.270	1.2	1.40	1.4	808	25	254	258	60	78	77	73	5
4	15:00		881.270	1.6	1.87	1.9	809	255	250	254	61	78	77	73	7.5
3	22:30		887.350	1.5	1.75	1.8	810	256	249	254	60	78	77	73	7.0
2	30:00		893.315	1.9	2.22	2.2	813	248	253	257	61	78	78	73	8
1/0	~~37:30~~ 45:00	15:04	~~899.810~~ 906.870	2.1	2.45	2.5	813	250	254	258	60	79	79	73	10
6	0	15:06	906.870	1.5	1.75	1.8	837	246	251	257	60	78	78	73	7.5
5	7:30		913.015	1.4	1.63	1.6	839	249	252	258	60	79	79	73	6
4	15:00		918.770	1.4	1.63	1.6	838	250	251	257	60	79	79	73	6
3	22:30		924.190	1.6	1.87	1.9	836	252	254	259	60	80	79	72	7.5
2	30:00		930.300	1.7	1.98	2.0	830	247	251	258	56	81	79	72	7.5
1/0	~~37:30~~ 45:00	15:51	~~936.490~~ 942.640	1.7	1.98	2.0	831	250	251	258	57	81	79	72	8
6	0	15:53	942.640	1.5	1.75	1.8	806	251	253	258	58	80	80	72	7
5	7:30		948.770	1.7	1.98	2.0	806	248	252	258	59	80	80	72	7
4	15:00		954.870	1.5	1.75	1.8	807	250	246	257	60	80	80	72	7.5
3	22:30		960.880	1.6	1.87	1.9	809	252	247	253	60	80	80	72	7.5
2	30:00		967.030	1.6	1.87	1.9	808	251	246	252	61	81	80	73	7.5
1	37:30		973.225	1.7	1.98	2.0	806	250	248	254	61	81	80	73	8
0	45:00	16:38	979.560												
Averages															

QA/QC Check: Completeness ___ Legibility ___ Accuracy ___ Specifications ___ Checked By ___ Team Leader ___

001AS-QMS-FM-225

*AS 7-3-22 2.2

Appendix A.3
Instrumental Test Method Data

MONTROSE AIR QUALITY SERVICES

Reference Method Test Run Data

Client:	GE
Facility:	Roseville Energy Center
Source:	Unit 3
Test Location:	Stack
Condition/Load:	Base Load
Project Number:	PROJ-017008

Test Start Date:	7/1/22 & 7/2/22
Operator:	J. Merryman

F Factor Information

F_c	-
F_d	8611.8
Reference Method Measurement Basis:	Dry - Extractive
CEMS Analyzer Measurement Basis:	Dry - Extractive

Uncorrected Reference Method Analyzer Results

Run Number	Test Date	Start Minute	End Minute	CO (ppmvd)	NO_x (ppmvd)	NH_3 (ppmvd)	O_2 (% v/v Dry)	CO_2 (% v/v Dry)
1 - COMP	07/01/22	8:19	9:25	0.36	1.69	2.50	15.62	3.11
2 - COMP	07/01/22	9:43	10:43	0.35	1.57	2.90	15.72	3.04
3 - COMP	07/01/22	11:02	12:02	0.22	1.51	3.00	15.81	2.98
1 - PM	07/01/22	8:16	12:03	-	-	-	15.72	3.05
2 - PM	07/01/22	12:37	14:43	-	-	-	16.17	2.77
3 - PM	07/02/22	6:30	9:38	-	-	-	15.71	3.08
4 - PM	07/02/22	10:00	13:10	-	-	-	15.80	3.00

Calibration Corrected Reference Method Analyzer Results

Moisture Basis As Measured

Run Number	Test Date	Start Minute	End Minute	CO (ppmvd)	NO_x (ppmvd)	NH_3 (ppmvd)	O_2 (% v/v Dry)	CO_2 (% v/v Dry)
1 - COMP	07/01/22	8:19	9:25	0.37	1.69	2.50	15.66	3.19
2 - COMP	07/01/22	9:43	10:43	0.39	1.56	2.90	15.78	3.10
3 - COMP	07/01/22	11:02	12:02	0.28	1.49	3.00	15.89	3.04
1 - PM	07/01/22	8:16	12:03	-	-	-	15.78	3.11
2 - PM	07/01/22	12:37	14:43	-	-	-	16.23	2.83
3 - PM	07/02/22	6:30	9:38	-	-	-	15.75	3.12
4 - PM	07/02/22	10:00	13:10	-	-	-	15.84	3.04

Reference Method Emission Rate Summary - lb/MMBtu

Run Number	Test Date	CO lb/MMBtu	NO_x lb/MMBtu	NH_3 lb/MMBtu	F_c Factor	F_d Factor
1 - COMP	07/01/22	0.001	0.007	0.014	-	8611.8
2 - COMP	07/01/22	0.001	0.007	0.017	-	8611.8
3 - COMP	07/01/22	0.001	0.006	0.018	-	8611.8
1 - PM	07/01/22	-	-	-	-	8611.8
2 - PM	07/01/22	-	-	-	-	8611.8
3 - PM	07/02/22	-	-	-	-	8611.8
4 - PM	07/02/22	-	-	-	-	8611.8

Reference Method Emission Rate Summary - lb/hr Using Heat Input and lb/MMBtu Emissions Factor					
Run Number	Test Date	CO lb/hr	NO_x lb/hr	NH_3 lb/hr	Heat Input MMBtu/hr
1 - COMP	07/01/22	0.26	1.94	3.98	279.25
2 - COMP	07/01/22	0.28	1.83	4.73	279.25
3 - COMP	07/01/22	0.21	1.79	5.00	279.25
1 - PM	07/01/22	-	-	-	-
2 - PM	07/01/22	-	-	-	-
3 - PM	07/02/22	-	-	-	-
4 - PM	07/02/22	-	-	-	-

Test Run Data Corrected to Reference O_2								
		Corrected Data			Data Used for Correction			
Run Number	Test Date	CO ppmvd Corrected to 15% Oxygen	NO_x ppmvd Corrected to 15% Oxygen	NH_3 ppmvd Corrected to 15% Oxygen	CO ppmvd	NO_x ppmvd	SO_2 ppmvd	O_2 (% v/v Dry)
1 - COMP	07/01/22	0.42	1.91	2.82	0.37	1.69	2.50	15.66
2 - COMP	07/01/22	0.45	1.80	3.34	0.39	1.56	2.90	15.78
3 - COMP	07/01/22	0.33	1.76	3.54	0.28	1.49	3.00	15.89
1 - PM	07/01/22	-	-	-	-	-	-	15.78
2 - PM	07/01/22	-	-	-	-	-	-	16.23
3 - PM	07/02/22	-	-	-	-	-	-	15.75
4 - PM	07/02/22	-	-	-	-	-	-	15.84

MONTROSE AIR QUALITY SERVICES

Method 25A - Non-Methane Hydrocarbon - NMHC- Data

Client:	GE
Facility:	Roseville Energy Center
Test Location:	Unit 3
Project Number:	PROJ-017008
Test Date:	Friday, July 1, 2022
Operator:	J Merryman

Location	Source 1			
Test Run Number	1	2	3	Average
Condition	Base	Base	Base	
Test Date	7/1/2022	7/1/2022	7/1/2022	
Test Start	8:19	9:43	11:02	
Test End	9:25	10:43	12:02	
Test Duration (Minutes)	1:06	1:00	1:00	1:02:00
THC (ppmvw as Propane)	0.95	0.84	0.69	0.83
THC (ppmvd as Propane)	1.05	0.93	0.76	0.91
Methane/Ethane (ppmvd as Propane)	2.67	2.66	2.58	2.64
NMHC (ppmvd as Propane)	-1.62	-1.73	-1.82	-1.73
Moisture Content (%)	9.19	9.19	9.19	9.19

SOURCE TEST DATA SUMMARY

Client			GE
Unit / Location			Roseville
Reference temperature, °F			68
Test number	GT3-Grab	GT3-Grab	Average
Date	7-1-22	7-2-22	--
FUEL DATA			
Fuel "F" factor @ 68°F, dscf/MMBtu	8,612	8,612	8,612
Fuel "F" factor @ T_{ref}, dscf/MMBtu	8,612	8,612	8,612
Fuel higher heating value (HHV), Btu/scf	1,038	1,038	1,038
Fuel density, lb/scf	0.0449	0.0450	0.0450
Fuel flow, lb/sec	3.34	3.35	3.35
Fuel flow, scfh	267,795	268,000	267,898
Fuel Sulfur, ppm weight	3.3	3.1	3.2
Fuel Sulfur, gr/100 scf	0.1037	0.0977	0.1007
ANALYZER DATA			
O_2, % volume dry	15.66	15.75	15.71
VOLUMETRIC FLOW RATE			
Stack flow rate - based on fuel, dscfm	159,169	162,007	160,588
EMISSIONS			
	SO_2 concentrations, ppm volume dry	0.050	0.046	0.048
2b	SO_2 concentrations, ppm @ 15% O_2 dry	0.056	0.053	0.055
2e	SO_2 mass emissions, lb/hr	0.079	0.075	0.077
2f	SO_2 mass emissions, lb/MMBtu	0.000285	0.000269	0.000277

MONTROSE AIR QUALITY SERVICES

Instrumental Reference Method Uncorrected Measurements and Calibration Results

Client:	GE
Facility:	Roseville Energy Center
Source:	Unit 3
Test Location:	Stack
Condition/Load:	Base Load
Project Number:	PROJ-017008

Test Start Date:	7/1/22 & 7/2/22
Operator:	J. Merryman

F Factor Information

F_c	-
F_d	8710

Test Run Average Analyzer Responses and Support Data

Run Number	Test Date	Start Minute	End Minute	CO (ppm)	NO_x (ppm)	SO_2 (ppm)	O_2 (% vol)	CO_2 (% vol)	Volumetric Flowrate DSCFM		Moisture Fraction B_{WS}
1 - COMP	07/01/22	8:19	9:25	0.36	1.69	-	15.62	3.11	-		-
2 - COMP	07/01/22	9:43	10:43	0.35	1.57	-	15.72	3.04	-		-
3 - COMP	07/01/22	11:02	12:02	0.22	1.51	-	15.81	2.98	-		-
1 - PM	07/01/22	8:16	12:03	-	-	-	15.72	3.05	-		-
2 - PM	07/01/22	12:37	14:43	-	-	-	16.17	2.77	-		-
3 - PM	07/02/22	6:30	9:38	-	-	-	15.71	3.08	-		-
4 - PM	07/02/22	10:00	13:10	-	-	-	15.8	3	-		-

MONTROSE
AIR QUALITY SERVICES

Method 25A Test Data

Client:	GE
Facility:	Roseville Energy Center
Test Location:	Unit 3
Project Number:	PROJ-017008
Test Date:	7/1/2022
Operator:	J Merryman

Sampling Location			Source 1
Calibration Span			20
Run	Start Time	End Time	Run Average
1	8:19	9:25	0.95
2	9:43	10:43	0.84
3	11:02	12:02	0.69

GE Roseville **Test 1**
Unit 3
7/1/2022

	NOx ppmvd	CO ppmvd	CO2%	O2%	/OC ppmvw	
8:19	1.32	0.42	3.02	15.75	0.97	Start Run 1 Compliance Unit 3
8:20	1.36	0.37	3.06	15.75	1.08	Stratification Test
8:21	1.36	0.47	3.06	15.76	1.08	
8:22	1.42	0.38	3.06	15.74	1.02	
8:23	1.43	0.5	3.03	15.73	0.98	
8:24	1.44	0.36	3.05	15.75	0.98	
8:25	1.41	0.41	2.97	15.82	0.95	
8:26	1.4	0.35	3.01	15.83	1.05	
8:27	1.47	0.41	3	15.83	0.99	
8:28	1.46	0.48	3	15.83	0.96	
8:29	1.41	0.37	2.99	15.85	0.94	
8:30	1.42	0.4	2.99	15.84	1.05	
8:31	1.38	0.37	2.97	15.82	1.02	
8:32	1.39	0.36	3.02	15.83	0.96	
8:33	1.38	0.43	2.96	15.81	0.92	
8:34	1.41	0.34	2.99	15.8	0.98	
8:35	1.36	0.5	3	15.8	1.01	
8:36	1.37	0.33	3.01	15.83	1.08	
8:37	1.36	0.33	3.01	15.79	0.98	
8:38	1.37	0.45	3.03	15.83	1.07	
8:39	1.37	0.42	3.01	15.82	1	
8:40	1.3	0.48	2.98	15.84	1.01	
8:41	1.31	0.39	2.97	15.83	0.99	
8:42	1.38	0.42	3.02	15.82	1.04	
8:43	1.36	0.38	3	15.82	0.96	
8:44	1.45	0.44	2.96	15.82	0.85	
8:45	1.42	0.39	3	15.81	0.88	
8:46	1.42	0.34	3.01	15.82	0.93	
8:47	1.42	0.43	2.99	15.83	0.84	
8:48	1.48	0.42	3	15.82	0.78	
8:49	1.61	0.38	3.03	15.71	0.83	End Port 1 - Moving to second port
8:55	2.07	0.28	3.26	15.35	0.95	Start Port 2
8:56	2.13	0.28	3.26	15.34	1.03	
8:57	2.08	0.37	3.26	15.33	0.95	
8:58	2.18	0.29	3.29	15.37	1.02	
8:59	2.1	0.34	3.26	15.43	1.06	
9:00	1.89	0.34	3.23	15.43	1.07	
9:01	1.93	0.38	3.19	15.41	1.08	
9:02	1.96	0.26	3.25	15.41	1.09	
9:03	1.92	0.37	3.19	15.41	1.02	
9:04	1.98	0.35	3.24	15.39	0.8	
9:05	2.09	0.39	3.23	15.39	0.87	

9:06	2.14	0.35	3.24	15.39	0.85
9:07	2.19	0.29	3.21	15.39	0.92
9:08	2.14	0.37	3.23	15.46	0.9
9:09	2.04	0.27	3.23	15.43	0.87
9:10	2.06	0.34	3.21	15.41	0.86
9:11	2.03	0.3	3.22	15.4	0.9
9:12	2.2	0.24	3.24	15.41	0.84
9:13	2.15	0.27	3.25	15.43	0.86
9:14	1.98	0.23	3.19	15.43	0.85
9:15	1.9	0.34	3.2	15.41	0.93
9:16	1.92	0.33	3.27	15.42	0.9
9:17	1.9	0.21	3.24	15.53	0.89
9:18	1.65	0.33	3.2	15.55	0.89
9:19	1.69	0.36	3.14	15.55	0.87
9:20	1.73	0.22	3.13	15.52	0.97
9:21	1.72	0.33	3.13	15.61	0.97
9:22	1.74	0.3	3.14	15.59	0.85
9:23	1.95	0.26	3.17	15.52	0.93
9:24	2.01	0.37	3.14	15.52	0.91
9:25	2.05	0.34	3.16	15.51	0.89
Average	**1.69**	**0.36**	**3.11**	**15.62**	**0.95**

GE Roseville **Test 2**
Unit 3
7/1/2022

	NOx ppmvd	CO ppmvd	CO2%	O2%	/OC ppmvw	
9:43	1.53	0.4	3.04	15.72	0.99	Start Run 2 Compliance
9:44	1.53	0.49	3.06	15.68	0.91	
9:45	1.58	0.38	2.99	15.74	0.92	
9:46	1.54	0.44	3.05	15.73	0.93	
9:47	1.59	0.22	3.02	15.76	0.85	
9:48	1.58	0.36	3.03	15.75	0.99	
9:49	1.54	0.41	3.05	15.76	1.02	
9:50	1.58	0.37	3.01	15.71	0.98	
9:51	1.59	0.34	3	15.74	0.96	
9:52	1.58	0.33	3.02	15.74	0.91	
9:53	1.62	0.35	3.01	15.74	0.94	
9:54	1.58	0.37	3.02	15.76	0.88	
9:55	1.6	0.37	3	15.74	0.91	
9:56	1.6	0.32	3.05	15.74	0.85	
9:57	1.69	0.35	3.04	15.75	0.85	
9:58	1.68	0.46	3.05	15.75	0.75	
9:59	1.75	0.24	3.03	15.71	0.73	
10:00	1.72	0.44	3.02	15.79	0.82	
10:01	1.56	0.21	3	15.78	0.75	
10:02	1.49	0.37	2.97	15.81	0.83	
10:03	1.45	0.37	3.01	15.8	0.93	
10:04	1.42	0.35	2.99	15.8	0.74	
10:05	1.43	0.38	3	15.78	0.79	
10:06	1.48	0.25	3.01	15.79	0.74	
10:07	1.51	0.33	3.02	15.78	0.79	
10:08	1.53	0.37	3.01	15.78	0.81	
10:09	1.55	0.43	2.99	15.78	0.83	
10:10	1.57	0.23	3.04	15.77	0.8	
10:11	1.62	0.28	2.99	15.77	0.8	
10:12	1.59	0.32	3.01	15.79	0.9	
10:13	1.48	1.18	3.01	15.66	0.81	
10:14	1.51	0.44	3.05	15.67	0.86	
10:15	1.51	0.32	3.08	15.66	0.85	
10:16	1.51	0.31	3.08	15.64	0.83	
10:17	1.54	0.41	3.1	15.65	0.86	
10:18	1.56	0.31	3.08	15.65	0.83	
10:19	1.6	0.38	3.06	15.67	0.79	
10:20	1.55	0.29	3.08	15.65	0.87	
10:21	1.57	0.34	3.09	15.66	0.88	
10:22	1.6	0.28	3.11	15.66	0.86	
10:23	1.66	0.24	3.1	15.67	0.83	
10:24	1.55	0.31	3.07	15.67	0.8	

10:25	1.57	0.31	3.06	15.66	0.78		
10:26	1.56	0.29	3.11	15.67	0.82		
10:27	1.52	0.27	3.08	15.68	0.86		
10:28	1.55	0.49	3.07	15.68	0.87		
10:29	1.58	0.35	3.1	15.67	0.83		
10:30	1.56	0.36	3.09	15.65	0.84		
10:31	1.65	0.34	3.1	15.65	0.78		
10:32	1.7	0.32	3.06	15.64	0.75		
10:33	1.63	0.39	3.08	15.64	0.77		
10:34	1.71	0.37	3.09	15.63	0.85		
10:35	1.58	0.31	3.09	15.63	0.81		
10:36	1.59	0.34	3.07	15.71	0.89		
10:37	1.53	0.49	3.03	15.72	0.79		
10:38	1.56	0.3	3.02	15.78	0.81		
10:39	1.54	0.33	3	15.77	0.82		
10:40	1.52	0.32	3.02	15.75	0.78		
10:41	1.48	0.13	3	15.74	0.79		
10:42	1.51	0.21	3.05	15.75	0.74		**NOx**
10:43	1.59	0.23	3.01	15.77	0.72	End Run 2 Unit 3 Compliance	**1.57**
Average	**1.57**	**0.35**	**3.04**	**15.72**	**0.84**		

GE Roseville **Test 3**
Unit 3
7/1/2022

	NOx ppmvd	CO ppmvd	CO2%	O2%	/OC ppmvw	
11:02	1.61	0.2	3.01	15.81	0.77	Start Run 3 Unit 3 Compliance
11:03	1.61	0.25	3	15.78	0.67	
11:04	1.61	0.22	2.99	15.8	0.71	
11:05	1.62	0.25	3	15.79	0.74	
11:06	1.49	0.22	2.97	15.78	0.7	
11:07	1.51	0.4	2.96	15.8	0.73	
11:08	1.43	0.19	2.97	15.78	0.71	
11:09	1.45	0.22	3	15.81	0.72	
11:10	1.41	0.33	2.98	15.78	0.75	
11:11	1.48	0.14	3.01	15.78	0.79	
11:12	1.49	0.31	2.97	15.81	0.73	
11:13	1.52	0.24	2.99	15.8	0.84	
11:14	1.52	0.15	2.99	15.81	0.78	
11:15	1.53	0.07	3	15.78	0.74	
11:16	1.61	0.16	2.98	15.78	0.74	
11:17	1.57	0.25	2.99	15.77	0.65	
11:18	1.67	0.18	3	15.8	0.74	
11:19	1.57	0.27	3	15.8	0.7	
11:20	1.55	0.28	2.96	15.8	0.72	
11:21	1.5	0.22	2.98	15.81	0.66	
11:22	1.5	0.25	2.98	15.8	0.7	
11:23	1.53	0.05	2.98	15.8	0.64	
11:24	1.55	0.28	2.97	15.8	0.69	
11:25	1.5	0.2	3.01	15.79	0.66	
11:26	1.54	0.26	2.97	15.8	0.65	
11:27	1.5	0.18	2.97	15.8	0.6	
11:28	1.52	0.12	2.99	15.8	0.58	
11:29	1.53	0.26	2.99	15.81	0.63	
11:30	1.5	0.28	2.98	15.77	0.59	
11:31	1.59	0.24	2.98	15.79	0.64	
11:32	1.52	0.25	2.99	15.8	0.69	
11:33	1.38	0.16	2.99	15.84	0.66	
11:34	1.36	0.16	2.97	15.84	0.72	
11:35	1.38	0.19	2.96	15.83	0.77	
11:36	1.35	0.18	2.99	15.82	0.67	
11:37	1.42	0.22	2.97	15.81	0.71	
11:38	1.44	0.2	2.99	15.81	0.81	
11:39	1.5	0.24	3.01	15.81	0.72	
11:40	1.52	0.24	2.98	15.82	0.71	
11:41	1.55	0.29	2.99	15.84	0.66	
11:42	1.56	0.25	2.99	15.84	0.7	
11:43	1.54	0.23	2.96	15.81	0.66	

11:44	1.59	0.19	3.05	15.82	0.75		
11:45	1.55	0.22	2.96	15.82	0.65		
11:46	1.55	0.23	2.98	15.82	0.69		
11:47	1.49	0.13	2.98	15.82	0.71		
11:48	1.48	0.19	2.95	15.81	0.62		
11:49	1.55	0.23	2.98	15.82	0.69		
11:50	1.54	0.22	2.99	15.82	0.7		
11:51	1.51	0.08	2.96	15.82	0.66		
11:52	1.46	0.15	2.98	15.81	0.66		
11:53	1.47	0.25	2.98	15.82	0.63		
11:54	1.45	0.16	2.99	15.82	0.64		
11:55	1.5	0.08	3	15.84	0.7		
11:56	1.47	0.15	2.96	15.81	0.64		
11:57	1.47	0.13	2.96	15.79	0.64		
11:58	1.54	0.08	2.97	15.82	0.6		
11:59	1.48	0.17	2.99	15.83	0.7		
12:00	1.47	0.11	2.97	15.81	0.57		
12:01	1.53	1.39	3.01	15.76	0.62		**NOx**
12:02	1.53	0.19	2.99	15.82	0.7	End Run 3 Unit 3 Compliance	**1.51**
Average	**1.51**	**0.22**	**2.98**	**15.81**	**0.69**		

GE Roseville **Post 3**
Unit 3
7/1/2022

	NOx ppmvd	CO ppmvd	CO2%	O2%	/OC ppmvw		
12:03	1.55	0.16	3	15.83	0.62		0
12:04	1.49	0.67	3	15.09	0.04		
12:05	0.03	-0.2	1.24	0.05	0		
12:06	0.02	-0.08	-0.07	0.05	-0.04		
12:07	1.32	0	0.22	15.75	-0.02		
12:08	3.11	2.56	1.54	0.01	-0.05		
12:09	3.13	2.85	-0.07	0	0.04	Mid NOx/CO	
12:10	0.3	-1.07	4.13	10.11	-0.04		
12:11	0.02	-0.92	9.64	10.1	-0.02		
12:12	0.02	-0.9	9.73	10.12	0		
12:13	0.03	-1.06	9.83	10.11	-0.05	Mid O2/CO2	
12:14	1.29	0.09	8.43	15.71	0.63		
12:15	1.29	0.08	3.14	21.03	0.02	VOC Zero	
12:16	0.02	-0.39	0.27	20.87	9.09		
12:17	0.02	-0.52	0.12	21.07	9.57		
12:18	0.01	-0.45	-0.06	21.06	9.98	VOC Mid	

GE Roseville **Test 1 PM**
Unit 3
7/1/2022

	CO2%	O2%
8:16	3.01	15.83
8:17	3.03	15.85
8:18	3	15.84
8:19	3.02	15.75
8:20	3.06	15.75
8:21	3.06	15.76
8:22	3.06	15.74
8:23	3.03	15.73
8:24	3.05	15.75
8:25	2.97	15.82
8:26	3.01	15.83
8:27	3	15.83
8:28	3	15.83
8:29	2.99	15.85
8:30	2.99	15.84
8:31	2.97	15.82
8:32	3.02	15.83
8:33	2.96	15.81
8:34	2.99	15.8
8:35	3	15.8
8:36	3.01	15.83
8:37	3.01	15.79
8:38	3.03	15.83
8:39	3.01	15.82
8:40	2.98	15.84
8:41	2.97	15.83
8:42	3.02	15.82
8:43	3	15.82
8:44	2.96	15.82
8:45	3	15.81
8:46	3.01	15.82
8:47	2.99	15.83
8:48	3	15.82
8:54	3.24	15.35
8:55	3.26	15.35
8:56	3.26	15.34
8:57	3.26	15.33
8:58	3.29	15.37
8:59	3.26	15.43
9:00	3.23	15.43
9:01	3.19	15.41
9:02	3.25	15.41

9:03	3.19	15.41
9:04	3.24	15.39
9:05	3.23	15.39
9:06	3.24	15.39
9:07	3.21	15.39
9:08	3.23	15.46
9:09	3.23	15.43
9:10	3.21	15.41
9:11	3.22	15.4
9:12	3.24	15.41
9:13	3.25	15.43
9:14	3.19	15.43
9:15	3.2	15.41
9:16	3.27	15.42
9:17	3.24	15.53
9:18	3.2	15.55
9:19	3.14	15.55
9:20	3.13	15.52
9:21	3.13	15.61
9:22	3.14	15.59
9:23	3.17	15.52
9:24	3.14	15.52
9:25	3.16	15.51
9:42	3.03	15.72
9:43	3.04	15.72
9:44	3.06	15.68
9:45	2.99	15.74
9:46	3.05	15.73
9:47	3.02	15.76
9:48	3.03	15.75
9:49	3.05	15.76
9:50	3.01	15.71
9:51	3	15.74
9:52	3.02	15.74
9:53	3.01	15.74
9:54	3.02	15.76
9:55	3	15.74
9:56	3.05	15.74
9:57	3.04	15.75
9:58	3.05	15.75
9:59	3.03	15.71
10:00	3.02	15.79
10:01	3	15.78
10:02	2.97	15.81
10:03	3.01	15.8
10:04	2.99	15.8
10:05	3	15.78

10:06	3.01	15.79
10:07	3.02	15.78
10:08	3.01	15.78
10:09	2.99	15.78
10:10	3.04	15.77
10:11	2.99	15.77
10:12	3.01	15.79
10:13	3.01	15.66
10:14	3.05	15.67
10:15	3.08	15.66
10:16	3.08	15.64
10:17	3.1	15.65
10:18	3.08	15.65
10:19	3.06	15.67
10:20	3.08	15.65
10:21	3.09	15.66
10:22	3.11	15.66
10:23	3.1	15.67
10:24	3.07	15.67
10:25	3.06	15.66
10:26	3.11	15.67
10:27	3.08	15.68
10:28	3.07	15.68
10:29	3.1	15.67
10:30	3.09	15.65
10:31	3.1	15.65
10:32	3.06	15.64
10:33	3.08	15.64
10:34	3.09	15.63
10:35	3.09	15.63
10:36	3.07	15.71
10:37	3.03	15.72
10:38	3.02	15.78
10:39	3	15.77
10:40	3.02	15.75
10:41	3	15.74
10:42	3.05	15.75
11:01	2.96	15.79
11:02	3.01	15.81
11:03	3	15.78
11:04	2.99	15.8
11:05	3	15.79
11:06	2.97	15.78
11:07	2.96	15.8
11:08	2.97	15.78
11:09	3	15.81
11:10	2.98	15.78

11:11	3.01	15.78
11:12	2.97	15.81
11:13	2.99	15.8
11:14	2.99	15.81
11:15	3	15.78
11:16	2.98	15.78
11:17	2.99	15.77
11:18	3	15.8
11:19	3	15.8
11:20	2.96	15.8
11:21	2.98	15.81
11:22	2.98	15.8
11:23	2.98	15.8
11:24	2.97	15.8
11:25	3.01	15.79
11:26	2.97	15.8
11:27	2.97	15.8
11:28	2.99	15.8
11:29	2.99	15.81
11:30	2.98	15.77
11:31	2.98	15.79
11:32	2.99	15.8
11:33	2.99	15.84
11:34	2.97	15.84
11:35	2.96	15.83
11:36	2.99	15.82
11:37	2.97	15.81
11:38	2.99	15.81
11:39	3.01	15.81
11:40	2.98	15.82
11:41	2.99	15.84
11:42	2.99	15.84
11:43	2.96	15.81
11:44	3.05	15.82
11:45	2.96	15.82
11:46	2.98	15.82
11:47	2.98	15.82
11:48	2.95	15.81
11:49	2.98	15.82
11:50	2.99	15.82
11:51	2.96	15.82
11:52	2.98	15.81
11:53	2.98	15.82
11:54	2.99	15.82
11:55	3	15.84
11:56	2.96	15.81
11:57	2.96	15.79

11:58	2.97	15.82
11:59	2.99	15.83
12:00	2.97	15.81
12:01	3.01	15.76
12:02	2.99	15.82
12:03	3	15.83
Average	**3.05**	**15.72**

GE Roseville **Test 2 PM**
Unit 3
7/1/2022

	CO2%	O2%
12:37	2.8	16.14
12:38	2.8	16.1
12:39	2.79	16.11
12:40	2.78	16.1
12:41	2.81	16.13
12:42	2.78	16.16
12:43	2.76	16.18
12:44	2.76	16.17
12:45	2.77	16.16
12:46	2.77	16.16
12:47	2.77	16.16
12:48	2.79	16.16
12:49	2.78	16.16
12:50	2.78	16.15
12:51	2.8	16.15
12:52	2.75	16.14
12:53	2.75	16.12
12:54	2.79	16.14
12:55	2.78	16.16
12:56	2.75	16.16
12:57	2.81	16.15
12:58	2.79	16.14
12:59	2.79	16.14
13:00	2.79	16.15
13:01	2.79	16.15
13:02	2.77	16.16
13:03	2.78	16.14
13:04	2.81	16.13
13:05	2.78	16.14
13:06	2.79	16.12
13:07	2.8	16.13
13:08	2.77	16.15
13:09	2.77	16.13
13:10	2.79	16.14
13:11	2.8	16.14
13:12	2.78	16.12
13:13	2.79	16.14
13:14	2.78	16.13
13:15	2.78	16.12
13:16	2.81	16.15
13:17	2.75	16.12
13:18	2.79	16.13

13:19	2.78	16.13
13:20	2.77	16.17
13:21	2.74	16.18
13:22	2.8	16.17
13:23	2.79	16.18
13:24	2.78	16.18
13:25	2.72	16.17
13:26	2.79	16.19
13:27	2.76	16.18
13:28	2.77	16.2
13:29	2.76	16.18
13:30	2.77	16.17
13:31	2.75	16.18
13:32	2.76	16.19
13:33	2.73	16.18
13:34	2.78	16.19
13:35	2.75	16.18
13:36	2.76	16.16
13:37	2.77	16.17
13:38	2.76	16.17
13:39	2.78	16.18
13:40	2.77	16.16
13:41	2.77	16.17
13:42	2.75	16.18
13:43	2.76	16.17
13:44	2.79	16.17
13:45	2.8	16.15
13:46	2.75	16.18
13:47	2.8	16.19
13:48	2.77	16.16
13:49	2.75	16.17
13:50	2.78	16.16
13:51	2.75	16.19
13:52	2.78	16.2
13:53	2.76	16.16
13:54	2.79	16.14
13:55	2.77	16.15
13:56	2.8	16.15
13:57	2.76	16.19
13:58	2.77	16.2
13:59	2.75	16.2
14:00	2.76	16.19
14:01	2.79	16.17
14:02	2.76	16.18
14:03	2.76	16.19
14:04	2.76	16.18
14:05	2.77	16.17

14:06	2.75	16.17
14:07	2.82	16.17
14:08	2.74	16.16
14:09	2.77	16.17
14:10	2.78	16.18
14:11	2.75	16.17
14:12	2.8	16.17
14:13	2.77	16.19
14:14	2.75	16.19
14:15	2.76	16.19
14:16	2.79	16.21
14:17	2.77	16.18
14:18	2.75	16.21
14:19	2.73	16.21
14:20	2.74	16.2
14:21	2.74	16.2
14:22	2.75	16.21
14:23	2.74	16.19
14:24	2.78	16.2
14:25	2.78	16.19
14:26	2.75	16.19
14:27	2.76	16.18
14:28	2.75	16.17
14:29	2.76	16.16
14:30	2.76	16.2
14:31	2.74	16.2
14:32	2.73	16.2
14:33	2.74	16.19
14:34	2.76	16.19
14:35	2.75	16.2
14:36	2.72	16.18
14:37	2.74	16.19
14:38	2.76	16.18
14:39	2.8	16.19
14:40	2.78	16.17
14:41	2.77	16.19
14:42	2.77	16.17
14:43	2.75	16.17
Average	**2.77**	**16.17**

GE Roseville **Test 3 PM**
Unit 3
7/2/2022

	CO2%	O2%	
6:30	3.16	15.61	Start PM Run 3 Unit 3 Compliance
6:31	3.16	15.58	
6:32	3.16	15.59	
6:33	3.14	15.59	
6:34	3.14	15.64	
6:35	3.14	15.68	
6:36	3.11	15.65	
6:37	3.12	15.65	
6:38	3.12	15.68	
6:39	3.13	15.68	
6:40	3.1	15.67	
6:41	3.1	15.67	
6:42	3.14	15.68	
6:43	3.12	15.68	
6:44	3.13	15.67	
6:45	3.1	15.67	
6:46	3.09	15.66	
6:47	3.13	15.68	
6:48	3.11	15.7	
6:49	3.09	15.66	
6:50	3.1	15.67	
6:51	3.13	15.67	
6:52	3.12	15.68	
6:53	3.13	15.67	
6:54	3.1	15.68	
6:55	3.11	15.65	
6:56	3.13	15.68	
6:57	3.1	15.69	
6:58	3.07	15.69	
6:59	3.12	15.7	
7:00	3.08	15.69	
7:01	3.08	15.68	
7:02	3.06	15.69	
7:03	3.1	15.7	
7:04	3.1	15.68	
7:05	3.14	15.67	
7:06	3.11	15.69	
7:07	3.09	15.68	
7:08	3.1	15.69	
7:09	3.09	15.69	
7:10	3.08	15.69	
7:11	3.11	15.66	

7:12	3.1	15.66
7:13	3.1	15.68
7:14	3.11	15.66
7:15	3.1	15.67
7:16	3.13	15.68
7:17	3.1	15.67
7:18	3.13	15.67
7:19	3.12	15.69
7:20	3.07	15.7
7:21	3.06	15.71
7:22	3.06	15.69
7:23	3.11	15.69
7:24	3.08	15.69
7:25	3.1	15.68
7:26	3.07	15.68
7:27	3.11	15.7
7:28	3.1	15.69
7:29	3.06	15.69
7:30	3.07	15.71
7:31	3.09	15.68
7:32	3.05	15.69
7:33	3.07	15.69
7:34	3.12	15.71
7:35	3.1	15.68
7:36	3.06	15.69
7:37	3.09	15.67
7:38	3.13	15.71
7:39	3.08	15.74
7:40	3.07	15.74
7:41	3.06	15.76
7:42	3.04	15.73
7:43	3.07	15.72
7:44	3.05	15.73
7:45	3.07	15.75
7:46	3.07	15.72
7:47	3.09	15.72
7:48	3.07	15.73
7:49	3.05	15.71
7:50	3.05	15.73
7:51	3.1	15.74
7:52	3.05	15.72
7:53	3.02	15.73
7:54	3.08	15.75
7:55	3.06	15.74
7:56	3.08	15.74
7:57	3.06	15.74
7:58	3.07	15.73

7:59	3.1	15.75
8:00	3.05	15.76
8:01	3.06	15.76
8:02	3.04	15.75
8:03	3.06	15.76
8:04	3.04	15.76
8:05	3.04	15.76
8:06	3.07	15.73
8:07	3.07	15.71
8:08	3.08	15.74
8:09	3.05	15.74
8:10	3.05	15.73
8:11	3.09	15.72
8:12	3.07	15.71
8:13	3.1	15.74
8:14	3.09	15.72
8:15	3.07	15.73
8:16	3.09	15.72
8:17	3.1	15.7
8:18	3.11	15.72
8:19	3.08	15.74
8:20	3.06	15.73
8:21	3.08	15.72
8:22	3.07	15.73
8:23	3.1	15.72
8:24	3.1	15.73
8:25	3.05	15.71
8:26	3.09	15.72
8:27	3.08	15.73
8:28	3.08	15.71
8:29	3.06	15.71
8:30	3.06	15.69
8:31	3.08	15.69
8:32	3.07	15.72
8:33	3.06	15.72
8:34	3.06	15.73
8:35	3.05	15.75
8:36	3.05	15.74
8:37	3.04	15.74
8:38	3.03	15.75
8:39	3.02	15.75
8:40	3	15.75
8:41	3.06	15.72
8:42	3.06	15.77
8:43	3.05	15.74
8:44	3.05	15.74
8:45	3.07	15.75

8:46	3.03	15.76
8:47	3.04	15.75
8:48	3.05	15.77
8:49	3.03	15.75
8:50	3.04	15.75
8:51	3.08	15.75
8:52	3.03	15.76
8:53	3.05	15.74
8:54	3.02	15.73
8:55	3.05	15.73
8:56	3.03	15.76
8:57	3.06	15.73
8:58	3.06	15.74
8:59	3.07	15.73
9:00	3.06	15.74
9:01	3.04	15.75
9:02	3.04	15.74
9:03	3.06	15.75
9:04	3.04	15.74
9:05	3.03	15.75
9:06	3.04	15.72
9:07	3.07	15.75
9:08	3.04	15.72
9:09	3.06	15.74
9:10	3.04	15.73
9:11	3.06	15.73
9:12	3.03	15.74
9:13	3.05	15.73
9:14	3.07	15.72
9:15	3.06	15.73
9:16	3.05	15.73
9:17	3.07	15.73
9:18	3.08	15.72
9:19	3.03	15.72
9:20	3.05	15.71
9:21	3.08	15.74
9:22	3.04	15.76
9:23	3.06	15.75
9:24	3.05	15.78
9:25	3.03	15.73
9:26	3.05	15.74
9:27	3.06	15.76
9:28	3.04	15.75
9:29	3.05	15.76
9:30	3.06	15.76
9:31	3.06	15.76
9:32	3.05	15.74

9:33	3.04	15.77
9:34	3.03	15.74
9:35	3.07	15.73
9:36	3.07	15.75
9:37	3.05	15.77
9:38	3.04	15.77
Average	**3.08**	**15.71**

GE Roseville **Test 4 PM**
Unit 3
7/2/2022

	CO2%	O2%
10:00	3.03	15.77
10:01	3	15.77
10:02	3.05	15.75
10:03	3.05	15.76
10:04	3.03	15.74
10:05	3.03	15.76
10:06	3.03	15.76
10:07	3.04	15.77
10:08	3.01	15.75
10:09	3.05	15.73
10:10	3.03	15.74
10:11	3.04	15.75
10:12	3.05	15.76
10:13	3.02	15.74
10:14	3.06	15.73
10:15	3	15.76
10:16	3.04	15.76
10:17	3.04	15.75
10:18	3	15.73
10:19	3.05	15.74
10:20	3.03	15.8
10:21	2.98	15.79
10:22	3.01	15.79
10:23	3.02	15.78
10:24	3.01	15.8
10:25	2.99	15.81
10:26	3.01	15.8
10:27	3.02	15.79
10:28	3	15.78
10:29	3.03	15.8
10:30	3	15.81
10:31	3.02	15.8
10:32	3.02	15.8
10:33	3	15.8
10:34	2.99	15.79
10:35	3	15.79
10:36	2.98	15.78
10:37	3.02	15.8
10:38	3.01	15.78
10:39	3.02	15.8
10:40	3.02	15.79
10:41	3.03	15.81

10:42	3.02	15.79
10:43	3	15.79
10:44	3.02	15.79
10:45	3.01	15.79
10:46	3.01	15.81
10:47	3.03	15.8
10:48	2.99	15.8
10:49	3	15.82
10:50	3	15.79
10:51	3.01	15.77
10:52	3	15.77
10:53	3.02	15.78
10:54	3.04	15.79
10:55	2.98	15.78
10:56	3.02	15.8
10:57	3	15.78
10:58	3	15.78
10:59	3.01	15.77
11:00	2.99	15.76
11:01	3.02	15.81
11:02	2.99	15.8
11:03	2.96	15.81
11:04	3.01	15.82
11:05	3	15.83
11:06	2.99	15.81
11:07	2.99	15.81
11:08	2.98	15.82
11:09	3.02	15.81
11:10	2.98	15.83
11:11	3.02	15.81
11:12	3.02	15.79
11:13	3.02	15.8
11:14	3	15.8
11:15	3.02	15.83
11:16	3	15.81
11:17	3.02	15.79
11:18	3.01	15.79
11:19	3.03	15.8
11:20	2.99	15.82
11:21	2.98	15.81
11:22	2.97	15.81
11:23	3.03	15.79
11:24	3.01	15.82
11:25	3	15.78
11:26	3	15.78
11:27	2.99	15.78
11:28	3.05	15.81

11:29	3.03	15.83	
11:30	2.98	15.83	
11:31	3	15.81	
11:32	3.02	15.84	
11:33	2.99	15.81	
11:34	3	15.84	
11:35	3	15.82	
11:36	2.98	15.81	
11:37	2.99	15.82	
11:38	2.99	15.82	
11:39	3.01	15.8	
11:40	2.96	15.82	
11:41	3.01	15.82	
11:42	2.99	15.81	
11:43	2.99	15.82	
11:44	3.02	15.83	
11:45	2.98	15.8	
11:46	2.98	15.81	
11:47	3	15.81	
11:48	3	15.82	
11:49	2.98	15.82	
11:50	2.98	15.81	
11:51	2.98	15.8	
11:52	3	15.82	
11:53	2.97	15.83	
11:54	2.99	15.82	
11:55	2.98	15.8	
11:56	3	15.81	
11:57	2.99	15.79	
11:58	2.98	15.8	
11:59	2.99	15.82	
12:00	3.01	15.82	
12:01	2.98	15.79	
12:02	3	15.82	
12:03	2.98	15.81	
12:04	3	15.79	
12:05	2.96	15.8	
12:06	2.99	15.81	
12:07	2.98	15.82	
12:08	3.04	15.81	
12:09	3.01	15.79	
12:10	2.99	15.79	Local Calibration - Unit 4
12:11	2.98	15.8	
12:12	3.01	15.79	High O2/CO2
12:13	2.98	15.81	
12:14	2.97	15.81	
12:15	3	15.81	Zero

12:16	3.02	15.81	
12:17	2.99	15.81	Mid O2/CO2
12:18	3.03	15.82	Remote
12:19	3	15.79	Zero
12:20	3.01	15.81	
12:21	3.02	15.77	Mid O2/CO2
12:22	2.97	15.83	
12:23	2.97	15.83	
12:24	3	15.82	
12:25	2.95	15.82	
12:26	2.99	15.81	
12:27	2.97	15.81	
12:28	3.02	15.8	
12:29	3	15.83	
12:30	2.99	15.8	
12:31	3	15.79	
12:32	2.99	15.83	
12:33	2.98	15.83	
12:34	2.98	15.82	
12:35	3.04	15.83	
12:36	2.97	15.83	
12:37	2.96	15.81	
12:38	3	15.81	
12:39	2.98	15.81	
12:40	2.96	15.8	
12:41	3	15.83	
12:42	3.01	15.81	
12:43	2.98	15.81	
12:44	2.99	15.81	
12:45	2.97	15.82	
12:46	2.99	15.8	
12:47	2.97	15.83	
12:48	3.01	15.79	
12:49	2.99	15.83	
12:50	2.99	15.82	
12:51	2.97	15.8	
12:52	2.98	15.78	
12:53	3.02	15.82	
12:54	2.98	15.83	
12:55	2.98	15.84	
12:56	2.97	15.82	
12:57	2.98	15.82	
12:58	2.97	15.82	
12:59	3.01	15.85	
13:00	3.01	15.83	
13:01	2.99	15.86	
13:02	2.96	15.81	

13:03	3	15.83	
13:04	2.98	15.82	
13:05	2.98	15.82	
13:06	2.99	15.85	
13:07	3	15.83	
13:08	2.99	15.83	
13:09	2.96	15.81	
13:10	2.97	15.81	End Run 4 Unit 3 PM Compliance
Average	**3.00**	**15.80**	

MONTROSE AIR QUALITY SERVICES

Reference Method Test Run Data

Client:	GE
Facility:	Roseville Energy Center
Source:	Unit 4
Test Location:	Stack
Condition/Load:	Base Load
Project Number:	PROJ-017008

Test Start Date:	7-2-22 & 7-3-22
Operator:	J. Merryman

F Factor Information

F_c	-
F_d	8612.6

Reference Method Measurement Basis:	Dry - Extractive
CEMS Analyzer Measurement Basis:	Dry - Extractive

Uncorrected Reference Method Analyzer Results

Run Number	Test Date	Start Minute	End Minute	CO (ppmvd)	NO_x (ppmvd)	NH_3 (ppmvd)	O_2 (% v/v Dry)	CO_2 (% v/v Dry)
1 - PM	07/02/22	13:51	17:04	-	-	-	15.27	3.19
1 -COMP	07/03/22	7:17	8:29	0.27	2.16	0.70	15.26	3.32
2 - COMP	07/03/22	8:49	9:49	0.43	1.91	0.90	15.40	3.24
3 - COMP	07/03/22	10:05	11:05	0.34	1.86	0.90	15.43	3.21
2 - PM	07/03/22	6:27	9:35	-	-	-	15.31	3.29
3 - PM	07/03/22	10:04	13:04	-	-	-	15.38	3.23
4 - PM	07/03/22	13:30	16:38	-	-	-	15.32	3.26

Calibration Corrected Reference Method Analyzer Results

Moisture Basis As Measured

Run Number	Test Date	Start Minute	End Minute	CO (ppmvd)	NO_x (ppmvd)	NH_3 (ppmvd)	O_2 (% v/v Dry)	CO_2 (% v/v Dry)
1 - PM	07/02/22	13:51	17:04	-	-	-	15.32	3.18
1 -COMP	07/03/22	7:17	8:29	0.24	2.14	0.70	15.30	3.39
2 - COMP	07/03/22	8:49	9:49	0.51	1.91	0.90	15.45	3.30
3 - COMP	07/03/22	10:05	11:05	0.46	1.85	0.90	15.49	3.24
2 - PM	07/03/22	6:27	9:35	-	-	-	15.35	3.33
3 - PM	07/03/22	10:04	13:04	-	-	-	15.42	3.27
4 - PM	07/03/22	13:30	16:38	-	-	-	15.36	3.30

Reference Method Emission Rate Summary - lb/MMBtu

Run Number	Test Date	CO lb/MMBtu	NO_x lb/MMBtu	NH_3 lb/MMBtu	F_c Factor	F_d Factor
1 -COMP	07/03/22	0.001	0.008	0.004	-	8612.6
2 - COMP	07/03/22	0.001	0.008	0.005	-	8612.6
3 - COMP	07/03/22	0.001	0.007	0.005	-	8612.6

Reference Method Emission Rate Summary - lb/hr Using Heat Input and lb/MMBtu Emissions Factor

Run Number	Test Date	CO lb/hr	NO_x lb/hr	NH_3 lb/hr	Heat Input MMBtu/hr
1 -COMP	07/03/22	0.15	2.19	1.00	266.8
2 - COMP	07/03/22	0.33	2.01	1.32	266.8
3 - COMP	07/03/22	0.30	1.96	1.33	266.8

Test Run Data Corrected to Reference O_2

		Corrected Data			Data Used for Correction			
Run Number	Test Date	CO ppmvd Corrected to 15% Oxygen	NO_x ppmvd Corrected to 15% Oxygen	NH_3 ppmvd Corrected to 15% Oxygen	CO ppmvd	NO_x ppmvd	SO_2 ppmvd	O_2 (% v/v Dry)
1 - PM	07/02/22	-	-	-	-	-	-	15.32
1 -COMP	07/03/22	0.26	2.26	0.74	0.24	2.14	0.70	15.30
2 - COMP	07/03/22	0.55	2.06	0.97	0.51	1.91	0.90	15.45
3 - COMP	07/03/22	0.50	2.02	0.98	0.46	1.85	0.90	15.49
2 - PM	07/03/22	-	-	-	-	-	-	15.35
3 - PM	07/03/22	-	-	-	-	-	-	15.42
4 - PM	07/03/22	-	-	-	-	-	-	15.36

MONTROSE AIR QUALITY SERVICES

Method 25A - Non-Methane Hydrocarbon - NMHC- Data

Client:	GE
Facility:	Roseville Energy Center
Test Location:	Unit 4
Project Number:	PROJ-017008
Test Date:	Sunday, July 3, 2022
Operator:	J Merryman

Location	Source 1			
Test Run Number	1	2	3	Average
Condition	Base	Base	Base	
Test Date	7/3/2022	7/3/2022	7/3/2022	
Test Start	7:17	8:49	10:05	
Test End	8:29	9:49	11:05	
Test Duration (Minutes)	1:12	1:00	1:00	1:04:00
THC (ppmvw as Propane)	1.04	1.47	1.30	1.27
THC (ppmvd as Propane)	1.15	1.63	1.44	1.41
Methane/Ethane (ppmvd as Propane)	3.54	3.7	3.67	3.64
NMHC (ppmvd as Propane)	-2.39	-2.07	-2.23	-2.23
Moisture Content (%)	9.79	9.79	9.79	9.79

SOURCE TEST DATA SUMMARY

Client			GE
Unit / Location			Roseville
Reference temperature, °F			68
Test number	GT4-Grab	GT4-Grab	Average
Date	7-2-22	7-3-22	--
FUEL DATA			
Fuel "F" factor @ 68°F, dscf/MMBtu	8,612	8,613	8,612
Fuel "F" factor @ T_{ref}, dscf/MMBtu	8,612	8,613	8,612
Fuel higher heating value (HHV), Btu/scf	1,038	1,038	1,038
Fuel density, lb/scf	0.0450	0.0450	0.0450
Fuel flow, lb/sec	3.22	3.21	3.22
Fuel flow, scfh	257,600	256,800	257,200
Fuel Sulfur, ppm weight	3.1	3.1	3.1
Fuel Sulfur, gr/100 scf	0.0977	0.0977	0.0977
ANALYZER DATA			
O_2, % volume dry	15.32	15.30	15.31
VOLUMETRIC FLOW RATE			
Stack flow rate - based on fuel, dscfm	143,720	142,783	143,251
EMISSIONS			
	SO_2 concentrations, ppm volume dry	0.050	0.050	0.050
2b	SO_2 concentrations, ppm @ 15% O_2 dry	0.053	0.053	0.053
2e	SO_2 mass emissions, lb/hr	0.072	0.072	0.072
2f	SO_2 mass emissions, lb/MMBtu	0.000269	0.000268	0.000269

MONTROSE
AIR QUALITY SERVICES

Instrumental Reference Method Uncorrected Measurements and Calibration Results

Client:	GE
Facility:	Roseville Energy Center
Source:	Unit 4
Test Location:	Stack
Condition/Load:	Base Load
Project Number:	PROJ-017008

Test Start Date:	7-2-22 & 7-3-22
Operator:	J. Merryman

F Factor Information

F_c	-
F_d	8710

Test Run Average Analyzer Responses and Support Data

Run Number	Test Date	Start Minute	End Minute	CO (ppm)	NO_x (ppm)	SO_2 (ppm)	O_2 (% vol)	CO_2 (% vol)	Volumetric Flowrate DSCFM		Moisture Fraction B_{WS}
1 - PM	07/02/22	13:51	17:04	-	-	-	15.27	3.19	-		-
1 -COMP	07/03/22	7:17	8:29	0.27	2.16	-	15.26	3.32	-		-
2 - COMP	07/03/22	8:49	9:49	0.43	1.91	-	15.4	3.24	-		-
3 - COMP	07/03/22	10:05	11:05	0.34	1.86	-	15.43	3.21	-		-
2 - PM	07/03/22	6:27	9:35	-	-	-	15.31	3.29	-		-
3 - PM	07/03/22	10:04	13:04	-	-	-	15.38	3.23	-		-
4 - PM	07/03/22	13:30	16:38	-	-	-	15.32	3.26	-		-

MONTROSE
AIR QUALITY SERVICES

Method 25A Test Data

Client:	GE
Facility:	Roseville Energy Center
Test Location:	Unit 4
Project Number:	PROJ-017008
Test Date:	7/3/2022
Operator:	J Merryman

Sampling Location			Source 1
Calibration Span			20
Run	Start Time	End Time	Run Average
1	7:17	8:29	1.04
2	8:49	9:49	1.47
3	10:05	11:05	1.30

GE Roseville **Test 1 PM**
Unit 4
7/2/2022

	O2%	CO2%
13:51	14.93	3.47
13:52	15.06	3.4
13:53	15.21	3.3
13:54	15.28	3.24
13:55	15.26	3.19
13:56	15.32	3.21
13:57	15.32	3.16
13:58	15.31	3.17
13:59	15.32	3.16
14:00	15.32	3.15
14:01	15.31	3.16
14:02	15.39	3.17
14:03	15.38	3.15
14:04	15.39	3.12
14:05	15.37	3.12
14:06	15.37	3.14
14:07	15.37	3.15
14:08	15.37	3.13
14:09	15.38	3.16
14:10	15.38	3.15
14:11	15.35	3.12
14:12	15.33	3.17
14:13	15.25	3.16
14:14	15.26	3.19
14:15	15.25	3.19
14:16	15.26	3.18
14:17	15.26	3.2
14:18	15.25	3.21
14:19	15.29	3.21
14:20	15.2	3.22
14:21	15.17	3.25
14:22	15.19	3.22
14:23	15.17	3.21
14:24	15.2	3.24
14:25	15.2	3.23
14:26	15.19	3.24
14:27	15.21	3.24
14:28	15.22	3.22
14:29	15.18	3.23
14:30	15.19	3.25
14:31	15.17	3.23
14:32	15.2	3.23

14:33	15.2	3.22
14:34	15.17	3.24
14:35	15.17	3.24
14:36	15.22	3.23
14:37	15.22	3.21
14:38	15.21	3.22
14:39	15.22	3.24
14:40	15.21	3.24
14:41	15.2	3.21
14:42	15.2	3.22
14:43	15.2	3.22
14:44	15.21	3.21
14:45	15.21	3.21
14:46	15.22	3.22
14:47	15.21	3.19
14:48	15.21	3.21
14:49	15.19	3.22
14:50	15.2	3.24
14:51	15.22	3.22
14:52	15.23	3.2
14:53	15.22	3.22
14:54	15.19	3.25
14:55	15.22	3.24
14:56	15.22	3.23
14:57	15.19	3.22
14:58	15.21	3.21
14:59	15.2	3.22
15:00	15.21	3.21
15:01	15.19	3.21
15:02	15.19	3.22
15:03	15.19	3.23
15:04	15.19	3.21
15:05	15.2	3.25
15:06	15.21	3.22
15:07	15.19	3.22
15:08	15.22	3.21
15:09	15.2	3.22
15:10	15.2	3.21
15:11	15.22	3.22
15:12	15.21	3.2
15:13	15.18	3.23
15:14	15.21	3.21
15:15	15.2	3.23
15:16	15.18	3.24
15:17	15.19	3.23
15:18	15.19	3.22
15:19	15.2	3.21

15:20	15.19	3.22
15:21	15.23	3.21
15:22	15.2	3.22
15:23	15.2	3.22
15:24	15.21	3.21
15:25	15.19	3.22
15:26	15.21	3.21
15:27	15.21	3.22
15:28	15.21	3.24
15:29	15.18	3.23
15:30	15.22	3.21
15:31	15.21	3.19
15:32	15.17	3.21
15:33	15.21	3.22
15:34	15.18	3.23
15:35	15.19	3.22
15:36	15.19	3.24
15:37	15.19	3.22
15:38	15.2	3.21
15:39	15.2	3.23
15:40	15.21	3.23
15:41	15.21	3.23
15:42	15.18	3.22
15:43	15.19	3.21
15:44	15.2	3.2
15:45	15.2	3.21
15:46	15.2	3.18
15:47	15.19	3.21
15:48	15.22	3.21
15:49	15.22	3.23
15:50	15.21	3.21
15:51	15.2	3.19
15:52	15.21	3.22
15:53	15.15	3.21
15:54	15.19	3.19
15:55	15.29	3.22
15:56	15.33	3.16
15:57	15.35	3.14
15:58	15.35	3.17
15:59	15.26	3.18
16:00	15.26	3.18
16:01	15.28	3.18
16:02	15.26	3.18
16:03	15.25	3.19
16:04	15.24	3.19
16:05	15.27	3.18
16:06	15.24	3.19

16:07	15.24	3.2
16:08	15.26	3.24
16:09	15.25	3.17
16:10	15.25	3.21
16:11	15.24	3.18
16:12	15.26	3.2
16:13	15.27	3.18
16:14	15.27	3.21
16:15	15.23	3.2
16:16	15.26	3.22
16:22	15.38	3.13
16:23	15.39	3.12
16:24	15.41	3.11
16:25	15.39	3.14
16:26	15.4	3.12
16:27	15.39	3.1
16:28	15.39	3.1
16:29	15.39	3.12
16:30	15.4	3.11
16:31	15.38	3.11
16:32	15.36	3.12
16:33	15.37	3.13
16:34	15.37	3.14
16:35	15.38	3.12
16:36	15.39	3.14
16:37	15.36	3.11
16:38	15.39	3.12
16:39	15.38	3.13
16:40	15.38	3.12
16:41	15.39	3.14
16:42	15.4	3.12
16:43	15.38	3.13
16:44	15.41	3.14
16:45	15.39	3.13
16:46	15.39	3.12
16:47	15.39	3.11
16:48	15.39	3.11
16:49	15.4	3.13
16:50	15.39	3.12
16:51	15.38	3.1
16:52	15.39	3.12
16:53	15.38	3.13
16:54	15.41	3.12
16:55	15.41	3.14
16:56	15.39	3.11
16:57	15.39	3.1
16:58	15.41	3.13

16:59	15.38	3.12	
17:00	15.37	3.1	
17:01	15.39	3.12	
17:02	15.39	3.1	
17:03	15.41	3.1	
17:04	15.39	3.11	End Run 1 Unit 4 PM Compliance
Average	**15.27**	**3.19**	

GE Roseville **Test 1**
Unit 4
7/3/2022

	NOx ppmvd	CO ppmvd	CO2%	O2%	/OC ppmvw
7:17	2.08	0.37	3.02	15.33	1.12
7:18	2.09	0.32	3.29	15.36	1.14
7:19	2.15	0.31	3.26	15.34	1.03
7:20	2.40	0.26	3.28	15.35	1.00
7:21	2.45	0.25	3.29	15.34	0.99
7:22	2.48	0.08	3.27	15.33	1.04
7:23	2.29	0.32	3.28	15.35	0.99
7:24	2.23	0.34	3.26	15.34	1.02
7:25	2.07	0.28	3.27	15.33	0.98
7:26	2.07	0.35	3.28	15.33	1.03
7:27	2.07	0.26	3.30	15.33	2.34
7:28	2.10	0.33	3.25	15.36	1.43
7:29	2.05	0.35	3.26	15.39	1.21
7:30	2.07	0.26	3.23	15.42	1.09
7:31	2.07	0.26	3.24	15.40	0.99
7:32	2.10	0.31	3.24	15.41	1.05
7:37	2.48	0.32	3.35	15.19	1.01
7:38	2.50	0.26	3.35	15.19	1.01
7:39	2.35	0.17	3.33	15.17	0.96
7:40	2.36	0.24	3.37	15.15	1.01
7:41	2.31	0.35	3.39	15.15	1.25
7:42	2.24	0.20	3.36	15.15	1.00
7:43	2.13	0.20	3.38	15.17	0.92
7:44	2.13	0.22	3.38	15.14	0.97
7:45	2.25	0.26	3.36	15.17	0.94
7:46	2.32	0.29	3.37	15.15	1.05
7:47	2.33	0.31	3.38	15.12	1.09
7:48	2.42	0.48	3.38	15.10	1.18
7:49	2.45	0.16	3.40	15.10	0.92
7:56	2.13	0.20	3.40	15.10	1.04
7:57	2.14	0.29	3.43	15.11	1.04
7:58	2.35	0.27	3.41	15.10	0.83
7:59	2.40	0.31	3.42	15.08	0.91
8:00	2.41	0.24	3.41	15.11	1.03
8:01	2.33	0.33	3.43	15.09	1.01
8:02	2.41	0.18	3.41	15.08	0.84
8:03	2.41	0.32	3.44	15.10	0.91
8:04	2.41	0.32	3.40	15.11	0.92
8:05	2.41	0.26	3.38	15.12	0.90
8:06	2.20	0.19	3.41	15.12	1.02
8:07	2.15	0.30	3.39	15.14	0.99
8:08	2.15	0.21	3.42	15.30	0.98

8:09	2.19	0.22	3.31	15.13	0.88
8:10	2.41	0.25	3.39	15.12	0.81
8:11	2.47	0.12	3.37	15.15	0.97
8:14	2.04	0.27	3.23	15.40	0.94
8:15	1.98	0.34	3.23	15.39	0.90
8:16	1.88	0.16	3.23	15.38	0.95
8:17	1.87	0.21	3.23	15.40	1.06
8:18	1.94	0.23	3.24	15.41	0.97
8:19	1.81	0.29	3.26	15.39	0.95
8:20	1.90	0.24	3.24	15.38	0.83
8:21	2.08	0.16	3.26	15.40	0.96
8:22	2.09	0.19	3.26	15.40	0.92
8:23	2.04	0.30	3.24	15.41	0.89
8:24	2.10	0.14	3.28	15.38	0.95
8:25	2.01	0.19	3.27	15.39	0.88
8:26	1.99	0.28	3.28	15.40	0.84
8:27	1.68	0.54	3.24	15.38	1.55
8:28	1.23	0.50	3.25	15.39	1.48
8:29	1.23	0.57	3.24	15.38	1.65
Average	**2.16**	**0.27**	**3.32**	**15.26**	**1.04**

GE Roseville **Test 2**
Unit 4
7/3/2022

	NOx ppmvd	CO ppmvd	CO2%	O2%	/OC ppmvw	
8:49	2.09	0.43	3.25	15.40	1.48	Start Run 2 Unit 4 Compliance
8:50	1.86	0.45	3.23	15.38	1.49	
8:51	1.87	0.49	3.23	15.40	1.51	
8:52	1.83	0.45	3.24	15.39	1.38	
8:53	1.91	0.42	3.24	15.41	1.46	
8:54	1.88	0.42	3.22	15.40	1.44	
8:55	1.89	0.41	3.23	15.41	1.45	
8:56	1.87	0.42	3.24	15.42	1.46	
8:57	1.89	0.33	3.25	15.40	1.34	
8:58	1.95	0.48	3.22	15.38	1.30	
8:59	1.97	0.46	3.24	15.40	1.37	
9:00	1.96	0.32	3.25	15.40	1.61	
9:01	1.97	0.54	3.23	15.41	1.69	
9:02	1.92	0.50	3.25	15.39	1.41	
9:03	1.95	0.53	3.26	15.39	1.44	
9:04	1.92	0.41	3.24	15.41	1.40	
9:05	1.89	0.45	3.28	15.40	1.34	
9:06	1.92	0.39	3.23	15.38	1.51	
9:07	1.96	0.39	3.27	15.39	1.49	
9:08	1.97	0.45	3.28	15.42	1.40	
9:09	1.91	0.39	3.27	15.41	1.31	
9:10	1.94	0.52	3.25	15.41	1.22	
9:11	1.97	0.39	3.27	15.42	1.44	
9:12	1.93	0.38	3.26	15.41	1.36	
9:13	1.90	0.45	3.23	15.41	1.30	
9:14	1.93	0.43	3.24	15.41	1.28	
9:15	1.98	0.51	3.24	15.42	1.26	
9:16	2.00	0.43	3.23	15.39	1.32	
9:17	1.94	0.38	3.25	15.42	1.37	
9:18	1.88	0.39	3.25	15.41	1.28	
9:19	1.83	0.35	3.23	15.43	1.27	
9:20	1.81	0.52	3.24	15.42	1.33	
9:21	1.79	0.43	3.21	15.42	1.27	
9:22	1.87	0.41	3.23	15.39	1.29	
9:23	1.93	0.47	3.25	15.42	1.69	
9:24	2.01	0.36	3.24	15.39	1.30	
9:25	2.03	0.32	3.25	15.40	1.20	
9:26	2.05	0.35	3.25	15.41	1.32	
9:27	1.87	0.40	3.26	15.39	1.54	
9:28	1.82	0.47	3.26	15.40	1.36	
9:29	1.77	0.34	3.24	15.39	1.16	
9:30	1.79	0.44	3.25	15.41	1.20	

9:31	1.74	0.32	3.26	15.40	1.21		
9:32	1.84	0.53	3.22	15.41	1.27		
9:33	1.94	0.40	3.24	15.38	1.47		
9:34	1.98	0.51	3.25	15.39	1.30		
9:35	1.98	0.49	3.26	15.38	1.31		
9:36	2.00	0.53	3.22	15.42	2.02		
9:37	2.03	0.41	3.24	15.45	3.58		
9:38	1.94	0.63	3.21	15.43	1.34		
9:39	1.91	0.46	3.23	15.41	1.28		
9:40	1.87	0.41	3.21	15.42	1.39		
9:41	1.79	0.52	3.20	15.43	2.75		
9:42	1.84	0.42	3.22	15.40	1.34		
9:43	1.87	0.32	3.21	15.40	1.24		
9:44	1.92	0.23	3.21	15.37	1.22		
9:45	2.01	0.34	3.24	15.38	1.27		
9:46	1.95	0.35	3.27	15.39	1.42		
9:47	1.87	0.32	3.25	15.37	1.61		
9:48	1.87	0.53	3.25	15.41	1.76		**NOx**
9:49	1.69	0.69	3.22	15.45	2.71	End Run 2 Unit 4 Compliance	**1.91**
Average	**1.91**	**0.43**	**3.24**	**15.40**	**1.47**		

GE Roseville **Test 3**
Unit 4
7/3/2022

	NOx ppmvd	CO ppmvd	CO2%	O2%	/OC ppmvw
10:05	2.00	0.43	3.18	15.43	1.27
10:06	1.95	0.33	3.23	15.45	1.35
10:07	1.97	0.36	3.20	15.44	1.54
10:08	1.97	0.48	3.20	15.43	1.12
10:09	1.87	0.32	3.22	15.42	1.18
10:10	1.74	0.37	3.22	15.45	1.22
10:11	1.74	0.34	3.20	15.44	1.19
10:12	1.78	0.37	3.23	15.42	1.20
10:13	1.84	0.35	3.21	15.42	1.19
10:14	1.95	0.28	3.20	15.42	1.76
10:15	1.92	0.38	3.20	15.42	1.31
10:16	2.02	0.25	3.21	15.41	1.10
10:17	2.02	0.31	3.24	15.42	1.14
10:18	2.03	0.40	3.23	15.42	1.41
10:19	1.97	0.50	3.23	15.44	1.37
10:20	1.82	0.42	3.22	15.42	1.46
10:21	1.78	0.41	3.19	15.42	1.84
10:22	1.83	0.62	3.21	15.43	2.04
10:23	1.79	0.34	3.21	15.44	1.76
10:24	1.79	0.35	3.19	15.41	1.12
10:25	1.82	0.32	3.21	15.44	1.21
10:26	1.88	0.31	3.24	15.44	1.22
10:27	1.85	0.36	3.18	15.44	1.18
10:28	1.98	0.35	3.21	15.43	1.06
10:29	1.97	0.38	3.23	15.44	1.10
10:30	2.02	0.25	3.20	15.43	1.03
10:31	1.97	0.33	3.20	15.44	1.07
10:32	1.89	0.28	3.18	15.43	1.11
10:33	1.81	0.25	3.23	15.43	1.12
10:34	1.77	0.30	3.21	15.44	1.05
10:35	1.77	0.25	3.18	15.44	1.11
10:36	1.76	0.28	3.19	15.44	1.11
10:37	1.81	0.31	3.22	15.45	1.17
10:38	1.81	0.23	3.18	15.42	1.11
10:39	1.81	0.25	3.23	15.44	1.15
10:40	1.90	0.50	3.19	15.43	2.01
10:41	1.90	0.48	3.20	15.42	1.25
10:42	1.94	0.45	3.23	15.44	1.62
10:43	1.99	0.40	3.25	15.39	2.09
10:44	1.90	0.31	3.23	15.43	1.35
10:45	1.86	0.34	3.23	15.43	1.17
10:46	1.77	0.43	3.17	15.43	1.60

10:47	1.74	0.29	3.18	15.44	2.68
10:48	1.71	0.54	3.19	15.42	1.04
10:49	1.76	0.35	3.21	15.42	1.03
10:50	1.88	0.16	3.24	15.41	1.00
10:51	1.99	0.27	3.23	15.41	1.04
10:52	2.04	0.28	3.23	15.41	1.11
10:53	1.99	0.37	3.22	15.45	1.06
10:54	1.83	0.31	3.16	15.48	1.04
10:55	1.78	0.29	3.19	15.45	0.97
10:56	1.84	0.26	3.19	15.43	1.08
10:57	1.85	0.33	3.20	15.45	1.28
10:58	1.80	0.27	3.19	15.44	1.02
10:59	1.75	0.39	3.20	15.44	1.01
11:00	1.72	0.27	3.21	15.46	1.07
11:01	1.68	0.20	3.19	15.46	1.15
11:02	1.79	0.19	3.18	15.45	1.02
11:03	1.81	0.30	3.17	15.46	1.43
11:04	1.76	0.39	3.21	15.48	1.99
11:05	1.71	0.59	3.20	15.48	1.97
Average	**1.86**	**0.34**	**3.21**	**15.43**	**1.30**

GE Roseville **Test 2 PM**
Unit 4
7/3/2022

	CO2%	O2%
6:27	3.31	15.24
6:28	3.35	15.22
6:29	3.34	15.23
6:30	3.34	15.24
6:31	3.34	15.27
6:32	3.32	15.26
6:33	3.32	15.27
6:34	3.32	15.27
6:35	3.34	15.28
6:36	3.30	15.27
6:37	3.31	15.27
6:38	3.29	15.27
6:39	3.33	15.27
6:40	3.33	15.27
6:41	3.32	15.27
6:42	3.33	15.27
6:43	3.31	15.26
6:44	3.32	15.26
6:45	3.35	15.26
6:46	3.32	15.29
6:47	3.31	15.29
6:57	3.33	15.28
6:58	3.32	15.29
6:59	3.32	15.31
7:00	3.11	15.64
7:01	2.82	15.28
7:02	3.28	15.28
7:03	3.31	15.33
7:04	3.29	15.30
7:05	3.29	15.29
7:06	3.26	15.31
7:07	3.31	15.30
7:08	3.32	15.36
7:09	3.26	15.35
7:10	3.28	15.37
7:18	3.29	15.36
7:19	3.26	15.34
7:20	3.28	15.35
7:21	3.29	15.34
7:22	3.27	15.33
7:23	3.28	15.35
7:24	3.26	15.34

7:25	3.27	15.33
7:26	3.28	15.33
7:27	3.30	15.33
7:28	3.25	15.36
7:29	3.26	15.39
7:30	3.23	15.42
7:31	3.24	15.40
7:32	3.24	15.41
7:33	3.21	15.56
7:37	3.35	15.19
7:38	3.35	15.19
7:39	3.33	15.17
7:40	3.37	15.15
7:41	3.39	15.15
7:42	3.36	15.15
7:43	3.38	15.17
7:44	3.38	15.14
7:45	3.36	15.17
7:46	3.37	15.15
7:47	3.38	15.12
7:48	3.38	15.10
7:49	3.40	15.10
7:50	3.40	15.09
7:51	3.44	15.10
7:55	3.40	15.10
7:56	3.40	15.10
7:57	3.43	15.11
7:58	3.41	15.10
7:59	3.42	15.08
8:00	3.41	15.11
8:01	3.43	15.09
8:02	3.41	15.08
8:03	3.44	15.10
8:04	3.40	15.11
8:05	3.38	15.12
8:06	3.41	15.12
8:07	3.39	15.14
8:08	3.42	15.30
8:09	3.31	15.13
8:10	3.39	15.12
8:11	3.37	15.15
8:15	3.23	15.39
8:16	3.23	15.38
8:17	3.23	15.40
8:18	3.24	15.41
8:19	3.26	15.39
8:20	3.24	15.38

8:21	3.26	15.40
8:22	3.26	15.40
8:23	3.24	15.41
8:24	3.28	15.38
8:25	3.27	15.39
8:26	3.28	15.40
8:27	3.24	15.38
8:28	3.25	15.39
8:29	3.24	15.38
8:30	3.26	15.37
8:50	3.23	15.38
8:51	3.23	15.40
8:52	3.24	15.39
8:53	3.24	15.41
8:54	3.22	15.40
8:55	3.23	15.41
8:56	3.24	15.42
8:57	3.25	15.40
8:58	3.22	15.38
8:59	3.24	15.40
9:00	3.25	15.40
9:01	3.23	15.41
9:02	3.25	15.39
9:03	3.26	15.39
9:04	3.24	15.41
9:05	3.28	15.40
9:06	3.23	15.38
9:07	3.27	15.39
9:08	3.28	15.42
9:09	3.27	15.41
9:10	3.25	15.41
9:11	3.27	15.42
9:12	3.26	15.41
9:13	3.23	15.41
9:14	3.24	15.41
9:15	3.24	15.42
9:16	3.23	15.39
9:17	3.25	15.42
9:18	3.25	15.41
9:19	3.23	15.43
9:20	3.24	15.42
9:21	3.21	15.42
9:22	3.23	15.39
9:23	3.25	15.42
9:24	3.24	15.39
9:25	3.25	15.40
9:26	3.25	15.41

9:27	3.26	15.39
9:28	3.26	15.40
9:29	3.24	15.39
9:30	3.25	15.41
9:31	3.26	15.40
9:32	3.22	15.41
9:33	3.24	15.38
9:34	3.25	15.39
9:35	3.26	15.38
Average	**3.29**	**15.31**

GE Roseville **Test 3 PM**
Unit 4
7/3/2022

	CO2%	O2%	
10:04	3.20	15.43	
10:05	3.18	15.43	Start Run 3 Unit 4 Compliance
10:06	3.23	15.45	
10:07	3.20	15.44	
10:08	3.20	15.43	
10:09	3.22	15.42	
10:10	3.22	15.45	
10:11	3.20	15.44	
10:12	3.23	15.42	
10:13	3.21	15.42	
10:14	3.20	15.42	
10:15	3.20	15.42	
10:16	3.21	15.41	
10:17	3.24	15.42	
10:18	3.23	15.42	
10:19	3.23	15.44	
10:20	3.22	15.42	
10:21	3.19	15.42	
10:22	3.21	15.43	
10:23	3.21	15.44	
10:24	3.19	15.41	
10:25	3.21	15.44	
10:26	3.24	15.44	
10:27	3.18	15.44	
10:28	3.21	15.43	
10:29	3.23	15.44	
10:30	3.20	15.43	
10:31	3.20	15.44	
10:32	3.18	15.43	
10:33	3.23	15.43	
10:34	3.21	15.44	
10:35	3.18	15.44	
10:36	3.19	15.44	
10:37	3.22	15.45	
10:38	3.18	15.42	
10:39	3.23	15.44	
10:40	3.19	15.43	
10:41	3.20	15.42	
10:42	3.23	15.44	
10:43	3.25	15.39	
10:44	3.23	15.43	
10:45	3.23	15.43	

10:46	3.17	15.43					
10:47	3.18	15.44					
10:48	3.19	15.42					
10:49	3.21	15.42					
10:50	3.24	15.41					
10:51	3.23	15.41					
10:52	3.23	15.41					
10:53	3.22	15.45					
10:54	3.16	15.48					
10:55	3.19	15.45					
10:56	3.19	15.43					
10:57	3.20	15.45					
10:58	3.19	15.44					
10:59	3.20	15.44					
11:00	3.21	15.46					
11:01	3.19	15.46					
11:02	3.18	15.45					
11:03	3.17	15.46					
11:04	3.21	15.48		**NOx**	**CO**	**CO2**	**O2**
11:05	3.20	15.48	End Run 3 Unit 4 Complaince	**#REF!**	**#REF!**	**3.21**	**15.43**
11:06	3.18	15.45		#REF!	#REF!		
11:35	3.17	15.46					
11:36	3.19	15.45					
11:37	3.18	15.45					
11:38	3.18	15.45					
11:39	3.18	15.46					
11:40	3.19	15.44					
11:41	3.19	15.47					
11:42	3.16	15.48					
11:43	3.21	15.47					
11:44	3.17	15.48					
11:45	3.17	15.48					
11:46	3.15	15.48					
11:47	3.14	15.46					
11:48	3.17	15.47					
11:49	3.17	15.47					
11:50	3.18	17.28					
11:51	2.73	15.33					
11:52	3.24	15.30					
11:53	3.28	15.30					
11:54	3.27	15.28					
11:55	3.27	15.29					
11:56	3.30	15.30					
11:57	3.25	15.30					
11:58	3.26	15.28					
11:59	3.26	15.29					
12:00	3.27	15.31					

12:01	3.27	15.30
12:02	3.25	15.31
12:03	3.26	15.31
12:04	3.23	15.30
12:05	3.28	15.30
12:06	3.25	15.28
12:07	3.28	15.30
12:08	3.25	15.30
12:09	3.27	15.29
12:10	3.25	15.29
12:11	3.28	15.29
12:12	3.28	15.29
12:13	3.28	15.29
12:14	3.27	15.29
12:15	3.28	15.30
12:16	3.28	15.29
12:17	3.27	15.30
12:18	3.24	15.29
12:19	3.26	15.30
12:20	3.28	15.30
12:21	3.21	15.28
12:22	3.25	15.30
12:23	3.29	15.29
12:24	3.27	15.28
12:25	3.30	15.29
12:26	3.26	15.30
12:27	3.28	15.28
12:28	3.29	15.29
12:29	3.26	15.30
12:30	3.25	15.29
12:31	3.27	15.29
12:32	3.29	15.30
12:33	3.26	15.29
12:34	3.30	15.28
12:35	3.27	15.28
12:36	3.29	15.27
12:37	3.28	15.27
12:38	3.29	15.28
12:39	3.30	15.27
12:40	3.30	15.30
12:41	3.28	15.28
12:42	3.28	15.29
12:43	3.28	15.29
12:44	3.27	15.28
12:45	3.26	15.28
12:46	3.30	15.29
12:47	3.26	15.31

12:48	3.23	15.28
12:49	3.29	15.28
12:50	3.29	15.29
12:51	3.28	15.28
12:52	3.27	15.27
12:53	3.29	15.27
12:54	3.27	15.27
12:55	3.30	15.27
12:56	3.28	15.28
12:57	3.28	15.26
12:58	3.29	15.27
12:59	3.30	15.28
13:00	3.29	15.27
13:01	3.29	15.27
13:02	3.31	15.27
13:03	3.29	15.28
13:04	3.28	15.27
13:05	3.29	15.26
13:06	3.29	15.27
13:07	3.29	15.27
13:08	3.28	15.29
13:09	3.28	15.29
Average	**3.23**	**15.38**

GE Roseville **Test 4 PM**
Unit 4
7/3/2022

	CO2%	O2%
13:30	3.28	15.31
13:31	3.27	15.32
13:32	3.26	15.30
13:33	3.27	15.31
13:34	3.26	15.29
13:35	3.25	15.27
13:36	3.32	15.30
13:37	3.30	15.30
13:38	3.29	15.30
13:39	3.30	15.28
13:40	3.28	15.30
13:41	3.26	15.29
13:42	3.28	15.32
13:43	3.23	15.32
13:44	3.23	15.29
13:45	3.27	15.29
13:46	3.27	15.31
13:47	3.26	15.30
13:48	3.25	15.31
13:49	3.27	15.31
13:54	3.28	15.32
13:55	3.29	15.32
13:56	3.25	15.30
13:57	3.25	15.32
13:58	3.28	15.30
13:59	3.27	15.32
14:00	3.28	15.30
14:01	3.26	15.32
14:02	3.23	15.32
14:03	3.26	15.31
14:04	3.26	15.32
14:05	3.28	15.31
14:06	3.24	15.31
14:07	3.26	15.31
14:08	3.27	15.33
14:09	3.24	15.32
14:10	3.27	15.33
14:11	3.25	15.30
14:12	3.26	15.30
14:13	3.26	15.31
14:14	3.27	15.31
14:15	3.26	15.31

14:16	3.29	15.33
14:17	3.27	15.32
14:18	3.25	15.31
14:19	3.25	15.31
14:20	3.27	15.32
14:21	3.28	15.31
14:22	3.27	15.31
14:23	3.22	15.34
14:24	3.24	15.34
14:25	3.25	15.35
14:26	3.26	15.36
14:27	3.26	15.33
14:28	3.24	15.35
14:29	3.25	15.36
14:30	3.22	15.35
14:31	3.22	15.34
14:32	3.21	15.35
14:33	3.25	15.33
14:34	3.27	15.31
14:35	3.28	15.27
14:36	3.27	15.30
14:37	3.29	15.28
14:38	3.32	15.30
14:39	3.27	15.30
14:40	3.27	15.27
14:41	3.27	15.30
14:42	3.30	15.28
14:43	3.30	15.31
14:44	3.28	15.29
14:45	3.28	15.28
14:46	3.27	15.28
14:47	3.28	15.30
14:48	3.25	15.31
14:49	3.25	15.31
14:50	3.29	15.31
14:51	3.27	15.30
14:52	3.28	15.31
14:53	3.29	15.32
14:54	3.28	15.30
14:55	3.29	15.30
14:56	3.29	15.30
14:57	3.28	15.31
14:58	3.29	15.30
14:59	3.27	15.33
15:00	3.26	15.34
15:01	3.25	15.32
15:02	3.24	15.33

15:03	3.26	15.32
15:04	3.25	15.33
15:05	3.27	15.32
15:06	3.25	15.31
15:07	3.28	15.32
15:08	3.26	15.31
15:09	3.26	15.32
15:10	3.25	15.31
15:11	3.26	15.31
15:12	3.25	15.32
15:13	3.28	15.30
15:14	3.27	15.33
15:15	3.24	15.34
15:16	3.27	15.33
15:17	3.27	15.33
15:18	3.29	15.31
15:19	3.25	15.33
15:20	3.25	15.36
15:21	3.25	15.35
15:22	3.28	15.31
15:23	3.26	15.32
15:24	3.27	15.36
15:25	3.22	15.33
15:26	3.26	15.35
15:27	3.25	15.36
15:28	3.25	15.33
15:29	3.24	15.34
15:30	3.23	15.33
15:31	3.24	15.32
15:32	3.25	15.31
15:33	3.26	15.33
15:34	3.29	15.34
15:35	3.26	15.33
15:36	3.25	15.33
15:37	3.25	15.32
15:38	3.28	15.35
15:39	3.29	15.34
15:40	3.25	15.33
15:41	3.28	15.35
15:42	3.28	15.33
15:43	3.24	15.31
15:44	3.27	15.33
15:45	3.26	15.33
15:46	3.25	15.35
15:47	3.24	15.35
15:48	3.26	15.33
15:49	3.26	15.34

15:50	3.28	15.35
15:51	3.25	15.33
15:52	3.26	15.32
15:53	3.25	15.33
15:54	3.21	15.34
15:55	3.26	15.34
15:56	3.26	15.33
15:57	3.25	15.34
15:58	3.26	15.34
15:59	3.25	15.34
16:00	3.28	15.31
16:01	3.26	15.33
16:02	3.25	15.33
16:03	3.27	15.33
16:04	3.27	15.35
16:05	3.27	15.35
16:06	3.25	15.33
16:07	3.24	15.34
16:08	3.24	15.34
16:09	3.27	15.33
16:10	3.24	15.33
16:11	3.24	15.31
16:12	3.30	15.33
16:13	3.27	15.32
16:14	3.29	15.33
16:15	3.26	15.31
16:16	3.27	15.34
16:17	3.23	15.33
16:18	3.24	15.34
16:19	3.27	15.32
16:20	3.25	15.35
16:21	3.24	15.34
16:22	3.24	15.33
16:23	3.20	15.33
16:24	3.30	15.32
16:25	3.27	15.32
16:26	3.28	15.33
16:27	3.27	15.33
16:28	3.28	15.32
16:29	3.25	15.32
16:30	3.26	15.31
16:31	3.25	15.33
16:32	3.27	15.32
16:33	3.27	15.32
16:34	3.25	15.33
16:35	3.27	15.33
16:36	3.27	15.34

16:37	3.26	15.33
16:38	3.25	15.33
Average	**3.26**	**15.32**

Appendix A.4
Particulate Calculations/Results

SOURCE TEST DATA SUMMARY

Client		GE
Unit / Location		GT 3
A (stack area), ft^2		63.620
T_{ref} (reference temperature), °F		68

	Test number	Run 1	Run 2	Run 3	Run 4	Average
	Date	7-1-22	7-1-22	7-2-22	7-2-22	--
	Start / Stop time	7:16-11:23	11:37-14:43	6:30-9:38	10:00:13:10	--
	F_d (fuel "F" factor @ 68°F), dscf/MMBtu	8611.80	8611.80	8612.20	8612.20	--
	F_d (fuel "F" factor @ T_{ref}), dscf/MMBtu	8611.80	8611.80	8612.20	8612.20	--
	Fuel Density, lb/scf (fuel std condition 60°F	0.0449	0.0449	0.0450	0.0450	--
	HHV (fuel higher heating value), Btu/scf	1038.24	1038.24	1037.76	1037.76	--
	Fuel Flow Rate, lb/sec	3.34	3.37	3.33	3.35	--
	Fuel Heat Input, MMBTU/hr	278.0	280.5	276.5	278.1	--
	Meter box number	CS 3	CS 3	CS 3	CS 3	--
	C_p (pitot coefficient), dimensionless	0.8400	0.8400	0.8400	0.8400	0.8400
	Y (meter calibration factor), dimensionless	0.998	0.998	0.998	0.998	0.998
	Θ (sample time), min	180.00	180.00	180.00	180.00	180.00
	Nozzle diameter, in	0.240	0.240	0.240	0.240	0.240
	P_{bar} (barometric pressure), in Hg	29.70	29.70	29.69	29.70	29.70
	V_m (meter box volume), acf	151.639	153.908	143.175	149.055	149.444
	V_{lc} (impinger liquid), g	316.1	319.0	322.1	310.2	316.9
	T_m (meter temperature), °F	81.5	91.8	68.2	76.6	79.5
	ΔH (meter pressure), in. H_2O	2.458	2.471	2.146	2.329	2.351
	ΔP (velocity head), in. H2O	1.8506	1.7721	1.6385	1.7391	1.7501
	P_g (static pressure), in. Hg	0.85	1.60	1.50	1.60	1.39
	T_s (stack temperature), °F	821.9	822.4	822.5	821.9	822.2
	$\%O_2$ (oxygen stack gas), % volume dry	15.78	16.23	15.75	15.85	15.90
	$\%CO_2$ (carbon dioxide stack gas), % volume dry	3.11	2.83	3.12	3.04	3.03
	m_f (F½ particulate matter catch - filter), g	0.0003	0.0003	0.0003	0.0003	0.0003
	m_a (F½ particulate matter catch - acetone rinse), g	0.0006	0.0007	0.0005	0.0006	0.0006
	m_{cpm} (B½ particulate matter catch - total condensible, blank corrected), g	0.0036	0.0040	0.0029	0.0032	0.0034
	m_n (total particulate matter catch), g	0.0044	0.0050	0.0036	0.0041	0.0043
1a	$V_{m(std)}$ (standard sample volume), dscf	147.325	146.734	142.450	146.078	145.647
1b	$V_{w(std)}$ (water vapor volume), scf	14.904	15.040	15.188	14.627	14.940
1c	B_{ws} (moisture fraction), non-dimensional	0.0919	0.0930	0.0963	0.0910	0.0931
	Moisture, %	9.19	9.30	9.63	9.10	9.31
1d	MW_{dry} (stack gas molecular weight), dry	29.129	29.102	29.129	29.120	29.120
1e	MW_{wet} (stack gas molecular weight), wet	28.106	28.070	28.057	28.108	28.085
1f	P_s (absolute stack pressure), in Hg	29.763	29.818	29.800	29.818	29.800
1g	V_s (stack gas velocity), ft/sec	120.735	118.137	113.661	116.928	117.365
	Q_{ds} (fuel heat input), dscfm	162,899	180,200	161,040	165,215	167,339
1k	I (isokinetic ratio), %	96.68	98.39	99.71	98.70	98.37
3a	G (F½ grain loading), gr/dscf	0.000088	0.000100	0.000079	0.000093	0.000090
3c	M (F½ mass emissions), lb/hr	0.12	0.15	0.11	0.13	0.13
3d	E (F½ mass emissions), lb/MMBtu	0.000441	0.000549	0.000394	0.000472	0.000464
3a	G (B½ grain loading), gr/dscf	0.000372	0.000425	0.000315	0.000341	0.000364
3c	M (B½ mass emissions), lb/hr	0.52	0.66	0.44	0.48	0.52
3d	E (B½ mass emissions), lb/MMBtu	0.001864	0.002335	0.001571	0.001734	0.001876
3a	G (total grain loading), gr/dscf	0.000460	0.000525	0.000394	0.000434	0.000454
3c	M (total mass emissions), lb/hr	0.64	0.81	0.54	0.61	0.65
3d	E (total mass emissions), lb/MMBtu	0.00230	0.00288	0.001965	0.002207	0.002340

	ΔP	ΔH	Stack	Meter	Static Press	Baro Press
Value	**1.8506**	**2.458**	**821.9**	**81.5**	**0.85**	**29.70**
Factor	1	1	1	1	1	1
Count	24	24	24	24	1	1
1	1.50	2	809	73	0.85	29.7
2	1.60	2.1	804	73		
3	1.60	2.1	803	74		
4	1.60	2.1	801	75		
5	1.60	2.1	802	77		
6	1.70	2.2	806	78		
7	1.60	2.1	830	77		
8	1.80	2.4	838	79		
9	1.80	2.4	836	80		
10	1.70	2.2	843	80		
11	1.50	2	843	81		
12	1.30	1.7	843	81		
13	1.80	2.4	815	82		
14	2.00	2.6	814	84		
15	2.00	2.6	813	84		
16	2.00	2.6	815	85		
17	1.90	2.5	816	86		
18	2.00	2.6	824	85		
19	2.10	2.8	808	86		
20	2.70	3.6	816	87		
21	2.50	3.3	828	88		
22	2.80	3.7	833	88		
23	1.90	2.5	841	89		
24	1.80	2.4	845	90		
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Run	**Run 1**	
Meter Reading	*Start*	84.986
	End	236.625

Impinger Weights, final-initial			
1	688.6	475.7	212.9
2	663.7	650.3	13.5
3	793.3	748.9	44.5
4	956.7	911.5	45.3
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7			--
8			--
			316.1

Test Summary	
Sample Volume, ft^3	151.639
Water Collected, g	316.1
Meter Temperature, °F	81.5
Meter Pressure (ΔH), iwg	2.458
Velocity (ΔP rms), iwg	1.8506
Stack Pressure, iwg	0.85
Stack Temperature, °F	821.9
O_2/CO_2	--

	ΔP	ΔH	Stack	Meter	Static Press	Baro Press
Value	**1.7721**	**2.471**	**822.4**	**91.8**	**1.60**	**29.70**
Factor	1	1	1	1	1	1
Count	24	24	24	24	1	1
1	2.10	2.80	805	88	1.6	29.7
2	2.60	3.40	820	88		
3	2.50	3.30	830	88		
4	2.10	2.80	840	88		
5	2.10	2.80	840	89		
6	1.80	2.50	844	89		
7	1.80	2.50	818	90		
8	1.90	2.70	814	91		
9	1.90	2.70	818	91		
10	1.80	2.50	818	92		
11	1.90	2.70	823	92		
12	2.00	2.80	826	92		
13	1.70	2.40	832	92		
14	1.50	2.10	837	93		
15	1.50	2.10	836	94		
16	1.40	2.00	837	94		
17	1.30	1.80	838	94		
18	1.20	1.70	840	94		
19	1.90	2.70	813	94		
20	1.60	2.20	805	95		
21	1.70	2.40	803	95.5		
22	1.50	2.10	800	95.5		
23	1.60	2.20	802	95		
24	1.50	2.10	799	95		
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Run	**Run 2**	
Meter Reading	*Start*	237.430
	End	391.338

Impinger Weights			
1	713.5	476.0	237.5
2	597.4	586.6	10.8
3	749.2	722.6	26.6
4	897.4	853.3	44.1
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8			--
			319.0

Test Summary	
Sample Volume, ft^3	153.908
Water Collected, g	319.0
Meter Temperature, °F	91.8
Meter Pressure (ΔH), iwg	2.471
Velocity (ΔP rms), iwg	1.7721
Stack Pressure, iwg	1.60
Stack Temperature, °F	822.4
O_2/CO_2	--

	ΔP	ΔH	Stack	Meter	Static Press	Baro Press
Value	**1.6385**	**2.146**	**822.5**	**68.2**	**1.50**	**29.69**
Factor	1	1	1	1	1	1
Count	24	24	24	24	1	1
1	1.50	1.9	802	61	1.5	29.69
2	1.60	2.1	804	63		
3	1.60	2.1	804	63		
4	1.60	2.1	805	64		
5	1.60	2.1	802	64		
6	1.90	2.5	812	66		
7	1.70	2.2	835	66		
8	1.20	1.5	837	67		
9	1.20	1.5	841	67		
10	1.10	1.4	840	68		
11	1.00	1.3	840	68		
12	1.10	1.4	832	69		
13	1.70	2.2	808	69		
14	1.70	2.2	809	69		
15	1.70	2.2	811	70		
16	1.80	2.3	818	71		
17	2.00	2.6	821	71		
18	1.80	2.3	820	71		
19	2.30	3.0	811	71		
20	2.40	3.1	824	71		
21	2.20	2.8	835	73		
22	1.90	2.5	837	73		
23	1.60	2.1	846	74		
24	1.60	2.1	846	74		
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Run	**Run 3**	
Meter Reading	*Start*	391.640
	End	534.815

Impinger Weights

1	740.5	483.3	257.1
2	658.7	657.6	1.0
3	826.3	793.3	32.9
4	973.8	942.7	31.0
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8			--
			322.1

Test Summary

Sample Volume, ft^3	143.175
Water Collected, g	322.1
Meter Temperature, °F	68.2
Meter Pressure (ΔH), iwg	2.146
Velocity (ΔP rms), iwg	1.6385
Stack Pressure, iwg	1.50
Stack Temperature, °F	822.5
O_2/CO_2	--

	ΔP	ΔH	Stack	Meter	Static Press	Baro Press
Value	**1.7391**	**2.329**	**821.9**	**76.6**	**1.60**	**29.70**
Factor	1	1	1	1	1	1
Count	24	24	24	24	1	1
1	2.30	3.0	806	74	1.6	29.7
2	2.40	3.2	824	76		
3	2.50	3.3	822	77		
4	2.20	2.9	829	78		
5	1.50	2.0	842	78		
6	1.50	2.0	845	78		
7	1.80	2.4	813	78		
8	1.80	2.4	815	78		
9	1.80	2.4	816	78		
10	1.70	2.3	818	78		
11	1.80	2.4	820	48		
12	2.00	2.7	830	78		
13	1.50	2.0	829	78		
14	1.30	1.7	831	78		
15	1.30	1.7	837	78		
16	1.30	1.7	838	79		
17	1.50	2.0	841	79		
18	1.50	2.0	841	79		
19	1.60	2.1	812	79		
20	1.70	2.3	807	79		
21	1.60	2.1	803	79		
22	1.60	2.1	801	79		
23	1.90	2.5	805	79		
24	2.00	2.7	800	79		
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Run	**4**	
Meter Reading	*Start*	535.300
	End	684.355

Impinger Weights			
1	693.1	481.9	211.3
2	601.8	593.7	8.0
3	802.6	749.2	53.5
4	941.9	904.5	37.5
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8			--
			310.2

Test Summary	
Sample Volume, ft^3	149.055
Water Collected, g	310.2
Meter Temperature, °F	76.6
Meter Pressure (ΔH), iwg	2.329
Velocity (ΔP rms), iwg	1.7391
Stack Pressure, iwg	1.60
Stack Temperature, °F	821.9
O_2/CO_2	--

SOURCE TEST DATA SUMMARY

Client		GE
Unit / Location		GT 4
A (stack area), ft^2		63.620
T_{ref} (reference temperature), °F		68

	Test number	Run 1	Run 2	Run 3	Run 4	Average
	Date	7-2-22	7-3-22	7-3-22	7-3-22	--
	Start / Stop time	13:51-17:04	6:21-9:35	10:00-13:09	13:30-16:38	--
	F_d (fuel "F" factor @ 68°F), dscf/MMBtu	8612.20	8612.60	8612.60	8612.60	--
	F_d (fuel "F" factor @ T_{ref}), dscf/MMBtu	8612.20	8612.60	8612.60	8612.60	--
	Fuel Density, lb/scf (fuel std condition 60°F	0.0450	0.0450	0.0450	0.0450	--
	HHV (fuel higher heating value), Btu/scf	1037.76	1037.86	1037.86	1037.86	--
	Fuel Flow Rate, lb/sec	3.22	3.21	3.22	3.21	--
	Fuel Heat Input, MMBTU/hr	267.3	266.5	267.4	266.5	--
	Meter box number	CS7	CS7	CS7	CS7	--
	C_p (pitot coefficient), dimensionless	0.8400	0.8400	0.8400	0.8400	0.8400
	Y (meter calibration factor), dimensionless	0.986	0.986	0.986	0.986	0.986
	Θ (sample time), min	180.00	180.00	180.00	180.00	180.00
	Nozzle diameter, in	0.240	0.240	0.240	0.240	0.240
	P_{bar} (barometric pressure), in Hg	29.69	29.72	29.72	29.72	29.71
	V_m (meter box volume), acf	148.668	146.670	146.535	148.475	147.587
	V_{lc} (impinger liquid), g	332.9	329.4	341.0	330.1	333.4
	T_m (meter temperature), °F	79.5	61.5	70.1	78.0	72.3
	ΔH (meter pressure), in. H_2O	2.163	1.921	1.900	1.946	1.982
	ΔP (velocity head), in. H2O	1.7525	1.5643	1.6016	1.6402	1.6396
	P_g (static pressure), in. Hg	0.86	-0.80	-0.80	-0.80	-0.39
	T_s (stack temperature), °F	816.6	819.0	822.0	821.3	819.7
	$\%O_2$ (oxygen stack gas), % volume dry	15.32	15.35	15.42	15.36	15.36
	$\%CO_2$ (carbon dioxide stack gas), % volume dry	3.18	3.33	3.27	3.30	3.27
	m_f (F½ particulate matter catch - filter), g	0.0003	0.0003	0.0003	0.0003	0.0003
	m_a (F½ particulate matter catch - acetone rinse), g	0.0003	0.0005	0.0004	0.0004	0.0004
	m_{cpm} (B½ particulate matter catch - total condensible, blank corrected), g	0.0018	0.0029	0.0030	0.0030	0.0027
	m_n (total particulate matter catch), g	0.0024	0.0037	0.0037	0.0037	0.0034
1a	$V_{m(std)}$ (standard sample volume), dscf	143.122	146.132	143.614	143.407	144.069
1b	$V_{w(std)}$ (water vapor volume), scf	15.695	15.533	16.079	15.565	15.718
1c	B_{ws} (moisture fraction), non-dimensional	0.0988	0.0961	0.1007	0.0979	0.0984
	Moisture, %	9.88	9.61	10.07	9.79	9.84
1d	MW_{dry} (stack gas molecular weight), dry	29.122	29.147	29.140	29.142	29.138
1e	MW_{wet} (stack gas molecular weight), wet	28.023	28.076	28.018	28.051	28.042
1f	P_s (absolute stack pressure), in Hg	29.753	29.661	29.661	29.661	29.684
1g	V_s (stack gas velocity), ft/sec	117.439	111.125	112.689	113.939	113.798
	Q_{ds} (fuel heat input), dscfm	143,720	144,069	146,364	144,329	144,620
1k	I (isokinetic ratio), %	96.93	104.79	102.32	100.68	101.18
3a	G (F½ grain loading), gr/dscf	0.000065	0.000077	0.000075	0.000076	0.000073
3c	M (F½ mass emissions), lb/hr	0.08	0.10	0.09	0.09	0.09
3d	E (F½ mass emissions), lb/MMBtu	0.000298	0.000356	0.000352	0.000354	0.000340
3a	G (B½ grain loading), gr/dscf	0.000193	0.000310	0.000320	0.000325	0.000287
3c	M (B½ mass emissions), lb/hr	0.24	0.38	0.40	0.40	0.36
3d	E (B½ mass emissions), lb/MMBtu	0.000888	0.001436	0.001500	0.001505	0.001332
3a	G (total grain loading), gr/dscf	0.000258	0.000388	0.000395	0.000401	0.000361
3c	M (total mass emissions), lb/hr	0.32	0.48	0.50	0.50	0.45
3d	E (total mass emissions), lb/MMBtu	0.00119	0.00179	0.001852	0.001859	0.001672

	ΔP	ΔH	Stack	Meter	Static Press	Baro Press
Value	**1.7525**	**2.163**	**816.6**	**79.5**	**0.86**	**29.69**
Factor	1	1	1	1	1	1
Count	24	24	24	24	1	1
1	1.30	1.6	806	77	0.86	29.69
2	1.70	2.1	796	78		
3	1.80	2.2	798	78		
4	1.60	2	798	78		
5	1.60	2	799	79		
6	1.60	2	800	79		
7	1.50	1.8	822	80		
8	1.50	1.8	824	80		
9	1.70	2.1	828	80		
10	1.70	2.1	832	80		
11	1.50	1.8	835	80		
12	1.50	1.8	842	80		
13	1.70	2.1	809	80		
14	1.70	2.1	811	80		
15	1.70	2.1	808	80		
16	1.70	2.1	811	81		
17	1.70	2.1	808	81		
18	1.80	2.2	815	81		
19	2.20	2.7	821	80		
20	2.20	2.7	824	80		
21	2.50	3.1	820	80		
22	2.20	2.7	825	80		
23	2.00	2.4	833	80		
24	1.90	2.3	833	81		
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Run	**Run 1**	
Meter Reading	*Start*	381.632
	End	530.300

Impinger Weights, final-initial			
1	743.3	482.3	261.0
2	668.4	657.6	10.8
3	781.0	751.4	29.5
4	952.4	920.9	31.6
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8			--
			332.9

Test Summary	
Sample Volume, ft^3	148.668
Water Collected, g	332.9
Meter Temperature, °F	79.5
Meter Pressure (ΔH), iwg	2.163
Velocity (ΔP rms), iwg	1.7525
Stack Pressure, iwg	0.86
Stack Temperature, °F	816.6
O_2/CO_2	--

	ΔP	ΔH	Stack	Meter	Static Press	Baro Press
Value	**1.5643**	**1.921**	**819.0**	**61.5**	**-0.80**	**29.72**
Factor	1	1	1	1	1	1
Count	24	24	24	24	1	1
1	2.10	2.50	811	58	-0.8	29.72
2	2.10	2.50	816	58		
3	1.70	2.00	832	59		
4	1.50	1.80	833	59		
5	1.30	1.50	832	59		
6	1.20	1.40	833	60		
7	1.50	1.80	808	60		
8	1.50	1.80	811	60		
9	1.50	1.80	805	61		
10	1.50	1.80	806	61		
11	1.70	2.00	809	61		
12	1.70	2.00	808	61		
13	1.50	2.00	829	61		
14	1.50	2.00	829	62		
15	1.50	2.00	830	63		
16	1.50	2.00	829	63		
17	1.40	1.60	830	63		
18	1.40	1.60	832	64		
19	1.60	1.90	810	64		
20	1.60	1.90	811	65		
21	1.50	2.00	810	64.5		
22	1.50	2.00	811	65		
23	1.50	2.00	811	66		
24	1.90	2.20	820	66		
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Run	Run 2	
Meter Reading	*Start*	537.210
	End	683.880

Impinger Weights			
1	723.2	481.5	241.7
2	606.9	594.3	12.7
3	767.4	735.6	31.8
4	924.5	881.3	43.3
5			--
6			--
7			--
8			--
			329.4

Test Summary	
Sample Volume, ft^3	146.670
Water Collected, g	329.4
Meter Temperature, °F	61.5
Meter Pressure (ΔH), iwg	1.921
Velocity (ΔP rms), iwg	1.5643
Stack Pressure, iwg	-0.80
Stack Temperature, °F	819.0
O_2/CO_2	--

	ΔP	ΔH	Stack	Meter	Static Press	Baro Press
Value	**1.6016**	**1.900**	**822.0**	**70.1**	**-0.80**	**29.72**
Factor	1	1	1	1	1	1
Count	24	24	24	24	1	1
1	1.50	1.8	809	67	-0.8	29.72
2	1.50	1.8	808	68		
3	1.50	1.8	812	69		
4	1.70	2.0	815	69		
5	1.80	2.1	814	69		
6	1.80	2.1	814	70		
7	1.40	1.6	835	70		
8	1.50	1.8	834	70		
9	1.70	2.0	834	70		
10	1.80	2.1	834	70		
11	1.60	1.9	834	71		
12	1.40	1.6	833	70		
13	1.40	1.6	813	70		
14	1.50	1.8	810	72		
15	1.00	1.2	807	71		
16	1.20	1.4	806	70		
17	1.20	1.4	815	70		
18	1.50	1.8	812	70		
19	1.70	2.0	815	71		
20	2.00	2.3	822	71		
21	2.60	3.0	832	73		
22	2.10	2.5	837	73		
23	1.80	2.1	841	73		
24	1.60	1.9	842	73		
25						
26						
27						
28						
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44						
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46						
47						
48						

Run	**Run 3**	
Meter Reading	*Start*	684.280
	End	830.815

Impinger Weights			
1	741.9	481.7	260.2
2	658.1	657.9	0.2
3	800.9	761.0	39.9
4	995.2	954.5	40.7
5			--
6			--
7			--
8			--
			341.0

Test Summary	
Sample Volume, ft^3	146.535
Water Collected, g	341.0
Meter Temperature, °F	70.1
Meter Pressure (ΔH), iwg	1.900
Velocity (ΔP rms), iwg	1.6016
Stack Pressure, iwg	-0.80
Stack Temperature, °F	822.0
O_2/CO_2	--

	ΔP	ΔH	Stack	Meter	Static Press	Baro Press
Value	**1.6402**	**1.946**	**821.3**	**78.0**	**-0.80**	**29.72**
Factor	1	1	1	1	1	1
Count	24	24	24	24	1	1
1	2.40	2.8	819	75	-0.8	29.72
2	2.20	2.6	829	75		
3	1.90	2.2	833	75		
4	2.00	2.3	840	75		
5	1.60	1.9	841	75		
6	1.40	1.6	825	76		
7	1.00	1.2	817	77		
8	1.20	1.4	808	78		
9	1.60	1.9	809	78		
10	1.50	1.8	810	78		
11	1.90	2.2	813	78		
12	2.10	2.5	813	79		
13	1.50	1.8	837	78		
14	1.40	1.6	839	79		
15	1.40	1.6	838	79		
16	1.60	1.9	836	80		
17	1.70	2.0	830	80		
18	1.70	2.0	831	80		
19	1.50	1.8	806	80		
20	1.70	2.0	806	80		
21	1.50	1.8	807	80		
22	1.60	1.9	809	80		
23	1.60	1.9	808	81		
24	1.70	2.0	806	81		
25						
26						
27						
28						
29						
30						
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46						
47						
48						

Run	**4**	
Meter Reading	*Start*	831.085
	End	979.56

Impinger Weights			
1	776.3	482.3	294.0
2	594.0	593.9	0.1
3	768.7	767.4	1.3
4	933.8	899.0	34.8
5			--
6			--
7			--
8			--
			330.1

Test Summary	
Sample Volume, ft^3	148.475
Water Collected, g	330.1
Meter Temperature, °F	78.0
Meter Pressure (ΔH), iwg	1.946
Velocity (ΔP rms), iwg	1.6402
Stack Pressure, iwg	-0.80
Stack Temperature, °F	821.3
O_2/CO_2	--

Appendix A.5
Example Calculations

Sample Calculations GT3 Particulate Run 1

Stack Pressure Absolute

$$P_s = P_{bar} + \frac{P_g}{13.6}$$

P_s = 29.76
P_{bar} = 29.70
P_g = 0.85

Where:

P_s = stack pressure absolute (in. Hg)
P_{bar} = barometric pressure (in. Hg)
P_g = static pressure (in. H_2O)
13.6 = conversion factor (in. H_2O/in. Hg)

Volume of Dry Gas Collected Corrected to Standard Conditions

$$V_{m(std)} = \frac{17.64(V_m)(Y_d)\left(P_{bar} + \frac{\Delta H}{13.6}\right)}{(T_m + 460)}$$

$V_{m(std)}$ = 147.33 P_{bar} = 29.70
V_m = 151.64 ΔH = 2.458
Y_d = 0.998 T_m = 2.458

Where:

$V_{m(std)}$ = volume of gas collected at standard conditions (scf)
V_m = volume of gas sampled at meter conditions (ft^3)
Y_d = gas meter correction factor (dimensionless)
P_{bar} = barometric pressure (in. Hg)
ΔH = average sample pressure (in. H_2O)
T_m = average gas meter temperature (^oF)
13.6 = conversion factor (in. H_2O/in. Hg)
17.64 = ratio of standard temperature over standard pressure (^oR/in. Hg)
460 = conversion (^oF to ^oR)

Volume of Water Vapor Collected Corrected to Standard Conditions

$$V_{w(std)} = 0.04715 \times V_{lc}$$

$V_{w(std)}$ = 14.90
V_{lc} = 316.1

Where:

$V_{w(std)}$ = volume of water vapor at standard conditions (scf)
V_{lc} = weight of liquid collected (g)
0.04715 = volume occupied by one gram of water at standard conditions (ft^3/g)

Percent Moisture[1]

$$B_{WS} = 100 \times \left[\frac{V_{w(std)}}{\left(V_{m(std)} + V_{w(std)}\right)}\right]$$

B_{ws} = 9.19
$V_{w(std)}$ = 14.90
$V_{m(std)}$ = 147.33

Where:

B_{ws} = moisture content of the gas stream (%)
$V_{w(std)}$ = volume of gas collected at standard conditions (scf)
$V_{m(std)}$ = volume of water vapor at standard conditions (scf)
100 = conversion factor (%)

[1]The moisture saturation point was used when it is exceeded by the measured moisture content

Molecular Weight of Dry Gas Stream[2]

$$M_d = \left(44 \times \frac{CO_2}{100}\right) + \left(32 \times \frac{O_2}{100}\right) + \left(28 \times \frac{N_2}{100}\right)$$

M_d	= 29.13	O_2	= 15.78
CO_2	= 3.11	N_2	= 81.11

Where:

M_d	= molecular weight of the dry gas stream (lb/lb-mole)
CO_2	= carbon dioxide content of the gas stream (%)
44	= molecular weight of carbon dioxide (lb/lb-mole)
O_2	= oxygen content of the gas stream (%)
32	= molecular weight of oxygen (%)
N_2	= nitrogen content of the gas stream (%)
28	= molecular weight of nitrogen (lb/lb-mole)

Molecular Weight of Wet Gas Stream

$$\mathrm{M_s} = \left(\mathrm{M_d} \times \left(1 - \frac{\mathrm{B_{WS}}}{100}\right)\right) + \left(18 \times \frac{\mathrm{B_{WS}}}{100}\right)$$

M_s	= 28.11
M_d	= 29.13
B_{ws}	= 9.19

Where:

M_s	= molecular weight of the wet gas stream (lb/lb-mole)
M_d	= molecular weight of the dry gas stream (lb/lb-mole)
B_{ws}	= moisture content of the gas stream (%)
18	= molecular weight of water (lb/lb-mole)
100	= conversion factor (%)

[2]The remainder of the gas stream after CO_2 and O_2 have been subtracted is assumed to be nitrogen.

