Desert View Power, Inc. an affiliate of

Greenleaf POWER

March 23, 2022
DVP-220024 What is this file number from?

Scott Connolly
Environmental Engineer, Enforcement and Compliance Assurance Division
75 Hawthorne St. (ENF-2-1)
San Francisco, CA 94105

RE: Desert View Power
Permit No. CB-ROP 05-01
SCAQMD File # 100154
2022 Annual Compliance Test

Dear Mr. Connolly,

In compliance with Condition II.C.2 of the Title V Permit to Operate, please find the attached Annual 2022 Compliance test for Desert View Power (DVP).

Please note that this test does not contain the RATA portion of the annual testing as this requirement was completed and submitted earlier this year. In the intent to test letter to the EPA dated December 21, 2022. DVP identified the dates of the compliance test portion of the annual requirement would be conducted from 4/04/22 through 4/08/22.

During this testing, we received a previous Source Test Protocol Evaluation from South Coast Air Quality Management District (SCAQMD) which raised some question regarding the mercury test methodology. After phone conversations with SCAQMD's inspector, we decided to postpone the Hg portion of the testing until a more thorough discussion could take place to address the questions noted by SCAQMD's engineer, Peter Ko, and confirm the test methodology for testing Hg criteria was acceptable. This call took place on 4-27-2022t, and all questions have been resolved. With that clarification in place, we will now complete this portion of the 2022 Compliance Test in December of 2022 (1 year from the most recent successful Hg compliance demonstration). We will alert the Department to the actual dates of the testing as the schedule with the testing firm is finalized in the 3rd quarter of this year.

All constituents in the attached 2022 Stack test Report demonstrate compliance with the DVP permit limits.

If you have any questions or concerns, please contact me at 760-262-1644.

Thank you,

Kevin Lawrence

Kevin Lawrence
Plant Manager
Desert View Power
62-300 Gene Welmas Drive
Mecca, CA 92554

Desert View Power, Inc. an affiliate of
Greenleaf POWER

enclosure

cc: Chief, Industrial Strategies Division
California Air Resources Board
P.O. Box 2815
Sacramento, CA 95814

Air Pollution Control Officer
Attention: Mr. Jack Cheng, AQAC Supervisor
South Coast Air Quality Management District
21865 E. Copley Drive
Diamond Bar, CA 91765-4182

Peter Ko

Kenneth Dudash

62-300 Gene Welmas Dr | Mecca, CA 92254
(760)396-2554
www.greenleaf-power.com

TEST REPORT FOR
2022 EMISSIONS PERFORMANCE TESTING AT THE DESERT VIEW POWER MECCA PLANT

Prepared For:

Desert View Power
62-300 Gene Welmas Drive
Mecca, California 92254-0758

For Submittal To:

South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, California 91765-4178

Prepared By:

Montrose Air Quality Services, LLC
1631 E. St. Andrew Pl.
Santa Ana, California 92705
(714) 282-8240

Dave Wonderly

Test Date: **April 5-7, 2022**
Production Date: **May 17, 2022**
Report Number: **W002AS-012607-RT-3503**

STAC STACK TESTING ACCREDITATION COUNCIL

ACCREDITED
TO ASTM D7036 ONLY
CERT #3925.01

MONTROSE

CONFIDENTIALITY STATEMENT

Except as otherwise required by law or regulation, this information contained in this communication is intended exclusively for the individual or entity to which it is addressed. This communication may contain information that is proprietary, privileged or confidential or otherwise legally exempt from disclosure. If you are not the named addressee, you are not authorized to read, print, retain, copy, or disseminate this message or any part of it.

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: 5/17/2022

Name: Dave Wonderly Title: Client Project 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: 5/17/2022

Name: Michael Chowsanitphon Title: Reporting Manager

TABLE OF CONTENTS

SECTION **PAGE**

1.0 INTRODUCTION 7
2.0 UNIT DESCRIPTION 10
2.1 TEST CONDITIONS 11
2.2 SAMPLE LOCATIONS 11
3.0 TEST DESCRIPTIONS 13
3.1 NO_X, O_2, CO_2, AND CO 16
3.2 HYDROGEN CHLORIDE MEASUREMENTS 17
3.3 PARTICULATE 17
3.4 SULFUR DIOXIDE 17
3.5 HYDROCARBONS 18
3.6 VELOCITY AND MOISTURE 18
3.7 FUEL ANALYSIS 18
4.0 TEST RESULTS 19
4.1 UNIT 1 PERFORMANCE TEST RESULTS 19
4.2 UNIT 2 PERFORMANCE TEST RESULTS 24
4.3 FUEL ANALYSIS 27

LIST OF APPENDICES

A TEST DATA 28
A.1 Unit 1 Data 29
A.1.1 Unit 1 Sample Location 30
A.1.2 Unit 1 CEM Data 32
A.1.3 Unit 1 Instrument Strip Charts 64
A.1.4 Unit 1 Hydrogen Chloride Data 97
A.1.5 Unit 1 Particulate Data 99
A.1.6 Unit 1 SO_2 Data and Velocity Data 106
A.1.7 Unit 1 Hydrocarbon Data 113
A.2 Unit 2 Data 115
A.2.1 Unit 2 Sample Location 116
A.2.2 Unit 2 CEM Data 118
A.2.3 Unit 2 Instrument Strip Charts 131
A.2.4 Unit 2 Hydrogen Chloride Data 145
A.2.5 Unit 2 Particulate Data 147
A.2.6 Unit 2 SO_2 Data and Velocity Data 154
A.2.7 Unit 2 Hydrocarbon Data 158

TABLE OF CONTENTS (CONTINUED)

SECTION		PAGE
A.3	Laboratory Reports	160
A.3.1	Hydrogen Chloride Laboratory Data	161
A.3.2	Particulate Laboratory Data	197
A.3.3	SO_x Laboratory Data	210
A.3.4	Hydrocarbon Laboratory Report	215
A.3.5	Fuel Analysis Data	298
A.4	Sample Chain of Custody	314
A.5	Calibration Data	316
B	PLANT DATA	345
B.1	Plant Process Data	346
B.1.1	Load Data	347
B.1.2	Unit 1 Operating Conditions	350
B.1.2.1	April 6, 2022 Data	351
B.1.2.2	April 7, 2022 Data	427
B.1.3	Unit 2 Operations Conditions	509
B.2	HCl Surrogate Limit Data	581
C	CALCULATIONS	586
C.1	General Emissions Calculations	587
C.2	Unit 1 Calculations	591
C.2.1	Unit 1 Gaseous Calculations	592
C.2.2	Unit 1 Hydrogen Chloride Calculations	599
C.2.3	Unit 1 Particulate Calculations	601
C.2.4	Unit 1 Hydrocarbon Calculations	604
C.3	Unit 2 Calculations	606
C.3.1	Unit 2 Gaseous Calculations	607
C.3.2	Unit 2 Hydrogen Chloride Calculations	611
C.3.3	Unit 2 Particulate Calculations	613
C.3.4	Unit 2 Hydrocarbon Calculations	616
D	QUALITY ASSURANCE	618
D.1	Quality Assurance Program Summary	619
D.2	CARB, SCAQMD, and STAC Certifications	625
D.3	Individual QI Certifications	630

TABLE OF CONTENTS (CONTINUED)

SECTION **PAGE**

LIST OF TABLES

1-1 SUMMARY OF EMISSIONS RESULTS UNIT 1 8
1-2 SUMMARY OF EMISSIONS RESULTS UNIT 2 9
2-1 CONTINUOUS EMISSION MONITOR SYSTEM UNITS 1 AND 2 10
2-2 AVERAGE DAILY UNIT DATA 11
3-1 TEST MATRIX PER UNIT 13
3-2 TEST SCHEDULE UNIT 1 14
3-3 TEST SCHEDULE UNIT 2 15
3-4 EPA METHOD 5 ANALYSES 17
4-1 HYDROCHLORIC ACID TEST RESULTS UNIT 1 20
4-2 PARTICULATE EMISSIONS PERFORMANCE TEST UNIT 1 21
4-3 NO_x, CO, SO_x EMISSIONS PERFORMANCE TESTS UNIT 1 22
4-4 HYDROCARBON EMISSIONS PERFORMANCE TEST UNIT 1 23
4-5 HYDROCHLORIC ACID TEST RESULTS UNIT 2 24
4-6 PARTICULATE EMISSIONS PERFORMANCE TEST UNIT 2 25
4-7 NO_x, CO, SO_x EMISSIONS PERFORMANCE TESTS UNIT 2 26
4-8 HYDROCARBON EMISSIONS PERFORMANCE TEST UNIT 2 27

LIST OF FIGURES

2-1 SCHEMATIC OF THE DESERT VIEW POWER, SAMPLE LOCATION 12

1.0 INTRODUCTION

Montrose Air Quality Services, LLC (MAQS) was contracted by Desert View Power to conduct performance emissions testing at the Desert View Power Project located in Mecca, California. Testing was conducted on April 5-7, 2022. Testing was performed in accordance with the test plan (MAQS Document Number: W002AS-006514-PP-464) submitted to Desert View Power on December 15, 2021. The MAQS test team consisted of Dave Wonderly, Trevor Tilmann, Patrick Whitman, and Kevin Sandoval. Dave Wonderly and Trevor Tilmann were the on-site Qualified Individuals for MAQS. Kevin Lawrence of Desert View Power coordinated plant operations and data retrieval during the test program. The South Coast Air Quality Management District (SCAQMD) was notified of the test date but did not send a representative.

MAQS qualifies as an independent testing laboratory under SCAQMD Rule 304 (no conflict of interest) and is certified by the SCAQMD to conduct testing for criteria pollutants according to District Methods.

The emissions tests included measurements on Unit 1 and Unit 2 for hydrogen chloride (HCl), particulate (PM), sulfur dioxide (SO_2), oxides of nitrogen (NO_x), carbon monoxide (CO), and hydrocarbons (VOC). Exhaust flow rate and moisture measurements were performed in conjunction with the testing. Mercury (Hg) testing was postponed.

The Desert View Power Facility met all emissions limits for the compounds measured as required by the U.S. Environmental Protection Agency Part 71 Operating Permit No. CB-ROP 05-01 NSR 4-4-11; SE 87-01 including amendments through September, 2020; and EPA 40 CFR, Part 60, Appendix F.

HCL surrogate operating limits were established as required.

Tables 1-1 and 1-2 summarize the results of the emissions tests for Unit 1 and Unit 2.

TABLE 1-1
SUMMARY OF EMISSIONS RESULTS UNIT 1
DESERT VIEW POWER
APRIL 6-7, 2022

Parameter/Units	Average Emission Results	Permit Limit	Comment
Hydrochloric Acid			
ppmv	11.34		
lb/hr (as HCl)	5.50		
lb/MMBtu	0.019	0.022	Pass
HCL Surrogate Operating Limit (SO_2 ppmc)			
Total Solid Particulate			
gr/dscf	0.0003	--	
gr/dscf @ 12% CO_2 (PM_{10})	0.0003	0.006	Pass
lb/hr (PM_{10})	0.23	3.9	Pass
lb/MMBtu	0.0007	0.10	
Sulfur Dioxide			
ppm @ 3% O_2	15.86	27	Pass
lb/hr	9.03	12	Pass
NO_x			
ppm at 3% O_2	68.77	94	Pass
lb/hr	28.16	30	Pass
CO			
ppm @ 3% O_2	0.00	231	Pass
lb/hr	0.00	13	Pass
Hydrocarbons			
ppm @ 3% O_2	6.28		
lb/hr	0.88	5.9	Pass

Note: HCL Operating limit is the highest hourly average of SO_2 ppmc recorded during the tests. Hydrocarbons are total non-methane hydrocarbons reported as methane. The EPA factor of 1.086 for SCAQMD Method 25.3 was used. The biomass default factor of 9,240 was used.

TABLE 1-2
SUMMARY OF EMISSIONS RESULTS UNIT 2
DESERT VIEW POWER
APRIL 5, 2022

Parameter/Units	Average Emission Results	Permit Limit	Comment
Hydrochloric Acid			
ppmv	10.34		
lb/hr (as HCl)	5.62		
lb/MMBtu	0.015	0.022	Pass
HCL Surrogate Operating Limit (SO_2 ppmc)			
Total Solid Particulate			
gr/dscf	0.0001	--	
gr/dscf @ 12% CO_2 (PM_{10})	0.0001	0.006	Pass
lb/hr (PM_{10})	0.04	3.9	Pass
lb/MMBtu	0.0001	0.10	
Sulfur Dioxide			
ppm @ 3% O_2	17.90	27	Pass
lb/hr	11.42	12	Pass
NO_x			
ppm at 3% O_2	60.21	94	Pass
lb/hr	27.61	30	Pass
CO			
ppm @ 3% O_2	0.00	231	Pass
lb/hr	0.00	13	Pass
Hydrocarbons			
ppm @ 3% O_2	13.48		
lb/hr	2.15	5.9	Pass

Note: HCL Operating limit is the highest hourly average of SO_2 ppmc recorded during the tests. Hydrocarbons are total non-methane hydrocarbons reported as methane. The EPA factor of 1.086 for SCAQMD Method 25.3 was used. The biomass default factor of 9,240 was used.

2.0 UNIT DESCRIPTION

The Desert View Power plant consists of two 297 MMBtu/hr, circulating bed, biomass-fired boilers. The combined units are designed to produce 47 MW of net electrical output. Each unit is equipped with the following pollution control systems:

- An ammonia injection system for control of NO_x emissions;
- Cyclonic mixing of injected ammonia with flue gas to provide for a minimum amount of ammonia slip (emission);
- A limestone injection system to limit emissions of SO_2;
- A reverse air baghouse to control opacity and emissions of sulfates and particulate to very low levels;

The plant CEMS system for each unit includes measurements of NO_x, CO, O_2, O_2 wet, SO_2, CO_2, flow and opacity. It is an extractive system with a heated line extending from the probe to the CEMS unit. Table 2-1 presents the current CEMS configuration.

TABLE 2-1
CONTINUOUS EMISSION MONITOR SYSTEM
UNITS 1 AND 2
DESERT VIEW POWER

Species	Manufacturer	Unit 1, Model/Serial Number	Unit 2, Model/Serial Number	Range
NO_x	CAI	ZRE/A3F4992T	ZRE/A3F4993T	100 and 500 ppm
CO	CAI	ZRE/A3F4992T	ZRE/A3F4993T	100 and 500 ppm
O_2 Dry	CAI	ZRE/A3F4992T	ZRE/A3F4993T	25%
O_2 Wet	Thermox	WDG	WDG	25%
SO_2	CAI	ZRE/A3F4992T	ZRE/A3F4993T	50 and 500 ppm
CO_2	CAI	ZRE/A3F4992T	ZRE/A3F4993T	20%
Flow	Dietrick Standard/Rosemont	0260938	--	Msdcfh
Opacity	Monitor Labs	Lighthawk 560	Lighthawk 560	100%
NO_2 Convertor	CAI	ZDL04001	ZDL04001	

2.1 TEST CONDITIONS

The tests were conducted at or near maximum steady state unit load conditions. Limestone injection rate, fuel combustion rate, ammonia injection rate, ash handling operations, excess air level, combustion air distribution, and combustor temperature were set to maintain stable unit operation. Pertinent operating conditions were recorded by Desert View Power personnel during the tests as presented in Table 2-2.

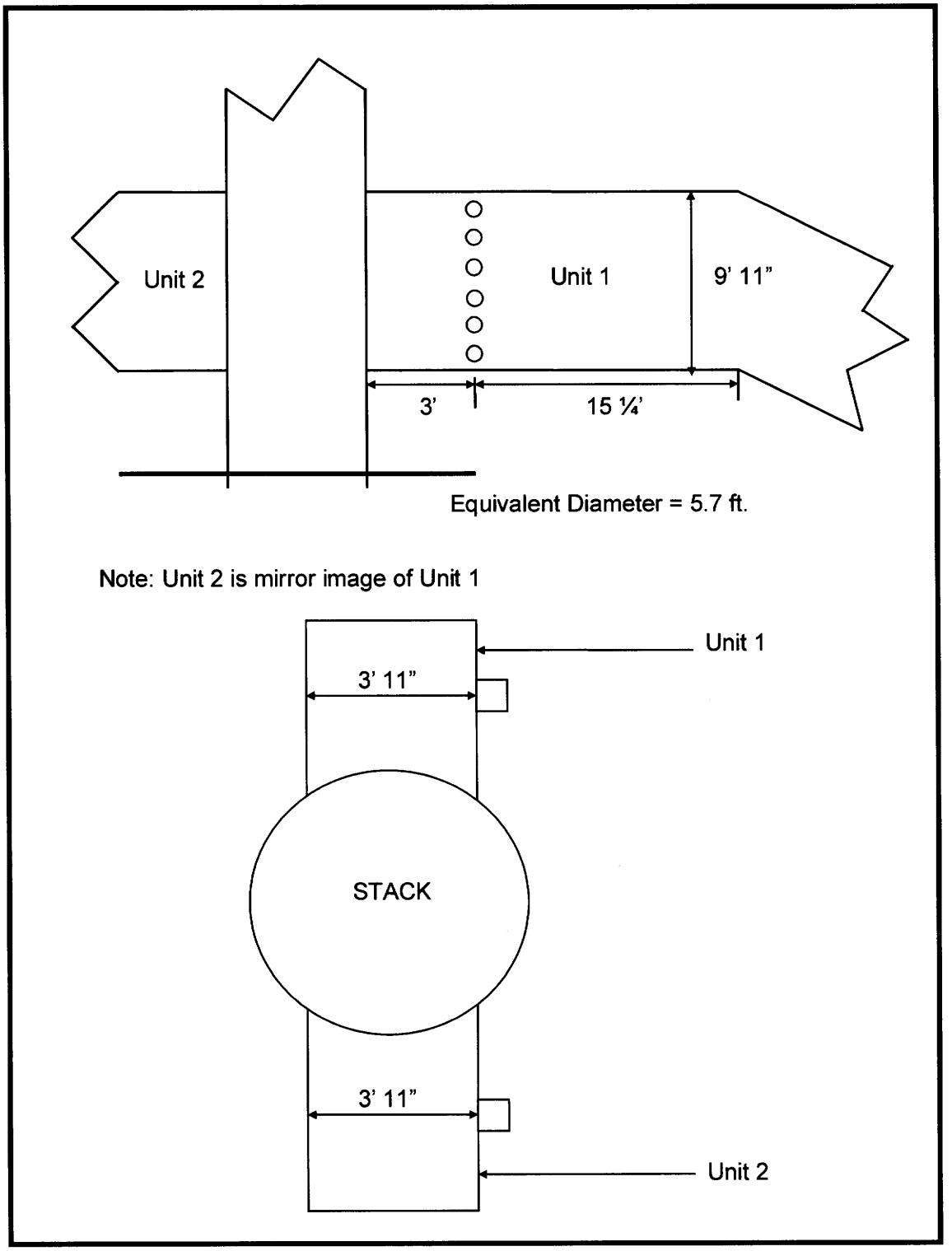
TABLE 2-2
AVERAGE DAILY UNIT DATA
DESERT VIEW POWER
UNITS 1 & 2
APRIL 5-7, 2022

Date	Unit	Steam Prod. Klb/hr	Total Net Megawatts
4/5/2022	Unit 2	194.7	41.3
4/6/2022	Unit 1	184.7	39.6
4/7/2022	Unit 1	176.2	39.5

2.2 SAMPLE LOCATIONS

Samples were collected at the stack breaching ducts to the stack. Desert View Power previously conducted three dimensional flow testing and stratification testing on the baghouse exhaust ducts on each unit. This testing was performed in accordance to SCAQMD Chapter X, Section 1 and 13 and was presented in the report titled "Stack Gas Stratification and Absence of Flow Disturbance Testing at Desert View Power" (R106E622.T) submitted to SCAQMD in October of 1994. The sample locations meet the requirements. All testing for both Unit 1 and 2 was conducted at the sample location presented in Figure 2-1.

FIGURE 2-1
SCHEMATIC OF THE DESERT VIEW POWER, SAMPLE LOCATION



3.0 TEST DESCRIPTIONS

The test procedures that were used are listed in Table 3-1. Tables 3-2 and 3-3 present the test schedule.

TABLE 3-1
TEST MATRIX PER UNIT
DESERT VIEW POWER

Parameter	No. of Tests	Limits	Measurement Principle	Reference Method	Duration per Test
NO_x	3	30.0 lb/hr or 94 ppm @ 3% O_2[1]	Chemiluminescence	EPA 7E	120 Minutes
O_2/CO_2	3		Non-Dispersive Infrared	EPA 3A	120 Minutes
CO	3	13.0 lb/hr or 231 ppm, dry, @ to 3% O_2[1]	Non-Dispersive Infrared	EPA 10	120 Minutes
SO_2	3	12.0 lb/hr or 27 ppm, dry, @ to 3% O_2[1]	Barium Thorin Titration	EPA 6	60 Minutes
PM	3	3.9 lb/hr or 0.006 gr/dscf @ 12% CO_2[1][2], 0.10 lb/MMBtu	Gravimetric	EPA 5	120 Minutes
Hydrocarbons	2	5.9 lb/hr	GC/FID	SCAQMD 25.3	60 Minute Composite
HCL	3	0.022 lb per MMBtu	FTIR	EPA 321	120 Minutes,
Stack Gas Flow Rate	–		S-Type Pitot Traverse	EPA 2	–
Moisture	–		Condensation/Gravimetric	EPA 4	–

(1) The more stringent of the 2 limits apply
(2) All PM as measured by EPA Method 5 will be considered to be PM_{10}

TABLE 3-2
TEST SCHEDULE UNIT 1
DESERT VIEW POWER

Test Number	Date	Time	Test Parameter
1-NO_x, CO, SO_2-U1	4/6/2022	7:55	NO_x, CO, SO_2
2-NO_x, CO, SO_2-U1	4/6/2022	10:50	NO_x, CO, SO_2
3-NO_x, CO, SO_2-U1	4/6/2022	13:30	NO_x, CO, SO_2
1A&B-VOC-U1	4/6/2022	7:55	Hydrocarbon
1-PM-U1	4/6/2022	7:55	PM
2-PM-U1	4/6/2022	10:50	PM
3-PM-U1	4/6/2022	13:20	PM
1-HCL-U1	4/7/2022	3:40	HCL
2-HCL-U1	4/7/2022	8:30	HCL
3-HCL-U1	4/7/2022	11:05	HCL

TABLE 3-3
TEST SCHEDULE UNIT 2
DESERT VIEW POWER

Test Number	Date	Time	Test Parameter
1-HCL-U2	4/5/2022	6:00	HCL
2-HCL-U2	4/5/2022	8:45	HCL
3-HCL-U2	4/5/2022	11:15	HCL
1-PM-U2	4/5/2022	6:00	PM
2-PM-U2	4/5/2022	8:45	PM
3-PM-U2	4/5/2022	11:15	PM
1-NO_x, CO, SO_2-U2	4/5/2022	6:00	NO_x, CO, SO_2
2-NO_x, CO, SO_2-U2	4/5/2022	8:45	NO_x, CO, SO_2
3-NO_x, CO, SO_2-U2	4/5/2022	11:15	NO_x, CO, SO_2
1A&B-VOC-U2	4/5/2022	6:00	Hydrocarbon

3.1 NO_X, O_2, CO_2, AND CO

NO_x, O_2, CO_2 and CO were measured according to EPA reference methods using MAQS' continuous emissions monitoring system (CEM). NO_x, O_2, CO_2, and CO concentrations were determined using MAQS' mobile emission measurement laboratory. The laboratory is housed in a truck outfitted to provide a clean, quiet, environmentally controlled base for the testing operations. The laboratory has lighting, electrical distribution, air conditioning and heating to support the test instruments and provide for optimal test performance.

Concentrations of these gaseous species were measured using an extractive sampling system consisting of a stainless steel probe to minimize reactions, a heat traced Teflon sample line connected to a thermo-electrically cooled sample dryer. Following the dryer, the sample is drawn into a Teflon lined pump where it is pressurized and then filtered for delivery to the gas analysis portion of the system. Gaseous samples were collected at a single point. Three 60-minute compliance tests were performed.

NO_x concentration was determined using a California Analytical Model 600. The analyzer full scale range was 100 ppm. The analyzer is equipped with a NO_2 - NO converter for the determination of total nitrogen oxides without interference from other nitrogen containing compounds.

Oxygen concentration was determined using an AMI electro-chemical cell analyzer (model #201). The analyzer full scale range was 20%. The cell contains an electrolytic fluid that reacts with oxygen to generate an electrical signal proportional to the concentration.

CO_2 was measured using a non-dispersive infrared analyzer manufactured by Horiba (model #PIR 2000). The analyzer full scale range was 20%.

CO was measured using a non-dispersive infrared/gas filter correlation analyzer manufactured by TECO (model 48i). The analyzer full scale range was 10 ppm.

The analyzers and sampling system were subjected to a variety of calibration and quality assurance procedures including leak checks, linearity and calibration error determinations before sampling, and system bias and drift determinations as part of each test run. Data are corrected for any observed bias or drift in accordance with the reference methods.

3.2 HYDROGEN CHLORIDE MEASUREMENTS

Triplicate, 60-minute hydrogen chloride (HCl), measurements were performed using EPA Method 321. In this method HCl concentrations are measured by Fourier Transform Infrared (FTIR) Spectroscopy. Concurrent stack flow measurements using EPA Methods 1-4 were performed to calculate mass emissions of HCL. The sampling train consists of:

- A heated SS probe heated to 375°F
- A borosilicate, out-of-stack filter in a SS holder heated to 375°F
- Heated Teflon transfer line heated to 375°F
- Heated diaphragm pump heated to 375°F
- MKS 2030 FTIR analyzer, maintained at 375°F

Quality assurance samples collected in the field are:

- HCl analyte spiking pre and post each test run
- Calibration Transfer Standard (CTS) system purge pre & post each test run
- N2 (zero gas) system purge to determine system bias

3.3 PARTICULATE

EPA method 5 was used to measure the particulate emissions from both the Desert View Power, units. The sampling system consists of a nozzle, glass probe, 250°F heated filter, two impingers containing DI water, an empty impinger, and a fourth impinger containing silica gel.

The analysis for particulate is summarized in Table 3-4. Gravimetric analysis was performed on the probe/nozzle wash and filter according to EPA and SCAQMD procedures.

TABLE 3-4
EPA METHOD 5 ANALYSES

Sample Component	Analysis Procedure
Probe and Nozzle (Front 1/2)	Evaporation/gravimetric
Heated Filter (83 mm)	Dry/gravimetric

3.4 SULFUR DIOXIDE

Sulfur dioxide was measured according to EPA Method 6. Three runs were used to demonstrate compliance. A barium thorin titration of the hydrogen peroxide impinger samples yielded SO_2 concentrations. The sample system consisted of heated glass probe and filter connected by Teflon tubing to the glass sample train consisting of a series of hydrogen peroxide filled impingers. Prior to the titrimetric analysis, all SO_x samples were passed through an ion exchange resin. This removes interferences associated with ammonium (NH_4).

3.5 HYDROCARBONS

Samples for hydrocarbon analysis were collected in clean 6-liter Summa canisters and mini water impingers and analyzed according to SCAQMD 25.3. The samples were analyzed by Enthalpy Analytical, in Orange, California using TCA/FID.

3.6 VELOCITY AND MOISTURE

Stack gas velocity and moisture content were determined by EPA Methods 2 and 4 during the particulate testing. Velocity traverses were performed during each set of compliance tests (NO_x, CO, SO_2 and hydrocarbons) and RATA test runs.

3.7 FUEL ANALYSIS

Daily fuel samples were collected by Desert View Power personnel. Hourly samples were taken during all testing and were composited by the lab prior to analysis. Sampling was consistent with ASTM D6323 sample collection methodology. Desert View power sent the samples out to be analyzed for higher heating value, for moisture content, for chlorine content and for metals. Copies of the analysis are provided in Appendix A.3.5.

4.0 TEST RESULTS

This section presents the results of the performance tests conducted at Desert View Power, during April of 2022. Test results are presented in the following sections:

4.1 Unit 1 Performance Test Results
4.2 Unit 2 Performance Test Results
4.3 Fuel Analysis Results

All supporting data sheets, CEM data, instrument strip charts, laboratory data, chain of custody records, and quality assurance data are included in Appendix A. Plant data are contained in Appendix B. Emissions and Load calculations are presented in Appendix C. Quality assurance information is contained in Appendix D.

4.1 UNIT 1 PERFORMANCE TEST RESULTS

The results of the HCL testing are presented in Table 4-1. HCL emissions for Unit 1 were 0.019 lb/MMBtu. This is below the permit limit of 0.022 lb/MMBtu. The results of the total solid particulate testing are presented in Table 4-2. Total solid particulate emissions for Unit 1 were 0.23 lb/hr. This is below the permit limit of 3.9 lb/hr. Gaseous emissions results are presented in Tables 4-3, and 4-4. NO_x, CO, SO_2 and hydrocarbon emissions results were below established permit limits. Results from the hydrocarbon tests can be found in Appendix C.2.4 and C.3.4.

TABLE 4-1
HYDROCHLORIC ACID TEST RESULTS UNIT 1
DESERT VIEW POWER
APRIL 7, 2022

Parameter/Units	1-HCl	2-HCl	3-HCl	Average	Limit
Date	4/7/2022	4/7/2022	4/7/2022		
Start Time	3:40	8:30	11:05		
Stop Time	5:40	10:30	13:05		
Reference Temperature, °F	68	68	68		
Diluent Emissions and Stack Flow Rate					
Moisture Fraction, %	11.10	11.45	11.78	11.4	
O_2, % vol. dry	10.13	9.64	9.68	9.82	
CO_2, % vol. Dry	9.99	10.93	10.91	10.61	
Stack Flow Rate (dscfm)	93,109	93,096	92,891	92,993	
Fuel F_d Factor, dscf/MMBtu @ 68°F	9,240	9,240	9,240		
Fuel F_d Factor, dscf/MMBtu @ 60°F	9,100	9,100	9,100		
HCl Emissions					
ppmvw	12.00	9.55	8.59	10.05	
ppmvd	13.50	10.79	9.74	11.34	
lb/hr (as HCl)	7.25	5.79	5.21	5.50	
lb/MMBtu	**0.0229**	**0.0175**	**0.0159**	**0.0188**	**0.022**

TABLE 4-2
PARTICULATE EMISSIONS PERFORMANCE TEST UNIT 1
DESERT VIEW POWER
APRIL 6, 2022

Parameter/Units	1-PM-U1	2-PM-U1	3-PM-U1	Average
Date	4/6/2022	4/6/2022	4/6/2022	
Start/Stop Time	755/1005	1050/1300	1320/1530	
O_2, %	9.93	9.85	9.59	9.79
CO_2, %	10.70	10.73	11.05	10.83
H_2O, %	0.12	0.11	0.12	0.11
Stack Temperature, °F	353.4	355.5	361.0	356.66
Gas Flow				
wacfm	160,863	160,473	161,831	161,056
dscfm	92,467	93,153	92,367	92,663
Isokinetic Ratio, %	97.9	99.1	102.3	99.8
Total Solid Particulate				
Grain Loading, gr/dscf	0.00009	0.00030	0.00049	0.00029
Grain Loading @ 12% CO_2	0.00010	0.00033	0.00053	0.00032
lb/hr	0.072	0.237	0.386	0.232
F-Factor, dscf/MMBtu	9240	9240	9240	9240
Emission Rate, lb/MMBtu	0.0002	0.0007	0.0012	0.0007

TABLE 4-3
NO_X, CO, SO_X EMISSIONS PERFORMANCE TESTS UNIT 1
DESERT VIEW POWER
APRIL 6, 2022

Parameter/Units	1-U1	2-U1	3-U1	Average
Date	4/6/2022	4/6/2022	4/6/2022	
Time	7:55	10:50	13:30	
O_2, %	9.9	9.9	9.6	9.8
CO_2, %	10.7	10.7	11.0	10.8
H_2O, %	12.32	11.79	12.10	12.07
Stack Temperature, °F	353	356	361	357
Gas Flow				
wacfm	161,013	160,826	161,980	161,273
dscfm	92,050	92,242	91,961	92,084
NO_x				
ppm	41.21	43.89	42.94	42.68
ppm @ 3% O_2	67.22	71.13	67.95	68.77
lb/hr	27.18	29.00	28.29	28.16
CO				
ppm	0.00	0.00	0.00	0.00
ppm @ 3% O_2	0.00	0.00	0.00	0.00
lb/hr	0.00	0.00	0.00	0.00
SO_x				
ppm	10.31	10.33	8.88	9.84
ppm @ 3% O_2	16.81	16.74	14.05	15.86
lb/hr	9.45	9.50	8.14	9.03

TABLE 4-4
HYDROCARBON EMISSIONS PERFORMANCE TEST UNIT 1
DESERT VIEW POWER
APRIL 6, 2022

Parameter/Units	1A-VOC-U1	1B-VOC-U1	Average
Date	4/6/2022	4/6/2022	
Start/Stop Time	0755/0853	0755/0853	
O_2, %	9.93	9.93	9.93
CO_2, %	10.70	10.70	10.70
H_2O, %	12.32	12.32	12.32
Gas Flow			
wacfm	161,013	161,013	161,013
dscfm	92,050	92,050	92,050
EPA Correction Factor	1.086	1.086	1.086
TNMHC			
ppm	3.70	4.00	3.85
ppm @ 3% O_2	6.03	6.52	6.28
lb/hr	0.85	0.92	0.88

Note: Flow rates from Run 1

4.2 UNIT 2 PERFORMANCE TEST RESULTS

The results of the HCL testing are presented in Table 4-5. HCL emissions for Unit 2 were 0.015 lb/MMBtu. This is below the permit limit of 0.022 lb/MMBtu. The results of the total solid particulate testing are presented in Table 4-6. Total solid particulate emissions for Unit 2 were 0.041 lb/hr. This is below the permit limit of 3.9 lb/hr. Gaseous and hydrocarbon emissions results are presented in Table 4-7, and 4-8. NO_x, CO, SO_2 and hydrocarbon emissions results were also below established permit limits.

TABLE 4-5
HYDROCHLORIC ACID TEST RESULTS UNIT 2
DESERT VIEW POWER
APRIL 5, 2022

Parameter/Units	1-HCl	2-HCl	3-HCl	Average	Limit
Date	4/5/2022	4/5/2022	4/5/2022		
Start Time	6:00	8:45	11:15		
Stop Time	8:00	10:45	13:15		
Reference Temperature, °F	68	68	68		
Diluent Emissions and Stack Flow Rate					
Moisture Fraction, %	14.53	14.20	14.07	14.26	
O_2, % vol. Dry	8.55	8.58	8.49	8.54	
CO_2, % vol. Dry	12.01	12.00	12.11	12.04	
Stack Flow Rate (dscfm)	92,679	92,580	92,894	92,737	
Fuel F_d Factor, dscf/MMBtu @ 68°F	9,240	9,240	9,240	9,240	
Fuel F_d Factor, dscf/MMBtu @ 60°F	9,100	9,100	9,100	9,100	
HCl Emissions					
ppmvw	8.54	8.70	9.35	8.86	
ppmvd	9.99	10.14	10.88	10.34	
lb/hr (as HCl)	5.34	5.41	5.83	5.62	
lb/MMBtu	**0.0148**	**0.0151**	**0.0160**	**0.0153**	**0.022**

TABLE 4-6
PARTICULATE EMISSIONS PERFORMANCE TEST UNIT 2
DESERT VIEW POWER
April 5, 2022

Parameter/Units	1-PM-U2	2-PM-U2	3-PM-U2	Average
Date	4/5/2022	4/5/2022	4/5/2022	
Start/Stop Time	0600/0810	0845/1055	1115/1325	
O_2, %	8.55	8.58	8.49	8.54
CO_2, %	12.01	12.00	12.11	12.04
H_2O, %	0.14	0.13	0.13	0.13
Stack Temperature, °F	344.0	344.6	345.4	344.6
Gas Flow				
wacfm	164,115	163,376	163,527	163,673
dscfm	93,512	93,563	93,369	93,481
Isokinetic Ratio, %	99.2	98.6	100.7	99.5
Total Solid Particulate				
Grain Loading, gr/dscf	0.00002	0.00005	0.00009	0.00005
Grain Loading @ 12% CO_2	0.00002	0.00005	0.00009	0.00005
lb/hr	0.013	0.037	0.075	0.041
F-Factor, dscf/MMBtu	9240	9240	9240	9240
Emission Rate, lb/MMBtu	0.00004	0.00010	0.00021	0.00012

TABLE 4-7
NO_X, CO, SO_X EMISSIONS PERFORMANCE TESTS UNIT 2
DESERT VIEW POWER
APRIL 5, 2022

Parameter/Units	1-U2	2-U2	3-U2	Average
Date	4/5/2022	4/5/2022	4/5/2022	
Start/Stop Time	6:00	8:45	11:15	
O_2, %	8.6	8.6	8.5	8.5
CO_2, %	12.0	12.0	12.1	12.0
H_2O, %	14.53	14.20	14.07	14.26
Stack Temperature, °F	344	345	345	345
Gas Flow				
wacfm	164,445	163,758	164,195	164,133
dscfm	92,679	92,580	92,894	92,718
NO_x				
ppm	40.26	42.00	42.45	41.57
ppm @ 3% O_2	58.36	61.04	61.22	60.21
lb/hr	26.73	27.85	28.25	27.61
CO				
ppm	0.00	0.00	0.00	0.00
ppm @ 3% O_2	0.00	0.00	0.00	0.00
lb/hr	0.00	0.00	0.00	0.00
SO_x				
ppm	11.37	12.44	13.27	12.36
ppm @ 3% O_2	16.47	18.08	19.13	17.90
lb/hr	10.50	11.48	12.28	11.42

TABLE 4-8
HYDROCARBON EMISSIONS PERFORMANCE TEST UNIT 2
DESERT VIEW POWER
APRIL 5, 2022

Parameter/Units	1A-VOC-U2	1B-VOC-U2	Average
Date	4/5/2022	4/5/2022	
Start/Stop Time	0600/0654	0600/0654	
O_2, %	8.55	8.55	8.55
CO_2, %	12.01	12.01	12.01
H_2O, %	14.53	14.53	14.53
Gas Flow			
wacfm	164,445	164,445	164,445
dscfm	92,679	92,679	92,679
EPA Correction Factor	1.086	1.086	1.086
TNMHC			
ppm	8.40	10.20	9.30
ppm @ 3% O_2	12.18	14.78	13.48
lb/hr	1.94	2.36	2.15

Notes: Flow rates from Run 1

4.3 FUEL ANALYSIS

The fuel sample analysis results are located in Appendix A.3.5.

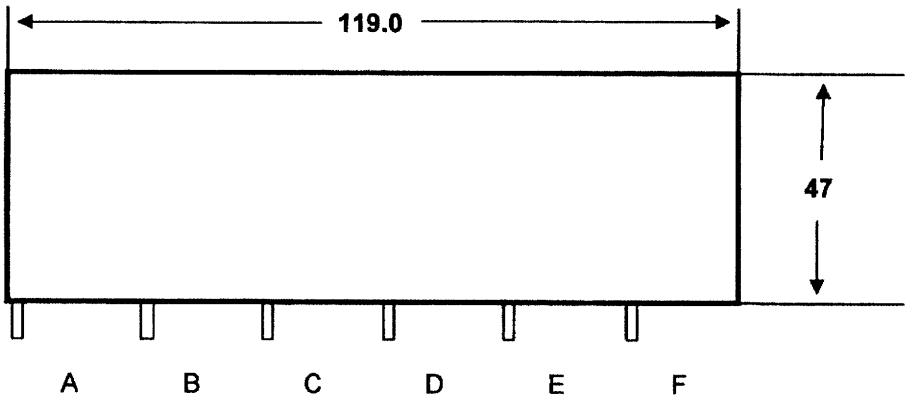
APPENDIX A
TEST DATA

Appendix A.1
Unit 1 Data

Appendix A.1.1
Unit 1 Sample Location

Client: Desert View Power Date: 4/5/2022

Sample Location: Unit 1-2 Prepared By: Dave Wonderly



H (in.)	**119.0**
W (in.)	**47.0**
Nipple length	**13.0**
Distance between points	**9.40**
Stack Area (ft^2)	**38.84**

Point No.	Sample Point Inches from nozzle	
1	4.7	17.7
2	14.1	27.1
3	23.5	36.5
4	32.9	45.9
5	42.3	55.3

Appendix A.1.2
Unit 1 CEM Data

Date	Time	O2 %	CO2 %	NOx ppm	CO ppm	
4/6/2022	4:05	19.033	18.948	94.555	8.357	
4/6/2022	4:06	19.034	18.947	94.292	8.374	
4/6/2022	4:07	19.033	18.945	94.696	8.356	High
4/6/2022	4:08	13.353	12.678	56.815	7.979	
4/6/2022	4:09	10.535	10.631	48.944	5.947	
4/6/2022	4:10	10.534	10.631	48.89	5.565	Mid
4/6/2022	4:11	7.813	7.635	25.827	5.423	
4/6/2022	4:12	0	0.083	0.052	2.351	
4/6/2022	4:13	-0.004	0.066	0.036	0.038	
4/6/2022	4:14	-0.005	0.056	0.012	-0.021	Zero
4/6/2022	4:15	-0.008	0.05	0.023	-0.004	
4/6/2022	4:16	-0.008	0.037	0.02	0.008	NO Mode Zero
4/6/2022	4:17	-0.009	0.032	78.274	-0.006	
4/6/2022	4:18	-0.008	0.032	94.158	-0.001	NO Mode High
4/6/2022	4:19	-0.008	0.033	8.21	-0.016	
4/6/2022	4:20	-0.008	0.03	0.09	-0.019	NO2 Gas NO Mode
4/6/2022	4:21	-0.008	0.03	39.349	-0.015	
4/6/2022	4:22	-0.012	0.03	42.757	-0.007	NO2 Gas NOx Mode
4/6/2022	4:23	6.483	4.552	28.465	-0.003	
4/6/2022	4:24	9.17	11.404	43.94	-0.153	
4/6/2022	4:25	8.943	11.501	51.75	-0.311	
4/6/2022	4:26	8.814	11.804	51.68	-0.354	
4/6/2022	4:27	8.885	11.633	50.509	-0.333	
4/6/2022	4:28	9.125	11.703	46.227	-0.329	
4/6/2022	4:29	11.966	9.057	41.043	-0.321	
4/6/2022	4:30	9.137	11.374	46.232	-0.265	
4/6/2022	4:31	9.387	11.089	40.724	-0.292	
4/6/2022	4:32	9.805	10.995	28.738	-0.285	
4/6/2022	4:33	9.563	10.87	35.332	-0.264	
4/6/2022	4:34	8.828	11.899	44.905	-0.292	
4/6/2022	4:35	9.202	11.395	35.967	-0.278	
4/6/2022	4:36	9.535	11.07	29.662	-0.259	
4/6/2022	4:37	9.588	10.999	32.367	-0.278	
4/6/2022	4:38	9.516	11.104	31.339	-0.305	
4/6/2022	4:39	14.59	7.637	14.443	-0.27	
4/6/2022	4:40	18.365	2.549	8.039	-0.088	
4/6/2022	4:41	19.217	1.711	5.019	0.068	
4/6/2022	4:42	18.745	2.131	5.002	0.103	
4/6/2022	4:43	18.037	2.435	7.445	0.096	
4/6/2022	4:44	18.218	2.516	8.968	0.095	
4/6/2022	4:45	12.091	2.108	24.791	0.074	
4/6/2022	4:46	0.016	0.102	48.607	0.064	
4/6/2022	4:47	6.392	5.293	41.327	0.079	
4/6/2022	4:48	8.288	12.221	61.62	-0.116	
4/6/2022	4:49	8.535	12.071	56.484	-0.271	
4/6/2022	4:50	10.171	10.595	27.734	-0.273	
4/6/2022	4:51	9.363	11.085	35.296	-0.232	

4/6/2022	4:52	9.398	11.465	35.431	-0.259
4/6/2022	4:53	9.623	10.867	32.498	-0.256
4/6/2022	4:54	9.964	10.662	32.028	-0.246
4/6/2022	4:55	9.675	10.877	35.595	-0.222
4/6/2022	4:56	8.824	11.569	42.019	-0.238
4/6/2022	4:57	9.393	11.376	36.089	-0.233
4/6/2022	4:58	9.395	11.267	35.194	-0.258
4/6/2022	4:59	9.094	11.326	43.098	-0.259
4/6/2022	5:00	8.921	11.839	42.344	-0.271
4/6/2022	5:01	10.234	10.408	25.764	-0.262
4/6/2022	5:02	9.729	10.73	30.794	-0.201
4/6/2022	5:03	9.191	11.646	33.326	-0.212
4/6/2022	5:04	9.203	11.378	37.839	-0.235
4/6/2022	5:05	9.683	11.042	30.975	-0.245
4/6/2022	5:06	9.325	11.105	39.58	-0.241
4/6/2022	5:07	9.178	11.532	37.237	-0.267
4/6/2022	5:08	8.699	11.674	49.064	-0.284
4/6/2022	5:09	8.806	11.954	46.87	-0.275
4/6/2022	5:10	8.615	11.897	51.216	-0.25
4/6/2022	5:11	9.698	10.951	32.862	-0.262
4/6/2022	5:12	9.85	10.982	30.993	-0.25
4/6/2022	5:13	9.36	11.146	37.867	-0.247
4/6/2022	5:14	9.849	10.861	33.571	-0.252
4/6/2022	5:15	8.973	11.436	47.898	-0.248
4/6/2022	5:16	9.449	11.362	44.288	-0.206
4/6/2022	5:17	9.429	11.017	43.859	-0.234
4/6/2022	5:18	9.548	11.091	35.272	-0.237
4/6/2022	5:19	9.765	10.957	37.372	-0.206
4/6/2022	5:20	10.11	10.483	29.243	-0.181
4/6/2022	5:21	8.724	11.704	52.02	-0.21
4/6/2022	5:22	8.834	11.89	46.693	-0.243
4/6/2022	5:23	8.994	11.567	45.592	-0.235
4/6/2022	5:24	9.746	11.364	36.951	-0.267
4/6/2022	5:25	10.531	9.866	30.286	-0.245
4/6/2022	5:26	9.71	10.737	35.857	-0.207
4/6/2022	5:27	8.563	12.081	55.954	-0.22
4/6/2022	5:28	9.266	11.467	43.177	-0.271
4/6/2022	5:29	9.785	10.954	38.804	-0.257
4/6/2022	5:30	10.118	10.446	36.337	-0.224
4/6/2022	5:31	9.506	11.163	45.942	-0.247
4/6/2022	5:32	9.17	11.287	49.708	-0.23
4/6/2022	5:33	9.59	11.094	43.458	-0.24
4/6/2022	5:34	8.985	11.785	52.773	-0.25
4/6/2022	5:35	10.282	10.344	33.841	-0.262
4/6/2022	5:36	9.272	11.371	50.39	-0.259
4/6/2022	5:37	9.787	10.859	41.214	-0.267
4/6/2022	5:38	9.274	11.221	53.471	-0.267
4/6/2022	5:39	8.854	11.848	58.386	-0.253
4/6/2022	5:40	9.678	10.982	51.874	-0.256

4/6/2022	5:41	9.36	11.241	49.541	-0.264
4/6/2022	5:42	10.06	10.782	38.96	-0.285
4/6/2022	5:43	10.467	10.192	34.882	-0.292
4/6/2022	5:44	9.293	11.132	53.728	-0.277
4/6/2022	5:45	9.395	11.424	51.712	-0.273
4/6/2022	5:46	9.469	11.097	54.151	-0.264
4/6/2022	5:47	10.076	10.58	46.789	-0.274
4/6/2022	5:48	9.078	11.52	53.119	-0.272
4/6/2022	5:49	9.495	11.141	51.38	-0.271
4/6/2022	5:50	9.492	11.191	53.962	-0.293
4/6/2022	5:51	9.007	11.606	59.008	-0.297
4/6/2022	5:52	8.766	11.892	57.032	-0.304
4/6/2022	5:53	8.644	12.005	61.366	-0.27
4/6/2022	5:54	9.106	11.565	54.174	-0.304
4/6/2022	5:55	9.254	11.208	50.589	-0.325
4/6/2022	5:56	8.371	12.23	60.72	-0.289
4/6/2022	5:57	9.815	11.123	40.386	-0.265
4/6/2022	5:58	10.299	10.177	33.852	-0.283
4/6/2022	5:59	10.072	10.649	29.75	-0.283
4/6/2022	6:00	8.71	11.842	54.437	-0.287
4/6/2022	6:01	8.707	12.057	58.94	-0.293
4/6/2022	6:02	8.373	12.053	63.193	-0.293
4/6/2022	6:03	8.488	12.172	61.912	-0.298
4/6/2022	6:04	8.882	11.932	54.512	-0.281
4/6/2022	6:05	9.691	11.114	41.378	-0.273
4/6/2022	6:06	8.942	11.5	53.112	-0.26
4/6/2022	6:07	8.54	11.929	56.969	-0.248
4/6/2022	6:08	8.703	11.987	54.108	-0.238
4/6/2022	6:09	9.952	10.929	33.208	-0.253
4/6/2022	6:10	10.898	9.69	23.965	-0.244
4/6/2022	6:11	10.286	10.492	30.713	-0.245
4/6/2022	6:12	10.326	10.231	38.404	-0.237
4/6/2022	6:13	10.258	10.195	36.898	-0.237
4/6/2022	6:14	9.482	11.041	43.585	-0.237
4/6/2022	6:15	8.743	12.054	51.399	-0.241
4/6/2022	6:16	9.563	11.164	44.661	-0.283
4/6/2022	6:17	9.696	10.762	47.452	-0.252
4/6/2022	6:18	9.471	11.217	45.578	-0.268
4/6/2022	6:19	8.861	11.763	51.445	-0.28
4/6/2022	6:20	9.206	11.436	50.407	-0.25
4/6/2022	6:21	8.991	11.83	53.043	-0.266
4/6/2022	6:22	9.543	10.983	41.559	-0.257
4/6/2022	6:23	8.914	11.671	51.666	-0.246
4/6/2022	6:24	9.19	11.446	43.541	-0.29
4/6/2022	6:25	10.052	10.724	32.562	-0.306
4/6/2022	6:26	9.294	11.17	43.714	-0.279
4/6/2022	6:27	9.284	11.507	44.066	-0.29
4/6/2022	6:28	9.78	10.956	33.56	-0.308
4/6/2022	6:29	10.888	9.669	24.382	-0.264

4/6/2022	6:30	9.54	10.993	44.902	-0.258
4/6/2022	6:31	9.11	11.626	46.489	-0.285
4/6/2022	6:32	9.303	11.48	42.271	-0.315
4/6/2022	6:33	9.541	11.015	39.294	-0.305
4/6/2022	6:34	9.773	10.944	32.002	-0.295
4/6/2022	6:35	10.15	10.608	35.197	-0.299
4/6/2022	6:36	9.289	11.191	44.817	-0.283
4/6/2022	6:37	8.768	11.727	56.304	-0.289
4/6/2022	6:38	9.414	11.366	40.648	-0.31
4/6/2022	6:39	9.374	11.181	44.122	-0.275
4/6/2022	6:40	9.218	11.402	43.32	-0.274
4/6/2022	6:41	9.604	11.168	39.893	-0.247
4/6/2022	6:42	9.294	11.315	41.942	-0.242
4/6/2022	6:43	9.533	11.184	37.165	-0.252
4/6/2022	6:44	9.475	11.201	39.41	-0.246
4/6/2022	6:45	9.315	11.036	44.565	-0.242
4/6/2022	6:46	8.83	11.899	45.332	-0.282
4/6/2022	6:47	8.652	12.17	48.733	-0.256
4/6/2022	6:48	9.249	11.193	42.592	-0.269
4/6/2022	6:49	9.032	11.674	42.466	-0.265
4/6/2022	6:50	8.66	11.939	50.071	-0.245
4/6/2022	6:51	8.581	11.918	47.082	-0.239
4/6/2022	6:52	9.175	11.707	37.365	-0.264
4/6/2022	6:53	9.779	10.91	24.632	-0.287
4/6/2022	6:54	9.32	11.176	33.467	-0.236
4/6/2022	6:55	8.786	11.661	43.082	-0.237
4/6/2022	6:56	8.968	11.94	39.428	-0.29
4/6/2022	6:57	9.573	10.945	33.597	-0.237
4/6/2022	6:58	9.181	11.472	33.971	-0.193
4/6/2022	6:59	9.217	11.417	34.383	-0.216
4/6/2022	7:00	8.942	11.594	42.274	-0.238
4/6/2022	7:01	8.988	11.762	41.14	-0.257
4/6/2022	7:02	8.85	11.622	44.942	-0.249
4/6/2022	7:03	8.878	11.888	42.319	-0.24
4/6/2022	7:04	9.323	11.283	35.643	-0.267
4/6/2022	7:05	9.922	10.898	32.015	-0.252
4/6/2022	7:06	10.267	10.425	26.291	-0.236
4/6/2022	7:07	9.412	11.041	32.823	-0.25
4/6/2022	7:08	9.18	11.438	40.624	-0.254
4/6/2022	7:09	9.54	11.011	33.432	-0.276
4/6/2022	7:10	8.912	11.729	45.454	-0.276
4/6/2022	7:11	8.762	11.922	42.595	-0.259
4/6/2022	7:12	9.519	11.314	32.749	-0.268
4/6/2022	7:13	10.056	10.44	25.676	-0.243
4/6/2022	7:14	9.85	10.664	27.703	-0.227
4/6/2022	7:15	9.789	11.024	28.07	-0.251
4/6/2022	7:16	9.838	10.757	31.497	-0.254
4/6/2022	7:17	9.466	11.066	39.5	-0.243
4/6/2022	7:18	9.953	10.892	31.945	-0.261

4/6/2022	7:19	10.193	10.608	29.813	-0.25	
4/6/2022	7:20	9.867	10.522	35.62	-0.237	
4/6/2022	7:21	9.038	11.508	49.633	-0.267	
4/6/2022	7:22	9.354	11.441	41.813	-0.258	
4/6/2022	7:23	9.414	11.114	44.403	-0.207	
4/6/2022	7:24	10.508	10.301	28.481	-0.215	
4/6/2022	7:25	10.305	10.424	27.107	-0.214	
4/6/2022	7:26	10.808	9.962	22.573	-0.198	
4/6/2022	7:27	10.499	10.037	24.898	-0.205	
4/6/2022	7:28	9.471	10.989	45.991	-0.204	
4/6/2022	7:29	9.976	10.786	41.737	-0.228	
4/6/2022	7:30	9.735	10.766	43.871	-0.211	
4/6/2022	7:31	9.708	11.029	44.973	-0.221	
4/6/2022	7:32	8.743	11.765	58.721	-0.239	
4/6/2022	7:33	8.949	11.667	54.347	-0.26	
4/6/2022	7:34	10.083	10.972	37.749	-0.264	
4/6/2022	7:35	11.316	9.27	23.966	-0.245	
4/6/2022	7:36	11.023	9.5	19.294	-0.197	
4/6/2022	7:37	10.106	10.368	30.173	-0.196	
4/6/2022	7:38	10.14	10.691	30.79	-0.218	
4/6/2022	7:39	10.317	10.233	36.143	-0.191	
4/6/2022	7:40	5.611	8.667	31.943	-0.135	
4/6/2022	7:41	0.01	0.14	5.629	2.654	
4/6/2022	7:42	0.006	0.114	5.611	5.43	
4/6/2022	7:43	0.004	0.106	5.572	5.56	CO Bias
4/6/2022	7:44	0.006	0.104	43.613	4.574	
4/6/2022	7:45	0.004	0.101	48.368	0.733	
4/6/2022	7:46	0.004	0.1	48.398	0.125	NOx Bias
4/6/2022	7:47	3.255	1.799	33.034	0.1	
4/6/2022	7:48	10.464	10.617	0.098	-0.218	O2 CO2 Bias
4/6/2022	7:49	10.77	10.17	16.535	-0.422	
4/6/2022	7:50	9.388	11.01	45.853	-0.239	
4/6/2022	7:51	10.521	10.324	29.442	-0.27	
4/6/2022	7:52	10.126	10.321	37.553	-0.235	
4/6/2022	7:53	9.919	10.669	42.039	-0.289	
4/6/2022	7:54	9.935	10.848	39.034	-0.264	
4/6/2022	7:55	10.221	10.381	33.397	-0.242	
4/6/2022	7:56	10.063	10.573	37.757	-0.226	
4/6/2022	7:57	10.343	10.294	34.538	-0.263	
4/6/2022	7:58	10.482	10.051	35.493	-0.237	
4/6/2022	7:59	10.382	10.178	35.43	-0.257	
4/6/2022	8:00	9.435	11.247	42.862	-0.232	
4/6/2022	8:01	9.144	11.372	49.057	-0.259	
4/6/2022	8:02	9.548	11.047	42.598	-0.258	
4/6/2022	8:03	8.859	11.801	50.945	-0.256	
4/6/2022	8:04	9.317	11.243	48.251	-0.258	
4/6/2022	8:05	10.051	10.489	47.875	-0.254	
4/6/2022	8:06	9.981	10.76	37.031	-0.256	
4/6/2022	8:07	9.874	10.654	41.931	-0.271	

4/6/2022	8:08	9.402	11.267	38.829	-0.249
4/6/2022	8:09	9.947	10.763	41.895	-0.261
4/6/2022	8:10	9.808	10.646	42.895	-0.273
4/6/2022	8:11	9.698	10.957	41.979	-0.282
4/6/2022	8:12	9.668	11.009	38.108	-0.259
4/6/2022	8:13	9.093	11.446	47.03	-0.275
4/6/2022	8:14	8.944	11.454	50.182	-0.27
4/6/2022	8:15	8.67	12.051	54.684	-0.245
4/6/2022	8:16	9.682	11.011	39.165	-0.272
4/6/2022	8:17	9.992	10.586	31.234	-0.264
4/6/2022	8:18	9.538	11.217	34.773	-0.234
4/6/2022	8:19	10.168	10.454	33.061	-0.257
4/6/2022	8:20	10.651	10.039	22.344	-0.261
4/6/2022	8:21	10.646	9.956	24.379	-0.215
4/6/2022	8:22	10.067	10.35	30.127	-0.219
4/6/2022	8:23	9.829	10.978	32.623	-0.21
4/6/2022	8:24	9.555	10.963	33.58	-0.229
4/6/2022	8:25	9.692	11.014	32.59	-0.241
4/6/2022	8:26	9.669	10.775	37.272	-0.255
4/6/2022	8:27	9.253	11.362	43.726	-0.266
4/6/2022	8:28	9.395	11.149	47.249	-0.293
4/6/2022	8:29	10.323	10.431	36.824	-0.29
4/6/2022	8:30	10.052	10.585	36.291	-0.259
4/6/2022	8:31	9.767	10.839	42.285	-0.284
4/6/2022	8:32	9.298	11.27	51.19	-0.27
4/6/2022	8:33	8.949	11.628	58.276	-0.306
4/6/2022	8:34	9.841	10.833	48.496	-0.303
4/6/2022	8:35	9.847	10.755	42.82	-0.305
4/6/2022	8:36	10.109	10.564	39.321	-0.303
4/6/2022	8:37	10.203	10.445	36.926	-0.295
4/6/2022	8:38	10.43	10.322	35.217	-0.236
4/6/2022	8:39	10.725	9.825	35.041	-0.268
4/6/2022	8:40	10.244	10.364	37.222	-0.271
4/6/2022	8:41	10.102	10.462	38.298	-0.255
4/6/2022	8:42	9.121	11.555	54.75	-0.319
4/6/2022	8:43	9.509	11.006	49.362	-0.293
4/6/2022	8:44	9.662	11.15	48.362	-0.286
4/6/2022	8:45	10.548	10.172	38.077	-0.297
4/6/2022	8:46	10.151	10.311	40.643	-0.287
4/6/2022	8:47	9.489	11.038	46.5	-0.29
4/6/2022	8:48	9.594	11.215	47.34	-0.301
4/6/2022	8:49	10.017	10.602	40.437	-0.289
4/6/2022	8:50	10.263	10.371	33.677	-0.291
4/6/2022	8:51	9.804	10.783	43.481	-0.258
4/6/2022	8:52	9.835	10.756	45.775	-0.315
4/6/2022	8:53	10.173	10.516	43.715	-0.311
4/6/2022	8:54	9.736	10.854	49.195	-0.295
4/6/2022	8:55	10.077	10.671	41.692	-0.292
4/6/2022	8:56	10.489	10.233	32.353	-0.264

4/6/2022	8:57	10.068	10.581	42.474	-0.28
4/6/2022	8:58	9.796	10.746	42.047	-0.28
4/6/2022	8:59	10.262	10.342	39.561	-0.281
4/6/2022	9:00	9.359	11.117	43.303	-0.268
4/6/2022	9:01	9.9	10.895	36.389	-0.28
4/6/2022	9:02	10.012	10.479	46.232	-0.295
4/6/2022	9:03	9.272	11.362	50.958	-0.315
4/6/2022	9:04	9.876	10.912	42.282	-0.304
4/6/2022	9:05	10.096	10.618	37.272	-0.304
4/6/2022	9:06	9.969	10.666	42.288	-0.275
4/6/2022	9:07	9.935	10.512	40.011	-0.264
4/6/2022	9:08	9.74	10.913	42.509	-0.312
4/6/2022	9:09	9.476	11.251	46.139	-0.291
4/6/2022	9:10	10.446	10.179	34.277	-0.29
4/6/2022	9:11	10.437	10.14	35.828	-0.279
4/6/2022	9:12	9.831	10.752	44.194	-0.306
4/6/2022	9:13	9.626	11.168	45.871	-0.274
4/6/2022	9:14	9.58	11.041	47.18	-0.315
4/6/2022	9:15	9.961	10.586	44.03	-0.273
4/6/2022	9:16	10.331	10.346	35.944	-0.296
4/6/2022	9:17	9.338	11.203	46.099	-0.295
4/6/2022	9:18	9.271	11.405	48.233	-0.307
4/6/2022	9:19	9.132	11.548	47.154	-0.31
4/6/2022	9:20	9.608	11.044	44.692	-0.323
4/6/2022	9:21	9.78	10.869	41.098	-0.3
4/6/2022	9:22	9.96	10.55	37.839	-0.292
4/6/2022	9:23	9.897	10.923	39.469	-0.296
4/6/2022	9:24	9.859	10.581	42.689	-0.293
4/6/2022	9:25	10.349	10.386	35.383	-0.283
4/6/2022	9:26	9.29	11.125	48.873	-0.321
4/6/2022	9:27	9.592	11.127	46.203	-0.286
4/6/2022	9:28	10.088	10.561	37.914	-0.264
4/6/2022	9:29	10.955	9.825	27.55	-0.291
4/6/2022	9:30	10.457	10.013	31.024	-0.275
4/6/2022	9:31	10.468	10.253	32.87	-0.268
4/6/2022	9:32	9.926	10.462	40.395	-0.275
4/6/2022	9:33	9.863	10.822	40.295	-0.285
4/6/2022	9:34	10.52	10.112	35.373	-0.255
4/6/2022	9:35	10.1	10.478	43.165	-0.286
4/6/2022	9:36	9.974	10.696	42.907	-0.287
4/6/2022	9:37	10.027	10.638	40.246	-0.295
4/6/2022	9:38	10.629	9.932	39.181	-0.272
4/6/2022	9:39	10.123	10.403	42.048	-0.302
4/6/2022	9:40	9.271	11.328	49.455	-0.286
4/6/2022	9:41	9.504	11.065	46.936	-0.307
4/6/2022	9:42	10.256	10.486	38.21	-0.311
4/6/2022	9:43	9.943	10.601	45.738	-0.289
4/6/2022	9:44	10.128	10.612	41.559	-0.3
4/6/2022	9:45	9.635	10.835	47.968	-0.309

4/6/2022	9:46	9.303	11.329	51.755	-0.292	
4/6/2022	9:47	10.431	10.117	39.608	-0.317	
4/6/2022	9:48	10.139	10.577	44.644	-0.275	
4/6/2022	9:49	10.767	9.811	31.329	-0.271	
4/6/2022	9:50	10.476	10.168	35.687	-0.277	
4/6/2022	9:51	9.934	10.586	42.78	-0.283	
4/6/2022	9:52	9.62	10.974	45.701	-0.267	
4/6/2022	9:53	9.428	11.246	51.99	-0.3	
4/6/2022	9:54	10.423	10.204	39.454	-0.317	
4/6/2022	9:55	9.526	10.947	46.217	-0.282	
Run 1 Average		9.88	10.74	41.36	-0.28	
4/6/2022	9:56	9.552	11.124	43.707	-0.284	
4/6/2022	9:57	9.691	10.829	45.007	-0.285	
4/6/2022	9:58	9.684	10.988	40.925	-0.34	
4/6/2022	9:59	9.864	10.666	42.672	-0.307	
4/6/2022	10:00	10.294	10.478	36.928	-0.316	
4/6/2022	10:01	10.097	10.503	38.145	-0.312	
4/6/2022	10:02	10.111	10.481	41.874	-0.307	
4/6/2022	10:03	10.554	10.163	34.3	-0.283	
4/6/2022	10:04	10.413	10.104	39.888	-0.298	
4/6/2022	10:05	9.614	10.871	45.368	-0.28	
4/6/2022	10:06	9.903	10.684	44.348	-0.306	
4/6/2022	10:07	9.829	10.94	35.63	-0.329	
4/6/2022	10:08	10.489	10.628	0.091	-0.36	
4/6/2022	10:09	10.491	10.627	0.049	-0.413	O2 CO2 Bias
4/6/2022	10:10	1.837	3.166	41.079	-0.323	
4/6/2022	10:11	0.009	0.097	48.124	0.048	NOx Bias
4/6/2022	10:12	0.079	0.152	41.001	0.136	
4/6/2022	10:13	0.004	0.083	5.608	3.225	
4/6/2022	10:14	0.004	0.073	5.605	5.546	CO Bias
4/6/2022	10:15	0.003	0.054	1.387	4.113	
4/6/2022	10:16	-0.008	0.03	0.029	0.14	
4/6/2022	10:17	-0.008	0.029	0.006	0.015	Zero
4/6/2022	10:18	7.83	7.726	43.842	1.924	
4/6/2022	10:19	10.531	10.586	48.622	5.491	
4/6/2022	10:20	10.532	10.591	48.346	5.561	Span
4/6/2022	10:21	10.239	10.508	42.478	4.714	
4/6/2022	10:22	10.762	9.87	34.816	0.221	
4/6/2022	10:23	10.538	10.036	36.946	-0.306	
4/6/2022	10:24	9.229	11.084	51.354	-0.323	
4/6/2022	10:25	9.166	11.454	54.64	-0.314	
4/6/2022	10:26	9.922	10.724	45.989	-0.373	
4/6/2022	10:27	9.88	10.627	43.487	-0.305	
4/6/2022	10:28	9.959	10.706	41.577	-0.32	
4/6/2022	10:29	10.091	10.366	42.734	-0.317	
4/6/2022	10:30	9.879	10.731	43.541	-0.324	
4/6/2022	10:31	10.105	10.552	39.477	-0.32	
4/6/2022	10:32	9.194	11.061	54.366	-0.301	
4/6/2022	10:33	9.492	11.157	51.51	-0.358	

4/6/2022	10:34	9.542	10.947	49.572	-0.337
4/6/2022	10:35	10.311	10.401	38.748	-0.335
4/6/2022	10:36	10.583	9.964	35.139	-0.321
4/6/2022	10:37	10.255	10.22	36.086	-0.313
4/6/2022	10:38	9.621	10.943	46.465	-0.314
4/6/2022	10:39	9.467	10.943	46.507	-0.333
4/6/2022	10:40	10.546	10.196	35.156	-0.314
4/6/2022	10:41	9.755	10.773	43.899	-0.302
4/6/2022	10:42	10.332	10.093	32.056	-0.309
4/6/2022	10:43	10.259	10.245	34.194	-0.32
4/6/2022	10:44	10.076	10.413	41.498	-0.323
4/6/2022	10:45	9.65	10.976	46.283	-0.316
4/6/2022	10:46	10.062	10.501	38.253	-0.307
4/6/2022	10:47	10.252	10.429	38.708	-0.323
4/6/2022	10:48	10.007	10.349	40.15	-0.333
4/6/2022	10:49	9.889	10.741	42.121	-0.31
4/6/2022	10:50	9.756	10.863	44.161	-0.317
4/6/2022	10:51	9.294	11.228	50.794	-0.309
4/6/2022	10:52	10.38	10.183	38.054	-0.328
4/6/2022	10:53	9.544	10.756	46.525	-0.315
4/6/2022	10:54	9.459	11.105	45.868	-0.315
4/6/2022	10:55	9.538	10.986	41.779	-0.315
4/6/2022	10:56	9.172	11.371	48.416	-0.338
4/6/2022	10:57	9.924	10.605	43.632	-0.328
4/6/2022	10:58	9.365	11.1	43.936	-0.321
4/6/2022	10:59	9.295	11.356	45.862	-0.321
4/6/2022	11:00	9.44	11.097	44.251	-0.319
4/6/2022	11:01	9.626	10.875	44.936	-0.36
4/6/2022	11:02	10.772	9.972	32.316	-0.324
4/6/2022	11:03	9.972	10.364	39.352	-0.301
4/6/2022	11:04	9.107	11.633	51.005	-0.308
4/6/2022	11:05	10.153	10.304	37.817	-0.328
4/6/2022	11:06	10.244	10.321	33.257	-0.304
4/6/2022	11:07	10.332	10.177	31.432	-0.318
4/6/2022	11:08	9.435	11.122	44.035	-0.314
4/6/2022	11:09	9.758	10.765	39.798	-0.287
4/6/2022	11:10	9.772	10.722	41.227	-0.341
4/6/2022	11:11	9.952	10.584	37.537	-0.327
4/6/2022	11:12	10.088	10.526	38.481	-0.306
4/6/2022	11:13	10.054	10.487	39.667	-0.286
4/6/2022	11:14	9.965	10.598	41.867	-0.295
4/6/2022	11:15	9.805	10.679	43.747	-0.324
4/6/2022	11:16	10.459	10.078	39.246	-0.309
4/6/2022	11:17	9.518	11.046	45.114	-0.301
4/6/2022	11:18	9.65	10.937	44.108	-0.3
4/6/2022	11:19	10.674	10.053	35.353	-0.317
4/6/2022	11:20	10.649	9.727	32.97	-0.315
4/6/2022	11:21	9.627	10.984	46.67	-0.302
4/6/2022	11:22	9.874	10.46	44.221	-0.3

4/6/2022	11:23	10.081	10.49	42.088	-0.323
4/6/2022	11:24	9.81	10.713	44.909	-0.326
4/6/2022	11:25	9.447	11.09	46.822	-0.321
4/6/2022	11:26	9.911	10.614	40.21	-0.309
4/6/2022	11:27	8.915	11.621	50.806	-0.325
4/6/2022	11:28	9.631	10.93	47.628	-0.324
4/6/2022	11:29	9.955	10.729	43.754	-0.342
4/6/2022	11:30	10.141	10.34	45.752	-0.347
4/6/2022	11:31	9.502	10.876	47.221	-0.349
4/6/2022	11:32	9.749	10.821	47.833	-0.347
4/6/2022	11:33	9.834	10.667	46.083	-0.34
4/6/2022	11:34	9.593	10.886	52.584	-0.352
4/6/2022	11:35	9.67	11.071	47.396	-0.335
4/6/2022	11:36	9.154	11.3	53.119	-0.336
4/6/2022	11:37	9.652	10.959	47.985	-0.337
4/6/2022	11:38	10.126	10.375	47.033	-0.303
4/6/2022	11:39	10.245	10.473	48.163	-0.315
4/6/2022	11:40	10.54	9.983	43.665	-0.333
4/6/2022	11:41	10.328	10.271	44.046	-0.305
4/6/2022	11:42	10.016	10.385	45.813	-0.309
4/6/2022	11:43	9.686	10.808	50.228	-0.312
4/6/2022	11:44	10.165	10.323	49.593	-0.324
4/6/2022	11:45	10.068	10.63	47.501	-0.305
4/6/2022	11:46	9.763	10.628	49.779	-0.3
4/6/2022	11:47	9.44	11.073	54.532	-0.341
4/6/2022	11:48	10.045	10.656	47.459	-0.341
4/6/2022	11:49	10.216	10.247	47.603	-0.331
4/6/2022	11:50	10.969	9.794	42.422	-0.325
4/6/2022	11:51	9.917	10.506	50.169	-0.306
4/6/2022	11:52	9.873	10.726	52.645	-0.326
4/6/2022	11:53	9.852	10.534	52.537	-0.351
4/6/2022	11:54	10.031	10.746	51.323	-0.319
4/6/2022	11:55	9.796	10.723	52.488	-0.319
4/6/2022	11:56	9.774	10.728	51.809	-0.332
4/6/2022	11:57	9.353	11.143	55.015	-0.327
4/6/2022	11:58	9.402	11.144	58.62	-0.352
4/6/2022	11:59	9.859	10.733	55.31	-0.331
4/6/2022	12:00	10.029	10.717	51.4	-0.337
4/6/2022	12:01	10.122	10.299	47.001	-0.328
4/6/2022	12:02	10.064	10.536	46.493	-0.324
4/6/2022	12:03	8.776	11.631	51.26	-0.332
4/6/2022	12:04	8.791	11.862	51.132	-0.337
4/6/2022	12:05	10.219	10.599	32.719	-0.337
4/6/2022	12:06	10.103	10.23	31.804	-0.323
4/6/2022	12:07	9.15	11.387	45.721	-0.318
4/6/2022	12:08	9.484	11.159	39.213	-0.353
4/6/2022	12:09	9.845	10.735	36.981	-0.36
4/6/2022	12:10	9.775	10.719	34.721	-0.33
4/6/2022	12:11	10.411	10.384	28.697	-0.36

4/6/2022	12:12	10.226	10.18	33.1	-0.333
4/6/2022	12:13	10.325	10.254	33.78	-0.313
4/6/2022	12:14	9.657	10.936	39.014	-0.309
4/6/2022	12:15	9.865	10.635	36.302	-0.313
4/6/2022	12:16	10.115	10.435	36.72	-0.327
4/6/2022	12:17	9.815	10.791	40.133	-0.305
4/6/2022	12:18	9.412	10.921	45.407	-0.341
4/6/2022	12:19	9.071	11.715	50.724	-0.302
4/6/2022	12:20	8.893	11.714	52.818	-0.354
4/6/2022	12:21	9.929	10.605	39.823	-0.345
4/6/2022	12:22	10.319	10.44	37.804	-0.332
4/6/2022	12:23	9.902	10.356	35.423	-0.311
4/6/2022	12:24	9.232	11.277	45.918	-0.306
4/6/2022	12:25	9.504	11.292	44.452	-0.331
4/6/2022	12:26	10.065	10.343	38.967	-0.348
4/6/2022	12:27	10.128	10.566	34.994	-0.319
4/6/2022	12:28	9.455	10.865	48.344	-0.318
4/6/2022	12:29	9.21	11.43	48.256	-0.316
4/6/2022	12:30	9.504	11.106	44.644	-0.339
4/6/2022	12:31	9.543	11.099	39.411	-0.324
4/6/2022	12:32	8.966	11.606	50.828	-0.343
4/6/2022	12:33	9.69	10.912	43.016	-0.358
4/6/2022	12:34	10.155	10.311	40.409	-0.357
4/6/2022	12:35	9.941	10.649	38.307	-0.32
4/6/2022	12:36	10.076	10.59	36.759	-0.324
4/6/2022	12:37	10.05	10.267	40.377	-0.312
4/6/2022	12:38	9.25	11.409	47.39	-0.299
4/6/2022	12:39	10.242	10.497	34.896	-0.32
4/6/2022	12:40	9.984	10.563	36.426	-0.31
4/6/2022	12:41	9.692	10.704	41.135	-0.321
4/6/2022	12:42	10.121	10.644	37.621	-0.309
4/6/2022	12:43	9.664	10.665	42.559	-0.326
4/6/2022	12:44	9.886	10.665	41.597	-0.304
4/6/2022	12:45	9.046	11.578	52.286	-0.331
4/6/2022	12:46	10.242	10.401	38.851	-0.324
4/6/2022	12:47	10.159	10.551	40.658	-0.323
4/6/2022	12:48	9.659	10.785	39.722	-0.294
4/6/2022	12:49	9.601	10.856	40.949	-0.304
4/6/2022	12:50	9.324	11.299	44.885	-0.312
Run 2 Average		9.80	10.75	43.73	-0.32
4/6/2022	12:51	9.78	10.844	44.283	-0.326
4/6/2022	12:52	9.323	11.055	46.683	-0.32
4/6/2022	12:53	10.277	10.58	34.38	-0.322
4/6/2022	12:54	10.751	9.67	30.448	-0.306
4/6/2022	12:55	9.73	10.709	43.029	-0.29
4/6/2022	12:56	9.241	11.465	49.28	-0.286
4/6/2022	12:57	10.283	10.37	37.09	-0.351
4/6/2022	12:58	10.306	10.231	38.555	-0.313
4/6/2022	12:59	10.305	10.142	36.739	-0.305

4/6/2022	13:00	9.619	10.893	41.527	-0.325	
4/6/2022	13:02	-0.007	0.107	5.521	5.148	
4/6/2022	13:03	-0.008	0.094	5.506	5.557	CO Bias
4/6/2022	13:04	0.036	0.135	42.036	3.864	
4/6/2022	13:05	-0.008	0.082	48.043	0.218	
4/6/2022	13:06	-0.011	0.078	47.699	0.097	NOx Bias
4/6/2022	13:07	3.711	2.404	30.231	0.097	
4/6/2022	13:08	10.455	10.569	0.103	-0.242	O2 CO2 Bias
4/6/2022	13:09	5.757	6.619	0.058	-0.419	
4/6/2022	13:10	-0.018	0.049	0.037	-0.16	
4/6/2022	13:11	-0.02	0.037	0.028	-0.026	Zero
4/6/2022	13:12	7.446	7.629	44.036	2.4	
4/6/2022	13:13	10.517	10.568	48.595	5.466	
4/6/2022	13:14	10.515	10.574	48.244	5.514	Span
4/6/2022	13:15	9.633	11.018	48.979	4.377	
4/6/2022	13:16	9.47	11.169	45.533	0.015	
4/6/2022	13:17	9.233	11.25	47.835	-0.381	
4/6/2022	13:18	9.527	10.959	40.635	-0.374	
4/6/2022	13:19	10.233	10.424	34.844	-0.355	
4/6/2022	13:20	10.207	10.314	31.852	-0.344	
4/6/2022	13:21	9.921	10.653	39.539	-0.33	
4/6/2022	13:22	9.702	10.873	43.194	-0.332	
4/6/2022	13:23	9.231	11.265	48.104	-0.346	
4/6/2022	13:24	9.835	10.78	43.505	-0.346	
4/6/2022	13:25	9.798	10.599	44.439	-0.331	
4/6/2022	13:26	8.783	11.675	50.843	-0.316	
4/6/2022	13:27	9.458	11.187	43.026	-0.304	
4/6/2022	13:28	9.746	10.761	40.672	-0.308	
4/6/2022	13:29	10.325	10.27	37.216	-0.324	
4/6/2022	13:30	10.336	10.224	31.428	-0.341	
4/6/2022	13:31	10.519	9.972	32.938	-0.321	
4/6/2022	13:32	9.287	11.063	44.472	-0.302	
4/6/2022	13:33	9.625	11.028	42.326	-0.315	
4/6/2022	13:34	9.262	11.142	51.761	-0.334	
4/6/2022	13:35	8.926	11.701	51.7	-0.32	
4/6/2022	13:36	9.783	10.865	43.943	-0.327	
4/6/2022	13:37	10.012	10.482	36.971	-0.308	
4/6/2022	13:38	10.012	10.41	34.747	-0.331	
4/6/2022	13:39	9.857	10.788	42.073	-0.353	
4/6/2022	13:40	9.619	10.919	45.591	-0.35	
4/6/2022	13:41	9.48	10.915	46.19	-0.356	
4/6/2022	13:42	9.175	11.446	44.786	-0.349	
4/6/2022	13:43	8.675	11.772	55.214	-0.352	
4/6/2022	13:44	9.759	10.831	43.955	-0.361	
4/6/2022	13:45	9.784	10.884	44.722	-0.329	
4/6/2022	13:46	10.195	10.325	30.846	-0.339	
4/6/2022	13:47	9.795	10.743	35.32	-0.327	
4/6/2022	13:48	9.642	10.903	40.629	-0.312	
4/6/2022	13:49	8.909	11.675	49.487	-0.323	

4/6/2022	13:50	9.163	11.323	48.157	-0.352
4/6/2022	13:51	10.312	10.321	33.649	-0.335
4/6/2022	13:52	9.678	10.841	37.592	-0.316
4/6/2022	13:53	9.52	10.963	41.474	-0.338
4/6/2022	13:54	9.346	11.207	42.549	-0.332
4/6/2022	13:55	9.165	11.367	44.804	-0.347
4/6/2022	13:56	9.137	11.349	45.786	-0.337
4/6/2022	13:57	9.655	10.998	41.181	-0.344
4/6/2022	13:58	9.476	11.172	44.997	-0.345
4/6/2022	13:59	9.293	11.066	44.724	-0.362
4/6/2022	14:00	9.365	11.233	46.867	-0.333
4/6/2022	14:01	9.997	10.602	34.785	-0.321
4/6/2022	14:02	9.709	10.786	36.322	-0.345
4/6/2022	14:03	9.673	10.83	38.133	-0.315
4/6/2022	14:04	9.378	11.134	42.527	-0.357
4/6/2022	14:05	9.107	11.427	47.832	-0.368
4/6/2022	14:06	9.126	11.41	47.224	-0.347
4/6/2022	14:07	9.88	10.809	38.281	-0.348
4/6/2022	14:08	9.547	10.733	43.271	-0.341
4/6/2022	14:09	8.708	11.899	51.779	-0.337
4/6/2022	14:10	9.17	11.541	48.423	-0.348
4/6/2022	14:11	10.243	10.225	32.505	-0.332
4/6/2022	14:12	9.472	11.035	39.677	-0.3
4/6/2022	14:13	9.866	10.816	36.183	-0.318
4/6/2022	14:14	9.757	10.637	38.84	-0.338
4/6/2022	14:15	8.268	12.07	58.825	-0.349
4/6/2022	14:16	8.79	11.921	52.632	-0.357
4/6/2022	14:17	10.163	10.349	33.263	-0.354
4/6/2022	14:18	10.277	10.281	31.162	-0.328
4/6/2022	14:19	10.051	10.476	33.223	-0.324
4/6/2022	14:20	9.042	11.363	51.196	-0.321
4/6/2022	14:21	10.211	10.555	35.255	-0.312
4/6/2022	14:22	9.986	10.514	34.772	-0.339
4/6/2022	14:23	9.638	10.975	37.965	-0.314
4/6/2022	14:24	10.603	10.143	28.03	-0.335
4/6/2022	14:25	10.953	9.56	22.976	-0.323
4/6/2022	14:26	10.053	10.437	33.599	-0.317
4/6/2022	14:27	9.396	10.943	43.579	-0.321
4/6/2022	14:28	7.697	12.712	66.457	-0.347
4/6/2022	14:29	7.785	12.678	65.38	-0.375
4/6/2022	14:30	8.532	12.213	50.385	-0.38
4/6/2022	14:31	8.986	11.515	48.087	-0.382
4/6/2022	14:32	9.458	11.172	42.567	-0.352
4/6/2022	14:33	9.809	10.663	38.163	-0.368
4/6/2022	14:34	9.505	11.331	41.32	-0.382
4/6/2022	14:35	9.305	11.089	45.128	-0.37
4/6/2022	14:36	10.077	10.631	36.153	-0.379
4/6/2022	14:37	9.294	11.07	44.344	-0.319
4/6/2022	14:38	9.306	11.349	43.337	-0.359

4/6/2022	14:39	9.422	11.19	43.672	-0.295
4/6/2022	14:40	10.277	10.35	36.899	-0.272
4/6/2022	14:41	9.647	10.719	42.178	-0.313
4/6/2022	14:42	9.414	11.3	46.193	-0.337
4/6/2022	14:43	9.717	10.793	41.254	-0.349
4/6/2022	14:44	9.264	11.372	47.978	-0.34
4/6/2022	14:45	10.363	10.327	34.857	-0.337
4/6/2022	14:46	10.296	10.139	38.391	-0.321
4/6/2022	14:47	10.336	10.294	36.388	-0.311
4/6/2022	14:48	9.93	10.563	42.315	-0.326
4/6/2022	14:49	9.152	11.412	46.166	-0.319
4/6/2022	14:50	9.117	11.456	55.509	-0.331
4/6/2022	14:51	9.396	11.175	53.094	-0.365
4/6/2022	14:52	9.556	11.098	47.612	-0.349
4/6/2022	14:53	9.937	10.711	39.557	-0.337
4/6/2022	14:54	9.87	10.771	39.407	-0.313
4/6/2022	14:55	9.236	11.169	42.991	-0.296
4/6/2022	14:56	9.022	11.541	47.74	-0.347
4/6/2022	14:57	9.307	11.309	45.637	-0.354
4/6/2022	14:58	9.362	11.179	45.08	-0.335
4/6/2022	14:59	9.394	11.071	47.393	-0.388
4/6/2022	15:00	8.693	11.803	53.55	-0.364
4/6/2022	15:01	9.495	11.231	42.043	-0.369
4/6/2022	15:02	9.804	10.9	38.007	-0.337
4/6/2022	15:03	9.489	10.899	37.197	-0.322
4/6/2022	15:04	9.876	10.863	36.973	-0.351
4/6/2022	15:05	10.185	10.364	28.688	-0.364
4/6/2022	15:06	9.258	11.14	39.6	-0.327
4/6/2022	15:07	9.93	10.797	36.268	-0.344
4/6/2022	15:08	8.893	11.629	53.509	-0.329
4/6/2022	15:09	9.464	11.185	41.289	-0.338
4/6/2022	15:10	9.571	10.932	41.519	-0.338
4/6/2022	15:11	9.592	11.001	37.808	-0.344
4/6/2022	15:12	9.682	10.791	38.028	-0.329
4/6/2022	15:13	9.745	10.982	45.271	-0.363
4/6/2022	15:14	10.006	10.499	36.038	-0.327
4/6/2022	15:15	9.889	10.605	35.408	-0.33
4/6/2022	15:16	8.473	11.891	55.523	-0.34
4/6/2022	15:17	9.005	11.546	50.622	-0.36
4/6/2022	15:18	9.736	10.799	43.094	-0.346
4/6/2022	15:19	9.778	10.827	33.94	-0.352
4/6/2022	15:20	9.447	11.092	36.64	-0.346
4/6/2022	15:21	9.955	10.594	34.718	-0.368
4/6/2022	15:22	9.155	11.373	45.05	-0.339
4/6/2022	15:23	9.285	11.29	50.222	-0.389
4/6/2022	15:24	9.699	10.794	40.171	-0.388
4/6/2022	15:25	9.255	11.284	47.174	-0.354
4/6/2022	15:26	8.731	11.669	51.765	-0.353
4/6/2022	15:27	8.738	11.815	52.382	-0.349

4/6/2022	15:28	8.908	11.713	47.605	-0.35	
4/6/2022	15:29	9.15	11.227	39.228	-0.354	
4/6/2022	15:30	9.367	11.201	38.516	-0.35	
Run 3 Average		9.51	11.04	42.59	-0.34	
4/6/2022	15:31	9.082	11.358	41.208	-0.358	
4/6/2022	15:32	10.058	10.747	19.768	-0.36	
4/6/2022	15:33	10.441	10.572	0.079	-0.429	
4/6/2022	15:34	10.444	10.571	0.051	-0.449	
4/6/2022	15:35	6.068	7.501	20.562	-0.46	
4/6/2022	15:36	-0.003	0.102	47.987	-0.18	
4/6/2022	15:37	-0.008	0.077	47.696	0.082	NOx Bias
4/6/2022	15:38	0.041	0.07	24.256	0.542	
4/6/2022	15:39	-0.011	0.063	5.549	4.88	
4/6/2022	15:40	-0.014	0.056	5.576	5.498	
4/6/2022	15:41	-0.014	0.052	5.528	5.509	CO Bias
4/6/2022	15:42	0.001	0.035	2.375	5.032	
4/6/2022	15:43	-0.026	0.008	0.032	0.629	
4/6/2022	15:44	-0.026	0.007	0.009	-0.063	
4/6/2022	15:45	-0.027	0.01	0.007	-0.066	Zero
4/6/2022	15:46	7.84	6.363	32.041	0.817	
4/6/2022	15:47	10.51	10.55	48.123	5.143	
4/6/2022	15:48	10.514	10.56	48.109	5.451	Span
4/6/2022	15:49	16.937	16.469	89.471	6.438	
4/6/2022	15:50	18.992	18.845	94.607	8.231	
4/6/2022	15:51	18.984	18.855	94.607	8.254	High
4/6/2022	15:52	18.956	18.885	91.27	8.244	

Date	Time	O2 %	CO2 %	
4/7/2022	1:18	3.92	0.77	
4/7/2022	1:19	19.03	18.75	
4/7/2022	1:20	19.05	18.87	
4/7/2022	1:21	19.05	18.88	
4/7/2022	1:22	19.04	18.95	High
4/7/2022	1:23	12.90	13.07	
4/7/2022	1:24	10.55	10.62	Mid
4/7/2022	1:25	2.89	3.39	
4/7/2022	1:26	-0.01	0.03	Zero
4/7/2022	1:27	4.27	4.25	
4/7/2022	1:28	8.78	12.02	
4/7/2022	1:29	10.73	9.92	
4/7/2022	1:30	9.89	10.71	
4/7/2022	1:31	9.22	11.15	
4/7/2022	1:32	9.23	11.39	
4/7/2022	1:33	9.14	11.45	
4/7/2022	1:34	9.10	11.44	
4/7/2022	1:35	9.18	11.32	
4/7/2022	1:36	9.04	11.65	
4/7/2022	1:37	9.64	10.93	
4/7/2022	1:38	9.95	10.77	
4/7/2022	1:39	10.60	10.04	
4/7/2022	1:40	9.54	10.80	
4/7/2022	1:41	10.07	10.83	
4/7/2022	1:42	9.68	10.77	
4/7/2022	1:43	9.53	11.10	
4/7/2022	1:44	9.86	10.67	
4/7/2022	1:45	9.08	11.58	
4/7/2022	1:46	9.74	10.78	
4/7/2022	1:47	9.60	11.08	
4/7/2022	1:48	9.34	11.13	
4/7/2022	1:49	9.63	11.20	
4/7/2022	1:50	9.33	11.16	
4/7/2022	1:51	9.79	10.89	
4/7/2022	1:52	10.40	10.30	
4/7/2022	1:53	10.48	10.64	O2 CO2 Bi
4/7/2022	1:54	7.01	8.49	
4/7/2022	1:55	0.00	0.11	
4/7/2022	1:56	0.00	0.08	Zero Bias
4/7/2022	1:57	7.35	7.16	
4/7/2022	1:58	9.90	10.67	
4/7/2022	1:59	9.60	10.98	
4/7/2022	2:00	9.87	10.80	
4/7/2022	2:01	10.17	10.37	
4/7/2022	2:02	10.07	10.62	
4/7/2022	2:03	10.57	10.09	

Date	Time	O2 %	CO2 %
4/7/2022	2:04	10.25	10.27
4/7/2022	2:05	10.06	10.52
4/7/2022	2:06	9.84	10.73
4/7/2022	2:07	9.32	11.19
4/7/2022	2:08	9.40	11.46
4/7/2022	2:09	9.63	10.96
4/7/2022	2:10	10.24	10.55
4/7/2022	2:11	10.24	10.18
4/7/2022	2:12	9.29	11.43
4/7/2022	2:13	10.07	10.55
4/7/2022	2:14	10.00	10.59
4/7/2022	2:15	9.78	10.85
4/7/2022	2:16	10.21	10.41
4/7/2022	2:17	9.66	10.95
4/7/2022	2:18	9.48	11.07
4/7/2022	2:19	9.71	10.94
4/7/2022	2:20	9.71	10.96
4/7/2022	2:21	9.94	10.75
4/7/2022	2:22	9.85	10.79
4/7/2022	2:23	10.03	10.51
4/7/2022	2:24	10.58	10.20
4/7/2022	2:25	10.85	9.85
4/7/2022	2:26	10.76	9.69
4/7/2022	2:27	10.45	10.17
4/7/2022	2:28	10.44	10.25
4/7/2022	2:29	10.19	10.26
4/7/2022	2:30	10.07	10.55
4/7/2022	2:31	9.63	11.04
4/7/2022	2:32	9.44	11.14
4/7/2022	2:33	10.36	10.31
4/7/2022	2:34	10.89	9.79
4/7/2022	2:35	10.13	10.39
4/7/2022	2:36	9.77	10.84
4/7/2022	2:37	10.82	9.83
4/7/2022	2:38	10.29	10.39
4/7/2022	2:39	9.99	10.21
4/7/2022	2:40	10.24	10.42
4/7/2022	2:41	11.19	9.51
4/7/2022	2:42	10.31	10.23
4/7/2022	2:43	10.91	9.76
4/7/2022	2:44	10.28	10.35
4/7/2022	2:45	10.67	9.91
4/7/2022	2:46	10.51	10.18
4/7/2022	2:47	11.06	9.50
4/7/2022	2:48	10.43	10.18
4/7/2022	2:49	10.36	10.40
4/7/2022	2:50	10.71	9.87

Date	Time	O2 %	CO2 %	
4/7/2022	2:51	10.73	9.77	
4/7/2022	2:52	10.74	10.00	
4/7/2022	2:53	10.30	10.23	
4/7/2022	2:54	10.27	10.39	
4/7/2022	2:55	10.52	10.18	
4/7/2022	2:56	11.20	9.26	
4/7/2022	2:57	10.86	9.83	
4/7/2022	2:58	10.83	9.77	
4/7/2022	2:59	10.88	9.68	
4/7/2022	3:00	10.66	9.97	
4/7/2022	3:01	10.55	9.99	
4/7/2022	3:02	10.62	9.99	
4/7/2022	3:03	10.48	10.05	
4/7/2022	3:04	9.76	10.95	
4/7/2022	3:05	10.57	10.10	
4/7/2022	3:06	10.94	9.67	
4/7/2022	3:07	10.82	9.69	
4/7/2022	3:08	10.31	10.35	
4/7/2022	3:09	9.71	10.92	
4/7/2022	3:10	10.47	10.19	
4/7/2022	3:11	10.52	10.01	
4/7/2022	3:12	10.57	10.05	
4/7/2022	3:13	10.75	9.97	
4/7/2022	3:14	10.73	9.87	
4/7/2022	3:15	10.00	10.67	
4/7/2022	3:16	10.21	10.44	
4/7/2022	3:17	10.65	9.96	
4/7/2022	3:18	10.17	10.41	
4/7/2022	3:19	10.73	10.01	
4/7/2022	3:20	10.57	9.86	
4/7/2022	3:21	10.87	9.96	
4/7/2022	3:22	12.20	8.51	
4/7/2022	3:23	11.85	8.73	
4/7/2022	3:24	11.65	8.93	
4/7/2022	3:25	11.18	9.62	
4/7/2022	3:26	10.51	10.03	
4/7/2022	3:27	10.59	10.13	
4/7/2022	3:28	11.06	9.60	
4/7/2022	3:29	11.02	9.48	
4/7/2022	3:30	9.75	9.19	
4/7/2022	3:31	11.22	9.42	
4/7/2022	3:32	11.67	9.11	
4/7/2022	3:33	11.81	8.73	
4/7/2022	3:34	12.07	8.57	
4/7/2022	3:35	0.22	1.21	
4/7/2022	3:36	-0.01	0.09	Zero Bias
4/7/2022	3:37	8.27	7.20	

Date	Time	O2 %	CO2 %	
4/7/2022	3:38	10.49	10.64	O2 CO2 Bi
4/7/2022	3:39	10.73	10.19	
4/7/2022	3:40	10.98	9.70	
4/7/2022	3:41	10.71	9.83	
4/7/2022	3:42	10.73	9.83	
4/7/2022	3:43	10.63	10.01	
4/7/2022	3:44	10.47	10.04	
4/7/2022	3:45	10.16	10.50	
4/7/2022	3:46	10.59	10.03	
4/7/2022	3:47	10.53	10.16	
4/7/2022	3:48	10.77	9.91	
4/7/2022	3:49	10.80	9.89	
4/7/2022	3:50	11.00	9.53	
4/7/2022	3:51	10.67	10.00	
4/7/2022	3:52	10.18	10.37	
4/7/2022	3:53	10.14	10.50	
4/7/2022	3:54	10.86	9.89	
4/7/2022	3:55	10.75	9.98	
4/7/2022	3:56	11.25	9.35	
4/7/2022	3:57	10.98	9.57	
4/7/2022	3:58	10.90	9.84	
4/7/2022	3:59	10.63	9.83	
4/7/2022	4:00	10.01	10.67	
4/7/2022	4:01	9.87	10.86	
4/7/2022	4:02	10.62	10.01	
4/7/2022	4:03	10.57	10.03	
4/7/2022	4:04	10.24	10.32	
4/7/2022	4:05	10.81	9.96	
4/7/2022	4:06	10.51	9.75	
4/7/2022	4:07	11.01	9.75	
4/7/2022	4:08	11.25	9.46	
4/7/2022	4:09	10.83	9.73	
4/7/2022	4:10	10.96	9.65	
4/7/2022	4:11	11.00	9.56	
4/7/2022	4:12	10.54	10.09	
4/7/2022	4:13	10.56	10.08	
4/7/2022	4:14	10.87	9.80	
4/7/2022	4:15	10.30	10.25	
4/7/2022	4:16	10.89	9.81	
4/7/2022	4:17	10.46	10.08	
4/7/2022	4:18	10.51	10.10	
4/7/2022	4:19	10.20	10.40	
4/7/2022	4:20	10.19	10.36	
4/7/2022	4:21	10.01	10.68	
4/7/2022	4:22	10.35	10.29	
4/7/2022	4:23	9.96	10.65	
4/7/2022	4:24	9.51	10.95	

Date	Time	O2 %	CO2 %
4/7/2022	4:25	9.59	11.11
4/7/2022	4:26	10.13	10.50
4/7/2022	4:27	10.50	10.24
4/7/2022	4:28	9.84	10.68
4/7/2022	4:29	9.86	10.60
4/7/2022	4:30	9.83	10.88
4/7/2022	4:31	9.86	10.82
4/7/2022	4:32	10.04	10.59
4/7/2022	4:33	10.01	10.52
4/7/2022	4:34	9.53	11.03
4/7/2022	4:35	9.10	11.48
4/7/2022	4:36	9.40	11.36
4/7/2022	4:37	10.90	9.71
4/7/2022	4:38	9.99	10.61
4/7/2022	4:39	9.32	11.21
4/7/2022	4:40	9.46	11.10
4/7/2022	4:41	10.24	10.55
4/7/2022	4:42	10.63	10.00
4/7/2022	4:43	10.07	10.57
4/7/2022	4:44	10.35	10.19
4/7/2022	4:45	9.40	11.10
4/7/2022	4:46	9.69	10.95
4/7/2022	4:47	9.97	10.81
4/7/2022	4:48	10.78	9.85
4/7/2022	4:49	10.14	10.39
4/7/2022	4:50	10.66	9.98
4/7/2022	4:51	10.01	10.54
4/7/2022	4:52	9.84	10.75
4/7/2022	4:53	10.06	10.60
4/7/2022	4:54	9.53	11.07
4/7/2022	4:55	9.75	10.75
4/7/2022	4:56	9.39	11.34
4/7/2022	4:57	9.63	10.85
4/7/2022	4:58	8.87	11.81
4/7/2022	4:59	8.98	11.61
4/7/2022	5:00	9.16	11.51
4/7/2022	5:01	9.48	11.33
4/7/2022	5:02	11.02	9.57
4/7/2022	5:03	10.41	10.18
4/7/2022	5:04	9.13	11.33
4/7/2022	5:05	9.39	11.43
4/7/2022	5:06	9.82	10.71
4/7/2022	5:07	9.84	10.99
4/7/2022	5:08	9.49	11.11
4/7/2022	5:09	10.54	10.11
4/7/2022	5:10	10.21	10.37
4/7/2022	5:11	10.00	10.77

Date	Time	O2 %	CO2 %	
4/7/2022	5:12	9.61	10.97	
4/7/2022	5:13	9.31	11.32	
4/7/2022	5:14	9.73	10.93	
4/7/2022	5:15	10.17	10.60	
4/7/2022	5:16	10.80	10.02	
4/7/2022	5:17	9.67	10.78	
4/7/2022	5:18	9.48	11.21	
4/7/2022	5:19	10.11	10.58	
4/7/2022	5:20	9.99	10.57	
4/7/2022	5:21	9.45	11.35	
4/7/2022	5:22	9.96	10.64	
4/7/2022	5:23	9.79	10.84	
4/7/2022	5:24	9.43	11.19	
4/7/2022	5:25	8.75	11.80	
4/7/2022	5:26	9.84	10.95	
4/7/2022	5:27	10.21	10.36	
4/7/2022	5:28	9.63	11.12	
4/7/2022	5:29	10.60	10.10	
4/7/2022	5:30	10.53	10.22	
4/7/2022	5:31	9.99	10.57	
4/7/2022	5:32	10.06	10.49	
4/7/2022	5:33	8.94	11.68	
4/7/2022	5:34	9.32	11.41	
4/7/2022	5:35	8.95	11.59	
4/7/2022	5:36	9.09	11.61	
4/7/2022	5:37	9.90	10.88	
4/7/2022	5:38	9.75	10.82	
4/7/2022	5:39	9.73	10.91	
4/7/2022	5:40	9.21	11.42	
Average		10.09	10.09	
4/7/2022	5:41	10.24	10.76	
4/7/2022	5:42	10.49	10.70	O2 CO2 Bi
4/7/2022	5:43	5.61	6.98	
4/7/2022	5:44	0.00	0.15	Zero Bias
4/7/2022	5:45	5.11	4.15	
4/7/2022	5:46	10.54	10.68	
4/7/2022	5:47	10.55	10.69	Span
4/7/2022	5:48	10.55	10.70	
4/7/2022	5:49	9.11	9.66	
4/7/2022	5:50	-0.02	0.10	
4/7/2022	5:51	-0.02	0.08	
4/7/2022	5:52	-0.02	0.07	
4/7/2022	5:53	-0.02	0.07	
4/7/2022	5:54	-0.02	0.06	Zero
4/7/2022	5:55	-0.02	0.06	
4/7/2022	5:56	3.64	2.98	

Date	Time	O2 %	CO2 %
4/7/2022	5:57	10.53	10.68
4/7/2022	5:58	10.33	10.32
4/7/2022	5:59	10.65	10.04
4/7/2022	6:00	8.87	11.66
4/7/2022	6:01	9.44	11.38
4/7/2022	6:02	9.91	10.67
4/7/2022	6:03	9.62	11.12
4/7/2022	6:04	10.05	10.72
4/7/2022	6:05	9.97	10.57
4/7/2022	6:06	9.96	10.85
4/7/2022	6:07	9.51	11.16
4/7/2022	6:08	10.06	10.65
4/7/2022	6:09	9.70	10.88
4/7/2022	6:10	10.13	10.60
4/7/2022	6:11	9.87	10.88
4/7/2022	6:12	10.00	10.72
4/7/2022	6:13	9.62	10.79
4/7/2022	6:14	10.27	10.58
4/7/2022	6:15	9.90	10.64
4/7/2022	6:16	9.06	11.55
4/7/2022	6:17	8.68	11.98
4/7/2022	6:18	9.55	11.21
4/7/2022	6:19	10.26	10.53
4/7/2022	6:20	10.11	10.49
4/7/2022	6:21	10.04	10.63
4/7/2022	6:22	9.61	11.07
4/7/2022	6:23	9.39	11.26
4/7/2022	6:24	10.27	10.57
4/7/2022	6:25	10.22	10.45
4/7/2022	6:26	11.02	9.61
4/7/2022	6:27	10.19	10.55
4/7/2022	6:28	10.48	10.26
4/7/2022	6:29	9.71	10.84
4/7/2022	6:30	9.28	11.44
4/7/2022	6:31	9.51	11.21
4/7/2022	6:32	9.16	11.41
4/7/2022	6:33	10.31	10.55
4/7/2022	6:34	9.64	10.86
4/7/2022	6:35	9.69	11.11
4/7/2022	6:36	9.68	10.98
4/7/2022	6:37	9.80	10.88
4/7/2022	6:38	9.92	10.86
4/7/2022	6:39	9.50	11.08
4/7/2022	6:40	9.98	10.69
4/7/2022	6:41	9.67	11.15
4/7/2022	6:42	10.07	10.63
4/7/2022	6:43	9.93	10.65

Date	Time	O2 %	CO2 %
4/7/2022	6:44	9.87	10.84
4/7/2022	6:45	10.17	10.50
4/7/2022	6:46	9.52	11.11
4/7/2022	6:47	9.65	11.04
4/7/2022	6:48	9.46	11.36
4/7/2022	6:49	9.09	11.44
4/7/2022	6:50	9.07	11.63
4/7/2022	6:51	9.54	11.16
4/7/2022	6:52	9.60	11.14
4/7/2022	6:53	9.31	11.36
4/7/2022	6:54	9.78	11.02
4/7/2022	6:55	10.46	10.27
4/7/2022	6:56	10.33	10.05
4/7/2022	6:57	9.38	11.35
4/7/2022	6:58	9.45	11.19
4/7/2022	6:59	9.66	11.10
4/7/2022	7:00	8.61	12.10
4/7/2022	7:01	9.94	10.82
4/7/2022	7:02	9.84	10.85
4/7/2022	7:03	8.77	11.77
4/7/2022	7:04	8.78	11.89
4/7/2022	7:05	10.00	10.87
4/7/2022	7:06	10.29	10.34
4/7/2022	7:07	9.63	11.12
4/7/2022	7:08	9.38	11.21
4/7/2022	7:09	9.75	11.10
4/7/2022	7:10	9.86	10.69
4/7/2022	7:11	9.20	11.42
4/7/2022	7:12	9.49	11.39
4/7/2022	7:13	9.60	11.03
4/7/2022	7:14	9.37	11.24
4/7/2022	7:15	9.86	10.92
4/7/2022	7:16	9.29	11.36
4/7/2022	7:17	9.04	11.63
4/7/2022	7:18	10.03	10.87
4/7/2022	7:19	9.83	10.88
4/7/2022	7:20	9.25	11.45
4/7/2022	7:21	9.78	10.75
4/7/2022	7:22	9.71	10.98
4/7/2022	7:23	10.00	10.87
4/7/2022	7:24	10.13	10.60
4/7/2022	7:25	9.63	10.88
4/7/2022	7:26	8.86	11.80
4/7/2022	7:27	9.13	11.60
4/7/2022	7:28	9.66	11.17
4/7/2022	7:29	10.22	10.46
4/7/2022	7:30	10.12	10.51

Date	Time	O2 %	CO2 %	
4/7/2022	7:31	9.68	11.04	
4/7/2022	7:32	10.01	10.73	
4/7/2022	7:33	10.73	10.00	
4/7/2022	7:34	9.22	11.38	
4/7/2022	7:35	9.04	11.53	
4/7/2022	7:36	8.40	12.29	
4/7/2022	7:37	9.12	11.75	
4/7/2022	7:38	9.77	10.87	
4/7/2022	7:39	9.59	11.03	
4/7/2022	7:40	10.70	10.23	
4/7/2022	7:41	10.17	10.46	
4/7/2022	7:42	9.93	10.82	
4/7/2022	7:43	10.32	10.33	
4/7/2022	7:44	10.31	10.49	
4/7/2022	7:45	9.93	10.73	
4/7/2022	7:46	9.34	11.24	
4/7/2022	7:47	9.02	11.64	
4/7/2022	7:48	9.15	11.53	
4/7/2022	7:49	9.76	11.17	
4/7/2022	7:50	9.28	11.26	
4/7/2022	7:51	9.68	11.15	
4/7/2022	7:52	10.31	10.37	
4/7/2022	7:53	9.70	10.99	
4/7/2022	7:54	10.04	10.76	
4/7/2022	7:55	9.89	10.80	
4/7/2022	7:56	5.71	7.17	
4/7/2022	7:57	-0.01	0.07	
4/7/2022	7:58	10.64	9.06	
4/7/2022	7:59	18.95	18.93	
4/7/2022	8:00	18.98	18.93	
4/7/2022	8:01	19.00	18.91	
4/7/2022	8:02	11.76	12.17	
4/7/2022	8:03	10.60	10.70	Span
4/7/2022	8:04	2.05	2.59	
4/7/2022	8:05	-0.02	0.07	Zero
4/7/2022	8:06	6.29	8.23	
4/7/2022	8:07	0.03	0.21	
4/7/2022	8:08	0.02	0.13	Zero Bias
4/7/2022	8:09	6.77	5.96	
4/7/2022	8:10	10.62	10.68	O2 CO2 Bi
4/7/2022	8:11	10.18	10.28	
4/7/2022	8:12	10.43	10.37	
4/7/2022	8:13	9.76	11.01	
4/7/2022	8:14	9.60	11.09	
4/7/2022	8:15	10.06	10.78	
4/7/2022	8:16	9.58	11.00	

Date	Time	O2 %	CO2 %
4/7/2022	8:17	9.25	11.60
4/7/2022	8:18	9.87	10.90
4/7/2022	8:19	9.95	10.79
4/7/2022	8:20	10.01	10.82
4/7/2022	8:21	9.44	11.23
4/7/2022	8:22	9.82	10.88
4/7/2022	8:23	9.64	11.21
4/7/2022	8:24	9.65	11.01
4/7/2022	8:25	9.81	11.04
4/7/2022	8:26	10.36	10.36
4/7/2022	8:27	9.67	11.05
4/7/2022	8:28	9.17	11.59
4/7/2022	8:29	9.81	10.98
4/7/2022	8:30	10.29	10.63
4/7/2022	8:31	9.96	10.61
4/7/2022	8:32	10.10	10.73
4/7/2022	8:33	9.63	10.97
4/7/2022	8:34	9.96	10.87
4/7/2022	8:35	9.73	10.97
4/7/2022	8:36	9.36	11.32
4/7/2022	8:37	9.86	11.02
4/7/2022	8:38	9.82	10.89
4/7/2022	8:39	9.70	11.06
4/7/2022	8:40	9.44	11.34
4/7/2022	8:41	9.60	11.12
4/7/2022	8:42	10.36	10.45
4/7/2022	8:43	9.28	11.36
4/7/2022	8:44	9.15	11.70
4/7/2022	8:45	10.23	10.72
4/7/2022	8:46	9.88	10.68
4/7/2022	8:47	10.20	10.58
4/7/2022	8:48	10.14	10.71
4/7/2022	8:49	9.12	11.47
4/7/2022	8:50	8.56	12.14
4/7/2022	8:51	9.83	11.11
4/7/2022	8:52	10.62	10.09
4/7/2022	8:53	9.79	10.78
4/7/2022	8:54	9.89	11.01
4/7/2022	8:55	9.77	10.86
4/7/2022	8:56	9.76	11.06
4/7/2022	8:57	9.76	11.08
4/7/2022	8:58	10.36	10.39
4/7/2022	8:59	9.82	10.86
4/7/2022	9:00	9.27	11.42
4/7/2022	9:01	9.17	11.62
4/7/2022	9:02	9.21	11.59
4/7/2022	9:03	9.47	11.22

Date	Time	O2 %	CO2 %
4/7/2022	9:04	9.56	11.20
4/7/2022	9:05	10.38	10.48
4/7/2022	9:06	9.15	11.44
4/7/2022	9:07	9.83	11.02
4/7/2022	9:08	9.68	10.94
4/7/2022	9:09	9.11	11.58
4/7/2022	9:10	9.73	11.08
4/7/2022	9:11	9.48	11.25
4/7/2022	9:12	9.33	11.41
4/7/2022	9:13	9.87	10.92
4/7/2022	9:14	9.78	10.96
4/7/2022	9:15	9.63	11.05
4/7/2022	9:16	10.14	10.63
4/7/2022	9:17	9.63	11.02
4/7/2022	9:18	10.20	10.69
4/7/2022	9:19	9.55	11.09
4/7/2022	9:20	9.58	11.16
4/7/2022	9:21	10.12	10.71
4/7/2022	9:22	8.71	11.88
4/7/2022	9:23	8.49	12.21
4/7/2022	9:24	9.08	11.64
4/7/2022	9:25	9.70	11.16
4/7/2022	9:26	9.50	11.18
4/7/2022	9:27	9.08	11.68
4/7/2022	9:28	8.87	11.80
4/7/2022	9:29	9.36	11.43
4/7/2022	9:30	9.99	10.84
4/7/2022	9:31	10.24	10.49
4/7/2022	9:32	10.67	10.13
4/7/2022	9:33	10.74	10.03
4/7/2022	9:34	10.10	10.59
4/7/2022	9:35	9.63	11.02
4/7/2022	9:36	9.92	10.93
4/7/2022	9:37	9.78	10.86
4/7/2022	9:38	9.49	11.26
4/7/2022	9:39	9.62	11.22
4/7/2022	9:40	10.35	10.44
4/7/2022	9:41	9.22	11.36
4/7/2022	9:42	8.94	11.92
4/7/2022	9:43	9.99	10.78
4/7/2022	9:44	10.15	10.51
4/7/2022	9:45	10.38	10.55
4/7/2022	9:46	10.46	10.25
4/7/2022	9:47	10.17	10.57
4/7/2022	9:48	10.03	10.75
4/7/2022	9:49	9.74	10.97
4/7/2022	9:50	9.55	11.26

Date	Time	O2 %	CO2 %	
4/7/2022	9:51	8.72	11.99	
4/7/2022	9:52	10.07	10.74	
4/7/2022	9:53	9.82	10.92	
4/7/2022	9:54	9.84	10.88	
4/7/2022	9:55	9.53	11.13	
4/7/2022	9:56	9.69	11.28	
4/7/2022	9:57	10.48	10.19	
4/7/2022	9:58	10.10	10.72	
4/7/2022	9:59	10.08	10.71	
4/7/2022	10:00	9.49	11.14	
4/7/2022	10:01	9.44	11.26	
4/7/2022	10:02	9.82	10.99	
4/7/2022	10:03	10.17	10.68	
4/7/2022	10:04	10.07	10.57	
4/7/2022	10:05	9.50	11.28	
4/7/2022	10:06	9.74	10.98	
4/7/2022	10:07	9.34	11.52	
4/7/2022	10:08	9.62	11.09	
4/7/2022	10:09	10.13	10.70	
4/7/2022	10:10	9.61	11.03	
4/7/2022	10:11	9.85	11.01	
4/7/2022	10:12	9.48	11.28	
4/7/2022	10:13	9.73	10.99	
4/7/2022	10:14	10.28	10.56	
4/7/2022	10:15	9.85	10.76	
4/7/2022	10:16	9.07	11.84	
4/7/2022	10:17	9.83	10.86	
4/7/2022	10:18	9.68	10.94	
4/7/2022	10:19	8.67	12.00	
4/7/2022	10:20	8.27	12.53	
4/7/2022	10:21	9.63	11.22	
4/7/2022	10:22	9.91	10.81	
4/7/2022	10:23	10.08	10.68	
4/7/2022	10:24	9.77	11.04	
4/7/2022	10:25	9.81	11.03	
4/7/2022	10:26	10.69	10.06	
4/7/2022	10:27	10.14	10.63	
4/7/2022	10:28	10.15	10.62	
4/7/2022	10:29	9.97	10.80	
4/7/2022	10:30	9.56	11.04	
Average		9.73	11.02	
4/7/2022	10:31	3.12	4.54	
4/7/2022	10:32	0.03	0.14	
4/7/2022	10:33	0.02	0.12	Zero Bias
4/7/2022	10:34	10.12	9.72	
4/7/2022	10:35	10.63	10.67	O2 CO2 Bi
4/7/2022	10:36	2.39	2.67	

Date	Time	O2 %	CO2 %	
4/7/2022	10:37	-0.01	0.06	Zero
4/7/2022	10:38	7.74	5.89	
4/7/2022	10:39	10.63	10.66	Span
4/7/2022	10:40	9.92	10.39	
4/7/2022	10:41	9.59	11.04	
4/7/2022	10:42	9.26	11.61	
4/7/2022	10:43	10.27	10.52	
4/7/2022	10:44	10.17	10.60	
4/7/2022	10:45	9.84	10.96	
4/7/2022	10:46	9.58	11.09	
4/7/2022	10:47	10.07	10.71	
4/7/2022	10:48	9.96	10.77	
4/7/2022	10:49	9.94	10.77	
4/7/2022	10:50	10.03	10.72	
4/7/2022	10:51	10.43	10.26	
4/7/2022	10:52	9.51	11.26	
4/7/2022	10:53	9.52	11.22	
4/7/2022	10:54	8.89	11.74	
4/7/2022	10:55	9.16	11.72	
4/7/2022	10:56	10.27	10.51	
4/7/2022	10:57	10.59	10.11	
4/7/2022	10:58	9.82	10.99	
4/7/2022	10:59	9.33	11.13	
4/7/2022	11:00	9.67	11.32	
4/7/2022	11:01	9.81	10.76	
4/7/2022	11:02	9.14	11.61	
4/7/2022	11:03	10.17	10.66	
4/7/2022	11:04	10.02	10.79	
4/7/2022	11:05	9.65	10.89	
4/7/2022	11:06	9.35	11.51	
4/7/2022	11:07	10.30	10.49	
4/7/2022	11:08	10.17	10.62	
4/7/2022	11:09	9.85	10.77	
4/7/2022	11:10	8.78	11.83	
4/7/2022	11:11	9.39	11.31	
4/7/2022	11:12	10.21	10.59	
4/7/2022	11:13	10.04	10.79	
4/7/2022	11:14	9.75	10.96	
4/7/2022	11:15	9.71	11.12	
4/7/2022	11:16	10.45	10.32	
4/7/2022	11:17	10.58	10.19	
4/7/2022	11:18	9.68	10.87	
4/7/2022	11:19	10.16	10.69	
4/7/2022	11:20	9.78	10.83	
4/7/2022	11:21	9.58	11.15	
4/7/2022	11:22	9.23	11.48	
4/7/2022	11:23	9.90	11.08	

Date	Time	O2 %	CO2 %
4/7/2022	11:24	9.82	10.84
4/7/2022	11:25	10.15	10.55
4/7/2022	11:26	10.22	10.56
4/7/2022	11:27	9.95	10.73
4/7/2022	11:28	9.45	11.31
4/7/2022	11:29	9.30	11.38
4/7/2022	11:30	9.94	10.89
4/7/2022	11:31	9.62	11.08
4/7/2022	11:32	9.82	10.91
4/7/2022	11:33	10.29	10.30
4/7/2022	11:34	10.21	10.57
4/7/2022	11:35	9.41	11.43
4/7/2022	11:36	9.90	10.73
4/7/2022	11:37	10.18	10.65
4/7/2022	11:38	9.83	10.62
4/7/2022	11:39	9.41	11.41
4/7/2022	11:40	9.46	11.17
4/7/2022	11:41	9.43	11.37
4/7/2022	11:42	10.10	10.62
4/7/2022	11:43	10.18	10.51
4/7/2022	11:44	9.39	11.22
4/7/2022	11:45	8.62	12.10
4/7/2022	11:46	8.85	12.01
4/7/2022	11:47	9.93	10.84
4/7/2022	11:48	10.19	10.61
4/7/2022	11:49	9.96	10.72
4/7/2022	11:50	9.23	11.42
4/7/2022	11:51	9.40	11.39
4/7/2022	11:52	9.41	11.26
4/7/2022	11:53	9.98	10.70
4/7/2022	11:54	9.76	11.10
4/7/2022	11:55	10.24	10.59
4/7/2022	11:56	10.07	10.56
4/7/2022	11:57	10.13	10.75
4/7/2022	11:58	10.17	10.53
4/7/2022	11:59	9.97	10.65
4/7/2022	12:00	9.33	11.47
4/7/2022	12:01	9.77	11.07
4/7/2022	12:02	9.21	11.47
4/7/2022	12:03	9.39	11.35
4/7/2022	12:04	9.78	10.93
4/7/2022	12:05	10.34	10.66
4/7/2022	12:06	9.07	11.28
4/7/2022	12:07	8.68	12.02
4/7/2022	12:08	9.41	11.43
4/7/2022	12:09	9.56	11.23
4/7/2022	12:10	9.92	10.83

Date	Time	O2 %	CO2 %
4/7/2022	12:11	10.87	9.92
4/7/2022	12:12	10.62	10.17
4/7/2022	12:13	10.34	10.38
4/7/2022	12:14	9.44	11.05
4/7/2022	12:15	9.71	11.10
4/7/2022	12:16	9.97	10.81
4/7/2022	12:17	9.30	11.32
4/7/2022	12:18	9.09	11.65
4/7/2022	12:19	9.23	11.49
4/7/2022	12:20	9.46	11.45
4/7/2022	12:21	9.36	11.00
4/7/2022	12:22	9.15	11.88
4/7/2022	12:23	9.85	10.98
4/7/2022	12:24	9.54	10.94
4/7/2022	12:25	9.39	11.25
4/7/2022	12:26	9.22	11.57
4/7/2022	12:27	10.03	10.76
4/7/2022	12:28	9.48	11.18
4/7/2022	12:29	9.48	11.31
4/7/2022	12:30	9.95	10.90
4/7/2022	12:31	10.40	10.40
4/7/2022	12:32	8.97	11.58
4/7/2022	12:33	9.25	11.42
4/7/2022	12:34	10.00	10.78
4/7/2022	12:35	9.73	10.95
4/7/2022	12:36	10.12	10.67
4/7/2022	12:37	10.17	10.55
4/7/2022	12:38	9.84	10.77
4/7/2022	12:39	9.66	11.03
4/7/2022	12:40	10.06	10.80
4/7/2022	12:41	9.62	11.06
4/7/2022	12:42	9.63	11.16
4/7/2022	12:43	9.35	11.32
4/7/2022	12:44	10.68	10.18
4/7/2022	12:45	9.96	10.64
4/7/2022	12:46	9.89	10.72
4/7/2022	12:47	10.10	10.70
4/7/2022	12:48	9.63	11.05
4/7/2022	12:49	9.78	11.02
4/7/2022	12:50	9.62	11.12
4/7/2022	12:51	8.93	11.71
4/7/2022	12:52	9.96	10.74
4/7/2022	12:53	9.37	11.23
4/7/2022	12:54	9.77	11.08
4/7/2022	12:55	10.12	10.71
4/7/2022	12:56	9.91	10.69
4/7/2022	12:57	9.43	11.23

Date	Time	O2 %	CO2 %	
4/7/2022	12:58	9.56	11.32	
4/7/2022	12:59	9.88	10.74	
4/7/2022	13:00	9.50	11.31	
4/7/2022	13:01	10.13	10.57	
4/7/2022	13:02	10.10	10.57	
4/7/2022	13:03	9.42	11.41	
4/7/2022	13:04	10.06	10.81	
4/7/2022	13:05	9.92	10.75	
Average		9.74	10.99	
4/7/2022	13:06	2.62	4.85	
4/7/2022	13:07	0.02	0.15	
4/7/2022	13:08	0.01	0.12	Zero Bias
4/7/2022	13:09	8.25	6.64	
4/7/2022	13:10	10.56	10.66	O2 CO2 Bi
4/7/2022	13:11	1.22	3.21	
4/7/2022	13:12	-0.01	0.05	Zero
4/7/2022	13:13	7.01	6.44	
4/7/2022	13:14	10.63	10.64	
4/7/2022	13:15	10.63	10.65	Span
4/7/2022	13:16	14.56	13.93	
4/7/2022	13:17	19.18	18.98	
4/7/2022	13:18	19.18	18.99	High

Appendix A.1.3
Unit 1 Instrument Strip Charts

Montrose AQS
SPAN GAS RECORD

CLIENT/LOCATION: Desert View Power
Unit 1

DATE: 4/6/2022
BY: DW

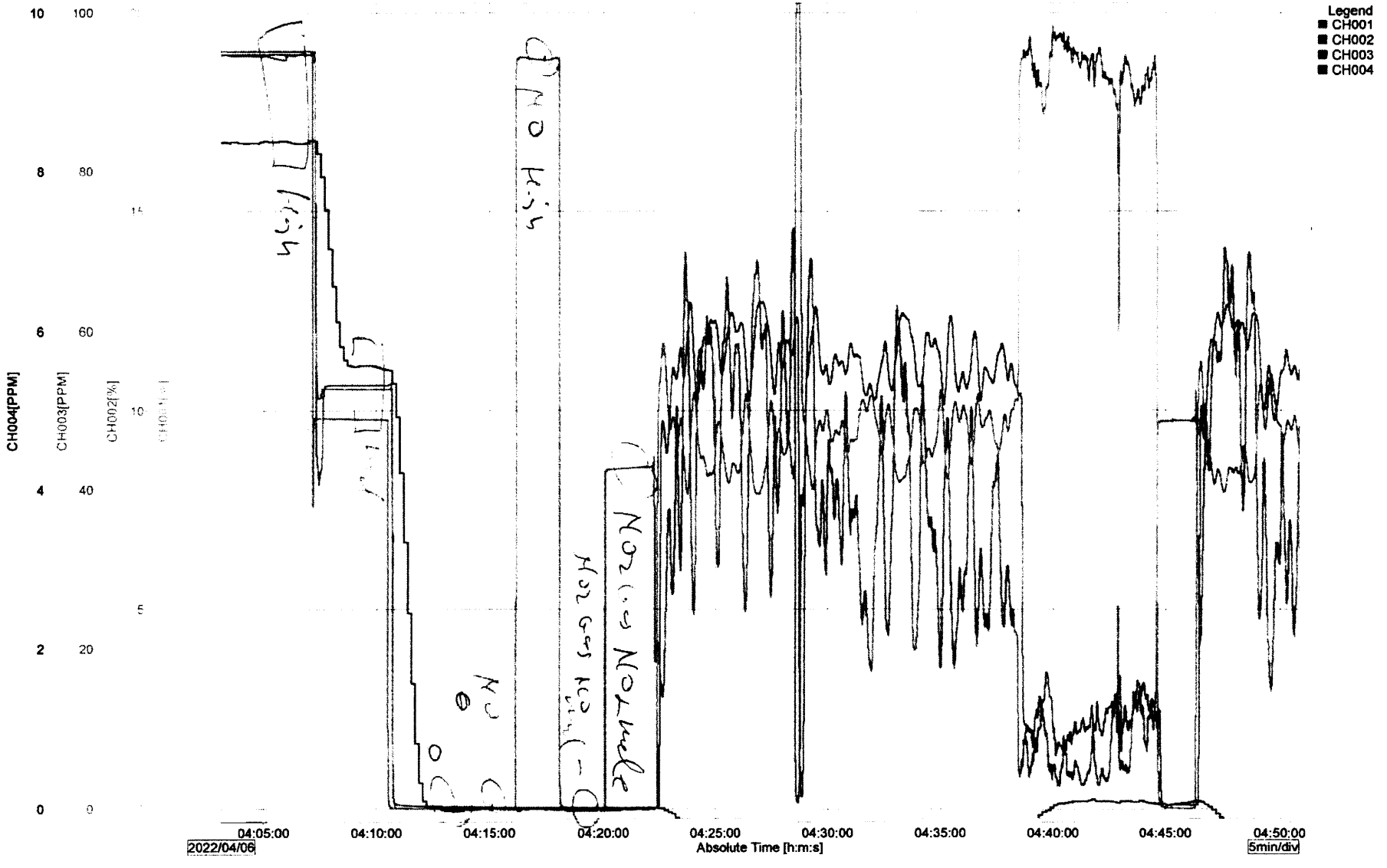
	MID SPAN CYLINDER		HIGH SPAN CYLINDER	
	CYLINDER NO.	CONCENTRATION	CYLINDER NO.	CONCENTRATION
ZERO	DT0040604	0		
O_2	CC700690	10.53	CC106486	19.02
CO_2	CC700690	10.58	CC106486	18.94
NO_x	CC327320	48.1	CC218831	94.7
CO	CC503587	5.55	EB0058229	8.37

NO2 to NO Converter Efficiency Test

				Cylinder #
Analyzer Manufacturer:	CAI	NO Cal Gas Value:	94.7	CC218831
Analyzer Model:	600 Series	NO2 Cal Gas Value:	44	ALFS15760
Analyzer Serial Number:	D05005	Performed By:	DW	
Date:	4/6/2022	CEMS ID#:	3-CEMS	

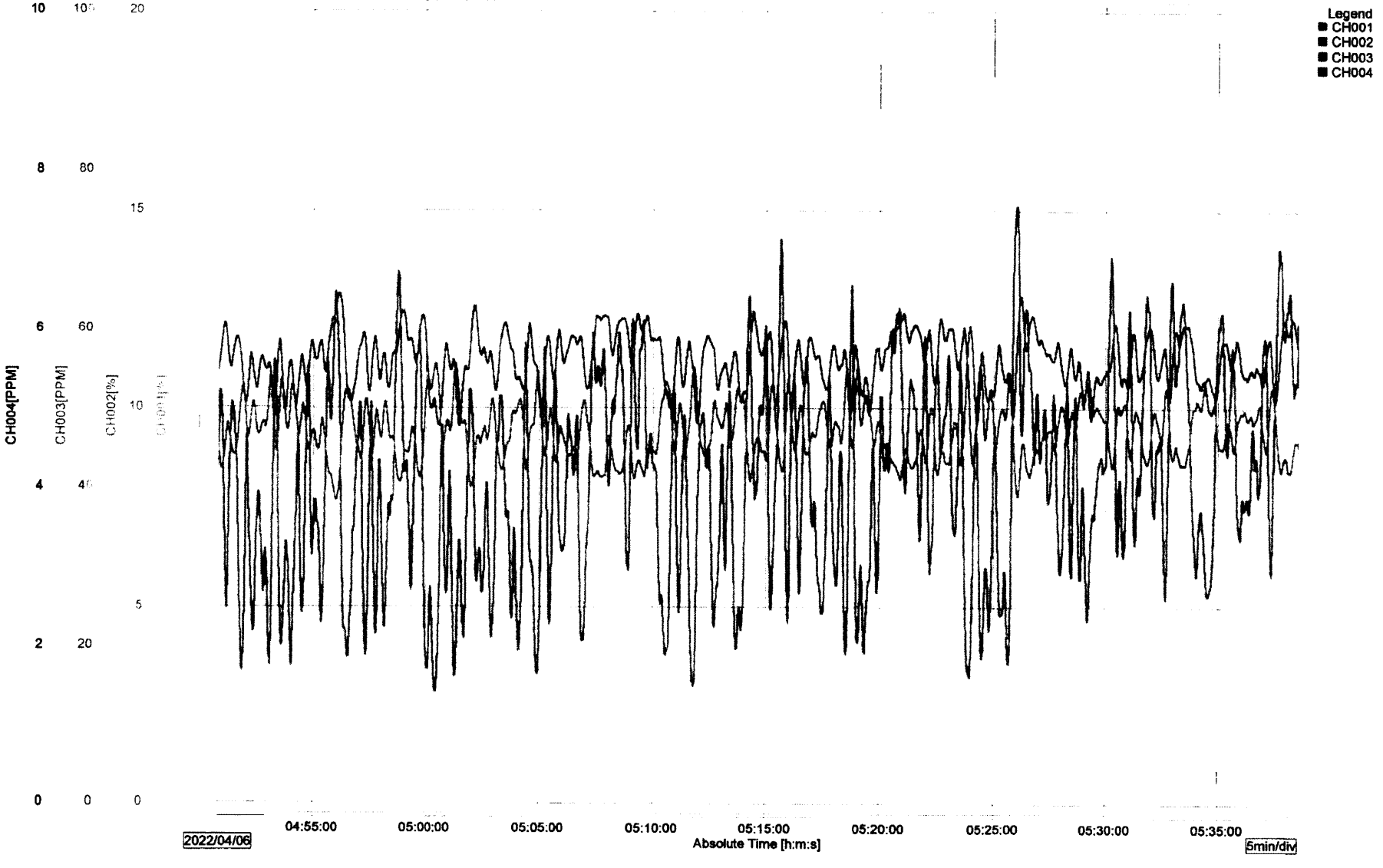
Signature1 : No Sig.
Signature2 : No Sig.
Signature3 : No Sig.

Print Groups : GROUP 1
Print Range 2022/04/06 04:03:08.000 - 2022/04/06 15:54:26.000



Signature1 : No Sig.
Signature2 : No Sig.
Signature3 : No Sig.

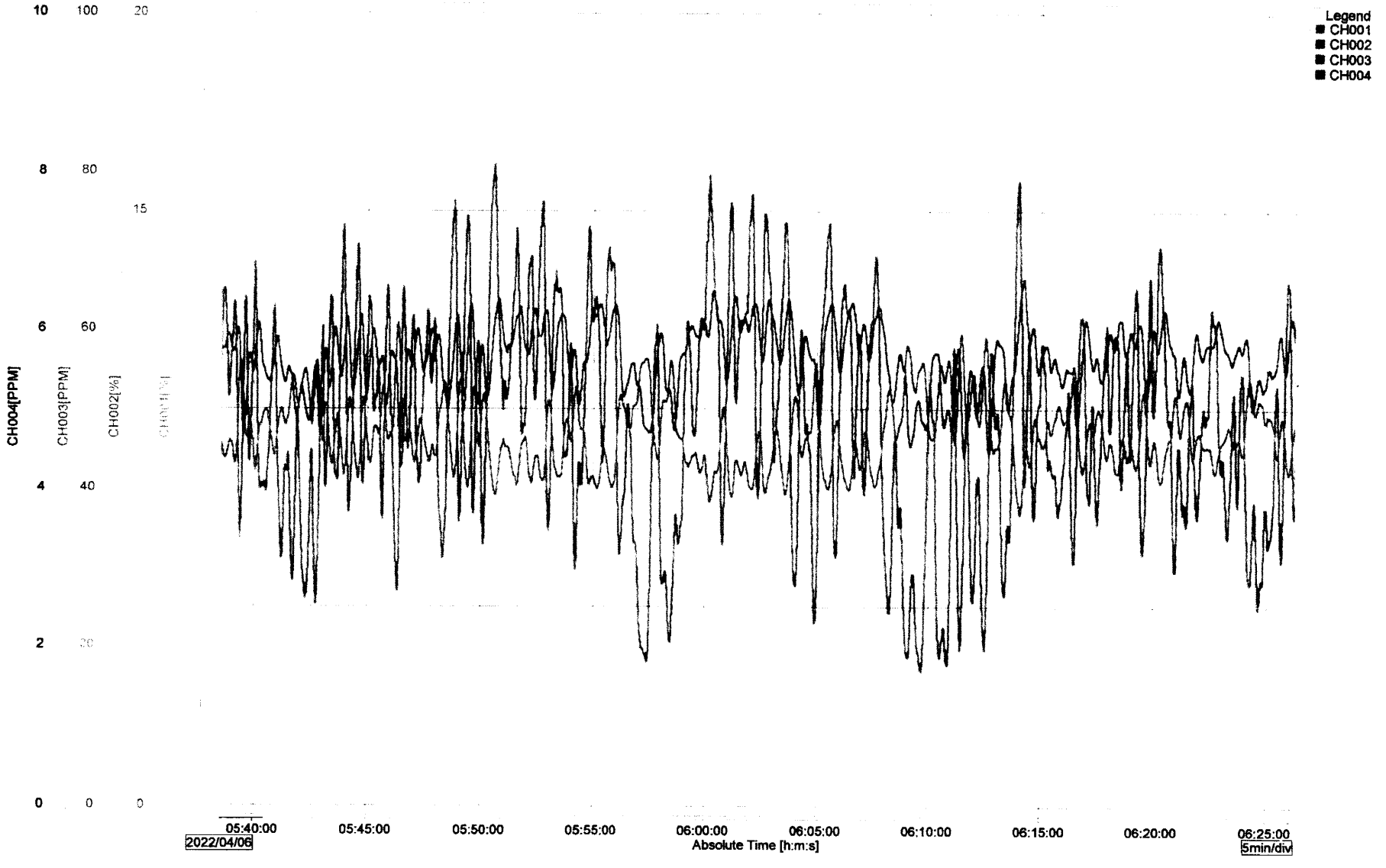
Print Groups : GROUP 1
Print Range : 2022/04/06 04:03:08.000 - 2022/04/06 15:54:26.000



W002AS-012607-RT-3503

Signature1 : No Sig.
Signature2 : No Sig.
Signature3 : No Sig.

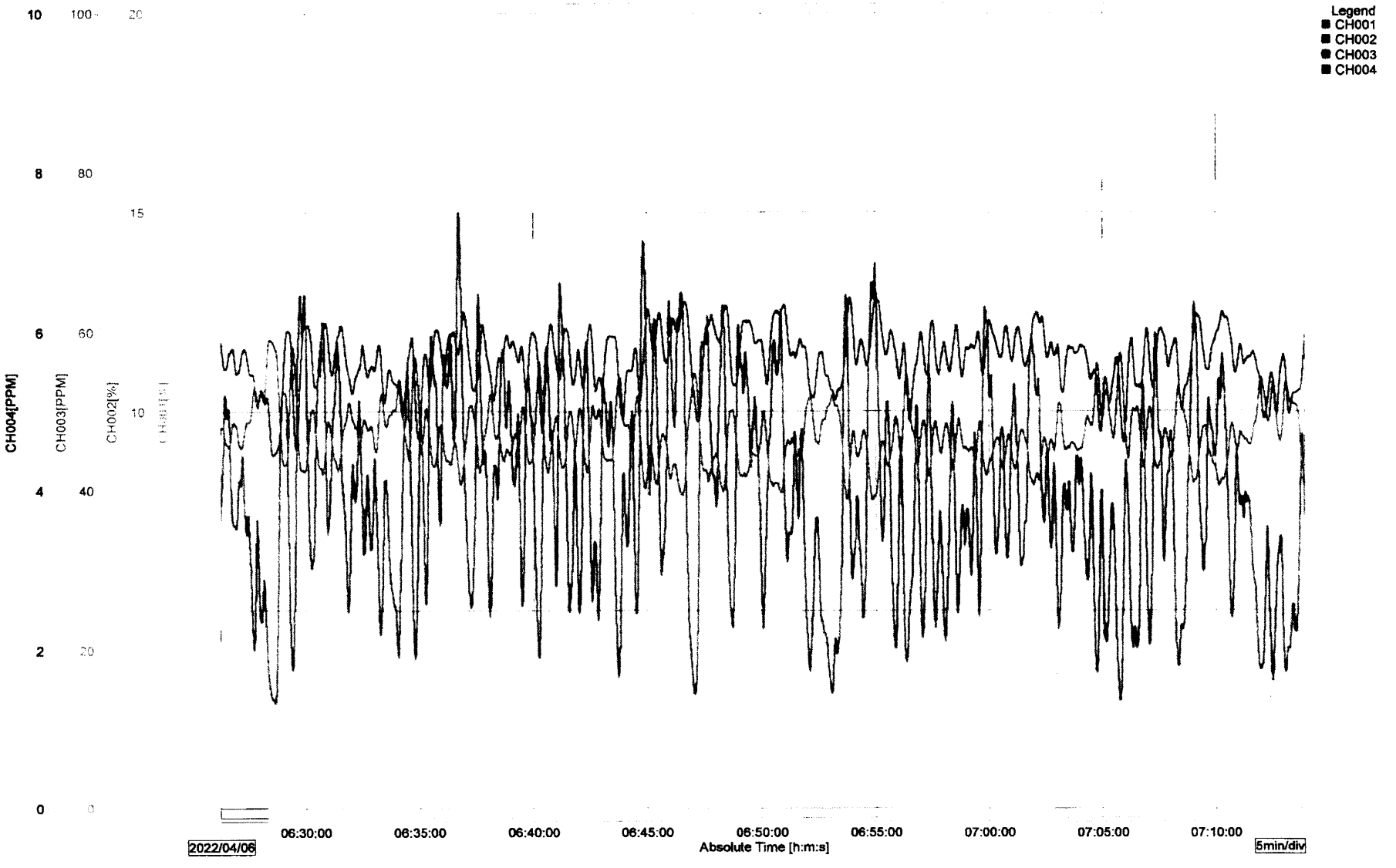
Print Groups : GROUP 1
Print Range : 2022/04/06 04:03:08.000 - 2022/04/06 15:54:26.000



W002AS-012607-RT-3503

Signature1 : No Sig.
Signature2 : No Sig.
Signature3 : No Sig.

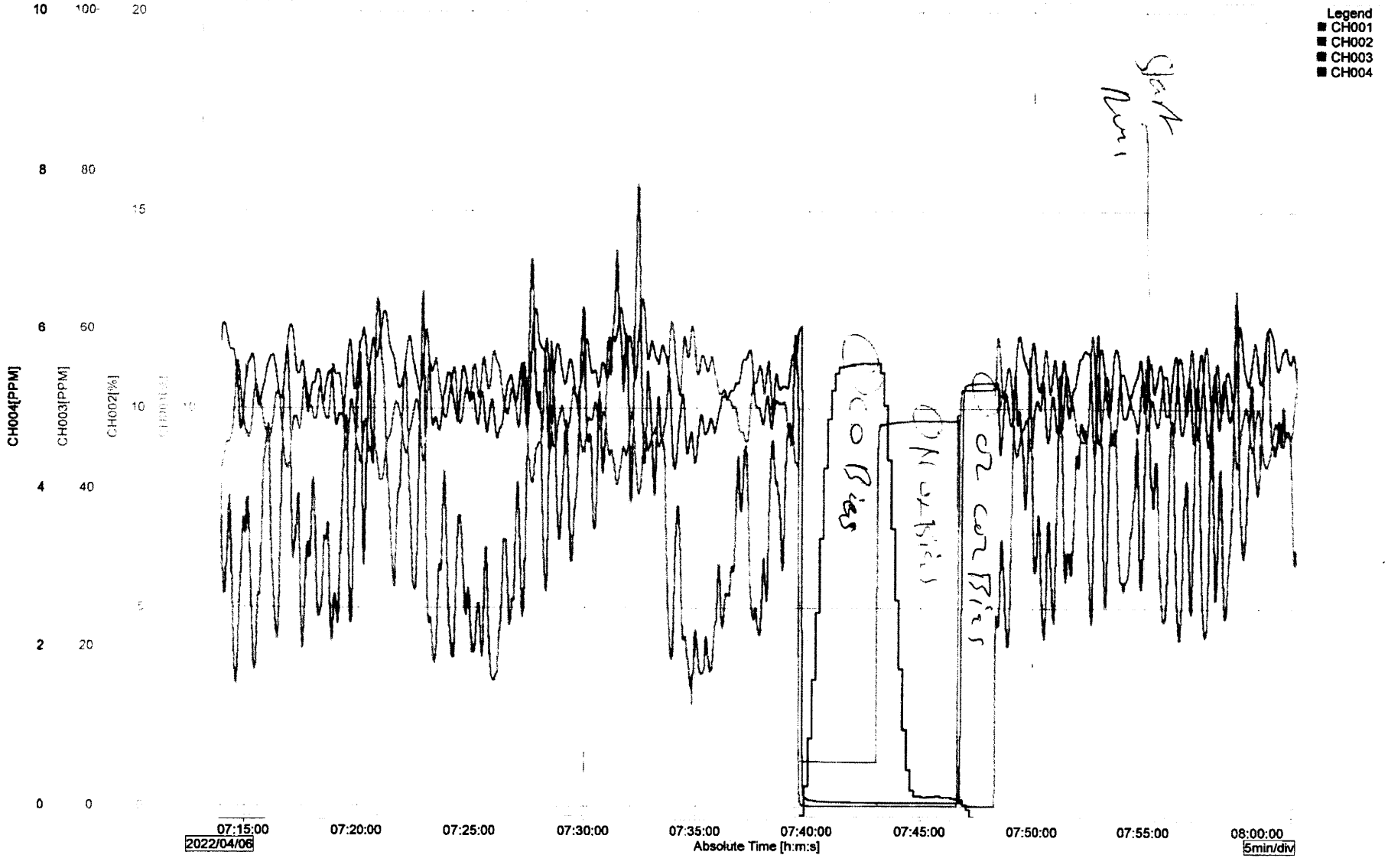
Print Groups : GROUP 1
Print Range : 2022/04/06 04:03:08.000 - 2022/04/06 15:54:26.000



W002AS-012607-RT-3503
69 of 635

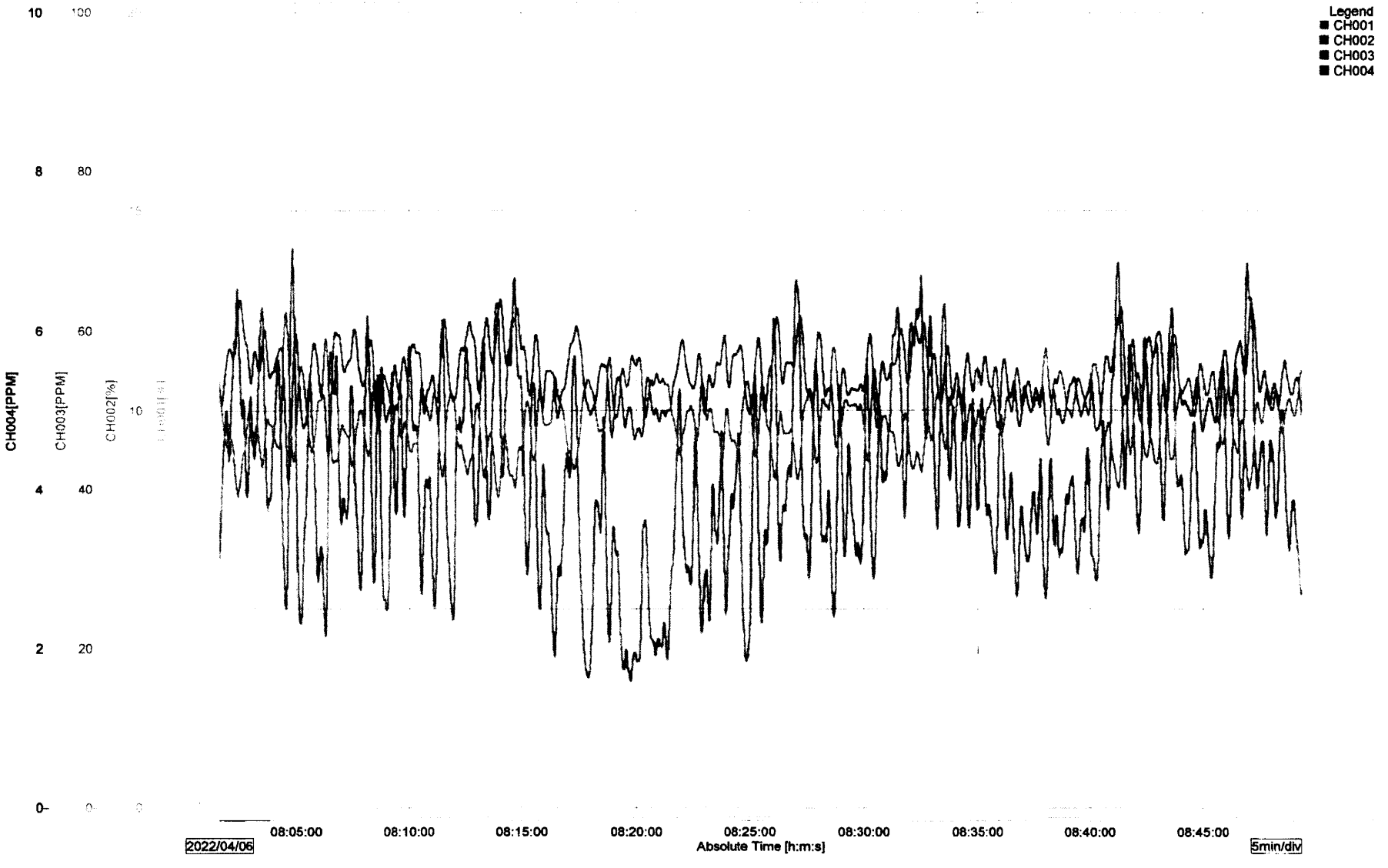
Signature1 : No Sig.
Signature2 : No Sig.
Signature3 : No Sig.

Print Groups : GROUP 1
Print Range : 2022/04/06 04:03:08.000 - 2022/04/06 15:54:26.000



Signature1 : No Sig.
Signature2 : No Sig.
Signature3 : No Sig.

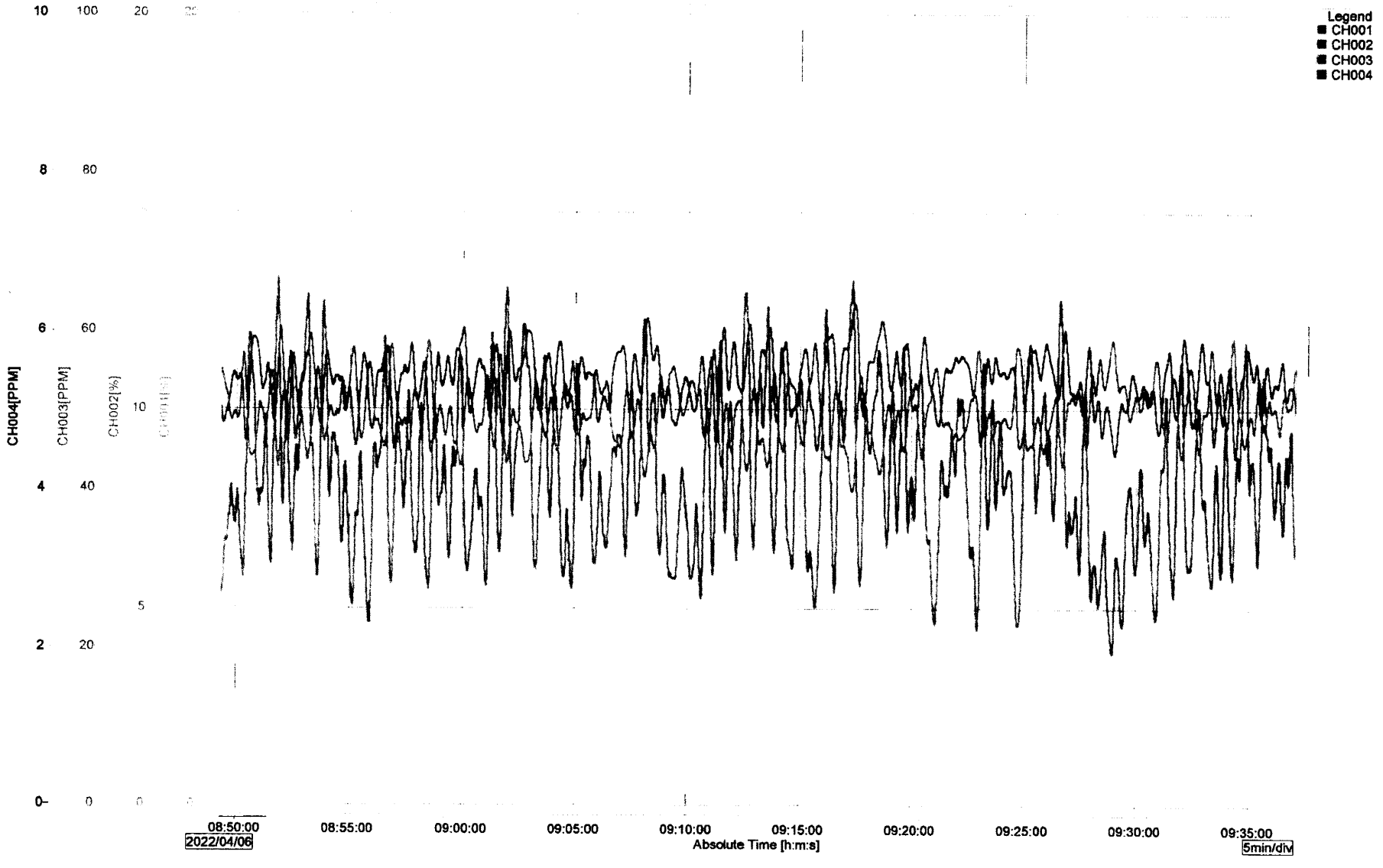
Print Groups GROUP 1
Print Range 2022/04/06 04:03:08.000 - 2022/04/06 15:54:26.000



W002AS-012607-RT-3503

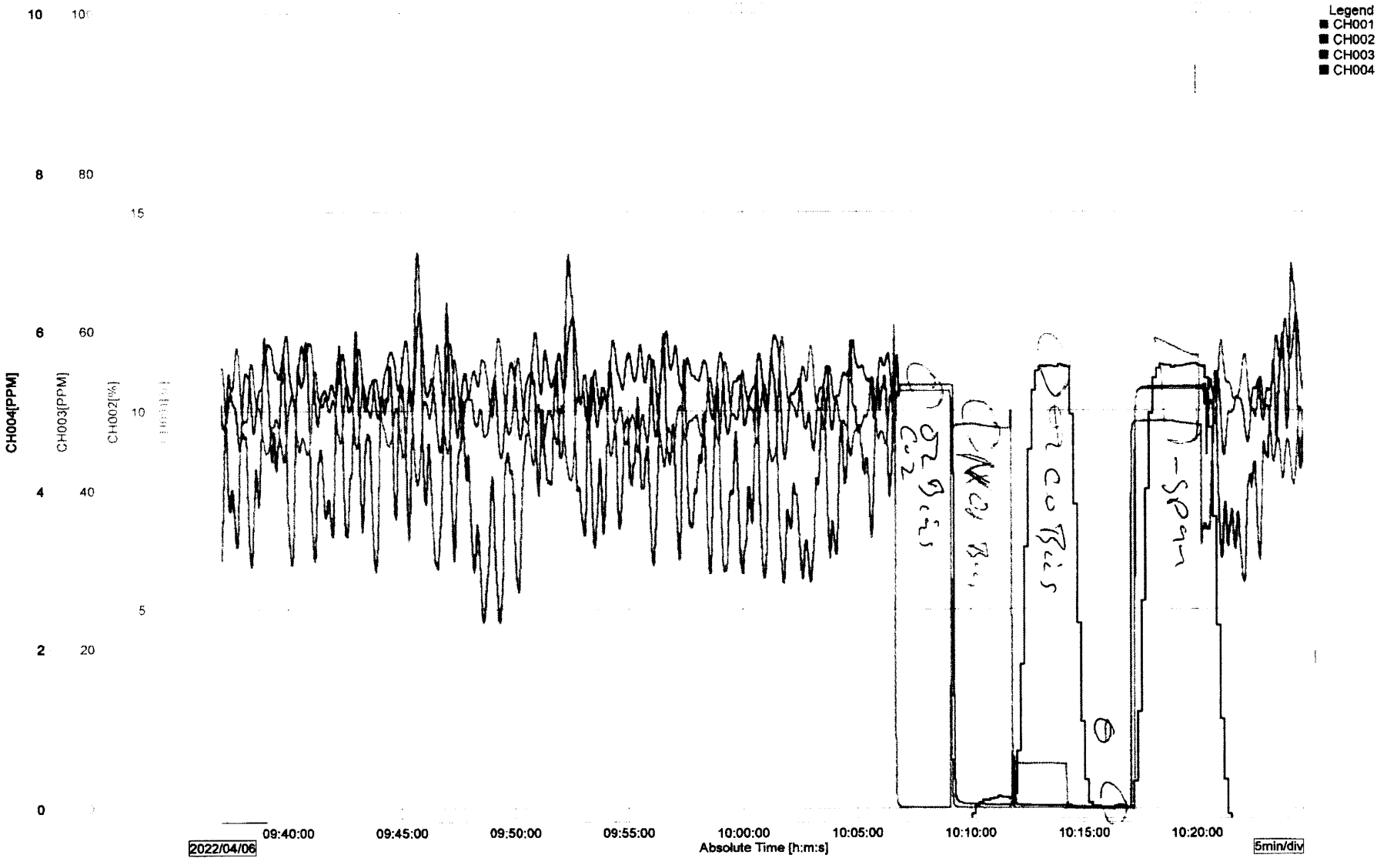
Signature1 : No Sig.
Signature2 : No Sig.
Signature3 : No Sig.

Print Groups : GROUP 1
Print Range : 2022/04/06 04:03:08.000 - 2022/04/06 15:54:26.000



Signature1 : No Sig.
Signature2 : No Sig.
Signature3 : No Sig.

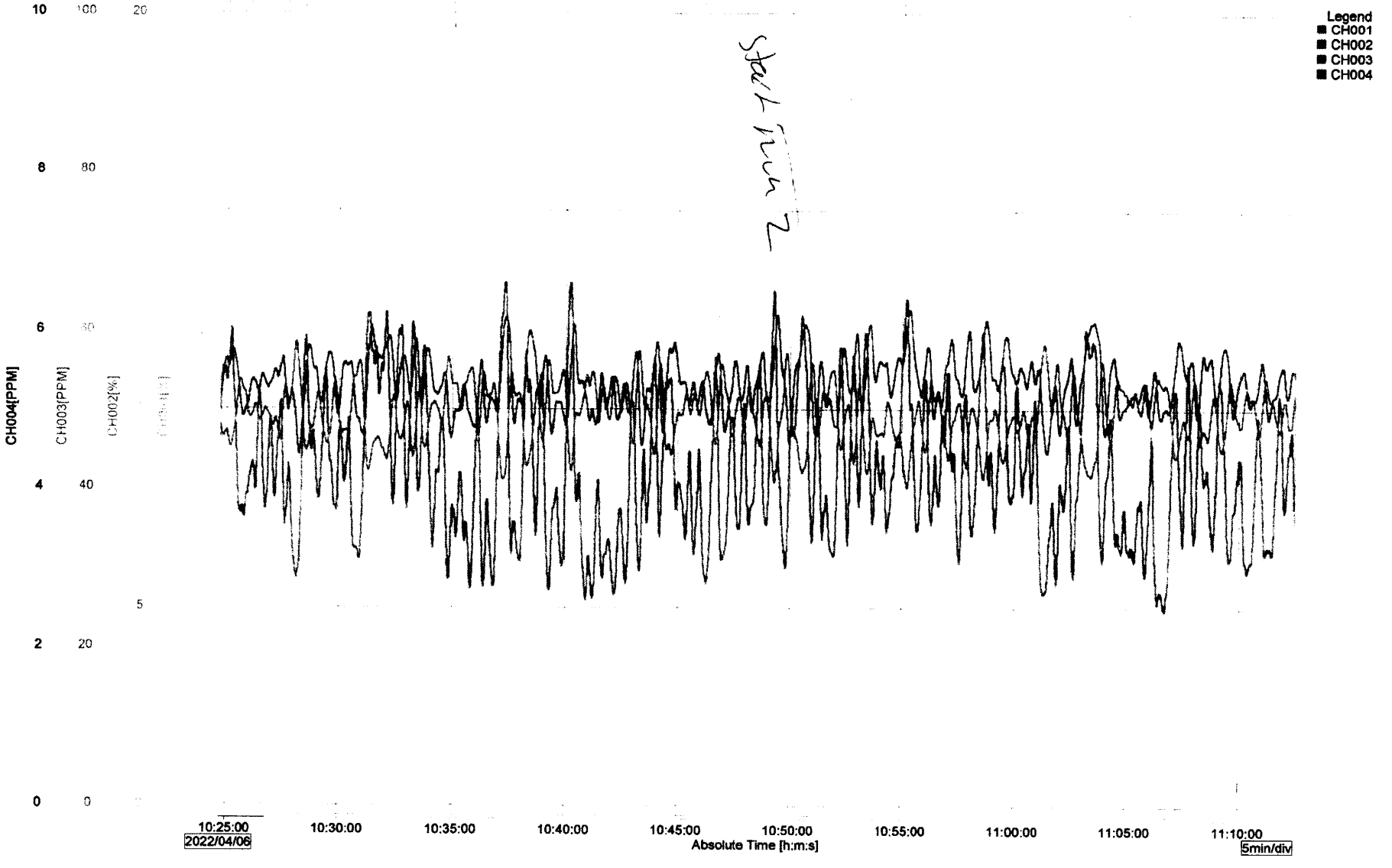
Print Groups : GROUP 1
Print Range : 2022/04/06 04:03:08.000 - 2022/04/06 15:54:26.000



W002AS-012607-RT-3503

Signature1 : No Sig.
Signature2 : No Sig.
Signature3 : No Sig.

Print Groups : GROUP 1
Print Range : 2022/04/06 04:03:08.000 - 2022/04/06 15:54:26.000

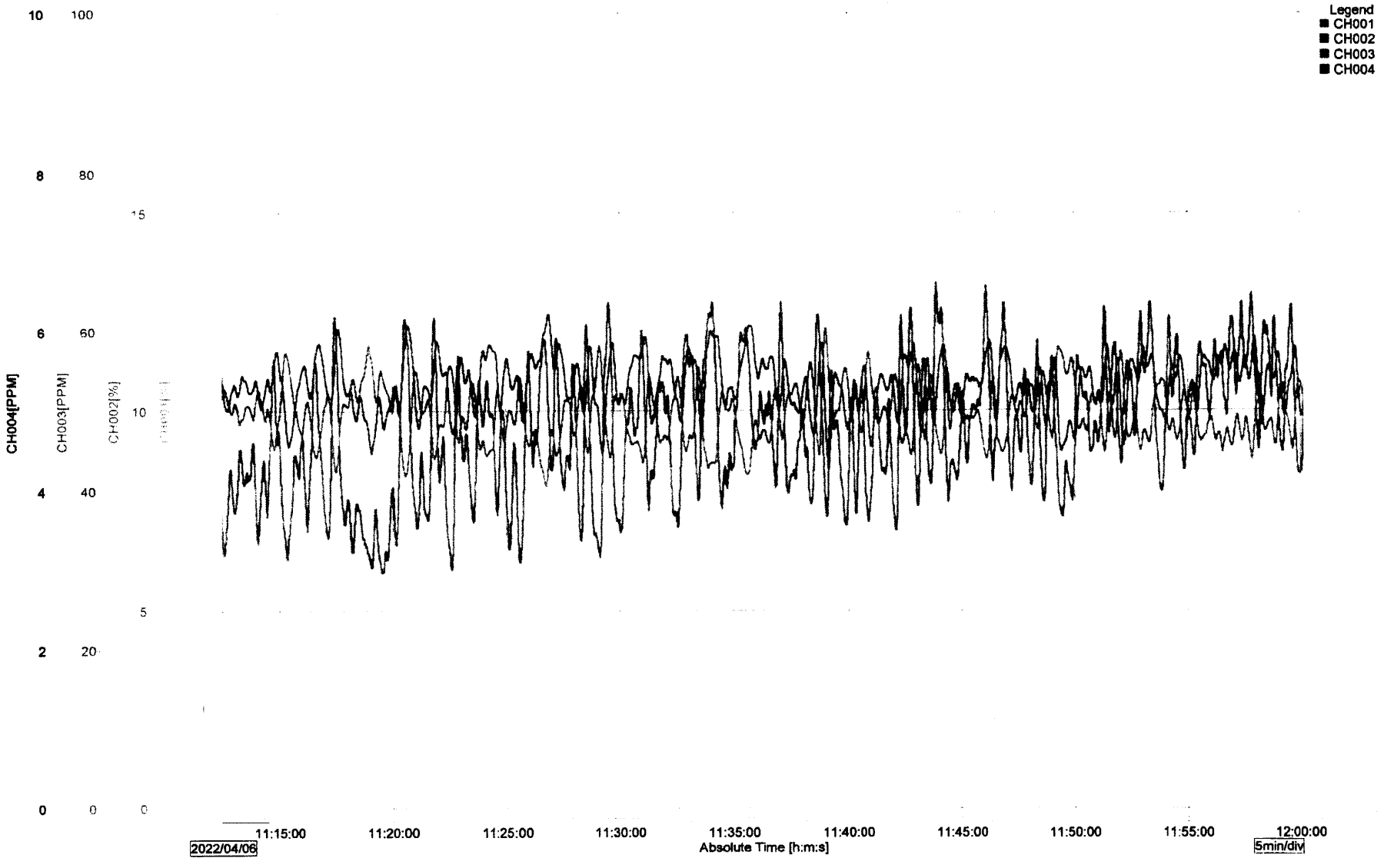


W002AS-012607-RT-3503

74 of 635

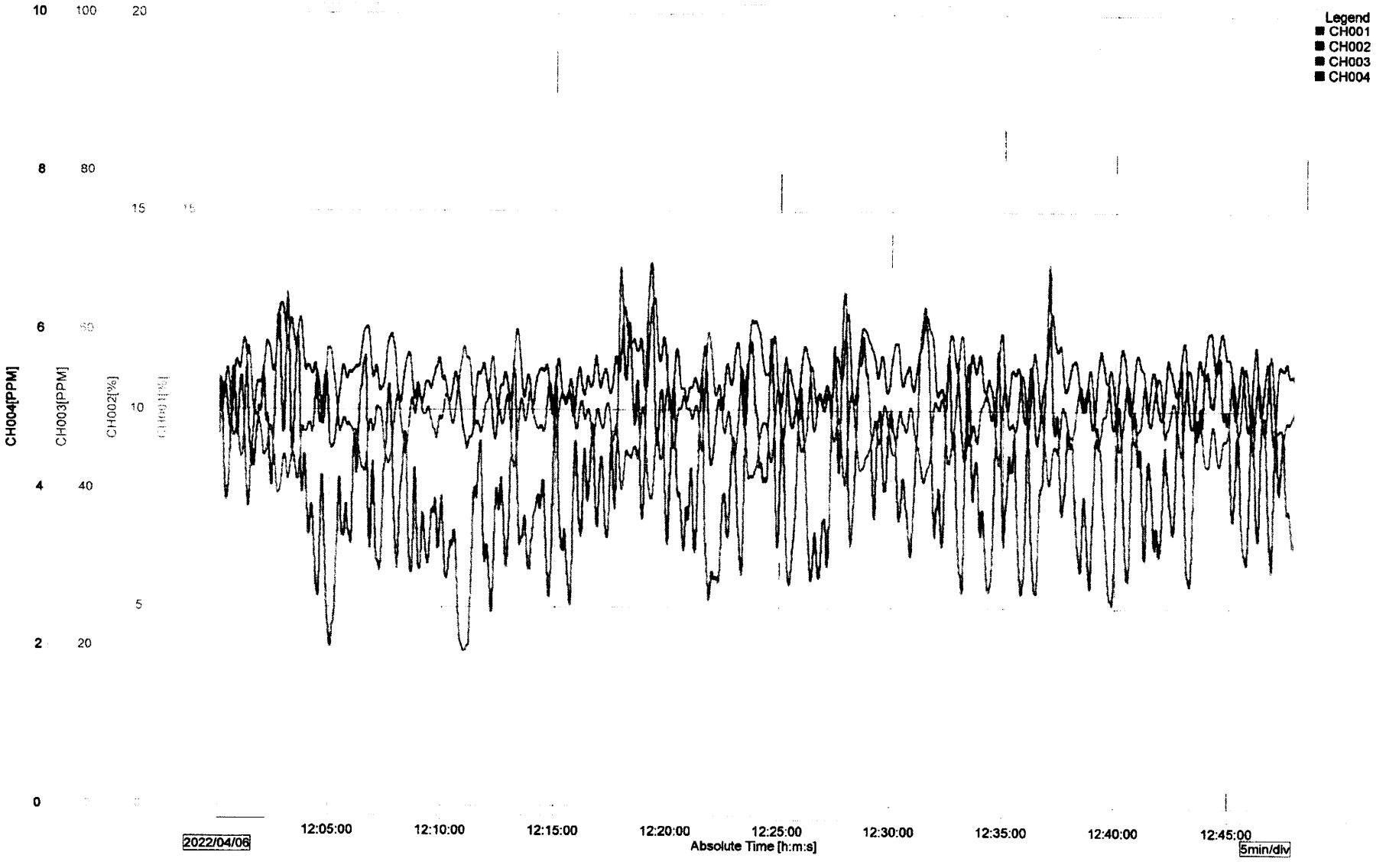
Signature1 . No Sig.
Signature2 . No Sig.
Signature3 : No Sig.

Print Groups GROUP 1
Print Range 2022/04/06 04:03:08.000 - 2022/04/06 15:54:26.000



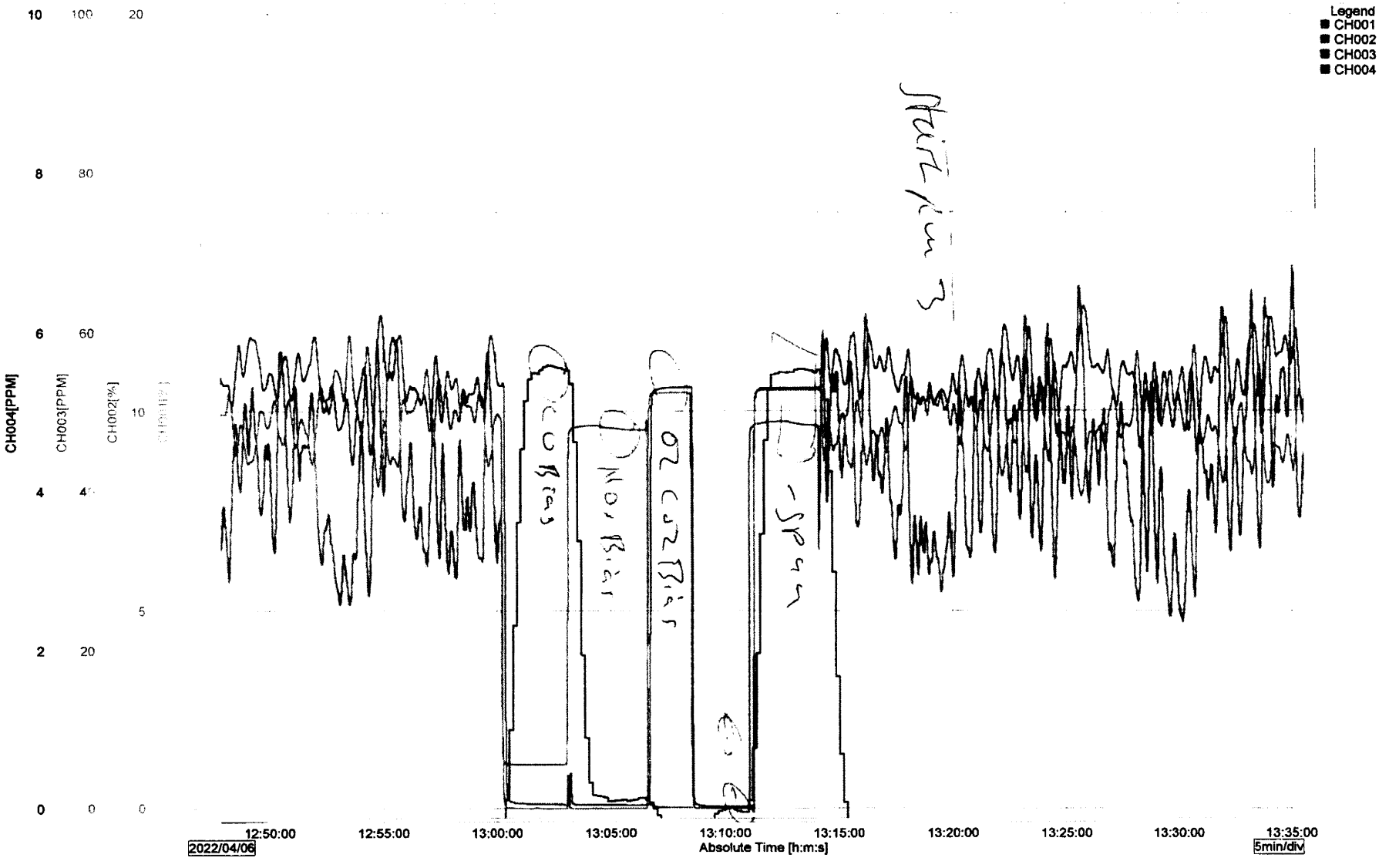
Signature1 : No Sig.
Signature2 : No Sig.
Signature3 : No Sig.

Print Groups : GROUP 1
Print Range : 2022/04/06 04:03:08.000 - 2022/04/06 15:54:26.000



Signature1 : No Sig.
Signature2 No Sig.
Signature3 . No Sig.

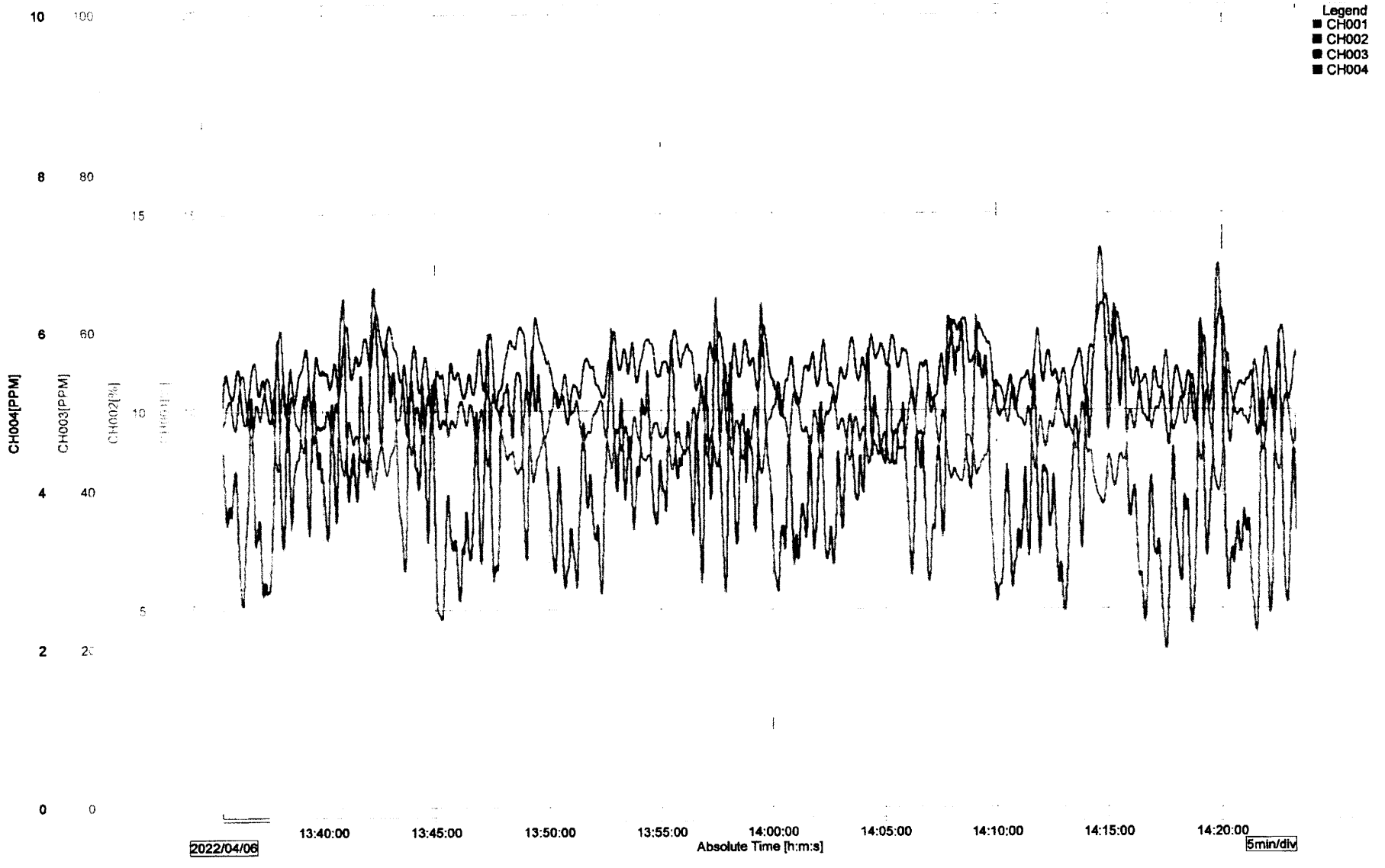
Print Groups : GROUP 1
Print Range : 2022/04/06 04:03:08.000 - 2022/04/06 15:54:26.000



W002AS-012607-RT-3503

Signature1 : No Sig.
Signature2 : No Sig.
Signature3 : No Sig.

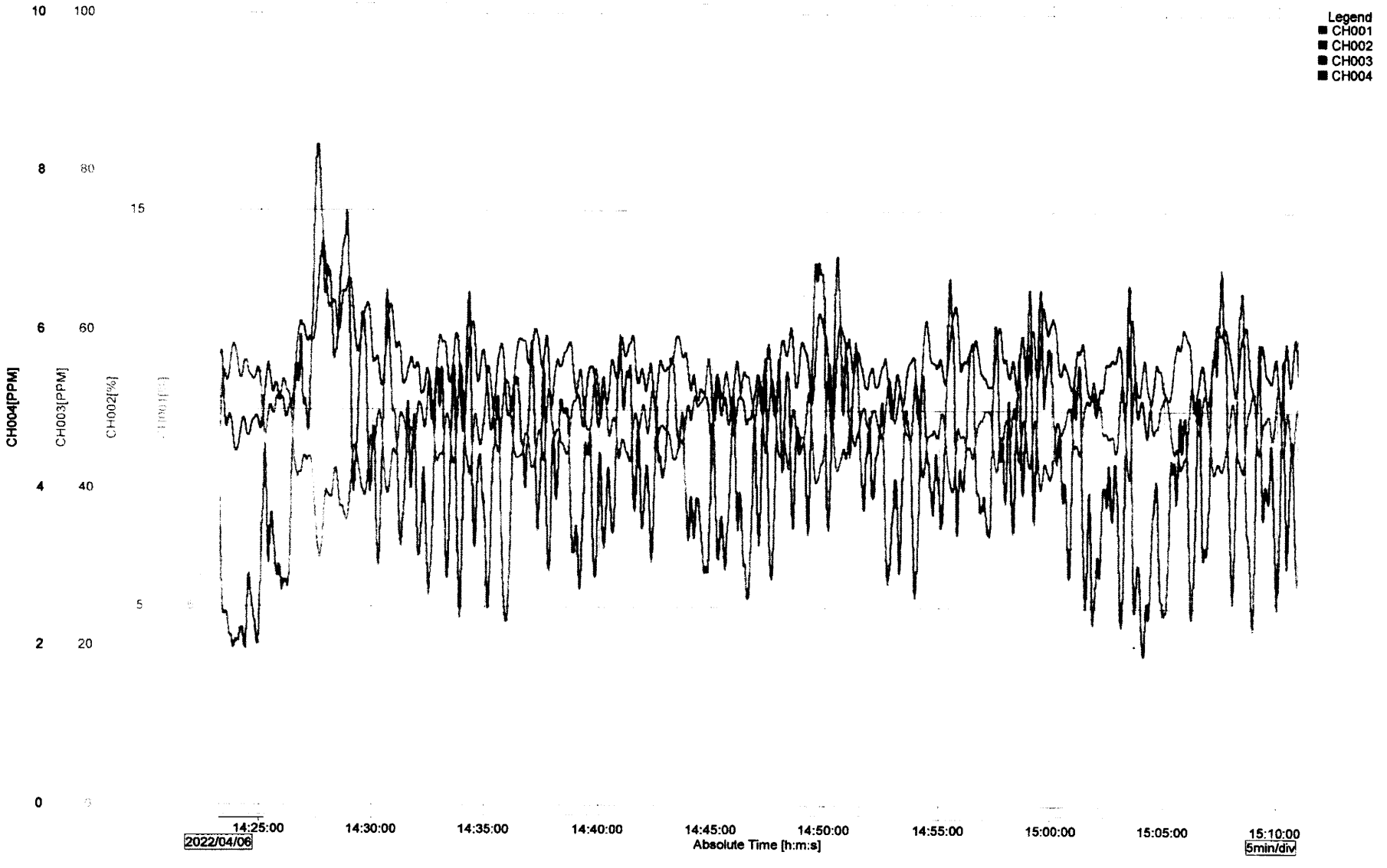
Print Groups GROUP 1
Print Range 2022/04/06 04:03:08.000 - 2022/04/06 15:54:26.000



W002AS-012607-RT-3503

Signature1 : No Sig.
Signature2 : No Sig.
Signature3 : No Sig.

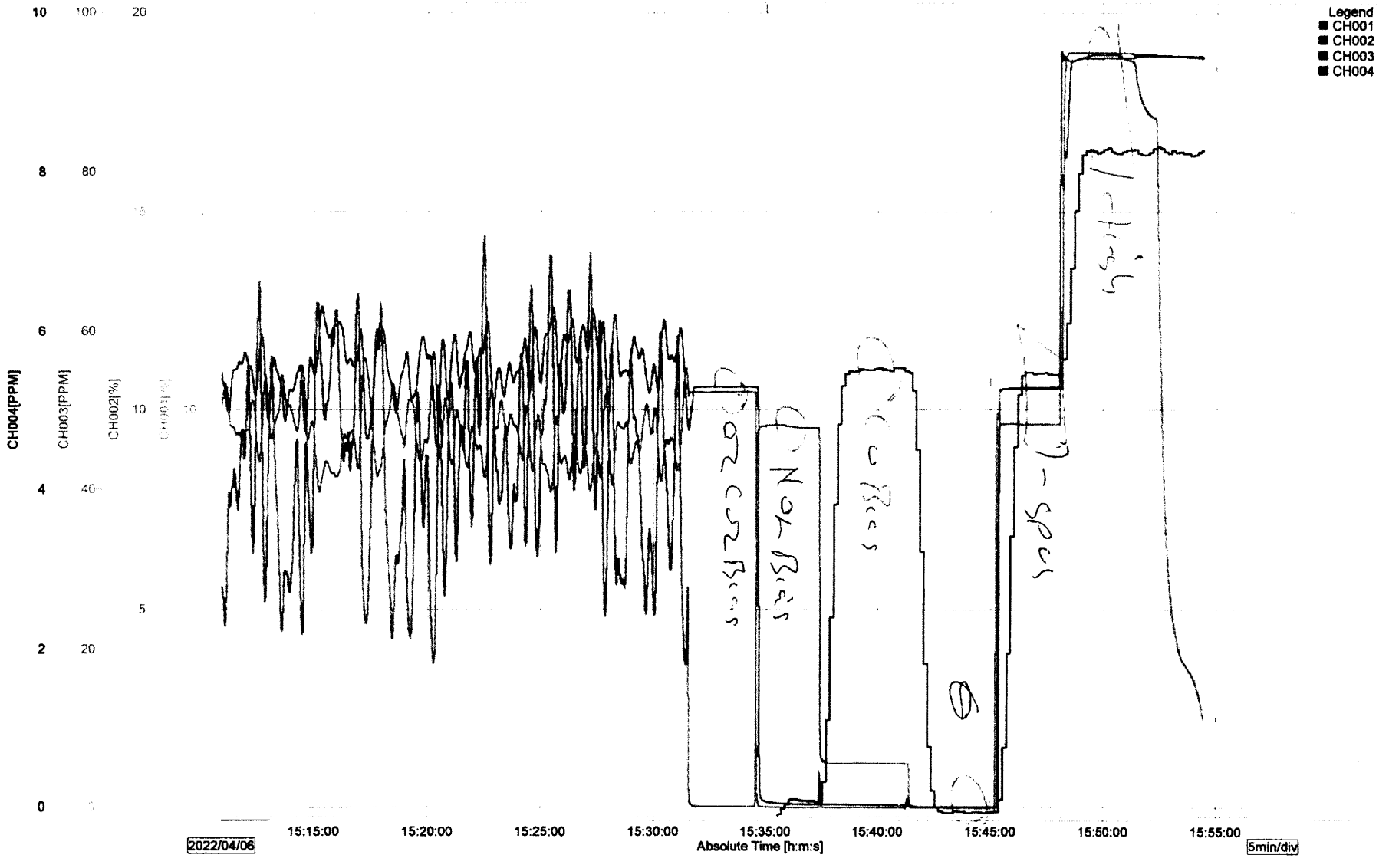
Print Groups : GROUP 1
Print Range : 2022/04/06 04:03:08.000 - 2022/04/06 15:54:26.000



W002AS-012607-RT-3503
79 of 635

Signature1 : No Sig.
Signature2 : No Sig.
Signature3 : No Sig.

Print Groups : GROUP 1
Print Range : 2022/04/06 04:03:08.000 - 2022/04/06 15:54:26.000



W002AS-012607-RT-3503
80 of 635

SPAN GAS RECORD

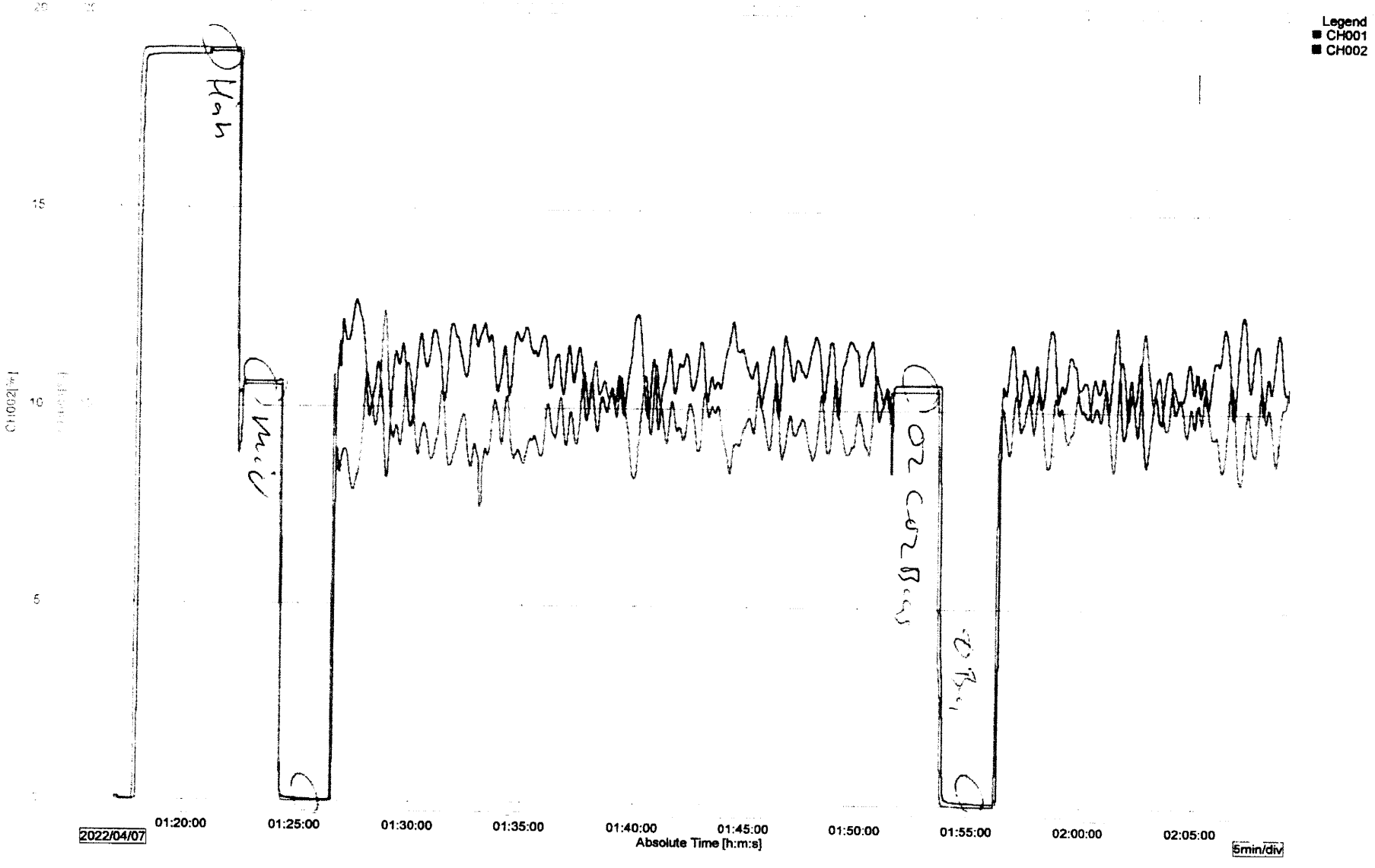
CLIENT/LOCATION: Desert View Power
Unit 1

DATE: 4/7/2022
BY: RD

	MID SPAN CYLINDER		HIGH SPAN CYLINDER	
	CYLINDER NO.	CONCENTRATION	CYLINDER NO.	CONCENTRATION
ZERO	DT0040604	0.00		
O_2	CC700690	10.53	CC106486	19.02
CO_2	CC700690	10.58	CC106486	18.94

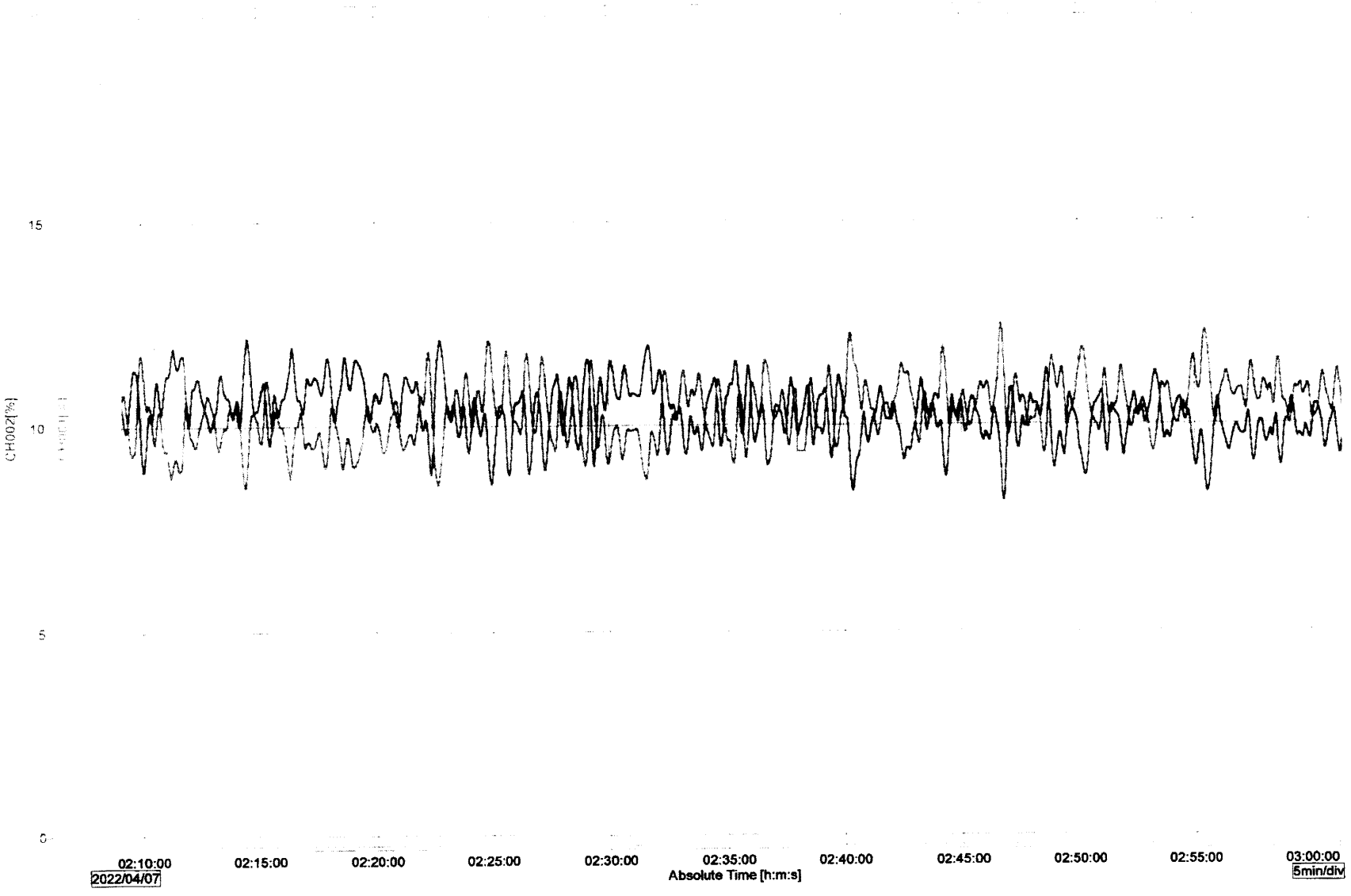
Signature1 : No Sig.
Signature2 : No Sig.
Signature3 : No Sig.

Print Groups GROUP 1
Print Range . 2022/04/07 01:16:56.000 - 2022/04/07 07:56:56.000



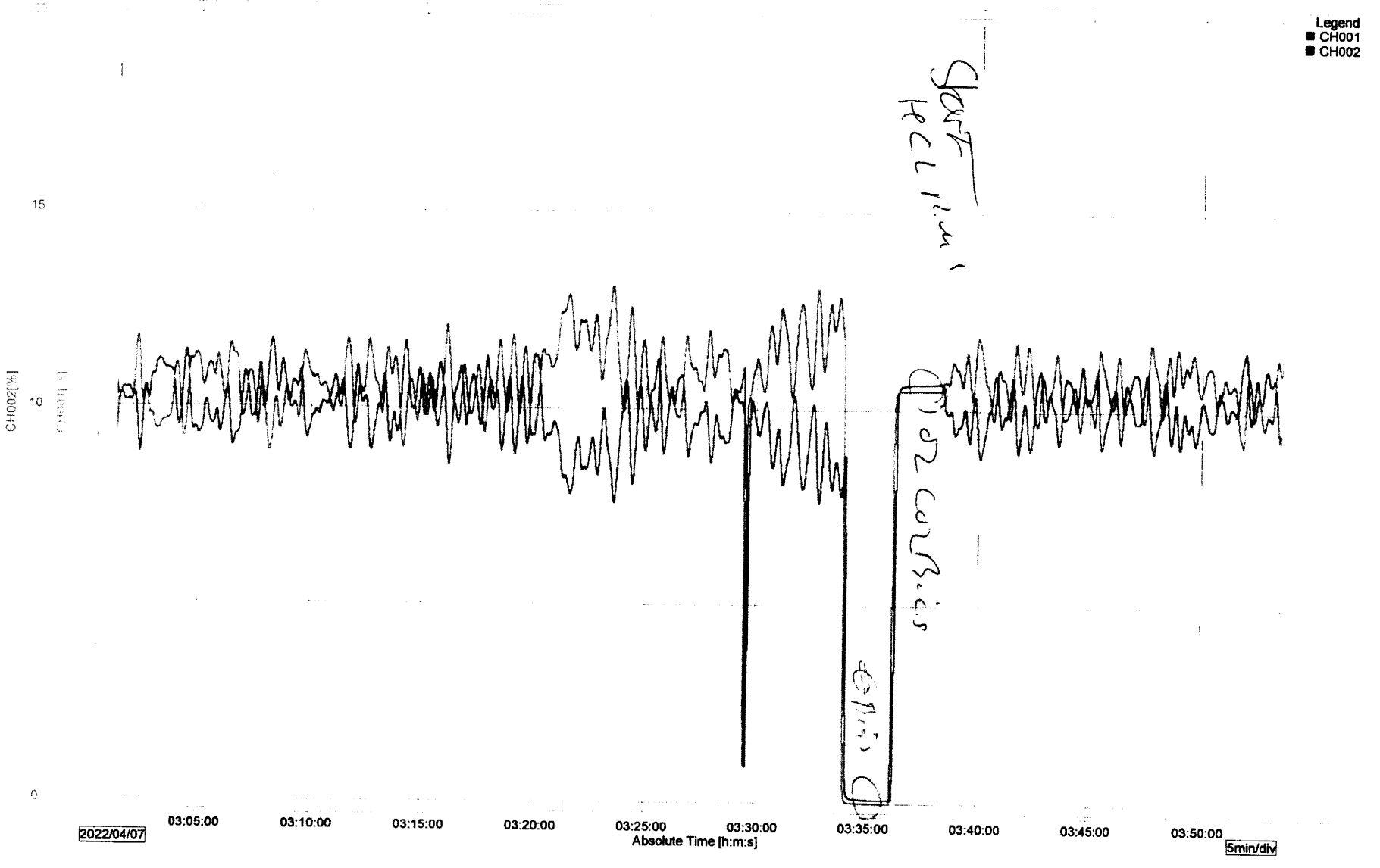
Signature1 . No Sig.
Signature2 . No Sig.
Signature3 . No Sig.

Print Groups GROUP 1
Print Range . 2022/04/07 01:16:56.000 - 2022/04/07 07:56:56.000



Signature1 : No Sig.
Signature2 : No Sig.
Signature3 : No Sig.

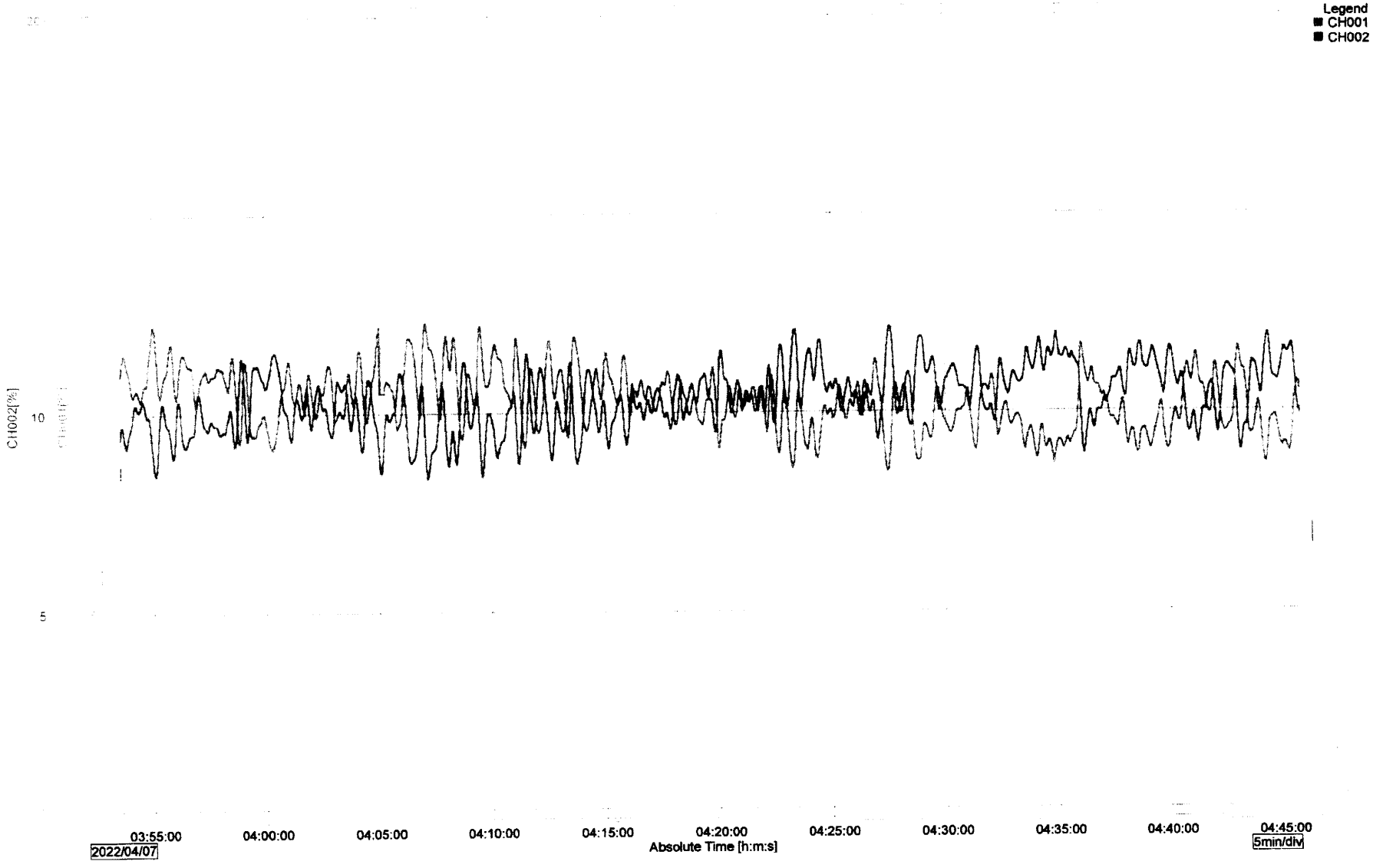
Print Groups : GROUP 1
Print Range : 2022/04/07 01:16:56.000 - 2022/04/07 07:56:56.000



W002AS-012607-RT-3503

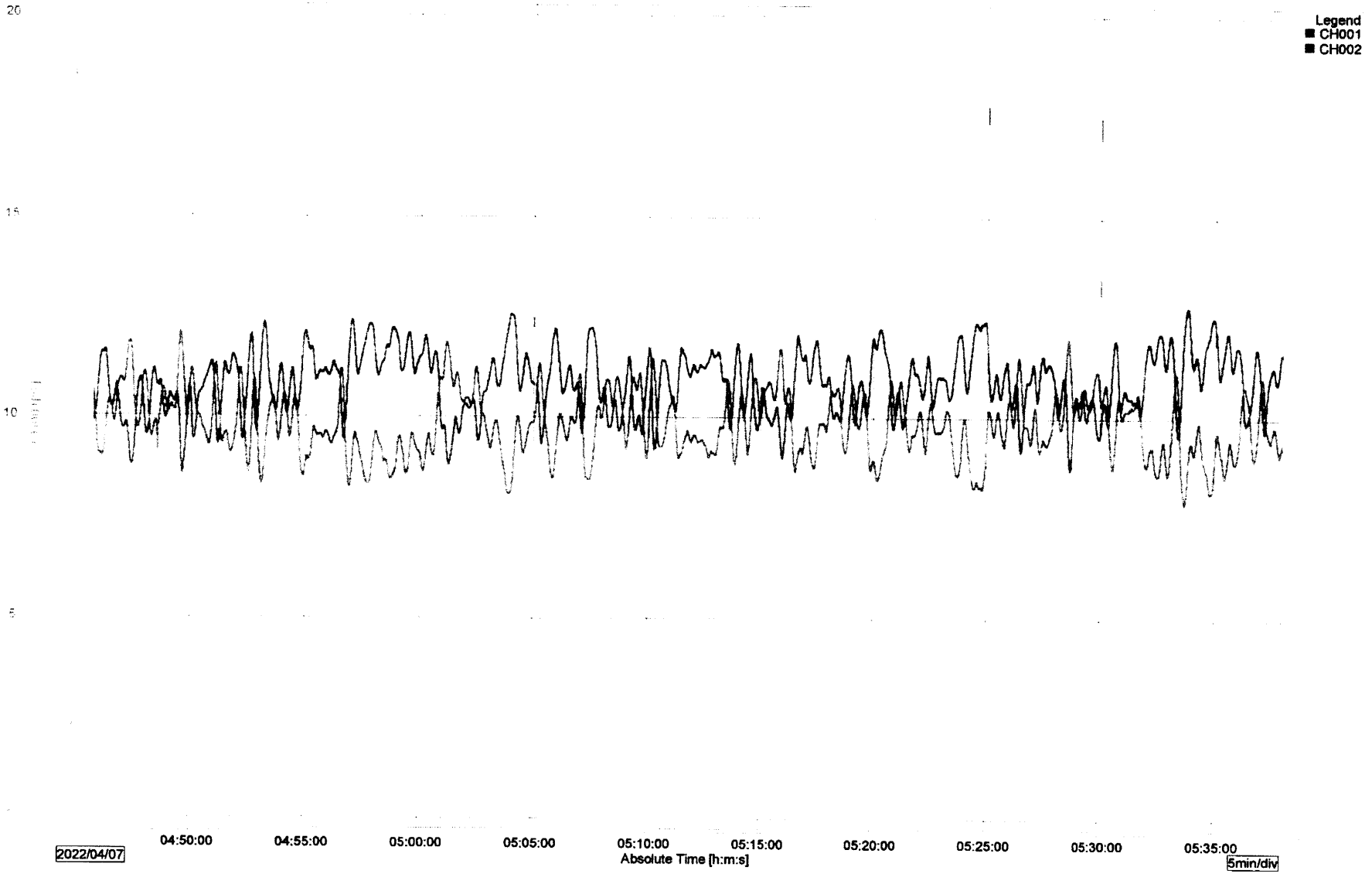
Signature1 : No Sig.
Signature2 : No Sig.
Signature3 : No Sig.

Print Groups : GROUP 1
Print Range : 2022/04/07 01:16:56.000 - 2022/04/07 07:56:56.000



Signature1 : No Sig.
Signature2 : No Sig.
Signature3 : No Sig.

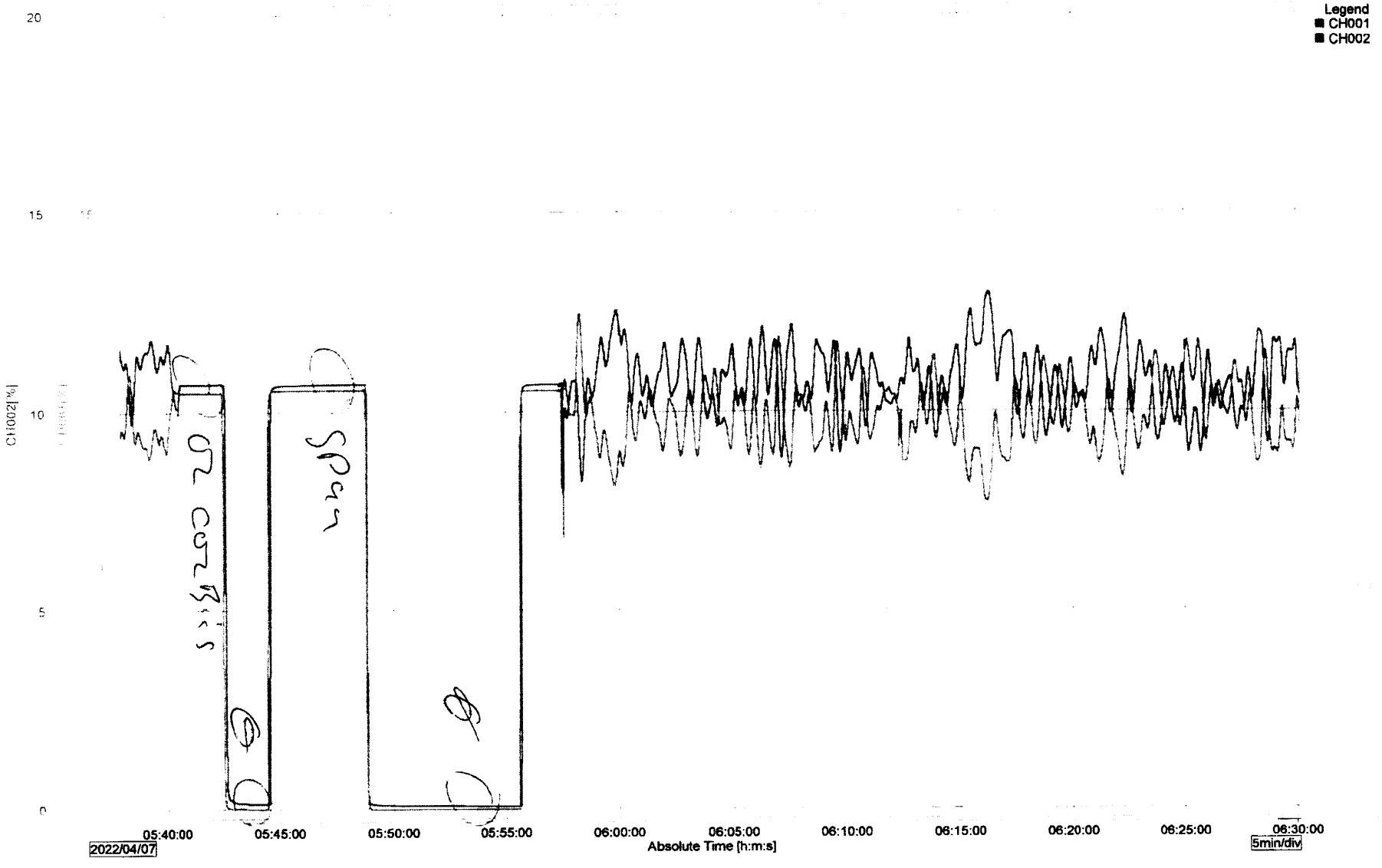
Print Groups GROUP 1
Print Range : 2022/04/07 01:16:56.000 - 2022/04/07 07:56:56.000



W002AS-012607-RT-3503

Signature1 : No Sig.
Signature2 : No Sig.
Signature3 : No Sig.

