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August 19, 2021

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

Attention: Alberto Jasso, SCAQMD, AQ Engineer II

Subject: All American Asphalt (Facility ID #82207)
Dryer Baghouse Source Test for Irvine (S/T ID: P 21103)

Dear Alberto:

All American has completed the source testing of their rotary dryer detailed in the approved protocol for their Irvine facility located at 10600 Jeffrey Avenue, Irvine, California. The dryer is identified as a rotary Dryer; Astec Double Barrell Dryer with a low NOx burner; an Astec Phoenix Phantom, Model PP-125; rated at 125 MMBtu/hr., natural gas fired. This test was conducted to determine emissions for the preparation of the AB2588 quadrennial reporting.

Attached are two copies of the test results along with the relevant supporting documentation. We request that a copy of the test be forwarded to SCAQMD Source Testing for formal review. Once the review is complete, we request a complete copy of the evaluation be send to John Gardner at All American Asphalt.

I trust this letter and the attached source test reports allow for the review to begin immediately. If you have any questions, please contact me at (714) 587-2595 x101.

Sincerely,

Scott Taylor

Scott Taylor
TES, Inc.

cc: John Gardner, All American Asphalt
Michael Solis, SCAQMD

AIRx TESTING SERVICES, INC.

Dates Tested:	June 2-3-7, 2021
Dates Tested:	July13-14-15, 2021
Date Issued:	August 19, 2021
Revision Number:	0

SOURCE EMISSION TEST REPORT
ALL AMERICAN ASPHALT
IRVINE ASPHALT PLANT
ONE (1) ROTARY DRYER BAGHOUSE

Facility No. 082207
Application No. 514969

Source Location:
ALL AMERICAN ASPHALT
10600 Jeffrey Road
Irvine, California 92602

Submitted to:
ALL AMERICAN ASPHALT
P.O. Box 2229
Corona, California 91719

Attention: John Gardner

For Submittal to:
South Coast Air Quality Management District
21854 Copley Drive
Diamond Bar, California 91765-4178

Prepared By:
AIRx Testing Services, Inc.
2472 Eastman Avenue Unit #34
Ventura, CA 93003

Job Number
1064

Laboratory Report Number
221-061

Test Team Leader
Ken Kennepohl

Tom Porter

Tom Porter, Vice President of Testing Services

Ken Kennepohl, Project Engineer

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1.0 SUMMARY

Source Tested:	All American Asphalt Rotary Dryer Baghouse - Asphalt Plant
Test Location:	All American Asphalt 10600 Jeffrey Road Irvine, California
Test Requested by:	SCAQMD
Test Objectives	Determine for reporting: Health Risk Assessment.
Test Performed by:	AIRx Testing Services, Inc.
Personnel:	Ken Kennepohl, Wesley Hart & Ferodie Torres
Test Methodology:	O2 & CO2: SCAQMD Method 100.1 Multiple Metals: CARB Method 436 Toxic Organics: EPA TO-15 PAHs: CARB Method 429 Total & Hexavalent Chromium: CARB Method 425 Formaldehyde/ Acetaldehyde: EPA 0011
Test Observed by:	--
Plant Contact:	John Gardner
Facility ID Number:	082207
SCAQMD Application Number:	514969
SCAQMD Permit Number:	N/A

2.0 INTRODUCTION

Air pollutant emissions from stationary sources in the Los Angeles Basin (Los Angeles, Orange, Riverside and the non-desert portion of San Bernardino County) are regulated by the South Coast Air Quality Management District (SCAQMD). AIRx Testing Services, Inc. was contracted by All American Asphalt to conduct source emission testing to determine emission factors for the facility Health Risk Assessment. The rotary dryer baghouse exhaust testing was conducted for Formaldehyde, Acetaldehyde, PAHs, Total chromium, Hexavalent Chromium, Multiple Metals, Toxic Organics, Exhaust Flow Rate, O2 and CO2.

Source testing was conducted by an AIRx Testing Services team on June 2-7, 2021, July 13-15, 2021 to measure gaseous emissions from one (1) baghouse attached to a natural gas fired rotary drier. Testing was conducted while operating at a normal load condition.

AIRx personnel directly involved with this test program were Ryan Yanagihara, Ferodie Torres, Ken Kennepohl and Wesley Hart. The contact for All American Asphalt for this project was John Gardner.

The baghouse is equipped with a round stack 62.5" in diameter. The two, 4-inch female sample ports are located 0.6 diameters upstream and 3.0 downstream from a flow disturbance. Two (2) female sample ports was accessed from a platform around the stack circumference. A total of 24 traverse points (12 per port) were utilized used for the flow rate and concentration sampling. A stack diagram with traverse points is included in the attachments.

The Rotary Dryer fuel usage was recorded every 30 minutes for all test runs. Plant production in tons per hour was recorded for every 30 minutes during all testing. Results for all detected pollutants will be reported in concentration (ppmv or ppbv), pounds per hour (lb/hr), pounds per ton of produced asphalt (lb/ton) and pounds per million cubic feet of natural gas burned (lb/MMcf gas).

The dryer (A/N 514969) is identified as follows:

Rotary Dryer; Astec Double Barrel Dryer with a low NOx burner; an Astec Phoenix Phantom, Model PP-125; rated at 125 MMBtu/hr, Natural gas fired.

3.0 PROCESS DESCRIPTION

The facility produces asphalt by using virgin aggregate material and RAP material. The testing was conducted. While the plant was producing mix that included [redacted] RAP. The plant was producing mix that includes asphalt binder which has a range of [redacted] rubber.

The particulate is controlled with a fabric baghouse attached to the Astec rotary dryer exhaust. The subject test will determine the mass emissions of the required pollutants from the existing exhaust stack.

COMMENTS:

The baghouse is equipped with a round stack 62.5" in diameter. The two, 4-inch female sample ports are located 0.6 diameters upstream and 3.0 downstream from a flow disturbance. Two (2) female sample ports was accessed from a platform around the stack circumference. A total of 24 traverse points (12 per port) were utilized used for the flow rate and concentration sampling. A stack diagram with traverse points is included in the attachments.

The Rotary Dryer fuel usage and plant production in tons per hour was recorded every 30 minutes for all test runs. Results for all detected pollutants are reported in concentration (ppmv or ppbv), pounds per hour (lb/hr), pounds per ton of produced asphalt (lb/ton) and pounds per million BTU.

4.0 TEST PROCEDURES

Formaldehyde & Acetaldehyde CARB Method 430/EPA Method 0011/SW846:

Aldehyde concentrations were determined in triplicate according to a Modified CARB Method 430/EPA Method 0011/SW846. Sampling was conducted isokinetically for 120 minutes. Three (3) test runs were sampled. The sample train consists of a glass nozzle, a glass probe attached to three (3) full sized impingers, each containing approximately 100 ml of fresh acidic DNPH solution. (NOTE: The third impinger, with the appropriate solutions, is added to avoid possible formaldehyde breakthrough). The 12" transfer Teflon line to the impingers is not heated as the entire line is rinsed into the first impinger after the end of each test run.

The acidic DNPH solution was supplied by Atmospheric Analysis and Consulting (AAC) of Ventura, California and was used within 48 hours after preparation.

Four (4) DNPH reagent blanks were analyzed for contamination prior to use in the field as per Section 3, page 4 of CARB Method 430. As per Section 4.2.2 the sample/field blank ratio shall be equal to or greater than five (5) as calculated per Section 11.9.

The samples were kept on ice and then returned to the laboratory for recovery and delivery to AAC for analysis by HPLC with a UV detection system. The recovered samples and field blanks were kept refrigerated or kept on ice prior delivery to AAC. The samples were delivered to AAC within 24-48 hours after the sampling. As per the method the samples were extracted within seven (7) days and the extract analyzed within 30 days

The appropriate field blanks were submitted for analysis along with the samples. Each impinger was weighed prior to submission for analysis. Each impinger was analyzed separately as per Section 8.4 – Analytical procedures (Warning #2) and the results are reported in ug/sample. The resulting concentrations (ug/dscm) from each analysis are added together to obtain the total weight of the aldehydes for each test run. The final results are reported in ppmv, lb/hr and lb/MMBtu.

The following procedures are to be followed for Modified Method 430 (with the addition of toluene) /EPA Method 0011/SW846:

i. Fields Blanks: Taken by AIRx. Three (3) field blanks were taken by using Teflon tubing the same length as our sample line attached to one (1) impinger. Two (2) ml of DNPH is entered in to the tubing followed by one (1) ml of DI water. The vials are capped and labeled as field blanks 1-3. A spiked field blank will be taken for Acrolein by adding a known amount of Acrolein to an empty vial in the laboratory and the DNPH will be added in the field and then recovered as a field blank.

ii: Matrix Spike: The first impinger from one (1) of the runs was spiked with a know amount of acrolein prior to delivery to the field. The DNPH and the Toluene is added in the field.. The results are reported as percent recovery with the difference being the amount in the gas stream.

TEST METHODOLOGY (cont)

Formaldehyde & Acetaldehyde CARB Method 430 EPA Method 0011/SW846/ (cont):

i: Reagent Blank: Conducted by AAC in house. An analysis is conducted on the DNPH solution returning from the field.
ii: Laboratory Spikes: Conducted by AAC in house. One (1) 10 ml portion of the DNPH solution returning from the field will be spiked with the three (3) constituents and the percent recovery reported.
iii: The QA on the stock DNPH solution: Conducted by AAC in house. Four (4) samples of the fresh DNPH solution will be analyzed prior to delivery to AIRx. The values have been reported in the final report.

NOTE: The Modified CARB 430/EPA Method 011/8315 is being utilized due to prior discussions with the SCAQMD on an identical asphalt plant process. The modification in sampling replaces the midget impingers with full sized impingers, but includes the QA/QC procedures required by CARB Method 430.

Three (3) 120 minute isokinetic samples were taken from the exhaust stack.

TEST METHODOLOGY (cont)

Total & Hexavalent Chromium CARB Method 425:

California Air Resources Board Method 425 was used to determine the emission rates of total and hexavalent chromium. The sample train consists of a glass nozzle, a glass probe and a flexible Teflon line followed by four impingers in series. The first two (2) impingers are Greenberg-Smith type and contain 100 ml of sodium bicarbonate (NaHCO3) solution. The third impinger is a modified type and is empty. A 47-millimeter, Teflon Coated glass fiber filter is placed between the third and fourth impingers. The fourth impinger contains approximately 200 grams of Silica Gel desiccant.

The samples were collected isokinetically for three (3) 360 minutes (6 hours) runs by using 24 traverse points. The impinger solutions was checked for sufficiently high pH (>8) upon recovery.

As directed in Section 13.3.2 of CARB Method 425 (Lower Concentrations), the sample train was recovered as follows:

The probe and nozzle rinse was placed into container #1. The contents of impinger #1 and rinses was placed into container #2. Impinger #2 solution and rinses were placed into container #3. The 47mm filter were placed into container #2. The resulting samples were refrigerated until delivery to Atmospheric Analysis and Consulting (AAC) in Ventura. AAC subbed the analyses to Chester Labnet located in Tigard Oregon.

The three (3) fractions were each analyzed for total and hexavalent Chromium. Analysis for Hexavalent Chromium was performed using ion chromatography.

A schematic of the CARB Method 425 train is provided in the attachments.

NOTE: Prior to use of the sample train, the probe was prewashed with the NaHCO3 solution. A sample of the probe prewash will be submitted to the laboratory for Hexavalent Chromium analysis to assure the absence of Hexavalent Chromium.

As per CARB Method 425, section 21.2 "Alternative Test Methods", NaHCO3 impinger solution may be utilized provided that at all times during sampling and transport of samples, the pH of the impinger solutions shall be maintained above a pH of 8.0 as determined by the use of a clean rod and color indicating paper for pH. This alternative is highly recommended by the analytical laboratory (AAC).

NOTE: The stack moisture was determined gravimetrically using the CARB Method 425 sample train. The four (4) impingers were pre-weighed prior to the sampling and then reweighed after completion of the sampling.

TEST METHODOLOGY (cont)

Total & Hexavalent Chromium CARB Method 425 (cont):

California Air Resources Board Method 425 requires pretest calculations to determine the minimum sample volume and sampling duration to meet the detection limits necessary to demonstrate compliance with applicable standards.

1) Section 3.4.2; Equation 425.2 – Reporting Limit (RL)

RL = LOD*220 = 0.2 ng/ml*220 ml = 44 ng

2) Section 3.5.2; Equation 425.3 – Minimum Sample Volume

MSV = RL*1/STC = 44*1/10ng/dscm = 4.4 dscm (155 cfm)

3) Section 3.5.3; Equation 425.4 – Minimum Sampling Time (MST)

MST = MSV/VSR = 4.4/45 dscf/hr or 1.27 dscm/hr = 3.5 hr

4) Section 3.5.4; Equation 425.6 – Planned Sample Volume (PSV)

PSV = PST*VSR = 8*1.0 = 8.0 dscm (282 cf)

Section 3.5.6 Equation 425-8 – Source Reporting Limit (SRL)

SRL = RL/PSV = 44/8.0 = 5.5 ng/dscm = 0.0055 mg/dscm

A blank train was prepared, transported to the site, recovered and analyzed in the same manner as the actual sample trains. All requirements established in CARB Method 425 will be adhered to.

All analyses conforms to the requirements of CARB Method 425 and all applicable QA/QC measures included in the final report.

TEST METHODOLOGY (cont)

Multiple Metals, CARB Method 436:

The Multiple Metals (Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Cobalt, Copper, Lead, Manganese, Mercury, Nickel, Phosphorous, Selenium, Silver, Thallium, Vanadium and Zinc) has been reported as pounds per hour. The sampling was conducted according to CARB Method 436, a description of which can be found in the Attachments. Three (3) 480 minute isokinetic samples were taken from the exhaust stack. The Multiple Metals samples were refrigerated until delivery to Atmospheric Analysis and Consulting (AAC) in Ventura. AAC has subbed the analyses to Chester Labnet located in Tigard Oregon.

The Multiple Metals sampling train consists of a glass nozzle, heated probe, heated filter, a series of six impingers immersed in an ice bath and a silica gel impinger.

The following system was used for the condensation and collection of gaseous metals and for determining the moisture content of the stack gas:

The impinger train consisted of six (6) impingers. Impingers are connected in series with leak-free ground glass fittings or other leak-free, non-contaminating fittings and immersed in an ice bath. The first impinger is utilized as a water knockout trap for use during test conditions where high stack gas moisture content might result in considerable dilution of the impinger solutions.

The impingers used in the metals train are described as follows:

The first impinger was used as a water knockout, it was of the Greenburg-Smith design modified to have either a short or long stem, appropriately sized for the expected moisture catch and installed empty. The second impinger was of the Greenburg-Smith design modified to have a long stem as described for the first impinger in ARB Method 5, Section 2.1.7 and contain 100 ml of 5%HNO/10% H2O2 solution. The third impinger (or the impinger used as the second HNO/H2O2 impinger) was of the Greenburg-Smith design with the standard tip as described for the second impinger in ARB Method 5, Paragraph 2.1.7 and contain 100 ml of 5%HNO/10% H2O2 solution. The fourth impinger was installed empty and was of the Greenburg-Smith design modified to have a short stem. The function of the fourth impinger was to prevent commingling of the solution in the second and third impingers with the solution in the fifth and sixth impingers. The fifth and sixth impingers was of the Greenburg-Smith design modified to have a long stem and shall each contain 100 ml of acidic potassium permanganate (4% KMnO4/10%4H2SO4) solution. A thermometer capable of measuring to within 1C (2F) was placed at the outlet of the last impinger

TEST METHODOLOGY (cont)

Toxic Organics, EPA Method TO-15:

The toxic organics were sampled in duplicate from the dryer outlet for each of the three (3) 60 minute test runs. Summa passivated canisters were utilized to sample for the toxic organics. The Summa canisters were equipped with preset calibrated mass flow controllers. The sampling was integrated over each 60 minute test run. The samples were submitted to Atmospheric Analysis and Consulting (AAC) for analyses by GC/MS (TO-15).

The analyses followed EPA Method TO-15 methodology. The reported detection limit is 0.001 ppmv or 1 ppbv. The sample is cryogenically pre-concentrated in a series of multi-bed traps, with water and CO2 management protocols, and finally cryofocused before desorption into the gas chromatograph.

Upon separation in the Gas Chromatograph, the sample is introduced into the mass spectrometer. The HAPs characteristic retention time and mass spectra qualitatively identify compounds. The results have been reported in ppbv, lb/hr and lbs/ton of asphalt.

TEST METHODOLOGY (cont)

PAH's, CARB Method 429:

PAH's concentrations were determined in triplicate according CARB Method 429. Sampling was conducted isokinetically for 480 minutes. The sample train consists of a quartz sample probe with the appropriate nozzle, an "s" type pitot tube, a Teflon filter, a spiral condenser, a spiked sorbent module, two (2) preweighed Greensburg-Smith impingers containing 100 ml of 3mM Sodium bicarbonate/2.4 mM Sodium Carbonate, a third dry preweighed impinger and a fourth preweighed impinger containing silica get

The samples were sealed and returned to the laboratory for recovery. The recovery includes rinsing the nozzle, probe and top half of the filter holder three (3) times with acetone, hexane and methylene chloride with the rinses placed into a glass container labeled as "Front half rinses'. The filter is removed from holder and placed into a petri dish. The bottom half of the filter holder, connector connection and the spiral condenser is rinsed three (3) times with acetone, hexane and methylene chloride with the rinses placed into a glass container labeled as "Back half rinses". The rinses may be combined with the "front half rinses" container. The impingers are reweighed then the solution transferred to a container labeled "Impinger contents". The impingers are then rinsed three (3) times with acetone, hexane and methylene chloride with the rinses placed into a glass container labeled as "Impinger rinses". The rinses may be combined with the container labeled as "Impinger contents". The silica get impinger is reweighed. The field blank will be recovered and submitted for analysis along with the samples.

The cleaned XAD resin and filters were supplied by VISTA Analytical located in El Dorado Hill. The samples sent to VISTA Analytical for analysis according to procedures outlined in CARB Method 429.

TEST METHODOLOGY (cont)

Stack Gas Oxygen, Carbon Dioxide, SCAQMD Method 100.1:

The CEM sampling system consists of a stainless steel probe, a heated Teflon sample line and a sample gas conditioner that cools the gas to <60°F entering a gas conditioner prior to distribution to the analyzers. The conditioner dries the gas to <37°F. The stack gas was extracted from the stack with a pump into the sample gas conditioner and transported under positive pressure to the flowpanel, which distributes the dry conditioned gas to the appropriate analyzers. A traverse was conducted on the exhaust stack to determine the presence or absence of stratification of a pollutant. A bias (probe tip) check was made at the beginning and end of each run to determine sample system integrity. EPA Protocol calibration gases was used for calibrating the analyzers. The stack was initially traversed using the sampling utilizing half the number of points dictated for a particulate traverse to determine the presence of stratification. No stratification was observed (<10% of average) thus a single representative sample point will be utilized. Data was continuously collected with a DAS and on a 10" strip chart recorder.

5.0 TEST RESULTS AND DISCUSSION

A summary of the emissions results has been provided on pages 5-2 thru 5-13

POLYCYCLIC AROMATIC HYDROCARBONS (PAH) SUMMARY

CARB 429

Client : All American Asphalt
Site : Irvine, CA
Unit : Baghouse

T std: 60 °F

Date : 6/2 - 6/7
Job #: 1064
Lab #: 221-061

RESULTS in lb/hr

Compound Name	RUN # 1	RUN # 2	RUN # 3	AVERAGE
Acenaphthene	0.000065	0.00014	0.000034	**0.000079**
Acenaphthylene	0.00033	0.00049	0.00016	**0.00033**
Anthracene	0.0000059	0.000015	0.0000053	**0.0000089**
Benz(a)anthracene	0.00000013	< 0.000000099	< 0.000000091	**0.00000011**
Benzo(a)pyrene	< 0.000000102	< 0.000000099	< 0.000000091	**< 0.000000097**
Benzo(e)pyrene	< 0.000000102	< 0.000000099	< 0.000000091	**< 0.000000097**
Benzo(b)fluoranthene	0.00000011	< 0.000000099	< 0.000000091	**< 0.00000010**
Benzo(g,h,i)perylene	< 0.000000102	< 0.000000099	< 0.000000091	**< 0.000000097**
Benzo(k)fluoranthene	< 0.000000102	< 0.000000099	< 0.000000091	**< 0.000000097**
Chrysene	0.00000071	0.00000029	0.00000032	**0.00000044**
Dibenz(a,h)anthracene	< 0.000000102	< 0.000000099	< 0.000000091	**< 0.000000097**
Fluoranthene	0.0000050	0.0000049	0.0000024	**0.0000041**
Fluorene	0.000079	0.00017	0.000045	**0.000098**
Indeno(1,2,3-cd)pyrene	0.000000102	0.000000099	0.000000091	0.000000097
2-Methylnaphthalene	0.0015	0.0026	0.00092	**0.0017**
Naphthalene	0.0054	0.0062	0.0031	**0.0049**
Perylene	< 0.000000102	< 0.000000099	< 0.000000091	**< 0.000000097**
Phenanthrene	0.00010	0.00017	0.000068	**0.00011**
Pyrene	0.0000049	0.0000047	0.0000020	**0.0000039**

RESULTS in lb/ton

Compound Name	RUN # 1	RUN # 2	RUN # 3	AVERAGE
Acenaphthene	[redacted]	[redacted]	[redacted]	[redacted]
Acenaphthylene	[redacted]	[redacted]	[redacted]	[redacted]
Anthracene	[redacted]	[redacted]	[redacted]	[redacted]
Benz(a)anthracene	[redacted]	[redacted]	[redacted]	[redacted]
Benzo(a)pyrene	[redacted]	[redacted]	[redacted]	[redacted]
Benzo(e)pyrene	[redacted]	[redacted]	[redacted]	[redacted]
Benzo(b)fluoranthene	[redacted]	[redacted]	[redacted]	[redacted]
Benzo(g,h,i)perylene	[redacted]	[redacted]	[redacted]	[redacted]
Benzo(k)fluoranthene	[redacted]	[redacted]	[redacted]	[redacted]
Chrysene	[redacted]	[redacted]	[redacted]	[redacted]
Dibenz(a,h)anthracene	[redacted]	[redacted]	[redacted]	[redacted]
Fluoranthene	[redacted]	[redacted]	[redacted]	[redacted]
Fluorene	[redacted]	[redacted]	[redacted]	[redacted]
Indeno(1,2,3-cd)pyrene	[redacted]	[redacted]	[redacted]	[redacted]
2-Methylnaphthalene	[redacted]	[redacted]	[redacted]	[redacted]
Naphthalene	[redacted]	[redacted]	[redacted]	[redacted]
Perylene	[redacted]	[redacted]	[redacted]	[redacted]
Phenanthrene	[redacted]	[redacted]	[redacted]	[redacted]
Pyrene	[redacted]	[redacted]	[redacted]	[redacted]

RESULTS in lb/MMBtu

Compound Name	RUN # 1	RUN # 2	RUN # 3	AVERAGE
Acenaphthene	0.000013	0.0000028	0.00000068	**0.0000054**
Acenaphthylene	0.0000064	0.0000098	0.0000033	**0.0000065**
Anthracene	0.00000012	0.00000031	0.00000011	**0.00000018**
Benz(a)anthracene	0.0000000026	< 0.0000000020	< 0.0000000019	**0.0000000021**
Benzo(a)pyrene	< 0.0000000020	< 0.0000000020	< 0.0000000019	**< 0.0000000020**
Benzo(e)pyrene	< 0.0000000020	< 0.0000000020	< 0.0000000019	**< 0.0000000020**
Benzo(b)fluoranthene	0.0000000021	< 0.0000000020	< 0.0000000019	**0.0000000020**
Benzo(g,h,i)perylene	< 0.0000000020	< 0.0000000020	< 0.0000000019	**< 0.0000000020**
Benzo(k)fluoranthene	< 0.0000000020	< 0.0000000020	< 0.0000000019	**< 0.0000000020**
Chrysene	0.000000014	0.0000000058	0.0000000066	**0.0000000088**
Dibenz(a,h)anthracene	< 0.0000000020	< 0.0000000020	< 0.0000000019	**< 0.0000000020**
Fluoranthene	0.000000099	0.000000098	0.000000049	**0.000000082**
Fluorene	0.0000016	0.0000033	0.00000092	**0.0000019**
Indeno(1,2,3-cd)pyrene	< 0.0000000020	< 0.0000000020	< 0.0000000019	**< 0.0000000020**
2-Methylnaphthalene	0.000028	0.000051	0.000019	**0.000033**
Naphthalene	0.00011	0.00012	0.000062	**0.000097**
Perylene	< 0.0000000020	< 0.0000000020	< 0.0000000019	**< 0.0000000020**
Phenanthrene	0.0000021	0.0000033	0.0000014	**0.0000023**
Pyrene	0.000000096	0.000000093	0.000000042	**0.000000077**

ALL AMERICAN ASPHALT IRVINE 221-061
CALCULATED EMISSION RESULTS CARB METHOD 436

	Run 1	Run 2	Run 3	Average (3 Runs)
Aluminum Weight (g)	0.00248	0.00227	0.00142	0.00206
Aluminum Emissions (grain/Dscf)	0.000092	0.000095	0.000057	0.000081
Aluminum Flow Rate (lb/hr)	0.018	0.019	0.012	0.016
Aluminum (lb/ton)	[redacted]	[redacted]	[redacted]	[redacted]
Aluminum (lb/mmbtu)	0.000360	0.000379	0.000226	0.000322
Antimony Weight (g)	< 0.00000113	< 0.00000113	< 0.00000587	<0.0000271
Antimony Emissions (grain/Dscf)	< 0.000000042	< 0.000000047	< 0.00000024	<0.00000011
Antimony Flow Rate (lb/hr)	< 0.0000083	< 0.0000096	< 0.000049	< 0.000022
Antimony (lb/ton)	[redacted]	[redacted]	[redacted]	[redacted]
Antimony (lb/mmbtu)	< 0.00000016	< 0.00000019	< 0.00000093	<0.00000043
Arsenic Weight (g)	< 0.00000158	< 0.00000158	< 0.00000158	<0.00000158
Arsenic Emissions (grain/Dscf)	< 0.000000058	< 0.000000066	< 0.000000063	< 0.000000063
Arsenic Flow Rate (lb/hr)	< 0.0000116	< 0.0000134	< 0.0000131	< 0.0000127
Arsenic (lb/ton)	[redacted]	[redacted]	[redacted]	[redacted]
Arsenic (lb/mmbtu)	< 0.00000023	< 0.00000026	< 0.00000025	<0.00000025
Barium Weight (g)	0.0000246	0.0000239	0.0000173	0.0000219
Barium Emissions (grain/Dscf)	0.00000091	0.00000100	0.00000070	0.00000087
Barium Flow Rate (lb/hr)	0.00018	0.00020	0.00014	0.00018
Barium (lb/ton)	[redacted]	[redacted]	[redacted]	[redacted]
Barium (lb/mmbtu)	0.00000358	0.00000399	0.00000275	0.00000344
Beryllium Weight (g)	< 0.000000045	< 0.000000045	< 0.000000045	< 0.000000045
Beryllium Emissions (grain/Dscf)	< 0.0000000017	< 0.0000000019	< 0.0000000018	< 0.0000000018
Beryllium Flow Rate (lb/hr)	< 0.00000033	< 0.00000038	< 0.00000037	<0.00000036
Beryllium (lb/ton)	[redacted]	[redacted]	[redacted]	[redacted]
Beryllium (lb/mmbtu)	< 0.0000000065	< 0.0000000075	< 0.0000000071	< 0.0000000071
Cadmium Weight (g)	0.00000068	0.00000126	0.00000090	0.000000946
Cadmium Emissions (grain/Dscf)	0.000000025	0.000000053	0.000000036	0.000000038
Cadmium Flow Rate (lb/hr)	0.0000050	0.0000107	0.0000075	0.0000077
Cadmium (lb/ton)	[redacted]	[redacted]	[redacted]	[redacted]
Cadmium (lb/mmbtu)	0.000000098	0.000000210	0.000000143	0.000000150
Chromium Weight (g)	0.0000125	0.0000174	0.00000479	0.00001156
Chromium Emissions (grain/Dscf)	0.00000046	0.00000073	0.00000019	0.00000046
Chromium Flow Rate (lb/hr)	0.000092	0.000148	0.000040	0.000093
Chromium (lb/ton)	[redacted]	[redacted]	[redacted]	[redacted]
Chromium (lb/mmbtu)	0.000001817	0.000002902	0.000000761	0.00000183
Cobalt Weight (g)	0.00000119	0.00000189	0.00000035	0.00000114
Cobalt Emissions (grain/Dscf)	0.000000044	0.000000079	0.000000014	0.000000046
Cobalt Flow Rate (lb/hr)	0.0000088	0.000016	0.0000029	0.0000093
Cobalt (lb/ton)	[redacted]	[redacted]	[redacted]	[redacted]
Cobalt (lb/mmbtu)	0.000000173	0.000000315	0.0000000554	0.000000181
Copper Weight (g)	0.0000117	0.0000414	0.00000585	0.00001965
Copper Emissions (grain/Dscf)	0.00000043	0.0000017	0.00000024	0.00000080
Copper Flow Rate (lb/hr)	0.000086	0.00035	0.000049	0.00016
Copper (lb/ton)	[redacted]	[redacted]	[redacted]	[redacted]
Copper (lb/mmbtu)	0.00000170	0.00000690	0.000000929	0.00000318
Lead Weight (g)	<0.00000113	<0.00000113	<0.00000113	<0.00000113
Lead Emissions (grain/Dscf)	<0.000000042	<0.000000047	<0.000000045	<0.000000045
Lead Flow Rate (lb/hr)	<0.0000083	<0.0000096	<0.0000093	<0.0000091
Lead (lb/ton)	[redacted]	[redacted]	[redacted]	[redacted]
Lead (lb/mmbtu)	<0.00000016	<0.00000019	<0.00000018	<0.00000018
Manganese Weight (g)	0.0000405	0.0000873	0.00001980	0.00004920
Manganese Emissions (grain/Dscf)	0.0000015	0.0000037	0.00000080	0.0000020
Manganese Flow Rate (lb/hr)	0.00030	0.00074	0.00016	0.00040
Manganese (lb/ton)	[redacted]	[redacted]	[redacted]	[redacted]
Manganese (lb/mmbtu)	0.00000589	0.0000146	0.00000315	0.00000786

CALCULATED EMISSION RESULTS CARB METHOD 436 (Continued)

	Run 1	Run 2	Run 3	Average (3 Runs)
Mercury Weight (g)	< 0.0000074	< 0.0000062	< 0.0000054	<0.00000631
Mercury Emissions (grain/Dscf)	< 0.00000027	< 0.00000026	< 0.00000022	<0.00000025
Mercury Flow Rate (lb/hr)	< 0.000054	< 0.000053	< 0.000045	< 0.000051
Mercury (lb/ton)	[redacted]	[redacted]	[redacted]	[redacted]
Mercury (lb/mmbtu)	< 0.0000011	< 0.0000010	< 0.00000086	<0.00000099
Nickel Weight (g)	0.0000296	0.0000404	0.0000085	0.0000262
Nickel Emissions (grain/Dscf)	0.0000011	0.0000017	0.00000034	0.0000010
Nickel Flow Rate (lb/hr)	0.00022	0.00034	0.000070	0.00021
Nickel (lb/ton)	[redacted]	[redacted]	[redacted]	[redacted]
Nickel (lb/mmbtu)	0.00000430	0.00000674	0.00000134	0.00000413
Phosphorous Weight (g)	0.000113	0.000126	0.0000927	0.0001106
Phosphorous Emissions (grain/Dsc	0.0000042	0.0000053	0.0000037	0.0000044
Phosphorous Flow Rate (lb/hr)	0.00083	0.0011	0.00077	0.00089
Phosphorous (lb/ton)	[redacted]	[redacted]	[redacted]	[redacted]
Phosphorous (lb/mmbtu)	0.0000164	0.0000210	0.0000147	0.0000174
Selenium Weight (g)	<0.0000034	< 0.0000034	< 0.0000034	<0.00000338
Selenium Emissions (grain/Dscf)	<0.00000013	<0.00000014	<0.00000014	<0.00000013
Selenium Flow Rate (lb/hr)	<0.000025	<0.000029	<0.000028	<0.000027
Selenium (lb/ton)	[redacted]	[redacted]	[redacted]	[redacted]
Selenium (lb/mmbtu)	<0.00000049	<0.00000056	<0.00000054	<0.00000053
Silver Weight (g)	< 0.00000045	< 0.00000045	< 0.00000045	<0.00000045
Silver Emissions (grain/Dscf)	< 0.000000017	< 0.000000019	< 0.000000018	< 0.000000018
Silver Flow Rate (lb/hr)	< 0.000003322	< 0.000003835	< 0.000003732	< 0.000003629
Silver (lb/ton)	[redacted]	[redacted]	[redacted]	[redacted]
Silver (lb/mmbtu)	< 0.000000065	< 0.000000075	< 0.000000071	< 0.000000071
Thallium Weight (g)	< 0.00000225	< 0.0000023	<0.00000225	<0.00000225
Thallium Emissions (grain/Dscf)	< 0.000000083	< 0.000000094	< 0.000000091	<0.000000090
Thallium Flow Rate (lb/hr)	< 0.000017	< 0.000019	< 0.000019	< 0.000018
Thallium (lb/ton)	[redacted]	[redacted]	[redacted]	[redacted]
Thallium (lb/mmbtu)	<0.00000033	<0.00000038	<0.00000036	<0.00000035
Vanadium Weight (g)	<0.0000061	< 0.0000069	<0.0000025	<0.00000516
Vanadium missions (grain/Dscf)	<0.00000023	<0.00000029	<0.000000099	<0.00000021
Vanadium Flow Rate (lb/hr)	<0.000045	<0.000059	<0.000020	<0.000041
Vanadium (lb/ton)	[redacted]	[redacted]	[redacted]	[redacted]
Vanadium (lb/mmbtu)	<0.00000088	<0.0000012	<0.00000039	<0.00000081
Zinc Weight (g)	0.000155	0.000169	0.0000701	0.0001314
Zinc Emissions (grain/Dscf)	0.0000058	0.0000071	0.0000028	0.0000052
Zinc Flow Rate (lb/hr)	0.0011	0.0014	0.00058	0.0011
Zinc Flow (lb/ton)	[redacted]	[redacted]	[redacted]	[redacted]
Zinc Flow (lb/mmbtu)	0.0000225	0.0000282	0.0000111	0.0000206

AIR TESTING SERVICES, INC.

EPA TO-15 Average Results

Client : All American Asphalt
Site : Irvine, CA
Unit : Rotary Dryer Baghouse

T std: 60 °F
Run No.: 1 - 3

Test Date : 6/3/2021
Job #: 1064
Lab #: 221-061

Q std: 24,026 dscfm (Average)
Production Rate: [redacted] TPH (Average)

Compound Name	lb/hr	lb/Ton	lb/Mmbtu	MW
Propene	**0.44**	[redacted]	**0.00874**	42.08
Chlorodifluoromethane	< 0.010	[redacted]	< 0.00020	86.47
Dichlorodifluoromethane	< 0.012	[redacted]	< 0.00024	102.92
Chloromethane	< 0.0061	[redacted]	< 0.00012	50.50
1,2 Dichloro-1,1,2,2-Tetrafluoroethane	< 0.021	[redacted]	< 0.00040	170.92
Vinyl Chloride	< 0.0075	[redacted]	< 0.00015	62.50
1,3-Butadiene	**0.080**	[redacted]	**0.00159**	54.09
Bromomethane	< 0.011	[redacted]	< 0.00022	94.94
Methanol	**0.085**	[redacted]	**0.00168**	32.04
Chloroethane	< 0.0077	[redacted]	< 0.00015	64.50
Dichlorofluoromethane	< 0.012	[redacted]	< 0.00024	102.92
Ethanol	**0.027**	[redacted]	**0.000542**	46.07
Vinyl Bromide	< 0.013	[redacted]	< 0.00025	106.96
Trichlorofluoromethane	< 0.015	[redacted]	< 0.00030	127.50
Acetone	**0.155**	[redacted]	**0.00305**	58.08
Isopropyl Alcohol	< 0.029	[redacted]	< 0.00057	60.10
Allyl Chloride	< 0.014	[redacted]	< 0.00028	76.53
1,1-Dichloroethene	< 0.014	[redacted]	< 0.00027	96.00
Acrylonitrile	< 0.025	[redacted]	< 0.00050	53.06
Methylene Chloride	< 0.024	[redacted]	< 0.00046	98.00
Carbon Disulfide	**0.038**	[redacted]	**0.000740**	76.14
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 0.022	[redacted]	< 0.00044	187.40
trans-1,2- Dichloroethene	< 0.012	[redacted]	< 0.00023	96.94
1,1- Dichloroethane	< 0.012	[redacted]	< 0.00023	98.00
MTBE	< 0.011	[redacted]	< 0.00021	88.15
Vinyl Acetate	< 0.021	[redacted]	< 0.00041	86.09
MEK	**0.024**	[redacted]	**0.000476**	72.11
cis-1,2- Dichloroethene	< 0.012	[redacted]	< 0.00023	96.00
Hexane	< 0.010	[redacted]	< 0.00020	86.18
Chloroform	< 0.014	[redacted]	< 0.00028	119.50
Ethyl Acetate	< 0.011	[redacted]	< 0.00021	88.11
Tetrahydrofuran	< 0.0087	[redacted]	< 0.00017	72.11
1,2-Dichloroethane	< 0.012	[redacted]	< 0.00023	98.00
Benzene	**0.19**	[redacted]	**0.00369**	78.11
Cyclohexane	< 0.010	[redacted]	< 0.00020	84.16
Heptane	< 0.012	[redacted]	< 0.00024	100.21
Toluene	**0.079**	[redacted]	**0.00155**	92.14
Carbon Tetrachloride	< 0.018	[redacted]	< 0.00036	153.24
1,2-Dichloropropane	< 0.014	[redacted]	< 0.00027	112.99
Bromodichloromethane	< 0.020	[redacted]	< 0.00039	163.83
1,4-Dioxane	< 0.042	[redacted]	< 0.00083	88.11
Trichloroethene	< 0.016	[redacted]	< 0.00031	131.40
2,2,4-Trimethylpentane	< 0.014	[redacted]	< 0.00027	114.23
cis-1,3-Dichloropropene	< 0.013	[redacted]	< 0.00026	110.97
4-Methyl-2-Pentanone (MiBK)	< 0.024	[redacted]	< 0.00048	100.16
t-1,3-Dichloropropene	< 0.013	[redacted]	< 0.00026	110.97
1,1,2-Trichloroethane	< 0.016	[redacted]	< 0.00032	133.40
2-Hexanone	< 0.065	[redacted]	< 0.0013	134.60
Dibromochloromethane	< 0.025	[redacted]	< 0.00049	208.28
1,2-Dibromomethane	< 0.023	[redacted]	< 0.00044	187.88
Tetrachloroethylene	< 0.020	[redacted]	< 0.00039	165.83
Chlorobenzene	< 0.014	[redacted]	< 0.00027	112.56
Ethylbenzene	< 0.013	[redacted]	< 0.00025	106.16
m & p-Xylenes	**0.032**	[redacted]	**0.000634**	106.16
Bromoform	< 0.030	[redacted]	< 0.00060	252.72
Styrene	**0.015**	[redacted]	**0.000297**	104.14
1,1,2,2-Tetrachloroethane	< 0.020	[redacted]	< 0.00040	167.85
o-Xylene	< 0.013	[redacted]	< 0.00025	106.16
4-Ethyltoluene	< 0.014	[redacted]	< 0.00028	120.19
1,3,5-Trimethylbenzene	< 0.014	[redacted]	< 0.00027	112.99
1,2,4-Trimethylbenzene	**0.029**	[redacted]	**0.000575**	120.19
Benzyl Chloride	< 0.15	[redacted]	< 0.0030	126.59
1,3-Dichlorobenzene	< 0.018	[redacted]	< 0.00035	147.00
1,4-Dichlorobenzene	< 0.018	[redacted]	< 0.00035	147.01
1,2-Dichlorobenzene	< 0.018	[redacted]	< 0.00035	147.01
1,2,4-Trichlorobenzene	< 0.087	[redacted]	< 0.0017	181.45
Hexachlorobutadiene	< 0.13	[redacted]	< 0.00247	260.76
1,1,1-Trichloroethene	< 0.016	[redacted]	< 0.00031	131.40

AIR X TESTING SERVICES, INC.

EPA TO-15
Tank 1352

Client : All American Asphalt
Site : Irvine, CA
Unit : Rotary Dryer Baghouse

T std: 60 °F
Run No.: 1

Test Date : 6/3/2021
Job #: 1064
Lab #: 221-061

Q std: **24,100** dscfm (Method 429)
Production Rate: [redacted] TPH

Compound Name	Lab Results ppb	lb/hr	lb/Ton	lb/Mmbtu	MW
Propene	**1010**	**0.16**	[redacted]	**0.00318**	42.08
Chlorodifluoromethane	< 14.8	<0.0049	[redacted]	< 0.000096	86.47
Dichlorodifluoromethane	< 14.8	<0.0058	[redacted]	< 0.00011	102.92
Chloromethane	< 14.8	<0.0028	[redacted]	< 0.000056	50.50
1.2 Dichloro-1.1.2.2-Tetrafluoroethane	< 14.8	<0.010	[redacted]	< 0.00019	170.92
Vinyl Chloride	< 14.8	<0.0035	[redacted]	< 0.000069	62.50
1.3-Butadiene	**81.1**	**0.017**	[redacted]	**0.000328**	54.09
Bromomethane	< 14.8	<0.0054	[redacted]	< 0.00010	94.94
Methanol	**186**	**0.023**	[redacted]	**0.000445**	32.04
Chloroethane	< 14.8	<0.0036	[redacted]	< 0.000071	64.50
Dichlorofluoromethane	< 14.8	<0.0058	[redacted]	< 0.00011	102.92
Ethanol	< 59.2	**0.010**	[redacted]	**0.000204**	46.07
Vinyl Bromide	< 14.8	<0.006	[redacted]	< 0.00012	106.96
Trichlorofluoromethane	< 14.8	<0.007	[redacted]	< 0.00014	127.50
Acetone	**363**	**0.080**	[redacted]	**0.00158**	58.08
Isopropyl Alcohol	< 59.2	<0.014	[redacted]	< 0.00027	60.10
Allyl Chloride	< 29.6	<0.0086	[redacted]	< 0.00017	76.53
1.1-Dichloroethene	< 14.8	<0.0054	[redacted]	< 0.00011	96.00
Acrylonitrile	< 59.2	<0.012	[redacted]	< 0.00023	53.06
Methylene Chloride	< 29.6	<0.011	[redacted]	< 0.00022	98.00
Carbon Disulfide	< 59.2	<0.017	[redacted]	< 0.00034	76.14
1.1.2-Trichloro-1.2.2-Trifluoroethane	< 14.8	<0.011	[redacted]	< 0.00021	187.40
trans-1.2- Dichloroethene	< 14.8	<0.0055	[redacted]	< 0.00011	96.94
1.1- Dichloroethane	< 14.8	<0.0055	[redacted]	< 0.00011	98.00
MTBE	< 14.8	<0.0050	[redacted]	< 0.00010	88.15
Vinyl Acetate	< 29.6	<0.010	[redacted]	< 0.00019	86.09
MEK	**45.0**	**0.012**	[redacted]	**0.000242**	72.11
cis-1.2- Dichloroethene	< 14.8	<0.0054	[redacted]	< 0.00011	96.00
Hexane	< 14.8	<0.0049	[redacted]	< 0.000095	86.18
Chloroform	< 14.8	<0.0067	[redacted]	< 0.00013	119.50
Ethyl Acetate	< 14.8	<0.0050	[redacted]	< 0.000097	88.11
Tetrahydrofuran	< 14.8	<0.0041	[redacted]	< 0.000080	72.11
1.2-Dichloroethane	< 14.8	<0.0055	[redacted]	< 0.00011	98.00
Benzene	**302**	**0.090**	[redacted]	**0.00176**	78.11
Cyclohexane	< 14.8	<0.0047	[redacted]	< 0.000093	84.16
Heptane	< 14.8	<0.0057	[redacted]	< 0.00011	100.21
Toluene	**99.7**	**0.035**	[redacted]	**0.000686**	92.14
Carbon Tetrachloride	< 14.8	<0.0086	[redacted]	< 0.00017	153.24
1.2-Dichloropropane	< 14.8	<0.0064	[redacted]	< 0.00012	112.99
Bromodichloromethane	< 14.8	<0.0092	[redacted]	< 0.00018	163.83
1.4-Dioxane	< 59.2	<0.0199	[redacted]	< 0.00039	88.11
Trichloroethene	< 14.8	<0.0074	[redacted]	< 0.00015	131.40
2.2.4-Trimethylpentane	< 14.8	<0.0064	[redacted]	< 0.00013	114.23
cis-1.3-Dichloropropene	< 14.8	<0.0063	[redacted]	< 0.00012	110.97
4-Methyl-2-Pentanone (MiBK)	< 29.6	<0.011	[redacted]	< 0.00022	100.16
t-1.3-Dichloropropene	< 14.8	<0.0063	[redacted]	< 0.00012	110.97
1.1.2-Trichloroethane	< 14.8	<0.0075	[redacted]	< 0.00015	133.40
2-Hexanone	< 59.2	<0.030	[redacted]	< 0.00060	134.60
Dibromochloromethane	< 14.8	<0.012	[redacted]	< 0.00023	208.28
1.2-Dibromomethane	< 14.8	<0.011	[redacted]	< 0.00021	187.88
Tetrachloroethylene	< 14.8	<0.0094	[redacted]	< 0.00018	165.83
Chlorobenzene	< 14.8	<0.0063	[redacted]	< 0.00012	112.56
Ethylbenzene	< 14.8	<0.0060	[redacted]	< 0.00012	106.16
m & p-Xylenes	**44.1**	**0.018**	[redacted]	**0.000350**	106.16
Bromoform	< 14.8	<0.014	[redacted]	< 0.00028	252.72
Styrene	**16.9**	**0.0067**	[redacted]	**0.000131**	104.14
1.1.2.2-Tetrachloroethane	< 14.8	<0.0095	[redacted]	< 0.00019	167.85
o-Xylene	< 14.8	<0.0060	[redacted]	< 0.00012	106.16
4-Ethyltoluene	< 14.8	<0.0068	[redacted]	< 0.00013	120.19
1.3.5-Trimethylbenzene	< 14.8	<0.0064	[redacted]	< 0.00012	112.99
1.2.4-Trimethylbenzene	< 29.6	<0.014	[redacted]	< 0.00027	120.19
Benzyl Chloride	< 148	<0.071	[redacted]	< 0.0014	126.59
1.3-Dichlorobenzene	< 14.8	<0.0083	[redacted]	< 0.00016	147.00
1.4-Dichlorobenzene	< 14.8	<0.0083	[redacted]	< 0.00016	147.01
1.2-Dichlorobenzene	< 14.8	<0.0083	[redacted]	< 0.00016	147.01
1.2.4-Trichlorobenzene	< 59.2	<0.041	[redacted]	< 0.00080	181.45
Hexachlorobutadiene	< 59.2	<0.059	[redacted]	< 0.0012	260.76
1.1.1-Trichloroethene	< 14.8	<0.0074	[redacted]	< 0.00015	131.40

lb/hr = (ppb/1000) * Qstd * MW * 0.0000001581
lb/MMBtu = F-Factor (8710)*lb/hr/(60*Qstd)*20.9/(20.9-O2)
lb/ton = lb/hr/tons/hr