Velocity of Gas Stream

$$V_s = 85.49(C_p)\left(\sqrt{\overline{\Delta P}}\right)\sqrt{\frac{(T_s + 460)}{(M_s)(P_s)}}$$

V_s	= 120.74	T_s	= 822
C_p	= 0.84	M_s	= 28.11
ΔP	= 1.8506	P_s	= 29.76

Where:

V_s	= average velocity of the gas stream (ft/sec)
C_p	= pitot tube coefficient (dimensionless)
ΔP	= average square root of velocity pressures squared (in. H_2O)
T_s	= average stack temperature (^oF)
M_s	= molecular weight of the wet gas stream (lb/lb-mole)
P_s	= stack pressure absolute (in. Hg)
85.49	= pitot tube constant (ft/sec)([(lb/lb-mole)(in. Hg)]/[(^oR)(in. H_2O)]) $^{1/2}$
460	= conversion (^oF to ^oR)

Volumetric Flow of Gas Stream

$$Q_{ds} = \frac{(HI)(F_d)(20.9)}{(20.9 - O_2)(60)}$$

Q_{ds}	= 162,899	F_d	= 8611.8
HI	= 278	O_2	= 15.78

Where:

Q_{ds}	= volumetric flow rate of the gas stream (dscfm)
HI	= fuel heat input (MMBtu/hr)
F_d	= oxygen based fuel factor (dscf/MMBtu)
O_2	= conversion factor (sec/min)
60	= conversion factor (min/hr)
20.9	= oxygen content of ambient air (%)

Area of Nozzle

$$A_n = \pi \times \left(\frac{d_n}{2 \times 12}\right)^2$$

A_n = 0.0003142
d_n = 0.24

Where:
A_n = area of nozzle (ft^2)
d_n = diameter of nozzle (in)
12 = conversion factor (in/ft)
2 = conversion factor (diameter to radius)

Percent Isokinetic

$$I = \frac{0.0945(T_s + 460)\left(V_{m(std)}\right)}{(P_s)(V_s)(A_n)(\Theta)\left(1 - \frac{B_{ws}}{100}\right)}$$

I	= 96.68	V_s	= 120.735
T_s	= 821.9	A_n	= 0.000314
$V_{m(std)}$	= 147.33	Θ	= 180
P_s	= 29.76	B_{ws}	= 9.19

Where:
I = percent isokinetic (%)
T_s = average stack temperature (^oF)
$V_{m(std)}$ = volume of gas collected at standard conditions (scf)
P_s = stack pressure absolute (in. Hg)
V_s = average velocity of the gas stream (ft/sec)
A_n = cross sectional area of nozzle (ft^2)
Θ = sample time (min)
B_{ws} = moisture content of the gas stream (%)
0.0945 = constant K_4 (((in.Hg)(min))/((^oR)(sec)))
100 = conversion factor (%)

Mass of Particulate Collected

$$M_n = m_f + m_a + m_{cpm}$$

M_n	= 0.0044	m_a	= 0.0006
m_f	= 0.0003	m_{cpm}	= 0.0036

Where:

M_n	= total particulate matter catch (g)
m_f	= mass in front half filter (g)
m_a	= mass in acetone wash (g)
m_{cpm}	= mass in total condensible particulate catch (g)

Particulate Concentration, grains/dscf

$$C_{gr/dscf} = \frac{(M_n)(15.43)}{V_{m,std}}$$

$C_{gr/dscf}$	= 0.00046
M_n	= 0.0044
$V_{m,std}$	= 147.325

Where:

$C_{gr/dscf}$	= particulate concentration (grains/dscf)
M_n	= particulate catch (g)
$V_{m,std}$	= volume of gas collected at standard temperature and pressure (scf)
15.43	= conversion factor (grains/g)

Particulate Emission Rate, lb/MMBtu

$$E_{lb/mmBTU} = \frac{(M_n)(F_d)(20.9)}{(453.6)(V_{m,std})(20.9 - \%O_2)}$$

$E_{lb/mmBTU}$	= 0.0023	F_d	= 8,611.80
M_n	= 0.0044	$V_{m,std}$	= 147.325
$\%O_2$	= 15.78		

Where:

$E_{lb/mmBTU}$	= particulate emission rate (lb/MMBtu)
M_n	= particulate catch (g)
F_d	= Oxygen based fuel factor (scf/MMBtu)
$V_{m,std}$	= volume of gas collected at standard temperature and pressure (scf)
20.9	= oxygen content of ambient air (%)
453.6	= conversion factor (g/lb)

Particulate Emission Rate, lb/hr

$$E_{lb/hr} = \frac{(M_n)(Q_{dstd})(60)}{(V_{m,std})(453.6)}$$

$E_{lb/hr}$	= 0.64	Q_{dstd}	= 162,899
M_n	= 0.0044	$V_{m,std}$	= 147.325

Where:

$E_{lb/hr}$	= particulate emission rate (lb/hr)
M_n	= particulate catch (g)
Q_{dstd}	= volumetric flow rate of the gas stream at standard conditions, on a dry basis (dscfm)
$V_{m,std}$	= volume of dry gas collected at standard temperature and pressure (scf)
60	= conversion factor (min/hr)
453.6	= conversion factor (g/lb)

Sample Calculations GT3 NOx Run 1

NOx Concentration, Corrected for Analyzer Drift

$$C_d = \left(C - \left(\frac{c_{0i} + c_{0f}}{2}\right)\right)\left(\frac{c_a}{\left(\frac{c_{si} + c_{sf}}{2}\right) - \left(\frac{c_{0i} + c_{0f}}{2}\right)}\right)$$

C_d	= 1.69	C_a	= 3.14
C	= 1.69	C_{si}	= 3.12
C_{0i}	= 0.00	C_{sf}	= 3.12
C_{0f}	= 0.02		

Where:

C_d	= NOx concentration, corrected for analyzer drift (ppmdv)
C	= NOx concentration (ppmdv)
C_{0i}	= initial zero calibration value (ppm)
C_{0f}	= final zero calibration value (ppm)
C_a	= actual span gas value (ppm)
C_{si}	= initial span calibration value (ppm)
C_{sf}	= final span calibration value (ppm)

NOx Concentration Corrected for Oxygen

$$C_{15\%O_2} = C_d \frac{(20.9 - 15)}{(20.9 - O_2)}$$

$C_{15\%O2}$	= 1.91
C_d	= 1.69
O_2	= 15.66

Where:

$C_{15\%O2}$	= NOx concentration corrected for oxygen (ppmdv@15%)
C_d	= NOx concentration, corrected for analyzer drift (ppmdv)
O_2	= oxygen content of the gas stream (%)
20.9	= oxygen content of ambient air (%)
15	= oxygen content for correction (%)

NOx Emission Rate, lb/MMBtu

$$E_{NOx} = \frac{(C_{NOx})(MW)(Fd)(20.9)}{(385.3 \times 10^6)(20.9 - O_2)}$$

E_{NOx}	= 0.007	F_d	= 8,611.8
C_{NOx}	= 1.69	O_2	= 15.66
MW	= 46.01		

Where:

E_{NOx}	= NOx emission rate (lb/MMBtu)
C_{NOx}	= NOx concentration, corrected for drift (ppmdv)
MW	= molecular weight of propane (lb/lb-mole)
F_d	= oxygen based fuel factor (dscf/MMBtu)
O_2	= oxygen content of the gas stream (%)
20.9	= oxygen content of ambient air (%)
385.3	= volume occupied by one pound of gas at standard conditions (dscf/lbmole)
10^6	= conversion factor (ppm)

NOx Emission Rate, lb/hr

$$E_{lb/hr} = \left(E_{lb/MMBtu}\right)(HI)$$

$E_{lb/hr}$	= 1.94
$E_{lb/MMBtu}$	= 0.007
HI	= 279.25

Where:

$E_{lb/hr}$	= NOx emission rate (lb/hr)
$E_{lb/MMBtu}$	= NOx emission rate (lb/MMBtu)
HI	= Fuel heat input (MMBtu/hr)

Sample Calculations GT3 SO_2 7/1/2022 Grab

SO_2 Emission, lb/hr

$$E = \frac{\left(C_{gr/_{100\ SCF}}\right)(Q)(64.06)}{(7000)(100)(32.07)}$$

E	= 0.08
$C_{gr/100SCF}$	= 0.10
Q	= 267,795

Where:

E	= SO_2 Emission Rate (lb/hr)
$C_{gr/100SCF}$	= Fuel Sulfur Concentration (gr/100 SCF)
Q	= Fuel Flow Rate (SCFH)
64.06	= Molecular Weight Sulfur Dioxide (lb/lb-mole)
7000	= Conversion Factor (gr/lb)
100	= Conversion Factor (scf/100 scf)
32.07	= Molecular Weight Sulfur (lb/lb-mole)

SO_2 Concentration, ppm

$$\mathrm{C} = \frac{(E)(10^6)(385.3)}{(64.06)(Q_s)(60)}$$

C	= 0.050
E	= 0.079
Q_s	= 159,169

Where:

C	= SO_2 Concentration (ppm)
E	= SO_2 Emission Rate (lb/hr)
Q_s	= Stack Flow Rate (dscfm)
10^6	= Conversion Factor (fraction to ppm)
385.3	= volume occupied by one pound of gas at standard conditions (dscf/lbmole)
64.06	= Molecular Weight Sulfur Dioxide (lb/lb-mole)
60	= Conversion Factor (min/hr)

Appendix B
Facility Process Data

Average Values Report
Generated: 7/26/2022 13:28

Company: Roseville Energy Park

Period Start: 7/1/2022 08:19

Plant: 5120 Phillip Rd

Period End: 7/1/2022 09:25

City/St: Roseville, CA 95747

Validation Type: 1/1 min
Source: CT005_Stack, CT006_Stack
Averaging Period: 1 min
Type: Block Avg

Period Start:	Average C5gasflow kscfh	Average C5hhv btu/sc	Average C5heat_in mmbtuh	Average C5nh3inj lb/hr	Average C5waterinj gpm	Average C5unitload MW	Average C6gasflow kscfh	Average C6hhv btu/sc	Average C6heat_in mmbtuh	Average C6nh3inj lb/hr	Average C6waterinj gpm	Average C6unitload MW
07/01/2022 08:19	267.2	1018.0	272.01	69.25	27.99	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:20	267.2	1018.0	272.01	69.08	27.97	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:21	267.2	1018.0	272.01	68.58	27.96	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:22	267.2	1018.0	272.01	68.59	27.91	27.18	-0.6	1000.0	0.00	-0.15	-0.04	-0.03
07/01/2022 08:23	267.3	1018.0	272.11	68.09	27.97	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:24	267.3	1018.0	272.11	67.42	27.91	27.20	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:25	267.3	1018.0	272.11	67.42	27.96	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:26	267.3	1018.0	272.11	67.42	27.97	27.20	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:27	267.2	1018.0	272.01	67.92	27.91	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:28	267.1	1018.0	271.91	67.75	27.97	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:29	267.4	1018.0	272.21	68.25	27.94	27.18	-0.6	1000.0	0.00	-0.15	-0.04	-0.03
07/01/2022 08:30	267.2	1018.0	272.01	68.58	27.94	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:31	267.3	1018.0	272.11	69.59	28.00	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:32	267.3	1018.0	272.11	68.92	28.06	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:33	267.3	1018.0	272.11	68.42	27.99	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:34	267.2	1018.0	272.01	69.75	28.06	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:35	267.2	1018.0	272.01	68.58	28.09	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 08:36	267.3	1018.0	272.11	68.92	28.14	27.18	-0.7	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:37	267.3	1018.0	272.11	68.92	28.14	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:38	267.3	1018.0	272.11	69.25	28.14	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:39	267.5	1018.0	272.32	68.75	28.19	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:40	267.4	1018.0	272.21	68.42	28.17	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:41	267.4	1018.0	272.21	68.09	28.11	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 08:42	267.5	1018.0	272.32	68.09	28.09	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:43	267.5	1018.0	272.32	68.08	28.12	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:44	267.4	1018.0	272.21	68.09	28.04	27.17	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:45	267.6	1018.0	272.42	68.09	28.04	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:46	267.5	1018.0	272.32	68.08	28.04	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:47	267.6	1018.0	272.42	69.25	28.11	27.21	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 08:48	267.5	1018.0	272.32	69.25	28.04	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:49	267.4	1018.0	272.21	69.92	28.02	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:50	267.5	1018.0	272.32	69.75	28.01	27.20	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 08:51	267.4	1018.0	272.21	70.92	28.06	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 08:52	267.3	1018.0	272.11	70.75	28.04	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:53	267.2	1018.0	272.01	70.26	28.11	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:54	267.4	1018.0	272.21	70.59	28.02	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 08:55	267.4	1018.0	272.21	70.92	28.07	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:56	267.5	1018.0	272.32	70.59	28.19	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:57	267.3	1018.0	272.11	70.59	28.09	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:58	267.2	1018.0	272.01	70.59	28.21	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:59	267.3	1018.0	272.11	70.92	28.14	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:00	267.4	1018.0	272.21	70.59	28.17	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:01	267.4	1018.0	272.21	70.59	28.14	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 09:02	267.5	1018.0	272.32	69.92	28.17	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:03	267.6	1018.0	272.42	70.09	28.16	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 09:04	267.4	1018.0	272.21	70.25	28.14	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:05	267.4	1018.0	272.21	69.75	28.06	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03

Period Start:	Average C5gasflow kscfh	Average C5hhv btu/sc	Average C5heat_in mmbtuh	Average C5nh3inj lb/hr	Average C5waterinj gpm	Average C5unitload MW	Average C6gasflow kscfh	Average C6hhv btu/sc	Average C6heat_in mmbtuh	Average C6nh3inj lb/hr	Average C6waterinj gpm	Average C6unitload MW
07/01/2022 09:06	267.4	1018.0	272.21	69.58	28.04	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 09:07	267.4	1018.0	272.21	69.76	28.01	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:08	267.4	1018.0	272.21	70.09	27.96	27.19	-0.7	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:09	267.4	1018.0	272.21	70.59	27.94	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 09:10	267.6	1018.0	272.42	71.58	28.00	27.19	-0.7	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 09:11	267.4	1018.0	272.21	71.42	28.02	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:12	267.5	1018.0	272.32	71.25	28.01	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:13	267.4	1018.0	272.21	72.09	28.07	27.19	-0.7	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:14	267.4	1018.0	272.21	72.08	28.14	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:15	267.4	1018.0	272.21	72.43	28.07	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 09:16	267.5	1018.0	272.32	71.92	28.16	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:17	267.6	1018.0	272.42	71.76	28.21	27.18	-0.7	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:18	267.6	1018.0	272.42	71.09	28.24	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:19	267.5	1018.0	272.32	70.42	28.21	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:20	267.5	1018.0	272.32	69.75	28.26	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:21	267.7	1018.0	272.52	69.91	28.24	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 09:22	267.7	1018.0	272.52	69.08	28.31	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:23	267.7	1018.0	272.52	69.08	28.21	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:24	267.6	1018.0	272.42	69.08	28.24	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 09:25	267.8	1018.0	272.62	69.08	28.32	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
Final Average*	**267.4**	**1018.0**	**272.22**	**69.61**	**28.08**	**27.19**	**-0.6**	**1000.0**	**0.00**	**-0.15**	**-0.05**	**-0.03**
Maximum*	**267.8**	**1018.0**	**272.62**	**72.43**	**28.32**	**27.21**	**0.0**	**1000.0**	**0.00**	**0.00**	**0.00**	**0.00**
	07/01/2022 9:25	07/01/2022 9:25	07/01/2022 9:25	07/01/2022 9:15	07/01/2022 9:25	07/01/2022 8:47		07/01/2022 9:25				
Minimum*	**267.1**	**1018.0**	**271.91**	**67.42**	**27.91**	**27.17**	**-0.7**	**1000.0**	**0.00**	**-0.16**	**-0.05**	**-0.03**
	07/01/2022 8:28	07/01/2022 9:25	07/01/2022 8:28	07/01/2022 8:26	07/01/2022 8:27	07/01/2022 8:44	07/01/2022 9:17	07/01/2022 9:25	07/01/2022 9:25	07/01/2022 9:25	07/01/2022 9:25	07/01/2022 9:25

* Does not include Invalid Averaging Periods ("N/A")

lb/sec 3.34 Fuel Density 0.0449

Average Values Report
Generated: 7/26/2022 13:29

Company: Roseville Energy Park

Period Start: 7/1/2022 09:43

Plant: 5120 Phillip Rd

Period End: 7/1/2022 10:43

City/St: Roseville, CA 95747

Validation Type: 1/1 min
Source: CT005_Stack, CT006_Stack
Averaging Period: 1 min
Type: Block Avg

Period Start:	Average C5gasflow kscfh	Average C5hhv btu/sc	Average C5heat_in mmbtuh	Average C5nh3inj lb/hr	Average C5waterinj gpm	Average C5unitload MW	Average C6gasflow kscfh	Average C6hhv btu/sc	Average C6heat_in mmbtuh	Average C6nh3inj lb/hr	Average C6waterinj gpm	Average C6unitload MW
07/01/2022 09:43	267.8	1018.0	272.62	70.75	28.34	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 09:44	267.6	1018.0	272.42	70.59	28.34	27.20	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:45	267.9	1018.0	272.72	70.25	28.36	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 09:46	267.8	1018.0	272.62	70.08	28.30	27.19	-0.7	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:47	267.7	1018.0	272.52	70.42	28.22	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:48	267.8	1018.0	272.62	69.58	28.29	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:49	267.8	1018.0	272.62	69.75	28.24	27.19	-0.6	1000.0	0.00	-0.17	-0.05	-0.03
07/01/2022 09:50	267.8	1018.0	272.62	70.25	28.36	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:51	267.8	1018.0	272.62	70.08	28.34	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:52	267.7	1018.0	272.52	70.42	28.32	27.19	-0.7	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:53	267.8	1018.0	272.62	69.92	28.42	27.20	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 09:54	267.9	1018.0	272.72	70.42	28.29	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 09:55	267.8	1018.0	272.62	69.75	28.32	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:56	267.6	1018.0	272.42	70.59	28.16	27.20	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 09:57	267.8	1018.0	272.62	70.25	28.27	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:58	268.0	1018.0	272.82	70.92	28.32	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 09:59	267.9	1018.0	272.72	71.09	28.22	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:00	267.9	1018.0	272.72	71.93	28.27	27.20	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:01	267.6	1018.0	272.42	71.75	28.24	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:02	267.7	1018.0	272.52	72.60	28.21	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:03	267.9	1018.0	272.72	72.93	28.27	27.20	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:04	267.9	1018.0	272.72	71.75	28.26	27.20	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:05	267.9	1018.0	272.72	71.92	28.17	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 10:06	267.9	1018.0	272.72	70.92	28.26	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:07	267.9	1018.0	272.72	70.09	28.19	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 10:08	267.8	1018.0	272.62	70.42	28.32	27.18	-0.7	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:09	268.1	1018.0	272.93	69.92	28.42	27.19	-0.7	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:10	268.1	1018.0	272.93	70.42	28.34	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 10:11	267.8	1018.0	272.62	70.08	28.39	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 10:12	267.9	1018.0	272.72	71.09	28.42	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 10:13	267.9	1018.0	272.72	71.09	28.46	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:14	268.2	1018.0	273.03	71.09	28.49	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:15	267.9	1018.0	272.72	70.75	28.49	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:16	267.9	1018.0	272.72	71.09	28.44	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:17	268.2	1018.0	273.03	69.75	28.44	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:18	268.0	1018.0	272.82	69.91	28.31	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:19	267.8	1018.0	272.62	69.75	28.36	27.19	-0.7	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:20	267.9	1018.0	272.72	70.42	28.27	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:21	268.0	1018.0	272.82	70.08	28.22	27.17	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 10:22	267.9	1018.0	272.72	70.59	28.32	27.20	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:23	267.8	1018.0	272.62	71.09	28.31	27.18	-0.7	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 10:24	267.9	1018.0	272.72	71.09	28.19	27.19	-0.7	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 10:25	267.8	1018.0	272.62	71.42	28.36	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:26	267.7	1018.0	272.52	71.42	28.31	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:27	268.1	1018.0	272.93	71.09	28.29	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:28	268.2	1018.0	273.03	71.09	28.39	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:29	268.2	1018.0	273.03	70.76	28.51	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03

Period Start:	Average C5gasflow kscfh	Average C5hhv btu/sc	Average C5heat_in mmbtuh	Average C5nh3inj lb/hr	Average C5waterinj gpm	Average C5unitload MW	Average C6gasflow kscfh	Average C6hhv btu/sc	Average C6heat_in mmbtuh	Average C6nh3inj lb/hr	Average C6waterinj gpm	Average C6unitload MW
07/01/2022 10:30	268.2	1018.0	273.03	70.25	28.46	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 10:31	268.1	1018.0	272.93	69.75	28.36	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:32	268.3	1018.0	273.13	70.08	28.36	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:33	268.2	1018.0	273.03	71.09	28.47	27.19	-0.7	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:34	268.2	1018.0	273.03	71.42	28.56	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:35	268.1	1018.0	272.93	72.09	28.56	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 10:36	268.2	1018.0	273.03	72.08	28.46	27.18	-0.7	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 10:37	268.3	1018.0	273.13	73.10	28.54	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:38	268.0	1018.0	272.82	73.10	28.41	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:39	268.1	1018.0	272.93	72.75	28.49	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:40	268.4	1018.0	273.23	72.93	28.46	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:41	268.0	1018.0	272.82	72.25	28.41	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:42	267.9	1018.0	272.72	72.25	28.34	27.20	-0.7	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 10:43	267.9	1018.0	272.72	72.09	28.37	27.19	-0.7	1000.0	0.00	-0.15	-0.05	-0.03
Final Average*	**267.9**	**1018.0**	**272.76**	**70.96**	**28.35**	**27.19**	**-0.6**	**1000.0**	**0.00**	**-0.16**	**-0.05**	**-0.03**
Maximum*	**268.4**	**1018.0**	**273.23**	**73.10**	**28.56**	**27.20**	**0.0**	**1000.0**	**0.00**	**0.00**	**0.00**	**0.00**
	07/01/2022 10:40	07/01/2022 10:43	07/01/2022 10:40	07/01/2022 10:38	07/01/2022 10:35	07/01/2022 10:42		07/01/2022 10:43				
Minimum*	**267.6**	**1018.0**	**272.42**	**69.58**	**28.16**	**27.17**	**-0.7**	**1000.0**	**0.00**	**-0.17**	**-0.05**	**-0.03**
	07/01/2022 10:01	07/01/2022 10:43	07/01/2022 10:01	07/01/2022 9:48	07/01/2022 9:56	07/01/2022 10:21	07/01/2022 10:43	07/01/2022 10:43	07/01/2022 10:43	07/01/2022 9:49	07/01/2022 10:43	07/01/2022 10:43

* Does not include Invalid Averaging Periods ("N/A")

lb/sec 3.34 Fuel Density 0.0449

Average Values Report
Generated: 7/26/2022 13:30

Company: Roseville Energy Park

Period Start: 7/1/2022 11:02

Plant: 5120 Phillip Rd

Period End: 7/1/2022 12:02

City/St: Roseville, CA 95747

Validation Type: 1/1 min
Source: CT005_Stack, CT006_Stack
Averaging Period: 1 min
Type: Block Avg

Period Start:	Average C5gasflow kscfh	Average C5hhv btu/sc	Average C5heat_in mmbtuh	Average C5nh3inj lb/hr	Average C5waterinj gpm	Average C5unitload MW	Average C6gasflow kscfh	Average C6hhv btu/sc	Average C6heat_in mmbtuh	Average C6nh3inj lb/hr	Average C6waterinj gpm	Average C6unitload MW
07/01/2022 11:02	268.3	1018.0	273.13	70.08	28.42	27.19	-0.7	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 11:03	268.5	1018.0	273.33	70.25	28.42	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 11:04	268.4	1018.0	273.23	71.09	28.46	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 11:05	268.5	1018.0	273.33	71.92	28.57	27.20	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 11:06	268.5	1018.0	273.33	72.58	28.56	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:07	268.7	1018.0	273.54	73.10	28.56	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:08	268.5	1018.0	273.33	73.10	28.59	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:09	268.6	1018.0	273.43	72.76	28.82	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:10	268.6	1018.0	273.43	72.08	28.61	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:11	268.5	1018.0	273.33	71.25	28.67	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:12	268.5	1018.0	273.33	70.76	28.76	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:13	268.6	1018.0	273.43	71.09	28.77	27.20	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 11:14	268.7	1018.0	273.54	70.76	28.64	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:15	268.7	1018.0	273.54	71.09	28.49	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 11:16	268.8	1018.0	273.64	71.09	28.62	27.20	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:17	268.5	1018.0	273.33	71.42	28.52	27.18	-0.7	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 11:18	268.5	1018.0	273.33	72.09	28.62	27.20	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 11:19	268.6	1018.0	273.43	72.93	28.42	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 11:20	268.6	1018.0	273.43	73.10	28.49	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 11:21	268.8	1018.0	273.64	73.43	28.57	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 11:22	268.7	1018.0	273.54	74.09	28.57	27.24	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:23	268.6	1018.0	273.43	74.09	28.49	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:24	268.6	1018.0	273.43	73.59	28.39	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 11:25	268.6	1018.0	273.43	73.93	28.44	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 11:26	268.8	1018.0	273.64	74.09	28.67	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:27	268.7	1018.0	273.54	74.09	28.51	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 11:28	268.9	1018.0	273.74	74.09	28.51	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 11:29	268.8	1018.0	273.64	74.09	28.76	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 11:30	269.0	1018.0	273.84	74.43	28.66	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:31	268.9	1018.0	273.74	75.10	28.84	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 11:32	268.5	1018.0	273.33	75.10	28.74	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:33	268.9	1018.0	273.74	75.10	28.76	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:34	268.8	1018.0	273.64	75.10	28.82	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 11:35	269.0	1018.0	273.84	74.60	28.82	27.19	-0.6	1000.0	0.00	-0.15	-0.04	-0.03
07/01/2022 11:36	269.1	1018.0	273.94	73.59	28.97	27.20	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:37	268.9	1018.0	273.74	72.59	28.86	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:38	268.9	1018.0	273.74	72.08	28.84	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:39	268.9	1018.0	273.74	70.92	28.84	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 11:40	269.0	1018.0	273.84	71.09	28.79	27.19	-0.7	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:41	268.9	1018.0	273.74	71.25	28.82	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 11:42	269.3	1018.0	274.15	71.92	28.84	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 11:43	268.9	1018.0	273.74	72.08	28.87	27.20	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:44	268.9	1018.0	273.74	72.08	28.81	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:45	268.8	1018.0	273.64	72.76	28.79	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:46	269.0	1018.0	273.84	73.10	28.82	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 11:47	269.0	1018.0	273.84	73.10	28.77	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:48	268.9	1018.0	273.74	73.10	28.72	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03

Period Start:	Average C5gasflow kscfh	Average C5hhv btu/sc	Average C5heat_in mmbtuh	Average C5nh3inj lb/hr	Average C5waterinj gpm	Average C5unitload MW	Average C6gasflow kscfh	Average C6hhv btu/sc	Average C6heat_in mmbtuh	Average C6nh3inj lb/hr	Average C6waterinj gpm	Average C6unitload MW
07/01/2022 11:49	269.0	1018.0	273.84	73.10	28.67	27.18	-0.6	1000.0	0.00	-0.15	-0.04	-0.03
07/01/2022 11:50	268.8	1018.0	273.64	74.26	28.69	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 11:51	268.9	1018.0	273.74	74.09	28.81	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:52	269.0	1018.0	273.84	74.09	28.74	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:53	269.0	1018.0	273.84	74.09	28.82	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 11:54	269.0	1018.0	273.84	74.09	28.79	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:55	268.9	1018.0	273.74	74.10	28.86	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:56	269.1	1018.0	273.94	74.09	28.96	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:57	269.1	1018.0	273.94	74.10	28.87	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:58	269.0	1018.0	273.84	74.10	28.87	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:59	269.1	1018.0	273.94	74.09	28.77	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 12:00	269.1	1018.0	273.94	74.10	28.89	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 12:01	269.1	1018.0	273.94	74.10	28.79	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 12:02	268.9	1018.0	273.74	74.10	28.77	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
Final Average*	**268.8**	**1018.0**	**273.64**	**73.01**	**28.70**	**27.19**	**-0.6**	**1000.0**	**0.00**	**-0.15**	**-0.05**	**-0.03**
Maximum*	**269.3**	**1018.0**	**274.15**	**75.10**	**28.97**	**27.24**	**0.0**	**1000.0**	**0.00**	**0.00**	**0.00**	**0.00**
	07/01/2022 11:42	07/01/2022 12:02	07/01/2022 11:42	07/01/2022 11:34	07/01/2022 11:36	07/01/2022 11:22		07/01/2022 12:02				
Minimum*	**268.3**	**1018.0**	**273.13**	**70.08**	**28.39**	**27.18**	**-0.7**	**1000.0**	**0.00**	**-0.16**	**-0.05**	**-0.03**
	07/01/2022 11:02	07/01/2022 12:02	07/01/2022 11:02	07/01/2022 11:02	07/01/2022 11:24	07/01/2022 12:02	07/01/2022 11:40	07/01/2022 12:02	07/01/2022 12:02	07/01/2022 11:53	07/01/2022 12:02	07/01/2022 12:02

* Does not include Invalid Averaging Periods ("N/A")

lb/sec 3.35 Fuel Density 0.0449

Average Values Report
Generated: 7/26/2022 13:31

Company: Roseville Energy Park

Period Start: 7/1/2022 07:16

Plant: 5120 Phillip Rd

Period End: 7/1/2022 11:23

City/St: Roseville, CA 95747

Validation Type: 1/1 min
Source: CT005_Stack, CT006_Stack
Averaging Period: 1 min
Type: Block Avg

Period Start:	Average C5gasflow kscfh	Average C5hhv btu/sc	Average C5heat_in mmbtuh	Average C5nh3inj lb/hr	Average C5waterinj gpm	Average C5unitload MW	Average C6gasflow kscfh	Average C6hhv btu/sc	Average C6heat_in mmbtuh	Average C6nh3inj lb/hr	Average C6waterinj gpm	Average C6unitload MW
07/01/2022 07:16	270.8	1018.0	275.67	45.03	36.12	27.21	-0.5	1000.0	0.00	-0.13	-0.04	-0.03
07/01/2022 07:17	270.9	1018.0	275.78	45.04	36.15	27.20	-0.5	1000.0	0.00	-0.13	-0.04	-0.03
07/01/2022 07:18	271.0	1018.0	275.88	45.03	36.19	27.18	-0.5	1000.0	0.00	-0.14	-0.04	-0.03
07/01/2022 07:19	271.0	1018.0	275.88	44.70	36.14	27.18	-0.6	1000.0	0.00	-0.13	-0.04	-0.03
07/01/2022 07:20	271.0	1018.0	275.88	45.03	36.17	27.19	-0.6	1000.0	0.00	-0.14	-0.04	-0.02
07/01/2022 07:21	270.9	1018.0	275.78	45.03	36.15	27.19	-0.5	1000.0	0.00	-0.14	-0.04	-0.03
07/01/2022 07:22	269.8	1018.0	274.66	44.20	34.08	27.20	-0.5	1000.0	0.00	-0.13	-0.04	-0.03
07/01/2022 07:23	269.3	1018.0	274.15	44.03	33.11	27.19	-0.6	1000.0	0.00	-0.15	-0.04	-0.03
07/01/2022 07:24	269.3	1018.0	274.15	43.86	33.16	27.17	-0.6	1000.0	0.00	-0.14	-0.04	-0.03
07/01/2022 07:25	269.4	1018.0	274.25	44.20	33.14	27.19	-0.6	1000.0	0.00	-0.14	-0.04	-0.03
07/01/2022 07:26	269.4	1018.0	274.25	44.20	33.21	27.19	-0.6	1000.0	0.00	-0.14	-0.04	-0.03
07/01/2022 07:27	269.5	1018.0	274.35	44.20	33.18	27.19	-0.6	1000.0	0.00	-0.14	-0.04	-0.03
07/01/2022 07:28	269.3	1018.0	274.15	44.36	33.14	27.19	-0.6	1000.0	0.00	-0.14	-0.04	-0.03
07/01/2022 07:29	269.4	1018.0	274.25	43.69	33.21	27.19	-0.6	1000.0	0.00	-0.14	-0.04	-0.03
07/01/2022 07:30	269.2	1018.0	274.05	44.20	33.18	27.17	-0.6	1000.0	0.00	-0.14	-0.04	-0.03
07/01/2022 07:31	269.3	1018.0	274.15	44.70	33.24	27.18	-0.6	1000.0	0.00	-0.14	-0.04	-0.03
07/01/2022 07:32	269.3	1018.0	274.15	45.03	33.14	27.19	-0.6	1000.0	0.00	-0.14	-0.04	-0.03
07/01/2022 07:33	269.3	1018.0	274.15	45.03	33.18	27.18	-0.6	1000.0	0.00	-0.14	-0.04	-0.03
07/01/2022 07:34	269.4	1018.0	274.25	45.03	33.17	27.19	-0.6	1000.0	0.00	-0.14	-0.04	-0.03
07/01/2022 07:35	269.2	1018.0	274.05	45.03	33.16	27.19	-0.6	1000.0	0.00	-0.14	-0.04	-0.03
07/01/2022 07:36	269.2	1018.0	274.05	44.03	33.16	27.17	-0.6	1000.0	0.00	-0.15	-0.04	-0.03
07/01/2022 07:37	269.4	1018.0	274.25	44.03	33.18	27.18	-0.6	1000.0	0.00	-0.14	-0.04	-0.03
07/01/2022 07:38	269.4	1018.0	274.25	44.69	33.19	27.18	-0.6	1000.0	0.00	-0.15	-0.04	-0.03
07/01/2022 07:39	269.6	1018.0	274.45	43.53	33.16	27.19	-0.6	1000.0	0.00	-0.14	-0.05	-0.03
07/01/2022 07:40	269.5	1018.0	274.35	45.03	33.14	27.19	-0.6	1000.0	0.00	-0.15	-0.04	-0.03
07/01/2022 07:41	269.4	1018.0	274.25	45.03	33.18	27.19	-0.6	1000.0	0.00	-0.14	-0.04	-0.03
07/01/2022 07:42	269.4	1018.0	274.25	46.20	33.16	27.18	-0.6	1000.0	0.00	-0.14	-0.05	-0.03
07/01/2022 07:43	269.6	1018.0	274.45	45.86	33.19	27.18	-0.6	1000.0	0.00	-0.14	-0.04	-0.03
07/01/2022 07:44	269.3	1018.0	274.15	45.86	33.16	27.19	-0.6	1000.0	0.00	-0.14	-0.04	-0.03
07/01/2022 07:45	269.4	1018.0	274.25	46.03	33.17	27.19	-0.6	1000.0	0.00	-0.15	-0.04	-0.03
07/01/2022 07:46	269.4	1018.0	274.25	46.37	33.24	27.20	-0.6	1000.0	0.00	-0.14	-0.04	-0.03
07/01/2022 07:47	269.4	1018.0	274.25	46.20	33.19	27.18	-0.6	1000.0	0.00	-0.14	-0.04	-0.03
07/01/2022 07:48	269.5	1018.0	274.35	46.20	33.21	27.18	-0.5	1000.0	0.00	-0.14	-0.04	-0.03
07/01/2022 07:49	269.5	1018.0	274.35	46.03	33.13	27.19	-0.6	1000.0	0.00	-0.14	-0.04	-0.03
07/01/2022 07:50	269.3	1018.0	274.15	45.70	33.23	27.19	-0.6	1000.0	0.00	-0.14	-0.05	-0.03
07/01/2022 07:51	269.4	1018.0	274.25	46.37	33.23	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 07:52	269.5	1018.0	274.35	45.36	33.18	27.18	-0.6	1000.0	0.00	-0.14	-0.05	-0.03
07/01/2022 07:53	269.6	1018.0	274.45	45.70	33.18	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 07:54	269.4	1018.0	274.25	46.20	33.16	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 07:55	269.1	1018.0	273.94	45.87	32.29	27.21	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 07:56	268.4	1018.0	273.23	46.03	31.10	27.19	-0.6	1000.0	0.00	-0.15	-0.04	-0.03
07/01/2022 07:57	268.5	1018.0	273.33	46.37	31.18	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 07:58	268.6	1018.0	273.43	48.20	31.20	27.19	-0.6	1000.0	0.00	-0.15	-0.04	-0.03
07/01/2022 07:59	268.6	1018.0	273.43	50.05	31.18	27.20	-0.6	1000.0	0.00	-0.14	-0.05	-0.03
07/01/2022 08:00	268.1	1018.0	272.93	52.88	30.32	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:01	267.8	1018.0	272.62	54.72	29.59	27.19	-0.6	1000.0	0.00	-0.14	-0.04	-0.03
07/01/2022 08:02	267.8	1018.0	272.62	56.39	29.56	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03

Period Start:	Average C5gasflow kscfh	Average C5hhv btu/sc	Average C5heat_in mmbtuh	Average C5nh3inj lb/hr	Average C5waterinj gpm	Average C5unitload MW	Average C6gasflow kscfh	Average C6hhv btu/sc	Average C6heat_in mmbtuh	Average C6nh3inj lb/hr	Average C6waterinj gpm	Average C6unitload MW
07/01/2022 08:03	267.8	1018.0	272.62	58.06	29.52	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:04	267.6	1018.0	272.42	60.07	29.11	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:05	267.2	1018.0	272.01	61.41	29.07	27.19	-0.6	1000.0	0.00	-0.14	-0.05	-0.03
07/01/2022 08:06	267.6	1018.0	272.42	63.07	29.09	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:07	267.7	1018.0	272.52	64.08	29.13	27.19	-0.6	1000.0	0.00	-0.14	-0.05	-0.03
07/01/2022 08:08	267.7	1018.0	272.52	64.08	29.16	27.19	-0.6	1000.0	0.00	-0.15	-0.04	-0.03
07/01/2022 08:09	267.4	1018.0	272.21	63.91	28.56	27.20	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:10	267.3	1018.0	272.11	63.74	27.96	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:11	267.3	1018.0	272.11	63.90	28.01	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:12	267.3	1018.0	272.11	65.07	28.04	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:13	267.4	1018.0	272.21	66.25	28.09	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:14	267.3	1018.0	272.11	68.75	28.02	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:15	267.3	1018.0	272.11	69.42	28.04	27.20	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:16	267.3	1018.0	272.11	70.92	28.07	27.19	-0.6	1000.0	0.00	-0.16	-0.04	-0.03
07/01/2022 08:17	267.2	1018.0	272.01	70.09	28.06	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:18	267.4	1018.0	272.21	70.92	28.04	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 08:19	267.2	1018.0	272.01	69.25	27.99	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:20	267.2	1018.0	272.01	69.08	27.97	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:21	267.2	1018.0	272.01	68.58	27.96	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:22	267.2	1018.0	272.01	68.59	27.91	27.18	-0.6	1000.0	0.00	-0.15	-0.04	-0.03
07/01/2022 08:23	267.3	1018.0	272.11	68.09	27.97	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:24	267.3	1018.0	272.11	67.42	27.91	27.20	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:25	267.3	1018.0	272.11	67.42	27.96	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:26	267.3	1018.0	272.11	67.42	27.97	27.20	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:27	267.2	1018.0	272.01	67.92	27.91	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:28	267.1	1018.0	271.91	67.75	27.97	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:29	267.4	1018.0	272.21	68.25	27.94	27.18	-0.6	1000.0	0.00	-0.15	-0.04	-0.03
07/01/2022 08:30	267.2	1018.0	272.01	68.58	27.94	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:31	267.3	1018.0	272.11	69.59	28.00	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:32	267.3	1018.0	272.11	68.92	28.06	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:33	267.3	1018.0	272.11	68.42	27.99	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:34	267.2	1018.0	272.01	69.75	28.06	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:35	267.2	1018.0	272.01	68.58	28.09	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 08:36	267.3	1018.0	272.11	68.92	28.14	27.18	-0.7	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:37	267.3	1018.0	272.11	68.92	28.14	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:38	267.3	1018.0	272.11	69.25	28.14	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:39	267.5	1018.0	272.32	68.75	28.19	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:40	267.4	1018.0	272.21	68.42	28.17	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:41	267.4	1018.0	272.21	68.09	28.11	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 08:42	267.5	1018.0	272.32	68.09	28.09	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:43	267.5	1018.0	272.32	68.08	28.12	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:44	267.4	1018.0	272.21	68.09	28.04	27.17	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:45	267.6	1018.0	272.42	68.09	28.04	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:46	267.5	1018.0	272.32	68.08	28.04	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:47	267.6	1018.0	272.42	69.25	28.11	27.21	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 08:48	267.5	1018.0	272.32	69.25	28.04	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:49	267.4	1018.0	272.21	69.92	28.02	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:50	267.5	1018.0	272.32	69.75	28.01	27.20	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 08:51	267.4	1018.0	272.21	70.92	28.06	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 08:52	267.3	1018.0	272.11	70.75	28.04	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:53	267.2	1018.0	272.01	70.26	28.11	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:54	267.4	1018.0	272.21	70.59	28.02	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 08:55	267.4	1018.0	272.21	70.92	28.07	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:56	267.5	1018.0	272.32	70.59	28.19	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:57	267.3	1018.0	272.11	70.59	28.09	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:58	267.2	1018.0	272.01	70.59	28.21	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 08:59	267.3	1018.0	272.11	70.92	28.14	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:00	267.4	1018.0	272.21	70.59	28.17	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:01	267.4	1018.0	272.21	70.59	28.14	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 09:02	267.5	1018.0	272.32	69.92	28.17	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:03	267.6	1018.0	272.42	70.09	28.16	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03

Period Start:	Average C5gasflow kscfh	Average C5hhv btu/sc	Average C5heat_in mmbtuh	Average C5nh3inj lb/hr	Average C5waterinj gpm	Average C5unitload MW	Average C6gasflow kscfh	Average C6hhv btu/sc	Average C6heat_in mmbtuh	Average C6nh3inj lb/hr	Average C6waterinj gpm	Average C6unitload MW
07/01/2022 09:04	267.4	1018.0	272.21	70.25	28.14	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:05	267.4	1018.0	272.21	69.75	28.06	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 09:06	267.4	1018.0	272.21	69.58	28.04	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 09:07	267.4	1018.0	272.21	69.76	28.01	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:08	267.4	1018.0	272.21	70.09	27.96	27.19	-0.7	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:09	267.4	1018.0	272.21	70.59	27.94	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 09:10	267.6	1018.0	272.42	71.58	28.00	27.19	-0.7	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 09:11	267.4	1018.0	272.21	71.42	28.02	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:12	267.5	1018.0	272.32	71.25	28.01	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:13	267.4	1018.0	272.21	72.09	28.07	27.19	-0.7	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:14	267.4	1018.0	272.21	72.08	28.14	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:15	267.4	1018.0	272.21	72.43	28.07	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 09:16	267.5	1018.0	272.32	71.92	28.16	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:17	267.6	1018.0	272.42	71.76	28.21	27.18	-0.7	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:18	267.6	1018.0	272.42	71.09	28.24	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:19	267.5	1018.0	272.32	70.42	28.21	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:20	267.5	1018.0	272.32	69.75	28.26	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:21	267.7	1018.0	272.52	69.91	28.24	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 09:22	267.7	1018.0	272.52	69.08	28.31	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:23	267.7	1018.0	272.52	69.08	28.21	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:24	267.6	1018.0	272.42	69.08	28.24	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 09:25	267.8	1018.0	272.62	69.08	28.32	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:26	267.6	1018.0	272.42	69.07	28.17	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 09:27	267.9	1018.0	272.72	70.08	28.31	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:28	267.8	1018.0	272.62	70.59	28.26	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:29	267.7	1018.0	272.52	71.42	28.24	27.19	-0.7	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:30	267.7	1018.0	272.52	72.43	28.22	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:31	267.8	1018.0	272.62	72.75	28.24	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:32	267.7	1018.0	272.52	71.76	28.22	27.19	-0.7	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:33	267.7	1018.0	272.52	71.92	28.27	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:34	267.8	1018.0	272.62	71.42	28.16	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:35	267.7	1018.0	272.52	71.09	28.21	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 09:36	267.6	1018.0	272.42	71.09	28.16	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:37	267.9	1018.0	272.72	71.09	28.32	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:38	267.8	1018.0	272.62	71.09	28.31	27.20	-0.7	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:39	267.7	1018.0	272.52	71.09	28.31	27.20	-0.7	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 09:40	267.6	1018.0	272.42	70.92	28.27	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 09:41	267.7	1018.0	272.52	71.09	28.27	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 09:42	267.7	1018.0	272.52	71.09	28.31	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:43	267.8	1018.0	272.62	70.75	28.34	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 09:44	267.6	1018.0	272.42	70.59	28.34	27.20	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:45	267.9	1018.0	272.72	70.25	28.36	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 09:46	267.8	1018.0	272.62	70.08	28.30	27.19	-0.7	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:47	267.7	1018.0	272.52	70.42	28.22	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:48	267.8	1018.0	272.62	69.58	28.29	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:49	267.8	1018.0	272.62	69.75	28.24	27.19	-0.6	1000.0	0.00	-0.17	-0.05	-0.03
07/01/2022 09:50	267.8	1018.0	272.62	70.25	28.36	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:51	267.8	1018.0	272.62	70.08	28.34	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:52	267.7	1018.0	272.52	70.42	28.32	27.19	-0.7	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:53	267.8	1018.0	272.62	69.92	28.42	27.20	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 09:54	267.9	1018.0	272.72	70.42	28.29	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 09:55	267.8	1018.0	272.62	69.75	28.32	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:56	267.6	1018.0	272.42	70.59	28.16	27.20	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 09:57	267.8	1018.0	272.62	70.25	28.27	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 09:58	268.0	1018.0	272.82	70.92	28.32	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 09:59	267.9	1018.0	272.72	71.09	28.22	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:00	267.9	1018.0	272.72	71.93	28.27	27.20	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:01	267.6	1018.0	272.42	71.75	28.24	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:02	267.7	1018.0	272.52	72.60	28.21	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:03	267.9	1018.0	272.72	72.93	28.27	27.20	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:04	267.9	1018.0	272.72	71.75	28.26	27.20	-0.6	1000.0	0.00	-0.16	-0.05	-0.03

Period Start:	Average C5gasflow kscfh	Average C5hhv btu/sc	Average C5heat_in mmbtuh	Average C5nh3inj lb/hr	Average C5waterinj gpm	Average C5unitload MW	Average C6gasflow kscfh	Average C6hhv btu/sc	Average C6heat_in mmbtuh	Average C6nh3inj lb/hr	Average C6waterinj gpm	Average C6unitload MW
07/01/2022 10:05	267.9	1018.0	272.72	71.92	28.17	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 10:06	267.9	1018.0	272.72	70.92	28.26	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:07	267.9	1018.0	272.72	70.09	28.19	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 10:08	267.8	1018.0	272.62	70.42	28.32	27.18	-0.7	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:09	268.1	1018.0	272.93	69.92	28.42	27.19	-0.7	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:10	268.1	1018.0	272.93	70.42	28.34	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 10:11	267.8	1018.0	272.62	70.08	28.39	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 10:12	267.9	1018.0	272.72	71.09	28.42	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 10:13	267.9	1018.0	272.72	71.09	28.46	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:14	268.2	1018.0	273.03	71.09	28.49	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:15	267.9	1018.0	272.72	70.75	28.49	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:16	267.9	1018.0	272.72	71.09	28.44	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:17	268.2	1018.0	273.03	69.75	28.44	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:18	268.0	1018.0	272.82	69.91	28.31	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:19	267.8	1018.0	272.62	69.75	28.36	27.19	-0.7	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:20	267.9	1018.0	272.72	70.42	28.27	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:21	268.0	1018.0	272.82	70.08	28.22	27.17	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 10:22	267.9	1018.0	272.72	70.59	28.32	27.20	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:23	267.8	1018.0	272.62	71.09	28.31	27.18	-0.7	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 10:24	267.9	1018.0	272.72	71.09	28.19	27.19	-0.7	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 10:25	267.8	1018.0	272.62	71.42	28.36	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:26	267.7	1018.0	272.52	71.42	28.31	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:27	268.1	1018.0	272.93	71.09	28.29	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:28	268.2	1018.0	273.03	71.09	28.39	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:29	268.2	1018.0	273.03	70.76	28.51	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 10:30	268.2	1018.0	273.03	70.25	28.46	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 10:31	268.1	1018.0	272.93	69.75	28.36	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:32	268.3	1018.0	273.13	70.08	28.36	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:33	268.2	1018.0	273.03	71.09	28.47	27.19	-0.7	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:34	268.2	1018.0	273.03	71.42	28.56	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:35	268.1	1018.0	272.93	72.09	28.56	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 10:36	268.2	1018.0	273.03	72.08	28.46	27.18	-0.7	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 10:37	268.3	1018.0	273.13	73.10	28.54	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:38	268.0	1018.0	272.82	73.10	28.41	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:39	268.1	1018.0	272.93	72.75	28.49	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:40	268.4	1018.0	273.23	72.93	28.46	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:41	268.0	1018.0	272.82	72.25	28.41	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:42	267.9	1018.0	272.72	72.25	28.34	27.20	-0.7	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 10:43	267.9	1018.0	272.72	72.09	28.37	27.19	-0.7	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 10:44	268.2	1018.0	273.03	72.09	28.47	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 10:45	268.2	1018.0	273.03	72.08	28.39	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:46	268.1	1018.0	272.93	72.08	28.41	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:47	267.9	1018.0	272.72	72.76	28.49	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:48	268.3	1018.0	273.13	73.09	28.52	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:49	267.9	1018.0	272.72	73.09	28.37	27.17	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:50	268.2	1018.0	273.03	73.10	28.51	27.19	-0.7	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:51	268.3	1018.0	273.13	72.42	28.62	27.20	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 10:52	268.4	1018.0	273.23	72.08	28.54	27.17	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:53	268.3	1018.0	273.13	72.08	28.56	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 10:54	268.3	1018.0	273.13	72.08	28.57	27.18	-0.7	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 10:55	268.3	1018.0	273.13	72.25	28.47	27.18	-0.7	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:56	268.4	1018.0	273.23	72.93	28.51	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:57	268.4	1018.0	273.23	72.59	28.49	27.18	-0.7	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 10:58	268.4	1018.0	273.23	72.08	28.42	27.18	-0.7	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 10:59	268.4	1018.0	273.23	71.09	28.41	27.19	-0.7	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 11:00	268.4	1018.0	273.23	70.42	28.44	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:01	268.4	1018.0	273.23	70.25	28.49	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 11:02	268.3	1018.0	273.13	70.08	28.42	27.19	-0.7	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 11:03	268.5	1018.0	273.33	70.25	28.42	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 11:04	268.4	1018.0	273.23	71.09	28.46	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 11:05	268.5	1018.0	273.33	71.92	28.57	27.20	-0.6	1000.0	0.00	-0.16	-0.05	-0.03

Period Start:	Average C5gasflow kscfh	Average C5hhv btu/sc	Average C5heat_in mmbtuh	Average C5nh3inj lb/hr	Average C5waterinj gpm	Average C5unitload MW	Average C6gasflow kscfh	Average C6hhv btu/sc	Average C6heat_in mmbtuh	Average C6nh3inj lb/hr	Average C6waterinj gpm	Average C6unitload MW
07/01/2022 11:06	268.5	1018.0	273.33	72.58	28.56	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:07	268.7	1018.0	273.54	73.10	28.56	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:08	268.5	1018.0	273.33	73.10	28.59	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:09	268.6	1018.0	273.43	72.76	28.82	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:10	268.6	1018.0	273.43	72.08	28.61	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:11	268.5	1018.0	273.33	71.25	28.67	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:12	268.5	1018.0	273.33	70.76	28.76	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:13	268.6	1018.0	273.43	71.09	28.77	27.20	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 11:14	268.7	1018.0	273.54	70.76	28.64	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:15	268.7	1018.0	273.54	71.09	28.49	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 11:16	268.8	1018.0	273.64	71.09	28.62	27.20	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:17	268.5	1018.0	273.33	71.42	28.52	27.18	-0.7	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 11:18	268.5	1018.0	273.33	72.09	28.62	27.20	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 11:19	268.6	1018.0	273.43	72.93	28.42	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 11:20	268.6	1018.0	273.43	73.10	28.49	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 11:21	268.8	1018.0	273.64	73.43	28.57	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 11:22	268.7	1018.0	273.54	74.09	28.57	27.24	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:23	268.6	1018.0	273.43	74.09	28.49	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
Final Average*	**268.1**	**1018.0**	**272.93**	**65.67**	**29.22**	**27.19**	**-0.6**	**1000.0**	**0.00**	**-0.15**	**-0.05**	**-0.03**
Maximum*	**271.0**	**1018.0**	**275.88**	**74.09**	**36.19**	**27.24**	**0.0**	**1000.0**	**0.00**	**0.00**	**0.00**	**0.00**
	07/01/2022 7:20	07/01/2022 11:23	07/01/2022 7:20	07/01/2022 11:23	07/01/2022 7:18	07/01/2022 11:22		07/01/2022 11:23				
Minimum*	**267.1**	**1018.0**	**271.91**	**43.53**	**27.91**	**27.17**	**-0.7**	**1000.0**	**0.00**	**-0.17**	**-0.05**	**-0.03**
	07/01/2022 8:28	07/01/2022 11:23	07/01/2022 8:28	07/01/2022 7:39	07/01/2022 8:27	07/01/2022 10:52	07/01/2022 11:17	07/01/2022 11:23	07/01/2022 11:23	07/01/2022 9:49	07/01/2022 11:23	07/01/2022 11:23

* Does not include Invalid Averaging Periods ("N/A")

lb/sec 3.34 Fuel Density 0.0449

Average Values Report
Generated: 7/26/2022 13:32

Company: Roseville Energy Park

Period Start: 7/1/2022 11:37

Plant: 5120 Phillip Rd

Period End: 7/1/2022 14:43

City/St: Roseville, CA 95747

Validation Type: 1/1 min
Source: CT005_Stack, CT006_Stack
Averaging Period: 1 min
Type: Block Avg

Period Start:	Average C5gasflow kscfh	Average C5hhv btu/sc	Average C5heat_in mmbtuh	Average C5nh3inj lb/hr	Average C5waterinj gpm	Average C5unitload MW	Average C6gasflow kscfh	Average C6hhv btu/sc	Average C6heat_in mmbtuh	Average C6nh3inj lb/hr	Average C6waterinj gpm	Average C6unitload MW
07/01/2022 11:37	268.9	1018.0	273.74	72.59	28.86	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:38	268.9	1018.0	273.74	72.08	28.84	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:39	268.9	1018.0	273.74	70.92	28.84	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 11:40	269.0	1018.0	273.84	71.09	28.79	27.19	-0.7	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:41	268.9	1018.0	273.74	71.25	28.82	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 11:42	269.3	1018.0	274.15	71.92	28.84	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 11:43	268.9	1018.0	273.74	72.08	28.87	27.20	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:44	268.9	1018.0	273.74	72.08	28.81	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:45	268.8	1018.0	273.64	72.76	28.79	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:46	269.0	1018.0	273.84	73.10	28.82	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 11:47	269.0	1018.0	273.84	73.10	28.77	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:48	268.9	1018.0	273.74	73.10	28.72	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:49	269.0	1018.0	273.84	73.10	28.67	27.18	-0.6	1000.0	0.00	-0.15	-0.04	-0.03
07/01/2022 11:50	268.8	1018.0	273.64	74.26	28.69	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 11:51	268.9	1018.0	273.74	74.09	28.81	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:52	269.0	1018.0	273.84	74.09	28.74	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:53	269.0	1018.0	273.84	74.09	28.82	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 11:54	269.0	1018.0	273.84	74.09	28.79	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:55	268.9	1018.0	273.74	74.10	28.86	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:56	269.1	1018.0	273.94	74.09	28.96	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:57	269.1	1018.0	273.94	74.10	28.87	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:58	269.0	1018.0	273.84	74.10	28.87	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 11:59	269.1	1018.0	273.94	74.09	28.77	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 12:00	269.1	1018.0	273.94	74.10	28.89	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 12:01	269.1	1018.0	273.94	74.10	28.79	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 12:02	268.9	1018.0	273.74	74.10	28.77	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 12:03	268.9	1018.0	273.74	74.43	28.77	27.18	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 12:04	269.1	1018.0	273.94	75.10	28.74	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 12:05	269.1	1018.0	273.94	75.10	28.84	27.20	-0.7	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 12:06	269.2	1018.0	274.05	74.76	28.81	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 12:07	269.1	1018.0	273.94	74.09	28.84	27.20	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 12:08	269.2	1018.0	274.05	74.10	28.79	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 12:09	269.3	1018.0	274.15	74.10	28.82	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 12:10	269.5	1018.0	274.35	74.09	28.97	27.22	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 12:11	269.0	1018.0	273.84	74.10	28.89	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 12:12	269.1	1018.0	273.94	74.09	28.91	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 12:13	269.1	1018.0	273.94	74.09	29.01	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 12:14	269.3	1018.0	274.15	74.09	28.94	27.21	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 12:15	269.3	1018.0	274.15	74.09	29.02	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 12:16	269.2	1018.0	274.05	74.09	29.09	27.20	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 12:17	269.3	1018.0	274.15	74.09	29.12	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 12:18	269.4	1018.0	274.25	74.10	29.11	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 12:19	269.4	1018.0	274.25	74.09	29.06	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 12:20	269.4	1018.0	274.25	74.26	29.06	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 12:21	269.6	1018.0	274.45	74.26	29.01	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 12:22	269.3	1018.0	274.15	74.25	29.09	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 12:23	269.4	1018.0	274.25	74.10	29.04	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03

Period Start:	Average C5gasflow kscfh	Average C5hhv btu/sc	Average C5heat_in mmbtuh	Average C5nh3inj lb/hr	Average C5waterinj gpm	Average C5unitload MW	Average C6gasflow kscfh	Average C6hhv btu/sc	Average C6heat_in mmbtuh	Average C6nh3inj lb/hr	Average C6waterinj gpm	Average C6unitload MW
07/01/2022 12:24	269.6	1018.0	274.45	74.10	29.07	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 12:25	269.4	1018.0	274.25	74.26	29.07	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 12:26	269.6	1018.0	274.45	74.09	29.07	27.19	2.3	1000.0	2.30	-0.15	-0.05	-0.03
07/01/2022 12:27	269.4	1018.0	274.25	74.09	29.12	27.19	29.7	1000.0	29.70	-0.15	-0.05	-0.03
07/01/2022 12:28	269.5	1018.0	274.35	74.09	29.14	27.20	35.3	1000.0	35.30	-0.16	-0.05	-0.03
07/01/2022 12:29	269.6	1018.0	274.45	75.10	29.17	27.20	43.2	1000.0	43.20	-0.15	-0.05	-0.03
07/01/2022 12:30	269.5	1018.0	274.35	75.09	29.19	27.20	41.8	1000.0	41.80	-0.15	-0.05	-0.03
07/01/2022 12:31	269.4	1018.0	274.25	75.26	29.19	27.18	41.4	1000.0	41.40	-0.15	-0.05	-0.03
07/01/2022 12:32	269.5	1018.0	274.35	75.26	29.19	27.18	41.3	1000.0	41.30	-0.15	-0.05	-0.03
07/01/2022 12:33	269.5	1018.0	274.35	75.10	29.19	27.18	41.1	1000.0	41.10	-0.16	-0.05	-0.03
07/01/2022 12:34	269.6	1018.0	274.45	74.43	29.19	27.18	41.1	1000.0	41.10	-0.15	-0.05	-0.03
07/01/2022 12:35	269.7	1018.0	274.55	74.26	29.22	27.19	40.9	1000.0	40.90	-0.15	-0.05	-0.03
07/01/2022 12:36	269.5	1018.0	274.35	74.10	29.23	27.18	40.9	1000.0	40.90	1.51	-0.05	-0.03
07/01/2022 12:37	269.7	1018.0	274.55	74.10	29.22	27.20	40.7	1000.0	40.70	1.18	-0.05	-0.03
07/01/2022 12:38	269.6	1018.0	274.45	74.26	29.22	27.19	40.7	1000.0	40.70	0.34	-0.05	-0.03
07/01/2022 12:39	269.8	1018.0	274.66	74.26	29.24	27.19	40.6	1000.0	40.60	1.02	-0.05	-0.03
07/01/2022 12:40	269.6	1018.0	274.45	74.93	29.25	27.19	40.6	1000.0	40.60	1.68	-0.05	-0.03
07/01/2022 12:41	269.6	1018.0	274.45	74.93	29.21	27.19	40.6	1000.0	40.60	1.85	-0.05	-0.03
07/01/2022 12:42	269.5	1018.0	274.35	75.43	29.12	27.18	40.6	1000.0	40.60	0.51	-0.05	-0.03
07/01/2022 12:43	269.8	1018.0	274.66	75.09	29.13	27.18	40.6	1000.0	40.60	2.18	-0.05	-0.03
07/01/2022 12:44	269.5	1018.0	274.35	75.43	29.12	27.18	40.6	1000.0	40.60	0.02	-0.05	-0.03
07/01/2022 12:45	269.6	1018.0	274.45	75.26	29.12	27.19	40.6	1000.0	40.60	5.85	-0.05	-0.03
07/01/2022 12:46	269.4	1018.0	274.25	74.60	29.02	27.19	40.6	1000.0	40.60	0.35	-0.05	-0.03
07/01/2022 12:47	269.6	1018.0	274.45	74.09	29.12	27.20	40.6	1000.0	40.60	7.18	-0.05	-0.03
07/01/2022 12:48	269.7	1018.0	274.55	74.27	29.09	27.19	40.5	1000.0	40.50	9.85	-0.04	-0.03
07/01/2022 12:49	269.6	1018.0	274.45	74.43	28.99	27.19	40.5	1000.0	40.50	9.85	-0.05	-0.03
07/01/2022 12:50	269.5	1018.0	274.35	74.09	29.02	27.18	40.4	1000.0	40.40	9.85	-0.05	-0.03
07/01/2022 12:51	269.8	1018.0	274.66	74.10	29.11	27.20	40.5	1000.0	40.50	9.85	-0.05	-0.03
07/01/2022 12:52	269.8	1018.0	274.66	74.26	29.14	27.20	40.4	1000.0	40.40	9.85	-0.05	-0.03
07/01/2022 12:53	269.5	1018.0	274.35	74.09	29.02	27.18	40.5	1000.0	40.50	1.85	-0.05	-0.03
07/01/2022 12:54	269.8	1018.0	274.66	74.10	29.17	27.20	40.5	1000.0	40.50	3.18	-0.05	-0.03
07/01/2022 12:55	269.7	1018.0	274.55	74.09	29.09	27.19	40.4	1000.0	40.40	9.85	-0.05	-0.03
07/01/2022 12:56	269.6	1018.0	274.45	74.10	29.12	27.19	40.4	1000.0	40.40	9.85	-0.05	-0.03
07/01/2022 12:57	269.9	1018.0	274.76	74.09	29.17	27.19	40.5	1000.0	40.50	9.86	-0.05	-0.03
07/01/2022 12:58	269.7	1018.0	274.55	74.09	29.17	27.20	40.4	1000.0	40.40	8.19	-0.05	-0.03
07/01/2022 12:59	269.8	1018.0	274.66	74.60	29.17	27.18	40.5	1000.0	40.50	9.85	-0.05	-0.03
07/01/2022 13:00	269.8	1018.0	274.66	74.43	29.24	27.19	40.6	1000.0	40.60	9.85	-0.05	-0.03
07/01/2022 13:01	269.9	1018.0	274.76	74.43	29.26	27.19	40.5	1000.0	40.50	9.85	-0.04	-0.03
07/01/2022 13:02	269.6	1018.0	274.45	74.60	29.17	27.19	40.5	1000.0	40.50	9.68	-0.05	-0.03
07/01/2022 13:03	269.8	1018.0	274.66	74.77	29.21	27.19	40.6	1000.0	40.60	5.52	-0.05	-0.03
07/01/2022 13:04	269.8	1018.0	274.66	74.27	29.16	27.19	40.5	1000.0	40.50	1.68	-0.05	-0.03
07/01/2022 13:05	269.9	1018.0	274.76	74.10	29.11	27.19	40.5	1000.0	40.50	-0.16	-0.05	-0.03
07/01/2022 13:06	269.9	1018.0	274.76	73.60	29.14	27.19	40.5	1000.0	40.50	5.68	-0.05	-0.03
07/01/2022 13:07	269.9	1018.0	274.76	73.10	28.92	27.19	2.5	1000.0	2.50	0.68	-0.05	-0.03
07/01/2022 13:08	269.9	1018.0	274.76	72.26	29.01	27.20	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 13:09	269.9	1018.0	274.76	73.09	28.99	27.20	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 13:10	270.0	1018.0	274.86	73.60	28.99	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 13:11	270.1	1018.0	274.96	74.26	28.97	27.20	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 13:12	269.9	1018.0	274.76	74.26	28.94	27.17	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 13:13	270.1	1018.0	274.96	75.10	28.96	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 13:14	270.1	1018.0	274.96	75.77	29.07	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 13:15	270.0	1018.0	274.86	76.10	29.07	27.20	-0.6	1000.0	0.00	-0.15	-0.04	-0.03
07/01/2022 13:16	270.1	1018.0	274.96	76.61	29.11	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 13:17	270.0	1018.0	274.86	77.11	29.16	27.20	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 13:18	270.2	1018.0	275.06	77.11	29.11	27.20	-0.6	1000.0	0.00	-0.15	-0.04	-0.03
07/01/2022 13:19	270.2	1018.0	275.06	77.28	29.14	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 13:20	270.2	1018.0	275.06	77.11	29.13	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 13:21	270.1	1018.0	274.96	77.28	29.12	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 13:22	270.1	1018.0	274.96	76.94	29.19	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 13:23	270.3	1018.0	275.17	76.27	29.21	27.20	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 13:24	270.1	1018.0	274.96	76.27	29.19	27.20	-0.6	1000.0	0.00	-0.15	-0.05	-0.03

Period Start:	Average C5gasflow kscfh	Average C5hhv btu/sc	Average C5heat_in mmbtuh	Average C5nh3inj lb/hr	Average C5waterinj gpm	Average C5unitload MW	Average C6gasflow kscfh	Average C6hhv btu/sc	Average C6heat_in mmbtuh	Average C6nh3inj lb/hr	Average C6waterinj gpm	Average C6unitload MW
07/01/2022 13:25	270.4	1018.0	275.27	76.27	29.14	27.20	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 13:26	270.2	1018.0	275.06	76.10	29.14	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 13:27	270.2	1018.0	275.06	75.94	29.11	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 13:28	270.2	1018.0	275.06	75.60	29.12	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 13:29	270.3	1018.0	275.17	75.77	29.06	27.20	-0.6	1000.0	0.00	-0.15	-0.04	-0.03
07/01/2022 13:30	270.2	1018.0	275.06	75.60	29.09	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 13:31	270.0	1018.0	274.86	75.94	29.12	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 13:32	270.2	1018.0	275.06	75.77	29.19	27.19	-0.6	1000.0	0.00	-0.14	-0.05	-0.03
07/01/2022 13:33	270.3	1018.0	275.17	75.94	29.19	27.20	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 13:34	270.3	1018.0	275.17	75.60	29.21	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 13:35	270.3	1018.0	275.17	76.10	29.33	27.20	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 13:36	270.3	1018.0	275.17	75.60	29.29	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 13:37	270.3	1018.0	275.17	75.77	29.34	27.20	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 13:38	270.3	1018.0	275.17	75.77	29.32	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 13:39	270.3	1018.0	275.17	76.11	29.29	27.17	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 13:40	270.3	1018.0	275.17	75.77	29.29	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 13:41	270.4	1018.0	275.27	75.94	29.31	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 13:42	270.5	1018.0	275.37	76.11	29.38	27.20	-0.6	1000.0	0.00	-0.14	-0.04	-0.03
07/01/2022 13:43	270.7	1018.0	275.57	76.10	29.43	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 13:44	270.5	1018.0	275.37	76.10	29.38	27.19	-0.6	1000.0	0.00	-0.15	-0.04	-0.03
07/01/2022 13:45	270.4	1018.0	275.27	76.10	29.31	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 13:46	270.3	1018.0	275.17	75.94	29.31	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 13:47	270.5	1018.0	275.37	75.77	29.29	27.20	-0.6	1000.0	0.00	-0.14	-0.05	-0.03
07/01/2022 13:48	270.5	1018.0	275.37	76.78	29.19	27.19	-0.6	1000.0	0.00	-0.14	-0.05	-0.03
07/01/2022 13:49	270.3	1018.0	275.17	76.77	29.27	27.20	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 13:50	270.1	1018.0	274.96	76.27	29.21	27.19	-0.6	1000.0	0.00	-0.15	-0.04	-0.03
07/01/2022 13:51	270.3	1018.0	275.17	76.44	29.17	27.19	-0.6	1000.0	0.00	-0.14	-0.04	-0.03
07/01/2022 13:52	270.6	1018.0	275.47	76.94	29.34	27.19	-0.6	1000.0	0.00	-0.15	-0.04	-0.03
07/01/2022 13:53	270.5	1018.0	275.37	76.77	29.33	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 13:54	270.6	1018.0	275.47	77.11	29.32	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 13:55	270.7	1018.0	275.57	77.62	29.33	27.19	-0.6	1000.0	0.00	-0.15	-0.04	-0.03
07/01/2022 13:56	270.4	1018.0	275.27	76.77	29.36	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 13:57	270.6	1018.0	275.47	77.45	29.46	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 13:58	270.3	1018.0	275.17	77.44	29.33	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 13:59	270.6	1018.0	275.47	77.78	29.36	27.19	-0.6	1000.0	0.00	-0.16	-0.05	-0.03
07/01/2022 14:00	270.5	1018.0	275.37	77.45	29.36	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 14:01	270.5	1018.0	275.37	76.61	29.38	27.19	-0.6	1000.0	0.00	-0.15	-0.04	-0.03
07/01/2022 14:02	270.5	1018.0	275.37	76.10	29.36	27.18	-0.6	1000.0	0.00	-0.14	-0.05	-0.03
07/01/2022 14:03	270.5	1018.0	275.37	77.11	29.29	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 14:04	270.4	1018.0	275.27	76.44	29.27	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 14:05	270.6	1018.0	275.47	76.10	29.36	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 14:06	270.5	1018.0	275.37	76.10	29.31	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 14:07	270.5	1018.0	275.37	76.10	29.26	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 14:08	270.6	1018.0	275.47	76.44	29.34	27.20	-0.6	1000.0	0.00	-0.14	-0.05	-0.03
07/01/2022 14:09	270.5	1018.0	275.37	77.11	29.21	27.19	-0.6	1000.0	0.00	-0.15	-0.04	-0.03
07/01/2022 14:10	270.7	1018.0	275.57	77.45	29.26	27.19	-0.6	1000.0	0.00	-0.15	-0.04	-0.03
07/01/2022 14:11	270.5	1018.0	275.37	77.78	29.21	27.18	-0.6	1000.0	0.00	-0.15	-0.04	-0.03
07/01/2022 14:12	270.4	1018.0	275.27	78.44	29.24	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 14:13	270.5	1018.0	275.37	78.28	29.33	27.20	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 14:14	270.4	1018.0	275.27	78.12	29.30	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 14:15	270.3	1018.0	275.17	78.11	29.31	27.20	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 14:16	270.4	1018.0	275.27	78.12	29.32	27.21	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 14:17	270.5	1018.0	275.37	78.11	29.31	27.20	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 14:18	270.6	1018.0	275.47	78.28	29.27	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 14:19	270.4	1018.0	275.27	78.45	29.38	27.19	-0.6	1000.0	0.00	-0.14	-0.05	-0.03
07/01/2022 14:20	270.5	1018.0	275.37	78.11	29.44	27.19	-0.6	1000.0	0.00	-0.15	-0.04	-0.03
07/01/2022 14:21	270.6	1018.0	275.47	78.28	29.46	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 14:22	270.7	1018.0	275.57	77.95	29.49	27.21	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 14:23	270.5	1018.0	275.37	77.44	29.33	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 14:24	270.5	1018.0	275.37	76.94	29.41	27.20	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 14:25	270.6	1018.0	275.47	76.60	29.38	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03

Period Start:	Average C5gasflow kscfh	Average C5hhv btu/sc	Average C5heat_in mmbtuh	Average C5nh3inj lb/hr	Average C5waterinj gpm	Average C5unitload MW	Average C6gasflow kscfh	Average C6hhv btu/sc	Average C6heat_in mmbtuh	Average C6nh3inj lb/hr	Average C6waterinj gpm	Average C6unitload MW
07/01/2022 14:26	270.7	1018.0	275.57	77.11	29.34	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 14:27	270.7	1018.0	275.57	76.94	29.28	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 14:28	270.6	1018.0	275.47	76.61	29.27	27.20	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 14:29	270.5	1018.0	275.37	76.94	29.27	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 14:30	270.3	1018.0	275.17	76.44	29.19	27.19	-0.6	1000.0	0.00	-0.15	-0.04	-0.03
07/01/2022 14:31	270.3	1018.0	275.17	77.45	29.18	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 14:32	270.5	1018.0	275.37	77.78	29.22	27.19	-0.6	1000.0	0.00	-0.14	-0.05	-0.03
07/01/2022 14:33	270.4	1018.0	275.27	78.11	29.23	27.19	-0.6	1000.0	0.00	-0.15	-0.04	-0.03
07/01/2022 14:34	270.4	1018.0	275.27	78.28	29.19	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 14:35	270.4	1018.0	275.27	78.11	29.27	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 14:36	270.4	1018.0	275.27	77.94	29.27	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 14:37	270.5	1018.0	275.37	78.11	29.31	27.19	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 14:38	270.5	1018.0	275.37	77.61	29.29	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 14:39	270.6	1018.0	275.47	77.11	29.36	27.20	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 14:40	270.5	1018.0	275.37	77.11	29.27	27.18	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 14:41	270.6	1018.0	275.47	77.61	29.39	27.20	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 14:42	270.5	1018.0	275.37	77.28	29.44	27.20	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
07/01/2022 14:43	270.6	1018.0	275.47	77.78	29.37	27.21	-0.6	1000.0	0.00	-0.15	-0.05	-0.03
Final Average*	**269.9**	**1018.0**	**274.74**	**75.40**	**29.13**	**27.19**	**8.2**	**1000.0**	**8.65**	**0.78**	**-0.05**	**-0.03**
Maximum*	**270.7**	**1018.0**	**275.57**	**78.45**	**29.49**	**27.22**	**43.2**	**1000.0**	**43.20**	**9.86**	**0.00**	**0.00**
	07/01/2022 14:27	07/01/2022 14:43	07/01/2022 14:27	07/01/2022 14:19	07/01/2022 14:22	07/01/2022 12:10	07/01/2022 12:29	07/01/2022 14:43	07/01/2022 12:29	07/01/2022 12:57		
Minimum*	**268.8**	**1018.0**	**273.64**	**70.92**	**28.67**	**27.17**	**-0.7**	**1000.0**	**0.00**	**-0.16**	**-0.05**	**-0.03**
	07/01/2022 11:50	07/01/2022 14:43	07/01/2022 11:50	07/01/2022 11:39	07/01/2022 11:49	07/01/2022 13:39	07/01/2022 12:05	07/01/2022 14:43	07/01/2022 14:43	07/01/2022 13:59	07/01/2022 14:43	07/01/2022 14:43

* Does not include Invalid Averaging Periods ("N/A")

lb/sec 3.37 Fuel Density 0.0449

Average Values Report
Generated: 7/31/2022 18:42

Company: Roseville Energy Park

Period Start: 7/2/2022 06:30

Plant: 5120 Phillip Rd

Period End: 7/2/2022 13:30

City/St: Roseville, CA 95747

Validation Type: 1/1 min

Source: CT005_Stack

Averaging Period: 1 min

Type: Block Avg

Period Start:	Average C5gasflow kscfh	Average C5hhv btu/sc	Average C5heat_in mmbtuh	Average C5nh3inj lb/hr	Average C5waterinj gpm	Average C5unitload MW
07/02/2022 06:30	266.1	1018.0	270.89	65.11	28.28	27.31
07/02/2022 06:31	266.2	1018.0	270.99	64.28	28.23	27.32
07/02/2022 06:32	266.1	1018.0	270.89	62.78	28.20	27.32
07/02/2022 06:33	266.0	1018.0	270.79	62.27	28.18	27.33
07/02/2022 06:34	266.0	1018.0	270.79	62.27	28.20	27.30
07/02/2022 06:35	266.0	1018.0	270.79	61.77	28.13	27.32
07/02/2022 06:36	266.1	1018.0	270.89	62.10	28.12	27.32
07/02/2022 06:37	266.1	1018.0	270.89	61.94	28.13	27.30
07/02/2022 06:38	266.1	1018.0	270.89	61.94	28.12	27.32
07/02/2022 06:39	266.3	1018.0	271.09	62.78	28.10	27.32
07/02/2022 06:40	266.1	1018.0	270.89	63.11	28.02	27.32
07/02/2022 06:41	266.2	1018.0	270.99	63.44	28.03	27.31
07/02/2022 06:42	266.1	1018.0	270.89	63.44	28.12	27.32
07/02/2022 06:43	266.2	1018.0	270.99	62.60	28.08	27.32
07/02/2022 06:44	266.2	1018.0	270.99	62.93	28.10	27.31
07/02/2022 06:45	266.0	1018.0	270.79	62.93	28.05	27.31
07/02/2022 06:46	266.0	1018.0	270.79	64.27	28.07	27.33
07/02/2022 06:47	266.0	1018.0	270.79	63.77	28.12	27.32
07/02/2022 06:48	266.1	1018.0	270.89	64.10	28.10	27.32
07/02/2022 06:49	265.9	1018.0	270.69	64.10	28.13	27.32
07/02/2022 06:50	266.1	1018.0	270.89	64.11	28.12	27.32
07/02/2022 06:51	266.2	1018.0	270.99	64.10	28.08	27.33
07/02/2022 06:52	265.9	1018.0	270.69	64.10	28.07	27.30
07/02/2022 06:53	266.1	1018.0	270.89	64.94	28.08	27.32
07/02/2022 06:54	266.0	1018.0	270.79	64.93	28.03	27.30
07/02/2022 06:55	266.0	1018.0	270.79	65.44	28.02	27.31
07/02/2022 06:56	266.1	1018.0	270.89	65.27	28.03	27.31
07/02/2022 06:57	266.0	1018.0	270.79	64.94	28.00	27.31
07/02/2022 06:58	265.9	1018.0	270.69	64.60	28.03	27.30
07/02/2022 06:59	266.0	1018.0	270.79	65.10	28.00	27.32
07/02/2022 07:00	266.1	1018.0	270.89	64.94	27.98	27.32
07/02/2022 07:01	266.0	1018.0	270.79	64.77	28.00	27.31
07/02/2022 07:02	266.0	1018.0	270.79	65.43	28.00	27.31
07/02/2022 07:03	266.1	1018.0	270.89	64.77	27.98	27.31
07/02/2022 07:04	266.1	1018.0	270.89	65.27	27.93	27.32
07/02/2022 07:05	266.1	1018.0	270.89	64.76	28.03	27.32
07/02/2022 07:06	266.0	1018.0	270.79	64.77	28.04	27.30
07/02/2022 07:07	266.0	1018.0	270.79	64.09	28.05	27.31
07/02/2022 07:08	266.1	1018.0	270.89	63.60	28.05	27.31
07/02/2022 07:09	266.2	1018.0	270.99	64.10	28.01	27.32
07/02/2022 07:10	266.2	1018.0	270.99	64.10	27.98	27.31
07/02/2022 07:11	266.1	1018.0	270.89	64.60	27.96	27.31
07/02/2022 07:12	266.1	1018.0	270.89	65.76	27.90	27.31
07/02/2022 07:13	266.0	1018.0	270.79	66.09	27.93	27.32
07/02/2022 07:14	266.0	1018.0	270.79	65.76	27.96	27.32
07/02/2022 07:15	265.9	1018.0	270.69	66.43	27.98	27.31
07/02/2022 07:16	266.0	1018.0	270.79	66.76	27.96	27.31
07/02/2022 07:17	266.0	1018.0	270.79	66.92	27.98	27.31
07/02/2022 07:18	266.0	1018.0	270.79	66.94	27.95	27.30
07/02/2022 07:19	266.1	1018.0	270.89	66.93	27.97	27.32
07/02/2022 07:20	266.0	1018.0	270.79	66.76	27.96	27.30
07/02/2022 07:21	265.9	1018.0	270.69	66.09	27.93	27.31
07/02/2022 07:22	266.2	1018.0	270.99	66.09	27.90	27.31
07/02/2022 07:23	266.2	1018.0	270.99	66.10	27.93	27.32
07/02/2022 07:24	266.1	1018.0	270.89	65.60	27.96	27.32
07/02/2022 07:25	266.1	1018.0	270.89	65.42	27.96	27.31
07/02/2022 07:26	266.2	1018.0	270.99	65.59	27.96	27.32
07/02/2022 07:27	266.1	1018.0	270.89	66.09	27.96	27.30

Period Start:	Average C5gasflow kscfh	Average C5hhv btu/sc	Average C5heat_in mmbtuh	Average C5nh3inj lb/hr	Average C5waterinj gpm	Average C5unitload MW
07/02/2022 07:28	266.1	1018.0	270.89	66.09	27.96	27.31
07/02/2022 07:29	266.3	1018.0	271.09	66.76	27.94	27.32
07/02/2022 07:30	266.3	1018.0	271.09	67.26	27.96	27.31
07/02/2022 07:31	266.4	1018.0	271.20	67.26	27.96	27.31
07/02/2022 07:32	266.1	1018.0	270.89	66.09	27.92	27.31
07/02/2022 07:33	266.2	1018.0	270.99	66.92	27.89	27.31
07/02/2022 07:34	266.4	1018.0	271.20	66.59	27.94	27.32
07/02/2022 07:35	266.2	1018.0	270.99	66.42	27.96	27.31
07/02/2022 07:36	266.6	1018.0	271.40	67.09	27.99	27.31
07/02/2022 07:37	266.5	1018.0	271.30	67.09	27.97	27.31
07/02/2022 07:38	266.4	1018.0	271.20	67.42	27.96	27.32
07/02/2022 07:39	266.4	1018.0	271.20	66.76	27.99	27.32
07/02/2022 07:40	266.5	1018.0	271.30	67.26	28.02	27.32
07/02/2022 07:41	266.5	1018.0	271.30	66.26	28.02	27.31
07/02/2022 07:42	266.6	1018.0	271.40	66.26	28.13	27.32
07/02/2022 07:43	266.4	1018.0	271.20	65.08	28.06	27.31
07/02/2022 07:44	266.7	1018.0	271.50	65.25	28.09	27.31
07/02/2022 07:45	266.6	1018.0	271.40	64.25	28.18	27.32
07/02/2022 07:46	266.5	1018.0	271.30	64.75	28.17	27.30
07/02/2022 07:47	266.7	1018.0	271.50	64.75	28.16	27.32
07/02/2022 07:48	266.6	1018.0	271.40	64.58	28.17	27.31
07/02/2022 07:49	266.7	1018.0	271.50	64.92	28.12	27.32
07/02/2022 07:50	266.6	1018.0	271.40	64.42	28.11	27.32
07/02/2022 07:51	266.5	1018.0	271.30	63.74	28.09	27.32
07/02/2022 07:52	266.5	1018.0	271.30	64.41	27.97	27.32
07/02/2022 07:53	266.5	1018.0	271.30	65.25	27.99	27.31
07/02/2022 07:54	266.6	1018.0	271.40	65.08	28.01	27.32
07/02/2022 07:55	266.4	1018.0	271.20	65.42	27.99	27.31
07/02/2022 07:56	266.4	1018.0	271.20	66.08	27.99	27.32
07/02/2022 07:57	266.6	1018.0	271.40	66.25	28.01	27.32
07/02/2022 07:58	266.4	1018.0	271.20	66.08	27.99	27.31
07/02/2022 07:59	266.3	1018.0	271.09	66.08	27.96	27.30
07/02/2022 08:00	266.6	1018.0	271.40	66.08	28.04	27.31
07/02/2022 08:01	266.4	1018.0	271.20	66.08	27.97	27.31
07/02/2022 08:02	266.5	1018.0	271.30	66.08	28.01	27.31
07/02/2022 08:03	266.3	1018.0	271.09	66.08	27.97	27.31
07/02/2022 08:04	266.4	1018.0	271.20	65.41	28.07	27.31
07/02/2022 08:05	266.5	1018.0	271.30	65.41	28.11	27.32
07/02/2022 08:06	266.4	1018.0	271.20	65.41	28.12	27.31
07/02/2022 08:07	266.4	1018.0	271.20	65.25	28.17	27.31
07/02/2022 08:08	266.5	1018.0	271.30	65.58	28.17	27.31
07/02/2022 08:09	266.6	1018.0	271.40	65.58	28.21	27.32
07/02/2022 08:10	266.6	1018.0	271.40	66.41	28.26	27.31
07/02/2022 08:11	266.7	1018.0	271.50	66.08	28.21	27.31
07/02/2022 08:12	266.6	1018.0	271.40	66.41	28.17	27.31
07/02/2022 08:13	266.6	1018.0	271.40	66.08	28.17	27.31
07/02/2022 08:14	266.7	1018.0	271.50	66.41	28.24	27.32
07/02/2022 08:15	266.5	1018.0	271.30	66.08	28.24	27.31
07/02/2022 08:16	266.4	1018.0	271.20	65.91	28.21	27.32
07/02/2022 08:17	266.5	1018.0	271.30	66.08	28.16	27.31
07/02/2022 08:18	266.6	1018.0	271.40	66.08	28.17	27.32
07/02/2022 08:19	266.6	1018.0	271.40	66.08	28.16	27.31
07/02/2022 08:20	266.6	1018.0	271.40	66.08	28.14	27.32
07/02/2022 08:21	266.5	1018.0	271.30	66.08	28.11	27.31
07/02/2022 08:22	266.5	1018.0	271.30	66.08	28.11	27.32
07/02/2022 08:23	266.5	1018.0	271.30	66.08	28.09	27.30
07/02/2022 08:24	266.5	1018.0	271.30	66.42	28.07	27.32
07/02/2022 08:25	266.4	1018.0	271.20	66.08	28.06	27.31
07/02/2022 08:26	266.4	1018.0	271.20	66.08	28.09	27.31
07/02/2022 08:27	266.4	1018.0	271.20	66.08	28.12	27.31
07/02/2022 08:28	266.8	1018.0	271.60	66.58	28.17	27.31
07/02/2022 08:29	266.5	1018.0	271.30	66.41	28.12	27.29
07/02/2022 08:30	266.7	1018.0	271.50	66.08	28.21	27.32
07/02/2022 08:31	266.6	1018.0	271.40	67.08	28.24	27.31
07/02/2022 08:32	266.7	1018.0	271.50	67.08	28.21	27.31
07/02/2022 08:33	266.5	1018.0	271.30	66.91	28.24	27.31
07/02/2022 08:34	266.6	1018.0	271.40	67.42	28.26	27.31
07/02/2022 08:35	266.7	1018.0	271.50	67.42	28.31	27.31
07/02/2022 08:36	266.7	1018.0	271.50	66.92	28.34	27.31
07/02/2022 08:37	266.8	1018.0	271.60	66.58	28.31	27.31
07/02/2022 08:38	266.6	1018.0	271.40	65.91	28.34	27.31
07/02/2022 08:39	266.6	1018.0	271.40	65.75	28.34	27.31

Period Start:	Average C5gasflow kscfh	Average C5hhv btu/sc	Average C5heat_in mmbtuh	Average C5nh3inj lb/hr	Average C5waterinj gpm	Average C5unitload MW
07/02/2022 08:40	266.9	1018.0	271.70	65.74	28.32	27.30
07/02/2022 08:41	266.7	1018.0	271.50	64.07	28.32	27.32
07/02/2022 08:42	266.8	1018.0	271.60	64.74	28.31	27.31
07/02/2022 08:43	266.6	1018.0	271.40	64.74	28.31	27.31
07/02/2022 08:44	266.7	1018.0	271.50	65.24	28.19	27.31
07/02/2022 08:45	266.7	1018.0	271.50	65.58	28.22	27.32
07/02/2022 08:46	266.6	1018.0	271.40	65.41	28.21	27.31
07/02/2022 08:47	266.7	1018.0	271.50	66.75	28.24	27.31
07/02/2022 08:48	266.5	1018.0	271.30	66.41	28.21	27.31
07/02/2022 08:49	266.8	1018.0	271.60	65.91	28.26	27.31
07/02/2022 08:50	266.7	1018.0	271.50	66.41	28.26	27.30
07/02/2022 08:51	266.9	1018.0	271.70	66.24	28.34	27.33
07/02/2022 08:52	266.8	1018.0	271.60	67.08	28.29	27.31
07/02/2022 08:53	267.0	1018.0	271.81	66.58	28.31	27.32
07/02/2022 08:54	266.9	1018.0	271.70	66.24	28.32	27.32
07/02/2022 08:55	266.9	1018.0	271.70	66.58	28.41	27.32
07/02/2022 08:56	266.7	1018.0	271.50	66.08	28.31	27.31
07/02/2022 08:57	266.7	1018.0	271.50	66.24	28.36	27.31
07/02/2022 08:58	266.6	1018.0	271.40	65.25	28.39	27.31
07/02/2022 08:59	266.7	1018.0	271.50	65.74	28.44	27.30
07/02/2022 09:00	266.8	1018.0	271.60	65.74	28.44	27.32
07/02/2022 09:01	266.8	1018.0	271.60	65.91	28.51	27.32
07/02/2022 09:02	267.1	1018.0	271.91	72.09	28.49	27.32
07/02/2022 09:03	267.1	1018.0	271.91	65.74	28.51	27.32
07/02/2022 09:04	267.0	1018.0	271.81	66.07	28.52	27.32
07/02/2022 09:05	267.1	1018.0	271.91	66.24	28.51	27.31
07/02/2022 09:06	267.0	1018.0	271.81	66.07	28.51	27.31
07/02/2022 09:07	267.0	1018.0	271.81	66.41	28.41	27.32
07/02/2022 09:08	266.8	1018.0	271.60	66.07	28.37	27.31
07/02/2022 09:09	267.0	1018.0	271.81	66.08	28.41	27.31
07/02/2022 09:10	267.1	1018.0	271.91	66.07	28.47	27.32
07/02/2022 09:11	267.4	1018.0	272.21	66.08	28.41	27.31
07/02/2022 09:12	267.1	1018.0	271.91	66.24	28.34	27.32
07/02/2022 09:13	267.0	1018.0	271.81	66.57	28.31	27.31
07/02/2022 09:14	266.9	1018.0	271.70	66.91	28.34	27.30
07/02/2022 09:15	266.9	1018.0	271.70	67.41	28.36	27.32
07/02/2022 09:16	267.0	1018.0	271.81	67.41	28.31	27.31
07/02/2022 09:17	266.9	1018.0	271.70	67.42	28.29	27.31
07/02/2022 09:18	267.0	1018.0	271.81	68.75	28.37	27.32
07/02/2022 09:19	267.1	1018.0	271.91	68.42	28.34	27.31
07/02/2022 09:20	266.8	1018.0	271.60	68.25	28.32	27.31
07/02/2022 09:21	267.0	1018.0	271.81	68.75	28.32	27.31
07/02/2022 09:22	267.1	1018.0	271.91	69.09	28.34	27.31
07/02/2022 09:23	267.1	1018.0	271.91	69.26	28.32	27.30
07/02/2022 09:24	267.1	1018.0	271.91	68.25	28.41	27.31
07/02/2022 09:25	267.1	1018.0	271.91	68.42	28.44	27.32
07/02/2022 09:26	267.0	1018.0	271.81	68.75	28.47	27.31
07/02/2022 09:27	267.2	1018.0	272.01	68.08	28.56	27.31
07/02/2022 09:28	267.1	1018.0	271.91	67.92	28.88	27.31
07/02/2022 09:29	267.1	1018.0	271.91	67.41	28.59	27.31
07/02/2022 09:30	267.3	1018.0	272.11	67.08	28.62	27.31
07/02/2022 09:31	267.3	1018.0	272.11	67.08	28.61	27.31
07/02/2022 09:32	267.2	1018.0	272.01	66.24	28.61	27.31
07/02/2022 09:33	267.2	1018.0	272.01	66.24	28.62	27.31
07/02/2022 09:34	267.3	1018.0	272.11	66.07	28.61	27.30
07/02/2022 09:35	267.1	1018.0	271.91	66.57	28.51	27.30
07/02/2022 09:36	267.3	1018.0	272.11	67.07	28.62	27.31
07/02/2022 09:37	267.0	1018.0	271.81	67.58	28.59	27.32
07/02/2022 09:38	267.0	1018.0	271.81	67.41	28.51	27.30
Final Average*	**266.5**	**1018.0**	**271.3**	**65.8**	**28.2**	**27.3**
Maximum*	**267.4**	**1018.0**	**272.2**	**72.1**	**28.9**	**27.3**
	07/02/2022 13:26	07/02/2022 13:30	07/02/2022 13:26	07/02/2022 13:25	07/02/2022 13:30	07/02/2022 12:30
Minimum*	**265.9**	**1018.0**	**270.7**	**61.8**	**27.9**	**27.3**
	07/02/2022 7:21	07/02/2022 13:30	07/02/2022 7:21	07/02/2022 6:35	07/02/2022 7:33	07/02/2022 13:20

* Does not include Invalid Averaging Periods ("N/A")

lb/sec 3.33 Fuel Density 0.045

Average Values Report
Generated: 7/31/2022 18:42

Company: Roseville Energy Park

Period Start: 7/2/2022 06:30

Plant: 5120 Phillip Rd

Period End: 7/2/2022 13:30

City/St: Roseville, CA 95747

Validation Type: 1/1 min

Source: CT005_Stack

Averaging Period: 1 min

Type: Block Avg

Period Start:	Average C5gasflow kscfh	Average C5hhv btu/sc	Average C5heat_in mmbtuh	Average C5nh3inj lb/hr	Average C5waterinj gpm	Average C5unitload MW
07/02/2022 10:00	267.4	1018.0	272.21	68.08	28.59	27.32
07/02/2022 10:01	267.3	1018.0	272.11	68.25	28.51	27.30
07/02/2022 10:02	267.1	1018.0	271.91	68.74	28.56	27.31
07/02/2022 10:03	267.2	1018.0	272.01	67.58	28.54	27.31
07/02/2022 10:04	267.3	1018.0	272.11	68.42	28.59	27.32
07/02/2022 10:05	267.3	1018.0	272.11	68.75	28.51	27.31
07/02/2022 10:06	267.3	1018.0	272.11	69.08	28.67	27.31
07/02/2022 10:07	267.5	1018.0	272.32	69.08	28.61	27.31
07/02/2022 10:08	267.5	1018.0	272.32	70.09	28.62	27.31
07/02/2022 10:09	267.5	1018.0	272.32	70.26	28.67	27.32
07/02/2022 10:10	267.4	1018.0	272.21	69.42	28.71	27.31
07/02/2022 10:11	267.3	1018.0	272.11	70.42	28.72	27.32
07/02/2022 10:12	267.4	1018.0	272.21	69.08	28.79	27.31
07/02/2022 10:13	267.7	1018.0	272.52	69.08	28.72	27.30
07/02/2022 10:14	267.6	1018.0	272.42	68.92	28.71	27.32
07/02/2022 10:15	267.7	1018.0	272.52	67.58	28.74	27.32
07/02/2022 10:16	267.7	1018.0	272.52	68.42	28.74	27.30
07/02/2022 10:17	267.6	1018.0	272.42	68.24	28.71	27.31
07/02/2022 10:18	267.5	1018.0	272.32	67.92	28.59	27.30
07/02/2022 10:19	267.4	1018.0	272.21	69.25	28.66	27.32
07/02/2022 10:20	267.4	1018.0	272.21	69.42	28.61	27.29
07/02/2022 10:21	267.8	1018.0	272.62	69.75	28.62	27.31
07/02/2022 10:22	267.7	1018.0	272.52	70.42	28.57	27.31
07/02/2022 10:23	267.5	1018.0	272.32	69.08	28.59	27.31
07/02/2022 10:24	267.4	1018.0	272.21	69.41	28.57	27.32
07/02/2022 10:25	267.5	1018.0	272.32	69.75	28.62	27.31
07/02/2022 10:26	267.6	1018.0	272.42	68.91	28.57	27.31
07/02/2022 10:27	267.5	1018.0	272.32	69.08	28.54	27.30
07/02/2022 10:28	267.5	1018.0	272.32	69.08	28.61	27.31
07/02/2022 10:29	267.7	1018.0	272.52	67.75	28.67	27.30
07/02/2022 10:30	267.7	1018.0	272.52	68.08	28.61	27.30
07/02/2022 10:31	267.3	1018.0	272.11	67.91	28.69	27.31
07/02/2022 10:32	267.4	1018.0	272.21	67.75	28.67	27.31
07/02/2022 10:33	267.6	1018.0	272.42	67.58	28.72	27.30
07/02/2022 10:34	267.6	1018.0	272.42	68.08	28.73	27.30
07/02/2022 10:35	267.8	1018.0	272.62	67.75	28.79	27.31
07/02/2022 10:36	267.4	1018.0	272.21	67.74	28.81	27.31
07/02/2022 10:37	267.5	1018.0	272.32	68.25	28.79	27.29
07/02/2022 10:38	267.7	1018.0	272.52	68.24	28.89	27.31
07/02/2022 10:39	267.6	1018.0	272.42	68.08	28.84	27.32
07/02/2022 10:40	267.7	1018.0	272.52	67.58	28.87	27.31
07/02/2022 10:41	267.6	1018.0	272.42	67.58	28.86	27.31
07/02/2022 10:42	267.6	1018.0	272.42	67.58	28.81	27.31
07/02/2022 10:43	267.6	1018.0	272.42	67.91	28.86	27.31
07/02/2022 10:44	267.4	1018.0	272.21	68.42	28.81	27.31
07/02/2022 10:45	267.4	1018.0	272.21	67.58	28.74	27.31
07/02/2022 10:46	267.4	1018.0	272.21	68.08	28.71	27.32
07/02/2022 10:47	267.3	1018.0	272.11	67.58	28.59	27.30
07/02/2022 10:48	267.5	1018.0	272.32	68.09	28.76	27.32
07/02/2022 10:49	267.7	1018.0	272.52	67.92	28.76	27.32
07/02/2022 10:50	267.8	1018.0	272.62	68.08	28.74	27.31
07/02/2022 10:51	267.3	1018.0	272.11	67.75	28.71	27.31
07/02/2022 10:52	267.6	1018.0	272.42	68.41	28.67	27.31
07/02/2022 10:53	267.8	1018.0	272.62	69.25	28.82	27.32
07/02/2022 10:54	267.6	1018.0	272.42	69.75	28.77	27.32
07/02/2022 10:55	267.5	1018.0	272.32	69.42	28.82	27.32
07/02/2022 10:56	267.6	1018.0	272.42	70.76	28.79	27.30
07/02/2022 10:57	267.9	1018.0	272.72	71.09	28.89	27.30

Period Start:	Average C5gasflow kscfh	Average C5hhv btu/sc	Average C5heat_in mmbtuh	Average C5nh3inj lb/hr	Average C5waterinj gpm	Average C5unitload MW
07/02/2022 10:58	267.9	1018.0	272.72	70.42	28.89	27.32
07/02/2022 10:59	267.7	1018.0	272.52	70.42	28.86	27.31
07/02/2022 11:00	267.6	1018.0	272.42	70.09	28.87	27.30
07/02/2022 11:01	267.8	1018.0	272.62	70.09	28.94	27.31
07/02/2022 11:02	267.7	1018.0	272.52	69.92	28.92	27.31
07/02/2022 11:03	267.8	1018.0	272.62	69.92	28.91	27.32
07/02/2022 11:04	267.8	1018.0	272.62	69.25	28.87	27.31
07/02/2022 11:05	267.7	1018.0	272.52	69.08	28.79	27.30
07/02/2022 11:06	267.6	1018.0	272.42	69.08	28.84	27.31
07/02/2022 11:07	267.8	1018.0	272.62	68.08	28.82	27.31
07/02/2022 11:08	267.7	1018.0	272.52	67.75	28.77	27.31
07/02/2022 11:09	267.7	1018.0	272.52	67.91	28.82	27.29
07/02/2022 11:10	267.9	1018.0	272.72	67.08	28.96	27.31
07/02/2022 11:11	267.9	1018.0	272.72	67.07	28.99	27.32
07/02/2022 11:12	267.8	1018.0	272.62	67.75	28.91	27.30
07/02/2022 11:13	267.7	1018.0	272.52	68.58	28.91	27.30
07/02/2022 11:14	267.7	1018.0	272.52	69.08	29.01	27.31
07/02/2022 11:15	267.9	1018.0	272.72	69.75	29.01	27.31
07/02/2022 11:16	268.0	1018.0	272.82	69.59	29.02	27.32
07/02/2022 11:17	267.9	1018.0	272.72	69.25	29.02	27.32
07/02/2022 11:18	267.6	1018.0	272.42	69.08	28.92	27.31
07/02/2022 11:19	267.9	1018.0	272.72	69.08	28.94	27.32
07/02/2022 11:20	267.8	1018.0	272.62	69.09	28.91	27.31
07/02/2022 11:21	267.9	1018.0	272.72	69.08	28.96	27.30
07/02/2022 11:22	267.8	1018.0	272.62	69.08	28.97	27.32
07/02/2022 11:23	267.8	1018.0	272.62	69.08	28.86	27.30
07/02/2022 11:24	267.8	1018.0	272.62	69.09	28.84	27.31
07/02/2022 11:25	268.0	1018.0	272.82	69.08	28.89	27.32
07/02/2022 11:26	268.2	1018.0	273.03	69.08	28.91	27.32
07/02/2022 11:27	267.7	1018.0	272.52	69.08	28.86	27.32
07/02/2022 11:28	267.8	1018.0	272.62	69.92	28.91	27.31
07/02/2022 11:29	267.9	1018.0	272.72	70.26	28.96	27.30
07/02/2022 11:30	267.8	1018.0	272.62	70.09	28.89	27.31
07/02/2022 11:31	267.9	1018.0	272.72	69.75	28.94	27.31
07/02/2022 11:32	267.7	1018.0	272.52	70.09	28.91	27.30
07/02/2022 11:33	267.8	1018.0	272.62	69.08	28.97	27.32
07/02/2022 11:34	267.8	1018.0	272.62	69.09	29.04	27.31
07/02/2022 11:35	267.9	1018.0	272.72	68.59	28.94	27.31
07/02/2022 11:36	267.9	1018.0	272.72	68.25	28.97	27.30
07/02/2022 11:37	267.9	1018.0	272.72	68.25	29.04	27.31
07/02/2022 11:38	267.9	1018.0	272.72	67.75	28.92	27.30
07/02/2022 11:39	267.7	1018.0	272.52	68.08	29.06	27.32
07/02/2022 11:40	267.8	1018.0	272.62	67.91	28.96	27.31
07/02/2022 11:41	267.9	1018.0	272.72	68.41	28.96	27.32
07/02/2022 11:42	267.9	1018.0	272.72	67.91	28.99	27.32
07/02/2022 11:43	267.7	1018.0	272.52	68.08	28.97	27.33
07/02/2022 11:44	267.9	1018.0	272.72	67.91	28.92	27.30
07/02/2022 11:45	267.8	1018.0	272.62	68.08	28.87	27.31
07/02/2022 11:46	267.8	1018.0	272.62	67.92	28.82	27.29
07/02/2022 11:47	268.0	1018.0	272.82	67.74	28.91	27.32
07/02/2022 11:48	267.8	1018.0	272.62	67.75	28.89	27.30
07/02/2022 11:49	267.9	1018.0	272.72	67.91	28.96	27.31
07/02/2022 11:50	267.9	1018.0	272.72	69.08	28.96	27.31
07/02/2022 11:51	267.8	1018.0	272.62	69.08	28.96	27.32
07/02/2022 11:52	267.7	1018.0	272.52	69.08	28.91	27.31
07/02/2022 11:53	268.1	1018.0	272.93	69.08	28.96	27.32
07/02/2022 11:54	267.9	1018.0	272.72	69.08	29.06	27.32
07/02/2022 11:55	267.9	1018.0	272.72	69.08	29.01	27.32
07/02/2022 11:56	267.8	1018.0	272.62	70.09	29.04	27.31
07/02/2022 11:57	267.8	1018.0	272.62	70.09	29.12	27.32
07/02/2022 11:58	267.9	1018.0	272.72	69.25	29.16	27.31
07/02/2022 11:59	267.8	1018.0	272.62	69.08	29.09	27.31
07/02/2022 12:00	267.8	1018.0	272.62	69.08	29.06	27.32
07/02/2022 12:01	267.8	1018.0	272.62	68.25	29.13	27.31
07/02/2022 12:02	268.1	1018.0	272.93	68.09	29.19	27.31
07/02/2022 12:03	267.9	1018.0	272.72	67.92	29.09	27.31
07/02/2022 12:04	267.9	1018.0	272.72	68.42	29.06	27.31
07/02/2022 12:05	267.9	1018.0	272.72	68.25	29.06	27.31
07/02/2022 12:06	267.8	1018.0	272.62	68.76	29.02	27.32
07/02/2022 12:07	267.9	1018.0	272.72	69.08	28.99	27.31
07/02/2022 12:08	267.9	1018.0	272.72	70.25	28.97	27.31
07/02/2022 12:09	268.0	1018.0	272.82	70.93	28.99	27.31

Period Start:	Average C5gasflow kscfh	Average C5hhv btu/sc	Average C5heat_in mmbtuh	Average C5nh3inj lb/hr	Average C5waterinj gpm	Average C5unitload MW
07/02/2022 12:10	267.9	1018.0	272.72	71.26	29.02	27.32
07/02/2022 12:11	268.0	1018.0	272.82	72.09	29.01	27.32
07/02/2022 12:12	267.7	1018.0	272.52	72.09	28.89	27.31
07/02/2022 12:13	267.9	1018.0	272.72	72.09	28.99	27.32
07/02/2022 12:14	267.7	1018.0	272.52	71.75	28.94	27.31
07/02/2022 12:15	267.9	1018.0	272.72	70.93	28.94	27.31
07/02/2022 12:16	267.8	1018.0	272.62	71.09	28.96	27.31
07/02/2022 12:17	267.9	1018.0	272.72	70.76	29.02	27.31
07/02/2022 12:18	267.9	1018.0	272.72	70.26	29.09	27.30
07/02/2022 12:19	267.8	1018.0	272.62	70.09	29.01	27.30
07/02/2022 12:20	268.0	1018.0	272.82	69.75	29.04	27.31
07/02/2022 12:21	267.8	1018.0	272.62	69.92	28.99	27.32
07/02/2022 12:22	268.0	1018.0	272.82	70.09	29.01	27.31
07/02/2022 12:23	267.9	1018.0	272.72	70.42	28.91	27.31
07/02/2022 12:24	267.8	1018.0	272.62	69.75	28.91	27.31
07/02/2022 12:25	267.8	1018.0	272.62	70.42	29.15	27.32
07/02/2022 12:26	268.1	1018.0	272.93	69.93	28.97	27.33
07/02/2022 12:27	268.1	1018.0	272.93	69.59	28.89	27.31
07/02/2022 12:28	268.1	1018.0	272.93	69.08	28.87	27.31
07/02/2022 12:29	268.1	1018.0	272.93	69.42	28.89	27.31
07/02/2022 12:30	268.0	1018.0	272.82	70.10	28.89	27.33
07/02/2022 12:31	267.8	1018.0	272.62	70.42	28.86	27.32
07/02/2022 12:32	267.9	1018.0	272.72	71.26	28.89	27.32
07/02/2022 12:33	267.9	1018.0	272.72	72.09	28.89	27.32
07/02/2022 12:34	267.8	1018.0	272.62	71.76	28.91	27.32
07/02/2022 12:35	267.8	1018.0	272.62	72.60	28.97	27.30
07/02/2022 12:36	267.9	1018.0	272.72	72.60	28.89	27.31
07/02/2022 12:37	267.9	1018.0	272.72	72.09	28.92	27.32
07/02/2022 12:38	267.9	1018.0	272.72	71.92	29.11	27.32
07/02/2022 12:39	267.8	1018.0	272.62	71.92	29.06	27.32
07/02/2022 12:40	267.9	1018.0	272.72	71.09	29.09	27.31
07/02/2022 12:41	268.0	1018.0	272.82	71.09	29.16	27.31
07/02/2022 12:42	268.0	1018.0	272.82	71.09	29.18	27.31
07/02/2022 12:43	268.1	1018.0	272.93	70.76	29.21	27.32
07/02/2022 12:44	268.1	1018.0	272.93	70.10	29.18	27.31
07/02/2022 12:45	268.0	1018.0	272.82	69.93	29.19	27.31
07/02/2022 12:46	268.1	1018.0	272.93	71.09	29.17	27.32
07/02/2022 12:47	267.9	1018.0	272.72	71.76	29.16	27.31
07/02/2022 12:48	267.9	1018.0	272.72	72.26	29.09	27.31
07/02/2022 12:49	267.9	1018.0	272.72	72.77	29.16	27.32
07/02/2022 12:50	268.1	1018.0	272.93	73.11	29.14	27.31
07/02/2022 12:51	268.0	1018.0	272.82	72.93	29.06	27.30
07/02/2022 12:52	267.9	1018.0	272.72	73.10	29.02	27.31
07/02/2022 12:53	267.9	1018.0	272.72	73.60	29.07	27.30
07/02/2022 12:54	268.1	1018.0	272.93	73.93	29.11	27.31
07/02/2022 12:55	268.2	1018.0	273.03	72.93	29.11	27.31
07/02/2022 12:56	268.1	1018.0	272.93	72.43	29.13	27.32
07/02/2022 12:57	267.9	1018.0	272.72	71.59	29.04	27.31
07/02/2022 12:58	267.9	1018.0	272.72	71.09	29.09	27.31
07/02/2022 12:59	268.1	1018.0	272.93	71.09	29.04	27.32
07/02/2022 13:00	268.1	1018.0	272.93	71.09	29.13	27.31
07/02/2022 13:01	268.0	1018.0	272.82	71.09	29.14	27.30
07/02/2022 13:02	268.3	1018.0	273.13	71.09	29.25	27.32
07/02/2022 13:03	268.0	1018.0	272.82	71.10	29.19	27.31
07/02/2022 13:04	267.9	1018.0	272.72	71.09	29.16	27.31
07/02/2022 13:05	268.2	1018.0	273.03	71.09	29.18	27.32
07/02/2022 13:06	268.1	1018.0	272.93	71.09	29.13	27.31
07/02/2022 13:07	268.1	1018.0	272.93	70.60	29.19	27.32
07/02/2022 13:08	268.1	1018.0	272.93	70.10	29.19	27.32
07/02/2022 13:09	268.1	1018.0	272.93	70.09	29.13	27.32
07/02/2022 13:10	268.1	1018.0	272.93	71.09	29.16	27.32
07/02/2022 13:11	268.0	1018.0	272.82	71.09	29.04	27.31
07/02/2022 13:12	267.9	1018.0	272.72	71.26	29.08	27.32
07/02/2022 13:13	267.8	1018.0	272.62	72.10	28.99	27.31
07/02/2022 13:14	268.0	1018.0	272.82	71.93	28.99	27.32
07/02/2022 13:15	267.9	1018.0	272.72	72.43	28.94	27.32
07/02/2022 13:16	268.1	1018.0	272.93	72.77	28.99	27.32
07/02/2022 13:17	268.1	1018.0	272.93	73.10	28.96	27.30
07/02/2022 13:18	267.9	1018.0	272.72	73.28	28.92	27.30
07/02/2022 13:19	267.9	1018.0	272.72	73.26	28.94	27.30
07/02/2022 13:20	268.0	1018.0	272.82	73.60	28.99	27.29
07/02/2022 13:21	268.4	1018.0	273.23	74.10	29.02	27.31

Period Start:	Average C5gasflow kscfh	Average C5hhv btu/sc	Average C5heat_in mmbtuh	Average C5nh3inj lb/hr	Average C5waterinj gpm	Average C5unitload MW
07/02/2022 13:22	268.0	1018.0	272.82	73.26	29.06	27.31
07/02/2022 13:23	268.0	1018.0	272.82	74.10	29.09	27.31
07/02/2022 13:24	268.2	1018.0	273.03	74.27	29.13	27.31
07/02/2022 13:25	268.4	1018.0	273.23	74.77	29.25	27.31
07/02/2022 13:26	268.4	1018.0	273.23	74.27	29.25	27.31
07/02/2022 13:27	268.1	1018.0	272.93	73.43	29.26	27.30
07/02/2022 13:28	268.1	1018.0	272.93	72.77	29.23	27.31
07/02/2022 13:29	268.3	1018.0	273.13	72.10	29.28	27.32
07/02/2022 13:30	268.2	1018.0	273.03	71.76	29.28	27.31
Final Average*	**267.8**	**1018.0**	**272.6**	**69.9**	**28.9**	**27.3**
Maximum*	**268.4**	**1018.0**	**273.2**	**74.8**	**29.3**	**27.3**
	07/02/2022 13:26	07/02/2022 13:30	07/02/2022 13:26	07/02/2022 13:25	07/02/2022 13:30	07/02/2022 12:30
Minimum*	**267.1**	**1018.0**	**271.9**	**67.1**	**28.5**	**27.3**
	07/02/2022 7:21	07/02/2022 13:30	07/02/2022 7:21	07/02/2022 6:35	07/02/2022 7:33	07/02/2022 13:20

* Does not include Invalid Averaging Periods ("N/A")

lb/sec 3.35 Fuel Density 0.045

Average Values Report
Generated: 7/26/2022 13:34

Company: Roseville Energy Park

Period Start: 7/2/2022 13:51

Plant: 5120 Phillip Rd

Period End: 7/2/2022 17:00

City/St: Roseville, CA 95747

Validation Type: 1/1 min
Source: CT005_Stack, CT006_Stack
Averaging Period: 1 min
Type: Block Avg