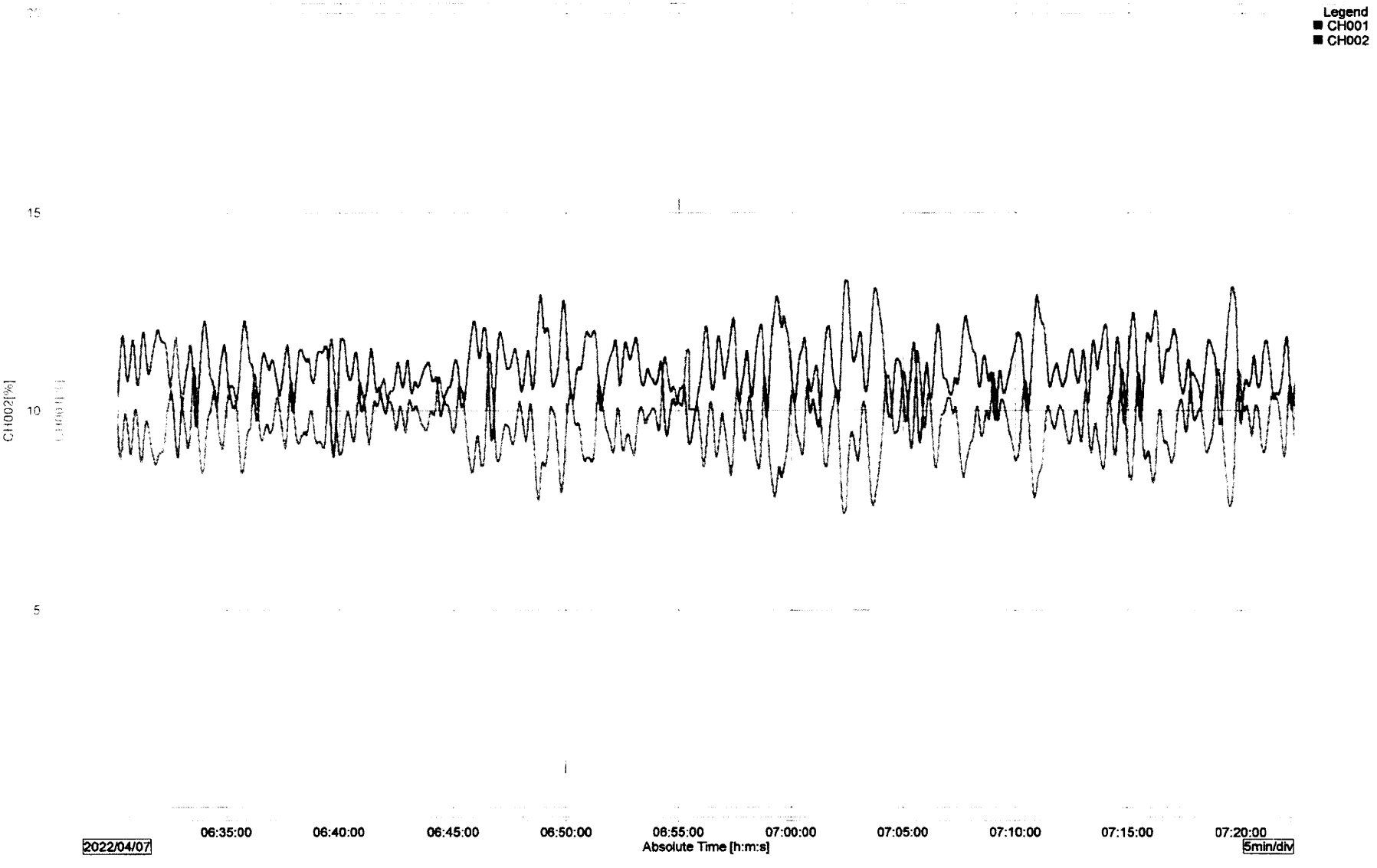
Print Groups : GROUP 1
Print Range : 2022/04/07 01:16:56.000 - 2022/04/07 07:56:56.000



W002AS-012607-RT-3503

Signature1 : No Sig.
Signature2 : No Sig.
Signature3 : No Sig.

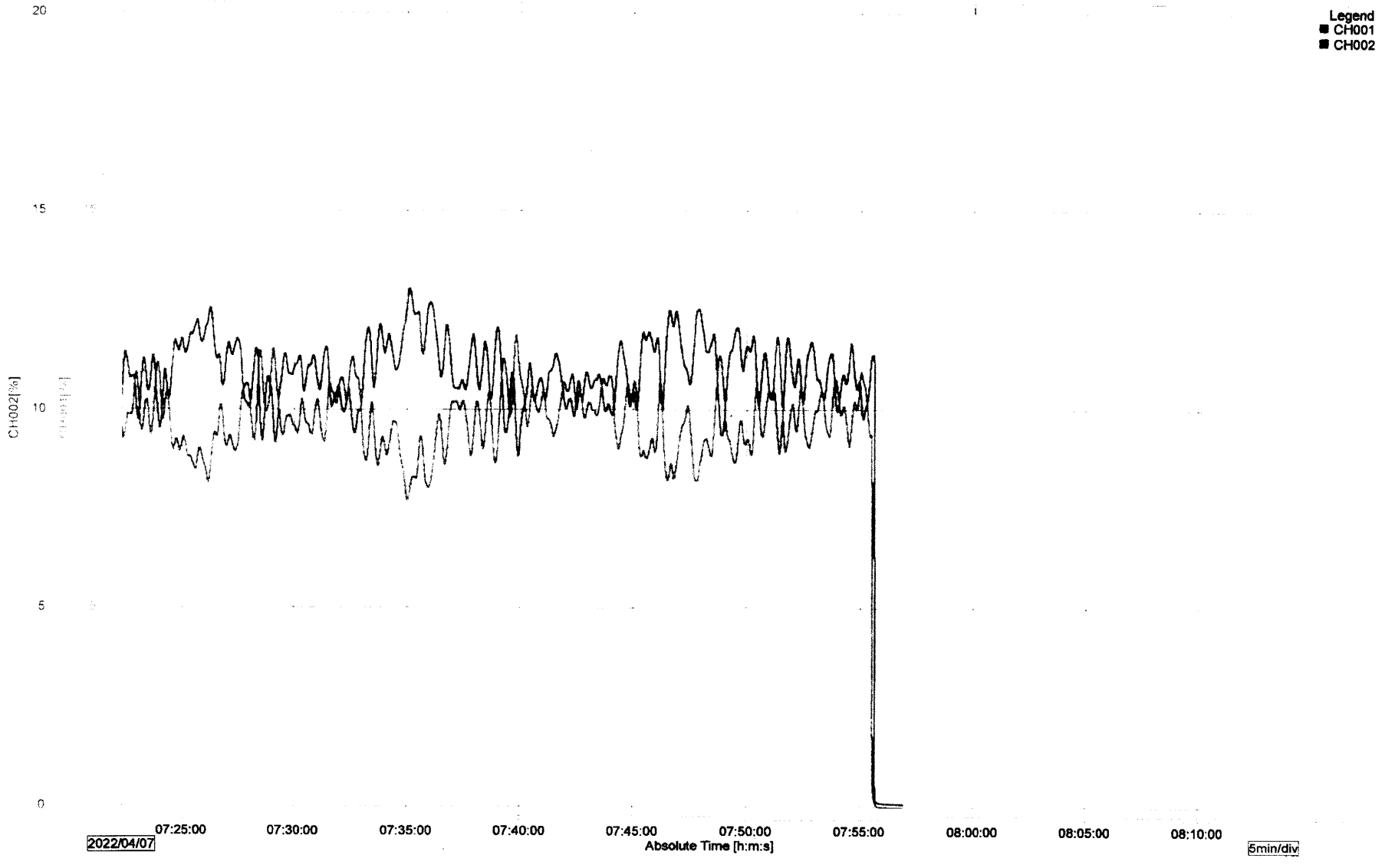
Print Groups : GROUP 1
Print Range : 2022/04/07 01:16:56.000 - 2022/04/07 07:56:56.000



W002AS-012607-RT-3503

Signature1 . No Sig.
Signature2 . No Sig.
Signature3 : No Sig.

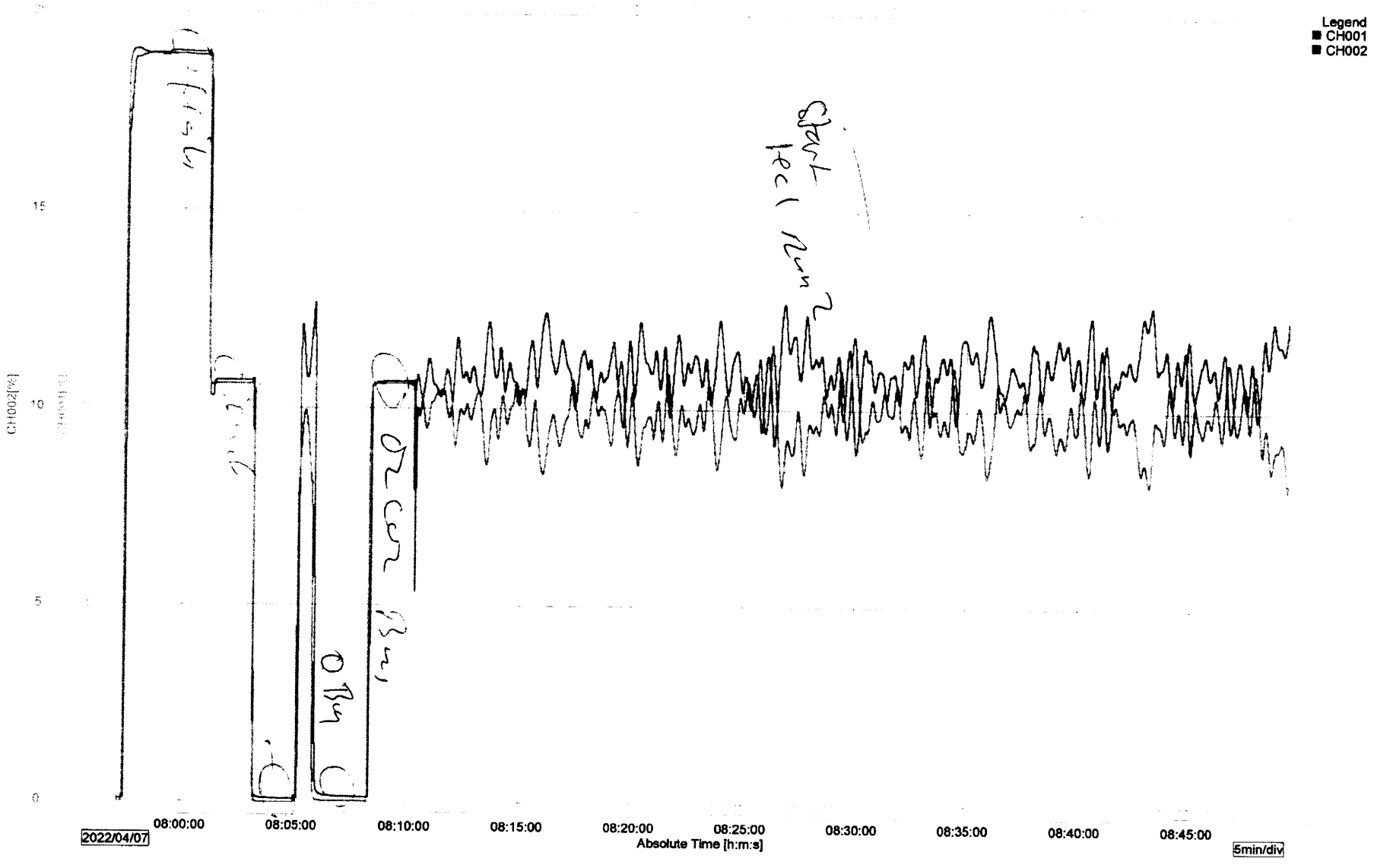
Print Groups . GROUP 1
Print Range . 2022/04/07 01:16:56.000 - 2022/04/07 07:56:56.000



W002AS-012607-RT-3503
89 of 635

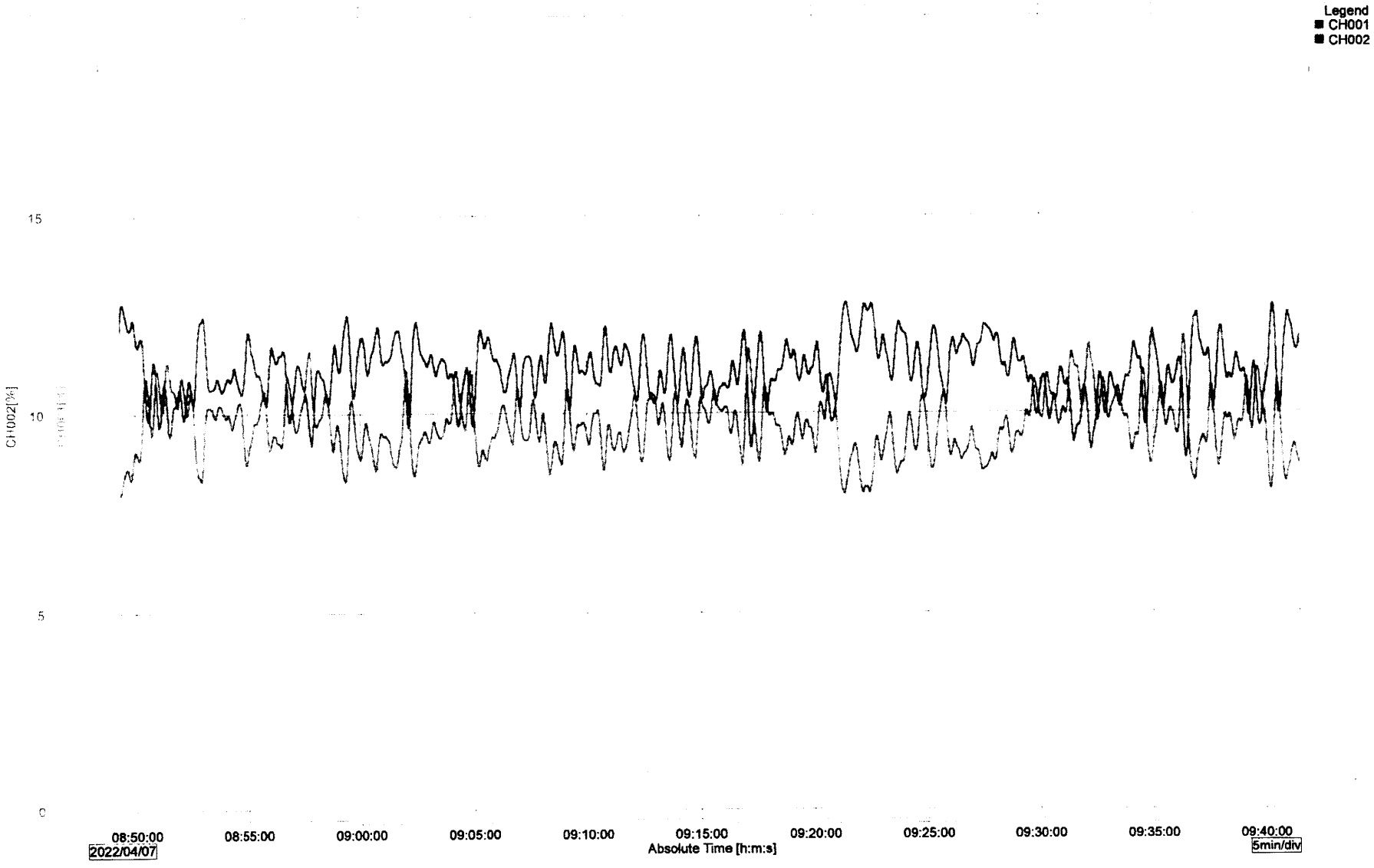
Signature1 : No Sig.
Signature2 : No Sig.
Signature3 : No Sig.

Print Groups : GROUP 1
Print Range : 2022/04/07 07:57:08.000 - 2022/04/07 13:18:40.000



Signature1 : No Sig.
Signature2 : No Sig.
Signature3 : No Sig.

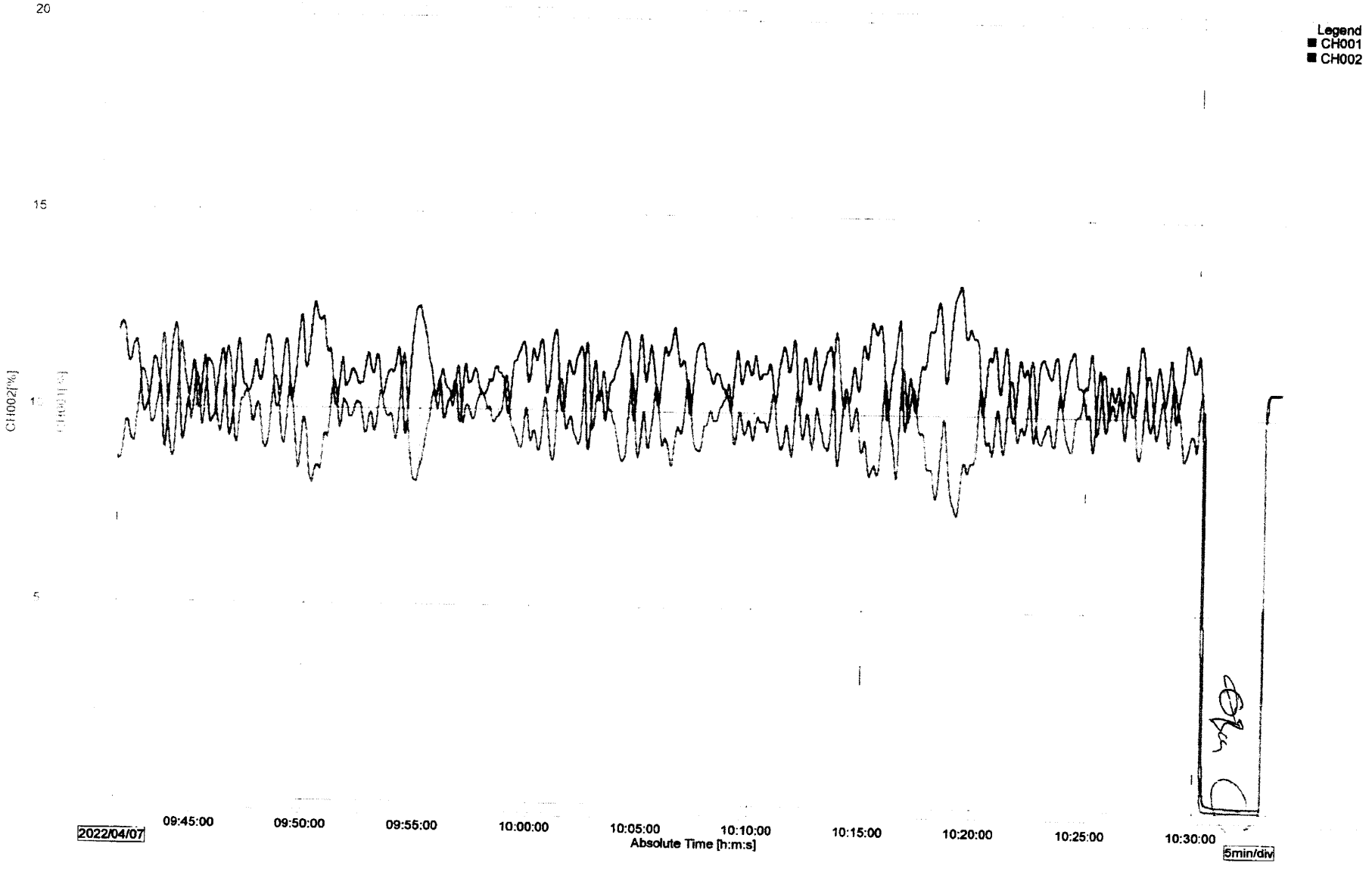
Print Groups : GROUP 1
Print Range : 2022/04/07 07:57:08.000 - 2022/04/07 13:18:40.000



W002AS-012607-RT-3503
91 of 635

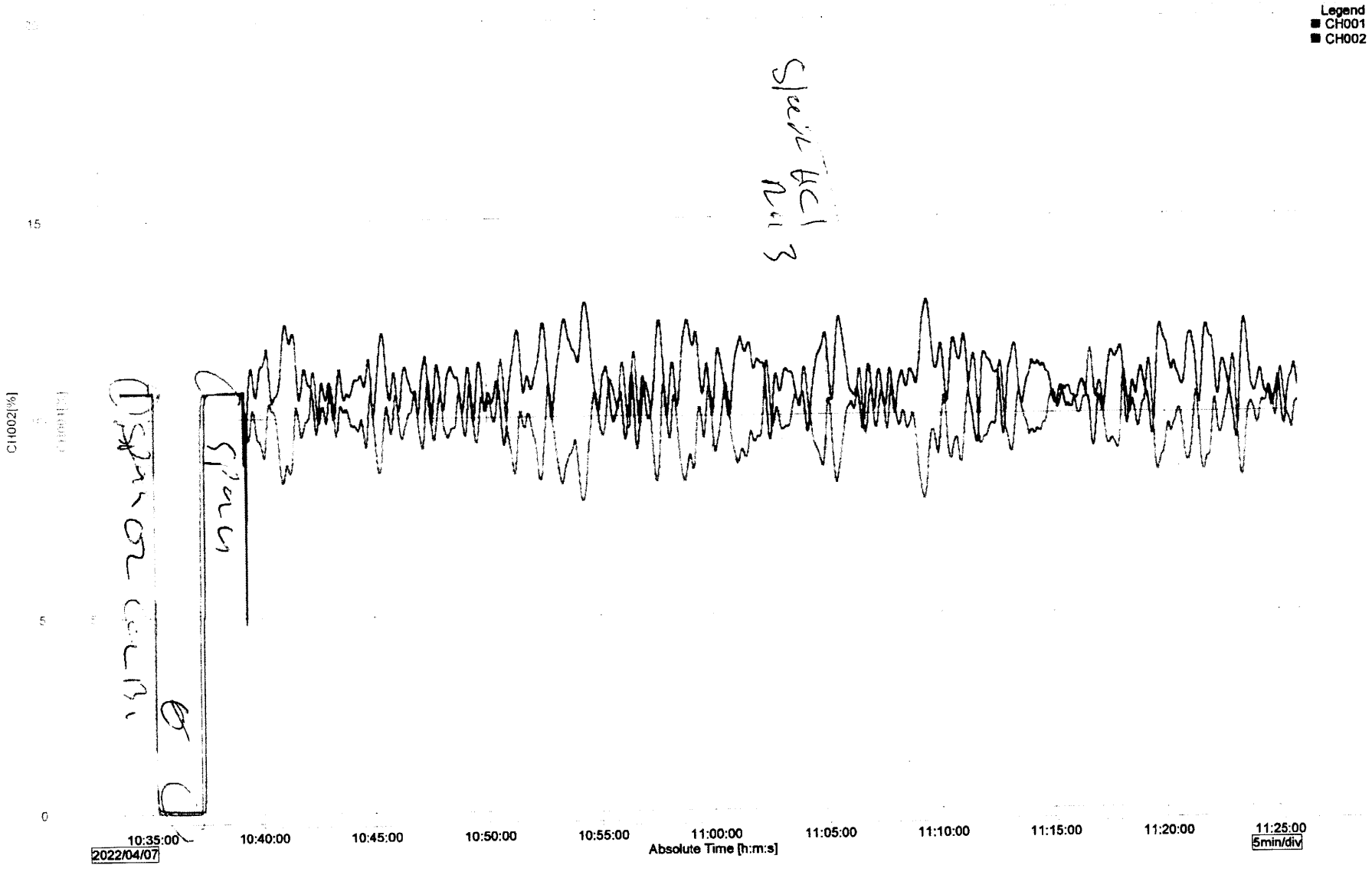
Signature1 : No Sig.
Signature2 : No Sig.
Signature3 : No Sig.

Print Groups : GROUP 1
Print Range : 2022/04/07 07:57:08.000 - 2022/04/07 13:18:40.000



Signature1 : No Sig.
Signature2 : No Sig.
Signature3 : No Sig.

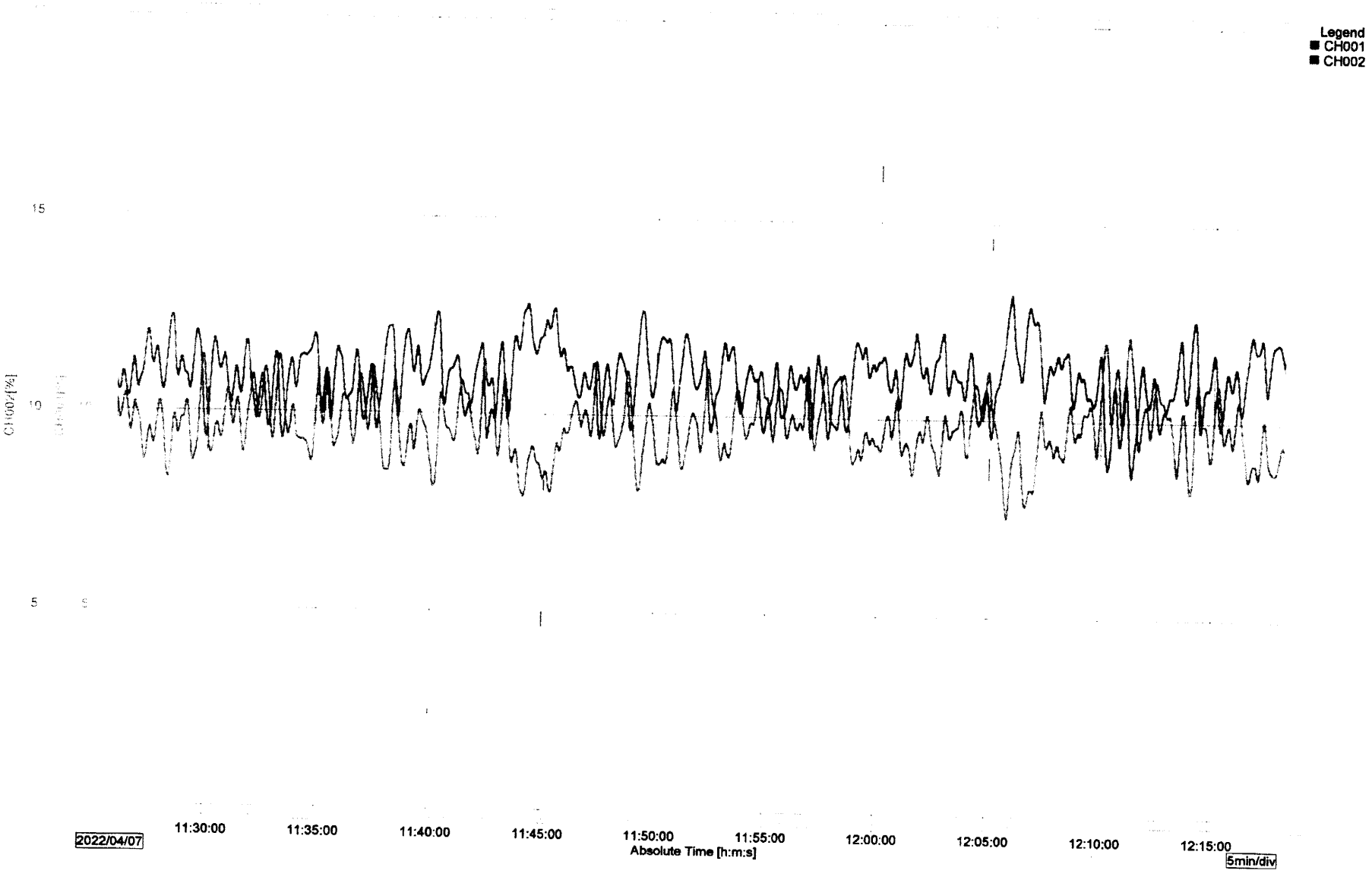
Print Groups : GROUP 1
Print Range : 2022/04/07 07:57:08.000 - 2022/04/07 13:18:40.000



W002AS-012607-RT-3503

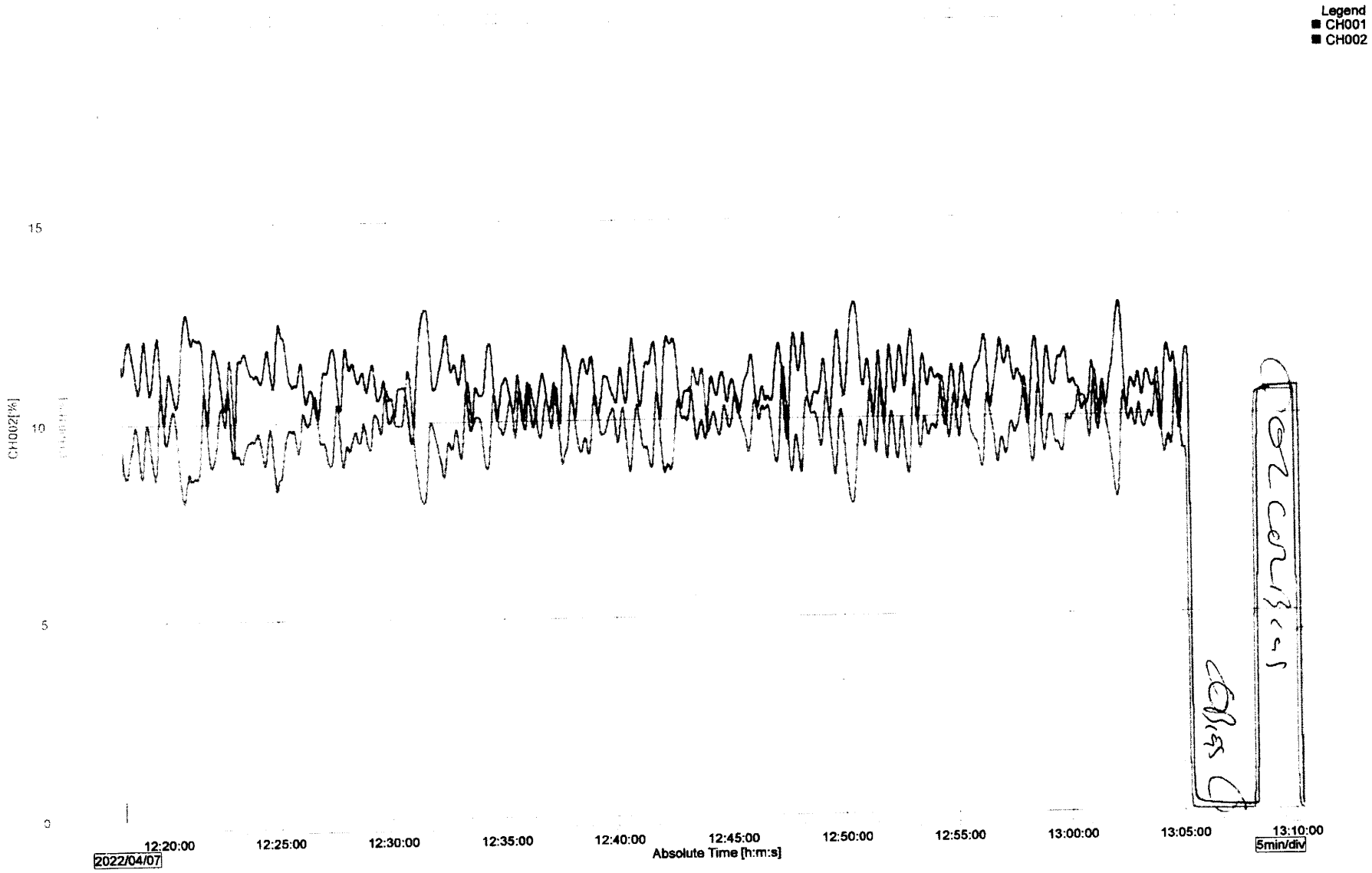
Signature1 : No Sig.
Signature2 : No Sig.
Signature3 No Sig.

Print Groups GROUP 1
Print Range : 2022/04/07 07:57:08.000 - 2022/04/07 13:18:40.000



Signature1 : No Sig.
Signature2 : No Sig.
Signature3 : No Sig.

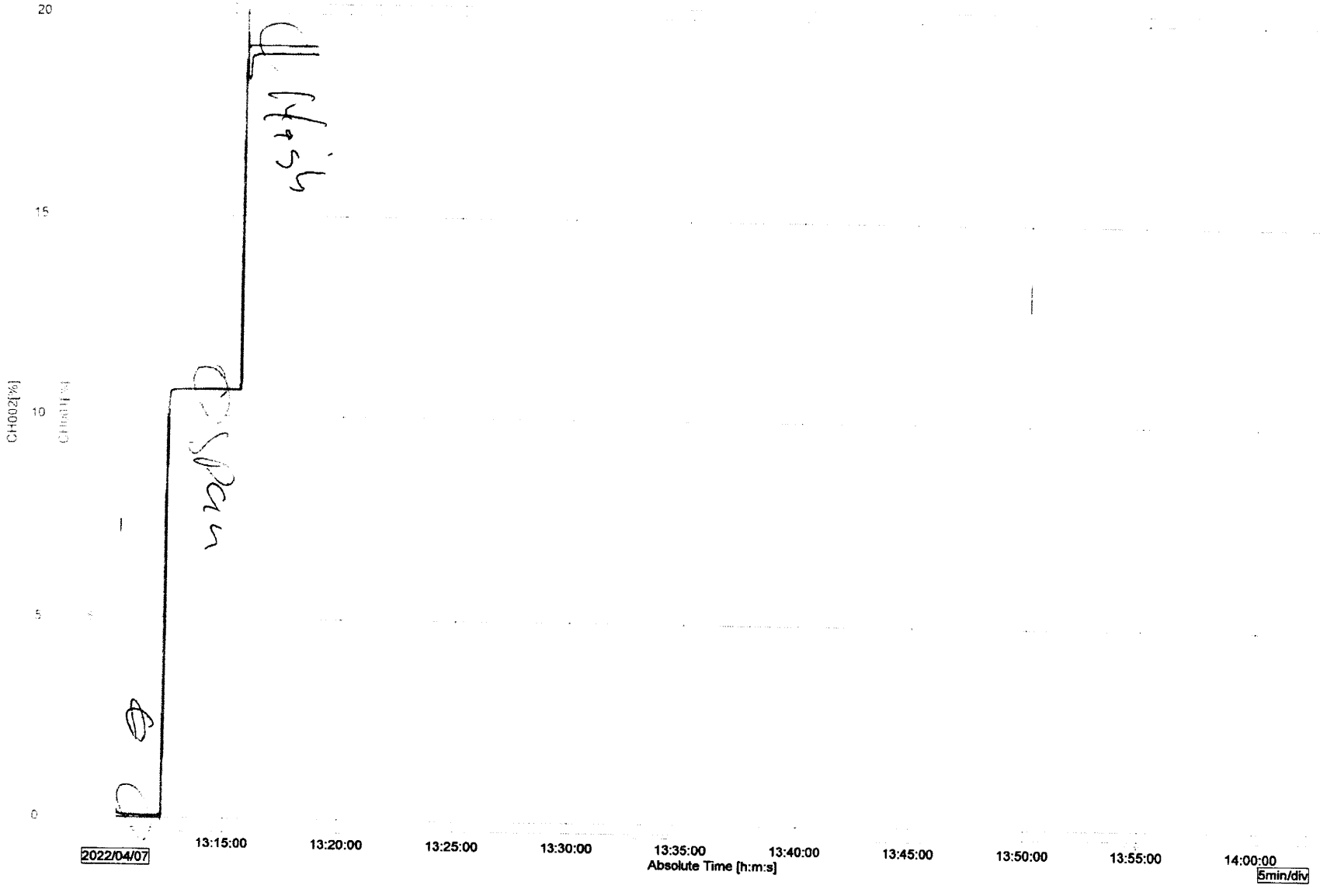
Print Groups : GROUP 1
Print Range : 2022/04/07 07:57:08.000 - 2022/04/07 13:18:40.000



W002AS-012607-RT-3503

Signature1 : No Sig.
Signature2 : No Sig.
Signature3 : No Sig.

Print Groups : GROUP 1
Print Range : 2022/04/07 07:57:08.000 - 2022/04/07 13:18:40.000



Appendix A.1.4
Unit 1 Hydrogen Chloride Data

Unit 2

Three, two-hour test runs were performed on Unit 2 on April 5th, 2022. Hydrogen chloride was detected during the test runs. Analyte spiking was performed prior to and after each test run to confirm the ability of the measurement system to deliver and quantify hydrogen chloride. See the Unit 2 FTIR QA/QC Data Appendix for results. All concentration data were calculated on a wet volume basis. See Table 6 below for a summary of the analyte averages during the separate run periods. See the Unit 2 FTIR Test Run Data Appendix for detailed run time results.

Table 6 – Unit 2 Run Summary

Condition	Calculation	HCl (ppmv wet)
04/5/2022 Unit 2 - Run 1 08:09 - 08:00	Minimum	6.62
	Maximum	10.56
	Average	8.54
04/5/2022 Unit 2 - Run 2 08:30 - 10:30	Minimum	7.01
	Maximum	11.75
	Average	8.70
04/7/2022 Unit 2 - Run 3 11:15 - 13:15	Minimum	7.43
	Maximum	11.83
	Average	9.35

Unit 1

Three, two-hour test runs were performed on Unit 1 on April 7th, 2022. Hydrogen chloride was detected during the test runs. Analyte spiking was performed prior to and after each test run to confirm the ability of the measurement system to deliver and quantify hydrogen chloride. See the Unit 1 FTIR QA/QC Data Appendix for results. All concentration data were calculated on a wet volume basis. See Table 5 below for a summary of the analyte averages during the separate run periods. See the Unit 1 FTIR Test Run Data Appendix for detailed run time results.

Table 5 – Unit 1 Run Summary

Condition	Calculation	HCl (ppmv wet)
04/7/2022 Unit 1 - Run 1 08:40 - 06:40	Minimum	9.58
	Maximum	15.16
	Average	12.00
04/7/2022 Unit 1 - Run 2 08:30 - 10:30	Minimum	7.10
	Maximum	12.21
	Average	9.55
04/7/2022 Unit 1 - Run 3 11:05 - 13:05	Minimum	7.28
	Maximum	10.96
	Average	8.59

© MAQS 046 – *Proprietary & Confidential*

Appendix A.1.5
Unit 1 Particulate Data

MONTROSE
AIR QUALITY SERVICES

WET CHEMICAL SAMPLING SYSTEM DATA AND WORKSHEET – STANDARD

CLIENT: Desert View Power
LOCATION: Unit 1 Stack Breaching
DATE: 4/6/2022
RUN NO: 1-PM-U1
OPERATOR: Patrick Whitman
METER BOX NO: 17-WCS
METER ΔH@: 1.820
METER Yd: 1.001
STACK AREA, FT²: 38.8
TRAVERSE POINTS, MIN/POINT: 4x30
ΔH= 2.05 X ΔP:
Probe Condition, pre/post test: Good/Good
Silica Gel Expanded, Y/N: N
Filter Condition after Test: OK
Check Weight: 500.0/500.0

AMBIENT TEMPERATURE: 78°
BAROMETRIC PRESSURE: 30.03
ASSUMED MOISTURE: 12.5
PITOT TUBE COEFF, Cp: 0.84
PROBE ID NO/MATERIAL: 120 Glass
PROBE LENGTH: 6'
NOZZLE ID NO/ MATERIAL: #183 SS
NOZZLE DIAMETER: 0.246
FILTER NO/TYPE: # 83- 4349 FG
PRE-TEST LEAK RATE: 0.005 CFM@ 14" in. Hg.
POST-TEST LEAK RATE: 0.005 CFM@ 13" in. Hg.
PITOT LEAK CHECK - PRE: ✓ POST: ✓
CHAIN OF CUSTODY: SAMPLE CUSTODIAN DW
SAMPLER PW
SAMPLE CUSTODIAN DW

Imp. #	Contents	Post-Test	Pre-Test	Difference
1	DI H2O	938.2	714.9	223.3
2	DI H2O	761.4	747.9	13.5
3	Empty	642.2	642.1	0.1
4	Silica gel	976.2	951.2	25.0
Total:				261.9

Point	Time	Meter Volume, ft³	ΔP in. H₂O	ΔH in. H₂O	Stack Temp, °F	Probe Temp, °F	Filter Temp, °F	Imp. Out Temp, °F	Meter Temp, °F In	Meter Temp, °F Out	Vacuum in. Hg.	O₂ %	P. static in. H₂O
5	0755	054.445	1.3	2.7	357	257	250	57	76	76	7"		+.30
4	0759	058.026	1.6	3.3	356	249	253	56	77	76	8"		
3	0803	061.935	1.1	2.3	354	252	251	54	78	77	5"		
2	0807	065.240	1.1	2.3	350	250	250	53	79	77	5"		
1	0811	068.525	.99	2.0	348	253	249	51	81	78	4.5"		
P/L	0815	071.617											
5	0817	071.617	1.4	2.9	355	251	250	50	80	77	7"		
4	0821	075.330	1.1	2.3	356	248	249	50	82	79	5"		
3	0825	078.620	1.1	2.3	355	250	249	49	83	80	5"		
2	0829	081.900	1.2	2.5	353	251	252	49	84	81	5"		
1	0833	085.355	1.0	2.1	350	253	250	49	86	82	4.5		
P/L	0837	088.504											
5	0839	088.504	1.1	2.3	357	251	253	50	87	83	5"		
4	0843	091.625	.99	2.1	354	250	251	50	88	84	4.5"		
3	0847	095.000	.93	2.0	356	250	250	50	88	83	4.5		
2	0851	098.140	.80	1.7	352	249	248	51	89	84	4"		
1	0856	101.000	.75	1.6	350	252	251	51	90	86	4"		
Average	P/L 0859	103.795	0.9319	2.047	353.4				85.1				

Comments: Y-Factor 2.1

MONTROSE
AIR QUALITY SERVICES

WET CHEMICAL SAMPLING SYSTEM DATA AND WORKSHEET – STANDARD

CLIENT: Desert View Power
LOCATION: Unit 1 Stack Breaching
DATE: 4/6/2022
RUN NO: 1-PM-U1
OPERATOR: Patrick Whitman
METER BOX NO: 17-WCS
METER ΔH@: 1.820
METER Yd: 1.001
STACK AREA, FT²: 38.8
TRAVERSE POINTS, MIN/POINT: 4x30
ΔH= 2.1 X ΔP:
Probe Condition, pre/post test: Good / Good
Silica Gel Expanded, Y/N:
Filter Condition after Test:
Check Weight:

AMBIENT TEMPERATURE: 78°
BAROMETRIC PRESSURE: 30.03
ASSUMED MOISTURE: 12.5
PITOT TUBE COEFF, Cp: 0.84
PROBE ID NO/MATERIAL: 120 Glass
PROBE LENGTH: 6'
NOZZLE ID NO/ MATERIAL: #183 SS
NOZZLE DIAMETER: 0.246
FILTER NO/TYPE: # 83- 4349 FG
PRE-TEST LEAK RATE: 0.005 CFM@ 14" in. Hg.
POST-TEST LEAK RATE: 0.005 CFM@ 13" in. Hg.
PITOT LEAK CHECK - PRE: POST: ✓
CHAIN OF CUSTODY: SAMPLE CUSTODIAN DW
SAMPLER PW
SAMPLE CUSTODIAN DW

Imp. #	Contents	Post-Test	- Pre-Test	= Difference
1	DI H2O			
2	DI H2O			
3	Empty			
4	Silica gel			
	Total:			

Point	Time	Meter Volume, ft³	ΔP in. H₂O	ΔH in. H₂O	Stack Temp, °F	Probe Temp, °F	Filter Temp, °F	Imp. Out Temp, °F	Meter Temp, °F In	Meter Temp, °F Out	Vacuum in. Hg.	O₂ %	P. static in. H₂O
5	0901	103.795	.86	1.8	~~353~~ 351	250	249	51	87	84	4"		↓ 30
4	0905	106.730	.80	1.7	~~354~~ 352	252	250	51	88	84	4"		
3	0909	109.560	.80	1.7	355	251	249	52	89	85	4"		
2	0913	112.380	.89	1.9	353	250	251	52	90	86	4"		
1	0917	115.435	.92	1.9	352	248	250	52	91	87	4"		
P/L	0921	118.515											
5	0923	118.515	1.3	2.7	~~354~~ 351	250	253	52	88	85	4"		
4	0927	122.160	.99	2.1	352	252	251	53	89	87	4.5"		
3	0931	125.365	.82	1.7	~~355~~ 353	251	250	53	91	87	4"		
2	0935	128.260	.75	1.6	355	249	249	53	91	87	4"		
1	0939	131.030	.63	1.3	353	250	250	54	92	88	4"		
P/L	0943	133.547											
5	0945	133.547	.98	2.1	355	251	249	54	90	86	4.5"		
4	0949	136.770	.87	1.8	354	248	249	55	92	88	4"		
3	0953	139.725	.80	1.7	356	253	251	55	93	89	4"		
2	0957	142.590	.91	1.9	352	250	251	55	93	89	4"		
1	1001	145.600	.99	2.1	352	248	249	56	92	88	4.5"		
Average	0005	148.858											

Comments: ~~354~~ 351, 352 KAS 4-6-22 351 / 353

MONTROSE
AIR QUALITY SERVICES

WET CHEMICAL SAMPLING SYSTEM DATA AND WORKSHEET – STANDARD

CLIENT: Desert View Power
LOCATION: Unit 1 Stack Breaching
DATE: 4/6/2022
RUN NO: 2-PM-U1
OPERATOR: Patrick Whitman
METER BOX NO: 17-WCS
METER ΔH@: 1.820
METER Yd: 1.001
STACK AREA, FT²: 38.8
TRAVERSE POINTS, MIN/POINT: 4x30
ΔH= 2.25 X ΔP:
Probe Condition, pre/post test: Good/Good
Silica Gel Expanded, Y/N: no
Filter Condition after Test: OK
Check Weight: 500.1/500.0

AMBIENT TEMPERATURE: 90°
BAROMETRIC PRESSURE: 30.03
ASSUMED MOISTURE: 12.5
PITOT TUBE COEFF, Cp: 0.84
PROBE ID NO/MATERIAL: 119 Glass
PROBE LENGTH: 6'
NOZZLE ID NO/ MATERIAL: #176 SS
NOZZLE DIAMETER: 0.248
FILTER NO/TYPE: # 83-4350 FG
PRE-TEST LEAK RATE: 0.005 CFM@ 13" in. Hg.
POST-TEST LEAK RATE: 0.005 CFM@ 12" in. Hg.
PITOT LEAK CHECK - PRE: ✓ POST: ✓
CHAIN OF CUSTODY: SAMPLE CUSTODIAN DW
SAMPLER PW
SAMPLE CUSTODIAN DW

Imp. #	Contents	Post-Test	Pre-Test	= Difference
1	DI H2O	938.5	739.4	199.1
2	DI H2O	778.2	766.0	12.2
3	Empty	607.6	609.3	-1.7
4	Silica gel	972.7	939.1	33.6
Total:				243.2

Point	Time	Meter Volume, ft³	ΔP in. H2O	ΔH in. H2O	Stack Temp, °F	Probe Temp, °F	Filter Temp, °F	Imp. Out Temp, °F	Meter Temp, °F In	Meter Temp, °F Out	Vacuum in. Hg.	O2 %	P. static in. H2O
5	01050	149.400	1.2	2.7	356	252	250	57	85	82	6"		+.30
4	01054	153.980	1.4	3.2	354	250	251	57	86	82	7"		
3	01058	156.970	1.2	2.7	358	250	249	55	87	82	6"		
2	01102	160.625	1.1	2.5	354	248	251	53	89	84	5.5"		
1	01106	164.130	1.0	2.3	349	250	250	51	89	85	5.5"		
P/L	01110	167.505											
5	01112	167.505	1.5	3.4	359	248	253	50	87	84	7"		
4	01116	171.520	1.0	2.3	356	252	251	50	89	86	5.5"		
3	01120	174.920	.99	2.2	357	250	249	49	90	87	5.5		
2	01124	178.230	1.3	2.9	354	251	251	49	90	88	6.5"		
1	01128	182.010	1.0	2.3	350	249	248	49	91	88	5.5"		
P/L	01132	185.389											
5	01134	185.389	1.2	2.7	359	252	250	50	88	86	6"		
4	01138	189.020	.98	2.2	355	251	248	50	90	89	5.5"		
3	01142	192.350	.94	2.1	356	248	250	51	91	89	5"		
2	01146	195.570	.81	1.8	352	253	252	51	92	89	4.5"		
1	01150	198.490	.74	1.7	348	250	250	51	93	90	4"		
Average	01154	201.389	0.9792	2.270	355+				90.4	—			

Comments: 98.871

MONTROSE
AIR QUALITY SERVICES

WET CHEMICAL SAMPLING SYSTEM DATA AND WORKSHEET – STANDARD

CLIENT: Desert View Power
LOCATION: Unit 1 Stack Breaching
DATE: 4/6/2022
RUN NO: 2-PM-U1
OPERATOR: Patrick Whitman
METER BOX NO: 17-WCS
METER ΔH@: 1.820
METER Yd: 1.001
STACK AREA, FT²: 38.8
TRAVERSE POINTS, MIN/POINT: 4x30
ΔH= 2.25 X ΔP:
Probe Condition, pre/post test: Good/Good
Silica Gel Expanded, Y/N:
Filter Condition after Test:
Check Weight:

AMBIENT TEMPERATURE: 90°
BAROMETRIC PRESSURE: 30.03
ASSUMED MOISTURE: 12.5
PITOT TUBE COEFF, Cp: 0.84
PROBE ID NO/MATERIAL: 119 Glass
PROBE LENGTH: 6'
NOZZLE ID NO/ MATERIAL: #176 SS
NOZZLE DIAMETER: 0.248
FILTER NO/TYPE: # 83- 4350 FG
PRE-TEST LEAK RATE: 0.005 CFM@ 13" in. Hg.
POST-TEST LEAK RATE: 0.005 CFM@ 12" in. Hg.
PITOT LEAK CHECK - PRE: ✓ POST: ✓
CHAIN OF CUSTODY: SAMPLE CUSTODIAN DW
SAMPLER PW
SAMPLE CUSTODIAN DW

Imp. #	Contents	Post-Test	- Pre-Test	= Difference
1	DI H2O			
2	DI H2O			
3	Empty			
4	Silica gel			
Total:				

Point	Time	Meter Volume, ft³	ΔP in. H₂O	ΔH in. H₂O	Stack Temp, °F	Probe Temp, °F	Filter Temp, °F	Imp. Out Temp, °F	Meter Temp, °F In	Meter Temp, °F Out	Vacuum in. Hg.	O₂ %	P. static in. H₂O
5	01156	201.389	.88	2.0	356	252	251	51	89	87	5"		+.30
4	1200	204.525	.79	1.8	357	250	249	52	91	88	4.5"		
3	1204	207.560	.81	1.8	357	253	251	52	92	89	4.5"		
2	1208	210.450	.90	2.0	355	251	250	52	93	90	5"		
1	1212	213.460	.91	2.0	354	249	249	53	94	91	5"		
P/L	1216	216.624											
5	1218	216.624	1.2	2.7	354	248	249	53	92	89	6"		
4	1222	220.295	1.0	2.3	357	249	253	53	94	91	5.5"		
3	1226	223.680	.91	1.8	358	251	250	54	96	92	4.5		
2	1230	226.650	.77	1.7	354	250	250	54	96	93	4"		
1	1234	229.525	.65	1.5	357	253	252	55	97	94	4"		
P/L	1238	232.227											
5	1240	232.227	.99	2.2	357	250	249	55	94	91	5.5"		
4	1244	235.580	.89	2.0	358	250	251	56	96	94	5"		
3	1248	238.730	.77	1.7	359	253	252	56	97	95	4"		
2	1252	241.620	.93	2.1	359	248	250	56	99	96	5"		
1	1256	244.830	1.0	2.3	357	249	249	56	100	98	5.5"		
Averages	1300	248.831											

Comments:

DS834049

MONTROSE
AIR QUALITY SERVICES

WET CHEMICAL SAMPLING SYSTEM DATA AND WORKSHEET – STANDARD

CLIENT: Desert View Power
LOCATION: Unit 1 Stack Breaching
DATE: 4/6/2022
RUN NO: 3-PM-U1
OPERATOR: Patrick Whitman
METER BOX NO: 17-WCS
METER ΔH@: 1.820
METER Yd: 1.001
STACK AREA, FT²: 38.8
TRAVERSE POINTS, MIN/POINT: 4x30
ΔH= 2.15 X ΔP:
Probe Condition, pre/post test: Good / Good
Silica Gel Expanded, Y/N: no
Filter Condition after Test: ok
Check Weight: 5000-500

AMBIENT TEMPERATURE: 96°
BAROMETRIC PRESSURE: 30.03
ASSUMED MOISTURE: 12.5
PITOT TUBE COEFF, Cp: 0.84
PROBE ID NO/MATERIAL: 120 Glass
PROBE LENGTH: 6'
NOZZLE ID NO/ MATERIAL: #183 SS
NOZZLE DIAMETER: 0.246
FILTER NO/TYPE: # 83- 4351 FG
PRE-TEST LEAK RATE: 0.005 CFM@ 14" in. Hg
POST-TEST LEAK RATE: 0.005 CFM@ 13" in. Hg.
PITOT LEAK CHECK - PRE: ✓ POST: ✓
CHAIN OF CUSTODY: SAMPLE CUSTODIAN DW
SAMPLER PW
SAMPLE CUSTODIAN DW

Imp. #	Contents	Post-Test	Pre-Test	Difference
1	DI H2O	927.9	716.2	211.7
2	DI H2O	749.0	727.4	21.6
3	Empty	642.1	637.6	4.5
4	Silica gel	1006.7	976.2	30.5
Total:				268.3

Point	Time	Meter Volume, ft³	ΔP in. H2O	ΔH in. H2O	Stack Temp, °F	Probe Temp, °F	Filter Temp, °F	Imp. Out Temp, °F	Meter Temp, °F In	Meter Temp, °F Out	Vacuum in. Hg.	O2 %	P. static in. H2O
5	1320	849.000	1.3	2.8	360	252	250	57	92	87	6"		
4	1324	252.750	1.5 * 3.23M		361	250	251	56	90	95	9.5"		
3	1328	256.790	1.1 * 2.525		356	251	250	54	90	84	5"		
2	1332	260.335	1.0	2.3	354	249	248	53	91	86	5"		
1	1336	263.715	1.1	2.5	357	252	253	53	93	88	5"		
P/C	1340	267.203											
5	1342	267.203	1.3	2.9	361	250	249	51	90	85	6"		
4	1346	270.945	1.2	2.7	363	252	251	51	92	87	5.5"		
3	1350	274.595	1.0	2.3	357	251	251	50	92	88	5"		
2	1354	277.995	1.3	2.9	361	253	250	50	94	91	6"		
1	1358	281.800	99	2.2	358	250	249	49	93	90	5"		
P/C	1402	285.154											
5	1404	285.154	1.3	2.9	363	248	251	49	90	87	6"		
4	1408	288.925	.97	2.2	365	250	250	50	91	88	5"		
3	1412	292.235	.95	2.1	366	252	249	50	93	90	5"		
2	1416	295.755	.79	1.8	361	251	250	50	95	91	4.5"		
1	1420	298.430	.75	1.7	359	250	250	51	95	92	4"		
Average	1424	301.274											

99.99 0.987 2.22 361.0 97.0

Comments: Factor 2.26 * 3.4 KAS 4-6-22
* 2.5

MONTROSE
AIR QUALITY SERVICES

WET CHEMICAL SAMPLING SYSTEM DATA AND WORKSHEET – STANDARD

CLIENT: Desert View Power
LOCATION: Unit 1 Stack Breaching
DATE: 4/6/2022
RUN NO: 3-PM-U1
OPERATOR: Patrick Whitman
METER BOX NO: 17-WCS
METER ΔH@: 1.820
METER Yd: 1.001
STACK AREA, FT²: 38.8
TRAVERSE POINTS, MIN/POINT: 4x30
ΔH= 2.2 X ΔP:
Probe Condition, pre/post test: Good/Good
Silica Gel Expanded, Y/N:
Filter Condition after Test:
Check Weight:

AMBIENT TEMPERATURE: 96°
BAROMETRIC PRESSURE: 30.03
ASSUMED MOISTURE: 12.5
PITOT TUBE COEFF, Cp: 0.84
PROBE ID NO/MATERIAL: 120 Glass
PROBE LENGTH: 6'
NOZZLE ID NO/ MATERIAL: #183 SS
NOZZLE DIAMETER: 0.246
FILTER NO/TYPE: # 83- 4351 FG
PRE-TEST LEAK RATE: ≤ 0.005 CFM@ 14" in. Hg.
POST-TEST LEAK RATE: ≤ 0.005 CFM@ 13" in. Hg.
PITOT LEAK CHECK - PRE: ✓ POST: ✓
CHAIN OF CUSTODY: SAMPLE CUSTODIAN DW
SAMPLER PW
SAMPLE CUSTODIAN DW

Imp. #	Contents	Post-Test - Pre-Test = Difference
1	DI H2O	
2	DI H2O	
3	Empty	
4	Silica gel	
Total:		

Point	Time	Meter Volume, ft³	ΔP in. H₂O	ΔH in. H₂O	Stack Temp, °F	Probe Temp, °F	Filter Temp, °F	Imp. Out Temp, °F	Meter Temp, °F In	Meter Temp, °F Out	Vacuum in. Hg.	O₂ %	P. static in. H₂O
5	1426	301.274	.89	2.0	358	249	253	51	92	89	5"		
4	1430	304.395	.80	1.8	362	251	250	52	94	91	4.5"		
3	1434	307.370	.79	1.7	361	252	251	53	95	93	4.5"		
2	1438	310.285	.91	2.0	362	248	250	53	96	94	5"		
1	1442	313.475	.93	2.0	360	249	252	54	96	93	5"		
P/C	1446	316.648											
5	1448	316.648	1.1	2.4	369	250	251	54	95	90	5.5"		
4	1452	320.100	1.1	2.4	367	251	249	54	97	93	5.5"		
3	1456	323.520	.79	1.7	363	248	252	55	97	95	4.5"		
2	1500	326.750	.76	1.7	363	249	251	55	99	96	4.5"		
1	1504	329.355	.67	1.5	359	250	250	56	99	97	4"		
P/C	1508	332.115											
5	1510	332.115	1.0	2.2	364	248	252	56	99	95	5"		
4	1514	335.200	.91	2.0	365	251	253	57	100	97	5"		
3	1518	338.575	.75	1.7	363	247	248	57	101	98	4.5"		
2	1522	341.520	.95	2.1	362	253	250	58	100	99	5"		
1	1526	344.905	.99	2.2	360	250	251	58	101	99	5"		
Average/Total	1530	348.990											

Comments:

DS834049

Appendix A.1.6
Unit 1 SO_2 Data and Velocity Data

FLUE GAS VELOCITY AND MOISTURE DATA AND WORKSHEET

CLIENT: Desert View Power | LOCATION/UNIT: Unit - 1
PERFORMED BY: Patrick Whitman | TEST DATE: 46/2022
BAR. PRESSURE: 30.03 | TC READOUT ID: TRC-42
DP INDICATOR ID: CC-2 | TC ID: #058
DP INDICATOR TYPE: 0-10" Manometer | PITOT TUBE ID: #058 | Cp: 0.84
ZERO: ✓ LEVEL: ✓ | LEAK CHECK PRE- ✓ POST- ✓

Run #: 1-50x Ps: 4.30
Start: 0755 Stop: 0855

Sample Point	Velocity Head inches H_2O	Temp, °F	Sample Point	Velocity Head inches H_2O	Temp, °F	Sample Point	Velocity Head inches H_2O	Temp, °F
5, 55.3"	1.3	357	5	1.1	357	5	1.3	351
4, 45.9"	1.6	356	4	.99	358	4	.99	352
3, 36.5"	1.1	354	3	.93	356	3	.82	353
2, 27.1"	1.1	350	2	.80	352	2	.75	355
1, 17.7	.99	346	1	.75	350	1	.63	353
5	1.4	355	5	.86	351	5	.98	353
4	1.1	356	4	.80	352	4	.87	354
3	1.1	355	3	.80	355	3	.80	355
2	1.2	353	2	.89	353	2	.91	352
1	1.0	350	1	.92	352	1	.99	352

	Probe Temp. °F	Filter Temp. °C		Heated Line Temp. °F	Chiller Temp. °C
1	257	258		311	00.7
2	259	251			
3	253	257			

MOISTURE DATA FOR TEST RUNS 1-50x THROUGH 1-50x

METER ID: 1-P&M METER Yd: 1.015 BALANCE CHECK WEIGHT: 500.0/ 500

Dry Gas Meter							Impinger Data				
Time	Volume	Delta H	Tm (in)	Tm (out)	T_{imp}	Vacuum	No.	Material	End Wt.	Start Wt.	Diff.
0755	893.100	1.0	77	79	50	5"	#1	H_2O_2	880.2	748.8	
0815	902.557	1.0	78	81	52	5"	#2	H_2O_2	746.2	730.2	
0835	916.450	1.0	79	81	53	5"	#3	Empty	518.6	518.4	
0855	928.637						#4	Silica Gel	996.0	987.8	
							Total	Line rinse		50	

Pre-Test Leak Check: 0.005 CFM @ 15 in. Hg., Post-Test Leak Check: 0.005 CFM @ 15 in. Hg

FLUE GAS VELOCITY AND MOISTURE DATA AND WORKSHEET

CLIENT: Desert View Power | LOCATION/UNIT: Unit - 1
PERFORMED BY: Patrick Whitman | TEST DATE: 46/2022
BAR. PRESSURE: 30.02 | TC READOUT ID: TRC-42
DP INDICATOR ID: CC-2 | TC ID: #058
DP INDICATOR TYPE: 0-10" Manometer | PITOT TUBE ID: #058 | Cp: 0.84
ZERO: ✓ | LEVEL: ✓ | LEAK CHECK PRE- ✓ | POST- ✓

Run #: 2-50A	Ps: +.30							
Start: 1050	Stop: 1150							
Sample Point	Velocity Head inches H_2O	Temp, °F	Sample Point	Velocity Head inches H_2O	Temp, °F	Sample Point	Velocity Head inches H_2O	Temp, °F
5, 55.3"	1.2	356	5	1.2	359	5	1.2	354
4, 45.9"	1.4	354	4	.98	355	4	1.0	357
3, 36.5"	1.2	359	3	.94	356	3	.81	358
2, 27.1"	1.1	354	2	.81	352	2	.77	354
1, 17.7	1.0	349	1	.74	348	1	.65	357
5	1.5	359	5	.88	356	5	.99	357
4	1.0	356	4	.79	357	4	.89	358
3	.99	357	3	.81	357	3	.77	359
2	1.3	354	2	.90	355	2	.93	359
1	1.0	350	1	.91	354	1	1.0	357
	Probe Temp. °F	Filter Temp. °C		Heated Line Temp. °F	Chiller Temp. °C			
1	257	259		308	00.8			
2	252	257						
3	251	254						

MOISTURE DATA FOR TEST RUNS 2-50A THROUGH 2-50C

METER ID: 1-P&M | METER Yd: 1.015 | BALANCE CHECK WEIGHT: 500.0/500

Dry Gas Meter							Impinger Data				
Time	Volume	Delta H	Tm (in)	Tm (out)	T imp	Vacuum	No.	Material	End Wt.	Start Wt.	Diff.
1050	~~903.405~~ 942.700	1.0	88	92	53	5"	#1	H_2O_2	828.1	698.4	
1110	942.445	1.0	90	91	53	5"	#2	H_2O_2	759.9	753.0	
1130	953.840	1.0	92	91	53	5"	#3	Empty	616.0	615.8	
1150	964.638						#4	Silica Gel	923.7	916.4	
							Total	Line rinse		50	

Pre-Test Leak Check: 0.008 CFM @ 13" in. Hg., Post-Test Leak Check: 0.005 CFM @ 13 in. Hg

FLUE GAS VELOCITY AND MOISTURE DATA AND WORKSHEET

CLIENT: Desert View Power | LOCATION/UNIT: Unit - 1
PERFORMED BY: Patrick Whitman | TEST DATE: 46/2022
BAR. PRESSURE: 30.03 | TC READOUT ID: TRC-42
DP INDICATOR ID: CC-2 | TC ID: #058
DP INDICATOR TYPE: 0-10" Manometer | PITOT TUBE ID: #058 | Cp: 0.84
ZERO: ✓ LEVEL: ✓ | LEAK CHECK PRE- ✓ POST- ✓

Run #: 3-5a	Ps: 1.30							
Start: 1320	Stop: 1420							
Sample Point	Velocity Head inches H_2O	Temp, °F	Sample Point	Velocity Head inches H_2O	Temp, °F	Sample Point	Velocity Head inches H_2O	Temp, °F
5, 55.3"	1.3	360	5	1.3	363	5	1.1	360
4, 45.9"	1.5	361	4	.97	365	4	1.1	367
3, 36.5"	1.1	356	3	95	366	3	.99	363
2, 27.1"	1.0	354	2	.79	361	2	.76	363
1, 17.7	1.1	357	1	.75	359	1	.67	359
5	1.3	361	5	.89	358	5	1.0	364
4	1.2	363	4	.80	362	4	.91	365
3	1.0	357	3	.79	361	3	.75	363
2	1.3	361	2	.91	362	2	.95	362
1	.99	358	1	.93	360	1	.99	360
	Probe Temp. °F	Filter Temp. °C		Heated Line Temp. °F	Chiller Temp. °C			
1	254	256		317	027			
2	255	257						
3	254	253						

MOISTURE DATA FOR TEST RUNS 3-5a THROUGH 3-5a

METER ID: 1-P&M METER Yd: 1.015 BALANCE CHECK WEIGHT: 500.0/ 500

Dry Gas Meter							Impinger Data				
Time	Volume	Delta H	Tm (in)	Tm (out)	T_{imp}	Vacuum	No.	Material	End Wt.	Start Wt.	Diff.
1320	969.150	1.0	94	98	52	5"	#1	H_2O_2	842.1	713.1	
1340	982.345	1.0	96	103	57	5"	#2	H_2O_2	721.4	712.3	
1400	992.565	1.0	98	106	58	5"	#3	Empty	517.1	515.6	
1420	1004.046						#4	Silica Gel	1004.5	996.0	
							Total	Line rinse		50	

Pre-Test Leak Check: 0.005 CFM @ 15 in. Hg., Post-Test Leak Check: 0.005 CFM @ 15 in. Hg

FLUE GAS VELOCITY AND MOISTURE DATA AND WORKSHEET

CLIENT: Desert View Power | LOCATION/UNIT: Unit - 1
PERFORMED BY: Patrick Whitman | TEST DATE: 4/7/2022
BAR. PRESSURE: 30.18 | TC READOUT ID: TRC-42
DP INDICATOR ID: CC-2 | TC ID: #058
DP INDICATOR TYPE: 0-10" Manometer | PITOT TUBE ID: #058 | Cp: 0.84
ZERO: ✓ LEVEL: ✓ | LEAK CHECK PRE-✓ POST-✓

Run #: 1-HSL Ps: 7.31
Start: 0340 Stop: 0540

Sample Point	Velocity Head inches H_2O	Temp, °F	Sample Point	Velocity Head inches H_2O	Temp, °F	Sample Point	Velocity Head inches H_2O	Temp, °F
5, 55.3"	1.3	345	5	1.2	345	5	1.1	348
4, 45.9"	1.4	350	4	.98	345	4	1.1	349
3, 36.5"	1.1	351	3	.93	349	3	.77	349
2, 27.1"	1.0	350	2	.80	347	2	.73	347
1, 17.7	.98	350	1	.76	347	1	.66	347
5	1.4	351	5	.89	349	5	1.0	347
4	1.0	350	4	.80	349	4	.92	348
3	1.0	350	3	.82	350	3	.74	349
2	1.2	349	2	.91	350	2	.91	348
1	1.0	348	1	.94	348	1	.98	347
	Probe Temp. °F	Filter Temp. °C		Heated Line Temp. °F	Chiller Temp. °C			
1	N/A	N/A		372	00.7			
2	1	/						
3								

MOISTURE DATA FOR TEST RUNS 1-HSL THROUGH 1-HSL

METER ID: 1-P&M METER Yd: 1.015 BALANCE CHECK WEIGHT: 500.0/500

Dry Gas Meter							Impinger Data				
Time	Volume	Delta H	Tm (in)	Tm (out)	T_{imp}	Vacuum	No.	Material	End Wt.	Start Wt.	Diff.
0340	6.600	1.0	73	74	50	5"	#1	H_2O	897.4	733.0	
0400	18.885	1.0	73	76	52	5"	#2	H_2O	735.2	731.0	
0420	30.115	1.0	74	76	55	5"	#3	Empty	517.7	516.9	
0500	52.475	1.0	75	77	57	5"	#4	Silica Gel	1021.8	1006.2	
0540	75.638						Total	Line rinse		50	

Pre-Test Leak Check: 0.005 CFM @ 15 in. Hg., Post-Test Leak Check: 0.005 CFM @ 15 in. Hg

FLUE GAS VELOCITY AND MOISTURE DATA AND WORKSHEET

CLIENT: Desert View Power | LOCATION/UNIT: Unit - 1
PERFORMED BY: Patrick Whitman | TEST DATE: 4/7/2022
BAR. PRESSURE: 30.18 | TC READOUT ID: TRC-42
DP INDICATOR ID: CC-2 | TC ID: #058
DP INDICATOR TYPE: 0-10" Manometer | PITOT TUBE ID: #058 | Cp: 0.84
ZERO: ✓ LEVEL: ✓ | LEAK CHECK PRE- ✓ POST- ✓

Run #: 1-HCC Ps: 1.31
Start: 0830 Stop: 1030

Sample Point	Velocity Head inches H_2O	Temp, °F	Sample Point	Velocity Head inches H_2O	Temp, °F	Sample Point	Velocity Head inches H_2O	Temp, °F
5, 55.3"	1.0	350	5	.89	351	5	1.3	348
4, 45.9"	.92	351	4	.82	352	4	1.5	350
3, 36.5"	.76	350	3	.80	352	3	1.2	351
2, 27.1"	.98	351	2	.92	351	2	1.0	351
1, 17.7	.99	351	1	.91	350	1	1.0	350
5	1.2	350	5	1.3	350	5	1.4	350
4	1.1	351	4	.99	351	4	1.0	351
3	.80	351	3	.83	351	3	1.1	351
2	.75	352	2	.76	351	2	1.1	350
1	.64	351	1	.77	348	1	1.0	351
	Probe Temp. °F	Filter Temp. °C		Heated Line Temp. °F	Chiller Temp. °C			
1	N/A	N/A		392	00.7			
2	"	"						
3								

MOISTURE DATA FOR TEST RUNS 1-HCC THROUGH 3-HCC

METER ID: 1-P&M METER Yd: 1.015 BALANCE CHECK WEIGHT: 500.0/ 500

Dry Gas Meter							Impinger Data				
Time	Volume	Delta H	Tm (in)	Tm (out)	T_{imp}	Vacuum	No.	Material	End Wt.	Start Wt.	Diff.
0830	76.300	1.0	87	84	55	5"	#1	H_2O	878.1	724.8	
0900	94.205	1.0	86	92	57	5"	#2	H_2O	747.9	735.2	
0930	112.110	1.0	88	93	57	5"	#3	Empty	522.6	517.7	
1000	129.465	1.0	90	96	57	5"	#4	Silica Gel	923.4	901.4	
1030	147.582						Total	Line rinse		50	

Pre-Test Leak Check: 0.005 CFM @ 15 in. Hg., Post-Test Leak Check: 0.005 CFM @ 15 in. Hg

FLUE GAS VELOCITY AND MOISTURE DATA AND WORKSHEET

CLIENT: Desert View Power | LOCATION/UNIT: Unit - 1
PERFORMED BY: Patrick Whitman | TEST DATE: 4/7/2022
BAR. PRESSURE: 30.18 | TC READOUT ID: TRC-42
DP INDICATOR ID: CC-2 | TC ID: #058
DP INDICATOR TYPE: 0-10" Manometer | PITOT TUBE ID: #058 | Cp: 0.84
ZERO: ✓ | LEVEL: ✓ | LEAK CHECK PRE- ✓ | POST- ✓

Run #: N-H2O | Ps: 1.31
Start: 1105 | Stop: 1305

Sample Point	Velocity Head inches H_2O	Temp, °F	Sample Point	Velocity Head inches H_2O	Temp, °F	Sample Point	Velocity Head inches H_2O	Temp, °F
5, 55.3"	1.4	346	5	1.3	346	5	1.2	346
4, 45.9"	1.1	347	4	.97	347	4	1.1	347
3, 36.5"	1.0	347	3	.84	346	3	.78	347
2, 27.1"	1.1	346	2	.75	346	2	.74	347
1, 17.7	.98	345	1	.73	345	1	.82	345
5	1.3	344	5	.88	346	5	.97	346
4	1.5	345	4	.83	345	4	.93	346
3	1.2	344	3	.77	346	3	.77	346
2	1.0	344	2	.90	346	2	.98	347
1	.99	345	1	.91	346	1	.99	346

	Probe Temp. °F	Filter Temp. °C		Heated Line Temp. °F	Chiller Temp. °C			
1	N/A	N/A		312	22.7			
2	|	|						
3								

MOISTURE DATA FOR TEST RUNS 1-H2O THROUGH 2-H2O

METER ID: 1-P&M | METER Yd: 1.015 | BALANCE CHECK WEIGHT: 500.0/500

Dry Gas Meter							Impinger Data				
Time	Volume	Delta H	Tm (in)	Tm (out)	T imp	Vacuum	No.	Material	End Wt.	Start Wt.	Diff.
1105	148.000	1.0	92	94	52	5"	#1	H_2O	885.9	728.1	
1135	165.880	1.0	93	96	57	5"	#2	H_2O	751.3	744.0	
1205	182.640	1.0	95	99	54	5"	#3	Empty	642.6	642.1	
1235	200.000	1.0	96	99	53	5"	#4	Silica Gel	940.7	923.1	
1305	217.568						Total	Line rinse		50	

Pre-Test Leak Check: 0.005 CFM @ 15 in. Hg., Post-Test Leak Check: 0.005 CFM @ 15 in. Hg

MONTROSE AIR QUALITY SERVICES

Date of last revision 2/10/2017

DS1205097
Master Document Storage\Forms\Datasheets\Field Datasheets

Appendix A.1.7
Unit 1 Hydrocarbon Data

SCAQMD METHOD 25.3
EVACUATED CANISTER SAMPLING DATA

Client/Facility: Desert View Power Date: 4/6/2022

Unit/Location: Unit 1 Stack Breaching Performed By: Patrick Whitman

Probe Material SS Probe Length 36"

Connecting Tubing Material Teflon Connecting Tubing Length 12"

Barometric Pressure 30.03 Ambient Temperature 65°F

Test No.		2A-VOC-U1		2B-VOC-U1			
Vial ID		6A		6B			
Tank ID		6A		6B			
		Time	Vacuum	Time	Vacuum	Time	Vacuum
Pre-Test Leak Check	Start	430	10	430	12		
Pre-Test Leak Check	Stop	440	10	440	12		
Sample Collection	Start	0755	30	0755	30		
		0805	26	0805	26		
		0815	23	0815	23		
		0825	19	0825	19		
		0835	16	0835	16		
		0845	13	0845	13		
		08					
Sample Collection	Stop	0853	10	0853	10		
Post -Test Leak Check	Start	906	10	906	10		
Post-Test Leak Check	Stop	916	10	916	10		
Line Rinse Volume							

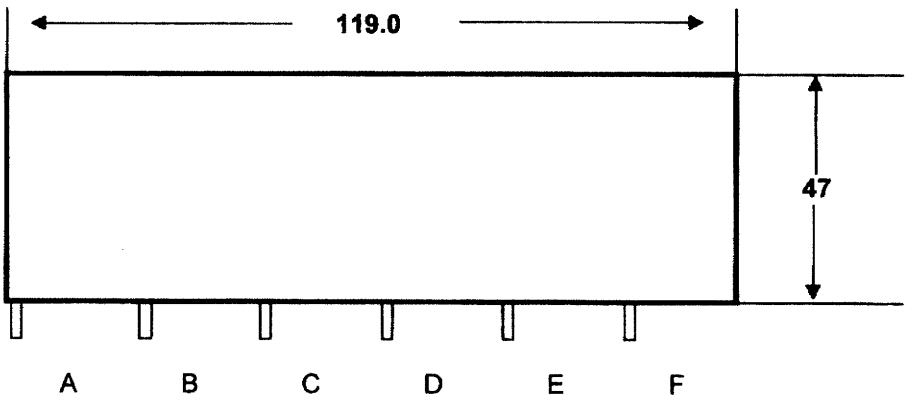
Comments: _____

Appendix A.2
Unit 2 Data

Appendix A.2.1
Unit 2 Sample Location

Client: Desert View Power Date: 4/5/2022

Sample Location: Unit 1-2 Prepared By: Dave Wonderly



H (in.)	**119.0**
W (in.)	**47.0**
Nipple length	**13.0**
Distance between points	**9.40**
Stack Area (ft^2)	**38.84**

Point No.	Sample Point Inches from nozzle	
1	4.7	17.7
2	14.1	27.1
3	23.5	36.5
4	32.9	45.9
5	42.3	55.3

Appendix A.2.2
Unit 2 CEM Data

Date	Time	O2 %	CO2 %	NOx ppm	CO ppm	
4/5/2022	4:58	19.018	18.96	94.6	8.357	
4/5/2022	4:59	19.021	18.964	94.554	8.363	High
4/5/2022	5:00	13.032	10.972	51.987	8.011	
4/5/2022	5:01	10.527	10.614	48.484	6.054	
4/5/2022	5:02	10.526	10.616	48.698	5.541	Mid
4/5/2022	5:03	4.811	5.694	14.756	5.012	
4/5/2022	5:04	-0.015	0.051	0.037	1.117	
4/5/2022	5:05	-0.015	0.034	0.02	-0.009	Zero
4/5/2022	5:06	-0.019	0.034	0.018	-0.034	NO Mode Zero
4/5/2022	5:07	-0.019	0.03	79.522	-0.023	
4/5/2022	5:08	-0.02	0.029	93.759	-0.006	NO Mode High
4/5/2022	5:09	-0.02	0.029	31.675	-0.017	
4/5/2022	5:10	-0.024	0.033	0.427	-0.025	NO2 Gas NO Mode
4/5/2022	5:11	-0.006	0.035	35.842	-0.021	
4/5/2022	5:12	0.086	0.038	41.421	-0.024	NO2 Gas NOx Mode
4/5/2022	5:13	14.182	0.102	7.51	0.002	
4/5/2022	5:14	20.876	0.1	0.969	0.166	
4/5/2022	5:15	20.879	0.103	0.658	0.242	
4/5/2022	5:16	20.879	0.102	0.506	0.266	
4/5/2022	5:17	20.884	0.102	0.415	0.256	
4/5/2022	5:18	20.118	0.134	4.628	0.265	
4/5/2022	5:19	9.351	10.712	33.189	0.106	
4/5/2022	5:20	8.598	11.955	38.302	-0.285	
4/5/2022	5:21	7.92	12.504	47.401	-0.345	
4/5/2022	5:22	7.539	13.255	49.764	-0.368	
4/5/2022	5:23	7.575	12.916	50.194	-0.379	
4/5/2022	5:24	7.735	12.948	50.894	-0.37	
4/5/2022	5:25	8.1	12.462	44.287	-0.368	
4/5/2022	5:26	8.26	12.476	44.57	-0.386	
4/5/2022	5:27	7.779	12.773	51.47	-0.362	
4/5/2022	5:28	8.38	12.357	42.212	-0.363	
4/5/2022	5:29	8.845	11.925	38.134	-0.381	
4/5/2022	5:30	10.187	10.511	37.233	-0.395	
4/5/2022	5:31	9.968	10.683	30.822	-0.359	
4/5/2022	5:32	8.25	12.128	45.234	-0.347	
4/5/2022	5:33	7.782	12.929	47.163	-0.347	
4/5/2022	5:34	8.576	12.148	44.039	-0.358	
4/5/2022	5:35	9.257	11.513	37.223	-0.381	
4/5/2022	5:36	9.303	11.293	36.6	-0.367	
4/5/2022	5:37	9.304	11.178	34.799	-0.366	
4/5/2022	5:38	9.165	11.509	35.515	-0.36	
4/5/2022	5:39	8.592	12.092	39.218	-0.351	
4/5/2022	5:40	8.59	11.968	41.187	-0.351	
4/5/2022	5:41	7.918	12.433	44.901	-0.36	
4/5/2022	5:42	7.855	12.818	44.754	-0.35	
4/5/2022	5:43	8.565	12.084	45.817	-0.353	
4/5/2022	5:44	8.385	12.3	46.427	-0.36	

4/5/2022	5:45	8.74	11.745	42.468	-0.395	
4/5/2022	5:46	8.553	12.151	44.83	-0.355	
4/5/2022	5:47	8.18	12.416	49.626	-0.399	
4/5/2022	5:48	8.724	11.88	42.59	-0.384	
4/5/2022	5:49	6.74	7.985	42.146	-0.322	
4/5/2022	5:50	0.019	0.121	48.128	0.027	
4/5/2022	5:51	0.008	0.084	48.358	0.093	NOx Bias
4/5/2022	5:52	1.925	2.315	20.087	0.477	
4/5/2022	5:53	0.005	0.098	5.694	3.74	
4/5/2022	5:54	0.002	0.075	5.692	5.557	CO Bias
4/5/2022	5:55	7.902	6.563	1.342	4.232	
4/5/2022	5:56	10.48	10.598	0.079	-0.129	O2 CO2 Bias
4/5/2022	5:57	9.24	11.242	28.67	-0.418	
4/5/2022	5:58	6.712	13.965	56.324	-0.353	
4/5/2022	5:59	8.137	12.458	45.645	-0.358	
4/5/2022	6:00	8.35	12.127	44.601	-0.359	
4/5/2022	6:01	8.165	12.463	40.828	-0.355	
4/5/2022	6:02	8.373	12.157	37.696	-0.363	
4/5/2022	6:03	8.349	12.268	40.211	-0.354	
4/5/2022	6:04	8.252	12.312	42.145	-0.37	
4/5/2022	6:05	9.169	11.667	31.139	-0.357	
4/5/2022	6:06	9.727	10.704	28.028	-0.326	
4/5/2022	6:07	7.621	12.797	49.974	-0.353	
4/5/2022	6:08	6.833	13.647	56.834	-0.351	
4/5/2022	6:09	7.922	12.966	43.5	-0.373	
4/5/2022	6:10	9.026	11.49	33.277	-0.377	
4/5/2022	6:11	8.792	11.618	35.012	-0.361	
4/5/2022	6:12	8.55	12.008	38.92	-0.344	
4/5/2022	6:13	8.518	12.183	36.941	-0.355	
4/5/2022	6:14	8.895	11.77	30.305	-0.351	
4/5/2022	6:15	8.743	11.646	32.416	-0.344	
4/5/2022	6:16	8.323	12.304	34.44	-0.371	
4/5/2022	6:17	8.415	12.319	40.27	-0.362	
4/5/2022	6:18	9.1	11.555	38.511	-0.378	
4/5/2022	6:19	9.465	11.084	33.418	-0.353	
4/5/2022	6:20	9.14	11.518	35.667	-0.367	
4/5/2022	6:21	8.807	11.519	35.061	-0.358	
4/5/2022	6:22	7.766	12.779	45.464	-0.375	
4/5/2022	6:23	7.544	12.961	52.873	-0.359	
4/5/2022	6:24	7.533	13.239	51.697	-0.367	
4/5/2022	6:25	7.962	12.497	50.834	-0.345	
4/5/2022	6:26	8.175	12.505	45.972	-0.337	
4/5/2022	6:27	7.638	13.026	52.664	-0.348	
4/5/2022	6:28	8.001	12.512	48.756	-0.338	
4/5/2022	6:29	8.888	11.639	38.509	-0.339	
4/5/2022	6:30	8.526	12.012	39.215	-0.321	
4/5/2022	6:31	8.293	12.327	39.799	-0.322	
4/5/2022	6:32	9.201	11.501	33.01	-0.336	
4/5/2022	6:33	8.573	11.812	36.57	-0.34	

4/5/2022	6:34	8.172	12.547	36.848	-0.335
4/5/2022	6:35	9.159	11.531	29.615	-0.372
4/5/2022	6:36	8.906	11.597	29.471	-0.35
4/5/2022	6:37	7.296	12.938	48.15	-0.336
4/5/2022	6:38	7.331	13.344	51.13	-0.348
4/5/2022	6:39	8.005	12.68	48.682	-0.363
4/5/2022	6:40	8.741	11.979	39.804	-0.347
4/5/2022	6:41	8.512	12.093	38.69	-0.363
4/5/2022	6:42	8.197	12.349	41.108	-0.352
4/5/2022	6:43	8.356	12.022	42.473	-0.331
4/5/2022	6:44	8.444	12.254	41.79	-0.329
4/5/2022	6:45	9.209	11.514	34.332	-0.328
4/5/2022	6:46	9.135	11.395	31.395	-0.329
4/5/2022	6:47	8.863	11.804	29.304	-0.307
4/5/2022	6:48	9.384	11.352	30.787	-0.361
4/5/2022	6:49	9.335	11.088	28.889	-0.337
4/5/2022	6:50	7.573	12.635	44.356	-0.336
4/5/2022	6:51	7.284	13.248	51.052	-0.365
4/5/2022	6:52	7.797	12.973	48.663	-0.358
4/5/2022	6:53	8.45	12.22	47.544	-0.364
4/5/2022	6:54	8.227	12.242	45.027	-0.345
4/5/2022	6:55	9.125	11.483	36.186	-0.358
4/5/2022	6:56	7.783	12.647	48.103	-0.353
4/5/2022	6:57	7.674	13.104	49.032	-0.346
4/5/2022	6:58	8.994	11.68	40.684	-0.356
4/5/2022	6:59	9.216	11.288	34.674	-0.346
4/5/2022	7:00	9.502	11.105	29.601	-0.351
4/5/2022	7:01	9.07	11.524	28.846	-0.333
4/5/2022	7:02	9.125	11.55	30.242	-0.352
4/5/2022	7:03	9.506	11.086	32.846	-0.353
4/5/2022	7:04	8.477	11.987	40.127	-0.357
4/5/2022	7:05	8.391	12.279	41.748	-0.366
4/5/2022	7:06	8.821	11.927	40.597	-0.349
4/5/2022	7:07	9.16	11.372	39.156	-0.361
4/5/2022	7:08	8.46	12.11	41.724	-0.343
4/5/2022	7:09	8.425	11.996	46.208	-0.346
4/5/2022	7:10	8	12.734	48.146	-0.338
4/5/2022	7:11	8.637	11.969	44.496	-0.331
4/5/2022	7:12	8.231	12.287	45.533	-0.355
4/5/2022	7:13	8.226	12.507	43.596	-0.342
4/5/2022	7:14	9.42	11.294	33.755	-0.374
4/5/2022	7:15	8.429	12.058	40.651	-0.33
4/5/2022	7:16	8.28	12.184	41.392	-0.356
4/5/2022	7:17	8.724	12.028	38.198	-0.321
4/5/2022	7:18	7.854	12.501	47.448	-0.337
4/5/2022	7:19	8.068	12.548	45.924	-0.366
4/5/2022	7:20	8.68	11.947	43.239	-0.367
4/5/2022	7:21	8.966	11.665	36.235	-0.344
4/5/2022	7:22	9.291	11.542	33.113	-0.336

4/5/2022	7:23	9.245	11.115	39.099	-0.332
4/5/2022	7:24	8.176	12.513	42.676	-0.338
4/5/2022	7:25	9.096	11.527	33.329	-0.373
4/5/2022	7:26	8.868	11.584	38.734	-0.345
4/5/2022	7:27	7.815	12.693	51.02	-0.348
4/5/2022	7:28	7.201	13.436	54.034	-0.364
4/5/2022	7:29	8.176	12.62	46.419	-0.352
4/5/2022	7:30	7.87	12.639	50.502	-0.349
4/5/2022	7:31	8.663	12.169	41.069	-0.38
4/5/2022	7:32	8.847	11.735	36.747	-0.362
4/5/2022	7:33	8.716	11.938	36.815	-0.357
4/5/2022	7:34	8.719	11.924	35.327	-0.381
4/5/2022	7:35	8.535	12.024	37.08	-0.366
4/5/2022	7:36	8.017	12.569	40.033	-0.366
4/5/2022	7:37	8.454	12.212	39.088	-0.392
4/5/2022	7:38	8.688	12.034	39.522	-0.369
4/5/2022	7:39	9.149	11.529	38.823	-0.389
4/5/2022	7:40	9.119	11.535	36.357	-0.351
4/5/2022	7:41	8.587	11.898	39.011	-0.359
4/5/2022	7:42	8.207	12.594	43.504	-0.383
4/5/2022	7:43	8.77	11.783	40.193	-0.354
4/5/2022	7:44	8.633	11.973	43.153	-0.33
4/5/2022	7:45	8.808	11.936	39.92	-0.356
4/5/2022	7:46	8.48	12.144	39.731	-0.373
4/5/2022	7:47	8.465	12.091	40.328	-0.394
4/5/2022	7:48	7.67	12.87	49.536	-0.355
4/5/2022	7:49	7.542	13.146	50.678	-0.369
4/5/2022	7:50	8.465	12.258	40.592	-0.357
4/5/2022	7:51	8.375	12.294	40.589	-0.377
4/5/2022	7:52	8.245	12.452	46.963	-0.362
4/5/2022	7:53	9.052	11.634	37.699	-0.378
4/5/2022	7:54	8.69	11.994	42.004	-0.393
4/5/2022	7:55	8.977	11.873	39.41	-0.377
4/5/2022	7:56	9.17	11.32	34.68	-0.351
4/5/2022	7:57	8.612	12.011	33.274	-0.336
4/5/2022	7:58	8.206	12.388	41.038	-0.353
4/5/2022	7:59	8.957	11.927	37.892	-0.393
4/5/2022	8:00	9.321	11.328	36.472	-0.373
Run 1 Average		8.51	12.09	40.37	-0.35
4/5/2022	8:01	7.811	12.555	48.211	-0.347
4/5/2022	8:02	8.89	12.026	34.681	-0.39
4/5/2022	8:03	9.066	11.461	35.134	-0.375
4/5/2022	8:04	8.658	12.073	37.887	-0.348
4/5/2022	8:05	8.219	12.413	44.669	-0.358
4/5/2022	8:06	9.224	11.601	37.546	-0.379
4/5/2022	8:07	9.857	10.881	31.976	-0.362
4/5/2022	8:08	8.924	11.538	35.619	-0.352
4/5/2022	8:09	8.139	12.578	45.474	-0.371
4/5/2022	8:10	7.624	12.933	50.075	-0.361

4/5/2022	8:11	10.394	10.979	2.103	-0.384	
4/5/2022	8:12	10.488	10.721	0.065	-0.427	O2 CO2 Bias
4/5/2022	8:13	2.284	3.917	39.071	-0.401	
4/5/2022	8:13	2.284	3.917	39.071	-0.401	
4/5/2022	8:14	0.011	0.168	48.135	-0.005	
4/5/2022	8:15	0.008	0.145	48.06	0.093	NOx Bias
4/5/2022	8:16	0.009	0.139	13.194	1.443	
4/5/2022	8:17	0.004	0.132	5.599	5.405	
4/5/2022	8:18	0.002	0.126	5.61	5.546	CO Bias
4/5/2022	8:19	-0.007	0.101	0.664	3.423	
4/5/2022	8:20	-0.009	0.078	0.024	0.031	
4/5/2022	8:21	-0.012	0.075	0.008	-0.028	Zero
4/5/2022	8:22	7.706	7.861	43.162	2.188	
4/5/2022	8:23	10.532	10.695	48.168	5.512	
4/5/2022	8:24	10.532	10.696	48.498	5.549	Span
4/5/2022	8:25	9.103	11.517	41.7	3.794	
4/5/2022	8:26	8.265	12.187	45.077	-0.203	
4/5/2022	8:27	7.704	13.076	50.807	-0.393	
4/5/2022	8:28	8.132	12.656	43.702	-0.401	
4/5/2022	8:29	8.196	12.212	45.17	-0.385	
4/5/2022	8:30	7.427	13.375	50.334	-0.381	
4/5/2022	8:31	8.79	12.057	38.282	-0.385	
4/5/2022	8:32	8.703	11.815	41.264	-0.369	
4/5/2022	8:33	8.095	12.517	45.172	-0.395	
4/5/2022	8:34	8.36	12.403	42.615	-0.393	
4/5/2022	8:35	7.915	12.546	48.883	-0.403	
4/5/2022	8:36	7.779	12.96	46.179	-0.398	
4/5/2022	8:37	7.358	13.312	48.48	-0.403	
4/5/2022	8:38	8.279	12.339	44.114	-0.387	
4/5/2022	8:39	8.077	12.543	43.991	-0.406	
4/5/2022	8:40	8.745	12.024	38.564	-0.385	
4/5/2022	8:41	8.6	11.906	41.449	-0.388	
4/5/2022	8:42	8.791	12.126	39.171	-0.384	
4/5/2022	8:43	8.634	11.87	37.948	-0.401	
4/5/2022	8:44	8.153	12.546	42.596	-0.369	
4/5/2022	8:45	9.271	11.576	31.658	-0.37	
4/5/2022	8:46	9.055	11.345	34.008	-0.396	
4/5/2022	8:47	8.125	12.569	41.581	-0.356	
4/5/2022	8:48	7.868	12.743	42.096	-0.369	
4/5/2022	8:49	8.727	12.073	34.916	-0.366	
4/5/2022	8:50	9.288	11.312	34.944	-0.376	
4/5/2022	8:51	9.324	11.313	29.978	-0.337	
4/5/2022	8:52	9.536	11.138	35.293	-0.346	
4/5/2022	8:53	8.236	12.286	44.937	-0.358	
4/5/2022	8:54	7.867	12.797	46.381	-0.368	
4/5/2022	8:55	7.487	12.899	55.923	-0.371	
4/5/2022	8:56	7.527	13.319	55.089	-0.39	
4/5/2022	8:57	7.969	12.595	46.552	-0.394	
4/5/2022	8:58	8.311	12.464	42.072	-0.419	

4/5/2022	8:59	8.751	12.007	38.446	-0.395
4/5/2022	9:00	9.606	11.045	31.875	-0.401
4/5/2022	9:01	8.01	12.554	45.432	-0.366
4/5/2022	9:02	8.065	12.612	47.66	-0.394
4/5/2022	9:03	9.178	11.625	35.611	-0.4
4/5/2022	9:04	8.857	11.598	38.707	-0.372
4/5/2022	9:05	9.275	11.544	33.677	-0.392
4/5/2022	9:06	8.564	12.153	40.131	-0.363
4/5/2022	9:07	8.565	11.95	39.742	-0.392
4/5/2022	9:08	8.603	12.134	39.574	-0.373
4/5/2022	9:09	8.408	12.172	38.974	-0.391
4/5/2022	9:10	8.724	11.952	40.305	-0.394
4/5/2022	9:11	9.054	11.495	39.689	-0.365
4/5/2022	9:12	8.722	11.98	40.307	-0.358
4/5/2022	9:13	8.619	12.12	39.192	-0.364
4/5/2022	9:14	8.539	12.038	41.742	-0.364
4/5/2022	9:15	8.13	12.354	46.968	-0.382
4/5/2022	9:16	8.242	12.422	48.489	-0.399
4/5/2022	9:17	8.381	12.387	47.506	-0.403
4/5/2022	9:18	8.658	12.018	40.841	-0.362
4/5/2022	9:19	8.585	12.026	47.042	-0.348
4/5/2022	9:20	8.751	11.883	44.205	-0.384
4/5/2022	9:21	8.728	12.077	41.382	-0.392
4/5/2022	9:22	8.199	12.201	48.661	-0.389
4/5/2022	9:23	8.97	11.801	44.66	-0.38
4/5/2022	9:24	8.4	12.13	48.907	-0.369
4/5/2022	9:25	8.615	12.134	43.013	-0.386
4/5/2022	9:26	9.065	11.697	35.623	-0.373
4/5/2022	9:27	8.67	11.894	40.466	-0.375
4/5/2022	9:28	8.572	12.039	40.324	-0.385
4/5/2022	9:29	8.107	12.467	46.39	-0.374
4/5/2022	9:30	8.417	12.411	42.514	-0.379
4/5/2022	9:31	8.381	12.15	43.352	-0.371
4/5/2022	9:32	8.243	12.478	45.749	-0.379
4/5/2022	9:33	8.583	11.981	45.048	-0.378
4/5/2022	9:34	8.519	12.225	38.728	-0.401
4/5/2022	9:35	8.329	12.217	42.038	-0.365
4/5/2022	9:36	8.355	12.392	42.198	-0.371
4/5/2022	9:37	7.953	12.589	48.492	-0.382
4/5/2022	9:38	8.119	12.627	43.029	-0.392
4/5/2022	9:39	8.376	12.382	41.422	-0.404
4/5/2022	9:40	8.674	11.922	40.393	-0.389
4/5/2022	9:41	8.122	12.456	50.064	-0.379
4/5/2022	9:42	8.468	12.393	44.203	-0.385
4/5/2022	9:43	8.657	12.169	39.873	-0.409
4/5/2022	9:44	8.671	11.795	40.452	-0.398
4/5/2022	9:45	8.611	11.997	41.407	-0.393
4/5/2022	9:46	9.016	11.704	37.038	-0.374
4/5/2022	9:47	8.085	12.448	44.193	-0.367

4/5/2022	9:48	7.329	13.268	50.683	-0.384
4/5/2022	9:49	7.586	13.082	52.872	-0.4
4/5/2022	9:50	7.91	12.837	47.896	-0.41
4/5/2022	9:51	9.149	11.635	36.906	-0.398
4/5/2022	9:52	8.717	11.912	39.823	-0.371
4/5/2022	9:53	8.963	11.628	37.817	-0.369
4/5/2022	9:54	8.725	12.179	34.965	-0.367
4/5/2022	9:55	9.004	11.553	34.824	-0.368
4/5/2022	9:56	8.269	12.354	41.861	-0.362
4/5/2022	9:57	8.313	12.258	39.31	-0.381
4/5/2022	9:58	8.487	12.183	41.097	-0.377
4/5/2022	9:59	8.283	12.407	41.337	-0.383
4/5/2022	10:00	9.119	11.639	34.496	-0.388
4/5/2022	10:01	8.637	11.984	40.052	-0.381
4/5/2022	10:02	8.087	12.494	44.715	-0.371
4/5/2022	10:03	8.199	12.299	46.224	-0.375
4/5/2022	10:04	8.116	12.674	47.147	-0.402
4/5/2022	10:05	8.158	12.322	50.598	-0.387
4/5/2022	10:06	8.498	12.296	42.119	-0.39
4/5/2022	10:07	9.027	11.692	35.246	-0.397
4/5/2022	10:08	9.428	11.173	31.111	-0.363
4/5/2022	10:09	9.058	11.679	38.605	-0.36
4/5/2022	10:10	8.711	11.837	41.046	-0.371
4/5/2022	10:11	8.701	12.181	38.432	-0.39
4/5/2022	10:12	8.568	11.841	41.519	-0.387
4/5/2022	10:13	8.47	12.171	40.075	-0.394
4/5/2022	10:14	8.272	12.369	46.87	-0.367
4/5/2022	10:15	8.601	12.1	40.699	-0.373
4/5/2022	10:16	8.782	11.928	39.841	-0.392
4/5/2022	10:17	8.5	11.954	45.605	-0.368
4/5/2022	10:18	7.385	13.23	53.653	-0.371
4/5/2022	10:19	8.441	12.311	44.859	-0.397
4/5/2022	10:20	8.816	11.834	41.03	-0.368
4/5/2022	10:21	7.993	12.647	49.849	-0.371
4/5/2022	10:22	8.26	12.383	49.931	-0.401
4/5/2022	10:23	8.228	12.289	48.56	-0.411
4/5/2022	10:24	9.156	11.728	35.929	-0.392
4/5/2022	10:25	9.35	11.347	35.465	-0.392
4/5/2022	10:26	9.431	11.158	35.108	-0.363
4/5/2022	10:27	7.36	13.063	53.348	-0.39
4/5/2022	10:28	7.761	13.01	51.251	-0.387
4/5/2022	10:29	9.088	11.661	39.313	-0.359
4/5/2022	10:30	8.107	12.396	46.114	-0.37
4/5/2022	10:31	7.659	13.012	55.065	-0.382
4/5/2022	10:32	9.484	11.323	34.737	-0.398
4/5/2022	10:33	9.279	11.413	32.298	-0.396
4/5/2022	10:34	9.402	11.226	33.306	-0.38
4/5/2022	10:35	9.293	11.359	30.084	-0.372
4/5/2022	10:36	8.79	11.86	32.543	-0.353

4/5/2022	10:37	8.55	11.998	36.42	-0.369	
4/5/2022	10:38	9.202	11.697	36.132	-0.359	
4/5/2022	10:39	8.322	12.071	44.831	-0.358	
4/5/2022	10:40	7.954	12.651	48.378	-0.367	
4/5/2022	10:41	8.605	12.347	44.161	-0.397	
4/5/2022	10:42	9.685	10.864	38.484	-0.386	
4/5/2022	10:43	9.144	11.386	39.294	-0.355	
4/5/2022	10:44	8.398	12.391	43.485	-0.371	
4/5/2022	10:45	8.822	11.716	41.251	-0.396	
Run 2 Average		8.55	12.10	41.90	-0.38	
4/5/2022	10:46	8.058	12.514	45.84	-0.383	
4/5/2022	10:47	7.778	12.893	47.009	-0.369	
4/5/2022	10:48	8.287	12.418	46.568	-0.374	
4/5/2022	10:49	8.841	11.857	46.178	-0.389	
4/5/2022	10:50	8.573	12.134	42.837	-0.387	
4/5/2022	10:51	8.46	12.156	45.441	-0.397	
4/5/2022	10:52	8.727	11.653	45.168	-0.395	
4/5/2022	10:53	7.9	12.943	47.597	-0.368	
4/5/2022	10:54	8.418	12.312	45.067	-0.395	
4/5/2022	10:55	8.724	11.864	46.084	-0.4	
4/5/2022	10:47	7.778	12.893	47.009	-0.369	
4/5/2022	10:48	8.287	12.418	46.568	-0.374	
4/5/2022	10:49	8.841	11.857	46.178	-0.389	
4/5/2022	10:50	8.573	12.134	42.837	-0.387	
4/5/2022	10:51	8.46	12.156	45.441	-0.397	
4/5/2022	10:52	8.727	11.653	45.168	-0.395	
4/5/2022	10:53	7.9	12.943	47.597	-0.368	
4/5/2022	10:54	8.418	12.312	45.067	-0.395	
4/5/2022	10:55	8.724	11.864	46.084	-0.4	
4/5/2022	10:56	3.215	5.562	13.996	0.44	
4/5/2022	10:57	0.016	0.143	5.576	4.92	
4/5/2022	10:58	0.009	0.119	5.607	5.5	CO Bias
4/5/2022	10:59	0.013	0.108	38.3	4.388	
4/5/2022	11:00	0.01	0.102	48.186	0.301	
4/5/2022	11:01	0.009	0.102	47.901	0.1	NOx Bias
4/5/2022	11:02	8.076	6.821	9.384	-0.018	
4/5/2022	11:03	10.486	10.646	0.095	-0.38	O2 CO2 Bias
4/5/2022	11:04	10.491	10.666	0.071	-0.463	
4/5/2022	11:05	5.51	7.463	0.048	-0.426	
4/5/2022	11:06	-0.008	0.067	0.019	-0.321	
4/5/2022	11:07	-0.008	0.055	0.02	-0.036	
4/5/2022	11:08	-0.011	0.051	0.008	-0.018	Zero
4/5/2022	11:09	4.998	4.943	28.856	0.623	
4/5/2022	11:10	10.523	10.655	48.372	5.063	
4/5/2022	11:11	10.521	10.661	48.123	5.516	Span
4/5/2022	11:12	9.38	11.267	37.076	4.363	
4/5/2022	11:13	8.376	12.278	41.544	-0.021	
4/5/2022	11:14	7.979	12.58	48.908	-0.431	
4/5/2022	11:15	7.509	13.095	53.088	-0.421	

4/5/2022	11:16	7.87	12.89	52.897	-0.423
4/5/2022	11:17	7.597	12.943	51.99	-0.392
4/5/2022	11:18	7.738	12.892	52.675	-0.413
4/5/2022	11:19	7.942	12.67	47.589	-0.406
4/5/2022	11:20	8.301	12.328	42.327	-0.403
4/5/2022	11:21	8.58	12.218	35.854	-0.436
4/5/2022	11:22	7.34	13.253	49.24	-0.389
4/5/2022	11:23	7.674	12.858	51.544	-0.406
4/5/2022	11:24	7.511	13.137	55.499	-0.427
4/5/2022	11:25	8.621	12.203	44.648	-0.417
4/5/2022	11:26	8.192	12.534	42.274	-0.41
4/5/2022	11:27	9.144	11.481	30.64	-0.412
4/5/2022	11:28	8.913	11.913	33.356	-0.38
4/5/2022	11:29	9.102	11.559	35.495	-0.39
4/5/2022	11:30	9.414	11.132	30.772	-0.379
4/5/2022	11:31	8.406	12.311	39.605	-0.372
4/5/2022	11:32	8.023	12.396	39.202	-0.404
4/5/2022	11:33	7.605	12.951	45.732	-0.376
4/5/2022	11:34	8.037	12.761	41.616	-0.39
4/5/2022	11:35	8.249	12.297	38.281	-0.397
4/5/2022	11:36	8.808	11.939	34.491	-0.38
4/5/2022	11:37	9.376	11.397	29.117	-0.393
4/5/2022	11:38	9.15	11.245	34.4	-0.383
4/5/2022	11:39	8.296	12.406	41.161	-0.391
4/5/2022	11:40	8.379	12.107	44.231	-0.387
4/5/2022	11:41	7.739	12.962	42.185	-0.358
4/5/2022	11:42	8.557	12.199	39.798	-0.395
4/5/2022	11:43	8.342	12.265	41.224	-0.383
4/5/2022	11:44	8.29	12.413	43.95	-0.381
4/5/2022	11:45	8.867	11.922	39.994	-0.378
4/5/2022	11:46	8.827	11.674	44.569	-0.375
4/5/2022	11:47	8.958	11.823	37.127	-0.392
4/5/2022	11:48	8.837	11.719	40.371	-0.4
4/5/2022	11:49	9.278	11.338	34.441	-0.367
4/5/2022	11:50	8.896	11.691	36.772	-0.366
4/5/2022	11:51	8.492	12.218	42.112	-0.403
4/5/2022	11:52	8.655	11.967	43.089	-0.39
4/5/2022	11:53	8.748	11.917	41.818	-0.37
4/5/2022	11:54	8.64	11.941	45.876	-0.402
4/5/2022	11:55	8.789	11.925	40.337	-0.404
4/5/2022	11:56	8.904	11.795	43.139	-0.394
4/5/2022	11:57	9.167	11.506	40.178	-0.369
4/5/2022	11:58	8.733	11.824	41.985	-0.372
4/5/2022	11:59	8.322	12.337	43.249	-0.378
4/5/2022	12:00	8.163	12.366	47.786	-0.382
4/5/2022	12:01	8.704	12.182	43.424	-0.393
4/5/2022	12:02	8.838	11.51	46.509	-0.359
4/5/2022	12:03	7.96	12.78	50.553	-0.364
4/5/2022	12:04	8.694	11.838	49.569	-0.384

4/5/2022	12:05	8.106	12.597	50.497	-0.39
4/5/2022	12:06	7.607	12.983	53.363	-0.398
4/5/2022	12:07	7.267	13.325	58.583	-0.416
4/5/2022	12:08	8.114	12.602	45.733	-0.39
4/5/2022	12:09	8.713	11.938	40.771	-0.39
4/5/2022	12:10	7.852	12.755	42.532	-0.372
4/5/2022	12:11	7.146	13.493	52.521	-0.357
4/5/2022	12:12	7.558	13.093	50.598	-0.404
4/5/2022	12:13	8.785	11.933	40.105	-0.389
4/5/2022	12:14	8.927	11.69	35.002	-0.394
4/5/2022	12:15	7.997	12.565	44.334	-0.38
4/5/2022	12:16	7.841	12.819	44.551	-0.404
4/5/2022	12:17	8.033	12.618	48.377	-0.394
4/5/2022	12:18	7.606	12.968	52.422	-0.408
4/5/2022	12:19	7.943	12.692	48.47	-0.405
4/5/2022	12:20	8.086	12.631	45.629	-0.397
4/5/2022	12:21	9.044	11.563	35.287	-0.377
4/5/2022	12:22	8.992	11.781	29.475	-0.374
4/5/2022	12:23	8.608	11.912	36.268	-0.382
4/5/2022	12:24	8.746	12.031	35.371	-0.392
4/5/2022	12:25	8.492	11.956	39.898	-0.367
4/5/2022	12:26	8.62	12.075	37.522	-0.376
4/5/2022	12:27	8.705	11.896	38.044	-0.371
4/5/2022	12:28	8.958	11.753	33.642	-0.366
4/5/2022	12:29	9.115	11.564	32.954	-0.385
4/5/2022	12:30	8.553	11.984	41.568	-0.368
4/5/2022	12:31	8.391	12.278	43.166	-0.358
4/5/2022	12:32	8.508	12.194	43.773	-0.359
4/5/2022	12:33	8.235	12.269	45.083	-0.382
4/5/2022	12:34	8.378	12.202	44.372	-0.385
4/5/2022	12:35	8.202	12.42	48.361	-0.363
4/5/2022	12:36	7.992	12.674	47.533	-0.38
4/5/2022	12:37	8.201	12.374	45.499	-0.388
4/5/2022	12:38	8.134	12.547	43.21	-0.388
4/5/2022	12:39	8.348	12.303	40.689	-0.39
4/5/2022	12:40	9.298	11.416	34.383	-0.368
4/5/2022	12:41	8.834	11.698	36.313	-0.372
4/5/2022	12:42	8.062	12.57	42.775	-0.374
4/5/2022	12:43	7.926	12.701	45.122	-0.399
4/5/2022	12:44	8.773	11.973	39.261	-0.414
4/5/2022	12:45	9.542	11.105	31.852	-0.386
4/5/2022	12:46	8.988	11.579	37.1	-0.381
4/5/2022	12:47	8.148	12.443	46.81	-0.385
4/5/2022	12:48	8.078	12.495	47.848	-0.38
4/5/2022	12:49	8.19	12.575	47.935	-0.341
4/5/2022	12:50	9.087	11.575	41.601	-0.366
4/5/2022	12:51	8.532	11.989	49.657	-0.367
4/5/2022	12:52	8.127	12.424	49.006	-0.385
4/5/2022	12:53	8.014	12.593	50.365	-0.381

4/5/2022	12:54	8.611	12.044	47.242	-0.373	
4/5/2022	12:55	8.339	12.396	48.147	-0.349	
4/5/2022	12:56	8.594	12.041	44.983	-0.391	
4/5/2022	12:57	8.53	12.045	42.916	-0.39	
4/5/2022	12:58	9.085	11.644	32.771	-0.389	
4/5/2022	12:59	8.316	12.207	37.549	-0.37	
4/5/2022	13:00	8.033	12.653	43.743	-0.396	
4/5/2022	13:01	8.25	12.329	42.421	-0.408	
4/5/2022	13:02	8.355	12.332	42.462	-0.395	
4/5/2022	13:03	9.095	11.654	35.356	-0.388	
4/5/2022	13:04	9.195	11.373	39.909	-0.394	
4/5/2022	13:05	8.484	12.033	42.576	-0.37	
4/5/2022	13:06	8.577	12.018	40.932	-0.38	
4/5/2022	13:07	8.457	12.131	41.84	-0.391	
4/5/2022	13:08	9.178	11.608	36.218	-0.379	
4/5/2022	13:09	7.798	12.623	48.972	-0.369	
4/5/2022	13:10	7.561	13.049	50.602	-0.361	
4/5/2022	13:11	8.806	11.881	39.424	-0.375	
4/5/2022	13:12	8.889	11.864	37.233	-0.384	
4/5/2022	13:13	8.693	11.956	41.961	-0.385	
4/5/2022	13:14	9.155	11.486	37.129	-0.377	
4/5/2022	13:15	9.042	11.542	37.176	-0.409	
Run 3 Average		8.45	12.19	42.43	-0.39	
4/5/2022	13:16	8.13	12.403	46.181	-0.395	
4/5/2022	13:17	7.679	12.932	48.406	-0.375	
4/5/2022	13:18	8.031	12.656	48.285	-0.426	
4/5/2022	13:19	8.031	12.614	49.75	-0.382	
4/5/2022	13:20	8.278	12.374	45.927	-0.406	
4/5/2022	13:21	8.596	12.023	43.976	-0.405	
4/5/2022	13:22	9.03	11.683	41.644	-0.418	
4/5/2022	13:23	8.955	11.674	40.26	-0.425	
4/5/2022	13:24	9.104	11.604	36.996	-0.396	
4/5/2022	13:25	8.449	12.038	41.42	-0.396	
4/5/2022	13:26	8.256	12.413	45.521	-0.415	
4/5/2022	13:27	8.355	12.234	45.3	-0.408	
4/5/2022	13:28	10.352	10.948	1.509	-0.405	
4/5/2022	13:29	10.475	10.681	0.087	-0.441	
4/5/2022	13:30	10.479	10.681	0.078	-0.465	O2 CO2 Bias
4/5/2022	13:31	2.23	3.679	39.455	-0.437	
4/5/2022	13:32	0.023	0.156	48.319	-0.006	
4/5/2022	13:33	0.015	0.129	48.225	0.071	NOx Bias
4/5/2022	13:34	0.015	0.123	47.964	0.057	
4/5/2022	13:35	0.014	0.116	8.343	2.031	
4/5/2022	13:36	0.009	0.112	5.647	5.448	
4/5/2022	13:37	0.009	0.107	5.639	5.5	CO Bias
4/5/2022	13:38	-0.014	0.079	1.123	3.392	
4/5/2022	13:39	-0.014	0.056	0.037	-0.005	
4/5/2022	13:40	-0.014	0.053	0.037	-0.062	Zero
4/5/2022	13:41	6.736	7.175	37.839	1.246	

4/5/2022	13:42	10.516	10.652	48.636	5.338	
4/5/2022	13:43	10.514	10.656	48.282	5.449	Span
4/5/2022	13:44	10.016	10.629	40.45	4.654	
4/5/2022	13:45	8.731	11.717	39.441	0.273	
4/5/2022	13:46	8.53	12.145	41.104	-0.063	
4/5/2022	13:47	8.553	12.094	44.169	-0.08	
4/5/2022	13:48	8.515	12.047	44.422	-0.083	
4/5/2022	13:49	8.614	12.092	40.526	-0.061	
4/5/2022	13:50	9.244	11.339	38.48	-0.065	
4/5/2022	13:51	8.316	12.418	45.026	-0.065	
4/5/2022	13:52	8.43	12.103	46.719	-0.101	
4/5/2022	13:53	8.233	12.333	45.771	-0.065	
4/5/2022	13:54	7.692	12.849	52.32	-0.073	
4/5/2022	13:55	8.809	11.987	47.234	-0.094	
4/5/2022	13:56	9.344	11.282	39.206	-0.077	
4/5/2022	13:57	8.595	11.787	40.512	-0.087	
4/5/2022	13:58	9.112	11.666	33.624	-0.077	
4/5/2022	13:59	9.148	11.335	36.087	-0.084	
4/5/2022	14:00	8.375	12.25	43.335	-0.031	
4/5/2022	14:01	8.186	12.419	46.403	-0.266	
4/5/2022	14:02	8.353	12.309	49.211	-0.386	
4/5/2022	14:03	8.795	11.742	44.412	-0.367	
4/5/2022	14:04	8.855	11.828	38.9	-0.357	
4/5/2022	14:05	9.579	11.216	37.287	-0.347	
4/5/2022	14:06	8.4	11.921	44.479	-0.321	
4/5/2022	14:07	8.117	12.674	45.333	-0.328	
4/5/2022	14:08	8.475	12.132	44.633	-0.335	
4/5/2022	14:09	7.954	12.71	47.598	-0.348	
4/5/2022	14:10	8.441	12.206	42.112	-0.33	
4/5/2022	14:11	7.709	12.75	53.296	-0.302	
4/5/2022	14:12	8.122	12.581	53.496	-0.313	
4/5/2022	14:13	8.202	12.321	52.342	-0.308	
4/5/2022	14:14	8.348	12.433	44.131	-0.33	
4/5/2022	14:15	8.822	11.817	39.747	-0.322	
4/5/2022	14:16	8.911	11.819	40.978	-0.32	
4/5/2022	14:17	8.444	12.216	41.021	-0.286	
4/5/2022	14:18	9.109	11.722	38.381	-0.324	
4/5/2022	14:19	7.736	12.363	44.455	-0.304	
4/5/2022	14:20	12.03	13.713	63.512	0.129	
4/5/2022	14:21	18.974	18.986	94.549	6.635	
4/5/2022	14:22	18.982	19.007	94.241	8.414	
4/5/2022	14:23	18.98	19.015	93.623	8.472	High

Appendix A.2.3
Unit 2 Instrument Strip Charts

Montrose
SPAN GAS RECORD

CLIENT/LOCATION: Desert View Power
Unit 2

DATE: 4/5/2022
BY: DW

	MID SPAN CYLINDER		HIGH SPAN CYLINDER	
	CYLINDER NO.	CONCENTRATION	CYLINDER NO.	CONCENTRATION
ZERO	DT0040604	0		
O_2	CC700690	10.53	CC106486	19.02
CO_2	CC700690	10.58	CC106486	18.94
NO_x	CC327320	48.1	CC218831	94.7
CO	CC503587	5.55	EB0058229	8.37

NO2 to NO Converter Efficiency Test

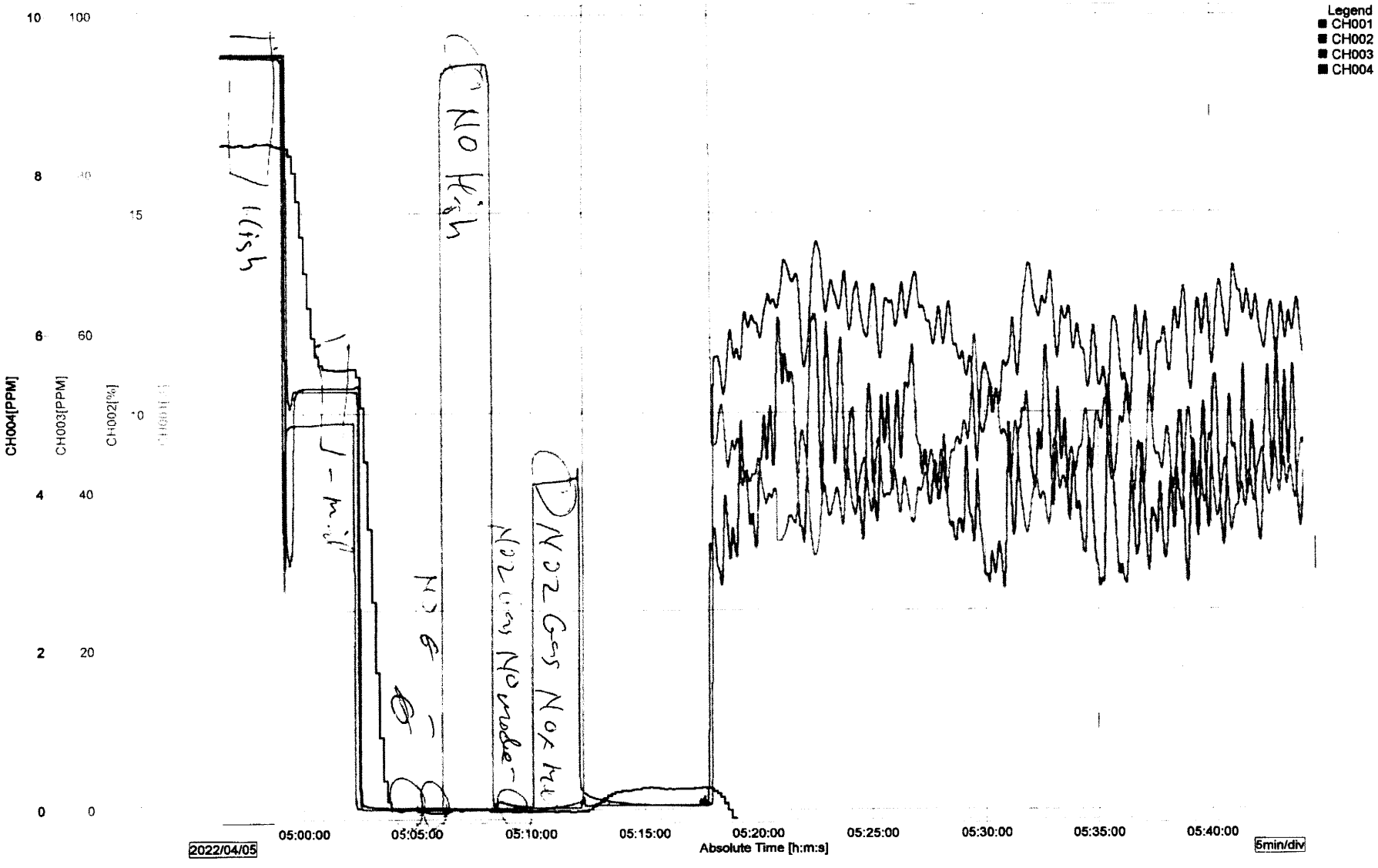
				Cylinder #
Analyzer Manufacturer:	CAI	NO Cal Gas Value:	94.7	CC218831
Analyzer Model:	600 Series	NO2 Cal Gas Value:	44	ALFS1576(
Analyzer Serial Number:	S03003	Performed By:	DW	
Date:	4/5/2022	CEMS ID#:	3-CEMS	

W002AS-012607-RT-3503

133 of 635

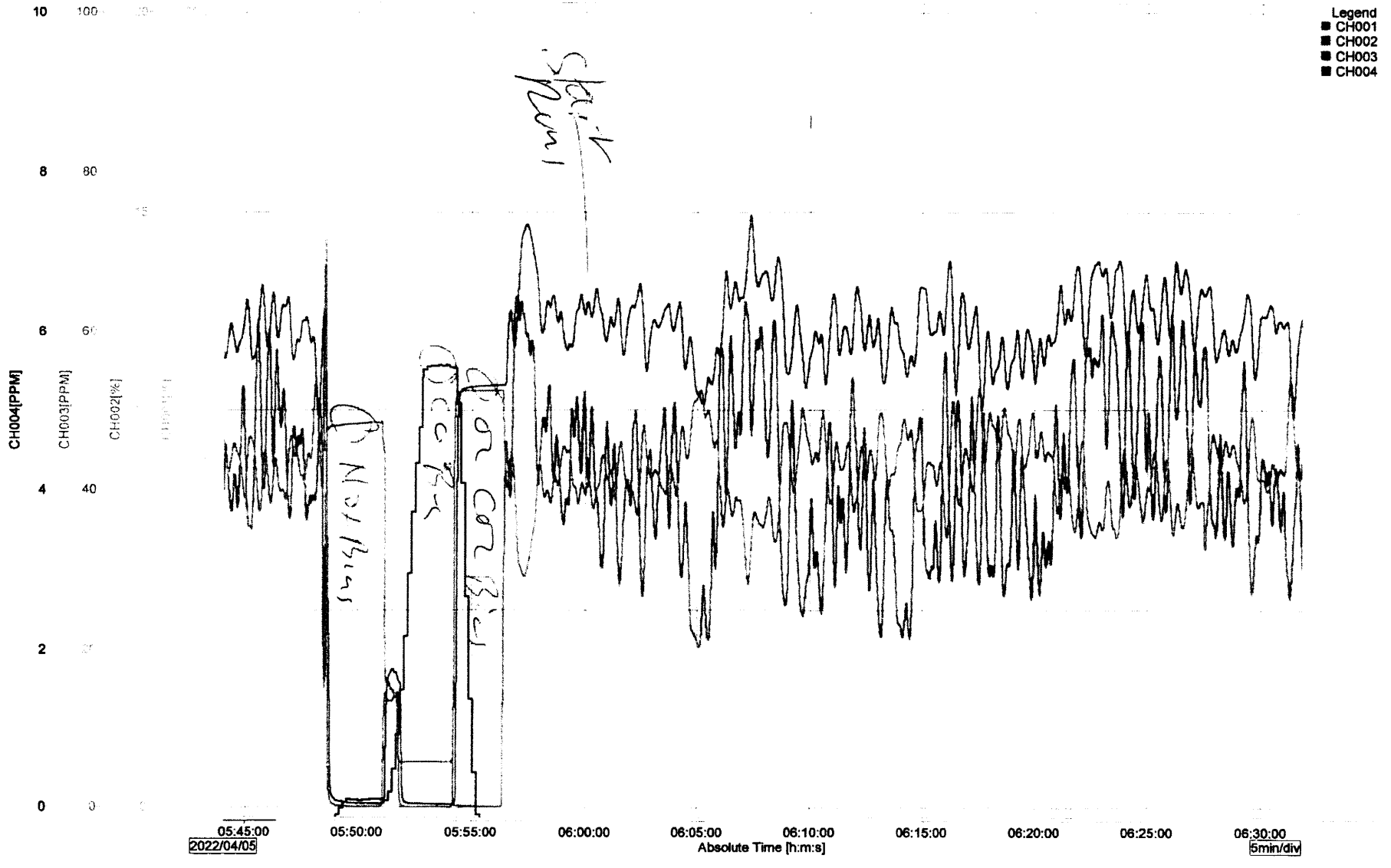
Signature1 : No Sig.
Signature2 : No Sig.
Signature3 : No Sig.

Print Groups : GROUP 1
Print Range : 2022/04/05 04:56:22.000 - 2022/04/05 14:23:50.000



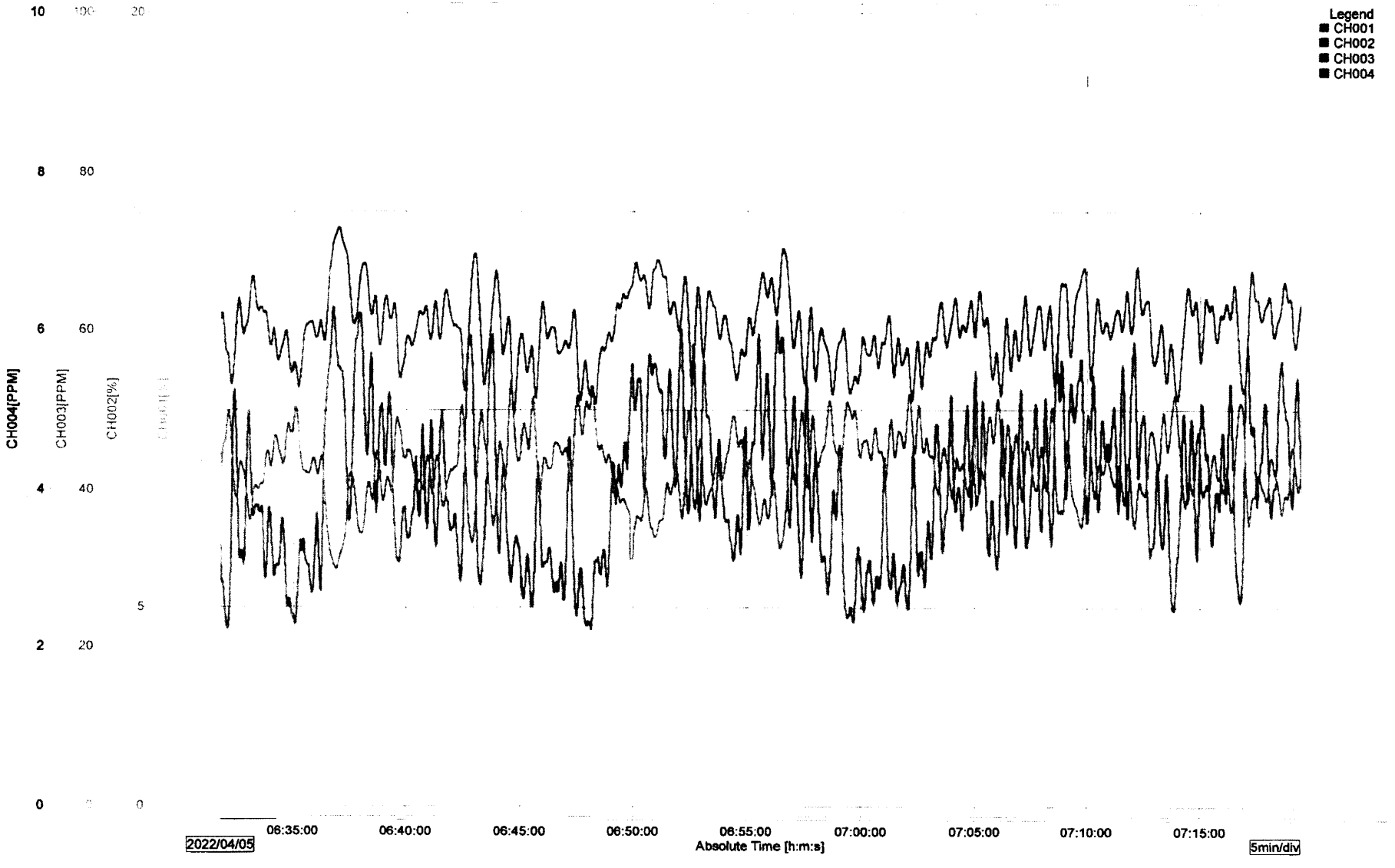
Signature1 : No Sig.
Signature2 : No Sig.
Signature3 : No Sig.

Print Groups : GROUP 1
Print Range : 2022/04/05 04:56:22.000 - 2022/04/05 14:23:50.000



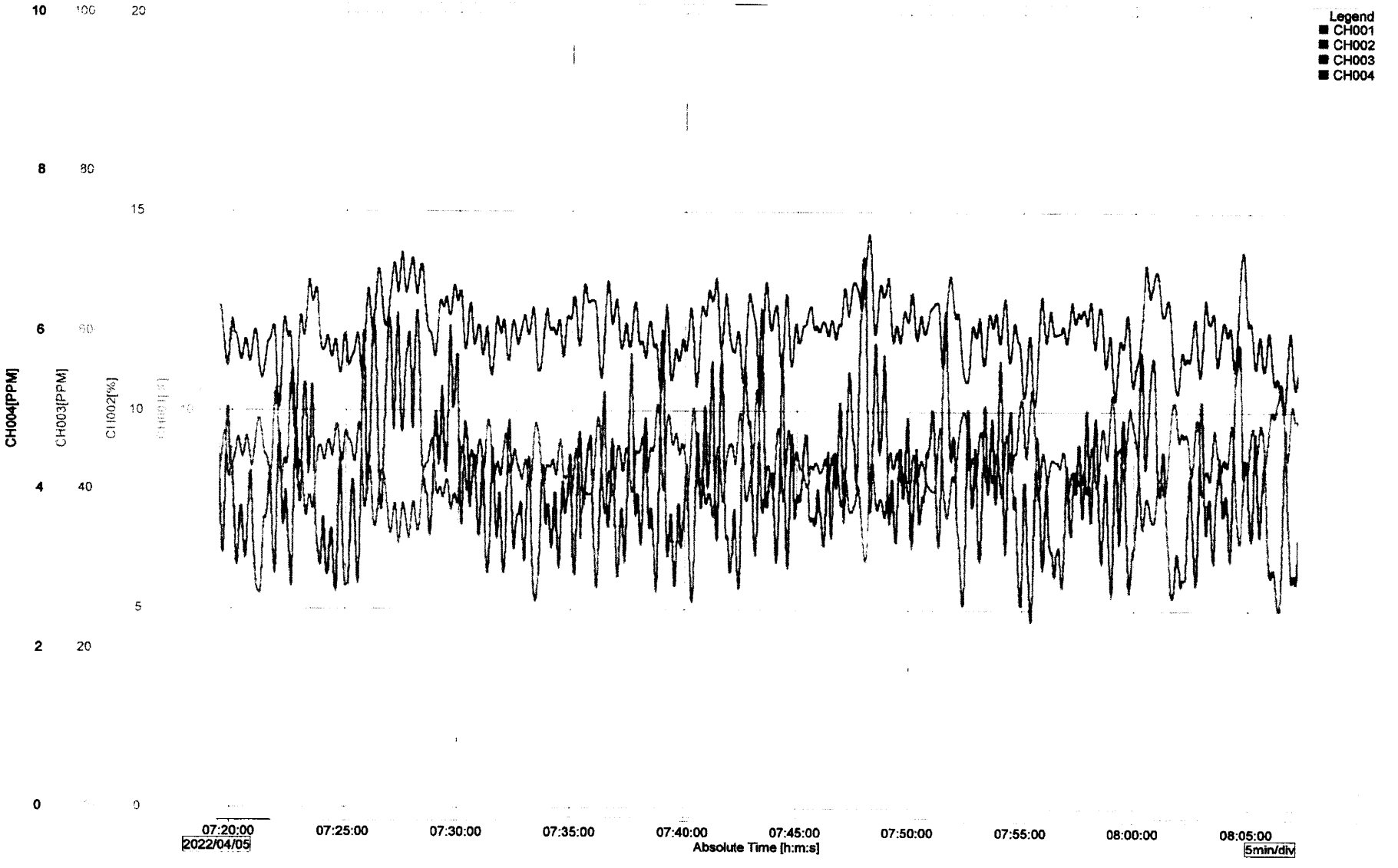
Signature1 . No Sig.
Signature2 No Sig.
Signature3 · No Sig.

Print Groups GROUP 1
Print Range · 2022/04/05 04:56:22.000 - 2022/04/05 14:23:50.000



Signature1 : No Sig.
Signature2 : No Sig.
Signature3 : No Sig.

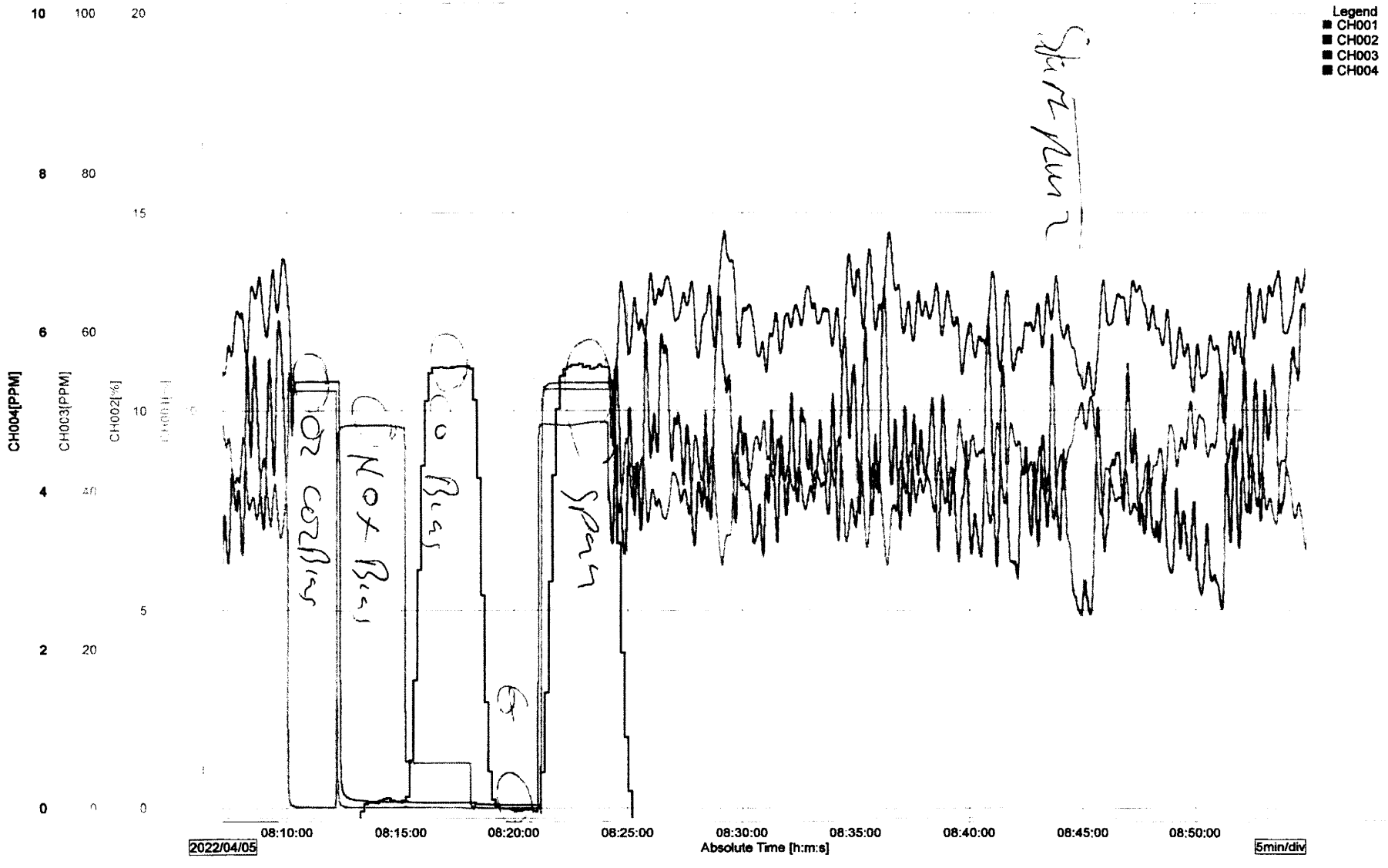
Print Groups : GROUP 1
Print Range : 2022/04/05 04:56:22.000 - 2022/04/05 14:23:50.000



W002AS-012607-RT-3503

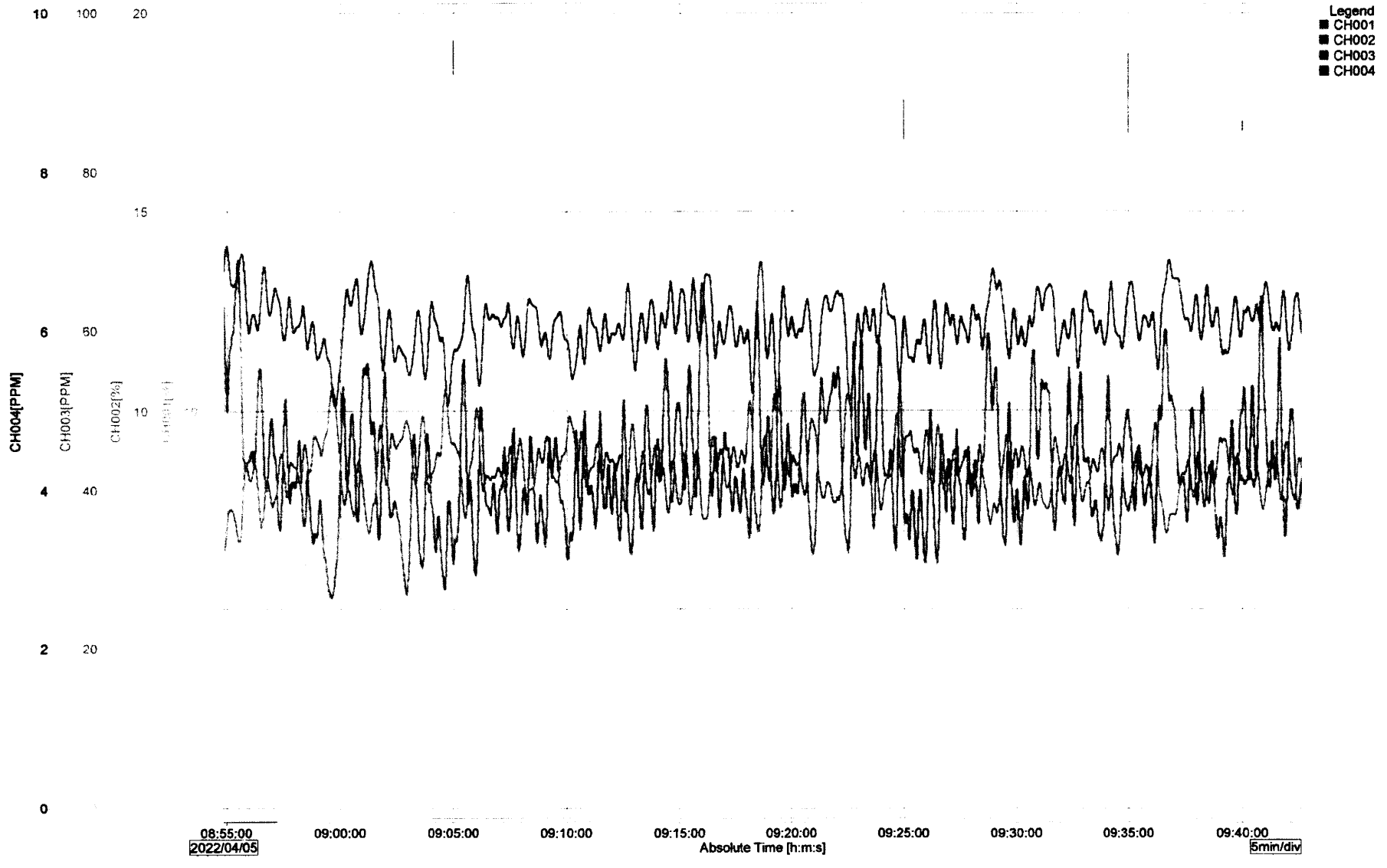
Signature1 : No Sig.
Signature2 : No Sig.
Signature3 : No Sig.

Print Groups : GROUP 1
Print Range : 2022/04/05 04:56:22.000 - 2022/04/05 14:23:50.000



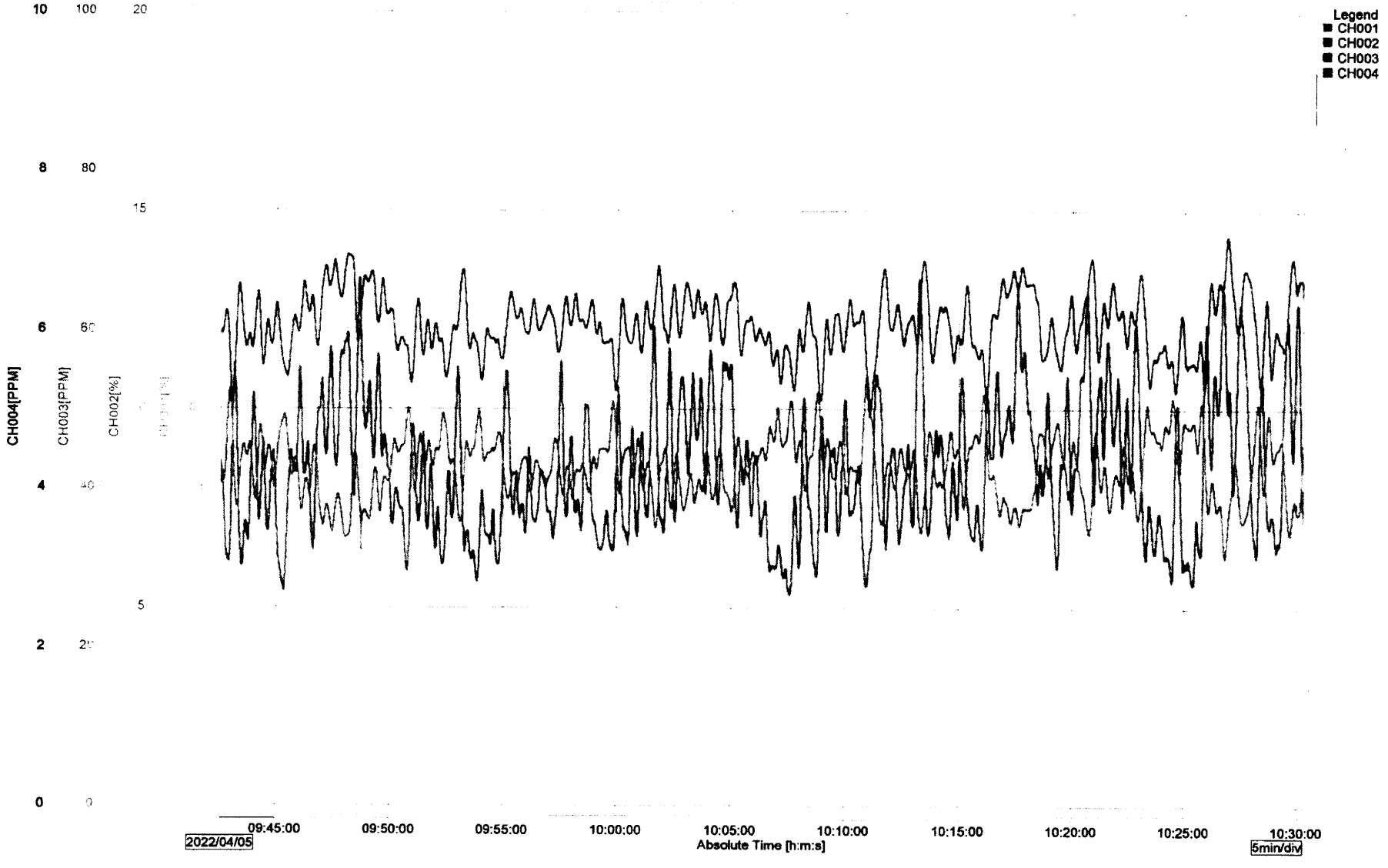
Signature1 : No Sig.
Signature2 : No Sig.
Signature3 : No Sig.

Print Groups : GROUP 1
Print Range : 2022/04/05 04:56:22.000 - 2022/04/05 14:23:50.000



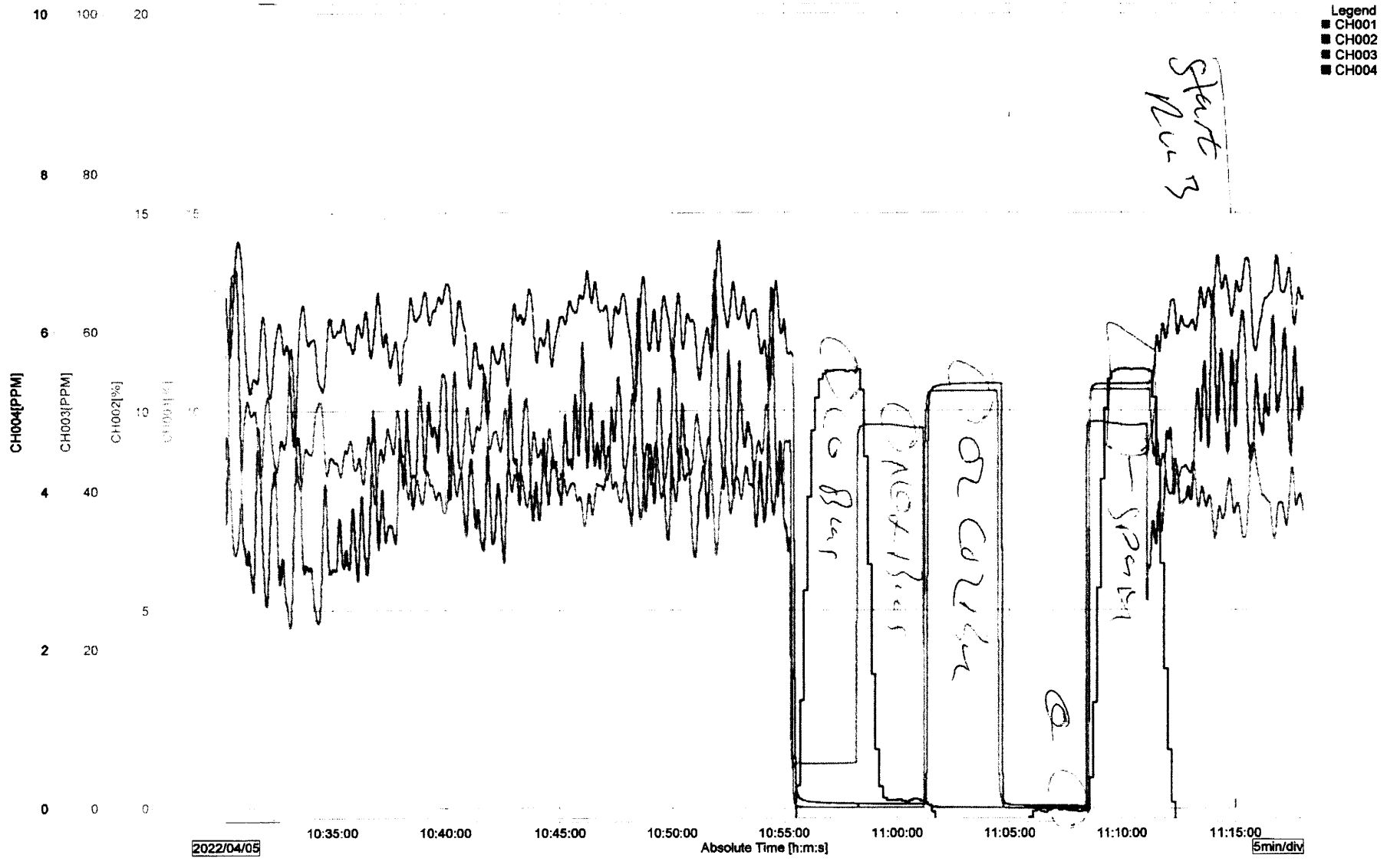
Signature1 : No Sig.
Signature2 : No Sig.
Signature3 : No Sig.

Print Groups . GROUP 1
Print Range . 2022/04/05 04:56:22.000 - 2022/04/05 14:23:50.000



Signature1 : No Sig.
Signature2 : No Sig.
Signature3 : No Sig.

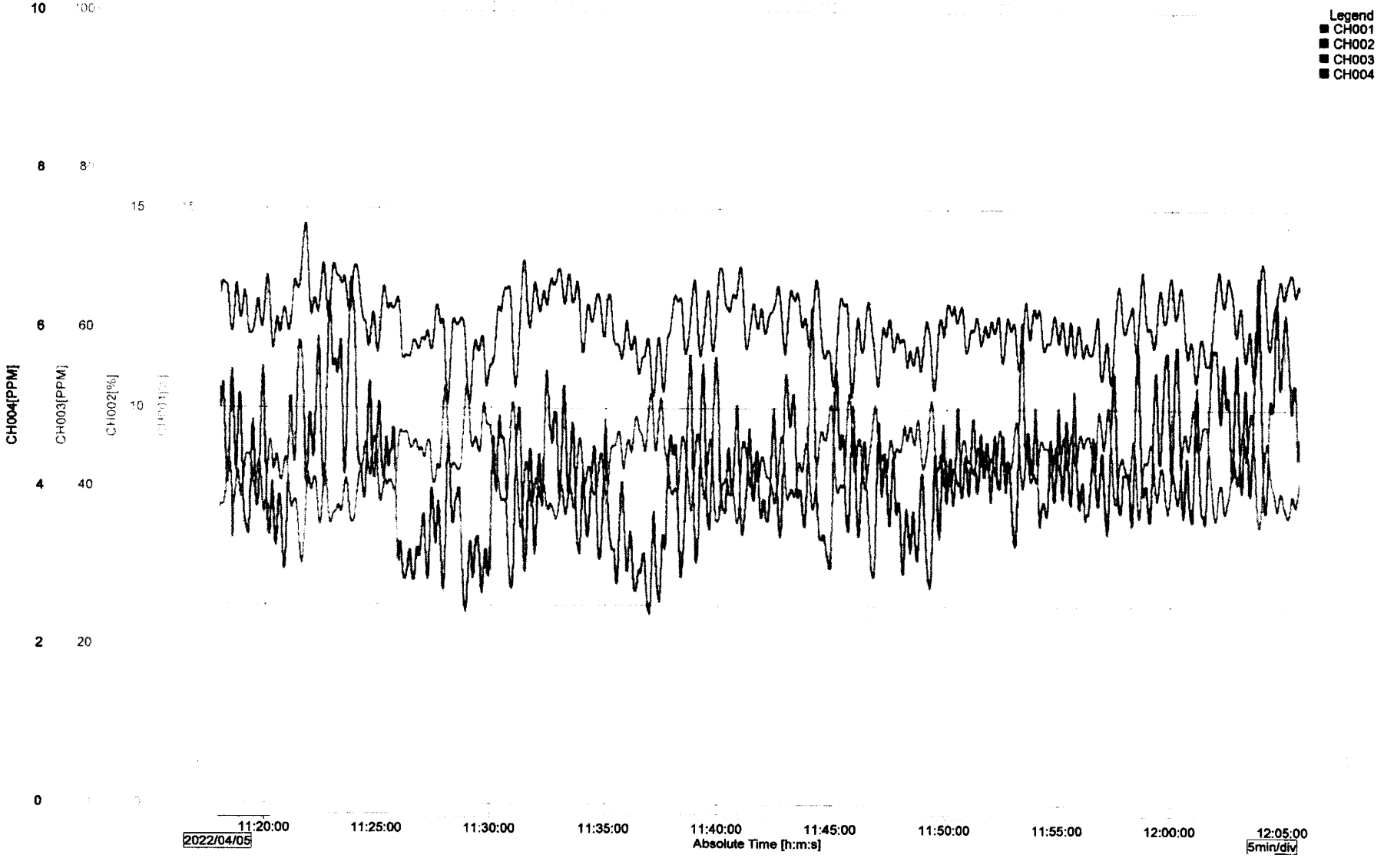
Print Groups : GROUP 1
Print Range : 2022/04/05 04:56:22.000 - 2022/04/05 14:23:50.000



W002AS-012607-RT-3503

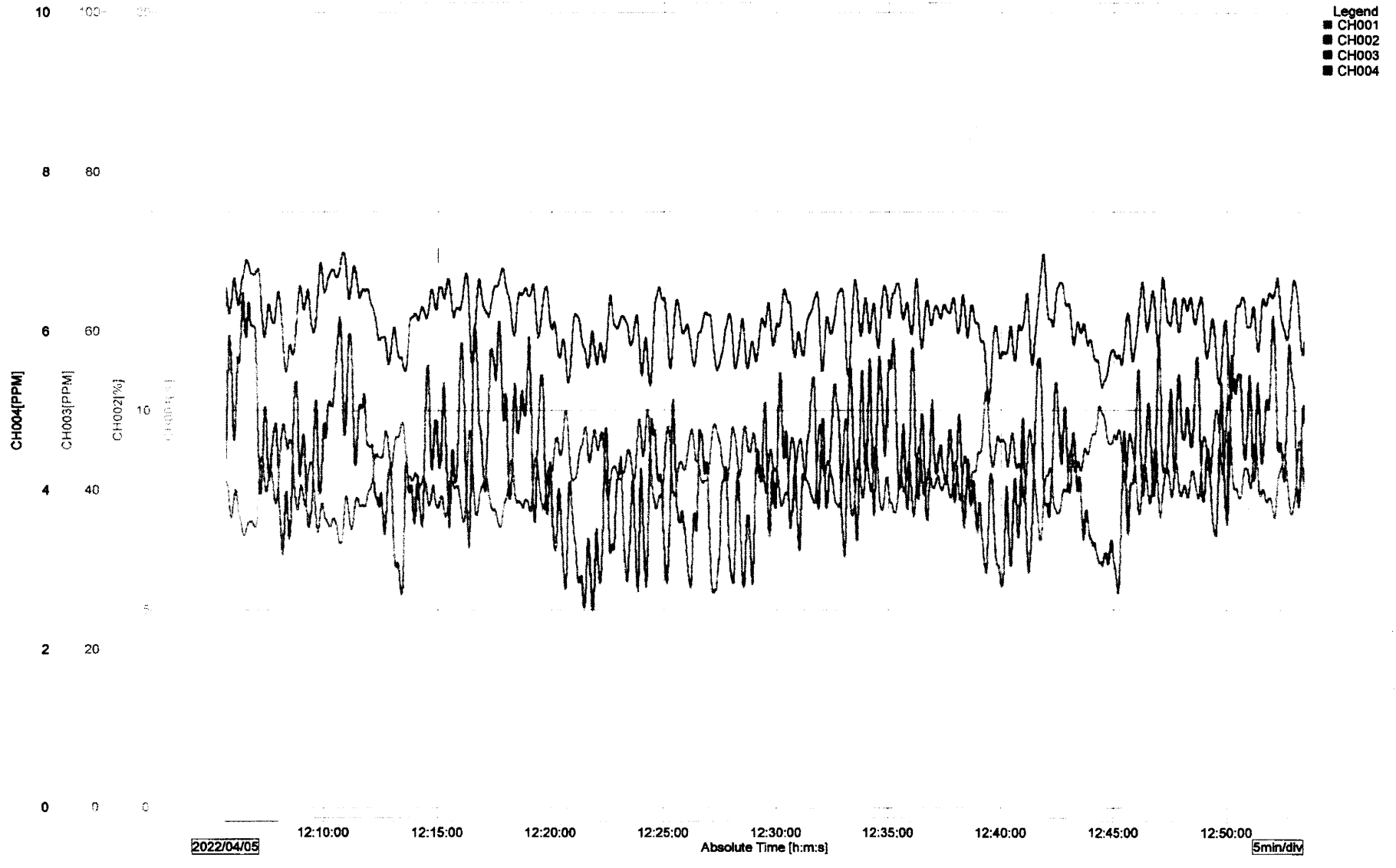
Signature1 : No Sig.
Signature2 : No Sig.
Signature3 : No Sig.

Print Groups : GROUP 1
Print Range 2022/04/05 04:56:22.000 - 2022/04/05 14:23:50.000



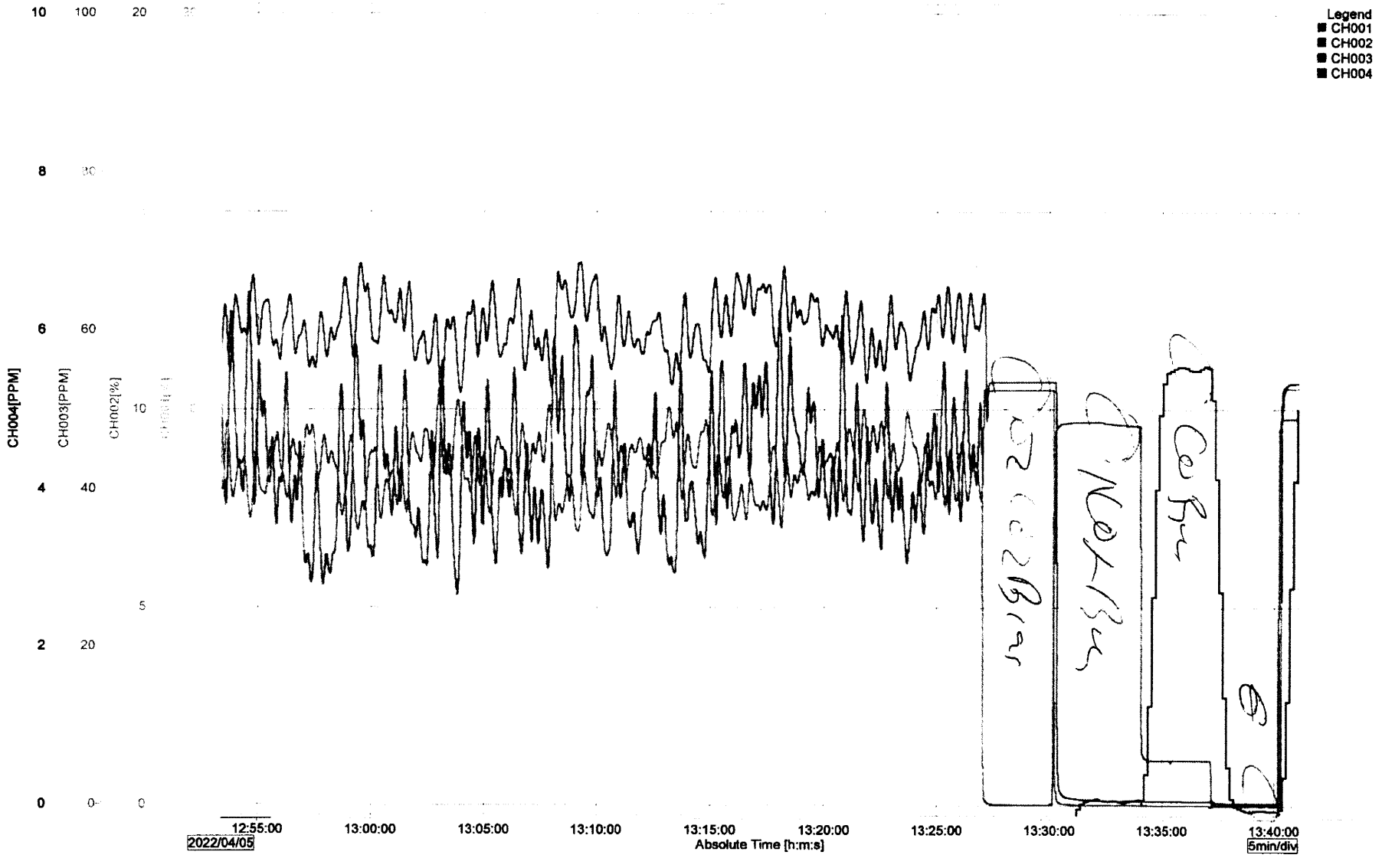
Signature1 : No Sig.
Signature2 : No Sig.
Signature3 : No Sig.

Print Groups : GROUP 1
Print Range : 2022/04/05 04:56:22.000 - 2022/04/05 14:23:50.000



Signature1 : No Sig.
Signature2 : No Sig.
Signature3 No Sig.

Print Groups : GROUP 1
Print Range 2022/04/05 04:56:22.000 - 2022/04/05 14:23:50.000

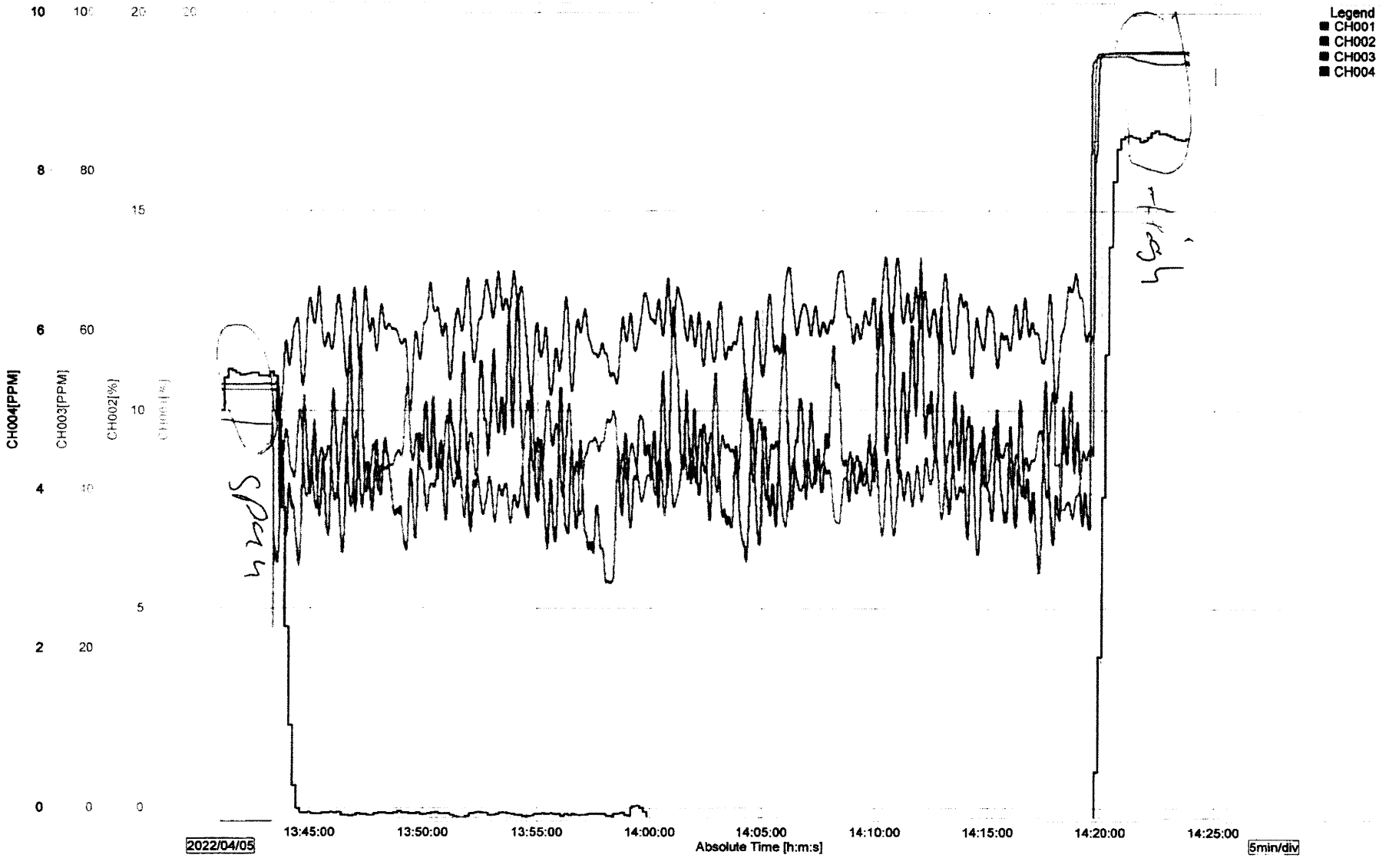


W002AS-012607-RT-3503

143 of 635

Signature1 : No Sig.
Signature2 : No Sig.
Signature3 : No Sig.

Print Groups : GROUP 1
Print Range : 2022/04/05 04:56:22.000 - 2022/04/05 14:23:50.000



Appendix A.2.4
Unit 2 Hydrogen Chloride Data

Unit 2

Three, two-hour test runs were performed on Unit 2 on April 5th, 2022. Hydrogen chloride was detected during the test runs. Analyte spiking was performed prior to and after each test run to confirm the ability of the measurement system to deliver and quantify hydrogen chloride. See the Unit 2 FTIR QA/QC Data Appendix for results. All concentration data were calculated on a wet volume basis. See Table 6 below for a summary of the analyte averages during the separate run periods. See the Unit 2 FTIR Test Run Data Appendix for detailed run time results.

Table 6 – Unit 2 Run Summary

Condition	Calculation	HCl (ppmv wet)
04/5/2022 Unit 2 - Run 1 06:00 - 08:00	Minimum	6.62
	Maximum	10.56
	Average	8.54
04/5/2022 Unit 2 - Run 2 08:30 - 10:30	Minimum	7.01
	Maximum	11.75
	Average	8.70
04/7/2022 Unit 2 - Run 3 11:15 - 13:15	Minimum	7.43
	Maximum	11.83
	Average	9.35

Unit 1

Three, two-hour test runs were performed on Unit 1 on April 7th, 2022. Hydrogen chloride was detected during the test runs. Analyte spiking was performed prior to and after each test run to confirm the ability of the measurement system to deliver and quantify hydrogen chloride. See the Unit 1 FTIR QA/QC Data Appendix for results. All concentration data were calculated on a wet volume basis. See Table 5 below for a summary of the analyte averages during the separate run periods. See the Unit 1 FTIR Test Run Data Appendix for detailed run time results.

Table 5 – Unit 1 Run Summary

Condition	Calculation	HCl (ppmv wet)
04/7/2022 Unit 1 - Run 1 03:40 - 05:40	Minimum	9.58
	Maximum	15.16
	Average	12.00
04/7/2022 Unit 1 - Run 2 08:30 - 10:30	Minimum	7.10
	Maximum	12.21
	Average	9.55
04/7/2022 Unit 1 - Run 3 11:05 - 13:05	Minimum	7.28
	Maximum	10.96
	Average	8.59

© MAQS 046 – *Proprietary & Confidential*

Appendix A.2.5
Unit 2 Particulate Data

MONTROSE
AIR QUALITY SERVICES

WET CHEMICAL SAMPLING SYSTEM DATA AND WORKSHEET – STANDARD

CLIENT: Desert View Power
LOCATION: Unit 2 Stack Breaching
DATE: 4/5/2022
RUN NO: 1-PM-U2
OPERATOR: Patrick Whitman
METER BOX NO: 26-WCS
METER ΔH@: 1.813
METER Yd: 1.016
STACK AREA, FT²: 38.8
TRAVERSE POINTS, MIN/POINT: 4x30
ΔH= 2.0 X ΔP:
Probe Condition, pre/post test: Good/Good
Silica Gel Expanded, Y/N: No - ok
Filter Condition after Test: ok
Check Weight: 500.0 / 500

AMBIENT TEMPERATURE: 56°
BAROMETRIC PRESSURE: 30.02
ASSUMED MOISTURE: 12.5
PITOT TUBE COEFF, Cp: 0.84
PROBE ID NO/MATERIAL: 119 Glass
PROBE LENGTH: 6'
NOZZLE ID NO/ MATERIAL: #176 SS
NOZZLE DIAMETER: 0.248
FILTER NO/TYPE: # 83- 4346 FG
PRE-TEST LEAK RATE: Zero CFM@ 13" in. Hg.
POST-TEST LEAK RATE: .0005 CFM@ 12" in. Hg
PITOT LEAK CHECK - PRE: ✓ POST: ✓
CHAIN OF CUSTODY: SAMPLE CUSTODIAN DW
SAMPLER PW
SAMPLE CUSTODIAN DW

Imp. #	Contents	Post-Test	Pre-Test	= Difference
1	DI H2O	975.6	737.0	238.6
2	DI H2O	824.7	776.6	48.1
3	Empty	602.5	598.7	3.8
4	Silica gel	984.1	954.8	29.3
Total:				319.8

Point	Time	Meter Volume, ft³	ΔP in. H2O	ΔH in. H2O	Stack Temp, °F	Probe Temp, °F	Filter Temp, °F	Imp. Out Temp, °F	Meter Temp, °F In	Meter Temp, °F Out	Vacuum in. Hg.	O2 %	P. static in. H2O
5	0600	766.556	.86	1.7	339	251	251	57	73	72	6"		+.32
4	0604	771.450	.85	1.7	343	250	253	56	75	73	6"		
3	0608	774.300	.82	1.6	342	250	251	55	77	73	5.5"		
2	0612	777.110	.82	1.6	347	252	250	53	79	74	5.5"		
1	0616	779.870	.84	1.7	338	250	253	53	81	75	6"		
P/L	0620	782.769											
5	0622	783.769	1.1	2.2	340	249	251	51	83	76	7"		
4	0626	785.975	1.3	2.6	345	250	249	51	85	76	7.5"		
3	0630	789.385	1.1	2.2	348	251	253	50	86	76	7"		
2	0634	792.615	1.0	2.0	349	253	252	50	85	77	7"		
1	0638	795.725	.91	1.8	342	250	249	50	85	77	6"		
P/L	0642	798.700											
5	0644	798.700	1.0	2.0	345	250	250	51	83	77	7"		
4	0648	801.645	1.3	2.8	347	251	253	51	85	77	8"		
3	0652	805.145	1.0	2.2	344	251	252	51	86	77	7"		
2	0656	808.390	.99	2.1	345	250	251	52	87	77	7"		
1	0700	811.595	.94	2.1	333	250	250	52	88	78	7"		
Average	0704	814.775	1.0305	2.217	344				82.4				

96.784

Comments: K-Factor 2.16

MONTROSE AIR QUALITY SERVICES

WET CHEMICAL SAMPLING SYSTEM DATA AND WORKSHEET – STANDARD

CLIENT: Desert View Power
LOCATION: Unit 2 Stack Breaching
DATE: 4/5/2022
RUN NO: 1-PM-U2
OPERATOR: Patrick Whitman
METER BOX NO: 26-WCS
METER ΔH@: 1.813
METER Yd: 1.016
STACK AREA, FT²: 38.8
TRAVERSE POINTS, MIN/POINT: 4x30
ΔH= 2.25 X ΔP:
Probe Condition, pre/post test: Good / Good
Silica Gel Expanded, Y/N:
Filter Condition after Test:
Check Weight:

AMBIENT TEMPERATURE: 56°
BAROMETRIC PRESSURE: 30.02
ASSUMED MOISTURE: 12.5
PITOT TUBE COEFF, Cp: 0.84
PROBE ID NO/MATERIAL: 119 Glass
PROBE LENGTH: 6'
NOZZLE ID NO/ MATERIAL: #176 SS
NOZZLE DIAMETER: 0.248
FILTER NO/TYPE: # 83- 4346 FG
PRE-TEST LEAK RATE: 0.005 CFM@ 13" in. Hg.
POST-TEST LEAK RATE: 0.005 CFM@ 12" in. Hg.
PITOT LEAK CHECK - PRE: ✓ POST: ✓
CHAIN OF CUSTODY: SAMPLE CUSTODIAN DW
SAMPLER PW
SAMPLE CUSTODIAN DW

Imp. #	Contents	Post-Test - Pre-Test = Difference		
1	DI H2O			
2	DI H2O			
3	Empty			
4	Silica gel			
Total:				

Point	Time	Meter Volume, ft³	ΔP in. H₂O	ΔH in. H₂O	Stack Temp, °F	Probe Temp, °F	Filter Temp, °F	Imp. Out Temp, °F	Meter Temp, °F In	Meter Temp, °F Out	Vacuum in. Hg.	O₂ %	P. static in. H₂O
5	0706	814.775	1.0	2.2	342	250	251	52	86	78	7"		1.32
4	0710	817.900	1.1	2.4	347	250	249	53	88	80	7.5"		
3	0714	821.150	1.0	2.2	348	253	251	54	89	80	7"		
2	0718	824.365	1.2	2.6	346	250	249	54	90	80	7.5"		
1	0722	827.355	1.0	2.2	344	249	252	54	91	81	7"		
PL	0726	831.115											
5	0728	831.115	1.0	2.2	344	250	250	55	89	81	7"		
4	0732	834.245	1.1	2.4	347	250	250	55	90	81	7.5"		
3	0736	837.515	1.1	2.5	346	253	251	56	90	80	7.5"		
2	0740	804.920	1.2	2.7	348	251	252	56	92	81	8"		
1	0744	844.440	1.0	2.3	343	249	251	56	92	83	7"		
PL	0748	847.797											
5	0750	847.797	1.3	2.9	341	250	250	56	89	82	8"		
4	0754	851.425	1.2	2.7	346	249	253	57	91	82	8"		
3	0758	855.000	1.1	2.5	347	249	250	57	91	82	7.5"		
2	0802	858.460	.95	2.1	342	250	250	57	92	83	7"		
1	0806	861.810	.96	2.2	341	251	249	57	92	83	7"		
Average	0810	864.940											

Comments:

MONTROSE
AIR QUALITY SERVICES

WET CHEMICAL SAMPLING SYSTEM DATA AND WORKSHEET – STANDARD

CLIENT: Desert View Power
LOCATION: Unit 2 Stack Breaching
DATE: 4/5/2022
RUN NO: 2-PM-U2
OPERATOR: Patrick Whitman
METER BOX NO: 26-WCS
METER ΔH@: 1.813
METER Yd: 1.016
STACK AREA, FT²: 38.8
TRAVERSE POINTS, MIN/POINT: 4x30
ΔH= 2.1 X ΔP:
Probe Condition, pre/post test: Good/Good
Silica Gel Expanded, Y/N: no
Filter Condition after Test: ok
Check Weight: 560.0/560

AMBIENT TEMPERATURE: 73°
BAROMETRIC PRESSURE: 30.02
ASSUMED MOISTURE: 12.5
PITOT TUBE COEFF, Cp: 0.84
PROBE ID NO/MATERIAL: 120 Glass
PROBE LENGTH: 6'
NOZZLE ID NO/ MATERIAL: #183 SS
NOZZLE DIAMETER: 0.246
FILTER NO/TYPE: # 83- 4348 FG
PRE-TEST LEAK RATE: <0.005 CFM@ 14" in. Hg
POST-TEST LEAK RATE <0.005 CFM@ 13" in. Hg.
PITOT LEAK CHECK - PRE: ✓ POST: ✓
CHAIN OF CUSTODY: SAMPLE CUSTODIAN DW
SAMPLER PW
SAMPLE CUSTODIAN DW

Imp. #	Contents	Post-Test	Pre-Test	Difference
1	DI H2O	924.1	734.4	189.7
2	DI H2O	837.7	754.2	83.5
3	Empty	642.1	640.0	2.1
4	Silica gel	916.8	892.5	24.3
Total:				299.6

Point	Time	Meter Volume, ft³	ΔP in. H₂O	ΔH in. H₂O	Stack Temp, °F	Probe Temp, °F	Filter Temp, °F	Imp. Out Temp, °F	Meter Temp, °F In	Meter Temp, °F Out	Vacuum in. Hg.	O₂ %	P. static in. H₂O
5	0845	866.000	.85	1.8	347	252	249	59	86	83	6"		+.32
4	0849	868.940	.83	1.7	349	250	251	57	87	83	6"		
3	0853	871.760	.84	1.8	345	252	250	56	88	83	6"		
2	0857	874.715	.83	1.7	343	249	252	54	89	84	6"		
1	0901	877.565	.82	1.7	338	253	251	52	91	85	6"		
P/L	0905	880.490							*~~9~~	~~86~~			
5	0907	880.490	1.0	2.1	346	251	249	52	91	86	6.5"		
4	0911	883.670	1.2	2.5	347	249	253	50	93	87	7"		
3	0915	887.070	1.2	2.5	348	253	250	50	95	88	7"		
2	0919	890.490	.99	2.1	342	250	252	50	96	89	6.5"		
1	0923	893.665	.92	1.9	340	251	250	51	95	88	6"		
P/L	0927	896.736											
5	0929	896.736	.99	2.1	349	250	250	51	97	90	6.5"		
4	0933	900.150	1.3	2.7	346	252	251	51	96	90	8"		
3	0937	903.420	.99	2.1	348	253	250	52	97	90	6.5"		
2	0941	906.645	1.0	2.1	344	250	252	52	98	91	6.5"		
1	0945	909.855	.95	2.0	342	249	250	52	99	91	6.5"		
Average P/L	0949	912.985	1.0270	2.152	344.6				93.5	-			

Comments * KAS 96.261 4-5-22

Date of last revision 2/14/2017 Page 1 of 2 Master Document Storage\Forms\Datasheets\Field Datasheets

DS834049

MONTROSE
AIR QUALITY SERVICES

WET CHEMICAL SAMPLING SYSTEM DATA AND WORKSHEET – STANDARD

CLIENT: Desert View Power
LOCATION: Unit 2 Stack Breaching
DATE: 4/5/2022
RUN NO: 2-PM-U2
OPERATOR: Patrick Whitman
METER BOX NO: 26-WCS
METER ΔH@: 1.813
METER Yd: 1.016
STACK AREA, FT²: 38.8
TRAVERSE POINTS, MIN/POINT: 4x30
ΔH= _____ X ΔP:
Probe Condition, pre/post test: Good/Good
Silica Gel Expanded, Y/N:
Filter Condition after Test:
Check Weight:

AMBIENT TEMPERATURE: 73°
BAROMETRIC PRESSURE: 30.02
ASSUMED MOISTURE: 12.5
PITOT TUBE COEFF, Cp: 0.84
PROBE ID NO/MATERIAL: 120 Glass
PROBE LENGTH: 6'
NOZZLE ID NO/ MATERIAL: #183 SS
NOZZLE DIAMETER: 0.246
FILTER NO/TYPE: # 83- 4348 FG
PRE-TEST LEAK RATE: 0.005 CFM@ 14" in. Hg.
POST-TEST LEAK RATE: 0.005 CFM@ 13" in. Hg.
PITOT LEAK CHECK - PRE: ✓ POST: ✓
CHAIN OF CUSTODY: SAMPLE CUSTODIAN DW
SAMPLER PW
SAMPLE CUSTODIAN DW

Imp. #	Contents	Post-Test	- Pre-Test	= Difference
1	DI H2O			
2	DI H2O			
3	Empty			
4	Silica gel			
	Total:			

Point	Time	Meter Volume, ft³	ΔP in. H₂O	ΔH in. H₂O	Stack Temp, °F	Probe Temp, °F	Filter Temp, °F	Imp. Out Temp, °F	Meter Temp, °F In	Meter Temp, °F Out	Vacuum in. Hg.	O₂ %	P. static in. H₂O
* 5	0951	~~912.955~~											
4	0955	916.050	1.2	2.5	347	250	253	53	99	93	7"		
3	0959	919.355	1.1	2.3	349	253	250	53	99	92	7"		
2	01003	922.670	1.1	2.3	348	249	251	52	99	93	7"		
1	01007	926.015	1.0	2.1	344	249	250	54	100	93	6.5"		
~~P/L~~	01011	929.219											
5	01013	929.219	.99	2.1	343	252	249	54	98	93	6.5		
4	01017	932.370	1.1	2.3	345	250	251	54	99	93	7"		
3	01021	935.620	1.0	2.1	345	249	253	55	100	93	6.5"		
2	01025	938.800	1.3	2.7	344	253	248	55	100	94	8"		
1	01029	942.400	1.0	2.1	341	250	250	58	100	93	6.5"		
P/L	01033	945.795											
5	01035	945.795	1.2	2.5	339	249	251	56	101	94	7"		
4	01039	949.335	1.2	2.5	341	252	250	56	102	95	7"		
3	01043	952.800	1.0	2.1	342	250	253	57	101	96	6.5"		
2	01047	955.970	.96	2.0	343	251	250	57	101	96	6.5"		
1	01051	959.120	.97	2.0	346	249	249	57	102	96	6.5"		
Average	01055	962.261											

Comments: * Time 0951 1/05 4-5-22

MONTROSE
AIR QUALITY SERVICES

WET CHEMICAL SAMPLING SYSTEM DATA AND WORKSHEET – STANDARD

CLIENT: Desert View Power
LOCATION: Unit 2 Stack Breaching
DATE: 4/5/2022
RUN NO: 3-PM-U2
OPERATOR: Patrick Whitman
METER BOX NO: 26-WCS
METER ΔH@: 1.813
METER Yd: 1.016
STACK AREA, FT²: 38.8
TRAVERSE POINTS, MIN/POINT: 4x30
ΔH= 2.23 X ΔP:
Probe Condition, pre/post test: Good/Good
Silica Gel Expanded, Y/N: no
Filter Condition after Test: ok
Check Weight: 500.0 / 500

AMBIENT TEMPERATURE: 85°
BAROMETRIC PRESSURE: 30.02
ASSUMED MOISTURE: 12.5
PITOT TUBE COEFF, Cp: 0.84
PROBE ID NO/MATERIAL: 119 Glass
PROBE LENGTH: 6'
NOZZLE ID NO/ MATERIAL: #176 SS
NOZZLE DIAMETER: 0.248
FILTER NO/TYPE: # 83- 4348 FG
PRE-TEST LEAK RATE: <0.005 CFM@ 14" in. Hg
POST-TEST LEAK RATE: <0.005 CFM@ 13" in. Hg.
PITOT LEAK CHECK - PRE: ✓ POST: ✓
CHAIN OF CUSTODY: SAMPLE CUSTODIAN DW
SAMPLER PW
SAMPLE CUSTODIAN DW

Imp. #	Contents	Post-Test	Pre-Test	Difference
1	DI H2O	971.6	743.7	227.9
2	DI H2O	846.5	793.4	53.1
3	Empty	604.3	602.5	1.8
4	Silica gel	1016.6	984.2	32.4
Total:				315.2

Point	Time	Meter Volume, ft³	ΔP in. H₂O	ΔH in. H₂O	Stack Temp, °F	Probe Temp, °F	Filter Temp, °F	Imp. Out Temp, °F	Meter Temp, °F In	Meter Temp, °F Out	Vacuum in. Hg.	O₂ %	P. static in. H₂O
5	01115	962.700	.86	1.9	346	251	249	58	93	89	5.5"		+.82
4	01119	965.730	.84	1.9	349	249	252	57	94	90	5.5"		
3	01123	968.670	.81	1.8	347	252	250	55	96	91	5.5"		
2	01127	971.620	.82	1.8	344	250	251	54	97	91	5.5		
1	01131	974.525	.83	1.9	337	253	250	52	98	92	5.5		
D/C	01135	977.538											
5	01137	977.538	1.0	2.2	346	249	252	51	99	91	6"		
4	01141	980.900	1.2	2.7	345	251	250	50	100	92	7"		
3	01145	984.440	1.0	2.2	345	251	248	50	101	94	6"		
2	01149	987.765	1.1	2.5	347	250	251	50	101	94	6.5"		
1	01153	991.300	.93	2.1	340	251	249	50	102	96	6"		
D/C	01157	994.479											
5	01159	994.479	1.0	2.2	349	251	250	51	100	94	6"		
4	1203	997.760	1.2	2.7	348	250	249	51	99	93	7"		
3	1207	1001.275	1.0	2.2	344	250	250	51	100	95	6"		
2	1211	1004.590	1.1	2.5	343	248	249	52	101	96	6.5"		
1	1215	1008.150	.93	2.1	340	249	252	52	101	96	6"		
* Average	~~1220~~ 1219	1011.391 100.414	1.0235	2.303	345.4					97.2	–		

Comments:

* 1219 KAS 4-5-22

Date of last revision 2/14/2017 Page 1 of 2 Master Document Storage\Forms\Datasheets\Field Datasheets

DS834049

MONTROSE AIR QUALITY SERVICES

WET CHEMICAL SAMPLING SYSTEM DATA AND WORKSHEET – STANDARD

CLIENT: Desert View Power
LOCATION: Unit 2 Stack Breaching
DATE: 4/5/2022
RUN NO: 3-PM-U2
OPERATOR: Patrick Whitman
METER BOX NO: 26-WCS
METER ΔH@: 1.813
METER Yd: 1.016
STACK AREA, FT²: 38.8
TRAVERSE POINTS, MIN/POINT: 4x30
ΔH= 2.23 X ΔP:
Probe Condition, pre/post test: Good / Good
Silica Gel Expanded, Y/N:
Filter Condition after Test:
Check Weight:

AMBIENT TEMPERATURE: 85°
BAROMETRIC PRESSURE: 30.02
ASSUMED MOISTURE: 12.5
PITOT TUBE COEFF, Cp: 0.84
PROBE ID NO/MATERIAL: 119 Glass
PROBE LENGTH: 6'
NOZZLE ID NO/ MATERIAL: #176 SS
NOZZLE DIAMETER: 0.248
FILTER NO/TYPE: # 83-4348 FG
PRE-TEST LEAK RATE: <0.005 CFM@ 14" in. Hg.
POST-TEST LEAK RATE: <0.005 CFM@ 13" in. Hg.
PITOT LEAK CHECK - PRE: ✓ POST: ✓
CHAIN OF CUSTODY: SAMPLE CUSTODIAN DW
SAMPLER PW
SAMPLE CUSTODIAN DW

Imp. #	Contents	Post-Test	Pre-Test	= Difference
1	DI H2O			
2	DI H2O			
3	Empty			
4	Silica gel			
Total:				

Point	Time	Meter Volume, ft³	ΔP in. H₂O	ΔH in. H₂O	Stack Temp, °F	Probe Temp, °F	Filter Temp, °F	Imp. Out Temp, °F	Meter Temp, °F In	Meter Temp, °F Out	Vacuum in. Hg.	O₂ %	P. static in. H₂O
5	1221	1011.391	1.0	2.2	347	252	253	52	98	94	6"		+.32
4	1225	1014.655	1.2	2.7	348	250	251	53	99	95	7"		
3	1229	1018.240	1.2	2.7	* ~~345~~	249	252	53	100	96	7"		
2	1233	1021.840	1.0	2.2	345	251	250	53	100	97	6"		
1	1237	1025.145	.98	2.2	344	252	253	54	101	97	6"		
P/O	1241	1028.476											
5	1243	1028.476	9.8	2.2	346	249	248	54	99	95	6"		
4	1247	1031.980	1.2	2.7	347	250	249	54	100	96	7"		
3	1251	1035.375	.99	2.2	348	253	251	55	101	97	6"		
2	1255	1038.900	1.2	2.7	347	248	250	55	102	98	7"		
1	1259	1042.260	1.1	2.5	343	251	252	56	102	98	6.5"		
P/O	1303	1045.756											
5	1305	1045.756	1.1	2.5	342	250	248	56	99	95	6.5"		
4	1309	1049.315	1.2	2.7	348	253	250	56	101	98	7"		
3	1313	1052.995	1.1	2.5	347	251	249	57	102	98	6.5"		
2	1317	1056.470	.97	2.2	347	248	251	57	102	97	6"		
1	1321	1059.775	.98	2.2	344	249	249	57	103	98	6"		
Average	1325	1063.114											

Comments: * 349 KMS 4-5-22

Appendix A.2.6
Unit 2 SO_2 Data and Velocity Data

FLUE GAS VELOCITY AND MOISTURE DATA AND WORKSHEET

CLIENT: Desert View Power | LOCATION/UNIT: Unit - 2
PERFORMED BY: Patrick Whitman | TEST DATE: 4/5/2022
BAR. PRESSURE: 30.02 | TC READOUT ID: TRC-42
DP INDICATOR ID: CC-2 | TC ID: #058
DP INDICATOR TYPE: 0-10" Manometer | PITOT TUBE ID: #058 | Cp: 0.84
ZERO: ✓ LEVEL: ✓ | LEAK CHECK PRE- ✓ POST- ✓

Run #: 1-Sox	Ps: 4.32							
Start: 0600	Stop: 0700							
Sample Point	Velocity Head inches H_2O	Temp, °F	Sample Point	Velocity Head inches H_2O	Temp, °F	Sample Point	Velocity Head inches H_2O	Temp, °F
5, 55.3"	.66	339	5	1.0	345	5	1.0	344
4, 45.9"	.85	343	4	1.3	347	4	1.1	347
3, 36.5"	.82	347	3	1.0	344	3	1.1	346
2, 27.1"	.82	347	2	.99	345	2	1.2	348
1, 17.7	.84	338	1	.96	333	1	1.0	343
5	1.1	340	5	1.0	342	5	1.3	341
4	1.3	345	4	1.1	347	4	1.2	342
3	1.1	348	3	1.0	348	3	1.1	347
2	1.0	349	2	1.2	346	2	.95	342
1	.91	342	1	1.0	341	1	.96	341
	Probe Temp. °F	Filter Temp. °C		Heated Line Temp. °F	Chiller Temp. °C			
1	254	257		311	07.7			
2	257	253						
3	258	257						

MOISTURE DATA FOR TEST RUNS 1-Sox **THROUGH** 1-Sox

METER ID: 1-P&M METER Yd: 1.015 BALANCE CHECK WEIGHT: 500.0/ 500

Dry Gas Meter							Impinger Data				
Time	Volume	Delta H	Tm (in)	Tm (out)	T_{imp}	Vacuum	No.	Material	End Wt.	Start Wt.	Diff.
0600	778.000	1.0	75	77	48	5"	#1	H_2O_2	846.7	714.5	
0620	790.330	1.0	78	83	52	5"	#2	H_2O_2	775.7	745.7	
0640	802.440	1.0	81	84	55	5"	#3	Empty	617.0	615.0	
0700	813.728						#4	Silica Gel	906.8	892.5	
							Total	Line rinse		50	

Pre-Test Leak Check: 0.005 CFM @ 15 in. Hg., Post-Test Leak Check: 0.005 CFM @ 15 in. Hg

FLUE GAS VELOCITY AND MOISTURE DATA AND WORKSHEET

CLIENT: Desert View Power | LOCATION/UNIT: Unit - 2
PERFORMED BY: Patrick Whitman | TEST DATE: 4/5/2022
BAR. PRESSURE: 30.02 | TC READOUT ID: TRC-42
DP INDICATOR ID: CC-2 | TC ID: #058
DP INDICATOR TYPE: 0-10" Manometer | PITOT TUBE ID: #058 | Cp: 0.84
ZERO: ✓ | LEVEL: ✓ | LEAK CHECK PRE- ✓ | POST- ✓

Run #: 2-Sox | Ps: 1.32
Start: 0845 | Stop: 0945

Sample Point	Velocity Head inches H_2O	Temp, °F	Sample Point	Velocity Head inches H_2O	Temp, °F	Sample Point	Velocity Head inches H_2O	Temp, °F
5, 55.3"	.85	347	5	.99	349	5	.99	343
4, 45.9"	.83	349	4	1.3	346	4	1.1	345
3, 36.5"	.84	345	3	.99	348	3	1.0	345
2, 27.1"	.83	343	2	1.0	344	2	1.3	344
1, 17.7	.82	338	1	.95	342	1	1.0	341
5	1.2	346	5	.99	348	5	1.2	339
4	1.2	347	4	1.2	347	4	1.2	341
3	1.2	348	3	1.1	349	3	1.0	342
2	.99	342	2	1.1	348	2	.96	343
1	.92	340	1	1.0	344	1	.97	346

	Probe Temp. °F	Filter Temp. °C		Heated Line Temp. °F	Chiller Temp. °C
1	257	256		311	07.8
2	256	255			
3	257	254			

MOISTURE DATA FOR TEST RUNS 2-Sox THROUGH 2-Sox

METER ID: 1-P&M | METER Yd: 1.015 | BALANCE CHECK WEIGHT: 500.0/500

Dry Gas Meter							Impinger Data				
Time	Volume	Delta H	Tm (in)	Tm (out)	T_{imp}	Vacuum	No.	Material	End Wt.	Start Wt.	Diff.
0845	815.200	1.0	84	88	52	5"	#1	H_2O_2	869.4	747.6	
0905	826.745	1.0	87	90	55	5"	#2	H_2O	760.7	735.9	
0925	837.620	1.0	88	91	56	5"	#3	Empty	521.8	516.4	
0945	848.875						#4	Silica Gel	987.8	973.7	
							Total	Line rinse		50	

Pre-Test Leak Check: 0.005 CFM @ 15 in. Hg., Post-Test Leak Check: 0.005 CFM @ 15 in. Hg

FLUE GAS VELOCITY AND MOISTURE DATA AND WORKSHEET

CLIENT: Desert View Power | LOCATION/UNIT: Unit - 2
PERFORMED BY: Patrick Whitman | TEST DATE: 4/5/2022
BAR. PRESSURE: 30.02 | TC READOUT ID: TRC-42
DP INDICATOR ID: CC-2 | TC ID: #058
DP INDICATOR TYPE: 0-10" Manometer | PITOT TUBE ID: #058 | Cp: 0.84
ZERO: √ | LEVEL: √ | LEAK CHECK PRE- √ | POST- √

Run #: 3-5ox **Ps:** 1.32
Start: 1115 **Stop:** 1215

Sample Point	Velocity Head inches H_2O	Temp, °F	Sample Point	Velocity Head inches H_2O	Temp, °F	Sample Point	Velocity Head inches H_2O	Temp, °F
5, 55.3"	.86	346	5	1.0	349	5	.98	346
4, 45.9"	.84	349	4	1.2	348	4	1.2	347
3, 36.5"	.81	347	3	1.0	344	3	.99	348
2, 27.1"	.82	344	2	1.1	343	2	1.2	347
1, 17.7	.83	332	1	.93	340	1	1.1	343
5	1.1	342	5	1.0	347	5	1.1	342
4	1.2	345	4	1.2	348	4	1.2	348
3	1.2	345	3	1.2	345	3	1.1	347
2	.99	347	2	1.0	345	2	.97	347
1	.90	340	1	.98	344	1	.98	344
	Probe Temp. °F	Filter Temp. °C		Heated Line Temp. °F	Chiller Temp. °C			
1	254	256		312	00.7			
2	257	255						
3	254	251						

MOISTURE DATA FOR TEST RUNS 3-5ox THROUGH 3-5ox

METER ID: 1-P&M METER Yd: 1.015 BALANCE CHECK WEIGHT: 500.0/500

Dry Gas Meter							Impinger Data				
Time	Volume	Delta H	Tm (in)	Tm (out)	T_{imp}	Vacuum	No.	Material	End Wt.	Start Wt.	Diff.
1115	859.600	1.0	91	94	51	5"	#1	H_2O_1	851.1	701.9	
1135	864.530	1.0	93	96	55	5"	#2	H_2O_2	756.1	752.0	
1155	876.465	1.0	94	97	59	5"	#3	Empty	617.9	617.1	
1215	887.798						#4	Silica Gel	916.4	906.8	
							Total	Line rinse		50	

Pre-Test Leak Check: Leaks CFM @ 15 in. Hg., Post-Test Leak Check: 0.000 CFM @ 15 in. Hg

Appendix A.2.7
Unit 2 Hydrocarbon Data

SCAQMD METHOD 25.3
EVACUATED CANISTER SAMPLING DATA

Client/Facility: Desert View Power Date: 4/5/2022

Unit/Location: Unit 2 Stack Breaching Performed By: Patrick Whitman

Probe Material SS Probe Length 36"

Connecting Tubing Material Teflon Connecting Tubing Length 12"

Barometric Pressure 30.02 Ambient Temperature 72°

Test No.		1A-VOC-U2		1B-VOC-U2			
Vial ID		5A		5B			
Tank ID		5A		5B			
		Time	Vacuum	Time	Vacuum	Time	Vacuum
Pre-Test Leak Check	Start	525	10	525	10		
Pre-Test Leak Check	Stop	535	10	535	10		
Sample Collection	Start	0600	30	0600	30		
		0610	26	0610	26		
		0620	23	0620	23		
		0630	19	0630	19		
		0640	15	0640	15		
		0650	12	0650	12		
Sample Collection	Stop	0654	10	0654	10		
Post -Test Leak Check	Start	658	10	658	10		
Post-Test Leak Check	Stop	708	10	708	10		
Line Rinse Volume							

Comments:

Appendix A.3
Laboratory Reports

Appendix A.3.1
Hydrogen Chloride Laboratory Data

GreenLeaf Power Desert View
Mecca, CA
Units 1 & 2
USEPA Method 321
Hydrogen Chloride Testing
April 5th & 7th, 2022
PROJ-012606

By

Trevor Tilmann
Sr. Field Technician / Chemist

April 25th, 2022

GreenLeaf Power Desert View
Mecca, CA
FTIR Emissions Testing
April 5th & 7th, 2022
PROJ-012606

Scope

Montrose Air Quality Services (MAQS, Mt. Pleasant, MI), was contracted to conduct emissions testing for GreenLeaf Power Desert View (Mecca, CA). Effluent emissions from Units 1 and 2 were tested for gaseous hydrogen chloride (HCl). Testing was performed April 5th and 7th, 2022.

Extractive Fourier transform infrared (FTIR) spectrometry following US EPA Method 321 was used to quantify gaseous hydrogen chloride emissions from the effluent stream of Units 1 and 2. Trevor Tilmann (MAQS) performed the data collection, data validation and report generation. Phillip Kauppi (MAQS) reviewed the test data and report.

Procedures

FTIR Instrumental Configuration

FTIR data were collected using an MKS MultiGas 2030 FTIR spectrometer. See Table 1 below for sampling system details.

The FTIR was equipped with a temperature-controlled, 5.11-meter multipass gas cell maintained at 191°C. Gas flows and sampling system pressures were monitored using rotameters and pressure transducers. All data were collected at 0.5 cm^{-1} resolution. Each spectrum was derived from the coaddition of 64 scans, with a new data point generated approximately every 60 seconds.

Table 1 – FTIR Sampling System

Source	MKS Serial #	Sampling Line	Probe Assembly	Particulate Filter Media	Operating Temperatures
Units 1 & 2	016630515	50' 3/8" dia. Teflon	3', 3/8" dia. Stainless steel + heated filter element	0.01µ borosilicate glass fiber	191°C FTIR + system

© MAQS 046 – *Proprietary & Confidential*

FTIR QA/QC Methodology

QA/QC procedures followed US EPA Method 321. See Tables 2 and 3 below for QA/QC procedure details and list of calibration gas standards. All calibration gases were introduced to the analyzers and the sampling systems using instrument grade stainless steel rotameters. All QA/QC procedures were within the acceptance criteria allowance of the EPA methodology. QA/QC procedures were run at each sampling location. 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
M321: Zero	Verify that the FTIR is free of contaminants & zero the FTIR	Nitrogen (zero)	Direct to FTIR	pre/post test	< MDL or Noise	Pass
M321: Calibration Transfer Standard (CTS) Direct	Verify FTIR stability, confirm optical path length	Ethylene	Direct to FTIR	pre/post test	+/- 5% cert. value	Pass
M321: Analyte Direct	Verify FTIR calibration	HCl/SF_6	Direct to FTIR	pretest	+/- 5% cert. value	Pass
M321: CTS Response	Verify system stability, recovery, RT	Ethylene	Sampling System	pre/post each run	+/- 5% of Direct Measurement	Pass
M321: Zero Response	Verify system is free of contaminants, system bias	Nitrogen (zero)	Sampling System	pre/post test	Bias correct data	Pass
M321: Analyte Spike	Verify system ability to deliver and quantify analyte of interest in the presence of other effluent gases	HCl/SF_6	Dynamic Addition to Sampling System, 1:10 effluent	pre/post each run	+/- 30% theoretical recovery	Pass

Table 3 – Calibration Gas Standards

Components	Concentration (ppm)	Vendor	Cylinder #	Standard Type
Ethylene	100.3	Airgas	EB0082516	Primary +/- 1%
HCl, SF_6	49.92, 9.872	Airgas	CC514052	Certified Standard +/- 2%, 5% NIST Traceable
Nitrogen	Zero gas	Praxair	n/a	CEMs Zero

FTIR QA/QC Calculations

Method 321: Analyte Spiking

Hydrogen chloride spiking was performed at each source prior to and after each test run to verify the ability of the sampling systems to quantitatively deliver a sample containing hydrogen chloride 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 hydrogen chloride in the presence of effluent gas.

As part of the spiking procedure, samples from the source were measured to determine hydrogen chloride 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

© MAQS 046 – *Proprietary & Confidential*

calculate the concentration of the spiked hydrogen chloride. The following equations illustrates the percent recovery calculation.

$$DF = \frac{SF6(spk)}{SF6(dir)} \quad \text{(Sec. 9.3.1 (3) USEPA Method 321)}$$

$$\%R = 100\,x\,\frac{Sm - Su(1-DF)}{DF\,x\,Cs} \quad \text{(Sec. 9.3.1 (1) USEPA Method 321)}$$

$$Ce = DF * Cs + Su(1 - DF) \quad \text{(Sec. 9.3.1 (2) USEPA Method 321)}$$

DF = Dilution factor of the spike gas
$SF_{6(dir)}$ = SF_6 concentration measured directly in undiluted spike gas
$SF_{6(spk)}$ = Diluted SF_6 concentration measured in a spiked sample
Ce = Expected concentration of the spiked samples (theoretical)
Cs = Cylinder concentration of spike gas
Su = Native concentration of analytes in unspiked samples
Sm = Mean concentration of the analyte spiked effluent 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 possible causes leading to misquantified data.

Results and Discussion

Detection Limit

The detection limit of each analyte was calculated following Annex A2 of ASTM D6348-12 procedure using spectra that contained similar amounts of moisture.

Table 4 - FTIR Detection Limits

Analyte	Detection Limit
HCl	0.2 (ppmv wet)

© MAQS 046 – *Proprietary & Confidential*

Unit 2

Three, two-hour test runs were performed on Unit 2 on April 5th, 2022. Hydrogen chloride was detected during the test runs. Analyte spiking was performed prior to and after each test run to confirm the ability of the measurement system to deliver and quantify hydrogen chloride. See the Unit 2 FTIR QA/QC Data Appendix for results. All concentration data were calculated on a wet volume basis. See Table 6 below for a summary of the analyte averages during the separate run periods. See the Unit 2 FTIR Test Run Data Appendix for detailed run time results.

Table 6 – Unit 2 Run Summary

Condition	Calculation	HCl (ppmw wet)
04/5/2022 Unit 2 - Run 1 06:00 - 08:00	Minimum	6.62
	Maximum	10.56
	Average	8.54
04/5/2022 Unit 2 - Run 2 08:30 - 10:30	Minimum	7.01
	Maximum	11.75
	Average	8.70
04/7/2022 Unit 2 - Run 3 11:15 - 13:15	Minimum	7.43
	Maximum	11.83
	Average	9.35

Unit 1

Three, two-hour test runs were performed on Unit 1 on April 7th, 2022. Hydrogen chloride was detected during the test runs. Analyte spiking was performed prior to and after each test run to confirm the ability of the measurement system to deliver and quantify hydrogen chloride. See the Unit 1 FTIR QA/QC Data Appendix for results. All concentration data were calculated on a wet volume basis. See Table 5 below for a summary of the analyte averages during the separate run periods. See the Unit 1 FTIR Test Run Data Appendix for detailed run time results.