EPA TO-15
Tank 1192

Client : All American Asphalt
Site : Irvine, CA
Unit : Rotary Dryer Baghouse

T std: 60 °F
Run No.: 1A

Date : 6/3/2021
Job #: 1064
Lab #: 221-061

Q std: **24,100** dscfm (Method 429)
Production Rate: [redacted] TPH

Compound Name	Lab Results ppb	lb/hr	lb/Ton	lb/Mmbtu	MW
Propene	**1080**	**0.17**	[redacted]	**0.00340**	42.08
Chlorodifluoromethane	< 13	< 0.0043	[redacted]	< 0.000085	86.47
Dichlorodifluoromethane	< 13	< 0.0051	[redacted]	< 0.00010	102.92
Chloromethane	< 13	< 0.0025	[redacted]	< 0.000049	50.50
1,2 Dichloro-1,1,2,2-Tetrafluoroethane	< 13	< 0.0085	[redacted]	< 0.00017	170.92
Vinyl Chloride	< 13	< 0.0031	[redacted]	< 0.000061	62.50
1,3-Butadiene	**152**	**0.031**	[redacted]	**0.00061**	54.09
Bromomethane	< 13	< 0.0047	[redacted]	< 0.000093	94.94
Methanol	**790**	**0.096**	[redacted]	**0.0019**	32.04
Chloroethane	< 13	< 0.0032	[redacted]	< 0.000063	64.50
Dichlorofluoromethane	< 13	< 0.0051	[redacted]	< 0.00010	102.92
Ethanol	**168**	**0.029**	[redacted]	**0.00058**	46.07
Vinyl Bromide	< 13	< 0.0053	[redacted]	< 0.00010	106.96
Trichlorofluoromethane	< 13	< 0.0064	[redacted]	< 0.00012	127.50
Acetone	**389**	**0.086**	[redacted]	**0.00169**	58.08
Isopropyl Alcohol	< 52	< 0.012	[redacted]	< 0.00024	60.10
Allyl Chloride	< 26	< 0.0076	[redacted]	< 0.00015	76.53
1,1-Dichloroethene	< 52	< 0.019	[redacted]	< 0.00038	96.00
Acrylonitrile	< 52	< 0.011	[redacted]	< 0.00021	53.06
Methylene Chloride	< 26	< 0.0098	[redacted]	< 0.00019	98.00
Carbon Disulfide	< 52	< 0.015	[redacted]	< 0.00030	76.14
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 13	< 0.0094	[redacted]	< 0.00018	187.40
trans-1,2- Dichloroethene	< 13	< 0.0048	[redacted]	< 0.000095	96.94
1,1- Dichloroethane	< 13	< 0.0049	[redacted]	< 0.000096	98.00
MTBE	< 13	< 0.0044	[redacted]	< 0.000086	88.15
Vinyl Acetate	< 26	< 0.0086	[redacted]	< 0.00017	86.09
MEK	**34.1**	**0.0094**	[redacted]	**0.000184**	72.11
cis-1,2- Dichloroethene	< 13	< 0.0048	[redacted]	< 0.000094	96.00
Hexane	< 13	< 0.0043	[redacted]	< 0.000084	86.18
Chloroform	< 13	< 0.0060	[redacted]	< 0.00012	119.50
Ethyl Acetate	< 13	< 0.0044	[redacted]	< 0.000086	88.11
Tetrahydrofuran	< 13	< 0.0036	[redacted]	< 0.000071	72.11
1,2-Dichloroethane	< 13	< 0.0049	[redacted]	< 0.000096	98.00
Benzene	**310**	**0.092**	[redacted]	**0.00181**	78.11
Cyclohexane	< 13	<0.0042	[redacted]	< 0.000082	84.16
Heptane	< 13	<0.0050	[redacted]	< 0.000098	100.21
Toluene	**104**	**0.037**	[redacted]	**0.000716**	92.14
Carbon Tetrachloride	< 13	<0.0076	[redacted]	< 0.00015	153.24
1,2-Dichloropropane	< 13	<0.0056	[redacted]	< 0.00011	112.99
Bromodichloromethane	< 13	<0.0082	[redacted]	< 0.00016	163.83
1,4-Dioxane	< 52	<0.018	[redacted]	< 0.00034	88.11
Trichloroethene	< 13	<0.0066	[redacted]	< 0.00013	131.40
2,2,4-Trimethylpentane	< 13	<0.0057	[redacted]	< 0.00011	114.23
cis-1,3-Dichloropropene	< 13	<0.0055	[redacted]	< 0.00011	110.97
4-Methyl-2-Pentanone (MiBK)	< 26	<0.010	[redacted]	< 0.00020	100.16
t-1,3-Dichloropropene	< 13	<0.0055	[redacted]	< 0.00011	110.97
1,1,2-Trichloroethane	< 13	<0.0067	[redacted]	< 0.00013	133.40
2-Hexanone	< 52	<0.027	[redacted]	< 0.00053	134.60
Dibromochloromethane	< 13	<0.010	[redacted]	< 0.00020	208.28
1,2-Dibromomethane	< 13	<0.0094	[redacted]	< 0.00018	187.88
Tetrachloroethylene	< 13	<0.0083	[redacted]	< 0.00016	165.83
Chlorobenzene	< 13	<0.0056	[redacted]	< 0.00011	112.56
Ethylbenzene	< 13	<0.0053	[redacted]	< 0.00010	106.16
m & p-Xylenes	**43.5**	**0.018**	[redacted]	**0.000345**	106.16
Bromoform	< 13	<0.013	[redacted]	< 0.00025	252.72
Styrene	**19.9**	**0.0079**	[redacted]	**0.000155**	104.14
1,1,2,2-Tetrachloroethane	< 13	<0.0084	[redacted]	< 0.00016	167.85
o-Xylene	< 13	<0.0053	[redacted]	< 0.00010	106.16
4-Ethyltoluene	< 13	<0.0060	[redacted]	< 0.00012	120.19
1,3,5-Trimethylbenzene	< 13	<0.0056	[redacted]	< 0.00011	112.99
1,2,4-Trimethylbenzene	**29.6**	**0.014**	[redacted]	**0.000266**	120.19
Benzyl Chloride	< 131	<0.063	[redacted]	< 0.0012	126.59
1,3-Dichlorobenzene	< 13	<0.0073	[redacted]	< 0.00014	147.00
1,4-Dichlorobenzene	< 13	<0.0073	[redacted]	< 0.00014	147.01
1,2-Dichlorobenzene	< 13	<0.0073	[redacted]	< 0.00014	147.01
1,2,4-Trichlorobenzene	< 52	<0.036	[redacted]	< 0.00071	181.45
Hexachlorobutadiene	< 52	<0.052	[redacted]	< 0.0010	260.76
1,1,1-Trichloroethene	< 13	<0.0066	[redacted]	< 0.00013	131.40

lb/hr = (ppb/1000) * Qstd * MW * 0.0000001581
lb/MMBtu = F-Factor (8710)*lb/hr/(60*Qstd)*20.9/(20.9-O2)
lb/ton = lb/hr/tons/hr

EPA TO-15
Tank 1172

Client : All American Asphalt
Site : Irvine, CA
Unit : Rotary Dryer Baghouse

T std: 60 °F
Run No.: 2

Date : 6/3/2021
Job #: 1064
Lab #: 221-061

Q std: 24,090 dscfm (Method 429)
Production Rate: [redacted] TPH

Compound Name	Lab Results ppb	lb/hr	lb/Ton	lb/Mmbtu	MW
Propene	**890**	**0.14**	[redacted]	**0.00280**	42.08
Chlorodifluoromethane	< 12.0	< 0.0040	[redacted]	< 0.000078	86.47
Dichlorodifluoromethane	< 12.0	< 0.0047	[redacted]	< 0.000092	102.92
Chloromethane	< 12.0	< 0.0023	[redacted]	< 0.000045	50.50
1.2 Dichloro-1.1.2.2-Tetrafluoroethane	< 12.0	< 0.0078	[redacted]	< 0.00015	170.92
Vinyl Chloride	< 12.0	< 0.0029	[redacted]	< 0.000056	62.50
1.3-Butadiene	**66.8**	**0.014**	[redacted]	**0.000270**	54.09
Bromomethane	< 12.0	< 0.0043	[redacted]	< 0.000085	94.94
Methanol	**421**	**0.051**	[redacted]	**0.00101**	32.04
Chloroethane	< 12.0	< 0.0029	[redacted]	< 0.000058	64.50
Dichlorofluoromethane	< 12.0	< 0.0047	[redacted]	< 0.000092	102.92
Ethanol	**80.3**	**0.014**	[redacted]	**0.000276**	46.07
Vinyl Bromide	< 12.0	< 0.0049	[redacted]	< 0.000096	106.96
Trichlorofluoromethane	< 12.0	< 0.0058	[redacted]	< 0.00011	127.50
Acetone	**298**	**0.0659**	[redacted]	**0.00129**	58.08
Isopropyl Alcohol	< 47.9	< 0.011	[redacted]	< 0.00022	60.10
Allyl Chloride	< 24.0	< 0.0070	[redacted]	< 0.00014	76.53
1.1-Dichloroethene	< 12.0	< 0.0044	[redacted]	< 0.000086	96.00
Acrylonitrile	< 47.9	< 0.0097	[redacted]	< 0.00019	53.06
Methylene Chloride	< 24.0	< 0.0090	[redacted]	< 0.00018	98.00
Carbon Disulfide	**68.5**	**0.020**	[redacted]	**0.000390**	76.14
1.1.2-Trichloro-1.2.2-Trifluoroethane	< 12.0	< 0.0086	[redacted]	< 0.00017	187.40
trans-1.2- Dichloroethene	< 12.0	< 0.0044	[redacted]	< 0.000087	96.94
1.1- Dichloroethane	< 12.0	< 0.0045	[redacted]	< 0.000088	98.00
MTBE	< 12.0	< 0.0040	[redacted]	< 0.000079	88.15
Vinyl Acetate	< 24.0	< 0.0079	[redacted]	< 0.00015	86.09
MEK	**54.6**	**0.015**	[redacted]	**0.000294**	72.11
cis-1.2- Dichloroethene	< 12.0	< 0.0044	[redacted]	< 0.000086	96.00
Hexane	< 12.0	< 0.0039	[redacted]	< 0.000077	86.18
Chloroform	< 12.0	< 0.0055	[redacted]	< 0.00011	119.50
Ethyl Acetate	< 12.0	< 0.0040	[redacted]	< 0.000079	88.11
Tetrahydrofuran	< 12.0	< 0.0033	[redacted]	< 0.000065	72.11
1.2-Dichloroethane	< 12.0	< 0.0045	[redacted]	< 0.000088	98.00
Benzene	**262**	**0.078**	[redacted]	**0.00153**	78.11
Cyclohexane	< 12.0	<0.0038	[redacted]	< 0.000075	84.16
Heptane	< 12.0	<0.0046	[redacted]	< 0.000090	100.21
Toluene	**85.8**	**0.030**	[redacted]	**0.000591**	92.14
Carbon Tetrachloride	< 12.0	<0.0070	[redacted]	< 0.00014	153.24
1.2-Dichloropropane	< 12.0	<0.0052	[redacted]	< 0.00010	112.99
Bromodichloromethane	< 12.0	<0.0075	[redacted]	< 0.00015	163.83
1.4-Dioxane	< 47.9	<0.0161	[redacted]	< 0.00032	88.11
Trichloroethene	< 12.0	<0.0060	[redacted]	< 0.00012	131.40
2.2.4-Trimethylpentane	< 12.0	<0.0052	[redacted]	< 0.00010	114.23
cis-1.3-Dichloropropene	< 12.0	<0.0051	[redacted]	< 0.000099	110.97
4-Methyl-2-Pentanone (MiBK)	< 24.0	<0.0092	[redacted]	< 0.00018	100.16
t-1.3-Dichloropropene	< 12.0	<0.0051	[redacted]	< 0.000099	110.97
1.1.2-Trichloroethane	< 12.0	<0.0061	[redacted]	< 0.00012	133.40
2-Hexanone	< 47.9	<0.025	[redacted]	< 0.00048	134.60
Dibromochloromethane	< 12.0	<0.0095	[redacted]	< 0.00019	208.28
1.2-Dibromomethane	< 12.0	<0.0086	[redacted]	< 0.00017	187.88
Tetrachloroethylene	< 12.0	<0.0076	[redacted]	< 0.00015	165.83
Chlorobenzene	< 12.0	<0.0051	[redacted]	< 0.00010	112.56
Ethylbenzene	< 12.0	<0.0049	[redacted]	< 0.000095	106.16
m & p-Xylenes	**44.3**	**0.018**	[redacted]	**0.000351**	106.16
Bromoform	< 12.0	<0.012	[redacted]	< 0.00023	252.72
Styrene	**13.4**	**0.0053**	[redacted]	**0.000104**	104.14
1.1.2.2-Tetrachloroethane	< 12.0	<0.0077	[redacted]	< 0.00015	167.85
o-Xylene	< 12.0	<0.0049	[redacted]	< 0.00010	106.16
4-Ethyltoluene	< 12.0	<0.0055	[redacted]	< 0.00011	120.19
1.3.5-Trimethylbenzene	< 12.0	<0.0052	[redacted]	< 0.00010	112.99
1.2.4-Trimethylbenzene	< 24.0	<0.011	[redacted]	< 0.00022	120.19
Benzyl Chloride	< 120.0	<0.058	[redacted]	< 0.0011	126.59
1.3-Dichlorobenzene	< 12.0	<0.0067	[redacted]	< 0.00013	147.00
1.4-Dichlorobenzene	< 12.0	<0.0067	[redacted]	< 0.00013	147.01
1.2-Dichlorobenzene	< 12.0	<0.0067	[redacted]	< 0.00013	147.01
1.2.4-Trichlorobenzene	< 47.9	<0.033	[redacted]	< 0.00065	181.45
Hexachlorobutadiene	< 47.9	<0.048	[redacted]	< 0.00093	260.76
1.1.1-Trichloroethene	< 12.0	<0.0060	[redacted]	< 0.00012	131.40

lb/hr = (ppb/1000) * Qstd * MW * 0.0000001581
lb/MMBtu = F-Factor (8710)*lb/hr/(60*Qstd)*20.9/(20.9-O2)
lb/ton = lb/hr/tons/hr

EPA TO-15
Tank 1266

Client : All American Asphalt
Site : Irvine, CA
Unit : Rotary Dryer Baghouse

T std: 60 °F
Run No.: 2A

Date : 6/3/2021
Job #: 1064
Lab #: 221-061

Q std: 24,090 dscfm (Method 429)
Production Rate: [redacted] TPH

Compound Name	Lab Results ppb	lb/hr	lb/Ton	lb/MMBtu	MW
Propene	997	**0.16**	[redacted]	**0.00313**	42.08
Chlorodifluoromethane	< 15.6	< 0.0051	[redacted]	< 0.00010	86.47
Dichlorodifluoromethane	< 15.6	< 0.0061	[redacted]	< 0.00012	102.92
Chloromethane	< 15.6	< 0.0030	[redacted]	< 0.000059	50.50
1,2 Dichloro-1,1,2,2-Tetrafluoroethane	< 15.6	< 0.010	[redacted]	< 0.00020	170.92
Vinyl Chloride	< 15.6	< 0.0037	[redacted]	< 0.000073	62.50
1,3-Butadiene	138	**0.028**	[redacted]	**0.000558**	54.09
Bromomethane	< 15.6	< 0.0056	[redacted]	< 0.00011	94.94
Methanol	309	**0.038**	[redacted]	**0.000740**	32.04
Chloroethane	< 15.6	< 0.0038	[redacted]	< 0.000075	64.50
Dichlorofluoromethane	< 15.6	< 0.0061	[redacted]	< 0.00012	102.92
Ethanol	98.7	**0.017**	[redacted]	**0.000340**	46.07
Vinyl Bromide	< 15.6	< 0.0064	[redacted]	< 0.00012	106.96
Trichlorofluoromethane	< 15.6	< 0.0076	[redacted]	< 0.00015	127.50
Acetone	355	**0.079**	[redacted]	**0.00154**	58.08
Isopropyl Alcohol	< 62.3	< 0.014	[redacted]	< 0.00028	60.10
Allyl Chloride	< 31.1	< 0.0091	[redacted]	< 0.00018	76.53
1,1-Dichloroethene	< 15.6	< 0.0057	[redacted]	< 0.00011	96.00
Acrylonitrile	< 62.3	< 0.013	[redacted]	< 0.00025	53.06
Methylene Chloride	< 31.1	< 0.012	[redacted]	< 0.00023	98.00
Carbon Disulfide	< 62.3	< 0.018	[redacted]	< 0.00035	76.14
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 15.6	< 0.011	[redacted]	< 0.00022	187.40
trans-1,2- Dichloroethene	< 15.6	< 0.0058	[redacted]	< 0.00011	96.94
1,1- Dichloroethane	< 15.6	< 0.0058	[redacted]	< 0.00011	98.00
MTBE	< 15.6	< 0.0052	[redacted]	< 0.00010	88.15
Vinyl Acetate	< 31.1	< 0.010	[redacted]	< 0.00020	86.09
MEK	39.2	**0.011**	[redacted]	**0.000211**	72.11
cis-1,2- Dichloroethene	< 15.6	< 0.0057	[redacted]	< 0.00011	96.00
Hexane	< 15.6	< 0.0051	[redacted]	< 0.00010	86.18
Chloroform	< 15.6	< 0.0071	[redacted]	< 0.00014	119.50
Ethyl Acetate	< 15.6	< 0.0052	[redacted]	< 0.00010	88.11
Tetrahydrofuran	< 15.6	< 0.0043	[redacted]	< 0.000084	72.11
1,2-Dichloroethane	< 15.6	< 0.0058	[redacted]	< 0.00011	98.00
Benzene	288	**0.086**	[redacted]	**0.00168**	78.11
Cyclohexane	< 15.6	< 0.0050	[redacted]	< 0.000098	84.16
Heptane	< 15.6	< 0.0060	[redacted]	< 0.00012	100.21
Toluene	101	**0.035**	[redacted]	**0.000695**	92.14
Carbon Tetrachloride	< 15.6	<0.0091	[redacted]	< 0.00018	153.24
1,2-Dichloropropane	< 15.6	<0.0067	[redacted]	< 0.00013	112.99
Bromodichloromethane	< 15.6	<0.0097	[redacted]	< 0.00019	163.83
1,4-Dioxane	< 62.3	<0.0209	[redacted]	< 0.00041	88.11
Trichloroethene	< 15.6	<0.0078	[redacted]	< 0.00015	131.40
2,2,4-Trimethylpentane	< 15.6	<0.0068	[redacted]	< 0.00013	114.23
cis-1,3-Dichloropropene	< 15.6	<0.0066	[redacted]	< 0.00013	110.97
4-Methyl-2-Pentanone (MiBK)	< 31.1	<0.012	[redacted]	< 0.00023	100.16
t-1,3-Dichloropropene	< 15.6	<0.0066	[redacted]	< 0.00013	110.97
1,1,2-Trichloroethane	< 15.6	<0.0079	[redacted]	< 0.00016	133.40
2-Hexanone	< 62.3	<0.032	[redacted]	< 0.00063	134.60
Dibromochloromethane	< 15.6	<0.012	[redacted]	< 0.00024	208.28
1,2-Dibromomethane	< 15.6	<0.011	[redacted]	< 0.00022	187.88
Tetrachloroethylene	< 15.6	<0.0099	[redacted]	< 0.00019	165.83
Chlorobenzene	< 15.6	<0.0067	[redacted]	< 0.00013	112.56
Ethylbenzene	< 15.6	<0.0063	[redacted]	< 0.00012	106.16
m & p-Xylenes	42.7	**0.017**	[redacted]	**0.000339**	106.16
Bromoform	< 15.6	<0.015	[redacted]	< 0.00029	252.72
Styrene	17.1	**0.0068**	[redacted]	**0.000133**	104.14
1,1,2,2-Tetrachloroethane	< 15.6	<0.010	[redacted]	< 0.00020	167.85
o-Xylene	< 15.6	<0.0063	[redacted]	< 0.00012	106.16
4-Ethyltoluene	< 15.6	<0.0071	[redacted]	< 0.00014	120.19
1,3,5-Trimethylbenzene	< 15.6	<0.0067	[redacted]	< 0.00013	112.99
1,2,4-Trimethylbenzene	< 31.1	<0.014	[redacted]	< 0.00028	120.19
Benzyl Chloride	< 156	<0.075	[redacted]	< 0.00148	126.59
1,3-Dichlorobenzene	< 15.6	<0.0087	[redacted]	< 0.00017	147.00
1,4-Dichlorobenzene	< 15.6	<0.0087	[redacted]	< 0.00017	147.01
1,2-Dichlorobenzene	< 15.6	<0.0087	[redacted]	< 0.00017	147.01
1,2,4-Trichlorobenzene	< 62.3	<0.043	[redacted]	< 0.00084	181.45
Hexachlorobutadiene	< 62.3	<0.062	[redacted]	< 0.0012	260.76
1,1,1-Trichloroethene	< 15.6	<0.0078	[redacted]	< 0.00015	131.40

lb/hr = (ppb/1000) * Qstd * MW * 0.0000001581
lb/MMBtu = F-Factor (8710)*lb/hr/(60*Qstd)*20.9/(20.9-O2)
lb/ton = lb/hr/tons/hr

AIR TESTING SERVICES, INC.

EPA TO-15
Tank 1191

Client : All American Asphalt
Site : Irvine, CA
Unit : Rotary Dryer Baghouse

T std: 60 °F
Run No.: 3

Date : 6/3/2021
Job #: 1064
Lab #: 221-061

Q std: 23,888 dscfm (Method 429)
Production Rate: [redacted] TPH

Compound Name	Lab Results ppb	lb/hr	lb/Ton	lb/Mmbtu	MW
Propene	**7520**	**1.20**	[redacted]	**0.0236**	42.08
Chlorodifluoromethane	< 61.4	<0.020	[redacted]	<0.00040	86.47
Dichlorodifluoromethane	< 61.4	<0.024	[redacted]	<0.00047	102.92
Chloromethane	< 61.4	<0.012	[redacted]	<0.00023	50.50
1.2 Dichloro-1.1.2.2-Tetrafluoroethane	< 61.4	<0.040	[redacted]	<0.00078	170.92
Vinyl Chloride	< 61.4	<0.014	[redacted]	<0.00029	62.50
1.3-Butadiene	**501**	**0.10**	[redacted]	**0.00202**	54.09
Bromomethane	< 61.4	<0.022	[redacted]	<0.00044	94.94
Methanol	**1770**	**0.21**	[redacted]	**0.00424**	32.04
Chloroethane	< 61.4	<0.015	[redacted]	<0.00030	64.50
Dichlorofluoromethane	< 61.4	<0.024	[redacted]	<0.00047	102.92
Ethanol	< 245	<0.043	[redacted]	<0.00084	46.07
Vinyl Bromide	< 61.4	<0.025	[redacted]	<0.00049	106.96
Trichlorofluoromethane	< 61.4	<0.030	[redacted]	<0.00058	127.50
Acetone	**1700**	**0.37**	[redacted]	**0.00738**	58.08
Isopropyl Alcohol	< 245	<0.056	[redacted]	<0.0011	60.10
Allyl Chloride	< 31.6	<0.009	[redacted]	<0.00018	76.53
1.1-Dichloroethene	< 61.4	<0.022	[redacted]	<0.00044	96.00
Acrylonitrile	< 245	<0.049	[redacted]	<0.00097	53.06
Methylene Chloride	< 123	<0.046	[redacted]	<0.00090	98.00
Carbon Disulfide	< 245	<0.070	[redacted]	<0.0014	76.14
1.1.2-Trichloro-1.2.2-Trifluoroethane	< 61.4	<0.043	[redacted]	<0.00086	187.40
trans-1.2- Dichloroethene	< 61.4	<0.022	[redacted]	<0.00044	96.94
1.1- Dichloroethane	< 61.4	<0.023	[redacted]	<0.00045	98.00
MTBE	< 61.4	<0.020	[redacted]	<0.00040	88.15
Vinyl Acetate	< 123.0	<0.040	[redacted]	<0.00079	86.09
MEK	**210**	**0.057**	[redacted]	**0.0011**	72.11
cis-1.2- Dichloroethene	< 61.4	<0.022	[redacted]	<0.00044	96.00
Hexane	< 61.4	<0.020	[redacted]	<0.00040	86.18
Chloroform	< 61.4	<0.028	[redacted]	<0.00055	119.50
Ethyl Acetate	< 61.4	<0.020	[redacted]	<0.00040	88.11
Tetrahydrofuran	< 61.4	<0.017	[redacted]	<0.00033	72.11
1.2-Dichloroethane	< 61.4	<0.023	[redacted]	<0.00045	98.00
Benzene	**1640**	**0.48**	[redacted]	**0.0096**	78.11
Cyclohexane	< 61.4	<0.020	[redacted]	<0.00039	84.16
Heptane	< 61.4	<0.023	[redacted]	<0.00046	100.21
Toluene	**609**	**0.21**	[redacted]	**0.00419**	92.14
Carbon Tetrachloride	< 61.4	<0.036	[redacted]	<0.00070	153.24
1.2-Dichloropropane	< 61.4	<0.026	[redacted]	<0.00052	112.99
Bromodichloromethane	< 61.4	<0.038	[redacted]	<0.00075	163.83
1.4-Dioxane	< 245	<0.082	[redacted]	<0.0016	88.11
Trichloroethene	< 61.4	<0.030	[redacted]	<0.00060	131.40
2.2.4-Trimethylpentane	< 61.4	<0.026	[redacted]	<0.00052	114.23
cis-1.3-Dichloropropene	< 61.4	<0.026	[redacted]	<0.00051	110.97
4-Methyl-2-Pentanone (MiBK)	< 123	<0.047	[redacted]	<0.00092	100.16
t-1.3-Dichloropropene	< 61.4	<0.026	[redacted]	<0.00051	110.97
1.1.2-Trichloroethane	< 61.4	<0.031	[redacted]	<0.00061	133.40
2-Hexanone	< 245	<0.12	[redacted]	<0.0025	134.60
Dibromochloromethane	< 61.4	<0.048	[redacted]	<0.00096	208.28
1.2-Dibromomethane	< 61.4	<0.044	[redacted]	<0.00086	187.88
Tetrachloroethylene	< 61.4	<0.038	[redacted]	<0.00076	165.83
Chlorobenzene	< 61.4	<0.026	[redacted]	<0.00052	112.56
Ethylbenzene	< 61.4	<0.025	[redacted]	<0.00049	106.16
m & p-Xylenes	**158**	**0.063**	[redacted]	**0.00125**	106.16
Bromoform	< 61.4	<0.059	[redacted]	<0.0012	252.72
Styrene	**72.4**	**0.028**	[redacted]	**0.000563**	104.14
1.1.2.2-Tetrachloroethane	< 61.4	<0.039	[redacted]	<0.00077	167.85
o-Xylene	< 61.4	<0.025	[redacted]	<0.00049	106.16
4-Ethyltoluene	< 61.4	<0.028	[redacted]	<0.00055	120.19
1.3.5-Trimethylbenzene	< 61.4	<0.026	[redacted]	<0.00052	112.99
1.2.4-Trimethylbenzene	< 123	<0.056	[redacted]	<0.0011	120.19
Benzyl Chloride	< 614	<0.29	[redacted]	<0.0058	126.59
1.3-Dichlorobenzene	< 61.4	<0.034	[redacted]	<0.00067	147.00
1.4-Dichlorobenzene	< 61.4	<0.034	[redacted]	<0.00067	147.01
1.2-Dichlorobenzene	< 61.4	<0.034	[redacted]	<0.00067	147.01
1.2.4-Trichlorobenzene	< 245	<0.17	[redacted]	<0.0033	181.45
Hexachlorobutadiene	< 245	<0.24	[redacted]	<0.0048	260.76
1.1.1-Trichloroethene	< 61.4	<0.030	[redacted]	<0.00060	131.40

lb/hr = (ppb/1000) * Ostd * MW * 0.0000001581
lb/MMBtu = F-Factor (8710)*lb/hr/(60*Ostd)*20.9/(20.9-O2)
lb/ton = lb/hr/tons/hr

AIR TESTING SERVICES, INC.

EPA TO-15
Tank 1345

Client : All American Asphalt
Site : Irvine, CA
Unit : Rotary Dryer Baghouse

T std: 60 °F
Run No.: 3A

Date : 6/3/2021
Job #: 1064
Lab #: 221-061

O std: 23,888 dscfm (Method 429)
Production Rate: [redacted] TPH

Compound Name	Lab Results ppb	lb/hr	lb/Ton	lb/Mmbtu	MW
Propene	**5180**	**0.82**	[redacted]	**0.0163**	42.08
Chlorodifluoromethane	< 73.3	< 0.024	[redacted]	<0.00047	86.47
Dichlorodifluoromethane	< 73.3	< 0.028	[redacted]	<0.00056	102.92
Chloromethane	< 73.3	< 0.014	[redacted]	<0.00028	50.50
1,2 Dichloro-1,1,2,2-Tetrafluoroethane	< 73.3	< 0.047	[redacted]	<0.00094	170.92
Vinyl Chloride	< 73.3	< 0.017	[redacted]	<0.00034	62.50
1,3-Butadiene	**1420**	**0.29**	[redacted]	**0.00574**	54.09
Bromomethane	< 73.3	< 0.026	[redacted]	<0.00052	94.94
Methanol	< 733	< 0.089	[redacted]	<0.0018	32.04
Chloroethane	< 73.3	< 0.018	[redacted]	<0.00035	64.50
Dichlorofluoromethane	< 73.3	< 0.028	[redacted]	<0.00056	102.92
Ethanol	< 293	< 0.051	[redacted]	<0.0010	46.07
Vinyl Bromide	< 73.3	< 0.030	[redacted]	<0.00059	106.96
Trichlorofluoromethane	< 73.3	< 0.035	[redacted]	<0.0007	127.50
Acetone	**1110**	**0.24**	[redacted]	**0.00482**	58.08
Isopropyl Alcohol	< 293	< 0.067	[redacted]	<0.0013	60.10
Allyl Chloride	< 147	< 0.042	[redacted]	<0.00084	76.53
1,1-Dichloroethene	< 73.3	< 0.027	[redacted]	<0.00053	96.00
Acrylonitrile	< 293	< 0.059	[redacted]	<0.0012	53.06
Methylene Chloride	< 147	< 0.054	[redacted]	<0.0011	98.00
Carbon Disulfide	< 293	< 0.084	[redacted]	<0.0017	76.14
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 73.3	< 0.052	[redacted]	<0.0010	187.40
trans-1,2- Dichloroethene	< 73.3	< 0.027	[redacted]	<0.00053	96.94
1,1- Dichloroethane	< 73.3	< 0.027	[redacted]	<0.00054	98.00
MTBE	< 73.3	< 0.024	[redacted]	<0.00048	88.15
Vinyl Acetate	< 147	< 0.048	[redacted]	<0.00095	86.09
MEK	< 147	< 0.040	[redacted]	<0.00079	72.11
cis-1,2- Dichloroethene	< 73.3	< 0.027	[redacted]	<0.00053	96.00
Hexane	< 73.3	< 0.024	[redacted]	<0.00047	86.18
Chloroform	< 73.3	< 0.033	[redacted]	<0.00065	119.50
Ethyl Acetate	< 73.3	< 0.024	[redacted]	<0.00048	88.11
Tetrahydrofuran	< 73.3	< 0.020	[redacted]	<0.00039	72.11
1,2-Dichloroethane	< 73.3	< 0.027	[redacted]	<0.00054	98.00
Benzene	**987**	**0.29**	[redacted]	**0.00576**	78.11
Cyclohexane	< 73.3	<0.023	[redacted]	<0.00046	84.16
Heptane	< 73.3	<0.028	[redacted]	<0.00055	100.21
Toluene	**353**	**0.12**	[redacted]	**0.00243**	92.14
Carbon Tetrachloride	< 73.3	<0.042	[redacted]	<0.00084	153.24
1,2-Dichloropropane	< 73.3	<0.031	[redacted]	<0.00062	112.99
Bromodichloromethane	< 73.3	<0.045	[redacted]	<0.00090	163.83
1,4-Dioxane	< 293	<0.097	[redacted]	<0.0019	88.11
Trichloroethene	< 73.3	<0.036	[redacted]	<0.00072	131.40
2,2,4-Trimethylpentane	< 73.3	<0.032	[redacted]	<0.00063	114.23
cis-1,3-Dichloropropene	< 73.3	<0.031	[redacted]	<0.00061	110.97
4-Methyl-2-Pentanone (MiBK)	< 147	<0.056	[redacted]	<0.0011	100.16
t-1,3-Dichloropropene	< 73.3	<0.031	[redacted]	<0.00061	110.97
1,1,2-Trichloroethane	< 73.3	<0.037	[redacted]	<0.00073	133.40
2-Hexanone	< 293	<0.149	[redacted]	<0.0029	134.60
Dibromochloromethane	< 73.3	<0.058	[redacted]	<0.0011	208.28
1,2-Dibromomethane	< 73.3	<0.052	[redacted]	<0.0010	187.88
Tetrachloroethylene	< 73.3	<0.046	[redacted]	<0.00091	165.83
Chlorobenzene	< 73.3	<0.031	[redacted]	<0.00062	112.56
Ethylbenzene	< 73.3	<0.029	[redacted]	<0.00058	106.16
m & p-Xylenes	< 147	<0.059	[redacted]	<0.0012	106.16
Bromoform	< 73.3	<0.070	[redacted]	<0.0014	252.72
Styrene	**89.4**	**<0.035**	[redacted]	**0.00070**	104.14
1,1,2,2-Tetrachloroethane	< 73.3	<0.046	[redacted]	<0.00092	167.85
o-Xylene	< 73.3	<0.029	[redacted]	<0.00058	106.16
4-Ethyltoluene	< 73.3	<0.033	[redacted]	<0.00066	120.19
1,3,5-Trimethylbenzene	< 73.3	<0.031	[redacted]	<0.00062	112.99
1,2,4-Trimethylbenzene	< 147	<0.067	[redacted]	<0.0013	120.19
Benzyl Chloride	< 733	<0.35	[redacted]	<0.0069	126.59
1,3-Dichlorobenzene	< 73.3	<0.041	[redacted]	<0.00081	147.00
1,4-Dichlorobenzene	< 73.3	<0.041	[redacted]	<0.00081	147.01
1,2-Dichlorobenzene	< 73.3	<0.041	[redacted]	<0.00081	147.01
1,2,4-Trichlorobenzene	< 293	<0.201	[redacted]	<0.0040	181.45
Hexachlorobutadiene	< 293	<0.29	[redacted]	<0.0057	260.76
1,1,1-Trichloroethene	< 73.3	<0.036	[redacted]	<0.00072	131.40

lb/hr = (ppb/1000) * Ostd * MW * 0.0000001581
lb/MMBtu = F-Factor (8710)*lb/hr/(60*Ostd)*20.9/(20.9-O2)
lb/ton = lb/hr/tons/hr

ALL AMERICAN ASPHALT IRVINE 221-061

CALCULATED EMISSION RESULTS EPA METHOD 0011

	Run 1	Run 2	Run 3	Average (3 Runs)
Formaldehyde (HCHO)				
HCHO Weight (ug/sample)	5220	7630	7950	6933
HCHO Flow Rate (lb/hr)	0.17	0.24	0.26	0.22
HCHO Flow Rate (lb/Ton)	[redacted]	[redacted]	[redacted]	[redacted]
HCHO Flow Rate (lb/MMbtu)	0.00355	0.00469	0.00528	0.00451
Acetaldehyde (CH3CHO)				
CH3CHO Weight (ug/sample)	1560	1180	2160	1633
CH3CHO Flow Rate (lb/hr)	0.050	0.037	0.070	0.052
CH3CHO Flow Rate (lb/Ton)	[redacted]	[redacted]	[redacted]	[redacted]
CH3CHO Flow Rate (lb/MMbtu)	0.00104	0.000723	0.00142	0.00106

ALL AMERICAN ASPHALT IRVINE 221-061

CALCULATED EMISSION RESULTS CARB METHOD 425

	Run 1	**Run 2**	**Run 3**	**Average (3 Runs)**
Probe Rinse CR+6 Weight (g)	0.000000022	0.000000009	0.000000051	0.000000028
Impinger #1 CR+6 Weight (g)	0.000000038	0.000000035	0.000000047	0.000000040
Impinger #2 CR+6 Weight (g)	0.000000024	0.000000065	0.000000031	0.000000040
Total CR+6 Weight (g)	0.000000085	0.000000072	0.000000104	0.000000087
Cr+6 Emissions (grain/Dscf)	0.0000000056	0.0000000047	0.0000000068	0.0000000057
Cr+6 Flow Rate (lb/hr)	0.0000011	0.00000098	0.0000014	0.0000012
Cr+6 Flow Rate (lb/ton)	[redacted]	[redacted]	[redacted]	[redacted]
Cr+6 Flow Rate (lb/MMBtu)	0.0000000234	0.000000191	0.000000286	0.000000167

6.0 QUALITY ASSURANCE

Quality control procedures used in the test program follow SCAQMD, EPA & CARB procedures. Calibration methods and frequency follow the text of SCAQMD Source Test Manual.

Quality control procedures used in continuous emissions monitoring follow SCAQMD Method 100.1 procedures. All method performance checks conducted during the subject test program were within allowable tolerances.

The analyzers used for the continuous emissions monitoring of CO2 and O2 have been approved by the California Air Resources Board for such use.

Acquired data is reduced using computer spreadsheets and validated using sound criteria by an individual familiar with the field procedures used. Results are reviewed by a second individual to prevent data reduction and reporting errors.

EPA Method TO-15 and 0011/SW846
CARB Methods 425-436 and 429 followed each agencies procedures.

CONFLICT OF INTEREST NEGATIVE DECLARATION

AIRx Testing is an independent emissions testing contractor.

AIRx Testing maintains that no conflict of interest exists between the partners and employees of AIRx Testing, and the partners, employees or interests involved in the facility detailed in this report.

INDEPENDENT CONTRACTOR

Tom Porter

Signature

Tom Porter – Vice President

08/ 9/2021

Date of Signature

SCAQMD METHOD 100.1

June

2-3-7

Facility: All American Asphalt
Source: Baghouse
Job No.: 221-061
Test Date: 6/2/21

Method 100.1 Performance Data

PRETEST		
LEAK CHECK		
** LINEARITY CHECK **		
RANGE :	25	10
	O_2	CO_2
ZERO		
Instrument	0.0	0.0
Cylinder	0.0	0.0
Difference (%)	0.0	0.1
LOW LEVEL		
Instrument		
Cylinder		
Difference (%)	0.0	0.0
MID LEVEL		
Instrument	12.0	4.0
Cylinder	12.0	3.99
Difference (%)	0.0	0.0
HIGH LEVEL		
Instrument	19.9	8.2
Cylinder	19.9	8.14
Difference (%)	-0.1	0.1
POST TEST		
LEAK CHECK	25	10
	O_2	CO_2
ZERO		
Instrument	0.0	0.0
Cylinder	0.0	0.0
Difference (%)	0.0	0.2
LOW LEVEL		
Instrument		
Cylinder		
Difference (%)	0.0	0.0
MID LEVEL		
Instrument	12.0	4.0
Cylinder	12.0	3.99
Difference (%)	0.0	-0.1
HIGH LEVEL		
Instrument	20.0	8.2
Cylinder	19.9	8.14
Difference (%)	0.3	0.3

Bias Adjustment

Facility: All American Asphalt Irvine
Source: Baghouse
Date: 06/02/21

Run No. 1

Parameter	Measured Conc. (ppm,%)	Reference Span gas (ppm.%)	Initial Bias Zero (ppm.%)	Final Bias Zero (ppm.%)	Average Bias Zero (ppm.%)	Initial Bias Span (ppm.%)	Final Bias Span (ppm.%)	Average Bias Span (ppm.%)	Bias Adjusted Conc. (ppm.%)
O2	14.58	11.97	0.0	0.0	0.0	11.9	12.0	11.9	**14.61**
CO2	3.51	3.99	0.0	0.0	0.0	3.9	4.0	4.0	**3.53**

Run No. 1

Parameter	Measured Conc. (ppm,%)	Reference Span gas (ppm.%)	Initial Bias Zero (ppm.%)	Final Bias Zero (ppm.%)	Average Bias Zero (ppm.%)	Initial Bias Span (ppm.%)	Final Bias Span (ppm.%)	Average Bias Span (ppm.%)	Bias Adjusted Conc. (ppm.%)
O2	14.45	11.97	0.0	0.0	0.0	12.0	12.0	12.0	**14.44**
CO2	3.56	3.99	0.0	0.0	0.0	4.0	4.0	4.0	**3.58**

Run No. 1

Parameter	Measured Conc. (ppm,%)	Reference Span gas (ppm.%)	Initial Bias Zero (ppm.%)	Final Bias Zero (ppm.%)	Average Bias Zero (ppm.%)	Initial Bias Span (ppm.%)	Final Bias Span (ppm.%)	Average Bias Span (ppm.%)	Bias Adjusted Conc. (ppm.%)
O2	14.61	11.97	0.0	0.0	0.0	12.0	12.0	12.0	**14.63**
CO2	3.48	3.99	0.0	0.0	0.0	4.0	4.0	4.0	**3.50**

Run No. 1 6/3/2021

Parameter	Measured Conc. (ppm,%)	Reference Span gas (ppm.%)	Initial Bias Zero (ppm.%)	Final Bias Zero (ppm.%)	Average Bias Zero (ppm.%)	Initial Bias Span (ppm.%)	Final Bias Span (ppm.%)	Average Bias Span (ppm.%)	Bias Adjusted Conc. (ppm.%)
O2	14.27	11.97	0.0	0.0	0.0	12.0	12.0	12.0	**14.28**
CO2	3.80	3.99	0.0	0.0	0.0	4.0	4.0	4.0	**3.81**

Run No. 1 6/3/2021

Parameter	Measured Conc. (ppm,%)	Reference Span gas (ppm.%)	Initial Bias Zero (ppm.%)	Final Bias Zero (ppm.%)	Average Bias Zero (ppm.%)	Initial Bias Span (ppm.%)	Final Bias Span (ppm.%)	Average Bias Span (ppm.%)	Bias Adjusted Conc. (ppm.%)
O2	14.47	11.97	0.0	0.0	0.0	12.0	12.0	12.0	**14.47**
CO2	3.60	3.99	0.0	0.0	0.0	4.0	4.0	4.0	**3.61**

Average O2: **14.48**

Average CO2: **3.61**

Job Number	221-061	
Run Number	1	
Client	All American Asphalt	
Plant	Irvine	CA
Unit	Baghouse	
Operator	Ken Kennepohl	
Start Timestamp	6/2/2021 4:45	

Run 1 Average

O2 (%)	CO2 (%)
14.48	3.59

Raw Data

Timestamp (s)	O2 (%)	CO2 (%)	
4:47	0.01	0.01	
4:48	0.01	0.01	
4:49	0.01	0.01	
4:50	0.01	0.01	All Zero;
4:51	10.14	4.14	
4:52	20.54	8.49	
4:53	20.29	8.14	
4:54	19.87	8.15	High O2 Co2;
4:55	12.06	3.81	
4:56	11.97	3.99	Low O2 Co2;
4:57	0.09	0.09	
4:58	-0.01	0.05	
4:59	6.24	0.05	
5:00	1.03	0.03	
5:01	0.03	0.02	
5:02	0.00	0.02	
5:03	0.00	0.02	Bias Zero;
5:04	0.15	0.10	
5:05	8.68	2.85	
5:06	11.77	3.84	
5:07	11.93	3.92	
5:08	11.94	3.93	
5:09	11.94	3.94	Bias O2 Co2;
5:10	11.46	3.73	
5:11	2.43	0.82	
5:12	0.08	0.10	
5:13	0.00	0.05	
5:14	0.01	0.04	
5:15	0.01	0.03	
5:16	0.01	0.03	
5:17	0.01	0.03	
5:18	0.01	0.03	
5:19	7.29	0.39	
5:20	18.27	0.86	
5:21	19.03	0.91	
5:22	19.07	0.91	
5:23	19.08	0.91	

5:24	19.09	0.90
5:25	19.09	0.90
5:26	19.09	0.91
5:27	19.07	0.92
5:28	19.08	0.91
5:29	19.08	0.91
5:30	19.07	0.92
5:31	19.07	0.91
5:33	19.07	0.92
5:34	19.07	0.92
5:35	19.04	0.93
5:36	19.03	0.94
5:37	19.03	0.94
5:38	19.04	0.94
5:39	19.04	0.94
5:40	19.04	0.94
5:41	19.04	0.93
5:42	19.03	0.94
5:43	19.04	0.94
5:44	19.03	0.94
5:45	19.04	0.93
5:46	19.07	0.92
5:47	19.20	0.86
5:48	19.24	0.85
5:49	19.24	0.85
5:50	19.24	0.84
5:51	19.23	0.85
5:52	19.22	0.85
5:53	19.23	0.85
5:54	19.24	0.84
5:55	19.23	0.85
5:56	19.23	0.85
5:57	19.22	0.86
5:58	19.22	0.86
5:59	19.23	0.86
6:00	19.22	0.86
6:01	19.23	0.85
6:02	19.24	0.85
6:03	19.23	0.85
6:04	19.23	0.85
6:05	19.24	0.85
6:06	19.23	0.85
6:07	19.23	0.86
6:08	19.23	0.86
6:09	19.22	0.86
6:10	19.22	0.86
6:11	19.22	0.86

6:12	19.22	0.86	
6:13	19.20	0.87	
6:14	19.20	0.87	
6:15	19.21	0.86	
6:16	19.27	0.84	
6:17	19.46	0.75	
6:18	18.38	1.33	
6:19	15.08	3.21	
6:20	14.46	3.60	
6:21	14.38	3.67	
6:22	14.26	3.74	
6:23	14.22	3.77	
6:24	16.02	2.65	
6:25	20.15	0.52	
6:26	20.76	0.16	
6:27	20.81	0.12	
6:28	20.82	0.10	
6:29	20.82	0.10	
6:30	20.81	0.10	
6:31	20.82	0.10	
6:32	20.82	0.09	
6:33	20.82	0.09	
6:34	20.82	0.09	
6:35	20.82	0.09	
6:36	20.83	0.09	
6:37	20.82	0.09	
6:38	20.82	0.09	
6:39	20.82	0.09	
6:40	20.82	0.09	
6:41	20.82	0.09	
6:42	20.70	0.16	
6:43	18.27	1.42	
6:44	15.01	3.24	
6:45	14.57	3.52	
6:46	14.72	3.45	
6:47	14.62	3.52	
6:48	14.85	3.38	
6:49	14.93	3.34	
6:50	14.86	3.38	Start
6:51	14.84	3.40	
6:52	14.78	3.44	
6:53	14.91	3.36	
6:54	14.85	3.40	
6:55	14.81	3.42	
6:56	14.83	3.41	
6:57	14.82	3.42	
6:58	14.81	3.43	

6:59	14.81	3.43
7:00	14.80	3.43
7:01	14.80	3.43
7:02	14.79	3.43
7:03	14.82	3.41
7:04	14.81	3.42
7:05	14.74	3.47
7:06	14.69	3.48
7:08	14.68	3.47
7:09	14.85	3.39
7:10	14.70	3.49
7:11	14.65	3.52
7:12	14.77	3.44
7:13	15.01	3.31
7:14	14.99	3.32
7:15	15.06	3.27
7:16	15.01	3.31
7:17	14.77	3.45
7:18	14.82	3.42
7:19	14.78	3.45
7:20	14.69	3.49
7:21	14.70	3.49
7:22	14.64	3.53
7:23	14.64	3.52
7:24	14.60	3.55
7:25	14.51	3.60
7:26	14.53	3.59
7:27	14.65	3.51
7:28	14.78	3.44
7:29	14.63	3.53
7:30	14.54	3.58
7:31	14.51	3.60
7:32	14.52	3.60
7:33	14.70	3.49
7:34	14.89	3.38
7:35	14.67	3.51
7:36	14.58	3.57
7:37	14.76	3.45
7:38	14.80	3.44
7:39	14.61	3.52
7:40	14.38	3.67
7:41	14.36	3.70
7:42	14.44	3.64
7:43	14.39	3.68
7:44	14.32	3.71
7:45	14.51	3.60
7:46	14.59	3.56

7:47	14.54	3.59
7:48	14.53	3.59
7:49	14.59	3.56
7:50	14.53	3.60
7:51	14.61	3.55
7:52	14.58	3.57
7:53	14.64	3.53
7:54	14.60	3.56
7:55	14.47	3.63
7:56	14.60	3.55
7:57	14.52	3.60
7:58	14.41	3.67
7:59	14.33	3.71
8:00	14.21	3.78
8:01	14.00	3.90
8:02	14.03	3.87
8:03	14.16	3.81
8:04	14.13	3.79
8:05	14.26	3.74
8:06	14.41	3.66
8:07	14.39	3.67
8:08	14.36	3.69
8:09	14.42	3.66
8:10	14.40	3.68
8:11	14.39	3.67
8:12	14.29	3.73
8:13	14.21	3.75
8:14	14.20	3.74
8:15	14.25	3.73
8:16	14.37	3.65
8:17	14.49	3.55
8:18	14.47	3.51
8:19	14.47	3.47
8:20	14.48	3.43
8:21	14.49	3.39
8:22	14.50	3.35
8:23	14.51	3.32
8:24	14.52	3.29
8:25	14.53	3.26
8:26	14.54	3.23
8:27	14.55	3.19
8:28	14.56	3.17
8:29	14.58	3.14
8:30	14.59	3.11
8:31	14.60	3.09
8:32	14.61	3.06
8:33	14.63	3.03

8:34	14.62	3.43		
8:35	14.51	3.58		
8:36	14.52	3.58		
8:37	14.60	3.54		
8:38	14.53	3.58		
8:39	14.55	3.56		
8:40	14.59	3.55		
8:41	14.52	3.59		
8:42	14.61	3.53		
8:43	14.75	3.45		
8:44	14.96	3.32		
8:45	14.90	3.36		
8:46	14.79	3.43		
8:47	14.47	3.61		
8:48	14.33	3.69		
8:49	14.32	3.70		
8:50	14.40	3.65		
8:52	14.38	3.66		
8:53	14.41	3.65		
8:54	14.41	3.65		
8:55	14.45	3.62		
8:56	14.36	3.67		
8:57	14.34	3.68		
8:58	14.45	3.61		
8:59	14.81	3.41		
9:00	14.75	3.44		
9:01	14.81	3.41		
9:02	14.68	3.47		
9:03	14.76	3.43		
9:04	14.73	3.45		
9:05	14.60	3.52		
9:06	14.56	3.55		
9:07	14.55	3.56		
9:08	14.50	3.58		
9:09	14.41	3.63		
9:10	14.35	3.67	14.58	3.51
9:11	14.34	3.67		
9:12	8.53	2.10		
9:13	0.91	0.34		
9:14	0.01	0.02	Bias Zero;	
9:15	1.74	0.65		
9:16	10.47	3.41		
9:17	11.95	3.98	Bias O2 Co2;	
9:18	7.40	2.32		
9:19	0.01	0.01	Zero In;	
9:20	4.28	1.55		
9:21	11.81	3.89		

9:22	11.95	3.97	In;
9:23	13.50	3.70	
9:24	14.48	3.58	
9:25	14.41	3.62	
9:26	14.27	3.70	
9:27	14.29	3.69	
9:28	14.46	3.59	
9:29	14.50	3.56	
9:30	14.43	3.60	
9:31	14.44	3.60	
9:32	14.40	3.62	
9:33	14.40	3.62	
9:34	14.49	3.56	
9:35	14.44	3.59	
9:36	14.52	3.54	
9:37	14.47	3.57	
9:38	14.50	3.55	
9:39	14.54	3.53	
9:40	14.45	3.58	
9:41	14.44	3.59	
9:42	14.44	3.59	
9:43	14.45	3.58	
9:44	14.41	3.61	
9:45	14.46	3.57	
9:46	14.60	3.49	
9:47	14.48	3.56	
9:48	14.53	3.53	
9:49	14.51	3.55	
9:50	14.20	3.72	
9:51	14.32	3.64	
9:52	14.39	3.61	
9:53	14.38	3.61	
9:54	14.45	3.57	
9:55	14.45	3.57	
9:56	14.57	3.50	
9:57	14.45	3.57	
9:58	14.30	3.66	
9:59	14.19	3.71	
10:00	14.39	3.60	
10:01	14.48	3.55	
10:02	14.46	3.56	
10:03	14.36	3.62	
10:04	14.49	3.54	
10:05	14.38	3.60	
10:06	14.38	3.60	
10:07	14.56	3.48	
10:08	14.50	3.53	

10:09	14.36	3.60		
10:10	14.52	3.51		
10:11	14.40	3.59		
10:12	14.39	3.58		
10:13	14.41	3.58		
10:14	14.28	3.66		
10:15	14.39	3.58		
10:16	14.50	3.52		
10:17	14.59	3.47		
10:18	14.48	3.53		
10:19	14.43	3.56		
10:20	14.71	3.39		
10:21	14.52	3.49		
10:22	14.43	3.56		
10:23	14.76	3.35		
10:24	14.48	3.52		
10:25	14.50	3.50		
10:26	14.49	3.51		
10:27	14.57	3.46		
10:28	14.50	3.51		
10:29	14.47	3.52		
10:30	14.42	3.55		
10:31	14.50	3.50		
10:32	14.61	3.43		
10:33	14.52	3.49		
10:35	14.39	3.57		
10:36	14.31	3.60		
10:37	14.48	3.50	14.45	3.56
10:38	16.86	2.05	Unit Down;	
10:39	20.51	0.17		
10:40	20.67	0.07		
10:41	20.68	0.05		
10:42	20.67	0.05		
10:43	20.67	0.05		
10:44	20.67	0.04		
10:45	20.67	0.04		
10:46	20.67	0.04		
10:47	20.67	0.04		
10:48	20.67	0.03		
10:49	20.68	0.03		
10:50	20.68	0.03		
10:51	20.68	0.03		
10:52	20.68	0.03		
10:53	20.68	0.03		
10:54	20.68	0.03		
10:55	20.67	0.03		
10:56	20.68	0.03		