Period Start:	Average C5gasflow kscfh	Average C5hhv btu/sc	Average C5heat_in mmbtuh	Average C5nh3inj lb/hr	Average C5waterinj gpm	Average C5unitload MW	Average C6gasflow kscfh	Average C6hhv btu/sc	Average C6heat_in mmbtuh	Average C6nh3inj lb/hr	Average C6waterinj gpm	Average C6unitload MW
07/02/2022 13:51	-0.5	1018.0	0.00	8.27	-0.03	-0.02	258.7	1000.0	258.70	65.69	29.23	26.81
07/02/2022 13:52	-0.4	1018.0	0.00	7.94	-0.03	-0.02	258.8	1000.0	258.80	65.86	29.27	26.82
07/02/2022 13:53	-0.5	1018.0	0.00	8.27	-0.03	-0.02	259.0	1000.0	259.00	66.03	29.23	26.82
07/02/2022 13:54	-0.5	1018.0	0.00	6.11	-0.03	-0.02	258.7	1000.0	258.70	65.71	29.18	26.80
07/02/2022 13:55	-0.5	1018.0	0.00	5.77	-0.03	-0.02	258.5	1000.0	258.50	54.68	29.18	26.81
07/02/2022 13:56	-0.5	1018.0	0.00	6.77	-0.03	-0.02	258.5	1000.0	258.50	65.53	29.18	26.81
07/02/2022 13:57	-0.5	1018.0	0.00	2.42	-0.03	-0.02	258.2	1000.0	258.20	66.20	29.12	26.81
07/02/2022 13:58	-0.5	1018.0	0.00	7.27	-0.03	-0.02	258.2	1000.0	258.20	66.03	29.10	26.81
07/02/2022 13:59	-0.5	1018.0	0.00	6.77	-0.03	-0.02	258.2	1000.0	258.20	65.36	29.11	26.82
07/02/2022 14:00	-0.5	1018.0	0.00	1.25	-0.03	-0.02	258.3	1000.0	258.30	66.03	29.12	26.82
07/02/2022 14:01	-0.5	1018.0	0.00	2.42	-0.03	-0.02	258.0	1000.0	258.00	65.19	29.06	26.80
07/02/2022 14:02	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	258.1	1000.0	258.10	65.70	29.10	26.82
07/02/2022 14:03	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	258.0	1000.0	258.00	65.70	29.08	26.82
07/02/2022 14:04	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	258.2	1000.0	258.20	63.69	29.08	26.82
07/02/2022 14:05	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	258.1	1000.0	258.10	62.20	29.07	26.81
07/02/2022 14:06	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	258.3	1000.0	258.30	62.36	29.13	26.82
07/02/2022 14:07	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	258.2	1000.0	258.20	61.87	29.07	26.81
07/02/2022 14:08	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	258.2	1000.0	258.20	62.20	29.10	26.82
07/02/2022 14:09	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.9	1000.0	257.90	61.70	29.12	26.82
07/02/2022 14:10	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	258.1	1000.0	258.10	62.86	29.12	26.81
07/02/2022 14:11	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	258.1	1000.0	258.10	63.19	29.17	26.81
07/02/2022 14:12	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	258.0	1000.0	258.00	63.69	29.10	26.82
07/02/2022 14:13	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	258.0	1000.0	258.00	63.85	29.12	26.82
07/02/2022 14:14	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.8	1000.0	257.80	63.86	29.10	26.81
07/02/2022 14:15	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	258.2	1000.0	258.20	52.86	29.15	26.81
07/02/2022 14:16	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	258.2	1000.0	258.20	62.69	29.15	26.81
07/02/2022 14:17	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	258.2	1000.0	258.20	62.86	29.13	26.82
07/02/2022 14:18	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	258.2	1000.0	258.20	61.86	29.12	26.81
07/02/2022 14:19	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	258.2	1000.0	258.20	61.87	29.18	26.81
07/02/2022 14:20	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	258.1	1000.0	258.10	51.52	29.13	26.81
07/02/2022 14:21	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	258.2	1000.0	258.20	61.87	29.15	26.83
07/02/2022 14:22	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	258.0	1000.0	258.00	61.86	29.08	26.82
07/02/2022 14:23	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	258.1	1000.0	258.10	62.69	29.10	26.82
07/02/2022 14:24	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.9	1000.0	257.90	62.53	29.05	26.81
07/02/2022 14:25	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	258.1	1000.0	258.10	63.03	29.08	26.81
07/02/2022 14:26	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.8	1000.0	257.80	62.70	29.05	26.82
07/02/2022 14:27	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.9	1000.0	257.90	63.19	29.05	26.81
07/02/2022 14:28	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	258.3	1000.0	258.30	52.35	29.08	26.81
07/02/2022 14:29	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.9	1000.0	257.90	62.20	29.05	26.81
07/02/2022 14:30	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.9	1000.0	257.90	61.86	29.03	26.81
07/02/2022 14:31	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.7	1000.0	257.70	61.87	29.08	26.81
07/02/2022 14:32	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	258.2	1000.0	258.20	61.87	29.13	26.82
07/02/2022 14:33	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	258.3	1000.0	258.30	61.87	29.12	26.81
07/02/2022 14:34	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	258.1	1000.0	258.10	61.87	29.15	26.81
07/02/2022 14:35	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	258.3	1000.0	258.30	62.20	29.17	26.82
07/02/2022 14:36	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	258.0	1000.0	258.00	63.19	29.15	26.82
07/02/2022 14:37	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	258.0	1000.0	258.00	62.86	29.12	26.80

Period Start:	Average C5gasflow kscfh	Average C5hhv btu/sc	Average C5heat_in mmbtuh	Average C5nh3inj lb/hr	Average C5waterinj gpm	Average C5unitload MW	Average C6gasflow kscfh	Average C6hhv btu/sc	Average C6heat_in mmbtuh	Average C6nh3inj lb/hr	Average C6waterinj gpm	Average C6unitload MW
07/02/2022 14:38	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	258.2	1000.0	258.20	52.19	29.20	26.83
07/02/2022 14:39	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	258.1	1000.0	258.10	62.86	29.12	26.81
07/02/2022 14:40	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	258.3	1000.0	258.30	52.52	29.17	26.82
07/02/2022 14:41	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	258.2	1000.0	258.20	62.86	29.15	26.82
07/02/2022 14:42	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	258.0	1000.0	258.00	52.19	29.13	26.82
07/02/2022 14:43	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.8	1000.0	257.80	63.03	29.02	26.79
07/02/2022 14:44	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.8	1000.0	257.80	62.69	29.05	26.81
07/02/2022 14:45	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.9	1000.0	257.90	62.86	29.08	26.82
07/02/2022 14:46	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	258.1	1000.0	258.10	51.69	29.08	26.82
07/02/2022 14:47	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	258.1	1000.0	258.10	61.87	29.12	26.82
07/02/2022 14:48	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.8	1000.0	257.80	41.13	29.07	26.82
07/02/2022 14:49	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.9	1000.0	257.90	61.86	29.05	26.82
07/02/2022 14:50	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.9	1000.0	257.90	51.52	29.07	26.81
07/02/2022 14:51	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.8	1000.0	257.80	62.53	29.10	26.81
07/02/2022 14:52	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	258.1	1000.0	258.10	63.02	29.17	26.82
07/02/2022 14:53	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	258.0	1000.0	258.00	52.36	29.13	26.84
07/02/2022 14:54	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.9	1000.0	257.90	63.03	29.08	26.81
07/02/2022 14:55	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	258.1	1000.0	258.10	51.53	29.18	26.83
07/02/2022 14:56	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	258.1	1000.0	258.10	61.86	29.20	26.83
07/02/2022 14:57	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	258.2	1000.0	258.20	61.54	29.18	26.82
07/02/2022 14:58	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	258.0	1000.0	258.00	50.69	29.17	26.82
07/02/2022 14:59	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	258.1	1000.0	258.10	61.20	29.17	26.80
07/02/2022 15:00	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	258.2	1000.0	258.20	41.19	29.13	26.81
07/02/2022 15:01	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	258.0	1000.0	258.00	61.87	29.17	26.82
07/02/2022 15:02	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	258.1	1000.0	258.10	51.53	29.12	26.81
07/02/2022 15:03	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.8	1000.0	257.80	62.36	29.10	26.82
07/02/2022 15:04	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.8	1000.0	257.80	62.52	29.12	26.81
07/02/2022 15:05	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	258.1	1000.0	258.10	62.86	29.12	26.80
07/02/2022 15:06	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.8	1000.0	257.80	63.03	29.07	26.81
07/02/2022 15:07	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.8	1000.0	257.80	52.19	29.11	26.82
07/02/2022 15:08	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	258.0	1000.0	258.00	52.86	29.15	26.83
07/02/2022 15:09	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	258.1	1000.0	258.10	62.20	29.08	26.81
07/02/2022 15:10	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	258.0	1000.0	258.00	51.53	29.07	26.81
07/02/2022 15:11	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	258.1	1000.0	258.10	61.87	29.12	26.82
07/02/2022 15:12	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.9	1000.0	257.90	61.87	29.12	26.83
07/02/2022 15:13	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.8	1000.0	257.80	30.85	29.12	26.81
07/02/2022 15:14	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	258.2	1000.0	258.20	62.86	29.17	26.81
07/02/2022 15:15	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	258.1	1000.0	258.10	31.52	29.12	26.82
07/02/2022 15:16	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	258.1	1000.0	258.10	62.69	29.15	26.83
07/02/2022 15:17	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.8	1000.0	257.80	63.20	29.07	26.82
07/02/2022 15:18	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.9	1000.0	257.90	53.19	29.13	26.83
07/02/2022 15:19	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.9	1000.0	257.90	63.86	29.13	26.82
07/02/2022 15:20	-0.5	1018.0	0.00	-0.07	-0.03	-0.02	257.9	1000.0	257.90	53.20	29.12	26.82
07/02/2022 15:21	-0.5	1018.0	0.00	-0.07	-0.03	-0.02	257.8	1000.0	257.80	63.86	29.10	26.82
07/02/2022 15:22	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.7	1000.0	257.70	63.37	29.12	26.82
07/02/2022 15:23	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	258.1	1000.0	258.10	52.53	29.08	26.82
07/02/2022 15:24	-0.5	1018.0	0.00	-0.07	-0.03	-0.02	258.0	1000.0	258.00	62.53	29.08	26.83
07/02/2022 15:25	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.8	1000.0	257.80	41.86	29.07	26.82
07/02/2022 15:26	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.9	1000.0	257.90	52.37	29.08	26.82
07/02/2022 15:27	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.9	1000.0	257.90	63.53	29.10	26.81
07/02/2022 15:28	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.9	1000.0	257.90	53.19	29.02	26.81
07/02/2022 15:29	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.6	1000.0	257.60	64.03	29.02	26.80
07/02/2022 15:30	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.9	1000.0	257.90	63.36	29.07	26.81
07/02/2022 15:31	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	258.2	1000.0	258.20	63.53	29.12	26.82
07/02/2022 15:32	-0.5	1018.0	0.00	-0.07	-0.03	-0.02	258.0	1000.0	258.00	63.53	29.11	26.82
07/02/2022 15:33	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	258.2	1000.0	258.20	51.53	29.12	26.82
07/02/2022 15:34	-0.4	1018.0	0.00	-0.08	-0.02	-0.02	258.1	1000.0	258.10	61.88	29.05	26.82
07/02/2022 15:35	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	258.0	1000.0	258.00	62.87	29.08	26.81
07/02/2022 15:36	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.8	1000.0	257.80	62.37	29.10	26.82
07/02/2022 15:37	-0.5	1018.0	0.00	-0.08	-0.02	-0.02	258.1	1000.0	258.10	62.70	29.12	26.83
07/02/2022 15:38	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.9	1000.0	257.90	63.20	29.08	26.82

Period Start:	Average C5gasflow kscfh	Average C5hhv btu/sc	Average C5heat_in mmbtuh	Average C5nh3inj lb/hr	Average C5waterinj gpm	Average C5unitload MW	Average C6gasflow kscfh	Average C6hhv btu/sc	Average C6heat_in mmbtuh	Average C6nh3inj lb/hr	Average C6waterinj gpm	Average C6unitload MW
07/02/2022 15:39	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	258.0	1000.0	258.00	62.37	29.08	26.82
07/02/2022 15:40	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	258.0	1000.0	258.00	61.87	29.13	26.82
07/02/2022 15:41	-0.4	1018.0	0.00	-0.08	-0.02	-0.02	257.7	1000.0	257.70	61.88	29.10	26.81
07/02/2022 15:42	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	258.0	1000.0	258.00	61.87	29.15	26.82
07/02/2022 15:43	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.8	1000.0	257.80	61.87	29.12	26.81
07/02/2022 15:44	-0.4	1018.0	0.00	-0.08	-0.02	-0.02	257.9	1000.0	257.90	61.88	29.10	26.82
07/02/2022 15:45	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.9	1000.0	257.90	61.87	29.12	26.82
07/02/2022 15:46	-0.4	1018.0	0.00	-0.08	-0.02	-0.02	257.8	1000.0	257.80	61.87	29.12	26.81
07/02/2022 15:47	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.7	1000.0	257.70	61.88	29.07	26.82
07/02/2022 15:48	-0.4	1018.0	0.00	-0.08	-0.02	-0.02	257.9	1000.0	257.90	51.54	29.10	26.81
07/02/2022 15:49	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.9	1000.0	257.90	61.54	29.07	26.83
07/02/2022 15:50	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	258.0	1000.0	258.00	61.54	29.08	26.82
07/02/2022 15:51	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.9	1000.0	257.90	61.20	29.10	26.81
07/02/2022 15:52	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	258.0	1000.0	258.00	61.88	29.10	26.82
07/02/2022 15:53	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	258.0	1000.0	258.00	61.88	29.13	26.82
07/02/2022 15:54	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	258.0	1000.0	258.00	61.88	29.12	26.82
07/02/2022 15:55	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.6	1000.0	257.60	61.88	29.13	26.82
07/02/2022 15:56	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.9	1000.0	257.90	61.88	29.10	26.81
07/02/2022 15:57	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	258.0	1000.0	258.00	61.88	29.15	26.83
07/02/2022 15:58	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	258.0	1000.0	258.00	61.88	29.15	26.83
07/02/2022 15:59	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.9	1000.0	257.90	61.87	29.10	26.81
07/02/2022 16:00	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.8	1000.0	257.80	61.87	29.12	26.82
07/02/2022 16:01	-0.4	1018.0	0.00	-0.07	-0.02	-0.02	258.1	1000.0	258.10	51.53	29.07	26.82
07/02/2022 16:02	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.8	1000.0	257.80	61.87	29.07	26.82
07/02/2022 16:03	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.8	1000.0	257.80	61.04	29.05	26.81
07/02/2022 16:04	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.7	1000.0	257.70	61.38	29.05	26.81
07/02/2022 16:05	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.9	1000.0	257.90	60.88	29.03	26.82
07/02/2022 16:06	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	258.0	1000.0	258.00	40.69	29.07	26.82
07/02/2022 16:07	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.8	1000.0	257.80	61.04	29.05	26.82
07/02/2022 16:08	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.9	1000.0	257.90	61.87	29.12	26.82
07/02/2022 16:09	-0.5	1018.0	0.00	-0.07	-0.03	-0.02	257.8	1000.0	257.80	52.19	29.07	26.82
07/02/2022 16:10	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.9	1000.0	257.90	62.87	29.08	26.83
07/02/2022 16:11	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.6	1000.0	257.60	52.52	29.07	26.82
07/02/2022 16:12	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.8	1000.0	257.80	62.87	29.08	26.82
07/02/2022 16:13	-0.4	1018.0	0.00	-0.07	-0.02	-0.02	257.9	1000.0	257.90	63.03	29.10	26.82
07/02/2022 16:14	-0.4	1018.0	0.00	-0.08	-0.02	-0.02	257.9	1000.0	257.90	62.20	29.12	26.83
07/02/2022 16:15	-0.4	1018.0	0.00	-0.08	-0.02	-0.02	258.0	1000.0	258.00	62.21	29.15	26.81
07/02/2022 16:16	-0.5	1018.0	0.00	-0.07	-0.03	-0.02	257.9	1000.0	257.90	61.87	29.10	26.81
07/02/2022 16:17	-0.4	1018.0	0.00	-0.07	-0.02	-0.02	257.9	1000.0	257.90	61.87	29.15	26.82
07/02/2022 16:18	-0.4	1018.0	0.00	-0.07	-0.02	-0.02	257.8	1000.0	257.80	61.87	29.12	26.82
07/02/2022 16:19	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.7	1000.0	257.70	61.87	29.10	26.82
07/02/2022 16:20	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.6	1000.0	257.60	61.20	29.07	26.81
07/02/2022 16:21	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	258.0	1000.0	258.00	50.70	29.12	26.81
07/02/2022 16:22	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.8	1000.0	257.80	60.88	29.02	26.81
07/02/2022 16:23	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.9	1000.0	257.90	60.54	29.08	26.82
07/02/2022 16:24	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.9	1000.0	257.90	61.21	29.07	26.82
07/02/2022 16:25	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.7	1000.0	257.70	60.87	29.03	26.82
07/02/2022 16:26	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.6	1000.0	257.60	51.54	28.97	26.82
07/02/2022 16:27	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.7	1000.0	257.70	61.88	29.02	26.82
07/02/2022 16:28	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.7	1000.0	257.70	62.54	28.97	26.82
07/02/2022 16:29	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.8	1000.0	257.80	51.53	29.00	26.82
07/02/2022 16:30	-0.4	1018.0	0.00	-0.08	-0.02	-0.02	257.6	1000.0	257.60	62.54	28.95	27.49
07/02/2022 16:31	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.7	1000.0	257.70	62.20	29.05	26.81
07/02/2022 16:32	-0.4	1018.0	0.00	-0.08	-0.02	-0.02	257.9	1000.0	257.90	51.53	29.08	26.82
07/02/2022 16:33	-0.5	1018.0	0.00	-0.07	-0.02	-0.02	257.8	1000.0	257.80	51.53	29.03	26.82
07/02/2022 16:34	-0.3	1018.0	0.00	-0.08	-0.03	-0.02	257.7	1000.0	257.70	50.87	29.10	26.82
07/02/2022 16:35	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.8	1000.0	257.80	61.53	29.10	26.82
07/02/2022 16:36	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.7	1000.0	257.70	50.53	29.08	26.83
07/02/2022 16:37	-0.3	1018.0	0.00	-0.07	-0.02	-0.02	257.8	1000.0	257.80	60.87	29.10	26.81
07/02/2022 16:38	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.9	1000.0	257.90	61.54	29.10	26.82
07/02/2022 16:39	-0.3	1018.0	0.00	-0.08	-0.03	-0.02	258.1	1000.0	258.10	61.88	29.17	26.85

Period Start:	Average C5gasflow kscfh	Average C5hhv btu/sc	Average C5heat_in mmbtuh	Average C5nh3inj lb/hr	Average C5waterinj gpm	Average C5unitload MW	Average C6gasflow kscfh	Average C6hhv btu/sc	Average C6heat_in mmbtuh	Average C6nh3inj lb/hr	Average C6waterinj gpm	Average C6unitload MW
07/02/2022 16:40	-0.3	1018.0	0.00	-0.07	-0.02	-0.02	257.8	1000.0	257.80	61.88	29.07	26.81
07/02/2022 16:41	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.8	1000.0	257.80	41.19	29.03	26.80
07/02/2022 16:42	-0.4	1018.0	0.00	-0.07	-0.02	-0.02	257.6	1000.0	257.60	61.87	28.98	26.82
07/02/2022 16:43	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.5	1000.0	257.50	51.54	28.98	26.81
07/02/2022 16:44	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.6	1000.0	257.60	41.20	29.00	26.83
07/02/2022 16:45	-0.3	1018.0	0.00	-0.07	-0.03	-0.02	257.7	1000.0	257.70	61.88	28.98	26.82
07/02/2022 16:46	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.8	1000.0	257.80	51.53	29.02	26.83
07/02/2022 16:47	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.6	1000.0	257.60	51.53	29.03	26.82
07/02/2022 16:48	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.5	1000.0	257.50	61.88	29.00	26.82
07/02/2022 16:49	-0.3	1018.0	0.00	-0.07	-0.02	-0.02	257.6	1000.0	257.60	51.51	28.98	26.81
07/02/2022 16:50	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.5	1000.0	257.50	61.03	29.00	26.82
07/02/2022 16:51	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.7	1000.0	257.70	61.20	29.07	26.83
07/02/2022 16:52	-0.4	1018.0	0.00	-0.07	-0.02	-0.02	257.9	1000.0	257.90	61.21	29.10	26.82
07/02/2022 16:53	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.6	1000.0	257.60	60.87	29.13	26.82
07/02/2022 16:54	-0.4	1018.0	0.00	-0.08	-0.02	-0.02	257.7	1000.0	257.70	61.54	29.08	26.81
07/02/2022 16:55	-0.5	1018.0	0.00	-0.07	-0.02	-0.02	257.7	1000.0	257.70	61.87	29.13	26.82
07/02/2022 16:56	-0.4	1018.0	0.00	-0.08	-0.02	-0.02	257.8	1000.0	257.80	51.53	29.13	26.81
07/02/2022 16:57	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	258.0	1000.0	258.00	51.20	29.13	26.83
07/02/2022 16:58	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.6	1000.0	257.60	60.87	29.10	26.82
07/02/2022 16:59	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.5	1000.0	257.50	50.37	29.05	26.81
07/02/2022 17:00	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.5	1000.0	257.50	60.87	29.07	26.82
Final Average*	**-0.5**	**1018.0**	**0.00**	**0.26**	**-0.03**	**-0.02**	**257.9**	**1000.0**	**257.95**	**59.26**	**29.10**	**26.82**
Maximum*	**0.0**	**1018.0**	**0.00**	**8.27**	**0.00**	**0.00**	**259.0**	**1000.0**	**259.00**	**66.20**	**29.27**	**27.49**
		07/02/2022 17:00		07/02/2022 13:53			07/02/2022 13:53	07/02/2022 17:00	07/02/2022 13:53	07/02/2022 13:57	07/02/2022 13:52	07/02/2022 16:30
Minimum*	**-0.5**	**1018.0**	**0.00**	**-0.09**	**-0.03**	**-0.02**	**257.5**	**1000.0**	**257.50**	**30.85**	**28.95**	**26.79**
	07/02/2022 16:55	07/02/2022 17:00	07/02/2022 17:00	07/02/2022 15:12	07/02/2022 17:00	07/02/2022 17:00	07/02/2022 17:00	07/02/2022 17:00	07/02/2022 17:00	07/02/2022 15:13	07/02/2022 16:30	07/02/2022 14:43

* Does not include Invalid Averaging Periods ("N/A")

lb/sec	3.22	Fuel Density	0.045

Average Values Report
Generated: 7/26/2022 13:35

Company: Roseville Energy Park

Period Start: 7/3/2022 07:17

Plant: 5120 Phillip Rd

Period End: 7/3/2022 08:29

City/St: Roseville, CA 95747

Validation Type: 1/1 min
Source: CT005_Stack, CT006_Stack
Averaging Period: 1 min
Type: Block Avg

Period Start:	Average C5gasflow kscfh	Average C5hhv btu/sc	Average C5heat_in mmbtuh	Average C5nh3inj lb/hr	Average C5waterinj gpm	Average C5unitload MW	Average C6gasflow kscfh	Average C6hhv btu/sc	Average C6heat_in mmbtuh	Average C6nh3inj lb/hr	Average C6waterinj gpm	Average C6unitload MW
07/03/2022 07:17	-0.3	1018.0	0.00	-0.05	-0.02	-0.01	256.5	1000.0	256.50	42.72	28.91	26.81
07/03/2022 07:18	-0.3	1018.0	0.00	-0.04	-0.02	-0.01	256.5	1000.0	256.50	51.07	28.88	26.82
07/03/2022 07:19	-0.3	1018.0	0.00	-0.05	-0.02	-0.01	256.4	1000.0	256.40	42.22	28.86	26.82
07/03/2022 07:20	-0.3	1018.0	0.00	-0.04	-0.02	-0.01	256.5	1000.0	256.50	51.72	28.88	26.81
07/03/2022 07:21	-0.3	1018.0	0.00	-0.05	-0.02	-0.01	256.4	1000.0	256.40	52.89	28.86	26.81
07/03/2022 07:22	-0.3	1018.0	0.00	-0.05	-0.02	-0.01	256.5	1000.0	256.50	53.39	28.86	26.82
07/03/2022 07:23	-0.3	1018.0	0.00	-0.04	-0.02	-0.01	256.4	1000.0	256.40	53.89	28.86	26.82
07/03/2022 07:24	-0.3	1018.0	0.00	-0.05	-0.02	-0.01	256.5	1000.0	256.50	44.89	28.87	26.81
07/03/2022 07:25	-0.3	1018.0	0.00	-0.05	-0.02	-0.01	256.5	1000.0	256.50	53.89	28.86	26.82
07/03/2022 07:26	-0.3	1018.0	0.00	-0.05	-0.02	-0.01	256.4	1000.0	256.40	44.89	28.87	26.82
07/03/2022 07:27	-0.3	1018.0	0.00	-0.05	-0.02	-0.01	256.5	1000.0	256.50	53.06	28.86	26.81
07/03/2022 07:28	-0.3	1018.0	0.00	-0.05	-0.02	-0.01	256.4	1000.0	256.40	52.89	28.89	26.79
07/03/2022 07:29	-0.3	1018.0	0.00	-0.05	-0.02	-0.01	256.6	1000.0	256.60	52.56	28.91	26.81
07/03/2022 07:30	-0.3	1018.0	0.00	-0.06	-0.02	-0.01	256.4	1000.0	256.40	51.89	28.87	26.81
07/03/2022 07:31	-0.3	1018.0	0.00	-0.05	-0.02	-0.01	256.4	1000.0	256.40	51.88	28.87	26.82
07/03/2022 07:32	-0.3	1018.0	0.00	-0.06	-0.02	-0.01	256.4	1000.0	256.40	51.72	28.89	26.81
07/03/2022 07:33	-0.3	1018.0	0.00	-0.05	-0.02	-0.01	256.4	1000.0	256.40	50.55	28.91	26.80
07/03/2022 07:34	-0.3	1018.0	0.00	-0.05	-0.02	-0.01	256.3	1000.0	256.30	42.72	28.94	26.80
07/03/2022 07:35	-0.3	1018.0	0.00	-0.06	-0.02	-0.01	256.6	1000.0	256.60	51.89	28.89	26.80
07/03/2022 07:36	-0.3	1018.0	0.00	-0.06	-0.02	-0.01	256.3	1000.0	256.30	43.72	28.90	26.80
07/03/2022 07:37	-0.3	1018.0	0.00	-0.06	-0.02	-0.01	256.4	1000.0	256.40	52.89	28.89	26.80
07/03/2022 07:38	-0.3	1018.0	0.00	-0.06	-0.02	-0.01	256.5	1000.0	256.50	53.05	28.87	26.81
07/03/2022 07:39	-0.3	1018.0	0.00	-0.06	-0.02	-0.01	256.6	1000.0	256.60	44.88	28.85	26.80
07/03/2022 07:40	-0.3	1018.0	0.00	-0.06	-0.02	-0.01	256.6	1000.0	256.60	53.88	28.85	26.81
07/03/2022 07:41	-0.4	1018.0	0.00	-0.06	-0.02	-0.01	256.2	1000.0	256.20	44.88	28.85	26.80
07/03/2022 07:42	-0.3	1018.0	0.00	-0.06	-0.02	-0.01	256.4	1000.0	256.40	53.20	28.85	26.81
07/03/2022 07:43	-0.3	1018.0	0.00	-0.06	-0.02	-0.01	256.3	1000.0	256.30	53.22	28.85	26.79
07/03/2022 07:44	-0.3	1018.0	0.00	-0.06	-0.02	-0.01	256.3	1000.0	256.30	53.21	28.85	26.81
07/03/2022 07:45	-0.4	1018.0	0.00	-0.06	-0.02	-0.02	256.5	1000.0	256.50	51.88	28.85	26.80
07/03/2022 07:46	-0.4	1018.0	0.00	-0.07	-0.02	-0.01	256.3	1000.0	256.30	43.21	28.89	26.80
07/03/2022 07:47	-0.3	1018.0	0.00	-0.06	-0.02	-0.02	256.3	1000.0	256.30	43.21	28.87	26.79
07/03/2022 07:48	-0.4	1018.0	0.00	-0.07	-0.02	-0.01	256.4	1000.0	256.40	51.88	28.90	26.80
07/03/2022 07:49	-0.4	1018.0	0.00	-0.06	-0.02	-0.01	256.6	1000.0	256.60	52.71	28.92	26.81
07/03/2022 07:50	-0.4	1018.0	0.00	-0.07	-0.02	-0.01	256.4	1000.0	256.40	52.71	28.90	26.80
07/03/2022 07:51	-0.4	1018.0	0.00	-0.06	-0.02	-0.01	256.5	1000.0	256.50	43.54	28.92	26.81
07/03/2022 07:52	-0.4	1018.0	0.00	-0.07	-0.02	-0.01	256.4	1000.0	256.40	53.55	28.90	26.81
07/03/2022 07:53	-0.4	1018.0	0.00	-0.06	-0.02	-0.01	256.3	1000.0	256.30	53.88	28.92	26.81
07/03/2022 07:54	-0.4	1018.0	0.00	-0.07	-0.02	-0.01	256.5	1000.0	256.50	34.38	28.90	26.80
07/03/2022 07:55	-0.4	1018.0	0.00	-0.07	-0.02	-0.01	256.3	1000.0	256.30	53.54	28.92	26.80
07/03/2022 07:56	-0.3	1018.0	0.00	-0.06	-0.02	-0.01	256.4	1000.0	256.40	51.60	28.89	26.80
07/03/2022 07:57	-0.4	1018.0	0.00	-0.06	-0.02	-0.01	256.4	1000.0	256.40	53.04	28.90	26.81
07/03/2022 07:58	-0.4	1018.0	0.00	-0.07	-0.02	-0.01	256.5	1000.0	256.50	52.71	28.85	26.82
07/03/2022 07:59	-0.4	1018.0	0.00	-0.07	-0.02	-0.02	256.4	1000.0	256.40	52.88	28.90	26.81
07/03/2022 08:00	-0.4	1018.0	0.00	-0.07	-0.02	-0.02	256.5	1000.0	256.50	52.71	28.88	26.80
07/03/2022 08:01	-0.4	1018.0	0.00	-0.06	-0.02	-0.02	256.3	1000.0	256.30	52.37	28.87	26.81
07/03/2022 08:02	-0.4	1018.0	0.00	-0.07	-0.02	-0.02	256.4	1000.0	256.40	52.88	28.85	26.80
07/03/2022 08:03	-0.4	1018.0	0.00	-0.07	-0.02	-0.02	256.4	1000.0	256.40	44.05	28.85	26.81

Period Start:	Average C5gasflow kscfh	Average C5hhv btu/sc	Average C5heat_in mmbtuh	Average C5nh3inj lb/hr	Average C5waterinj gpm	Average C5unitload MW	Average C6gasflow kscfh	Average C6hhv btu/sc	Average C6heat_in mmbtuh	Average C6nh3inj lb/hr	Average C6waterinj gpm	Average C6unitload MW
07/03/2022 08:04	-0.4	1018.0	0.00	-0.07	-0.02	-0.01	256.5	1000.0	256.50	44.87	28.85	26.81
07/03/2022 08:05	-0.4	1018.0	0.00	-0.07	-0.02	-0.02	256.2	1000.0	256.20	53.87	28.85	26.80
07/03/2022 08:06	-0.4	1018.0	0.00	-0.07	-0.02	-0.01	256.4	1000.0	256.40	53.87	28.85	26.82
07/03/2022 08:07	-0.4	1018.0	0.00	-0.07	-0.02	-0.02	256.4	1000.0	256.40	53.88	28.87	26.81
07/03/2022 08:08	-0.4	1018.0	0.00	-0.07	-0.02	-0.02	256.4	1000.0	256.40	44.34	28.83	26.80
07/03/2022 08:09	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	256.4	1000.0	256.40	52.54	28.87	26.81
07/03/2022 08:10	-0.4	1018.0	0.00	-0.07	-0.02	-0.02	256.6	1000.0	256.60	52.37	28.85	26.81
07/03/2022 08:11	-0.4	1018.0	0.00	-0.07	-0.02	-0.02	256.3	1000.0	256.30	51.53	28.85	26.81
07/03/2022 08:12	-0.4	1018.0	0.00	-0.07	-0.02	-0.02	256.5	1000.0	256.50	52.71	28.85	26.81
07/03/2022 08:13	-0.4	1018.0	0.00	-0.08	-0.02	-0.02	256.4	1000.0	256.40	53.04	28.85	26.82
07/03/2022 08:14	-0.4	1018.0	0.00	-0.08	-0.02	-0.02	256.6	1000.0	256.60	53.87	28.85	26.82
07/03/2022 08:15	-0.4	1018.0	0.00	-0.07	-0.02	-0.02	256.5	1000.0	256.50	53.87	28.85	26.80
07/03/2022 08:16	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	256.4	1000.0	256.40	53.87	28.85	26.82
07/03/2022 08:17	-0.4	1018.0	0.00	-0.07	-0.02	-0.02	256.4	1000.0	256.40	53.87	28.85	26.81
07/03/2022 08:18	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	256.5	1000.0	256.50	53.87	28.85	26.80
07/03/2022 08:19	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	256.4	1000.0	256.40	53.20	28.85	26.81
07/03/2022 08:20	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	256.4	1000.0	256.40	52.71	28.85	26.80
07/03/2022 08:21	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	256.3	1000.0	256.30	52.54	28.83	26.80
07/03/2022 08:22	-0.4	1018.0	0.00	-0.08	-0.02	-0.02	256.4	1000.0	256.40	52.87	28.82	26.81
07/03/2022 08:23	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	256.4	1000.0	256.40	53.54	28.80	26.80
07/03/2022 08:24	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	256.4	1000.0	256.40	53.87	28.85	26.81
07/03/2022 08:25	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	256.4	1000.0	256.40	53.87	29.08	26.82
07/03/2022 08:26	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.1	1000.0	257.10	54.87	30.47	26.81
07/03/2022 08:27	-0.4	1018.0	0.00	-0.08	-0.02	-0.02	257.1	1000.0	257.10	54.70	30.45	26.80
07/03/2022 08:28	-0.4	1018.0	0.00	-0.07	-0.02	-0.02	257.6	1000.0	257.60	53.70	30.48	26.82
07/03/2022 08:29	-0.4	1018.0	0.00	-0.07	-0.02	-0.02	257.3	1000.0	257.30	51.70	30.45	26.80
Final Average*	**-0.4**	**1018.0**	**0.00**	**-0.06**	**-0.02**	**-0.01**	**256.5**	**1000.0**	**256.47**	**50.96**	**28.96**	**26.81**
Maximum*	**0.0**	**1018.0**	**0.00**	**0.00**	**0.00**	**0.00**	**257.6**	**1000.0**	**257.60**	**54.87**	**30.48**	**26.82**
		07/03/2022 8:29					07/03/2022 8:28	07/03/2022 8:29	07/03/2022 8:28	07/03/2022 8:26	07/03/2022 8:28	07/03/2022 8:28
Minimum*	**-0.5**	**1018.0**	**0.00**	**-0.08**	**-0.03**	**-0.02**	**256.2**	**1000.0**	**256.20**	**34.38**	**28.80**	**26.79**
	07/03/2022 8:20	07/03/2022 8:29	07/03/2022 8:29	07/03/2022 8:27	07/03/2022 8:26	07/03/2022 8:29	07/03/2022 8:05	07/03/2022 8:29	07/03/2022 8:05	07/03/2022 7:54	07/03/2022 8:23	07/03/2022 7:47

* Does not include Invalid Averaging Periods ("N/A")

lb/sec 3.21 Fuel Density 0.045

Average Values Report
Generated: 7/26/2022 13:36

Company: Roseville Energy Park

Period Start: 7/3/2022 08:49

Plant: 5120 Phillip Rd

Period End: 7/3/2022 09:49

City/St: Roseville, CA 95747

Validation Type: 1/1 min
Source: CT005_Stack, CT006_Stack
Averaging Period: 1 min
Type: Block Avg

Period Start:	Average C5gasflow kscfh	Average C5hhv btu/sc	Average C5heat_in mmbtuh	Average C5nh3inj lb/hr	Average C5waterinj gpm	Average C5unitload MW	Average C6gasflow kscfh	Average C6hhv btu/sc	Average C6heat_in mmbtuh	Average C6nh3inj lb/hr	Average C6waterinj gpm	Average C6unitload MW
07/03/2022 08:49	-0.4	1018.0	0.00	-0.08	-0.02	-0.02	257.5	1000.0	257.50	48.86	30.52	26.81
07/03/2022 08:50	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	49.03	30.52	26.82
07/03/2022 08:51	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.5	1000.0	257.50	48.70	30.53	26.81
07/03/2022 08:52	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.5	1000.0	257.50	48.69	30.47	26.82
07/03/2022 08:53	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	40.53	30.50	26.81
07/03/2022 08:54	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	49.03	30.45	26.81
07/03/2022 08:55	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.0	1000.0	257.00	49.03	30.45	26.80
07/03/2022 08:56	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.5	1000.0	257.50	39.41	30.52	26.81
07/03/2022 08:57	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.4	1000.0	257.40	49.03	30.47	26.81
07/03/2022 08:58	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.3	1000.0	257.30	40.35	30.45	26.80
07/03/2022 08:59	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	49.20	30.45	26.81
07/03/2022 09:00	-0.5	1018.0	0.00	-0.07	-0.03	-0.02	257.2	1000.0	257.20	40.53	30.48	26.80
07/03/2022 09:01	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	48.87	30.50	26.80
07/03/2022 09:02	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	48.86	30.55	26.81
07/03/2022 09:03	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.0	1000.0	257.00	48.86	30.57	26.80
07/03/2022 09:04	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.5	1000.0	257.50	40.53	30.57	26.81
07/03/2022 09:05	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.3	1000.0	257.30	49.03	30.55	26.79
07/03/2022 09:06	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	48.70	30.52	26.80
07/03/2022 09:07	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.3	1000.0	257.30	48.70	30.47	26.80
07/03/2022 09:08	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	49.20	30.48	26.80
07/03/2022 09:09	-0.5	1018.0	0.00	-0.07	-0.03	-0.02	257.5	1000.0	257.50	49.03	30.52	26.80
07/03/2022 09:10	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.3	1000.0	257.30	48.87	30.48	26.80
07/03/2022 09:11	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.2	1000.0	257.20	48.87	30.47	26.79
07/03/2022 09:12	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.2	1000.0	257.20	48.70	30.48	26.80
07/03/2022 09:13	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.4	1000.0	257.40	48.37	30.40	26.79
07/03/2022 09:14	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.2	1000.0	257.20	48.86	30.42	26.80
07/03/2022 09:15	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.3	1000.0	257.30	49.70	30.38	26.81
07/03/2022 09:16	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.2	1000.0	257.20	41.52	30.35	26.80
07/03/2022 09:17	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	256.9	1000.0	256.90	49.69	30.38	26.79
07/03/2022 09:18	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	50.86	30.38	26.80
07/03/2022 09:19	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	49.70	30.40	26.80
07/03/2022 09:20	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.2	1000.0	257.20	50.03	30.43	26.81
07/03/2022 09:21	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.3	1000.0	257.30	49.87	30.40	26.80
07/03/2022 09:22	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	48.70	30.37	26.79
07/03/2022 09:23	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.1	1000.0	257.10	40.70	30.37	26.79
07/03/2022 09:24	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.4	1000.0	257.40	49.03	30.42	26.79
07/03/2022 09:25	-0.4	1018.0	0.00	-0.09	-0.03	-0.02	257.4	1000.0	257.40	41.20	30.45	26.80
07/03/2022 09:26	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.4	1000.0	257.40	50.04	30.48	26.81
07/03/2022 09:27	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.5	1000.0	257.50	50.87	30.52	26.80
07/03/2022 09:28	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.3	1000.0	257.30	41.69	30.50	26.81
07/03/2022 09:29	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	50.87	30.48	26.78
07/03/2022 09:30	-0.5	1018.0	0.00	-0.07	-0.03	-0.02	257.4	1000.0	257.40	41.70	30.53	26.80
07/03/2022 09:31	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.5	1000.0	257.50	49.03	30.53	26.80
07/03/2022 09:32	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	48.87	30.52	26.80
07/03/2022 09:33	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.0	1000.0	257.00	40.69	30.43	26.78
07/03/2022 09:34	-0.4	1018.0	0.00	-0.07	-0.03	0.16	257.3	1000.0	257.30	48.86	30.47	26.80
07/03/2022 09:35	-0.4	1018.0	0.00	-0.08	-0.03	0.16	257.1	1000.0	257.10	40.69	30.40	26.80

Period Start:	Average C5gasflow kscfh	Average C5hhv btu/sc	Average C5heat_in mmbtuh	Average C5nh3inj lb/hr	Average C5waterinj gpm	Average C5unitload MW	Average C6gasflow kscfh	Average C6hhv btu/sc	Average C6heat_in mmbtuh	Average C6nh3inj lb/hr	Average C6waterinj gpm	Average C6unitload MW
07/03/2022 09:36	-0.5	1018.0	0.00	-0.07	-0.03	-0.02	257.0	1000.0	257.00	48.86	30.40	26.80
07/03/2022 09:37	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.3	1000.0	257.30	49.87	30.47	26.79
07/03/2022 09:38	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.4	1000.0	257.40	41.36	30.43	26.79
07/03/2022 09:39	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.3	1000.0	257.30	50.37	30.38	26.80
07/03/2022 09:40	-0.5	1018.0	0.00	-0.07	-0.03	-0.02	257.0	1000.0	257.00	50.20	30.37	26.79
07/03/2022 09:41	-0.5	1018.0	0.00	-0.07	-0.03	-0.02	257.4	1000.0	257.40	41.70	30.48	26.81
07/03/2022 09:42	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.3	1000.0	257.30	49.70	30.45	26.79
07/03/2022 09:43	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.3	1000.0	257.30	32.52	30.47	26.80
07/03/2022 09:44	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	48.87	30.49	26.80
07/03/2022 09:45	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.5	1000.0	257.50	50.03	30.55	26.81
07/03/2022 09:46	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.6	1000.0	257.60	41.70	30.55	26.79
07/03/2022 09:47	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	51.20	30.58	26.79
07/03/2022 09:48	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.7	1000.0	257.70	50.70	30.63	26.80
07/03/2022 09:49	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.8	1000.0	257.80	42.69	30.65	26.80
Final Average*	**-0.5**	**1018.0**	**0.00**	**-0.08**	**-0.03**	**-0.01**	**257.3**	**1000.0**	**257.32**	**46.92**	**30.47**	**26.80**
Maximum*	**0.0**	**1018.0**	**0.00**	**0.00**	**0.00**	**0.16**	**257.8**	**1000.0**	**257.80**	**51.20**	**30.65**	**26.82**
		07/03/2022 9:49				07/03/2022 9:35	07/03/2022 9:49	07/03/2022 9:49	07/03/2022 9:49	07/03/2022 9:47	07/03/2022 9:49	07/03/2022 8:52
Minimum*	**-0.5**	**1018.0**	**0.00**	**-0.09**	**-0.03**	**-0.02**	**256.9**	**1000.0**	**256.90**	**32.52**	**30.35**	**26.78**
	07/03/2022 9:49	07/03/2022 9:49	07/03/2022 9:49	07/03/2022 9:26	07/03/2022 9:49	07/03/2022 9:49	07/03/2022 9:17	07/03/2022 9:49	07/03/2022 9:17	07/03/2022 9:43	07/03/2022 9:16	07/03/2022 9:33

* Does not include Invalid Averaging Periods ("N/A")

lb/sec 3.22 Fuel Density 0.045

Average Values Report
Generated: 7/26/2022 13:37

Company: Roseville Energy Park

Period Start: 7/3/2022 10:05

Plant: 5120 Phillip Rd

Period End: 7/3/2022 11:05

City/St: Roseville, CA 95747

Validation Type: 1/1 min
Source: CT005_Stack, CT006_Stack
Averaging Period: 1 min
Type: Block Avg

Period Start:	Average C5gasflow kscfh	Average C5hhv btu/sc	Average C5heat_in mmbtuh	Average C5nh3inj lb/hr	Average C5waterinj gpm	Average C5unitload MW	Average C6gasflow kscfh	Average C6hhv btu/sc	Average C6heat_in mmbtuh	Average C6nh3inj lb/hr	Average C6waterinj gpm	Average C6unitload MW
07/03/2022 10:05	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.6	1000.0	257.60	48.86	30.62	26.81
07/03/2022 10:06	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.6	1000.0	257.60	49.53	30.58	26.80
07/03/2022 10:07	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.8	1000.0	257.80	49.87	30.67	26.80
07/03/2022 10:08	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.8	1000.0	257.80	42.03	30.67	26.80
07/03/2022 10:09	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.7	1000.0	257.70	51.04	30.67	26.81
07/03/2022 10:10	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.9	1000.0	257.90	50.70	30.67	26.80
07/03/2022 10:11	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.9	1000.0	257.90	50.03	30.67	26.80
07/03/2022 10:12	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.9	1000.0	257.90	49.03	30.63	26.80
07/03/2022 10:13	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.8	1000.0	257.80	49.03	30.62	26.79
07/03/2022 10:14	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	258.1	1000.0	258.10	48.85	30.67	26.81
07/03/2022 10:15	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.9	1000.0	257.90	48.53	30.60	26.81
07/03/2022 10:16	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.8	1000.0	257.80	41.03	30.62	26.79
07/03/2022 10:17	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.8	1000.0	257.80	49.86	30.62	26.80
07/03/2022 10:18	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.6	1000.0	257.60	50.36	30.58	26.80
07/03/2022 10:19	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.8	1000.0	257.80	50.86	30.63	26.81
07/03/2022 10:20	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.7	1000.0	257.70	51.03	30.53	26.80
07/03/2022 10:21	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.5	1000.0	257.50	34.19	30.50	26.80
07/03/2022 10:22	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	50.53	30.57	26.80
07/03/2022 10:23	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.7	1000.0	257.70	34.19	30.62	26.80
07/03/2022 10:24	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.6	1000.0	257.60	50.03	30.63	26.80
07/03/2022 10:25	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.7	1000.0	257.70	49.69	30.62	26.80
07/03/2022 10:26	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.6	1000.0	257.60	41.19	30.65	26.79
07/03/2022 10:27	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.8	1000.0	257.80	49.35	30.62	26.79
07/03/2022 10:28	-0.4	1018.0	0.00	-0.09	-0.03	-0.02	257.9	1000.0	257.90	49.35	30.65	26.80
07/03/2022 10:29	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.7	1000.0	257.70	49.86	30.65	26.79
07/03/2022 10:30	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.9	1000.0	257.90	50.69	30.70	26.79
07/03/2022 10:31	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.7	1000.0	257.70	50.70	30.65	26.79
07/03/2022 10:32	-0.4	1018.0	0.00	-0.09	-0.03	-0.02	257.8	1000.0	257.80	50.69	30.67	26.80
07/03/2022 10:33	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.8	1000.0	257.80	42.52	30.65	26.80
07/03/2022 10:34	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.6	1000.0	257.60	50.69	30.67	26.81
07/03/2022 10:35	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.8	1000.0	257.80	50.69	30.67	26.80
07/03/2022 10:36	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.6	1000.0	257.60	42.36	30.63	26.80
07/03/2022 10:37	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.8	1000.0	257.80	50.36	30.65	26.80
07/03/2022 10:38	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.7	1000.0	257.70	49.86	30.62	26.79
07/03/2022 10:39	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.4	1000.0	257.40	49.53	30.60	26.79
07/03/2022 10:40	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.5	1000.0	257.50	50.03	30.62	26.81
07/03/2022 10:41	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.4	1000.0	257.40	50.03	30.62	26.81
07/03/2022 10:42	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.5	1000.0	257.50	49.86	30.62	26.80
07/03/2022 10:43	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.7	1000.0	257.70	51.03	30.67	26.80
07/03/2022 10:44	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.3	1000.0	257.30	50.53	30.58	26.80
07/03/2022 10:45	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.6	1000.0	257.60	50.87	30.62	26.81
07/03/2022 10:46	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	50.37	30.62	26.80
07/03/2022 10:47	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.7	1000.0	257.70	50.87	30.67	26.80
07/03/2022 10:48	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.6	1000.0	257.60	50.70	30.63	26.79
07/03/2022 10:49	-0.3	1018.0	0.00	-0.08	-0.03	-0.02	257.9	1000.0	257.90	41.35	30.67	26.80
07/03/2022 10:50	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.8	1000.0	257.80	49.69	30.67	26.79
07/03/2022 10:51	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.9	1000.0	257.90	49.69	30.67	26.80

Period Start:	Average C5gasflow kscfh	Average C5hhv btu/sc	Average C5heat_in mmbtuh	Average C5nh3inj lb/hr	Average C5waterinj gpm	Average C5unitload MW	Average C6gasflow kscfh	Average C6hhv btu/sc	Average C6heat_in mmbtuh	Average C6nh3inj lb/hr	Average C6waterinj gpm	Average C6unitload MW
07/03/2022 10:52	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.8	1000.0	257.80	49.69	30.67	26.80
07/03/2022 10:53	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.7	1000.0	257.70	51.03	30.68	26.81
07/03/2022 10:54	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	258.0	1000.0	258.00	50.69	30.65	26.79
07/03/2022 10:55	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.9	1000.0	257.90	50.86	30.65	26.80
07/03/2022 10:56	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.7	1000.0	257.70	50.86	30.63	26.80
07/03/2022 10:57	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.8	1000.0	257.80	51.52	30.65	26.81
07/03/2022 10:58	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.9	1000.0	257.90	51.87	30.66	26.80
07/03/2022 10:59	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.7	1000.0	257.70	51.86	30.66	26.81
07/03/2022 11:00	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.8	1000.0	257.80	51.36	30.68	26.81
07/03/2022 11:01	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.9	1000.0	257.90	42.02	30.65	26.80
07/03/2022 11:02	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.5	1000.0	257.50	50.87	30.60	26.81
07/03/2022 11:03	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.5	1000.0	257.50	50.70	30.68	26.80
07/03/2022 11:04	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.7	1000.0	257.70	50.69	30.68	26.81
07/03/2022 11:05	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.6	1000.0	257.60	50.53	30.68	26.80
Final Average*	**-0.5**	**1018.0**	**0.00**	**-0.08**	**-0.03**	**-0.02**	**257.7**	**1000.0**	**257.71**	**48.80**	**30.64**	**26.80**
Maximum*	**0.0**	**1018.0**	**0.00**	**0.00**	**0.00**	**0.00**	**258.1**	**1000.0**	**258.10**	**51.87**	**30.70**	**26.81**
		07/03/2022 11:05					07/03/2022 10:14	07/03/2022 11:05	07/03/2022 10:14	07/03/2022 10:58	07/03/2022 10:30	07/03/2022 11:04
Minimum*	**-0.5**	**1018.0**	**0.00**	**-0.09**	**-0.03**	**-0.02**	**257.3**	**1000.0**	**257.30**	**34.19**	**30.50**	**26.79**
	07/03/2022 11:05	07/03/2022 11:05	07/03/2022 11:05	07/03/2022 11:05	07/03/2022 11:05	07/03/2022 11:05	07/03/2022 10:44	07/03/2022 11:05	07/03/2022 10:44	07/03/2022 10:23	07/03/2022 10:21	07/03/2022 10:54

* Does not include Invalid Averaging Periods ("N/A")

lb/sec 3.22 Fuel Density 0.045

Average Values Report
Generated: 7/26/2022 13:37

Company: Roseville Energy Park

Period Start: 7/3/2022 06:21

Plant: 5120 Phillip Rd

Period End: 7/3/2022 09:35

City/St: Roseville, CA 95747

Validation Type: 1/1 min
Source: CT005_Stack, CT006_Stack
Averaging Period: 1 min
Type: Block Avg

Period Start:	Average C5gasflow kscfh	Average C5hhv btu/sc	Average C5heat_in mmbtuh	Average C5nh3inj lb/hr	Average C5waterinj gpm	Average C5unitload MW	Average C6gasflow kscfh	Average C6hhv btu/sc	Average C6heat_in mmbtuh	Average C6nh3inj lb/hr	Average C6waterinj gpm	Average C6unitload MW
07/03/2022 06:21	-0.2	1018.0	0.00	-0.04	-0.01	-0.01	256.3	1000.0	256.30	47.92	29.03	26.83
07/03/2022 06:22	-0.1	1018.0	0.00	-0.03	-0.01	-0.01	256.3	1000.0	256.30	47.91	29.06	26.82
07/03/2022 06:23	-0.2	1018.0	0.00	-0.03	-0.01	-0.01	256.5	1000.0	256.50	39.91	29.05	26.82
07/03/2022 06:24	-0.2	1018.0	0.00	-0.03	-0.01	-0.01	256.2	1000.0	256.20	47.92	29.03	26.81
07/03/2022 06:25	-0.2	1018.0	0.00	-0.03	-0.01	-0.01	256.4	1000.0	256.40	47.92	29.05	26.82
07/03/2022 06:26	-0.2	1018.0	0.00	-0.03	-0.01	-0.01	256.5	1000.0	256.50	47.08	29.06	26.81
07/03/2022 06:27	-0.2	1018.0	0.00	-0.03	-0.01	-0.01	256.5	1000.0	256.50	48.25	29.05	26.82
07/03/2022 06:28	-0.2	1018.0	0.00	-0.04	-0.01	-0.01	256.4	1000.0	256.40	51.59	29.06	26.81
07/03/2022 06:29	-0.2	1018.0	0.00	-0.03	-0.01	-0.01	256.4	1000.0	256.40	54.25	29.04	26.81
07/03/2022 06:30	-0.2	1018.0	0.00	-0.03	-0.01	-0.01	256.4	1000.0	256.40	56.25	29.06	26.82
07/03/2022 06:31	-0.2	1018.0	0.00	-0.04	-0.01	-0.01	256.4	1000.0	256.40	56.92	29.04	26.82
07/03/2022 06:32	-0.2	1018.0	0.00	-0.03	-0.01	-0.01	256.3	1000.0	256.30	55.91	29.04	26.82
07/03/2022 06:33	-0.2	1018.0	0.00	-0.04	-0.01	-0.01	256.2	1000.0	256.20	54.59	29.06	26.83
07/03/2022 06:34	-0.2	1018.0	0.00	-0.03	-0.01	-0.01	256.3	1000.0	256.30	54.08	29.03	26.81
07/03/2022 06:35	-0.2	1018.0	0.00	-0.03	-0.01	-0.01	256.2	1000.0	256.20	52.75	29.03	26.82
07/03/2022 06:36	-0.2	1018.0	0.00	-0.03	-0.01	-0.01	256.4	1000.0	256.40	52.08	29.03	26.83
07/03/2022 06:37	-0.2	1018.0	0.00	-0.04	-0.01	-0.01	256.2	1000.0	256.20	51.08	29.01	26.81
07/03/2022 06:38	-0.2	1018.0	0.00	-0.04	-0.01	-0.01	256.0	1000.0	256.00	49.90	29.03	26.81
07/03/2022 06:39	-0.2	1018.0	0.00	-0.04	-0.01	-0.01	256.0	1000.0	256.00	52.42	29.01	26.82
07/03/2022 06:40	-0.2	1018.0	0.00	-0.04	-0.02	-0.01	256.1	1000.0	256.10	51.91	29.01	26.81
07/03/2022 06:41	-0.2	1018.0	0.00	-0.04	-0.01	-0.01	256.3	1000.0	256.30	43.41	29.04	26.81
07/03/2022 06:42	-0.2	1018.0	0.00	-0.04	-0.01	-0.01	256.3	1000.0	256.30	52.08	28.98	26.80
07/03/2022 06:43	-0.2	1018.0	0.00	-0.03	-0.01	-0.01	256.2	1000.0	256.20	35.24	29.01	26.81
07/03/2022 06:44	-0.2	1018.0	0.00	-0.04	-0.01	-0.01	256.2	1000.0	256.20	52.92	29.01	26.81
07/03/2022 06:45	-0.2	1018.0	0.00	-0.04	-0.01	-0.01	256.2	1000.0	256.20	52.75	29.03	26.81
07/03/2022 06:46	-0.2	1018.0	0.00	-0.04	-0.01	-0.01	256.3	1000.0	256.30	52.09	29.01	26.82
07/03/2022 06:47	-0.2	1018.0	0.00	-0.04	-0.01	-0.01	256.3	1000.0	256.30	52.58	29.04	26.81
07/03/2022 06:48	-0.2	1018.0	0.00	-0.04	-0.01	-0.01	256.3	1000.0	256.30	51.92	29.03	26.82
07/03/2022 06:49	-0.2	1018.0	0.00	-0.04	-0.01	-0.01	256.3	1000.0	256.30	52.08	29.04	26.82
07/03/2022 06:50	-0.2	1018.0	0.00	-0.04	-0.01	-0.01	256.4	1000.0	256.40	50.41	29.03	26.81
07/03/2022 06:51	-0.2	1018.0	0.00	-0.04	-0.01	-0.01	256.4	1000.0	256.40	42.58	29.03	26.81
07/03/2022 06:52	-0.2	1018.0	0.00	-0.04	-0.01	-0.01	256.4	1000.0	256.40	52.42	29.03	26.83
07/03/2022 06:53	-0.2	1018.0	0.00	-0.04	-0.01	-0.01	256.3	1000.0	256.30	50.41	29.03	26.83
07/03/2022 06:54	-0.2	1018.0	0.00	-0.04	-0.01	-0.01	256.3	1000.0	256.30	50.40	29.03	26.81
07/03/2022 06:55	-0.2	1018.0	0.00	-0.04	-0.01	-0.01	256.6	1000.0	256.60	52.41	28.98	26.84
07/03/2022 06:56	-0.2	1018.0	0.00	-0.04	-0.01	-0.01	256.6	1000.0	256.60	34.90	28.98	26.81
07/03/2022 06:57	-0.2	1018.0	0.00	-0.04	-0.01	-0.01	256.6	1000.0	256.60	52.58	28.94	26.82
07/03/2022 06:58	-0.2	1018.0	0.00	-0.04	-0.01	-0.01	256.6	1000.0	256.60	44.07	28.96	26.81
07/03/2022 06:59	-0.2	1018.0	0.00	-0.04	-0.01	-0.01	256.6	1000.0	256.60	35.31	28.89	26.82
07/03/2022 07:00	-0.2	1018.0	0.00	-0.04	-0.02	-0.01	256.6	1000.0	256.60	52.90	28.89	26.81
07/03/2022 07:01	-0.2	1018.0	0.00	-0.04	-0.02	-0.01	256.5	1000.0	256.50	52.88	28.91	26.81
07/03/2022 07:02	-0.2	1018.0	0.00	-0.04	-0.02	-0.01	256.6	1000.0	256.60	44.07	28.93	26.81
07/03/2022 07:03	-0.2	1018.0	0.00	-0.04	-0.02	-0.01	256.6	1000.0	256.60	52.24	28.89	26.81
07/03/2022 07:04	-0.2	1018.0	0.00	-0.04	-0.01	-0.01	256.6	1000.0	256.60	50.57	28.89	26.82
07/03/2022 07:05	-0.2	1018.0	0.00	-0.05	-0.02	-0.01	256.5	1000.0	256.50	49.74	28.93	26.82
07/03/2022 07:06	-0.2	1018.0	0.00	-0.04	-0.02	-0.01	256.4	1000.0	256.40	33.23	28.94	26.80
07/03/2022 07:07	-0.2	1018.0	0.00	-0.04	-0.02	-0.01	256.6	1000.0	256.60	50.57	28.89	26.82

Period Start:	Average C5gasflow kscfh	Average C5hhv btu/sc	Average C5heat_in mmbtuh	Average C5nh3inj lb/hr	Average C5waterinj gpm	Average C5unitload MW	Average C6gasflow kscfh	Average C6hhv btu/sc	Average C6heat_in mmbtuh	Average C6nh3inj lb/hr	Average C6waterinj gpm	Average C6unitload MW
07/03/2022 07:08	-0.2	1018.0	0.00	-0.04	-0.02	-0.01	256.6	1000.0	256.60	51.73	28.93	26.82
07/03/2022 07:09	-0.2	1018.0	0.00	-0.05	-0.02	-0.01	256.4	1000.0	256.40	44.06	28.96	26.81
07/03/2022 07:10	-0.2	1018.0	0.00	-0.04	-0.02	-0.01	256.5	1000.0	256.50	53.73	28.93	26.82
07/03/2022 07:11	-0.3	1018.0	0.00	-0.04	-0.02	-0.01	256.5	1000.0	256.50	54.07	28.94	26.82
07/03/2022 07:12	-0.3	1018.0	0.00	-0.05	-0.02	-0.01	256.5	1000.0	256.50	54.23	28.96	26.81
07/03/2022 07:13	-0.3	1018.0	0.00	-0.04	-0.02	-0.01	256.4	1000.0	256.40	53.90	28.94	26.81
07/03/2022 07:14	-0.3	1018.0	0.00	-0.04	-0.02	-0.01	256.2	1000.0	256.20	44.39	28.96	26.82
07/03/2022 07:15	-0.3	1018.0	0.00	-0.05	-0.02	-0.01	256.4	1000.0	256.40	52.57	28.96	26.80
07/03/2022 07:16	-0.3	1018.0	0.00	-0.04	-0.02	-0.01	256.4	1000.0	256.40	43.22	28.93	26.81
07/03/2022 07:17	-0.3	1018.0	0.00	-0.05	-0.02	-0.01	256.5	1000.0	256.50	42.72	28.91	26.81
07/03/2022 07:18	-0.3	1018.0	0.00	-0.04	-0.02	-0.01	256.5	1000.0	256.50	51.07	28.88	26.82
07/03/2022 07:19	-0.3	1018.0	0.00	-0.05	-0.02	-0.01	256.4	1000.0	256.40	42.22	28.86	26.82
07/03/2022 07:20	-0.3	1018.0	0.00	-0.04	-0.02	-0.01	256.5	1000.0	256.50	51.72	28.88	26.81
07/03/2022 07:21	-0.3	1018.0	0.00	-0.05	-0.02	-0.01	256.4	1000.0	256.40	52.89	28.86	26.81
07/03/2022 07:22	-0.3	1018.0	0.00	-0.05	-0.02	-0.01	256.5	1000.0	256.50	53.39	28.86	26.82
07/03/2022 07:23	-0.3	1018.0	0.00	-0.04	-0.02	-0.01	256.4	1000.0	256.40	53.89	28.86	26.82
07/03/2022 07:24	-0.3	1018.0	0.00	-0.05	-0.02	-0.01	256.5	1000.0	256.50	44.89	28.87	26.81
07/03/2022 07:25	-0.3	1018.0	0.00	-0.05	-0.02	-0.01	256.5	1000.0	256.50	53.89	28.86	26.82
07/03/2022 07:26	-0.3	1018.0	0.00	-0.05	-0.02	-0.01	256.4	1000.0	256.40	44.89	28.87	26.82
07/03/2022 07:27	-0.3	1018.0	0.00	-0.05	-0.02	-0.01	256.5	1000.0	256.50	53.06	28.86	26.81
07/03/2022 07:28	-0.3	1018.0	0.00	-0.05	-0.02	-0.01	256.4	1000.0	256.40	52.89	28.89	26.79
07/03/2022 07:29	-0.3	1018.0	0.00	-0.05	-0.02	-0.01	256.6	1000.0	256.60	52.56	28.91	26.81
07/03/2022 07:30	-0.3	1018.0	0.00	-0.06	-0.02	-0.01	256.4	1000.0	256.40	51.89	28.87	26.81
07/03/2022 07:31	-0.3	1018.0	0.00	-0.05	-0.02	-0.01	256.4	1000.0	256.40	51.88	28.87	26.82
07/03/2022 07:32	-0.3	1018.0	0.00	-0.06	-0.02	-0.01	256.4	1000.0	256.40	51.72	28.89	26.81
07/03/2022 07:33	-0.3	1018.0	0.00	-0.05	-0.02	-0.01	256.4	1000.0	256.40	50.55	28.91	26.80
07/03/2022 07:34	-0.3	1018.0	0.00	-0.05	-0.02	-0.01	256.3	1000.0	256.30	42.72	28.94	26.80
07/03/2022 07:35	-0.3	1018.0	0.00	-0.06	-0.02	-0.01	256.6	1000.0	256.60	51.89	28.89	26.80
07/03/2022 07:36	-0.3	1018.0	0.00	-0.06	-0.02	-0.01	256.3	1000.0	256.30	43.72	28.90	26.80
07/03/2022 07:37	-0.3	1018.0	0.00	-0.06	-0.02	-0.01	256.4	1000.0	256.40	52.89	28.89	26.80
07/03/2022 07:38	-0.3	1018.0	0.00	-0.06	-0.02	-0.01	256.5	1000.0	256.50	53.05	28.87	26.81
07/03/2022 07:39	-0.3	1018.0	0.00	-0.06	-0.02	-0.01	256.6	1000.0	256.60	44.88	28.85	26.80
07/03/2022 07:40	-0.3	1018.0	0.00	-0.06	-0.02	-0.01	256.6	1000.0	256.60	53.88	28.85	26.81
07/03/2022 07:41	-0.4	1018.0	0.00	-0.06	-0.02	-0.01	256.2	1000.0	256.20	44.88	28.85	26.80
07/03/2022 07:42	-0.3	1018.0	0.00	-0.06	-0.02	-0.01	256.4	1000.0	256.40	53.20	28.85	26.81
07/03/2022 07:43	-0.3	1018.0	0.00	-0.06	-0.02	-0.01	256.3	1000.0	256.30	53.22	28.85	26.79
07/03/2022 07:44	-0.3	1018.0	0.00	-0.06	-0.02	-0.01	256.3	1000.0	256.30	53.21	28.85	26.81
07/03/2022 07:45	-0.4	1018.0	0.00	-0.06	-0.02	-0.02	256.5	1000.0	256.50	51.88	28.85	26.80
07/03/2022 07:46	-0.4	1018.0	0.00	-0.07	-0.02	-0.01	256.3	1000.0	256.30	43.21	28.89	26.80
07/03/2022 07:47	-0.3	1018.0	0.00	-0.06	-0.02	-0.02	256.3	1000.0	256.30	43.21	28.87	26.79
07/03/2022 07:48	-0.4	1018.0	0.00	-0.07	-0.02	-0.01	256.4	1000.0	256.40	51.88	28.90	26.80
07/03/2022 07:49	-0.4	1018.0	0.00	-0.06	-0.02	-0.01	256.6	1000.0	256.60	52.71	28.92	26.81
07/03/2022 07:50	-0.4	1018.0	0.00	-0.07	-0.02	-0.01	256.4	1000.0	256.40	52.71	28.90	26.80
07/03/2022 07:51	-0.4	1018.0	0.00	-0.06	-0.02	-0.01	256.5	1000.0	256.50	43.54	28.92	26.81
07/03/2022 07:52	-0.4	1018.0	0.00	-0.07	-0.02	-0.01	256.4	1000.0	256.40	53.55	28.90	26.81
07/03/2022 07:53	-0.4	1018.0	0.00	-0.06	-0.02	-0.01	256.3	1000.0	256.30	53.88	28.92	26.81
07/03/2022 07:54	-0.4	1018.0	0.00	-0.07	-0.02	-0.01	256.5	1000.0	256.50	34.38	28.90	26.80
07/03/2022 07:55	-0.4	1018.0	0.00	-0.07	-0.02	-0.01	256.3	1000.0	256.30	53.54	28.92	26.80
07/03/2022 07:56	-0.3	1018.0	0.00	-0.06	-0.02	-0.01	256.4	1000.0	256.40	51.60	28.89	26.80
07/03/2022 07:57	-0.4	1018.0	0.00	-0.06	-0.02	-0.01	256.4	1000.0	256.40	53.04	28.90	26.81
07/03/2022 07:58	-0.4	1018.0	0.00	-0.07	-0.02	-0.01	256.5	1000.0	256.50	52.71	28.85	26.82
07/03/2022 07:59	-0.4	1018.0	0.00	-0.07	-0.02	-0.02	256.4	1000.0	256.40	52.88	28.90	26.81
07/03/2022 08:00	-0.4	1018.0	0.00	-0.07	-0.02	-0.02	256.5	1000.0	256.50	52.71	28.88	26.80
07/03/2022 08:01	-0.4	1018.0	0.00	-0.06	-0.02	-0.02	256.3	1000.0	256.30	52.37	28.87	26.81
07/03/2022 08:02	-0.4	1018.0	0.00	-0.07	-0.02	-0.02	256.4	1000.0	256.40	52.88	28.85	26.80
07/03/2022 08:03	-0.4	1018.0	0.00	-0.07	-0.02	-0.02	256.4	1000.0	256.40	44.05	28.85	26.81
07/03/2022 08:04	-0.4	1018.0	0.00	-0.07	-0.02	-0.01	256.5	1000.0	256.50	44.87	28.85	26.81
07/03/2022 08:05	-0.4	1018.0	0.00	-0.07	-0.02	-0.02	256.2	1000.0	256.20	53.87	28.85	26.80
07/03/2022 08:06	-0.4	1018.0	0.00	-0.07	-0.02	-0.01	256.4	1000.0	256.40	53.87	28.85	26.82
07/03/2022 08:07	-0.4	1018.0	0.00	-0.07	-0.02	-0.02	256.4	1000.0	256.40	53.88	28.87	26.81
07/03/2022 08:08	-0.4	1018.0	0.00	-0.07	-0.02	-0.02	256.4	1000.0	256.40	44.34	28.83	26.80

Period Start:	Average C5gasflow kscfh	Average C5hhv btu/sc	Average C5heat_in mmbtuh	Average C5nh3inj lb/hr	Average C5waterinj gpm	Average C5unitload MW	Average C6gasflow kscfh	Average C6hhv btu/sc	Average C6heat_in mmbtuh	Average C6nh3inj lb/hr	Average C6waterinj gpm	Average C6unitload MW
07/03/2022 08:09	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	256.4	1000.0	256.40	52.54	28.87	26.81
07/03/2022 08:10	-0.4	1018.0	0.00	-0.07	-0.02	-0.02	256.6	1000.0	256.60	52.37	28.85	26.81
07/03/2022 08:11	-0.4	1018.0	0.00	-0.07	-0.02	-0.02	256.3	1000.0	256.30	51.53	28.85	26.81
07/03/2022 08:12	-0.4	1018.0	0.00	-0.07	-0.02	-0.02	256.5	1000.0	256.50	52.71	28.85	26.81
07/03/2022 08:13	-0.4	1018.0	0.00	-0.08	-0.02	-0.02	256.4	1000.0	256.40	53.04	28.85	26.82
07/03/2022 08:14	-0.4	1018.0	0.00	-0.08	-0.02	-0.02	256.6	1000.0	256.60	53.87	28.85	26.82
07/03/2022 08:15	-0.4	1018.0	0.00	-0.07	-0.02	-0.02	256.5	1000.0	256.50	53.87	28.85	26.80
07/03/2022 08:16	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	256.4	1000.0	256.40	53.87	28.85	26.82
07/03/2022 08:17	-0.4	1018.0	0.00	-0.07	-0.02	-0.02	256.4	1000.0	256.40	53.87	28.85	26.81
07/03/2022 08:18	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	256.5	1000.0	256.50	53.87	28.85	26.80
07/03/2022 08:19	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	256.4	1000.0	256.40	53.20	28.85	26.81
07/03/2022 08:20	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	256.4	1000.0	256.40	52.71	28.85	26.80
07/03/2022 08:21	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	256.3	1000.0	256.30	52.54	28.83	26.80
07/03/2022 08:22	-0.4	1018.0	0.00	-0.08	-0.02	-0.02	256.4	1000.0	256.40	52.87	28.82	26.81
07/03/2022 08:23	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	256.4	1000.0	256.40	53.54	28.80	26.80
07/03/2022 08:24	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	256.4	1000.0	256.40	53.87	28.85	26.81
07/03/2022 08:25	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	256.4	1000.0	256.40	53.87	29.08	26.82
07/03/2022 08:26	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.1	1000.0	257.10	54.87	30.47	26.81
07/03/2022 08:27	-0.4	1018.0	0.00	-0.08	-0.02	-0.02	257.1	1000.0	257.10	54.70	30.45	26.80
07/03/2022 08:28	-0.4	1018.0	0.00	-0.07	-0.02	-0.02	257.6	1000.0	257.60	53.70	30.48	26.82
07/03/2022 08:29	-0.4	1018.0	0.00	-0.07	-0.02	-0.02	257.3	1000.0	257.30	51.70	30.45	26.80
07/03/2022 08:30	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.3	1000.0	257.30	49.70	30.47	26.82
07/03/2022 08:31	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.1	1000.0	257.10	47.53	30.38	26.82
07/03/2022 08:32	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	256.9	1000.0	256.90	46.70	30.38	26.80
07/03/2022 08:33	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.0	1000.0	257.00	45.53	30.42	26.81
07/03/2022 08:34	-0.4	1018.0	0.00	-0.08	-0.02	-0.02	257.1	1000.0	257.10	46.20	30.43	26.81
07/03/2022 08:35	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.2	1000.0	257.20	46.86	30.42	26.81
07/03/2022 08:36	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.1	1000.0	257.10	48.03	30.42	26.81
07/03/2022 08:37	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	48.87	30.50	26.80
07/03/2022 08:38	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.5	1000.0	257.50	49.87	30.47	26.79
07/03/2022 08:39	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.6	1000.0	257.60	50.03	30.60	26.82
07/03/2022 08:40	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	49.19	30.55	26.81
07/03/2022 08:41	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.6	1000.0	257.60	48.87	30.55	26.81
07/03/2022 08:42	-0.5	1018.0	0.00	-0.07	-0.03	-0.02	257.5	1000.0	257.50	48.86	30.58	26.81
07/03/2022 08:43	-0.4	1018.0	0.00	-0.08	-0.02	-0.02	257.6	1000.0	257.60	48.87	30.57	26.82
07/03/2022 08:44	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	48.20	30.55	26.81
07/03/2022 08:45	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.6	1000.0	257.60	48.03	30.57	26.81
07/03/2022 08:46	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	47.87	30.53	26.81
07/03/2022 08:47	-0.4	1018.0	0.00	-0.09	-0.03	-0.02	257.4	1000.0	257.40	48.03	30.55	26.81
07/03/2022 08:48	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.6	1000.0	257.60	48.69	30.53	26.82
07/03/2022 08:49	-0.4	1018.0	0.00	-0.08	-0.02	-0.02	257.5	1000.0	257.50	48.86	30.52	26.81
07/03/2022 08:50	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	49.03	30.52	26.82
07/03/2022 08:51	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.5	1000.0	257.50	48.70	30.53	26.81
07/03/2022 08:52	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.5	1000.0	257.50	48.69	30.47	26.82
07/03/2022 08:53	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	40.53	30.50	26.81
07/03/2022 08:54	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	49.03	30.45	26.81
07/03/2022 08:55	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.0	1000.0	257.00	49.03	30.45	26.80
07/03/2022 08:56	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.5	1000.0	257.50	39.41	30.52	26.81
07/03/2022 08:57	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.4	1000.0	257.40	49.03	30.47	26.81
07/03/2022 08:58	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.3	1000.0	257.30	40.35	30.45	26.80
07/03/2022 08:59	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	49.20	30.45	26.81
07/03/2022 09:00	-0.5	1018.0	0.00	-0.07	-0.03	-0.02	257.2	1000.0	257.20	40.53	30.48	26.80
07/03/2022 09:01	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	48.87	30.50	26.80
07/03/2022 09:02	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	48.86	30.55	26.81
07/03/2022 09:03	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.0	1000.0	257.00	48.86	30.57	26.80
07/03/2022 09:04	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.5	1000.0	257.50	40.53	30.57	26.81
07/03/2022 09:05	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.3	1000.0	257.30	49.03	30.55	26.79
07/03/2022 09:06	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	48.70	30.52	26.80
07/03/2022 09:07	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.3	1000.0	257.30	48.70	30.47	26.80
07/03/2022 09:08	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	49.20	30.48	26.80
07/03/2022 09:09	-0.5	1018.0	0.00	-0.07	-0.03	-0.02	257.5	1000.0	257.50	49.03	30.52	26.80

Period Start:	Average C5gasflow kscfh	Average C5hhv btu/sc	Average C5heat_in mmbtuh	Average C5nh3inj lb/hr	Average C5waterinj gpm	Average C5unitload MW	Average C6gasflow kscfh	Average C6hhv btu/sc	Average C6heat_in mmbtuh	Average C6nh3inj lb/hr	Average C6waterinj gpm	Average C6unitload MW
07/03/2022 09:10	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.3	1000.0	257.30	48.87	30.48	26.80
07/03/2022 09:11	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.2	1000.0	257.20	48.87	30.47	26.79
07/03/2022 09:12	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.2	1000.0	257.20	48.70	30.48	26.80
07/03/2022 09:13	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.4	1000.0	257.40	48.37	30.40	26.79
07/03/2022 09:14	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.2	1000.0	257.20	48.86	30.42	26.80
07/03/2022 09:15	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.3	1000.0	257.30	49.70	30.38	26.81
07/03/2022 09:16	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.2	1000.0	257.20	41.52	30.35	26.80
07/03/2022 09:17	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	256.9	1000.0	256.90	49.69	30.38	26.79
07/03/2022 09:18	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	50.86	30.38	26.80
07/03/2022 09:19	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	49.70	30.40	26.80
07/03/2022 09:20	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.2	1000.0	257.20	50.03	30.43	26.81
07/03/2022 09:21	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.3	1000.0	257.30	49.87	30.40	26.80
07/03/2022 09:22	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	48.70	30.37	26.79
07/03/2022 09:23	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.1	1000.0	257.10	40.70	30.37	26.79
07/03/2022 09:24	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.4	1000.0	257.40	49.03	30.42	26.79
07/03/2022 09:25	-0.4	1018.0	0.00	-0.09	-0.03	-0.02	257.4	1000.0	257.40	41.20	30.45	26.80
07/03/2022 09:26	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.4	1000.0	257.40	50.04	30.48	26.81
07/03/2022 09:27	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.5	1000.0	257.50	50.87	30.52	26.80
07/03/2022 09:28	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.3	1000.0	257.30	41.69	30.50	26.81
07/03/2022 09:29	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	50.87	30.48	26.78
07/03/2022 09:30	-0.5	1018.0	0.00	-0.07	-0.03	-0.02	257.4	1000.0	257.40	41.70	30.53	26.80
07/03/2022 09:31	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.5	1000.0	257.50	49.03	30.53	26.80
07/03/2022 09:32	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	48.87	30.52	26.80
07/03/2022 09:33	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.0	1000.0	257.00	40.69	30.43	26.78
07/03/2022 09:34	-0.4	1018.0	0.00	-0.07	-0.03	0.16	257.3	1000.0	257.30	48.86	30.47	26.80
07/03/2022 09:35	-0.4	1018.0	0.00	-0.08	-0.03	0.16	257.1	1000.0	257.10	40.69	30.40	26.80
Final Average*	**-0.3**	**1018.0**	**0.00**	**-0.06**	**-0.02**	**-0.01**	**256.7**	**1000.0**	**256.73**	**49.32**	**29.48**	**26.81**
Maximum*	**0.0**	**1018.0**	**0.00**	**0.00**	**0.00**	**0.16**	**257.6**	**1000.0**	**257.60**	**56.92**	**30.60**	**26.84**
		07/03/2022 9:35				07/03/2022 9:35	07/03/2022 8:48	07/03/2022 9:35	07/03/2022 8:48	07/03/2022 6:31	07/03/2022 8:39	07/03/2022 6:55
Minimum*	**-0.5**	**1018.0**	**0.00**	**-0.09**	**-0.03**	**-0.02**	**256.0**	**1000.0**	**256.00**	**33.23**	**28.80**	**26.78**
	07/03/2022 9:33	07/03/2022 9:35	07/03/2022 9:35	07/03/2022 9:26	07/03/2022 9:35	07/03/2022 9:33	07/03/2022 6:39	07/03/2022 9:35	07/03/2022 6:39	07/03/2022 7:06	07/03/2022 8:23	07/03/2022 9:33

* Does not include Invalid Averaging Periods ("N/A")

lb/sec	3.21	Fuel Density	0.045

Average Values Report
Generated: 7/26/2022 13:38

Company: Roseville Energy Park

Period Start: 7/3/2022 10:00

Plant: 5120 Phillip Rd

Period End: 7/3/2022 13:09

City/St: Roseville, CA 95747

Validation Type: 1/1 min
Source: CT005_Stack, CT006_Stack
Averaging Period: 1 min
Type: Block Avg

Period Start:	Average C5gasflow kscfh	Average C5hhv btu/sc	Average C5heat_in mmbtuh	Average C5nh3inj lb/hr	Average C5waterinj gpm	Average C5unitload MW	Average C6gasflow kscfh	Average C6hhv btu/sc	Average C6heat_in mmbtuh	Average C6nh3inj lb/hr	Average C6waterinj gpm	Average C6unitload MW
07/03/2022 10:00	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.9	1000.0	257.90	50.86	30.62	26.80
07/03/2022 10:01	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.8	1000.0	257.80	41.69	30.60	26.81
07/03/2022 10:02	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.6	1000.0	257.60	48.53	30.63	26.82
07/03/2022 10:03	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.8	1000.0	257.80	48.70	30.67	26.81
07/03/2022 10:04	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.9	1000.0	257.90	49.20	30.60	26.80
07/03/2022 10:05	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.6	1000.0	257.60	48.86	30.62	26.81
07/03/2022 10:06	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.6	1000.0	257.60	49.53	30.58	26.80
07/03/2022 10:07	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.8	1000.0	257.80	49.87	30.67	26.80
07/03/2022 10:08	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.8	1000.0	257.80	42.03	30.67	26.80
07/03/2022 10:09	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.7	1000.0	257.70	51.04	30.67	26.81
07/03/2022 10:10	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.9	1000.0	257.90	50.70	30.67	26.80
07/03/2022 10:11	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.9	1000.0	257.90	50.03	30.67	26.80
07/03/2022 10:12	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.9	1000.0	257.90	49.03	30.63	26.80
07/03/2022 10:13	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.8	1000.0	257.80	49.03	30.62	26.79
07/03/2022 10:14	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	258.1	1000.0	258.10	48.85	30.67	26.81
07/03/2022 10:15	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.9	1000.0	257.90	48.53	30.60	26.81
07/03/2022 10:16	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.8	1000.0	257.80	41.03	30.62	26.79
07/03/2022 10:17	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.8	1000.0	257.80	49.86	30.62	26.80
07/03/2022 10:18	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.6	1000.0	257.60	50.36	30.58	26.80
07/03/2022 10:19	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.8	1000.0	257.80	50.86	30.63	26.81
07/03/2022 10:20	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.7	1000.0	257.70	51.03	30.53	26.80
07/03/2022 10:21	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.5	1000.0	257.50	34.19	30.50	26.80
07/03/2022 10:22	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	50.53	30.57	26.80
07/03/2022 10:23	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.7	1000.0	257.70	34.19	30.62	26.80
07/03/2022 10:24	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.6	1000.0	257.60	50.03	30.63	26.80
07/03/2022 10:25	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.7	1000.0	257.70	49.69	30.62	26.80
07/03/2022 10:26	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.6	1000.0	257.60	41.19	30.65	26.79
07/03/2022 10:27	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.8	1000.0	257.80	49.35	30.62	26.79
07/03/2022 10:28	-0.4	1018.0	0.00	-0.09	-0.03	-0.02	257.9	1000.0	257.90	49.35	30.65	26.80
07/03/2022 10:29	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.7	1000.0	257.70	49.86	30.65	26.79
07/03/2022 10:30	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.9	1000.0	257.90	50.69	30.70	26.79
07/03/2022 10:31	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.7	1000.0	257.70	50.70	30.65	26.79
07/03/2022 10:32	-0.4	1018.0	0.00	-0.09	-0.03	-0.02	257.8	1000.0	257.80	50.69	30.67	26.80
07/03/2022 10:33	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.8	1000.0	257.80	42.52	30.65	26.80
07/03/2022 10:34	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.6	1000.0	257.60	50.69	30.67	26.81
07/03/2022 10:35	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.8	1000.0	257.80	50.69	30.67	26.80
07/03/2022 10:36	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.6	1000.0	257.60	42.36	30.63	26.80
07/03/2022 10:37	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.8	1000.0	257.80	50.36	30.65	26.80
07/03/2022 10:38	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.7	1000.0	257.70	49.86	30.62	26.79
07/03/2022 10:39	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.4	1000.0	257.40	49.53	30.60	26.79
07/03/2022 10:40	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.5	1000.0	257.50	50.03	30.62	26.81
07/03/2022 10:41	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.4	1000.0	257.40	50.03	30.62	26.81
07/03/2022 10:42	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.5	1000.0	257.50	49.86	30.62	26.80
07/03/2022 10:43	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.7	1000.0	257.70	51.03	30.67	26.80
07/03/2022 10:44	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.3	1000.0	257.30	50.53	30.58	26.80
07/03/2022 10:45	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.6	1000.0	257.60	50.87	30.62	26.81
07/03/2022 10:46	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	50.37	30.62	26.80

Period Start:	Average C5gasflow kscfh	Average C5hhv btu/sc	Average C5heat_in mmbtuh	Average C5nh3inj lb/hr	Average C5waterinj gpm	Average C5unitload MW	Average C6gasflow kscfh	Average C6hhv btu/sc	Average C6heat_in mmbtuh	Average C6nh3inj lb/hr	Average C6waterinj gpm	Average C6unitload MW
07/03/2022 10:47	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.7	1000.0	257.70	50.87	30.67	26.80
07/03/2022 10:48	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.6	1000.0	257.60	50.70	30.63	26.79
07/03/2022 10:49	-0.3	1018.0	0.00	-0.08	-0.03	-0.02	257.9	1000.0	257.90	41.35	30.67	26.80
07/03/2022 10:50	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.8	1000.0	257.80	49.69	30.67	26.79
07/03/2022 10:51	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.9	1000.0	257.90	49.69	30.67	26.80
07/03/2022 10:52	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.8	1000.0	257.80	49.69	30.67	26.80
07/03/2022 10:53	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.7	1000.0	257.70	51.03	30.68	26.81
07/03/2022 10:54	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	258.0	1000.0	258.00	50.69	30.65	26.79
07/03/2022 10:55	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.9	1000.0	257.90	50.86	30.65	26.80
07/03/2022 10:56	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.7	1000.0	257.70	50.86	30.63	26.80
07/03/2022 10:57	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.8	1000.0	257.80	51.52	30.65	26.81
07/03/2022 10:58	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.9	1000.0	257.90	51.87	30.66	26.80
07/03/2022 10:59	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.7	1000.0	257.70	51.86	30.66	26.81
07/03/2022 11:00	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.8	1000.0	257.80	51.36	30.68	26.81
07/03/2022 11:01	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.9	1000.0	257.90	42.02	30.65	26.80
07/03/2022 11:02	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.5	1000.0	257.50	50.87	30.60	26.81
07/03/2022 11:03	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.5	1000.0	257.50	50.70	30.68	26.80
07/03/2022 11:04	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.7	1000.0	257.70	50.69	30.68	26.81
07/03/2022 11:05	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.6	1000.0	257.60	50.53	30.68	26.80
07/03/2022 11:06	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.7	1000.0	257.70	49.86	30.67	26.80
07/03/2022 11:07	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.7	1000.0	257.70	49.20	30.68	26.80
07/03/2022 11:08	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.8	1000.0	257.80	49.03	30.67	26.78
07/03/2022 11:09	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.8	1000.0	257.80	49.86	30.70	26.79
07/03/2022 11:10	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.8	1000.0	257.80	50.36	30.72	26.81
07/03/2022 11:11	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.6	1000.0	257.60	51.36	30.70	26.79
07/03/2022 11:12	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.8	1000.0	257.80	52.36	30.70	26.81
07/03/2022 11:13	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.8	1000.0	257.80	51.86	30.70	26.81
07/03/2022 11:14	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.7	1000.0	257.70	52.53	30.63	26.79
07/03/2022 11:15	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.6	1000.0	257.60	50.86	30.67	26.80
07/03/2022 11:16	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.6	1000.0	257.60	50.36	30.65	26.80
07/03/2022 11:17	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.7	1000.0	257.70	49.02	30.62	26.79
07/03/2022 11:18	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.6	1000.0	257.60	48.86	30.63	26.81
07/03/2022 11:19	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.8	1000.0	257.80	49.19	30.65	26.79
07/03/2022 11:20	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.3	1000.0	257.30	49.86	30.58	26.80
07/03/2022 11:21	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.3	1000.0	257.30	50.70	30.63	26.81
07/03/2022 11:22	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.6	1000.0	257.60	51.69	30.60	26.82
07/03/2022 11:23	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	51.86	30.65	26.80
07/03/2022 11:24	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	43.19	30.65	26.81
07/03/2022 11:25	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	51.03	30.63	26.80
07/03/2022 11:26	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.6	1000.0	257.60	50.86	30.67	26.81
07/03/2022 11:27	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.3	1000.0	257.30	50.19	30.68	26.82
07/03/2022 11:28	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.5	1000.0	257.50	50.86	30.67	26.80
07/03/2022 11:29	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	42.02	30.63	26.81
07/03/2022 11:30	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.8	1000.0	257.80	50.19	30.70	26.79
07/03/2022 11:31	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.8	1000.0	257.80	41.52	30.70	26.80
07/03/2022 11:32	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.6	1000.0	257.60	49.86	30.67	26.80
07/03/2022 11:33	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.6	1000.0	257.60	50.20	30.63	26.79
07/03/2022 11:34	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.7	1000.0	257.70	33.85	30.60	26.80
07/03/2022 11:35	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.6	1000.0	257.60	51.53	30.62	26.81
07/03/2022 11:36	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.4	1000.0	257.40	51.87	30.62	26.80
07/03/2022 11:37	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.8	1000.0	257.80	51.86	30.65	26.81
07/03/2022 11:38	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.8	1000.0	257.80	51.86	30.63	26.80
07/03/2022 11:39	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.7	1000.0	257.70	34.52	30.60	26.80
07/03/2022 11:40	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.9	1000.0	257.90	51.03	30.60	26.80
07/03/2022 11:41	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	258.0	1000.0	258.00	51.53	30.68	26.81
07/03/2022 11:42	-0.5	1018.0	0.00	-0.07	-0.03	-0.02	257.8	1000.0	257.80	51.86	30.63	26.81
07/03/2022 11:43	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.7	1000.0	257.70	51.86	30.67	26.80
07/03/2022 11:44	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	258.0	1000.0	258.00	43.53	30.70	26.80
07/03/2022 11:45	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	51.86	30.67	26.80
07/03/2022 11:46	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.7	1000.0	257.70	43.19	30.68	26.81
07/03/2022 11:47	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	50.76	30.67	26.81

Period Start:	Average C5gasflow kscfh	Average C5hhv btu/sc	Average C5heat_in mmbtuh	Average C5nh3inj lb/hr	Average C5waterinj gpm	Average C5unitload MW	Average C6gasflow kscfh	Average C6hhv btu/sc	Average C6heat_in mmbtuh	Average C6nh3inj lb/hr	Average C6waterinj gpm	Average C6unitload MW
07/03/2022 11:48	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.8	1000.0	257.80	50.70	30.68	26.80
07/03/2022 11:49	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.3	1000.0	257.30	50.03	30.62	26.79
07/03/2022 11:50	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	49.86	30.65	26.81
07/03/2022 11:51	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	50.53	30.67	26.80
07/03/2022 11:52	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.3	1000.0	257.30	41.52	30.65	26.80
07/03/2022 11:53	-0.4	1018.0	0.00	-0.08	0.76	-0.02	257.4	1000.0	257.40	51.03	30.62	26.81
07/03/2022 11:54	-0.5	1018.0	0.00	-0.08	0.84	-0.02	257.3	1000.0	257.30	51.70	30.57	26.80
07/03/2022 11:55	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	51.86	30.55	26.80
07/03/2022 11:56	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.4	1000.0	257.40	51.87	30.57	26.81
07/03/2022 11:57	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.2	1000.0	257.20	51.86	30.47	26.80
07/03/2022 11:58	-0.5	1018.0	0.00	-0.07	-0.03	-0.02	257.5	1000.0	257.50	51.86	30.53	26.80
07/03/2022 11:59	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.2	1000.0	257.20	43.19	30.47	26.80
07/03/2022 12:00	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	256.8	1000.0	256.80	51.20	30.42	26.81
07/03/2022 12:01	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	256.8	1000.0	256.80	51.37	30.38	26.80
07/03/2022 12:02	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	256.7	1000.0	256.70	51.70	30.40	26.79
07/03/2022 12:03	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.0	1000.0	257.00	51.53	30.47	26.81
07/03/2022 12:04	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	51.87	30.48	26.81
07/03/2022 12:05	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	50.70	30.48	26.81
07/03/2022 12:06	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	51.20	30.45	26.79
07/03/2022 12:07	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.2	1000.0	257.20	51.03	30.48	26.80
07/03/2022 12:08	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.3	1000.0	257.30	50.87	30.48	26.80
07/03/2022 12:09	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.3	1000.0	257.30	51.87	30.57	26.81
07/03/2022 12:10	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	43.19	30.62	26.80
07/03/2022 12:11	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.3	1000.0	257.30	51.87	30.62	26.80
07/03/2022 12:12	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	34.52	30.60	26.80
07/03/2022 12:13	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.2	1000.0	257.20	51.04	30.58	26.81
07/03/2022 12:14	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.3	1000.0	257.30	51.03	30.62	26.80
07/03/2022 12:15	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.2	1000.0	257.20	50.86	30.58	26.82
07/03/2022 12:16	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.0	1000.0	257.00	50.70	30.60	26.81
07/03/2022 12:17	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.2	1000.0	257.20	42.86	30.60	26.80
07/03/2022 12:18	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.0	1000.0	257.00	43.20	30.48	26.80
07/03/2022 12:19	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.1	1000.0	257.10	50.87	30.57	26.81
07/03/2022 12:20	-0.4	1018.0	0.00	-0.08	-0.02	-0.02	257.2	1000.0	257.20	50.70	30.55	26.81
07/03/2022 12:21	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.0	1000.0	257.00	51.03	30.53	26.80
07/03/2022 12:22	-0.5	1018.0	0.00	-0.07	-0.03	-0.02	257.1	1000.0	257.10	50.70	30.50	26.79
07/03/2022 12:23	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	50.87	30.48	26.82
07/03/2022 12:24	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	256.8	1000.0	256.80	52.41	30.48	26.80
07/03/2022 12:25	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	256.9	1000.0	256.90	51.53	30.47	26.81
07/03/2022 12:26	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	256.8	1000.0	256.80	51.53	30.45	26.80
07/03/2022 12:27	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	256.7	1000.0	256.70	51.86	30.47	26.80
07/03/2022 12:28	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	256.9	1000.0	256.90	51.87	30.50	26.80
07/03/2022 12:29	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	256.9	1000.0	256.90	51.87	30.53	26.80
07/03/2022 12:30	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.2	1000.0	257.20	51.87	30.55	26.81
07/03/2022 12:31	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.3	1000.0	257.30	51.70	30.63	26.82
07/03/2022 12:32	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.0	1000.0	257.00	42.26	30.58	26.80
07/03/2022 12:33	-0.5	1018.0	0.00	-0.07	-0.03	-0.02	257.4	1000.0	257.40	50.87	30.63	26.81
07/03/2022 12:34	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	51.20	30.67	26.81
07/03/2022 12:35	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	50.04	30.65	26.80
07/03/2022 12:36	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.4	1000.0	257.40	50.54	30.68	26.81
07/03/2022 12:37	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.5	1000.0	257.50	51.03	30.72	26.80
07/03/2022 12:38	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	50.37	30.67	26.81
07/03/2022 12:39	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	41.69	30.62	26.79
07/03/2022 12:40	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	42.53	30.62	26.80
07/03/2022 12:41	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	51.87	30.62	26.81
07/03/2022 12:42	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	256.9	1000.0	256.90	34.19	30.58	26.81
07/03/2022 12:43	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.3	1000.0	257.30	51.87	30.65	26.80
07/03/2022 12:44	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	43.20	30.62	26.82
07/03/2022 12:45	-0.5	1018.0	0.00	-0.07	-0.03	-0.02	257.0	1000.0	257.00	51.36	30.57	26.80
07/03/2022 12:46	-0.5	1018.0	0.00	-0.07	-0.03	-0.02	257.1	1000.0	257.10	50.87	30.60	26.81
07/03/2022 12:47	-0.4	1018.0	0.00	-0.08	-0.02	-0.02	257.3	1000.0	257.30	42.03	30.63	26.80
07/03/2022 12:48	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	50.53	30.68	26.81

Period Start:	Average C5gasflow kscfh	Average C5hhv btu/sc	Average C5heat_in mmbtuh	Average C5nh3inj lb/hr	Average C5waterinj gpm	Average C5unitload MW	Average C6gasflow kscfh	Average C6hhv btu/sc	Average C6heat_in mmbtuh	Average C6nh3inj lb/hr	Average C6waterinj gpm	Average C6unitload MW
07/03/2022 12:49	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	42.53	30.60	26.80
07/03/2022 12:50	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.3	1000.0	257.30	51.19	30.63	26.81
07/03/2022 12:51	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.5	1000.0	257.50	51.87	30.72	26.81
07/03/2022 12:52	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	51.86	30.70	26.81
07/03/2022 12:53	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.3	1000.0	257.30	51.86	30.70	26.82
07/03/2022 12:54	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.2	1000.0	257.20	34.52	30.67	26.80
07/03/2022 12:55	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	51.03	30.68	26.81
07/03/2022 12:56	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.5	1000.0	257.50	51.20	30.65	26.80
07/03/2022 12:57	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	24.97	30.70	26.80
07/03/2022 12:58	-0.5	1018.0	0.00	-0.07	-0.03	-0.02	257.5	1000.0	257.50	50.69	30.67	26.80
07/03/2022 12:59	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.7	1000.0	257.70	51.03	30.68	26.80
07/03/2022 13:00	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.5	1000.0	257.50	42.86	30.70	26.81
07/03/2022 13:01	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.2	1000.0	257.20	51.86	30.63	26.80
07/03/2022 13:02	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	51.86	30.58	26.81
07/03/2022 13:03	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	256.9	1000.0	256.90	52.70	30.57	26.80
07/03/2022 13:04	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	53.03	30.60	26.81
07/03/2022 13:05	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.0	1000.0	257.00	52.52	30.57	26.80
07/03/2022 13:06	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	44.19	30.58	26.81
07/03/2022 13:07	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	256.9	1000.0	256.90	43.19	30.58	26.81
07/03/2022 13:08	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	256.8	1000.0	256.80	51.87	30.60	26.79
07/03/2022 13:09	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.3	1000.0	257.30	51.86	30.67	26.81
Final Average*	**-0.5**	**1018.0**	**0.00**	**-0.08**	**-0.02**	**-0.02**	**257.5**	**1000.0**	**257.48**	**48.88**	**30.62**	**26.80**
Maximum*	**0.0**	**1018.0**	**0.00**	**0.00**	**0.84**	**0.00**	**258.1**	**1000.0**	**258.10**	**53.03**	**30.72**	**26.82**
		07/03/2022 13:09			07/03/2022 11:54		07/03/2022 10:14	07/03/2022 13:09	07/03/2022 10:14	07/03/2022 13:04	07/03/2022 12:51	07/03/2022 12:53
Minimum*	**-0.5**	**1018.0**	**0.00**	**-0.09**	**-0.03**	**-0.02**	**256.7**	**1000.0**	**256.70**	**24.97**	**30.38**	**26.78**
	07/03/2022 13:09	07/03/2022 13:09	07/03/2022 13:09	07/03/2022 13:08	07/03/2022 13:09	07/03/2022 13:09	07/03/2022 12:27	07/03/2022 13:09	07/03/2022 12:27	07/03/2022 12:57	07/03/2022 12:01	07/03/2022 11:08

* Does not include Invalid Averaging Periods ("N/A")

lb/sec	3.22	Fuel Density	0.045

Average Values Report
Generated: 7/26/2022 13:39

Company: Roseville Energy Park

Period Start: 7/3/2022 13:30

Plant: 5120 Phillip Rd

Period End: 7/3/2022 16:38

City/St: Roseville, CA 95747

Validation Type: 1/1 min
Source: CT005_Stack, CT006_Stack
Averaging Period: 1 min
Type: Block Avg

Period Start:	Average C5gasflow kscfh	Average C5hhv btu/sc	Average C5heat_in mmbtuh	Average C5nh3inj lb/hr	Average C5waterinj gpm	Average C5unitload MW	Average C6gasflow kscfh	Average C6hhv btu/sc	Average C6heat_in mmbtuh	Average C6nh3inj lb/hr	Average C6waterinj gpm	Average C6unitload MW
07/03/2022 13:30	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	51.20	30.68	26.82
07/03/2022 13:31	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.3	1000.0	257.30	51.86	30.72	26.82
07/03/2022 13:32	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	51.86	30.68	26.81
07/03/2022 13:33	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.5	1000.0	257.50	51.86	30.66	26.81
07/03/2022 13:34	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.6	1000.0	257.60	51.87	30.68	26.81
07/03/2022 13:35	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	51.87	30.70	26.80
07/03/2022 13:36	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.3	1000.0	257.30	51.86	30.70	26.80
07/03/2022 13:37	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.5	1000.0	257.50	52.20	30.70	26.80
07/03/2022 13:38	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.7	1000.0	257.70	52.87	30.78	26.82
07/03/2022 13:39	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.5	1000.0	257.50	52.53	30.70	26.81
07/03/2022 13:40	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.7	1000.0	257.70	53.03	30.72	26.80
07/03/2022 13:41	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	53.20	30.67	26.80
07/03/2022 13:42	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	53.36	30.67	26.80
07/03/2022 13:43	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.2	1000.0	257.20	53.20	30.63	26.81
07/03/2022 13:44	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.5	1000.0	257.50	44.36	30.67	26.81
07/03/2022 13:45	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.3	1000.0	257.30	52.36	30.62	26.82
07/03/2022 13:46	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.0	1000.0	257.00	53.36	30.63	26.82
07/03/2022 13:47	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	52.70	30.60	26.82
07/03/2022 13:48	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	52.70	30.58	26.81
07/03/2022 13:49	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	52.86	30.58	26.80
07/03/2022 13:50	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.2	1000.0	257.20	53.20	30.55	26.79
07/03/2022 13:51	15.5	1018.0	15.78	-0.09	1.66	-0.02	257.1	1000.0	257.10	51.86	30.58	26.81
07/03/2022 13:52	33.7	1018.0	34.31	-0.08	3.23	-0.02	257.2	1000.0	257.20	52.37	30.65	26.81
07/03/2022 13:53	42.5	1018.0	43.27	-0.08	-0.03	-0.02	257.2	1000.0	257.20	52.87	30.67	26.81
07/03/2022 13:54	42.2	1018.0	42.96	-0.08	-0.03	-0.02	257.1	1000.0	257.10	52.53	30.67	26.81
07/03/2022 13:55	42.2	1018.0	42.96	-0.08	-0.03	-0.02	257.2	1000.0	257.20	53.20	30.67	26.81
07/03/2022 13:56	41.9	1018.0	42.65	-0.08	-0.03	-0.02	257.2	1000.0	257.20	52.86	30.72	26.82
07/03/2022 13:57	41.9	1018.0	42.65	-0.08	-0.03	-0.02	257.4	1000.0	257.40	53.20	30.75	26.82
07/03/2022 13:58	41.7	1018.0	42.45	-0.08	-0.03	-0.02	257.3	1000.0	257.30	52.70	30.73	26.81
07/03/2022 13:59	41.6	1018.0	42.35	-0.08	-0.03	-0.02	257.4	1000.0	257.40	52.70	30.76	26.81
07/03/2022 14:00	41.5	1018.0	42.25	-0.08	-0.03	-0.02	257.3	1000.0	257.30	52.70	30.75	26.81
07/03/2022 14:01	41.5	1018.0	42.25	0.58	-0.03	-0.02	257.2	1000.0	257.20	52.86	30.72	26.81
07/03/2022 14:02	41.5	1018.0	42.25	0.08	-0.03	-0.02	257.4	1000.0	257.40	52.70	30.72	26.81
07/03/2022 14:03	41.4	1018.0	42.15	0.08	-0.03	-0.02	257.3	1000.0	257.30	52.87	30.67	26.81
07/03/2022 14:04	41.4	1018.0	42.15	-0.08	-0.03	-0.02	257.2	1000.0	257.20	51.87	30.72	26.81
07/03/2022 14:05	41.3	1018.0	42.04	-0.08	-0.03	-0.02	257.4	1000.0	257.40	51.86	30.68	26.80
07/03/2022 14:06	41.4	1018.0	42.15	3.60	-0.03	-0.02	257.1	1000.0	257.10	52.87	30.65	26.80
07/03/2022 14:07	41.3	1018.0	42.04	-0.08	-0.03	-0.02	256.8	1000.0	256.80	53.20	30.60	26.81
07/03/2022 14:08	41.3	1018.0	42.04	-0.08	-0.03	-0.02	256.9	1000.0	256.90	53.53	30.60	26.81
07/03/2022 14:09	41.4	1018.0	42.15	-0.08	-0.03	-0.02	256.8	1000.0	256.80	54.36	30.57	26.81
07/03/2022 14:10	41.3	1018.0	42.04	2.93	-0.03	-0.02	257.1	1000.0	257.10	54.86	30.63	26.80
07/03/2022 14:11	41.3	1018.0	42.04	0.09	-0.03	-0.02	257.0	1000.0	257.00	54.86	30.57	26.81
07/03/2022 14:12	41.2	1018.0	41.94	2.09	-0.03	-0.02	257.1	1000.0	257.10	54.19	30.63	26.81
07/03/2022 14:13	41.2	1018.0	41.94	2.93	-0.03	-0.02	256.9	1000.0	256.90	53.69	30.58	26.80
07/03/2022 14:14	41.3	1018.0	42.04	3.43	-0.03	-0.02	256.8	1000.0	256.80	54.19	30.58	26.81
07/03/2022 14:15	9.2	1018.0	9.37	3.93	-0.03	-0.02	256.7	1000.0	256.70	54.03	30.55	26.81
07/03/2022 14:16	-0.5	1018.0	0.00	15.12	-0.03	-0.02	256.7	1000.0	256.70	54.53	30.50	26.80

Period Start:	Average C5gasflow kscfh	Average C5hhv btu/sc	Average C5heat_in mmbtuh	Average C5nh3inj lb/hr	Average C5waterinj gpm	Average C5unitload MW	Average C6gasflow kscfh	Average C6hhv btu/sc	Average C6heat_in mmbtuh	Average C6nh3inj lb/hr	Average C6waterinj gpm	Average C6unitload MW
07/03/2022 14:17	-0.5	1018.0	0.00	11.11	-0.03	-0.02	257.0	1000.0	257.00	54.20	30.50	26.80
07/03/2022 14:18	-0.5	1018.0	0.00	12.12	-0.03	-0.02	257.0	1000.0	257.00	54.86	30.53	26.81
07/03/2022 14:19	-0.5	1018.0	0.00	11.95	-0.03	-0.02	256.9	1000.0	256.90	54.86	30.53	26.81
07/03/2022 14:20	-0.5	1018.0	0.00	11.28	-0.03	-0.02	257.1	1000.0	257.10	55.19	30.57	26.81
07/03/2022 14:21	-0.5	1018.0	0.00	10.77	-0.03	-0.02	257.2	1000.0	257.20	55.86	30.58	26.81
07/03/2022 14:22	-0.5	1018.0	0.00	9.94	-0.03	-0.02	257.1	1000.0	257.10	54.53	30.62	26.80
07/03/2022 14:23	-0.5	1018.0	0.00	9.61	-0.03	-0.02	257.2	1000.0	257.20	54.70	30.62	26.81
07/03/2022 14:24	-0.5	1018.0	0.00	8.94	-0.03	-0.02	257.1	1000.0	257.10	54.70	30.57	26.81
07/03/2022 14:25	-0.5	1018.0	0.00	9.11	-0.03	-0.02	257.1	1000.0	257.10	55.03	30.60	26.81
07/03/2022 14:26	-0.5	1018.0	0.00	7.77	-0.03	-0.02	257.5	1000.0	257.50	55.03	30.57	26.80
07/03/2022 14:27	-0.5	1018.0	0.00	1.09	-0.03	-0.02	257.2	1000.0	257.20	54.86	30.62	26.82
07/03/2022 14:28	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.2	1000.0	257.20	54.86	30.61	26.81
07/03/2022 14:29	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.1	1000.0	257.10	54.53	30.60	26.82
07/03/2022 14:30	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	256.9	1000.0	256.90	55.03	30.63	26.81
07/03/2022 14:31	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.0	1000.0	257.00	54.53	30.58	26.81
07/03/2022 14:32	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.0	1000.0	257.00	54.53	30.53	26.81
07/03/2022 14:33	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.0	1000.0	257.00	53.87	30.53	26.81
07/03/2022 14:34	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	53.87	30.48	26.81
07/03/2022 14:35	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.1	1000.0	257.10	54.03	30.53	26.81
07/03/2022 14:36	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	54.69	30.52	26.81
07/03/2022 14:37	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.0	1000.0	257.00	54.70	30.55	26.81
07/03/2022 14:38	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.0	1000.0	257.00	54.87	30.57	26.82
07/03/2022 14:39	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	256.9	1000.0	256.90	55.03	30.53	26.81
07/03/2022 14:40	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	54.86	30.62	26.82
07/03/2022 14:41	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.0	1000.0	257.00	55.03	30.60	26.81
07/03/2022 14:42	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.0	1000.0	257.00	55.03	30.63	26.80
07/03/2022 14:43	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.3	1000.0	257.30	55.20	30.65	26.82
07/03/2022 14:44	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	55.03	30.67	26.81
07/03/2022 14:45	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.2	1000.0	257.20	55.03	30.66	26.81
07/03/2022 14:46	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.3	1000.0	257.30	53.87	30.68	26.81
07/03/2022 14:47	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	53.87	30.68	26.81
07/03/2022 14:48	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	53.87	30.70	26.82
07/03/2022 14:49	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.3	1000.0	257.30	53.87	30.70	26.82
07/03/2022 14:50	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.4	1000.0	257.40	53.87	30.73	26.81
07/03/2022 14:51	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.3	1000.0	257.30	53.87	30.67	26.82
07/03/2022 14:52	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	53.87	30.67	26.82
07/03/2022 14:53	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.3	1000.0	257.30	44.86	30.63	26.81
07/03/2022 14:54	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	53.87	30.63	26.82
07/03/2022 14:55	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.3	1000.0	257.30	44.86	30.62	26.81
07/03/2022 14:56	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	53.87	30.61	26.81
07/03/2022 14:57	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.2	1000.0	257.20	54.70	30.62	26.82
07/03/2022 14:58	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	256.9	1000.0	256.90	45.69	30.57	26.81
07/03/2022 14:59	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	256.9	1000.0	256.90	55.86	30.63	26.82
07/03/2022 15:00	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	256.9	1000.0	256.90	55.87	30.57	26.81
07/03/2022 15:01	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	256.8	1000.0	256.80	55.86	30.55	26.81
07/03/2022 15:02	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.0	1000.0	257.00	55.20	30.58	26.81
07/03/2022 15:03	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	256.9	1000.0	256.90	54.86	30.63	26.81
07/03/2022 15:04	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.0	1000.0	257.00	54.87	30.63	26.81
07/03/2022 15:05	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.0	1000.0	257.00	54.87	30.63	26.81
07/03/2022 15:06	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.2	1000.0	257.20	46.03	30.63	26.81
07/03/2022 15:07	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.2	1000.0	257.20	54.87	30.67	26.83
07/03/2022 15:08	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.0	1000.0	257.00	55.53	30.68	26.82
07/03/2022 15:09	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	55.86	30.70	26.81
07/03/2022 15:10	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.2	1000.0	257.20	55.87	30.68	26.81
07/03/2022 15:11	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.0	1000.0	257.00	55.87	30.68	26.82
07/03/2022 15:12	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	55.86	30.65	26.82
07/03/2022 15:13	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.2	1000.0	257.20	46.53	30.63	26.82
07/03/2022 15:14	-0.5	1018.0	0.00	-0.07	-0.03	-0.02	248.9	1000.0	248.90	55.87	30.65	26.83
07/03/2022 15:15	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	256.9	1000.0	256.90	55.87	30.55	26.82
07/03/2022 15:16	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	46.53	30.62	26.82
07/03/2022 15:17	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	55.87	30.57	26.80