Table 5 – Unit 1 Run Summary

Condition	Calculation	HCl (ppmw wet)
04/7/2022 Unit 1 - Run 1 03:40 - 05:40	Minimum	9.58
	Maximum	15.16
	Average	12.00
04/7/2022 Unit 1 - Run 2 08:30 - 10:30	Minimum	7.10
	Maximum	12.21
	Average	9.55
04/7/2022 Unit 1 - Run 3 11:05 - 13:05	Minimum	7.28
	Maximum	10.96
	Average	8.59

© MAQS 046 – *Proprietary & Confidential*

The following Appendices include FTIR data and QA/QC procedures:

- Unit 1 - FTIR Test Run Data
- Unit 1 - FTIR QA/QC Data
- Unit 2 - FTIR Test Run Data
- Unit 2 - FTIR QA/QC Data
- Gas Certificates

Date: April 25th, 2022

Trevor Tilmann
Sr. Field Technician / Chemist
GreenLeafPowerDesertView_MeccaCA_2022Apr_PROJ-012606_txt

© MAQS 046 – *Proprietary & Confidential*

APPENDIX

Unit 1 – FTIR Test Run Data

Unit 1 - Run 1

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	FTIR Gas Cell Temperature (°C)	FTIR Gas Cell Pressure (atm)
UNIT1_2399.LAB	4/7/2022	3:40:36	11.27	9.86	191.0	1.014
UNIT1_2400.LAB	4/7/2022	3:41:36	11.46	10.54	191.0	1.012
UNIT1_2401.LAB	4/7/2022	3:42:36	11.34	10.46	191.0	1.014
UNIT1_2402.LAB	4/7/2022	3:43:36	11.38	11.50	191.0	1.011
UNIT1_2403.LAB	4/7/2022	3:44:36	12.23	12.23	191.0	1.014
UNIT1_2404.LAB	4/7/2022	3:45:36	11.57	12.35	191.0	1.012
UNIT1_2405.LAB	4/7/2022	3:46:36	11.62	12.34	191.0	1.011
UNIT1_2406.LAB	4/7/2022	3:47:36	11.66	11.93	191.1	1.011
UNIT1_2407.LAB	4/7/2022	3:48:36	11.10	11.71	191.1	1.014
UNIT1_2408.LAB	4/7/2022	3:49:36	11.03	11.29	191.0	1.011
UNIT1_2409.LAB	4/7/2022	3:50:36	11.38	11.21	191.0	1.013
UNIT1_2410.LAB	4/7/2022	3:51:36	11.73	11.45	191.0	1.011
UNIT1_2411.LAB	4/7/2022	3:52:36	12.14	12.49	191.0	1.014
UNIT1_2412.LAB	4/7/2022	3:53:36	11.70	13.11	191.0	1.013
UNIT1_2413.LAB	4/7/2022	3:54:36	11.40	11.67	191.0	1.014
UNIT1_2414.LAB	4/7/2022	3:55:36	10.94	10.78	191.0	1.011
UNIT1_2415.LAB	4/7/2022	3:56:36	10.90	10.43	191.1	1.013
UNIT1_2416.LAB	4/7/2022	3:57:36	11.42	10.53	191.1	1.013
UNIT1_2417.LAB	4/7/2022	3:58:36	11.13	10.09	191.1	1.011
UNIT1_2418.LAB	4/7/2022	3:59:36	12.35	11.03	191.0	1.012
UNIT1_2419.LAB	4/7/2022	4:00:36	12.76	12.31	191.0	1.013
UNIT1_2420.LAB	4/7/2022	4:01:36	11.41	11.85	191.0	1.012
UNIT1_2421.LAB	4/7/2022	4:02:36	11.80	12.28	191.0	1.013
UNIT1_2422.LAB	4/7/2022	4:03:36	11.79	11.51	191.0	1.013
UNIT1_2423.LAB	4/7/2022	4:04:36	11.55	11.75	191.0	1.014
UNIT1_2424.LAB	4/7/2022	4:05:35	10.99	11.01	191.0	1.014
UNIT1_2425.LAB	4/7/2022	4:06:36	11.28	11.21	191.0	1.014
UNIT1_2426.LAB	4/7/2022	4:07:35	10.95	10.93	191.0	1.013
UNIT1_2427.LAB	4/7/2022	4:08:35	11.20	11.11	191.0	1.012
UNIT1_2428.LAB	4/7/2022	4:09:35	11.36	11.46	191.1	1.014
UNIT1_2429.LAB	4/7/2022	4:10:35	11.04	10.95	191.0	1.012
UNIT1_2430.LAB	4/7/2022	4:11:35	11.89	10.66	191.0	1.012
UNIT1_2431.LAB	4/7/2022	4:12:35	11.60	10.96	191.0	1.012
UNIT1_2432.LAB	4/7/2022	4:13:35	11.65	10.40	191.0	1.012
UNIT1_2433.LAB	4/7/2022	4:14:35	11.68	10.27	191.0	1.010
UNIT1_2434.LAB	4/7/2022	4:15:35	11.41	9.93	191.0	1.013
UNIT1_2435.LAB	4/7/2022	4:16:35	11.56	9.58	191.0	1.011
UNIT1_2436.LAB	4/7/2022	4:17:35	11.80	9.84	191.0	1.013
UNIT1_2437.LAB	4/7/2022	4:18:35	11.79	9.85	191.0	1.015
UNIT1_2438.LAB	4/7/2022	4:19:35	12.24	10.44	191.0	1.012
UNIT1_2439.LAB	4/7/2022	4:20:35	12.09	11.04	191.0	1.012
UNIT1_2440.LAB	4/7/2022	4:21:35	11.98	10.50	191.1	1.012
UNIT1_2441.LAB	4/7/2022	4:22:35	12.17	11.27	191.1	1.014
UNIT1_2442.LAB	4/7/2022	4:23:35	12.67	12.15	191.0	1.011
UNIT1_2443.LAB	4/7/2022	4:24:35	12.97	12.78	190.9	1.013
UNIT1_2444.LAB	4/7/2022	4:25:35	12.07	12.44	191.0	1.014
UNIT1_2445.LAB	4/7/2022	4:26:35	11.93	12.31	191.0	1.012
UNIT1_2446.LAB	4/7/2022	4:27:35	12.33	12.85	191.0	1.014
UNIT1_2447.LAB	4/7/2022	4:28:35	11.78	12.38	191.0	1.010
UNIT1_2448.LAB	4/7/2022	4:29:35	12.96	13.88	191.0	1.012
UNIT1_2449.LAB	4/7/2022	4:30:35	12.35	13.63	191.0	1.014
UNIT1_2450.LAB	4/7/2022	4:31:35	12.28	13.51	191.1	1.012
UNIT1_2451.LAB	4/7/2022	4:32:35	11.91	13.06	191.0	1.013
UNIT1_2452.LAB	4/7/2022	4:33:35	12.63	14.19	191.0	1.012
UNIT1_2453.LAB	4/7/2022	4:34:35	12.89	15.16	191.0	1.015
UNIT1_2454.LAB	4/7/2022	4:35:35	13.03	14.40	191.0	1.012
UNIT1_2455.LAB	4/7/2022	4:36:35	11.33	12.72	191.0	1.013
UNIT1_2456.LAB	4/7/2022	4:37:35	12.06	12.76	191.0	1.014
UNIT1_2457.LAB	4/7/2022	4:38:35	12.85	13.74	191.0	1.014
UNIT1_2458.LAB	4/7/2022	4:39:35	12.72	14.41	191.0	1.013
UNIT1_2459.LAB	4/7/2022	4:40:35	12.44	14.00	191.0	1.014
UNIT1_2460.LAB	4/7/2022	4:41:35	11.08	11.93	191.0	1.014
UNIT1_2461.LAB	4/7/2022	4:42:34	12.12	12.29	191.0	1.014

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	FTIR Gas Cell Temperature (°C)	FTIR Gas Cell Pressure (atm)
UNIT1_2462.LAB	4/7/2022	4:43:34	11.68	11.83	191.0	1.013
UNIT1_2463.LAB	4/7/2022	4:44:34	12.74	12.89	191.0	1.016
UNIT1_2464.LAB	4/7/2022	4:45:34	12.70	13.39	191.1	1.015
UNIT1_2465.LAB	4/7/2022	4:46:34	12.36	13.07	191.0	1.014
UNIT1_2466.LAB	4/7/2022	4:47:34	11.09	12.04	191.0	1.015
UNIT1_2467.LAB	4/7/2022	4:48:34	12.17	12.64	191.0	1.013
UNIT1_2468.LAB	4/7/2022	4:49:34	11.43	12.31	191.0	1.013
UNIT1_2469.LAB	4/7/2022	4:50:34	11.96	11.64	191.0	1.014
UNIT1_2470.LAB	4/7/2022	4:51:34	12.42	11.84	191.0	1.011
UNIT1_2471.LAB	4/7/2022	4:52:34	12.63	12.05	191.0	1.015
UNIT1_2472.LAB	4/7/2022	4:53:34	12.61	12.80	191.0	1.014
UNIT1_2473.LAB	4/7/2022	4:54:34	12.32	12.66	191.1	1.014
UNIT1_2474.LAB	4/7/2022	4:55:34	13.17	13.74	191.0	1.013
UNIT1_2475.LAB	4/7/2022	4:56:34	12.49	13.30	191.0	1.015
UNIT1_2476.LAB	4/7/2022	4:57:34	13.33	13.83	191.0	1.014
UNIT1_2477.LAB	4/7/2022	4:58:34	13.31	14.44	191.0	1.014
UNIT1_2478.LAB	4/7/2022	4:59:34	13.36	14.79	191.0	1.014
UNIT1_2479.LAB	4/7/2022	5:00:34	13.00	14.63	191.0	1.013
UNIT1_2480.LAB	4/7/2022	5:01:34	11.10	12.83	191.0	1.013
UNIT1_2481.LAB	4/7/2022	5:02:34	11.58	12.05	191.0	1.013
UNIT1_2482.LAB	4/7/2022	5:03:34	12.78	12.64	191.0	1.012
UNIT1_2483.LAB	4/7/2022	5:04:34	13.29	13.19	191.0	1.014
UNIT1_2484.LAB	4/7/2022	5:05:34	12.05	11.95	191.0	1.012
UNIT1_2485.LAB	4/7/2022	5:06:34	13.01	12.48	191.0	1.012
UNIT1_2486.LAB	4/7/2022	5:07:34	12.82	12.13	191.0	1.013
UNIT1_2487.LAB	4/7/2022	5:08:34	11.74	11.74	191.0	1.014
UNIT1_2488.LAB	4/7/2022	5:09:34	11.79	11.22	191.0	1.015
UNIT1_2489.LAB	4/7/2022	5:10:34	12.14	11.34	191.0	1.013
UNIT1_2490.LAB	4/7/2022	5:11:34	12.58	11.99	190.9	1.014
UNIT1_2491.LAB	4/7/2022	5:12:34	12.85	12.48	190.9	1.012
UNIT1_2492.LAB	4/7/2022	5:13:34	12.52	12.57	191.0	1.013
UNIT1_2493.LAB	4/7/2022	5:14:34	12.51	12.64	191.0	1.013
UNIT1_2494.LAB	4/7/2022	5:15:34	11.48	11.70	191.0	1.011
UNIT1_2495.LAB	4/7/2022	5:16:34	11.76	11.27	191.0	1.014
UNIT1_2496.LAB	4/7/2022	5:17:34	13.01	12.76	191.0	1.014
UNIT1_2497.LAB	4/7/2022	5:18:34	11.81	11.35	191.0	1.015
UNIT1_2498.LAB	4/7/2022	5:19:34	12.20	11.00	191.0	1.012
UNIT1_2499.LAB	4/7/2022	5:20:34	13.13	11.67	191.0	1.014
UNIT1_2500.LAB	4/7/2022	5:21:33	11.84	11.35	191.0	1.014
UNIT1_2501.LAB	4/7/2022	5:22:34	12.48	11.55	191.0	1.015
UNIT1_2502.LAB	4/7/2022	5:23:33	12.55	11.96	191.0	1.012
UNIT1_2503.LAB	4/7/2022	5:24:33	13.40	13.07	190.9	1.013
UNIT1_2504.LAB	4/7/2022	5:25:33	12.76	13.25	191.0	1.013
UNIT1_2505.LAB	4/7/2022	5:26:33	12.00	12.27	191.0	1.013
UNIT1_2506.LAB	4/7/2022	5:27:33	12.86	12.65	191.1	1.013
UNIT1_2507.LAB	4/7/2022	5:28:33	11.82	11.92	191.0	1.013
UNIT1_2508.LAB	4/7/2022	5:29:33	11.97	11.32	191.0	1.013
UNIT1_2509.LAB	4/7/2022	5:30:33	11.99	10.54	191.0	1.013
UNIT1_2510.LAB	4/7/2022	5:31:33	12.04	10.46	191.0	1.016
UNIT1_2511.LAB	4/7/2022	5:32:33	13.04	11.37	191.0	1.014
UNIT1_2512.LAB	4/7/2022	5:33:33	12.65	11.53	191.0	1.014
UNIT1_2513.LAB	4/7/2022	5:34:33	13.04	12.16	191.0	1.014
UNIT1_2514.LAB	4/7/2022	5:35:33	13.33	12.15	191.0	1.011
UNIT1_2515.LAB	4/7/2022	5:36:33	12.33	11.12	191.0	1.014
UNIT1_2516.LAB	4/7/2022	5:37:33	12.50	10.92	191.0	1.013

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	FTIR Gas Cell Temperature (°C)	FTIR Gas Cell Pressure (atm)
UNIT1_2517.LAB	4/7/2022	5:38:33	12.58	11.32	191.0	1.013
UNIT1_2518.LAB	4/7/2022	5:39:33	13.14	11.83	191.0	1.010
UNIT1_2519.LAB	4/7/2022	5:40:33	12.67	11.44	191.0	1.012
04/7/2022	Minimum	10.90	9.58			
Unit 1 - Run 1	Maximum	13.40	15.16			
03:40 - 05:40	Average	12.12	12.00			

Unit 1 - Run 2

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	FTIR Gas Cell Temperature (°C)	FTIR Gas Cell Pressure (atm)
UNIT1_2724.LAB	4/7/2022	8:30:17	10.97	11.78	191.0	1.015
UNIT1_2725.LAB	4/7/2022	8:31:17	11.43	11.72	191.0	1.015
UNIT1_2726.LAB	4/7/2022	8:32:17	11.39	11.33	191.0	1.015
UNIT1_2727.LAB	4/7/2022	8:33:17	11.34	11.51	191.0	1.016
UNIT1_2728.LAB	4/7/2022	8:34:17	11.54	11.44	191.0	1.016
UNIT1_2729.LAB	4/7/2022	8:35:17	11.80	11.67	191.0	1.015
UNIT1_2730.LAB	4/7/2022	8:36:17	11.94	12.21	191.0	1.016
UNIT1_2731.LAB	4/7/2022	8:37:17	11.10	11.29	191.0	1.013
UNIT1_2732.LAB	4/7/2022	8:38:17	11.39	10.73	191.0	1.014
UNIT1_2733.LAB	4/7/2022	8:39:17	11.78	10.96	191.0	1.016
UNIT1_2734.LAB	4/7/2022	8:40:17	11.42	11.22	191.0	1.013
UNIT1_2735.LAB	4/7/2022	8:41:17	11.19	10.74	191.0	1.014
UNIT1_2736.LAB	4/7/2022	8:42:17	11.35	10.50	191.0	1.015
UNIT1_2737.LAB	4/7/2022	8:43:17	12.43	11.31	191.0	1.016
UNIT1_2738.LAB	4/7/2022	8:44:17	11.31	10.98	191.1	1.015
UNIT1_2739.LAB	4/7/2022	8:45:17	10.84	10.87	191.1	1.014
UNIT1_2740.LAB	4/7/2022	8:46:17	11.50	10.98	191.0	1.016
UNIT1_2741.LAB	4/7/2022	8:47:17	11.00	9.92	191.0	1.014
UNIT1_2742.LAB	4/7/2022	8:48:17	11.21	10.01	191.0	1.014
UNIT1_2743.LAB	4/7/2022	8:49:17	12.37	11.01	191.0	1.016
UNIT1_2744.LAB	4/7/2022	8:50:17	12.46	11.59	191.0	1.015
UNIT1_2745.LAB	4/7/2022	8:51:17	10.67	10.23	191.0	1.015
UNIT1_2746.LAB	4/7/2022	8:52:17	10.54	9.36	191.0	1.016
UNIT1_2747.LAB	4/7/2022	8:53:17	11.71	10.19	191.0	1.015
UNIT1_2748.LAB	4/7/2022	8:54:17	11.20	10.14	191.0	1.014
UNIT1_2749.LAB	4/7/2022	8:55:16	11.55	10.38	191.0	1.017
UNIT1_2750.LAB	4/7/2022	8:56:17	11.32	10.43	191.0	1.015
UNIT1_2751.LAB	4/7/2022	8:57:17	11.17	10.23	191.0	1.014
UNIT1_2752.LAB	4/7/2022	8:58:16	10.75	9.74	191.0	1.014
UNIT1_2753.LAB	4/7/2022	8:59:16	11.67	10.42	191.0	1.015
UNIT1_2754.LAB	4/7/2022	9:00:16	11.74	11.02	191.0	1.014
UNIT1_2755.LAB	4/7/2022	9:01:16	11.94	11.27	191.0	1.016
UNIT1_2756.LAB	4/7/2022	9:02:16	11.61	10.47	191.1	1.015
UNIT1_2757.LAB	4/7/2022	9:03:16	11.83	10.91	191.0	1.014
UNIT1_2758.LAB	4/7/2022	9:04:16	11.08	10.46	191.0	1.017
UNIT1_2759.LAB	4/7/2022	9:05:16	11.29	10.19	191.1	1.015
UNIT1_2760.LAB	4/7/2022	9:06:16	11.67	10.63	191.0	1.014
UNIT1_2761.LAB	4/7/2022	9:07:16	11.35	10.38	191.0	1.016
UNIT1_2762.LAB	4/7/2022	9:08:16	11.45	10.65	191.0	1.016
UNIT1_2763.LAB	4/7/2022	9:09:16	11.76	11.07	191.0	1.015
UNIT1_2764.LAB	4/7/2022	9:10:16	11.62	10.91	191.0	1.015
UNIT1_2765.LAB	4/7/2022	9:11:16	11.75	10.78	191.0	1.015
UNIT1_2766.LAB	4/7/2022	9:12:16	11.45	10.82	191.0	1.014
UNIT1_2767.LAB	4/7/2022	9:13:16	11.18	9.64	191.0	1.016
UNIT1_2768.LAB	4/7/2022	9:14:16	11.57	9.48	191.0	1.013
UNIT1_2769.LAB	4/7/2022	9:15:16	11.28	9.43	191.0	1.015
UNIT1_2770.LAB	4/7/2022	9:16:16	11.06	9.39	191.0	1.014
UNIT1_2771.LAB	4/7/2022	9:17:16	11.06	9.35	191.0	1.015
UNIT1_2772.LAB	4/7/2022	9:18:16	11.33	9.69	191.0	1.014
UNIT1_2773.LAB	4/7/2022	9:19:16	11.69	9.39	191.0	1.015
UNIT1_2774.LAB	4/7/2022	9:20:16	11.52	8.73	191.0	1.013
UNIT1_2775.LAB	4/7/2022	9:21:16	11.34	8.38	191.0	1.017
UNIT1_2776.LAB	4/7/2022	9:22:16	12.60	8.86	191.0	1.015
UNIT1_2777.LAB	4/7/2022	9:23:16	12.03	8.71	191.0	1.016

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	FTIR Gas Cell Temperature (°C)	FTIR Gas Cell Pressure (atm)
UNIT1_2778.LAB	4/7/2022	9:24:16	11.89	8.62	191.0	1.013
UNIT1_2779.LAB	4/7/2022	9:25:16	11.66	8.45	191.0	1.016
UNIT1_2780.LAB	4/7/2022	9:26:16	11.56	8.22	191.0	1.014
UNIT1_2781.LAB	4/7/2022	9:27:16	12.07	8.39	191.0	1.014
UNIT1_2782.LAB	4/7/2022	9:28:16	12.22	8.57	191.0	1.015
UNIT1_2783.LAB	4/7/2022	9:29:15	11.61	8.34	191.1	1.016
UNIT1_2784.LAB	4/7/2022	9:30:15	10.77	7.98	191.0	1.014
UNIT1_2785.LAB	4/7/2022	9:31:15	10.90	7.65	191.0	1.013
UNIT1_2786.LAB	4/7/2022	9:32:15	10.15	7.10	191.0	1.013
UNIT1_2787.LAB	4/7/2022	9:33:15	11.00	7.24	191.0	1.012
UNIT1_2788.LAB	4/7/2022	9:34:15	11.39	7.44	191.0	1.015
UNIT1_2789.LAB	4/7/2022	9:35:15	11.33	7.64	191.0	1.016
UNIT1_2790.LAB	4/7/2022	9:36:16	11.03	7.60	191.0	1.017
UNIT1_2791.LAB	4/7/2022	9:37:15	11.66	8.08	191.0	1.016
UNIT1_2792.LAB	4/7/2022	9:38:15	11.48	8.31	191.0	1.012
UNIT1_2793.LAB	4/7/2022	9:39:15	11.13	7.84	191.0	1.016
UNIT1_2794.LAB	4/7/2022	9:40:15	11.35	8.11	191.0	1.016
UNIT1_2795.LAB	4/7/2022	9:41:15	11.83	8.61	191.0	1.014
UNIT1_2796.LAB	4/7/2022	9:42:15	11.95	9.03	191.0	1.014
UNIT1_2797.LAB	4/7/2022	9:43:15	10.77	8.65	191.0	1.016
UNIT1_2798.LAB	4/7/2022	9:44:15	10.77	8.75	191.0	1.016
UNIT1_2799.LAB	4/7/2022	9:45:15	10.81	8.36	191.0	1.014
UNIT1_2800.LAB	4/7/2022	9:46:15	10.67	8.19	191.0	1.014
UNIT1_2801.LAB	4/7/2022	9:47:15	10.79	8.17	191.0	1.012
UNIT1_2802.LAB	4/7/2022	9:48:15	11.43	8.76	191.1	1.015
UNIT1_2803.LAB	4/7/2022	9:49:15	10.88	8.57	191.0	1.014
UNIT1_2804.LAB	4/7/2022	9:50:15	12.01	9.27	191.1	1.014
UNIT1_2805.LAB	4/7/2022	9:51:15	11.50	9.17	191.0	1.014
UNIT1_2806.LAB	4/7/2022	9:52:15	10.97	8.98	191.1	1.016
UNIT1_2807.LAB	4/7/2022	9:53:15	11.16	8.77	191.0	1.014
UNIT1_2808.LAB	4/7/2022	9:54:15	10.93	8.74	191.0	1.012
UNIT1_2809.LAB	4/7/2022	9:55:15	12.06	9.71	191.0	1.014
UNIT1_2810.LAB	4/7/2022	9:56:15	10.50	8.40	191.1	1.014
UNIT1_2811.LAB	4/7/2022	9:57:15	10.73	8.29	191.1	1.013
UNIT1_2812.LAB	4/7/2022	9:58:15	10.89	8.50	191.0	1.014
UNIT1_2813.LAB	4/7/2022	9:59:15	10.97	8.33	191.0	1.015
UNIT1_2814.LAB	4/7/2022	10:00:15	11.56	9.07	191.0	1.015
UNIT1_2815.LAB	4/7/2022	10:01:15	11.29	9.08	191.0	1.012
UNIT1_2816.LAB	4/7/2022	10:02:15	11.21	9.00	191.0	1.014
UNIT1_2817.LAB	4/7/2022	10:03:15	10.26	8.50	191.1	1.015
UNIT1_2818.LAB	4/7/2022	10:04:15	11.58	9.10	191.0	1.013
UNIT1_2819.LAB	4/7/2022	10:05:15	11.22	9.23	191.0	1.015
UNIT1_2820.LAB	4/7/2022	10:06:15	11.37	9.09	191.0	1.013
UNIT1_2821.LAB	4/7/2022	10:07:15	11.29	9.40	191.0	1.013
UNIT1_2822.LAB	4/7/2022	10:08:15	11.47	9.88	191.0	1.014
UNIT1_2823.LAB	4/7/2022	10:09:15	10.96	9.19	191.0	1.015
UNIT1_2824.LAB	4/7/2022	10:10:15	11.31	8.99	191.0	1.016
UNIT1_2825.LAB	4/7/2022	10:11:15	11.31	8.97	191.0	1.013
UNIT1_2826.LAB	4/7/2022	10:12:15	11.42	9.18	191.0	1.014
UNIT1_2827.LAB	4/7/2022	10:13:15	11.52	9.46	191.0	1.013
UNIT1_2828.LAB	4/7/2022	10:14:15	10.38	8.70	191.0	1.014
UNIT1_2829.LAB	4/7/2022	10:15:15	11.80	9.14	191.0	1.015
UNIT1_2830.LAB	4/7/2022	10:16:15	11.61	9.36	191.0	1.014
UNIT1_2831.LAB	4/7/2022	10:17:15	11.05	9.52	191.1	1.013
UNIT1_2832.LAB	4/7/2022	10:18:15	12.33	9.96	191.0	1.014
UNIT1_2833.LAB	4/7/2022	10:19:15	12.61	10.17	191.0	1.014
UNIT1_2834.LAB	4/7/2022	10:20:15	11.85	10.49	191.0	1.014
UNIT1_2835.LAB	4/7/2022	10:21:15	11.61	10.40	191.0	1.012
UNIT1_2836.LAB	4/7/2022	10:22:15	11.13	10.07	191.0	1.013
UNIT1_2837.LAB	4/7/2022	10:23:15	11.04	9.70	191.0	1.016
UNIT1_2838.LAB	4/7/2022	10:24:15	11.48	9.94	191.0	1.013
UNIT1_2839.LAB	4/7/2022	10:25:15	10.56	9.30	191.0	1.014
UNIT1_2840.LAB	4/7/2022	10:26:15	10.83	9.16	191.0	1.015
UNIT1_2841.LAB	4/7/2022	10:27:15	11.06	9.13	191.0	1.013

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	FTIR Gas Cell Temperature (°C)	FTIR Gas Cell Pressure (atm)
UNIT1_2842.LAB	4/7/2022	10:28:15	11.15	9.10	191.0	1.014
UNIT1_2843.LAB	4/7/2022	10:29:15	11.03	8.57	191.1	1.014
UNIT1_2844.LAB	4/7/2022	10:30:15	11.61	8.82	191.1	1.012
04/7/2022	Minimum		10.15	7.10		
Unit 1 - Run 2	Maximum		12.61	12.21		
08:30 - 10:30	Average		11.37	9.55		

Unit 1 - Run 3

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	FTIR Gas Cell Temperature (°C)	FTIR Gas Cell Pressure (atm)
UNIT1_2922.LAB	4/7/2022	11:05:53	11.87	10.31	191.0	1.013
UNIT1_2923.LAB	4/7/2022	11:06:53	10.86	9.19	191.0	1.013
UNIT1_2924.LAB	4/7/2022	11:07:53	10.96	9.50	191.0	1.013
UNIT1_2925.LAB	4/7/2022	11:08:53	11.28	9.74	191.0	1.017
UNIT1_2926.LAB	4/7/2022	11:09:53	12.40	10.96	191.0	1.015
UNIT1_2927.LAB	4/7/2022	11:10:53	11.77	9.97	191.0	1.010
UNIT1_2928.LAB	4/7/2022	11:11:53	10.86	9.05	191.0	1.014
UNIT1_2929.LAB	4/7/2022	11:12:53	11.11	9.33	191.0	1.013
UNIT1_2930.LAB	4/7/2022	11:13:53	11.43	9.55	191.0	1.012
UNIT1_2931.LAB	4/7/2022	11:14:53	11.49	9.13	191.1	1.013
UNIT1_2932.LAB	4/7/2022	11:15:53	10.76	8.79	191.0	1.011
UNIT1_2933.LAB	4/7/2022	11:16:53	10.63	8.40	191.0	1.011
UNIT1_2934.LAB	4/7/2022	11:17:53	11.50	8.86	191.0	1.016
UNIT1_2935.LAB	4/7/2022	11:18:53	11.02	8.65	191.0	1.011
UNIT1_2936.LAB	4/7/2022	11:19:53	11.31	8.79	191.1	1.014
UNIT1_2937.LAB	4/7/2022	11:20:53	11.58	9.18	191.0	1.010
UNIT1_2938.LAB	4/7/2022	11:21:53	11.97	9.44	191.0	1.011
UNIT1_2939.LAB	4/7/2022	11:22:53	11.19	9.16	191.0	1.013
UNIT1_2940.LAB	4/7/2022	11:23:53	11.25	9.16	191.0	1.012
UNIT1_2941.LAB	4/7/2022	11:24:53	10.96	8.98	191.0	1.013
UNIT1_2942.LAB	4/7/2022	11:25:53	10.97	8.70	191.0	1.011
UNIT1_2943.LAB	4/7/2022	11:26:53	11.22	8.69	191.0	1.012
UNIT1_2944.LAB	4/7/2022	11:27:53	11.68	8.85	191.0	1.014
UNIT1_2945.LAB	4/7/2022	11:28:53	11.82	8.56	191.0	1.012
UNIT1_2946.LAB	4/7/2022	11:29:53	11.08	8.42	191.0	1.013
UNIT1_2947.LAB	4/7/2022	11:30:53	11.48	8.59	191.0	1.016
UNIT1_2948.LAB	4/7/2022	11:31:53	11.32	8.39	191.0	1.013
UNIT1_2949.LAB	4/7/2022	11:32:53	10.82	8.13	191.0	1.011
UNIT1_2950.LAB	4/7/2022	11:33:53	10.87	8.24	191.0	1.015
UNIT1_2951.LAB	4/7/2022	11:34:53	11.75	8.72	191.1	1.013
UNIT1_2952.LAB	4/7/2022	11:35:53	11.25	8.60	191.1	1.011
UNIT1_2953.LAB	4/7/2022	11:36:53	10.87	8.37	191.1	1.013
UNIT1_2954.LAB	4/7/2022	11:37:53	11.28	8.39	191.0	1.011
UNIT1_2955.LAB	4/7/2022	11:38:54	11.73	8.92	191.0	1.010
UNIT1_2956.LAB	4/7/2022	11:39:53	11.61	8.90	191.1	1.011
UNIT1_2957.LAB	4/7/2022	11:40:53	11.59	9.23	191.1	1.014
UNIT1_2958.LAB	4/7/2022	11:41:53	10.89	8.69	191.1	1.015
UNIT1_2959.LAB	4/7/2022	11:42:53	10.88	8.65	191.0	1.010
UNIT1_2960.LAB	4/7/2022	11:43:53	11.73	9.21	191.0	1.010
UNIT1_2961.LAB	4/7/2022	11:44:53	12.37	9.92	191.0	1.013
UNIT1_2962.LAB	4/7/2022	11:45:53	12.00	10.20	191.0	1.013
UNIT1_2963.LAB	4/7/2022	11:46:54	10.95	9.41	191.0	1.012
UNIT1_2964.LAB	4/7/2022	11:47:54	10.79	8.87	191.1	1.011
UNIT1_2965.LAB	4/7/2022	11:48:54	11.05	8.54	191.1	1.011
UNIT1_2966.LAB	4/7/2022	11:49:54	11.77	8.90	191.0	1.011
UNIT1_2967.LAB	4/7/2022	11:50:54	11.56	8.91	191.1	1.012
UNIT1_2968.LAB	4/7/2022	11:51:54	11.56	8.89	191.1	1.011
UNIT1_2969.LAB	4/7/2022	11:52:54	10.94	8.40	191.1	1.014
UNIT1_2970.LAB	4/7/2022	11:53:54	11.19	8.49	191.1	1.012
UNIT1_2971.LAB	4/7/2022	11:54:54	10.69	7.92	191.1	1.011
UNIT1_2972.LAB	4/7/2022	11:55:54	10.89	7.83	191.1	1.012
UNIT1_2973.LAB	4/7/2022	11:56:54	10.81	7.77	191.1	1.010
UNIT1_2974.LAB	4/7/2022	11:57:54	10.82	7.61	191.1	1.011
UNIT1_2975.LAB	4/7/2022	11:58:54	11.01	7.58	191.1	1.013

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	FTIR Gas Cell Temperature (°C)	FTIR Gas Cell Pressure (atm)
UNIT1_2976.LAB	4/7/2022	11:59:54	11.61	7.89	191.1	1.013
UNIT1_2977.LAB	4/7/2022	12:00:54	11.14	7.75	191.1	1.010
UNIT1_2978.LAB	4/7/2022	12:01:54	11.69	8.07	191.1	1.013
UNIT1_2979.LAB	4/7/2022	12:02:54	11.52	8.02	191.1	1.013
UNIT1_2980.LAB	4/7/2022	12:03:54	11.09	7.83	191.1	1.012
UNIT1_2981.LAB	4/7/2022	12:04:54	10.53	7.43	191.1	1.011
UNIT1_2982.LAB	4/7/2022	12:05:54	11.87	7.97	191.1	1.013
UNIT1_2983.LAB	4/7/2022	12:06:54	12.19	8.41	191.1	1.009
UNIT1_2984.LAB	4/7/2022	12:07:55	11.37	8.38	191.1	1.012
UNIT1_2985.LAB	4/7/2022	12:08:54	11.24	8.25	191.1	1.011
UNIT1_2986.LAB	4/7/2022	12:09:55	10.93	7.97	191.1	1.013
UNIT1_2987.LAB	4/7/2022	12:10:55	10.10	7.34	191.1	1.011
UNIT1_2988.LAB	4/7/2022	12:11:55	10.34	7.28	191.1	1.009
UNIT1_2989.LAB	4/7/2022	12:12:55	10.63	7.41	191.1	1.010
UNIT1_2990.LAB	4/7/2022	12:13:55	11.49	7.70	191.1	1.011
UNIT1_2991.LAB	4/7/2022	12:14:55	11.15	7.73	191.1	1.012
UNIT1_2992.LAB	4/7/2022	12:15:55	10.92	7.77	191.0	1.011
UNIT1_2993.LAB	4/7/2022	12:16:55	11.62	8.10	191.0	1.010
UNIT1_2994.LAB	4/7/2022	12:17:55	11.78	8.64	191.0	1.013
UNIT1_2995.LAB	4/7/2022	12:18:55	11.61	8.75	191.0	1.010
UNIT1_2996.LAB	4/7/2022	12:19:55	11.32	8.75	191.0	1.012
UNIT1_2997.LAB	4/7/2022	12:20:55	11.60	8.96	191.1	1.012
UNIT1_2998.LAB	4/7/2022	12:21:55	11.71	9.22	191.1	1.011
UNIT1_2999.LAB	4/7/2022	12:22:55	10.98	8.87	191.1	1.011
UNIT1_3000.LAB	4/7/2022	12:23:55	11.40	8.93	191.1	1.012
UNIT1_3001.LAB	4/7/2022	12:24:55	11.59	8.92	191.1	1.012
UNIT1_3002.LAB	4/7/2022	12:25:56	11.81	9.21	191.1	1.010
UNIT1_3003.LAB	4/7/2022	12:26:56	10.92	8.62	191.1	1.010
UNIT1_3004.LAB	4/7/2022	12:27:56	11.61	8.76	191.0	1.014
UNIT1_3005.LAB	4/7/2022	12:28:56	11.66	8.78	191.1	1.014
UNIT1_3006.LAB	4/7/2022	12:29:56	10.99	8.29	191.1	1.013
UNIT1_3007.LAB	4/7/2022	12:30:56	10.58	7.98	191.0	1.009
UNIT1_3008.LAB	4/7/2022	12:31:56	12.07	8.83	191.1	1.012
UNIT1_3009.LAB	4/7/2022	12:32:56	11.67	8.83	191.1	1.011
UNIT1_3010.LAB	4/7/2022	12:33:56	10.84	8.35	191.1	1.012
UNIT1_3011.LAB	4/7/2022	12:34:56	11.15	8.48	191.0	1.012
UNIT1_3012.LAB	4/7/2022	12:35:56	10.75	8.16	191.0	1.012
UNIT1_3013.LAB	4/7/2022	12:36:56	10.78	8.07	191.1	1.011
UNIT1_3014.LAB	4/7/2022	12:37:56	11.13	8.18	191.1	1.013
UNIT1_3015.LAB	4/7/2022	12:38:56	11.27	8.25	191.1	1.010
UNIT1_3016.LAB	4/7/2022	12:39:57	10.82	8.00	191.1	1.011
UNIT1_3017.LAB	4/7/2022	12:40:57	11.31	8.26	191.1	1.011
UNIT1_3018.LAB	4/7/2022	12:41:57	11.23	8.36	191.1	1.013
UNIT1_3019.LAB	4/7/2022	12:42:57	11.56	8.77	191.1	1.010
UNIT1_3020.LAB	4/7/2022	12:43:57	10.22	8.06	191.1	1.012
UNIT1_3021.LAB	4/7/2022	12:44:57	11.05	8.25	191.1	1.011
UNIT1_3022.LAB	4/7/2022	12:45:57	11.09	8.25	191.1	1.012
UNIT1_3023.LAB	4/7/2022	12:46:57	10.83	8.13	191.1	1.011
UNIT1_3024.LAB	4/7/2022	12:47:57	11.23	8.35	191.1	1.011
UNIT1_3025.LAB	4/7/2022	12:48:57	11.01	8.32	191.1	1.014
UNIT1_3026.LAB	4/7/2022	12:49:57	11.15	8.42	191.1	1.013
UNIT1_3027.LAB	4/7/2022	12:50:57	11.89	9.21	191.1	1.012
UNIT1_3028.LAB	4/7/2022	12:51:57	10.84	8.87	191.1	1.011
UNIT1_3029.LAB	4/7/2022	12:52:57	11.43	9.27	191.1	1.012
UNIT1_3030.LAB	4/7/2022	12:53:58	10.98	9.02	191.1	1.010
UNIT1_3031.LAB	4/7/2022	12:54:58	10.68	8.81	191.1	1.009
UNIT1_3032.LAB	4/7/2022	12:55:58	10.96	8.64	191.1	1.009
UNIT1_3033.LAB	4/7/2022	12:56:58	11.32	8.83	191.1	1.012
UNIT1_3034.LAB	4/7/2022	12:57:58	11.11	8.61	191.1	1.011
UNIT1_3035.LAB	4/7/2022	12:58:58	10.97	8.21	191.1	1.012
UNIT1_3036.LAB	4/7/2022	12:59:58	11.27	8.45	191.1	1.011
UNIT1_3037.LAB	4/7/2022	13:00:58	10.69	8.10	191.1	1.011
UNIT1_3038.LAB	4/7/2022	13:01:58	10.75	8.06	191.1	1.011
UNIT1_3039.LAB	4/7/2022	13:02:58	11.22	8.46	191.1	1.012

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	FTIR Gas Cell Temperature (°C)	FTIR Gas Cell Pressure (atm)
UNIT1_3040.LAB	4/7/2022	13:03:59	10.63	8.23	191.1	1.010
UNIT1_3041.LAB	4/7/2022	13:04:58	10.98	8.13	191.1	1.010
UNIT1_3042.LAB	4/7/2022	13:05:59	11.27	8.37	191.1	1.009
04/7/2022	Minimum		10.10	7.28		
Unit 1 - Run 3	Maximum		12.09	10.06		
11:05 - 13:05	Average		11.23	8.59		

APPENDIX

Unit 1 – FTIR QAQC Data

Nitrogen (Zero) Direct Purge to FTIR

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	Ethylene (ppmv wet)	SF6 (ppmv wet)
UNIT1_N2_DIR_2165.LAB	4/7/2022	0:53:33	0.00	-0.10	-0.01	0.00
UNIT1_N2_DIR_2166BKG.LAB	4/7/2022	0:55:41	0.00	0.00	0.00	0.00
UNIT1_N2_DIR_2167.LAB	4/7/2022	0:55:54	0.00	0.09	0.11	0.00
UNIT1_N2_DIR_2168.LAB	4/7/2022	0:56:01	-0.01	0.00	0.09	0.00
UNIT1_N2_DIR_2169.LAB	4/7/2022	0:56:09	-0.01	0.14	0.13	0.00
UNIT1_N2_DIR_2170.LAB	4/7/2022	0:56:17	0.00	-0.27	0.09	0.00
UNIT1_N2_DIR_2171.LAB	4/7/2022	0:56:24	-0.01	-0.20	0.11	0.00
UNIT1_N2_DIR_2172.LAB	4/7/2022	0:56:31	0.00	-0.25	-0.08	0.00
UNIT1_N2_DIR_2173.LAB	4/7/2022	0:56:39	-0.01	-0.06	0.11	0.00
UNIT1_N2_DIR_2174.LAB	4/7/2022	0:56:46	0.00	-0.09	0.02	0.00

CTS, 100.3 ppm Ethylene Direct Purge

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	Ethylene (ppmv wet)	SF6 (ppmv wet)	Ethylene Recovery %
UNIT1_CTS_DIR_2175.LAB	4/7/2022	0:57:29	0.00	0.06	99.36	0.02	99.1%
UNIT1_CTS_DIR_2176.LAB	4/7/2022	0:57:36	-0.01	-0.14	99.65	0.03	99.4%
UNIT1_CTS_DIR_2177.LAB	4/7/2022	0:57:44	0.00	-0.07	100.09	0.03	99.8%
UNIT1_CTS_DIR_2178.LAB	4/7/2022	0:57:51	0.00	-0.01	100.01	0.03	99.7%
UNIT1_CTS_DIR_2179.LAB	4/7/2022	0:57:59	-0.01	0.13	99.96	0.03	99.7%
UNIT1_CTS_DIR_2180.LAB	4/7/2022	0:58:06	-0.01	-0.14	99.79	0.03	99.5%
UNIT1_CTS_DIR_2181.LAB	4/7/2022	0:58:14	-0.01	0.17	99.87	0.03	99.6%
UNIT1_CTS_DIR_2182.LAB	4/7/2022	0:58:21	-0.01	0.09	99.82	0.03	99.5%
		Average			**99.82**		

49.92 ppm HCl/9.872 ppm SF6 Direct Purge

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	Ethylene (ppmv wet)	SF6 (ppmv wet)
UNIT1_HCL_DIR_2189.LAB	4/7/2022	1:11:02	-0.01	42.63	-0.67	9.61
UNIT1_HCL_DIR_2190.LAB	4/7/2022	1:11:09	-0.01	42.64	-0.56	9.61
UNIT1_HCL_DIR_2191.LAB	4/7/2022	1:11:17	-0.01	42.32	-0.55	9.61
UNIT1_HCL_DIR_2192.LAB	4/7/2022	1:11:24	-0.01	42.47	-0.68	9.61
UNIT1_HCL_DIR_2193.LAB	4/7/2022	1:11:32	-0.02	42.52	-0.69	9.60
UNIT1_HCL_DIR_2194.LAB	4/7/2022	1:11:39	-0.01	42.30	-0.72	9.61
UNIT1_HCL_DIR_2195.LAB	4/7/2022	1:11:47	-0.01	42.45	-0.76	9.61
UNIT1_HCL_DIR_2196.LAB	4/7/2022	1:11:54	-0.01	42.49	-0.53	9.62
		Average		**42.48**		**9.61**

100.3 ppm Ethylene System Purge and Response Time Test

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	Ethylene (ppmv wet)	SF6 (ppmv wet)	Ethylene Recovery %	Response Time (sec)
UNIT1_CTS_RT_2197.LAB	4/7/2022	1:14:31	0.26	0.84	0.09	0.00	0.1%	-
UNIT1_CTS_RT_2198.LAB	4/7/2022	1:14:38	0.20	1.62	18.46	0.47	18.5%	8
UNIT1_CTS_RT_2199.LAB	4/7/2022	1:14:46	0.00	0.60	101.44	0.04	101.6%	15
UNIT1_CTS_RT_2200.LAB	4/7/2022	1:14:53	-0.01	0.42	100.60	0.03	100.8%	
UNIT1_CTS_RT_2201.LAB	4/7/2022	1:15:01	-0.02	0.33	101.65	0.02	101.8%	
UNIT1_CTS_RT_2202.LAB	4/7/2022	1:15:08	-0.01	0.30	100.56	0.02	100.7%	
UNIT1_CTS_RT_2203.LAB	4/7/2022	1:15:16	-0.01	0.27	100.89	0.03	101.1%	
UNIT1_CTS_RT_2204.LAB	4/7/2022	1:15:23	-0.02	0.13	100.85	0.03	101.0%	
UNIT1_CTS_RT_2205.LAB	4/7/2022	1:15:31	-0.02	0.21	100.27	0.03	100.5%	
UNIT1_CTS_RT_2206.LAB	4/7/2022	1:15:38	-0.02	0.15	100.16	0.03	100.3%	

Nitrogen (Zero) System Purge and Response Time Test

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	Ethylene (ppmv wet)	SF6 (ppmv wet)	Ethylene Recovery %	Response Time (sec)
UNIT1_N2_RT_2207.LAB	4/7/2022	1:16:04	-0.01	0.20	100.86	0.02	101.0%	-
UNIT1_N2_RT_2208.LAB	4/7/2022	1:16:12	0.04	0.44	59.75	0.01	59.9%	8
UNIT1_N2_RT_2209.LAB	4/7/2022	1:16:19	0.00	0.00	1.90	0.01	1.9%	15
UNIT1_N2_RT_2210.LAB	4/7/2022	1:16:27	-0.01	0.13	0.29	0.01	0.3%	23
UNIT1_N2_RT_2211.LAB	4/7/2022	1:16:34	-0.01	-0.13	0.26	0.00	0.3%	
UNIT1_N2_RT_2212.LAB	4/7/2022	1:16:42	-0.01	0.25	0.14	0.00	0.1%	
UNIT1_N2_RT_2213.LAB	4/7/2022	1:16:49	-0.01	0.28	0.28	0.00	0.3%	
UNIT1_N2_RT_2214.LAB	4/7/2022	1:16:57	-0.01	0.17	0.40	0.00	0.4%	
UNIT1_N2_RT_2215.LAB	4/7/2022	1:17:04	-0.02	0.26	0.08	0.00	0.1%	
UNIT1_N2_RT_2216.LAB	4/7/2022	1:17:12	-0.02	0.01	0.12	0.00	0.1%	
UNIT1_N2_RT_2217.LAB	4/7/2022	1:17:19	-0.01	0.01	0.03	-0.01	0.0%	

Unit 1 Prior to Analyte Spike

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	Ethylene (ppmv wet)	SF6 (ppmv wet)
UNIT1_2237.LAB	4/7/2022	1:38:11	11.56	9.79	0.43	-0.01
UNIT1_2238.LAB	4/7/2022	1:39:11	11.53	9.23	0.44	-0.01
UNIT1_2239.LAB	4/7/2022	1:40:11	12.71	9.98	0.47	-0.01
		Average		9.67		-0.01

Unit 1 Analyte Spike, Using 49.92 ppm HCl/9.872 ppm SF6

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	Ethylene (ppmv wet)	SF6 (ppmv wet)	Dilution Factor	HCl Recovery %
UNIT1_HCL_SPK_2271.LAB	4/7/2022	1:44:35	11.39	12.43	0.48	0.73	0.077	106.6%
UNIT1_HCL_SPK_2272.LAB	4/7/2022	1:44:42	11.32	12.76	0.42	0.73	0.077	116.8%
UNIT1_HCL_SPK_2273.LAB	4/7/2022	1:44:49	10.95	12.25	0.19	0.73	0.077	101.5%
UNIT1_HCL_SPK_2274.LAB	4/7/2022	1:44:57	10.84	12.36	0.36	0.74	0.078	104.3%
UNIT1_HCL_SPK_2275.LAB	4/7/2022	1:45:05	10.80	12.30	0.32	0.74	0.078	102.5%
UNIT1_HCL_SPK_2276.LAB	4/7/2022	1:45:12	11.16	12.61	0.25	0.73	0.077	112.6%
UNIT1_HCL_SPK_2277.LAB	4/7/2022	1:45:19	10.85	12.39	0.35	0.74	0.078	105.0%
UNIT1_HCL_SPK_2278.LAB	4/7/2022	1:45:27	10.12	11.73	0.41	0.74	0.078	85.3%
	Spike Average							104.3%

CTS, 100.3 ppm Ethylene System Purge

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	Ethylene (ppmv wet)	SF6 (ppmv wet)	Ethylene Recovery %
UNIT1_CTS_SYS_2279.LAB	4/7/2022	1:46:14	0.01	0.57	100.51	0.03	100.7%
UNIT1_CTS_SYS_2280.LAB	4/7/2022	1:46:22	0.00	0.39	100.54	0.02	100.7%
UNIT1_CTS_SYS_2281.LAB	4/7/2022	1:46:29	0.01	0.23	100.82	0.03	101.0%
UNIT1_CTS_SYS_2282.LAB	4/7/2022	1:46:37	0.00	0.19	100.48	0.03	100.7%
UNIT1_CTS_SYS_2283.LAB	4/7/2022	1:46:44	-0.01	0.32	100.57	0.03	100.8%
UNIT1_CTS_SYS_2284.LAB	4/7/2022	1:46:52	-0.01	0.20	100.84	0.03	101.0%
UNIT1_CTS_SYS_2285.LAB	4/7/2022	1:46:59	-0.01	0.32	100.62	0.03	100.8%
UNIT1_CTS_SYS_2286.LAB	4/7/2022	1:47:07	-0.02	0.17	100.62	0.02	100.8%

Unit 1 Prior to Analyte Spike

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	Ethylene (ppmv wet)	SF6 (ppmv wet)
UNIT1_2649.LAB	4/7/2022	7:50:30	13.71	10.59	0.50	-0.01
UNIT1_2650.LAB	4/7/2022	7:51:30	12.33	9.60	0.49	-0.01
UNIT1_2651.LAB	4/7/2022	7:52:30	13.21	9.95	0.54	-0.01
		Average		10.05		-0.01

Unit 1 Analyte Spike, Using 49.92 ppm HCl/9.872 ppm SF6

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	Ethylene (ppmv wet)	SF6 (ppmv wet)	Dilution Factor	HCl Recovery %
UNIT1_HCL_SPK_2675.LAB	4/7/2022	7:56:49	12.44	12.75	0.35	0.89	0.094	91.7%
UNIT1_HCL_SPK_2676.LAB	4/7/2022	7:56:56	13.58	13.51	0.31	0.89	0.094	110.1%
UNIT1_HCL_SPK_2677.LAB	4/7/2022	7:57:03	13.77	13.72	0.33	0.88	0.092	117.3%
UNIT1_HCL_SPK_2678.LAB	4/7/2022	7:57:11	12.83	13.45	0.34	0.89	0.094	108.9%
UNIT1_HCL_SPK_2679.LAB	4/7/2022	7:57:18	11.77	12.40	0.26	0.88	0.093	83.2%
UNIT1_HCL_SPK_2680.LAB	4/7/2022	7:57:26	12.25	12.78	0.37	0.87	0.092	93.6%
UNIT1_HCL_SPK_2681.LAB	4/7/2022	7:57:33	13.21	13.27	0.46	0.86	0.091	106.9%
UNIT1_HCL_SPK_2682.LAB	4/7/2022	7:57:41	13.69	13.29	0.36	0.87	0.091	107.0%
	Spike Average							102.3%

CTS, 100.3 ppm Ethylene System Purge

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	Ethylene (ppmv wet)	SF6 (ppmv wet)	Ethylene Recovery %
UNIT1_CTS_SYS_2687.LAB	4/7/2022	7:58:53	0.02	0.60	100.33	0.03	100.5%
UNIT1_CTS_SYS_2688.LAB	4/7/2022	7:59:01	0.00	0.37	100.39	0.02	100.6%
UNIT1_CTS_SYS_2689.LAB	4/7/2022	7:59:08	0.01	0.46	101.23	0.03	101.4%
UNIT1_CTS_SYS_2690.LAB	4/7/2022	7:59:16	0.00	0.22	101.02	0.03	101.2%
UNIT1_CTS_SYS_2691.LAB	4/7/2022	7:59:23	0.00	0.18	100.50	0.03	100.7%
UNIT1_CTS_SYS_2692.LAB	4/7/2022	7:59:31	0.00	0.50	100.40	0.02	100.6%
UNIT1_CTS_SYS_2693.LAB	4/7/2022	7:59:38	-0.01	0.28	100.59	0.03	100.8%
UNIT1_CTS_SYS_2694.LAB	4/7/2022	7:59:46	0.00	0.15	100.25	0.02	100.4%

Unit 1 Prior to Analyte Spike

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	Ethylene (ppmv wet)	SF6 (ppmv wet)
UNIT1_2844.LAB	4/7/2022	10:30:15	11.61	8.82	0.56	-0.01
UNIT1_2845.LAB	4/7/2022	10:31:15	11.46	9.01	0.55	-0.01
UNIT1_2846.LAB	4/7/2022	10:32:15	12.60	9.86	0.52	-0.01
		Average		9.23		-0.01

Unit 1 Analyte Spike, Using 49.92 ppm HCl/9.872 ppm SF6

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	Ethylene (ppmv wet)	SF6 (ppmv wet)	Dilution Factor	HCl Recovery %
UNIT1_HCL_SPK_2882.LAB	4/7/2022	10:37:55	11.40	11.49	0.52	0.71	0.075	92.8%
UNIT1_HCL_SPK_2883.LAB	4/7/2022	10:38:03	11.63	11.71	0.47	0.70	0.075	100.1%
UNIT1_HCL_SPK_2884.LAB	4/7/2022	10:38:10	11.66	11.80	0.58	0.70	0.074	103.5%
UNIT1_HCL_SPK_2885.LAB	4/7/2022	10:38:18	11.98	12.38	0.49	0.70	0.074	121.3%
UNIT1_HCL_SPK_2886.LAB	4/7/2022	10:38:25	11.51	12.45	0.39	0.70	0.074	123.8%
UNIT1_HCL_SPK_2887.LAB	4/7/2022	10:38:33	9.99	11.60	0.39	0.70	0.074	97.1%
UNIT1_HCL_SPK_2888.LAB	4/7/2022	10:38:41	8.68	10.67	0.36	0.70	0.074	67.5%
UNIT1_HCL_SPK_2889.LAB	4/7/2022	10:38:48	8.95	10.76	0.31	0.70	0.074	70.5%
	Spike Average							97.1%

CTS, 100.3 ppm Ethylene System Purge

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	Ethylene (ppmv wet)	SF6 (ppmv wet)	Ethylene Recovery %
UNIT1_CTS_SYS_2890.LAB	4/7/2022	10:39:35	0.01	0.36	100.02	0.02	100.2%
UNIT1_CTS_SYS_2891.LAB	4/7/2022	10:39:43	0.01	0.27	100.58	0.02	100.8%
UNIT1_CTS_SYS_2892.LAB	4/7/2022	10:39:50	0.01	0.26	100.26	0.02	100.4%
UNIT1_CTS_SYS_2893.LAB	4/7/2022	10:39:58	0.00	0.31	101.11	0.03	101.3%
UNIT1_CTS_SYS_2894.LAB	4/7/2022	10:40:05	0.00	0.03	100.60	0.02	100.8%
UNIT1_CTS_SYS_2895.LAB	4/7/2022	10:40:13	0.00	0.24	100.68	0.02	100.9%
UNIT1_CTS_SYS_2896.LAB	4/7/2022	10:40:20	0.00	-0.01	100.06	0.02	100.2%
UNIT1_CTS_SYS_2897.LAB	4/7/2022	10:40:28	0.00	-0.04	101.01	0.03	101.2%

Unit 1 Prior to Analyte Spike

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	Ethylene (ppmv wet)	SF6 (ppmv wet)
UNIT1_3040.LAB	4/7/2022	13:03:59	10.63	8.23	0.45	-0.01
UNIT1_3041.LAB	4/7/2022	13:04:58	10.98	8.13	0.43	-0.01
UNIT1_3042.LAB	4/7/2022	13:05:59	11.27	8.37	0.42	-0.01
		Average		8.24		-0.01

Unit 1 Analyte Spike, Using 49.92 ppm HCl/9.872 ppm SF6

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	Ethylene (ppmv wet)	SF6 (ppmv wet)	Dilution Factor	HCl Recovery %
UNIT1_HCL_SPK_3062.LAB	4/7/2022	13:08:50	10.81	11.11	0.52	0.81	0.085	98.4%
UNIT1_HCL_SPK_3063.LAB	4/7/2022	13:08:57	10.52	10.97	0.33	0.81	0.086	94.4%
UNIT1_HCL_SPK_3064.LAB	4/7/2022	13:09:05	10.18	10.67	0.34	0.80	0.085	87.1%
UNIT1_HCL_SPK_3065.LAB	4/7/2022	13:09:12	10.25	10.68	0.57	0.79	0.083	88.3%
UNIT1_HCL_SPK_3066.LAB	4/7/2022	13:09:20	10.68	10.94	0.16	0.79	0.084	95.2%
UNIT1_HCL_SPK_3067.LAB	4/7/2022	13:09:27	10.66	10.86	0.28	0.79	0.083	93.5%
UNIT1_HCL_SPK_3068.LAB	4/7/2022	13:09:35	11.24	11.48	0.33	0.78	0.082	111.9%
UNIT1_HCL_SPK_3069.LAB	4/7/2022	13:09:43	10.71	11.47	0.46	0.78	0.082	111.5%
	Spike Average							97.5%

CTS, 100.3 ppm Ethylene System Purge

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	Ethylene (ppmv wet)	SF6 (ppmv wet)	Ethylene Recovery %
UNIT1_CTS_SYS_3074.LAB	4/7/2022	13:10:52	0.02	0.64	100.30	0.03	100.5%
UNIT1_CTS_SYS_3075.LAB	4/7/2022	13:10:59	0.01	0.29	100.22	0.03	100.4%
UNIT1_CTS_SYS_3076.LAB	4/7/2022	13:11:07	0.00	0.09	101.19	0.02	101.4%
UNIT1_CTS_SYS_3077.LAB	4/7/2022	13:11:14	0.00	0.09	100.68	0.01	100.9%
UNIT1_CTS_SYS_3078.LAB	4/7/2022	13:11:22	0.00	0.06	99.63	0.02	99.8%
UNIT1_CTS_SYS_3079.LAB	4/7/2022	13:11:29	0.00	0.05	100.29	0.03	100.5%
UNIT1_CTS_SYS_3080.LAB	4/7/2022	13:11:37	0.01	0.07	100.74	0.02	100.9%
UNIT1_CTS_SYS_3081.LAB	4/7/2022	13:11:44	0.01	0.35	100.51	0.02	100.7%

Nitrogen (Zero) System Purge

Spectrum	Date	Time	H2O (%v)	Formaldehyde (ppmv wet)	Methane (ppmv wet)	Nitrous Oxide (ppmv wet)
UNIT1_N2_SYS_3082.LAB	4/7/2022	13:12:26	0.00	0.03	-0.03	0.00
UNIT1_N2_SYS_3083.LAB	4/7/2022	13:12:33	0.00	0.25	-0.08	0.00
UNIT1_N2_SYS_3084.LAB	4/7/2022	13:12:41	-0.01	0.06	-0.21	0.00
UNIT1_N2_SYS_3085.LAB	4/7/2022	13:12:49	0.00	0.11	-0.06	0.01
UNIT1_N2_SYS_3086.LAB	4/7/2022	13:12:56	-0.01	-0.07	-0.33	0.00
UNIT1_N2_SYS_3087.LAB	4/7/2022	13:13:03	-0.01	0.19	-0.22	0.00
UNIT1_N2_SYS_3088.LAB	4/7/2022	13:13:11	-0.01	0.05	-0.13	-0.01
UNIT1_N2_SYS_3089.LAB	4/7/2022	13:13:18	0.00	-0.14	-0.02	0.00

Nitrogen Direct Purge to FTIR

Spectrum	Date	Time	H2O (%v)	Formaldehyde (ppmv wet)	Methane (ppmv wet)	Nitrous Oxide (ppmv wet)
UNIT1_N2_DIR_3090.LAB	4/7/2022	13:17:40	-0.01	0.06	-0.09	0.00
UNIT1_N2_DIR_3091.LAB	4/7/2022	13:19:41	0.00	-0.02	-0.11	0.00
UNIT1_N2_DIR_3092.LAB	4/7/2022	13:21:41	0.00	-0.07	-0.17	0.00

APPENDIX

Unit 2 – FTIR Test Run Data

Unit 2 - Run 1

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	FTIR Gas Cell Temperature (°C)	FTIR Gas Cell Pressure (atm)
UNIT2_0577.LAB	4/5/2022	6:00:31	13.91	7.15	191.1	1.004
UNIT2_0578.LAB	4/5/2022	6:01:31	13.37	6.97	191.2	1.004
UNIT2_0579.LAB	4/5/2022	6:02:30	13.52	7.06	191.2	1.004
UNIT2_0580.LAB	4/5/2022	6:03:30	13.65	7.40	191.1	1.002
UNIT2_0581.LAB	4/5/2022	6:04:31	13.10	7.32	191.1	1.005
UNIT2_0582.LAB	4/5/2022	6:05:30	11.93	6.62	191.0	1.004
UNIT2_0583.LAB	4/5/2022	6:06:30	14.03	7.27	191.0	1.002
UNIT2_0584.LAB	4/5/2022	6:07:30	14.84	7.98	191.0	1.005
UNIT2_0585.LAB	4/5/2022	6:08:30	14.52	8.35	191.0	1.004
UNIT2_0586.LAB	4/5/2022	6:09:30	12.73	7.47	191.0	1.004
UNIT2_0587.LAB	4/5/2022	6:10:30	12.86	7.30	191.1	1.006
UNIT2_0588.LAB	4/5/2022	6:11:30	13.36	7.30	191.1	1.003
UNIT2_0589.LAB	4/5/2022	6:12:30	13.49	7.50	191.1	1.003
UNIT2_0590.LAB	4/5/2022	6:13:30	13.08	7.49	191.1	1.005
UNIT2_0591.LAB	4/5/2022	6:14:30	12.91	7.53	191.1	1.004
UNIT2_0592.LAB	4/5/2022	6:15:30	13.89	8.51	191.0	1.004
UNIT2_0593.LAB	4/5/2022	6:16:30	13.54	8.34	191.0	1.004
UNIT2_0594.LAB	4/5/2022	6:17:30	12.93	7.84	191.0	1.004
UNIT2_0595.LAB	4/5/2022	6:18:30	12.60	7.43	191.0	1.004
UNIT2_0596.LAB	4/5/2022	6:19:30	13.05	7.39	191.0	1.003
UNIT2_0597.LAB	4/5/2022	6:20:30	12.85	7.20	191.0	1.005
UNIT2_0598.LAB	4/5/2022	6:21:30	13.90	7.63	191.1	1.002
UNIT2_0599.LAB	4/5/2022	6:22:30	14.15	8.05	191.1	1.005
UNIT2_0600.LAB	4/5/2022	6:23:30	14.40	8.86	191.1	1.005
UNIT2_0601.LAB	4/5/2022	6:24:30	13.55	8.83	191.1	1.003
UNIT2_0602.LAB	4/5/2022	6:25:30	13.87	8.78	191.1	1.004
UNIT2_0603.LAB	4/5/2022	6:26:30	14.18	8.84	191.1	1.004
UNIT2_0604.LAB	4/5/2022	6:27:30	13.81	8.54	191.0	1.003
UNIT2_0605.LAB	4/5/2022	6:28:30	13.03	7.96	191.0	1.003
UNIT2_0606.LAB	4/5/2022	6:29:30	13.23	7.86	191.0	1.005
UNIT2_0607.LAB	4/5/2022	6:30:30	13.69	7.73	191.0	1.003
UNIT2_0608.LAB	4/5/2022	6:31:30	12.95	7.23	191.0	1.005
UNIT2_0609.LAB	4/5/2022	6:32:30	13.10	7.20	191.0	1.006
UNIT2_0610.LAB	4/5/2022	6:33:30	13.95	7.73	191.0	1.004
UNIT2_0611.LAB	4/5/2022	6:34:30	12.97	7.54	191.0	1.005
UNIT2_0612.LAB	4/5/2022	6:35:30	12.88	7.70	191.1	1.004
UNIT2_0613.LAB	4/5/2022	6:36:30	13.92	8.35	191.0	1.004
UNIT2_0614.LAB	4/5/2022	6:37:29	14.75	10.12	191.1	1.003
UNIT2_0615.LAB	4/5/2022	6:38:29	14.11	10.50	191.1	1.004
UNIT2_0616.LAB	4/5/2022	6:39:29	13.22	9.66	191.0	1.006
UNIT2_0617.LAB	4/5/2022	6:40:29	13.19	8.85	191.0	1.006
UNIT2_0618.LAB	4/5/2022	6:41:29	13.47	8.53	191.0	1.005
UNIT2_0619.LAB	4/5/2022	6:42:29	12.96	8.06	191.0	1.005
UNIT2_0620.LAB	4/5/2022	6:43:29	13.50	8.28	191.0	1.005
UNIT2_0621.LAB	4/5/2022	6:44:29	13.04	8.25	191.0	1.005
UNIT2_0622.LAB	4/5/2022	6:45:29	12.78	7.87	191.1	1.005
UNIT2_0623.LAB	4/5/2022	6:46:29	13.36	8.25	191.1	1.006
UNIT2_0624.LAB	4/5/2022	6:47:29	12.91	8.10	191.1	1.006
UNIT2_0625.LAB	4/5/2022	6:48:29	12.44	7.83	191.0	1.007
UNIT2_0626.LAB	4/5/2022	6:49:29	13.87	8.84	191.0	1.006
UNIT2_0627.LAB	4/5/2022	6:50:29	14.50	10.14	191.1	1.001
UNIT2_0628.LAB	4/5/2022	6:51:29	14.30	10.00	191.0	1.006
UNIT2_0629.LAB	4/5/2022	6:52:29	13.29	9.28	191.0	1.005
UNIT2_0630.LAB	4/5/2022	6:53:29	13.45	9.08	191.0	1.006
UNIT2_0631.LAB	4/5/2022	6:54:29	12.90	8.50	191.0	1.004
UNIT2_0632.LAB	4/5/2022	6:55:29	13.74	8.52	191.0	1.008
UNIT2_0633.LAB	4/5/2022	6:56:29	14.50	9.30	191.0	1.006
UNIT2_0634.LAB	4/5/2022	6:57:29	12.95	8.84	191.0	1.007
UNIT2_0635.LAB	4/5/2022	6:58:29	12.72	8.31	191.1	1.004
UNIT2_0636.LAB	4/5/2022	6:59:29	12.66	7.95	191.1	1.004
UNIT2_0637.LAB	4/5/2022	7:00:29	13.04	7.82	191.1	1.006
UNIT2_0638.LAB	4/5/2022	7:01:29	13.13	7.90	191.1	1.003
UNIT2_0639.LAB	4/5/2022	7:02:29	12.70	7.59	191.1	1.005

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	FTIR Gas Cell Temperature (°C)	FTIR Gas Cell Pressure (atm)
UNIT2_0640.LAB	4/5/2022	7:03:29	13.46	7.54	191.1	1.004
UNIT2_0641.LAB	4/5/2022	7:04:29	13.69	7.69	191.0	1.004
UNIT2_0642.LAB	4/5/2022	7:05:29	13.45	7.66	191.0	1.005
UNIT2_0643.LAB	4/5/2022	7:06:29	12.85	7.26	191.0	1.006
UNIT2_0644.LAB	4/5/2022	7:07:29	13.36	7.69	191.0	1.004
UNIT2_0645.LAB	4/5/2022	7:08:29	13.27	7.96	191.0	1.006
UNIT2_0646.LAB	4/5/2022	7:09:29	14.11	8.49	191.0	1.006
UNIT2_0647.LAB	4/5/2022	7:10:29	13.46	8.75	191.0	1.005
UNIT2_0648.LAB	4/5/2022	7:11:29	13.62	8.68	191.1	1.007
UNIT2_0649.LAB	4/5/2022	7:12:28	13.97	9.22	191.1	1.007
UNIT2_0650.LAB	4/5/2022	7:13:28	12.85	8.53	191.1	1.005
UNIT2_0651.LAB	4/5/2022	7:14:28	13.23	8.44	191.1	1.006
UNIT2_0652.LAB	4/5/2022	7:15:28	13.49	8.38	191.1	1.003
UNIT2_0653.LAB	4/5/2022	7:16:28	13.60	8.49	191.0	1.004
UNIT2_0654.LAB	4/5/2022	7:17:28	13.46	8.59	191.0	1.005
UNIT2_0655.LAB	4/5/2022	7:18:28	13.94	9.04	191.1	1.005
UNIT2_0656.LAB	4/5/2022	7:19:28	13.49	9.27	191.1	1.004
UNIT2_0657.LAB	4/5/2022	7:20:28	13.11	8.99	191.0	1.004
UNIT2_0658.LAB	4/5/2022	7:21:28	12.96	8.78	191.0	1.005
UNIT2_0659.LAB	4/5/2022	7:22:28	12.75	8.62	191.0	1.004
UNIT2_0660.LAB	4/5/2022	7:23:29	13.85	9.12	191.0	1.007
UNIT2_0661.LAB	4/5/2022	7:24:28	12.91	8.90	191.0	1.005
UNIT2_0662.LAB	4/5/2022	7:25:28	13.04	8.88	191.0	1.006
UNIT2_0663.LAB	4/5/2022	7:26:28	14.17	9.55	191.0	1.004
UNIT2_0664.LAB	4/5/2022	7:27:28	14.63	10.11	191.0	1.007
UNIT2_0665.LAB	4/5/2022	7:28:28	14.28	10.56	191.0	1.007
UNIT2_0666.LAB	4/5/2022	7:29:28	13.75	9.92	191.0	1.005
UNIT2_0667.LAB	4/5/2022	7:30:28	13.57	9.78	191.0	1.004
UNIT2_0668.LAB	4/5/2022	7:31:28	13.10	9.13	191.0	1.004
UNIT2_0669.LAB	4/5/2022	7:32:28	13.28	8.93	191.0	1.006
UNIT2_0670.LAB	4/5/2022	7:33:28	13.26	8.70	191.0	1.006
UNIT2_0671.LAB	4/5/2022	7:34:28	13.39	8.92	191.0	1.008
UNIT2_0672.LAB	4/5/2022	7:35:28	13.87	9.41	191.0	1.007
UNIT2_0673.LAB	4/5/2022	7:36:28	13.49	9.78	191.0	1.007
UNIT2_0674.LAB	4/5/2022	7:37:28	13.45	10.04	191.0	1.004
UNIT2_0675.LAB	4/5/2022	7:38:28	13.11	9.33	191.0	1.007
UNIT2_0676.LAB	4/5/2022	7:39:28	12.87	8.88	191.0	1.002
UNIT2_0677.LAB	4/5/2022	7:40:28	13.17	8.61	191.0	1.004
UNIT2_0678.LAB	4/5/2022	7:41:28	13.98	9.05	191.0	1.006
UNIT2_0679.LAB	4/5/2022	7:42:28	13.08	8.63	191.0	1.005
UNIT2_0680.LAB	4/5/2022	7:43:28	13.51	8.89	191.0	1.005
UNIT2_0681.LAB	4/5/2022	7:44:28	13.40	9.08	191.0	1.003
UNIT2_0682.LAB	4/5/2022	7:45:28	13.51	9.27	191.0	1.008
UNIT2_0683.LAB	4/5/2022	7:46:28	13.52	9.34	191.0	1.003
UNIT2_0684.LAB	4/5/2022	7:47:28	14.24	9.70	191.0	1.007
UNIT2_0685.LAB	4/5/2022	7:48:28	14.51	10.11	191.0	1.004
UNIT2_0686.LAB	4/5/2022	7:49:28	13.70	9.63	191.0	1.006
UNIT2_0687.LAB	4/5/2022	7:50:28	13.66	9.14	191.0	1.005
UNIT2_0688.LAB	4/5/2022	7:51:28	13.76	8.87	191.0	1.005
UNIT2_0689.LAB	4/5/2022	7:52:28	13.09	8.39	191.0	1.007
UNIT2_0690.LAB	4/5/2022	7:53:28	13.38	8.56	191.0	1.007
UNIT2_0691.LAB	4/5/2022	7:54:28	13.44	9.14	191.1	1.004
UNIT2_0692.LAB	4/5/2022	7:55:28	12.67	8.67	191.1	1.006
UNIT2_0693.LAB	4/5/2022	7:56:28	13.62	9.37	191.1	1.006

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	FTIR Gas Cell Temperature (°C)	FTIR Gas Cell Pressure (atm)
UNIT2_0694.LAB	4/5/2022	7:57:28	13.72	9.81	191.1	1.005
UNIT2_0695.LAB	4/5/2022	7:58:28	13.36	10.15	191.0	1.006
UNIT2_0696.LAB	4/5/2022	7:59:28	12.87	9.46	191.0	1.007
UNIT2_0697.LAB	4/5/2022	8:00:28	13.48	9.29	191.1	1.005
04/5/2022	Minimum		11.93	6.62		
Unit 2 - Run 1	Maximum		14.84	10.56		
06:00 - 08:00	Average		13.45	8.54		

Unit 2 - Run 2

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	FTIR Gas Cell Temperature (°C)	FTIR Gas Cell Pressure (atm)
UNIT2_0846.LAB	4/5/2022	8:45:37	12.69	8.01	191.1	1.006
UNIT2_0847.LAB	4/5/2022	8:46:37	13.75	8.38	191.1	1.005
UNIT2_0848.LAB	4/5/2022	8:47:37	13.90	8.59	191.1	1.004
UNIT2_0849.LAB	4/5/2022	8:48:37	13.26	8.45	191.0	1.006
UNIT2_0850.LAB	4/5/2022	8:49:37	12.61	7.97	191.1	1.007
UNIT2_0851.LAB	4/5/2022	8:50:37	12.70	8.00	191.1	1.006
UNIT2_0852.LAB	4/5/2022	8:51:37	12.49	7.95	191.0	1.005
UNIT2_0853.LAB	4/5/2022	8:52:37	13.58	8.90	191.0	1.004
UNIT2_0854.LAB	4/5/2022	8:53:37	14.00	9.93	191.0	1.006
UNIT2_0855.LAB	4/5/2022	8:54:37	14.09	10.93	191.0	1.005
UNIT2_0856.LAB	4/5/2022	8:55:37	14.41	11.75	191.0	1.006
UNIT2_0857.LAB	4/5/2022	8:56:37	13.72	10.28	191.0	1.005
UNIT2_0858.LAB	4/5/2022	8:57:37	13.54	9.30	191.0	1.006
UNIT2_0859.LAB	4/5/2022	8:58:37	13.11	8.55	191.0	1.007
UNIT2_0860.LAB	4/5/2022	8:59:39	12.21	7.60	191.0	1.005
UNIT2_0861.LAB	4/5/2022	9:00:39	13.76	7.84	191.0	1.006
UNIT2_0862.LAB	4/5/2022	9:01:39	13.55	7.99	191.0	1.006
UNIT2_0863.LAB	4/5/2022	9:02:39	12.73	7.73	191.0	1.005
UNIT2_0864.LAB	4/5/2022	9:03:39	12.89	7.47	191.0	1.006
UNIT2_0865.LAB	4/5/2022	9:04:39	12.75	7.30	191.0	1.004
UNIT2_0866.LAB	4/5/2022	9:05:39	13.44	7.56	191.0	1.004
UNIT2_0867.LAB	4/5/2022	9:06:39	13.17	7.53	191.0	1.004
UNIT2_0868.LAB	4/5/2022	9:07:39	13.22	7.57	191.0	1.008
UNIT2_0869.LAB	4/5/2022	9:08:39	13.35	7.38	191.0	1.005
UNIT2_0870.LAB	4/5/2022	9:09:39	13.11	7.14	191.0	1.004
UNIT2_0871.LAB	4/5/2022	9:10:39	12.84	7.01	191.0	1.005
UNIT2_0872.LAB	4/5/2022	9:11:39	13.21	7.24	191.0	1.004
UNIT2_0873.LAB	4/5/2022	9:12:39	13.26	7.38	191.0	1.005
UNIT2_0874.LAB	4/5/2022	9:13:39	13.19	7.59	191.0	1.007
UNIT2_0875.LAB	4/5/2022	9:14:39	13.56	7.89	191.0	1.002
UNIT2_0876.LAB	4/5/2022	9:15:39	13.42	8.22	191.0	1.003
UNIT2_0877.LAB	4/5/2022	9:16:39	13.27	8.97	191.0	1.007
UNIT2_0878.LAB	4/5/2022	9:17:39	13.01	8.47	191.0	1.005
UNIT2_0879.LAB	4/5/2022	9:18:39	12.98	8.49	191.0	1.005
UNIT2_0880.LAB	4/5/2022	9:19:39	13.05	8.15	191.0	1.004
UNIT2_0881.LAB	4/5/2022	9:20:39	13.05	8.07	191.0	1.006
UNIT2_0882.LAB	4/5/2022	9:21:39	13.29	8.07	191.0	1.002
UNIT2_0883.LAB	4/5/2022	9:22:39	12.84	8.01	191.0	1.005
UNIT2_0884.LAB	4/5/2022	9:23:39	13.22	8.27	191.0	1.002
UNIT2_0885.LAB	4/5/2022	9:24:39	13.11	8.47	191.0	1.004
UNIT2_0886.LAB	4/5/2022	9:25:39	12.79	8.52	191.0	1.006
UNIT2_0887.LAB	4/5/2022	9:26:38	13.00	8.82	191.0	1.005
UNIT2_0888.LAB	4/5/2022	9:27:38	13.01	9.06	191.0	1.006
UNIT2_0889.LAB	4/5/2022	9:28:38	13.43	9.64	191.0	1.007
UNIT2_0890.LAB	4/5/2022	9:29:38	13.24	10.35	191.0	1.004
UNIT2_0891.LAB	4/5/2022	9:30:38	13.14	9.26	191.0	1.005
UNIT2_0892.LAB	4/5/2022	9:31:38	13.33	8.79	191.0	1.007
UNIT2_0893.LAB	4/5/2022	9:32:38	12.89	8.29	191.0	1.007
UNIT2_0894.LAB	4/5/2022	9:33:38	13.09	8.29	191.0	1.008
UNIT2_0895.LAB	4/5/2022	9:34:38	13.18	8.34	191.0	1.004
UNIT2_0896.LAB	4/5/2022	9:35:38	13.33	8.81	191.0	1.005
UNIT2_0897.LAB	4/5/2022	9:36:38	13.61	8.73	191.0	1.004
UNIT2_0898.LAB	4/5/2022	9:37:38	13.59	9.72	191.0	1.003

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	FTIR Gas Cell Temperature (°C)	FTIR Gas Cell Pressure (atm)
UNIT2_0899.LAB	4/5/2022	9:38:38	13.40	9.70	191.0	1.002
UNIT2_0900.LAB	4/5/2022	9:39:38	12.99	9.50	191.0	1.006
UNIT2_0901.LAB	4/5/2022	9:40:38	13.43	10.38	191.0	1.005
UNIT2_0902.LAB	4/5/2022	9:41:38	13.35	10.41	191.0	1.002
UNIT2_0903.LAB	4/5/2022	9:42:38	13.06	9.03	191.0	1.007
UNIT2_0904.LAB	4/5/2022	9:43:38	12.89	8.51	191.0	1.005
UNIT2_0905.LAB	4/5/2022	9:44:38	13.03	8.43	191.0	1.005
UNIT2_0906.LAB	4/5/2022	9:45:38	12.80	8.09	191.0	1.005
UNIT2_0907.LAB	4/5/2022	9:46:38	13.47	8.64	191.0	1.006
UNIT2_0908.LAB	4/5/2022	9:47:38	14.28	9.52	191.0	1.005
UNIT2_0909.LAB	4/5/2022	9:48:38	13.96	10.24	191.0	1.005
UNIT2_0910.LAB	4/5/2022	9:49:38	13.73	10.27	191.0	1.004
UNIT2_0911.LAB	4/5/2022	9:50:38	12.63	9.41	191.1	1.006
UNIT2_0912.LAB	4/5/2022	9:51:38	13.11	9.31	191.0	1.005
UNIT2_0913.LAB	4/5/2022	9:52:38	12.77	8.97	191.0	1.005
UNIT2_0914.LAB	4/5/2022	9:53:38	13.17	8.54	191.0	1.006
UNIT2_0915.LAB	4/5/2022	9:54:38	12.73	7.73	191.0	1.004
UNIT2_0916.LAB	4/5/2022	9:55:38	13.45	8.06	191.0	1.006
UNIT2_0917.LAB	4/5/2022	9:56:38	13.27	8.01	191.0	1.007
UNIT2_0918.LAB	4/5/2022	9:57:38	13.20	8.10	191.0	1.006
UNIT2_0919.LAB	4/5/2022	9:58:38	13.50	8.64	191.0	1.004
UNIT2_0920.LAB	4/5/2022	9:59:38	12.76	8.42	191.0	1.007
UNIT2_0921.LAB	4/5/2022	10:00:38	13.17	8.39	191.0	1.003
UNIT2_0922.LAB	4/5/2022	10:01:38	13.64	8.68	191.0	1.007
UNIT2_0923.LAB	4/5/2022	10:02:38	13.43	8.91	191.0	1.004
UNIT2_0924.LAB	4/5/2022	10:03:38	13.79	9.58	191.0	1.006
UNIT2_0925.LAB	4/5/2022	10:04:38	13.42	9.28	191.0	1.006
UNIT2_0926.LAB	4/5/2022	10:05:38	13.38	8.79	191.0	1.006
UNIT2_0927.LAB	4/5/2022	10:06:38	12.98	8.11	191.0	1.005
UNIT2_0928.LAB	4/5/2022	10:07:37	12.52	7.65	191.0	1.004
UNIT2_0929.LAB	4/5/2022	10:08:37	13.00	7.90	191.0	1.005
UNIT2_0930.LAB	4/5/2022	10:09:37	13.08	8.07	191.0	1.004
UNIT2_0931.LAB	4/5/2022	10:10:38	13.35	8.41	191.0	1.004
UNIT2_0932.LAB	4/5/2022	10:11:37	12.95	8.42	191.1	1.004
UNIT2_0933.LAB	4/5/2022	10:12:37	13.30	9.43	191.0	1.003
UNIT2_0934.LAB	4/5/2022	10:13:37	13.47	10.58	191.0	1.005
UNIT2_0935.LAB	4/5/2022	10:14:37	13.20	9.70	191.0	1.004
UNIT2_0936.LAB	4/5/2022	10:15:38	13.03	8.94	191.0	1.005
UNIT2_0937.LAB	4/5/2022	10:16:38	13.12	8.59	191.0	1.004
UNIT2_0938.LAB	4/5/2022	10:17:37	14.38	9.50	191.0	1.004
UNIT2_0939.LAB	4/5/2022	10:18:37	13.29	9.27	191.0	1.007
UNIT2_0940.LAB	4/5/2022	10:19:37	12.91	9.21	191.0	1.007
UNIT2_0941.LAB	4/5/2022	10:20:37	13.75	9.68	191.0	1.006
UNIT2_0942.LAB	4/5/2022	10:21:37	13.41	9.91	191.0	1.006
UNIT2_0943.LAB	4/5/2022	10:22:37	13.34	9.76	191.0	1.007
UNIT2_0944.LAB	4/5/2022	10:23:37	12.94	9.98	191.0	1.005
UNIT2_0945.LAB	4/5/2022	10:24:37	12.64	9.29	191.0	1.005
UNIT2_0946.LAB	4/5/2022	10:25:37	12.41	8.96	191.0	1.006
UNIT2_0947.LAB	4/5/2022	10:26:37	14.26	10.21	191.0	1.003
UNIT2_0948.LAB	4/5/2022	10:27:37	14.08	9.96	191.0	1.003
UNIT2_0949.LAB	4/5/2022	10:28:37	12.80	9.06	191.0	1.004
UNIT2_0950.LAB	4/5/2022	10:29:37	13.51	9.06	191.1	1.006
UNIT2_0951.LAB	4/5/2022	10:30:37	14.04	9.80	191.1	1.006
UNIT2_0952.LAB	4/5/2022	10:31:37	12.44	9.10	191.0	1.005
UNIT2_0953.LAB	4/5/2022	10:32:37	12.71	8.75	191.0	1.004
UNIT2_0954.LAB	4/5/2022	10:33:37	12.48	8.45	191.0	1.002
UNIT2_0955.LAB	4/5/2022	10:34:37	12.61	8.60	191.0	1.004
UNIT2_0956.LAB	4/5/2022	10:35:37	13.14	8.45	191.0	1.004
UNIT2_0957.LAB	4/5/2022	10:36:37	13.04	8.38	191.0	1.008
UNIT2_0958.LAB	4/5/2022	10:37:37	12.87	8.36	191.0	1.005
UNIT2_0959.LAB	4/5/2022	10:38:37	13.16	8.06	191.0	1.004
UNIT2_0960.LAB	4/5/2022	10:39:37	13.73	8.22	191.0	1.003
UNIT2_0961.LAB	4/5/2022	10:40:37	13.34	8.22	191.0	1.004
UNIT2_0962.LAB	4/5/2022	10:41:37	11.93	7.45	191.0	1.004

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	FTIR Gas Cell Temperature (°C)	FTIR Gas Cell Pressure (atm)
UNIT2_0963.LAB	4/5/2022	10:42:37	12.62	7.52	191.0	1.003
UNIT2_0964.LAB	4/5/2022	10:43:37	13.52	8.22	191.0	1.003
UNIT2_0965.LAB	4/5/2022	10:44:37	12.86	8.18	191.1	1.006
UNIT2_0966.LAB	4/5/2022	10:45:37	13.59	8.57	191.0	1.006
04/5/2022	Minimum		11.93	7.01		
Unit 2 - Run 2	Maximum		14.44	11.75		
08:30 - 10:00	Average		13.21	8.70		

Unit 2 - Run 3

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	FTIR Gas Cell Temperature (°C)	FTIR Gas Cell Pressure (atm)
UNIT2_1043.LAB	4/5/2022	11:15:49	13.65	9.72	191.1	1.004
UNIT2_1044.LAB	4/5/2022	11:16:49	14.15	10.48	191.1	1.005
UNIT2_1045.LAB	4/5/2022	11:17:49	13.94	11.10	191.1	1.003
UNIT2_1046.LAB	4/5/2022	11:18:49	13.56	10.98	191.1	1.006
UNIT2_1047.LAB	4/5/2022	11:19:49	13.47	10.14	191.1	1.003
UNIT2_1048.LAB	4/5/2022	11:20:49	13.16	10.37	191.1	1.004
UNIT2_1049.LAB	4/5/2022	11:21:49	14.32	11.63	191.1	1.004
UNIT2_1050.LAB	4/5/2022	11:22:49	13.98	10.98	191.1	1.004
UNIT2_1051.LAB	4/5/2022	11:23:49	14.07	9.86	191.1	1.000
UNIT2_1052.LAB	4/5/2022	11:24:49	12.97	8.99	191.1	1.005
UNIT2_1053.LAB	4/5/2022	11:25:49	13.38	8.74	191.1	1.006
UNIT2_1054.LAB	4/5/2022	11:26:49	12.80	8.03	191.1	1.005
UNIT2_1055.LAB	4/5/2022	11:27:49	12.85	7.90	191.1	1.003
UNIT2_1056.LAB	4/5/2022	11:28:49	12.77	7.88	191.1	1.004
UNIT2_1057.LAB	4/5/2022	11:29:49	12.60	7.68	191.1	1.003
UNIT2_1058.LAB	4/5/2022	11:30:49	13.36	8.51	191.0	1.002
UNIT2_1059.LAB	4/5/2022	11:31:49	13.98	9.37	191.1	1.002
UNIT2_1060.LAB	4/5/2022	11:32:49	14.12	9.24	191.0	1.003
UNIT2_1061.LAB	4/5/2022	11:33:49	13.58	8.87	191.1	1.002
UNIT2_1062.LAB	4/5/2022	11:34:49	13.47	8.36	191.1	1.004
UNIT2_1063.LAB	4/5/2022	11:35:49	12.85	7.98	191.0	1.005
UNIT2_1064.LAB	4/5/2022	11:36:49	12.39	7.43	191.1	1.004
UNIT2_1065.LAB	4/5/2022	11:37:49	13.02	7.50	191.1	1.004
UNIT2_1066.LAB	4/5/2022	11:38:49	13.35	8.13	191.0	1.004
UNIT2_1067.LAB	4/5/2022	11:39:49	13.53	8.55	191.1	1.005
UNIT2_1068.LAB	4/5/2022	11:40:49	13.92	9.16	191.0	1.002
UNIT2_1069.LAB	4/5/2022	11:41:49	13.18	9.37	191.1	1.003
UNIT2_1070.LAB	4/5/2022	11:42:49	13.47	9.27	191.1	1.003
UNIT2_1071.LAB	4/5/2022	11:43:49	13.39	9.15	191.1	1.004
UNIT2_1072.LAB	4/5/2022	11:44:49	12.89	8.19	191.0	1.004
UNIT2_1073.LAB	4/5/2022	11:45:49	13.10	7.93	191.1	1.003
UNIT2_1074.LAB	4/5/2022	11:46:49	12.92	7.64	191.1	1.004
UNIT2_1075.LAB	4/5/2022	11:47:49	13.09	7.95	191.1	1.004
UNIT2_1076.LAB	4/5/2022	11:48:49	12.68	8.05	191.1	1.004
UNIT2_1077.LAB	4/5/2022	11:49:49	13.06	8.55	191.1	1.003
UNIT2_1078.LAB	4/5/2022	11:50:49	13.25	9.20	191.1	1.002
UNIT2_1079.LAB	4/5/2022	11:51:49	13.08	9.72	191.1	1.006
UNIT2_1080.LAB	4/5/2022	11:52:49	12.96	10.27	191.1	1.006
UNIT2_1081.LAB	4/5/2022	11:53:49	13.23	10.15	191.1	1.005
UNIT2_1082.LAB	4/5/2022	11:54:49	12.97	10.02	191.1	1.003
UNIT2_1083.LAB	4/5/2022	11:55:48	13.00	9.40	191.0	1.002
UNIT2_1084.LAB	4/5/2022	11:56:49	12.84	8.81	191.1	1.003
UNIT2_1085.LAB	4/5/2022	11:57:49	13.27	8.86	191.1	1.003
UNIT2_1086.LAB	4/5/2022	11:58:48	13.52	9.17	191.1	1.005
UNIT2_1087.LAB	4/5/2022	11:59:48	13.70	9.40	191.1	1.005
UNIT2_1088.LAB	4/5/2022	12:00:48	12.91	9.69	191.1	1.004
UNIT2_1089.LAB	4/5/2022	12:01:49	13.23	9.95	191.1	1.002
UNIT2_1090.LAB	4/5/2022	12:02:49	13.78	11.21	191.1	1.004
UNIT2_1091.LAB	4/5/2022	12:03:48	13.22	10.72	191.1	1.004
UNIT2_1092.LAB	4/5/2022	12:04:48	13.79	11.75	191.1	1.003
UNIT2_1093.LAB	4/5/2022	12:05:48	14.16	11.83	191.1	1.004
UNIT2_1094.LAB	4/5/2022	12:06:48	14.57	11.50	191.1	1.005
UNIT2_1095.LAB	4/5/2022	12:07:48	13.58	10.73	191.1	1.003

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	FTIR Gas Cell Temperature (°C)	FTIR Gas Cell Pressure (atm)
UNIT2_1096.LAB	4/5/2022	12:08:48	13.11	9.71	191.1	1.003
UNIT2_1097.LAB	4/5/2022	12:09:48	14.05	10.16	191.1	1.003
UNIT2_1098.LAB	4/5/2022	12:10:48	14.61	11.15	191.1	1.003
UNIT2_1099.LAB	4/5/2022	12:11:48	14.18	10.92	191.1	1.002
UNIT2_1100.LAB	4/5/2022	12:12:48	12.98	10.00	191.1	1.005
UNIT2_1101.LAB	4/5/2022	12:13:48	13.12	9.56	191.1	1.002
UNIT2_1102.LAB	4/5/2022	12:14:48	13.98	9.92	191.1	1.003
UNIT2_1103.LAB	4/5/2022	12:15:48	13.99	10.28	191.1	1.002
UNIT2_1104.LAB	4/5/2022	12:16:48	13.70	9.70	191.1	1.004
UNIT2_1105.LAB	4/5/2022	12:17:48	14.24	9.55	191.0	1.003
UNIT2_1106.LAB	4/5/2022	12:18:48	13.89	9.23	191.1	1.003
UNIT2_1107.LAB	4/5/2022	12:19:48	13.70	9.21	191.1	1.004
UNIT2_1108.LAB	4/5/2022	12:20:48	12.96	8.65	191.0	1.003
UNIT2_1109.LAB	4/5/2022	12:21:48	12.98	8.36	191.1	1.002
UNIT2_1110.LAB	4/5/2022	12:22:48	13.35	8.36	191.0	1.004
UNIT2_1111.LAB	4/5/2022	12:23:48	13.05	8.34	191.0	1.004
UNIT2_1112.LAB	4/5/2022	12:24:48	13.39	8.59	191.1	1.004
UNIT2_1113.LAB	4/5/2022	12:25:48	13.18	9.35	191.1	1.001
UNIT2_1114.LAB	4/5/2022	12:26:48	13.10	9.33	191.1	1.002
UNIT2_1115.LAB	4/5/2022	12:27:48	12.91	8.88	191.1	1.004
UNIT2_1116.LAB	4/5/2022	12:28:48	12.86	8.38	191.1	1.005
UNIT2_1117.LAB	4/5/2022	12:29:48	13.41	8.47	191.1	1.002
UNIT2_1118.LAB	4/5/2022	12:30:48	13.46	8.74	191.1	1.001
UNIT2_1119.LAB	4/5/2022	12:31:48	13.35	9.08	191.1	1.003
UNIT2_1120.LAB	4/5/2022	12:32:48	13.60	9.61	191.1	1.003
UNIT2_1121.LAB	4/5/2022	12:33:48	13.47	10.15	191.1	1.004
UNIT2_1122.LAB	4/5/2022	12:34:48	13.65	11.03	191.1	1.005
UNIT2_1123.LAB	4/5/2022	12:35:48	13.80	11.33	191.1	1.004
UNIT2_1124.LAB	4/5/2022	12:36:48	13.58	11.39	191.1	1.005
UNIT2_1125.LAB	4/5/2022	12:37:48	13.66	11.45	191.1	1.001
UNIT2_1126.LAB	4/5/2022	12:38:48	13.46	10.14	191.1	1.003
UNIT2_1127.LAB	4/5/2022	12:39:48	12.61	8.63	191.0	1.004
UNIT2_1128.LAB	4/5/2022	12:40:48	13.16	8.21	191.1	1.004
UNIT2_1129.LAB	4/5/2022	12:41:48	13.76	8.40	191.0	1.002
UNIT2_1130.LAB	4/5/2022	12:42:48	13.87	9.21	191.0	1.002
UNIT2_1131.LAB	4/5/2022	12:43:47	13.00	9.16	191.1	1.004
UNIT2_1132.LAB	4/5/2022	12:44:47	12.47	8.72	191.1	1.002
UNIT2_1133.LAB	4/5/2022	12:45:48	13.14	9.52	191.1	1.002
UNIT2_1134.LAB	4/5/2022	12:46:47	13.78	9.78	191.1	1.005
UNIT2_1135.LAB	4/5/2022	12:47:47	13.77	10.34	191.1	1.004
UNIT2_1136.LAB	4/5/2022	12:48:47	13.59	10.93	191.0	1.006
UNIT2_1137.LAB	4/5/2022	12:49:47	12.86	9.41	191.2	1.004
UNIT2_1138.LAB	4/5/2022	12:50:47	13.59	9.06	191.9	1.003
UNIT2_1139.LAB	4/5/2022	12:51:47	13.93	9.21	192.1	1.002
UNIT2_1140.LAB	4/5/2022	12:52:48	13.83	9.33	191.5	1.004
UNIT2_1141.LAB	4/5/2022	12:53:47	13.25	9.39	191.2	1.003
UNIT2_1142.LAB	4/5/2022	12:54:47	13.57	10.00	191.0	1.004
UNIT2_1143.LAB	4/5/2022	12:55:47	13.35	9.47	190.9	1.002
UNIT2_1144.LAB	4/5/2022	12:56:47	13.49	9.56	190.9	1.000
UNIT2_1145.LAB	4/5/2022	12:57:47	12.97	8.82	190.9	1.006
UNIT2_1146.LAB	4/5/2022	12:58:47	13.69	9.15	190.9	1.004
UNIT2_1147.LAB	4/5/2022	12:59:47	13.91	9.63	190.9	1.002
UNIT2_1148.LAB	4/5/2022	13:00:47	13.66	8.88	190.9	1.004
UNIT2_1149.LAB	4/5/2022	13:01:47	13.45	8.74	190.9	1.004
UNIT2_1150.LAB	4/5/2022	13:02:47	12.85	8.11	190.9	1.003
UNIT2_1151.LAB	4/5/2022	13:03:47	13.00	8.21	190.9	1.002
UNIT2_1152.LAB	4/5/2022	13:04:47	13.57	8.73	190.9	1.003
UNIT2_1153.LAB	4/5/2022	13:05:47	13.37	8.74	191.0	1.003
UNIT2_1154.LAB	4/5/2022	13:06:47	13.47	8.94	191.0	1.005
UNIT2_1155.LAB	4/5/2022	13:07:47	12.85	8.66	191.0	1.004
UNIT2_1156.LAB	4/5/2022	13:08:47	14.23	9.61	191.0	1.004
UNIT2_1157.LAB	4/5/2022	13:09:47	14.28	10.58	191.0	1.002
UNIT2_1158.LAB	4/5/2022	13:10:47	13.04	9.79	191.0	1.003
UNIT2_1159.LAB	4/5/2022	13:11:47	13.02	8.85	191.0	1.002

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	FTIR Gas Cell Temperature (°C)	FTIR Gas Cell Pressure (atm)
UNIT2_1160.LAB	4/5/2022	13:12:47	13.21	8.33	191.0	1.003
UNIT2_1161.LAB	4/5/2022	13:13:47	12.83	7.76	191.0	1.006
UNIT2_1162.LAB	4/5/2022	13:14:47	13.08	7.59	191.0	1.004
UNIT2_1163.LAB	4/5/2022	13:15:47	13.86	8.17	191.0	1.002
04/7/2022 Unit 2 - Run 3 11:15 - 13:15	Minimum		12.39	7.43		
	Maximum		14.61	11.88		
	Average		13.41	9.35		

APPENDIX

Unit 2 – FTIR QA/QC Data

Nitrogen (Zero) Direct Purge to FTIR

Spectrum	Date	Time	N2O (%v)	HCl (ppmv wet)	Ethylene (ppmv wet)	SF6 (ppmv wet)
UNIT2_N2_DIR_0431.LAB	4/5/2022	4:52:59	0.03	-0.15	-0.34	-0.01
UNIT2_N2_DIR_0432BKG.LAB	4/5/2022	4:55:06	0.00	0.00	0.00	0.00
UNIT2_N2_DIR_0433.LAB	4/5/2022	4:55:20	0.00	0.07	0.18	0.00
UNIT2_N2_DIR_0434.LAB	4/5/2022	4:55:27	0.00	0.02	0.11	0.01
UNIT2_N2_DIR_0435.LAB	4/5/2022	4:55:35	0.00	-0.09	0.13	0.00
UNIT2_N2_DIR_0436.LAB	4/5/2022	4:55:42	0.00	0.08	0.01	0.00
UNIT2_N2_DIR_0437.LAB	4/5/2022	4:55:50	0.00	-0.14	0.19	0.00
UNIT2_N2_DIR_0438.LAB	4/5/2022	4:55:57	0.00	0.01	0.03	0.00
UNIT2_N2_DIR_0439.LAB	4/5/2022	4:56:05	0.00	0.17	0.16	0.01
UNIT2_N2_DIR_0440.LAB	4/5/2022	4:56:12	0.00	0.06	-0.02	0.00

CTS, 100.3 ppm Ethylene Direct Purge

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	Ethylene (ppmv wet)	SF6 (ppmv wet)	Ethylene Recovery %
UNIT2_CTS_DIR_0442.LAB	4/5/2022	4:56:55	0.00	0.01	100.21	0.03	99.9%
UNIT2_CTS_DIR_0443.LAB	4/5/2022	4:57:02	0.00	-0.02	100.50	0.03	100.2%
UNIT2_CTS_DIR_0444.LAB	4/5/2022	4:57:10	-0.01	-0.06	100.25	0.03	100.0%
UNIT2_CTS_DIR_0445.LAB	4/5/2022	4:57:18	-0.01	0.27	100.26	0.04	100.0%
UNIT2_CTS_DIR_0446.LAB	4/5/2022	4:57:25	-0.01	-0.23	100.44	0.02	100.1%
UNIT2_CTS_DIR_0447.LAB	4/5/2022	4:57:33	-0.01	0.05	100.41	0.03	100.1%
UNIT2_CTS_DIR_0448.LAB	4/5/2022	4:57:40	-0.01	-0.18	100.34	0.03	100.0%
UNIT2_CTS_DIR_0449.LAB	4/5/2022	4:57:48	0.00	-0.01	100.37	0.03	100.1%
		Average			100.35		

49.92 ppm HCl/9.872 ppm SF6 Direct Purge

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	Ethylene (ppmv wet)	SF6 (ppmv wet)
UNIT2_HCL_DIR_0456.LAB	4/5/2022	5:11:55	-0.02	41.11	-0.64	9.60
UNIT2_HCL_DIR_0457.LAB	4/5/2022	5:12:03	-0.01	41.28	-0.60	9.60
UNIT2_HCL_DIR_0458.LAB	4/5/2022	5:12:10	-0.02	41.03	-0.45	9.60
UNIT2_HCL_DIR_0459.LAB	4/5/2022	5:12:17	-0.01	41.03	-0.54	9.61
UNIT2_HCL_DIR_0460.LAB	4/5/2022	5:12:25	-0.01	41.11	-0.61	9.60
UNIT2_HCL_DIR_0461.LAB	4/5/2022	5:12:32	-0.02	41.07	-0.52	9.59
UNIT2_HCL_DIR_0462.LAB	4/5/2022	5:12:40	-0.01	41.14	-0.72	9.61
UNIT2_HCL_DIR_0463.LAB	4/5/2022	5:12:48	-0.01	41.14	-0.73	9.60
		Average		41.12		9.60

100.3 ppm Ethylene System Purge and Response Time Test

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	Ethylene (ppmv wet)	SF6 (ppmv wet)	Ethylene Recovery %	Response Time (sec)
UNIT2_CTS_RT_0464.LAB	4/5/2022	5:15:17	1.32	1.93	0.38	0.01	0.4%	-
UNIT2_CTS_RT_0465.LAB	4/5/2022	5:15:25	0.89	1.99	19.66	0.54	19.6%	8
UNIT2_CTS_RT_0466.LAB	4/5/2022	5:15:32	0.00	0.66	100.94	0.04	100.6%	15
UNIT2_CTS_RT_0467.LAB	4/5/2022	5:15:40	-0.01	0.39	101.79	0.03	101.4%	
UNIT2_CTS_RT_0468.LAB	4/5/2022	5:15:47	-0.02	0.31	100.80	0.04	100.4%	
UNIT2_CTS_RT_0469.LAB	4/5/2022	5:15:55	-0.02	0.36	100.46	0.03	100.1%	
UNIT2_CTS_RT_0470.LAB	4/5/2022	5:16:02	-0.02	0.21	101.35	0.03	101.0%	
UNIT2_CTS_RT_0471.LAB	4/5/2022	5:16:10	-0.02	0.22	100.94	0.03	100.6%	
UNIT2_CTS_RT_0472.LAB	4/5/2022	5:16:17	-0.02	0.22	101.38	0.03	101.0%	
UNIT2_CTS_RT_0473.LAB	4/5/2022	5:16:25	-0.02	0.17	100.90	0.03	100.6%	

Nitrogen (Zero) System Purge and Response Time Test

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	Ethylene (ppmv wet)	SF6 (ppmv wet)	Ethylene Recovery %	Response Time (sec)
UNIT2_N2_RT_0474.LAB	4/5/2022	5:16:51	-0.02	0.08	101.38	0.03	101.0%	-
UNIT2_N2_RT_0475.LAB	4/5/2022	5:16:58	0.20	0.34	57.44	0.00	57.2%	8
UNIT2_N2_RT_0476.LAB	4/5/2022	5:17:06	0.00	0.12	0.79	0.01	0.8%	15
UNIT2_N2_RT_0477.LAB	4/5/2022	5:17:13	-0.02	0.19	0.20	0.01	0.2%	23
UNIT2_N2_RT_0478.LAB	4/5/2022	5:17:21	-0.02	0.05	0.21	0.00	0.2%	
UNIT2_N2_RT_0479.LAB	4/5/2022	5:17:28	-0.02	0.16	0.34	0.00	0.3%	
UNIT2_N2_RT_0480.LAB	4/5/2022	5:17:36	-0.03	0.21	0.21	0.01	0.2%	
UNIT2_N2_RT_0481.LAB	4/5/2022	5:17:43	-0.02	0.18	0.28	0.01	0.3%	
UNIT2_N2_RT_0482.LAB	4/5/2022	5:17:51	-0.03	0.19	0.28	0.00	0.3%	
UNIT2_N2_RT_0483.LAB	4/5/2022	5:17:58	-0.02	0.05	0.21	0.00	0.2%	
UNIT2_N2_RT_0484.LAB	4/5/2022	5:18:06	-0.03	0.08	0.27	0.01	0.3%	

Unit 2 Prior to Analyte Spike

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	Ethylene (ppmv wet)	SF6 (ppmv wet)
UNIT2_0495.LAB	4/5/2022	5:32:00	15.15	7.07	0.48	0.00
UNIT2_0496.LAB	4/5/2022	5:33:02	14.90	7.18	0.44	0.00
UNIT2_0497.LAB	4/5/2022	5:34:03	14.14	6.96	0.44	-0.01
		Average		7.07		-0.01

Unit 2 Analyte Spike, Using 49.92 ppm HCl/9.872 ppm SF6

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	Ethylene (ppmv wet)	SF6 (ppmv wet)	Dilution Factor	HCl Recovery %
UNIT2_HCL_SPK_0545.LAB	4/5/2022	5:40:35	14.65	10.11	0.34	0.81	0.085	104.5%
UNIT2_HCL_SPK_0546.LAB	4/5/2022	5:40:42	14.21	9.87	0.45	0.80	0.084	98.0%
UNIT2_HCL_SPK_0547.LAB	4/5/2022	5:40:50	13.92	9.69	0.30	0.82	0.086	91.7%
UNIT2_HCL_SPK_0548.LAB	4/5/2022	5:40:57	13.60	9.70	0.31	0.81	0.085	92.3%
UNIT2_HCL_SPK_0549.LAB	4/5/2022	5:41:05	13.24	9.65	0.38	0.81	0.085	91.3%
UNIT2_HCL_SPK_0550.LAB	4/5/2022	5:41:12	13.86	9.88	0.29	0.81	0.084	98.0%
UNIT2_HCL_SPK_0551.LAB	4/5/2022	5:41:20	13.41	9.80	0.26	0.81	0.085	95.6%
UNIT2_HCL_SPK_0552.LAB	4/5/2022	5:41:27	13.19	9.51	0.27	0.81	0.085	87.1%
	Spike Average							94.8%

CTS, 100.3 ppm Ethylene System Purge

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	Ethylene (ppmv wet)	SF6 (ppmv wet)	Ethylene Recovery %
UNIT2_CTS_SYS_0553.LAB	4/5/2022	5:42:07	0.00	0.61	100.66	0.03	100.3%
UNIT2_CTS_SYS_0554.LAB	4/5/2022	5:42:14	-0.01	0.39	100.31	0.03	100.0%
UNIT2_CTS_SYS_0555.LAB	4/5/2022	5:42:22	-0.01	0.38	101.87	0.03	101.5%
UNIT2_CTS_SYS_0556.LAB	4/5/2022	5:42:29	0.00	0.27	101.18	0.03	100.8%
UNIT2_CTS_SYS_0557.LAB	4/5/2022	5:42:37	-0.02	0.17	100.95	0.03	100.6%
UNIT2_CTS_SYS_0558.LAB	4/5/2022	5:42:44	-0.01	0.19	101.12	0.03	100.8%
UNIT2_CTS_SYS_0559.LAB	4/5/2022	5:42:52	-0.02	0.29	101.16	0.03	100.8%
UNIT2_CTS_SYS_0560.LAB	4/5/2022	5:42:59	-0.02	0.25	101.02	0.03	100.7%

Unit 2 Prior to Analyte Spike

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	Ethylene (ppmv wet)	SF6 (ppmv wet)
UNIT2_0767.LAB	4/5/2022	8:24:43	13.33	8.97	0.53	-0.01
UNIT2_0768.LAB	4/5/2022	8:25:43	13.65	8.67	0.54	-0.01
UNIT2_0769.LAB	4/5/2022	8:26:43	14.14	9.33	0.53	-0.01
		Average		8.99		-0.01

Unit 2 Analyte Spike, Using 49.92 ppm HCl/9.872 ppm SF6

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	Ethylene (ppmv wet)	SF6 (ppmv wet)	Dilution Factor	HCl Recovery %
UNIT2_HCL_SPK_0800.LAB	4/5/2022	8:31:03	12.03	11.79	0.36	0.82	0.086	100.6%
UNIT2_HCL_SPK_0801.LAB	4/5/2022	8:31:11	12.51	12.12	0.41	0.81	0.086	110.5%
UNIT2_HCL_SPK_0802.LAB	4/5/2022	8:31:18	12.13	11.83	0.33	0.81	0.085	103.1%
UNIT2_HCL_SPK_0803.LAB	4/5/2022	8:31:26	11.57	11.67	0.27	0.81	0.086	97.7%
UNIT2_HCL_SPK_0804.LAB	4/5/2022	8:31:33	12.20	11.82	0.39	0.81	0.086	102.3%
UNIT2_HCL_SPK_0805.LAB	4/5/2022	8:31:41	12.62	11.94	0.45	0.80	0.085	106.5%
UNIT2_HCL_SPK_0806.LAB	4/5/2022	8:31:49	12.30	11.89	0.53	0.80	0.084	105.7%
UNIT2_HCL_SPK_0807.LAB	4/5/2022	8:31:56	12.35	11.74	0.32	0.80	0.084	101.3%
	Spike Average							103.5%

CTS, 100.3 ppm Ethylene System Purge

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	Ethylene (ppmv wet)	SF6 (ppmv wet)	Ethylene Recovery %
UNIT2_CTS_SYS_0830.LAB	4/5/2022	8:35:19	0.04	1.02	100.97	0.03	100.6%
UNIT2_CTS_SYS_0831.LAB	4/5/2022	8:35:26	0.01	0.61	100.77	0.03	100.4%
UNIT2_CTS_SYS_0832.LAB	4/5/2022	8:35:34	0.01	0.28	101.06	0.03	100.7%
UNIT2_CTS_SYS_0833.LAB	4/5/2022	8:35:41	0.01	0.53	100.83	0.03	100.5%
UNIT2_CTS_SYS_0834.LAB	4/5/2022	8:35:49	0.01	0.37	100.32	0.03	100.0%
UNIT2_CTS_SYS_0835.LAB	4/5/2022	8:35:56	0.00	0.32	101.21	0.03	100.9%
UNIT2_CTS_SYS_0836.LAB	4/5/2022	8:36:04	0.00	0.25	100.68	0.03	100.3%
UNIT2_CTS_SYS_0837.LAB	4/5/2022	8:36:11	0.00	0.28	101.16	0.03	100.8%

Unit 2 Prior to Analyte Spike

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	Ethylene (ppmv wet)	SF6 (ppmv wet)
UNIT2_0974.LAB	4/5/2022	10:53:36	13.28	8.46	0.56	-0.01
UNIT2_0975.LAB	4/5/2022	10:54:37	12.99	8.26	0.56	-0.01
UNIT2_0976.LAB	4/5/2022	10:55:36	13.02	8.36	0.52	-0.01
		Average		8.36		-0.01

Unit 2 Analyte Spike, Using 49.92 ppm HCl/9.872 ppm SF6

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	Ethylene (ppmv wet)	SF6 (ppmv wet)	Dilution Factor	HCl Recovery %
UNIT2_HCL_SPK_1004.LAB	4/5/2022	11:00:01	11.04	10.16	0.54	0.51	0.055	100.7%
UNIT2_HCL_SPK_1005.LAB	4/5/2022	11:00:09	11.46	10.26	0.48	0.51	0.054	105.0%
UNIT2_HCL_SPK_1006.LAB	4/5/2022	11:00:16	12.24	10.61	0.31	0.52	0.055	118.9%
UNIT2_HCL_SPK_1007.LAB	4/5/2022	11:00:24	12.51	10.43	0.45	0.52	0.055	111.2%
UNIT2_HCL_SPK_1008.LAB	4/5/2022	11:00:31	12.94	10.47	0.64	0.51	0.055	114.5%
UNIT2_HCL_SPK_1009.LAB	4/5/2022	11:00:39	12.42	10.31	0.49	0.51	0.054	107.3%
UNIT2_HCL_SPK_1010.LAB	4/5/2022	11:00:46	11.76	9.90	0.53	0.52	0.055	88.7%
UNIT2_HCL_SPK_1011.LAB	4/5/2022	11:00:54	12.14	9.91	0.46	0.51	0.054	89.9%
	Spike Average							104.5%

CTS, 100.3 ppm Ethylene System Purge

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	Ethylene (ppmv wet)	SF6 (ppmv wet)	Ethylene Recovery %
UNIT2_CTS_SYS_1025.LAB	4/5/2022	11:03:20	0.02	0.66	101.16	0.03	100.8%
UNIT2_CTS_SYS_1026.LAB	4/5/2022	11:03:27	0.01	0.62	100.45	0.02	100.1%
UNIT2_CTS_SYS_1027.LAB	4/5/2022	11:03:35	0.01	0.51	99.92	0.02	99.6%
UNIT2_CTS_SYS_1028.LAB	4/5/2022	11:03:42	0.00	0.26	100.41	0.02	100.1%
UNIT2_CTS_SYS_1029.LAB	4/5/2022	11:03:50	0.00	0.48	100.68	0.03	100.3%
UNIT2_CTS_SYS_1030.LAB	4/5/2022	11:03:58	0.00	0.29	100.20	0.03	99.9%
UNIT2_CTS_SYS_1031.LAB	4/5/2022	11:04:06	0.00	0.39	101.24	0.03	100.9%
UNIT2_CTS_SYS_1032.LAB	4/5/2022	11:04:13	0.00	0.42	101.64	0.02	101.3%

Unit 2 Prior to Analyte Spike

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	Ethylene (ppmv wet)	SF6 (ppmv wet)
UNIT2_1171.LAB	4/5/2022	13:23:47	12.83	7.39	0.38	-0.01
UNIT2_1172.LAB	4/5/2022	13:24:47	13.46	7.41	0.50	-0.01
UNIT2_1173.LAB	4/5/2022	13:25:47	13.58	7.32	0.54	-0.01
		Average		7.37		-0.01

Unit 2 Analyte Spike, Using 49.92 ppm HCl/9.872 ppm SF6

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	Ethylene (ppmv wet)	SF6 (ppmv wet)	Dilution Factor	HCl Recovery %
UNIT2_HCL_SPK_1185.LAB	4/5/2022	13:27:54	12.30	10.26	0.40	0.85	0.090	96.2%
UNIT2_HCL_SPK_1186.LAB	4/5/2022	13:28:01	12.84	10.47	0.31	0.85	0.090	101.8%
UNIT2_HCL_SPK_1187.LAB	4/5/2022	13:28:09	12.28	10.57	0.37	0.85	0.090	104.5%
UNIT2_HCL_SPK_1188.LAB	4/5/2022	13:28:17	12.25	10.31	0.40	0.84	0.089	98.5%
UNIT2_HCL_SPK_1189.LAB	4/5/2022	13:28:24	13.05	10.70	0.24	0.85	0.089	108.3%
UNIT2_HCL_SPK_1190.LAB	4/5/2022	13:28:31	13.07	10.72	0.39	0.84	0.089	109.5%
UNIT2_HCL_SPK_1191.LAB	4/5/2022	13:28:39	12.59	10.40	0.25	0.84	0.088	101.3%
UNIT2_HCL_SPK_1192.LAB	4/5/2022	13:28:46	11.58	10.13	0.17	0.85	0.089	93.0%
	Spike Average							101.6%

CTS, 100.3 ppm Ethylene System Purge

Spectrum	Date	Time	H2O (%v)	HCl (ppmv wet)	Ethylene (ppmv wet)	SF6 (ppmv wet)	Ethylene Recovery %
UNIT2_CTS_SYS_1238.LAB	4/5/2022	13:35:11	0.03	0.80	101.12	0.02	100.8%
UNIT2_CTS_SYS_1239.LAB	4/5/2022	13:35:18	0.02	0.45	100.35	0.02	100.0%
UNIT2_CTS_SYS_1240.LAB	4/5/2022	13:35:26	0.01	0.46	100.92	0.02	100.6%
UNIT2_CTS_SYS_1241.LAB	4/5/2022	13:35:33	0.00	0.15	100.53	0.03	100.2%
UNIT2_CTS_SYS_1242.LAB	4/5/2022	13:35:41	0.00	0.15	100.22	0.03	99.9%
UNIT2_CTS_SYS_1243.LAB	4/5/2022	13:35:48	0.01	0.42	101.75	0.03	101.4%
UNIT2_CTS_SYS_1244.LAB	4/5/2022	13:35:55	-0.01	0.25	101.48	0.03	101.1%
UNIT2_CTS_SYS_1245.LAB	4/5/2022	13:36:03	0.01	0.21	101.41	0.02	101.1%

Nitrogen (Zero) System Purge

Spectrum	Date	Time	H2O (%v)	Formaldehyde (ppmv wet)	Methane (ppmv wet)	Nitrous Oxide (ppmv wet)
UNIT2_N2_SYS_1246.LAB	4/5/2022	13:36:41	0.00	0.25	0.09	0.01
UNIT2_N2_SYS_1247.LAB	4/5/2022	13:36:48	0.00	0.37	0.17	0.00
UNIT2_N2_SYS_1248.LAB	4/5/2022	13:36:56	0.00	0.20	-0.07	0.00
UNIT2_N2_SYS_1249.LAB	4/5/2022	13:37:03	-0.01	0.31	0.24	0.00
UNIT2_N2_SYS_1250.LAB	4/5/2022	13:37:11	0.00	0.19	0.10	-0.01
UNIT2_N2_SYS_1251.LAB	4/5/2022	13:37:18	0.00	0.22	0.21	0.01
UNIT2_N2_SYS_1252.LAB	4/5/2022	13:37:26	-0.01	0.08	0.30	0.00
UNIT2_N2_SYS_1253.LAB	4/5/2022	13:37:33	0.00	0.02	0.02	0.00

Nitrogen Direct Purge to FTIR

Spectrum	Date	Time	H2O (%v)	Formaldehyde (ppmv wet)	Methane (ppmv wet)	Nitrous Oxide (ppmv wet)
UNIT2_N2_DIR_1264.LAB	4/5/2022	14:01:23	-0.01	0.08	0.10	0.00
UNIT2_N2_DIR_1265.LAB	4/5/2022	14:03:23	-0.01	0.08	0.07	0.00
UNIT2_N2_DIR_1266.LAB	4/5/2022	14:05:23	-0.01	0.10	0.11	0.00

APPENDIX

Certificates of Analysis

Airgas
an Air Liquide company

Airgas Specialty Gases
Airgas USA LLC
525 North Industrial Loop Road
Tooele, UT 84074
Airgas.com

CERTIFICATE OF ANALYSIS

Grade of Product: PRIMARY STANDARD

Part Number:	X02NI99P15AD524	Reference Number:	153-401558632-1
Cylinder Number:	EB0082516	Cylinder Volume:	144.4 CF
Laboratory:	124 - Tooele (SAP) - UT	Cylinder Pressure:	2015 PSIG
Analysis Date:	Jul 26, 2019	Valve Outlet:	350
Lot Number:	153-401558632-1		

Expiration Date: Jul 26, 2022

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	100.3 PPM	+/- 1%
NITROGEN	Balance		

Signature on file
Approved for Release

Airgas
an Air Liquide company

Airgas Specialty Gases
Airgas USA, LLC
6141 Easton Road
Bldg 2
Plumsteadville, PA 18949
Airgas.com

CERTIFICATE OF ANALYSIS

Grade of Product: CERTIFIED STANDARD-SPEC

Part Number:	X03NI99C15A00K0	Reference Number:	160-402212491-1
Cylinder Number:	CC514052	Cylinder Volume:	144.0 CF
Laboratory:	124 - Plumsteadville - PA	Cylinder Pressure:	2015 PSIG
Analysis Date:	Sep 16, 2021	Valve Outlet:	330
Lot Number:	160-402212491-1		

Expiration Date: Sep 16, 2023

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.

5521

ANALYTICAL RESULTS

Component	Req Conc	Actual Concentration (Mole %)	Analytical Uncertainty
SULFUR HEXAFLUORIDE	10.00 PPM	9.872 PPM	+/- 5%
HYDROGEN CHLORIDE	50.00 PPM	49.92 PPM	+/- 2%
NITROGEN	Balance		

Approved for Release

Appendix A.3.2
Particulate Laboratory Data

PARTICULATE
EPA METHOD 5

Project # PROJ - 012607
Client/Location Desert View Power
Sample Location U1
Test # 1-PM-U1

Acetone Blank mg/ml 0.0025

Sample Date 4/5/22
Data Analysis Date 4/8/22
Analyst Initials PR

Item	Number	Final Weight (g)	Tare Weight (g)	Gain Weight (mg)	Blank Correction (mg)	Aliquot Correction (ml/ml)	Net Gain (mg/Sample)
1. Glass Fiber Filter	83-4349	0.3517	0.3517	0.0	0.0	—	0.0
2. Probe and Nozzle Wash (Acetone)	8307	28.4256	28.4248	0.8	0.26	40+30+35 / 105 / 105	0.54
Reagent Blank Acetone	8306	29.4221	29.4218	0.3		40+20+60 / 120 / 120	

Total Particulate = 0.5 mg

Method of Sample Prep/Notes

PARTICULATE

EPA METHOD 5

Project #	PROJ - 012607				
Client/Location	Desert View Power			**Sample Date**	4/5/2022
Sample Location	U1			**Analysis Date**	4/8/2022
Test #	1-PM-U1	**Acetone Blank (mg/ml)**	0.0025	**Analyst**	PR

Item	Item Number	Final Weight (g)	Tare Weight (g)	Gain Weight (mg)	Blank Correction (mg)	Aliquot Correction (ml/ml)	Net Gain (mg/sample)
1. Glass Fiber Filter	83-4349	0.3517	0.3517	0.0	0.0	--------	0.0
2. Probe and Nozzle Wash	8307	28.4256	28.4248	0.8	0.26	105 105	0.54
Acetone Field Blank	8306	29.4221	29.4218	0.3		120 120	
Filter Blank				0.0		--------	

Total Particulate = 0.5

Method of Sample Prep/Analysis Notes

MONTROSE

PARTICULATE
EPA METHOD 5

Project # PROJ-012607
Client/Location Desert View Power
Sample Location U1
Test # 3-PM-U71

Acetone Blank mg/ml 0.0025

Sample Date 4/5/22
Data Analysis Date 4/8/22
Analyst Initials JR

Item	Number	Final Weight (g)	Tare Weight (g)	Gain Weight (mg)	Blank Correction (mg)	Aliquot Correction (ml/ml)	Net Gain (mg/Sample)
1. Glass Fiber Filter	83-4350	0.3481	0.3480	0.1	0.0	1	0.10
2. Probe and Nozzle Wash (Acetone)	8308	29.6405	29.6385	2.0	0.26	40+65 105/105	1.74

Total Particulate = 1.8 mg

Method of Sample Prep/Notes

PARTICULATE

EPA METHOD 5

Project #	PROJ-012607				
Client/Location	Desert View Power			**Sample Date**	4/5/2022
Sample Location	U1			**Analysis Date**	4/8/2022
Test #	2-PM-U1	**Acetone Blank (mg/ml)**	0.0025	**Analyst**	PR

Item	Item Number	Final Weight (g)	Tare Weight (g)	Gain Weight (mg)	Blank Correction (mg)	Aliquot Correction (ml/ml)	Net Gain (mg/sample)
1. Glass Fiber Filter	83-4350	0.3481	0.348	0.1	0.0	--------	0.10
2. Probe and Nozzle Wash	8308	29.6405	29.6385	2.0	0.26	105 105	1.74

Total Particulate = 1.8

Method of Sample Prep/Analysis Notes

MONTROSE

PARTICULATE
EPA METHOD 5

Project # PROJ-012607
Client/Location Desert View Power
Sample Location U1
Test # 3-PM-UZ1

Acetone Blank mg/ml 0.0025

Sample Date 4/5/22
Data Analysis Date 4/8/22
Analyst Initials PR

Item	Number	Final Weight (g)	Tare Weight (g)	Gain Weight (mg)	Blank Correction (mg)	Aliquot Correction (ml/ml)	Net Gain (mg/Sample)
1. Glass Fiber Filter	83-4351	0.3466	0.3454	1.2	0.0	—	1.20
2. Probe and Nozzle Wash (Acetone)	8309	28.6674	28.6654	2.0	0.15	50 + 10 / 60 / 60	1.85

Total Particulate = ~~3.02~~ 3.1 mg ML 5/10/22

Method of Sample Prep/Notes

MONTROSE
AIR QUALITY SERVICES

PARTICULATE

EPA METHOD 5

Project # PROJ - 012607
Client/Location Desert View Power
Sample Location U1
Test # 3-PM-U1

Acetone Blank (mg/ml) 0.0025

Sample Date 4/5/2022
Analysis Date 4/8/2022
Analyst PR

Item	Item Number	Final Weight (g)	Tare Weight (g)	Gain Weight (mg)	Blank Correction (mg)	Aliquot Correction (ml/ml)	Net Gain (mg/sample)
1. Glass Fiber Filter	83-4351	0.3466	0.3454	1.2	0.0	--------	1.20
2. Probe and Nozzle Wash	8309	28.6674	28.6654	2.0	0.15	60 60	1.85

Total Particulate = 3.1

Method of Sample Prep/Analysis Notes

MONTROSE

PARTICULATE
EPA METHOD 5

Project # PROJ-012607
Client/Location Desert View Power
Sample Location V2
Test # 1-PM-V2

Acetone Blank mg/ml 0.0025

Sample Date 4/6/22
Data Analysis Date 4/8/22
Analyst Initials FR

Item	Number	Final Weight (g)	Tare Weight (g)	Gain Weight (mg)	Blank Correction (mg)	Aliquot Correction (ml/ml)	Net Gain (mg/Sample)
1. Glass Fiber Filter	83-4346	0.3458	0.3459	0.0	0.0		
2. Probe and Nozzle Wash (Acetone)	8310	28.2477	28.2473	0.4	0.30	50+20+50 / 120 / 120	0.10

Total Particulate = VM 4/11/22 ~~1.8~~ 0.1 mg

Method of Sample Prep/Notes

PARTICULATE

EPA METHOD 5

Project # PROJ - 012607
Client/Location Desert View Power
Sample Location U2
Test # 1-PM-U2

Acetone Blank (mg/ml) 0.0025

Sample Date 4/6/2022
Analysis Date 4/8/2022
Analyst PR

Item	Item Number	Final Weight (g)	Tare Weight (g)	Gain Weight (mg)	Blank Correction (mg)	Aliquot Correction (ml/ml)	Net Gain (mg/sample)
1. Glass Fiber Filter	83-4346	0.3458	0.3459	0.0	0.0	-------	0.00
2. Probe and Nozzle Wash	8310	28.2477	28.2473	0.4	0.30	120 120	0.10

Total Particulate = 0.1

Method of Sample Prep/Analysis Notes

MONTROSE

PARTICULATE
EPA METHOD 5

Project # PROJ-012607
Client/Location Desert View Power
Sample Location U2
Test # 2-PM-U2

Acetone Blank mg/ml 0.0025

Sample Date 4/6/22
Data Analysis Date 4/8/22
Analyst Initials PR

Item	Number	Final Weight (g)	Tare Weight (g)	Gain Weight (mg)	Blank Correction (mg)	Aliquot Correction (ml/ml)	Net Gain (mg/Sample)
1. Glass Fiber Filter	83-4347	0.3453	0.3452	0.1	0.0		0.10
2. Probe and Nozzle Wash (Acetone)	8311	29.0727	29.0723	0.4	0.22	50+20+20 / 90 / 90	0.18

Total Particulate = 0.3 mg

Method of Sample Prep/Notes

PARTICULATE

EPA METHOD 5

Project #	PROJ - 012607				
Client/Location	Desert View Power			**Sample Date**	4/6/2022
Sample Location	U2			**Analysis Date**	4/8/2022
Test #	2-PM-U2	**Acetone Blank (mg/ml)**	0.0025	**Analyst**	PR

Item	Item Number	Final Weight (g)	Tare Weight (g)	Gain Weight (mg)	Blank Correction (mg)	Aliquot Correction (ml/ml)	Net Gain (mg/sample)
1. Glass Fiber Filter	83-4347	0.3453	0.3452	0.1	0.0	--------	0.10
2. Probe and Nozzle Wash	8311	29.0727	29.0723	0.4	0.22	90 90	0.18

Total Particulate = 0.3

Method of Sample Prep/Analysis Notes

MONTROSE

PARTICULATE
EPA METHOD 5

Project # PROJ-012607
Client/Location Desert View Power
Sample Location U2
Test # 3-PM-U2

Acetone Blank mg/ml 0.0015

Sample Date 4/6/22
Data Analysis Date 4/8/22
Analyst Initials PR

Item	Number	Final Weight (g)	Tare Weight (g)	Gain Weight (mg)	Blank Correction (mg)	Aliquot Correction (ml/ml)	Net Gain (mg/Sample)
1. Glass Fiber Filter	83-4348	0.3473	0.3471	0.2	0.0	—	0.20
2. Probe and Nozzle Wash (Acetone)	8312	30.0680	30.0674	0.6	0.21	40+20+25 / 85 / 85	0.39

Total Particulate = 0.6 mg

Method of Sample Prep/Notes

PARTICULATE

EPA METHOD 5

Project # PROJ - 012607
Client/Location Desert View Power
Sample Location U2
Test # 3-PM-U2
Acetone Blank (mg/ml) 0.0025
Sample Date 4/6/2022
Analysis Date 4/8/2022
Analyst PR

Item	Item Number	Final Weight (g)	Tare Weight (g)	Gain Weight (mg)	Blank Correction (mg)	Aliquot Correction (ml/ml)	Net Gain (mg/sample)
1. Glass Fiber Filter	83-4348	0.3473	0.3471	0.2	0.0	-------	0.20
2. Probe and Nozzle Wash	8312	30.068	30.0674	0.6	0.21	85 85	0.39

Total Particulate = 0.6

Method of Sample Prep/Analysis Notes

Appendix A.3.3
SO_x Laboratory Data

SULFATE TITRATION

Project # PROJ-012606
Client/Location Desert View
Sample Location Unit 1
Titrant Used 0.01N BaCl2

Sample Date 4/6/22
Analysis Date 4/6/22
Analyst Initials PR

Test Number	Sample Description	Total Vol (ml) (TV)	V_{recon}	V_{evap}	Aliquot Vol (ml) (Va)	Titrant Vol (ml) (Vt)	X-Blank Vol (ml)	Comments	mg/ Sample
Blank (V_{bl}): 20mL DI H_2O+ 80mL IPA					20	0.00 / 0.041	0.01		
Standardization: 5mL DI H_2O + 80mL IPA + 5mL 0.02000 N H_2SO_4					5	10.25 / 10.29	10.26	$N = \frac{(.02)(V_a)}{V_t} = 0.009746$	
Audit Sample:5mL 1000ppm SO_4 + 15mL DI H_2O + 80mL IPA					5	9.99 / 9.94	9.96	93 % Recovery	
1	SO_2-U1	432.8			20	4.08 / 4.09	4.09		
2	SO_2-U1	413.7			20	3.98 / 4.03	4.01		
3	SO_2-U1	412.5			20	3.51 / 3.48	3.50		

EPA Audit in mg/dscm $= \frac{(32.03)(N)(Vt - Vbl)(100)}{(Va)(0.021)}$

SO_x, ppm $= \frac{(0.804)(N)(Vt - Vbl)(TV)(Tref)}{(Vmstd)(Va)}$

mg $H_2SO_4 \cdot 2H_2O$ = (Vt-Vbl) (N) (67) (TV/V_{evap}) (V_{recon}/V_a)

Method of Sample Prep/Notes

SULFATE TITRATION

Project # PROJ - 012606
Client/Location Desert View
Sample Location Unit 2
Titrant Used 0.01N BaCl2

Sample Date 4/5/22
Analysis Date 4/5/22
Analyst Initials PR

Test Number	Sample Description	Total Vol (ml) (TV)	V_{recon}	V_{evap}	Aliquot Vol (ml) (Va)	Titrant Vol (ml) (Vt)	X-Blank Vol (ml)	Comments	mg/ Sample
Blank (V_{bl}): 20mL DI H_2O+ 80mL IPA					20	0.00 / 0.01	0.01		
Standardization: 5mL DI H_2O + 80mL IPA + 5mL 0.02000 N H_2SO_4					5	10.25 / 10.29	10.26	$N = \frac{(.02)(V_a)}{V_t}$ = 0.009746 59	
Audit Sample:5mL 1000ppm SO_4 + 15mL DI H_2O + 80mL IPA					5	9.99 / 9.94	9.96	93 % Recovery	
1	SO_2-U2	541.5			20	3.59 / 3.64	3.62		
2	SO_2-U2	536.8			20	3.71 / 3.71	3.71		
3	SO_2-U2	544.8			20	4.03 / 4.02	4.03		

EPA Audit in mg/dscm $= \frac{(32.03)(N)(Vt - Vbl)(100)}{(Va)(0.021)}$

SO_x, ppm $= \frac{(0.804)(N)(Vt - Vbl)(TV)(Tref)}{(Vm\,std)(Va)}$

mg H_2SO_4 • $2H_2O$ = (Vt-Vbl) (N) (67) (TV/V_{evap}) (V_{recon}/V_a)

Method of Sample Prep/Notes

SULFATE TITRATION

Project #	PROJ-012606		
Client/Location	Desert View	Sample Date	4/6/2022
Sample Location	Unit 1	Analysis Date	4/6/2022
Titrant Used	0.01 N BaCl2	Analyst Initials	PR

Test Number	Sample Description	Total Vol (ml) (TV)	V_{recon}	V_{evap}	Aliquot Vol (ml) (Va)	Titrant Volume (ml) (Vt)	X-Blank Vol (ml)	Comments	X-Blank (mL)
Blank (V_b): 20 mL 3% H_2O_2 + 80 mL IPA					20	0.00 0.00			
Blank (Vb): 20 mL 3% H2O + 80 mL IPA					20	0.00 0.01	0.01		
Standardization: 15 ml DI H_2O + 5 ml 0.0200 N H_2SO_4 + 80 mL IPA					5	10.25 10.29	10.26	N= 0.00974659	
Audit Sample: 5 ml 1000 ppm SO_4 + 15 DI H_2O + 80 mL IPA					5	9.99 9.94	9.96	93% recovery	
1	SO2-U1	432.8			20	4.08 4.09	4.09		
2	SO2-U1	413.7			20	3.98 4.03	4.01		
3	SO2-U1	412.5			20	3.51 3.48	3.50		
					mg $H_2SO_4 \cdot 2H_2O$ = (Vt-Vbl) (N) (67) (TV/V_{evap}) (V_{recon}/Va)				

Method of Sample Prep/Analysis Notes

SULFATE TITRATION

Project #	PROJ-012606		
Client/Location	Desert View	Sample Date	4/5/2022
Sample Location	Unit 2	Analysis Date	4/5/2022
Titrant Used	0.01 N BaCl2	Analyst Initials	PR

Test Number	Sample Description	Total Vol (ml) (TV)	V_{recon}	V_{evap}	Aliquot Vol (ml) (Va)	Titrant Volume (ml) (Vt)	X-Blank Vol (ml)	Comments	X-Blank (mL)
Blank (V_b): 20 mL 3% H_2O_2 + 80 mL IPA					20	0.00 0.00			
Blank (Vb): 20 mL DI H2O + 80 mL IPA					20	0.00 0.01	0.01		
Standardization: 15 ml DI H_2O + 5 ml 0.0200 N H_2SO_4 + 80 mL IPA					5	10.25 10.29	10.26	N= 0.00974659	
Audit Sample: 5 ml 1000 ppm SO_4 + 15 DI H_2O + 80 mL IPA					5	9.99 9.94	9.96	93% recovery	
1	SO2-U2	541.5			20	3.59 3.64	3.62		
2	SO2-U2	536.8			20	3.71 3.71	3.71		
3	SO2-U2	544.8			20	4.03 4.02	4.03		
					mg $H_2SO_4 \cdot 2H_2O$ = (Vt-Vbl) (N) (67) (TV/V_{evap}) (V_{recon}/Va)				

Method of Sample Prep/Analysis Notes

Appendix A.3.4
Hydrocarbon Laboratory Report

Enthalpy Analytical
931 West Barkley Ave
Orange, CA 92868
(714) 771-6900

enthalpy.com

Lab Job Number: 461156
Report Level: II
Report Date: 04/22/2022

Analytical Report *prepared for:*

Dave Wonderly
Montrose Air Quality Services
1631 E. St Andrew Pl
Santa Ana, CA 92705

Location: Desert View Power, 002AS-12607

Authorized for release by:

Richard Villafania, Project Manager
richard.villafania@enthalpy.com

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the above signature which applies to this PDF file as well as any associated electronic data deliverable files. The results contained in this report meet all requirements of NELAP and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

CA ELAP# 1338, NELAP# 4038, SCAQMD LAP# 18LA0518, LACSD ID# 10105

INITIALLY

Sample Summary

Dave Wonderly		Lab Job #:	461156
Montrose Air Quality Services		Location:	Desert View Power, 002AS-12607
1631 E. St Andrew Pl		Date Received:	04/08/22
Santa Ana, CA 92705			

Sample ID	Lab ID	Collected	Matrix
1A-VOC-U2	461156-001	04/05/22 06:54	Air
1B-VOC-U2	461156-002	04/05/22 06:54	Air
2A-VOC-U1	461156-003	04/06/22 08:53	Air
2B-VOC-U1	461156-004	04/06/22 08:53	Air
BLANK 5	461156-005	04/08/22 00:00	Water
BLANK 6	461156-006	04/08/22 00:00	Water

ENTHALPY

Case Narrative

Montrose Air Quality Services	Lab Job Number: 461156
1631 E. St Andrew Pl	Location: Desert View Power, 002AS-12607
Santa Ana, CA 92705	Date Received: 04/08/22
Dave Wonderly	

This data package contains sample and QC results for four air samples, requested for the above referenced project on 04/08/22. The samples were received intact.

Non-Methane Non-Ethane Organic Compounds (SCAQMD 25.3):

- This data package contains the raw instrument data for the samples and QA/QC as well as the ICAL and MDL/PQL summary. Supporting field documentation (if supplied by the client) follows the COC and receipt documentation. Samples were analyzed by SCAQMD method 25.3 and 10.1 modified (% and ppm level fixed gases).
- No analytical problems were encountered.

461156

CHAIN OF CUSTODY

CLIENT: Desert View Power PROJECT NO: 002AS-012607 TEST DATE(S): 4/5/2022 & 4/6/2022

LOCATION: Unit 1 and Unit 2 SAMPLER(S): Patrick Whitman

SAMPLE LOCATION: Stack Breaching PROJECT MANAGER: Dave Wonderly

TEST METHOD(S): SCAQMD 25.3 DATE DUE:

OUTSIDE LAB REQUIRED?: Yes COMPLIANCE TEST? Yes

DATE	TIME	TEST #	SAMPLE DESCRIPTION	CONTAINERS	SAMPLER	COMMENTS
4/5/2022	600/654	1A-VOC-U2	Tank # 5A Vial # 5A	1	PW	
4/5/2022	600/654	1B-VOC-U2	Tank # 5B Vial # 5B	1	PW	
4/6/2022	755/853	2A-VOC-U1	Tank # 6A Vial # 6A	1	PW	
4/6/2022	755/853	2B-VOC-U1	Tank # 6B Vial # 6B	1	PW	
4/6/2022		Blank				

RELEASED BY	DATE/TIME	RECEIVED BY	DATE/TIME
	4/8/22 1215		4/8/22 1215

ANALYSIS REQUIRED: Total TGNMO By SCAQMD Method 25.3 Include O2, CO2

18.1/9.8

MONTROSE DS834001

Date of last revision – 2/14/2017 Master Document Storage\Forms\Datasheets\Lab Forms

ENTHALPY ANALYTICAL

SAMPLE ACCEPTANCE CHECKLIST

Section 1

Client: MAQS

Project: Desert View Power, 002AS-012607

Date Received: 4/8/22

Sampler's Name Present: ☑ Yes ☐ No

Section 2

Sample(s) received in a cooler? ☑ Yes, How many? 1 ☐ No (skip section 2)

Sample Temp (°C) (No Cooler): _____

Sample Temp (°C), One from each cooler: #1: 18.1 #2: _____ #3: _____ #4: _____

(Acceptance range is < 6°C but not frozen (for Microbiology samples, acceptance range is < 10°C but not frozen). It is acceptable for samples collected the same day as sample receipt to have a higher temperature as long as there is evidence that cooling has begun.)

Shipping Information: _____

Section 3

Was the cooler packed with: ☐ Ice ☑ Ice Packs ☑ Bubble Wrap ☐ Styrofoam ☐ Paper ☐ None ☐ Other _____

Cooler Temp (°C): #1: 9.8 #2: _____ #3: _____ #4: _____

Section 4	YES	NO	N/A
Was a COC received?	✔		
Are sample IDs present?	✔		
Are sampling dates & times present?	✔		
Is a relinquished signature present?	✔		
Are the tests required clearly indicated on the COC?	✔		
Are custody seals present?		✔	
If custody seals are present, were they intact?			✔
Are all samples sealed in plastic bags? (Recommended for Microbiology samples)			✔
Did all samples arrive intact? If no, indicate in Section 4 below.	✔		
Did all bottle labels agree with COC? (ID, dates and times)	✔		
Were the samples collected in the correct containers for the required tests?	✔		
Are the containers labeled with the correct preservatives?			✔
Is there headspace in the VOA vials greater than 5-6 mm in diameter?	✔		
Was a sufficient amount of sample submitted for the requested tests?	✔		

Section 5 Explanations/Comments

TBs have headspace.

Section 6

For discrepancies, how was the Project Manager notified? ☐ Verbal PM Initials: _____ Date/Time _____

☑ Email (email sent to/on): RMV /4/8/22

Project Manager's response:

Completed By: Jessica Sylvestoni Date: 4/8/22

Enthalpy Analytical, a subsidiary of Montrose Environmental Group, Inc.
931 W. Barkley Ave, Orange, CA 92868 • T: (714) 771-6900 • F: (714) 538-1209
www.enthalpy.com/socal

Analysis Results for 461156

Dave Wonderly
Montrose Air Quality Services
1631 E. St Andrew Pl
Santa Ana, CA 92705

Lab Job #: 461156
Location: Desert View Power, 002AS-12607
Date Received: 04/08/22

Sample ID: 1A-VOC-U2 **Lab ID: 461156-001** **Collected: 04/05/22 06:54**
Matrix: Air

461156-001 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: SCAQMD 25.3									
Methane	<1.90		ppmC	1.89	1.9	287441	04/12/22	04/12/22	MPD
Carbon Monoxide	<1.90		ppmC	1.89	1.9	287441	04/12/22	04/12/22	MPD
Ethene/Ethane	<1.90		ppmC	1.89	1.9	287441	04/12/22	04/12/22	MPD
Carbon Dioxide	**11.1**		mol %	0.000189	1.9	287441	04/12/22	04/12/22	MPD
Oxygen	**8.50**		mol %	0.189	1.9	287441	04/12/22	04/12/22	MPD
TNMNEOC	**8.40**		ppmC	0.567	1.9	287441	04/12/22	04/12/22	MPD

Sample ID: 1B-VOC-U2 **Lab ID: 461156-002** **Collected: 04/05/22 06:54**
Matrix: Air

461156-002 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: SCAQMD 25.3									
Methane	<1.90		ppmC	1.91	1.9	287441	04/12/22	04/12/22	MPD
Carbon Monoxide	<1.90		ppmC	1.91	1.9	287441	04/12/22	04/12/22	MPD
Ethene/Ethane	<1.90		ppmC	1.91	1.9	287441	04/12/22	04/12/22	MPD
Carbon Dioxide	**11.0**		mol %	0.000191	1.9	287441	04/12/22	04/12/22	MPD
Oxygen	**8.40**		mol %	0.191	1.9	287441	04/12/22	04/12/22	MPD
TNMNEOC	**10.2**		ppmC	0.573	1.9	287441	04/12/22	04/12/22	MPD

Sample ID: 2A-VOC-U1 **Lab ID: 461156-003** **Collected: 04/06/22 08:53**
Matrix: Air

461156-003 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: SCAQMD 25.3									
Methane	<1.90		ppmC	1.90	1.9	287441	04/12/22	04/12/22	MPD
Carbon Monoxide	<1.90		ppmC	1.90	1.9	287441	04/12/22	04/12/22	MPD
Ethene/Ethane	<1.90		ppmC	1.90	1.9	287441	04/12/22	04/12/22	MPD
Carbon Dioxide	**9.50**		mol %	0.000190	1.9	287441	04/12/22	04/12/22	MPD
Oxygen	**9.70**		mol %	0.190	1.9	287441	04/12/22	04/12/22	MPD
TNMNEOC	**3.70**		ppmC	0.570	1.9	287441	04/12/22	04/12/22	MPD

ENTHALPY

Analysis Results for 461156

Sample ID: 2B-VOC-U1	Lab ID: 461156-004	Collected: 04/06/22 08:53
	Matrix: Air	

461156-004 Analyte	Result	Qual	Units	RL	DF	Batch	Prepared	Analyzed	Chemist
Method: SCAQMD 25.3									
Methane	<1.90		ppmC	1.92	1.9	287441	04/12/22	04/12/22	MPD
Carbon Monoxide	<1.90		ppmC	1.92	1.9	287441	04/12/22	04/12/22	MPD
Ethene/Ethane	<1.90		ppmC	1.92	1.9	287441	04/12/22	04/12/22	MPD
Carbon Dioxide	**9.80**		mol %	0.000192	1.9	287441	04/12/22	04/12/22	MPD
Oxygen	**9.60**		mol %	0.192	1.9	287441	04/12/22	04/12/22	MPD
TNMNEOC	**4.00**		ppmC	0.576	1.9	287441	04/12/22	04/12/22	MPD

< Value is less than indicated concentration

Results of any subcontracted analyses are not included in this section.

Results

SCAQMD 25.3/10.1 Results Summary

Parameter	Units	Nomenclature	Sample 1	Sample 2
Enthalpy LR/Sample ID #	none	Eid	461156-001	461156-002
Client Sample ID#	none	Cid	1A-VOC-U2	1B-VOC-U2
Sample Data				
Canister ID #	none	Tid	C80092	C80035
Canister Volume	Liters (L)	Vc	6.0	6.0
Initial Canister Pressure	mmHg (A)	Pi	0.0	0.0
Initial Canister Pressure Check Date	mm/dd/yy	none	4/1/2022	4/1/2022
Post Sampling Canister Pressure	mmHg (A)	Pr	477.1	474.8
Post Purge Final Canister Pressure	mmHg (A)	Pf	902.00	906.40
Canister Reciept Date	mm/dd/yy	none	4/8/2022	4/8/2022
Atmospheric Pressure	mmHg (A)	Pa	760.0	760.0
Canister Dilution Factor	none	Dftank	1.89	1.91
Sample Volume	Liters (L)	Vsample	3.77	3.75
Aqueous Impinger Volume	Milliliters (ml)	Vi	3.277	2.124
TOC Analysis Dilution Factor	none	Dftoc	4.0	4.0
Ideal Gas Volume	Liters/mole	Vid	24.47	24.47
Atomic Weight of Carbon	grams/mole	Ac	12.01	12.01
Bias Correction Factor	none	CFb	1.086	1.086
Results and Calculations				
Avg Raw TOC Result	ppmC	Ci	1.14	2.07
TOC Trip Blank Result	ppmC	Cb	0.08	0.08
Final Gaseous TOC Result = (((Ci - Cb) x TOCdf) x Vi xPa xVid)/(Vc x Pr xAc)	ppmC	Cw	7.54	9.21
Avg Raw NMNEOC Result	ppmC	Cm	0.10	0.10
Final NMNEOC Result = Cm x (Pf/Pr-Pi)	ppmC	Cc	0.19	0.19
Final Methane Result = Avg Conc x (Pf/Pr-Pi)	ppmC	Cmt	< 1.9	< 1.9
Final Carbon Monoxide Result = Avg Conc x (Pf/Pr-Pi)	ppmC	Cco	< 1.9	< 1.9
Final Ethene/Ethane Result = Avg Conc x (Pf/Pr-Pi)	ppmC	Cet	< 1.9	< 1.9
Final Carbon Dioxide Result = Avg Conc x (Pf/Pr-Pi)	%	Cco2	11.1	11.0
Final Oxygen Result = Avg Conc x (Pf/Pr-Pi)	%	Co2	8.5	8.4
Final TNMNEOC Result = (Cc +Cw) x CFb	ppmC	Cvoc	8.4	10.2

SCAQMD 25.3/10.1 Sampling & Analytical Summary

Parameter	Units	Nomenclature	Sample 3	Sample 4
Enthalpy LR/Sample ID #	none	Eid	461156-003	461156-004
Client Sample ID#	none	Cid	2A-VOC-U1	2B-VOC-U1
Sample Data				
Canister ID #	none	Tid	C80205	C80001
Canister Volume	Liters (L)	Vc	6.0	6.0
Initial Canister Pressure	mmHg (A)	Pi	0.0	0.0
Initial Canister Pressure Check Date	mm/dd/yy	none	4/1/2022	4/1/2022
Post Sampling Canister Pressure	mmHg (A)	Pr	477.4	471.2
Post Purge Final Canister Pressure	mmHg (A)	Pf	907.40	904.30
Canister Reciept and Purge Date	mm/dd/yy	none	4/8/2022	4/8/2022
Atmospheric Pressure	mmHg (A)	Pa	760.0	760.0
Canister Dilution Factor	none	Dftank	1.90	1.92
Sample Volume	Liters (L)	Vsample	3.77	3.72
Aqueous Impinger Volume	Milliliters (ml)	Vi	3.250	3.221
TOC Analysis Dilution Factor	none	Dftoc	4.0	4.0
Ideal Gas Volume	Liters/mole	Vid	24.47	24.47
Atomic Weight of Carbon	grams/mole	Ac	12.01	12.01
Bias Correction Factor	none	CFb	1.086	1.086
Results and Calculations				
Avg Raw TOC Result	ppmC	Ci	0.48	0.54
TOC Trip Blank Result	ppmC	Cb	0.08	0.08
Final Gaseous TOC Result = (((Ci - Cb) x TOCdf) x Vi xPa xVid)/(Vc x Pr xAc)	ppmC	Cw	2.82	3.30
Avg Raw NMNEOC Result	ppmC	Cm	0.30	0.20
Final NMNEOC Result = Cm x (Pf/Pr-Pi)	ppmC	Cc	0.57	0.38
Final Methane Result = Avg Conc x (Pf/Pr-Pi)	ppmC	Cmt	< 1.9	< 1.9
Final Carbon Monoxide Result = Avg Conc x (Pf/Pr-Pi)	ppmC	Cco	< 1.9	< 1.9
Final Ethene/Ethane Result = Avg Conc x (Pf/Pr-Pi)	ppmC	Cet	< 1.9	< 1.9
Final Carbon Dioxide Result = Avg Conc x (Pf/Pr-Pi)	%	Cco2	9.5	9.8
Final Oxygen Result = Avg Conc x (Pf/Pr-Pi)	%	Co2	9.7	9.6
Final TNMNEOC Result = (Cc +Cw) x CFb	ppmC	Cvoc	3.7	4.0

Sample Data

Enthalpy ID	461156-001	461156-002	461156-003	461156-004
Client ID	1A-VOC-U2	1B-VOC-U2	2A-VOC-U1	2B-VOC-U1
Canister ID #	C80092	C80035	C80205	C80001
Canister Cleaning Date	1/10/2022	3/16/2022	3/29/2022	3/23/2022
Canister Volume	6.0	6.0	6.0	6.0
Initial Canister Pressure	0	0	0	0
Canister Pressure Check Date	4/1/2022	4/1/2022	4/1/2022	4/1/2022
Post Sampling Canister Pressure	-282.9	-285.2	-282.6	-288.8
Post Purge Final Canister Pressure	142.0	146.4	147.4	144.3
Canister Reciept and Purge Date	4/8/2022	4/8/2022	4/8/2022	4/8/2022
Reagent Water ID	040122A	040122A	040122A	040122A
Vial ID#	5A	5B	6A	6B
TOC final return Volume	3.2765	2.1235	3.2498	3.2206
TOC Analytical Dilution Factor	4.00	4.00	4.00	4.00
Result 1	0.20	0.00	0.00	0.00
Result 2	0.20	0.00	0.00	0.00
RPD %	0.00	#DIV/0!	#DIV/0!	#DIV/0!
Avg Methane Result	0.20	0.00	0.00	0.00
Result 1	0.30	0.40	0.20	0.20
Result 2	0.30	0.40	0.20	0.20
RPD %	0.00	0.00	0.00	0.00
Avg Carbon Monoxide Result	0.30	0.40	0.20	0.20
Result 1	0.10	0.10	0.30	0.20
Result 2	0.10	0.10	0.30	0.20
RPD %	0.00	0.00	0.00	0.00
Avg TNMNEOC Result	0.10	0.10	0.30	0.20
Result 1	58710.00	57598.20	50008.50	50827.40
Result 2	58590.90	57632.00	50223.30	50900.20
RPD %	0.20	0.06	0.43	0.14
Avg Carbon Dioxide Result	58650.45	57615.10	50115.90	50863.80
Result 1	0.00	0.00	0.00	0.00
Result 2	0.00	0.00	0.00	0.00
RPD %	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Avg Ethene/Ethane Result	0.0	0.0	0.0	0.0
Result 1	4.50	4.40	5.10	5.00
Result 2	4.50	4.40	5.10	5.00
RPD %	0.00	0.00	0.00	0.00
Avg Oxygen Result	4.50	4.40	5.10	5.00
Result 1	40.80	40.10	39.60	39.90
Result 2	40.70	40.10	39.80	39.90
RPD %	0.25	0.00	0.50	0.00
Avg Nitrogen Result	40.75	40.10	39.70	39.90
Avg raw TOC	1.1419	2.0721	0.4791	0.5448
TOC Blank	0.0777	0.0777	0.0777	0.0777

Fixed Gases Total %	96.6	96.0	94.7	95.9

Print Date: Tue Apr 12 15:42:15 2022 Page 1 of 1

Title :
Run File : c:\brukerws\data\2022\041222 25.3\2022-04-12 13-11-53 461156-001 inj 1 - master scaqmd 253 analysis 022822.run
Method File : c:\brukerws\methods\active gc methods 2021\master scaqmd 253 quant 022822.mth
Sample ID : 461156-001

Injection Date: 2022-04-12 13:11 Calculation Date: 2022-04-12 15:42

Operator : GSG Detector Type: 4XX-GC (1000 Volts)
Workstation: Windows Bus Address : 44
Instrument : Bruker GC/TCA#1 Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result ppmCarbon	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	0.2	4.967	0.008	1084	BB	8.7	
2	Carbon Monox	0.3	7.222	-0.909	1606	BB	17.4	
3	NMNEOC	0.1	14.528	0.140	2712	BB	13.2	
	Totals:	0.6		-0.761	5402			

Total Unidentified Counts : 0 counts

Detected Peaks: 5 Rejected Peaks: 2 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 41 microVolts - monitored before this run

Manual injection

****

Print Date: Wed Apr 13 09:10:49 2022 Page 1 of 1

Title :
Run File : C:\BrukerWS\data\2022\041222 25.3\2022-04-12 13-11-53 461156-001 inj 1 - master scaqmd 253 analysis 022822.ru
Method File : C:\BrukerWS\methods\Active GC Methods 2021\Master SCAQMD 253 Quant 022822.mth
Sample ID : 461156-001

Injection Date: 2022-04-12 13:11 Calculation Date: 2022-04-13 09:10

Operator : GSG
Workstation: Windows
Instrument : Bruker GC/TCA#1
Channel : Front = FID

Detector Type: 4XX-GC (1000 Volts)
Bus Address : 44
Sample Rate : 5.00 Hz
Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result ppmCarbon	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Carbon Dioxi	58710.0	4.696	-0.248	660716032	BB	17.8	
2	Ethane		10.735					M
	Totals:	58710.0		-0.248	660716032			

Status Codes:
M - Missing peak

Total Unidentified Counts : 167164 counts

Detected Peaks: 6 Rejected Peaks: 1 Identified Peaks: 2

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 20 microVolts - monitored before this run

Manual injection

****

Print Date: Wed Apr 13 09:18:08 2022 Page 1 of 1

Title :
Run File : C:\BrukerWS\data\2022\041222 25.3\2022-04-12 13-11-53 461156-001 inj 1 - master scaqmd 253 analysis 022822.run
Method File : C:\BrukerWS\methods\Active GC Methods 2021\Master SCAQMD 253 Quant 022822.mth
Sample ID : 461156-001

Injection Date: 2022-04-12 13:11 Calculation Date: 2022-04-13 09:18

Operator : GSG Detector Type: 4XX-GC (10 Volts)
Workstation: Windows Bus Address : 44
Instrument : Bruker GC/TCA#1 Sample Rate : 5.00 Hz
Channel : Rear - TCD Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (%V)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Helium		2.315					M
2	Hydrogen		2.447					M
3	Oxygen	4.5	3.035	-0.001	1708947	BB	3.3	
4	Nitrogen	40.8	3.544	-0.198	12022891	BB	8.8	
5	Methane	0.0	5.404	0.535	670	BB	0.0	
6	Carbon Monox		7.052					M
	Totals:	45.3		0.336	13732508			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 3 Rejected Peaks: 0 Identified Peaks: 6

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 46836 microVolts LSB: 1 microVolts

Noise (used): 200 microVolts - fixed value
Noise (monitored before this run): 700 microVolts

Manual injection

****

Title :
Run File : c:\brukerws\data\2022\041222 25.3\2022-04-12 13-37-53 461156-001 inj 2 - master scaqmd 253 analysis 022822.ru
Method File : c:\brukerws\methods\active gc methods 2021\master scaqmd 253 quant 022822.mth
Sample ID : 461156-001

Injection Date: 2022-04-12 13:37 Calculation Date: 2022-04-12 15:42

Operator : GSG
Workstation: Windows
Instrument : Bruker GC/TCA#1
Channel : Middle = FID

Detector Type: 4XX-GC (1000 Volts)
Bus Address : 44
Sample Rate : 5.00 Hz
Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result ppmCarbon	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	0.2	4.967	0.008	1199	BP	9.2	
2	Carbon Monox	0.3	7.230	-0.901	2080	BV	17.2	
3	NMNEOC	0.1	14.548	0.160	2575	BB	27.5	
	Totals:	0.6		-0.733	5854			

Total Unidentified Counts : 0 counts

Detected Peaks: 7 Rejected Peaks: 4 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 21 microVolts - monitored before this run

Manual injection

****

Print Date: Wed Apr 13 09:10:56 2022 Page 1 of 1

Title :
Run File : C:\BrukerWS\data\2022\041222 25.3\2022-04-12 13-37-53 461156-001 inj 2 - master scaqmd 253 analysis 022822.run
Method File : C:\BrukerWS\methods\Active GC Methods 2021\Master SCAQMD 253 Quant 022822.mth
Sample ID : 461156-001

Injection Date: 2022-04-12 13:37 Calculation Date: 2022-04-13 09:10

Operator : GSG
Workstation: Windows
Instrument : Bruker GC/TCA#1
Channel : Front = FID

Detector Type: 4XX-GC (1000 Volts)
Bus Address : 44
Sample Rate : 5.00 Hz
Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result ppmCarbon	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Carbon Dioxi	58590.9	4.694	-0.250	659376512	BB	17.8	
2	Ethane		10.735					M
	Totals:	58590.9		-0.250	659376512			

Status Codes:
M - Missing peak

Total Unidentified Counts : 169141 counts

Detected Peaks: 6 Rejected Peaks: 1 Identified Peaks: 2

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 18 microVolts - monitored before this run

Manual injection

****

Title :
Run File : C:\BrukerWS\data\2022\041222 25.3\2022-04-12 13-37-53 461156-001 inj 2 - master scaqmd 253 analysis 022822.ru
Method File : C:\BrukerWS\methods\Active GC Methods 2021\Master SCAQMD 253 Quant 022822.mth
Sample ID : 461156-001

Injection Date: 2022-04-12 13:37 Calculation Date: 2022-04-13 09:18

Operator : GSG
Workstation: Windows
Instrument : Bruker GC/TCA#1
Channel : Rear - TCD

Detector Type: 4XX-GC (10 Volts)
Bus Address : 44
Sample Rate : 5.00 Hz
Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (%V)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Helium		2.315					M
2	Hydrogen		2.447					M
3	Oxygen	4.5	3.034	-0.002	1703791	BB	3.3	
4	Nitrogen	40.7	3.544	-0.198	11995959	BB	8.8	
5	Methane	0.0	5.207	0.338	2511	BB	0.0	
6	Carbon Monox		7.052					M
	Totals:	45.2		0.138	13702261			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 3 Rejected Peaks: 0 Identified Peaks: 6

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 46844 microVolts LSB: 1 microVolts

Noise (used): 200 microVolts - fixed value
Noise (monitored before this run): 360 microVolts

Manual injection

****

Print Date: Wed Apr 13 08:33:15 2022 Page 1 of 1

Title :
Run File : c:\brukerws\data\2022\041222 25.3\2022-04-12 14-03-52 461156-002 inj 1 - master scaqmd 253 analysis 022822.run
Method File : c:\brukerws\methods\active gc methods 2021\master scaqmd 253 quant 022822.mth
Sample ID : 461156-002

Injection Date: 2022-04-12 14:03 Calculation Date: 2022-04-13 08:33

Operator : GSG
Workstation: Windows
Instrument : Bruker GC/TCA#1
Channel : Middle = FID

Detector Type: 4XX-GC (1000 Volts)
Bus Address : 44
Sample Rate : 5.00 Hz
Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result ppmCarbon	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane		5.010					M
2	Carbon Monox	0.4	7.216	-0.915	2260	BB	16.2	
3	NMNEOC	0.1	14.308	-0.080	3169	BB	23.4	
	Totals:	0.5		-0.995	5429			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 5 Rejected Peaks: 3 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 35 microVolts - monitored before this run

Manual injection

****

Title :
Run File : C:\BrukerWS\data\2022\041222 25.3\2022-04-12 14-03-52 461156-002 inj 1 - master scaqmd 253 analysis 022822.ru
Method File : C:\BrukerWS\methods\Active GC Methods 2021\Master SCAQMD 253 Quant 022822.mth
Sample ID : 461156-002

Injection Date: 2022-04-12 14:03 Calculation Date: 2022-04-13 09:11

Operator : GSG
Workstation: Windows
Instrument : Bruker GC/TCA#1
Channel : Front - FID

Detector Type: 4XX-GC (1000 Volts)
Bus Address : 44
Sample Rate : 5.00 Hz
Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result ppmCarbon	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Carbon Dioxi	57598.2	4.697	-0.247	648204864	BB	17.8	
2	Ethane		10.735					M
	Totals:	57598.2		-0.247	648204864			

Status Codes:
M - Missing peak

Total Unidentified Counts : 176432 counts

Detected Peaks: 6 Rejected Peaks: 1 Identified Peaks: 2

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 40 microVolts - monitored before this run

Manual injection

****

Print Date: Wed Apr 13 09:18:24 2022 Page 1 of 1

Title :
Run File : C:\BrukerWS\data\2022\041222 25.3\2022-04-12 14-03-52 461156-002 inj 1 - master scaqmd 253 analysis 022822.run
Method File : C:\BrukerWS\methods\Active GC Methods 2021\Master SCAQMD 253 Quant 022822.mth
Sample ID : 461156-002

Injection Date: 2022-04-12 14:03 Calculation Date: 2022-04-13 09:18

Operator : GSG Detector Type: 4XX-GC (10 Volts)
Workstation: Windows Bus Address : 44
Instrument : Bruker GC/TCA#1 Sample Rate : 5.00 Hz
Channel : Rear = TCD Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (%V)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Helium		2.315					M
2	Hydrogen		2.447					M
3	Oxygen	4.4	3.036	-0.000	1683324	BB	3.3	
4	Nitrogen	40.1	3.548	-0.194	11826501	BB	8.7	
5	Methane	0.0	5.264	0.395	1079	BB	3.0	
6	Carbon Monox		7.052					M
	Totals:	44.5		0.201	13510904			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 3 Rejected Peaks: 0 Identified Peaks: 6

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 47021 microVolts LSB: 1 microVolts

Noise (used): 200 microVolts - fixed value
Noise (monitored before this run): 505 microVolts

Manual injection

****

Title :
Run File : c:\brukerws\data\2022\041222 25.3\2022-04-12 14-29-47 461156-002 inj 2 - master scaqmd 253 analysis 022822.ru
Method File : c:\brukerws\methods\active gc methods 2021\master scaqmd 253 quant 022822.mth
Sample ID : 461156-002

Injection Date: 2022-04-12 14:29 Calculation Date: 2022-04-13 08:40

Operator : GSG Detector Type: 4XX-GC (1000 Volts)
Workstation: Windows Bus Address : 44
Instrument : Bruker GC/TCA#1 Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result ppmCarbon	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane		5.010					M
2	Carbon Monox	0.4	7.212	-0.919	2418	BB	16.9	
3	NMNEOC	0.1	14.308	-0.080	3393	BB	23.8	
	Totals:	0.5		-0.999	5811			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 5 Rejected Peaks: 3 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 25 microVolts - monitored before this run

Manual injection

****

Print Date: Wed Apr 13 09:11:12 2022 Page 1 of 1

Title :
Run File : C:\BrukerWS\data\2022\041222 25.3\2022-04-12 14-29-47 461156-002 inj 2 - master scaqmd 253 analysis 022822.run
Method File : C:\BrukerWS\methods\Active GC Methods 2021\Master SCAQMD 253 Quant 022822.mth
Sample ID : 461156-002

Injection Date: 2022-04-12 14:29 Calculation Date: 2022-04-13 09:11

Operator : GSG Detector Type: 4XX-GC (1000 Volts)
Workstation: Windows Bus Address : 44
Instrument : Bruker GC/TCA#1 Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result ppmCarbon	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Carbon Dioxi	57632.0	4.695	-0.249	648585280	BB	17.8	
2	Ethane		10.735					M
	Totals:	57632.0		-0.249	648585280			

Status Codes:
M - Missing peak

Total Unidentified Counts : 158846 counts

Detected Peaks: 6 Rejected Peaks: 1 Identified Peaks: 2

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 26 microVolts - monitored before this run

Manual injection

****

Print Date: Wed Apr 13 09:18:32 2022 Page 1 of 1

Title :
Run File : C:\BrukerWS\data\2022\041222 25.3\2022-04-12 14-29-47 461156-002 inj 2 - master scaqmd 253 analysis 022822.ru
Method File : C:\BrukerWS\methods\Active GC Methods 2021\Master SCAQMD 253 Quant 022822.mth
Sample ID : 461156-002

Injection Date: 2022-04-12 14:29 Calculation Date: 2022-04-13 09:18

Operator : GSG
Workstation: Windows
Instrument : Bruker GC/TCA#1
Channel : Rear = TCD

Detector Type: 4XX-GC (10 Volts)
Bus Address : 44
Sample Rate : 5.00 Hz
Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (%V)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Helium		2.315					M
2	Hydrogen		2.447					M
3	Oxygen	4.4	3.036	0.000	1681913	BB	3.3	
4	Nitrogen	40.1	3.548	-0.194	11827262	BB	8.7	
5	Methane		4.869					M
6	Carbon Monox		7.052					M
	Totals:	44.5		-0.194	13509175			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 2 Rejected Peaks: 0 Identified Peaks: 6

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 46526 microVolts LSB: 1 microVolts

Noise (used): 200 microVolts - fixed value
Noise (monitored before this run): 222 microVolts

Manual injection

****

Print Date: Wed Apr 13 08:46:11 2022 Page 1 of 1

Title :
Run File : c:\brukerws\data\2022\041222 25.3\2022-04-12 14-55-48 461156-003 inj 1 - master scaqmd 253 analysis 022822.run
Method File : c:\brukerws\methods\active gc methods 2021\master scaqmd 253 quant 022822.mth
Sample ID : 461156-003

Injection Date: 2022-04-12 14:55 Calculation Date: 2022-04-13 08:46

Operator : GSG Detector Type: 4XX-GC (1000 Volts)
Workstation: Windows Bus Address : 44
Instrument : Bruker GC/TCA#1 Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result ppmCarbon	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane		5.010					M
2	Carbon Monox	0.2	7.262	0.032	1472	BB	15.3	
3	NMNEOC	0.3	14.365	-0.023	8880	BB	29.7	
	Totals:	0.5		0.009	10352			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 5 Rejected Peaks: 3 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 31 microVolts - monitored before this run

Manual injection

****

Print Date: Wed Apr 13 09:11:20 2022 Page 1 of 1

Title :
Run File : C:\BrukerWS\data\2022\041222 25.3\2022-04-12 14-55-48 461156-003 inj 1 - master scaqmd 253 analysis 022822.run
Method File : C:\BrukerWS\methods\Active GC Methods 2021\Master SCAQMD 253 Quant 022822.mth
Sample ID : 461156-003

Injection Date: 2022-04-12 14:55 Calculation Date: 2022-04-13 09:11

Operator : GSG Detector Type: 4XX-GC (1000 Volts)
Workstation: Windows Bus Address : 44
Instrument : Bruker GC/TCA#1 Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result ppmCarbon	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Carbon Dioxi	50008.5	4.724	-0.220	562790848	BB	17.7	
2	Ethane		10.735					M
	Totals:	50008.5		-0.220	562790848			

Status Codes:
M - Missing peak

Total Unidentified Counts : 127635 counts

Detected Peaks: 5 Rejected Peaks: 1 Identified Peaks: 2

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 42 microVolts - monitored before this run

Manual injection

****

Print Date: Wed Apr 13 09:18:40 2022 Page 1 of 1

Title :
Run File : C:\BrukerWS\data\2022\041222 25.3\2022-04-12 14-55-48 461156-003 inj 1 - master scaqmd 253 analysis 022822.run
Method File : C:\BrukerWS\methods\Active GC Methods 2021\Master SCAQMD 253 Quant 022822.mth
Sample ID : 461156-003

Injection Date: 2022-04-12 14:55 Calculation Date: 2022-04-13 09:18

Operator : GSG Detector Type: 4XX-GC (10 Volts)
Workstation: Windows Bus Address : 44
Instrument : Bruker GC/TCA#1 Sample Rate : 5.00 Hz
Channel : Rear = TCD Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (%V)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Helium		2.315					M
2	Hydrogen		2.447					M
3	Oxygen	5.1	3.038	0.002	1932947	BB	3.4	
4	Nitrogen	39.6	3.550	-0.192	11676593	BB	8.7	
5	Methane		4.869					M
6	Carbon Monox	0.0	6.607	-0.445	2815	BB	0.0	
	Totals:	44.7		-0.635	13612355			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 3 Rejected Peaks: 0 Identified Peaks: 6

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 46642 microVolts LSB: 1 microVolts

Noise (used): 200 microVolts - fixed value
Noise (monitored before this run): 216 microVolts

Manual injection

****

Title :
Run File : c:\brukerws\data\2022\041222 25.3\2022-04-12 15-21-42 461156-003 inj 2 - master scaqmd 253 analysis 022822.run
Method File : c:\brukerws\methods\active gc methods 2021\master scaqmd 253 quant 022822.mth
Sample ID : 461156-003

Injection Date: 2022-04-12 15:21 Calculation Date: 2022-04-13 08:46

Operator : GSG
Workstation: Windows
Instrument : Bruker GC/TCA#1
Channel : Middle - FID
Detector Type: 4XX-GC (1000 Volts)
Bus Address : 44
Sample Rate : 5.00 Hz
Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result ppmCarbon	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane		5.010					M
2	Carbon Monox	0.2	7.225	-0.005	1480	BB	17.0	
3	NMNEOC	0.3	14.375	-0.013	8457	BB	28.7	
	Totals:	0.5		-0.018	9937			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 6 Rejected Peaks: 4 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 20 microVolts - monitored before this run

Manual injection

****

Print Date: Wed Apr 13 09:11:28 2022 Page 1 of 1

Title :
Run File : C:\BrukerWS\data\2022\041222 25.3\2022-04-12 15-21-42 461156-003 inj 2 - master scaqmd 253 analysis 022822.run
Method File : C:\BrukerWS\methods\Active GC Methods 2021\Master SCAQMD 253 Quant 022822.mth
Sample ID : 461156-003

Injection Date: 2022-04-12 15:21 Calculation Date: 2022-04-13 09:11

Operator : GSG Detector Type: 4XX-GC (1000 Volts)
Workstation: Windows Bus Address : 44
Instrument : Bruker GC/TCA#1 Sample Rate : 5.00 Hz
Channel : Front - FID Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result ppmCarbon	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Carbon Dioxi	50223.3	4.722	-0.222	565207808	BB	17.8	
2	Ethane		10.735					M
	Totals:	50223.3		-0.222	565207808			

Status Codes:
M - Missing peak

Total Unidentified Counts : 176790 counts

Detected Peaks: 6 Rejected Peaks: 1 Identified Peaks: 2

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 16 microVolts - monitored before this run

Manual injection

****

Print Date: Wed Apr 13 09:18:49 2022 Page 1 of 1

Title :
Run File : C:\BrukerWS\data\2022\041222 25.3\2022-04-12 15-21-42 461156-003 inj 2 - master scaqmd 253 analysis 022822.run
Method File : C:\BrukerWS\methods\Active GC Methods 2021\Master SCAQMD 253 Quant 022822.mth
Sample ID : 461156-003

Injection Date: 2022-04-12 15:21 Calculation Date: 2022-04-13 09:18

Operator : GSG Detector Type: 4XX-GC (10 Volts)
Workstation: Windows Bus Address : 44
Instrument : Bruker GC/TCA#1 Sample Rate : 5.00 Hz
Channel : Rear = TCD Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (%V)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Helium		2.315					M
2	Hydrogen		2.447					M
3	Oxygen	5.1	3.037	0.001	1940810	BB	3.3	
4	Nitrogen	39.8	3.550	-0.192	11741009	BB	8.7	
5	Methane	0.0	4.990	0.121	1413	BB	0.0	
6	Carbon Monox		7.052					M
	Totals:	44.9		-0.070	13683232			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 3 Rejected Peaks: 0 Identified Peaks: 6

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 46904 microVolts LSB: 1 microVolts

Noise (used): 200 microVolts - fixed value
Noise (monitored before this run): 349 microVolts

Manual injection

****

Print Date: Wed Apr 13 08:44:33 2022 Page 1 of 1

Title :
Run File : c:\brukerws\data\2022\041222 25.3\2022-04-12 15-47-41 461156-004 inj 1 - master scaqmd 253 analysis 022822.run
Method File : c:\brukerws\methods\active gc methods 2021\master scaqmd 253 quant 022822.mth
Sample ID : 461156-004

Injection Date: 2022-04-12 15:47 Calculation Date: 2022-04-13 08:44

Operator : GSG Detector Type: 4XX-GC (1000 Volts)
Workstation: Windows Bus Address : 44
Instrument : Bruker GC/TCA#1 Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result ppmCarbon	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane		5.010					M
2	Carbon Monox	0.2	7.222	-0.008	1229	BB	14.2	
3	NMNEOC	0.2	14.322	-0.066	5936	BB	52.5	
	Totals:	0.4		-0.074	7165			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 5 Rejected Peaks: 3 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 28 microVolts - monitored before this run

Manual injection

****

Print Date: Wed Apr 13 09:11:37 2022 Page 1 of 1

Title :
Run File : C:\BrukerWS\data\2022\041222 25.3\2022-04-12 15-47-41 461156-004 inj 1 - master scaqmd 253 analysis 022822.ru
Method File : C:\BrukerWS\methods\Active GC Methods 2021\Master SCAQMD 253 Quant 022822.mth
Sample ID : 461156-004

Injection Date: 2022-04-12 15:47 Calculation Date: 2022-04-13 09:11

Operator : GSG Detector Type: 4XX-GC (1000 Volts)
Workstation: Windows Bus Address : 44
Instrument : Bruker GC/TCA#1 Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result ppmCarbon	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Carbon Dioxi	50827.4	4.720	-0.224	572006016	BB	17.9	
2	Ethane		10.735					M
	Totals:	50827.4		-0.224	572006016			

Status Codes:
M - Missing peak

Total Unidentified Counts : 176130 counts

Detected Peaks: 6 Rejected Peaks: 1 Identified Peaks: 2

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 28 microVolts - monitored before this run

Manual injection

****

Print Date: Wed Apr 13 09:18:57 2022 Page 1 of 1

Title :
Run File : C:\BrukerWS\data\2022\041222 25.3\2022-04-12 15-47-41 461156-004 inj 1 - master scaqmd 253 analysis 022822.run
Method File : C:\BrukerWS\methods\Active GC Methods 2021\Master SCAQMD 253 Quant 022822.mth
Sample ID : 461156-004

Injection Date: 2022-04-12 15:47 Calculation Date: 2022-04-13 09:18

Operator : GSG Detector Type: 4XX-GC (10 Volts)
Workstation: Windows Bus Address : 44
Instrument : Bruker GC/TCA#1 Sample Rate : 5.00 Hz
Channel : Rear = TCD Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (%V)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Helium		2.315					M
2	Hydrogen		2.447					M
3	Oxygen	5.0	3.035	-0.001	1926860	BB	3.3	
4	Nitrogen	39.9	3.547	-0.195	11754997	BB	8.7	
5	Methane		4.869					M
6	Carbon Monox	0.0	6.777	-0.275	980	VB	0.0	
	Totals:	44.9		-0.471	13682837			

Status Codes:
M - Missing peak

Total Unidentified Counts : 618 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 6

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 46958 microVolts LSB: 1 microVolts

Noise (used): 200 microVolts - fixed value
Noise (monitored before this run): 341 microVolts

Manual injection

****

Print Date: Wed Apr 13 08:45:05 2022 Page 1 of 1

Title :
Run File : c:\brukerws\data\2022\041222 25.3\2022-04-12 16-13-32 461156-004 inj 2 - master scaqmd 253 analysis 022822.rur
Method File : c:\brukerws\methods\active gc methods 2021\master scaqmd 253 quant 022822.mth
Sample ID : 461156-004

Injection Date: 2022-04-12 16:13 Calculation Date: 2022-04-13 08:44

Operator : GSG Detector Type: 4XX-GC (1000 Volts)
Workstation: Windows Bus Address : 44
Instrument : Bruker GC/TCA#1 Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result ppmCarbon	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane		5.010					M
2	Carbon Monox	0.2	7.205	-0.025	1339	BB	13.5	
3	NMNEOC	0.2	14.335	-0.053	6038	BB	26.9	
	Totals:	0.4		-0.078	7377			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 6 Rejected Peaks: 4 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 23 microVolts - monitored before this run

Manual injection

****

Print Date: Wed Apr 13 09:11:45 2022 Page 1 of 1

Title :
Run File : C:\BrukerWS\data\2022\041222 25.3\2022-04-12 16-13-32 461156-004 inj 2 - master scaqmd 253 analysis 022822.run
Method File : C:\BrukerWS\methods\Active GC Methods 2021\Master SCAQMD 253 Quant 022822.mth
Sample ID : 461156-004

Injection Date: 2022-04-12 16:13 Calculation Date: 2022-04-13 09:11

Operator : GSG Detector Type: 4XX-GC (1000 Volts)
Workstation: Windows Bus Address : 44
Instrument : Bruker GC/TCA#1 Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result ppmCarbon	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Carbon Dioxi	50900.2	4.722	-0.222	572826048	BB	17.9	
2	Ethane		10.735					M
	Totals:	50900.2		-0.222	572826048			

Status Codes:
M - Missing peak

Total Unidentified Counts : 148669 counts

Detected Peaks: 6 Rejected Peaks: 1 Identified Peaks: 2

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 32 microVolts - monitored before this run

Manual injection

****

Print Date: Wed Apr 13 09:19:05 2022 Page 1 of 1

Title :
Run File : C:\BrukerWS\data\2022\041222 25.3\2022-04-12 16-13-32 461156-004 inj 2 - master scaqmd 253 analysis 022822.rur
Method File : C:\BrukerWS\methods\Active GC Methods 2021\Master SCAQMD 253 Quant 022822.mth
Sample ID : 461156-004

Injection Date: 2022-04-12 16:13 Calculation Date: 2022-04-13 09:19

Operator : GSG Detector Type: 4XX-GC (10 Volts)
Workstation: Windows Bus Address : 44
Instrument : Bruker GC/TCA#1 Sample Rate : 5.00 Hz
Channel : Rear = TCD Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (%V)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Helium		2.315					M
2	Hydrogen		2.447					M
3	Oxygen	5.0	3.035	-0.001	1929608	BB	3.3	
4	Nitrogen	39.9	3.547	-0.195	11761046	BB	8.7	
5	Methane	0.0	5.200	0.331	587	BV	2.4	
6	Carbon Monox		7.052					M
	Totals:	44.9		0.135	13691241			

Status Codes:
M - Missing peak

Total Unidentified Counts : 992 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 6

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 47617 microVolts LSB: 1 microVolts

Noise (used): 200 microVolts - fixed value
Noise (monitored before this run): 647 microVolts

Manual injection

****

General Info

Analysis Name	20220411A.adb
Template Name	041122.tdb
Operator	Administrator
Date	4/11/2022
Time	8:56:31 AM

Template Settings

Element	Integration Time	Samples	Extra Samples	Max. CV	Volume	Max Conc.
Carbon	75	3	2	5	200	20
Nitrogen	100	2	2	2	200	20
Sample Time	300					

Calibration Info

CurveNo	Type	FileName:	Volume	Correlation	R-squared	A0:	A1:	A2:
1	IC	20210913C.adb	200	0.999016	0.99803	0	604,338	0
2	TC	20211018C.adb	200	0.999756	0.99951	0	517,086	0

Sample Info

Identification	Inj. Type	Conc.	Area	CV	Inj. Volume
System Rinse	TOC	0.1169	-	-	
	TC	0.2031	105032	2.4	200
	IC	0.0862	52080	3.4	200
MB 041122	TOC	0.0854	-	-	
	TC	0.1814	93805	14.7	200
	IC	0.0960	58005	3.7	200
RL check 1.0 ug/ml S15875	TOC	0.9732	-	-	
	TC	1.3114	678082	2.3	200
	IC	0.3381	204354	5.9	200
CCV 10ug/ml S15873	TOC	9.0865	-	-	
	TC	9.5129	4919014	0.8	200
	IC	0.4265	257732	5.1	200
Water Blank	TOC	0.1306	-	-	
	TC	0.2506	129604	3.6	200
	IC	0.1200	72522	3.6	200
461156 Trip Blank	TOC	0.0777	-	-	
	TC	0.1791	92619	1.7	200
	IC	0.1014	61299	3.2	200
461156-001 4x	TOC	1.1419	-	-	
	TC	2.7617	1428036	6.4	200
	IC	1.6198	978924	4.0	200
461556-002 4x	TOC	2.0721	-	-	
	TC	3.7315	1929485	3.1	200
	IC	1.6593	1002797	5.7	200
461556-003 4x	TOC	0.4791	-	-	
	TC	1.6374	846689	2.4	200
	IC	1.1583	700010	3.0	200
461556-004 4x	TOC	0.5448	-	-	
	TC	1.5857	819949	2.0	200
	IC	1.0409	629050	2.4	200
H20 Blank	TOC	0.5317	-	-	
	TC	0.8861	458194	5.8	200
	IC	0.3544	214174	11.8	200
RL check 1.0 ug/ml S15875	TOC	1.0874	-	-	
	TC	1.3984	723105	2.8	200
	IC	0.3111	187989	3.6	200
CCV 10ug/ml S15873	TOC	9.2842	-	-	
	TC	9.6797	5005239	1.1	200
	IC	0.3954	238983	3.8	200

QA/QC Data

SCAQMD 25.3/10.1 QAQC Summary

Opening TNMNEOC CV's			
Analyte	Target	Result	% rec
TNMNEOC Low	1.0	0.9	90.0
TNMNEOC High	10.4	10.2	98.3

Opening FG's CV's			
Analyte	Target	Result	% rec
Oxygen	20.9	20.0	95.5
Nitrogen	78.1	75.9	97.2
Carbon Monoxide	5.00	4.9	97.9
Methane	5.02	5.0	99.7
Carbon Dioxide	4.99	4.6	91.6

Opening TOC CV's			
Analyte	Target	Result	% rec
TOC	10.00	9.1	90.9

Closing TNMNEOC CV's			
Analyte	Target	Result	% rec
TNMNEOC Low	1.0	0.9	90.0
TNMNEOC High	10.4	10.3	99.0

Closing FG's CV's			
Analyte	Target	Result	% rec
Oxygen	20.9	20.2	96.4
Nitrogen	78.1	76.1	97.5
Carbon Monoxide	5.00	4.9	97.9
Methane	5.02	5.0	99.7
Carbon Dioxide	4.99	4.6	91.4

Closing TOC CV's			
Analyte	Target	Result	% rec
TOC	10.00	9.3	92.8

Print Date: Tue Apr 12 11:33:11 2022 Page 1 of 1

Title :
Run File : c:\brukerws\data\2022\041222 25.3\2022-04-12 08-26-11 argon blank inj 1 - master scaqmd 253 analysis 022822.r
Method File : c:\brukerws\methods\active gc methods 2021\master scaqmd 253 quant 022822.mth
Sample ID : Argon Blank

Injection Date: 2022-04-12 08:26 Calculation Date: 2022-04-12 11:33

Operator : GSG Detector Type: 4XX-GC (1000 Volts)
Workstation: Windows Bus Address : 44
Instrument : Bruker GC/TCA#1 Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result ppmCarbon	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane		4.959					M
2	Carbon Monox		8.131					M
3	NMNEOC		14.388					M
	Totals:	0.0		0.000	0			

Status Codes:
M - Missing peak

Total Unidentified Counts : 1324 counts

Detected Peaks: 6 Rejected Peaks: 5 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 25 microVolts - monitored before this run

Manual injection

****

Print Date: Wed Apr 13 09:03:33 2022 Page 1 of 1

Title :
Run File : c:\brukerws\data\2022\041222 25.3\2022-04-12 08-26-11 argon blank inj 1 - master scaqmd 253 analysis 022822.run
Method File : c:\brukerws\methods\active gc methods 2021\master scaqmd 253 quant 022822.mth
Sample ID : Argon Blank

Injection Date: 2022-04-12 08:26 Calculation Date: 2022-04-13 09:03

Operator : GSG Detector Type: 4XX-GC (1000 Volts)
Workstation: Windows Bus Address : 44
Instrument : Bruker GC/TCA#1 Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result ppmCarbon	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Carbon Dioxi		4.944					M
2	Ethane		10.735					M
	Totals:	0.0		0.000	0			

Status Codes:
M - Missing peak

Total Unidentified Counts : 156956 counts

Detected Peaks: 6 Rejected Peaks: 1 Identified Peaks: 2

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 25 microVolts - monitored before this run

Manual injection

****

Print Date: Wed Apr 13 09:13:40 2022 Page 1 of 1

Title :
Run File : c:\brukerws\data\2022\041222 25.3\2022-04-12 08-26-11 argon blank inj 1 - master scaqmd 253 analysis 022822.r
Method File : C:\BrukerWS\methods\Active GC Methods 2021\Master SCAQMD 253 Analysis 022822.mth
Sample ID : Argon Blank

Injection Date: 2022-04-12 08:26 Calculation Date: 2022-04-12 08:49

Operator : GSG Detector Type: 4XX-GC (10 Volts)
Workstation: Windows Bus Address : 44
Instrument : Bruker GC/TCA#1 Sample Rate : 5.00 Hz
Channel : Rear = TCD Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (%V)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Helium		2.261					M
2	Hydrogen		2.491					M
3	Oxygen	0.0	3.000	-0.064	2202	BB	4.8	
4	Nitrogen	0.0	3.708	-0.068	1743	BB	5.2	
5	Methane		4.962					M
6	Carbon Monox	0.0	6.912	0.145	1643	BV	4.3	
	Totals:	0.0		0.013	5588			

Status Codes:
M - Missing peak

Total Unidentified Counts : 7182 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 6

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 46903 microVolts LSB: 1 microVolts

Noise (used): 200 microVolts - fixed value
Noise (monitored before this run): 126 microVolts

Manual injection

****

Print Date: Tue Apr 12 11:34:06 2022 Page 1 of 1

Title :
Run File : c:\brukerws\data\2022\041222 25.3\2022-04-12 09-18-05 argon blank inj 2 - master scaqmd 253 analysis 022822.run
Method File : c:\brukerws\methods\active gc methods 2021\master scaqmd 253 quant 022822.mth
Sample ID : Argon Blank DUP

Injection Date: 2022-04-12 09:18 Calculation Date: 2022-04-12 11:33

Operator : GSG
Workstation: Windows
Instrument : Bruker GC/TCA#1
Channel : Middle = FID
Detector Type: 4XX-GC (1000 Volts)
Bus Address : 44
Sample Rate : 5.00 Hz
Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result ppmCarbon	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane		4.959					M
2	Carbon Monox		8.131					M
3	NMNEOC		14.388					M
	Totals:	0.0		0.000	0			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 1 Rejected Peaks: 1 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 252 microVolts - monitored before this run

Manual injection

****

Print Date: Wed Apr 13 09:04:17 2022 Page 1 of 1

Title :
Run File : c:\brukerws\data\2022\041222 25.3\2022-04-12 09-18-05 argon blank inj 2 - master scaqmd 253 analysis 022822.r
Method File : c:\brukerws\methods\active gc methods 2021\master scaqmd 253 quant 022822.mth
Sample ID : Argon Blank DUP

Injection Date: 2022-04-12 09:18 Calculation Date: 2022-04-13 09:04

Operator : GSG
Workstation: Windows
Instrument : Bruker GC/TCA#1
Channel : Front = FID

Detector Type: 4XX-GC (1000 Volts)
Bus Address : 44
Sample Rate : 5.00 Hz
Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result ppmCarbon	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Carbon Dioxi		4.944					M
2	Ethane		10.735					M
	Totals:	0.0		0.000	0			

Status Codes:
M - Missing peak

Total Unidentified Counts : 159902 counts

Detected Peaks: 5 Rejected Peaks: 1 Identified Peaks: 2

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 100 microVolts - monitored before this run

Manual injection

****

Print Date: Wed Apr 13 09:15:11 2022 Page 1 of 1

Title :
Run File : c:\brukerws\data\2022\041222 25.3\2022-04-12 09-18-05 argon blank inj 2 - master scaqmd 253 analysis 022822.run
Method File : c:\brukerws\methods\active gc methods 2021\master scaqmd 253 quant 022822.mth
Sample ID : Argon Blank DUP

Injection Date: 2022-04-12 09:18 Calculation Date: 2022-04-13 09:15

Operator : GSG
Workstation: Windows
Instrument : Bruker GC/TCA#1
Channel : Rear = TCD

Detector Type: 4XX-GC (10 Volts)
Bus Address : 44
Sample Rate : 5.00 Hz
Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (%V)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Helium		2.315					
2	Hydrogen		2.447					M
3	Oxygen	0.0	3.033	-0.003	1082	BB	0.0	M
4	Nitrogen	0.0	3.677	-0.065	1262	BB	2.6	
5	Methane	0.0	5.415	0.546	998	BB	8.2	
6	Carbon Monox		7.052					M
	Totals:	0.0		0.478	3342			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 3 Rejected Peaks: 0 Identified Peaks: 6

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 46909 microVolts LSB: 1 microVolts

Noise (used): 200 microVolts - fixed value
Noise (monitored before this run): 2356 microVolts

Manual injection

****

Title :
Run File : c:\brukerws\data\2022\041222 25.3\2022-04-12 09-44-06 1.0 ppmc s12351 inj 1 - master scaqmd 253 analysis 0228
Method File : c:\brukerws\methods\active gc methods 2021\master scaqmd 253 quant 022822.mth
Sample ID : 1.0 ppmC S12351

Injection Date: 2022-04-12 09:44 Calculation Date: 2022-04-12 11:34

Operator : GSG
Workstation: Windows
Instrument : Bruker GC/TCA#1
Channel : Middle = FID

Detector Type: 4XX-GC (1000 Volts)
Bus Address : 44
Sample Rate : 5.00 Hz
Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result ppmCarbon	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	1.0	4.968	0.009	6328	BB	9.2	
2	Carbon Monox	1.0	7.184	-0.947	6043	BV	16.6	
3	NMNEOC	0.9	14.250	-0.138	23095	BB	19.7	
	Totals:	2.9		-1.076	35466			

Total Unidentified Counts : 0 counts

Detected Peaks: 6 Rejected Peaks: 3 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 33 microVolts - monitored before this run

Manual injection

****

Print Date: Wed Apr 13 09:04:33 2022 Page 1 of 1

Title :
Run File : c:\brukerws\data\2022\041222 25.3\2022-04-12 09-44-06 1.0 ppmc s12351 inj 1 - master scaqmd 253 analysis 022822.
Method File : c:\brukerws\methods\active gc methods 2021\master scaqmd 253 quant 022822.mth
Sample ID : 1.0 ppmC S12351

Injection Date: 2022-04-12 09:44 Calculation Date: 2022-04-13 09:04

Operator : GSG
Workstation: Windows
Instrument : Bruker GC/TCA#1
Channel : Front = FID

Detector Type: 4XX-GC (1000 Volts)
Bus Address : 44
Sample Rate : 5.00 Hz
Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result ppmCarbon	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Carbon Dioxi	0.9	4.918	-0.026	9881	BB	18.6	
2	Ethane	1.0	9.982	-0.753	9650	BB	29.2	
	Totals:	1.9		-0.779	19531			

Total Unidentified Counts : 170325 counts

Detected Peaks: 6 Rejected Peaks: 0 Identified Peaks: 2

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 29 microVolts - monitored before this run

Manual injection

****

Print Date: Tue Apr 12 11:34:43 2022 Page 1 of 1

Title :
Run File : c:\brukerws\data\2022\041222 25.3\2022-04-12 10-10-02 1.0 ppmc s12351 inj 2 - master scaqmd 253 analysis 02282
Method File : c:\brukerws\methods\active gc methods 2021\master scaqmd 253 quant 022822.mth
Sample ID : 1.0 ppmC S12351 DUP

Injection Date: 2022-04-12 10:10 Calculation Date: 2022-04-12 11:34

Operator : GSG
Workstation: Windows
Instrument : Bruker GC/TCA#1
Channel : Middle = FID

Detector Type: 4XX-GC (1000 Volts)
Bus Address : 44
Sample Rate : 5.00 Hz
Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result ppmCarbon	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	1.0	4.968	0.009	6313	BB	9.3	
2	Carbon Monox	1.0	7.187	-0.944	5810	BV	16.9	
3	NMNEOC	0.9 ✓	14.250	-0.138	23371	BB	19.8	
	Totals:	2.9		-1.073	35494			

Total Unidentified Counts : 2075 counts

Detected Peaks: 8 Rejected Peaks: 4 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 17 microVolts - monitored before this run

Manual injection

****

Print Date: Wed Apr 13 09:04:50 2022 Page 1 of 1

Title :
Run File : c:\brukerws\data\2022\041222 25.3\2022-04-12 10-10-02 1.0 ppmc s12351 inj 2 - master scaqmd 253 analysis 022822.
Method File : c:\brukerws\methods\active gc methods 2021\master scaqmd 253 quant 022822.mth
Sample ID : 1.0 ppmC S12351 DUP

Injection Date: 2022-04-12 10:10 Calculation Date: 2022-04-13 09:04

Operator : GSG
Workstation: Windows
Instrument : Bruker GC/TCA#1
Channel : Front = FID

Detector Type: 4XX-GC (1000 Volts)
Bus Address : 44
Sample Rate : 5.00 Hz
Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result ppmCarbon	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Carbon Dioxi	0.8	4.919	-0.025	9339	BB	18.7	
2	Ethane	1.0	9.982	-0.753	9838	BB	29.5	
	Totals:	1.8		-0.778	19177			

Total Unidentified Counts : 146810 counts

Detected Peaks: 5 Rejected Peaks: 0 Identified Peaks: 2

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 42 microVolts - monitored before this run

Manual injection

****

Print Date: Tue Apr 12 11:35:06 2022 Page 1 of 1

Title :
Run File : c:\brukerws\data\2022\041222 25.3\2022-04-12 10-36-07 10 ppmc s12352 inj 1 - master scaqmd 253 analysis 02282
Method File : c:\brukerws\methods\active gc methods 2021\master scaqmd 253 quant 022822.mth
Sample ID : 10 ppmC S12352

Injection Date: 2022-04-12 10:36 Calculation Date: 2022-04-12 11:34

Operator : GSG Detector Type: 4XX-GC (1000 Volts)
Workstation: Windows Bus Address : 44
Instrument : Bruker GC/TCA#1 Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result ppmCarbon	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	13.3	4.971	0.012	83215	BB	9.3	
2	Carbon Monox	11.9	7.149	-0.982	72532	BB	16.3	
3	NMNEOC	10.2	14.246	-0.142	250885	BB	18.9	
	Totals:	35.4		-1.112	406632			

Total Unidentified Counts : 1080 counts

Detected Peaks: 7 Rejected Peaks: 3 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 25 microVolts - monitored before this run

Manual injection

****

Print Date: Wed Apr 13 09:05:08 2022 Page 1 of 1

Title :
Run File : c:\brukerws\data\2022\041222 25.3\2022-04-12 10-36-07 10 ppmc s12352 inj 1 - master scaqmd 253 analysis 022822.r
Method File : c:\brukerws\methods\active gc methods 2021\master scaqmd 253 quant 022822.mth
Sample ID : 10 ppmC S12352

Injection Date: 2022-04-12 10:36 Calculation Date: 2022-04-13 09:05

Operator : GSG
Workstation: Windows
Instrument : Bruker GC/TCA#1
Channel : Front = FID

Detector Type: 4XX-GC (1000 Volts)
Bus Address : 44
Sample Rate : 5.00 Hz
Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result ppmCarbon	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Carbon Dioxi	23.8	4.914	-0.030	268070	BB	18.7	
2	Ethane	10.0	9.975	-0.760	101001	BB	29.6	
	Totals:	33.8		-0.790	369071			

Total Unidentified Counts : 145431 counts

Detected Peaks: 6 Rejected Peaks: 0 Identified Peaks: 2

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 17 microVolts - monitored before this run

Manual injection

****

Print Date: Tue Apr 12 11:35:20 2022 Page 1 of 1

Title :
Run File : c:\brukerws\data\2022\041222 25.3\2022-04-12 11-02-02 10 ppmc s12352 inj 2 - master scaqmd 253 analysis 022822
Method File : c:\brukerws\methods\active gc methods 2021\master scaqmd 253 quant 022822.mth
Sample ID : 10 ppmC S12352 DUP

Injection Date: 2022-04-12 11:02 Calculation Date: 2022-04-12 11:35

Operator : GSG
Workstation: Windows
Instrument : Bruker GC/TCA#1
Channel : Middle = FID

Detector Type: 4XX-GC (1000 Volts)
Bus Address : 44
Sample Rate : 5.00 Hz
Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result ppmCarbon	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	11.3	4.966	0.007	70820	BB	9.3	
2	Carbon Monox	10.0	7.143	-0.988	61314	BB	16.3	
3	NMNEOC	10.3 ✓	14.244	-0.144	251539	BB	18.9	
	Totals:	31.6		-1.125	383673			

Total Unidentified Counts : 1866 counts

Detected Peaks: 6 Rejected Peaks: 2 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 21 microVolts - monitored before this run

Manual injection

****

Print Date: Wed Apr 13 09:05:23 2022 Page 1 of 1

Title :
Run File : c:\brukerws\data\2022\041222 25.3\2022-04-12 11-02-02 10 ppmc s12352 inj 2 - master scaqmd 253 analysis 022822.r
Method File : c:\brukerws\methods\active gc methods 2021\master scaqmd 253 quant 022822.mth
Sample ID : 10 ppmC S12352 DUP

Injection Date: 2022-04-12 11:02 Calculation Date: 2022-04-13 09:05

Operator : GSG
Workstation: Windows
Instrument : Bruker GC/TCA#1
Channel : Front = FID

Detector Type: 4XX-GC (1000 Volts)
Bus Address : 44
Sample Rate : 5.00 Hz
Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result ppmCarbon	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Carbon Dioxi	19.6	4.913	-0.031	220991	BB	18.7	
2	Ethane	10.1	9.978	-0.757	101383	BB	29.5	
	Totals:	29.7		-0.788	322374			

Total Unidentified Counts : 156782 counts

Detected Peaks: 6 Rejected Peaks: 0 Identified Peaks: 2

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 41 microVolts - monitored before this run

Manual injection

****

Title :
Run File : c:\brukerws\data\2022\041222 25.3\2022-04-12 11-28-02 fgs ccv s15506 inj 1 - master scaqmd 253 analysis 02282
Method File : c:\brukerws\methods\active gc methods 2021\master scaqmd 253 quant 022822.mth
Sample ID : FGs CCV S15506

Injection Date: 2022-04-12 11:28 Calculation Date: 2022-04-13 09:05

Operator : GSG
Workstation: Windows
Instrument : Bruker GC/TCA#1
Channel : Front = FID

Detector Type: 4XX-GC (1000 Volts)
Bus Address : 44
Sample Rate : 5.00 Hz
Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result ppmCarbon	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Carbon Dioxi	45748.0	4.735	-0.209	514843232	BB	18.7	
2	Ethane	5.3	9.968	-0.767	53443	BB	27.9	
	Totals:	45753.3		-0.976	514896675			

Total Unidentified Counts : 155941 counts

Detected Peaks: 6 Rejected Peaks: 0 Identified Peaks: 2

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 20 microVolts - monitored before this run

Manual injection

****

Print Date: Wed Apr 13 09:15:25 2022 Page 1 of 1

Title :
Run File : c:\brukerws\data\2022\041222 25.3\2022-04-12 11-28-02 fgs ccv s15506 inj 1 - master scaqmd 253 analysis 022822.r
Method File : c:\brukerws\methods\active gc methods 2021\master scaqmd 253 quant 022822.mth
Sample ID : FGs CCV S15506

Injection Date: 2022-04-12 11:28 Calculation Date: 2022-04-13 09:15

Operator : GSG
Workstation: Windows
Instrument : Bruker GC/TCA#1
Channel : Rear = TCD

Detector Type: 4XX-GC (10 Volts)
Bus Address : 44
Sample Rate : 5.00 Hz
Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (%V)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Helium		2.315					
2	Hydrogen		2.447					M
3	Oxygen	3.5	3.032	-0.004	1322632	BB	3.8	M
4	Nitrogen	5.1	3.669	-0.073	1513844	BB	5.9	
5	Methane	5.0	4.862	-0.007	4533761	BB	9.6	
6	Carbon Monox	4.9	6.919	-0.133	1496121	BB	16.9	
	Totals:	18.5		-0.217	8866358			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 6

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 46999 microVolts LSB: 1 microVolts

Noise (used): 200 microVolts - fixed value
Noise (monitored before this run): 398 microVolts

Manual injection

****

Title :
Run File : c:\brukerws\data\2022\041222 25.3\2022-04-12 11-53-58 fgs ccv s15506 inj 2 - master scaqmd 253 analysis 02282
Method File : c:\brukerws\methods\active gc methods 2021\master scaqmd 253 quant 022822.mth
Sample ID : FGs CCV S15506 DUP

Injection Date: 2022-04-12 11:53 Calculation Date: 2022-04-13 09:05

Operator : GSG
Workstation: Windows
Instrument : Bruker GC/TCA#1
Channel : Front = FID

Detector Type: 4XX-GC (1000 Volts)
Bus Address : 44
Sample Rate : 5.00 Hz
Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result ppmCarbon	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Carbon Dioxi	45779.3	4.734	-0.210	515195872	BB	18.7	
2	Ethane	5.4	9.962	-0.773	53899	BB	28.1	
	Totals:	45784.7		-0.983	515249771			

Total Unidentified Counts : 160498 counts

Detected Peaks: 6 Rejected Peaks: 0 Identified Peaks: 2

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 15 microVolts - monitored before this run

Manual injection

****

Print Date: Wed Apr 13 09:15:38 2022 Page 1 of 1

Title :
Run File : c:\brukerws\data\2022\041222 25.3\2022-04-12 11-53-58 fgs ccv s15506 inj 2 - master scaqmd 253 analysis 022822.r
Method File : c:\brukerws\methods\active gc methods 2021\master scaqmd 253 quant 022822.mth
Sample ID : FGs CCV S15506 DUP

Injection Date: 2022-04-12 11:53 Calculation Date: 2022-04-13 09:15

Operator : GSG Detector Type: 4XX-GC (10 Volts)
Workstation: Windows Bus Address : 44
Instrument : Bruker GC/TCA#1 Sample Rate : 5.00 Hz
Channel : Rear - TCD Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (%V)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Helium		2.315					M
2	Hydrogen		2.447					M
3	Oxygen	3.5	3.030	-0.006	1325793	BB	3.8	
4	Nitrogen	5.1	3.668	-0.074	1498795	BB	5.9	
5	Methane	5.0 ✓	4.861	-0.008	4534654	BB	9.6	
6	Carbon Monox	5.0 ✓	6.919	-0.133	1502714	BB	16.9	
	Totals:	18.6		-0.221	8861956			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 6

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 47353 microVolts LSB: 1 microVolts

Noise (used): 200 microVolts - fixed value
Noise (monitored before this run): 219 microVolts

Manual injection

****

Title :
Run File : c:\brukerws\data\2022\041222 25.3\2022-04-12 12-20-00 lab air inj 1 - master scaqmd 253 analysis 022822.run
Method File : c:\brukerws\methods\active gc methods 2021\master scaqmd 253 quant 022822.mth
Sample ID : Lab Air

Injection Date: 2022-04-12 12:20 Calculation Date: 2022-04-12 15:40

Operator : GSG Detector Type: 4XX-GC (1000 Volts)
Workstation: Windows Bus Address : 44
Instrument : Bruker GC/TCA#1 Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result ppmCarbon	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	3.6	4.971	0.012	22473	BB	9.3	
2	Carbon Monox	2.4	7.178	-0.953	14933	BB	17.3	
3	NMNEOC		14.388					M
	Totals:	6.0		-0.941	37406			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 4 Rejected Peaks: 2 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 47 microVolts - monitored before this run

Manual injection

****

Print Date: Wed Apr 13 09:06:17 2022 Page 1 of 1

Title :
Run File : c:\brukerws\data\2022\041222 25.3\2022-04-12 12-20-00 lab air inj 1 - master scaqmd 253 analysis 022822.run
Method File : c:\brukerws\methods\active gc methods 2021\master scaqmd 253 quant 022822.mth
Sample ID : Lab Air

Injection Date: 2022-04-12 12:20 Calculation Date: 2022-04-13 09:06

Operator : GSG Detector Type: 4XX-GC (1000 Volts)
Workstation: Windows Bus Address : 44
Instrument : Bruker GC/TCA#1 Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result ppmCarbon	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Carbon Dioxi	427.5	4.911	-0.033	4810838	BB	18.7	
2	Ethane		10.735					M
	Totals:	427.5		-0.033	4810838			

Status Codes:
M - Missing peak

Total Unidentified Counts : 169552 counts

Detected Peaks: 6 Rejected Peaks: 1 Identified Peaks: 2

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 20 microVolts - monitored before this run

Manual injection

****

Print Date: Wed Apr 13 09:15:51 2022 Page 1 of 1

Title :
Run File : c:\brukerws\data\2022\041222 25.3\2022-04-12 12-20-00 lab air inj 1 - master scaqmd 253 analysis 022822.run
Method File : c:\brukerws\methods\active gc methods 2021\master scaqmd 253 quant 022822.mth
Sample ID : Lab Air

Injection Date: 2022-04-12 12:20 Calculation Date: 2022-04-13 09:15

Operator : GSG Detector Type: 4XX-GC (10 Volts)
Workstation: Windows Bus Address : 44
Instrument : Bruker GC/TCA#1 Sample Rate : 5.00 Hz
Channel : Rear = TCD Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (%V)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Helium		2.315					M
2	Hydrogen		2.447					M
3	Oxygen	20.0	3.036	0.000	7639789	BB	3.0	
4	Nitrogen	75.9	3.476	-0.266	22376552	BB	11.1	
5	Methane	0.0	5.181	0.312	639	BP	1.2	
6	Carbon Monox		7.052					M
	Totals:	95.9		0.046	30016980			

Status Codes:
M - Missing peak

Total Unidentified Counts : 1421 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 6

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 46561 microVolts LSB: 1 microVolts

Noise (used): 200 microVolts - fixed value
Noise (monitored before this run): 215 microVolts

Manual injection

****

Print Date: Tue Apr 12 15:40:45 2022 Page 1 of 1

Title :
Run File : c:\brukerws\data\2022\041222 25.3\2022-04-12 12-45-55 lab air inj 2 - master scaqmd 253 analysis 022822.run
Method File : c:\brukerws\methods\active gc methods 2021\master scaqmd 253 quant 022822.mth
Sample ID : Lab Air DUP

Injection Date: 2022-04-12 12:45 Calculation Date: 2022-04-12 15:40

Operator : GSG Detector Type: 4XX-GC (1000 Volts)
Workstation: Windows Bus Address : 44
Instrument : Bruker GC/TCA#1 Sample Rate : 5.00 Hz
Channel : Middle - FID Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result ppmCarbon	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	2.2	4.966	0.007	13685	BB	9.4	
2	Carbon Monox	1.0	7.192	-0.939	5917	BB	18.4	
3	NMNEOC		14.388					M
	Totals:	3.2		-0.932	19602			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 5 Rejected Peaks: 3 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 27 microVolts - monitored before this run

Manual injection

****

Print Date: Wed Apr 13 09:06:35 2022 Page 1 of 1

Title :
Run File : c:\brukerws\data\2022\041222 25.3\2022-04-12 12-45-55 lab air inj 2 - master scaqmd 253 analysis 022822.run
Method File : c:\brukerws\methods\active gc methods 2021\master scaqmd 253 quant 022822.mth
Sample ID : Lab Air DUP

Injection Date: 2022-04-12 12:45 Calculation Date: 2022-04-13 09:06

Operator : GSG Detector Type: 4XX-GC (1000 Volts)
Workstation: Windows Bus Address : 44
Instrument : Bruker GC/TCA#1 Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result ppmCarbon	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Carbon Dioxi	418.7	4.912	-0.032	4712342	BB	18.7	
2	Ethane		10.735					M
	Totals:	418.7		-0.032	4712342			

Status Codes:
M - Missing peak

Total Unidentified Counts : 154181 counts

Detected Peaks: 6 Rejected Peaks: 1 Identified Peaks: 2

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 39 microVolts - monitored before this run

Manual injection

****

Print Date: Wed Apr 13 09:16:04 2022 Page 1 of 1

Title :
Run File : c:\brukerws\data\2022\041222 25.3\2022-04-12 12-45-55 lab air inj 2 - master scaqmd 253 analysis 022822.run
Method File : c:\brukerws\methods\active gc methods 2021\master scaqmd 253 quant 022822.mth
Sample ID : Lab Air DUP

Injection Date: 2022-04-12 12:45 Calculation Date: 2022-04-13 09:15

Operator : GSG Detector Type: 4XX-GC (10 Volts)
Workstation: Windows Bus Address : 44
Instrument : Bruker GC/TCA#1 Sample Rate : 5.00 Hz
Channel : Rear = TCD Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (%V)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Helium		2.315					M
2	Hydrogen		2.447					M
3	Oxygen	20.0	3.034	-0.002	7643983	BB	3.0	
4	Nitrogen	76.1	3.473	-0.269	22420318	BB	11.2	
5	Methane		4.869					M
6	Carbon Monox	0.0	6.953	-0.099	3491	PV	4.1	
	Totals:	96.1		-0.370	30067792			

Status Codes:
M - Missing peak

Total Unidentified Counts : 6024 counts

Detected Peaks: 5 Rejected Peaks: 0 Identified Peaks: 6

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 46617 microVolts LSB: 1 microVolts

Noise (used): 200 microVolts - fixed value
Noise (monitored before this run): 466 microVolts

Manual injection

****

Print Date: Wed Apr 13 09:01:05 2022 Page 1 of 1

Title :
Run File : c:\brukerws\data\2022\041222 25.3\2022-04-13 00-26-57 argon blank inj 1 - master scaqmd 253 analysis 022822.r
Method File : c:\brukerws\methods\active gc methods 2021\master scaqmd 253 quant 022822.mth
Sample ID : Argon Blank

Injection Date: 2022-04-13 00:26 Calculation Date: 2022-04-13 09:00

Operator : GSG Detector Type: 4XX-GC (1000 Volts)
Workstation: Windows Bus Address : 44
Instrument : Bruker GC/TCA#1 Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result ppmCarbon	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane		5.010					M
2	Carbon Monox		7.230					M
3	NMNEOC		14.388					M
	Totals:	0.0		0.000	0			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 5 Rejected Peaks: 5 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 30 microVolts - monitored before this run