10:57	20.67	0.03	
10:58	20.67	0.03	
10:59	20.67	0.03	
11:00	20.67	0.03	
11:01	20.67	0.03	
11:02	20.67	0.03	
11:03	20.67	0.02	
11:04	20.67	0.03	
11:05	20.67	0.02	
11:06	20.67	0.02	
11:07	20.67	0.02	
11:08	20.67	0.02	
11:09	20.67	0.02	
11:10	20.67	0.02	
11:11	20.66	0.02	
11:12	20.66	0.02	
11:13	20.66	0.02	
11:14	20.66	0.02	
11:15	20.66	0.02	
11:16	20.66	0.02	
11:17	20.66	0.02	
11:18	20.66	0.02	
11:19	20.66	0.02	
11:20	20.66	0.02	
11:21	20.66	0.02	
11:22	20.66	0.02	
11:23	20.66	0.01	
11:24	20.66	0.01	
11:25	20.66	0.02	
11:26	20.66	0.01	
11:27	20.66	0.02	
11:28	20.65	0.02	
11:29	20.65	0.02	
11:30	20.65	0.02	
11:31	20.65	0.02	
11:32	20.65	0.02	
11:33	20.65	0.01	
11:34	20.66	0.02	
11:35	7.67	0.03	
11:36	0.02	-0.01	Bias Zero;
11:37	0.15	0.09	
11:38	10.34	3.42	
11:39	11.98	3.98	Bias O2 Co2;
11:40	3.30	0.96	
11:41	0.00	0.02	
11:42	-0.01	0.00	Zero In ;
11:43	8.17	2.82	

11:44	11.89	3.93	
11:45	11.96	3.96	O2 Co2 In;
11:46	4.80	1.46	
11:47	5.62	0.75	
11:48	14.59	3.37	
11:49	14.29	3.67	
11:50	14.50	3.56	
11:51	14.40	3.63	
11:52	14.20	3.75	
11:53	14.36	3.66	
11:54	14.20	3.75	
11:55	14.40	3.63	
11:56	14.58	3.52	
11:57	14.62	3.50	
11:58	14.64	3.49	
11:59	14.62	3.50	
12:00	14.53	3.55	
12:01	14.60	3.50	
12:02	14.55	3.54	
12:03	14.52	3.55	
12:04	14.71	3.43	
12:05	14.70	3.44	
12:06	14.72	3.43	
12:07	14.67	3.46	
12:08	14.52	3.55	
12:09	14.46	3.59	
12:10	14.29	3.68	
12:11	14.26	3.71	
12:12	14.19	3.74	
12:13	14.21	3.73	
12:14	14.25	3.71	
12:15	14.39	3.62	
12:16	14.48	3.57	
12:17	14.35	3.65	
12:19	14.39	3.62	
12:20	14.39	3.62	
12:21	14.41	3.62	
12:22	14.28	3.69	
12:23	14.31	3.67	
12:24	14.44	3.58	
12:25	14.69	3.44	
12:26	14.74	3.41	
12:27	14.62	3.48	
12:28	14.62	3.48	
12:29	14.52	3.54	
12:30	14.64	3.46	
12:31	14.77	3.39	

12:32	14.74	3.40
12:33	14.78	3.39
12:34	14.70	3.43
12:35	14.59	3.49
12:36	14.57	3.50
12:37	14.70	3.43
12:38	14.68	3.44
12:39	14.68	3.43
12:40	14.63	3.47
12:41	14.65	3.45
12:42	14.72	3.41
12:43	14.63	3.47
12:44	14.63	3.47
12:45	14.78	3.37
12:46	14.89	3.31
12:47	14.69	3.44
12:48	14.76	3.39
12:49	14.76	3.39
12:50	14.79	3.37
12:51	14.70	3.43
12:52	14.72	3.41
12:53	14.73	3.41
12:54	14.79	3.37
12:55	14.73	3.41
12:56	14.71	3.42
12:57	14.74	3.40
12:58	14.75	3.40
12:59	14.71	3.42
13:00	14.76	3.38
13:01	14.79	3.37
13:02	14.85	3.34
13:03	14.64	3.46
13:04	14.74	3.40
13:05	14.82	3.35
13:06	14.73	3.40
13:07	14.77	3.38
13:08	14.74	3.39
13:09	14.70	3.42
13:10	14.56	3.50
13:11	14.55	3.50
13:12	14.92	3.28
13:13	14.88	3.31
13:14	15.11	3.17
13:15	14.72	3.42
13:16	14.62	3.47
13:17	14.63	3.46
13:18	14.60	3.48

13:19	14.67	3.44		
13:20	14.70	3.42		
13:21	14.52	3.53		
13:22	14.58	3.49		
13:23	14.65	3.45	14.61	3.48
13:24	15.90	2.62		
13:25	20.35	0.28		
13:26	20.70	0.08		
13:27	20.72	0.06		
13:28	15.80	0.06		
13:29	0.01	-0.01	Bias Zero;	
13:30	0.30	0.13		
13:31	15.78	1.39		
13:32	11.99	3.96	Bias O2 Co2;	
13:33	11.72	3.81		
13:34	0.01	0.02	Zero In;	
13:35	1.57	0.69		
13:36	11.97	3.98	Low O2 Co2;	
13:37	12.81	4.68		
13:38	19.97	8.17	High O2 CO2;	
13:39	19.88	8.08		

Facility: All American Asphalt
Source: Baghouse
Job No.: 221-061
Test Date: 6/3/21

Method 100.1 Performance Data

PRETEST		
LEAK CHECK		
** LINEARITY CHECK **		
RANGE :	25	10
	O2	CO2
ZERO		
Instrument	0.0	0.0
Cylinder	0.0	0.0
Difference (%)	0.0	0.1
LOW LEVEL		
Instrument		
Cylinder		
Difference (%)	0.0	0.0
MID LEVEL		
Instrument	12.0	4.0
Cylinder	12.0	3.99
Difference (%)	0.0	0.0
HIGH LEVEL		
Instrument	19.9	8.2
Cylinder	19.9	8.14
Difference (%)	-0.1	0.1
POST TEST		
LEAK CHECK	25	10
	O2	CO2
ZERO		
Instrument	0.0	0.0
Cylinder	0.0	0.0
Difference (%)	0.0	0.2
LOW LEVEL		
Instrument		
Cylinder		
Difference (%)	0.0	0.0
MID LEVEL		
Instrument	12.0	4.0
Cylinder	12.0	3.99
Difference (%)	0.0	-0.1
HIGH LEVEL		
Instrument	20.0	8.2
Cylinder	19.9	8.14
Difference (%)	0.3	0.3

Bias Adiustment

Facility: All American Asphalt Irvine
Source: Baghouse
Date: 06/03/21

Run No. 2

Parameter	Measured Conc. (ppm,%)	Reference Span gas (ppm.%)	Initial Bias Zero (ppm.%)	Final Bias Zero (ppm.%)	Average Bias Zero (ppm.%)	Initial Bias Span (ppm.%)	Final Bias Span (ppm.%)	Average Bias Span (ppm.%)	Bias Adjusted Conc. (ppm.%)
O2	14.43	11.97	0.0	0.0	0.0	12.0	12.0	12.0	**14.41**
CO2	3.56	3.99	0.0	0.0	0.0	4.0	4.0	4.0	**3.56**

Run No. 2

Parameter	Measured Conc. (ppm,%)	Reference Span gas (ppm.%)	Initial Bias Zero (ppm.%)	Final Bias Zero (ppm.%)	Average Bias Zero (ppm.%)	Initial Bias Span (ppm.%)	Final Bias Span (ppm.%)	Average Bias Span (ppm.%)	Bias Adjusted Conc. (ppm.%)
O2	14.31	11.97	0.0	0.0	0.0	12.0	12.0	11.97	**14.31**
CO2	3.75	3.99	0.0	0.0	0.0	4.0	4.0	4.00	**3.74**

Run No. 2

Parameter	Measured Conc. (ppm,%)	Reference Span gas (ppm.%)	Initial Bias Zero (ppm.%)	Final Bias Zero (ppm.%)	Average Bias Zero (ppm.%)	Initial Bias Span (ppm.%)	Final Bias Span (ppm.%)	Average Bias Span (ppm.%)	Bias Adjusted Conc. (ppm.%)
O2	14.50	11.97	0.0	0.0	0.0	12.0	12.0	12.0	**14.49**
CO2	3.59	3.99	0.0	0.0	0.0	4.0	4.0	4.0	**3.59**

Run No. 2

Parameter	Measured Conc. (ppm,%)	Reference Span gas (ppm.%)	Initial Bias Zero (ppm.%)	Final Bias Zero (ppm.%)	Average Bias Zero (ppm.%)	Initial Bias Span (ppm.%)	Final Bias Span (ppm.%)	Average Bias Span (ppm.%)	Bias Adjusted Conc. (ppm.%)
O2	15.08	11.97	0.0	0.0	0.0	12.0	12.0	12.0	**15.06**
CO2	3.32	3.99	0.0	0.0	0.0	4.0	4.0	4.0	**3.33**

Average O2: **14.57**

Average CO2: **3.56**

Job Number	221-061	
Run Number	1-2	
Client	All American Asphalt	
Plant	Irvine	CA
Unit	Baghouse	
Operator	Ken Kennepohl	
Start Timestamp	6/3/2021 3:45	

Raw Data

Timestamp (s)	O2 (%)	CO2 (%)	
3:47	20.41	0.55	
3:48	20.41	0.55	
3:49	20.41	0.55	
3:50	20.41	0.55	
3:51	14.49	0.42	
3:52	-0.01	0.01	Zero In;
3:53	10.50	4.58	
3:54	19.95	8.12	High O2 Co2;
3:55	15.62	5.59	
3:56	11.92	3.95	
3:57	11.93	3.97	
3:58	11.96	3.97	Low O2 Co2;
3:59	2.44	0.68	
4:00	-0.01	0.01	Bias Zero;
4:01	2.21	0.26	
4:02	0.18	0.04	
4:03	8.16	2.83	
4:04	11.91	3.92	
4:05	11.95	3.95	Bias O2 Co2;
4:06	10.56	3.35	
4:07	0.50	0.20	
4:08	15.75	0.73	
4:09	19.18	0.84	
4:10	19.20	0.85	
4:11	19.19	0.85	
4:12	19.17	0.86	
4:13	19.17	0.86	
4:14	19.16	0.87	
4:15	19.14	0.88	
4:16	19.13	0.88	
4:17	19.12	0.89	
4:18	19.11	0.89	
4:19	19.07	0.91	
4:20	19.08	0.90	
4:21	19.07	0.91	
4:22	19.05	0.92	
4:23	19.05	0.92	

4:24	19.05	0.92
4:25	19.04	0.92
4:26	19.04	0.92
4:27	19.03	0.93
4:28	19.01	0.94
4:29	19.00	0.94
4:30	19.00	0.94
4:31	18.99	0.95
4:32	19.00	0.94
4:33	18.98	0.95
4:34	18.97	0.96
4:35	18.96	0.96
4:36	18.94	0.97
4:37	18.93	0.98
4:39	18.93	0.98
4:40	18.91	0.99
4:41	18.90	0.99
4:42	18.90	0.99
4:43	18.91	0.99
4:44	18.99	0.95
4:45	19.06	0.92
4:46	19.06	0.92
4:47	19.06	0.92
4:48	19.05	0.93
4:49	19.07	0.92
4:50	19.18	0.86
4:51	19.31	0.81
4:52	16.80	2.28
4:53	14.26	3.74
4:54	14.24	3.77
4:55	13.99	3.92
4:56	17.95	1.55
4:57	20.71	0.19
4:58	20.80	0.12
4:59	20.81	0.10
5:00	20.81	0.10
5:01	20.82	0.09
5:02	20.82	0.08
5:03	20.82	0.08
5:04	20.82	0.09
5:05	20.82	0.09
5:06	20.82	0.08
5:07	20.82	0.08
5:08	20.82	0.08
5:09	20.81	0.09
5:10	19.25	0.96
5:11	14.80	3.44

5:12	14.30	3.70	
5:13	18.68	1.16	
5:14	20.75	0.16	
5:15	20.81	0.11	
5:16	20.82	0.09	
5:17	20.82	0.09	
5:18	20.82	0.09	
5:19	20.81	0.09	
5:20	20.81	0.09	
5:21	20.81	0.09	
5:22	20.81	0.09	
5:23	20.82	0.09	
5:24	20.82	0.09	
5:25	20.82	0.09	
5:26	20.82	0.09	
5:27	20.82	0.08	
5:28	20.82	0.08	
5:29	20.82	0.09	
5:30	20.82	0.08	
5:31	20.82	0.08	
5:32	20.82	0.08	
5:33	20.82	0.08	
5:34	20.82	0.08	
5:35	20.82	0.08	
5:36	20.82	0.08	
5:37	20.82	0.09	
5:38	20.82	0.08	
5:39	20.82	0.08	
5:40	20.82	0.09	
5:41	20.82	0.09	
5:42	20.82	0.08	
5:43	20.82	0.09	
5:44	20.82	0.08	
5:45	20.81	0.09	
5:46	19.38	0.89	
5:47	15.47	3.06	
5:48	14.01	3.89	
5:49	14.05	3.88	
5:50	14.05	3.90	
5:51	14.14	3.84	
5:52	14.04	3.91	
5:53	13.96	3.95	Continue Run 1
5:54	14.34	3.73	
5:55	14.42	3.70	
5:56	14.43	3.70	
5:57	14.21	3.81	
5:58	14.01	3.94	

5:59	14.00	3.95
6:00	13.87	4.02
6:01	13.92	3.99
6:02	14.01	3.93
6:03	14.04	3.92
6:04	14.13	3.87
6:05	14.24	3.81
6:06	14.16	3.85
6:07	14.23	3.82
6:08	14.24	3.80
6:10	14.34	3.75
6:11	14.24	3.81
6:12	14.23	3.81
6:13	14.28	3.78
6:14	14.34	3.76
6:15	14.25	3.80
6:16	14.35	3.74
6:17	14.34	3.76
6:18	14.26	3.80
6:19	14.18	3.85
6:20	14.16	3.86
6:21	14.21	3.83
6:22	14.15	3.87
6:23	14.07	3.92
6:24	14.08	3.91
6:25	14.01	3.95
6:26	14.04	3.93
6:27	14.07	3.92
6:28	14.11	3.89
6:29	14.24	3.82
6:30	14.27	3.80
6:31	14.26	3.80
6:32	14.37	3.74
6:33	14.33	3.76
6:34	14.28	3.79
6:35	14.33	3.76
6:36	14.33	3.76
6:37	14.38	3.73
6:38	14.29	3.79
6:39	14.25	3.81
6:40	14.26	3.81
6:41	14.34	3.75
6:42	14.42	3.71
6:43	14.45	3.69
6:44	14.44	3.70
6:45	14.43	3.71
6:46	14.34	3.76

6:47	14.46	3.68			
6:48	14.50	3.67			
6:49	14.54	3.65			
6:50	14.32	3.77			
6:51	14.40	3.72			
6:52	14.44	3.70			
6:53	14.39	3.73			
6:54	14.45	3.69			
6:55	14.44	3.70			
6:56	14.45	3.69			
6:57	14.43	3.70			
6:58	14.46	3.69		14.27	3.80
6:59	14.39	3.73			
7:00	14.33	3.77			
7:01	5.50	1.34	recal;		
7:02	0.03	0.06			
7:03	0.00	-0.01	Bias Zero;		
7:04	5.66	1.97			
7:05	11.96	3.98	Bias O2 Co2;		
7:06	9.85	3.09			
7:07	0.33	0.14			
7:08	0.00	0.00	Zero In;		
7:09	7.41	2.56			
7:10	11.96	3.96	O2 Co2 In;		
7:11	5.43	1.65			
7:12	3.99	1.13			
7:13	14.23	3.54	Continue		
7:14	14.46	3.61	Run 1		
7:15	14.48	3.60			
7:16	14.59	3.54			
7:17	14.41	3.65			
7:18	14.41	3.65			
7:19	14.40	3.66			
7:20	14.39	3.66			
7:21	14.36	3.69			
7:22	14.32	3.70			
7:23	14.40	3.66			
7:24	14.43	3.64			
7:25	14.41	3.65			
7:26	14.43	3.63			
7:27	14.46	3.62			
7:28	14.42	3.64			
7:29	14.47	3.61			
7:30	14.46	3.63			
7:31	14.36	3.68			
7:32	14.41	3.65			
7:33	14.37	3.67			

7:34	14.40	3.66
7:35	14.44	3.63
7:36	14.43	3.64
7:37	14.35	3.68
7:38	14.38	3.67
7:39	14.38	3.67
7:40	14.36	3.68
7:41	14.40	3.65
7:42	14.49	3.60
7:43	14.56	3.56
7:44	14.60	3.53
7:45	14.71	3.47
7:46	14.58	3.54
7:47	14.66	3.49
7:48	14.64	3.50
7:49	14.55	3.57
7:50	14.23	3.75
7:51	14.10	3.83
7:52	14.02	3.86
7:53	14.14	3.81
7:54	14.04	3.86
7:55	14.08	3.84
7:56	14.14	3.81
7:57	14.38	3.66
7:58	14.50	3.60
7:59	14.24	3.74
8:00	14.31	3.70
8:01	14.34	3.68
8:03	14.37	3.66
8:04	14.28	3.71
8:05	14.31	3.69
8:06	14.37	3.66
8:07	14.28	3.72
8:08	14.36	3.66
8:09	14.36	3.67
8:10	14.31	3.70
8:11	14.36	3.67
8:12	14.27	3.72
8:13	14.55	3.55
8:14	14.56	3.55
8:15	14.58	3.53
8:16	14.56	3.55
8:17	14.51	3.58
8:18	14.46	3.59
8:19	14.48	3.59
8:20	14.41	3.63
8:21	14.45	3.61

8:22	14.48	3.59		
8:23	14.33	3.68		
8:24	14.27	3.71		
8:25	14.46	3.60		
8:26	14.42	3.63		
8:27	14.42	3.62		
8:28	14.63	3.50		
8:29	14.65	3.49		
8:30	14.73	3.45		
8:31	14.76	3.43		
8:32	14.77	3.43		
8:33	14.77	3.42		
8:34	14.86	3.37		
8:35	14.75	3.43		
8:36	14.84	3.37		
8:37	14.86	3.36		
8:38	14.79	3.41		
8:39	14.70	3.46		
8:40	14.54	3.55		
8:41	14.63	3.50		
8:42	14.58	3.53		
8:43	14.72	3.44		
8:44	14.53	3.56		
8:45	14.52	3.57		
8:46	14.62	3.51		
8:47	14.67	3.49		
8:48	14.49	3.59		
8:49	14.79	3.40		
8:50	14.54	3.56		
8:51	14.58	3.52		
8:52	14.68	3.47		
8:53	14.50	3.58		
8:54	14.57	3.53		
8:55	14.50	3.58		
8:56	14.60	3.51		
8:57	14.62	3.50		
8:58	14.62	3.50	14.47	3.60
8:59	17.14	1.95		
9:00	20.64	0.17		
9:01	20.77	0.08		
9:02	20.77	0.06		
9:03	20.77	0.06		
9:04	20.78	0.05		
9:05	20.77	0.05		
9:06	20.77	0.05		
9:07	20.77	0.05		
9:08	20.76	0.05		

9:09	20.77	0.05		
9:10	20.78	0.05		
9:11	20.78	0.05		
9:12	20.78	0.04		
9:13	20.77	0.04		
9:14	20.76	0.05		
9:15	20.77	0.04		
9:16	20.78	0.04		
9:17	20.78	0.04		
9:18	20.78	0.04		
9:19	20.77	0.04		
9:20	20.77	0.04		
9:21	20.78	0.03		
9:22	20.77	0.04		
9:23	20.77	0.04		
9:24	20.78	0.03		
9:25	20.78	0.03		
9:26	20.78	0.03		
9:27	16.05	0.03		
9:28	0.31	-0.02		
9:29	0.01	0.01	Bias Zero;	
9:30	10.02	3.34		
9:31	11.96	3.97	Bias O2 Co2;	
9:32	11.86	3.85		
9:33	1.86	0.51		
9:34	0.00	0.02	Zero In;	
9:35	8.98	3.06		
9:36	11.99	3.98	O2 Co2 In;	
9:37	5.52	1.67		
9:38	0.02	0.03		
9:39	0.00	0.00		
9:40	-0.01	-0.01		
9:41	-0.01	-0.02		
9:42	-0.01	-0.02		
9:43	3.30	0.94		
9:44	14.09	3.55		
9:45	14.41	3.57		
9:46	14.29	3.67		
9:47	14.14	3.75		
9:48	14.48	3.56		
9:49	14.44	3.59		
9:50	14.41	3.61	Run 2 Average	
9:51	14.40	3.60	O2 (%)	CO2 (%)
9:52	14.48	3.57	14.58	3.56
9:53	14.47	3.56		
9:55	14.52	3.54		
9:56	14.53	3.53	Start Run 2;	

9:57	14.41	3.60
9:58	14.40	3.61
9:59	14.38	3.61
10:00	14.34	3.64
10:01	14.30	3.66
10:02	14.39	3.60
10:03	14.40	3.60
10:04	14.43	3.58
10:05	14.35	3.63
10:06	14.39	3.60
10:07	14.50	3.54
10:08	14.60	3.46
10:09	14.73	3.40
10:10	14.65	3.44
10:11	14.68	3.42
10:12	14.69	3.42
10:13	14.69	3.41
10:14	14.71	3.41
10:15	14.70	3.41
10:16	14.74	3.39
10:17	14.67	3.42
10:18	14.86	3.31
10:19	14.71	3.40
10:20	14.70	3.40
10:21	14.60	3.47
10:22	14.65	3.43
10:23	14.70	3.41
10:24	14.54	3.50
10:25	14.58	3.47
10:26	14.36	3.60
10:27	14.34	3.62
10:28	14.26	3.67
10:29	14.24	3.67
10:30	14.31	3.63
10:31	14.51	3.51
10:32	14.42	3.57
10:33	14.35	3.61
10:34	14.21	3.69
10:35	14.21	3.68
10:36	14.26	3.66
10:37	14.25	3.66
10:38	14.25	3.66
10:39	14.30	3.63
10:40	14.25	3.66
10:41	14.27	3.65
10:42	14.21	3.67
10:43	14.40	3.56

10:44	14.35	3.60
10:45	14.19	3.69
10:46	14.23	3.67
10:47	14.18	3.69
10:48	14.28	3.64
10:49	14.22	3.67
10:50	14.26	3.65
10:51	14.27	3.64
10:52	14.39	3.55
10:53	14.30	3.61
10:54	14.36	3.57
10:55	14.27	3.62
10:56	14.21	3.66
10:57	14.24	3.64
10:58	14.31	3.60
10:59	14.40	3.54
11:00	14.36	3.57
11:01	14.22	3.66
11:02	14.30	3.60
11:03	14.30	3.60
11:04	14.18	3.68
11:05	14.25	3.63
11:06	14.35	3.58
11:07	14.30	3.61
11:08	14.20	3.67
11:09	14.21	3.66
11:10	14.22	3.65
11:11	14.30	3.62
11:12	14.23	3.66
11:13	14.19	3.68
11:14	14.22	3.67
11:15	14.21	3.68
11:16	14.22	3.67
11:17	14.31	3.62
11:18	14.21	3.67
11:19	14.44	3.53
11:20	14.59	3.45
11:21	14.35	3.61
11:22	14.36	3.58
11:23	14.61	3.45
11:24	14.58	3.46
11:25	14.48	3.52
11:26	14.45	3.54
11:27	14.61	3.44
11:28	14.65	3.43
11:29	14.58	3.47
11:31	14.60	3.45

11:32	14.55	3.48		
11:33	14.67	3.41		
11:34	14.65	3.43		
11:35	14.71	3.39		
11:36	14.60	3.47		
11:37	14.50	3.51		
11:38	14.54	3.50		
11:39	14.53	3.50		
11:40	14.65	3.43		
11:41	14.58	3.48		
11:42	14.55	3.49		
11:43	14.55	3.50		
11:44	14.56	3.48		
11:45	14.59	3.48		
11:46	14.51	3.52		
11:47	14.53	3.51		
11:48	14.54	3.50		
11:49	14.49	3.53		
11:50	14.51	3.53		
11:51	14.44	3.56		
11:52	14.36	3.62		
11:53	14.40	3.58		
11:54	14.55	3.50		
11:55	14.45	3.56		
11:56	14.44	3.57		
11:57	14.36	3.61		
11:58	14.40	3.59		
11:59	14.52	3.51		
12:00	14.56	3.50	14.43	3.56
12:01	14.58	3.49		
12:02	13.33	3.13		
12:03	0.61	0.18		
12:04	0.00	0.01	Bias Zero;	
12:05	5.12	1.81		
12:06	11.84	3.88		
12:07	11.98	3.99	Bias O2 Co2;	
12:08	7.77	2.41		
12:09	0.05	0.06		
12:10	0.00	0.02	Zero In;	
12:11	9.50	3.25		
12:12	11.96	3.99	O2 Co2 In ;	
12:13	3.97	1.17		
12:14	0.00	0.02		
12:15	-0.01	0.00		
12:16	7.38	2.01		
12:17	14.41	3.56		
12:18	14.28	3.70	Run 2;	

12:19	14.29	3.70
12:20	14.18	3.77
12:21	14.22	3.75
12:22	14.23	3.75
12:23	14.30	3.71
12:24	14.44	3.63
12:25	14.33	3.70
12:26	14.33	3.69
12:27	14.36	3.68
12:28	14.38	3.67
12:29	14.40	3.66
12:30	14.44	3.63
12:31	14.44	3.64
12:32	14.29	3.73
12:33	14.32	3.71
12:34	14.27	3.74
12:35	14.38	3.67
12:36	14.42	3.65
12:37	14.23	3.77
12:38	14.22	3.77
12:39	14.39	3.67
12:40	14.25	3.76
12:41	14.28	3.74
12:42	14.27	3.75
12:43	14.26	3.76
12:44	14.12	3.84
12:45	14.22	3.78
12:46	14.33	3.71
12:47	14.34	3.72
12:48	14.23	3.77
12:49	14.37	3.70
12:50	14.42	3.67
12:51	14.35	3.72
12:52	14.36	3.70
12:53	14.35	3.71
12:54	14.49	3.63
12:55	14.37	3.70
12:56	14.33	3.73
12:57	14.27	3.76
12:58	14.40	3.69
12:59	14.30	3.75
13:00	14.33	3.73
13:01	14.36	3.71
13:02	14.18	3.82
13:03	14.35	3.71
13:04	14.36	3.72
13:05	14.25	3.78

13:06	14.29	3.75
13:07	14.25	3.78
13:09	14.28	3.76
13:10	14.39	3.69
13:11	14.41	3.69
13:12	14.36	3.72
13:13	14.29	3.76
13:14	14.36	3.71
13:15	14.45	3.65
13:16	14.46	3.66
13:17	14.38	3.71
13:18	14.41	3.69
13:19	14.43	3.67
13:20	14.42	3.68
13:21	14.46	3.66
13:22	14.50	3.63
13:23	14.46	3.67
13:24	14.49	3.64
13:25	14.51	3.64
13:26	14.40	3.71
13:27	14.43	3.68
13:28	14.40	3.70
13:29	14.33	3.74
13:30	14.23	3.81
13:31	14.32	3.75
13:32	14.45	3.68
13:33	14.38	3.72
13:34	14.21	3.83
13:35	14.16	3.85
13:36	14.37	3.73
13:37	14.30	3.77
13:38	14.33	3.75
13:39	14.34	3.75
13:40	14.28	3.79
13:41	14.21	3.83
13:42	14.16	3.85
13:43	14.20	3.83
13:44	14.19	3.83
13:45	14.25	3.80
13:46	14.21	3.83
13:47	14.18	3.84
13:48	14.16	3.86
13:49	14.20	3.84
13:50	14.34	3.76
13:51	14.09	3.91
13:52	14.16	3.86
13:53	14.18	3.85

13:54	14.18	3.85		
13:55	14.16	3.87		
13:56	14.09	3.90		
13:57	14.10	3.90		
13:58	14.10	3.90		
13:59	14.09	3.91	14.31	3.75
14:00	14.09	3.90		
14:01	14.20	3.84		
14:02	2.81	0.66		
14:03	0.00	0.01	Bias Zero;	
14:04	6.14	2.20		
14:05	11.90	3.98		
14:06	11.96	4.00	Bias O2 Co2;	
14:07	3.15	0.94		
14:08	0.00	0.01	Zero In;	
14:09	6.01	2.15		
14:10	11.97	3.98	O2 Co2 In;	
14:11	11.52	3.72		
14:12	0.76	0.27		
14:13	10.56	2.84		
14:14	14.39	3.64		
14:15	14.23	3.76	Run 2;	
14:16	14.20	3.78		
14:17	14.21	3.78		
14:18	14.35	3.70		
14:19	14.38	3.68		
14:20	14.41	3.67		
14:21	14.29	3.74		
14:22	14.23	3.77		
14:23	14.29	3.74		
14:24	14.31	3.73		
14:25	14.26	3.76		
14:26	14.26	3.75		
14:27	14.30	3.73		
14:28	14.34	3.72		
14:29	14.25	3.76		
14:30	14.26	3.76		
14:31	14.33	3.72		
14:32	14.41	3.67		
14:33	14.32	3.73		
14:34	14.26	3.75		
14:35	14.35	3.71		
14:36	14.31	3.73		
14:37	14.31	3.73		
14:38	14.34	3.71		
14:39	14.35	3.71		
14:40	14.32	3.72		

14:41	14.27	3.75
14:42	14.33	3.71
14:43	14.34	3.70
14:44	14.38	3.69
14:45	14.38	3.69
14:46	14.31	3.73
14:47	14.41	3.67
14:48	14.37	3.69
14:49	14.50	3.61
14:50	14.42	3.66
14:51	14.42	3.66
14:52	14.23	3.77
14:53	14.30	3.72
14:54	14.36	3.68
14:56	14.43	3.64
14:57	14.41	3.66
14:58	14.39	3.67
14:59	14.42	3.65
15:00	14.45	3.64
15:01	14.48	3.62
15:02	14.35	3.70
15:03	14.18	3.79
15:04	14.33	3.70
15:05	14.47	3.62
15:06	14.43	3.65
15:07	14.47	3.62
15:08	14.46	3.62
15:09	14.46	3.62
15:10	14.64	3.51
15:11	14.72	3.46
15:12	14.65	3.50
15:13	14.52	3.59
15:14	14.46	3.61
15:15	14.69	3.48
15:16	14.90	3.35
15:17	14.80	3.41
15:18	14.93	3.33
15:19	15.00	3.28
15:20	15.00	3.30
15:21	14.81	3.40
15:22	14.82	3.40
15:23	14.68	3.49
15:24	14.56	3.56
15:25	14.68	3.49
15:26	14.68	3.49
15:27	14.62	3.52
15:28	14.64	3.50

15:29	14.66	3.50		
15:30	14.56	3.55		
15:31	14.66	3.50		
15:32	14.68	3.49		
15:33	14.78	3.43		
15:34	14.76	3.44		
15:35	14.55	3.56		
15:36	14.62	3.52		
15:37	14.67	3.48		
15:38	14.68	3.48		
15:39	14.62	3.52		
15:40	14.60	3.53		
15:41	14.59	3.53		
15:42	14.85	3.37		
15:43	14.93	3.32		
15:44	14.90	3.34		
15:45	14.71	3.47		
15:46	14.50	3.58		
15:47	14.54	3.55		
15:48	14.61	3.51		
15:49	14.64	3.49		
15:50	14.62	3.51		
15:51	14.59	3.52		
15:52	14.62	3.51		
15:53	14.49	3.58		
15:54	14.50	3.57		
15:55	14.52	3.56		
15:56	14.61	3.51		
15:57	14.59	3.53		
15:58	14.49	3.59		
15:59	14.50	3.58		
16:00	14.59	3.52		
16:01	14.48	3.59		
16:02	14.53	3.56		
16:03	14.44	3.62		
16:04	14.66	3.48		
16:05	14.60	3.53		
16:06	14.59	3.52		
16:07	14.58	3.53		
16:08	14.46	3.60		
16:09	14.48	3.59		
16:10	14.53	3.55	14.50	3.59
16:11	14.46	3.59		
16:12	13.28	3.19		
16:13	0.43	0.17		
16:14	0.00	0.01	Bias Zero;	
16:15	0.00	0.02		

16:16	8.97	2.98	
16:17	11.99	3.98	Bias O2 Co2;
16:18	5.33	1.66	
16:19	0.00	0.01	Zero In;
16:20	4.38	1.57	
16:21	11.97	4.00	O2 Co2 In;
16:22	2.96	0.89	
16:23	14.80	3.40	Run 2;
16:24	14.89	3.37	
16:25	15.22	3.18	
16:26	15.05	3.29	
16:27	15.12	3.25	
16:28	15.11	3.26	
16:29	15.10	3.27	
16:30	15.12	3.26	
16:31	15.29	3.17	
16:32	15.31	3.16	
16:33	15.26	3.18	
16:34	15.04	3.31	
16:35	15.16	3.26	
16:36	15.08	3.29	
16:37	15.15	3.26	
16:38	15.27	3.19	
16:39	15.26	3.18	
16:40	15.15	3.22	
16:41	15.06	3.31	
16:42	15.05	3.30	
16:43	15.03	3.33	
16:45	15.07	3.32	
16:46	15.13	3.27	
16:47	15.13	3.28	
16:48	15.20	3.24	
16:49	15.28	3.18	
16:50	15.25	3.19	
16:51	15.22	3.20	
16:52	15.17	3.23	
16:53	15.21	3.23	
16:54	15.28	3.18	
16:55	15.30	3.16	
16:56	15.27	3.16	
16:57	15.19	3.20	
16:58	15.16	3.24	
16:59	15.07	3.28	
17:00	15.04	3.32	
17:01	15.02	3.34	
17:02	15.00	3.35	
17:03	14.97	3.38	

17:04	14.96	3.39
17:05	15.03	3.36
17:06	15.06	3.34
17:07	15.08	3.33
17:08	15.02	3.37
17:09	14.99	3.39
17:10	14.96	3.41
17:11	15.09	3.33
17:12	15.10	3.32
17:13	15.03	3.36
17:14	14.89	3.45
17:15	15.00	3.38
17:16	14.99	3.39
17:17	14.97	3.39
17:18	15.08	3.33
17:19	15.15	3.28
17:20	15.18	3.27
17:21	15.16	3.28
17:22	15.04	3.36
17:23	14.97	3.40
17:24	14.96	3.40
17:25	14.98	3.39
17:26	15.02	3.37
17:27	15.08	3.33
17:28	15.03	3.37
17:29	15.06	3.34
17:30	15.07	3.35
17:31	14.96	3.41
17:32	15.05	3.35
17:33	15.16	3.28
17:34	15.25	3.24
17:35	15.21	3.26
17:36	15.04	3.37
17:37	15.06	3.34
17:38	15.06	3.36
17:39	15.02	3.38
17:40	15.05	3.35
17:41	15.09	3.34
17:42	15.06	3.36
17:43	14.99	3.40
17:44	14.97	3.41
17:45	15.04	3.37
17:46	15.07	3.36
17:47	14.95	3.42
17:48	15.00	3.39
17:49	15.09	3.35
17:50	15.06	3.36

17:51	15.07	3.36			
17:52	15.02	3.39			
17:53	15.10	3.34			
17:54	15.00	3.40			
17:55	15.12	3.33			
17:56	15.01	3.40			
17:57	14.95	3.43			
17:58	15.03	3.38		15.08	3.32
17:59	15.06	3.34			
18:00	18.29	1.45			
18:01	0.01	0.02	Bias Zero;		
18:02	3.24	1.86			
18:03	11.98	3.98	Bias O2 Co2;		
18:04	9.63	3.00			
18:05	0.01	0.02	Zero In;		
18:06	2.60	1.19			
18:07	11.99	4.00	O2 Co2 In;		
18:08	13.48	5.06			
18:09	19.91	8.12	High O2 CO2;		

Facility: All American Asphalt
Source: Baghouse
Job No.: 221-061
Test Date: 6/7/21

Method 100.1 Performance Data

PRETEST		
LEAK CHECK		
** LINEARITY CHECK **		
RANGE :	25	10
	O2	CO2
ZERO		
Instrument	0.0	0.0
Cylinder	0.0	0.0
Difference (%)	0.0	0.0
LOW LEVEL		
Instrument		
Cylinder		
Difference (%)	0.0	0.0
MID LEVEL		
Instrument	12.0	4.0
Cylinder	12.0	3.99
Difference (%)	0.0	-0.1
HIGH LEVEL		
Instrument	19.9	8.1
Cylinder	19.9	8.14
Difference (%)	0.0	0.0
POST TEST		
LEAK CHECK	25	10
	O2	CO2
ZERO		
Instrument	0.0	0.0
Cylinder	0.0	0.0
Difference (%)	0.0	0.2
LOW LEVEL		
Instrument		
Cylinder		
Difference (%)	0.0	0.0
MID LEVEL		
Instrument	12.0	4.0
Cylinder	12.0	3.99
Difference (%)	0.0	0.1
HIGH LEVEL		
Instrument	19.9	8.2
Cylinder	19.9	8.14
Difference (%)	-0.1	0.2

Bias Adjustment

Facility: All American Asphalt Irvine
Source: Baghouse
Date: 06/07/21

Run No. 3

Parameter	Measured Conc. (ppm,%)	Reference Span gas (ppm.%)	Initial Bias Zero (ppm.%)	Final Bias Zero (ppm.%)	Average Bias Zero (ppm.%)	Initial Bias Span (ppm.%)	Final Bias Span (ppm.%)	Average Bias Span (ppm.%)	Bias Adjusted Conc. (ppm.%)
O2	14.70	11.97	0.01	0.01	0.01	11.95	11.95	11.95	**14.73**
CO2	3.42	3.99	0.02	0.02	0.02	3.97	3.96	3.97	**3.44**

Run No. 3

Parameter	Measured Conc. (ppm,%)	Reference Span gas (ppm.%)	Initial Bias Zero (ppm.%)	Final Bias Zero (ppm.%)	Average Bias Zero (ppm.%)	Initial Bias Span (ppm.%)	Final Bias Span (ppm.%)	Average Bias Span (ppm.%)	Bias Adjusted Conc. (ppm.%)
O2	14.46	11.97	0.01	0.01	0.01	11.95	11.96	11.96	**14.48**
CO2	3.64	3.99	0.02	0.01	0.02	3.96	3.98	3.97	**3.66**

Run No. 3

Parameter	Measured Conc. (ppm,%)	Reference Span gas (ppm.%)	Initial Bias Zero (ppm.%)	Final Bias Zero (ppm.%)	Average Bias Zero (ppm.%)	Initial Bias Span (ppm.%)	Final Bias Span (ppm.%)	Average Bias Span (ppm.%)	Bias Adjusted Conc. (ppm.%)
O2	14.77	11.97	0.01	0.01	0.01	11.96	11.96	11.96	**14.78**
CO2	3.45	3.99	0.01	0.01	0.01	3.98	3.98	3.98	**3.46**

Average O2: **14.66**

Average CO2: **3.52**

Job Number	221-061	
Run Number	3	
Client	All American Asphalt	
Plant	Irvine	CA
Unit	Baghouse	
Operator	Ken Kennepohl	
Start Timestamp	6/7/2021 5:06	

Run 3 Average

O2 (%)	CO2 (%)
14.64	3.5

Raw Data

Timestamp (s)	O2 (%)	CO2 (%)	
5:08	0.00	0.00	Zero;
5:09	4.05	1.34	
5:10	12.62	4.39	
5:11	19.25	8.15	
5:12	19.86	8.33	
5:13	19.89	8.14	High O2 Co2;
5:14	9.46	3.63	
5:15	9.97	3.29	
5:16	11.90	3.92	
5:17	11.96	3.98	Low O2 Co2;
5:18	9.69	3.12	
5:19	0.60	0.29	
5:20	0.01	0.02	Bias Zero;
5:21	5.47	1.89	
5:22	11.77	3.87	
5:23	11.95	3.97	Bias O2 Co2;
5:24	5.91	1.80	
5:25	0.13	0.12	
5:26	13.46	0.61	
5:27	19.21	0.80	
5:28	19.31	0.80	
5:29	19.30	0.81	
5:30	19.30	0.81	
5:31	19.29	0.81	
5:32	19.28	0.81	
5:33	19.22	0.83	
5:34	19.14	0.87	
5:35	19.13	0.87	
5:36	19.17	0.86	
5:37	19.25	0.82	
5:38	18.70	1.12	
5:39	14.88	3.30	
5:40	14.26	3.68	
5:41	14.25	3.71	
5:42	14.26	3.71	
5:43	15.75	2.77	
5:44	20.31	0.40	

5:45	20.75	0.13	
5:46	20.77	0.11	
5:47	20.77	0.10	
5:49	20.77	0.10	
5:50	20.77	0.09	
5:51	20.77	0.09	
5:52	20.77	0.09	
5:53	20.78	0.09	
5:54	20.76	0.10	
5:55	18.93	1.07	
5:56	14.47	3.54	
5:57	13.91	3.86	
5:58	13.98	3.84	
5:59	14.01	3.83	
6:00	14.02	3.82	Run 3
6:01	14.03	3.82	
6:02	14.10	3.77	
6:03	14.23	3.71	
6:04	14.17	3.74	
6:05	14.16	3.74	
6:06	14.15	3.75	
6:07	14.16	3.74	
6:08	14.16	3.74	
6:09	14.23	3.70	
6:10	14.33	3.64	
6:11	14.18	3.73	
6:12	14.24	3.69	
6:13	14.31	3.65	
6:14	14.32	3.64	
6:15	14.40	3.59	
6:16	14.51	3.54	
6:17	14.45	3.56	
6:18	14.42	3.58	
6:19	14.41	3.59	
6:20	14.39	3.59	
6:21	14.59	3.48	
6:22	14.46	3.56	
6:23	14.34	3.63	
6:24	14.32	3.64	
6:25	14.56	3.50	
6:26	14.73	3.40	
6:27	14.49	3.55	
6:28	14.36	3.61	
6:29	14.32	3.63	
6:30	14.44	3.57	
6:31	14.49	3.54	
6:32	14.49	3.54	

6:33	14.36	3.61
6:34	14.37	3.61
6:35	14.36	3.61
6:36	14.37	3.61
6:37	14.37	3.60
6:38	14.41	3.58
6:39	14.42	3.57
6:40	14.44	3.56
6:41	14.38	3.60
6:42	14.45	3.56
6:43	14.35	3.62
6:44	14.26	3.67
6:45	14.33	3.63
6:46	14.41	3.58
6:47	14.49	3.54
6:48	14.41	3.59
6:49	14.41	3.58
6:50	14.38	3.60
6:51	14.35	3.61
6:52	14.42	3.57
6:53	14.40	3.58
6:54	14.39	3.59
6:55	14.42	3.57
6:56	14.33	3.62
6:57	14.37	3.60
6:58	14.30	3.64
6:59	14.35	3.60
7:00	14.34	3.61
7:01	14.29	3.64
7:02	14.33	3.61
7:03	14.32	3.62
7:04	14.38	3.58
7:05	14.31	3.62
7:06	14.41	3.56
7:07	14.44	3.55
7:08	14.44	3.55
7:09	14.50	3.51
7:10	14.45	3.55
7:11	14.43	3.55
7:12	14.38	3.59
7:13	14.31	3.63
7:14	14.29	3.64
7:15	14.33	3.62
7:16	14.26	3.66
7:17	14.18	3.71
7:18	14.32	3.63
7:19	14.37	3.60

7:20	14.34	3.62		
7:21	14.36	3.60		
7:23	14.45	3.55		
7:24	14.47	3.54		
7:25	14.49	3.52		
7:26	14.46	3.54		
7:27	14.47	3.54		
7:28	14.44	3.55		
7:29	14.47	3.53		
7:30	14.50	3.51		
7:31	14.46	3.55		
7:32	14.44	3.55		
7:33	14.37	3.59		
7:34	14.42	3.56		
7:35	14.46	3.54		
7:36	14.41	3.57		
7:37	14.37	3.59		
7:38	17.28	1.92		
7:39	20.61	0.21		
7:40	20.76	0.10		
7:41	20.76	0.09		
7:42	20.77	0.08		
7:43	20.70	0.13		
7:44	18.07	1.49		
7:45	14.51	3.47		
7:46	14.23	3.65		
7:47	14.29	3.62		
7:48	14.42	3.56		
7:49	14.78	3.34		
7:50	14.86	3.30		
7:51	14.79	3.35		
7:52	14.53	3.50		
7:53	14.34	3.61		
7:54	14.31	3.60		
7:55	14.31	3.62		
7:56	14.38	3.59		
7:57	14.51	3.51		
7:58	14.48	3.53		
7:59	14.40	3.58		
8:00	14.46	3.54	14.70	3.42
8:01	14.57	3.48		
8:02	14.51	3.51		
8:03	12.76	3.03		
8:04	1.06	0.33		
8:05	0.01	0.02	Bias Zero;	
8:06	4.54	1.53		
8:07	11.71	3.79		

8:08	11.91	3.88	
8:09	11.95	3.96	Bias O2 Co2;
8:10	6.13	1.98	
8:11	0.11	0.11	
8:12	0.00	0.02	Zero In;
8:13	3.53	1.23	
8:14	11.60	3.81	
8:15	11.94	3.96	O2 Co2 In;
8:16	5.45	1.76	
8:17	0.97	0.35	
8:18	13.09	3.06	
8:19	14.63	3.49	
8:20	14.67	3.51	
8:21	14.76	3.46	
8:22	14.72	3.49	
8:23	14.67	3.52	
8:24	14.69	3.51	
8:25	14.72	3.50	
8:26	14.76	3.47	
8:27	14.72	3.50	
8:28	14.62	3.56	
8:29	14.59	3.57	
8:30	14.61	3.56	
8:31	14.62	3.56	
8:32	14.53	3.61	
8:33	14.42	3.68	
8:34	14.16	3.83	
8:35	14.07	3.88	
8:36	14.10	3.86	
8:37	14.21	3.80	
8:38	14.17	3.83	
8:39	14.13	3.85	
8:40	14.25	3.79	
8:41	14.13	3.85	
8:42	13.99	3.92	
8:43	14.19	3.80	
8:44	14.21	3.79	
8:45	14.21	3.80	
8:46	14.21	3.80	
8:47	14.23	3.78	
8:48	14.10	3.86	
8:49	14.12	3.85	
8:50	14.21	3.80	
8:51	14.24	3.78	
8:52	14.47	3.64	
8:53	14.64	3.55	
8:55	14.69	3.51	

8:56	14.73	3.49
8:57	14.53	3.62
8:58	14.46	3.66
8:59	14.50	3.63
9:00	14.54	3.61
9:01	14.39	3.69
9:02	14.43	3.67
9:03	14.50	3.62
9:04	14.46	3.65
9:05	14.42	3.67
9:06	14.40	3.67
9:07	14.43	3.66
9:08	14.51	3.62
9:09	14.60	3.56
9:10	14.56	3.59
9:11	14.53	3.61
9:12	14.50	3.62
9:13	14.50	3.62
9:14	14.60	3.56
9:15	14.51	3.61
9:16	14.49	3.63
9:17	14.47	3.64
9:18	14.51	3.62
9:19	14.51	3.61
9:20	14.51	3.62
9:21	14.54	3.59
9:22	14.56	3.58
9:23	14.51	3.62
9:24	14.41	3.68
9:25	14.35	3.71
9:26	14.35	3.70
9:27	14.43	3.66
9:28	14.49	3.62
9:29	14.48	3.63
9:30	14.45	3.65
9:31	14.53	3.60
9:32	14.47	3.64
9:33	14.47	3.63
9:34	14.55	3.59
9:35	14.40	3.68
9:36	14.47	3.63
9:37	14.42	3.66
9:38	14.45	3.65
9:39	14.42	3.66
9:40	14.46	3.64
9:41	14.56	3.58
9:42	14.48	3.62

9:43	14.53	3.59
9:44	14.52	3.61
9:45	14.15	3.81
9:46	14.26	3.75
9:47	14.19	3.79
9:48	14.12	3.84
9:49	14.07	3.86
9:50	14.10	3.84
9:51	14.21	3.78
9:52	14.19	3.80
9:53	14.19	3.79
9:54	14.11	3.84
9:55	14.10	3.84
9:56	14.12	3.83
9:57	14.17	3.80
9:58	14.16	3.81
9:59	14.20	3.78
10:00	14.72	3.47
10:01	14.62	3.53
10:02	14.75	3.45
10:03	14.65	3.52
10:04	14.58	3.56
10:05	14.59	3.55
10:06	14.50	3.60
10:07	14.45	3.63
10:08	14.27	3.74
10:09	14.28	3.73
10:10	14.31	3.71
10:11	14.19	3.78
10:12	14.27	3.73
10:13	14.27	3.74
10:14	14.23	3.76
10:15	14.32	3.70
10:16	14.33	3.71
10:17	14.20	3.78
10:18	14.25	3.74
10:19	14.29	3.73
10:20	14.33	3.71
10:21	14.33	3.70
10:22	14.43	3.65
10:23	14.26	3.75
10:24	14.19	3.79
10:25	14.29	3.73
10:26	14.29	3.73
10:27	14.31	3.71
10:28	14.33	3.71
10:29	14.31	3.72