Period Start:	Average C5gasflow kscfh	Average C5hhv btu/sc	Average C5heat_in mmbtuh	Average C5nh3inj lb/hr	Average C5waterinj gpm	Average C5unitload MW	Average C6gasflow kscfh	Average C6hhv btu/sc	Average C6heat_in mmbtuh	Average C6nh3inj lb/hr	Average C6waterinj gpm	Average C6unitload MW
07/03/2022 15:18	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	46.53	30.52	26.83
07/03/2022 15:19	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	256.8	1000.0	256.80	55.87	30.48	26.81
07/03/2022 15:20	-0.5	1018.0	0.00	-0.07	-0.03	-0.02	257.0	1000.0	257.00	55.87	30.52	26.81
07/03/2022 15:21	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	46.53	30.52	26.80
07/03/2022 15:22	-0.5	1018.0	0.00	-0.09	-0.03	-0.02	257.1	1000.0	257.10	55.87	30.53	26.82
07/03/2022 15:23	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	256.8	1000.0	256.80	46.53	30.55	26.81
07/03/2022 15:24	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	256.9	1000.0	256.90	55.86	30.58	26.82
07/03/2022 15:25	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.0	1000.0	257.00	55.86	30.58	26.81
07/03/2022 15:26	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.2	1000.0	257.20	55.87	30.60	26.82
07/03/2022 15:27	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.2	1000.0	257.20	55.87	30.58	26.80
07/03/2022 15:28	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.0	1000.0	257.00	55.87	30.62	26.82
07/03/2022 15:29	-0.5	1018.0	0.00	-0.08	-0.02	-0.02	257.3	1000.0	257.30	55.87	30.63	26.81
07/03/2022 15:30	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	256.9	1000.0	256.90	55.87	30.58	26.81
07/03/2022 15:31	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	37.20	30.60	26.81
07/03/2022 15:32	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.4	1000.0	257.40	55.87	30.65	26.82
07/03/2022 15:33	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	55.87	30.65	26.83
07/03/2022 15:34	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	56.53	30.57	26.82
07/03/2022 15:35	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.0	1000.0	257.00	56.70	30.57	26.81
07/03/2022 15:36	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	256.9	1000.0	256.90	57.03	30.53	26.81
07/03/2022 15:37	-0.4	1018.0	0.00	-0.09	-0.03	-0.02	256.7	1000.0	256.70	57.37	30.53	26.82
07/03/2022 15:38	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	57.70	30.58	26.83
07/03/2022 15:39	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.0	1000.0	257.00	57.37	30.53	26.81
07/03/2022 15:40	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.0	1000.0	257.00	56.87	30.57	26.82
07/03/2022 15:41	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	256.9	1000.0	256.90	56.37	30.58	26.81
07/03/2022 15:42	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	256.9	1000.0	256.90	55.87	30.58	26.81
07/03/2022 15:43	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.0	1000.0	257.00	55.87	30.63	26.83
07/03/2022 15:44	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	256.9	1000.0	256.90	55.87	30.63	26.81
07/03/2022 15:45	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	46.69	30.67	26.81
07/03/2022 15:46	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.0	1000.0	257.00	47.69	30.65	26.81
07/03/2022 15:47	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	56.70	30.67	26.81
07/03/2022 15:48	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.0	1000.0	257.00	47.36	30.65	26.82
07/03/2022 15:49	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.1	1000.0	257.10	56.37	30.68	26.81
07/03/2022 15:50	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.4	1000.0	257.40	56.37	30.70	26.81
07/03/2022 15:51	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.1	1000.0	257.10	55.87	30.67	26.81
07/03/2022 15:52	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.2	1000.0	257.20	55.87	30.67	26.82
07/03/2022 15:53	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.3	1000.0	257.30	55.88	30.67	26.81
07/03/2022 15:54	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	55.87	30.63	26.81
07/03/2022 15:55	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	55.87	30.60	26.81
07/03/2022 15:56	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	256.9	1000.0	256.90	46.53	30.60	26.81
07/03/2022 15:57	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	55.87	30.60	26.82
07/03/2022 15:58	-0.4	1018.0	0.00	-0.08	-0.02	-0.02	256.9	1000.0	256.90	47.03	30.57	26.81
07/03/2022 15:59	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.0	1000.0	257.00	56.70	30.58	26.81
07/03/2022 16:00	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.2	1000.0	257.20	56.70	30.62	26.82
07/03/2022 16:01	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	47.20	30.57	26.80
07/03/2022 16:02	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	256.9	1000.0	256.90	57.20	30.55	26.82
07/03/2022 16:03	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	256.9	1000.0	256.90	57.03	30.50	26.81
07/03/2022 16:04	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.1	1000.0	257.10	56.87	30.58	26.82
07/03/2022 16:05	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.0	1000.0	257.00	56.53	30.58	26.82
07/03/2022 16:06	-0.5	1018.0	0.00	-0.07	-0.02	-0.02	257.1	1000.0	257.10	56.03	30.62	26.82
07/03/2022 16:07	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.2	1000.0	257.20	56.04	30.60	26.82
07/03/2022 16:08	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	55.87	30.60	26.81
07/03/2022 16:09	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.3	1000.0	257.30	56.71	30.63	26.82
07/03/2022 16:10	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.3	1000.0	257.30	56.04	30.63	26.82
07/03/2022 16:11	-0.4	1018.0	0.00	-0.07	-0.02	-0.02	257.4	1000.0	257.40	46.53	30.60	26.80
07/03/2022 16:12	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.2	1000.0	257.20	55.87	30.58	26.82
07/03/2022 16:13	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.2	1000.0	257.20	57.03	30.62	26.82
07/03/2022 16:14	-0.4	1018.0	0.00	-0.07	-0.02	-0.02	257.2	1000.0	257.20	56.70	30.58	26.80
07/03/2022 16:15	-0.5	1018.0	0.00	-0.07	-0.03	-0.02	257.2	1000.0	257.20	57.87	30.55	26.81
07/03/2022 16:16	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.1	1000.0	257.10	57.87	30.48	26.81
07/03/2022 16:17	-0.5	1018.0	0.00	-0.07	-0.03	-0.02	257.0	1000.0	257.00	57.37	30.52	26.82
07/03/2022 16:18	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	256.9	1000.0	256.90	57.54	30.48	26.83

Period Start:	Average C5gasflow kscfh	Average C5hhv btu/sc	Average C5heat_in mmbtuh	Average C5nh3inj lb/hr	Average C5waterinj gpm	Average C5unitload MW	Average C6gasflow kscfh	Average C6hhv btu/sc	Average C6heat_in mmbtuh	Average C6nh3inj lb/hr	Average C6waterinj gpm	Average C6unitload MW
07/03/2022 16:19	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	256.9	1000.0	256.90	48.03	30.48	26.81
07/03/2022 16:20	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	256.9	1000.0	256.90	57.53	30.52	26.82
07/03/2022 16:21	-0.4	1018.0	0.00	-0.08	-0.02	-0.02	257.0	1000.0	257.00	48.20	30.53	26.82
07/03/2022 16:22	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	57.88	30.53	26.82
07/03/2022 16:23	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.2	1000.0	257.20	47.37	30.53	26.83
07/03/2022 16:24	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.1	1000.0	257.10	56.70	30.55	26.82
07/03/2022 16:25	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	55.87	30.52	26.82
07/03/2022 16:26	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	56.20	30.57	26.82
07/03/2022 16:27	-0.5	1018.0	0.00	-0.08	-0.03	-0.02	257.2	1000.0	257.20	56.54	30.55	26.82
07/03/2022 16:28	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.0	1000.0	257.00	57.37	30.58	26.81
07/03/2022 16:29	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.0	1000.0	257.00	57.87	30.55	26.82
07/03/2022 16:30	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.1	1000.0	257.10	57.53	30.53	26.82
07/03/2022 16:31	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	257.0	1000.0	257.00	48.03	30.53	26.83
07/03/2022 16:32	-0.5	1018.0	0.00	-0.07	-0.03	-0.02	257.0	1000.0	257.00	57.54	30.57	26.82
07/03/2022 16:33	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	256.9	1000.0	256.90	56.54	30.53	26.82
07/03/2022 16:34	-0.5	1018.0	0.00	-0.07	-0.03	-0.02	257.0	1000.0	257.00	57.04	30.53	26.83
07/03/2022 16:35	-0.4	1018.0	0.00	-0.08	-0.03	-0.02	257.0	1000.0	257.00	57.71	30.50	26.82
07/03/2022 16:36	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	256.9	1000.0	256.90	48.03	30.45	26.81
07/03/2022 16:37	-0.5	1018.0	0.00	-0.07	-0.03	-0.02	257.0	1000.0	257.00	57.21	30.48	26.81
07/03/2022 16:38	-0.4	1018.0	0.00	-0.07	-0.03	-0.02	256.9	1000.0	256.90	38.20	30.52	26.82
Final Average*	**4.7**	**1018.0**	**5.24**	**0.66**	**0.00**	**-0.02**	**257.1**	**1000.0**	**257.07**	**53.83**	**30.61**	**26.81**
Maximum*	**42.5**	**1018.0**	**43.27**	**15.12**	**3.23**	**0.00**	**257.7**	**1000.0**	**257.70**	**57.88**	**30.78**	**26.83**
	07/03/2022 13:53	07/03/2022 16:38	07/03/2022 13:53	07/03/2022 14:16	07/03/2022 13:52		07/03/2022 13:40	07/03/2022 16:38	07/03/2022 13:40	07/03/2022 16:22	07/03/2022 13:38	07/03/2022 16:34
Minimum*	**-0.5**	**1018.0**	**0.00**	**-0.09**	**-0.03**	**-0.02**	**248.9**	**1000.0**	**248.90**	**37.20**	**30.45**	**26.79**
	07/03/2022 16:37	07/03/2022 16:38	07/03/2022 16:38	07/03/2022 15:37	07/03/2022 16:38	07/03/2022 16:38	07/03/2022 15:14	07/03/2022 16:38	07/03/2022 15:14	07/03/2022 15:31	07/03/2022 16:36	07/03/2022 13:50

* Does not include Invalid Averaging Periods ("N/A")

lb/sec 3.21 Fuel Density 0.045

Appendix C
Laboratory Analysis Data

Appendix C.1
Particulate Analyses

PARTICULATE MATTER RESULTS - EPA 5/202
Client: GE Gas Power
Project: PROJ - 017008

Test No.:		GT3-R1	GT3-R2	GT3-R3	GT3-R4
Front-Half Particulate Catch					
m_f	Filter catch, net mg	< 0.28	< 0.28	< 0.28	< 0.28
m_a	Probe / nozzle rinse (acetone), net mg	0.56	0.67	0.45	0.60
	Total filterable particulate matter catch, net mg	*0.84*	*0.95*	*0.73*	*0.88*
Back-Half Particulate Catch					
m_i	Aqueous rinse (ASTM Type II water), net mg	2.97	2.90	2.45	2.86
m_o	Organic rinse (hexane and acetone), net mg	2.58	3.14	2.46	2.37
	Uncorrected condensible particulate matter catch, net mg	*5.55*	*6.04*	*4.91*	*5.23*
Back-Half Blank Catch					
m_{ib}	Field blank aqueous rinse (ASTM Type II water), net mg	1.18	1.18	1.18	1.18
m_{ob}	Field blank organic rinse (hexane and acetone), net mg	2.67	2.67	2.67	2.67
m_{fb}	*Total condensible particulate matter blank catch, net mg*	*2.00*	*2.00*	*2.00*	*2.00*
m_{cpm}	*Corrected condensible particulate matter catch, net mg*	*3.55*	*4.04*	*2.91*	*3.23*
Total Particulate Matter Catch, net mg		**4.39**	**4.99**	**3.64**	**4.11**

Notes: The front-half acetone fractions were blank-corrected according to EPA Methods 5 / 17.
The back-half fractions were blank corrected according to EPA Method 202
The back-half fractions blank correction values is (m_{ib} + m_{ob}) or 2.0mg, whichever is lesser, according to EPA Method 202

Prepared by: _____ Date: 07 / 14 / 2022
Esha Chetty
Laboratory Manager

Reviewed by: _____ Date: 07 / 14 / 2022
Katie Resch
QC/Reporting Specialist

PARTICULATE MATTER RESULTS - EPA 5/202
Client: GE Gas Power
Project: PROJ - 017008

Test No.:		GT4-R1	GT4-R2	GT4-R3	GT4-R4
Front-Half Particulate Catch					
m_f	Filter catch, net mg	< 0.28	0.53	< 0.28	< 0.28
m_a	Probe / nozzle rinse (acetone), net mg	0.32	0.45	0.42	0.43
	Total filterable particulate matter catch, net mg	*0.60*	*0.98*	*0.70*	*0.71*
Back-Half Particulate Catch					
m_i	Aqueous rinse (ASTM Type II water), net mg	1.50	2.59	2.74	2.61
m_o	Organic rinse (hexane and acetone), net mg	2.29	2.35	2.24	2.41
	Uncorrected condensible particulate matter catch, net mg	*3.79*	*4.94*	*4.98*	*5.02*
Back-Half Blank Catch					
m_{ib}	Field blank aqueous rinse (ASTM Type II water), net mg	1.49	1.49	1.49	1.49
m_{ob}	Field blank organic rinse (hexane and acetone), net mg	2.05	2.05	2.05	2.05
m_{fb}	*Total condensible particulate matter blank catch, net mg*	*2.00*	*2.00*	*2.00*	*2.00*
m_{cpm}	*Corrected condensible particulate matter catch, net mg*	*1.79*	*2.94*	*2.98*	*3.02*
Total Particulate Matter Catch, net mg		**2.39**	**3.92**	**3.68**	**3.73**

Notes: The front-half acetone fractions were blank-corrected according to EPA Methods 5 / 17.
The back-half fractions were blank corrected according to EPA Method 202
The back-half fractions blank correction values is (m_{ib} + m_{ob}) or 2.0mg, whichever is lesser, according to EPA Method 202

Prepared by: _____ Date: 07 / 14 / 2022

Esha Chetty
Laboratory Manager

Reviewed by: _____ Date: 07 / 14 / 2022

Katie Resch
QC/Reporting Specialist

PARTICULATE MATTER RESULTS - EPA 5/202
Client: GE Gas Power
Project: PROJ - 017008

Test Number	Sample Fraction	Sample Amount (g)	Lab Number (ID)	Tare Sequence (#)	Tare Weight (g)	Final Weight (g)	Raw Gain Weight (mg)	Blank Residue (%)	Blank Correction (mg)	Maximum Correction (mg)	Final Results (mg)
FB-T3	**Filter**	N/A	3044	Tare 1	0.4845	0.4845	--	--	--	--	--
	(F½)			Tare 2	0.4846	0.4847	--	--	--	--	--
				Tare 3	0.4846	0.4847	--	--	--	--	--
				Average	**0.4846**	**0.4846**	**0.07**	N/A	N/A	N/A	N/A
GT3-R1	**Filter**	N/A	3059	Tare 1	0.4950	0.4950	--	--	--	--	--
	(F½)			Tare 2	0.4948	0.4949	--	--	--	--	--
				Tare 3	0.4951	0.4948	--	--	--	--	--
				Average	**0.4950**	**0.4949**	**-0.07**	N/A	N/A	N/A	**0.00**
GT3-R2	**Filter**	N/A	3035	Tare 1	0.4814	0.4811	--	--	--	--	--
	(F½)			Tare 2	0.4816	0.4811	--	--	--	--	--
				Tare 3	0.4817	0.4810	--	--	--	--	--
				Average	**0.4816**	**0.4811**	**-0.50**	N/A	N/A	N/A	**0.00**
GT3-R3	**Filter**	N/A	3038	Tare 1	0.4828	0.4832	--	--	--	--	--
	(F½)			Tare 2	0.4831	0.4828	--	--	--	--	--
				Tare 3	0.4832	0.4830	--	--	--	--	--
				Average	**0.4830**	**0.4830**	**-0.03**	N/A	N/A	N/A	**0.00**
GT3-R4	**Filter**	N/A	3036	Tare 1	0.4710	0.4704	--	--	--	--	--
	(F½)			Tare 2	0.4712	0.4703	--	--	--	--	--
				Tare 3	0.4711	0.4703	--	--	--	--	--
				Average	**0.4711**	**0.4703**	**-0.77**	N/A	N/A	N/A	**0.00**
Note: The filters were not blank-corrected according to EPA Methods 5 / 17.											
GT3-R1	**Probe/Nozzle**	112.2	AB450	Tare 1	2.21662	2.21712	--	--	--	--	--
	Acetone			Tare 2	2.21657	2.21707	--	--	--	--	--
	(F½)			Tare 3	2.21643	2.21710	--	--	--	--	--
				Average	**2.21654**	**2.21710**	**0.56**	NA	0.00	1.12	**0.56**
GT3-R2	**Probe/Nozzle**	110.6	AB452	Tare 1	2.20588	2.20646	--	--	--	--	--
	Acetone			Tare 2	2.20579	2.20650	--	--	--	--	--
	(F½)			Tare 3	2.20584	2.20657	--	--	--	--	--
				Average	**2.20584**	**2.20651**	**0.67**	NA	0.00	1.11	**0.67**
GT3-R3	**Probe/Nozzle**	100.3	AB453	Tare 1	2.14521	2.14563	--	--	--	--	--
	Acetone			Tare 2	2.14515	2.14563	--	--	--	--	--
	(F½)			Tare 3	2.14520	2.14565	--	--	--	--	--
				Average	**2.14519**	**2.14564**	**0.45**	NA	0.00	1.00	**0.45**
GT3-R4	**Probe/Nozzle**	122.3	AB454	Tare 1	2.14496	2.14551	--	--	--	--	--
	Acetone			Tare 2	2.14494	2.14555	--	--	--	--	--
	(F½)			Tare 3	2.14493	2.14558	--	--	--	--	--
				Average	**2.14494**	**2.14555**	**0.60**	NA	0.00	1.22	**0.60**

PARTICULATE MATTER RESULTS - EPA 5/202
Client: GE Gas Power
Project: PROJ - 017008

Test Number	Sample Fraction	Sample Amount (g)	Lab Number (ID)	Tare Sequence (#)	Tare Weight (g)	Final Weight (g)	Raw Gain Weight (mg)	Blank Residue (%)	Final Results (mg)
FB-T3	**Organic Rinse (B½)**	120.8	AB455	Tare 1	2.15626	2.15883	--	--	--
				Tare 2	2.15623	2.15895	--	--	--
				Tare 3	2.15622	2.15895	--	--	--
				Average	**2.15624**	**2.15891**	**2.67**	0.0022%	2.67
GT3-R1	**Organic Rinse (B½)**	134.2	AB456	Tare 1	2.17509	2.17762	--	--	--
				Tare 2	2.17499	2.17759	--	--	--
				Tare 3	2.17501	2.17763	--	--	--
				Average	**2.17503**	**2.17761**	**2.58**	0.0022%	2.58
GT3-R2	**Organic Rinse (B½)**	149.4	AB457	Tare 1	2.17111	2.17415	--	--	--
				Tare 2	2.17103	2.17420	--	--	--
				Tare 3	2.17105	2.17425	--	--	--
				Average	**2.17106**	**2.17420**	**3.14**	0.0022%	3.14
GT3-R3	**Organic Rinse (B½)**	156.1	AB458	Tare 1	2.19682	2.19919	--	--	--
				Tare 2	2.19676	2.19923	--	--	--
				Tare 3	2.19673	2.19928	--	--	--
				Average	**2.19677**	**2.19923**	**2.46**	0.0022%	2.46
GT3-R4	**Organic Rinse (B½)**	149.1	AB459	Tare 1	2.17141	2.17373	--	--	--
				Tare 2	2.17136	2.17375	--	--	--
				Tare 3	2.17140	2.17381	--	--	--
				Average	**2.17139**	**2.17376**	**2.37**	0.0022%	2.37
FB-T3	**Aqueous Water (B½)**	153.7	AB428	Tare 1	2.17990	2.18113	--	--	--
				Tare 2	2.18002	2.18110	--	--	--
				Tare 3	2.17986	2.18109	--	--	--
				Average	**2.17993**	**2.18111**	**1.18**	0.0008%	1.18
GT3-R1	**Aqueous Water (B½)**	323.8	AB429	Tare 1	2.16967	2.17262	--	--	--
				Tare 2	2.16964	2.17251	--	--	--
				Tare 3	2.16949	2.17258	--	--	--
				Average	**2.16960**	**2.17257**	**2.97**	0.0008%	2.97
GT3-R2	**Aqueous Water (B½)**	327.0	AB451	Tare 1	2.19160	2.19453	--	--	--
				Tare 2	2.19144	2.19427	--	--	--
				Tare 3	2.19150	2.19444	--	--	--
				Average	**2.19151**	**2.19441**	**2.90**	0.0008%	2.90
GT3-R3	**Aqueous Water (B½)**	365.8	AB466	Tare 1	2.17287	2.17534	--	--	--
				Tare 2	2.17281	2.17527	--	--	--
				Tare 3	2.17287	2.17528	--	--	--
				Average	**2.17285**	**2.17530**	**2.45**	0.0008%	2.45
GT3-R4	**Aqueous Water (B½)**	315.3	AB470	Tare 1	2.15253	2.15539	--	--	--
				Tare 2	2.15253	2.15533	--	--	--
				Tare 3	2.15249	2.15542	--	--	--
				Average	**2.15252**	**2.15538**	**2.86**	0.0008%	2.86

PARTICULATE MATTER RESULTS - EPA 5/202
Client: GE Gas Power
Project: PROJ - 017008

Test Number	Sample Fraction	Sample Amount (g)	Lab Number (ID)	Tare Sequence (#)	Tare Weight (g)	Final Weight (g)	Raw Gain Weight (mg)	Blank Residue (%)	Blank Correction (mg)	Maximum Correction (mg)	Final Results (mg)
FB-T4	**Filter**	N/A	3049	Tare 1	0.4780	0.4767	--	--	--	--	--
	(F½)			Tare 2	0.4777	0.4767	--	--	--	--	--
				Tare 3	0.4775	0.4768	--	--	--	--	--
				Average	**0.4777**	**0.4767**	**-1.00**	N/A	N/A	N/A	N/A
GT4-R1	**Filter**	N/A	3047	Tare 1	0.4844	0.4839	--	--	--	--	--
	(F½)			Tare 2	0.4847	0.4837	--	--	--	--	--
				Tare 3	0.4846	0.4837	--	--	--	--	--
				Average	**0.4846**	**0.4838**	**-0.80**	N/A	N/A	N/A	**0.00**
GT4-R2	**Filter**	N/A	3057	Tare 1	0.4920	0.4925	--	--	--	--	--
	(F½)			Tare 2	0.4922	0.4928	--	--	--	--	--
				Tare 3	0.4921	0.4926	--	--	--	--	--
				Average	**0.4921**	**0.4926**	**0.53**	N/A	N/A	N/A	**0.53**
GT4-R3	**Filter**	N/A	3039	Tare 1	0.4857	0.4854	--	--	--	--	--
	(F½)			Tare 2	0.4853	0.4851	--	--	--	--	--
				Tare 3	0.4857	0.4850	--	--	--	--	--
				Average	**0.4856**	**0.4852**	**-0.40**	N/A	N/A	N/A	**0.00**
GT4-R4	**Filter**	N/A	3043	Tare 1	0.4826	0.4822	--	--	--	--	--
	(F½)			Tare 2	0.4830	0.4822	--	--	--	--	--
				Tare 3	0.4830	0.4822	--	--	--	--	--
				Average	**0.4829**	**0.4822**	**-0.67**	N/A	N/A	N/A	**0.00**

Note: The filters were not blank-corrected according to EPA Methods 5 / 17.

GT4-R1	**Probe/Nozzle**	42.7	AB460	Tare 1	2.16271	2.16295	--	--	--	--	--
	Acetone			Tare 2	2.16258	2.16295	--	--	--	--	--
	(F½)			Tare 3	2.16265	2.16301	--	--	--	--	--
				Average	**2.16265**	**2.16297**	**0.32**	NA	0.00	0.43	**0.32**
GT4-R2	**Probe/Nozzle**	165.1	AB461	Tare 1	2.20468	2.20507	--	--	--	--	--
	Acetone			Tare 2	2.20465	2.20511	--	--	--	--	--
	(F½)			Tare 3	2.20465	2.20515	--	--	--	--	--
				Average	**2.20466**	**2.20511**	**0.45**	NA	0.00	1.65	**0.45**
GT4-R3	**Probe/Nozzle**	160.4	AB462	Tare 1	2.20993	2.21030	--	--	--	--	--
	Acetone			Tare 2	2.20988	2.21030	--	--	--	--	--
	(F½)			Tare 3	2.20988	2.21034	--	--	--	--	--
				Average	**2.20990**	**2.21031**	**0.42**	NA	0.00	1.60	**0.42**
GT4-R4	**Probe/Nozzle**	77.6	AB463	Tare 1	2.20534	2.20566	--	--	--	--	--
	Acetone			Tare 2	2.20530	2.20575	--	--	--	--	--
	(F½)			Tare 3	2.20526	2.20577	--	--	--	--	--
				Average	**2.20530**	**2.20573**	**0.43**	NA	0.00	0.78	**0.43**

PARTICULATE MATTER RESULTS - EPA 5/202
Client: GE Gas Power
Project: PROJ - 017008

Test Number	Sample Fraction	Sample Amount (g)	Lab Number (ID)	Tare Sequence (#)	Tare Weight (g)	Final Weight (g)	Raw Gain Weight (mg)	Blank Residue (%)	Final Results (mg)
FB-T4	**Organic Rinse (B½)**	111.2	AB464	Tare 1	2.14926	2.15120	--	--	--
				Tare 2	2.14924	2.15136	--	--	--
				Tare 3	2.14922	2.15130	--	--	--
				Average	**2.14924**	**2.15129**	**2.05**	0.0018%	2.05
GT4-R1	**Organic Rinse (B½)**	150.6	AB465	Tare 1	2.15543	2.15772	--	--	--
				Tare 2	2.15544	2.15773	--	--	--
				Tare 3	2.15546	2.15774	--	--	--
				Average	**2.15544**	**2.15773**	**2.29**	0.0018%	2.29
GT4-R2	**Organic Rinse (B½)**	137.6	AB467	Tare 1	2.19365	2.19599	--	--	--
				Tare 2	2.19364	2.19598	--	--	--
				Tare 3	2.19365	2.19601	--	--	--
				Average	**2.19365**	**2.19599**	**2.35**	0.0018%	2.35
GT4-R3	**Organic Rinse (B½)**	140.4	AB468	Tare 1	2.18510	2.18727	--	--	--
				Tare 2	2.18513	2.18742	--	--	--
				Tare 3	2.18513	2.18740	--	--	--
				Average	**2.18512**	**2.18736**	**2.24**	0.0018%	2.24
GT4-R4	**Organic Rinse (B½)**	125.4	AB469	Tare 1	2.15741	2.15981	--	--	--
				Tare 2	2.15735	2.15980	--	--	--
				Tare 3	2.15743	2.15980	--	--	--
				Average	**2.15740**	**2.15980**	**2.41**	0.0018%	2.41
FB-T4	**Aqueous Water (B½)**	200.5	AB471	Tare 1	2.18051	2.18202	--	--	--
				Tare 2	2.18055	2.18199	--	--	--
				Tare 3	2.18048	2.18200	--	--	--
				Average	**2.18051**	**2.18200**	**1.49**	0.0007%	1.49
GT4-R1	**Aqueous Water (B½)**	344.3	AB472	Tare 1	2.14270	2.14426	--	--	--
				Tare 2	2.14277	2.14422	--	--	--
				Tare 3	2.14275	2.14424	--	--	--
				Average	**2.14274**	**2.14424**	**1.50**	0.0007%	1.50
GT4-R2	**Aqueous Water (B½)**	349.1	AB473	Tare 1	2.12944	2.13200	--	--	--
				Tare 2	2.12940	2.13199	--	--	--
				Tare 3	2.12940	2.13201	--	--	--
				Average	**2.12941**	**2.13200**	**2.59**	0.0007%	2.59
GT4-R3	**Aqueous Water (B½)**	353.8	AB474	Tare 1	2.13534	2.13808	--	--	--
				Tare 2	2.13531	2.13801	--	--	--
				Tare 3	2.13528	2.13806	--	--	--
				Average	**2.13531**	**2.13805**	**2.74**	0.0007%	2.74
GT4-R4	**Aqueous Water (B½)**	378.5	AB475	Tare 1	2.19978	2.20245	--	--	--
				Tare 2	2.19980	2.20231	--	--	--
				Tare 3	2.19970	2.20236	--	--	--
				Average	**2.19976**	**2.20237**	**2.61**	0.0007%	2.61

PARTICULATE MATTER RESULTS - EPA 5/202
Client: GE Gas Power
Project: PROJ - 017008

Test Number	Sample Fraction	Sample Amount (g)	Lab Number (ID)	Tare Sequence (#)	Tare Weight (g)	Final Weight (g)	Raw Gain Weight (mg)	Blank Residue (%)
Reagent Blank	**Acetone**	167.3	AB484	Tare 1	2.17809	2.17834	--	--
				Tare 2	2.17808	2.17838	--	--
				Tare 3	2.17810	2.17834	--	--
				Average	**2.17809**	**2.17835**	**0.26**	0.0002%
Reagent Blank	**Hexane**	136.1	AB485	Tare 1	2.16206	2.16210	--	--
				Tare 2	2.16204	2.16215	--	--
				Tare 3	2.16206	2.16213	--	--
				Average	**2.16205**	**2.16213**	**0.07**	0.0001%
Reagent Blank	**Water**	205.1	AB495	Tare 1	2.15476	2.15552	--	--
				Tare 2	2.15468	2.15549	--	--
				Tare 3	2.15467	2.15543	--	--
				Average	**2.15470**	**2.15548**	**0.78**	0.0004%

PARTICULATE MATTER RESULTS - EPA 5/202
Client: GE Gas Power
Project: PROJ - 017008

Test Number	Sample Fraction	Sample Amount (g)	Lab Number (ID)	Tare Sequence (#)	Tare Weight (g)	Final Weight (g)	Raw Gain Weight (mg)	Blank Residue (%)
FTPB-Set 1	**Hexane Acetone**	84.4	AB482	Tare 1	2.20991	2.21075	--	--
				Tare 2	2.20989	2.21092	--	--
				Tare 3	2.20991	2.21083	--	--
				Average	**2.20990**	**2.21083**	**0.93**	0.0011%
FTPB-Set 1	**Hexane Acetone**	69.6	AB483	Tare 1	2.19203	2.19293	--	--
				Tare 2	2.19202	2.19291	--	--
				Tare 3	2.19202	2.19288	--	--
				Average	**2.19202**	**2.19291**	**0.88**	0.0013%
FTPB-Set 1	**Water**	88.6	AB492	Tare 1	2.21703	2.21805	--	--
				Tare 2	2.21689	2.21814	--	--
				Tare 3	2.21695	2.21805	--	--
				Average	**2.21696**	**2.21808**	**1.12**	0.0013%
FTPB-Set 1	**Water**	62.3	AB493	Tare 1	2.16914	2.17004	--	--
				Tare 2	2.16907	2.17018	--	--
				Tare 3	2.16904	2.17002	--	--
				Average	**2.16908**	**2.17008**	**1.00**	0.0016%

LABORATORY NARRATIVE
EPA METHOD 5/202
Client: GE Gas Power
Project: PROJ-017008

Custody

Four sets of samples for two units were received on July 5th, 2022. Each set consisted of a filter, probe/nozzle rinse, condensable particulate matter filter, impinger water and organic rinse. A set of field blanks, four sets of proof blanks, and a set of reagent blanks were also received. According to the chain-of-custody, these samples collected from June 29th, 2022 to July 3rd, 2022. All samples were received in a good condition.

Analysis

Samples were analyzed for particulate matter using the analytical procedures in EPA Methods 5 (Determination of Particulate Matter Emissions from Stationary Sources) and 202 (Determination of Condensable Particulate Matter Emissions from Stationary Sources). Samples were analyzed from July 8th, 2022 to July 12th, 2022 after desiccating for at least 24 hours. The results were blank corrected according to the test methods.

Front-Half Analysis

The filters were white in color. Any results less than zero, in the detailed laboratory report, may be attributed to the mass collected during sampling being less than the normal mass is due to the loss of filter material during sampling, recovery, or sample handling. The probe/nozzle rinses appeared as faint white residues.

Back-Half Analysis

The organic fractions appeared as white residues. The aqueous fractions appeared as white residues upon evaporation.

QC Notes

Prior to analysis, the accuracy of the balance was checked using 500 mg, 2 g, and 100 g ASTM E617-97 Class 1 Stainless Steel weights. Results below detection limits are reported as the detection limit.

MONTROSE
AIR QUALITY SERVICES

SAMPLE ACCEPTANCE CHECKLIST

Section 1
Client: GE Gas Power
Project: 017008
Test Method: EPA 5/202
Date Received: 07/5/22
Sampler's Name Present: ☑ Yes ☐ No

Section 2
Sample Temperature (°C) : Ambient
Testing: ☐ Compliance ☐ RATA ☐ Engineering ☐ NA

Section 3	Yes	No	NA
Was a COC included with the samples?	✓		
Are sample IDs present on the COC?	✓		
Are sampling dates present on the COC?	✓		
Is a relinquished signature present?	✓		
Are the test methods required clearly indicated on the COC?	✓		
Were the samples kept cold during transport?			✓
Were the samples placed under refrigeration for storage?			✓
Are the level of liquid marked on the sample bottle?	✓		
If the sample bottles are marked, was there in visible loss of sample?	NS	✓	
Are the caps/seals intact?	✓		
Did all the bottle labels agree with the COC? (Sample IDs, content)	✓		
Did the samples labels include the project number?	✓		
Did the samples labels include the collection date?	✓		
Were the samples collected in the correct containers for the required tests.	✓		
Are the containers label with the correct preservatives?	✓		
Was a sufficient amount of sample submitted for the requested tests?	✓		

Section 4 Explanations/Comments

Section 5
For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials:_____ Date: _____
☐ Email (email sent to/on): _____/_____
Project Manager's response:

Completed By: Chidie Dim
Date: 07/5/22

MONTROSE

Chain of Custody

Contact Information

Montrose Contact Information	
Project Manager:	John Hamner
Contact Email:	jhamner@montrose-env.com
Contact Phone:	630-715-3259
Montrose Office:	630-715-3259

Project Information	
Client:	GE Gas Power
Facility/Plant:	Roseville
Collection/Test Source:	GT3 & GT4 Stack
Project Number:	PROJ-017008

Sample Information

Sample System Prepared By:	John Hamner
Sample Recovery Performed By:	John Hamner

Sample ID Number	Sample Collection Date	Description of Sample	Number of Containers	Run Time/Sample Collection Time	Requsted Analysis: Method 5	Method 202				Comments
72	07/01/22	GT3-M5-R1-C1	1		X					Filter (GE Only)
73	07/01/22	GT3-M5-R1-C2	1		X					Probe Wash (GE Only)
74	07/01/22	GT3-M202-R1-C1	1			X				Aqueous (GE Only)
75	07/01/22	GT3-M202-R1-C2	1			X				Organic (GE Only)
76	07/01/22	GT3-M202-R1-C3	1			X				CPM Filter (GE Only)
77	07/01/22	GT3-M5-R2-C1	1		X					Filter (GE Only)
78	07/01/22	GT3-M5-R2-C2	1		X					Probe Wash (GE Only)
79	07/01/22	GT3-M202-R2-C1	1			X				Aqueous (GE Only)
80	07/01/22	GT3-M202-R2-C2	1			X				Organic (GE Only)
81	07/01/22	GT3-M202-R2-C3	1			X				CPM Filter (GE Only)
82	07/02/22	GT3-M5-R3-C1	1		X					Filter
83	07/02/22	GT3-M5-R3-C2	1		X					Probe Wash
84	07/02/22	GT3-M202-R3-C1	1			X				Aqueous
85	07/02/22	GT3-M202-R3-C2	1			X				Organic
86	07/02/22	GT3-M202-R3-C3	1			X				CPM Filter

Custody Record

Relinquished By		Date	Time
Print	For John		
Sign			
Print	Chidie Dim	07/15/22	
Sign			
Print			
Sign			
Print			
Sign			
Print			
Sign			

Lab Information

Lab:	**Montrose Air Quality Services**
Attn:	Esha Chetty
Phone:	(916) 670 2565

Lab Address

Street 1	**2825 Verne Roberts Circle**
Street 2	
City, State Zip Code	**Antioch, CA 94509**

TAT:	10 Day
Results Requested By Date:	

Shipping Information

Shipped By:	
Shipped On Date:	
Shipping Method:	

Shipping Remarks or Special Handling Instructions:

Notes

Special Instructions for Lab:

Project Remarks:

414AS-017008-RT-53

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W414AS-017008-LR-398

MONTROSE

Chain of Custody

Contact Information

Montrose Contact Information	
Project Manager:	John Hamner
Contact Email:	jhamner@montrose-env.com
Contact Phone:	630-715-3259
Montrose Office:	630-715-3259

Project Information	
Client:	GE Gas Power
Facility/Plant:	Roseville
Collection/Test Source:	GT3 & GT4 Stack
Project Number:	PROJ-017008

Sample Information

Sample System Prepared By:	John Hamner
Sample Recovery Performed By:	John Hamner

Sample ID Number	Sample Collection	Description of Sample	Number of Containers	Run Time/Sample Collection Time	Requsted Analysis: Method 5	Method 202				Comments
87	07/02/22	GT3-M5-R4-C1	1		X					Filter
88	07/02/22	GT3-M5-R4-C2	1		X					Probe Wash
89	07/02/22	GT3-M202-R4-C1	1			X				Aqueous
90	07/02/22	GT3-M202-R4-C2	1			X				Organic
91	07/02/22	GT3-M202-R4-C3	1			X				CPM Filter
92	07/02/22	GT4-M5-R1-C1	1		X					Filter
93	07/02/22	GT4-M5-R1-C2	1		X					Probe Wash
94	07/02/22	GT4-M202-R1-C1	1			X				Aqueous
95	07/02/22	GT4-M202-R1-C2	1			X				Organic
96	07/02/22	GT4-M202-R1-C3	1			X				CPM Filter
97	07/03/22	GT4-M5-R2-C1	1		X					Filter
98	07/03/22	GT4-M5-R2-C2	1		X					Probe Wash
99	07/03/22	GT4-M202-R2-C1	1			X				Aqueous
100	07/03/22	GT4-M202-R2-C2	1			X				Organic
101	07/03/22	GT4-M202-R2-C3	1			X				CPM Filter

Custody Record

Relinquished By	Date	Time
Print		
Sign		
Print		
Sign		
Print		
Sign		
Print		
Sign		
Print		
Sign		

Lab Information

Lab:	**Montrose Air Quality Services**
Attn:	Esha Chetty
Phone:	(916) 670 2565
Lab Address	
Street 1	**2825 Verne Roberts Circle**
Street 2	
City, State Zip Code	**Antioch, CA 94509**
TAT:	10 Day
Results Requested By Date:	

Shipping Information

Shipped By:	
Shipped On Date:	
Shipping Method:	
Shipping Remarks or Special Handling Instructions:	

Notes

Special Instructions for Lab:

Project Remarks:

MONTROSE QUALITY

Chain of Custody

Contact Information

Montrose Contact Information	
Project Manager:	John Hamner
Contact Email:	jhamner@montrose-env.com
Contact Phone:	630-715-3259
Montrose Office:	630-715-3259

Project Information	
Client:	GE Gas Power
Facility/Plant:	Roseville
Collection/Test Source:	GT3 & GT4 Stack
Project Number:	PROJ-017008

Sample Information

Sample System Prepared By:	John Hamner
Sample Recovery Performed By:	John Hamner

Sample ID Number	Sample Collection Date	Description of Sample	Number of Containers	Run Time/Sample Collection Time	Requsted Analysis: Method 5	Method 202				Comments
102	07/03/22	GT4-M5-R3-C1	1		X					Filter
103	07/03/22	GT4-M5-R3-C2	1		X					Probe Wash
104	07/03/22	GT4-M202-R3-C1	1			X				Aqueous
105	07/03/22	GT4-M202-R3-C2	1			X				Organic
106	07/03/22	GT4-M202-R3-C3	1			X				CPM Filter
107	07/03/22	GT4-M5-R4-C1	1		X					Filter
108	07/03/22	GT4-M5-R4-C2	1		X					Probe Wash
109	07/03/22	GT4-M202-R4-C1	1			X				Aqueous
110	07/03/22	GT4-M202-R4-C2	1			X				Organic
111	07/03/22	GT4-M202-R4-C3	1			X				CPM Filter
112	07/03/22	M5-RB-C4	1		X					Filter
114	07/03/22	M202-RB-C6/M5-RB-C5	1		X	X				200mls Acetone
115	07/03/22	M202-RB-C7	1			X				200mls Water

Custody Record

Relinquished By		Date	Time
Print			
Sign			
Print			
Sign			
Print			
Sign			
Print			
Sign			
Print			
Sign			

Lab Information

Lab:	**Montrose Air Quality Services**
Attn:	Esha Chetty
Phone:	(916) 670 2565

Lab Address

Street 1	**2825 Verne Roberts Circle**
Street 2	
City, State Zip Code	**Antioch, CA 94509**
TAT:	10 Day
Results Requested By Date:	

Shipping Information

Shipped By:	
Shipped On Date:	
Shipping Method:	
Shipping Remarks or Special Handling Instructions:	

Notes

Special Instructions for Lab:

Project Remarks:

MONTROSE AIR QUALITY SERVICES

Chain of Custody

Contact Information

Montrose Contact Information	
Project Manager:	John Hamner
Contact Email:	jhamner@montrose-env.com
Contact Phone:	630-715-3259
Montrose Office:	630-715-3259

Project Information	
Client:	GE Gas Power
Facility/Plant:	Roseville
Collection/Test Source:	GT3 & GT4 Stack
Project Number:	PROJ-017008

Sample Information

Sample System Prepared By:	John Hamner
Sample Recovery Performed By:	John Hamner

Sample ID Number	Sample Collection	Description of Sample	Number of Containers	Run Time/Sample Collection Time	Requsted Analysis: Method 5	Method 202				Comments
116	07/03/22	M202-RB-C8	1			X				200mls Hexane
117	07/01/22	GT3-M202-FTRB-C1	1			X				Aqueous
118	07/01/22	GT3-M202-FTRB-C2	1			X				Organic
119	07/01/22	GT3-M202-FTRB-C3	1			X				CPM Filter
120	07/03/22	GT4-M202-FTRB-C1	1			X				Aqueous
121	07/03/22	GT4-M202-FTRB-C2	1			X				Organic
122	07/03/22	GT4-M202-FTRB-C3	1			X				CPM Filter
123	06/29/22	M202-FTPB-Set1-C9	1			X				Aqueous (Hold)
124	06/29/22	M202-FTPB-Set1-C10	1			X				Organic (Hold)
125	06/29/22	M202-FTPB-Set2-C9	1			X				Aqueous (Hold)
126	06/29/22	M202-FTPB-Set2-C10	1			X				Organic (Hold)

Custody Record

Relinquished By		Date	Time
Print			
Sign			
Print			
Sign			
Print			
Sign			
Print			
Sign			
Print			
Sign			

Lab Information

Lab:	**Montrose Air Quality Services**
Attn:	Esha Chetty
Phone:	(916) 670 2565

Lab Address

Street 1	**2825 Verne Roberts Circle**
Street 2	
City, State Zip Code	**Antioch, CA 94509**

TAT:	10 Day
Results Requested By Date:	

Shipping Information

Shipped By:	
Shipped On Date:	
Shipping Method:	

Shipping Remarks or Special Handling Instructions:

Notes

Special Instructions for Lab:

Project Remarks:

Appendix C.2
Methane/Ethane Analyses

Montrose Air Quality Services

1371 Brummel Ave
Elk Grove Village, IL 60007

GE Gas Power

Roseville GT3 & GT4
Client Project # PROJ-017008

Analytical Report
(0722-915)

EPA Method 18

Methane, Ethane

Enthalpy Analytical, LLC

Phone: (281) 984 - 7021 / www.enthalpy.com
931 Seaco Ct. Deer Park, TX 77536-3187

I certify that to the best of my knowledge all analytical data presented in this report:

- Have been checked for completeness
- Are accurate, error-free, and legible
- Have been conducted in accordance with approved protocol, and that all deviations and analytical problems are summarized in the appropriate narrative(s)

This analytical report was prepared in Portable Document Format (.PDF) and contains 75 pages.

QA Review Performed by: James Haynes, Quality Assurance Director

Report Issued: 07/22/2022

ENTHALPY ANALYTICAL

Summary of Results

Enthalpy Analytical

Company: Montrose Air Quality Services, LLC - Elk Grove Village

Job No.: 0722-915-1 EPA Method 18 Tedlar Bag Analysis

Client No.: PROJ-017008 - GE Gas Power Site: Roseville - GT3 & GT4 Stack

Summary

Sample ID	Methane		Ethane	
	ppmv		ppmv	
GT3-M18-R1	2.67	J	0.0458	ND
GT3-M18-R2	2.66	J	0.0458	ND
GT3-M18-R3	2.58	J	0.0458	ND
GT4-M18-R1	3.54		0.0449	ND
GT4-M18-R2	3.70		0.0469	J
GT4-M18-R3	3.67		0.0449	ND

Results

Enthalpy Analytical

Company: Montrose Air Quality Services, LLC - Elk Grove Village

Job No.: 0722-915-1 EPA Method 18 Tedlar Bag Analysis

Client No.: PROJ-017008 - GE Gas Power Site: Roseville - GT3 & GT4 Stack

Methane

Sample ID	Filename #1	Filename #2	Filename #3	MDL (ppmv)	Ret. Time (min.)	Ret. Time (min.)	Ret. Time (min.)	%dif. RT	Conc. #1 (ppmv)	Conc. #2 (ppmv)	Conc. #3 (ppmv)	%dif. conc.	DF	Avg. Conc. (ppmv)	Spike Recov. (%)	Adj. Conc. (ppmv)	Flag
GT3-M18-R1	005F0301.D	005F0302.D	005F0303.D	0.473	0.65	0.66	0.66	0.2	2.83	2.80	2.80	0.6	1	2.81	105	2.67	J
GT3-M18-R1 SP	011F1102.D	011F1103.D	011F1104.D	0.473	0.65	0.65	0.65	0.1	8.49	8.52	8.50	0.1	1	8.50	105		
GT3-M18-R2	006F0201.D	006F0202.D	006F0203.D	0.473	0.66	0.66	0.66	0.0	2.82	2.79	2.79	0.7	1	2.80	105	2.66	J
GT3-M18-R3	007F0401.D	007F0402.D	007F0403.D	0.473	0.66	0.66	0.66	0.0	2.69	2.72	2.73	0.9	1	2.72	105	2.58	J
GT4-M18-R1	008F0501.D	008F0502.D	008F0503.D	0.473	0.65	0.65	0.66	0.2	3.78	3.75	3.77	0.4	1	3.76	106	3.54	
GT4-M18-R1 SP	011F1101.D	011F1102.D	011F1103.D	0.473	0.65	0.65	0.65	0.0	9.59	9.59	9.64	0.3	1	9.61	106		
GT4-M18-R2	009F0601.D	009F0602.D	009F0603.D	0.473	0.66	0.65	0.65	0.2	3.95	3.92	3.92	0.5	1	3.93	106	3.70	
GT4-M18-R3	010F0701.D	010F0702.D	010F0703.D	0.473	0.65	0.65	0.65	0.1	3.91	3.89	3.91	0.4	1	3.90	106	3.67	

Ethane

Sample ID	Filename #1	Filename #2	Filename #3	MDL (ppmv)	Ret. Time (min.)	Ret. Time (min.)	Ret. Time (min.)	%dif. RT	Conc. #1 (ppmv)	Conc. #2 (ppmv)	Conc. #3 (ppmv)	%dif. conc.	DF	Avg. Conc. (ppmv)	Spike Recov. (%)	Adj. Conc. (ppmv)	Flag
GT3-M18-R1	005F0301.D	005F0302.D	005F0303.D	0.0501					0.0501	0.0501	0.0501		1	0.0501	109	0.0458	ND
GT3-M18-R1 SP	011F1102.D	011F1103.D	011F1104.D	0.0501	0.86	0.86	0.86	0.0	6.03	6.09	6.05	0.6	1	6.06	109		
GT3-M18-R2	006F0201.D	006F0202.D	006F0203.D	0.0501					0.0501	0.0501	0.0501		1	0.0501	109	0.0458	ND
GT3-M18-R3	007F0401.D	007F0402.D	007F0403.D	0.0501					0.0501	0.0501	0.0501		1	0.0501	109	0.0458	ND
GT4-M18-R1	008F0501.D	008F0502.D	008F0503.D	0.0501					0.0501	0.0501	0.0501		1	0.0501	111	0.0449	ND
GT4-M18-R1 SP	011F1101.D	011F1102.D	011F1103.D	0.0501	0.86	0.86	0.86	0.0	6.29	6.27	6.29	0.2	1	6.28	111		
GT4-M18-R2	009F0601.D	009F0602.D	009F0603.D	0.0501	0.86	0.86	0.86	0.1	0.0501	0.0532	0.0536	5.7	1	0.0523	111	0.0469	J
GT4-M18-R3	010F0701.D	010F0702.D	010F0703.D	0.0501					0.0501	0.0501	0.0501		1	0.0501	111	0.0449	ND

Enthalpy Analytical

Company: Montrose Air Quality Services, LLC - Elk Grove Village

Job No.: 0722-915-1 EPA Method 18 Tedlar Bag Analysis

Client No.: PROJ-017008 - GE Gas Power Site: Roseville - GT3 & GT4 Stack

Spike Hold Times

Spiked Bag	Bag Spiked (Date/Time)	Spike Analyzed (Date/Time)	Hold Time (Hours)	Related Bag	Related Bag Sampled Date (Date/Time)	Bag Analyzed (Date/Time)	Hold Time (Hours)
GT3-M18-R1 SP	2022-07-06 17:47	2022-07-11 23:53	126	GT3-M18-R1	2022-07-01 08:19	2022-07-06 12:33	124
				GT3-M18-R2	2022-07-01 09:43	2022-07-06 11:40	122
				GT3-M18-R3	2022-07-01 11:02	2022-07-06 13:26	122
GT4-M18-R1 SP	2022-07-06 17:50	2022-07-10 11:50	90.0	GT4-M18-R1	2022-07-03 07:17	2022-07-06 14:19	79.0
				GT4-M18-R2	2022-07-03 08:49	2022-07-06 15:12	78.4
				GT4-M18-R3	2022-07-03 10:05	2022-07-06 16:05	78.0

Enthalpy Analytical

Company: Montrose Air Quality Services, LLC - Elk Grove Village

Job No.: 0722-915-1 EPA Method 18 Tedlar Bag Analysis

Client No.: PROJ-017008 - GE Gas Power Site: Roseville - GT3 & GT4 Stack

Spiked Bag

GT3-M18-R1 SP			Methane	Ethane
Before Spiking	Inj.1 (ppmv)		2.83	0
	Inj.2 (ppmv)		2.80	0
	Inj.3 (ppmv)		2.80	0
	Avg. ppmv		2.81	0
	Bag Vol. (L) NTP	18.0		
Gas Spike	Cylinder	EA_071321B		
	Expires	6/29/23		
	Press./Temp.	760.0 / 73.1		
	Vol. (mL)	100		
	Cyl. Dil. Factor	1		
	Cyl. Conc. (ppmv)		989.7999878	1012
	Vol. (mL NTP)	99.0	0.0980	0.100
Totals	Sp. Bag Vol. L NTP	18.1		
	Corrected Initial (ppmv)		2.79	0
	Spike Amount (mL NTP)		0.0980	0.100
	Spike Amount (ppmv)		5.42	5.55
	Expected (ppmv)		8.22	5.55
Result	Inj.1 (ppmv)		8.49	6.03
	Inj.2 (ppmv)		8.52	6.09
	Inj.3 (ppmv)		8.50	6.05
	Avg. (ppmv)		8.50	6.06
	Recovery (%)		**105**	**109**

Enthalpy Analytical

Company: Montrose Air Quality Services, LLC - Elk Grove Village

Job No.: 0722-915-1 EPA Method 18 Tedlar Bag Analysis

Client No.: PROJ-017008 - GE Gas Power Site: Roseville - GT3 & GT4 Stack

Spiked Bag

GT4-M18-R1 SP			Methane	Ethane
Before Spiking	Inj.1 (ppmv)		3.78	0
	Inj.2 (ppmv)		3.75	0
	Inj.3 (ppmv)		3.77	0
	Avg. ppmv		3.76	0
	Bag Vol. (L) NTP	17.7		
Gas Spike	Cylinder	EA_071321B		
	Expires	6/29/23		
	Press./Temp.	760.0 / 73.1		
	Vol. (mL)	100		
	Cyl. Dil. Factor	1		
	Cyl. Conc. (ppmv)		989.799988	1012
	Vol. (mL NTP)	99.0	0.0980	0.100
Totals	Sp. Bag Vol. L NTP	17.8		
	Corrected Initial (ppmv)		3.74	0
	Spike Amount (mL NTP)		0.0980	0.100
	Spike Amount (ppmv)		5.52	5.64
	Expected (ppmv)		9.26	5.64
Result	Inj.1 (ppmv)		9.59	6.29
	Inj.2 (ppmv)		9.59	6.27
	Inj.3 (ppmv)		9.64	6.29
	Avg. (ppmv)		9.61	6.28
	Recovery (%)		**106**	**111**

Narrative Summary

Enthalpy Analytical Narrative Summary

Company	Montrose Air Quality Services
Job #	0722-915 EPA Method 18
Client #	PROJ-017008 GE Gas Power

Custody	Marlene Carrillo received the samples on 07/06/22 at ambient temperature after being relinquished by MAQS. The samples were received in good condition with the exception of the ***GT3-M18-R2*** bag, which appeared to be flat at the time of receipt. Prior to, during, and after analysis, the samples were kept under lock with access only to authorized personnel by Enthalpy Analytical, LLC.
Analysis	The samples were analyzed for methane and ethane using the analytical procedures in EPA Method 18, Measurement of Gaseous Organic Compound Emissions by Gas Chromatography. All target analytes were referenced to certified gas phase standards. GC #8 was used for these analyses. While the ***GT3-M18-R2*** bag appeared to be flat upon receipt, it had sufficient volume remaining for analysis and the results do not indicate a loss of sample integrity.
Calibration	The calibration curve(s) used met all specified acceptance criteria.
QC Notes	The analytes of interest were not identified at concentrations greater than the detection limit in the analyses of the laboratory blanks. A spike and recovery study was performed on one bag from each source. The recovery efficiency values met the method-required limits of 70 to 130% for all target compounds. The sample results were adjusted using the associated recovery values as described in the Method.
Reporting Notes	These analyses met the requirements of the TNI Standard. Any deviations from the requirements of the reference method or TNI Standard have been stated above. The results presented in this report are representative of the samples as provided to the laboratory.

General Reporting Notes

The following are general reporting notes that are applicable to all Enthalpy Analytical, LLC data reports, unless specifically noted otherwise.

- Any analysis which refers to the method as ***"Type"*** represents a planned deviation from the reference method. For instance a Hydrogen Sulfide assay from a Tedlar bag would be labeled as "EPA Method 16-Type" because Tedlar bags are not mentioned as one of the collection options in EPA Method 16.

- The acronym ***MDL*** represents the Minimum Detection Limit. Below this value the laboratory cannot determine the presence of the analyte of interest reliably.

- The acronym ***LOQ*** represents the Limit of Quantification. Below this value the laboratory cannot quantitate the analyte of interest within the criteria of the method.

- The acronym ***ND*** following a value indicates a non-detect or analytical result below the MDL.

- The letter ***J*** in the Qualifier or Flag column in the results indicates that the value is between the MDL and the LOQ. The laboratory can positively identify the analyte of interest as present, but the value should be considered an estimate.

- The letter ***E*** in the Qualifier or Flag column indicates an analytical result exceeding 100% of the highest calibration point. The associated value should be considered as an estimate.

- Sample results are presented 'as measured' for single injection methodologies, or an average value if multiple injections are made. If all injections are below the MDL, the sample is considered non-detect and the ND value is presented. If one, but not all, are below the MDL, the MDL value is used for any injections that are below the MDL. For example, if the MDL is 0.500 and LOQ is 1.00, and the instrument measures 0.355, 0.620, and 0.442 - the result reported is the average of 0.500, 0.620, and 0.500 - - - i.e. 0.540 with a J flag.

- When a spike recovery (Bag Spike, Collocated Spike Train, or liquid matrix spike) is being calculated, the native (unspiked) sample result is used in the calculations, as long as the value is above the MDL. If a sample is ND, then 0 is used as the native amount (not the MDL value).

- The acronym ***DF*** represents Dilution Factor. This number represents dilution of the sample during the preparation and/or analysis process. The analytical result taken from a laboratory instrument is multiplied by the DF to determine the final undiluted sample results.

- The addition of ***MS*** to the Sample ID represents a Matrix Spike. An aliquot of an actual sample is spiked with a known amount of analyte so that a percent recovery value can be determined. The MS analysis indicates what effect the sample matrix may have on the target analyte, i.e. whether or not anything in the sample matrix interferes with the analysis of the analyte(s).

General Reporting Notes
(continued)

- The addition of ***MSD*** to the Sample ID represents a Matrix Spike Duplicate. Prepared in the same manner as a MS, the use of duplicate matrix spikes allows further confirmation of laboratory quality by showing the consistency of results gained by performing the same steps multiple times.

- The addition of ***LD*** to the Sample ID represents a Laboratory Duplicate. The analyst prepares an additional aliquot of sample for testing and the results of the duplicate analysis are compared to the initial result. The result should have a difference value of within 10% of the initial result (if the results of the original analysis are greater than the LOQ).

- The addition of ***AD*** to the Sample ID represents an Alternate Dilution. The analyst prepares an additional aliquot at a different dilution factor (usually double the initial factor). This analysis helps confirm that no additional compound is present and coeluting or sharing absorbance with the analyte of interest, as they would have a different response/absorbance than the analyte of interest.

- The Sample ID ***LCS*** represents a Laboratory Control Sample. Clean matrix, similar to the client sample matrix, prepared and analyzed by the laboratory using the same reagents, spiking standards and procedures used for the client samples. The LCS is used to assess the control of the laboratory's analytical system. Whenever spikes are prepared for our client projects, two spikes are retained as LCSs. The LCSs are labeled with the associated project number and kept in-house at the appropriate temperature conditions. When the project samples are received for analysis, the LCSs are analyzed to confirm that the analyte could be recovered from the media, separate from the samples which were used on the project and which may have been affected by source matrix, sample collection, and/or sample transport.

- **Significant Figures**: Where the reported value is much greater than unity (1.00) in the units expressed, the number is rounded to a whole number of units, rather than to 3 significant figures. For example, a value of 10,456.45 ug catch is rounded to 10,456 ug. There are five significant digits displayed, but no confidence should be placed on more than two significant digits. In the case of small numbers, generally 3 significant figures are presented, but still only 2 should be used with confidence. Many neat materials are only certified to 3 digits, and as the mathematically correct final result is always 1 digit less than all its pre-cursors - 2 significant figures are what are most defensible.

- **Manual Integration**: The data systems used for processing will flag manually integrated peaks with an "M". There are several reasons a peak may be manually integrated. These reasons will be identified by the following two letter designations on sample chromatograms, if provided in the report. The peak was ***not integrated*** by the software **"NI"**, the peak was ***integrated incorrectly*** by the software **"II"** or the ***wrong peak*** was integrated by the software **"WP"**. These codes will accompany the analyst's manual integration stamp placed next to the compound name on the chromatogram.

ENTHALPY ANALYTICAL

Sample Custody

0722-915

MONTROSE AIR QUALITY SERVICES

Chain of Custody

Contact Information

Montrose Contact Information	
Project Manager:	John Hamner
Contact Email:	jhamner@montrose-env.com
Contact Phone:	630-715-3259
Montrose Office:	630-715-3259

Project Information	
Client:	GE Gas Power
Facility/Plant:	Roseville
Collection/Test Source:	GT3 & GT4 Stack
Project Number:	PROJ-017008

Sample Information

Sample System Prepared By:	John Hamner
Sample Recovery Performed By:	John Hamner

	Sample ID Number	Sample Collection	Description of Sample	Number of Containers	Run Time/Sample Collection Time	Requsted Analysis: Method 18					Comments
001	127	07/01/22	GT3-M18-R1	1	8:19-9:25	X					Bag
002	128	07/01/22	GT3-M18-R2	1	9:43-10:42	X					Bag flat
003	129	07/01/22	GT3-M18-R3	1	11:02-12:01	X					Bag
004	130	07/03/22	GT4-M18-R1	1	7:17-8:29	X					Bag
005	131	07/03/22	GT4-M18-R2	1	8:49-9:48	X					Bag
006	132	07/03/22	GT4-M18-R3	1	10:05-11:04	X					Bag

Custody Record

Relinquished By		Date Time
Print	For John	
Sign		
Print	Christie To FedEx	
Sign		7/5/22 1200
Print	Marlene Camillo	
Sign		7/6/22 9:43
Print		
Sign		
Print		
Sign		

Lab Information

Lab:	**Entalpy Lab**
Attn:	Clinton Thrasher
Phone:	(919) 606-6132
Lab Address	
Street 1	**931 Seaco Ct**
Street 2	
City, State Zip Code	**Deer Park, TX 77536**
TAT:	10 Day
Results Requested By Date:	

Shipping Information

Shipped By:	
Shipped On Date:	
Shipping Method:	
Shipping Remarks or Special Handling Instructions:	

Notes

Special Instructions for Lab:

Project Remarks:

JUL 6 '22 AM 9:43

29.7°C FLUKE6W

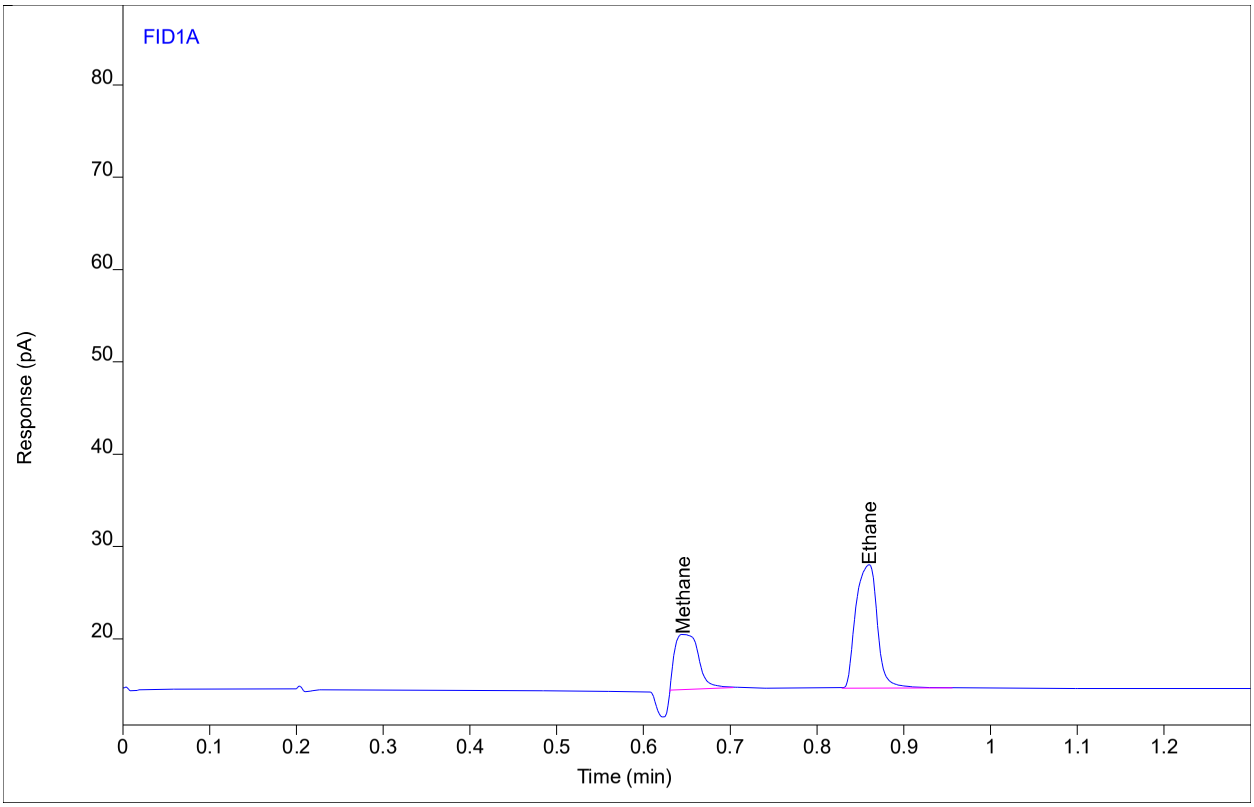
Raw Data

Chromatogram Report

Enthalpy Analytical

Sample Name	Prep1p292 #C4 ENV(1=0,4=495)
Sequence Name	DPGC8-070622 ver.4
Inj Data File	015F0101.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/6/2022 10:45 AM
File Modified	7/20/2022 4:14 PM
Instrument	DP-GC08
Operator	Emily Decker

Sample Type	Sample
Vial Number	15
Injection Volume	250
Injection	1 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/20/2022 4:13 PM
Printed	7/22/2022 11:43 AM



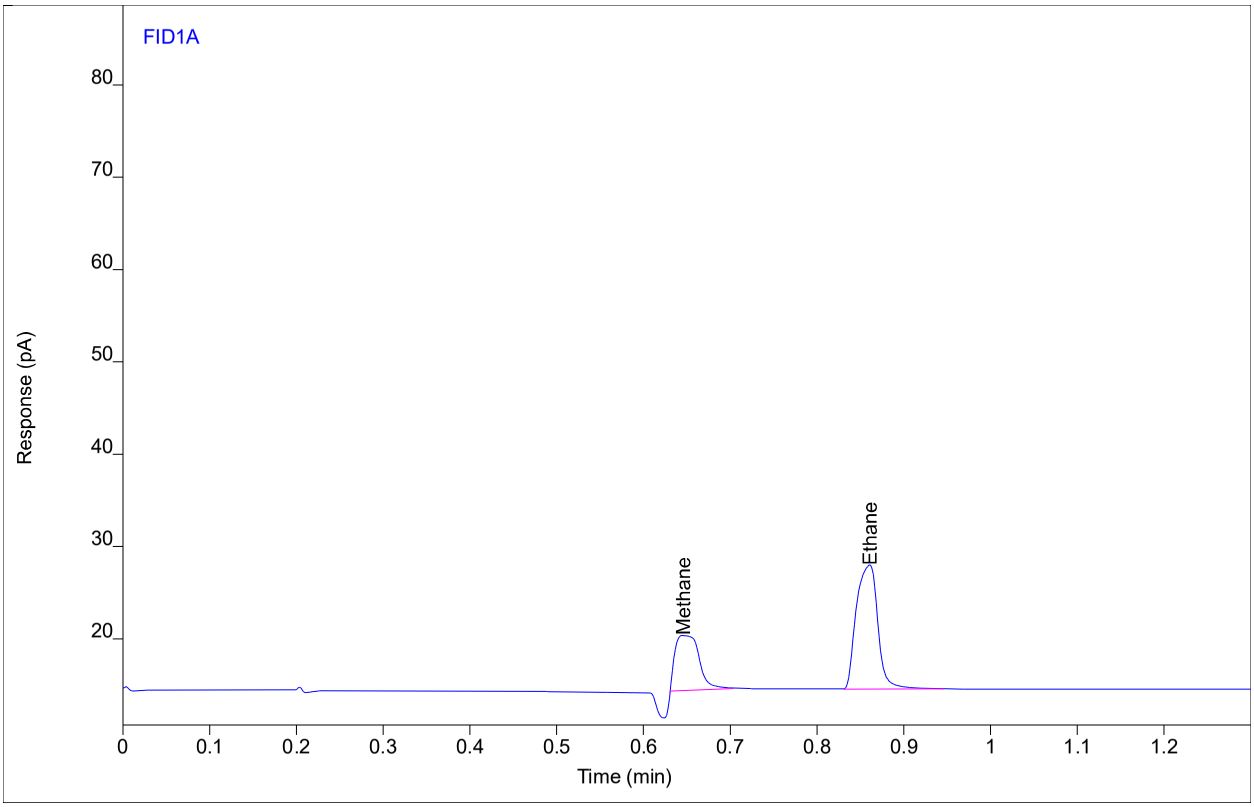
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.65	11.4621	6.03161	9.90961	1	9.90961	ppm
Ethane	BB	0.86	23.0364	13.3958	10.5825	1	10.5825	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	Prep1p292 #C4 ENV(1=0,4=495)
Sequence Name	DPGC8-070622 ver.4
Inj Data File	015F0102.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/6/2022 11:03 AM
File Modified	7/20/2022 4:14 PM
Instrument	DP-GC08
Operator	Emily Decker

Sample Type	Sample
Vial Number	15
Injection Volume	250
Injection	2 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/20/2022 4:13 PM
Printed	7/22/2022 11:43 AM



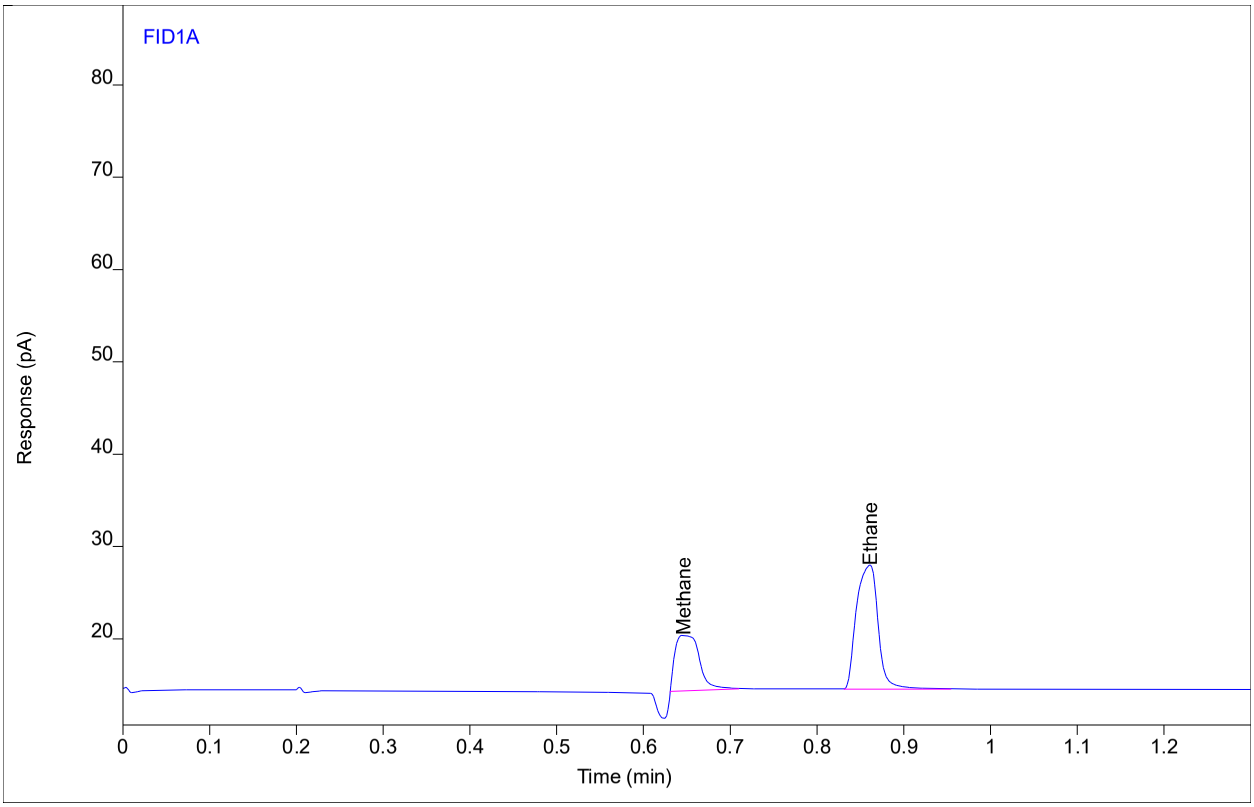
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.65	11.5343	6.03373	9.96796	1	9.96796	ppm
Ethane	BB	0.86	23.0988	13.4567	10.6111	1	10.6111	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	Prep1p292 #C4 ENV(1=0,4=495)
Sequence Name	DPGC8-070622 ver.4
Inj Data File	015F0103.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/6/2022 11:22 AM
File Modified	7/20/2022 4:14 PM
Instrument	DP-GC08
Operator	Emily Decker

Sample Type	Sample
Vial Number	15
Injection Volume	250
Injection	3 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/20/2022 4:13 PM
Printed	7/22/2022 11:43 AM



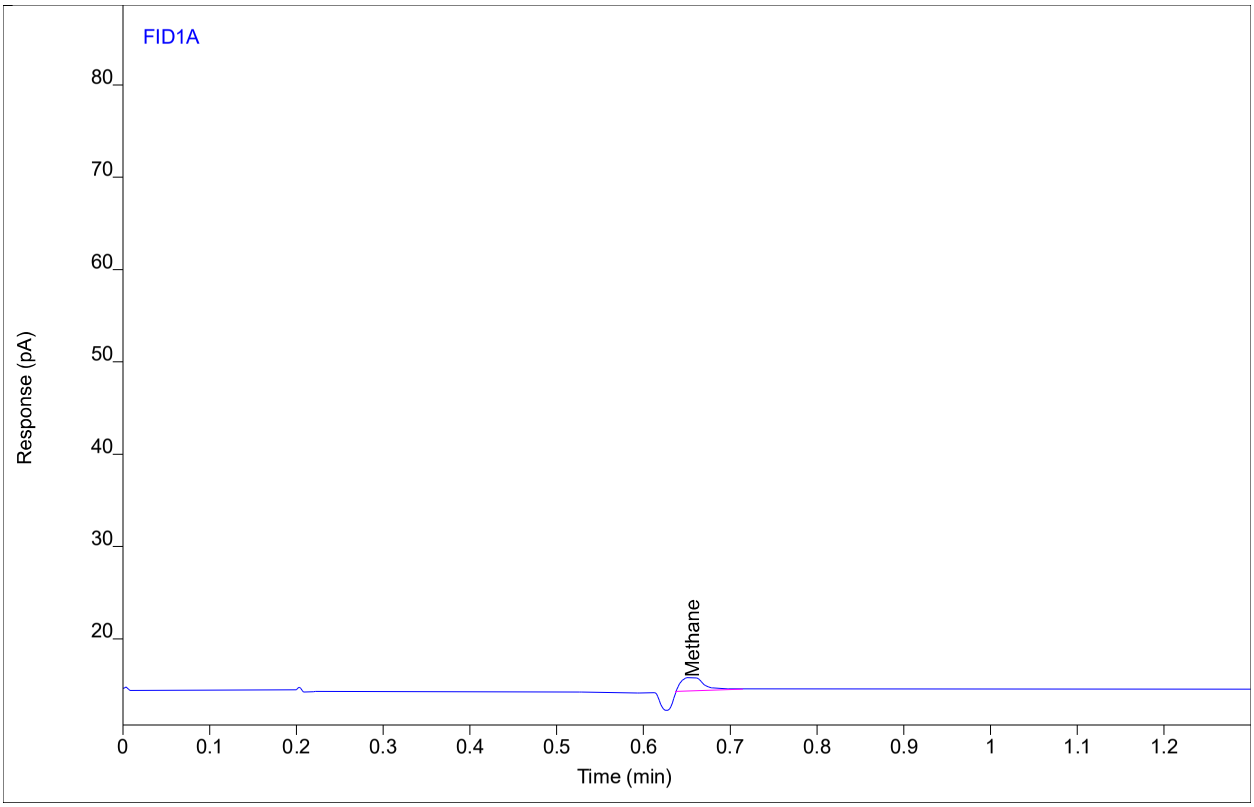
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.65	11.7563	6.07725	10.1474	1	10.1474	ppm
Ethane	BB	0.86	23.1934	13.4562	10.6546	1	10.6546	ppm

Chromatogram Report

Sample Name	0722-915.GT3-M18-R2.Bag
Sequence Name	DPGC8-070622 ver.4
Inj Data File	006F0201.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/6/2022 11:40 AM
File Modified	7/20/2022 4:14 PM
Instrument	DP-GC08
Operator	Emily Decker

Enthalpy Analytical

Sample Type	Sample
Vial Number	6
Injection Volume	250
Injection	1 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/20/2022 4:13 PM
Printed	7/22/2022 11:43 AM



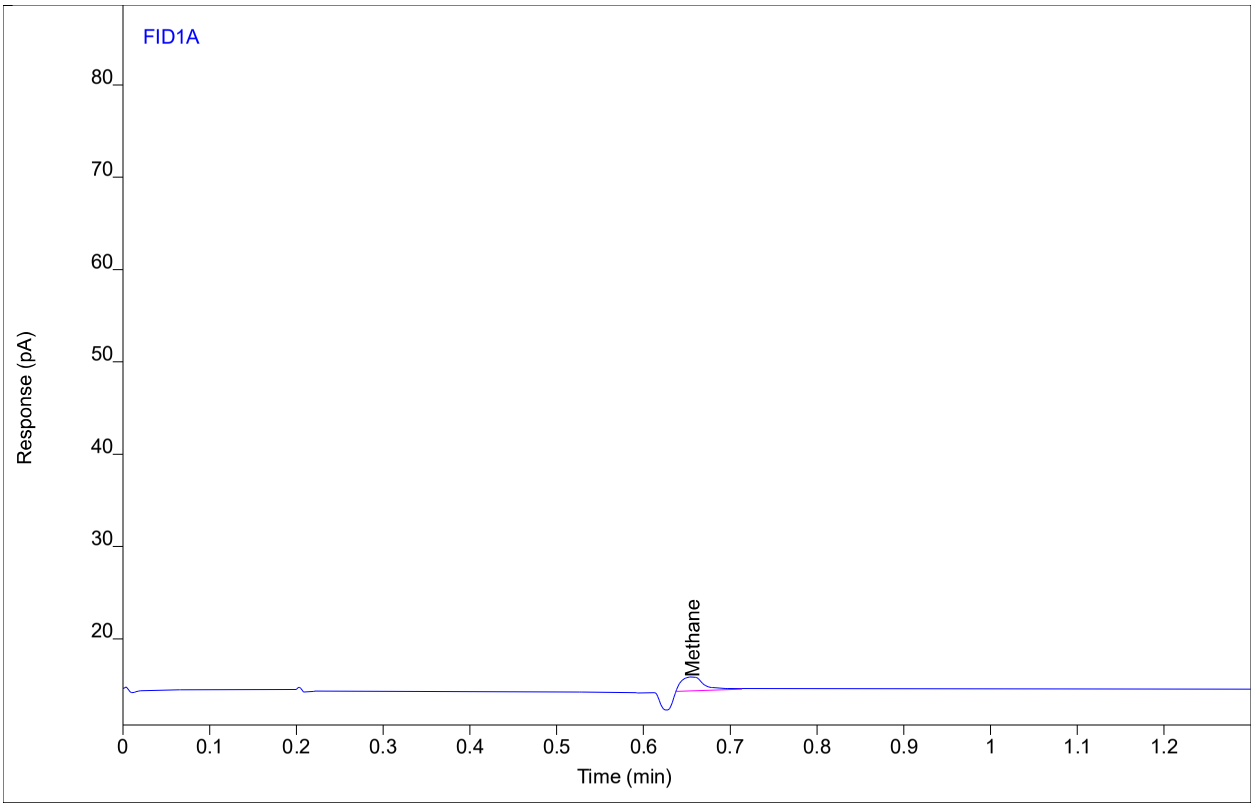
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.66	2.73593	1.50088	2.82185	1	2.82185	ppm
Ethane		(0.86)				1		ppm

Chromatogram Report

Sample Name	0722-915.GT3-M18-R2.Bag
Sequence Name	DPGC8-070622 ver.4
Inj Data File	006F0202.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/6/2022 11:58 AM
File Modified	7/20/2022 4:14 PM
Instrument	DP-GC08
Operator	Emily Decker

Enthalpy Analytical

Sample Type	Sample
Vial Number	6
Injection Volume	250
Injection	2 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/20/2022 4:13 PM
Printed	7/22/2022 11:43 AM



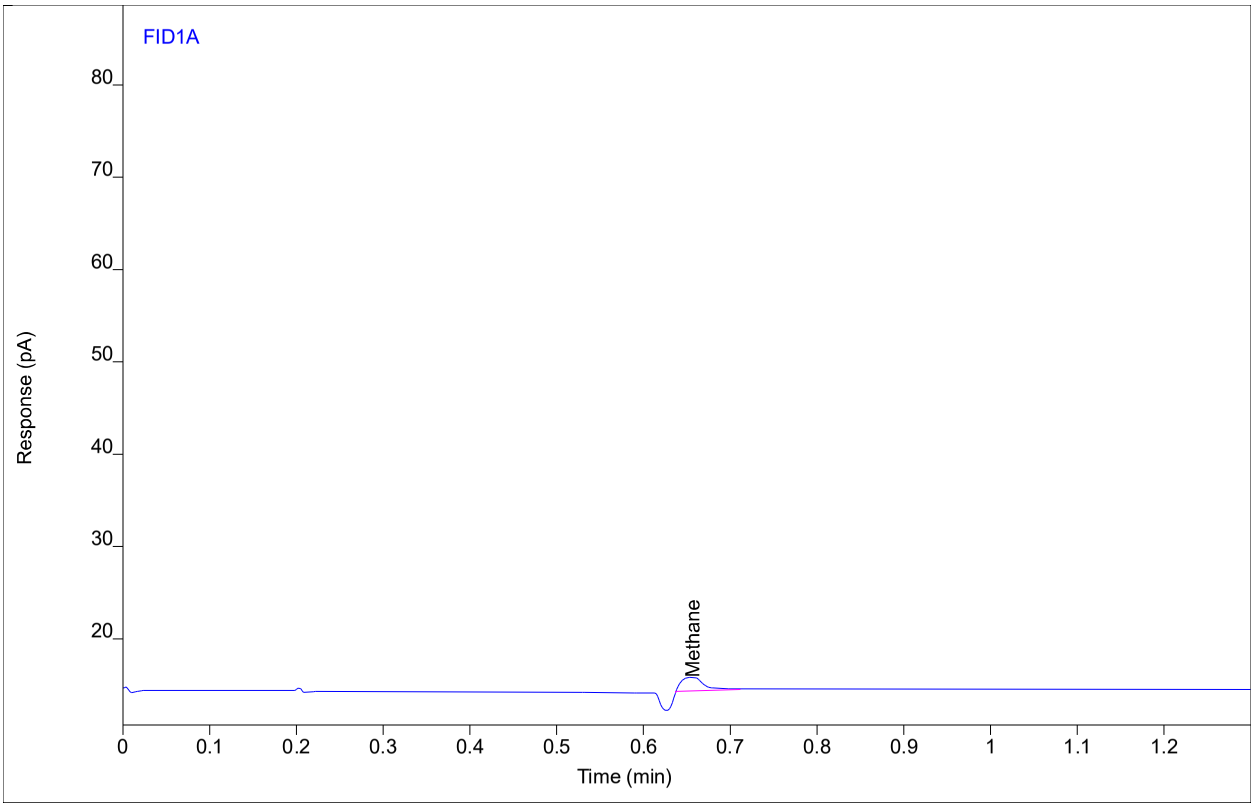
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.66	2.70965	1.49883	2.79474	1	2.79474	ppm
Ethane		(0.86)				1		ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	0722-915.GT3-M18-R2.Bag
Sequence Name	DPGC8-070622 ver.4
Inj Data File	006F0203.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/6/2022 12:15 PM
File Modified	7/20/2022 4:14 PM
Instrument	DP-GC08
Operator	Emily Decker

Sample Type	Sample
Vial Number	6
Injection Volume	250
Injection	3 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/20/2022 4:13 PM
Printed	7/22/2022 11:43 AM



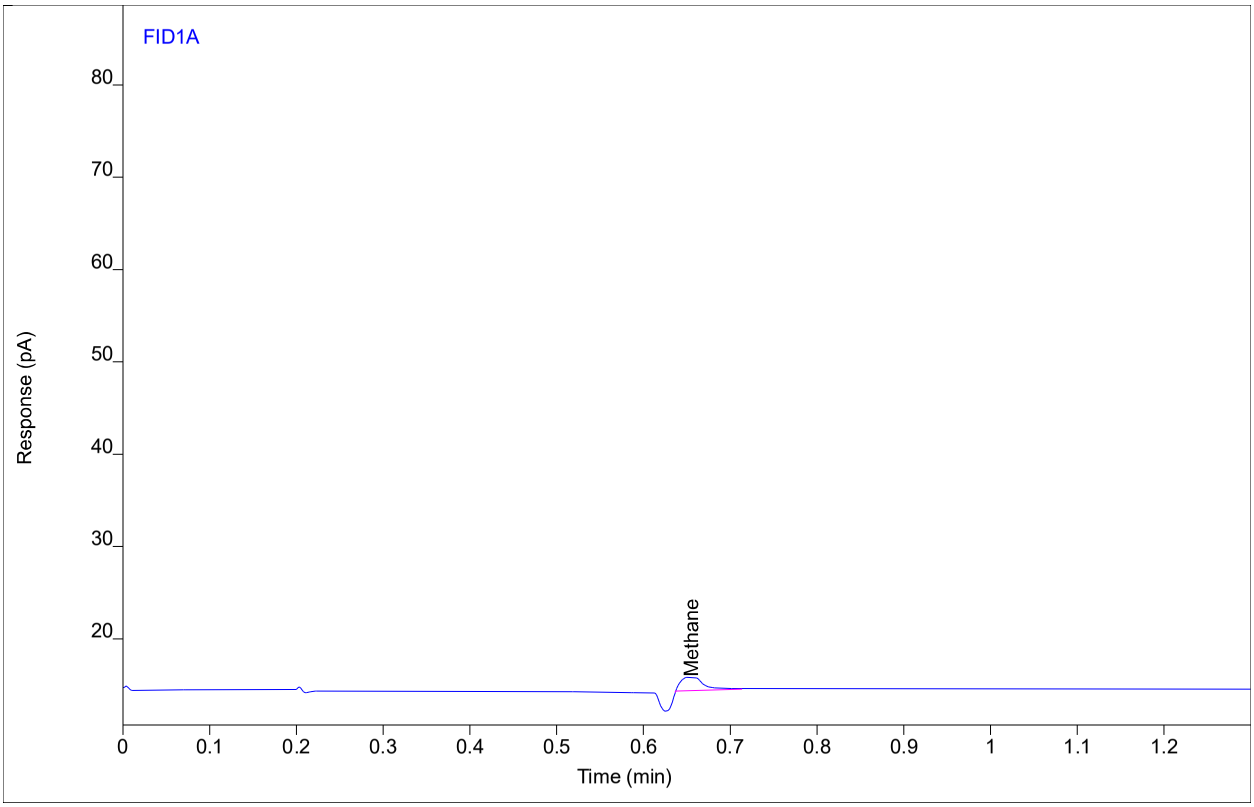
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.66	2.70479	1.48304	2.78974	1	2.78974	ppm
Ethane		(0.86)				1		ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	0722-915.GT3-M18-R1.Bag
Sequence Name	DPGC8-070622 ver.4
Inj Data File	005F0301.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/6/2022 12:33 PM
File Modified	7/20/2022 4:14 PM
Instrument	DP-GC08
Operator	Emily Decker

Sample Type	Sample
Vial Number	5
Injection Volume	250
Injection	1 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/20/2022 4:13 PM
Printed	7/22/2022 11:43 AM



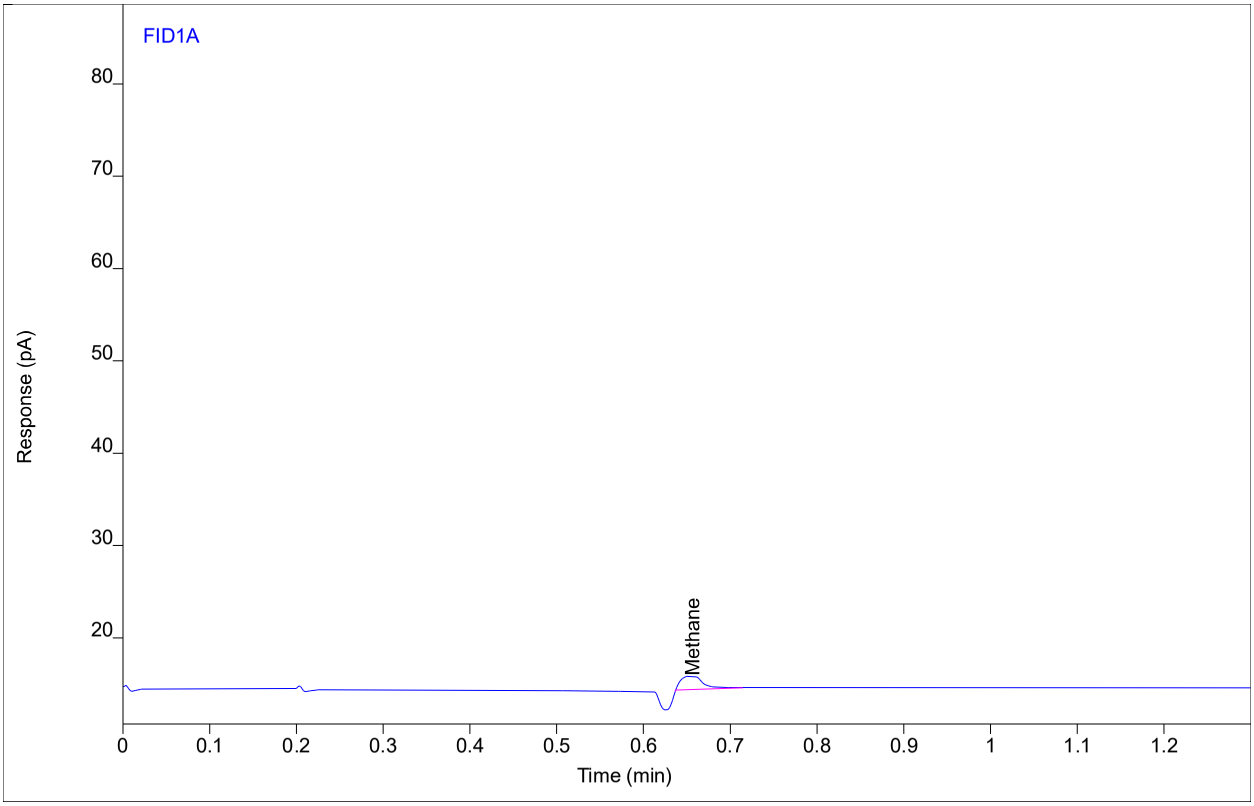
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.65	2.73919	1.52242	2.82521	1	2.82521	ppm
Ethane		(0.86)				1		ppm

Chromatogram Report

Sample Name	0722-915.GT3-M18-R1.Bag
Sequence Name	DPGC8-070622 ver.4
Inj Data File	005F0302.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/6/2022 12:50 PM
File Modified	7/20/2022 4:14 PM
Instrument	DP-GC08
Operator	Emily Decker

Enthalpy Analytical

Sample Type	Sample
Vial Number	5
Injection Volume	250
Injection	2 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/20/2022 4:13 PM
Printed	7/22/2022 11:43 AM



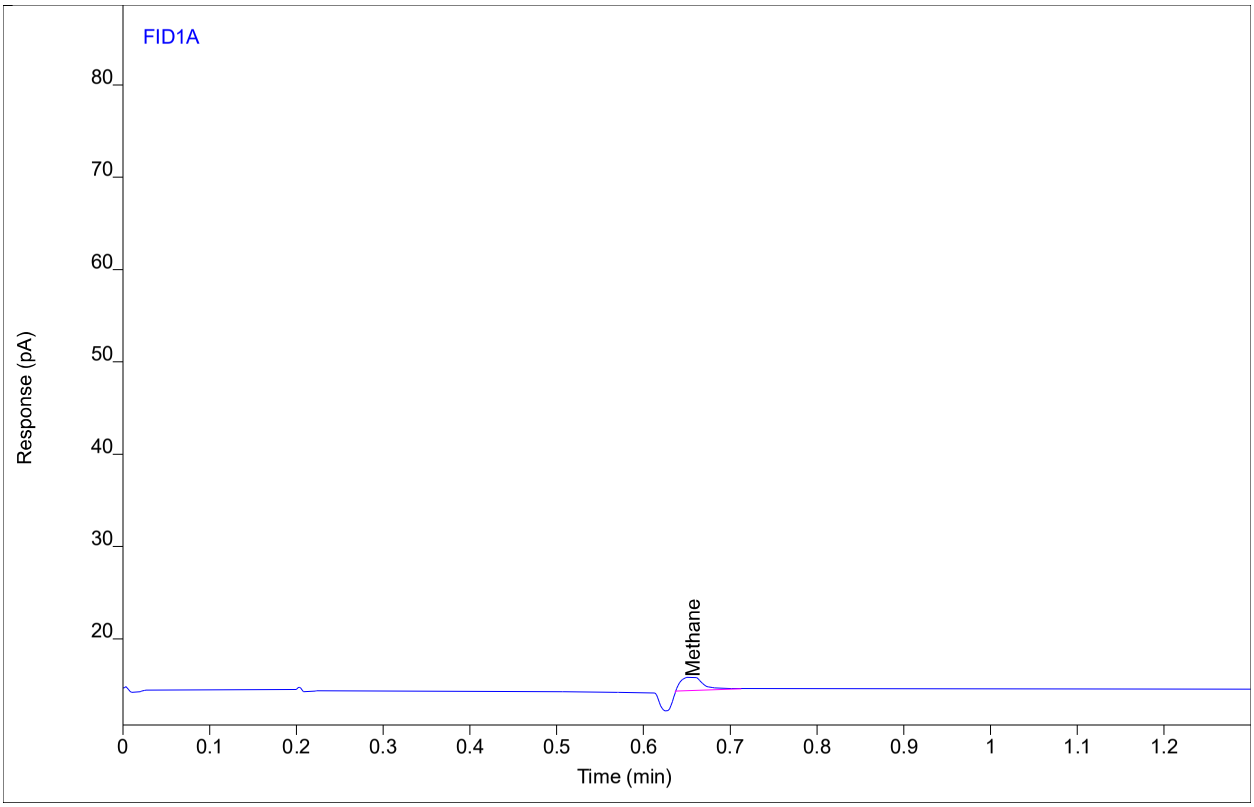
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.66	2.71374	1.51905	2.79897	1	2.79897	ppm
Ethane		(0.86)				1		ppm

Chromatogram Report

Sample Name	0722-915.GT3-M18-R1.Bag
Sequence Name	DPGC8-070622 ver.4
Inj Data File	005F0303.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/6/2022 1:08 PM
File Modified	7/20/2022 4:14 PM
Instrument	DP-GC08
Operator	Emily Decker

Enthalpy Analytical

Sample Type	Sample
Vial Number	5
Injection Volume	250
Injection	3 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/20/2022 4:13 PM
Printed	7/22/2022 11:43 AM



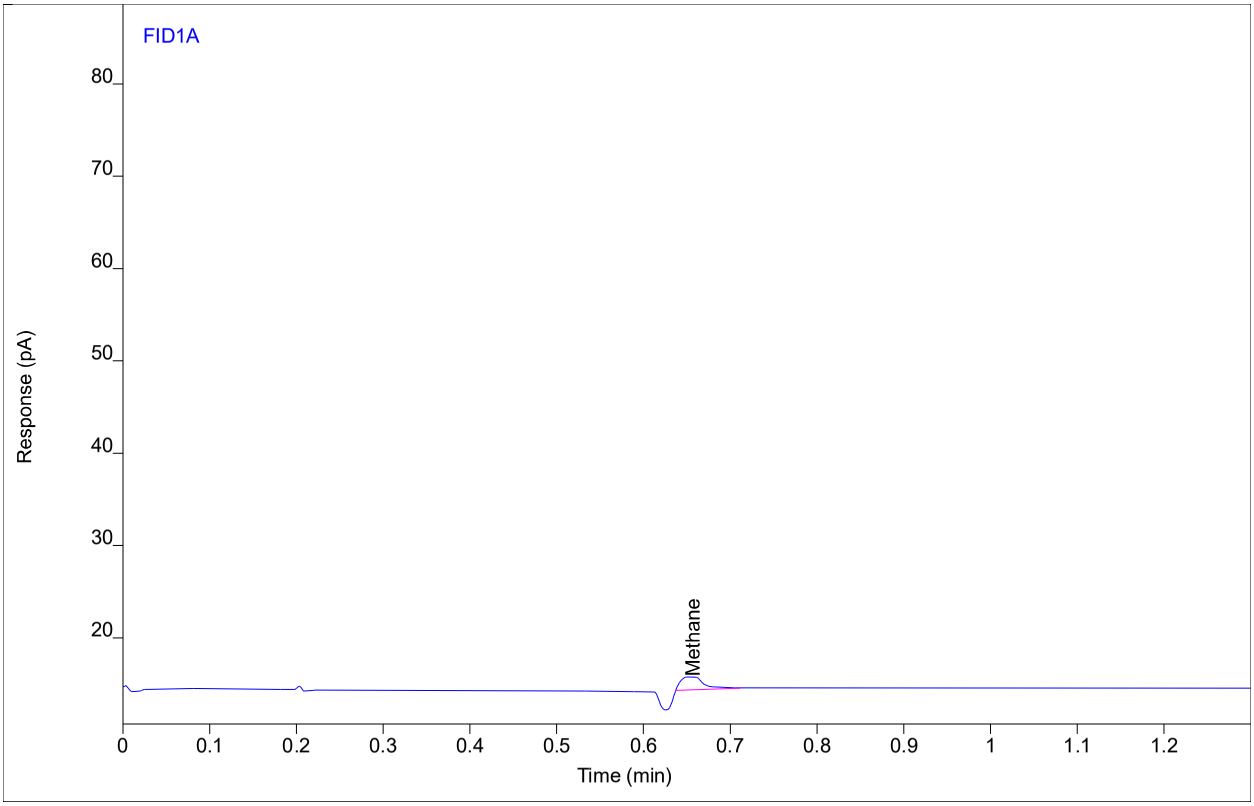
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.66	2.71626	1.51031	2.80157	1	2.80157	ppm
Ethane		(0.86)				1		ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	0722-915.GT3-M18-R3.Bag
Sequence Name	DPGC8-070622 ver.4
Inj Data File	007F0401.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/6/2022 1:26 PM
File Modified	7/20/2022 4:14 PM
Instrument	DP-GC08
Operator	Emily Decker

Sample Type	Sample
Vial Number	7
Injection Volume	250
Injection	1 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/20/2022 4:13 PM
Printed	7/22/2022 11:43 AM



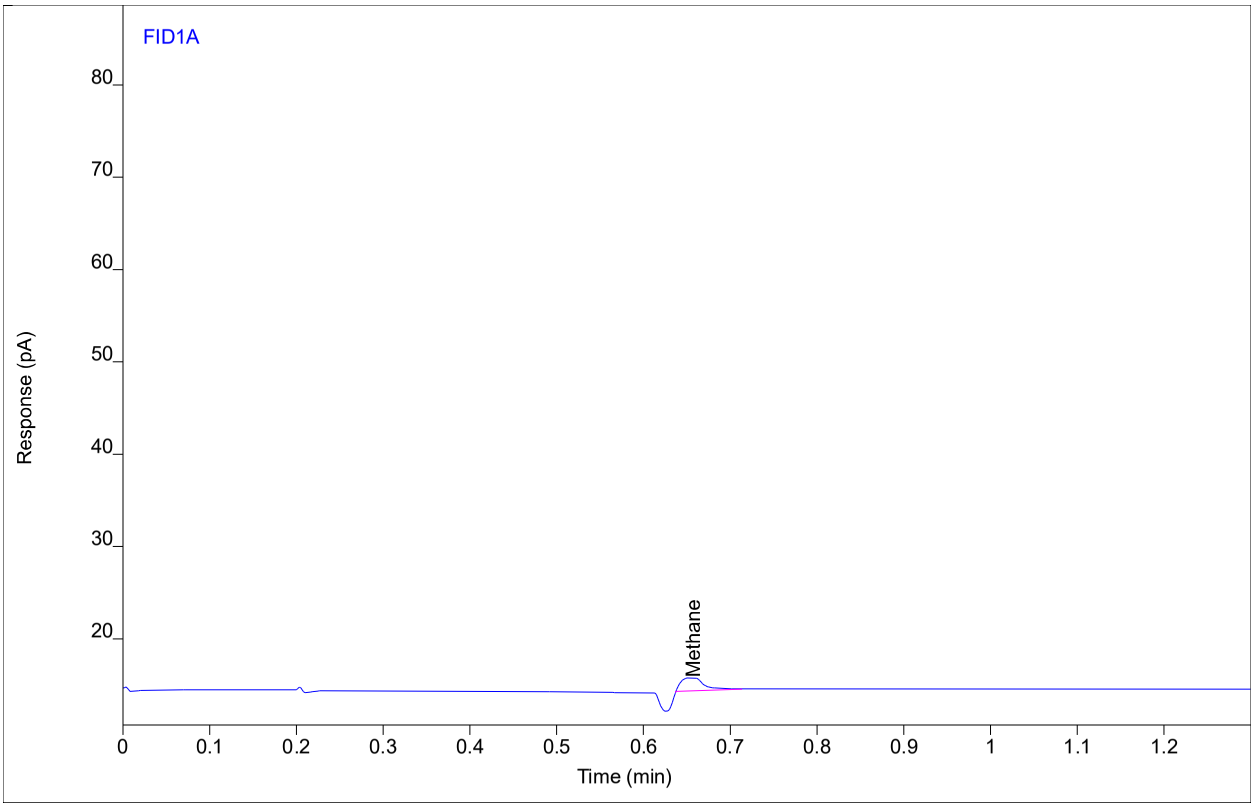
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.66	2.61026	1.45996	2.69223	1	2.69223	ppm
Ethane		(0.86)				1		ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	0722-915.GT3-M18-R3.Bag
Sequence Name	DPGC8-070622 ver.4
Inj Data File	007F0402.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/6/2022 1:43 PM
File Modified	7/20/2022 4:14 PM
Instrument	DP-GC08
Operator	Emily Decker

Sample Type	Sample
Vial Number	7
Injection Volume	250
Injection	2 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/20/2022 4:13 PM
Printed	7/22/2022 11:43 AM



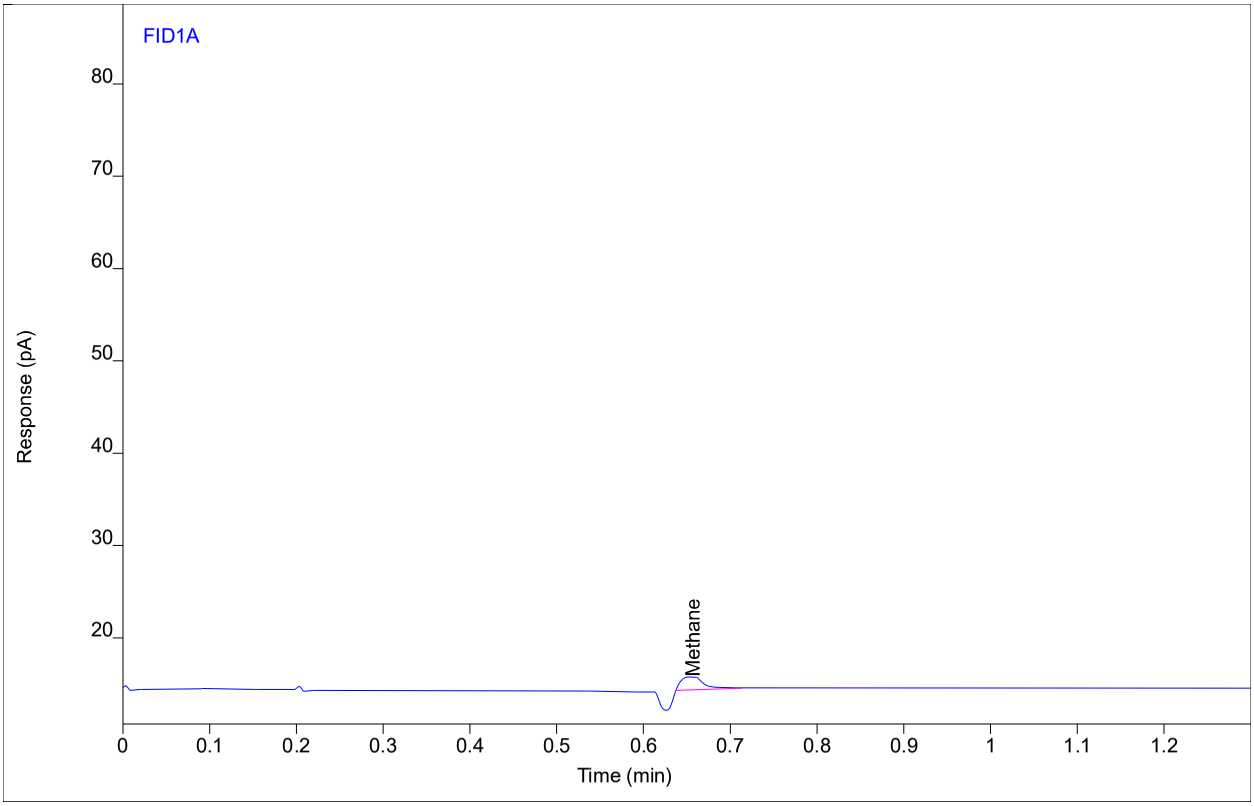
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.66	2.63892	1.45892	2.72179	1	2.72179	ppm
Ethane		(0.86)				1		ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	0722-915.GT3-M18-R3.Bag
Sequence Name	DPGC8-070622 ver.4
Inj Data File	007F0403.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/6/2022 2:01 PM
File Modified	7/20/2022 4:14 PM
Instrument	DP-GC08
Operator	Emily Decker

Sample Type	Sample
Vial Number	7
Injection Volume	250
Injection	3 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/20/2022 4:13 PM
Printed	7/22/2022 11:43 AM



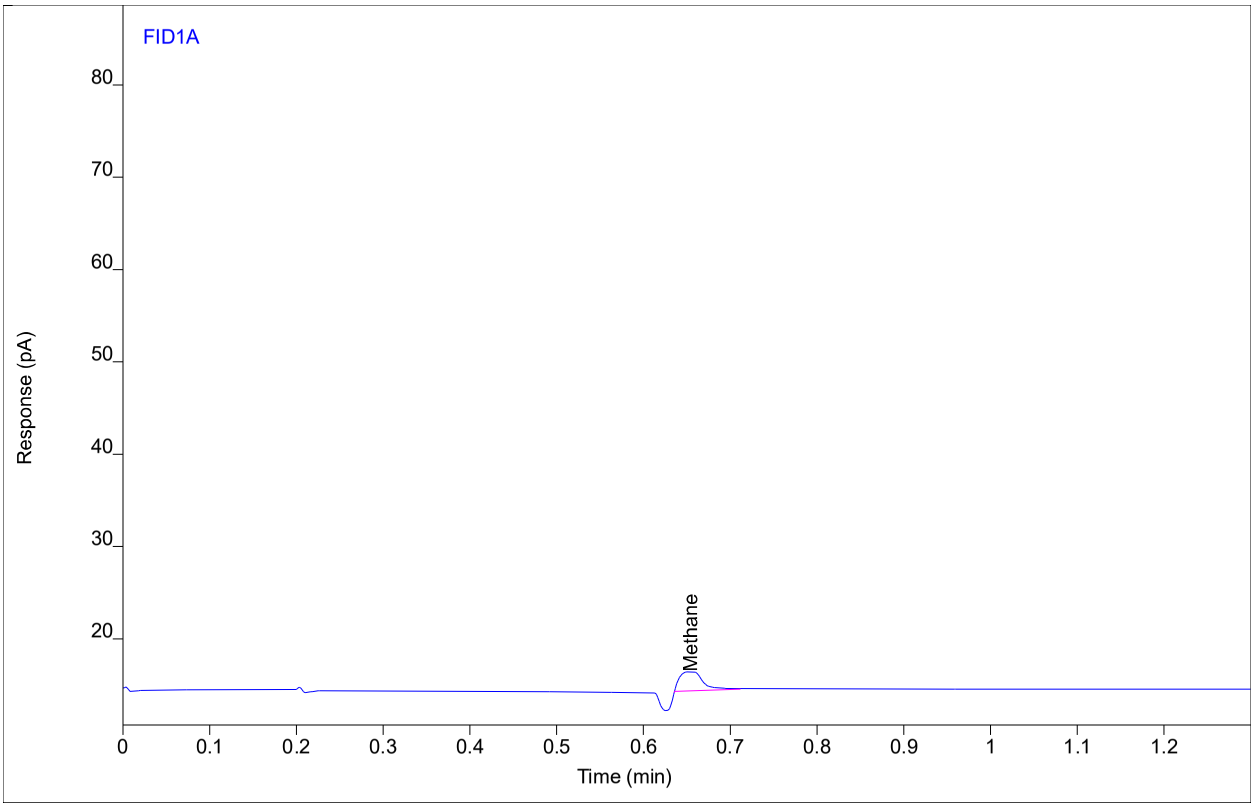
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.66	2.64974	1.45853	2.73295	1	2.73295	ppm
Ethane		(0.86)				1		ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	0722-915.GT4-M18-R1.Bag
Sequence Name	DPGC8-070622 ver.4
Inj Data File	008F0501.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/6/2022 2:19 PM
File Modified	7/20/2022 4:14 PM
Instrument	DP-GC08
Operator	Emily Decker

Sample Type	Sample
Vial Number	8
Injection Volume	250
Injection	1 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/20/2022 4:13 PM
Printed	7/22/2022 11:43 AM



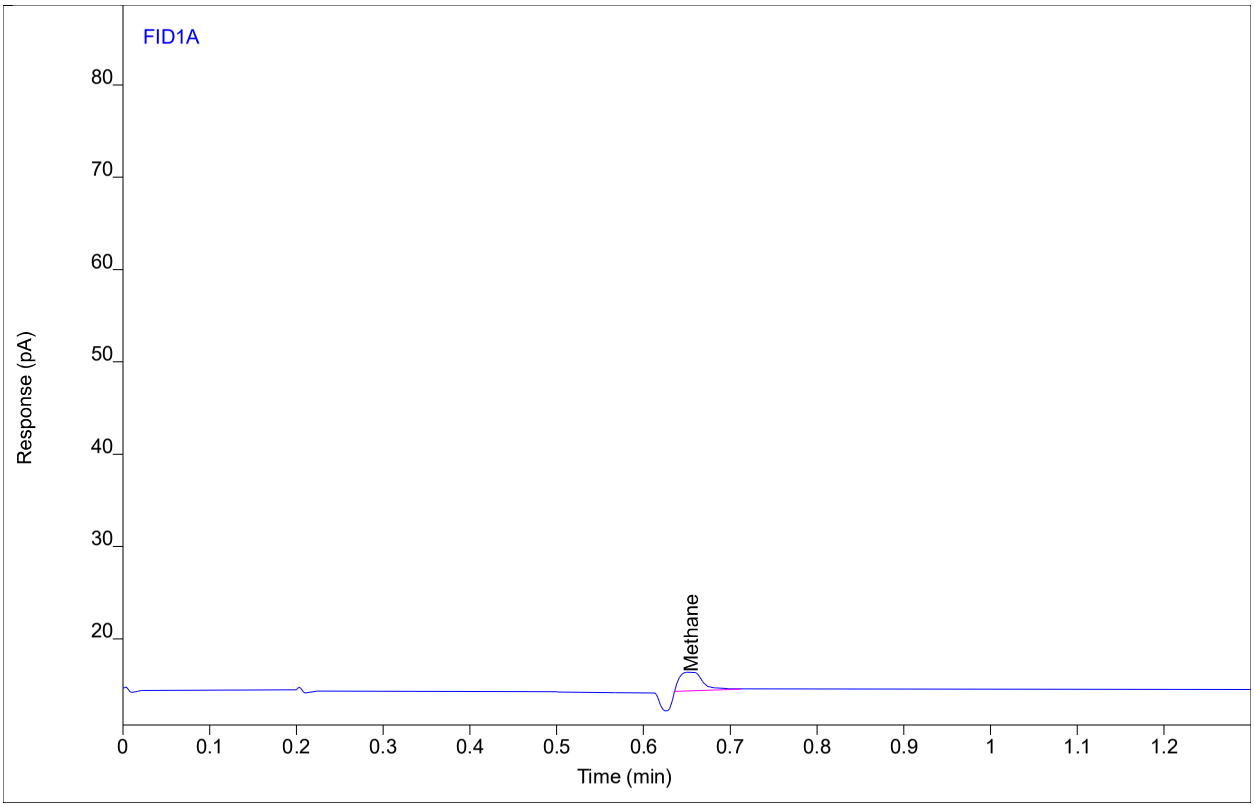
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.65	3.87385	2.08305	3.77797	1	3.77797	ppm
Ethane		(0.86)				1		ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	0722-915.GT4-M18-R1.Bag
Sequence Name	DPGC8-070622 ver.4
Inj Data File	008F0502.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/6/2022 2:36 PM
File Modified	7/20/2022 4:15 PM
Instrument	DP-GC08
Operator	Emily Decker

Sample Type	Sample
Vial Number	8
Injection Volume	250
Injection	2 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/20/2022 4:13 PM
Printed	7/22/2022 11:43 AM