Manual injection

****

Print Date: Wed Apr 13 09:07:49 2022 Page 1 of 1

Title :
Run File : c:\brukerws\data\2022\041222 25.3\2022-04-12 21-24-56 argon blank inj 1 - master scaqmd 253 analysis 022822.run
Method File : c:\brukerws\methods\active gc methods 2021\master scaqmd 253 quant 022822.mth
Sample ID : Argon Blank

Injection Date: 2022-04-12 21:24 Calculation Date: 2022-04-13 09:07

Operator : GSG Detector Type: 4XX-GC (1000 Volts)
Workstation: Windows Bus Address : 44
Instrument : Bruker GC/TCA#1 Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result ppmCarbon	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Carbon Dioxi	0.7	4.802	-0.142	8025	BB	11.0	
2	Ethane		10.735					M
	Totals:	0.7		-0.142	8025			

Status Codes:
M - Missing peak

Total Unidentified Counts : 169222 counts

Detected Peaks: 7 Rejected Peaks: 1 Identified Peaks: 2

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 31 microVolts - monitored before this run

Manual injection

****

Print Date: Wed Apr 13 09:16:40 2022 Page 1 of 1

Title :
Run File : c:\brukerws\data\2022\041222 25.3\2022-04-12 21-24-56 argon blank inj 1 - master scaqmd 253 analysis 022822.r
Method File : c:\brukerws\methods\active gc methods 2021\master scaqmd 253 quant 022822.mth
Sample ID : Argon Blank

Injection Date: 2022-04-12 21:24 Calculation Date: 2022-04-13 09:16

Operator : GSG Detector Type: 4XX-GC (10 Volts)
Workstation: Windows Bus Address : 44
Instrument : Bruker GC/TCA#1 Sample Rate : 5.00 Hz
Channel : Rear = TCD Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (%V)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Helium		2.315					M
2	Hydrogen		2.447					M
3	Oxygen		3.036					M
4	Nitrogen	0.0	3.696	-0.046	2254	BB	6.4	
5	Methane	0.0	4.852	-0.017	1919	BB	3.7	
6	Carbon Monox		7.052					M
	Totals:	0.0		-0.063	4173			

Status Codes:
M - Missing peak

Total Unidentified Counts : 1694 counts

Detected Peaks: 4 Rejected Peaks: 0 Identified Peaks: 6

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 47762 microVolts LSB: 1 microVolts

Noise (used): 200 microVolts - fixed value
Noise (monitored before this run): 348 microVolts

Manual injection

****

Print Date: Wed Apr 13 09:01:37 2022 Page 1 of 1

Title :
Run File : c:\brukerws\data\2022\041222 25.3\2022-04-13 00-52-58 1.0 ppmc s12351 inj 1 - master scaqmd 253 analysis 022822.
Method File : c:\brukerws\methods\active gc methods 2021\master scaqmd 253 quant 022822.mth
Sample ID : 1.0 ppmC S12351

Injection Date: 2022-04-13 00:52 Calculation Date: 2022-04-13 09:01

Operator : GSG Detector Type: 4XX-GC (1000 Volts)
Workstation: Windows Bus Address : 44
Instrument : Bruker GC/TCA#1 Sample Rate : 5.00 Hz
Channel : Middle - FID Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result ppmCarbon	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	0.9	4.968	-0.042	5491	BB	9.4	
2	Carbon Monox	0.8	7.190	-0.040	5040	BB	16.9	
3	NMNEOC	0.9	14.243	-0.145	22841	BB	19.4	
	Totals:	2.6		-0.227	33372			

Total Unidentified Counts : 0 counts

Detected Peaks: 5 Rejected Peaks: 2 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 28 microVolts - monitored before this run

Manual injection

****

Print Date: Wed Apr 13 09:08:07 2022 Page 1 of 1

Title :
Run File : c:\brukerws\data\2022\041222 25.3\2022-04-13 00-52-58 1.0 ppmc s12351 inj 1 - master scaqmd 253 analysis 0226
Method File : c:\brukerws\methods\active gc methods 2021\master scaqmd 253 quant 022822.mth
Sample ID : 1.0 ppmC S12351

Injection Date: 2022-04-13 00:52 Calculation Date: 2022-04-13 09:08

Operator : GSG Detector Type: 4XX-GC (1000 Volts)
Workstation: Windows Bus Address : 44
Instrument : Bruker GC/TCA#1 Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result ppmCarbon	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Carbon Dioxi	0.8	4.920	-0.024	8782	BB	18.7	
2	Ethane	0.9	9.965	-0.770	9537	BB	29.8	
	Totals:	1.7		-0.794	18319			

Total Unidentified Counts : 175499 counts

Detected Peaks: 6 Rejected Peaks: 0 Identified Peaks: 2

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 33 microVolts - monitored before this run

Manual injection

****

Print Date: Wed Apr 13 09:02:31 2022 Page 1 of 1

Title :
Run File : c:\brukerws\data\2022\041222 25.3\2022-04-13 01-19-02 10 ppmc s12352 inj 1 - master scaqmd 253 analysis 022822.r
Method File : c:\brukerws\methods\active gc methods 2021\master scaqmd 253 quant 022822.mth
Sample ID : 10 ppmC S12352

Injection Date: 2022-04-13 01:19 Calculation Date: 2022-04-13 09:02

Operator : GSG Detector Type: 4XX-GC (1000 Volts)
Workstation: Windows Bus Address : 44
Instrument : Bruker GC/TCA#1 Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result ppmCarbon	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	10.4	4.969	-0.041	65283	BB	9.3	
2	Carbon Monox	9.4	7.148	-0.082	57754	BB	16.3	
3	NMNEOC	10.3	14.239	-0.149	252167	BB	18.8	
	Totals:	30.1		-0.272	375204			

Total Unidentified Counts : 0 counts

Detected Peaks: 6 Rejected Peaks: 3 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 24 microVolts - monitored before this run

Manual injection

****

Title :
Run File : c:\brukerws\data\2022\041222 25.3\2022-04-13 01-19-02 10 ppmc s12352 inj 1 - master scaqmd 253 analysis 02282 x
Method File : c:\brukerws\methods\active gc methods 2021\master scaqmd 253 quant 022822.mth
Sample ID : 10 ppmC S12352

Injection Date: 2022-04-13 01:19 Calculation Date: 2022-04-13 09:08

Operator : GSG Detector Type: 4XX-GC (1000 Volts)
Workstation: Windows Bus Address : 44
Instrument : Bruker GC/TCA#1 Sample Rate : 5.00 Hz
Channel : Front = FID Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result ppmCarbon	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Carbon Dioxi	16.2	4.912	-0.032	182226	BB	18.8	
2	Ethane	10.1	9.975	-0.760	101470	BB	29.5	
	Totals:	26.3		-0.792	283696			

Total Unidentified Counts : 165857 counts

Detected Peaks: 6 Rejected Peaks: 0 Identified Peaks: 2

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 21 microVolts - monitored before this run

Manual injection

****

Print Date: Wed Apr 13 09:08:46 2022 Page 1 of 1

Title :
Run File : c:\brukerws\data\2022\041222 25.3\2022-04-13 01-45-04 fgs ccv s14181 inj 1 - master scaqmd 253 analysis 022822.r
Method File : c:\brukerws\methods\active gc methods 2021\master scaqmd 253 quant 022822.mth
Sample ID : FGs CCV S14181

Injection Date: 2022-04-13 01:45 Calculation Date: 2022-04-13 09:08

Operator : GSG Detector Type: 4XX-GC (1000 Volts)
Workstation: Windows Bus Address : 44
Instrument : Bruker GC/TCA#1 Sample Rate : 5.00 Hz
Channel : Front - FID Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result ppmCarbon	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Carbon Dioxi	45658.4	4.735	-0.209	513835488	BB	18.7	
2	Ethane	5.3	9.952	-0.783	53253	BB	28.1	
	Totals:	45663.7		-0.992	513888741			

Total Unidentified Counts : 167032 counts

Detected Peaks: 6 Rejected Peaks: 0 Identified Peaks: 2

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 36 microVolts - monitored before this run

Manual injection

****

Print Date: Wed Apr 13 09:16:59 2022 Page 1 of 1

Title :
Run File : c:\brukerws\data\2022\041222 25.3\2022-04-13 01-45-04 fgs ccv s14181 inj 1 - master scaqmd 253 analysis 02282
Method File : c:\brukerws\methods\active gc methods 2021\master scaqmd 253 quant 022822.mth
Sample ID : FGs CCV S14181

Injection Date: 2022-04-13 01:45 Calculation Date: 2022-04-13 09:16

Operator : GSG
Workstation: Windows
Instrument : Bruker GC/TCA#1
Channel : Rear = TCD

Detector Type: 4XX-GC (10 Volts)
Bus Address : 44
Sample Rate : 5.00 Hz
Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (%V)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
			2.315					M
1	Helium		2.447					M
2	Hydrogen							
3	Oxygen	3.5	3.030	-0.006	1326309	BB	3.8	
4	Nitrogen	5.1	3.668	-0.074	1510557	BB	5.9	
5	Methane	5.0	4.861	-0.008	4530091	BB	9.6	
6	Carbon Monox	4.9	6.917	-0.135	1494739	BB	16.9	
	Totals:	18.5		-0.223	8861696			

Status Codes:
M - Missing peak

Total Unidentified Counts : 1080 counts

Detected Peaks: 5 Rejected Peaks: 0 Identified Peaks: 6

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 48500 microVolts LSB: 1 microVolts

Noise (used): 200 microVolts - fixed value
Noise (monitored before this run): 399 microVolts

Manual injection

****

Print Date: Wed Apr 13 09:03:07 2022 Page 1 of 1

Title :
Run File : c:\brukerws\data\2022\041222 25.3\2022-04-13 02-11-06 lab air inj 1 - master scaqmd 253 analysis 022822.run
Method File : c:\brukerws\methods\active gc methods 2021\master scaqmd 253 quant 022822.mth
Sample ID : Lab Air

Injection Date: 2022-04-13 02:11 Calculation Date: 2022-04-13 09:02

Operator : GSG Detector Type: 4XX-GC (1000 Volts)
Workstation: Windows Bus Address : 44
Instrument : Bruker GC/TCA#1 Sample Rate : 5.00 Hz
Channel : Middle = FID Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result ppmCarbon	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Methane	2.5	4.968	-0.042	15751	BB	9.4	
2	Carbon Monox	1.2	7.187	-0.043	7207	BB	18.0	
3	NMNEOC	0.1	14.358	-0.030	1833	BB	38.5	
	Totals:	3.8		-0.115	24791			

Total Unidentified Counts : 0 counts

Detected Peaks: 5 Rejected Peaks: 2 Identified Peaks: 3

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 37 microVolts - monitored before this run

Manual injection

****

Title :
Run File : c:\brukerws\data\2022\041222 25.3\2022-04-13 02-11-06 lab air inj 1 - master scaqmd 253 analysis 022822.run
Method File : c:\brukerws\methods\active gc methods 2021\master scaqmd 253 quant 022822.mth
Sample ID : Lab Air

Injection Date: 2022-04-13 02:11 Calculation Date: 2022-04-13 09:08

Operator : GSG
Workstation: Windows
Instrument : Bruker GC/TCA#1
Channel : Front = FID

Detector Type: 4XX-GC (1000 Volts)
Bus Address : 44
Sample Rate : 5.00 Hz
Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result ppmCarbon	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Carbon Dioxi	420.8	4.910	-0.034	4735507	BB	18.7	
2	Ethane		10.735					M
	Totals:	420.8		-0.034	4735507			

Status Codes:
M - Missing peak

Total Unidentified Counts : 161603 counts

Detected Peaks: 8 Rejected Peaks: 3 Identified Peaks: 2

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 0 microVolts LSB: 1 microVolts

Noise (used): 13 microVolts - monitored before this run

Manual injection

****

Print Date: Wed Apr 13 09:17:13 2022 Page 1 of 1

Title :
Run File : c:\brukerws\data\2022\041222 25.3\2022-04-13 02-11-06 lab air inj 1 - master scaqmd 253 analysis 022822.run
Method File : c:\brukerws\methods\active gc methods 2021\master scaqmd 253 quant 022822.mth
Sample ID : Lab Air

Injection Date: 2022-04-13 02:11 Calculation Date: 2022-04-13 09:17

Operator : GSG
Workstation: Windows
Instrument : Bruker GC/TCA#1
Channel : Rear = TCD

Detector Type: 4XX-GC (10 Volts)
Bus Address : 44
Sample Rate : 5.00 Hz
Run Time : 23.000 min

** MSWS 8.0.1 for SCION Version 8.0.1 ** 01187-6211-BB0-455D **

Run Mode : Analysis - Subtract Blank Baseline
Peak Measurement: Peak Area
Calculation Type: External Standard

Peak No.	Peak Name	Result (%V)	Ret. Time (min)	Time Offset (min)	Area (counts)	Sep. Code	Width 1/2 (sec)	Status Codes
1	Helium		2.315					M
2	Hydrogen		2.447					M
3	Oxygen	20.2	3.036	-0.000	7716766	BB	3.0	
4	Nitrogen	76.1	3.475	-0.267	22413580	BB	11.2	
5	Methane	0.0	5.402	0.533	548	BB	0.0	
6	Carbon Monox		7.052					M
	Totals:	96.3		0.266	30130894			

Status Codes:
M - Missing peak

Total Unidentified Counts : 0 counts

Detected Peaks: 3 Rejected Peaks: 0 Identified Peaks: 6

Multiplier: 1 Divisor: 1 Unidentified Peak Factor: 0

Baseline Offset: 48397 microVolts LSB: 1 microVolts

Noise (used): 200 microVolts - fixed value
Noise (monitored before this run): 183 microVolts

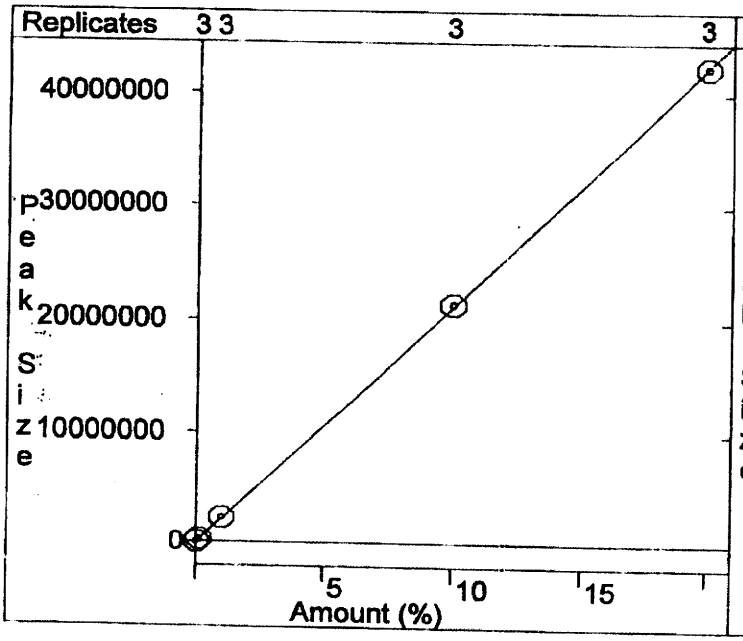
Manual injection

****

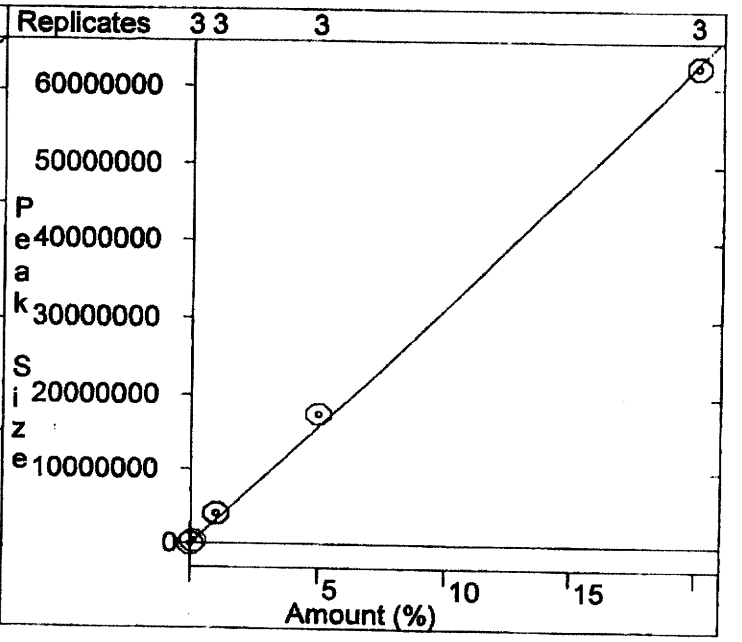
ICAL Data

Print Date: 01 Mar 2022 14:31:07
Calibration Curves Report - Page 1
File: c:\... \active gc methods 2021\master scaqmd 253 quant 022822.mth
Detector: 45X-GC, Address: 44, Channel ID: Rear

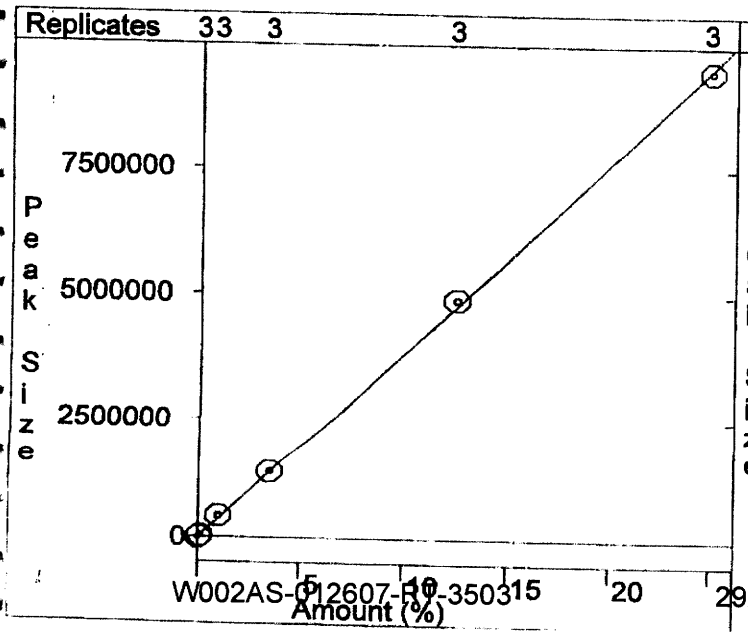
Helium
External Standard Analysis - Locked
Resp. Fact. RSD: 3.679%
Curve Type: Linear
Origin: Force
Coeff. Det.(r^2): 0.999959
y = +2.1236e+006x



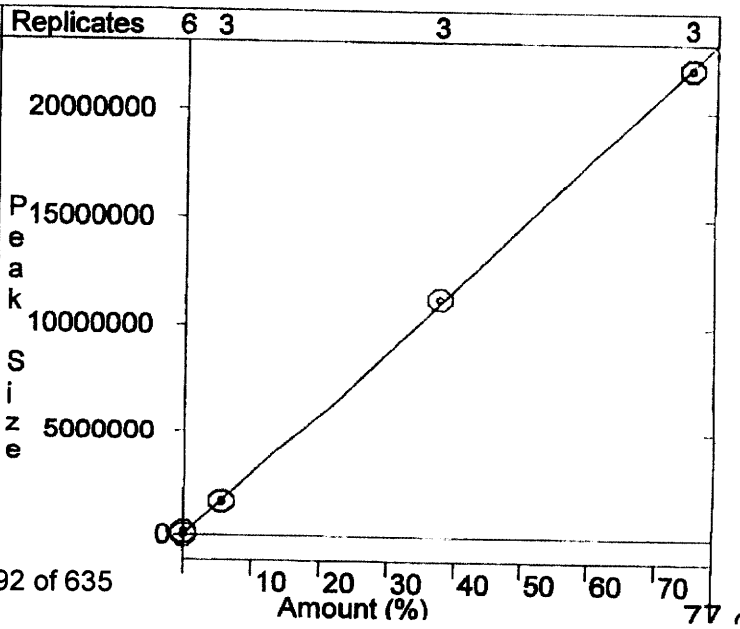
Hydrogen
External Standard Analysis - Locked
Resp. Fact. RSD: 10.40%
Curve Type: Linear
Origin: Force
Coeff. Det.(r^2): 0.999135
y = +3.1558e+006x



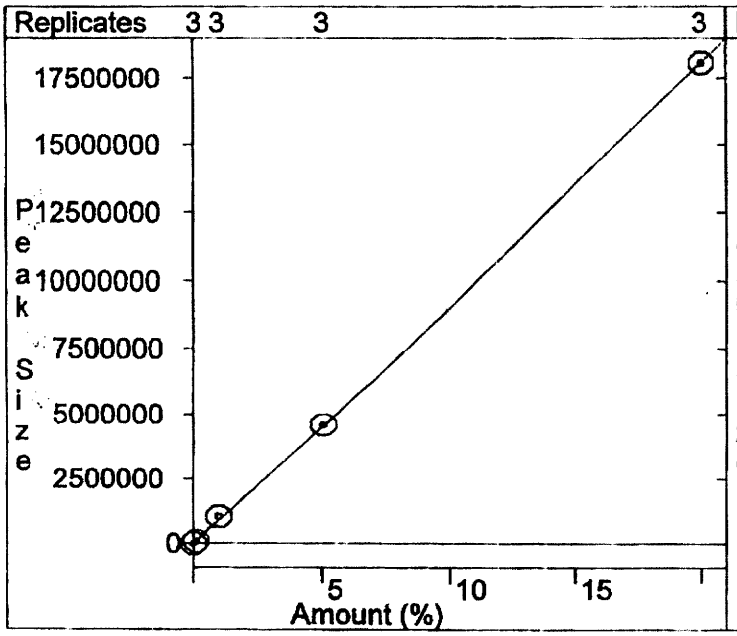
Oxygen
External Standard Analysis - Locked
Resp. Fact. RSD: 6.461%
Curve Type: Linear
Origin: Force
Coeff. Det.(r^2): 0.999707
y = +3.8228e+005x



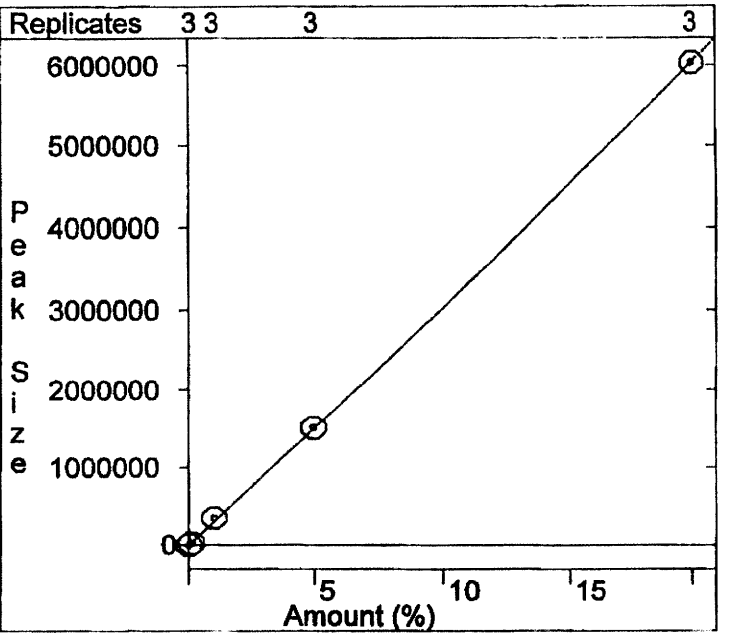
Nitrogen
External Standard Analysis - Locked
Resp. Fact. RSD: 215.45%
Curve Type: Linear
Origin: Force
Coeff. Det.(r^2): 0.999812
y = +2.9470e+005x



Methane
External Standard Analysis - Locked
Resp. Fact. RSD: 6.517%
Curve Type: Linear
Origin: Force
Coeff. Det.(r^2): 0.999947
y = +9.0485e+005x

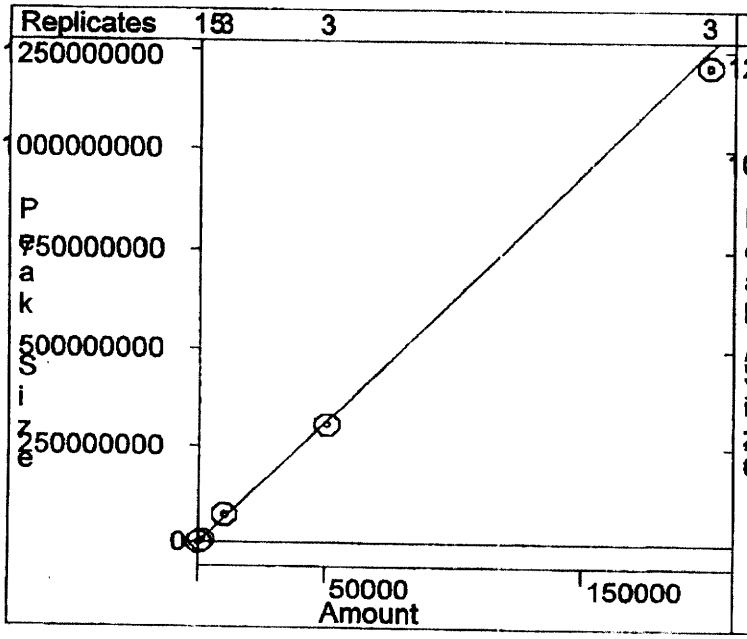


Carbon Monoxide
External Standard Analysis - Locked
Resp. Fact. RSD: 8.593%
Curve Type: Linear
Origin: Force
Coeff. Det.(r^2): 0.999938
y = +3.0283e+005x

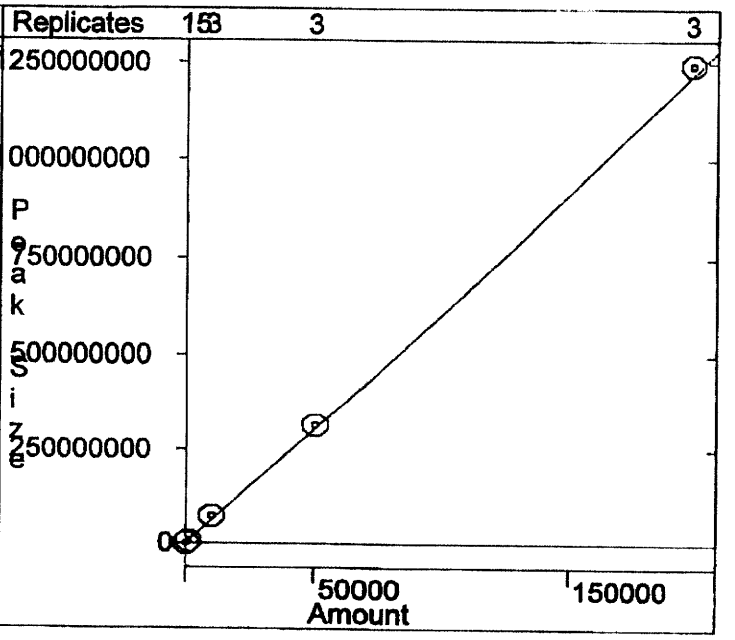


Print Date: 02 Mar 2022 09:46:26
Calibration Curves Report
File: c:\... \active gc methods 2021\master scaqmd 253 quant 022822.mth
Detector: 45X-GC, Address: 44, Channel ID: Middle

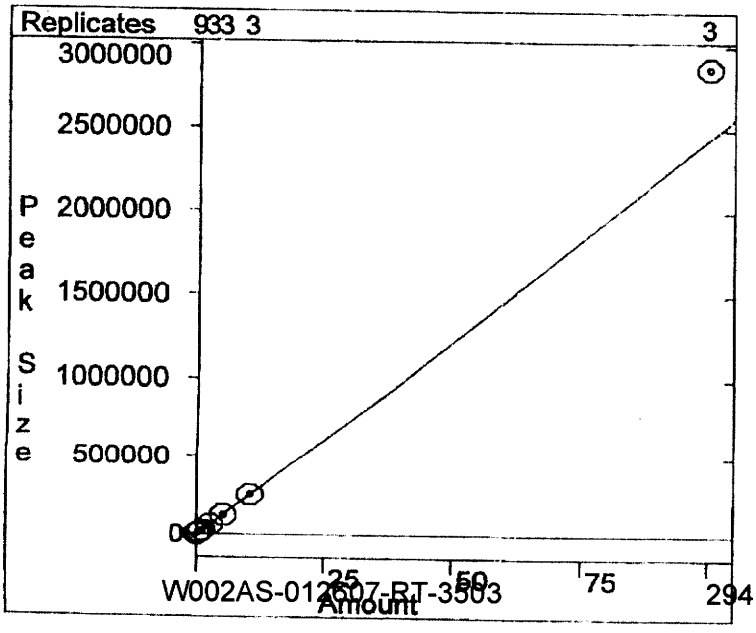
Methane
External Standard Analysis - Locked
Resp. Fact. RSD: 6.005%
Curve Type: Linear
Origin: Force (Edited)
Coeff. Det.(r^2): 0.999920
y = +6.2789e+003x



Carbon Monoxide
External Standard Analysis - Locked
Resp. Fact. RSD: 10.09%
Curve Type: Linear
Origin: Force (Edited)
Coeff. Det.(r^2): 0.999930
y = +6.1125e+003x

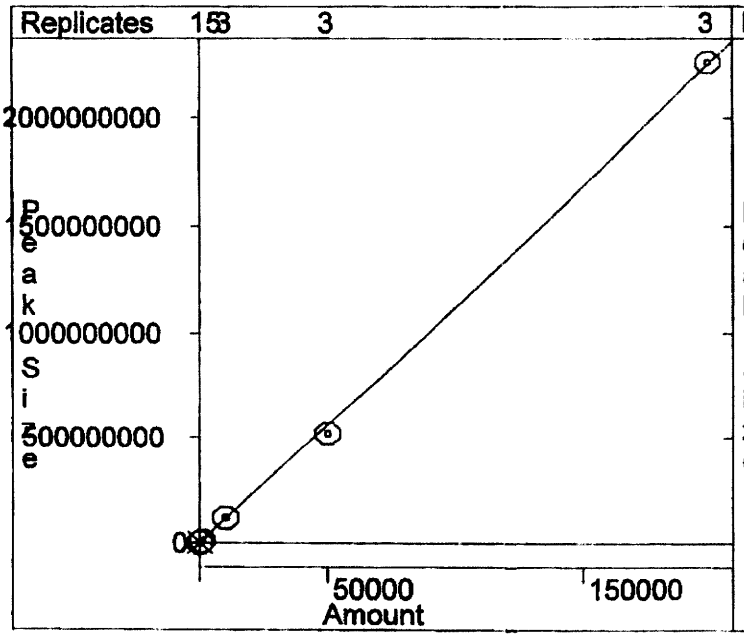


NMNEOC
External Standard Analysis - Locked
Resp. Fact. RSD: 10.54%
Curve Type: Linear
Origin: Include
Coeff. Det.(r^2): 0.999775
y = +2.4445e+004x +4.7604e+002

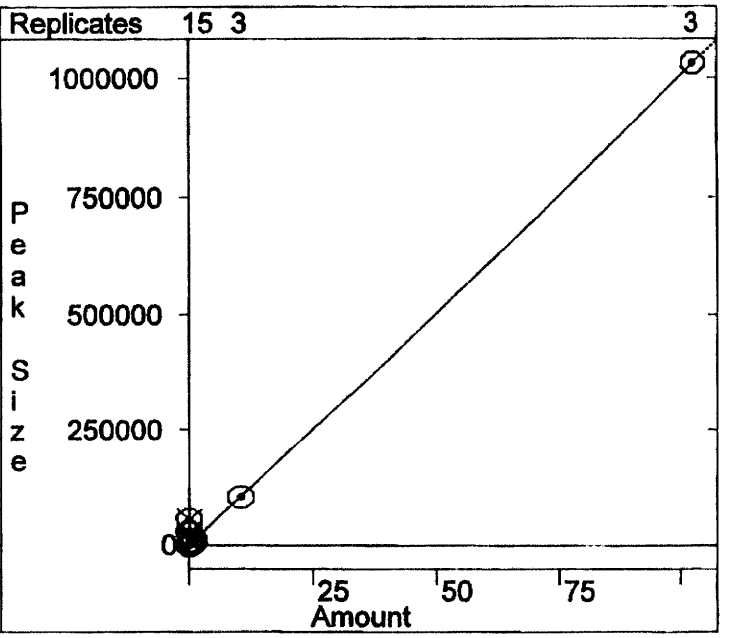


Print Date: 02 Mar 2022 09:46:26
Calibration Curves Report
File: c:\... \active gc methods 2021\master scaqmd 253 quant 022822.mth
Detector: 45X-GC, Address: 44, Channel ID: Front

Carbon Dioxide
External Standard Analysis - Locked
Resp. Fact. RSD: 18.09%
Curve Type: Linear
Origin: Force
Coeff. Det.(r^2): 0.999584
y = +1.1254e+004x



Ethane
External Standard Analysis - Locked
Resp. Fact. RSD: 14.59%
Curve Type: Linear
Origin: Force
Coeff. Det.(r^2): 0.999994
y = +1.0068e+004x



10/19/21 08:26:41
Formacs HT Software Version 3.09.3 Release
Copyright © 2012 by Skalar Analytical BV

General Info

Analysis Name	20211018C.adb
Type	TC

Calibration Info

R^2:	0.99921	**Correlation**	0.99960
A2:	0	**Volume**	200
A1:	436,753	**Curve Order**	1st Order Through Zero
A0:	0		

Single Info:

Conc. Templ.	Area	Selected
0.00	96,823	Yes
0.00	89,024	Yes
0.00	167,253	No
0.00	99,318	Yes
0.00	147,075	No
0.25	307,045	Yes
0.25	276,733	No
0.25	292,461	Yes
0.25	314,533	Yes
0.50	409,912	Yes
0.50	396,223	No
0.50	624,583	No
0.50	471,247	Yes
0.50	472,851	Yes
1.00	556,142	Yes
1.00	540,967	Yes
1.00	529,042	Yes
5.00	2,422,398	Yes
5.00	2,407,149	Yes
5.00	2,408,231	Yes
10.00	4,750,340	Yes
10.00	4,668,779	Yes
10.00	4,666,354	Yes
20.00	8,813,657	Yes
20.00	8,799,521	Yes
20.00	8,903,520	Yes

09/21/21 04:39:00
Formacs HT Software Version 3.09.3 Release
Copyright © 2012 by Skalar Analytical BV

General Info

Analysis Name 20210913C.adb
Type IC

Calibration Info

R^2:	0.99803	**Correlation**	0.99902
A2:	0	**Volume**	200
A1:	604,338	**Curve Order**	1st Order Through Zero
A0:	0		

Single Info:

Conc. Templ.	Area	Selected
0.00	80,544	Yes
0.00	66,110	Yes
0.00	75,453	Yes
0.00	45,176	No
0.00	55,464	No
0.25	461,400	Yes
0.25	439,979	Yes
0.25	430,486	Yes
0.50	534,995	Yes
0.50	583,995	No
0.50	506,279	Yes
0.50	511,176	Yes
1.00	896,828	Yes
1.00	1,195,125	No
1.00	992,084	Yes
1.00	885,157	Yes
1.00	784,778	No
5.00	3,419,574	Yes
5.00	3,354,035	Yes
5.00	3,299,889	Yes
10.00	6,454,414	Yes
10.00	6,516,825	Yes
10.00	6,668,626	Yes
20.00	12,673,470	Yes
20.00	12,015,961	Yes
20.00	11,963,576	Yes

Appendix A.3.5
Fuel Analysis Data

Desert View Power
62-300 Gene Welmas Drive
Mecca, CA 92254

Project: 111900

A. J. Edmond Company
1530 W. 16th St.
Long Beach, CA 90813
Ph 562.437.1802
Fax 562.590.0482

Laboratories
Inspectors
Consultants
Surveyors
Samplers

W002AS-012607-RT-3503

299 of 635

A. J. Edmond Company

Chemists / Engineers
1530 W. 16th Street, Long Beach, CA 90813
Phone: (562) 437-1802 Fax: (562) 590-0482
Report Date: 05/04/2022
Project #GHG; Desert View Power

SourceDate	SampleID	SampleDesc	SourceDesc	Air Dry Moisture	Residual Moisture	Moisture	Ash As Received	Ash Dry Basis	Ash Air Dry Basis	Carbon As Received	Carbon Dry Basis	Carbon Air Dry Basis	Hydrogen As Received	Hydrogen Dry Basis	Hydrogen Air Dry Basis	Nitrogen As Received
04/05/2022	1580751	U2 RUN 1 06:00-08:10 4/5/2022	Desert View Power	23.73	1.54	24.9	5	6.65	6.55	38.52	51.29	50.5	4.1	5.46	5.55	0.41
04/05/2022	1580752	U2 RUN 2 08:45-10:55 4/5/2022	Desert View Power	23.04	1.8	24.43	3.41	4.51	4.43	40.07	53.02	52.07	4.24	5.61	5.71	0.39
04/05/2022	1580753	U2 RUN 3 11:15-13:15 4/5/2022	Desert View Power	26.34	2.73	28.35	4.63	6.46	6.28	37.18	51.89	50.47	3.94	5.49	5.65	0.44
04/05/2022	1580754	U2 RUN 4 12:25-14:15 4/5/2022	Desert View Power	23.19	1.8	24.57	3.96	5.24	5.15	39.65	52.57	51.62	4.25	5.63	5.73	0.43
04/06/2022	1580748	U1 RUN 1 07:55-10:05 4/6/2022	Desert View Power	25.06	1.47	26.16	4.08	5.52	5.44	38.6	52.28	51.51	4.08	5.53	5.61	0.47
04/06/2022	1580749	U1 RUN 2 10:50-13:00 4/6/2022	Desert View Power	25.86	1.89	27.26	3.64	5	4.91	38.57	53.02	52.02	3.99	5.48	5.59	0.43
04/06/2022	1580750	U1 RUN 3 13:20-15:20 4/6/2022	Desert View Power	25.69	1.32	26.67	4.34	5.92	5.84	38.83	52.95	52.25	4.07	5.55	5.62	0.26
04/07/2022	1580745	U1 RUN 1 03:40-05:40 4/7/2022	Desert View Power	23.65	1.07	24.47	4.82	6.38	6.31	38.95	51.57	51.02	4.17	5.52	5.58	0.44
04/07/2022	1580746	U1 RUN 2 08:30-10:30 4/7/2022	Desert View Power	24.05	1.91	25.5	6.3	8.45	8.29	37.86	50.82	49.85	3.96	5.32	5.43	0.64
04/07/2022	1580747	U1 RUN 3 11:05-13:05 4/7/2022	Desert View Power	24.34	1.62	25.57	4.96	6.66	6.55	38.36	51.55	50.71	4.08	5.49	5.58	0.49

Jeffrey G. Rolle

For the Date(s) 4/5/2022 to 4/7/2022
Report Date: 5/11/2022

President
A. J. Edmond Company

Desert View Power
62-300 Gene Welmas Drive
Mecca, CA 92254

Project: 111900

A. J. Edmond Company
1530 W. 16th St.
Long Beach, CA 90813
Ph 562.437.1802
Fax 562.590.0482

Laboratories
Inspectors
Consultants
Surveyors
Samplers

W002AS-012607-RT-3503

300 of 635

A. J. Edmond Company

Chemists / Engineers
1530 W. 16th Street, Long Beach, CA 90813
Phone: (562) 437-1802 Fax: (562) 590-0482
Report Date: 05/04/2022
Project #GHG; Desert View Power

SourceDate	SampleID	SampleDesc	SourceDesc	Nitrogen Dry Basis	Nitrogen Air Dry Basis	Oxygen As Received	Oxygen Dry Basis	Oxygen Air Dry Basis	Sulfur As Received	Sulfur Dry Basis	Sulfur Air Dry Basis	Calorific Value As Received	Calorific Value Dry Basis	Calorific Value Air Dry Basis	Calorific Value, Net Wet	Calorific Value, Net Dry
04/05/2022	1580751	U2 RUN 1 06:00-08:10 4/5/2022	Desert View Power	0.55	0.54	26.96	35.91	36.72	0.11	0.14	0.14	5962	7938	7816	5304	7411
04/05/2022	1580752	U2 RUN 2 08:45-10:55 4/5/2022	Desert View Power	0.52	0.51	27.43	36.29	37.24	0.03	0.04	0.04	6218	8228	8080	5551	7685
04/05/2022	1580753	U2 RUN 3 11:15-13:15 4/5/2022	Desert View Power	0.62	0.6	25.27	35.27	36.73	0.2	0.28	0.27	5743	8015	7796	5056	7472
04/05/2022	1580754	U2 RUN 4 12:25-14:15 4/5/2022	Desert View Power	0.57	0.56	27.08	35.9	36.85	0.07	0.09	0.09	6190	8206	8058	5520	7661
04/06/2022	1580748	U1 RUN 1 07:55-10:05 4/6/2022	Desert View Power	0.64	0.63	26.53	35.93	36.71	0.07	0.1	0.1	5998	8122	8003	5330	7590
04/06/2022	1580749	U1 RUN 2 10:50-13:00 4/6/2022	Desert View Power	0.59	0.58	26.06	35.83	36.83	0.05	0.07	0.07	5950	8180	8025	5276	7647
04/06/2022	1580750	U1 RUN 3 13:20-15:20 4/6/2022	Desert View Power	0.35	0.35	25.76	35.13	35.84	0.07	0.1	0.1	6087	8301	8191	5417	7769
04/07/2022	1580745	U1 RUN 1 03:40-05:40 4/7/2022	Desert View Power	0.59	0.58	27.08	35.85	36.42	0.07	0.09	0.09	6081	8051	7965	5426	7524
04/07/2022	1580746	U1 RUN 2 08:30-10:30 4/7/2022	Desert View Power	0.86	0.84	25.64	34.42	35.46	0.1	0.13	0.13	5864	7871	7721	5211	7354
04/07/2022	1580747	U1 RUN 3 11:05-13:05 4/7/2022	Desert View Power	0.66	0.65	26.42	35.5	36.36	0.11	0.15	0.15	5967	8017	7887	5304	7487

Jeffrey G. Rolle

President
A. J. Edmond Company

W002AS-012607-RT-3503

A. J. Edmond Company

Chemists / Engineers
1530 W. 16th Street, Long Beach, CA 90813
Phone: (562) 437-1802 Fax: (562) 590-0482
Report Date: 05/04/2022
Project #GHG; Desert View Power

SourceDate	SampleID	SampleDesc	SourceDesc	MMF Btu/lb As Rec'd	MMF Btu/lb Dry	MAF Btu/lb Dry	(sulfate, pyritic, and organic)	(sulfate, pyritic, and organic)	lbs Ash/MM Btu	lbs SO2/MM Btu	lbs Cl/MM Btu	CO2	Total
04/05/2022	1580751	U2 RUN 1 06:00-08:10 4/5/2022	Desert View Power	6423	8552	8504	0.11	0.14	8.38	0.36	0.31	50.5	
04/05/2022	1580752	U2 RUN 2 08:45-10:55 4/5/2022	Desert View Power	6536	8649	8617	0.03	0.04	5.48	0.1	0.24	52.07	
04/05/2022	1580753	U2 RUN 3 11:15-13:15 4/5/2022	Desert View Power	6172	8615	8568	0.2	0.28	8.06	0.69	0.3	50.47	
04/05/2022	1580754	U2 RUN 4 12:25-14:15 4/5/2022	Desert View Power	6561	8698	8660	0.07	0.09	6.39	0.22	0.24	51.62	
04/06/2022	1580748	U1 RUN 1 07:55-10:05 4/6/2022	Desert View Power	6378	8637	8597	0.07	0.1	6.8	0.25	0.38	51.51	
04/06/2022	1580749	U1 RUN 2 10:50-13:00 4/6/2022	Desert View Power	6290	8647	8611	0.05	0.07	6.12	0.17	0.24	52.02	
04/06/2022	1580750	U1 RUN 3 13:20-15:20 4/6/2022	Desert View Power	6502	8867	8823	0.07	0.1	7.13	0.24	0.12	52.25	
04/07/2022	1580745	U1 RUN 1 03:40-05:40 4/7/2022	Desert View Power	6531	8647	8600	0.07	0.09	7.92	0.23	0.33	51.02	
04/07/2022	1580746	U1 RUN 2 08:30-10:30 4/7/2022	Desert View Power	6453	8662	8598	0.1	0.13	10.74	0.34	0.28	49.85	
04/07/2022	1580747	U1 RUN 3 11:05-13:05 4/7/2022	Desert View Power	6429	8638	8589	0.11	0.15	8.3	0.38	0.19	50.71	

Jeffrey G. Rolle

President
A. J. Edmond Company

Desert View Power
62-300 Gene Welmas Drive
Mecca, CA 92254

Project: 111900

A. J. Edmond Company
1530 W. 16th St.
Long Beach, CA 90813
Ph 562.437.1802
Fax 562.590.0482

Laboratories
Inspectors
Consultants
Surveyors
Samplers

A. J. Edmond Company

Chemists / Engineers
1530 W. 16th Street, Long Beach, CA 90813
Phone: (562) 437-1802 Fax: (562) 590-0482
Report Date: 05/04/2022
Project #PP; Desert View Power

SourceDate	SampleID	SampleDesc	SourceDesc	Air Dry Moisture	Residual Moisture	Moisture	Ash Air Dry Basis	Ash As Received	Ash Dry Basis	Calorific Value, Air Dry Basis	Calorific Value As Received	Calorific Value Dry Basis	Chlorine, Air Dry Basis	Chlorine As Received	Chlorine Dry Basis	Sulfur Air Dry Basis	Sulfur As Received	Sulfur Dry Basis
04/05/2022	1580751	U2 RUN 1 06:00-08:10 4/5/2022	Desert View Power	23.73	1.54	24.9	6.55	5	6.65	7816	5962	7938	2476	1889	2515	0.14	0.11	0.14
04/05/2022	1580752	U2 RUN 2 08:45-10:55 4/5/2022	Desert View Power	23.04	1.8	24.43	4.43	3.41	4.51	8080	6218	8228	1994	1534	2031	0.04	0.03	0.04
04/05/2022	1580753	U2 RUN 3 11:15-13:15 4/5/2022	Desert View Power	26.34	2.73	28.35	6.28	4.63	6.46	7796	5743	8015	2462	1814	2531	0.27	0.2	0.28
04/05/2022	1580754	U2 RUN 4 12:25-14:15 4/5/2022	Desert View Power	23.19	1.8	24.57	5.15	3.96	5.24	8058	6190	8206	2034	1562	2071	0.09	0.07	0.09
04/06/2022	1580748	U1 RUN 1 07:55-10:05 4/6/2022	Desert View Power	25.06	1.47	26.16	5.44	4.08	5.52	8003	5998	8122	3131	2346	3178	0.1	0.07	0.1
04/06/2022	1580749	U1 RUN 2 10:50-13:00 4/6/2022	Desert View Power	25.86	1.89	27.26	4.91	3.64	5	8025	5950	8180	1973	1463	2011	0.07	0.05	0.07
04/06/2022	1580750	U1 RUN 3 13:20-15:20 4/6/2022	Desert View Power	25.69	1.32	26.67	5.84	4.34	5.92	8191	6087	8301	1009	750	1022	0.1	0.07	0.1
04/07/2022	1580745	U1 RUN 1 03:40-05:40 4/7/2022	Desert View Power	23.65	1.07	24.47	6.31	4.82	6.38	7965	6081	8051	2673	2041	2702	0.09	0.07	0.09
04/07/2022	1580746	U1 RUN 2 08:30-10:30 4/7/2022	Desert View Power	24.05	1.91	25.5	8.29	6.3	8.45	7721	5864	7871	2245	1705	2289	0.13	0.1	0.13
04/07/2022	1580747	U1 RUN 3 11:05-13:05 4/7/2022	Desert View Power	24.34	1.62	25.57	6.55	4.96	6.66	7887	5967	8017	1545	1169	1570	0.15	0.11	0.15

Jeffrey G. Rolle

President
A. J. Edmond Company

For the Date(s) 4/5/2022 to 4/7/2022
Report Date: 5/11/2022

Desert View Power
62-300 Gene Welmas Drive
Mecca, CA 92254

Project: 111900

A. J. Edmond Company
1530 W. 16th St.
Long Beach, CA 90813
Ph 562.437.1802
Fax 562.590.0482

Laboratories
Inspectors
Consultants
Surveyors
Samplers

W002AS-012607-RT-3503

303 of 635

A. J. Edmond Company

Chemists / Engineers
1530 W. 16th Street, Long Beach, CA 90813
Phone: (562) 437-1802 Fax: (562) 590-0482
Report Date: 05/04/2022
Project #CAM 17; Desert View Power

SourceDate	SampleID	SampleDesc	SourceDesc	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
04/05/2022	1580751	U2 RUN 1 06:00-08:10 4/5/2022	Desert View Power	ND	24	461	ND	ND	90	8	146	53	ND	16	24	ND	ND	ND	44	676
04/05/2022	1580752	U2 RUN 2 08:45-10:55 4/5/2022	Desert View Power	ND	87	423	ND	ND	123	8	773	61	ND	28	26	ND	ND	ND	49	556
04/05/2022	1580753	U2 RUN 3 11:15-13:15 4/5/2022	Desert View Power	ND	59	331	ND	ND	144	6	151	44	ND	19	21	ND	ND	ND	39	476
04/05/2022	1580754	U2 RUN 4 12:25-14:15 4/5/2022	Desert View Power	ND	30	413	ND	ND	120	9	127	58	ND	20	26	ND	ND	ND	56	469
04/06/2022	1580748	U1 RUN 1 07:55-10:05 4/6/2022	Desert View Power	ND	10	569	ND	ND	139	7	131	60	ND	21	26	ND	ND	ND	52	589
04/06/2022	1580749	U1 RUN 2 10:50-13:00 4/6/2022	Desert View Power	ND	50	408	ND	ND	132	7	110	54	ND	19	23	ND	ND	ND	47	484
04/06/2022	1580750	U1 RUN 3 13:20-15:20 4/6/2022	Desert View Power	ND	18	324	ND	ND	147	36	91	45	ND	19	19	ND	ND	ND	39	539
04/07/2022	1580745	U1 RUN 1 03:40-05:40 4/7/2022	Desert View Power	ND	50	452	ND	ND	119	8	163	64	ND	20	21	ND	ND	ND	47	404
04/07/2022	1580746	U1 RUN 2 08:30-10:30 4/7/2022	Desert View Power	ND	23	427	ND	ND	150	8	150	58	ND	20	22	ND	ND	ND	44	463
04/07/2022	1580747	U1 RUN 3 11:05-13:05 4/7/2022	Desert View Power	ND	10	451	ND	ND	126	7	111	49	ND	10	21	ND	ND	ND	42	469

Jeffrey G. Rolle

President
A. J. Edmond Company

For the Date(s) 4/5/2022 to 4/7/2022
Report Date: 5/11/2022

A. J. EDMOND COMPANY

CHEMISTS / ENGINEERS
1530 West 16th Street
Long Beach, California 90813
Phone: (562) 437-1802 Fax: (562) 590-0482
website: http://www.ajedmondco.com

ANALYTICAL LABORATORIES
CARGO SURVEYS
BARGE SURVEYS
COMMODITY SURVEYS
INSPECTORS
CONSULTANTS
MANUFACTURING
SAMPLING SYSTEMS

May 04, 2022

Desert View Power
62-300 Gene Welmas Drive
P.O. Box 758

Project Number: 111900
Source: Desert View Power
Commodity: Biomass - Solid
Sample ID: 1580745
Sample Description: U1 RUN 1 03:40-05:40 4/7/2022

LABORATORY ANALYSES

Test Description	As Received Basis	As Determined	Dry Basis	Test Method
Moisture, %	24.47			(ASTM D4931/E871)
Residual Moisture, %		1.07		(ASTM D3302/D7582)
Volatile Matter, %	-	-	-	(ASTM D6374/E872)
Ash, %	4.82	6.31	6.38	(ASTM D1102)
Fixed Carbon, %	-	-	-	(ASTM D3172)
Sulfur, %	0.07	0.09	0.09	(ASTM D4239-A)
Calorific Value, Gross, BTU/Lb	6,081	7,965	8,051	(ASTM D5865)
Carbon, %	38.95	51.02	51.57	(ASTM D5373)
Hydrogen, %	6.91	5.58	5.52	(ASTM D5373)
Nitrogen, %	0.44	0.58	0.59	(ASTM D5373)
Oxygen (by difference), %	48.81	36.42	35.85	(by difference)
Chlorine, ppm	2,041	2,673	2,702	(ASTM D4208)
Calcium, ppm	-	-	-	(EPA/AJE 54)
Sodium, ppm	-	-	-	(EPA/AJE 54)
Potassium, ppm	-	-	-	(EPA/AJE 54)
Phosphorus, ppm	-	-	-	(EPA/AJE 54)

Ash Composition - Metal Oxides / TTLC Metals / CAM 17				
Test Description	As Received Basis	As Determined	Dry Basis	Test Method
Antimony, ppm			ND	(EPA/AJE 54)
Arsenic, ppm			50	(EPA/AJE 54)
Barium, ppm			452	(EPA/AJE 54)
Beryllium, ppm			ND	(EPA/AJE 54)
Cadmium, ppm			ND	(EPA/AJE 54)
Chromium, ppm			119	(EPA/AJE 54)
Cobalt, ppm			80	(EPA/AJE 54)
Copper, ppm			163	(EPA/AJE 54)
Lead, ppm			64	(EPA/AJE 54)
Mercury, ppm			ND	(EPA/AJE 54)
Molybdenum, ppm			20	(EPA/AJE 54)
Nickel, ppm			21	(EPA/AJE 54)
Selenium, ppm			ND	(EPA/AJE 54)
Silver, ppm			ND	(EPA/AJE 54)
Thallium, ppm			ND	(EPA/AJE 54)
Vanadium, ppm			47	(EPA/AJE 54)
Zinc, ppm			404	(EPA/AJE 54)

Sample was submitted by the customer to A. J. Edmond Company for laboratory analysis.

JBO

Form 5.10f2-1

Respectfully Submitted
A. J. EDMOND COMPANY
by JGRolle
Jeffrey G Rolle, President

ALL REPORTS ARE SUBMITTED AS THE CONFIDENTIAL PROPERTY OF CLIENTS. AUTHORIZATION FOR DISCLOSURE OF OUR FINDINGS IS RESERVED PENDING APPROVAL OF ALL PRINCIPALS AND THE A. J. EDMOND COMPANY AS A MUTUAL PROTECTION TO CLIENTS, THE PUBLIC, AND OURSELVES.

A. J. EDMOND COMPANY

CHEMISTS / ENGINEERS
1530 West 16th Street
Long Beach, California 90813
Phone: (562) 437-1802 Fax: (562) 590-0482
website: http://www.ajedmondco.com

ANALYTICAL LABORATORIES
CARGO SURVEYS
BARGE SURVEYS
COMMODITY SURVEYS
INSPECTORS
CONSULTANTS
MANUFACTURING
SAMPLING SYSTEMS

May 04, 2022

Desert View Power
62-300 Gene Welmas Drive
P.O. Box 758

Project Number: 111900
Source: Desert View Power
Commodity: Biomass - Solid
Sample ID: 1580746
Sample Description: U1 RUN 2 08:30-10:30 4/7/2022

LABORATORY ANALYSES

Test Description	As Received Basis	As Determined	Dry Basis	Test Method
Moisture, %	25.50			(ASTM D4931/E871)
Residual Moisture, %		1.91		(ASTM D3302/D7582)
Volatile Matter, %	-	-	-	(ASTM D6374/E872)
Ash, %	6.30	8.29	8.45	(ASTM D1102)
Fixed Carbon, %	-	-	-	(ASTM D3172)
Sulfur, %	0.10	0.13	0.13	(ASTM D4239-A)
Calorific Value, Gross, BTU/Lb	5,864	7,721	7,871	(ASTM D5865)
Carbon, %	37.86	49.85	50.82	(ASTM D5373)
Hydrogen, %	6.82	5.43	5.32	(ASTM D5373)
Nitrogen, %	0.64	0.84	0.86	(ASTM D5373)
Oxygen (by difference), %	48.28	35.46	34.42	(by difference)
Chlorine, ppm	1,705	2,245	2,289	(ASTM D4208)
Calcium, ppm	-	-	-	(EPA/AJE 54)
Sodium, ppm	-	-	-	(EPA/AJE 54)
Potassium, ppm	-	-	-	(EPA/AJE 54)
Phosphorus, ppm	-	-	-	(EPA/AJE 54)

Ash Composition - Metal Oxides / TTLC Metals / CAM 17				
Test Description	As Received Basis	As Determined	Dry Basis	Test Method
Antimony, ppm			ND	(EPA/AJE 54)
Arsenic, ppm			23	(EPA/AJE 54)
Barium, ppm			427	(EPA/AJE 54)
Beryllium, ppm			ND	(EPA/AJE 54)
Cadmium, ppm			ND	(EPA/AJE 54)
Chromium, ppm			150	(EPA/AJE 54)
Cobalt, ppm			8.0	(EPA/AJE 54)
Copper, ppm			150	(EPA/AJE 54)
Lead, ppm			58	(EPA/AJE 54)
Mercury, ppm			ND	(EPA/AJE 54)
Molybdenum, ppm			20	(EPA/AJE 54)
Nickel, ppm			22	(EPA/AJE 54)
Selenium, ppm			ND	(EPA/AJE 54)
Silver, ppm			ND	(EPA/AJE 54)
Thallium, ppm			ND	(EPA/AJE 54)
Vanadium, ppm			44	(EPA/AJE 54)
Zinc, ppm			463	(EPA/AJE 54)

Sample was submitted by the customer to A. J. Edmond Company for laboratory analysis.

JBO

Form 5.10f2-1

Respectfully Submitted
A. J. EDMOND COMPANY
by JG Rolle
Jeffrey G Rolle, President

ALL REPORTS ARE SUBMITTED AS THE CONFIDENTIAL PROPERTY OF CLIENTS. AUTHORIZATION FOR DISCLOSURE OF OUR FINDINGS IS RESERVED PENDING APPROVAL OF ALL PRINCIPALS AND THE A. J. EDMOND COMPANY AS A MUTUAL PROTECTION TO CLIENTS, THE PUBLIC, AND OURSELVES.

A. J. EDMOND COMPANY

CHEMISTS / ENGINEERS
1530 West 16th Street
Long Beach, California 90813
Phone: (562) 437-1802 Fax: (562) 590-0482
website: http://www.ajedmondco.com

ANALYTICAL LABORATORIES
CARGO SURVEYS
BARGE SURVEYS
COMMODITY SURVEYS
INSPECTORS
CONSULTANTS
MANUFACTURING
SAMPLING SYSTEMS

May 04, 2022

Desert View Power
62-300 Gene Welmas Drive
P.O. Box 758

Project Number: 111900
Source: Desert View Power
Commodity: Biomass - Solid
Sample ID: 1580747
Sample Description: U1 RUN 3 11:05-13:05
4/7/2022

LABORATORY ANALYSES

Test Description	As Received Basis	As Determined	Dry Basis	Test Method
Moisture, %	25.57			(ASTM D4931/E871)
Residual Moisture, %		1.62		(ASTM D3302/D7582)
Volatile Matter, %	-	-	-	(ASTM D6374/E872)
Ash, %	4.96	6.55	6.66	(ASTM D1102)
Fixed Carbon, %	-	-	-	(ASTM D3172)
Sulfur, %	0.11	0.15	0.15	(ASTM D4239-A)
Calorific Value, Gross, BTU/Lb	5,967	7,887	8,017	(ASTM D5865)
Carbon, %	38.37	50.71	51.55	(ASTM D5373)
Hydrogen, %	6.95	5.58	5.49	(ASTM D5373)
Nitrogen, %	0.49	0.65	0.66	(ASTM D5373)
Oxygen (by difference), %	49.12	36.36	35.49	(by difference)
Chlorine, ppm	1,169	1,545	1,570	(ASTM D4208)
Calcium, ppm	-	-	-	(EPA/AJE 54)
Sodium, ppm	-	-	-	(EPA/AJE 54)
Potassium, ppm	-	-	-	(EPA/AJE 54)
Phosphorus, ppm	-	-	-	(EPA/AJE 54)

Ash Composition - Metal Oxides / TTLC Metals / CAM 17				
Test Description	As Received Basis	As Determined	Dry Basis	Test Method
Antimony, ppm			ND	(EPA/AJE 54)
Arsenic, ppm			10	(EPA/AJE 54)
Barium, ppm			451	(EPA/AJE 54)
Beryllium, ppm			ND	(EPA/AJE 54)
Cadmium, ppm			ND	(EPA/AJE 54)
Chromium, ppm			126	(EPA/AJE 54)
Cobalt, ppm			7.0	(EPA/AJE 54)
Copper, ppm			111	(EPA/AJE 54)
Lead, ppm			49	(EPA/AJE 54)
Mercury, ppm			ND	(EPA/AJE 54)
Molybdenum, ppm			10	(EPA/AJE 54)
Nickel, ppm			21	(EPA/AJE 54)
Selenium, ppm			ND	(EPA/AJE 54)
Silver, ppm			ND	(EPA/AJE 54)
Thallium, ppm			ND	(EPA/AJE 54)
Vanadium, ppm			42	(EPA/AJE 54)
Zinc, ppm			469	(EPA/AJE 54)

Sample was submitted by the customer to A. J. Edmond Company for laboratory analysis.

JBO

Form 5.10f2-1

Respectfully Submitted
A. J. EDMOND COMPANY
by JG Rolle
Jeffrey G Rolle, President

ALL REPORTS ARE SUBMITTED AS THE CONFIDENTIAL PROPERTY OF CLIENTS. AUTHORIZATION FOR DISCLOSURE OF OUR FINDINGS IS RESERVED PENDING APPROVAL OF ALL PRINCIPALS AND THE A. J. EDMOND COMPANY AS A MUTUAL PROTECTION TO CLIENTS, THE PUBLIC, AND OURSELVES.

A. J. EDMOND COMPANY

CHEMISTS / ENGINEERS
1530 West 16th Street
Long Beach, California 90813
Phone: (562) 437-1802 Fax: (562) 590-0482
website: http://www.ajedmondco.com

ANALYTICAL LABORATORIES
CARGO SURVEYS
BARGE SURVEYS
COMMODITY SURVEYS
INSPECTORS
CONSULTANTS
MANUFACTURING
SAMPLING SYSTEMS

May 04, 2022

Desert View Power
62-300 Gene Welmas Drive
P.O. Box 758

Project Number: 111900
Source: Desert View Power
Commodity: Biomass - Solid
Sample ID: 1580748
Sample Description: U1 RUN 1 07:55-10:05
4/6/2022

LABORATORY ANALYSES

Test Description	As Received Basis	As Determined	Dry Basis	Test Method
Moisture, %	26.16			(ASTM D4931/E871)
Residual Moisture, %		1.47		(ASTM D3302/D7582)
Volatile Matter, %	-	-	-	(ASTM D6374/E872)
Ash, %	4.08	5.44	5.52	(ASTM D1102)
Fixed Carbon, %	-	-	-	(ASTM D3172)
Sulfur, %	0.07	0.10	0.10	(ASTM D4239-A)
Calorific Value, Gross, BTU/Lb	5,997	8,003	8,122	(ASTM D5865)
Carbon, %	38.60	51.51	52.28	(ASTM D5373)
Hydrogen, %	7.01	5.61	5.53	(ASTM D5373)
Nitrogen, %	0.47	0.63	0.64	(ASTM D5373)
Oxygen (by difference), %	49.77	36.71	35.93	(by difference)
Chlorine, ppm	2,346	3,131	3,178	(ASTM D4208)
Calcium, ppm	-	-	-	(EPA/AJE 54)
Sodium, ppm	-	-	-	(EPA/AJE 54)
Potassium, ppm	-	-	-	(EPA/AJE 54)
Phosphorus, ppm	-	-	-	(EPA/AJE 54)

Ash Composition - Metal Oxides / TTLC Metals / CAM 17				
Test Description	As Received Basis	As Determined	Dry Basis	Test Method
Antimony, ppm			ND	(EPA/AJE 54)
Arsenic, ppm			10	(EPA/AJE 54)
Barium, ppm			569	(EPA/AJE 54)
Beryllium, ppm			ND	(EPA/AJE 54)
Cadmium, ppm			ND	(EPA/AJE 54)
Chromium, ppm			139	(EPA/AJE 54)
Cobalt, ppm			7.0	(EPA/AJE 54)
Copper, ppm			131	(EPA/AJE 54)
Lead, ppm			60	(EPA/AJE 54)
Mercury, ppm			ND	(EPA/AJE 54)
Molybdenum, ppm			21	(EPA/AJE 54)
Nickel, ppm			26	(EPA/AJE 54)
Selenium, ppm			ND	(EPA/AJE 54)
Silver, ppm			ND	(EPA/AJE 54)
Thallium, ppm			ND	(EPA/AJE 54)
Vanadium, ppm			52	(EPA/AJE 54)
Zinc, ppm			589	(EPA/AJE 54)

Sample was submitted by the customer to A. J. Edmond Company for laboratory analysis.

JBO

Form 5.10f2-1

Respectfully Submitted
A. J. EDMOND COMPANY
by JG Rolle
Jeffrey G Rolle, President

ALL REPORTS ARE SUBMITTED AS THE CONFIDENTIAL PROPERTY OF CLIENTS. AUTHORIZATION FOR DISCLOSURE OF OUR FINDINGS IS RESERVED PENDING APPROVAL OF ALL PRINCIPALS AND THE A. J. EDMOND COMPANY AS A MUTUAL PROTECTION TO CLIENTS, THE PUBLIC, AND OURSELVES.

A. J. EDMOND COMPANY

CHEMISTS / ENGINEERS
1530 West 16th Street
Long Beach, California 90813
Phone: (562) 437-1802 Fax: (562) 590-0482
website: http://www.ajedmondco.com

ANALYTICAL LABORATORIES
CARGO SURVEYS
BARGE SURVEYS
COMMODITY SURVEYS
INSPECTORS
CONSULTANTS
MANUFACTURING
SAMPLING SYSTEMS

May 04, 2022

Desert View Power
62-300 Gene Welmas Drive
P.O. Box 758

Project Number: 111900
Source: Desert View Power
Commodity: Biomass - Solid
Sample ID: 1580749
Sample Description: U1 RUN 2 10:50-13:00
4/6/2022

LABORATORY ANALYSES

Test Description	As Received Basis	As Determined	Dry Basis	Test Method
Moisture, %	27.26			(ASTM D4931/E871)
Residual Moisture, %		1.89		(ASTM D3302/D7582)
Volatile Matter, %	-	-	-	(ASTM D6374/E872)
Ash, %	3.64	4.91	5.00	(ASTM D1102)
Fixed Carbon, %	-	-	-	(ASTM D3172)
Sulfur, %	0.05	0.07	0.07	(ASTM D4239-A)
Calorific Value, Gross, BTU/Lb	5,950	8,025	8,180	(ASTM D5865)
Carbon, %	38.57	52.02	53.02	(ASTM D5373)
Hydrogen, %	7.04	5.59	5.48	(ASTM D5373)
Nitrogen, %	0.43	0.58	0.59	(ASTM D5373)
Oxygen (by difference), %	50.27	36.83	35.84	(by difference)
Chlorine, ppm	1,463	1,973	2,011	(ASTM D4208)
Calcium, ppm	-	-	-	(EPA/AJE 54)
Sodium, ppm	-	-	-	(EPA/AJE 54)
Potassium, ppm	-	-	-	(EPA/AJE 54)
Phosphorus, ppm	-	-	-	(EPA/AJE 54)

Ash Composition - Metal Oxides / TTLC Metals / CAM 17				
Test Description	As Received Basis	As Determined	Dry Basis	Test Method
Antimony, ppm			ND	(EPA/AJE 54)
Arsenic, ppm			50	(EPA/AJE 54)
Barium, ppm			408	(EPA/AJE 54)
Beryllium, ppm			ND	(EPA/AJE 54)
Cadmium, ppm			ND	(EPA/AJE 54)
Chromium, ppm			132	(EPA/AJE 54)
Cobalt, ppm			7.0	(EPA/AJE 54)
Copper, ppm			110	(EPA/AJE 54)
Lead, ppm			54	(EPA/AJE 54)
Mercury, ppm			ND	(EPA/AJE 54)
Molybdenum, ppm			19	(EPA/AJE 54)
Nickel, ppm			23	(EPA/AJE 54)
Selenium, ppm			ND	(EPA/AJE 54)
Silver, ppm			ND	(EPA/AJE 54)
Thallium, ppm			ND	(EPA/AJE 54)
Vanadium, ppm			47	(EPA/AJE 54)
Zinc, ppm			484	(EPA/AJE 54)

Sample was submitted by the customer to A. J. Edmond Company for laboratory analysis.

JBO

Form 5.10f2-1

Respectfully Submitted
A. J. EDMOND COMPANY
by JGRolle
Jeffrey G Rolle, President

ALL REPORTS ARE SUBMITTED AS THE CONFIDENTIAL PROPERTY OF CLIENTS. AUTHORIZATION FOR DISCLOSURE OF OUR FINDINGS IS RESERVED PENDING APPROVAL OF ALL PRINCIPALS AND THE A. J. EDMOND COMPANY AS A MUTUAL PROTECTION TO CLIENTS, THE PUBLIC, AND OURSELVES.

A. J. EDMOND COMPANY

CHEMISTS / ENGINEERS
1530 West 16th Street
Long Beach, California 90813
Phone: (562) 437-1802 Fax: (562) 590-0482
website: http://www.ajedmondco.com

ANALYTICAL LABORATORIES
CARGO SURVEYS
BARGE SURVEYS
COMMODITY SURVEYS
INSPECTORS
CONSULTANTS
MANUFACTURING
SAMPLING SYSTEMS

May 04, 2022

Desert View Power
62-300 Gene Welmas Drive
P.O. Box 758

Project Number: 111900
Source: Desert View Power
Commodity: Biomass - Solid
Sample ID: 1580750
Sample Description: U1 RUN 3 13:20-15:20
4/6/2022

LABORATORY ANALYSES

Test Description	As Received Basis	As Determined	Dry Basis	Test Method
Moisture, %	26.67			(ASTM D4931/E871)
Residual Moisture, %		1.32		(ASTM D3302/D7582)
Volatile Matter, %	-	-	-	(ASTM D6374/E872)
Ash, %	4.34	5.84	5.92	(ASTM D1102)
Fixed Carbon, %	-	-	-	(ASTM D3172)
Sulfur, %	0.07	0.10	0.10	(ASTM D4239-A)
Calorific Value, Gross, BTU/Lb	6,087	8,191	8,301	(ASTM D5865)
Carbon, %	38.83	52.25	52.95	(ASTM D5373)
Hydrogen, %	7.05	5.62	5.55	(ASTM D5373)
Nitrogen, %	0.26	0.35	0.35	(ASTM D5373)
Oxygen (by difference), %	49.45	35.84	35.13	(by difference)
Chlorine, ppm	750	1,009	1,022	(ASTM D4208)
Calcium, ppm	-	-	-	(EPA/AJE 54)
Sodium, ppm	-	-	-	(EPA/AJE 54)
Potassium, ppm	-	-	-	(EPA/AJE 54)
Phosphorus, ppm	-	-	-	(EPA/AJE 54)

Ash Composition - Metal Oxides / TTLC Metals / CAM 17				
Test Description	As Received Basis	As Determined	Dry Basis	Test Method
Antimony, ppm			ND	(EPA/AJE 54)
Arsenic, ppm			18	(EPA/AJE 54)
Barium, ppm			324	(EPA/AJE 54)
Beryllium, ppm			ND	(EPA/AJE 54)
Cadmium, ppm			ND	(EPA/AJE 54)
Chromium, ppm			147	(EPA/AJE 54)
Cobalt, ppm			36	(EPA/AJE 54)
Copper, ppm			91	(EPA/AJE 54)
Lead, ppm			45	(EPA/AJE 54)
Mercury, ppm			ND	(EPA/AJE 54)
Molybdenum, ppm			19	(EPA/AJE 54)
Nickel, ppm			19	(EPA/AJE 54)
Selenium, ppm			ND	(EPA/AJE 54)
Silver, ppm			ND	(EPA/AJE 54)
Thallium, ppm			ND	(EPA/AJE 54)
Vanadium, ppm			39	(EPA/AJE 54)
Zinc, ppm			539	(EPA/AJE 54)

Sample was submitted by the customer to A. J. Edmond Company for laboratory analysis.

JBO

Form 5.10f2-1

Respectfully Submitted
A. J. EDMOND COMPANY
by JG Rolle
Jeffrey G Rolle, President

ALL REPORTS ARE SUBMITTED AS THE CONFIDENTIAL PROPERTY OF CLIENTS. AUTHORIZATION FOR DISCLOSURE OF OUR FINDINGS IS RESERVED PENDING APPROVAL OF ALL PRINCIPALS AND THE A. J. EDMOND COMPANY AS A MUTUAL PROTECTION TO CLIENTS, THE PUBLIC, AND OURSELVES.

A. J. EDMOND COMPANY

CHEMISTS / ENGINEERS
1530 West 16th Street
Long Beach, California 90813
Phone: (562) 437-1802 Fax: (562) 590-0482
website: http://www.ajedmondco.com

ANALYTICAL LABORATORIES
CARGO SURVEYS
BARGE SURVEYS
COMMODITY SURVEYS
INSPECTORS
CONSULTANTS
MANUFACTURING
SAMPLING SYSTEMS

May 04, 2022

Desert View Power
62-300 Gene Welmas Drive
P.O. Box 758

Project Number: 111900
Source: Desert View Power
Commodity: Biomass - Solid
Sample ID: 1580751
Sample Description: U2 RUN 1 06:00-08:10
4/5/2022

LABORATORY ANALYSES

Test Description	As Received Basis	As Determined	Dry Basis	Test Method
Moisture, %	24.90			(ASTM D4931/E871)
Residual Moisture, %		1.54		(ASTM D3302/D7582)
Volatile Matter, %	-	-	-	(ASTM D6374/E872)
Ash, %	5.00	6.55	6.65	(ASTM D1102)
Fixed Carbon, %	-	-	-	(ASTM D3172)
Sulfur, %	0.11	0.14	0.14	(ASTM D4239-A)
Calorific Value, Gross, BTU/Lb	5,961	7,816	7,938	(ASTM D5865)
Carbon, %	38.52	50.50	51.29	(ASTM D5373)
Hydrogen, %	6.89	5.55	5.46	(ASTM D5373)
Nitrogen, %	0.41	0.54	0.55	(ASTM D5373)
Oxygen (by difference), %	49.07	36.72	35.91	(by difference)
Chlorine, ppm	1,888	2,476	2,515	(ASTM D4208)
Calcium, ppm	-	-	-	(EPA/AJE 54)
Sodium, ppm	-	-	-	(EPA/AJE 54)
Potassium, ppm	-	-	-	(EPA/AJE 54)
Phosphorus, ppm	-	-	-	(EPA/AJE 54)

Ash Composition - Metal Oxides / TTLC Metals / CAM 17				
Test Description	As Received Basis	As Determined	Dry Basis	Test Method
Antimony, ppm			ND	(EPA/AJE 54)
Arsenic, ppm			24	(EPA/AJE 54)
Barium, ppm			461	(EPA/AJE 54)
Beryllium, ppm			ND	(EPA/AJE 54)
Cadmium, ppm			ND	(EPA/AJE 54)
Chromium, ppm			90	(EPA/AJE 54)
Cobalt, ppm			8.0	(EPA/AJE 54)
Copper, ppm			146	(EPA/AJE 54)
Lead, ppm			53	(EPA/AJE 54)
Mercury, ppm			ND	(EPA/AJE 54)
Molybdenum, ppm			16	(EPA/AJE 54)
Nickel, ppm			24	(EPA/AJE 54)
Selenium, ppm			ND	(EPA/AJE 54)
Silver, ppm			ND	(EPA/AJE 54)
Thallium, ppm			ND	(EPA/AJE 54)
Vanadium, ppm			44	(EPA/AJE 54)
Zinc, ppm			676	(EPA/AJE 54)

Sample was submitted by the customer to A. J. Edmond Company for laboratory analysis.

JBO

Form 5.10f2-1

Respectfully Submitted
A. J. EDMOND COMPANY
by JG Rolle
Jeffrey G Rolle, President

ALL REPORTS ARE SUBMITTED AS THE CONFIDENTIAL PROPERTY OF CLIENTS. AUTHORIZATION FOR DISCLOSURE OF OUR FINDINGS IS RESERVED PENDING APPROVAL OF ALL PRINCIPALS AND THE A. J. EDMOND COMPANY AS A MUTUAL PROTECTION TO CLIENTS, THE PUBLIC, AND OURSELVES.

A. J. EDMOND COMPANY

CHEMISTS / ENGINEERS
1530 West 16th Street
Long Beach, California 90813
Phone: (562) 437-1802 Fax: (562) 590-0482
website: http://www.ajedmondco.com

ANALYTICAL LABORATORIES
CARGO SURVEYS
BARGE SURVEYS
COMMODITY SURVEYS
INSPECTORS
CONSULTANTS
MANUFACTURING
SAMPLING SYSTEMS

May 04, 2022

Desert View Power
62-300 Gene Welmas Drive
P.O. Box 758

Project Number: 111900
Source: Desert View Power
Commodity: Biomass - Solid
Sample ID: 1580752
Sample Description: U2 RUN 2 08:45-10:55 4/5/2022

LABORATORY ANALYSES

Test Description	As Received Basis	As Determined	Dry Basis	Test Method
Moisture, %	24.43			(ASTM D4931/E871)
Residual Moisture, %		1.80		(ASTM D3302/D7582)
Volatile Matter, %	-	-	-	(ASTM D6374/E872)
Ash, %	3.41	4.43	4.51	(ASTM D1102)
Fixed Carbon, %	-	-	-	(ASTM D3172)
Sulfur, %	0.03	0.04	0.04	(ASTM D4239-A)
Calorific Value, Gross, BTU/Lb	6,218	8,080	8,228	(ASTM D5865)
Carbon, %	40.07	52.07	53.02	(ASTM D5373)
Hydrogen, %	6.97	5.71	5.61	(ASTM D5373)
Nitrogen, %	0.39	0.51	0.52	(ASTM D5373)
Oxygen (by difference), %	49.13	37.24	36.30	(by difference)
Chlorine, ppm	1,535	1,994	2,031	(ASTM D4208)
Calcium, ppm	-	-	-	(EPA/AJE 54)
Sodium, ppm	-	-	-	(EPA/AJE 54)
Potassium, ppm	-	-	-	(EPA/AJE 54)
Phosphorus, ppm	-	-	-	(EPA/AJE 54)

Ash Composition - Metal Oxides / TTLC Metals / CAM 17				
Test Description	As Received Basis	As Determined	Dry Basis	Test Method
Antimony, ppm			ND	(EPA/AJE 54)
Arsenic, ppm			87	(EPA/AJE 54)
Barium, ppm			423	(EPA/AJE 54)
Beryllium, ppm			ND	(EPA/AJE 54)
Cadmium, ppm			ND	(EPA/AJE 54)
Chromium, ppm			123	(EPA/AJE 54)
Cobalt, ppm			8.0	(EPA/AJE 54)
Copper, ppm			773	(EPA/AJE 54)
Lead, ppm			61	(EPA/AJE 54)
Mercury, ppm			ND	(EPA/AJE 54)
Molybdenum, ppm			28	(EPA/AJE 54)
Nickel, ppm			26	(EPA/AJE 54)
Selenium, ppm			ND	(EPA/AJE 54)
Silver, ppm			ND	(EPA/AJE 54)
Thallium, ppm			ND	(EPA/AJE 54)
Vanadium, ppm			49	(EPA/AJE 54)
Zinc, ppm			556	(EPA/AJE 54)

Sample was submitted by the customer to A. J. Edmond Company for laboratory analysis.

JBO

Form 5.10f2-1

Respectfully Submitted
A. J. EDMOND COMPANY
by JGRolle
Jeffrey G Rolle, President

ALL REPORTS ARE SUBMITTED AS THE CONFIDENTIAL PROPERTY OF CLIENTS. AUTHORIZATION FOR DISCLOSURE OF OUR FINDINGS IS RESERVED PENDING APPROVAL OF ALL PRINCIPALS AND THE A. J. EDMOND COMPANY AS A MUTUAL PROTECTION TO CLIENTS, THE PUBLIC, AND OURSELVES.

A. J. EDMOND COMPANY

CHEMISTS / ENGINEERS
1530 West 16th Street
Long Beach, California 90813
Phone: (562) 437-1802 Fax: (562) 590-0482
website: http://www.ajedmondco.com

ANALYTICAL LABORATORIES
CARGO SURVEYS
BARGE SURVEYS
COMMODITY SURVEYS
INSPECTORS
CONSULTANTS
MANUFACTURING
SAMPLING SYSTEMS

May 04, 2022

Desert View Power
62-300 Gene Welmas Drive
P.O. Box 758

Project Number: 111900
Source: Desert View Power
Commodity: Biomass - Solid
Sample ID: 1580753
Sample Description: U2 RUN 3 11:15-13:15 4/5/2022

LABORATORY ANALYSES

Test Description	As Received Basis	As Determined	Dry Basis	Test Method
Moisture, %	28.35			(ASTM D4931/E871)
Residual Moisture, %		2.73		(ASTM D3302/D7582)
Volatile Matter, %	-	-	-	(ASTM D6374/E872)
Ash, %	4.63	6.28	6.46	(ASTM D1102)
Fixed Carbon, %	-	-	-	(ASTM D3172)
Sulfur, %	0.20	0.27	0.28	(ASTM D4239-A)
Calorific Value, Gross, BTU/Lb	5,743	7,796	8,015	(ASTM D5865)
Carbon, %	37.18	50.47	51.89	(ASTM D5373)
Hydrogen, %	7.11	5.65	5.49	(ASTM D5373)
Nitrogen, %	0.44	0.60	0.62	(ASTM D5373)
Oxygen (by difference), %	50.44	36.73	35.26	(by difference)
Chlorine, ppm	1,814	2,462	2,531	(ASTM D4208)
Calcium, ppm	-	-	-	(EPA/AJE 54)
Sodium, ppm	-	-	-	(EPA/AJE 54)
Potassium, ppm	-	-	-	(EPA/AJE 54)
Phosphorus, ppm	-	-	-	(EPA/AJE 54)

Ash Composition - Metal Oxides / TTLC Metals / CAM 17				
Test Description	As Received Basis	As Determined	Dry Basis	Test Method
Antimony, ppm			ND	(EPA/AJE 54)
Arsenic, ppm			59	(EPA/AJE 54)
Barium, ppm			331	(EPA/AJE 54)
Beryllium, ppm			ND	(EPA/AJE 54)
Cadmium, ppm			ND	(EPA/AJE 54)
Chromium, ppm			144	(EPA/AJE 54)
Cobalt, ppm			6.0	(EPA/AJE 54)
Copper, ppm			151	(EPA/AJE 54)
Lead, ppm			44	(EPA/AJE 54)
Mercury, ppm			ND	(EPA/AJE 54)
Molybdenum, ppm			19	(EPA/AJE 54)
Nickel, ppm			21	(EPA/AJE 54)
Selenium, ppm			ND	(EPA/AJE 54)
Silver, ppm			ND	(EPA/AJE 54)
Thallium, ppm			ND	(EPA/AJE 54)
Vanadium, ppm			39	(EPA/AJE 54)
Zinc, ppm			476	(EPA/AJE 54)

Sample was submitted by the customer to A. J. Edmond Company for laboratory analysis.

JBO

Form 5.10f2-1

Respectfully Submitted
A. J. EDMOND COMPANY
by
Jeffrey G Rolle, President

ALL REPORTS ARE SUBMITTED AS THE CONFIDENTIAL PROPERTY OF CLIENTS. AUTHORIZATION FOR DISCLOSURE OF OUR FINDINGS IS RESERVED PENDING APPROVAL OF ALL PRINCIPALS AND THE A. J. EDMOND COMPANY AS A MUTUAL PROTECTION TO CLIENTS, THE PUBLIC, AND OURSELVES.

A. J. EDMOND COMPANY

CHEMISTS / ENGINEERS
1530 West 16th Street
Long Beach, California 90813
Phone: (562) 437-1802 Fax: (562) 590-0482
website: http://www.ajedmondco.com

ANALYTICAL LABORATORIES
CARGO SURVEYS
BARGE SURVEYS
COMMODITY SURVEYS
INSPECTORS
CONSULTANTS
MANUFACTURING
SAMPLING SYSTEMS

May 04, 2022

Desert View Power
62-300 Gene Welmas Drive
P.O. Box 758

Project Number: 111900
Source: Desert View Power
Commodity: Biomass - Solid
Sample ID: 1580754
Sample Description: U2 RUN 4 12:25-14:15
4/5/2022

LABORATORY ANALYSES

Test Description	As Received Basis	As Determined	Dry Basis	Test Method
Moisture, %	24.57			(ASTM D4931/E871)
Residual Moisture, %		1.80		(ASTM D3302/D7582)
Volatile Matter, %	-	-	-	(ASTM D6374/E872)
Ash, %	3.96	5.15	5.24	(ASTM D1102)
Fixed Carbon, %	-	-	-	(ASTM D3172)
Sulfur, %	0.07	0.09	0.09	(ASTM D4239-A)
Calorific Value, Gross, BTU/Lb	6,189	8,058	8,206	(ASTM D5865)
Carbon, %	39.65	51.62	52.57	(ASTM D5373)
Hydrogen, %	7.00	5.73	5.63	(ASTM D5373)
Nitrogen, %	0.43	0.56	0.57	(ASTM D5373)
Oxygen (by difference), %	48.89	36.85	35.90	(by difference)
Chlorine, ppm	1,562	2,034	2,071	(ASTM D4208)
Calcium, ppm	-	-	-	(EPA/AJE 54)
Sodium, ppm	-	-	-	(EPA/AJE 54)
Potassium, ppm	-	-	-	(EPA/AJE 54)
Phosphorus, ppm	-	-	-	(EPA/AJE 54)

Ash Composition - Metal Oxides / TTLC Metals / CAM 17				
Test Description	As Received Basis	As Determined	Dry Basis	Test Method
Antimony, ppm			ND	(EPA/AJE 54)
Arsenic, ppm			30	(EPA/AJE 54)
Barium, ppm			413	(EPA/AJE 54)
Beryllium, ppm			ND	(EPA/AJE 54)
Cadmium, ppm			ND	(EPA/AJE 54)
Chromium, ppm			120	(EPA/AJE 54)
Cobalt, ppm			9.0	(EPA/AJE 54)
Copper, ppm			127	(EPA/AJE 54)
Lead, ppm			58	(EPA/AJE 54)
Mercury, ppm			ND	(EPA/AJE 54)
Molybdenum, ppm			20	(EPA/AJE 54)
Nickel, ppm			26	(EPA/AJE 54)
Selenium, ppm			ND	(EPA/AJE 54)
Silver, ppm			ND	(EPA/AJE 54)
Thallium, ppm			ND	(EPA/AJE 54)
Vanadium, ppm			56	(EPA/AJE 54)
Zinc, ppm			469	(EPA/AJE 54)

Sample was submitted by the customer to A. J. Edmond Company for laboratory analysis.

JBO

Form 5.10f2-1

Respectfully Submitted
A. J. EDMOND COMPANY
by JGRolle
Jeffrey G Rolle, President

ALL REPORTS ARE SUBMITTED AS THE CONFIDENTIAL PROPERTY OF CLIENTS. AUTHORIZATION FOR DISCLOSURE OF OUR FINDINGS IS RESERVED PENDING APPROVAL OF ALL PRINCIPALS AND THE A. J. EDMOND COMPANY AS A MUTUAL PROTECTION TO CLIENTS, THE PUBLIC, AND OURSELVES.

Appendix A.4
Sample Chain of Custody

CHAIN OF CUSTODY

CLIENT: Desert View Power PROJECT NO: 002AS-012607 TEST DATE(S): 4/5/2022 & 4/6/2022

LOCATION: Unit 1 and Unit 2 SAMPLER(S): Patrick Whitman

SAMPLE LOCATION: Stack Breaching PROJECT MANAGER: Dave Wonderly

TEST METHOD(S): EPA 5 DATE DUE:

OUTSIDE LAB REQUIRED?: Yes COMPLIANCE TEST? Yes

DATE	TIME	TEST #	SAMPLE DESCRIPTION	CONTAINERS	SAMPLER	COMMENTS
4/5/2022	600/810	1-PM-U1	Front 1/2 rinse, Filter # 83-4346	2	PW	
4/5/2022	845/1055	2-PM-U1	Front 1/2 rinse, Filter # 83-4347	2	PW	
4/5/2022	1115/1325	3-PM-U1	Front 1/2 rinse, Filter # 83-4348	2	PW	
					PW	
4/6/2022	755/1005	1-PM-U2	Front 1/2 rinse, Filter # 83-4349	2	PW	
4/6/2022	1050/300	2-PM-U2	Front 1/2 rinse, Filter # 83-4350	2	PW	
4/6/2022	1320/1530	3-PM-U2	Front 1/2 rinse, Filter # 83-4341	2	PW	
4/6/2022		RB	Acetone	1	DW	

RELEASED BY	DATE/TIME	RECEIVED BY	DATE/TIME
AU (CAHB)	4/8/22 1200	Precious Reyes	4/8/22 1630

ANALYSIS REQUIRED: Particulate By EPA Method 5.

DS834001

Appendix A.5
Calibration Data

Montrose
SPAN GAS RECORD

CLIENT/LOCATION: Desert View Power
Unit 2

DATE: 4/5/2022
BY: DW

	MID SPAN CYLINDER		HIGH SPAN CYLINDER	
	CYLINDER NO.	CONCENTRATION	CYLINDER NO.	CONCENTRATION
ZERO	DT0040604	0		
O_2	CC700690	10.53	CC106486	19.02
CO_2	CC700690	10.58	CC106486	18.94
NO_x	CC327320	48.1	CC218831	94.7
CO	CC503587	5.55	EB0058229	8.37

PRE-TEST INSTRUMENT CALIBRATION ERROR

	ANALYZER					STATUS
	O_2	CO_2	NO_x	CO		
Analyzer Range	20	20	100	10		
Zero Gas Value	0	0	0	0		--
Analyzer Reads	-0.02	0.03	0.02	-0.01		--
Error (% of scale)	-0.1%	0.2%	0.0%	-0.1%		PASS
High Gas Value	19.02	18.94	94.7	8.37		--
Analyzer Reads	19.02	18.96	94.55	8.36		--
Error (% of scale)	0.0%	0.1%	-0.1%	-0.1%		PASS
Mid Gas Value	10.53	10.58	48.1	5.55		--
Analyzer Reads	10.53	10.62	48.70	5.54		--
Error (% of scale)	0.0%	0.2%	0.6%	-0.1%		PASS
Linearity at Mid Point	0.0%	0.0%	0.7%	-0.01%		

POST-TEST INSTRUMENT CALIBRATION ERROR

	ANALYZER					STATUS
	O_2	CO_2	NO_x	CO		
Analyzer Range	20	20	100	10		
Zero Gas Value	0	0	0	0		--
Analyzer Reads	-0.01	0.05	0.04	-0.06		--
Error (% of scale)	-0.1%	0.3%	0.0%	-0.6%		PASS
High Gas Value	19.02	18.94	94.7	8.37		--
Analyzer Reads	18.98	19.02	93.62	8.47		--
Error (% of scale)	-0.2%	0.4%	-1.1%	1.0%		PASS
Mid Gas Value	10.53	10.58	48.1	5.55		--
Analyzer Reads	10.51	10.66	48.28	5.45		--
Error (% of scale)	-0.1%	0.4%	0.2%	-1.0%		PASS
Linearity at Mid Point	0.1%	0.1%	0.7%	-1.5%		

% ERROR CALCULATION:
(AS FOUND - ACTUAL VALUE OF SPAN)/RANGE * 100%
ALLOWABLE DEVIATION IS 2% OF FULL SCALE (2 SQUARES ON STRIPCHART)

Montrose
EPA SPAN GAS RECORD

CLIENT/LOCATION: Desert View Power
Unit 2

DATE: 4/5/2022
BY: DW

	MID SPAN CYLINDER		HIGH SPAN CYLINDER	
	CYLINDER NO.	CONCENTRATION	CYLINDER NO.	CONCENTRATION
ZERO	DT0040604	0		
O_2	CC700690	10.53	CC106486	19.02
CO_2	CC700690	10.58	CC106486	18.94
NO_x	CC327320	48.1	CC218831	94.7
CO	CC503587	5.55	EB0058229	8.37

PRE-TEST INSTRUMENT CALIBRATION ERROR

	ANALYZER					STATUS
	O_2	CO_2	NO_x	CO		
Analyzer Span	19.02	18.94	94.7	8.37		
Zero Gas Value	0	0	0	0		--
Analyzer Reads	-0.015	0.034	0.02	-0.009		--
Error (% of cal span)	-0.1%	0.2%	0.0%	-0.1%		PASS
High Gas Value	19.02	18.94	94.7	8.37		--
Analyzer Reads	19.021	18.964	94.554	8.363		--
Error (% of cal span)	0.0%	0.1%	-0.2%	-0.1%		PASS
Mid Gas Value	10.53	10.58	48.1	5.55		--
Analyzer Reads	10.526	10.616	48.698	5.541		--
Error (% of cal span)	0.0%	0.2%	0.6%	-0.1%		PASS

POST-TEST INSTRUMENT CALIBRATION ERROR

	ANALYZER					STATUS
	O_2	CO_2	NO_x	CO		
Analyzer Span	19.02	18.94	94.7	8.37		
Zero Gas Value	0	0	0	0		--
Analyzer Reads	-0.014	0.053	0.037	-0.062		--
Error (% of cal span)	-0.1%	0.3%	0.0%	-0.7%		PASS
High Gas Value	19.02	18.94	94.7	8.37		--
Analyzer Reads	18.98	19.015	93.623	8.472		--
Error (% of cal span)	-0.2%	0.4%	-1.1%	1.2%		PASS
Mid Gas Value	10.53	10.58	48.1	5.55		--
Analyzer Reads	10.514	10.656	48.282	5.449		--
Error (% of cal span)	-0.1%	0.4%	0.2%	-1.2%		PASS

% ERROR CALCULATION:
(AS FOUND - ACTUAL VALUE)/HIGH SPAN * 100%
ALLOWABLE DEVIATION IS 2% OF HIGH SPAN

NO2 to NO Converter Efficiency Test

				Cylinder #
Analyzer Manufacturer:	CAI	NO Cal Gas Value:	94.7	CC218831
Analyzer Model:	600 Series	NO2 Cal Gas Value:	44	ALFS1576
Analyzer Serial Number:	S03003	Performed By:	DW	
Date:	4/5/2022	CEMS ID#:	3-CEMS	

GAS	ANALYZER MODE	ANALYZER RESPONSE	CAL CORRECTED	LABEL
Zero	NOx	0.0	--	--
Zero	NO	0.0	--	--
NO	NO	93.8	--	--
NO	NOx	94.6	--	--
NO2	NO	0.4	0.4	C_1
NO2	NOx	41.4	41.5	C_2

		Label	Requirement
Abs. Value C_o-C_1:	43.6	D_1	--
Abs. Value C_2-C_1:	41.1	D_2	--
C_1/C_2	1%	D_3	< 5%
CE = D_2/D_1 * 100%:	94.2%	--	> 90%

Montrose AQS
SPAN GAS RECORD

CLIENT/LOCATION: Desert View Power
Unit 1

DATE: 4/6/2022
BY: DW

	MID SPAN CYLINDER		HIGH SPAN CYLINDER	
	CYLINDER NO.	CONCENTRATION	CYLINDER NO.	CONCENTRATION
ZERO	DT0040604	0		
O_2	CC700690	10.53	CC106486	19.02
CO_2	CC700690	10.58	CC106486	18.94
NO_x	CC327320	48.1	CC218831	94.7
CO	CC503587	5.55	EB0058229	8.37

PRE-TEST INSTRUMENT CALIBRATION ERROR

	ANALYZER					STATUS
	O_2	CO_2	NO_x	CO		
Analyzer Range	20	20	100	10		
Zero Gas Value	0	0	0	0		--
Analyzer Reads	-0.01	0.06	0.01	-0.02		--
Error (% of scale)	0.0%	0.3%	0.0%	-0.2%		PASS
High Gas Value	19.02	18.94	94.7	8.37		--
Analyzer Reads	19.03	18.95	94.70	8.36		--
Error (% of scale)	0.1%	0.0%	0.0%	-0.1%		PASS
Mid Gas Value	10.53	10.58	48.1	5.55		--
Analyzer Reads	10.53	10.63	48.89	5.57		--
Error (% of scale)	0.0%	0.3%	0.8%	0.2%		PASS
Linearity at Mid Point	0.0%	0.1%	0.8%	0.31%		

POST-TEST INSTRUMENT CALIBRATION ERROR

	ANALYZER					STATUS
	O_2	CO_2	NO_x	CO		
Analyzer Range	20	20	100	10		
Zero Gas Value	0	0	0	0		--
Analyzer Reads	-0.03	0.01	0.01	-0.07		--
Error (% of scale)	-0.1%	0.1%	0.0%	-0.7%		PASS
High Gas Value	19.02	18.94	94.7	8.37		--
Analyzer Reads	18.98	18.86	94.61	8.25		--
Error (% of scale)	-0.2%	-0.4%	-0.1%	-1.2%		PASS
Mid Gas Value	10.53	10.58	48.1	5.55		--
Analyzer Reads	10.51	10.56	48.11	5.45		--
Error (% of scale)	-0.1%	-0.1%	0.0%	-1.0%		PASS
Linearity at Mid Point	0.1%	0.1%	0.1%	0.0%		

% ERROR CALCULATION:
(AS FOUND - ACTUAL VALUE OF SPAN)/RANGE * 100%
ALLOWABLE DEVIATION IS 2% OF FULL SCALE (2 SQUARES ON STRIPCHART)

Montrose AQS
EPA SPAN GAS RECORD

CLIENT/LOCATION: Desert View Power

DATE: 4/6/2022
BY: DW

	MID SPAN CYLINDER		HIGH SPAN CYLINDER	
	CYLINDER NO.	CONCENTRATION	CYLINDER NO.	CONCENTRATION
ZERO	DT0040604	0		
O_2	CC700690	10.53	CC106486	19.02
CO_2	CC700690	10.58	CC106486	18.94
NO_x	CC327320	48.1	CC218831	94.7
CO	CC503587	5.55	EB0058229	8.37

PRE-TEST INSTRUMENT CALIBRATION ERROR

	ANALYZER					STATUS
	O_2	CO_2	NO_x	CO		
Analyzer Span	19.02	18.94	94.7	8.37		
Zero Gas Value	0	0	0	0		--
Analyzer Reads	-0.005	0.056	0.012	-0.021		--
Error (% of cal span)	0.0%	0.3%	0.0%	-0.3%		PASS
High Gas Value	19.02	18.94	94.7	8.37		--
Analyzer Reads	19.033	18.945	94.696	8.356		--
Error (% of cal span)	0.1%	0.0%	0.0%	-0.2%		PASS
Mid Gas Value	10.53	10.58	48.1	5.55		--
Analyzer Reads	10.534	10.631	48.89	5.565		--
Error (% of cal span)	0.0%	0.3%	0.8%	0.2%		PASS

POST-TEST INSTRUMENT CALIBRATION ERROR

	ANALYZER					STATUS
	O_2	CO_2	NO_x	CO		
Analyzer Span	19.02	18.94	94.7	8.37		
Zero Gas Value	0	0	0	0		--
Analyzer Reads	-0.027	0.01	0.007	-0.066		--
Error (% of cal span)	-0.1%	0.1%	0.0%	-0.8%		PASS
High Gas Value	19.02	18.94	94.7	8.37		--
Analyzer Reads	18.984	18.855	94.607	8.254		--
Error (% of cal span)	-0.2%	-0.4%	-0.1%	-1.4%		PASS
Mid Gas Value	10.53	10.58	48.1	5.55		--
Analyzer Reads	10.514	10.56	48.109	5.451		--
Error (% of cal span)	-0.1%	-0.1%	0.0%	-1.2%		PASS

% ERROR CALCULATION:
(AS FOUND - ACTUAL VALUE)/HIGH SPAN * 100%
ALLOWABLE DEVIATION IS 2% OF HIGH SPAN

NO2 to NO Converter Efficiency Test

				Cylinder #
Analyzer Manufacturer:	CAI	NO Cal Gas Value:	94.7	CC218831
Analyzer Model:	600 Series	NO2 Cal Gas Value:	44	ALFS15760
Analyzer Serial Number:	D05005	Performed By:	DW	
Date:	4/6/2022	CEMS ID#:	3-CEMS	

GAS	ANALYZER MODE	ANALYZER RESPONSE	CAL CORRECTED	LABEL
Zero	NOx	0.0	--	--
Zero	NO	0.0	--	--
NO	NO	94.2	--	--
NO	NOx	94.7	--	--
NO2	NO	0.1	0.1	C_1
NO2	NOx	42.8	42.8	C_2

		Label	Requirement
Abs. Value C_o-C_1:	43.9	D_1	--
Abs. Value C_2-C_1:	42.7	D_2	--
C_1/C_2	0%	D_3	< 5%
CE = D_2/D_1 * 100%:	97.2%	--	> 90%

SPAN GAS RECORD

CLIENT/LOCATION: Desert View Power
Unit 1

DATE: 4/7/2022
BY: DW

	MID SPAN CYLINDER		HIGH SPAN CYLINDER	
	CYLINDER NO.	CONCENTRATION	CYLINDER NO.	CONCENTRATION
ZERO	DT0040604	0.00		
O_2	CC700690	10.53	CC106486	19.02
CO_2	CC700690	10.58	CC106486	18.94

PRE-TEST INSTRUMENT CALIBRATION ERROR

	ANALYZER					
	O_2	CO_2				STATUS
Analyzer Range	20	20				
Zero Gas Value	0.0	0.0				--
Analyzer Reads	-0.01	0.03				--
Error (% of scale)	-0.1%	0.2%				PASS
High Gas Value	19.02	18.94				--
Analyzer Reads	19.04	18.95				--
Error (% of scale)	0.1%	0.1%				PASS
Mid Gas Value	10.53	10.58				--
Analyzer Reads	10.55	10.62				--
Error (% of scale)	0.1%	0.2%				PASS
Linearity at Mid Point	0.1%	0.1%				

POST-TEST INSTRUMENT CALIBRATION ERROR

	ANALYZER					
	O_2	CO_2				STATUS
Analyzer Range	20	20				
Zero Gas Value	0.0	0.0				--
Analyzer Reads	-0.01	0.05				--
Error (% of scale)	0.0%	0.3%				PASS
High Gas Value	19.02	18.94				--
Analyzer Reads	19.18	18.99				--
Error (% of scale)	0.8%	0.2%				PASS
Mid Gas Value	10.53	10.58				--
Analyzer Reads	10.63	10.65				--
Error (% of scale)	0.5%	0.3%				PASS
Linearity at Mid Point	0.1%	0.1%				

% ERROR CALCULATION:
(AS FOUND - ACTUAL VALUE OF SPAN)/RANGE * 100%
ALLOWABLE DEVIATION IS 2% OF FULL SCALE (2 SQUARES ON STRIPCHART)

EPA SPAN GAS RECORD

IENT/LOCATION: Desert View Power DATE: 4/7/2022

BY: DW

	MID SPAN CYLINDER		HIGH SPAN CYLINDER	
	CYLINDER NO.	CONCENTRATION	CYLINDER NO.	CONCENTRATION
ZERO	DT0040604	0.00		
O_2	CC700690	10.53	CC106486	19.02
CO_2	CC700690	10.58	CC106486	18.94

PRE-TEST INSTRUMENT CALIBRATION ERROR

	ANALYZER					
	O_2	CO_2				STATUS
Analyzer Span	19.02	18.94				
Zero Gas Value	0.0	0.0				--
Analyzer Reads	-0.01	0.03				--
Error (% of cal span)	-0.1%	0.2%				PASS
High Gas Value	19.02	18.94				--
Analyzer Reads	19.04	18.95				--
Error (% of cal span)	0.1%	0.1%				PASS
Mid Gas Value	10.53	10.58				--
Analyzer Reads	10.55	10.62				--
Error (% of cal span)	0.1%	0.2%				PASS

POST-TEST INSTRUMENT CALIBRATION ERROR

	ANALYZER					
	O_2	CO_2				STATUS
Analyzer Span	19.02	18.94				
Zero Gas Value	0.0	0.0				--
Analyzer Reads	-0.01	0.05				--
Error (% of cal span)	0.0%	0.3%				PASS
High Gas Value	19.02	18.94				--
Analyzer Reads	19.18	18.99				--
Error (% of cal span)	0.8%	0.2%				PASS
Mid Gas Value	10.53	10.58				--
Analyzer Reads	10.63	10.65				--
Error (% of cal span)	0.5%	0.3%				PASS

% ERROR CALCULATION:
(AS FOUND - ACTUAL VALUE)/HIGH SPAN * 100%
ALLOWABLE DEVIATION IS 2% OF HIGH SPAN

Making our world more productive

Linde Gas & Equipment Inc.
5700 S. Alameda Street
Los Angeles, CA 90058
Tel: 323-585-2154
Fax: 714-542-6689

Montrose Air Quality Services, LLC
1631 E. St. Andrew Pl.
Santa Ana, CA 92705

Linde Order Number: **62799452**
Customer PO Number: **LUIS OLIVARES**

Certificate Issuance Date: **2/9/2022**
Certification Date: **2/9/2022**
Lot Number: **N70086203101**
Part Number: **NI 5.5CE-AS**
DocNumber: **485199**

N_2

CERTIFICATE OF ANALYSIS

Nitrogen, 5.5 Continuous Emission Monitoring Zero

DT0040604

Analytes	Specification	Analytical Results	Analytical Reference	Analytical Uncertainty
Nitrogen	**≥ 99.9995 %**	**≥ 99.9995 %**	**4**	**N/A**
Carbon Dioxide	**≤ 1 ppm**	**≤ 0.5 ppm**	**3**	**± 10%**
Carbon Monoxide	**≤ 0.5 ppm**	**≤ 0.4 ppm**	**3**	**± 15%**
Total Hydrocarbons	**≤ 0.1 ppm**	**≤ 0.1 ppm**	**5**	**± 15%**
Oxides of Nitrogen	**≤ 0.1 ppm**	**≤ 0.1 ppm**	**6**	**± 15%**
Oxygen	**≤ 0.5 ppm**	**≤ 0.5 ppm**	**2**	**± 15%**
Sulfur Dioxide	**≤ 0.1 ppm**	**≤ 0.1 ppm**	**1**	**± 15%**
Water	**≤ 2 ppm**	**≤ 1.0 ppm**	**7**	**± 10%**

Cylinder Style: **AS**
Cylinder Pressure @ 70 F: **2000 psig**
Cylinder Volume: **142 ft3**
Valve Outlet Connection: **CGA 580**
Fill Date: **1/31/2022**
Analysis Date: **2/8/2022**
Filling Method: **Pressure/Temperature**
Cylinder Number(s): **CC50624, CC283535, CC40183, CC144430, DT0040604, DT0022891, CC242852, DT0042843, SG9147962**
Analyzed Cylinder Number(s): **CC50624**

Analyst: **Amalia Real**
Approved Signer: **Ying Yu**

Key to Analytical Techniques:

Reference	Analytical Instrument - Analytical Principle
1	Ametek 921CE S/N AW-921-S321 - UV Spectrometry
2	Delta F DF-550 Nanotrace - Electrolytic Cell/Electrochemical
3	Horiba Instruments Inc. GA-360E - NDIR
4	N/A - By Difference of Typical Impurities
5	Rosemount/Beckman 400A - FID Total Hydrocarbon Analyzer
6	Thermo Electron 42i-LS S/N 1030645077 - Chemiluminescence
7	Tiger Optics MTO-1000 - Cavity Ring-down Spectroscopy

AD 3-2-22

This analysis of the product described herein was prepared by Linde Gas & Equipment Inc. using instruments whose calibration is certified using Linde Gas & Equipment Inc. Reference Materials which are traceable to the International System of Units (SI) through either weights traceable to the National Institute of Standards and Technology (NIST) or Measurement Canada, or through NIST Standard Reference Materials or equivalent where available.

Note: All expressions for concentration (e.g., % or ppm) are for gas phase, by mole unless otherwise noted. Analytical uncertainty is expressed as a Relative % unless otherwise noted.

IMPORTANT
The information contained herein has been prepared at your request by personnel within Linde Gas & Equipment Inc. While we believe the information is accurate within the limits of the analytical methods employed and is complete to the extent of the specific analyses performed, we make no warranty or representation as to the suitability of the use of the information for any particular purpose. The information is offered with the understanding that any use of the information is at the sole discretion and risk of the user, in no event shall liability of Linde Gas & Equipment Inc. arising out of the use of the information contained herein exceed the fee established for providing such information.

PRAXAIR
Making our planet more productive

DocNumber: 294952

Praxair Distribution, Inc.
5700 S. Alameda Street
Los Angeles CA 90058
Tel: 323-585-2154
Fax: 714-542-6689
PGVP ID: F22019

MONITRON
AIR QUALITY SERVICES

1631 E. St Andrew Pl.
Santa Ana, CA 92705

CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

Certificate Issuance Date: 12/05/2019
Praxair Order Number: 71170626
Part Number: NI CD10.5O6E-AS
Customer PO Number: 79157676

Fill Date: 11/26/2019
Lot Number: 70086933009
Cylinder Style & Outlet: AS CGA 590
Cylinder Pressure and Volume: 2000 psig 140 ft3

O_2 10.53
CO_2 10.58
CC700690
EXP. 12-5-27
F22019

Certified Concentration

		NIST Traceable
Expiration Date:	12/05/2027	Expanded Uncertainty
Cylinder Number:	CC700690	
10.58 %	Carbon dioxide	± 0.5 %
10.53 %	Oxygen	± 0.2 %
Balance	Nitrogen	

ProSpec EZ Cert

Certification Information:

Certification Date: 12/05/2019 *Term:* 96 Months *Expiration Date:* 12/05/2027

This cylinder was certified according to the 2012 EPA Traceability Protocol, Document #EPA-600/R-12/531, using Procedure G1.

Do Not Use this Standard if Pressure is less than 100 PSIG.

CO2 responses have been corrected for Oxygen IR Broadening effect. O2 responses have been corrected for CO2 interference.

Analytical Data:

(R=Reference Standard, Z=Zero Gas, C=Gas Candidate)

1. ***Component:*** **Carbon dioxide**

Requested Concentration: 10.5 %
Certified Concentration: 10.58 %
Instrument Used: Horiba VIA-510 S/N 20C194WK
Analytical Method: NDIR
Last Multipoint Calibration: 11/22/2019

First Analysis Data: **Date** 12/05/2019

Z:	0	R:	14	C:	10.56	Conc:	10.56
R:	14	Z:	0	C:	10.59	Conc:	10.59
Z:	0	C:	10.59	R:	14	Conc:	10.59

UOM: % **Mean Test Assay:** 10.58 %

Reference Standard: Type / Cylinder #: GMIS / CC164230
Concentration / Uncertainty: 14.00 % ±0.265%
Expiration Date: 04/16/2027
Traceable to: SRM # / Sample # / Cylinder #: SRM 1675b / 6-F-51 / CAL014538
SRM Concentration / Uncertainty: 13.963% / ±0.034%
SRM Expiration Date: 05/16/2022

Second Analysis Data: **Date**

Z:	0	R:	0	C:	0	Conc:	0
R:	0	Z:	0	C:	0	Conc:	0
Z:	0	C:	0	R:	0	Conc:	0

UOM: % **Mean Test Assay:** %

2. ***Component:*** **Oxygen**

Requested Concentration: 10.5 %
Certified Concentration: 10.53 %
Instrument Used: OXYMAT 5E
Analytical Method: Paramagnetic
Last Multipoint Calibration: 11/22/2019

First Analysis Data: **Date** 12/05/2019

Z:	0	R:	20.88	C:	10.54	Conc:	10.53
R:	20.88	Z:	0	C:	10.53	Conc:	10.52
Z:	0	C:	10.54	R:	20.88	Conc:	10.53

UOM: % **Mean Test Assay:** 10.53 %

Reference Standard: Type / Cylinder #: GMIS / CC506521
Concentration / Uncertainty: 20.87 % ±0.108%
Expiration Date: 12/14/2026
Traceable to: SRM # / Sample # / Cylinder #: SRM 2659a / 71-E-19 / FF22331
SRM Concentration / Uncertainty: 20.863% / ±0.021%
SRM Expiration Date: 08/23/2021

Second Analysis Data: **Date**

Z:	0	R:	0	C:	0	Conc:	0
R:	0	Z:	0	C:	0	Conc:	0
Z:	0	C:	0	R:	0	Conc:	0

UOM: % **Mean Test Assay:** %

Analyzed By Jenna Lockman

Certified By Jose Vasquez

Information contained herein has been prepared at your request by qualified experts within Praxair Distribution, Inc. While we believe that the information is accurate within the limits of the analytical methods employed and is complete to the extent of the specific analyses performed, we make no warranty or representation as to the suitability of the use of the information for any purpose. The information is offered with the understanding that any use of the information is at the sole discretion and risk of the user. In no event shall the liability of Praxair Distribution, Inc., arising out of the use of the information contained herein exceed the fee established for providing such information.

LO 2/10/20

Making our planet more productive

DocNumber: 311011

Praxair Distribution, Inc.
5700 S. Alameda Street
Los Angeles CA 90058
Tel: 323-585-2154
Fax: 714-542-6689
PGVP ID: F22020

OF ANALYSIS / EPA PROTOCOL GAS

Montrose Air Quality Services, LLC
1631 E. St. Andrew Pl.
Santa Ana, CA 92705

Certificate Issuance Date: 08/03/2020
Praxair Order Number: 206233349
Part Number: NI CD19O2E-AS
Customer PO Number: VERBAL: MIKE M

Fill Date: 07/29/2020
Lot Number: 70086021102
Cylinder Style & Outlet: AS CGA 590
Cylinder Pressure and Volume: 2000 psig 156 ft3

O2 19.02
CO2 18.94
CC106486
EXP. 8/3/28
F22020

Certified Concentration

ProSpec EZ Cert

Expiration Date:	08/03/2028	NIST Traceable
Cylinder Number:	CC106486	Expanded Uncertainty
18.94 %	Carbon dioxide	± 0.4 %
19.02 %	Oxygen	± 0.2 %
Balance	Nitrogen	

Certification Information: *Certification Date:* 08/03/2020 *Term:* 96 Months *Expiration Date:* 08/03/2028

This cylinder was certified according to the 2012 EPA Traceability Protocol, Document #EPA-600/R-12/531, using Procedure G1

Do Not Use this Standard if Pressure is less than 100 PSIG

CO2 responses have been corrected for Oxygen IR Broadening effect. O2 responses have been corrected for CO2 interference.

Analytical Data:

(R=Reference Standard, Z=Zero Gas, C=Gas Candidate)

1. ***Component:*** **Carbon dioxide**

Requested Concentration: 19 %
Certified Concentration: 18.94 %
Instrument Used: Horiba VIA-510 S/N 20C194WK
Analytical Method: NDIR
Last Multipoint Calibration: 07/23/2020

First Analysis Data:					Date	08/03/2020
Z: 0	R: 19.92	C: 18.94	Conc: 18.94			
R: 19.92	Z: 0	C: 18.94	Conc: 18.94			
Z: 0	C: 18.94	R: 19.92	Conc: 18.94			
UOM: %		Mean Test Assay:	18.94 %			

Reference Standard: Type / Cylinder #: GMIS / CC188344
Concentration / Uncertainty: 19.92 % ±0.296%
Expiration Date: 02/20/2028
Traceable to: SRM # / Sample # / Cylinder #: RGM#CC28033 / N/A / RGM#CC28033
SRM Concentration / Uncertainty: 19.67% / ±0.04%
SRM Expiration Date: 07/15/2021

Second Analysis Data:					Date	
Z: 0	R: 0	C: 0	Conc: 0			
R: 0	Z: 0	C: 0	Conc: 0			
Z: 0	C: 0	R: 0	Conc: 0			
UOM: %		Mean Test Assay:	%			

2. ***Component:*** **Oxygen**

Requested Concentration: 19 %
Certified Concentration: 19.02 %
Instrument Used: OXYMAT 5F
Analytical Method: Paramagnetic
Last Multipoint Calibration: 07/23/2020

First Analysis Data:					Date	08/03/2020
Z: 0	R: 25.02	C: 19.03	Conc: 19.02			
R: 25.02	Z: 0	C: 19.03	Conc: 19.02			
Z: 0	C: 19.03	R: 25.02	Conc: 19.02			
UOM: %		Mean Test Assay:	19.02 %			

Reference Standard: Type / Cylinder #: GMIS / CC188476
Concentration / Uncertainty: 25.01 % ±0.122%
Expiration Date: 01/03/2026
Traceable to: SRM # / Sample # / Cylinder #: SRM 2659a / 71-E-19 / FF22331
SRM Concentration / Uncertainty: 20.863% / ±0.021%
SRM Expiration Date: 08/23/2021

Second Analysis Data:					Date	
Z: 0	R: 0	C: 0	Conc: 0			
R: 0	Z: 0	C: 0	Conc: 0			
Z: 0	C: 0	R: 0	Conc: 0			
UOM: %		Mean Test Assay:	%			

Analyzed By: Jenna Lochman

Certified By: Jose Vasquez

LO 8/10/20

Information contained herein has been prepared at your request by qualified experts within Praxair Distribution, Inc. While we believe that the information is accurate within the limits of the analytical methods employed and is complete to the extent of the specific analyses performed, we make no warranty or representation as to the suitability of the use of the information for any purpose. The information is offered with the understanding that any use of the information is at the sole discretion and risk of the user. In no event shall the liability of Praxair Distribution, Inc., arising out of the use of the information contained herein exceed the fee established for providing such information.

PRAXAIR
Making our planet more productive

DocNumber: 311954

Praxair Distribution, Inc.
5700 S. Alameda Street
Los Angeles CA 90058
Tel: 323-585-2154
Fax: 714-542-6689
PGVP ID: F22020

CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

Montrose Air Quality Services, LLC
1631 E. St. Andrew Pl.
Santa Ana, CA 92705

Certificate Issuance Date: 08/26/2020
Praxair Order Number: 71392033
Part Number: NI NO48MZE-AS
Customer PO Number: 79383957

Fill Date: 08/14/2020
Lot Number: 70086022706
Cylinder Style & Outlet: AS CGA 660
Cylinder Pressure and Volume: 2000 psig 140 ft3

Certified Concentration

ProSpec EZ Cert

Expiration Date:	08/26/2023	NIST Traceable
Cylinder Number:	CC327320	Expanded Uncertainty
48.1 ppm	Nitric oxide (as NOx)	± 0.7 %
Balance	Nitrogen	

For Reference Only: *NO 47.8 ppm*

Certification Information: *Certification Date:* 08/26/2020 *Term:* 36 Months *Expiration Date:* 08/26/2023

This cylinder was certified according to the 2012 EPA Traceability Protocol, Document #EPA-600/R-12/531, using Procedure G1.

Do Not Use this Standard if Pressure is less than 100 PSIG.

Analytical Data: *(R=Reference Standard, Z=Zero Gas, C=Gas Candidate)*

1. ***Component:*** **Nitric oxide (as NOx)**

Requested Concentration: 48 ppm
Certified Concentration: 48.1 ppm
Instrument Used: Thermo Electron 42i-LS S/N 1030645077
Analytical Method: Chemiluminescence
Last Multipoint Calibration: 07/27/2020

Reference Standard: Type / Cylinder #: GMIS / CC506196
Concentration / Uncertainty: 48.43 ppm ±0.714%
Expiration Date: 08/08/2023
Traceable to: SRM # / Sample # / Cylinder #: SRM#1683b / 45-V-37 / CAL017868
SRM Concentration / Uncertainty: 48.79 ppm / 0.34 ppm
SRM Expiration Date: 03/25/2019

First Analysis Data:						Date	08/19/2020
Z:	0	R:	49.4	C:	48	Conc:	48.1
R:	49.4	Z:	0	C:	48.1	Conc:	48.2
Z:	0	C:	48.1	R:	49.3	Conc:	48.2
UOM:	ppm				Mean Test Assay:		48.1 ppm

Second Analysis Data:						Date	08/26/2020
Z:	0	R:	49.4	C:	48.1	Conc:	48.1
R:	49.4	Z:	0	C:	48	Conc:	48
Z:	0	C:	48.1	R:	49.5	Conc:	48.1
UOM:	ppm				Mean Test Assay:		48.1 ppm

Analyzed By: Henry Koung

Certified By: Leeanna Flores

-NOX 48.1
CC327320
EXP. 8-26-23
F22020

LO 7-21-21

Information contained herein has been prepared at your request by qualified experts within Praxair Distribution, Inc. While we believe that the information is accurate within the limits of the analytical methods employed and is complete to the extent of the specific analyses performed, we make no warranty or representation as to the suitability of the use of the information for any purpose. The information is offered with the understanding that any use of the information is at the sole discretion and risk of the user. In no event shall the liability of Praxair Distribution, Inc., arising out of the use of the information contained herein exceed the fee established for providing such information.

PRAXAIR
Making our planet more productive

DocNumber: 224051

Praxair Distribution, Inc.
5700 S. Alameda Street
Los Angeles CA 90058
Tel: 323-585-2154
Fax: 714-542-6689
PGVP ID: F22018

OF ANALYSIS / EPA PROTOCOL GAS

Montrose Air Quality Services, LLC
1631 E. St. Andrew Pl.
Santa Ana, CA 92705

Certificate Modification Date: 09/14/2018
Praxair Order Number: 70710636
Part Number: NI NO94MZE-AS

Fill Date: 08/30/2018
Lot Number: 70086824207
Cylinder Style & Outlet: AS CGA 660
Cylinder Pressure and Volume: 2000 psig 140 ft3

NOx 94.7
CC218831
EXP. 9/14/2026
F22018

Certified Concentration

Expiration Date:	**09/14/2026**	NIST Traceable
Cylinder Number:	**CC218831**	Expanded Uncertainty
94.7 ppm	**Nitric oxide (as NOx)**	**± 0.6 %**
Balance	**Nitrogen**	

ProSpec EZ Cert

For Reference Only: *NO 93.7 ppm*

Certification Information: *Certification Date:* 09/14/2018 *Term:* 96 Months *Expiration Date:* 09/14/2026

This cylinder was certified according to the 2012 EPA Traceability Protocol, Document #EPA-600/R-12/531, using Procedure G1.
Do Not Use this Standard if Pressure is less than 100 PSIG.

Analytical Data: *(R=Reference Standard, Z=Zero Gas, C=Gas Candidate)*

1. ***Component:*** **Nitric oxide (as NOx)**

Requested Concentration: 94 ppm
Certified Concentration: 94.7 ppm
Instrument Used: Thermo Electron 42i S/N 0726024326
Analytical Method: Chemiluminescence
Last Multipoint Calibration: 08/31/2018

Reference Standard: Type / Cylinder #: GMIS / CC335716
Concentration / Uncertainty: 100.5 ppm ±0.52%
Expiration Date: 06/25/2025
Traceable to: SRM # / Sample # / Cylinder #: 1684b / 44-T-83 / FF9258
SRM Concentration / Uncertainty: 99.75 ppm / 0.5 ppm
SRM Expiration Date: 08/02/2018

First Analysis Data:						**Date**	09/07/2018
Z:	0	R:	100.5	C:	94.3	Conc:	94.3
R:	100.5	Z:	0	C:	94.6	Conc:	94.6
Z:	0	C:	94.7	R:	100.5	Conc:	94.7
UOM:	ppm				**Mean Test Assay:**		94.5 ppm

Second Analysis Data:						**Date**	09/14/2018
Z:	0	R:	100.5	C:	94.8	Conc:	94.7
R:	100.6	Z:	0	C:	94.9	Conc:	94.8
Z:	0	C:	94.9	R:	100.6	Conc:	94.8
UOM:	ppm				**Mean Test Assay:**		94.8 ppm

Analyzed By: **Quinn Halles**

Certified By: **Leeanna Rodriguez**

LO 9-24-2020

Information contained herein has been prepared at your request by qualified experts within Praxair Distribution, Inc. While we believe that the information is accurate within the limits of the analytical methods employed and is complete to the extent of the specific analyses performed, we make no warranty or representation as to the suitability of the use of the information for any purpose. The information is offered with the understanding that any use of the information is at the sole discretion and risk of the user. In no event shall the liability of Praxair Distribution, Inc., arising out of the use of the information contained herein exceed the fee established for providing such information.

Making our world more productive

DocNumber: 430011

Linde Gas & Equipment Inc.
5700 S. Alameda Street
Los Angeles CA 90058
Tel: 323-585-2154
Fax: 714-542-6689
PGVP ID: F22021

CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

Certificate Issuance Date: 10/20/2021 | Fill Date: 10/06/2021
Linde Order Number: 52340236 | Lot Number: 70086127907
Part Number: EV NICONOE112AS | Cylinder Style & Outlet: AS | CGA 660
Customer PO Number: LUIS OLIVARES | Cylinder Pressure and Volume: 2000 psig | 140 ft3

Montrose Air Quality Services, LLC
1631 E. St. Andrew Pl.
Santa Ana, CA 92705

Certified Concentration

ProSpec EZ Cert

Expiration Date:	10/20/2024	NIST Traceable
Cylinder Number:	CC503587	Expanded Uncertainty
5.55 ppm	Carbon monoxide	± 0.05 ppm
5.51 ppm	Nitric oxide	± 0.05 ppm
Balance	Nitrogen	

For Reference Only: NOx 5.59 ppm

Certification Information: Certification Date: 10/20/2021 Term: 36 Months Expiration Date: 10/20/2024

This cylinder was certified according to the 2012 EPA Traceability Protocol, Document #EPA-600/R-12/531, using Procedure G1. Uncertainty above is expressed as absolute expanded uncertainty at a level of confidence of approximately 95% with a coverage factor k = 2. Do Not Use this Standard if Pressure is less than 100 PSIG.

Analytical Data:

(R=Reference Standard, Z=Zero Gas, C=Gas Candidate)

1. **Component:** Carbon monoxide

Requested Concentration: 5.5 ppm
Certified Concentration: 5.55 ppm
Instrument Used: Horiba VIA-510 S/N 43627990042
Analytical Method: NDIR
Last Multipoint Calibration: 10/01/2021

First Analysis Data:						Date	10/13/2021
Z:	0	R:	49.3	C:	53.9	Conc:	5.47
R:	50.2	Z:	0	C:	55.3	Conc:	5.62
Z:	0	C:	54.6	R:	49.8	Conc:	5.55
UOM:	mV			Mean Test Assay:		5.55	ppm

Reference Standard: Type / Cylinder #: GMIS / SA13564
Concentration / Uncertainty: 5.055 ppm ±0.028 ppm
Expiration Date: 09/05/2026
Traceable to: SRM # / Sample # / Cylinder #: SRM 1677c / 5-J-42 / CAL015337
SRM Concentration / Uncertainty: 9.825 ppm / ±0.047 ppm
SRM Expiration Date: 06/24/2024

Second Analysis Data:						Date	
Z:	0	R:	0	C:	0	Conc:	0
R:	0	Z:	0	C:	0	Conc:	0
Z:	0	C:	0	R:	0	Conc:	0
UOM:	mV			Mean Test Assay:			ppm

2. **Component:** Nitric oxide

Requested Concentration: 5.5 ppm
Certified Concentration: 5.51 ppm
Instrument Used: Thermo Electron 42i-LS S/N 1030645077
Analytical Method: Chemiluminescence
Last Multipoint Calibration: 10/01/2021

First Analysis Data:						Date	10/13/2021
Z:	0	R:	5.09	C:	5.49	Conc:	5.49
R:	5.08	Z:	0	C:	5.49	Conc:	5.49
Z:	0	C:	5.5	R:	5.09	Conc:	5.5
UOM:	ppm			Mean Test Assay:		5.5	ppm

Reference Standard: Type / Cylinder #: GMIS / DT0036030
Concentration / Uncertainty: 5.09 ppm ±0.04 ppm
Expiration Date: 09/15/2024
Traceable to: SRM # / Sample # / Cylinder #: APEX1324292 / C1837210.01 /
SRM Concentration / Uncertainty: 5.00 ppm / ±0.04 ppm
SRM Expiration Date: 04/17/2022

Second Analysis Data:						Date	10/20/2021
Z:	0	R:	5.09	C:	5.52	Conc:	5.53
R:	5.08	Z:	0	C:	5.52	Conc:	5.53
Z:	0	C:	5.51	R:	5.08	Conc:	5.52
UOM:	ppm			Mean Test Assay:		5.52	ppm

K.V. 10-5-21

Analyzed By Henry Koung

Certified By Lissette Morales

CO 5.55
NOX 5.59
CC503587
EXP. 10-20-24

Information contained herein has been prepared at your request by qualified experts within Linde Gas & Equipment Inc. While we believe that the information is accurate within the limits of the analytical methods employed and is complete to the extent of the specific analyses performed, we make no warranty or representation as to the suitability of the use of the information for any purpose. The information is offered with the understanding that any use of the information is at the sole discretion and risk of the user. In no event shall the liability of Linde Gas & Equipment Inc., arising out of the use of the information contained herein exceed the fee established for providing such information.

[redacted]03

F22021

PRAXAIR
Making our planet more productive

DocNumber: 405772

Praxair Distribution, Inc.
5700 S. Alameda Street
Los Angeles CA 90058
Tel: 323-585-2154
Fax: 714-542-6689
PGVP ID: F22021

CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

Montrose Air Quality Services, LLC
1631 E. St. Andrew Pl.
Santa Ana, CA 92705

Certificate Issuance Date: 03/15/2021 *Fill Date:* 03/09/2021
Praxair Order Number: 36221225 *Lot Number:* 70086106807
Part Number: NI CO8ME-AS *Cylinder Style & Outlet:* AS CGA 350
Customer PO Number: verbal: Luis *Cylinder Pressure and Volume:* 2000 psig 140 ft3

Certified Concentration

ProSpec EZ Cert

Expiration Date:	03/15/2029	NIST Traceable
Cylinder Number:	EB0058229	Expanded Uncertainty
8.37 ppm	Carbon monoxide	± 0.05 ppm
Balance	Nitrogen	

Certification Information:

Certification Date: 03/15/2021 *Term:* 96 Months *Expiration Date:* 03/15/2029

This cylinder was certified according to the 2012 EPA Traceability Protocol, Document #EPA-600/R-12/531, using Procedure G1. Uncertainty above is expressed as absolute expanded uncertainty at a level of confidence of approximately 95% with a coverage factor k = 2. Do Not Use this Standard if Pressure is less than 100 PSIG.

Analytical Data:

(R=Reference Standard, Z=Zero Gas, C=Gas Candidate)

1. ***Component:*** **Carbon monoxide**

Requested Concentration: 8 ppm
Certified Concentration: 8.37 ppm
Instrument Used: Horiba VIA-510 S/N 43627993042
Analytical Method: NDIR
Last Multipoint Calibration: 02/26/2021

Reference Standard: Type / Cylinder #: GMIS / CC707274
Concentration / Uncertainty: 9.914 ppm ±0.050 ppm
Expiration Date: 09/05/2026
Traceable to: SRM # / Sample # / Cylinder #: SRM 1677c / 5-J-42 / CAL015337
SRM Concentration (enter with units) / : 9.825 ppm / ±0.047 ppm
SRM Expiration Date: 06/24/2024

First Analysis Data:					Date 03/15/2021
Z: 0	R: 95.1	C: 80.5	Conc: 8.39		
R: 95.1	Z: 0	C: 80.3	Conc: 8.37		
Z: 0	C: 80.3	R: 95.3	Conc: 8.37		
UOM: mV		Mean Test Assay:	8.37	ppm	

Second Analysis Data:					Date
Z: 0	R: 0	C: 0	Conc: 0		
R: 0	Z: 0	C: 0	Conc: 0		
Z: 0	C: 0	R: 0	Conc: 0		
UOM: mV		Mean Test Assay:		ppm	

Analyzed By: Jose Vasquez

Certified By: Amelia Real

CO 8.37
EB0058229
EXP. 3-15-2029
F22021

LO 3-29-21

Information contained herein has been prepared at your request by qualified experts within Praxair Distribution, Inc. While we believe that the information is accurate within the limits of the analytical methods employed and is complete to the extent of the specific analyses performed, we make no warranty or representation as to the suitability of the use of the information for any purpose. The information is offered with the understanding that any use of the information is at the sole discretion and risk of the user. In no event shall the liability of Praxair Distribution, Inc., arising out of the use of the information contained herein exceed the fee established for providing such information.

MONTROSE

DIGITAL TEMPERATURE READOUT CALIBRATION

Digital Temperature Readout ID: 17-WCS
Readout Description: Control Box
Date: 1/4/2022
Performed By: JG, NG, RM, DA, AS

Calibrated Thermocouple ID: TC-CAL
T1 Reference Thermometer ID: 661731
T2 Reference Thermometer ID: 805002770
T3 Reference Thermometer ID: 805002770

T/C I.D.	Readout	T/C - Readout °F				Reference Thermometer °F				Difference		
TC-CAL	I.D.	Reading 1	Reading 2	Reading 3	Average	Reading 1	Reading 2	Reading 3	Average	°F	%, (°R)	
T3 (OIL)	17-WCS	349	349	349	349	350	350	350	350	1.0	0.1%	Pass
T2 (Boiling H_2O)	17-WCS	214	214	214	214	212	212	212	212	2.0	0.3%	Pass
T1 (Ice/Water)	17-WCS	30	30	30	30	32	32	32	32	2.0	0.4%	Pass

1) Difference % (°R) = Difference (°F) / (Average Tref + 460)
2) Pass if all Differences are less than 1.5% (°R)

Thermocouple Source Readings

	T/C Source	T/C - Readout °F				T/C Source °F				Difference		
	S/N	Reading 1	Reading 2	Reading 3	Average	Reading 1	Reading 2	Reading 3	Average	°F	%, (°R)	
T4 (~650 F)	129103	651	651	651	651	650	650	650	650	1.0	0.1%	Pass
T3 (~370 F)	129103	371	371	371	371	370	370	370	370	1.0	0.1%	Pass
T2 (~212 F)	129103	214	214	214	214	212	212	212	212	2.0	0.3%	Pass
T1 (~32 F)	129103	32	32	32	32	32	32	32	32	0.0	0.0%	Pass

1) Difference % (°R) = Difference (°F) / (Average Tref + 460)
2) Pass if all Differences are less than 1.5% (°R)

MONTROSE

DIGITAL TEMPERATURE READOUT CALIBRATION

Digital Temperature Readout ID: 26 WCS
Readout Description: Control Box
Date: 1/4/2022
Performed By: JG, NG, RM, DA, AS

Calibrated Thermocouple ID: TC-CAL
T1 Reference Thermometer ID: 661731
T2 Reference Thermometer ID: 805002770
T3 Reference Thermometer ID: 805002770

T/C I.D.	Readout	T/C - Readout °F				Reference Thermometer °F				Difference		
TC-CAL	I.D.	Reading 1	Reading 2	Reading 3	Average	Reading 1	Reading 2	Reading 3	Average	°F	%, (°R)	
T3 (OIL)	26 WCS	356	356	356	356	350	350	350	350	6.0	0.7%	Pass
T2 (Boiling H_2O)	26 WCS	218	218	218	218	212	212	212	212	6.0	0.9%	Pass
T1 (Ice/Water)	26 WCS	34	34	34	34	32	32	32	32	2.0	0.4%	Pass

1) Difference % (°R) = Difference (°F) / (Average Tref + 460)
2) Pass if all Differences are less than 1.5% (°R)

Thermocouple Source Readings

	T/C Source	T/C - Readout °F				T/C Source °F				Difference		
	S/N	Reading 1	Reading 2	Reading 3	Average	Reading 1	Reading 2	Reading 3	Average	°F	%, (°R)	
T4 (~650 F)	129103	655	655	655	655	650	650	650	650	5.0	0.5%	Pass
T3 (~370 F)	129103	378	378	378	378	370	370	370	370	8.0	1.0%	Pass
T2 (~212 F)	129103	218	218	217	218	212	212	212	212	5.7	0.8%	Pass
T1 (~32 F)	129103	34	34	34	34	32	32	32	32	2.0	0.4%	Pass

1) Difference % (°R) = Difference (°F) / (Average Tref + 460)
2) Pass if all Differences are less than 1.5% (°R)

DIGITAL TEMPERATURE READOUT CALIBRATION

Digital Temperature Readout ID: PTC-42
Readout Description: Handheld
Date: 1/5/2022
Performed By: JG, NG, RM, DA, AS

Calibrated Thermocouple ID: TC-CAL
T1 Reference Thermometer ID: 661731
T2 Reference Thermometer ID: 805002770
T3 Reference Thermometer ID: 805002770

T/C I.D.	Readout	T/C - Readout °F				Reference Thermometer °F				Difference		
TC-CAL	I.D.	Reading 1	Reading 2	Reading 3	Average	Reading 1	Reading 2	Reading 3	Average	°F	%, (°R)	
T3 (OIL)	PTC-42	354	354	354	354	354	354	354	354	0.0	0.0%	Pass
T2 (Boiling H_2O)	PTC-42	212	212	212	212	212	212	212	212	0.0	0.0%	Pass
T1 (Ice/Water)	PTC-42	37	37	37	37	32	32	32	32	5.0	1.0%	Pass

1) Difference % (°R) = Difference (°F) / (Average Tref + 460)
2) Pass if all Differences are less than 1.5% (°R)

Thermocouple Source Readings

	T/C Source	T/C - Readout °F				T/C Source °F				Difference		
	S/N	Reading 1	Reading 2	Reading 3	Average	Reading 1	Reading 2	Reading 3	Average	°F	%, (°R)	
T4 (~650 F)	129103	650	650	650	650	650	650	650	650	0.0	0.0%	Pass
T3 (~370 F)	129103	370	370	370	370	370	370	370	370	0.0	0.0%	Pass
T2 (~212 F)	129103	212	212	212	212	212	212	212	212	0.0	0.0%	Pass
T1 (~32 F)	129103	38	38	38	38	32	32	32	32	6.0	1.2%	Pass

1) Difference % (°R) = Difference (°F) / (Average Tref + 460)
2) Pass if all Differences are less than 1.5% (°R)

MONTRON

THERMOCOUPLE CALIBRATION

Thermocouple ID: 120
Date: 1/7/2022
Performed By: JG, NG, RM, DA, A

Calibrated Digital Temperature Readout ID: PTC -79
T1 Reference Thermometer ID: 661731
T2 Reference Thermometer ID: 805002770
T3 Reference Thermometer ID: 805002770

T/C I.D. 120	Readout I.D.	T/C - Readout °F				Reference Thermometer °F				Difference		
		Reading 1	Reading 2	Reading 3	Average	Reading 1	Reading 2	Reading 3	Average	°F	%, (°R)	
T3 (OIL)	PTC -79	351	352	352	352	345	345	345	345	6.7	0.8%	Pass
T2 (Boiling H_2O)	PTC -79	217	217	217	217	214	214	214	214	3.0	0.4%	Pass
T1 (Ice/Water)	PTC -79	34	34	34	34	32	32	32	32	2.0	0.4%	Pass

1) Difference % (°R) = Difference (°F) / (Average Tref + 460)
2) Pass if all Differences are less than 1.5% (°R)

MONTROSE

THERMOCOUPLE CALIBRATION

Thermocouple ID: 119
Date: 1/7/2022
Performed By: JG, NG, RM, DA, A

Calibrated Digital Temperature Readout ID: PTC -79
T1 Reference Thermometer ID: 661731
T2 Reference Thermometer ID: 805002770
T3 Reference Thermometer ID: 805002770

T/C I.D. 119	Readout I.D.	T/C - Readout °F				Reference Thermometer °F				Difference		
		Reading 1	Reading 2	Reading 3	Average	Reading 1	Reading 2	Reading 3	Average	°F	%, (°R)	
T3 (OIL)	PTC -79	350	350	351	350	345	345	345	345	5.3	0.7%	Pass
T2 (Boiling H_2O)	PTC -79	216	216	216	216	214	214	214	214	2.0	0.3%	Pass
T1 (Ice/Water)	PTC -79	35	34	34	34	32	32	32	32	2.3	0.5%	Pass

1) Difference % (°R) = Difference (°F) / (Average Tref + 460)
2) Pass if all Differences are less than 1.5% (°R)

MONTROSE

THERMOCOUPLE CALIBRATION

Thermocouple ID: 58
Date: 1/5/2022
Performed By: JG, NG, RM, DA, A

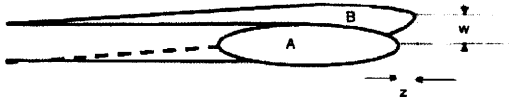
Calibrated Digital Temperature Readout ID: PTC -79
T1 Reference Thermometer ID: 661731
T2 Reference Thermometer ID: 805002770
T3 Reference Thermometer ID: 805002770

T/C I.D. 58	Readout I.D.	T/C - Readout °F Reading 1	Reading 2	Reading 3	Average	Reference Thermometer °F Reading 1	Reading 2	Reading 3	Average	Difference °F	%, (°R)	
T3 (OIL)	PTC -79	345	346	346	346	348	348	348	348	2.3	0.3%	Pass
T2 (Boiling H_2O)	PTC -79	212	212	212	212	212	212	212	212	0.0	0.0%	Pass
T1 (Ice/Water)	PTC -79	35	35	35	35	32	32	32	32	3.0	0.6%	Pass

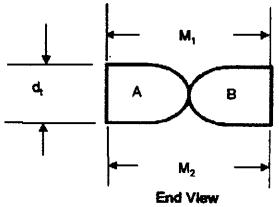
1) Difference % (°R) = Difference (°F) / (Average Tref + 460)
2) Pass if all Differences are less than 1.5% (°R)

MONTROSE

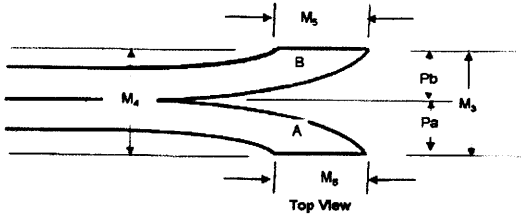
S Type Pitot Tube Dimensional Calibration Record



Side View



End View



Top View

Acceptability Criteria			z < 1/8"	w < 1/32"	Yes	"3/16" < Dt < 3/8"	n/a	n/a	n/a	n/a	n/a	n/a	10 degrees	5 degrees	1.05 Dt < P < 1.5 Dt	
Pitot ID	Date	Calibrated By	Side View, Impact openings Properly aligned, z < 1/8"	Side View, Impact openings Properly aligned, w < 1/32"	Pa = Pb	Tubing Diameter, dt	M1	M2	M3	M4	M5	M6	Average Face Opening Plane Angle, offset from perpendicular to transverse axis	Average Face Opening Plane Frontal Angle from parallel to Longitudinal Axis	Ratio of P/Dt	Status
119	1/5/22	NG	Y	Y	Y	0.373	0.931	0.931	0.937	0.933	0.415	0.420	0.0	0.3	1.2	Pass
120	1/5/22	NG	Y	Y	Y	0.370	0.918	0.922	0.922	0.917	0.443	0.440	-0.3	0.3	1.2	Pass
058	1/5/22	NG	Y	Y	Y	0.373	0.837	0.835	0.828	0.837	0.425	0.425	0.2	-0.6	1.1	Pass

Notes: Reference "A Type-S Pitot Tube Calibration Study", Robert F. Vollaro, October 15, 1975
If tube is not visibly deformed it is assumed that Pa = Pb = .5 x avg. of M1 & M2, and that average face opening plane angles represent individual angles to tube axis

SEMI-ANNUAL DRY GAS METER/ORIFICE CALIBRATION

unit 1

Orifice Method - Triplicate Runs/Four Calibration Points
English Meter Box Units, English K' Factor
Filename: C:\Users\dwonderly\Information\Calibrations\Dry Gas Meters\17-WCS\2022\[17WCS Semi Annual Cal 1-17-2022.xls]WCS
File Modified From: APEX 522 Series Meter box Calibration
Revised: 4/8/2005

Model #: E.S. C-5000 Source Sampler
ID #: 17-WCS
Date: 1/17/2022
Bar. Pressure: 30.02 (in. Hg)
Performed By: L Olivares
Reviewed By: M Chowsanitphon

DRY GAS METER READINGS									CRITICAL ORIFICE READINGS					
					Initial Temps.		Final Temps.					Ambient Temperature		
dH (in H2O)	Time (min)	Volume Initial (cu ft)	Volume Final (cu ft)	Volume Total (cu ft)	Inlet (deg F)	Outlet (deg F)	Inlet (deg F)	Outlet (deg F)	Orifice Serial# (number)	K' Orifice Coefficient (see above)	Actual Vacuum (in Hg)	Initial (deg F)	Final (deg F)	Average (deg F)
0.13	26.00	875.700	881.020	**5.320**	71.0	67.0	68.0	67.0	AA-33	0.1574	20.0	69.0	70.0	**69.5**
0.13	26.00	881.020	886.340	**5.320**	68.0	67.0	68.0	67.0	AA-33	0.1574	20.0	70.0	69.0	**69.5**
0.13	26.00	886.340	891.660	**5.320**	68.0	67.0	68.0	67.0	AA-33	0.1574	20.0	69.0	69.0	**69.0**
0.65	12.00	893.100	898.480	**5.380**	76.0	68.0	72.0	68.0	QI-48	0.3434	18.0	70.0	71.0	**70.5**
0.65	12.00	898.480	903.860	**5.380**	72.0	68.0	71.0	68.0	QI-48	0.3434	18.0	71.0	70.0	**70.5**
0.65	12.00	903.860	909.240	**5.380**	71.0	68.0	71.0	68.0	QI-48	0.3434	18.0	70.0	70.0	**70.0**
2.00	7.00	858.700	864.130	**5.430**	72.0	66.0	72.0	66.0	QI-63	0.5994	16.0	67.0	68.0	**67.5**
2.00	7.00	864.130	869.555	**5.425**	72.0	66.0	72.0	67.0	QI-63	0.5994	16.0	68.0	68.0	**68.0**
2.00	7.00	869.555	874.980	**5.425**	72.0	67.0	73.0	67.0	QI-63	0.5994	16.0	68.0	68.0	**68.0**
3.70	5.00	841.500	846.740	**5.240**	67.0	64.0	70.0	64.0	AA-73	0.8121	15.0	66.0	66.0	**66.0**
3.70	5.00	846.740	851.975	**5.235**	70.0	64.0	71.0	65.0	AA-73	0.8121	15.0	66.0	67.0	**66.5**
3.70	5.00	851.975	857.210	**5.235**	71.0	65.0	72.0	65.0	AA-73	0.8121	15.0	67.0	67.0	**67.0**

DRY GAS METER		ORIFICE			DRY GAS METER CALIBRATION FACTOR	ORIFICE CALIBRATION FACTOR	Individual Run	Individual Orifice	Orifice Average	Orifice Average
VOLUME CORRECTED Vm(std) (cu ft)	VOLUME CORRECTED Vm(std) (liters)	VOLUME CORRECTED Vcr(std) (cu ft)	VOLUME CORRECTED Vcr(std) (liters)	VOLUME NOMINAL Vcr (cu ft)	Y Value (number)	dH@ Value (in H2O)	0.95 < Y < 1.05?	Ymax - Ymin < 0.010?	0.98 < Y/Yd < 1.02?	dH@ - dH@ av < 0.155?
5.335	151.1	5.339	151.2	5.338	1.001	1.743	**Pass**			
5.342	151.3	5.339	151.2	5.338	0.999	1.743	**Pass**			
5.342	151.3	5.341	151.3	5.336	1.000	1.742	**Pass**			
				Average	**1.000**	**1.743**		**Pass**	**Pass**	**Pass**
5.374	152.2	5.371	152.1	5.381	0.999	1.831	**Pass**			
5.387	152.5	5.371	152.1	5.381	0.997	1.831	**Pass**			
5.389	152.6	5.373	152.2	5.378	0.997	1.829	**Pass**			
				Average	**0.998**	**1.831**		**Pass**	**Pass**	**Pass**
5.462	154.7	5.484	155.3	5.463	1.004	1.846	**Pass**			
5.455	154.5	5.482	155.2	5.466	1.005	1.846	**Pass**			
5.450	154.3	5.482	155.2	5.466	1.006	1.844	**Pass**			
				Average	**1.005**	**1.845**		**Pass**	**Pass**	**Pass**
5.321	150.7	5.315	150.5	5.279	0.999	1.862	**Pass**			
5.303	150.2	5.312	150.4	5.282	1.002	1.862	**Pass**			
5.295	150.0	5.310	150.4	5.284	1.003	1.862	**Pass**			
				Average	**1.001**	**1.862**		**Pass**	**Pass**	**Pass**

Average Yd: 1.001 **dH@: 1.820**

Q @ dH = 1: 0.556

SIGNED: Signature on File Date: 1/17/2022

Unit 2

SEMI-ANNUAL DRY GAS METER/ORIFICE CALIBRATION

Orifice Method - Triplicate Runs/Four Calibration Points
English Meter Box Units, English K' Factor
Filename: C:\Users\dwonderly\Information\Calibrations\Dry Gas Meters\26-WCS\2022\[26WCS Semi Annual Cal 2-11-2022.xls]WCS
File Modified From: APEX 522 Series Meter box Calibration
Revised: 4/8/2005

Model #: CleanAir Express
ID #: 26-WCS
Date: 2/11/2022
Bar. Pressure: 29.95 (in. Hg)
Performed By: L.Olivares
Reviewed By: M.Chowsanitpnon

DRY GAS METER READINGS									CRITICAL ORIFICE READINGS					
					Initial Temps.		Final Temps.					Ambient Temperature		
dH (in H2O)	Time (min)	Volume Initial (cu ft)	Volume Final (cu ft)	Volume Total (cu ft)	Inlet (deg F)	Outlet (deg F)	Inlet (deg F)	Outlet (deg F)	Orifice Serial# (number)	K' Orifice Coefficient (see above)	Actual Vacuum (in Hg)	Initial (deg F)	Final (deg F)	Average (deg F)
0.14	26.00	713.000	718.280	**5.280**	76.0	74.0	75.0	74.0	AA-33	0.1574	19.0	71.0	72.0	**71.5**
0.14	26.00	718.280	723.565	**5.285**	75.0	74.0	75.0	74.0	AA-33	0.1574	19.0	72.0	72.0	**72.0**
0.14	26.00	723.565	728.850	**5.285**	75.0	74.0	75.0	76.0	AA-33	0.1574	19.0	72.0	72.0	**72.0**
0.64	12.00	730.300	735.650	**5.350**	81.0	75.0	79.0	76.0	QI-48	0.3434	19.0	72.0	72.0	**72.0**
0.64	12.00	735.650	741.010	**5.360**	79.0	76.0	77.0	76.0	QI-48	0.3434	19.0	72.0	72.0	**72.0**
0.64	12.00	741.010	746.375	**5.365**	77.0	76.0	77.0	76.0	QI-48	0.3434	19.0	72.0	72.0	**72.0**
1.90	7.00	696.500	701.890	**5.390**	77.0	74.0	78.0	74.0	QI-63	0.5994	17.0	73.0	72.0	**72.5**
1.90	7.00	701.890	707.290	**5.400**	78.0	74.0	78.0	74.0	QI-63	0.5994	17.0	72.0	71.0	**71.5**
1.90	7.00	707.290	712.695	**5.405**	78.0	74.0	79.0	74.0	QI-63	0.5994	17.0	71.0	71.0	**71.0**
3.70	5.00	680.200	685.410	**5.210**	73.0	72.0	74.0	72.0	AA-73	0.8121	16.0	71.0	71.0	**71.0**
3.70	5.00	685.410	690.620	**5.210**	74.0	72.0	77.0	73.0	AA-73	0.8121	16.0	71.0	72.0	**71.5**
3.70	5.00	690.620	695.820	**5.200**	77.0	73.0	78.0	73.0	AA-73	0.8121	16.0	72.0	72.0	**72.0**

DRY GAS METER		ORIFICE			DRY GAS METER CALIBRATION FACTOR	ORIFICE CALIBRATION FACTOR				
VOLUME CORRECTED Vm(std) (cu ft)	VOLUME CORRECTED Vm(std) (liters)	VOLUME CORRECTED Vcr(std) (cu ft)	VOLUME CORRECTED Vcr(std) (liters)	VOLUME NOMINAL Vcr (cu ft)		Y Value (number)	dH@ Value (in H2O)	Individual Run 0.95 < Y < 1.05?	Individual Orifice Ymax - Ymin < 0.010?	Orifice Average 0.98 < Y/Yd < 1.02?	Orifice Average dH@ - dH@ av < 0.155?
5.218	147.8	5.316	150.6	5.348		1.019	1.864	**Pass**			
5.226	148.0	5.314	150.5	5.351		1.017	1.866	**Pass**			
5.221	147.9	5.314	150.5	5.351		1.018	1.862	**Pass**			
					Average	**1.018**	**1.864**		**Pass**	**Pass**	**Pass**
5.264	149.1	5.351	151.5	5.388		1.016	1.787	**Pass**			
5.282	149.6	5.351	151.5	5.388		1.013	1.785	**Pass**			
5.291	149.9	5.351	151.5	5.388		1.011	1.785	**Pass**			
					Average	**1.014**	**1.786**		**Pass**	**Pass**	**Pass**
5.340	151.2	5.446	154.2	5.489		1.020	1.748	**Pass**			
5.347	151.4	5.451	154.4	5.484		1.019	1.745	**Pass**			
5.350	151.5	5.453	154.4	5.481		1.019	1.743	**Pass**			
					Average	**1.019**	**1.745**		**Pass**	**Pass**	**Pass**
5.214	147.6	5.278	149.5	5.304		1.012	1.856	**Pass**			
5.201	147.3	5.275	149.4	5.307		1.014	1.856	**Pass**			
5.179	146.7	5.273	149.3	5.309		1.018	1.856	**Pass**			
					Average	**1.015**	**1.856**		**Pass**	**Pass**	**Pass**

Average Yd: 1.016 **dH@: 1.813**

Q @ dH = 1: 0.557

SIGNED: Signature on File Date: 2/11/2022

5 of

SEMI-ANNUAL DRY GAS METER/ORIFICE CALIBRATION

Orifice Method - Triplicate Runs/Four Calibration Points
English Meter Box Units, English K' Factor
Filename: C:\Users\dwonderly\Information\Calibrations\Dry Gas Meters\1-P&M\2022\[1P&M Semi Annual Cal 1-5-2022.xls]WCS
File Modified From: APEX 522 Series Meter box Calibration
Revised: 4/8/2005

Model #: Rockwell International S-275
ID #: 1 P&M
Date: 1/5/2022
Bar. Pressure: 29.96 (in. Hg)
Performed By: L.Olivares
Reviewed By: M.Chowsanitphon

DRY GAS METER READINGS									CRITICAL ORIFICE READINGS					
		Volume	Volume	Volume	Initial Temps.		Final Temps.		Orifice	K' Orifice	Actual	Ambient Temperature		
dH (in H2O)	Time (min)	Initial (cu ft)	Final (cu ft)	Total (cu ft)	Inlet (deg F)	Outlet (deg F)	Inlet (deg F)	Outlet (deg F)	Serial# (number)	Coefficient (see above)	Vacuum (in Hg)	Initial (deg F)	Final (deg F)	Average (deg F)
0.12	26.00	909.300	914.535	**5.235**	66.0	64.0	65.0	64.0	AA-33	0.1574	18.0	64.0	64.0	**64.0**
0.12	26.00	914.535	919.770	**5.235**	65.0	64.0	65.0	64.0	AA-33	0.1574	18.0	64.0	64.0	**64.0**
0.12	26.00	919.770	925.010	**5.240**	65.0	64.0	65.0	64.0	AA-33	0.1574	18.0	64.0	64.0	**64.0**
0.62	12.00	892.300	897.610	**5.310**	69.0	63.0	68.0	64.0	QI-48	0.3434	18.0	64.0	64.0	**64.0**
0.62	12.00	897.610	902.920	**5.310**	68.0	64.0	68.0	64.0	QI-48	0.3434	18.0	64.0	64.0	**64.0**
0.62	12.00	902.920	908.235	**5.315**	68.0	64.0	68.0	64.0	QI-48	0.3434	18.0	64.0	64.0	**64.0**
1.90	7.00	874.300	879.680	**5.380**	72.0	62.0	73.0	63.0	QI-63	0.5994	16.0	63.0	63.0	**63.0**
1.90	7.00	879.680	885.060	**5.380**	73.0	63.0	74.0	63.0	QI-63	0.5994	16.0	63.0	64.0	**63.5**
1.90	7.00	885.060	890.440	**5.380**	74.0	63.0	74.0	63.0	QI-63	0.5994	16.0	64.0	64.0	**64.0**
3.50	5.00	856.000	861.160	**5.160**	70.0	60.0	73.0	61.0	AA-73	0.8121	15.0	62.0	62.0	**62.0**
3.50	5.00	861.160	866.330	**5.170**	73.0	61.0	75.0	61.0	AA-73	0.8121	15.0	62.0	62.0	**62.0**
3.50	5.00	866.330	871.505	**5.175**	75.0	61.0	76.0	62.0	AA-73	0.8121	15.0	62.0	62.0	**62.0**

DRY GAS METER		ORIFICE			DRY GAS METER CALIBRATION FACTOR	ORIFICE CALIBRATION FACTOR	Individual Run	Individual Orifice	Orifice Average	Orifice Average
VOLUME CORRECTED Vm(std) (cu ft)	VOLUME CORRECTED Vm(std) (liters)	VOLUME CORRECTED Vcr(std) (cu ft)	VOLUME CORRECTED Vcr(std) (liters)	VOLUME NOMINAL Vcr (cu ft)	Y Value (number)	dH@ Value (in H2O)	0.95 < Y < 1.05?	Ymax - Ymin < 0.010?	0.98 < Y/Yd < 1.02?	dH@ - dH@ av < 0.155?
5.274	149.4	5.356	151.7	5.311	1.016	1.605	**Pass**			
5.276	149.4	5.356	151.7	5.311	1.015	1.605	**Pass**			
5.281	149.6	5.356	151.7	5.311	1.014	1.605	**Pass**			
				Average	**1.015**	**1.605**		**Pass**	**Pass**	**Pass**
5.343	151.3	5.393	152.7	5.347	1.009	1.744	**Pass**			
5.343	151.3	5.393	152.7	5.347	1.009	1.742	**Pass**			
5.348	151.5	5.393	152.7	5.347	1.008	1.742	**Pass**			
				Average	**1.009**	**1.743**		**Pass**	**Pass**	**Pass**
5.415	153.4	5.497	155.7	5.440	1.015	1.754	**Pass**			
5.408	153.1	5.494	155.6	5.442	1.016	1.754	**Pass**			
5.405	153.1	5.491	155.5	5.445	1.016	1.755	**Pass**			
				Average	**1.016**	**1.754**		**Pass**	**Pass**	**Pass**
5.229	148.1	5.325	150.8	5.259	1.018	1.763	**Pass**			
5.224	148.0	5.325	150.8	5.259	1.019	1.762	**Pass**			
5.219	147.8	5.325	150.8	5.259	[redacted]	1.760	**Pass**			
				Average	**1.019**	**1.762**		**Pass**	**Pass**	**Pass**

Average Yd: **1.015** **dH@:** **1.716**

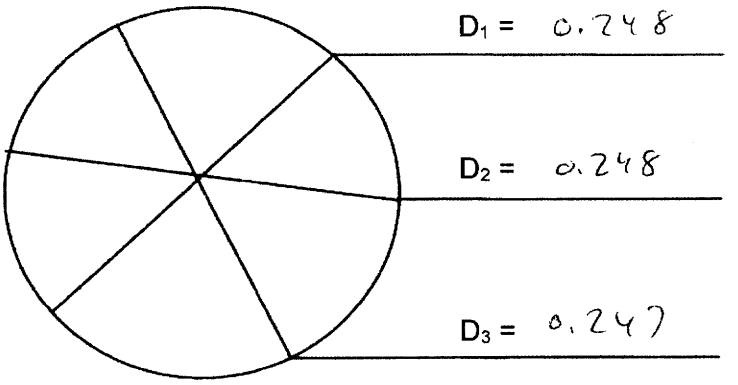
Q @ dH = 1: **0.573**

SIGNED: Signature on File Date: 1/5/2022

MONTROSE

NOZZLE CALIBRATION DATA

Nozzle I.D.	E176	Date	4/5/22
Material	SS	By	MW
Configuration (L or Hook)			



Maximum Difference D_i - D_j = .001 (must be 0.004" or less)

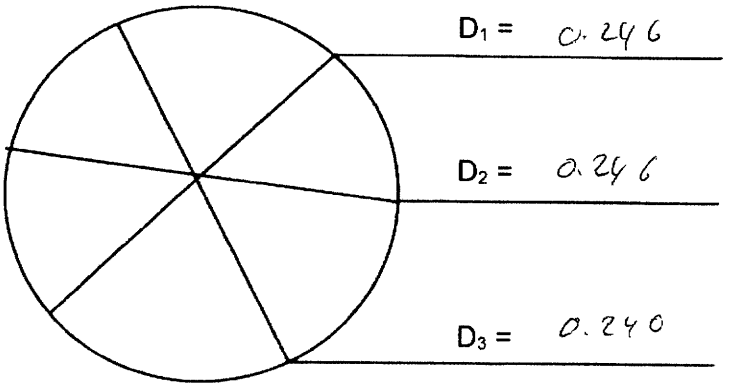
Average Dn = 0.248

Note: Measure three diameters with micrometer

MONTROSE

NOZZLE CALIBRATION DATA

Nozzle I.D. #183	Date 4/5/22
Material SS	By JW
Configuration (L or ~~Hook~~)	



Maximum Difference $D_i - D_j$ = none (must be 0.004" or less)

Average Dn = 0.246

Note: Measure three diameters with micrometer

MONTROSE

NOZZLE CALIBRATION

Nozzle #	Date	Performed By	D_1	D_2	D_3	Average D_n	Status
176	1/12/18	JG	0.248	0.248	0.247	0.248	Pass
183	1/12/18	JG	0.246	0.246	0.246	0.246	Pass

APPENDIX B
PLANT DATA

Appendix B.1
Plant Process Data

Appendix B.1.1
Load Data

Meaga Watt Production	
Average	41.30
date/time	MW
4/5/2022 7:00	40.54
4/5/2022 7:15	43.65
4/5/2022 7:30	43.37
4/5/2022 7:45	41.16
4/5/2022 8:00	40.54
4/5/2022 8:15	43.51
4/5/2022 8:30	42.05
4/5/2022 8:45	40.28
4/5/2022 9:00	39.68
4/5/2022 9:15	42.15
4/5/2022 9:30	42.79
4/5/2022 9:45	40.18
4/5/2022 10:00	41.08
4/5/2022 10:15	42.38
4/5/2022 10:30	40.74
4/5/2022 10:45	42.28
4/5/2022 11:00	41.82
4/5/2022 11:15	40.09
4/5/2022 11:30	40.10
4/5/2022 11:45	41.99
4/5/2022 12:00	39.82
4/5/2022 12:15	43.11
4/5/2022 12:30	42.84
4/5/2022 12:45	39.10
4/5/2022 13:00	42.71
4/5/2022 13:15	40.38
4/5/2022 13:30	40.32
4/5/2022 13:45	41.95
4/5/2022 14:00	41.85
4/5/2022 14:15	39.68
4/5/2022 14:30	39.36
4/5/2022 14:45	41.37
4/5/2022 15:00	41.73
4/5/2022 15:15	39.86
4/5/2022 15:30	41.01

Meaga Watt Production	
Average	39.62
date/time	MW
4/6/2022 8:45	38.42
4/6/2022 9:00	41.79
4/6/2022 9:15	40.61
4/6/2022 9:30	38.28
4/6/2022 9:45	38.38
4/6/2022 10:00	40.80
4/6/2022 10:15	40.56
4/6/2022 10:30	38.50
4/6/2022 10:45	38.24
4/6/2022 11:00	40.31
4/6/2022 11:15	40.52
4/6/2022 11:30	38.68
4/6/2022 11:45	40.68
4/6/2022 12:00	38.56
4/6/2022 12:15	38.44
4/6/2022 12:30	40.56
4/6/2022 12:45	38.72
4/6/2022 13:00	40.73
4/6/2022 13:15	40.73
4/6/2022 13:30	38.66
4/6/2022 13:45	38.52
4/6/2022 14:00	40.73
4/6/2022 14:15	37.94
4/6/2022 14:30	40.92
4/6/2022 14:45	38.72
4/6/2022 15:00	41.13
4/6/2022 15:15	38.00
4/6/2022 15:30	41.59
4/6/2022 15:45	41.15
4/6/2022 16:00	38.34
4/6/2022 16:15	39.10
4/6/2022 16:30	39.56

Meaga Watt Production	
Average	39.49
date/time	MW
4/7/2022 4:40	39.00
4/7/2022 4:55	36.48
4/7/2022 5:10	37.58
4/7/2022 5:25	39.30
4/7/2022 5:40	38.05
4/7/2022 5:55	40.42
4/7/2022 6:10	37.85
4/7/2022 6:25	40.66
4/7/2022 6:40	40.26
4/7/2022 6:55	38.25
4/7/2022 7:10	40.62
4/7/2022 7:25	38.53
4/7/2022 7:40	38.73
4/7/2022 7:55	40.96
4/7/2022 8:10	41.50
4/7/2022 8:25	38.42
4/7/2022 8:40	38.70
4/7/2022 8:55	41.06
4/7/2022 9:10	40.48
4/7/2022 9:25	38.71
4/7/2022 9:40	38.94
4/7/2022 9:55	41.40
4/7/2022 10:10	38.01
4/7/2022 10:25	40.98
4/7/2022 10:40	38.68
4/7/2022 10:55	41.81
4/7/2022 11:10	38.72
4/7/2022 11:25	41.06
4/7/2022 11:40	38.71
4/7/2022 11:55	40.58
4/7/2022 12:10	38.03
4/7/2022 12:25	40.84
4/7/2022 12:40	40.76
4/7/2022 12:55	38.71
4/7/2022 13:10	40.92
4/7/2022 13:25	38.71
4/7/2022 13:40	38.25
4/7/2022 13:55	39.78

Unit 2 Steam Production

	Average	194.7
	Date/time	Steam klb/hr
	4/5/2022 7:00	188.3
2	4/5/2022 7:15	206.8
3	4/5/2022 7:30	204.9
4	4/5/2022 7:45	187.0
5	4/5/2022 8:00	188.3
6	4/5/2022 8:15	203.0
7	4/5/2022 8:30	188.5
8	4/5/2022 8:45	201.9
9	4/5/2022 9:00	186.6
10	4/5/2022 9:15	205.2
11	4/5/2022 9:30	207.2
12	4/5/2022 9:45	186.8
13	4/5/2022 10:00	189.9
14	4/5/2022 10:15	198.3
15	4/5/2022 10:30	203.7
16	4/5/2022 10:45	190.5
17	4/5/2022 11:00	200.5
18	4/5/2022 11:15	185.4
19	4/5/2022 11:30	186.9
20	4/5/2022 11:45	199.4
21	4/5/2022 12:00	206.0
22	4/5/2022 12:15	188.0
23	4/5/2022 12:30	199.9
24	4/5/2022 12:45	185.2
25	4/5/2022 13:00	205.7
26	4/5/2022 13:15	187.5
27	4/5/2022 13:30	187.9
28	4/5/2022 13:45	201.2
29	4/5/2022 14:00	199.6
30	4/5/2022 14:15	185.7
31	4/5/2022 14:30	184.4
32	4/5/2022 14:45	198.8
33	4/5/2022 15:00	186.4

Unit 1 Steam Production

	Average	184.7
	Date/time	Steam klb/hr
	4/6/2022 4:00	202.5
2	4/6/2022 4:15	178.5
3	4/6/2022 4:30	196.7
4	4/6/2022 4:45	184.2
5	4/6/2022 5:00	183.0
6	4/6/2022 5:15	199.8
7	4/6/2022 5:30	178.3
8	4/6/2022 5:45	200.5
9	4/6/2022 6:00	201.1
10	4/6/2022 6:15	190.6
11	4/6/2022 6:30	189.3
12	4/6/2022 6:45	204.0
13	4/6/2022 7:00	204.5
14	4/6/2022 7:15	179.7
15	4/6/2022 7:30	191.7
16	4/6/2022 7:45	205.2
17	4/6/2022 8:00	197.5
18	4/6/2022 8:15	175.9
19	4/6/2022 8:30	195.5
20	4/6/2022 8:45	173.9
21	4/6/2022 9:00	194.2
22	4/6/2022 9:15	173.2
23	4/6/2022 9:30	172.3
24	4/6/2022 9:45	182.3
25	4/6/2022 10:00	186.6
26	4/6/2022 10:15	169.5
27	4/6/2022 10:30	168.4
28	4/6/2022 10:45	185.6
29	4/6/2022 11:00	168.5
30	4/6/2022 11:15	186.5
31	4/6/2022 11:30	170.6
32	4/6/2022 11:45	188.4
33	4/6/2022 12:00	168.9
34	4/6/2022 12:15	187.7
35	4/6/2022 12:30	186.6
36	4/6/2022 12:45	168.5
37	4/6/2022 13:00	172.6
38	4/6/2022 13:15	187.8
39	4/6/2022 13:30	168.5
40	4/6/2022 13:45	184.0
41	4/6/2022 14:00	186.9
42	4/6/2022 14:15	172.7
43	4/6/2022 14:30	174.4
44	4/6/2022 14:45	185.4
45	4/6/2022 15:00	168.4
46	4/6/2022 15:15	193.9
47	4/6/2022 15:30	175.1
48	4/6/2022 15:45	193.9
49	4/6/2022 16:00	178.2
50	4/6/2022 16:15	195.9
51	4/6/2022 16:30	196.2
52	4/6/2022 16:45	181.4
53	4/6/2022 17:00	181.7

Unit 1 Steam Production

	Average	176.2
	Date/time	Steam klb/hr
1	4/7/2022 4:40	172.4
2	4/7/2022 4:55	161.8
3	4/7/2022 5:10	165.9
4	4/7/2022 5:25	179.4
5	4/7/2022 5:40	164.4
6	4/7/2022 5:55	181.5
7	4/7/2022 6:10	165.3
8	4/7/2022 6:25	184.4
9	4/7/2022 6:40	168.3
10	4/7/2022 6:55	184.3
11	4/7/2022 7:10	185.3
12	4/7/2022 7:25	168.9
13	4/7/2022 7:40	168.3
14	4/7/2022 7:55	181.8
15	4/7/2022 8:10	183.3
16	4/7/2022 8:25	169.3
17	4/7/2022 8:40	168.8
18	4/7/2022 8:55	188.3
19	4/7/2022 9:10	177.0
20	4/7/2022 9:25	183.3
21	4/7/2022 9:40	177.0
22	4/7/2022 9:55	186.8
23	4/7/2022 10:10	189.5
24	4/7/2022 10:25	168.8
25	4/7/2022 10:40	172.9
26	4/7/2022 10:55	183.5
27	4/7/2022 11:10	187.2
28	4/7/2022 11:25	171.8
29	4/7/2022 11:40	170.5
30	4/7/2022 11:55	183.5
31	4/7/2022 12:10	167.7
32	4/7/2022 12:25	182.1
33	4/7/2022 12:40	184.3
34	4/7/2022 12:55	167.9
35	4/7/2022 13:10	170.5
36	4/7/2022 13:25	183.8
37	4/7/2022 13:40	168.1
38	4/7/2022 13:55	178.6

Appendix B.1.2
Unit 1 Operating Conditions

Appendix B.1.2.1
April 6, 2022 Data

4:00 PM

CEM 15 MINUTE REPORT

TAG	DESCRIPTION	VALUE	E/U
HIC-1704	#NULL!	#NULL!	LBS/HR
FIC-1753	BLR1 NOX LBS/HR CONTROL	25.775	LBS/HR
FIC-2753	BLR2 NOX LBS/HR CONTROL	32.881	LBS/HR
SI-1345	#1 LIMESTONE FEED RATE	4073.610	LBS/HR
PI-93	700# HEADER STM INLET PRESS "A"	125.126	PSI
FI-1040	BLR1 OUTLET STEAM LBS/HR	187.608	LBS/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	182.823	LBS/HR
EX-MW	GENERATOR MW GROSS	44.368	MEGWAT
FQI2-6105	B2 DAILY TOTAL FLOW	700.000	TONS
FQI2-6120	B3 DAILY TOTAL FLOW	668.000	TONS
SI-2345	fpget("SI-2345.C_DESC")	328.832	LBS/HR

CEM 15 MINUTE REPORT

TAG	DESCRIPTION	VALUE	E/U
HIC-1704	#NULL!	#NULL!	LBS/HR
FIC-1753	BLR1 NOX LBS/HR CONTROL	27.980	LBS/HR
FIC-2753	BLR2 NOX LBS/HR CONTROL	25.901	LBS/HR
SI-1345	#1 LIMESTONE FEED RATE	2229.594	LBS/HR
PI-93	700# HEADER STM INLET PRESS "A"	125.126	PSI
FI-1040	BLR1 OUTLET STEAM LBS/HR	178.694	LBS/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	184.982	LBS/HR
EX-MW	GENERATOR MW GROSS	43.767	MEGWAT
FQI2-6105	B2 DAILY TOTAL FLOW	660.000	TONS
FQI2-6120	B3 DAILY TOTAL FLOW	606.000	TONS
SI-2345	fpget("SI-2345.C_DESC")	521.511	LBS/HR

2:00 PM

CEM 15 MINUTE REPORT

TAG	DESCRIPTION	VALUE	E/U
HIC-1704	#NULL!	#NULL!	LBS/HR
FIC-1753	BLR1 NOX LBS/HR CONTROL	25.453	LBS/HR
FIC-2753	BLR2 NOX LBS/HR CONTROL	28.043	LBS/HR
SI-1345	#1 LIMESTONE FEED RATE	2038.057	LBS/HR
PI-93	700# HEADER STM INLET PRESS "A"	126.256	PSI
FI-1040	BLR1 OUTLET STEAM LBS/HR	177.342	LBS/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	187.597	LBS/HR
EX-MW	GENERATOR MW GROSS	43.897	MEGWAT
FQI2-6105	B2 DAILY TOTAL FLOW	610.000	TONS
FQI2-6120	B3 DAILY TOTAL FLOW	537.000	TONS
SI-2345	fpget("SI-2345.C_DESC")	415.104	LBS/HR

1:00 PM

CEM 15 MINUTE REPORT

TAG	DESCRIPTION	VALUE	E/U
HIC-1704	#NULL!	#NULL!	LBS/HR
FIC-1753	BLR1 NOX LBS/HR CONTROL	21.695	LBS/HR
FIC-2753	BLR2 NOX LBS/HR CONTROL	26.017	LBS/HR
SI-1345	#1 LIMESTONE FEED RATE	1855.283	LBS/HR
PI-93	700# HEADER STM INLET PRESS "A"	125.126	PSI
FI-1040	BLR1 OUTLET STEAM LBS/HR	175.707	LBS/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	185.788	LBS/HR
EX-MW	GENERATOR MW GROSS	43.360	MEGWAT
FQI2-6105	B2 DAILY TOTAL FLOW	565.000	TONS
FQI2-6120	B3 DAILY TOTAL FLOW	474.000	TONS
SI-2345	fpget("SI-2345.C_DESC")	250.063	LBS/HR

CEM 15 MINUTE REPORT

TAG	DESCRIPTION	VALUE	E/U
HIC-1704	#NULL!	#NULL!	LBS/HR
FIC-1753	BLR1 NOX LBS/HR CONTROL	24.285	LBS/HR
FIC-2753	BLR2 NOX LBS/HR CONTROL	26.875	LBS/HR
SI-1345	#1 LIMESTONE FEED RATE	1712.140	LBS/HR
PI-93	700# HEADER STM INLET PRESS "A"	125.879	PSI
FI-1040	BLR1 OUTLET STEAM LBS/HR	182.516	LBS/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	188.697	LBS/HR
EX-MW	GENERATOR MW GROSS	43.832	MEGWAT
FQI2-6105	B2 DAILY TOTAL FLOW	520.000	TONS
FQI2-6120	B3 DAILY TOTAL FLOW	410.000	TONS
SI-2345	fpget("SI-2345.C_DESC")	693.923	LBS/HR

CEM 15 MINUTE REPORT

TAG	DESCRIPTION	VALUE	E/U
HIC-1704	#NULL!	#NULL!	LBS/HR
FIC-1753	BLR1 NOX LBS/HR CONTROL	20.361	LBS/HR
FIC-2753	BLR2 NOX LBS/HR CONTROL	28.062	LBS/HR
SI-1345	#1 LIMESTONE FEED RATE	1646.219	LBS/HR
PI-93	700# HEADER STM INLET PRESS "A"	124.749	PSI
FI-1040	BLR1 OUTLET STEAM LBS/HR	171.583	LBS/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	185.054	LBS/HR
EX-MW	GENERATOR MW GROSS	43.019	MEGWAT
FQI2-6105	B2 DAILY TOTAL FLOW	475.000	TONS
FQI2-6120	B3 DAILY TOTAL FLOW	349.000	TONS
SI-2345	fpget("SI-2345.C_DESC")	385.193	LBS/HR

10:00 AM

CEM 15 MINUTE REPORT

TAG	DESCRIPTION	VALUE	E/U
HIC-1704	#NULL!	#NULL!	LBS/HR
FIC-1753	BLR1 NOX LBS/HR CONTROL	21.803	LBS/HR
FIC-2753	BLR2 NOX LBS/HR CONTROL	23.834	LBS/HR
SI-1345	#1 LIMESTONE FEED RATE	1731.347	LBS/HR
PI-93	700# HEADER STM INLET PRESS "A"	126.256	PSI
FI-1040	BLR1 OUTLET STEAM LBS/HR	176.930	LBS/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	181.240	LBS/HR
EX-MW	GENERATOR MW GROSS	43.133	MEGWAT
FQI2-6105	B2 DAILY TOTAL FLOW	429.000	TONS
FQI2-6120	B3 DAILY TOTAL FLOW	282.000	TONS
SI-2345	fpget("SI-2345.C_DESC")	673.918	LBS/HR

9:00 AM

CEM 15 MINUTE REPORT

TAG	DESCRIPTION	VALUE	E/U
HIC-1704	#NULL!	#NULL!	LBS/HR
FIC-1753	BLR1 NOX LBS/HR CONTROL	27.737	LBS/HR
FIC-2753	BLR2 NOX LBS/HR CONTROL	20.534	LBS/HR
SI-1345	#1 LIMESTONE FEED RATE	1422.133	LBS/HR
PI-93	700# HEADER STM INLET PRESS "A"	125.126	PSI
FI-1040	BLR1 OUTLET STEAM LBS/HR	181.729	LBS/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	186.771	LBS/HR
EX-MW	GENERATOR MW GROSS	43.827	MEGWAT
FQI2-6105	B2 DAILY TOTAL FLOW	388.000	TONS
FQI2-6120	B3 DAILY TOTAL FLOW	226.000	TONS
SI-2345	fpget("SI-2345.C_DESC")	305.153	LBS/HR

8:00 AM

CEM 15 MINUTE REPORT

TAG	DESCRIPTION	VALUE	E/U
HIC-1704	#NULL!	#NULL!	LBS/HR
FIC-1753	BLR1 NOX LBS/HR CONTROL	30.966	LBS/HR
FIC-2753	BLR2 NOX LBS/HR CONTROL	28.235	LBS/HR
SI-1345	#1 LIMESTONE FEED RATE	3276.164	LBS/HR
PI-93	700# HEADER STM INLET PRESS "A"	125.126	PSI
FI-1040	BLR1 OUTLET STEAM LBS/HR	197.489	LBS/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	195.265	LBS/HR
EX-MW	GENERATOR MW GROSS	46.298	MEGWAT
FQI2-6105	B2 DAILY TOTAL FLOW	347.000	TONS
FQI2-6120	B3 DAILY TOTAL FLOW	176.000	TONS
SI-2345	fpget("SI-2345.C_DESC")	626.563	LBS/HR

7:00 AM

CEM 15 MINUTE REPORT

TAG	DESCRIPTION	VALUE	E/U
HIC-1704	#NULL!	#NULL!	LBS/HR
FIC-1753	BLR1 NOX LBS/HR CONTROL	15.841	LBS/HR
FIC-2753	BLR2 NOX LBS/HR CONTROL	78.891	LBS/HR
SI-1345	#1 LIMESTONE FEED RATE	3654.231	LBS/HR
PI-93	700# HEADER STM INLET PRESS "A"	125.126	PSI
FI-1040	BLR1 OUTLET STEAM LBS/HR	179.700	LBS/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	188.469	LBS/HR
EX-MW	GENERATOR MW GROSS	44.076	MEGWAT
FQI2-6105	B2 DAILY TOTAL FLOW	304.000	TONS
FQI2-6120	B3 DAILY TOTAL FLOW	153.000	TONS
SI-2345	fpget("SI-2345.C_DESC")	611.403	LBS/HR

BOILER EFFICIENCY VARIABLES

TAG	DESCRIPTION	VALUE	E/U
AI-8020	BLR1 FLUE GAS CO2	11.463	% CO_2
AI-8021	BLR2 FLUE GAS CO2	13.271	% CO_2
AI-8030	BLR1 FLUE GAS CO	-1.491	% CO
AI-8031	BLR2 FLUE GAS CO	-4.670	% CO
AI-8060	% MOISTURE IN FLUE GAS BLR1	14.825	% H_2O
AI-8061	% MOISTURE IN FLUE GAS BLR2	17.230	% H_2O
AI-8050	CEM O2 DRY ANALYZER BLR1	9.569	% O_2
AI-8051	CEM O2 DRY ANALYZER BLR2	9.281	% O_2
AIC-9010	BLR1 NOX TRIM	42.218	PPM
AIC-9011	BLR2 NOX TRIM	65.092	PPM
AIC-8010	BLR1 SO2 CONTROLLER	6.683	LB/HR
AIC-8011	BLR2 SO2 CONTROLLER	9.596	LB/HR
FI-1520	BLR1 TOTAL AIR FLOW	3381.881	KSDCFH
FI-2520	BLR2 TOTAL AIR FLOW	3204.927	KSDCFH
EX NMW	NET MW OUT	40.283	MEGWT
FI-1040	BLR1 OUTLET STEAM LBS/HR	187.608	LB/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	182.734	LB/HR
FI-1021	BLR1 STEAM DRUM BLOWDOWN LBS/HR	25.830	LB/HR
FI-2021	BLR2 STEAM DRUM BLOWDOWN LBS/HR	-28.829	LB/HR
FI-1001	BLR1 FEEDWATER FLOW LBS/HR	202.330	LB/HR
FI-2001	BLR2 FEEDWATER FLOW LBS/HR	190.685	LB/HR
FI-1006	BLR1 DESPRHTR SPRAY WTR LBS/HR	12176.348	LB/HR
FI-2006	BLR2 DESPRHTR SPRAY LBS/HR	29.058	LB/HR
FIC-1505	BLR1 PRIM AIR FAN VANE KSCFH	1757.781	KSCFH
FIC-2505	BLR2 PRIMARY AIR FAN VANE KSCFH	1667.031	KSCFH
FIC-1515	BLR1 SECON AIR FAN VANE KSCFH	1621.594	KSCFH
FIC-2515	BLR2 SECOND AIR FAN VANE KSCFH	1535.531	KSCFH
FI-1704	BLR1 FUEL GAS FLOW TO LANCE	0.270	KSCFH
FI-2704	BLR2 FUEL GAS FLW LANCE KSCFH	-0.023	KSCFH
FI-1601	BLR1 FUEL GAS FLW TO SU BNR	0.025	KSCFH
FI-2601	BLR2 FUEL GAS FLW TO STRTP BNR	-0.050	KSCFH
FI-1753	BLR1 AMMONIA INJECTION FLOW	28.534	LB/HR
FI-2753	BLR2 AMMONIA INJECTION FLOW	16.579	LB/HR
SI-1345	#1 LIMESTONE FEED RATE	4059.839	LB/HR
SI-2345	#2 LIMESTONE FEED RATE	328.832	LB/HR
PDI-1415	BLR1 COMBUSTOR GRATE DP	34.200	IN H20
PDI-2415	BLR2 COMBUSTOR GRATE DP	41.575	IN H20
PDI-1417	BLR1 MIDDLE COMBUSTOR	31.463	IN H20
PDI-2417	BLR2 MIDDLE COMBUSTOR	22.475	IN H20
PDIC-1413	BLR1 UPPER COMBUSTOR DP	31.260	IN H20
PDIC-2413	BLR2 UPPER COMBUSTOR DP	22.549	IN H20
PI-680	HP FW HEATER 4 OUTLET PRESS	1716.934	PSIG
PI-1002	BLR1 STEAM DRUM PRESSURE	1221.916	PSIG
HIC-1029	BLR1 SUPERHTR OUTLET VENT	1155.219	PSIG
PI-2002	BLR2 STEAM DRUM PRESSURE	1225.326	PSIG
HIC-2029	BLR2 SUPERHTR OUTLET VENT	1156.281	PSIG

TI-1503	BLR1 PRIMARY AIR FAN OUTLET	139.770	DEG F.
TI-2503	BLR2 PRMRY AIR FAN OUTLET TEMP	139.223	DEG F.
TI-1513	BLR1 SECONDARY AIR FAN OUTLET	155.032	DEG F.
TI-2513	BLR2 SECONDARY AIR FAN OUTLET	126.628	DEG F.
TI-1506	BLR1 PRMRY AIR HTR AIR OUTLET	512.026	DEG F.
TI-2506	BLR2 PRMRY AIR HTR AIR OUTLET	498.165	DEG F.
TI-1516	BLR1 SEC AIR HTR AIR OUTLET	444.437	DEG F.
TI-2516	BLR2 SEC AIR HTR AIR OUTLET	447.787	DEG F.
TI-1421	CYCLONE #1 OUTLET TEMP	1640.163	DEG F.
TI-2421	CYCLONE #2 OUTLET TEMP	1536.740	DEG F.
TI-1126	BLR1 BACKPASS TEMPERATURE	1060.066	DEG F.
TI-2126	BLR2 BACKPASS TEMPERATURE	884.598	DEG F.
TI-1102	BLR1 FLUE GAS INLET - AIR HTR	652.829	DEG F.
TI-2102	BLR2 FLUE GAS INLET TO AIR	586.788	DEG F.
TI-1114	BLR1 AIR HEATER FLUE OUT - PA	308.867	DEG F.
TI-2114	BLR2 AIR HEATER FLUE OUT - PA	312.258	DEG F.
TI-681	HPFW HEATER OUTLET	235.788	DEG F.
TI-1022	BLR1 ECONOMIZER OUTLET	570.895	DEG F.
TI-1003	BLR1 SH OUT TEMPERATURE	932.898	DEG F.
TI-2022	BLR2 ECONOMIZER OUTLET	559.707	DEG F.
TI-2003	BLR2 SH OUT TEMPERATURE	921.359	DEG F.
PI-1118	BLR1 ECONOMIZER OUT PRESS "H2O	-4.752	IN H2O
PI-2118	BLR2 ECONOMIZER PRESSURE "H2O	-3.554	IN H2O
XA-3902	PC SILO CONV. FAULT		
HS-3903	PC BUCKET ELEVATOR		AUTO
FIC-1206	BLR1 PET COKE	0.000	MMBTU
FIC-2206	BLR1 PET COKE	0.000	MMBTU
TI-1123	BLR1 BAGHOUSE INLET	345.171	DEG F.
TI-2123	BLR2 BAGHOUSE INLET	338.313	DEG F.
PI-1502	BLR1 PRIMARY AIR FAN OUT "H2O	73.495	IN H2O
PI-2502	BLR2 PRIMARY AIR FAN OUTLET	71.439	IN H2O
PI-1512	BLR1 SECONDARY AIR FAN OUT "H2O	40.205	IN H2O
PI-2512	BLR2 SECONDARY AIR FAN OUTLET	33.424	IN H2O
PI-1120	BLR1 BAGHOUSE INLET PRESS "H2O	-8.541	IN H2O
PI-2120	BLR2 BAGHOUSE INLET PRESS "H2O	-6.205	IN H2O
TI-1127	BLR1 AIR HEATER FLUE OUT - SA	319.723	DEG F.
TI-2127	BLR2 AIR HEATER FLUE OUT - SA	251.847	DEG F.
PI-103	TURBINE INLET STEAM PSIG	1142.319	PSIG
PI-206	TURBINE FIRST STAGE PRESS PSIG	928.036	PSIG
HS6D-6100	RECLAIM PILE SELECTOR	0	LOGIC
PI-705	CONDENSER PRESSURE	1.175	IN HG
EX-MW	GENERATOR MW GROSS	44.401	MWATT
EX-MVAR	GENERATOR MVAR	5.015	MVAR
EX-V	GENERATOR VOLTS	13.841	KV
EX-A	GENERATOR AMPS	1980.240	AMP
PI-402	TURBINE 4TH EXTRAC TO HPFW	363.071	PSIA
PI-422	TURBINE 3RD EXTRACT PRESS	166.775	PSIA
PI-442	TURBINE 2ND EXTRAC PRESS	95.042	PSIA
PI-462	TURBINE 1ST EXTRAC PRESS	17.669	PSIA

BOILER EFFICIENCY VARIABLES

TAG	DESCRIPTION	VALUE	E/U
AI-8020	BLR1 FLUE GAS CO2	10.536	% CO_2
AI-8021	BLR2 FLUE GAS CO2	11.984	% CO_2
AI-8030	BLR1 FLUE GAS CO	-0.501	% CO
AI-8031	BLR2 FLUE GAS CO	-2.417	% CO
AI-8060	% MOISTURE IN FLUE GAS BLR1	15.680	% H_2O
AI-8061	% MOISTURE IN FLUE GAS BLR2	16.244	% H_2O
AI-8050	CEM O2 DRY ANALYZER BLR1	9.409	% O_2
AI-8051	CEM O2 DRY ANALYZER BLR2	8.901	% O_2
AIC-9010	BLR1 NOX TRIM	38.087	PPM
AIC-9011	BLR2 NOX TRIM	41.479	PPM
AIC-8010	BLR1 SO2 CONTROLLER	8.371	LB/HR
AIC-8011	BLR2 SO2 CONTROLLER	12.118	LB/HR
FI-1520	BLR1 TOTAL AIR FLOW	3368.365	KSDCFH
FI-2520	BLR2 TOTAL AIR FLOW	3204.927	KSDCFH
EX NMW	NET MW OUT	39.520	MEGWT
FI-1040	BLR1 OUTLET STEAM LBS/HR	178.694	LB/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	185.011	LB/HR
FI-1021	BLR1 STEAM DRUM BLOWDOWN LBS/HR	28.700	LB/HR
FI-2021	BLR2 STEAM DRUM BLOWDOWN LBS/HR	-31.712	LB/HR
FI-1001	BLR1 FEEDWATER FLOW LBS/HR	207.836	LB/HR
FI-2001	BLR2 FEEDWATER FLOW LBS/HR	202.062	LB/HR
FI-1006	BLR1 DESPRHTR SPRAY WTR LBS/HR	12610.965	LB/HR
FI-2006	BLR2 DESPRHTR SPRAY LBS/HR	6410.221	LB/HR
FIC-1505	BLR1 PRIM AIR FAN VANE KSCFH	1745.781	KSCFH
FIC-2505	BLR2 PRIMARY AIR FAN VANE KSCFH	1668.344	KSCFH
FIC-1515	BLR1 SECON AIR FAN VANE KSCFH	1613.188	KSCFH
FIC-2515	BLR2 SECOND AIR FAN VANE KSCFH	1539.438	KSCFH
FI-1704	BLR1 FUEL GAS FLOW TO LANCE	0.270	KSCFH
FI-2704	BLR2 FUEL GAS FLW LANCE KSCFH	-0.023	KSCFH
FI-1601	BLR1 FUEL GAS FLW TO SU BNR	0.025	KSCFH
FI-2601	BLR2 FUEL GAS FLW TO STRTP BNR	-0.050	KSCFH
FI-1753	BLR1 AMMONIA INJECTION FLOW	23.863	LB/HR
FI-2753	BLR2 AMMONIA INJECTION FLOW	20.057	LB/HR
SI-1345	#1 LIMESTONE FEED RATE	2229.594	LB/HR
SI-2345	#2 LIMESTONE FEED RATE	521.511	LB/HR
PDI-1415	BLR1 COMBUSTOR GRATE DP	32.600	IN H20
PDI-2415	BLR2 COMBUSTOR GRATE DP	40.525	IN H20
PDI-1417	BLR1 MIDDLE COMBUSTOR	31.375	IN H20
PDI-2417	BLR2 MIDDLE COMBUSTOR	22.213	IN H20
PDIC-1413	BLR1 UPPER COMBUSTOR DP	31.517	IN H20
PDIC-2413	BLR2 UPPER COMBUSTOR DP	22.636	IN H20
PI-680	HP FW HEATER 4 OUTLET PRESS	1708.923	PSIG
PI-1002	BLR1 STEAM DRUM PRESSURE	1217.413	PSIG
HIC-1029	BLR1 SUPERHTR OUTLET VENT	1154.844	PSIG
PI-2002	BLR2 STEAM DRUM PRESSURE	1223.823	PSIG
HIC-2029	BLR2 SUPERHTR OUTLET VENT	1155.156	PSIG

TI-1503	BLR1 PRIMARY AIR FAN OUTLET	139.733	DEG F.
TI-2503	BLR2 PRMRY AIR FAN OUTLET TEMP	136.468	DEG F.
TI-1513	BLR1 SECONDARY AIR FAN OUTLET	155.032	DEG F.
TI-2513	BLR2 SECONDARY AIR FAN OUTLET	123.840	DEG F.
TI-1506	BLR1 PRMRY AIR HTR AIR OUTLET	508.071	DEG F.
TI-2506	BLR2 PRMRY AIR HTR AIR OUTLET	497.266	DEG F.
TI-1516	BLR1 SEC AIR HTR AIR OUTLET	441.245	DEG F.
TI-2516	BLR2 SEC AIR HTR AIR OUTLET	446.562	DEG F.
TI-1421	CYCLONE #1 OUTLET TEMP	1628.274	DEG F.
TI-2421	CYCLONE #2 OUTLET TEMP	1539.179	DEG F.
TI-1126	BLR1 BACKPASS TEMPERATURE	1047.162	DEG F.
TI-2126	BLR2 BACKPASS TEMPERATURE	890.002	DEG F.
TI-1102	BLR1 FLUE GAS INLET - AIR HTR	646.829	DEG F.
TI-2102	BLR2 FLUE GAS INLET TO AIR	587.350	DEG F.
TI-1114	BLR1 AIR HEATER FLUE OUT - PA	306.886	DEG F.
TI-2114	BLR2 AIR HEATER FLUE OUT - PA	310.113	DEG F.
TI-681	HPFW HEATER OUTLET	234.897	DEG F.
TI-1022	BLR1 ECONOMIZER OUTLET	570.597	DEG F.
TI-1003	BLR1 SH OUT TEMPERATURE	929.589	DEG F.
TI-2022	BLR2 ECONOMIZER OUTLET	558.283	DEG F.
TI-2003	BLR2 SH OUT TEMPERATURE	919.975	DEG F.
PI-1118	BLR1 ECONOMIZER OUT PRESS "H2O	-4.586	IN H2O
PI-2118	BLR2 ECONOMIZER PRESSURE "H2O	-3.116	IN H2O
XA-3902	PC SILO CONV. FAULT		
HS-3903	PC BUCKET ELEVATOR		AUTO
FIC-1206	BLR1 PET COKE	0.000	MMBTU
FIC-2206	BLR1 PET COKE	0.000	MMBTU
TI-1123	BLR1 BAGHOUSE INLET	342.410	DEG F.
TI-2123	BLR2 BAGHOUSE INLET	336.864	DEG F.
PI-1502	BLR1 PRIMARY AIR FAN OUT "H2O	73.120	IN H2O
PI-2502	BLR2 PRIMARY AIR FAN OUTLET	70.787	IN H2O
PI-1512	BLR1 SECONDARY AIR FAN OUT "H2O	37.374	IN H2O
PI-2512	BLR2 SECONDARY AIR FAN OUTLET	32.748	IN H2O
PI-1120	BLR1 BAGHOUSE INLET PRESS "H2O	-8.148	IN H2O
PI-2120	BLR2 BAGHOUSE INLET PRESS "H2O	-5.768	IN H2O
TI-1127	BLR1 AIR HEATER FLUE OUT - SA	316.875	DEG F.
TI-2127	BLR2 AIR HEATER FLUE OUT - SA	250.901	DEG F.
PI-103	TURBINE INLET STEAM PSIG	1144.291	PSIG
PI-206	TURBINE FIRST STAGE PRESS PSIG	914.918	PSIG
HS6D-6100	RECLAIM PILE SELECTOR	0	LOGIC
PI-705	CONDENSER PRESSURE	1.183	IN HG
EX-MW	GENERATOR MW GROSS	43.702	MWATT
EX-MVAR	GENERATOR MVAR	5.015	MVAR
EX-V	GENERATOR VOLTS	13.798	KV
EX-A	GENERATOR AMPS	1955.478	AMP
PI-402	TURBINE 4TH EXTRAC TO HPFW	361.656	PSIA
PI-422	TURBINE 3RD EXTRACT PRESS	165.124	PSIA
PI-442	TURBINE 2ND EXTRAC PRESS	93.769	PSIA
PI-462	TURBINE 1ST EXTRAC PRESS	17.343	PSIA

BOILER EFFICIENCY VARIABLES

TAG	DESCRIPTION	VALUE	E/U
AI-8020	BLR1 FLUE GAS CO2	10.580	% CO_2
AI-8021	BLR2 FLUE GAS CO2	12.314	% CO_2
AI-8030	BLR1 FLUE GAS CO	0.877	% CO
AI-8031	BLR2 FLUE GAS CO	-1.665	% CO
AI-8060	% MOISTURE IN FLUE GAS BLR1	15.894	% H_2O
AI-8061	% MOISTURE IN FLUE GAS BLR2	16.740	% H_2O
AI-8050	CEM O2 DRY ANALYZER BLR1	9.619	% O_2
AI-8051	CEM O2 DRY ANALYZER BLR2	8.909	% O_2
AIC-9010	BLR1 NOX TRIM	37.472	PPM
AIC-9011	BLR2 NOX TRIM	44.228	PPM
AIC-8010	BLR1 SO2 CONTROLLER	8.226	LB/HR
AIC-8011	BLR2 SO2 CONTROLLER	11.021	LB/HR
FI-1520	BLR1 TOTAL AIR FLOW	3340.195	KSDCFH
FI-2520	BLR2 TOTAL AIR FLOW	3204.927	KSDCFH
EX NMW	NET MW OUT	39.642	MEGWT
FI-1040	BLR1 OUTLET STEAM LBS/HR	174.206	LB/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	189.204	LB/HR
FI-1021	BLR1 STEAM DRUM BLOWDOWN LBS/HR	28.700	LB/HR
FI-2021	BLR2 STEAM DRUM BLOWDOWN LBS/HR	-25.947	LB/HR
FI-1001	BLR1 FEEDWATER FLOW LBS/HR	204.854	LB/HR
FI-2001	BLR2 FEEDWATER FLOW LBS/HR	200.132	LB/HR
FI-1006	BLR1 DESPRHTR SPRAY WTR LBS/HR	12280.962	LB/HR
FI-2006	BLR2 DESPRHTR SPRAY LBS/HR	75.551	LB/HR
FIC-1505	BLR1 PRIM AIR FAN VANE KSCFH	1738.219	KSCFH
FIC-2505	BLR2 PRIMARY AIR FAN VANE KSCFH	1666.813	KSCFH
FIC-1515	BLR1 SECON AIR FAN VANE KSCFH	1613.188	KSCFH
FIC-2515	BLR2 SECOND AIR FAN VANE KSCFH	1547.031	KSCFH
FI-1704	BLR1 FUEL GAS FLOW TO LANCE	0.247	KSCFH
FI-2704	BLR2 FUEL GAS FLW LANCE KSCFH	-0.023	KSCFH
FI-1601	BLR1 FUEL GAS FLW TO SU BNR	0.025	KSCFH
FI-2601	BLR2 FUEL GAS FLW TO STRTP BNR	-0.050	KSCFH
FI-1753	BLR1 AMMONIA INJECTION FLOW	21.498	LB/HR
FI-2753	BLR2 AMMONIA INJECTION FLOW	21.903	LB/HR
SI-1345	#1 LIMESTONE FEED RATE	2086.880	LB/HR
SI-2345	#2 LIMESTONE FEED RATE	415.104	LB/HR
PDI-1415	BLR1 COMBUSTOR GRATE DP	33.675	IN H20
PDI-2415	BLR2 COMBUSTOR GRATE DP	38.975	IN H20
PDI-1417	BLR1 MIDDLE COMBUSTOR	31.763	IN H20
PDI-2417	BLR2 MIDDLE COMBUSTOR	23.338	IN H20
PDIC-1413	BLR1 UPPER COMBUSTOR DP	31.586	IN H20
PDIC-2413	BLR2 UPPER COMBUSTOR DP	22.646	IN H20
PI-680	HP FW HEATER 4 OUTLET PRESS	1762.756	PSIG
PI-1002	BLR1 STEAM DRUM PRESSURE	1214.786	PSIG
HIC-1029	BLR1 SUPERHTR OUTLET VENT	1154.094	PSIG
PI-2002	BLR2 STEAM DRUM PRESSURE	1229.083	PSIG
HIC-2029	BLR2 SUPERHTR OUTLET VENT	1155.531	PSIG

TI-1503	BLR1 PRIMARY AIR FAN OUTLET	139.567	DEG F.
TI-2503	BLR2 PRMRY AIR FAN OUTLET TEMP	136.463	DEG F.
TI-1513	BLR1 SECONDARY AIR FAN OUTLET	155.032	DEG F.
TI-2513	BLR2 SECONDARY AIR FAN OUTLET	123.504	DEG F.
TI-1506	BLR1 PRMRY AIR HTR AIR OUTLET	504.460	DEG F.
TI-2506	BLR2 PRMRY AIR HTR AIR OUTLET	496.521	DEG F.
TI-1516	BLR1 SEC AIR HTR AIR OUTLET	437.545	DEG F.
TI-2516	BLR2 SEC AIR HTR AIR OUTLET	446.080	DEG F.
TI-1421	CYCLONE #1 OUTLET TEMP	1621.648	DEG F.
TI-2421	CYCLONE #2 OUTLET TEMP	1542.325	DEG F.
TI-1126	BLR1 BACKPASS TEMPERATURE	1040.771	DEG F.
TI-2126	BLR2 BACKPASS TEMPERATURE	890.517	DEG F.
TI-1102	BLR1 FLUE GAS INLET - AIR HTR	642.005	DEG F.
TI-2102	BLR2 FLUE GAS INLET TO AIR	587.449	DEG F.
TI-1114	BLR1 AIR HEATER FLUE OUT - PA	303.478	DEG F.
TI-2114	BLR2 AIR HEATER FLUE OUT - PA	308.577	DEG F.
TI-681	HPFW HEATER OUTLET	235.023	DEG F.
TI-1022	BLR1 ECONOMIZER OUTLET	569.962	DEG F.
TI-1003	BLR1 SH OUT TEMPERATURE	930.061	DEG F.
TI-2022	BLR2 ECONOMIZER OUTLET	554.251	DEG F.
TI-2003	BLR2 SH OUT TEMPERATURE	920.432	DEG F.
PI-1118	BLR1 ECONOMIZER OUT PRESS "H2O	-4.788	IN H2O
PI-2118	BLR2 ECONOMIZER PRESSURE "H2O	-4.227	IN H2O
XA-3902	PC SILO CONV. FAULT		
HS-3903	PC BUCKET ELEVATOR		AUTO
FIC-1206	BLR1 PET COKE	0.000	MMBTU
FIC-2206	BLR1 PET COKE	0.000	MMBTU
TI-1123	BLR1 BAGHOUSE INLET	338.969	DEG F.
TI-2123	BLR2 BAGHOUSE INLET	335.892	DEG F.
PI-1502	BLR1 PRIMARY AIR FAN OUT "H2O	73.572	IN H2O
PI-2502	BLR2 PRIMARY AIR FAN OUTLET	69.911	IN H2O
PI-1512	BLR1 SECONDARY AIR FAN OUT "H2O	36.974	IN H2O
PI-2512	BLR2 SECONDARY AIR FAN OUTLET	33.023	IN H2O
PI-1120	BLR1 BAGHOUSE INLET PRESS "H2O	-8.445	IN H2O
PI-2120	BLR2 BAGHOUSE INLET PRESS "H2O	-6.817	IN H2O
TI-1127	BLR1 AIR HEATER FLUE OUT - SA	311.743	DEG F.
TI-2127	BLR2 AIR HEATER FLUE OUT - SA	251.342	DEG F.
PI-103	TURBINE INLET STEAM PSIG	1143.538	PSIG
PI-206	TURBINE FIRST STAGE PRESS PSIG	919.041	PSIG
HS6D-6100	RECLAIM PILE SELECTOR	0	LOGIC
PI-705	CONDENSER PRESSURE	1.172	IN HG
EX-MW	GENERATOR MW GROSS	43.816	MWATT
EX-MVAR	GENERATOR MVAR	4.734	MVAR
EX-V	GENERATOR VOLTS	13.807	KV
EX-A	GENERATOR AMPS	1961.481	AMP
PI-402	TURBINE 4TH EXTRAC TO HPFW	359.609	PSIA
PI-422	TURBINE 3RD EXTRACT PRESS	163.848	PSIA
PI-442	TURBINE 2ND EXTRAC PRESS	92.720	PSIA
PI-462	TURBINE 1ST EXTRAC PRESS	17.426	PSIA

BOILER EFFICIENCY VARIABLES

TAG	DESCRIPTION	VALUE	E/U
AI-8020	BLR1 FLUE GAS CO2	10.245	% CO_2
AI-8021	BLR2 FLUE GAS CO2	11.778	% CO_2
AI-8030	BLR1 FLUE GAS CO	1.628	% CO
AI-8031	BLR2 FLUE GAS CO	-0.914	% CO
AI-8060	% MOISTURE IN FLUE GAS BLR1	14.209	% H_2O
AI-8061	% MOISTURE IN FLUE GAS BLR2	17.069	% H_2O
AI-8050	CEM O2 DRY ANALYZER BLR1	9.775	% O_2
AI-8051	CEM O2 DRY ANALYZER BLR2	9.254	% O_2
AIC-9010	BLR1 NOX TRIM	34.474	PPM
AIC-9011	BLR2 NOX TRIM	43.603	PPM
AIC-8010	BLR1 SO2 CONTROLLER	10.954	LB/HR
AIC-8011	BLR2 SO2 CONTROLLER	5.591	LB/HR
FI-1520	BLR1 TOTAL AIR FLOW	3330.805	KSDCFH
FI-2520	BLR2 TOTAL AIR FLOW	3227.466	KSDCFH
EX NMW	NET MW OUT	39.041	MEGWT
FI-1040	BLR1 OUTLET STEAM LBS/HR	175.707	LB/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	188.693	LB/HR
FI-1021	BLR1 STEAM DRUM BLOWDOWN LBS/HR	31.562	LB/HR
FI-2021	BLR2 STEAM DRUM BLOWDOWN LBS/HR	-20.181	LB/HR
FI-1001	BLR1 FEEDWATER FLOW LBS/HR	203.023	LB/HR
FI-2001	BLR2 FEEDWATER FLOW LBS/HR	197.764	LB/HR
FI-1006	BLR1 DESPRHTR SPRAY WTR LBS/HR	12833.248	LB/HR
FI-2006	BLR2 DESPRHTR SPRAY LBS/HR	517.234	LB/HR
FIC-1505	BLR1 PRIM AIR FAN VANE KSCFH	1728.531	KSCFH
FIC-2505	BLR2 PRIMARY AIR FAN VANE KSCFH	1669.125	KSCFH
FIC-1515	BLR1 SECON AIR FAN VANE KSCFH	1602.594	KSCFH
FIC-2515	BLR2 SECOND AIR FAN VANE KSCFH	1544.625	KSCFH
FI-1704	BLR1 FUEL GAS FLOW TO LANCE	0.225	KSCFH
FI-2704	BLR2 FUEL GAS FLW LANCE KSCFH	-0.023	KSCFH
FI-1601	BLR1 FUEL GAS FLW TO SU BNR	0.025	KSCFH
FI-2601	BLR2 FUEL GAS FLW TO STRTP BNR	-0.050	KSCFH
FI-1753	BLR1 AMMONIA INJECTION FLOW	23.813	LB/HR
FI-2753	BLR2 AMMONIA INJECTION FLOW	21.384	LB/HR
SI-1345	#1 LIMESTONE FEED RATE	1850.276	LB/HR
SI-2345	#2 LIMESTONE FEED RATE	250.063	LB/HR
PDI-1415	BLR1 COMBUSTOR GRATE DP	32.675	IN H20
PDI-2415	BLR2 COMBUSTOR GRATE DP	38.875	IN H20
PDI-1417	BLR1 MIDDLE COMBUSTOR	31.825	IN H20
PDI-2417	BLR2 MIDDLE COMBUSTOR	23.013	IN H20
PDIC-1413	BLR1 UPPER COMBUSTOR DP	32.238	IN H20
PDIC-2413	BLR2 UPPER COMBUSTOR DP	23.305	IN H20
PI-680	HP FW HEATER 4 OUTLET PRESS	1765.732	PSIG
PI-1002	BLR1 STEAM DRUM PRESSURE	1214.411	PSIG
HIC-1029	BLR1 SUPERHTR OUTLET VENT	1154.938	PSIG
PI-2002	BLR2 STEAM DRUM PRESSURE	1227.956	PSIG
HIC-2029	BLR2 SUPERHTR OUTLET VENT	1158.156	PSIG