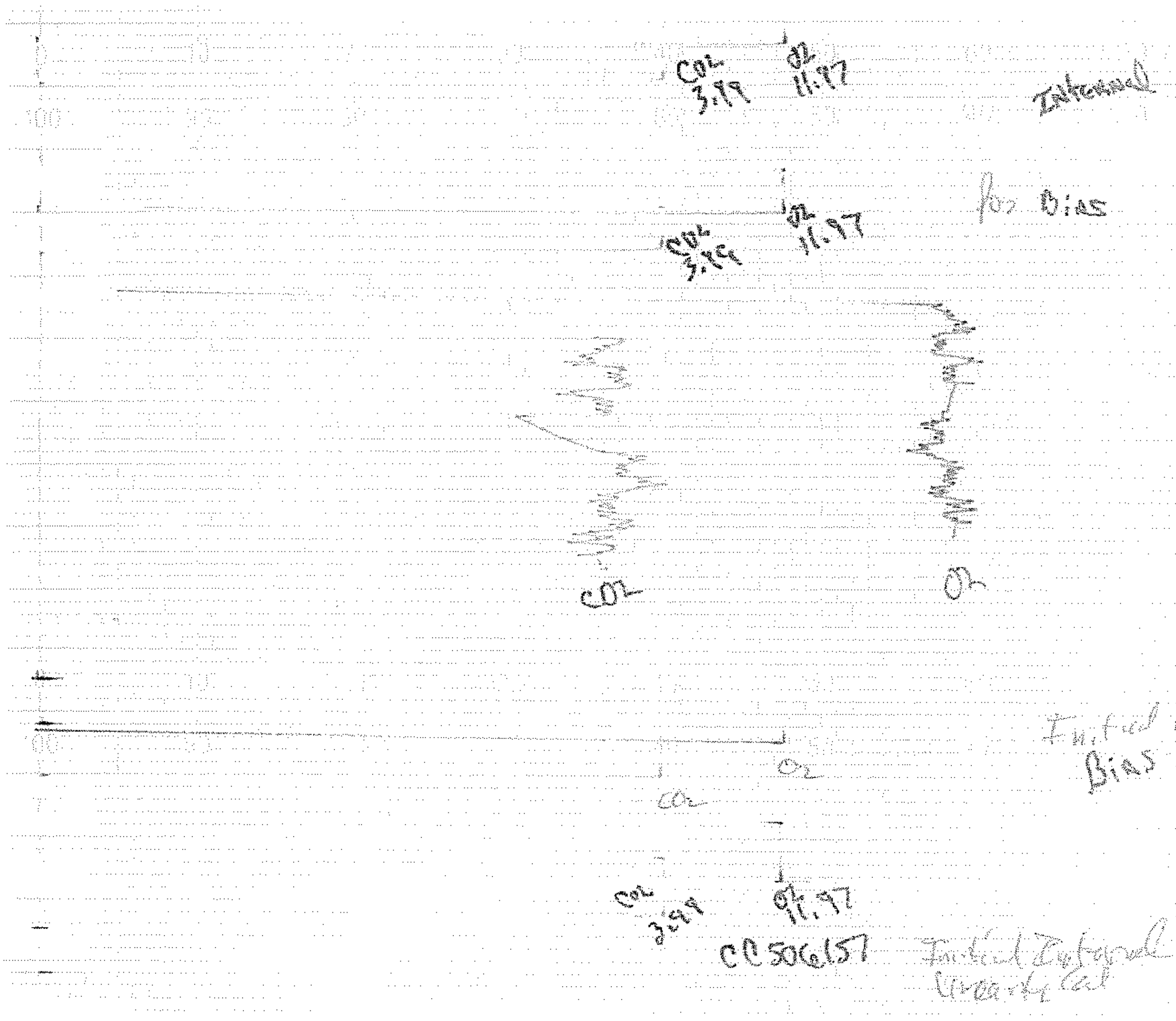
10:31	14.58	3.56
10:32	14.51	3.60
10:33	14.25	3.75
10:34	14.37	3.68
10:35	14.39	3.67
10:36	14.14	3.81
10:37	14.07	3.85
10:38	14.22	3.77
10:39	14.37	3.69
10:40	14.38	3.69
10:41	14.31	3.72
10:42	14.26	3.75
10:43	14.23	3.77
10:44	14.25	3.76
10:45	14.28	3.74
10:46	14.26	3.76
10:47	14.32	3.71
10:48	14.29	3.73
10:49	14.25	3.75
10:50	14.29	3.73
10:51	14.35	3.69
10:52	14.27	3.74
10:53	14.27	3.74
10:54	14.29	3.73
10:55	14.41	3.65
10:56	14.37	3.68
10:57	14.35	3.69
10:58	14.40	3.66
10:59	14.37	3.68
11:00	14.22	3.77
11:01	14.18	3.78
11:02	14.18	3.78
11:03	14.25	3.75
11:04	14.35	3.69
11:05	14.37	3.68
11:06	14.31	3.71
11:07	14.26	3.74
11:08	14.32	3.71
11:09	14.33	3.70
11:10	14.31	3.71
11:11	14.34	3.69
11:12	14.59	3.55
11:13	14.48	3.61
11:14	14.52	3.59
11:15	14.49	3.60
11:16	14.47	3.62
11:17	14.42	3.66

11:18	14.40	3.67
11:19	14.68	3.50
11:20	14.46	3.62
11:21	14.48	3.62
11:22	14.50	3.61
11:23	14.46	3.63
11:24	14.51	3.60
11:25	14.54	3.58
11:26	14.63	3.52
11:27	14.72	3.47
11:28	15.00	3.30
11:29	14.89	3.36
11:30	14.94	3.34
11:31	14.80	3.42
11:32	14.87	3.38
11:33	14.85	3.39
11:34	14.85	3.39
11:35	14.85	3.39
11:36	14.97	3.33
11:37	14.88	3.38
11:38	14.86	3.39
11:39	14.85	3.39
11:40	14.95	3.33
11:41	14.80	3.42
11:42	14.83	3.40
11:43	14.80	3.43
11:44	14.94	3.34
11:45	14.99	3.31
11:46	15.00	3.31
11:47	14.98	3.31
11:48	14.92	3.35
11:49	14.88	3.38
11:50	14.86	3.39
11:51	14.84	3.40
11:52	14.84	3.40
11:53	14.83	3.40
11:54	14.57	3.56
11:55	14.41	3.66
11:56	14.37	3.68
11:57	14.29	3.73
11:58	14.39	3.68
11:59	14.39	3.67
12:00	14.51	3.60
12:01	14.43	3.65
12:02	14.41	3.66
12:03	14.33	3.71
12:04	14.38	3.68

12:05	14.48	3.62		
12:06	14.77	3.45		
12:07	14.78	3.44		
12:08	14.79	3.43		
12:09	14.88	3.38		
12:11	14.84	3.40	14.46	3.64
12:12	14.79	3.44		
12:13	7.97	1.85		
12:14	0.01	0.01	Bias Zero;	
12:15	0.13	0.05		
12:16	9.64	3.15		
12:17	11.96	3.98	Bias O2 Co2;	
12:18	10.42	3.35		
12:19	0.76	0.30		
12:20	0.00	0.01	Zero In;	
12:21	2.38	0.80		
12:22	11.45	3.73		
12:23	11.94	3.93		
12:24	11.97	3.97	O2 Co2 In;	
12:25	4.66	1.43		
12:26	9.67	2.32		
12:27	14.70	3.40		
12:28	14.80	3.41		
12:29	14.82	3.40		
12:30	14.85	3.39		
12:31	14.89	3.37		
12:32	14.91	3.35		
12:33	14.80	3.43		
12:34	14.82	3.41		
12:35	14.83	3.42		
12:36	14.84	3.41		
12:37	14.75	3.46		
12:38	14.84	3.41		
12:39	14.81	3.43		
12:40	14.78	3.44		
12:41	14.79	3.44		
12:42	14.75	3.46		
12:43	14.77	3.46		
12:44	14.74	3.48		
12:45	14.71	3.49		
12:46	14.78	3.45		
12:47	14.74	3.47		
12:48	14.72	3.49		
12:49	14.73	3.48		
12:50	14.67	3.52		
12:51	14.67	3.51		
12:52	14.71	3.49		

12:53	14.72	3.49
12:54	14.75	3.47
12:55	14.75	3.48
12:56	14.74	3.48
12:57	14.77	3.46
12:58	14.78	3.46
12:59	14.88	3.40
13:00	14.81	3.44
13:01	14.71	3.51
13:02	14.75	3.48
13:03	14.75	3.48
13:04	14.75	3.48
13:05	14.69	3.51
13:06	14.69	3.51
13:07	14.72	3.49
13:08	14.70	3.50
13:09	14.79	3.45
13:10	14.80	3.45
13:11	14.75	3.47
13:12	14.80	3.44
13:13	14.79	3.44
13:14	14.90	3.37
13:15	15.04	3.29
13:16	14.90	3.38
13:17	14.81	3.43
13:18	14.74	3.47
13:19	14.77	3.46
13:20	14.72	3.48
13:21	14.79	3.44
13:22	14.76	3.46
13:23	14.77	3.45
13:24	14.79	3.44
13:25	14.80	3.44
13:26	14.79	3.44
13:27	14.78	3.45
13:28	14.84	3.41
13:29	14.73	3.48
13:30	14.89	3.38
13:31	14.86	3.40
13:32	14.82	3.43
13:33	14.76	3.46
13:34	14.80	3.44
13:35	14.87	3.39
13:36	14.88	3.39
13:37	14.80	3.43
13:38	14.69	3.50
13:39	14.65	3.52

13:40	14.69	3.50		
13:41	14.72	3.48		
13:42	14.66	3.51		
13:43	14.75	3.46		
13:44	14.77	3.45		
13:46	14.79	3.43		
13:47	14.78	3.44		
13:48	14.75	3.46		
13:49	14.80	3.42		
13:50	14.77	3.44		
13:51	14.67	3.51		
13:52	14.68	3.49		
13:53	14.79	3.43		
13:54	14.78	3.44		
13:55	14.77	3.44		
13:56	14.77	3.44		
13:57	14.75	3.46		
13:58	14.71	3.47		
13:59	14.77	3.44		
14:00	14.90	3.36		
14:01	14.79	3.43		
14:02	14.71	3.47		
14:03	14.75	3.46		
14:04	14.70	3.48		
14:05	14.77	3.44		
14:06	14.81	3.42		
14:07	14.87	3.37		
14:08	14.90	3.36		
14:09	14.61	3.30	14.77	3.45
14:10	2.46	0.55		
14:11	0.02	0.02		
14:12	-0.01	0.00	Bias Zero;	
14:13	0.05	0.03		
14:14	9.45	3.16		
14:15	11.96	3.98	Bias O2 Co2;	
14:16	9.26	2.97		
14:17	0.37	0.17		
14:18	-0.01	0.02	Zero In;	
14:19	6.77	2.37		
14:20	11.98	4.00	Low O2 Co2;	
14:21	17.61	7.61		
14:22	19.88	8.21		
14:23	19.87	8.16	High O2 Co2;	



ALL MUNGIL:CAN
Asphalt
2L1-061
6-2.21
Burghouse
Zakvolk
Z cuh. KK

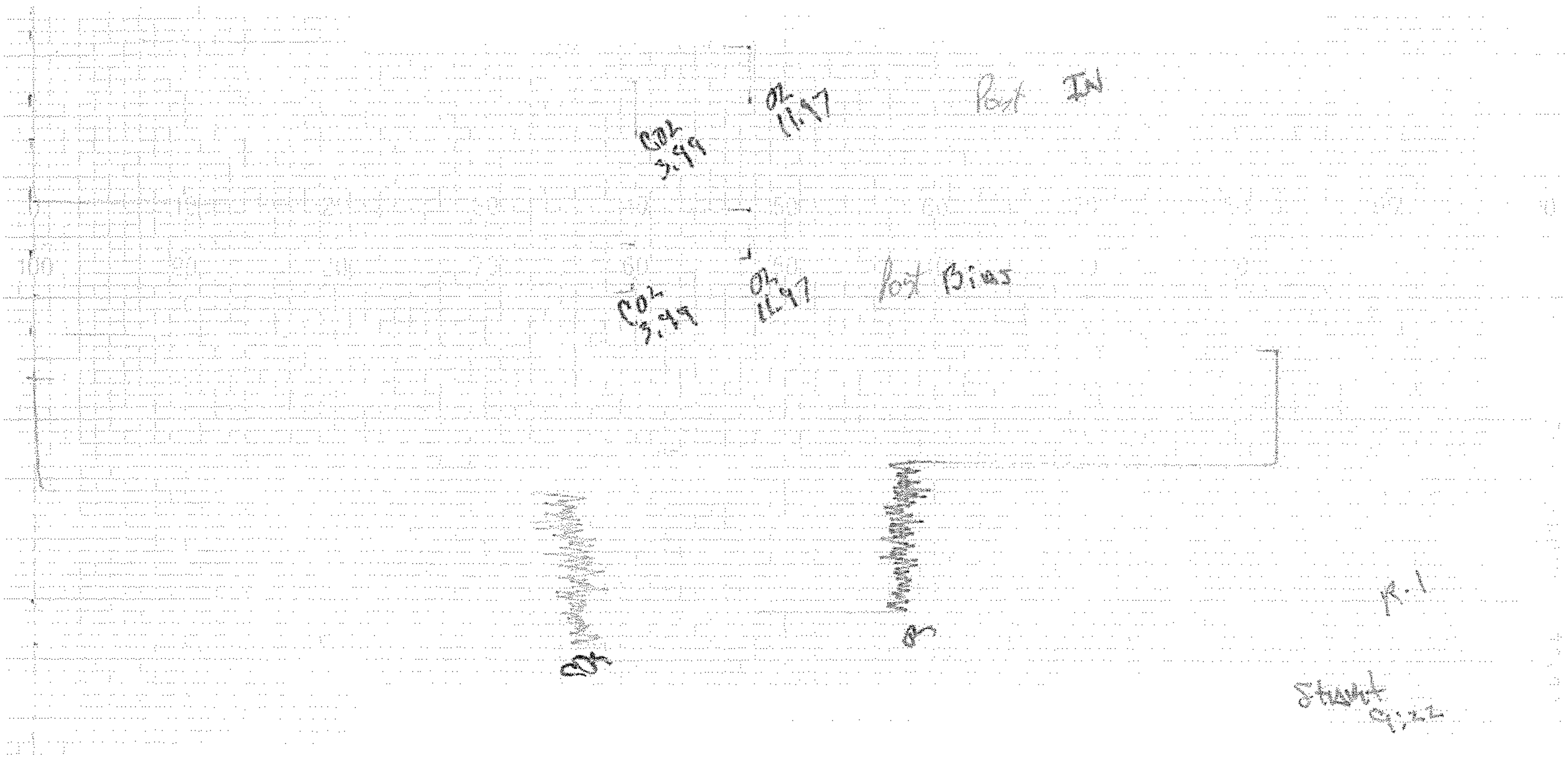
R-1

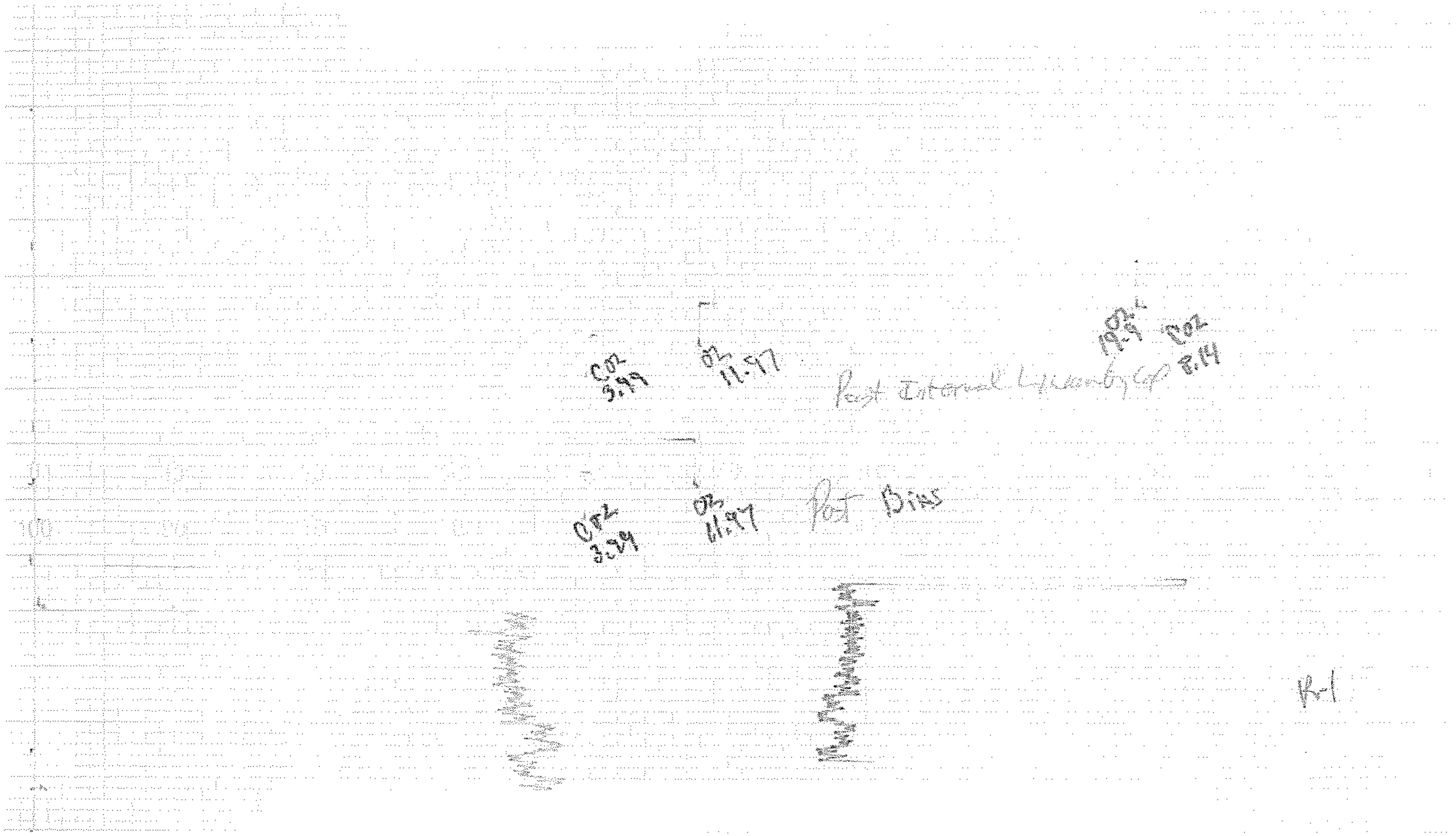
6:50

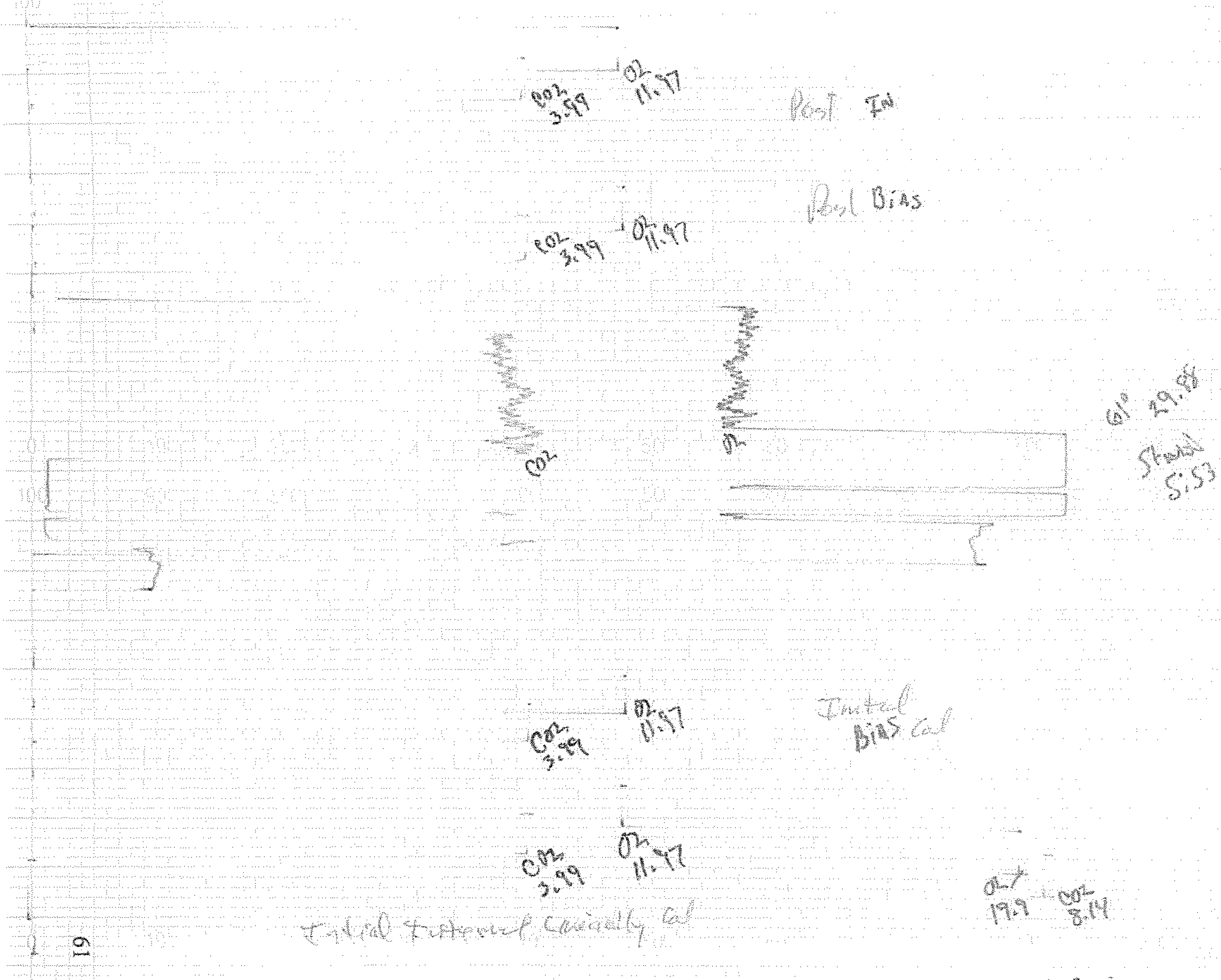
O2 0.25
CO2 0-10

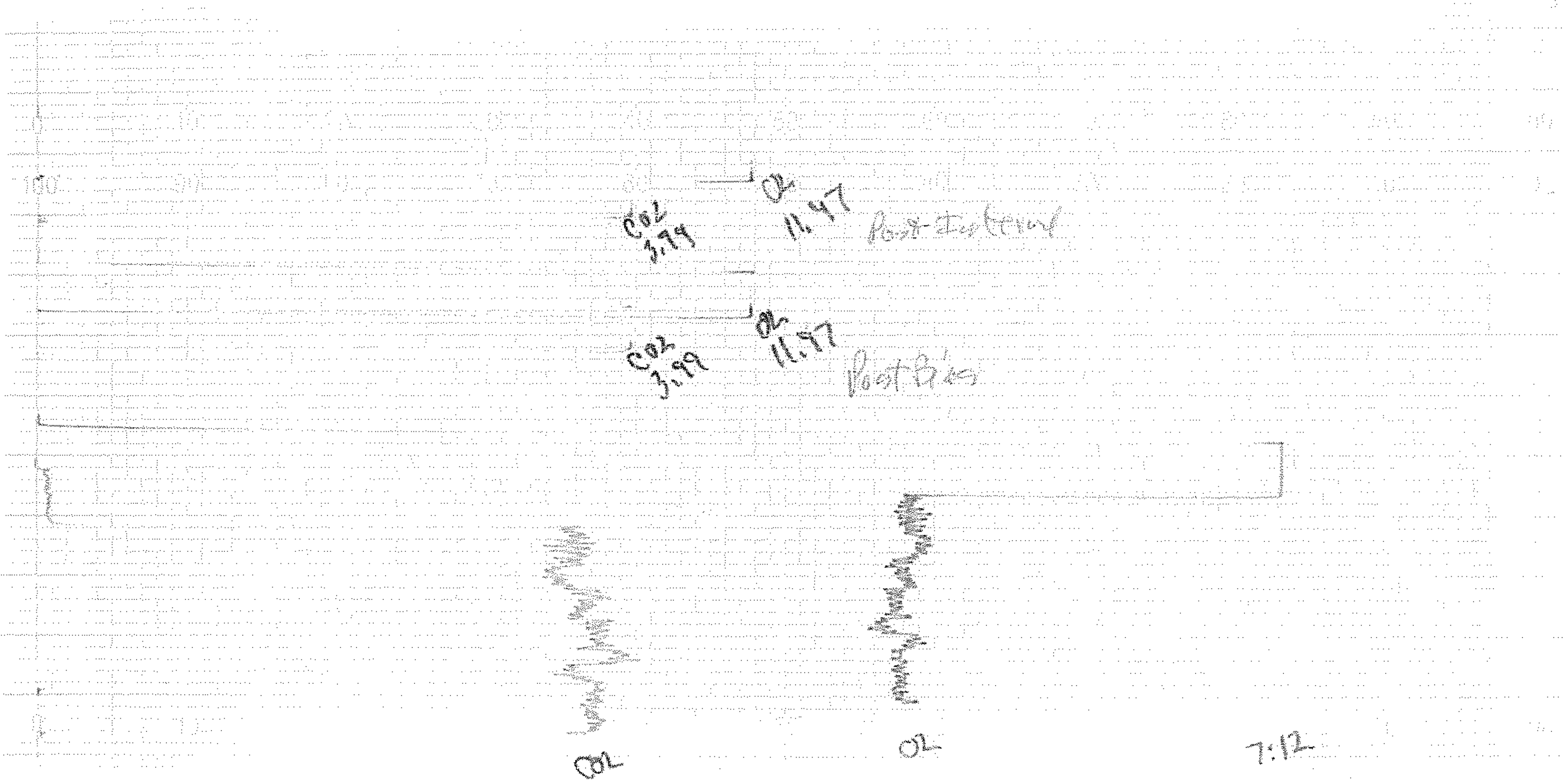
O2 19.9
CO2 8.14

ALM024672


Post IN
O2
11.97
CO2
3.99
Post Bias
O2
11.97
CO2
3.99
R.1
Start
9:22


CO2
3.99
O2
11.97
Post Internal [illegible]
19.9 O2
CO2
8.14
CO2
3.99
O2
11.97
Post Diss
100
R-1


O2 11.97
CO2 3.99
Post Tni
Post Bias
O2 11.97
CO2 3.99
CO2
O2
G1° 29.88
Stated 5.53
O2 11.97
CO2 3.99
Initial Bias Cal
O2 11.97
CO2 3.99
O2 19.9
CO2 8.14
Initial Internal, Linearity Cal



CO2 3.79

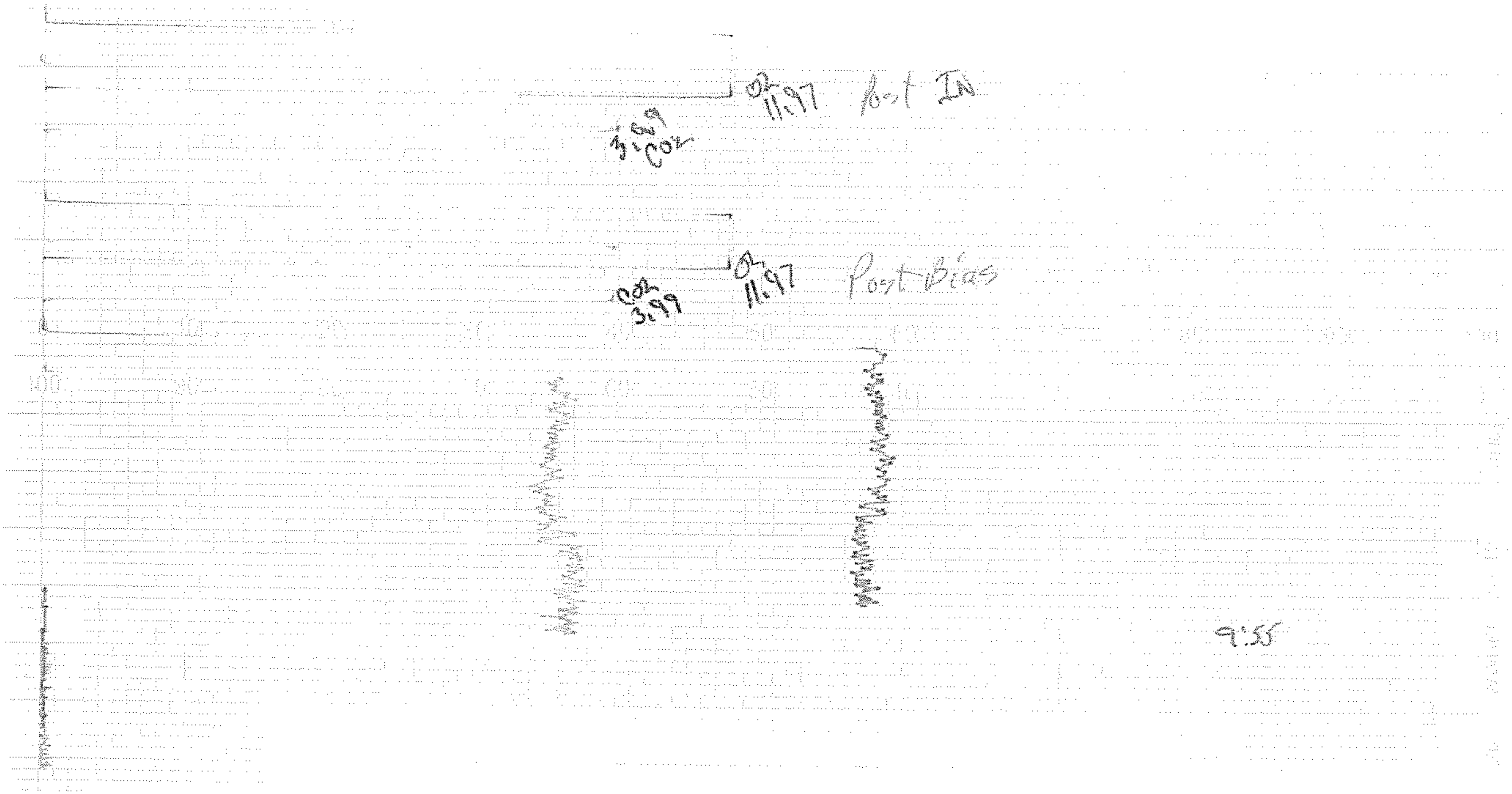
O2 11.47

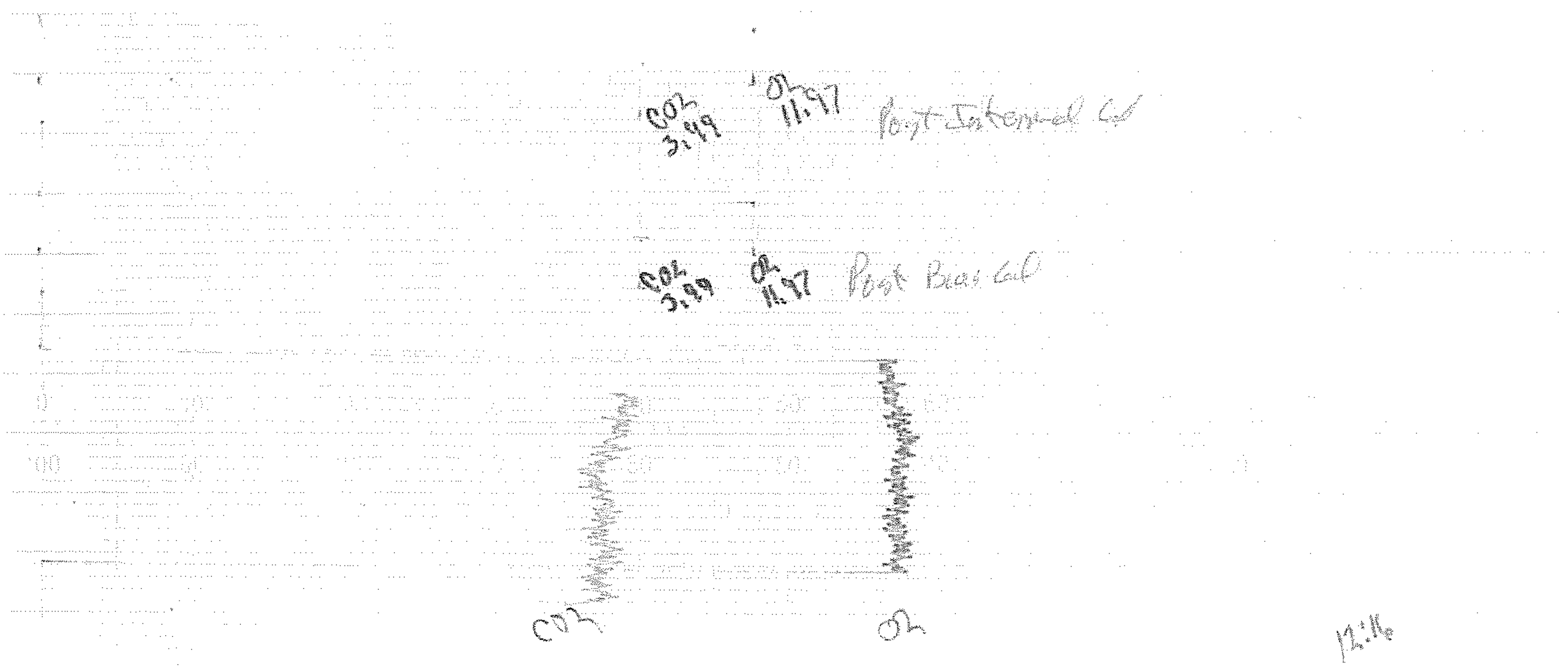
Post-Insufflated

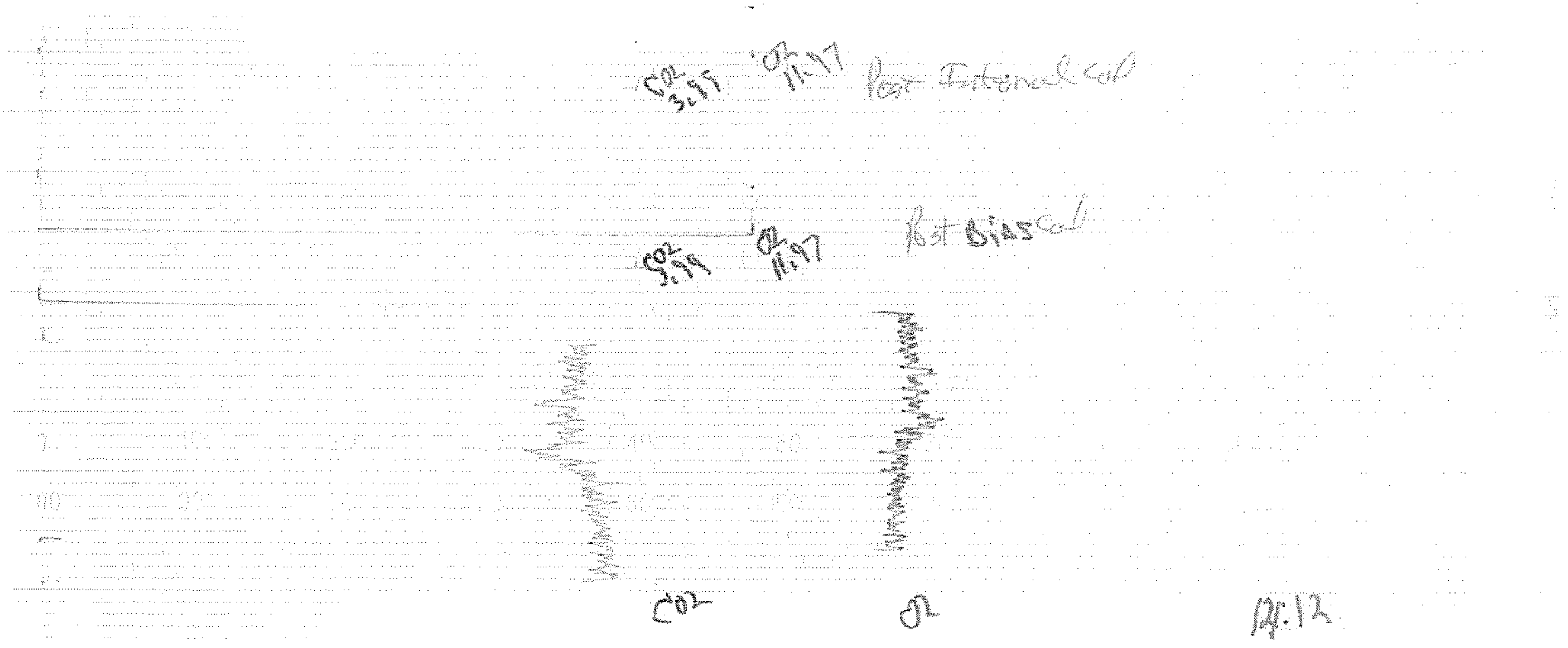
CO2 3.79

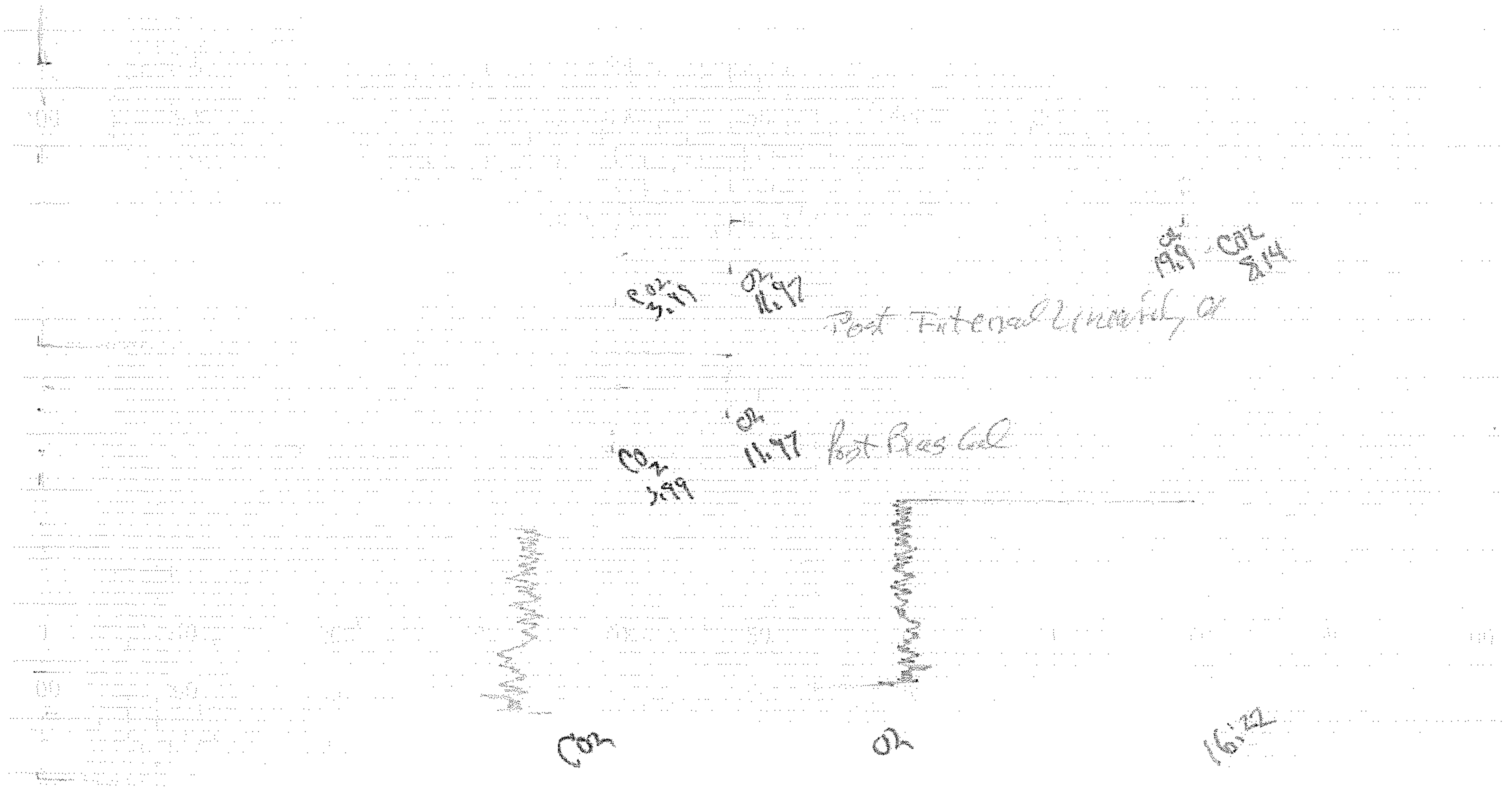
O2 11.77

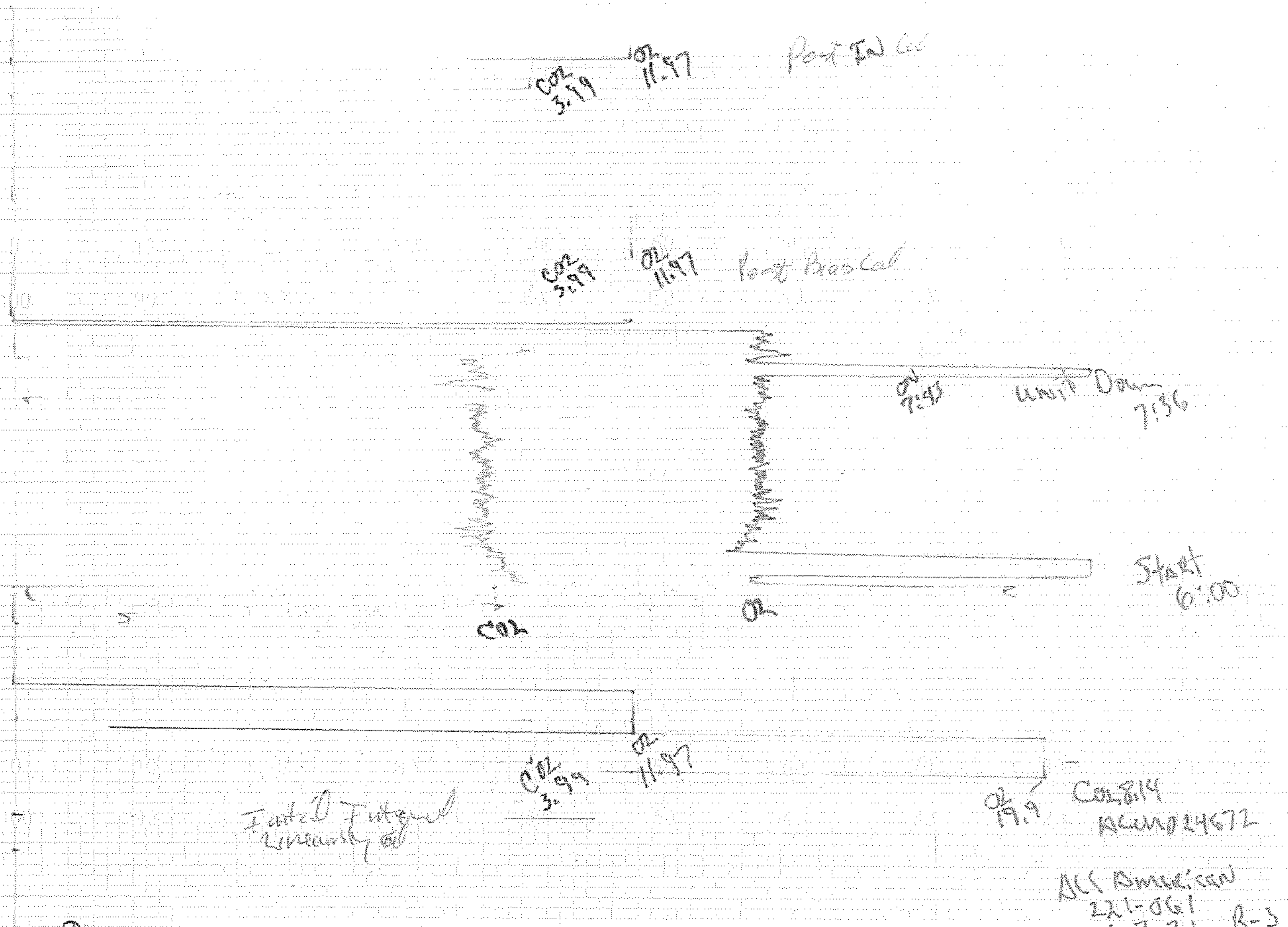
Post B's

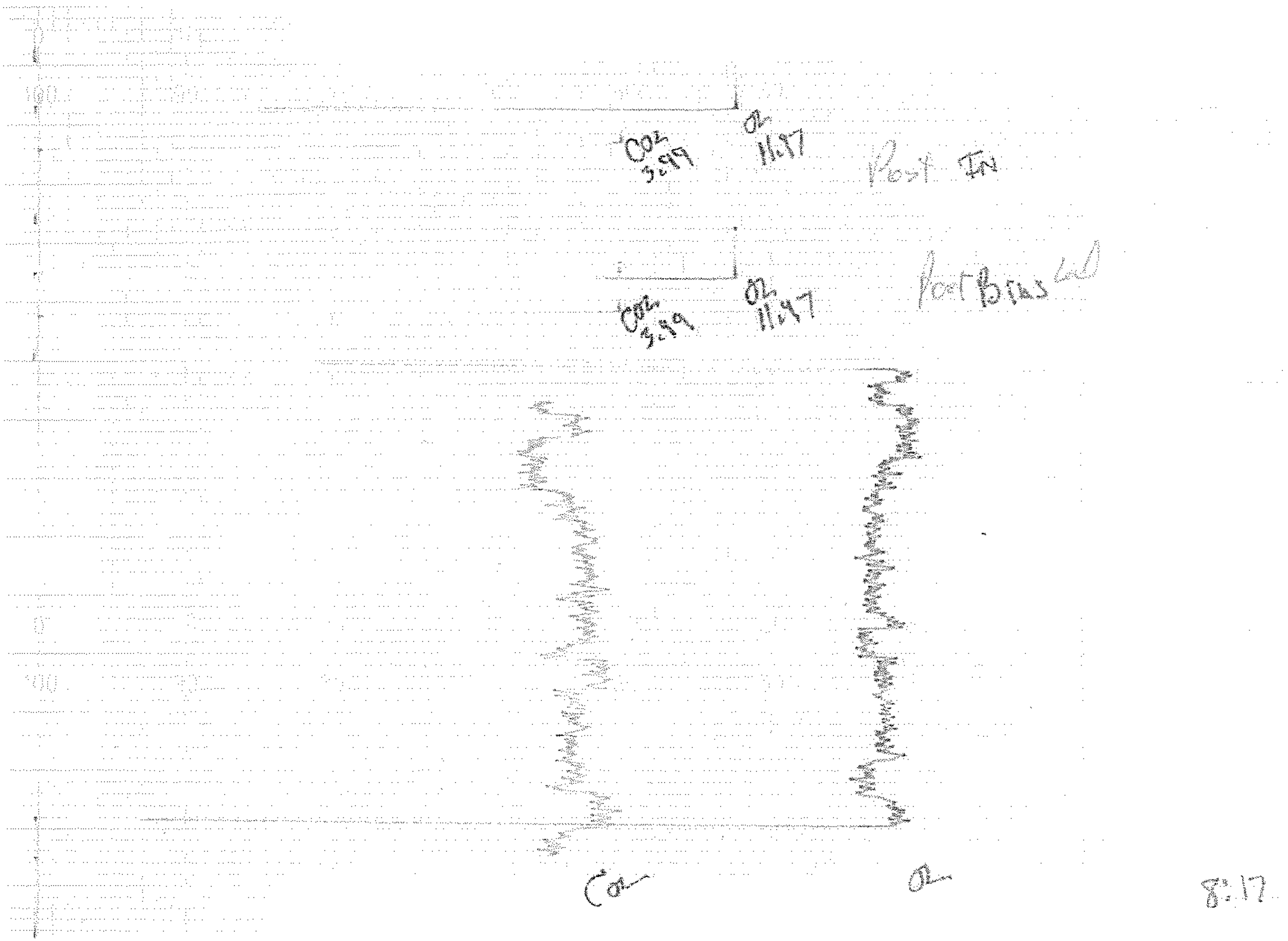

O2 11.97
Post IN
3.99 CO2
O2 11.97
Post Bias
CO2 3.99
9:55

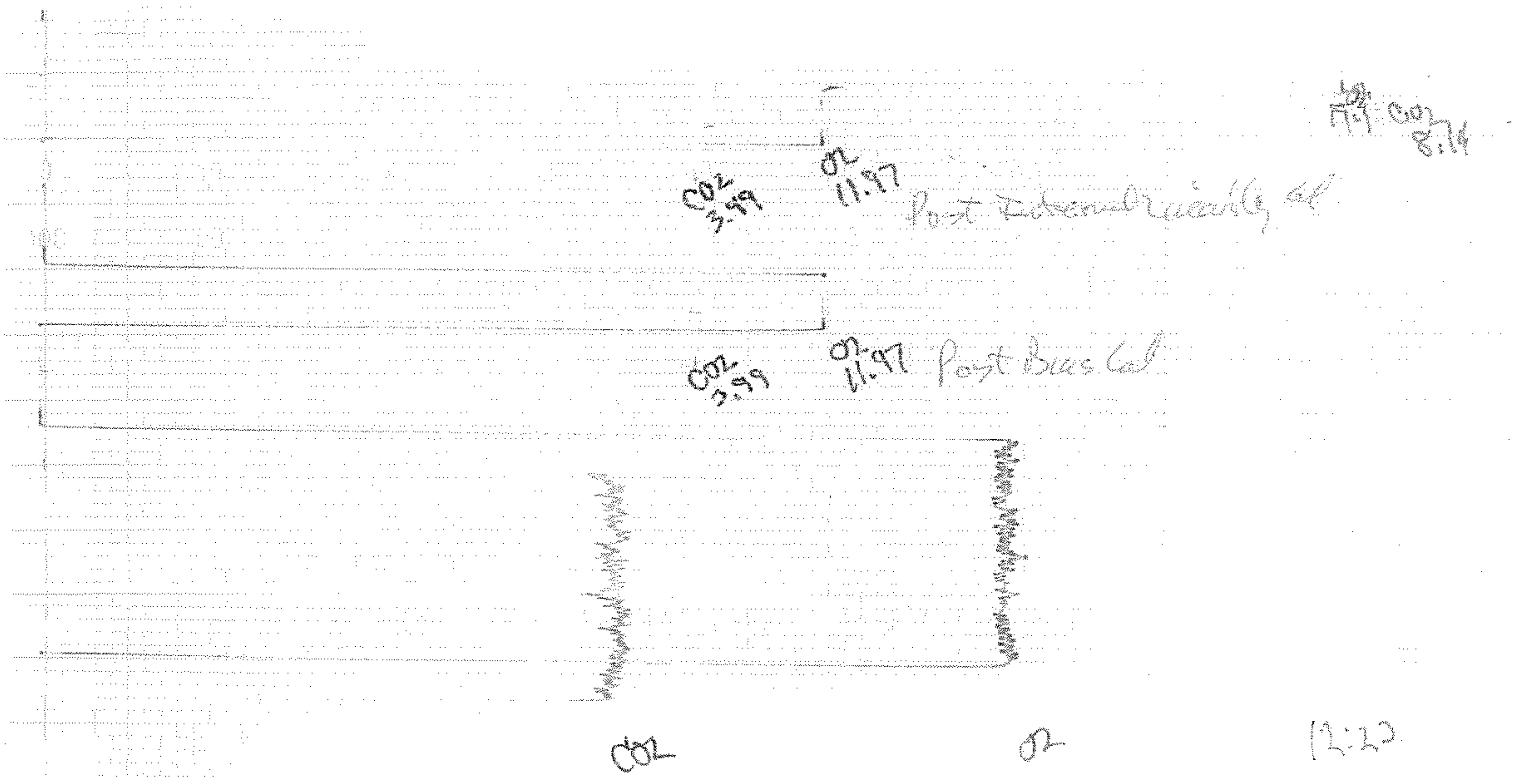

CO2
3.99
O2
11.97
Post Internal Cal
CO2
3.99
O2
11.97
Post Bias Cal
CO2
O2
12:16


CO2 3.99
O2 11.97
Post Internal Cal
CO2 3.99
O2 11.97
Post Bias Cal
CO2
O2
10:12


CO2 3.19
O2 11.97
Post Internal Linearity CK
O2 19.9
CO2 8.14
O2 11.97
Post Bias Cal
CO2 3.99
CO2
O2
16:22


CO2 3.19
O2 11.97
Post [illegible] Cal
CO2 3.99
O2 11.97
Post Bias Cal
O2 9:49
Unit Down 7:36
Start 6:00
CO2
O2
O2 11.97
CO2 3.99
O2 19.9
CO2 8.14
ACM024672
ACC [illegible]
221-061
6-7-21 R-3
[illegible]


CO2 3.99
O2 11.97
Post TN
CO2 3.99
O2 11.97
Post Bias Ld
CO2
O2
8:17

M-1: CO2 8:14
CO2 3.99
O2 11.97
Post External Linearity Cal
CO2 3.99
O2 11.97
Post Bias Cal
CO2
O2
12:22

PRAXAIR
Making our planet more productive

DocNumber: 341657

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

Customer & Order Information

PRAXAIR PKG OXNARD CA HPS
455 E WOOLEY RD
OXNARD CA 93030-7224

Certificate Issuance Date: 01/22/2021
Praxair Order Number: 71552251
Part Number: EV NICDOXE90-AS
Customer PO Number: 79548175

Fill Date: 01/11/2021
Lot Number: 70086101105
Cylinder Style & Outlet: AS CGA 590
Cylinder Pressure and Volume: 2000 psig 140 ft3

Certified Concentration

ProSpec EZ Cert

Expiration Date:	01/21/2029	NIST Traceable
Cylinder Number:	CC506157	Expanded Uncertainty
3.99 %	Carbon dioxide	± 0.01 %
11.97 %	Oxygen	± 0.05 %
Balance	Nitrogen	

Certification Information:

Certification Date: 01/21/2021 *Term:* 96 Months *Expiration Date:* 01/21/2029

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.