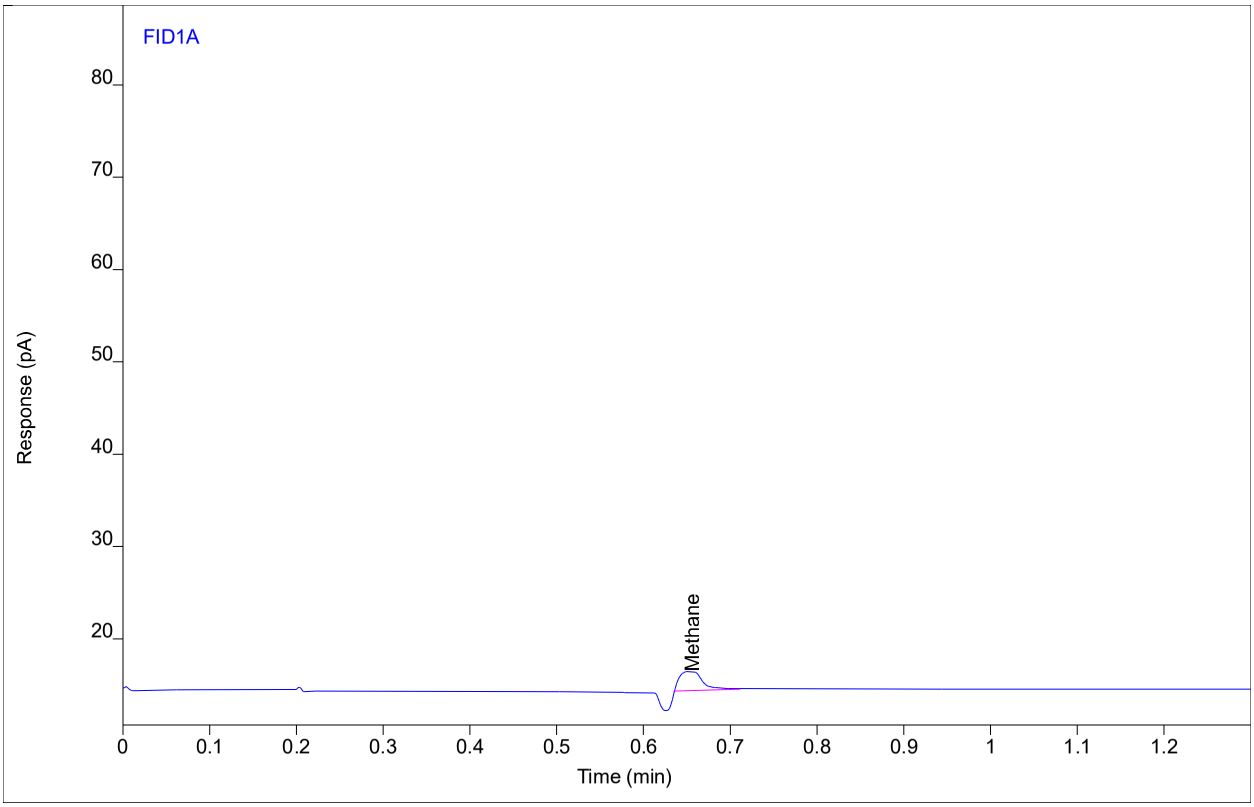
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.65	3.83874	2.07772	3.74960	1	3.74960	ppm
Ethane		(0.86)				1		ppm

Chromatogram Report

Sample Name	0722-915.GT4-M18-R1.Bag
Sequence Name	DPGC8-070622 ver.4
Inj Data File	008F0503.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/6/2022 2:54 PM
File Modified	7/20/2022 4:15 PM
Instrument	DP-GC08
Operator	Emily Decker

Enthalpy Analytical

Sample Type	Sample
Vial Number	8
Injection Volume	250
Injection	3 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/20/2022 4:13 PM
Printed	7/22/2022 11:43 AM



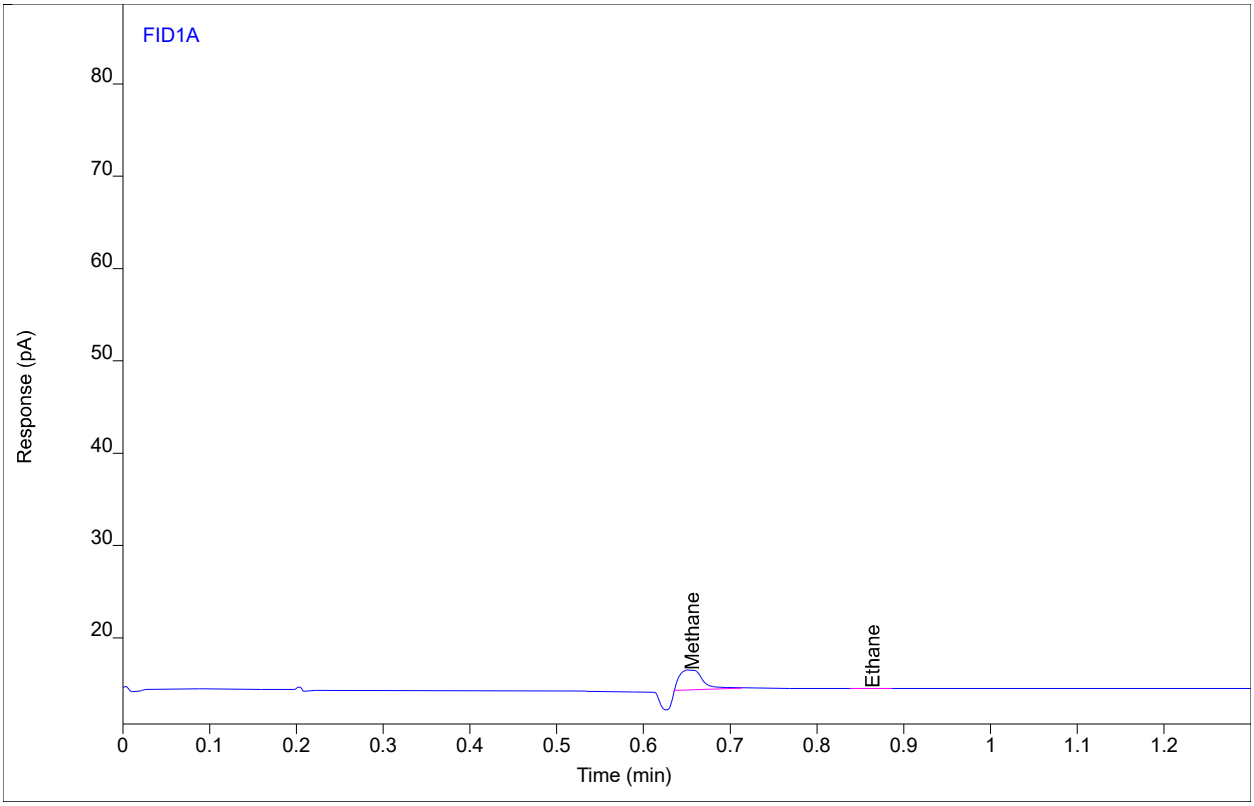
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.66	3.85785	2.07690	3.76505	1	3.76505	ppm
Ethane		(0.86)				1		ppm

Chromatogram Report

Sample Name	0722-915.GT4-M18-R2.Bag
Sequence Name	DPGC8-070622 ver.4
Inj Data File	009F0601.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/6/2022 3:12 PM
File Modified	7/20/2022 4:28 PM
Instrument	DP-GC08
Operator	Emily Decker

Enthalpy Analytical

Sample Type	Sample
Vial Number	9
Injection Volume	250
Injection	1 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/20/2022 4:13 PM
Printed	7/22/2022 11:43 AM



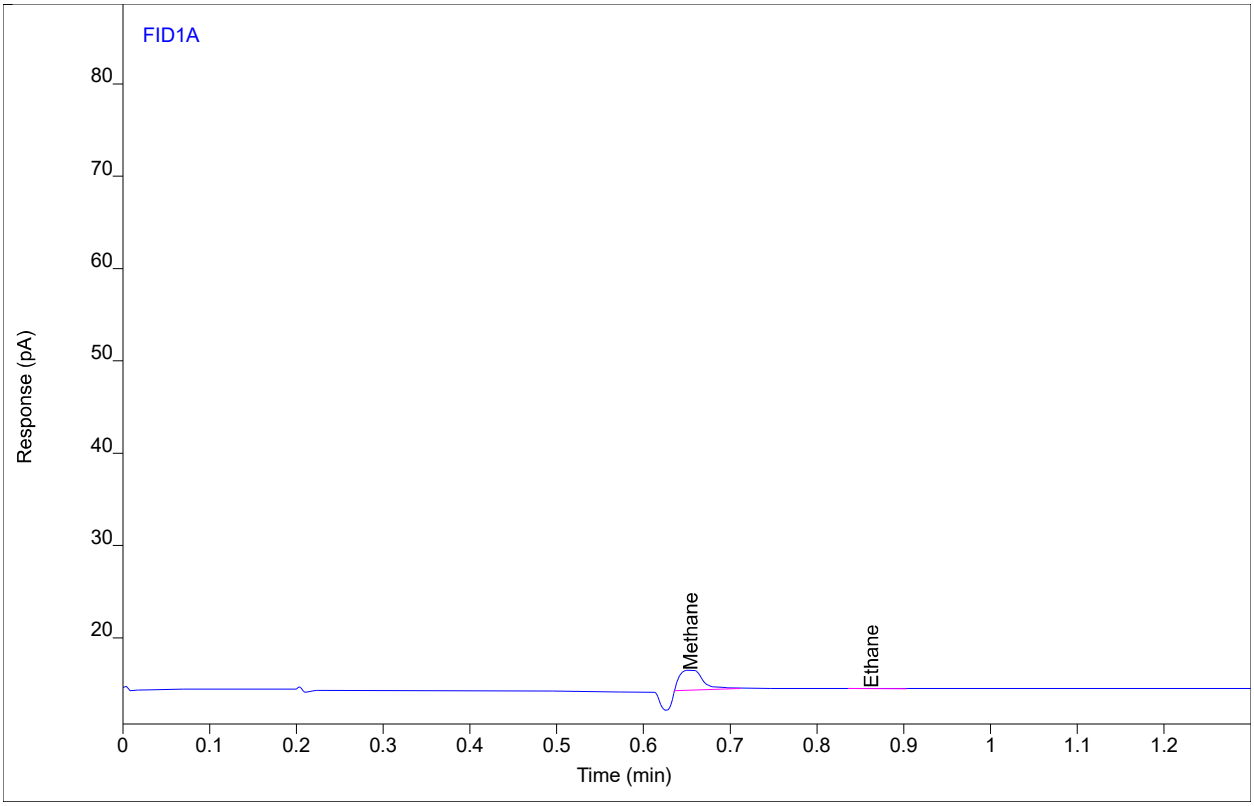
Compound		Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane		PB	0.66	4.08738	2.17532	3.95052	1	3.95052	ppm
Ethane	MI "II" EMD	MM	0.86	0.10667	0.06672	0.04899	1	0.04899	ppm

Chromatogram Report

Sample Name	0722-915.GT4-M18-R2.Bag
Sequence Name	DPGC8-070622 ver.4
Inj Data File	009F0602.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/6/2022 3:29 PM
File Modified	7/20/2022 4:15 PM
Instrument	DP-GC08
Operator	Emily Decker

Enthalpy Analytical

Sample Type	Sample
Vial Number	9
Injection Volume	250
Injection	2 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/20/2022 4:13 PM
Printed	7/22/2022 11:43 AM



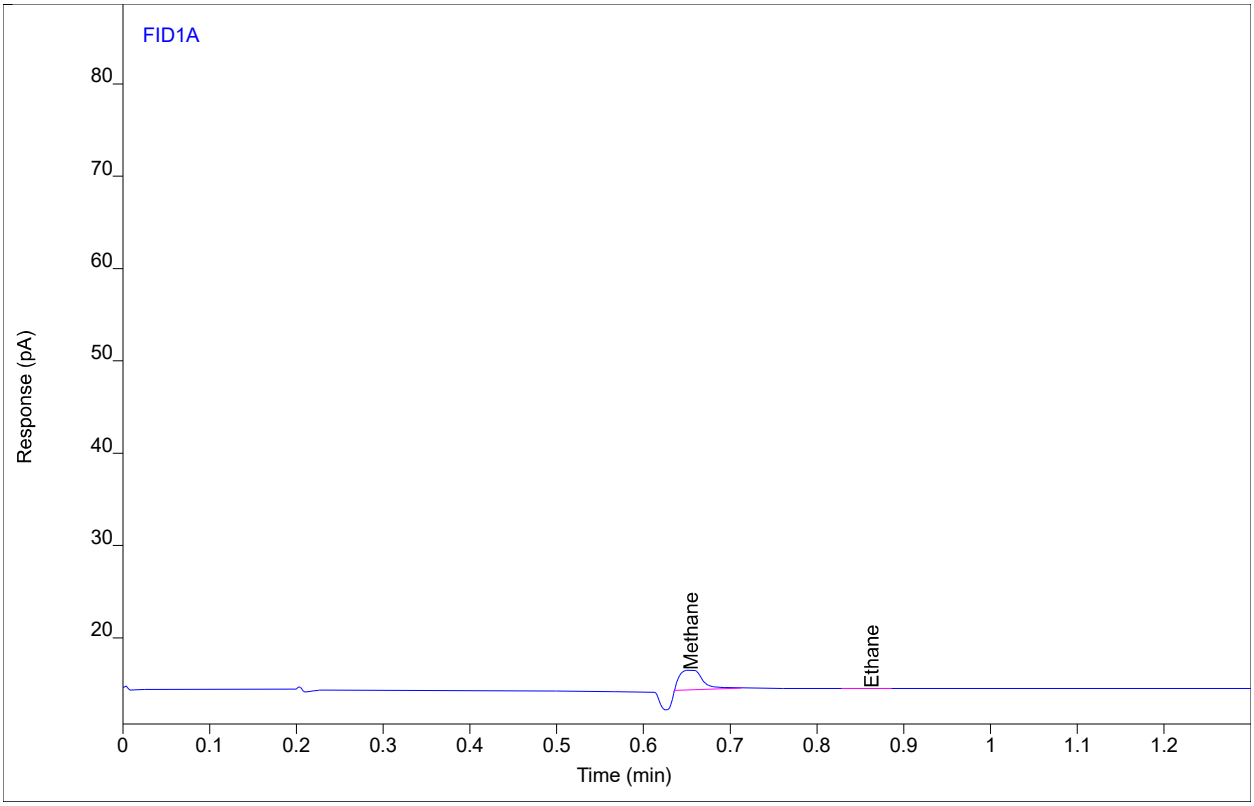
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.65	4.05516	2.17399	3.92447	1	3.92447	ppm
Ethane	BB	0.86	0.11587	0.08705	0.05321	1	0.05321	ppm

Chromatogram Report

Sample Name	0722-915.GT4-M18-R2.Bag
Sequence Name	DPGC8-070622 ver.4
Inj Data File	009F0603.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/6/2022 3:47 PM
File Modified	7/20/2022 4:29 PM
Instrument	DP-GC08
Operator	Emily Decker

Enthalpy Analytical

Sample Type	Sample
Vial Number	9
Injection Volume	250
Injection	3 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/20/2022 4:13 PM
Printed	7/22/2022 11:43 AM



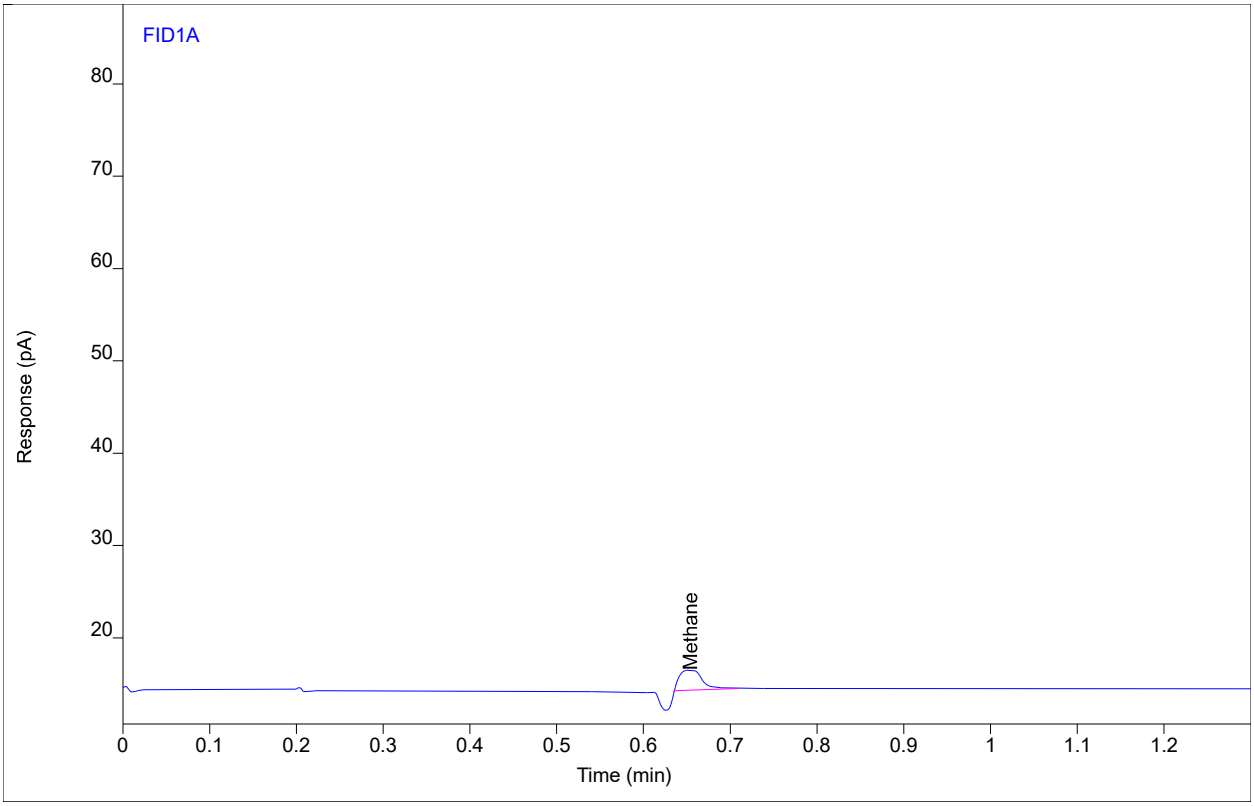
Compound		Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane		PB	0.65	4.04519	2.18176	3.91642	1	3.91642	ppm
Ethane	MI "II" EMD	MM	0.86	0.11672	0.07030	0.05360	1	0.05360	ppm

Chromatogram Report

Sample Name	0722-915.GT4-M18-R3.Bag
Sequence Name	DPGC8-070622 ver.4
Inj Data File	010F0701.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/6/2022 4:05 PM
File Modified	7/20/2022 4:15 PM
Instrument	DP-GC08
Operator	Emily Decker

Enthalpy Analytical

Sample Type	Sample
Vial Number	10
Injection Volume	250
Injection	1 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/20/2022 4:13 PM
Printed	7/22/2022 11:43 AM



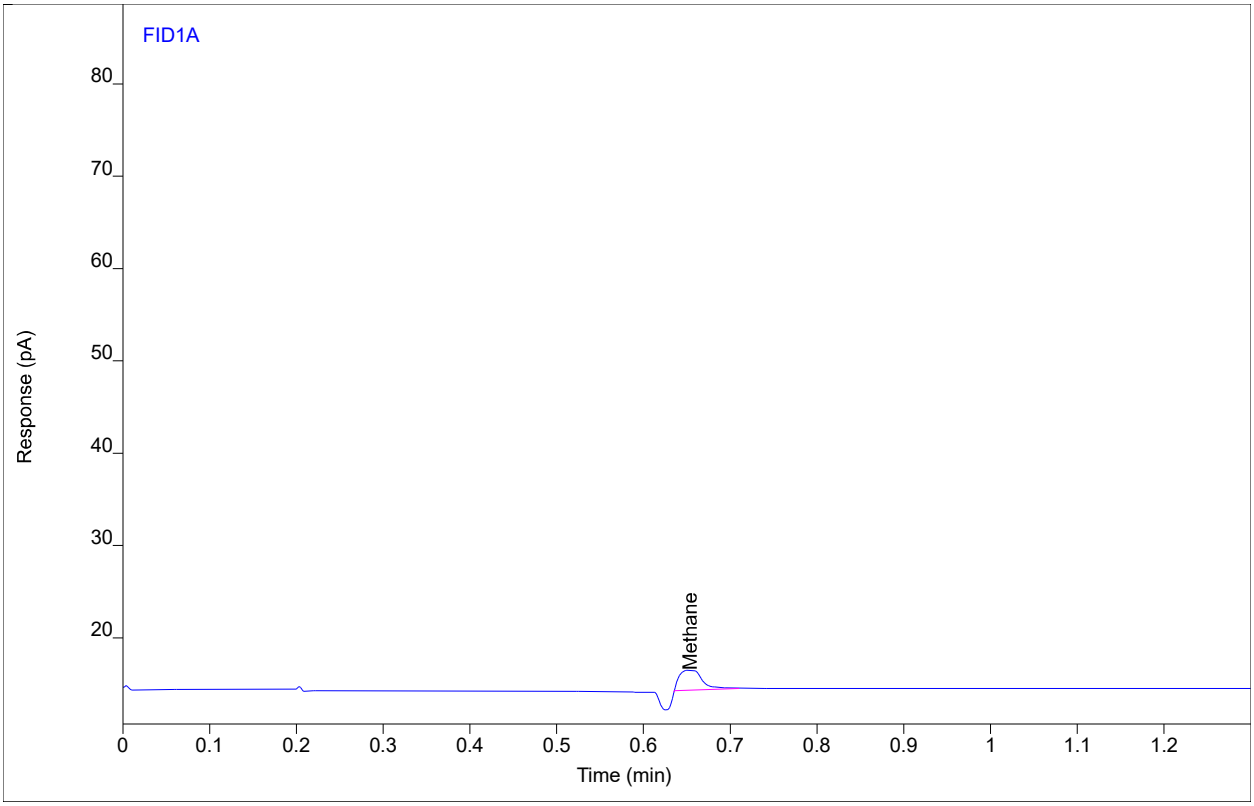
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.65	4.03321	2.18090	3.90674	1	3.90674	ppm
Ethane		(0.86)				1		ppm

Chromatogram Report

Sample Name	0722-915.GT4-M18-R3.Bag
Sequence Name	DPGC8-070622 ver.4
Inj Data File	010F0702.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/6/2022 4:22 PM
File Modified	7/20/2022 4:15 PM
Instrument	DP-GC08
Operator	Emily Decker

Enthalpy Analytical

Sample Type	Sample
Vial Number	10
Injection Volume	250
Injection	2 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/20/2022 4:13 PM
Printed	7/22/2022 11:43 AM



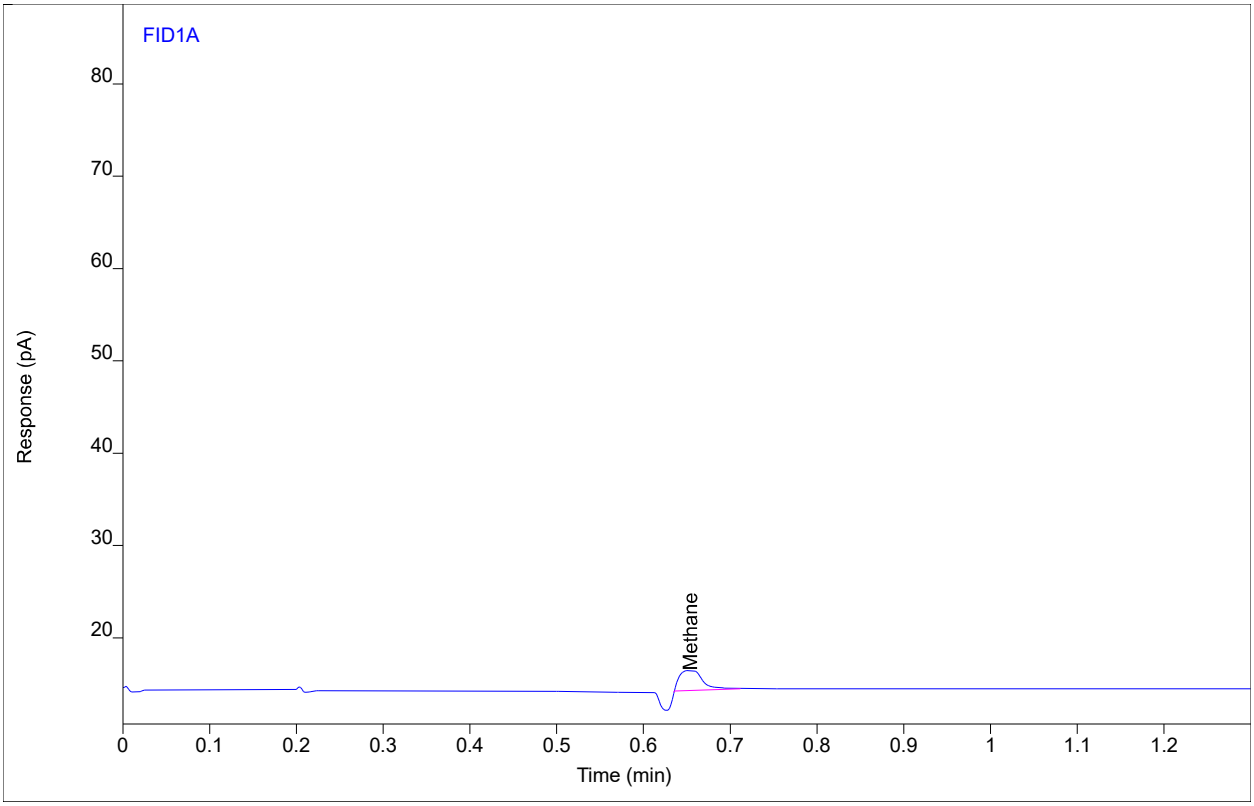
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.65	4.00955	2.16735	3.88763	1	3.88763	ppm
Ethane		(0.86)				1		ppm

Chromatogram Report

Sample Name	0722-915.GT4-M18-R3.Bag
Sequence Name	DPGC8-070622 ver.4
Inj Data File	010F0703.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/6/2022 4:40 PM
File Modified	7/20/2022 4:15 PM
Instrument	DP-GC08
Operator	Emily Decker

Enthalpy Analytical

Sample Type	Sample
Vial Number	10
Injection Volume	250
Injection	3 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/20/2022 4:13 PM
Printed	7/22/2022 11:43 AM



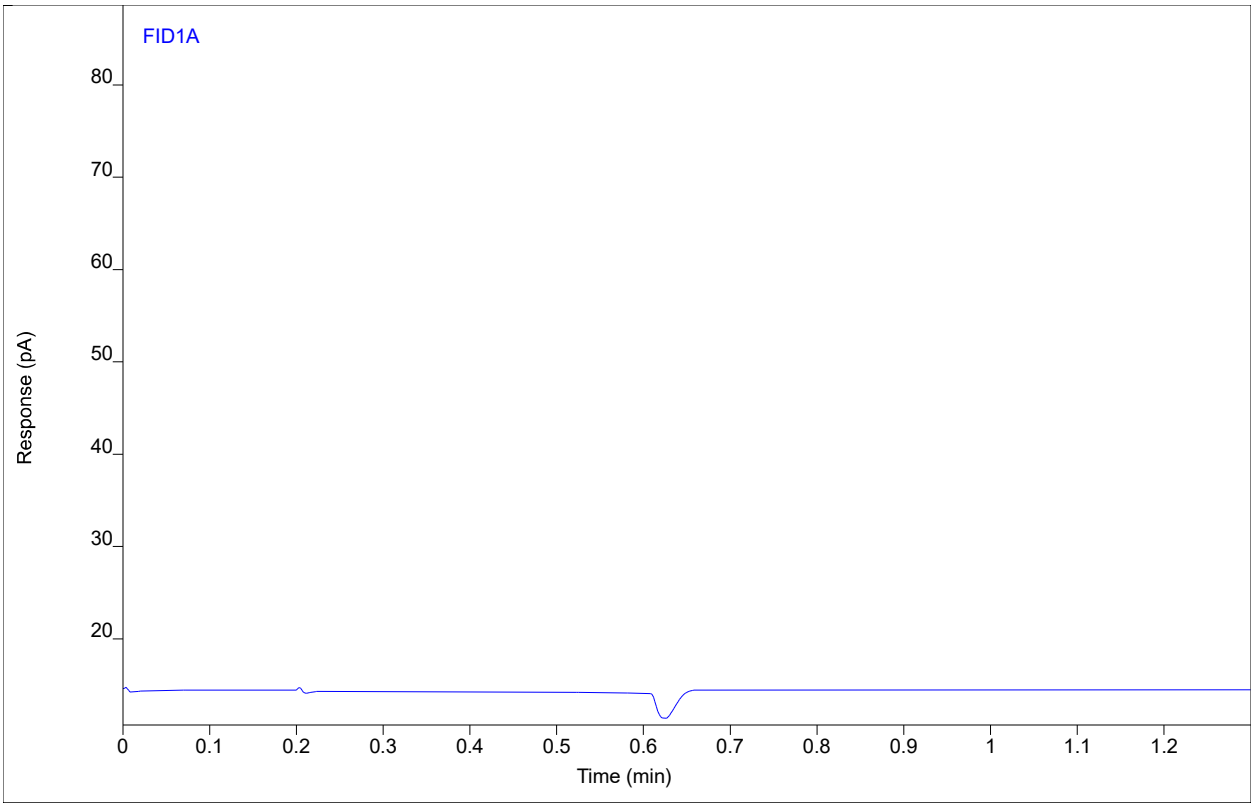
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.65	4.03878	2.17605	3.91124	1	3.91124	ppm
Ethane		(0.86)				1		ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	N2 #MB
Sequence Name	DPGC8-070622 ver.4
Inj Data File	001F0901.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/6/2022 5:16 PM
File Modified	7/20/2022 4:15 PM
Instrument	DP-GC08
Operator	Emily Decker

Sample Type	Sample
Vial Number	1
Injection Volume	250
Injection	1 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/20/2022 4:13 PM
Printed	7/22/2022 11:43 AM



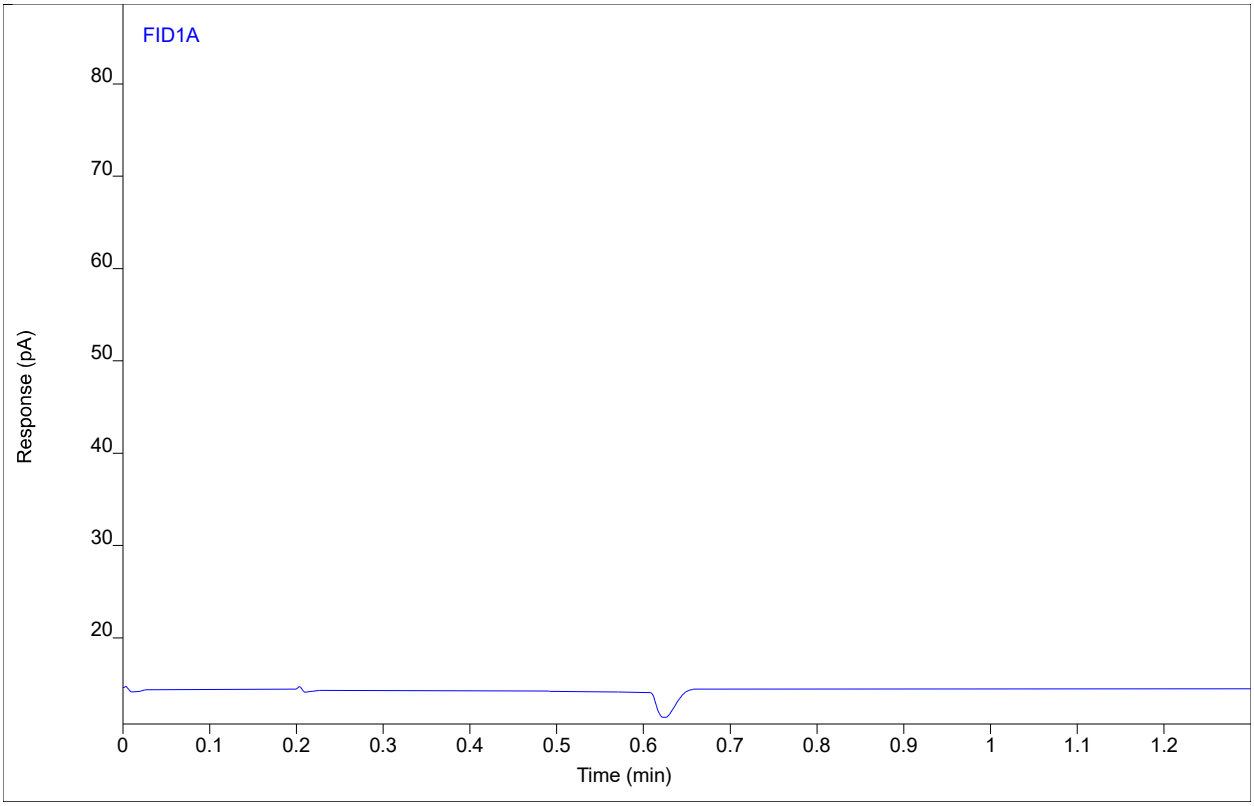
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane		(0.65)				1		ppm
Ethane		(0.86)				1		ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	N2 #MB
Sequence Name	DPGC8-070622 ver.4
Inj Data File	001F0902.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/6/2022 5:34 PM
File Modified	7/20/2022 4:15 PM
Instrument	DP-GC08
Operator	Emily Decker

Sample Type	Sample
Vial Number	1
Injection Volume	250
Injection	2 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/20/2022 4:13 PM
Printed	7/22/2022 11:43 AM



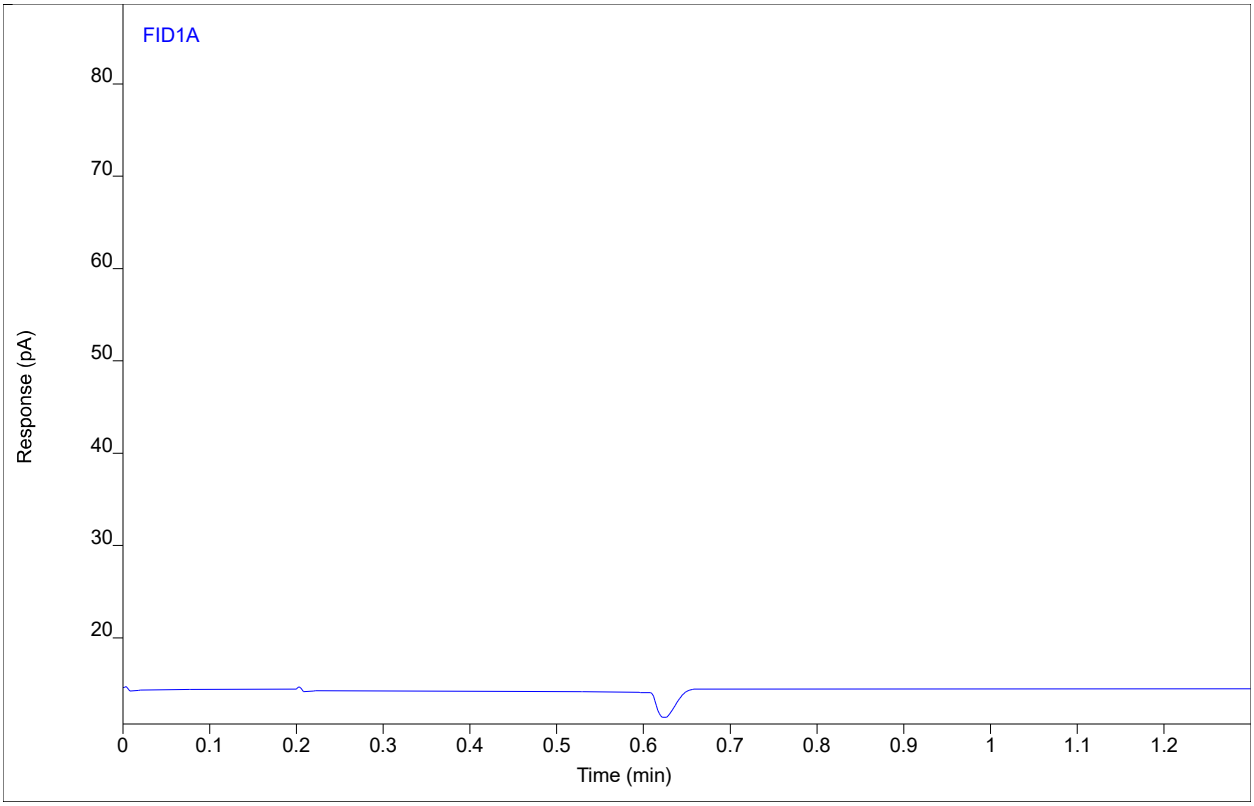
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane		(0.65)				1		ppm
Ethane		(0.86)				1		ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	N2 #MB
Sequence Name	DPGC8-070622 ver.4
Inj Data File	001F0903.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/6/2022 5:52 PM
File Modified	7/20/2022 4:15 PM
Instrument	DP-GC08
Operator	Emily Decker

Sample Type	Sample
Vial Number	1
Injection Volume	250
Injection	3 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/20/2022 4:13 PM
Printed	7/22/2022 11:43 AM



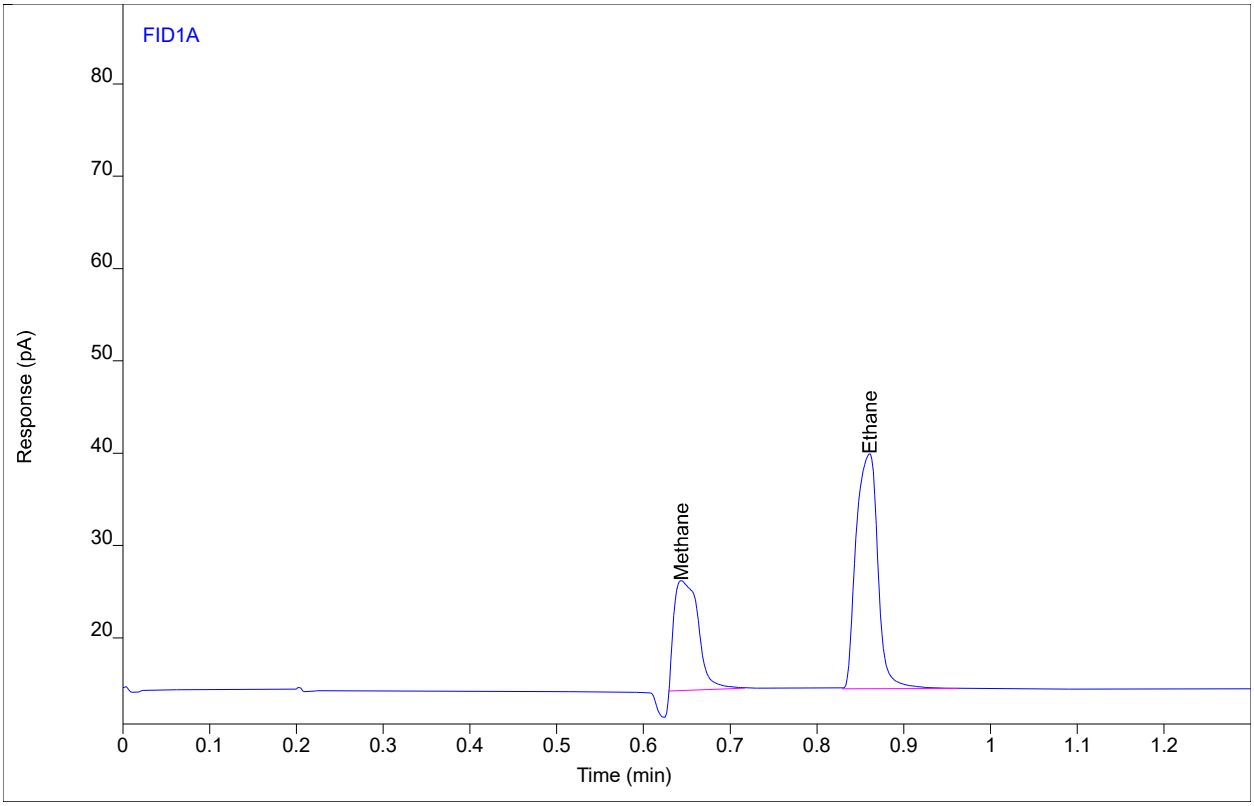
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane		(0.65)				1		ppm
Ethane		(0.86)				1		ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	Prep1p265 #A14 LCS
Sequence Name	DPGC8-070622 ver.4
Inj Data File	002F1001.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/6/2022 6:09 PM
File Modified	7/20/2022 4:15 PM
Instrument	DP-GC08
Operator	Emily Decker

Sample Type	Sample
Vial Number	2
Injection Volume	250
Injection	1 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/20/2022 4:13 PM
Printed	7/22/2022 11:43 AM



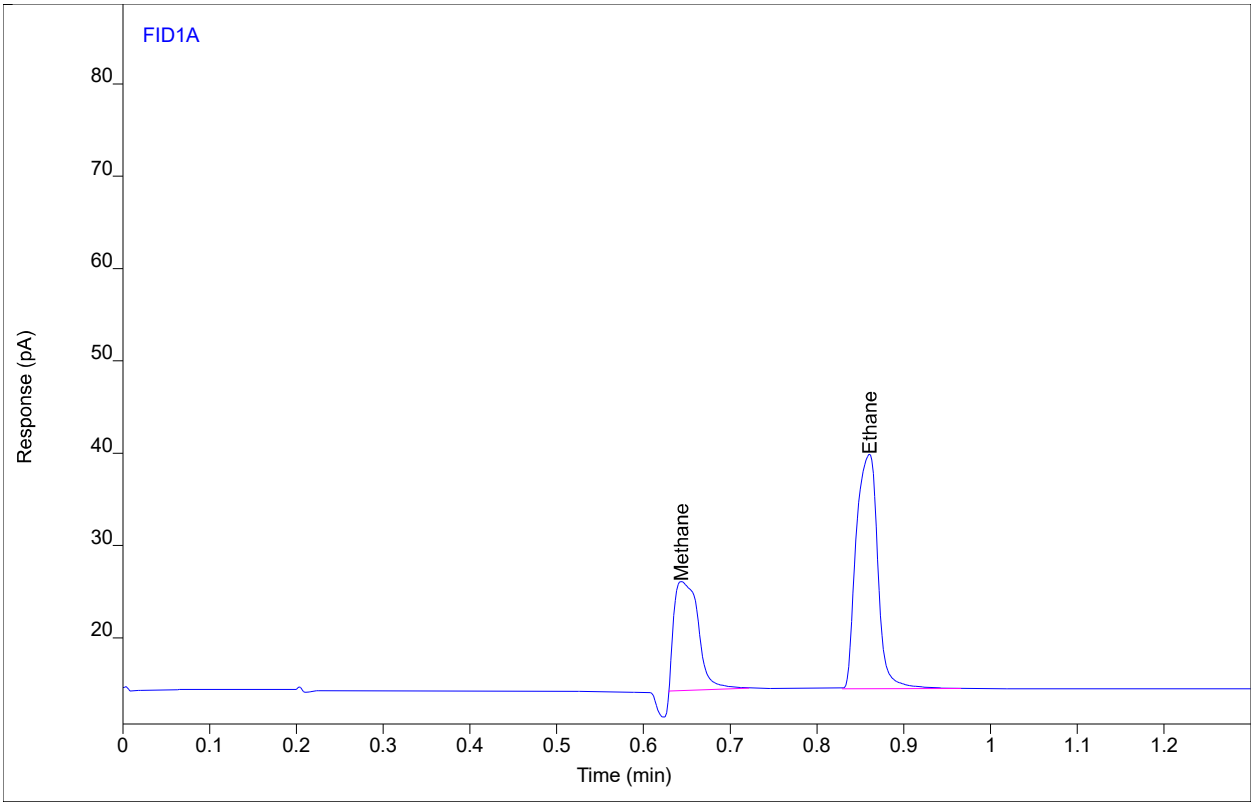
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.64	23.2276	11.9154	19.4166	1	19.4166	ppm
Ethane	BB	0.86	44.1683	25.4642	20.2902	1	20.2902	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	Prep1p265 #A14 LCS
Sequence Name	DPGC8-070622 ver.4
Inj Data File	002F1002.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/6/2022 6:27 PM
File Modified	7/20/2022 4:15 PM
Instrument	DP-GC08
Operator	Emily Decker

Sample Type	Sample
Vial Number	2
Injection Volume	250
Injection	2 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/20/2022 4:13 PM
Printed	7/22/2022 11:43 AM



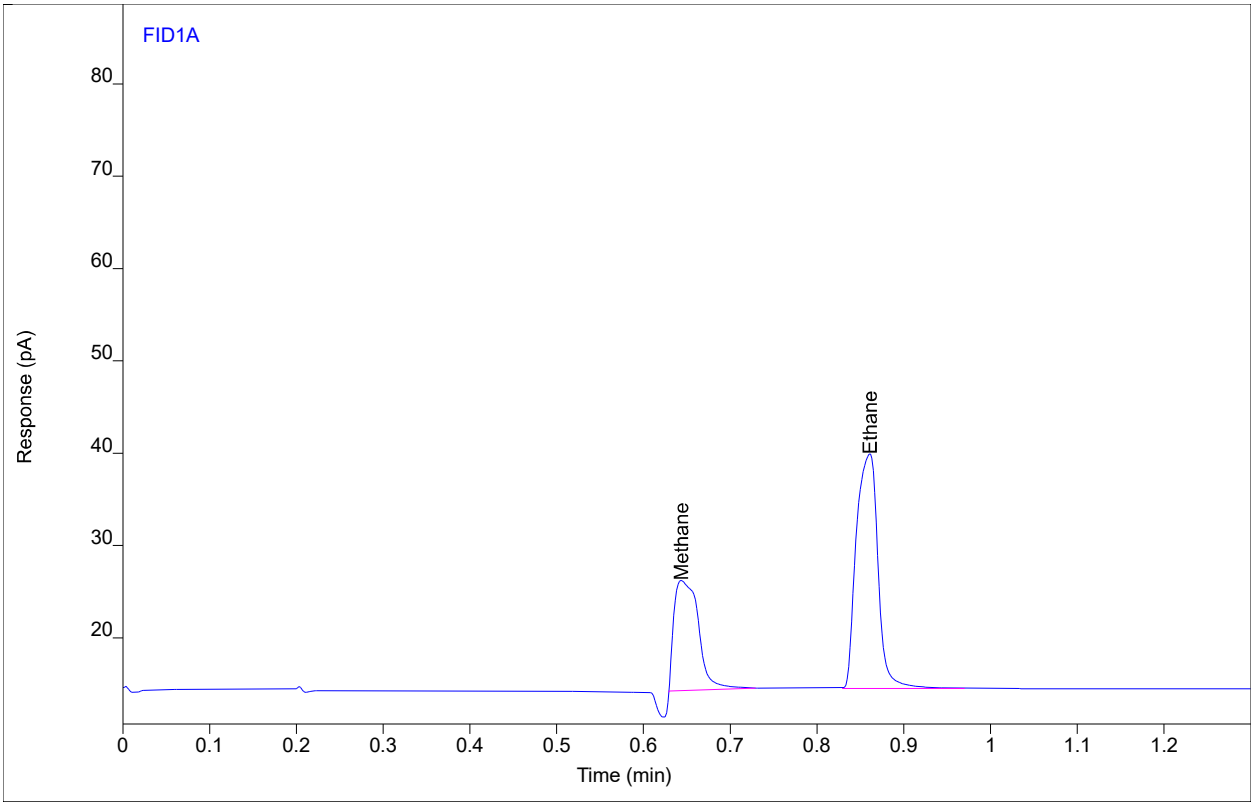
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.64	23.1524	11.8569	19.3559	1	19.3559	ppm
Ethane	BB	0.86	43.8735	25.3989	20.1548	1	20.1548	ppm

Chromatogram Report

Sample Name	Prep1p265 #A14 LCS
Sequence Name	DPGC8-070622 ver.4
Inj Data File	002F1003.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/6/2022 6:45 PM
File Modified	7/20/2022 4:15 PM
Instrument	DP-GC08
Operator	Emily Decker

Enthalpy Analytical

Sample Type	Sample
Vial Number	2
Injection Volume	250
Injection	3 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/20/2022 4:13 PM
Printed	7/22/2022 11:43 AM



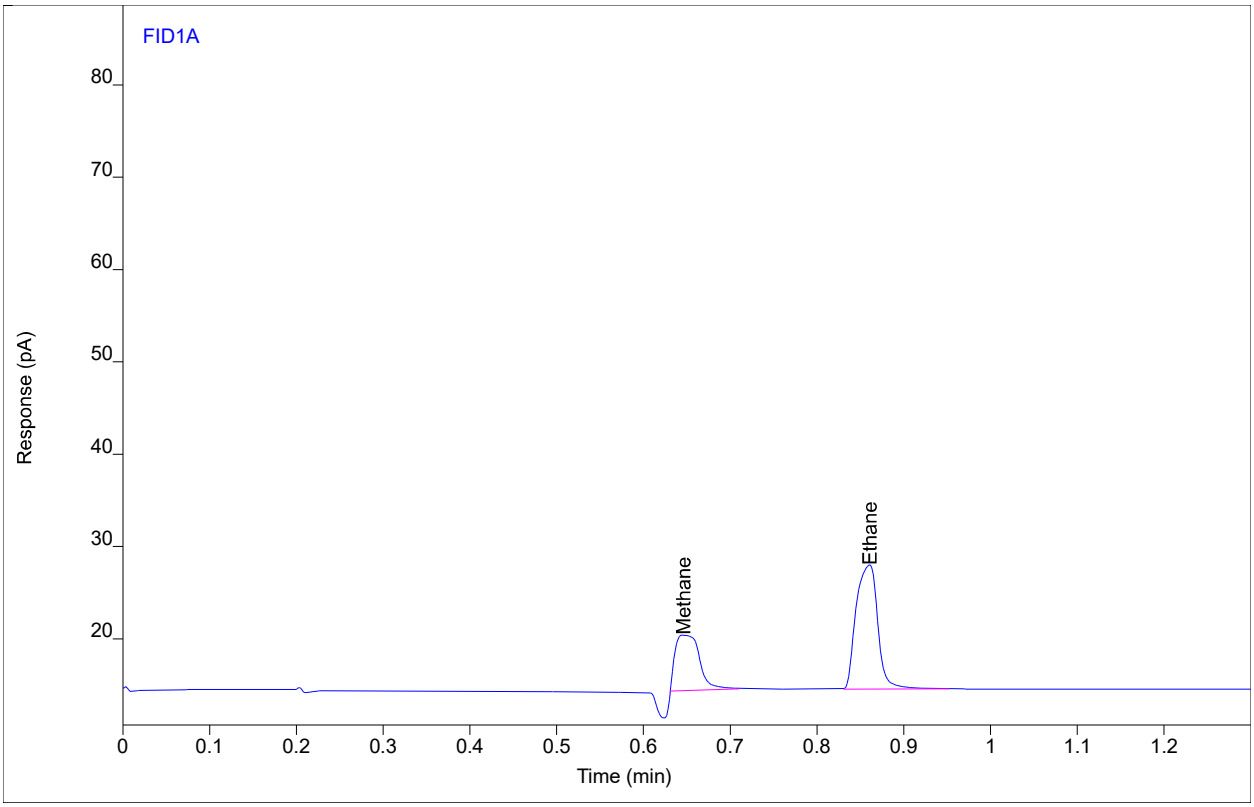
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.64	23.4727	11.9366	19.6147	1	19.6147	ppm
Ethane	BB	0.86	44.1590	25.4664	20.2859	1	20.2859	ppm

Chromatogram Report

Sample Name	Prep1p292 #C4 ENV(1=0,4=495)
Sequence Name	DPGC8-070622 ver.4
Inj Data File	015F1201.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/6/2022 7:22 PM
File Modified	7/20/2022 4:16 PM
Instrument	DP-GC08
Operator	Emily Decker

Enthalpy Analytical

Sample Type	Sample
Vial Number	15
Injection Volume	250
Injection	1 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/20/2022 4:13 PM
Printed	7/22/2022 11:43 AM



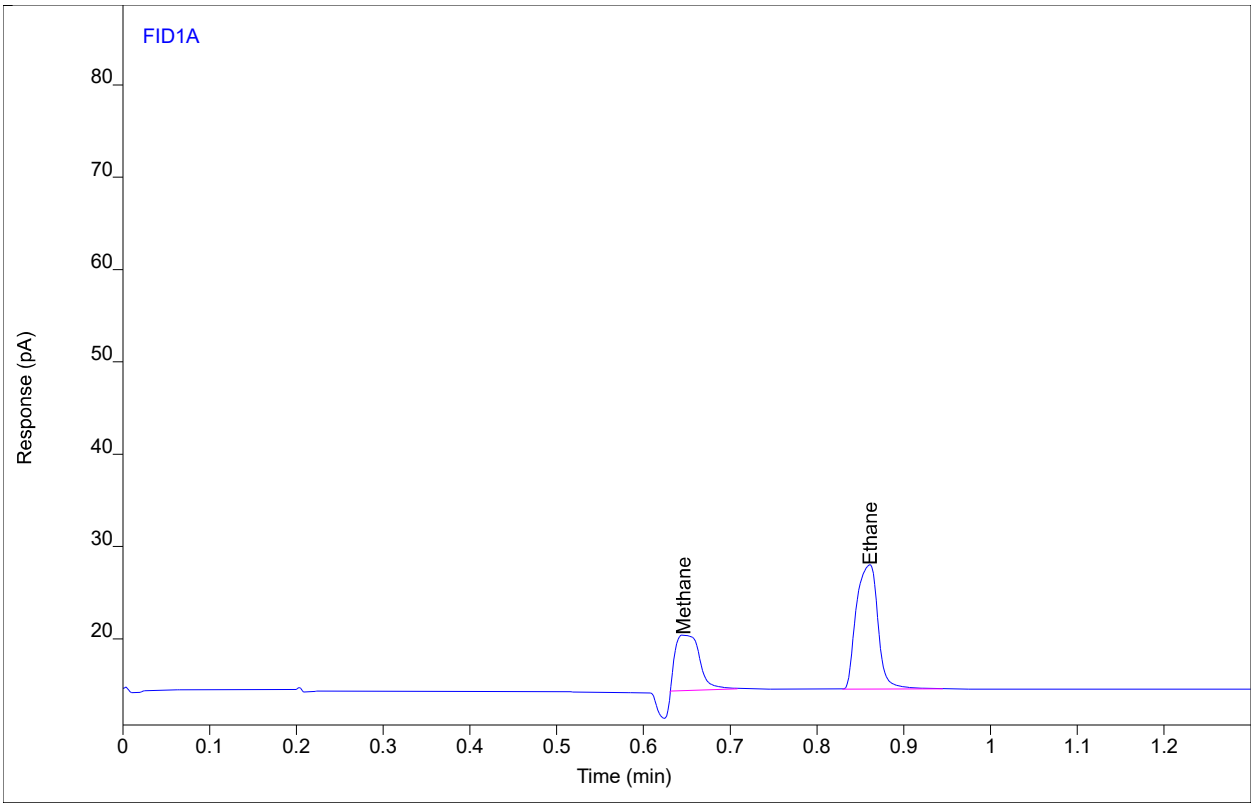
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.65	11.7985	6.08172	10.1814	1	10.1814	ppm
Ethane	BB	0.86	23.3288	13.4626	10.7168	1	10.7168	ppm

Chromatogram Report

Sample Name	Prep1p292 #C4 ENV(1=0,4=495)
Sequence Name	DPGC8-070622 ver.4
Inj Data File	015F1202.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/6/2022 7:41 PM
File Modified	7/20/2022 4:16 PM
Instrument	DP-GC08
Operator	Emily Decker

Enthalpy Analytical

Sample Type	Sample
Vial Number	15
Injection Volume	250
Injection	2 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/20/2022 4:13 PM
Printed	7/22/2022 11:43 AM



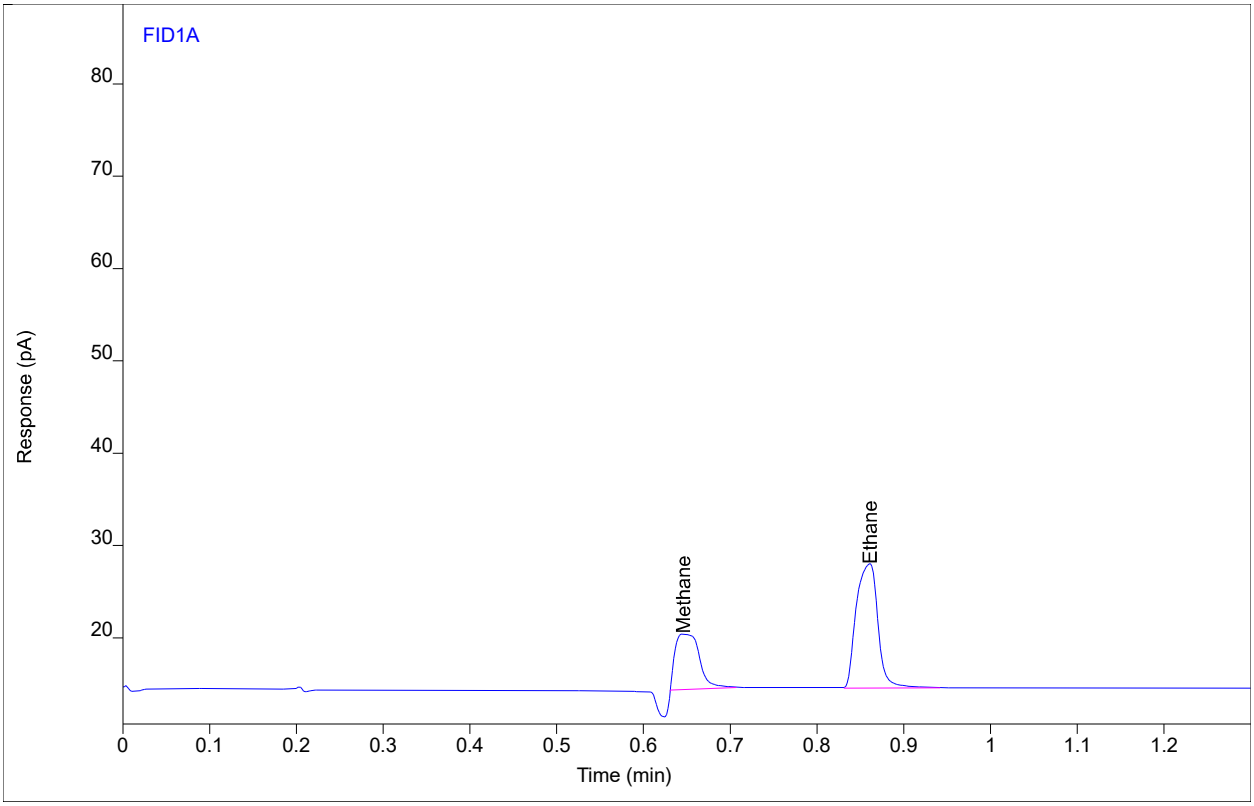
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.65	11.7982	6.09247	10.1812	1	10.1812	ppm
Ethane	BB	0.86	23.3686	13.4838	10.7351	1	10.7351	ppm

Chromatogram Report

Sample Name	Prep1p292 #C4 ENV(1=0,4=495)
Sequence Name	DPGC8-070622 ver.4
Inj Data File	015F1203.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/6/2022 8:01 PM
File Modified	7/20/2022 4:16 PM
Instrument	DP-GC08
Operator	Emily Decker

Enthalpy Analytical

Sample Type	Sample
Vial Number	15
Injection Volume	250
Injection	3 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/20/2022 4:13 PM
Printed	7/22/2022 11:43 AM



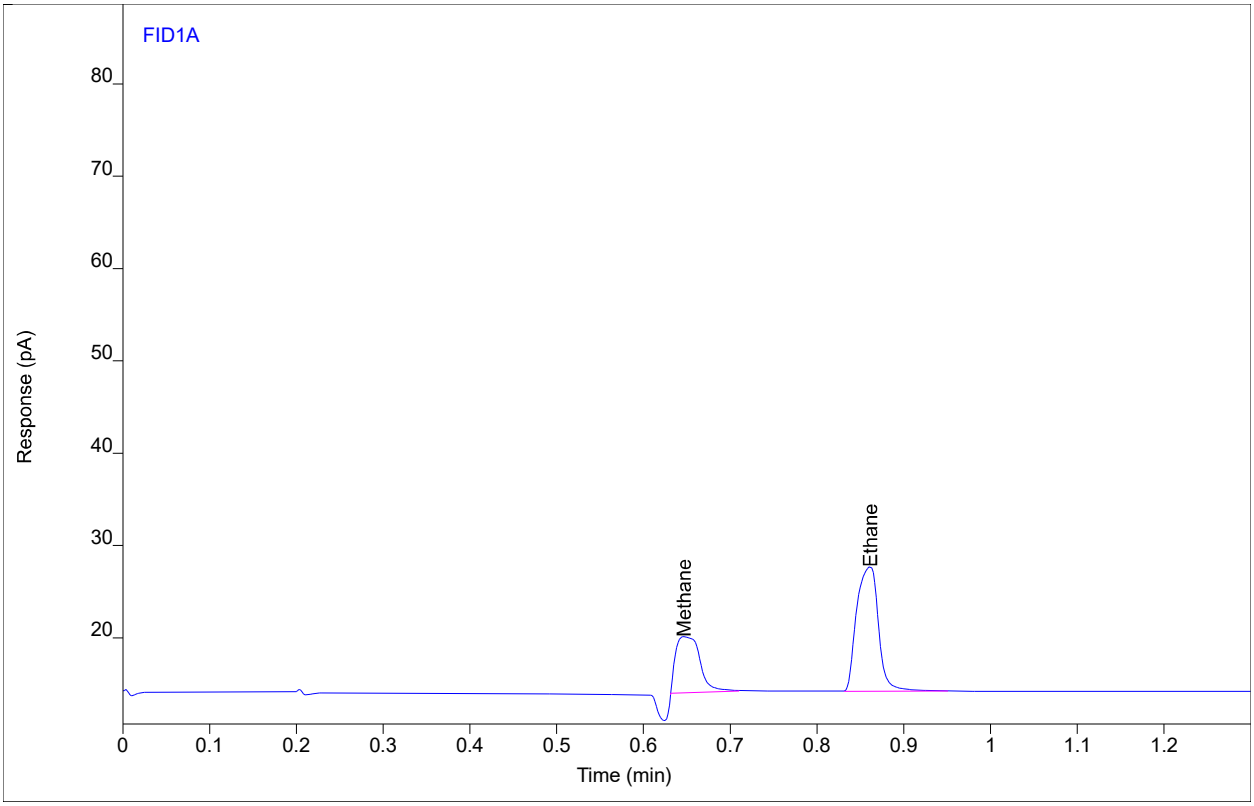
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.65	11.6815	6.07010	10.0869	1	10.0869	ppm
Ethane	BB	0.86	23.1904	13.4728	10.6532	1	10.6532	ppm

Chromatogram Report

Sample Name	Prep1p292 #C4 ENV(1=0,4=495)
Sequence Name	DPGC8-071022 ver.4
Inj Data File	015F0201.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/10/2022 2:54 AM
File Modified	7/11/2022 2:09 PM
Instrument	DP-GC08
Operator	Emily Decker

Enthalpy Analytical

Sample Type	Sample
Vial Number	15
Injection Volume	250
Injection	1 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/11/2022 11:56 AM
Printed	7/22/2022 11:43 AM



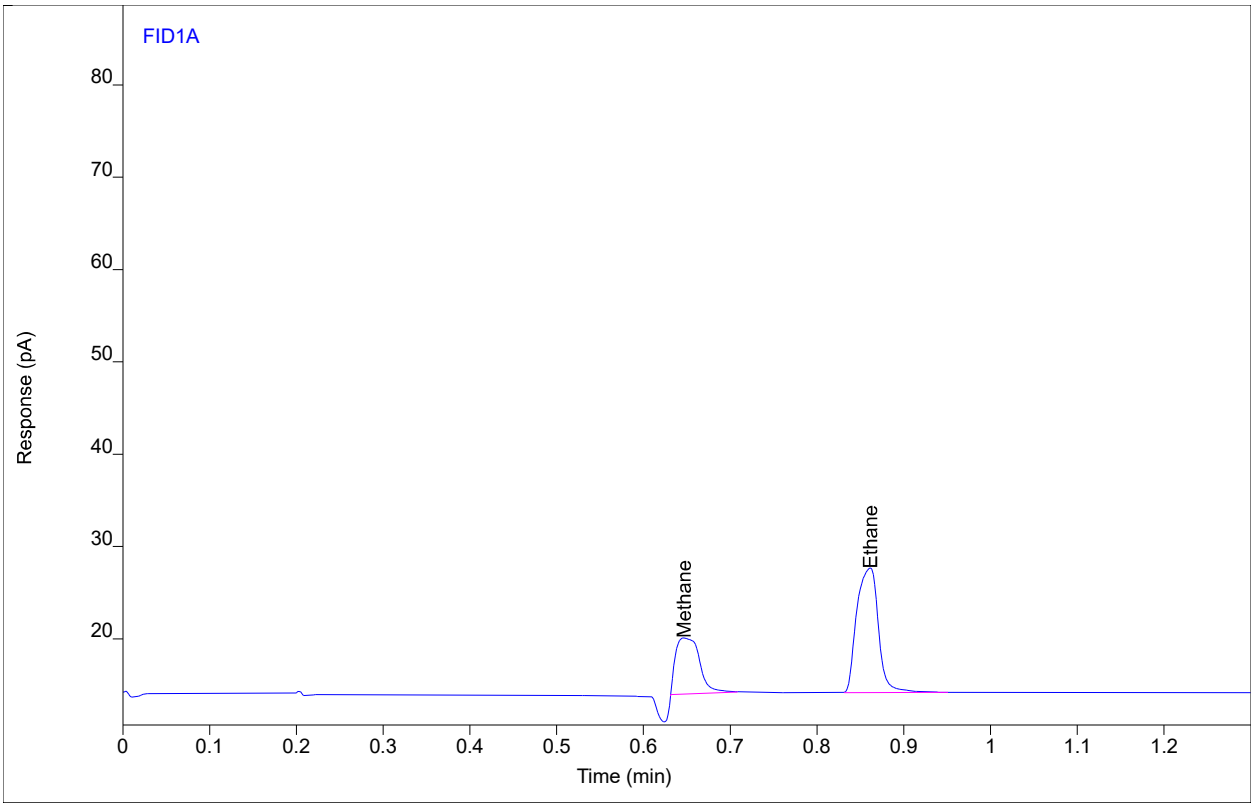
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.65	11.8756	6.10676	10.2438	1	10.2438	ppm
Ethane	BB	0.86	23.5574	13.5303	10.8218	1	10.8218	ppm

Chromatogram Report

Sample Name	Prep1p292 #C4 ENV(1=0,4=495)
Sequence Name	DPGC8-071022 ver.4
Inj Data File	015F0202.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/10/2022 3:16 AM
File Modified	7/11/2022 2:09 PM
Instrument	DP-GC08
Operator	Emily Decker

Enthalpy Analytical

Sample Type	Sample
Vial Number	15
Injection Volume	250
Injection	2 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/11/2022 11:56 AM
Printed	7/22/2022 11:43 AM



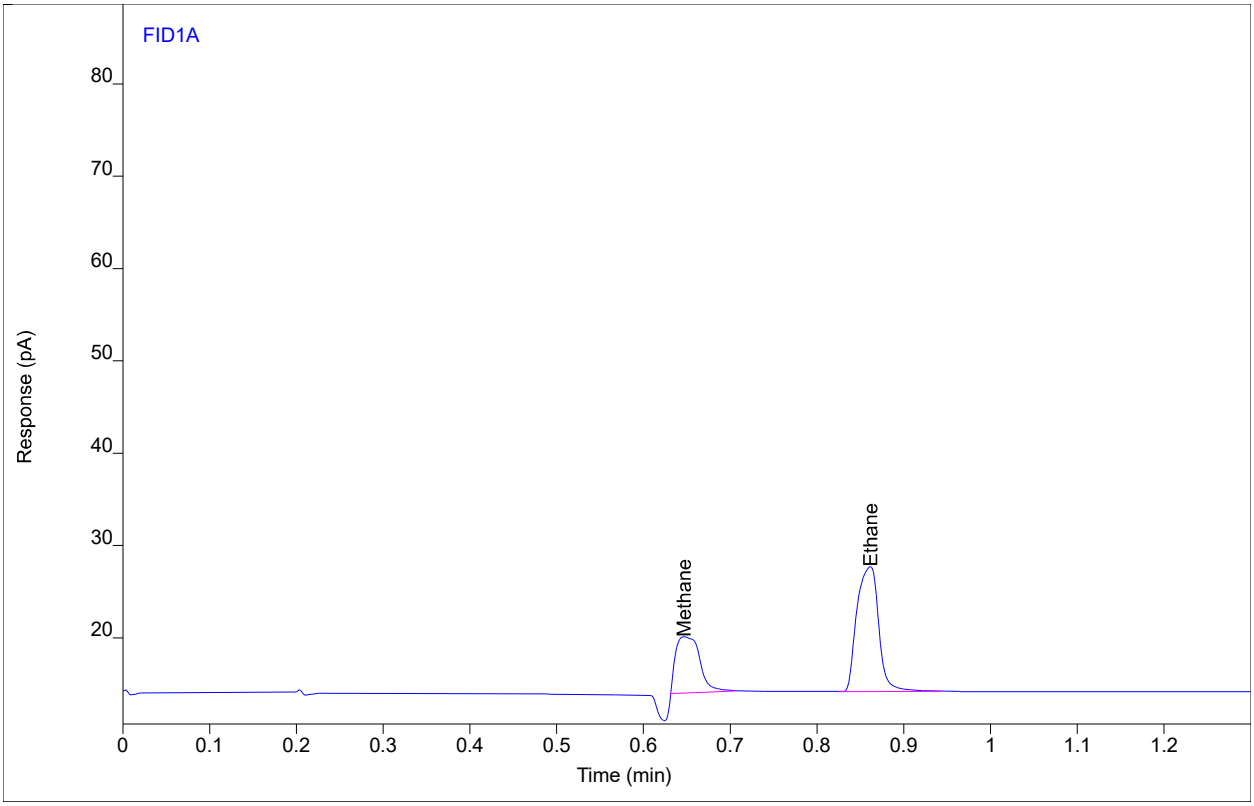
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.65	11.7560	6.09309	10.1471	1	10.1471	ppm
Ethane	BB	0.86	23.3811	13.5144	10.7408	1	10.7408	ppm

Chromatogram Report

Sample Name	Prep1p292 #C4 ENV(1=0,4=495)
Sequence Name	DPGC8-071022 ver.4
Inj Data File	015F0203.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/10/2022 3:37 AM
File Modified	7/11/2022 2:09 PM
Instrument	DP-GC08
Operator	Emily Decker

Enthalpy Analytical

Sample Type	Sample
Vial Number	15
Injection Volume	250
Injection	3 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/11/2022 11:56 AM
Printed	7/22/2022 11:43 AM



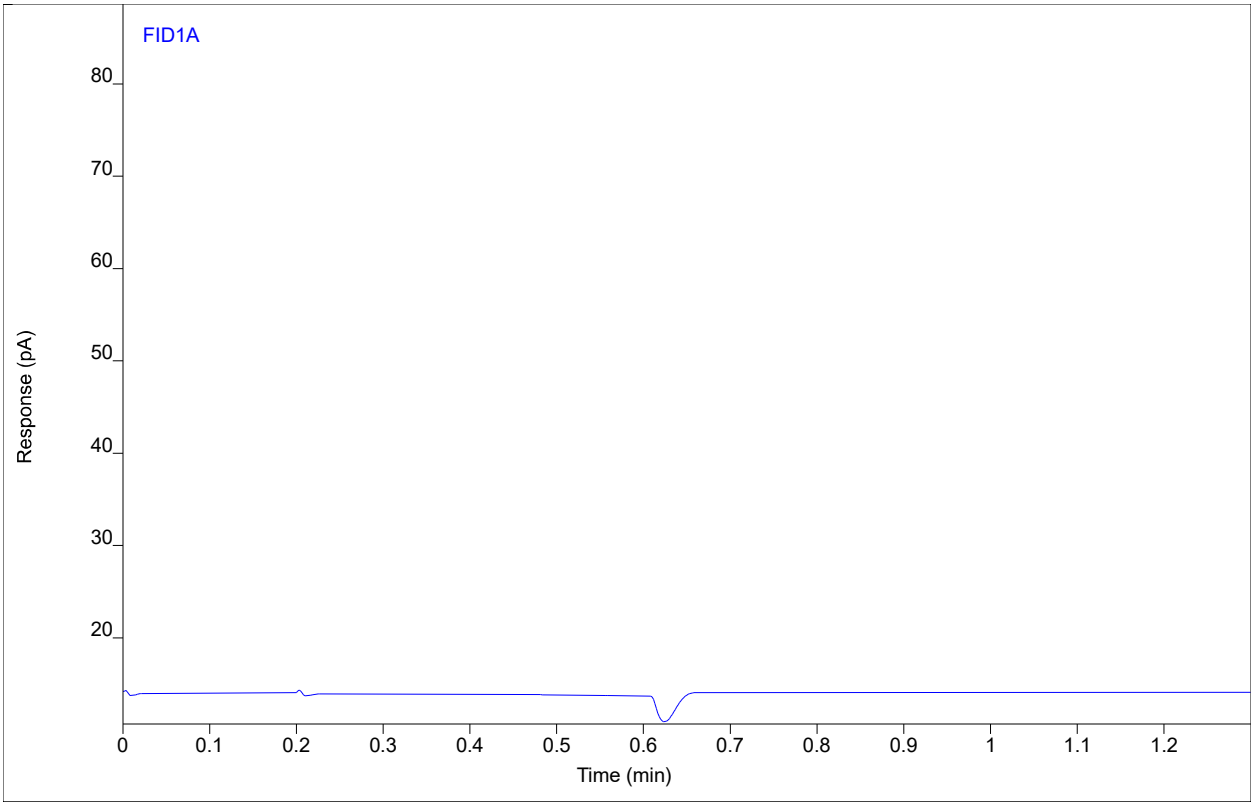
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.65	11.7568	6.08993	10.1477	1	10.1477	ppm
Ethane	BB	0.86	23.5372	13.5335	10.8125	1	10.8125	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	N2 #MB
Sequence Name	DPGC8-071022 ver.4
Inj Data File	001F0601.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/10/2022 7:43 AM
File Modified	7/11/2022 2:10 PM
Instrument	DP-GC08
Operator	Emily Decker

Sample Type	Sample
Vial Number	1
Injection Volume	250
Injection	1 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/11/2022 11:56 AM
Printed	7/22/2022 11:43 AM



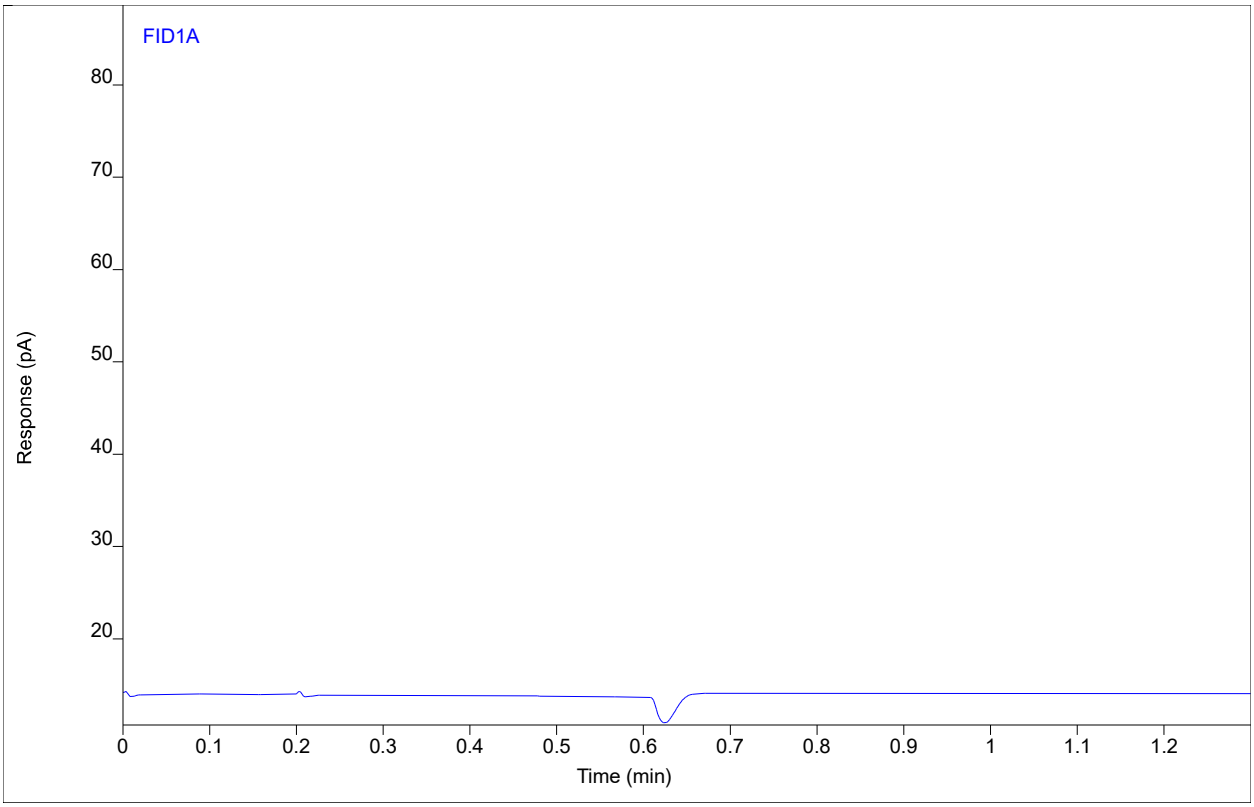
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane		(0.65)				1		ppm
Ethane		(0.86)				1		ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	N2 #MB
Sequence Name	DPGC8-071022 ver.4
Inj Data File	001F0602.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/10/2022 8:02 AM
File Modified	7/11/2022 2:10 PM
Instrument	DP-GC08
Operator	Emily Decker

Sample Type	Sample
Vial Number	1
Injection Volume	250
Injection	2 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/11/2022 11:56 AM
Printed	7/22/2022 11:43 AM



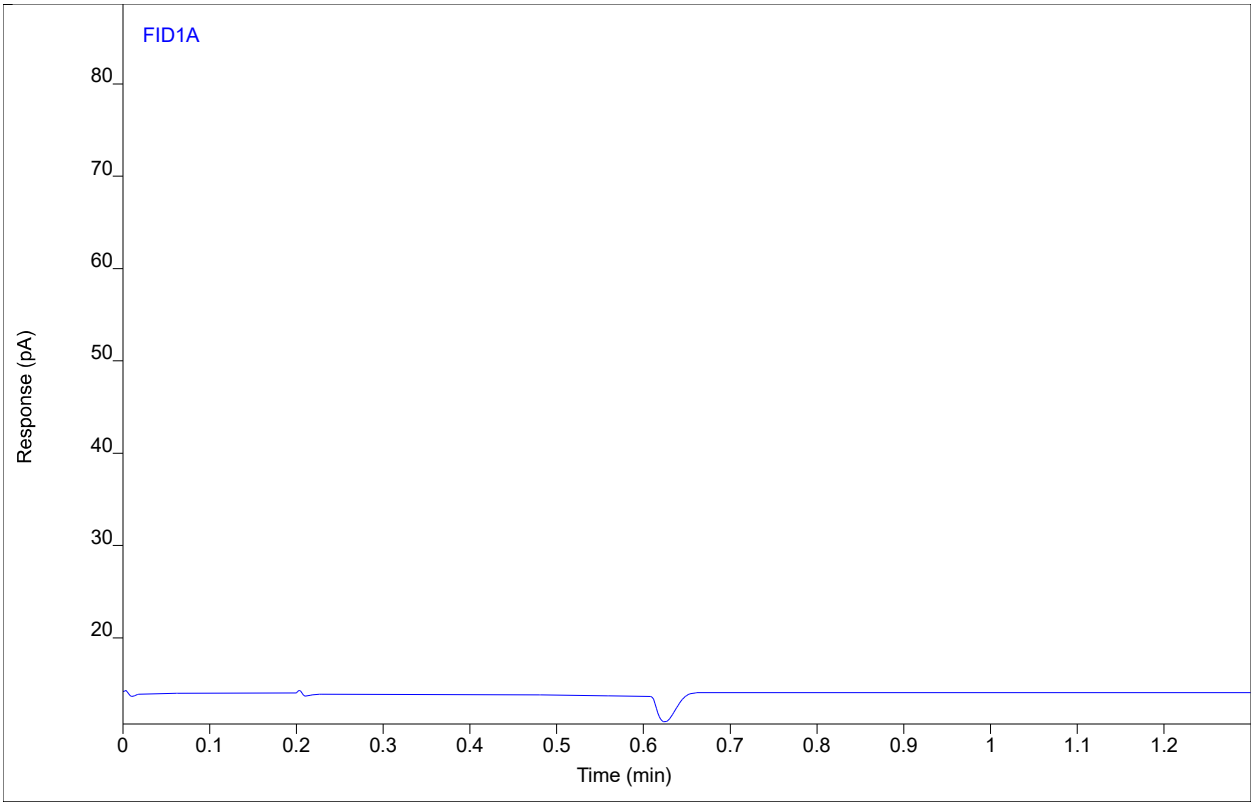
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane		(0.65)				1		ppm
Ethane		(0.86)				1		ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	N2 #MB
Sequence Name	DPGC8-071022 ver.4
Inj Data File	001F0603.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/10/2022 8:20 AM
File Modified	7/11/2022 2:10 PM
Instrument	DP-GC08
Operator	Emily Decker

Sample Type	Sample
Vial Number	1
Injection Volume	250
Injection	3 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/11/2022 11:56 AM
Printed	7/22/2022 11:44 AM



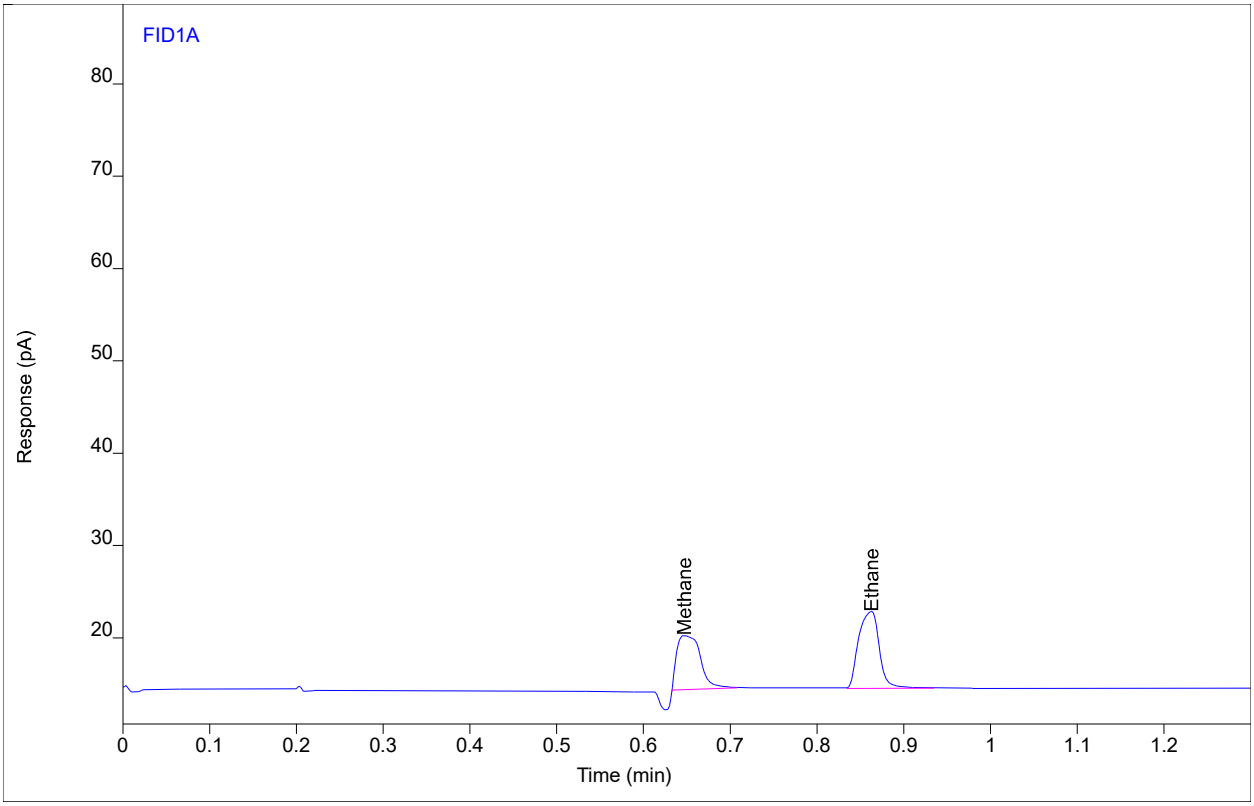
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane		(0.65)				1		ppm
Ethane		(0.86)				1		ppm

Chromatogram Report

Sample Name	0722-915.GT4-M18-R1 SP.Bag
Sequence Name	DPGC8-071022 ver.4
Inj Data File	011F1101.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/10/2022 11:50 AM
File Modified	7/11/2022 2:10 PM
Instrument	DP-GC08
Operator	Emily Decker

Enthalpy Analytical

Sample Type	Sample
Vial Number	11
Injection Volume	250
Injection	1 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/11/2022 11:56 AM
Printed	7/22/2022 11:44 AM



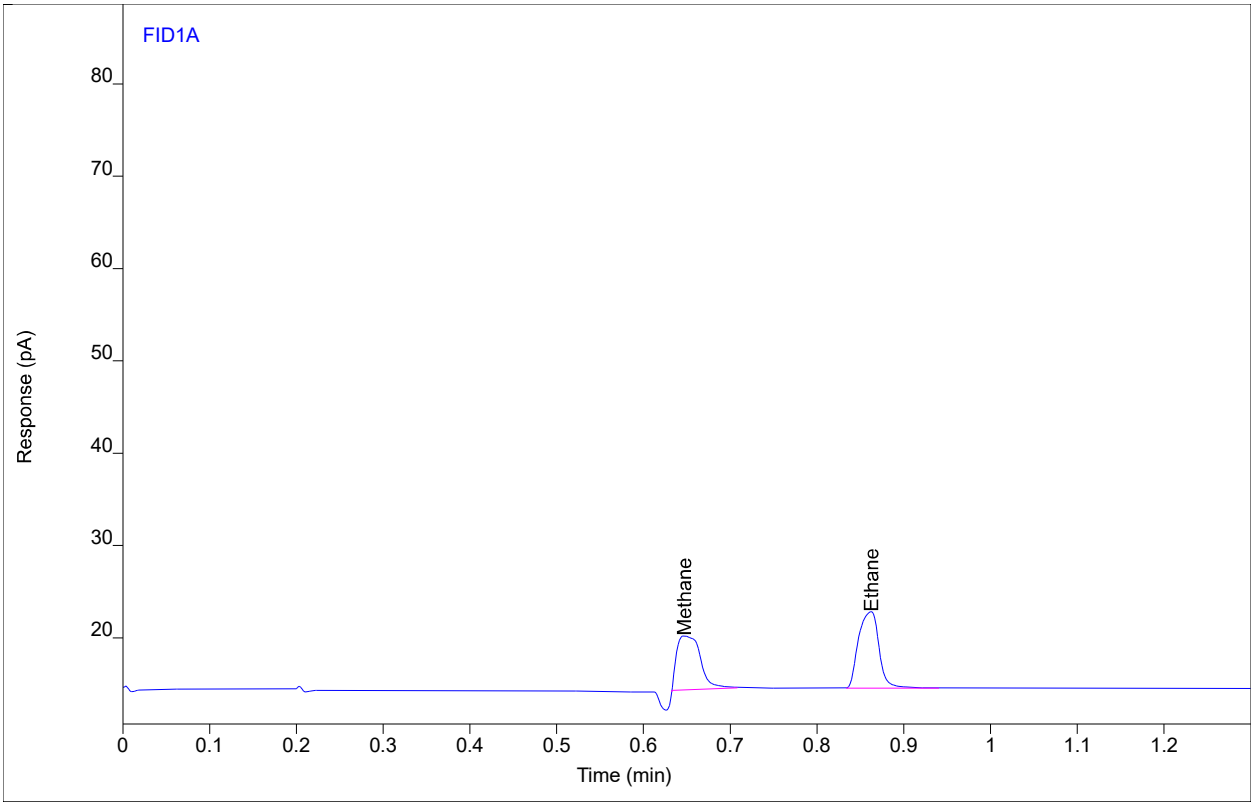
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.65	11.0702	5.88085	9.59295	1	9.59295	ppm
Ethane	BB	0.86	13.6889	8.33369	6.28832	1	6.28832	ppm

Chromatogram Report

Sample Name	0722-915.GT4-M18-R1 SP.Bag
Sequence Name	DPGC8-071022 ver.4
Inj Data File	011F1102.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/10/2022 12:08 PM
File Modified	7/11/2022 2:10 PM
Instrument	DP-GC08
Operator	Emily Decker

Enthalpy Analytical

Sample Type	Sample
Vial Number	11
Injection Volume	250
Injection	2 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/11/2022 11:56 AM
Printed	7/22/2022 11:44 AM



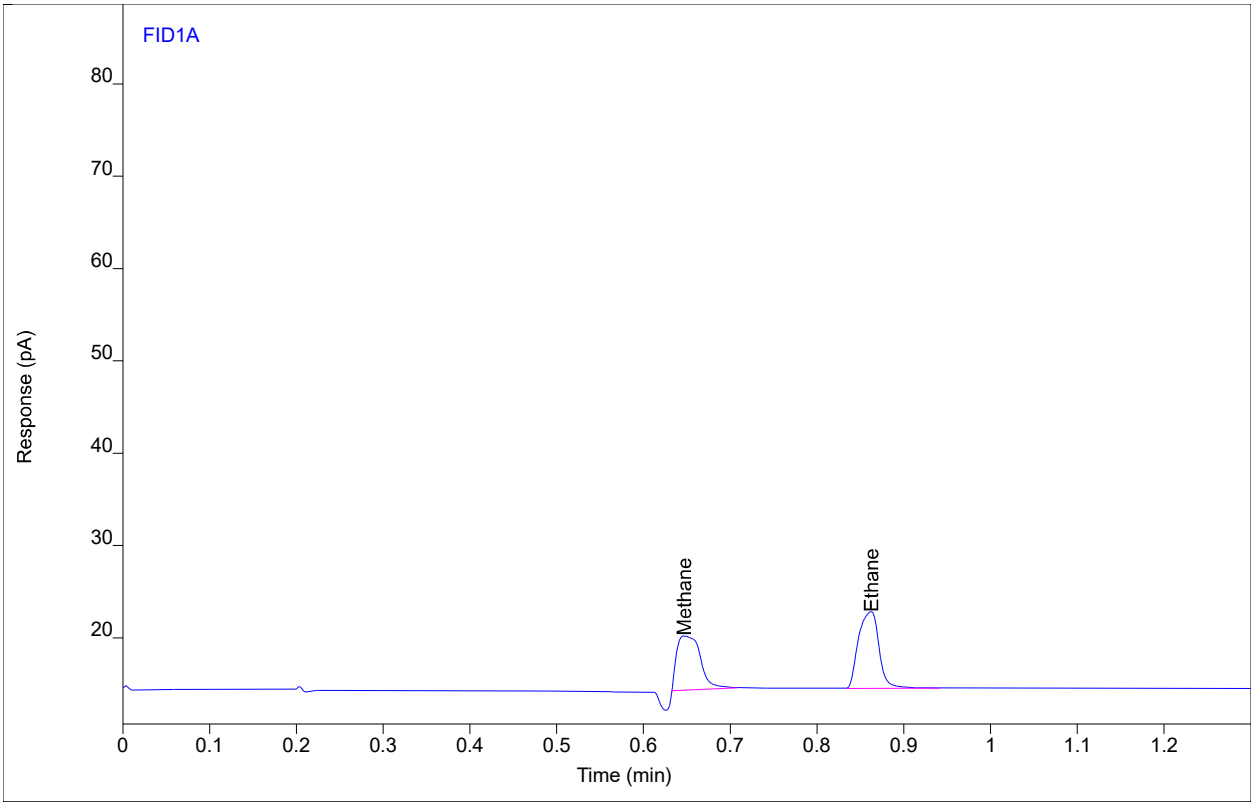
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.65	11.0633	5.87809	9.58734	1	9.58734	ppm
Ethane	BV	0.86	13.6530	8.31882	6.27183	1	6.27183	ppm

Chromatogram Report

Sample Name	0722-915.GT4-M18-R1 SP.Bag
Sequence Name	DPGC8-071022 ver.4
Inj Data File	011F1103.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/10/2022 12:25 PM
File Modified	7/11/2022 2:10 PM
Instrument	DP-GC08
Operator	Emily Decker

Enthalpy Analytical

Sample Type	Sample
Vial Number	11
Injection Volume	250
Injection	3 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/11/2022 11:56 AM
Printed	7/22/2022 11:44 AM



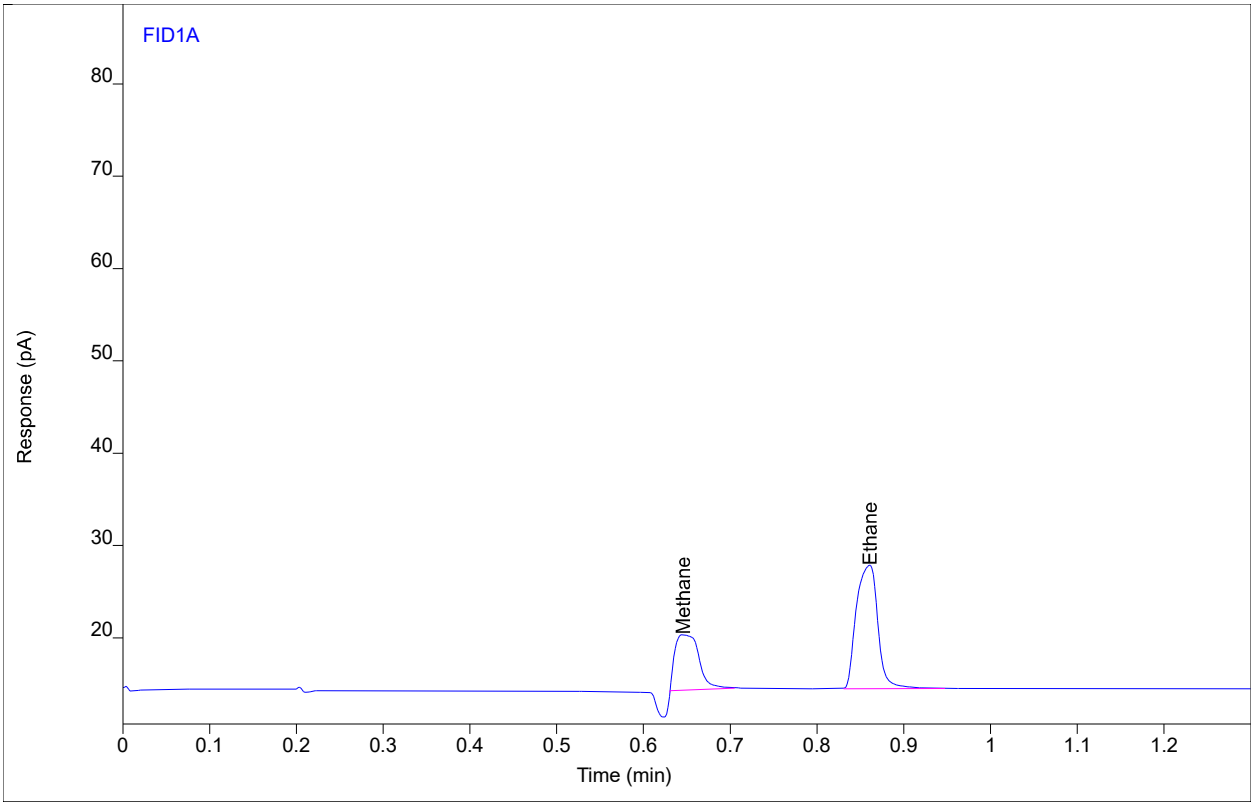
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.65	11.1270	5.89708	9.63880	1	9.63880	ppm
Ethane	BB	0.86	13.6939	8.32488	6.29064	1	6.29064	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	Prep1p292 #C4 LCS
Sequence Name	DPGC8-071022 ver.4
Inj Data File	002F1401.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/10/2022 2:29 PM
File Modified	7/11/2022 2:11 PM
Instrument	DP-GC08
Operator	Emily Decker

Sample Type	Sample
Vial Number	2
Injection Volume	250
Injection	1 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/11/2022 11:56 AM
Printed	7/22/2022 11:44 AM



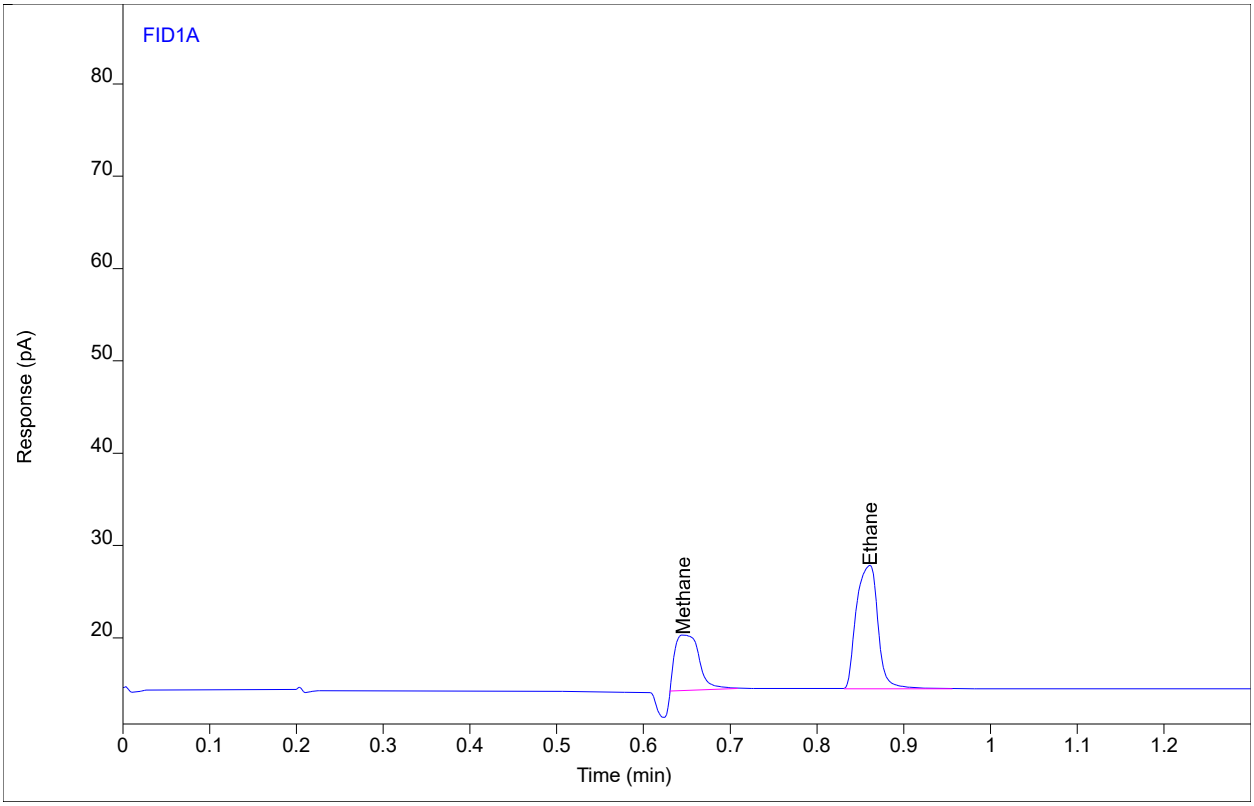
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.65	11.5576	6.03378	9.98678	1	9.98678	ppm
Ethane	BB	0.86	22.9845	13.3796	10.5586	1	10.5586	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	Prep1p292 #C4 LCS
Sequence Name	DPGC8-071022 ver.4
Inj Data File	002F1402.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/10/2022 2:46 PM
File Modified	7/11/2022 2:11 PM
Instrument	DP-GC08
Operator	Emily Decker

Sample Type	Sample
Vial Number	2
Injection Volume	250
Injection	2 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/11/2022 11:56 AM
Printed	7/22/2022 11:44 AM



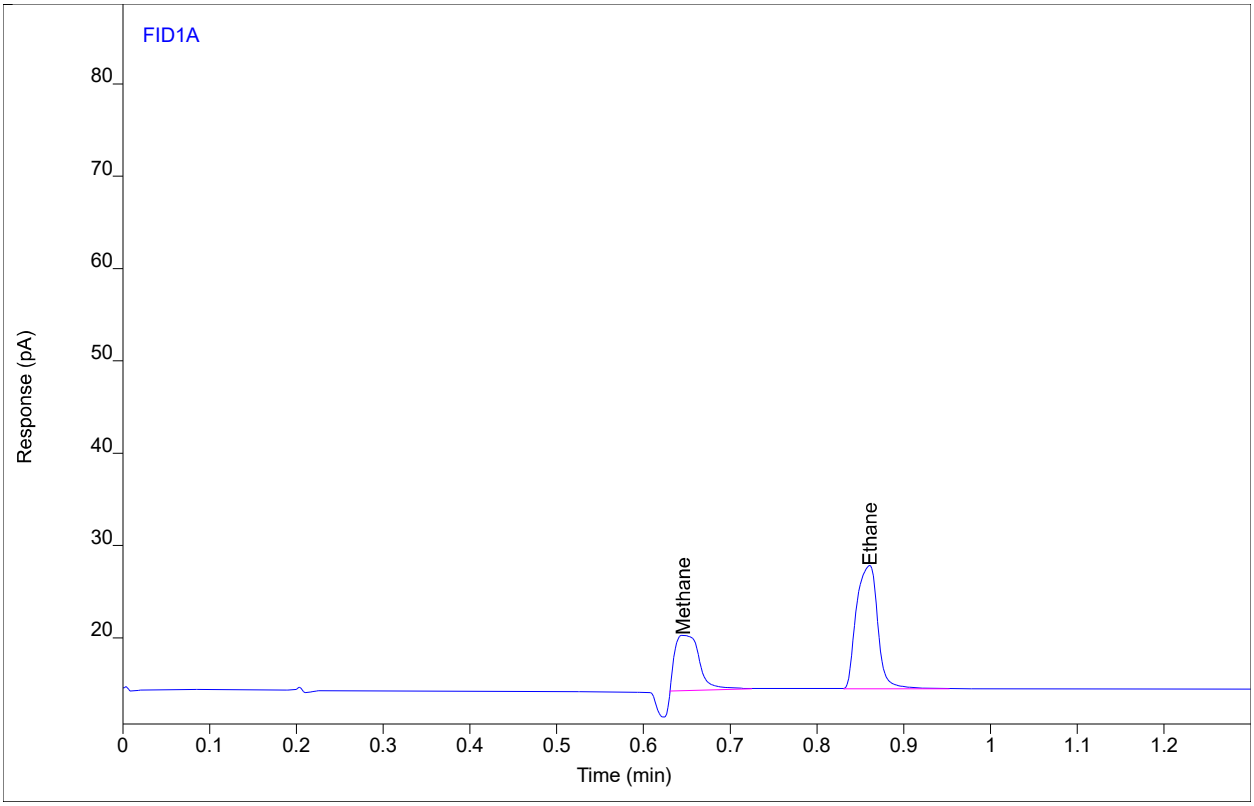
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.65	11.6975	6.06386	10.0998	1	10.0998	ppm
Ethane	BB	0.86	23.0977	13.4113	10.6106	1	10.6106	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	Prep1p292 #C4 LCS
Sequence Name	DPGC8-071022 ver.4
Inj Data File	002F1403.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/10/2022 3:04 PM
File Modified	7/11/2022 2:11 PM
Instrument	DP-GC08
Operator	Emily Decker

Sample Type	Sample
Vial Number	2
Injection Volume	250
Injection	3 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/11/2022 11:56 AM
Printed	7/22/2022 11:44 AM



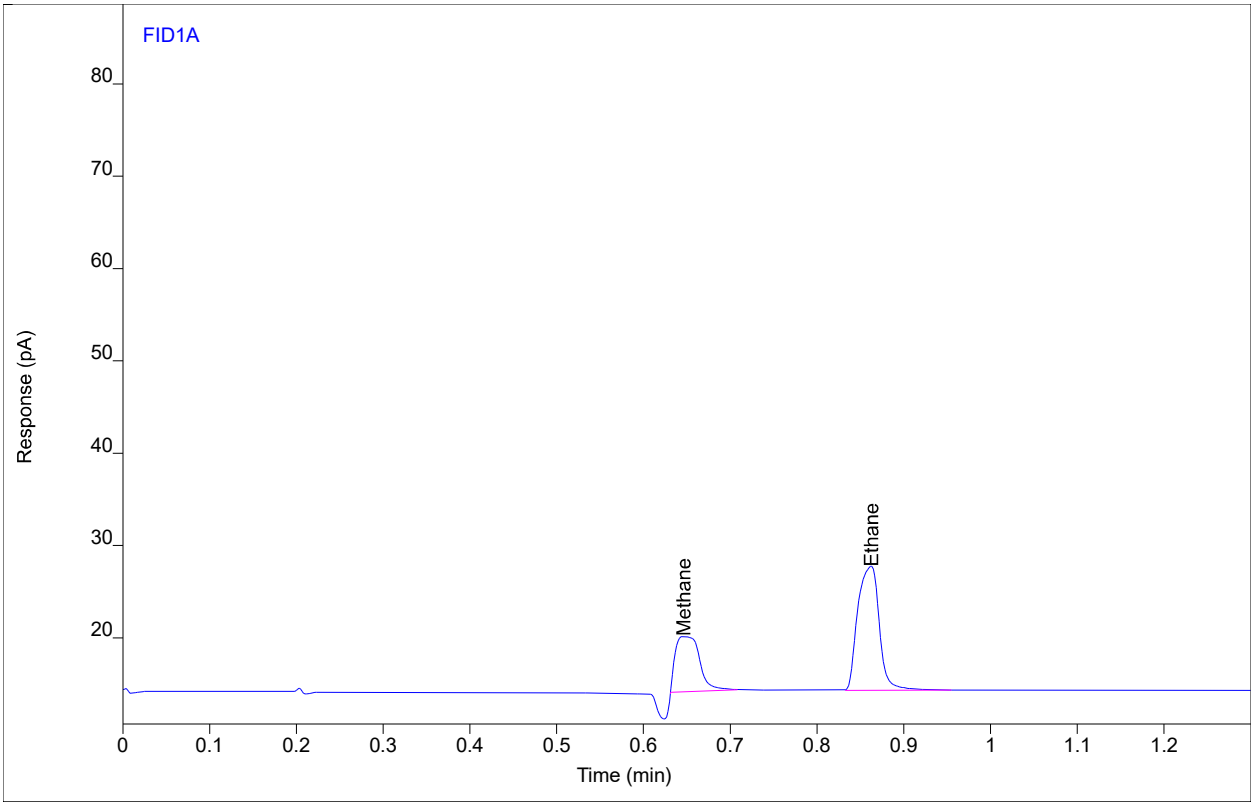
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.65	11.8833	6.05627	10.2500	1	10.2500	ppm
Ethane	BB	0.86	22.8472	13.3666	10.4956	1	10.4956	ppm

Chromatogram Report

Sample Name	Prep1p292 #C4 ENV(1=0,4=495)
Sequence Name	DPGC8-071022 ver.4
Inj Data File	015F2001.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/10/2022 8:42 PM
File Modified	7/11/2022 2:12 PM
Instrument	DP-GC08
Operator	Emily Decker

Enthalpy Analytical

Sample Type	Sample
Vial Number	15
Injection Volume	250
Injection	1 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/11/2022 11:56 AM
Printed	7/22/2022 11:44 AM



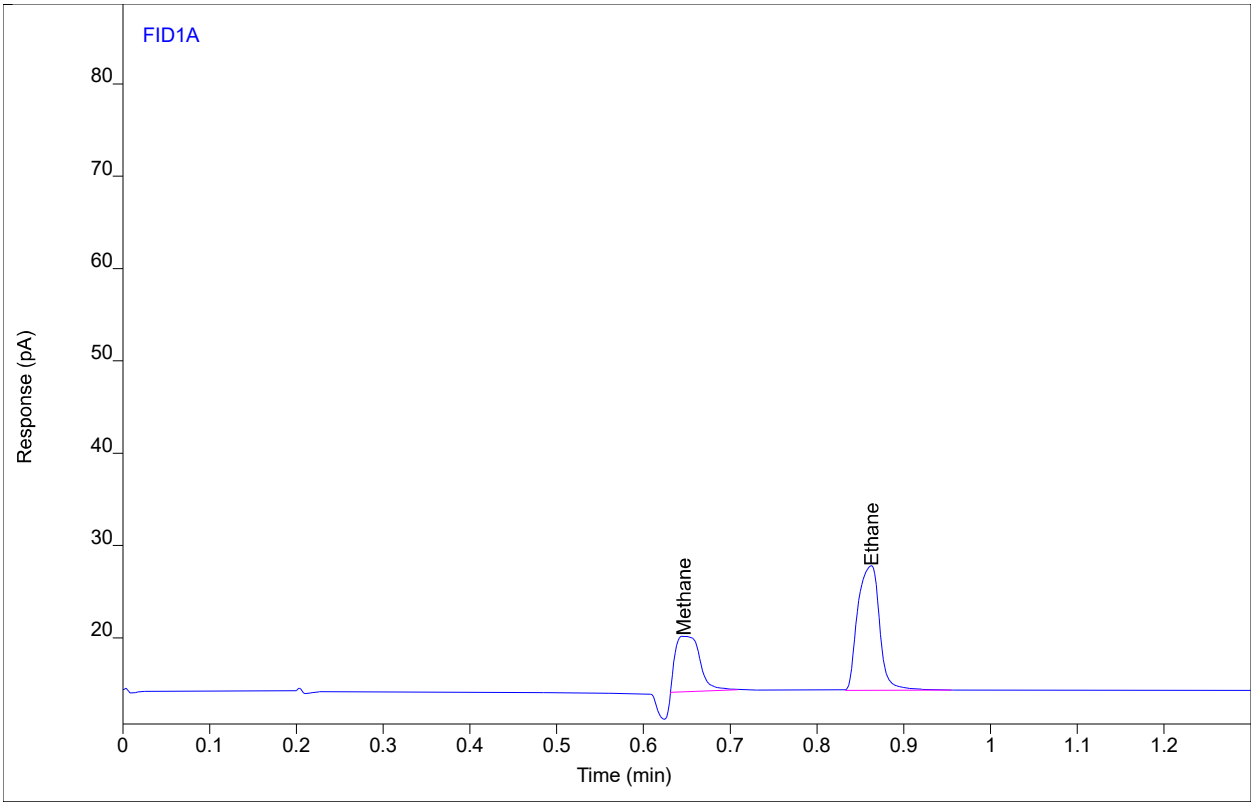
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.65	11.7071	6.05911	10.1076	1	10.1076	ppm
Ethane	BB	0.86	23.2331	13.4622	10.6729	1	10.6729	ppm

Chromatogram Report

Sample Name	Prep1p292 #C4 ENV(1=0,4=495)
Sequence Name	DPGC8-071022 ver.4
Inj Data File	015F2002.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/10/2022 9:02 PM
File Modified	7/11/2022 2:12 PM
Instrument	DP-GC08
Operator	Emily Decker

Enthalpy Analytical

Sample Type	Sample
Vial Number	15
Injection Volume	250
Injection	2 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/11/2022 11:56 AM
Printed	7/22/2022 11:44 AM



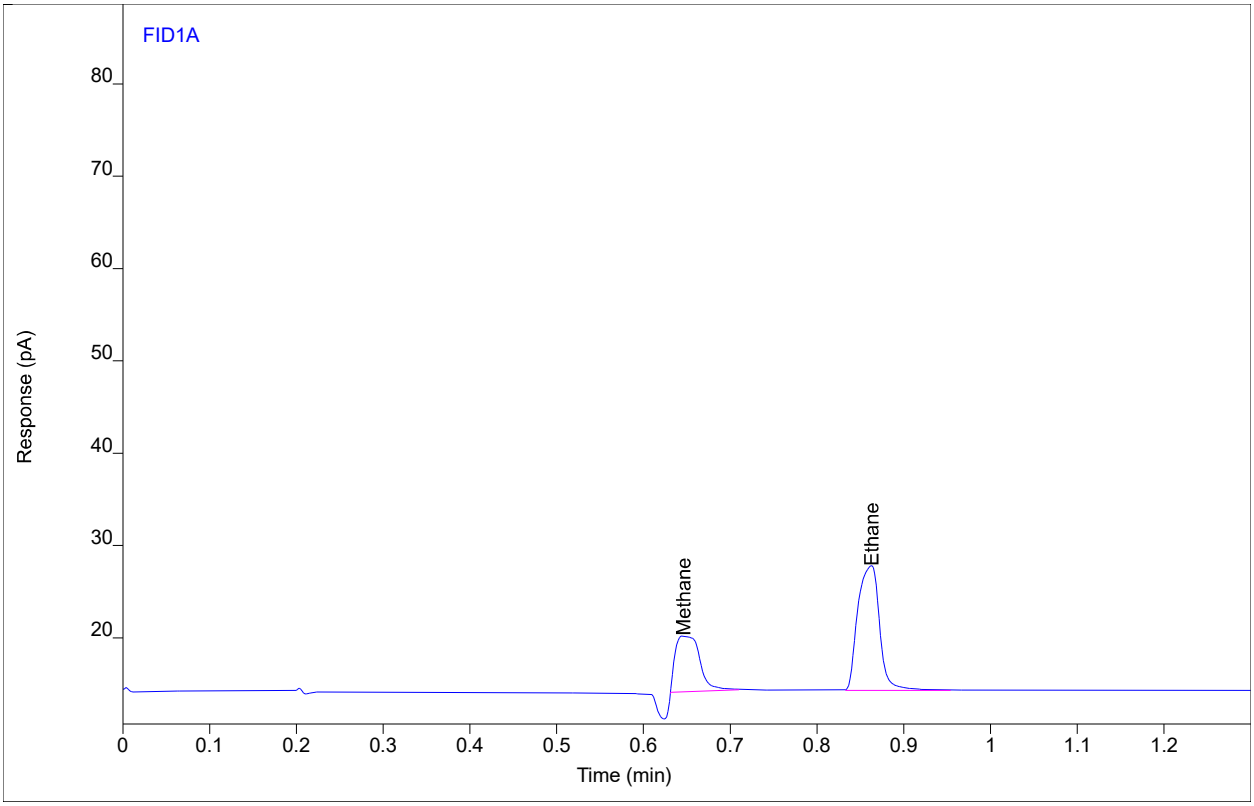
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.65	11.8578	6.10230	10.2294	1	10.2294	ppm
Ethane	BB	0.86	23.5865	13.5129	10.8352	1	10.8352	ppm