TI-1503	BLR1 PRIMARY AIR FAN OUTLET	136.441	DEG F.
TI-2503	BLR2 PRMRY AIR FAN OUTLET TEMP	134.729	DEG F.
TI-1513	BLR1 SECONDARY AIR FAN OUTLET	155.032	DEG F.
TI-2513	BLR2 SECONDARY AIR FAN OUTLET	122.740	DEG F.
TI-1506	BLR1 PRMRY AIR HTR AIR OUTLET	501.179	DEG F.
TI-2506	BLR2 PRMRY AIR HTR AIR OUTLET	493.972	DEG F.
TI-1516	BLR1 SEC AIR HTR AIR OUTLET	433.618	DEG F.
TI-2516	BLR2 SEC AIR HTR AIR OUTLET	443.393	DEG F.
TI-1421	CYCLONE #1 OUTLET TEMP	1621.493	DEG F.
TI-2421	CYCLONE #2 OUTLET TEMP	1543.651	DEG F.
TI-1126	BLR1 BACKPASS TEMPERATURE	1034.162	DEG F.
TI-2126	BLR2 BACKPASS TEMPERATURE	887.655	DEG F.
TI-1102	BLR1 FLUE GAS INLET - AIR HTR	636.917	DEG F.
TI-2102	BLR2 FLUE GAS INLET TO AIR	586.006	DEG F.
TI-1114	BLR1 AIR HEATER FLUE OUT - PA	300.469	DEG F.
TI-2114	BLR2 AIR HEATER FLUE OUT - PA	306.226	DEG F.
TI-681	HPFW HEATER OUTLET	234.912	DEG F.
TI-1022	BLR1 ECONOMIZER OUTLET	567.661	DEG F.
TI-1003	BLR1 SH OUT TEMPERATURE	909.916	DEG F.
TI-2022	BLR2 ECONOMIZER OUTLET	551.296	DEG F.
TI-2003	BLR2 SH OUT TEMPERATURE	921.888	DEG F.
PI-1118	BLR1 ECONOMIZER OUT PRESS "H2O	-4.061	IN H2O
PI-2118	BLR2 ECONOMIZER PRESSURE "H2O	-3.886	IN H2O
XA-3902	PC SILO CONV. FAULT		
HS-3903	PC BUCKET ELEVATOR		AUTO
FIC-1206	BLR1 PET COKE	0.000	MMBTU
FIC-2206	BLR1 PET COKE	0.000	MMBTU
TI-1123	BLR1 BAGHOUSE INLET	336.170	DEG F.
TI-2123	BLR2 BAGHOUSE INLET	333.236	DEG F.
PI-1502	BLR1 PRIMARY AIR FAN OUT "H2O	73.421	IN H2O
PI-2502	BLR2 PRIMARY AIR FAN OUTLET	70.486	IN H2O
PI-1512	BLR1 SECONDARY AIR FAN OUT "H2O	36.047	IN H2O
PI-2512	BLR2 SECONDARY AIR FAN OUTLET	32.272	IN H2O
PI-1120	BLR1 BAGHOUSE INLET PRESS "H2O	-7.815	IN H2O
PI-2120	BLR2 BAGHOUSE INLET PRESS "H2O	-6.555	IN H2O
TI-1127	BLR1 AIR HEATER FLUE OUT - SA	307.483	DEG F.
TI-2127	BLR2 AIR HEATER FLUE OUT - SA	246.365	DEG F.
PI-103	TURBINE INLET STEAM PSIG	1144.668	PSIG
PI-206	TURBINE FIRST STAGE PRESS PSIG	911.022	PSIG
HS6D-6100	RECLAIM PILE SELECTOR	0	LOGIC
PI-705	CONDENSER PRESSURE	1.157	IN HG
EX-MW	GENERATOR MW GROSS	43.458	MWATT
EX-MVAR	GENERATOR MVAR	4.734	MVAR
EX-V	GENERATOR VOLTS	13.866	KV
EX-A	GENERATOR AMPS	1938.219	AMP
PI-402	TURBINE 4TH EXTRAC TO HPFW	355.093	PSIA
PI-422	TURBINE 3RD EXTRACT PRESS	162.797	PSIA
PI-442	TURBINE 2ND EXTRAC PRESS	92.406	PSIA
PI-462	TURBINE 1ST EXTRAC PRESS	17.159	PSIA

BOILER EFFICIENCY VARIABLES

TAG	DESCRIPTION	VALUE	E/U
AI-8020	BLR1 FLUE GAS CO2	10.808	% CO_2
AI-8021	BLR2 FLUE GAS CO2	11.678	% CO_2
AI-8030	BLR1 FLUE GAS CO	1.378	% CO
AI-8031	BLR2 FLUE GAS CO	-0.426	% CO
AI-8060	% MOISTURE IN FLUE GAS BLR1	15.093	% H_2O
AI-8061	% MOISTURE IN FLUE GAS BLR2	15.376	% H_2O
AI-8050	CEM O2 DRY ANALYZER BLR1	10.043	% O_2
AI-8051	CEM O2 DRY ANALYZER BLR2	8.602	% O_2
AIC-9010	BLR1 NOX TRIM	34.466	PPM
AIC-9011	BLR2 NOX TRIM	42.479	PPM
AIC-8010	BLR1 SO2 CONTROLLER	8.059	LB/HR
AIC-8011	BLR2 SO2 CONTROLLER	6.190	LB/HR
FI-1520	BLR1 TOTAL AIR FLOW	3330.805	KSDCFH
FI-2520	BLR2 TOTAL AIR FLOW	3227.466	KSDCFH
EX NMW	NET MW OUT	39.581	MEGWT
FI-1040	BLR1 OUTLET STEAM LBS/HR	182.516	LB/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	189.152	LB/HR
FI-1021	BLR1 STEAM DRUM BLOWDOWN LBS/HR	34.440	LB/HR
FI-2021	BLR2 STEAM DRUM BLOWDOWN LBS/HR	-14.415	LB/HR
FI-1001	BLR1 FEEDWATER FLOW LBS/HR	200.904	LB/HR
FI-2001	BLR2 FEEDWATER FLOW LBS/HR	207.817	LB/HR
FI-1006	BLR1 DESPRHTR SPRAY WTR LBS/HR	12076.403	LB/HR
FI-2006	BLR2 DESPRHTR SPRAY LBS/HR	203.407	LB/HR
FIC-1505	BLR1 PRIM AIR FAN VANE KSCFH	1726.188	KSCFH
FIC-2505	BLR2 PRIMARY AIR FAN VANE KSCFH	1687.469	KSCFH
FIC-1515	BLR1 SECON AIR FAN VANE KSCFH	1596.594	KSCFH
FIC-2515	BLR2 SECOND AIR FAN VANE KSCFH	1559.938	KSCFH
FI-1704	BLR1 FUEL GAS FLOW TO LANCE	0.203	KSCFH
FI-2704	BLR2 FUEL GAS FLW LANCE KSCFH	-0.023	KSCFH
FI-1601	BLR1 FUEL GAS FLW TO SU BNR	0.000	KSCFH
FI-2601	BLR2 FUEL GAS FLW TO STRTP BNR	-0.025	KSCFH
FI-1753	BLR1 AMMONIA INJECTION FLOW	19.930	LB/HR
FI-2753	BLR2 AMMONIA INJECTION FLOW	26.639	LB/HR
SI-1345	#1 LIMESTONE FEED RATE	1647.059	LB/HR
SI-2345	#2 LIMESTONE FEED RATE	693.923	LB/HR
PDI-1415	BLR1 COMBUSTOR GRATE DP	32.150	IN H20
PDI-2415	BLR2 COMBUSTOR GRATE DP	39.000	IN H20
PDI-1417	BLR1 MIDDLE COMBUSTOR	32.313	IN H20
PDI-2417	BLR2 MIDDLE COMBUSTOR	23.475	IN H20
PDIC-1413	BLR1 UPPER COMBUSTOR DP	32.551	IN H20
PDIC-2413	BLR2 UPPER COMBUSTOR DP	23.167	IN H20
PI-680	HP FW HEATER 4 OUTLET PRESS	1755.753	PSIG
PI-1002	BLR1 STEAM DRUM PRESSURE	1214.786	PSIG
HIC-1029	BLR1 SUPERHTR OUTLET VENT	1155.219	PSIG
PI-2002	BLR2 STEAM DRUM PRESSURE	1229.459	PSIG
HIC-2029	BLR2 SUPERHTR OUTLET VENT	1156.656	PSIG

TI-1503	BLR1 PRIMARY AIR FAN OUTLET	135.299	DEG F.
TI-2503	BLR2 PRMRY AIR FAN OUTLET TEMP	130.968	DEG F.
TI-1513	BLR1 SECONDARY AIR FAN OUTLET	155.032	DEG F.
TI-2513	BLR2 SECONDARY AIR FAN OUTLET	119.746	DEG F.
TI-1506	BLR1 PRMRY AIR HTR AIR OUTLET	499.063	DEG F.
TI-2506	BLR2 PRMRY AIR HTR AIR OUTLET	494.044	DEG F.
TI-1516	BLR1 SEC AIR HTR AIR OUTLET	430.909	DEG F.
TI-2516	BLR2 SEC AIR HTR AIR OUTLET	443.426	DEG F.
TI-1421	CYCLONE #1 OUTLET TEMP	1616.490	DEG F.
TI-2421	CYCLONE #2 OUTLET TEMP	1544.653	DEG F.
TI-1126	BLR1 BACKPASS TEMPERATURE	1030.432	DEG F.
TI-2126	BLR2 BACKPASS TEMPERATURE	894.433	DEG F.
TI-1102	BLR1 FLUE GAS INLET - AIR HTR	633.453	DEG F.
TI-2102	BLR2 FLUE GAS INLET TO AIR	587.932	DEG F.
TI-1114	BLR1 AIR HEATER FLUE OUT - PA	298.750	DEG F.
TI-2114	BLR2 AIR HEATER FLUE OUT - PA	305.409	DEG F.
TI-681	HPFW HEATER OUTLET	235.062	DEG F.
TI-1022	BLR1 ECONOMIZER OUTLET	568.717	DEG F.
TI-1003	BLR1 SH OUT TEMPERATURE	913.093	DEG F.
TI-2022	BLR2 ECONOMIZER OUTLET	553.388	DEG F.
TI-2003	BLR2 SH OUT TEMPERATURE	922.648	DEG F.
PI-1118	BLR1 ECONOMIZER OUT PRESS "H2O	-4.123	IN H2O
PI-2118	BLR2 ECONOMIZER PRESSURE "H2O	-5.356	IN H2O
XA-3902	PC SILO CONV. FAULT		
HS-3903	PC BUCKET ELEVATOR		AUTO
FIC-1206	BLR1 PET COKE	0.000	MMBTU
FIC-2206	BLR1 PET COKE	0.000	MMBTU
TI-1123	BLR1 BAGHOUSE INLET	334.163	DEG F.
TI-2123	BLR2 BAGHOUSE INLET	331.971	DEG F.
PI-1502	BLR1 PRIMARY AIR FAN OUT "H2O	72.945	IN H2O
PI-2502	BLR2 PRIMARY AIR FAN OUTLET	69.385	IN H2O
PI-1512	BLR1 SECONDARY AIR FAN OUT "H2O	36.466	IN H2O
PI-2512	BLR2 SECONDARY AIR FAN OUTLET	32.247	IN H2O
PI-1120	BLR1 BAGHOUSE INLET PRESS "H2O	-7.728	IN H2O
PI-2120	BLR2 BAGHOUSE INLET PRESS "H2O	-7.666	IN H2O
TI-1127	BLR1 AIR HEATER FLUE OUT - SA	305.459	DEG F.
TI-2127	BLR2 AIR HEATER FLUE OUT - SA	245.253	DEG F.
PI-103	TURBINE INLET STEAM PSIG	1143.538	PSIG
PI-206	TURBINE FIRST STAGE PRESS PSIG	924.288	PSIG
HS6D-6100	RECLAIM PILE SELECTOR	0	LOGIC
PI-705	CONDENSER PRESSURE	1.098	IN HG
EX-MW	GENERATOR MW GROSS	43.881	MWATT
EX-MVAR	GENERATOR MVAR	4.959	MVAR
EX-V	GENERATOR VOLTS	13.930	KV
EX-A	GENERATOR AMPS	1950.225	AMP
PI-402	TURBINE 4TH EXTRAC TO HPFW	362.168	PSIA
PI-422	TURBINE 3RD EXTRACT PRESS	165.274	PSIA
PI-442	TURBINE 2ND EXTRAC PRESS	94.705	PSIA
PI-462	TURBINE 1ST EXTRAC PRESS	17.421	PSIA

BOILER EFFICIENCY VARIABLES

TAG	DESCRIPTION	VALUE	E/U
AI-8020	BLR1 FLUE GAS CO2	9.789	% CO_2
AI-8021	BLR2 FLUE GAS CO2	11.553	% CO_2
AI-8030	BLR1 FLUE GAS CO	1.015	% CO
AI-8031	BLR2 FLUE GAS CO	0.088	% CO
AI-8060	% MOISTURE IN FLUE GAS BLR1	15.469	% H_2O
AI-8061	% MOISTURE IN FLUE GAS BLR2	14.643	% H_2O
AI-8050	CEM O2 DRY ANALYZER BLR1	10.163	% O_2
AI-8051	CEM O2 DRY ANALYZER BLR2	9.021	% O_2
AIC-9010	BLR1 NOX TRIM	31.344	PPM
AIC-9011	BLR2 NOX TRIM	49.850	PPM
AIC-8010	BLR1 SO2 CONTROLLER	7.199	LB/HR
AIC-8011	BLR2 SO2 CONTROLLER	10.754	LB/HR
FI-1520	BLR1 TOTAL AIR FLOW	3321.415	KSDCFH
FI-2520	BLR2 TOTAL AIR FLOW	3227.465	KSDCFH
EX NMW	NET MW OUT	38.739	MEGWT
FI-1040	BLR1 OUTLET STEAM LBS/HR	171.583	LB/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	185.879	LB/HR
FI-1021	BLR1 STEAM DRUM BLOWDOWN LBS/HR	34.440	LB/HR
FI-2021	BLR2 STEAM DRUM BLOWDOWN LBS/HR	-11.532	LB/HR
FI-1001	BLR1 FEEDWATER FLOW LBS/HR	199.057	LB/HR
FI-2001	BLR2 FEEDWATER FLOW LBS/HR	196.178	LB/HR
FI-1006	BLR1 DESPRHTR SPRAY WTR LBS/HR	12059.665	LB/HR
FI-2006	BLR2 DESPRHTR SPRAY LBS/HR	81.363	LB/HR
FIC-1505	BLR1 PRIM AIR FAN VANE KSCFH	1720.625	KSCFH
FIC-2505	BLR2 PRIMARY AIR FAN VANE KSCFH	1676.469	KSCFH
FIC-1515	BLR1 SECON AIR FAN VANE KSCFH	1590.563	KSCFH
FIC-2515	BLR2 SECOND AIR FAN VANE KSCFH	1540.719	KSCFH
FI-1704	BLR1 FUEL GAS FLOW TO LANCE	0.180	KSCFH
FI-2704	BLR2 FUEL GAS FLW LANCE KSCFH	-0.023	KSCFH
FI-1601	BLR1 FUEL GAS FLW TO SU BNR	0.025	KSCFH
FI-2601	BLR2 FUEL GAS FLW TO STRTP BNR	-0.025	KSCFH
FI-1753	BLR1 AMMONIA INJECTION FLOW	19.990	LB/HR
FI-2753	BLR2 AMMONIA INJECTION FLOW	22.017	LB/HR
SI-1345	#1 LIMESTONE FEED RATE	1649.975	LB/HR
SI-2345	#2 LIMESTONE FEED RATE	385.193	LB/HR
PDI-1415	BLR1 COMBUSTOR GRATE DP	31.925	IN H20
PDI-2415	BLR2 COMBUSTOR GRATE DP	39.100	IN H20
PDI-1417	BLR1 MIDDLE COMBUSTOR	32.938	IN H20
PDI-2417	BLR2 MIDDLE COMBUSTOR	22.750	IN H20
PDIC-1413	BLR1 UPPER COMBUSTOR DP	32.857	IN H20
PDIC-2413	BLR2 UPPER COMBUSTOR DP	23.092	IN H20
PI-680	HP FW HEATER 4 OUTLET PRESS	1768.753	PSIG
PI-1002	BLR1 STEAM DRUM PRESSURE	1212.159	PSIG
HIC-1029	BLR1 SUPERHTR OUTLET VENT	1154.469	PSIG
PI-2002	BLR2 STEAM DRUM PRESSURE	1229.391	PSIG
HIC-2029	BLR2 SUPERHTR OUTLET VENT	1157.781	PSIG

TI-1503	BLR1 PRIMARY AIR FAN OUTLET	132.270	DEG F.
TI-2503	BLR2 PRMRY AIR FAN OUTLET TEMP	128.136	DEG F.
TI-1513	BLR1 SECONDARY AIR FAN OUTLET	155.032	DEG F.
TI-2513	BLR2 SECONDARY AIR FAN OUTLET	116.800	DEG F.
TI-1506	BLR1 PRMRY AIR HTR AIR OUTLET	496.260	DEG F.
TI-2506	BLR2 PRMRY AIR HTR AIR OUTLET	491.630	DEG F.
TI-1516	BLR1 SEC AIR HTR AIR OUTLET	428.032	DEG F.
TI-2516	BLR2 SEC AIR HTR AIR OUTLET	441.480	DEG F.
TI-1421	CYCLONE #1 OUTLET TEMP	1612.209	DEG F.
TI-2421	CYCLONE #2 OUTLET TEMP	1542.129	DEG F.
TI-1126	BLR1 BACKPASS TEMPERATURE	1023.626	DEG F.
TI-2126	BLR2 BACKPASS TEMPERATURE	889.508	DEG F.
TI-1102	BLR1 FLUE GAS INLET - AIR HTR	629.755	DEG F.
TI-2102	BLR2 FLUE GAS INLET TO AIR	586.034	DEG F.
TI-1114	BLR1 AIR HEATER FLUE OUT - PA	294.854	DEG F.
TI-2114	BLR2 AIR HEATER FLUE OUT - PA	302.227	DEG F.
TI-681	HPFW HEATER OUTLET	234.699	DEG F.
TI-1022	BLR1 ECONOMIZER OUTLET	569.803	DEG F.
TI-1003	BLR1 SH OUT TEMPERATURE	914.666	DEG F.
TI-2022	BLR2 ECONOMIZER OUTLET	555.272	DEG F.
TI-2003	BLR2 SH OUT TEMPERATURE	926.216	DEG F.
PI-1118	BLR1 ECONOMIZER OUT PRESS "H2O	-4.402	IN H2O
PI-2118	BLR2 ECONOMIZER PRESSURE "H2O	-3.624	IN H2O
XA-3902	PC SILO CONV. FAULT		
HS-3903	PC BUCKET ELEVATOR		AUTO
FIC-1206	BLR1 PET COKE	0.000	MMBTU
FIC-2206	BLR1 PET COKE	0.000	MMBTU
TI-1123	BLR1 BAGHOUSE INLET	331.126	DEG F.
TI-2123	BLR2 BAGHOUSE INLET	328.943	DEG F.
PI-1502	BLR1 PRIMARY AIR FAN OUT "H2O	72.218	IN H2O
PI-2502	BLR2 PRIMARY AIR FAN OUTLET	69.986	IN H2O
PI-1512	BLR1 SECONDARY AIR FAN OUT "H2O	36.472	IN H2O
PI-2512	BLR2 SECONDARY AIR FAN OUTLET	33.192	IN H2O
PI-1120	BLR1 BAGHOUSE INLET PRESS "H2O	-7.920	IN H2O
PI-2120	BLR2 BAGHOUSE INLET PRESS "H2O	-6.328	IN H2O
TI-1127	BLR1 AIR HEATER FLUE OUT - SA	302.769	DEG F.
TI-2127	BLR2 AIR HEATER FLUE OUT - SA	241.418	DEG F.
PI-103	TURBINE INLET STEAM PSIG	1144.291	PSIG
PI-206	TURBINE FIRST STAGE PRESS PSIG	895.651	PSIG
HS6D-6100	RECLAIM PILE SELECTOR	0	LOGIC
PI-705	CONDENSER PRESSURE	0.859	IN HG
EX-MW	GENERATOR MW GROSS	43.019	MWATT
EX-MVAR	GENERATOR MVAR	4.677	MVAR
EX-V	GENERATOR VOLTS	13.930	KV
EX-A	GENERATOR AMPS	1908.955	AMP
PI-402	TURBINE 4TH EXTRAC TO HPFW	350.125	PSIA
PI-422	TURBINE 3RD EXTRACT PRESS	161.371	PSIA
PI-442	TURBINE 2ND EXTRAC PRESS	91.034	PSIA
PI-462	TURBINE 1ST EXTRAC PRESS	16.889	PSIA

BOILER EFFICIENCY VARIABLES

TAG	DESCRIPTION	VALUE	E/U
AI-8020	BLR1 FLUE GAS CO2	10.766	% CO_2
AI-8021	BLR2 FLUE GAS CO2	11.794	% CO_2
AI-8030	BLR1 FLUE GAS CO	0.877	% CO
AI-8031	BLR2 FLUE GAS CO	-0.025	% CO
AI-8060	% MOISTURE IN FLUE GAS BLR1	16.568	% H_2O
AI-8061	% MOISTURE IN FLUE GAS BLR2	15.089	% H_2O
AI-8050	CEM O2 DRY ANALYZER BLR1	10.365	% O_2
AI-8051	CEM O2 DRY ANALYZER BLR2	9.052	% O_2
AIC-9010	BLR1 NOX TRIM	39.345	PPM
AIC-9011	BLR2 NOX TRIM	43.853	PPM
AIC-8010	BLR1 SO2 CONTROLLER	7.848	LB/HR
AIC-8011	BLR2 SO2 CONTROLLER	9.264	LB/HR
FI-1520	BLR1 TOTAL AIR FLOW	3321.415	KSDCFH
FI-2520	BLR2 TOTAL AIR FLOW	3227.465	KSDCFH
EX NMW	NET MW OUT	38.446	MEGWT
FI-1040	BLR1 OUTLET STEAM LBS/HR	169.495	LB/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	184.900	LB/HR
FI-1021	BLR1 STEAM DRUM BLOWDOWN LBS/HR	34.440	LB/HR
FI-2021	BLR2 STEAM DRUM BLOWDOWN LBS/HR	-11.532	LB/HR
FI-1001	BLR1 FEEDWATER FLOW LBS/HR	188.926	LB/HR
FI-2001	BLR2 FEEDWATER FLOW LBS/HR	199.215	LB/HR
FI-1006	BLR1 DESPRHTR SPRAY WTR LBS/HR	0.000	LB/HR
FI-2006	BLR2 DESPRHTR SPRAY LBS/HR	209.218	LB/HR
FIC-1505	BLR1 PRIM AIR FAN VANE KSCFH	1724.750	KSCFH
FIC-2505	BLR2 PRIMARY AIR FAN VANE KSCFH	1681.000	KSCFH
FIC-1515	BLR1 SECON AIR FAN VANE KSCFH	1596.594	KSCFH
FIC-2515	BLR2 SECOND AIR FAN VANE KSCFH	1557.563	KSCFH
FI-1704	BLR1 FUEL GAS FLOW TO LANCE	0.180	KSCFH
FI-2704	BLR2 FUEL GAS FLW LANCE KSCFH	-0.023	KSCFH
FI-1601	BLR1 FUEL GAS FLW TO SU BNR	0.025	KSCFH
FI-2601	BLR2 FUEL GAS FLW TO STRTP BNR	-0.025	KSCFH
FI-1753	BLR1 AMMONIA INJECTION FLOW	19.678	LB/HR
FI-2753	BLR2 AMMONIA INJECTION FLOW	23.124	LB/HR
SI-1345	#1 LIMESTONE FEED RATE	1686.280	LB/HR
SI-2345	#2 LIMESTONE FEED RATE	470.118	LB/HR
PDI-1415	BLR1 COMBUSTOR GRATE DP	31.625	IN H20
PDI-2415	BLR2 COMBUSTOR GRATE DP	41.025	IN H20
PDI-1417	BLR1 MIDDLE COMBUSTOR	32.587	IN H20
PDI-2417	BLR2 MIDDLE COMBUSTOR	22.675	IN H20
PDIC-1413	BLR1 UPPER COMBUSTOR DP	32.917	IN H20
PDIC-2413	BLR2 UPPER COMBUSTOR DP	22.895	IN H20
PI-680	HP FW HEATER 4 OUTLET PRESS	1773.239	PSIG
PI-1002	BLR1 STEAM DRUM PRESSURE	1212.159	PSIG
HIC-1029	BLR1 SUPERHTR OUTLET VENT	1152.219	PSIG
PI-2002	BLR2 STEAM DRUM PRESSURE	1226.077	PSIG
HIC-2029	BLR2 SUPERHTR OUTLET VENT	1154.781	PSIG

TI-1503	BLR1 PRIMARY AIR FAN OUTLET	131.524	DEG F.
TI-2503	BLR2 PRMRY AIR FAN OUTLET TEMP	126.860	DEG F.
TI-1513	BLR1 SECONDARY AIR FAN OUTLET	155.032	DEG F.
TI-2513	BLR2 SECONDARY AIR FAN OUTLET	115.452	DEG F.
TI-1506	BLR1 PRMRY AIR HTR AIR OUTLET	495.922	DEG F.
TI-2506	BLR2 PRMRY AIR HTR AIR OUTLET	491.429	DEG F.
TI-1516	BLR1 SEC AIR HTR AIR OUTLET	428.773	DEG F.
TI-2516	BLR2 SEC AIR HTR AIR OUTLET	441.020	DEG F.
TI-1421	CYCLONE #1 OUTLET TEMP	1612.673	DEG F.
TI-2421	CYCLONE #2 OUTLET TEMP	1542.410	DEG F.
TI-1126	BLR1 BACKPASS TEMPERATURE	1023.758	DEG F.
TI-2126	BLR2 BACKPASS TEMPERATURE	888.388	DEG F.
TI-1102	BLR1 FLUE GAS INLET - AIR HTR	629.567	DEG F.
TI-2102	BLR2 FLUE GAS INLET TO AIR	585.956	DEG F.
TI-1114	BLR1 AIR HEATER FLUE OUT - PA	294.823	DEG F.
TI-2114	BLR2 AIR HEATER FLUE OUT - PA	302.475	DEG F.
TI-681	HPFW HEATER OUTLET	235.550	DEG F.
TI-1022	BLR1 ECONOMIZER OUTLET	569.555	DEG F.
TI-1003	BLR1 SH OUT TEMPERATURE	917.228	DEG F.
TI-2022	BLR2 ECONOMIZER OUTLET	554.139	DEG F.
TI-2003	BLR2 SH OUT TEMPERATURE	926.359	DEG F.
PI-1118	BLR1 ECONOMIZER OUT PRESS "H2O	-4.359	IN H2O
PI-2118	BLR2 ECONOMIZER PRESSURE "H2O	-4.612	IN H2O
XA-3902	PC SILO CONV. FAULT		
HS-3903	PC BUCKET ELEVATOR		AUTO
FIC-1206	BLR1 PET COKE	0.000	MMBTU
FIC-2206	BLR1 PET COKE	0.000	MMBTU
TI-1123	BLR1 BAGHOUSE INLET	330.787	DEG F.
TI-2123	BLR2 BAGHOUSE INLET	329.119	DEG F.
PI-1502	BLR1 PRIMARY AIR FAN OUT "H2O	72.644	IN H2O
PI-2502	BLR2 PRIMARY AIR FAN OUTLET	69.685	IN H2O
PI-1512	BLR1 SECONDARY AIR FAN OUT "H2O	36.648	IN H2O
PI-2512	BLR2 SECONDARY AIR FAN OUTLET	32.178	IN H2O
PI-1120	BLR1 BAGHOUSE INLET PRESS "H2O	-8.025	IN H2O
PI-2120	BLR2 BAGHOUSE INLET PRESS "H2O	-7.272	IN H2O
TI-1127	BLR1 AIR HEATER FLUE OUT - SA	302.250	DEG F.
TI-2127	BLR2 AIR HEATER FLUE OUT - SA	240.714	DEG F.
PI-103	TURBINE INLET STEAM PSIG	1143.538	PSIG
PI-206	TURBINE FIRST STAGE PRESS PSIG	903.524	PSIG
HS6D-6100	RECLAIM PILE SELECTOR	0	LOGIC
PI-705	CONDENSER PRESSURE	0.816	IN HG
EX-MW	GENERATOR MW GROSS	42.591	MWATT
EX-MVAR	GENERATOR MVAR	4.741	MVAR
EX-V	GENERATOR VOLTS	13.946	KV
EX-A	GENERATOR AMPS	1891.418	AMP
PI-402	TURBINE 4TH EXTRAC TO HPFW	353.136	PSIA
PI-422	TURBINE 3RD EXTRACT PRESS	160.360	PSIA
PI-442	TURBINE 2ND EXTRAC PRESS	90.607	PSIA
PI-462	TURBINE 1ST EXTRAC PRESS	16.934	PSIA

BOILER EFFICIENCY VARIABLES

TAG	DESCRIPTION	VALUE	E/U
AI-8020	BLR1 FLUE GAS CO2	10.506	% CO_2
AI-8021	BLR2 FLUE GAS CO2	10.561	% CO_2
AI-8030	BLR1 FLUE GAS CO	1.503	% CO
AI-8031	BLR2 FLUE GAS CO	1.841	% CO
AI-8060	% MOISTURE IN FLUE GAS BLR1	14.838	% H_2O
AI-8061	% MOISTURE IN FLUE GAS BLR2	15.568	% H_2O
AI-8050	CEM O2 DRY ANALYZER BLR1	9.860	% O_2
AI-8051	CEM O2 DRY ANALYZER BLR2	9.217	% O_2
AIC-9010	BLR1 NOX TRIM	41.969	PPM
AIC-9011	BLR2 NOX TRIM	33.483	PPM
AIC-8010	BLR1 SO2 CONTROLLER	10.957	LB/HR
AIC-8011	BLR2 SO2 CONTROLLER	5.838	LB/HR
FI-1520	BLR1 TOTAL AIR FLOW	3330.805	KSDCFH
FI-2520	BLR2 TOTAL AIR FLOW	3218.076	KSDCFH
EX NMW	NET MW OUT	39.520	MEGWT
FI-1040	BLR1 OUTLET STEAM LBS/HR	181.729	LB/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	187.519	LB/HR
FI-1021	BLR1 STEAM DRUM BLOWDOWN LBS/HR	51.660	LB/HR
FI-2021	BLR2 STEAM DRUM BLOWDOWN LBS/HR	28.837	LB/HR
FI-1001	BLR1 FEEDWATER FLOW LBS/HR	203.039	LB/HR
FI-2001	BLR2 FEEDWATER FLOW LBS/HR	198.283	LB/HR
FI-1006	BLR1 DESPRHTR SPRAY WTR LBS/HR	10084.427	LB/HR
FI-2006	BLR2 DESPRHTR SPRAY LBS/HR	5090.981	LB/HR
FIC-1505	BLR1 PRIM AIR FAN VANE KSCFH	1722.969	KSCFH
FIC-2505	BLR2 PRIMARY AIR FAN VANE KSCFH	1681.688	KSCFH
FIC-1515	BLR1 SECON AIR FAN VANE KSCFH	1589.563	KSCFH
FIC-2515	BLR2 SECOND AIR FAN VANE KSCFH	1547.406	KSCFH
FI-1704	BLR1 FUEL GAS FLOW TO LANCE	0.113	KSCFH
FI-2704	BLR2 FUEL GAS FLW LANCE KSCFH	-0.045	KSCFH
FI-1601	BLR1 FUEL GAS FLW TO SU BNR	0.000	KSCFH
FI-2601	BLR2 FUEL GAS FLW TO STRTP BNR	0.025	KSCFH
FI-1753	BLR1 AMMONIA INJECTION FLOW	27.055	LB/HR
FI-2753	BLR2 AMMONIA INJECTION FLOW	24.335	LB/HR
SI-1345	#1 LIMESTONE FEED RATE	1368.302	LB/HR
SI-2345	#2 LIMESTONE FEED RATE	305.153	LB/HR
PDI-1415	BLR1 COMBUSTOR GRATE DP	30.550	IN H20
PDI-2415	BLR2 COMBUSTOR GRATE DP	41.475	IN H20
PDI-1417	BLR1 MIDDLE COMBUSTOR	33.962	IN H20
PDI-2417	BLR2 MIDDLE COMBUSTOR	23.100	IN H20
PDIC-1413	BLR1 UPPER COMBUSTOR DP	33.587	IN H20
PDIC-2413	BLR2 UPPER COMBUSTOR DP	22.812	IN H20
PI-680	HP FW HEATER 4 OUTLET PRESS	1769.485	PSIG
PI-1002	BLR1 STEAM DRUM PRESSURE	1220.345	PSIG
HIC-1029	BLR1 SUPERHTR OUTLET VENT	1154.844	PSIG
PI-2002	BLR2 STEAM DRUM PRESSURE	1230.210	PSIG
HIC-2029	BLR2 SUPERHTR OUTLET VENT	1159.594	PSIG

TI-1503	BLR1 PRIMARY AIR FAN OUTLET	120.616	DEG F.
TI-2503	BLR2 PRMRY AIR FAN OUTLET TEMP	118.664	DEG F.
TI-1513	BLR1 SECONDARY AIR FAN OUTLET	155.032	DEG F.
TI-2513	BLR2 SECONDARY AIR FAN OUTLET	108.547	DEG F.
TI-1506	BLR1 PRMRY AIR HTR AIR OUTLET	493.758	DEG F.
TI-2506	BLR2 PRMRY AIR HTR AIR OUTLET	486.049	DEG F.
TI-1516	BLR1 SEC AIR HTR AIR OUTLET	423.771	DEG F.
TI-2516	BLR2 SEC AIR HTR AIR OUTLET	435.714	DEG F.
TI-1421	CYCLONE #1 OUTLET TEMP	1636.540	DEG F.
TI-2421	CYCLONE #2 OUTLET TEMP	1543.470	DEG F.
TI-1126	BLR1 BACKPASS TEMPERATURE	1031.205	DEG F.
TI-2126	BLR2 BACKPASS TEMPERATURE	880.643	DEG F.
TI-1102	BLR1 FLUE GAS INLET - AIR HTR	630.802	DEG F.
TI-2102	BLR2 FLUE GAS INLET TO AIR	583.051	DEG F.
TI-1114	BLR1 AIR HEATER FLUE OUT - PA	288.164	DEG F.
TI-2114	BLR2 AIR HEATER FLUE OUT - PA	295.971	DEG F.
TI-681	HPFW HEATER OUTLET	234.726	DEG F.
TI-1022	BLR1 ECONOMIZER OUTLET	570.572	DEG F.
TI-1003	BLR1 SH OUT TEMPERATURE	928.269	DEG F.
TI-2022	BLR2 ECONOMIZER OUTLET	552.902	DEG F.
TI-2003	BLR2 SH OUT TEMPERATURE	914.016	DEG F.
PI-1118	BLR1 ECONOMIZER OUT PRESS "H2O	-4.578	IN H2O
PI-2118	BLR2 ECONOMIZER PRESSURE "H2O	-4.017	IN H2O
XA-3902	PC SILO CONV. FAULT		
HS-3903	PC BUCKET ELEVATOR		AUTO
FIC-1206	BLR1 PET COKE	0.000	MMBTU
FIC-2206	BLR1 PET COKE	0.000	MMBTU
TI-1123	BLR1 BAGHOUSE INLET	326.786	DEG F.
TI-2123	BLR2 BAGHOUSE INLET	322.754	DEG F.
PI-1502	BLR1 PRIMARY AIR FAN OUT "H2O	72.319	IN H2O
PI-2502	BLR2 PRIMARY AIR FAN OUTLET	70.311	IN H2O
PI-1512	BLR1 SECONDARY AIR FAN OUT "H2O	40.055	IN H2O
PI-2512	BLR2 SECONDARY AIR FAN OUTLET	33.800	IN H2O
PI-1120	BLR1 BAGHOUSE INLET PRESS "H2O	-8.156	IN H2O
PI-2120	BLR2 BAGHOUSE INLET PRESS "H2O	-6.660	IN H2O
TI-1127	BLR1 AIR HEATER FLUE OUT - SA	296.825	DEG F.
TI-2127	BLR2 AIR HEATER FLUE OUT - SA	234.714	DEG F.
PI-103	TURBINE INLET STEAM PSIG	1143.162	PSIG
PI-206	TURBINE FIRST STAGE PRESS PSIG	924.663	PSIG
HS6D-6100	RECLAIM PILE SELECTOR	0	LOGIC
PI-705	CONDENSER PRESSURE	0.441	IN HG
EX-MW	GENERATOR MW GROSS	43.940	MWATT
EX-MVAR	GENERATOR MVAR	4.628	MVAR
EX-V	GENERATOR VOLTS	13.789	KV
EX-A	GENERATOR AMPS	1965.724	AMP
PI-402	TURBINE 4TH EXTRAC TO HPFW	361.415	PSIA
PI-422	TURBINE 3RD EXTRACT PRESS	165.049	PSIA
PI-442	TURBINE 2ND EXTRAC PRESS	93.094	PSIA
PI-462	TURBINE 1ST EXTRAC PRESS	17.373	PSIA

BOILER EFFICIENCY VARIABLES

TAG	DESCRIPTION	VALUE	E/U
AI-8020	BLR1 FLUE GAS CO2	11.518	% CO_2
AI-8021	BLR2 FLUE GAS CO2	12.905	% CO_2
AI-8030	BLR1 FLUE GAS CO	1.253	% CO
AI-8031	BLR2 FLUE GAS CO	2.829	% CO
AI-8060	% MOISTURE IN FLUE GAS BLR1	14.125	% H_2O
AI-8061	% MOISTURE IN FLUE GAS BLR2	13.005	% H_2O
AI-8050	CEM O2 DRY ANALYZER BLR1	9.450	% O_2
AI-8051	CEM O2 DRY ANALYZER BLR2	9.011	% O_2
AIC-9010	BLR1 NOX TRIM	43.592	PPM
AIC-9011	BLR2 NOX TRIM	51.849	PPM
AIC-8010	BLR1 SO2 CONTROLLER	11.391	LB/HR
AIC-8011	BLR2 SO2 CONTROLLER	8.396	LB/HR
FI-1520	BLR1 TOTAL AIR FLOW	3330.805	KSDCFH
FI-2520	BLR2 TOTAL AIR FLOW	3218.076	KSDCFH
EX NMW	NET MW OUT	41.852	MEGWT
FI-1040	BLR1 OUTLET STEAM LBS/HR	197.489	LB/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	194.719	LB/HR
FI-1021	BLR1 STEAM DRUM BLOWDOWN LBS/HR	48.790	LB/HR
FI-2021	BLR2 STEAM DRUM BLOWDOWN LBS/HR	34.595	LB/HR
FI-1001	BLR1 FEEDWATER FLOW LBS/HR	208.623	LB/HR
FI-2001	BLR2 FEEDWATER FLOW LBS/HR	207.365	LB/HR
FI-1006	BLR1 DESPRHTR SPRAY WTR LBS/HR	11644.963	LB/HR
FI-2006	BLR2 DESPRHTR SPRAY LBS/HR	6665.932	LB/HR
FIC-1505	BLR1 PRIM AIR FAN VANE KSCFH	1718.500	KSCFH
FIC-2505	BLR2 PRIMARY AIR FAN VANE KSCFH	1672.938	KSCFH
FIC-1515	BLR1 SECON AIR FAN VANE KSCFH	1593.563	KSCFH
FIC-2515	BLR2 SECOND AIR FAN VANE KSCFH	1535.531	KSCFH
FI-1704	BLR1 FUEL GAS FLOW TO LANCE	0.068	KSCFH
FI-2704	BLR2 FUEL GAS FLW LANCE KSCFH	-0.045	KSCFH
FI-1601	BLR1 FUEL GAS FLW TO SU BNR	0.025	KSCFH
FI-2601	BLR2 FUEL GAS FLW TO STRTP BNR	0.050	KSCFH
FI-1753	BLR1 AMMONIA INJECTION FLOW	40.881	LB/HR
FI-2753	BLR2 AMMONIA INJECTION FLOW	27.012	LB/HR
SI-1345	#1 LIMESTONE FEED RATE	3211.066	LB/HR
SI-2345	#2 LIMESTONE FEED RATE	626.563	LB/HR
PDI-1415	BLR1 COMBUSTOR GRATE DP	31.450	IN H20
PDI-2415	BLR2 COMBUSTOR GRATE DP	42.450	IN H20
PDI-1417	BLR1 MIDDLE COMBUSTOR	33.688	IN H20
PDI-2417	BLR2 MIDDLE COMBUSTOR	22.163	IN H20
PDIC-1413	BLR1 UPPER COMBUSTOR DP	33.997	IN H20
PDIC-2413	BLR2 UPPER COMBUSTOR DP	22.812	IN H20
PI-680	HP FW HEATER 4 OUTLET PRESS	1767.242	PSIG
PI-1002	BLR1 STEAM DRUM PRESSURE	1227.921	PSIG
HIC-1029	BLR1 SUPERHTR OUTLET VENT	1156.719	PSIG
PI-2002	BLR2 STEAM DRUM PRESSURE	1237.725	PSIG
HIC-2029	BLR2 SUPERHTR OUTLET VENT	1161.188	PSIG

TI-1503	BLR1 PRIMARY AIR FAN OUTLET	111.966	DEG F.
TI-2503	BLR2 PRMRY AIR FAN OUTLET TEMP	111.304	DEG F.
TI-1513	BLR1 SECONDARY AIR FAN OUTLET	155.032	DEG F.
TI-2513	BLR2 SECONDARY AIR FAN OUTLET	100.048	DEG F.
TI-1506	BLR1 PRMRY AIR HTR AIR OUTLET	495.104	DEG F.
TI-2506	BLR2 PRMRY AIR HTR AIR OUTLET	484.717	DEG F.
TI-1516	BLR1 SEC AIR HTR AIR OUTLET	423.064	DEG F.
TI-2516	BLR2 SEC AIR HTR AIR OUTLET	434.181	DEG F.
TI-1421	CYCLONE #1 OUTLET TEMP	1665.911	DEG F.
TI-2421	CYCLONE #2 OUTLET TEMP	1545.950	DEG F.
TI-1126	BLR1 BACKPASS TEMPERATURE	1043.448	DEG F.
TI-2126	BLR2 BACKPASS TEMPERATURE	888.605	DEG F.
TI-1102	BLR1 FLUE GAS INLET - AIR HTR	633.198	DEG F.
TI-2102	BLR2 FLUE GAS INLET TO AIR	586.371	DEG F.
TI-1114	BLR1 AIR HEATER FLUE OUT - PA	285.814	DEG F.
TI-2114	BLR2 AIR HEATER FLUE OUT - PA	292.031	DEG F.
TI-681	HPFW HEATER OUTLET	234.456	DEG F.
TI-1022	BLR1 ECONOMIZER OUTLET	569.415	DEG F.
TI-1003	BLR1 SH OUT TEMPERATURE	930.242	DEG F.
TI-2022	BLR2 ECONOMIZER OUTLET	559.485	DEG F.
TI-2003	BLR2 SH OUT TEMPERATURE	923.257	DEG F.
PI-1118	BLR1 ECONOMIZER OUT PRESS "H2O	-4.499	IN H2O
PI-2118	BLR2 ECONOMIZER PRESSURE "H2O	-4.368	IN H2O
XA-3902	PC SILO CONV. FAULT		
HS-3903	PC BUCKET ELEVATOR		AUTO
FIC-1206	BLR1 PET COKE	0.000	MMBTU
FIC-2206	BLR1 PET COKE	0.000	MMBTU
TI-1123	BLR1 BAGHOUSE INLET	326.016	DEG F.
TI-2123	BLR2 BAGHOUSE INLET	320.639	DEG F.
PI-1502	BLR1 PRIMARY AIR FAN OUT "H2O	73.897	IN H2O
PI-2502	BLR2 PRIMARY AIR FAN OUTLET	71.288	IN H2O
PI-1512	BLR1 SECONDARY AIR FAN OUT "H2O	44.489	IN H2O
PI-2512	BLR2 SECONDARY AIR FAN OUTLET	33.224	IN H2O
PI-1120	BLR1 BAGHOUSE INLET PRESS "H2O	-8.191	IN H2O
PI-2120	BLR2 BAGHOUSE INLET PRESS "H2O	-7.141	IN H2O
TI-1127	BLR1 AIR HEATER FLUE OUT - SA	295.225	DEG F.
TI-2127	BLR2 AIR HEATER FLUE OUT - SA	230.203	DEG F.
PI-103	TURBINE INLET STEAM PSIG	1145.420	PSIG
PI-206	TURBINE FIRST STAGE PRESS PSIG	967.258	PSIG
HS6D-6100	RECLAIM PILE SELECTOR	0	LOGIC
PI-705	CONDENSER PRESSURE	0.323	IN HG
EX-MW	GENERATOR MW GROSS	46.266	MWATT
EX-MVAR	GENERATOR MVAR	5.098	MVAR
EX-V	GENERATOR VOLTS	13.848	KV
EX-A	GENERATOR AMPS	2067.050	AMP
PI-402	TURBINE 4TH EXTRAC TO HPFW	377.014	PSIA
PI-422	TURBINE 3RD EXTRACT PRESS	172.329	PSIA
PI-442	TURBINE 2ND EXTRAC PRESS	98.289	PSIA
PI-462	TURBINE 1ST EXTRAC PRESS	18.100	PSIA

BOILER EFFICIENCY VARIABLES

TAG	DESCRIPTION	VALUE	E/U
AI-8020	BLR1 FLUE GAS CO2	10.010	% CO_2
AI-8021	BLR2 FLUE GAS CO2	-0.002	% CO_2
AI-8030	BLR1 FLUE GAS CO	1.002	% CO
AI-8031	BLR2 FLUE GAS CO	1.953	% CO
AI-8060	% MOISTURE IN FLUE GAS BLR1	15.600	% H_2O
AI-8061	% MOISTURE IN FLUE GAS BLR2	-66.320	% H_2O
AI-8050	CEM O2 DRY ANALYZER BLR1	9.505	% O_2
AI-8051	CEM O2 DRY ANALYZER BLR2	10.944	% O_2
AIC-9010	BLR1 NOX TRIM	32.975	PPM
AIC-9011	BLR2 NOX TRIM	56.222	PPM
AIC-8010	BLR1 SO2 CONTROLLER	4.577	LB/HR
AIC-8011	BLR2 SO2 CONTROLLER	6.505	LB/HR
FI-1520	BLR1 TOTAL AIR FLOW	3377.754	KSDCFH
FI-2520	BLR2 TOTAL AIR FLOW	3208.687	KSDCFH
EX NMW	NET MW OUT	39.981	MEGWT
FI-1040	BLR1 OUTLET STEAM LBS/HR	179.700	LB/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	190.159	LB/HR
FI-1021	BLR1 STEAM DRUM BLOWDOWN LBS/HR	54.530	LB/HR
FI-2021	BLR2 STEAM DRUM BLOWDOWN LBS/HR	37.478	LB/HR
FI-1001	BLR1 FEEDWATER FLOW LBS/HR	199.040	LB/HR
FI-2001	BLR2 FEEDWATER FLOW LBS/HR	203.840	LB/HR
FI-1006	BLR1 DESPRHTR SPRAY WTR LBS/HR	0.000	LB/HR
FI-2006	BLR2 DESPRHTR SPRAY LBS/HR	6787.976	LB/HR
FIC-1505	BLR1 PRIM AIR FAN VANE KSCFH	1758.563	KSCFH
FIC-2505	BLR2 PRIMARY AIR FAN VANE KSCFH	1673.938	KSCFH
FIC-1515	BLR1 SECON AIR FAN VANE KSCFH	1629.219	KSCFH
FIC-2515	BLR2 SECOND AIR FAN VANE KSCFH	1545.938	KSCFH
FI-1704	BLR1 FUEL GAS FLOW TO LANCE	0.068	KSCFH
FI-2704	BLR2 FUEL GAS FLW LANCE KSCFH	-0.068	KSCFH
FI-1601	BLR1 FUEL GAS FLW TO SU BNR	0.000	KSCFH
FI-2601	BLR2 FUEL GAS FLW TO STRTP BNR	0.050	KSCFH
FI-1753	BLR1 AMMONIA INJECTION FLOW	31.808	LB/HR
FI-2753	BLR2 AMMONIA INJECTION FLOW	34.270	LB/HR
SI-1345	#1 LIMESTONE FEED RATE	3625.438	LB/HR
SI-2345	#2 LIMESTONE FEED RATE	611.403	LB/HR
PDI-1415	BLR1 COMBUSTOR GRATE DP	32.650	IN H20
PDI-2415	BLR2 COMBUSTOR GRATE DP	39.200	IN H20
PDI-1417	BLR1 MIDDLE COMBUSTOR	34.700	IN H20
PDI-2417	BLR2 MIDDLE COMBUSTOR	22.612	IN H20
PDIC-1413	BLR1 UPPER COMBUSTOR DP	34.310	IN H20
PDIC-2413	BLR2 UPPER COMBUSTOR DP	23.190	IN H20
PI-680	HP FW HEATER 4 OUTLET PRESS	1777.771	PSIG
PI-1002	BLR1 STEAM DRUM PRESSURE	1218.914	PSIG
HIC-1029	BLR1 SUPERHTR OUTLET VENT	1150.719	PSIG
PI-2002	BLR2 STEAM DRUM PRESSURE	1228.707	PSIG
HIC-2029	BLR2 SUPERHTR OUTLET VENT	1155.906	PSIG

TI-1503	BLR1 PRIMARY AIR FAN OUTLET	111.605	DEG F.
TI-2503	BLR2 PRMRY AIR FAN OUTLET TEMP	108.044	DEG F.
TI-1513	BLR1 SECONDARY AIR FAN OUTLET	155.032	DEG F.
TI-2513	BLR2 SECONDARY AIR FAN OUTLET	98.119	DEG F.
TI-1506	BLR1 PRMRY AIR HTR AIR OUTLET	491.385	DEG F.
TI-2506	BLR2 PRMRY AIR HTR AIR OUTLET	483.490	DEG F.
TI-1516	BLR1 SEC AIR HTR AIR OUTLET	419.213	DEG F.
TI-2516	BLR2 SEC AIR HTR AIR OUTLET	432.332	DEG F.
TI-1421	CYCLONE #1 OUTLET TEMP	1656.488	DEG F.
TI-2421	CYCLONE #2 OUTLET TEMP	1547.254	DEG F.
TI-1126	BLR1 BACKPASS TEMPERATURE	1034.790	DEG F.
TI-2126	BLR2 BACKPASS TEMPERATURE	882.526	DEG F.
TI-1102	BLR1 FLUE GAS INLET - AIR HTR	627.831	DEG F.
TI-2102	BLR2 FLUE GAS INLET TO AIR	582.469	DEG F.
TI-1114	BLR1 AIR HEATER FLUE OUT - PA	284.825	DEG F.
TI-2114	BLR2 AIR HEATER FLUE OUT - PA	291.264	DEG F.
TI-681	HPFW HEATER OUTLET	234.903	DEG F.
TI-1022	BLR1 ECONOMIZER OUTLET	565.537	DEG F.
TI-1003	BLR1 SH OUT TEMPERATURE	920.254	DEG F.
TI-2022	BLR2 ECONOMIZER OUTLET	553.756	DEG F.
TI-2003	BLR2 SH OUT TEMPERATURE	924.451	DEG F.
PI-1118	BLR1 ECONOMIZER OUT PRESS "H2O	-5.698	IN H2O
PI-2118	BLR2 ECONOMIZER PRESSURE "H2O	-3.694	IN H2O
XA-3902	PC SILO CONV. FAULT		
HS-3903	PC BUCKET ELEVATOR		AUTO
FIC-1206	BLR1 PET COKE	0.000	MMBTU
FIC-2206	BLR1 PET COKE	0.000	MMBTU
TI-1123	BLR1 BAGHOUSE INLET	324.603	DEG F.
TI-2123	BLR2 BAGHOUSE INLET	319.496	DEG F.
PI-1502	BLR1 PRIMARY AIR FAN OUT "H2O	75.150	IN H2O
PI-2502	BLR2 PRIMARY AIR FAN OUTLET	72.389	IN H2O
PI-1512	BLR1 SECONDARY AIR FAN OUT "H2O	45.365	IN H2O
PI-2512	BLR2 SECONDARY AIR FAN OUTLET	34.451	IN H2O
PI-1120	BLR1 BAGHOUSE INLET PRESS "H2O	-9.276	IN H2O
PI-2120	BLR2 BAGHOUSE INLET PRESS "H2O	-6.459	IN H2O
TI-1127	BLR1 AIR HEATER FLUE OUT - SA	293.011	DEG F.
TI-2127	BLR2 AIR HEATER FLUE OUT - SA	230.899	DEG F.
PI-103	TURBINE INLET STEAM PSIG	1142.786	PSIG
PI-206	TURBINE FIRST STAGE PRESS PSIG	938.156	PSIG
HS6D-6100	RECLAIM PILE SELECTOR	0	LOGIC
PI-705	CONDENSER PRESSURE	0.264	IN HG
EX-MW	GENERATOR MW GROSS	44.157	MWATT
EX-MVAR	GENERATOR MVAR	4.884	MVAR
EX-V	GENERATOR VOLTS	13.773	KV
EX-A	GENERATOR AMPS	1969.735	AMP
PI-402	TURBINE 4TH EXTRAC TO HPFW	365.780	PSIA
PI-422	TURBINE 3RD EXTRACT PRESS	167.751	PSIA
PI-442	TURBINE 2ND EXTRAC PRESS	95.042	PSIA
PI-462	TURBINE 1ST EXTRAC PRESS	17.438	PSIA

Operator Window #1: Graphic 101 (Recall 1 of 10)

Window | Select | Redraw | Zoom | ?

BLR #1 MASTER

I-101

AREA

RATE

HS-1000A BOILER MASTER STEAM FLOW SETPOINT

HS-1000B BOILER MASTER NET M.W. SETPOINT

HS-1000 BOILER MASTER S.P. SOURCE SELECTOR

HIC-1000
BLR1 MASTER

MANUAL | N | LOCAL | 1

300.00 / 0.00 — 185.17 KLB/HR

OUT 49.00 % SPTR

FIC-1520
BLR1 AIR MASTER

AUTO | N | LOCAL | 1

6000 / 0 — 3340 KSCFH

OUT 84 %

FIC-1505
BLR1 PRIM AIR FAN VANE KSCFH

AUTO | N | LOCAL | 1

4000.0 / 0.0 — 1736.9 KSCFH

OUT 43.7 %

FIC-1515
BLR1 SECON AIR FAN VANE KSCFH

AUTO | N | LOCAL | 1

4000.0 / 0.0 — 1603.3 KSCFH

OUT 26.2 %

PIC-1420
BLR1 FURNACE PRESSURE

AUTO | N | LOCAL | 1

15.00 / -15.00 — -2.65 IN H2O

OUT 59.21 %

AIC-1101
BLR1 02 TRIM CONTROLLER

AUTO | N | LOCAL | 1

25.00 / 0.00 — 7.50 %

OUT 47.69 %

FIC-1250A
BLR1 WOOD MASTER

AUTO | N | LOCAL | 1

1000 / 0 — 569

OUT 59 %

FIC-1207A
BLR1 GAS LANCE

MANUAL | N | LOCAL | 1

132 / 0 — 0

OUT 10 % SPTR

FIC-1206
BLR1 PET COKE

MANUAL | L | LOCAL | 1

340.0 / 0.0 — 0.0

OUT 0.0 % SPTR

PDIC-1413
BLR1 UPPER COMBUSTOR DP

MANUAL | N | LOCAL | 1

95.0 / 0.0 — 29.0 IN H2O

OUT 30.0 %

FIC-1201
BLR1 SCREW FDR ABC FLOW %

AUTO | N | LOCAL | 1

100.0 / 0.0 — 70.0 %

OUT 62.2 %

FIC-1261
BLR1 SCREW FDR DEF FLOW %

AUTO | N | LOCAL | 1

100.0 / 0.0 — 70.0 %

OUT 62.4 %

FIC-1231
BLR1 SCREW FDR GHI FLOW %

AUTO | N | LOCAL | 1

100.0 / 0.0 — 70.0 %

OUT 62.3 %

FIC-1291
BLR1 SCREW FDR JKL FLOW %

AUTO | N | LOCAL | 1

100.0 / 0.0 — 70.0 %

OUT 62.3 %

HIC-1202 WOOD FEED%

HIC-1206 PET COKE %

HIC-1206HL PC HI LIMIT

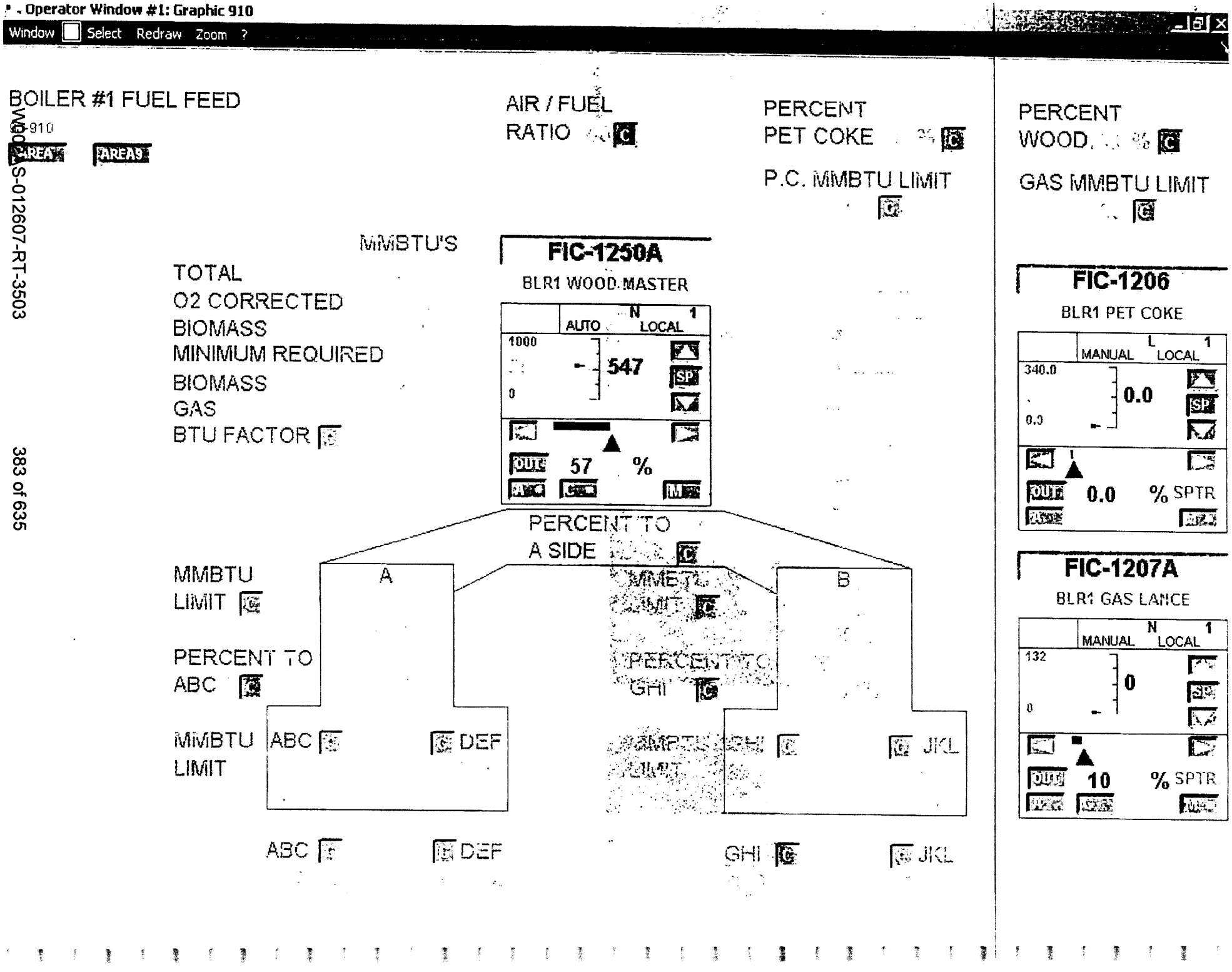
HS-1200 BTU FACTOR AUTO / MANUAL

HIC-1201 BTU FACTOR

TI-1405 COMB MID TEMP

TI-1421 CYC #1 OUT TEMP

1500 04/04/2021


Operator Window #1: Graphic 910
Window Select Redraw Zoom ?
BOILER #1 FUEL FEED
910
AREA
AREA9
AIR / FUEL RATIO
PERCENT PET COKE
P.C. MMBTU LIMIT
PERCENT WOOD
GAS MMBTU LIMIT
MMBTU'S
TOTAL
O2 CORRECTED
BIOMASS
MINIMUM REQUIRED
BIOMASS
GAS
BTU FACTOR
FIC-1250A
BLR1 WOOD MASTER
AUTO
N
LOCAL
1
1000
0
547
SP
OUT
57
%
PERCENT TO A SIDE
A
B
MMBTU LIMIT
PERCENT TO ABC
MMBTU LIMIT
ABC
DEF
GHI
JKL
FIC-1206
BLR1 PET COKE
MANUAL
L
LOCAL
340.0
0.0
0.0
% SPTR
FIC-1207A
BLR1 GAS LANCE
MANUAL
N
LOCAL
132
0
10
% SPTR

Operator Window #1: Graphic 101 (Recall 1 of 10)

Window | Select | Redraw | Zoom | ?

BLR #1 MASTER

101

HS-1000A BOILER MASTER STEAM FLOW SETPOINT

HS-1000B BOILER MASTER NET M.W. SETPOINT

HS-1000 BOILER MASTER S.P. SOURCE SELECTOR

HIC-1000
BLR1 MASTER

MANUAL | N | LOCAL | 1

300.00 / 0.00 — 181.95 KLB/HR

OUT 49.00 % SPTR

FIC-1520
BLR1 AIR MASTER

AUTO | N | LOCAL | 1

6000 / 0 — 3340 KSCFH

OUT 84 %

FIC-1505
BLR1 PRIM AIR FAN VANE KSCFH

AUTO | N | LOCAL | 1

4000.0 / 0.0 — 1736.9 KSCFH

OUT 43.4 %

FIC-1515
BLR1 SECON AIR FAN VANE KSCFH

AUTO | N | LOCAL | 1

4000.0 / 0.0 — 1603.3 KSCFH

OUT 26.2 %

PIC-1420
BLR1 FURNACE PRESSURE

AUTO | N | LOCAL | 1

15.00 / -15.00 — -2.75 IN H2O

OUT 60.46 %

AIC-1101
BLR1 02 TRIM CONTROLLER

AUTO | N | LOCAL | 1

25.00 / 0.00 — 7.50 %

OUT 51.52 %

FIC-1250A
BLR1 WOOD MASTER

AUTO | N | LOCAL | 1

1000 / 0 — 592

OUT 62 %

FIC-1207A
BLR1 GAS LANCE

MANUAL | N | LOCAL | 1

132 / 0 — 0

OUT 10 % SPTR

FIC-1206
BLR1 PET COKE

MANUAL | L | LOCAL | 1

340.0 / 0.0 — 0.0

OUT 0.0 % SPTR

PDIC-1413
BLR1 UPPER COMBUSTOR DP

MANUAL | N | LOCAL | 1

95.3 / 0.0 — 29.0 IN H2O

OUT 30.0 %

FIC-1201
BLR1 SCREW FDR ABC FLOW %

AUTO | N | LOCAL | 1

100.0 / 0.0 — 70.0 %

OUT 64.9 %

FIC-1261
BLR1 SCREW FDR DEF FLOW %

AUTO | N | LOCAL | 1

100.0 / 0.0 — 70.0 %

OUT 64.9 %

FIC-1231
BLR1 SCREW FDR GHI FLOW %

AUTO | N | LOCAL | 1

100.0 / 0.0 — 70.0 %

OUT 65.0 %

FIC-1291
BLR1 SCREW FDR JKL FLOW %

AUTO | N | LOCAL | 1

100.0 / 0.0 — 70.0 %

OUT 64.9 %

HIC-1202 WOOD FEED%

HIC-1206 PET COKE %

HIC-1206HL PC HI LIMIT

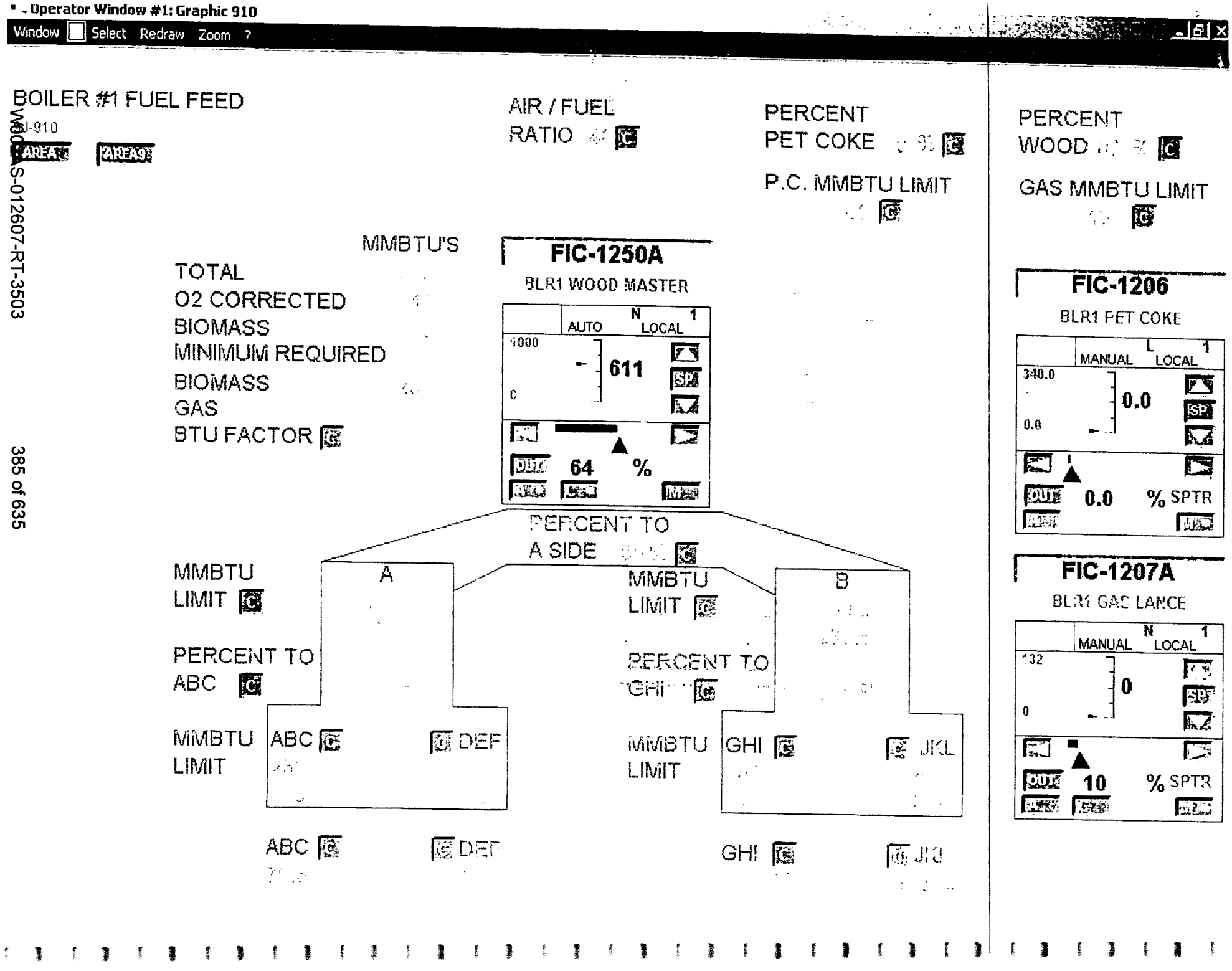
HS-1200 BTU FACTOR AUTO / MANUAL

HIC-1201 BTU FACTOR

TI-1405 COMB MID TEMP

TI-1421 CYC #1 OUT TEMP

1400 04/06/2022


Operator Window #1: Graphic 910
Window Select Redraw Zoom ?
BOILER #1 FUEL FEED
AREA
AREA9
AIR / FUEL RATIO
PERCENT PET COKE
P.C. MMBTU LIMIT
PERCENT WOOD
GAS MMBTU LIMIT
MMBTU'S
TOTAL
O2 CORRECTED
BIOMASS
MINIMUM REQUIRED
BIOMASS
GAS
BTU FACTOR
FIC-1250A
BLR1 WOOD MASTER
AUTO
N
LOCAL
1
611
64
%
PERCENT TO A SIDE
A
B
MMBTU LIMIT
PERCENT TO ABC
PERCENT TO GHI
ABC
DEF
GHI
JKL
FIC-1206
BLR1 PET COKE
MANUAL
L
LOCAL
340.0
0.0
0.0
% SPTR
FIC-1207A
BLR1 GAS LANCE
MANUAL
N
LOCAL
132
0
10
% SPTR

Operator Window #1: Graphic 101 (Recall 1 of 10)

Window | Select | Redraw | Zoom | ?

BLR #1 MASTER

W0024A-S-0060 Rev 1 Sheet 186 of 226

G-101

AREA

SCRN

HS-1000A BOILER MASTER STEAM FLOW SETPOINT

HS-1000B BOILER MASTER NET MW SETPOINT

HS-1000 BOILER MASTER S.P. SOURCE SELECTOR

HIC-1000
BLR1 MASTER

MANUAL | N | LOCAL | 1

300.00 / 0.00 — 183.00 KLB/HR

OUT 48.50 % SPTR

FIC-1520
BLR1 AIR MASTER

AUTO | N | LOCAL | 1

6000 / 0 — 3331 KSCFH

OUT 83 %

FIC-1505
BLR1 PRIM AIR FAN VANE KSCFH

AUTO | N | LOCAL | 1

4000.0 / 0.0 — 1732.0 KSCFH

OUT 42.4 %

FIC-1515
BLR1 SECON AIR FAN VANE KSCFH

AUTO | N | LOCAL | 1

4000.0 / 0.0 — 1598.8 KSCFH

OUT 25.8 %

PIC-1420
BLR1 FURNACE PRESSURE

AUTO | N | LOCAL | 1

15.00 / -15.00 — -2.53 IN H2O

OUT 55.04 %

AIC-1101
BLR1 02 TRIM CONTROLLER

AUTO | N | LOCAL | 1

25.00 / 0.00 — 7.50 %

OUT 53.13 %

FIC-1250A
BLR1 WOOD MASTER

AUTO | N | LOCAL | 1

[illegible] / 0 — 577

OUT 60 %

FIC-1207A
BLR1 GAS LANCE

MANUAL | N | LOCAL | 1

132 / 0 — 0

OUT 10 % SPTR

FIC-1206
BLR1 PET COKE

MANUAL | L | LOCAL | 1

340.0 / 0.0 — 0.0

OUT 0.0 % SPTR

PDIC-1413
BLR1 UPPER COMBUSTOR DP

MANUAL | N | LOCAL | 1

95.0 / 0.0 — 29.0 IN H2O

OUT 30.0 %

FIC-1201
BLR1 SCREW FDR ABC FLOW %

AUTO | N | LOCAL | 1

100.0 / 0.0 — 70.0 %

OUT 63.5 %

FIC-1261
BLR1 SCREW FDR DEF FLOW %

AUTO | N | LOCAL | 1

100.0 / 0.0 — 70.0 %

OUT 63.6 %

FIC-1231
BLR1 SCREW FDR GHI FLOW %

AUTO | N | LOCAL | 1

100.0 / 0.0 — 70.0 %

OUT 63.6 %

FIC-1291
BLR1 SCREW FDR JKL FLOW %

AUTO | N | LOCAL | 1

100.0 / 0.0 — 70.0 %

OUT 63.6 %

HIC-1202 WOOD FEED%

HIC-1206 PET COKE %

HIC-1206HL PC HI LIMIT

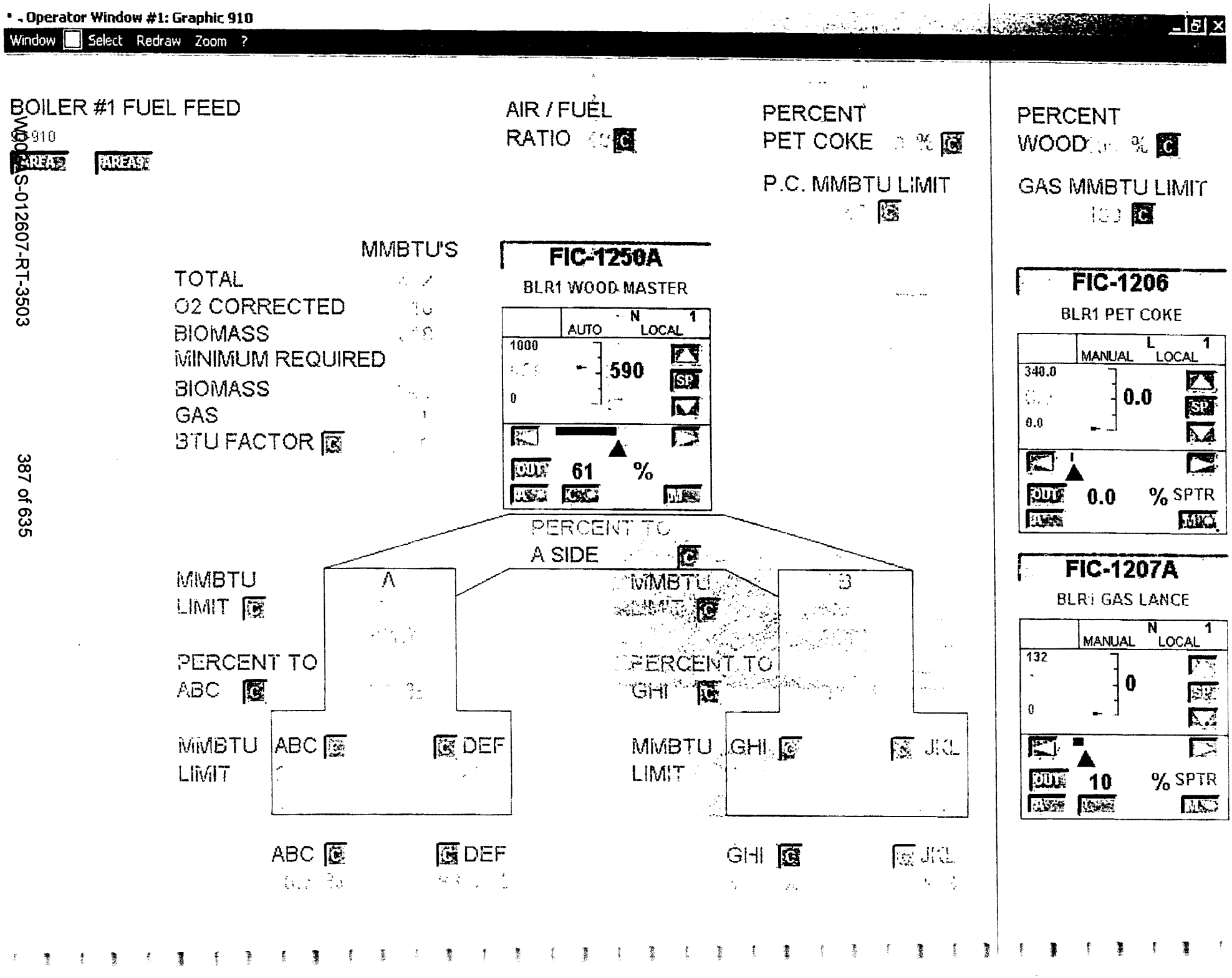
HS-1200 BTU FACTOR AUTO / MANUAL

HIC-1201 BTU FACTOR

TI-1405 COMB MID TEMP

TI-1421 CYC #1 OUT TEMP

1300 4/6/22


Operator Window #1: Graphic 910
Window Select Redraw Zoom ?
BOILER #1 FUEL FEED
AIR / FUEL RATIO
PERCENT PET COKE
P.C. MMBTU LIMIT
PERCENT WOOD
GAS MMBTU LIMIT
MMBTU'S
TOTAL
O2 CORRECTED
BIOMASS
MINIMUM REQUIRED
BIOMASS
GAS
BTU FACTOR
FIC-1250A
BLR1 WOOD MASTER
AUTO
LOCAL
1000
590
0
61
%
FIC-1206
BLR1 PET COKE
MANUAL
LOCAL
340.0
0.0
0.0
0.0
% SPTR
FIC-1207A
BLR1 GAS LANCE
MANUAL
LOCAL
132
0
0
10
% SPTR
PERCENT TO A SIDE
A
B
MMBTU LIMIT
PERCENT TO ABC
PERCENT TO GHI
MMBTU LIMIT
ABC
DEF
GHI
JKL

Operator Window #1: Graphic 101 (Recall 1 of 10)

Window | Select | Redraw | Zoom | ?

BLR #1 MASTER

G-101

AREA

HS-1000A BOILER MASTER STEAM FLOW SETPOINT

HS-1000B BOILER MASTER NET MW SETPOINT

HS-1000 BOILER MASTER S.P. SOURCE SELECTOR

HIC-1000
BLR1 MASTER

MANUAL | N | LOCAL | 1

300.00 / 0.00 — 184.77 KLB/HR

OUT 48.50 % SPTR

FIC-1520
BLR1 AIR MASTER

AUTO | N | LOCAL | 1

6000 / 0 — 3331 KSCFH

OUT 83 %

FIC-1505
BLR1 PRIM AIR FAN VANE KSCFH

AUTO | N | LOCAL | 1

4000.0 / 0.0 — 1732.0 KSCFH

OUT 43.0 %

FIC-1515
BLR1 SECON AIR FAN VANE KSCFH

AUTO | N | LOCAL | 1

4000.0 / 0.0 — 1598.8 KSCFH

OUT 25.8 %

PIC-1420
BLR1 FURNACE PRESSURE

AUTO | N | LOCAL | 1

15.00 / -15.00 — -2.61 IN H2O

OUT 56.91 %

AIC-1101
BLR1 02 TRIM CONTROLLER

AUTO | N | LOCAL | 1

25.00 / 0.00 — 7.60 %

OUT 47.79 %

FIC-1250A
BLR1 WOOD MASTER

AUTO | N | LOCAL | 1

1000 / 0 — 540

OUT 56 %

FIC-1207A
BLR1 GAS LANCE

MANUAL | N | LOCAL | 1

132 / 0 — 0

OUT 10 % SPTR

FIC-1206
BLR1 PET COKE

MANUAL | L | LOCAL | 1

340.0 / 0.0 — 0.0

OUT 0.0 % SPTR

PDIC-1413
BLR1 UPPER COMBUSTOR DP

MANUAL | N | LOCAL | 1

95.0 / 0.0 — 29.0 IN H2O

OUT 30.0 %

FIC-1201
BLR1 SCREW FDR ABC FLOW %

AUTO | N | LOCAL | 1

100.0 / 0.0 — 70.0 %

OUT 59.1 %

FIC-1261
BLR1 SCREW FDR DEF FLOW %

AUTO | N | LOCAL | 1

100.0 / 0.0 — 70.0 %

OUT 59.1 %

FIC-1231
BLR1 SCREW FDR GHI FLOW %

AUTO | N | LOCAL | 1

100.0 / 0.0 — 70.0 %

OUT 59.1 %

FIC-1291
BLR1 SCREW FDR JKL FLOW %

AUTO | N | LOCAL | 1

100.0 / 0.0 — 70.0 %

OUT 59.1 %

HIC-1202 WOOD FEED%

HIC-1206 PET COKE %

HIC-1206HL PC HI LIMIT

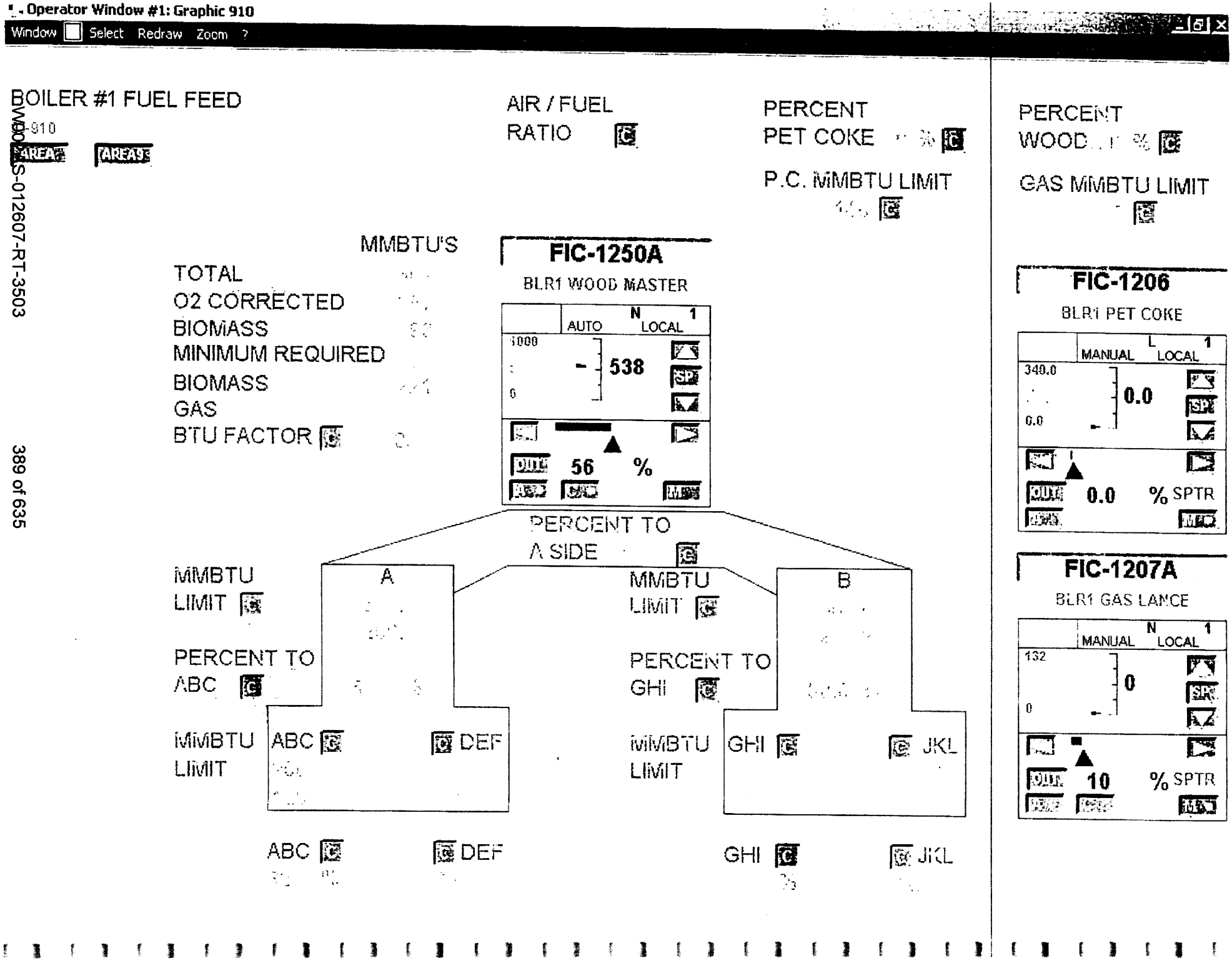
HS-1200 BTU FACTOR AUTO / MANUAL

HIC-1201 BTU FACTOR

TI-1405 COMB MID TEMP

TI-1421 CYC #1 OUT TEMP

1230 4/6/2022


Operator Window #1: Graphic 910
Window Select Redraw Zoom ?
BOILER #1 FUEL FEED
AIR / FUEL RATIO
PERCENT PET COKE
P.C. MMBTU LIMIT
PERCENT WOOD
GAS MMBTU LIMIT
MMBTU'S
TOTAL
O2 CORRECTED
BIOMASS
MINIMUM REQUIRED
BIOMASS
GAS
BTU FACTOR
FIC-1250A
BLR1 WOOD MASTER
AUTO
N
LOCAL
1
1000
538
56
%
PERCENT TO A SIDE
A
B
MMBTU LIMIT
PERCENT TO ABC
PERCENT TO GHI
ABC
DEF
GHI
JKL
FIC-1206
BLR1 PET COKE
MANUAL
L
LOCAL
340.0
0.0
0.0
% SPTR
FIC-1207A
BLR1 GAS LANCE
MANUAL
N
LOCAL
132
0
10
% SPTR

Operator Window #1: Graphic 101 (Recall 1 of 10)

Window | Select | Redraw | Zoom | ?

BLR #1 MASTER

101

CREA

BLR#1

HS-1000A BOILER MASTER STEAM FLOW SETPOINT

HS-1000B BOILER MASTER NET MW SETPOINT

HS-1000 BOILER MASTER S.P. SOURCE SELECTOR

HIC-1000
BLR1 MASTER

MANUAL | N | LOCAL | 1

300.00 — 182.43 — 0.00 KLB/HR

OUT 48.50 % SPTR

FIC-1520
BLR1 AIR MASTER

AUTO | N | LOCAL | 1

6000 — 3331 — 0 KSCFH

OUT 83 %

FIC-1505
BLR1 PRIM AIR FAN VANE KSCFH

AUTO | N | LOCAL | 1

4000.0 — 1732.0 — 0.0 KSCFH

OUT 42.8 %

FIC-1515
BLR1 SECON AIR FAN VANE KSCFH

AUTO | N | LOCAL | 1

4000.0 — 1598.8 — 0.0 KSCFH

OUT 25.8 %

PIC-1420
BLR1 FURNACE PRESSURE

AUTO | N | LOCAL | 1

15.00 — -2.59 — -15.00 IN H2O

OUT 57.09 %

AIC-1101
BLR1 02 TRIM CONTROLLER

AUTO | N | LOCAL | 1

25.00 — 7.60 — 0.00 %

OUT 42.43 %

FIC-1250A
BLR1 WOOD MASTER

AUTO | N | LOCAL | 1

1000 — 506 — 0

OUT 52 %

FIC-1207A
BLR1 GAS LANCE

MANUAL | N | LOCAL | 1

132 — 0 — 0

OUT 10 % SPTR

FIC-1206
BLR1 PET COKE

MANUAL | L | LOCAL | 1

340.0 — 0.0 — 0.0

OUT 0.0 % SPTR

PDIC-1413
BLR1 UPPER COMBUSTOR DP

MANUAL | N | LOCAL | 1

95.0 — 29.0 — 0.0 IN H2O

OUT 30.0 %

FIC-1201
BLR1 SCREW FDR ABC FLOW %

AUTO | N | LOCAL | 1

100.0 — 70.0 — 0.0 %

OUT 55.4 %

FIC-1261
BLR1 SCREW FDR DEF FLOW %

AUTO | N | LOCAL | 1

100.0 — 70.0 — 0.0 %

OUT 55.3 %

FIC-1231
BLR1 SCREW FDR GHI FLOW %

AUTO | N | LOCAL | 1

100.0 — 70.0 — 0.0 %

OUT 55.4 %

FIC-1291
BLR1 SCREW FDR JKL FLOW %

AUTO | N | LOCAL | 1

100.0 — 70.0 — 0.0 %

OUT 55.4 %

HIC-1202 WOOD FEED%

HIC-1206 PET COKE %

HIC-1206HL PC HI LIMIT

HS-1200 BTU FACTOR AUTO / MANUAL

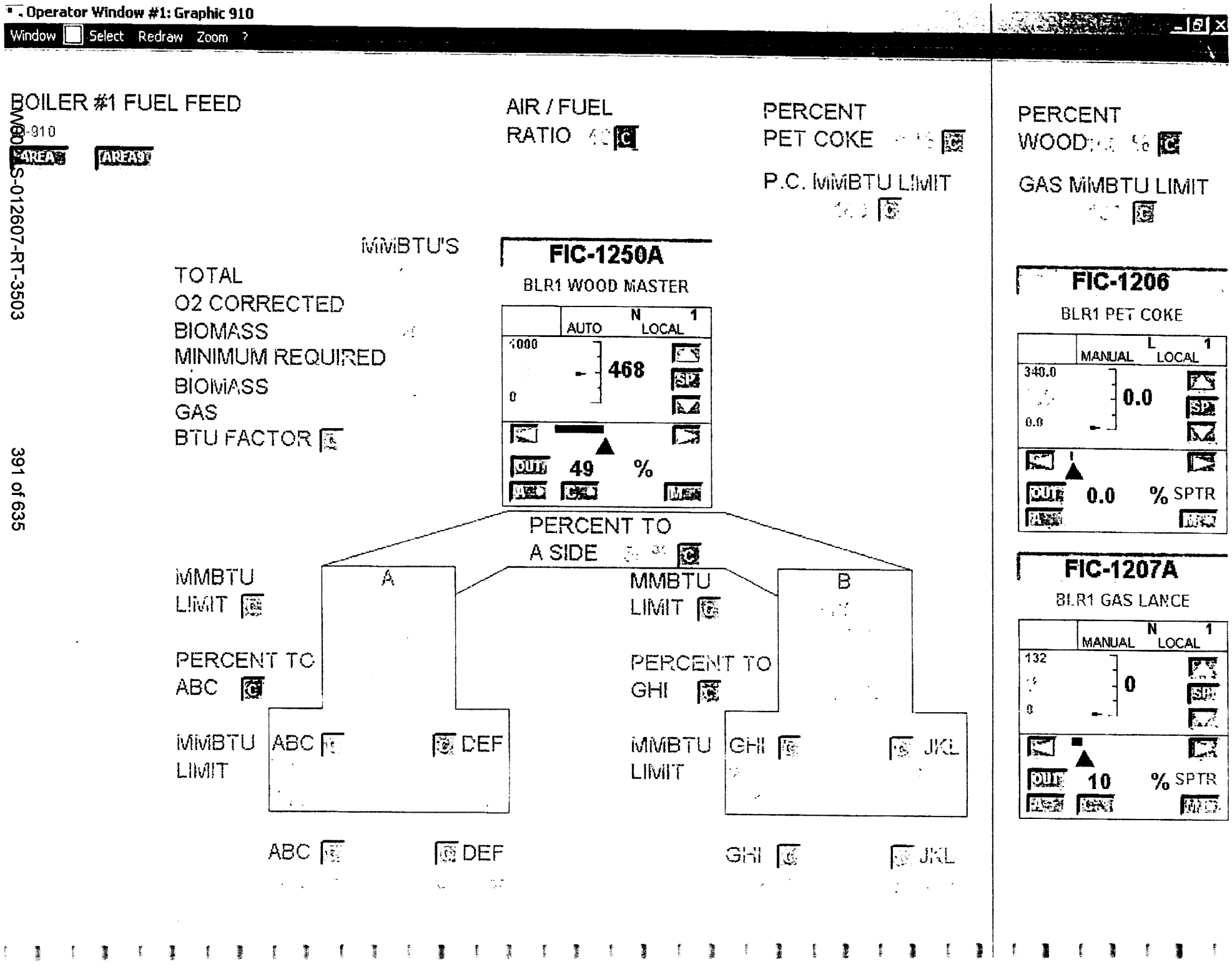
HIC-1201 BTU FACTOR

TI-1405 COMB MID TEMP

TI-1421 CYC #1 OUT TEMP

W002A-S00-060-R-L3-CS

1200 4/6/2022


Operator Window #1: Graphic 910
Window Select Redraw Zoom ?
BOILER #1 FUEL FEED
AREA
AREA9
AIR / FUEL
RATIO
PERCENT
PET COKE
P.C. MMBTU LIMIT
PERCENT
WOOD
GAS MMBTU LIMIT
MMBTU'S
TOTAL
O2 CORRECTED
BIOMASS
MINIMUM REQUIRED
BIOMASS
GAS
BTU FACTOR
FIC-1250A
BLR1 WOOD MASTER
AUTO
N
LOCAL
1
468
49
%
FIC-1206
BLR1 PET COKE
MANUAL
L
LOCAL
1
340.0
0.0
0.0
% SPTR
FIC-1207A
BLR1 GAS LANCE
MANUAL
N
LOCAL
1
132
0
10
% SPTR
PERCENT TO
A SIDE
A
B
MMBTU
LIMIT
PERCENT TO
ABC
MMBTU
LIMIT
ABC
DEF
ABC
DEF
MMBTU
LIMIT
PERCENT TO
GHI
MMBTU
LIMIT
GHI
JKL
GHI
JKL

Operator Window #1: Graphic 101 (Recall 1 of 10)

Window | Select | Redraw | Zoom | ?

BLR #1 MASTER

FT-101

HS-1000A BOILER MASTER STEAM FLOW SETPOINT

HS-1000B BOILER MASTER NET M.W. SETPOINT

HS-1000 BOILER MASTER S.P. SOURCE SELECTOR

W0023 Sept 2007 R#3 Sept 2007

192 of 635

HIC-1000
BLR1 MASTER

MANUAL | N LOCAL 1

300.00 / 0.00 — 187.67 KLB/HR

OUT 48.50 % SPTR

FIC-1520
BLR1 AIR MASTER

AUTO | N LOCAL 1

6000 / 0 — 3331 KSCFH

OUT 83 %

FIC-1505
BLR1 PRIM AIR FAN VANE KSCFH

AUTO | N LOCAL 1

4000.0 / 0.0 — 1732.0 KSCFH

OUT 42.7 %

FIC-1515
BLR1 SECON AIR FAN VANE KSCFH

AUTO | N LOCAL 1

4000.0 / 0.0 — 1598.8 KSCFH

OUT 25.8 %

PIC-1420
BLR1 FURNACE PRESSURE

AUTO | N LOCAL 1

15.00 / -15.00 — -2.64 IN H2O

OUT 58.03 %

AIC-1101
BLR1 02 TRIM CONTROLLER

AUTO | N LOCAL 1

25.00 / 0.00 — 7.60 %

OUT 45.72 %

FIC-1250A
BLR1 WOOD MASTER

AUTO | N LOCAL 1

1000 / 0 — 542

OUT 56 %

FIC-1207A
BLR1 GAS LANCE

MANUAL | N LOCAL 1

132 / 0 — 0

OUT 10 % SPTR

FIC-1206
BLR1 PET COKE

MANUAL | L LOCAL 1

300.0 / 0.0 — 0.0

OUT 0.0 % SPTR

PDIC-1413
BLR1 UPPER COMBUSTOR DP

MANUAL | N LOCAL 1

95.0 / 0.0 — 29.0 IN H2O

OUT 30.0 %

FIC-1201
BLR1 SCREW FDR ABC FLOW %

AUTO | N LOCAL 1

100.0 / 0.0 — 70.0 %

OUT 59.1 %

FIC-1261
BLR1 SCREW FDR DEF FLOW %

AUTO | N LOCAL 1

100.0 / 0.0 — 70.0 %

OUT 59.1 %

FIC-1231
BLR1 SCREW FDR GHI FLOW %

AUTO | N LOCAL 1

100.0 / 0.0 — 70.0 %

OUT 59.2 %

FIC-1291
BLR1 SCREW FDR JKL FLOW %

AUTO | N LOCAL 1

100.0 / 0.0 — 70.0 %

OUT 59.1 %

HIC-1202 WOOD FEED%

HIC-1206 PET COKE %

HIC-1206HL PC HI LIMIT

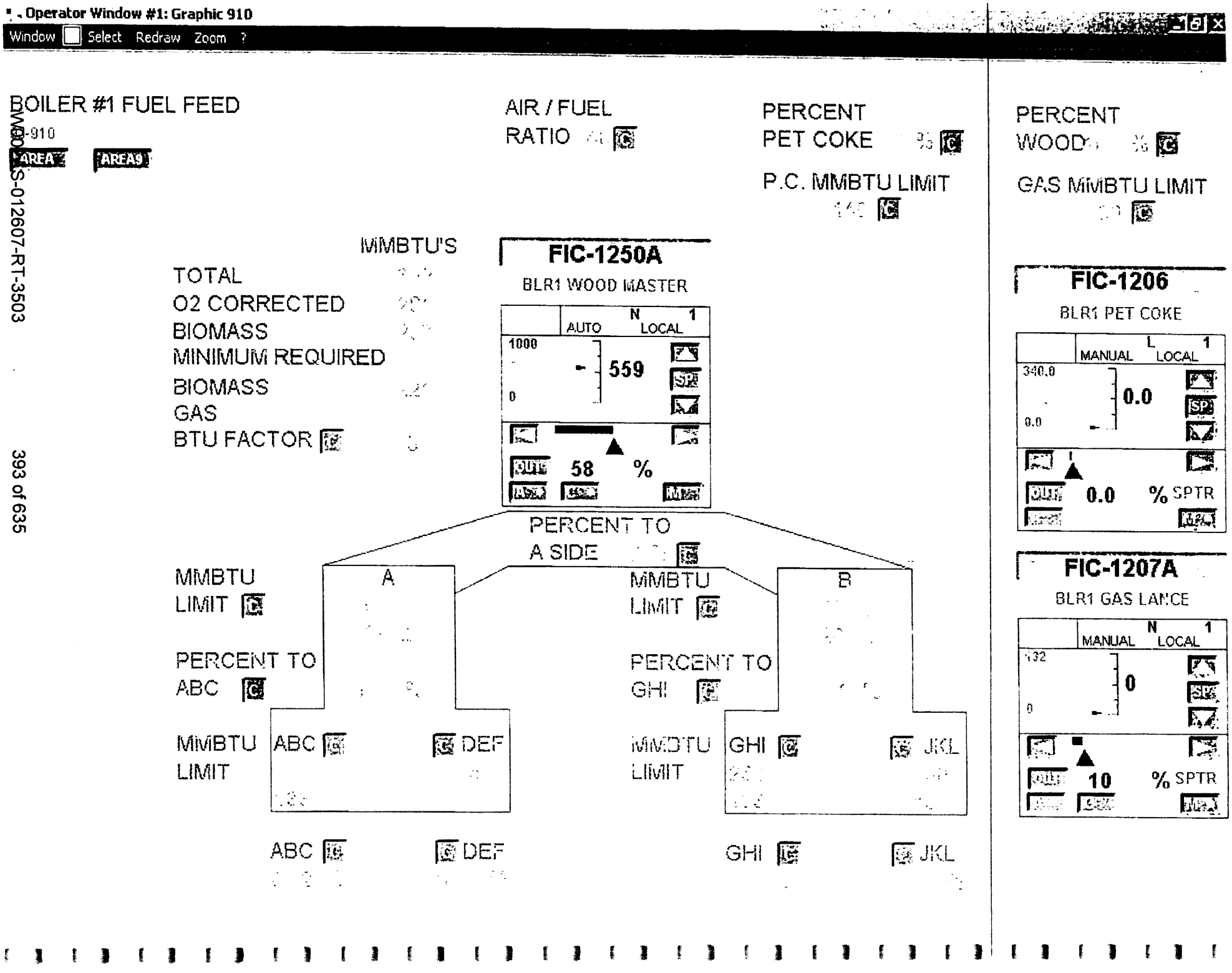
HS-1200 BTU FACTOR AUTO / MANUAL

HIC-1201 BTU FACTOR

TI-1405 COMB MID TEMP

TI-1421 CYC #1 OUT TEMP

1130 4/9/22


Operator Window #1: Graphic 910
Window Select Redraw Zoom ?
BOILER #1 FUEL FEED
-910
AREA
AREA9
AIR / FUEL
RATIO
PERCENT
PET COKE
P.C. MMBTU LIMIT
PERCENT
WOOD
GAS MMBTU LIMIT
MMBTU'S
TOTAL
O2 CORRECTED
BIOMASS
MINIMUM REQUIRED
BIOMASS
GAS
BTU FACTOR
FIC-1250A
BLR1 WOOD MASTER
AUTO
N
LOCAL
1
1000
0
559
SP
OUT
58
%
PERCENT TO
A SIDE
A
B
MMBTU
LIMIT
PERCENT TO
ABC
PERCENT TO
GHI
MMBTU
LIMIT
ABC
DEF
GHI
JKL
FIC-1206
BLR1 PET COKE
MANUAL
L
LOCAL
1
340.0
0.0
0.0
SP
OUT
0.0
% SPTR
FIC-1207A
BLR1 GAS LANCE
MANUAL
N
LOCAL
1
132
0
0
SP
OUT
10
% SPTR

Operator Window #1: Graphic 101 (Recall 1 of 10)

Window | Select | Redraw | Zoom | ?

BLR #1 MASTER

I-101

HS-1000A BOILER MASTER STEAM FLOW SETPOINT

HS-1000B BOILER MASTER NET M.W. SETPOINT

HS-1000 BOILER MASTER S.P. SOURCE SELECTOR

HIC-1000
BLR1 MASTER

MANUAL | N 1 LOCAL

300.00 / 0.00 — 184.38 KLB/HR

OUT 48.50 % SPTR

FIC-1520
BLR1 AIR MASTER

AUTO | N 1 LOCAL

6000 / 0 — 3331 KSCFH

OUT 83 %

FIC-1505
BLR1 PRIM AIR FAN VANE KSCFH

AUTO | N 1 LOCAL

4000.0 / 0.0 — 1732.0 KSCFH

OUT 42.3 %

FIC-1515
BLR1 SECON AIR FAN VANE KSCFH

AUTO | N 1 LOCAL

4000.0 / 0.0 — 1598.8 KSCFH

OUT 25.5 %

PIC-1420
BLR1 FURNACE PRESSURE

AUTO | N 1 LOCAL

15.00 / -15.00 — -2.61 IN H2O

OUT 57.33 %

AIC-1101
BLR1 02 TRIM CONTROLLER

AUTO | N 1 LOCAL

25.00 / 0.00 — 7.60 %

OUT 45.71 %

FIC-1250A
BLR1 WOOD MASTER

AUTO | N 1 LOCAL

1000 / 0 — 539

OUT 56 %

FIC-1207A
BLR1 GAS LANCE

MANUAL | N 1 LOCAL

132 / 0 — 0

OUT 10 % SPTR

FIC-1206
BLR1 PET COKE

MANUAL | L LOCAL 1

340.0 / 0.0 — 0.0

OUT 0.0 % SPTR

PDIC-1413
BLR1 UPPER COMBUSTOR DP

MANUAL | N 1 LOCAL

95.0 / 0.0 — 29.0 IN H2O

OUT 30.0 %

FIC-1201
BLR1 SCREW FDR ABC FLOW %

AUTO | N 1 LOCAL

100.0 / 0.0 — 70.0 %

OUT 59.2 %

FIC-1261
BLR1 SCREW FDR DEF FLOW %

AUTO | N 1 LOCAL

100.0 / 0.0 — 70.0 %

OUT 59.2 %

FIC-1231
BLR1 SCREW FDR GHI FLOW %

AUTO | N 1 LOCAL

100.0 / 0.0 — 70.0 %

OUT 59.2 %

FIC-1291
BLR1 SCREW FDR JKL FLOW %

AUTO | N 1 LOCAL

100.0 / 0.0 — 70.0 %

OUT 59.2 %

HIC-1202 WOOD FEED%

HIC-1206 PET COKE %

HIC-1206HL PC HI LIMIT

HS-1200 BTU FACTOR AUTO / MANUAL

HIC-1201 BTU FACTOR

TI-1405 COMB MD TEMP

TI-1421 CYC #1 OUT TEMP

1100 4/6/22

BWSS-012607-RT-3503

BOILER #1 FUEL FEED

910

AREA5 AREA5

AIR / FUEL RATIO

PERCENT PET COKE %

P.C. MMBTU LIMIT

PERCENT WOOD %

GAS MMBTU LIMIT

MMBTU'S

TOTAL

O2 CORRECTED

BIOMASS

MINIMUM REQUIRED

BIOMASS

GAS

BTU FACTOR

FIC-1250A

BLR1 WOOD MASTER

AUTO N LOCAL 1

1000

536

0

SP

OUT 56 %

FIC-1206

BLR1 PET COKE

MANUAL L LOCAL 1

340.0

0.0

0.0

SP

OUT 0.0 % SPTR

FIC-1207A

BLR1 GAS LANCE

MANUAL N LOCAL 1

132

0

0

SP

OUT 10 % SPTR

PERCENT TO A SIDE

A

MMBTU LIMIT

PERCENT TO ABC

MMBTU LIMIT

ABC DEF

ABC DEF

B

MMBTU LIMIT

PERCENT TO GHI

MMBTU LIMIT

GHI JKL

GHI JKL

Operator Window #1: Graphic 101 (Recall 1 of 10)

Window | Select | Redraw | Zoom | ?

BLR #1 MASTER

101

BREAK

BLR#1

HS-1000A BOILER MASTER STEAM FLOW SETPOINT

HS-1000B BOILER MASTER NET MW SETPOINT

HS-1000 BOILER MASTER S.P. SOURCE SELECTOR

HIC-1000
BLR1 MASTER

MANUAL | N | LOCAL | 1

300.00 — 179.73 — 0.00 KLB/HR

OUT 48.00 % SPTR

FIC-1520
BLR1 AIR MASTER

AUTO | N | LOCAL | 1

6000 — 3321 — 0 KSCFH

OUT 83 %

FIC-1505
BLR1 PRIM AIR FAN VANE KSCFH

AUTO | N | LOCAL | 1

4000.0 — 1727.1 — 0.0 KSCFH

OUT 42.2 %

FIC-1515
BLR1 SECON AIR FAN VANE KSCFH

AUTO | N | LOCAL | 1

4000.0 — 1594.3 — 0.0 KSCFH

OUT 25.2 %

PIC-1420
BLR1 FURNACE PRESSURE

AUTO | N | LOCAL | 1

15.00 — -2.58 — -15.00 IN H2O

OUT 57.43 %

AIC-1101
BLR1 02 TRIM CONTROLLER

AUTO | N | LOCAL | 1

25.00 — 7.70 — 0.00 %

OUT 50.43 %

FIC-1250A
BLR1 WOOD MASTER

AUTO | N | LOCAL | 1

1000 — 566 — 0

OUT 59 %

FIC-1207A
BLR1 GAS LANCE

MANUAL | N | LOCAL | 1

132 — 0 — 0

OUT 10 % SPTR

FIC-1206
BLR1 PET COKE

MANUAL | L | LOCAL | 1

340.0 — 0.0 — 0.0

OUT 0.0 % SPTR

PDIC-1413
BLR1 UPPER COMBUSTOR DP

MANUAL | N | LOCAL | 1

95.0 — 29.0 — 0.0 IN H2O

OUT 30.0 %

FIC-1201
BLR1 SCREW FDR ABC FLOW %

AUTO | N | LOCAL | 1

100.0 — 70.0 — 0.0 %

OUT 62.2 %

FIC-1261
BLR1 SCREW FDR DEF FLOW %

AUTO | N | LOCAL | 1

100.0 — 70.0 — 0.0 %

OUT 62.2 %

FIC-1231
BLR1 SCREW FDR GHI FLOW %

AUTO | N | LOCAL | 1

100.0 — 70.0 — 0.0 %

OUT 62.2 %

FIC-1291
BLR1 SCREW FDR JKL FLOW %

AUTO | N | LOCAL | 1

100.0 — 70.0 — 0.0 %

OUT 62.2 %

HIC-1202 WOOD FEED%

HIC-1206 PET COKE %

HIC-1206HL PC HI LIMIT

HS-1200 BTU FACTOR AUTO / MANUAL

HIC-1201 BTU FACTOR

TI-1405 COMB MID TEMP

TI-1421 CYC #1 OUT TEMP

1630 4/6/22

BOILER #1 FUEL FEED

910

AREA AREA3

AIR / FUEL RATIO

PERCENT PET COKE %

P.C. MMBTU LIMIT

PERCENT WOOD %

GAS MMBTU LIMIT

MMBTU'S

TOTAL

O2 CORRECTED

BIOMASS

MINIMUM REQUIRED

BIOMASS

GAS

BTU FACTOR

FIC-1250A

BLR1 WOOD MASTER

AUTO N LOCAL 1

1000 569 SP

0

OUT 59 %

FIC-1206

BLR1 PET COKE

MANUAL L LOCAL 1

340.0 0.0 SP

0.0

OUT 0.0 % SPTR

FIC-1207A

BLR1 GAS LANCE

MANUAL N LOCAL 1

132 0 SP

0

OUT 10 % SPTR

PERCENT TO A SIDE %

A

MMBTU LIMIT

PERCENT TO ABC

MMBTU LIMIT ABC DEF

ABC DEF

B

MMBTU LIMIT

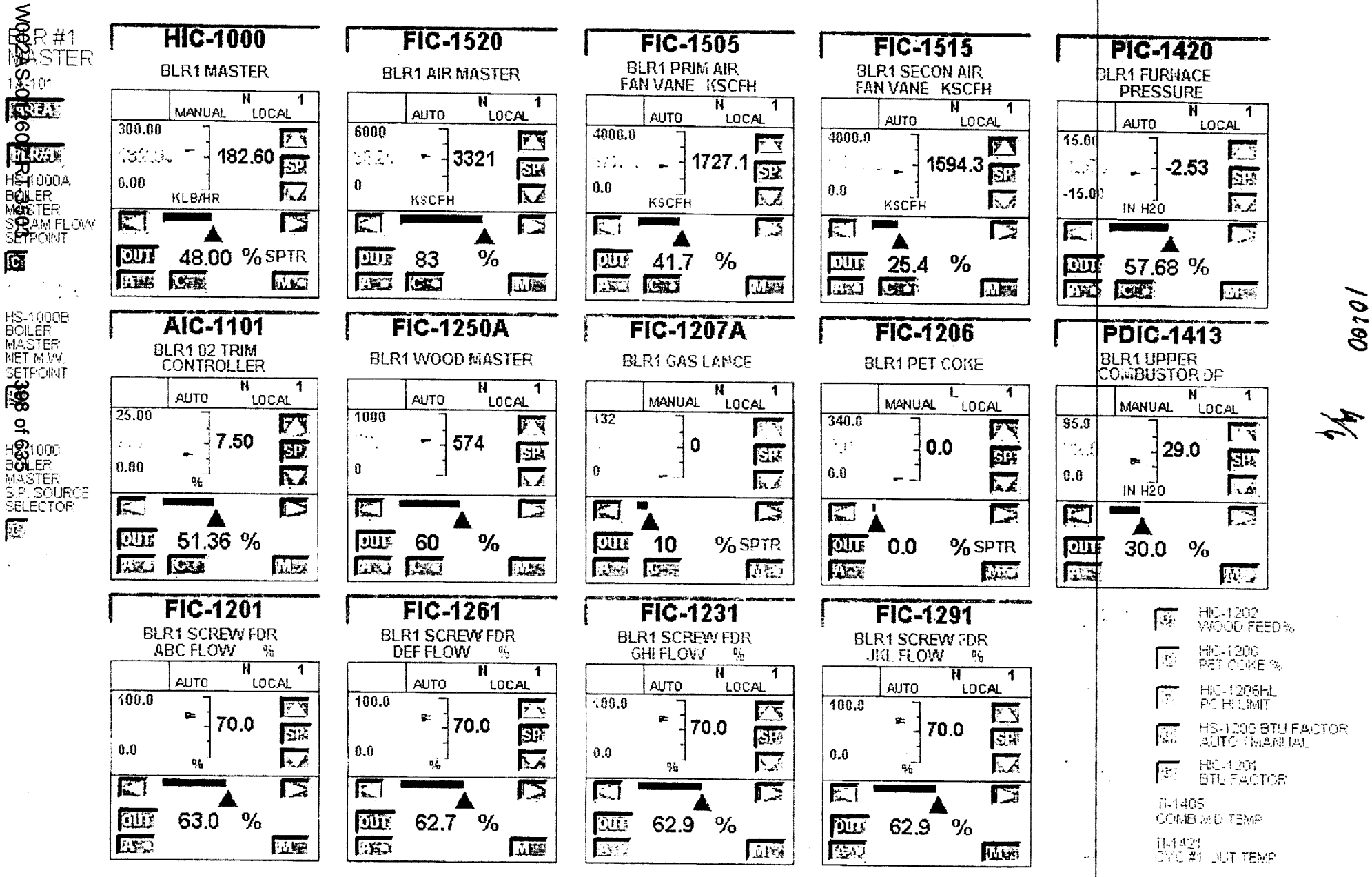
PERCENT TO GHI

MMBTU LIMIT GHI JKL

GHI JKL

Operator Window #1: Graphic 101 (Recall 1 of 10)

Window | Select | Redraw | Zoom | ?



W02A Solicitation 2600 RFP 398 of 635

Operator Window #1: Graphic 910

Window | Select | Redraw | Zoom | ?

BOILER #1 FUEL FEED

U-910

AREA | AREA5

AIR / FUEL RATIO

PERCENT PET COKE %

P.C. MMBTU LIMIT

PERCENT WOOD %

GAS MMBTU LIMIT

MMBTU'S

TOTAL

O2 CORRECTED

BIOMASS

MINIMUM REQUIRED

BIOMASS

GAS

BTU FACTOR

FIC-1250A

BLR1 WOOD MASTER

AUTO | N | 1 | LOCAL

1000 — 584 — 0

OUT 61 %

PERCENT TO A SIDE

FIC-1206

BLR1 PET COKE

MANUAL | L | 1 | LOCAL

340.0 — 0.0 — 0.0

OUT 0.0 % SPTR

FIC-1207A

BLR1 GAS LANCE

MANUAL | N | 1 | LOCAL

132 — 0 — 0

OUT 10 % SPTR

A

MMBTU LIMIT

PERCENT TO ABC

MMBTU LIMIT

ABC | DEF

ABC | DEF

B

MMBTU LIMIT

PERCENT TO GHI

MMBTU LIMIT

GHI | JKL

GHI | JKL

Operator Window #1: Graphic 101 (Recall 1 of 10)

Window | Select | Redraw | Zoom | ?

BLR #1 MASTER

13-101

AREA

BLR #1

HS-1000A BOILER MASTER STEAM FLOW SETPOINT

HS-1000B BOILER MASTER NET MW SETPOINT

HS-1000 BOILER MASTER S.P. SOURCE SELECTOR

HIC-1000
BLR1 MASTER

MANUAL | N 1 | LOCAL

300.00 / 0.00 — 179.86 KLB/HR

OUT 48.50 % SPTR

FIC-1520
BLR1 AIR MASTER

AUTO | N 1 | LOCAL

6000 / 0 — 3331 KSCFH

OUT 83 %

FIC-1505
BLR1 PRIM AIR FAN VANE KSCFH

AUTO | N 1 | LOCAL

4000.0 / 0.0 — 1732.0 KSCFH

OUT 41.9 %

FIC-1515
BLR1 SECON AIR FAN VANE KSCFH

AUTO | N 1 | LOCAL

4000.0 / 0.0 — 1598.8 KSCFH

OUT 25.5 %

PIC-1420
BLR1 FURNACE PRESSURE

AUTO | N 1 | LOCAL

15.00 / -15.00 — -2.48 IN H2O

OUT 55.94 %

AIC-1101
BLR1 02 TRIM CONTROLLER

AUTO | N 1 | LOCAL

25.00 / 0.00 — 7.40 %

OUT 55.00 %

FIC-1250A
BLR1 WOOD MASTER

AUTO | N 1 | LOCAL

100[illegible] / 0 — 598

OUT 62 %

FIC-1207A
BLR1 GAS LANCE

MANUAL | N 1 | LOCAL

132 / 6 — 0

OUT 10 % SPTR

FIC-1206
BLR1 PET COKE

MANUAL | L 1 | LOCAL

340.0 / 0.0 — 0.0

OUT 0.0 % SPTR

PDIC-1413
BLR1 UPPER COMBUSTOR DP

MANUAL | N 1 | LOCAL

95.0 / 0.0 — 29.0 IN H2O

OUT 30.0 %

FIC-1201
BLR1 SCREW FDR ABC FLOW %

AUTO | N 1 | LOCAL

100.0 / 0.0 — 70.0 %

OUT 65.8 %

FIC-1261
BLR1 SCREW FDR DEF FLOW %

AUTO | N 1 | LOCAL

100.0 / 0.0 — 70.0 %

OUT 65.8 %

FIC-1231
BLR1 SCREW FDR GHI FLOW %

AUTO | N 1 | LOCAL

100.0 / 0.0 — 70.0 %

OUT 65.8 %

FIC-1291
BLR1 SCREW FDR JKL FLOW %

AUTO | N 1 | LOCAL

100.0 / 0.0 — 70.0 %

OUT 65.8 %

HIC-1202 WOOD FEED%

HIC-1206 PET COKE %

HIC-1206HL PC HI LIMIT

HS-1200 BTU FACTOR AUTO / MANUAL

HIC-1201 BTU FACTOR

TI-1405 COMB MID TEMP

TI-1421 CYC #1 OUT TEMP

0930 4/1/22

BOILER #1 FUEL FEED

910

AREA AREA3

AIR / FUEL RATIO

PERCENT PET COKE

P.C. MMBTU LIMIT

PERCENT WOOD %

GAS MMBTU LIMIT

MMBTU'S

TOTAL

O2 CORRECTED

BIOMASS

MINIMUM REQUIRED BIOMASS

GAS BTU FACTOR

FIC-1250A

BLR1 WOOD MASTER

AUTO N LOCAL 1

1000 591 0

OUT 61 %

PERCENT TO A SIDE

MMBTU LIMIT

PERCENT TO ABC

MMBTU LIMIT ABC DEF

ABC DEF

A

MMBTU LIMIT

PERCENT TO GHI

MMBTU LIMIT GHI JKL

GHI JKL

B

FIC-1206

BLR1 PET COKE

MANUAL L LOCAL 1

340.0 0.0 0.0

OUT 0.0 % SPTR

FIC-1207A

BLR1 GAS LANCE

MANUAL N LOCAL 1

132 0 0

OUT 10 % SPTR

Operator Window #1: Graphic 101 (Recall 1 of 10)

Window | Select | Redraw | Zoom | ?

BLR #1 MASTER

15-101

AREA

BLR#1

HS-1000A BOILER MASTER STEAM FLOW SETPOINT

HS-1000B BOILER MASTER NET M.W. SETPOINT

HS-1000 BOILER MASTER S.P. SOURCE SELECTOR

HIC-1000
BLR1 MASTER

MANUAL | N | LOCAL | 1

300.00 / 0.00 — 185.91 KLB/HR — SP

OUT 48.50 % SPTR

FIC-1520
BLR1 AIR MASTER

AUTO | N | LOCAL | 1

6000 / 0 — 3331 KSCFH — SP

OUT 83 %

FIC-1505
BLR1 PRIM AIR FAN VANE KSCFH

AUTO | N | LOCAL | 1

4000.0 / 0.0 — 1732.0 KSCFH — SP

OUT 41.3 %

FIC-1515
BLR1 SECON AIR FAN VANE KSCFH

AUTO | N | LOCAL | 1

4000.0 / 0.0 — 1598.8 KSCFH — SP

OUT 26.0 %

PIC-1420
BLR1 FURNACE PRESSURE

AUTO | N | LOCAL | 1

15.00 / -15.00 — -2.66 IN H2O — SP

OUT 58.77 %

AIC-1101
BLR1 02 TRIM CONTROLLER

AUTO | N | LOCAL | 1

25.00 / 0.00 — 7.10 % — SP

OUT 60.33 %

FIC-1250A
BLR1 WOOD MASTER

AUTO | N | LOCAL | 1

1000 / 0 — 640 — SP

OUT 66 %

FIC-1207A
BLR1 GAS LANCE

MANUAL | N | LOCAL | 1

132 / 0 — 0 — SP

OUT 10 % SPTR

FIC-1206
BLR1 PET COKE

MANUAL | L | LOCAL | 1

340.0 / 0.0 — 0.0 — SP

OUT 0.0 % SPTR

PDIC-1413
BLR1 UPPER COMBUSTOR DP

MANUAL | N | LOCAL | 1

95.0 / 0.0 — 29.0 IN H2O — SP

OUT 35.0 %

FIC-1201
BLR1 SCREW FDR ABC FLOW %

AUTO | N | LOCAL | 1

100.0 / 0.0 — 70.0 % — SP

OUT 69.8 %

FIC-1261
BLR1 SCREW FDR DEF FLOW %

AUTO | N | LOCAL | 1

100.0 / 0.0 — 70.0 % — SP

OUT 69.8 %

FIC-1231
BLR1 SCREW FDR GHI FLOW %

AUTO | N | LOCAL | 1

100.0 / 0.0 — 70.0 % — SP

OUT 69.8 %

FIC-1291
BLR1 SCREW FDR JKL FLOW %

AUTO | N | LOCAL | 1

100.0 / 0.0 — 70.0 % — SP

OUT 69.8 %

HIC-1202 WOOD FEED %

HIC-1205 PET COKE %

HIC-1208H PC HI LIMIT

HS-1200 BTU FACTOR AUTO/MANUAL

HIC-1201 BTU FACTOR

TI-1405 COMB MID TEMP

TI-1401 CYC #1 OUT TEMP

0900 4/6/22

BOILER #1 FUEL FEED

910

AREA1 AREA9

AIR / FUEL RATIO

PERCENT PET COKE

P.C. MMBTU LIMIT

PERCENT WOOD

GAS MMBTU LIMIT

MMBTU'S

TOTAL
O2 CORRECTED
BIOMASS
MINIMUM REQUIRED
BIOMASS
GAS
BTU FACTOR

FIC-1250A

BLR1 WOOD MASTER

AUTO N LOCAL 1

1000 636 0

OUT 66 %

FIC-1206

BLR1 PET COKE

MANUAL L LOCAL 1

300.0 0.0 0.0

OUT 0.0 % SPTR

FIC-1207A

BLR1 GAS LANCE

MANUAL N LOCAL 1

132 0 0

OUT 10 % SPTR

PERCENT TO A SIDE

A

MMBTU LIMIT

PERCENT TO ABC

MMBTU LIMIT ABC DEF

ABC DEF

B

MMBTU LIMIT

PERCENT TO GHI

MMBTU LIMIT GHI JKL

GHI JKL

Operator Window #1: Graphic 101 (Recall 1 of 10)

Window | Select | Redraw | Zoom | ?

BLR #1 MASTER

101

HS-1000A BOILER MASTER STEAM FLOW SETPOINT

HS-1000B BOILER MASTER NET MW SETPOINT

HS-1000 BOILER MASTER S.P. SOURCE SELECTOR

HIC-1000
BLR1 MASTER

MANUAL | N 1 | LOCAL

300.00 / 0.00 — 189.37 KLB/HR

OUT 48.50 % SPTR

FIC-1520
BLR1 AIR MASTER

AUTO | N 1 | LOCAL

6000 / 0 — 3331 KSCFH

OUT 83 %

FIC-1505
BLR1 PRIM AIR FAN VANE KSCFH

AUTO | N 1 | LOCAL

4000.0 / 0.0 — 1732.0 KSCFH

OUT 41.2 %

FIC-1515
BLR1 SECON AIR FAN VANE KSCFH

AUTO | N 1 | LOCAL

4000.0 / 0.0 — 1598.8 KSCFH

OUT 26.1 %

PIC-1420
BLR1 FURNACE PRESSURE

AUTO | N 1 | LOCAL

15.00 / -15.00 — -2.66 IN H2O

OUT 58.19 %

AIC-1101
BLR1 02 TRIM CONTROLLER

AUTO | N 1 | LOCAL

25.00 / 0.00 — 7.10 %

OUT 51.34 %

FIC-1250A
BLR1 WOOD MASTER

AUTO | N 1 | LOCAL

1000 / 0 — 576

OUT 60 %

FIC-1207A
BLR1 GAS LANCE

MANUAL | N 1 | LOCAL

132 / 0 — 0

OUT 10 % SPTR

FIC-1206
BLR1 PET COKE

MANUAL | L 1 | LOCAL

340.8 / 0.0 — 0.0

OUT 0.0 % SPTR

PDIC-1413
BLR1 UPPER COMBUSTOR DP

MANUAL | N 1 | LOCAL

95.0 / 0.0 — 29.0 IN H2O

OUT 35.0 %

FIC-1201
BLR1 SCREW FDR ABC FLOW %

AUTO | N 1 | LOCAL

100.0 / 0.0 — 70.0 %

OUT 63.5 %

FIC-1261
BLR1 SCREW FDR DEF FLOW %

AUTO | N 1 | LOCAL

100.0 / 0.0 — 70.0 %

OUT 63.5 %

FIC-1231
BLR1 SCREW FDR GHI FLOW %

AUTO | N 1 | LOCAL

100.0 / 0.0 — 70.0 %

OUT 63.5 %

FIC-1291
BLR1 SCREW FDR JKL FLOW %

AUTO | N 1 | LOCAL

100.0 / 0.0 — 70.0 %

OUT 63.5 %

HIC-1202 WOOD FEED%

HIC-1206 PET COKE %

HIC-1206HL PC HI LIMIT

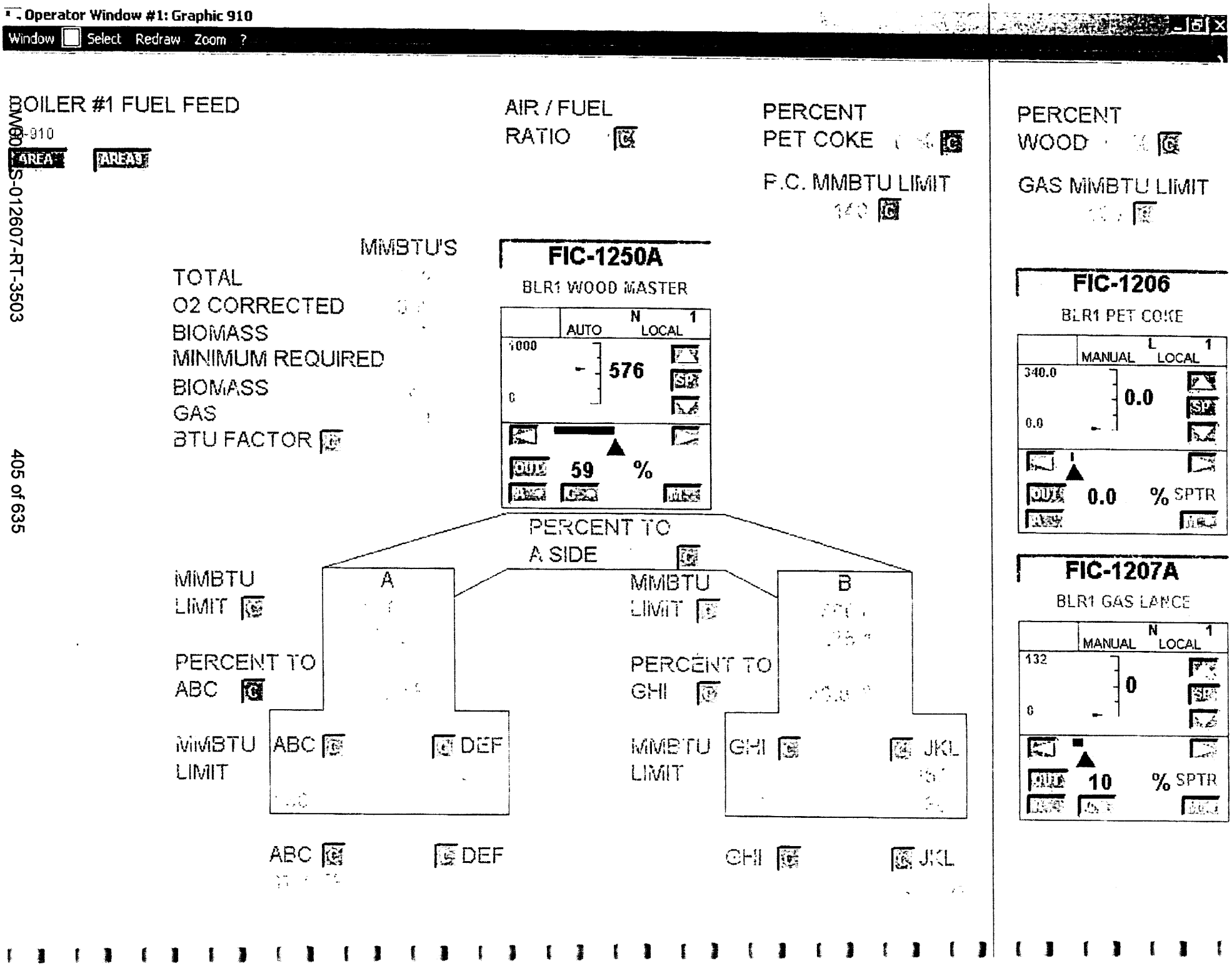
HS-1200 BTU FACTOR AUTO / MANUAL

HIC-1201 BTU FACTOR

TI-1405 COMB MID TEMP

TI-1421 CYC #1 OUT TEMP

4/6/2012 0830


Operator Window #1: Graphic 910
Window Select Redraw Zoom ?
BOILER #1 FUEL FEED
AREA
AREA9
AIR / FUEL RATIO
PERCENT PET COKE
P.C. MMBTU LIMIT
PERCENT WOOD
GAS MMBTU LIMIT
MMBTU'S
TOTAL
O2 CORRECTED
BIOMASS
MINIMUM REQUIRED
BIOMASS
GAS
BTU FACTOR
FIC-1250A
BLR1 WOOD MASTER
AUTO
N
LOCAL
1
1000
0
576
59
%
PERCENT TO A SIDE
A
B
MMBTU LIMIT
PERCENT TO ABC
PERCENT TO GHI
MMBTU LIMIT
ABC
DEF
GHI
JKL
FIC-1206
BLR1 PET COKE
MANUAL
L
LOCAL
340.0
0.0
0.0
% SPTR
FIC-1207A
BLR1 GAS LANCE
MANUAL
N
LOCAL
132
0
10
% SPTR

Operator Window #1: Graphic 101 (Recall 1 of 10)

Window | Select | Redraw | Zoom | ?

HIC-1000
BLR1 MASTER

MANUAL | N 1 LOCAL
300.00 / 0.00 — 192.64 KLB/HR
OUT 48.50 % SPTR

FIC-1520
BLR1 AIR MASTER

AUTO | N 1 LOCAL
6000 / 0 — 3331 KSCFH
OUT 83 %

FIC-1505
BLR1 PRIM AIR FAN VANE KSCFH

AUTO | N 1 LOCAL
4000.0 / 0.0 — 1732.0 KSCFH
OUT 40.9 %

FIC-1515
BLR1 SECON AIR FAN VANE KSCFH

AUTO | N 1 LOCAL
4000.0 / 0.0 — 1598.8 KSCFH
OUT 27.1 %

PIC-1420
BLR1 FURNACE PRESSURE

AUTO | N 1 LOCAL
15.00 / -15.00 — -2.61 IN H2O
OUT 58.60 %

AIC-1101
BLR1 02 TRIM CONTROLLER

AUTO | N 1 LOCAL
25.00 / 0.00 — 7.00 %
OUT 41.25 %

FIC-1250A
BLR1 WOOD MASTER

AUTO | N 1 LOCAL
1000 / 0 — 509
OUT 53 %

FIC-1207A
BLR1 GAS LANCE

MANUAL | N 1 LOCAL
132 / 0 — 0
OUT 10 % SPTR

FIC-1206
BLR1 PET COKE

MANUAL | L 1 LOCAL
340.0 / 0.0 — 0.0
OUT 0.0 % SPTR

PDIC-1413
BLR1 UPPER COMBUSTOR DP

MANUAL | N 1 LOCAL
95.0 / 0.0 — 29.0 IN H2O
OUT 35.0 %

FIC-1201
BLR1 SCREW FDR ABC FLOW %

AUTO | N 1 LOCAL
100.0 / 0.0 — 70.0 %
OUT 56.0 %

FIC-1261
BLR1 SCREW FDR DEF FLOW %

AUTO | N 1 LOCAL
100.0 / 0.0 — 70.0 %
OUT 56.0 %

FIC-1231
BLR1 SCREW FDR GHI FLOW %

AUTO | N 1 LOCAL
100.0 / 0.0 — 70.0 %
OUT 55.9 %

FIC-1291
BLR1 SCREW FDR JKL FLOW %

AUTO | N 1 LOCAL
100.0 / 0.0 — 70.0 %
OUT 55.9 %

LR #1 ASTER
-101
REA
LR#1
H-1000A
OILER
ASTER
TEAM FLOW
ETPOINT

HS-1000B
BOILER
MASTER
NET M.W.
SETPOINT

H-1000
OILER
MASTER
S.P. SOURCE
SELECTOR

HIC-1202
WOOD FEED%

HIC-1206
PET COKE %

HIC-1206HL
PC HI LIMIT

HS-1200 BTU FACTOR
AUTO / MANUAL

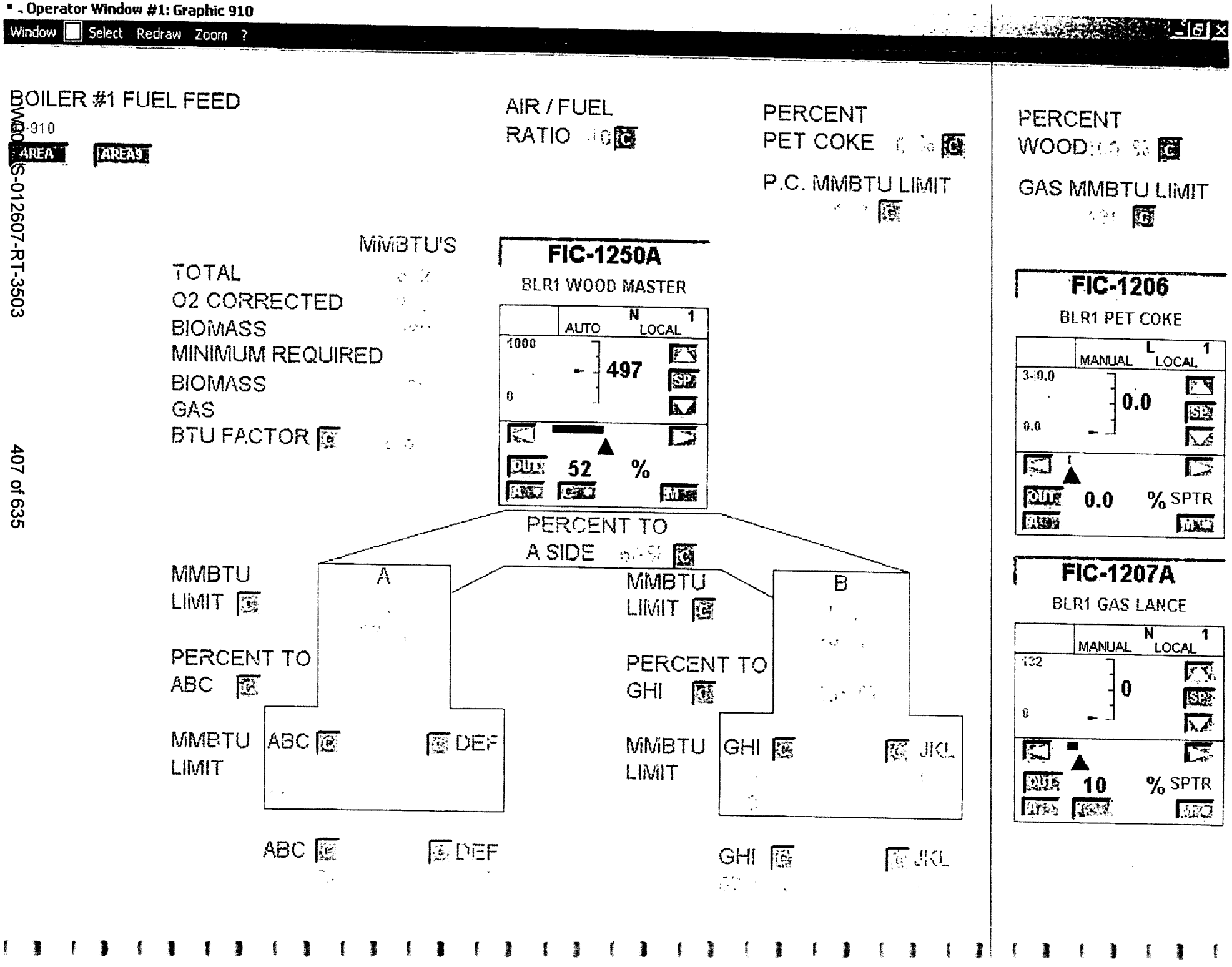
HIC-1201
BTU FACTOR

TI-1405
COMB MID TEMP

TI-1421
CYC #1 OUT TEMP

W002AS00160R1 496 of 635

4/6/2022 0800


Operator Window #1: Graphic 910
Window Select Redraw Zoom ?
BOILER #1 FUEL FEED
-910
AREA
AREA9
AIR / FUEL
RATIO
PERCENT
PET COKE
P.C. MMBTU LIMIT
PERCENT
WOOD
GAS MMBTU LIMIT
MMBTU'S
TOTAL
O2 CORRECTED
BIOMASS
MINIMUM REQUIRED
BIOMASS
GAS
BTU FACTOR
FIC-1250A
BLR1 WOOD MASTER
AUTO
N
LOCAL
1
1000
0
497
52
%
PERCENT TO
A SIDE
A
B
MMBTU
LIMIT
PERCENT TO
ABC
MMBTU
LIMIT
ABC
DEF
ABC
DEF
MMBTU
LIMIT
PERCENT TO
GHI
MMBTU
LIMIT
GHI
JKL
GHI
JKL
FIC-1206
BLR1 PET COKE
MANUAL
L
LOCAL
1
3-0.0
0.0
0.0
0.0
% SPTR
FIC-1207A
BLR1 GAS LANCE
MANUAL
N
LOCAL
1
132
0
0
10
% SPTR

Operator Window #1: Graphic 101 (Recall 1 of 9)

Window Select Redraw Zoom ?

BLR #1 MASTER

1X-101

HS-1000A BOILER MASTER SCRAM FLOW SETPOINT

HS-1000B BOILER MASTER NET M.W. SETPOINT

HS-1000 BOILER MASTER S.P. SOURCE SELECTOR

HIC-1000
BLR1 MASTER
MANUAL N LOCAL 1
300.00 / 0.00 KLB/HR — 196.92
OUT 51.00 % SPTR

FIC-1520
BLR1 AIR MASTER
AUTO N LOCAL 1
6000 / 0 KSCFH — 3378
OUT 84 %

FIC-1505
BLR1 PRIM AIR FAN VANE KSCFH
AUTO N LOCAL 1
4000.0 / 0.0 KSCFH — 1756.4
OUT 41.8 %

FIC-1515
BLR1 SECON AIR FAN VANE KSCFH
AUTO N LOCAL 1
4000.0 / 0.0 KSCFH — 1621.3
OUT 28.3 %

PIC-1420
BLR1 FURNACE PRESSURE
AUTO N LOCAL 1
15.00 / -15.00 IN H2O — -2.80
OUT 61.64 %

AIC-1101
BLR1 02 TRIM CONTROLLER
AUTO N LOCAL 1
25.00 / 0.00 % — 6.70
OUT 50.08 %

FIC-1250A
BLR1 WOOD MASTER
AUTO N LOCAL 1
1000 / 0 — 603
OUT 63 %

FIC-1207A
BLR1 GAS LANCE
MANUAL N LOCAL 1
132 / 0 — 0
OUT 10 % SPTR

FIC-1206
BLR1 PET COKE
MANUAL L LOCAL 1
340.0 / 0.0 — 0.0
OUT 0.0 % SPTR

PDIC-1413
BLR1 UPPER COMBUSTOR DP
MANUAL N LOCAL 1
95.0 / 0.0 IN H2O — 29.0
OUT 35.0 %

FIC-1201
BLR1 SCREW FDR ABC FLOW %
AUTO N LOCAL 1
100.0 / 0.0 % — 70.0
OUT 65.9 %

FIC-1261
BLR1 SCREW FDR DEF FLOW %
AUTO N LOCAL 1
100.0 / 0.0 % — 70.0
OUT 65.9 %

FIC-1231
BLR1 SCREW FDR GHI FLOW %
AUTO N LOCAL 1
100.0 / 0.0 % — 70.0
OUT 65.9 %

FIC-1291
BLR1 SCREW FDR JKL FLOW %
AUTO N LOCAL 1
100.0 / 0.0 % — 70.0
OUT 65.9 %

HIC-1202 WOOD FEED%

HIC-1206 PET COKE %

HIC-1206HL PC HI LIMIT

HS-1200 BTU FACTOR AUTO / MANUAL

HIC-1201 BTU FACTOR

TI-1405 COMB MID TEMP

TI-1421 CYC #1 OUT TEMP

4/4/2022 0700

BVGS-012607-RT-3503

BOILER #1 FUEL FEED

-910

AREA3 AREA1

AIR / FUEL RATIO

PERCENT PET COKE %

P.C. MMBTU LIMIT

PERCENT WOOD %

GAS MMBTU LIMIT

MMBTU'S

TOTAL
O2 CORRECTED
BIOMASS
MINIMUM REQUIRED
BIOMASS
GAS
BTU FACTOR

FIC-1250A

BLR1 WOOD MASTER

AUTO N LOCAL 1

1000 582 0

60 %

FIC-1206

BLR1 PET COKE

MANUAL L LOCAL 1

300.0 0.0 0.0

0.0 % SPTR

FIC-1207A

BLR1 GAS LANCE

MANUAL N LOCAL 1

132 0 0

10 % SPTR

PERCENT TO A SIDE

A

MMBTU LIMIT

PERCENT TO ABC

MMBTU LIMIT

ABC DEF

ABC DEF

B

MMBTU LIMIT

PERCENT TO GHI

MMBTU LIMIT

GHI JKL

GHI JKL

BOILER EFFICIENCY VARIABLES

TAG	DESCRIPTION	VALUE	E/U
AI-8020	BLR1 FLUE GAS CO2	9.895	% CO_2
AI-8021	BLR2 FLUE GAS CO2	11.833	% CO_2
AI-8030	BLR1 FLUE GAS CO	1.253	% CO
AI-8031	BLR2 FLUE GAS CO	0.952	% CO
AI-8060	% MOISTURE IN FLUE GAS BLR1	15.730	% H_2O
AI-8061	% MOISTURE IN FLUE GAS BLR2	15.746	% H_2O
AI-8050	CEM O2 DRY ANALYZER BLR1	10.083	% O_2
AI-8051	CEM O2 DRY ANALYZER BLR2	9.219	% O_2
AIC-9010	BLR1 NOX TRIM	33.092	PPM
AIC-9011	BLR2 NOX TRIM	39.730	PPM
AIC-8010	BLR1 SO2 CONTROLLER	7.105	LB/HR
AIC-8011	BLR2 SO2 CONTROLLER	7.085	LB/HR
FI-1520	BLR1 TOTAL AIR FLOW	3321.415	KSDCFH
FI-2520	BLR2 TOTAL AIR FLOW	3227.465	KSDCFH
EX NMW	NET MW OUT	38.840	MEGWT
FI-1040	BLR1 OUTLET STEAM LBS/HR	176.930	LB/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	181.842	LB/HR
FI-1021	BLR1 STEAM DRUM BLOWDOWN LBS/HR	40.180	LB/HR
FI-2021	BLR2 STEAM DRUM BLOWDOWN LBS/HR	5.766	LB/HR
FI-1001	BLR1 FEEDWATER FLOW LBS/HR	199.763	LB/HR
FI-2001	BLR2 FEEDWATER FLOW LBS/HR	199.615	LB/HR
FI-1006	BLR1 DESPRHTR SPRAY WTR LBS/HR	13324.024	LB/HR
FI-2006	BLR2 DESPRHTR SPRAY LBS/HR	40.682	LB/HR
FIC-1505	BLR1 PRIM AIR FAN VANE KSCFH	1726.750	KSCFH
FIC-2505	BLR2 PRIMARY AIR FAN VANE KSCFH	1682.469	KSCFH
FIC-1515	BLR1 SECON AIR FAN VANE KSCFH	1602.594	KSCFH
FIC-2515	BLR2 SECOND AIR FAN VANE KSCFH	1565.250	KSCFH
FI-1704	BLR1 FUEL GAS FLOW TO LANCE	0.135	KSCFH
FI-2704	BLR2 FUEL GAS FLW LANCE KSCFH	-0.045	KSCFH
FI-1601	BLR1 FUEL GAS FLW TO SU BNR	0.025	KSCFH
FI-2601	BLR2 FUEL GAS FLW TO STRTP BNR	0.000	KSCFH
FI-1753	BLR1 AMMONIA INJECTION FLOW	21.261	LB/HR
FI-2753	BLR2 AMMONIA INJECTION FLOW	25.193	LB/HR
SI-1345	#1 LIMESTONE FEED RATE	1647.471	LB/HR
SI-2345	#2 LIMESTONE FEED RATE	673.918	LB/HR
PDI-1415	BLR1 COMBUSTOR GRATE DP	31.400	IN H20
PDI-2415	BLR2 COMBUSTOR GRATE DP	40.425	IN H20
PDI-1417	BLR1 MIDDLE COMBUSTOR	32.863	IN H20
PDI-2417	BLR2 MIDDLE COMBUSTOR	22.325	IN H20
PDIC-1413	BLR1 UPPER COMBUSTOR DP	32.782	IN H20
PDIC-2413	BLR2 UPPER COMBUSTOR DP	21.948	IN H20
PI-680	HP FW HEATER 4 OUTLET PRESS	1766.510	PSIG
PI-1002	BLR1 STEAM DRUM PRESSURE	1215.841	PSIG
HIC-1029	BLR1 SUPERHTR OUTLET VENT	1154.469	PSIG
PI-2002	BLR2 STEAM DRUM PRESSURE	1227.204	PSIG
HIC-2029	BLR2 SUPERHTR OUTLET VENT	1158.156	PSIG

Colmac Energy

Mecca, CA

Boiler 1 Hourly Emissions Report

April 6, 2022 - Hour 13

3-Hr Rolling Emission Limits

NOx ppm @15% O2 - 94 SO2 ppm @15% O2 - 27 CO ppm @15% O2 - 231

NOx lb/hr - 30 SO2 lb/hr - 12 CO lb/hr - 13

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
13:00	9.75	43.87	70.43	0.0983	26.49	8.55	13.73	0.0266	7.18	10.00	16.05	0.0136	3.68	Normal
13:01	9.65	44.39	70.63	0.0985	27.08	9.47	15.07	0.0293	8.04	10.00	15.91	0.0135	3.71	Normal
13:02	10.17	44.51	74.25	0.1036	26.00	8.73	14.56	0.0283	7.09	10.00	16.68	0.0142	3.56	Normal
13:03	9.90	43.47	70.74	0.0987	25.74	8.59	13.98	0.0271	7.08	10.00	16.27	0.0138	3.60	Normal
13:04	9.12	56.14	85.31	0.1190	35.11	12.89	19.59	0.0380	11.22	10.00	15.20	0.0129	3.81	Normal
13:05	9.24	53.28	81.79	0.1141	32.96	14.21	21.81	0.0424	12.23	10.00	15.35	0.0130	3.77	Normal
13:06	9.99	45.98	75.44	0.1053	26.67	9.92	16.28	0.0316	8.00	10.00	16.41	0.0139	3.53	Normal
13:07	9.47	43.90	68.75	0.0959	26.32	10.15	15.90	0.0309	8.47	10.00	15.66	0.0133	3.65	Normal
13:08	8.71	59.60	87.52	0.1221	37.51	15.84	23.26	0.0452	13.87	10.00	14.68	0.0125	3.83	Normal
13:09	9.29	50.98	78.60	0.1097	30.38	13.97	21.54	0.0418	11.58	10.00	15.42	0.0131	3.63	Normal
13:10	10.34	44.45	75.35	0.1051	25.07	10.80	18.31	0.0355	8.48	10.00	16.95	0.0144	3.43	Normal
13:11	10.47	40.78	69.99	0.0977	22.96	8.88	15.24	0.0296	6.96	10.00	17.16	0.0146	3.43	Normal
13:12	10.32	40.72	68.89	0.0961	23.44	8.80	14.89	0.0289	7.05	10.00	16.92	0.0144	3.50	Normal
13:13	10.00	44.29	72.73	0.1015	25.72	8.88	14.58	0.0283	7.18	10.00	16.42	0.0139	3.54	Normal
13:14	9.49	48.34	75.84	0.1058	29.30	10.60	16.63	0.0323	8.94	10.00	15.69	0.0133	3.69	Normal
13:15	9.50	50.18	78.79	0.1099	30.09	11.61	18.23	0.0354	9.69	10.00	15.70	0.0133	3.65	Normal
13:16	9.51	49.96	78.51	0.1096	29.67	10.33	16.23	0.0315	8.53	10.00	15.72	0.0133	3.61	Normal
13:17	9.35	50.34	78.02	0.1089	30.27	9.66	14.97	0.0291	8.08	10.00	15.50	0.0132	3.66	Normal
13:18	9.75	43.25	69.43	0.0969	25.50	8.96	14.38	0.0279	7.35	10.00	16.05	0.0136	3.59	Normal
13:19	10.37	38.15	64.85	0.0905	21.55	7.55	12.83	0.0249	5.93	10.00	17.00	0.0144	3.44	Normal
13:20	10.29	34.31	57.88	0.0808	19.53	6.90	11.64	0.0226	5.47	10.00	16.87	0.0143	3.47	Normal
13:21	10.01	42.59	70.01	0.0977	24.91	7.24	11.90	0.0231	5.89	10.00	16.44	0.0140	3.56	Normal
13:22	9.72	46.59	74.59	0.1041	27.68	8.21	13.14	0.0255	6.79	10.00	16.01	0.0136	3.62	Normal
13:23	9.44	50.45	78.80	0.1099	30.56	10.46	16.34	0.0317	8.82	10.00	15.62	0.0133	3.69	Normal
13:24	9.93	47.48	77.47	0.1081	27.83	10.41	16.99	0.0330	8.49	10.00	16.32	0.0139	3.57	Normal
13:25	9.93	46.85	76.45	0.1067	27.26	9.24	15.08	0.0293	7.48	10.00	16.32	0.0139	3.54	Normal
13:26	8.95	53.72	80.47	0.1123	33.85	11.17	16.73	0.0325	9.79	10.00	14.98	0.0127	3.84	Normal
13:27	9.65	46.82	74.50	0.1039	27.44	11.32	18.01	0.0350	9.23	10.00	15.91	0.0135	3.57	Normal
13:28	9.96	43.82	71.70	0.1000	25.41	10.09	16.51	0.0321	8.14	10.00	16.36	0.0139	3.53	Normal
13:29	10.39	39.48	67.24	0.0938	22.26	8.67	14.77	0.0287	6.80	10.00	17.03	0.0145	3.43	Normal
13:30	10.51	34.80	59.95	0.0837	19.87	8.68	14.95	0.0290	6.89	10.00	17.23	0.0146	3.48	Normal

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
13:31	10.50	34.91	60.09	0.0838	19.74	7.50	12.91	0.0251	5.90	10.00	17.21	0.0146	3.44	Normal
13:32	9.43	46.90	73.19	0.1021	28.93	10.00	15.61	0.0303	8.58	10.00	15.61	0.0133	3.75	Normal
13:33	9.69	46.09	73.60	0.1027	27.34	9.26	14.79	0.0287	7.64	10.00	15.97	0.0136	3.61	Normal
13:34	9.40	53.37	83.07	0.1159	31.88	11.89	18.51	0.0359	9.88	10.00	15.57	0.0132	3.64	Normal
13:35	9.06	55.29	83.59	0.1166	34.29	13.87	20.97	0.0407	11.97	10.00	15.12	0.0128	3.78	Normal
13:36	9.98	48.17	78.96	0.1102	27.79	11.89	19.49	0.0378	9.54	10.00	16.39	0.0139	3.51	Normal
13:37	10.18	39.68	66.26	0.0924	22.71	9.64	16.10	0.0312	7.68	10.00	16.70	0.0142	3.48	Normal
13:38	10.11	37.11	61.56	0.0859	21.36	9.13	15.15	0.0294	7.31	10.00	16.59	0.0141	3.50	Normal
13:39	9.93	45.36	74.01	0.1033	26.71	10.44	17.04	0.0331	8.55	10.00	16.32	0.0139	3.58	Normal
13:40	9.81	48.46	78.22	0.1091	28.74	11.23	18.13	0.0352	9.27	10.00	16.14	0.0137	3.61	Normal
13:41	9.59	48.18	76.25	0.1064	28.82	10.26	16.24	0.0315	8.54	10.00	15.83	0.0134	3.64	Normal
13:42	9.24	48.48	74.42	0.1038	29.36	11.63	17.85	0.0347	9.80	10.00	15.35	0.0130	3.69	Normal
13:43	8.83	57.73	85.61	0.1195	36.62	17.15	25.43	0.0494	15.14	10.00	14.83	0.0126	3.86	Normal
13:44	9.95	47.50	77.65	0.1083	26.95	13.07	21.37	0.0415	10.32	10.00	16.35	0.0139	3.45	Normal
13:45	10.03	47.23	77.78	0.1085	27.48	11.42	18.81	0.0365	9.24	10.00	16.47	0.0140	3.54	Normal
13:46	10.26	34.35	57.79	0.0806	19.54	9.04	15.21	0.0295	7.15	10.00	16.82	0.0143	3.46	Normal
13:47	9.89	37.25	60.56	0.0845	21.77	9.03	14.68	0.0285	7.34	10.00	16.26	0.0138	3.56	Normal
13:48	9.70	43.29	69.19	0.0965	25.40	9.69	15.49	0.0301	7.91	10.00	15.98	0.0136	3.57	Normal
13:49	9.14	53.11	80.84	0.1128	32.53	12.12	18.45	0.0358	10.33	10.00	15.22	0.0129	3.73	Normal
13:50	9.30	50.97	78.65	0.1097	31.20	12.07	18.63	0.0362	10.28	10.00	15.43	0.0131	3.73	Normal
13:51	10.43	37.03	63.31	0.0883	20.48	7.97	13.63	0.0265	6.13	10.00	17.10	0.0145	3.37	Normal
13:52	9.83	39.80	64.36	0.0898	23.46	8.47	13.70	0.0266	6.95	10.00	16.17	0.0137	3.59	Normal
13:53	9.60	43.78	69.35	0.0968	26.15	8.28	13.12	0.0255	6.88	10.00	15.84	0.0135	3.64	Normal
13:54	9.44	46.60	72.79	0.1016	27.85	8.68	13.56	0.0263	7.22	10.00	15.62	0.0133	3.64	Normal
13:55	9.34	47.65	73.78	0.1029	28.60	9.43	14.60	0.0283	7.88	10.00	15.48	0.0132	3.65	Normal
13:56	9.23	48.34	74.15	0.1035	29.59	9.28	14.23	0.0276	7.90	10.00	15.34	0.0130	3.73	Normal
13:57	9.78	44.92	72.31	0.1009	25.94	9.70	15.61	0.0303	7.79	10.00	16.10	0.0137	3.52	Normal
13:58	9.63	48.61	77.21	0.1077	28.80	10.11	16.06	0.0312	8.33	10.00	15.88	0.0135	3.61	Normal
13:59	9.48	46.48	72.85	0.1017	27.47	10.66	16.71	0.0324	8.77	10.00	15.67	0.0133	3.60	Normal
Average	9.7	45.8	73.2	0.102		10.2	16.3	0.032		10.0	16.0	0.014		Normal
Total					27.12				8.42				3.60	
3-Hr Rolling			74.8		26.2		17.8		8.7		16.2		3.5	

Colmac Energy

Mecca, CA

Boiler 1 Hourly Emissions Report

April 6, 2022 - Hour 12

3-Hr Rolling Emission Limits

NOx ppm @15% O2 - 94 | SO2 ppm @15% O2 - 27 | CO ppm @15% O2 - 231

NOx lb/hr - 30 | SO2 lb/hr - 12 | CO lb/hr - 13

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
12:00	10.12	55.49	92.14	0.1286	32.68	14.91	24.76	0.0481	12.22	10.00	16.60	0.0141	3.58	Normal
12:01	10.14	50.11	83.36	0.1163	29.58	11.68	19.43	0.0377	9.59	10.00	16.64	0.0141	3.59	Normal
12:02	10.18	49.46	82.59	0.1152	28.70	13.14	21.94	0.0426	10.61	10.00	16.70	0.0142	3.53	Normal
12:03	8.88	53.77	80.07	0.1117	34.00	18.03	26.85	0.0521	15.86	10.00	14.89	0.0126	3.85	Normal
12:04	9.00	54.68	82.25	0.1148	34.41	22.30	33.54	0.0651	19.52	10.00	15.04	0.0128	3.83	Normal
12:05	10.46	36.57	62.70	0.0875	20.73	14.49	24.84	0.0482	11.43	10.00	17.15	0.0146	3.45	Normal
12:06	10.08	34.46	57.01	0.0795	19.81	12.23	20.23	0.0393	9.78	10.00	16.54	0.0141	3.50	Normal
12:07	9.33	48.20	74.57	0.1040	29.92	15.27	23.62	0.0459	13.19	10.00	15.47	0.0131	3.78	Normal
12:08	9.60	43.04	68.18	0.0951	25.98	14.97	23.71	0.0460	12.57	10.00	15.84	0.0135	3.67	Normal
12:09	9.97	40.69	66.64	0.0930	24.01	12.98	21.26	0.0413	10.66	10.00	16.38	0.0139	3.59	Normal
12:10	9.93	37.43	61.08	0.0852	22.08	12.87	21.00	0.0408	10.56	10.00	16.32	0.0139	3.59	Normal
12:11	10.61	32.36	56.29	0.0785	18.33	11.53	20.06	0.0389	9.09	10.00	17.40	0.0148	3.45	Normal
12:12	10.35	35.27	59.84	0.0835	20.80	8.77	14.88	0.0289	7.19	10.00	16.97	0.0144	3.59	Normal
12:13	10.28	37.29	62.85	0.0877	21.85	8.60	14.50	0.0281	7.01	10.00	16.85	0.0143	3.57	Normal
12:14	9.86	42.08	68.23	0.0952	25.54	11.71	18.99	0.0369	9.89	10.00	16.21	0.0138	3.69	Normal
12:15	10.01	38.56	63.38	0.0884	23.18	10.26	16.86	0.0327	8.58	10.00	16.44	0.0140	3.66	Normal
12:16	10.29	38.91	65.64	0.0916	22.46	9.41	15.88	0.0308	7.56	10.00	16.87	0.0143	3.51	Normal
12:17	9.91	43.84	71.40	0.0996	26.25	9.35	15.23	0.0296	7.79	10.00	16.29	0.0138	3.64	Normal
12:18	9.48	46.55	72.96	0.1018	28.32	10.63	16.66	0.0323	9.00	10.00	15.67	0.0133	3.70	Normal
12:19	9.14	55.37	84.28	0.1176	34.22	15.42	23.47	0.0456	13.26	10.00	15.22	0.0129	3.76	Normal
12:20	9.17	55.80	85.15	0.1188	34.63	17.46	26.64	0.0517	15.08	10.00	15.26	0.0130	3.78	Normal
12:21	10.04	43.22	71.24	0.0994	24.60	12.32	20.31	0.0394	9.76	10.00	16.48	0.0140	3.46	Normal
12:22	10.48	41.31	70.96	0.0990	22.80	10.11	17.37	0.0337	7.76	10.00	17.18	0.0146	3.36	Normal
12:23	10.01	37.01	60.83	0.0849	21.11	9.59	15.76	0.0306	7.61	10.00	16.44	0.0140	3.47	Normal
12:24	9.34	48.14	74.54	0.1040	28.82	12.78	19.79	0.0384	10.65	10.00	15.48	0.0132	3.64	Normal
12:25	9.62	48.97	77.71	0.1084	28.82	14.72	23.36	0.0453	12.05	10.00	15.87	0.0135	3.58	Normal
12:26	10.18	41.10	68.63	0.0958	23.23	10.81	18.05	0.0350	8.50	10.00	16.70	0.0142	3.44	Normal
12:27	10.33	38.70	65.54	0.0914	21.71	10.97	18.58	0.0361	8.56	10.00	16.93	0.0144	3.41	Normal
12:28	9.59	49.34	78.09	0.1090	29.59	12.84	20.32	0.0395	10.72	10.00	15.83	0.0134	3.65	Normal
12:29	9.28	52.66	81.12	0.1132	32.25	16.64	25.63	0.0498	14.18	10.00	15.40	0.0131	3.73	Normal
12:30	9.59	48.24	76.35	0.1065	28.65	15.21	24.07	0.0467	12.57	10.00	15.83	0.0134	3.62	Normal

W002AS-012607-RT-3503

414 of 635

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
12:31	9.68	43.05	68.68	0.0958	25.02	13.49	21.52	0.0418	10.91	10.00	15.95	0.0135	3.54	Normal
12:32	9.17	53.28	81.31	0.1134	32.75	15.12	23.07	0.0448	12.93	10.00	15.26	0.0130	3.74	Normal
12:33	9.96	45.97	75.22	0.1049	26.60	13.19	21.58	0.0419	10.62	10.00	16.36	0.0139	3.52	Normal
12:34	10.17	43.87	73.18	0.1021	25.11	8.85	14.76	0.0287	7.05	10.00	16.68	0.0142	3.48	Normal
12:35	10.08	40.51	67.02	0.0935	23.43	9.70	16.05	0.0312	7.80	10.00	16.54	0.0141	3.52	Normal
12:36	10.14	41.03	68.26	0.0952	24.24	11.54	19.20	0.0373	9.48	10.00	16.64	0.0141	3.60	Normal
12:37	10.10	41.62	68.98	0.0962	23.86	10.82	17.93	0.0348	8.63	10.00	16.57	0.0141	3.49	Normal
12:38	9.47	51.33	80.39	0.1122	31.59	14.45	22.63	0.0439	12.37	10.00	15.66	0.0133	3.75	Normal
12:39	10.35	38.54	65.39	0.0912	21.86	9.29	15.76	0.0306	7.33	10.00	16.97	0.0144	3.45	Normal
12:40	10.11	39.29	65.18	0.0909	22.96	10.20	16.92	0.0329	8.29	10.00	16.59	0.0141	3.56	Normal
12:41	9.89	42.28	68.74	0.0959	25.26	10.57	17.18	0.0334	8.79	10.00	16.26	0.0138	3.64	Normal
12:42	10.25	41.89	70.41	0.0982	23.94	9.24	15.53	0.0301	7.35	10.00	16.81	0.0143	3.48	Normal
12:43	9.88	43.94	71.37	0.0996	26.31	9.20	14.94	0.0290	7.66	10.00	16.24	0.0138	3.64	Normal
12:44	9.87	44.35	71.97	0.1004	25.80	9.88	16.03	0.0311	8.00	10.00	16.23	0.0138	3.54	Normal
12:45	9.33	55.54	85.93	0.1199	34.40	12.06	18.66	0.0362	10.39	10.00	15.47	0.0131	3.77	Normal
12:46	10.27	42.72	71.94	0.1004	24.49	8.87	14.94	0.0290	7.07	10.00	16.84	0.0143	3.49	Normal
12:47	10.29	44.12	74.43	0.1039	25.24	9.95	16.79	0.0326	7.92	10.00	16.87	0.0143	3.48	Normal
12:48	9.87	42.18	68.45	0.0955	25.17	9.94	16.13	0.0313	8.25	10.00	16.23	0.0138	3.63	Normal
12:49	9.62	43.02	68.27	0.0953	25.61	9.64	15.30	0.0297	7.98	10.00	15.87	0.0135	3.62	Normal
12:50	9.56	48.52	76.59	0.1069	29.28	10.07	15.90	0.0309	8.45	10.00	15.78	0.0134	3.67	Normal
12:51	9.84	47.73	77.25	0.1078	28.00	9.23	14.94	0.0290	7.53	10.00	16.18	0.0137	3.57	Normal
12:52	9.52	48.76	76.70	0.1070	29.64	10.68	16.80	0.0326	9.03	10.00	15.73	0.0134	3.70	Normal
12:53	10.46	38.34	65.74	0.0917	21.96	9.92	17.01	0.0330	7.90	10.00	17.15	0.0146	3.49	Normal
12:54	10.82	32.79	58.23	0.0812	18.43	7.51	13.34	0.0259	5.87	10.00	17.76	0.0151	3.42	Normal
12:55	9.87	44.91	72.88	0.1017	26.54	9.49	15.40	0.0299	7.80	10.00	16.23	0.0138	3.60	Normal
12:56	9.39	52.87	82.22	0.1147	32.97	12.09	18.80	0.0365	10.49	10.00	15.55	0.0132	3.80	Normal
12:57	10.39	40.62	69.18	0.0965	23.30	7.57	12.89	0.0250	6.04	10.00	17.03	0.0145	3.49	Normal
12:58	10.52	41.58	71.70	0.1000	23.78	7.64	13.17	0.0256	6.08	10.00	17.24	0.0146	3.48	Normal
12:59	10.40	39.29	66.98	0.0935	22.79	7.03	11.98	0.0233	5.67	10.00	17.05	0.0145	3.53	Normal
Average	9.9	44.2	71.9	0.100		11.7	19.0	0.037		10.0	16.3	0.014		Normal
Total					26.07				9.57				3.59	
3-Hr Rolling			75.2		26.0		18.2		8.8		16.4		3.5	

Colmac Energy

Mecca, CA

Boiler 1 Hourly Emissions Report

April 6, 2022 - Hour 11

3-Hr Rolling Emission Limits

NOx ppm @15% O2 - 94 | SO2 ppm @15% O2 - 27 | CO ppm @15% O2 - 231

NOx lb/hr - 30 | SO2 lb/hr - 12 | CO lb/hr - 13

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
11:00	9.53	47.21	74.32	0.1037	28.31	11.93	18.78	0.0365	9.95	10.00	15.74	0.0134	3.65	Normal
11:01	9.84	46.73	75.63	0.1055	27.98	10.92	17.67	0.0343	9.10	10.00	16.18	0.0137	3.65	Normal
11:02	10.83	36.45	64.79	0.0904	20.28	7.91	14.06	0.0273	6.12	10.00	17.78	0.0151	3.39	Normal
11:03	9.99	41.44	67.99	0.0949	24.08	9.15	15.01	0.0291	7.40	10.00	16.41	0.0139	3.54	Normal
11:04	9.33	53.69	83.06	0.1159	33.53	13.80	21.35	0.0414	11.99	10.00	15.47	0.0131	3.80	Normal
11:05	10.29	40.18	67.79	0.0946	23.28	8.74	14.75	0.0286	7.05	10.00	16.87	0.0143	3.53	Normal
11:06	10.31	36.46	61.63	0.0860	21.30	8.22	13.89	0.0270	6.68	10.00	16.90	0.0144	3.56	Normal
11:07	10.40	34.25	58.39	0.0815	19.62	8.53	14.54	0.0282	6.80	10.00	17.05	0.0145	3.49	Normal
11:08	9.67	45.88	73.13	0.1020	27.98	10.45	16.66	0.0323	8.87	10.00	15.94	0.0135	3.71	Normal
11:09	9.78	42.54	68.48	0.0955	25.50	9.93	15.98	0.0310	8.28	10.00	16.10	0.0137	3.65	Normal
11:10	9.95	43.08	70.42	0.0983	25.45	9.85	16.10	0.0313	8.10	10.00	16.35	0.0139	3.60	Normal
11:11	10.16	39.51	65.85	0.0919	23.15	9.61	16.02	0.0311	7.83	10.00	16.67	0.0142	3.57	Normal
11:12	10.13	41.24	68.54	0.0956	24.23	10.03	16.67	0.0324	8.20	10.00	16.62	0.0141	3.58	Normal
11:13	10.20	42.28	70.73	0.0987	24.59	10.50	17.57	0.0341	8.50	10.00	16.73	0.0142	3.54	Normal
11:14	10.12	43.98	73.03	0.1019	25.89	10.89	18.08	0.0351	8.92	10.00	16.60	0.0141	3.58	Normal
11:15	9.95	46.06	75.29	0.1051	27.75	11.05	18.06	0.0351	9.26	10.00	16.35	0.0139	3.67	Normal
11:16	10.51	42.38	73.01	0.1019	24.13	9.45	16.28	0.0316	7.49	10.00	17.23	0.0146	3.47	Normal
11:17	9.69	47.56	75.94	0.1060	28.67	9.26	14.79	0.0287	7.77	10.00	15.97	0.0136	3.67	Normal
11:18	9.77	47.23	75.96	0.1060	28.59	11.30	18.17	0.0353	9.52	10.00	16.08	0.0137	3.68	Normal
11:19	10.84	38.37	68.27	0.0953	21.80	9.24	16.44	0.0319	7.30	10.00	17.79	0.0151	3.46	Normal
11:20	10.79	35.33	62.55	0.0873	19.88	7.60	13.46	0.0261	5.95	10.00	17.71	0.0150	3.42	Normal
11:21	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	Normal
11:22	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	Normal
11:23	10.21	45.47	76.14	0.1062	21.83	10.46	17.51	0.0340	6.99	10.00	16.74	0.0142	2.92	Normal
11:24	9.87	48.46	78.64	0.1097	23.43	10.82	17.56	0.0341	7.28	10.00	16.23	0.0138	2.94	Normal
11:25	9.65	49.70	79.08	0.1103	24.89	12.06	19.19	0.0373	8.40	10.00	15.91	0.0135	3.05	Normal
11:26	9.98	42.69	69.98	0.0976	20.40	10.98	18.00	0.0349	7.30	10.00	16.39	0.0139	2.91	Normal
11:27	9.03	54.45	82.11	0.1146	28.67	13.48	20.33	0.0395	9.87	10.00	15.08	0.0128	3.20	Normal
11:28	9.80	50.40	81.28	0.1134	24.84	12.62	20.35	0.0395	8.65	10.00	16.13	0.0137	3.00	Normal
11:29	10.20	47.38	79.26	0.1106	22.91	9.19	15.37	0.0298	6.18	10.00	16.73	0.0142	2.94	Normal
11:30	10.16	48.22	80.37	0.1121	23.40	9.37	15.62	0.0303	6.33	10.00	16.67	0.0142	2.95	Normal

W002AS-012607-RT-3503

416 of 635

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
11:31	9.55	49.46	78.00	0.1088	25.16	11.07	17.46	0.0339	7.84	10.00	15.77	0.0134	3.10	Normal
11:32	9.89	50.74	82.49	0.1151	24.98	11.74	19.09	0.0371	8.04	10.00	16.26	0.0138	3.00	Normal
11:33	9.95	48.82	79.81	0.1114	24.26	10.72	17.52	0.0340	7.41	10.00	16.35	0.0139	3.03	Normal
11:34	9.66	55.39	88.21	0.1231	27.84	10.93	17.41	0.0338	7.64	10.00	15.93	0.0135	3.06	Normal
11:35	9.87	51.42	83.45	0.1164	25.24	11.64	18.89	0.0367	7.95	10.00	16.23	0.0138	2.99	Normal
11:36	9.25	56.39	86.64	0.1209	28.83	13.24	20.34	0.0395	9.42	10.00	15.36	0.0130	3.11	Normal
11:37	9.76	51.38	82.56	0.1152	25.20	13.19	21.19	0.0411	9.00	10.00	16.07	0.0136	2.99	Normal
11:38	10.31	49.28	83.30	0.1162	23.69	9.38	15.85	0.0308	6.27	10.00	16.90	0.0144	2.93	Normal
11:39	10.48	50.45	86.67	0.1209	24.11	8.58	14.74	0.0286	5.70	10.00	17.18	0.0146	2.91	Normal
11:40	10.54	48.28	83.42	0.1164	23.05	9.28	16.03	0.0311	6.16	10.00	17.28	0.0147	2.91	Normal
11:41	10.47	46.79	80.30	0.1120	22.51	8.81	15.12	0.0294	5.90	10.00	17.16	0.0146	2.93	Normal
11:42	10.20	47.70	79.80	0.1113	23.45	9.31	15.57	0.0302	6.37	10.00	16.73	0.0142	2.99	Normal
11:43	9.84	52.03	84.21	0.1175	26.27	10.63	17.20	0.0334	7.47	10.00	16.18	0.0137	3.07	Normal
11:44	10.12	52.95	87.92	0.1227	25.70	10.44	17.34	0.0337	7.05	10.00	16.60	0.0141	2.95	Normal
11:45	10.24	51.81	87.00	0.1214	25.24	10.98	18.44	0.0358	7.44	10.00	16.79	0.0143	2.97	Normal
11:46	9.83	52.42	84.76	0.1183	26.38	10.72	17.33	0.0337	7.51	10.00	16.17	0.0137	3.06	Normal
11:47	9.67	56.86	90.63	0.1265	28.63	13.66	21.77	0.0423	9.57	10.00	15.94	0.0135	3.07	Normal
11:48	10.20	51.41	86.00	0.1200	24.75	11.93	19.96	0.0387	7.99	10.00	16.73	0.0142	2.93	Normal
11:49	10.31	50.57	85.48	0.1193	24.84	11.06	18.69	0.0363	7.56	10.00	16.90	0.0144	2.99	Normal
11:50	11.06	45.95	83.59	0.1166	20.87	9.17	16.68	0.0324	5.80	10.00	18.19	0.0154	2.77	Normal
11:51	10.08	52.19	86.34	0.1205	25.48	11.33	18.74	0.0364	7.70	10.00	16.54	0.0141	2.97	Normal
11:52	10.10	55.49	91.97	0.1283	27.01	12.11	20.07	0.0390	8.20	10.00	16.57	0.0141	2.96	Normal
11:53	9.84	55.15	89.26	0.1245	27.58	13.92	22.53	0.0437	9.69	10.00	16.18	0.0137	3.04	Normal
11:54	10.15	55.67	92.70	0.1293	27.12	11.76	19.58	0.0380	7.97	10.00	16.65	0.0141	2.96	Normal
11:55	9.95	54.76	89.52	0.1249	26.93	12.27	20.06	0.0389	8.39	10.00	16.35	0.0139	2.99	Normal
11:56	9.88	54.32	88.23	0.1231	26.43	13.55	22.01	0.0427	9.17	10.00	16.24	0.0138	2.96	Normal
11:57	9.48	57.93	90.80	0.1267	33.79	16.56	25.96	0.0504	13.44	10.00	15.67	0.0133	3.55	Normal
11:58	9.64	61.33	97.50	0.1360	36.68	17.51	27.84	0.0540	14.57	10.00	15.90	0.0135	3.64	Normal
11:59	9.97	58.27	95.43	0.1331	34.07	17.14	28.07	0.0545	13.94	10.00	16.38	0.0139	3.56	Normal
Average	10.0	48.3	79.3	0.111		11.0	18.1	0.035		10.0	16.4	0.014		Normal
Total					25.32				8.06				3.21	
3-Hr Rolling			75.5		26.2		17.3		8.3		16.5		3.5	

Colmac Energy

Mecca, CA

Boiler 1 Hourly Emissions Report

April 6, 2022 - Hour 10

3-Hr Rolling Emission Limits

NOx ppm @15% O2 - 94 | SO2 ppm @15% O2 - 27 | CO ppm @15% O2 - 231

NOx lb/hr - 30 | SO2 lb/hr - 12 | CO lb/hr - 13

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
10:00	10.42	40.68	69.48	0.0969	23.44	10.16	17.35	0.0337	8.15	10.00	17.08	0.0145	3.51	Normal
10:01	10.07	40.81	67.45	0.0941	23.99	10.14	16.76	0.0325	8.29	10.00	16.53	0.0140	3.58	Normal
10:02	10.28	44.04	74.23	0.1036	25.86	10.45	17.61	0.0342	8.54	10.00	16.85	0.0143	3.57	Normal
10:03	10.74	37.03	65.24	0.0910	21.10	9.54	16.81	0.0326	7.56	10.00	17.62	0.0150	3.47	Normal
10:04	10.44	41.96	71.81	0.1002	24.50	8.89	15.21	0.0295	7.22	10.00	17.11	0.0145	3.55	Normal
10:05	9.68	46.80	74.66	0.1042	29.03	10.84	17.29	0.0336	9.35	10.00	15.95	0.0135	3.78	Normal
10:06	10.00	46.86	76.95	0.1074	27.87	11.48	18.85	0.0366	9.50	10.00	16.42	0.0139	3.62	Normal
10:07	9.64	54.00	85.84	0.1198	33.10	12.69	20.17	0.0392	10.82	10.00	15.90	0.0135	3.73	Normal
10:08	9.85	53.29	86.32	0.1204	31.79	12.70	20.57	0.0399	10.54	10.00	16.20	0.0138	3.63	Normal
10:09	10.27	46.41	78.15	0.1090	27.27	11.04	18.59	0.0361	9.03	10.00	16.84	0.0143	3.58	Normal
10:10	10.78	35.16	62.19	0.0868	19.98	8.64	15.28	0.0297	6.83	10.00	17.69	0.0150	3.46	Normal
10:11	10.91	32.67	58.54	0.0817	18.78	7.66	13.73	0.0266	6.13	10.00	17.92	0.0152	3.50	Normal
10:12	10.48	35.70	61.33	0.0856	20.75	7.74	13.30	0.0258	6.26	10.00	17.18	0.0146	3.54	Normal
10:13	9.75	47.50	76.26	0.1064	29.18	10.60	17.02	0.0330	9.06	10.00	16.05	0.0136	3.74	Normal
10:14	9.65	49.12	78.16	0.1090	29.96	11.45	18.22	0.0354	9.72	10.00	15.91	0.0135	3.71	Normal
10:15	9.48	53.68	84.14	0.1174	33.50	12.94	20.28	0.0394	11.23	10.00	15.67	0.0133	3.80	Normal
10:16	10.27	40.21	67.71	0.0945	23.51	10.00	16.84	0.0327	8.14	10.00	16.84	0.0143	3.56	Normal
10:17	10.36	37.15	63.09	0.0880	21.66	9.23	15.68	0.0304	7.49	10.00	16.98	0.0144	3.55	Normal
10:18	10.55	46.08	79.69	0.1112	26.50	10.88	18.82	0.0365	8.71	10.00	17.29	0.0147	3.50	Normal
10:19	10.11	43.02	71.37	0.0996	25.73	9.90	16.42	0.0319	8.24	10.00	16.59	0.0141	3.64	Normal
10:20	10.40	42.89	73.12	0.1020	25.08	9.64	16.43	0.0319	7.84	10.00	17.05	0.0145	3.56	Normal
10:21	10.51	41.11	70.82	0.0988	24.14	8.31	14.32	0.0278	6.79	10.00	17.23	0.0146	3.57	Normal
10:22	10.84	38.03	67.67	0.0944	21.89	7.51	13.36	0.0259	6.02	10.00	17.79	0.0151	3.50	Normal
10:23	10.54	39.39	68.06	0.0950	23.06	7.16	12.37	0.0240	5.83	10.00	17.28	0.0147	3.56	Normal
10:24	9.29	52.26	80.57	0.1124	33.15	10.77	16.60	0.0322	9.50	10.00	15.42	0.0131	3.86	Normal
10:25	9.28	57.95	89.27	0.1246	36.59	12.94	19.93	0.0387	11.37	10.00	15.40	0.0131	3.84	Normal
10:26	10.07	49.87	82.43	0.1150	29.53	10.74	17.75	0.0345	8.85	10.00	16.53	0.0140	3.60	Normal
10:27	9.98	45.35	74.34	0.1037	26.77	9.30	15.24	0.0296	7.64	10.00	16.39	0.0139	3.59	Normal
10:28	10.22	44.48	74.55	0.1040	26.26	8.88	14.88	0.0289	7.29	10.00	16.76	0.0142	3.59	Normal
10:29	10.09	44.68	73.98	0.1032	26.24	9.02	14.94	0.0290	7.37	10.00	16.56	0.0141	3.57	Normal
10:30	9.90	47.19	76.79	0.1071	28.39	10.37	16.87	0.0328	8.68	10.00	16.27	0.0138	3.66	Normal

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
10:31	10.25	42.27	71.05	0.0991	24.55	9.88	16.61	0.0322	7.98	10.00	16.81	0.0143	3.54	Normal
10:32	9.26	55.89	85.95	0.1199	35.06	11.60	17.84	0.0346	10.13	10.00	15.38	0.0131	3.82	Normal
10:33	9.66	54.74	87.17	0.1216	33.06	14.07	22.41	0.0435	11.82	10.00	15.93	0.0135	3.68	Normal
10:34	9.71	52.46	83.92	0.1171	31.77	14.78	23.64	0.0459	12.45	10.00	16.00	0.0136	3.69	Normal
10:35	10.44	42.40	72.56	0.1012	24.56	10.92	18.69	0.0363	8.80	10.00	17.11	0.0145	3.53	Normal
10:36	10.61	38.06	66.21	0.0924	22.16	8.59	14.94	0.0290	6.96	10.00	17.40	0.0148	3.54	Normal
10:37	10.29	38.74	65.36	0.0912	22.68	9.36	15.79	0.0307	7.62	10.00	16.87	0.0143	3.56	Normal
10:38	9.83	49.25	79.64	0.1111	29.78	13.78	22.28	0.0433	11.59	10.00	16.17	0.0137	3.68	Normal
10:39	9.65	48.07	76.48	0.1067	29.99	12.65	20.13	0.0391	10.98	10.00	15.91	0.0135	3.80	Normal
10:40	10.58	39.18	67.96	0.0948	22.09	10.66	18.49	0.0359	8.36	10.00	17.34	0.0147	3.43	Normal
10:41	10.02	46.45	76.42	0.1066	27.89	10.69	17.59	0.0341	8.93	10.00	16.45	0.0140	3.65	Normal
10:42	10.44	34.19	58.51	0.0816	19.90	8.22	14.07	0.0273	6.66	10.00	17.11	0.0145	3.54	Normal
10:43	10.34	35.96	60.95	0.0850	21.16	8.50	14.41	0.0280	6.96	10.00	16.95	0.0144	3.58	Normal
10:44	10.24	43.28	72.67	0.1014	25.30	9.49	15.94	0.0309	7.72	10.00	16.79	0.0143	3.56	Normal
10:45	9.73	49.66	79.58	0.1110	30.07	11.51	18.44	0.0358	9.70	10.00	16.03	0.0136	3.69	Normal
10:46	10.23	40.92	68.65	0.0958	24.08	9.74	16.34	0.0317	7.97	10.00	16.78	0.0142	3.58	Normal
10:47	10.37	41.30	70.21	0.0980	24.16	8.82	14.99	0.0291	7.18	10.00	17.00	0.0144	3.56	Normal
10:48	10.12	41.87	69.52	0.0970	24.89	9.70	16.11	0.0313	8.02	10.00	16.60	0.0141	3.62	Normal
10:49	9.91	45.46	74.04	0.1033	27.19	9.80	15.96	0.0310	8.15	10.00	16.29	0.0138	3.64	Normal
10:50	9.89	47.55	77.31	0.1079	28.25	13.46	21.88	0.0425	11.13	10.00	16.26	0.0138	3.62	Normal
10:51	9.51	53.39	83.91	0.1171	33.34	12.93	20.32	0.0394	11.23	10.00	15.72	0.0133	3.80	Normal
10:52	10.44	41.64	71.26	0.0994	23.87	11.11	19.01	0.0369	8.86	10.00	17.11	0.0145	3.49	Normal
10:53	9.76	47.72	76.68	0.1070	28.66	10.11	16.24	0.0315	8.45	10.00	16.07	0.0136	3.66	Normal
10:54	9.48	49.75	77.98	0.1088	30.80	11.42	17.90	0.0348	9.84	10.00	15.67	0.0133	3.77	Normal
10:55	9.56	44.65	70.48	0.0983	26.63	10.97	17.32	0.0336	9.10	10.00	15.78	0.0134	3.63	Normal
10:56	9.38	51.38	79.84	0.1114	31.72	13.47	20.93	0.0406	11.57	10.00	15.54	0.0132	3.76	Normal
10:57	10.01	46.21	75.96	0.1060	26.78	10.16	16.70	0.0324	8.19	10.00	16.44	0.0140	3.53	Normal
10:58	9.60	46.54	73.72	0.1029	27.89	11.55	18.30	0.0355	9.63	10.00	15.84	0.0135	3.65	Normal
10:59	9.38	49.49	76.90	0.1073	30.03	13.19	20.49	0.0398	11.14	10.00	15.54	0.0132	3.69	Normal
Average	10.1	44.9	74.4	0.104		10.6	17.6	0.034		10.0	16.6	0.014		Normal
Total					26.71				8.73				3.62	
3-Hr Rolling			73.1		26.4		17.6		8.8		16.4		3.6	

Colmac Energy

Mecca, CA

Boiler 1 Hourly Emissions Report

April 6, 2022 - Hour 9

3-Hr Rolling Emission Limits

NOx ppm @15% O2 - 94 | SO2 ppm @15% O2 - 27 | CO ppm @15% O2 - 231

NOx lb/hr - 30 | SO2 lb/hr - 12 | CO lb/hr - 13

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
09:00	9.52	44.93	70.67	0.0986	28.17	10.76	16.92	0.0329	9.39	10.00	15.73	0.0134	3.82	Normal
09:01	10.00	40.31	66.20	0.0924	24.10	9.82	16.13	0.0313	8.17	10.00	16.42	0.0139	3.64	Normal
09:02	10.00	47.40	77.84	0.1086	28.32	10.13	16.64	0.0323	8.42	10.00	16.42	0.0139	3.64	Normal
09:03	9.42	53.68	83.70	0.1168	33.74	12.18	18.99	0.0369	10.65	10.00	15.59	0.0132	3.83	Normal
09:04	9.88	46.42	75.40	0.1052	27.84	11.22	18.22	0.0354	9.36	10.00	16.24	0.0138	3.65	Normal
09:05	10.33	38.47	65.15	0.0909	22.33	9.36	15.85	0.0308	7.56	10.00	16.93	0.0144	3.53	Normal
09:06	10.23	42.52	71.33	0.0995	25.29	9.12	15.30	0.0297	7.55	10.00	16.78	0.0142	3.62	Normal
09:07	9.95	41.29	67.50	0.0942	25.03	8.78	14.35	0.0279	7.40	10.00	16.35	0.0139	3.69	Normal
09:08	9.71	45.86	73.36	0.1024	27.53	9.93	15.88	0.0308	8.29	10.00	16.00	0.0136	3.65	Normal
09:09	9.78	49.14	79.10	0.1104	30.17	12.28	19.77	0.0384	10.49	10.00	16.10	0.0137	3.74	Normal
09:10	10.56	36.91	63.90	0.0892	21.42	8.44	14.61	0.0284	6.82	10.00	17.31	0.0147	3.53	Normal
09:11	10.59	37.29	64.74	0.0903	21.42	8.09	14.05	0.0273	6.47	10.00	17.36	0.0147	3.50	Normal
09:12	9.81	47.12	76.05	0.1061	28.92	11.02	17.79	0.0345	9.41	10.00	16.14	0.0137	3.74	Normal
09:13	9.67	49.72	79.25	0.1106	30.24	10.62	16.93	0.0329	8.99	10.00	15.94	0.0135	3.70	Normal
09:14	9.65	50.53	80.40	0.1122	30.81	11.35	18.06	0.0351	9.63	10.00	15.91	0.0135	3.71	Normal
09:15	10.07	45.64	75.43	0.1053	27.05	10.81	17.87	0.0347	8.91	10.00	16.53	0.0140	3.61	Normal
09:16	10.40	39.44	67.24	0.0938	22.90	9.54	16.26	0.0316	7.71	10.00	17.05	0.0145	3.53	Normal
09:17	9.43	47.91	74.77	0.1043	29.56	11.25	17.56	0.0341	9.66	10.00	15.61	0.0133	3.76	Normal
09:18	9.43	51.83	80.89	0.1129	31.67	14.75	23.02	0.0447	12.54	10.00	15.61	0.0133	3.72	Normal
09:19	9.25	50.41	77.45	0.1081	31.39	15.07	23.15	0.0450	13.06	10.00	15.36	0.0130	3.79	Normal
09:20	9.74	46.95	75.31	0.1051	27.85	12.47	20.00	0.0388	10.29	10.00	16.04	0.0136	3.61	Normal
09:21	9.97	43.70	71.57	0.0999	25.79	10.43	17.08	0.0332	8.56	10.00	16.38	0.0139	3.59	Normal
09:22	9.90	40.20	65.42	0.0913	23.69	9.72	15.82	0.0307	7.97	10.00	16.27	0.0138	3.59	Normal
09:23	10.12	43.04	71.47	0.0997	25.47	11.31	18.78	0.0365	9.31	10.00	16.60	0.0141	3.60	Normal
09:24	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
09:25	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
09:26	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
09:27	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
09:28	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
09:29	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
09:30	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
09:31	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
09:32	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
09:33	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
09:34	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
09:35	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
09:36	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
09:37	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
09:38	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
09:39	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
09:40	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
09:41	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
09:42	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
09:43	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
09:44	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
09:45	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
09:46	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
09:47	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
09:48	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
09:49	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
09:50	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
09:51	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
09:52	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
09:53	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
09:54	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
09:55	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
09:56	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
09:57	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
09:58	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
09:59	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
Average	Inval	Inval	Inval	Inval		Inval	Inval	Inval		Inval	Inval	Inval		Normal
Total					Inval				Inval				Inval	
3-Hr Rolling			Inval		Inval		Inval		Inval		Inval		Inval	

W002AS-012607-RT-3503

420 of 635

Colmac Energy

Mecca, CA

Boiler 1 Hourly Emissions Report

April 6, 2022 - Hour 8

3-Hr Rolling Emission Limits

NOx ppm @15% O2 - 94 | SO2 ppm @15% O2 - 27 | CO ppm @15% O2 - 231

NOx lb/hr - 30 | SO2 lb/hr - 12 | CO lb/hr - 13

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
08:00	9.57	45.81	72.37	0.1010	29.22	9.70	15.32	0.0298	8.61	10.00	15.80	0.0134	3.88	Normal
08:01	9.25	51.91	79.76	0.1113	33.75	11.44	17.58	0.0341	10.35	10.00	15.36	0.0130	3.96	Normal
08:02	9.63	45.03	71.52	0.0998	27.79	12.12	19.25	0.0374	10.41	10.00	15.88	0.0135	3.76	Normal
08:03	8.96	54.05	81.03	0.1131	35.28	15.61	23.40	0.0454	14.18	10.00	14.99	0.0127	3.97	Normal
08:04	9.40	50.97	79.34	0.1107	32.37	14.76	22.97	0.0446	13.04	10.00	15.57	0.0132	3.87	Normal
08:05	10.30	49.00	82.75	0.1155	28.82	12.89	21.77	0.0423	10.55	10.00	16.89	0.0143	3.58	Normal
08:06	10.08	41.15	68.08	0.0950	25.15	10.23	16.92	0.0329	8.70	10.00	16.54	0.0141	3.72	Normal
08:07	9.87	43.38	70.40	0.0982	26.37	11.17	18.13	0.0352	9.45	10.00	16.23	0.0138	3.70	Normal
08:08	9.43	42.71	66.65	0.0930	27.14	13.13	20.49	0.0398	11.61	10.00	15.61	0.0133	3.87	Normal
08:09	10.16	43.77	72.95	0.1018	26.32	12.17	20.28	0.0394	10.18	10.00	16.67	0.0142	3.66	Normal
08:10	9.78	44.69	71.94	0.1004	27.61	11.26	18.13	0.0352	9.68	10.00	16.10	0.0137	3.76	Normal
08:11	9.92	44.53	72.59	0.1013	27.02	11.44	18.65	0.0362	9.66	10.00	16.30	0.0138	3.69	Normal
08:12	9.69	41.72	66.62	0.0930	25.93	10.38	16.57	0.0322	8.97	10.00	15.97	0.0136	3.78	Normal
08:13	9.22	48.43	74.22	0.1036	31.16	11.96	18.33	0.0356	10.71	10.00	15.33	0.0130	3.92	Normal
08:14	8.95	51.67	77.40	0.1080	33.31	13.70	20.52	0.0398	12.29	10.00	14.98	0.0127	3.92	Normal
08:15	8.85	57.82	85.89	0.1198	37.75	16.27	24.17	0.0469	14.78	10.00	14.85	0.0126	3.97	Normal
08:16	9.76	42.74	68.68	0.0958	26.13	13.32	21.40	0.0416	11.33	10.00	16.07	0.0136	3.72	Normal
08:17	10.00	33.64	55.24	0.0771	19.70	9.67	15.88	0.0308	7.88	10.00	16.42	0.0139	3.56	Normal
08:18	9.78	38.53	62.02	0.0865	23.61	11.11	17.88	0.0347	9.47	10.00	16.10	0.0137	3.73	Normal
08:19	10.22	35.19	58.98	0.0823	21.10	8.65	14.50	0.0281	7.22	10.00	16.76	0.0142	3.65	Normal
08:20	10.71	27.39	48.11	0.0671	16.16	7.47	13.12	0.0255	6.13	10.00	17.57	0.0149	3.59	Normal
08:21	**Bkfish**	**Bkfish**	**Bkfish**	**Bkfish**	**Bkfish**	**Bkfish**	**Bkfish**	**Bkfish**	**Bkfish**	**Bkfish**	**Bkfish**	**Bkfish**	**Bkfish**	Normal
08:22	9.43	42.00	65.54	0.0915	15.25	7.71	12.03	0.0234	3.90	10.00	15.61	0.0133	2.21	Normal
08:23	9.96	36.08	59.03	0.0824	18.01	7.69	12.58	0.0244	5.34	10.00	16.36	0.0139	3.04	Normal
08:24	9.64	35.74	56.82	0.0793	18.42	8.27	13.15	0.0255	5.93	10.00	15.90	0.0135	3.14	Normal
08:25	9.78	36.10	58.11	0.0811	18.10	9.77	15.73	0.0305	6.81	10.00	16.10	0.0137	3.05	Normal
08:26	9.65	38.71	61.59	0.0859	19.31	10.85	17.26	0.0335	7.53	10.00	15.91	0.0135	3.04	Normal
08:27	9.34	45.87	71.03	0.0991	23.38	13.94	21.59	0.0419	9.88	10.00	15.48	0.0132	3.10	Normal
08:28	9.62	49.26	78.17	0.1091	24.66	12.53	19.88	0.0386	8.73	10.00	15.87	0.0135	3.05	Normal
08:29	10.44	39.77	68.06	0.0950	18.82	9.86	16.87	0.0328	6.49	10.00	17.11	0.0145	2.88	Normal
08:30	10.06	39.66	65.49	0.0914	19.38	10.34	17.07	0.0331	7.03	10.00	16.51	0.0140	2.98	Normal

W002AS-012607-RT-3503

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
08:31	9.92	44.33	72.27	0.1008	21.80	11.75	19.16	0.0372	8.04	10.00	16.30	0.0138	2.99	Normal
08:32	9.30	54.03	83.37	0.1163	27.38	14.78	22.81	0.0443	10.42	10.00	15.43	0.0131	3.08	Normal
08:33	9.19	59.79	91.40	0.1275	31.48	18.47	28.23	0.0548	13.53	10.00	15.29	0.0130	3.20	Normal
08:34	9.96	52.08	85.21	0.1189	29.73	15.77	25.80	0.0501	12.53	10.00	16.36	0.0139	3.48	Normal
08:35	9.88	45.99	74.70	0.1042	27.11	14.26	23.16	0.0450	11.69	10.00	16.24	0.0138	3.59	Normal
08:36	10.18	42.51	70.98	0.0990	24.83	10.98	18.33	0.0356	8.92	10.00	16.70	0.0142	3.56	Normal
08:37	10.38	39.15	66.61	0.0929	22.98	11.25	19.14	0.0372	9.19	10.00	17.02	0.0145	3.57	Normal
08:38	10.60	37.80	65.69	0.0917	22.41	10.77	18.72	0.0363	8.88	10.00	17.38	0.0148	3.61	Normal
08:39	10.70	37.37	65.58	0.0915	22.07	10.07	17.67	0.0343	8.27	10.00	17.55	0.0149	3.59	Normal
08:40	10.44	39.69	67.92	0.0948	24.24	10.55	18.05	0.0350	8.96	10.00	17.11	0.0145	3.72	Normal
08:41	9.93	41.29	67.37	0.0940	25.46	11.39	18.59	0.0361	9.77	10.00	16.32	0.0139	3.75	Normal
08:42	9.46	56.68	88.69	0.1237	36.55	16.72	26.16	0.0508	15.00	10.00	15.65	0.0133	3.92	Normal
08:43	9.49	51.84	81.33	0.1135	32.75	15.78	24.76	0.0481	13.87	10.00	15.69	0.0133	3.85	Normal
08:44	9.83	51.52	83.31	0.1162	31.65	17.38	28.10	0.0546	14.85	10.00	16.17	0.0137	3.74	Normal
08:45	10.62	41.03	71.44	0.0997	23.98	11.73	20.42	0.0397	9.54	10.00	17.41	0.0148	3.56	Normal
08:46	10.25	42.36	71.20	0.0993	25.34	11.11	18.67	0.0363	9.25	10.00	16.81	0.0143	3.64	Normal
08:47	9.37	48.93	75.96	0.1060	30.94	13.33	20.69	0.0402	11.73	10.00	15.52	0.0132	3.85	Normal
08:48	9.88	50.62	82.22	0.1147	30.68	13.75	22.33	0.0434	11.59	10.00	16.24	0.0138	3.69	Normal
08:49	10.10	43.10	71.43	0.0997	25.91	10.40	17.24	0.0335	8.70	10.00	16.57	0.0141	3.66	Normal
08:50	10.35	36.22	61.45	0.0857	21.38	9.40	15.95	0.0310	7.72	10.00	16.97	0.0144	3.59	Normal
08:51	9.91	45.41	73.96	0.1032	27.59	10.48	17.07	0.0331	8.86	10.00	16.29	0.0138	3.70	Normal
08:52	9.95	47.25	77.24	0.1078	28.88	10.80	17.65	0.0343	9.18	10.00	16.35	0.0139	3.72	Normal
08:53	10.13	47.19	78.43	0.1094	28.17	10.47	17.40	0.0338	8.70	10.00	16.62	0.0141	3.63	Normal
08:54	9.94	51.07	83.41	0.1164	31.05	11.25	18.37	0.0357	9.52	10.00	16.33	0.0139	3.70	Normal
08:55	10.32	45.52	77.01	0.1075	27.19	10.52	17.80	0.0346	8.74	10.00	16.92	0.0144	3.64	Normal
08:56	10.44	35.98	61.57	0.0859	21.07	9.54	16.33	0.0317	7.77	10.00	17.11	0.0145	3.56	Normal
08:57	10.15	44.15	73.51	0.1026	26.47	9.42	15.69	0.0305	7.86	10.00	16.65	0.0141	3.65	Normal
08:58	9.88	44.39	72.10	0.1006	27.64	10.75	17.46	0.0339	9.31	10.00	16.24	0.0138	3.79	Normal
08:59	10.36	41.86	71.09	0.0992	24.48	9.03	15.34	0.0298	7.35	10.00	16.98	0.0144	3.56	Normal
Average	9.9	44.3	72.1	0.101		11.7	19.0	0.037		10.0	16.3	0.014		Normal
Total					25.92				9.52				3.55	
3-Hr Rolling			69.2		26.2		16.7		8.8		16.0		3.7	

422 of 635

Colmac Energy

Mecca, CA

Boiler 1 Hourly Emissions Report

April 6, 2022 - Hour 7

3-Hr Rolling Emission Limits

NOx ppm @15% O2 - 94 | SO2 ppm @15% O2 - 27 | CO ppm @15% O2 - 231

NOx lb/hr - 30 | SO2 lb/hr - 12 | CO lb/hr - 13

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
07:00	9.03	42.68	64.36	0.0898	27.88	12.65	19.08	0.0370	11.50	10.00	15.08	0.0128	3.98	Normal
07:01	9.03	44.44	67.02	0.0935	29.06	13.48	20.33	0.0395	12.26	10.00	15.08	0.0128	3.98	Normal
07:02	8.93	45.93	68.68	0.0958	29.88	13.82	20.67	0.0401	12.51	10.00	14.95	0.0127	3.96	Normal
07:03	9.10	46.03	69.83	0.0974	29.81	14.59	22.13	0.0430	13.15	10.00	15.17	0.0129	3.94	Normal
07:04	9.33	37.91	58.65	0.0818	23.97	11.34	17.54	0.0341	9.98	10.00	15.47	0.0131	3.85	Normal
07:05	10.07	34.98	57.82	0.0807	21.27	10.16	16.79	0.0326	8.59	10.00	16.53	0.0140	3.70	Normal
07:06	10.24	28.84	48.43	0.0676	17.39	7.62	12.80	0.0248	6.39	10.00	16.79	0.0143	3.67	Normal
07:07	9.62	33.58	53.29	0.0744	21.11	9.09	14.42	0.0280	7.95	10.00	15.87	0.0135	3.83	Normal
07:08	9.20	42.58	65.14	0.0909	27.95	10.13	15.50	0.0301	9.25	10.00	15.30	0.0130	4.00	Normal
07:09	9.57	34.65	54.74	0.0764	21.46	8.88	14.03	0.0272	7.65	10.00	15.80	0.0134	3.77	Normal
07:10	9.00	47.90	72.05	0.1005	30.73	10.88	16.37	0.0318	9.71	10.00	15.04	0.0128	3.90	Normal
07:11	8.94	45.31	67.81	0.0946	29.04	12.60	18.86	0.0366	11.24	10.00	14.97	0.0127	3.90	Normal
07:12	9.69	35.97	57.44	0.0801	21.94	9.83	15.70	0.0305	8.34	10.00	15.97	0.0136	3.71	Normal
07:13	10.16	26.50	44.17	0.0616	15.88	7.92	13.20	0.0256	6.60	10.00	16.67	0.0142	3.65	Normal
07:14	9.81	28.95	46.73	0.0652	17.53	6.61	10.67	0.0207	5.57	10.00	16.14	0.0137	3.69	Normal
07:15	9.88	30.83	50.08	0.0699	18.90	8.56	13.90	0.0270	7.30	10.00	16.24	0.0138	3.73	Normal
07:16	9.94	33.00	53.90	0.0752	20.17	7.25	11.84	0.0230	6.16	10.00	16.33	0.0139	3.72	Normal
07:17	9.59	40.49	64.08	0.0894	25.56	8.21	12.99	0.0252	7.21	10.00	15.83	0.0134	3.84	Normal
07:18	10.03	35.77	58.90	0.0822	21.84	8.58	14.13	0.0274	7.29	10.00	16.47	0.0140	3.72	Normal
07:19	10.34	32.59	55.24	0.0771	19.73	6.79	11.51	0.0223	5.72	10.00	16.95	0.0144	3.69	Normal
07:20	9.82	36.58	59.10	0.0825	22.78	6.78	10.95	0.0213	5.87	10.00	16.16	0.0137	3.79	Normal
07:21	9.10	50.49	76.59	0.1069	33.11	9.36	14.20	0.0276	8.54	10.00	15.17	0.0129	3.99	Normal
07:22	9.47	45.83	71.77	0.1001	28.74	9.30	14.56	0.0283	8.11	10.00	15.66	0.0133	3.82	Normal
07:23	9.65	45.06	71.70	0.1000	28.32	9.15	14.56	0.0283	8.00	10.00	15.91	0.0135	3.83	Normal
07:24	10.57	32.41	56.16	0.0784	18.93	7.09	12.29	0.0239	5.76	10.00	17.33	0.0147	3.56	Normal
07:25	10.41	30.11	51.38	0.0717	18.16	5.74	9.79	0.0190	4.82	10.00	17.06	0.0145	3.67	Normal
07:26	10.91	25.01	44.81	0.0625	14.70	5.11	9.16	0.0178	4.18	10.00	17.92	0.0152	3.58	Normal
07:27	10.48	26.49	45.51	0.0635	16.06	5.09	8.74	0.0170	4.29	10.00	17.18	0.0146	3.69	Normal
07:28	9.59	45.72	72.36	0.1010	29.64	8.47	13.41	0.0260	7.64	10.00	15.83	0.0134	3.95	Normal
07:29	10.05	44.71	73.76	0.1029	27.78	9.61	15.85	0.0308	8.31	10.00	16.50	0.0140	3.78	Normal
07:30	9.82	44.02	71.12	0.0992	27.70	8.88	14.35	0.0279	7.77	10.00	16.16	0.0137	3.83	Normal

W002AS-012607-RT-3503

424 of 635

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
07:31	9.72	48.30	77.33	0.1079	30.01	9.12	14.60	0.0283	7.88	10.00	16.01	0.0136	3.78	Normal
07:32	8.92	60.09	89.78	0.1253	39.66	13.05	19.50	0.0379	11.98	10.00	14.94	0.0127	4.02	Normal
07:33	9.01	57.31	86.28	0.1204	37.16	13.71	20.64	0.0401	12.37	10.00	15.05	0.0128	3.95	Normal
07:34	10.23	42.53	71.35	0.0996	25.64	10.86	18.22	0.0354	9.11	10.00	16.78	0.0142	3.67	Normal
07:35	11.42	26.34	49.73	0.0694	14.85	7.52	14.20	0.0276	5.90	10.00	18.88	0.0160	3.43	Normal
07:36	11.09	20.96	38.25	0.0534	12.13	6.11	11.15	0.0216	4.92	10.00	18.25	0.0155	3.52	Normal
07:37	10.14	30.71	51.09	0.0713	19.04	6.02	10.01	0.0194	5.19	10.00	16.64	0.0141	3.77	Normal
07:38	10.32	34.44	58.27	0.0813	21.22	6.76	11.44	0.0222	5.80	10.00	16.92	0.0144	3.75	Normal
07:39	10.34	37.72	63.94	0.0892	22.72	6.08	10.31	0.0200	5.10	10.00	16.95	0.0144	3.67	Normal
07:40	9.33	48.86	75.59	0.1055	32.00	9.14	14.14	0.0275	8.33	10.00	15.47	0.0131	3.99	Normal
07:41	9.67	44.83	71.46	0.0997	27.92	9.67	15.41	0.0299	8.38	10.00	15.94	0.0135	3.79	Normal
07:42	9.37	52.80	81.97	0.1144	33.79	10.04	15.59	0.0303	8.94	10.00	15.52	0.0132	3.90	Normal
07:43	9.53	56.61	89.12	0.1244	35.39	11.56	18.20	0.0353	10.05	10.00	15.74	0.0134	3.81	Normal
07:44	9.56	51.62	81.48	0.1137	32.29	10.97	17.32	0.0336	9.55	10.00	15.78	0.0134	3.81	Normal
07:45	9.91	41.77	68.03	0.0949	25.27	9.82	15.99	0.0311	8.27	10.00	16.29	0.0138	3.68	Normal
07:46	8.91	54.30	81.07	0.1131	35.34	12.74	19.02	0.0369	11.54	10.00	14.93	0.0127	3.96	Normal
07:47	9.35	50.86	78.82	0.1100	31.85	12.86	19.93	0.0387	11.21	10.00	15.50	0.0132	3.81	Normal
07:48	9.68	46.46	74.12	0.1034	28.90	11.24	17.93	0.0348	9.73	10.00	15.95	0.0135	3.79	Normal
07:49	10.64	37.75	65.86	0.0919	21.55	9.34	16.29	0.0316	7.42	10.00	17.45	0.0148	3.48	Normal
07:50	9.53	45.91	72.28	0.1008	29.28	11.06	17.41	0.0338	9.81	10.00	15.74	0.0134	3.88	Normal
07:51	10.62	33.49	58.31	0.0814	19.71	8.38	14.59	0.0283	6.86	10.00	17.41	0.0148	3.58	Normal
07:52	10.11	38.73	64.25	0.0896	23.69	8.59	14.25	0.0277	7.31	10.00	16.59	0.0141	3.72	Normal
07:53	10.07	43.58	72.03	0.1005	26.69	10.10	16.69	0.0324	8.61	10.00	16.53	0.0140	3.73	Normal
07:54	10.11	42.56	70.60	0.0985	26.34	8.93	14.81	0.0288	7.69	10.00	16.59	0.0141	3.77	Normal
07:55	10.19	36.50	61.00	0.0851	22.22	8.19	13.69	0.0266	6.94	10.00	16.71	0.0142	3.70	Normal
07:56	10.15	40.39	67.25	0.0938	24.88	8.34	13.89	0.0270	7.15	10.00	16.65	0.0141	3.75	Normal
07:57	10.55	35.89	62.07	0.0866	21.56	8.54	14.77	0.0287	7.14	10.00	17.29	0.0147	3.66	Normal
07:58	10.56	37.25	64.49	0.0900	22.62	7.53	13.04	0.0253	6.36	10.00	17.31	0.0147	3.70	Normal
07:59	10.27	37.67	63.43	0.0885	23.00	6.85	11.53	0.0224	5.82	10.00	16.84	0.0143	3.72	Normal
Average	9.8	40.2	64.8	0.090		9.3	15.0	0.029		10.0	16.1	0.014		Normal
Total					24.92				8.01				3.78	
3-Hr Rolling			69.2		26.1		17.3		9.0		15.8		3.7	

Colmac Energy

Mecca, CA

Boiler 1 Hourly Emissions Report

April 6, 2022 - Hour 6

3-Hr Rolling Emission Limits

NOx ppm @15% O2 - 94 | SO2 ppm @15% O2 - 27 | CO ppm @15% O2 - 231

NOx lb/hr - 30 | SO2 lb/hr - 12 | CO lb/hr - 13

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
06:00	8.75	54.83	80.78	0.1127	29.77	9.13	13.45	0.0261	6.90	10.00	14.73	0.0125	3.31	Normal
06:01	8.76	62.39	91.99	0.1284	33.56	12.81	18.89	0.0367	9.59	10.00	14.74	0.0125	3.27	Normal
06:02	8.47	63.89	92.01	0.1284	35.00	14.42	20.77	0.0403	10.99	10.00	14.40	0.0122	3.33	Normal
06:03	8.67	64.27	94.07	0.1312	34.38	14.58	21.34	0.0414	10.85	10.00	14.64	0.0124	3.26	Normal
06:04	9.00	58.79	88.43	0.1234	30.83	13.12	19.74	0.0383	9.57	10.00	15.04	0.0128	3.19	Normal
06:05	9.71	44.99	71.97	0.1004	22.03	9.34	14.94	0.0290	6.36	10.00	16.00	0.0136	2.98	Normal
06:06	8.92	55.13	82.37	0.1149	28.78	11.83	17.68	0.0343	8.59	10.00	14.94	0.0127	3.18	Normal
06:07	8.68	57.56	84.31	0.1176	30.82	12.22	17.90	0.0348	9.10	10.00	14.65	0.0124	3.26	Normal
06:08	8.86	57.45	85.41	0.1192	30.69	12.14	18.05	0.0350	9.02	10.00	14.87	0.0126	3.25	Normal
06:09	10.12	37.27	61.89	0.0863	18.40	9.09	15.09	0.0293	6.24	10.00	16.60	0.0141	3.01	Normal
06:10	10.78	26.08	46.13	0.0644	12.28	5.53	9.78	0.0190	3.62	10.00	17.69	0.0150	2.87	Normal
06:11	10.39	33.88	57.70	0.0805	17.02	6.22	10.59	0.0206	4.35	10.00	17.03	0.0145	3.06	Normal
06:12	10.49	38.50	66.20	0.0924	19.46	5.93	10.20	0.0198	4.17	10.00	17.20	0.0146	3.08	Normal
06:13	10.26	38.10	64.10	0.0894	19.77	5.49	9.24	0.0179	3.96	10.00	16.82	0.0143	3.16	Normal
06:14	9.44	44.74	69.88	0.0975	27.89	6.79	10.61	0.0206	5.89	10.00	15.62	0.0133	3.79	Normal
06:15	8.95	54.52	81.67	0.1139	36.03	10.17	15.23	0.0296	9.35	10.00	14.98	0.0127	4.02	Normal
06:16	9.69	47.45	75.77	0.1057	29.98	7.67	12.25	0.0238	6.74	10.00	15.97	0.0136	3.85	Normal
06:17	9.80	47.65	76.84	0.1072	29.67	7.90	12.74	0.0247	6.84	10.00	16.13	0.0137	3.79	Normal
06:18	9.51	48.01	75.45	0.1053	30.65	7.22	11.35	0.0220	6.41	10.00	15.72	0.0133	3.89	Normal
06:19	8.94	53.90	80.67	0.1126	36.24	8.95	13.40	0.0260	8.37	10.00	14.97	0.0127	4.09	Normal
06:20	9.30	51.93	80.13	0.1118	33.38	10.04	15.49	0.0301	8.98	10.00	15.43	0.0131	3.91	Normal
06:21	9.13	56.88	86.50	0.1207	37.85	11.65	17.72	0.0344	10.79	10.00	15.21	0.0129	4.05	Normal
06:22	9.59	43.67	69.12	0.0964	27.58	9.13	14.45	0.0281	8.02	10.00	15.83	0.0134	3.84	Normal
06:23	9.00	53.12	79.90	0.1115	35.39	9.97	15.00	0.0291	9.24	10.00	15.04	0.0128	4.06	Normal
06:24	9.33	45.99	71.15	0.0993	30.23	10.85	16.79	0.0326	9.92	10.00	15.47	0.0131	4.00	Normal
06:25	10.10	36.33	60.21	0.0840	22.29	7.49	12.41	0.0241	6.39	10.00	16.57	0.0141	3.74	Normal
06:26	9.33	44.15	68.30	0.0953	28.80	9.04	13.99	0.0272	8.20	10.00	15.47	0.0131	3.97	Normal
06:27	9.37	47.93	74.41	0.1038	31.11	9.44	14.66	0.0285	8.53	10.00	15.52	0.0132	3.95	Normal
06:28	9.97	36.17	59.24	0.0826	23.07	7.65	12.53	0.0243	6.79	10.00	16.38	0.0139	3.88	Normal
06:29	10.97	25.12	45.28	0.0632	14.84	5.53	9.97	0.0194	4.55	10.00	18.03	0.0153	3.60	Normal
06:30	9.68	44.89	71.62	0.0999	29.11	8.58	13.69	0.0266	7.74	10.00	15.95	0.0135	3.95	Normal

W002AS-012607-RT-3503

426 of 635

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
06:31	9.23	49.74	76.29	0.1065	33.10	9.52	14.60	0.0283	8.81	10.00	15.34	0.0130	4.05	Normal
06:32	9.38	46.13	71.68	0.1000	30.36	8.28	12.87	0.0250	7.58	10.00	15.54	0.0132	4.01	Normal
06:33	9.59	41.34	65.43	0.0913	26.77	7.93	12.55	0.0244	7.14	10.00	15.83	0.0134	3.94	Normal
06:34	9.98	34.65	56.80	0.0792	21.82	7.63	12.51	0.0243	6.69	10.00	16.39	0.0139	3.83	Normal
06:35	10.11	37.12	61.58	0.0859	23.24	7.44	12.34	0.0240	6.48	10.00	16.59	0.0141	3.81	Normal
06:36	9.38	46.08	71.60	0.0999	30.02	9.70	15.07	0.0293	8.79	10.00	15.54	0.0132	3.97	Normal
06:37	8.94	56.72	84.89	0.1184	38.71	12.48	18.68	0.0363	11.85	10.00	14.97	0.0127	4.15	Normal
06:38	9.53	43.49	68.47	0.0955	28.11	11.77	18.53	0.0360	10.58	10.00	15.74	0.0134	3.93	Normal
06:39	9.38	45.87	71.27	0.0994	29.86	11.92	18.52	0.0360	10.79	10.00	15.54	0.0132	3.96	Normal
06:40	9.40	45.84	71.35	0.0996	30.03	12.43	19.35	0.0376	11.33	10.00	15.57	0.0132	3.99	Normal
06:41	9.63	42.65	67.74	0.0945	27.10	12.53	19.90	0.0386	11.08	10.00	15.88	0.0135	3.87	Normal
06:42	9.43	44.49	69.43	0.0969	28.99	12.05	18.81	0.0365	10.92	10.00	15.61	0.0133	3.97	Normal
06:43	9.54	40.21	63.36	0.0884	25.62	12.42	19.57	0.0380	11.01	10.00	15.76	0.0134	3.88	Normal
06:44	9.62	41.18	65.35	0.0912	26.56	11.34	18.00	0.0349	10.18	10.00	15.87	0.0135	3.93	Normal
06:45	9.39	44.27	68.85	0.0961	28.50	11.47	17.84	0.0346	10.27	10.00	15.55	0.0132	3.92	Normal
06:46	8.87	49.79	74.08	0.1034	33.22	15.73	23.41	0.0454	14.60	10.00	14.88	0.0126	4.06	Normal
06:47	8.94	53.19	79.61	0.1111	36.05	15.72	23.53	0.0457	14.82	10.00	14.97	0.0127	4.13	Normal
06:48	9.17	43.67	66.64	0.0930	28.22	12.70	19.38	0.0376	11.42	10.00	15.26	0.0130	3.93	Normal
06:49	9.08	45.37	68.71	0.0959	29.41	13.87	21.00	0.0408	12.51	10.00	15.14	0.0129	3.95	Normal
06:50	8.88	51.87	77.24	0.1078	34.20	13.40	19.96	0.0387	12.29	10.00	14.89	0.0126	4.01	Normal
06:51	8.64	48.24	70.43	0.0983	32.41	13.46	19.65	0.0382	12.58	10.00	14.60	0.0124	4.09	Normal
06:52	9.32	41.79	64.60	0.0901	26.55	13.06	20.19	0.0392	11.54	10.00	15.46	0.0131	3.87	Normal
06:53	9.87	27.54	44.69	0.0624	16.95	9.59	15.56	0.0302	8.21	10.00	16.23	0.0138	3.75	Normal
06:54	9.33	34.49	53.36	0.0745	22.24	10.34	16.00	0.0311	9.27	10.00	15.47	0.0131	3.92	Normal
06:55	8.83	43.25	64.14	0.0895	28.50	13.28	19.69	0.0382	12.18	10.00	14.83	0.0126	4.01	Normal
06:56	9.09	44.90	68.05	0.0950	29.58	14.11	21.39	0.0415	12.94	10.00	15.16	0.0129	4.01	Normal
06:57	9.71	34.05	54.47	0.0760	21.00	9.93	15.88	0.0308	8.52	10.00	16.00	0.0136	3.75	Normal
06:58	9.26	36.89	56.73	0.0792	23.83	10.71	16.47	0.0320	9.63	10.00	15.38	0.0131	3.93	Normal
06:59	9.26	36.31	55.84	0.0779	23.31	11.37	17.48	0.0339	10.16	10.00	15.38	0.0131	3.91	Normal
Average	9.4	45.5	70.8	0.099		10.4	16.2	0.031		10.0	15.6	0.013		Normal
Total					27.89				8.98				3.75	
3-Hr Rolling			68.6		26.8		16.0		8.6		15.7		3.7	

Appendix B.1.2.2
April 7, 2022 Data

3:00 PM

CEM 15 MINUTE REPORT

TAG	DESCRIPTION	VALUE	E/U
HIC-1704	#NULL!	#NULL!	LBS/HR
FIC-1753	BLR1 NOX LBS/HR CONTROL	28.008	LBS/HR
FIC-2753	BLR2 NOX LBS/HR CONTROL	27.592	LBS/HR
SI-1345	#1 LIMESTONE FEED RATE	2905.608	LBS/HR
PI-93	700# HEADER STM INLET PRESS "A"	125.094	PSI
FI-1040	BLR1 OUTLET STEAM LBS/HR	186.729	LBS/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	184.212	LBS/HR
EX-MW	GENERATOR MW GROSS	43.864	MEGWAT
FQI2-6105	B2 DAILY TOTAL FLOW	642.000	TONS
FQI2-6120	B3 DAILY TOTAL FLOW	522.000	TONS
SI-2345	fpget("SI-2345.C_DESC")	766.442	LBS/HR

2:00 PM

CEM 15 MINUTE REPORT

TAG	DESCRIPTION	VALUE	E/U
HIC-1704	#NULL!	#NULL!	LBS/HR
FIC-1753	BLR1 NOX LBS/HR CONTROL	26.560	LBS/HR
FIC-2753	BLR2 NOX LBS/HR CONTROL	28.067	LBS/HR
SI-1345	#1 LIMESTONE FEED RATE	1110.138	LBS/HR
PI-93	700# HEADER STM INLET PRESS "A"	123.964	PSI
FI-1040	BLR1 OUTLET STEAM LBS/HR	176.181	LBS/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	188.524	LBS/HR
EX-MW	GENERATOR MW GROSS	43.393	MEGWAT
FQI2-6105	B2 DAILY TOTAL FLOW	601.000	TONS
FQI2-6120	B3 DAILY TOTAL FLOW	463.000	TONS
SI-2345	fpget("SI-2345.C_DESC")	1042.761	LBS/HR

1:00 PM

CEM 15 MINUTE REPORT

TAG	DESCRIPTION	VALUE	E/U
HIC-1704	#NULL!	#NULL!	LBS/HR
FIC-1753	BLR1 NOX LBS/HR CONTROL	23.978	LBS/HR
FIC-2753	BLR2 NOX LBS/HR CONTROL	25.935	LBS/HR
SI-1345	#1 LIMESTONE FEED RATE	1523.535	LBS/HR
PI-93	700# HEADER STM INLET PRESS "A"	125.879	PSI
FI-1040	BLR1 OUTLET STEAM LBS/HR	168.485	LBS/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	189.892	LBS/HR
EX-MW	GENERATOR MW GROSS	43.165	MEGWAT
FQI2-6105	B2 DAILY TOTAL FLOW	562.000	TONS
FQI2-6120	B3 DAILY TOTAL FLOW	408.000	TONS
SI-2345	fpget("SI-2345.C_DESC")	1215.304	LBS/HR

12:00 PM

CEM 15 MINUTE REPORT

TAG	DESCRIPTION	VALUE	E/U
HIC-1704	#NULL!	#NULL!	LBS/HR
FIC-1753	BLR1 NOX LBS/HR CONTROL	27.930	LBS/HR
FIC-2753	BLR2 NOX LBS/HR CONTROL	30.349	LBS/HR
SI-1345	#1 LIMESTONE FEED RATE	1798.498	LBS/HR
PI-93	700# HEADER STM INLET PRESS "A"	123.964	PSI
FI-1040	BLR1 OUTLET STEAM LBS/HR	177.482	LBS/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	191.677	LBS/HR
EX-MW	GENERATOR MW GROSS	44.271	MEGWAT
FQI2-6105	B2 DAILY TOTAL FLOW	515.000	TONS
FQI2-6120	B3 DAILY TOTAL FLOW	347.000	TONS
SI-2345	fpget("SI-2345.C_DESC")	1157.789	LBS/HR

11:00 AM

CEM 15 MINUTE REPORT

TAG	DESCRIPTION	VALUE	E/U
HIC-1704	#NULL!	#NULL!	LBS/HR
FIC-1753	BLR1 NOX LBS/HR CONTROL	24.698	LBS/HR
FIC-2753	BLR2 NOX LBS/HR CONTROL	27.169	LBS/HR
SI-1345	#1 LIMESTONE FEED RATE	958.938	LBS/HR
PI-93	700# HEADER STM INLET PRESS "A"	125.126	PSI
FI-1040	BLR1 OUTLET STEAM LBS/HR	180.791	LBS/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	196.729	LBS/HR
EX-MW	GENERATOR MW GROSS	44.612	MEGWAT
FQI2-6105	B2 DAILY TOTAL FLOW	471.000	TONS
FQI2-6120	B3 DAILY TOTAL FLOW	286.000	TONS
SI-2345	fpget("SI-2345.C_DESC")	1855.464	LBS/HR

10:00 AM

CEM 15 MINUTE REPORT

TAG	DESCRIPTION	VALUE	E/U
HIC-1704	#NULL!	#NULL!	LBS/HR
FIC-1753	BLR1 NOX LBS/HR CONTROL	25.985	LBS/HR
FIC-2753	BLR2 NOX LBS/HR CONTROL	22.359	LBS/HR
SI-1345	#1 LIMESTONE FEED RATE	2781.673	LBS/HR
PI-93	700# HEADER STM INLET PRESS "A"	125.094	PSI
FI-1040	BLR1 OUTLET STEAM LBS/HR	186.779	LBS/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	187.547	LBS/HR
EX-MW	GENERATOR MW GROSS	44.152	MEGWAT
FQI2-6105	B2 DAILY TOTAL FLOW	430.000	TONS
FQI2-6120	B3 DAILY TOTAL FLOW	231.000	TONS
SI-2345	fpget("SI-2345.C_DESC")	2001.750	LBS/HR

9:00 AM

CEM 15 MINUTE REPORT

TAG	DESCRIPTION	VALUE	E/U
HIC-1704	#NULL!	#NULL!	LBS/HR
FIC-1753	BLR1 NOX LBS/HR CONTROL	24.561	LBS/HR
FIC-2753	BLR2 NOX LBS/HR CONTROL	24.602	LBS/HR
SI-1345	#1 LIMESTONE FEED RATE	2833.000	LBS/HR
PI-93	700# HEADER STM INLET PRESS "A"	125.503	PSI
FI-1040	BLR1 OUTLET STEAM LBS/HR	178.700	LBS/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	189.458	LBS/HR
EX-MW	GENERATOR MW GROSS	43.566	MEGWAT
FQI2-6105	B2 DAILY TOTAL FLOW	383.000	TONS
FQI2-6120	B3 DAILY TOTAL FLOW	177.000	TONS
SI-2345	fpget("SI-2345.C_DESC")	1263.131	LBS/HR

8:00 AM

CEM 15 MINUTE REPORT

TAG	DESCRIPTION	VALUE	E/U
HIC-1704	#NULL!	#NULL!	LBS/HR
FIC-1753	BLR1 NOX LBS/HR CONTROL	26.313	LBS/HR
FIC-2753	BLR2 NOX LBS/HR CONTROL	24.051	LBS/HR
SI-1345	#1 LIMESTONE FEED RATE	2595.143	LBS/HR
PI-93	700# HEADER STM INLET PRESS "A"	124.372	PSI
FI-1040	BLR1 OUTLET STEAM LBS/HR	175.247	LBS/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	187.519	LBS/HR
EX-MW	GENERATOR MW GROSS	43.420	MEGWAT
FQI2-6105	B2 DAILY TOTAL FLOW	340.000	TONS
FQI2-6120	B3 DAILY TOTAL FLOW	141.000	TONS
SI-2345	fpget("SI-2345.C_DESC")	1068.034	LBS/HR

7:00 AM

CEM 15 MINUTE REPORT

TAG	DESCRIPTION	VALUE	E/U
HIC-1704	#NULL!	#NULL!	LBS/HR
FIC-1753	BLR1 NOX LBS/HR CONTROL	26.826	LBS/HR
FIC-2753	BLR2 NOX LBS/HR CONTROL	38.683	LBS/HR
SI-1345	#1 LIMESTONE FEED RATE	1697.546	LBS/HR
PI-93	700# HEADER STM INLET PRESS "A"	123.618	PSI
FI-1040	BLR1 OUTLET STEAM LBS/HR	176.321	LBS/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	191.992	LBS/HR
EX-MW	GENERATOR MW GROSS	43.328	MEGWAT
FQI2-6105	B2 DAILY TOTAL FLOW	300.000	TONS
FQI2-6120	B3 DAILY TOTAL FLOW	128.000	TONS
SI-2345	fpget("SI-2345.C_DESC")	1407.852	LBS/HR

6:00 AM

CEM 15 MINUTE REPORT

TAG	DESCRIPTION	VALUE	E/U
HIC-1704	#NULL!	#NULL!	LBS/HR
FIC-1753	BLR1 NOX LBS/HR CONTROL	23.561	LBS/HR
FIC-2753	BLR2 NOX LBS/HR CONTROL	26.164	LBS/HR
SI-1345	#1 LIMESTONE FEED RATE	1661.242	LBS/HR
PI-93	700# HEADER STM INLET PRESS "A"	125.848	PSI
FI-1040	BLR1 OUTLET STEAM LBS/HR	169.927	LBS/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	198.178	LBS/HR
EX-MW	GENERATOR MW GROSS	43.843	MEGWAT
FQI2-6105	B2 DAILY TOTAL FLOW	257.000	TONS
FQI2-6120	B3 DAILY TOTAL FLOW	110.000	TONS
SI-2345	fpget("SI-2345.C_DESC")	591.398	LBS/HR

5:00 AM

CEM 15 MINUTE REPORT

TAG	DESCRIPTION	VALUE	E/U
HIC-1704	#NULL!	#NULL!	LBS/HR
FIC-1753	BLR1 NOX LBS/HR CONTROL	17.760	LBS/HR
FIC-2753	BLR2 NOX LBS/HR CONTROL	30.560	LBS/HR
SI-1345	#1 LIMESTONE FEED RATE	608.413	LBS/HR
PI-93	700# HEADER STM INLET PRESS "A"	125.471	PSI
FI-1040	BLR1 OUTLET STEAM LBS/HR	164.889	LBS/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	192.541	LBS/HR
EX-MW	GENERATOR MW GROSS	42.174	MEGWAT
FQI2-6105	B2 DAILY TOTAL FLOW	218.000	TONS
FQI2-6120	B3 DAILY TOTAL FLOW	94.000	TONS
SI-2345	fpget("SI-2345.C_DESC")	728.932	LBS/HR

4:00 AM

CEM 15 MINUTE REPORT

TAG	DESCRIPTION	VALUE	E/U
HIC-1704	#NULL!	#NULL!	LBS/HR
FIC-1753	BLR1 NOX LBS/HR CONTROL	22.796	LBS/HR
FIC-2753	BLR2 NOX LBS/HR CONTROL	29.561	LBS/HR
SI-1345	#1 LIMESTONE FEED RATE	630.946	LBS/HR
PI-93	700# HEADER STM INLET PRESS "A"	125.503	PSI
FI-1040	BLR1 OUTLET STEAM LBS/HR	176.068	LBS/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	193.029	LBS/HR
EX-MW	GENERATOR MW GROSS	44.043	MEGWAT
FQI2-6105	B2 DAILY TOTAL FLOW	174.000	TONS
FQI2-6120	B3 DAILY TOTAL FLOW	76.000	TONS
SI-2345	fpget("SI-2345.C_DESC")	436.359	LBS/HR

3:00 AM

CEM 15 MINUTE REPORT

TAG	DESCRIPTION	VALUE	E/U
HIC-1704	#NULL!	#NULL!	LBS/HR
FIC-1753	BLR1 NOX LBS/HR CONTROL	23.366	LBS/HR
FIC-2753	BLR2 NOX LBS/HR CONTROL	29.614	LBS/HR
SI-1345	#1 LIMESTONE FEED RATE	1673.761	LBS/HR
PI-93	700# HEADER STM INLET PRESS "A"	123.964	PSI
FI-1040	BLR1 OUTLET STEAM LBS/HR	185.238	LBS/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	198.001	LBS/HR
EX-MW	GENERATOR MW GROSS	45.832	MEGWAT
FQI2-6105	B2 DAILY TOTAL FLOW	135.000	TONS
FQI2-6120	B3 DAILY TOTAL FLOW	60.000	TONS
SI-2345	fpget("SI-2345.C_DESC")	862.932	LBS/HR

Operator Window #1: Graphic 910 (Recall 1 of 10)

Window | Select | Redraw | Zoom | ?