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: 4 %
Certified Concentration: 3.99 %
Instrument Used: Horiba VIA-510 S/N 20C194WK
Analytical Method: NDIR
Last Multipoint Calibration: 12/23/2020

First Analysis Data: Date 01/21/2021

Z:	0	R:	6.91	C:	3.99	Conc:	3.99
R:	6.91	Z:	0	C:	3.98	Conc:	3.98
Z:	0	C:	4	R:	6.92	Conc:	4

UOM: % **Mean Test Assay:** 3.99 %

Reference Standard: Type / Cylinder #: GMIS / CC243846
Concentration / Uncertainty: 6.91 % ±0.01 %
Expiration Date: 06/07/2026
Traceable to: SRM # / Sample # / Cylinder #: SRM 1674b / 7-H-07 / FF10631
SRM Concentration / Uncertainty: 6.944% / ±0.013%
SRM Expiration Date: 06/17/2019

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: 12 %
Certified Concentration: 11.97 %
Instrument Used: 7MB20211AA00CA1
Analytical Method: Paramagnetic
Last Multipoint Calibration: 01/18/2021

First Analysis Data: Date 01/21/2021

Z:	0	R:	9.88	C:	11.97	Conc:	11.96
R:	9.88	Z:	0	C:	11.99	Conc:	11.98
Z:	0	C:	11.99	R:	9.89	Conc:	11.98

UOM: % **Mean Test Assay:** 11.97 %

Reference Standard: Type / Cylinder #: NTRM / DT0010287
Concentration / Uncertainty: 9.875 % ±0.040 %
Expiration Date: 11/18/2022
Traceable to: SRM # / Sample # / Cylinder #: NTRM / 170701 / DT0010287
SRM Concentration / Uncertainty: 9.875% / ±0.040%
SRM Expiration Date: 11/18/2022

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:** %

Analyzed By Jose Vasquez

Certified By Nelson Ma
Nelson Ma

AIR LIQUIDE Air Liquide America Specialty Gases LLC Intertek

RATA CLASS

Guaranteed +/- 1% Accuracy

8832 DICE ROAD, SANTA FE SPRINGS, CA 90670-2516 Phone: 800-323-2212 Fax: 562-464-5262

CERTIFICATE OF ACCURACY: EPA Protocol Gas

Assay Laboratory - PGVP Vendor ID: A52013
AIR LIQUIDE AMERICA SPECIALTY GASES LLC
8832 DICE ROAD
SANTA FE SPRINGS, CA 90670-2516

P.O. No.: AIRX-FRESNO
Document # : 53195873-007

Customer
ALA-CYL-UNION CITY (LOC 84227)
TRANSFER ACCOUNT
700 DECOTO ROAD
UNION CITY CA 94587
US

ANALYTICAL INFORMATION Gas Type : CO2,O2,BALN

This certification was performed according to EPA Traceability Protocol For Assay & Certification of Gaseous Calibration Standards; Procedure G-1. EPA/600/R-12/531; May 2012. Do not use this standard if pressure is less than 100 psig.

Cylinder Number:	ALM024672	**Certification Date:**	02Dec2013	**Exp. Date:**	03Dec2021
Cylinder Pressure:	2000 PSIG			**Batch No:**	SBO0081471

COMPONENT	CERTIFIED CONCENTRATION (Moles)	ACCURACY (ABSOLUTE / RELATIVE)
CARBON DIOXIDE	8.14 %	0.05 % / 0.6 %
OXYGEN	19.9 %	0.13 % / 0.7 %
NITROGEN	BALANCE	

TRACEABILITY

REFERENCE STANDARD

COMPONENT	CONCENTRATION	UNCERTAINTY	CYLINDER	TYPE/SRM SAMPLE	EXP. DATE
CARBON DIOXIDE	7.0160 %	0.0350 %	K003719	NTRM 1674	03Feb2016
OXYGEN	20.8500 %	0.1300 %	K000461	NTRM 2659/020500	14May2018

ANALYTICAL METHOD

1st Analysis: 02Dec2013

COMPONENT	INSTRUMENT	ANALYTICAL/PRINCIPLE	CALIBRATED	CONCENTRATION
CARBON DIOXIDE	VARIAN B/3400/2806	FID & TCD	02Dec2013	8.136 %
OXYGEN	VARIAN B/3400/2806	FID & TCD	25Nov2013	19.93 %

APPROVED BY: DC

Bias Adjustment

Facility: All American Asphalt Irvine
Source: Baghouse
Date: 07/13/21

Run No. 1

Parameter	Measured Conc. (ppm,%)	Reference Span gas (ppm.%)	Initial Bias Zero (ppm.%)	Final Bias Zero (ppm.%)	Average Bias Zero (ppm.%)	Initial Bias Span (ppm.%)	Final Bias Span (ppm.%)	Average Bias Span (ppm.%)	Bias Adjusted Conc. (ppm.%)
O2	14.58	12.10	0.0	0.0	0.0	12.1	12.0	12.1	**14.63**
CO2	3.51	4.00	0.0	0.0	0.0	4.0	4.0	4.0	**3.50**

Run No. 1

Parameter	Measured Conc. (ppm,%)	Reference Span gas (ppm.%)	Initial Bias Zero (ppm.%)	Final Bias Zero (ppm.%)	Average Bias Zero (ppm.%)	Initial Bias Span (ppm.%)	Final Bias Span (ppm.%)	Average Bias Span (ppm.%)	Bias Adjusted Conc. (ppm.%)
O2	14.45	12.10	0.0	0.0	0.0	12.0	11.9	12.0	**14.62**
CO2	3.56	4.00	0.0	0.0	0.0	4.0	4.0	4.0	**3.57**

Run No. 1

Parameter	Measured Conc. (ppm,%)	Reference Span gas (ppm.%)	Initial Bias Zero (ppm.%)	Final Bias Zero (ppm.%)	Average Bias Zero (ppm.%)	Initial Bias Span (ppm.%)	Final Bias Span (ppm.%)	Average Bias Span (ppm.%)	Bias Adjusted Conc. (ppm.%)
O2	14.61	12.10	0.0	0.0	0.0	12.0	12.1	12.0	**14.73**
CO2	3.48	4.00	0.0	0.0	0.0	4.0	4.0	4.0	**3.51**

Average O2: **14.66**

Average CO2: **3.52**

Facility: All American Asphalt
Source: Baghouse
Job No.: 221-061
Test Date: 6/13/21

Method 100.1 Performance Data

PRETEST		
LEAK CHECK		
** LINEARITY CHECK **		
RANGE :	25	10
	O2	CO2
ZERO		
Instrument	0.0	0.0
Cylinder	0.0	0.0
Difference (%)	0.1	0.2
LOW LEVEL		
Instrument		
Cylinder		
Difference (%)	0.0	0.0
MID LEVEL		
Instrument	12.1	4.0
Cylinder	12.1	4.00
Difference (%)	0.0	-0.3
HIGH LEVEL		
Instrument	20.1	8.0
Cylinder	20.1	7.93
Difference (%)	-0.1	0.2
POST TEST		
LEAK CHECK	25	10
	O2	CO2
ZERO		
Instrument	0.0	0.0
Cylinder	0.0	0.0
Difference (%)	0.0	0.2
LOW LEVEL		
Instrument		
Cylinder		
Difference (%)	0.0	0.0
MID LEVEL		
Instrument	12.1	4.0
Cylinder	12.1	4.00
Difference (%)	0.1	0.3
HIGH LEVEL		
Instrument	20.2	7.9
Cylinder	20.1	7.93
Difference (%)	0.1	0.1

July
13-14-15

Job Number	221-061
Run Number	1
Client	AAA
Plant	Irvine
Unit	Baghouse
Operator	Wes Hart
Start Timestamp	7/13/2021 5:50

Raw Data

Timestamp (s)	O2 (%)	CO2 (%)	
5:52	11.55	0.17	
5:53	0.03	0.02	Zero In.;
5:54	5.15	1.45	
5:55	11.89	3.86	
5:56	12.11	3.97	
5:57	17.67	6.16	
5:58	20.11	7.95	
5:59	0.13	0.01	
6:00	6.68	0.16	
6:01	4.86	0.12	Bias Zero;
6:02	0.04	0.00	
6:03	3.45	1.29	
6:04	10.45	4.99	
6:05	12.08	3.99	Bias O2 Co2;
6:06	9.97	3.25	
6:07	11.87	0.44	
6:08	18.31	0.64	
6:09	18.96	0.67	
6:10	19.02	0.67	
6:11	19.03	0.67	
6:12	19.01	0.67	
6:13	18.92	0.70	
6:14	13.57	3.96	
6:15	13.64	3.93	
6:16	13.62	3.94	
6:17	13.60	3.95	
6:18	13.55	3.97	
6:19	13.54	3.98	
6:20	13.54	3.98	
6:21	13.58	3.96	
6:22	13.60	3.95	
6:23	13.59	3.95	
6:24	13.49	4.00	
6:25	13.43	4.03	
6:26	13.54	3.98	
6:27	13.59	3.96	
6:28	13.56	3.97	

6:29	13.54	3.98	
6:30	13.71	3.90	
6:31	13.88	3.82	
6:32	13.83	3.84	
6:33	14.13	3.69	
6:34	14.21	3.65	
6:35	14.19	3.65	Start Run 1
6:36	14.21	3.64	
6:37	14.00	3.75	
6:38	13.68	3.90	
6:39	13.71	3.89	
6:40	13.72	3.88	
6:41	13.75	3.87	
6:42	13.77	3.86	
6:43	13.80	3.85	
6:44	13.80	3.84	
6:45	13.82	3.84	
6:46	13.84	3.83	
6:47	13.86	3.82	
6:48	13.88	3.81	
6:49	13.78	3.85	
6:50	13.69	3.89	
6:51	13.70	3.89	
6:52	13.74	3.87	
6:53	13.81	3.84	
6:54	13.79	3.85	
6:55	13.82	3.84	
6:56	13.84	3.82	
6:57	13.85	3.82	
6:58	13.85	3.82	
6:59	13.86	3.82	
7:00	13.85	3.82	
7:01	13.75	3.87	
7:02	13.66	3.91	
7:03	13.63	3.93	
7:04	13.78	3.85	
7:05	13.87	3.81	
7:06	13.91	3.79	
7:07	14.36	3.57	
7:08	14.45	3.53	
7:09	14.33	3.59	
7:10	14.14	3.68	
7:11	13.90	3.80	
7:12	14.00	3.75	
7:13	13.82	3.84	
7:14	13.89	3.80	
7:15	13.96	3.77	

7:16	13.96	3.77
7:17	13.88	3.81
7:18	13.76	3.86
7:19	13.67	3.91
7:20	13.61	3.93
7:21	13.57	3.96
7:22	13.53	3.98
7:23	13.49	3.99
7:24	13.51	3.99
7:25	13.69	3.90
7:26	13.59	3.94
7:27	13.60	3.94
7:28	13.57	3.95
7:29	13.55	3.96
7:30	13.54	3.97
7:31	13.58	3.95
7:32	13.71	3.88
7:33	14.08	3.71
7:34	14.08	3.71
7:35	14.07	3.71
7:36	14.08	3.70
7:37	14.08	3.71
7:38	14.12	3.69
7:39	14.13	3.68
7:40	14.16	3.67
7:41	14.20	3.65
7:42	14.24	3.63
7:43	14.19	3.65
7:44	13.84	3.82
7:45	13.32	4.06
7:46	13.34	4.06
7:47	13.37	4.05
7:48	13.44	4.01
7:49	13.56	3.96
7:50	13.63	3.92
7:51	13.61	3.93
7:52	13.60	3.94
7:53	13.69	3.89
7:54	13.94	3.78
7:55	13.98	3.76
7:56	13.98	3.76
7:57	13.99	3.75
7:58	13.98	3.76
7:59	14.01	3.75
8:00	14.02	3.74
8:01	14.02	3.74
8:02	14.02	3.74

8:03	13.99	3.75	
8:04	14.00	3.76	
8:05	14.01	3.75	
8:06	14.03	3.73	
8:07	14.04	3.73	
8:08	14.28	3.62	
8:09	14.33	3.59	
8:10	14.30	3.60	
8:11	14.22	3.64	
8:12	14.20	3.66	
8:13	8.50	2.12	
8:14	0.02	0.04	Bias Zero;
8:15	8.14	2.79	
8:16	12.04	4.03	Bias O2 CO2;
8:17	5.64	1.87	
8:18	0.03	0.02	Zero In;
8:19	11.42	3.52	
8:20	12.08	3.96	O2 CO2 In.;
8:21	11.98	3.94	
8:22	11.97	3.92	
8:23	11.97	3.91	
8:24	11.96	3.88	
8:25	11.96	3.87	
8:26	11.96	3.85	
8:27	11.95	3.83	
8:28	11.95	3.82	
8:29	11.95	3.81	
8:30	11.95	3.79	
8:31	11.94	3.78	
8:32	11.94	3.76	
8:33	11.94	3.76	
8:34	11.94	3.75	
8:35	11.94	3.74	
8:36	11.94	3.72	
8:37	11.94	3.72	
8:38	11.94	3.71	
8:39	11.94	3.70	
8:40	11.94	3.69	
8:41	12.14	3.59	
8:42	13.81	3.52	
8:43	14.20	3.69	
8:44	14.17	3.72	
8:45	14.17	3.71	
8:46	14.29	3.65	
8:47	14.27	3.65	
8:48	14.15	3.71	
8:49	13.96	3.80	

8:50	13.96	3.80
8:51	14.00	3.78
8:52	14.07	3.75
8:53	14.02	3.77
8:54	13.96	3.79
8:55	13.94	3.80
8:56	13.93	3.80
8:57	13.98	3.78
8:58	13.97	3.78
8:59	13.84	3.85
9:00	13.82	3.85
9:01	13.87	3.83
9:02	13.81	3.86
9:03	13.79	3.87
9:04	13.80	3.86
9:05	13.80	3.86
9:06	13.80	3.86
9:07	13.80	3.86
9:08	13.79	3.86
9:09	13.80	3.86
9:10	13.68	3.92
9:11	13.69	3.91
9:12	14.12	3.71
9:13	14.27	3.63
9:14	14.31	3.61
9:15	14.23	3.65
9:16	14.23	3.65
9:17	14.23	3.65
9:18	14.24	3.64
9:19	14.25	3.64
9:20	14.26	3.63
9:21	14.24	3.64
9:22	14.17	3.67
9:23	14.19	3.66
9:24	14.17	3.67
9:25	14.13	3.69
9:26	14.27	3.62
9:27	14.25	3.63
9:28	14.15	3.68
9:29	14.05	3.72
9:30	14.08	3.71
9:31	14.10	3.70
9:32	14.17	3.67
9:33	14.25	3.62
9:34	14.23	3.63
9:35	14.18	3.66
9:36	14.10	3.70

9:37	14.10	3.70
9:38	14.16	3.66
9:39	14.14	3.68
9:40	14.18	3.65
9:41	14.14	3.68
9:42	14.10	3.70
9:43	14.16	3.67
9:44	14.16	3.67
9:45	14.19	3.65
9:46	14.05	3.72
9:47	14.11	3.69
9:48	14.22	3.64
9:49	14.15	3.67
9:50	14.09	3.70
9:51	14.14	3.67
9:52	14.13	3.68
9:53	14.13	3.68
9:54	14.07	3.71
9:55	14.10	3.69
9:56	14.07	3.70
9:57	14.05	3.71
9:58	14.05	3.71
9:59	14.05	3.72
10:00	14.08	3.70
10:01	14.15	3.66
10:02	14.14	3.67
10:03	14.06	3.71
10:04	14.05	3.71
10:05	14.05	3.71
10:06	14.04	3.71
10:07	13.99	3.74
10:08	13.94	3.76
10:09	14.02	3.72
10:10	14.01	3.73
10:11	13.87	3.79
10:12	13.88	3.79
10:13	13.71	3.87
10:14	13.74	3.86
10:15	13.81	3.82
10:16	13.81	3.82
10:17	13.81	3.82
10:18	13.81	3.82
10:19	13.79	3.82
10:20	13.79	3.83
10:21	13.84	3.81
10:22	5.52	1.49
10:23	0.07	0.02

10:24	0.04	0.02	
10:25	0.03	0.02	
10:26	0.02	0.02	
10:27	0.02	0.02	
10:28	0.01	0.02	
10:29	0.00	0.02	
10:30	0.00	0.01	Bias Zero;
10:31	0.00	0.01	
10:32	0.00	0.01	
10:33	9.40	3.15	
10:34	11.94	3.95	Bias O2 CO2;
10:35	3.98	1.74	
10:36	0.03	0.04	Zero In.;
10:37	8.55	2.87	
10:38	12.08	3.99	O2 CO2 In.;
10:39	14.14	3.70	
10:40	14.12	3.72	
10:41	14.10	3.72	
10:42	14.07	3.73	
10:43	14.06	3.74	
10:44	14.05	3.75	
10:45	14.13	3.70	
10:46	14.11	3.71	
10:47	14.09	3.72	
10:48	14.06	3.74	
10:49	13.99	3.77	
10:50	13.97	3.78	
10:51	14.12	3.71	
10:52	14.24	3.65	
10:53	14.15	3.69	
10:54	14.11	3.71	
10:55	14.11	3.72	
10:56	14.11	3.72	
10:57	14.18	3.68	
10:58	14.22	3.66	
10:59	14.21	3.66	
11:00	14.15	3.69	
11:01	14.09	3.72	
11:02	14.23	3.66	
11:03	14.16	3.69	
11:04	14.09	3.72	
11:05	14.21	3.66	
11:06	14.23	3.65	
11:07	14.19	3.68	
11:08	14.16	3.69	
11:09	14.13	3.71	
11:10	14.09	3.72	

11:11	14.14	3.70
11:12	14.27	3.63
11:13	14.09	3.72
11:14	13.85	3.84
11:15	13.85	3.83
11:16	13.87	3.83
11:17	13.85	3.84
11:18	13.74	3.89
11:19	13.72	3.90
11:20	13.74	3.88
11:21	13.83	3.85
11:22	13.83	3.84
11:23	13.95	3.79
11:24	14.03	3.75
11:25	14.06	3.74
11:26	13.93	3.80
11:27	13.86	3.84
11:28	13.92	3.81
11:29	14.05	3.75
11:30	14.00	3.77
11:31	14.08	3.73
11:32	14.11	3.72
11:33	14.16	3.70
11:34	14.15	3.71
11:35	14.16	3.70
11:36	14.16	3.70
11:37	14.18	3.69
11:38	14.16	3.70
11:39	14.14	3.71
11:40	14.16	3.70
11:41	14.08	3.74
11:42	14.06	3.75
11:43	14.05	3.76
11:44	14.09	3.73
11:45	14.13	3.72
11:46	14.03	3.77
11:47	13.94	3.81
11:48	13.78	3.89
11:49	13.81	3.87
11:50	13.80	3.88
11:52	13.96	3.80
11:53	14.01	3.77
11:54	14.00	3.78
11:55	13.95	3.80
11:56	13.93	3.81
11:57	13.97	3.79
11:58	13.93	3.81

11:59	13.85	3.85	
12:00	13.97	3.80	
12:01	13.97	3.80	
12:02	14.08	3.74	
12:03	13.99	3.79	
12:04	14.01	3.78	
12:05	14.07	3.75	
12:06	13.87	3.84	
12:07	13.83	3.86	
12:08	13.91	3.83	
12:09	14.05	3.76	
12:10	14.03	3.77	
12:11	14.05	3.76	
12:12	13.96	3.80	
12:13	13.93	3.82	
12:14	14.20	3.69	
12:15	14.32	3.63	
12:16	14.34	3.62	
12:17	14.16	3.71	
12:18	14.06	3.76	
12:19	14.07	3.75	
12:20	14.03	3.77	
12:21	14.02	3.78	
12:22	14.07	3.75	
12:23	14.09	3.74	
12:24	14.03	3.77	
12:25	14.05	3.76	
12:26	14.10	3.73	
12:27	14.07	3.75	
12:28	13.97	3.80	
12:29	13.89	3.83	
12:30	14.03	3.77	
12:31	14.10	3.73	
12:32	14.07	3.75	
12:33	14.16	3.70	
12:34	14.11	3.73	
12:35	14.13	3.72	
12:36	9.84	2.57	
12:37	0.02	0.02	
12:38	0.01	0.01	Bias Zero;
12:39	0.00	0.01	
12:40	8.29	3.15	
12:41	12.05	3.98	Bias O2 CO2;
12:42	3.52	1.40	
12:43	0.02	0.02	Zero In.;
12:44	8.55	2.87	
12:45	12.12	4.03	O2 CO2 Low In.;

12:46	14.68	5.16	
12:47	19.59	7.44	
12:48	20.15	7.94	O2 CO2 High In.
12:49	0.06	0.26	

Facility: All American Asphalt
Source: Baghouse
Job No.: 221-061
Test Date: 7/14/21

Method 100.1 Performance Data

PRETEST		
LEAK CHECK		
** LINEARITY CHECK **		
RANGE :	25	10
	O2	CO2
ZERO		
Instrument	0.0	0.0
Cylinder	0.0	0.0
Difference (%)	0.1	0.1
LOW LEVEL		
Instrument		
Cylinder		
Difference (%)	0.0	0.0
MID LEVEL		
Instrument	12.1	4.0
Cylinder	12.1	4.00
Difference (%)	0.1	-0.1
HIGH LEVEL		
Instrument	20.2	7.9
Cylinder	20.1	7.93
Difference (%)	0.2	-0.1
POST TEST		
LEAK CHECK	25	10
	O2	CO2
ZERO		
Instrument	0.0	0.0
Cylinder	0.0	0.0
Difference (%)	0.1	0.3
LOW LEVEL		
Instrument		
Cylinder		
Difference (%)	0.0	0.0
MID LEVEL		
Instrument	12.1	4.0
Cylinder	12.1	4.00
Difference (%)	-0.1	-0.1
HIGH LEVEL		
Instrument	20.1	7.9
Cylinder	20.1	7.93
Difference (%)	-0.1	0.1

Bias Adjustment

Facility: All American Asphalt Irvine
Source: Baghouse
Date: 07/14/21

Run No. 2

Parameter	Measured Conc. (ppm,%)	Reference Span gas (ppm.%)	Initial Bias Zero (ppm.%)	Final Bias Zero (ppm.%)	Average Bias Zero (ppm.%)	Initial Bias Span (ppm.%)	Final Bias Span (ppm.%)	Average Bias Span (ppm.%)	Bias Adjusted Conc. (ppm.%)
O2	14.43	12.10	0.0	0.0	0.0	12.2	12.0	12.1	**14.46**
CO2	3.56	4.00	0.0	0.0	0.0	4.0	4.0	4.0	**3.57**

Run No. 2

Parameter	Measured Conc. (ppm,%)	Reference Span gas (ppm.%)	Initial Bias Zero (ppm.%)	Final Bias Zero (ppm.%)	Average Bias Zero (ppm.%)	Initial Bias Span (ppm.%)	Final Bias Span (ppm.%)	Average Bias Span (ppm.%)	Bias Adjusted Conc. (ppm.%)
O2	14.31	12.10	0.0	0.0	0.0	12.0	12.1	12.0	**14.39**
CO2	3.75	4.00	0.0	0.1	0.0	4.0	4.0	4.0	**3.73**

Run No. 2

Parameter	Measured Conc. (ppm,%)	Reference Span gas (ppm.%)	Initial Bias Zero (ppm.%)	Final Bias Zero (ppm.%)	Average Bias Zero (ppm.%)	Initial Bias Span (ppm.%)	Final Bias Span (ppm.%)	Average Bias Span (ppm.%)	Bias Adjusted Conc. (ppm.%)
O2	14.50	12.10	0.0	0.1	0.0	12.1	12.1	12.1	**14.51**
CO2	3.59	4.00	0.0	0.0	0.0	4.0	4.0	4.0	**3.59**

Average O2: **14.45**

Average CO2: **3.63**

Job Number	221-061
Run Number	2
Client	AAA
Plant	Irvine
Unit	Baghouse
Operator	Wes Hart
Start Timestamp	7/14/2021 4:19

Raw Data

Timestamp (s)	O2 (%)	CO2 (%)	
5:33	0.23	0.02	
5:34	0.03	0.01	Zero In.;
5:35	0.04	0.01	
5:36	0.55	0.12	
5:37	12.13	3.99	Low O2 CO2 In.;
5:38	13.79	4.58	
5:39	20.17	7.92	O2 CO2 High In.;
5:40	9.24	3.24	
5:41	0.03	0.04	Bias Zero;
5:42	10.00	3.49	
5:43	12.15	3.97	Bias O2 CO2;
5:44	17.66	1.55	
5:45	19.29	0.69	
5:46	19.36	0.64	
5:47	19.40	0.62	
5:48	19.41	0.61	
5:49	20.28	0.27	
5:50	19.45	0.59	
5:51	13.81	3.96	
5:52	13.79	3.97	
5:53	13.80	3.96	
5:54	13.87	3.93	
5:55	13.88	3.92	
5:56	13.92	3.90	
5:57	13.93	3.89	
5:58	13.84	3.94	
5:59	13.89	3.91	
6:00	13.87	3.92	Start Hex Run
6:01	13.80	3.95	
6:02	13.83	3.94	
6:03	13.83	3.93	
6:04	13.82	3.94	
6:05	13.84	3.93	
6:06	13.82	3.94	
6:07	14.05	3.83	
6:08	14.17	3.76	
6:09	14.19	3.76	

6:10	14.13	3.79
6:11	14.03	3.83
6:12	13.91	3.89
6:13	13.86	3.92
6:14	13.95	3.87
6:15	14.11	3.79
6:16	14.16	3.77
6:17	14.20	3.76
6:18	14.21	3.75
6:19	14.20	3.75
6:20	14.14	3.78
6:21	14.13	3.78
6:22	14.13	3.78
6:23	14.14	3.78
6:24	14.15	3.78
6:25	14.15	3.77
6:26	14.16	3.76
6:27	14.17	3.76
6:28	14.18	3.75
6:29	14.16	3.76
6:30	14.28	3.71
6:31	14.43	3.64
6:32	14.17	3.77
6:33	14.03	3.83
6:34	14.22	3.74
6:35	14.35	3.67
6:36	14.39	3.66
6:37	14.40	3.65
6:38	14.42	3.64
6:39	14.42	3.64
6:40	14.37	3.67
6:41	14.32	3.69
6:42	14.30	3.70
6:43	14.32	3.69
6:44	14.31	3.69
6:45	14.32	3.69
6:46	14.29	3.71
6:47	14.32	3.69
6:48	14.41	3.65
6:49	14.41	3.65
6:50	14.34	3.68
6:51	14.37	3.67
6:52	14.20	3.75
6:53	14.07	3.81
6:54	14.09	3.80
6:55	14.10	3.80
6:56	14.10	3.80

6:57	14.05	3.82
6:58	14.08	3.80
6:59	14.40	3.65
7:00	14.35	3.68
7:01	14.33	3.69
7:02	14.38	3.66
7:03	14.20	3.75
7:04	14.14	3.78
7:05	14.20	3.76
7:06	14.19	3.76
7:07	14.17	3.77
7:08	14.16	3.77
7:09	14.11	3.79
7:10	14.17	3.77
7:11	14.12	3.80
7:12	14.06	3.83
7:13	13.97	3.87
7:14	13.97	3.87
7:15	13.97	3.87
7:16	14.02	3.85
7:17	13.95	3.88
7:18	14.00	3.86
7:19	14.03	3.84
7:20	14.02	3.85
7:21	13.94	3.88
7:22	13.94	3.88
7:23	14.10	3.81
7:24	14.23	3.74
7:25	14.22	3.75
7:26	14.14	3.79
7:27	14.05	3.83
7:28	14.06	3.83
7:29	13.94	3.89
7:30	13.93	3.89
7:31	13.90	3.90
7:32	13.95	3.87
7:33	13.98	3.86
7:34	14.05	3.83
7:35	14.02	3.85
7:36	14.06	3.83
7:37	14.02	3.84
7:38	14.03	3.84
7:39	14.01	3.85
7:40	13.96	3.88
7:41	14.05	3.83
7:42	14.01	3.85
7:43	14.03	3.84

7:44	14.02	3.85	
7:45	13.97	3.87	
7:46	13.98	3.87	
7:47	14.05	3.83	
7:48	14.01	3.85	
7:49	3.62	0.92	
7:50	0.03	0.02	Bias Zero;
7:51	7.78	2.70	
7:52	12.01	4.00	Bias O2 CO2 ;
7:53	1.25	0.37	
7:54	0.02	0.01	Int. Zero;
7:55	1.70	0.63	
7:56	11.98	3.99	O2 CO2 in.;
7:57	12.96	3.89	
7:58	14.25	3.77	
7:59	14.16	3.81	
8:00	14.18	3.78	
8:01	13.98	3.87	
8:02	13.88	3.92	
8:03	13.82	3.94	
8:04	13.86	3.92	
8:05	13.92	3.90	
8:06	14.03	3.84	
8:07	13.96	3.87	
8:08	14.00	3.85	
8:09	14.12	3.79	
8:10	14.15	3.78	
8:11	14.12	3.79	
8:12	14.13	3.79	
8:13	14.15	3.78	
8:14	14.28	3.71	
8:15	14.36	3.67	
8:16	14.35	3.68	
8:17	14.37	3.67	
8:18	14.37	3.67	
8:19	14.41	3.65	
8:20	14.39	3.66	
8:21	14.37	3.67	
8:22	14.35	3.68	
8:23	14.32	3.69	
8:24	14.30	3.70	
8:25	14.48	3.61	
8:26	14.40	3.65	
8:27	14.21	3.74	
8:28	14.42	3.64	
8:29	14.44	3.62	
8:30	14.45	3.62	

8:31	14.36	3.67
8:32	14.25	3.71
8:33	14.27	3.71
8:34	14.26	3.72
8:35	14.32	3.68
8:36	14.38	3.65
8:37	14.38	3.65
8:38	14.40	3.64
8:39	14.37	3.66
8:40	14.35	3.66
8:41	14.41	3.63
8:42	14.44	3.61
8:43	14.31	3.68
8:44	14.23	3.71
8:45	14.17	3.74
8:46	14.12	3.76
8:47	14.16	3.74
8:48	14.14	3.75
8:49	14.10	3.77
8:50	14.07	3.78
8:51	14.06	3.79
8:52	14.03	3.81
8:53	14.06	3.79
8:54	14.08	3.78
8:55	13.95	3.84
8:56	13.97	3.83
8:57	14.19	3.72
8:58	14.36	3.64
8:59	14.38	3.63
9:00	14.34	3.65
9:01	14.16	3.73
9:02	14.05	3.79
9:03	14.06	3.78
9:04	14.08	3.77
9:05	14.09	3.77
9:06	14.10	3.76
9:07	14.10	3.76
9:08	14.07	3.77
9:09	14.04	3.79
9:10	14.05	3.78
9:11	14.09	3.76
9:12	14.00	3.80
9:13	13.97	3.81
9:14	13.98	3.81
9:15	13.92	3.84
9:16	13.97	3.81
9:17	13.89	3.85

9:18	13.79	3.90	
9:19	13.88	3.85	
9:20	13.96	3.82	
9:21	14.11	3.74	
9:22	14.16	3.72	
9:23	14.15	3.72	
9:24	14.11	3.74	
9:25	14.05	3.77	
9:26	14.07	3.76	
9:27	14.01	3.79	
9:28	14.06	3.76	
9:29	14.12	3.73	
9:30	14.19	3.69	
9:31	14.21	3.69	
9:32	14.27	3.66	
9:33	14.28	3.65	
9:34	14.28	3.65	
9:35	14.17	3.70	
9:36	14.09	3.74	
9:37	14.11	3.74	
9:38	13.95	3.81	
9:39	13.89	3.84	
9:40	13.85	3.86	
9:41	13.83	3.87	
9:42	13.83	3.86	
9:43	13.88	3.84	
9:44	13.79	3.88	
9:45	13.75	3.90	
9:46	13.79	3.88	
9:47	13.86	3.85	
9:48	13.86	3.84	
9:49	13.99	3.78	
9:50	14.00	3.78	
9:51	14.03	3.76	
9:52	14.11	3.72	
9:53	14.13	3.71	
9:54	6.03	1.50	
9:55	0.03	0.05	Bias Zero;
9:56	0.28	0.14	
9:57	12.07	4.03	Bias O2 CO2;
9:58	10.63	3.47	
9:59	0.03	0.03	Zero In.;
10:00	5.84	2.03	
10:01	12.08	4.00	
10:02	12.08	3.99	O2 CO2 Low In;
10:03	16.55	4.68	
10:04	19.93	5.41	

10:05	20.08	7.85	
10:06	20.10	7.94	O2 CO2 High In.;
10:07	20.09	6.82	
10:08	20.24	5.10	
10:09	20.30	3.84	End Test Day
10:10	20.42	2.15	
10:11	20.48	0.45	
10:12	20.56	0.22	
10:13	20.62	0.10	
10:14	20.57	0.10	
10:15	20.55	0.10	
10:16	20.54	0.10	
10:17	20.54	0.10	
10:18	20.53	0.10	
10:19	20.52	0.10	
10:20	20.52	0.10	
10:21	20.52	0.10	
10:22	20.51	0.10	
10:23	20.50	0.10	
10:24	20.50	0.10	
10:25	20.50	0.10	
10:26	20.50	0.10	
10:27	20.49	0.10	
10:28	20.49	0.10	
10:29	20.49	0.10	
10:30	20.49	0.10	
10:31	20.49	0.10	
10:32	20.49	0.10	
10:33	20.49	0.10	
10:34	20.41	0.14	
10:35	14.43	3.56	
10:36	13.80	3.88	
10:37	13.76	3.89	
10:38	13.66	3.93	
10:39	13.72	3.90	
10:40	13.97	3.78	
10:41	13.96	3.78	
10:42	13.84	3.84	
10:43	13.90	3.81	
10:44	14.00	3.77	
10:45	14.00	3.76	
10:46	17.00	2.02	
10:47	19.83	0.37	
10:48	20.28	0.14	
10:49	20.36	0.10	
10:50	20.43	0.09	
10:51	20.46	0.09	

10:52	20.47	0.09
10:53	20.47	0.09
10:54	20.47	0.09
10:55	20.47	0.09
10:56	20.46	0.10
10:57	20.46	0.09
10:58	20.46	0.09
10:59	20.46	0.09
11:00	20.46	0.09
11:01	20.46	0.09
11:02	20.46	0.09

Facility: All American Asphalt
Source: Baghouse
Job No.: 221-061
Test Date: 7/15/21

PRETEST		
LEAK CHECK		
** LINEARITY CHECK **		
RANGE :	25	10
	O2	CO2
ZERO		
Instrument	0.0	0.0
Cylinder	0.0	0.0
Difference (%)	0.1	0.2
LOW LEVEL		
Instrument		
Cylinder		
Difference (%)	0.0	0.0
MID LEVEL		
Instrument	12.1	4.0
Cylinder	12.1	4.00
Difference (%)	0.0	-0.1
HIGH LEVEL		
Instrument	20.2	8.0
Cylinder	20.1	7.93
Difference (%)	0.1	0.6
POST TEST		
LEAK CHECK	25	10
	O2	CO2
ZERO		
Instrument	0.0	0.1
Cylinder	0.0	0.0
Difference (%)	0.1	0.5
LOW LEVEL		
Instrument		
Cylinder		
Difference (%)	0.0	0.0
MID LEVEL		
Instrument	12.1	4.0
Cylinder	12.1	4.00
Difference (%)	0.0	0.2
HIGH LEVEL		
Instrument	20.2	8.0
Cylinder	20.1	7.93
Difference (%)	0.1	0.2

Bias Adjustment

Facility: All American Asphalt Irvine
Source: Baghouse
Date: 07/15/21

Run No. 3

Parameter	Measured Conc. (ppm,%)	Reference Span gas (ppm.%)	Initial Bias Zero (ppm.%)	Final Bias Zero (ppm.%)	Average Bias Zero (ppm.%)	Initial Bias Span (ppm.%)	Final Bias Span (ppm.%)	Average Bias Span (ppm.%)	Bias Adjusted Conc. (ppm.%)
O2	14.70	12.10	0.1	0.0	0.0	12.1	12.1	12.10	**14.71**
CO2	3.42	4.00	0.0	0.0	0.0	4.0	4.0	4.00	**3.41**

Run No. 3

Parameter	Measured Conc. (ppm,%)	Reference Span gas (ppm.%)	Initial Bias Zero (ppm.%)	Final Bias Zero (ppm.%)	Average Bias Zero (ppm.%)	Initial Bias Span (ppm.%)	Final Bias Span (ppm.%)	Average Bias Span (ppm.%)	Bias Adjusted Conc. (ppm.%)
O2	14.46	12.10	0.0	0.1	0.0	12.0	12.1	12.0	**14.56**
CO2	3.64	4.00	0.0	0.0	0.0	4.0	4.0	4.0	**3.64**

Run No. 3

Parameter	Measured Conc. (ppm,%)	Reference Span gas (ppm.%)	Initial Bias Zero (ppm.%)	Final Bias Zero (ppm.%)	Average Bias Zero (ppm.%)	Initial Bias Span (ppm.%)	Final Bias Span (ppm.%)	Average Bias Span (ppm.%)	Bias Adjusted Conc. (ppm.%)
O2	14.77	12.10	0.1	0.0	0.1	12.1	12.1	12.1	**14.80**
CO2	3.45	4.00	0.0	0.0	0.0	4.0	4.0	4.0	**3.46**

Average O2: **14.69**

Average CO2: **3.50**

Job Number	221-061
Run Number	2-3
Client	AAA
Plant	Irvine
Unit	Baghouse
Operator	Wes Hart
Start Timestamp	7/15/2021 4:31
Raw Data	

Timestamp (s)	O2 (%)	CO2 (%)	
4:32	0.02	0.02	Zero In.;
4:33	1.29	0.39	
4:34	12.11	3.99	Low O2 CO2 in;
4:35	16.87	6.02	
4:36	20.15	7.99	O2 CO2 High In;
4:37	10.67	3.85	
4:38	0.01	0.02	Bias Zero;
4:39	11.74	4.31	
4:40	12.14	4.02	Bias O2 CO2;
4:41	16.03	2.85	
4:42	14.88	3.47	
4:43	14.82	3.49	
4:44	14.73	3.53	
4:45	14.77	3.50	Resume Run 2
4:46	14.80	3.48	
4:47	14.78	3.49	
4:48	14.78	3.49	
4:49	14.74	3.51	
4:50	14.76	3.49	
4:51	14.73	3.50	
4:52	14.69	3.52	
4:53	14.72	3.51	
4:54	14.64	3.55	
4:55	14.63	3.55	
4:56	14.56	3.59	
4:57	14.63	3.55	
4:58	14.86	3.43	
4:59	15.01	3.35	
5:00	14.94	3.39	
5:01	15.03	3.34	
5:02	15.12	3.30	
5:03	15.12	3.30	
5:04	15.14	3.29	
5:05	15.13	3.29	
5:06	15.11	3.30	
5:07	15.15	3.28	
5:08	15.16	3.27	
5:09	15.14	3.28	

5:10	15.15	3.28
5:11	15.23	3.24
5:12	15.16	3.27
5:13	14.91	3.41
5:14	14.88	3.43
5:15	14.87	3.43
5:16	14.84	3.44
5:17	14.87	3.43
5:18	14.77	3.48
5:19	14.78	3.47
5:20	14.79	3.46
5:21	14.76	3.48
5:22	14.80	3.46
5:23	14.70	3.52
5:24	14.67	3.53
5:25	14.60	3.57
5:26	14.64	3.55
5:27	14.64	3.55
5:28	14.69	3.52
5:29	14.70	3.51
5:30	14.68	3.53
5:31	14.71	3.51
5:32	14.73	3.51
5:33	14.70	3.52
5:34	14.68	3.53
5:35	14.07	3.83
5:36	13.35	4.18
5:37	13.17	4.29
5:38	13.26	4.24
5:39	13.37	4.18
5:40	13.47	4.12
5:41	13.71	4.00
5:42	14.11	3.81
5:43	14.25	3.74
5:44	14.22	3.76
5:45	14.17	3.78
5:46	14.18	3.78
5:47	14.27	3.74
5:48	14.31	3.72
5:49	14.37	3.69
5:50	14.33	3.71
5:51	14.32	3.72
5:52	14.33	3.71
5:53	14.36	3.69
5:54	14.36	3.69
5:55	14.44	3.65
5:56	14.51	3.62

5:57	14.50	3.62
5:58	14.49	3.63
5:59	14.51	3.62
6:00	14.43	3.65
6:01	14.40	3.67
6:02	14.33	3.70
6:03	14.37	3.69
6:04	14.27	3.73
6:05	14.30	3.72
6:06	14.25	3.74
6:07	14.26	3.74
6:08	14.35	3.69
6:09	14.29	3.73
6:10	14.28	3.72
6:11	14.23	3.75
6:12	14.29	3.72
6:13	14.34	3.69
6:14	14.30	3.71
6:15	14.18	3.77
6:16	14.15	3.78
6:17	14.36	3.68
6:18	14.49	3.62
6:19	14.55	3.59
6:20	14.42	3.65
6:21	14.43	3.65
6:22	14.46	3.63
6:23	14.43	3.65
6:24	14.38	3.67
6:25	14.31	3.71
6:26	14.12	3.80
6:27	13.92	3.89
6:28	14.24	3.74
6:29	14.50	3.62
6:30	14.67	3.53
6:31	14.69	3.52
6:32	14.70	3.51
6:33	14.78	3.47
6:34	14.86	3.43
6:35	14.91	3.41
6:36	14.96	3.39
6:37	14.92	3.41
6:38	14.87	3.43
6:39	14.91	3.41
6:40	14.90	3.41
6:41	14.82	3.45
6:42	14.79	3.47
6:43	14.59	3.57

6:44	14.53	3.60	
6:45	14.55	3.59	
6:46	8.28	1.98	
6:47	0.07	0.07	
6:48	0.07	0.06	
6:49	0.05	0.04	Bias Zero;
6:50	0.09	0.05	
6:51	3.22	1.17	
6:52	12.06	3.98	Bias O2 Co2;
6:53	4.32	1.36	
6:54	0.02	0.03	Zero In;
6:55	9.28	3.14	
6:56	12.08	3.96	O2 CO2 Low in;
6:57	15.08	3.43	
6:58	14.72	3.55	
6:59	14.67	3.56	
7:00	14.66	3.55	
7:01	14.65	3.55	
7:02	14.62	3.56	
7:03	14.66	3.54	
7:04	14.70	3.52	
7:05	14.64	3.55	
7:06	14.67	3.53	
7:07	14.68	3.52	
7:08	14.66	3.53	
7:09	14.68	3.52	
7:10	14.65	3.54	
7:11	14.59	3.56	
7:12	14.61	3.55	
7:13	14.61	3.55	
7:14	14.62	3.54	
7:15	14.58	3.57	
7:16	14.55	3.58	
7:17	14.58	3.56	
7:18	14.55	3.58	
7:19	14.54	3.58	
7:20	14.55	3.58	
7:21	14.57	3.56	
7:22	14.60	3.55	
7:23	14.58	3.56	
7:24	14.54	3.58	
7:25	14.53	3.59	
7:26	14.54	3.58	
7:27	14.59	3.56	
7:28	14.58	3.57	
7:29	14.57	3.57	
7:30	14.57	3.57	

7:31	14.57	3.57
7:32	14.57	3.57
7:33	14.58	3.57
7:34	14.56	3.58
7:35	14.55	3.59
7:36	14.58	3.57
7:37	14.60	3.55
7:38	14.61	3.55
7:39	14.59	3.55
7:40	14.60	3.55
7:41	14.57	3.57
7:42	14.51	3.60
7:43	14.48	3.61
7:44	14.51	3.60
7:45	14.51	3.60
7:46	14.58	3.56
7:47	14.62	3.54
7:48	14.56	3.57
7:49	14.56	3.57
7:50	14.60	3.56
7:51	14.58	3.57
7:52	14.62	3.55
7:53	14.66	3.53
7:54	14.64	3.54
7:55	14.65	3.53
7:56	14.64	3.53
7:57	14.56	3.58
7:58	14.62	3.55
7:59	14.69	3.51
8:00	14.70	3.51
8:01	14.69	3.51
8:02	14.71	3.51
8:03	14.68	3.52
8:04	14.59	3.57
8:05	14.57	3.58
8:06	14.59	3.57
8:07	14.57	3.57
8:08	14.57	3.57
8:09	14.48	3.62
8:10	14.49	3.61
8:11	14.57	3.57
8:12	14.61	3.55
8:13	14.64	3.54
8:14	14.57	3.58
8:15	14.59	3.57
8:16	14.66	3.54
8:17	14.71	3.51

8:18	14.69	3.52	
8:19	14.63	3.55	
8:20	14.63	3.54	
8:21	14.64	3.54	
8:22	14.59	3.57	
8:23	14.62	3.55	
8:24	14.65	3.53	
8:25	14.58	3.57	
8:26	14.57	3.58	
8:27	14.55	3.60	
8:28	14.55	3.60	
8:29	14.61	3.56	
8:30	14.66	3.54	
8:31	14.71	3.52	
8:32	14.70	3.53	
8:33	14.45	3.65	
8:34	13.99	3.87	
8:35	14.04	3.85	
8:36	14.15	3.80	
8:37	14.35	3.69	
8:38	14.34	3.70	
8:39	14.35	3.70	
8:40	14.30	3.72	
8:41	14.24	3.75	
8:42	14.30	3.73	
8:43	14.34	3.71	
8:44	14.39	3.68	
8:45	14.44	3.66	
8:46	14.46	3.64	
8:47	14.48	3.63	
8:48	14.48	3.64	
8:49	14.41	3.67	
8:50	14.33	3.71	
8:51	14.34	3.70	
8:52	14.35	3.69	
8:53	14.34	3.70	
8:54	14.34	3.69	
8:55	14.36	3.68	
8:56	14.36	3.68	
8:57	14.35	3.69	
8:58	14.35	3.68	
8:59	13.81	3.50	
9:00	0.60	0.17	
9:01	0.02	0.03	Bias Zero;
9:02	8.74	3.06	
9:03	12.14	4.02	Bias O2 CO2;
9:04	6.16	2.02	

9:05	0.01	0.03	Zero In.;
9:06	11.50	3.89	
9:07	13.87	3.70	O2 CO2 Low In.;
9:08	14.94	3.46	
9:09	14.94	3.46	
9:10	14.66	3.57	
9:11	14.62	3.57	
9:12	14.53	3.61	
9:13	14.47	3.64	
9:14	14.43	3.65	
9:15	14.40	3.67	
9:16	14.37	3.68	
9:17	14.34	3.69	
9:18	14.40	3.66	
9:19	14.44	3.64	
9:20	14.34	3.68	
9:21	14.32	3.70	
9:22	14.28	3.71	
9:23	14.24	3.73	
9:24	14.28	3.70	
9:25	14.37	3.66	
9:26	14.35	3.67	
9:27	14.35	3.67	
9:28	14.38	3.66	
9:29	14.37	3.66	
9:30	14.31	3.69	
9:31	14.15	3.77	
9:32	14.16	3.75	
9:33	14.18	3.75	
9:34	14.16	3.76	
9:35	14.15	3.76	
9:36	14.17	3.75	
9:37	14.21	3.73	
9:38	14.20	3.74	
9:39	14.18	3.75	
9:40	14.19	3.75	
9:41	14.27	3.70	
9:42	14.26	3.71	
9:43	14.24	3.72	
9:44	14.46	3.60	
9:45	15.56	2.95	
9:46	16.04	2.63	
9:47	15.36	3.06	
9:48	13.62	4.00	
9:49	13.43	4.10	
9:50	13.54	4.05	
9:51	13.65	4.00	