Chromatogram Report

Sample Name	Prep1p292 #C4 ENV(1=0,4=495)
Sequence Name	DPGC8-071022 ver.4
Inj Data File	015F2003.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/10/2022 9:22 PM
File Modified	7/11/2022 2:12 PM
Instrument	DP-GC08
Operator	Emily Decker

Enthalpy Analytical

Sample Type	Sample
Vial Number	15
Injection Volume	250
Injection	3 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/11/2022 11:56 AM
Printed	7/22/2022 11:44 AM



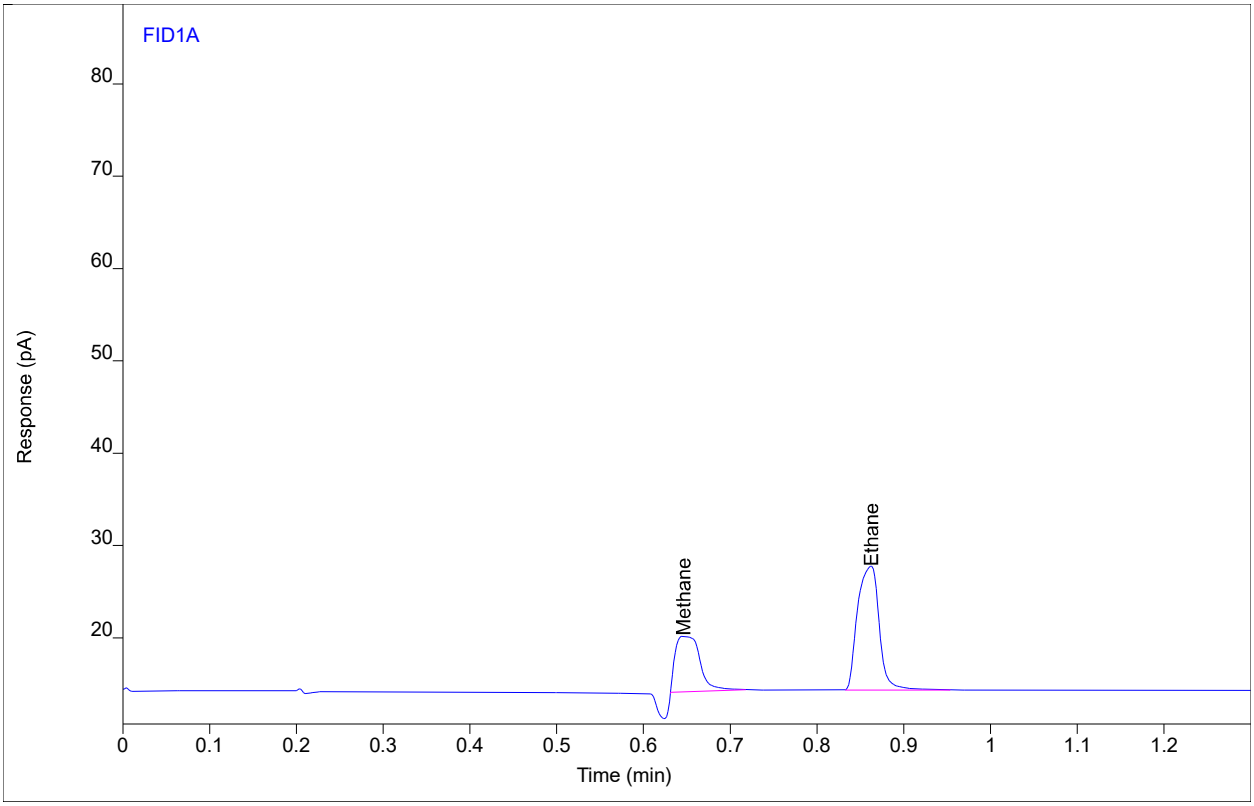
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.65	11.8459	6.10423	10.2197	1	10.2197	ppm
Ethane	BV	0.86	23.5476	13.5266	10.8173	1	10.8173	ppm

Chromatogram Report

Sample Name	Prep1p292 #C4 ENV(1=0,4=495)
Sequence Name	DPGC8-071122B ver.4
Inj Data File	015F0201.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/11/2022 5:43 PM
File Modified	7/18/2022 11:10 AM
Instrument	DP-GC08
Operator	Emily Decker

Enthalpy Analytical

Sample Type	Sample
Vial Number	15
Injection Volume	250
Injection	1 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/18/2022 10:59 AM
Printed	7/22/2022 11:44 AM



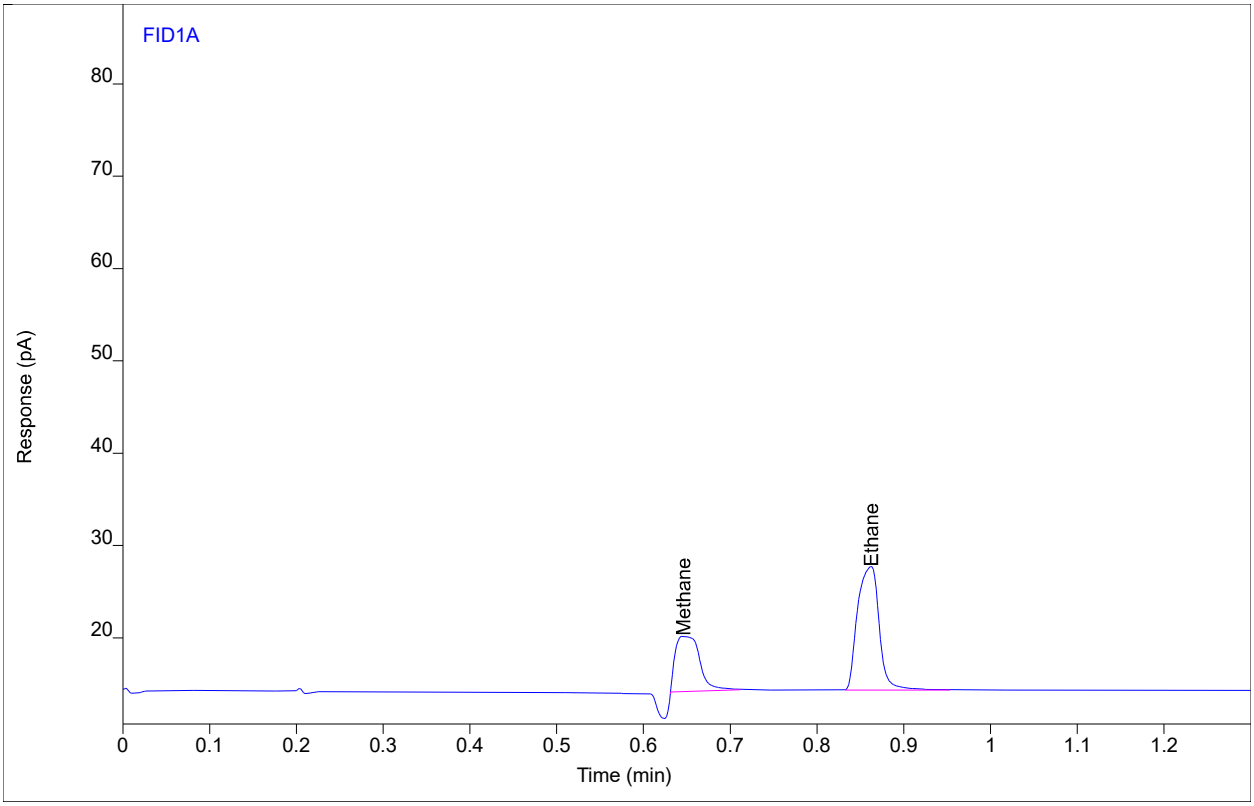
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.65	11.9139	6.09200	10.2747	1	10.2747	ppm
Ethane	BB	0.86	23.2308	13.4173	10.6718	1	10.6718	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	Prep1p292 #C4 ENV(1=0,4=495)
Sequence Name	DPGC8-071122B ver.4
Inj Data File	015F0202.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/11/2022 6:03 PM
File Modified	7/18/2022 11:10 AM
Instrument	DP-GC08
Operator	Emily Decker

Sample Type	Sample
Vial Number	15
Injection Volume	250
Injection	2 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/18/2022 10:59 AM
Printed	7/22/2022 11:44 AM



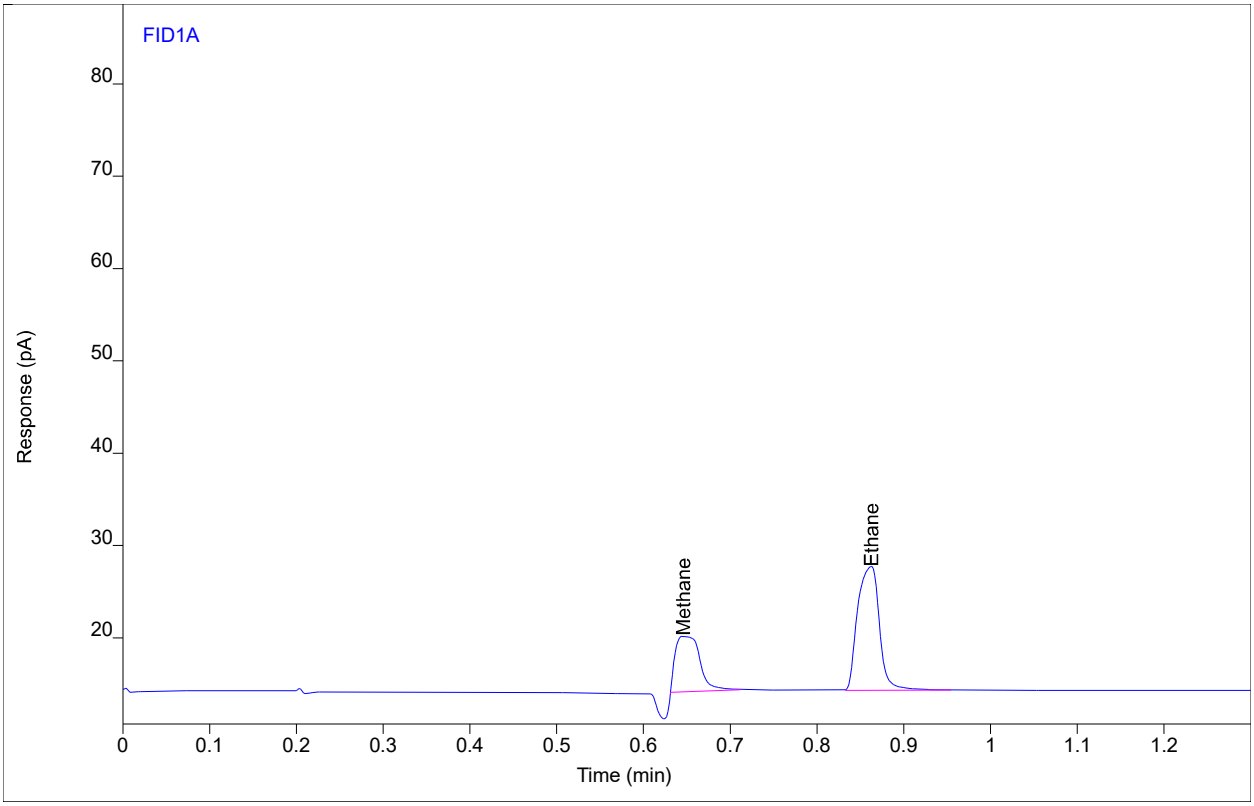
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.65	11.7301	6.06450	10.1261	1	10.1261	ppm
Ethane	BV	0.86	23.1797	13.4018	10.6483	1	10.6483	ppm

Chromatogram Report

Sample Name	Prep1p292 #C4 ENV(1=0,4=495)
Sequence Name	DPGC8-071122B ver.4
Inj Data File	015F0203.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/11/2022 6:24 PM
File Modified	7/18/2022 11:11 AM
Instrument	DP-GC08
Operator	Emily Decker

Enthalpy Analytical

Sample Type	Sample
Vial Number	15
Injection Volume	250
Injection	3 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/18/2022 10:59 AM
Printed	7/22/2022 11:44 AM



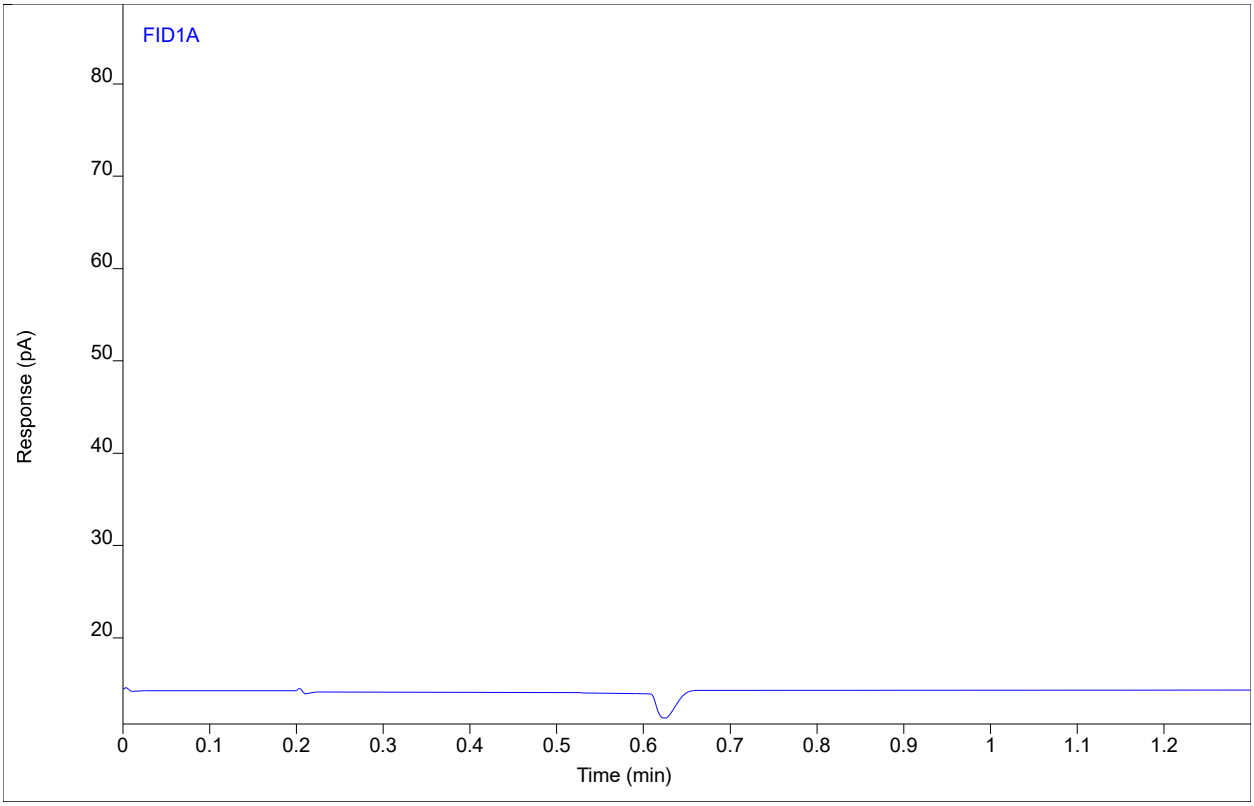
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.65	11.8465	6.08765	10.2202	1	10.2202	ppm
Ethane	BB	0.86	23.3216	13.4404	10.7135	1	10.7135	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	N2 #MB
Sequence Name	DPGC8-071122B ver.4
Inj Data File	001F0401.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/11/2022 7:43 PM
File Modified	7/18/2022 11:11 AM
Instrument	DP-GC08
Operator	Emily Decker

Sample Type	Sample
Vial Number	1
Injection Volume	250
Injection	1 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/18/2022 10:59 AM
Printed	7/22/2022 11:44 AM



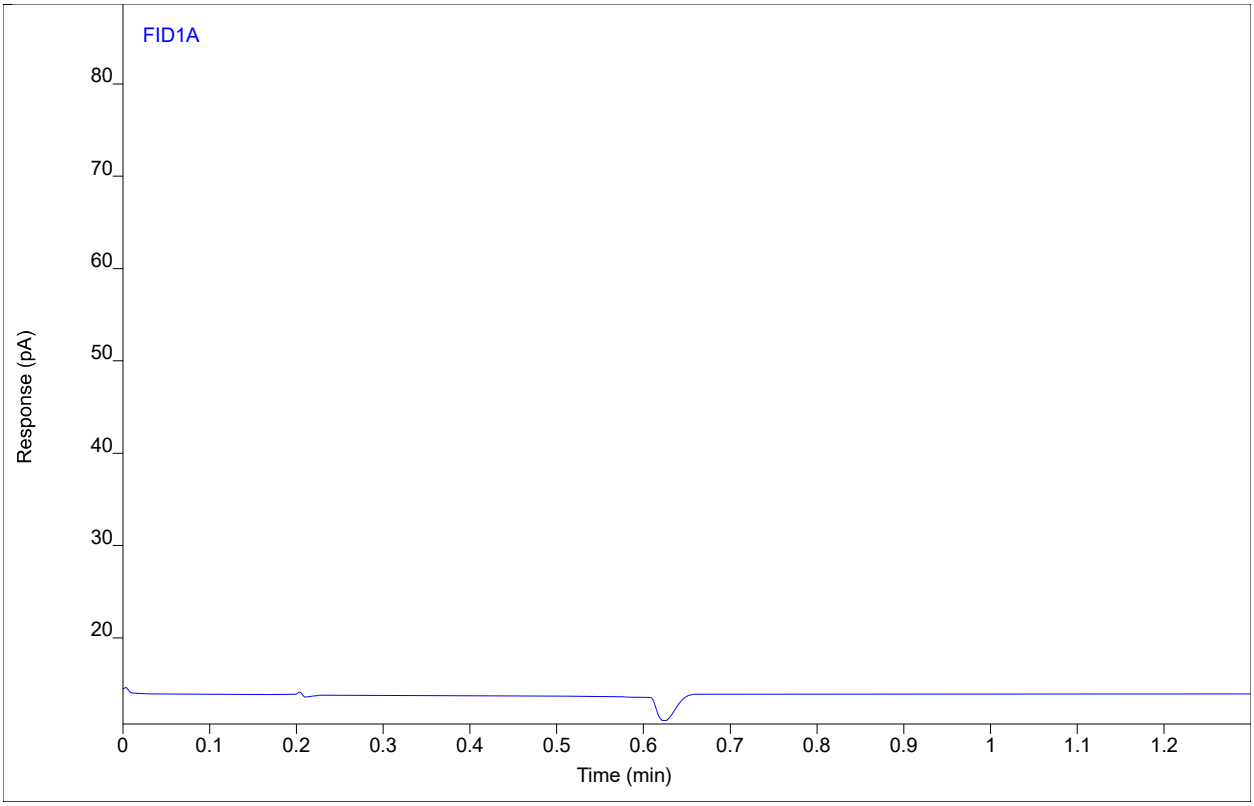
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane		(0.65)				1		ppm
Ethane		(0.86)				1		ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	N2 #MB
Sequence Name	DPGC8-071122B ver.4
Inj Data File	001F0402.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/11/2022 8:01 PM
File Modified	7/18/2022 11:11 AM
Instrument	DP-GC08
Operator	Emily Decker

Sample Type	Sample
Vial Number	1
Injection Volume	250
Injection	2 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/18/2022 10:59 AM
Printed	7/22/2022 11:44 AM



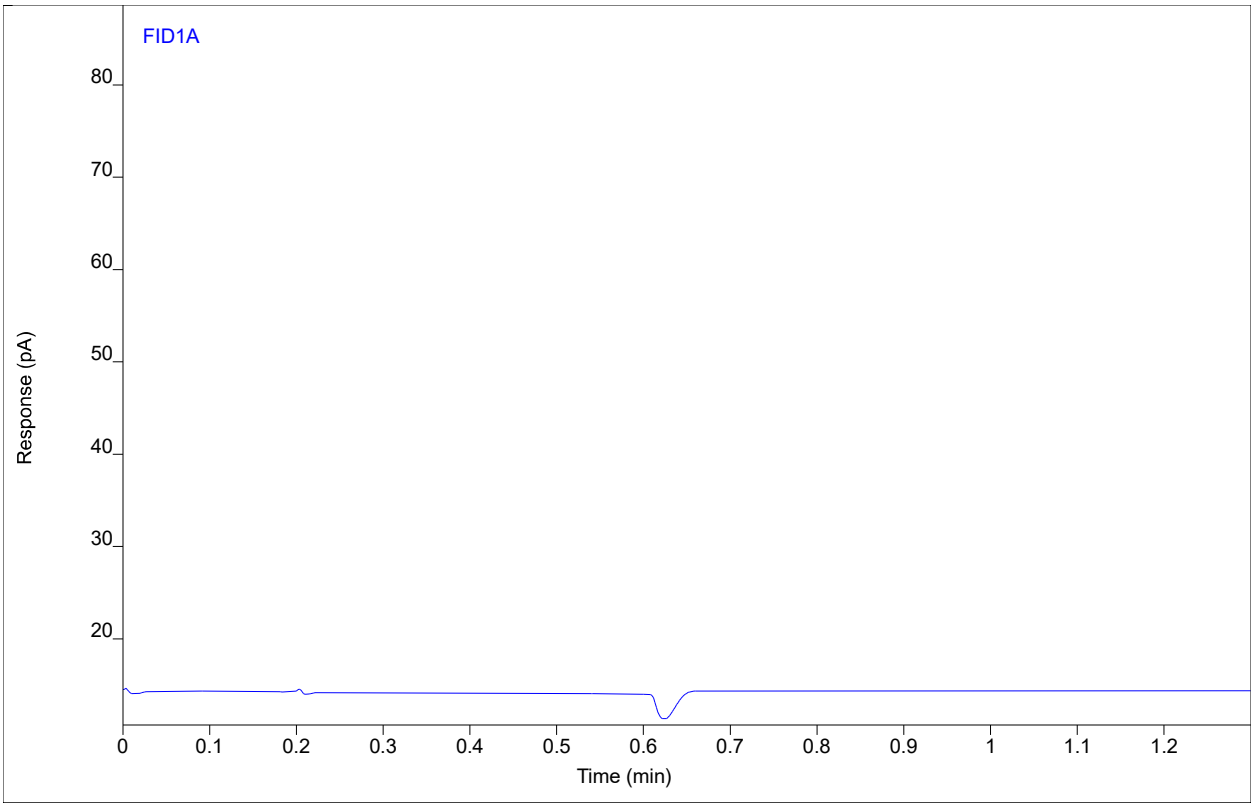
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane		(0.65)				1		ppm
Ethane		(0.86)				1		ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	N2 #MB
Sequence Name	DPGC8-071122B ver.4
Inj Data File	001F0403.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/11/2022 8:18 PM
File Modified	7/18/2022 11:11 AM
Instrument	DP-GC08
Operator	Emily Decker

Sample Type	Sample
Vial Number	1
Injection Volume	250
Injection	3 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/18/2022 10:59 AM
Printed	7/22/2022 11:44 AM



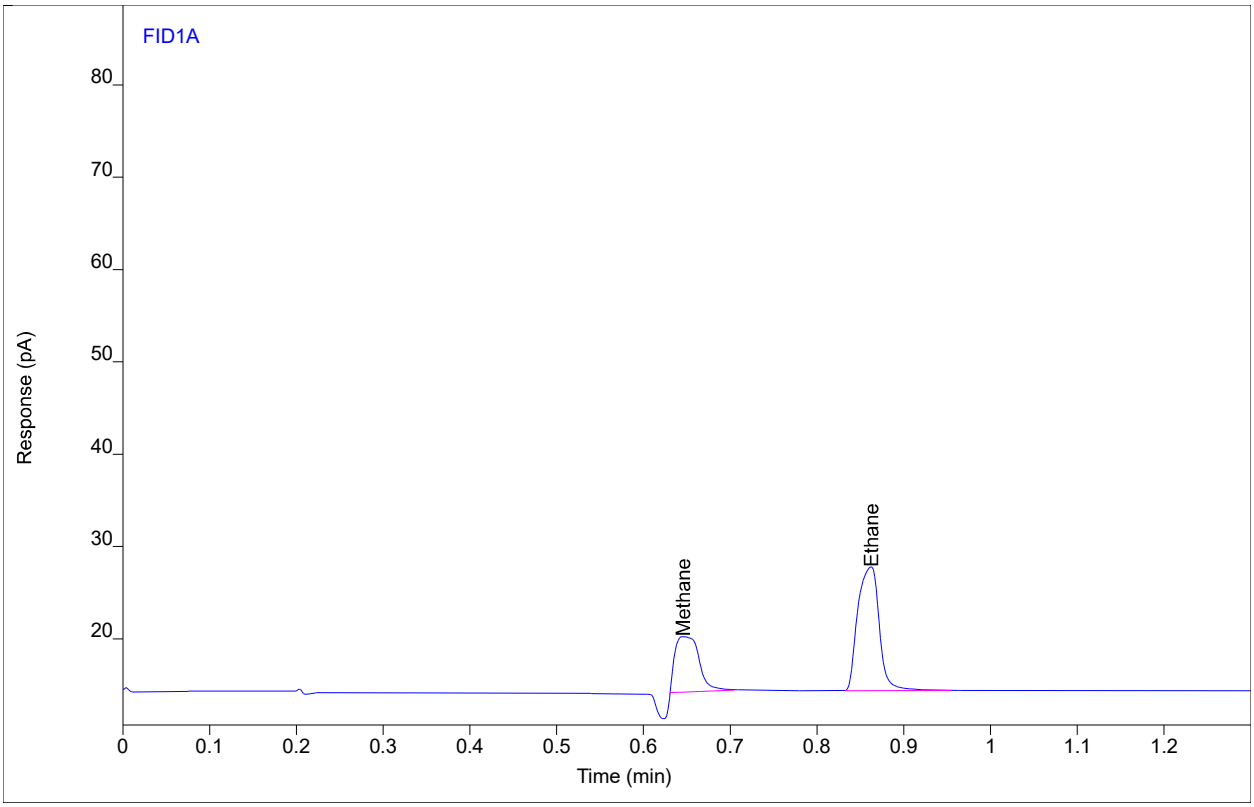
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane		(0.65)				1		ppm
Ethane		(0.86)				1		ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	Prep1p292 #C4 LCS
Sequence Name	DPGC8-071122B ver.4
Inj Data File	002F0501.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/11/2022 8:36 PM
File Modified	7/18/2022 11:11 AM
Instrument	DP-GC08
Operator	Emily Decker

Sample Type	Sample
Vial Number	2
Injection Volume	250
Injection	1 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/18/2022 10:59 AM
Printed	7/22/2022 11:44 AM



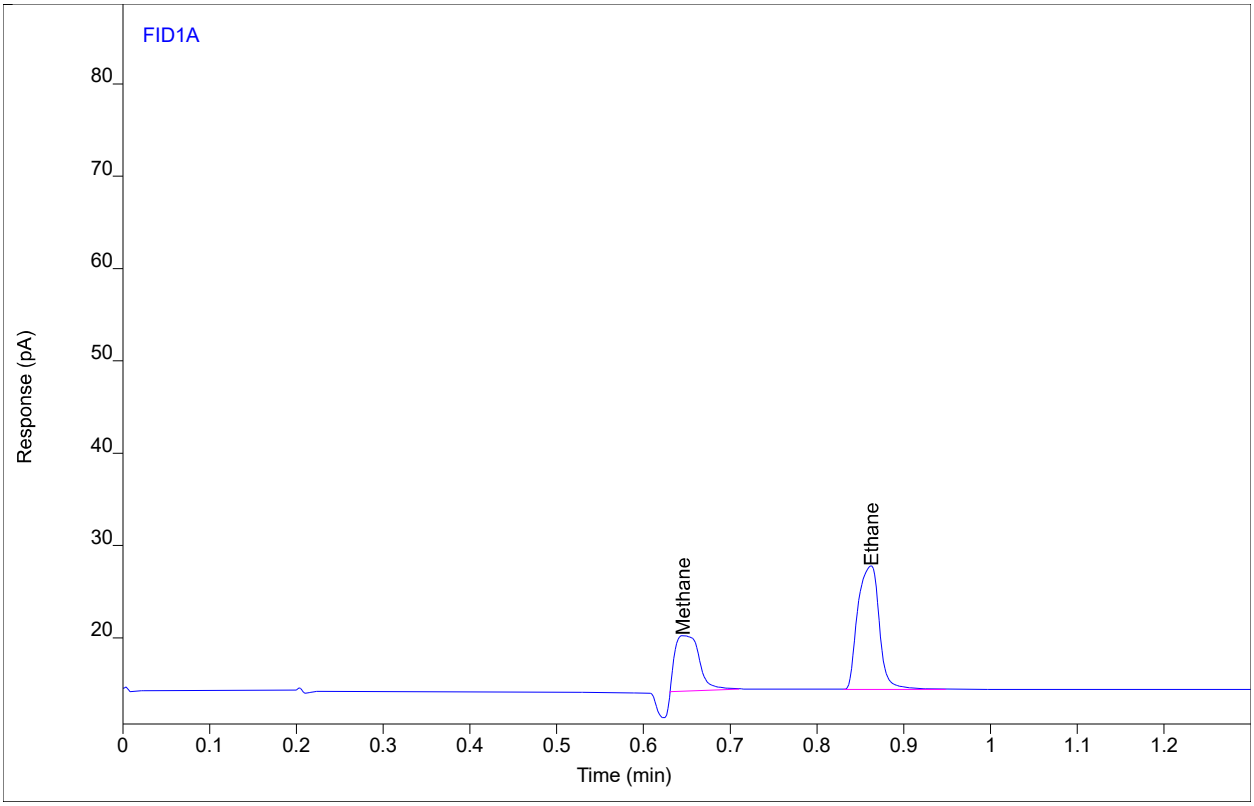
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.65	11.5963	6.04858	10.0180	1	10.0180	ppm
Ethane	BB	0.86	23.0573	13.4282	10.5921	1	10.5921	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	Prep1p292 #C4 LCS
Sequence Name	DPGC8-071122B ver.4
Inj Data File	002F0502.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/11/2022 8:54 PM
File Modified	7/18/2022 11:11 AM
Instrument	DP-GC08
Operator	Emily Decker

Sample Type	Sample
Vial Number	2
Injection Volume	250
Injection	2 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/18/2022 10:59 AM
Printed	7/22/2022 11:44 AM



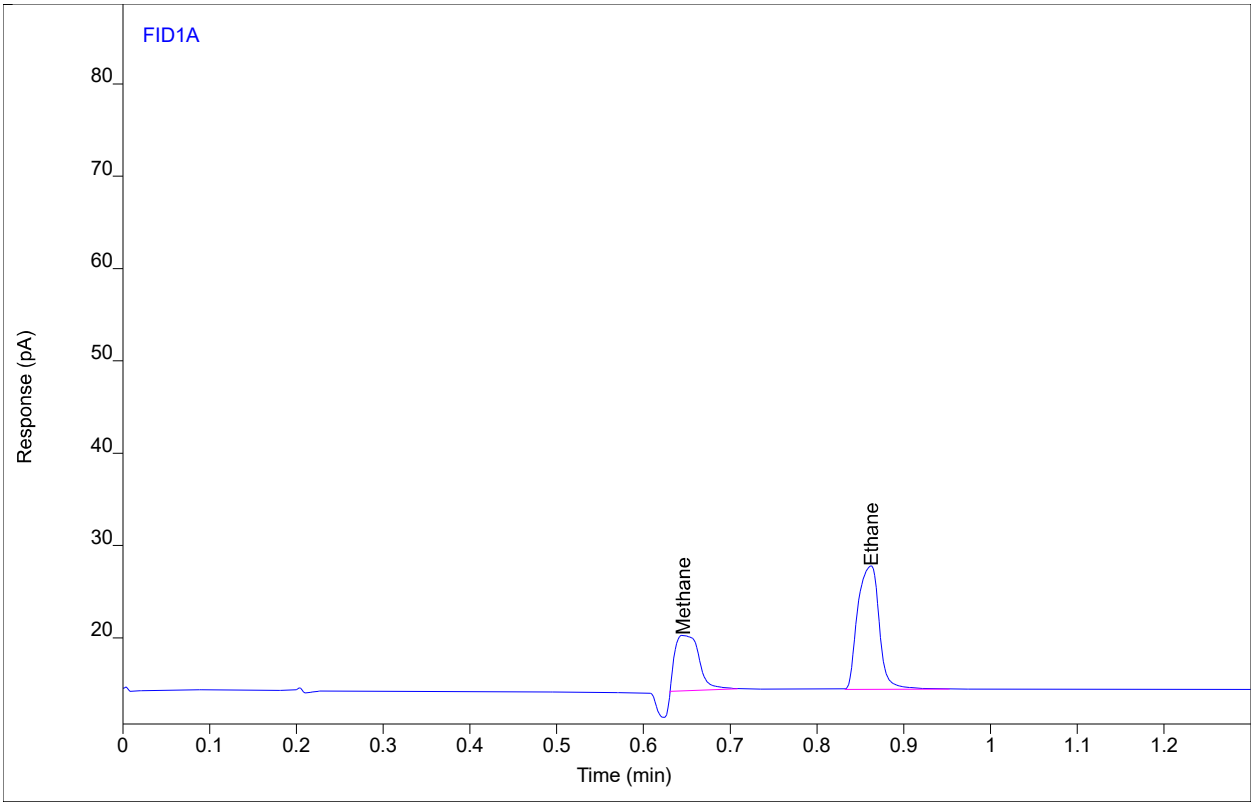
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.65	11.7338	6.06722	10.1291	1	10.1291	ppm
Ethane	BB	0.86	23.0624	13.4248	10.5944	1	10.5944	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	Prep1p292 #C4 LCS
Sequence Name	DPGC8-071122B ver.4
Inj Data File	002F0503.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/11/2022 9:11 PM
File Modified	7/18/2022 11:11 AM
Instrument	DP-GC08
Operator	Emily Decker

Sample Type	Sample
Vial Number	2
Injection Volume	250
Injection	3 of 3
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/18/2022 10:59 AM
Printed	7/22/2022 11:44 AM



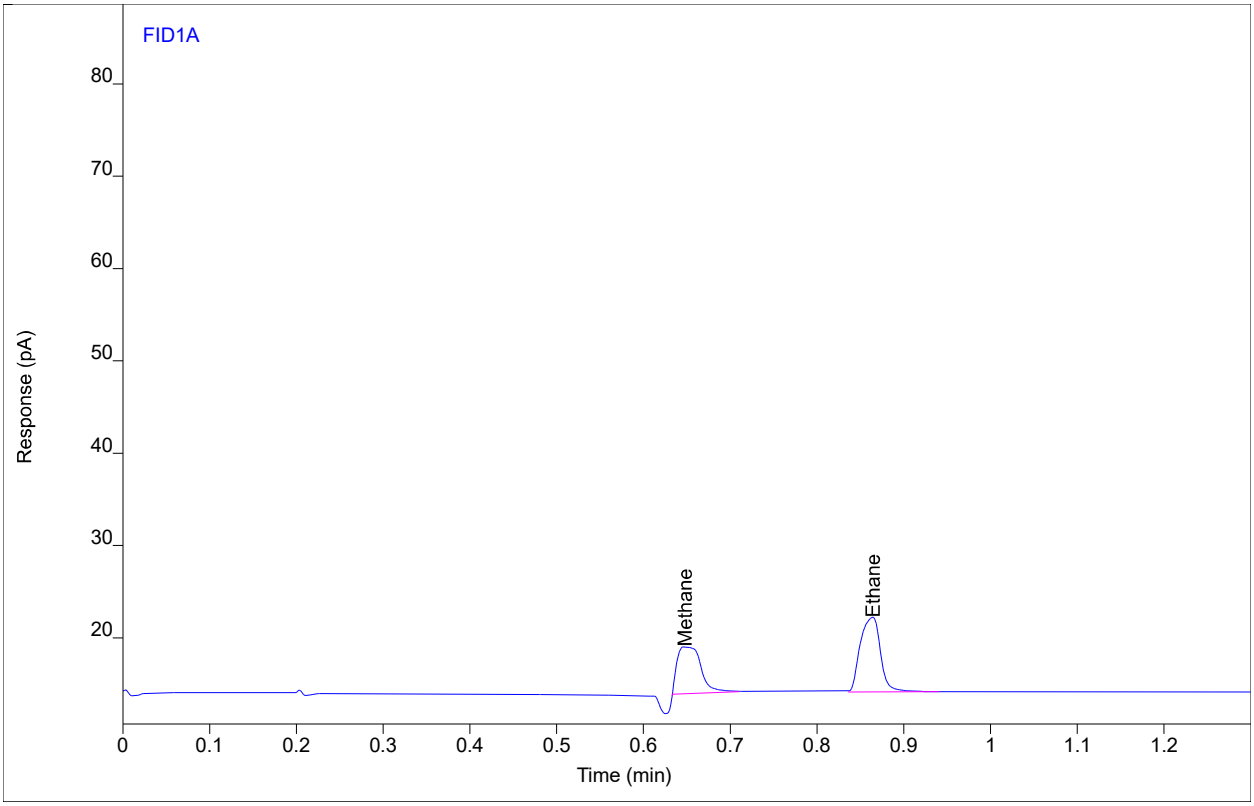
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.65	11.6857	6.06175	10.0903	1	10.0903	ppm
Ethane	BB	0.86	23.0428	13.3768	10.5854	1	10.5854	ppm

Chromatogram Report

Enthalpy Analytical

Sample Name	0722-915.GT3-M18-R1 SP.Bag
Sequence Name	DPGC8-071122B ver.4
Inj Data File	011F1102.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/11/2022 11:53 PM
File Modified	7/18/2022 11:12 AM
Instrument	DP-GC08
Operator	Emily Decker

Sample Type	Sample
Vial Number	11
Injection Volume	250
Injection	2 of 4
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/18/2022 10:59 AM
Printed	7/22/2022 11:44 AM



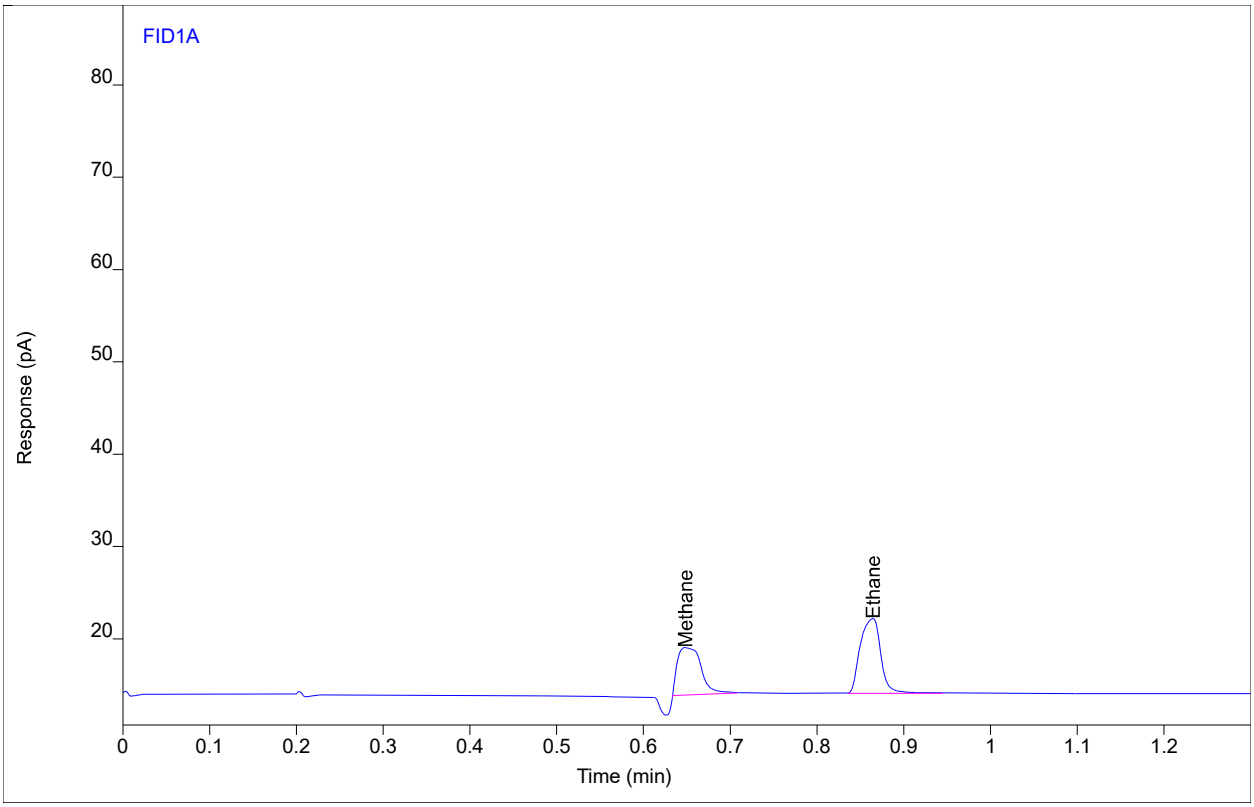
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.65	9.70751	5.13898	8.49182	1	8.49182	ppm
Ethane	BB	0.86	13.1334	8.10703	6.03313	1	6.03313	ppm

Chromatogram Report

Sample Name	0722-915.GT3-M18-R1 SP.Bag
Sequence Name	DPGC8-071122B ver.4
Inj Data File	011F1103.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/12/2022 12:12 AM
File Modified	7/18/2022 11:12 AM
Instrument	DP-GC08
Operator	Emily Decker

Enthalpy Analytical

Sample Type	Sample
Vial Number	11
Injection Volume	250
Injection	3 of 4
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/18/2022 10:59 AM
Printed	7/22/2022 11:44 AM



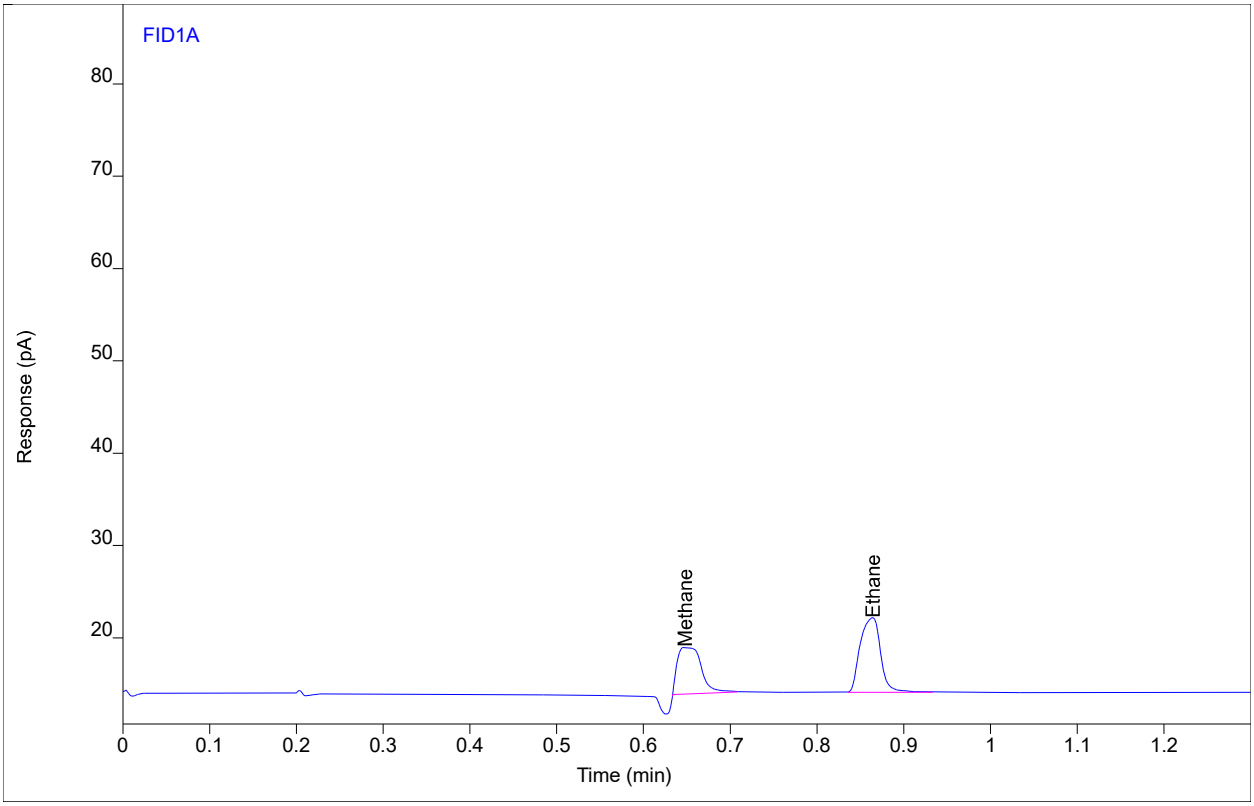
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.65	9.73641	5.13866	8.51518	1	8.51518	ppm
Ethane	BB	0.86	13.2636	8.11743	6.09299	1	6.09299	ppm

Chromatogram Report

Sample Name	0722-915.GT3-M18-R1 SP.Bag
Sequence Name	DPGC8-071122B ver.4
Inj Data File	011F1104.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/12/2022 12:30 AM
File Modified	7/18/2022 11:12 AM
Instrument	DP-GC08
Operator	Emily Decker

Enthalpy Analytical

Sample Type	Sample
Vial Number	11
Injection Volume	250
Injection	4 of 4
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/18/2022 10:59 AM
Printed	7/22/2022 11:44 AM



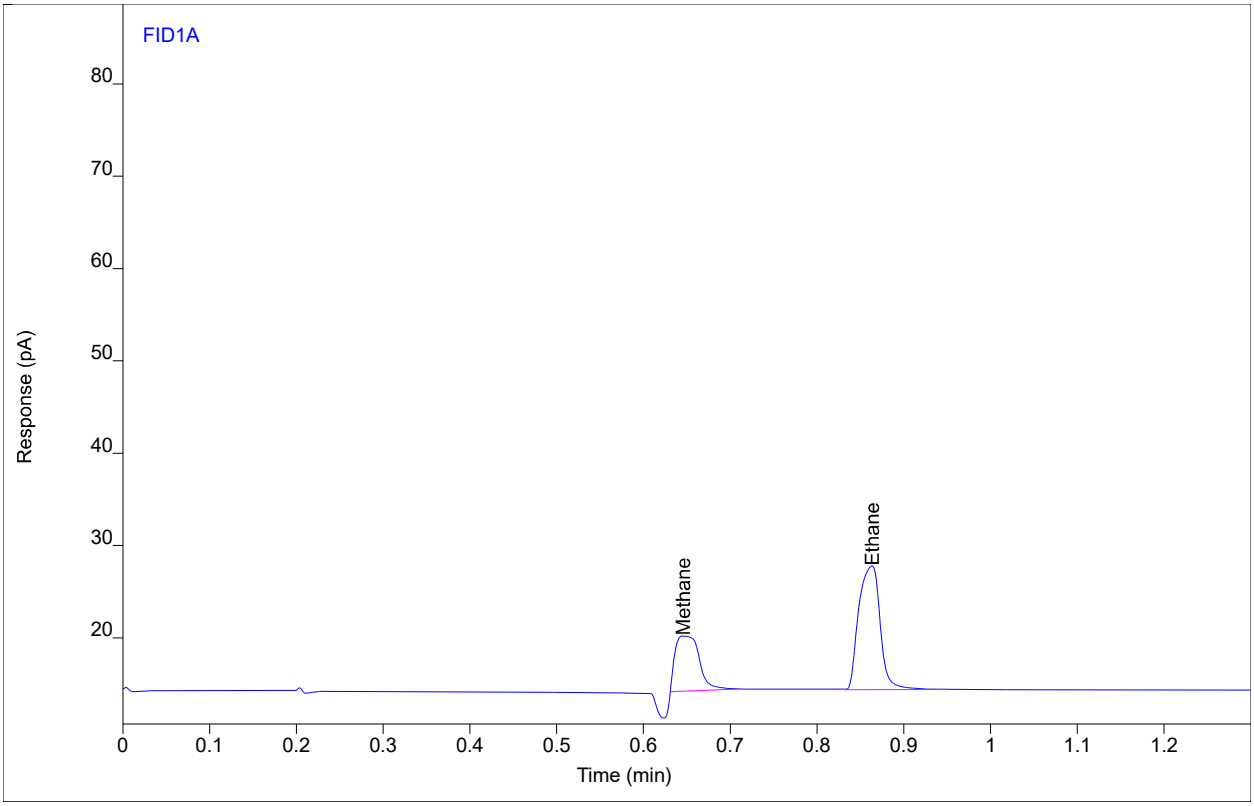
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.65	9.72287	5.14620	8.50424	1	8.50424	ppm
Ethane	BB	0.86	13.1632	8.10320	6.04686	1	6.04686	ppm

Chromatogram Report

Sample Name	Prep1p292 #C4 ENV(1=0,4=495)
Sequence Name	DPGC8-071122B ver.4
Inj Data File	015F2402.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/12/2022 3:16 PM
File Modified	7/18/2022 11:14 AM
Instrument	DP-GC08
Operator	Emily Decker

Enthalpy Analytical

Sample Type	Sample
Vial Number	15
Injection Volume	250
Injection	2 of 4
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/18/2022 10:59 AM
Printed	7/22/2022 11:44 AM



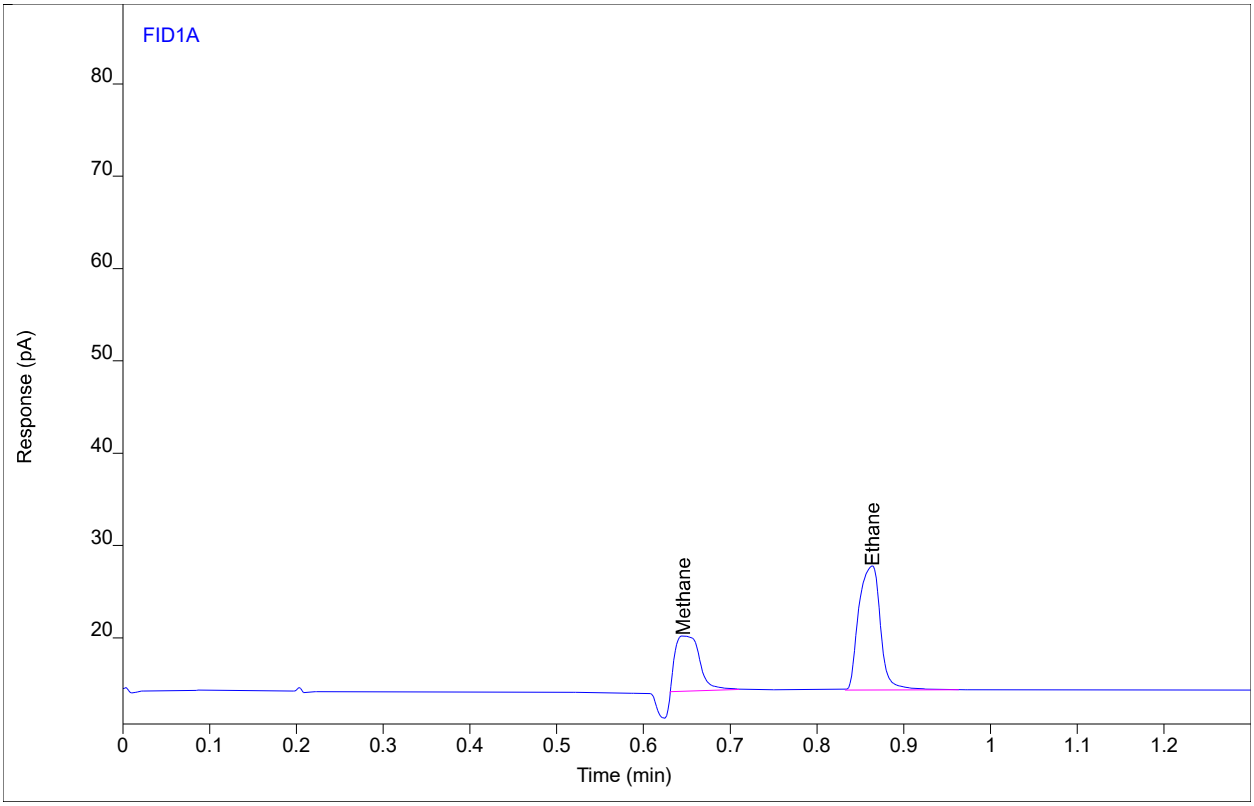
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.65	11.6452	6.05226	10.0575	1	10.0575	ppm
Ethane	BB	0.86	23.0838	13.4344	10.6042	1	10.6042	ppm

Chromatogram Report

Sample Name	Prep1p292 #C4 ENV(1=0,4=495)
Sequence Name	DPGC8-071122B ver.4
Inj Data File	015F2403.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/12/2022 3:36 PM
File Modified	7/18/2022 11:14 AM
Instrument	DP-GC08
Operator	Emily Decker

Enthalpy Analytical

Sample Type	Sample
Vial Number	15
Injection Volume	250
Injection	3 of 4
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/18/2022 10:59 AM
Printed	7/22/2022 11:44 AM



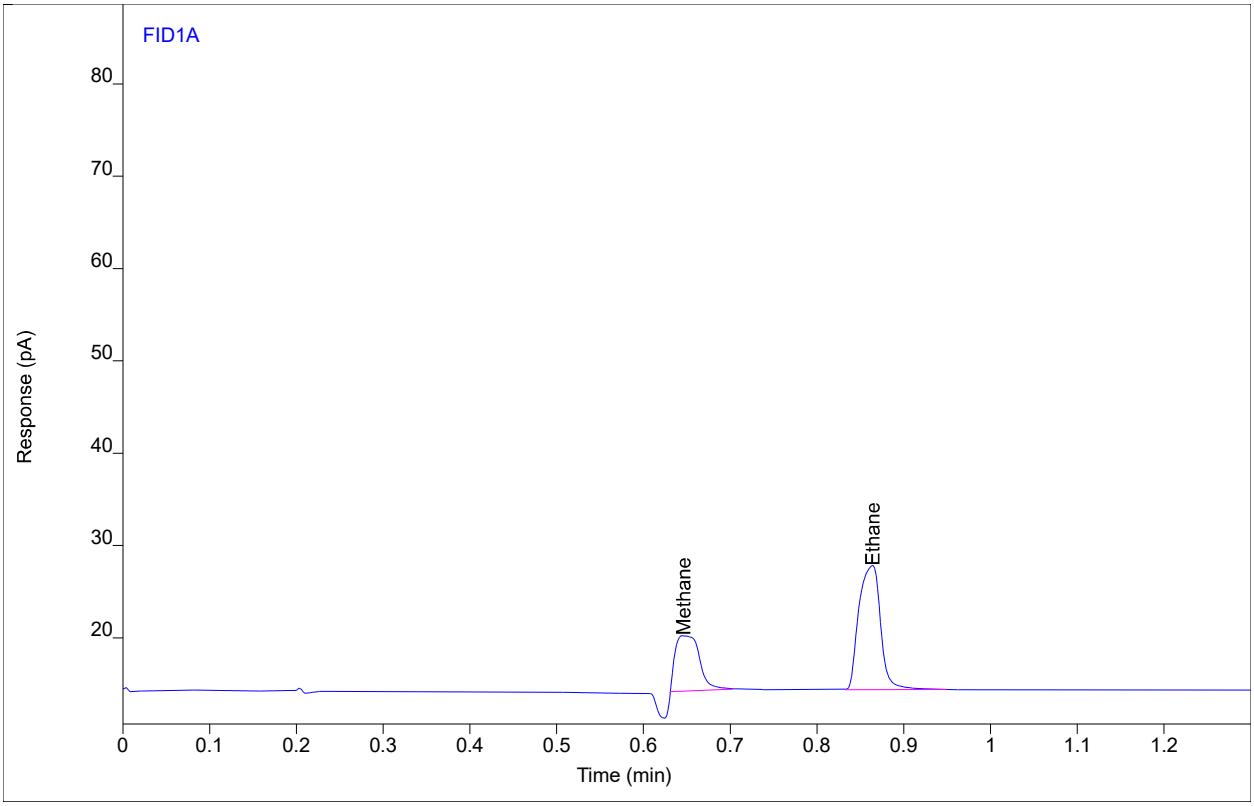
Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.65	11.7654	6.07392	10.1547	1	10.1547	ppm
Ethane	BB	0.86	23.2407	13.4378	10.6763	1	10.6763	ppm

Chromatogram Report

Sample Name	Prep1p292 #C4 ENV(1=0,4=495)
Sequence Name	DPGC8-071122B ver.4
Inj Data File	015F2404.D
File Location	3 - Houston Lab/Data/GC8/2022_Q3
Injection Date	7/12/2022 3:55 PM
File Modified	7/18/2022 11:14 AM
Instrument	DP-GC08
Operator	Emily Decker

Enthalpy Analytical

Sample Type	Sample
Vial Number	15
Injection Volume	250
Injection	4 of 4
Acquisition Method	GC8-ACQ-090720.M
Analysis Method	GC8-F_031422-R050222.M
Method Modified	7/18/2022 10:59 AM
Printed	7/22/2022 11:44 AM



Compound	Type	RT	Area	Height	Amount	DF	SampAmt	Unit
Methane	PB	0.65	11.6959	6.06526	10.0985	1	10.0985	ppm
Ethane	BB	0.86	23.3426	13.4529	10.7232	1	10.7232	ppm

This Is The Last Page Of This Report.

Appendix C.3
Ammonia Analyses

Roseville Energy Park
Roseville, CA
GT3 & GT4
USEPA Method 320
FTIR Emissions Testing
July 1 & 3, 2022
PROJ-017008

By

Phillip Kauppi
District Manager / Chemist

July 27, 2022

2625 Denison Drive · Mount Pleasant, MI 48858 · (989) 772-5088 · Fax (989) 772-5870

Roseville Energy Park
Roseville, CA
GT3 & GT4
USEPA Method 320
FTIR Emissions Testing
July 1 & 3, 2022
PROJ-017008

Scope

Montrose Air Quality Services (MAQS, Mt. Pleasant, MI) was contracted to conduct emissions testing for Roseville Energy Park's natural gas turbines GT3 & GT4 in Roseville, CA. Testing was performed July 1 and 3, 2022 to determine concentrations of gaseous ammonia (NH_3), methane (CH_4) and moisture content (H_2O) from the turbines.

US EPA Method 320 was performed to quantify the concentration levels of gaseous ammonia, methane, and moisture content. Justin Merryman (MAQS) performed data collection. Phil Kauppi (MAQS) performed the FTIR data validation and report generation.

Procedures

FTIR Method 320 Instrumental Configuration & Sample Collection

FTIR data were collected using an MKS MultiGas 2030 FTIR spectrometer. The FTIR was equipped with a temperature-controlled, 5.11-meter multipass gas cell maintained at 191°C. All data were collected at 0.5 cm-1 resolution. Each FTIR spectrum was derived from the coaddition of 64 scans, with a new data point generated approximately every 60 seconds.

Sample gas continuously passed through the FTIR gas cell via heated head sampling pump. Total sample flow was approximately ten liters per minute. Gas flow and sampling system pressure were monitored using a rotameter and pressure transducer. See Table 1 below for sampling system details.

Table 1 – FTIR Sampling System

Source	MKS Serial #	Sampling Line	Probe Assembly	Particulate Filter Media	Operating Temperatures
GT3	018648428	100', 3/8" dia. Teflon	10', 3/8" dia. SS + heated filter element	0.01µ borosilicate	191°C FTIR + system
GT4		150', 3/8" dia. Teflon			

FTIR QA/QC Methodology

QA/QC procedures followed US EPA Method 320. See Tables 2 and 3 below for QA/QC procedure details and list of calibration gas standards. All calibration gases were introduced to the analyzer and sampling system using instrument grade stainless steel rotameters. All QA/QC procedures were within the acceptance criteria allowance of the EPA methodology. QA/QC calculations are presented in detail below.

Table 2 – FTIR QA/QC Procedures

QAQC Specification	Purpose	Calibration Gas Analyte	Delivery	Frequency	Acceptance Criteria	Result
M320: Zero	Verify that the FTIR is free of contaminants & zero the FTIR	Nitrogen (zero)	Direct to FTIR	pre/post test all units	< MDL or Noise	**Pass**
M320: Calibration Transfer Standard (CTS) Direct	Verify FTIR stability, confirm optical path length	Ethylene	Direct to FTIR	pre-test all units	+/- 5% cert. value	**Pass**
M320: Analyte Direct	Verify FTIR calibration	Ammonia/SF6	Direct to FTIR	pre-test all units	Determine FTIR response to be used for analyte spike calcs	**Pass**
M320: CTS Response	Verify system stability, recovery, RT	Ethylene	Sampling System	pre/post test all units	+/- 5% of Direct Measurement	**Pass**
M320: Zero Response	Verify system is free of contaminants, system bias	Nitrogen (zero)	Sampling System	pre/post test all units	Bias correct data	**Pass**
M320: Analyte Spike	Verify system ability to deliver and quantify analyte of interest in the presence of other effluent gases	Ammonia/SF6	Dynamic Addition to Sampling System, 1:10 effluent	pre-test all units	+/- 30% theoretical recovery	**Pass**

Table 3 – Calibration Gas Standards

Components	Concentration (ppm)	Vendor	Cylinder #	Standard Type
Ammonia/SF6	19.75/5.003	Airgas	CC743537	Certified Standard +/- 5%
Ethylene	100.0	Airgas	CC486912	Primary +/- 1%
Nitrogen	Zero gas	Airgas	n/a	UHP Grade

FTIR QA/QC Calculations

Method 320: Analyte Spiking

Ammonia spiking was performed at each source prior to testing to verify the ability of the sampling system to quantitatively deliver a sample containing ammonia from the base of the probe to the FTIR. The spike target dilution ratio was 1:10 or less. Analyte spiking assures the ability of the FTIR to quantify methane in the presence of effluent gas.

As part of the spiking procedure, samples from the sources were measured to determine NH_3 concentrations to be used in the spike recovery calculations. The analyte spiking gas contained a low concentration of sulfur hexafluoride (SF_6). The determined SF_6 concentration in the spiked sample was used to calculate the dilution factor of the spike and thus used to calculate the concentration of the spiked NH_3. The following equation illustrates the percent recovery calculation.

$$DF = \frac{SF6(spk) - SF6(nat)}{SF6(dir)}$$ (Sec. 9.3.1 (3) USEPA Method 320)

$$CS = DF * Spike(dir) + Unspike(1 - DF)$$ (Sec. 9.3.1 (2) USEPA Method 320)

DF = Dilution factor of the spike gas
$SF_{6\,(nat)}$ = SF_6 concentration measured directly in unspiked sample
$SF_{6\,(dir)}$ = SF_6 concentration measured directly in undiluted spike gas
$SF_{6\,(spk)}$ = Diluted SF_6 concentration measured in a spiked sample
$Spike_{dir}$ = Concentration of the analyte in the spike standard measure by the FTIR directly
CS = Expected concentration of the spiked samples
Unspike = Native concentration of analytes in unspiked samples

FTIR Post Collection Data Validation

As part of the data validation procedure, reference spectra are manually fit to that of the sample spectra and a concentration is determined. The reference spectra are scaled to match the peak amplitude of the sample, thus providing a scale factor. The scale factor multiplied by the reference spectra concentration is used to determine the concentration value for the sample spectra. Sample pressure and temperature corrections are then applied to compute the final sample concentration. The manually calculated results are then compared with the software-generated results. The data is then validated if the two concentrations are within ± 20% agreement. If there is a difference greater than ± 20% the spectra are reviewed for possible spectra interferences or any other potential causes leading to misquantified data.

Results and Discussion

Detection Limit

The FTIR detection limit for each analyte was calculated following Annex A2 of ASTM D6348-12 procedure using spectra that contained similar amounts of moisture. The minimum detectable concentration of the analytes was calculated as three times the standard deviation of the noise in the FTIR system. This minimum concentration can be detected with a probability of 99.7 %. See Table 4 below for determined minimum detectable concentrations.

Table 4 - FTIR Detection Limits

Analyte	Detection Limit (ppmv wet)	Detection Limit (%v wet)
H_2O	-	0.1
Methane	0.5	-
Ammonia	0.3	-

GT3 & GT4

Three test runs were performed on the GT3 and GT4 natural gas turbines on July 1 and 3, 2022, respectively. All test runs were a minimum of 60 minutes in length. All Method 320 FTIR data concentration data were determined on a wet concentration (ppmvw) volume basis. There FTIR determined moisture content was used to calculate concentrations on a dry basis. See Tables 5 and 6 below for a summary of test run results.

Analyte spiking was performed to confirm the ability of the measurement system to deliver and quantify ammonia. See the FTIR QA/QC Data and Test Run Results Appendix for all concentration results.

Table 5 – GT3 – Test Run Summary

Spectrum	Calculation	NH3 (ppmv wet)	CH4 (ppmv wet)	H2O (%v)	NH3 (ppmv dry)	CH4 (ppmv dry)
7/1/2022 GT3 - Test Run 1 8:19 - 9:25	Minimum	1.4	1.1	9.0	1.6	1.3
	Maximum	2.9	2.6	10.4	3.2	2.9
	Average	2.2	2.0	9.3	2.5	2.2
7/1/2022 GT3 - Test Run 2 9:43 - 10:43	Minimum	2.4	1.0	9.2	2.7	1.1
	Maximum	2.9	2.3	9.8	3.2	2.6
	Average	2.7	1.6	9.4	2.9	1.8
7/1/2022 GT3 - Test Run 3 11:02 - 12:02	Minimum	2.2	< 0.5	9.0	2.5	< 0.6
	Maximum	3.4	3.6	9.4	3.7	4.0
	Average	2.8	1.5	9.2	3.0	1.6

Table 6 – GT4 – Test Run Summary

Spectrum	Calculation	NH3 (ppmv wet)	CH4 (ppmv wet)	H2O (%v)	NH3 (ppmv dry)	CH4 (ppmv dry)
7/3/2022 GT4 - Test Run 1 7:17 - 8:29	Minimum	0.3	1.0	8.7	0.4	1.2
	Maximum	1.1	3.1	11.4	1.2	3.4
	Average	0.6	1.9	9.8	0.7	2.1
7/3/2022 GT4 - Test Run 2 8:49 - 9:49	Minimum	0.4	1.7	9.1	0.4	1.9
	Maximum	1.1	6.0	11.3	1.3	6.6
	Average	0.8	3.2	9.9	0.9	3.6
7/3/2022 GT4 - Test Run 3 10:05 - 11:05	Minimum	0.5	1.8	9.1	0.5	2.0
	Maximum	1.1	5.3	10.5	1.2	5.8
	Average	0.9	3.0	9.8	0.9	3.3

The following Appendices are included:

- FTIR Test Run Data
- FTIR QAQC Data
- Certificates of Analysis

Date: July 27, 2022

Phillip Kauppi
District Manager / Chemist
Roseville_Energy_Park_CA_2022July_PROJ-017008_txt

APPENDIX

FTIR Test Run Data

GT3 - Test Run 1

Spectrum	Date	Time	NH3 (ppmv wet)	CH4 (ppmv wet)	H2O (%v)	NH3 (ppmv dry)	CH4 (ppmv dry)	FTIR Gas Cell Temperature (°C)	FTIR Gas Cell Pressure (atm)
UNIT3_RUN1_1951.LAB	7/1/2022	8:19:35	2.7	1.9	9.1	2.9	2.1	192.1	1.007
UNIT3_RUN1_1952.LAB	7/1/2022	8:20:34	2.9	2.0	9.2	3.1	2.2	192.2	1.005
UNIT3_RUN1_1953.LAB	7/1/2022	8:21:35	2.9	2.2	9.2	3.2	2.4	192.2	1.004
UNIT3_RUN1_1954.LAB	7/1/2022	8:22:35	2.8	2.0	9.2	3.1	2.2	192.1	1.004
UNIT3_RUN1_1955.LAB	7/1/2022	8:23:35	2.6	2.3	9.1	2.9	2.6	192.0	1.005
UNIT3_RUN1_1956.LAB	7/1/2022	8:24:35	2.6	2.4	9.2	2.9	2.7	192.0	1.004
UNIT3_RUN1_1957.LAB	7/1/2022	8:25:35	2.6	2.3	9.1	2.9	2.5	192.0	1.007
UNIT3_RUN1_1958.LAB	7/1/2022	8:26:35	2.5	1.9	9.0	2.8	2.1	192.1	1.004
UNIT3_RUN1_1959.LAB	7/1/2022	8:27:35	2.5	1.7	9.0	2.8	1.8	192.3	1.004
UNIT3_RUN1_1960.LAB	7/1/2022	8:28:35	2.4	1.8	9.1	2.6	2.0	192.2	1.003
UNIT3_RUN1_1961.LAB	7/1/2022	8:29:36	2.4	2.2	9.0	2.6	2.5	192.1	1.003
UNIT3_RUN1_1962.LAB	7/1/2022	8:30:35	2.4	2.6	9.0	2.7	2.8	191.9	1.004
UNIT3_RUN1_1963.LAB	7/1/2022	8:31:35	2.5	2.0	9.0	2.8	2.2	191.9	1.003
UNIT3_RUN1_1964.LAB	7/1/2022	8:32:35	2.6	1.9	9.1	2.8	2.1	191.9	1.004
UNIT3_RUN1_1965.LAB	7/1/2022	8:33:36	2.5	2.0	9.1	2.8	2.2	192.0	1.002
UNIT3_RUN1_1966.LAB	7/1/2022	8:34:36	2.6	2.0	9.1	2.8	2.2	192.1	1.004
UNIT3_RUN1_1967.LAB	7/1/2022	8:35:36	2.6	2.4	9.1	2.8	2.7	192.1	1.004
UNIT3_RUN1_1968.LAB	7/1/2022	8:36:36	2.7	2.0	9.1	2.9	2.2	192.0	1.004
UNIT3_RUN1_1969.LAB	7/1/2022	8:37:36	2.7	2.6	9.1	3.0	2.9	192.0	1.005
UNIT3_RUN1_1970.LAB	7/1/2022	8:38:36	2.6	2.6	9.1	2.9	2.9	191.9	1.005
UNIT3_RUN1_1971.LAB	7/1/2022	8:39:36	2.6	2.3	9.1	2.9	2.5	191.9	1.005
UNIT3_RUN1_1972.LAB	7/1/2022	8:40:36	2.6	2.0	9.1	2.8	2.2	192.0	1.005
UNIT3_RUN1_1973.LAB	7/1/2022	8:41:36	2.7	2.1	9.1	3.0	2.3	192.2	1.005
UNIT3_RUN1_1974.LAB	7/1/2022	8:42:36	2.7	2.2	9.1	3.0	2.4	192.1	1.004
UNIT3_RUN1_1975.LAB	7/1/2022	8:43:36	2.7	2.2	9.1	3.0	2.5	192.0	1.004
UNIT3_RUN1_1976.LAB	7/1/2022	8:44:36	2.6	2.4	9.1	2.9	2.7	192.0	1.004
UNIT3_RUN1_1977.LAB	7/1/2022	8:45:37	2.5	2.1	9.1	2.8	2.4	191.9	1.004
UNIT3_RUN1_1978.LAB	7/1/2022	8:46:37	2.6	1.7	9.1	2.8	1.9	191.9	1.005
UNIT3_RUN1_1979.LAB	7/1/2022	8:47:37	2.6	2.1	9.1	2.8	2.3	192.1	1.005
UNIT3_RUN1_1980.LAB	7/1/2022	8:48:37	2.6	2.3	9.1	2.9	2.6	192.2	1.003
UNIT3_RUN1_1981.LAB	7/1/2022	8:49:37	2.6	2.1	9.2	2.8	2.3	192.1	1.004
UNIT3_RUN1_1984.LAB	7/1/2022	8:52:37	1.4	2.0	9.6	1.6	2.2	191.9	1.006
UNIT3_RUN1_1985.LAB	7/1/2022	8:53:37	1.6	1.5	9.6	1.7	1.7	191.9	1.005
UNIT3_RUN1_1986.LAB	7/1/2022	8:54:37	1.7	1.9	9.4	1.9	2.1	192.1	1.004
UNIT3_RUN1_1987.LAB	7/1/2022	8:55:37	1.6	2.0	9.1	1.8	2.2	192.2	1.005
UNIT3_RUN1_1988.LAB	7/1/2022	8:56:37	1.5	2.4	9.0	1.7	2.6	192.2	1.004
UNIT3_RUN1_1989.LAB	7/1/2022	8:57:38	1.5	2.2	9.1	1.6	2.5	192.0	1.006
UNIT3_RUN1_1990.LAB	7/1/2022	8:58:38	1.5	1.5	9.1	1.7	1.6	192.0	1.004
UNIT3_RUN1_1991.LAB	7/1/2022	8:59:38	1.7	2.2	10.0	1.8	2.4	191.9	1.005
UNIT3_RUN1_1992.LAB	7/1/2022	9:00:38	1.7	2.6	9.1	1.9	2.9	191.9	1.006
UNIT3_RUN1_1993.LAB	7/1/2022	9:01:38	1.9	1.8	10.4	2.2	2.1	192.1	1.007
UNIT3_RUN1_1994.LAB	7/1/2022	9:02:38	1.9	1.9	9.6	2.1	2.1	192.2	1.007
UNIT3_RUN1_1995.LAB	7/1/2022	9:03:38	1.8	2.1	9.5	2.0	2.3	192.1	1.006
UNIT3_RUN1_1996.LAB	7/1/2022	9:04:38	2.0	2.0	9.8	2.2	2.2	192.0	1.003
UNIT3_RUN1_1997.LAB	7/1/2022	9:05:38	2.0	2.1	9.7	2.2	2.3	191.9	1.005
UNIT3_RUN1_1998.LAB	7/1/2022	9:06:38	1.9	1.4	9.4	2.1	1.5	191.9	1.004
UNIT3_RUN1_1999.LAB	7/1/2022	9:07:38	1.8	1.9	9.7	2.0	2.1	191.9	1.003
UNIT3_RUN1_2000.LAB	7/1/2022	9:08:38	1.7	1.5	9.7	1.9	1.6	192.1	1.004
UNIT3_RUN1_2001.LAB	7/1/2022	9:09:38	1.8	2.0	9.7	2.0	2.2	192.2	1.005
UNIT3_RUN1_2002.LAB	7/1/2022	9:10:39	2.0	1.4	9.6	2.2	1.5	192.1	1.006
UNIT3_RUN1_2003.LAB	7/1/2022	9:11:39	2.0	1.7	9.6	2.2	1.9	192.0	1.003
UNIT3_RUN1_2004.LAB	7/1/2022	9:12:39	1.9	1.6	9.7	2.1	1.7	191.9	1.003
UNIT3_RUN1_2005.LAB	7/1/2022	9:13:39	1.8	1.8	9.9	2.0	2.0	191.9	1.002
UNIT3_RUN1_2006.LAB	7/1/2022	9:14:39	1.9	1.1	9.9	2.1	1.3	191.9	1.004
UNIT3_RUN1_2007.LAB	7/1/2022	9:15:39	1.9	1.3	9.5	2.1	1.4	192.0	1.004
UNIT3_RUN1_2008.LAB	7/1/2022	9:16:39	1.9	1.9	9.5	2.1	2.1	192.2	1.004
UNIT3_RUN1_2009.LAB	7/1/2022	9:17:39	2.1	1.9	9.6	2.3	2.1	192.2	1.003
UNIT3_RUN1_2010.LAB	7/1/2022	9:18:39	2.2	1.4	9.6	2.4	1.5	192.1	1.004
UNIT3_RUN1_2011.LAB	7/1/2022	9:19:39	2.3	1.5	9.4	2.5	1.7	192.0	1.004
UNIT3_RUN1_2012.LAB	7/1/2022	9:20:40	2.3	1.9	9.4	2.5	2.1	191.9	1.006

Spectrum	Date	Time	NH3 (ppmv wet)	CH4 (ppmv wet)	H2O (%v)	NH3 (ppmv dry)	CH4 (ppmv dry)	FTIR Gas Cell Temperature (°C)	FTIR Gas Cell Pressure (atm)
UNIT3_RUN1_2013.LAB	7/1/2022	9:21:40	2.3	2.1	9.6	2.6	2.3	191.9	1.005
UNIT3_RUN1_2014.LAB	7/1/2022	9:22:40	2.3	1.8	9.6	2.6	2.0	192.1	1.005
UNIT3_RUN1_2015.LAB	7/1/2022	9:23:40	2.1	1.7	9.5	2.4	1.9	192.2	1.004
UNIT3_RUN1_2016.LAB	7/1/2022	9:24:40	2.1	2.0	9.5	2.3	2.2	192.2	1.006
UNIT3_RUN1_2017.LAB	7/1/2022	9:25:40	1.9	1.8	9.6	2.1	2.0	192.1	1.002
7/1/2022	**Minimum**		**1.4**	**1.1**	**9.0**	**1.6**	**1.3**		
GT3 - Test Run 1	**Maximum**		**2.9**	**2.6**	**10.4**	**3.2**	**2.9**		
8:19 - 9:25	**Average**		**2.2**	**2.0**	**9.3**	**2.5**	**2.2**		

GT3 - Test Run 2

Spectrum	Date	Time	NH3 (ppmv wet)	CH4 (ppmv wet)	H2O (%v)	NH3 (ppmv dry)	CH4 (ppmv dry)	FTIR Gas Cell Temperature (°C)	FTIR Gas Cell Pressure (atm)
UNIT3_RUN2_2034.LAB	7/1/2022	9:44:52	2.8	1.7	9.8	3.1	1.9	192.1	1.003
UNIT3_RUN2_2035.LAB	7/1/2022	9:45:53	2.9	2.0	9.7	3.2	2.2	192.2	1.004
UNIT3_RUN2_2036.LAB	7/1/2022	9:46:52	2.9	1.8	9.8	3.2	2.0	192.1	1.005
UNIT3_RUN2_2037.LAB	7/1/2022	9:47:53	2.9	1.5	9.8	3.2	1.6	192.0	1.004
UNIT3_RUN2_2038.LAB	7/1/2022	9:48:52	2.8	1.6	9.6	3.1	1.8	191.9	1.003
UNIT3_RUN2_2039.LAB	7/1/2022	9:49:53	2.8	2.2	9.4	3.1	2.4	191.8	1.005
UNIT3_RUN2_2040.LAB	7/1/2022	9:50:53	2.7	2.3	9.3	3.0	2.6	191.9	1.005
UNIT3_RUN2_2041.LAB	7/1/2022	9:51:53	2.6	1.7	9.3	2.9	1.8	192.0	1.005
UNIT3_RUN2_2042.LAB	7/1/2022	9:52:53	2.5	2.1	9.3	2.8	2.4	192.1	1.005
UNIT3_RUN2_2043.LAB	7/1/2022	9:53:53	2.6	1.9	9.3	2.9	2.1	192.1	1.006
UNIT3_RUN2_2044.LAB	7/1/2022	9:54:53	2.6	1.9	9.3	2.9	2.1	192.1	1.005
UNIT3_RUN2_2045.LAB	7/1/2022	9:55:53	2.6	1.5	9.3	2.9	1.6	192.0	1.001
UNIT3_RUN2_2046.LAB	7/1/2022	9:56:53	2.7	2.1	9.3	3.0	2.4	191.9	1.004
UNIT3_RUN2_2047.LAB	7/1/2022	9:57:53	2.6	1.8	9.3	2.9	2.0	191.9	1.004
UNIT3_RUN2_2048.LAB	7/1/2022	9:58:53	2.4	1.1	9.2	2.7	1.2	191.9	1.003
UNIT3_RUN2_2049.LAB	7/1/2022	9:59:53	2.4	1.9	9.3	2.7	2.1	192.0	1.003
UNIT3_RUN2_2050.LAB	7/1/2022	10:00:53	2.5	1.7	9.3	2.7	1.9	192.1	1.004
UNIT3_RUN2_2051.LAB	7/1/2022	10:01:54	2.5	2.1	9.2	2.8	2.3	192.2	1.003
UNIT3_RUN2_2052.LAB	7/1/2022	10:02:54	2.5	1.1	9.2	2.8	1.3	192.1	1.002
UNIT3_RUN2_2053.LAB	7/1/2022	10:03:54	2.5	1.3	9.2	2.8	1.5	192.0	1.004
UNIT3_RUN2_2054.LAB	7/1/2022	10:04:54	2.7	1.5	9.2	3.0	1.6	191.9	1.003
UNIT3_RUN2_2055.LAB	7/1/2022	10:05:54	2.7	1.3	9.2	3.0	1.4	191.8	1.004
UNIT3_RUN2_2056.LAB	7/1/2022	10:06:54	2.9	1.6	9.2	3.2	1.8	191.9	1.004
UNIT3_RUN2_2057.LAB	7/1/2022	10:07:54	2.9	1.4	9.2	3.2	1.5	192.0	1.002
UNIT3_RUN2_2058.LAB	7/1/2022	10:08:54	2.7	1.8	9.2	3.0	2.0	192.1	1.003
UNIT3_RUN2_2059.LAB	7/1/2022	10:09:54	2.6	1.8	9.2	2.8	2.0	192.1	1.006
UNIT3_RUN2_2060.LAB	7/1/2022	10:10:54	2.5	1.5	9.2	2.8	1.7	192.1	1.003
UNIT3_RUN2_2061.LAB	7/1/2022	10:11:54	2.6	1.4	9.2	2.8	1.6	192.0	1.003
UNIT3_RUN2_2062.LAB	7/1/2022	10:12:54	2.5	1.7	9.2	2.8	1.9	191.8	1.003
UNIT3_RUN2_2063.LAB	7/1/2022	10:13:55	2.5	2.0	9.2	2.8	2.2	191.7	1.003
UNIT3_RUN2_2064.LAB	7/1/2022	10:14:55	2.6	1.9	9.4	2.8	2.1	191.8	1.004
UNIT3_RUN2_2065.LAB	7/1/2022	10:15:55	2.6	2.2	9.4	2.8	2.4	192.0	1.006
UNIT3_RUN2_2066.LAB	7/1/2022	10:16:55	2.7	1.5	9.4	3.0	1.6	192.1	1.004
UNIT3_RUN2_2067.LAB	7/1/2022	10:17:55	2.8	1.6	9.4	3.0	1.8	192.1	1.005
UNIT3_RUN2_2068.LAB	7/1/2022	10:18:55	2.8	1.5	9.4	3.1	1.6	192.2	1.004
UNIT3_RUN2_2069.LAB	7/1/2022	10:19:55	2.7	1.6	9.4	2.9	1.7	192.1	1.002
UNIT3_RUN2_2070.LAB	7/1/2022	10:20:55	2.6	1.6	9.4	2.8	1.8	192.1	1.004
UNIT3_RUN2_2071.LAB	7/1/2022	10:21:55	2.5	1.6	9.4	2.8	1.7	192.1	1.003
UNIT3_RUN2_2072.LAB	7/1/2022	10:22:56	2.6	1.6	9.4	2.9	1.8	192.2	1.004
UNIT3_RUN2_2073.LAB	7/1/2022	10:23:56	2.6	1.4	9.4	2.9	1.6	192.2	1.004
UNIT3_RUN2_2074.LAB	7/1/2022	10:24:55	2.6	1.8	9.4	2.8	2.0	192.1	1.003
UNIT3_RUN2_2075.LAB	7/1/2022	10:25:55	2.6	1.5	9.4	2.9	1.7	192.1	1.005
UNIT3_RUN2_2076.LAB	7/1/2022	10:26:56	2.6	1.3	9.4	2.9	1.4	192.1	1.003
UNIT3_RUN2_2077.LAB	7/1/2022	10:27:56	2.7	1.1	9.4	3.0	1.3	192.1	1.005
UNIT3_RUN2_2078.LAB	7/1/2022	10:28:56	2.8	1.9	9.4	3.1	2.1	191.9	1.004
UNIT3_RUN2_2079.LAB	7/1/2022	10:29:56	2.8	1.8	9.4	3.1	2.0	191.9	1.003
UNIT3_RUN2_2080.LAB	7/1/2022	10:30:56	2.8	1.9	9.4	3.1	2.1	191.8	1.005
UNIT3_RUN2_2081.LAB	7/1/2022	10:31:56	2.7	1.3	9.4	3.0	1.5	191.8	1.003
UNIT3_RUN2_2082.LAB	7/1/2022	10:32:56	2.6	1.3	9.4	2.8	1.5	192.0	1.003

Spectrum	Date	Time	NH3 (ppmv wet)	CH4 (ppmv wet)	H2O (%v)	NH3 (ppmv dry)	CH4 (ppmv dry)	FTIR Gas Cell Temperature (°C)	FTIR Gas Cell Pressure (atm)
UNIT3_RUN2_2083.LAB	7/1/2022	10:33:56	2.6	1.8	9.4	2.8	2.0	192.1	1.003
UNIT3_RUN2_2084.LAB	7/1/2022	10:34:56	2.6	1.5	9.4	2.8	1.7	192.1	1.005
UNIT3_RUN2_2085.LAB	7/1/2022	10:35:56	2.6	1.4	9.4	2.9	1.5	192.2	1.004
UNIT3_RUN2_2086.LAB	7/1/2022	10:36:56	2.6	1.5	9.4	2.8	1.7	192.2	1.004
UNIT3_RUN2_2087.LAB	7/1/2022	10:37:57	2.5	1.3	9.2	2.8	1.4	192.2	1.005
UNIT3_RUN2_2088.LAB	7/1/2022	10:38:57	2.6	1.0	9.3	2.9	1.1	192.1	1.002
UNIT3_RUN2_2089.LAB	7/1/2022	10:39:57	2.8	1.3	9.3	3.1	1.4	192.1	1.002
UNIT3_RUN2_2090.LAB	7/1/2022	10:40:57	2.9	2.3	9.3	3.2	2.5	192.0	1.001
UNIT3_RUN2_2091.LAB	7/1/2022	10:41:57	2.9	1.5	9.3	3.2	1.7	192.0	1.002
UNIT3_RUN2_2092.LAB	7/1/2022	10:42:57	2.8	1.9	9.3	3.1	2.1	192.0	1.003
UNIT3_RUN2_2093.LAB	7/1/2022	10:43:57	2.8	1.6	9.2	3.1	1.8	192.0	1.005
7/1/2022	**Minimum**		**2.4**	**1.0**	**9.2**	**2.7**	**1.1**		
GT3 - Test Run 2	**Maximum**		**2.9**	**2.3**	**9.8**	**3.2**	**2.6**		
9:43 - 10:43	**Average**		**2.7**	**1.6**	**9.4**	**2.9**	**1.8**		

GT3 - Test Run 3

Spectrum	Date	Time	NH3 (ppmv wet)	CH4 (ppmv wet)	H2O (%v)	NH3 (ppmv dry)	CH4 (ppmv dry)	FTIR Gas Cell Temperature (°C)	FTIR Gas Cell Pressure (atm)
UNIT3_RUN3_2104.LAB	7/1/2022	11:03:19	2.6	1.6	9.2	2.8	1.7	192.0	1.003
UNIT3_RUN3_2105.LAB	7/1/2022	11:03:26	2.5	1.3	9.3	2.8	1.4	192.0	0.999
UNIT3_RUN3_2106.LAB	7/1/2022	11:03:34	2.4	1.8	9.2	2.7	1.9	192.0	1.006
UNIT3_RUN3_2107.LAB	7/1/2022	11:03:41	2.6	0.4	9.2	2.8	0.5	192.0	0.999
UNIT3_RUN3_2108.LAB	7/1/2022	11:03:49	2.5	1.0	9.3	2.8	1.1	192.0	0.997
UNIT3_RUN3_2109.LAB	7/1/2022	11:03:56	2.3	2.2	9.2	2.6	2.5	191.9	1.004
UNIT3_RUN3_2110.LAB	7/1/2022	11:04:04	2.5	1.2	9.1	2.8	1.4	191.9	1.008
UNIT3_RUN3_2111.LAB	7/1/2022	11:04:11	2.5	0.0	9.2	2.7	0.0	191.9	1.008
UNIT3_RUN3_2112.LAB	7/1/2022	11:04:19	2.4	2.7	9.1	2.7	3.0	191.9	1.007
UNIT3_RUN3_2113.LAB	7/1/2022	11:04:27	2.4	1.1	9.2	2.7	1.2	191.9	0.998
UNIT3_RUN3_2114.LAB	7/1/2022	11:04:34	2.4	1.7	9.2	2.7	1.8	192.0	1.001
UNIT3_RUN3_2115.LAB	7/1/2022	11:04:42	2.4	2.3	9.1	2.7	2.5	192.0	1.005
UNIT3_RUN3_2116.LAB	7/1/2022	11:04:49	2.4	2.4	9.2	2.7	2.6	191.9	1.004
UNIT3_RUN3_2117.LAB	7/1/2022	11:04:56	2.6	2.3	9.2	2.8	2.5	192.0	1.002
UNIT3_RUN3_2118.LAB	7/1/2022	11:05:04	2.2	2.3	9.2	2.5	2.5	192.0	1.003
UNIT3_RUN3_2119.LAB	7/1/2022	11:05:11	2.4	1.5	9.2	2.7	1.7	192.0	1.005
UNIT3_RUN3_2120.LAB	7/1/2022	11:05:19	2.3	0.4	9.2	2.5	0.4	192.0	1.003
UNIT3_RUN3_2121.LAB	7/1/2022	11:05:27	2.3	2.2	9.2	2.6	2.4	192.0	1.002
UNIT3_RUN3_2122.LAB	7/1/2022	11:05:34	2.3	-0.5	9.2	2.5	-0.6	192.0	1.003
UNIT3_RUN3_2123.LAB	7/1/2022	11:05:41	2.3	0.8	9.2	2.5	0.8	192.0	1.002
UNIT3_RUN3_2124.LAB	7/1/2022	11:05:49	2.3	3.0	9.2	2.5	3.3	192.0	1.000
UNIT3_RUN3_2125.LAB	7/1/2022	11:05:57	2.4	2.1	9.2	2.7	2.3	192.0	1.001
UNIT3_RUN3_2126.LAB	7/1/2022	11:06:04	2.3	2.4	9.2	2.6	2.6	192.0	1.000
UNIT3_RUN3_2127.LAB	7/1/2022	11:06:12	2.4	2.0	9.2	2.6	2.2	192.0	1.002
UNIT3_RUN3_2128.LAB	7/1/2022	11:06:19	2.3	1.8	9.2	2.5	2.0	192.0	1.002
UNIT3_RUN3_2129.LAB	7/1/2022	11:06:26	2.4	3.1	9.2	2.6	3.4	192.0	1.004
UNIT3_RUN3_2130.LAB	7/1/2022	11:06:34	2.4	1.9	9.2	2.6	2.1	192.0	0.999
UNIT3_RUN3_2131.LAB	7/1/2022	11:06:41	2.3	2.3	9.2	2.6	2.5	192.0	1.004
UNIT3_RUN3_2132.LAB	7/1/2022	11:06:49	2.6	0.6	9.2	2.8	0.7	192.1	1.001
UNIT3_RUN3_2133.LAB	7/1/2022	11:06:56	2.5	1.6	9.2	2.8	1.8	192.1	1.012
UNIT3_RUN3_2134.LAB	7/1/2022	11:07:04	2.5	0.9	9.2	2.8	1.0	192.0	1.008
UNIT3_RUN3_2135.LAB	7/1/2022	11:07:11	2.5	1.0	9.1	2.8	1.1	192.0	1.008
UNIT3_RUN3_2136.LAB	7/1/2022	11:07:19	2.5	1.8	9.2	2.8	2.0	192.0	1.003
UNIT3_RUN3_2137.LAB	7/1/2022	11:07:26	2.5	1.1	9.2	2.8	1.2	192.0	1.004
UNIT3_RUN3_2138.LAB	7/1/2022	11:07:34	2.5	1.4	9.2	2.7	1.5	192.0	1.003
UNIT3_RUN3_2139.LAB	7/1/2022	11:07:41	2.5	0.8	9.2	2.8	0.8	192.1	1.001
UNIT3_RUN3_2140.LAB	7/1/2022	11:07:49	2.7	-0.1	9.2	2.9	-0.1	192.1	1.002
UNIT3_RUN3_2141.LAB	7/1/2022	11:07:57	2.7	2.1	9.2	3.0	2.3	192.0	1.003
UNIT3_RUN3_2142.LAB	7/1/2022	11:08:04	2.8	2.7	9.3	3.1	3.0	192.0	0.996
UNIT3_RUN3_2143.LAB	7/1/2022	11:08:12	2.5	1.2	9.2	2.8	1.3	192.0	1.002
UNIT3_RUN3_2144.LAB	7/1/2022	11:08:19	2.6	2.8	9.2	2.9	3.1	192.0	1.002
UNIT3_RUN3_2145.LAB	7/1/2022	11:08:27	2.7	0.8	9.2	3.0	0.8	192.0	1.006
UNIT3_RUN3_2146.LAB	7/1/2022	11:08:34	2.7	1.8	9.2	3.0	2.0	192.0	1.008

Spectrum	Date	Time	NH3 (ppmv wet)	CH4 (ppmv wet)	H2O (%v)	NH3 (ppmv dry)	CH4 (ppmv dry)	FTIR Gas Cell Temperature (°C)	FTIR Gas Cell Pressure (atm)
UNIT3_RUN3_2147.LAB	7/1/2022	11:08:42	2.7	0.1	9.2	2.9	0.1	192.0	1.002
UNIT3_RUN3_2148.LAB	7/1/2022	11:08:49	2.6	0.6	9.2	2.9	0.7	192.0	1.003
UNIT3_RUN3_2149.LAB	7/1/2022	11:08:57	2.7	1.0	9.3	3.0	1.1	192.0	0.999
UNIT3_RUN3_2150.LAB	7/1/2022	11:09:04	2.8	2.6	9.2	3.0	2.8	192.0	1.005
UNIT3_RUN3_2151.LAB	7/1/2022	11:09:12	2.8	1.7	9.2	3.1	1.9	192.0	1.001
UNIT3_RUN3_2152.LAB	7/1/2022	11:09:19	2.7	2.3	9.2	3.0	2.5	192.0	1.007
UNIT3_RUN3_2153.LAB	7/1/2022	11:09:27	2.8	1.6	9.3	3.0	1.8	192.1	1.001
UNIT3_RUN3_2154.LAB	7/1/2022	11:09:34	2.8	2.1	9.2	3.1	2.3	192.0	1.004
UNIT3_RUN3_2155.LAB	7/1/2022	11:09:42	2.8	2.8	9.3	3.1	3.1	192.0	0.999
UNIT3_RUN3_2156.LAB	7/1/2022	11:09:49	2.9	0.2	9.2	3.2	0.3	192.0	1.000
UNIT3_RUN3_2157.LAB	7/1/2022	11:09:57	2.7	1.3	9.2	3.0	1.4	192.0	1.000
UNIT3_RUN3_2158.LAB	7/1/2022	11:10:04	2.9	1.7	9.3	3.2	1.8	192.0	0.997
UNIT3_RUN3_2159.LAB	7/1/2022	11:10:12	2.9	1.1	9.2	3.2	1.2	192.0	1.007
UNIT3_RUN3_2160.LAB	7/1/2022	11:10:19	2.8	1.6	9.1	3.1	1.8	192.0	1.015
UNIT3_RUN3_2161.LAB	7/1/2022	11:10:27	2.7	1.1	9.2	2.9	1.2	192.1	1.005
UNIT3_RUN3_2162.LAB	7/1/2022	11:10:34	2.6	1.1	9.2	2.9	1.3	192.1	1.003
UNIT3_RUN3_2163.LAB	7/1/2022	11:10:42	2.7	2.4	9.3	3.0	2.7	192.1	1.000
UNIT3_RUN3_2164.LAB	7/1/2022	11:10:49	2.8	1.3	9.3	3.1	1.4	192.0	0.999
UNIT3_RUN3_2165.LAB	7/1/2022	11:10:57	3.0	0.7	9.3	3.3	0.8	192.0	0.993
UNIT3_RUN3_2166.LAB	7/1/2022	11:11:04	2.8	2.1	9.3	3.1	2.4	192.0	0.996
UNIT3_RUN3_2167.LAB	7/1/2022	11:11:12	2.7	1.3	9.2	2.9	1.4	192.1	1.001
UNIT3_RUN3_2168.LAB	7/1/2022	11:11:20	3.0	1.5	9.3	3.3	1.6	192.1	1.004
UNIT3_RUN3_2169.LAB	7/1/2022	11:11:27	2.9	0.4	9.2	3.2	0.4	192.1	1.003
UNIT3_RUN3_2170.LAB	7/1/2022	11:11:34	2.8	0.5	9.2	3.1	0.5	192.1	1.007
UNIT3_RUN3_2171.LAB	7/1/2022	11:11:42	2.8	2.5	9.3	3.1	2.8	192.1	0.999
UNIT3_RUN3_2172.LAB	7/1/2022	11:11:49	2.9	1.3	9.3	3.2	1.4	192.1	1.004
UNIT3_RUN3_2173.LAB	7/1/2022	11:11:57	3.0	1.0	9.2	3.3	1.1	192.1	1.007
UNIT3_RUN3_2174.LAB	7/1/2022	11:12:04	3.0	2.2	9.3	3.3	2.4	192.1	1.000
UNIT3_RUN3_2175.LAB	7/1/2022	11:12:12	2.9	0.9	9.3	3.2	1.0	192.0	0.999
UNIT3_RUN3_2176.LAB	7/1/2022	11:12:20	2.9	1.1	9.2	3.2	1.2	192.1	1.001
UNIT3_RUN3_2177.LAB	7/1/2022	11:12:27	2.9	2.0	9.2	3.2	2.2	192.1	1.001
UNIT3_RUN3_2178.LAB	7/1/2022	11:12:34	2.9	2.5	9.2	3.2	2.7	192.1	1.006
UNIT3_RUN3_2179.LAB	7/1/2022	11:12:42	2.9	1.7	9.2	3.1	1.8	192.1	1.004
UNIT3_RUN3_2180.LAB	7/1/2022	11:12:49	2.8	0.1	9.3	3.1	0.2	192.1	1.003
UNIT3_RUN3_2181.LAB	7/1/2022	11:12:57	3.0	1.6	9.2	3.3	1.7	192.2	1.004
UNIT3_RUN3_2182.LAB	7/1/2022	11:13:04	2.8	1.0	9.2	3.1	1.2	192.1	1.006
UNIT3_RUN3_2183.LAB	7/1/2022	11:13:12	2.8	-0.5	9.2	3.1	-0.5	192.1	1.006
UNIT3_RUN3_2184.LAB	7/1/2022	11:13:19	2.8	3.0	9.2	3.1	3.3	192.1	1.003
UNIT3_RUN3_2185.LAB	7/1/2022	11:13:27	2.7	1.5	9.3	3.0	1.7	192.1	1.001
UNIT3_RUN3_2186.LAB	7/1/2022	11:13:34	2.8	1.4	9.2	3.0	1.5	192.0	1.003
UNIT3_RUN3_2187.LAB	7/1/2022	11:13:42	2.8	2.0	9.2	3.1	2.2	192.1	1.002
UNIT3_RUN3_2188.LAB	7/1/2022	11:13:50	2.8	1.0	9.2	3.0	1.1	192.1	1.001
UNIT3_RUN3_2189.LAB	7/1/2022	11:13:57	2.7	1.8	9.2	3.0	2.0	192.0	1.002
UNIT3_RUN3_2190.LAB	7/1/2022	11:14:04	2.7	1.5	9.1	3.0	1.6	192.1	1.003
UNIT3_RUN3_2191.LAB	7/1/2022	11:14:12	2.7	1.3	9.2	3.0	1.5	192.0	1.004
UNIT3_RUN3_2192.LAB	7/1/2022	11:14:20	2.6	1.9	9.3	2.9	2.0	192.1	1.002
UNIT3_RUN3_2193.LAB	7/1/2022	11:14:27	2.6	2.5	9.2	2.9	2.8	192.1	1.001
UNIT3_RUN3_2194.LAB	7/1/2022	11:14:35	2.6	1.7	9.3	2.9	1.9	192.1	1.005
UNIT3_RUN3_2195.LAB	7/1/2022	11:14:42	2.6	0.5	9.2	2.9	0.6	192.1	1.010
UNIT3_RUN3_2196.LAB	7/1/2022	11:14:50	2.7	2.6	9.2	2.9	2.9	192.1	1.003
UNIT3_RUN3_2197.LAB	7/1/2022	11:14:57	2.7	1.2	9.2	3.0	1.3	192.1	1.004
UNIT3_RUN3_2198.LAB	7/1/2022	11:15:05	2.7	2.7	9.2	3.0	3.0	192.1	1.005
UNIT3_RUN3_2199.LAB	7/1/2022	11:15:12	2.6	1.6	9.2	2.8	1.8	192.1	1.002
UNIT3_RUN3_2200.LAB	7/1/2022	11:15:20	2.5	3.3	9.2	2.7	3.6	192.1	1.002
UNIT3_RUN3_2201.LAB	7/1/2022	11:15:27	2.5	1.1	9.3	2.7	1.2	192.1	0.996
UNIT3_RUN3_2202.LAB	7/1/2022	11:15:35	2.7	2.0	9.2	2.9	2.2	192.1	1.006
UNIT3_RUN3_2203.LAB	7/1/2022	11:15:42	2.7	-0.1	9.2	3.0	-0.1	192.1	1.006
UNIT3_RUN3_2204.LAB	7/1/2022	11:15:50	2.6	0.5	9.3	2.9	0.6	192.1	1.001
UNIT3_RUN3_2205.LAB	7/1/2022	11:15:57	2.6	2.1	9.3	2.9	2.3	192.1	0.999
UNIT3_RUN3_2206.LAB	7/1/2022	11:16:05	2.5	0.7	9.3	2.7	0.8	192.1	1.003
UNIT3_RUN3_2207.LAB	7/1/2022	11:16:12	2.7	2.0	9.3	2.9	2.2	192.1	1.003

Spectrum	Date	Time	NH3 (ppmv wet)	CH4 (ppmv wet)	H2O (%v)	NH3 (ppmv dry)	CH4 (ppmv dry)	FTIR Gas Cell Temperature (°C)	FTIR Gas Cell Pressure (atm)
UNIT3_RUN3_2208.LAB	7/1/2022	11:16:20	2.7	1.4	9.3	3.0	1.5	192.1	0.999
UNIT3_RUN3_2209.LAB	7/1/2022	11:16:27	2.5	1.1	9.2	2.7	1.2	192.1	1.009
UNIT3_RUN3_2210.LAB	7/1/2022	11:16:35	2.6	1.2	9.3	2.8	1.3	192.1	1.003
UNIT3_RUN3_2211.LAB	7/1/2022	11:16:42	2.5	1.6	9.2	2.8	1.8	192.1	1.005
UNIT3_RUN3_2212.LAB	7/1/2022	11:16:50	2.6	1.5	9.2	2.9	1.7	192.1	1.002
UNIT3_RUN3_2213.LAB	7/1/2022	11:16:57	2.6	-0.5	9.2	2.9	-0.6	192.1	1.007
UNIT3_RUN3_2214.LAB	7/1/2022	11:17:05	2.5	2.5	9.2	2.8	2.8	192.1	1.005
UNIT3_RUN3_2215.LAB	7/1/2022	11:17:12	2.6	1.0	9.2	2.8	1.1	192.1	1.006
UNIT3_RUN3_2216.LAB	7/1/2022	11:17:20	2.5	1.4	9.3	2.8	1.5	192.1	1.000
UNIT3_RUN3_2217.LAB	7/1/2022	11:17:27	2.5	2.0	9.3	2.8	2.3	192.1	1.003
UNIT3_RUN3_2218.LAB	7/1/2022	11:17:35	2.4	0.8	9.2	2.7	0.8	192.1	1.005
UNIT3_RUN3_2219.LAB	7/1/2022	11:17:43	2.5	1.2	9.2	2.7	1.3	192.1	1.004
UNIT3_RUN3_2220.LAB	7/1/2022	11:17:50	2.5	2.8	9.3	2.7	3.1	192.1	1.004
UNIT3_RUN3_2221.LAB	7/1/2022	11:17:57	2.7	1.9	9.3	2.9	2.1	192.1	1.006
UNIT3_RUN3_2222.LAB	7/1/2022	11:18:05	2.6	0.7	9.3	2.8	0.8	192.1	1.007
UNIT3_RUN3_2223.LAB	7/1/2022	11:18:12	2.7	1.9	9.3	2.9	2.1	192.1	0.999
UNIT3_RUN3_2224.LAB	7/1/2022	11:18:20	2.7	1.8	9.2	3.0	2.0	192.1	1.003
UNIT3_RUN3_2225.LAB	7/1/2022	11:18:27	2.7	1.1	9.3	3.0	1.2	192.1	0.997
UNIT3_RUN3_2226.LAB	7/1/2022	11:18:35	2.6	3.1	9.2	2.8	3.4	192.1	1.006
UNIT3_RUN3_2227.LAB	7/1/2022	11:18:42	2.7	0.8	9.3	2.9	0.9	192.1	0.993
UNIT3_RUN3_2228.LAB	7/1/2022	11:18:50	2.7	1.7	9.2	3.0	1.9	192.1	1.009
UNIT3_RUN3_2229.LAB	7/1/2022	11:18:57	2.7	1.1	9.2	2.9	1.2	192.1	1.001
UNIT3_RUN3_2230.LAB	7/1/2022	11:19:05	2.6	0.3	9.2	2.9	0.3	192.1	1.007
UNIT3_RUN3_2231.LAB	7/1/2022	11:19:13	2.5	0.9	9.3	2.8	1.0	192.0	0.998
UNIT3_RUN3_2232.LAB	7/1/2022	11:19:20	2.7	1.9	9.2	3.0	2.1	192.0	1.007
UNIT3_RUN3_2233.LAB	7/1/2022	11:19:28	2.5	0.9	9.3	2.8	1.0	192.0	0.998
UNIT3_RUN3_2234.LAB	7/1/2022	11:19:35	2.5	-0.1	9.2	2.8	-0.2	192.1	1.000
UNIT3_RUN3_2235.LAB	7/1/2022	11:19:42	2.5	2.2	9.2	2.8	2.4	192.0	1.005
UNIT3_RUN3_2236.LAB	7/1/2022	11:19:50	2.8	0.9	9.2	3.1	1.0	192.0	1.005
UNIT3_RUN3_2237.LAB	7/1/2022	11:19:58	2.4	0.2	9.2	2.7	0.2	192.1	1.000
UNIT3_RUN3_2238.LAB	7/1/2022	11:20:05	2.6	3.1	9.3	2.8	3.4	192.1	1.002
UNIT3_RUN3_2239.LAB	7/1/2022	11:20:12	2.5	1.6	9.2	2.8	1.8	192.1	1.005
UNIT3_RUN3_2240.LAB	7/1/2022	11:20:20	2.6	1.4	9.2	2.9	1.6	192.1	1.003
UNIT3_RUN3_2241.LAB	7/1/2022	11:20:28	2.6	2.0	9.2	2.8	2.2	192.1	1.005
UNIT3_RUN3_2242.LAB	7/1/2022	11:20:35	2.5	0.6	9.2	2.8	0.7	192.1	1.008
UNIT3_RUN3_2243.LAB	7/1/2022	11:20:43	2.5	0.5	9.2	2.7	0.6	192.1	1.008
UNIT3_RUN3_2244.LAB	7/1/2022	11:20:50	2.6	0.9	9.2	2.9	1.0	192.1	1.004
UNIT3_RUN3_2245.LAB	7/1/2022	11:20:58	2.5	2.5	9.3	2.8	2.7	192.1	1.001
UNIT3_RUN3_2246.LAB	7/1/2022	11:21:05	2.5	-0.4	9.2	2.8	-0.5	192.1	0.996
UNIT3_RUN3_2247.LAB	7/1/2022	11:21:13	2.5	1.6	9.2	2.7	1.8	192.1	1.001
UNIT3_RUN3_2248.LAB	7/1/2022	11:21:20	2.5	1.4	9.2	2.7	1.6	192.1	1.004
UNIT3_RUN3_2249.LAB	7/1/2022	11:21:28	2.4	0.3	9.2	2.7	0.3	192.1	1.003
UNIT3_RUN3_2250.LAB	7/1/2022	11:21:35	2.7	2.0	9.3	2.9	2.2	192.1	0.999
UNIT3_RUN3_2251.LAB	7/1/2022	11:21:43	2.5	2.3	9.2	2.8	2.5	192.2	1.001
UNIT3_RUN3_2252.LAB	7/1/2022	11:21:50	2.5	1.4	9.2	2.8	1.5	192.1	1.005
UNIT3_RUN3_2253.LAB	7/1/2022	11:21:58	2.5	1.3	9.2	2.8	1.4	192.1	1.002
UNIT3_RUN3_2254.LAB	7/1/2022	11:22:05	2.5	1.0	9.2	2.7	1.1	192.1	1.009
UNIT3_RUN3_2255.LAB	7/1/2022	11:22:13	2.7	1.9	9.2	3.0	2.0	192.1	1.005
UNIT3_RUN3_2256.LAB	7/1/2022	11:22:20	2.7	2.6	9.2	2.9	2.9	192.0	1.001
UNIT3_RUN3_2257.LAB	7/1/2022	11:22:28	2.6	0.1	9.2	2.9	0.1	192.1	1.006
UNIT3_RUN3_2258.LAB	7/1/2022	11:22:35	2.8	0.0	9.1	3.1	0.0	192.1	1.007
UNIT3_RUN3_2259.LAB	7/1/2022	11:22:43	2.6	2.5	9.2	2.9	2.7	192.0	1.007
UNIT3_RUN3_2260.LAB	7/1/2022	11:22:51	2.7	0.7	9.2	3.0	0.8	192.0	1.005
UNIT3_RUN3_2261.LAB	7/1/2022	11:22:58	2.8	1.0	9.3	3.1	1.2	192.1	0.999
UNIT3_RUN3_2262.LAB	7/1/2022	11:23:05	2.8	1.8	9.2	3.1	2.0	192.1	1.002
UNIT3_RUN3_2263.LAB	7/1/2022	11:23:13	2.8	2.3	9.2	3.0	2.5	192.1	1.003
UNIT3_RUN3_2264.LAB	7/1/2022	11:23:21	2.7	1.6	9.2	2.9	1.8	192.1	1.002
UNIT3_RUN3_2265.LAB	7/1/2022	11:23:28	2.9	2.0	9.2	3.1	2.2	192.1	1.001
UNIT3_RUN3_2266.LAB	7/1/2022	11:23:35	2.8	-0.3	9.2	3.1	-0.3	192.1	0.998
UNIT3_RUN3_2267.LAB	7/1/2022	11:23:43	2.9	0.9	9.2	3.2	1.0	192.1	1.002
UNIT3_RUN3_2268.LAB	7/1/2022	11:23:51	2.9	2.5	9.1	3.2	2.7	192.1	1.005