BOILER #1 FUEL FEED

910

AREA | AREAS

AIR / FUEL RATIO C

PERCENT PET COKE C

P.C. MMBTU LIMIT C

PERCENT WOOD C

GAS MMBTU LIMIT C

MMBTU'S

TOTAL O2 CORRECTED BIOMASS MINIMUM REQUIRED

BIOMASS GAS BTU FACTOR C

FIC-1250A

BLR1 WOOD MASTER

N 1 AUTO LOCAL

1000 588 0

SP

OUT 60 %

A C M

FIC-1206

BLR1 PET COKE

L 1 MANUAL LOCAL

340.0 0.0 0.0

SP

OUT 0.0 % SPTR

A M

FIC-1207A

BLR1 GAS LANCE

N 1 MANUAL LOCAL

132 0 0

SP

OUT 10 % SPTR

A C M

PERCENT TO A SIDE C

A

MMBTU LIMIT C

PERCENT TO ABC C

MMBTU LIMIT

ABC C C DEF

138

ABC C C DEF

B

MMBTU LIMIT C

PERCENT TO GHI C

MMBTU LIMIT

GHI C C JKL

GHI C C JK

4-7-22 1400

M002-012607-RT-3503

441 of 635

Operator Window #1: Graphic 910 (Recall 1 of 10)

Window | Select | Redraw | Zoom | ?

BOILER #1 FUEL FEED

910

AREA | AREA9

AIR / FUEL RATIO C

PERCENT PET COKE 0 % C

P.C. MMBTU LIMIT C

PERCENT WOOD 100 % C

GAS MMBTU LIMIT C

MMBTU'S

TOTAL
O2 CORRECTED
BIOMASS
MINIMUM REQUIRED
BIOMASS
GAS
BTU FACTOR C

FIC-1250A

BLR1 WOOD MASTER

AUTO | N 1 LOCAL

1000 — 550 SP

OUT 57 % A C M

PERCENT TO A SIDE C

MMBTU LIMIT C

PERCENT TO ABC C

MMBTU LIMIT

A

ABC C | C DEF

ABC C | C DEF

MMBTU LIMIT C

PERCENT TO GHI C

MMBTU LIMIT

B

GHI C | C JKL

GHI C | C JKL

FIC-1206

BLR1 PET COKE

MANUAL | L 1 LOCAL

340.0 — 0.0 — 0.0 SP

OUT 0.0 % SPTR A M

FIC-1207A

BLR1 GAS LANCE

MANUAL | N 1 LOCAL

132 — 0 — 0 SP

OUT 10 % SPTR A C M

B002-012607-RT-3503

442 of 635

1300 4/7/2022

Operator Window #1: Graphic 910 (Recall 1 of 10)

Window | Select | Redraw | Zoom | ?

2002-012607-RT-3503

BOILER #1 FUEL FEED

910

AREA AREA9

AIR / FUEL RATIO C

PERCENT PET COKE C

P.C. MMBTU LIMIT C

PERCENT WOOD % C

GAS MMBTU LIMIT 130 C

MMBTU'S

TOTAL

O2 CORRECTED

BIOMASS

MINIMUM REQUIRED

BIOMASS

GAS

BTU FACTOR C

FIC-1250A

BLR1 WOOD MASTER

N 1 AUTO LOCAL

1000 527 SP 0

OUT 55 % A C M

FIC-1206

BLR1 PET COKE

L 1 MANUAL LOCAL

340.0 0.0 SP 0.0

OUT 0.0 % SPTR A M

FIC-1207A

BLR1 GAS LANCE

N 1 MANUAL LOCAL

132 0 SP 0

OUT 10 % SPTR A C M

PERCENT TO A SIDE C

MMBTU LIMIT C

A

PERCENT TO ABC C

MMBTU LIMIT

ABC C C DEF

ABC C C DEF

MMBTU LIMIT C

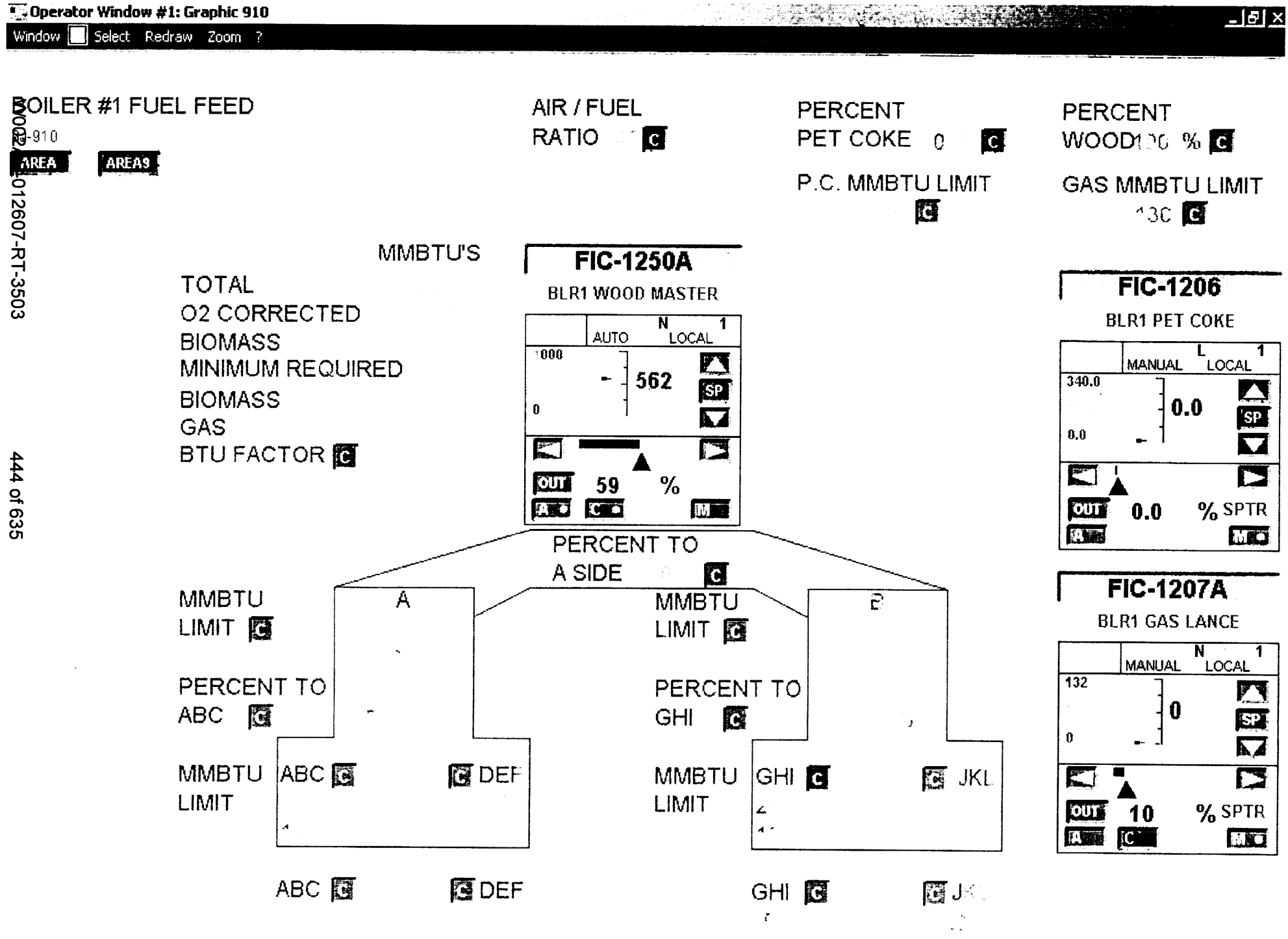
B

PERCENT TO GHI C

MMBTU LIMIT

GHI C C JKL

GHI C C JKL


Operator Window #1: Graphic 910
Window Select Redraw Zoom ?
BOILER #1 FUEL FEED
-910
AREA
AREA9
AIR / FUEL
RATIO
PERCENT
PET COKE 0
P.C. MMBTU LIMIT
PERCENT
WOOD 100 %
GAS MMBTU LIMIT
130
MMBTU'S
TOTAL
O2 CORRECTED
BIOMASS
MINIMUM REQUIRED
BIOMASS
GAS
BTU FACTOR
FIC-1250A
BLR1 WOOD MASTER
AUTO
N
LOCAL
1
1000
562
0
SP
OUT
59
%
A
C
M
FIC-1206
BLR1 PET COKE
MANUAL
L
LOCAL
1
340.0
0.0
0.0
SP
OUT
0.0
% SPTR
A
M
FIC-1207A
BLR1 GAS LANCE
MANUAL
N
LOCAL
1
132
0
0
SP
OUT
10
% SPTR
A
C
M
PERCENT TO
A SIDE
MMBTU
LIMIT
A
PERCENT TO
ABC
MMBTU
LIMIT
ABC
DEF
ABC
DEF
MMBTU
LIMIT
PERCENT TO
GHI
MMBTU
LIMIT
GHI
JKL
GHI
JKL

4.7.2022 1100

Operator Window #1: Graphic 910

Window | Select | Redraw | Zoom | ?

BOILER #1 FUEL FEED

0002-910

AREA | AREA9

AIR / FUEL RATIO C

PERCENT PET COKE 0 % C

PERCENT WOOD 100 % C

P.C. MMBTU LIMIT C

GAS MMBTU LIMIT 130 C

MMBTU'S

TOTAL O2 CORRECTED BIOMASS MINIMUM REQUIRED

BIOMASS GAS BTU FACTOR C

FIC-1250A

BLR1 WOOD MASTER

N 1 AUTO LOCAL

1000 — 545 — 0

SP

OUT 56 % M

A C

PERCENT TO A SIDE C

FIC-1206

BLR1 PET COKE

L 1 MANUAL LOCAL

340.0 — 0.0 — 0.0

SP

OUT 0.0 % SPTR M

A

FIC-1207A

BLR1 GAS LANCE

N 1 MANUAL LOCAL

132 — 0 — 0

SP

OUT 10 % SPTR M

A C

MMBTU LIMIT C

A

PERCENT TO ABC C

50.0 %

MMBTU LIMIT

ABC C C DEF

250

ABC C C DEF

MMBTU LIMIT C

B

25

PERCENT TO GHI C

MMBTU LIMIT

GHI C C JKL

GHI C C JKL

445 of 635

Operator Window #1: Graphic 910 (Recall 9 of 10)

Window | Select | Redraw | Zoom | ?

BOILER #1 FUEL FEED

3002-910

AREA | AREA9

AIR / FUEL RATIO C

PERCENT PET COKE 0 % C

P.C. MMBTU LIMIT C

PERCENT WOOD1 C

GAS MMBTU LIMIT C

MMBTU'S

TOTAL

O2 CORRECTED

BIOMASS

MINIMUM REQUIRED

BIOMASS

GAS

BTU FACTOR C

FIC-1250A

BLR1 WOOD MASTER

N 1 AUTO LOCAL

1000 623 SP

OUT 65 %

A C M

PERCENT TO A SIDE C

MMBTU LIMIT C

A

PERCENT TO ABC C

MMBTU LIMIT ABC C C DEF

ABC C C DEF

MMBTU LIMIT C

B

PERCENT TO GHI C

MMBTU LIMIT GHI C C JKL

GH C C JKL

FIC-1206

BLR1 PET COKE

L 1 MANUAL LOCAL

340.0 0.0 SP

0.0

OUT 0.0 % SPTR

A M

FIC-1207A

BLR1 GAS LANCE

N 1 MANUAL LOCAL

132 0 SP

0

OUT 10 % SPTR

A C M

4/7/22 0900

3002-012607-RT-3503

Window | Select | Redraw | Zoom | ?

012607-RT-3503

BOILER #1 FUEL FEED

G-910

AREA | AREA9

AIR / FUEL RATIO C

PERCENT PET COKE 0 % C

P.C. MMBTU LIMIT C

PERCENT WOOD 100 % C

GAS MMBTU LIMIT C

MMBTU'S

TOTAL

O2 CORRECTED

BIOMASS

MINIMUM REQUIRED

BIOMASS

GAS

BTU FACTOR C

FIC-1250A

BLR1 WOOD MASTER

AUTO | N 1 LOCAL

1000 — 584 — SP — 0

OUT 61 % A C M

FIC-1206

BLR1 PET COKE

MANUAL | L 1 LOCAL

340.0 — 0.0 — SP — 0.0

OUT 0.0 % SPTR A M

FIC-1207A

BLR1 GAS LANCE

MANUAL | N 1 LOCAL

132 — 0 — SP — 0

OUT 10 % SPTR A C M

PERCENT TO A SIDE C

MMBTU LIMIT C

A

PERCENT TO ABC C

MMBTU LIMIT — ABC C — C DEF

13

ABC C — C DEF

MMBTU LIMIT C

B

PERCENT TO GHI C

MMBTU LIMIT — GHI C — C JKL

GHI C — C JKL

Operator Window #1: Graphic 910

Window | Select | Redraw | Zoom | ?

BOILER #1 FUEL FEED

910

AREA | AREA9

AIR / FUEL RATIO C

PERCENT PET COKE 0 % C

P.C. MMBTU LIMIT C

PERCENT WOOD 9 C

GAS MMBTU LIMIT C

MMBTU'S

TOTAL

O2 CORRECTED

BIOMASS

MINIMUM REQUIRED

BIOMASS

GAS

BTU FACTOR C

FIC-1250A

BLR1 WOOD MASTER

N 1 AUTO LOCAL

1000 — 497 — 0

SP

OUT 51 %

A C M

FIC-1206

BLR1 PET COKE

L 1 MANUAL LOCAL

340.0 — 0.0 — 0.0

SP

OUT 0.0 % SPTR

A M

PERCENT TO A SIDE C

MMBTU LIMIT C

A

PERCENT TO ABC C

MMBTU LIMIT ABC C 25 118 C DEF

ABC C C DEF

MMBTU LIMIT C

B

PERCENT TO GHI C

MMBTU LIMIT GHI C C JKL

GHI C C JKL

FIC-1207A

BLR1 GAS LANCE

N 1 MANUAL LOCAL

132 — 0 — 0

SP

OUT 10 % SPTR

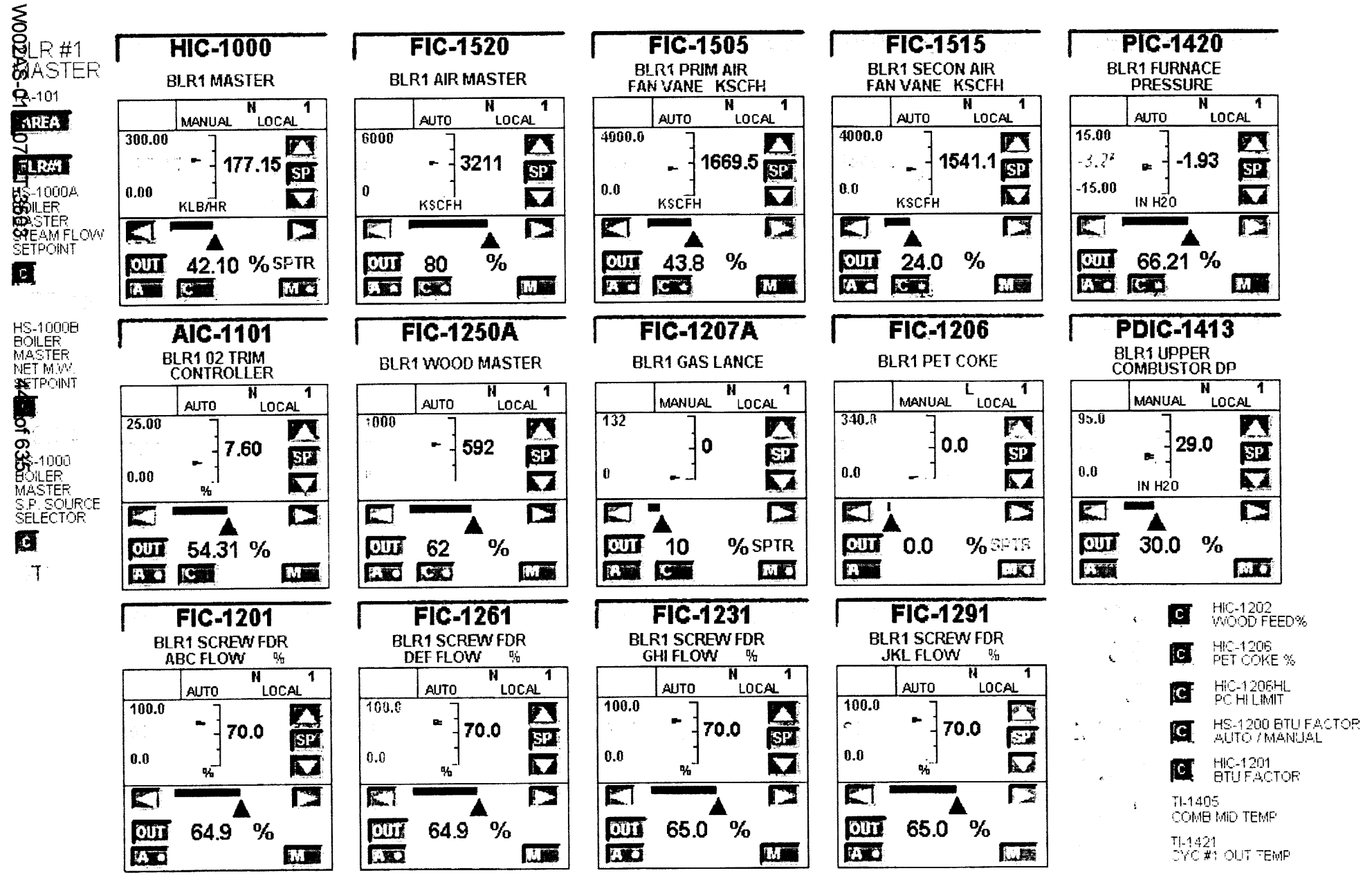
A C M

0700 4-7 22

002-012607-RT-3503

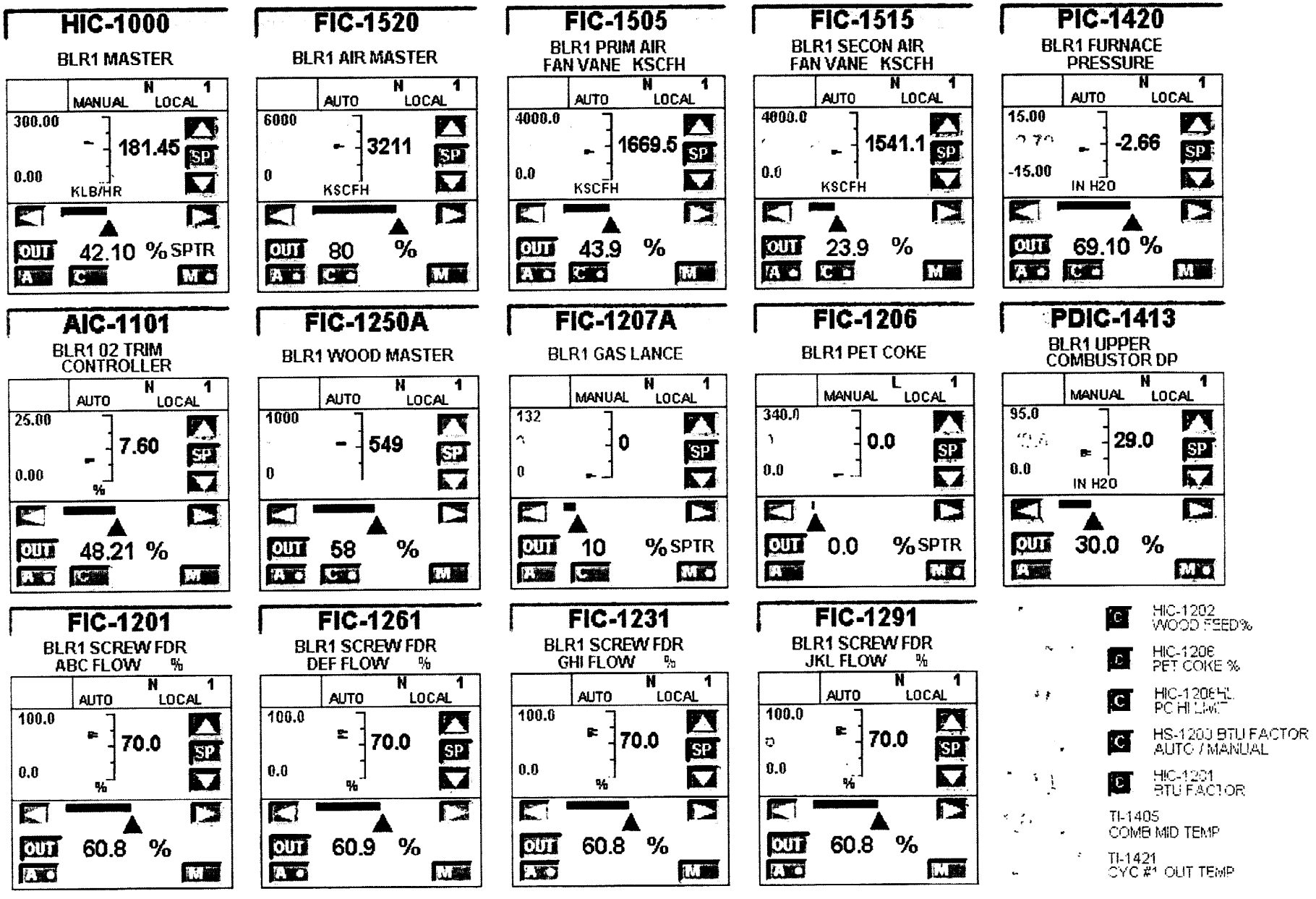
Operator Window #1: Graphic 101

Window | Select | Redraw | Zoom | ?



Operator Window #1: Graphic 101

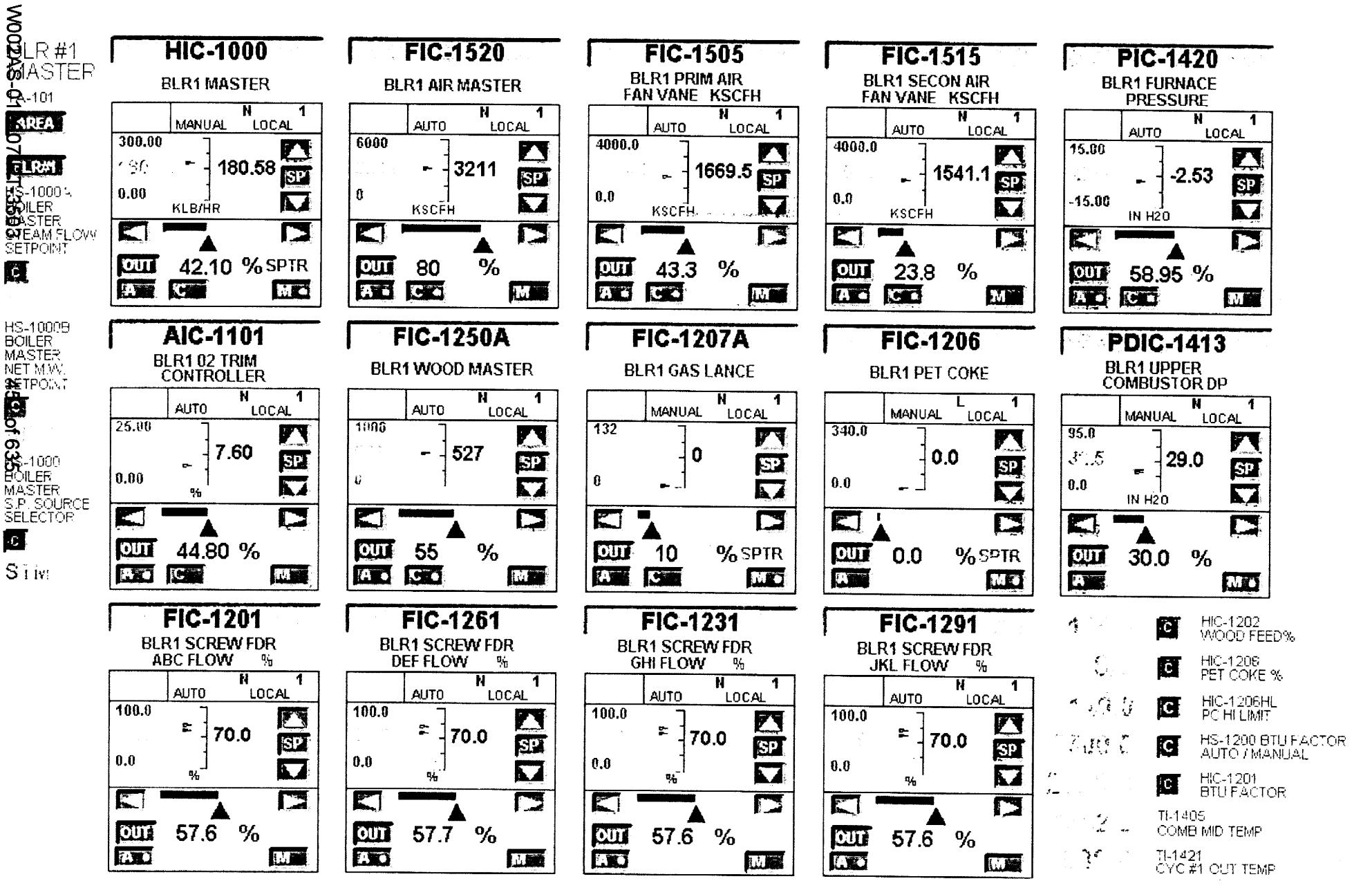
Window | Select | Redraw | Zoom | ?



1300 4/7/2022

Operator Window #1: Graphic 101

Window | Select | Redraw | Zoom | ?



Operator Window #1: Graphic 101

Window | Select | Redraw | Zoom | ?

BLR #1 MASTER

C-101

AREA

BLR#1

HS-1000A BOILER MASTER STEAM FLOW SETPOINT

C

HS-1000B BOILER MASTER NET M.W. SETPOINT

C

HS-1000C BOILER MASTER S.P. SOURCE SELECTOR

C

HIC-1000
BLR1 MASTER

MANUAL | N 1 LOCAL

300.00 / 182 / 0.00 — 182.11 KLB/HR — SP

OUT 42.10 % SPTR

A C M

FIC-1520
BLR1 AIR MASTER

AUTO | N 1 LOCAL

6000 / 0 — 3211 KSCFH — SP

OUT 80 %

A C M

FIC-1505
BLR1 PRIM AIR FAN VANE KSCFH

AUTO | N 1 LOCAL

4000.0 / 0.0 — 1669.5 KSCFH — SP

OUT 42.8 %

A C M

FIC-1515
BLR1 SECON AIR FAN VANE KSCFH

AUTO | N 1 LOCAL

4000.0 / 0.0 — 1541.1 KSCFH — SP

OUT 23.9 %

A C M

PIC-1420
BLR1 FURNACE PRESSURE

AUTO | N 1 LOCAL

15.00 / -2.72 / -15.00 — -2.58 IN H2O — SP

OUT 72.78 %

A C M

AIC-1101
BLR1 02 TRIM CONTROLLER

AUTO | N 1 LOCAL

25.00 / 0.00 — 7.60 % — SP

OUT 46.00 %

A C M

FIC-1250A
BLR1 WOOD MASTER

AUTO | N 1 LOCAL

1000 / 0 — 532 — SP

OUT 56 %

A C M

FIC-1207A
BLR1 GAS LANCE

MANUAL | N 1 LOCAL

32 / 0 — 0 — SP

OUT 10 % SPTR

A C M

FIC-1206
BLR1 PET COKE

MANUAL | L 1 LOCAL

340.0 / 0.0 — 0.0 — SP

OUT 0.0 % SPTR

A M

PDIC-1413
BLR1 UPPER COMBUSTOR DP

MANUAL | N 1 LOCAL

95.0 / 0.0 — 29.0 IN H2O — SP

OUT 30.0 %

A M

FIC-1201
BLR1 SCREW FDR ABC FLOW %

AUTO | N 1 LOCAL

100.0 / 0.0 — 70.0 % — SP

OUT 57.8 %

A M

FIC-1261
BLR1 SCREW FDR DEF FLOW %

AUTO | N 1 LOCAL

100.0 / 0.0 — 70.0 % — SP

OUT 57.8 %

A M

FIC-1231
BLR1 SCREW FDR GHI FLOW %

AUTO | N 1 LOCAL

100.0 / 0.0 — 70.0 % — SP

OUT 57.4 %

A M

FIC-1291
BLR1 SCREW FDR JKL FLOW %

AUTO | N 1 LOCAL

100.0 / 0.0 — 70.0 % — SP

OUT 57.4 %

A M

C HIC-1202 WOOD FEED%

C HIC-1206 PET COKE %

C HIC-1206HL PC HI LIMIT

C HS-1200 BTU FACTOR AUTO / MANUAL

C HIC-1201 BTU FACTOR

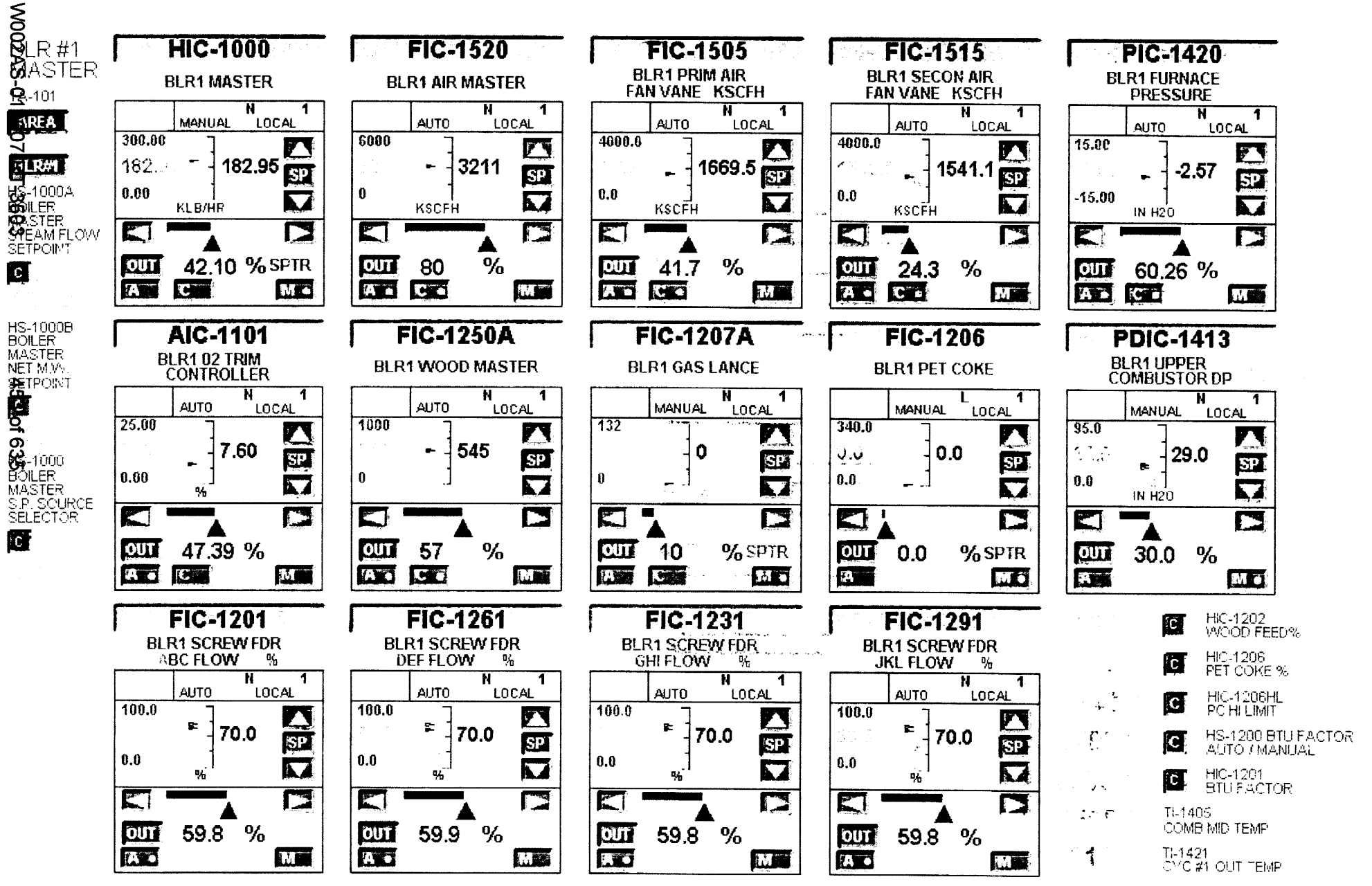
TI-1405 COMB MID TEMP

TI-1421 CYC #1 OUT TEMP

4.7.2022 1100

Operator Window #1: Graphic 101

Window | Select | Redraw | Zoom | ?



4/22 109

Operator Window #1: Graphic 101 (Recall 10 of 10)

Window | Select | Redraw | Zoom | ?

BLR #1 MASTER

-101

AREA

HLR#1

HS-1000A BOILER MASTER STEAM FLOW SETPOINT

C

HS-1000B BOILER MASTER NET M.W. SETPOINT

-1000 BOILER MASTER S.P. SOURCE SELECTOR

C

HIC-1000
BLR1 MASTER

MANUAL | N | 1 | LOCAL

300.00 / 0.00 — 179.58 — KLB/HR

OUT 42.10 % SPTR

A | C | M

FIC-1520
BLR1 AIR MASTER

AUTO | N | 1 | LOCAL

6000 — 3211 — KSCFH

OUT 80 %

A | C | M

FIC-1505
BLR1 PRIM AIR FAN VANE KSCFH

AUTO | N | 1 | LOCAL

4000.0 / 0.0 — 1669.5 — KSCFH

OUT 42.1 %

A | C | M

FIC-1515
BLR1 SECON AIR FAN VANE KSCFH

AUTO | N | 1 | LOCAL

4000.0 / 0.0 — 1541.1 — KSCFH

OUT 24.4 %

A | C | M

PIC-1420
BLR1 FURNACE PRESSURE

AUTO | N | 1 | LOCAL

15.00 / -15.00 — -2.44 — IN H2O

OUT 56.84 %

A | C | M

AIC-1101
BLR1 02 TRIM CONTROLLER

AUTO | N | 1 | LOCAL

25.00 / 0.00 — 7.60 — %

OUT 57.02 %

A | C | M

FIC-1250A
BLR1 WOOD MASTER

AUTO | N | 1 | LOCAL

1000 — 609

OUT 63 %

A | C | M

FIC-1207A
BLR1 GAS LANCE

MANUAL | N | 1 | LOCAL

132 / 0 — 0

OUT 10 % SPTR

A | C | M

FIC-1206
BLR1 PET COKE

MANUAL | L | 1 | LOCAL

340.0 / 0.0 — 0.0

OUT 0.0 % SPTR

A | M

PDIC-1413
BLR1 UPPER COMBUSTOR DP

MANUAL | N | 1 | LOCAL

95.0 / 0.0 — 29.0 — IN H2O

OUT 30.0 %

A | M

FIC-1201
BLR1 SCREW FDR ABC FLOW %

AUTO | N | 1 | LOCAL

100.0 / 0.0 — 70.0 — %

OUT 66.9 %

A | M

FIC-1261
BLR1 SCREW FDR DEF FLOW %

AUTO | N | 1 | LOCAL

100.0 / 0.0 — 70.0 — %

OUT 66.8 %

A | M

FIC-1231
BLR1 SCREW FDR GHI FLOW %

AUTO | N | 1 | LOCAL

100.0 / 0.0 — 70.0 — %

OUT 66.8 %

A | M

FIC-1291
BLR1 SCREW FDR JKL FLOW %

AUTO | N | 1 | LOCAL

100.0 / 0.0 — 70.0 — %

OUT 66.8 %

A | M

C HIC-1202 WOOD FEED%

C HIC-1206 PET COKE %

C HIC-1206HL PC HI LIMIT

C HS-1200 BTU FACTOR AUTO / MANUAL

C HIC-1201 BTU FACTOR

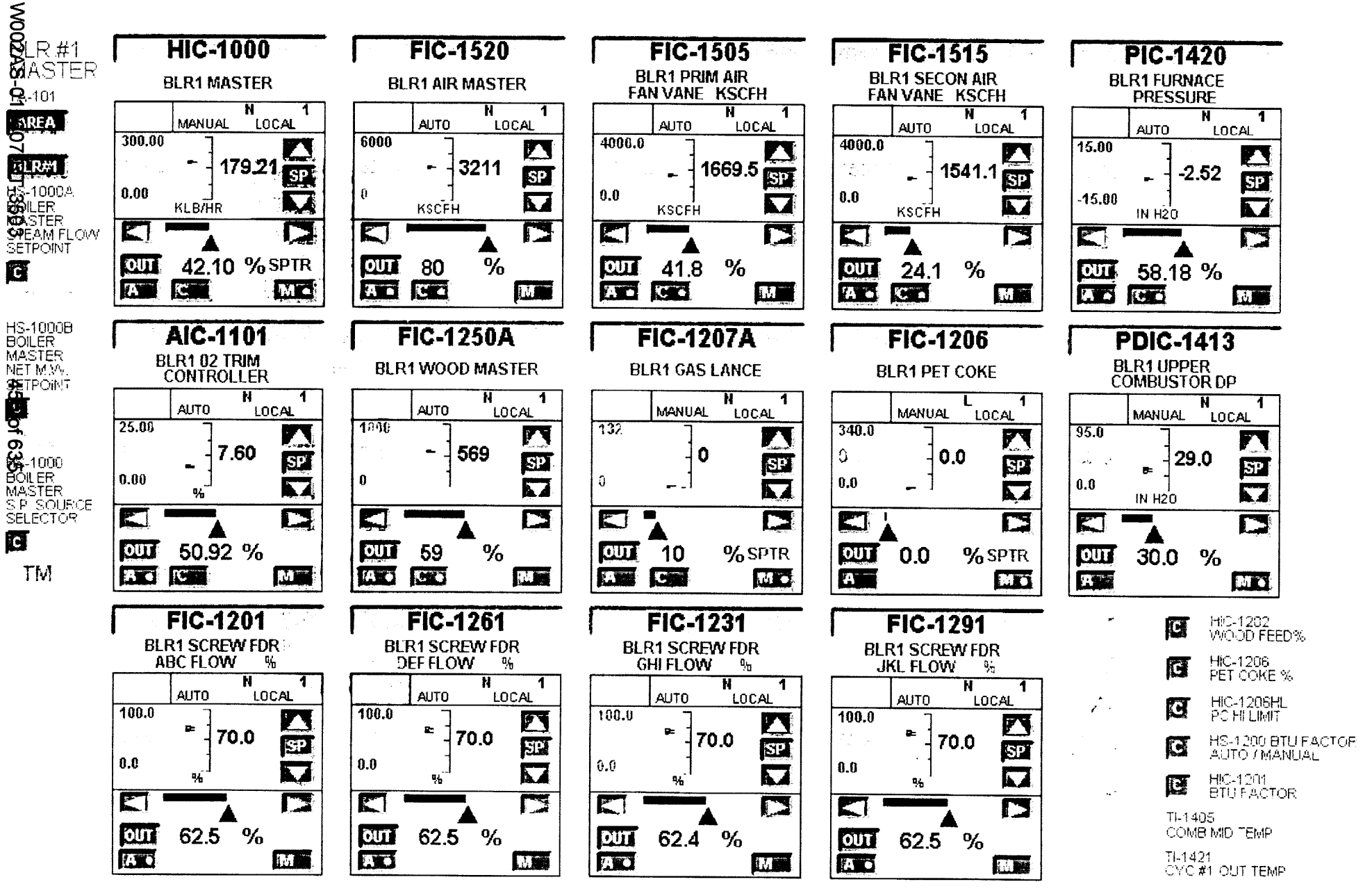
TI-1405 COMB MID TEMP

TI-1421 CYC #1 OUT TEMP

4/7/22 0900

Operator Window #4: Graphic 101

Window | Select | Redraw | Zoom | ?



4-7-22 @ 0800

Operator Window #1: Graphic 101

Window | Select | Redraw | Zoom | ?

W002AS-01

LR #1
ASTER
-101
REA
LR#1
HS-1000A
ILER
STER
EAM FLOW
SETPOINT
C

HS-1000B
BOILER
MASTER
NET M.W.
ETPOINT
C

-1000
BOILER
MASTER
S.P. SOURCE
SELECTOR
C

HIC-1000
BLR1 MASTER

MANUAL | N | LOCAL | 1

300.00 / 0.00 — 186.36 KLB/HR — SP

42.10 % SPTR

OUT | A | C | M

FIC-1520
BLR1 AIR MASTER

AUTO | N | LOCAL | 1

6000 / 0 — 3211 KSCFH — SP

80 %

OUT | A | C | M

FIC-1505
BLR1 PRIM AIR
FAN VANE KSCFH

AUTO | N | LOCAL | 1

4000.0 / 0.0 — 1669.5 KSCFH — SP

41.5 %

OUT | A | C | M

FIC-1515
BLR1 SECON AIR
FAN VANE KSCFH

AUTO | N | LOCAL | 1

4000.0 / 0. — 1541.1 KSCFH — SP

24.1 %

OUT | A | C | M

PIC-1420
BLR1 FURNACE
PRESSURE

AUTO | N | LOCAL | 1

15.00 / -15.00 — -2.43 IN H2O — SP

56.90 %

OUT | A | C | M

AIC-1101
BLR1 02 TRIM
CONTROLLER

AUTO | N | LOCAL | 1

25.00 / 0.00 — 7.60 % — SP

37.92 %

OUT | A | C | M

FIC-1250A
BLR1 WOOD MASTER

AUTO | N | LOCAL | 1

1000 / 0 — 474 — SP

50 %

OUT | A | C | M

FIC-1207A
BLR1 GAS LANCE

MANUAL | N | LOCAL | 1

132 / 0 — 0 — SP

10 % SPTR

OUT | A | C | M

FIC-1206
BLR1 PET COKE

MANUAL | L | LOCAL | 1

340.0 / 0. — 0.0 — SP

0.0 % SPTR

OUT | A | M

PDIC-1413
BLR1 UPPER
COMBUSTOR DP

MANUAL | N | LOCAL | 1

95.0 / 0.0 — 29.0 IN H2O — SP

30.0 %

OUT | A | M

FIC-1201
BLR1 SCREW FDR
ABC FLOW %

AUTO | N | LOCAL | 1

100.0 / 0.0 — 70.0 % — SP

51.7 %

OUT | A | M

FIC-1261
BLR1 SCREW FDR
DEF FLOW %

AUTO | N | LOCAL | 1

100.0 / 0.0 — 70.0 % — SP

51.7 %

OUT | A | M

FIC-1231
BLR1 SCREW FDR
GHI FLOW %

AUTO | N | LOCAL | 1

100.0 / 0.0 — 70.0 % — SP

51.7 %

OUT | A | M

FIC-1291
BLR1 SCREW FDR
JKL FLOW %

AUTO | N | LOCAL | 1

100.0 / 0. — 70.0 % — SP

51.7 %

OUT | A | M

C HIC-1202
WOOD FEED%

C HIC-1206
PET COKE %

C HIC-1206HL
PC HI LIMIT

C HS-1200 BTU FACTOR
AUTO / MANUAL

C HIC-1201
BTU FACTOR

TI-1405
COMB MID TEMP

TI-1421
CYC #1 OUT TEMP

0700 4-7-22

Operator Window #1: Graphic 101 (Recall 1 of 10)

Window | Select | Redraw | Zoom | ?

W002AS-01-1507-LT-1000

BLR #1 MASTER

A-101

AREA

BLR#1

HS-1000A BOILER MASTER STEAM FLOW SETPOINT

C

HS-1000B BOILER MASTER NET M.W. SETPOINT

C

HS-1000 BOILER MASTER S.P. SOURCE SELECTOR

C

ST

HIC-1000
BLR1 MASTER

MANUAL | N 1 | LOCAL

300.00 / 171 / 0.00 — 171.21 KLB/HR — SP

OUT 42.10 % SPTR

A | C | M

FIC-1520
BLR1 AIR MASTER

AUTO | N 1 | LOCAL

6000 / 0 — 3211 KSCFH — SP

OUT 80 %

A | C | M

FIC-1505
BLR1 PRIM AIR FAN VANE KSCFH

AUTO | N 1 | LOCAL

4000.0 / 0.0 — 1669.5 KSCFH — SP

OUT 41.6 %

A | C | M

FIC-1515
BLR1 SECON AIR FAN VANE KSCFH

AUTO | N 1 | LOCAL

4000.0 / 0.0 — 1541.1 KSCFH — SP

OUT 23.9 %

A | C | M

PIC-1420
BLR1 FURNACE PRESSURE

AUTO | N 1 | LOCAL

15.00 / -15.00 — -2.53 IN H2O — SP

OUT 55.69 %

A | C | M

AIC-1101
BLR1 02 TRIM CONTROLLER

AUTO | N 1 | LOCAL

25.00 / 0.00 — 7.75 % — SP

OUT 44.36 %

A | C | M

FIC-1250A
BLR1 WOOD MASTER

AUTO | N 1 | LOCAL

1000 / 0 — 539 — SP

OUT 56 %

A | C | M

FIC-1207A
BLR1 GAS LANCE

MANUAL | N 1 | LOCAL

132 / 0 — 0 — SP

OUT 10 % SPTR

A | C | M

FIC-1206
BLR1 PET COKE

MANUAL | L 1 | LOCAL

340.0 / 0.0 — 0.0 — SP

OUT 0.0 % SPTR

A | M

PDIC-1413
BLR1 UPPER COMBUSTOR DP

MANUAL | N 1 | LOCAL

95.0 / 0.0 — 29.0 IN H2O — SP

OUT 30.0 %

A | M

FIC-1201
BLR1 SCREW FDR ABC FLOW %

AUTO | N 1 | LOCAL

100.0 / 0.0 — 70.0 % — SP

OUT 58.9 %

A | M

FIC-1261
BLR1 SCREW FDR DEF FLOW %

AUTO | N 1 | LOCAL

100.0 / 0.0 — 70.0 % — SP

OUT 58.7 %

A | M

FIC-1231
BLR1 SCREW FDR GHI FLOW %

AUTO | N 1 | LOCAL

100.0 / 0.0 — 70.0 % — SP

OUT 58.9 %

A | M

FIC-1291
BLR1 SCREW FDR JKL FLOW %

AUTO | N 1 | LOCAL

100.0 / 0.0 — 70.0 % — SP

OUT 58.9 %

A | M

C HIC-1206 WOOD FEED %

C HIC-1206 PET COKE %

C HIC-1206FL PET PUMP

C HS-1206 BIO FACTOR SEL'N MANUAL

C HIC-1207 BIO FACTOR

TI-1420 COMBUSTOR TEMP

TI-1421 DUCT EXIT TEMP

4-7-22 SCCO

Operator Window #1: Graphic 910

Window | Select | Redraw | Zoom | ?

BOILER #1 FUEL FEED

910

AREA | AREA9

AIR / FUEL RATIO C

PERCENT PET COKE 0 % C

P.C. MMBTU LIMIT C

PERCENT WOOD % C

GAS MMBTU LIMIT C

MMBTU'S

TOTAL

O2 CORRECTED

BIOMASS

MINIMUM REQUIRED BIOMASS

GAS BTU FACTOR C

FIC-1250A

BLR1 WOOD MASTER

AUTO | N 1 LOCAL

1000

0

529

SP

OUT 55 %

A C M

FIC-1206

BLR1 PET COKE

MANUAL | L 1 LOCAL

340.0

0.0

0.0

SP

OUT 0.0 % SPTR

A M

PERCENT TO A SIDE C

MMBTU LIMIT C

A

PERCENT TO ABC C

MMBTU LIMIT

ABC C C DEF

250

62.2

MMBTU LIMIT C

B

PERCENT TO GHI C

MMBTU LIMIT

GHI C C JKL

1

GHI C C JKL

FIC-1207A

BLR1 GAS LANCE

MANUAL | N 1 LOCAL

132

0

0

SP

OUT 10 % SPTR

A C M

Operator Window #1: Graphic 101 (Recall 1 of 10)

Window | Select | Redraw | Zoom | ?

W002AS-01207-V1-3563

BLR #1 MASTER

PA-101

AREA

BLR#1

HS-1000A BOILER MASTER STEAM FLOW SETPOINT

C

HS-1000B BOILER MASTER NET MW SETPOINT

C

HS-1000 BOILER MASTER S.P. SOURCE SELECTOR

C

S

HIC-1000
BLR1 MASTER

MANUAL | N 1 | LOCAL

300.00 | 0.00 | 170.05 | KLB/HR | SP

OUT 46.00 % SPTR

A | C | M

FIC-1520
BLR1 AIR MASTER

AUTO | N 1 | LOCAL

6000 | 0 | 3284 | KSCFH | SP

OUT 82 %

A | C | M

FIC-1505
BLR1 PRIM AIR FAN VANE KSCFH

AUTO | N 1 | LOCAL

4000.0 | 0.0 | 1707.6 | KSCFH | SP

OUT 42.9 %

A | C | M

FIC-1515
BLR1 SECON AIR FAN VANE KSCFH

AUTO | N 1 | LOCAL

4000.0 | 0.0 | 1576.2 | KSCFH | SP

OUT 25.3 %

A | C | M

PIC-1420
BLR1 FURNACE PRESSURE

AUTO | N 1 | LOCAL

15.00 | -15.00 | -2.62 | IN H2O | SP

OUT 55.06 %

A | C | M

AIC-1101
BLR1 02 TRIM CONTROLLER

AUTO | N 1 | LOCAL

25.00 | 0.00 | 8.65 | % | SP

OUT 37.57 %

A | C | M

FIC-1250A
BLR1 WOOD MASTER

AUTO | N 1 | LOCAL

1000 | 0 | 498 | SP

OUT 51 %

A | C | M

FIC-1207A
BLR1 GAS LANCE

MANUAL | N 1 | LOCAL

132 | 0 | 0 | SP

OUT 10 % SPTR

A | C | M

FIC-1206
BLR1 PET COKE

MANUAL | L 1 | LOCAL

340.0 | 0.0 | 0.0 | SP

OUT 0.0 % SPTR

A | M

PDIC-1413
BLR1 UPPER COMBUSTOR DP

MANUAL | N 1 | LOCAL

95.0 | 0.0 | 29.0 | IN H2O | SP

OUT 30.0 %

A | M

FIC-1201
BLR1 SCREW FDR ABC FLOW %

AUTO | N 1 | LOCAL

100.0 | 0.0 | 70.0 | % | SP

OUT 54.5 %

A | M

FIC-1261
BLR1 SCREW FDR DEF FLOW %

AUTO | N 1 | LOCAL

100.0 | 0.0 | 70.0 | % | SP

OUT 54.1 %

A | M

FIC-1231
BLR1 SCREW FDR GHI FLOW %

AUTO | N 1 | LOCAL

100.0 | 58.C | 0.0 | 70.0 | % | SP

OUT 54.1 %

A | M

FIC-1291
BLR1 SCREW FDR JKL FLOW %

AUTO | N 1 | LOCAL

100.0 | 0.0 | 70.0 | % | SP

OUT 54.1 %

A | M

C HIC-1202 WOOD FEED%

C HIC-1206 PET COKE %

C HIC-1206HL PC HI LIMIT

C HS-1200 BTU FACTOR AUTO / MANUAL

C HIC-1201 BTU FACTOR

TI-1405 COMB MID TEMP

TI-1421 CYC #1 OUT TEMP

4-4-22 SCS

BOILER #1 FUEL FEED

910

AREA AREA9

AIR / FUEL RATIO C

PERCENT PET COKE C

P.C. MMBTU LIMIT C

PERCENT WOOD C

GAS MMBTU LIMIT C

MMBTU'S

TOTAL
O2 CORRECTED
BIOMASS
MINIMUM REQUIRED
BIOMASS
GAS
BTU FACTOR C

FIC-1250A
BLR1 WOOD MASTER

AUTO N 1 LOCAL
1000
0
501
SP
OUT 52 %
A C M

PERCENT TO
A SIDE 50 % C

MMBTU LIMIT C

A

PERCENT TO
ABC C

MMBTU LIMIT
ABC C C DEF

ABC C C DEF

MMBTU LIMIT C

B

PERCENT TO
GHI C

MMBTU LIMIT
GHI C C JK

GHI C C JK

FIC-1206
BLR1 PET COKE

MANUAL L 1 LOCAL
340.0
0.0
0.0
SP
OUT 0.0 % SPTR
A M

FIC-1207A
BLR1 GAS LANCE

MANUAL N 1 LOCAL
132
0
0
SP
OUT 10 % SPTR
A C M

Operator Window #1: Graphic 101 (Recall 1 of 10)

Window | Select | Redraw | Zoom | ?

BLR #1 MASTER

A-101

AREA

TLRM

S-1000A BOILER MASTER STEAM FLOW SETPOINT

C

HS-1000B BOILER MASTER NET M.W. SETPOINT

C

S-1000 BOILER MASTER S.P. SOURCE SELECTOR

C

HIC-1000
BLR1 MASTER

MANUAL | N 1 LOCAL

300.00 / 0.00 — 173.23 KLB/HR — SP

OUT 51.50 % SPTR

A C M

FIC-1520
BLR1 AIR MASTER

AUTO | N 1 LOCAL

6000 / 0 — 3387 KSCFH — SP

OUT 85 %

A C M

FIC-1505
BLR1 PRIM AIR FAN VANE KSCFH

AUTO | N 1 LOCAL

4000.0 / 0.0 — 1761.3 KSCFH — SP

OUT 47.2 %

A C M

FIC-1515
BLR1 SECON AIR FAN VANE KSCFH

AUTO | N 1 LOCAL

4000.0 / 0.0 — 1625.8 KSCFH — SP

OUT 27.6 %

A C M

PIC-1420
BLR1 FURNACE PRESSURE

AUTO | N 1 LOCAL

15.00 / -15.00 — -2.69 IN H2O — SP

OUT 58.25 %

A C M

AIC-1101
BLR1 02 TRIM CONTROLLER

AUTO | N 1 LOCAL

25.00 / 0.00 — 8.80 % — SP

OUT 51.43 %

A C M

FIC-1250A
BLR1 WOOD MASTER

AUTO | N 1 LOCAL

1000 / 0 — 610 — SP

OUT 64 %

A C M

FIC-1207A
BLR1 GAS LANCE

MANUAL | N 1 LOCAL

132 / 0 — 0 — SP

OUT 10 % SPTR

A C M

FIC-1206
BLR1 PET COKE

MANUAL | L 1 LOCAL

340.0 / 0.0 — 0.0 — SP

OUT 0.0 % SPTR

A M

PDIC-1413
BLR1 UPPER COMBUSTOR DP

MANUAL | N 1 LOCAL

95.0 / 0.0 — 29.0 IN H2O — SP

OUT 30.0 %

A M

FIC-1201
BLR1 SCREW FDR ABC FLOW %

AUTO | N 1 LOCAL

100.0 / 0.0 — 70.0 % — SP

OUT 67.7 %

A M

FIC-1261
BLR1 SCREW FDR DEF FLOW %

AUTO | N 1 LOCAL

100.0 / 0.0 — 70.0 % — SP

OUT 67.7 %

A M

FIC-1231
BLR1 SCREW FDR GHI FLOW %

AUTO | N 1 LOCAL

100.0 / 0.0 — 70.0 % — SP

OUT 67.7 %

A M

FIC-1291
BLR1 SCREW FDR JKL FLOW %

AUTO | N 1 LOCAL

100.0 / 0.0 — 70.0 % — SP

OUT 67.7 %

A M

C HIC-1202 WOOD FEED%

C HIC-1206 PET COKE %

C HIC-1205HL PC HI LIMIT

C HS-1200 BTU FACTOR AUTO / MANUAL

C HIC-1201 BTU FACTOR

TI-1405 COMB MID TEMP

TI-1421 CYC #1 OUT TEMP

4/-7-22 0450

BOILER #1 FUEL FEED

910

AREA | AREA9

AIR / FUEL RATIO C

PERCENT PET COKE 0 % C

P.C. MMBTU LIMIT 14[illegible] C

PERCENT WOOD [illegible] C

GAS MMBTU LIMIT [illegible] C

MMBTU'S

TOTAL

O2 CORRECTED

BIOMASS

MINIMUM REQUIRED

BIOMASS

GAS

BTU FACTOR C

FIC-1250A

BLR1 WOOD MASTER

AUTO | N 1 LOCAL

000 — 597 SP

OUT 62 %

A C M

PERCENT TO A SIDE C

MMBTU LIMIT C

A

PERCENT TO ABC C

MMBTU LIMIT

ABC C C DEF

ABC C C DEF

MMBTU LIMIT C

B

PERCENT TO GHI C

MMBTU LIMIT

GHI C C JKL

GHI C C JKL

FIC-1206

BLR1 PET COKE

MANUAL | L 1 LOCAL

340.0 — 0.0 SP

0.0

OUT 0.0 % SPTR

A M

FIC-1207A

BLR1 GAS LANCE

MANUAL | N 1 LOCAL

1 — 0 SP

0

OUT 10 % SPTR

A C M

Operator Window #1: Graphic 101 (Recall 1 of 10)

Window | Select | Redraw | Zoom | ?

LR #1
MASTER
A-101
AREA
LR#1
S-1000A
OILER
ASTER
TEAM FLOW
SETPOINT
C

HS-1000B
BOILER
MASTER
NET MW
SETPOINT
C

S-1000
BOILER
MASTER
S.P. SOURCE
SELECTOR
C

HIC-1000
BLR1 MASTER

MANUAL | N 1 LOCAL
300.00 | 187.38 | SP
0.00 | KLB/HR
OUT 51.50 % SPTR
A C M

FIC-1520
BLR1 AIR MASTER

AUTO | N 1 LOCAL
6000 | 3387 | SP
0 | KSCFH
OUT 85 %
A C M

FIC-1505
BLR1 PRIM AIR
FAN VANE KSCFH

AUTO | N 1 LOCAL
4000.0 | 1761.3 | SP
0.0 | KSCFH
OUT 45.8 %
A C M

FIC-1515
BLR1 SECON AIR
FAN VANE KSCFH

AUTO | N 1 LOCAL
4000.0 | 1625.8 | SP
0.0 | KSCFH
OUT 27.2 %
A C M

PIC-1420
BLR1 FURNACE
PRESSURE

AUTO | N 1 LOCAL
15.00 | -2.77 | SP
-15.00 | IN H2O
OUT 58.74 %
A C M

AIC-1101
BLR1 02 TRIM
CONTROLLER

AUTO | N 1 LOCAL
25.00 | 7.85 | SP
0.00 | %
OUT 48.97 %
A C M

FIC-1250A
BLR1 WOOD MASTER

AUTO | N 1 LOCAL
1000 | 591 | SP
0 |
OUT 62 %
A C M

FIC-1207A
BLR1 GAS LANCE

MANUAL | N 1 LOCAL
132 | 0 | SP
0 |
OUT 10 % SPTR
A C M

FIC-1206
BLR1 PET COKE

MANUAL | L 1 LOCAL
340.0 | 0.0 | SP
0.0 |
OUT 0.0 % SPTR
A M

PDIC-1413
BLR1 UPPER
COMBUSTOR DP

MANUAL | N 1 LOCAL
95.0 | 29.0 | SP
0.0 | IN H2O
OUT 30.0 %
A M

FIC-1201
BLR1 SCREW FDR
ABC FLOW %

AUTO | N 1 LOCAL
100.0 | 70.0 | SP
0.0 | %
OUT 65.2 %
A M

FIC-1261
BLR1 SCREW FDR
DEF FLOW %

AUTO | N 1 LOCAL
100.0 | 70.0 | SP
0.0 | %
OUT 65.2 %
A M

FIC-1231
BLR1 SCREW FDR
GHI FLOW %

AUTO | N 1 LOCAL
100.0 | 70.0 | SP
0.0 | %
OUT 65.2 %
A M

FIC-1291
BLR1 SCREW FDR
JKL FLOW %

AUTO | N 1 LOCAL
100.0 | 70.0 | SP
0.0 | %
OUT 65.1 %
A M

C HIC-1202
WOOD FEED%

C HIC-1206
PET COKE %

C HIC-1206HL
PC HI LIMIT

C HS-1200 BTU FACTOR
AUTO / MANUAL

C HIC-1201
BTU FACTOR

TI-1405
COMB MID TEMP

TI-1421
CYC #1 OUT TEMP

WOOD-04-07-LT-0009 Page 1 of 635

4-7-22 0365

Operator Window #1: Graphic 910

Window | Select | Redraw | Zoom | ?

BOILER #1 FUEL FEED

-910

AREA | AREA9

AIR / FUEL RATIO C

PERCENT PET COKE C

P.C. MMBTU LIMIT 1 C

PERCENT WOOD 00 % C

GAS MMBTU LIMIT 1 C

MMBTU'S

TOTAL

O2 CORRECTED

BIOMASS

MINIMUM REQUIRED

BIOMASS

GAS

BTU FACTOR C

FIC-1250A

BLR1 WOOD MASTER

AUTO | N 1 LOCAL

1000 — 569 SP

0

OUT 59 %

A C M

PERCENT TO A SIDE C

MMBTU LIMIT C — A — 5

PERCENT TO ABC C — 0

MMBTU LIMIT — ABC C — C DEF — 35

ABC C — C DEF — 6 — 4

MMBTU LIMIT C — B — 5

PERCENT TO GHI C — 0

MMBTU LIMIT — GHI C — C JK

GHI C — C JK — 6

FIC-1206

BLR1 PET COKE

MANUAL | L 1 LOCAL

340.0 — 0.0 SP

0.0

OUT 0.0 % SPTR

A M

FIC-1207A

BLR1 GAS LANCE

MANUAL | N 1 LOCAL

132 — 0 SP

0

OUT 10 % SPTR

A C M

BOILER EFFICIENCY VARIABLES

TAG	DESCRIPTION	VALUE	E/U
AI-8020	BLR1 FLUE GAS CO2	11.473	% CO_2
AI-8021	BLR2 FLUE GAS CO2	11.788	% CO_2
AI-8030	BLR1 FLUE GAS CO	-0.138	% CO
AI-8031	BLR2 FLUE GAS CO	1.340	% CO
AI-8060	% MOISTURE IN FLUE GAS BLR1	13.677	% H_2O
AI-8061	% MOISTURE IN FLUE GAS BLR2	16.185	% H_2O
AI-8050	CEM O2 DRY ANALYZER BLR1	9.147	% O_2
AI-8051	CEM O2 DRY ANALYZER BLR2	9.293	% O_2
AIC-9010	BLR1 NOX TRIM	37.472	PPM
AIC-9011	BLR2 NOX TRIM	49.100	PPM
AIC-8010	BLR1 SO2 CONTROLLER	9.354	LB/HR
AIC-8011	BLR2 SO2 CONTROLLER	6.245	LB/HR
FI-1520	BLR1 TOTAL AIR FLOW	3231.257	KSDCFH
FI-2520	BLR2 TOTAL AIR FLOW	3287.524	KSDCFH
EX NMW	NET MW OUT	39.694	MEGWT
FI-1040	BLR1 OUTLET STEAM LBS/HR	186.729	LB/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	186.238	LB/HR
FI-1021	BLR1 STEAM DRUM BLOWDOWN LBS/HR	28.700	LB/HR
FI-2021	BLR2 STEAM DRUM BLOWDOWN LBS/HR	-17.298	LB/HR
FI-1001	BLR1 FEEDWATER FLOW LBS/HR	210.029	LB/HR
FI-2001	BLR2 FEEDWATER FLOW LBS/HR	205.579	LB/HR
FI-1006	BLR1 DESPRHTR SPRAY WTR LBS/HR	11202.922	LB/HR
FI-2006	BLR2 DESPRHTR SPRAY LBS/HR	6365.322	LB/HR
FIC-1505	BLR1 PRIM AIR FAN VANE KSCFH	1676.156	KSCFH
FIC-2505	BLR2 PRIMARY AIR FAN VANE KSCFH	1703.094	KSCFH
FIC-1515	BLR1 SECON AIR FAN VANE KSCFH	1547.531	KSCFH
FIC-2515	BLR2 SECOND AIR FAN VANE KSCFH	1561.406	KSCFH
FI-1704	BLR1 FUEL GAS FLOW TO LANCE	0.247	KSCFH
FI-2704	BLR2 FUEL GAS FLW LANCE KSCFH	-0.023	KSCFH
FI-1601	BLR1 FUEL GAS FLW TO SU BNR	0.025	KSCFH
FI-2601	BLR2 FUEL GAS FLW TO STRTP BNR	-0.050	KSCFH
FI-1753	BLR1 AMMONIA INJECTION FLOW	20.177	LB/HR
FI-2753	BLR2 AMMONIA INJECTION FLOW	21.558	LB/HR
SI-1345	#1 LIMESTONE FEED RATE	2908.112	LB/HR
SI-2345	#2 LIMESTONE FEED RATE	766.442	LB/HR
PDI-1415	BLR1 COMBUSTOR GRATE DP	39.150	IN H20
PDI-2415	BLR2 COMBUSTOR GRATE DP	40.150	IN H20
PDI-1417	BLR1 MIDDLE COMBUSTOR	31.863	IN H20
PDI-2417	BLR2 MIDDLE COMBUSTOR	26.337	IN H20
PDIC-1413	BLR1 UPPER COMBUSTOR DP	32.188	IN H20
PDIC-2413	BLR2 UPPER COMBUSTOR DP	26.570	IN H20
PI-680	HP FW HEATER 4 OUTLET PRESS	1706.680	PSIG
PI-1002	BLR1 STEAM DRUM PRESSURE	1221.166	PSIG
HIC-1029	BLR1 SUPERHTR OUTLET VENT	1155.219	PSIG
PI-2002	BLR2 STEAM DRUM PRESSURE	1224.881	PSIG
HIC-2029	BLR2 SUPERHTR OUTLET VENT	1153.656	PSIG

TI-1503	BLR1 PRIMARY AIR FAN OUTLET	138.725	DEG F.
TI-2503	BLR2 PRMRY AIR FAN OUTLET TEMP	138.848	DEG F.
TI-1513	BLR1 SECONDARY AIR FAN OUTLET	155.032	DEG F.
TI-2513	BLR2 SECONDARY AIR FAN OUTLET	125.835	DEG F.
TI-1506	BLR1 PRMRY AIR HTR AIR OUTLET	493.915	DEG F.
TI-2506	BLR2 PRMRY AIR HTR AIR OUTLET	493.181	DEG F.
TI-1516	BLR1 SEC AIR HTR AIR OUTLET	426.853	DEG F.
TI-2516	BLR2 SEC AIR HTR AIR OUTLET	440.667	DEG F.
TI-1421	CYCLONE #1 OUTLET TEMP	1623.949	DEG F.
TI-2421	CYCLONE #2 OUTLET TEMP	1535.843	DEG F.
TI-1126	BLR1 BACKPASS TEMPERATURE	1022.453	DEG F.
TI-2126	BLR2 BACKPASS TEMPERATURE	884.148	DEG F.
TI-1102	BLR1 FLUE GAS INLET - AIR HTR	624.315	DEG F.
TI-2102	BLR2 FLUE GAS INLET TO AIR	588.135	DEG F.
TI-1114	BLR1 AIR HEATER FLUE OUT - PA	303.931	DEG F.
TI-2114	BLR2 AIR HEATER FLUE OUT - PA	311.631	DEG F.
TI-681	HPFW HEATER OUTLET	234.489	DEG F.
TI-1022	BLR1 ECONOMIZER OUTLET	561.148	DEG F.
TI-1003	BLR1 SH OUT TEMPERATURE	914.900	DEG F.
TI-2022	BLR2 ECONOMIZER OUTLET	551.803	DEG F.
TI-2003	BLR2 SH OUT TEMPERATURE	920.491	DEG F.
PI-1118	BLR1 ECONOMIZER OUT PRESS "H2O	-3.947	IN H2O
PI-2118	BLR2 ECONOMIZER PRESSURE "H2O	-3.055	IN H2O
XA-3902	PC SILO CONV. FAULT		
HS-3903	PC BUCKET ELEVATOR		AUTO
FIC-1206	BLR1 PET COKE	0.000	MMBTU
FIC-2206	BLR1 PET COKE	0.000	MMBTU
TI-1123	BLR1 BAGHOUSE INLET	332.990	DEG F.
TI-2123	BLR2 BAGHOUSE INLET	333.608	DEG F.
PI-1502	BLR1 PRIMARY AIR FAN OUT "H2O	79.634	IN H2O
PI-2502	BLR2 PRIMARY AIR FAN OUTLET	77.122	IN H2O
PI-1512	BLR1 SECONDARY AIR FAN OUT "H2O	35.621	IN H2O
PI-2512	BLR2 SECONDARY AIR FAN OUTLET	35.296	IN H2O
PI-1120	BLR1 BAGHOUSE INLET PRESS "H2O	-7.728	IN H2O
PI-2120	BLR2 BAGHOUSE INLET PRESS "H2O	-5.750	IN H2O
TI-1127	BLR1 AIR HEATER FLUE OUT - SA	305.386	DEG F.
TI-2127	BLR2 AIR HEATER FLUE OUT - SA	251.936	DEG F.
PI-103	TURBINE INLET STEAM PSIG	1145.044	PSIG
PI-206	TURBINE FIRST STAGE PRESS PSIG	922.644	PSIG
HS6D-6100	RECLAIM PILE SELECTOR	0	LOGIC
PI-705	CONDENSER PRESSURE	1.154	IN HG
EX-MW	GENERATOR MW GROSS	43.783	MWATT
EX-MVAR	GENERATOR MVAR	4.940	MVAR
EX-V	GENERATOR VOLTS	13.705	KV
EX-A	GENERATOR AMPS	1973.487	AMP
PI-402	TURBINE 4TH EXTRAC TO HPFW	361.114	PSIA
PI-422	TURBINE 3RD EXTRACT PRESS	165.083	PSIA
PI-442	TURBINE 2ND EXTRAC PRESS	93.783	PSIA
PI-462	TURBINE 1ST EXTRAC PRESS	17.483	PSIA

BOILER EFFICIENCY VARIABLES

TAG	DESCRIPTION	VALUE	E/U
AI-8020	BLR1 FLUE GAS CO2	10.997	% CO_2
AI-8021	BLR2 FLUE GAS CO2	11.748	% CO_2
AI-8030	BLR1 FLUE GAS CO	-0.251	% CO
AI-8031	BLR2 FLUE GAS CO	1.452	% CO
AI-8060	% MOISTURE IN FLUE GAS BLR1	13.957	% H_2O
AI-8061	% MOISTURE IN FLUE GAS BLR2	13.578	% H_2O
AI-8050	CEM O2 DRY ANALYZER BLR1	9.664	% O_2
AI-8051	CEM O2 DRY ANALYZER BLR2	9.037	% O_2
AIC-9010	BLR1 NOX TRIM	51.461	PPM
AIC-9011	BLR2 NOX TRIM	45.602	PPM
AIC-8010	BLR1 SO2 CONTROLLER	8.591	LB/HR
AIC-8011	BLR2 SO2 CONTROLLER	9.425	LB/HR
FI-1520	BLR1 TOTAL AIR FLOW	3210.606	KSDCFH
FI-2520	BLR2 TOTAL AIR FLOW	3287.524	KSDCFH
EX NMW	NET MW OUT	39.273	MEGWT
FI-1040	BLR1 OUTLET STEAM LBS/HR	176.181	LB/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	188.026	LB/HR
FI-1021	BLR1 STEAM DRUM BLOWDOWN LBS/HR	40.180	LB/HR
FI-2021	BLR2 STEAM DRUM BLOWDOWN LBS/HR	-11.532	LB/HR
FI-1001	BLR1 FEEDWATER FLOW LBS/HR	197.548	LB/HR
FI-2001	BLR2 FEEDWATER FLOW LBS/HR	205.359	LB/HR
FI-1006	BLR1 DESPRHTR SPRAY WTR LBS/HR	1871.157	LB/HR
FI-2006	BLR2 DESPRHTR SPRAY LBS/HR	6385.374	LB/HR
FIC-1505	BLR1 PRIM AIR FAN VANE KSCFH	1671.500	KSCFH
FIC-2505	BLR2 PRIMARY AIR FAN VANE KSCFH	1704.406	KSCFH
FIC-1515	BLR1 SECON AIR FAN VANE KSCFH	1540.125	KSCFH
FIC-2515	BLR2 SECOND AIR FAN VANE KSCFH	1571.656	KSCFH
FI-1704	BLR1 FUEL GAS FLOW TO LANCE	0.247	KSCFH
FI-2704	BLR2 FUEL GAS FLW LANCE KSCFH	-0.023	KSCFH
FI-1601	BLR1 FUEL GAS FLW TO SU BNR	0.000	KSCFH
FI-2601	BLR2 FUEL GAS FLW TO STRTP BNR	-0.050	KSCFH
FI-1753	BLR1 AMMONIA INJECTION FLOW	14.657	LB/HR
FI-2753	BLR2 AMMONIA INJECTION FLOW	24.387	LB/HR
SI-1345	#1 LIMESTONE FEED RATE	1147.972	LB/HR
SI-2345	#2 LIMESTONE FEED RATE	1042.761	LB/HR
PDI-1415	BLR1 COMBUSTOR GRATE DP	41.525	IN H20
PDI-2415	BLR2 COMBUSTOR GRATE DP	39.025	IN H20
PDI-1417	BLR1 MIDDLE COMBUSTOR	32.350	IN H20
PDI-2417	BLR2 MIDDLE COMBUSTOR	26.938	IN H20
PDIC-1413	BLR1 UPPER COMBUSTOR DP	32.695	IN H20
PDIC-2413	BLR2 UPPER COMBUSTOR DP	26.770	IN H20
PI-680	HP FW HEATER 4 OUTLET PRESS	1707.916	PSIG
PI-1002	BLR1 STEAM DRUM PRESSURE	1214.036	PSIG
HIC-1029	BLR1 SUPERHTR OUTLET VENT	1151.844	PSIG
PI-2002	BLR2 STEAM DRUM PRESSURE	1227.273	PSIG
HIC-2029	BLR2 SUPERHTR OUTLET VENT	1151.406	PSIG

TI-1503	BLR1 PRIMARY AIR FAN OUTLET	142.606	DEG F.
TI-2503	BLR2 PRMRY AIR FAN OUTLET TEMP	138.831	DEG F.
TI-1513	BLR1 SECONDARY AIR FAN OUTLET	155.032	DEG F.
TI-2513	BLR2 SECONDARY AIR FAN OUTLET	126.901	DEG F.
TI-1506	BLR1 PRMRY AIR HTR AIR OUTLET	490.026	DEG F.
TI-2506	BLR2 PRMRY AIR HTR AIR OUTLET	491.221	DEG F.
TI-1516	BLR1 SEC AIR HTR AIR OUTLET	423.053	DEG F.
TI-2516	BLR2 SEC AIR HTR AIR OUTLET	438.975	DEG F.
TI-1421	CYCLONE #1 OUTLET TEMP	1610.362	DEG F.
TI-2421	CYCLONE #2 OUTLET TEMP	1536.834	DEG F.
TI-1126	BLR1 BACKPASS TEMPERATURE	1010.132	DEG F.
TI-2126	BLR2 BACKPASS TEMPERATURE	880.471	DEG F.
TI-1102	BLR1 FLUE GAS INLET - AIR HTR	615.485	DEG F.
TI-2102	BLR2 FLUE GAS INLET TO AIR	586.269	DEG F.
TI-1114	BLR1 AIR HEATER FLUE OUT - PA	303.171	DEG F.
TI-2114	BLR2 AIR HEATER FLUE OUT - PA	309.392	DEG F.
TI-681	HPFW HEATER OUTLET	234.931	DEG F.
TI-1022	BLR1 ECONOMIZER OUTLET	558.937	DEG F.
TI-1003	BLR1 SH OUT TEMPERATURE	916.280	DEG F.
TI-2022	BLR2 ECONOMIZER OUTLET	550.009	DEG F.
TI-2003	BLR2 SH OUT TEMPERATURE	922.695	DEG F.
PI-1118	BLR1 ECONOMIZER OUT PRESS "H2O	-4.079	IN H2O
PI-2118	BLR2 ECONOMIZER PRESSURE "H2O	-3.274	IN H2O
XA-3902	PC SILO CONV. FAULT		
HS-3903	PC BUCKET ELEVATOR		AUTO
FIC-1206	BLR1 PET COKE	0.000	MMBTU
FIC-2206	BLR1 PET COKE	0.000	MMBTU
TI-1123	BLR1 BAGHOUSE INLET	331.384	DEG F.
TI-2123	BLR2 BAGHOUSE INLET	332.173	DEG F.
PI-1502	BLR1 PRIMARY AIR FAN OUT "H2O	81.186	IN H2O
PI-2502	BLR2 PRIMARY AIR FAN OUTLET	77.950	IN H2O
PI-1512	BLR1 SECONDARY AIR FAN OUT "H2O	35.471	IN H2O
PI-2512	BLR2 SECONDARY AIR FAN OUTLET	35.471	IN H2O
PI-1120	BLR1 BAGHOUSE INLET PRESS "H2O	-7.159	IN H2O
PI-2120	BLR2 BAGHOUSE INLET PRESS "H2O	-5.925	IN H2O
TI-1127	BLR1 AIR HEATER FLUE OUT - SA	304.505	DEG F.
TI-2127	BLR2 AIR HEATER FLUE OUT - SA	251.013	DEG F.
PI-103	TURBINE INLET STEAM PSIG	1144.291	PSIG
PI-206	TURBINE FIRST STAGE PRESS PSIG	917.916	PSIG
HS6D-6100	RECLAIM PILE SELECTOR	0	LOGIC
PI-705	CONDENSER PRESSURE	1.142	IN HG
EX-MW	GENERATOR MW GROSS	43.295	MWATT
EX-MVAR	GENERATOR MVAR	4.734	MVAR
EX-V	GENERATOR VOLTS	13.790	KV
EX-A	GENERATOR AMPS	1928.464	AMP
PI-402	TURBINE 4TH EXTRAC TO HPFW	359.849	PSIA
PI-422	TURBINE 3RD EXTRACT PRESS	163.773	PSIA
PI-442	TURBINE 2ND EXTRAC PRESS	92.383	PSIA
PI-462	TURBINE 1ST EXTRAC PRESS	17.336	PSIA

BOILER EFFICIENCY VARIABLES

TAG	DESCRIPTION	VALUE	E/U
AI-8020	BLR1 FLUE GAS CO2	9.953	% CO_2
AI-8021	BLR2 FLUE GAS CO2	11.909	% CO_2
AI-8030	BLR1 FLUE GAS CO	-0.626	% CO
AI-8031	BLR2 FLUE GAS CO	0.714	% CO
AI-8060	% MOISTURE IN FLUE GAS BLR1	13.671	% H_2O
AI-8061	% MOISTURE IN FLUE GAS BLR2	13.566	% H_2O
AI-8050	CEM O2 DRY ANALYZER BLR1	9.473	% O_2
AI-8051	CEM O2 DRY ANALYZER BLR2	8.831	% O_2
AIC-9010	BLR1 NOX TRIM	48.327	PPM
AIC-9011	BLR2 NOX TRIM	48.351	PPM
AIC-8010	BLR1 SO2 CONTROLLER	7.053	LB/HR
AIC-8011	BLR2 SO2 CONTROLLER	10.049	LB/HR
FI-1520	BLR1 TOTAL AIR FLOW	3210.606	KSDCFH
FI-2520	BLR2 TOTAL AIR FLOW	3287.524	KSDCFH
EX NMW	NET MW OUT	39.194	MEGWT
FI-1040	BLR1 OUTLET STEAM LBS/HR	168.485	LB/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	191.465	LB/HR
FI-1021	BLR1 STEAM DRUM BLOWDOWN LBS/HR	43.050	LB/HR
FI-2021	BLR2 STEAM DRUM BLOWDOWN LBS/HR	-11.532	LB/HR
FI-1001	BLR1 FEEDWATER FLOW LBS/HR	196.974	LB/HR
FI-2001	BLR2 FEEDWATER FLOW LBS/HR	202.657	LB/HR
FI-1006	BLR1 DESPRHTR SPRAY WTR LBS/HR	2568.748	LB/HR
FI-2006	BLR2 DESPRHTR SPRAY LBS/HR	5898.798	LB/HR
FIC-1505	BLR1 PRIM AIR FAN VANE KSCFH	1662.219	KSCFH
FIC-2505	BLR2 PRIMARY AIR FAN VANE KSCFH	1707.313	KSCFH
FIC-1515	BLR1 SECON AIR FAN VANE KSCFH	1536.531	KSCFH
FIC-2515	BLR2 SECOND AIR FAN VANE KSCFH	1579.094	KSCFH
FI-1704	BLR1 FUEL GAS FLOW TO LANCE	0.247	KSCFH
FI-2704	BLR2 FUEL GAS FLW LANCE KSCFH	-0.023	KSCFH
FI-1601	BLR1 FUEL GAS FLW TO SU BNR	0.025	KSCFH
FI-2601	BLR2 FUEL GAS FLW TO STRTP BNR	-0.050	KSCFH
FI-1753	BLR1 AMMONIA INJECTION FLOW	14.827	LB/HR
FI-2753	BLR2 AMMONIA INJECTION FLOW	29.062	LB/HR
SI-1345	#1 LIMESTONE FEED RATE	1437.156	LB/HR
SI-2345	#2 LIMESTONE FEED RATE	1215.304	LB/HR
PDI-1415	BLR1 COMBUSTOR GRATE DP	38.700	IN H20
PDI-2415	BLR2 COMBUSTOR GRATE DP	42.600	IN H20
PDI-1417	BLR1 MIDDLE COMBUSTOR	32.675	IN H20
PDI-2417	BLR2 MIDDLE COMBUSTOR	27.013	IN H20
PDIC-1413	BLR1 UPPER COMBUSTOR DP	33.044	IN H20
PDIC-2413	BLR2 UPPER COMBUSTOR DP	26.803	IN H20
PI-680	HP FW HEATER 4 OUTLET PRESS	1706.406	PSIG
PI-1002	BLR1 STEAM DRUM PRESSURE	1210.658	PSIG
HIC-1029	BLR1 SUPERHTR OUTLET VENT	1152.219	PSIG
PI-2002	BLR2 STEAM DRUM PRESSURE	1229.459	PSIG
HIC-2029	BLR2 SUPERHTR OUTLET VENT	1152.906	PSIG

TI-1503	BLR1 PRIMARY AIR FAN OUTLET	140.369	DEG F.
TI-2503	BLR2 PRMRY AIR FAN OUTLET TEMP	137.990	DEG F.
TI-1513	BLR1 SECONDARY AIR FAN OUTLET	155.032	DEG F.
TI-2513	BLR2 SECONDARY AIR FAN OUTLET	125.697	DEG F.
TI-1506	BLR1 PRMRY AIR HTR AIR OUTLET	487.496	DEG F.
TI-2506	BLR2 PRMRY AIR HTR AIR OUTLET	490.055	DEG F.
TI-1516	BLR1 SEC AIR HTR AIR OUTLET	419.424	DEG F.
TI-2516	BLR2 SEC AIR HTR AIR OUTLET	437.969	DEG F.
TI-1421	CYCLONE #1 OUTLET TEMP	1608.861	DEG F.
TI-2421	CYCLONE #2 OUTLET TEMP	1538.736	DEG F.
TI-1126	BLR1 BACKPASS TEMPERATURE	1006.077	DEG F.
TI-2126	BLR2 BACKPASS TEMPERATURE	875.968	DEG F.
TI-1102	BLR1 FLUE GAS INLET - AIR HTR	611.633	DEG F.
TI-2102	BLR2 FLUE GAS INLET TO AIR	584.660	DEG F.
TI-1114	BLR1 AIR HEATER FLUE OUT - PA	302.091	DEG F.
TI-2114	BLR2 AIR HEATER FLUE OUT - PA	308.776	DEG F.
TI-681	HPFW HEATER OUTLET	235.135	DEG F.
TI-1022	BLR1 ECONOMIZER OUTLET	558.682	DEG F.
TI-1003	BLR1 SH OUT TEMPERATURE	917.371	DEG F.
TI-2022	BLR2 ECONOMIZER OUTLET	547.987	DEG F.
TI-2003	BLR2 SH OUT TEMPERATURE	928.584	DEG F.
PI-1118	BLR1 ECONOMIZER OUT PRESS "H2O	-3.983	IN H2O
PI-2118	BLR2 ECONOMIZER PRESSURE "H2O	-3.799	IN H2O
XA-3902	PC SILO CONV. FAULT		
HS-3903	PC BUCKET ELEVATOR		AUTO
FIC-1206	BLR1 PET COKE	0.000	MMBTU
FIC-2206	BLR1 PET COKE	0.000	MMBTU
TI-1123	BLR1 BAGHOUSE INLET	329.432	DEG F.
TI-2123	BLR2 BAGHOUSE INLET	331.782	DEG F.
PI-1502	BLR1 PRIMARY AIR FAN OUT "H2O	80.009	IN H2O
PI-2502	BLR2 PRIMARY AIR FAN OUTLET	77.739	IN H2O
PI-1512	BLR1 SECONDARY AIR FAN OUT "H2O	34.438	IN H2O
PI-2512	BLR2 SECONDARY AIR FAN OUTLET	35.321	IN H2O
PI-1120	BLR1 BAGHOUSE INLET PRESS "H2O	-7.220	IN H2O
PI-2120	BLR2 BAGHOUSE INLET PRESS "H2O	-6.450	IN H2O
TI-1127	BLR1 AIR HEATER FLUE OUT - SA	302.934	DEG F.
TI-2127	BLR2 AIR HEATER FLUE OUT - SA	249.784	DEG F.
PI-103	TURBINE INLET STEAM PSIG	1143.538	PSIG
PI-206	TURBINE FIRST STAGE PRESS PSIG	909.670	PSIG
HS6D-6100	RECLAIM PILE SELECTOR	0	LOGIC
PI-705	CONDENSER PRESSURE	1.120	IN HG
EX-MW	GENERATOR MW GROSS	43.165	MWATT
EX-MVAR	GENERATOR MVAR	4.696	MVAR
EX-V	GENERATOR VOLTS	13.807	KV
EX-A	GENERATOR AMPS	1919.460	AMP
PI-402	TURBINE 4TH EXTRAC TO HPFW	355.996	PSIA
PI-422	TURBINE 3RD EXTRACT PRESS	162.572	PSIA
PI-442	TURBINE 2ND EXTRAC PRESS	91.858	PSIA
PI-462	TURBINE 1ST EXTRAC PRESS	17.114	PSIA

BOILER EFFICIENCY VARIABLES

TAG	DESCRIPTION	VALUE	E/U
AI-8020	BLR1 FLUE GAS CO2	11.683	% CO_2
AI-8021	BLR2 FLUE GAS CO2	12.032	% CO_2
AI-8030	BLR1 FLUE GAS CO	-0.639	% CO
AI-8031	BLR2 FLUE GAS CO	0.701	% CO
AI-8060	% MOISTURE IN FLUE GAS BLR1	14.415	% H_2O
AI-8061	% MOISTURE IN FLUE GAS BLR2	14.156	% H_2O
AI-8050	CEM O2 DRY ANALYZER BLR1	9.738	% O_2
AI-8051	CEM O2 DRY ANALYZER BLR2	8.816	% O_2
AIC-9010	BLR1 NOX TRIM	53.835	PPM
AIC-9011	BLR2 NOX TRIM	54.473	PPM
AIC-8010	BLR1 SO2 CONTROLLER	10.502	LB/HR
AIC-8011	BLR2 SO2 CONTROLLER	9.681	LB/HR
FI-1520	BLR1 TOTAL AIR FLOW	3210.606	KSDCFH
FI-2520	BLR2 TOTAL AIR FLOW	3287.524	KSDCFH
EX NMW	NET MW OUT	40.143	MEGWT
FI-1040	BLR1 OUTLET STEAM LBS/HR	177.482	LB/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	191.672	LB/HR
FI-1021	BLR1 STEAM DRUM BLOWDOWN LBS/HR	43.050	LB/HR
FI-2021	BLR2 STEAM DRUM BLOWDOWN LBS/HR	-8.649	LB/HR
FI-1001	BLR1 FEEDWATER FLOW LBS/HR	200.316	LB/HR
FI-2001	BLR2 FEEDWATER FLOW LBS/HR	207.941	LB/HR
FI-1006	BLR1 DESPRHTR SPRAY WTR LBS/HR	10837.671	LB/HR
FI-2006	BLR2 DESPRHTR SPRAY LBS/HR	6025.144	LB/HR
FIC-1505	BLR1 PRIM AIR FAN VANE KSCFH	1666.563	KSCFH
FIC-2505	BLR2 PRIMARY AIR FAN VANE KSCFH	1723.063	KSCFH
FIC-1515	BLR1 SECON AIR FAN VANE KSCFH	1545.531	KSCFH
FIC-2515	BLR2 SECOND AIR FAN VANE KSCFH	1569.094	KSCFH
FI-1704	BLR1 FUEL GAS FLOW TO LANCE	0.225	KSCFH
FI-2704	BLR2 FUEL GAS FLW LANCE KSCFH	-0.023	KSCFH
FI-1601	BLR1 FUEL GAS FLW TO SU BNR	0.000	KSCFH
FI-2601	BLR2 FUEL GAS FLW TO STRTP BNR	-0.050	KSCFH
FI-1753	BLR1 AMMONIA INJECTION FLOW	14.486	LB/HR
FI-2753	BLR2 AMMONIA INJECTION FLOW	26.686	LB/HR
SI-1345	#1 LIMESTONE FEED RATE	1821.026	LB/HR
SI-2345	#2 LIMESTONE FEED RATE	1157.789	LB/HR
PDI-1415	BLR1 COMBUSTOR GRATE DP	38.275	IN H20
PDI-2415	BLR2 COMBUSTOR GRATE DP	40.550	IN H20
PDI-1417	BLR1 MIDDLE COMBUSTOR	32.250	IN H20
PDI-2417	BLR2 MIDDLE COMBUSTOR	27.350	IN H20
PDIC-1413	BLR1 UPPER COMBUSTOR DP	32.877	IN H20
PDIC-2413	BLR2 UPPER COMBUSTOR DP	26.746	IN H20
PI-680	HP FW HEATER 4 OUTLET PRESS	1709.198	PSIG
PI-1002	BLR1 STEAM DRUM PRESSURE	1215.841	PSIG
HIC-1029	BLR1 SUPERHTR OUTLET VENT	1152.969	PSIG
PI-2002	BLR2 STEAM DRUM PRESSURE	1231.405	PSIG
HIC-2029	BLR2 SUPERHTR OUTLET VENT	1155.156	PSIG

TI-1503	BLR1 PRIMARY AIR FAN OUTLET	139.024	DEG F.
TI-2503	BLR2 PRMRY AIR FAN OUTLET TEMP	137.110	DEG F.
TI-1513	BLR1 SECONDARY AIR FAN OUTLET	155.032	DEG F.
TI-2513	BLR2 SECONDARY AIR FAN OUTLET	124.484	DEG F.
TI-1506	BLR1 PRMRY AIR HTR AIR OUTLET	484.969	DEG F.
TI-2506	BLR2 PRMRY AIR HTR AIR OUTLET	487.289	DEG F.
TI-1516	BLR1 SEC AIR HTR AIR OUTLET	418.739	DEG F.
TI-2516	BLR2 SEC AIR HTR AIR OUTLET	435.351	DEG F.
TI-1421	CYCLONE #1 OUTLET TEMP	1613.610	DEG F.
TI-2421	CYCLONE #2 OUTLET TEMP	1536.798	DEG F.
TI-1126	BLR1 BACKPASS TEMPERATURE	1005.231	DEG F.
TI-2126	BLR2 BACKPASS TEMPERATURE	869.750	DEG F.
TI-1102	BLR1 FLUE GAS INLET - AIR HTR	609.550	DEG F.
TI-2102	BLR2 FLUE GAS INLET TO AIR	582.386	DEG F.
TI-1114	BLR1 AIR HEATER FLUE OUT - PA	299.441	DEG F.
TI-2114	BLR2 AIR HEATER FLUE OUT - PA	307.865	DEG F.
TI-681	HPFW HEATER OUTLET	234.340	DEG F.
TI-1022	BLR1 ECONOMIZER OUTLET	562.442	DEG F.
TI-1003	BLR1 SH OUT TEMPERATURE	926.303	DEG F.
TI-2022	BLR2 ECONOMIZER OUTLET	548.796	DEG F.
TI-2003	BLR2 SH OUT TEMPERATURE	927.999	DEG F.
PI-1118	BLR1 ECONOMIZER OUT PRESS "H2O	-4.227	IN H2O
PI-2118	BLR2 ECONOMIZER PRESSURE "H2O	-4.718	IN H2O
XA-3902	PC SILO CONV. FAULT		
HS-3903	PC BUCKET ELEVATOR		AUTO
FIC-1206	BLR1 PET COKE	0.000	MMBTU
FIC-2206	BLR1 PET COKE	0.000	MMBTU
TI-1123	BLR1 BAGHOUSE INLET	328.162	DEG F.
TI-2123	BLR2 BAGHOUSE INLET	329.549	DEG F.
PI-1502	BLR1 PRIMARY AIR FAN OUT "H2O	78.546	IN H2O
PI-2502	BLR2 PRIMARY AIR FAN OUTLET	76.723	IN H2O
PI-1512	BLR1 SECONDARY AIR FAN OUT "H2O	34.944	IN H2O
PI-2512	BLR2 SECONDARY AIR FAN OUTLET	35.126	IN H2O
PI-1120	BLR1 BAGHOUSE INLET PRESS "H2O	-7.526	IN H2O
PI-2120	BLR2 BAGHOUSE INLET PRESS "H2O	-7.308	IN H2O
TI-1127	BLR1 AIR HEATER FLUE OUT - SA	302.769	DEG F.
TI-2127	BLR2 AIR HEATER FLUE OUT - SA	248.110	DEG F.
PI-103	TURBINE INLET STEAM PSIG	1144.291	PSIG
PI-206	TURBINE FIRST STAGE PRESS PSIG	929.768	PSIG
HS6D-6100	RECLAIM PILE SELECTOR	0	LOGIC
PI-705	CONDENSER PRESSURE	1.095	IN HG
EX-MW	GENERATOR MW GROSS	44.222	MWATT
EX-MVAR	GENERATOR MVAR	5.371	MVAR
EX-V	GENERATOR VOLTS	13.887	KV
EX-A	GENERATOR AMPS	1957.729	AMP
PI-402	TURBINE 4TH EXTRAC TO HPFW	363.312	PSIA
PI-422	TURBINE 3RD EXTRACT PRESS	166.625	PSIA
PI-442	TURBINE 2ND EXTRAC PRESS	94.429	PSIA
PI-462	TURBINE 1ST EXTRAC PRESS	17.643	PSIA

BOILER EFFICIENCY VARIABLES

TAG	DESCRIPTION	VALUE	E/U
AI-8020	BLR1 FLUE GAS CO2	11.060	% CO2
AI-8021	BLR2 FLUE GAS CO2	12.109	% CO2
AI-8030	BLR1 FLUE GAS CO	-1.253	% CO
AI-8031	BLR2 FLUE GAS CO	0.576	% CO
AI-8060	% MOISTURE IN FLUE GAS BLR1	14.356	% H20
AI-8061	% MOISTURE IN FLUE GAS BLR2	14.122	% H20
AI-8050	CEM O2 DRY ANALYZER BLR1	9.731	% 02
AI-8051	CEM O2 DRY ANALYZER BLR2	8.862	% 02
AIC-9010	BLR1 NOX TRIM	48.713	PPM
AIC-9011	BLR2 NOX TRIM	46.852	PPM
AIC-8010	BLR1 SO2 CONTROLLER	7.875	LB/HR
AIC-8011	BLR2 SO2 CONTROLLER	3.989	LB/HR
FI-1520	BLR1 TOTAL AIR FLOW	3210.606	KSDCFH
FI-2520	BLR2 TOTAL AIR FLOW	3287.524	KSDCFH
EX NMW	NET MW OUT	40.485	MEGWT
FI-1040	BLR1 OUTLET STEAM LBS/HR	180.791	LB/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	197.149	LB/HR
FI-1021	BLR1 STEAM DRUM BLOWDOWN LBS/HR	40.180	LB/HR
FI-2021	BLR2 STEAM DRUM BLOWDOWN LBS/HR	0.000	LB/HR
FI-1001	BLR1 FEEDWATER FLOW LBS/HR	195.315	LB/HR
FI-2001	BLR2 FEEDWATER FLOW LBS/HR	213.105	LB/HR
FI-1006	BLR1 DESPRHTR SPRAY WTR LBS/HR	11130.566	LB/HR
FI-2006	BLR2 DESPRHTR SPRAY LBS/HR	10129.659	LB/HR
FIC-1505	BLR1 PRIM AIR FAN VANE KSCFH	1657.000	KSCFH
FIC-2505	BLR2 PRIMARY AIR FAN VANE KSCFH	1710.969	KSCFH
FIC-1515	BLR1 SECON AIR FAN VANE KSCFH	1533.531	KSCFH
FIC-2515	BLR2 SECOND AIR FAN VANE KSCFH	1589.219	KSCFH
FI-1704	BLR1 FUEL GAS FLOW TO LANCE	0.202	KSCFH
FI-2704	BLR2 FUEL GAS FLW LANCE KSCFH	-0.023	KSCFH
FI-1601	BLR1 FUEL GAS FLW TO SU BNR	0.025	KSCFH
FI-2601	BLR2 FUEL GAS FLW TO STRTP BNR	-0.050	KSCFH
FI-1753	BLR1 AMMONIA INJECTION FLOW	14.486	LB/HR
FI-2753	BLR2 AMMONIA INJECTION FLOW	26.873	LB/HR
SI-1345	#1 LIMESTONE FEED RATE	952.679	LB/HR
SI-2345	#2 LIMESTONE FEED RATE	1855.464	LB/HR
PDI-1415	BLR1 COMBUSTOR GRATE DP	38.600	IN H20
PDI-2415	BLR2 COMBUSTOR GRATE DP	39.625	IN H20
PDI-1417	BLR1 MIDDLE COMBUSTOR	32.562	IN H20
PDI-2417	BLR2 MIDDLE COMBUSTOR	27.013	IN H20
PDIC-1413	BLR1 UPPER COMBUSTOR DP	32.922	IN H20
PDIC-2413	BLR2 UPPER COMBUSTOR DP	26.247	IN H20
PI-680	HP FW HEATER 4 OUTLET PRESS	1710.938	PSIG
PI-1002	BLR1 STEAM DRUM PRESSURE	1216.662	PSIG
HIC-1029	BLR1 SUPERHTR OUTLET VENT	1155.594	PSIG
PI-2002	BLR2 STEAM DRUM PRESSURE	1233.216	PSIG
HIC-2029	BLR2 SUPERHTR OUTLET VENT	1157.719	PSIG

TI-1503	BLR1 PRIMARY AIR FAN OUTLET	134.619	DEG F.
TI-2503	BLR2 PRMRY AIR FAN OUTLET TEMP	133.331	DEG F.
TI-1513	BLR1 SECONDARY AIR FAN OUTLET	155.032	DEG F.
TI-2513	BLR2 SECONDARY AIR FAN OUTLET	121.798	DEG F.
TI-1506	BLR1 PRMRY AIR HTR AIR OUTLET	480.386	DEG F.
TI-2506	BLR2 PRMRY AIR HTR AIR OUTLET	486.490	DEG F.
TI-1516	BLR1 SEC AIR HTR AIR OUTLET	413.308	DEG F.
TI-2516	BLR2 SEC AIR HTR AIR OUTLET	434.986	DEG F.
TI-1421	CYCLONE #1 OUTLET TEMP	1609.041	DEG F.
TI-2421	CYCLONE #2 OUTLET TEMP	1536.994	DEG F.
TI-1126	BLR1 BACKPASS TEMPERATURE	996.595	DEG F.
TI-2126	BLR2 BACKPASS TEMPERATURE	851.198	DEG F.
TI-1102	BLR1 FLUE GAS INLET - AIR HTR	603.160	DEG F.
TI-2102	BLR2 FLUE GAS INLET TO AIR	573.398	DEG F.
TI-1114	BLR1 AIR HEATER FLUE OUT - PA	295.778	DEG F.
TI-2114	BLR2 AIR HEATER FLUE OUT - PA	307.726	DEG F.
TI-681	HPFW HEATER OUTLET	235.145	DEG F.
TI-1022	BLR1 ECONOMIZER OUTLET	560.758	DEG F.
TI-1003	BLR1 SH OUT TEMPERATURE	931.394	DEG F.
TI-2022	BLR2 ECONOMIZER OUTLET	541.502	DEG F.
TI-2003	BLR2 SH OUT TEMPERATURE	908.895	DEG F.
PI-1118	BLR1 ECONOMIZER OUT PRESS "H2O	-3.624	IN H2O
PI-2118	BLR2 ECONOMIZER PRESSURE "H2O	-4.341	IN H2O
XA-3902	PC SILO CONV. FAULT		
HS-3903	PC BUCKET ELEVATOR		AUTO
FIC-1206	BLR1 PET COKE	0.000	MMBTU
FIC-2206	BLR1 PET COKE	0.000	MMBTU
TI-1123	BLR1 BAGHOUSE INLET	324.095	DEG F.
TI-2123	BLR2 BAGHOUSE INLET	329.803	DEG F.
PI-1502	BLR1 PRIMARY AIR FAN OUT "H2O	79.509	IN H2O
PI-2502	BLR2 PRIMARY AIR FAN OUTLET	77.122	IN H2O
PI-1512	BLR1 SECONDARY AIR FAN OUT "H2O	35.515	IN H2O
PI-2512	BLR2 SECONDARY AIR FAN OUTLET	34.751	IN H2O
PI-1120	BLR1 BAGHOUSE INLET PRESS "H2O	-6.844	IN H2O
PI-2120	BLR2 BAGHOUSE INLET PRESS "H2O	-7.097	IN H2O
TI-1127	BLR1 AIR HEATER FLUE OUT - SA	299.822	DEG F.
TI-2127	BLR2 AIR HEATER FLUE OUT - SA	246.782	DEG F.
PI-103	TURBINE INLET STEAM PSIG	1145.420	PSIG
PI-206	TURBINE FIRST STAGE PRESS PSIG	929.161	PSIG
HS6D-6100	RECLAIM PILE SELECTOR	0	LOGIC
PI-705	CONDENSER PRESSURE	0.970	IN HG
EX-MW	GENERATOR MW GROSS	44.596	MWATT
EX-MVAR	GENERATOR MVAR	4.921	MVAR
EX-V	GENERATOR VOLTS	13.798	KV
EX-A	GENERATOR AMPS	1980.240	AMP
PI-402	TURBINE 4TH EXTRAC TO HPFW	366.232	PSIA
PI-422	TURBINE 3RD EXTRACT PRESS	165.949	PSIA
PI-442	TURBINE 2ND EXTRAC PRESS	94.068	PSIA
PI-462	TURBINE 1ST EXTRAC PRESS	17.489	PSIA

BOILER EFFICIENCY VARIABLES

TAG	DESCRIPTION	VALUE	E/U
AI-8020	BLR1 FLUE GAS CO2	11.688	% CO_2
AI-8021	BLR2 FLUE GAS CO2	12.535	% CO_2
AI-8030	BLR1 FLUE GAS CO	-1.503	% CO
AI-8031	BLR2 FLUE GAS CO	0.964	% CO
AI-8060	% MOISTURE IN FLUE GAS BLR1	14.884	% H_2O
AI-8061	% MOISTURE IN FLUE GAS BLR2	16.332	% H_2O
AI-8050	CEM O2 DRY ANALYZER BLR1	9.573	% O_2
AI-8051	CEM O2 DRY ANALYZER BLR2	8.997	% O_2
AIC-9010	BLR1 NOX TRIM	45.966	PPM
AIC-9011	BLR2 NOX TRIM	39.105	PPM
AIC-8010	BLR1 SO2 CONTROLLER	7.189	LB/HR
AIC-8011	BLR2 SO2 CONTROLLER	0.842	LB/HR
FI-1520	BLR1 TOTAL AIR FLOW	3210.606	KSDCFH
FI-2520	BLR2 TOTAL AIR FLOW	3287.524	KSDCFH
EX NMW	NET MW OUT	39.917	MEGWT
FI-1040	BLR1 OUTLET STEAM LBS/HR	186.779	LB/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	186.622	LB/HR
FI-1021	BLR1 STEAM DRUM BLOWDOWN LBS/HR	43.050	LB/HR
FI-2021	BLR2 STEAM DRUM BLOWDOWN LBS/HR	8.649	LB/HR
FI-1001	BLR1 FEEDWATER FLOW LBS/HR	202.353	LB/HR
FI-2001	BLR2 FEEDWATER FLOW LBS/HR	208.770	LB/HR
FI-1006	BLR1 DESPRHTR SPRAY WTR LBS/HR	11696.885	LB/HR
FI-2006	BLR2 DESPRHTR SPRAY LBS/HR	6346.293	LB/HR
FIC-1505	BLR1 PRIM AIR FAN VANE KSCFH	1676.594	KSCFH
FIC-2505	BLR2 PRIMARY AIR FAN VANE KSCFH	1703.344	KSCFH
FIC-1515	BLR1 SECON AIR FAN VANE KSCFH	1551.156	KSCFH
FIC-2515	BLR2 SECOND AIR FAN VANE KSCFH	1567.813	KSCFH
FI-1704	BLR1 FUEL GAS FLOW TO LANCE	0.202	KSCFH
FI-2704	BLR2 FUEL GAS FLW LANCE KSCFH	-0.023	KSCFH
FI-1601	BLR1 FUEL GAS FLW TO SU BNR	0.000	KSCFH
FI-2601	BLR2 FUEL GAS FLW TO STRTP BNR	-0.025	KSCFH
FI-1753	BLR1 AMMONIA INJECTION FLOW	15.726	LB/HR
FI-2753	BLR2 AMMONIA INJECTION FLOW	30.034	LB/HR
SI-1345	#1 LIMESTONE FEED RATE	2859.289	LB/HR
SI-2345	#2 LIMESTONE FEED RATE	2001.750	LB/HR
PDI-1415	BLR1 COMBUSTOR GRATE DP	36.375	IN H20
PDI-2415	BLR2 COMBUSTOR GRATE DP	42.275	IN H20
PDI-1417	BLR1 MIDDLE COMBUSTOR	33.600	IN H20
PDI-2417	BLR2 MIDDLE COMBUSTOR	25.700	IN H20
PDIC-1413	BLR1 UPPER COMBUSTOR DP	32.909	IN H20
PDIC-2413	BLR2 UPPER COMBUSTOR DP	26.386	IN H20
PI-680	HP FW HEATER 4 OUTLET PRESS	1711.670	PSIG
PI-1002	BLR1 STEAM DRUM PRESSURE	1218.914	PSIG
HIC-1029	BLR1 SUPERHTR OUTLET VENT	1153.719	PSIG
PI-2002	BLR2 STEAM DRUM PRESSURE	1230.586	PSIG
HIC-2029	BLR2 SUPERHTR OUTLET VENT	1157.031	PSIG

TI-1503	BLR1 PRIMARY AIR FAN OUTLET	133.216	DEG F.
TI-2503	BLR2 PRMRY AIR FAN OUTLET TEMP	130.594	DEG F.
TI-1513	BLR1 SECONDARY AIR FAN OUTLET	155.032	DEG F.
TI-2513	BLR2 SECONDARY AIR FAN OUTLET	119.322	DEG F.
TI-1506	BLR1 PRMRY AIR HTR AIR OUTLET	477.405	DEG F.
TI-2506	BLR2 PRMRY AIR HTR AIR OUTLET	494.059	DEG F.
TI-1516	BLR1 SEC AIR HTR AIR OUTLET	409.800	DEG F.
TI-2516	BLR2 SEC AIR HTR AIR OUTLET	442.353	DEG F.
TI-1421	CYCLONE #1 OUTLET TEMP	1616.300	DEG F.
TI-2421	CYCLONE #2 OUTLET TEMP	1537.144	DEG F.
TI-1126	BLR1 BACKPASS TEMPERATURE	992.998	DEG F.
TI-2126	BLR2 BACKPASS TEMPERATURE	882.712	DEG F.
TI-1102	BLR1 FLUE GAS INLET - AIR HTR	598.809	DEG F.
TI-2102	BLR2 FLUE GAS INLET TO AIR	592.462	DEG F.
TI-1114	BLR1 AIR HEATER FLUE OUT - PA	293.273	DEG F.
TI-2114	BLR2 AIR HEATER FLUE OUT - PA	307.578	DEG F.
TI-681	HPFW HEATER OUTLET	234.804	DEG F.
TI-1022	BLR1 ECONOMIZER OUTLET	561.944	DEG F.
TI-1003	BLR1 SH OUT TEMPERATURE	935.125	DEG F.
TI-2022	BLR2 ECONOMIZER OUTLET	552.896	DEG F.
TI-2003	BLR2 SH OUT TEMPERATURE	919.205	DEG F.
PI-1118	BLR1 ECONOMIZER OUT PRESS "H2O	-4.919	IN H2O
PI-2118	BLR2 ECONOMIZER PRESSURE "H2O	-3.107	IN H2O
XA-3902	PC SILO CONV. FAULT		
HS-3903	PC BUCKET ELEVATOR		AUTO
FIC-1206	BLR1 PET COKE	0.000	MMBTU
FIC-2206	BLR1 PET COKE	0.000	MMBTU
TI-1123	BLR1 BAGHOUSE INLET	322.438	DEG F.
TI-2123	BLR2 BAGHOUSE INLET	332.414	DEG F.
PI-1502	BLR1 PRIMARY AIR FAN OUT "H2O	76.903	IN H2O
PI-2502	BLR2 PRIMARY AIR FAN OUTLET	77.875	IN H2O
PI-1512	BLR1 SECONDARY AIR FAN OUT "H2O	36.423	IN H2O
PI-2512	BLR2 SECONDARY AIR FAN OUTLET	35.878	IN H2O
PI-1120	BLR1 BAGHOUSE INLET PRESS "H2O	-8.156	IN H2O
PI-2120	BLR2 BAGHOUSE INLET PRESS "H2O	-5.811	IN H2O
TI-1127	BLR1 AIR HEATER FLUE OUT - SA	295.776	DEG F.
TI-2127	BLR2 AIR HEATER FLUE OUT - SA	250.719	DEG F.
PI-103	TURBINE INLET STEAM PSIG	1145.420	PSIG
PI-206	TURBINE FIRST STAGE PRESS PSIG	922.644	PSIG
HS6D-6100	RECLAIM PILE SELECTOR	0	LOGIC
PI-705	CONDENSER PRESSURE	0.613	IN HG
EX-MW	GENERATOR MW GROSS	44.022	MWATT
EX-MVAR	GENERATOR MVAR	4.779	MVAR
EX-V	GENERATOR VOLTS	13.802	KV
EX-A	GENERATOR AMPS	1958.219	AMP
PI-402	TURBINE 4TH EXTRAC TO HPFW	361.264	PSIA
PI-422	TURBINE 3RD EXTRACT PRESS	164.749	PSIA
PI-442	TURBINE 2ND EXTRAC PRESS	92.846	PSIA
PI-462	TURBINE 1ST EXTRAC PRESS	17.279	PSIA

BOILER EFFICIENCY VARIABLES

TAG	DESCRIPTION	VALUE	E/U
AI-8020	BLR1 FLUE GAS CO2	10.885	% CO_2
AI-8021	BLR2 FLUE GAS CO2	11.321	% CO_2
AI-8030	BLR1 FLUE GAS CO	-2.129	% CO
AI-8031	BLR2 FLUE GAS CO	0.964	% CO
AI-8060	% MOISTURE IN FLUE GAS BLR1	14.973	% H_2O
AI-8061	% MOISTURE IN FLUE GAS BLR2	15.975	% H_2O
AI-8050	CEM O2 DRY ANALYZER BLR1	9.546	% O_2
AI-8051	CEM O2 DRY ANALYZER BLR2	9.193	% O_2
AIC-9010	BLR1 NOX TRIM	45.216	PPM
AIC-9011	BLR2 NOX TRIM	40.730	PPM
AIC-8010	BLR1 SO2 CONTROLLER	9.178	LB/HR
AIC-8011	BLR2 SO2 CONTROLLER	7.418	LB/HR
FI-1520	BLR1 TOTAL AIR FLOW	3210.606	KSDCFH
FI-2520	BLR2 TOTAL AIR FLOW	3287.524	KSDCFH
EX NMW	NET MW OUT	39.273	MEGWT
FI-1040	BLR1 OUTLET STEAM LBS/HR	178.700	LB/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	188.846	LB/HR
FI-1021	BLR1 STEAM DRUM BLOWDOWN LBS/HR	45.920	LB/HR
FI-2021	BLR2 STEAM DRUM BLOWDOWN LBS/HR	14.418	LB/HR
FI-1001	BLR1 FEEDWATER FLOW LBS/HR	198.772	LB/HR
FI-2001	BLR2 FEEDWATER FLOW LBS/HR	201.118	LB/HR
FI-1006	BLR1 DESPRHTR SPRAY WTR LBS/HR	13098.094	LB/HR
FI-2006	BLR2 DESPRHTR SPRAY LBS/HR	6049.899	LB/HR
FIC-1505	BLR1 PRIM AIR FAN VANE KSCFH	1664.469	KSCFH
FIC-2505	BLR2 PRIMARY AIR FAN VANE KSCFH	1714.969	KSCFH
FIC-1515	BLR1 SECON AIR FAN VANE KSCFH	1534.531	KSCFH
FIC-2515	BLR2 SECOND AIR FAN VANE KSCFH	1576.750	KSCFH
FI-1704	BLR1 FUEL GAS FLOW TO LANCE	0.158	KSCFH
FI-2704	BLR2 FUEL GAS FLW LANCE KSCFH	-0.045	KSCFH
FI-1601	BLR1 FUEL GAS FLW TO SU BNR	0.000	KSCFH
FI-2601	BLR2 FUEL GAS FLW TO STRTP BNR	-0.025	KSCFH
FI-1753	BLR1 AMMONIA INJECTION FLOW	14.827	LB/HR
FI-2753	BLR2 AMMONIA INJECTION FLOW	27.196	LB/HR
SI-1345	#1 LIMESTONE FEED RATE	2692.789	LB/HR
SI-2345	#2 LIMESTONE FEED RATE	1263.131	LB/HR
PDI-1415	BLR1 COMBUSTOR GRATE DP	38.900	IN H20
PDI-2415	BLR2 COMBUSTOR GRATE DP	40.475	IN H20
PDI-1417	BLR1 MIDDLE COMBUSTOR	31.837	IN H20
PDI-2417	BLR2 MIDDLE COMBUSTOR	26.588	IN H20
PDIC-1413	BLR1 UPPER COMBUSTOR DP	33.428	IN H20
PDIC-2413	BLR2 UPPER COMBUSTOR DP	26.273	IN H20
PI-680	HP FW HEATER 4 OUTLET PRESS	1720.688	PSIG
PI-1002	BLR1 STEAM DRUM PRESSURE	1214.036	PSIG
HIC-1029	BLR1 SUPERHTR OUTLET VENT	1154.094	PSIG
PI-2002	BLR2 STEAM DRUM PRESSURE	1230.962	PSIG
HIC-2029	BLR2 SUPERHTR OUTLET VENT	1158.094	PSIG

TI-1503	BLR1 PRIMARY AIR FAN OUTLET	128.610	DEG F.
TI-2503	BLR2 PRMRY AIR FAN OUTLET TEMP	125.158	DEG F.
TI-1513	BLR1 SECONDARY AIR FAN OUTLET	155.032	DEG F.
TI-2513	BLR2 SECONDARY AIR FAN OUTLET	114.405	DEG F.
TI-1506	BLR1 PRMRY AIR HTR AIR OUTLET	480.970	DEG F.
TI-2506	BLR2 PRMRY AIR HTR AIR OUTLET	490.740	DEG F.
TI-1516	BLR1 SEC AIR HTR AIR OUTLET	412.867	DEG F.
TI-2516	BLR2 SEC AIR HTR AIR OUTLET	439.463	DEG F.
TI-1421	CYCLONE #1 OUTLET TEMP	1609.822	DEG F.
TI-2421	CYCLONE #2 OUTLET TEMP	1534.993	DEG F.
TI-1126	BLR1 BACKPASS TEMPERATURE	970.555	DEG F.
TI-2126	BLR2 BACKPASS TEMPERATURE	885.325	DEG F.
TI-1102	BLR1 FLUE GAS INLET - AIR HTR	582.798	DEG F.
TI-2102	BLR2 FLUE GAS INLET TO AIR	590.478	DEG F.
TI-1114	BLR1 AIR HEATER FLUE OUT - PA	296.052	DEG F.
TI-2114	BLR2 AIR HEATER FLUE OUT - PA	304.870	DEG F.
TI-681	HPFW HEATER OUTLET	235.100	DEG F.
TI-1022	BLR1 ECONOMIZER OUTLET	556.283	DEG F.
TI-1003	BLR1 SH OUT TEMPERATURE	927.534	DEG F.
TI-2022	BLR2 ECONOMIZER OUTLET	551.764	DEG F.
TI-2003	BLR2 SH OUT TEMPERATURE	916.823	DEG F.
PI-1118	BLR1 ECONOMIZER OUT PRESS "H2O	-3.125	IN H2O
PI-2118	BLR2 ECONOMIZER PRESSURE "H2O	-4.149	IN H2O
XA-3902	PC SILO CONV. FAULT		
HS-3903	PC BUCKET ELEVATOR		AUTO
FIC-1206	BLR1 PET COKE	0.000	MMBTU
FIC-2206	BLR1 PET COKE	0.000	MMBTU
TI-1123	BLR1 BAGHOUSE INLET	325.763	DEG F.
TI-2123	BLR2 BAGHOUSE INLET	328.774	DEG F.
PI-1502	BLR1 PRIMARY AIR FAN OUT "H2O	80.119	IN H2O
PI-2502	BLR2 PRIMARY AIR FAN OUTLET	77.798	IN H2O
PI-1512	BLR1 SECONDARY AIR FAN OUT "H2O	38.477	IN H2O
PI-2512	BLR2 SECONDARY AIR FAN OUTLET	35.452	IN H2O
PI-1120	BLR1 BAGHOUSE INLET PRESS "H2O	-6.564	IN H2O
PI-2120	BLR2 BAGHOUSE INLET PRESS "H2O	-6.984	IN H2O
TI-1127	BLR1 AIR HEATER FLUE OUT - SA	299.562	DEG F.
TI-2127	BLR2 AIR HEATER FLUE OUT - SA	246.609	DEG F.
PI-103	TURBINE INLET STEAM PSIG	1142.033	PSIG
PI-206	TURBINE FIRST STAGE PRESS PSIG	920.165	PSIG
HS6D-6100	RECLAIM PILE SELECTOR	0	LOGIC
PI-705	CONDENSER PRESSURE	0.492	IN HG
EX-MW	GENERATOR MW GROSS	43.469	MWATT
EX-MVAR	GENERATOR MVAR	4.704	MVAR
EX-V	GENERATOR VOLTS	13.819	KV
EX-A	GENERATOR AMPS	1927.446	AMP
PI-402	TURBINE 4TH EXTRAC TO HPFW	356.899	PSIA
PI-422	TURBINE 3RD EXTRACT PRESS	162.797	PSIA
PI-442	TURBINE 2ND EXTRAC PRESS	92.158	PSIA
PI-462	TURBINE 1ST EXTRAC PRESS	17.043	PSIA

BOILER EFFICIENCY VARIABLES

TAG	DESCRIPTION	VALUE	E/U
AI-8020	BLR1 FLUE GAS CO2	12.274	% CO_2
AI-8021	BLR2 FLUE GAS CO2	11.408	% CO_2
AI-8030	BLR1 FLUE GAS CO	-1.879	% CO
AI-8031	BLR2 FLUE GAS CO	2.704	% CO
AI-8060	% MOISTURE IN FLUE GAS BLR1	17.489	% H_2O
AI-8061	% MOISTURE IN FLUE GAS BLR2	15.213	% H_2O
AI-8050	CEM O2 DRY ANALYZER BLR1	9.928	% O_2
AI-8051	CEM O2 DRY ANALYZER BLR2	9.155	% O_2
AIC-9010	BLR1 NOX TRIM	53.460	PPM
AIC-9011	BLR2 NOX TRIM	38.106	PPM
AIC-8010	BLR1 SO2 CONTROLLER	7.806	LB/HR
AIC-8011	BLR2 SO2 CONTROLLER	8.690	LB/HR
FI-1520	BLR1 TOTAL AIR FLOW	3210.606	KSDCFH
FI-2520	BLR2 TOTAL AIR FLOW	3287.524	KSDCFH
EX NMW	NET MW OUT	39.279	MEGWT
FI-1040	BLR1 OUTLET STEAM LBS/HR	175.247	LB/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	188.434	LB/HR
FI-1021	BLR1 STEAM DRUM BLOWDOWN LBS/HR	48.790	LB/HR
FI-2021	BLR2 STEAM DRUM BLOWDOWN LBS/HR	20.180	LB/HR
FI-1001	BLR1 FEEDWATER FLOW LBS/HR	201.444	LB/HR
FI-2001	BLR2 FEEDWATER FLOW LBS/HR	196.784	LB/HR
FI-1006	BLR1 DESPRHTR SPRAY WTR LBS/HR	10817.659	LB/HR
FI-2006	BLR2 DESPRHTR SPRAY LBS/HR	197.595	LB/HR
FIC-1505	BLR1 PRIM AIR FAN VANE KSCFH	1653.000	KSCFH
FIC-2505	BLR2 PRIMARY AIR FAN VANE KSCFH	1707.969	KSCFH
FIC-1515	BLR1 SECON AIR FAN VANE KSCFH	1542.531	KSCFH
FIC-2515	BLR2 SECOND AIR FAN VANE KSCFH	1571.844	KSCFH
FI-1704	BLR1 FUEL GAS FLOW TO LANCE	0.158	KSCFH
FI-2704	BLR2 FUEL GAS FLW LANCE KSCFH	-0.045	KSCFH
FI-1601	BLR1 FUEL GAS FLW TO SU BNR	0.000	KSCFH
FI-2601	BLR2 FUEL GAS FLW TO STRTP BNR	0.000	KSCFH
FI-1753	BLR1 AMMONIA INJECTION FLOW	14.911	LB/HR
FI-2753	BLR2 AMMONIA INJECTION FLOW	27.607	LB/HR
SI-1345	#1 LIMESTONE FEED RATE	2640.210	LB/HR
SI-2345	#2 LIMESTONE FEED RATE	1068.034	LB/HR
PDI-1415	BLR1 COMBUSTOR GRATE DP	37.450	IN H20
PDI-2415	BLR2 COMBUSTOR GRATE DP	44.700	IN H20
PDI-1417	BLR1 MIDDLE COMBUSTOR	33.300	IN H20
PDI-2417	BLR2 MIDDLE COMBUSTOR	24.300	IN H20
PDIC-1413	BLR1 UPPER COMBUSTOR DP	33.617	IN H20
PDIC-2413	BLR2 UPPER COMBUSTOR DP	26.418	IN H20
PI-680	HP FW HEATER 4 OUTLET PRESS	1719.177	PSIG
PI-1002	BLR1 STEAM DRUM PRESSURE	1215.537	PSIG
HIC-1029	BLR1 SUPERHTR OUTLET VENT	1152.594	PSIG
PI-2002	BLR2 STEAM DRUM PRESSURE	1232.841	PSIG
HIC-2029	BLR2 SUPERHTR OUTLET VENT	1156.281	PSIG

TI-1503	BLR1 PRIMARY AIR FAN OUTLET	125.669	DEG F.
TI-2503	BLR2 PRMRY AIR FAN OUTLET TEMP	122.425	DEG F.
TI-1513	BLR1 SECONDARY AIR FAN OUTLET	155.032	DEG F.
TI-2513	BLR2 SECONDARY AIR FAN OUTLET	110.912	DEG F.
TI-1506	BLR1 PRMRY AIR HTR AIR OUTLET	498.283	DEG F.
TI-2506	BLR2 PRMRY AIR HTR AIR OUTLET	488.991	DEG F.
TI-1516	BLR1 SEC AIR HTR AIR OUTLET	429.018	DEG F.
TI-2516	BLR2 SEC AIR HTR AIR OUTLET	437.035	DEG F.
TI-1421	CYCLONE #1 OUTLET TEMP	1615.479	DEG F.
TI-2421	CYCLONE #2 OUTLET TEMP	1529.539	DEG F.
TI-1126	BLR1 BACKPASS TEMPERATURE	1023.717	DEG F.
TI-2126	BLR2 BACKPASS TEMPERATURE	879.485	DEG F.
TI-1102	BLR1 FLUE GAS INLET - AIR HTR	631.861	DEG F.
TI-2102	BLR2 FLUE GAS INLET TO AIR	589.255	DEG F.
TI-1114	BLR1 AIR HEATER FLUE OUT - PA	296.681	DEG F.
TI-2114	BLR2 AIR HEATER FLUE OUT - PA	301.623	DEG F.
TI-681	HPFW HEATER OUTLET	234.560	DEG F.
TI-1022	BLR1 ECONOMIZER OUTLET	563.788	DEG F.
TI-1003	BLR1 SH OUT TEMPERATURE	936.191	DEG F.
TI-2022	BLR2 ECONOMIZER OUTLET	552.982	DEG F.
TI-2003	BLR2 SH OUT TEMPERATURE	921.441	DEG F.
PI-1118	BLR1 ECONOMIZER OUT PRESS "H2O	-4.236	IN H2O
PI-2118	BLR2 ECONOMIZER PRESSURE "H2O	-3.939	IN H2O
XA-3902	PC SILO CONV. FAULT		
HS-3903	PC BUCKET ELEVATOR		AUTO
FIC-1206	BLR1 PET COKE	0.000	MMBTU
FIC-2206	BLR1 PET COKE	0.000	MMBTU
TI-1123	BLR1 BAGHOUSE INLET	330.711	DEG F.
TI-2123	BLR2 BAGHOUSE INLET	327.167	DEG F.
PI-1502	BLR1 PRIMARY AIR FAN OUT "H2O	79.208	IN H2O
PI-2502	BLR2 PRIMARY AIR FAN OUTLET	77.223	IN H2O
PI-1512	BLR1 SECONDARY AIR FAN OUT "H2O	38.402	IN H2O
PI-2512	BLR2 SECONDARY AIR FAN OUTLET	35.853	IN H2O
PI-1120	BLR1 BAGHOUSE INLET PRESS "H2O	-7.693	IN H2O
PI-2120	BLR2 BAGHOUSE INLET PRESS "H2O	-6.774	IN H2O
TI-1127	BLR1 AIR HEATER FLUE OUT - SA	302.439	DEG F.
TI-2127	BLR2 AIR HEATER FLUE OUT - SA	244.575	DEG F.
PI-103	TURBINE INLET STEAM PSIG	1143.915	PSIG
PI-206	TURBINE FIRST STAGE PRESS PSIG	919.560	PSIG
HS6D-6100	RECLAIM PILE SELECTOR	0	LOGIC
PI-705	CONDENSER PRESSURE	0.430	IN HG
EX-MW	GENERATOR MW GROSS	43.420	MWATT
EX-MVAR	GENERATOR MVAR	4.647	MVAR
EX-V	GENERATOR VOLTS	13.763	KV
EX-A	GENERATOR AMPS	1934.201	AMP
PI-402	TURBINE 4TH EXTRAC TO HPFW	359.609	PSIA
PI-422	TURBINE 3RD EXTRACT PRESS	162.947	PSIA
PI-442	TURBINE 2ND EXTRAC PRESS	91.619	PSIA
PI-462	TURBINE 1ST EXTRAC PRESS	17.069	PSIA

BOILER EFFICIENCY VARIABLES

TAG	DESCRIPTION	VALUE	E/U
AI-8020	BLR1 FLUE GAS CO2	10.504	% CO_2
AI-8021	BLR2 FLUE GAS CO2	2.738	% CO_2
AI-8030	BLR1 FLUE GAS CO	-1.754	% CO
AI-8031	BLR2 FLUE GAS CO	24.003	% CO
AI-8060	% MOISTURE IN FLUE GAS BLR1	16.627	% H_2O
AI-8061	% MOISTURE IN FLUE GAS BLR2	-138.638	% H_2O
AI-8050	CEM O2 DRY ANALYZER BLR1	9.934	% O_2
AI-8051	CEM O2 DRY ANALYZER BLR2	5.631	% O_2
AIC-9010	BLR1 NOX TRIM	50.587	PPM
AIC-9011	BLR2 NOX TRIM	43.353	PPM
AIC-8010	BLR1 SO2 CONTROLLER	7.494	LB/HR
AIC-8011	BLR2 SO2 CONTROLLER	16.462	LB/HR
FI-1520	BLR1 TOTAL AIR FLOW	3210.606	KSDCFH
FI-2520	BLR2 TOTAL AIR FLOW	3287.524	KSDCFH
EX NMW	NET MW OUT	39.041	MEGWT
FI-1040	BLR1 OUTLET STEAM LBS/HR	179.411	LB/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	190.140	LB/HR
FI-1021	BLR1 STEAM DRUM BLOWDOWN LBS/HR	48.777	LB/HR
FI-2021	BLR2 STEAM DRUM BLOWDOWN LBS/HR	20.186	LB/HR
FI-1001	BLR1 FEEDWATER FLOW LBS/HR	191.429	LB/HR
FI-2001	BLR2 FEEDWATER FLOW LBS/HR	200.347	LB/HR
FI-1006	BLR1 DESPRHTR SPRAY WTR LBS/HR	8707.181	LB/HR
FI-2006	BLR2 DESPRHTR SPRAY LBS/HR	6427.655	LB/HR
FIC-1505	BLR1 PRIM AIR FAN VANE KSCFH	1670.781	KSCFH
FIC-2505	BLR2 PRIMARY AIR FAN VANE KSCFH	1718.281	KSCFH
FIC-1515	BLR1 SECON AIR FAN VANE KSCFH	1542.531	KSCFH
FIC-2515	BLR2 SECOND AIR FAN VANE KSCFH	1576.750	KSCFH
FI-1704	BLR1 FUEL GAS FLOW TO LANCE	0.113	KSCFH
FI-2704	BLR2 FUEL GAS FLW LANCE KSCFH	-0.045	KSCFH
FI-1601	BLR1 FUEL GAS FLW TO SU BNR	0.000	KSCFH
FI-2601	BLR2 FUEL GAS FLW TO STRTP BNR	0.000	KSCFH
FI-1753	BLR1 AMMONIA INJECTION FLOW	13.869	LB/HR
FI-2753	BLR2 AMMONIA INJECTION FLOW	27.742	LB/HR
SI-1345	#1 LIMESTONE FEED RATE	1659.990	LB/HR
SI-2345	#2 LIMESTONE FEED RATE	1407.852	LB/HR
PDI-1415	BLR1 COMBUSTOR GRATE DP	37.975	IN H20
PDI-2415	BLR2 COMBUSTOR GRATE DP	43.250	IN H20
PDI-1417	BLR1 MIDDLE COMBUSTOR	34.200	IN H20
PDI-2417	BLR2 MIDDLE COMBUSTOR	25.362	IN H20
PDIC-1413	BLR1 UPPER COMBUSTOR DP	34.053	IN H20
PDIC-2413	BLR2 UPPER COMBUSTOR DP	26.426	IN H20
PI-680	HP FW HEATER 4 OUTLET PRESS	1724.442	PSIG
PI-1002	BLR1 STEAM DRUM PRESSURE	1216.662	PSIG
HIC-1029	BLR1 SUPERHTR OUTLET VENT	1154.563	PSIG
PI-2002	BLR2 STEAM DRUM PRESSURE	1235.095	PSIG
HIC-2029	BLR2 SUPERHTR OUTLET VENT	1160.063	PSIG

TI-1503	BLR1 PRIMARY AIR FAN OUTLET	121.583	DEG F.
TI-2503	BLR2 PRMRY AIR FAN OUTLET TEMP	118.334	DEG F.
TI-1513	BLR1 SECONDARY AIR FAN OUTLET	155.032	DEG F.
TI-2513	BLR2 SECONDARY AIR FAN OUTLET	106.743	DEG F.
TI-1506	BLR1 PRMRY AIR HTR AIR OUTLET	496.508	DEG F.
TI-2506	BLR2 PRMRY AIR HTR AIR OUTLET	488.107	DEG F.
TI-1516	BLR1 SEC AIR HTR AIR OUTLET	426.489	DEG F.
TI-2516	BLR2 SEC AIR HTR AIR OUTLET	436.113	DEG F.
TI-1421	CYCLONE #1 OUTLET TEMP	1596.417	DEG F.
TI-2421	CYCLONE #2 OUTLET TEMP	1523.741	DEG F.
TI-1126	BLR1 BACKPASS TEMPERATURE	1020.617	DEG F.
TI-2126	BLR2 BACKPASS TEMPERATURE	872.859	DEG F.
TI-1102	BLR1 FLUE GAS INLET - AIR HTR	630.455	DEG F.
TI-2102	BLR2 FLUE GAS INLET TO AIR	588.253	DEG F.
TI-1114	BLR1 AIR HEATER FLUE OUT - PA	294.382	DEG F.
TI-2114	BLR2 AIR HEATER FLUE OUT - PA	303.110	DEG F.
TI-681	HPFW HEATER OUTLET	234.701	DEG F.
TI-1022	BLR1 ECONOMIZER OUTLET	568.879	DEG F.
TI-1003	BLR1 SH OUT TEMPERATURE	917.934	DEG F.
TI-2022	BLR2 ECONOMIZER OUTLET	559.371	DEG F.
TI-2003	BLR2 SH OUT TEMPERATURE	923.383	DEG F.
PI-1118	BLR1 ECONOMIZER OUT PRESS "H2O	-4.280	IN H2O
PI-2118	BLR2 ECONOMIZER PRESSURE "H2O	-4.910	IN H2O
XA-3902	PC SILO CONV. FAULT		
HS-3903	PC BUCKET ELEVATOR		AUTO
FIC-1206	BLR1 PET COKE	0.000	MMBTU
FIC-2206	BLR1 PET COKE	0.000	MMBTU
TI-1123	BLR1 BAGHOUSE INLET	328.781	DEG F.
TI-2123	BLR2 BAGHOUSE INLET	326.589	DEG F.
PI-1502	BLR1 PRIMARY AIR FAN OUT "H2O	80.034	IN H2O
PI-2502	BLR2 PRIMARY AIR FAN OUTLET	76.563	IN H2O
PI-1512	BLR1 SECONDARY AIR FAN OUT "H2O	38.101	IN H2O
PI-2512	BLR2 SECONDARY AIR FAN OUTLET	36.573	IN H2O
PI-1120	BLR1 BAGHOUSE INLET PRESS "H2O	-7.728	IN H2O
PI-2120	BLR2 BAGHOUSE INLET PRESS "H2O	-7.806	IN H2O
TI-1127	BLR1 AIR HEATER FLUE OUT - SA	301.668	DEG F.
TI-2127	BLR2 AIR HEATER FLUE OUT - SA	243.844	DEG F.
PI-103	TURBINE INLET STEAM PSIG	1145.044	PSIG
PI-206	TURBINE FIRST STAGE PRESS PSIG	909.295	PSIG
HS6D-6100	RECLAIM PILE SELECTOR	0	LOGIC
PI-705	CONDENSER PRESSURE	0.349	IN HG
EX-MW	GENERATOR MW GROSS	43.344	MWATT
EX-MVAR	GENERATOR MVAR	4.734	MVAR
EX-V	GENERATOR VOLTS	13.756	KV
EX-A	GENERATOR AMPS	1936.719	AMP
PI-402	TURBINE 4TH EXTRAC TO HPFW	355.243	PSIA
PI-422	TURBINE 3RD EXTRACT PRESS	161.896	PSIA
PI-442	TURBINE 2ND EXTRAC PRESS	89.610	PSIA
PI-462	TURBINE 1ST EXTRAC PRESS	16.919	PSIA

BOILER EFFICIENCY VARIABLES

TAG	DESCRIPTION	VALUE	E/U
AI-8020	BLR1 FLUE GAS CO2	11.242	% CO_2
AI-8021	BLR2 FLUE GAS CO2	12.545	% CO_2
AI-8030	BLR1 FLUE GAS CO	-2.380	% CO
AI-8031	BLR2 FLUE GAS CO	-2.429	% CO
AI-8060	% MOISTURE IN FLUE GAS BLR1	17.570	% H_2O
AI-8061	% MOISTURE IN FLUE GAS BLR2	18.282	% H_2O
AI-8050	CEM O2 DRY ANALYZER BLR1	10.084	% O_2
AI-8051	CEM O2 DRY ANALYZER BLR2	8.948	% O_2
AIC-9010	BLR1 NOX TRIM	51.324	PPM
AIC-9011	BLR2 NOX TRIM	45.602	PPM
AIC-8010	BLR1 SO2 CONTROLLER	6.874	LB/HR
AIC-8011	BLR2 SO2 CONTROLLER	10.218	LB/HR
FI-1520	BLR1 TOTAL AIR FLOW	3210.606	KSDCFH
FI-2520	BLR2 TOTAL AIR FLOW	3287.524	KSDCFH
EX NMW	NET MW OUT	39.737	MEGWT
FI-1040	BLR1 OUTLET STEAM LBS/HR	173.034	LB/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	197.778	LB/HR
FI-1021	BLR1 STEAM DRUM BLOWDOWN LBS/HR	48.790	LB/HR
FI-2021	BLR2 STEAM DRUM BLOWDOWN LBS/HR	17.302	LB/HR
FI-1001	BLR1 FEEDWATER FLOW LBS/HR	184.405	LB/HR
FI-2001	BLR2 FEEDWATER FLOW LBS/HR	204.555	LB/HR
FI-1006	BLR1 DESPRHTR SPRAY WTR LBS/HR	0.000	LB/HR
FI-2006	BLR2 DESPRHTR SPRAY LBS/HR	5910.421	LB/HR
FIC-1505	BLR1 PRIM AIR FAN VANE KSCFH	1675.563	KSCFH
FIC-2505	BLR2 PRIMARY AIR FAN VANE KSCFH	1714.750	KSCFH
FIC-1515	BLR1 SECON AIR FAN VANE KSCFH	1537.531	KSCFH
FIC-2515	BLR2 SECOND AIR FAN VANE KSCFH	1586.875	KSCFH
FI-1704	BLR1 FUEL GAS FLOW TO LANCE	0.135	KSCFH
FI-2704	BLR2 FUEL GAS FLW LANCE KSCFH	-0.045	KSCFH
FI-1601	BLR1 FUEL GAS FLW TO SU BNR	0.000	KSCFH
FI-2601	BLR2 FUEL GAS FLW TO STRTP BNR	0.000	KSCFH
FI-1753	BLR1 AMMONIA INJECTION FLOW	13.957	LB/HR
FI-2753	BLR2 AMMONIA INJECTION FLOW	21.960	LB/HR
SI-1345	#1 LIMESTONE FEED RATE	1666.250	LB/HR
SI-2345	#2 LIMESTONE FEED RATE	591.398	LB/HR
PDI-1415	BLR1 COMBUSTOR GRATE DP	36.825	IN H20
PDI-2415	BLR2 COMBUSTOR GRATE DP	43.125	IN H20
PDI-1417	BLR1 MIDDLE COMBUSTOR	34.200	IN H20
PDI-2417	BLR2 MIDDLE COMBUSTOR	26.688	IN H20
PDIC-1413	BLR1 UPPER COMBUSTOR DP	33.913	IN H20
PDIC-2413	BLR2 UPPER COMBUSTOR DP	26.603	IN H20
PI-680	HP FW HEATER 4 OUTLET PRESS	1723.709	PSIG
PI-1002	BLR1 STEAM DRUM PRESSURE	1215.537	PSIG
HIC-1029	BLR1 SUPERHTR OUTLET VENT	1155.219	PSIG
PI-2002	BLR2 STEAM DRUM PRESSURE	1238.853	PSIG
HIC-2029	BLR2 SUPERHTR OUTLET VENT	1159.594	PSIG

TI-1503	BLR1 PRIMARY AIR FAN OUTLET	123.808	DEG F.
TI-2503	BLR2 PRMRY AIR FAN OUTLET TEMP	119.687	DEG F.
TI-1513	BLR1 SECONDARY AIR FAN OUTLET	155.032	DEG F.
TI-2513	BLR2 SECONDARY AIR FAN OUTLET	108.806	DEG F.
TI-1506	BLR1 PRMRY AIR HTR AIR OUTLET	492.526	DEG F.
TI-2506	BLR2 PRMRY AIR HTR AIR OUTLET	486.378	DEG F.
TI-1516	BLR1 SEC AIR HTR AIR OUTLET	423.658	DEG F.
TI-2516	BLR2 SEC AIR HTR AIR OUTLET	434.470	DEG F.
TI-1421	CYCLONE #1 OUTLET TEMP	1586.888	DEG F.
TI-2421	CYCLONE #2 OUTLET TEMP	1522.960	DEG F.
TI-1126	BLR1 BACKPASS TEMPERATURE	1012.436	DEG F.
TI-2126	BLR2 BACKPASS TEMPERATURE	870.662	DEG F.
TI-1102	BLR1 FLUE GAS INLET - AIR HTR	624.793	DEG F.
TI-2102	BLR2 FLUE GAS INLET TO AIR	587.036	DEG F.
TI-1114	BLR1 AIR HEATER FLUE OUT - PA	291.904	DEG F.
TI-2114	BLR2 AIR HEATER FLUE OUT - PA	301.860	DEG F.
TI-681	HPFW HEATER OUTLET	235.099	DEG F.
TI-1022	BLR1 ECONOMIZER OUTLET	565.951	DEG F.
TI-1003	BLR1 SH OUT TEMPERATURE	918.863	DEG F.
TI-2022	BLR2 ECONOMIZER OUTLET	559.427	DEG F.
TI-2003	BLR2 SH OUT TEMPERATURE	927.629	DEG F.
PI-1118	BLR1 ECONOMIZER OUT PRESS "H2O	-4.656	IN H2O
PI-2118	BLR2 ECONOMIZER PRESSURE "H2O	-4.289	IN H2O
XA-3902	PC SILO CONV. FAULT		
HS-3903	PC BUCKET ELEVATOR		AUTO
FIC-1206	BLR1 PET COKE	0.000	MMBTU
FIC-2206	BLR1 PET COKE	0.000	MMBTU
TI-1123	BLR1 BAGHOUSE INLET	326.624	DEG F.
TI-2123	BLR2 BAGHOUSE INLET	326.665	DEG F.
PI-1502	BLR1 PRIMARY AIR FAN OUT "H2O	78.331	IN H2O
PI-2502	BLR2 PRIMARY AIR FAN OUTLET	77.223	IN H2O
PI-1512	BLR1 SECONDARY AIR FAN OUT "H2O	38.201	IN H2O
PI-2512	BLR2 SECONDARY AIR FAN OUTLET	36.354	IN H2O
PI-1120	BLR1 BAGHOUSE INLET PRESS "H2O	-8.104	IN H2O
PI-2120	BLR2 BAGHOUSE INLET PRESS "H2O	-7.290	IN H2O
TI-1127	BLR1 AIR HEATER FLUE OUT - SA	299.600	DEG F.
TI-2127	BLR2 AIR HEATER FLUE OUT - SA	241.697	DEG F.
PI-103	TURBINE INLET STEAM PSIG	1145.044	PSIG
PI-206	TURBINE FIRST STAGE PRESS PSIG	910.045	PSIG
HS6D-6100	RECLAIM PILE SELECTOR	0	LOGIC
PI-705	CONDENSER PRESSURE	0.364	IN HG
EX-MW	GENERATOR MW GROSS	43.908	MWATT
EX-MVAR	GENERATOR MVAR	4.628	MVAR
EX-V	GENERATOR VOLTS	13.721	KV
EX-A	GENERATOR AMPS	1962.722	AMP
PI-402	TURBINE 4TH EXTRAC TO HPFW	354.942	PSIA
PI-422	TURBINE 3RD EXTRACT PRESS	161.971	PSIA
PI-442	TURBINE 2ND EXTRAC PRESS	91.146	PSIA
PI-462	TURBINE 1ST EXTRAC PRESS	17.238	PSIA

BOILER EFFICIENCY VARIABLES

TAG	DESCRIPTION	VALUE	E/U
AI-8020	BLR1 FLUE GAS CO2	10.135	% CO_2
AI-8021	BLR2 FLUE GAS CO2	12.219	% CO_2
AI-8030	BLR1 FLUE GAS CO	-1.240	% CO
AI-8031	BLR2 FLUE GAS CO	-1.665	% CO
AI-8060	% MOISTURE IN FLUE GAS BLR1	17.194	% H_2O
AI-8061	% MOISTURE IN FLUE GAS BLR2	15.869	% H_2O
AI-8050	CEM O2 DRY ANALYZER BLR1	11.069	% O_2
AI-8051	CEM O2 DRY ANALYZER BLR2	8.739	% O_2
AIC-9010	BLR1 NOX TRIM	33.350	PPM
AIC-9011	BLR2 NOX TRIM	50.600	PPM
AIC-8010	BLR1 SO2 CONTROLLER	7.568	LB/HR
AIC-8011	BLR2 SO2 CONTROLLER	16.694	LB/HR
FI-1520	BLR1 TOTAL AIR FLOW	3283.819	KSDCFH
FI-2520	BLR2 TOTAL AIR FLOW	3287.524	KSDCFH
EX NMW	NET MW OUT	37.930	MEGWT
FI-1040	BLR1 OUTLET STEAM LBS/HR	164.889	LB/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	192.479	LB/HR
FI-1021	BLR1 STEAM DRUM BLOWDOWN LBS/HR	48.790	LB/HR
FI-2021	BLR2 STEAM DRUM BLOWDOWN LBS/HR	20.180	LB/HR
FI-1001	BLR1 FEEDWATER FLOW LBS/HR	178.696	LB/HR
FI-2001	BLR2 FEEDWATER FLOW LBS/HR	209.411	LB/HR
FI-1006	BLR1 DESPRHTR SPRAY WTR LBS/HR	11440.803	LB/HR
FI-2006	BLR2 DESPRHTR SPRAY LBS/HR	6553.869	LB/HR
FIC-1505	BLR1 PRIM AIR FAN VANE KSCFH	1694.031	KSCFH
FIC-2505	BLR2 PRIMARY AIR FAN VANE KSCFH	1710.531	KSCFH
FIC-1515	BLR1 SECON AIR FAN VANE KSCFH	1566.563	KSCFH
FIC-2515	BLR2 SECOND AIR FAN VANE KSCFH	1570.188	KSCFH
FI-1704	BLR1 FUEL GAS FLOW TO LANCE	0.135	KSCFH
FI-2704	BLR2 FUEL GAS FLW LANCE KSCFH	-0.045	KSCFH
FI-1601	BLR1 FUEL GAS FLW TO SU BNR	0.000	KSCFH
FI-2601	BLR2 FUEL GAS FLW TO STRTP BNR	0.000	KSCFH
FI-1753	BLR1 AMMONIA INJECTION FLOW	13.957	LB/HR
FI-2753	BLR2 AMMONIA INJECTION FLOW	21.090	LB/HR
SI-1345	#1 LIMESTONE FEED RATE	676.014	LB/HR
SI-2345	#2 LIMESTONE FEED RATE	728.932	LB/HR
PDI-1415	BLR1 COMBUSTOR GRATE DP	38.875	IN H20
PDI-2415	BLR2 COMBUSTOR GRATE DP	40.625	IN H20
PDI-1417	BLR1 MIDDLE COMBUSTOR	32.638	IN H20
PDI-2417	BLR2 MIDDLE COMBUSTOR	27.375	IN H20
PDIC-1413	BLR1 UPPER COMBUSTOR DP	33.807	IN H20
PDIC-2413	BLR2 UPPER COMBUSTOR DP	26.277	IN H20
PI-680	HP FW HEATER 4 OUTLET PRESS	1723.709	PSIG
PI-1002	BLR1 STEAM DRUM PRESSURE	1206.905	PSIG
HIC-1029	BLR1 SUPERHTR OUTLET VENT	1154.094	PSIG
PI-2002	BLR2 STEAM DRUM PRESSURE	1234.786	PSIG
HIC-2029	BLR2 SUPERHTR OUTLET VENT	1158.531	PSIG

TI-1503	BLR1 PRIMARY AIR FAN OUTLET	123.392	DEG F.
TI-2503	BLR2 PRMRY AIR FAN OUTLET TEMP	119.187	DEG F.
TI-1513	BLR1 SECONDARY AIR FAN OUTLET	155.032	DEG F.
TI-2513	BLR2 SECONDARY AIR FAN OUTLET	109.067	DEG F.
TI-1506	BLR1 PRMRY AIR HTR AIR OUTLET	487.534	DEG F.
TI-2506	BLR2 PRMRY AIR HTR AIR OUTLET	482.792	DEG F.
TI-1516	BLR1 SEC AIR HTR AIR OUTLET	418.546	DEG F.
TI-2516	BLR2 SEC AIR HTR AIR OUTLET	430.997	DEG F.
TI-1421	CYCLONE #1 OUTLET TEMP	1551.215	DEG F.
TI-2421	CYCLONE #2 OUTLET TEMP	1525.099	DEG F.
TI-1126	BLR1 BACKPASS TEMPERATURE	991.541	DEG F.
TI-2126	BLR2 BACKPASS TEMPERATURE	864.356	DEG F.
TI-1102	BLR1 FLUE GAS INLET - AIR HTR	617.635	DEG F.
TI-2102	BLR2 FLUE GAS INLET TO AIR	583.711	DEG F.
TI-1114	BLR1 AIR HEATER FLUE OUT - PA	289.523	DEG F.
TI-2114	BLR2 AIR HEATER FLUE OUT - PA	300.871	DEG F.
TI-681	HPFW HEATER OUTLET	234.960	DEG F.
TI-1022	BLR1 ECONOMIZER OUTLET	569.359	DEG F.
TI-1003	BLR1 SH OUT TEMPERATURE	916.840	DEG F.
TI-2022	BLR2 ECONOMIZER OUTLET	561.610	DEG F.
TI-2003	BLR2 SH OUT TEMPERATURE	928.609	DEG F.
PI-1118	BLR1 ECONOMIZER OUT PRESS "H2O	-3.300	IN H2O
PI-2118	BLR2 ECONOMIZER PRESSURE "H2O	-3.842	IN H2O
XA-3902	PC SILO CONV. FAULT		
HS-3903	PC BUCKET ELEVATOR		AUTO
FIC-1206	BLR1 PET COKE	0.000	MMBTU
FIC-2206	BLR1 PET COKE	0.000	MMBTU
TI-1123	BLR1 BAGHOUSE INLET	323.598	DEG F.
TI-2123	BLR2 BAGHOUSE INLET	324.613	DEG F.
PI-1502	BLR1 PRIMARY AIR FAN OUT "H2O	80.159	IN H2O
PI-2502	BLR2 PRIMARY AIR FAN OUTLET	77.348	IN H2O
PI-1512	BLR1 SECONDARY AIR FAN OUT "H2O	40.079	IN H2O
PI-2512	BLR2 SECONDARY AIR FAN OUTLET	35.678	IN H2O
PI-1120	BLR1 BAGHOUSE INLET PRESS "H2O	-6.870	IN H2O
PI-2120	BLR2 BAGHOUSE INLET PRESS "H2O	-6.765	IN H2O
TI-1127	BLR1 AIR HEATER FLUE OUT - SA	297.171	DEG F.
TI-2127	BLR2 AIR HEATER FLUE OUT - SA	239.667	DEG F.
PI-103	TURBINE INLET STEAM PSIG	1144.668	PSIG
PI-206	TURBINE FIRST STAGE PRESS PSIG	888.084	PSIG
HS6D-6100	RECLAIM PILE SELECTOR	0	LOGIC
PI-705	CONDENSER PRESSURE	0.360	IN HG
EX-MW	GENERATOR MW GROSS	42.157	MWATT
EX-MVAR	GENERATOR MVAR	4.677	MVAR
EX-V	GENERATOR VOLTS	13.773	KV
EX-A	GENERATOR AMPS	1877.439	AMP
PI-402	TURBINE 4TH EXTRAC TO HPFW	347.717	PSIA
PI-422	TURBINE 3RD EXTRACT PRESS	158.444	PSIA
PI-442	TURBINE 2ND EXTRAC PRESS	89.026	PSIA
PI-462	TURBINE 1ST EXTRAC PRESS	16.672	PSIA

BOILER EFFICIENCY VARIABLES

TAG	DESCRIPTION	VALUE	E/U
AI-8020	BLR1 FLUE GAS CO2	10.361	% CO_2
AI-8021	BLR2 FLUE GAS CO2	12.279	% CO_2
AI-8030	BLR1 FLUE GAS CO	-1.754	% CO
AI-8031	BLR2 FLUE GAS CO	-2.178	% CO
AI-8060	% MOISTURE IN FLUE GAS BLR1	15.809	% H_2O
AI-8061	% MOISTURE IN FLUE GAS BLR2	17.242	% H_2O
AI-8050	CEM O2 DRY ANALYZER BLR1	10.547	% O_2
AI-8051	CEM O2 DRY ANALYZER BLR2	9.087	% O_2
AIC-9010	BLR1 NOX TRIM	40.210	PPM
AIC-9011	BLR2 NOX TRIM	46.852	PPM
AIC-8010	BLR1 SO2 CONTROLLER	8.490	LB/HR
AIC-8011	BLR2 SO2 CONTROLLER	10.148	LB/HR
FI-1520	BLR1 TOTAL AIR FLOW	3387.126	KSDCFH
FI-2520	BLR2 TOTAL AIR FLOW	3287.524	KSDCFH
EX NMW	NET MW OUT	39.648	MEGWT
FI-1040	BLR1 OUTLET STEAM LBS/HR	176.068	LB/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	193.186	LB/HR
FI-1021	BLR1 STEAM DRUM BLOWDOWN LBS/HR	48.790	LB/HR
FI-2021	BLR2 STEAM DRUM BLOWDOWN LBS/HR	17.297	LB/HR
FI-1001	BLR1 FEEDWATER FLOW LBS/HR	202.812	LB/HR
FI-2001	BLR2 FEEDWATER FLOW LBS/HR	201.640	LB/HR
FI-1006	BLR1 DESPRHTR SPRAY WTR LBS/HR	12552.098	LB/HR
FI-2006	BLR2 DESPRHTR SPRAY LBS/HR	6346.293	LB/HR
FIC-1505	BLR1 PRIM AIR FAN VANE KSCFH	1762.875	KSCFH
FIC-2505	BLR2 PRIMARY AIR FAN VANE KSCFH	1703.188	KSCFH
FIC-1515	BLR1 SECON AIR FAN VANE KSCFH	1628.625	KSCFH
FIC-2515	BLR2 SECOND AIR FAN VANE KSCFH	1570.188	KSCFH
FI-1704	BLR1 FUEL GAS FLOW TO LANCE	0.135	KSCFH
FI-2704	BLR2 FUEL GAS FLW LANCE KSCFH	-0.045	KSCFH
FI-1601	BLR1 FUEL GAS FLW TO SU BNR	0.000	KSCFH
FI-2601	BLR2 FUEL GAS FLW TO STRTP BNR	0.000	KSCFH
FI-1753	BLR1 AMMONIA INJECTION FLOW	14.046	LB/HR
FI-2753	BLR2 AMMONIA INJECTION FLOW	21.674	LB/HR
SI-1345	#1 LIMESTONE FEED RATE	642.213	LB/HR
SI-2345	#2 LIMESTONE FEED RATE	436.359	LB/HR
PDI-1415	BLR1 COMBUSTOR GRATE DP	39.925	IN H20
PDI-2415	BLR2 COMBUSTOR GRATE DP	42.775	IN H20
PDI-1417	BLR1 MIDDLE COMBUSTOR	34.038	IN H20
PDI-2417	BLR2 MIDDLE COMBUSTOR	26.575	IN H20
PDIC-1413	BLR1 UPPER COMBUSTOR DP	33.767	IN H20
PDIC-2413	BLR2 UPPER COMBUSTOR DP	26.902	IN H20
PI-680	HP FW HEATER 4 OUTLET PRESS	1724.442	PSIG
PI-1002	BLR1 STEAM DRUM PRESSURE	1215.161	PSIG
HIC-1029	BLR1 SUPERHTR OUTLET VENT	1154.469	PSIG
PI-2002	BLR2 STEAM DRUM PRESSURE	1234.719	PSIG
HIC-2029	BLR2 SUPERHTR OUTLET VENT	1159.688	PSIG

TI-1503	BLR1 PRIMARY AIR FAN OUTLET	124.375	DEG F.
TI-2503	BLR2 PRMRY AIR FAN OUTLET TEMP	120.593	DEG F.
TI-1513	BLR1 SECONDARY AIR FAN OUTLET	155.032	DEG F.
TI-2513	BLR2 SECONDARY AIR FAN OUTLET	108.430	DEG F.
TI-1506	BLR1 PRMRY AIR HTR AIR OUTLET	490.073	DEG F.
TI-2506	BLR2 PRMRY AIR HTR AIR OUTLET	477.980	DEG F.
TI-1516	BLR1 SEC AIR HTR AIR OUTLET	418.814	DEG F.
TI-2516	BLR2 SEC AIR HTR AIR OUTLET	426.396	DEG F.
TI-1421	CYCLONE #1 OUTLET TEMP	1578.402	DEG F.
TI-2421	CYCLONE #2 OUTLET TEMP	1527.231	DEG F.
TI-1126	BLR1 BACKPASS TEMPERATURE	1004.001	DEG F.
TI-2126	BLR2 BACKPASS TEMPERATURE	857.226	DEG F.
TI-1102	BLR1 FLUE GAS INLET - AIR HTR	623.306	DEG F.
TI-2102	BLR2 FLUE GAS INLET TO AIR	577.763	DEG F.
TI-1114	BLR1 AIR HEATER FLUE OUT - PA	291.725	DEG F.
TI-2114	BLR2 AIR HEATER FLUE OUT - PA	301.060	DEG F.
TI-681	HPFW HEATER OUTLET	234.490	DEG F.
TI-1022	BLR1 ECONOMIZER OUTLET	570.144	DEG F.
TI-1003	BLR1 SH OUT TEMPERATURE	921.118	DEG F.
TI-2022	BLR2 ECONOMIZER OUTLET	553.556	DEG F.
TI-2003	BLR2 SH OUT TEMPERATURE	930.840	DEG F.
PI-1118	BLR1 ECONOMIZER OUT PRESS "H2O	-4.788	IN H2O
PI-2118	BLR2 ECONOMIZER PRESSURE "H2O	-3.869	IN H2O
XA-3902	PC SILO CONV. FAULT		
HS-3903	PC BUCKET ELEVATOR		AUTO
FIC-1206	BLR1 PET COKE	0.000	MMBTU
FIC-2206	BLR1 PET COKE	0.000	MMBTU
TI-1123	BLR1 BAGHOUSE INLET	326.541	DEG F.
TI-2123	BLR2 BAGHOUSE INLET	322.579	DEG F.
PI-1502	BLR1 PRIMARY AIR FAN OUT "H2O	83.478	IN H2O
PI-2502	BLR2 PRIMARY AIR FAN OUTLET	77.849	IN H2O
PI-1512	BLR1 SECONDARY AIR FAN OUT "H2O	41.859	IN H2O
PI-2512	BLR2 SECONDARY AIR FAN OUTLET	35.477	IN H2O
PI-1120	BLR1 BAGHOUSE INLET PRESS "H2O	-8.568	IN H2O
PI-2120	BLR2 BAGHOUSE INLET PRESS "H2O	-7.045	IN H2O
TI-1127	BLR1 AIR HEATER FLUE OUT - SA	300.712	DEG F.
TI-2127	BLR2 AIR HEATER FLUE OUT - SA	235.892	DEG F.
PI-103	TURBINE INLET STEAM PSIG	1142.409	PSIG
PI-206	TURBINE FIRST STAGE PRESS PSIG	924.663	PSIG
HS6D-6100	RECLAIM PILE SELECTOR	0	LOGIC
PI-705	CONDENSER PRESSURE	0.375	IN HG
EX-MW	GENERATOR MW GROSS	44.027	MWATT
EX-MVAR	GENERATOR MVAR	4.827	MVAR
EX-V	GENERATOR VOLTS	13.798	KV
EX-A	GENERATOR AMPS	1958.479	AMP
PI-402	TURBINE 4TH EXTRAC TO HPFW	361.957	PSIA
PI-422	TURBINE 3RD EXTRACT PRESS	165.274	PSIA
PI-442	TURBINE 2ND EXTRAC PRESS	92.930	PSIA
PI-462	TURBINE 1ST EXTRAC PRESS	17.321	PSIA

BOILER EFFICIENCY VARIABLES

TAG	DESCRIPTION	VALUE	E/U
AI-8020	BLR1 FLUE GAS CO2	10.791	% CO_2
AI-8021	BLR2 FLUE GAS CO2	12.074	% CO_2
AI-8030	BLR1 FLUE GAS CO	-1.127	% CO
AI-8031	BLR2 FLUE GAS CO	-2.417	% CO
AI-8060	% MOISTURE IN FLUE GAS BLR1	13.899	% H_2O
AI-8061	% MOISTURE IN FLUE GAS BLR2	15.041	% H_2O
AI-8050	CEM O2 DRY ANALYZER BLR1	9.818	% O_2
AI-8051	CEM O2 DRY ANALYZER BLR2	8.635	% O_2
AIC-9010	BLR1 NOX TRIM	48.077	PPM
AIC-9011	BLR2 NOX TRIM	44.478	PPM
AIC-8010	BLR1 SO2 CONTROLLER	9.200	LB/HR
AIC-8011	BLR2 SO2 CONTROLLER	11.086	LB/HR
FI-1520	BLR1 TOTAL AIR FLOW	3387.144	KSDCFH
FI-2520	BLR2 TOTAL AIR FLOW	3287.524	KSDCFH
EX NMW	NET MW OUT	41.681	MEGWT
FI-1040	BLR1 OUTLET STEAM LBS/HR	185.238	LB/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	198.145	LB/HR
FI-1021	BLR1 STEAM DRUM BLOWDOWN LBS/HR	48.790	LB/HR
FI-2021	BLR2 STEAM DRUM BLOWDOWN LBS/HR	17.297	LB/HR
FI-1001	BLR1 FEEDWATER FLOW LBS/HR	202.776	LB/HR
FI-2001	BLR2 FEEDWATER FLOW LBS/HR	208.130	LB/HR
FI-1006	BLR1 DESPRHTR SPRAY WTR LBS/HR	11094.213	LB/HR
FI-2006	BLR2 DESPRHTR SPRAY LBS/HR	8285.299	LB/HR
FIC-1505	BLR1 PRIM AIR FAN VANE KSCFH	1756.875	KSCFH
FIC-2505	BLR2 PRIMARY AIR FAN VANE KSCFH	1708.531	KSCFH
FIC-1515	BLR1 SECON AIR FAN VANE KSCFH	1616.188	KSCFH
FIC-2515	BLR2 SECOND AIR FAN VANE KSCFH	1558.844	KSCFH
FI-1704	BLR1 FUEL GAS FLOW TO LANCE	0.135	KSCFH
FI-2704	BLR2 FUEL GAS FLW LANCE KSCFH	-0.045	KSCFH
FI-1601	BLR1 FUEL GAS FLW TO SU BNR	0.000	KSCFH
FI-2601	BLR2 FUEL GAS FLW TO STRTP BNR	0.000	KSCFH
FI-1753	BLR1 AMMONIA INJECTION FLOW	20.425	LB/HR
FI-2753	BLR2 AMMONIA INJECTION FLOW	31.057	LB/HR
SI-1345	#1 LIMESTONE FEED RATE	1737.606	LB/HR
SI-2345	#2 LIMESTONE FEED RATE	862.932	LB/HR
PDI-1415	BLR1 COMBUSTOR GRATE DP	39.000	IN H20
PDI-2415	BLR2 COMBUSTOR GRATE DP	42.200	IN H20
PDI-1417	BLR1 MIDDLE COMBUSTOR	33.188	IN H20
PDI-2417	BLR2 MIDDLE COMBUSTOR	26.962	IN H20
PDIC-1413	BLR1 UPPER COMBUSTOR DP	33.626	IN H20
PDIC-2413	BLR2 UPPER COMBUSTOR DP	26.430	IN H20
PI-680	HP FW HEATER 4 OUTLET PRESS	1718.445	PSIG
PI-1002	BLR1 STEAM DRUM PRESSURE	1220.415	PSIG
HIC-1029	BLR1 SUPERHTR OUTLET VENT	1154.469	PSIG
PI-2002	BLR2 STEAM DRUM PRESSURE	1236.289	PSIG
HIC-2029	BLR2 SUPERHTR OUTLET VENT	1158.906	PSIG

TI-1503	BLR1 PRIMARY AIR FAN OUTLET	124.390	DEG F.
TI-2503	BLR2 PRMRY AIR FAN OUTLET TEMP	120.981	DEG F.
TI-1513	BLR1 SECONDARY AIR FAN OUTLET	155.032	DEG F.
TI-2513	BLR2 SECONDARY AIR FAN OUTLET	109.936	DEG F.
TI-1506	BLR1 PRMRY AIR HTR AIR OUTLET	492.074	DEG F.
TI-2506	BLR2 PRMRY AIR HTR AIR OUTLET	478.855	DEG F.
TI-1516	BLR1 SEC AIR HTR AIR OUTLET	421.327	DEG F.
TI-2516	BLR2 SEC AIR HTR AIR OUTLET	426.612	DEG F.
TI-1421	CYCLONE #1 OUTLET TEMP	1620.493	DEG F.
TI-2421	CYCLONE #2 OUTLET TEMP	1526.524	DEG F.
TI-1126	BLR1 BACKPASS TEMPERATURE	1016.511	DEG F.
TI-2126	BLR2 BACKPASS TEMPERATURE	847.732	DEG F.
TI-1102	BLR1 FLUE GAS INLET - AIR HTR	624.441	DEG F.
TI-2102	BLR2 FLUE GAS INLET TO AIR	572.099	DEG F.
TI-1114	BLR1 AIR HEATER FLUE OUT - PA	294.716	DEG F.
TI-2114	BLR2 AIR HEATER FLUE OUT - PA	301.496	DEG F.
TI-681	HPFW HEATER OUTLET	234.911	DEG F.
TI-1022	BLR1 ECONOMIZER OUTLET	567.303	DEG F.
TI-1003	BLR1 SH OUT TEMPERATURE	931.814	DEG F.
TI-2022	BLR2 ECONOMIZER OUTLET	549.452	DEG F.
TI-2003	BLR2 SH OUT TEMPERATURE	933.788	DEG F.
PI-1118	BLR1 ECONOMIZER OUT PRESS "H2O	-4.061	IN H2O
PI-2118	BLR2 ECONOMIZER PRESSURE "H2O	-3.808	IN H2O
XA-3902	PC SILO CONV. FAULT		
HS-3903	PC BUCKET ELEVATOR		AUTO
FIC-1206	BLR1 PET COKE	0.000	MMBTU
FIC-2206	BLR1 PET COKE	0.000	MMBTU
TI-1123	BLR1 BAGHOUSE INLET	328.434	DEG F.
TI-2123	BLR2 BAGHOUSE INLET	323.760	DEG F.
PI-1502	BLR1 PRIMARY AIR FAN OUT "H2O	81.813	IN H2O
PI-2502	BLR2 PRIMARY AIR FAN OUTLET	78.564	IN H2O
PI-1512	BLR1 SECONDARY AIR FAN OUT "H2O	41.082	IN H2O
PI-2512	BLR2 SECONDARY AIR FAN OUTLET	35.803	IN H2O
PI-1120	BLR1 BAGHOUSE INLET PRESS "H2O	-7.964	IN H2O
PI-2120	BLR2 BAGHOUSE INLET PRESS "H2O	-6.721	IN H2O
TI-1127	BLR1 AIR HEATER FLUE OUT - SA	302.295	DEG F.
TI-2127	BLR2 AIR HEATER FLUE OUT - SA	236.862	DEG F.
PI-103	TURBINE INLET STEAM PSIG	1143.162	PSIG
PI-206	TURBINE FIRST STAGE PRESS PSIG	960.270	PSIG
HS6D-6100	RECLAIM PILE SELECTOR	0	LOGIC
PI-705	CONDENSER PRESSURE	0.378	IN HG
EX-MW	GENERATOR MW GROSS	45.815	MWATT
EX-MVAR	GENERATOR MVAR	5.071	MVAR
EX-V	GENERATOR VOLTS	13.794	KV
EX-A	GENERATOR AMPS	2041.021	AMP
PI-402	TURBINE 4TH EXTRAC TO HPFW	375.414	PSIA
PI-422	TURBINE 3RD EXTRACT PRESS	171.429	PSIA
PI-442	TURBINE 2ND EXTRAC PRESS	96.378	PSIA
PI-462	TURBINE 1ST EXTRAC PRESS	18.025	PSIA

Colmac Energy

Mecca, CA

Boiler 1 Hourly Emissions Report

April 7, 2022 - Hour 13

3-Hr Rolling Emission Limits

NOx ppm @15% O2 - 94 NOx lb/hr - 30 | SO2 ppm @15% O2 - 27 SO2 lb/hr - 12 | CO ppm @15% O2 - 231 CO lb/hr - 13

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
13:00	9.53	53.53	84.27	0.1176	26.48	11.83	18.62	0.0362	8.14	10.00	15.74	0.0134	3.01	Normal
13:01	10.15	46.82	77.96	0.1088	22.60	10.68	17.78	0.0345	7.17	10.00	16.65	0.0141	2.94	Normal
13:02	9.86	49.17	79.72	0.1112	24.13	10.32	16.73	0.0325	7.05	10.00	16.21	0.0138	2.99	Normal
13:03	9.60	57.54	91.15	0.1272	28.66	13.60	21.54	0.0418	9.42	10.00	15.84	0.0135	3.03	Normal
13:04	10.06	47.12	77.81	0.1086	22.50	11.44	18.89	0.0367	7.60	10.00	16.51	0.0140	2.91	Normal
13:05	9.81	50.91	82.17	0.1147	24.93	10.93	17.64	0.0342	7.45	10.00	16.14	0.0137	2.98	Normal
13:06	9.62	52.79	83.77	0.1169	26.85	11.45	18.17	0.0353	8.10	10.00	15.87	0.0135	3.10	Normal
13:07	9.67	49.94	79.60	0.1111	24.70	9.68	15.43	0.0300	6.66	10.00	15.94	0.0135	3.01	Normal
13:08	9.37	59.07	91.70	0.1280	30.49	12.67	19.67	0.0382	9.10	10.00	15.52	0.0132	3.14	Normal
13:09	9.94	52.81	86.25	0.1203	25.24	10.26	16.76	0.0325	6.82	10.00	16.33	0.0139	2.91	Normal
13:10	9.66	53.16	84.66	0.1181	27.17	12.06	19.21	0.0373	8.58	10.00	15.93	0.0135	3.11	Normal
13:11	9.85	51.38	83.23	0.1161	25.07	11.04	17.88	0.0347	7.49	10.00	16.20	0.0138	2.97	Normal
13:12	9.46	56.39	88.23	0.1231	28.30	10.90	17.06	0.0331	7.61	10.00	15.65	0.0133	3.06	Normal
13:13	9.44	59.32	92.66	0.1293	31.05	12.14	18.96	0.0368	8.84	10.00	15.62	0.0133	3.19	Normal
13:14	10.19	49.92	83.43	0.1164	23.92	11.74	19.62	0.0381	7.83	10.00	16.71	0.0142	2.92	Normal
13:15	9.26	56.66	87.13	0.1216	30.24	13.36	20.55	0.0399	9.92	10.00	15.38	0.0131	3.25	Normal
13:16	9.82	49.44	79.87	0.1114	24.38	9.61	15.53	0.0301	6.59	10.00	16.16	0.0137	3.00	Normal
13:17	9.91	50.79	82.72	0.1154	24.75	13.40	21.83	0.0424	9.09	10.00	16.29	0.0138	2.97	Normal
13:18	9.91	50.37	82.04	0.1145	24.60	15.34	24.99	0.0485	10.42	10.00	16.29	0.0138	2.97	Normal
13:19	9.53	54.15	85.25	0.1189	27.93	18.31	28.83	0.0560	13.14	10.00	15.74	0.0134	3.14	Normal
13:20	10.24	52.64	88.39	0.1233	26.14	20.35	34.17	0.0663	14.06	10.00	16.79	0.0143	3.02	Normal
13:21	10.03	48.90	80.53	0.1124	24.37	18.38	30.27	0.0588	12.74	10.00	16.47	0.0140	3.03	Normal
13:22	9.33	53.94	83.45	0.1164	27.65	21.87	33.84	0.0657	15.60	10.00	15.47	0.0131	3.12	Normal
13:23	9.22	57.81	88.60	0.1236	30.00	26.09	39.98	0.0776	18.83	10.00	15.33	0.0130	3.16	Normal
13:24	9.22	58.06	88.98	0.1242	30.19	25.46	39.02	0.0757	18.42	10.00	15.33	0.0130	3.17	Normal
13:25	10.01	51.19	84.14	0.1174	24.06	19.31	31.74	0.0616	12.63	10.00	16.44	0.0140	2.86	Normal
13:26	9.52	53.50	84.15	0.1174	26.42	16.26	25.58	0.0497	11.17	10.00	15.73	0.0134	3.01	Normal
13:27	10.06	52.17	86.15	0.1202	24.50	16.21	26.77	0.0520	10.59	10.00	16.51	0.0140	2.86	Normal
13:28	9.41	56.48	87.99	0.1228	28.00	18.26	28.45	0.0552	12.60	10.00	15.58	0.0132	3.02	Normal
13:29	9.24	55.89	85.80	0.1197	27.60	19.72	30.27	0.0588	13.55	10.00	15.35	0.0130	3.01	Normal
13:30	8.90	59.51	88.77	0.1239	30.15	21.27	31.73	0.0616	14.99	10.00	14.92	0.0127	3.08	Normal

W002AS-012607-RT-3503

492 of 635

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
13:31	8.87	62.80	93.44	0.1304	32.06	22.88	34.04	0.0661	16.25	10.00	14.88	0.0126	3.11	Normal
13:32	9.53	54.11	85.19	0.1189	25.56	19.40	30.54	0.0593	12.75	10.00	15.74	0.0134	2.88	Normal
13:33	9.56	54.99	86.80	0.1211	26.32	21.01	33.16	0.0644	13.99	10.00	15.78	0.0134	2.91	Normal
13:34	9.87	49.95	81.06	0.1131	23.41	15.23	24.72	0.0480	9.93	10.00	16.23	0.0138	2.85	Normal
13:35	9.47	53.65	84.02	0.1172	25.54	17.87	27.99	0.0543	11.84	10.00	15.66	0.0133	2.90	Normal
13:36	9.48	58.34	91.44	0.1276	28.57	16.89	26.47	0.0514	11.51	10.00	15.67	0.0133	2.98	Normal
13:37	9.79	53.59	86.34	0.1205	25.71	16.16	26.04	0.0505	10.79	10.00	16.11	0.0137	2.92	Normal
13:38	9.33	53.48	82.74	0.1154	26.77	17.42	26.95	0.0523	12.13	10.00	15.47	0.0131	3.05	Normal
13:39	9.49	56.65	88.87	0.1240	28.51	18.72	29.37	0.0570	13.11	10.00	15.69	0.0133	3.06	Normal
13:40	9.88	52.70	85.60	0.1194	25.78	15.98	25.96	0.0504	10.88	10.00	16.24	0.0138	2.98	Normal
13:41	9.91	50.17	81.71	0.1140	23.80	13.97	22.75	0.0442	9.22	10.00	16.29	0.0138	2.89	Normal
13:42	9.61	48.92	77.56	0.1082	23.85	13.30	21.09	0.0409	9.02	10.00	15.85	0.0135	2.97	Normal
13:43	9.76	47.89	76.95	0.1074	24.89	12.05	19.36	0.0376	8.71	10.00	16.07	0.0136	3.16	Normal
13:44	9.58	50.48	79.82	0.1114	28.48	14.13	22.34	0.0434	11.09	10.00	15.81	0.0134	3.43	Normal
13:45	9.53	49.22	77.49	0.1081	28.33	12.12	19.08	0.0370	9.71	10.00	15.74	0.0134	3.50	Normal
13:46	9.50	51.98	81.62	0.1139	29.35	11.02	17.30	0.0336	8.66	10.00	15.70	0.0133	3.44	Normal
13:47	8.70	63.94	93.81	0.1309	39.20	21.42	31.43	0.0610	18.27	10.00	14.67	0.0125	3.73	Normal
13:48	9.54	53.70	84.62	0.1181	30.87	15.19	23.93	0.0465	12.15	10.00	15.76	0.0134	3.50	Normal
13:49	9.71	49.34	78.93	0.1101	28.52	14.18	22.68	0.0440	11.40	10.00	16.00	0.0136	3.52	Normal
13:50	10.14	42.98	71.50	0.0998	23.93	12.98	21.59	0.0419	10.05	10.00	16.64	0.0141	3.39	Normal
13:51	10.13	49.88	82.90	0.1157	28.19	14.69	24.42	0.0474	11.55	10.00	16.62	0.0141	3.44	Normal
13:52	9.92	44.40	72.38	0.1010	25.65	11.57	18.86	0.0366	9.30	10.00	16.30	0.0138	3.52	Normal
13:53	9.62	49.20	78.07	0.1089	28.48	12.25	19.44	0.0377	9.87	10.00	15.87	0.0135	3.52	Normal
13:54	9.09	53.09	80.47	0.1123	31.98	12.54	19.01	0.0369	10.51	10.00	15.16	0.0129	3.67	Normal
13:55	9.49	48.11	75.47	0.1053	28.02	12.13	19.03	0.0369	9.83	10.00	15.69	0.0133	3.55	Normal
13:56	9.60	45.31	71.77	0.1001	26.27	12.00	19.01	0.0369	9.68	10.00	15.84	0.0135	3.53	Normal
13:57	9.52	45.50	71.57	0.0999	26.38	11.55	18.17	0.0353	9.32	10.00	15.73	0.0134	3.53	Normal
13:58	9.64	43.47	69.10	0.0964	25.20	10.89	17.31	0.0336	8.78	10.00	15.90	0.0135	3.53	Normal
13:59	10.04	40.06	66.03	0.0921	22.77	7.26	11.97	0.0232	5.74	10.00	16.48	0.0140	3.46	Normal
Average	9.6	52.2	82.7	0.115		14.9	23.6	0.046		10.0	15.8	0.013		Normal
Total					26.90				10.62				3.15	
3-Hr Rolling			82.0		25.7		20.8		9.1		16.0		3.1	

Colmac Energy

Mecca, CA

Boiler 1 Hourly Emissions Report

April 7, 2022 - Hour 12

3-Hr Rolling Emission Limits

NOx ppm @15% O2 - 94 | SO2 ppm @15% O2 - 27 | CO ppm @15% O2 - 231

NOx lb/hr - 30 | SO2 lb/hr - 12 | CO lb/hr - 13

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
12:00	9.36	53.04	82.27	0.1148	27.34	10.02	15.54	0.0302	7.19	10.00	15.51	0.0132	3.14	Normal
12:01	9.77	49.28	79.26	0.1106	24.67	9.83	15.81	0.0307	6.85	10.00	16.08	0.0137	3.05	Normal
12:02	9.30	52.53	81.06	0.1131	27.26	10.74	16.57	0.0322	7.75	10.00	15.43	0.0131	3.16	Normal
12:03	9.43	52.38	81.74	0.1141	26.87	10.65	16.62	0.0323	7.60	10.00	15.61	0.0133	3.12	Normal
12:04	9.76	47.27	75.95	0.1060	23.85	10.12	16.26	0.0316	7.10	10.00	16.07	0.0136	3.07	Normal
12:05	10.41	45.90	78.32	0.1093	21.72	8.82	15.05	0.0292	5.81	10.00	17.06	0.0145	2.88	Normal
12:06	9.03	53.50	80.68	0.1126	27.37	9.94	14.99	0.0291	7.07	10.00	15.08	0.0128	3.11	Normal
12:07	8.68	61.07	89.46	0.1248	32.95	13.71	20.08	0.0390	10.29	10.00	14.65	0.0124	3.28	Normal
12:08	9.44	54.43	85.02	0.1186	27.20	12.93	20.20	0.0392	8.99	10.00	15.62	0.0133	3.04	Normal
12:09	9.63	52.07	82.70	0.1154	25.64	12.04	19.12	0.0371	8.25	10.00	15.88	0.0135	3.00	Normal
12:10	10.11	47.94	79.53	0.1110	23.17	10.42	17.29	0.0336	7.01	10.00	16.59	0.0141	2.94	Normal
12:11	10.83	48.18	85.64	0.1195	23.01	9.01	16.02	0.0311	5.99	10.00	17.78	0.0151	2.91	Normal
12:12	10.52	46.58	80.33	0.1121	22.17	8.53	14.71	0.0286	5.65	10.00	17.24	0.0146	2.90	Normal
12:13	10.35	45.16	76.62	0.1069	21.84	8.22	13.95	0.0271	5.53	10.00	16.97	0.0144	2.94	Normal
12:14	9.41	51.67	80.50	0.1123	26.86	9.25	14.41	0.0280	6.69	10.00	15.58	0.0132	3.16	Normal
12:15	9.87	55.65	90.31	0.1260	27.71	11.26	18.27	0.0355	7.80	10.00	16.23	0.0138	3.03	Normal
12:16	9.96	49.93	81.70	0.1140	24.09	10.64	17.41	0.0338	7.14	10.00	16.36	0.0139	2.94	Normal
12:17	9.21	54.67	83.71	0.1168	27.56	12.19	18.67	0.0362	8.55	10.00	15.31	0.0130	3.07	Normal
12:18	9.11	58.01	88.07	0.1229	30.29	14.70	22.32	0.0433	10.68	10.00	15.18	0.0129	3.18	Normal
12:19	9.22	53.69	82.28	0.1148	27.91	14.57	22.33	0.0433	10.54	10.00	15.33	0.0130	3.16	Normal
12:20	9.51	58.55	92.01	0.1284	29.87	15.41	24.22	0.0470	10.94	10.00	15.72	0.0133	3.11	Normal
12:21	9.30	54.01	83.34	0.1163	26.86	14.20	21.91	0.0425	9.83	10.00	15.43	0.0131	3.03	Normal
12:22	9.17	57.03	87.03	0.1214	29.24	16.84	25.70	0.0499	12.01	10.00	15.26	0.0130	3.12	Normal
12:23	9.98	51.22	83.96	0.1171	24.36	14.11	23.13	0.0449	9.34	10.00	16.39	0.0139	2.89	Normal
12:24	9.49	53.62	84.12	0.1174	26.41	13.53	21.23	0.0412	9.27	10.00	15.69	0.0133	3.00	Normal
12:25	9.29	52.48	80.91	0.1129	25.80	13.93	21.48	0.0417	9.53	10.00	15.42	0.0131	2.99	Normal
12:26	9.34	57.27	88.68	0.1237	28.56	15.00	23.23	0.0451	10.41	10.00	15.48	0.0132	3.04	Normal
12:27	10.02	49.07	80.73	0.1126	22.67	12.63	20.78	0.0403	8.12	10.00	16.45	0.0140	2.81	Normal
12:28	9.46	52.93	82.82	0.1156	25.71	12.57	19.67	0.0382	8.50	10.00	15.65	0.0133	2.96	Normal
12:29	9.52	51.93	81.68	0.1140	25.31	12.59	19.80	0.0384	8.54	10.00	15.73	0.0134	2.97	Normal
12:30	10.04	48.97	80.71	0.1126	23.40	11.58	19.09	0.0371	7.70	10.00	16.48	0.0140	2.91	Normal