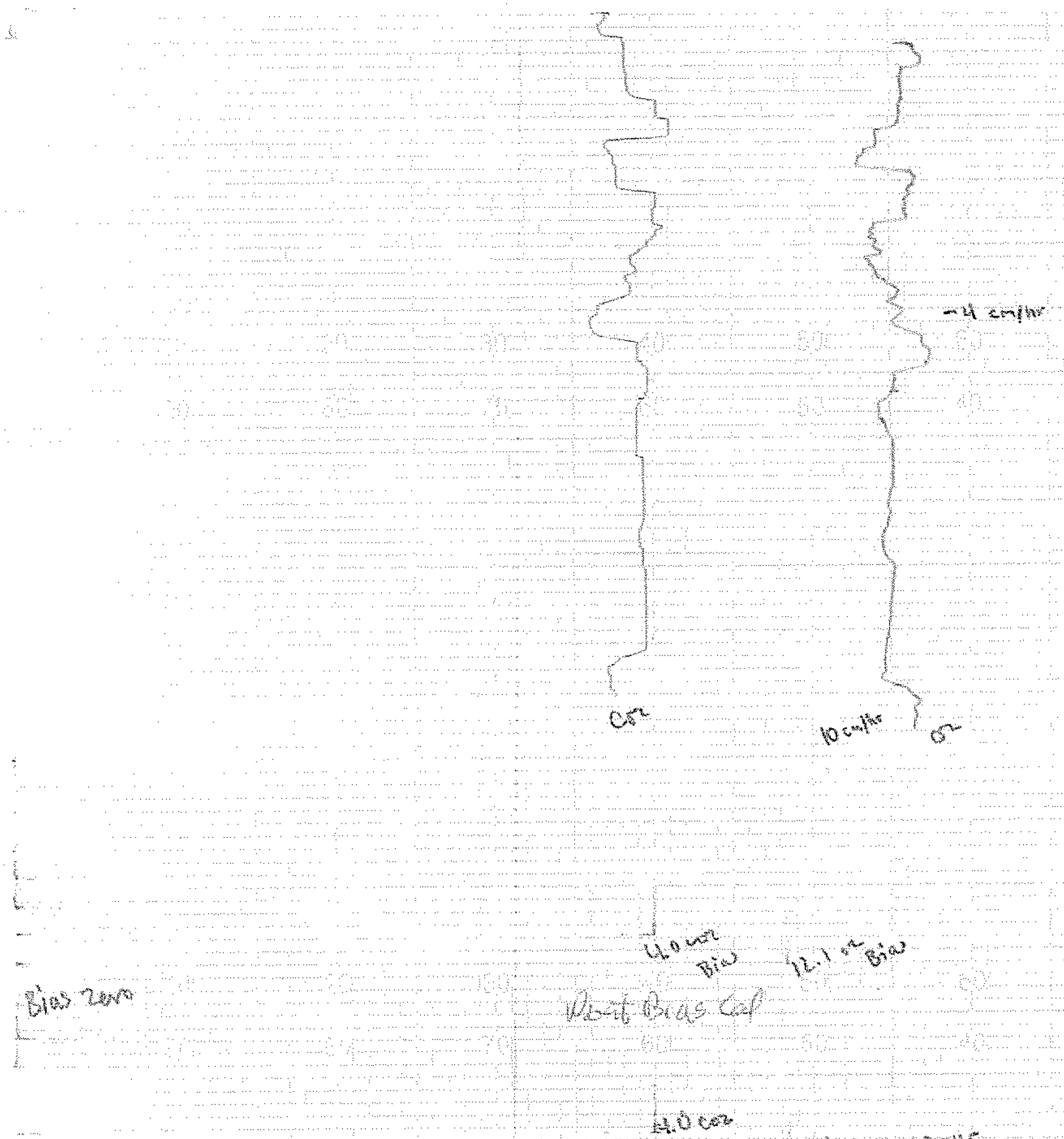
9:52	13.78	3.94
9:53	13.95	3.86
9:54	13.97	3.85
9:55	14.47	3.60
9:56	14.51	3.58
9:57	14.45	3.61
9:58	14.42	3.62
9:59	14.43	3.61
10:00	14.48	3.59
10:01	14.63	3.51
10:02	14.79	3.43
10:03	14.63	3.51
10:04	14.58	3.53
10:05	3.82	0.87
10:06	12.79	3.02
10:07	14.49	3.57
10:08	14.51	3.56
10:09	14.51	3.56
10:10	14.47	3.57
10:11	14.48	3.57
10:12	14.48	3.58
10:13	14.27	3.68
10:14	14.21	3.71
10:15	14.23	3.70
10:16	14.17	3.73
10:17	14.26	3.68
10:18	14.17	3.72
10:19	14.24	3.69
10:20	14.31	3.65
10:21	14.36	3.63
10:22	14.36	3.63
10:23	14.35	3.63
10:24	14.35	3.63
10:25	14.36	3.62
10:26	14.37	3.61
10:27	14.35	3.62
10:28	14.30	3.65
10:29	14.27	3.66
10:30	14.49	3.55
10:31	14.36	3.62
10:32	14.36	3.62
10:33	14.23	3.68
10:34	14.21	3.69
10:35	14.06	3.77
10:36	14.20	3.70
10:37	14.22	3.69
10:38	14.22	3.69

10:39	14.22	3.69	
10:40	14.15	3.72	
10:41	14.12	3.74	
10:42	14.01	3.78	
10:43	14.05	3.77	
10:44	14.11	3.74	
10:45	14.12	3.73	
10:46	14.10	3.74	
10:47	14.12	3.73	
10:48	14.04	3.76	
10:49	14.07	3.76	
10:50	14.10	3.74	
10:51	14.06	3.75	
10:52	14.16	3.71	
10:53	14.14	3.72	
10:54	14.06	3.75	
10:55	14.13	3.72	
10:56	14.12	3.72	
10:57	14.14	3.71	
10:58	14.23	3.67	
10:59	14.21	3.68	
11:00	14.25	3.66	
11:01	14.23	3.66	
11:02	14.13	3.71	
11:03	14.10	3.73	
11:04	14.07	3.74	
11:05	10.42	2.10	
11:06	0.06	0.04	Bias Zero;
11:07	8.09	2.16	
11:08	12.09	3.98	Bias O2 Co2;
11:09	11.61	3.91	
11:10	0.04	0.05	Zero In.;
11:11	3.23	1.13	
11:12	12.08	4.00	Int. O2 CO2 Low;
11:13	14.22	3.75	
11:14	14.23	3.73	
11:15	14.26	3.69	
11:16	14.17	3.71	
11:17	14.16	3.71	
11:18	14.08	3.74	
11:19	14.15	3.71	
11:20	14.22	3.67	
11:21	14.25	3.65	
11:22	14.25	3.64	
11:23	14.23	3.65	
11:24	13.99	3.77	
11:25	13.85	3.83	

11:26	13.97	3.77
11:27	13.93	3.79
11:28	13.98	3.77
11:29	14.04	3.75
11:30	14.01	3.76
11:31	14.01	3.76
11:32	14.03	3.75
11:33	14.08	3.72
11:34	14.08	3.72
11:35	14.08	3.72
11:36	14.14	3.69
11:37	14.13	3.70
11:38	14.00	3.77
11:39	13.99	3.77
11:40	14.03	3.75
11:41	14.12	3.70
11:42	14.08	3.72
11:43	14.09	3.71
11:44	14.09	3.71
11:45	14.08	3.72
11:46	14.06	3.73
11:47	14.07	3.72
11:48	13.98	3.76
11:49	13.84	3.83
11:50	13.85	3.82
11:51	14.03	3.74
11:52	14.13	3.69
11:53	14.10	3.70
11:54	13.90	3.80
11:55	13.75	3.86
11:56	14.04	3.72
11:57	14.19	3.65
11:58	14.04	3.72
11:59	13.99	3.75
12:00	14.02	3.73
12:01	14.07	3.70
12:02	14.05	3.72
12:03	13.99	3.74
12:04	13.97	3.76
12:05	14.02	3.73
12:06	14.05	3.72
12:07	14.04	3.72
12:08	13.89	3.80
12:09	13.90	3.79
12:10	13.91	3.79
12:11	13.95	3.77
12:12	13.99	3.75

12:13	14.10	3.70
12:14	14.12	3.68
12:15	13.95	3.76
12:16	13.93	3.77
12:17	13.92	3.78
12:18	13.93	3.77
12:19	13.96	3.76
12:20	13.98	3.75
12:21	13.97	3.75
12:22	13.98	3.75
12:23	13.96	3.75
12:24	13.98	3.74
12:25	13.96	3.75
12:26	13.88	3.79
12:27	13.89	3.78
12:28	13.83	3.81
12:29	13.87	3.79
12:30	13.92	3.76
12:31	13.94	3.75
12:32	13.94	3.75
12:33	13.81	3.81
12:34	13.77	3.83
12:35	13.80	3.82
12:36	13.78	3.83
12:37	13.81	3.82
12:38	13.80	3.83
12:39	13.87	3.79
12:40	13.91	3.77
12:41	13.90	3.78
12:42	13.80	3.83
12:43	13.75	3.85
12:44	13.85	3.80
12:45	13.90	3.78
12:46	13.84	3.80
12:47	13.72	3.86
12:48	13.69	3.88
12:49	13.86	3.80
12:50	13.92	3.77
12:51	13.85	3.80
12:52	13.90	3.78
12:53	13.84	3.80
12:54	13.72	3.86
12:55	13.81	3.82
12:56	13.90	3.78
12:57	13.89	3.78
12:58	13.87	3.79
12:59	13.97	3.74

13:00	13.98	3.73	
13:01	13.91	3.77	
13:02	13.90	3.77	
13:03	13.89	3.78	
13:04	13.83	3.80	
13:05	13.89	3.77	
13:06	14.02	3.71	
13:07	14.00	3.72	
13:08	13.98	3.73	
13:09	14.04	3.70	
13:10	16.98	2.00	
13:11	9.90	0.28	Bias Zero;
13:12	0.04	0.04	
13:13	8.49	2.89	
13:14	12.08	3.98	Bias O2 CO2;
13:15	1.11	1.04	
13:16	0.03	0.05	Zero In.;
13:17	4.78	2.65	
13:18	12.11	4.02	Zero In;O2 CO2 Low In.;
13:19	16.77	6.01	
13:20	20.15	7.95	O2 Co2 High int.;



START RJ @6:35 69 29.88 7.13.21

Post Bias Cal

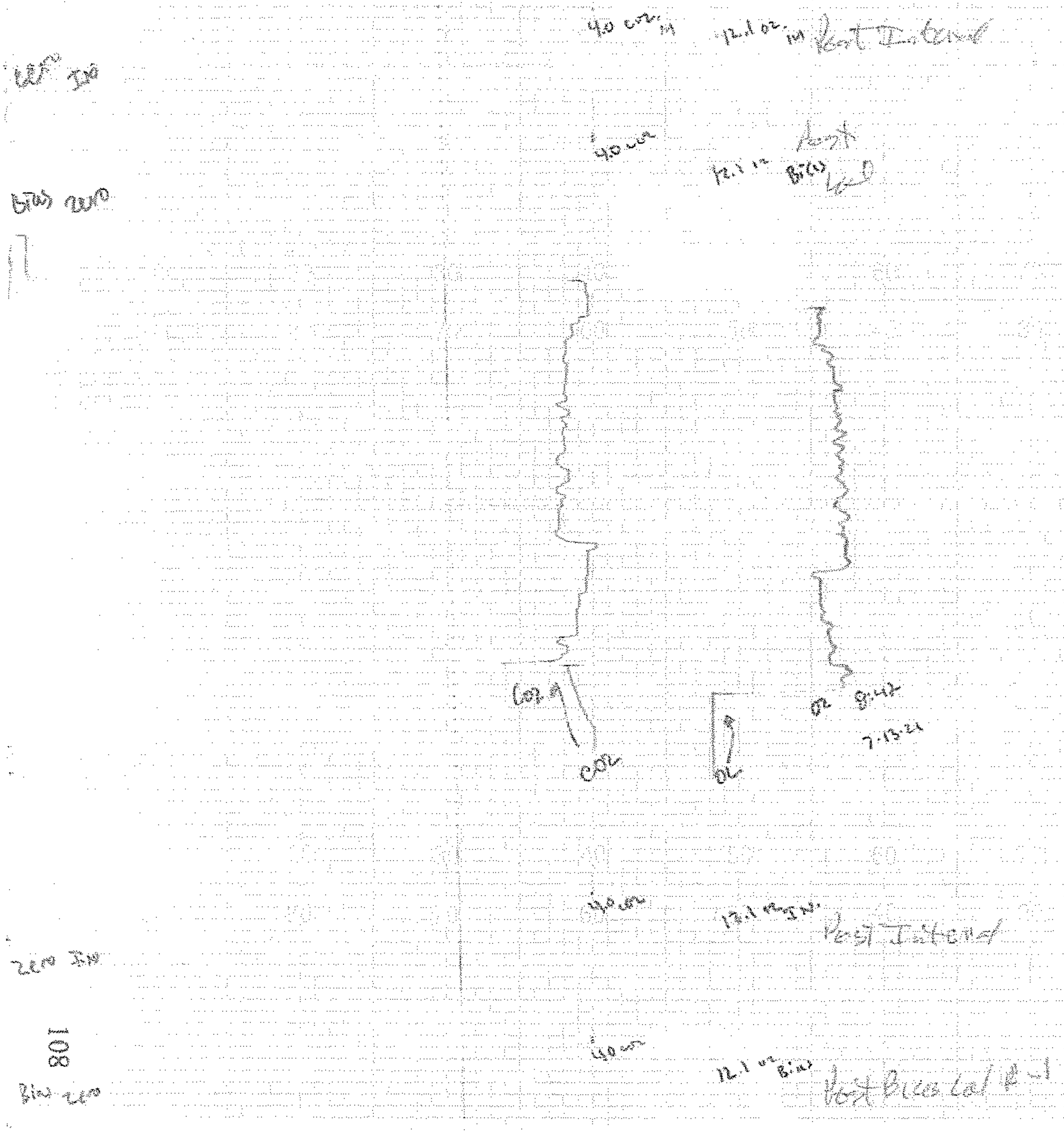
7.95 co2
20.13 o2 CC144381

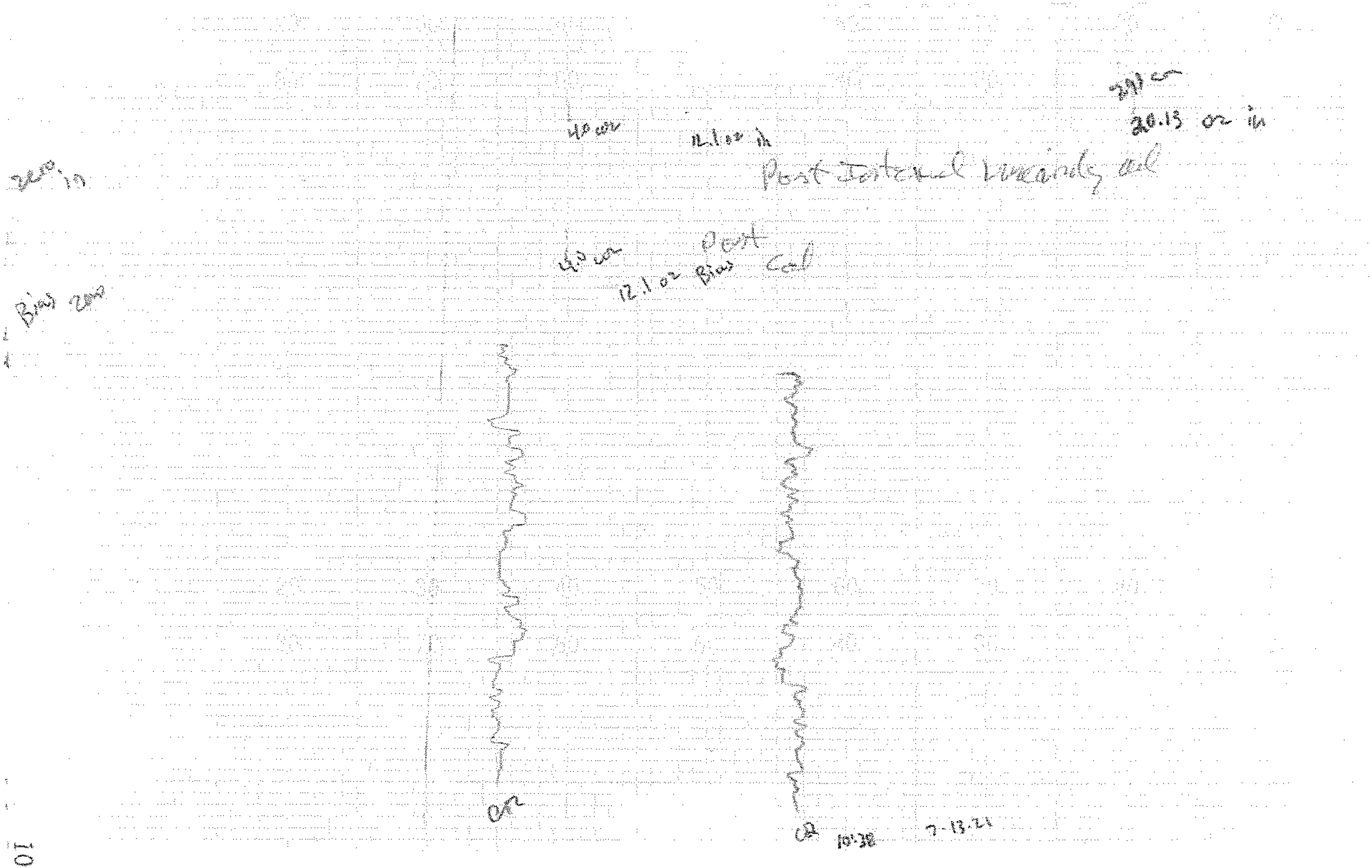
DD002015

ZERO ZN. 10

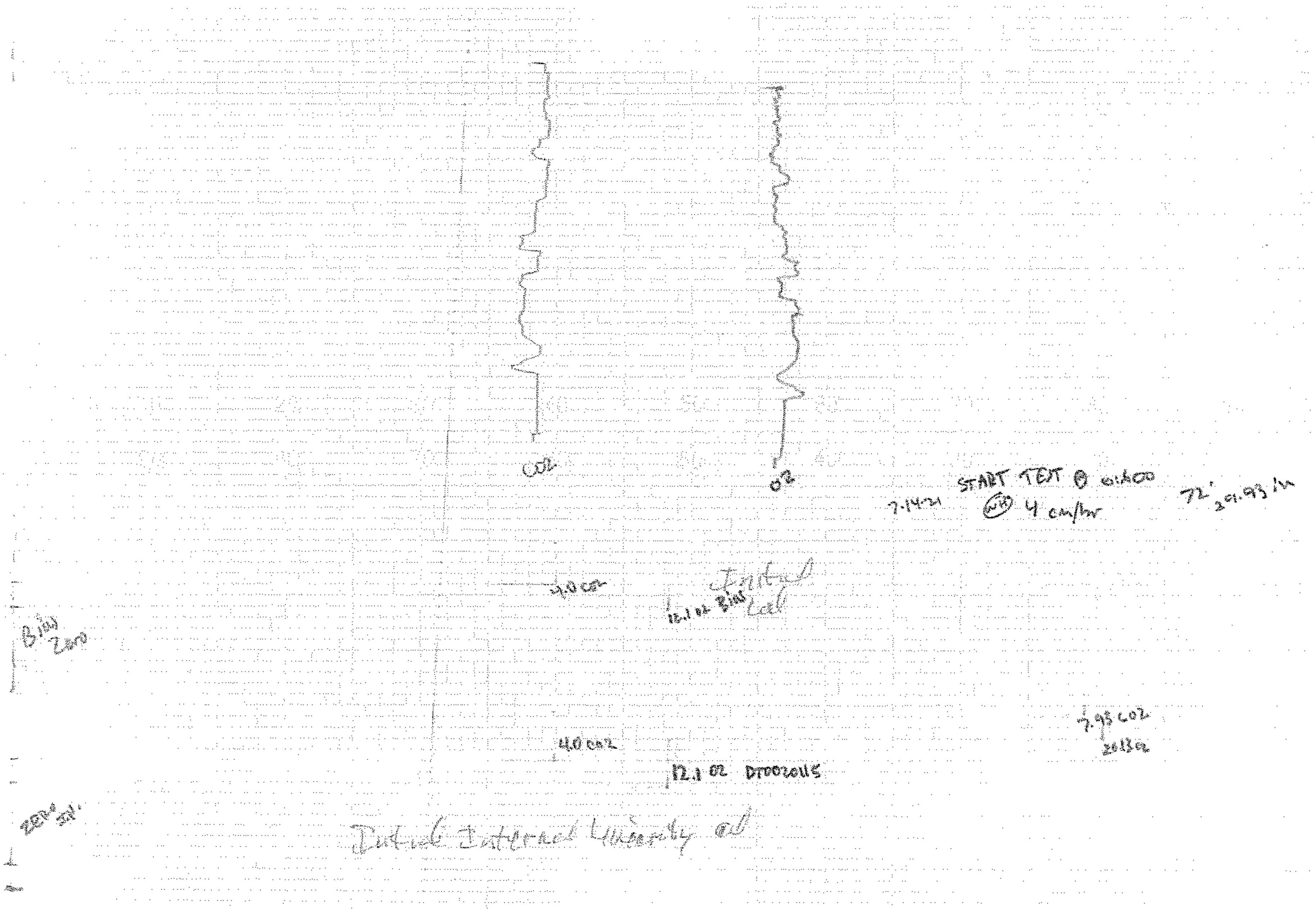
Initial Internal [illegible]

AAA 221-061 7.13.21

Zero IN
40 co2 IN
12.1 O2 IN
Post I. Cal
Bias Zero
40 co2
12.1 O2
Post
Bias Cal
Co2 9
CO2
O2
O2 8:42
7.13.21
Zero IN
40 co2
12.1 O2 IN
Post Internal
Bias zero
40 co2
12.1 O2 Bias
Post Bias Cal #1



2911 cm
20.15 oz in
40 oz
12.1 oz in
Post Internal linearity cal
40 oz
Post
12.1 oz Bias Cal
Zero 10
Bias zero
OR
CR
10:38
7-13-21



7-14-21 START TEST @ 0:400
WR 4 cm/hr
72° 29.93 in

4.0 CO2
12.1 O2 Bias
Initial Cal

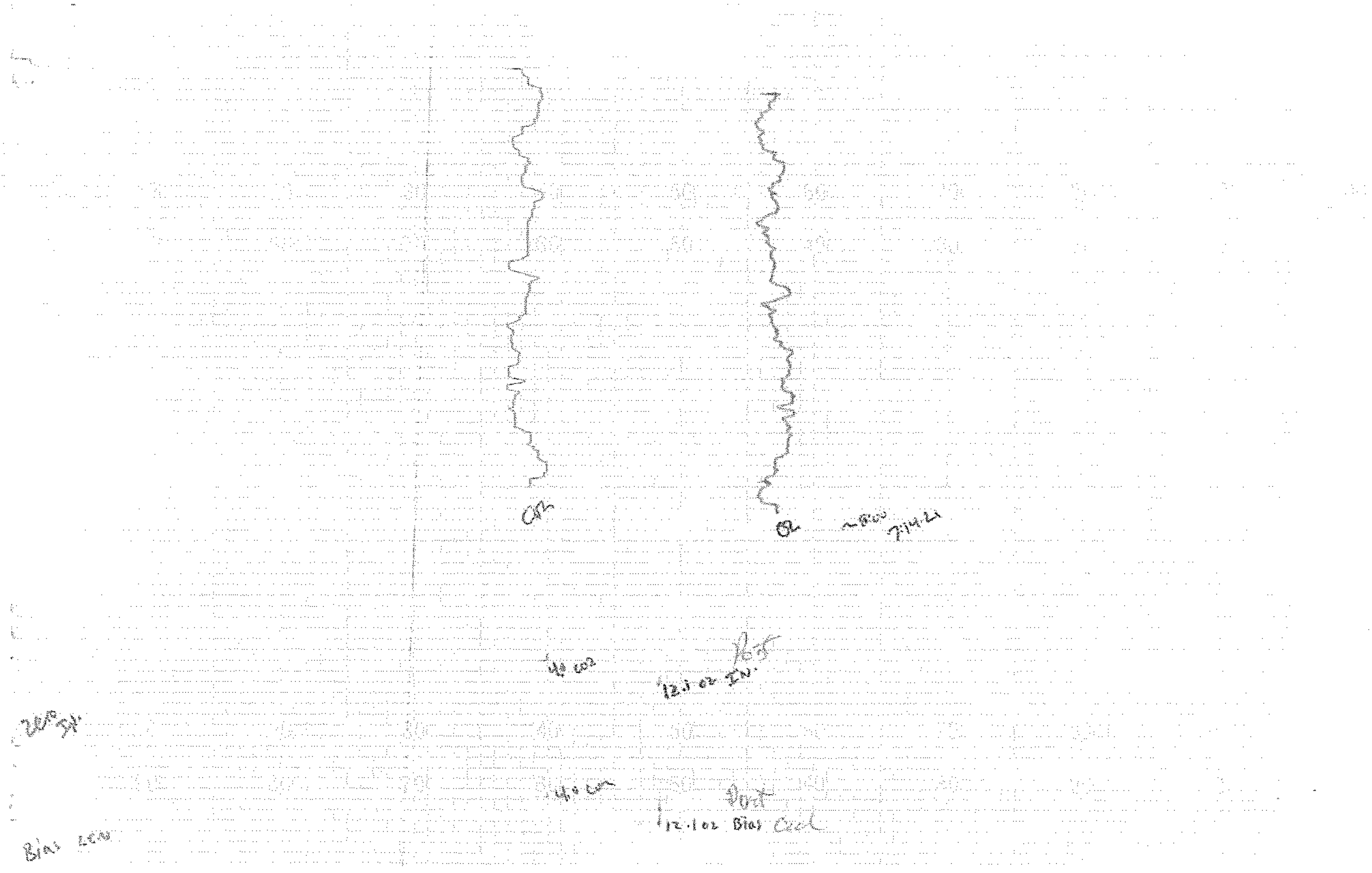
4.0 CO2
12.1 O2 DT002015

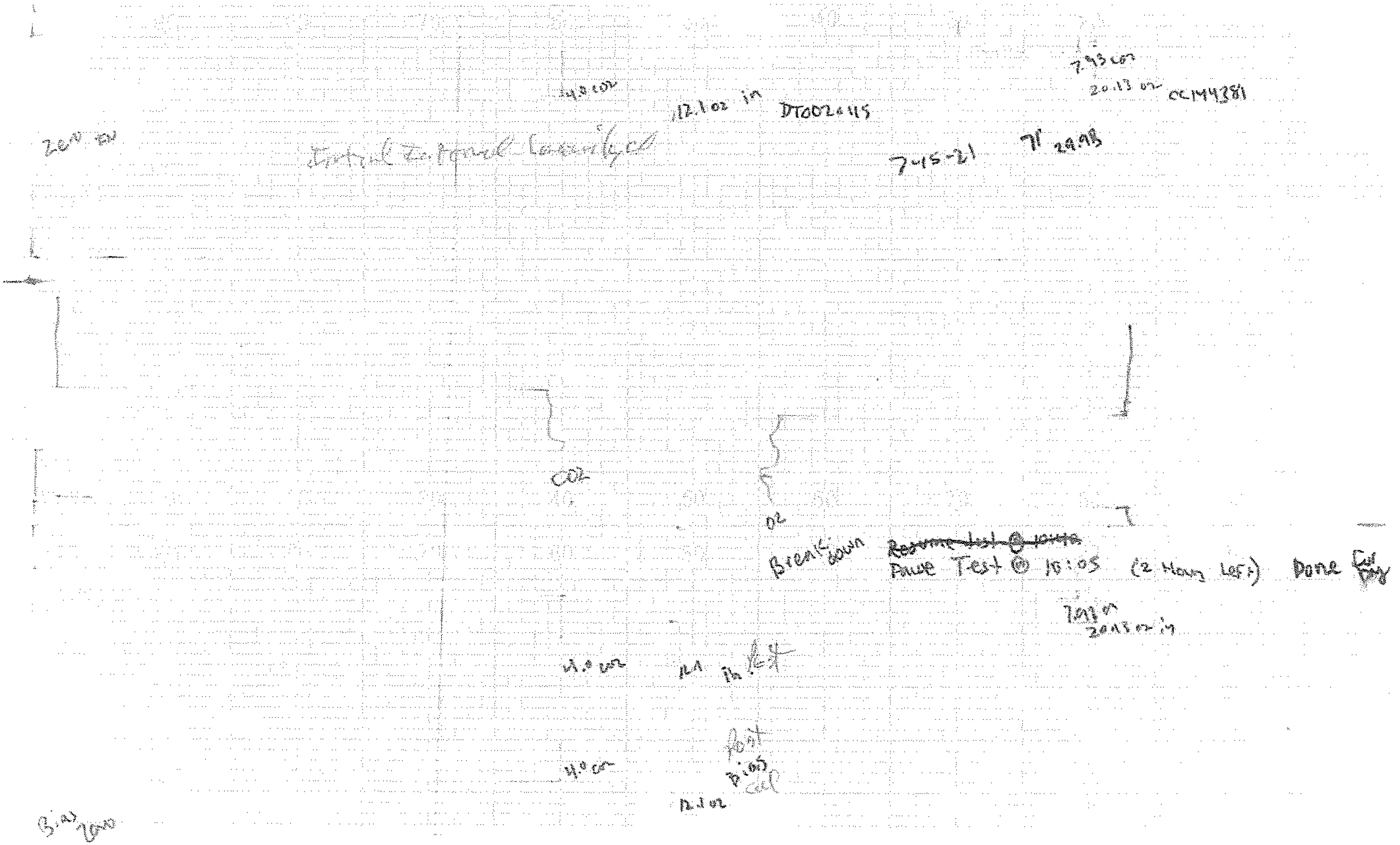
7.95 CO2
20.13 O2

Initial Internal Linearity Cal

Bias Zero

Zero Int.


CR
OR
~800
7-14-21
40 co2
12.3 oz IN.
Bost
40 co2
Dost
12.1 oz Bias Cool
260° 5N
Bias Low



Zero Cal

[illegible]

4.0 co2

12.1 o2 in

DT002415

7.93 co2

20.13 o2 CC144381

7-15-21

71° 29.98

CO2

O2

Breakdown

~~Resume test @ 10:45~~

Pause Test @ 10:05 (2 Hours Left)

Done Cal Day

7.91 co2

20.13 o2 in

4.0 co2

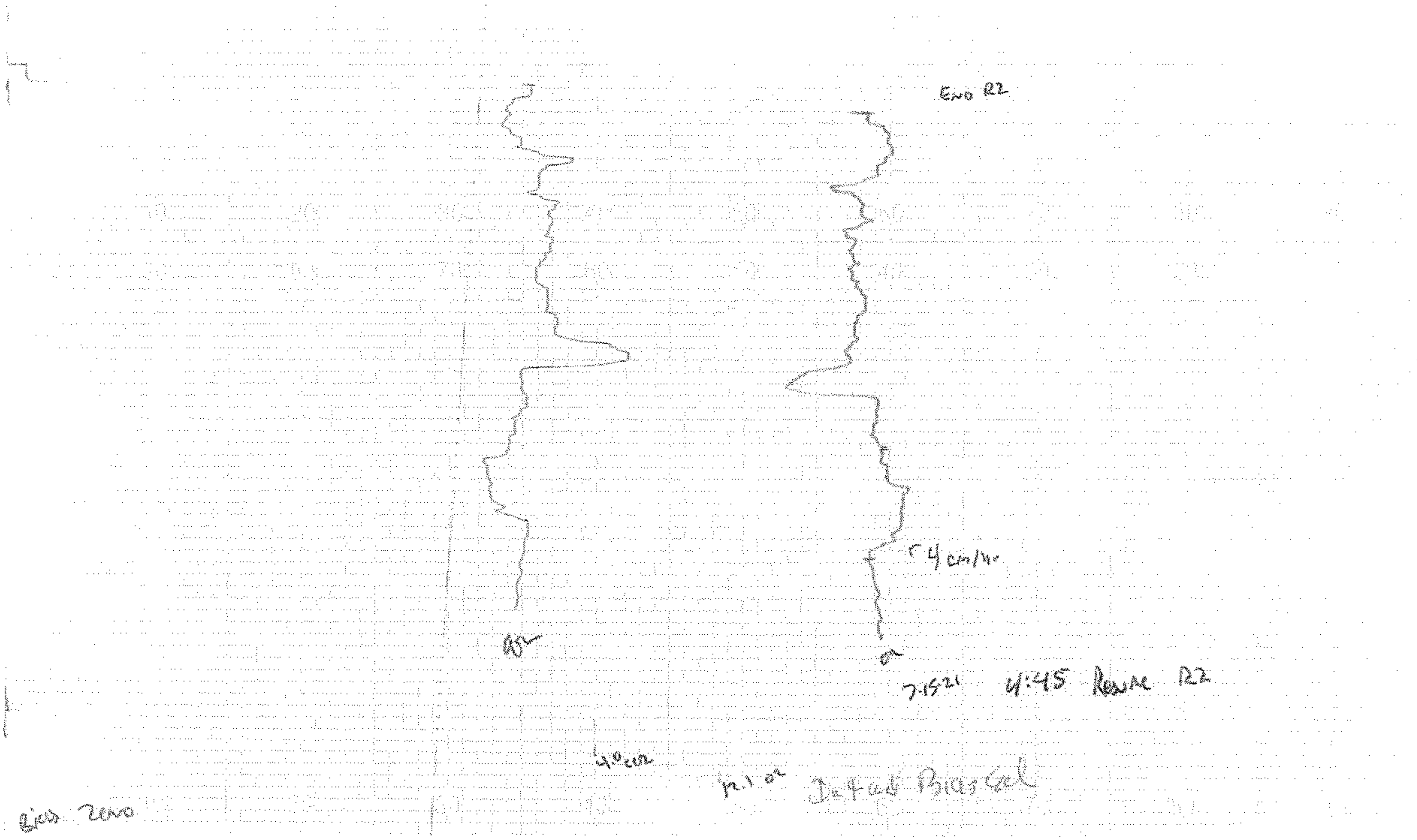
12.1 in [illegible]

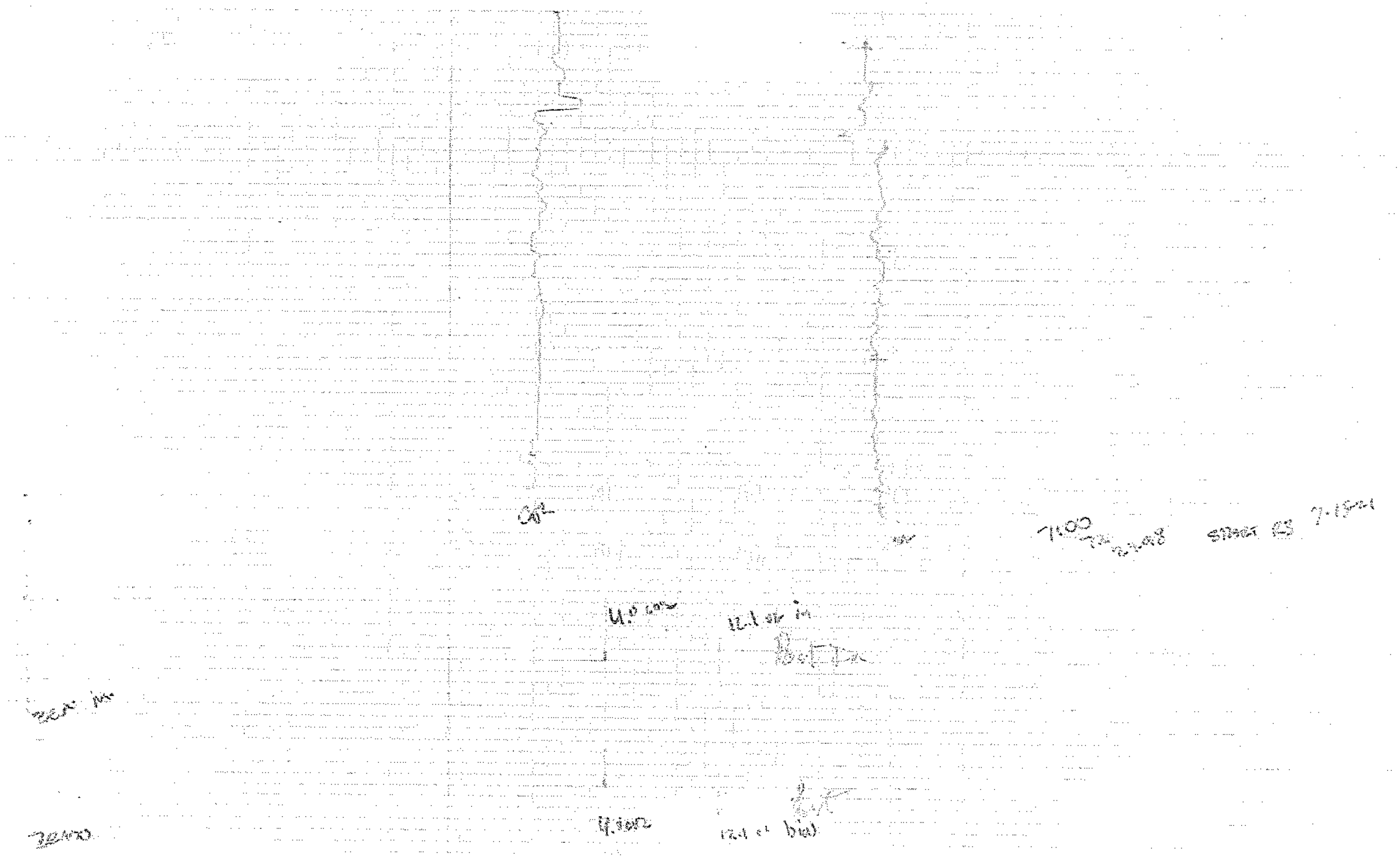
4.0 co2

12.1 o2

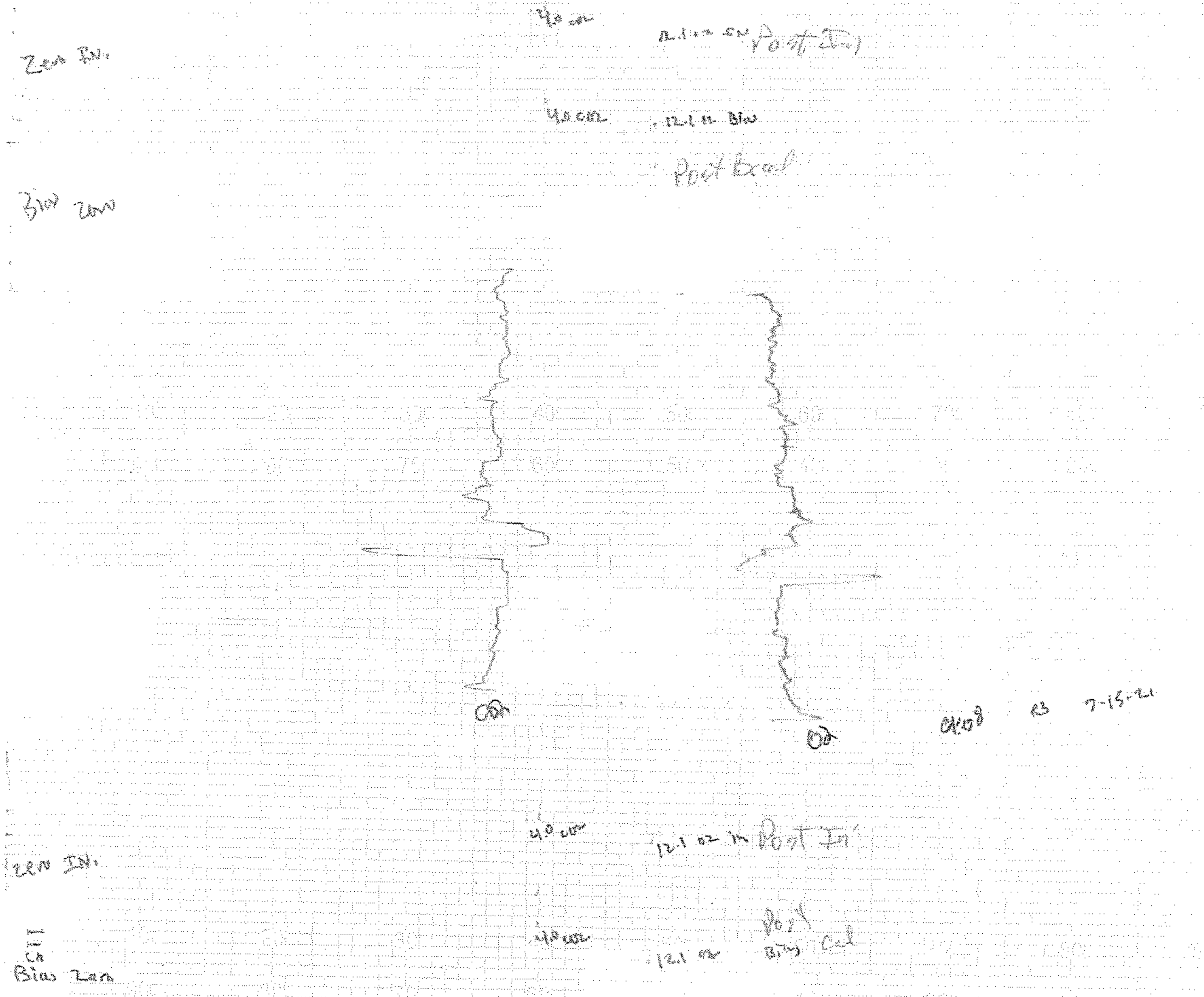
Post bias Cal

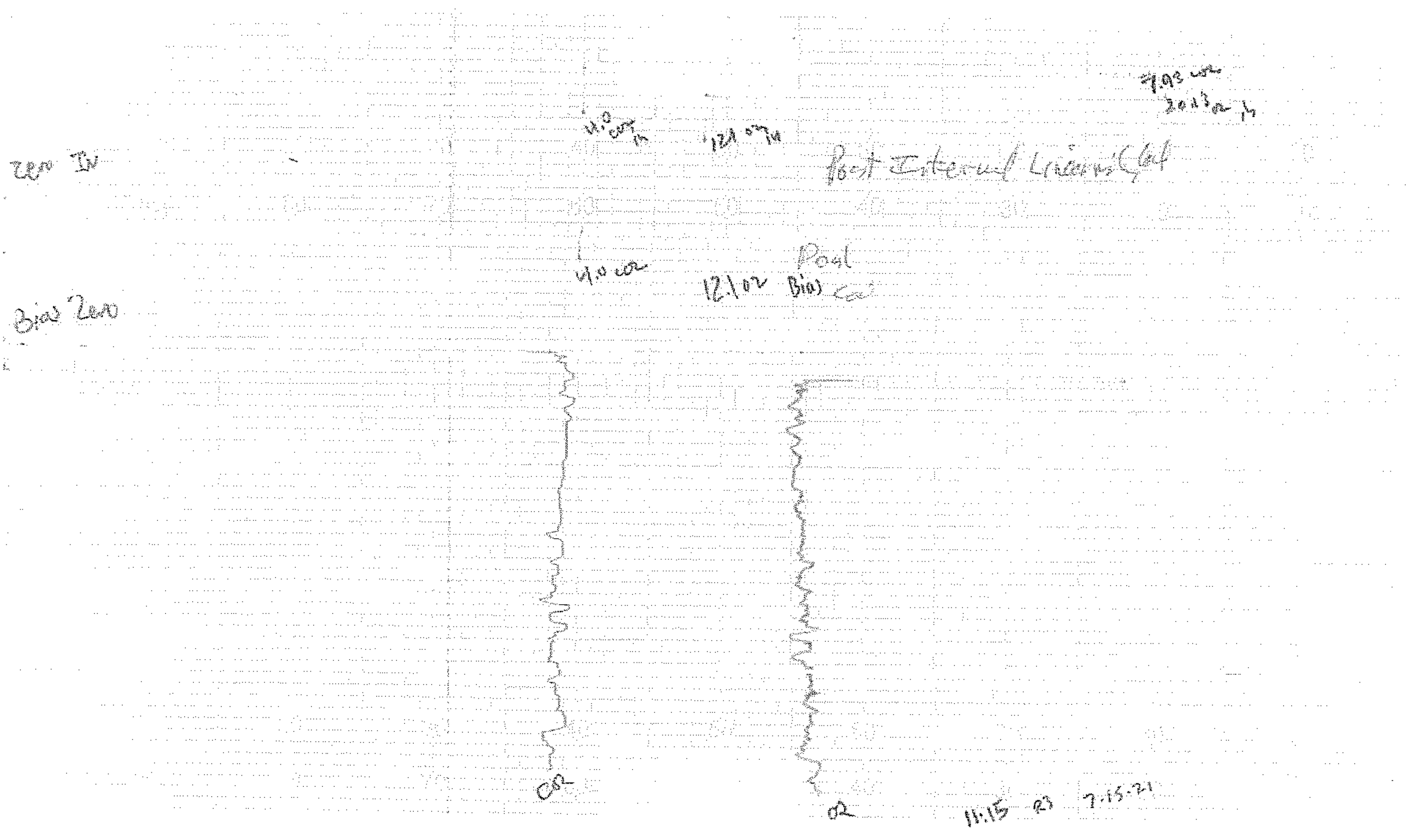
Bias Zero


End R2
4 cm/hr
85
0
7-15-21 4:45 Resume R2
4.0 cm
12.1 cm
Default Bias Cal
Bias Zero



Cal
7:00 am
Start ES 7-15-04
11.0 cm
12.1 at in
11.30 cm
12.1 at bid
Zero


Zero Inj.
4.0 CO2
12.1 O2 in Post Inj
Bias Zero
4.0 CO2
12.1 O2 Bias
Post Bias
CO2
O2
09:08
R3
7-15-21
Zero Inj.
4.0 CO2
12.1 O2 In Post Inj
Ch
Bias Zero
4.0 CO2
12.1 O2
Post Bias Cal


7.93 co2
2013 co2 Th
Zero In
14.0 co2 Th
121.0 Th
Post Internal Linearity Cal
Post Bias Cal
Bias Zero
14.0 co2
12.1 O2
CO2
O2
11:15 R3 7.15.21

PRAXAIR

Praxair
5700 South Alameda Street
Los Angeles, CA 90058
Tel: (323) 585-2154 Fax:(714) 542-6689
PGVPID: F22015

DocNumber: 000081223

CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

Customer & Order Information:

PRAXAIR WHSE OXNARD CA
455 E WOOLEY RD
OXNARD CA 930300

Praxair Order Number: 31577381
Customer P. O. Number: 05587065
Customer Reference Number:

Fill Date: 6/19/2015
Part Number: EV NICDOXE90-AS
Lot Number: 109516909
Cylinder Style & Outlet: AS CGA 590
Cylinder Pressure & Volume: 2000 psig 140 cu. ft.

Certified Concentration:

Expiration Date: 6/23/2023
Cylinder Number: CC144381

NIST Traceable
Analytical Uncertainty:

7.93	%	CARBON DIOXIDE	± 0.5 %
20.13	%	OXYGEN	± 0.1 %
	Balance	NITROGEN	

Certifcation Information: *Certification Date:* 6/23/2015 *Term:* 96 Months *Expiration Date:* 6/23/2023

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.

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: 8 %
Certified Concentration: 7.93 %
Instrument Used: Horiba VIA-510 S/N 2807014
Analytical Method: NDIR
Last Multipoint Calibration: 6/16/2015

Reference Standard Type: GMIS
Ref. Std. Cylinder #: SA17095
Ref. Std. Conc: 9.87%
Ref. Std. Traceable to SRM #: 1674b
SRM Sample #: 7-H-07
SRM Cylinder #: FF10031

First Analysis Data: **Date:** 6/23/2015

Z:	0	R:	9.87	C:	7.93	Conc:	7.927
R:	9.87	Z:	0	C:	7.93	Conc:	7.927
Z:	0	C:	7.93	R:	9.88	Conc:	7.927

UOM: % **Mean Test Assay:** 7.927 %

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:** 0 %

2. Component: OXYGEN

Requested Concentration: 20 %
Certified Concentration: 20.13 %
Instrument Used: OXYMAT 5E
Analytical Method: PARAMAGNETIC
Last Multipoint Calibration: 5/29/2015

Reference Standard Type: GMIS
Ref. Std. Cylinder #: SA10032
Ref. Std. Conc: 19.90%
Ref. Std. Traceable to SRM #: 2659a
SRM Sample #: 71-E-19
SRM Cylinder #: FF22331

First Analysis Data: **Date:** 6/23/2015

Z:	0	R:	19.88	C:	20.12	Conc:	20.127
R:	19.9	Z:	0	C:	20.12	Conc:	20.127
Z:	0	C:	20.12	R:	19.9	Conc:	20.127

UOM: % **Mean Test Assay:** 20.127 %

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:** 0 %

Analyzed by: Ying Yu

Certified by: Jack Fu

p17

PRAXAIR

Praxair
5700 South Alameda Street
Los Angeles, CA 90058
Tel: (323) 585-2154 Fax:(714) 542-6689
PGVPID: F22017

DocNumber: 000116259

CERTIFICATE OF ANA'YSIS / EPA PROTOCOL GAS

Customer & Order Information:

PRAXAIR PKG OXNARD CA HPS
455 E WOOLEY RD
OXNARD CA 93030

Praxair Order Number: 70394045
Customer P. O. Number:
Customer Reference Number:

Fill Date: 10/18/2017
Part Number: EV NICDOXE8D-AS
Lot Number: 70086720905
Cylinder Style & Outlet: AS CGA 590
Cylinder Pressure & Volume: 2000 psig 140 cu. ft.