Spectrum	Date	Time	NH3 (ppmv wet)	CH4 (ppmv wet)	H2O (%v)	NH3 (ppmv dry)	CH4 (ppmv dry)	FTIR Gas Cell Temperature (°C)	FTIR Gas Cell Pressure (atm)
UNIT3_RUN3_2269.LAB	7/1/2022	11:23:58	2.9	1.7	9.2	3.1	1.9	192.0	1.000
UNIT3_RUN3_2270.LAB	7/1/2022	11:24:05	2.8	0.9	9.2	3.0	1.0	192.1	1.003
UNIT3_RUN3_2271.LAB	7/1/2022	11:24:13	2.8	1.0	9.3	3.1	1.1	192.1	0.998
UNIT3_RUN3_2272.LAB	7/1/2022	11:24:20	2.8	0.7	9.2	3.0	0.7	192.1	1.004
UNIT3_RUN3_2273.LAB	7/1/2022	11:24:28	2.9	1.2	9.1	3.2	1.4	192.1	1.007
UNIT3_RUN3_2274.LAB	7/1/2022	11:24:35	2.7	1.5	9.3	3.0	1.7	192.0	0.996
UNIT3_RUN3_2275.LAB	7/1/2022	11:24:43	2.8	0.6	9.2	3.0	0.6	192.0	0.999
UNIT3_RUN3_2276.LAB	7/1/2022	11:24:50	2.9	0.8	9.3	3.2	0.9	192.1	0.997
UNIT3_RUN3_2277.LAB	7/1/2022	11:24:58	3.0	1.7	9.2	3.3	1.9	192.1	1.006
UNIT3_RUN3_2278.LAB	7/1/2022	11:25:05	2.8	0.0	9.2	3.1	0.0	192.1	1.001
UNIT3_RUN3_2279.LAB	7/1/2022	11:25:13	2.8	2.9	9.2	3.1	3.1	192.1	1.002
UNIT3_RUN3_2280.LAB	7/1/2022	11:25:21	2.9	2.2	9.3	3.1	2.5	192.1	0.998
UNIT3_RUN3_2281.LAB	7/1/2022	11:25:28	2.8	2.1	9.2	3.1	2.3	192.0	1.003
UNIT3_RUN3_2282.LAB	7/1/2022	11:25:35	2.9	1.0	9.2	3.1	1.1	192.0	1.003
UNIT3_RUN3_2283.LAB	7/1/2022	11:25:43	2.9	2.2	9.2	3.2	2.4	192.0	1.004
UNIT3_RUN3_2284.LAB	7/1/2022	11:25:50	2.9	0.4	9.1	3.2	0.4	192.1	1.009
UNIT3_RUN3_2285.LAB	7/1/2022	11:25:58	2.8	1.4	9.2	3.1	1.6	192.1	1.006
UNIT3_RUN3_2286.LAB	7/1/2022	11:26:05	2.7	2.1	9.2	3.0	2.4	192.1	1.003
UNIT3_RUN3_2287.LAB	7/1/2022	11:26:13	2.8	2.5	9.1	3.1	2.8	192.1	1.010
UNIT3_RUN3_2288.LAB	7/1/2022	11:26:21	2.9	1.3	9.3	3.2	1.4	192.1	0.998
UNIT3_RUN3_2289.LAB	7/1/2022	11:26:28	2.8	2.3	9.2	3.1	2.5	192.1	0.999
UNIT3_RUN3_2290.LAB	7/1/2022	11:26:35	2.8	1.9	9.2	3.1	2.1	192.1	0.996
UNIT3_RUN3_2291.LAB	7/1/2022	11:26:43	2.7	0.9	9.1	3.0	1.0	192.1	1.008
UNIT3_RUN3_2292.LAB	7/1/2022	11:26:51	2.9	1.8	9.2	3.2	1.9	192.1	1.008
UNIT3_RUN3_2293.LAB	7/1/2022	11:26:58	2.8	2.0	9.2	3.1	2.3	192.1	0.998
UNIT3_RUN3_2294.LAB	7/1/2022	11:27:06	2.8	-1.4	9.2	3.1	-1.6	192.1	1.006
UNIT3_RUN3_2295.LAB	7/1/2022	11:27:13	2.6	1.7	9.2	2.9	1.9	192.1	1.004
UNIT3_RUN3_2296.LAB	7/1/2022	11:27:21	2.6	2.4	9.3	2.8	2.6	192.1	0.997
UNIT3_RUN3_2297.LAB	7/1/2022	11:27:28	2.7	1.7	9.3	3.0	1.9	192.1	1.001
UNIT3_RUN3_2298.LAB	7/1/2022	11:27:36	2.7	0.7	9.2	3.0	0.8	192.1	1.005
UNIT3_RUN3_2299.LAB	7/1/2022	11:27:43	2.7	0.6	9.3	3.0	0.7	192.1	0.999
UNIT3_RUN3_2300.LAB	7/1/2022	11:27:51	2.8	1.9	9.2	3.1	2.1	192.1	1.004
UNIT3_RUN3_2301.LAB	7/1/2022	11:27:58	2.9	1.1	9.2	3.1	1.3	192.1	0.998
UNIT3_RUN3_2302.LAB	7/1/2022	11:28:06	2.6	2.1	9.2	2.8	2.3	192.1	1.001
UNIT3_RUN3_2303.LAB	7/1/2022	11:28:13	2.8	1.3	9.2	3.0	1.5	192.1	1.005
UNIT3_RUN3_2304.LAB	7/1/2022	11:28:21	2.8	2.1	9.3	3.1	2.4	192.1	1.000
UNIT3_RUN3_2305.LAB	7/1/2022	11:28:28	2.9	2.3	9.4	3.2	2.5	192.1	0.994
UNIT3_RUN3_2306.LAB	7/1/2022	11:28:36	2.9	1.1	9.2	3.2	1.2	192.1	1.009
UNIT3_RUN3_2307.LAB	7/1/2022	11:28:43	2.8	0.1	9.2	3.1	0.1	192.1	1.005
UNIT3_RUN3_2308.LAB	7/1/2022	11:28:51	2.8	2.1	9.2	3.1	2.3	192.0	1.005
UNIT3_RUN3_2309.LAB	7/1/2022	11:28:58	2.8	0.9	9.2	3.1	0.9	192.1	1.005
UNIT3_RUN3_2310.LAB	7/1/2022	11:29:06	2.8	0.6	9.2	3.1	0.6	192.1	1.002
UNIT3_RUN3_2311.LAB	7/1/2022	11:29:13	2.9	0.8	9.2	3.2	0.9	192.1	1.003
UNIT3_RUN3_2312.LAB	7/1/2022	11:29:21	2.8	0.9	9.2	3.1	1.0	192.1	1.003
UNIT3_RUN3_2313.LAB	7/1/2022	11:29:28	2.7	1.3	9.2	2.9	1.4	192.1	1.007
UNIT3_RUN3_2314.LAB	7/1/2022	11:29:36	2.6	2.4	9.2	2.9	2.6	192.1	1.006
UNIT3_RUN3_2315.LAB	7/1/2022	11:29:43	2.9	-0.3	9.2	3.2	-0.3	192.1	1.005
UNIT3_RUN3_2316.LAB	7/1/2022	11:29:51	2.8	1.4	9.2	3.1	1.5	192.1	1.005
UNIT3_RUN3_2317.LAB	7/1/2022	11:29:59	3.0	2.3	9.2	3.3	2.5	192.0	1.002
UNIT3_RUN3_2318.LAB	7/1/2022	11:30:06	2.9	2.0	9.3	3.2	2.2	192.0	1.000
UNIT3_RUN3_2319.LAB	7/1/2022	11:30:13	3.0	0.6	9.3	3.3	0.7	192.1	0.998
UNIT3_RUN3_2320.LAB	7/1/2022	11:30:21	2.9	3.0	9.3	3.2	3.3	192.0	1.001
UNIT3_RUN3_2321.LAB	7/1/2022	11:30:29	2.9	1.5	9.2	3.1	1.7	192.1	1.009
UNIT3_RUN3_2322.LAB	7/1/2022	11:30:36	2.8	0.5	9.2	3.1	0.6	192.1	1.002
UNIT3_RUN3_2323.LAB	7/1/2022	11:30:43	2.8	1.1	9.2	3.1	1.2	192.1	1.008
UNIT3_RUN3_2324.LAB	7/1/2022	11:30:51	2.9	1.5	9.2	3.2	1.6	192.1	1.006
UNIT3_RUN3_2325.LAB	7/1/2022	11:30:58	2.9	0.3	9.3	3.2	0.3	192.1	1.005
UNIT3_RUN3_2326.LAB	7/1/2022	11:31:06	2.8	1.6	9.3	3.1	1.7	192.1	0.997
UNIT3_RUN3_2327.LAB	7/1/2022	11:31:13	2.9	2.4	9.2	3.2	2.7	192.1	1.005
UNIT3_RUN3_2328.LAB	7/1/2022	11:31:21	2.8	1.4	9.3	3.1	1.6	192.1	0.999
UNIT3_RUN3_2329.LAB	7/1/2022	11:31:28	2.8	1.0	9.3	3.1	1.2	192.1	0.998

Spectrum	Date	Time	NH3 (ppmv wet)	CH4 (ppmv wet)	H2O (%v)	NH3 (ppmv dry)	CH4 (ppmv dry)	FTIR Gas Cell Temperature (°C)	FTIR Gas Cell Pressure (atm)
UNIT3_RUN3_2330.LAB	7/1/2022	11:31:36	3.0	2.7	9.2	3.3	3.0	192.1	1.003
UNIT3_RUN3_2331.LAB	7/1/2022	11:31:43	2.8	1.5	9.3	3.1	1.6	192.1	1.004
UNIT3_RUN3_2332.LAB	7/1/2022	11:31:51	2.9	0.6	9.3	3.2	0.7	192.1	0.997
UNIT3_RUN3_2333.LAB	7/1/2022	11:31:58	2.9	2.1	9.3	3.2	2.3	192.1	1.005
UNIT3_RUN3_2334.LAB	7/1/2022	11:32:06	2.8	1.7	9.3	3.1	1.9	192.1	1.001
UNIT3_RUN3_2335.LAB	7/1/2022	11:32:13	3.0	1.5	9.2	3.3	1.6	192.1	0.999
UNIT3_RUN3_2336.LAB	7/1/2022	11:32:21	2.8	0.4	9.2	3.1	0.4	192.1	1.003
UNIT3_RUN3_2337.LAB	7/1/2022	11:32:29	2.8	1.7	9.2	3.1	1.9	192.1	1.008
UNIT3_RUN3_2338.LAB	7/1/2022	11:32:36	2.9	1.0	9.2	3.2	1.1	192.1	1.000
UNIT3_RUN3_2339.LAB	7/1/2022	11:32:43	2.7	1.8	9.2	2.9	2.0	192.1	1.002
UNIT3_RUN3_2340.LAB	7/1/2022	11:32:51	2.7	0.3	9.2	3.0	0.4	192.1	1.004
UNIT3_RUN3_2341.LAB	7/1/2022	11:32:59	2.8	2.2	9.2	3.1	2.4	192.1	0.999
UNIT3_RUN3_2342.LAB	7/1/2022	11:33:06	2.7	1.3	9.2	3.0	1.4	192.1	1.001
UNIT3_RUN3_2343.LAB	7/1/2022	11:33:14	2.8	1.7	9.2	3.1	1.9	192.1	0.999
UNIT3_RUN3_2344.LAB	7/1/2022	11:33:22	2.9	2.2	9.2	3.2	2.4	192.1	1.003
UNIT3_RUN3_2345.LAB	7/1/2022	11:33:29	2.8	2.7	9.2	3.1	3.0	192.1	1.005
UNIT3_RUN3_2346.LAB	7/1/2022	11:33:36	2.7	1.0	9.2	3.0	1.1	192.1	1.005
UNIT3_RUN3_2347.LAB	7/1/2022	11:33:44	2.8	2.0	9.1	3.1	2.2	192.1	1.004
UNIT3_RUN3_2348.LAB	7/1/2022	11:33:51	2.8	2.2	9.1	3.1	2.4	192.1	1.010
UNIT3_RUN3_2349.LAB	7/1/2022	11:33:59	2.9	1.6	9.1	3.2	1.8	192.1	1.011
UNIT3_RUN3_2350.LAB	7/1/2022	11:34:06	2.8	1.6	9.1	3.1	1.7	192.0	1.007
UNIT3_RUN3_2351.LAB	7/1/2022	11:34:14	2.9	2.7	9.1	3.2	3.0	192.0	1.009
UNIT3_RUN3_2352.LAB	7/1/2022	11:34:21	2.8	0.7	9.1	3.1	0.7	192.0	1.005
UNIT3_RUN3_2353.LAB	7/1/2022	11:34:29	2.9	3.2	9.2	3.2	3.5	191.9	0.999
UNIT3_RUN3_2354.LAB	7/1/2022	11:34:36	2.9	0.7	9.0	3.2	0.7	192.0	1.009
UNIT3_RUN3_2355.LAB	7/1/2022	11:34:44	3.1	0.8	9.1	3.4	0.9	192.0	1.009
UNIT3_RUN3_2356.LAB	7/1/2022	11:34:51	2.9	2.5	9.1	3.2	2.7	191.9	1.006
UNIT3_RUN3_2357.LAB	7/1/2022	11:34:59	3.0	1.6	9.2	3.3	1.8	191.9	1.006
UNIT3_RUN3_2358.LAB	7/1/2022	11:35:06	3.1	1.0	9.2	3.4	1.1	191.9	0.998
UNIT3_RUN3_2359.LAB	7/1/2022	11:35:14	3.2	0.6	9.2	3.5	0.7	191.9	1.001
UNIT3_RUN3_2360.LAB	7/1/2022	11:35:21	3.1	1.1	9.2	3.4	1.2	191.9	1.000
UNIT3_RUN3_2361.LAB	7/1/2022	11:35:29	3.1	0.0	9.1	3.4	0.1	191.9	1.003
UNIT3_RUN3_2362.LAB	7/1/2022	11:35:36	3.0	2.9	9.2	3.3	3.2	191.9	0.999
UNIT3_RUN3_2363.LAB	7/1/2022	11:35:44	3.2	2.3	9.1	3.5	2.5	191.9	1.006
UNIT3_RUN3_2364.LAB	7/1/2022	11:35:51	3.1	0.7	9.1	3.4	0.8	191.9	1.006
UNIT3_RUN3_2365.LAB	7/1/2022	11:35:59	3.4	1.6	9.2	3.7	1.8	191.9	1.001
UNIT3_RUN3_2366.LAB	7/1/2022	11:36:06	3.2	1.4	9.2	3.5	1.6	191.9	1.001
UNIT3_RUN3_2367.LAB	7/1/2022	11:36:14	3.2	0.1	9.1	3.6	0.1	191.9	1.007
UNIT3_RUN3_2368.LAB	7/1/2022	11:36:21	3.1	1.5	9.1	3.5	1.6	191.9	1.009
UNIT3_RUN3_2369.LAB	7/1/2022	11:36:29	3.2	2.3	9.1	3.5	2.6	192.0	1.004
UNIT3_RUN3_2370.LAB	7/1/2022	11:36:36	3.2	-0.5	9.1	3.6	-0.5	192.0	1.010
UNIT3_RUN3_2371.LAB	7/1/2022	11:36:44	3.2	1.2	9.2	3.5	1.3	192.0	1.002
UNIT3_RUN3_2372.LAB	7/1/2022	11:36:51	3.1	3.2	9.3	3.5	3.5	192.0	0.996
UNIT3_RUN3_2373.LAB	7/1/2022	11:36:59	3.2	0.1	9.1	3.5	0.1	192.0	1.008
UNIT3_RUN3_2374.LAB	7/1/2022	11:37:06	3.1	0.6	9.2	3.4	0.6	192.0	0.995
UNIT3_RUN3_2375.LAB	7/1/2022	11:37:14	3.2	2.1	9.2	3.5	2.3	192.0	0.999
UNIT3_RUN3_2376.LAB	7/1/2022	11:37:21	3.2	0.8	9.1	3.5	0.9	192.0	1.004
UNIT3_RUN3_2377.LAB	7/1/2022	11:37:29	3.2	0.7	9.1	3.5	0.8	192.0	1.006
UNIT3_RUN3_2378.LAB	7/1/2022	11:37:36	3.2	1.9	9.2	3.5	2.1	192.0	1.005
UNIT3_RUN3_2379.LAB	7/1/2022	11:37:44	3.2	-0.7	9.2	3.5	-0.7	192.1	1.003
UNIT3_RUN3_2380.LAB	7/1/2022	11:37:52	3.1	2.0	9.2	3.5	2.2	192.0	0.998
UNIT3_RUN3_2381.LAB	7/1/2022	11:37:59	3.0	1.9	9.2	3.3	2.1	192.0	1.006
UNIT3_RUN3_2382.LAB	7/1/2022	11:38:06	3.2	1.9	9.1	3.5	2.1	192.0	1.011
UNIT3_RUN3_2383.LAB	7/1/2022	11:38:14	3.1	0.9	9.2	3.4	1.0	192.0	1.004
UNIT3_RUN3_2384.LAB	7/1/2022	11:38:21	3.1	1.1	9.2	3.4	1.2	192.0	0.998
UNIT3_RUN3_2385.LAB	7/1/2022	11:38:29	3.2	2.2	9.2	3.5	2.4	192.0	1.003
UNIT3_RUN3_2386.LAB	7/1/2022	11:38:36	3.1	1.4	9.2	3.4	1.5	192.0	1.004
UNIT3_RUN3_2387.LAB	7/1/2022	11:38:44	2.9	1.9	9.1	3.2	2.1	192.0	1.010
UNIT3_RUN3_2388.LAB	7/1/2022	11:38:52	3.0	1.0	9.2	3.3	1.1	192.0	1.007
UNIT3_RUN3_2389.LAB	7/1/2022	11:38:59	2.9	1.1	9.2	3.2	1.2	192.0	1.006
UNIT3_RUN3_2390.LAB	7/1/2022	11:39:06	3.0	1.5	9.2	3.3	1.6	192.0	1.001

Spectrum	Date	Time	NH3 (ppmv wet)	CH4 (ppmv wet)	H2O (%v)	NH3 (ppmv dry)	CH4 (ppmv dry)	FTIR Gas Cell Temperature (°C)	FTIR Gas Cell Pressure (atm)
UNIT3_RUN3_2391.LAB	7/1/2022	11:39:14	2.9	2.5	9.2	3.2	2.7	192.0	1.000
UNIT3_RUN3_2392.LAB	7/1/2022	11:39:22	2.8	0.4	9.1	3.1	0.5	192.0	1.004
UNIT3_RUN3_2393.LAB	7/1/2022	11:39:29	2.9	0.8	9.1	3.2	0.9	191.9	1.005
UNIT3_RUN3_2394.LAB	7/1/2022	11:39:37	2.8	1.7	9.2	3.1	1.8	191.9	1.000
UNIT3_RUN3_2395.LAB	7/1/2022	11:39:44	2.8	2.9	9.2	3.1	3.2	191.9	0.997
UNIT3_RUN3_2396.LAB	7/1/2022	11:39:52	2.8	2.2	9.2	3.1	2.4	191.9	1.005
UNIT3_RUN3_2397.LAB	7/1/2022	11:39:59	2.9	0.5	9.2	3.2	0.6	191.9	1.007
UNIT3_RUN3_2398.LAB	7/1/2022	11:40:07	2.9	2.6	9.2	3.2	2.9	191.9	1.003
UNIT3_RUN3_2399.LAB	7/1/2022	11:40:15	2.8	1.9	9.2	3.0	2.1	192.0	1.002
UNIT3_RUN3_2400.LAB	7/1/2022	11:40:22	2.7	0.3	9.2	3.0	0.3	192.0	1.004
UNIT3_RUN3_2401.LAB	7/1/2022	11:40:29	2.8	1.7	9.2	3.0	1.9	192.0	1.006
UNIT3_RUN3_2402.LAB	7/1/2022	11:40:37	2.7	1.8	9.2	3.0	2.0	191.9	1.003
UNIT3_RUN3_2403.LAB	7/1/2022	11:40:44	2.8	0.8	9.2	3.0	0.8	191.9	1.001
UNIT3_RUN3_2404.LAB	7/1/2022	11:40:52	2.8	2.7	9.2	3.1	2.9	191.9	1.001
UNIT3_RUN3_2405.LAB	7/1/2022	11:40:59	2.7	2.0	9.2	3.0	2.2	191.9	1.002
UNIT3_RUN3_2406.LAB	7/1/2022	11:41:07	2.8	2.3	9.2	3.0	2.5	191.9	1.001
UNIT3_RUN3_2407.LAB	7/1/2022	11:41:14	2.8	1.0	9.2	3.1	1.1	191.9	0.997
UNIT3_RUN3_2408.LAB	7/1/2022	11:41:22	2.6	1.4	9.1	2.9	1.6	191.9	1.005
UNIT3_RUN3_2409.LAB	7/1/2022	11:41:29	2.7	1.9	9.1	2.9	2.1	191.9	1.008
UNIT3_RUN3_2410.LAB	7/1/2022	11:41:37	2.6	2.3	9.1	2.9	2.5	191.9	1.005
UNIT3_RUN3_2411.LAB	7/1/2022	11:41:45	2.6	2.2	9.1	2.8	2.4	191.9	1.008
UNIT3_RUN3_2412.LAB	7/1/2022	11:41:52	2.7	2.1	9.1	2.9	2.3	191.9	1.006
UNIT3_RUN3_2413.LAB	7/1/2022	11:41:59	2.6	2.7	9.1	2.9	3.0	191.9	1.009
UNIT3_RUN3_2414.LAB	7/1/2022	11:42:07	2.8	1.1	9.2	3.1	1.2	191.9	0.998
UNIT3_RUN3_2415.LAB	7/1/2022	11:42:14	2.6	1.1	9.2	2.9	1.2	191.9	1.007
UNIT3_RUN3_2416.LAB	7/1/2022	11:42:22	2.7	1.3	9.2	3.0	1.4	191.9	0.997
UNIT3_RUN3_2417.LAB	7/1/2022	11:42:29	2.8	2.8	9.2	3.0	3.1	191.9	1.001
UNIT3_RUN3_2418.LAB	7/1/2022	11:42:37	2.7	1.9	9.2	2.9	2.0	191.9	1.005
UNIT3_RUN3_2419.LAB	7/1/2022	11:42:44	2.6	1.2	9.2	2.9	1.4	191.9	1.004
UNIT3_RUN3_2420.LAB	7/1/2022	11:42:52	2.5	3.0	9.2	2.8	3.3	191.9	1.003
UNIT3_RUN3_2421.LAB	7/1/2022	11:43:00	2.6	1.7	9.2	2.9	1.9	191.9	1.004
UNIT3_RUN3_2422.LAB	7/1/2022	11:43:07	2.7	1.4	9.3	3.0	1.6	191.9	0.999
UNIT3_RUN3_2423.LAB	7/1/2022	11:43:15	2.7	2.4	9.2	3.0	2.6	191.9	0.997
UNIT3_RUN3_2424.LAB	7/1/2022	11:43:22	2.7	0.5	9.2	2.9	0.6	191.9	0.997
UNIT3_RUN3_2425.LAB	7/1/2022	11:43:30	2.6	1.3	9.2	2.9	1.4	191.9	1.002
UNIT3_RUN3_2426.LAB	7/1/2022	11:43:37	2.6	2.6	9.1	2.8	2.8	191.9	1.005
UNIT3_RUN3_2427.LAB	7/1/2022	11:43:45	2.7	2.4	9.3	3.0	2.6	191.9	0.999
UNIT3_RUN3_2428.LAB	7/1/2022	11:43:52	2.6	1.3	9.3	2.9	1.4	192.0	0.998
UNIT3_RUN3_2429.LAB	7/1/2022	11:43:59	2.6	2.4	9.2	2.9	2.6	192.0	1.003
UNIT3_RUN3_2430.LAB	7/1/2022	11:44:07	2.6	0.7	9.2	2.9	0.8	192.0	1.007
UNIT3_RUN3_2431.LAB	7/1/2022	11:44:14	2.6	1.2	9.3	2.8	1.3	192.0	1.001
UNIT3_RUN3_2432.LAB	7/1/2022	11:44:22	2.6	1.7	9.2	2.9	1.9	192.0	1.007
UNIT3_RUN3_2433.LAB	7/1/2022	11:44:29	2.5	1.9	9.2	2.8	2.1	192.1	1.005
UNIT3_RUN3_2434.LAB	7/1/2022	11:44:37	2.6	0.7	9.2	2.8	0.8	192.1	1.003
UNIT3_RUN3_2435.LAB	7/1/2022	11:44:44	2.5	2.3	9.2	2.8	2.5	192.1	1.006
UNIT3_RUN3_2436.LAB	7/1/2022	11:44:52	2.6	-0.2	9.2	2.9	-0.3	192.0	1.003
UNIT3_RUN3_2437.LAB	7/1/2022	11:44:59	2.5	0.6	9.3	2.8	0.7	192.0	0.996
UNIT3_RUN3_2438.LAB	7/1/2022	11:45:07	2.6	1.5	9.2	2.8	1.6	192.1	1.002
UNIT3_RUN3_2439.LAB	7/1/2022	11:45:14	2.5	2.1	9.1	2.8	2.4	192.1	1.006
UNIT3_RUN3_2440.LAB	7/1/2022	11:45:22	2.7	0.5	9.3	3.0	0.6	192.1	0.999
UNIT3_RUN3_2441.LAB	7/1/2022	11:45:30	2.5	1.0	9.2	2.8	1.1	192.0	1.003
UNIT3_RUN3_2442.LAB	7/1/2022	11:45:37	2.7	-0.1	9.1	3.0	-0.1	192.1	1.011
UNIT3_RUN3_2443.LAB	7/1/2022	11:45:45	2.5	1.2	9.2	2.7	1.3	192.1	1.004
UNIT3_RUN3_2444.LAB	7/1/2022	11:45:52	2.5	2.8	9.2	2.8	3.1	192.0	1.002
UNIT3_RUN3_2445.LAB	7/1/2022	11:46:00	2.5	1.4	9.2	2.8	1.6	192.1	1.005
UNIT3_RUN3_2446.LAB	7/1/2022	11:46:07	2.7	2.1	9.2	3.0	2.3	192.1	1.007
UNIT3_RUN3_2447.LAB	7/1/2022	11:46:15	2.7	1.4	9.2	2.9	1.6	192.1	1.003
UNIT3_RUN3_2448.LAB	7/1/2022	11:46:22	2.5	0.7	9.2	2.8	0.7	192.0	1.006
UNIT3_RUN3_2449.LAB	7/1/2022	11:46:30	2.6	1.8	9.2	2.8	2.0	192.1	1.003
UNIT3_RUN3_2450.LAB	7/1/2022	11:46:37	2.7	2.1	9.1	2.9	2.3	192.1	1.006
UNIT3_RUN3_2451.LAB	7/1/2022	11:46:45	2.5	1.0	9.2	2.8	1.1	192.1	1.005

Spectrum	Date	Time	NH3 (ppmv wet)	CH4 (ppmv wet)	H2O (%v)	NH3 (ppmv dry)	CH4 (ppmv dry)	FTIR Gas Cell Temperature (°C)	FTIR Gas Cell Pressure (atm)
UNIT3_RUN3_2452.LAB	7/1/2022	11:46:52	2.6	1.8	9.1	2.9	2.0	192.1	1.006
UNIT3_RUN3_2453.LAB	7/1/2022	11:47:00	2.7	1.6	9.2	3.0	1.8	192.1	1.004
UNIT3_RUN3_2454.LAB	7/1/2022	11:47:07	2.6	0.3	9.2	2.9	0.4	192.1	1.004
UNIT3_RUN3_2455.LAB	7/1/2022	11:47:15	2.6	0.3	9.2	2.9	0.3	192.0	1.003
UNIT3_RUN3_2456.LAB	7/1/2022	11:47:22	2.6	2.4	9.3	2.9	2.6	192.1	1.000
UNIT3_RUN3_2457.LAB	7/1/2022	11:47:30	2.6	2.5	9.2	2.9	2.8	192.1	1.005
UNIT3_RUN3_2458.LAB	7/1/2022	11:47:37	2.8	1.0	9.2	3.0	1.1	192.1	1.001
UNIT3_RUN3_2459.LAB	7/1/2022	11:47:45	2.8	1.3	9.2	3.0	1.5	192.0	1.010
UNIT3_RUN3_2460.LAB	7/1/2022	11:47:53	2.7	2.4	9.1	3.0	2.7	192.1	1.009
UNIT3_RUN3_2461.LAB	7/1/2022	11:48:00	2.7	1.4	9.1	2.9	1.6	192.0	1.007
UNIT3_RUN3_2462.LAB	7/1/2022	11:48:08	2.7	1.3	9.1	2.9	1.4	192.1	1.011
UNIT3_RUN3_2463.LAB	7/1/2022	11:48:15	2.9	0.1	9.2	3.2	0.1	192.1	0.998
UNIT3_RUN3_2464.LAB	7/1/2022	11:48:22	2.8	0.7	9.2	3.0	0.7	192.0	1.000
UNIT3_RUN3_2465.LAB	7/1/2022	11:48:30	2.7	1.9	9.1	3.0	2.1	192.0	1.006
UNIT3_RUN3_2466.LAB	7/1/2022	11:48:38	2.6	1.3	9.1	2.8	1.4	192.0	1.006
UNIT3_RUN3_2467.LAB	7/1/2022	11:48:45	2.8	2.2	9.2	3.1	2.5	192.0	1.001
UNIT3_RUN3_2468.LAB	7/1/2022	11:48:52	2.8	1.7	9.2	3.1	1.9	192.0	1.006
UNIT3_RUN3_2469.LAB	7/1/2022	11:49:00	2.8	1.0	9.2	3.1	1.1	191.9	1.008
UNIT3_RUN3_2470.LAB	7/1/2022	11:49:07	2.8	1.9	9.2	3.1	2.1	192.0	1.000
UNIT3_RUN3_2471.LAB	7/1/2022	11:49:15	2.8	1.0	9.1	3.1	1.1	192.0	1.009
UNIT3_RUN3_2472.LAB	7/1/2022	11:49:22	2.8	1.7	9.2	3.1	1.9	192.0	1.005
UNIT3_RUN3_2473.LAB	7/1/2022	11:49:30	2.7	2.4	9.2	3.0	2.6	192.0	1.000
UNIT3_RUN3_2474.LAB	7/1/2022	11:49:38	2.8	2.2	9.2	3.1	2.4	192.0	1.002
UNIT3_RUN3_2475.LAB	7/1/2022	11:49:45	2.8	0.9	9.2	3.1	1.0	192.0	1.008
UNIT3_RUN3_2476.LAB	7/1/2022	11:49:53	2.7	0.2	9.2	2.9	0.2	191.9	1.002
UNIT3_RUN3_2477.LAB	7/1/2022	11:50:00	2.8	2.8	9.2	3.1	3.0	191.9	1.000
UNIT3_RUN3_2478.LAB	7/1/2022	11:50:07	2.7	2.9	9.2	3.0	3.2	191.9	0.997
UNIT3_RUN3_2479.LAB	7/1/2022	11:50:15	2.8	0.5	9.2	3.0	0.6	191.9	1.003
UNIT3_RUN3_2480.LAB	7/1/2022	11:50:23	2.7	2.1	9.2	3.0	2.4	192.0	1.003
UNIT3_RUN3_2481.LAB	7/1/2022	11:50:30	2.6	3.0	9.2	2.9	3.3	192.0	0.999
UNIT3_RUN3_2482.LAB	7/1/2022	11:50:37	2.7	2.4	9.2	3.0	2.6	191.9	1.001
UNIT3_RUN3_2483.LAB	7/1/2022	11:50:45	2.7	2.6	9.2	3.0	2.9	192.0	1.005
UNIT3_RUN3_2484.LAB	7/1/2022	11:50:53	2.9	3.1	9.2	3.2	3.4	192.0	1.006
UNIT3_RUN3_2485.LAB	7/1/2022	11:51:00	2.8	-0.1	9.1	3.1	-0.1	192.0	1.010
UNIT3_RUN3_2486.LAB	7/1/2022	11:51:07	2.8	1.5	9.1	3.0	1.6	192.0	1.008
UNIT3_RUN3_2487.LAB	7/1/2022	11:51:15	2.8	2.2	9.2	3.1	2.4	192.0	1.006
UNIT3_RUN3_2488.LAB	7/1/2022	11:51:23	2.8	1.7	9.2	3.1	1.9	192.0	1.005
UNIT3_RUN3_2489.LAB	7/1/2022	11:51:30	2.8	1.8	9.2	3.1	2.0	192.0	0.999
UNIT3_RUN3_2490.LAB	7/1/2022	11:51:38	2.8	1.4	9.2	3.1	1.6	192.0	0.997
UNIT3_RUN3_2491.LAB	7/1/2022	11:51:45	2.8	0.7	9.2	3.1	0.7	192.0	1.001
UNIT3_RUN3_2492.LAB	7/1/2022	11:51:53	2.8	1.4	9.2	3.1	1.6	192.0	1.004
UNIT3_RUN3_2493.LAB	7/1/2022	11:52:00	2.8	1.3	9.2	3.1	1.4	192.0	1.005
UNIT3_RUN3_2494.LAB	7/1/2022	11:52:08	2.8	1.7	9.2	3.1	1.9	192.0	1.002
UNIT3_RUN3_2495.LAB	7/1/2022	11:52:15	2.8	2.2	9.2	3.1	2.5	192.0	1.003
UNIT3_RUN3_2496.LAB	7/1/2022	11:52:23	2.8	0.9	9.2	3.1	1.0	192.1	1.005
UNIT3_RUN3_2497.LAB	7/1/2022	11:52:30	3.0	-0.1	9.1	3.3	-0.1	192.0	1.004
UNIT3_RUN3_2498.LAB	7/1/2022	11:52:38	2.9	2.4	9.2	3.2	2.6	192.0	1.002
UNIT3_RUN3_2499.LAB	7/1/2022	11:52:45	2.8	1.6	9.2	3.1	1.8	192.0	1.002
UNIT3_RUN3_2500.LAB	7/1/2022	11:52:53	2.9	0.6	9.2	3.2	0.7	192.1	1.005
UNIT3_RUN3_2501.LAB	7/1/2022	11:53:00	2.8	2.1	9.2	3.1	2.3	192.0	1.003
UNIT3_RUN3_2502.LAB	7/1/2022	11:53:08	2.8	2.9	9.2	3.1	3.2	192.0	1.001
UNIT3_RUN3_2503.LAB	7/1/2022	11:53:15	3.0	1.6	9.2	3.3	1.7	192.0	1.001
UNIT3_RUN3_2504.LAB	7/1/2022	11:53:23	2.9	0.6	9.2	3.2	0.7	192.0	1.003
UNIT3_RUN3_2505.LAB	7/1/2022	11:53:30	2.8	2.6	9.2	3.1	2.8	192.0	1.002
UNIT3_RUN3_2506.LAB	7/1/2022	11:53:38	2.9	-0.5	9.2	3.1	-0.5	192.0	1.002
UNIT3_RUN3_2507.LAB	7/1/2022	11:53:45	2.9	2.1	9.1	3.2	2.3	192.0	1.008
UNIT3_RUN3_2508.LAB	7/1/2022	11:53:53	3.0	3.0	9.2	3.3	3.3	192.0	1.004
UNIT3_RUN3_2509.LAB	7/1/2022	11:54:00	2.9	1.6	9.2	3.2	1.8	192.0	1.005
UNIT3_RUN3_2510.LAB	7/1/2022	11:54:08	2.9	2.1	9.2	3.2	2.4	192.0	1.001
UNIT3_RUN3_2511.LAB	7/1/2022	11:54:15	2.9	3.0	9.2	3.2	3.3	192.0	1.002
UNIT3_RUN3_2512.LAB	7/1/2022	11:54:23	3.0	-0.2	9.1	3.3	-0.2	192.0	1.007

Spectrum	Date	Time	NH3 (ppmv wet)	CH4 (ppmv wet)	H2O (%v)	NH3 (ppmv dry)	CH4 (ppmv dry)	FTIR Gas Cell Temperature (°C)	FTIR Gas Cell Pressure (atm)
UNIT3_RUN3_2513.LAB	7/1/2022	11:54:30	2.9	1.4	9.2	3.2	1.6	192.0	1.001
UNIT3_RUN3_2514.LAB	7/1/2022	11:54:38	2.9	2.6	9.2	3.2	2.8	192.0	1.006
UNIT3_RUN3_2515.LAB	7/1/2022	11:54:46	2.8	0.6	9.1	3.0	0.6	192.0	1.008
UNIT3_RUN3_2516.LAB	7/1/2022	11:54:53	2.7	1.1	9.2	3.0	1.2	192.0	1.003
UNIT3_RUN3_2517.LAB	7/1/2022	11:55:00	2.9	2.9	9.2	3.2	3.2	192.0	1.003
UNIT3_RUN3_2518.LAB	7/1/2022	11:55:08	2.8	1.0	9.2	3.1	1.1	192.0	1.003
UNIT3_RUN3_2519.LAB	7/1/2022	11:55:15	2.8	-0.1	9.2	3.1	-0.1	192.0	0.998
UNIT3_RUN3_2520.LAB	7/1/2022	11:55:23	2.8	2.0	9.3	3.1	2.2	192.0	0.998
UNIT3_RUN3_2521.LAB	7/1/2022	11:55:31	2.7	1.3	9.2	3.0	1.5	192.0	1.003
UNIT3_RUN3_2522.LAB	7/1/2022	11:55:38	2.8	0.9	9.3	3.0	1.0	192.0	0.992
UNIT3_RUN3_2523.LAB	7/1/2022	11:55:46	2.8	2.2	9.2	3.1	2.4	192.0	0.997
UNIT3_RUN3_2524.LAB	7/1/2022	11:55:53	2.8	0.8	9.2	3.1	0.9	192.0	1.009
UNIT3_RUN3_2525.LAB	7/1/2022	11:56:01	2.8	1.0	9.2	3.1	1.1	192.0	1.002
UNIT3_RUN3_2526.LAB	7/1/2022	11:56:08	2.9	1.8	9.2	3.2	2.0	192.0	0.999
UNIT3_RUN3_2527.LAB	7/1/2022	11:56:16	3.0	1.3	9.2	3.3	1.4	192.0	1.003
UNIT3_RUN3_2528.LAB	7/1/2022	11:56:23	2.9	3.6	9.2	3.2	4.0	192.0	1.002
UNIT3_RUN3_2529.LAB	7/1/2022	11:56:30	3.0	2.9	9.2	3.3	3.1	192.0	0.999
UNIT3_RUN3_2530.LAB	7/1/2022	11:56:38	2.8	2.0	9.2	3.0	2.2	192.0	1.006
UNIT3_RUN3_2531.LAB	7/1/2022	11:56:45	2.9	2.0	9.2	3.2	2.2	192.0	1.005
UNIT3_RUN3_2532.LAB	7/1/2022	11:56:53	3.0	1.4	9.2	3.3	1.5	192.0	0.999
UNIT3_RUN3_2533.LAB	7/1/2022	11:57:00	2.8	2.3	9.1	3.1	2.5	192.0	1.010
UNIT3_RUN3_2534.LAB	7/1/2022	11:57:08	2.9	1.1	9.2	3.2	1.2	192.0	0.999
UNIT3_RUN3_2535.LAB	7/1/2022	11:57:15	2.9	1.4	9.2	3.2	1.5	192.0	0.997
UNIT3_RUN3_2536.LAB	7/1/2022	11:57:23	3.0	0.3	9.2	3.3	0.3	191.9	0.997
UNIT3_RUN3_2537.LAB	7/1/2022	11:57:30	2.9	-0.4	9.2	3.1	-0.4	192.0	0.998
UNIT3_RUN3_2538.LAB	7/1/2022	11:57:38	2.8	1.6	9.2	3.1	1.7	192.0	1.002
UNIT3_RUN3_2539.LAB	7/1/2022	11:57:46	2.9	1.0	9.2	3.2	1.0	192.1	0.999
UNIT3_RUN3_2540.LAB	7/1/2022	11:57:53	3.1	0.9	9.2	3.4	1.0	192.0	0.998
UNIT3_RUN3_2541.LAB	7/1/2022	11:58:01	3.1	0.5	9.2	3.4	0.6	192.0	1.002
UNIT3_RUN3_2542.LAB	7/1/2022	11:58:08	2.9	0.5	9.2	3.2	0.6	192.0	1.006
UNIT3_RUN3_2543.LAB	7/1/2022	11:58:16	2.9	2.5	9.2	3.2	2.8	192.0	1.003
UNIT3_RUN3_2544.LAB	7/1/2022	11:58:23	3.0	2.2	9.2	3.3	2.4	192.0	1.002
UNIT3_RUN3_2545.LAB	7/1/2022	11:58:31	2.9	1.3	9.2	3.2	1.4	192.0	1.008
UNIT3_RUN3_2546.LAB	7/1/2022	11:58:38	2.9	0.7	9.2	3.2	0.7	192.0	1.003
UNIT3_RUN3_2547.LAB	7/1/2022	11:58:46	3.0	1.4	9.2	3.3	1.6	191.9	1.004
UNIT3_RUN3_2548.LAB	7/1/2022	11:58:53	2.8	0.4	9.1	3.1	0.5	191.9	1.012
UNIT3_RUN3_2549.LAB	7/1/2022	11:59:01	2.9	1.5	9.1	3.2	1.6	191.9	1.006
UNIT3_RUN3_2550.LAB	7/1/2022	11:59:08	2.9	1.7	9.2	3.2	1.9	191.9	1.000
UNIT3_RUN3_2551.LAB	7/1/2022	11:59:16	2.8	1.1	9.2	3.1	1.2	191.9	0.998
UNIT3_RUN3_2552.LAB	7/1/2022	11:59:23	2.9	2.1	9.2	3.2	2.3	191.9	1.000
UNIT3_RUN3_2553.LAB	7/1/2022	11:59:31	3.0	0.7	9.2	3.3	0.8	192.0	0.999
UNIT3_RUN3_2554.LAB	7/1/2022	11:59:38	3.0	1.4	9.2	3.3	1.6	192.0	0.996
UNIT3_RUN3_2555.LAB	7/1/2022	11:59:46	2.8	1.2	9.2	3.1	1.3	192.0	1.000
UNIT3_RUN3_2556.LAB	7/1/2022	11:59:53	2.8	2.3	9.1	3.0	2.5	192.0	1.007
UNIT3_RUN3_2557.LAB	7/1/2022	12:00:01	2.9	2.8	9.2	3.2	3.1	192.0	1.008
UNIT3_RUN3_2558.LAB	7/1/2022	12:00:08	2.8	1.2	9.2	3.0	1.3	192.0	1.001
UNIT3_RUN3_2559.LAB	7/1/2022	12:00:16	2.9	2.5	9.2	3.2	2.7	192.0	0.998
UNIT3_RUN3_2560.LAB	7/1/2022	12:00:23	2.8	1.6	9.1	3.0	1.8	192.0	1.006
UNIT3_RUN3_2561.LAB	7/1/2022	12:00:31	2.8	1.8	9.1	3.1	2.0	192.0	1.005
UNIT3_RUN3_2562.LAB	7/1/2022	12:00:38	2.8	1.1	9.1	3.1	1.2	192.0	1.004
UNIT3_RUN3_2563.LAB	7/1/2022	12:00:46	2.8	1.4	9.2	3.1	1.6	192.0	1.001
UNIT3_RUN3_2564.LAB	7/1/2022	12:00:54	2.8	1.5	9.2	3.0	1.6	192.0	1.004
UNIT3_RUN3_2565.LAB	7/1/2022	12:01:01	2.9	1.4	9.2	3.2	1.6	192.0	1.004
UNIT3_RUN3_2566.LAB	7/1/2022	12:01:08	2.8	1.8	9.1	3.1	2.0	192.0	1.006
UNIT3_RUN3_2567.LAB	7/1/2022	12:01:16	2.9	0.4	9.2	3.1	0.4	192.0	1.006
UNIT3_RUN3_2568.LAB	7/1/2022	12:01:23	2.9	2.2	9.2	3.2	2.4	192.1	1.003
UNIT3_RUN3_2569.LAB	7/1/2022	12:01:31	2.8	1.1	9.2	3.1	1.2	192.1	1.005
UNIT3_RUN3_2570.LAB	7/1/2022	12:01:39	2.9	0.9	9.2	3.2	1.0	192.1	1.001
UNIT3_RUN3_2571.LAB	7/1/2022	12:01:46	3.0	1.6	9.3	3.3	1.8	192.1	0.997
UNIT3_RUN3_2572.LAB	7/1/2022	12:01:53	2.7	1.5	9.0	3.0	1.6	192.0	1.002
UNIT3_RUN3_2573.LAB	7/1/2022	12:02:01	2.9	1.4	9.2	3.2	1.5	192.0	1.000

Spectrum	Date	Time	NH3 (ppmv wet)	CH4 (ppmv wet)	H2O (%v)	NH3 (ppmv dry)	CH4 (ppmv dry)	FTIR Gas Cell Temperature (°C)	FTIR Gas Cell Pressure (atm)
UNIT3_RUN3_2574.LAB	7/1/2022	12:02:08	3.0	1.0	9.3	3.3	1.1	192.0	0.999
UNIT3_RUN3_2575.LAB	7/1/2022	12:02:16	2.9	1.7	9.2	3.2	1.9	192.0	1.010
UNIT3_RUN3_2576.LAB	7/1/2022	12:02:23	2.9	0.5	9.2	3.2	0.5	192.0	1.004
UNIT3_RUN3_2577.LAB	7/1/2022	12:02:31	2.9	1.1	9.3	3.3	1.2	192.0	1.006
UNIT3_RUN3_2578.LAB	7/1/2022	12:02:38	3.0	1.4	9.2	3.3	1.5	192.0	1.007
UNIT3_RUN3_2579.LAB	7/1/2022	12:02:46	2.8	2.5	9.2	3.1	2.7	192.0	1.004
UNIT3_RUN3_2580.LAB	7/1/2022	12:02:53	3.0	2.0	9.2	3.3	2.2	191.9	1.004
7/1/2022	**Minimum**		**2.2**	**-1.4**	**9.0**	**2.5**	**-1.6**		
GT3 - Test Run 3	**Maximum**		**3.4**	**3.6**	**9.4**	**3.7**	**4.0**		
11:02 - 12:02	**Average**		**2.8**	**1.5**	**9.2**	**3.0**	**1.6**		

GT4 - Test Run 1

Spectrum	Date	Time	NH3 (ppmv wet)	CH4 (ppmv wet)	H2O (%v)	NH3 (ppmv dry)	CH4 (ppmv dry)	FTIR Gas Cell Temperature (°C)	FTIR Gas Cell Pressure (atm)
UNIT4_RUN1_2792.LAB	7/3/2022	7:17:52	0.4	2.0	8.7	0.4	2.1	192.0	1.002
UNIT4_RUN1-2_2793.LAB	7/3/2022	7:19:53	0.6	2.1	9.8	0.6	2.3	192.2	1.000
UNIT4_RUN1-2_2794.LAB	7/3/2022	7:20:53	0.6	1.7	9.9	0.6	1.9	192.2	1.002
UNIT4_RUN1-2_2795.LAB	7/3/2022	7:21:54	0.5	1.9	9.8	0.6	2.1	192.2	1.002
UNIT4_RUN1-2_2796.LAB	7/3/2022	7:22:54	0.6	2.0	9.6	0.7	2.2	192.1	1.003
UNIT4_RUN1-2_2797.LAB	7/3/2022	7:23:54	0.5	2.0	9.6	0.6	2.2	192.0	1.001
UNIT4_RUN1-2_2798.LAB	7/3/2022	7:24:53	0.6	2.0	9.7	0.7	2.2	192.0	1.002
UNIT4_RUN1-2_2799.LAB	7/3/2022	7:25:54	0.6	2.0	9.7	0.7	2.2	192.0	1.002
UNIT4_RUN1-2_2800.LAB	7/3/2022	7:26:54	0.6	2.1	9.9	0.7	2.3	192.0	1.000
UNIT4_RUN1-2_2801.LAB	7/3/2022	7:27:54	0.7	2.7	9.9	0.8	3.0	192.1	1.002
UNIT4_RUN1-2_2802.LAB	7/3/2022	7:28:54	0.7	2.6	9.7	0.8	2.9	192.2	1.003
UNIT4_RUN1-2_2803.LAB	7/3/2022	7:29:54	0.7	2.6	9.5	0.7	2.9	192.2	1.002
UNIT4_RUN1-2_2804.LAB	7/3/2022	7:30:54	0.7	2.1	9.6	0.8	2.4	192.1	1.003
UNIT4_RUN1-2_2805.LAB	7/3/2022	7:31:54	0.6	1.9	9.9	0.7	2.1	192.1	1.002
UNIT4_RUN1-2_2806.LAB	7/3/2022	7:32:54	0.6	2.0	9.8	0.7	2.3	192.0	1.002
UNIT4_RUN1-2_2811.LAB	7/3/2022	7:37:55	0.3	2.1	9.2	0.4	2.3	192.2	1.002
UNIT4_RUN1-2_2812.LAB	7/3/2022	7:38:55	0.4	1.9	9.6	0.5	2.1	192.2	1.003
UNIT4_RUN1-2_2813.LAB	7/3/2022	7:39:55	0.5	1.7	9.9	0.5	1.9	192.1	1.002
UNIT4_RUN1-2_2814.LAB	7/3/2022	7:40:55	0.5	1.7	10.0	0.6	1.9	192.1	1.000
UNIT4_RUN1-2_2815.LAB	7/3/2022	7:41:55	0.5	1.9	9.4	0.5	2.1	192.0	1.004
UNIT4_RUN1-2_2816.LAB	7/3/2022	7:42:55	0.5	1.4	9.1	0.5	1.5	191.9	1.004
UNIT4_RUN1-2_2817.LAB	7/3/2022	7:43:55	0.6	1.3	10.8	0.7	1.4	192.0	1.002
UNIT4_RUN1-2_2818.LAB	7/3/2022	7:44:55	0.7	2.1	10.0	0.7	2.3	192.1	1.000
UNIT4_RUN1-2_2819.LAB	7/3/2022	7:45:55	0.7	1.6	10.2	0.8	1.8	192.2	1.003
UNIT4_RUN1-2_2820.LAB	7/3/2022	7:46:56	0.7	1.6	9.8	0.7	1.8	192.1	1.002
UNIT4_RUN1-2_2821.LAB	7/3/2022	7:47:55	0.6	1.8	9.6	0.6	2.0	192.0	1.003
UNIT4_RUN1-2_2822.LAB	7/3/2022	7:48:55	0.6	2.9	9.6	0.6	3.2	192.0	1.002
UNIT4_RUN1-2_2823.LAB	7/3/2022	7:49:56	0.5	1.2	9.8	0.6	1.3	192.0	1.000
UNIT4_RUN1-2_2824.LAB	7/3/2022	7:50:56	0.7	1.2	11.2	0.8	1.3	191.9	1.003
UNIT4_RUN1-2_2825.LAB	7/3/2022	7:51:56	0.6	1.7	9.9	0.7	1.9	192.0	1.003
UNIT4_RUN1-2_2826.LAB	7/3/2022	7:52:56	0.6	2.1	9.4	0.7	2.3	192.1	1.002
UNIT4_RUN1-2_2827.LAB	7/3/2022	7:53:56	0.6	1.9	10.4	0.7	2.1	192.3	1.003
UNIT4_RUN1-2_2828.LAB	7/3/2022	7:54:56	0.6	2.0	10.1	0.7	2.2	192.1	1.003
UNIT4_RUN1-2_2829.LAB	7/3/2022	7:55:56	0.6	1.1	11.2	0.7	1.3	192.0	1.000
UNIT4_RUN1-2_2830.LAB	7/3/2022	7:56:56	0.7	1.7	9.5	0.7	1.9	191.9	1.004
UNIT4_RUN1-2_2831.LAB	7/3/2022	7:57:56	0.7	2.4	9.1	0.7	2.6	192.0	1.001
UNIT4_RUN1-2_2832.LAB	7/3/2022	7:58:56	0.7	1.2	10.9	0.8	1.3	192.0	1.003
UNIT4_RUN1-2_2833.LAB	7/3/2022	7:59:56	0.7	1.4	10.8	0.8	1.6	192.0	1.002
UNIT4_RUN1-2_2834.LAB	7/3/2022	8:00:56	0.7	1.4	10.0	0.7	1.6	192.2	1.004
UNIT4_RUN1-2_2835.LAB	7/3/2022	8:01:56	0.6	1.4	9.3	0.6	1.6	192.3	1.003
UNIT4_RUN1-2_2836.LAB	7/3/2022	8:02:57	0.7	2.1	10.0	0.8	2.3	192.1	0.999
UNIT4_RUN1-2_2837.LAB	7/3/2022	8:03:57	0.6	1.9	9.4	0.7	2.1	192.0	1.003
UNIT4_RUN1-2_2838.LAB	7/3/2022	8:04:57	0.5	1.4	11.4	0.6	1.6	191.9	1.002
UNIT4_RUN1-2_2839.LAB	7/3/2022	8:05:57	0.5	1.8	9.8	0.6	2.0	191.9	1.002
UNIT4_RUN1-2_2840.LAB	7/3/2022	8:06:57	0.5	1.5	9.6	0.6	1.6	191.8	1.004
UNIT4_RUN1-2_2841.LAB	7/3/2022	8:07:57	0.6	1.5	10.4	0.7	1.6	191.9	1.003
UNIT4_RUN1-2_2842.LAB	7/3/2022	8:08:57	0.7	2.1	9.7	0.8	2.4	192.1	1.001

Spectrum	Date	Time	NH3 (ppmv wet)	CH4 (ppmv wet)	H2O (%v)	NH3 (ppmv dry)	CH4 (ppmv dry)	FTIR Gas Cell Temperature (°C)	FTIR Gas Cell Pressure (atm)
UNIT4_RUN1-2_2843.LAB	7/3/2022	8:09:57	0.7	1.9	9.7	0.8	2.1	192.1	1.002
UNIT4_RUN1-2_2844.LAB	7/3/2022	8:10:57	0.7	1.2	9.5	0.8	1.3	191.9	1.003
UNIT4_RUN1-2_2845.LAB	7/3/2022	8:11:58	0.6	1.2	9.0	0.6	1.4	191.8	1.003
UNIT4_RUN1-2_2846.LAB	7/3/2022	8:12:57	0.5	3.0	8.7	0.6	3.3	191.8	1.001
UNIT4_RUN1-2_2847.LAB	7/3/2022	8:13:57	0.6	1.9	9.1	0.7	2.1	191.8	1.002
UNIT4_RUN1-2_2848.LAB	7/3/2022	8:14:57	0.6	1.6	9.2	0.7	1.7	191.8	1.003
UNIT4_RUN1-2_2849.LAB	7/3/2022	8:15:58	0.6	1.9	9.5	0.6	2.1	191.9	1.001
UNIT4_RUN1-2_2850.LAB	7/3/2022	8:16:58	0.7	2.2	9.6	0.7	2.5	192.0	1.002
UNIT4_RUN1-2_2851.LAB	7/3/2022	8:17:58	0.7	1.4	9.0	0.8	1.5	192.0	1.004
UNIT4_RUN1-2_2852.LAB	7/3/2022	8:18:58	0.8	2.2	9.3	0.9	2.4	191.8	1.001
UNIT4_RUN1-2_2853.LAB	7/3/2022	8:19:58	0.8	2.2	9.2	0.9	2.5	191.8	1.003
UNIT4_RUN1-2_2854.LAB	7/3/2022	8:20:58	0.8	2.1	9.7	0.9	2.3	191.7	1.002
UNIT4_RUN1-2_2855.LAB	7/3/2022	8:21:58	0.9	1.0	10.5	1.0	1.2	191.8	1.002
UNIT4_RUN1-2_2856.LAB	7/3/2022	8:22:58	0.9	2.4	10.7	1.0	2.6	191.9	1.002
UNIT4_RUN1-2_2857.LAB	7/3/2022	8:23:58	0.9	2.3	10.0	1.0	2.6	192.1	1.000
UNIT4_RUN1-2_2858.LAB	7/3/2022	8:24:58	0.9	2.2	10.1	1.0	2.4	192.1	1.003
UNIT4_RUN1-2_2859.LAB	7/3/2022	8:25:58	1.0	1.9	10.2	1.1	2.2	191.9	1.003
UNIT4_RUN1-2_2860.LAB	7/3/2022	8:26:59	1.0	2.7	9.5	1.1	2.9	191.8	1.002
UNIT4_RUN1-2_2861.LAB	7/3/2022	8:27:58	1.0	2.8	9.4	1.1	3.1	191.6	1.002
UNIT4_RUN1-2_2862.LAB	7/3/2022	8:28:59	1.1	3.1	9.9	1.2	3.4	191.6	1.001
7/3/2022	**Minimum**		**0.3**	**1.0**	**8.7**	**0.4**	**1.2**		
GT4 - Test Run 1	**Maximum**		**1.1**	**3.1**	**11.4**	**1.2**	**3.4**		
7:17 - 8:29	**Average**		**0.6**	**1.9**	**9.8**	**0.7**	**2.1**		

GT4 - Test Run 2

Spectrum	Date	Time	NH3 (ppmv wet)	CH4 (ppmv wet)	H2O (%v)	NH3 (ppmv dry)	CH4 (ppmv dry)	FTIR Gas Cell Temperature (°C)	FTIR Gas Cell Pressure (atm)
UNIT4_RUN2_2872.LAB	7/3/2022	8:50:19	0.4	4.2	9.1	0.4	4.6	191.5	1.000
UNIT4_RUN2_2873.LAB	7/3/2022	8:51:19	0.5	3.9	9.3	0.5	4.2	191.6	1.004
UNIT4_RUN2_2874.LAB	7/3/2022	8:52:19	0.6	2.7	10.5	0.6	3.0	191.9	1.000
UNIT4_RUN2_2875.LAB	7/3/2022	8:53:19	0.8	2.9	10.0	0.9	3.2	192.0	1.002
UNIT4_RUN2_2876.LAB	7/3/2022	8:54:19	0.9	3.2	9.3	0.9	3.6	192.0	1.003
UNIT4_RUN2_2877.LAB	7/3/2022	8:55:19	0.8	3.4	9.3	0.9	3.7	191.9	1.003
UNIT4_RUN2_2878.LAB	7/3/2022	8:56:19	0.8	2.6	10.9	0.9	3.0	191.8	1.002
UNIT4_RUN2_2879.LAB	7/3/2022	8:57:19	1.1	2.7	11.3	1.3	3.1	191.8	1.003
UNIT4_RUN2_2880.LAB	7/3/2022	8:58:19	0.9	2.6	10.3	1.1	2.9	191.7	1.002
UNIT4_RUN2_2881.LAB	7/3/2022	8:59:20	1.0	2.9	10.4	1.1	3.2	191.8	1.003
UNIT4_RUN2_2882.LAB	7/3/2022	9:00:19	1.0	2.4	10.2	1.1	2.7	191.9	1.000
UNIT4_RUN2_2883.LAB	7/3/2022	9:01:20	0.9	4.0	9.7	1.0	4.4	192.0	1.004
UNIT4_RUN2_2884.LAB	7/3/2022	9:02:19	0.8	4.5	9.6	0.9	5.0	191.8	1.004
UNIT4_RUN2_2885.LAB	7/3/2022	9:03:20	0.7	2.8	10.0	0.8	3.1	191.8	1.001
UNIT4_RUN2_2886.LAB	7/3/2022	9:04:20	0.8	4.1	9.9	0.9	4.5	191.6	1.002
UNIT4_RUN2_2887.LAB	7/3/2022	9:05:20	0.9	3.0	10.2	1.0	3.3	191.6	1.001
UNIT4_RUN2_2888.LAB	7/3/2022	9:06:20	1.0	2.6	10.1	1.1	2.9	191.6	1.001
UNIT4_RUN2_2889.LAB	7/3/2022	9:07:20	0.9	3.7	9.9	1.0	4.1	191.9	1.003
UNIT4_RUN2_2890.LAB	7/3/2022	9:08:20	0.8	3.4	10.3	0.9	3.8	191.9	1.000
UNIT4_RUN2_2891.LAB	7/3/2022	9:09:20	0.9	3.3	10.3	1.1	3.7	191.9	1.002
UNIT4_RUN2_2892.LAB	7/3/2022	9:10:20	0.9	3.1	10.3	1.1	3.5	191.8	1.000
UNIT4_RUN2_2893.LAB	7/3/2022	9:11:21	0.9	2.8	10.3	1.0	3.1	191.7	1.002
UNIT4_RUN2_2894.LAB	7/3/2022	9:12:20	0.9	2.9	10.0	1.0	3.3	191.6	1.003
UNIT4_RUN2_2895.LAB	7/3/2022	9:13:20	1.0	3.4	10.0	1.1	3.8	191.8	1.002
UNIT4_RUN2_2896.LAB	7/3/2022	9:14:20	0.9	3.5	10.3	1.0	3.9	191.9	1.002
UNIT4_RUN2_2897.LAB	7/3/2022	9:15:21	0.9	3.2	10.3	1.0	3.5	191.9	1.001
UNIT4_RUN2_2898.LAB	7/3/2022	9:16:21	0.9	2.9	10.3	1.0	3.2	191.8	1.002
UNIT4_RUN2_2899.LAB	7/3/2022	9:17:21	0.9	2.6	10.2	1.0	2.9	191.7	1.001
UNIT4_RUN2_2900.LAB	7/3/2022	9:18:21	0.9	2.6	10.1	1.0	2.8	191.6	1.000
UNIT4_RUN2_2901.LAB	7/3/2022	9:19:21	0.9	2.2	10.1	1.0	2.4	191.6	1.001
UNIT4_RUN2_2902.LAB	7/3/2022	9:20:21	0.9	3.0	10.1	1.0	3.4	191.7	1.005
UNIT4_RUN2_2903.LAB	7/3/2022	9:21:21	0.9	2.8	10.3	1.0	3.1	192.0	1.002
UNIT4_RUN2_2904.LAB	7/3/2022	9:22:22	1.0	3.3	10.4	1.1	3.7	192.1	1.000
UNIT4_RUN2_2905.LAB	7/3/2022	9:23:21	1.0	2.5	10.4	1.2	2.8	191.9	1.003

Spectrum	Date	Time	NH3 (ppmv wet)	CH4 (ppmv wet)	H2O (%v)	NH3 (ppmv dry)	CH4 (ppmv dry)	FTIR Gas Cell Temperature (°C)	FTIR Gas Cell Pressure (atm)
UNIT4_RUN2_2906.LAB	7/3/2022	9:24:21	1.0	3.7	10.4	1.1	4.2	191.8	1.003
UNIT4_RUN2_2907.LAB	7/3/2022	9:25:21	0.9	2.7	10.3	1.0	3.1	191.6	1.003
UNIT4_RUN2_2908.LAB	7/3/2022	9:26:22	0.9	3.4	10.3	1.0	3.8	191.6	1.001
UNIT4_RUN2_2909.LAB	7/3/2022	9:27:21	0.8	1.8	10.1	0.9	2.0	191.7	1.002
UNIT4_RUN2_2910.LAB	7/3/2022	9:28:22	0.8	3.0	10.0	0.9	3.3	192.0	1.003
UNIT4_RUN2_2911.LAB	7/3/2022	9:29:22	0.9	2.5	10.0	1.0	2.8	192.0	1.003
UNIT4_RUN2_2912.LAB	7/3/2022	9:30:22	0.9	2.9	10.1	1.0	3.3	191.9	1.002
UNIT4_RUN2_2913.LAB	7/3/2022	9:31:22	0.9	3.2	10.0	1.0	3.6	191.8	1.002
UNIT4_RUN2_2914.LAB	7/3/2022	9:32:22	0.7	2.6	10.0	0.8	2.9	191.8	1.002
UNIT4_RUN2_2915.LAB	7/3/2022	9:33:22	0.9	3.0	9.6	1.0	3.3	191.7	1.002
UNIT4_RUN2_2916.LAB	7/3/2022	9:34:22	0.7	4.2	9.2	0.8	4.7	191.7	1.000
UNIT4_RUN2_2917.LAB	7/3/2022	9:35:22	0.7	3.2	9.2	0.8	3.5	192.0	1.003
UNIT4_RUN2_2918.LAB	7/3/2022	9:36:22	0.7	5.1	9.2	0.7	5.6	192.1	1.003
UNIT4_RUN2_2919.LAB	7/3/2022	9:37:22	0.6	3.9	9.1	0.7	4.3	192.0	1.002
UNIT4_RUN2_2920.LAB	7/3/2022	9:38:22	0.6	6.0	9.3	0.6	6.6	191.9	1.001
UNIT4_RUN2_2921.LAB	7/3/2022	9:39:22	0.6	1.7	9.6	0.7	1.9	191.8	1.003
UNIT4_RUN2_2922.LAB	7/3/2022	9:40:22	0.7	2.9	9.8	0.8	3.2	191.7	1.002
UNIT4_RUN2_2923.LAB	7/3/2022	9:41:23	0.8	4.5	9.5	0.8	4.9	191.7	1.002
UNIT4_RUN2_2924.LAB	7/3/2022	9:42:23	0.7	4.9	9.2	0.8	5.4	191.9	1.002
UNIT4_RUN2_2925.LAB	7/3/2022	9:43:23	0.7	3.6	9.5	0.8	4.0	192.1	1.002
UNIT4_RUN2_2926.LAB	7/3/2022	9:44:23	0.7	2.2	9.8	0.7	2.4	192.0	1.003
UNIT4_RUN2_2927.LAB	7/3/2022	9:45:23	0.7	2.1	10.1	0.8	2.4	191.8	1.002
UNIT4_RUN2_2928.LAB	7/3/2022	9:46:23	0.8	2.9	10.2	0.9	3.2	191.7	1.002
UNIT4_RUN2_2929.LAB	7/3/2022	9:47:23	0.8	3.0	10.1	0.9	3.3	191.6	1.003
UNIT4_RUN2_2930.LAB	7/3/2022	9:48:23	0.8	4.7	9.6	0.9	5.2	191.7	1.003
UNIT4_RUN2_2931.LAB	7/3/2022	9:49:23	0.8	5.3	9.3	0.9	5.8	191.9	1.001
7/3/2022	**Minimum**		**0.4**	**1.7**	**9.1**	**0.4**	**1.9**		
GT4 - Test Run 2	**Maximum**		**1.1**	**6.0**	**11.3**	**1.3**	**6.6**		
8:49 - 9:49	**Average**		**0.8**	**3.2**	**9.9**	**0.9**	**3.6**		

GT4 - Test Run 3

Spectrum	Date	Time	NH3 (ppmv wet)	CH4 (ppmv wet)	H2O (%v)	NH3 (ppmv dry)	CH4 (ppmv dry)	FTIR Gas Cell Temperature (°C)	FTIR Gas Cell Pressure (atm)
UNIT4_RUN3_2950.LAB	7/3/2022	10:06:12	0.5	3.2	9.9	0.5	3.5	191.8	1.003
UNIT4_RUN3_2951.LAB	7/3/2022	10:07:12	0.6	2.9	10.2	0.7	3.2	191.7	1.001
UNIT4_RUN3_2952.LAB	7/3/2022	10:08:12	0.8	2.9	10.3	0.8	3.2	191.7	1.002
UNIT4_RUN3_2953.LAB	7/3/2022	10:09:12	0.8	2.3	10.5	0.9	2.6	191.6	1.001
UNIT4_RUN3_2954.LAB	7/3/2022	10:10:12	0.9	2.3	10.3	1.0	2.6	191.8	1.003
UNIT4_RUN3_2955.LAB	7/3/2022	10:11:12	1.1	2.5	10.3	1.2	2.8	191.9	1.002
UNIT4_RUN3_2956.LAB	7/3/2022	10:12:13	1.0	2.6	10.2	1.2	2.9	191.9	1.002
UNIT4_RUN3_2957.LAB	7/3/2022	10:13:13	1.0	2.5	10.1	1.1	2.8	191.8	1.003
UNIT4_RUN3_2958.LAB	7/3/2022	10:14:13	1.0	3.2	9.9	1.1	3.5	191.7	1.000
UNIT4_RUN3_2959.LAB	7/3/2022	10:15:13	1.0	4.3	9.5	1.1	4.8	191.6	1.003
UNIT4_RUN3_2960.LAB	7/3/2022	10:16:13	0.9	2.6	9.5	0.9	2.8	191.6	1.002
UNIT4_RUN3_2961.LAB	7/3/2022	10:17:13	0.8	3.2	9.6	0.9	3.5	191.7	1.004
UNIT4_RUN3_2962.LAB	7/3/2022	10:18:13	0.6	3.1	9.5	0.7	3.4	191.9	1.003
UNIT4_RUN3_2963.LAB	7/3/2022	10:19:13	0.7	3.9	9.2	0.8	4.3	191.9	1.003
UNIT4_RUN3_2964.LAB	7/3/2022	10:20:13	0.7	4.0	9.2	0.7	4.4	191.9	1.002
UNIT4_RUN3_2965.LAB	7/3/2022	10:21:13	0.8	4.3	9.3	0.9	4.7	191.8	1.001
UNIT4_RUN3_2966.LAB	7/3/2022	10:22:13	0.8	5.3	9.3	0.8	5.8	191.7	1.003
UNIT4_RUN3_2967.LAB	7/3/2022	10:23:13	0.8	4.7	9.1	0.9	5.2	191.6	1.004
UNIT4_RUN3_2968.LAB	7/3/2022	10:24:13	0.7	3.9	9.2	0.8	4.3	191.6	1.001
UNIT4_RUN3_2969.LAB	7/3/2022	10:25:14	0.7	2.5	9.5	0.8	2.8	191.7	1.002
UNIT4_RUN3_2970.LAB	7/3/2022	10:26:14	0.8	2.6	10.2	0.9	2.9	191.8	1.004
UNIT4_RUN3_2971.LAB	7/3/2022	10:27:14	0.9	2.8	10.4	1.1	3.1	191.9	1.001
UNIT4_RUN3_2972.LAB	7/3/2022	10:28:14	0.9	2.1	9.8	1.0	2.3	191.8	1.003
UNIT4_RUN3_2973.LAB	7/3/2022	10:29:14	0.7	2.5	9.4	0.8	2.8	191.7	1.002
UNIT4_RUN3_2974.LAB	7/3/2022	10:30:14	0.7	2.7	9.7	0.8	3.0	191.6	1.002
UNIT4_RUN3_2975.LAB	7/3/2022	10:31:14	0.7	1.8	10.2	0.8	2.0	191.5	1.002
UNIT4_RUN3_2976.LAB	7/3/2022	10:32:14	0.9	2.7	10.4	1.1	3.1	191.5	1.002
UNIT4_RUN3_2977.LAB	7/3/2022	10:33:14	1.0	2.6	9.9	1.1	2.9	191.7	1.002

Spectrum	Date	Time	NH3 (ppmv wet)	CH4 (ppmv wet)	H2O (%v)	NH3 (ppmv dry)	CH4 (ppmv dry)	FTIR Gas Cell Temperature (°C)	FTIR Gas Cell Pressure (atm)
UNIT4_RUN3_2978.LAB	7/3/2022	10:34:14	0.9	3.1	9.6	1.0	3.4	191.9	1.002
UNIT4_RUN3_2979.LAB	7/3/2022	10:35:14	0.8	2.7	9.8	0.9	3.0	191.9	1.002
UNIT4_RUN3_2980.LAB	7/3/2022	10:36:14	1.0	2.6	9.8	1.1	2.9	191.9	1.002
UNIT4_RUN3_2981.LAB	7/3/2022	10:37:14	0.9	2.9	9.9	1.0	3.2	191.8	1.002
UNIT4_RUN3_2982.LAB	7/3/2022	10:38:14	1.0	2.4	9.9	1.1	2.7	191.7	1.003
UNIT4_RUN3_2983.LAB	7/3/2022	10:39:15	0.9	2.4	9.5	1.0	2.7	191.6	1.002
UNIT4_RUN3_2984.LAB	7/3/2022	10:40:15	0.8	3.8	9.2	0.8	4.1	191.6	1.002
UNIT4_RUN3_2985.LAB	7/3/2022	10:41:15	0.7	4.1	9.2	0.8	4.6	191.6	1.003
UNIT4_RUN3_2986.LAB	7/3/2022	10:42:15	0.8	3.3	10.0	0.9	3.7	191.8	1.002
UNIT4_RUN3_2987.LAB	7/3/2022	10:43:15	0.9	4.3	10.1	1.0	4.7	192.0	1.003
UNIT4_RUN3_2988.LAB	7/3/2022	10:44:15	0.8	3.4	9.6	0.9	3.8	192.1	1.002
UNIT4_RUN3_2989.LAB	7/3/2022	10:45:15	0.8	3.1	9.4	0.9	3.4	191.9	1.004
UNIT4_RUN3_2990.LAB	7/3/2022	10:46:15	0.9	3.2	9.6	1.0	3.5	191.8	1.003
UNIT4_RUN3_2991.LAB	7/3/2022	10:47:15	0.8	3.3	9.4	0.9	3.7	191.7	1.004
UNIT4_RUN3_2992.LAB	7/3/2022	10:48:15	0.8	3.1	9.9	0.9	3.5	191.7	1.003
UNIT4_RUN3_2993.LAB	7/3/2022	10:49:16	0.9	3.6	9.7	1.0	4.0	191.7	1.002
UNIT4_RUN3_2994.LAB	7/3/2022	10:50:16	1.0	2.4	10.1	1.1	2.6	191.9	1.002
UNIT4_RUN3_2995.LAB	7/3/2022	10:51:15	1.0	1.9	10.5	1.1	2.1	192.0	1.001
UNIT4_RUN3_2996.LAB	7/3/2022	10:52:16	0.9	2.1	10.2	1.0	2.3	192.0	1.003
UNIT4_RUN3_2997.LAB	7/3/2022	10:53:16	0.8	1.9	10.2	0.9	2.1	191.9	1.001
UNIT4_RUN3_2998.LAB	7/3/2022	10:54:16	0.9	2.7	10.0	1.0	3.0	191.8	1.002
UNIT4_RUN3_2999.LAB	7/3/2022	10:55:16	1.1	2.6	10.3	1.2	2.9	191.7	1.003
UNIT4_RUN3_3000.LAB	7/3/2022	10:56:16	1.1	2.3	9.9	1.2	2.6	191.6	1.001
UNIT4_RUN3_3001.LAB	7/3/2022	10:57:16	1.0	2.7	9.4	1.1	2.9	191.7	1.005
UNIT4_RUN3_3002.LAB	7/3/2022	10:58:16	0.9	2.5	9.4	1.0	2.8	191.8	1.000
UNIT4_RUN3_3003.LAB	7/3/2022	10:59:16	0.8	2.5	9.2	0.8	2.8	191.8	1.003
UNIT4_RUN3_3004.LAB	7/3/2022	11:00:16	0.8	2.4	9.3	0.9	2.6	191.9	1.003
UNIT4_RUN3_3005.LAB	7/3/2022	11:01:16	0.9	2.6	9.7	1.0	2.9	191.8	1.002
UNIT4_RUN3_3006.LAB	7/3/2022	11:02:17	1.0	3.5	9.9	1.1	3.9	191.6	1.002
UNIT4_RUN3_3007.LAB	7/3/2022	11:03:16	0.9	2.8	9.8	1.0	3.1	191.6	1.000
UNIT4_RUN3_3008.LAB	7/3/2022	11:04:16	0.8	4.3	9.1	0.9	4.7	191.6	1.002
UNIT4_RUN3_3009.LAB	7/3/2022	11:05:17	0.8	4.3	9.1	0.9	4.7	191.6	1.002
7/3/2022	**Minimum**		**0.5**	**1.8**	**9.1**	**0.5**	**2.0**		
GT4 - Test Run 3	**Maximum**		**1.1**	**5.3**	**10.5**	**1.2**	**5.8**		
10:05 - 11:05	**Average**		**0.9**	**3.0**	**9.8**	**0.9**	**3.3**		

APPENDIX

FTIR QA/QC Data

Nitrogen (Zero) Direct Purge to FTIR

Spectrum	Date	Time	NH3 (ppmv wet)	CH4 (ppmv wet)	H2O (%v)	NH3 (ppmv dry)	CH4 (ppmv dry)	Ethylene (ppmv wet)	SF6 (ppmv wet)
UNITA_N2-DIR_1766BKG.LAB	7/1/2022	6:26:09	0.0	0.0	0.00	0.0	0.0	0.0	0.00
UNITA_N2-DIR_1767.LAB	7/1/2022	6:26:23	0.0	-0.9	0.00	0.0	-0.9	-0.1	0.00
UNITA_N2-DIR_1768.LAB	7/1/2022	6:26:30	0.0	-0.4	0.00	0.0	-0.4	0.2	0.00
UNITA_N2-DIR_1769.LAB	7/1/2022	6:26:38	-0.1	-1.0	0.00	-0.1	-1.0	-0.1	0.00
UNITA_N2-DIR_1770.LAB	7/1/2022	6:26:45	0.0	0.5	0.00	0.0	0.5	0.1	0.00
UNITA_N2-DIR_1771.LAB	7/1/2022	6:26:52	0.0	0.0	0.00	0.0	0.0	0.2	0.00
UNITA_N2-DIR_1772.LAB	7/1/2022	6:27:00	0.0	-0.1	0.00	0.0	-0.1	0.1	0.00
UNITA_N2-DIR_1773.LAB	7/1/2022	6:27:07	0.0	-0.2	0.00	0.0	-0.2	-0.1	-0.01
UNITA_N2-DIR_1774.LAB	7/1/2022	6:27:15	0.0	0.3	0.00	0.0	0.3	-0.2	0.00

CTS, 100.0 ppm Ethylene Direct Purge

Spectrum	Date	Time	NH3 (ppmv wet)	CH4 (ppmv wet)	H2O (%v)	NH3 (ppmv dry)	CH4 (ppmv dry)	Ethylene (ppmv wet)	SF6 (ppmv wet)	Ethylene Recovery %
UNIT3_CTS-DIR_1775.LAB	7/1/2022	6:28:41	-0.1	-0.3	0.00	-0.1	-0.3	98.8	-0.02	**98.8%**
UNIT3_CTS-DIR_1776.LAB	7/1/2022	6:28:49	-0.1	-0.4	0.00	-0.1	-0.4	98.6	-0.01	**98.6%**
UNIT3_CTS-DIR_1777.LAB	7/1/2022	6:28:56	-0.1	1.3	-0.01	-0.1	1.3	98.6	-0.01	**98.6%**
UNIT3_CTS-DIR_1778.LAB	7/1/2022	6:29:04	0.0	0.4	0.00	0.0	0.4	98.5	-0.02	**98.5%**
UNIT3_CTS-DIR_1779.LAB	7/1/2022	6:29:11	-0.1	0.8	-0.01	-0.1	0.8	98.4	-0.02	**98.4%**
UNIT3_CTS-DIR_1780.LAB	7/1/2022	6:29:19	0.0	-0.4	-0.01	0.0	-0.4	98.3	-0.02	**98.3%**
UNIT3_CTS-DIR_1781.LAB	7/1/2022	6:29:26	0.0	0.9	-0.01	0.0	0.9	98.4	-0.01	**98.4%**
UNIT3_CTS-DIR_1782.LAB	7/1/2022	6:29:34	-0.1	0.6	-0.01	-0.1	0.6	98.5	-0.01	**98.5%**
		Average						**98.51**		

19.75 ppm Ammonia/5.003 ppm SF6 Direct Purge

Spectrum	Date	Time	NH3 (ppmv wet)	CH4 (ppmv wet)	H2O (%v)	NH3 (ppmv dry)	CH4 (ppmv dry)	Ethylene (ppmv wet)	SF6 (ppmv wet)
UNIT3_NH3-DIR_1843.LAB	7/1/2022	6:38:33	18.9	-0.1	0.01	18.9	-0.1	-0.4	4.89
UNIT3_NH3-DIR_1844.LAB	7/1/2022	6:38:41	18.9	0.3	0.01	18.9	0.3	-0.3	4.89
UNIT3_NH3-DIR_1845.LAB	7/1/2022	6:38:48	18.9	0.2	0.00	18.9	0.2	-0.3	4.89
UNIT3_NH3-DIR_1846.LAB	7/1/2022	6:38:56	18.9	0.2	0.01	18.9	0.2	-0.4	4.90
UNIT3_NH3-DIR_1847.LAB	7/1/2022	6:39:03	18.9	0.6	0.01	18.9	0.6	-0.5	4.89
UNIT3_NH3-DIR_1848.LAB	7/1/2022	6:39:11	18.9	0.1	0.00	18.9	0.1	-0.5	4.89
UNIT3_NH3-DIR_1849.LAB	7/1/2022	6:39:18	18.8	0.4	0.00	18.8	0.4	-0.7	4.90
UNIT3_NH3-DIR_1850.LAB	7/1/2022	6:39:26	18.9	0.0	0.01	18.9	0.0	-0.6	4.89
		Average	**18.88**						**4.89**

100.0 ppm Ethylene System Purge

Spectrum	Date	Time	NH3 (ppmv wet)	CH4 (ppmv wet)	H2O (%v)	NH3 (ppmv dry)	CH4 (ppmv dry)	Ethylene (ppmv wet)	SF6 (ppmv wet)	Ethylene Recovery %	Response Time (sec)
UNIT3_CTS-RT_1852.LAB	7/1/2022	6:42:26	2.4	66.0	10.32	2.7	73.6	0.9	-0.02	**1.0%**	-
UNIT3_CTS-RT_1853.LAB	7/1/2022	6:42:33	2.2	61.9	10.14	2.5	68.9	0.9	0.00	**0.9%**	**8**
UNIT3_CTS-RT_1854.LAB	7/1/2022	6:42:41	0.8	4.8	1.16	0.8	4.9	62.0	0.07	**63.0%**	**16**
UNIT3_CTS-RT_1855.LAB	7/1/2022	6:42:49	0.8	-0.1	0.17	0.8	-0.1	100.9	-0.01	**102.4%**	**23**
UNIT3_CTS-RT_1856.LAB	7/1/2022	6:42:56	0.9	-0.7	0.05	0.9	-0.7	100.0	0.01	**101.5%**	
UNIT3_CTS-RT_1857.LAB	7/1/2022	6:43:03	0.6	2.3	0.05	0.6	2.4	98.7	0.01	**100.2%**	
UNIT3_CTS-RT_1858.LAB	7/1/2022	6:43:11	0.8	-0.6	0.08	0.8	-0.6	101.2	-0.02	**102.7%**	
UNIT3_CTS-RT_1859.LAB	7/1/2022	6:43:19	1.4	6.3	0.92	1.4	6.3	91.1	-0.01	**92.5%**	
UNIT3_CTS-RT_1860.LAB	7/1/2022	6:43:26	1.2	11.9	1.34	1.3	12.1	85.1	-0.01	**86.4%**	
UNIT3_CTS-RT_1861.LAB	7/1/2022	6:43:33	1.4	13.2	1.40	1.4	13.4	83.7	-0.02	**84.9%**	
UNIT3_CTS-RT_1862.LAB	7/1/2022	6:43:41	0.9	13.1	1.40	0.9	13.3	84.0	0.01	**85.3%**	
UNIT3_CTS-RT_1863.LAB	7/1/2022	6:43:49	1.2	12.5	1.44	1.2	12.7	86.0	0.00	**87.3%**	
UNIT3_CTS-RT_1864.LAB	7/1/2022	6:43:56	1.0	9.7	1.19	1.0	9.8	87.3	0.00	**88.7%**	
UNIT3_CTS-RT_1865.LAB	7/1/2022	6:44:04	0.9	6.8	0.90	0.9	6.8	90.5	-0.04	**91.9%**	
UNIT3_CTS-RT_1866.LAB	7/1/2022	6:44:11	0.7	10.1	0.81	0.7	10.2	90.9	-0.02	**92.3%**	
UNIT3_CTS-RT_1867.LAB	7/1/2022	6:44:19	0.7	6.5	0.80	0.7	6.6	90.6	0.03	**91.9%**	
UNIT3_CTS-RT_1868.LAB	7/1/2022	6:44:26	0.7	9.2	0.79	0.7	9.2	90.5	-0.01	**91.9%**	
UNIT3_CTS-RT_1869.LAB	7/1/2022	6:44:34	0.4	8.1	0.59	0.4	8.2	92.5	-0.01	**93.9%**	
UNIT3_CTS-RT_1870.LAB	7/1/2022	6:44:41	0.4	-0.7	0.25	0.4	-0.7	98.3	0.00	**99.8%**	
UNIT3_CTS-RT_1871.LAB	7/1/2022	6:44:49	0.2	1.8	0.07	0.2	1.8	100.9	0.00	**102.4%**	
UNIT3_CTS-RT_1872.LAB	7/1/2022	6:44:56	0.4	-4.1	0.04	0.4	-4.1	101.3	0.02	**102.8%**	
UNIT3_CTS-RT_1873.LAB	7/1/2022	6:45:04	0.3	2.3	0.02	0.3	2.3	100.3	0.01	**101.8%**	

Nitrogen (Zero) System Purge

Spectrum	Date	Time	NH3 (ppmv wet)	CH4 (ppmv wet)	H2O (%v)	NH3 (ppmv dry)	CH4 (ppmv dry)	Ethylene (ppmv wet)	SF6 (ppmv wet)	Ethylene Recovery %	Response Time (sec)
UNIT3_N2-RT_1874.LAB	7/1/2022	6:45:49	0.8	-0.7	0.04	0.8	-0.7	101.3	-0.01	**102.8%**	-
UNIT3_N2-RT_1875.LAB	7/1/2022	6:45:57	1.0	28.2	3.49	1.1	29.3	38.8	-0.01	**39.4%**	**8**
UNIT3_N2-RT_1876.LAB	7/1/2022	6:46:04	0.2	11.1	0.91	0.2	11.2	0.1	-0.01	**0.1%**	**15**
UNIT3_N2-RT_1877.LAB	7/1/2022	6:46:12	0.3	8.9	0.87	0.3	9.0	1.1	-0.02		
UNIT3_N2-RT_1878.LAB	7/1/2022	6:46:19	0.4	8.9	0.89	0.4	9.0	-0.4	0.00		
UNIT3_N2-RT_1879.LAB	7/1/2022	6:46:27	0.3	8.6	0.92	0.3	8.6	-0.3	0.01		
UNIT3_N2-RT_1880.LAB	7/1/2022	6:46:34	0.8	9.2	0.91	0.8	9.3	0.1	0.00		
UNIT3_N2-RT_1881.LAB	7/1/2022	6:46:42	0.5	8.4	0.90	0.5	8.5	0.4	-0.01		
UNIT3_N2-RT_1882.LAB	7/1/2022	6:46:49	0.8	8.6	0.95	0.8	8.7	0.4	0.01		
UNIT3_N2-RT_1883.LAB	7/1/2022	6:46:57	0.6	7.8	0.91	0.6	7.9	0.0	-0.02		
UNIT3_N2-RT_1884.LAB	7/1/2022	6:47:04	0.2	11.2	0.96	0.2	11.3	0.4	0.01		
UNIT3_N2-RT_1885.LAB	7/1/2022	6:47:12	0.6	7.6	0.91	0.6	7.7	0.3	0.00		
UNIT3_N2-RT_1886.LAB	7/1/2022	6:47:20	0.7	8.7	0.89	0.7	8.8	0.4	-0.02		
UNIT3_N2-RT_1887.LAB	7/1/2022	6:47:27	0.5	10.1	0.93	0.5	10.1	-0.2	0.02		
UNIT3_N2-RT_1888.LAB	7/1/2022	6:47:34	0.4	7.9	0.93	0.4	8.0	0.0	0.01		
UNIT3_N2-RT_1889.LAB	7/1/2022	6:47:42	0.7	10.8	0.93	0.7	10.9	0.5	0.00		

GT3 Prior to Analyte Spike

Spectrum	Date	Time	NH3 (ppmv wet)	CH4 (ppmv wet)	H2O (%v)	NH3 (ppmv dry)	CH4 (ppmv dry)	Ethylene (ppmv wet)	SF6 (ppmv wet)
UNIT3_NAT_1890.LAB	7/1/2022	6:49:44	1.5	61.4	10.31	1.7	68.4	0.7	0.00
UNIT3_NAT_1891.LAB	7/1/2022	6:50:43	2.0	62.3	10.63	2.3	69.7	0.9	0.00
UNIT3_NAT_1892.LAB	7/1/2022	6:51:44	2.1	61.1	10.65	2.4	68.4	0.8	0.00
		Average	**1.90**						**0.00**

GT3 Analyte Spike, Using 20.22 ppm Ammonia/5.040 ppm SF6

Spectrum	Date	Time	NH3 (ppmv wet)	CH4 (ppmv wet)	H2O (%v)	NH3 (ppmv dry)	CH4 (ppmv dry)	Ethylene (ppmv wet)	SF6 (ppmv wet)	Dilution Factor	Ammonia Recovery %
UNIT3_SPK_1941.LAB	7/1/2022	7:00:16	3.5	54.4	9.26	3.8	59.9	0.5	0.48	**0.097**	**98.2%**
UNIT3_SPK_1942.LAB	7/1/2022	7:00:23	3.5	54.7	9.35	3.8	60.4	0.8	0.46	**0.093**	**99.4%**
UNIT3_SPK_1943.LAB	7/1/2022	7:00:31	3.5	52.7	9.35	3.9	58.1	0.7	0.47	**0.095**	**99.3%**
UNIT3_SPK_1944.LAB	7/1/2022	7:00:38	3.5	53.8	9.45	3.9	59.4	0.5	0.47	**0.096**	**98.8%**
UNIT3_SPK_1945.LAB	7/1/2022	7:00:46	3.5	55.4	9.31	3.8	61.1	0.9	0.48	**0.098**	**97.5%**
UNIT3_SPK_1946.LAB	7/1/2022	7:00:53	3.5	54.2	9.24	3.9	59.8	0.6	0.47	**0.097**	**99.4%**
UNIT3_SPK_1947.LAB	7/1/2022	7:01:01	3.4	53.9	9.26	3.7	59.4	0.6	0.47	**0.097**	**95.3%**
UNIT3_SPK_1948.LAB	7/1/2022	7:01:09	3.5	53.5	9.27	3.9	58.9	0.5	0.47	**0.095**	**100.0%**
	Spike Average										**98.5%**

100.0 ppm Ethylene System Purge

Spectrum	Date	Time	NH3 (ppmv wet)	CH4 (ppmv wet)	H2O (%v)	NH3 (ppmv dry)	CH4 (ppmv dry)	Ethylene (ppmv wet)	SF6 (ppmv wet)	Ethylene Recovery %
UNIT3_CTS_2026.LAB	7/1/2022	9:39:29	0.2	0.3	0.09	0.2	0.3	98.9	-0.01	**100.4%**
UNIT3_CTS_2027.LAB	7/1/2022	9:39:36	0.2	0.8	0.05	0.2	0.8	99.4	0.00	**100.9%**
UNIT3_CTS_2028.LAB	7/1/2022	9:39:44	0.2	1.5	0.03	0.2	1.5	100.1	0.00	**101.6%**
UNIT3_CTS_2029.LAB	7/1/2022	9:39:51	0.2	0.4	0.03	0.2	0.4	99.1	-0.02	**100.6%**
UNIT3_CTS_2030.LAB	7/1/2022	9:39:59	0.2	-1.4	0.00	0.2	-1.4	99.4	-0.01	**101.0%**
UNIT3_CTS_2031.LAB	7/1/2022	9:40:06	0.3	0.3	0.02	0.3	0.3	99.6	-0.01	**101.2%**
UNIT3_CTS_2032.LAB	7/1/2022	9:40:14	0.4	0.0	0.02	0.4	0.0	98.8	0.00	**100.3%**
UNIT3_CTS_2033.LAB	7/1/2022	9:40:21	0.2	1.2	0.01	0.2	1.2	99.5	-0.02	**101.0%**

100.0 ppm Ethylene System Purge

Spectrum	Date	Time	NH3 (ppmv wet)	CH4 (ppmv wet)	H2O (%v)	NH3 (ppmv dry)	CH4 (ppmv dry)	Ethylene (ppmv wet)	SF6 (ppmv wet)	Ethylene Recovery %
UNIT3_CTS_2096.LAB	7/1/2022	10:57:35	0.3	-0.1	0.02	0.3	-0.1	98.4	-0.01	**99.9%**
UNIT3_CTS_2097.LAB	7/1/2022	10:57:42	0.3	2.3	0.00	0.3	2.3	100.1	0.00	**101.6%**
UNIT3_CTS_2098.LAB	7/1/2022	10:57:50	0.5	0.2	0.01	0.5	0.2	100.0	0.00	**101.5%**
UNIT3_CTS_2099.LAB	7/1/2022	10:57:57	0.2	-0.8	0.00	0.2	-0.8	99.5	-0.02	**101.0%**
UNIT3_CTS_2100.LAB	7/1/2022	10:58:05	0.4	1.7	0.02	0.4	1.7	99.2	-0.02	**100.7%**
UNIT3_CTS_2101.LAB	7/1/2022	10:58:12	0.4	1.0	0.01	0.4	1.0	98.6	-0.01	**100.1%**
UNIT3_CTS_2102.LAB	7/1/2022	10:58:20	0.4	1.5	0.02	0.4	1.5	100.1	0.00	**101.6%**
UNIT3_CTS_2103.LAB	7/1/2022	10:58:27	0.3	1.0	0.00	0.3	1.0	99.6	-0.03	**101.1%**

100.0 ppm Ethylene System Purge

Spectrum	Date	Time	NH3 (ppmv wet)	CH4 (ppmv wet)	H2O (%v)	NH3 (ppmv dry)	CH4 (ppmv dry)	Ethylene (ppmv wet)	SF6 (ppmv wet)	Ethylene Recovery %
UNIT3_CTS_2599.LAB	7/1/2022	12:22:20	0.4	2.2	0.30	0.4	2.2	94.7	-0.01	**96.1%**
UNIT3_CTS_2600.LAB	7/1/2022	12:22:27	0.4	2.2	0.29	0.4	2.2	95.3	-0.03	**96.7%**
UNIT3_CTS_2601.LAB	7/1/2022	12:22:34	0.5	1.9	0.31	0.5	1.9	95.1	0.00	**96.6%**
UNIT3_CTS_2602.LAB	7/1/2022	12:22:42	0.3	1.7	0.28	0.3	1.7	95.7	-0.01	**97.2%**
UNIT3_CTS_2603.LAB	7/1/2022	12:22:49	0.4	1.5	0.28	0.4	1.5	95.0	-0.02	**96.4%**
UNIT3_CTS_2604.LAB	7/1/2022	12:22:57	0.3	1.4	0.31	0.3	1.4	94.8	-0.01	**96.2%**
UNIT3_CTS_2605.LAB	7/1/2022	12:23:05	0.5	0.8	0.28	0.5	0.8	95.5	0.01	**96.9%**
UNIT3_CTS_2606.LAB	7/1/2022	12:23:12	0.2	1.4	0.26	0.2	1.4	95.2	0.00	**96.7%**

Nitrogen (Zero) System Purge

Spectrum	Date	Time	NH3 (ppmv wet)	CH4 (ppmv wet)	H2O (%v)	NH3 (ppmv dry)	CH4 (ppmv dry)	Ethylene (ppmv wet)	SF6 (ppmv wet)
UNIT3_N2-SYS_2614.LAB	7/1/2022	12:25:35	0.3	-0.1	0.01	0.3	-0.1	0.3	-0.01
UNIT3_N2-SYS_2615.LAB	7/1/2022	12:25:42	0.4	-0.4	0.02	0.4	-0.4	-0.2	0.01
UNIT3_N2-SYS_2616.LAB	7/1/2022	12:25:50	0.4	0.3	0.01	0.4	0.3	0.0	0.00
UNIT3_N2-SYS_2617.LAB	7/1/2022	12:25:57	0.3	-0.8	0.01	0.3	-0.8	0.2	0.00
UNIT3_N2-SYS_2618.LAB	7/1/2022	12:26:05	0.3	-0.1	0.03	0.3	-0.1	0.1	-0.01
UNIT3_N2-SYS_2619.LAB	7/1/2022	12:26:12	0.3	0.7	0.03	0.3	0.7	0.2	0.00
UNIT3_N2-SYS_2620.LAB	7/1/2022	12:26:20	0.2	2.3	0.01	0.2	2.3	0.3	0.00
UNIT3_N2-SYS_2621.LAB	7/1/2022	12:26:27	0.3	1.7	0.02	0.3	1.7	0.0	-0.01

Nitrogen (Zero) Direct Purge to FTIR

Spectrum	Date	Time	NH3 (ppmv wet)	CH4 (ppmv wet)	H2O (%v)	NH3 (ppmv dry)	CH4 (ppmv dry)	Ethylene (ppmv wet)	SF6 (ppmv wet)
UNIT3_N2-DIR_2622.LAB	7/1/2022	12:30:10	0.0	-0.1	0.01	0.0	-0.1	-0.1	0.00
UNIT3_N2-DIR_2623.LAB	7/1/2022	12:32:10	0.0	0.1	0.01	0.0	0.1	0.0	0.00
UNIT3_N2-DIR_2624.LAB	7/1/2022	12:34:10	0.0	0.3	0.01	0.0	0.3	0.1	0.00

Nitrogen (Zero) Direct Purge to FTIR

Spectrum	Date	Time	NH3 (ppmv wet)	CH4 (ppmv wet)	H2O (%v)	NH3 (ppmv dry)	CH4 (ppmv dry)	Ethylene (ppmv wet)	SF6 (ppmv wet)
UNIT4_N2-DIR_2627.LAB	7/3/2022	5:20:59	0.0	0.7	0.01	0.0	0.7	0.0	0.00
UNIT4_N2-DIR_2628.LAB	7/3/2022	5:21:07	0.1	-1.3	0.00	0.1	-1.3	0.0	0.00
UNIT4_N2-DIR_2629.LAB	7/3/2022	5:21:14	0.0	-0.4	0.00	0.0	-0.4	-0.1	0.00
UNIT4_N2-DIR_2630.LAB	7/3/2022	5:21:22	0.0	0.3	0.00	0.0	0.3	0.0	0.01
UNIT4_N2-DIR_2631.LAB	7/3/2022	5:21:29	0.0	0.1	-0.01	0.0	0.1	-0.1	0.00
UNIT4_N2-DIR_2632.LAB	7/3/2022	5:21:37	0.0	0.3	0.00	0.0	0.3	0.0	0.00
UNIT4_N2-DIR_2633.LAB	7/3/2022	5:21:45	0.0	-0.7	0.00	0.0	-0.7	0.0	0.01
UNIT4_N2-DIR_2634.LAB	7/3/2022	5:21:52	0.0	0.1	0.00	0.0	0.1	0.1	0.00

CTS, 100.0 ppm Ethylene Direct Purge

Spectrum	Date	Time	NH3 (ppmv wet)	CH4 (ppmv wet)	H2O (%v)	NH3 (ppmv dry)	CH4 (ppmv dry)	Ethylene (ppmv wet)	SF6 (ppmv wet)	Ethylene Recovery %
UNIT4_CTS-DIR_2636.LAB	7/3/2022	5:23:06	0.0	1.0	-0.01	0.0	1.0	97.4	-0.01	**97.4%**
UNIT4_CTS-DIR_2637.LAB	7/3/2022	5:23:13	0.0	0.2	0.00	0.0	0.2	97.6	-0.01	**97.6%**
UNIT4_CTS-DIR_2638.LAB	7/3/2022	5:23:21	-0.1	-0.4	-0.01	-0.1	-0.4	97.7	-0.01	**97.7%**
UNIT4_CTS-DIR_2639.LAB	7/3/2022	5:23:28	0.0	0.8	0.00	0.0	0.8	98.5	-0.02	**98.5%**
UNIT4_CTS-DIR_2640.LAB	7/3/2022	5:23:36	0.0	0.6	0.00	0.0	0.6	98.6	-0.01	**98.6%**
UNIT4_CTS-DIR_2641.LAB	7/3/2022	5:23:43	0.0	0.8	-0.01	0.0	0.8	98.7	-0.01	**98.7%**
UNIT4_CTS-DIR_2642.LAB	7/3/2022	5:23:51	-0.1	-0.6	-0.01	-0.1	-0.6	98.8	-0.02	**98.8%**
UNIT4_CTS-DIR_2643.LAB	7/3/2022	5:23:59	-0.1	0.7	-0.01	-0.1	0.7	99.0	-0.01	**99.0%**
		Average						**98.28**		

19.75 ppm Ammonia/5.003 ppm SF6 Direct Purge

Spectrum	Date	Time	NH3 (ppmv wet)	CH4 (ppmv wet)	H2O (%v)	NH3 (ppmv dry)	CH4 (ppmv dry)	Ethylene (ppmv wet)	SF6 (ppmv wet)
UNIT4_NH3-DIR_2678.LAB	7/3/2022	5:29:57	19.0	0.4	0.00	19.0	0.4	-0.5	4.91
UNIT4_NH3-DIR_2679.LAB	7/3/2022	5:30:04	18.9	-0.5	0.01	18.9	-0.5	-0.5	4.92
UNIT4_NH3-DIR_2680.LAB	7/3/2022	5:30:12	19.0	-0.2	0.01	19.0	-0.2	-0.5	4.91
UNIT4_NH3-DIR_2681.LAB	7/3/2022	5:30:19	18.9	0.2	0.01	18.9	0.2	-0.6	4.90
UNIT4_NH3-DIR_2682.LAB	7/3/2022	5:30:27	19.0	0.0	-0.01	19.0	0.0	-0.4	4.91
UNIT4_NH3-DIR_2683.LAB	7/3/2022	5:30:34	19.0	-0.6	0.00	19.0	-0.6	-0.3	4.91
UNIT4_NH3-DIR_2684.LAB	7/3/2022	5:30:42	18.9	0.0	0.00	18.9	0.0	-0.6	4.90
UNIT4_NH3-DIR_2685.LAB	7/3/2022	5:30:50	18.9	-0.4	0.01	18.9	-0.4	-0.7	4.91
		Average	**18.94**						**4.91**

100.0 ppm Ethylene System Purge

Spectrum	Date	Time	NH3 (ppmv wet)	CH4 (ppmv wet)	H2O (%v)	NH3 (ppmv dry)	CH4 (ppmv dry)	Ethylene (ppmv wet)	SF6 (ppmv wet)	Ethylene Recovery %
UNIT4_CTS-RT_2698.LAB	7/3/2022	6:22:07	0.2	1.9	1.43	0.2	1.9	97.9	0.00	**99.6%**
UNIT4_CTS-RT_2699.LAB	7/3/2022	6:22:15	0.0	-0.2	1.13	0.0	-0.2	99.0	-0.01	**100.8%**
UNIT4_CTS-RT_2700.LAB	7/3/2022	6:22:22	0.1	0.5	0.97	0.1	0.6	98.1	-0.01	**99.8%**
UNIT4_CTS-RT_2701.LAB	7/3/2022	6:22:30	0.2	-1.5	0.88	0.2	-1.5	98.6	-0.02	**100.3%**
UNIT4_CTS-RT_2702.LAB	7/3/2022	6:22:37	0.2	0.1	0.77	0.2	0.1	97.8	-0.02	**99.5%**
UNIT4_CTS-RT_2703.LAB	7/3/2022	6:22:45	0.1	-0.1	0.70	0.1	-0.1	98.9	0.00	**100.7%**
UNIT4_CTS-RT_2704.LAB	7/3/2022	6:22:53	0.1	0.5	0.64	0.1	0.5	98.9	-0.02	**100.6%**
UNIT4_CTS-RT_2705.LAB	7/3/2022	6:23:00	0.1	-0.2	0.59	0.1	-0.2	99.0	-0.01	**100.7%**

Nitrogen (Zero) System Purge

Spectrum	Date	Time	NH3 (ppmv wet)	CH4 (ppmv wet)	H2O (%v)	NH3 (ppmv dry)	CH4 (ppmv dry)	Ethylene (ppmv wet)	SF6 (ppmv wet)
UNIT4_N2-RT_2710.LAB	7/3/2022	6:24:04	0.0	-0.7	0.21	0.0	-0.7	0.2	0.00
UNIT4_N2-RT_2711.LAB	7/3/2022	6:24:12	0.2	2.0	0.22	0.2	2.0	0.7	-0.01
UNIT4_N2-RT_2712.LAB	7/3/2022	6:24:19	0.2	1.5	0.20	0.2	1.5	0.0	0.01
UNIT4_N2-RT_2713.LAB	7/3/2022	6:24:27	0.1	-1.5	0.22	0.1	-1.5	-0.4	0.00
UNIT4_N2-RT_2714.LAB	7/3/2022	6:24:34	0.0	-0.3	0.21	0.0	-0.3	-0.2	0.01
UNIT4_N2-RT_2715.LAB	7/3/2022	6:24:42	-0.1	-1.2	0.19	-0.1	-1.2	0.1	-0.01
UNIT4_N2-RT_2716.LAB	7/3/2022	6:24:49	0.1	-0.3	0.17	0.1	-0.3	0.0	0.00
UNIT4_N2-RT_2717.LAB	7/3/2022	6:24:57	0.0	-0.4	0.19	0.0	-0.4	0.1	-0.02

GT4 Prior to Analyte Spike

Spectrum	Date	Time	NH3 (ppmv wet)	CH4 (ppmv wet)	H2O (%v)	NH3 (ppmv dry)	CH4 (ppmv dry)	Ethylene (ppmv wet)	SF6 (ppmv wet)
UNIT4_NATIVE2_2724.LAB	7/3/2022	6:44:38	0.7	1.9	10.11	0.8	2.2	0.3	0.00
UNIT4_NATIVE2_2725.LAB	7/3/2022	6:45:38	0.7	2.8	10.13	0.8	3.1	0.2	0.01
UNIT4_NATIVE2_2726.LAB	7/3/2022	6:46:39	0.6	4.2	10.09	0.7	4.6	0.3	0.00
		Average	**0.69**						**0.00**

GT4 Analyte Spike, Using 20.22 ppm Ammonia/5.040 ppm SF6

Spectrum	Date	Time	NH3 (ppmv wet)	CH4 (ppmv wet)	H2O (%v)	NH3 (ppmv dry)	CH4 (ppmv dry)	Ethylene (ppmv wet)	SF6 (ppmv wet)	Dilution Factor	Ammonia Recovery %
UNIT4_SPK_2768.LAB	7/3/2022	6:53:52	1.9	1.3	9.03	2.1	1.4	0.3	0.49	**0.100**	**74.9%**
UNIT4_SPK_2769.LAB	7/3/2022	6:53:59	1.9	2.5	9.01	2.1	2.7	0.7	0.51	**0.102**	**74.3%**
UNIT4_SPK_2770.LAB	7/3/2022	6:54:07	1.9	3.0	8.93	2.1	3.3	0.1	0.50	**0.102**	**76.4%**
UNIT4_SPK_2771.LAB	7/3/2022	6:54:15	1.9	3.6	8.82	2.1	4.0	0.3	0.49	**0.100**	**76.2%**
UNIT4_SPK_2772.LAB	7/3/2022	6:54:22	1.8	3.1	8.85	2.0	3.4	0.4	0.49	**0.099**	**73.4%**
UNIT4_SPK_2773.LAB	7/3/2022	6:54:29	2.1	3.9	8.87	2.3	4.3	0.5	0.49	**0.100**	**85.1%**
UNIT4_SPK_2774.LAB	7/3/2022	6:54:37	2.0	4.5	8.86	2.2	4.9	0.0	0.50	**0.101**	**79.4%**
UNIT4_SPK_2775.LAB	7/3/2022	6:54:45	2.0	3.7	8.77	2.2	4.0	0.3	0.50	**0.102**	**78.3%**
	Spike Average										**77.3%**

100.0 ppm Ethylene System Purge

Spectrum	Date	Time	NH3 (ppmv wet)	CH4 (ppmv wet)	H2O (%v)	NH3 (ppmv dry)	CH4 (ppmv dry)	Ethylene (ppmv wet)	SF6 (ppmv wet)	Ethylene Recovery %
UNIT4_CTS-SYS_2864.LAB	7/3/2022	8:44:03	-0.1	2.5	0.08	-0.1	2.5	99.8	-0.01	**101.6%**
UNIT4_CTS-SYS_2865.LAB	7/3/2022	8:44:11	0.3	0.2	0.05	0.3	0.2	100.0	-0.01	**101.7%**
UNIT4_CTS-SYS_2866.LAB	7/3/2022	8:44:19	-0.4	4.1	0.04	-0.4	4.1	98.5	-0.02	**100.2%**
UNIT4_CTS-SYS_2867.LAB	7/3/2022	8:44:26	0.3	-2.1	0.06	0.3	-2.1	100.5	0.02	**102.2%**
UNIT4_CTS-SYS_2868.LAB	7/3/2022	8:44:34	0.2	-1.6	0.02	0.2	-1.6	100.2	0.00	**102.0%**
UNIT4_CTS-SYS_2869.LAB	7/3/2022	8:44:42	0.3	0.0	0.03	0.3	0.0	100.1	0.00	**101.9%**
UNIT4_CTS-SYS_2870.LAB	7/3/2022	8:44:49	0.1	-0.1	0.07	0.1	-0.1	100.0	0.01	**101.8%**
UNIT4_CTS-SYS_2871.LAB	7/3/2022	8:44:56	0.3	-5.8	0.02	0.3	-5.8	99.5	-0.02	**101.2%**

100.0 ppm Ethylene System Purge

Spectrum	Date	Time	NH3 (ppmv wet)	CH4 (ppmv wet)	H2O (%v)	NH3 (ppmv dry)	CH4 (ppmv dry)	Ethylene (ppmv wet)	SF6 (ppmv wet)	Ethylene Recovery %
UNIT4_CTS-SYS_2942.LAB	7/3/2022	10:00:28	0.1	-1.2	1.36	0.2	-1.2	98.2	0.00	**99.9%**
UNIT4_CTS-SYS_2943.LAB	7/3/2022	10:00:36	0.4	2.3	0.95	0.4	2.4	99.2	-0.02	**101.0%**
UNIT4_CTS-SYS_2944.LAB	7/3/2022	10:00:43	0.1	1.2	0.53	0.1	1.2	98.6	-0.02	**100.3%**
UNIT4_CTS-SYS_2945.LAB	7/3/2022	10:00:51	0.0	0.9	0.27	0.0	0.9	98.9	-0.02	**100.6%**
UNIT4_CTS-SYS_2946.LAB	7/3/2022	10:00:58	-0.2	-1.9	0.10	-0.2	-1.9	99.4	-0.03	**101.2%**
UNIT4_CTS-SYS_2947.LAB	7/3/2022	10:01:06	0.2	-2.0	0.05	0.2	-2.0	99.7	-0.02	**101.4%**
UNIT4_CTS-SYS_2948.LAB	7/3/2022	10:01:14	-0.1	1.6	0.02	-0.1	1.6	99.4	0.02	**101.2%**
UNIT4_CTS-SYS_2949.LAB	7/3/2022	10:01:21	-0.1	-1.2	0.03	-0.1	-1.2	98.9	-0.01	**100.6%**

100.0 ppm Ethylene System Purge

Spectrum	Date	Time	NH3 (ppmv wet)	CH4 (ppmv wet)	H2O (%v)	NH3 (ppmv dry)	CH4 (ppmv dry)	Ethylene (ppmv wet)	SF6 (ppmv wet)	Ethylene Recovery %
UNIT4_CTS-SYS_3011.LAB	7/3/2022	11:19:02	-0.3	0.5	0.24	-0.4	0.5	97.0	-0.03	**98.7%**
UNIT4_CTS-SYS_3012.LAB	7/3/2022	11:19:09	-0.1	0.1	0.07	-0.1	0.1	100.2	0.02	**101.9%**
UNIT4_CTS-SYS_3013.LAB	7/3/2022	11:19:17	0.3	1.2	0.04	0.3	1.2	100.9	0.01	**102.7%**
UNIT4_CTS-SYS_3014.LAB	7/3/2022	11:19:24	0.0	1.8	0.04	0.0	1.8	99.7	0.01	**101.4%**
UNIT4_CTS-SYS_3015.LAB	7/3/2022	11:19:32	0.3	-1.3	0.03	0.3	-1.3	99.3	-0.03	**101.1%**
UNIT4_CTS-SYS_3016.LAB	7/3/2022	11:19:39	0.1	0.6	0.03	0.1	0.6	98.2	-0.03	**99.9%**
UNIT4_CTS-SYS_3017.LAB	7/3/2022	11:19:47	0.2	-1.1	0.01	0.2	-1.1	100.8	-0.01	**102.6%**
UNIT4_CTS-SYS_3018.LAB	7/3/2022	11:19:54	-0.2	-2.3	0.06	-0.2	-2.3	100.2	-0.01	**102.0%**

Nitrogen (Zero) System Purge

Spectrum	Date	Time	NH3 (ppmv wet)	CH4 (ppmv wet)	H2O (%v)	NH3 (ppmv dry)	CH4 (ppmv dry)	Ethylene (ppmv wet)	SF6 (ppmv wet)
UNIT4_N2-SYS_3024.LAB	7/3/2022	11:21:23	0.3	-2.6	0.05	0.3	-2.6	-0.3	-0.01
UNIT4_N2-SYS_3025.LAB	7/3/2022	11:21:31	0.1	0.8	0.09	0.1	0.8	0.7	-0.02
UNIT4_N2-SYS_3026.LAB	7/3/2022	11:21:38	-0.1	1.7	0.04	-0.1	1.7	-0.6	0.02
UNIT4_N2-SYS_3027.LAB	7/3/2022	11:21:46	0.1	-2.0	0.00	0.1	-2.0	-0.3	-0.02
UNIT4_N2-SYS_3028.LAB	7/3/2022	11:21:53	0.1	1.4	0.13	0.1	1.4	0.1	0.00
UNIT4_N2-DIR_3029.LAB	7/3/2022	11:25:24	0.0	0.2	0.01	0.0	0.2	0.0	0.00
UNIT4_N2-DIR_3030.LAB	7/3/2022	11:27:24	0.0	0.1	0.01	0.0	0.1	0.0	0.00
UNIT4_N2-DIR_3031.LAB	7/3/2022	11:29:24	0.0	-0.2	0.00	0.0	-0.2	0.0	0.00

Nitrogen (Zero) Direct Purge to FTIR

Spectrum	Date	Time	NH3 (ppmv wet)	CH4 (ppmv wet)	H2O (%v)	NH3 (ppmv dry)	CH4 (ppmv dry)	Ethylene (ppmv wet)	SF6 (ppmv wet)
UNIT4_N2-DIR_3032BKG.LAB	7/3/2022	11:31:32	0.0	0.0	0.00	0.0	0.0	0.0	0.00

APPENDIX

Certificates of Analysis

Airgas Specialty Gases
Airgas USA LLC
12722 S. Wentworth Ave.
Chicago, IL 60628
Airgas.com

CERTIFICATE OF ANALYSIS

Grade of Product: CERTIFIED STANDARD-SPEC

Part Number:	X03NI99C15A00Y8	Reference Number:	54-402197454-1
Cylinder Number:	CC743537	Cylinder Volume:	144.3 CF
Laboratory:	124 - Chicago (SAP) - IL	Cylinder Pressure:	2015 PSIG
Analysis Date:	Aug 30, 2021	Valve Outlet:	705
Lot Number:	54-402197454-1		

Expiration Date: Aug 30, 2022

Product composition verified by direct comparison to calibration standards traceable to N.I.S.T. weights and/or N.I.S.T. Gas Mixture reference materials.