W002AS-012607-RT-3503

494 of 635

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
12:31	10.31	45.45	76.82	0.1072	20.75	10.27	17.36	0.0337	6.52	10.00	16.90	0.0144	2.78	Normal
12:32	8.97	62.16	93.27	0.1301	31.46	13.32	19.99	0.0388	9.38	10.00	15.00	0.0127	3.08	Normal
12:33	9.25	54.37	83.54	0.1166	27.39	13.84	21.26	0.0413	9.70	10.00	15.36	0.0130	3.07	Normal
12:34	10.03	51.08	84.12	0.1174	23.94	11.83	19.48	0.0378	7.71	10.00	16.47	0.0140	2.85	Normal
12:35	9.74	52.42	84.08	0.1173	25.60	11.72	18.80	0.0365	7.96	10.00	16.04	0.0136	2.97	Normal
12:36	10.15	48.19	80.24	0.1120	23.28	10.91	18.17	0.0353	7.33	10.00	16.65	0.0141	2.94	Normal
12:37	10.19	46.35	77.47	0.1081	22.00	9.91	16.56	0.0322	6.54	10.00	16.71	0.0142	2.89	Normal
12:38	9.88	50.60	82.19	0.1147	24.50	10.23	16.62	0.0323	6.89	10.00	16.24	0.0138	2.95	Normal
12:39	9.67	52.66	83.94	0.1171	25.87	11.01	17.55	0.0341	7.53	10.00	15.94	0.0135	2.99	Normal
12:40	9.97	47.02	77.00	0.1074	22.33	10.72	17.56	0.0341	7.08	10.00	16.38	0.0139	2.89	Normal
12:41	9.66	52.04	82.88	0.1156	25.47	10.92	17.39	0.0338	7.44	10.00	15.93	0.0135	2.98	Normal
12:42	9.54	53.81	84.79	0.1183	26.96	12.55	19.78	0.0384	8.75	10.00	15.76	0.0134	3.05	Normal
12:43	9.45	56.25	87.94	0.1227	29.28	14.07	22.00	0.0427	10.19	10.00	15.63	0.0133	3.17	Normal
12:44	10.65	43.24	75.51	0.1054	20.26	10.93	19.09	0.0371	7.12	10.00	17.46	0.0148	2.85	Normal
12:45	9.99	48.77	80.02	0.1116	23.95	9.95	16.32	0.0317	6.80	10.00	16.41	0.0139	2.99	Normal
12:46	9.93	46.99	76.67	0.1070	23.52	10.15	16.56	0.0322	7.07	10.00	16.32	0.0139	3.05	Normal
12:47	9.98	45.91	75.26	0.1050	22.53	10.29	16.87	0.0327	7.02	10.00	16.39	0.0139	2.99	Normal
12:48	9.66	52.88	84.21	0.1175	26.55	11.01	17.53	0.0340	7.69	10.00	15.93	0.0135	3.06	Normal
12:49	9.81	49.46	79.83	0.1114	24.65	12.15	19.61	0.0381	8.42	10.00	16.14	0.0137	3.03	Normal
12:50	9.62	52.43	83.20	0.1161	25.09	12.09	19.19	0.0372	8.05	10.00	15.87	0.0135	2.91	Normal
12:51	8.97	60.65	91.00	0.1270	31.12	15.92	23.89	0.0464	11.37	10.00	15.00	0.0127	3.12	Normal
12:52	9.94	52.64	85.97	0.1200	24.38	13.96	22.80	0.0443	8.99	10.00	16.33	0.0139	2.82	Normal
12:53	9.42	55.72	86.88	0.1212	26.99	15.11	23.56	0.0457	10.18	10.00	15.59	0.0132	2.95	Normal
12:54	9.75	52.66	84.54	0.1180	25.43	14.69	23.58	0.0458	9.87	10.00	16.05	0.0136	2.94	Normal
12:55	10.12	46.72	77.58	0.1082	21.95	12.53	20.81	0.0404	8.19	10.00	16.60	0.0141	2.86	Normal
12:56	9.83	49.12	79.43	0.1108	23.61	11.60	18.76	0.0364	7.76	10.00	16.17	0.0137	2.93	Normal
12:57	9.48	54.37	85.22	0.1189	26.84	12.71	19.92	0.0387	8.73	10.00	15.67	0.0133	3.00	Normal
12:58	9.68	51.62	82.35	0.1149	25.26	11.63	18.55	0.0360	7.92	10.00	15.95	0.0135	2.98	Normal
12:59	9.77	54.44	87.55	0.1222	25.98	10.33	16.61	0.0323	6.86	10.00	16.08	0.0137	2.91	Normal
Average	9.7	51.8	82.8	0.116		11.9	19.0	0.037		10.0	16.0	0.014		Normal
Total					25.54				8.18				3.00	
3-Hr Rolling			80.9		25.5		19.9		8.8		16.1		3.1	

Colmac Energy

Mecca, CA

Boiler 1 Hourly Emissions Report

April 7, 2022 - Hour 11

3-Hr Rolling Emission Limits

NOx ppm @15% O2 - 94 | SO2 ppm @15% O2 - 27 | CO ppm @15% O2 - 231

NOx lb/hr - 30 | SO2 lb/hr - 12 | CO lb/hr - 13

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
11:00	9.70	53.10	84.87	0.1184	26.67	15.20	24.29	0.0472	10.62	10.00	15.98	0.0136	3.06	Normal
11:01	9.79	50.79	81.83	0.1142	25.11	12.49	20.12	0.0391	8.59	10.00	16.11	0.0137	3.01	Normal
11:02	9.24	54.70	83.97	0.1172	28.09	16.43	25.22	0.0490	11.74	10.00	15.35	0.0130	3.13	Normal
11:03	10.17	49.50	82.58	0.1152	23.48	12.12	20.22	0.0393	8.00	10.00	16.68	0.0142	2.89	Normal
11:04	10.16	46.26	77.10	0.1076	22.82	12.36	20.60	0.0400	8.48	10.00	16.67	0.0142	3.00	Normal
11:05	9.61	53.63	85.03	0.1186	26.65	12.34	19.56	0.0380	8.53	10.00	15.85	0.0135	3.02	Normal
11:06	9.36	55.57	86.20	0.1203	28.83	16.54	25.66	0.0498	11.94	10.00	15.51	0.0132	3.16	Normal
11:07	10.29	46.39	78.26	0.1092	22.84	11.67	19.69	0.0382	7.99	10.00	16.87	0.0143	3.00	Normal
11:08	10.16	47.49	79.15	0.1104	23.20	12.44	20.73	0.0403	8.46	10.00	16.67	0.0142	2.97	Normal
11:09	9.74	47.33	75.91	0.1059	23.27	12.32	19.76	0.0384	8.43	10.00	16.04	0.0136	2.99	Normal
11:10	8.96	58.04	87.01	0.1214	30.86	18.02	27.01	0.0524	13.33	10.00	14.99	0.0127	3.24	Normal
11:11	9.38	53.58	83.25	0.1162	28.47	13.82	21.47	0.0417	10.22	10.00	15.54	0.0132	3.23	Normal
11:12	10.20	49.83	83.36	0.1163	23.84	12.57	21.03	0.0408	8.37	10.00	16.73	0.0142	2.91	Normal
11:13	10.01	49.75	81.77	0.1141	24.70	13.48	22.16	0.0430	9.31	10.00	16.44	0.0140	3.02	Normal
11:14	9.80	51.43	82.94	0.1157	25.98	12.22	19.71	0.0383	8.59	10.00	16.13	0.0137	3.07	Normal
11:15	9.81	50.26	81.12	0.1132	25.42	12.52	20.21	0.0392	8.81	10.00	16.14	0.0137	3.08	Normal
11:16	10.43	40.98	70.06	0.0978	20.17	10.05	17.18	0.0334	6.88	10.00	17.10	0.0145	3.00	Normal
11:17	10.63	42.28	73.69	0.1028	20.55	9.01	15.70	0.0305	6.09	10.00	17.43	0.0148	2.96	Normal
11:18	9.69	49.76	79.46	0.1109	26.12	10.04	16.03	0.0311	7.33	10.00	15.97	0.0136	3.20	Normal
11:19	10.18	45.89	76.63	0.1069	23.30	10.36	17.30	0.0336	7.32	10.00	16.70	0.0142	3.09	Normal
11:20	9.81	47.62	76.86	0.1072	24.57	10.62	17.14	0.0333	7.62	10.00	16.14	0.0137	3.14	Normal
11:21	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	Normal
11:22	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	Normal
11:23	10.04	47.65	78.54	0.1096	23.44	13.25	21.84	0.0424	9.07	10.00	16.48	0.0140	2.99	Normal
11:24	9.72	50.32	80.57	0.1124	25.29	13.25	21.21	0.0412	9.26	10.00	16.01	0.0136	3.06	Normal
11:25	10.25	44.10	74.12	0.1034	21.19	11.64	19.56	0.0380	7.78	10.00	16.81	0.0143	2.92	Normal
11:26	10.15	45.68	76.06	0.1061	22.09	10.77	17.93	0.0348	7.25	10.00	16.65	0.0141	2.94	Normal
11:27	9.87	46.32	75.17	0.1049	22.60	11.17	18.13	0.0352	7.58	10.00	16.23	0.0138	2.97	Normal
11:28	9.45	48.70	76.13	0.1062	25.01	11.14	17.42	0.0338	7.96	10.00	15.63	0.0133	3.13	Normal
11:29	9.44	52.56	82.10	0.1145	27.12	12.13	18.95	0.0368	8.71	10.00	15.62	0.0133	3.14	Normal
11:30	9.85	51.39	83.25	0.1162	25.08	12.80	20.73	0.0403	8.69	10.00	16.20	0.0138	2.97	Normal

W002AS-012607-RT-3503

496 of 635

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
11:31	9.71	51.04	81.65	0.1139	25.79	12.78	20.44	0.0397	8.98	10.00	16.00	0.0136	3.08	Normal
11:32	9.91	48.58	79.12	0.1104	24.29	12.05	19.63	0.0381	8.38	10.00	16.29	0.0138	3.04	Normal
11:33	10.34	46.99	79.65	0.1111	22.40	11.17	18.93	0.0368	7.41	10.00	16.95	0.0144	2.90	Normal
11:34	10.06	47.98	79.23	0.1105	22.99	11.02	18.20	0.0353	7.35	10.00	16.51	0.0140	2.92	Normal
11:35	9.50	51.57	80.97	0.1130	26.04	12.42	19.50	0.0379	8.73	10.00	15.70	0.0133	3.07	Normal
11:36	9.96	50.11	81.99	0.1144	24.05	11.81	19.32	0.0375	7.89	10.00	16.36	0.0139	2.92	Normal
11:37	10.12	44.42	73.76	0.1029	21.48	11.04	18.33	0.0356	7.43	10.00	16.60	0.0141	2.94	Normal
11:38	9.80	49.06	79.11	0.1104	24.61	11.03	17.79	0.0345	7.70	10.00	16.13	0.0137	3.05	Normal
11:39	9.47	54.48	85.32	0.1190	27.95	13.55	21.22	0.0412	9.67	10.00	15.66	0.0133	3.12	Normal
11:40	9.37	53.06	82.37	0.1149	27.00	13.33	20.69	0.0402	9.44	10.00	15.52	0.0132	3.10	Normal
11:41	9.60	53.58	84.87	0.1184	26.95	14.82	23.48	0.0456	10.37	10.00	15.84	0.0135	3.06	Normal
11:42	10.07	47.29	78.16	0.1091	23.34	12.15	20.08	0.0390	8.34	10.00	16.53	0.0140	3.00	Normal
11:43	10.26	50.60	85.13	0.1188	24.77	12.69	21.35	0.0414	8.64	10.00	16.82	0.0143	2.98	Normal
11:44	9.22	52.32	80.18	0.1119	27.28	14.27	21.87	0.0425	10.35	10.00	15.33	0.0130	3.17	Normal
11:45	8.68	56.09	82.16	0.1146	30.36	18.95	27.76	0.0539	14.27	10.00	14.65	0.0124	3.29	Normal
11:46	8.98	60.01	90.12	0.1257	31.67	19.76	29.67	0.0576	14.51	10.00	15.02	0.0128	3.21	Normal
11:47	9.95	50.13	81.95	0.1143	24.33	14.34	23.44	0.0455	9.68	10.00	16.35	0.0139	2.95	Normal
11:48	10.19	49.37	82.51	0.1151	23.38	11.36	18.99	0.0369	7.49	10.00	16.71	0.0142	2.88	Normal
11:49	9.87	49.63	80.54	0.1124	23.53	11.00	17.85	0.0347	7.26	10.00	16.23	0.0138	2.89	Normal
11:50	9.28	55.32	85.22	0.1189	28.12	13.34	20.55	0.0399	9.43	10.00	15.40	0.0131	3.09	Normal
11:51	9.42	54.66	85.23	0.1189	27.55	14.01	21.84	0.0424	9.82	10.00	15.59	0.0132	3.07	Normal
11:52	9.53	51.42	80.95	0.1129	26.48	12.65	19.92	0.0387	9.06	10.00	15.74	0.0134	3.14	Normal
11:53	9.95	51.47	84.14	0.1174	25.14	10.62	17.36	0.0337	7.22	10.00	16.35	0.0139	2.97	Normal
11:54	9.80	50.85	82.00	0.1144	25.61	11.27	18.17	0.0353	7.90	10.00	16.13	0.0137	3.07	Normal
11:55	10.29	44.66	75.35	0.1051	21.05	9.51	16.04	0.0311	6.24	10.00	16.87	0.0143	2.87	Normal
11:56	10.10	47.15	78.15	0.1090	23.01	8.86	14.68	0.0285	6.01	10.00	16.57	0.0141	2.97	Normal
11:57	10.07	48.96	80.92	0.1129	23.97	8.64	14.28	0.0277	5.88	10.00	16.53	0.0140	2.98	Normal
11:58	10.23	47.48	79.65	0.1111	22.99	8.41	14.11	0.0274	5.66	10.00	16.78	0.0142	2.95	Normal
11:59	9.93	47.31	77.20	0.1077	23.15	8.39	13.69	0.0266	5.71	10.00	16.32	0.0139	2.98	Normal
Average	9.8	49.9	80.5	0.112		12.3	19.8	0.039		10.0	16.1	0.014		Normal
Total					24.68				8.50				3.01	
3-Hr Rolling			81.3		25.7		18.8		8.3		16.1		3.1	

Colmac Energy

Mecca, CA

Boiler 1 Hourly Emissions Report

April 7, 2022 - Hour 10

3-Hr Rolling Emission Limits

NOx ppm @15% O2 - 94 | SO2 ppm @15% O2 - 27 | CO ppm @15% O2 - 231

NOx lb/hr - 30 | SO2 lb/hr - 12 | CO lb/hr - 13

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
10:00	9.49	54.88	86.10	0.1201	27.95	12.60	19.77	0.0384	8.93	10.00	15.69	0.0133	3.10	Normal
10:01	9.49	55.64	87.29	0.1218	27.92	13.37	20.97	0.0407	9.33	10.00	15.69	0.0133	3.05	Normal
10:02	9.82	53.48	86.40	0.1205	26.64	12.45	20.11	0.0390	8.63	10.00	16.16	0.0137	3.03	Normal
10:03	10.33	51.22	86.74	0.1210	24.60	12.07	20.44	0.0397	8.07	10.00	16.93	0.0144	2.92	Normal
10:04	9.89	49.99	81.27	0.1134	24.41	11.29	18.36	0.0356	7.67	10.00	16.26	0.0138	2.97	Normal
10:05	9.63	56.03	88.99	0.1242	28.03	14.37	22.82	0.0443	10.00	10.00	15.88	0.0135	3.04	Normal
10:06	9.70	52.90	84.55	0.1180	25.69	11.45	18.30	0.0355	7.74	10.00	15.98	0.0136	2.96	Normal
10:07	9.49	55.70	87.38	0.1219	27.48	15.06	23.63	0.0459	10.34	10.00	15.69	0.0133	3.00	Normal
10:08	9.57	52.63	83.15	0.1160	26.37	15.33	24.22	0.0470	10.68	10.00	15.80	0.0134	3.05	Normal
10:09	10.08	47.45	78.50	0.1095	22.62	12.74	21.08	0.0409	8.45	10.00	16.54	0.0141	2.90	Normal
10:10	9.66	51.21	81.55	0.1138	25.21	11.00	17.52	0.0340	7.53	10.00	15.93	0.0135	3.00	Normal
10:11	9.83	48.93	79.12	0.1104	23.75	11.95	19.32	0.0375	8.07	10.00	16.17	0.0137	2.95	Normal
10:12	9.54	55.07	86.77	0.1211	27.73	12.72	20.04	0.0389	8.91	10.00	15.76	0.0134	3.06	Normal
10:13	9.68	51.43	82.05	0.1145	25.52	14.07	22.45	0.0436	9.72	10.00	15.95	0.0135	3.02	Normal
10:14	10.36	51.00	86.61	0.1208	24.11	13.08	22.21	0.0431	8.60	10.00	16.98	0.0144	2.88	Normal
10:15	9.74	50.36	80.77	0.1127	24.45	10.33	16.57	0.0322	6.98	10.00	16.04	0.0136	2.96	Normal
10:16	9.19	59.45	90.88	0.1268	30.46	15.35	23.46	0.0456	10.94	10.00	15.29	0.0130	3.12	Normal
10:17	9.85	58.03	94.00	0.1312	30.46	16.16	26.18	0.0508	11.80	10.00	16.20	0.0138	3.20	Normal
10:18	9.49	52.43	82.25	0.1148	29.53	13.05	20.47	0.0397	10.23	10.00	15.69	0.0133	3.43	Normal
10:19	8.60	60.83	88.52	0.1235	36.57	15.84	23.05	0.0448	13.25	10.00	14.55	0.0124	3.66	Normal
10:20	8.51	62.89	90.86	0.1268	38.94	22.92	33.11	0.0643	19.74	10.00	14.45	0.0123	3.77	Normal
10:21	9.62	54.04	85.75	0.1197	30.41	18.58	29.48	0.0572	14.55	10.00	15.87	0.0135	3.43	Normal
10:22	9.90	51.37	83.59	0.1166	29.06	16.36	26.62	0.0517	12.88	10.00	16.27	0.0138	3.44	Normal
10:23	10.06	46.45	76.70	0.1070	26.06	14.08	23.25	0.0451	10.99	10.00	16.51	0.0140	3.42	Normal
10:24	9.73	44.05	70.59	0.0985	25.32	13.89	22.26	0.0432	11.11	10.00	16.03	0.0136	3.50	Normal
10:25	10.00	44.98	73.87	0.1031	26.04	13.59	22.32	0.0433	10.95	10.00	16.42	0.0139	3.52	Normal
10:26	10.59	39.31	68.25	0.0952	21.72	10.94	18.99	0.0369	8.41	10.00	17.36	0.0147	3.36	Normal
10:27	10.18	43.15	72.05	0.1005	24.59	10.58	17.67	0.0343	8.39	10.00	16.70	0.0142	3.47	Normal
10:28	10.06	43.67	72.11	0.1006	25.34	10.88	17.97	0.0349	8.78	10.00	16.51	0.0140	3.53	Normal
10:29	10.04	44.19	72.84	0.1016	25.42	9.13	15.05	0.0292	7.31	10.00	16.48	0.0140	3.50	Normal
10:30	9.54	46.84	73.81	0.1030	28.09	9.92	15.63	0.0303	8.28	10.00	15.76	0.0134	3.65	Normal

W002AS-012607-RT-3503

498 of 635

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
10:31	9.70	47.81	76.41	0.1066	27.95	11.08	17.71	0.0344	9.01	10.00	15.98	0.0136	3.56	Normal
10:32	9.01	55.11	82.97	0.1158	33.81	12.88	19.39	0.0376	10.99	10.00	15.05	0.0128	3.73	Normal
10:33	9.46	51.33	80.32	0.1121	29.61	14.96	23.41	0.0454	12.00	10.00	15.65	0.0133	3.51	Normal
10:34	9.05	55.08	83.20	0.1161	33.83	15.66	23.66	0.0459	13.38	10.00	15.11	0.0128	3.74	Normal
10:35	9.98	43.45	71.22	0.0994	24.79	11.56	18.95	0.0368	9.18	10.00	16.39	0.0139	3.47	Normal
10:36	10.53	38.22	65.97	0.0921	21.84	11.95	20.63	0.0400	9.50	10.00	17.26	0.0147	3.48	Normal
10:37	10.57	41.15	71.31	0.0995	23.26	11.17	19.36	0.0376	8.78	10.00	17.33	0.0147	3.44	Normal
10:38	9.71	44.92	71.86	0.1003	27.12	12.10	19.36	0.0376	10.16	10.00	16.00	0.0136	3.67	Normal
10:39	10.01	48.42	79.59	0.1110	28.98	15.19	24.97	0.0485	12.65	10.00	16.44	0.0140	3.64	Normal
10:40	9.88	42.42	68.90	0.0961	25.35	12.96	21.05	0.0409	10.77	10.00	16.24	0.0138	3.64	Normal
10:41	9.55	45.21	71.30	0.0995	27.13	13.55	21.37	0.0415	11.31	10.00	15.77	0.0134	3.65	Normal
10:42	9.42	50.30	78.43	0.1094	31.25	16.41	25.59	0.0497	14.18	10.00	15.59	0.0132	3.78	Normal
10:43	10.32	43.03	72.80	0.1016	23.46	12.84	21.72	0.0422	9.74	10.00	16.92	0.0144	3.32	Normal
10:44	10.11	38.41	63.72	0.0889	19.80	12.03	19.96	0.0387	8.63	10.00	16.59	0.0141	3.14	Normal
10:45	9.81	40.85	65.93	0.0920	20.99	11.52	18.59	0.0361	8.23	10.00	16.14	0.0137	3.13	Normal
10:46	9.68	48.03	76.63	0.1069	24.43	12.10	19.30	0.0375	8.56	10.00	15.95	0.0135	3.10	Normal
10:47	10.00	41.66	68.41	0.0955	20.61	10.71	17.59	0.0341	7.37	10.00	16.42	0.0139	3.01	Normal
10:48	10.02	45.81	75.37	0.1052	22.44	10.52	17.31	0.0336	7.17	10.00	16.45	0.0140	2.98	Normal
10:49	9.94	40.41	66.00	0.0921	20.05	10.08	16.46	0.0320	6.96	10.00	16.33	0.0139	3.02	Normal
10:50	10.10	43.31	71.78	0.1002	21.23	9.94	16.47	0.0320	6.78	10.00	16.57	0.0141	2.98	Normal
10:51	10.31	42.53	71.89	0.1003	20.29	8.33	14.08	0.0273	5.53	10.00	16.90	0.0144	2.90	Normal
10:52	9.58	51.00	80.64	0.1125	26.00	8.59	13.58	0.0264	6.09	10.00	15.81	0.0134	3.10	Normal
10:53	9.51	52.18	82.00	0.1144	26.25	10.80	16.97	0.0330	7.56	10.00	15.72	0.0133	3.06	Normal
10:54	8.88	55.75	83.02	0.1158	29.75	15.14	22.55	0.0438	11.24	10.00	14.89	0.0126	3.25	Normal
10:55	9.29	56.39	86.94	0.1213	29.66	18.37	28.32	0.0550	13.44	10.00	15.42	0.0131	3.20	Normal
10:56	10.41	47.72	81.43	0.1136	22.86	12.55	21.42	0.0416	8.36	10.00	17.06	0.0145	2.92	Normal
10:57	10.58	48.80	84.64	0.1181	22.82	11.05	19.17	0.0372	7.19	10.00	17.34	0.0147	2.85	Normal
10:58	9.72	50.36	80.63	0.1125	25.65	11.37	18.20	0.0353	8.06	10.00	16.01	0.0136	3.10	Normal
10:59	9.31	54.85	84.71	0.1182	27.95	13.03	20.12	0.0391	9.24	10.00	15.44	0.0131	3.10	Normal
Average	9.8	49.2	79.3	0.111		12.9	20.8	0.040		10.0	16.1	0.014		Normal
Total					26.29				9.63				3.26	
3-Hr Rolling			82.9		26.1		18.7		8.2		16.1		3.1	

Colmac Energy

Mecca, CA

Boiler 1 Hourly Emissions Report

April 7, 2022 - Hour 9

3-Hr Rolling Emission Limits

NOx ppm @15% O2 - 94 | SO2 ppm @15% O2 - 27 | CO ppm @15% O2 - 231

NOx lb/hr - 30 | SO2 lb/hr - 12 | CO lb/hr - 13

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
09:00	9.28	59.64	91.87	0.1282	30.77	11.85	18.25	0.0354	8.51	10.00	15.40	0.0131	3.14	Normal
09:01	9.23	62.04	95.16	0.1328	31.46	12.17	18.67	0.0362	8.59	10.00	15.34	0.0130	3.09	Normal
09:02	9.36	59.54	92.35	0.1289	30.12	11.01	17.08	0.0332	7.75	10.00	15.51	0.0132	3.08	Normal
09:03	9.37	58.20	90.35	0.1261	29.38	12.72	19.75	0.0383	8.93	10.00	15.52	0.0132	3.07	Normal
09:04	9.70	54.67	87.37	0.1219	26.95	12.41	19.83	0.0385	8.51	10.00	15.98	0.0136	3.00	Normal
09:05	10.27	47.61	80.17	0.1119	22.13	9.36	15.76	0.0306	6.05	10.00	16.84	0.0143	2.83	Normal
09:06	9.24	56.16	86.21	0.1203	28.98	10.99	16.87	0.0328	7.89	10.00	15.35	0.0130	3.14	Normal
09:07	9.86	49.18	79.74	0.1113	23.89	10.34	16.77	0.0325	6.99	10.00	16.21	0.0138	2.96	Normal
09:08	9.72	54.37	87.05	0.1215	26.65	10.35	16.57	0.0322	7.06	10.00	16.01	0.0136	2.98	Normal
09:09	9.21	58.48	89.55	0.1249	30.04	11.43	17.50	0.0340	8.17	10.00	15.31	0.0130	3.13	Normal
09:10	9.66	54.01	86.01	0.1200	26.66	10.61	16.90	0.0328	7.29	10.00	15.93	0.0135	3.00	Normal
09:11	9.52	50.43	79.32	0.1107	25.08	9.85	15.49	0.0301	6.81	10.00	15.73	0.0134	3.03	Normal
09:12	9.46	53.22	83.27	0.1162	27.10	10.73	16.79	0.0326	7.60	10.00	15.65	0.0133	3.10	Normal
09:13	9.88	49.88	81.02	0.1130	24.21	7.99	12.98	0.0252	5.39	10.00	16.24	0.0138	2.95	Normal
09:14	9.77	52.97	85.19	0.1189	25.99	7.55	12.14	0.0236	5.15	10.00	16.08	0.0137	2.99	Normal
09:15	9.74	55.79	89.48	0.1249	27.95	8.67	13.91	0.0270	6.04	10.00	16.04	0.0136	3.05	Normal
09:16	10.14	47.45	78.94	0.1101	22.73	8.40	13.97	0.0271	5.60	10.00	16.64	0.0141	2.92	Normal
09:17	9.80	50.80	81.92	0.1143	25.56	8.03	12.95	0.0251	5.62	10.00	16.13	0.0137	3.06	Normal
09:18	10.08	53.80	89.00	0.1242	26.19	8.42	13.93	0.0270	5.70	10.00	16.54	0.0141	2.96	Normal
09:19	9.54	52.42	82.60	0.1152	26.20	7.47	11.77	0.0229	5.19	10.00	15.76	0.0134	3.04	Normal
09:20	9.60	52.83	83.69	0.1168	26.85	6.49	10.28	0.0200	4.59	10.00	15.84	0.0135	3.09	Normal
09:21	10.10	51.22	84.89	0.1184	24.24	6.28	10.41	0.0202	4.13	10.00	16.57	0.0141	2.88	Normal
09:22	8.68	61.51	90.10	0.1257	32.54	7.22	10.58	0.0205	5.31	10.00	14.65	0.0124	3.22	Normal
09:23	8.65	62.37	91.14	0.1272	32.63	8.97	13.11	0.0254	6.53	10.00	14.61	0.0124	3.18	Normal
09:24	9.16	60.86	92.79	0.1295	30.12	8.64	13.17	0.0256	5.95	10.00	15.25	0.0129	3.01	Normal
09:25	9.64	52.99	84.24	0.1175	25.34	8.56	13.61	0.0264	5.70	10.00	15.90	0.0135	2.91	Normal
09:26	9.54	52.60	82.88	0.1156	25.50	8.12	12.79	0.0248	5.48	10.00	15.76	0.0134	2.95	Normal
09:27	9.14	59.00	89.80	0.1253	29.71	8.73	13.29	0.0258	6.12	10.00	15.22	0.0129	3.07	Normal
09:28	8.89	57.41	85.57	0.1194	29.72	9.48	14.13	0.0274	6.83	10.00	14.90	0.0127	3.15	Normal
09:29	9.43	53.17	82.98	0.1158	26.26	9.71	15.15	0.0294	6.67	10.00	15.61	0.0133	3.01	Normal
09:30	10.07	47.84	79.07	0.1103	22.87	9.32	15.40	0.0299	6.20	10.00	16.53	0.0140	2.91	Normal

W002AS-012607-RT-3503

500 of 635

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
09:31	10.28	42.55	71.72	0.1001	20.46	7.04	11.87	0.0230	4.71	10.00	16.85	0.0143	2.93	Normal
09:32	10.82	41.19	73.14	0.1021	19.17	6.51	11.56	0.0224	4.22	10.00	17.76	0.0151	2.83	Normal
09:33	10.61	41.04	71.39	0.0996	19.54	5.90	10.26	0.0199	3.91	10.00	17.40	0.0148	2.90	Normal
09:34	10.04	45.18	74.47	0.1039	22.52	6.38	10.52	0.0204	4.42	10.00	16.48	0.0140	3.03	Normal
09:35	9.72	53.99	86.44	0.1206	27.17	8.21	13.14	0.0255	5.75	10.00	16.01	0.0136	3.06	Normal
09:36	9.96	50.72	82.99	0.1158	24.99	8.36	13.68	0.0266	5.73	10.00	16.36	0.0139	3.00	Normal
09:37	9.77	54.76	88.07	0.1229	26.93	9.20	14.80	0.0287	6.29	10.00	16.08	0.0137	2.99	Normal
09:38	9.55	53.84	84.91	0.1185	26.92	11.82	18.64	0.0362	8.22	10.00	15.77	0.0134	3.04	Normal
09:39	9.74	52.12	83.60	0.1166	25.77	9.36	15.01	0.0291	6.44	10.00	16.04	0.0136	3.01	Normal
09:40	10.21	50.38	84.36	0.1177	23.87	9.28	15.54	0.0302	6.12	10.00	16.74	0.0142	2.88	Normal
09:41	9.23	59.44	91.17	0.1272	30.93	11.80	18.10	0.0351	8.54	10.00	15.34	0.0130	3.17	Normal
09:42	9.02	59.43	89.55	0.1249	31.47	14.16	21.34	0.0414	10.43	10.00	15.07	0.0128	3.22	Normal
09:43	10.05	50.44	83.21	0.1161	24.25	13.72	22.63	0.0439	9.18	10.00	16.50	0.0140	2.93	Normal
09:44	10.18	51.55	86.08	0.1201	25.21	12.57	20.99	0.0407	8.55	10.00	16.70	0.0142	2.98	Normal
09:45	10.47	47.73	81.91	0.1143	23.02	9.86	16.92	0.0329	6.62	10.00	17.16	0.0146	2.94	Normal
09:46	10.38	46.72	79.50	0.1109	22.89	9.65	16.42	0.0319	6.58	10.00	17.02	0.0145	2.98	Normal
09:47	10.26	50.52	84.99	0.1186	24.70	9.43	15.86	0.0308	6.41	10.00	16.82	0.0143	2.98	Normal
09:48	9.91	48.88	79.61	0.1111	24.20	11.15	18.16	0.0353	7.68	10.00	16.29	0.0138	3.01	Normal
09:49	9.85	52.11	84.41	0.1178	26.56	11.51	18.65	0.0362	8.16	10.00	16.20	0.0138	3.10	Normal
09:50	9.42	54.95	85.68	0.1195	27.75	12.32	19.21	0.0373	8.66	10.00	15.59	0.0132	3.07	Normal
09:51	8.93	61.20	91.52	0.1277	32.82	14.46	21.62	0.0420	10.79	10.00	14.95	0.0127	3.26	Normal
09:52	10.03	47.78	78.68	0.1098	22.85	13.11	21.59	0.0419	8.72	10.00	16.47	0.0140	2.91	Normal
09:53	9.81	49.23	79.46	0.1109	24.13	10.38	16.75	0.0325	7.08	10.00	16.14	0.0137	2.98	Normal
09:54	9.91	49.31	80.31	0.1121	23.98	11.77	19.17	0.0372	7.96	10.00	16.29	0.0138	2.96	Normal
09:55	9.40	57.09	88.86	0.1240	28.71	13.78	21.45	0.0416	9.64	10.00	15.57	0.0132	3.06	Normal
09:56	9.93	51.38	83.84	0.1170	25.29	11.90	19.42	0.0377	8.15	10.00	16.32	0.0139	3.00	Normal
09:57	10.42	48.05	82.07	0.1145	22.65	9.56	16.33	0.0317	6.27	10.00	17.08	0.0145	2.87	Normal
09:58	10.10	47.57	78.84	0.1100	23.55	10.95	18.15	0.0352	7.54	10.00	16.57	0.0141	3.01	Normal
09:59	10.06	46.53	76.83	0.1072	22.70	9.35	15.44	0.0300	6.35	10.00	16.51	0.0140	2.97	Normal
Average	9.7	52.6	84.1	0.117		9.9	15.8	0.031		10.0	16.0	0.014		Normal
Total					26.09				6.84				3.02	
3-Hr Rolling			85.2		26.1		17.8		7.6		16.1		3.0	

Colmac Energy

Mecca, CA

Boiler 1 Hourly Emissions Report

April 7, 2022 - Hour 8

3-Hr Rolling Emission Limits

NOx ppm @15% O2 - 94 NOx lb/hr - 30 | SO2 ppm @15% O2 - 27 SO2 lb/hr - 12 | CO ppm @15% O2 - 231 CO lb/hr - 13

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
08:00	10.40	47.52	81.01	0.1130	23.27	10.19	17.37	0.0337	6.94	10.00	17.05	0.0145	2.98	Normal
08:01	10.30	49.03	82.80	0.1155	24.01	10.16	17.16	0.0333	6.92	10.00	16.89	0.0143	2.98	Normal
08:02	9.98	48.87	80.11	0.1118	24.64	11.00	18.03	0.0350	7.72	10.00	16.39	0.0139	3.07	Normal
08:03	9.98	51.08	83.73	0.1168	24.82	12.10	19.83	0.0385	8.18	10.00	16.39	0.0139	2.96	Normal
08:04	9.93	49.83	81.31	0.1134	24.27	11.48	18.73	0.0364	7.78	10.00	16.32	0.0139	2.96	Normal
08:05	9.57	52.98	83.70	0.1168	26.38	12.80	20.22	0.0393	8.87	10.00	15.80	0.0134	3.03	Normal
08:06	8.96	60.10	90.10	0.1257	30.75	19.59	29.37	0.0570	13.95	10.00	14.99	0.0127	3.11	Normal
08:07	8.52	65.19	94.26	0.1315	35.49	25.69	37.14	0.0721	19.46	10.00	14.46	0.0123	3.31	Normal
08:08	9.98	54.17	88.80	0.1239	25.78	17.36	28.46	0.0552	11.50	10.00	16.39	0.0139	2.90	Normal
08:09	10.53	52.47	90.57	0.1264	24.03	13.57	23.42	0.0455	8.65	10.00	17.26	0.0147	2.79	Normal
08:10	9.67	52.19	83.19	0.1161	26.34	12.78	20.37	0.0395	8.97	10.00	15.94	0.0135	3.07	Normal
08:11	10.16	47.49	79.15	0.1104	23.14	11.56	19.27	0.0374	7.84	10.00	16.67	0.0142	2.97	Normal
08:12	10.31	43.82	74.07	0.1033	21.27	8.37	14.15	0.0275	5.65	10.00	16.90	0.0144	2.95	Normal
08:13	9.90	49.47	80.50	0.1123	24.45	9.13	14.86	0.0288	6.28	10.00	16.27	0.0138	3.01	Normal
08:14	9.56	54.11	85.41	0.1192	27.88	10.83	17.09	0.0332	7.76	10.00	15.78	0.0134	3.14	Normal
08:15	10.12	49.27	81.81	0.1142	23.62	9.90	16.44	0.0319	6.60	10.00	16.60	0.0141	2.92	Normal
08:16	9.43	54.88	85.65	0.1195	27.34	10.62	16.57	0.0322	7.36	10.00	15.61	0.0133	3.03	Normal
08:17	9.42	56.50	88.10	0.1229	28.20	14.04	21.89	0.0425	9.75	10.00	15.59	0.0132	3.04	Normal
08:18	9.88	51.44	83.55	0.1166	24.90	9.96	16.18	0.0314	6.71	10.00	16.24	0.0138	2.95	Normal
08:19	9.90	50.69	82.49	0.1151	24.64	9.91	16.13	0.0313	6.70	10.00	16.27	0.0138	2.96	Normal
08:20	10.14	52.34	87.07	0.1215	24.60	12.18	20.26	0.0393	7.97	10.00	16.64	0.0141	2.86	Normal
08:21	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	Normal
08:22	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	Normal
08:23	9.69	54.67	87.30	0.1218	27.29	12.27	19.59	0.0380	8.52	10.00	15.97	0.0136	3.04	Normal
08:24	9.69	55.78	89.07	0.1243	27.53	12.36	19.74	0.0383	8.49	10.00	15.97	0.0136	3.00	Normal
08:25	9.86	54.73	88.74	0.1238	26.81	12.18	19.75	0.0383	8.30	10.00	16.21	0.0138	2.98	Normal
08:26	10.37	49.67	84.43	0.1178	23.80	10.84	18.43	0.0358	7.23	10.00	17.00	0.0144	2.92	Normal
08:27	9.57	59.35	93.77	0.1308	29.65	13.16	20.79	0.0404	9.15	10.00	15.80	0.0134	3.04	Normal
08:28	9.26	59.80	91.96	0.1283	30.39	15.89	24.44	0.0474	11.23	10.00	15.38	0.0131	3.09	Normal
08:29	9.85	54.28	87.93	0.1227	27.24	14.05	22.76	0.0442	9.81	10.00	16.20	0.0138	3.06	Normal
08:30	10.42	52.67	89.96	0.1255	24.96	12.01	20.51	0.0398	7.92	10.00	17.08	0.0145	2.89	Normal

W002AS-012607-RT-3503

502 of 635

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
08:31	9.91	49.72	80.98	0.1130	24.78	10.67	17.38	0.0337	7.40	10.00	16.29	0.0138	3.03	Normal
08:32	10.09	47.06	77.93	0.1087	22.39	9.36	15.50	0.0301	6.20	10.00	16.56	0.0141	2.90	Normal
08:33	9.71	53.67	85.85	0.1198	26.57	10.33	16.52	0.0321	7.11	10.00	16.00	0.0136	3.01	Normal
08:34	9.96	51.51	84.28	0.1176	25.18	10.21	16.71	0.0324	6.94	10.00	16.36	0.0139	2.98	Normal
08:35	9.74	52.46	84.14	0.1174	26.02	10.56	16.94	0.0329	7.29	10.00	16.04	0.0136	3.02	Normal
08:36	9.34	55.35	85.71	0.1196	28.78	12.11	18.75	0.0364	8.76	10.00	15.48	0.0132	3.17	Normal
08:37	9.99	54.15	88.84	0.1240	26.82	12.05	19.77	0.0384	8.30	10.00	16.41	0.0139	3.02	Normal
08:38	9.83	52.73	85.26	0.1190	26.04	9.82	15.88	0.0308	6.75	10.00	16.17	0.0137	3.01	Normal
08:39	9.67	54.49	86.85	0.1212	27.06	11.06	17.63	0.0342	7.64	10.00	15.94	0.0135	3.02	Normal
08:40	9.61	56.92	90.25	0.1259	29.15	13.36	21.18	0.0411	9.52	10.00	15.85	0.0135	3.12	Normal
08:41	9.65	56.92	90.57	0.1264	29.21	12.19	19.40	0.0377	8.70	10.00	15.91	0.0135	3.12	Normal
08:42	10.30	51.96	87.74	0.1224	24.34	10.75	18.15	0.0352	7.00	10.00	16.89	0.0143	2.85	Normal
08:43	9.18	56.58	86.41	0.1206	29.33	12.48	19.06	0.0370	9.00	10.00	15.27	0.0130	3.16	Normal
08:44	9.40	60.80	94.64	0.1320	31.84	15.96	24.84	0.0482	11.63	10.00	15.57	0.0132	3.19	Normal
08:45	10.24	55.16	92.62	0.1292	26.59	13.81	23.19	0.0450	9.26	10.00	16.79	0.0143	2.93	Normal
08:46	9.89	49.53	80.53	0.1124	24.62	12.07	19.62	0.0381	8.35	10.00	16.26	0.0138	3.03	Normal
08:47	10.16	46.50	77.50	0.1081	22.69	9.55	15.92	0.0309	6.48	10.00	16.67	0.0142	2.97	Normal
08:48	10.14	50.43	83.89	0.1171	24.08	10.07	16.75	0.0325	6.69	10.00	16.64	0.0141	2.91	Normal
08:49	9.12	60.42	91.81	0.1281	30.33	12.08	18.36	0.0356	8.44	10.00	15.20	0.0129	3.06	Normal
08:50	8.60	62.84	91.45	0.1276	33.48	16.85	24.52	0.0476	12.49	10.00	14.55	0.0124	3.24	Normal
08:51	10.03	54.16	89.19	0.1244	25.83	14.44	23.78	0.0462	9.58	10.00	16.47	0.0140	2.90	Normal
08:52	10.65	44.84	78.31	0.1093	20.87	10.11	17.66	0.0343	6.55	10.00	17.46	0.0148	2.83	Normal
08:53	9.69	50.38	80.45	0.1122	25.21	10.66	17.02	0.0330	7.42	10.00	15.97	0.0136	3.05	Normal
08:54	9.96	48.24	78.93	0.1101	23.38	12.25	20.04	0.0389	8.26	10.00	16.36	0.0139	2.95	Normal
08:55	9.73	49.67	79.60	0.1111	24.69	10.48	16.79	0.0326	7.25	10.00	16.03	0.0136	3.03	Normal
08:56	9.79	51.95	83.70	0.1168	25.40	11.18	18.01	0.0350	7.61	10.00	16.11	0.0137	2.98	Normal
08:57	9.84	52.77	85.41	0.1192	26.32	10.75	17.40	0.0338	7.46	10.00	16.18	0.0137	3.04	Normal
08:58	10.38	47.61	81.01	0.1130	22.51	8.91	15.16	0.0294	5.86	10.00	17.02	0.0145	2.88	Normal
08:59	9.82	52.55	84.90	0.1185	26.06	9.32	15.06	0.0292	6.43	10.00	16.16	0.0137	3.02	Normal
Average	9.8	52.9	85.3	0.119		12.1	19.5	0.038		10.0	16.1	0.014		Normal
Total					25.87				8.21				2.98	
3-Hr Rolling			85.2		26.0		19.2		8.1		16.2		3.0	

Colmac Energy

Mecca, CA

Boiler 1 Hourly Emissions Report

April 7, 2022 - Hour 7

3-Hr Rolling Emission Limits

NOx ppm @15% O2 - 94 | SO2 ppm @15% O2 - 27 | CO ppm @15% O2 - 231

NOx lb/hr - 30 | SO2 lb/hr - 12 | CO lb/hr - 13

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
07:00	8.93	62.43	93.36	0.1303	32.86	15.38	23.00	0.0447	11.26	10.00	14.95	0.0127	3.20	Normal
07:01	10.08	53.70	88.84	0.1240	25.50	13.12	21.70	0.0421	8.67	10.00	16.54	0.0141	2.89	Normal
07:02	9.78	52.46	84.45	0.1178	25.42	12.10	19.48	0.0378	8.16	10.00	16.10	0.0137	2.95	Normal
07:03	8.85	64.33	95.56	0.1333	33.62	18.87	28.03	0.0544	13.72	10.00	14.85	0.0126	3.18	Normal
07:04	8.93	63.90	95.56	0.1333	33.14	18.38	27.49	0.0534	13.26	10.00	14.95	0.0127	3.16	Normal
07:05	10.17	51.29	85.56	0.1194	24.19	13.65	22.77	0.0442	8.96	10.00	16.68	0.0142	2.87	Normal
07:06	10.36	49.30	83.73	0.1168	23.17	11.64	19.77	0.0384	7.61	10.00	16.98	0.0144	2.86	Normal
07:07	9.73	51.18	82.02	0.1144	25.30	12.05	19.31	0.0375	8.29	10.00	16.03	0.0136	3.01	Normal
07:08	9.40	53.33	83.01	0.1158	27.01	11.68	18.18	0.0353	8.23	10.00	15.57	0.0132	3.08	Normal
07:09	9.95	50.54	82.62	0.1153	25.15	12.13	19.83	0.0385	8.40	10.00	16.35	0.0139	3.03	Normal
07:10	9.81	51.73	83.50	0.1165	25.44	10.52	16.98	0.0330	7.20	10.00	16.14	0.0137	2.99	Normal
07:11	9.28	62.09	95.65	0.1335	31.76	12.72	19.59	0.0380	9.05	10.00	15.40	0.0131	3.11	Normal
07:12	9.70	55.68	88.99	0.1242	27.69	12.86	20.55	0.0399	8.90	10.00	15.98	0.0136	3.03	Normal
07:13	9.75	52.32	83.99	0.1172	25.63	9.80	15.73	0.0305	6.68	10.00	16.05	0.0136	2.98	Normal
07:14	9.43	56.31	87.88	0.1226	28.30	9.81	15.31	0.0297	6.86	10.00	15.61	0.0133	3.06	Normal
07:15	9.79	54.58	87.94	0.1227	26.39	9.37	15.10	0.0293	6.30	10.00	16.11	0.0137	2.94	Normal
07:16	9.40	59.78	93.05	0.1298	29.43	10.81	16.83	0.0327	7.40	10.00	15.57	0.0132	3.00	Normal
07:17	9.27	59.89	92.18	0.1286	30.11	13.04	20.07	0.0390	9.12	10.00	15.39	0.0131	3.06	Normal
07:18	10.24	47.88	80.40	0.1122	22.37	11.76	19.75	0.0383	7.64	10.00	16.79	0.0143	2.84	Normal
07:19	9.90	50.13	81.58	0.1138	23.87	9.66	15.72	0.0305	6.40	10.00	16.27	0.0138	2.90	Normal
07:20	9.34	61.68	95.51	0.1333	31.36	12.79	19.80	0.0384	9.05	10.00	15.48	0.0132	3.09	Normal
07:21	9.82	49.89	80.60	0.1125	24.15	10.92	17.64	0.0342	7.36	10.00	16.16	0.0137	2.95	Normal
07:22	9.93	48.70	79.46	0.1109	23.49	9.87	16.11	0.0313	6.62	10.00	16.32	0.0139	2.94	Normal
07:23	10.08	49.83	82.44	0.1150	24.02	9.89	16.36	0.0318	6.63	10.00	16.54	0.0141	2.93	Normal
07:24	10.23	51.22	85.93	0.1199	24.63	8.35	14.01	0.0272	5.59	10.00	16.78	0.0142	2.93	Normal
07:25	9.64	50.92	80.95	0.1129	25.27	7.79	12.38	0.0240	5.38	10.00	15.90	0.0135	3.02	Normal
07:26	8.87	60.00	89.28	0.1246	31.68	11.62	17.29	0.0336	8.54	10.00	14.88	0.0126	3.21	Normal
07:27	9.33	60.47	93.55	0.1305	30.86	12.82	19.83	0.0385	9.10	10.00	15.47	0.0131	3.11	Normal
07:28	9.82	54.81	88.55	0.1235	27.14	10.79	17.43	0.0338	7.43	10.00	16.16	0.0137	3.01	Normal
07:29	10.52	48.27	83.24	0.1161	22.95	9.14	15.76	0.0306	6.05	10.00	17.24	0.0146	2.89	Normal
07:30	10.04	45.92	75.69	0.1056	22.40	8.26	13.61	0.0264	5.60	10.00	16.48	0.0140	2.97	Normal

W002AS-012607-RT-3503

504 of 635

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
07:31	9.84	48.35	78.25	0.1092	23.96	9.01	14.58	0.0283	6.21	10.00	16.18	0.0137	3.02	Normal
07:32	10.20	47.35	79.21	0.1105	23.36	9.58	16.03	0.0311	6.58	10.00	16.73	0.0142	3.00	Normal
07:33	10.63	43.83	76.39	0.1066	20.36	7.28	12.69	0.0246	4.71	10.00	17.43	0.0148	2.83	Normal
07:34	9.33	58.95	91.20	0.1273	30.53	8.62	13.34	0.0259	6.21	10.00	15.47	0.0131	3.15	Normal
07:35	9.03	58.93	88.87	0.1240	29.75	10.94	16.50	0.0320	7.68	10.00	15.08	0.0128	3.07	Normal
07:36	8.57	64.97	94.32	0.1316	34.73	14.19	20.60	0.0400	10.55	10.00	14.52	0.0123	3.25	Normal
07:37	9.42	58.58	91.34	0.1274	29.19	14.09	21.97	0.0427	9.77	10.00	15.59	0.0132	3.03	Normal
07:38	9.86	52.57	85.24	0.1189	25.22	12.48	20.23	0.0393	8.33	10.00	16.21	0.0138	2.92	Normal
07:39	9.72	52.65	84.30	0.1176	26.71	13.09	20.96	0.0407	9.24	10.00	16.01	0.0136	3.09	Normal
07:40	10.81	44.37	78.71	0.1098	20.56	11.01	19.53	0.0379	7.10	10.00	17.74	0.0151	2.82	Normal
07:41	10.25	46.06	77.42	0.1080	22.57	9.28	15.60	0.0303	6.33	10.00	16.81	0.0143	2.98	Normal
07:42	10.09	47.48	78.62	0.1097	23.77	9.20	15.23	0.0296	6.41	10.00	16.56	0.0141	3.05	Normal
07:43	10.38	46.36	78.88	0.1101	22.30	8.50	14.46	0.0281	5.69	10.00	17.02	0.0145	2.93	Normal
07:44	10.42	44.95	76.78	0.1071	21.49	7.98	13.63	0.0265	5.31	10.00	17.08	0.0145	2.91	Normal
07:45	10.06	48.97	80.86	0.1128	23.98	8.04	13.28	0.0258	5.48	10.00	16.51	0.0140	2.98	Normal
07:46	9.38	57.01	88.58	0.1236	28.89	9.37	14.56	0.0283	6.61	10.00	15.54	0.0132	3.08	Normal
07:47	9.08	62.42	94.53	0.1319	32.85	13.87	21.00	0.0408	10.16	10.00	15.14	0.0129	3.20	Normal
07:48	9.22	60.58	92.84	0.1295	30.54	15.34	23.51	0.0456	10.76	10.00	15.33	0.0130	3.07	Normal
07:49	9.91	55.30	90.07	0.1257	25.93	13.39	21.81	0.0423	8.74	10.00	16.29	0.0138	2.85	Normal
07:50	9.33	61.22	94.71	0.1322	30.46	12.37	19.14	0.0372	8.56	10.00	15.47	0.0131	3.03	Normal
07:51	9.95	54.96	89.84	0.1254	26.95	12.39	20.25	0.0393	8.45	10.00	16.35	0.0139	2.99	Normal
07:52	10.33	48.74	82.54	0.1152	22.74	10.69	18.10	0.0351	6.94	10.00	16.93	0.0144	2.84	Normal
07:53	9.83	51.40	83.11	0.1160	25.23	11.57	18.71	0.0363	7.90	10.00	16.17	0.0137	2.99	Normal
07:54	10.12	45.96	76.32	0.1065	22.00	10.22	16.97	0.0329	6.81	10.00	16.60	0.0141	2.91	Normal
07:55	10.08	49.89	82.54	0.1152	24.50	9.53	15.77	0.0306	6.51	10.00	16.54	0.0141	2.99	Normal
07:56	10.38	50.01	85.09	0.1187	23.59	8.75	14.89	0.0289	5.74	10.00	17.02	0.0145	2.87	Normal
07:57	9.75	53.60	86.05	0.1201	27.23	9.67	15.52	0.0301	6.84	10.00	16.05	0.0136	3.09	Normal
07:58	9.87	54.13	87.84	0.1226	26.71	10.36	16.81	0.0326	7.11	10.00	16.23	0.0138	3.00	Normal
07:59	9.90	52.99	86.23	0.1203	26.67	12.14	19.76	0.0384	8.50	10.00	16.27	0.0138	3.06	Normal
Average	9.8	53.5	86.3	0.120		11.2	18.1	0.035		10.0	16.1	0.014		Normal
Total					26.38				7.72				3.01	
3-Hr Rolling			84.0		25.6		18.9		8.0		16.2		3.0	

Colmac Energy

Mecca, CA

Boiler 1 Hourly Emissions Report

April 7, 2022 - Hour 6

3-Hr Rolling Emission Limits

NOx ppm @15% O2 - 94 | SO2 ppm @15% O2 - 27 | CO ppm @15% O2 - 231

NOx lb/hr - 30 | SO2 lb/hr - 12 | CO lb/hr - 13

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
06:00	8.95	56.54	84.69	0.1182	30.16	11.15	16.70	0.0324	8.28	10.00	14.98	0.0127	3.25	Normal
06:01	9.68	54.89	87.57	0.1222	27.85	12.31	19.64	0.0381	8.69	10.00	15.95	0.0135	3.09	Normal
06:02	9.95	49.66	81.18	0.1133	24.63	11.13	18.19	0.0353	7.68	10.00	16.35	0.0139	3.02	Normal
06:03	9.79	50.77	81.80	0.1141	25.88	11.25	18.13	0.0352	7.98	10.00	16.11	0.0137	3.10	Normal
06:04	10.14	49.92	83.05	0.1159	24.93	10.54	17.53	0.0340	7.32	10.00	16.64	0.0141	3.04	Normal
06:05	10.02	51.60	84.89	0.1185	26.02	9.28	15.27	0.0296	6.51	10.00	16.45	0.0140	3.07	Normal
06:06	9.97	53.20	87.13	0.1216	26.44	9.71	15.90	0.0309	6.71	10.00	16.38	0.0139	3.03	Normal
06:07	9.82	54.90	88.69	0.1238	28.01	10.62	17.16	0.0333	7.54	10.00	16.16	0.0137	3.11	Normal
06:08	10.00	53.38	87.66	0.1223	26.68	10.66	17.51	0.0340	7.41	10.00	16.42	0.0139	3.04	Normal
06:09	9.75	50.76	81.49	0.1137	25.80	10.28	16.50	0.0320	7.27	10.00	16.05	0.0136	3.09	Normal
06:10	10.16	54.15	90.25	0.1259	26.50	10.63	17.72	0.0344	7.24	10.00	16.67	0.0142	2.98	Normal
06:11	9.92	49.92	81.38	0.1135	24.92	10.27	16.74	0.0325	7.13	10.00	16.30	0.0138	3.04	Normal
06:12	10.21	46.46	77.80	0.1085	22.84	9.57	16.02	0.0311	6.54	10.00	16.74	0.0142	2.99	Normal
06:13	9.83	46.82	75.71	0.1056	23.85	9.22	14.91	0.0289	6.53	10.00	16.17	0.0137	3.10	Normal
06:14	10.40	46.84	79.85	0.1114	22.79	9.74	16.60	0.0322	6.59	10.00	17.05	0.0145	2.96	Normal
06:15	9.96	47.06	77.00	0.1074	23.37	10.31	16.87	0.0327	7.12	10.00	16.36	0.0139	3.02	Normal
06:16	8.90	58.09	86.65	0.1209	30.72	16.90	25.21	0.0489	12.43	10.00	14.92	0.0127	3.22	Normal
06:17	8.86	60.60	90.09	0.1257	32.39	20.52	30.51	0.0592	15.26	10.00	14.87	0.0126	3.25	Normal
06:18	9.81	55.61	89.76	0.1252	27.33	17.73	28.62	0.0556	12.12	10.00	16.14	0.0137	2.99	Normal
06:19	10.27	48.94	82.41	0.1150	23.51	14.06	23.68	0.0460	9.40	10.00	16.84	0.0143	2.92	Normal
06:20	10.29	47.41	79.98	0.1116	23.10	12.51	21.11	0.0410	8.48	10.00	16.87	0.0143	2.97	Normal
06:21	9.95	43.98	71.89	0.1003	22.08	11.71	19.14	0.0372	8.18	10.00	16.35	0.0139	3.06	Normal
06:22	9.71	51.96	83.12	0.1160	26.09	14.74	23.58	0.0458	10.30	10.00	16.00	0.0136	3.06	Normal
06:23	9.57	54.83	86.62	0.1209	28.07	16.07	25.39	0.0493	11.45	10.00	15.80	0.0134	3.12	Normal
06:24	10.37	49.55	84.23	0.1175	23.96	12.75	21.67	0.0421	8.58	10.00	17.00	0.0144	2.94	Normal
06:25	10.52	45.76	78.91	0.1101	22.48	10.39	17.92	0.0348	7.10	10.00	17.24	0.0146	2.99	Normal
06:26	10.92	43.74	78.45	0.1095	20.63	8.53	15.30	0.0297	5.60	10.00	17.94	0.0152	2.87	Normal
06:27	10.35	45.16	76.62	0.1069	22.61	8.93	15.15	0.0294	6.22	10.00	16.97	0.0144	3.05	Normal
06:28	10.45	41.74	71.50	0.0998	20.32	7.67	13.14	0.0255	5.19	10.00	17.13	0.0145	2.96	Normal
06:29	9.76	52.40	84.20	0.1175	26.86	9.93	15.96	0.0310	7.08	10.00	16.07	0.0136	3.12	Normal
06:30	9.47	55.65	87.15	0.1216	28.54	11.68	18.29	0.0355	8.33	10.00	15.66	0.0133	3.12	Normal

W002AS-012607-RT-3503

506 of 635

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
06:31	9.52	54.72	86.07	0.1201	27.52	13.32	20.95	0.0407	9.32	10.00	15.73	0.0134	3.06	Normal
06:32	9.22	53.55	82.07	0.1145	27.55	13.88	21.27	0.0413	9.93	10.00	15.33	0.0130	3.13	Normal
06:33	10.45	49.04	84.00	0.1172	22.99	11.34	19.42	0.0377	7.40	10.00	17.13	0.0145	2.85	Normal
06:34	9.72	55.76	89.28	0.1246	27.87	12.13	19.42	0.0377	8.43	10.00	16.01	0.0136	3.04	Normal
06:35	9.90	49.75	80.96	0.1130	24.49	12.52	20.37	0.0396	8.58	10.00	16.27	0.0138	3.00	Normal
06:36	9.73	52.68	84.42	0.1178	26.30	11.85	18.99	0.0369	8.23	10.00	16.03	0.0136	3.04	Normal
06:37	9.87	52.16	84.65	0.1181	26.09	12.54	20.35	0.0395	8.73	10.00	16.23	0.0138	3.04	Normal
06:38	9.91	51.17	83.34	0.1163	24.99	12.41	20.21	0.0392	8.43	10.00	16.29	0.0138	2.97	Normal
06:39	9.57	54.13	85.52	0.1193	27.68	13.21	20.87	0.0405	9.40	10.00	15.80	0.0134	3.11	Normal
06:40	10.06	52.97	87.47	0.1220	25.80	13.44	22.19	0.0431	9.11	10.00	16.51	0.0140	2.96	Normal
06:41	9.86	52.29	84.78	0.1183	26.04	13.98	22.67	0.0440	9.69	10.00	16.21	0.0138	3.03	Normal
06:42	10.19	47.41	79.24	0.1106	23.10	10.65	17.80	0.0346	7.22	10.00	16.71	0.0142	2.97	Normal
06:43	10.01	50.35	82.76	0.1155	24.72	10.11	16.62	0.0323	6.91	10.00	16.44	0.0140	2.99	Normal
06:44	9.94	51.95	84.85	0.1184	25.47	10.04	16.40	0.0318	6.85	10.00	16.33	0.0139	2.98	Normal
06:45	10.23	48.30	81.03	0.1131	23.59	10.03	16.83	0.0327	6.82	10.00	16.78	0.0142	2.97	Normal
06:46	9.54	52.11	82.11	0.1146	26.84	11.10	17.49	0.0340	7.95	10.00	15.76	0.0134	3.14	Normal
06:47	9.72	57.41	91.92	0.1283	28.38	12.48	19.98	0.0388	8.58	10.00	16.01	0.0136	3.01	Normal
06:48	9.59	51.93	82.19	0.1147	25.99	13.15	20.81	0.0404	9.16	10.00	15.83	0.0134	3.05	Normal
06:49	9.12	61.25	93.07	0.1299	31.83	16.08	24.43	0.0474	11.63	10.00	15.20	0.0129	3.16	Normal
06:50	9.30	57.22	88.30	0.1232	28.86	18.55	28.62	0.0556	13.02	10.00	15.43	0.0131	3.07	Normal
06:51	9.47	54.79	85.80	0.1197	27.38	15.77	24.70	0.0479	10.97	10.00	15.66	0.0133	3.04	Normal
06:52	9.72	53.68	85.95	0.1199	25.77	15.13	24.22	0.0470	10.11	10.00	16.01	0.0136	2.92	Normal
06:53	9.42	57.38	89.47	0.1248	28.34	14.84	23.14	0.0449	10.20	10.00	15.59	0.0132	3.01	Normal
06:54	9.90	50.40	82.01	0.1144	24.39	13.74	22.36	0.0434	9.25	10.00	16.27	0.0138	2.95	Normal
06:55	10.60	44.93	78.08	0.1089	21.11	11.19	19.45	0.0378	7.31	10.00	17.38	0.0148	2.86	Normal
06:56	10.54	42.05	72.65	0.1014	19.95	9.37	16.19	0.0314	6.19	10.00	17.28	0.0147	2.89	Normal
06:57	9.52	54.84	86.26	0.1204	28.07	12.54	19.72	0.0383	8.93	10.00	15.73	0.0134	3.12	Normal
06:58	9.63	55.24	87.74	0.1224	27.75	12.50	19.85	0.0385	8.74	10.00	15.88	0.0135	3.06	Normal
06:59	9.53	58.31	91.80	0.1281	28.63	13.56	21.35	0.0414	9.26	10.00	15.74	0.0134	2.99	Normal
Average	9.9	51.7	84.1	0.117		12.2	19.9	0.039		10.0	16.3	0.014		Normal
Total					25.75				8.46				3.04	
3-Hr Rolling			79.8		24.1		20.6		8.6		16.4		3.0	

Colmac Energy

Mecca, CA

Boiler 1 Hourly Emissions Report

April 7, 2022 - Hour 5

3-Hr Rolling Emission Limits

NOx ppm @15% O2 - 94 | SO2 ppm @15% O2 - 27 | CO ppm @15% O2 - 231

NOx lb/hr - 30 | SO2 lb/hr - 12 | CO lb/hr - 13

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
05:00	9.19	53.99	82.53	0.1152	26.65	17.86	27.30	0.0530	12.26	10.00	15.29	0.0130	3.00	Normal
05:01	9.82	53.21	85.96	0.1199	25.92	16.74	27.04	0.0525	11.34	10.00	16.16	0.0137	2.96	Normal
05:02	11.01	40.96	74.13	0.1034	18.49	10.21	18.48	0.0359	6.41	10.00	18.10	0.0154	2.75	Normal
05:03	10.39	42.19	71.86	0.1003	19.91	9.13	15.55	0.0302	5.99	10.00	17.03	0.0145	2.87	Normal
05:04	9.18	52.58	80.31	0.1120	27.09	11.57	17.67	0.0343	8.29	10.00	15.27	0.0130	3.14	Normal
05:05	9.63	51.28	81.45	0.1136	25.78	13.50	21.44	0.0416	9.44	10.00	15.88	0.0135	3.06	Normal
05:06	9.87	50.74	82.34	0.1149	24.73	10.51	17.06	0.0331	7.13	10.00	16.23	0.0138	2.97	Normal
05:07	9.96	48.58	79.49	0.1109	23.08	11.63	19.03	0.0369	7.69	10.00	16.36	0.0139	2.89	Normal
05:08	9.58	53.11	83.98	0.1172	26.81	13.72	21.70	0.0421	9.64	10.00	15.81	0.0134	3.07	Normal
05:09	10.52	41.77	72.03	0.1005	19.76	9.82	16.93	0.0329	6.46	10.00	17.24	0.0146	2.88	Normal
05:10	10.39	47.02	80.08	0.1117	22.75	9.74	16.59	0.0322	6.56	10.00	17.03	0.0145	2.94	Normal
05:11	10.09	51.24	84.85	0.1184	25.22	10.87	18.00	0.0349	7.44	10.00	16.56	0.0141	3.00	Normal
05:12	9.62	49.37	78.34	0.1093	24.62	11.59	18.39	0.0357	8.04	10.00	15.87	0.0135	3.04	Normal
05:13	9.38	53.37	82.93	0.1157	27.19	12.68	19.70	0.0382	8.99	10.00	15.54	0.0132	3.10	Normal
05:14	9.93	50.66	82.66	0.1153	24.50	12.37	20.18	0.0392	8.32	10.00	16.32	0.0139	2.94	Normal
05:15	10.24	49.71	83.47	0.1165	24.15	11.84	19.88	0.0386	8.00	10.00	16.79	0.0143	2.96	Normal
05:16	10.89	43.47	77.73	0.1085	19.95	8.95	16.00	0.0311	5.71	10.00	17.88	0.0152	2.79	Normal
05:17	9.70	53.43	85.39	0.1191	26.75	10.34	16.53	0.0321	7.20	10.00	15.98	0.0136	3.05	Normal
05:18	9.65	49.55	78.84	0.1100	25.41	11.40	18.14	0.0352	8.13	10.00	15.91	0.0135	3.12	Normal
05:19	10.22	46.15	77.35	0.1079	22.23	8.76	14.68	0.0285	5.87	10.00	16.76	0.0142	2.93	Normal
05:20	10.07	43.78	72.36	0.1010	20.67	8.40	13.88	0.0270	5.52	10.00	16.53	0.0140	2.87	Normal
05:21	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	Normal
05:22	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	**Bkflsh**	Normal
05:23	9.86	50.15	81.31	0.1135	25.04	11.21	18.18	0.0353	7.79	10.00	16.21	0.0138	3.04	Normal
05:24	9.51	52.82	83.01	0.1158	26.32	12.50	19.64	0.0381	8.66	10.00	15.72	0.0133	3.03	Normal
05:25	8.89	60.69	90.45	0.1262	32.39	16.42	24.47	0.0475	12.19	10.00	14.90	0.0127	3.25	Normal
05:26	9.92	51.42	83.83	0.1170	25.11	13.64	22.24	0.0432	9.27	10.00	16.30	0.0138	2.97	Normal
05:27	10.30	49.48	83.56	0.1166	23.39	11.31	19.10	0.0371	7.44	10.00	16.89	0.0143	2.88	Normal
05:28	9.75	51.30	82.36	0.1149	26.15	11.92	19.14	0.0372	8.45	10.00	16.05	0.0136	3.10	Normal
05:29	10.66	45.63	79.76	0.1113	21.85	9.66	16.89	0.0328	6.43	10.00	17.48	0.0148	2.91	Normal
05:30	10.64	44.55	77.72	0.1084	21.45	7.53	13.14	0.0255	5.04	10.00	17.45	0.0148	2.93	Normal

W002AS-012607-RT-3503

508 of 635

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
05:31	10.06	49.69	82.05	0.1145	25.18	8.30	13.71	0.0266	5.85	10.00	16.51	0.0140	3.08	Normal
05:32	10.04	45.02	74.20	0.1035	22.13	8.30	13.68	0.0266	5.68	10.00	16.48	0.0140	2.99	Normal
05:33	9.10	56.88	86.28	0.1204	30.40	11.73	17.79	0.0345	8.72	10.00	15.17	0.0129	3.25	Normal
05:34	9.39	55.31	86.02	0.1200	28.33	12.61	19.61	0.0381	8.99	10.00	15.55	0.0132	3.12	Normal
05:35	9.07	58.30	88.21	0.1231	30.40	13.29	20.11	0.0390	9.64	10.00	15.13	0.0129	3.17	Normal
05:36	9.22	57.89	88.72	0.1238	30.26	13.24	20.29	0.0394	9.63	10.00	15.33	0.0130	3.18	Normal
05:37	10.06	49.68	82.04	0.1145	23.78	11.18	18.46	0.0358	7.44	10.00	16.51	0.0140	2.91	Normal
05:38	9.74	50.76	81.42	0.1136	25.31	11.73	18.81	0.0365	8.14	10.00	16.04	0.0136	3.03	Normal
05:39	9.77	51.66	83.08	0.1159	25.32	12.29	19.77	0.0384	8.38	10.00	16.08	0.0137	2.98	Normal
05:40	9.36	55.45	86.01	0.1200	28.55	12.78	19.82	0.0385	9.15	10.00	15.51	0.0132	3.13	Normal
05:41	9.82	50.80	82.07	0.1145	24.43	11.47	18.53	0.0360	7.67	10.00	16.16	0.0137	2.93	Normal
05:42	9.73	53.31	85.43	0.1192	27.02	12.58	20.16	0.0391	8.87	10.00	16.03	0.0136	3.08	Normal
05:43	10.87	44.69	79.76	0.1113	20.85	10.30	18.38	0.0357	6.68	10.00	17.85	0.0152	2.84	Normal
05:44	10.42	44.66	76.28	0.1064	21.81	9.05	15.46	0.0300	6.15	10.00	17.08	0.0145	2.97	Normal
05:45	10.20	44.42	74.31	0.1037	21.79	8.98	15.02	0.0292	6.13	10.00	16.73	0.0142	2.99	Normal
05:46	9.95	47.59	77.80	0.1085	24.23	9.25	15.12	0.0294	6.55	10.00	16.35	0.0139	3.10	Normal
05:47	9.65	50.57	80.46	0.1123	25.66	9.37	14.91	0.0289	6.61	10.00	15.91	0.0135	3.09	Normal
05:48	9.42	53.40	83.26	0.1162	28.03	11.86	18.49	0.0359	8.66	10.00	15.59	0.0132	3.20	Normal
05:49	10.30	48.60	82.07	0.1145	23.82	11.50	19.42	0.0377	7.84	10.00	16.89	0.0143	2.98	Normal
05:50	9.96	48.52	79.39	0.1108	24.50	10.28	16.82	0.0327	7.22	10.00	16.36	0.0139	3.07	Normal
05:51	9.61	48.98	77.66	0.1084	24.92	10.66	16.90	0.0328	7.54	10.00	15.85	0.0135	3.10	Normal
05:52	9.06	59.28	89.62	0.1250	32.31	13.75	20.79	0.0404	10.43	10.00	15.12	0.0128	3.32	Normal
05:53	10.16	48.09	80.15	0.1118	23.85	11.99	19.98	0.0388	8.27	10.00	16.67	0.0142	3.02	Normal
05:54	9.67	52.34	83.43	0.1164	26.78	11.27	17.96	0.0349	8.02	10.00	15.94	0.0135	3.11	Normal
05:55	9.73	57.63	92.35	0.1289	28.85	13.13	21.04	0.0408	9.14	10.00	16.03	0.0136	3.05	Normal
05:56	9.60	55.78	88.36	0.1233	28.72	13.38	21.19	0.0411	9.58	10.00	15.84	0.0135	3.13	Normal
05:57	10.14	48.06	79.95	0.1116	24.00	11.66	19.40	0.0377	8.10	10.00	16.64	0.0141	3.04	Normal
05:58	10.51	43.24	74.49	0.1039	21.18	9.55	16.45	0.0319	6.51	10.00	17.23	0.0146	2.98	Normal
05:59	10.57	47.91	83.02	0.1158	22.40	8.77	15.20	0.0295	5.70	10.00	17.33	0.0147	2.85	Normal
Average	9.9	50.2	81.7	0.114		11.4	18.6	0.036		10.0	16.3	0.014		Normal
Total					24.68				7.79				2.99	
3-Hr Rolling			75.9		22.4		20.3		8.3		17.0		3.0	

Appendix B.1.3
Unit 2 Operations Conditions

3:00 PM

CEM 15 MINUTE REPORT

TAG	DESCRIPTION	VALUE	E/U
HIC-1704	#NULL!	#NULL!	LBS/HR
FIC-1753	BLR1 NOX LBS/HR CONTROL	27.108	LBS/HR
FIC-2753	BLR2 NOX LBS/HR CONTROL	29.766	LBS/HR
SI-1345	#1 LIMESTONE FEED RATE	2844.266	LBS/HR
PI-93	700# HEADER STM INLET PRESS "A"	125.503	PSI
FI-1040	BLR1 OUTLET STEAM LBS/HR	189.144	LBS/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	197.967	LBS/HR
EX-MW	GENERATOR MW GROSS	45.962	MEGWAT
FQI2-6105	B2 DAILY TOTAL FLOW	655.000	TONS
FQI2-6120	B3 DAILY TOTAL FLOW	605.000	TONS
SI-2345	fpget("SI-2345.C_DESC")	441.360	LBS/HR

2:00 PM

CEM 15 MINUTE REPORT

TAG	DESCRIPTION	VALUE	E/U
HIC-1704	#NULL!	#NULL!	LBS/HR
FIC-1753	BLR1 NOX LBS/HR CONTROL	23.126	LBS/HR
FIC-2753	BLR2 NOX LBS/HR CONTROL	26.889	LBS/HR
SI-1345	#1 LIMESTONE FEED RATE	3863.295	LBS/HR
PI-93	700# HEADER STM INLET PRESS "A"	126.256	PSI
FI-1040	BLR1 OUTLET STEAM LBS/HR	189.198	LBS/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	190.721	LBS/HR
EX-MW	GENERATOR MW GROSS	45.480	MEGWAT
FQI2-6105	B2 DAILY TOTAL FLOW	614.000	TONS
FQI2-6120	B3 DAILY TOTAL FLOW	545.000	TONS
SI-2345	fpget("SI-2345.C_DESC")	508.877	LBS/HR

1:00 PM

CEM 15 MINUTE REPORT

TAG	DESCRIPTION	VALUE	E/U
HIC-1704	#NULL!	#NULL!	LBS/HR
FIC-1753	BLR1 NOX LBS/HR CONTROL	27.051	LBS/HR
FIC-2753	BLR2 NOX LBS/HR CONTROL	28.515	LBS/HR
SI-1345	#1 LIMESTONE FEED RATE	4188.783	LBS/HR
PI-93	700# HEADER STM INLET PRESS "A"	125.126	PSI
FI-1040	BLR1 OUTLET STEAM LBS/HR	187.036	LBS/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	201.672	LBS/HR
EX-MW	GENERATOR MW GROSS	46.157	MEGWAT
FQI2-6105	B2 DAILY TOTAL FLOW	565.000	TONS
FQI2-6120	B3 DAILY TOTAL FLOW	478.000	TONS
SI-2345	fpget("SI-2345.C_DESC")	436.468	LBS/HR

12:00 PM

CEM 15 MINUTE REPORT

TAG	DESCRIPTION	VALUE	E/U
HIC-1704	#NULL!	#NULL!	LBS/HR
FIC-1753	BLR1 NOX LBS/HR CONTROL	20.945	LBS/HR
FIC-2753	BLR2 NOX LBS/HR CONTROL	25.002	LBS/HR
SI-1345	#1 LIMESTONE FEED RATE	3645.468	LBS/HR
PI-93	700# HEADER STM INLET PRESS "A"	123.964	PSI
FI-1040	BLR1 OUTLET STEAM LBS/HR	179.089	LBS/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	191.128	LBS/HR
EX-MW	GENERATOR MW GROSS	44.255	MEGWAT
FQI2-6105	B2 DAILY TOTAL FLOW	518.000	TONS
FQI2-6120	B3 DAILY TOTAL FLOW	412.000	TONS
SI-2345	fpget("SI-2345.C_DESC")	386.443	LBS/HR

11:00 AM

CEM 15 MINUTE REPORT

TAG	DESCRIPTION	VALUE	E/U
HIC-1704	#NULL!	#NULL!	LBS/HR
FIC-1753	BLR1 NOX LBS/HR CONTROL	26.555	LBS/HR
FIC-2753	BLR2 NOX LBS/HR CONTROL	24.945	LBS/HR
SI-1345	#1 LIMESTONE FEED RATE	3833.542	LBS/HR
PI-93	700# HEADER STM INLET PRESS "A"	125.503	PSI
FI-1040	BLR1 OUTLET STEAM LBS/HR	186.773	LBS/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	192.995	LBS/HR
EX-MW	GENERATOR MW GROSS	45.518	MEGWAT
FQI2-6105	B2 DAILY TOTAL FLOW	473.000	TONS
FQI2-6120	B3 DAILY TOTAL FLOW	349.000	TONS
SI-2345	fpget("SI-2345.C_DESC")	262.631	LBS/HR

10:00 AM

CEM 15 MINUTE REPORT

TAG	DESCRIPTION	VALUE	E/U
HIC-1704	#NULL!	#NULL!	LBS/HR
FIC-1753	BLR1 NOX LBS/HR CONTROL	27.459	LBS/HR
FIC-2753	BLR2 NOX LBS/HR CONTROL	24.858	LBS/HR
SI-1345	#1 LIMESTONE FEED RATE	4036.054	LBS/HR
PI-93	700# HEADER STM INLET PRESS "A"	125.503	PSI
FI-1040	BLR1 OUTLET STEAM LBS/HR	188.703	LBS/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	191.041	LBS/HR
EX-MW	GENERATOR MW GROSS	45.437	MEGWAT
FQI2-6105	B2 DAILY TOTAL FLOW	428.000	TONS
FQI2-6120	B3 DAILY TOTAL FLOW	287.000	TONS
SI-2345	fpget("SI-2345.C_DESC")	250.125	LBS/HR

9:00 AM

CEM 15 MINUTE REPORT

TAG	DESCRIPTION	VALUE	E/U
HIC-1704	#NULL!	#NULL!	LBS/HR
FIC-1753	BLR1 NOX LBS/HR CONTROL	29.312	LBS/HR
FIC-2753	BLR2 NOX LBS/HR CONTROL	31.897	LBS/HR
SI-1345	#1 LIMESTONE FEED RATE	3278.668	LBS/HR
PI-93	700# HEADER STM INLET PRESS "A"	124.749	PSI
FI-1040	BLR1 OUTLET STEAM LBS/HR	182.960	LBS/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	195.682	LBS/HR
EX-MW	GENERATOR MW GROSS	45.290	MEGWAT
FQI2-6105	B2 DAILY TOTAL FLOW	382.000	TONS
FQI2-6120	B3 DAILY TOTAL FLOW	228.000	TONS
SI-2345	fpget("SI-2345.C_DESC")	453.977	LBS/HR

8:00 AM

CEM 15 MINUTE REPORT

TAG	DESCRIPTION	VALUE	E/U
HIC-1704	#NULL!	#NULL!	LBS/HR
FIC-1753	BLR1 NOX LBS/HR CONTROL	26.844	LBS/HR
FIC-2753	BLR2 NOX LBS/HR CONTROL	30.860	LBS/HR
SI-1345	#1 LIMESTONE FEED RATE	3969.705	LBS/HR
PI-93	700# HEADER STM INLET PRESS "A"	125.503	PSI
FI-1040	BLR1 OUTLET STEAM LBS/HR	188.523	LBS/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	196.660	LBS/HR
EX-MW	GENERATOR MW GROSS	46.201	MEGWAT
FQI2-6105	B2 DAILY TOTAL FLOW	340.000	TONS
FQI2-6120	B3 DAILY TOTAL FLOW	176.000	TONS
SI-2345	fpget("SI-2345.C_DESC")	422.711	LBS/HR

CEM 15 MINUTE REPORT

TAG	DESCRIPTION	VALUE	E/U
HIC-1704	#NULL!	#NULL!	LBS/HR
FIC-1753	BLR1 NOX LBS/HR CONTROL	26.188	LBS/HR
FIC-2753	BLR2 NOX LBS/HR CONTROL	19.609	LBS/HR
SI-1345	#1 LIMESTONE FEED RATE	4071.106	LBS/HR
PI-93	700# HEADER STM INLET PRESS "A"	125.879	PSI
FI-1040	BLR1 OUTLET STEAM LBS/HR	193.762	LBS/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	190.239	LBS/HR
EX-MW	GENERATOR MW GROSS	45.746	MEGWAT
FQI2-6105	B2 DAILY TOTAL FLOW	334.000	TONS
FQI2-6120	B3 DAILY TOTAL FLOW	169.000	TONS
SI-2345	fpget("SI-2345.C_DESC")	246.373	LBS/HR

7:30 AM

CEM 15 MINUTE REPORT

TAG	DESCRIPTION	VALUE	E/U
HIC-1704	#NULL!	#NULL!	LBS/HR
FIC-1753	BLR1 NOX LBS/HR CONTROL	28.502	LBS/HR
FIC-2753	BLR2 NOX LBS/HR CONTROL	25.971	LBS/HR
SI-1345	#1 LIMESTONE FEED RATE	3947.435	LBS/HR
PI-93	700# HEADER STM INLET PRESS "A"	123.995	PSI
FI-1040	BLR1 OUTLET STEAM LBS/HR	193.298	LBS/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	202.163	LBS/HR
EX-MW	GENERATOR MW GROSS	47.290	MEGWAT
FQI2-6105	B2 DAILY TOTAL FLOW	318.000	TONS
FQI2-6120	B3 DAILY TOTAL FLOW	159.000	TONS
SI-2345	fpget("SI-2345.C_DESC")	427.607	LBS/HR

7:03 AM

CEM 15 MINUTE REPORT

TAG	DESCRIPTION	VALUE	E/U
HIC-1704	#NULL!	#NULL!	LBS/HR
FIC-1753	BLR1 NOX LBS/HR CONTROL	26.395	LBS/HR
FIC-2753	BLR2 NOX LBS/HR CONTROL	20.793	LBS/HR
SI-1345	#1 LIMESTONE FEED RATE	2124.437	LBS/HR
PI-93	700# HEADER STM INLET PRESS "A"	125.879	PSI
FI-1040	BLR1 OUTLET STEAM LBS/HR	177.808	LBS/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	125.165	LBS/HR
EX-MW	GENERATOR MW GROSS	36.720	MEGWAT
FQI2-6105	B2 DAILY TOTAL FLOW	326.000	TONS
FQI2-6120	B3 DAILY TOTAL FLOW	138.000	TONS
SI-2345	fpget("SI-2345.C_DESC")	263.816	LBS/HR

BOILER EFFICIENCY VARIABLES

TAG	DESCRIPTION	VALUE	E/U
AI-8020	BLR1 FLUE GAS CO2	11.528	% CO_2
AI-8021	BLR2 FLUE GAS CO2	13.301	% CO_2
AI-8030	BLR1 FLUE GAS CO	2.129	% CO
AI-8031	BLR2 FLUE GAS CO	-0.914	% CO
AI-8060	% MOISTURE IN FLUE GAS BLR1	14.571	% H_2O
AI-8061	% MOISTURE IN FLUE GAS BLR2	15.533	% H_2O
AI-8050	CEM O2 DRY ANALYZER BLR1	9.425	% O_2
AI-8051	CEM O2 DRY ANALYZER BLR2	8.484	% O_2
AIC-9010	BLR1 NOX TRIM	43.592	PPM
AIC-9011	BLR2 NOX TRIM	55.583	PPM
AIC-8010	BLR1 SO2 CONTROLLER	10.827	LB/HR
AIC-8011	BLR2 SO2 CONTROLLER	11.520	LB/HR
FI-1520	BLR1 TOTAL AIR FLOW	3377.755	KSDCFH
FI-2520	BLR2 TOTAL AIR FLOW	3227.465	KSDCFH
EX NMW	NET MW OUT	41.708	MEGWT
FI-1040	BLR1 OUTLET STEAM LBS/HR	189.144	LB/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	195.798	LB/HR
FI-1021	BLR1 STEAM DRUM BLOWDOWN LBS/HR	34.440	LB/HR
FI-2021	BLR2 STEAM DRUM BLOWDOWN LBS/HR	-20.181	LB/HR
FI-1001	BLR1 FEEDWATER FLOW LBS/HR	206.563	LB/HR
FI-2001	BLR2 FEEDWATER FLOW LBS/HR	204.394	LB/HR
FI-1006	BLR1 DESPRHTR SPRAY WTR LBS/HR	11039.456	LB/HR
FI-2006	BLR2 DESPRHTR SPRAY LBS/HR	203.458	LB/HR
FIC-1505	BLR1 PRIM AIR FAN VANE KSCFH	1758.000	KSCFH
FIC-2505	BLR2 PRIMARY AIR FAN VANE KSCFH	1677.219	KSCFH
FIC-1515	BLR1 SECON AIR FAN VANE KSCFH	1622.594	KSCFH
FIC-2515	BLR2 SECOND AIR FAN VANE KSCFH	1549.813	KSCFH
FI-1704	BLR1 FUEL GAS FLOW TO LANCE	0.180	KSCFH
FI-2704	BLR2 FUEL GAS FLW LANCE KSCFH	-0.023	KSCFH
FI-1601	BLR1 FUEL GAS FLW TO SU BNR	0.000	KSCFH
FI-2601	BLR2 FUEL GAS FLW TO STRTP BNR	-0.050	KSCFH
FI-1753	BLR1 AMMONIA INJECTION FLOW	29.738	LB/HR
FI-2753	BLR2 AMMONIA INJECTION FLOW	23.813	LB/HR
SI-1345	#1 LIMESTONE FEED RATE	2861.792	LB/HR
SI-2345	#2 LIMESTONE FEED RATE	441.360	LB/HR
PDI-1415	BLR1 COMBUSTOR GRATE DP	36.275	IN H20
PDI-2415	BLR2 COMBUSTOR GRATE DP	39.550	IN H20
PDI-1417	BLR1 MIDDLE COMBUSTOR	32.162	IN H20
PDI-2417	BLR2 MIDDLE COMBUSTOR	25.000	IN H20
PDIC-1413	BLR1 UPPER COMBUSTOR DP	32.058	IN H20
PDIC-2413	BLR2 UPPER COMBUSTOR DP	25.438	IN H20
PI-680	HP FW HEATER 4 OUTLET PRESS	1751.724	PSIG
PI-1002	BLR1 STEAM DRUM PRESSURE	1222.292	PSIG
HIC-1029	BLR1 SUPERHTR OUTLET VENT	1156.719	PSIG
PI-2002	BLR2 STEAM DRUM PRESSURE	1235.405	PSIG
HIC-2029	BLR2 SUPERHTR OUTLET VENT	1158.156	PSIG

TI-1503	BLR1 PRIMARY AIR FAN OUTLET	134.381	DEG F.
TI-2503	BLR2 PRMRY AIR FAN OUTLET TEMP	129.416	DEG F.
TI-1513	BLR1 SECONDARY AIR FAN OUTLET	155.032	DEG F.
TI-2513	BLR2 SECONDARY AIR FAN OUTLET	116.403	DEG F.
TI-1506	BLR1 PRMRY AIR HTR AIR OUTLET	505.340	DEG F.
TI-2506	BLR2 PRMRY AIR HTR AIR OUTLET	492.297	DEG F.
TI-1516	BLR1 SEC AIR HTR AIR OUTLET	436.326	DEG F.
TI-2516	BLR2 SEC AIR HTR AIR OUTLET	441.547	DEG F.
TI-1421	CYCLONE #1 OUTLET TEMP	1645.026	DEG F.
TI-2421	CYCLONE #2 OUTLET TEMP	1548.981	DEG F.
TI-1126	BLR1 BACKPASS TEMPERATURE	1049.328	DEG F.
TI-2126	BLR2 BACKPASS TEMPERATURE	894.824	DEG F.
TI-1102	BLR1 FLUE GAS INLET - AIR HTR	645.930	DEG F.
TI-2102	BLR2 FLUE GAS INLET TO AIR	584.354	DEG F.
TI-1114	BLR1 AIR HEATER FLUE OUT - PA	303.128	DEG F.
TI-2114	BLR2 AIR HEATER FLUE OUT - PA	307.275	DEG F.
TI-681	HPFW HEATER OUTLET	235.254	DEG F.
TI-1022	BLR1 ECONOMIZER OUTLET	568.533	DEG F.
TI-1003	BLR1 SH OUT TEMPERATURE	917.959	DEG F.
TI-2022	BLR2 ECONOMIZER OUTLET	557.510	DEG F.
TI-2003	BLR2 SH OUT TEMPERATURE	925.658	DEG F.
PI-1118	BLR1 ECONOMIZER OUT PRESS "H2O	-4.831	IN H2O
PI-2118	BLR2 ECONOMIZER PRESSURE "H2O	-3.799	IN H2O
XA-3902	PC SILO CONV. FAULT		
HS-3903	PC BUCKET ELEVATOR		AUTO
FIC-1206	BLR1 PET COKE	0.000	MMBTU
FIC-2206	BLR1 PET COKE	0.000	MMBTU
TI-1123	BLR1 BAGHOUSE INLET	338.074	DEG F.
TI-2123	BLR2 BAGHOUSE INLET	331.049	DEG F.
PI-1502	BLR1 PRIMARY AIR FAN OUT "H2O	77.905	IN H2O
PI-2502	BLR2 PRIMARY AIR FAN OUTLET	75.670	IN H2O
PI-1512	BLR1 SECONDARY AIR FAN OUT "H2O	39.829	IN H2O
PI-2512	BLR2 SECONDARY AIR FAN OUTLET	34.000	IN H2O
PI-1120	BLR1 BAGHOUSE INLET PRESS "H2O	-8.244	IN H2O
PI-2120	BLR2 BAGHOUSE INLET PRESS "H2O	-6.345	IN H2O
TI-1127	BLR1 AIR HEATER FLUE OUT - SA	311.642	DEG F.
TI-2127	BLR2 AIR HEATER FLUE OUT - SA	244.276	DEG F.
PI-103	TURBINE INLET STEAM PSIG	1142.033	PSIG
PI-206	TURBINE FIRST STAGE PRESS PSIG	964.393	PSIG
HS6D-6100	RECLAIM PILE SELECTOR	0	LOGIC
PI-705	CONDENSER PRESSURE	0.988	IN HG
EX-MW	GENERATOR MW GROSS	45.945	MWATT
EX-MVAR	GENERATOR MVAR	5.203	MVAR
EX-V	GENERATOR VOLTS	13.875	KV
EX-A	GENERATOR AMPS	2044.022	AMP
PI-402	TURBINE 4TH EXTRAC TO HPFW	377.070	PSIA
PI-422	TURBINE 3RD EXTRACT PRESS	171.278	PSIA
PI-442	TURBINE 2ND EXTRAC PRESS	97.552	PSIA
PI-462	TURBINE 1ST EXTRAC PRESS	18.096	PSIA

BOILER EFFICIENCY VARIABLES

TAG	DESCRIPTION	VALUE	E/U
AI-8020	BLR1 FLUE GAS CO2	12.259	% CO_2
AI-8021	BLR2 FLUE GAS CO2	12.231	% CO_2
AI-8030	BLR1 FLUE GAS CO	1.002	% CO
AI-8031	BLR2 FLUE GAS CO	-2.041	% CO
AI-8060	% MOISTURE IN FLUE GAS BLR1	15.814	% H_2O
AI-8061	% MOISTURE IN FLUE GAS BLR2	16.321	% H_2O
AI-8050	CEM O2 DRY ANALYZER BLR1	9.537	% O_2
AI-8051	CEM O2 DRY ANALYZER BLR2	8.612	% O_2
AIC-9010	BLR1 NOX TRIM	53.571	PPM
AIC-9011	BLR2 NOX TRIM	40.470	PPM
AIC-8010	BLR1 SO2 CONTROLLER	7.770	LB/HR
AIC-8011	BLR2 SO2 CONTROLLER	14.812	LB/HR
FI-1520	BLR1 TOTAL AIR FLOW	3377.755	KSDCFH
FI-2520	BLR2 TOTAL AIR FLOW	3227.465	KSDCFH
EX NMW	NET MW OUT	41.306	MEGWT
FI-1040	BLR1 OUTLET STEAM LBS/HR	189.198	LB/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	192.383	LB/HR
FI-1021	BLR1 STEAM DRUM BLOWDOWN LBS/HR	34.440	LB/HR
FI-2021	BLR2 STEAM DRUM BLOWDOWN LBS/HR	-11.532	LB/HR
FI-1001	BLR1 FEEDWATER FLOW LBS/HR	209.886	LB/HR
FI-2001	BLR2 FEEDWATER FLOW LBS/HR	217.414	LB/HR
FI-1006	BLR1 DESPRHTR SPRAY WTR LBS/HR	11274.814	LB/HR
FI-2006	BLR2 DESPRHTR SPRAY LBS/HR	6369.539	LB/HR
FIC-1505	BLR1 PRIM AIR FAN VANE KSCFH	1754.781	KSCFH
FIC-2505	BLR2 PRIMARY AIR FAN VANE KSCFH	1677.781	KSCFH
FIC-1515	BLR1 SECON AIR FAN VANE KSCFH	1617.594	KSCFH
FIC-2515	BLR2 SECOND AIR FAN VANE KSCFH	1543.344	KSCFH
FI-1704	BLR1 FUEL GAS FLOW TO LANCE	0.202	KSCFH
FI-2704	BLR2 FUEL GAS FLW LANCE KSCFH	-0.023	KSCFH
FI-1601	BLR1 FUEL GAS FLW TO SU BNR	0.025	KSCFH
FI-2601	BLR2 FUEL GAS FLW TO STRTP BNR	-0.025	KSCFH
FI-1753	BLR1 AMMONIA INJECTION FLOW	27.051	LB/HR
FI-2753	BLR2 AMMONIA INJECTION FLOW	25.926	LB/HR
SI-1345	#1 LIMESTONE FEED RATE	3908.362	LB/HR
SI-2345	#2 LIMESTONE FEED RATE	508.877	LB/HR
PDI-1415	BLR1 COMBUSTOR GRATE DP	35.975	IN H20
PDI-2415	BLR2 COMBUSTOR GRATE DP	42.825	IN H20
PDI-1417	BLR1 MIDDLE COMBUSTOR	32.162	IN H20
PDI-2417	BLR2 MIDDLE COMBUSTOR	25.150	IN H20
PDIC-1413	BLR1 UPPER COMBUSTOR DP	32.217	IN H20
PDIC-2413	BLR2 UPPER COMBUSTOR DP	25.241	IN H20
PI-680	HP FW HEATER 4 OUTLET PRESS	1718.445	PSIG
PI-1002	BLR1 STEAM DRUM PRESSURE	1224.543	PSIG
HIC-1029	BLR1 SUPERHTR OUTLET VENT	1157.469	PSIG
PI-2002	BLR2 STEAM DRUM PRESSURE	1233.216	PSIG
HIC-2029	BLR2 SUPERHTR OUTLET VENT	1159.688	PSIG

TI-1503	BLR1 PRIMARY AIR FAN OUTLET	130.877	DEG F.
TI-2503	BLR2 PRMRY AIR FAN OUTLET TEMP	126.380	DEG F.
TI-1513	BLR1 SECONDARY AIR FAN OUTLET	155.032	DEG F.
TI-2513	BLR2 SECONDARY AIR FAN OUTLET	113.759	DEG F.
TI-1506	BLR1 PRMRY AIR HTR AIR OUTLET	504.376	DEG F.
TI-2506	BLR2 PRMRY AIR HTR AIR OUTLET	491.939	DEG F.
TI-1516	BLR1 SEC AIR HTR AIR OUTLET	435.046	DEG F.
TI-2516	BLR2 SEC AIR HTR AIR OUTLET	440.523	DEG F.
TI-1421	CYCLONE #1 OUTLET TEMP	1641.921	DEG F.
TI-2421	CYCLONE #2 OUTLET TEMP	1551.427	DEG F.
TI-1126	BLR1 BACKPASS TEMPERATURE	1045.837	DEG F.
TI-2126	BLR2 BACKPASS TEMPERATURE	895.488	DEG F.
TI-1102	BLR1 FLUE GAS INLET - AIR HTR	643.856	DEG F.
TI-2102	BLR2 FLUE GAS INLET TO AIR	584.860	DEG F.
TI-1114	BLR1 AIR HEATER FLUE OUT - PA	300.856	DEG F.
TI-2114	BLR2 AIR HEATER FLUE OUT - PA	304.536	DEG F.
TI-681	HPFW HEATER OUTLET	235.713	DEG F.
TI-1022	BLR1 ECONOMIZER OUTLET	567.914	DEG F.
TI-1003	BLR1 SH OUT TEMPERATURE	924.913	DEG F.
TI-2022	BLR2 ECONOMIZER OUTLET	556.888	DEG F.
TI-2003	BLR2 SH OUT TEMPERATURE	928.099	DEG F.
PI-1118	BLR1 ECONOMIZER OUT PRESS "H2O	-4.980	IN H2O
PI-2118	BLR2 ECONOMIZER PRESSURE "H2O	-3.598	IN H2O
XA-3902	PC SILO CONV. FAULT		
HS-3903	PC BUCKET ELEVATOR		AUTO
FIC-1206	BLR1 PET COKE	0.000	MMBTU
FIC-2206	BLR1 PET COKE	0.000	MMBTU
TI-1123	BLR1 BAGHOUSE INLET	336.472	DEG F.
TI-2123	BLR2 BAGHOUSE INLET	330.060	DEG F.
PI-1502	BLR1 PRIMARY AIR FAN OUT "H2O	77.078	IN H2O
PI-2502	BLR2 PRIMARY AIR FAN OUTLET	75.420	IN H2O
PI-1512	BLR1 SECONDARY AIR FAN OUT "H2O	42.886	IN H2O
PI-2512	BLR2 SECONDARY AIR FAN OUTLET	33.819	IN H2O
PI-1120	BLR1 BAGHOUSE INLET PRESS "H2O	-8.462	IN H2O
PI-2120	BLR2 BAGHOUSE INLET PRESS "H2O	-6.581	IN H2O
TI-1127	BLR1 AIR HEATER FLUE OUT - SA	311.024	DEG F.
TI-2127	BLR2 AIR HEATER FLUE OUT - SA	242.553	DEG F.
PI-103	TURBINE INLET STEAM PSIG	1146.173	PSIG
PI-206	TURBINE FIRST STAGE PRESS PSIG	952.262	PSIG
HS6D-6100	RECLAIM PILE SELECTOR	0	LOGIC
PI-705	CONDENSER PRESSURE	1.029	IN HG
EX-MW	GENERATOR MW GROSS	45.546	MWATT
EX-MVAR	GENERATOR MVAR	5.068	MVAR
EX-V	GENERATOR VOLTS	13.784	KV
EX-A	GENERATOR AMPS	2043.544	AMP
PI-402	TURBINE 4TH EXTRAC TO HPFW	371.142	PSIA
PI-422	TURBINE 3RD EXTRACT PRESS	170.303	PSIA
PI-442	TURBINE 2ND EXTRAC PRESS	96.977	PSIA
PI-462	TURBINE 1ST EXTRAC PRESS	18.105	PSIA

BOILER EFFICIENCY VARIABLES

TAG	DESCRIPTION	VALUE	E/U
AI-8020	BLR1 FLUE GAS CO2	9.785	% CO_2
AI-8021	BLR2 FLUE GAS CO2	13.622	% CO_2
AI-8030	BLR1 FLUE GAS CO	0.989	% CO
AI-8031	BLR2 FLUE GAS CO	-1.791	% CO
AI-8060	% MOISTURE IN FLUE GAS BLR1	14.892	% H_2O
AI-8061	% MOISTURE IN FLUE GAS BLR2	16.256	% H_2O
AI-8050	CEM O2 DRY ANALYZER BLR1	9.329	% O_2
AI-8051	CEM O2 DRY ANALYZER BLR2	8.131	% O_2
AIC-9010	BLR1 NOX TRIM	33.100	PPM
AIC-9011	BLR2 NOX TRIM	59.720	PPM
AIC-8010	BLR1 SO2 CONTROLLER	8.264	LB/HR
AIC-8011	BLR2 SO2 CONTROLLER	13.259	LB/HR
FI-1520	BLR1 TOTAL AIR FLOW	3377.755	KSDCFH
FI-2520	BLR2 TOTAL AIR FLOW	3236.855	KSDCFH
EX NMW	NET MW OUT	42.068	MEGWT
FI-1040	BLR1 OUTLET STEAM LBS/HR	187.036	LB/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	202.679	LB/HR
FI-1021	BLR1 STEAM DRUM BLOWDOWN LBS/HR	37.310	LB/HR
FI-2021	BLR2 STEAM DRUM BLOWDOWN LBS/HR	-5.766	LB/HR
FI-1001	BLR1 FEEDWATER FLOW LBS/HR	213.894	LB/HR
FI-2001	BLR2 FEEDWATER FLOW LBS/HR	215.483	LB/HR
FI-1006	BLR1 DESPRHTR SPRAY WTR LBS/HR	11627.604	LB/HR
FI-2006	BLR2 DESPRHTR SPRAY LBS/HR	6352.104	LB/HR
FIC-1505	BLR1 PRIM AIR FAN VANE KSCFH	1756.000	KSCFH
FIC-2505	BLR2 PRIMARY AIR FAN VANE KSCFH	1690.313	KSCFH
FIC-1515	BLR1 SECON AIR FAN VANE KSCFH	1626.625	KSCFH
FIC-2515	BLR2 SECOND AIR FAN VANE KSCFH	1549.625	KSCFH
FI-1704	BLR1 FUEL GAS FLOW TO LANCE	0.180	KSCFH
FI-2704	BLR2 FUEL GAS FLW LANCE KSCFH	-0.023	KSCFH
FI-1601	BLR1 FUEL GAS FLW TO SU BNR	0.025	KSCFH
FI-2601	BLR2 FUEL GAS FLW TO STRTP BNR	-0.025	KSCFH
FI-1753	BLR1 AMMONIA INJECTION FLOW	30.110	LB/HR
FI-2753	BLR2 AMMONIA INJECTION FLOW	30.692	LB/HR
SI-1345	#1 LIMESTONE FEED RATE	4106.159	LB/HR
SI-2345	#2 LIMESTONE FEED RATE	436.468	LB/HR
PDI-1415	BLR1 COMBUSTOR GRATE DP	35.300	IN H20
PDI-2415	BLR2 COMBUSTOR GRATE DP	40.400	IN H20
PDI-1417	BLR1 MIDDLE COMBUSTOR	33.050	IN H20
PDI-2417	BLR2 MIDDLE COMBUSTOR	25.100	IN H20
PDIC-1413	BLR1 UPPER COMBUSTOR DP	32.244	IN H20
PDIC-2413	BLR2 UPPER COMBUSTOR DP	24.781	IN H20
PI-680	HP FW HEATER 4 OUTLET PRESS	1718.445	PSIG
PI-1002	BLR1 STEAM DRUM PRESSURE	1221.166	PSIG
HIC-1029	BLR1 SUPERHTR OUTLET VENT	1155.969	PSIG
PI-2002	BLR2 STEAM DRUM PRESSURE	1240.356	PSIG
HIC-2029	BLR2 SUPERHTR OUTLET VENT	1159.688	PSIG

TI-1503	BLR1 PRIMARY AIR FAN OUTLET	129.032	DEG F.
TI-2503	BLR2 PRMRY AIR FAN OUTLET TEMP	126.920	DEG F.
TI-1513	BLR1 SECONDARY AIR FAN OUTLET	155.032	DEG F.
TI-2513	BLR2 SECONDARY AIR FAN OUTLET	114.129	DEG F.
TI-1506	BLR1 PRMRY AIR HTR AIR OUTLET	501.473	DEG F.
TI-2506	BLR2 PRMRY AIR HTR AIR OUTLET	490.461	DEG F.
TI-1516	BLR1 SEC AIR HTR AIR OUTLET	432.734	DEG F.
TI-2516	BLR2 SEC AIR HTR AIR OUTLET	439.289	DEG F.
TI-1421	CYCLONE #1 OUTLET TEMP	1643.586	DEG F.
TI-2421	CYCLONE #2 OUTLET TEMP	1552.150	DEG F.
TI-1126	BLR1 BACKPASS TEMPERATURE	1042.312	DEG F.
TI-2126	BLR2 BACKPASS TEMPERATURE	898.968	DEG F.
TI-1102	BLR1 FLUE GAS INLET - AIR HTR	642.230	DEG F.
TI-2102	BLR2 FLUE GAS INLET TO AIR	586.362	DEG F.
TI-1114	BLR1 AIR HEATER FLUE OUT - PA	298.852	DEG F.
TI-2114	BLR2 AIR HEATER FLUE OUT - PA	303.019	DEG F.
TI-681	HPFW HEATER OUTLET	234.844	DEG F.
TI-1022	BLR1 ECONOMIZER OUTLET	568.651	DEG F.
TI-1003	BLR1 SH OUT TEMPERATURE	927.493	DEG F.
TI-2022	BLR2 ECONOMIZER OUTLET	557.134	DEG F.
TI-2003	BLR2 SH OUT TEMPERATURE	918.670	DEG F.
PI-1118	BLR1 ECONOMIZER OUT PRESS "H2O	-5.269	IN H2O
PI-2118	BLR2 ECONOMIZER PRESSURE "H2O	-4.893	IN H2O
XA-3902	PC SILO CONV. FAULT		
HS-3903	PC BUCKET ELEVATOR		AUTO
FIC-1206	BLR1 PET COKE	0.000	MMBTU
FIC-2206	BLR1 PET COKE	0.000	MMBTU
TI-1123	BLR1 BAGHOUSE INLET	333.724	DEG F.
TI-2123	BLR2 BAGHOUSE INLET	327.605	DEG F.
PI-1502	BLR1 PRIMARY AIR FAN OUT "H2O	76.027	IN H2O
PI-2502	BLR2 PRIMARY AIR FAN OUTLET	74.719	IN H2O
PI-1512	BLR1 SECONDARY AIR FAN OUT "H2O	41.483	IN H2O
PI-2512	BLR2 SECONDARY AIR FAN OUTLET	33.549	IN H2O
PI-1120	BLR1 BAGHOUSE INLET PRESS "H2O	-8.944	IN H2O
PI-2120	BLR2 BAGHOUSE INLET PRESS "H2O	-7.351	IN H2O
TI-1127	BLR1 AIR HEATER FLUE OUT - SA	308.508	DEG F.
TI-2127	BLR2 AIR HEATER FLUE OUT - SA	241.956	DEG F.
PI-103	TURBINE INLET STEAM PSIG	1143.915	PSIG
PI-206	TURBINE FIRST STAGE PRESS PSIG	965.759	PSIG
HS6D-6100	RECLAIM PILE SELECTOR	0	LOGIC
PI-705	CONDENSER PRESSURE	0.941	IN HG
EX-MW	GENERATOR MW GROSS	46.303	MWATT
EX-MVAR	GENERATOR MVAR	5.484	MVAR
EX-V	GENERATOR VOLTS	13.875	KV
EX-A	GENERATOR AMPS	2065.032	AMP
PI-402	TURBINE 4TH EXTRAC TO HPFW	378.123	PSIA
PI-422	TURBINE 3RD EXTRACT PRESS	173.305	PSIA
PI-442	TURBINE 2ND EXTRAC PRESS	97.740	PSIA
PI-462	TURBINE 1ST EXTRAC PRESS	18.270	PSIA

BOILER EFFICIENCY VARIABLES

TAG	DESCRIPTION	VALUE	E/U
AI-8020	BLR1 FLUE GAS CO2	11.012	% CO_2
AI-8021	BLR2 FLUE GAS CO2	11.909	% CO_2
AI-8030	BLR1 FLUE GAS CO	0.626	% CO
AI-8031	BLR2 FLUE GAS CO	-1.039	% CO
AI-8060	% MOISTURE IN FLUE GAS BLR1	15.600	% H_2O
AI-8061	% MOISTURE IN FLUE GAS BLR2	16.306	% H_2O
AI-8050	CEM O2 DRY ANALYZER BLR1	10.171	% O_2
AI-8051	CEM O2 DRY ANALYZER BLR2	8.705	% O_2
AIC-9010	BLR1 NOX TRIM	35.224	PPM
AIC-9011	BLR2 NOX TRIM	44.467	PPM
AIC-8010	BLR1 SO2 CONTROLLER	7.016	LB/HR
AIC-8011	BLR2 SO2 CONTROLLER	11.210	LB/HR
FI-1520	BLR1 TOTAL AIR FLOW	3377.755	KSDCFH
FI-2520	BLR2 TOTAL AIR FLOW	3233.649	KSDCFH
EX NMW	NET MW OUT	39.923	MEGWT
FI-1040	BLR1 OUTLET STEAM LBS/HR	179.089	LB/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	190.024	LB/HR
FI-1021	BLR1 STEAM DRUM BLOWDOWN LBS/HR	37.310	LB/HR
FI-2021	BLR2 STEAM DRUM BLOWDOWN LBS/HR	0.000	LB/HR
FI-1001	BLR1 FEEDWATER FLOW LBS/HR	196.987	LB/HR
FI-2001	BLR2 FEEDWATER FLOW LBS/HR	207.085	LB/HR
FI-1006	BLR1 DESPRHTR SPRAY WTR LBS/HR	11238.926	LB/HR
FI-2006	BLR2 DESPRHTR SPRAY LBS/HR	5997.595	LB/HR
FIC-1505	BLR1 PRIM AIR FAN VANE KSCFH	1755.563	KSCFH
FIC-2505	BLR2 PRIMARY AIR FAN VANE KSCFH	1679.031	KSCFH
FIC-1515	BLR1 SECON AIR FAN VANE KSCFH	1608.188	KSCFH
FIC-2515	BLR2 SECOND AIR FAN VANE KSCFH	1552.406	KSCFH
FI-1704	BLR1 FUEL GAS FLOW TO LANCE	0.158	KSCFH
FI-2704	BLR2 FUEL GAS FLW LANCE KSCFH	-0.045	KSCFH
FI-1601	BLR1 FUEL GAS FLW TO SU BNR	0.025	KSCFH
FI-2601	BLR2 FUEL GAS FLW TO STRTP BNR	-0.025	KSCFH
FI-1753	BLR1 AMMONIA INJECTION FLOW	22.575	LB/HR
FI-2753	BLR2 AMMONIA INJECTION FLOW	26.115	LB/HR
SI-1345	#1 LIMESTONE FEED RATE	3654.231	LB/HR
SI-2345	#2 LIMESTONE FEED RATE	386.443	LB/HR
PDI-1415	BLR1 COMBUSTOR GRATE DP	35.350	IN H20
PDI-2415	BLR2 COMBUSTOR GRATE DP	39.900	IN H20
PDI-1417	BLR1 MIDDLE COMBUSTOR	32.538	IN H20
PDI-2417	BLR2 MIDDLE COMBUSTOR	25.925	IN H20
PDIC-1413	BLR1 UPPER COMBUSTOR DP	32.646	IN H20
PDIC-2413	BLR2 UPPER COMBUSTOR DP	24.602	IN H20
PI-680	HP FW HEATER 4 OUTLET PRESS	1720.688	PSIG
PI-1002	BLR1 STEAM DRUM PRESSURE	1218.164	PSIG
HIC-1029	BLR1 SUPERHTR OUTLET VENT	1155.594	PSIG
PI-2002	BLR2 STEAM DRUM PRESSURE	1233.216	PSIG
HIC-2029	BLR2 SUPERHTR OUTLET VENT	1158.531	PSIG

TI-1503	BLR1 PRIMARY AIR FAN OUTLET	126.845	DEG F.
TI-2503	BLR2 PRMRY AIR FAN OUTLET TEMP	122.924	DEG F.
TI-1513	BLR1 SECONDARY AIR FAN OUTLET	155.032	DEG F.
TI-2513	BLR2 SECONDARY AIR FAN OUTLET	110.452	DEG F.
TI-1506	BLR1 PRMRY AIR HTR AIR OUTLET	496.229	DEG F.
TI-2506	BLR2 PRMRY AIR HTR AIR OUTLET	487.276	DEG F.
TI-1516	BLR1 SEC AIR HTR AIR OUTLET	427.871	DEG F.
TI-2516	BLR2 SEC AIR HTR AIR OUTLET	436.870	DEG F.
TI-1421	CYCLONE #1 OUTLET TEMP	1627.345	DEG F.
TI-2421	CYCLONE #2 OUTLET TEMP	1549.088	DEG F.
TI-1126	BLR1 BACKPASS TEMPERATURE	1027.087	DEG F.
TI-2126	BLR2 BACKPASS TEMPERATURE	892.645	DEG F.
TI-1102	BLR1 FLUE GAS INLET - AIR HTR	632.917	DEG F.
TI-2102	BLR2 FLUE GAS INLET TO AIR	581.343	DEG F.
TI-1114	BLR1 AIR HEATER FLUE OUT - PA	295.222	DEG F.
TI-2114	BLR2 AIR HEATER FLUE OUT - PA	299.108	DEG F.
TI-681	HPFW HEATER OUTLET	234.520	DEG F.
TI-1022	BLR1 ECONOMIZER OUTLET	566.869	DEG F.
TI-1003	BLR1 SH OUT TEMPERATURE	927.878	DEG F.
TI-2022	BLR2 ECONOMIZER OUTLET	554.938	DEG F.
TI-2003	BLR2 SH OUT TEMPERATURE	914.721	DEG F.
PI-1118	BLR1 ECONOMIZER OUT PRESS "H2O	-4.193	IN H2O
PI-2118	BLR2 ECONOMIZER PRESSURE "H2O	-4.542	IN H2O
XA-3902	PC SILO CONV. FAULT		
HS-3903	PC BUCKET ELEVATOR		AUTO
FIC-1206	BLR1 PET COKE	0.000	MMBTU
FIC-2206	BLR1 PET COKE	0.000	MMBTU
TI-1123	BLR1 BAGHOUSE INLET	329.804	DEG F.
TI-2123	BLR2 BAGHOUSE INLET	325.771	DEG F.
PI-1502	BLR1 PRIMARY AIR FAN OUT "H2O	76.978	IN H2O
PI-2502	BLR2 PRIMARY AIR FAN OUTLET	73.868	IN H2O
PI-1512	BLR1 SECONDARY AIR FAN OUT "H2O	42.384	IN H2O
PI-2512	BLR2 SECONDARY AIR FAN OUTLET	33.624	IN H2O
PI-1120	BLR1 BAGHOUSE INLET PRESS "H2O	-7.972	IN H2O
PI-2120	BLR2 BAGHOUSE INLET PRESS "H2O	-7.019	IN H2O
TI-1127	BLR1 AIR HEATER FLUE OUT - SA	304.908	DEG F.
TI-2127	BLR2 AIR HEATER FLUE OUT - SA	238.689	DEG F.
PI-103	TURBINE INLET STEAM PSIG	1144.291	PSIG
PI-206	TURBINE FIRST STAGE PRESS PSIG	927.661	PSIG
HS6D-6100	RECLAIM PILE SELECTOR	0	LOGIC
PI-705	CONDENSER PRESSURE	0.793	IN HG
EX-MW	GENERATOR MW GROSS	44.271	MWATT
EX-MVAR	GENERATOR MVAR	4.846	MVAR
EX-V	GENERATOR VOLTS	13.764	KV
EX-A	GENERATOR AMPS	1989.245	AMP
PI-402	TURBINE 4TH EXTRAC TO HPFW	361.807	PSIA
PI-422	TURBINE 3RD EXTRACT PRESS	165.649	PSIA
PI-442	TURBINE 2ND EXTRAC PRESS	93.769	PSIA
PI-462	TURBINE 1ST EXTRAC PRESS	17.501	PSIA

BOILER EFFICIENCY VARIABLES

TAG	DESCRIPTION	VALUE	E/U
AI-8020	BLR1 FLUE GAS CO2	11.125	% CO_2
AI-8021	BLR2 FLUE GAS CO2	11.177	% CO_2
AI-8030	BLR1 FLUE GAS CO	1.253	% CO
AI-8031	BLR2 FLUE GAS CO	-1.039	% CO
AI-8060	% MOISTURE IN FLUE GAS BLR1	13.876	% H_2O
AI-8061	% MOISTURE IN FLUE GAS BLR2	17.958	% H_2O
AI-8050	CEM O2 DRY ANALYZER BLR1	9.322	% O_2
AI-8051	CEM O2 DRY ANALYZER BLR2	9.159	% O_2
AIC-9010	BLR1 NOX TRIM	37.722	PPM
AIC-9011	BLR2 NOX TRIM	43.728	PPM
AIC-8010	BLR1 SO2 CONTROLLER	9.224	LB/HR
AIC-8011	BLR2 SO2 CONTROLLER	8.940	LB/HR
FI-1520	BLR1 TOTAL AIR FLOW	3377.755	KSDCFH
FI-2520	BLR2 TOTAL AIR FLOW	3233.095	KSDCFH
EX NMW	NET MW OUT	41.104	MEGWT
FI-1040	BLR1 OUTLET STEAM LBS/HR	189.821	LB/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	190.606	LB/HR
FI-1021	BLR1 STEAM DRUM BLOWDOWN LBS/HR	40.180	LB/HR
FI-2021	BLR2 STEAM DRUM BLOWDOWN LBS/HR	5.767	LB/HR
FI-1001	BLR1 FEEDWATER FLOW LBS/HR	211.401	LB/HR
FI-2001	BLR2 FEEDWATER FLOW LBS/HR	201.671	LB/HR
FI-1006	BLR1 DESPRHTR SPRAY WTR LBS/HR	13281.863	LB/HR
FI-2006	BLR2 DESPRHTR SPRAY LBS/HR	23.247	LB/HR
FIC-1505	BLR1 PRIM AIR FAN VANE KSCFH	1755.000	KSCFH
FIC-2505	BLR2 PRIMARY AIR FAN VANE KSCFH	1685.219	KSCFH
FIC-1515	BLR1 SECON AIR FAN VANE KSCFH	1618.594	KSCFH
FIC-2515	BLR2 SECOND AIR FAN VANE KSCFH	1562.688	KSCFH
FI-1704	BLR1 FUEL GAS FLOW TO LANCE	0.158	KSCFH
FI-2704	BLR2 FUEL GAS FLW LANCE KSCFH	-0.045	KSCFH
FI-1601	BLR1 FUEL GAS FLW TO SU BNR	0.025	KSCFH
FI-2601	BLR2 FUEL GAS FLW TO STRTP BNR	0.000	KSCFH
FI-1753	BLR1 AMMONIA INJECTION FLOW	31.650	LB/HR
FI-2753	BLR2 AMMONIA INJECTION FLOW	27.012	LB/HR
SI-1345	#1 LIMESTONE FEED RATE	3834.794	LB/HR
SI-2345	#2 LIMESTONE FEED RATE	271.318	LB/HR
PDI-1415	BLR1 COMBUSTOR GRATE DP	34.525	IN H20
PDI-2415	BLR2 COMBUSTOR GRATE DP	39.550	IN H20
PDI-1417	BLR1 MIDDLE COMBUSTOR	32.650	IN H20
PDI-2417	BLR2 MIDDLE COMBUSTOR	25.587	IN H20
PDIC-1413	BLR1 UPPER COMBUSTOR DP	32.820	IN H20
PDIC-2413	BLR2 UPPER COMBUSTOR DP	24.643	IN H20
PI-680	HP FW HEATER 4 OUTLET PRESS	1722.427	PSIG
PI-1002	BLR1 STEAM DRUM PRESSURE	1223.417	PSIG
HIC-1029	BLR1 SUPERHTR OUTLET VENT	1157.469	PSIG
PI-2002	BLR2 STEAM DRUM PRESSURE	1233.592	PSIG
HIC-2029	BLR2 SUPERHTR OUTLET VENT	1160.719	PSIG

TI-1503	BLR1 PRIMARY AIR FAN OUTLET	122.669	DEG F.
TI-2503	BLR2 PRMRY AIR FAN OUTLET TEMP	120.438	DEG F.
TI-1513	BLR1 SECONDARY AIR FAN OUTLET	155.032	DEG F.
TI-2513	BLR2 SECONDARY AIR FAN OUTLET	108.011	DEG F.
TI-1506	BLR1 PRMRY AIR HTR AIR OUTLET	493.877	DEG F.
TI-2506	BLR2 PRMRY AIR HTR AIR OUTLET	486.141	DEG F.
TI-1516	BLR1 SEC AIR HTR AIR OUTLET	424.194	DEG F.
TI-2516	BLR2 SEC AIR HTR AIR OUTLET	435.942	DEG F.
TI-1421	CYCLONE #1 OUTLET TEMP	1644.178	DEG F.
TI-2421	CYCLONE #2 OUTLET TEMP	1549.845	DEG F.
TI-1126	BLR1 BACKPASS TEMPERATURE	1027.876	DEG F.
TI-2126	BLR2 BACKPASS TEMPERATURE	888.180	DEG F.
TI-1102	BLR1 FLUE GAS INLET - AIR HTR	633.732	DEG F.
TI-2102	BLR2 FLUE GAS INLET TO AIR	579.506	DEG F.
TI-1114	BLR1 AIR HEATER FLUE OUT - PA	293.026	DEG F.
TI-2114	BLR2 AIR HEATER FLUE OUT - PA	299.459	DEG F.
TI-681	HPFW HEATER OUTLET	234.432	DEG F.
TI-1022	BLR1 ECONOMIZER OUTLET	567.348	DEG F.
TI-1003	BLR1 SH OUT TEMPERATURE	932.752	DEG F.
TI-2022	BLR2 ECONOMIZER OUTLET	554.462	DEG F.
TI-2003	BLR2 SH OUT TEMPERATURE	917.964	DEG F.
PI-1118	BLR1 ECONOMIZER OUT PRESS "H2O	-4.490	IN H2O
PI-2118	BLR2 ECONOMIZER PRESSURE "H2O	-4.718	IN H2O
XA-3902	PC SILO CONV. FAULT		
HS-3903	PC BUCKET ELEVATOR		AUTO
FIC-1206	BLR1 PET COKE	0.000	MMBTU
FIC-2206	BLR1 PET COKE	0.000	MMBTU
TI-1123	BLR1 BAGHOUSE INLET	327.631	DEG F.
TI-2123	BLR2 BAGHOUSE INLET	324.542	DEG F.
PI-1502	BLR1 PRIMARY AIR FAN OUT "H2O	76.067	IN H2O
PI-2502	BLR2 PRIMARY AIR FAN OUTLET	73.317	IN H2O
PI-1512	BLR1 SECONDARY AIR FAN OUT "H2O	42.678	IN H2O
PI-2512	BLR2 SECONDARY AIR FAN OUTLET	34.300	IN H2O
PI-1120	BLR1 BAGHOUSE INLET PRESS "H2O	-8.305	IN H2O
PI-2120	BLR2 BAGHOUSE INLET PRESS "H2O	-7.378	IN H2O
TI-1127	BLR1 AIR HEATER FLUE OUT - SA	301.533	DEG F.
TI-2127	BLR2 AIR HEATER FLUE OUT - SA	236.457	DEG F.
PI-103	TURBINE INLET STEAM PSIG	1145.044	PSIG
PI-206	TURBINE FIRST STAGE PRESS PSIG	950.900	PSIG
HS6D-6100	RECLAIM PILE SELECTOR	0	LOGIC
PI-705	CONDENSER PRESSURE	0.713	IN HG
EX-MW	GENERATOR MW GROSS	45.469	MWATT
EX-MVAR	GENERATOR MVAR	5.229	MVAR
EX-V	GENERATOR VOLTS	13.891	KV
EX-A	GENERATOR AMPS	2030.273	AMP
PI-402	TURBINE 4TH EXTRAC TO HPFW	371.292	PSIA
PI-422	TURBINE 3RD EXTRACT PRESS	169.927	PSIA
PI-442	TURBINE 2ND EXTRAC PRESS	96.354	PSIA
PI-462	TURBINE 1ST EXTRAC PRESS	17.886	PSIA

BOILER EFFICIENCY VARIABLES

TAG	DESCRIPTION	VALUE	E/U
AI-8020	BLR1 FLUE GAS CO2	10.240	% CO_2
AI-8021	BLR2 FLUE GAS CO2	12.122	% CO_2
AI-8030	BLR1 FLUE GAS CO	1.516	% CO
AI-8031	BLR2 FLUE GAS CO	-0.789	% CO
AI-8060	% MOISTURE IN FLUE GAS BLR1	13.744	% H_2O
AI-8061	% MOISTURE IN FLUE GAS BLR2	16.189	% H_2O
AI-8050	CEM O2 DRY ANALYZER BLR1	9.562	% O_2
AI-8051	CEM O2 DRY ANALYZER BLR2	8.850	% O_2
AIC-9010	BLR1 NOX TRIM	32.975	PPM
AIC-9011	BLR2 NOX TRIM	43.603	PPM
AIC-8010	BLR1 SO2 CONTROLLER	10.330	LB/HR
AIC-8011	BLR2 SO2 CONTROLLER	6.830	LB/HR
FI-1520	BLR1 TOTAL AIR FLOW	3368.365	KSDCFH
FI-2520	BLR2 TOTAL AIR FLOW	3233.095	KSDCFH
EX NMW	NET MW OUT	41.220	MEGWT
FI-1040	BLR1 OUTLET STEAM LBS/HR	188.703	LB/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	190.686	LB/HR
FI-1021	BLR1 STEAM DRUM BLOWDOWN LBS/HR	43.050	LB/HR
FI-2021	BLR2 STEAM DRUM BLOWDOWN LBS/HR	11.535	LB/HR
FI-1001	BLR1 FEEDWATER FLOW LBS/HR	210.056	LB/HR
FI-2001	BLR2 FEEDWATER FLOW LBS/HR	211.843	LB/HR
FI-1006	BLR1 DESPRHTR SPRAY WTR LBS/HR	14563.430	LB/HR
FI-2006	BLR2 DESPRHTR SPRAY LBS/HR	6247.495	LB/HR
FIC-1505	BLR1 PRIM AIR FAN VANE KSCFH	1744.656	KSCFH
FIC-2505	BLR2 PRIMARY AIR FAN VANE KSCFH	1676.031	KSCFH
FIC-1515	BLR1 SECON AIR FAN VANE KSCFH	1616.594	KSCFH
FIC-2515	BLR2 SECOND AIR FAN VANE KSCFH	1553.688	KSCFH
FI-1704	BLR1 FUEL GAS FLOW TO LANCE	0.135	KSCFH
FI-2704	BLR2 FUEL GAS FLW LANCE KSCFH	-0.045	KSCFH
FI-1601	BLR1 FUEL GAS FLW TO SU BNR	0.000	KSCFH
FI-2601	BLR2 FUEL GAS FLW TO STRTP BNR	0.000	KSCFH
FI-1753	BLR1 AMMONIA INJECTION FLOW	27.873	LB/HR
FI-2753	BLR2 AMMONIA INJECTION FLOW	26.780	LB/HR
SI-1345	#1 LIMESTONE FEED RATE	4079.870	LB/HR
SI-2345	#2 LIMESTONE FEED RATE	250.125	LB/HR
PDI-1415	BLR1 COMBUSTOR GRATE DP	33.575	IN H20
PDI-2415	BLR2 COMBUSTOR GRATE DP	38.725	IN H20
PDI-1417	BLR1 MIDDLE COMBUSTOR	32.875	IN H20
PDI-2417	BLR2 MIDDLE COMBUSTOR	25.600	IN H20
PDIC-1413	BLR1 UPPER COMBUSTOR DP	33.333	IN H20
PDIC-2413	BLR2 UPPER COMBUSTOR DP	24.413	IN H20
PI-680	HP FW HEATER 4 OUTLET PRESS	1716.934	PSIG
PI-1002	BLR1 STEAM DRUM PRESSURE	1221.166	PSIG
HIC-1029	BLR1 SUPERHTR OUTLET VENT	1154.469	PSIG
PI-2002	BLR2 STEAM DRUM PRESSURE	1233.216	PSIG
HIC-2029	BLR2 SUPERHTR OUTLET VENT	1158.844	PSIG

TI-1503	BLR1 PRIMARY AIR FAN OUTLET	118.891	DEG F.
TI-2503	BLR2 PRMRY AIR FAN OUTLET TEMP	115.953	DEG F.
TI-1513	BLR1 SECONDARY AIR FAN OUTLET	155.032	DEG F.
TI-2513	BLR2 SECONDARY AIR FAN OUTLET	104.025	DEG F.
TI-1506	BLR1 PRMRY AIR HTR AIR OUTLET	492.594	DEG F.
TI-2506	BLR2 PRMRY AIR HTR AIR OUTLET	484.404	DEG F.
TI-1516	BLR1 SEC AIR HTR AIR OUTLET	422.857	DEG F.
TI-2516	BLR2 SEC AIR HTR AIR OUTLET	433.697	DEG F.
TI-1421	CYCLONE #1 OUTLET TEMP	1635.960	DEG F.
TI-2421	CYCLONE #2 OUTLET TEMP	1548.723	DEG F.
TI-1126	BLR1 BACKPASS TEMPERATURE	1006.992	DEG F.
TI-2126	BLR2 BACKPASS TEMPERATURE	888.495	DEG F.
TI-1102	BLR1 FLUE GAS INLET - AIR HTR	623.430	DEG F.
TI-2102	BLR2 FLUE GAS INLET TO AIR	579.731	DEG F.
TI-1114	BLR1 AIR HEATER FLUE OUT - PA	291.244	DEG F.
TI-2114	BLR2 AIR HEATER FLUE OUT - PA	296.353	DEG F.
TI-681	HPFW HEATER OUTLET	234.861	DEG F.
TI-1022	BLR1 ECONOMIZER OUTLET	562.633	DEG F.
TI-1003	BLR1 SH OUT TEMPERATURE	929.093	DEG F.
TI-2022	BLR2 ECONOMIZER OUTLET	556.124	DEG F.
TI-2003	BLR2 SH OUT TEMPERATURE	919.129	DEG F.
PI-1118	BLR1 ECONOMIZER OUT PRESS "H2O	-4.464	IN H2O
PI-2118	BLR2 ECONOMIZER PRESSURE "H2O	-5.173	IN H2O
XA-3902	PC SILO CONV. FAULT		
HS-3903	PC BUCKET ELEVATOR		AUTO
FIC-1206	BLR1 PET COKE	0.000	MMBTU
FIC-2206	BLR1 PET COKE	0.000	MMBTU
TI-1123	BLR1 BAGHOUSE INLET	326.652	DEG F.
TI-2123	BLR2 BAGHOUSE INLET	322.591	DEG F.
PI-1502	BLR1 PRIMARY AIR FAN OUT "H2O	75.961	IN H2O
PI-2502	BLR2 PRIMARY AIR FAN OUTLET	73.332	IN H2O
PI-1512	BLR1 SECONDARY AIR FAN OUT "H2O	42.567	IN H2O
PI-2512	BLR2 SECONDARY AIR FAN OUTLET	33.218	IN H2O
PI-1120	BLR1 BAGHOUSE INLET PRESS "H2O	-8.174	IN H2O
PI-2120	BLR2 BAGHOUSE INLET PRESS "H2O	-7.579	IN H2O
TI-1127	BLR1 AIR HEATER FLUE OUT - SA	302.244	DEG F.
TI-2127	BLR2 AIR HEATER FLUE OUT - SA	234.389	DEG F.
PI-103	TURBINE INLET STEAM PSIG	1144.291	PSIG
PI-206	TURBINE FIRST STAGE PRESS PSIG	950.900	PSIG
HS6D-6100	RECLAIM PILE SELECTOR	0	LOGIC
PI-705	CONDENSER PRESSURE	0.455	IN HG
EX-MW	GENERATOR MW GROSS	45.420	MWATT
EX-MVAR	GENERATOR MVAR	5.098	MVAR
EX-V	GENERATOR VOLTS	13.882	KV
EX-A	GENERATOR AMPS	2026.520	AMP
PI-402	TURBINE 4TH EXTRAC TO HPFW	371.952	PSIA
PI-422	TURBINE 3RD EXTRACT PRESS	169.927	PSIA
PI-442	TURBINE 2ND EXTRAC PRESS	95.942	PSIA
PI-462	TURBINE 1ST EXTRAC PRESS	17.909	PSIA

BOILER EFFICIENCY VARIABLES

TAG	DESCRIPTION	VALUE	E/U
AI-8020	BLR1 FLUE GAS CO2	0.005	% CO_2
AI-8021	BLR2 FLUE GAS CO2	12.224	% CO_2
AI-8030	BLR1 FLUE GAS CO	90.805	% CO
AI-8031	BLR2 FLUE GAS CO	-0.163	% CO
AI-8060	% MOISTURE IN FLUE GAS BLR1	87235.305	% H_2O
AI-8061	% MOISTURE IN FLUE GAS BLR2	16.453	% H_2O
AI-8050	CEM O2 DRY ANALYZER BLR1	-0.010	% O_2
AI-8051	CEM O2 DRY ANALYZER BLR2	8.961	% O_2
AIC-9010	BLR1 NOX TRIM	38.711	PPM
AIC-9011	BLR2 NOX TRIM	54.348	PPM
AIC-8010	BLR1 SO2 CONTROLLER	10.119	LB/HR
AIC-8011	BLR2 SO2 CONTROLLER	16.614	LB/HR
FI-1520	BLR1 TOTAL AIR FLOW	3368.365	KSDCFH
FI-2520	BLR2 TOTAL AIR FLOW	3233.095	KSDCFH
EX NMW	NET MW OUT	40.866	MEGWT
FI-1040	BLR1 OUTLET STEAM LBS/HR	182.960	LB/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	195.828	LB/HR
FI-1021	BLR1 STEAM DRUM BLOWDOWN LBS/HR	43.050	LB/HR
FI-2021	BLR2 STEAM DRUM BLOWDOWN LBS/HR	23.063	LB/HR
FI-1001	BLR1 FEEDWATER FLOW LBS/HR	217.177	LB/HR
FI-2001	BLR2 FEEDWATER FLOW LBS/HR	216.608	LB/HR
FI-1006	BLR1 DESPRHTR SPRAY WTR LBS/HR	8123.092	LB/HR
FI-2006	BLR2 DESPRHTR SPRAY LBS/HR	6073.146	LB/HR
FIC-1505	BLR1 PRIM AIR FAN VANE KSCFH	1758.094	KSCFH
FIC-2505	BLR2 PRIMARY AIR FAN VANE KSCFH	1684.469	KSCFH
FIC-1515	BLR1 SECON AIR FAN VANE KSCFH	1617.594	KSCFH
FIC-2515	BLR2 SECOND AIR FAN VANE KSCFH	1548.313	KSCFH
FI-1704	BLR1 FUEL GAS FLOW TO LANCE	0.113	KSCFH
FI-2704	BLR2 FUEL GAS FLW LANCE KSCFH	-0.045	KSCFH
FI-1601	BLR1 FUEL GAS FLW TO SU BNR	0.000	KSCFH
FI-2601	BLR2 FUEL GAS FLW TO STRTP BNR	0.025	KSCFH
FI-1753	BLR1 AMMONIA INJECTION FLOW	31.650	LB/HR
FI-2753	BLR2 AMMONIA INJECTION FLOW	26.826	LB/HR
SI-1345	#1 LIMESTONE FEED RATE	3208.563	LB/HR
SI-2345	#2 LIMESTONE FEED RATE	453.977	LB/HR
PDI-1415	BLR1 COMBUSTOR GRATE DP	33.700	IN H20
PDI-2415	BLR2 COMBUSTOR GRATE DP	41.025	IN H20
PDI-1417	BLR1 MIDDLE COMBUSTOR	33.475	IN H20
PDI-2417	BLR2 MIDDLE COMBUSTOR	24.075	IN H20
PDIC-1413	BLR1 UPPER COMBUSTOR DP	33.113	IN H20
PDIC-2413	BLR2 UPPER COMBUSTOR DP	23.928	IN H20
PI-680	HP FW HEATER 4 OUTLET PRESS	1719.955	PSIG
PI-1002	BLR1 STEAM DRUM PRESSURE	1223.793	PSIG
HIC-1029	BLR1 SUPERHTR OUTLET VENT	1155.969	PSIG
PI-2002	BLR2 STEAM DRUM PRESSURE	1236.598	PSIG
HIC-2029	BLR2 SUPERHTR OUTLET VENT	1160.438	PSIG

TI-1503	BLR1 PRIMARY AIR FAN OUTLET	116.457	DEG F.
TI-2503	BLR2 PRMRY AIR FAN OUTLET TEMP	112.994	DEG F.
TI-1513	BLR1 SECONDARY AIR FAN OUTLET	155.032	DEG F.
TI-2513	BLR2 SECONDARY AIR FAN OUTLET	101.141	DEG F.
TI-1506	BLR1 PRMRY AIR HTR AIR OUTLET	502.875	DEG F.
TI-2506	BLR2 PRMRY AIR HTR AIR OUTLET	481.921	DEG F.
TI-1516	BLR1 SEC AIR HTR AIR OUTLET	432.148	DEG F.
TI-2516	BLR2 SEC AIR HTR AIR OUTLET	431.385	DEG F.
TI-1421	CYCLONE #1 OUTLET TEMP	1647.845	DEG F.
TI-2421	CYCLONE #2 OUTLET TEMP	1546.426	DEG F.
TI-1126	BLR1 BACKPASS TEMPERATURE	1057.568	DEG F.
TI-2126	BLR2 BACKPASS TEMPERATURE	887.472	DEG F.
TI-1102	BLR1 FLUE GAS INLET - AIR HTR	646.477	DEG F.
TI-2102	BLR2 FLUE GAS INLET TO AIR	579.754	DEG F.
TI-1114	BLR1 AIR HEATER FLUE OUT - PA	293.939	DEG F.
TI-2114	BLR2 AIR HEATER FLUE OUT - PA	293.050	DEG F.
TI-681	HPFW HEATER OUTLET	234.508	DEG F.
TI-1022	BLR1 ECONOMIZER OUTLET	571.504	DEG F.
TI-1003	BLR1 SH OUT TEMPERATURE	929.246	DEG F.
TI-2022	BLR2 ECONOMIZER OUTLET	560.628	DEG F.
TI-2003	BLR2 SH OUT TEMPERATURE	923.635	DEG F.
PI-1118	BLR1 ECONOMIZER OUT PRESS "H2O	-5.181	IN H2O
PI-2118	BLR2 ECONOMIZER PRESSURE "H2O	-4.219	IN H2O
XA-3902	PC SILO CONV. FAULT		
HS-3903	PC BUCKET ELEVATOR		AUTO
FIC-1206	BLR1 PET COKE	0.000	MMBTU
FIC-2206	BLR1 PET COKE	0.000	MMBTU
TI-1123	BLR1 BAGHOUSE INLET	330.905	DEG F.
TI-2123	BLR2 BAGHOUSE INLET	320.225	DEG F.
PI-1502	BLR1 PRIMARY AIR FAN OUT "H2O	75.485	IN H2O
PI-2502	BLR2 PRIMARY AIR FAN OUTLET	73.618	IN H2O
PI-1512	BLR1 SECONDARY AIR FAN OUT "H2O	45.441	IN H2O
PI-2512	BLR2 SECONDARY AIR FAN OUTLET	34.401	IN H2O
PI-1120	BLR1 BAGHOUSE INLET PRESS "H2O	-8.988	IN H2O
PI-2120	BLR2 BAGHOUSE INLET PRESS "H2O	-7.036	IN H2O
TI-1127	BLR1 AIR HEATER FLUE OUT - SA	305.053	DEG F.
TI-2127	BLR2 AIR HEATER FLUE OUT - SA	234.544	DEG F.
PI-103	TURBINE INLET STEAM PSIG	1143.538	PSIG
PI-206	TURBINE FIRST STAGE PRESS PSIG	947.664	PSIG
HS6D-6100	RECLAIM PILE SELECTOR	0	LOGIC
PI-705	CONDENSER PRESSURE	0.404	IN HG
EX-MW	GENERATOR MW GROSS	45.306	MWATT
EX-MVAR	GENERATOR MVAR	5.173	MVAR
EX-V	GENERATOR VOLTS	13.742	KV
EX-A	GENERATOR AMPS	2046.034	AMP
PI-402	TURBINE 4TH EXTRAC TO HPFW	371.350	PSIA
PI-422	TURBINE 3RD EXTRACT PRESS	169.027	PSIA
PI-442	TURBINE 2ND EXTRAC PRESS	96.279	PSIA
PI-462	TURBINE 1ST EXTRAC PRESS	17.861	PSIA

BOILER EFFICIENCY VARIABLES

TAG	DESCRIPTION	VALUE	E/U
AI-8020	BLR1 FLUE GAS CO2	11.578	% CO_2
AI-8021	BLR2 FLUE GAS CO2	12.214	% CO_2
AI-8030	BLR1 FLUE GAS CO	1.741	% CO
AI-8031	BLR2 FLUE GAS CO	1.089	% CO
AI-8060	% MOISTURE IN FLUE GAS BLR1	15.370	% H_2O
AI-8061	% MOISTURE IN FLUE GAS BLR2	15.360	% H_2O
AI-8050	CEM O2 DRY ANALYZER BLR1	9.945	% O_2
AI-8051	CEM O2 DRY ANALYZER BLR2	8.865	% O_2
AIC-9010	BLR1 NOX TRIM	46.715	PPM
AIC-9011	BLR2 NOX TRIM	45.977	PPM
AIC-8010	BLR1 SO2 CONTROLLER	8.186	LB/HR
AIC-8011	BLR2 SO2 CONTROLLER	13.998	LB/HR
FI-1520	BLR1 TOTAL AIR FLOW	3358.975	KSDCFH
FI-2520	BLR2 TOTAL AIR FLOW	3233.095	KSDCFH
EX NMW	NET MW OUT	41.940	MEGWT
FI-1040	BLR1 OUTLET STEAM LBS/HR	188.523	LB/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	196.108	LB/HR
FI-1021	BLR1 STEAM DRUM BLOWDOWN LBS/HR	48.790	LB/HR
FI-2021	BLR2 STEAM DRUM BLOWDOWN LBS/HR	28.837	LB/HR
FI-1001	BLR1 FEEDWATER FLOW LBS/HR	208.272	LB/HR
FI-2001	BLR2 FEEDWATER FLOW LBS/HR	206.284	LB/HR
FI-1006	BLR1 DESPRHTR SPRAY WTR LBS/HR	9583.311	LB/HR
FI-2006	BLR2 DESPRHTR SPRAY LBS/HR	6385.374	LB/HR
FIC-1505	BLR1 PRIM AIR FAN VANE KSCFH	1744.656	KSCFH
FIC-2505	BLR2 PRIMARY AIR FAN VANE KSCFH	1686.594	KSCFH
FIC-1515	BLR1 SECON AIR FAN VANE KSCFH	1611.594	KSCFH
FIC-2515	BLR2 SECOND AIR FAN VANE KSCFH	1567.813	KSCFH
FI-1704	BLR1 FUEL GAS FLOW TO LANCE	0.068	KSCFH
FI-2704	BLR2 FUEL GAS FLW LANCE KSCFH	-0.045	KSCFH
FI-1601	BLR1 FUEL GAS FLW TO SU BNR	0.000	KSCFH
FI-2601	BLR2 FUEL GAS FLW TO STRTP BNR	0.025	KSCFH
FI-1753	BLR1 AMMONIA INJECTION FLOW	30.932	LB/HR
FI-2753	BLR2 AMMONIA INJECTION FLOW	29.993	LB/HR
SI-1345	#1 LIMESTONE FEED RATE	3980.971	LB/HR
SI-2345	#2 LIMESTONE FEED RATE	422.711	LB/HR
PDI-1415	BLR1 COMBUSTOR GRATE DP	29.100	IN H20
PDI-2415	BLR2 COMBUSTOR GRATE DP	40.750	IN H20
PDI-1417	BLR1 MIDDLE COMBUSTOR	34.500	IN H20
PDI-2417	BLR2 MIDDLE COMBUSTOR	24.850	IN H20
PDIC-1413	BLR1 UPPER COMBUSTOR DP	34.366	IN H20
PDIC-2413	BLR2 UPPER COMBUSTOR DP	23.717	IN H20
PI-680	HP FW HEATER 4 OUTLET PRESS	1729.706	PSIG
PI-1002	BLR1 STEAM DRUM PRESSURE	1226.420	PSIG
HIC-1029	BLR1 SUPERHTR OUTLET VENT	1156.344	PSIG
PI-2002	BLR2 STEAM DRUM PRESSURE	1241.923	PSIG
HIC-2029	BLR2 SUPERHTR OUTLET VENT	1162.219	PSIG

TI-1503	BLR1 PRIMARY AIR FAN OUTLET	109.292	DEG F.
TI-2503	BLR2 PRMRY AIR FAN OUTLET TEMP	107.306	DEG F.
TI-1513	BLR1 SECONDARY AIR FAN OUTLET	155.032	DEG F.
TI-2513	BLR2 SECONDARY AIR FAN OUTLET	96.775	DEG F.
TI-1506	BLR1 PRMRY AIR HTR AIR OUTLET	501.178	DEG F.
TI-2506	BLR2 PRMRY AIR HTR AIR OUTLET	480.131	DEG F.
TI-1516	BLR1 SEC AIR HTR AIR OUTLET	429.490	DEG F.
TI-2516	BLR2 SEC AIR HTR AIR OUTLET	429.327	DEG F.
TI-1421	CYCLONE #1 OUTLET TEMP	1646.055	DEG F.
TI-2421	CYCLONE #2 OUTLET TEMP	1544.467	DEG F.
TI-1126	BLR1 BACKPASS TEMPERATURE	1057.105	DEG F.
TI-2126	BLR2 BACKPASS TEMPERATURE	885.797	DEG F.
TI-1102	BLR1 FLUE GAS INLET - AIR HTR	644.706	DEG F.
TI-2102	BLR2 FLUE GAS INLET TO AIR	579.245	DEG F.
TI-1114	BLR1 AIR HEATER FLUE OUT - PA	289.456	DEG F.
TI-2114	BLR2 AIR HEATER FLUE OUT - PA	291.710	DEG F.
TI-681	HPFW HEATER OUTLET	234.725	DEG F.
TI-1022	BLR1 ECONOMIZER OUTLET	571.345	DEG F.
TI-1003	BLR1 SH OUT TEMPERATURE	926.532	DEG F.
TI-2022	BLR2 ECONOMIZER OUTLET	560.513	DEG F.
TI-2003	BLR2 SH OUT TEMPERATURE	925.917	DEG F.
PI-1118	BLR1 ECONOMIZER OUT PRESS "H2O	-4.700	IN H2O
PI-2118	BLR2 ECONOMIZER PRESSURE "H2O	-4.752	IN H2O
XA-3902	PC SILO CONV. FAULT		
HS-3903	PC BUCKET ELEVATOR		AUTO
FIC-1206	BLR1 PET COKE	0.000	MMBTU
FIC-2206	BLR1 PET COKE	0.000	MMBTU
TI-1123	BLR1 BAGHOUSE INLET	327.692	DEG F.
TI-2123	BLR2 BAGHOUSE INLET	318.150	DEG F.
PI-1502	BLR1 PRIMARY AIR FAN OUT "H2O	72.359	IN H2O
PI-2502	BLR2 PRIMARY AIR FAN OUTLET	72.415	IN H2O
PI-1512	BLR1 SECONDARY AIR FAN OUT "H2O	43.806	IN H2O
PI-2512	BLR2 SECONDARY AIR FAN OUTLET	34.401	IN H2O
PI-1120	BLR1 BAGHOUSE INLET PRESS "H2O	-8.392	IN H2O
PI-2120	BLR2 BAGHOUSE INLET PRESS "H2O	-7.719	IN H2O
TI-1127	BLR1 AIR HEATER FLUE OUT - SA	303.068	DEG F.
TI-2127	BLR2 AIR HEATER FLUE OUT - SA	230.581	DEG F.
PI-103	TURBINE INLET STEAM PSIG	1145.708	PSIG
PI-206	TURBINE FIRST STAGE PRESS PSIG	962.278	PSIG
HS6D-6100	RECLAIM PILE SELECTOR	0	LOGIC
PI-705	CONDENSER PRESSURE	0.305	IN HG
EX-MW	GENERATOR MW GROSS	46.217	MWATT
EX-MVAR	GENERATOR MVAR	5.360	MVAR
EX-V	GENERATOR VOLTS	13.772	KV
EX-A	GENERATOR AMPS	2080.560	AMP
PI-402	TURBINE 4TH EXTRAC TO HPFW	374.661	PSIA
PI-422	TURBINE 3RD EXTRACT PRESS	172.104	PSIA
PI-442	TURBINE 2ND EXTRAC PRESS	96.354	PSIA
PI-462	TURBINE 1ST EXTRAC PRESS	18.188	PSIA

BOILER EFFICIENCY VARIABLES

TAG	DESCRIPTION	VALUE	E/U
AI-8020	BLR1 FLUE GAS CO2	10.680	% CO_2
AI-8021	BLR2 FLUE GAS CO2	12.009	% CO_2
AI-8030	BLR1 FLUE GAS CO	1.741	% CO
AI-8031	BLR2 FLUE GAS CO	1.340	% CO
AI-8060	% MOISTURE IN FLUE GAS BLR1	13.441	% H_2O
AI-8061	% MOISTURE IN FLUE GAS BLR2	16.132	% H_2O
AI-8050	CEM O2 DRY ANALYZER BLR1	9.309	% O_2
AI-8051	CEM O2 DRY ANALYZER BLR2	8.984	% O_2
AIC-9010	BLR1 NOX TRIM	45.341	PPM
AIC-9011	BLR2 NOX TRIM	30.735	PPM
AIC-8010	BLR1 SO2 CONTROLLER	10.971	LB/HR
AIC-8011	BLR2 SO2 CONTROLLER	6.234	LB/HR
FI-1520	BLR1 TOTAL AIR FLOW	3358.975	KSDCFH
FI-2520	BLR2 TOTAL AIR FLOW	3233.095	KSDCFH
EX NMW	NET MW OUT	41.428	MEGWT
FI-1040	BLR1 OUTLET STEAM LBS/HR	190.674	LB/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	192.825	LB/HR
FI-1021	BLR1 STEAM DRUM BLOWDOWN LBS/HR	45.920	LB/HR
FI-2021	BLR2 STEAM DRUM BLOWDOWN LBS/HR	25.946	LB/HR
FI-1001	BLR1 FEEDWATER FLOW LBS/HR	198.447	LB/HR
FI-2001	BLR2 FEEDWATER FLOW LBS/HR	202.132	LB/HR
FI-1006	BLR1 DESPRHTR SPRAY WTR LBS/HR	0.000	LB/HR
FI-2006	BLR2 DESPRHTR SPRAY LBS/HR	5183.968	LB/HR
FIC-1505	BLR1 PRIM AIR FAN VANE KSCFH	1751.656	KSCFH
FIC-2505	BLR2 PRIMARY AIR FAN VANE KSCFH	1681.906	KSCFH
FIC-1515	BLR1 SECON AIR FAN VANE KSCFH	1614.594	KSCFH
FIC-2515	BLR2 SECOND AIR FAN VANE KSCFH	1539.438	KSCFH
FI-1704	BLR1 FUEL GAS FLOW TO LANCE	0.090	KSCFH
FI-2704	BLR2 FUEL GAS FLW LANCE KSCFH	-0.045	KSCFH
FI-1601	BLR1 FUEL GAS FLW TO SU BNR	0.000	KSCFH
FI-2601	BLR2 FUEL GAS FLW TO STRTP BNR	0.050	KSCFH
FI-1753	BLR1 AMMONIA INJECTION FLOW	36.490	LB/HR
FI-2753	BLR2 AMMONIA INJECTION FLOW	31.575	LB/HR
SI-1345	#1 LIMESTONE FEED RATE	4196.294	LB/HR
SI-2345	#2 LIMESTONE FEED RATE	265.066	LB/HR
PDI-1415	BLR1 COMBUSTOR GRATE DP	29.975	IN H20
PDI-2415	BLR2 COMBUSTOR GRATE DP	42.625	IN H20
PDI-1417	BLR1 MIDDLE COMBUSTOR	33.775	IN H20
PDI-2417	BLR2 MIDDLE COMBUSTOR	23.862	IN H20
PDIC-1413	BLR1 UPPER COMBUSTOR DP	34.194	IN H20
PDIC-2413	BLR2 UPPER COMBUSTOR DP	23.697	IN H20
PI-680	HP FW HEATER 4 OUTLET PRESS	1724.213	PSIG
PI-1002	BLR1 STEAM DRUM PRESSURE	1228.296	PSIG
HIC-1029	BLR1 SUPERHTR OUTLET VENT	1154.094	PSIG
PI-2002	BLR2 STEAM DRUM PRESSURE	1234.344	PSIG
HIC-2029	BLR2 SUPERHTR OUTLET VENT	1160.438	PSIG

TI-1503	BLR1 PRIMARY AIR FAN OUTLET	108.414	DEG F.
TI-2503	BLR2 PRMRY AIR FAN OUTLET TEMP	106.264	DEG F.
TI-1513	BLR1 SECONDARY AIR FAN OUTLET	155.032	DEG F.
TI-2513	BLR2 SECONDARY AIR FAN OUTLET	95.524	DEG F.
TI-1506	BLR1 PRMRY AIR HTR AIR OUTLET	501.033	DEG F.
TI-2506	BLR2 PRMRY AIR HTR AIR OUTLET	480.353	DEG F.
TI-1516	BLR1 SEC AIR HTR AIR OUTLET	429.319	DEG F.
TI-2516	BLR2 SEC AIR HTR AIR OUTLET	429.873	DEG F.
TI-1421	CYCLONE #1 OUTLET TEMP	1655.330	DEG F.
TI-2421	CYCLONE #2 OUTLET TEMP	1546.520	DEG F.
TI-1126	BLR1 BACKPASS TEMPERATURE	1060.994	DEG F.
TI-2126	BLR2 BACKPASS TEMPERATURE	887.731	DEG F.
TI-1102	BLR1 FLUE GAS INLET - AIR HTR	646.935	DEG F.
TI-2102	BLR2 FLUE GAS INLET TO AIR	578.231	DEG F.
TI-1114	BLR1 AIR HEATER FLUE OUT - PA	288.519	DEG F.
TI-2114	BLR2 AIR HEATER FLUE OUT - PA	290.771	DEG F.
TI-681	HPFW HEATER OUTLET	235.220	DEG F.
TI-1022	BLR1 ECONOMIZER OUTLET	571.615	DEG F.
TI-1003	BLR1 SH OUT TEMPERATURE	926.279	DEG F.
TI-2022	BLR2 ECONOMIZER OUTLET	555.523	DEG F.
TI-2003	BLR2 SH OUT TEMPERATURE	924.260	DEG F.
PI-1118	BLR1 ECONOMIZER OUT PRESS "H2O	-4.516	IN H2O
PI-2118	BLR2 ECONOMIZER PRESSURE "H2O	-4.482	IN H2O
XA-3902	PC SILO CONV. FAULT		
HS-3903	PC BUCKET ELEVATOR		AUTO
FIC-1206	BLR1 PET COKE	0.000	MMBTU
FIC-2206	BLR1 PET COKE	0.000	MMBTU
TI-1123	BLR1 BAGHOUSE INLET	327.630	DEG F.
TI-2123	BLR2 BAGHOUSE INLET	318.008	DEG F.
PI-1502	BLR1 PRIMARY AIR FAN OUT "H2O	73.055	IN H2O
PI-2502	BLR2 PRIMARY AIR FAN OUTLET	73.817	IN H2O
PI-1512	BLR1 SECONDARY AIR FAN OUT "H2O	44.707	IN H2O
PI-2512	BLR2 SECONDARY AIR FAN OUTLET	34.952	IN H2O
PI-1120	BLR1 BAGHOUSE INLET PRESS "H2O	-8.331	IN H2O
PI-2120	BLR2 BAGHOUSE INLET PRESS "H2O	-7.316	IN H2O
TI-1127	BLR1 AIR HEATER FLUE OUT - SA	303.128	DEG F.
TI-2127	BLR2 AIR HEATER FLUE OUT - SA	230.187	DEG F.
PI-103	TURBINE INLET STEAM PSIG	1143.915	PSIG
PI-206	TURBINE FIRST STAGE PRESS PSIG	960.135	PSIG
HS6D-6100	RECLAIM PILE SELECTOR	0	LOGIC
PI-705	CONDENSER PRESSURE	0.301	IN HG
EX-MW	GENERATOR MW GROSS	45.555	MWATT
EX-MVAR	GENERATOR MVAR	5.334	MVAR
EX-V	GENERATOR VOLTS	13.807	KV
EX-A	GENERATOR AMPS	2053.027	AMP
PI-402	TURBINE 4TH EXTRAC TO HPFW	374.755	PSIA
PI-422	TURBINE 3RD EXTRACT PRESS	171.579	PSIA
PI-442	TURBINE 2ND EXTRAC PRESS	96.453	PSIA
PI-462	TURBINE 1ST EXTRAC PRESS	18.048	PSIA

BOILER EFFICIENCY VARIABLES

TAG	DESCRIPTION	VALUE	E/U
AI-8020	BLR1 FLUE GAS CO2	12.329	% CO_2
AI-8021	BLR2 FLUE GAS CO2	12.475	% CO_2
AI-8030	BLR1 FLUE GAS CO	1.503	% CO
AI-8031	BLR2 FLUE GAS CO	1.979	% CO
AI-8060	% MOISTURE IN FLUE GAS BLR1	14.189	% H_2O
AI-8061	% MOISTURE IN FLUE GAS BLR2	12.931	% H_2O
AI-8050	CEM O2 DRY ANALYZER BLR1	9.448	% O_2
AI-8051	CEM O2 DRY ANALYZER BLR2	8.249	% O_2
AIC-9010	BLR1 NOX TRIM	46.215	PPM
AIC-9011	BLR2 NOX TRIM	44.228	PPM
AIC-8010	BLR1 SO2 CONTROLLER	11.946	LB/HR
AIC-8011	BLR2 SO2 CONTROLLER	7.322	LB/HR
FI-1520	BLR1 TOTAL AIR FLOW	3387.145	KSDCFH
FI-2520	BLR2 TOTAL AIR FLOW	3236.854	KSDCFH
EX NMW	NET MW OUT	42.749	MEGWT
FI-1040	BLR1 OUTLET STEAM LBS/HR	196.437	LB/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	197.404	LB/HR
FI-1021	BLR1 STEAM DRUM BLOWDOWN LBS/HR	43.039	LB/HR
FI-2021	BLR2 STEAM DRUM BLOWDOWN LBS/HR	14.415	LB/HR
FI-1001	BLR1 FEEDWATER FLOW LBS/HR	215.214	LB/HR
FI-2001	BLR2 FEEDWATER FLOW LBS/HR	221.757	LB/HR
FI-1006	BLR1 DESPRHTR SPRAY WTR LBS/HR	8473.080	LB/HR
FI-2006	BLR2 DESPRHTR SPRAY LBS/HR	6216.880	LB/HR
FIC-1505	BLR1 PRIM AIR FAN VANE KSCFH	1758.219	KSCFH
FIC-2505	BLR2 PRIMARY AIR FAN VANE KSCFH	1672.469	KSCFH
FIC-1515	BLR1 SECON AIR FAN VANE KSCFH	1627.625	KSCFH
FIC-2515	BLR2 SECOND AIR FAN VANE KSCFH	1542.031	KSCFH
FI-1704	BLR1 FUEL GAS FLOW TO LANCE	0.090	KSCFH
FI-2704	BLR2 FUEL GAS FLW LANCE KSCFH	-0.045	KSCFH
FI-1601	BLR1 FUEL GAS FLW TO SU BNR	0.000	KSCFH
FI-2601	BLR2 FUEL GAS FLW TO STRTP BNR	0.025	KSCFH
FI-1753	BLR1 AMMONIA INJECTION FLOW	36.695	LB/HR
FI-2753	BLR2 AMMONIA INJECTION FLOW	34.306	LB/HR
SI-1345	#1 LIMESTONE FEED RATE	3935.904	LB/HR
SI-2345	#2 LIMESTONE FEED RATE	427.607	LB/HR
PDI-1415	BLR1 COMBUSTOR GRATE DP	30.725	IN H20
PDI-2415	BLR2 COMBUSTOR GRATE DP	40.925	IN H20
PDI-1417	BLR1 MIDDLE COMBUSTOR	33.425	IN H20
PDI-2417	BLR2 MIDDLE COMBUSTOR	23.862	IN H20
PDIC-1413	BLR1 UPPER COMBUSTOR DP	33.939	IN H20
PDIC-2413	BLR2 UPPER COMBUSTOR DP	23.881	IN H20
PI-680	HP FW HEATER 4 OUTLET PRESS	1719.452	PSIG
PI-1002	BLR1 STEAM DRUM PRESSURE	1232.733	PSIG
HIC-1029	BLR1 SUPERHTR OUTLET VENT	1156.406	PSIG
PI-2002	BLR2 STEAM DRUM PRESSURE	1239.669	PSIG
HIC-2029	BLR2 SUPERHTR OUTLET VENT	1161.563	PSIG

TI-1503	BLR1 PRIMARY AIR FAN OUTLET	106.616	DEG F.
TI-2503	BLR2 PRMRY AIR FAN OUTLET TEMP	106.725	DEG F.
TI-1513	BLR1 SECONDARY AIR FAN OUTLET	155.032	DEG F.
TI-2513	BLR2 SECONDARY AIR FAN OUTLET	94.882	DEG F.
TI-1506	BLR1 PRMRY AIR HTR AIR OUTLET	499.653	DEG F.
TI-2506	BLR2 PRMRY AIR HTR AIR OUTLET	480.088	DEG F.
TI-1516	BLR1 SEC AIR HTR AIR OUTLET	428.546	DEG F.
TI-2516	BLR2 SEC AIR HTR AIR OUTLET	430.212	DEG F.
TI-1421	CYCLONE #1 OUTLET TEMP	1654.487	DEG F.
TI-2421	CYCLONE #2 OUTLET TEMP	1545.004	DEG F.
TI-1126	BLR1 BACKPASS TEMPERATURE	1060.295	DEG F.
TI-2126	BLR2 BACKPASS TEMPERATURE	885.638	DEG F.
TI-1102	BLR1 FLUE GAS INLET - AIR HTR	647.621	DEG F.
TI-2102	BLR2 FLUE GAS INLET TO AIR	578.602	DEG F.
TI-1114	BLR1 AIR HEATER FLUE OUT - PA	288.451	DEG F.
TI-2114	BLR2 AIR HEATER FLUE OUT - PA	296.969	DEG F.
TI-681	HPFW HEATER OUTLET	234.735	DEG F.
TI-1022	BLR1 ECONOMIZER OUTLET	571.865	DEG F.
TI-1003	BLR1 SH OUT TEMPERATURE	928.370	DEG F.
TI-2022	BLR2 ECONOMIZER OUTLET	557.166	DEG F.
TI-2003	BLR2 SH OUT TEMPERATURE	925.269	DEG F.
PI-1118	BLR1 ECONOMIZER OUT PRESS "H2O	-4.482	IN H2O
PI-2118	BLR2 ECONOMIZER PRESSURE "H2O	-3.370	IN H2O
XA-3902	PC SILO CONV. FAULT		
HS-3903	PC BUCKET ELEVATOR		AUTO
FIC-1206	BLR1 PET COKE	0.000	MMBTU
FIC-2206	BLR1 PET COKE	0.000	MMBTU
TI-1123	BLR1 BAGHOUSE INLET	327.372	DEG F.
TI-2123	BLR2 BAGHOUSE INLET	318.731	DEG F.
PI-1502	BLR1 PRIMARY AIR FAN OUT "H2O	73.697	IN H2O
PI-2502	BLR2 PRIMARY AIR FAN OUTLET	73.827	IN H2O
PI-1512	BLR1 SECONDARY AIR FAN OUT "H2O	45.641	IN H2O
PI-2512	BLR2 SECONDARY AIR FAN OUTLET	34.557	IN H2O
PI-1120	BLR1 BAGHOUSE INLET PRESS "H2O	-8.349	IN H2O
PI-2120	BLR2 BAGHOUSE INLET PRESS "H2O	-6.223	IN H2O
TI-1127	BLR1 AIR HEATER FLUE OUT - SA	302.792	DEG F.
TI-2127	BLR2 AIR HEATER FLUE OUT - SA	230.320	DEG F.
PI-103	TURBINE INLET STEAM PSIG	1142.696	PSIG
PI-206	TURBINE FIRST STAGE PRESS PSIG	984.012	PSIG
HS6D-6100	RECLAIM PILE SELECTOR	0	LOGIC
PI-705	CONDENSER PRESSURE	0.272	IN HG
EX-MW	GENERATOR MW GROSS	46.981	MWATT
EX-MVAR	GENERATOR MVAR	5.503	MVAR
EX-V	GENERATOR VOLTS	13.836	KV
EX-A	GENERATOR AMPS	2111.556	AMP
PI-402	TURBINE 4TH EXTRAC TO HPFW	384.241	PSIA
PI-422	TURBINE 3RD EXTRACT PRESS	176.908	PSIA
PI-442	TURBINE 2ND EXTRAC PRESS	98.864	PSIA
PI-462	TURBINE 1ST EXTRAC PRESS	18.478	PSIA

BOILER EFFICIENCY VARIABLES

TAG	DESCRIPTION	VALUE	E/U
AI-8020	BLR1 FLUE GAS CO2	11.678	% CO_2
AI-8021	BLR2 FLUE GAS CO2	11.869	% CO_2
AI-8030	BLR1 FLUE GAS CO	1.265	% CO
AI-8031	BLR2 FLUE GAS CO	2.216	% CO
AI-8060	% MOISTURE IN FLUE GAS BLR1	16.015	% H_2O
AI-8061	% MOISTURE IN FLUE GAS BLR2	13.165	% H_2O
AI-8050	CEM O2 DRY ANALYZER BLR1	9.907	% O_2
AI-8051	CEM O2 DRY ANALYZER BLR2	8.352	% O_2
AIC-9010	BLR1 NOX TRIM	38.721	PPM
AIC-9011	BLR2 NOX TRIM	35.607	PPM
AIC-8010	BLR1 SO2 CONTROLLER	9.010	LB/HR
AIC-8011	BLR2 SO2 CONTROLLER	7.311	LB/HR
FI-1520	BLR1 TOTAL AIR FLOW	3387.145	KSDCFH
FI-2520	BLR2 TOTAL AIR FLOW	3236.854	KSDCFH
EX NMW	NET MW OUT	41.299	MEGWT
FI-1040	BLR1 OUTLET STEAM LBS/HR	182.352	LB/HR
FI-2040	BLR2 OUTLET STEAM LBS/HR	197.226	LB/HR
FI-1021	BLR1 STEAM DRUM BLOWDOWN LBS/HR	40.169	LB/HR
FI-2021	BLR2 STEAM DRUM BLOWDOWN LBS/HR	17.297	LB/HR
FI-1001	BLR1 FEEDWATER FLOW LBS/HR	206.211	LB/HR
FI-2001	BLR2 FEEDWATER FLOW LBS/HR	218.752	LB/HR
FI-1006	BLR1 DESPRHTR SPRAY WTR LBS/HR	10392.273	LB/HR
FI-2006	BLR2 DESPRHTR SPRAY LBS/HR	6049.899	LB/HR
FIC-1505	BLR1 PRIM AIR FAN VANE KSCFH	1764.000	KSCFH
FIC-2505	BLR2 PRIMARY AIR FAN VANE KSCFH	1693.219	KSCFH
FIC-1515	BLR1 SECON AIR FAN VANE KSCFH	1633.625	KSCFH
FIC-2515	BLR2 SECOND AIR FAN VANE KSCFH	1571.656	KSCFH
FI-1704	BLR1 FUEL GAS FLOW TO LANCE	0.090	KSCFH
FI-2704	BLR2 FUEL GAS FLW LANCE KSCFH	-0.068	KSCFH
FI-1601	BLR1 FUEL GAS FLW TO SU BNR	0.000	KSCFH
FI-2601	BLR2 FUEL GAS FLW TO STRTP BNR	0.025	KSCFH
FI-1753	BLR1 AMMONIA INJECTION FLOW	29.058	LB/HR
FI-2753	BLR2 AMMONIA INJECTION FLOW	39.645	LB/HR
SI-1345	#1 LIMESTONE FEED RATE	3111.390	LB/HR
SI-2345	#2 LIMESTONE FEED RATE	340.170	LB/HR
PDI-1415	BLR1 COMBUSTOR GRATE DP	29.725	IN H20
PDI-2415	BLR2 COMBUSTOR GRATE DP	41.150	IN H20
PDI-1417	BLR1 MIDDLE COMBUSTOR	34.712	IN H20
PDI-2417	BLR2 MIDDLE COMBUSTOR	24.425	IN H20
PDIC-1413	BLR1 UPPER COMBUSTOR DP	34.252	IN H20
PDIC-2413	BLR2 UPPER COMBUSTOR DP	23.899	IN H20
PI-680	HP FW HEATER 4 OUTLET PRESS	1721.191	PSIG
PI-1002	BLR1 STEAM DRUM PRESSURE	1222.292	PSIG
HIC-1029	BLR1 SUPERHTR OUTLET VENT	1154.844	PSIG
PI-2002	BLR2 STEAM DRUM PRESSURE	1237.725	PSIG
HIC-2029	BLR2 SUPERHTR OUTLET VENT	1160.438	PSIG

TI-1503	BLR1 PRIMARY AIR FAN OUTLET	107.022	DEG F.
TI-2503	BLR2 PRMRY AIR FAN OUTLET TEMP	107.682	DEG F.
TI-1513	BLR1 SECONDARY AIR FAN OUTLET	155.032	DEG F.
TI-2513	BLR2 SECONDARY AIR FAN OUTLET	96.016	DEG F.
TI-1506	BLR1 PRMRY AIR HTR AIR OUTLET	499.914	DEG F.
TI-2506	BLR2 PRMRY AIR HTR AIR OUTLET	479.585	DEG F.
TI-1516	BLR1 SEC AIR HTR AIR OUTLET	428.339	DEG F.
TI-2516	BLR2 SEC AIR HTR AIR OUTLET	429.378	DEG F.
TI-1421	CYCLONE #1 OUTLET TEMP	1635.511	DEG F.
TI-2421	CYCLONE #2 OUTLET TEMP	1541.896	DEG F.
TI-1126	BLR1 BACKPASS TEMPERATURE	1047.814	DEG F.
TI-2126	BLR2 BACKPASS TEMPERATURE	887.425	DEG F.
TI-1102	BLR1 FLUE GAS INLET - AIR HTR	640.129	DEG F.
TI-2102	BLR2 FLUE GAS INLET TO AIR	577.796	DEG F.
TI-1114	BLR1 AIR HEATER FLUE OUT - PA	289.021	DEG F.
TI-2114	BLR2 AIR HEATER FLUE OUT - PA	294.215	DEG F.
TI-681	HPFW HEATER OUTLET	234.824	DEG F.
TI-1022	BLR1 ECONOMIZER OUTLET	571.140	DEG F.
TI-1003	BLR1 SH OUT TEMPERATURE	924.767	DEG F.
TI-2022	BLR2 ECONOMIZER OUTLET	555.841	DEG F.
TI-2003	BLR2 SH OUT TEMPERATURE	927.139	DEG F.
PI-1118	BLR1 ECONOMIZER OUT PRESS "H2O	-5.575	IN H2O
PI-2118	BLR2 ECONOMIZER PRESSURE "H2O	-4.963	IN H2O
XA-3902	PC SILO CONV. FAULT		
HS-3903	PC BUCKET ELEVATOR		AUTO
FIC-1206	BLR1 PET COKE	0.000	MMBTU
FIC-2206	BLR1 PET COKE	0.000	MMBTU
TI-1123	BLR1 BAGHOUSE INLET	327.684	DEG F.
TI-2123	BLR2 BAGHOUSE INLET	318.552	DEG F.
PI-1502	BLR1 PRIMARY AIR FAN OUT "H2O	72.469	IN H2O
PI-2502	BLR2 PRIMARY AIR FAN OUTLET	73.116	IN H2O
PI-1512	BLR1 SECONDARY AIR FAN OUT "H2O	44.965	IN H2O
PI-2512	BLR2 SECONDARY AIR FAN OUTLET	34.620	IN H2O
PI-1120	BLR1 BAGHOUSE INLET PRESS "H2O	-9.337	IN H2O
PI-2120	BLR2 BAGHOUSE INLET PRESS "H2O	-7.771	IN H2O
TI-1127	BLR1 AIR HEATER FLUE OUT - SA	303.585	DEG F.
TI-2127	BLR2 AIR HEATER FLUE OUT - SA	230.404	DEG F.
PI-103	TURBINE INLET STEAM PSIG	1141.943	PSIG
PI-206	TURBINE FIRST STAGE PRESS PSIG	950.900	PSIG
HS6D-6100	RECLAIM PILE SELECTOR	0	LOGIC
PI-705	CONDENSER PRESSURE	0.316	IN HG
EX-MW	GENERATOR MW GROSS	45.572	MWATT
EX-MVAR	GENERATOR MVAR	5.090	MVAR
EX-V	GENERATOR VOLTS	13.866	KV
EX-A	GENERATOR AMPS	2029.765	AMP
PI-402	TURBINE 4TH EXTRAC TO HPFW	371.292	PSIA
PI-422	TURBINE 3RD EXTRACT PRESS	170.078	PSIA
PI-442	TURBINE 2ND EXTRAC PRESS	95.329	PSIA
PI-462	TURBINE 1ST EXTRAC PRESS	17.936	PSIA

Operator Window #1: Graphic 201 (Recall 1 of 9)

Window | Select | Redraw | Zoom | ?

1500 4/5/22

BLR #2 MASTER

-201

AREA

BLR#2

HS-2000B BOILER MASTER SETPOINT

C

190.18

HS-2000B BOILER MASTER NET M.W. SETPOINT

C

HS-2000 BOILER MASTER S.P. SOURCE SELECTOR

C

STM

HIC-2000
BLR2 MASTER

MANUAL | N 2 | LOCAL

300.00 | 190.18 | 190.18 | SP | 0.00 | KLB/HR

OUT 43.00 % SPTR

A | C | M

FIC-2520
BLR2 AIR MASTER

AUTO | N 2 | LOCAL

6000.0 | 3227.4 | 3227.4 | SP | 0.0 | KSCFH

OUT 80.7 %

A | C | M

FIC-2505
BLR2 PRIMARY AIR FAN VANE KSCFH

AUTO | N 2 | LOCAL

4000.0 | 1676.6 | 1678.3 | SP | 0.0 | KSCFH

OUT 38.9 %

A | C | M

FIC-2515
BLR2 SECOND AIR FAN VANE KSCFH

AUTO | N 2 | LOCAL

4000.0 | 1548.3 | 1549.2 | SP | 0.0 | KSCFH

OUT 25.8 %

A | C | M

PIC-2420
BLR2 FURNACE PRESSURE

AUTO | N 2 | LOCAL

15.00 | -2.29 | -2.40 | SP | -15.00 | IN H2O

OUT 55.43 %

A | C | M

AIC-2101
BLR2 02 TRIM CONTROLLER

AUTO | N 2 | LOCAL

25.00 | 3.86 | 5.00 | SP | 0.00 | %

OUT 59.97 %

A | C | M

FIC-2250A
BLR2 WOOD MASTER

AUTO | N 2 | LOCAL

1000 | 634 | 632 | SP | 0 |

OUT 68 %

A | C | M

FIC-2207A
BLR2 GAS LANCE

MANUAL | N 2 | LOCAL

132 | 0 | SP | 0 |

OUT 10 % SPTR

A | C | M

FIC-2206
BLR2 PET COKE

MANUAL | L 2 | LOCAL

340.0 | 0.0 | SP | 0.0 |

OUT 0.0 % SPTR

A | M

PDIC-2413
BLR2 UPPER COMBUSTOR DP

MANUAL | N 2 | LOCAL

95.0 | 35.0 | SP | 0.0 | IN H2O

OUT 35.0 %

A | M

FIC-2201
BLR2 SCREW FDR ABC FLOW %

AUTO | N 2 | LOCAL

100.0 | 0.0 | SP | 0.0 | %

OUT 72.0 %

A | M

FIC-2261
BLR2 SCREW FDR DEF FLOW %

AUTO | N 2 | LOCAL

100.0 | 73.8 | 0.0 | SP | 0.0 | %

OUT 72.0 %

A | M

FIC-2231
BLR2 SCREW FDR GHI FLOW %

AUTO | N 2 | LOCAL

100.0 | 67.3 | 0.0 | SP | 0.0 | %

OUT 72.0 %

A | M

FIC-2291
BLR2 SCREW FDR JKL FLOW %

AUTO | N 2 | LOCAL

100.0 | 0.0 | SP | 0.0 | %

OUT 72.0 %

A | M

1

C HIC-2202 WOOD FEED%

C HIC-2206 PET COKE %

C HIC-2206HL PC HI LIMIT

C HS-2200 BTU FACTOR AUTO / MANUAL

0 C HIC-2201 BTU FACTOR

TI-2405 COMB MID TEMP

TI-2421 CYC #2 OUT TEMP

W062-012607-RT-3503

BOILER #2 FUEL FEED

K-911

AREA | AREA9

AIR / FUEL
RATIO C

PERCENT
PET COKE % C

P.C. MMBTU LIMIT
30 C

PERCENT
WOOD100 % C

GAS MMBTU LIMIT
C

MMBTU'S

TOTAL
O2 CORRECTED
BIOMASS 329
MINIMUM REQUIRED
BIOMASS
GAS
BTU FACTOR C

FIC-2250A
BLR2 WOOD MASTER
AUTO | N | LOCAL 2
1000 — 630 — 0
SP
OUT 68 %
A C | C | M

FIC-2206
BLR2 PET COKE
MANUAL | L | LOCAL 2
340.0 — 0.0 — 0.0
SP
OUT 0.0 % SPTR
A | M

FIC-2207A
BLR2 GAS LANCE
MANUAL | N | LOCAL 2
132 — 0 — 0
SP
OUT 10 % SPTR
A | C | M

PERCENT TO
A SIDE C

MMBTU
LIMIT C

A
.

PERCENT TO
ABC C
.0

MMBTU
LIMIT

ABC C | C DEF

ABC C | C DEF

MMBTU
LIMIT C

B
450.0

PERCENT TO
GHI C

MMBTU
LIMIT

GHI C | C JKL

GHI C | C JKL

Operator Window #1: Graphic 201 (Recall 1 of 9)

Window | Select | Redraw | Zoom | ?

1400 4522

W002AS-012607-RT-3503 5435 of 635

BLR #2 MASTER

A-201

AREA

BLR#2

HS-2000A BOILER MASTER STEAM FLOW SETPOINT

C 197.16

HS-2000B BOILER MASTER NET M.W. SETPOINT

C 41.15

HS-2000 BOILER MASTER S.P. SOURCE SELECTOR

C STM

HIC-2000
BLR2 MASTER

MANUAL | N | 2 | LOCAL

300.00 | 196.30 | 0.00 | KLB/HR | 196.30 | SP

OUT 43.50 % SPTR

A | C | M

FIC-2520
BLR2 AIR MASTER

AUTO | N | 2 | LOCAL

6000.0 | 3236.8 | 0.0 | KSCFH | 3236.8 | SP

OUT 80.9 %

A | C | M

FIC-2505
BLR2 PRIMARY AIR FAN VANE KSCFH

AUTO | N | 2 | LOCAL

4000.0 | 1694.3 | 0.0 | KSCFH | 1683.2 | SP

OUT 38.7 %

A | C | M

FIC-2515
BLR2 SECOND AIR FAN VANE KSCFH

AUTO | N | 2 | LOCAL

4000.0 | 1578.0 | 0.0 | KSCFH | 1553.7 | SP

OUT 25.8 %

A | C | M

PIC-2420
BLR2 FURNACE PRESSURE

AUTO | N | 2 | LOCAL

15.00 | -2.11 | -15.00 | IN H2O | -2.52 | SP

OUT 57.76 %

A | C | M

AIC-2101
BLR2 02 TRIM CONTROLLER

AUTO | N | 2 | LOCAL

25.00 | 4.90 | 0.00 | % | 4.90 | SP

OUT 59.18 %

A | C | M

FIC-2250A
BLR2 WOOD MASTER

AUTO | N | 2 | LOCAL

1000 | 631 | 0 | 628 | SP

OUT 68 %

A | C | M

FIC-2207A
BLR2 GAS LANCE

MANUAL | N | 2 | LOCAL

132 | 0 | 0 | SP

OUT 10 % SPTR

A | C | M

FIC-2206
BLR2 PET COKE

MANUAL | L | 2 | LOCAL

340.0 | 0.0 | 0.0 | SP

OUT 0.0 % SPTR

A | M

PDIC-2413
BLR2 UPPER COMBUSTOR DP

MANUAL | L | 2 | LOCAL

95.0 | 24.9 | 0.0 | IN H2O | 35.0 | SP

OUT 35.0 %

A | M

FIC-2201
BLR2 SCREW FDR ABC FLOW %

AUTO | N | 2 | LOCAL

100.0 | 76.8 | 0.0 | % | 0.0 | SP

OUT 71.5 %

A | M

FIC-2261
BLR2 SCREW FDR DEF FLOW %

AUTO | N | 2 | LOCAL

100.0 | 73.4 | 0.0 | % | 0.0 | SP

OUT 71.5 %

A | M

FIC-2231
BLR2 SCREW FDR GHI FLOW %

AUTO | N | 2 | LOCAL

100.0 | 66.9 | 0.0 | % | 0.0 | SP

OUT 71.5 %

A | M

FIC-2291
BLR2 SCREW FDR JKL FLOW %

AUTO | N | 2 | LOCAL

100.0 | 73.5 | 0.0 | % | 0.0 | SP

OUT 71.5 %

A | M

100.0	C	HIC-2202 WOOD FEED%
0.0	C	HIC-2206 PET COKE %
130.0	C	HIC-2206HL PC HI LIMIT
2700.0	C	HS-2200 BTU FACTOR AUTO / MANUAL
2700.0	C	HIC-2201 BTU FACTOR
1529.6		TI-2405 COMB MID TEMP
551.8		TI-2421 CYC #2 OUT TEMP

Operator Window #1: Graphic 911

Window | Select | Redraw | Zoom | ?

BOILER #2 FUEL FEED

W062-911

AREA | AREA9

AIR / FUEL
RATIO 40 C

PERCENT
PET COKE % C

P.C. MMBTU LIMIT
C

PERCENT
WOOD100 % C

GAS MMBTU LIMIT
C

MMBTU'S
TOTAL
O2 CORRECTED
BIOMASS
MINIMUM REQUIRED
BIOMASS
GAS
BTU FACTOR C 00

FIC-2250A
BLR2 WOOD MASTER
AUTO | N LOCAL 2
1000
0
625
SP
OUT
67 %
A C M

FIC-2206
BLR2 PET COKE
MANUAL | L LOCAL 2
340.0
0.0
0.0
0.0
SP
OUT
0.0 % SPTR
A M

FIC-2207A
BLR2 GAS LANCE
MANUAL | N LOCAL 2
132
0
0
SP
OUT
10 % SPTR
A C M

PERCENT TO
A SIDE 50 % C

A
MMBTU LIMIT C
PERCENT TO ABC C
MMBTU LIMIT
ABC C C DEF
ABC C C DEF

B
MMBTU LIMIT C
PERCENT TO GHI C
MMBTU LIMIT
GHI C C JKL
GHI C C JKL

Operator Window #1: Graphic 201 (Recall 1 of 9)

Window | Select | Redraw | Zoom | ?

1300 4.5.22

BLR #2 MASTER

201

AREA

BLR#2

HS-2000A BOILER MASTER STEAM FLOW SETPOINT

C

HS-2000B BOILER MASTER NET M.W. SETPOINT

C

0.58

HS-2000 BOILER MASTER S.P. SOURCE SELECTOR

C

HIC-2000
BLR2 MASTER

MANUAL | N | LOCAL | 2

300.00 | 192.67 | 192.67 | SP | 0.00 | KLB/HR

OUT 43.50 % SPTR

A | C | M

FIC-2520
BLR2 AIR MASTER

AUTO | N | LOCAL | 2

6000.0 | 3236.8 | 3236.8 | SP | 0.0 | KSCFH

OUT 80.9 %

A | C | M

FIC-2505
BLR2 PRIMARY AIR FAN VANE KSCFH

AUTO | N | LOCAL | 2

4000.0 | .9 | 1683.2 | SP | 0.0 | KSCFH

OUT 38.6 %

A | C | M

FIC-2515
BLR2 SECOND AIR FAN VANE KSCFH

AUTO | N | LOCAL | 2

4000.0 | 1553.7 | 1553.7 | SP | 0.0 | KSCFH

OUT 25.5 %

A | C | M

PIC-2420
BLR2 FURNACE PRESSURE

AUTO | N | LOCAL | 2

15.00 | -2.38 | SP | -15.00 | IN H2O

OUT 55.79 %

A | C | M

AIC-2101
BLR2 02 TRIM CONTROLLER

AUTO | N | LOCAL | 2

25.00 | 4.90 | SP | 0.00 | %

OUT 61.86 %

A | C | M

FIC-2250A
BLR2 WOOD MASTER

AUTO | N | LOCAL | 2

1000 | 646 | 647 | SP | 0

OUT 70 %

A | C | M

FIC-2207A
BLR2 GAS LANCE

MANUAL | N | LOCAL | 2

132 | 0 | SP | 0

OUT 10 % SPTR

A | C | M

FIC-2206
BLR2 PET COKE

MANUAL | L | LOCAL | 2

340.0 | 0.0 | 0.0 | SP | 0.0

OUT 0.0 % SPTR

A | M

PDIC-2413
BLR2 UPPER COMBUSTOR DP

MANUAL | L | LOCAL | 2

95.0 | 35.0 | SP | 0.0 | IN H2O

OUT 35.0 %

A | M

FIC-2201
BLR2 SCREW FDR ABC FLOW %

AUTO | N | LOCAL | 2

100.0 | 0.0 | SP | 0.0 | %

OUT 73.5 %

A | M

FIC-2261
BLR2 SCREW FDR DEF FLOW %

AUTO | N | LOCAL | 2

100.0 | 75.2 | 0.0 | SP | 0.0 | %

OUT 73.4 %

A | M

FIC-2231
BLR2 SCREW FDR GHI FLOW %

AUTO | N | LOCAL | 2

100.0 | 68.6 | 0.0 | SP | 0.0 | %

OUT 73.5 %

A | M

FIC-2291
BLR2 SCREW FDR JKL FLOW %

AUTO | N | LOCAL | 2

100.0 | 0.0 | SP | 0.0 | %

OUT 73.5 %

A | M

C HIC-2202 WOOD FEED%

C HIC-2206 PET COKE %

C HIC-2206HL PC HI LIMIT

2700. C HS-2200 BTU FACTOR AUTO / MANUAL

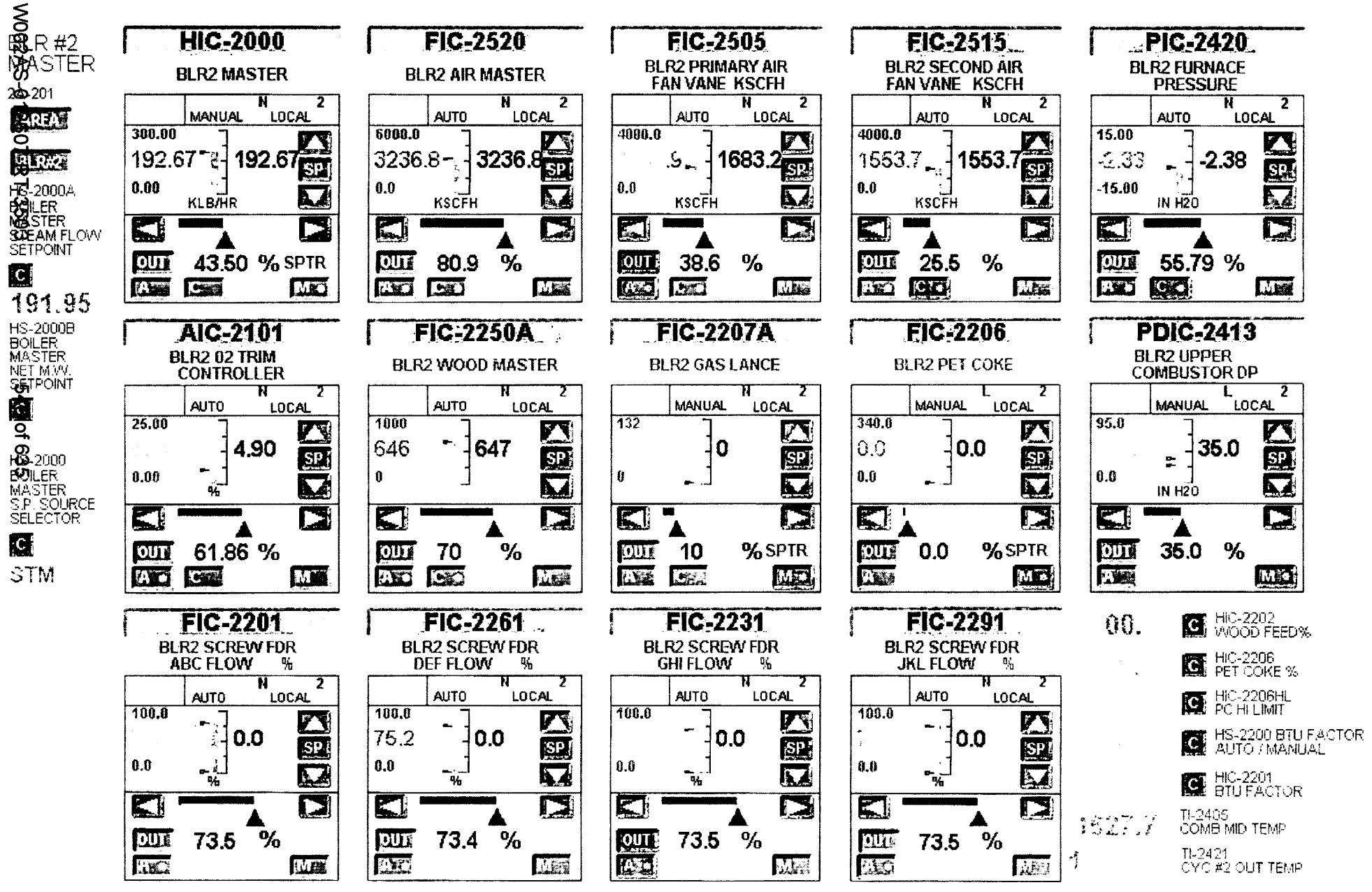
2700. C HIC-2201 BTU FACTOR

TI-2405 COMB MID TEMP

TI-2421 CYC #2 OUT TEMP

Operator Window #1: Graphic 201 (Recall 1 of 9)

Window | Select | Redraw | Zoom | ?



Operator Window #1: Graphic 201 (Recall 1 of 9)

Window | Select | Redraw | Zoom | ?

1200 4.5.22

BLR #2 MASTER
2-201
AREA
BLR#2
HS-2000A BOILER MASTER STEAM FLOW SETPOINT
C
HS-2000B BOILER MASTER NET M.W. SETPOINT
C
0.24
HS-2000 BOILER MASTER S.P. SOURCE SELECTOR
C

HIC-2000
BLR2 MASTER
MANUAL N LOCAL 2
300.00
194.56 194.56 SP
0.00
KLB/HR
OUT 43.50 % SPTR
A C M

FIC-2520
BLR2 AIR MASTER
AUTO N LOCAL 2
6000.0
3233.1 3233.1 SP
0.0
KSCFH
OUT 80.8 %
A C M

FIC-2505
BLR2 PRIMARY AIR FAN VANE KSCFH
AUTO N LOCAL 2
4000.0
1672.6 1683.2 SP
0.0
KSCFH
OUT 38.5 %
A C M

FIC-2515
BLR2 SECOND AIR FAN VANE KSCFH
AUTO N LOCAL 2
4000.0
1544.6 1553.7 SP
0.0
KSCFH
OUT 25.7 %
A C M

PIC-2420
BLR2 FURNACE PRESSURE
AUTO N LOCAL 2
15.00
-2.43 SP
-15.00
IN H2O
OUT 56.90 %
A C M

AIC-2101
BLR2 02 TRIM CONTROLLER
AUTO N LOCAL 2
25.00
4.90 SP
0.00
%
OUT 69.18 %
A C M

FIC-2250A
BLR2 WOOD MASTER
AUTO N LOCAL 2
1000
696 696 SP
0
OUT 75 %
A C M

FIC-2207A
BLR2 GAS LANCE
MANUAL N LOCAL 2
132
0 SP
0
OUT 10 % SPTR
A C M

FIC-2206
BLR2 PET COKE
MANUAL L LOCAL 2
340.0
0.0 SP
0.0
OUT 0.0 % SPTR
A C M

PDIC-2413
BLR2 UPPER COMBUSTOR DP
MANUAL L LOCAL 2
95.0
35.0 SP
0.0
IN H2O
OUT 35.0 %
A C M

FIC-2201
BLR2 SCREW FDR ABC FLOW %
AUTO N LOCAL 2
100.0
84.6 0.0 SP
0.0
%
OUT 79.2 %
A M

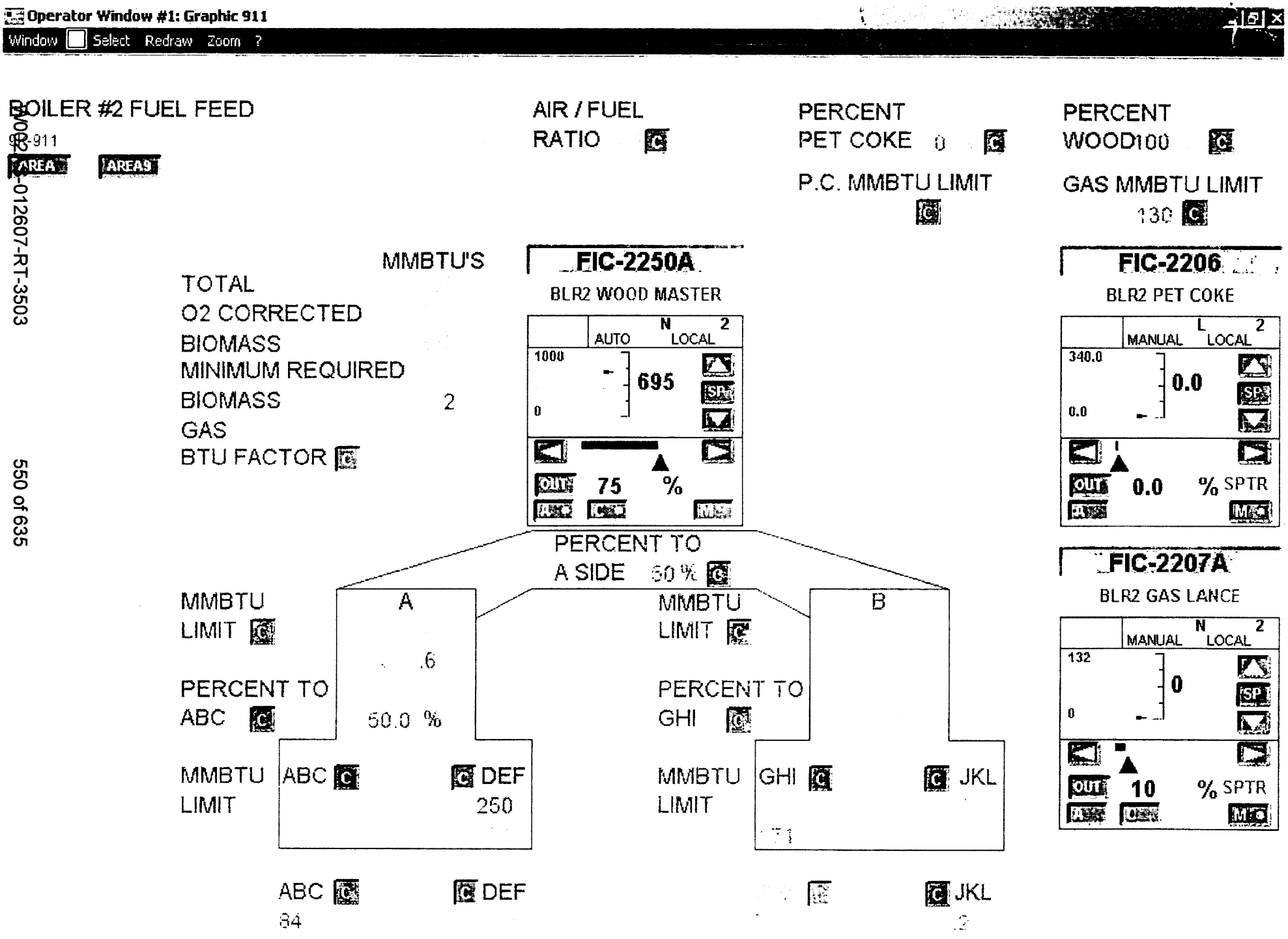
FIC-2261
BLR2 SCREW FDR DEF FLOW %
AUTO N LOCAL 2
100.0
81.1 0.0 SP
0.0
%
OUT 79.2 %
A M

FIC-2231
BLR2 SCREW FDR GHI FLOW %
AUTO N LOCAL 2
100.0
0.0 SP
0.0
%
OUT 79.2 %
A M

FIC-2291
BLR2 SCREW FDR JKL FLOW %
AUTO N LOCAL 2
100.0
0.0 SP
0.0
%
OUT 79.2 %
A M

1 0
3.0
1 9.1

C HIC-2202 WOOD FEED%
C HIC-2206 PET COKE %
C HIC-2206HL PC HI LIMIT
C HS-2200 BTU FACTOR AUTO / MANUAL
C HIC-2201 BTU FACTOR
TI-2405 COMB MID TEMP
TI-2421 CYC #2 OUT TEMP


Operator Window #1: Graphic 911
Window Select Redraw Zoom ?
BOILER #2 FUEL FEED
911
AREA
AREA9
AIR / FUEL RATIO
PERCENT PET COKE 0
P.C. MMBTU LIMIT
PERCENT WOOD100
GAS MMBTU LIMIT 130
MMBTU'S
TOTAL
O2 CORRECTED
BIOMASS
MINIMUM REQUIRED
BIOMASS 2
GAS
BTU FACTOR
FIC-2250A
BLR2 WOOD MASTER
AUTO N LOCAL 2
1000
0
695
OUT 75 %
FIC-2206
BLR2 PET COKE
MANUAL L LOCAL 2
340.0
0.0
0.0
OUT 0.0 % SPTR
FIC-2207A
BLR2 GAS LANCE
MANUAL N LOCAL 2
132
0
0
OUT 10 % SPTR
PERCENT TO A SIDE 50 %
A
MMBTU LIMIT
.6
PERCENT TO ABC
50.0 %
MMBTU LIMIT
ABC DEF
250
ABC DEF
84
B
MMBTU LIMIT
PERCENT TO GHI
MMBTU LIMIT
GHI JKL
JKL

Operator Window #1: Graphic 201 (Recall 1 of 9)

Window | Select | Redraw | Zoom | ?

1030 4.5.2022

BLR #2 MASTER

201

BLR#2

HS-2000A BOILER MASTER STEAM FLOW SETPOINT

C

HS-2000B BOILER MASTER NET M.W. SETPOINT

C

HS-2000 BOILER MASTER S.P. SOURCE SELECTOR

C

HIC-2000
BLR2 MASTER

MANUAL | N | 2 | LOCAL

300.00 | 194.46 | 0.00 | KLB/HR | 194.46 | SP

OUT 43.30 % SPTR

A | C | M

FIC-2520
BLR2 AIR MASTER

AUTO | N | 2 | LOCAL

6000.0 | 323 .1 | 0.0 | KSCFH | 3233.1 | SP

OUT 80.8 %

A | C | M

FIC-2505
BLR2 PRIMARY AIR FAN VANE KSCFH

AUTO | N | 2 | LOCAL

4000.0 | 1667 7 | 0.0 | KSCFH | 1681.2 | SP

OUT 38.1 %

A | C | M

FIC-2515
BLR2 SECOND AIR FAN VANE KSCFH

AUTO | N | 2 | LOCAL

4000.0 | 1536.6 | 0.0 | KSCFH | 1551.9 | SP

OUT 25.2 %

A | C | M

PIC-2420
BLR2 FURNACE PRESSURE

AUTO | N | 2 | LOCAL

15.00 | -15.00 | IN H2O | -2.43 | SP

OUT 55.73 %

A | C | M

AIC-2101
BLR2 02 TRIM CONTROLLER

AUTO | N | 2 | LOCAL

25.00 | 0.00 | % | 5.00 | SP

OUT 61.25 %

A | C | M

FIC-2250A
BLR2 WOOD MASTER

AUTO | N | 2 | LOCAL

1000 | 641 | 0 | 642 | SP

OUT 69 %

A | C | M

FIC-2207A
BLR2 GAS LANCE

MANUAL | N | 2 | LOCAL

132 | 0 | 0 | 0 | SP

OUT 10 % SPTR

A | C | M

FIC-2206
BLR2 PET COKE

MANUAL | L | 2 | LOCAL

340.0 | 0.0 | 0.0 | SP

OUT 0.0 % SPTR

A | M

PDIC-2413
BLR2 UPPER COMBUSTOR DP

MANUAL | L | 2 | LOCAL

95.0 | 0.0 | IN H2O | 35.0 | SP

OUT 35.0 %

A | M

FIC-2201
BLR2 SCREW FDR ABC FLOW %

AUTO | N | 2 | LOCAL

100.0 | 0.0 | % | 0.0 | SP

OUT 72.9 %

A | M

FIC-2261
BLR2 SCREW FDR DEF FLOW %

AUTO | N | 2 | LOCAL

100.0 | 74.7 | 0.0 | % | 0.0 | SP

OUT 73.0 %

A | M

FIC-2231
BLR2 SCREW FDR GHI FLOW %

AUTO | N | 2 | LOCAL

100.0 | 0.0 | % | 0.0 | SP

OUT 72.9 %

A | M

FIC-2291
BLR2 SCREW FDR JKL FLOW %

AUTO | N | 2 | LOCAL

100.0 | 74.8 | 0.0 | % | 0.0 | SP

OUT 73.0 %

A | M

C HIC-2202 WOOD FEED%

C HIC-2206 PET COKE %

C HIC-2206HL PC HI LIMIT

C HS-2200 BTU FACTOR AUTO / MANUAL

C HIC-2201 BTU FACTOR

TI-2405 COMB MID TEMP

TI-2421 CYC #2 OUT TEMP

0062-012607-RT-3503
552 of 635

BOILER #2 FUEL FEED

911

AREA AREA9

AIR / FUEL RATIO C

PERCENT PET COKE C

P.C. MMBTU LIMIT C

PERCENT WOOD100 % C

GAS MMBTU LIMIT C

MMBTU'S

TOTAL 295

O2 CORRECTED

BIOMASS 225

MINIMUM REQUIRED BIOMASS 2

GAS BTU FACTOR C

FIC-2250A

BLR2 WOOD MASTER

AUTO N 2 LOCAL

1000 622 SP

0

OUT 67 %

A C M

FIC-2206

BLR2 PET COKE

MANUAL L 2 LOCAL

340.0 0.0 SP

0.0

OUT 0.0 % SPTR

A M

PERCENT TO A SIDE 50 % C

FIC-2207A

BLR2 GAS LANCE

MANUAL N 2 LOCAL

132 0 SP

0

OUT 10 % SPTR

A C M

A

MMBTU LIMIT C

311

PERCENT TO ABC C

MMBTU LIMIT ABC C C DEF

ABC C C DEF

B

MMBTU LIMIT C

PERCENT TO GHI C

MMBTU LIMIT GHI C C

GHI C C JKL

%

Operator Window #1: Graphic 201 (Recall 1 of 9)

Window | Select | Redraw | Zoom | ?

1000 4.5-22

BLR #2 MASTER

201-201

HS-2000A BOILER MASTER STEAM FLOW SETPOINT

HS-2000B BOILER MASTER NET M.W. SETPOINT

HS-2000 BOILER MASTER S.P. SOURCE SELECTOR

HIC-2000
BLR2 MASTER

MANUAL | N 2 | LOCAL

300.00 | 197.63 | 197.63 | SP | 0.00 KLB/HR

OUT 43.30 % SPTR

FIC-2520
BLR2 AIR MASTER

AUTO | N 2 | LOCAL

6000.0 | 3233.1 | 3233.1 | SP | 0.0 KSCFH

OUT 80.8 %

FIC-2505
BLR2 PRIMARY AIR FAN VANE KSCFH

AUTO | N 2 | LOCAL

4000.0 | 1685.2 | 1681.2 | SP | 0.0 KSCFH

OUT 37.3 %

FIC-2515
BLR2 SECOND AIR FAN VANE KSCFH

AUTO | N 2 | LOCAL

4000.0 | 1551.9 | SP | 0.0 KSCFH

OUT 25.1 %

PIC-2420
BLR2 FURNACE PRESSURE

AUTO | N 2 | LOCAL

15.00 | -2.45 | SP | -15.00 IN H2O

OUT 56.28 %

AIC-2101
BLR2 02 TRIM CONTROLLER

AUTO | N 2 | LOCAL

25.00 | 5.00 | SP | 0.00 %

OUT 57.54 %

FIC-2250A
BLR2 WOOD MASTER

AUTO | N 2 | LOCAL

1000 | 619 | 617 | SP | 0

OUT 67 %

FIC-2207A
BLR2 GAS LANCE

MANUAL | N 2 | LOCAL

132 | 0 | SP | 0

OUT 10 % SPTR

FIC-2206
BLR2 PET COKE

MANUAL | L 2 | LOCAL

340.0 | 0.0 | SP | 0.0

OUT 0.0 % SPTR

PDIC-2413
BLR2 UPPER COMBUSTOR DP

MANUAL | L 2 | LOCAL

95.0 | 35.0 | SP | 0.0 IN H2O

OUT 35.0 %

FIC-2201
BLR2 SCREW FDR ABC FLOW %

AUTO | N 2 | LOCAL

100.0 | 0.0 | SP | 0.0 %

OUT 70.2 %

FIC-2261
BLR2 SCREW FDR DEF FLOW %

AUTO | N 2 | LOCAL

100.0 | 72.1 | 0.0 | SP | 0.0 %

OUT 70.2 %

FIC-2231
BLR2 SCREW FDR GHI FLOW %

AUTO | N 2 | LOCAL

100.0 | 0.0 | SP | 0.0 %

OUT 70.2 %

FIC-2291
BLR2 SCREW FDR JKL FLOW %

AUTO | N 2 | LOCAL

100.0 | 0.0 | SP | 0.0 %

OUT 70.2 %

C HIC-2202 WOOD FEED%

C HIC-2206 PET COKE %

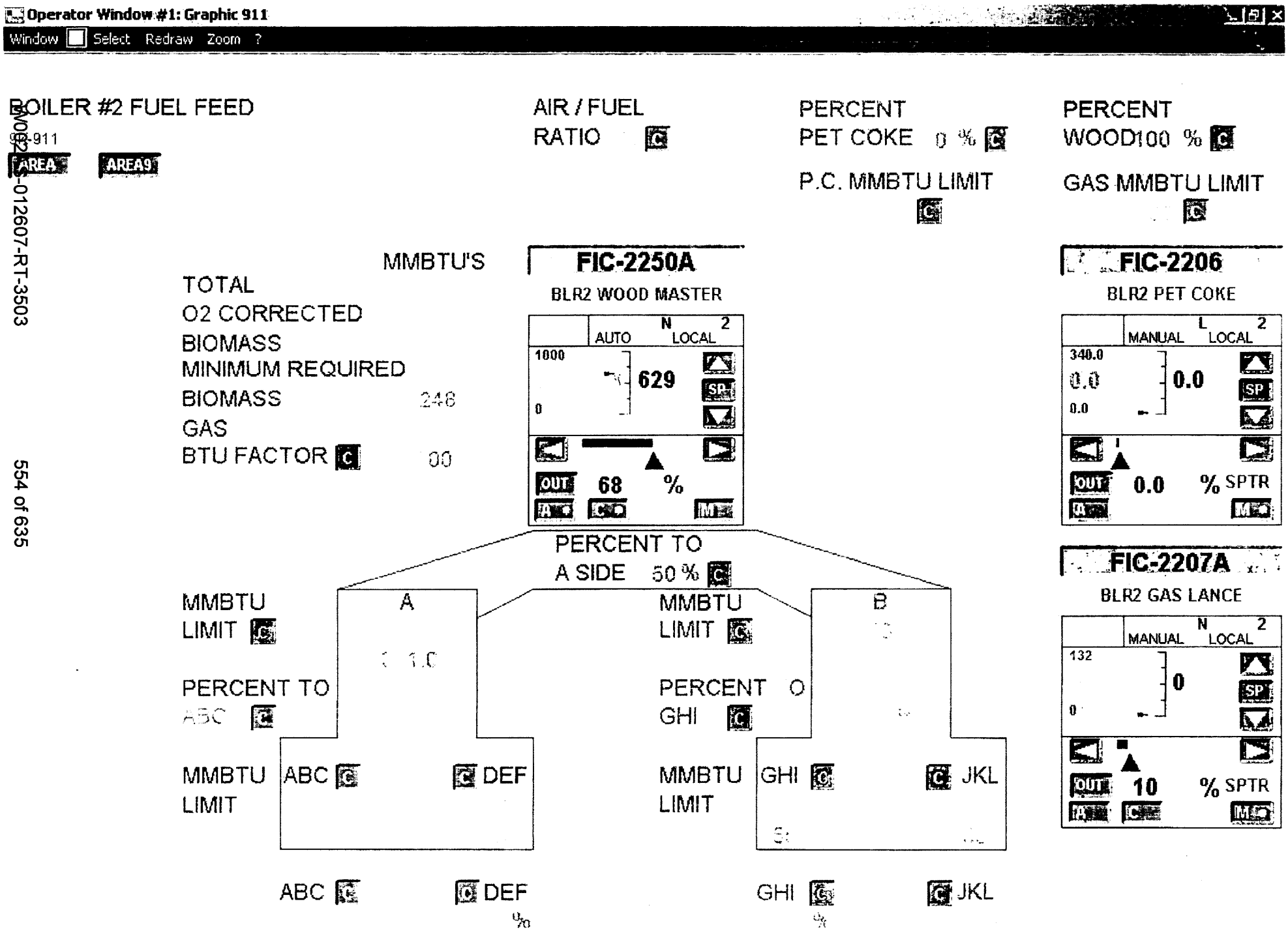
C HIC-2206HL PC HI LIMIT

C HS-2200 BTU FACTOR AUTO / MANUAL

C HIC-2201 BTU FACTOR

TI-2405 COMB MID TEMP

TI-2421 CYC #2 OUT TEMP


Operator Window #1: Graphic 911
Window Select Redraw Zoom ?
BOILER #2 FUEL FEED
911
AREA
AREA9
AIR / FUEL
RATIO
PERCENT
PET COKE 0 %
P.C. MMBTU LIMIT
PERCENT
WOOD 100 %
GAS MMBTU LIMIT
MMBTU'S
TOTAL
O2 CORRECTED
BIOMASS
MINIMUM REQUIRED
BIOMASS 248
GAS
BTU FACTOR 00
FIC-2250A
BLR2 WOOD MASTER
AUTO
N
LOCAL
2
1000
0
629
SP
OUT
68
%
FIC-2206
BLR2 PET COKE
MANUAL
L
LOCAL
2
340.0
0.0
0.0
0.0
SP
OUT
0.0
% SPTR
FIC-2207A
BLR2 GAS LANCE
MANUAL
N
LOCAL
2
132
0
0
SP
OUT
10
% SPTR
PERCENT TO
A SIDE 50 %
MMBTU
LIMIT
A
PERCENT TO
ABC
MMBTU
LIMIT
ABC
DEF
ABC
DEF
%
MMBTU
LIMIT
B
PERCENT
GHI
MMBTU
LIMIT
GHI
JKL
GHI
JKL
%

Operator Window #1: Graphic 201 (Recall 1 of 9)

Window | Select | Redraw | Zoom | ?