Certified Concentration:

Expiration Date: 10/20/2025
Cylinder Number: DT0020115
NIST Traceable
Analytical Uncertainty:

4.00	%	CARBON DIOXIDE	± 0.5 %
12.10	%	OXYGEN	± 0.3 %
	Balance	NITROGEN	

Certifcation Information: *Certification Date:* 10/20/2017 *Term:* 96 Months *Expiration Date:* 10/20/2025

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 O2 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: 4 %
Certified Concentration: 4.00 %
Instrument Used: Horiba VIA-510 S/N 20C194WK
Analytical Method: NDIR
Last Multipoint Calibration: 10/12/2017

Reference Standard Type: GMIS
Ref. Std. Cylinder # : DT0006914
Ref. Std. Conc: 7.00 %
Ref. Std. Traceable to SRM # : 1674b
SRM Sample # : 7-H-07
SRM Cylinder # : FF10631

First Analysis Data: Date: 10/20/2017

Z:	0	R:	7	C:	4.01	Conc:	3.993
R:	7.04	Z:	0	C:	4.02	Conc:	4.003
Z:	0	C:	4.03	R:	7.05	Conc:	4.013

UOM: % Mean Test Assay: 4.003 %

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: 0%

2. Component: OXYGEN

Requested Concentration: 12 %
Certified Concentration: 12.10 %
Instrument Used: PARA 1 OXYMAT 5E
Analytical Method: PARAMAGNETIC
Last Multipoint Calibration: 9/25/2017

Reference Standard Type: GMIS
Ref. Std. Cylinder # : CC81686
Ref. Std. Conc: 14.96%
Ref. Std. Traceable to SRM # : 2659a
SRM Sample # : 71-E-19
SRM Cylinder # : FF22331

First Analysis Data: Date: 10/20/2017

Z:	0	R:	14.96	C:	12.09	Conc:	12.085
R:	14.96	Z:	0	C:	12.1	Conc:	12.095
Z:	0	C:	12.12	R:	14.98	Conc:	12.115

UOM: % Mean Test Assay: 12.098 %

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: 0%

Analyzed by:
Jose Vasquez

Certified by:
Jenna Lockman

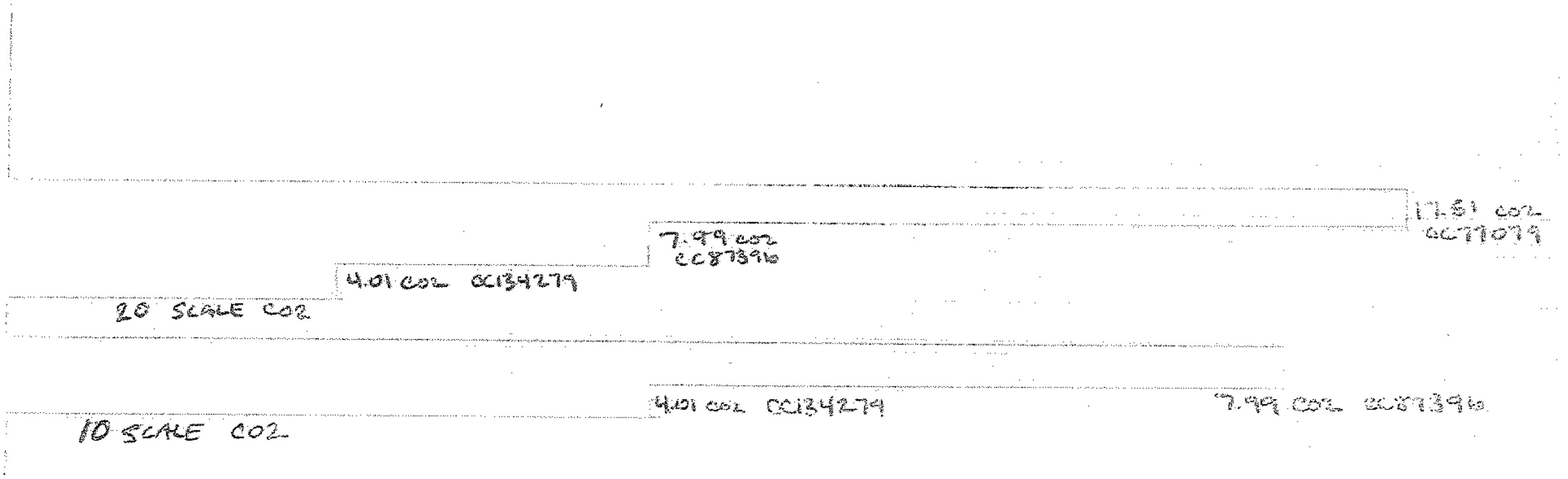
AIRx Testing CO2 - Servomex 1440 1/5/2021
Semi- Annual Linearity @ 10 & 20 % Ranges

Range = 10

Actual Concentration	Avg. Analyzer Response	Error % of Range	Cylinder #
4.01	4.00	0.1 %	CC134279
7.99	8.00	0.1 %	CC87396

Range = 20

Actual Concentration	Avg. Analyzer Response	Error % of Range	Cylinder #
4.01	4.04	0.2 %	CC134279
7.99	8	0.0 %	CC87396
17.51	17.48	-0.2 %	CC77079


17.81 CO2
CC77079
7.99 CO2
CC87396
4.01 CO2 CC134279
20 SCALE CO2
4.01 CO2 CC134279
7.99 CO2 CC87396
10 SCALE CO2

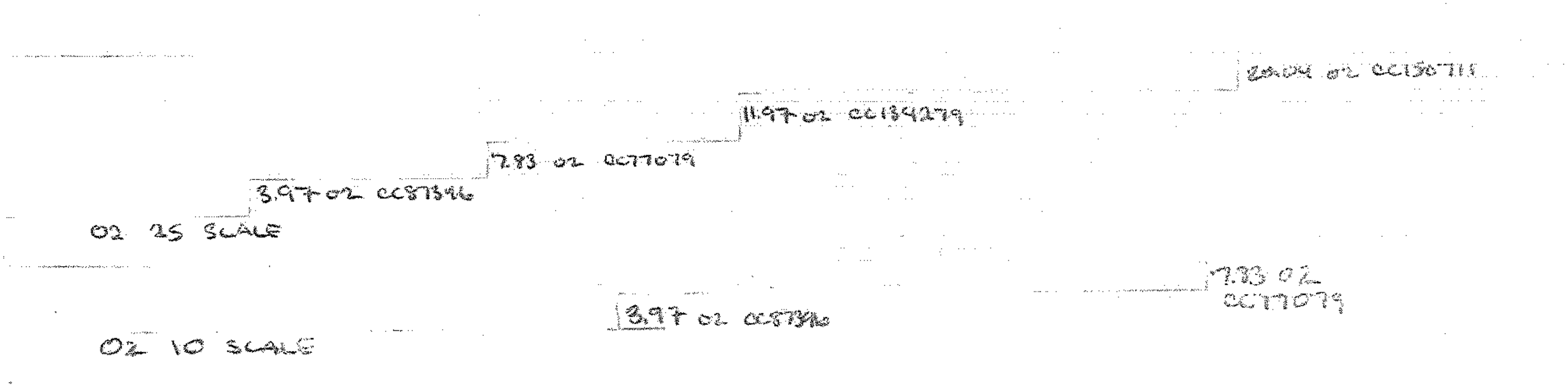
AIRx Testing O2 - Servomex 1400 1/5/2021
Semi- Annual Linearity @ 10 & 25 % Ranges

Range = 10

Actual Concentration	Avg. Analyzer Response	Error % of Range	Cylinder #
3.97	3.96	0.1 %	CC87396
7.83	7.83	0.0 %	CC77079

Range = 25

Actual Concentration	Avg. Analyzer Response	Error % of Range	Cylinder #
3.97	3.95	-0.1 %	CC87396
7.83	7.83	0.0 %	CC77079
11.97	11.98	0.0 %	CC134279
20.04	20.05	0.0 %	CC150711


O2 25 SCALE
3.97 O2 CC87396
7.83 O2 CC77079
11.97 O2 CC134279
20.04 O2 CC150711
O2 10 SCALE
3.97 O2 CC87396
7.83 O2
CC77079

SOURCE EMISSION INSTRUMENTATION LIST

OXYGEN

Unit No. - 5:

Manufacturer:	California Analytical Instruments
Model No.:	110P
Serial No.:	T02034
Method:	Paramagnetic
Range (%)	0-5, 10, 25

Unit No. - 7:

Manufacturer:	Teledyne
Model No.:	320-AX
Serial No.:	108742
Method:	Electrochemical
Range (%)	0-5, 10, 25

Unit No. - 9:

Manufacturer:	Servomex
Model No.:	1400
Serial No.:	01420/B701/730
Method:	Paramagnetic
Range (%)	0-25, 100

Unit No. - 10:

Manufacturer:	Servomex
Model No.:	1400
Serial No.:	01420/B308
Method:	Paramagnetic
Range (%)	0-25

Unit No. - 11:

Manufacturer:	Teledyne
Model No.:	320-A
Serial No.:	111211
Method:	Electrochemical
Range (%)	0-5, 10, 25

Unit No. - 12:

Manufacturer:	Servomex
Model No.:	1400
Serial No.:	01420/B7103
Method:	Paramagnetic
Range (%)	0-25, 100

Unit No. - 13:

Manufacturer:	Servomex
Model No.:	1400
Serial No.:	X1420/B707
Method:	Paramagnetic
Range (%)	0-25

SOURCE EMISSION INSTRUMENTATION LIST

CARBON DIOXIDE

Unit No. - 3:

Manufacturer:	ACS (Fugi)
Model No.:	3300
Serial No.:	N8M6611T
Method:	NDIR
Range (%)	0-5 & 20

Unit No. - 4:

Manufacturer:	ACS (Fugi)
Model No.:	3300
Serial No.:	N9C5479T
Method:	NDIR
Range (%)	0-5 & 20

Unit No. - 5:

Manufacturer:	Milton-Roy (Fugi)
Model No.:	3300
Serial No.:	N2EO363T
Method:	NDIR
Range (%)	10/20/25

Unit No. - 6:

Manufacturer:	Horiba
Model No.:	3400
Serial No.:	N1P7019T
Method:	NDIR
Range (%)	0- 20

Unit No. - 7:

Manufacturer:	Servomex
Model No.:	1400
Serial No.:	01415/B7-103
Method:	NDIR
Range (%)	0-10

Unit No. - 8:

Manufacturer:	Servomex
Model No.:	1400
Serial No.:	X1415/B202
Method:	NDIR
Range (%)	0-10

SCAQMD Method 100.1
Procedures For Continuous Gaseous Emission Sampling

Principle: A sample of an exhaust gas stream is continuously extracted, conditioned, and conveyed to instrumental analyzers for the determination of:

SO2 concentration using ultraviolet analyzer
NOx concentration using chemiluminescent analyzer
O2 concentration using electrochemical (fuel cell) type analyzer
CO concentration using non-dispersive infrared analyzer
CO2 concentration using non-dispersive infrared analyzer

Applicability:
Stationary Source Gas Streams flowing in ducts, stacks, and flues
Alternative to SCAQMD reference methods 3.1, 4.1, 7.1, 10.1

Range:
The analytical ***range is selected so that the sample gas concentration for each run is between 20 and 95% of the range, for 95% of the test period.***

Sensitivity:
The minimum detectable limit shall be less than 2% of the range (i.e. range is 20000 ppm, MDL shall be less than 400 ppm)

Measurement system: Sample interface, Gas analyzer, Data acquisition
Probe, Sample pump, Probe calibration system, Barometer
Sample line: Teflon (to moisture removal system, heated to prevent condensation)
Sample conditioning: reduce moisture content to below a dewpoint of 35°F.
Sample transport lines: Teflon (from moisture removal system to sample gas manifold).
Particulate filter: to prevent accumulation of particulate in the measurement system
Sample flow rate control: control valve + rotameter
Sample gas manifold: Divert a portion of the gas stream to the analyzer and the remainder to the bypass vent
Gas analyzer: SO2, NOx, O2, CO2, CO. An NO2 to NO converter is not necessary if data is presented to demonstrate that the NO2 portion of the exhaust gas is less than 5% of the total NOx concentration.
Data recorder: strip chart recorder, analog computer, digital recorder. Resolution or readability should be 0.5% of range. Sampling measurements should be obtained at a minimum of 1-minute intervals.
Interference response sampling system: Introduce an interference test gas to the analyzer. The analyzer zero should be given a positive offset prior to the test to allow measurement of a negative interference.
Pitot tubes: Method 1.1 and 1.2
Differential Pressure gauges: Method 1.1 and 1.2
Sample gas moisture content equipment: Method 4.1
Vacuum gauge: leak checking
Thermocouple: temperature stack gas

Range: Upper limit of the gas concentration measurement range displayed on the data recorder

Calibration gas (CalGas): A gas of known concentration in an inert diluent gas
- High-Range: 80 to 100% of the range
- Mid-Range: 40 to 60% of the range
- Zero gas: impurity concentration < 0.25% of the range → Nitrogen

Analyzer calibration error: The difference between the known concentration of the CalGas and the gas concentration exhibited by the gas analyzer when the CalGas is introduced directly to the analyzer.
Performance Spec: less than 2% of the range for the zero, mid-range, and high-range CalGas.

Sampling system BIAS: The difference between the gas concentrations exhibited by the measurement system when CalGas is introduced at the sampling probe tip filter and when the same CalGas is introduced directly to the analyzer.
Performance Spec: less than 5% of the range for the zero, mid-range, and high-range CalGas.

Zero Drift: The difference in the measurement system responses at a zero concentration level during the initial calibration, and final calibration check after a test.
No adjustment to the measurement system is allowed at that point.
Performance Spec: less than 3% of the range over the period of each run.

Calibration Drift: The difference in the measurement system responses at a mid-range concentration level during the initial calibration and final calibration check after a test.
No adjustment to the measurement system is allowed at that point.
Performance Spec: less than 3% of the range over the period of each run.

Response time: the time required for the system to display 95% of a step change in gas concentration on the data recorder.

Interference response: The output response of the measurement system to a component in the sample gas, other than the gas component being measured.
Performance Spec: For example, an SO2 analyzer should respond no more than 30 ppm when the NO2 concentration in the sample gas is 2000 ppm.

- SO2 analyzer: NO2 →2000/30, NH3 → 1000000/0
- CO2 analyzer: H2O → 10000/1, CO → 15000/1, CH4 → 20000/1
- CO analyzer: H2O → 200000/1, CO2 → 500000/1, SO2, NO, NO2, HC, H2O → 1000000/1

Calibration Curve: A graph establishing the relationship between the analyzer response and the actual CalGas concentration introduced to the analyzer.

Linearity: Maximum deviation as a percent of range, between a mid range calibration reading and the reading predicted by a straight line drawn between high-range and zero gas calibration points.
Performance Spec: less than 1% of the range for the pretest and post test values.

Measurement System Performance Test Procedures:

- *Cleaning of sample train:* Flush probe, lines and conditioner with DW, then acetone. Dry with filtered dry air.
- *Allow Continuous Analyzers to warm up*
- *Sampling system preparation:* assemble sample train as shown in Fig 100.1-1, 100.1-2 and 100.1-3. Leak check the vacuum side of the assembly to a minimum of 20" of Hg (gauge). The sampling system should hold 20" of Hg vacuum for 5 minutes with less than 1" Hg loss. Check the pressure side of the system with liquid soap solution and correct any leaks.
- *Allowable modifications:* probe heating element can be eliminated if stack is at or below ambient temperature and condensation is not observed. Pitot tube can be eliminated if flow measurements are not required.
- *Calibrate analyzers and data recorders:* introduce CalGases directly to the instruments and make all necessary adjustments to calibrate the analyzer and data recorder. Adjust system components to achieve manufacturer's recommended sampling rates.

- ***Analyzer calibration error check:*** at the beginning and end of each test run
  1. Introduce zero, mid-range, high range CalGas
  2. Make no adjustments to the system except those necessary to achieve the correct flow rate.
  3. Record the analyzer responses to each CalGas on a form similar to 100.1-4
  4. If invalid calibration is exhibited (> 2% of the range), take corrective action and repeat check.

- ***Instrument response time:*** establish during semi-annual certification

- ***Sampling system BIAS check:*** **Mandatory**
  1. Backflush gas through the probe as necessary to prevent particulate buildup
  2. Zero, and either mid-range or high-range (whichever is closest to effluent concentration)
  3. Introduce upscale CalGas and record concentration on a form similar to 100.1-5
  4. Introduce zero CalGas and record concentration
  5. Make no adjustments to the system except those necessary to achieve the correct flow rate.
  6. If invalid calibration is exhibited (> 5% of the range), take corrective action and repeat check.
  7. If adjustments are required, repeat the analyzer calibration error check, then the sampling system BIAS check.

- ***NO2 to NO conversion check:*** EPA Method 20 or gas mixture of NO2 in air

Emission Test Procedure:

- Traverse stack to determine presence of stratification
- Single-point gas sampling is acceptable if gas composition is homogenous (<10% variation)
- Determine moisture content and velocity pressures or Mass flow rate may be obtained by stochiometric and gas composition relations
- ***Chart recorder label:*** turn on strip chart recorder and label the chart as to pollutant, source, range, calibration cylinder ID number, certified expiration date, zero and upper range calibration settings, chart speeds, date, time and operator.
- ***Sample probe traverse and minimum sampling time:***

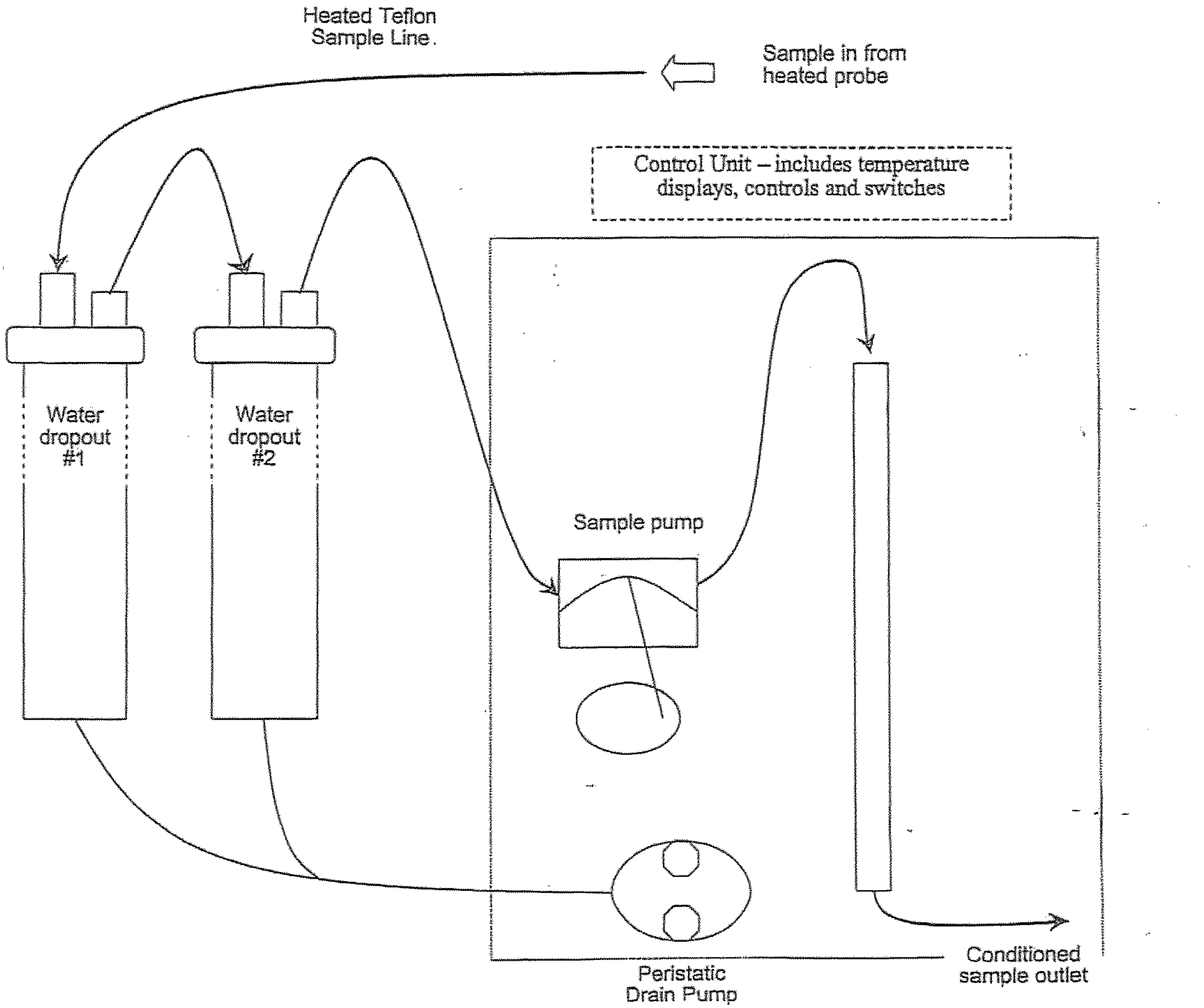
1. Insert probe in stack
2. determine if single point sampling is acceptable
3. If traverse is required, leave the probe at each traverse point for at least the system response time + 1 minute.
4. Minimum sampling time of 60 minute is recommended. See District Rules and Regulations and permit conditions for special requirements.
5. When test duration exceeds one hour, conduct zero and span checks every 2 hours. Adjust settings as necessary, mark strip charts and record in log books.

- ***Zero and Calibration DRIFT Tests:***

1. Immediately preceding and following each run, or if adjustments are necessary during the run, repeat the sampling system BIAS procedure. Make no adjustments to the system until after the DRIFT checks are completed. Record the information on a form similar to Figure 100.1-5.
2. If run is invalid (sampling system BIAS specs exceeded), repeat entire procedure before repeating run.
3. If both the zero and upscale calibration values are within the sampling system BIAS specs, then use the average of the initial and final BIAS check values to calculate the gas concentration for the run.
4. If the zero or upscale calibration DRIFT exceeds the DRIFT limits, repeat entire procedure before conducting additional runs.

- ***Post Run Leak Check:***

SCAQMD Method 100 – Sample Conditioning System



CARB METHOD 429
PAH's

June

2-3-7

AIR TESTING SERVICES, INC.

POLYCYCLIC AROMATIC HYDROCARBONS (PAH) SUMMARY

CARB 429

Client : All American Asphalt
Site : Irvine, CA
Unit : Baghouse

T std: 60 °F

Date : 6/2 - 6/7
ob #: 1064
Lab #: 221-061

RESULTS in lb/hr

Compound Name	RUN # 1	RUN # 2	RUN # 3	AVERAGE
Acenaphthene	0.000065	0.00014	0.000034	**0.000079**
Acenaphthylene	0.00033	0.00049	0.00016	**0.00033**
Anthracene	0.0000059	0.000015	0.0000053	**0.0000089**
Benz(a)anthracene	0.00000013	< 0.000000099	< 0.000000091	**0.00000011**
Benzo(a)pyrene	< 0.000000102	< 0.000000099	< 0.000000091	**< 0.000000097**
Benzo(e)pyrene	< 0.000000102	< 0.000000099	< 0.000000091	**< 0.000000097**
Benzo(b)fluoranthene	0.00000011	< 0.000000099	< 0.000000091	**< 0.00000010**
Benzo(g,h,i)perylene	< 0.000000102	< 0.000000099	< 0.000000091	**< 0.000000097**
Benzo(k)fluoranthene	< 0.000000102	< 0.000000099	< 0.000000091	**< 0.000000097**
Chrysene	0.00000071	0.00000029	0.00000032	**0.00000044**
Dibenz(a,h)anthracene	< 0.000000102	< 0.000000099	< 0.000000091	**< 0.000000097**
Fluoranthene	0.0000050	0.0000049	0.0000024	**0.0000041**
Fluorene	0.000079	0.00017	0.000045	**0.000098**
Indeno(1,2,3-cd)pyrene	0.000000102	0.000000099	0.000000091	0.000000097
2-Methylnaphthalene	0.0015	0.0026	0.00092	**0.0017**
Naphthalene	0.0054	0.0062	0.0031	**0.0049**
Perylene	< 0.000000102	< 0.000000099	< 0.000000091	**< 0.000000097**
Phenanthrene	0.00010	0.00017	0.000068	**0.00011**
Pyrene	0.0000049	0.0000047	0.0000020	**0.0000039**

RESULTS in lb/ton

Compound Name	RUN # 1	RUN # 2	RUN # 3	AVERAGE
Acenaphthene	[redacted]	[redacted]	[redacted]	[redacted]
Acenaphthylene	[redacted]	[redacted]	[redacted]	[redacted]
Anthracene	[redacted]	[redacted]	[redacted]	[redacted]
Benz(a)anthracene	[redacted]	[redacted]	[redacted]	[redacted]
Benzo(a)pyrene	[redacted]	[redacted]	[redacted]	[redacted]
Benzo(e)pyrene	[redacted]	[redacted]	[redacted]	[redacted]
Benzo(b)fluoranthene	[redacted]	[redacted]	[redacted]	[redacted]
Benzo(g,h,i)perylene	[redacted]	[redacted]	[redacted]	[redacted]
Benzo(k)fluoranthene	[redacted]	[redacted]	[redacted]	[redacted]
Chrysene	[redacted]	[redacted]	[redacted]	[redacted]
Dibenz(a,h)anthracene	[redacted]	[redacted]	[redacted]	[redacted]
Fluoranthene	[redacted]	[redacted]	[redacted]	[redacted]
Fluorene	[redacted]	[redacted]	[redacted]	[redacted]
Indeno(1,2,3-cd)pyrene	[redacted]	[redacted]	[redacted]	[redacted]
2-Methylnaphthalene	[redacted]	[redacted]	[redacted]	[redacted]
Naphthalene	[redacted]	[redacted]	[redacted]	[redacted]
Perylene	[redacted]	[redacted]	[redacted]	[redacted]
Phenanthrene	[redacted]	[redacted]	[redacted]	[redacted]
Pyrene	[redacted]	[redacted]	[redacted]	[redacted]

RESULTS in lb/MMBtu

Compound Name	RUN # 1	RUN # 2	RUN # 3	AVERAGE
Acenaphthene	0.000013	0.0000028	0.00000068	**0.0000054**
Acenaphthylene	0.0000064	0.0000098	0.0000033	**0.0000065**
Anthracene	0.00000012	0.00000031	0.00000011	**0.00000018**
Benz(a)anthracene	0.0000000026	< 0.0000000020	< 0.0000000019	**0.0000000021**
Benzo(a)pyrene	< 0.0000000020	< 0.0000000020	< 0.0000000019	**< 0.0000000020**
Benzo(e)pyrene	< 0.0000000020	< 0.0000000020	< 0.0000000019	**< 0.0000000020**
Benzo(b)fluoranthene	0.0000000021	< 0.0000000020	< 0.0000000019	**0.0000000020**
Benzo(g,h,i)perylene	< 0.0000000020	< 0.0000000020	< 0.0000000019	**< 0.0000000020**
Benzo(k)fluoranthene	< 0.0000000020	< 0.0000000020	< 0.0000000019	**< 0.0000000020**
Chrysene	0.000000014	0.0000000058	0.0000000066	**0.0000000088**
Dibenz(a,h)anthracene	< 0.0000000020	< 0.0000000020	< 0.0000000019	**< 0.0000000020**
Fluoranthene	0.000000099	0.000000098	0.000000049	**0.000000082**
Fluorene	0.0000016	0.0000033	0.00000092	**0.0000019**
Indeno(1,2,3-cd)pyrene	< 0.0000000020	< 0.0000000020	< 0.0000000019	**< 0.0000000020**
2-Methylnaphthalene	0.000028	0.000051	0.000019	**0.000033**
Naphthalene	0.00011	0.00012	0.000062	**0.000097**
Perylene	< 0.0000000020	< 0.0000000020	< 0.0000000019	**< 0.0000000020**
Phenanthrene	0.0000021	0.0000033	0.0000014	**0.0000023**
Pyrene	0.000000096	0.000000093	0.000000042	**0.000000077**

POLYCYCLIC AROMATIC HYDROCARBONS (PAH) ANALYSIS

CARB 429

Client : All American Asphalt
Site : Irvine, CA
Unit : Baghouse

T std: 60 °F
O2: 14.48

Date : 6/2/2021
Job #: 1064
Lab #: 221-061

Run #	**Sample Volume**	**Tons/hr**	**Stack Flow Rate**
1	Vm std: **307.5580** dscf	[redacted]	Q std: **24,100** dscfm

Compound Name	Lab Results ng	**lb/hr**	**lb/ton**	lb/MMBtu
Acenaphthene	**6230**	**0.000065**	[redacted]	**0.0000013**
Acenaphthylene	**31400**	**0.00033**	[redacted]	**0.0000064**
Anthracene	**570**	**0.0000059**	[redacted]	**0.00000012**
Benz(a)anthracene	**12.8**	**0.00000013**	[redacted]	**0.0000000026**
Benzo(a)pyrene	< 10.0	< 0.00000010	[redacted]	< 0.0000000020
Benzo(e)pyrene	< 10.0	< 0.00000010	[redacted]	< 0.0000000020
Benzo(b)fluoranthene	**10.2**	**0.00000011**	[redacted]	**0.0000000021**
Benzo(g,h,i)perylene	< 10.0	< 0.00000010	[redacted]	< 0.0000000020
Benzo(k)fluoranthene	< 10.0	< 0.00000010	[redacted]	< 0.0000000020
Chrysene	**68.9**	**0.00000071**	[redacted]	**0.000000014**
Dibenz(a,h)anthracene	< 10.0	< 0.00000010	[redacted]	< 0.0000000020
Fluoranthene	**485**	**0.0000050**	[redacted]	**0.000000099**
Fluorene	**7630**	**0.000079**	[redacted]	**0.0000016**
Indeno(1,2,3-cd)pyrene	< 10.0	< 0.00000010	[redacted]	< 0.0000000020
2-Methylnaphthalene	**140000**	**0.0015**	[redacted]	**0.000028**
Naphthalene	**517000**	**0.0054**	[redacted]	**0.00011**
Perylene	< 10.0	< 0.00000010	[redacted]	< 0.0000000020
Phenanthrene	**10100**	**0.00010**	[redacted]	**0.0000021**
Pyrene	**473**	**0.0000049**	[redacted]	**0.000000096**

Equations:

lb/hr = [ng] * (60/(10^9*453.6)) * (Q std, stack) / Vm std
lb/MMBtu = F-Factor (8710)*lb/hr/(60*Qstd)*20.9/(20.9-O2)
lb/ton = lb/hr/tons/hr

POLYCYCLIC AROMATIC HYDROCARBONS (PAH) ANALYSIS

CARB 429

Client :	All American Asphalt			Date :	6/3/2021
Site :	Irvine, CA	T std:	60 °F	b #:	1064
Unit :	Baghouse	O2:	14.57	Lab #:	221-061

Run #	**Sample Volume**	**Tons/hr**	**Stack Flow Rate**
2	Vm std: **322.0349** dscf	[redacted]	Q std: ## dscfm

Compound Name	Lab Results µg	**lb/hr**	**lb/ton**	lb/MMBtu
Acenaphthene	**14000**	**0.00014**	[redacted]	**0.0000028**
Acenaphthylene	**49900**	**0.00049**		**0.0000098**
Anthracene	**1550**	**0.000015**		**0.00000031**
Benz(a)anthracene	< 10.0	< 0.000000099		< 0.0000000020
Benzo(a)pyrene	< 10.0	< 0.000000099		< 0.0000000020
Benzo(e)pyrene	< 10.0	< 0.000000099		< 0.0000000020
Benzo(b)fluoranthene	< 10.0	< 0.000000099		< 0.0000000020
Benzo(g,h,i)perylene	< 10.0	< 0.000000099		< 0.0000000020
Benzo(k)fluoranthene	< 10.0	< 0.000000099		< 0.0000000020
Chrysene	**29.3**	**0.00000029**		**0.0000000058**
Dibenz(a,h)anthracene	< 10.0	< 0.000000099		< 0.0000000020
Fluoranthene	**497**	**0.0000049**		**0.000000098**
Fluorene	**17000**	**0.00017**		**0.0000033**
Indeno(1,2,3-cd)pyrene	< 10.0	< 0.000000099		< 0.0000000020
2-Methylnaphthalene	**261000**	**0.0026**		**0.000051**
Naphthalene	**622000**	**0.0062**		**0.00012**
Perylene	< 10.0	< 0.000000099		< 0.0000000020
Phenanthrene	**16900**	**0.00017**		**0.0000033**
Pyrene	**474**	**0.0000047**		**0.000000093**

Equations:
lb/hr = [ng] * (60/(10^9*453.6)) * (Q std, stack) / Vm std
lb/MMBtu = F-Factor (8710)*lb/hr/(60*Qstd)*20.9/(20.9-O2)
lb/ton = lb/hr/tons/hr

POLYCYCLIC AROMATIC HYDROCARBONS (PAH) ANALYSIS

CARB 429

Client : All American Asphalt
Site : Irvine, CA
Unit : Baghouse

T std: 60 °F
O2: 14.66

Date : 6/7/2021
b #: 1064
Lab #: 221-061

Run #	**Sample Volume**	**Tons/hr**	**Stack Flow Rate**
3	Vm std: 346.713 dscf	[redacted]	Q std: ## dscfm

Compound Name	Lab Results µg	**lb/hr**	**lb/ton**	lb/MMBtu
Acenaphthene	**3680**	**0.000034**	[redacted]	**0.00000068**
Acenaphthylene	**17700**	**0.00016**	[redacted]	**0.0000033**
Anthracene	**585**	**0.0000053**	[redacted]	**0.00000011**
Benz(a)anthracene	< 10.0	< 0.000000091	[redacted]	< 0.0000000019
Benzo(a)pyrene	< 10.0	< 0.000000091	[redacted]	< 0.0000000019
Benzo(e)pyrene	< 10.0	< 0.000000091	[redacted]	< 0.0000000019
Benzo(b)fluoranthene	< 10.0	< 0.000000091	[redacted]	< 0.0000000019
Benzo(g,h,i)perylene	< 10.0	< 0.000000091	[redacted]	< 0.0000000019
Benzo(k)fluoranthene	< 10.0	< 0.000000091	[redacted]	< 0.0000000019
Chrysene	**35.6**	**0.00000032**	[redacted]	**0.0000000066**
Dibenz(a,h)anthracene	< 10.0	< 0.000000091	[redacted]	< 0.0000000019
Fluoranthene	**263**	**0.0000024**	[redacted]	**0.000000049**
Fluorene	**4980**	**0.000045**	[redacted]	**0.00000092**
Indeno(1,2,3-cd)pyrene	< 10.0	< 0.000000091	[redacted]	< 0.0000000019
2-Methylnaphthalene	**101000**	**0.00092**	[redacted]	**0.000019**
Naphthalene	**335000**	**0.0031**	[redacted]	**0.000062**
Perylene	< 10.0	< 0.000000091	[redacted]	< 0.0000000019
Phenanthrene	**7450**	**0.000068**	[redacted]	**0.0000014**
Pyrene	**224**	**0.0000020**	[redacted]	**0.000000042**

Equations:
lb/hr = [ng] * (60/(10^9*453.6)) * (Q std, stack) / Vm std
lb/MMBtu = F-Factor (8710)*lb/hr/(60*Qstd)*20.9/(20.9-O2)
lb/ton = lb/hr/tons/hr

POLYCYCLIC AROMATIC HYDROCARBONS (PAH) ANALYSIS

CARB 429

Client : All American Asphalt
Site : Irvine, CA
Unit : Baghouse

T std: 60 °F

Date : 6/2/2021
Job #: 1064
Lab #: 221-061

Run #	**Sample Volume**	**Stack Flow Rate**
FB	Vm std: - dscf	Q std: - dscfm

Compound Name	Lab Results ng
Acenaphthene	< 0.010
Acenaphthylene	< 0.010
Anthracene	< 0.010
Benz(a)anthracene	< 0.010
Benzo(a)pyrene	< 0.010
Benzo(e)pyrene	< 0.010
Benzo(b)fluoranthene	< 0.010
Benzo(g,h,i)perylene	< 0.010
Benzo(k)fluoranthene	< 0.010
Chrysene	< 0.010
Dibenz(a,h)anthracene	< 0.010
Fluoranthene	< 0.010
Fluorene	**21.9**
Indeno(1,2,3-cd)pyrene	< 0.010
2-Methylnaphthalene	**56.2**
Naphthalene	**76.5**
Perylene	< 0.010
Phenanthrene	**77.0**
Pyrene	**10.7**

All American Asphalt
Irvine, CA
Baghouse
CARB Method 429 PAH's Emission Determination Field Data
Emission Summary

	Run #1	Run #2	Run #3	*Averages*
Date of Testing	6/2/2021	6/2/2021	6/7/2021	
ø - Start of Run, time	6:50	9:55	6:00	
ø - End of Run, time	8:53	18:00	14:07	
Vlc - Volume of water collected, ml	1431.6	1721.8	1760.6	*1638.0*
Vm - Gas volume, meter cond., dcf	320.115	338.776	358.395	*339.095*
Y - Meter calibration factor	0.9926	0.9926	0.9926	*0.9926*
Pbar - Barometric pressure, in. Hg	29.89	29.86	29.87	*29.87*
Pg - Stack static pressure, in. H2O	-0.08	-0.08	-0.08	*-0.08*
Ps - Stack absolute pressure, in. H2O	29.88	29.85	29.86	*29.87*
^H - Avg. meter press. diff., in. H2O	2.21	2.44	2.66	*2.44*
Tm - Absolute meter temperature, °R	539.6	545.1	536.1	*540.3*
Bws - Water vapor part in gas stream	0.177	0.199	0.191	*0.189*
Bws - Moisture @ Saturation	0.468	0.399	0.399	*0.422*
CO2 - Dry concentration, volume %	3.6	3.6	3.5	*3.6*
O2 - Dry concentration, volume %	14.5	14.6	14.7	*14.6*
Md - Mole wt. stack gas, dry, g/mole	29.157	29.152	29.150	*29.153*
Ms - Mole wt. stack gas, wet, g/gmole	27.177	26.937	27.025	*27.046*
Cp - Pitot tube coef., dimensionless	0.84	0.84	0.84	*0.84*
^p - Avg. of sq. roots of each^p	0.442	0.449	0.441	*0.444*
Ts - Absolute stack Temp. °R	636.3	628.9	628.7	*631.3*
A - Area of stack, square feet	21.31	21.31	21.31	*21.31*
Vs - Stack Gas Flow, ft/sec	28.1	28.5	28.0	*28.2*
An - Area of nozzle, square feet	5.761E-04	5.761E-04	6.305E-04	*5.942E-4*
ø - Sampling time, minutes	480.0	480.0	480.0	*480.0*
I - Isokinetic variation, percent	98.3	103.0	102.2	*101.2*
Qm - Sampling rate, acfm	0.67	0.71	0.75	*0.71*
µs - Gas Viscosity, micropoise	189.66	186.31	186.92	*187.63*
Qa - Volumetric flow rate, acfm	35,894	36,434	35,747	*36,025*
Qstd - Volumetric flow rate, dscfm	24,100	24,090	23,888	*24,026*
Vm(std) - Standard sample gas vol., dscf	307.5585	322.0349	346.7125	*325.4353*

CARB Method 429 PAH's Emission Determination Field Data

Client : All American Asphalt
Site : Irvine, CA
Unit : Baghouse
Run # : 1

Date : 6/2/2021
Job # : 1064
Lab # : 221-061
Temp (Tstd): 60

SOURCE TEST CALIBRATION & STACK DATA

Bag House Pressure
1.9

Start-Time
6:50

Stop-Time
8:53

Filter

Std Pressure : 29.92
Cold Box : 7
Meter # : G
Meter Y : 0.9926
Time: 480
Amb Temp: 59
Pbar : 29.89
Pitot : 0.84
Pyro : 4
Nozzle : 0.325
Pre-pitot : OK
Qm: 0.75
Delta H@: 2.8863

K-Factor : 10.263
Mag Dp : Mano
Mag Dh : Mano
Static Pg : -0.08
Stack Dia : 62.5
"A" Eqv Dia : 0.6
"B" Eqv Dia: 3.0
From Method 100 Sheet
dcO2 : 14.48
dcCO2 : 3.61
Post Pitot : OK
pMd: 29.16
Bws: 0.2000

Impinger Wt.

1333.0	0.0	1333.0
162.8	100.0	62.8
123.0	100.0	23.0
694.1	681.3	12.8
Total Vlc:	1431.6	

Sample Leak Checks

Pre : 0.002 in. Hg. : 15.0
Post : 0.002 in. Hg. : 14.0
pMs: 26.93
dcCO : 0.00
Constant: 846.72
Constant: 0.9244

FIELD TESTING DATA

	Traverse Points	Dwell Time	Stack Temp	Delta P In,H2O	Sqrt DP	Meter Volume	Delta H In,H2O	Meter Temp		Meter Vacuum
								Inlet	Outlet	
1	1.3	0	184	0.20	0.447	454.264	2.19	72	72	4.0
2	4.2	20	184	0.23	0.480	464.4	2.52	78	70	4.0
3	7.4	40	181	0.18	0.424	474.7	1.99	81	72	4.0
4	11.1	60	181	0.17	0.412	488.6	1.89	81	73	6.0
5	15.6	80	181	0.17	0.412	501.2	1.89	83	75	6.0
6	22.3	100	177	0.17	0.412	514.8	1.91	83	76	6.0
7	40.3	120	176	0.18	0.424	526.3	2.03	85	78	6.0
8	46.9	140	176	0.17	0.412	538.9	1.92	86	78	6.0
9	51.4	160	176	0.17	0.412	551.6	1.92	86	80	6.0
10	55.1	180	176	0.17	0.412	564.2	1.93	89	81	6.0
11	58.3	200	176	0.13	0.361	577.1	1.48	89	83	6.0
12	61.2	220	176	0.13	0.361	590.0	1.48	90	84	6.0
13		240	173	0.16	0.400	601.1	1.84	92	86	6.0
14		260	174	0.18	0.424	613.2	2.07	92	87	6.0
15		280	175	0.20	0.447	626.3	2.30	93	88	6.0
16		300	160	0.29	0.539	640.0	3.30	74	73	10.0
17		320	176	0.28	0.529	654.3	3.09	71	70	10.0
18		340	181	0.24	0.490	670.7	2.63	72	71	10.0
19		360	176	0.22	0.469	685.7	2.44	76	72	10.0
20		380	176	0.23	0.480	700.9	2.57	78	74	10.0
21		400	169	0.22	0.469	716.2	2.49	79	75	10.0
22		420	173	0.22	0.469	730.5	2.47	80	76	10.0
23		440	176	0.22	0.469	745.3	2.47	81	77	10.0
24		460	177	0.20	0.447	759.7	2.24	81	78	10.0
		480				774.379				

FIELD DATA AVERAGES

O2 %	Average Vacuum	CO2 %	Time Minutes	Stack temp ts	H2O Vol. Vlc	Sqrt Dp Avg sqrtDp	Meter Vol Vm	Delta H Avg Dh	Meter temp tm
14.5	7.3	3.6	480	176.3	1431.6	0.442	320.115	2.21	79.6

CARB Method 429 PAH's Emission Determination Field Data

Client : All American Asphalt
Site : Irvine, CA
Unit : Baghouse
Run # : 1
Date : 6/2/2021
Job # : 1064
Lab # : 221-061
Temp (Tstd): 60

*** SOURCE FIELD DATA***

Pbar	Barometer	29.89
Y	Meter Calibration Fac.	0.9926
Cp	Pitot Calibration Fac.	0.84
Pg	Stack Static Pressure (in. H2O)	-0.08
dcO2	Dry Concentration Oxygen	14.5
dcCO2	Dry Concentration Carbon Monoxide	3.6
tsd	Area Standard Temperature (deg F)	60.0
ts	Temperature of Stack Gas (deg.F)	176.3
μs	Stack Gas Viscosity (micropoise)	189.66
tm	Temperature of Meter (deg.F)	79.6
Delta P	Delta P Average (in H2O)	0.197
sqrtDP	Average Square root Delta P	0.442
Dh	Delta H Average (in H2O)	2.21
Vlc	Total Volume of Condensable water (g)	1431.6
Vm	Dry gas Volume Measured (dcf)	320.115
Ds	Stack Diameter (in.)	62.5
An	Area of the Nozzle	0.00058
Time	Sample duration (min)	480

*** INTERMEDIATE CALCULATIONS***

Ps	Absolute Stack Pressure (in.Hg)	29.88	Ps =Pbar+Pg/13.6
Tstd	Area Standard Temperature (deg R)	520	Tstd =tsd+460
Ts	Temperature of Stack Gas (deg.R)	636.3	Ts =ts+460
Tm	Temperature of Meter (deg.R)	539.6	Tm =tm+460
Vwstd	Volume of water vapor standard (scf)	66.36	Vwstd =(0.04707/(528/(tsd+460)))*Vlc
Vmstd	Sample gas volume (dscf)	307.5585	Vmstd =Vm*Y*(Tstd/Tm)*((Pbar+Dh/13.6)/29.92)
Bws	Moisture Content Stack Gas	0.177	Bws =Vwstd/(Vwstd+Vmstd)
dcN2	Dry Concentration Nitrogen	81.9	dcN2=100-((dcO2)+(dcCO2))
Md	Molecular Weight Stack Gas (dry)	29.157	Md =(dcCO2*0.44)+(dcO2*0.32)+(dcN2*0.28)
Ms	Molecular Weight Stack Gas (wet)	27.177	Ms =(Md*(1-Bws))+18*Bws
As	Area of Stack (Ft^2)	21.31	As =3.141592654*(Ds/12)^2/4

*** RESULTS***

Vs	Stack Gas Velocity (ft/sec)	28.1	Vs =85.49*Cp*sqrtDp*(SQRT(Ts/(Ps*Ms)))
Qa	Stack Gas Flow Rate (Acfm)	35,894	Qa =Vs*60*As
Qstd	Stack Gas Flow Rate (Dscfm)	24,100	Qstd =60*(1-Bws)*Vs*As*(Tstd/Ts)*(Ps/29.92)
I	Isokinetic Variation (%)	98.3	I =Pstd*VMstd*(ts+460)/(As*Time*Vs*Ps(tstd+460)*60 *(1-Bws))*100

CARB Method 429 PAH's Emission Determination Field Data

Client : All American Asphalt
Site : Irvine, CA
Unit : Baghouse
Run # : 2
Date : 6/2/2021 6/3/2021
Job # : 1064
Lab # : 221-061
Temp (Tstd): 60

SOURCE TEST CALIBRATION & STACK DATA

Bag House Pressure 1.8
Start-Time 9:55
Stop-Time 18:00
Filter

Std Pressure : 29.92
Cold Box : 9
Meter # : G
Meter Y : 0.9926
Time: 480
Amb Temp: 66
Pbar : 29.86
Pitot : 0.840
Pyro : 4
Nozzle : 0.325
Pre-pitot : OK
Qm: 0.75
Delta H@: 2.8863

K-Factor : 10.759
Mag Dp : Mano
Mag Dh : Mano
Static Pg : -0.08
Stack Dia : 62.5
"A" Eqv Dia : 0.6
"B" Eqv Dia: 3.0

From Method 100 Sheet

dcO2 : 14.57
dcCO2 : 3.56
Post Pitot : OK
pMd: 29.15
Bws: 0.1775

Impinger Wt.

1620.0	0.0	1620.0
167.5	100.0	67.5
125.0	100.0	25.0
675.6	666.3	9.3
Total Vlc:	1721.8	

Sample Leak Checks

Pre :	0.004	in. Hg. :	22.0
Post :	0.002	in. Hg. :	11.0

pMs: 27.17
dcCO : 0.00
Constant: 846.72
Constant: 0.9244

FIELD TESTING DATA

	Traverse Points	Dwell Time	Stack Temp	Delta P In,H2O	Sqrt DP	Meter Volume	Delta H In,H2O	Meter Temp Inlet	Meter Temp Outlet	Meter Vacuum
1	1.3	0	170	0.24	0.490	775.398	2.85	81	80	9.0
2	4.2	20	170	0.24	0.490	792.0	2.86	82	80	9.0
3	7.4	40	180	0.20	0.447	804.6	2.35	83	80	8.0
4	11.1	60	184	0.19	0.436	819.3	2.23	87	82	7.0
5	15.6	80	184	0.18	0.424	833.3	2.12	90	83	7.0
6	22.3	100	178	0.18	0.424	847.6	2.14	90	85	7.0
7	40.3	120	178	0.17	0.412	860.2	2.03	92	86	7.0
8	46.9	140	181	0.17	0.412	873.9	2.02	92	86	7.0
9	51.4	160	176	0.17	0.412	888.5	2.04	92	87	7.0
10	55.1	180	178	0.16	0.400	900.0	1.91	90	87	7.0
11	58.3	200	179	0.17	0.412	913.2	2.02	90	87	7.0
12	61.2	220	176	0.16	0.400	926.6	1.91	89	86	6.0
13		240	179	0.22	0.469	939.1	2.61	89	86	6.0
14		260	177	0.23	0.480	953.6	2.73	87	85	7.0
15		280	173	0.24	0.490	970.2	2.87	86	85	7.0
16		300	173	0.25	0.500	983.6	2.98	86	84	7.0
17		320	169	0.23	0.480	997.3	2.76	86	84	7.0
18		340	158	0.22	0.469	1013.9	2.69	86	83	7.0
19		360	158	0.20	0.447	1027.6	2.44	86	83	7.0
20		380	153	0.18	0.424	1041.8	2.21	84	82	6.0
21		400	151	0.18	0.424	1056.1	2.22	83	82	6.0
22		420	148	0.22	0.469	1070.5	2.72	83	82	7.0
23		440	140	0.23	0.480	1084.8	2.88	83	81	7.0
24		460	140	0.23	0.480	1099.3	2.88	83	81	7.0
		480				1114.174				

FIELD DATA AVERAGES

O2 %	Average Vacuum	CO2 %	Time Minutes	Stack temp ts	H2O Vol. Vlc	Sqrt Dp Avg sqrtDp	Meter Vol Vm	Delta H Avg Dh	Meter temp tm
14.6	7.0	3.6	480	168.9	1721.8	0.449	338.776	2.436	85.1

CARB Method 429 PAH's Emission Determination Field Data

Client :	All American Asphalt	Date :	6/2/2021
Site :	Irvine, CA	Job # :	1064
Unit :	Baghouse	Lab # :	221-061
Run # :	2	Temp (Tstd):	60

*** SOURCE FIELD DATA***

Pbar	Barometer	29.86	
Y	Meter Calibration Fac.	0.9926	
Cp	Pitot Calibration Fac.	0.84	
Pg	Stack Static Pressure (in. H2O)	-0.08	
dcO2	Dry Concentration Oxygen	14.6	
dcCO2	Dry Concentration Carbon Monoxide	3.6	
tsd	Area Standard Temperature (deg F)	60.0	
ts	Temperature of Stack Gas (deg.F)	168.9	
μs	Stack Gas Viscosity (micropoise)	186.31	
tm	Temperature of Meter (deg.F)	85.1	
Delta P	Delta P Average (in H2O)	0.203	
sqrtDP	Average Square root Delta P	0.449	
Dh	Delta H Average (in H2O)	2.44	
Vlc	Total Volume of Condensable water (g)	1721.8	
Vm	Dry gas Volume Measured (dcf)	338.776	
Ds	Stack Diameter (in.)	62.5	
An	Area of the Nozzle	0.00058	
Time	Sample duration (min)	480	

*** INTERMEDIATE CALCULATIONS***

Ps	Absolute Stack Pressure (in.Hg)	29.85	Ps =Pbar+Pg/13.6
Tstd	Area Standard Temperature (deg R)	520	Tstd =tsd+460
Ts	Temperature of Stack Gas (deg.R)	628.9	Ts =ts+460
Tm	Temperature of Meter (deg.R)	545.1	Tm =tm+460
Vwstd	Volume of water vapor standard (scf)	79.82	Vwstd =(0.04707/(528/(tsd+460)))*Vlc
Vmstd	Sample gas volume (dscf)	322.0349	Vmstd =Vm*Y*(Tstd/Tm)*((Pbar+Dh/13.6)/29.92)
Bws	Moisture Content Stack Gas	0.199	Bws =Vwstd/(Vwstd+Vmstd)
dcN2	Dry Concentration Nitrogen	81.9	dcN2=100-((dcO2)+(dcCO2))
Md	Molecular Weight Stack Gas (dry)	29.152	Md =(dcCO2*0.44)+(dcO2*0.32)+(dcN2*0.28)
Ms	Molecular Weight Stack Gas (wet)	26.937	Ms =(Md*(1-Bws))+18*Bws
As	Area of Stack (Ft^2)	21.31	As =3.141592654*(Ds/12)^2/4

*** RESULTS***

Vs	Stack Gas Velocity (ft/sec)	28.5	Vs =85.49*Cp*sqrtDp*(SQRT(Ts/(Ps*Ms)))
Qa	Stack Gas Flow Rate (Acfm)	36,434	Qa =Vs*60*As
Qstd	Stack Gas Flow Rate (Dscfm)	24,090	Qstd =60*(1-Bws)*Vs*As*(Tstd/Ts)*(Ps/29.92)
I	Isokinetic Variation (%)	103.0	I =Pstd*VMstd*(ts+460)/(As*Time*Vs*Ps(tstd+460)*60 *(1-Bws))*100

CARB Method 429 PAH's Emission Determination Field Data

Client : All American Asphalt
Site : Irvine, CA
Unit : Baghouse
Run # : 3
Date : 6/7/2021
Job # : 1064
Lab # : 221-061
Temp (Tstd): 60

SOURCE TEST CALIBRATION & STACK DATA

Bag House Pressure
1.8

Start-Time
6:00

Stop-Time
14:07

Filter

Std Pressure : 29.92
Cold Box : 10
Meter # : G
Meter Y : 0.9926
Time: 480
Amb Temp: 59.0
Pbar : 29.87
Pitot : 0.84
Pyro : 4
Nozzle : 0.340
Pre-pitot : OK
Qm: 0.75
Delta H@: 2.8863

K-Factor : 12.336
Mag Dp : Mano
Mag Dh : Mano
Static Pg : -0.08
Stack Dia : 62.5
"A" Eqv Dia : 0.6
"B" Eqv Dia: 3.0

From Method 100 Sheet

dcO2 : 14.66
dcCO2 : 3.52
Post Pitot : OK
pMd: 29.15
Bws: 0.1986

Impinger Wt.