ANALYTICAL RESULTS

Component	Req Conc	Actual Concentration (Mole %)	Analytical Uncertainty
SULFUR HEXAFLUORIDE	5.000 PPM	5.003 PPM	+/- 5%
AMMONIA	20.00 PPM	19.75 PPM	+/- 5%
NITROGEN	Balance		

Signature on file

Approved for Release

Airgas
an Air Liquide company

Airgas Specialty Gases
Airgas USA LLC
24075 US Hwy 6
Stryker, OH 43557
Airgas.com

CERTIFICATE OF ANALYSIS

Grade of Product: PRIMARY STANDARD

Part Number:	X02NI99P15AD524	Reference Number:	141-402264905-1
Cylinder Number:	CC486912	Cylinder Volume:	144.4 CF
Laboratory:	124 - Stryker (SAP) - OH	Cylinder Pressure:	2015 PSIG
Analysis Date:	Oct 27, 2021	Valve Outlet:	350
Lot Number:	141-402264905-1		

Expiration Date: Oct 27, 2024

Primary Standard Gas Mixtures are traceable to N.I.S.T. weights and/or N.I.S.T. Gas Mixture reference materials.

ANALYTICAL RESULTS

Component	Req Conc	Actual Concentration (Mole %)	Analytical Uncertainty
ETHYLENE	100.0 PPM	100.0 PPM	+/- 1%
NITROGEN	Balance		

Signature on file

Approved for Release

Appendix C.4
Fuel Analyses

Certificate of Analysis

SINCE 1985
Quality Controlled Through Analysis

10630 FALLSTONE RD. HOUSTON, TEXAS 77099
P.O. BOX 741905, HOUSTON, TEXAS 77274

TEL: (281) 495-2400
FAX: (281) 495-2410

CLIENT:	Montrose Air Quality Services	**REQUESTED BY:**	Mr. John Hamner
CLIENT PROJECT:		**PURCHASE ORDER NO:**	PO-030614
LABORATORY NO:	97636-001	**REPORT DATE:**	July 13, 2022
SAMPLE:	Fuel Sample-1 (6223) 2022-07-01		

Composition of Natural Gas by Gas Chromatography, ASTM D 1945.a

	Results, Mol %
Hydrogen	0.003
Oxygen	0.010
Nitrogen	0.383
Carbon Dioxide	0.799
Methane	93.919
Ethane	4.549
Propane	0.266
iso-Butane	0.026
n-Butane	0.031
iso-Pentane	0.006
n-Pentane	0.004
Hexane Plus	0.004
TOTAL	**100.000**

Parameter	***Results***
Total Sulfur in Petroleum Gas by Microcoulometry, ASTM D 3246, ppm	3.3

Calorific Value and Specific Gravity, Calculated at 14.696 psia and 60°F, ASTM D 3588.e

	Results
Specific Gravity at 60ºF (air=1)	0.5890
NET (Dry basis), BTU/scf	936.2
Gross (Dry basis), BTU/scf	1,038
NET (Dry basis), BTU/lb	20,829
Gross (Dry basis), BTU/lb	23,098

Respectfully submitted
For Texas OilTech Laboratories, L.P.

Mr. Ikenna “Ike” Ezeji
Laboratory Director

Certificate of Analysis

SINCE 1985
Quality Controlled Through Analysis

10630 FALLSTONE RD. HOUSTON, TEXAS 77099
P.O. BOX 741905, HOUSTON, TEXAS 77274

TEL: (281) 495-2400
FAX: (281) 495-2410

CLIENT:	Montrose Air Quality Services	**REQUESTED BY:**	Mr. John Hamner
CLIENT PROJECT:		**PURCHASE ORDER NO:**	PO-030614
LABORATORY NO:	97636-002	**REPORT DATE:**	July 13, 2022
SAMPLE:	Fuel Sample-2 (4270) 2022-07-02		

Composition of Natural Gas by Gas Chromatography, ASTM D 1945.a

	Results, Mol %
Hydrogen	0.003
Oxygen	0.013
Nitrogen	0.404
Carbon Dioxide	0.828
Methane	93.867
Ethane	4.545
Propane	0.267
iso-Butane	0.026
n-Butane	0.031
iso-Pentane	0.006
n-Pentane	0.004
Hexane Plus	0.006
TOTAL	**100.000**

Parameter	***Results***
Total Sulfur in Petroleum Gas by Microcoulometry, ASTM D 3246, ppm	3.1

Calorific Value and Specific Gravity, Calculated at 14.696 psia and 60°F, ASTM D 3588.e

	Results
Specific Gravity at 60ºF (air=1)	0.5894
NET (Dry basis), BTU/scf	935.7
Gross (Dry basis), BTU/scf	1,038
NET (Dry basis), BTU/lb	20,804
Gross (Dry basis), BTU/lb	23,071

Respectfully submitted
For Texas OilTech Laboratories, L.P.

Mr. Ikenna “Ike” Ezeji
Laboratory Director

Certificate of Analysis

SINCE 1985
Quality Controlled Through Analysis

10630 FALLSTONE RD. HOUSTON, TEXAS 77099
P.O. BOX 741905, HOUSTON, TEXAS 77274

TEL: (281) 495-2400
FAX: (281) 495-2410

CLIENT:	Montrose Air Quality Services	**REQUESTED BY:**	Mr. John Hamner
CLIENT PROJECT:		**PURCHASE ORDER NO:**	PO-030614
LABORATORY NO:	97636-003	**REPORT DATE:**	July 13, 2022
SAMPLE:	Fuel Sample-3 (6255) 2022-07-03		

Composition of Natural Gas by Gas Chromatography, ASTM D 1945.a

	Results, Mol %
Hydrogen	0.003
Oxygen	0.004
Nitrogen	0.386
Carbon Dioxide	0.847
Methane	93.879
Ethane	4.540
Propane	0.266
iso-Butane	0.026
n-Butane	0.031
iso-Pentane	0.006
n-Pentane	0.004
Hexane Plus	0.008
TOTAL	**100.000**

Parameter	***Results***
Total Sulfur in Petroleum Gas by Microcoulometry, ASTM D 3246, ppm	2.9

Calorific Value and Specific Gravity, Calculated at 14.696 psia and 60°F, ASTM D 3588.e

	Results
Specific Gravity at 60ºF (air=1)	0.5895
NET (Dry basis), BTU/scf	935.8
Gross (Dry basis), BTU/scf	1,038
NET (Dry basis), BTU/lb	20,804
Gross (Dry basis), BTU/lb	23,070

Respectfully submitted
For Texas OilTech Laboratories, L.P.

Mr. Ikenna “Ike” Ezeji
Laboratory Director

Certificate of Analysis

SINCE 1985

Quality Controlled Through Analysis

10630 FALLSTONE RD. HOUSTON, TEXAS 77099
P.O. BOX 741905, HOUSTON, TEXAS 77274

TEL: (281) 495-2400
FAX: (281) 495-2410

CLIENT:	Montrose Air Quality Services	**REQUESTED BY:**	Mr. John Hamner
CLIENT PROJECT:		**PURCHASE ORDER NO:**	PO-030614
LABORATORY NO:	97636-004	**REPORT DATE:**	July 13, 2022
SAMPLE:	Fuel Sample-4 (6258) 2022-07-03		

Respectfully submitted
For Texas OilTech Laboratories, L.P.

Mr. Ikenna “Ike” Ezeji
Laboratory Director

FUEL F-FACTOR CALCULATIONS

GE Roseville

7/1/2022

SPECIES	MW	MOLE %	MOLE % (normalized)	MW*%	HHV	BTU/SCF	LHV	BTU/SCF	ATOMS / MOLE C	H	O	N
H_2 (Hydrogen)	2.02	0.003	0.003	0.01	324.20	0.01	273.93	0.01	0.00	2.00	0.00	0.00
O_2 (Oxygen)	32.00	0.010	0.010	0.32	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00
N_2 (Nitrogen)	28.01	0.383	0.383	10.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00
CO_2 (Carbon Dioxide)	44.01	0.799	0.799	35.16	0.00	0.00	0.00	0.00	1.00	0.00	2.00	0.00
C_1 (Methane)	16.04	93.919	93.919	1506.7	1010.00	948.58	909.40	854.10	1.00	4.00	0.00	0.00
C_2 (Ethane)	30.07	4.549	4.549	136.79	1769.70	80.50	1618.70	73.63	2.00	6.00	0.00	0.00
C_3 (Propane)	44.10	0.266	0.266	11.73	2516.10	6.69	2314.90	6.16	3.00	8.00	0.00	0.00
ISO C_4 (Isobutane / Methylpropane)	58.12	0.026	0.026	1.51	3251.90	0.85	3000.40	0.78	4.00	10.00	0.00	0.00
C_4 / N-C_4 (Butane / n-Butane)	58.12	0.031	0.031	1.80	3262.30	1.01	3010.80	0.93	4.00	10.00	0.00	0.00
ISO C_5 (Isopentane)	72.15	0.006	0.006	0.43	4000.90	0.24	3699.00	0.22	5.00	12.00	0.00	0.00
C_5 / N-C_5 (Pentane / n-Pentane)	72.15	0.004	0.004	0.29	4008.90	0.16	3703.90	0.15	5.00	12.00	0.00	0.00
C_{6+} (Hexane+)	86.00	0.004	0.004	0.34	4755.90	0.19	4403.90	0.18	6.00	14.00	0.00	0.00
Ave. / Total	100.00	100.00	1705.84		1038.24		936.16		12.59	4.06	0.26	0.11
Weight, %		99.74		=					73.80	23.79	1.52	0.63

Gas MW	17.06	
HHV Btu/scf=	1038.24	@ 60 F
LHV Btu/scf=	936.16	@ 60 F
Btu/lb.=	23,098	
lb./scf=	0.0449	
Fd"(60)=	8,481.3	(O_2 Based)
Fd"(68)=	8,611.8	
Fc"(60)=	1,010.2	(CO_2 Based)
Fc"(68)=	1,025.7	

Calculations:

Fd"(68) = 10^6 * [3.64 * (H%) + 1.53 * (C%) + 0.14 * (N%) - 0.46 * (O%)] / HHV, Btu/lb
Fd"(60) = Fd"(68) * 520 R / 528 R
Fc"(68) = 10^6 * [0.321 * (C%)] / HHV, Btu/lb
Fc"(60) = Fc"(68) * 520 R / 528 R

7-1-22 Fuel F-factor Calculations aligned to texas oil tech lab reports

FUEL F-FACTOR CALCULATIONS

GE Roseville

7/2/2022

SPECIES	MW	MOLE %	MOLE % (normalized)	MW*%	HHV	BTU/SCF	LHV	BTU/SCF	ATOMS / MOLE C	H	O	N
H_2 (Hydrogen)	2.02	0.003	0.003	0.01	324.20	0.01	273.93	0.01	0.00	2.00	0.00	0.00
O_2 (Oxygen)	32.00	0.013	0.013	0.42	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00
N_2 (Nitrogen)	28.01	0.404	0.404	11.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00
CO_2 (Carbon Dioxide)	44.01	0.828	0.828	36.44	0.00	0.00	0.00	0.00	1.00	0.00	2.00	0.00
C_1 (Methane)	16.04	93.867	93.867	1505.9	1010.00	948.06	909.40	853.63	1.00	4.00	0.00	0.00
C_2 (Ethane)	30.07	4.545	4.545	136.67	1769.70	80.43	1618.70	73.57	2.00	6.00	0.00	0.00
C_3 (Propane)	44.10	0.267	0.267	11.77	2516.10	6.72	2314.90	6.18	3.00	8.00	0.00	0.00
ISO C_4 (Isobutane / Methylpropane)	58.12	0.026	0.026	1.51	3251.90	0.85	3000.40	0.78	4.00	10.00	0.00	0.00
C_4 / N-C_4 (Butane / n-Butane)	58.12	0.031	0.031	1.80	3262.30	1.01	3010.80	0.93	4.00	10.00	0.00	0.00
ISO C_5 (Isopentane)	72.15	0.006	0.006	0.43	4000.90	0.24	3699.00	0.22	5.00	12.00	0.00	0.00
C_5 / N-C_5 (Pentane / n-Pentane)	72.15	0.004	0.004	0.29	4008.90	0.16	3703.90	0.15	5.00	12.00	0.00	0.00
C_{6+} (Hexane+)	86.00	0.006	0.006	0.52	4755.90	0.29	4403.90	0.26	6.00	14.00	0.00	0.00
Ave. / Total	100.00	100.00	1707.06		1037.76	935.73			12.59	4.06	0.27	0.11
Weight, %		99.74		=					73.74	23.76	1.58	0.66

Gas MW	17.07	
HHV Btu/scf=	1037.76	@ 60 F
LHV Btu/scf=	935.73	@ 60 F
Btu/lb.=	23,071	
lb./scf=	0.0450	
Fd"(60)=	8,481.7	(O_2 Based)
Fd"(68)=	8,612.2	
Fc"(60)=	1,010.5	(CO_2 Based)
Fc"(68)=	1,026.0	

Calculations:

Fd"(68) = 10^6 * [3.64 * (H%) + 1.53 * (C%) + 0.14 * (N%) - 0.46 * (O%)] / HHV, Btu/lb
Fd"(60) = Fd"(68) * 520 R / 528 R
Fc"(68) = 10^6 * [0.321 * (C%)] / HHV, Btu/lb
Fc"(60) = Fc"(68) * 520 R / 528 R

7-2-22 Fuel F-factor Calculations aligned to texas oil tech lab reports

FUEL F-FACTOR CALCULATIONS

GE Roseville

7/3/2022

SPECIES	MW	MOLE %	MOLE % (normalized)	MW*%	HHV	BTU/SCF	LHV	BTU/SCF	ATOMS / MOLE C	H	O	N
H_2 (Hydrogen)	2.02	0.003	0.003	0.01	324.20	0.01	273.93	0.01	0.00	2.00	0.00	0.00
O_2 (Oxygen)	32.00	0.004	0.004	0.13	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.00
N_2 (Nitrogen)	28.01	0.386	0.386	10.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00
CO_2 (Carbon Dioxide)	44.01	0.847	0.847	37.28	0.00	0.00	0.00	0.00	1.00	0.00	2.00	0.00
C_1 (Methane)	16.04	93.879	93.879	1506.1	1010.00	948.18	909.40	853.74	1.00	4.00	0.00	0.00
C_2 (Ethane)	30.07	4.540	4.540	136.52	1769.70	80.34	1618.70	73.49	2.00	6.00	0.00	0.00
C_3 (Propane)	44.10	0.266	0.266	11.73	2516.10	6.69	2314.90	6.16	3.00	8.00	0.00	0.00
ISO C_4 (Isobutane / Methylpropane)	58.12	0.026	0.026	1.51	3251.90	0.85	3000.40	0.78	4.00	10.00	0.00	0.00
C_4 / N-C_4 (Butane / n-Butane)	58.12	0.031	0.031	1.80	3262.30	1.01	3010.80	0.93	4.00	10.00	0.00	0.00
ISO C_5 (Isopentane)	72.15	0.006	0.006	0.43	4000.90	0.24	3699.00	0.22	5.00	12.00	0.00	0.00
C_5 / N-C_5 (Pentane / n-Pentane)	72.15	0.004	0.004	0.29	4008.90	0.16	3703.90	0.15	5.00	12.00	0.00	0.00
C_{6+} (Hexane+)	86.00	0.008	0.008	0.69	4755.90	0.38	4403.90	0.35	6.00	14.00	0.00	0.00
Ave. / Total	100.00		100.00	1707.27		1037.86		935.83	12.59	4.06	0.27	0.11
Weight, %			99.74		=				73.75	23.76	1.60	0.63

Gas MW	17.07	
HHV Btu/scf=	1037.86	@ 60 F
LHV Btu/scf=	935.83	@ 60 F
Btu/lb.=	23,070	
lb./scf=	0.0450	
Fd"(60)=	8,482.1	(O_2 Based)
Fd"(68)=	8,612.6	
Fc"(60)=	1,010.7	(CO_2 Based)
Fc"(68)=	1,026.2	

Calculations:

Fd"(68) = 10^6 * [3.64 * (H%) + 1.53 * (C%) + 0.14 * (N%) - 0.46 * (O%)] / HHV, Btu/lb
Fd"(60) = Fd"(68) * 520 R / 528 R
Fc"(68) = 10^6 * [0.321 * (C%)] / HHV, Btu/lb
Fc"(60) = Fc"(68) * 520 R / 528 R

7-3-22 Fuel F-factor Calculations aligned to texas oil tech lab reports

Appendix D
Quality Assurance/Quality Control

Appendix D.1
Units and Abbreviations

UNITS AND ABBREVIATIONS

@ X% O_2	corrected to X% oxygen (corrected for dilution air)
|CC|	absolute value of the confidence coefficient
|d|	absolute value of the mean differences
ºC	degrees Celsius (centrigade)
ºF	degrees Fahrenheit
ºR	degrees Rankine
" H_2O	inches of water column
13.6	specific gravity of mercury
ΔH	pressure drop across orifice meter, inches H_2O
ΔP	velocity head of stack gas, inches H_2O
θ	total sampling time, minutes
µg	microgram
ρ_a	density of acetone, mg/ml
ρ_w	density of water, 0.9982 g/ml or 0.002201 lb/ml
acfm	actual cubic feet of gas per minute at stack conditions
A_n	cross-sectional area of nozzle, ft^2
A_s	cross-sectional area of stack, square feet (ft^2)
Btu	British thermal unit
B_{ws}	proportion by volume of water vapor in gas stream
C_a	particulate matter concentration in stack gas, gr/acf
C_{Avg}	average unadjusted gas concentration, ppmv
C_{Dir}	measured concentration of calibration gas, ppmv
cf or ft^3	cubic feet
cfm	cubic feet per minute
C_{Gas}	average gas concentration adjusted for bias, ppmv
C_M	average of initial and final system bias check responses from upscale calibration gas, ppmv
cm or m^3	cubic meters
C_{MA}	actual concentration of the upscale calibration gas, ppmv
C_O	average of initial and final system bias check responses from low-level calibration gas, ppmv
C_p	pitot tube coefficient
C_s	particulate matter concentration in stack gas, gr/dscf
CS	calibration span, % or ppmv
C_S	measured concentration of calibration gas, ppmv
C_V	manufactured certified concentration of calibration gas, ppmv
D	drift assessment, % of span
dcf	dry cubic feet
dcm	dry cubic meters
D_n	diameter of nozzle, inches
D_s	diameter of stack, inches
dscf	dry standard cubic feet
dscfm	dry standard cubic feet per minute
dscm	dry standard cubic meters
F_d	F-factor, dscf/MMBtu of heat input
fpm	feet per minute
fps	feet per second
ft	feet
ft^2	square feet
g	gram
gal	gallons
gr	grains (7000 grains per pound)

UNITS AND ABBREVIATIONS

gr/dscf	grains per dry standard cubic feet
hr	hour
I	percent of isokinetic sampling
in	inch
k	kilo or thousand (metric units, multiply by 10^3)
K	kelvin (temperature)
K_3	conversion factor 0.0154 gr/mg
K_4	conversion factor 0.002668 ((in. Hg)(ft^3))/((ml)(°R))
kg	kilogram
K_p	pitot tube constant (85.49 ft/sec)
kwscfh	thousand wet standard cubic feet per hour
l	liters
lb/hr	pounds per hour
lb/MMBtu	pounds per million Btu
lpm	liters per minute
m	meter or milli
M	thousand (English units) or mega (million, metric units)
m^3	cubic meters
m_a	mass of residue of acetone after evaporation, mg
M_d	molecular weight of stack gas; dry basis, lb/lb-mole
meq	milliequivalent
mg	milligram
Mg	megagram (10^6 grams)
min	minute
ml or mL	milliliter
mm	millimeter
MM	million (English units)
MMBtu/hr	million Btu per hour
m_n	total amount of particulate matter collected, mg
mol	mole
mol. wt. or MW	molecular weight
M_s	molecular weight of stack gas; wet basis, lb/lb-mole
MW	molecular weight or megawatt
n	number of data points
ng	nanogram
nm	nanometer
P_{bar}	barometric pressure, inches Hg
pg	picogram
P_g	stack static pressure, inches H_2O
P_m	barometric pressure of dry gas meter, inches Hg
ppb	parts per billion
ppbv	parts per billion, by volume
ppbvd	parts per billion by volume, dry basis
ppm	parts per million
ppmv	parts per million, by volume
ppmvd	parts per million by volume, dry basis
P_s	absolute stack gas pressure, inches Hg
psi	pounds per square inch
psia	pounds per square inch absolute
psig	pounds per square inch gauge
P_{std}	standard absolute pressure, 29.92 inches Hg
Q_a	volumetric flow rate, actual conditions, acfm

MONTROSE
AIR QUALITY SERVICES

UNITS AND ABBREVIATIONS

Q_s	volumetric flow rate, standard conditions, scfm
Q_{std}	volumetric flow rate, dry standard conditions, dscfm
R	ideal gas constant 21.85 ((in. Hg) ($ft^{3)}$)/((°R) (lbmole))
SB_{final}	post-run system bias check, % of span
SB_i	pre-run system bias check, % of span
scf	standard cubic feet
scfh	standard cubic feet per hour
scfm	standard cubic feet per minute
scm	standard cubic meters
scmh	standard cubic meters per hour
sec	second
sf, sq. ft., or ft^2	square feet
std	standard
t	metric ton (1000 kg)
$T_{0.975}$	t-value
T_a	absolute average ambient temperature, ºR (+459.67 for English)
T_m	absolute average dry gas meter temperature, ºR (+459.67 for English)
ton or t	ton = 2000 pounds
tph or tons/hr	tons per hour
tpy or tons/yr	tons per year
T_s	absolute average stack gas meter temperature, ºR (+459.67 for English)
T_{std}	absolute temperature at standard conditions
V	volt
V_a	volume of acetone blank, ml
V_{aw}	volume of acetone used in wash, ml
V_{lc}	total volume H_2O collected in impingers and silica gel, grams
V_m	volume of gas sampled through dry gas meter, ft^3
$V_{m(std)}$	volume of gas measured by the dry gas meter, corrected to standard conditions, dscf
V_{ma}	stack gas volume sampled, acf
V_n	volume collected at stack conditions through nozzle, acf
V_s	average stack gas velocity, feet per second
$V_{wc(std)}$	volume of water vapor condensed, corrected to standard conditions, scf
$V_{wi(std)}$	volume of water vapor in gas sampled from impingers, scf
$V_{wsg(std)}$	volume of water vapor in gas sampled from silica gel, scf
W	watt
W_a	weight of residue in acetone wash, mg
W_{imp}	total weight of impingers, grams
W_{sg}	total weight of silica gel, grams
Y	dry gas meter calibration factor, dimensionless

ACRONYMS

AAS	atomic absorption spectroscopy
ACDP	air contaminant discharge permit
ACE	analyzer calibration error, percent of span
AD	absolute difference
ADL	above detection limit
AETB	Air Emissions Testing Body
AS	applicable standard (emission limit)
ASTM	American Society For Testing And Materials
BACT	best achievable control technology
BDL	below detection limit
BHP	brake horsepower
BIF	boiler and industrial furnace
BLS	black liquor solids
CC	confidence coefficient
CD	calibration drift
CE	calibration error
CEM	continuous emissions monitor
CEMS	continuous emissions monitoring system
CERMS	continuous emissions rate monitoring system
CET	calibration error test
CFR	Code of Federal Regulations
CGA	cylinder gas audit
CHNOS	elemental analysis for determination of C, H, N, O, and S content in fuels
CNCG	concentrated non-condensable gas
CO	catalytic oxidizer
COC	chain of custody
COMS	continuous opacity monitoring system
CPM	condensible particulate matter
CPMS	continuous parameter monitoring system
CT	combustion turbine
CTM	conditional test method
CTO	catalytic thermal oxidizer
CVAAS	cold vapor atomic absorption spectroscopy
D_e	equivalent diameter
DE	destruction efficiency
Dioxins	polychlorinated dibenzo-p-dioxins (pcdd's)
DLL	detection level limited
DNCG	dilute non-condensable gas
ECD	electron capture detector
EIT	Engineer In Training
ELCD	electoconductivity detector (hall detector)
EMPC	estimated maximum possible concentration
EPA	US Environmental Protection Agency
EPRI	Electric Power Research Institute
ES	emission standard (applicable limit)
ESP	electrostatic precipitator
EU	emission unit
FCCU	fluid catalytic cracking unit
FGD	flue gas desulfurization
FI	flame ionization
FIA	flame ionization analyzer
FID	flame ionization detector
FPD	flame photometric detector
FPM	filterable particulate matter

ACRONYMS

FTIR	Fourier-transform infrared spectroscopy
FTPB	field train proof blank
FTRB	field train recovery blank
Furans	polychlorinated dibenzofurans (pcdf's)
GC	gas chromatography
GC/MS	gas chromatography/mass spectroscopy
GFAAS	graphite furnace atomic absorption spectroscopy
GFC	gas filter correlation
GHG	greenhouse gas
HAP	hazardous air pollutant
HC	hydrocarbons
HHV	higher heating value
HPLC	high performance liquid chromatography
HRGC/HRMS	high-resolution gas chromatography/high-resolution mass spectroscopy
HRSG	heat recovery steam generator
IC	ion chromatography
ICAP	inductively-coupled argon plasmography
ICPCR	ion chromatography with a post-column reactor
ICP-MS	inductively coupled plasma-mass spectroscopy
IR	infrared radiation
ISO	International Standards Organization
kW	kilowatts
LFG	landfill gas
LHV	lower heating value
LPG	liquified petroleum gas
MACT	maximum achievable control technology
MDI	methylene diphyenyl diisocyanate
MDL	method detection limit
MNOC	maximum normal operating conditions
MRL	method reporting limit
MS	mass spectrometry
NA	not applicable or not available
NCASI	National Council For Air And Steam Improvement
NCG	non-condensable gases
ND	not detected
NDIR	non-dispersive infrared
NESHAP	National Emissions Standards For Hazardous Air Pollutants
NG	natural gas
NIOSH	National Institute For Occupational Safety And Health
NIST	National Institute Of Standards And Technology
NMC	non-methane cutter
NMOC	non-methane organic compounds
NMVOC	non-methane volatile organic compounds
NPD	nitrogen phosphorus detector
NSPS	New Source Performance Standards
OSHA	Occupational Safety And Health Administration
PAH	polycyclic aromatic hydrocarbons
PCB	polychlorinated biphenyl compounds
PCWP	plywood and composite wood products
PE	Professional Engineer
PFAS	per- and polyfluoroalkyl substances (PFAS)
PI	photoionization
PID	photoionization detector
PM	particulate matter

ACRONYMS

PM_{10}	particulate matter less than 10 microns in aerodynamic diameter
$PM_{2.5}$	particulate matter less than 2.5 microns in aerodynamic diameter
POM	polycyclic organic matter
PS	performance specification
PSD	particle size distribution
PSEL	plant site emission limits
PST	performance specification test
PTE	permanent total enclosure
PTM	performance test method
QA/QC	quality assurance and quality control
QI	Qualified Individual
QSTI	Qualified Source Testing Individual
RA	relative accuracy
RAA	relative accuracy audit
RACT	reasonably available control technology
RATA	relative accuracy test audit
RCTO	rotary concentrator thermal oxidizer
RICE	stationary reciprocating internal combustion engine
RM	reference method
RTO	regenerative thermal oxidizer
SAM	sulfuric acid mist
SCD	sulfur chemiluminescent detector
SCR	selective catalytic reduction system
SD	standard deviation
Semi-VOST	semivolatile organic compounds sample train
SRM	standard reference material
TAP	toxic air pollutant
TBD	to be determined
TCA	thermal conductivity analyzer
TCD	thermal conductivity detector
TGNENMOC	total gaseous non-ethane non-methane organic compounds
TGNMOC	total gaseous non-methane organic compounds
TGOC	total gaseous organic compounds
THC	total hydrocarbons
TIC	tentatively identified compound
TO	thermal oxidizer
TO	toxic organic (as in EPA Method TO-15)
TPM	total particulate matter
TSP	total suspended particulate matter
TTE	temporary total enclosure
ULSD	ultra-low sulfur diesel
UV	ultraviolet radiation range
VE	visible emissions
VOC	volatile organic compounds
VOST	volatile organic sample train
WC	water column
WWTP	waste water treatment plant

CHEMICAL NOMENCLATURE

Ag	silver
As	arsenic
Ba	barium
Be	beryllium
C	carbon
Cd	cadmium
CdS	cadmium sulfide
CH_2O	formaldehyde
CH_3CHO	acetaldehyde
CH_3OH	methanol
CH_4	methane
C_2H_4O	ethylene oxide
C_2H_6	ethane
C_3H_4O	acrolein
C_3H_6O	propionaldehyde
C_3H_8	propane
C_6H_5OH	phenol
Cl_2	chlorine
ClO_2	chlorine dioxide
CO	carbon monoxide
Co	cobalt
CO_2	carbon dioxide
Cr	chromium
Cu	copper
EtO	ethylene oxide
EtOH	ethyl alcohol (ethanol)
H_2	hydrogen
H_2O	water
H_2O_2	hydrogen peroxide
H_2S	hydrogen sulfide
H_2SO_4	sulfuric acid
HCl	hydrogen chloride
Hg	mercury
IPA	isopropyl alcohol
MDI	methylene diphyenyl diisocyanate
$MeCl_2$	methylene chloride
MEK	methyl ethyl ketone
MeOH	methanol
Mn	manganese
N_2	nitrogen
NH_3	ammonia
Ni	nickel
NO	nitric oxide
NO_2	nitrogen dioxide
NO_x	nitrogen oxides
O_2	oxygen
P	phosphorus
Pb	lead
PCDD	polychlorinated dibenzo-p-dioxins
PCDF	polychlorinated dibenzofurans
Sb	antimony
Se	selenium
SO_2	sulfur dioxide
SO_3	sulfur trioxide
SO_x	sulfur oxides
TCDD	tetrachlorodibenzodioxin
TCDF	tetrachlorodibenzofuran
TGOC	total gaseous organic concentration
THC	total hydrocarbons
Tl	thallium
TRS	total reduced sulfur compounds
Zn	zinc

Appendix D.2
Manual Test Method QA/QC Data

Montrose Air Quality Services, LLC
Meter Post Calibration

Average Field Sample Rate (cfm)		**Date**	7/11/2022
Highest Field Vacuum (inches Hg)		**Client**	Office
Critical Orifice ID	KI-63	**Project No.**	
Orifice Flow Rate (cfm)	0.767	**Meter ID**	CS 3

	Run 1	**Run 2**	**Run 3**
Initial Volume (ft^3)	700.33	801.54	809.79
Final Volume (ft^3)	708.00	809.24	817.44
Volume Metered (ft^3)	7.67	7.69	7.65
DGM Inlet Temperature (^oF)	72	73	73
DGM Outlet Temperature (^oF)	73	73	73
Average DGM Temperature (^oF)	72.5	73.0	73.0
Ambient Temperature (^oF)	70	70	70
Elapsed Time (min.)	10	10	10
ΔH (inches H_2O)	1.60	1.60	1.60
Barometric Pressure (inches Hg)	29.87	29.87	29.87
Pump Vacuum (inches Hg)	10	10	10
K'	0.5867	0.5867	0.5867
Vcr (ft^3)	7.612	7.612	7.612
Vmstd (ft^3)	7.621	7.636	7.594
Post Test Yc	0.9988	0.9969	1.0024
Full Test Yd	0.9977	0.9977	0.9977
% Difference	-0.11	0.08	-0.47
Average % Difference			**-0.17**

Montrose Air Quality Services, LLC
Meter Post Calibration

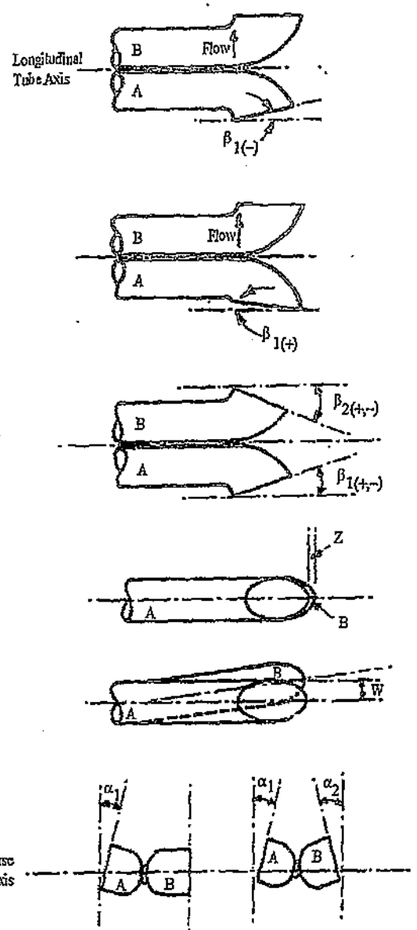
Average Field Sample Rate (cfm)		**Date**	7/11/2022
Highest Field Vacuum (inches Hg)		**Client**	
Critical Orifice ID	KI-63	**Project No.**	
Orifice Flow Rate (cfm)	0.773	**Meter ID**	CS-7

	Run 1	**Run 2**	**Run 3**
Initial Volume (ft^3)	1.01	9.02	17.02
Final Volume (ft^3)	8.75	16.84	24.79
Volume Metered (ft^3)	7.73	7.83	7.76
DGM Inlet Temperature (^oF)	72	73	73
DGM Outlet Temperature (^oF)	73	73	73
Average DGM Temperature (^oF)	72.5	73.0	73.0
Ambient Temperature (^oF)	70	70	70
Elapsed Time (min.)	10	10	10
ΔH (inches H_2O)	1.60	1.60	1.60
Barometric Pressure (inches Hg)	29.87	29.87	29.87
Pump Vacuum (inches Hg)	11	11	11
K'	0.5867	0.5867	0.5867
Vcr (ft^3)	7.612	7.612	7.612
Vmstd (ft^3)	7.683	7.769	7.703
Post Test Yc	0.9908	0.9798	0.9882
Full Test Yd	0.9860	0.9860	0.9860
% Difference	-0.49	0.63	-0.22
Average % Difference			**-0.03**

Pitot Tube Inspection Data

Client Name: GE

Date: Pre-Sample 6/13/22 Post-Sample Date: 7/11/22



Pre-Sample		Post-Sample
Y	level?	Y
N	obstructions?	N
N	damaged?	N
0	$-10° < \alpha_1 < +10°$	1
0	$-10° < \alpha_2 < +10°$	0
1	$-5° < \beta_1 < +5°$	1
1	$-5° < \beta_2 < +5°$	1
1	γ	0
0	θ	0
.740	A	.740
.370	$0 < P_A < 0$	.370
.370	$0 < P_B < 0$	.370
.250	$0.1875 \leq D_t \leq 0.375$	.250
0.013	A tan γ < 0.125"	.000
.000	A tan θ < 0.03125"	.000
PASS	$P_A = P_B$ +/- 0.063	PASS
PASS	PASS/FAIL	PASS

Comments:

Pitot tube/probe number 6-4 meets or exceeds all specifications and criteria and/or applicable design features (per 40CFR60 Appendix A; Method 2) and is heareby assigned a pitot tube calibration factor of 0.84.

Signature:

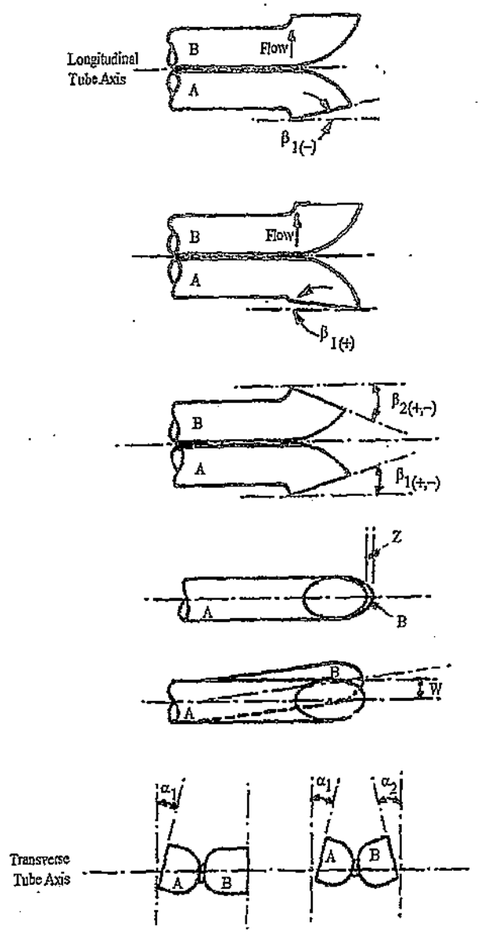
Date: 7/11/22

Pitot Tube Inspection Data

Client Name: GE

Pre-Sample Date: 6/13/22

Post-Sample Date: 7/11/22



Pre-Sample		Post-Sample
Y	level?	Y
N	obstructions?	N
N	damaged?	N
1	$-10° < \alpha_1 < +10°$	0
1	$-10° < \alpha_2 < +10°$	1
0	$-5° < \beta_1 < +5°$	0
0	$-5° < \beta_2 < +5°$	0
0	γ	1
0	θ	0
.7325	A	.730
.36625	$0 < P_A < 0$	.365
.36625	$0 < P_B < 0$	.365
.250	$0.1875 \leq D_t \leq 0.375$	.250
.000	A tan γ < 0.125"	.013
.000	A tan θ < 0.03125"	PASS
PASS	$P_A = P_B$ +/- 0.063	PASS
PASS	PASS/FAIL	

Comments:

Pitot tube/probe number 6-5 meets or exceeds all specifications and criteria and/or applicable design features (per 40CFR60 Appendix A; Method 2) and is heareby assigned a pitot tube calibration factor of 0.84.

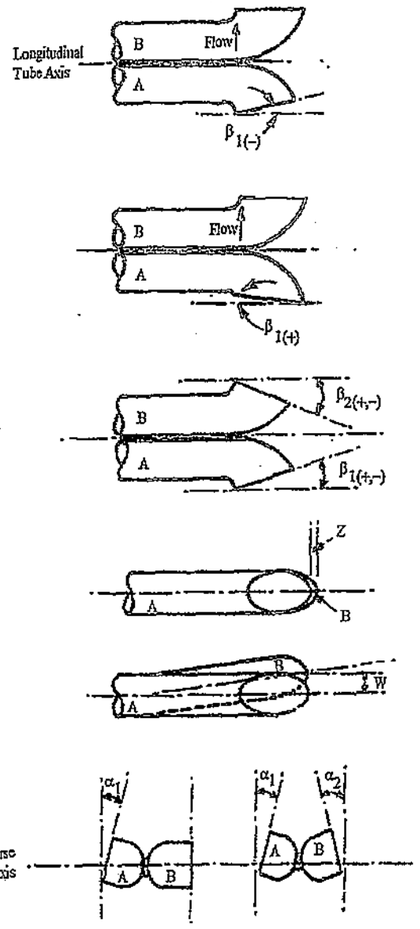
Signature:

Date: 7/11/22

Pitot Tube Inspection Data

Client Name: GE

Date: Pre-Sample 6/13/22 Post-Sample 7/11/22



Pre-Sample		Post-Sample
Y	level?	Y
N	obstructions?	N
N	damaged?	N
1	$-10° < \alpha_1 < +10°$	0
1	$-10° < \alpha_2 < +10°$	1
1	$-5° < \beta_1 < +5°$	1
0	$-5° < \beta_2 < +5°$	0
-1	γ	0
0	θ	1
.734	A	.733
.367	$0 < P_A < 0$	.3665
.367	$0 < P_B < 0$	.3665
.250	$0.1875 \leq D_t \leq 0.375$	.250
-.013	A tan $\gamma < 0.125$"	.000
0.000	A tan $\theta < 0.03125$"	0.01279
PASS	$P_A = P_B +/- 0.063$	PASS
PASS	PASS/FAIL	PASS

Comments:

Pitot tube/probe number 6-6 meets or exceeds all specifications and criteria and/or applicable design features (per 40CFR60 Appendix A; Method 2) and is heareby assigned a pitot tube calibration factor of 0.84.

Signature:

Date: 7/11/22

Appendix D.3
Instrumental Test Method QA/QC Data

MONTROSE AIR QUALITY SERVICES

Relative Accuracy Test Audit Analyzer Data

Client:	GE	Test Start Date:	Friday, July 1, 2022
Facility:	Roseville Energy Center	Operator:	J.Merryman
Source:	Unit 3		
Test Location:	Stack	Reference Method Measurement Basis	Dry - Extractive
Condition/Load:	Base Load	CEMS Analyzer Measurement Basis	Dry - Extractive
Project Number:	PROJ-017008		

Analyzer Information

Reference Method Analyzers

Pollutant Measured	Make	Model	Serial Number
CO	Thermo	48i	1161040047
NO_x	Thermo	42i	1160210012
O_2	Teledyne	T803	144
CO_2	Teledyne	T803	144

MONTROSE AIR QUALITY SERVICES

Method 25A Analyzer Data

Client:	GE	Test Start Date:	Friday, July 1, 2022
Facility:	Roseville Energy Center	Operator:	J Merryman
Test Location:	Unit 3		
Condition/Load:	Base Load		
Project Number:	PROJ-017008		

Analyzer Information

Reference Method Analyzers

Source	Make	Model	Serial Number
Source 1	JUM	3-300A	21073090-35

MONTROSE AIR QUALITY SERVICES

Initial Analyzer Calibration Error Check

Client:	GE	Test Start Date:	Friday, July 1, 2022
Facility:	Roseville Energy Center	Operator:	J.Merryman
Source:	Unit 3		
Test Location:	Stack		
Condition/Load:	Base Load		
Project Number:	PROJ-017008		

Initial Linearity Calibration Data

Pollutant Measured	Calibration Gas Level	Calibration Gas Cylinder Data			Absolute Difference	Analyzer Response	Calibration Error Percentage	Pass/Fail Status
		Expiration Date	Serial Number	Concentration (C_v)				
CO	High	10/11/2024	CC193035	5.86	0.01	5.87	0.17	Pass
	Mid	8/2/2024	CC166107	2.86	0.03	2.89	0.53	Pass
	Low	5/24/2030	EB0048340	0.00	0.06	-0.06	1.02	Pass
NO_x	High	10/11/2024	CC193035	6.03	0.00	6.03	0.05	Pass
	Mid	8/2/2024	CC166107	3.14	0.01	3.13	0.10	Pass
	Low	5/24/2030	EB0048340	0.00	0.01	-0.01	0.17	Pass
O_2	High	2/22/2030	CC14639	20.05	0.06	20.11	0.30	Pass
	Mid	5/13/2030	CC435618	10.15	0.04	10.19	0.20	Pass
	Low	5/24/2030	EB0048340	0.00	0.05	-0.05	0.25	Pass
CO_2	High	2/22/2030	CC14639	19.85	0.03	19.82	0.15	Pass
	Mid	5/13/2030	CC435618	9.92	0.06	9.86	0.32	Pass
	Low	5/24/2030	EB0048340	0.00	0.08	-0.08	0.40	Pass

MONTROSE AIR QUALITY SERVICES

Method 25A Analyzer Data

Client:	GE	Test Start Date:	7/1/2022
Facility:	Roseville Energy Center	Operator:	J Merryman
Test Location:	GT3 Stack		
Condition/Load:	Base Load	Gas Used for Calibration:	Propane
Project Number:	PROJ-017008	Gas Used for Zero:	Air

RM Analyzer Linearity Calibration Data

Sampling Location	Calibration Gas Cylinder Values			Calibration Gas Level	Range	Predicted Response	System Response	Calibration Error Percentage	Pass/Fail <±5%
	Cylinder ID	Exp Date	Concentration						
Source 1	CC402980	5/26/2023	17.13	High	20		17.14	0.05	Pass
	CC214119	4/25/1930	10.05	Mid		10.05	10.11	0.60	Pass
	CC452736	4/10/2029	6.11	Low		6.11	6.14	0.55	Pass
	CC156464	N/A	0.00	Zero			-0.01	-0.05	Pass

Predicted Response Calculations

Slope = 1.00

Intercept = -0.01

Linear Response Line Equation = Predicted Response = 1.001 x Cal Gas Value + -0.01

GE Roseville
Unit 3
7/1/2022

Linearity
Pre
Response

	NOx ppmvd	CO ppmvd	CO2%	O2%	VOC ppmvw	
7:08	0.75	5.18	3.18	15.26	0.69	VOC Calibration
7:09	-0.23	0.53	1.53	21.16	-0.07	
7:10	-0.24	0.56	-0.1	21.17	-0.01	Zero
7:11	0.03	0.83	-0.07	21.12	17.06	
7:12	-0.23	0.49	-0.05	21.14	17.14	VOC High
7:13	0.19	1.26	-0.08	20.93	9.92	
7:14	-0.23	0.34	0.04	21.1	10.11	VOC Mid
7:15	-0.11	0.63	-0.07	20.98	6.19	
7:16	-0.24	0.34	-0.05	21	6.14	VOC Low
7:17	-0.23	2.71	-0.09	15.71	26.44	
7:18	0.75	5.13	2.6	15.49	26.95	
7:19	0.78	4.99	3.2	15.5	26.86	
7:20	0.77	5.06	3.19	15.51	25.95	Local Calibration
7:21	-0.24	0.1	2.24	-0.04	26.48	
7:22	-0.01	-0.06	-0.08	-0.05	26.2	Zero
7:23	0.01	-1.06	3.04	20.02	11.94	
7:24	0	-0.75	18.47	20.1	11.65	
7:25	0	-0.8	19.82	20.11	11.87	High O2/CO2
7:26	-0.02	-0.86	18.7	20.05	11.65	
7:27	5.23	5.68	3.02	-0.04	11.31	
7:28	6.03	5.87	-0.07	-0.06	11.23	
7:29	5.58	5.87	-0.08	0.12	11.6	
7:30	0.89	0.35	2.12	10.24	11.71	
7:31	0.01	-0.68	9.75	10.18	11.59	
7:32	0	-0.59	9.86	10.19	11.3	Mid O2/CO2
7:33	3.34	2.61	4.76	-0.01	11.41	
7:34	3.13	2.89	-0.07	-0.03	11.46	Mid NOx/CO
7:35	2.87	6.1	-0.05	4.08	0.95	Remote
7:36	2.93	3.39	0.56	0.13	-0.07	
7:37	3.12	2.83	-0.03	0	-0.13	Mid NOx/CO
7:38	3.14	2.1	-0.07	8.34	-0.12	
7:39	0.02	-0.11	9.4	10.1	-0.11	
7:40	0.02	-0.09	9.81	10.12	-0.08	Mid O2/CO2
7:41	0.03	0.53	6.82	0.04	-0.06	
7:42	0	0.01	-0.06	-0.01	-0.15	Zero
7:43	0.01	0.41	-0.06	13.74	10.91	

MONTROSE AIR QUALITY SERVICES

Initial Analyzer Calibration Error Check

Client:	GE
Facility:	Roseville Energy Center
Source:	Unit 3
Test Location:	Stack
Condition/Load:	Base Load
Project Number:	PROJ-017008

Test Start Date:	Saturday, July 2, 2022
Operator:	J.Merryman

Initial Linearity Calibration Data

Pollutant Measured	Calibration Gas Level	Calibration Gas Cylinder Data			Absolute Difference	Analyzer Response	Calibration Error Percentage	Pass/Fail Status
		Expiration Date	Serial Number	Concentration (C_v)				
O_2	High	2/22/2030	CC14639	20.05	0.06	20.11	0.30	Pass
	Mid	5/13/2030	CC435618	10.15	0.06	10.21	0.59	Pass
	Low	5/24/2030	EB0048340	0.00	0.05	-0.05	0.25	Pass
CO_2	High	2/22/2030	CC14639	19.85	0.04	19.81	0.20	Pass
	Mid	5/13/2030	CC435618	9.92	0.04	9.88	0.22	Pass
	Low	5/24/2030	EB0048340	0.00	0.00	0.00	0.00	Pass

GE Roseville **Linearity**
Unit 3 **Pre**
7/2/2022

	CO2%	O2%	
5:42	17.67	20.11	
5:43	19.81	20.11	High O2/CO2
5:44	12	0.03	
5:45	0	-0.05	Zero
5:46	-0.05	9.95	
5:47	9.88	10.21	Mid O2/CO2
5:48	6.05	20.95	
5:49	0.01	11.67	Remote
5:50	0.01	0.03	Zero
5:51	1.78	10.1	
5:52	9.88	10.15	Mid O2/CO2

Measurement Ranges

Day 1	CO (ppm)	NO_x (ppm)	SO_2 (ppm)	O_2 (% vol)	CO_2 (% vol)
Measurement Ranges Based on Calibration Gas	5.86	6.03	-	20.05	19.85
Day 2	**CO (ppm)**	**NO_x (ppm)**	**SO_2 (ppm)**	**O_2 (% vol)**	**CO_2 (% vol)**
Measurement Ranges Based on Calibration Gas	-	-	-	20.05	19.85

Low-Level or Zero Calibration Gas System Responses

Run Number	Test Date	CO (ppm)		NO_x (ppm)		SO_2 (ppm)		O_2 (% vol)		CO_2 (% vol)	
		Pre Cal	Post Cal	Pre Cal	Post Cal	Pre Cal	Post Cal	Pre Cal	Post Cal	Pre Cal	Post Cal
1 - COMP	07/01/22	0.01	-0.01	0.00	0.02	-	-	-0.01	0.00	-0.06	-0.06
2 - COMP	07/01/22	-0.01	-0.05	0.02	0.04	-	-	0.00	0.00	-0.06	-0.05
3 - COMP	07/01/22	-0.05	-0.08	0.04	0.02	-	-	0.00	0.05	-0.05	-0.07
1 - PM	07/01/22	-	-	-	-	-	-	-0.01	0.06	-0.06	-0.03
2 - PM	07/01/22	-	-	-	-	-	-	-0.01	0.06	-0.06	-0.03
3 - PM	07/02/22	-	-	-	-	-	-	0.03	0.05	0.01	-0.07
4 - PM	07/02/22	-	-	-	-	-	-	0.03	0.05	0.01	-0.07

C_{MA} - Actual Concentration of the Upscale Calibration Gas

Day 1	CO (ppm)	NO_x (ppm)	SO_2 (ppm)	O_2 (% vol)	CO_2 (% vol)
High or Mid	Mid	Mid	-	Mid	Mid
C_{MA}	2.859	3.136	-	10.15	9.924
Day 2	**CO (ppm)**	**NO_x (ppm)**	**SO_2 (ppm)**	**O_2 (% vol)**	**CO_2 (% vol)**
High or Mid	-	-	-	Mid	Mid
C_{MA}	-	-	-	10.15	9.924

High-Level Calibration Gas System Responses

Run Number	Test Date	CO (ppm)		NO_x (ppm)		SO_2 (ppm)		O_2 (% vol)		CO_2 (% vol)	
		Pre Cal	Post Cal	Pre Cal	Post Cal	Pre Cal	Post Cal	Pre Cal	Post Cal	Pre Cal	Post Cal
1 - COMP	07/01/22	2.83	2.72	3.12	3.12	-	-	10.12	10.12	9.81	9.80
2 - COMP	07/01/22	2.72	2.78	3.12	3.14	-	-	10.12	10.10	9.80	9.88
3 - COMP	07/01/22	2.78	2.85	3.14	3.13	-	-	10.10	10.11	9.88	9.83
1 - PM	07/01/22	-	-	-	-	-	-	10.12	10.12	9.81	9.85
2 - PM	07/01/22	-	-	-	-	-	-	10.12	10.12	9.81	9.85
3 - PM	07/02/22	-	-	-	-	-	-	10.15	10.13	9.88	9.87
4 - PM	07/02/22	-	-	-	-	-	-	10.15	10.13	9.88	9.87

MONTROSE AIR QUALITY SERVICES

Calibration Error and Drift Summary

Client:	GE
Facility:	Roseville Energy Center
Source:	Unit 3
Test Location:	Stack
Condition/Load:	Base Load
Project Number:	PROJ-017008

Test Start Date:	Friday, July 1, 2022
Operator:	J. Merryman

Carbon Monoxide (CO) Bias and Drift Data

Run Number	Cal Gas Level	C_v	C_{Dir}	System Initial Values		System Final Values		Drift Assesment
	Low & Upscale	Span Gas Concentration (ppm)	Direct Response (ppm)	System Response (ppm)	System Bias % of Span	System Response (ppm)	System Bias % of Span	% of Span (D)
1 - COMP	Low	5.86	-0.06	0.01	1.2	-0.01	0.9	0.3
	Upscale	5.86	2.89	2.83	-1.0	2.72	-2.9	1.9
2 - COMP	Low	5.86	-0.06	-0.01	0.9	-0.05	0.2	0.7
	Upscale	5.86	2.89	2.72	-2.9	2.78	-1.9	1.0
3 - COMP	Low	5.86	-0.06	-0.05	0.2	-0.08	-0.3	0.5
	Upscale	5.86	2.89	2.78	-1.9	2.85	-0.7	1.2

Nitrogen Oxides (NO_x) Bias and Drift Data

Run Number	Cal Gas Level	C_v	C_{Dir}	System Initial Values		System Final Values		Drift Assesment
	Low & Upscale	Span Gas Concentration (ppm)	Direct Response (ppm)	System Response (ppm)	System Bias % of Span	System Response (ppm)	System Bias % of Span	% of Span (D)
1 - COMP	Low	6.03	-0.01	0.00	0.2	0.02	0.5	0.3
	Upscale	6.03	3.13	3.12	-0.2	3.12	-0.2	0.0
2 - COMP	Low	6.03	-0.01	0.02	0.5	0.04	0.8	0.3
	Upscale	6.03	3.13	3.12	-0.2	3.14	0.2	0.3
3 - COMP	Low	6.03	-0.01	0.04	0.8	0.02	0.5	0.3
	Upscale	6.03	3.13	3.14	0.2	3.13	0.0	0.2

Oxygen (O_2) Bias and Drift Data

Run Number	Cal Gas Level	C_v	C_{Dir}	System Initial Values		System Final Values		Drift Assesment
	Low & Upscale	Span Gas Concentration (%vol)	Direct Response (%vol)	System Response (ppm)	System Bias % of Span	System Response (%vol)	System Bias % of Span	% of Span (D)
1 - COMP	Low	20.05	-0.05	-0.01	0.2	0.00	0.2	0.0
	Upscale	20.05	10.19	10.12	-0.3	10.12	-0.3	0.0
2 - COMP	Low	20.05	-0.05	0.00	0.2	0.00	0.2	0.0
	Upscale	20.05	10.19	10.12	-0.3	10.10	-0.4	0.1
3 - COMP	Low	20.05	-0.05	0.00	0.2	0.05	0.5	0.2
	Upscale	20.05	10.19	10.10	-0.4	10.11	-0.4	0.0
1 - PM	Low	20.05	-0.05	-0.01	0.2	0.06	0.5	0.3
	Upscale	20.05	10.19	10.12	-0.3	10.12	-0.3	0.0
2 - PM	Low	20.05	-0.05	-0.01	0.2	0.06	0.5	0.3
	Upscale	20.05	10.19	10.12	-0.3	10.12	-0.3	0.0
3 - PM	Low	20.05	0.00	0.03	0.1	0.05	0.2	0.1
	Upscale	20.05	10.21	10.15	-0.3	10.13	-0.4	0.1
4 - PM	Low	20.05	0.00	0.03	0.1	0.05	0.2	0.1
	Upscale	20.05	10.21	10.15	-0.3	10.13	-0.4	0.1

Carbon Dioxide (CO_2) Bias and Drift Data

Run Number	Cal Gas Level	C_v	C_{Dir}	System Initial Values		System Final Values		Drift Assesment
	Low & Upscale	Span Gas Concentration (%vol)	Direct Response (%vol)	System Response (ppm)	System Bias % of Span	System Response (%vol)	System Bias % of Span	% of Span (D)
1 - COMP	Low	19.85	-0.08	-0.06	0.1	-0.06	0.1	0.0
	Upscale	19.85	9.86	9.81	-0.3	9.80	-0.3	0.1
2 - COMP	Low	19.85	-0.08	-0.06	0.1	-0.05	0.2	0.1
	Upscale	19.85	9.86	9.80	-0.3	9.88	0.1	0.4
3 - COMP	Low	19.85	-0.08	-0.05	0.2	-0.07	0.1	0.1
	Upscale	19.85	9.86	9.88	0.1	9.83	-0.2	0.3
1 - PM	Low	19.85	-0.08	-0.06	0.1	-0.03	0.3	0.2
	Upscale	19.85	9.86	9.81	-0.3	9.85	-0.1	0.2
2 - PM	Low	19.85	-0.08	-0.06	0.1	-0.03	0.3	0.2
	Upscale	19.85	9.86	9.81	-0.3	9.85	-0.1	0.2
3 - PM	Low	19.85	0.00	0.01	0.1	-0.07	-0.4	0.4
	Upscale	19.85	10.21	9.88	-1.7	9.87	-1.7	0.1
4 - PM	Low	19.85	0.00	0.01	0.1	-0.07	-0.4	0.4
	Upscale	19.85	10.21	9.88	-1.7	9.87	-1.7	0.1

MONTROSE
AIR QUALITY SERVICES

Method 25A Calibration Data

Client:	GE
Facility:	Roseville Energy Center
Test Location:	Unit 3
Project Number:	PROJ-017008
Test Date:	7/1/2022
Operator:	J Merryman

Upscale Calibration Gas Used	
	Source 1
Calibration Gas Type	Propane
Upscale Gas Used	Mid
Upscale Gas Concentration	10.05

Upscale System Response

	Source 1	
Test Run Number	Pre Cal	Post Cal
1	10.11	10.15
2	10.11	10.09
3	10.11	9.98

Zero System Response

	Source 1	
Test Run Number	Pre Cal	Post Cal
1	-0.01	-0.02
2	-0.01	-0.01
3	-0.01	0.02

Method 25A Drift Calculations

Source 1						
Run	Span Gas Concentration (ppm)	Calibration Gas Level	System Response (ppm) Initial	System Response (ppm) Final	Drift %	Acceptability +/- 3%
1	10.05	Upscale	10.11	10.15	0.20	Pass
		Zero	-0.01	-0.02	-0.05	Pass
2	10.05	Upscale	10.11	10.09	-0.10	Pass
		Zero	-0.01	-0.01	0.00	Pass
3	10.05	Upscale	10.11	9.98	-0.65	Pass
		Zero	-0.01	0.02	0.15	Pass

GE Roseville **Post1/Pre2**

Unit 3

7/1/2022

	NOx ppmvd	CO ppmvd	CO2%	O2%	/OC ppmvw	
9:27	2.16	4.77	3.17	13.09	-0.12	Post 1-Pre 2 Calibration
9:28	0.15	-0.01	1.6	1.07	-0.08	
9:29	0.02	-0.01	-0.06	0	-0.14	Zero
9:30	2.88	2.02	-0.05	-0.01	-0.22	
9:31	3.12	2.72	-0.08	-0.01	-0.19	Mid NOx/CO
9:32	0.28	-0.86	3.21	10.09	-0.14	
9:33	0.01	-0.76	9.8	10.12	-0.11	
9:34	1.31	0.33	8.17	18.56	0.04	
9:35	0.01	-0.17	0.13	21.13	-0.02	VOC Zero
9:36	0.46	-0.14	0.05	21.05	10.15	VOC Mid

GE Roseville **Post2/Pre3**
Unit 3
7/1/2022

	NOx ppmvd	CO ppmvd	CO2%	O2%	/OC ppmvw		
10:44	0.72	0.8	2.97	0.71	-0.04		0
10:45	0.07	-0.25	0.15	0.46	-0.06		
10:46	0.04	-0.19	-0.05	0	-0.08	Zero	
10:47	2.86	2.51	-0.05	0.01	-0.11		
10:48	3.14	2.78	-0.09	-0.01	-0.09	Mid NOx/CO	
10:49	0.29	-0.96	2.96	10.08	-0.09		
10:50	0.02	-0.96	9.88	10.1	-0.11	Mid O2/CO2	
10:51	0.16	-0.1	9.64	15.59	0.77		
10:52	1.08	0.05	3.2	21.04	-0.01	VOC Zero	
10:53	0.03	-0.15	0.12	18.21	4.71		
10:54	0.04	-0.44	1.02	21.07	10.09	VOC Mid	

GE Roseville **Post 2 PM**
Unit 3
7/1/2022

	CO2%	O2%	
14:45	2.77	16.17	Post Cal for O2/CO2
14:46	2.43	0.1	
14:47	-0.03	0.06	Zero
14:48	0.14	10.38	
14:49	9.85	10.12	Mid O2/CO2
14:50	7.57	15.82	
14:51	0.58	14.92	

GE Roseville **Post 4 PM**
Unit 3
7/2/2022

	CO2%	O2%	
13:11	3.01	15.8	
13:12	2.98	15.79	
13:13	2.98	15.82	
13:14	2.99	15.82	
13:15	2.96	15.84	Post Cal Unit 3
13:16	2.98	15.82	
13:17	2.32	0.08	
13:18	-0.07	0.05	Zero
13:19	5.83	10.11	
13:20	9.61	10.14	
13:21	9.87	10.13	Mid O2/CO2

MONTROSE AIR QUALITY SERVICES

Measurement System Response Time Test

Client:	GE	Response TimeTest Date:	Friday, July 1, 2022
Facility:	Roseville Energy Center	Operator:	J.Merryman
Source:	Unit 3		
Test Location:	Stack		
Project Number:	PROJ-017008		

Upscale Response Time Test

Pollutant Measured	Calibraton Gas Used (Mid or High)	Calibration Gas Concentration	Stable Response	Start Time	Time to Target Value	Upscale Target Value	Response Time
CO	Mid	2.859	2.83	7:32:00	7:34:00	2.69	0:02:00
NO_x	Mid	3.136	3.12	7:32:00	7:33:00	2.96	0:01:00
O_2	Mid	10.15	10.12	7:37:00	7:39:00	9.61	0:02:00
CO_2	Mid	9.924	9.81	7:29:00	7:31:00	9.32	0:02:00

Downscale Response Time Test

Pollutant Measured	Calibraton Gas Used (Mid or High)	Calibration Gas Concentration	Start Time	Time to Target Value	Downscale Target Value[1]	Response Time
CO	Mid	2.859	7:37:00	7:39:00	0.14	0:02:00
NO_x	Mid	3.136	7:38:00	7:39:00	0.16	0:01:00
O_2	Mid	10.15	7:32:00	7:33:00	0.51	0:01:00
CO_2	Mid	9.924	7:40:00	7:42:00	0.50	0:02:00

[1] The calculated downscale is 5% of the upscale. 0.5ppm may also be used if less restrictive.

MONTROSE
AIR QUALITY SERVICES

Measurement System Response Time Test

Client:	GE	Response TimeTest Date:	7/1/2022
Facility:	Roseville Energy Center	Operator:	J Merryman
Test Location:	Unit 3		
Project Number:	PROJ-017008		

Upscale Response Time Test

Pollutant Measured	Calibraton Gas Used	Calibration Gas Concentration	Target Response	Start Time	Time to Target Value	Upscale Target Value	Response Time
Source 1	Mid	10.05	10.11	7:12:00	7:13:00	9.60	0:01:00

Downscale Response Time Test

Pollutant Measured	Calibraton Gas Used	Calibration Gas Concentration	Start Time	Time to Target Value	Downscale Target Value[1]	Response Time
Source 1	Mid	10.05	7:16:00	7:17:00	0.50	0:01:00

[1] The calculated downscale is 5% of the upscale. 0.5ppm may also be used if less restrictive.

MONTROSE AIR QUALITY SERVICES

NO_2 to NO Conversion Efficiency Test

Client:	GE	Test Date:	7/5/2022
Facility:	Roseville Energy Center	Operator:	J.Merryman
Source:	Unit 3		
Test Location:	Stack	NO_2 to NO Conversion Efficiency Test Date:	5-Jul
Project Number:	PROJ-017008		

Analyzer Information

NO_x Analyzer Make:	Thermo
NO_x Analyzer Model:	42i
NO_x Analyzer S/N:	1160210012
NO_x Converter Temp:	624

Direct Calibration Mode Utilizing NO_2 Calibration Gas

NO_2 Cal Gas Cylinder ID:	CC515549
NO_2 Cal Gas Cylinder Expiration Date :	6/12/2023
NO_2 Cal Gas Cylinder Certified Concentration:	61.69
Analyzer Response to NO_2 Calibration Gas:	60.62
Calculated Converter Efficiency (EFF_{NO2}):	98.27%
Status of Converter Efficiency (>90%):	PASS

GE Roseville
Unit 3 & Unit 4
7/5/2022

NOx Conv
Check

	NOx ppmvd	CO ppmvd	CO2%	O2%
17:31	4.55	2.33	-0.03	14.79
17:32	2.74	0.41	2.86	15.39
17:33	20.38	-0.30	2.02	-0.01
17:34	60.40	-0.43	-0.06	-0.04
17:35	60.62	-0.38	-0.04	-0.04

MONTROSE AIR QUALITY SERVICES

40 CFR Part 60 Sample Point Selection and Stratification Check

Client:	GE	Test Date:	Friday, July 1, 2022
Facility:	Roseville Energy Center	Operator:	J.Merryman
Source:	Unit 3		
Test Location:	Stack		
Condition/Load:	Base Load		
Project Number:	PROJ-017008		

Sample Location Information

Shape of Sample Location: Round
Diameter: 9.00 Ft.
Port Length: 14.00

Peformace Specification 2 Traverse Point Guidance

Is the test location downstream of wet scrubbers
or at points where two streams with different pollutant concentrations are combined? No

Calculated Sample Points

Short Line Points With Port Length Added	
Point	Point Distance (in.)
1	92.75
2	61.25
3	29.75

Long Line Points (16.7, 50.0, and 83.3%) With Port Length Added	
Point	Point Distance (in.)
1	103.96
2	68.00
3	32.04

Stratification Test Data

Port	Point	CO (ppm)	NO_x (ppm)	SO_2 (ppm)	O_2 (%vol)	CO_2 (%vol)
1	1	3.03	1.43		15.73	3.03
1	2	3.00	1.46		15.83	3.00
1	3	2.96	1.38		15.81	2.96
1	4	3.03	1.37		15.83	3.03
1	5	3.00	1.36		15.82	3.00
1	6	3.00	1.48		15.82	3.00
2	1	3.26	2.10		15.43	3.26
2	2	3.24	1.98		15.39	3.24
2	3	3.23	2.04		15.43	3.23
2	4	3.19	1.98		15.43	3.19
2	5	3.14	1.69		15.55	3.14
2	6	3.14	2.01		15.52	3.14
Mean Pollutant Concentration		3.10	1.69	N/A	15.63	3.10
Maximum Percent Differnce from Mean		5.10	24.26		1.55	5.10
Pass or Fail Stratification Status[1]		PASS	PASS		PASS	PASS

[1] If "PASS" the short line points can be used. If "FAIL" the long line points at 16.7, 50.0, and 83.3% must be used.

Actual sample strategy selected for test: ong Line Points (16.7%, 50% and 83% of diamte

GE Roseville **Stratification**
Unit 3
7/1/2022

	NOx ppmvd	CO ppmvd	CO2%	O2%	/OC ppmvw	
8:19	1.32	0.42	3.02	15.75	0.97	Start Run 1 Compliance Unit 3
8:20	1.36	0.37	3.06	15.75	1.08	Stratification Test
8:21	1.36	0.47	3.06	15.76	1.08	
8:22	1.42	0.38	3.06	15.74	1.02	
8:23	1.43	0.5	3.03	15.73	0.98	P1
8:24	1.44	0.36	3.05	15.75	0.98	
8:25	1.41	0.41	2.97	15.82	0.95	
8:26	1.4	0.35	3.01	15.83	1.05	
8:27	1.47	0.41	3	15.83	0.99	
8:28	1.46	0.48	3	15.83	0.96	P2
8:29	1.41	0.37	2.99	15.85	0.94	
8:30	1.42	0.4	2.99	15.84	1.05	
8:31	1.38	0.37	2.97	15.82	1.02	
8:32	1.39	0.36	3.02	15.83	0.96	
8:33	1.38	0.43	2.96	15.81	0.92	P3
8:34	1.41	0.34	2.99	15.8	0.98	
8:35	1.36	0.5	3	15.8	1.01	
8:36	1.37	0.33	3.01	15.83	1.08	
8:37	1.36	0.33	3.01	15.79	0.98	
8:38	1.37	0.45	3.03	15.83	1.07	P4
8:39	1.37	0.42	3.01	15.82	1	
8:40	1.3	0.48	2.98	15.84	1.01	
8:41	1.31	0.39	2.97	15.83	0.99	
8:42	1.38	0.42	3.02	15.82	1.04	
8:43	1.36	0.38	3	15.82	0.96	P5
8:44	1.45	0.44	2.96	15.82	0.85	
8:45	1.42	0.39	3	15.81	0.88	
8:46	1.42	0.34	3.01	15.82	0.93	
8:47	1.42	0.43	2.99	15.83	0.84	
8:48	1.48	0.42	3	15.82	0.78	P6
8:49	1.61	0.38	3.03	15.71	0.83	End Port 1 - Moving to second port
8:50	0.03	-0.13	1.69	20.98	0.86	
8:51	2.13	0.34	0.89	15.4	0.94	
8:52	2.29	0.33	3.18	15.29	1.06	
8:53	2.18	0.33	3.28	15.32	0.98	
8:54	2.16	0.34	3.24	15.35	0.89	
8:55	2.07	0.28	3.26	15.35	0.95	Start Port 2
8:56	2.13	0.28	3.26	15.34	1.03	
8:57	2.08	0.37	3.26	15.33	0.95	
8:58	2.18	0.29	3.29	15.37	1.02	
8:59	2.1	0.34	3.26	15.43	1.06	P1
9:00	1.89	0.34	3.23	15.43	1.07	

9:01	1.93	0.38	3.19	15.41	1.08	
9:02	1.96	0.26	3.25	15.41	1.09	
9:03	1.92	0.37	3.19	15.41	1.02	
9:04	1.98	0.35	3.24	15.39	0.8	P2
9:05	2.09	0.39	3.23	15.39	0.87	
9:06	2.14	0.35	3.24	15.39	0.85	
9:07	2.19	0.29	3.21	15.39	0.92	
9:08	2.14	0.37	3.23	15.46	0.9	
9:09	2.04	0.27	3.23	15.43	0.87	P3
9:10	2.06	0.34	3.21	15.41	0.86	
9:11	2.03	0.3	3.22	15.4	0.9	
9:12	2.2	0.24	3.24	15.41	0.84	
9:13	2.15	0.27	3.25	15.43	0.86	
9:14	1.98	0.23	3.19	15.43	0.85	P4
9:15	1.9	0.34	3.2	15.41	0.93	
9:16	1.92	0.33	3.27	15.42	0.9	
9:17	1.9	0.21	3.24	15.53	0.89	
9:18	1.65	0.33	3.2	15.55	0.89	
9:19	1.69	0.36	3.14	15.55	0.87	P5
9:20	1.73	0.22	3.13	15.52	0.97	
9:21	1.72	0.33	3.13	15.61	0.97	
9:22	1.74	0.3	3.14	15.59	0.85	
9:23	1.95	0.26	3.17	15.52	0.93	
9:24	2.01	0.37	3.14	15.52	0.91	P6
9:25	2.05	0.34	3.16	15.51	0.89	

MONTROSE AIR QUALITY SERVICES

Relative Accuracy Test Audit Analyzer Data

Client:	GE	Test Start Date:	Saturday, July 2, 2022
Facility:	Roseville Energy Center	Operator:	J.Merryman
Source:	Unit 4		
Test Location:	Stack	Reference Method Measurement Basis	Dry - Extractive
Condition/Load:	Base Load	CEMS Analyzer Measurement Basis	Dry - Extractive
Project Number:	PROJ-017008		

Analyzer Information

Reference Method Analyzers

Pollutant Measured	Make	Model	Serial Number
CO	Thermo	48i	1161040047
NO_x	Thermo	42i	1160210012
O_2	Teledyne	T803	144
CO_2	Teledyne	T803	144

MONTROSE AIR QUALITY SERVICES

Method 25A Analyzer Data

Client:	GE	Test Start Date:	Sunday, July 3, 2022
Facility:	Roseville Energy Center	Operator:	J Merryman
Test Location:	Unit 4		
Condition/Load:	Base Load		
Project Number:	PROJ-017008		

Analyzer Information

Reference Method Analyzers

Source	Make	Model	Serial Number
Source 1	JUM	3-300A	21073090-35

MONTROSE AIR QUALITY SERVICES

Initial Analyzer Calibration Error Check

Client:	GE
Facility:	Roseville Energy Center
Source:	Unit 4
Test Location:	Stack
Condition/Load:	Base Load
Project Number:	PROJ-017008

Test Start Date:	Saturday, July 2, 2022
Operator:	J.Merryman

Initial Linearity Calibration Data

Pollutant Measured	Calibration Gas Level	Calibration Gas Cylinder Data			Absolute Difference	Analyzer Response	Calibration Error Percentage	Pass/Fail Status
		Expiration Date	Serial Number	Concentration (C_v)				
O_2	High	2/22/2030	CC14639	20.05	0.07	20.12	0.35	Pass
	Mid	5/13/2030	CC435618	10.15	0.02	10.13	0.10	Pass
	Low	5/24/2030	EB0048340	0.00	0.04	-0.04	0.20	Pass
CO_2	High	2/22/2030	CC14639	19.85	0.01	19.86	0.05	Pass
	Mid	5/13/2030	CC435618	9.92	0.08	10.00	0.38	Pass
	Low	5/24/2030	EB0048340	0.00	0.05	0.05	0.25	Pass

GE Roseville **Linearity**
Unit 4 **Pre**
7/2/2022

	O2%	CO2%	
12:10	21.68	0.03	Local Calibration - Unit 4
12:11	20.76	15.07	
12:12	20.12	19.86	High O2/CO2
12:13	1.18	19.81	
12:14	-0.04	0.28	
12:15	-0.04	0.05	Zero
12:16	10.48	7.57	
12:17	10.13	10	Mid O2/CO2
12:18	0.51	4.32	Remote
12:19	0.01	0.04	Zero
12:20	10.05	1.41	
12:21	10.16	9.87	Mid O2/CO2
12:22	20.66	9.68	

MONTROSE AIR QUALITY SERVICES

Initial Analyzer Calibration Error Check

Client:	GE
Facility:	Roseville Energy Center
Source:	Unit 4
Test Location:	Stack
Condition/Load:	Base Load
Project Number:	PROJ-017008

Test Start Date:	Sunday, July 3, 2022
Operator:	J.Merryman

Initial Linearity Calibration Data

Pollutant Measured	Calibration Gas Level	Calibration Gas Cylinder Data			Absolute Difference	Analyzer Response	Calibration Error Percentage	Pass/Fail Status
		Expiration Date	Serial Number	Concentration (C_v)				
CO	High	10/11/2024	CC193035	5.86	0.01	5.87	0.17	Pass
	Mid	8/2/2024	CC166107	2.86	0.05	2.81	0.84	Pass
	Low	5/24/2030	EB0048340	0.00	0.09	0.09	1.54	Pass
NO_x	High	10/11/2024	CC193035	6.03	0.02	6.01	0.28	Pass
	Mid	8/2/2024	CC166107	3.14	0.01	3.13	0.10	Pass
	Low	5/24/2030	EB0048340	0.00	0.03	0.03	0.50	Pass
O_2	High	2/22/2030	CC14639	20.05	0.06	20.11	0.30	Pass
	Mid	5/13/2030	CC435618	10.15	0.02	10.17	0.20	Pass
	Low	5/24/2030	EB0048340	0.00	0.04	-0.04	0.20	Pass
CO_2	High	2/22/2030	CC14639	19.85	0.00	19.85	0.00	Pass
	Mid	5/13/2030	CC435618	9.92	0.04	9.88	0.73	Pass
	Low	5/24/2030	EB0048340	0.00	0.08	-0.08	1.33	Pass

MONTROSE AIR QUALITY SERVICES

Method 25A Analyzer Data

Client:	GE	Test Start Date:	7/3/2022
Facility:	Roseville Energy Center	Operator:	J Merryman
Test Location:	GT4 Stack		
Condition/Load:	Base Load	Gas Used for Calibration:	Propane
Project Number:	PROJ-017008	Gas Used for Zero:	Air

RM Analyzer Linearity Calibration Data

Sampling Location	Calibration Gas Cylinder Values			Calibration Gas Level	Range	Predicted Response	System Response	Calibration Error Percentage	Pass/Fail <±5%
	Cylinder ID	Exp Date	Concentration						
Source 1	CC402980	5/26/2023	17.13	High	20		17.06	-0.35	Pass
	CC214119	4/25/1930	10.05	Mid		9.99	10.08	0.90	Pass
	CC452736	4/10/2029	6.11	Low		6.05	6.05	-0.06	Pass
	CC156464	N/A	0.00	Zero			-0.05	-0.25	Pass

Predicted Response Calculations

Slope = 1.00

Intercept = -0.05

Linear Response Line Equation = Predicted Response = 0.999 x Cal Gas Value + -0.05

GE Roseville
Unit 4
7/3/2022

Linearity
Pre
Response

	NOx ppmvd	CO ppmvd	CO2%	O2%	/OC ppmvw	
5:47	0.43	-0.39	-0.07	1.13	0.91	
5:48	0.03	0.09	-0.08	-0.04	0.93	Zero
5:49	0.01	-1.07	11.49	20.06	0.90	
5:50	0.00	-0.76	19.85	20.11	0.96	High O2/CO2
5:51	2.05	2.44	11.70	0.06	1.01	
5:52	5.58	6.51	-0.07	-0.06	1.00	
5:53	6.01	5.87	-0.07	-0.05	0.98	High NOx/CO
5:54	6.01	5.94	-0.09	0.07	0.94	
5:55	0.31	-0.52	6.66	10.18	0.98	
5:56	0.03	-0.50	9.88	10.17	1.03	Mid O2/CO2
5:57	3.22	2.71	2.70	-0.04	1.16	
5:58	3.13	2.81	-0.06	-0.04	0.94	Mid NOx/CO
5:59	0.26	0.26	-0.07	20.99	3.87	
6:00	17.95	1.18	0.88	15.03	3.38	
6:01	9.48	3.06	2.99	3.69	0.39	Remote Calibrations
6:02	0.84	0.40	0.75	0.08	0.11	
6:03	0.05	0.02	-0.07	0.08	0.02	Zero
6:04	0.13	0.03	-0.06	8.89	-0.04	
6:05	3.18	2.81	0.55	0.06	0.00	Mid NOx/CO
6:06	3.20	2.82	-0.06	0.05	-0.07	
6:07	1.86	0.54	2.09	10.11	-0.07	
6:08	0.12	-0.59	9.89	10.16	-0.07	Mid O2/CO2
6:09	0.76	-0.09	9.65	14.99	1.78	
6:10	1.92	0.33	3.54	15.09	1.31	
6:11	2.27	0.31	3.40	18.14	0.51	
6:12	0.27	-0.03	1.96	21.17	-0.05	VOC Zero
6:13	0.69	-0.08	-0.08	20.73	17.06	
6:14	0.10	0.07	0.14	21.15	17.06	VOC High
6:15	0.49	0.02	-0.09	21.04	9.88	
6:16	0.10	-0.10	-0.08	21.10	10.08	VOC Mid
6:17	0.10	-0.22	-0.07	19.50	6.03	
6:18	0.11	-0.08	-0.05	21.03	6.05	VOC Low

Measurement Ranges

Day 1	CO (ppm)	NO_x (ppm)	SO_2 (ppm)	O_2 (% vol)	CO_2 (% vol)
Measurement Ranges Based on Calibration Gas	5.86	6.03	-	20.05	19.85
Day 2	**CO (ppm)**	**NO_x (ppm)**	**SO_2 (ppm)**	**O_2 (% vol)**	**CO_2 (% vol)**
Measurement Ranges Based on Calibration Gas	5.86	6.03	-	20.05	19.85

Low-Level or Zero Calibration Gas System Responses

Run Number	Test Date	CO (ppm)		NO_x (ppm)		SO_2 (ppm)		O_2 (% vol)		CO_2 (% vol)	
		Pre Cal	Post Cal	Pre Cal	Post Cal	Pre Cal	Post Cal	Pre Cal	Post Cal	Pre Cal	Post Cal
1 - PM	07/02/22	-	-	-	-	-	-	0.01	0.06	0.05	0.04
1 -COMP	07/03/22	0.09	-0.02	0.03	0.05	-	-	0.08	0.04	-0.07	-0.06
2 - COMP	07/03/22	-0.02	-0.15	0.05	0.04	-	-	0.04	0.02	-0.06	-0.03
3 - COMP	07/03/22	-0.15	-0.11	0.04	0.05	-	-	0.02	0.02	-0.03	0.04
2 - PM	07/03/22	-	-	-	-	-	-	0.08	0.06	-0.07	0.04
3 - PM	07/03/22	-	-	-	-	-	-	0.08	0.06	-0.07	0.04
4 - PM	07/03/22	-	-	-	-	-	-	0.08	0.06	-0.07	0.04

C_{MA} - Actual Concentration of the Upscale Calibration Gas

Day 1	CO (ppm)	NO_x (ppm)	SO_2 (ppm)	O_2 (% vol)	CO_2 (% vol)
High or Mid	Mid	Mid	-	Mid	Mid
C_{MA}	2.859	3.136	-	10.15	9.924
Day 2	**CO (ppm)**	**NO_x (ppm)**	**SO_2 (ppm)**	**O_2 (% vol)**	**CO_2 (% vol)**
High or Mid	Mid	Mid	-	Mid	Mid
C_{MA}	2.859	3.136	-	10.15	9.924

High-Level Calibration Gas System Responses

Run Number	Test Date	CO (ppm)		NO_x (ppm)		SO_2 (ppm)		O_2 (% vol)		CO_2 (% vol)	
		Pre Cal	Post Cal	Pre Cal	Post Cal	Pre Cal	Post Cal	Pre Cal	Post Cal	Pre Cal	Post Cal
1 - PM	07/02/22	-	-	-	-	-	-	10.16	10.10	9.87	9.86
1 -COMP	07/03/22	2.81	2.79	3.18	3.11	-	-	10.16	10.13	9.89	9.81
2 - COMP	07/03/22	2.79	2.82	3.11	3.11	-	-	10.13	10.13	9.81	9.84
3 - COMP	07/03/22	2.82	2.75	3.11	3.12	-	-	10.13	10.11	9.84	9.81
2 - PM	07/03/22	-	-	-	-	-	-	10.16	10.13	9.89	9.79
3 - PM	07/03/22	-	-	-	-	-	-	10.16	10.13	9.89	9.79
4 - PM	07/03/22	-	-	-	-	-	-	10.16	10.13	9.89	9.79

MONTROSE AIR QUALITY SERVICES

Calibration Error and Drift Summary

Client:	GE
Facility:	Roseville Energy Center
Source:	Unit 4
Test Location:	Stack
Condition/Load:	Base Load
Project Number:	PROJ-017008

Test Start Date:	Saturday, July 2, 2022
Operator:	J. Merryman

Carbon Monoxide (CO) Bias and Drift Data

Run Number	Cal Gas Level	C_v	C_{Dir}	System Initial Values		System Final Values		Drift Assesment
	Low & Upscale	Span Gas Concentration (ppm)	Direct Response (ppm)	System Response (ppm)	System Bias % of Span	System Response (ppm)	System Bias % of Span	% of Span (D)
1 -COMP	Low	5.86	0.09	0.09	0.0	-0.02	-1.9	1.9
	Upscale	5.86	2.81	2.81	0.0	2.79	-0.3	0.3
2 - COMP	Low	5.86	0.09	-0.02	-1.9	-0.15	-4.1	2.2
	Upscale	5.86	2.81	2.79	-0.3	2.82	0.2	0.5
3 - COMP	Low	5.86	0.09	-0.15	-4.1	-0.11	-3.4	0.7
	Upscale	5.86	2.81	2.82	0.2	2.75	-1.0	1.2

Nitrogen Oxides (NO_x) Bias and Drift Data

Run Number	Cal Gas Level	C_v	C_{Dir}	System Initial Values		System Final Values		Drift Assesment
	Low & Upscale	Span Gas Concentration (ppm)	Direct Response (ppm)	System Response (ppm)	System Bias % of Span	System Response (ppm)	System Bias % of Span	% of Span (D)
1 -COMP	Low	6.03	0.03	0.03	0.0	0.05	0.3	0.3
	Upscale	6.03	3.13	3.18	0.8	3.11	-0.3	1.2
2 - COMP	Low	6.03	0.03	0.05	0.3	0.04	0.2	0.2
	Upscale	6.03	3.13	3.11	-0.3	3.11	-0.3	0.0
3 - COMP	Low	6.03	0.03	0.04	0.2	0.05	0.3	0.2
	Upscale	6.03	3.13	3.11	-0.3	3.12	-0.2	0.2

Oxygen (O_2) Bias and Drift Data								
Run Number	Cal Gas Level	C_v	C_{Dir}	System Initial Values		System Final Values		Drift Assesment
	Low & Upscale	Span Gas Concentration (%vol)	Direct Response (%vol)	System Response (ppm)	System Bias % of Span	System Response (%vol)	System Bias % of Span	% of Span (D)
1 - PM	Low	20.05	-0.04	0.01	0.2	0.06	0.5	0.2
	Upscale	20.05	10.13	10.16	0.1	10.10	-0.1	0.3
1 -COMP	Low	20.05	-0.04	0.08	0.6	0.04	0.4	0.2
	Upscale	20.05	10.13	10.16	0.1	10.13	0.0	0.1
2 - COMP	Low	20.05	-0.08	0.04	0.6	0.02	0.5	0.1
	Upscale	20.05	10.17	10.13	-0.2	10.13	-0.2	0.0
3 - COMP	Low	20.05	-0.08	0.02	0.5	0.02	0.5	0.0
	Upscale	20.05	10.17	10.13	-0.2	10.11	-0.3	0.1
2 - PM	Low	20.05	-0.08	0.08	0.8	0.06	0.7	0.1
	Upscale	20.05	10.17	10.16	0.0	10.13	-0.2	0.1
3 - PM	Low	20.05	-0.08	0.08	0.8	0.06	0.7	0.1
	Upscale	20.05	10.17	10.16	0.0	10.13	-0.2	0.1
4 - PM	Low	20.05	-0.08	0.08	0.8	0.06	0.7	0.1
	Upscale	20.05	10.17	10.16	0.0	10.13	-0.2	0.1

Carbon Dioxide (CO_2) Bias and Drift Data								
Run Number	Cal Gas Level	C_v	C_{Dir}	System Initial Values		System Final Values		Drift Assesment
	Low & Upscale	Span Gas Concentration (%vol)	Direct Response (%vol)	System Response (ppm)	System Bias % of Span	System Response (%vol)	System Bias % of Span	% of Span (D)
1 - PM	Low	19.85	0.05	0.05	0.0	0.04	-0.1	0.1
	Upscale	19.85	10.00	9.87	-0.7	9.86	-0.7	0.1
1 -COMP	Low	19.85	-0.08	-0.07	0.1	-0.06	0.1	0.1
	Upscale	19.85	10.17	9.89	-1.4	9.81	-1.8	0.4
2 - COMP	Low	19.85	-0.08	-0.06	0.1	-0.03	0.3	0.2
	Upscale	19.85	10.17	9.81	-1.8	9.84	-1.7	0.2
3 - COMP	Low	19.85	-0.08	-0.03	0.3	0.04	0.6	0.4
	Upscale	19.85	10.17	9.84	-1.7	9.81	-1.8	0.2
2 - PM	Low	19.85	-0.08	-0.07	0.1	0.04	0.6	0.6
	Upscale	19.85	10.17	9.89	-1.4	9.79	-1.9	0.5
3 - PM	Low	19.85	-0.08	-0.07	0.1	0.04	0.6	0.6
	Upscale	19.85	10.17	9.89	-1.4	9.79	-1.9	0.5
4 - PM	Low	19.85	-0.08	-0.07	0.1	0.04	0.6	0.6
	Upscale	19.85	10.17	9.89	-1.4	9.79	-1.9	0.5

MONTROSE AIR QUALITY SERVICES

Method 25A Calibration Data

Client:	GE
Facility:	Roseville Energy Center
Test Location:	Unit 4
Project Number:	PROJ-017008
Test Date:	7/3/2022
Operator:	J Merryman

Upscale Calibration Gas Used	
	Source 1
Calibration Gas Type	Propane
Upscale Gas Used	Mid
Upscale Gas Concentration	10.05

Upscale System Response

	Source 1	
Test Run Number	Pre Cal	Post Cal
1	10.08	10.03
2	10.08	10.03
3	10.08	10.04

Zero System Response

	Source 1	
Test Run Number	Pre Cal	Post Cal
1	-0.05	0.04
2	-0.05	-0.01
3	-0.05	-0.02

Method 25A Drift Calculations

Source 1						
Run	Span Gas Concentration (ppm)	Calibration Gas Level	System Response (ppm) Initial	System Response (ppm) Final	Drift %	Acceptability +/- 3%
1	10.05	Upscale	10.08	10.03	-0.25	Pass
		Zero	-0.05	0.04	0.45	Pass
2	10.05	Upscale	10.08	10.03	-0.25	Pass
		Zero	-0.05	-0.01	0.20	Pass
3	10.05	Upscale	10.08	10.04	-0.20	Pass
		Zero	-0.05	-0.02	0.15	Pass

GE Roseville **Post 1 PM**
Unit 4
7/2/2022

	O2%	**CO2%**	
17:06	10.12	5.98	
17:07	10.1	9.86	Mid O2/CO2
17:08	1.11	9.84	
17:09	0.1	0.14	
17:10	0.06	0.04	Zero

GE Roseville **Post1/Pre2**

Unit 4

7/3/2022

	NOx ppmvd	CO ppmvd	CO2%	O2%	/OC ppmvw	
8:32	0.09	-0.08	0.61	0.05	0.01	
8:33	0.05	-0.02	-0.06	0.04	0.04	Zero
8:34	0.05	-1.07	1.81	10.07	0.00	
8:35	0.04	-0.81	9.81	10.13	0.03	Mid O2/CO2
8:36	1.42	1.33	9.55	0.16	0.06	
8:37	3.11	2.79	0.01	0.02	0.07	Mid NOx/CO
8:38	3.14	2.63	-0.05	0.02	0.04	
8:39	1.96	0.58	0.56	16.38	0.01	
8:40	0.06	-0.15	0.80	21.12	0.04	VOC Zero
8:41	0.08	-0.06	-0.02	21.05	10.03	
8:42	0.04	-0.35	-0.01	21.08	10.03	VOC Mid

GE Roseville **Post2/Pre3**
Unit 4
7/3/2022

	NOx ppmvd	CO ppmvd	CO2%	O2%	/OC ppmvw	
9:50	0.95	0.87	2.11	19.35	10.03	VOC Mid
9:51	0.06	-0.11	0.16	21.05	-0.01	VOC Zero
9:52	0.06	-0.17	-0.12	0.02	0.01	
9:53	0.04	-0.15	-0.03	0.02	-0.05	Zero
9:54	0.06	-0.26	-0.07	4.84	0.04	
9:55	0.04	-0.83	9.01	10.12	0.00	
9:56	0.05	-0.81	9.84	10.13	0.03	Mid O2/CO2
9:57	1.08	0.69	9.74	0.28	-0.01	
9:58	3.11	2.67	0.02	0.02	0.01	
9:59	3.11	2.82	-0.06	0.03	1.18	Mid NOx/CO

GE Roseville **Post 3**
Unit 4
7/3/2022

	NOx ppmvd	CO ppmvd	CO2%	O2%	VOC ppmvw	
11:06	1.70	0.42	3.18	15.45	1.85	
11:07	1.20	4.13	3.17	0.37	0.01	
11:08	0.05	-0.11	0.04	0.02	-0.04	Zero
11:09	0.05	-1.06	0.93	10.03	-0.11	
11:10	0.05	-0.79	9.81	10.11	-0.11	Mid O2/CO2
11:11	1.40	1.23	8.41	0.14	-0.07	
11:12	3.10	2.58	-0.04	0.02	-0.08	
11:13	3.12	2.75	-0.04	6.50	1.06	Mid NOx/CO
11:14	0.84	-0.30	1.10	21.06	-0.07	
11:15	0.05	-0.17	-0.06	21.12	-0.02	VOC Zero
11:16	0.24	-0.28	-0.06	21.01	9.60	
11:17	0.05	-0.46	0.00	21.07	10.04	VOC Mid

GE Roseville **Post PM**
Unit 4
7/3/2022

	CO2%	O2%	
16:39	3.21	0.65	
16:40	0.04	0.06	Zero
16:41	0.07	10.02	
16:42	9.79	10.13	Mid O2/CO2

MONTROSE AIR QUALITY SERVICES

Measurement System Response Time Test

Client:	GE
Facility:	Roseville Energy Center
Source:	Unit 4
Test Location:	Stack
Project Number:	PROJ-017008

Response TimeTest Date:	Sunday, July 3, 2022
Operator:	J.Merryman

Upscale Response Time Test

Pollutant Measured	Calibraton Gas Used (Mid or High)	Calibration Gas Concentration	Stable Response	Start Time	Time to Target Value	Upscale Target Value	Response Time
CO	Mid	2.859	2.81	6:04:00	6:05:00	2.67	0:01:00
NO_x	Mid	3.136	3.18	6:04:00	6:05:00	3.02	0:01:00
O_2	Mid	10.15	10.16	6:06:00	6:07:00	9.65	0:01:00
CO_2	Mid	9.924	9.89	6:06:00	6:08:00	9.40	0:02:00

Downscale Response Time Test

Pollutant Measured	Calibraton Gas Used (Mid or High)	Calibration Gas Concentration	Start Time	Time to Target Value	Downscale Target Value[1]	Response Time
CO	Mid	2.859	6:06:00	6:08:00	0.14	0:02:00
NO_x	Mid	3.136	6:06:00	6:08:00	0.16	0:02:00
O_2	Mid	10.15	8:35:00	8:36:00	0.51	0:01:00
CO_2	Mid	9.924	8:35:00	8:37:00	0.50	0:02:00

[1] The calculated downscale is 5% of the upscale. 0.5ppm may also be used if less restrictive.

MONTROSE
AIR QUALITY SERVICES

Measurement System Response Time Test

Client:	GE	Response TimeTest Date:	7/3/2022
Facility:	Roseville Energy Center	Operator:	J Merryman
Test Location:	Unit 4		
Project Number:	PROJ-017008		

Upscale Response Time Test

Pollutant Measured	Calibraton Gas Used	Calibration Gas Concentration	Target Response	Start Time	Time to Target Value	Upscale Target Value	Response Time
Source 1	Mid	10.05	10.03	8:40:00	8:41:00	9.53	0:01:00

Pollutant Measured	Calibraton Gas Used	Calibration Gas Concentration	Start Time	Time to Target Value	Downscale Target Value[1]	Response Time
Source 1	Mid	10.05	9:50:00	9:51:00	0.50	0:01:00

[1] The calculated downscale is 5% of the upscale. 0.5ppm may also be used if less restrictive.

MONTROSE AIR QUALITY SERVICES

40 CFR Part 60 Sample Point Selection and Stratification Check

Client:	GE	Test Date:	6/27/2022
Facility:	Roseville Energy Center	Operator:	J.Merryman
Source:	Unit 4		
Test Location:	Stack		
Condition/Load:	Base Load		
Project Number:	PROJ-017008		

Sample Location Information

Shape of Sample Location: Round
Diameter: 9.00 Ft.
Port Length: 14.00

Peformace Specification 2 Traverse Point Guidance

Is the test location downstream of wet scrubbers
or at points where two streams with different pollutant concentrations are combined? No

Calculated Sample Points

Short Line Points With Port Length Added	
Point	Point Distance (in.)
1	92.75
2	61.25
3	29.75

Long Line Points (16.7, 50.0, and 83.3%) With Port Length Added	
Point	Point Distance (in.)
1	103.96
2	68.00
3	32.04

Stratification Test Data

Port	Point	CO (ppm)	NO_x (ppm)	SO_2 (ppm)	O_2 (%vol)	CO_2 (%vol)
1	1	0.08	2.48		15.33	3.27
1	2	0.35	2.07		15.33	3.28
1	3	0.26	2.07		15.42	3.23
2	1	0.24	2.36		15.15	3.37
2	2	0.22	2.13		15.14	3.38
2	3	0.48	2.42		15.10	3.38
3	1	0.31	2.40		15.08	3.42
3	2	0.32	2.41		15.10	3.44
3	3	0.30	2.15		15.14	3.39
4	1	0.23	1.94		15.41	3.24
4	2	0.19	2.09		15.40	3.26
4	3	0.28	1.99		15.40	3.28
Mean Pollutant Concentration		0.27	2.21	N/A	15.25	3.33
Maximum Percent Differnce from Mean		76.69	12.26		1.11	3.36
Pass or Fail Stratification Status[1]		PASS	PASS		PASS	PASS

[1] If "PASS" the short line points can be used. If "FAIL" the long line points at 16.7, 50.0, and 83.3% must be used.

Actual sample strategy selected for test: Short Line Points (2.0, 1.2 and 0.4 m)

GE Roseville **Stratification**

Unit 4

7/3/2022

	NOx ppmvd	CO ppmvd	CO2%	O2%	/OC ppmvw	
7:17	2.08	0.37	3.02	15.33	1.12	Start Run 1 Stratificati
7:18	2.09	0.32	3.29	15.36	1.14	
7:19	2.15	0.31	3.26	15.34	1.03	
7:20	2.40	0.26	3.28	15.35	1.00	
7:21	2.45	0.25	3.29	15.34	0.99	
7:22	2.48	0.08	3.27	15.33	1.04	1-1
7:23	2.29	0.32	3.28	15.35	0.99	
7:24	2.23	0.34	3.26	15.34	1.02	
7:25	2.07	0.28	3.27	15.33	0.98	
7:26	2.07	0.35	3.28	15.33	1.03	1-2
7:27	2.07	0.26	3.30	15.33	2.34	
7:28	2.10	0.33	3.25	15.36	1.43	
7:29	2.05	0.35	3.26	15.39	1.21	
7:30	2.07	0.26	3.23	15.42	1.09	1-3
7:31	2.07	0.26	3.24	15.40	0.99	
7:32	2.10	0.31	3.24	15.41	1.05	
7:33	2.18	0.33	3.21	15.56	0.85	Move Probe
7:34	0.50	-0.02	1.54	15.37	0.98	
7:35	2.46	0.48	2.77	15.20	2.00	
7:36	2.49	0.47	3.35	15.19	1.43	Start Port 2
7:37	2.48	0.32	3.35	15.19	1.01	
7:38	2.50	0.26	3.35	15.19	1.01	
7:39	2.35	0.17	3.33	15.17	0.96	
7:40	2.36	0.24	3.37	15.15	1.01	2-1
7:41	2.31	0.35	3.39	15.15	1.25	
7:42	2.24	0.20	3.36	15.15	1.00	
7:43	2.13	0.20	3.38	15.17	0.92	
7:44	2.13	0.22	3.38	15.14	0.97	2-2
7:45	2.25	0.26	3.36	15.17	0.94	
7:46	2.32	0.29	3.37	15.15	1.05	
7:47	2.33	0.31	3.38	15.12	1.09	
7:48	2.42	0.48	3.38	15.10	1.18	2-3
7:49	2.45	0.16	3.40	15.10	0.92	
7:50	2.45	0.23	3.40	15.09	0.90	End Port 2
7:51	2.54	0.31	3.44	15.10	0.99	
7:52	1.20	0.22	2.89	15.78	0.30	Move Probe
7:53	2.38	0.29	3.41	15.09	1.12	
7:54	2.35	0.25	3.42	15.10	1.07	
7:55	2.09	0.11	3.40	15.10	0.91	Start Port 3
7:56	2.13	0.20	3.40	15.10	1.04	
7:57	2.14	0.29	3.43	15.11	1.04	
7:58	2.35	0.27	3.41	15.10	0.83	

7:59	2.40	0.31	3.42	15.08	0.91	3-1
8:00	2.41	0.24	3.41	15.11	1.03	
8:01	2.33	0.33	3.43	15.09	1.01	
8:02	2.41	0.18	3.41	15.08	0.84	
8:03	2.41	0.32	3.44	15.10	0.91	3-2
8:04	2.41	0.32	3.40	15.11	0.92	
8:05	2.41	0.26	3.38	15.12	0.90	
8:06	2.20	0.19	3.41	15.12	1.02	
8:07	2.15	0.30	3.39	15.14	0.99	3-3
8:08	2.15	0.21	3.42	15.30	0.98	
8:09	2.19	0.22	3.31	15.13	0.88	
8:10	2.41	0.25	3.39	15.12	0.81	
8:11	2.47	0.12	3.37	15.15	0.97	
8:12	1.09	0.18	2.17	15.40	0.98	Move Probe
8:13	2.11	0.18	3.08	15.40	0.87	
8:14	2.04	0.27	3.23	15.40	0.94	Start Port 4
8:15	1.98	0.34	3.23	15.39	0.90	
8:16	1.88	0.16	3.23	15.38	0.95	
8:17	1.87	0.21	3.23	15.40	1.06	
8:18	1.94	0.23	3.24	15.41	0.97	4-1
8:19	1.81	0.29	3.26	15.39	0.95	
8:20	1.90	0.24	3.24	15.38	0.83	
8:21	2.08	0.16	3.26	15.40	0.96	
8:22	2.09	0.19	3.26	15.40	0.92	4-2
8:23	2.04	0.30	3.24	15.41	0.89	
8:24	2.10	0.14	3.28	15.38	0.95	
8:25	2.01	0.19	3.27	15.39	0.88	
8:26	1.99	0.28	3.28	15.40	0.84	4-3

Appendix D.4
Accreditation Information/Certifications

STACK TESTING ACCREDITATION COUNCIL

American Association for Laboratory Accreditation

Accredited Air Emission Testing Body

A2LA has accredited

MONTROSE AIR QUALITY SERVICES

In recognition of the successful completion of the joint A2LA and Stack Testing Accreditation Council (STAC) evaluation process, this laboratory is accredited to perform testing activities in compliance with ASTM D7036:2004 - Standard Practice for Competence of Air Emission Testing Bodies.

Presented this 4th day of February 2022.

Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 3925.01
Valid to February 29, 2024

This accreditation program is not included under the A2LA ILAC Mutual Recognition Arrangement.

CERTIFICATE OF COMPLETION

Justin Merryman

This document certifies that this individual has passed a comprehensive examination and is now a Qualified Individual (QI) as defined in Section 8.3 of ASTM D7036-04 for the following method(s):

Source Evaluation Society Group 1: *EPA Manual Gas Volume and Flow Measurements and Isokinetic Particulate Sampling Methods*

Certificate Number: 033-2018-1

Tate Strickler, Accreditation Director

DATE OF ISSUE: 1/17/18

DATE OF EXPIRATION: 1/17/23

MONTROSE ENVIRONMENTAL

CERTIFICATE OF COMPLETION

Justin Merryman

This document certifies that this individual has passed a comprehensive examination and is now a Qualified Individual (QI) as defined in Section 8.3 of ASTM D7036-04 for the following method(s):

Source Evaluation Society Group 3: *EPA Gaseous Pollutants Instrumental Methods*

Certificate Number: 033-2018-3

Tate Strickler, Accreditation Director

DATE OF ISSUE: 1/17/18

DATE OF EXPIRATION: 1/17/23

MONTROSE ENVIRONMENTAL

This is the Last Page of This Document

If you have any questions, please contact one of the following individuals by email or phone.

Name: Mr. John Hamner
Title: Account Manager
Region: Power Start-ups
Email: jhamner@montrose-env.com
Phone: 630-715-3259

STATE OF CALIFORNIA

CALIFORNIA ENERGY COMMISSION

CEC-1304 SCHEDULE 2 Part A: Generation and Fuel Use by Generator

CEC-1304 (Revised 06/2019)

Reporting Period	
Year:	2023
Quarter:	2

One Schedule 2-A for each generator (unit) in plant.

CEC Plant ID:	G0213
EIA Plant ID:	56298
Generator (Unit) ID:	CT5 & CT6
Qualifying Facility ID:	0

			Primary Energy Source :				Secondary Energy Source:			
Month	Gross MWh	Net MWh	Fuel Use in MCF, bbl, or ton	Fuel Use in MMBtu	Fuel Supplied by Tolling Agreement (Percent) (1)	Fuel Cost (1)	Fuel Use in MCF, bbl, or ton	Fuel Use in MMBtu	Fuel Supplied by Tolling Agreement (Percent) (1)	Fuel Cost (1)
January	57	56	536	564*	0	19043*				
February	0	0	0	0	0	0				
March	486	430	3,525	3680*	0	30587*				
April	0	0	0	0	0	0				
May	180	145	1,145	1,170	0	46,374				
June	129	77	489	502	0	13,098				
July										
August										
September										
October										
November										
December										
Annual Total (2)	851	708	5,695	1,672	0	59,472	0	0	0	0

Notes: *Gross MWh includes plant parasitic load. Net MWh does not include parasitic load.*

(1) Fuel Cost and Fuel Supplied by Tolling Agreement is required for plants of 50 MW or more. Fuel Cost is for any portion of fuel not supplied through a tolling agreement. Fuel Cost will be kept confidential.

(2) For plants with plant nameplate capacity of less than 10 MW, monthly data are not required.

(1 MMBtu = 10 therms)

Average Values Report
Generated: 7/28/2023 08:40

Company: Roseville Energy Park

Period Start: 4/1/2023 00:00

Plant: 5120 Phillip Rd

Period End: 6/30/2023 23:59

City/St: Roseville, CA 95747

Validation Type: 1/60 min
Source: CT005_Stack
Averaging Period: 24 hr
Type: Block Avg

Period Start:	Total C5CO#_1H Lbs	Total C5NOx#_1H Lbs	Total C5PM#_1H Lbs	Total C5SOX#_1H Lbs	Total C5VOC#_1H Lbs	Total C5OpTime1H OpTime	Total C5GasFl_1H kscf	Total C5unitload MW
05/08/2023 00:00	0.45	0.24	0.02	0.00	0.00	0.24	7.94	-0.01
05/10/2023 00:00	6.12	4.70	2.28	0.30	0.00	4.08	935.88	99.96
06/09/2023 00:00	0.92	4.08	0.70	0.08	0.00	1.20	289.12	41.54
Final Average*	**2.50**	**3.01**	**1.00**	**0.13**	**0.00**	**0.06**	**410.98**	**47.16**
Maximum*	**6.12**	**4.70**	**2.28**	**0.30**	**0.00**	**4.08**	**935.88**	**99.96**
	05/10/2023 0:00	05/10/2023 0:00	05/10/2023 0:00	05/10/2023 0:00		05/10/2023 0:00	05/10/2023 0:00	05/10/2023 0:00
Minimum*	**0.45**	**0.24**	**0.02**	**0.00**	**0.00**	**0.00**	**7.94**	**-0.01**
	05/08/2023 0:00	05/08/2023 0:00	05/08/2023 0:00	05/08/2023 0:00	06/09/2023 0:00	06/30/2023 0:00	05/08/2023 0:00	05/08/2023 0:00
Total*	**7.49**	**9.02**	**3.00**	**0.38**	**0.00**	**5.52**	**1232.94**	**141.49**

* Does not include Invalid Averaging Periods ("N/A")

Average Values Report
Generated: 7/28/2023 08:44

Company: Roseville Energy Park□

Period Start: 4/1/2023 00:00

Plant: 5120 Phillip Rd□

Period End: 6/30/2023 23:59

City/St: Roseville, CA 95747□

Validation Type: 40CFR60 Subpart A

Source: CT005_Stack

Averaging Period: 1 hr
Type: Block Avg

Period Start:	Average C5nox#h_SS lb/hr	Average C5co#h_SS lb/hr	Average C5voc#h_SS lb/hr	Average C5StartHr 1=SU	Average C5ShutHr 1=SD	Average C5Start 1=SU	Average C5Shut 1=SD
05/08/2023 12:00	1.18	2.23	0.00	1	1	1	1
05/10/2023 07:00	7.74	2.96	0.00	1	0	1	0
05/10/2023 11:00	1.61	0.45	0.00	0	1	N/A	N/A
05/10/2023 12:00	0.20	0.36	0.00	0	1	0	1
06/09/2023 07:00	9.24	1.93	0.00	1	0	1	0
06/09/2023 08:00	1.62	0.41	0.00	1	1	0	0
Final Average*	**3.60**	**1.19**	**0.00**	**0**	**0**	**0**	**0**
Maximum*	**9.24**	**2.96**	**0.00**	**1**	**1**	**1**	**1**
	06/09/2023 7:00	05/10/2023 7:00		06/09/2023 8:00	06/09/2023 8:00	06/09/2023 7:00	05/10/2023 12:00
Minimum*	**0.20**	**0.00**	**0.00**	**0**	**0**	**0**	**0**
	05/10/2023 12:00	05/10/2023 8:00	06/09/2023 8:00	06/30/2023 23:00	06/30/2023 23:00	06/09/2023 8:00	06/09/2023 8:00

* Does not include Invalid Averaging Periods ("N/A")

Average Values Report
Generated: 7/28/2023 08:42

Company: Roseville Energy Park

Period Start: 4/1/2023 00:00

Plant: 5120 Phillip Rd

Period End: 6/30/2023 23:59

City/St: Roseville, CA 95747

Validation Type: 1/60 min
Source: CT006_Stack
Averaging Period: 24 hr
Type: Block Avg

Period Start:	Total C6CO#_1H Lbs	Total C6NOx#_1H Lbs	Total C6PM#_1H Lbs	Total C6SOX#_1H Lbs	Total C6VOC#_1H Lbs	Total C6OpTime1H OpTime	Total C6GasFl_1H kscf	Total C6unitload MW
05/08/2023 00:00	0.72	9.86	0.42	0.06	0.00	1.20	233.60	44.34
05/09/2023 00:00	0.63	8.64	0.45	0.06	0.00	1.20	252.96	35.40
06/09/2023 00:00	0.90	17.82	0.36	0.06	0.00	1.20	199.89	42.96
06/12/2023 00:00	1.14	4.59	0.51	0.09	0.00	1.44	294.15	44.04
Final Average*	**0.85**	**10.23**	**0.43**	**0.07**	**0.00**	**0.06**	**245.15**	**41.69**
Maximum*	**1.14**	**17.82**	**0.51**	**0.09**	**0.00**	**1.44**	**294.15**	**44.34**
	06/12/2023 0:00	06/09/2023 0:00	06/12/2023 0:00	06/12/2023 0:00		06/12/2023 0:00	06/12/2023 0:00	05/08/2023 0:00
Minimum*	**0.63**	**4.59**	**0.36**	**0.06**	**0.00**	**0.00**	**199.89**	**35.40**
	05/09/2023 0:00	06/12/2023 0:00	06/09/2023 0:00	06/09/2023 0:00	06/12/2023 0:00	06/30/2023 0:00	06/09/2023 0:00	05/09/2023 0:00
Total*	**3.39**	**40.91**	**1.74**	**0.27**	**0.00**	**5.04**	**980.60**	**166.74**

* Does not include Invalid Averaging Periods ("N/A")

Average Values Report
Generated: 7/28/2023 08:45

Company: Roseville Energy Park□

Period Start: 4/1/2023 00:00

Plant: 5120 Phillip Rd□

Period End: 6/30/2023 23:59

City/St: Roseville, CA 95747□

Validation Type: 40CFR60 Subpart A

Source: CT006_Stack

Averaging Period: 1 hr

Type: Block Avg

Period Start:	Average C6nox#h_SS lb/hr	Average C6co#h_SS lb/hr	Average C6voc#h_SS lb/hr	Average C6STARTH Mins	Average C6ShutHr 1=SD	Average C6Start 1=SU	Average C6Shut 1=SD
05/08/2023 14:00	9.97	0.69	0.00	0	0	1	0
05/08/2023 15:00	3.28	0.31	0.00	0	1	0	0
05/09/2023 09:00	14.90	1.48	0.00	0	0	1	0
05/09/2023 10:00	4.77	0.24	0.00	0	1	0	0
05/09/2023 11:00	4.67	0.51	0.00	0	1	0	1
06/09/2023 12:00	45.14	2.04	0.00	0	1	1	1
06/09/2023 13:00	7.91	0.37	0.00	0	1	1	0
06/09/2023 14:00	3.68	N/A	0.00	0	1	0	1
06/12/2023 10:00	10.74	2.21	0.00	0	0	1	0
06/12/2023 11:00	1.66	0.55	0.00	0	1	0	0
06/12/2023 12:00	4.54	0.51	0.00	0	1	0	1
Final Average*	**10.11**	**0.89**	**0.00**	**0**	**0**	**0**	**0**
Maximum*	**45.14**	**2.21**	**0.00**	**0**	**1**	**1**	**1**
	06/09/2023 12:00	06/12/2023 10:00			06/12/2023 12:00	06/12/2023 10:00	06/12/2023 12:00
Minimum*	**1.66**	**0.24**	**0.00**	**0**	**0**	**0**	**0**
	06/12/2023 11:00	05/09/2023 10:00	06/12/2023 12:00	06/12/2023 12:00	06/30/2023 23:00	06/12/2023 12:00	06/12/2023 11:00

* Does not include Invalid Averaging Periods ("N/A")

CRR-14

CRR-14: Unless determined necessary on an ongoing basis, improvements to the site such as concrete pads, gravel lining, and temporary or permanent fencing must be removed.

Verification: Within one month of cessation of operation, the project operator must provide a final report documenting removal of project facilities (this may or may not be coincidental to the quarterly report).

Facility is currently operational.