0900 415.22

BLR #2 MASTER

201

AREA

BLR#2

HS-2000A BOILER MASTER STEAM FLOW SETPOINT

C

HS-2000B BOILER MASTER NET M.W. SETPOINT

C

1.71

HS-2000 BOILER MASTER S.P. SOURCE SELECTOR

C

HIC-2000
BLR2 MASTER

MANUAL | N 2 | LOCAL

300.00 | 194.66 | 194.66 | SP | 0.00 | KLB/HR

OUT 43.30 % SPTR

FIC-2520
BLR2 AIR MASTER

AUTO | N 2 | LOCAL

6000.0 | 3233.1 | 3233.1 | SP | 0.0 | KSCFH

OUT 80.8 %

FIC-2505
BLR2 PRIMARY AIR FAN VANE KSCFH

AUTO | N 2 | LOCAL

4000.0 | 1682.7 | 1681.2 | SP | 0.0 | KSCFH

OUT 36.8 %

FIC-2515
BLR2 SECOND AIR FAN VANE KSCFH

AUTO | N 2 | LOCAL

4000.0 | 1540.5 | 1551.9 | SP | 0.0 | KSCFH

OUT 24.8 %

PIC-2420
BLR2 FURNACE PRESSURE

AUTO | N 2 | LOCAL

15.00 | -2.46 | SP | -15.00 | IN H2O

OUT 56.61 %

AIC-2101
BLR2 02 TRIM CONTROLLER

AUTO | N 2 | LOCAL

25.00 | 5.00 | SP | 0.00 | %

OUT 63.67 %

FIC-2250A
BLR2 WOOD MASTER

AUTO | N 2 | LOCAL

1000 | 657 | 658 | SP | 0

OUT 71 %

FIC-2207A
BLR2 GAS LANCE

MANUAL | N 2 | LOCAL

132 | 0 | SP | 0

OUT 10 % SPTR

FIC-2206
BLR2 PET COKE

MANUAL | L 2 | LOCAL

340.0 | 0.0 | SP | 0.0

OUT 0.0 % SPTR

PDIC-2413
BLR2 UPPER COMBUSTOR DP

MANUAL | L 2 | LOCAL

95.0 | 35.0 | SP | 0.0 | IN H2O

OUT 35.0 %

FIC-2201
BLR2 SCREW FDR ABC FLOW %

AUTO | N 2 | LOCAL

100.0 | 0.0 | SP | 0.0 | %

OUT 74.8 %

FIC-2261
BLR2 SCREW FDR DEF FLOW %

AUTO | N 2 | LOCAL

100.0 | 76.7 | 0.0 | SP | 0.0 | %

OUT 74.8 %

FIC-2231
BLR2 SCREW FDR GHI FLOW %

AUTO | N 2 | LOCAL

100.0 | 0.0 | SP | 0.0 | %

OUT 74.8 %

FIC-2291
BLR2 SCREW FDR JKL FLOW %

AUTO | N 2 | LOCAL

100.0 | 0.0 | SP | 0.0 | %

OUT 74.8 %

2700.

C HIC-2202 WOOD FEED%

C HIC-2206 PET COKE %

C HIC-2206HL PC HI LIMIT

C HS-2200 BTU FACTOR AUTO / MANUAL

C HIC-2201 BTU FACTOR

TI-2405 COMB MID TEMP

TI-2421 CYC #2 OUT TEMP

W082-012607-RT-3503

BOILER #2 FUEL FEED

911

AREA7 AREA9

AIR / FUEL
RATIO 40 C

PERCENT
PET COKE % C

P.C. MMBTU LIMIT
C

PERCENT
WOOD100 % C

GAS MMBTU LIMIT
C

MMBTU'S

TOTAL
O2 CORRECTED
BIOMASS
MINIMUM REQUIRED
BIOMASS
GAS
BTU FACTOR C

FIC-2250A
BLR2 WOOD MASTER

N 2
AUTO LOCAL
1000
690
0
SP
OUT 74 %
A C M

FIC-2206
BLR2 PET COKE

L 2
MANUAL LOCAL
340.0
0.0
0.0
SP
OUT 0.0 % SPTR
A M

FIC-2207A
BLR2 GAS LANCE

N 2
MANUAL LOCAL
132
0
0
SP
OUT 10 % SPTR
A C M

PERCENT TO
A SIDE 50 % C

MMBTU
LIMIT C

A

PERCENT TO
ABC C

MMBTU
LIMIT

ABC C C DEF

ABC C C DEF
% %

MMBTU
LIMIT C

B

PERCENT O
GHI C

MMBTU
LIMIT

GHI C C JKL

GHI C C JKL

Operator Window #1: Graphic 201 (Recall 1 of 9)

Window | Select | Redraw | Zoom --?

0800 4.5.22

BLR #2 MASTER

2-0201

REA

BLR#2

HS-2000A BOILER MASTER STEAM FLOW SETPOINT

C

HS-2000B BOILER MASTER NET M.W. SETPOINT

C

HS-2000 BOILER MASTER S.P. SOURCE SELECTOR

C

STM

HIC-2000
BLR2 MASTER

MANUAL | N 2 LOCAL

300.00 | 195.79 | 195.79 | 0.00 | KLB/HR | SP

OUT 43.30 % SPTR

A C M

FIC-2520
BLR2 AIR MASTER

AUTO | N 2 LOCAL

6000.0 | 3233.1 | 3233.1 | 0.0 | KSCFH | SP

OUT 80.8 %

A C M

FIC-2505
BLR2 PRIMARY AIR FAN VANE KSCFH

AUTO | N 2 LOCAL

4000.0 | 1687.6 | 1681.2 | 0.0 | KSCFH | SP

OUT 36.1 %

A C M

FIC-2515
BLR2 SECOND AIR FAN VANE KSCFH

AUTO | N 2 LOCAL

4000.0 | 1 | 1551.9 | 0.0 | KSCFH | SP

OUT 25.3 %

A C M

PIC-2420
BLR2 FURNACE PRESSURE

AUTO | N 2 LOCAL

15.00 | -2.55 | -15.00 | IN H2O | SP

OUT 59.06 %

A C M

AIC-2101
BLR2 02 TRIM CONTROLLER

AUTO | N 2 LOCAL

25.00 | 5.00 | 0.00 | % | SP

OUT 63.53 %

A C M

FIC-2250A
BLR2 WOOD MASTER

AUTO | N 2 LOCAL

1000 | 658 | 658 | 0 | SP

OUT 71 %

A C M

FIC-2207A
BLR2 GAS LANCE

MANUAL | N 2 LOCAL

132 | 0 | 0 | SP

OUT 10 % SPTR

A C M

FIC-2206
BLR2 PET COKE

MANUAL | L 2 LOCAL

340.0 | 0.0 | 0.0 | SP

OUT 0.0 % SPTR

A M

PDIC-2413
BLR2 UPPER COMBUSTOR DP

MANUAL | L 2 LOCAL

95.0 | 35.0 | 0.0 | IN H2O | SP

OUT 35.0 %

A M

FIC-2201
BLR2 SCREW FDR ABC FLOW %

AUTO | N 2 LOCAL

100.0 | 0.0 | 0.0 | % | SP

OUT 74.8 %

A M

FIC-2261
BLR2 SCREW FDR DEF FLOW %

AUTO | N 2 LOCAL

100.0 | 76.7 | 0.0 | 0.0 | % | SP

OUT 74.8 %

A M

FIC-2231
BLR2 SCREW FDR GHI FLOW %

AUTO | N 2 LOCAL

100.0 | 0.0 | 0.0 | % | SP

OUT 74.7 %

A M

FIC-2291
BLR2 SCREW FDR JKL FLOW %

AUTO | N 2 LOCAL

100.0 | 0.0 | 0.0 | % | SP

OUT 74.8 %

A M

C HIC-2202 WOOD FEED%

C HIC-2206 PET COKE %

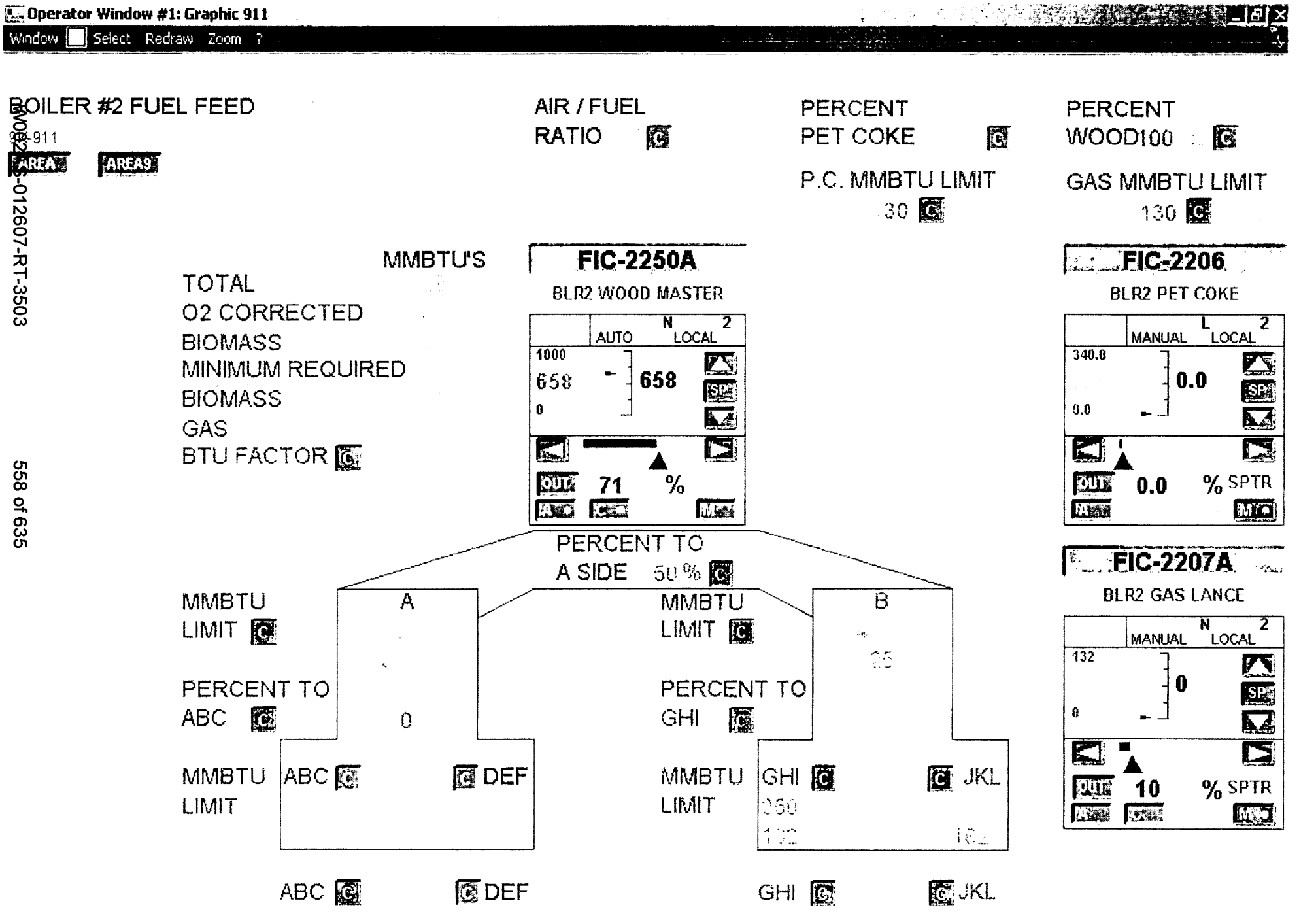
C HIC-2206HL PC HI LIMIT

C HS-2200 BTU FACTOR AUTO / MANUAL

C HIC-2201 BTU FACTOR

TI-2405 COMB MID TEMP

TI-2421 CYC #2 OUT TEMP


Operator Window #1: Graphic 911
Window Select Redraw Zoom ?
BOILER #2 FUEL FEED
AREA
AREA9
AIR / FUEL RATIO
PERCENT PET COKE
P.C. MMBTU LIMIT
30
PERCENT WOOD100
GAS MMBTU LIMIT
130
MMBTU'S
TOTAL
O2 CORRECTED
BIOMASS
MINIMUM REQUIRED
BIOMASS
GAS
BTU FACTOR
FIC-2250A
BLR2 WOOD MASTER
AUTO
N
LOCAL
2
1000
658
0
658
OUT
71
%
FIC-2206
BLR2 PET COKE
MANUAL
L
LOCAL
2
340.0
0.0
0.0
OUT
0.0
% SPTR
FIC-2207A
BLR2 GAS LANCE
MANUAL
N
LOCAL
2
132
0
0
OUT
10
% SPTR
PERCENT TO A SIDE 50 %
MMBTU LIMIT
A
PERCENT TO ABC
0
MMBTU LIMIT
ABC
DEF
ABC
DEF
MMBTU LIMIT
B
PERCENT TO GHI
MMBTU LIMIT
GHI
JKL
GHI
JKL

Operator Window #1: Graphic 201 (Recall 1 of 9)

Window | Select | Redraw | Zoom--?

0700 4.5.22

BLR #2 MASTER

2-201

AREA

BLR#2

HS-2000A BOILER MASTER STEAM FLOW SETPOINT

C

HS-2000B BOILER MASTER NET M.W. SETPOINT

C

HS-2000 BOILER MASTER S.P. SOURCE SELECTOR

C

HIC-2000
BLR2 MASTER

MANUAL | N | 2 | LOCAL

300.00 | 198.49 | 198.49 | SP | 0.00 | KLB/HR

OUT 43.50 % SPTR

A | C | M

FIC-2520
BLR2 AIR MASTER

AUTO | N | 2 | LOCAL

6000.0 | 3236.8 | 3236.8 | SP | 0.0 | KSCFH

OUT 80.9 %

A | C | M

FIC-2505
BLR2 PRIMARY AIR FAN VANE KSCFH

AUTO | N | 2 | LOCAL

4000.0 | 1688.2 | 1683.2 | SP | 0.0 | KSCFH

OUT 36.0 %

A | C | M

FIC-2515
BLR2 SECOND AIR FAN VANE KSCFH

AUTO | N | 2 | LOCAL

4000.0 | 1562.5 | 1553.7 | SP | 0.0 | KSCFH

OUT 25.1 %

A | C | M

PIC-2420
BLR2 FURNACE PRESSURE

AUTO | N | 2 | LOCAL

15.00 | -2.50 | SP | -15.00 | IN H2O

OUT 57.20 %

A | C | M

AIC-2101
BLR2 02 TRIM CONTROLLER

AUTO | N | 2 | LOCAL

25.00 | 5.00 | SP | 0.00 | %

OUT 55.73 %

A | C | M

FIC-2250A
BLR2 WOOD MASTER

AUTO | N | 2 | LOCAL

1000 | 618 | 618 | SP | 0 |

OUT 67 %

A | C | M

FIC-2207A
BLR2 GAS LANCE

MANUAL | N | 2 | LOCAL

132 | 0 | SP | 0 |

OUT 10 % SPTR

A | C | M

FIC-2206
BLR2 PET COKE

MANUAL | L | 2 | LOCAL

340.0 | 0.0 | SP | 0.0 |

OUT 0.0 % SPTR

A | C | M

PDIC-2413
BLR2 UPPER COMBUSTOR DP

MANUAL | L | 2 | LOCAL

95.0 | 35.0 | SP | 0.0 | IN H2O

OUT 35.0 %

A | C | M

FIC-2201
BLR2 SCREW FDR ABC FLOW %

AUTO | N | 2 | LOCAL

100.0 | 0.0 | SP | 0.0 | %

OUT 70.2 %

A | C

FIC-2261
BLR2 SCREW FDR DEF FLOW %

AUTO | N | 2 | LOCAL

100.0 | 72.1 | 0.0 | SP | 0.0 | %

OUT 70.3 %

A | C | M

FIC-2231
BLR2 SCREW FDR GHI FLOW %

AUTO | N | 2 | LOCAL

100.0 | 0.0 | SP | 0.0 | %

OUT 70.2 %

A | C | M

FIC-2291
BLR2 SCREW FDR JKL FLOW %

AUTO | N | 2 | LOCAL

100.0 | 72 | 0.0 | SP | 0.0 | %

OUT 70.2 %

A | C | M

100.0 C HIC-2202 WOOD FEED%

C HIC-2206 PET COKE %

C HIC-2206HL PC HI LIMIT

C HS-2200 BTU FACTOR AUTO / MANUAL

2650 C HIC-2201 BTU FACTOR

TI-2405 COMB MID TEMP

543 TI-2421 CYC #2 OUT TEMP

Operator Window #1: Graphic 911

Window | Select | Redraw | Zoom | ?

BOILER #2 FUEL FEED

911

AREA A | AREA 9

AIR / FUEL
RATIO 40 C

PERCENT
PET COKE % C

P.C. MMBTU LIMIT
C

PERCENT
WOOD 100 % C

GAS MMBTU LIMIT
130 C

MMBTU'S
TOTAL
O2 CORRECTED
BIOMASS
MINIMUM REQUIRED
BIOMASS
GAS
BTU FACTOR C

FIC-2250A
BLR2 WOOD MASTER
N AUTO LOCAL 2
1000
0
597
SP
OUT 64 %
A C M

FIC-2206
BLR2 PET COKE
L MANUAL LOCAL 2
340.0
0.0
0.0
SP
I
OUT 0.0 % SPTR
A M

FIC-2207A
BLR2 GAS LANCE
MANUAL N LOCAL 2
132
0
0
SP
OUT 10 % SPTR
A C M

PERCENT TO
A SIDE 50 % C

A

MMBTU
LIMIT C

PERCENT TO
ABC C

MMBTU
LIMIT

ABC C C DEF
250

ABC C C DEF

B

MMBTU
LIMIT C

PERCENT TO
GHI C

MMBTU
LIMIT

GHI C C JKL

GHI C C JKL

Colmac Energy

Mecca, CA

Boiler 2 Hourly Emissions Report

April 5, 2022 - Hour 13

3-Hr Rolling Emission Limits

NOx ppm @15% O2 - 94 | SO2 ppm @15% O2 - 27 | CO ppm @15% O2 - 231

NOx lb/hr - 30 | SO2 lb/hr - 12 | CO lb/hr - 13

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
13:00	8.17	44.76	62.94	0.0878	26.54	12.34	17.35	0.0337	10.18	10.00	14.06	0.0119	3.61	Normal
13:01	8.31	45.46	64.63	0.0902	26.40	10.48	14.90	0.0289	8.47	10.00	14.22	0.0121	3.54	Normal
13:02	8.50	43.34	62.56	0.0873	25.31	12.51	18.06	0.0351	10.17	10.00	14.44	0.0123	3.56	Normal
13:03	9.23	37.65	57.75	0.0806	20.78	10.32	15.83	0.0307	7.92	10.00	15.34	0.0130	3.36	Normal
13:04	9.21	41.30	63.24	0.0882	22.69	11.51	17.62	0.0342	8.80	10.00	15.31	0.0130	3.34	Normal
13:05	8.79	43.62	64.48	0.0900	24.80	12.47	18.43	0.0358	9.86	10.00	14.78	0.0126	3.46	Normal
13:06	8.71	41.62	61.12	0.0853	23.88	13.84	20.32	0.0395	11.05	10.00	14.68	0.0125	3.49	Normal
13:07	8.71	42.67	62.66	0.0874	24.95	14.02	20.59	0.0400	11.40	10.00	14.68	0.0125	3.56	Normal
13:08	9.11	39.13	59.41	0.0829	21.25	12.85	19.51	0.0379	9.71	10.00	15.18	0.0129	3.31	Normal
13:09	8.14	49.98	70.11	0.0978	29.36	17.57	24.65	0.0478	14.36	10.00	14.03	0.0119	3.58	Normal
13:10	7.96	50.75	70.20	0.0980	31.28	20.26	28.03	0.0544	17.37	10.00	13.83	0.0117	3.75	Normal
13:11	8.83	41.06	60.89	0.0850	23.01	14.57	21.61	0.0419	11.36	10.00	14.83	0.0126	3.41	Normal
13:12	8.95	39.03	58.46	0.0816	21.76	10.36	15.52	0.0301	8.04	10.00	14.98	0.0127	3.39	Normal
13:13	8.99	42.07	63.23	0.0882	23.77	8.73	13.12	0.0255	6.86	10.00	15.03	0.0128	3.44	Normal
13:14	9.30	38.41	59.27	0.0827	21.17	7.38	11.39	0.0221	5.66	10.00	15.43	0.0131	3.36	Normal
13:15	9.02	39.56	59.61	0.0832	22.06	7.69	11.59	0.0225	5.97	10.00	15.07	0.0128	3.39	Normal
13:16	8.42	47.61	68.29	0.0953	27.35	11.33	16.25	0.0315	9.05	10.00	14.34	0.0122	3.50	Normal
13:17	7.90	50.09	68.97	0.0962	30.23	16.43	22.62	0.0439	13.80	10.00	13.77	0.0117	3.67	Normal
13:18	8.08	49.93	69.72	0.0973	29.35	17.28	24.13	0.0468	14.13	10.00	13.96	0.0119	3.58	Normal
13:19	8.30	50.17	71.27	0.0994	28.68	16.39	23.28	0.0452	13.04	10.00	14.21	0.0121	3.48	Normal
13:20	8.43	47.57	68.28	0.0953	27.31	15.97	22.92	0.0445	12.75	10.00	14.35	0.0122	3.49	Normal
13:21	8.86	45.05	66.98	0.0935	25.09	12.50	18.58	0.0361	9.69	10.00	14.87	0.0126	3.39	Normal
13:22	9.05	42.93	64.85	0.0905	23.74	9.81	14.82	0.0288	7.55	10.00	15.11	0.0128	3.37	Normal
13:23	9.19	41.26	63.07	0.0880	22.74	6.13	9.37	0.0182	4.70	10.00	15.29	0.0130	3.35	Normal
13:24	9.13	38.43	58.44	0.0815	21.23	5.28	8.03	0.0156	4.06	10.00	15.21	0.0129	3.36	Normal
13:25	8.78	43.47	64.20	0.0896	24.53	5.68	8.39	0.0163	4.46	10.00	14.77	0.0125	3.43	Normal
13:26	8.44	46.69	67.07	0.0936	27.18	7.71	11.08	0.0215	6.24	10.00	14.37	0.0122	3.54	Normal
13:27	8.50	46.22	66.72	0.0931	26.79	9.32	13.45	0.0261	7.52	10.00	14.44	0.0123	3.53	Normal
13:28	8.67	45.09	65.99	0.0921	25.31	10.33	15.12	0.0294	8.07	10.00	14.64	0.0124	3.42	Normal
13:29	8.51	46.63	67.37	0.0940	27.04	11.18	16.15	0.0314	9.02	10.00	14.45	0.0123	3.53	Normal
13:30	8.75	45.16	66.53	0.0928	25.32	12.03	17.72	0.0344	9.38	10.00	14.73	0.0125	3.41	Normal

W002AS-012607-RT-3503

562 of 635

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
13:31	8.44	45.80	65.80	0.0918	26.33	13.99	20.10	0.0390	11.19	10.00	14.37	0.0122	3.50	Normal
13:32	8.42	47.48	68.10	0.0950	27.19	11.89	17.05	0.0331	9.47	10.00	14.34	0.0122	3.49	Normal
13:33	8.18	49.55	69.73	0.0973	28.87	12.79	18.00	0.0349	10.37	10.00	14.07	0.0120	3.55	Normal
13:34	8.16	48.75	68.49	0.0956	28.71	13.52	19.00	0.0369	11.08	10.00	14.05	0.0119	3.58	Normal
13:35	8.88	43.49	64.76	0.0904	24.34	12.42	18.50	0.0359	9.67	10.00	14.89	0.0126	3.41	Normal
13:36	9.29	41.70	64.29	0.0897	22.55	9.84	15.17	0.0295	7.40	10.00	15.42	0.0131	3.29	Normal
13:37	9.04	38.98	58.83	0.0821	21.54	10.13	15.29	0.0297	7.79	10.00	15.09	0.0128	3.36	Normal
13:38	8.66	44.27	64.74	0.0903	25.35	10.45	15.28	0.0297	8.33	10.00	14.62	0.0124	3.49	Normal
13:39	8.47	46.26	66.62	0.0929	26.61	12.04	17.34	0.0337	9.64	10.00	14.40	0.0122	3.50	Normal
13:40	8.46	44.95	64.68	0.0902	25.57	14.08	20.26	0.0393	11.14	10.00	14.39	0.0122	3.46	Normal
13:41	8.28	49.13	69.69	0.0972	29.15	13.11	18.60	0.0361	10.82	10.00	14.18	0.0120	3.61	Normal
13:42	8.78	44.04	65.04	0.0908	24.85	12.83	18.95	0.0368	10.07	10.00	14.77	0.0125	3.44	Normal
13:43	9.16	39.34	59.98	0.0837	22.04	9.63	14.68	0.0285	7.51	10.00	15.25	0.0129	3.41	Normal
13:44	9.55	38.21	60.26	0.0841	20.53	7.04	11.10	0.0216	5.26	10.00	15.77	0.0134	3.27	Normal
13:45	8.98	40.73	61.16	0.0853	22.84	7.03	10.56	0.0205	5.49	10.00	15.02	0.0128	3.41	Normal
13:46	8.63	42.95	62.66	0.0874	25.00	8.19	11.95	0.0232	6.63	10.00	14.59	0.0124	3.54	Normal
13:47	8.82	45.51	67.44	0.0941	25.78	9.67	14.33	0.0278	7.62	10.00	14.82	0.0126	3.45	Normal
13:48	8.62	45.38	66.15	0.0923	26.02	11.32	16.50	0.0320	9.03	10.00	14.58	0.0124	3.49	Normal
13:49	8.88	41.43	61.70	0.0861	24.07	9.57	14.25	0.0277	7.74	10.00	14.89	0.0126	3.54	Normal
13:50	9.22	41.19	63.13	0.0881	22.47	8.76	13.43	0.0261	6.65	10.00	15.33	0.0130	3.32	Normal
13:51	8.59	46.01	66.90	0.0933	26.68	11.26	16.37	0.0318	9.08	10.00	14.54	0.0123	3.53	Normal
13:52	8.70	47.49	69.68	0.0972	26.92	9.33	13.69	0.0266	7.36	10.00	14.67	0.0125	3.45	Normal
13:53	8.27	49.29	69.86	0.0975	28.31	7.72	10.94	0.0212	6.17	10.00	14.17	0.0120	3.50	Normal
13:54	7.94	54.31	75.01	0.1047	33.20	9.66	13.34	0.0259	8.22	10.00	13.81	0.0117	3.72	Normal
13:55	8.92	46.64	69.69	0.0972	26.37	9.40	14.05	0.0273	7.39	10.00	14.94	0.0127	3.44	Normal
13:56	9.42	40.94	63.84	0.0891	22.00	7.72	12.04	0.0234	5.77	10.00	15.59	0.0132	3.27	Normal
13:57	9.05	40.77	61.59	0.0859	22.93	8.02	12.11	0.0235	6.28	10.00	15.11	0.0128	3.42	Normal
13:58	9.25	34.16	52.49	0.0732	19.23	8.15	12.52	0.0243	6.38	10.00	15.36	0.0130	3.43	Normal
13:59	9.30	37.97	58.59	0.0818	20.73	7.36	11.36	0.0220	5.59	10.00	15.43	0.0131	3.32	Normal
Average	8.7	44.1	64.7	0.090		11.0	16.1	0.031		10.0	14.7	0.012		Normal
Total					25.06				8.73				3.47	
3-Hr Rolling			64.4		25.2		17.2		9.4		14.7		3.5	

Colmac Energy

Mecca, CA

Boiler 2 Hourly Emissions Report

April 5, 2022 - Hour 12

3-Hr Rolling Emission Limits

NOx ppm @15% O2 - 94 | SO2 ppm @15% O2 - 27 | CO ppm @15% O2 - 231

NOx lb/hr - 30 | SO2 lb/hr - 12 | CO lb/hr - 13

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
12:00	8.34	49.72	70.86	0.0989	29.79	14.08	20.07	0.0390	11.74	10.00	14.25	0.0121	3.65	Normal
12:01	8.76	44.99	66.34	0.0926	26.40	15.61	23.02	0.0447	12.74	10.00	14.74	0.0125	3.57	Normal
12:02	9.04	48.12	72.63	0.1013	26.37	13.34	20.13	0.0391	10.17	10.00	15.09	0.0128	3.34	Normal
12:03	8.20	51.09	72.01	0.1005	31.55	18.17	25.61	0.0497	15.61	10.00	14.09	0.0120	3.76	Normal
12:04	8.89	50.24	74.88	0.1045	27.94	15.65	23.33	0.0453	12.11	10.00	14.90	0.0127	3.38	Normal
12:05	8.16	53.74	75.51	0.1054	31.75	18.18	25.54	0.0496	14.94	10.00	14.05	0.0119	3.60	Normal
12:06	7.80	54.18	74.03	0.1033	32.18	16.24	22.19	0.0431	13.42	10.00	13.66	0.0116	3.62	Normal
12:07	7.53	60.05	80.40	0.1122	37.24	18.44	24.69	0.0479	15.91	10.00	13.39	0.0114	3.78	Normal
12:08	8.26	46.43	65.75	0.0917	27.21	15.20	21.53	0.0418	12.39	10.00	14.16	0.0120	3.57	Normal
12:09	8.75	42.81	63.07	0.0880	23.36	11.87	17.49	0.0339	9.01	10.00	14.73	0.0125	3.32	Normal
12:10	8.02	44.48	61.82	0.0863	25.60	13.64	18.96	0.0368	10.92	10.00	13.90	0.0118	3.50	Normal
12:11	7.36	55.11	72.86	0.1017	33.82	18.52	24.48	0.0475	15.82	10.00	13.22	0.0112	3.74	Normal
12:12	7.73	50.97	69.28	0.0967	31.31	16.43	22.33	0.0434	14.04	10.00	13.59	0.0115	3.74	Normal
12:13	8.84	40.20	59.67	0.0833	22.42	12.75	18.92	0.0367	9.89	10.00	14.84	0.0126	3.39	Normal
12:14	9.08	37.05	56.11	0.0783	19.79	9.68	14.66	0.0285	7.19	10.00	15.14	0.0129	3.25	Normal
12:15	8.19	46.22	65.09	0.0908	26.72	10.76	15.15	0.0294	8.65	10.00	14.08	0.0120	3.52	Normal
12:16	7.98	46.93	65.02	0.0907	27.96	12.36	17.12	0.0332	10.25	10.00	13.85	0.0118	3.63	Normal
12:17	8.26	48.52	68.71	0.0959	27.41	10.79	15.28	0.0297	8.48	10.00	14.16	0.0120	3.44	Normal
12:18	7.86	53.79	73.84	0.1030	31.87	12.29	16.87	0.0328	10.13	10.00	13.73	0.0117	3.61	Normal
12:19	8.02	50.60	70.32	0.0981	29.09	12.63	17.55	0.0341	10.10	10.00	13.90	0.0118	3.50	Normal
12:20	8.27	46.19	65.46	0.0913	27.04	12.85	18.21	0.0354	10.47	10.00	14.17	0.0120	3.56	Normal
12:21	9.07	35.92	54.35	0.0758	19.53	10.40	15.74	0.0305	7.87	10.00	15.13	0.0129	3.31	Normal
12:22	9.17	30.55	46.62	0.0650	16.63	8.56	13.06	0.0254	6.48	10.00	15.26	0.0130	3.31	Normal
12:23	8.82	37.79	56.00	0.0781	21.44	8.68	12.86	0.0250	6.85	10.00	14.82	0.0126	3.45	Normal
12:24	8.89	36.48	54.37	0.0759	20.62	9.36	13.95	0.0271	7.36	10.00	14.90	0.0127	3.44	Normal
12:25	8.84	40.66	60.35	0.0842	22.99	10.75	15.96	0.0310	8.46	10.00	14.84	0.0126	3.44	Normal
12:26	8.70	38.58	56.61	0.0790	22.35	13.14	19.28	0.0374	10.59	10.00	14.67	0.0125	3.53	Normal
12:27	8.92	39.01	58.29	0.0813	22.16	10.94	16.35	0.0317	8.65	10.00	14.94	0.0127	3.46	Normal
12:28	9.07	34.97	52.91	0.0738	19.80	9.51	14.39	0.0279	7.49	10.00	15.13	0.0129	3.45	Normal
12:29	9.15	35.30	53.78	0.0750	19.70	8.63	13.15	0.0255	6.70	10.00	15.23	0.0129	3.40	Normal
12:30	8.73	43.69	64.26	0.0897	25.08	9.29	13.66	0.0265	7.42	10.00	14.71	0.0125	3.49	Normal

W002AS-012607-RT-3503

564 of 635

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
12:31	8.60	43.42	63.19	0.0882	25.13	11.65	16.95	0.0329	9.38	10.00	14.55	0.0124	3.52	Normal
12:32	8.66	46.25	67.64	0.0944	26.54	12.60	18.43	0.0358	10.06	10.00	14.62	0.0124	3.49	Normal
12:33	8.56	45.81	66.45	0.0927	26.48	14.09	20.44	0.0397	11.33	10.00	14.51	0.0123	3.52	Normal
12:34	8.45	47.15	67.79	0.0946	27.19	16.77	24.11	0.0468	13.46	10.00	14.38	0.0122	3.51	Normal
12:35	8.32	50.62	72.03	0.1005	29.03	18.53	26.37	0.0512	14.79	10.00	14.23	0.0121	3.49	Normal
12:36	8.11	48.92	68.47	0.0955	29.07	18.86	26.40	0.0512	15.59	10.00	14.00	0.0119	3.62	Normal
12:37	8.41	46.17	66.17	0.0923	26.34	17.05	24.44	0.0474	13.53	10.00	14.33	0.0122	3.47	Normal
12:38	8.31	45.13	64.16	0.0895	26.15	15.15	21.54	0.0418	12.21	10.00	14.22	0.0121	3.53	Normal
12:39	8.57	41.87	60.78	0.0848	24.49	10.06	14.60	0.0284	8.19	10.00	14.52	0.0123	3.56	Normal
12:40	9.34	35.27	54.61	0.0762	19.21	7.58	11.74	0.0228	5.74	10.00	15.48	0.0132	3.32	Normal
12:41	9.03	37.90	57.15	0.0797	20.91	6.36	9.59	0.0186	4.88	10.00	15.08	0.0128	3.36	Normal
12:42	8.36	44.42	63.41	0.0885	25.67	9.10	12.99	0.0252	7.32	10.00	14.27	0.0121	3.52	Normal
12:43	8.06	47.18	65.77	0.0918	28.65	13.00	18.12	0.0352	10.98	10.00	13.94	0.0118	3.70	Normal
12:44	8.85	40.32	59.89	0.0836	23.21	12.39	18.41	0.0357	9.92	10.00	14.85	0.0126	3.50	Normal
12:45	9.63	32.58	51.75	0.0722	17.42	9.71	15.42	0.0299	7.22	10.00	15.88	0.0135	3.25	Normal
12:46	9.07	39.83	60.27	0.0841	21.94	9.39	14.21	0.0276	7.20	10.00	15.13	0.0129	3.35	Normal
12:47	8.38	48.20	68.91	0.0962	28.41	12.11	17.31	0.0336	9.93	10.00	14.30	0.0121	3.59	Normal
12:48	8.30	49.13	69.80	0.0974	29.49	15.68	22.28	0.0432	13.09	10.00	14.21	0.0121	3.65	Normal
12:49	8.41	49.28	70.63	0.0985	30.25	15.19	21.77	0.0423	12.97	10.00	14.33	0.0122	3.74	Normal
12:50	9.24	42.65	65.47	0.0914	23.22	10.47	16.07	0.0312	7.93	10.00	15.35	0.0130	3.31	Normal
12:51	8.74	51.35	75.59	0.1055	29.02	11.26	16.58	0.0322	8.85	10.00	14.72	0.0125	3.44	Normal
12:52	8.30	51.42	73.05	0.1019	30.06	12.87	18.28	0.0355	10.47	10.00	14.21	0.0121	3.56	Normal
12:53	8.28	50.82	72.08	0.1006	30.08	14.50	20.57	0.0399	11.94	10.00	14.18	0.0120	3.60	Normal
12:54	8.67	48.80	71.42	0.0997	27.32	15.76	23.07	0.0448	12.28	10.00	14.64	0.0124	3.41	Normal
12:55	8.47	50.41	72.59	0.1013	29.17	15.09	21.73	0.0422	12.15	10.00	14.40	0.0122	3.52	Normal
12:56	8.65	45.71	66.79	0.0932	26.05	12.59	18.40	0.0357	9.98	10.00	14.61	0.0124	3.47	Normal
12:57	8.86	43.44	64.58	0.0901	24.71	12.15	18.06	0.0351	9.61	10.00	14.87	0.0126	3.46	Normal
12:58	9.17	34.67	52.91	0.0738	18.94	9.70	14.80	0.0287	7.37	10.00	15.26	0.0130	3.33	Normal
12:59	8.63	38.66	56.40	0.0787	21.86	10.32	15.06	0.0292	8.12	10.00	14.59	0.0124	3.44	Normal
Average	8.6	44.9	65.3	0.091		12.8	18.6	0.036		10.0	14.6	0.012		Normal
Total					25.80				10.26				3.50	
3-Hr Rolling			64.4		25.4		17.7		9.7		14.7		3.5	

Colmac Energy

Mecca, CA

Boiler 2 Hourly Emissions Report

April 5, 2022 - Hour 11

3-Hr Rolling Emission Limits

NOx ppm @15% O2 - 94 | SO2 ppm @15% O2 - 27 | CO ppm @15% O2 - 231

NOx lb/hr - 30 | SO2 lb/hr - 12 | CO lb/hr - 13

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
11:00	9.25	43.09	66.21	0.0924	23.62	14.21	21.83	0.0424	10.84	10.00	15.36	0.0130	3.34	Normal
11:01	9.02	38.16	57.50	0.0802	21.14	10.52	15.85	0.0308	8.11	10.00	15.07	0.0128	3.37	Normal
11:02	8.73	42.77	62.91	0.0878	24.95	8.29	12.19	0.0237	6.73	10.00	14.71	0.0125	3.55	Normal
11:03	8.98	37.26	55.95	0.0781	21.05	7.40	11.11	0.0216	5.82	10.00	15.02	0.0128	3.44	Normal
11:04	9.08	38.26	57.94	0.0808	21.46	7.12	10.78	0.0209	5.56	10.00	15.14	0.0129	3.41	Normal
11:05	8.85	44.10	65.51	0.0914	24.97	8.51	12.64	0.0245	6.70	10.00	14.85	0.0126	3.45	Normal
11:06	8.54	44.13	63.91	0.0892	25.67	10.96	15.87	0.0308	8.87	10.00	14.48	0.0123	3.54	Normal
11:07	8.50	44.81	64.69	0.0903	26.26	13.31	19.21	0.0373	10.85	10.00	14.44	0.0123	3.57	Normal
11:08	8.65	41.67	60.89	0.0850	24.39	14.13	20.65	0.0401	11.51	10.00	14.61	0.0124	3.56	Normal
11:09	8.88	40.43	60.21	0.0840	22.81	12.70	18.91	0.0367	9.97	10.00	14.89	0.0126	3.43	Normal
11:10	8.66	42.91	62.75	0.0876	24.90	14.28	20.88	0.0405	11.53	10.00	14.62	0.0124	3.53	Normal
11:11	8.88	39.19	58.36	0.0814	22.45	13.27	19.76	0.0384	10.58	10.00	14.89	0.0126	3.49	Normal
11:12	9.05	37.64	56.86	0.0793	21.09	9.36	14.14	0.0274	7.30	10.00	15.11	0.0128	3.41	Normal
11:13	8.59	42.09	61.20	0.0854	24.20	7.27	10.57	0.0205	5.81	10.00	14.54	0.0123	3.50	Normal
11:14	8.11	51.66	72.30	0.1009	30.59	9.70	13.58	0.0264	7.99	10.00	14.00	0.0119	3.60	Normal
11:15	7.69	54.06	73.25	0.1022	33.41	15.20	20.60	0.0400	13.07	10.00	13.55	0.0115	3.76	Normal
11:16	7.95	54.21	74.93	0.1045	31.96	17.46	24.13	0.0469	14.32	10.00	13.82	0.0117	3.59	Normal
11:17	7.90	54.03	74.40	0.1038	31.60	17.86	24.59	0.0477	14.53	10.00	13.77	0.0117	3.56	Normal
11:18	7.87	53.33	73.26	0.1022	31.64	19.85	27.27	0.0529	16.38	10.00	13.74	0.0117	3.61	Normal
11:19	8.20	47.67	67.19	0.0937	27.58	15.87	22.37	0.0434	12.77	10.00	14.09	0.0120	3.52	Normal
11:20	8.47	43.87	63.18	0.0881	25.02	12.45	17.93	0.0348	9.88	10.00	14.40	0.0122	3.47	Normal
11:21	8.54	38.72	56.08	0.0782	21.21	11.98	17.35	0.0337	9.13	10.00	14.48	0.0123	3.33	Normal
11:22	7.66	50.46	68.22	0.0952	30.49	15.65	21.16	0.0411	13.16	10.00	13.52	0.0115	3.68	Normal
11:23	7.80	53.42	72.99	0.1018	31.16	12.34	16.86	0.0327	10.01	10.00	13.66	0.0116	3.55	Normal
11:24	7.76	56.58	77.08	0.1075	34.10	11.90	16.21	0.0315	9.98	10.00	13.62	0.0116	3.67	Normal
11:25	8.52	46.90	67.81	0.0946	25.73	10.83	15.66	0.0304	8.27	10.00	14.46	0.0123	3.34	Normal
11:26	8.53	42.47	61.46	0.0857	24.35	9.48	13.72	0.0266	7.56	10.00	14.47	0.0123	3.49	Normal
11:27	9.19	32.01	48.93	0.0683	17.27	7.93	12.12	0.0235	5.95	10.00	15.29	0.0130	3.28	Normal
11:28	9.02	35.61	53.65	0.0749	19.82	7.04	10.61	0.0206	5.45	10.00	15.07	0.0128	3.39	Normal
11:29	9.13	40.93	62.25	0.0869	22.87	7.70	11.71	0.0227	5.99	10.00	15.21	0.0129	3.40	Normal
11:30	**Bkfish**	**Bkfish**	**Bkfish**	**Bkfish**	**Bkfish**	**Bkfish**	**Bkfish**	**Bkfish**	**Bkfish**	**Bkfish**	**Bkfish**	**Bkfish**	**Bkfish**	Normal

W002AS-012607-RT-3503

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
11:31	8.55	38.86	56.32	0.0786	23.57	10.57	15.32	0.0297	8.92	10.00	14.49	0.0123	3.69	Normal
11:32	8.30	40.28	57.22	0.0798	23.42	11.72	16.65	0.0323	9.48	10.00	14.21	0.0121	3.54	Normal
11:33	7.83	47.60	65.19	0.0910	28.81	11.88	16.27	0.0316	10.00	10.00	13.70	0.0116	3.68	Normal
11:34	8.07	42.96	59.94	0.0836	25.49	11.54	16.10	0.0313	9.52	10.00	13.95	0.0118	3.61	Normal
11:35	8.45	39.93	57.41	0.0801	23.33	10.53	15.14	0.0294	8.56	10.00	14.38	0.0122	3.56	Normal
11:36	8.98	35.05	52.63	0.0734	19.79	9.61	14.43	0.0280	7.55	10.00	15.02	0.0128	3.44	Normal
11:37	9.49	30.08	47.19	0.0658	16.46	8.03	12.60	0.0245	6.11	10.00	15.69	0.0133	3.33	Normal
11:38	9.33	36.43	56.36	0.0786	19.84	7.65	11.84	0.0230	5.80	10.00	15.47	0.0131	3.31	Normal
11:39	8.60	42.00	61.12	0.0853	24.70	12.28	17.87	0.0347	10.05	10.00	14.55	0.0124	3.58	Normal
11:40	8.46	45.74	65.82	0.0918	26.45	12.43	17.89	0.0347	10.00	10.00	14.39	0.0122	3.52	Normal
11:41	8.07	43.09	60.12	0.0839	26.26	16.21	22.62	0.0439	13.75	10.00	13.95	0.0118	3.71	Normal
11:42	8.52	41.42	59.89	0.0836	23.84	15.79	22.83	0.0443	12.65	10.00	14.46	0.0123	3.50	Normal
11:43	8.42	43.89	62.95	0.0878	25.36	11.76	16.87	0.0327	9.45	10.00	14.34	0.0122	3.52	Normal
11:44	8.45	45.83	65.89	0.0919	26.84	11.54	16.59	0.0322	9.40	10.00	14.38	0.0122	3.57	Normal
11:45	8.98	40.41	60.68	0.0847	22.81	8.26	12.40	0.0241	6.49	10.00	15.02	0.0128	3.44	Normal
11:46	9.07	44.38	67.15	0.0937	24.95	7.92	11.98	0.0233	6.19	10.00	15.13	0.0129	3.42	Normal
11:47	9.08	39.47	59.77	0.0834	22.20	8.33	12.61	0.0245	6.52	10.00	15.14	0.0129	3.42	Normal
11:48	9.15	40.85	62.23	0.0868	23.29	10.10	15.39	0.0299	8.01	10.00	15.23	0.0129	3.47	Normal
11:49	9.39	35.69	55.50	0.0774	19.83	9.43	14.67	0.0285	7.29	10.00	15.55	0.0132	3.38	Normal
11:50	9.09	38.53	58.40	0.0815	21.64	9.91	15.02	0.0292	7.74	10.00	15.16	0.0129	3.42	Normal
11:51	8.62	43.63	63.60	0.0887	25.85	13.28	19.36	0.0376	10.95	10.00	14.58	0.0124	3.61	Normal
11:52	8.86	44.76	66.55	0.0928	25.86	13.85	20.59	0.0400	11.13	10.00	14.87	0.0126	3.52	Normal
11:53	8.95	42.67	63.92	0.0892	24.28	13.94	20.88	0.0405	11.04	10.00	14.98	0.0127	3.46	Normal
11:54	8.80	47.52	70.30	0.0981	27.39	12.61	18.65	0.0362	10.11	10.00	14.79	0.0126	3.51	Normal
11:55	8.89	41.80	62.30	0.0869	24.04	11.37	16.95	0.0329	9.10	10.00	14.90	0.0127	3.50	Normal
11:56	9.07	44.00	66.58	0.0929	25.14	9.54	14.44	0.0280	7.58	10.00	15.13	0.0129	3.48	Normal
11:57	9.30	41.83	64.55	0.0901	23.40	8.72	13.46	0.0261	6.79	10.00	15.43	0.0131	3.40	Normal
11:58	8.92	43.33	64.74	0.0903	24.73	9.98	14.91	0.0289	7.92	10.00	14.94	0.0127	3.47	Normal
11:59	8.53	44.16	63.90	0.0892	25.89	12.22	17.68	0.0343	9.97	10.00	14.47	0.0123	3.57	Normal
Average	8.7	43.0	63.1	0.088		11.5	16.9	0.033		10.0	14.7	0.012		Normal
Total					24.84				9.21				3.52	
3-Hr Rolling			63.9		25.2		17.0		9.3		14.7		3.5	

566 of 635

Colmac Energy

Mecca, CA

Boiler 2 Hourly Emissions Report

April 5, 2022 - Hour 10

3-Hr Rolling Emission Limits

NOx ppm @15% O2 - 94 NOx lb/hr - 30 | SO2 ppm @15% O2 - 27 SO2 lb/hr - 12 | CO ppm @15% O2 - 231 CO lb/hr - 13

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
10:00	9.06	36.81	55.65	0.0776	20.82	10.96	16.57	0.0322	8.62	10.00	15.12	0.0128	3.44	Normal
10:01	8.92	40.84	61.02	0.0851	22.89	10.55	15.76	0.0306	8.23	10.00	14.94	0.0127	3.41	Normal
10:02	8.40	45.27	64.83	0.0905	26.71	11.98	17.16	0.0333	9.83	10.00	14.32	0.0122	3.59	Normal
10:03	8.30	48.17	68.43	0.0955	28.29	14.37	20.41	0.0396	11.74	10.00	14.21	0.0121	3.58	Normal
10:04	8.22	49.54	69.93	0.0976	29.50	16.95	23.93	0.0465	14.04	10.00	14.12	0.0120	3.62	Normal
10:05	8.41	51.05	73.16	0.1021	29.85	12.90	18.49	0.0359	10.49	10.00	14.33	0.0122	3.56	Normal
10:06	8.62	43.11	62.84	0.0877	25.12	11.56	16.85	0.0327	9.37	10.00	14.58	0.0124	3.55	Normal
10:07	9.16	36.16	55.13	0.0769	20.53	9.68	14.76	0.0287	7.65	10.00	15.25	0.0129	3.46	Normal
10:08	9.52	33.08	52.03	0.0726	18.22	7.98	12.55	0.0244	6.11	10.00	15.73	0.0134	3.35	Normal
10:09	9.16	39.76	60.62	0.0846	22.66	8.97	13.68	0.0266	7.11	10.00	15.25	0.0129	3.47	Normal
10:10	8.97	42.54	63.83	0.0891	24.40	10.30	15.45	0.0300	8.22	10.00	15.00	0.0127	3.49	Normal
10:11	8.92	39.08	58.39	0.0815	22.51	11.64	17.39	0.0338	9.33	10.00	14.94	0.0127	3.51	Normal
10:12	8.80	43.76	64.74	0.0903	25.27	12.94	19.14	0.0372	10.40	10.00	14.79	0.0126	3.52	Normal
10:13	8.57	41.59	60.38	0.0842	24.19	15.50	22.50	0.0437	12.54	10.00	14.52	0.0123	3.54	Normal
10:14	8.38	48.01	68.64	0.0958	28.91	15.75	22.52	0.0437	13.19	10.00	14.30	0.0121	3.66	Normal
10:15	8.75	42.25	62.24	0.0868	24.70	11.52	16.97	0.0329	9.37	10.00	14.73	0.0125	3.56	Normal
10:16	9.05	40.16	60.66	0.0846	22.87	9.42	14.23	0.0276	7.46	10.00	15.11	0.0128	3.47	Normal
10:17	8.69	47.65	69.86	0.0975	26.56	9.16	13.43	0.0261	7.10	10.00	14.66	0.0125	3.39	Normal
10:18	7.60	55.19	74.28	0.1036	35.34	14.43	19.42	0.0377	12.86	10.00	13.46	0.0114	3.90	Normal
10:19	8.53	45.72	66.16	0.0923	27.11	14.58	21.10	0.0410	12.03	10.00	14.47	0.0123	3.61	Normal
10:20	9.04	42.33	63.89	0.0891	23.11	12.86	19.41	0.0377	9.77	10.00	15.09	0.0128	3.32	Normal
10:21	8.26	51.49	72.92	0.1017	30.54	15.18	21.50	0.0417	12.53	10.00	14.16	0.0120	3.61	Normal
10:22	8.32	51.89	73.83	0.1030	30.55	16.08	22.88	0.0444	13.17	10.00	14.23	0.0121	3.58	Normal
10:23	8.44	49.50	71.11	0.0992	29.36	15.25	21.91	0.0425	12.58	10.00	14.37	0.0122	3.61	Normal
10:24	9.19	37.20	56.86	0.0793	20.94	14.58	22.29	0.0433	11.42	10.00	15.29	0.0130	3.43	Normal
10:25	9.57	36.54	57.73	0.0805	20.33	9.87	15.59	0.0303	7.64	10.00	15.80	0.0134	3.39	Normal
10:26	9.38	37.53	58.31	0.0814	20.32	8.98	13.95	0.0271	6.76	10.00	15.54	0.0132	3.29	Normal
10:27	7.93	54.65	75.42	0.1052	33.28	12.50	17.25	0.0335	10.59	10.00	13.80	0.0117	3.71	Normal
10:28	7.92	52.17	71.94	0.1004	33.15	14.18	19.55	0.0380	12.54	10.00	13.79	0.0117	3.87	Normal
10:29	9.00	40.92	61.55	0.0859	22.74	11.50	17.30	0.0336	8.89	10.00	15.04	0.0128	3.38	Normal
10:30	8.43	48.95	70.27	0.0980	27.91	11.92	17.11	0.0332	9.45	10.00	14.35	0.0122	3.47	Normal

W002AS-012607-RT-3503

568 of 635

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
10:31	8.06	54.71	76.27	0.1064	34.21	17.25	24.05	0.0467	15.01	10.00	13.94	0.0118	3.81	Normal
10:32	9.41	35.94	55.99	0.0781	19.85	12.54	19.54	0.0379	9.64	10.00	15.58	0.0132	3.36	Normal
10:33	9.50	33.66	52.85	0.0737	18.73	9.68	15.20	0.0295	7.50	10.00	15.70	0.0133	3.39	Normal
10:34	9.49	34.73	54.48	0.0760	19.48	8.65	13.57	0.0263	6.75	10.00	15.69	0.0133	3.41	Normal
10:35	9.39	31.27	48.63	0.0679	17.38	8.06	12.53	0.0243	6.23	10.00	15.55	0.0132	3.38	Normal
10:36	8.92	33.58	50.17	0.0700	19.52	7.16	10.70	0.0208	5.79	10.00	14.94	0.0127	3.54	Normal
10:37	8.84	38.34	56.91	0.0794	22.69	7.96	11.81	0.0229	6.56	10.00	14.84	0.0126	3.60	Normal
10:38	9.18	38.53	58.85	0.0821	21.70	8.09	12.36	0.0240	6.34	10.00	15.27	0.0130	3.43	Normal
10:39	8.66	45.69	66.82	0.0932	26.47	7.32	10.70	0.0208	5.90	10.00	14.62	0.0124	3.53	Normal
10:40	8.18	49.79	70.07	0.0978	30.14	10.31	14.51	0.0282	8.68	10.00	14.07	0.0120	3.68	Normal
10:41	8.66	45.05	65.88	0.0919	27.11	11.13	16.28	0.0316	9.32	10.00	14.62	0.0124	3.66	Normal
10:42	9.76	39.08	62.79	0.0876	21.42	8.76	14.08	0.0273	6.68	10.00	16.07	0.0136	3.34	Normal
10:43	9.39	41.33	64.28	0.0897	22.69	8.11	12.61	0.0245	6.20	10.00	15.55	0.0132	3.34	Normal
10:44	8.60	44.35	64.54	0.0901	26.80	10.54	15.34	0.0298	8.86	10.00	14.55	0.0124	3.68	Normal
10:45	8.95	42.80	64.11	0.0895	24.16	10.92	16.36	0.0318	8.58	10.00	14.98	0.0127	3.44	Normal
10:46	8.25	47.89	67.77	0.0946	28.56	11.51	16.29	0.0316	9.55	10.00	14.15	0.0120	3.63	Normal
10:47	8.03	48.26	67.12	0.0937	29.58	16.40	22.81	0.0443	13.99	10.00	13.91	0.0118	3.73	Normal
10:48	8.53	47.82	69.20	0.0966	28.06	13.90	20.11	0.0390	11.35	10.00	14.47	0.0123	3.57	Normal
10:49	8.85	47.82	71.04	0.0991	27.04	13.77	20.46	0.0397	10.83	10.00	14.85	0.0126	3.44	Normal
10:50	8.67	45.19	66.14	0.0923	26.02	10.44	15.28	0.0297	8.36	10.00	14.64	0.0124	3.50	Normal
10:51	8.79	45.40	67.11	0.0936	26.23	8.96	13.24	0.0257	7.20	10.00	14.78	0.0126	3.52	Normal
10:52	8.81	47.30	70.03	0.0977	26.30	8.70	12.88	0.0250	6.73	10.00	14.81	0.0126	3.38	Normal
10:53	8.09	49.67	69.41	0.0968	30.09	13.53	18.91	0.0367	11.40	10.00	13.97	0.0119	3.69	Normal
10:54	8.60	45.11	65.65	0.0916	26.42	12.73	18.53	0.0360	10.37	10.00	14.55	0.0124	3.56	Normal
10:55	8.92	47.00	70.23	0.0980	26.61	12.21	18.24	0.0354	9.62	10.00	14.94	0.0127	3.45	Normal
10:56	8.86	42.43	63.08	0.0880	23.91	11.88	17.66	0.0343	9.32	10.00	14.87	0.0126	3.43	Normal
10:57	8.39	47.72	68.28	0.0953	27.49	14.92	21.35	0.0414	11.96	10.00	14.31	0.0122	3.51	Normal
10:58	7.89	55.50	76.36	0.1065	33.89	16.23	22.33	0.0434	13.79	10.00	13.76	0.0117	3.72	Normal
10:59	8.44	47.56	68.32	0.0953	28.16	15.97	22.94	0.0445	13.15	10.00	14.37	0.0122	3.60	Normal
Average	8.7	44.1	64.7	0.090		11.9	17.5	0.034		10.0	14.7	0.012		Normal
Total					25.57				9.57				3.53	
3-Hr Rolling			64.0		25.5		17.6		9.7		14.7		3.6	

Colmac Energy

Mecca, CA

Boiler 2 Hourly Emissions Report

April 5, 2022 - Hour 9

3-Hr Rolling Emission Limits

NOx ppm @15% O2 - 94 | SO2 ppm @15% O2 - 27 | CO ppm @15% O2 - 231

NOx lb/hr - 30 | SO2 lb/hr - 12 | CO lb/hr - 13

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
09:00	9.57	34.00	53.72	0.0749	18.02	6.02	9.51	0.0185	4.44	10.00	15.80	0.0134	3.23	Normal
09:01	8.33	46.45	66.15	0.0923	27.67	6.67	9.50	0.0184	5.53	10.00	14.24	0.0121	3.63	Normal
09:02	8.30	47.91	68.06	0.0950	29.50	9.68	13.75	0.0267	8.29	10.00	14.21	0.0121	3.75	Normal
09:03	9.28	36.82	56.72	0.0791	20.57	7.66	11.80	0.0229	5.95	10.00	15.40	0.0131	3.40	Normal
09:04	9.13	39.49	60.06	0.0838	22.82	6.56	9.98	0.0194	5.27	10.00	15.21	0.0129	3.52	Normal
09:05	9.42	34.55	53.87	0.0752	19.14	6.39	9.96	0.0193	4.93	10.00	15.59	0.0132	3.37	Normal
09:06	8.90	41.21	61.47	0.0858	24.10	7.33	10.93	0.0212	5.96	10.00	14.92	0.0127	3.56	Normal
09:07	8.73	41.04	60.36	0.0842	24.15	7.95	11.69	0.0227	6.51	10.00	14.71	0.0125	3.58	Normal
09:08	8.70	40.77	59.82	0.0835	23.91	7.80	11.44	0.0222	6.36	10.00	14.67	0.0125	3.57	Normal
09:09	8.67	40.19	58.82	0.0821	23.72	7.49	10.96	0.0213	6.15	10.00	14.64	0.0124	3.59	Normal
09:10	8.95	41.75	62.54	0.0873	24.39	7.78	11.65	0.0226	6.32	10.00	14.98	0.0127	3.56	Normal
09:11	9.18	41.32	63.11	0.0881	23.37	8.38	12.80	0.0248	6.60	10.00	15.27	0.0130	3.44	Normal
09:12	8.86	41.82	62.17	0.0868	24.38	9.34	13.89	0.0270	7.58	10.00	14.87	0.0126	3.55	Normal
09:13	8.75	40.42	59.55	0.0831	23.85	12.05	17.75	0.0345	9.89	10.00	14.73	0.0125	3.59	Normal
09:14	8.74	43.27	63.70	0.0889	25.11	11.97	17.62	0.0342	9.66	10.00	14.72	0.0125	3.53	Normal
09:15	8.38	48.34	69.11	0.0964	28.89	13.27	18.97	0.0368	11.03	10.00	14.30	0.0121	3.64	Normal
09:16	8.30	51.17	72.69	0.1014	30.76	16.19	23.00	0.0447	13.54	10.00	14.21	0.0121	3.66	Normal
09:17	8.56	47.85	69.41	0.0968	28.39	16.85	24.44	0.0475	13.91	10.00	14.51	0.0123	3.61	Normal
09:18	8.95	41.54	62.22	0.0868	23.48	11.51	17.24	0.0335	9.05	10.00	14.98	0.0127	3.44	Normal
09:19	8.78	48.49	71.61	0.0999	28.32	11.49	16.97	0.0329	9.34	10.00	14.77	0.0125	3.56	Normal
09:20	8.90	45.52	67.90	0.0947	26.09	10.43	15.56	0.0302	8.32	10.00	14.92	0.0127	3.49	Normal
09:21	8.81	42.95	63.59	0.0887	24.66	10.48	15.52	0.0301	8.37	10.00	14.81	0.0126	3.49	Normal
09:22	8.50	50.88	73.45	0.1025	30.74	11.99	17.31	0.0336	10.08	10.00	14.44	0.0123	3.68	Normal
09:23	9.02	46.32	69.79	0.0974	26.15	12.96	19.53	0.0379	10.18	10.00	15.07	0.0128	3.44	Normal
09:24	8.62	49.20	71.72	0.1001	29.11	14.22	20.73	0.0402	11.70	10.00	14.58	0.0124	3.60	Normal
09:25	8.82	43.78	64.87	0.0905	25.69	14.84	21.99	0.0427	12.12	10.00	14.82	0.0126	3.57	Normal
09:26	9.18	38.31	58.51	0.0816	21.60	11.74	17.93	0.0348	9.21	10.00	15.27	0.0130	3.43	Normal
09:27	8.90	41.68	62.17	0.0867	24.24	12.27	18.30	0.0355	9.93	10.00	14.92	0.0127	3.54	Normal
09:28	8.72	41.82	61.46	0.0858	24.39	12.45	18.30	0.0355	10.10	10.00	14.70	0.0125	3.55	Normal
09:29	8.35	48.45	69.10	0.0964	29.00	14.30	20.40	0.0396	11.91	10.00	14.26	0.0121	3.64	Normal
09:30	8.52	42.65	61.67	0.0860	25.22	15.63	22.60	0.0439	12.86	10.00	14.46	0.0123	3.60	Normal

W002AS-012607-RT-3503

570 of 635

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
09:31	8.56	45.93	66.62	0.0930	26.52	10.45	15.16	0.0294	8.39	10.00	14.51	0.0123	3.51	Normal
09:32	8.37	46.40	66.29	0.0925	27.78	11.40	16.29	0.0316	9.49	10.00	14.29	0.0121	3.64	Normal
09:33	8.78	46.63	68.87	0.0961	26.54	10.60	15.66	0.0304	8.39	10.00	14.77	0.0125	3.46	Normal
09:34	8.61	41.02	59.74	0.0834	23.89	11.11	16.18	0.0314	9.00	10.00	14.56	0.0124	3.55	Normal
09:35	8.59	42.98	62.50	0.0872	25.23	12.07	17.55	0.0341	9.86	10.00	14.54	0.0123	3.57	Normal
09:36	8.58	42.80	62.19	0.0868	24.56	12.75	18.52	0.0360	10.18	10.00	14.53	0.0123	3.49	Normal
09:37	8.16	50.93	71.56	0.0998	30.59	14.78	20.77	0.0403	12.35	10.00	14.05	0.0119	3.66	Normal
09:38	8.23	44.50	62.87	0.0877	26.58	17.64	24.92	0.0484	14.66	10.00	14.13	0.0120	3.64	Normal
09:39	8.55	42.27	61.27	0.0855	24.82	14.33	20.77	0.0403	11.71	10.00	14.49	0.0123	3.57	Normal
09:40	8.76	42.61	62.83	0.0877	24.18	13.15	19.39	0.0376	10.38	10.00	14.74	0.0125	3.45	Normal
09:41	8.38	50.63	72.39	0.1010	29.91	14.80	21.16	0.0411	12.17	10.00	14.30	0.0121	3.60	Normal
09:42	8.50	46.67	67.37	0.0940	27.31	11.42	16.49	0.0320	9.30	10.00	14.44	0.0123	3.56	Normal
09:43	8.76	41.44	61.10	0.0853	23.80	8.86	13.06	0.0254	7.08	10.00	14.74	0.0125	3.50	Normal
09:44	8.88	41.52	61.83	0.0863	23.71	8.85	13.18	0.0256	7.03	10.00	14.89	0.0126	3.48	Normal
09:45	8.92	41.33	61.75	0.0862	23.92	8.99	13.43	0.0261	7.24	10.00	14.94	0.0127	3.52	Normal
09:46	9.02	39.99	60.25	0.0841	22.38	8.85	13.33	0.0259	6.89	10.00	15.07	0.0128	3.41	Normal
09:47	8.26	45.80	64.86	0.0905	26.83	12.05	17.06	0.0331	9.82	10.00	14.16	0.0120	3.57	Normal
09:48	7.57	53.04	71.22	0.0994	33.19	17.08	22.94	0.0445	14.87	10.00	13.43	0.0114	3.81	Normal
09:49	7.80	53.67	73.34	0.1023	32.47	20.02	27.36	0.0531	16.85	10.00	13.66	0.0116	3.68	Normal
09:50	8.11	48.23	67.50	0.0942	29.30	16.88	23.62	0.0459	14.27	10.00	14.00	0.0119	3.70	Normal
09:51	9.07	38.77	58.66	0.0819	21.47	12.30	18.61	0.0361	9.48	10.00	15.13	0.0129	3.37	Normal
09:52	9.05	40.84	61.69	0.0861	22.94	10.58	15.98	0.0310	8.27	10.00	15.11	0.0128	3.42	Normal
09:53	9.03	40.01	60.34	0.0842	22.53	8.34	12.58	0.0244	6.53	10.00	15.08	0.0128	3.43	Normal
09:54	8.87	35.80	53.27	0.0743	20.91	7.16	10.65	0.0207	5.82	10.00	14.88	0.0126	3.56	Normal
09:55	9.13	36.87	56.07	0.0782	20.45	6.69	10.17	0.0198	5.16	10.00	15.21	0.0129	3.38	Normal
09:56	8.55	42.13	61.06	0.0852	24.84	8.86	12.84	0.0249	7.27	10.00	14.49	0.0123	3.59	Normal
09:57	8.55	40.24	58.32	0.0814	23.69	10.18	14.75	0.0286	8.34	10.00	14.49	0.0123	3.58	Normal
09:58	8.59	43.13	62.72	0.0875	25.10	11.53	16.77	0.0325	9.33	10.00	14.54	0.0123	3.54	Normal
09:59	8.50	42.10	60.77	0.0848	25.14	12.32	17.78	0.0345	10.24	10.00	14.44	0.0123	3.63	Normal
Average	8.7	43.5	63.8	0.089		11.3	16.5	0.032		10.0	14.7	0.012		Normal
Total					25.32				9.16				3.55	
3-Hr Rolling			63.1		25.3		17.9		10.0		14.7		3.6	

Colmac Energy

Mecca, CA

Boiler 2 Hourly Emissions Report

April 5, 2022 - Hour 8

3-Hr Rolling Emission Limits

NOx ppm @15% O2 - 94 NOx lb/hr - 30 | SO2 ppm @15% O2 - 27 SO2 lb/hr - 12 | CO ppm @15% O2 - 231 CO lb/hr - 13

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
08:00	9.40	38.02	59.18	0.0826	20.89	10.46	16.28	0.0316	8.00	10.00	15.57	0.0132	3.35	Normal
08:01	8.31	49.08	69.78	0.0974	30.47	12.54	17.83	0.0346	10.83	10.00	14.22	0.0121	3.78	Normal
08:02	8.77	36.27	53.52	0.0747	21.94	12.20	18.00	0.0350	10.27	10.00	14.76	0.0125	3.68	Normal
08:03	9.29	36.47	56.23	0.0785	20.90	8.93	13.77	0.0267	7.12	10.00	15.42	0.0131	3.49	Normal
08:04	8.93	39.35	58.84	0.0821	22.76	9.87	14.76	0.0287	7.94	10.00	14.95	0.0127	3.52	Normal
08:05	8.55	45.97	66.63	0.0930	28.30	13.32	19.31	0.0375	11.41	10.00	14.49	0.0123	3.75	Normal
08:06	9.23	38.81	59.53	0.0831	23.01	14.01	21.49	0.0417	11.56	10.00	15.34	0.0130	3.61	Normal
08:07	9.96	33.01	54.01	0.0754	18.30	9.62	15.74	0.0306	7.42	10.00	16.36	0.0139	3.37	Normal
08:08	9.26	36.58	56.25	0.0785	20.94	9.05	13.92	0.0270	7.21	10.00	15.38	0.0131	3.48	Normal
08:09	8.31	47.15	67.04	0.0935	28.80	13.77	19.58	0.0380	11.70	10.00	14.22	0.0121	3.72	Normal
08:10	7.98	51.23	70.98	0.0990	32.41	18.20	25.22	0.0490	16.02	10.00	13.85	0.0118	3.85	Normal
08:11	8.30	49.91	70.90	0.0989	30.96	19.51	27.72	0.0538	16.84	10.00	14.21	0.0121	3.78	Normal
08:12	9.05	41.38	62.51	0.0872	23.70	12.33	18.63	0.0362	9.83	10.00	15.11	0.0128	3.49	Normal
08:13	8.93	47.32	70.76	0.0987	27.69	10.04	15.01	0.0291	8.18	10.00	14.95	0.0127	3.56	Normal
08:14	9.18	38.09	58.18	0.0812	22.18	8.90	13.59	0.0264	7.21	10.00	15.27	0.0130	3.54	Normal
08:15	9.33	35.95	55.62	0.0776	19.93	6.81	10.54	0.0205	5.25	10.00	15.47	0.0131	3.37	Normal
08:16	8.51	44.88	64.84	0.0905	27.68	9.35	13.51	0.0262	8.02	10.00	14.45	0.0123	3.75	Normal
08:17	9.15	38.75	59.03	0.0824	22.59	9.79	14.91	0.0290	7.94	10.00	15.23	0.0129	3.55	Normal
08:18	9.33	38.16	59.04	0.0824	22.21	10.00	15.47	0.0300	8.10	10.00	15.47	0.0131	3.54	Normal
08:19	9.32	40.84	63.13	0.0881	23.39	10.46	16.17	0.0314	8.33	10.00	15.46	0.0131	3.49	Normal
08:20	8.63	47.59	69.43	0.0969	28.20	13.30	19.40	0.0377	10.97	10.00	14.59	0.0124	3.61	Normal
08:21	8.11	49.66	69.50	0.0970	30.76	16.13	22.57	0.0438	13.90	10.00	14.00	0.0119	3.77	Normal
08:22	8.15	50.53	70.94	0.0990	30.50	15.95	22.39	0.0435	13.40	10.00	14.04	0.0119	3.67	Normal
08:23	8.14	51.49	72.23	0.1008	31.63	16.13	22.63	0.0439	13.79	10.00	14.03	0.0119	3.74	Normal
08:24	8.59	49.90	72.56	0.1012	29.29	12.80	18.61	0.0361	10.45	10.00	14.54	0.0123	3.57	Normal
08:25	8.66	42.62	62.33	0.0870	24.93	12.08	17.67	0.0343	9.83	10.00	14.62	0.0124	3.56	Normal
08:26	8.46	45.55	65.54	0.0914	26.45	11.98	17.24	0.0335	9.68	10.00	14.39	0.0122	3.53	Normal
08:27	7.92	52.22	72.01	0.1005	32.23	16.07	22.16	0.0430	13.80	10.00	13.79	0.0117	3.76	Normal
08:28	8.24	44.66	63.14	0.0881	26.72	16.27	23.00	0.0447	13.55	10.00	14.14	0.0120	3.64	Normal
08:29	8.47	42.26	60.86	0.0849	23.19	15.05	21.67	0.0421	11.49	10.00	14.40	0.0122	3.34	Normal
08:30	**Bkfish**	**Bkfish**	**Bkfish**	**Bkfish**	**Bkfish**	**Bkfish**	**Bkfish**	**Bkfish**	**Bkfish**	**Bkfish**	**Bkfish**	**Bkfish**	**Bkfish**	Normal

W002AS-012607-RT-3503

572 of 635

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
08:31	9.04	36.84	55.60	0.0776	22.01	12.58	18.99	0.0369	10.46	10.00	15.09	0.0128	3.64	Normal
08:32	8.94	42.31	63.32	0.0884	23.68	11.88	17.78	0.0345	9.25	10.00	14.97	0.0127	3.41	Normal
08:33	8.36	46.02	65.69	0.0917	27.51	14.78	21.10	0.0410	12.29	10.00	14.27	0.0121	3.64	Normal
08:34	8.45	44.28	63.66	0.0888	25.97	14.42	20.73	0.0402	11.77	10.00	14.38	0.0122	3.57	Normal
08:35	8.21	50.01	70.54	0.0984	29.69	15.92	22.46	0.0436	13.15	10.00	14.11	0.0120	3.61	Normal
08:36	7.81	48.05	65.71	0.0917	29.10	18.96	25.93	0.0503	15.98	10.00	13.67	0.0116	3.69	Normal
08:37	7.64	49.46	66.77	0.0932	31.14	21.39	28.87	0.0561	18.74	10.00	13.50	0.0115	3.83	Normal
08:38	8.38	45.02	64.37	0.0898	25.75	16.07	22.98	0.0446	12.79	10.00	14.30	0.0121	3.48	Normal
08:39	8.26	44.92	63.61	0.0888	26.85	14.73	20.86	0.0405	12.25	10.00	14.16	0.0120	3.64	Normal
08:40	8.89	39.53	58.92	0.0822	22.44	11.97	17.84	0.0346	9.45	10.00	14.90	0.0127	3.46	Normal
08:41	8.88	43.16	64.27	0.0897	24.57	10.35	15.41	0.0299	8.20	10.00	14.89	0.0126	3.46	Normal
08:42	8.80	40.59	60.05	0.0838	23.75	10.96	16.21	0.0315	8.92	10.00	14.79	0.0126	3.56	Normal
08:43	8.88	39.11	58.24	0.0813	21.93	11.24	16.74	0.0325	8.77	10.00	14.89	0.0126	3.41	Normal
08:44	8.38	43.86	62.71	0.0875	26.83	11.59	16.57	0.0322	9.86	10.00	14.30	0.0121	3.72	Normal
08:45	9.26	32.27	49.62	0.0692	18.37	9.79	15.06	0.0292	7.75	10.00	15.38	0.0131	3.46	Normal
08:46	9.37	35.43	55.00	0.0767	19.19	6.36	9.87	0.0192	4.79	10.00	15.52	0.0132	3.30	Normal
08:47	8.18	44.03	61.96	0.0865	26.74	8.63	12.14	0.0236	7.29	10.00	14.07	0.0120	3.70	Normal
08:48	8.10	42.49	59.42	0.0829	26.26	11.51	16.10	0.0312	9.90	10.00	13.98	0.0119	3.76	Normal
08:49	8.84	36.24	53.79	0.0751	21.21	11.10	16.48	0.0320	9.04	10.00	14.84	0.0126	3.56	Normal
08:50	9.43	35.61	55.57	0.0775	19.93	9.51	14.84	0.0288	7.41	10.00	15.61	0.0133	3.41	Normal
08:51	9.65	30.96	49.26	0.0687	17.38	8.70	13.84	0.0269	6.79	10.00	15.91	0.0135	3.42	Normal
08:52	9.54	37.58	59.21	0.0826	20.82	9.10	14.34	0.0278	7.01	10.00	15.76	0.0134	3.37	Normal
08:53	8.49	46.53	67.11	0.0936	27.92	13.24	19.10	0.0371	11.05	10.00	14.42	0.0123	3.65	Normal
08:54	8.04	47.71	66.41	0.0927	29.46	17.59	24.48	0.0475	15.11	10.00	13.92	0.0118	3.76	Normal
08:55	7.78	57.44	78.37	0.1093	35.24	21.98	29.99	0.0582	18.76	10.00	13.64	0.0116	3.73	Normal
08:56	7.62	55.89	75.33	0.1051	35.16	18.95	25.54	0.0496	16.59	10.00	13.48	0.0114	3.83	Normal
08:57	8.12	47.80	66.95	0.0934	28.29	13.25	18.56	0.0360	10.91	10.00	14.01	0.0119	3.60	Normal
08:58	8.43	43.46	62.38	0.0870	25.42	10.20	14.64	0.0284	8.30	10.00	14.35	0.0122	3.56	Normal
08:59	8.89	39.68	59.14	0.0825	23.26	8.15	12.15	0.0236	6.65	10.00	14.90	0.0127	3.57	Normal
Average	8.7	43.2	63.4	0.088		12.7	18.6	0.036		10.0	14.7	0.012		Normal
Total					25.64				10.51				3.61	
3-Hr Rolling			62.0		25.3		17.8		10.1		14.7		3.6	

Colmac Energy

Mecca, CA

Boiler 2 Hourly Emissions Report

April 5, 2022 - Hour 7

3-Hr Rolling Emission Limits

NOx ppm @15% O2 - 94 | SO2 ppm @15% O2 - 27 | CO ppm @15% O2 - 231

NOx lb/hr - 30 | SO2 lb/hr - 12 | CO lb/hr - 13

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
07:00	9.74	28.87	46.31	0.0646	16.30	7.47	11.98	0.0233	5.87	10.00	16.04	0.0136	3.44	Normal
07:01	9.32	31.53	48.74	0.0680	18.58	7.87	12.17	0.0236	6.45	10.00	15.46	0.0131	3.59	Normal
07:02	9.38	30.63	47.59	0.0664	18.30	8.24	12.80	0.0249	6.85	10.00	15.54	0.0132	3.64	Normal
07:03	9.51	34.00	53.43	0.0746	19.63	6.13	9.63	0.0187	4.92	10.00	15.72	0.0133	3.51	Normal
07:04	8.73	41.51	61.05	0.0852	25.43	7.70	11.33	0.0220	6.56	10.00	14.71	0.0125	3.73	Normal
07:05	8.55	43.70	63.34	0.0884	27.27	9.81	14.22	0.0276	8.52	10.00	14.49	0.0123	3.80	Normal
07:06	8.92	41.64	62.22	0.0868	25.27	10.74	16.05	0.0312	9.07	10.00	14.94	0.0127	3.69	Normal
07:07	9.31	40.94	63.23	0.0882	23.64	9.33	14.41	0.0280	7.50	10.00	15.44	0.0131	3.52	Normal
07:08	8.79	42.46	62.76	0.0876	25.86	11.66	17.23	0.0335	9.88	10.00	14.78	0.0126	3.71	Normal
07:09	8.74	46.57	68.55	0.0957	27.75	11.82	17.40	0.0338	9.80	10.00	14.72	0.0125	3.63	Normal
07:10	8.23	50.08	70.75	0.0987	31.74	15.15	21.40	0.0416	13.36	10.00	14.13	0.0120	3.86	Normal
07:11	8.61	46.25	67.36	0.0940	27.75	15.22	22.17	0.0430	12.70	10.00	14.56	0.0124	3.65	Normal
07:12	8.41	47.42	67.96	0.0948	28.64	13.66	19.58	0.0380	11.48	10.00	14.33	0.0122	3.68	Normal
07:13	8.40	44.43	63.62	0.0888	28.26	14.53	20.81	0.0404	12.86	10.00	14.32	0.0122	3.87	Normal
07:14	9.44	35.30	55.14	0.0769	19.72	11.24	17.56	0.0341	8.74	10.00	15.62	0.0133	3.40	Normal
07:15	8.77	42.32	62.45	0.0871	25.11	10.43	15.39	0.0299	8.61	10.00	14.76	0.0125	3.61	Normal
07:16	8.52	42.29	61.15	0.0853	26.08	10.27	14.85	0.0288	8.81	10.00	14.46	0.0123	3.75	Normal
07:17	8.66	40.19	58.77	0.0820	24.14	11.24	16.44	0.0319	9.39	10.00	14.62	0.0124	3.66	Normal
07:18	8.41	47.27	67.74	0.0945	28.62	13.25	18.99	0.0369	11.16	10.00	14.33	0.0122	3.69	Normal
07:19	8.30	47.58	67.59	0.0943	29.37	14.19	20.16	0.0391	12.19	10.00	14.21	0.0121	3.76	Normal
07:20	8.71	44.57	65.45	0.0913	26.80	14.37	21.10	0.0410	12.02	10.00	14.68	0.0125	3.66	Normal
07:21	9.17	37.20	56.77	0.0792	21.76	11.53	17.59	0.0342	9.38	10.00	15.26	0.0130	3.56	Normal
07:22	9.36	35.43	54.96	0.0767	20.77	9.77	15.15	0.0294	7.97	10.00	15.51	0.0132	3.57	Normal
07:23	9.39	40.35	62.75	0.0876	22.68	9.98	15.52	0.0301	7.80	10.00	15.55	0.0132	3.42	Normal
07:24	8.56	43.58	63.22	0.0882	27.30	12.06	17.49	0.0340	10.51	10.00	14.51	0.0123	3.81	Normal
07:25	9.22	34.14	52.32	0.0730	20.14	11.30	17.32	0.0336	9.28	10.00	15.33	0.0130	3.59	Normal
07:26	9.09	40.39	61.22	0.0854	23.31	11.24	17.04	0.0331	9.02	10.00	15.16	0.0129	3.51	Normal
07:27	8.06	52.11	72.65	0.1014	32.22	16.01	22.32	0.0433	13.77	10.00	13.94	0.0118	3.76	Normal
07:28	7.47	56.35	75.11	0.1048	37.59	23.73	31.63	0.0614	22.03	10.00	13.33	0.0113	4.06	Normal
07:29	8.11	48.18	67.43	0.0941	29.55	21.13	29.57	0.0574	18.03	10.00	14.00	0.0119	3.73	Normal
07:30	8.29	51.57	73.20	0.1021	31.31	16.69	23.69	0.0460	14.10	10.00	14.20	0.0121	3.70	Normal

W002AS-012607-RT-3503

574 of 635

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
07:31	8.67	43.63	63.86	0.0891	26.03	14.28	20.90	0.0406	11.85	10.00	14.64	0.0124	3.63	Normal
07:32	9.08	37.86	57.33	0.0800	21.66	11.06	16.75	0.0325	8.80	10.00	15.14	0.0129	3.48	Normal
07:33	8.84	39.13	58.08	0.0810	23.14	9.90	14.69	0.0285	8.15	10.00	14.84	0.0126	3.60	Normal
07:34	8.91	36.20	54.04	0.0754	21.16	10.10	15.08	0.0293	8.21	10.00	14.93	0.0127	3.56	Normal
07:35	8.75	38.31	56.44	0.0787	22.34	10.98	16.18	0.0314	8.91	10.00	14.73	0.0125	3.55	Normal
07:36	8.39	41.63	59.57	0.0831	25.45	14.13	20.22	0.0393	12.02	10.00	14.31	0.0122	3.72	Normal
07:37	8.55	40.75	59.06	0.0824	24.33	15.31	22.19	0.0431	12.72	10.00	14.49	0.0123	3.63	Normal
07:38	8.79	40.81	60.32	0.0842	24.19	13.11	19.38	0.0376	10.81	10.00	14.78	0.0126	3.61	Normal
07:39	9.16	40.79	62.19	0.0868	23.75	10.60	16.16	0.0314	8.59	10.00	15.25	0.0129	3.54	Normal
07:40	9.34	37.91	58.70	0.0819	21.73	9.96	15.42	0.0299	7.94	10.00	15.48	0.0132	3.49	Normal
07:41	8.88	40.26	59.95	0.0837	23.34	9.94	14.80	0.0287	8.02	10.00	14.89	0.0126	3.53	Normal
07:42	8.42	44.77	64.21	0.0896	27.74	13.12	18.82	0.0365	11.31	10.00	14.34	0.0122	3.77	Normal
07:43	9.03	41.66	62.82	0.0877	24.04	12.33	18.59	0.0361	9.90	10.00	15.08	0.0128	3.51	Normal
07:44	8.80	44.65	66.05	0.0922	26.54	14.59	21.58	0.0419	12.07	10.00	14.79	0.0126	3.62	Normal
07:45	8.84	41.83	62.09	0.0866	24.59	15.19	22.55	0.0438	12.42	10.00	14.84	0.0126	3.58	Normal
07:46	8.69	41.08	60.22	0.0840	24.63	14.89	21.83	0.0424	12.42	10.00	14.66	0.0125	3.65	Normal
07:47	8.63	41.69	60.82	0.0849	24.36	13.86	20.22	0.0393	11.27	10.00	14.59	0.0124	3.56	Normal
07:48	7.90	51.71	71.20	0.0993	32.21	16.09	22.15	0.0430	13.95	10.00	13.77	0.0117	3.79	Normal
07:49	7.85	51.47	70.60	0.0985	32.49	17.48	23.98	0.0465	15.35	10.00	13.72	0.0116	3.84	Normal
07:50	8.51	42.25	61.04	0.0852	24.86	13.95	20.15	0.0391	11.42	10.00	14.45	0.0123	3.58	Normal
07:51	8.55	42.65	61.82	0.0863	24.92	12.14	17.60	0.0342	9.87	10.00	14.49	0.0123	3.56	Normal
07:52	8.52	47.63	68.87	0.0961	28.76	11.77	17.02	0.0330	9.89	10.00	14.46	0.0123	3.67	Normal
07:53	9.11	38.77	58.86	0.0821	21.92	11.15	16.93	0.0329	8.77	10.00	15.18	0.0129	3.44	Normal
07:54	8.82	44.42	65.82	0.0918	26.12	11.81	17.50	0.0340	9.66	10.00	14.82	0.0126	3.58	Normal
07:55	9.09	40.51	61.40	0.0857	23.89	12.63	19.14	0.0372	10.36	10.00	15.16	0.0129	3.59	Normal
07:56	9.43	35.74	55.78	0.0778	19.82	11.08	17.29	0.0336	8.55	10.00	15.61	0.0133	3.37	Normal
07:57	8.75	34.60	50.97	0.0711	20.45	12.55	18.49	0.0359	10.32	10.00	14.73	0.0125	3.60	Normal
07:58	8.52	42.54	61.51	0.0858	25.97	14.46	20.91	0.0406	12.28	10.00	14.46	0.0123	3.72	Normal
07:59	9.01	39.72	59.80	0.0834	23.57	13.51	20.34	0.0395	11.16	10.00	15.05	0.0128	3.61	Normal
Average	8.8	41.9	62.0	0.086		12.5	18.5	0.036		10.0	14.8	0.013		Normal
Total					25.01				10.38				3.64	
3-Hr Rolling			**Cal**		**Cal**		**Cal**		**Cal**		**Cal**		**Cal**	

Colmac Energy

Mecca, CA

Boiler 2 Hourly Emissions Report

April 5, 2022 - Hour 6

3-Hr Rolling Emission Limits

NOx ppm @15% O2 - 94 | SO2 ppm @15% O2 - 27 | CO ppm @15% O2 - 231

NOx lb/hr - 30 | SO2 lb/hr - 12 | CO lb/hr - 13

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
06:00	8.42	47.57	68.23	0.0952	28.57	9.15	13.12	0.0255	7.64	10.00	14.34	0.0122	3.66	Normal
06:01	8.25	43.31	61.28	0.0855	26.88	9.32	13.19	0.0256	8.05	10.00	14.15	0.0120	3.78	Normal
06:02	8.50	40.48	58.43	0.0815	24.52	7.89	11.39	0.0221	6.65	10.00	14.44	0.0123	3.69	Normal
06:03	8.51	41.74	60.30	0.0841	25.17	9.08	13.12	0.0255	7.62	10.00	14.45	0.0123	3.67	Normal
06:04	8.46	44.67	64.28	0.0897	27.78	9.91	14.26	0.0277	8.57	10.00	14.39	0.0122	3.79	Normal
06:05	9.25	33.00	50.70	0.0707	19.87	8.84	13.58	0.0264	7.41	10.00	15.36	0.0130	3.67	Normal
06:06	9.69	31.27	49.93	0.0697	17.25	6.36	10.16	0.0197	4.88	10.00	15.97	0.0136	3.36	Normal
06:07	7.92	51.78	71.41	0.0996	32.76	9.92	13.68	0.0266	8.73	10.00	13.79	0.0117	3.85	Normal
06:08	7.15	58.18	75.74	0.1057	39.99	16.55	21.55	0.0418	15.83	10.00	13.02	0.0111	4.18	Normal
06:09	7.89	46.43	63.88	0.0891	30.34	14.21	19.55	0.0380	12.92	10.00	13.76	0.0117	3.98	Normal
06:10	9.16	33.99	51.82	0.0723	19.57	9.23	14.07	0.0273	7.39	10.00	15.25	0.0129	3.50	Normal
06:11	9.07	34.28	51.87	0.0724	19.96	7.24	10.95	0.0213	5.86	10.00	15.13	0.0129	3.54	Normal
06:12	9.17	32.18	49.11	0.0685	18.53	7.13	10.88	0.0211	5.71	10.00	15.26	0.0130	3.50	Normal
06:13	8.76	37.64	55.50	0.0774	22.87	7.25	10.69	0.0208	6.13	10.00	14.74	0.0125	3.70	Normal
06:14	8.65	37.70	55.09	0.0769	23.53	7.76	11.34	0.0220	6.74	10.00	14.61	0.0124	3.80	Normal
06:15	9.01	30.75	46.29	0.0646	18.01	8.53	12.84	0.0249	6.95	10.00	15.05	0.0128	3.57	Normal
06:16	8.99	30.44	45.75	0.0638	17.66	8.73	13.12	0.0255	7.05	10.00	15.03	0.0128	3.53	Normal
06:17	8.40	35.04	50.18	0.0700	22.03	9.39	13.45	0.0261	8.22	10.00	14.32	0.0122	3.83	Normal
06:18	8.51	39.08	56.46	0.0788	25.19	10.01	14.46	0.0281	8.98	10.00	14.45	0.0123	3.92	Normal
06:19	8.94	37.85	56.65	0.0790	23.25	11.31	16.93	0.0329	9.67	10.00	14.97	0.0127	3.74	Normal
06:20	9.32	36.70	56.73	0.0792	21.71	9.36	14.47	0.0281	7.71	10.00	15.46	0.0131	3.60	Normal
06:21	8.98	37.27	55.97	0.0781	21.81	8.97	13.47	0.0262	7.30	10.00	15.02	0.0128	3.56	Normal
06:22	8.34	43.07	61.38	0.0856	26.09	9.56	13.62	0.0265	8.06	10.00	14.25	0.0121	3.69	Normal
06:23	7.73	53.83	73.16	0.1021	34.07	16.59	22.55	0.0438	14.61	10.00	13.59	0.0115	3.85	Normal
06:24	7.61	54.44	73.32	0.1023	35.10	20.43	27.52	0.0534	18.33	10.00	13.47	0.0114	3.92	Normal
06:25	8.11	51.87	72.59	0.1013	31.63	14.98	20.96	0.0407	12.71	10.00	14.00	0.0119	3.71	Normal
06:26	8.14	48.68	68.29	0.0953	28.92	14.31	20.07	0.0390	11.83	10.00	14.03	0.0119	3.62	Normal
06:27	7.85	54.67	74.99	0.1046	33.79	14.18	19.45	0.0378	12.19	10.00	13.72	0.0116	3.76	Normal
06:28	8.28	50.96	72.28	0.1009	31.09	12.34	17.50	0.0340	10.47	10.00	14.18	0.0120	3.71	Normal
06:29	8.92	40.97	61.22	0.0854	23.36	8.94	13.36	0.0259	7.09	10.00	14.94	0.0127	3.47	Normal
06:30	8.58	42.67	62.00	0.0865	25.12	8.19	11.90	0.0231	6.71	10.00	14.53	0.0123	3.58	Normal

W002AS-012607-RT-3503

576 of 635

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
06:31	8.54	41.38	59.93	0.0836	25.32	8.45	12.24	0.0238	7.19	10.00	14.48	0.0123	3.72	Normal
06:32	9.33	33.40	51.67	0.0721	18.75	7.39	11.43	0.0222	5.77	10.00	15.47	0.0131	3.42	Normal
06:33	8.82	36.98	54.80	0.0765	21.32	8.90	13.19	0.0256	7.14	10.00	14.82	0.0126	3.51	Normal
06:34	8.32	38.59	54.91	0.0766	24.17	11.63	16.55	0.0321	10.13	10.00	14.23	0.0121	3.81	Normal
06:35	9.28	30.30	46.68	0.0651	17.36	9.70	14.94	0.0290	7.73	10.00	15.40	0.0131	3.49	Normal
06:36	9.28	30.05	46.29	0.0646	16.52	9.10	14.02	0.0272	6.96	10.00	15.40	0.0131	3.35	Normal
06:37	7.71	48.70	66.09	0.0922	30.54	17.47	23.71	0.0460	15.24	10.00	13.57	0.0115	3.82	Normal
06:38	7.41	51.97	68.96	0.0962	34.11	24.25	32.18	0.0625	22.14	10.00	13.27	0.0113	3.99	Normal
06:39	8.09	51.06	71.35	0.0996	31.49	18.40	25.71	0.0499	15.79	10.00	13.97	0.0119	3.75	Normal
06:40	8.84	42.19	62.62	0.0874	24.15	11.72	17.40	0.0338	9.33	10.00	14.84	0.0126	3.48	Normal
06:41	8.63	41.51	60.56	0.0845	24.20	8.28	12.08	0.0235	6.72	10.00	14.59	0.0124	3.55	Normal
06:42	8.44	42.42	60.94	0.0850	26.09	9.58	13.76	0.0267	8.20	10.00	14.37	0.0122	3.74	Normal
06:43	8.52	45.57	65.89	0.0919	27.70	9.34	13.50	0.0262	7.90	10.00	14.46	0.0123	3.70	Normal
06:44	8.59	42.06	61.16	0.0853	25.91	12.17	17.70	0.0344	10.43	10.00	14.54	0.0123	3.75	Normal
06:45	9.21	36.32	55.61	0.0776	21.45	11.21	17.17	0.0333	9.21	10.00	15.31	0.0130	3.59	Normal
06:46	9.39	33.15	51.55	0.0719	19.03	9.67	15.04	0.0292	7.72	10.00	15.55	0.0132	3.49	Normal
06:47	8.97	31.18	46.78	0.0653	19.01	10.40	15.60	0.0303	8.82	10.00	15.00	0.0127	3.71	Normal
06:48	9.58	30.76	48.64	0.0679	18.10	9.45	14.94	0.0290	7.74	10.00	15.81	0.0134	3.58	Normal
06:49	9.56	30.51	48.16	0.0672	17.10	8.51	13.43	0.0261	6.64	10.00	15.78	0.0134	3.41	Normal
06:50	8.10	44.24	61.87	0.0863	27.91	14.34	20.05	0.0389	12.59	10.00	13.98	0.0119	3.84	Normal
06:51	7.50	53.05	70.87	0.0989	35.37	18.19	24.30	0.0472	16.87	10.00	13.36	0.0113	4.06	Normal
06:52	7.88	51.07	70.21	0.0980	32.99	16.80	23.10	0.0448	15.10	10.00	13.75	0.0117	3.93	Normal
06:53	8.62	48.71	71.00	0.0991	28.70	14.60	21.28	0.0413	11.97	10.00	14.58	0.0124	3.59	Normal
06:54	8.42	47.18	67.67	0.0944	29.61	13.14	18.85	0.0366	11.47	10.00	14.34	0.0122	3.82	Normal
06:55	9.17	38.77	59.16	0.0825	21.99	8.70	13.28	0.0258	6.86	10.00	15.26	0.0130	3.45	Normal
06:56	8.27	48.19	68.30	0.0953	29.13	11.10	15.73	0.0305	9.33	10.00	14.17	0.0120	3.68	Normal
06:57	7.88	51.14	70.31	0.0981	33.35	16.32	22.44	0.0436	14.81	10.00	13.75	0.0117	3.97	Normal
06:58	9.04	41.85	63.16	0.0881	24.54	11.87	17.92	0.0348	9.68	10.00	15.09	0.0128	3.57	Normal
06:59	9.41	36.63	57.07	0.0796	21.37	9.39	14.63	0.0284	7.62	10.00	15.58	0.0132	3.55	Normal
Average	8.6	41.7	60.7	0.085		11.3	16.4	0.032		10.0	14.6	0.012		Normal
Total					25.24				9.48				3.68	
3-Hr Rolling			Cal		Cal		Cal		Cal		Cal		Cal	

Colmac Energy

Mecca, CA

Boiler 1 Hourly Emissions Report

April 5, 2022 - Hour 6

3-Hr Rolling Emission Limits

NOx ppm @15% O2 - 94	SO2 ppm @15% O2 - 27	CO ppm @15% O2 - 231
NOx lb/hr - 30	SO2 lb/hr - 12	CO lb/hr - 13

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
06:00	9.59	42.56	67.36	0.0940	27.93	11.54	18.26	0.0355	10.54	10.00	15.83	0.0134	3.99	Normal
06:01	10.76	29.19	51.53	0.0719	17.62	8.37	14.78	0.0287	7.03	10.00	17.65	0.0150	3.67	Normal
06:02	10.15	32.68	54.42	0.0759	20.94	8.21	13.67	0.0265	7.32	10.00	16.65	0.0141	3.90	Normal
06:03	9.87	39.32	63.81	0.0890	25.40	9.91	16.08	0.0312	8.91	10.00	16.23	0.0138	3.93	Normal
06:04	9.55	43.97	69.34	0.0968	28.93	11.62	18.33	0.0356	10.64	10.00	15.77	0.0134	4.00	Normal
06:05	9.22	52.31	80.17	0.1119	34.67	15.23	23.34	0.0453	14.05	10.00	15.33	0.0130	4.03	Normal
06:06	9.14	52.10	79.30	0.1106	35.49	16.67	25.37	0.0493	15.80	10.00	15.22	0.0129	4.15	Normal
06:07	10.11	38.13	63.26	0.0883	23.60	11.62	19.28	0.0374	10.01	10.00	16.59	0.0141	3.77	Normal
06:08	9.78	39.68	63.87	0.0891	25.97	11.99	19.30	0.0375	10.92	10.00	16.10	0.0137	3.98	Normal
06:09	10.55	30.16	52.16	0.0728	18.60	8.78	15.18	0.0295	7.54	10.00	17.29	0.0147	3.75	Normal
06:10	10.26	33.07	55.63	0.0776	20.98	9.64	16.22	0.0315	8.51	10.00	16.82	0.0143	3.86	Normal
06:11	9.83	41.27	66.73	0.0931	27.25	10.27	16.61	0.0322	9.44	10.00	16.17	0.0137	4.02	Normal
06:12	9.84	36.46	59.01	0.0823	23.51	10.01	16.20	0.0315	8.98	10.00	16.18	0.0137	3.92	Normal
06:13	9.29	47.76	73.64	0.1027	32.38	12.41	19.13	0.0371	11.70	10.00	15.42	0.0131	4.13	Normal
06:14	9.28	44.80	69.01	0.0963	29.87	12.28	18.92	0.0367	11.39	10.00	15.40	0.0131	4.06	Normal
06:15	9.04	50.94	76.88	0.1073	34.16	15.29	23.08	0.0448	14.27	10.00	15.09	0.0128	4.08	Normal
06:16	9.00	52.01	78.23	0.1092	34.99	14.25	21.43	0.0416	13.34	10.00	15.04	0.0128	4.09	Normal
06:17	9.72	43.78	70.09	0.0978	28.28	12.52	20.05	0.0389	11.25	10.00	16.01	0.0136	3.93	Normal
06:18	10.33	33.03	55.94	0.0780	20.34	9.35	15.83	0.0307	8.01	10.00	16.93	0.0144	3.75	Normal
06:19	9.92	31.83	51.89	0.0724	20.29	8.56	13.95	0.0271	7.59	10.00	16.30	0.0138	3.88	Normal
06:20	9.48	41.63	65.25	0.0910	27.39	10.36	16.24	0.0315	9.48	10.00	15.67	0.0133	4.00	Normal
06:21	9.13	48.90	74.37	0.1038	33.03	12.04	18.31	0.0355	11.31	10.00	15.21	0.0129	4.11	Normal
06:22	8.83	50.42	74.77	0.1043	34.06	13.83	20.51	0.0398	13.00	10.00	14.83	0.0126	4.11	Normal
06:23	8.82	54.33	80.51	0.1123	37.20	15.74	23.32	0.0453	14.99	10.00	14.82	0.0126	4.17	Normal
06:24	9.41	44.39	69.15	0.0965	28.43	12.98	20.22	0.0393	11.57	10.00	15.58	0.0132	3.90	Normal
06:25	9.44	44.29	69.18	0.0965	29.06	13.66	21.34	0.0414	12.47	10.00	15.62	0.0133	3.99	Normal
06:26	9.95	41.59	67.99	0.0949	25.63	11.96	19.55	0.0380	10.25	10.00	16.35	0.0139	3.75	Normal
06:27	9.05	51.92	78.43	0.1094	35.44	15.14	22.87	0.0444	14.38	10.00	15.11	0.0128	4.15	Normal
06:28	9.88	37.99	61.71	0.0861	24.23	10.98	17.84	0.0346	9.74	10.00	16.24	0.0138	3.88	Normal
06:29	10.46	29.13	49.95	0.0697	17.99	8.35	14.32	0.0278	7.17	10.00	17.15	0.0146	3.76	Normal
06:30	10.06	33.34	55.05	0.0768	21.19	9.34	15.42	0.0299	8.26	10.00	16.51	0.0140	3.87	Normal

W002AS-012607-RT-3503

578 of 635

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
06:31	10.03	33.04	54.41	0.0759	21.58	9.07	14.94	0.0290	8.24	10.00	16.47	0.0140	3.98	Normal
06:32	10.02	30.23	49.74	0.0694	19.33	8.61	14.17	0.0275	7.66	10.00	16.45	0.0140	3.89	Normal
06:33	9.64	37.14	59.04	0.0824	24.50	10.08	16.02	0.0311	9.25	10.00	15.90	0.0135	4.02	Normal
06:34	9.56	38.17	60.25	0.0841	25.51	10.66	16.83	0.0327	9.91	10.00	15.78	0.0134	4.07	Normal
06:35	9.89	40.85	66.41	0.0927	26.09	9.80	15.93	0.0309	8.71	10.00	16.26	0.0138	3.89	Normal
06:36	9.55	47.24	74.50	0.1040	31.13	11.14	17.57	0.0341	10.21	10.00	15.77	0.0134	4.01	Normal
06:37	9.55	45.07	71.08	0.0992	29.54	10.12	15.96	0.0310	9.23	10.00	15.77	0.0134	3.99	Normal
06:38	9.25	50.73	77.95	0.1088	33.72	11.67	17.93	0.0348	10.79	10.00	15.36	0.0130	4.05	Normal
06:39	9.28	47.73	73.53	0.1026	31.85	11.80	18.18	0.0353	10.95	10.00	15.40	0.0131	4.06	Normal
06:40	9.44	44.89	70.12	0.0978	29.52	11.83	18.48	0.0359	10.83	10.00	15.62	0.0133	4.00	Normal
06:41	9.15	44.06	67.12	0.0937	29.26	12.72	19.38	0.0376	11.75	10.00	15.23	0.0129	4.04	Normal
06:42	8.97	51.35	77.05	0.1075	34.40	15.33	23.00	0.0447	14.29	10.00	15.00	0.0127	4.08	Normal
06:43	8.93	46.35	69.31	0.0967	30.97	14.25	21.31	0.0414	13.25	10.00	14.95	0.0127	4.07	Normal
06:44	9.05	44.66	67.46	0.0941	29.35	12.72	19.21	0.0373	11.63	10.00	15.11	0.0128	4.00	Normal
06:45	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
06:46	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
06:47	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
06:48	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
06:49	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
06:50	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
06:51	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
06:52	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
06:53	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
06:54	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
06:55	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
06:56	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
06:57	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
06:58	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
06:59	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Inval	Normal
Average	Inval	Inval	Inval	Inval		Inval	Inval	Inval		Inval	Inval	Inval		Normal
Total					Inval				Inval				Inval	
3-Hr Rolling			Inval		Inval		Inval		Inval		Inval		Inval	

Colmac Energy

Mecca, CA

Boiler 2 Hourly Emissions Report

April 5, 2022 - Hour 5

3-Hr Rolling Emission Limits

NOx ppm @15% O2 - 94 | SO2 ppm @15% O2 - 27 | CO ppm @15% O2 - 231

NOx lb/hr - 30 | SO2 lb/hr - 12 | CO lb/hr - 13

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
05:00	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal
05:01	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal
05:02	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal
05:03	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal
05:04	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal
05:05	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal
05:06	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal
05:07	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal
05:08	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal
05:09	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal
05:10	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal
05:11	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal
05:12	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal
05:13	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal
05:14	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal
05:15	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal
05:16	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal
05:17	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal
05:18	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal
05:19	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal
05:20	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal
05:21	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal
05:22	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal
05:23	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal
05:24	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal
05:25	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal
05:26	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal
05:27	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal
05:28	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal
05:29	Bkfish	Bkfish	Bkfish	Bkfish	Bkfish	Bkfish	Bkfish	Bkfish	Bkfish	Bkfish	Bkfish	Bkfish	Bkfish	Normal
05:30	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal

W002AS-012607-RT-3503

580 of 635

Minute	O2%	NOx ppm	NOx ppm @3% O2	NOx lb/mmBtu	NOx lb/hr	SO2 ppm	SO2 ppm @3% O2	SO2 lb/mmBtu	SO2 lb/hr	CO ppm	CO ppm @3% O2	CO lb/mmBtu	CO lb/hr	Process Status
05:31	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal
05:32	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal
05:33	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal
05:34	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal
05:35	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal
05:36	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal
05:37	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal
05:38	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal
05:39	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal
05:40	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal
05:41	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal
05:42	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal
05:43	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal
05:44	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal
05:45	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal
05:46	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal
05:47	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Cal	Normal
05:48	9.00	43.66	65.67	0.0916	26.38	13.37	20.11	0.0390	11.24	10.00	15.04	0.0128	3.68	Normal
05:49	8.92	47.03	70.27	0.0980	28.21	11.77	17.59	0.0341	9.82	10.00	14.94	0.0127	3.65	Normal
05:50	8.31	52.10	74.07	0.1034	33.16	12.07	17.16	0.0333	10.69	10.00	14.22	0.0121	3.87	Normal
05:51	8.43	50.23	72.10	0.1006	32.40	10.65	15.29	0.0297	9.56	10.00	14.35	0.0122	3.93	Normal
05:52	9.22	39.91	61.16	0.0853	24.06	8.69	13.32	0.0259	7.29	10.00	15.33	0.0130	3.67	Normal
05:53	9.38	39.13	60.80	0.0848	23.13	7.29	11.33	0.0220	6.00	10.00	15.54	0.0132	3.60	Normal
05:54	9.01	40.83	61.47	0.0858	24.92	6.13	9.23	0.0179	5.21	10.00	15.05	0.0128	3.72	Normal
05:55	8.53	48.44	70.10	0.0978	29.89	6.31	9.13	0.0177	5.42	10.00	14.47	0.0123	3.76	Normal
05:56	7.77	55.63	75.84	0.1058	37.11	9.23	12.58	0.0244	8.57	10.00	13.63	0.0116	4.06	Normal
05:57	7.68	55.93	75.73	0.1057	35.38	9.58	12.97	0.0252	8.43	10.00	13.54	0.0115	3.85	Normal
05:58	7.01	58.73	75.69	0.1056	41.59	14.41	18.57	0.0361	14.20	10.00	12.89	0.0109	4.31	Normal
05:59	8.20	48.39	68.20	0.0952	29.93	10.75	15.15	0.0294	9.25	10.00	14.09	0.0120	3.76	Normal
Average	Cal	Cal	Cal	Cal		Cal	Cal	Cal		Cal	Cal	Cal		Normal
Total					Cal				Cal				Cal	
3-Hr Rolling			Cal		Cal		Cal		Cal		Cal		Cal	

Appendix B.2
HCl Surrogate Limit Data

	Unit 2 4/5/22			Unit 1 4/7/22		
	Run 1 6:00-8:00 SO 2ppm @ 3% O2	Run 2 8:45-10:45 SO 2ppm @ 3% O2	Run 3 11:15-13:15 SO 2ppm @ 3% O2	Run 1 3:40-5:40 SO 2ppm @ 3% O2	Run 2 8:30-10:30 SO 2ppm @ 3% O2	Run 3 11:05-13:05 SO 2ppm @ 3% O2
15 minute average	**13.4**	**16.8**	**18.0**	**21.6**	**18.7**	**20.1**
15 minute average	**16.9**	**12.8**	**16.4**	**23.3**	**18.3**	**19.4**
15 minute average	**17.0**	**19.3**	**16.4**	**22.3**	**16.5**	**21.5**
15 minute average	**17.5**	**17.5**	**21.2**	**25.9**	**13.0**	**16.4**
15 minute average	**16.1**	**16.7**	**15.6**	**19.5**	**15.7**	**18.3**
15 minute average	**19.9**	**17.8**	**18.6**	**21.5**	**18.5**	**20.9**
15 minute average	**18.2**	**18.5**	**18.4**	**18.3**	**20.5**	**18.1**
15 minute average	**19.3**	**14.6**	**18.1**	**18.2**	**22.4**	**20.0**
Hourly Average	**16.2**	**16.6**	**18.0**	Highest hourly **23.3**	**16.6**	**19.3**
Hourly Average	**18.4**	**16.9**	Highest hourly **17.7**	**19.4**	**19.3**	**19.3**
Average	**17.3**	**16.8**	Highest Test Average **17.9**	Highest Test Average **21.3**	**18.0**	**19.3**

6:00	13.12	8:45	15.06	11:15	20.6	3:40	14.81	8:30	20.51	11:05	19.56
6:01	13.19	8:46	9.87	11:16	24.13	3:41	17.13	8:31	17.38	11:06	25.66
6:02	11.39	8:47	12.14	11:17	24.59	3:42	18.15	8:32	15.5	11:07	19.69
6:03	13.12	8:48	16.1	11:18	27.27	3:43	20.36	8:33	16.52	11:08	20.73
6:04	14.26	8:49	16.48	11:19	22.37	3:44	21.36	8:34	16.71	11:09	19.76
6:05	13.58	8:50	14.84	11:20	17.93	3:45	25.33	8:35	16.94	11:10	27.01
6:06	10.16	8:51	13.84	11:21	17.35	3:46	25.01	8:36	18.75	11:11	21.47
6:07	13.68	8:52	14.34	11:22	21.16	3:47	22.26	8:37	19.77	11:12	21.03
6:08	21.55	8:53	19.1	11:23	16.86	3:48	21.55	8:38	15.88	11:13	22.16
6:09	19.55	8:54	24.48	11:24	16.21	3:49	21.14	8:39	17.63	11:14	19.71
6:10	14.07	8:55	29.99	11:25	15.66	3:50	19.05	8:40	21.18	11:15	20.21
6:11	10.95	8:56	25.54	11:26	13.72	3:51	18.99	8:41	19.4	11:16	17.18
6:12	10.88	8:57	18.56	11:27	12.12	3:52	22.28	8:42	18.15	11:17	15.7
6:13	10.69	8:58	14.64	11:28	10.61	3:53	28.95	8:43	19.06	11:18	16.03
6:14	11.34	8:59	12.15	11:29	11.71	3:54	22.36	8:44	24.84	11:19	17.3
6:15	12.84	9:00	9.51	11:30	Bkflsh	3:55	19.63	8:45	23.19	11:20	17.14
6:16	13.12	9:01	9.5	11:31	15.32	3:56	16.98	8:46	19.62	11:21	Bkflsh
6:17	13.45	9:02	13.75	11:32	16.65	3:57	17.86	8:47	15.92	11:22	Bkflsh
6:18	14.46	9:03	11.8	11:33	16.27	3:58	16.7	8:48	16.75	11:23	21.84
6:19	16.93	9:04	9.98	11:34	16.1	3:59	17.55	8:49	18.36	11:24	21.21
6:20	14.47	9:05	9.96	11:35	15.14	4:00	27.22	8:50	24.52	11:25	19.56
6:21	13.47	9:06	10.93	11:36	14.43	4:01	31.28	8:51	23.78	11:26	17.93
6:22	13.62	9:07	11.69	11:37	12.6	4:02	27.96	8:52	17.66	11:27	18.13

6:23	22.55	9:08	11.44
6:24	27.52	9:09	10.96
6:25	20.96	9:10	11.65
6:26	20.07	9:11	12.8
6:27	19.45	9:12	13.89
6:28	17.5	9:13	17.75
6:29	13.36	9:14	17.62
6:30	11.9	9:15	18.97
6:31	12.24	9:16	23
6:32	11.43	9:17	24.44
6:33	13.19	9:18	17.24
6:34	16.55	9:19	16.97
6:35	14.94	9:20	15.56
6:36	14.02	9:21	15.52
6:37	23.71	9:22	17.31
6:38	32.18	9:23	19.53
6:39	25.71	9:24	20.73
6:40	17.4	9:25	21.99
6:41	12.08	9:26	17.93
6:42	13.76	9:27	18.3
6:43	13.5	9:28	18.3
6:44	17.7	9:29	20.4
6:45	17.17	9:30	22.6
6:46	15.04	9:31	15.16
6:47	15.6	9:32	16.29
6:48	14.94	9:33	15.66
6:49	13.43	9:34	16.18
6:50	20.05	9:35	17.55
6:51	24.3	9:36	18.52
6:52	23.1	9:37	20.77
6:53	21.28	9:38	24.92
6:54	18.85	9:39	20.77
6:55	13.28	9:40	19.39
6:56	15.73	9:41	21.16
6:57	22.44	9:42	16.49
6:58	17.92	9:43	13.06
6:59	14.63	9:44	13.18
7:00	11.98	9:45	13.43
7:01	12.17	9:46	13.33
7:02	12.8	9:47	17.06
7:03	9.63	9:48	22.94
7:04	11.33	9:49	27.36
7:05	14.22	9:50	23.62

11:38	11.84
11:39	17.87
11:40	17.89
11:41	22.62
11:42	22.83
11:43	16.87
11:44	16.59
11:45	12.4
11:46	11.98
11:47	12.61
11:48	15.39
11:49	14.67
11:50	15.02
11:51	19.36
11:52	20.59
11:53	20.88
11:54	18.65
11:55	16.95
11:56	14.44
11:57	13.46
11:58	14.91
11:59	17.68
12:00	20.07
12:01	23.02
12:02	20.13
12:03	25.61
12:04	23.33
12:05	25.54
12:06	22.19
12:07	24.69
12:08	21.53
12:09	17.49
12:10	18.96
12:11	24.48
12:12	22.33
12:13	18.92
12:14	14.66
12:15	15.15
12:16	17.12
12:17	15.28
12:18	16.87
12:19	17.55
12:20	18.21

4:03	22.84	8:53	17.02	11:28	17.42
4:04	26.45	8:54	20.04	11:29	18.95
4:05	27.07	8:55	16.79	11:30	20.73
4:06	23.31	8:56	18.01	11:31	20.44
4:07	25.75	8:57	17.4	11:32	19.63
4:08	22.68	8:58	15.16	11:33	18.93
4:09	23.13	8:59	15.06	11:34	18.2
4:10	23.1	9:00	18.25	11:35	19.5
4:11	16.53	9:01	18.67	11:36	19.32
4:12	21.4	9:02	17.08	11:37	18.33
4:13	22.3	9:03	19.75	11:38	17.79
4:14	18.13	9:04	19.83	11:39	21.22
4:15	21.45	9:05	15.76	11:40	20.69
4:16	16.48	9:06	16.87	11:41	23.48
4:17	18.47	9:07	16.77	11:42	20.08
4:18	18.3	9:08	16.57	11:43	21.35
4:19	20.04	9:09	17.5	11:44	21.87
4:20	25.26	9:10	16.9	11:45	27.76
4:21	22.45	9:11	15.49	11:46	29.67
4:22	22.6	9:12	16.79	11:47	23.44
4:23	27.21	9:13	12.98	11:48	18.99
4:24	29.78	9:14	12.14	11:49	17.85
4:25	34.49	9:15	13.91	11:50	20.55
4:26	26.66	9:16	13.97	11:51	21.84
4:27	25.58	9:17	12.95	11:52	19.92
4:28	25.86	9:18	13.93	11:53	17.36
4:29	27.24	9:19	11.77	11:54	18.17
4:30	28.4	9:20	10.28	11:55	16.04
4:31	26.58	9:21	10.41	11:56	14.68
4:32	23.28	9:22	10.58	11:57	14.28
4:33	23.03	9:23	13.11	11:58	14.11
4:34	27.39	9:24	13.17	11:59	13.69
4:35	28.59	9:25	13.61	12:00	15.54
4:36	31.4	9:26	12.79	12:01	15.81
4:37	22.25	9:27	13.29	12:02	16.57
4:38	21.05	9:28	14.13	12:03	16.62
4:39	25.51	9:29	15.15	12:04	16.26
4:40	26.18	9:30	15.4	12:05	15.05
4:41	22.1	9:31	11.87	12:06	14.99
4:42	15.9	9:32	11.56	12:07	20.08
4:43	17.16	9:33	10.26	12:08	20.2
4:44	16.65	9:34	10.52	12:09	19.12
4:45	21.52	9:35	13.14	12:10	17.29

7:06	16.05	9:51	18.61	12:21	15.74	4:46	22.58	9:36	13.68	12:11	16.02
7:07	14.41	9:52	15.98	12:22	13.06	4:47	21.43	9:37	14.8	12:12	14.71
7:08	17.23	9:53	12.58	12:23	12.86	4:48	17.35	9:38	18.64	12:13	13.95
7:09	17.4	9:54	10.65	12:24	13.95	4:49	18.64	9:39	15.01	12:14	14.41
7:10	21.4	9:55	10.17	12:25	15.96	4:50	16.85	9:40	15.54	12:15	18.27
7:11	22.17	9:56	12.84	12:26	19.28	4:51	15.53	9:41	18.1	12:16	17.41
7:12	19.58	9:57	14.75	12:27	16.35	4:52	18.81	9:42	21.34	12:17	18.67
7:13	20.81	9:58	16.77	12:28	14.39	4:53	21.44	9:43	22.63	12:18	22.32
7:14	17.56	9:59	17.78	12:29	13.15	4:54	24.83	9:44	20.99	12:19	22.33
7:15	15.39	10:00	16.57	12:30	13.66	4:55	21.72	9:45	16.92	12:20	24.22
7:16	14.85	10:01	15.76	12:31	16.95	4:56	25.4	9:46	16.42	12:21	21.91
7:17	16.44	10:02	17.16	12:32	18.43	4:57	22.69	9:47	15.86	12:22	25.7
7:18	18.99	10:03	20.41	12:33	20.44	4:58	28.4	9:48	18.16	12:23	23.13
7:19	20.16	10:04	23.93	12:34	24.11	4:59	27.31	9:49	18.65	12:24	21.23
7:20	21.1	10:05	18.49	12:35	26.37	5:00	27.3	9:50	19.21	12:25	21.48
7:21	17.59	10:06	16.85	12:36	26.4	5:01	27.04	9:51	21.62	12:26	23.23
7:22	15.15	10:07	14.76	12:37	24.44	5:02	18.48	9:52	21.59	12:27	20.78
7:23	15.52	10:08	12.55	12:38	21.54	5:03	15.55	9:53	16.75	12:28	19.67
7:24	17.49	10:09	13.68	12:39	14.6	5:04	17.67	9:54	19.17	12:29	19.8
7:25	17.32	10:10	15.45	12:40	11.74	5:05	21.44	9:55	21.45	12:30	19.09
7:26	17.04	10:11	17.39	12:41	9.59	5:06	17.06	9:56	19.42	12:31	17.36
7:27	22.32	10:12	19.14	12:42	12.99	5:07	19.03	9:57	16.33	12:32	19.99
7:28	31.63	10:13	22.5	12:43	18.12	5:08	21.7	9:58	18.15	12:33	21.26
7:29	29.57	10:14	22.52	12:44	18.41	5:09	16.93	9:59	15.44	12:34	19.48
7:30	23.69	10:15	16.97	12:45	15.42	5:10	16.59	10:00	19.77	12:35	18.8
7:31	20.9	10:16	14.23	12:46	14.21	5:11	18	10:01	20.97	12:36	18.17
7:32	16.75	10:17	13.43	12:47	17.31	5:12	18.39	10:02	20.11	12:37	16.56
7:33	14.69	10:18	19.42	12:48	22.28	5:13	19.7	10:03	20.44	12:38	16.62
7:34	15.08	10:19	21.1	12:49	21.77	5:14	20.18	10:04	18.36	12:39	17.55
7:35	16.18	10:20	19.41	12:50	16.07	5:15	19.88	10:05	22.82	12:40	17.56
7:36	20.22	10:21	21.5	12:51	16.58	5:16	16	10:06	18.3	12:41	17.39
7:37	22.19	10:22	22.88	12:52	18.28	5:17	16.53	10:07	23.63	12:42	19.78
7:38	19.38	10:23	21.91	12:53	20.57	5:18	18.14	10:08	24.22	12:43	22
7:39	16.16	10:24	22.29	12:54	23.07	5:19	14.68	10:09	21.08	12:44	19.09
7:40	15.42	10:25	15.59	12:55	21.73	5:20	13.88	10:10	17.52	12:45	16.32
7:41	14.8	10:26	13.95	12:56	18.4	5:21	Bkflsh	10:11	19.32	12:46	16.56
7:42	18.82	10:27	17.25	12:57	18.06	5:22	Bkflsh	10:12	20.04	12:47	16.87
7:43	18.59	10:28	19.55	12:58	14.8	5:23	18.18	10:13	22.45	12:48	17.53
7:44	21.58	10:29	17.3	12:59	15.06	5:24	19.64	10:14	22.21	12:49	19.61
7:45	22.55	10:30	17.11	13:00	17.35	5:25	24.47	10:15	16.57	12:50	19.19
7:46	21.83	10:31	24.05	13:01	14.9	5:26	22.24	10:16	23.46	12:51	23.89
7:47	20.22	10:32	19.54	13:02	18.06	5:27	19.1	10:17	26.18	12:52	22.8
7:48	22.15	10:33	15.2	13:03	15.83	5:28	19.14	10:18	20.47	12:53	23.56

7:49	23.98	10:34	13.57	13:04	17.62	5:29	16.89	10:19	23.05	12:54	23.58
7:50	20.15	10:35	12.53	13:05	18.43	5:30	13.14	10:20	33.11	12:55	20.81
7:51	17.6	10:36	10.7	13:06	20.32	5:31	13.71	10:21	29.48	12:56	18.76
7:52	17.02	10:37	11.81	13:07	20.59	5:32	13.68	10:22	26.62	12:57	19.92
7:53	16.93	10:38	12.36	13:08	19.51	5:33	17.79	10:23	23.25	12:58	18.55
7:54	17.5	10:39	10.7	13:09	24.65	5:34	19.61	10:24	22.26	12:59	16.61
7:55	19.14	10:40	14.51	13:10	28.03	5:35	20.11	10:25	22.32	13:00	18.62
7:56	17.29	10:41	16.28	13:11	21.61	5:36	20.29	10:26	18.99	13:01	17.78
7:57	18.49	10:42	14.08	13:12	15.52	5:37	18.46	10:27	17.67	13:02	16.73
7:58	20.91	10:43	12.61	13:13	13.12	5:38	18.81	10:28	17.97	13:03	21.54
7:59	20.34	10:44	15.34	13:14	11.39	5:39	19.77	10:29	15.05	13:04	18.89
8:00	16.28	10:45	16.36	13:15	11.59	5:40	19.82	10:30	15.63	13:05	17.64

APPENDIX C
CALCULATIONS

Appendix C.1
General Emissions Calculations

GENERAL EMISSIONS CALCULATIONS

I. Stack Gas Velocity

A. Stack gas molecular weight, lb/lb-mole

$MW_{dry} = 0.44 * \%\ CO_2 + 0.32 * \%\ O_2 + 0.28 * \%\ N_2$

$MW_{wet} = MW_{dry} * (1 - B_{wo}) + 18 * B_{wo}$

B. Absolute stack pressure, iwg

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

C. Stack gas velocity, ft/sec

$$V_s = 2.9 * C_p * \sqrt{\Delta P} * \sqrt{T_s} * \sqrt{\frac{29.92 * 28.95}{P_s * MW_{wet}}}$$

II. Moisture

A. Sample gas volume, dscf

$$V_{mstd} = 0.03342 * V_m * \left(P_{bar} + \frac{\Delta H}{13.6}\right) * \frac{T_{ref}}{T_m} * Y_d$$

B. Water vapor volume, scf

$$V_{wstd} = 0.0472 * V_{ic} * \frac{T_{ref}}{528°R}$$

C. Moisture content, dimensionless

$$B_{wo} = \frac{V_{wstd}}{(V_{mstd} + V_{wstd})}$$

III. Stack Gas Volumetric Flow Rate

A. Actual stack gas volumetric flow rate, wacfm

$Q = V_s * A_s * 60$

B. Standard stack gas flow rate, dscfm

$$Q_{sd} = Q * (1 - B_{wo}) * \frac{T_{ref}}{T_s} * \frac{P_s}{29.92}$$

IV. Gaseous Mass Emission Rates, lb/hr

$$M = \frac{ppm * MW_i * Q_{sd} * 60}{SV * 10^6}$$

V. Emission Rates, lb/MMBtu

$$\frac{lb}{MMBtu} = \frac{ppm * MW_i * F}{SV * 10^6} * \frac{20.9}{20.9 - \% O_2}$$

VI. Percent Isokinetic

$$I = \frac{17.32 * T_s (V_{mstd})}{(1 - B_{wo})\ 0 * V_s * P_s * Dn^2} * \frac{520°R}{T_{ref}}$$

VII. Particulate Emissions

(a) Grain loading, gr/dscf
$C = 0.01543\ (M_n/V_{m\ std})$

(b) Grain loading at 12% CO_2, gr/dscf
$C_{12\%}\ CO_2 = C\ (12/\%\ CO_2)$

(c) Mass emissions, lb/hr
$M = C * Q_{sd} * (60\ min/hr) / (7000\ gr/lb)$

(d) Particulate emission factor

$$lb/10^6\ Btu = Cx \frac{1\ lb}{7000\ gr} * F * \frac{20.9}{20.9 - \% O_2}$$

Nomenclature:

A_s	=	stack area, ft^2
B_{wo}	=	flue gas moisture content, dimensionless
$C_{12\%CO2}$	=	particulate grain loading, gr/dscf corrected to 12% CO_2
C	=	particulate grain loading, gr/dscf
C_p	=	pitot calibration factor, dimensionless
Dn	=	nozzle diameter, inches
F	=	fuel F-Factor, dscf/MMBtu @ 0% O_2
H	=	orifice differential pressure, iwg
I	=	% isokinetics
M_n	=	mass of collected particulate, mg
M_i	=	mass emission rate of specie i, lb/hr
MW	=	molecular weight of flue gas, lb/lb-mole
M_{wi}	=	molecular weight of specie i:
	SO_2:	64
	NO_x:	46
	CO:	28
	HC:	16
0	=	sample time, minutes
ΔP	=	average velocity head, iwg = $(\sqrt{\Delta P})^2$
P_{bar}	=	barometric pressure, inches Hg
P_s	=	stack absolute pressure, inches Hg
P_{sg}	=	stack static pressure, iwb
Q	=	wet stack flow rate at actual conditions, wacfm
Q_{sd}	=	dry standard stack flow rate, dscfm
SV	=	specific molar volume of an ideal gas at standard conditions, ft^3/lb-mole
T_m	=	meter temperature, °R
T_{ref}	=	reference temperature, °R
T_s	=	stack temperature, °R
V_s	=	stack gas velocity, ft/sec
V_{lc}	=	volume of liquid collected in impingers, ml
V_m	=	uncorrected dry meter volume, dcf
V_{mstd}	=	dry meter volume at standard conditions, dscf
V_{wstd}	=	volume of water vapor at standard conditions, scf
Y_d	=	meter calibration coefficient

Appendix C.2
Unit 1 Calculations

Appendix C.2.1
Unit 1 Gaseous Calculations

Montrose AQS
NOx, CO, SO2 Compliance
DATA AND WORKSHEET
Desert View Power UNIT 1

PRE-TEST INFORMATION GENERAL		
Test:	1-U1	
Date:	4/6/2022	
Start/Stop Time:	7:55	9:55
Station:	Desert View Power	
Unit:	#1	
Test Condition:	Full Load	
Performed By:	DW	

PRE-TEST INFORMATION SAMPLE TRAIN		
Barom. Pressure:		psi
	30.03	"Hg
Meter No	1 P&M	
Meter Y_d:	1.0150	
Meter Pressure:	1.0	iwg
Pstack:	0.30	iwg
Pstack:	30.05	"Hg
Cp:	0.84	
Tref:	68	°F
Stack Area:	38.84	ft^2

METHOD 4 DATA

Impingers

#/Matl.	End	Start	Diff.
1/H2O	880.2	748.8	131.4
2/H2O	746.2	730.2	16.0
3/Empty	518.6	518.4	0.2
4/S.G.	996.0	987.8	8.2
Rinse		50.0	-50.0
Total			105.8

Dry Gas Meter

Time	Vol.	Tm(in)	Tm(out)
Start	893.100	77	79
		78	81
Stop	928.637	79	81
Total	35.537		79.2

Summary

Sample Volume:	35.534	dscf
H_2O Volume :	4.994	scf
Moisture Content:	12.3	%

METHOD 3A, 6C, 7E DATA

	O_2	CO_2	NO_x	CO
Analyzer Span	19.02	18.94	94.70	8.37
Actual Span Value	10.53	10.58	48.1	5.55
Pre Test Zero Direct	-0.01	0.06	0.01	-0.02
Pre Test Span Direct	10.53	10.63	48.89	5.57
Pre-test Zero	0.00	0.11	0.10	0.13
Pre-test Span	10.46	10.62	48.40	5.56
0-30 min	9.88	10.74	41.36	-0.28
Post Test Zero Direct	-0.01	0.03	0.01	0.02
Post Test Span Direct	10.53	10.59	48.35	5.56
Post-test Zero	0.01	0.10	0.05	0.05
Post-test Span	10.49	10.63	48.12	5.55
Average	9.88	10.74	41.36	-0.28
Corr. Results	9.93	10.70	41.21	0.00
	Cal Error <2%, Bias <5%; Drift <3%			
Calibrtion Error	0.0%	0.3%	0.8%	0.2%
Pre-Test Zero Bias	0.0%	0.3%	0.1%	1.7%
Pre-Test Span Bias	-0.4%	-0.1%	-0.5%	-0.1%
Post-Test Zero Bias	0.1%	0.4%	0.0%	0.4%
Post-Test Span Bias	-0.2%	0.2%	-0.2%	-0.2%
Zero Drift	0.0%	0.0%	-0.1%	-0.9%
Span Drift	0.1%	0.1%	-0.3%	-0.2%

METHOD 2 DATA

Point	dP (in. H_2O)	dP^2 (in. H_2O^2)	Temp (°F)	Velocity (fps)
5	1.30	1.1402	357	79.68
4	1.60	1.2649	356	88.34
3	1.10	1.0488	354	73.16
2	1.10	1.0488	350	72.98
1	0.99	0.9950	346	69.06
5	1.40	1.1832	355	82.58
4	1.10	1.0488	356	73.25
3	1.10	1.0488	355	73.20
2	1.20	1.0954	353	76.36
1	1.00	1.0000	350	69.58
5	1.10	1.0488	357	73.29
4	0.99	0.9950	358	69.57
3	0.93	0.9644	356	67.35
2	0.80	0.8944	352	62.31
1	0.75	0.8660	350	60.26
5	0.86	0.9274	351	64.57
4	0.80	0.8944	352	62.31
3	0.80	0.8944	355	62.43
2	0.89	0.9434	353	65.76
1	0.92	0.9592	352	66.82
5	1.30	1.1402	351	79.38
4	0.99	0.9950	352	69.32
3	0.82	0.9055	353	63.13
2	0.75	0.8660	355	60.45
1	0.63	0.7937	353	55.33
5	0.98	0.9899	353	69.01
4	0.87	0.9327	354	65.06
3	0.80	0.8944	355	62.43
2	0.91	0.9539	352	66.46
1	0.99	0.9950	352	69.32
Average	0.9819	0.9909	353.3	69.09

TEST SUMMARY

O_2:	9.926	% dry
	8.702	% wet
CO_2:	10.702	% dry
	9.383	% wet
NO_x:	41.215	ppm dry
	36.136	ppm wet
	27.176	lb/hr
SO_2:	10.3058771	ppm dry
SO2:	9.455	lb/hr
CO:	0.00	ppm dry
	0.00	ppm wet
	0.000	lb/hr
H_2O:	12.3	%
MW:	28.62	lb/lb-mole
Flow:	161,013	wacfm
	92.05	mdscfm
	5522.99	kdscfh

SOx Titration Summary

	B1/2	Probe
N BaCl2	0.00974659	
Total VOL (ml)	432.8	
Aliquot VOL (ml)	20	
Titrant VOL (ml)	4.09	

RELATIVE ACCURACY DATA

Parameter	Units	Ref. Meth
Flow	kdscfh	5522.99
O_2	% dry	9.93
CO_2	% dry	10.70
NO_x	ppm dry	41.21
NO_x	ppm @ 3% O_2	67.22
NO_x	lb/hr	27.18
SO_2	ppm dry	10.31
SO_2	ppm @ 3% O_2	16.81
SO_2	lb/hr	9.45
CO	ppm dry	0.00
CO	ppm @ 3% O_2	0.00
CO	lb/hr	0.000

Montrose AQS
NOx, CO, SO2 Compliance
DATA AND WORKSHEET
Desert View Power UNIT 1

PRE-TEST INFORMATION GENERAL		
Test:	2-U1	
Date:	4/6/2022	
Start/Stop Time:	10:50	12:50
Station:	Desert View Power	
Unit:	#1	
Test Condition:	Full Load	
Performed By:	DW	

PRE-TEST INFORMATION SAMPLE TRAIN		
Barom. Pressure:		psi
	30.03	"Hg
Meter No.	1 P&M	
Meter Y_d	1.0150	
Meter Pressure:	1.0	iwg
Pstack:	0.30	iwg
Pstack:	30.05	"Hg
Cp:	0.84	
Tref:	68	°F
Stack Area:	38.84	ft^2

METHOD 4 DATA

Impingers

#/Matl.	End	Start	Diff.
1/H2O	828.1	698.4	129.7
2/H2O	759.9	753.0	6.9
3/Empty	616.0	615.8	0.2
4/S.G.	923.7	916.4	7.3
Rinse		50.0	-50.0
Total			94.1

Dry Gas Meter

Time	Vol.	Tm(in)	Tm(out)
Start	930.700	88	92
		90	91
Stop	964.638	92	91
Total	33.938		90.7

Summary

Sample Volume:	33.226	dscf
H_2O Volume :	4.442	scf
Moisture Content:	11.8	%

METHOD 2 DATA

Point	dP (in. H_2O)	dP^2 (in. H_2O^2)	Temp (°F)	Velocity (fps)
5	1.20	1.0954	356	76.42
4	1.40	1.1832	354	82.44
3	1.20	1.0954	358	76.51
2	1.10	1.0488	354	73.07
1	1.00	1.0000	349	69.46
5	1.50	1.2247	359	85.59
4	1.00	1.0000	356	69.76
3	0.99	0.9950	357	69.45
2	1.30	1.1402	354	79.44
1	1.00	1.0000	350	69.50
5	1.20	1.0954	359	76.56
4	0.98	0.9899	355	69.01
3	0.94	0.9695	356	67.63
2	0.81	0.9000	352	62.63
1	0.74	0.8602	348	59.71
5	0.88	0.9381	356	65.44
4	0.79	0.8888	357	62.04
3	0.81	0.9000	357	62.82
2	0.90	0.9487	355	66.14
1	0.91	0.9539	354	66.46
5	1.20	1.0954	354	76.32
4	1.00	1.0000	357	69.80
3	0.81	0.9000	358	62.86
2	0.77	0.8775	354	61.14
1	0.65	0.8062	357	56.28
5	0.99	0.9950	357	69.45
4	0.89	0.9434	358	65.89
3	0.77	0.8775	359	61.33
2	0.93	0.9644	359	67.40
1	1.00	1.0000	357	69.80
Average	0.9792	0.9896	355.5	69.01

METHOD 3A, 6C, 7E DATA

	O_2	CO_2	NO_x	CO
Analyzer Span	19.02	18.94	94.70	8.37
Actual Span Value	10.53	10.58	48.1	5.55
Pre Test Zero Direct	-0.01	0.03	0.01	0.02
Pre Test Span Direct	10.53	10.59	48.35	5.56
Pre-test Zero	0.01	0.10	0.05	0.05
Pre-test Span	10.49	10.63	48.12	5.55
0-30 min	9.80	10.75	43.73	-0.32
Post Test Zero Direct	-0.02	0.04	0.03	-0.03
Post Test Span Direct	10.52	10.57	48.24	5.51
Post-test Zero	-0.01	0.09	0.10	0.10
Post-test Span	10.46	10.57	47.70	5.56
Average	9.80	10.75	43.73	-0.32
Corr. Results	9.85	10.73	43.89	0.00
	Cal Error <2%, Bias <5%; Drift <3%			
Calibrtion Error	0.0%	0.1%	0.3%	0.1%
Pre-Test Zero Bias	0.1%	0.4%	0.0%	0.4%
Pre-Test Span Bias	-0.2%	0.2%	-0.2%	-0.2%
Post-Test Zero Bias	0.1%	0.3%	0.1%	1.5%
Post-Test Span Bias	-0.3%	0.0%	-0.6%	0.5%
Zero Drift	-0.1%	0.0%	0.1%	0.6%
Span Drift	-0.2%	-0.3%	-0.4%	0.1%
CAL STATUS	PASS	PASS	PASS	PASS

RELATIVE ACCURACY DATA

Parameter	Units	Ref. Meth
Flow	kdscfh	5534.51
O_2	% dry	9.85
CO_2	% dry	10.73
NO_x	ppm dry	43.89
NO_x	ppm @ 3% O_2	71.13
NO_x	lb/hr	29.00
SO_2	ppm dry	10.33
SO_2	ppm @ 3% O_2	16.74
SO_2	lb/hr	9.496
CO	ppm dry	0.00
CO	ppm @ 3% O_2	0.00
CO	lb/hr	0.000

TEST SUMMARY

O_2:	9.854	% dry
	8.692	% wet
CO_2:	10.734	% dry
	9.468	% wet
NO_x:	43.891	ppm dry
	38.716	ppm wet
	29.001	lb/hr
SO_2:	10.32915	ppm dry
	9.496	lb/hr
CO:	0.00	ppm dry
	0.00	ppm wet
	0.000	lb/hr
H_2O:	11.8	%
MW:	28.68	lb/lb-mole
Flow:	160,826	wacfm
	92.242	mdscfm
	5534.51	kdscfh

SOx Titration Summary

	B1/2	Probe
N BaCl2	0.00974659	
Total VOL (ml)	413.7	
Aliquot VOL (ml)	20	
Titrant VOL (ml)	4.01	

Montrose AQS
NOx, CO, SO2 Compliance
DATA AND WORKSHEET
Desert View Power UNIT 1

PRE-TEST INFORMATION
GENERAL

Test:	3-U1	
Date:	4/6/2022	
Start/Stop Time:	13:30	15:30
Station:	Desert View Power	
Unit:	#1	
Test Condition:	Full Load	
Performed By:	DW	

PRE-TEST INFORMATION
SAMPLE TRAIN

Barom. Pressure:		psi
	30.03	"Hg
Meter No.	1 P&M	
Meter Y_d:	1.0150	
Meter Pressure:	1.0	iwg
Pstack:	0.30	iwg
Pstack:	30.05	"Hg
Cp:	0.84	
Tref:	68	°F
Stack Area:	38.84	ft^2

METHOD 4 DATA
Impingers

#/Matl.	End	Start	Diff.
1/H2O	842.1	713.1	129.0
2/H2O	721.4	712.3	9.1
3/Empty	517.1	515.6	1.5
4/S.G.	1004.5	996.0	8.5
Rinse		50.0	-50.0
Total			98.1

Dry Gas Meter

Time	Vol.	Tm(in)	Tm(out)
Start	969.150	94	98
		96	103
Stop	1004.046	98	106
Total	34.896		99.2

Summary

Sample Volume:	33.645	dscf
H_2O Volume :	4.630	scf
Moisture Content:	12.1	%

METHOD 2 DATA

Point	dP (in. H_2O)	dP^2 (in. H_2O^2)	Temp (°F)	Velocity (fps)
5	1.30	1.1402	360	79.73
4	1.50	1.2247	361	85.70
3	1.10	1.0488	356	73.17
2	1.00	1.0000	354	69.68
1	1.10	1.0488	357	73.21
5	1.30	1.1402	361	79.78
4	1.20	1.0954	363	76.75
3	1.00	1.0000	357	69.80
2	1.30	1.1402	361	79.78
1	0.99	0.9950	358	69.50
5	1.30	1.1402	363	79.88
4	0.97	0.9849	365	69.08
3	0.95	0.9747	366	68.41
2	0.79	0.8888	361	62.19
1	0.75	0.8660	359	60.53
5	0.89	0.9434	358	65.89
4	0.80	0.8944	362	62.62
3	0.79	0.8888	361	62.19
2	0.91	0.9539	362	66.79
1	0.93	0.9644	360	67.44
5	1.10	1.0488	360	73.34
4	1.10	1.0488	367	73.66
3	0.79	0.8888	363	62.27
2	0.76	0.8718	363	61.08
1	0.67	0.8185	359	57.21
5	1.00	1.0000	364	70.10
4	0.91	0.9539	365	66.91
3	0.75	0.8660	363	60.67
2	0.95	0.9747	362	68.24
1	0.99	0.9950	360	69.58
Average	0.9867	0.9933	361.0	69.51

METHOD 3A, 6C, 7E DATA

	O_2	CO_2	NO_x	CO
Span	19.02	18.94	94.70	8.37
Actual Span Value	10.53	10.58	48.1	5.55
Pre Test Zero Direct	-0.02	0.04	0.03	-0.03
Pre Test Span Direct	10.52	10.57	48.24	5.51
Pre-test Zero	-0.01	0.09	0.10	0.10
Pre-test Span	10.46	10.57	47.70	5.56
0-30 min	9.51	11.04	42.59	-0.34
Post Test Zero Direct	-0.03	0.01	0.01	-0.07
Post Test Span Direct	10.51	10.56	48.11	5.45
Post-test Zero	-0.01	0.08	0.05	0.08
Post-test Span	10.44	10.57	47.70	5.51
Average	9.51	11.04	42.59	-0.34
Corr. Results	9.59	11.05	42.94	0.00
	Cal Error <2%, Bias <5%; Drift <3%			
Calibrtion Error	-0.1%	0.0%	0.2%	-0.4%
Pre-Test Zero Bias	0.1%	0.3%	0.1%	1.5%
Pre-Test Span Bias	-0.3%	0.0%	-0.6%	0.5%
Post-Test Zero Bias	0.1%	0.4%	0.0%	1.8%
Post-Test Span Bias	-0.4%	0.1%	-0.4%	0.7%
Zero Drift	0.0%	-0.1%	-0.1%	-0.2%
Span Drift	-0.1%	0.0%	0.0%	-0.6%
CAL STATUS	PASS	PASS	PASS	PASS

TEST SUMMARY

O_2:	9.587	% dry
	8.427	% wet
CO_2:	11.050	% dry
	9.713	% wet
NO_x:	42.944	ppm dry
	37.749	ppm wet
	28.289	lb/hr
SO_2:	8.87748101	ppm dry
	8.136	lb/hr
CO:	0.00	ppm dry
	0.00	ppm wet
	0.000	lb/hr
H_2O:	12.1	%
MW:	28.68	lb/lb-mole
Flow:	161,980	wacfm
	91.96	mdscfm
	5517.67	kdscfh

RELATIVE ACCURACY DATA

Parameter	Units	Ref. Meth
Flow	kdscfh	5517.67
O_2	% dry	9.59
CO_2	% dry	11.05
NO_x	ppm dry	42.94
NO_x	ppm @ 3% O_2	67.95
NO_x	lb/hr	28.29
SO_2	ppm dry	8.88
SO_2	ppm @ 3% O_2	14.05
SO_2	lb/hr	8.136
CO	ppm dry	0.00
CO	ppm @ 3% O_2	0.00
CO	lb/hr	0.000

SOx Titration Summary

	B1/2	Probe
N BaCl2	0.00974659	
Total VOL (ml)	412.5	
Aliquot VOL (ml)	20	
Titrant VOL (ml)	3.50	

Montrose AQS
Run 1 CEMS
DATA AND WORKSHEET
Desert View Power UNIT 1

PRE-TEST INFORMATION GENERAL		
Test:	1-O2/CO2-U1	
Date:	4/7/2022	
Start/Stop Time:	3:40	5:40
Station:	Desert View Power	
Unit:	Unit 1	
Test Condition:	Full Load	
Performed By:	DW	

PRE-TEST INFORMATION SAMPLE TRAIN		
Barom. Pressure:		psi
	30.18	"Hg
Meter No.	1 P&M	
Meter Y_d:	1.0150	
Meter Pressure:	1.0	iwg
Pstack:	0.31	iwg
Pstack:	30.20	"Hg
Cp:	0.84	
Tref:	68	°F
Stack Area:	38.84	ft2

METHOD 4 DATA

Impingers

#/Matl.	End	Start	Diff.
1/H2O	897.4	733.0	164.4
2/H2O	735.2	731.0	4.2
3/Empty	517.7	516.9	0.8
4/S.G.	1021.8	1006.2	15.6
Rinse			0.0
Total			185.0

Dry Gas Meter

Time	Vol.	Tm(in)	Tm(out)
Start	6.600	73	74
		73	76
Stop	75.638	74	76
		75	77
Total	69.038		74.8

Summary

Sample Volume:	69.948	dscf
H_2O Volume :	8.732	scf
Moisture Content:	11.1	%

METHOD 3A, 6C, 7E DATA

	O_2	CO_2
Analyzer Span	19.02	18.94
Actual Span Value	10.53	10.58
Pre Test Zero Direct	-0.01	0.03
Pre Test Span Direct	10.55	10.62
Pre-test Zero	-0.01	0.09
Pre-test Span	10.49	10.64
Average	10.09	10.09
Post Test Zero Direct	-0.02	0.06
Post Test Span Direct	10.55	10.69
Post-test Zero	0.00	0.15
Post-test Span	10.49	10.70
Average	10.09	10.09
Corr. Results	10.13	9.99
Cal Error <2%, Bias <5%; Drift <3%		
Calibrtion Error	0.1%	0.2%
Pre-Test Zero Bias	0.0%	0.3%
Pre-Test Span Bias	-0.3%	0.1%
Post-Test Zero Bias	0.1%	0.5%
Post-Test Span Bias	-0.3%	0.1%
Zero Drift	0.0%	0.3%
Span Drift	0.0%	0.3%

METHOD 2 DATA

Point	dP (in. H_2O)	dP^2 (in. H_2O^2)	Temp (°F)	Velocity (fps)
5	1.30	1.1402	349	79.01
4	1.40	1.1832	350	82.05
3	1.10	1.0488	351	72.77
2	1.00	1.0000	350	69.34
1	0.98	0.9899	350	68.64
5	1.40	1.1832	351	82.10
4	1.00	1.0000	350	69.34
3	1.00	1.0000	350	69.34
2	1.20	1.0954	349	75.91
1	1.00	1.0000	348	69.26
5	1.20	1.0954	349	75.91
4	0.98	0.9899	349	68.60
3	0.93	0.9644	349	66.83
2	0.80	0.8944	347	61.91
1	0.76	0.8718	347	60.34
5	0.89	0.9434	349	65.38
4	0.80	0.8944	349	61.98
3	0.82	0.9055	350	62.79
2	0.91	0.9539	350	66.15
1	0.94	0.9695	348	67.15
5	1.10	1.0488	348	72.64
4	1.10	1.0488	349	72.68
3	0.77	0.8775	349	60.81
2	0.73	0.8544	347	59.14
1	0.66	0.8124	347	56.23
5	1.00	1.0000	347	69.21
4	0.92	0.9592	348	66.43
3	0.74	0.8602	349	59.61
2	0.91	0.9539	348	66.07
1	0.98	0.9899	347	68.52
Average	0.9688	0.9843	348.8	68.20

TEST SUMMARY

O_2:	10.126	% dry
	9.002	% wet
CO_2:	9.995	% dry
	8.886	% wet
H_2O:	11.1	%
MW:	28.67	lb/lb-mole
Flow:	158,944	wacfm
	93.11	mdscfm
	5586.54	kdscfh

Montrose AQS
Run 2 CEMS
DATA AND WORKSHEET
Desert View Power UNIT 1

PRE-TEST INFORMATION

GENERAL

Test:	2-O2/CO2-U1	
Date:	4/7/2022	
Start/Stop Time:	8:30	10:30
Station:	Desert View Power	
Unit:	Unit 1	
Test Condition:	Full Load	
Performed By:	DW	

PRE-TEST INFORMATION

SAMPLE TRAIN

Barom. Pressure:		psi
	30.18	"Hg
Meter No.	1 P&M	
Meter Y_d:	1.0150	
Meter Pressure:	1.0	iwg
Pstack:	0.31	iwg
Pstack:	30.20	"Hg
Cp:	0.84	
Tref:	68	°F
Stack Area:	38.84	ft2

METHOD 4 DATA

Impingers

#/Matl.	End	Start	Diff.
1/H2O	878.1	724.8	153.3
2/H2O	747.9	735.2	12.7
3/Empty	522.6	517.7	4.9
4/S.G.	923.4	901.4	22.0
Rinse			0.0
Total			192.9

Dry Gas Meter

Time			
Start	76.300	81	84
		86	92
Stop	147.582	88	93
		90	96
Total	71.282		88.8

Summary

Sample Volume:	70.379	dscf
H_2O Volume :	9.105	scf
Moisture Content:	11.5	%

METHOD 3A, 6C, 7E DATA

	O_2	CO_2
Analyzer Span	19.02	18.94
Actual Span Value	10.53	10.58
Pre Test Zero Direct	-0.02	0.07
Pre Test Span Direct	10.60	10.70
Pre-test Zero	0.02	0.13
Pre-test Span	10.62	10.68
Average	9.73	11.02
Post Test Zero Direct	-0.01	0.06
Post Test Span Direct	10.63	10.66
Post-test Zero	0.02	0.12
Post-test Span	10.63	10.67
Average	9.73	11.02
Corr. Results	9.64	10.93
Cal Error <2%, Bias <5%; Drift <3%		
Calibrtion Error	0.4%	0.6%
Pre-Test Zero Bias	0.2%	0.3%
Pre-Test Span Bias	0.1%	-0.1%
Post-Test Zero Bias	0.1%	0.3%
Post-Test Span Bias	0.0%	0.0%
Zero Drift	0.0%	-0.1%
Span Drift	0.1%	-0.1%

METHOD 2 DATA

Point	dP (in. H_2O)	dP^2 (in. H_2O^2)	Temp (°F)	Velocity (fps)
5	1.00	1.0000	350	69.25
4	0.92	0.9592	351	66.47
3	0.76	0.8718	350	60.37
2	0.98	0.9899	351	68.60
1	0.99	0.9950	351	68.95
5	1.20	1.0954	350	75.86
4	1.10	1.0488	351	72.68
3	0.80	0.8944	351	61.98
2	0.75	0.8660	352	60.05
1	0.64	0.8000	351	55.44
5	0.89	0.9434	351	65.37
4	0.82	0.9055	352	62.79
3	0.80	0.8944	352	62.02
2	0.92	0.9592	351	66.47
1	0.91	0.9539	350	66.06
5	1.30	1.1402	350	78.96
4	0.99	0.9950	351	68.95
3	0.83	0.9110	351	63.13
2	0.76	0.8718	351	60.41
1	0.77	0.8775	345	60.58
5	1.30	1.1402	348	78.86
4	1.50	1.2247	350	84.82
3	1.20	1.0954	351	75.91
2	1.00	1.0000	351	69.30
1	1.00	1.0000	350	69.25
5	1.40	1.1832	350	81.94
4	1.00	1.0000	351	69.30
3	1.10	1.0488	351	72.68
2	1.10	1.0488	350	72.63
1	1.00	1.0000	351	69.30
Average	0.9810	0.9905	350.5	68.61

TEST SUMMARY

O_2:	9.641	% dry
	8.537	% wet
CO_2:	10.930	% dry
	9.678	% wet
H_2O:	11.5	%
MW:	28.74	lb/lb-mole
Flow:	159,898	wacfm
	93.10	mdscfm
	5585.75	kdscfh

Montrose AQS
Run 3 CEMS
DATA AND WORKSHEET
Desert View Power UNIT 1

PRE-TEST INFORMATION
GENERAL

Test:	3-O2/CO2-U1	
Date:	4/7/2022	
Start/Stop Time:	11:05	13:05
Station:	Desert View Power	
Unit:	Unit 1	
Test Condition:	Full Load	
Performed By:	DW	

PRE-TEST INFORMATION
SAMPLE TRAIN

Barom. Pressure:		psi
	30.18	"Hg
Meter No.	1 P&M	
Meter Y_d:	1.0150	
Meter Pressure:	1.0	iwg
Pstack:	0.31	iwg
Pstack:	30.20	"Hg
Cp:	0.84	
Tref:	68	°F
Stack Area:	38.84	ft2

METHOD 4 DATA
Impingers

#/Matl.	End	Start	Diff.
1/H2O	885.9	728.1	157.8
2/H2O	751.3	749.0	2.3
3/Empty	642.6	642.1	0.5
4/S.G.	940.7	923.1	17.6
Rinse			0.0
Total			178.2

Dry Gas Meter

Time	Vol.	Tm(in)	Tm(out)
Start	148.000	92	94
		93	96
Stop	212.568	95	99
		96	99
Total	64.568		95.5

Summary

Sample Volume:	62.976	dscf
H_2O Volume :	8.411	scf
Moisture Content:	11.8	%

METHOD 3A, 6C, 7E DATA

	O_2	CO_2
Analyzer Span	19.02	18.94
Actual Span Value	10.53	10.58
Pre Test Zero Direct	-0.01	0.06
Pre Test Span Direct	10.63	10.66
Pre-test Zero	0.02	0.12
Pre-test Span	10.63	10.67
Average	9.74	10.99
Post Test Zero Direct	-0.01	0.05
Post Test Span Direct	10.63	10.65
Post-test Zero	0.01	0.12
Post-test Span	10.56	10.66
Average	9.74	10.99
Corr. Results	9.68	10.91
Cal Error <2%, Bias <5%; Drift <3%		
Calibrtion Error	0.5%	0.4%
Pre-Test Zero Bias	0.1%	0.3%
Pre-Test Span Bias	0.0%	0.0%
Post-Test Zero Bias	0.1%	0.4%
Post-Test Span Bias	-0.4%	0.1%
Zero Drift	-0.1%	0.0%
Span Drift	-0.3%	0.0%

METHOD 2 DATA

Point	dP (in. H_2O)	dP^2 (in. H_2O^2)	Temp (°F)	Velocity (fps)
5	1.40	1.1832	346	81.80
4	1.20	1.0954	347	75.78
3	1.00	1.0000	347	69.18
2	1.10	1.0488	346	72.51
1	0.98	0.9899	345	68.40
5	1.30	1.1402	344	78.73
4	1.50	1.2247	345	84.62
3	1.20	1.0954	344	75.64
2	1.00	1.0000	344	69.05
1	0.99	0.9950	345	68.74
5	1.30	1.1402	346	78.82
4	0.97	0.9849	347	68.13
3	0.84	0.9165	346	63.36
2	0.75	0.8660	346	59.87
1	0.73	0.8544	345	59.03
5	0.88	0.9381	346	64.85
4	0.83	0.9110	345	62.94
3	0.77	0.8775	346	60.66
2	0.90	0.9487	346	65.59
1	0.91	0.9539	346	65.95
5	1.20	1.0954	346	75.73
4	1.10	1.0488	347	72.55
3	0.78	0.8832	347	61.09
2	0.74	0.8602	347	59.51
1	0.62	0.7874	345	54.40
5	0.97	0.9849	346	68.09
4	0.93	0.9644	346	66.67
3	0.77	0.8775	346	60.66
2	0.98	0.9899	347	68.48
1	0.99	0.9950	346	68.79
Average	0.9769	0.9884	345.8	68.32

TEST SUMMARY

O_2:	9.684	% dry
	8.543	% wet
CO_2:	10.906	% dry
	9.621	% wet
H_2O:	11.8	%
MW:	28.70	lb/lb-mole
Flow:	159,215	wacfm
	92.89	mdscfm
	5573.43	kdscfh

Appendix C.2.2
Unit 1 Hydrogen Chloride Calculations

Desert View Power - Unit 1

Test No	1-HCl-U1	2-HCl-U1	3-HCl-U1	Average	Limit
Date	4/7/2022	4/7/2022	4/7/2022		
Start Time	3:40	8:30	11:05		
Stop Time	5:40	10:30	13:05		
Test Information					
Reference Temperature, °F	68	68	68		
Diluent Emissions and Stack Flow Rate					
Moisture Fraction, %	11.10	11.45	11.78	11.4	
O_2, % vol. dry	10.13	9.64	9.68	9.82	
CO_2, % vol. Dry	9.99	10.93	10.91	10.61	
Stack Flow Rate (dscfm)	93,109	93,096	92,891	92,993	
Fuel F_d Factor, dscf/MMBtu @ 68°.....	9,240	9,240	9,240	9,240	
Fuel F_d Factor, dscf/MMBtu @ 60°.....	9,100	9,100	9,100	9,100	
HCl Emissions					Limit
ppmvw	12.00	9.55	8.59	10.05	
ppmvd	13.50	10.79	9.74	11.34	
lb/hr (as HCl)	7.25	5.79	5.21	5.50	
lb/MMBtu	**0.0229**	**0.0175**	**0.0159**	**0.0188**	**0.022**

Appendix C.2.3
Unit 1 Particulate Calculations

EPA METHOD 5 SOURCE TEST

DATA AND WORKSHEET

Client	Desert View Power Parameter			Full Load
Loaction	Mecca	Fuel		Biomass
Unit	1	Data By		DW
Test Number	1-PM-U1	2-PM-U1	3-PM-U1	Average
Reference Temperature, F	68	68	68	
Test Date	4/6/2022	4/6/2022	4/6/2022	
Sample Train	17-WCS	17-WCS	17-WCS	-
Pitot Factor	0.840	0.840	0.840	-
Meter Calibration Factor	1.001	1.001	1.001	-
Stack Area (sq ft)	38.84	38.84	38.84	-
Sample Time (Min)	120	120	120	120
Barometric Pressure (in Hg)	30.03	30.03	30.03	30.03
Nozzle Diam (in)	0.246	0.248	0.246	0.247
Start/Stop Time	755/1005	1050/1300	1320/1530	-
Stack Pressure (iwg)	0.30	0.30	0.30	0.30
Delta P (iwg)	0.982	0.979	0.987	0.983
Meter Pressure (iwg)	2.080	2.230	2.220	2.177
Stack Temperature (F)	353.4	355.5	361.0	356.7
Meter Temperature (F)	85.1	90.4	93.0	89.5
Meter Volume (acf)	94.413	98.831	99.990	97.745
Liquid Volume (ml)	261.9	243.2	268.3	257.8
Stack O2 (%)	9.93	9.85	9.59	9.79
Stack CO2 (%)	10.70	10.73	11.05	10.83
Standard Sample Volume (SCF	92.328	95.753	96.421	94.834
Moisture Fraction	0.118	0.107	0.116	0.114
Molecular Weight (wet)	28.68	28.82	28.74	28.75
Stack Gas Velocity (ft/sec)	69.03	68.86	69.44	69.11
Stack Flow Rate (wacfm)	160,863	160,473	161,831	161,056
Stack Flow Rate (dscfm)	92,468	93,153	92,367	92,663
Isokinetic Ratio (%)	97.88	99.15	102.33	99.79
Analysis				
Filter mg	0.00	0.10	1.20	0.43
Probe/Nozzle mg	0.54	1.74	1.85	1.38
Particulate Catch, mg	0.54	1.84	3.05	1.81
Particulate Emissions				
Grain Loading gr/dscf	0.00009	0.00030	0.00049	0.00029
Grain Loading @ 12% CO2	0.00010	0.00033	0.00053	0.00032
Part emission lb/hr	0.072	0.237	0.386	0.232
F-Factor (dscf/MMBtu)	9240	9240	9240	
Emission rate, lb/MMBtu	0.0002	0.0007	0.0012	0.0007

	1-PM-U1						2-PM-U1						3-PM-U1					
	dP	(dP)^.5	dH	Ts	Tm		dP	(dP)^.5	dH	Ts	Tm		dP	(dP)^.5	dH	Ts	Tm	
5	1.30	1.140	2.7	357	76	76	1.20	1.095	2.7	356	85	82	1.30	1.140	2.8	360	92	87
4	1.60	1.265	3.3	356	77	76	1.40	1.183	3.2	354	86	82	1.50	1.225	3.4	361	90	85
3	1.10	1.049	2.3	354	78	77	1.20	1.095	2.7	358	87	82	1.10	1.049	2.5	356	90	84
2	1.10	1.049	2.3	350	79	77	1.10	1.049	2.5	354	89	84	1.00	1.000	2.3	354	91	86
1	0.99	0.995	2.0	348	81	78	1.00	1.000	2.3	349	89	85	1.10	1.049	2.5	357	93	88
5	1.40	1.183	2.9	355	80	77	1.50	1.225	3.4	359	87	84	1.30	1.140	2.9	361	90	85
4	1.10	1.049	2.3	356	82	79	1.00	1.000	2.3	356	89	86	1.20	1.095	2.7	363	92	87
3	1.10	1.049	2.3	355	83	80	0.99	0.995	2.2	357	90	87	1.00	1.000	2.3	357	92	88
2	1.20	1.095	2.5	353	84	81	1.30	1.140	2.9	354	90	88	1.30	1.140	2.9	361	94	91
1	1.00	1.000	2.1	350	86	82	1.00	1.000	2.3	350	91	88	0.99	0.995	2.2	358	93	90
5	1.10	1.049	2.3	357	87	83	1.20	1.095	2.7	359	88	86	1.30	1.140	2.9	363	90	87
4	0.99	0.995	2.1	358	88	84	0.98	0.990	2.2	355	90	88	0.97	0.985	2.2	365	91	88
3	0.93	0.964	2.0	356	88	83	0.94	0.970	2.1	356	91	89	0.95	0.975	2.1	366	93	90
2	0.80	0.894	1.7	352	89	84	0.81	0.900	1.8	352	92	89	0.79	0.889	1.8	361	95	91
1	0.75	0.866	1.6	350	90	86	0.74	0.860	1.7	348	93	90	0.75	0.866	1.7	359	95	92
5	0.86	0.927	1.8	351	87	84	0.88	0.938	2.0	356	89	87	0.89	0.943	2.0	358	92	89
4	0.80	0.894	1.7	352	88	84	0.79	0.889	1.8	357	91	88	0.80	0.894	1.8	362	94	91
3	0.80	0.894	1.7	355	89	85	0.81	0.900	1.8	357	92	89	0.79	0.889	1.7	361	95	93
2	0.89	0.943	1.9	353	90	86	0.90	0.949	2.0	355	93	90	0.91	0.954	2.0	362	96	94
1	0.92	0.959	1.9	352	91	87	0.91	0.954	2.0	354	94	91	0.93	0.964	2.0	360	96	93
5	1.30	1.140	2.7	351	88	85	1.20	1.095	2.7	354	92	89	1.10	1.049	2.4	360	95	90
4	0.99	0.995	2.1	352	89	87	1.00	1.000	2.3	357	94	91	1.10	1.049	2.4	367	97	93
3	0.82	0.906	1.7	353	91	87	0.81	0.900	1.8	358	96	92	0.79	0.889	1.7	363	97	95
2	0.75	0.866	1.6	355	91	87	0.77	0.877	1.7	354	96	93	0.76	0.872	1.7	363	99	96
1	0.63	0.794	1.3	353	92	88	0.65	0.806	1.5	357	97	94	0.67	0.819	1.5	359	99	97
5	0.98	0.990	2.1	355	90	86	0.99	0.995	2.2	357	94	91	1.00	1.000	2.2	364	99	95
4	0.87	0.933	1.8	354	92	88	0.89	0.943	2.0	358	96	94	0.91	0.954	2.0	365	100	97
3	0.80	0.894	1.7	355	93	89	0.77	0.877	1.7	359	97	95	0.75	0.866	1.7	363	101	98
2	0.91	0.954	1.9	352	93	89	0.93	0.964	2.1	359	99	96	0.95	0.975	2.1	362	100	99
1	0.99	0.995	2.1	352	92	88	1.00	1.000	2.3	357	100	98	0.99	0.995	2.2	360	101	99
Average		0.9819	2.080	353.4	85.1		Average	0.9792	2.230	355.5	90.4		Average	0.9867	2.220	361.0	93.0	
			Meter Vol	Imp	Imp				Meter Vol	Imp	Imp				Meter Vol	Imp	Imp	
Delta P (iwg)		0.982	54.445	938.2	714.9	223.3	Delta P (iwg)	0.979	149.400	938.5	739.4	199.1	Delta P (iwg)	0.987	249.000	927.9	716.2	211.7
Meter Pressure (iwg)		2.080	148.858	761.4	747.9	13.5	Meter Pressure (iwg)	2.230	248.231	778.2	766	12.2	Meter Pressure (iwg)	2.220	348.99	749.0	727.4	21.6
Stack Temperature (F		353.400	94.413	642.2	642.1	0.1	Stack Temperature (F	355.533	98.831	607.6	609.3	-1.7	Stack Temperature (F	361.033	99.990	642.1	637.6	4.5
Meter Temperature (F)		85.117		976.2	951.2	25.0	Meter Temperature (F)	90.417		972.7	939.1	33.6	Meter Temperature (F	93.000		1006.7	976.2	30.5
Meter Volume (acf)		94.413				0.0	Meter Volume (acf)	98.831				0.0	Meter Volume (acf)	99.990				0.0
Liquid Volume (ml)		261.9				261.9	Liquid Volume (ml)	243.2				243.2	Liquid Volume (ml)	268.3				268.3

Appendix C.2.4
Unit 1 Hydrocarbon Calculations

SCAQMD 25.3 SOURCE TEST
DATA AND WORKSHEET

Client.....	Desert View Power	Parameter.....	>90%
Loaction.....	Mecca	Fuel.....	Biomass/coke
Unit	Unit 1	Data By.....	DW
Test Number.....	2A-VOC-U1	2B-VOC-U1	Average
Reference Temperature, F.....	68	68	
Test Date.....	4/6/2022	4/6/2022	
Sample Time (Min).....	~60	~60	~60
Barometric Pressure (in Hg).....	30.03	30.03	30.03
Start/Stop Time.....	755/853	755/853	
Stack O2 (%).....	9.93	9.93	9.9
Stack CO2 (%).....	10.70	10.70	10.7
Stack H2O (%).....	12.3%	12.3%	12.3%
Stack Flow Rate (wacfm).....	161,013	161,013	161,013
Stack Flow Rate (dscfm).....	92,050	92,050	92,050
Laboraotory Results			
TGNMO ppm.....	3.70	4.00	3.85
TGNMO ppm @ 3% O2.....	6.03	6.52	6.28
TGNMO lb/hr.....	0.85	0.92	0.88

Appendix C.3
Unit 2 Calculations

Appendix C.3.1
Unit 2 Gaseous Calculations

MONTROSE AQS
NOx, CO, SO2 Compliance
DATA AND WORKSHEET
Desert View Power UNIT 2

PRE-TEST INFORMATION GENERAL		
Test:	1-U2	
Date:	4/5/2022	
Start/Stop Time:	6:00	8:00
Station:	Desert View Power	
Unit:	Unit 2	
Test Condition:	Full Load	
Performed By:	DW	

PRE-TEST INFORMATION SAMPLE TRAIN		
Barom. Pressure:		psi
	30.02	"Hg
Meter No.	1-P&M	
Meter Y_d:	1.0150	
Meter Pressure:	1.0	iwg
Pstack:	0.32	iwg
Pstack:	30.04	"Hg
Cp:	0.84	
Tref:	68	°F
Stack Area:	38.84	ft^2

METHOD 4 DATA

Impingers

#/Matl.	End	Start	Diff.
1/H2O	846.7	714.5	132.2
2/H2O	775.7	745.7	30.0
3/Empty	617.0	615.0	2.0
4/S.G.	906.8	892.5	14.3
Rinse		50.0	-50.0
Total			128.5

Dry Gas Meter

Time	Vol.	Tm(in)	Tm(out)
Start	778.000	75	77
		78	83
Stop	813.728	81	84
Total	35.728		79.7

Summary

Sample Volume:	35.680	dscf
H_2O Volume :	6.065	scf
Moisture Content:	14.5	%

METHOD 3A, 6C, 7E DATA

	O_2	CO_2	NO_x	CO
Analyzer Span	19.02	18.94	94.70	8.37
Actual Span Value	10.53	10.58	48.1	5.55
Pre Test Zero Direct	-0.02	0.03	0.02	-0.01
Pre Test Span Direct	10.53	10.62	48.70	5.54
Pre-test Zero	0.01	0.08	0.08	0.09
Pre-test Span	10.48	10.60	48.36	5.56
0-120 min	8.51	12.09	40.37	-0.35
Post Test Zero Direct	-0.01	0.08	0.01	-0.03
Post Test Span Direct	10.53	10.70	48.50	5.55
Post-test Zero	0.01	0.15	0.07	0.09
Post-test Span	10.49	10.72	48.06	5.55
Average	8.51	12.09	40.37	-0.35
Corr. Results	8.55	12.01	40.26	0.00
Cal Error <2%, Bias <5%; Drift <3%				
Calibration Error	0.0%	0.2%	0.6%	-0.1%
Pre-Test Zero Bias	0.1%	0.3%	0.1%	1.2%
Pre-Test Span Bias	-0.2%	-0.1%	-0.4%	0.2%
Post-Test Zero Bias	0.1%	0.4%	0.1%	1.4%
Post-Test Span Bias	-0.2%	0.1%	-0.5%	0.0%
Zero Drift	0.0%	0.3%	0.0%	0.0%
Span Drift	0.0%	0.6%	-0.3%	-0.1%
[illegible]			PASS	PASS

METHOD 2 DATA

Point	dP (in. H_2O)	dP^2 (in. H_2O^2)	Temp (°F)	Velocity (fps)
5	0.86	0.9274	339	64.25
4	0.85	0.9220	343	64.03
3	0.82	0.9055	342	62.85
2	0.82	0.9055	347	63.05
1	0.84	0.9165	338	63.46
5	1.10	1.0488	340	72.71
4	1.30	1.1402	345	79.29
3	1.10	1.0488	348	73.07
2	1.00	1.0000	349	69.71
1	0.91	0.9539	342	66.21
5	1.00	1.0000	345	69.54
4	1.30	1.1402	347	79.39
3	1.00	1.0000	344	69.50
2	0.99	0.9950	345	69.19
1	0.96	0.9798	333	67.63
5	1.00	1.0000	342	69.41
4	1.10	1.0488	347	73.03
3	1.00	1.0000	348	69.67
2	1.20	1.0954	346	76.23
1	1.00	1.0000	344	69.50
5	1.00	1.0000	344	69.50
4	1.10	1.0488	347	73.03
3	1.10	1.0488	346	72.98
2	1.20	1.0954	348	76.32
1	1.00	1.0000	343	69.45
5	1.30	1.1402	341	79.09
4	1.20	1.0954	346	76.23
3	1.10	1.0488	347	73.03
2	0.95	0.9747	342	67.65
1	0.96	0.9798	341	67.97
Average	1.0309	1.0153	344.0	70.56

RELATIVE ACCURACY DATA

Parameter	Units	Ref. Meth
Flow	kdscfh	5560.74
O_2	% dry	8.55
CO_2	% dry	12.01
NO_x	ppm dry	40.26
NO_x	ppm @ 3% O_2	58.36
NO_x	lb/hr	26.73
SO_2	ppm dry	11.37
SO_2	ppm @ 3% O_2	16.47
SO_2	lb/hr	10.50
CO	ppm dry	0.00
CO	ppm @ 3% O_2	0.00
CO	lb/hr	0.000

TEST SUMMARY

O_2:	8.551	% dry
CO_2:	12.015	% dry
NO_x:	40.263	ppm dry
	26.730	lb/hr
SO_2:	11.365809	ppm dry
SO2:	10.498	lb/hr
CO:	0.00	ppm dry
	0.000	lb/hr
H_2O:	14.5	%
MW:	28.48	lb/lb-mole
Flow:	164,445	wacfm
	92.68	mdscfm
	5560.74	kdscfh

SOx Titration Summary

	B1/2
N BaCl2	0.00974659
Total VOL (ml)	541.5
Aliquot VOL (ml)	20
Titrant VOL (ml)	3.62

MONTROSE AQS
NOx, CO, SO2 Compliance
DATA AND WORKSHEET
Desert View Power UNIT 2

PRE-TEST INFORMATION		
GENERAL		
Test:	2-U2	
Date:	4/5/2022	
Start/Stop Time:	8:45	10:45
Station:	Desert View Power	
Unit:	Unit 2	
Test Condition:	Full Load	
Performed By:	DW	

PRE-TEST INFORMATION		
SAMPLE TRAIN		
Barom. Pressure:		psi
	30.02	"Hg
Meter No.	1-P&M	
Meter Y_d	1.0150	
Meter Pressure:	1.0	iwg
Pstack:	0.32	iwg
Pstack:	30.04	"Hg
Cp:	0.84	
Tref:	68	°F
Stack Area:	38.84	ft^2

METHOD 4 DATA			
Impingers			
#/Matl.	End	Start	Diff.
1/H2O	869.4	747.6	121.8
2/H2O	760.7	735.9	24.8
3/Empty	521.8	516.4	5.4
4/S.G.	987.8	973.7	14.1
Rinse		50.0	-50.0
Total			116.1

Dry Gas Meter			
Time	Vol.	Tm(in)	Tm(out)
Start	815.200	84	88
		87	90
Stop	848.875	88	91
Total	33.675		88.0

Summary		
Sample Volume:	33.118	dscf
H_2O Volume :	5.480	scf
Moisture Content:	14.2	%

METHOD 3A, 6C, 7E DATA				
	O_2	CO_2	NO_x	CO
Analyzer Span	19.02	18.94	94.70	8.37
Actual Span Value	10.53	10.58	48.1	5.55
Pre Test Zero Direct	-0.01	0.08	0.01	-0.03
Pre Test Span Direct	10.53	10.70	48.50	5.55
Pre-test Zero	0.01	0.15	0.07	0.09
Pre-test Span	10.49	10.72	48.06	5.55
0-60 min	8.55	12.10	41.90	-0.38
Post Test Zero Direct	-0.01	0.05	0.01	-0.02
Post Test Span Direct	10.52	10.66	48.12	5.52
Post-test Zero	0.01	0.12	0.10	0.10
Post-test Span	10.49	10.65	47.90	5.50
Average	8.55	12.10	41.90	-0.38
Corr. Results	8.58	12.00	42.00	0.00
Cal Error <2%, Bias <5%, Drift <3%				
Calibrtion Error	0.0%	0.6%	0.4%	0.0%
Pre-Test Zero Bias	0.1%	0.4%	0.1%	1.4%
Pre-Test Span Bias	-0.2%	0.1%	-0.5%	0.0%
Post-Test Zero Bias	0.1%	0.4%	0.1%	1.4%
Post-Test Span Bias	-0.2%	-0.1%	-0.2%	-0.2%
Zero Drift	0.0%	-0.1%	0.0%	0.1%
Span Drift	0.0%	-0.4%	-0.2%	-0.5%
CAL SPAN			PASS	PASS

METHOD 2 DATA				
Point	dP (in. H_2O)	dP^2 (in. H_2O^2)	Temp (°F)	Velocity (fps)
5	0.85	0.9220	347	64.15
4	0.83	0.9110	349	63.47
3	0.84	0.9165	345	63.69
2	0.83	0.9110	343	63.23
1	0.82	0.9055	338	62.65
5	1.00	1.0000	346	69.54
4	1.20	1.0954	347	76.22
3	1.20	1.0954	348	76.27
2	0.99	0.9950	342	69.01
1	0.92	0.9592	340	66.45
5	0.99	0.9950	349	69.32
4	1.30	1.1402	346	79.28
3	0.99	0.9950	348	69.27
2	1.00	1.0000	344	69.45
1	0.95	0.9747	342	67.61
5	0.99	0.9950	348	69.27
4	1.20	1.0954	347	76.22
3	1.10	1.0488	349	73.06
2	1.10	1.0488	346	72.93
1	1.00	1.0000	344	69.45
5	0.99	0.9950	343	69.06
4	1.10	1.0488	345	72.88
3	1.00	1.0000	345	69.49
2	1.30	1.1402	344	79.18
1	1.00	1.0000	341	69.32
5	1.20	1.0954	339	75.84
4	1.20	1.0954	341	75.94
3	1.00	1.0000	342	69.36
2	0.96	0.9798	343	68.00
1	0.97	0.9849	346	68.48
Average	1.0230	1.0115	344.6	70.27

RELATIVE ACCURACY DATA			
Parameter	Units	Ref. Meth	
Flow	kdscfh	5554.83	
O_2	% dry	8.58	
CO_2	% dry	12.00	
NO_x	ppm dry	42.00	
NO_x	ppm @ 3% O_2	61.04	
NO_x	lb/hr	27.85	
SO_2	ppm dry	12.44	
SO_2	ppm @ 3% O_2	18.08	
SO_2	lb/hr	11.479	
CO	ppm dry	0.00	
CO	ppm @ 3% O_2	0.00	
CO	lb/hr	0.000	

TEST SUMMARY		
O_2:	8.585	% dry
CO_2:	12.000	% dry
NO_x:	41.996	ppm dry
	27.851	lb/hr
SO_2:	12.4404418	ppm dry
	11.479	lb/hr
CO:	0.00	ppm dry
	0.000	lb/hr
H_2O:	14.2	%
MW:	28.52	lb/lb-mole
Flow:	163,758	wacfm
	92.58	mdscfm
	5554.83	kdscfh

SOx Titration Summary	
	B1/2
N BaCl2	0.00974659
Total VOL (ml)	536.8
Aliquot VOL (ml)	20
Titrant VOL (ml)	3.71

MONTROSE AQS
NOx, CO, SO2 Compliance
DATA AND WORKSHEET
Desert View Power UNIT 2

PRE-TEST INFORMATION
GENERAL

Test:	3-U2	
Date:	4/5/2022	
Start/Stop Time:	11:15	13:15
Station:	Desert View Power	
Unit:	Unit 2	
Test Condition:	Full Load	
Performed By:	DW	

PRE-TEST INFORMATION
SAMPLE TRAIN

Barom. Pressure:		psi
	30.02	"Hg
Meter No.	1-P&M	
Meter Y_d:	1.0150	
Meter Pressure:	1.0	iwg
Pstack:	0.32	iwg
Pstack:	30.04	"Hg
Cp:	0.84	
Tref:	68	°F
Stack Area:	38.84	ft^2

METHOD 4 DATA
Impingers

#/Matl.	End	Start	Diff.
1/H2O	851.1	701.9	149.2
2/H2O	756.1	752.0	4.1
3/Empty	617.9	612.1	5.8
4/S.G.	916.4	906.8	9.6
Rinse		50.0	-50.0
Total			118.7

Dry Gas Meter

Time	Vol.	Tm(in)	Tm(out)
Start	852.600	91	94
		93	96
Stop	887.798	94	97
Total	35.198		94.2

Summary

Sample Volume:	34.231	dscf
H_2O Volume :	5.603	scf
Moisture Content:	14.1	%

METHOD 3A, 6C, 7E DATA

	O_2	CO_2	NO_x	CO
Span	19.02	18.94	94.70	8.37
Actual Span Value	10.53	10.58	48.1	5.55
Pre Test Zero Direct	-0.01	0.05	0.01	-0.02
Pre Test Span Direct	10.52	10.66	48.12	5.52
Pre-test Zero	0.01	0.12	0.10	0.10
Pre-test Span	10.49	10.65	47.90	5.50
0-60 min	8.45	12.19	42.43	-0.39
Post Test Zero Direct	-0.01	0.05	0.04	-0.06
Post Test Span Direct	10.51	10.66	48.28	5.45
Post-test Zero	0.02	0.13	0.08	0.07
Post-test Span	10.48	10.68	48.23	5.50
Average	8.45	12.19	42.43	-0.39
Corr. Results	8.49	12.11	42.45	0.00
Cal Error <2%, Bias <5%; Drift <3%				
Calibrtion Error	0.0%	0.4%	0.0%	-0.4%
Pre-Test Zero Bias	0.1%	0.4%	0.1%	1.4%
Pre-Test Span Bias	-0.2%	-0.1%	-0.2%	-0.2%
Post-Test Zero Bias	0.2%	0.4%	0.0%	1.6%
Post-Test Span Bias	-0.2%	0.1%	-0.1%	0.6%
Zero Drift	0.0%	0.1%	0.0%	-0.3%
Span Drift	0.0%	0.2%	0.3%	0.0%
CAL STATUS	PASS	PASS	PASS	PASS

METHOD 2 DATA

Point	dP (in. H_2O)	dP^2 (in. H_2O^2)	Temp (°F)	Velocity (fps)
5	0.86	0.9274	346	64.45
4	0.84	0.9165	349	63.82
3	0.81	0.9000	347	62.59
2	0.82	0.9055	344	62.86
1	0.83	0.9110	332	62.77
5	1.10	1.0488	346	72.89
4	1.20	1.0954	345	76.09
3	1.20	1.0954	345	76.09
2	0.99	0.9950	347	69.20
1	0.90	0.9487	340	65.69
5	1.00	1.0000	349	69.63
4	1.20	1.0954	348	76.23
3	1.00	1.0000	344	69.41
2	1.10	1.0488	343	72.76
1	0.93	0.9644	340	66.77
5	1.00	1.0000	347	69.54
4	1.20	1.0954	348	76.23
3	1.20	1.0954	349	76.28
2	1.00	1.0000	345	69.46
1	0.98	0.9899	344	68.72
5	0.98	0.9899	346	68.80
4	1.20	1.0954	347	76.18
3	0.99	0.9950	348	69.24
2	1.20	1.0954	347	76.18
1	1.10	1.0488	343	72.76
5	1.10	1.0488	342	72.71
4	1.20	1.0954	348	76.23
3	1.10	1.0488	347	72.94
2	0.97	0.9849	347	68.49
1	0.98	0.9899	344	68.72
Average	1.0286	1.0142	345.2	70.46

RELATIVE ACCURACY DATA

Parameter	Units	Ref. Meth
Flow	kdscfh	5573.62
O_2	% dry	8.49
CO_2	% dry	12.11
NO_x	ppm dry	42.45
NO_x	ppm @ 3% O_2	61.22
NO_x	lb/hr	28.25
SO_2	ppm dry	13.27
SO_2	ppm @ 3% O_2	19.13
SO_2	lb/hr	12.285
CO	ppm dry	0.00
CO	ppm @ 3% O_2	0.00
CO	lb/hr	0.000

TEST SUMMARY

O_2:	8.487	% dry
CO_2:	12.109	% dry
NO_x:	42.452	ppm dry
	28.248	lb/hr
SO_2:	13.2690855	ppm dry
	12.285	lb/hr
CO:	0.00	ppm dry
	0.000	lb/hr
H_2O:	14.1	%
MW:	28.55	lb/lb-mole
Flow:	164,195	wacfm
	92.89	mdscfm
	5573.62	kdscfh

SOx Titration Summary

	B1/2
N BaCl2	0.00974659
Total VOL (ml)	544.8
Aliquot VOL (ml)	20
Titrant VOL (ml)	4.03

Appendix C.3.2
Unit 2 Hydrogen Chloride Calculations

Desert View Power - Unit 2

Test No	1-HCl-U2	2-HCl-U2	3-HCl-U2	Average	Limit
Date	4/5/2022	4/5/2022	4/5/2022		
Start Time	6:00	8:45	11:15		
Stop Time	8:00	10:45	13:15		
Test Information					
Reference Temperature, °F	68	68	68		
Diluent Emissions and Stack Flow Rate					
Moisture Fraction, %	14.53	14.20	14.07	14.3	
O_2, % vol. dry	8.55	8.58	8.49	8.54	
CO_2, % vol. Dry	12.01	12.00	12.11	12.04	
Stack Flow Rate (dscfm)	92,679	92,580	92,894	92,737	
Fuel F_d Factor, dscf/MMBtu @ 68°.....	9,240	9,240	9,240	9,240	
Fuel F_d Factor, dscf/MMBtu @ 60°.....	9,100	9,100	9,100	9,100	
HCl Emissions					Limit
ppmvw	8.54	8.70	9.35	8.86	
ppmvd	9.99	10.14	10.88	10.34	
lb/hr (as HCl)	5.34	5.41	5.83	5.62	
lb/MMBtu	**0.0148**	**0.0151**	**0.0160**	**0.015**	**0.022**

Appendix C.3.3
Unit 2 Particulate Calculations

EPA METHOD 5 SOURCE TEST

DATA AND WORKSHEET

Client	Desert View Power Parameter			Full Load
Loaction	Mecca	Fuel		Biomass
Unit	Unit 2	Data By		DW
Test Number	1-PM-U2	2-PM-U2	3-PM-U2	Average
Reference Temperature, F	68	68	68	
Test Date	4/5/2022	4/5/2022	4/5/2022	
Sample Train	26-WCS	26-WCS	26-WCS	-
Pitot Factor	0.840	0.840	0.840	-
Meter Calibration Factor	1.016	1.016	1.016	-
Stack Area (sq ft)	38.84	38.84	38.84	-
Sample Time (Min)	120	120	120	120
Barometric Pressure (in Hg)	30.02	30.02	30.02	30.02
Nozzle Diam (in)	0.248	0.246	0.248	0.247
Start/Stop Time	600/810	845/1055	1115/1325	-
Stack Pressure (iwg)	0.32	0.32	0.32	0.32
Delta P (iwg)	1.031	1.0230	1.0235	1.0258
Meter Pressure (iwg)	2.213	2.150	2.303	2.222
Stack Temperature (F)	344.0	344.6	345.4	344.6
Meter Temperature (F)	82.4	93.5	97.2	91.0
Meter Volume (acf)	96.384	96.261	100.414	97.686
Liquid Volume (ml)	319.8	299.6	315.2	311.5
Stack O2 (%)	8.55	8.58	8.49	8.5
Stack CO2 (%)	12.01	12.00	12.11	12.0
Standard Sample Volume (SCF)	96.153	94.087	97.522	95.920
Moisture Fraction	0.136	0.131	0.132	0.133
Molecular Weight (wet)	28.60	28.66	28.65	28.64
Stack Gas Velocity (ft/sec)	70.42	70.11	70.17	70.23
Stack Flow Rate (wacfm)	164,115	163,376	163,527	163,673
Stack Flow Rate (dscfm)	93,512	93,563	93,369	93,481
Isokinetic Ratio (%)	99.18	98.58	100.74	99.50
Analysis				
Filter mg	0.00	0.10	0.20	0.10
Probe/Nozzle mg	0.10	0.18	0.39	0.22
Particulate Catch, mg	0.10	0.28	0.59	0.32
Particulate Emissions				
Grain Loading gr/dscf	0.00002	0.00005	0.00009	0.00005
Grain Loading @ 12% CO2	0.00002	0.00005	0.00009	0.00005
Part emission lb/hr	0.013	0.037	0.075	0.041
F-Factor (dscf/MMBtu)	9240	9240	9240	
Emission rate, lb/MMBtu	0.00004	0.00010	0.00021	0.00012

	1-PM-U2						2-PM-U2						3-PM-U2					
	dP	(dP)^.5	dH	Ts	Tm		dP	(dP)^.5	dH	Ts	Tm		dP	(dP)^.5	dH	Ts	Tm	
5	0.86	0.927	1.7	339	73	72	0.85	0.922	1.8	347	86	83	0.86	0.927	1.9	346	93	89
4	0.85	0.922	1.7	343	75	73	0.83	0.911	1.7	349	87	83	0.84	0.917	1.9	349	94	90
3	0.82	0.906	1.6	342	77	73	0.84	0.917	1.8	345	88	83	0.81	0.900	1.8	347	96	91
2	0.82	0.906	1.6	347	79	74	0.83	0.911	1.7	343	89	84	0.82	0.906	1.8	344	97	91
1	0.84	0.917	1.7	338	81	75	0.82	0.906	1.7	338	91	85	0.83	0.911	1.9	337	98	92
5	1.10	1.049	2.2	340	83	76	1.00	1.000	2.1	346	91	86	1.00	1.000	2.2	346	99	91
4	1.30	1.140	2.6	345	85	76	1.20	1.095	2.5	347	93	87	1.20	1.095	2.7	345	100	92
3	1.10	1.049	2.2	348	86	76	1.20	1.095	2.5	348	95	88	1.00	1.000	2.2	345	101	94
2	1.00	1.000	2.0	349	85	77	0.99	0.995	2.1	342	96	89	1.10	1.049	2.5	347	101	94
1	0.91	0.954	1.8	342	85	77	0.92	0.959	1.9	340	95	88	0.93	0.964	2.1	340	102	96
5	1.00	1.000	2.0	345	83	77	0.99	0.995	2.1	349	97	90	1.00	1.000	2.2	349	100	94
4	1.30	1.140	2.8	347	85	77	1.30	1.140	2.7	346	96	90	1.20	1.095	2.7	348	99	93
3	1.00	1.000	2.2	344	86	77	0.99	0.995	2.1	348	97	90	1.00	1.000	2.2	344	100	95
2	0.99	0.995	2.1	345	87	77	1.00	1.000	2.1	344	98	91	1.10	1.049	2.5	343	101	96
1	0.96	0.980	2.1	333	88	78	0.95	0.975	2.0	342	99	91	0.93	0.964	2.1	340	101	96
5	1.00	1.000	2.2	342	86	78	0.99	0.995	2.1	348	98	91	1.00	1.000	2.2	347	98	94
4	1.10	1.049	2.4	347	88	80	1.20	1.095	2.5	347	99	92	1.20	1.095	2.7	348	99	95
3	1.00	1.000	2.2	348	89	80	1.10	1.049	2.3	349	99	92	1.20	1.095	2.7	349	100	96
2	1.20	1.095	2.6	346	90	80	1.10	1.049	2.3	346	99	93	1.00	1.000	2.2	345	100	97
1	1.00	1.000	2.2	344	91	81	1.00	1.000	2.1	344	100	93	0.98	0.990	2.2	344	101	97
5	1.00	1.000	2.2	344	89	81	0.99	0.995	2.1	343	98	93	0.98	0.990	2.2	346	99	95
4	1.10	1.049	2.4	347	90	81	1.10	1.049	2.3	345	99	93	1.20	1.095	2.7	347	100	96
3	1.10	1.049	2.5	346	90	80	1.00	1.000	2.1	345	100	93	0.99	0.995	2.2	348	101	97
2	1.20	1.095	2.7	348	92	81	1.30	1.140	2.7	344	100	94	1.20	1.095	2.7	347	102	98
1	1.00	1.000	2.3	343	92	83	1.00	1.000	2.1	341	100	93	1.10	1.049	2.5	343	102	98
5	1.30	1.140	2.9	341	89	82	1.20	1.095	2.5	339	101	94	1.10	1.049	2.5	342	99	95
4	1.20	1.095	2.7	346	91	82	1.20	1.095	2.5	341	102	95	1.20	1.095	2.7	348	101	98
3	1.10	1.049	2.5	347	91	82	1.00	1.000	2.1	342	101	96	1.10	1.049	2.5	347	102	98
2	0.95	0.975	2.1	342	92	83	0.96	0.980	2.0	343	101	96	0.97	0.985	2.2	347	102	97
1	0.96	0.980	2.2	341	92	83	0.97	0.985	2.0	346	102	96	0.98	0.990	2.2	344	103	98

Average	1.0309	2.213	344.0	82.4	
		Meter Vol	Imp	Imp	
Delta P (iwg)	1.031	768.556	975.6	737	238.6
Meter Pressure (iwg)	2.213	864.940	824.7	776.6	48.1
Stack Temperature (F	343.967	96.384	602.5	598.7	3.8
Meter Temperature (F	82.367		984.1	954.8	29.3
Meter Volume (acf)	96.384				0.0
Liquid Volume (ml)	319.800				319.8

Average	1.0230	2.150	344.6	93.5	
		Meter Vol	Imp	Imp	
Delta P (iwg)	1.023	866	924.1	734.4	189.7
Meter Pressure (iwg)	2.150	962.261	837.7	754.2	83.5
Stack Temperature (F	344.567	96.261	642.1	640	2.1
Meter Temperature (F	93.483		916.8	892.5	24.3
Meter Volume (acf)	96.261				0.0
Liquid Volume (ml)	299.600				299.6

Average	1.0235	2.303	345.4	97.2	
		Meter Vol	Imp	Imp	
Delta P (iwg)	1.024	962.7	971.6	743.7	227.9
Meter Pressure (iwg)	2.303	1063.11	846.5	793.4	53.1
Stack Temperature (I	345.400	100.414	604.3	602.5	1.8
Meter Temperature (F	97.233		1016.6	984.2	32.4
Meter Volume (acf)	100.414				0.0
Liquid Volume (ml)	315.2				315.2

Appendix C.3.4
Unit 2 Hydrocarbon Calculations

SCAQMD 25.3 SOURCE TEST
DATA AND WORKSHEET

Client	Desert View Power	Parameter	>90%
Loaction	Mecca	Fuel	Biomass/coke
Unit	Unit 2	Data By	DW
Test Number	1A-VOC-U2	1B-VOC-U2	Average
Reference Temperature, F	68	68	
Test Date	4/5/2022	4/5/2022	
Sample Time (Min)	~60	~60	~60
Barometric Pressure (in Hg)	30.02	30.02	30.02
Start/Stop Time	600/654	600/654	
Stack O2 (%)	8.55	8.55	8.6
Stack CO2 (%)	12.01	12.01	12.0
Stack H2O (%)	14.5%	14.5%	14.5%
Stack Flow Rate (wacfm)	164,445	164,445	164,445
Stack Flow Rate (dscfm)	92,679	92,679	92,679
Laboraotory Results			
TGNMO ppm	8.40	10.20	9.30
TGNMO ppm @ 3% O2	12.18	14.78	13.48
TGNMO lb/hr	1.94	2.36	2.15

APPENDIX D
QUALITY ASSURANCE

Appendix D.1
Quality Assurance Program Summary

QUALITY ASSURANCE PROGRAM SUMMARY

As part of Montrose Air Quality Services, LLC (MAQS) ASTM D7036-04 certification, MAQS is committed to providing emission related data which is complete, precise, accurate, representative, and comparable. MAQS quality assurance program and procedures are designed to ensure that the data meet or exceed the requirements of each test method for each of these items. The quality assurance program consists of the following items:

- Assignment of an Internal QA Officer
- Development and use of an internal QA Manual
- Personnel training
- Equipment maintenance and calibration
- Knowledge of current test methods
- Chain-of-custody
- QA reviews of test programs

Assignment of an Internal QA Officer: MAQS has assigned an internal QA Officer who is responsible for administering all aspects of the QA program.

Internal Quality Assurance Manual: MAQS has prepared a QA Manual according to the requirements of ASTM D7036-04 and guidelines issued by EPA. The manual documents and formalizes all of MAQS QA efforts. The manual is revised upon periodic review and as MAQS adds capabilities. The QA manual provides details on the items provided in this summary.

Personnel Testing and Training: Personnel testing and training is essential to the production of high quality test results. MAQS training programs include:

- A requirement for all technical personnel to read and understand the test methods performed
- A requirement for all technical personnel to read and understand the MAQS QA manual
- In-house testing and training
- Quality Assurance meetings
- Third party testing where available
- Maintenance of training records.

Equipment Maintenance and Calibration: All laboratory and field equipment used as a part of MAQS emission measurement programs is maintained according to manufacturer's recommendations. A summary of the major equipment maintenance schedules is summarized in Table 1. In addition to routine maintenance, calibrations are performed on all sampling equipment according to the procedures outlined in the applicable test method. The calibration intervals and techniques for major equipment components is summarized in Table 2. The calibration technique may vary to meet regulatory agency requirements.

Knowledge of Current Test Methods: MAQS maintains current copies of EPA, ARB, and SCAQMD Source Test Manuals and Rules and Regulations.

Chain-of-Custody: MAQS maintains chain-of-custody documentation on all data sheets and samples. Samples are stored in a locked area accessible only to MAQS source test personnel. Data sheets are kept in the custody of the originator, program manager, or in locked storage until return to MAQS office. Electronic field data is duplicated for backup on secure storage media. The original data sheets are used for report preparation and any additions are initialed and dated.

QA Reviews: Periodic field, laboratory, and report reviews are performed by the in-house QA coordinator. Periodically, test plans are reviewed to ensure proper test methods are selected and reports are reviewed to ensure that the methods were followed and any deviations from the methods are justified and documented.

ASTM D7036-04 Required Information

Uncertainty 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 presented in the report appendices.

Performance Data

Performance data are available for review.

Qualified Personnel

A qualified individual (QI), defined by performance on a third party or internal test on the test methods, is present on each test event.

Plant Entry and Safety Requirements

Plant Entry

All test personnel are required to check in with the guard at the entrance gate or other designated area. Specific details are provided by the facility and project manager.

Safety Requirements

All personnel shall have the following personal protective equipment (PPE) and wear them where designated:

- Hard Hat
- Safety Glasses
- Steel Toe Boots
- Hearing Protection
- Gloves
- High Temperature Gloves (if required)

The following safety measures are followed:

- Good housekeeping
- SDS for all on-site hazardous materials
- Confine selves to necessary areas (stack platform, mobile laboratory, CEMS data acquisition system, control room, administrative areas)
- Knowledge of evacuation procedures

Each facility will provide plant specific safety training.

TABLE 1
EQUIPMENT MAINTENANCE SCHEDULE

Equipment	Acceptance Limits	Frequency of Service	Methods of Service
Pumps	1. Absence of leaks 2. Ability to draw manufacturers required vacuum and flow	As recommended by manufacturer	1. Visual inspection 2. Clean 3. Replace parts 4. Leak check
Flow Meters	1. Free mechanical movement	As recommended by manufacturer	1. Visual inspection 2. Clean 3. Calibrate
Sampling Instruments	1. Absence of malfunction 2. Proper response to zero span gas	As recommended by manufacturer	As recommended by manufacturer
Integrated Sampling Tanks	1. Absence of leaks	Depends on nature of use	1. Steam clean 2. Leak check
Mobile Van Sampling System	1. Absence of leaks	Depends on nature of use	1. Change filters 2. Change gas dryer 3. Leak check 4. Check for system contamination
Sampling lines	1. Sample degradation less than 2%	After each test series	1. Blow dry, inert gas through line until dry

TABLE 2
MAJOR SAMPLING EQUIPMENT CALIBRATION REQUIREMENTS

Sampling Equipment	Calibration Frequency	Calibration Procedure	Acceptable Calibration Criteria
Continuous Analyzers	Before and After Each Test Day	3-point calibration error test	< 2% of analyzer range
Continuous Analyzers	Before and After Each Test Run	2-point sample system bias check	< 5% of analyzer range
Continuous Analyzers	After Each Test Run	2-point analyzer drift determination	< 3% of analyzer range
CEMS System	Beginning of Each Day	leak check	< 1 in. Hg decrease in 5 min. at > 20 in. Hg
Continuous Analyzers	Semi-Annually	3-point linearity	< 1% of analyzer range
NO_x Analyzer	Daily	NO_2 -> NO converter efficiency	> 90%
Differential Pressure Gauges (except for manometers)	Semi-Annually	Correction factor based on 5-point comparison to standard	+/- 5%
Differential Pressure Gauges (except for manometers)	Bi-Monthly	3-point comparison to standard, no correction factor	+/- 5%
Barometer	Semi-Annually	Adjusted to mercury-in-glass or National Weather Service Station	+/- 0.1 inches Hg
Dry Gas Meter	Semi-Annually	Calibration check at 4 flow rates using a NIST traceable standard	+/- 2%
Dry Gas Meter	Bi-Monthly	Calibration check at 2 flow rates using a NIST traceable standard	+/- 2% of semi-annual factor
Dry Gas Meter Orifice	Annually	4-point calibration for $\Delta H@$	--
Temperature Sensors	Semi-Annually	3-point calibration vs. NIST traceable standard	+/- 1.5%

Note: Calibration requirements will be used that meet applicable regulatory agency requirements.

Appendix D.2
CARB, SCAQMD, and STAC Certifications

State of California

California Air Resources Board

Approved Independent Contractor

Montrose Air Quality Services, LLC

This is to certify that the company listed above has been approved by the California Air Resources Board to conduct compliance testing pursuant to California Code of Regulations, title 17, section 91207, through June 30, 2022, for those test methods listed below:

CARB Source Test Methods:
1, 2, 3, 3[illegible], 6, 8, 17, [illegible]
100 (CO, CO_2, NOx, O_2, SO_2, THC)

Catherine Dunwoody, Chief
Monitoring and Laboratory Division

State of California

California Air Resources Board

Approved Independent Contractor

Montrose Air Quality Services, LLC

This is to certify that the company listed above has been approved by the California Air Resources Board to conduct compliance testing pursuant to California Code of Regulations, title 17, section 91207, through June 30, 2022, for those test methods listed below:

U.S. EPA Source Test Methods 201A, 202 and 205
Visible Emissions Evaluation

Catherine Dunwoody, Chief
Monitoring and Laboratory Division

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

September 1, 2021

Mr. John Peterson
Montrose Air Quality Services, LLC
1631 E. Saint Andrew Place
Santa Ana, CA 92705

Subject: LAP Approval Notice
Reference # 96LA1220

Dear Mr. Peterson:

We have reviewed your renewal letter under the South Coast Air Quality Management District's Laboratory Approval Program (LAP). We are pleased to inform you that your firm is approved for the period beginning September 30, 2021, and ending September 30, 2022 for the following methods, subject to the requirements in the LAP Conditions For Approval Agreement and conditions listed in the attachment to this letter:

South Coast AQMD Methods 1-4	South Coast AQMD Methods 5.1, 5.2, 5.3, 6.1
South Coast AQMD Methods 10.1 and 100.1	South Coast AQMD Methods 25.1 and 25.3 (Sampling)
USEPA CTM-030 and ASTM D6522-00	Rule 1121/ 1146.2 Protocol
Rule 1420/1420.1/1420.2 (Lead) Source and Ambient Sampling	

Your LAP approval to perform nitrogen oxide emissions compliance testing for Rule 1121/ 1146.2 Protocols includes satellite facilities located at:

McKenna Boiler 1510 North Spring Street Los Angeles, CA 90012	Noritz America Corp. 11160 Grace Avenue Fountain Valley, CA 92708	Ajax Boiler, Inc. 2701 S. Harbor Blvd. Santa Ana, CA 92704

VA Laundry Bldg., Greater LA Healthcare Sys. 508 Constitution Avenue Los Angeles, CA 90049	So Cal Gas - Engr Analysis Ctr, Bldg H 8101 Rosemead Blvd Pico Rivera, CA 90660

Thank you for participating in the LAP. Your cooperation helps us to achieve the goal of the LAP: to maintain high standards of quality in the sampling and analysis of source emissions. You may direct any questions or information to LAP Coordinator, Colin Eckerle. He may be reached by telephone at (909) 396-2476, or via e-mail at ceckerle@aqmd.gov.

Sincerely,

D. Sarkar

Dipankar Sarkar
Program Supervisor
Source Test Engineering

DS:CE
Attachment

210901 LapRenewal.doc

STAC A2LA
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.

Appendix D.3
Individual QI Certifications

SOURCE EVALUATION SOCIETY

Qualified Source Testing Individual

LET IT BE KNOWN THAT

DAVE A. WONDERLY

HAS SUCCESSFULLY PASSED A COMPREHENSIVE EXAMINATION AND SATISFIED EXPERIENCE REQUIREMENTS IN ACCORDANCE WITH THE GUIDELINES ISSUED BY THE SES QUALIFIED SOURCE TEST INDIVIDUAL REVIEW BOARD FOR

MANUAL GAS VOLUME MEASUREMENTS AND ISOKINETIC PARTICULATE SAMPLING METHODS

ISSUED THIS 29TH DAY OF NOVEMBER 2018 AND EFFECTIVE UNTIL NOVEMBER 28TH, 2023

Peter R. Westlin, QSTI/QSTO Review Board

Peter S. Pakalnis, QSTI/QSTO Review Board

Tina Sanderson, QSTI/QSTO Review Board

J. Wade Bice, QSTI/QSTO Review Board

Karen D. Kajiya-Mills , QSTI/QSTO Review Board

Bruce Randall QSTI/QSTO Review Board

CERTIFICATE NO. 2009-298

MONITROSE

SOURCE EVALUATION SOCIETY

Qualified Source Testing Individual

LET IT BE KNOWN THAT

DAVE A. WONDERLY

HAS SUCCESSFULLY PASSED A COMPREHENSIVE EXAMINATION AND SATISFIED EXPERIENCE REQUIREMENTS IN ACCORDANCE WITH THE GUIDELINES ISSUED BY THE SES QUALIFIED SOURCE TEST INDIVIDUAL REVIEW BOARD FOR

MANUAL GASEOUS POLLUTANTS SOURCE SAMPLING METHODS

ISSUED THIS 29TH DAY OF NOVEMBER 2018 AND EFFECTIVE UNTIL NOVEMBER 28TH, 2023

Peter R. Westlin, QSTI/QSTO Review Board

Peter S. Petsinis, QSTI/QSTO Review Board

Tina Sanderson, QSTI/QSTO Review Board

J. Wade Bice, QSTI/QSTO Review Board

Karen D. Kajiya-Mills , QSTI/QSTO Review Board

Bruce Randall QSTI/QSTO Review Board

CERTIFICATE NO. 2009-298

SOURCE EVALUATION SOCIETY

Qualified Source Testing Individual

LET IT BE KNOWN THAT

DAVE A. WONDERLY

HAS SUCCESSFULLY PASSED A COMPREHENSIVE EXAMINATION AND SATISFIED EXPERIENCE REQUIREMENTS IN ACCORDANCE WITH THE GUIDELINES ISSUED BY THE SES QUALIFIED SOURCE TEST INDIVIDUAL REVIEW BOARD FOR

GASEOUS POLLUTANTS INSTRUMENTAL SAMPLING METHODS

ISSUED THIS 28TH DAY OF SEPTEMBER 2018 AND EFFECTIVE UNTIL SEPTEMBER 27TH, 2023

Peter R. Westlin, QSTI/QSTO Review Board

Peter S. Pakalnis, QSTI/QSTO Review Board

Tina Sanderson, QSTI/QSTO Review Board

J. Wade Bice, QSTI/QSTO Review Board

Karen D. Kajiya-Mills , QSTI/QSTO Review Board

Bruce Randall QSTI/QSTO Review Board

CERTIFICATE NO. 2009-298

CERTIFICATE OF COMPLETION

Dave Wonderly

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):

SCAQMD Methods 25.1, 25.3 & 307-91

Certificate Number: 002-2021-64

Tate Strickler, VP – Quality Systems

DATE OF ISSUE: 12/23/2021

DATE OF EXPIRATION: 12/22/2026

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. David Wonderly
Title:	Client Project Manager
Region:	West
Email:	DWonderly@montrose-env.com
Phone:	(714) 279-6777

Name:	Mr. Matt McCune
Title:	Regional Vice President
Region:	West
Email:	MMccune@montrose-env.com
Phone:	(714) 279-6777