1600.0	0.0	1600.0
235.5	100.0	135.5
115.0	100.0	15.0
737.2	727.1	10.1

Total Vlc: 1760.6

Sample Leak Checks

Pre : 0.004 in. Hg. : 17.0
Post : 0.002 in. Hg. : 14.0
pMs: 26.94
dcCO : 0.00
Constant: 846.72
Constant: 0.9244

FIELD TESTING DATA

	Traverse Points	Dwell Time	Stack Temp	Delta P In,H2O	Sqrt DP	Meter Volume	Delta H In,H2O	Meter Temp Inlet	Meter Temp Outlet	Meter Vacuum
1	**1.3**	**0**	189	0.20	0.447	115.090	2.59	68	68	7.0
2	**4.2**	**20**	188	0.22	0.469	130.1	2.87	75	69	7.0
3	**7.4**	**40**	182	0.18	0.424	146.2	2.38	75	71	8.0
4	**11.1**	**60**	180	0.17	0.412	161.2	2.26	77	72	8.0
5	**15.6**	**80**	171	0.18	0.424	176.1	2.43	77	73	8.0
6	**22.3**	**100**	159	0.17	0.412	191.4	2.34	76	74	8.0
7	**40.3**	**120**	156	0.18	0.424	206.1	2.49	76	74	8.0
8	**46.9**	**140**	154	0.18	0.424	221.3	2.50	77	75	8.0
9	**51.4**	**160**	172	0.17	0.412	236.7	2.29	76	74	8.0
10	**55.1**	**180**	175	0.15	0.387	251.0	2.01	77	75	8.0
11	**58.3**	**200**	175	0.14	0.374	265.2	1.88	78	75	8.0
12	**61.2**	**220**	176	0.13	0.361	278.7	1.75	79	76	8.0
13		**240**	175	0.16	0.400	292.4	2.16	81	77	8.0
14		**260**	176	0.18	0.424	305.3	2.42	80	77	8.0
15		**280**	175	0.20	0.447	320.0	2.69	78	77	10.0
16		**300**	176	0.24	0.490	336.4	3.22	77	76	10.0
17		**320**	174	0.26	0.510	353.8	3.50	77	77	11.0
18		**340**	170	0.24	0.490	369.4	3.26	78	77	11.0
19		**360**	162	0.25	0.500	385.4	3.43	78	77	11.0
20		**380**	156	0.23	0.480	400.3	3.19	79	77	11.0
21		**400**	153	0.22	0.469	414.8	3.07	79	77	10.0
22		**420**	152	0.22	0.469	429.6	3.07	79	77	10.0
23		**440**	152	0.23	0.480	444.6	3.21	79	77	10.0
24		**460**	151	0.21	0.458	457.8	2.94	80	77	10.0
		480				473.485				

FIELD DATA AVERAGES

O2 %	Average Vacuum	CO2 %	Time Minutes	Stack temp ts	H2O Vol. Vlc	Sqrt Dp Avg sqrtDp	Meter Vol Vm	Delta H Avg Dh	Meter temp tm
14.7	**8.9**	**3.5**	**480**	**168.7**	**1760.6**	**0.441**	**358.395**	**2.66**	**76.1**

CARB Method 429 PAH's Emission Determination Field Data

Client : All American Asphalt
Site : Irvine, CA
Unit : Baghouse
Run # : 3
Date : 6/7/2021
Job # : 1064
Lab # : 221-061
Temp (Tstd): 60

*** SOURCE FIELD DATA***

Pbar	Barometer	29.87
Y	Meter Calibration Fac.	0.9926
Cp	Pitot Calibration Fac.	0.84
Pg	Stack Static Pressure (in. H2O)	-0.08
dcO2	Dry Concentration Oxygen	14.7
dcCO2	Dry Concentration Carbon Monoxide	3.5
tsd	Area Standard Temperature (deg F)	60.0
ts	Temperature of Stack Gas (deg.F)	168.7
μs	Stack Gas Viscosity (micropoise)	186.92
tm	Temperature of Meter (deg.F)	76.1
Delta P	Delta P Average (in H2O)	0.196
sqrtDP	Average Square root Delta P	0.441
Dh	Delta H Average (in H2O)	2.66
Vlc	Total Volume of Condensable water (g)	1760.6
Vm	Dry gas Volume Measured (dcf)	358.395
Ds	Stack Diameter (in.)	62.5
An	Area of the Nozzle	0.00063
Time	Sample duration (min)	480

*** INTERMEDIATE CALCULATIONS***

Ps	Absolute Stack Pressure (in.Hg)	29.86	Ps =Pbar+Pg/13.6
Tstd	Area Standard Temperature (deg R)	520	Tstd =tsd+460
Ts	Temperature of Stack Gas (deg.R)	628.7	Ts =ts+460
Tm	Temperature of Meter (deg.R)	536.1	Tm =tm+460
Vwstd	Volume of water vapor standard (scf)	81.62	Vwstd =(0.04707/(528/(tsd+460)))*Vlc
Vmstd	Sample gas volume (dscf)	346.7125	Vmstd =Vm*Y*(Tstd/Tm)*((Pbar+Dh/13.6)/29.92)
Bws	Moisture Content Stack Gas	0.191	Bws =Vwstd/(Vwstd+Vmstd)
dcN2	Dry Concentration Nitrogen	81.8	dcN2=100-((dcO2)+(dcCO2))
Md	Molecular Weight Stack Gas (dry)	29.150	Md =(dcCO2*0.44)+(dcO2*0.32)+(dcN2*0.28)
Ms	Molecular Weight Stack Gas (wet)	27.025	Ms =(Md*(1-Bws))+18*Bws
As	Area of Stack (Ft^2)	21.31	As =3.141592654*(Ds/12)^2/4

*** RESULTS***

Vs	Stack Gas Velocity (ft/sec)	28.0	Vs =85.49*Cp*sqrtDp*(SQRT(Ts/(Ps*Ms)))
Qa	Stack Gas Flow Rate (Acfm)	35,747	Qa =Vs*60*As
Qstd	Stack Gas Flow Rate (Dscfm)	23,888	Qstd =60*(1-Bws)*Vs*As*(Tstd/Ts)*(Ps/29.92)
I	Isokinetic Variation (%)	102.2	I =Pstd*VMstd*(ts+460)/(As*Time*Vs*Ps(tstd+460)*60 *(1-Bws))*100

AIR X TESTING

Plant : All American
Location : Irving
Unit : Baghouse
Date : 6-2-21 / 6-3-21
Run # : 1
Cold Box :
Meter # : 6
Meter Factor : .9926

Amb. Temp : 59
Pbar : 29.89
Pitot : 4
Pyro : 4
Mag Δ P : MANO
Mag Δ H : MANO
% H2O : –
Box Heat : 250

Nozzle : .338
Prob Heat : 250
Wind Vel. : Calm
Static Press. : -.08
O2 : 14.48
CO2 : 3.61
Engineer : KK
Technician : WH

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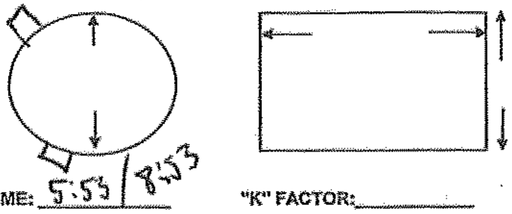
Stack Dia. : 62.5
"A" : 36
"B" : 186
Port Size : 3
Offset : 71
M / F : F

Stack Sample Port Location



Imp.	Gross	Tare	Total
1	1332	100.0	1333
2	162.6	100.0	62.6
3	123.0	100.0	23.0
4	664.1	653.1	10.6
	727.1	681.3	

148.6

Filter 1 :
Filter 2 :

START TIME: 6:30 / 13:22 END TIME: 5:53 / 8:53 "K" FACTOR:

Point No.	Traverse Distance	Time Minutes	Stack °F	Δ P	√Δ P	Dry Gas Meter Volume	Δ H In H2O	Inlet ° F	Outlet ° F	Impinger Exit° F	Meter Vacuum	Filter Temp.°F	Probe Temp.°F	Cyl. Flow
1	1.3	0	184	.20		454.264	2.19	72	72	58	4	247	252	
2	4.2	20	184	.23		464.4	2.52	78	70	56	4	245	251	
3	7.4	40	181	.18		474.7	1.99	81	72	55	4	248	249	
4	11.1	60	181	.17		488.6	1.89	81	72	54	6	247	252	
5	15.6	80	181	.17		501.2	1.89	83	75	54	6	248	250	
6	22.3	100	177	.17		514.8	1.91	83	76	55	6	247	251	
7	40.3	120	176	.18		526.3	2.03	85	78	55	6	247	252	
8	46.9	140	176	.17		538.9	1.92	86	78	54	6	248	249	
9	51.4	160	176	.17		551.6	1.92	86	80	55	6	247	249	
10	55.1	180	176	.17		564.2	1.93	89	81	55	6	250	248	
11	58.3	200	176	.12		577.1	1.48	89	83	56	6	249	251	
12	61.2	220	176	.13		590.0	1.48	90	84	56	6	250	250	
1		240	173	.16		601.186	1.84	92	86	55	6	248	251	
2		260	174	.18		613.2	2.07	92	87	56	6	248	250	
3		280	175	.20		626.3	2.30	93	88	57	6	249	250	
4		300	180	.29	640.864	640.018	2.30	74	73	55	10	248	250	
5		320	176	.28		654.3	3.09	71	70	55	10	245	248	
6		340	181	.24		670.7	2.63	72	71	56	10	238	243	
7		360	176	.22		685.7	2.44	76	72	56	10	244	245	
8		380	176	.23		700.9	2.57	78	74	56	10	244	246	
9		400	169	.22		716.2	2.49	79	75	57	10	245	248	
10		420	173	.22		730.5	2.47	80	76	57	10	241	245	
11		440	176	.22		745.3	2.47	81	77	56	10	242	244	
12		460	177	.20		759.7	2.24	81	78	55	10	240	242	
		480				774.379								
Average:		480	176.3		0.442	320.115	2.21		74.6		7.25			

Leak Checks : Pitots

Pre	Top	Bottom
ΔP	0/3.8	0/-3.9

6-2

Post	Top	Bottom
ΔP	0/3.9	0/-4.6

0/4.2 0/-3.3 6-3 0/4.0 0/-3.2

Sample Train Leak Check

CFM :	.002	In. HG :	15	
CFM :	.002	In. HG :	14	
	.003		16	
	.002		14	

6-2-21

6-3-21

AIR X TESTING

429

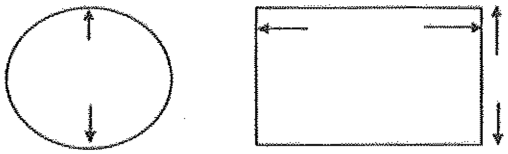
Plant : All American Asphalt
Location : Irvine
Unit : Baghouse
Date : 6-3-21
Run # : 2
Cold Box : 9-10
Meter # : G
Meter Factor : .4926

Amb. Temp : 86
Pbar : 29.86
Pitot : # 4
Pyro : # 4
Mag Δ P : Mano
Mag Δ H : Mano
% H2O : -
Box Heat : 250

Nozzle : .225
Prob Heat : 250
Wind Vel : Calm
Static Press : -.08
O2 : 14.54
C02 : 3.56
Engineer : RK
Technician : WW

Stack Dia. : 62.5
"A" : 36
"B" : 186
Port Size : 3
Offset : 11
M / F : F

Stack Sample Port Location



968.8
884.3
666.3

Imp.	Gross	Tare	Total
1	1620.0	0	1620
2	167.5	100	67.5
3	123.0	100	23.0
4	675.6	666.3	9.3

Filter 1 : 1721.8
Filter 2 :

START TIME: 9:55 END TIME: 18:00 "K" FACTOR:

B-1

A-1

Point No.	Traverse Distance	Time Minutes	Stack °F	Δ P	√Δ P	Dry Gas Meter Volume	Δ H In H2O	Inlet ° F	Outlet ° F	Impinger Exit° F	Meter Vacuum	Filter Temp.°F	Probe Temp.°F	Cyl. Flow
1	1.3	0	170	.24		775.388	2.85	81	80	63	9	242	241	
2	4.2	20	170	.24		772.0	2.86	82	80	58	9	244	242	
3	7.4	40	180	.20		804.6	2.35	83	80	57	8	254	255	
4	11.1	60	184	.19		819.1	2.23	87	82	55	7	258	257	
5	15.6	80	184	.18		835.3	2.12	90	83	57	7	260	259	
6	22.3	100	178	.18		847.6	2.14	90	85	56	7	261	260	
7	40.3	120	178	.17		860.2	2.03	92	85	56	7	260	262	
8	46.9	140	181	.17		873.9	2.02	92	88	56	7	261	260	
9	51.4	160	176	.17		888.5	2.04	92	87	57	7	255	256	
10	55.1	180	178	.16		900.0	1.91	90	88	57	7	255	257	
11	58.3	200	179	.17		913.2	2.02	90	87	57	7	260	258	
12	61.2	220	176	.16		926.6	1.91	89	86	56	6	253	255	
1		240	179	.22		939.1	2.41	89	86	55	6	254	256	
2		260	179	.23		953.6	2.73	86	85	56	7	255	257	
3		280	173	.24		970.2	2.87	86	85	56	7	255	258	
4		300	173	.25		983.6	2.98	86	84	57	7	253	255	
5		320	169	.23		997.3	2.76	86	84	57	7	254	255	
6		340	158	.22		1012.9	2.69	86	83	56	7	255	258	
7		360	158	.20		1027.6	2.44	86	83	55	7	249	252	
8		380	153	.18		1041.8	2.21	84	82	55	6	249	251	
9		400	151	.18		1056.1	2.22	83	82	56	6	250	252	
10		420	148	.22		1070.5	2.72	83	82	55	7	251	252	
11		440	140	.23		1084.8	2.88	83	81	56	7	250	250	
12		460	140	.23		1099.3	2.88	83	81	57	7	253	251	
		480				1114.174								

Average:												
460	168.9		0.449	338.786	2.436		85.1		7.04			

Leak Checks : Pitots

Pre	Top	Bottom
ΔP	0/3.8	0/2.5

Post	Top	Bottom
ΔP	0/2.3	0/3.6

Sample Train Leak Check

CFM : .004 In. HG : 22
CFM : .002 In. HG : 11

AIR X TESTING

429

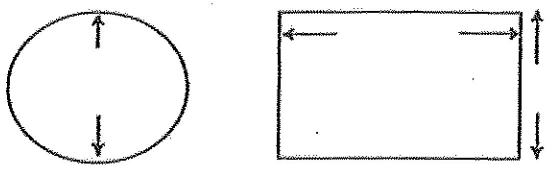
Plant : All American Asphalt
Location : Irvine
Unit : Baghouse
Date : 6-9-21
Run # : 3   M 429
Cold Box : #6
Meter # : 6
Meter Factor : .9926

Amb. Temp : 57
Pbar : 29.87
Pitot : 4
Pyro : 4
Mag Δ P : M.WWO
Mag Δ H : M.WWO
% H2O : —
Box Heat : 250

Nozzel : .340
Prob Heat : 250
Wind Vel. : Calm
Static Press. : -.08
O2 : 14.6
CO2 : 3.62
Engineer : KK
Technician : WH

Stack Dia. : 62.5
"A" : 36
"B" : 186
Port Size : 3
Offset : 11
M / F : F

Stack Sample Port Location



Imp.	Gross	Tare	Total
1	1600	0	1600
2	235.5	100	135.5
3	115.0	100	15.0
4	737.2	727.1	10.1

Filter 1 : 1760.6

Filter 2 :

START TIME: 6:00   END TIME: 14:07   "K" FACTOR:

Point No.	Traverse Distance	Time Minutes	Stack °F	Δ P	√Δ P	Dry Gas Meter Volume	Δ H In H2O	Inlet ° F	Outlet ° F	Impinger Exit° F	Meter Vacuum	Filter Temp.°F	Cyl. Flow
1	1.3	0	189	.20		115.090	2.59	68	69	57	25/	[illegible]7	
2	4.2	20	188	.22		130.1	2.87	75	69	56	7	251	
3	7.4	40	182	.18		146.2	2.38	75	71	56	8	254	
4	11.1	60	180	.17		161.2	2.24	77	72	57	8	258	
B-1 5	15.6	80	171	.18		176.7	2.43	77	73	57	8	260	
6	22.3	100	159	.17		191.4	2.34	76	74	56	8	261	
7	40.3	120	156	.18		206.1	2.49	76	74	56	8	262	
8	46.4	140	154	.18		221.3	2.50	77	75	56	8	256	
9	51.4	160	172	.17		236.7	2.29	76	74	57	8	263	
10	55.1	180	175	.15		251.0	2.01	77	75	57	8	261	
11	58.3	200	175	.14		265.2	1.88	78	75	57	8	261	
12	61.2	220	176	.13		278.7	1.75	79	76	57	8	262	
1		240	175	.16		292.4	2.16	81	77	56	8	263	
2		260	176	.18		305.3	2.42	80	77	56	8	256	
3		280	175	.20		320.0	2.69	78	77	57	~~8~~10	258	
4		300	176	.24		336.4	3.22	77	76	57	10	257	
5		320	174	.26		353.8	3.50	77	77	58	11	260	
A-1 6		340	170	.24		369.4	3.26	78	77	57	11	261	
7		360	162	.25		385.4	3.43	78	77	57	11	258	
8		380	156	.23		400.3	3.18	79	77	57	11	260	
9		400	153	.22		414.8	3.07	79	77	58	10	262	
10		420	152	.22		429.6	3.07	79	77	57	10	260	
11		440	152	.23		444.6	3.21	79	77	57	10	258	
12		460	151	.21		457.8	2.94	80	77	57	10	261	
		480				473.485							

Average: 480 | 166.4 | | 0.441 | 358.385 | 2.66 | | 76.1 | | 8.9 | |

Leak Checks :   Pitots

Pre	Top	Bottom
ΔP	0/3.6	0/3.7

Post	Top	Bottom
ΔP	0/3.4	0/3.5

Sample Train Leak Check

CFM :	.004	In. HG :	17
CFM :	.002	In. HG :	14

Vista
Analytical Laboratory

June 25, 2021

Vista Work Order No. 2105094

Mr. Ryan Yanagihara
AIRx Testing Services
2472 Eastman Avenue, #34
Ventura, CA 93003

Dear Mr. Yanagihara,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on June 09, 2021 under your Project Name 'All American Asphalt Irvine'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mmaier@vista-analytical.com.

Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Martha Maier

Martha Maier
Laboratory Director

Vista Work Order No. 2105094
Case Narrative

Sample Condition on Receipt:

Five air train samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology. The samples were received in good condition and within the method temperature requirements. The collection dates for sample "Run 1 " were listed as "6/2/21 and 6/3/21" on the Chain-of-Custody (CoC) and "6/2/21" on the container label. The collection date for sample "Run 3 " was listed as "6/7/21" on the CoC and "6/3/21 and 6/4/21" on the container labels. The earliest collection date was used for "Run 1" and the CoC date was used for "Run 3".

Analytical Notes:

CARB Method 429

These samples were extracted and analyzed for PAHs by CARB Method 429 using a ZB-50 GC column.

The result for 2-Methylnaphthalene in sample "Run 2" was reported above the calibration range and has been flagged with an "E" qualifier. Further dilution of the sample would have resulted in an insufficient response of the labeled standard for accurate quantitation.

Holding Times

The method holding time criteria were met for the samples.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Method Blank and Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) were extracted and analyzed with the preparation batch. No analytes were detected above the sample quantitation limit in the Method Blank. The LCS/LCSD recoveries and relative percent differences (RPD) were within the method acceptance criteria.

The labeled standard recoveries outside the method acceptance criteria are listed in the table below:

QC Anomalies

LabNumber	SampleName	Analysis	Analyte	Flag	%Rec
2105094-04	Run 2	CARB Method 429	d8-Acenaphthylene	H	164
2105094-05	Run 3	CARB Method 429	d14-Dibenz(a,h)anthracene	H	159

H = Recovery was outside laboratory acceptance criteria.

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Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
2105094-01	Sample Solution Blank	02-Jun-21 08:00	09-Jun-21 13:23	MeCl2 Rinse Acetone Hexane NaHCO3 Na2CO3
2105094-02	Field Blank	02-Jun-21 08:00	09-Jun-21 13:23	FH Rinse Filter BH Rinse XAD Impingers IMP Rinse
2105094-03	Run 1	02-Jun-21 06:50	09-Jun-21 13:23	FH Rinse Filter BH Rinse XAD Impinger Catch A,B Impinger Catch A,B IMP Rinse
2105094-04	Run 2	03-Jun-21 09:55	09-Jun-21 13:23	FH Rinse Filter BH Rinse XAD Impinger Catch A,B Impinger Catch A,B IMP Rinse
2105094-05	Run 3	07-Jun-21 06:00	09-Jun-21 13:23	FH Rinse Filter BH Rinse XAD Impinger Catch A,B Impinger Catch A,B IMP Rinse

ANALYTICAL RESULTS

Sample ID: Method Blank **CARB Method 429**

Client Data		**Laboratory Data**			
Name:	AIRx Testing Services	Lab Sample:	B1F0091-BLK1		
Project:	All American Asphalt Irvine	QC Batch:	B1F0091	Date Extracted:	14-Jun-21
Matrix:	Air			Column:	ZB-50

Analyte	Conc. (ng/Sample)	RL	Qualifiers	Analyzed	Dilution
Naphthalene	ND	25.0		15-Jun-21 23:35	1
2-Methylnaphthalene	ND	10.0		15-Jun-21 23:35	1
Acenaphthylene	ND	10.0		15-Jun-21 23:35	1
Acenaphthene	ND	10.0		15-Jun-21 23:35	1
Fluorene	ND	10.0		15-Jun-21 23:35	1
Phenanthrene	ND	25.0		15-Jun-21 23:35	1
Anthracene	ND	10.0		15-Jun-21 23:35	1
Fluoranthene	ND	10.0		15-Jun-21 23:35	1
Pyrene	ND	10.0		15-Jun-21 23:35	1
Benz(a)anthracene	ND	10.0		15-Jun-21 23:35	1
Chrysene	ND	10.0		15-Jun-21 23:35	1
Benzo(b)fluoranthene	ND	10.0		15-Jun-21 23:35	1
Benzo(k)fluoranthene	ND	10.0		15-Jun-21 23:35	1
Benzo(e)pyrene	ND	10.0		15-Jun-21 23:35	1
Benzo(a)pyrene	ND	10.0		15-Jun-21 23:35	1
Perylene	ND	10.0		15-Jun-21 23:35	1
Indeno(1,2,3-c,d)pyrene	ND	10.0		15-Jun-21 23:35	1
Dibenz(a,h)anthracene	ND	10.0		15-Jun-21 23:35	1
Benzo(g,h,i)perylene	ND	10.0		15-Jun-21 23:35	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
d8-Naphthalene	IS	58.2	50 - 150		15-Jun-21 23:35	1
d8-Acenaphthylene	IS	57.9	50 - 150		15-Jun-21 23:35	1
d10-Acenaphthene	IS	57.1	50 - 150		15-Jun-21 23:35	1
d10-Fluorene	IS	54.5	50 - 150		15-Jun-21 23:35	1
d10-Phenanthrene	IS	54.0	50 - 150		15-Jun-21 23:35	1
d10-Fluoranthene	IS	74.4	50 - 150		15-Jun-21 23:35	1
d12-Benz(a)anthracene	IS	60.3	50 - 150		15-Jun-21 23:35	1
d12-Chrysene	IS	55.9	50 - 150		15-Jun-21 23:35	1
d12-Benzo(b)fluoranthene	IS	73.6	50 - 150		15-Jun-21 23:35	1
d12-Benzo(k)fluoranthene	IS	73.8	50 - 150		15-Jun-21 23:35	1
d12-Benzo(a)pyrene	IS	84.9	50 - 150		15-Jun-21 23:35	1
d12-Indeno(1,2,3-c,d)pyrene	IS	89.3	50 - 150		15-Jun-21 23:35	1
d14-Dibenz(a,h)anthracene	IS	87.6	50 - 150		15-Jun-21 23:35	1
d12-Benzo(g,h,i)perylene	IS	75.7	50 - 150		15-Jun-21 23:35	1
d14-Terphenyl	PS	105	50 - 150		15-Jun-21 23:35	1
d12-Benzo(e)pyrene	PS	133	50 - 150		15-Jun-21 23:35	1
d10-Anthracene	AS	50.4	50 - 150		15-Jun-21 23:35	1

RL - Reporting limit

Results reported to RL.

Sample ID: LCSD **CARB Method 429**

Name: AIRx Testing Services
Project: All American Asphalt Irvine
Matrix: Air
Date Analyzed: 15-Jun-21 22:01
15-Jun-21 21:14

Lab Sample: B1F0091-BSD1
QC Batch: B1F0091 Date Extracted: 14-Jun-21
Samp Size: N/A Column: ZB-50

Analyte	LCS (ng/Sample	LCS Spike Amt	LCS % Rec	LCS Quals	LCSD (ng/Sample	LCSD Spike Amt	LCSD % Rec	RPD	LCSD Quals	%Rec Limits	RPD Limits
Naphthalene	618	500	124		598	500	120	3.21		50- 150	200
2-Methylnaphthalene	230	200	115		233	200	116	0.988		50- 150	200
Acenaphthylene	240	200	120		249	200	124	3.60		50- 150	200
Acenaphthene	231	200	116		230	200	115	0.592		50- 150	200
Fluorene	234	200	117		230	200	115	1.68		50- 150	200
Phenanthrene	576	500	115		544	500	109	5.72		50- 150	200
Anthracene	241	200	121		238	200	119	1.32		50- 150	200
Fluoranthene	239	200	120		243	200	121	1.53		50- 150	200
Pyrene	239	200	119		239	200	119	0.00252		50- 150	200
Benz(a)anthracene	242	200	121		242	200	121	0.116		50- 150	200
Chrysene	232	200	116		237	200	119	2.20		50- 150	200
Benzo(b)fluoranthene	232	200	116		246	200	123	5.86		50- 150	200
Benzo(k)fluoranthene	246	200	123		240	200	120	2.34		50- 150	200
Benzo(e)pyrene	230	200	115		232	200	116	0.714		50- 150	200
Benzo(a)pyrene	291	200	145		267	200	134	8.38		50- 150	200
Perylene	276	200	138		263	200	132	4.68		50- 150	200
Indeno(1,2,3-c,d)pyrene	229	200	114		239	200	120	4.36		50- 150	200
Dibenz(a,h)anthracene	238	200	119		212	200	106	11.5		50- 150	200
Benzo(g,h,i)perylene	242	200	121		231	200	115	4.89		50- 150	200

Labeled Standards	Type	LCS % Rec	LCS Quals	LCSD % Rec	LCSD Quals	Limits
d8-Naphthalene	IS	63.9		72.4		50 - 150
d8-Acenaphthylene	IS	69.4		67.5		50 - 150
d10-Acenaphthene	IS	71.7		71.5		50 - 150
d10-Fluorene	IS	72.6		70.1		50 - 150
d10-Phenanthrene	IS	68.0		65.1		50 - 150
d10-Fluoranthene	IS	78.5		80.5		50 - 150
d12-Benz(a)anthracene	IS	84.7		69.9		50 - 150
d12-Chrysene	IS	83.9		70.5		50 - 150
d12-Benzo(b)fluoranthene	IS	85.2		90.4		50 - 150
d12-Benzo(k)fluoranthene	IS	87.6		90.4		50 - 150
d12-Benzo(a)pyrene	IS	69.1		73.2		50 - 150
d12-Indeno(1,2,3-c,d)pyrene	IS	88.2		107		50 - 150
d14-Dibenz(a,h)anthracene	IS	82.9		108		50 - 150
d12-Benzo(g,h,i)perylene	IS	75.6		105		50 - 150
d10-Anthracene	AS	55.7		60.2		50 - 150

Sample ID: Sample Solution Blank	**CARB Method 429**

Client Data		**Laboratory Data**			
Name:	AIRx Testing Services	Lab Sample:	2105094-01	Date Received:	09-Jun-21 13:23
Project:	All American Asphalt Irvine	QC Batch:	B1F0091	Date Extracted:	14-Jun-21
Matrix:	Air Train			Column:	ZB-50
Date Collected:	02-Jun-21 08:00				

Analyte	Conc. (ng/Sample)	RL	Qualifiers	Analyzed	Dilution
Naphthalene	ND	25.0		16-Jun-21 00:22	1
2-Methylnaphthalene	ND	10.0		16-Jun-21 00:22	1
Acenaphthylene	ND	10.0		16-Jun-21 00:22	1
Acenaphthene	ND	10.0		16-Jun-21 00:22	1
Fluorene	ND	10.0		16-Jun-21 00:22	1
Phenanthrene	ND	25.0		16-Jun-21 00:22	1
Anthracene	ND	10.0		16-Jun-21 00:22	1
Fluoranthene	ND	10.0		16-Jun-21 00:22	1
Pyrene	ND	10.0		16-Jun-21 00:22	1
Benz(a)anthracene	ND	10.0		16-Jun-21 00:22	1
Chrysene	ND	10.0		16-Jun-21 00:22	1
Benzo(b)fluoranthene	ND	10.0		16-Jun-21 00:22	1
Benzo(k)fluoranthene	ND	10.0		16-Jun-21 00:22	1
Benzo(e)pyrene	ND	10.0		16-Jun-21 00:22	1
Benzo(a)pyrene	ND	10.0		16-Jun-21 00:22	1
Perylene	ND	10.0		16-Jun-21 00:22	1
Indeno(1,2,3-c,d)pyrene	ND	10.0		16-Jun-21 00:22	1
Dibenz(a,h)anthracene	ND	10.0		16-Jun-21 00:22	1
Benzo(g,h,i)perylene	ND	10.0		16-Jun-21 00:22	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
d8-Naphthalene	IS	56.3	50 - 150		16-Jun-21 00:22	1
d8-Acenaphthylene	IS	62.3	50 - 150		16-Jun-21 00:22	1
d10-Acenaphthene	IS	63.7	50 - 150		16-Jun-21 00:22	1
d10-Fluorene	IS	64.0	50 - 150		16-Jun-21 00:22	1
d10-Phenanthrene	IS	77.2	50 - 150		16-Jun-21 00:22	1
d10-Fluoranthene	IS	82.6	50 - 150		16-Jun-21 00:22	1
d12-Benz(a)anthracene	IS	76.2	50 - 150		16-Jun-21 00:22	1
d12-Chrysene	IS	72.8	50 - 150		16-Jun-21 00:22	1
d12-Benzo(b)fluoranthene	IS	94.0	50 - 150		16-Jun-21 00:22	1
d12-Benzo(k)fluoranthene	IS	87.0	50 - 150		16-Jun-21 00:22	1
d12-Benzo(a)pyrene	IS	69.3	50 - 150		16-Jun-21 00:22	1
d12-Indeno(1,2,3-c,d)pyrene	IS	94.3	50 - 150		16-Jun-21 00:22	1
d14-Dibenz(a,h)anthracene	IS	96.3	50 - 150		16-Jun-21 00:22	1
d12-Benzo(g,h,i)perylene	IS	91.9	50 - 150		16-Jun-21 00:22	1
d10-Anthracene	AS	74.0	50 - 150		16-Jun-21 00:22	1

RL - Reporting limit

Results reported to RL.

Sample ID: Field Blank **CARB Method 429**

Client Data		**Laboratory Data**			
Name:	AIRx Testing Services	Lab Sample:	2105094-02	Date Received:	09-Jun-21 13:23
Project:	All American Asphalt Irvine	QC Batch:	B1F0091	Date Extracted:	14-Jun-21
Matrix:	Air Train			Column:	ZB-50
Date Collected:	02-Jun-21 08:00				

Analyte	Conc. (ng/Sample)	RL	Qualifiers	Analyzed	Dilution
Naphthalene	76.5 ✓	25.0		16-Jun-21 01:08	1
2-Methylnaphthalene	56.2 ✓	10.0		16-Jun-21 01:08	1
Acenaphthylene	ND	10.0		16-Jun-21 01:08	1
Acenaphthene	ND	10.0		16-Jun-21 01:08	1
Fluorene	21.9 ✓	10.0		16-Jun-21 01:08	1
Phenanthrene	77.0 ✓	25.0		16-Jun-21 01:08	1
Anthracene	ND	10.0		16-Jun-21 01:08	1
Fluoranthene	ND	10.0		16-Jun-21 01:08	1
Pyrene	10.7 ✓	10.0		16-Jun-21 01:08	1
Benz(a)anthracene	ND	10.0		16-Jun-21 01:08	1
Chrysene	ND	10.0		16-Jun-21 01:08	1
Benzo(b)fluoranthene	ND	10.0		16-Jun-21 01:08	1
Benzo(k)fluoranthene	ND	10.0		16-Jun-21 01:08	1
Benzo(e)pyrene	ND	10.0		16-Jun-21 01:08	1
Benzo(a)pyrene	ND	10.0		16-Jun-21 01:08	1
Perylene	ND	10.0		16-Jun-21 01:08	1
Indeno(1,2,3-c,d)pyrene	ND	10.0		16-Jun-21 01:08	1
Dibenz(a,h)anthracene	ND	10.0		16-Jun-21 01:08	1
Benzo(g,h,i)perylene	ND	10.0		16-Jun-21 01:08	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
d8-Naphthalene	IS	54.0	50 - 150		16-Jun-21 01:08	1
d8-Acenaphthylene	IS	58.1	50 - 150		16-Jun-21 01:08	1
d10-Acenaphthene	IS	54.2	50 - 150		16-Jun-21 01:08	1
d10-Fluorene	IS	52.6	50 - 150		16-Jun-21 01:08	1
d10-Phenanthrene	IS	54.7	50 - 150		16-Jun-21 01:08	1
d10-Fluoranthene	IS	84.1	50 - 150		16-Jun-21 01:08	1
d12-Benz(a)anthracene	IS	83.0	50 - 150		16-Jun-21 01:08	1
d12-Chrysene	IS	77.6	50 - 150		16-Jun-21 01:08	1
d12-Benzo(b)fluoranthene	IS	100	50 - 150		16-Jun-21 01:08	1
d12-Benzo(k)fluoranthene	IS	88.7	50 - 150		16-Jun-21 01:08	1
d12-Benzo(a)pyrene	IS	83.0	50 - 150		16-Jun-21 01:08	1
d12-Indeno(1,2,3-c,d)pyrene	IS	75.4	50 - 150		16-Jun-21 01:08	1
d14-Dibenz(a,h)anthracene	IS	77.3	50 - 150		16-Jun-21 01:08	1
d12-Benzo(g,h,i)perylene	IS	67.6	50 - 150		16-Jun-21 01:08	1
d14-Terphenyl	PS	116	50 - 150		16-Jun-21 01:08	1
d12-Benzo(e)pyrene	PS	126	50 - 150		16-Jun-21 01:08	1
d10-Anthracene	AS	50.2	50 - 150		16-Jun-21 01:08	1

RL - Reporting limit

Results reported to RL.

Sample ID: Run 1 **CARB Method 429**

Client Data		**Laboratory Data**			
Name:	AIRx Testing Services	Lab Sample:	2105094-03	Date Received:	09-Jun-21 13:23
Project:	All American Asphalt Irvine	QC Batch:	B1F0091	Date Extracted:	14-Jun-21
Matrix:	Air Train			Column:	ZB-50
Date Collected:	02-Jun-21 06:50				

Analyte	Conc. (ng/Sample)	RL	Qualifiers	Analyzed	Dilution
Naphthalene	517000	11300	D	16-Jun-21 08:59	450
2-Methylnaphthalene	140000	4500	D	16-Jun-21 08:59	450
Acenaphthylene	31400	4500	D	16-Jun-21 08:59	450
Acenaphthene	6230	500	D	16-Jun-21 04:16	50
Fluorene	7630	500	D	16-Jun-21 04:16	50
Phenanthrene	10100	1250	D	16-Jun-21 04:16	50
Anthracene	570	500	D	16-Jun-21 04:16	50
Fluoranthene	485	10.0		16-Jun-21 01:55	1
Pyrene	473	10.0		16-Jun-21 01:55	1
Benz(a)anthracene	12.8	10.0		16-Jun-21 01:55	1
Chrysene	68.9	10.0		16-Jun-21 01:55	1
Benzo(b)fluoranthene	10.2	10.0		16-Jun-21 01:55	1
Benzo(k)fluoranthene	ND	10.0		16-Jun-21 01:55	1
Benzo(e)pyrene	ND	10.0		16-Jun-21 01:55	1
Benzo(a)pyrene	ND	10.0		16-Jun-21 01:55	1
Perylene	ND	10.0		16-Jun-21 01:55	1
Indeno(1,2,3-c,d)pyrene	ND	10.0		16-Jun-21 01:55	1
Dibenz(a,h)anthracene	ND	10.0		16-Jun-21 01:55	1
Benzo(g,h,i)perylene	ND	10.0		16-Jun-21 01:55	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
d8-Naphthalene	IS	85.1	50 - 150	D	16-Jun-21 08:59	450
d8-Acenaphthylene	IS	125	50 - 150	D	16-Jun-21 08:59	450
d10-Acenaphthene	IS	96.4	50 - 150	D	16-Jun-21 04:16	50
d10-Fluorene	IS	111	50 - 150	D	16-Jun-21 04:16	50
d10-Phenanthrene	IS	96.8	50 - 150	D	16-Jun-21 04:16	50
d10-Fluoranthene	IS	78.7	50 - 150		16-Jun-21 01:55	1
d12-Benz(a)anthracene	IS	148	50 - 150		16-Jun-21 01:55	1
d12-Chrysene	IS	139	50 - 150		16-Jun-21 01:55	1
d12-Benzo(b)fluoranthene	IS	106	50 - 150		16-Jun-21 01:55	1
d12-Benzo(k)fluoranthene	IS	86.4	50 - 150		16-Jun-21 01:55	1
d12-Benzo(a)pyrene	IS	86.5	50 - 150		16-Jun-21 01:55	1
d12-Indeno(1,2,3-c,d)pyrene	IS	83.5	50 - 150		16-Jun-21 01:55	1
d14-Dibenz(a,h)anthracene	IS	99.7	50 - 150		16-Jun-21 01:55	1
d12-Benzo(g,h,i)perylene	IS	66.5	50 - 150		16-Jun-21 01:55	1
d14-Terphenyl	PS	133	50 - 150		16-Jun-21 01:55	1
d12-Benzo(e)pyrene	PS	126	50 - 150		16-Jun-21 01:55	1
d10-Anthracene	AS	81.2	50 - 150	D	16-Jun-21 04:16	50

RL - Reporting limit

Results reported to RL.

Sample ID: Run 2 **CARB Method 429**

Client Data		**Laboratory Data**			
Name:	AIRx Testing Services	Lab Sample:	2105094-04	Date Received:	09-Jun-21 13:23
Project:	All American Asphalt Irvine	QC Batch:	B1F0091	Date Extracted:	14-Jun-21
Matrix:	Air Train			Column:	ZB-50
Date Collected:	03-Jun-21 09:55				

Analyte	Conc. (ng/Sample)	RL	Qualifiers	Analyzed	Dilution
Naphthalene	622000 ✓	12500	D	16-Jun-21 09:46	500
2-Methylnaphthalene	261000 ✓	5000	D, E	16-Jun-21 09:46	500
Acenaphthylene	49900 ✓	5000	D	16-Jun-21 09:46	500
Acenaphthene	14000 ✓	500	D	16-Jun-21 05:02	50
Fluorene	17000 ✓	500	D	16-Jun-21 05:02	50
Phenanthrene	16900 ✓	1250	D	16-Jun-21 05:02	50
Anthracene	1550 ✓	500	D	16-Jun-21 05:02	50
Fluoranthene	497 ✓	10.0		16-Jun-21 02:42	1
Pyrene	474 ✓	10.0		16-Jun-21 02:42	1
Benz(a)anthracene	ND	10.0		16-Jun-21 02:42	1
Chrysene	29.3 ✓	10.0		16-Jun-21 02:42	1
Benzo(b)fluoranthene	ND	10.0		16-Jun-21 02:42	1
Benzo(k)fluoranthene	ND	10.0		16-Jun-21 02:42	1
Benzo(e)pyrene	ND	10.0		16-Jun-21 02:42	1
Benzo(a)pyrene	ND	10.0		16-Jun-21 02:42	1
Perylene	ND	10.0		16-Jun-21 02:42	1
Indeno(1,2,3-c,d)pyrene	ND	10.0		16-Jun-21 02:42	1
Dibenz(a,h)anthracene	ND	10.0		16-Jun-21 02:42	1
Benzo(g,h,i)perylene	ND	10.0		16-Jun-21 02:42	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
d8-Naphthalene	IS	109	50 - 150	D	16-Jun-21 09:46	500
d8-Acenaphthylene	IS	164	50 - 150	D, H	16-Jun-21 09:46	500
d10-Acenaphthene	IS	101	50 - 150	D	16-Jun-21 05:02	50
d10-Fluorene	IS	100	50 - 150	D	16-Jun-21 05:02	50
d10-Phenanthrene	IS	98.1	50 - 150	D	16-Jun-21 05:02	50
d10-Fluoranthene	IS	84.2	50 - 150		16-Jun-21 02:42	1
d12-Benz(a)anthracene	IS	116	50 - 150		16-Jun-21 02:42	1
d12-Chrysene	IS	103	50 - 150		16-Jun-21 02:42	1
d12-Benzo(b)fluoranthene	IS	118	50 - 150		16-Jun-21 02:42	1
d12-Benzo(k)fluoranthene	IS	77.5	50 - 150		16-Jun-21 02:42	1
d12-Benzo(a)pyrene	IS	88.1	50 - 150		16-Jun-21 02:42	1
d12-Indeno(1,2,3-c,d)pyrene	IS	113	50 - 150		16-Jun-21 02:42	1
d14-Dibenz(a,h)anthracene	IS	136	50 - 150		16-Jun-21 02:42	1
d12-Benzo(g,h,i)perylene	IS	104	50 - 150		16-Jun-21 02:42	1
d14-Terphenyl	PS	124	50 - 150		16-Jun-21 02:42	1
d12-Benzo(e)pyrene	PS	129	50 - 150		16-Jun-21 02:42	1
d10-Anthracene	AS	70.2	50 - 150	D	16-Jun-21 05:02	50

RL - Reporting limit

Results reported to RL.

Sample ID: Run 3 **CARB Method 429**

Client Data		**Laboratory Data**			
Name:	AIRx Testing Services	Lab Sample:	2105094-05	Date Received:	09-Jun-21 13:23
Project:	All American Asphalt Irvine	QC Batch:	B1F0091	Date Extracted:	14-Jun-21
Matrix:	Air Train			Column:	ZB-50
Date Collected:	07-Jun-21 06:00				

Analyte	Conc. (ng/Sample)	RL	Qualifiers	Analyzed	Dilution
Naphthalene	335000 ✓	7500	D	16-Jun-21 10:33	300
2-Methylnaphthalene	101000 ✓	3000	D	16-Jun-21 10:33	300
Acenaphthylene	17700 ✓	500	D	16-Jun-21 08:12	50
Acenaphthene	3680 ✓	500	D	16-Jun-21 08:12	50
Fluorene	4980 ✓	500	D	16-Jun-21 08:12	50
Phenanthrene	7450 ✓	1250	D	16-Jun-21 08:12	50
Anthracene	585 ✓	500	D	16-Jun-21 08:12	50
Fluoranthene	263 ✓	10.0		16-Jun-21 03:29	1
Pyrene	224 ✓	10.0		16-Jun-21 03:29	1
Benz(a)anthracene	ND	10.0		16-Jun-21 03:29	1
Chrysene	35.6 ✓	10.0		16-Jun-21 03:29	1
Benzo(b)fluoranthene	ND	10.0		16-Jun-21 03:29	1
Benzo(k)fluoranthene	ND	10.0		16-Jun-21 03:29	1
Benzo(e)pyrene	ND	10.0		16-Jun-21 03:29	1
Benzo(a)pyrene	ND	10.0		16-Jun-21 03:29	1
Perylene	ND	10.0		16-Jun-21 03:29	1
Indeno(1,2,3-c,d)pyrene	ND	10.0		16-Jun-21 03:29	1
Dibenz(a,h)anthracene	ND	10.0		16-Jun-21 03:29	1
Benzo(g,h,i)perylene	ND	10.0		16-Jun-21 03:29	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
d8-Naphthalene	IS	83.3	50 - 150	D	16-Jun-21 10:33	300
d8-Acenaphthylene	IS	111	50 - 150	D	16-Jun-21 08:12	50
d10-Acenaphthene	IS	90.6	50 - 150	D	16-Jun-21 08:12	50
d10-Fluorene	IS	116	50 - 150	D	16-Jun-21 08:12	50
d10-Phenanthrene	IS	114	50 - 150	D	16-Jun-21 08:12	50
d10-Fluoranthene	IS	87.6	50 - 150		16-Jun-21 03:29	1
d12-Benz(a)anthracene	IS	105	50 - 150		16-Jun-21 03:29	1
d12-Chrysene	IS	89.4	50 - 150		16-Jun-21 03:29	1
d12-Benzo(b)fluoranthene	IS	100	50 - 150		16-Jun-21 03:29	1
d12-Benzo(k)fluoranthene	IS	74.3	50 - 150		16-Jun-21 03:29	1
d12-Benzo(a)pyrene	IS	89.3	50 - 150		16-Jun-21 03:29	1
d12-Indeno(1,2,3-c,d)pyrene	IS	122	50 - 150		16-Jun-21 03:29	1
d14-Dibenz(a,h)anthracene	IS	159	50 - 150	H	16-Jun-21 03:29	1
d12-Benzo(g,h,i)perylene	IS	102	50 - 150		16-Jun-21 03:29	1
d14-Terphenyl	PS	121	50 - 150		16-Jun-21 03:29	1
d12-Benzo(e)pyrene	PS	136	50 - 150		16-Jun-21 03:29	1
d10-Anthracene	AS	58.5	50 - 150		16-Jun-21 03:29	1

RL - Reporting limit

Results reported to RL.

B	This compound was also detected in the method blank
Conc.	Concentration
CRS	Cleanup Recovery Standard
D	Dilution
DL	Detection Limit
E	The associated compound concentration exceeded the calibration range of the instrument
H	Recovery and/or RPD was outside laboratory acceptance limits
I	Chemical Interference
IS	Internal Standard
J	The amount detected is below the Reporting Limit/LOQ
LOD	Limit of Detection
LOQ	Limit of Quantitation
M	Estimated Maximum Possible Concentration (CA Region 2 projects only)
MDL	Method Detection Limit
NA	Not applicable
ND	Not Detected
OPR	Ongoing Precision and Recovery sample
P	The reported concentration may include contribution from chlorinated diphenyl ether(s).
Q	The ion transition ratio is outside of the acceptance criteria.
RL	Reporting Limit
RL	For 537.1, the reported RLs are the MRLs.
TEQ	Toxic Equivalency, sum of the toxic equivalency factors (TEF) multiplied by the sample concentrations.
TEQMax	TEQ calculation that uses the detection limit as the concentration for non-detects
TEQMin	TEQ calculation that uses zero as the concentration for non-detects
TEQRisk	TEQ calculation that uses ½ the detection limit as the concentration for non-detects
U	Not Detected (specific projects only)
*	See Cover Letter

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

Vista Analytical Laboratory Certifications

Accrediting Authority	Certificate Number
Alaska Department of Environmental Conservation	17-013
Arkansas Department of Environmental Quality	21-023-0
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777-26
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2020018
Massachusetts Department of Environmental Protection	M-CA413
Michigan Department of Environmental Quality	9932
Minnesota Department of Health	1980678
New Hampshire Environmental Accreditation Program	207720
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
Ohio Environmental Protection Agency	87778
Oregon Laboratory Accreditation Program	4042-016
Pennsylvania Department of Environmental Protection	017
Texas Commission on Environmental Quality	T104704189-21-12
Vermont Department of Health	VT-4042
Virginia Department of General Services	10769
Washington Department of Ecology	C584
Wisconsin Department of Natural Resources	998036160

Current certificates and lists of licensed parameters are located in the Quality Assurance office and are available upon request.

NELAP Accredited Test Methods

MATRIX: Air	
Description of Test	**Method**
Determination of Polychlorinated p- Dioxins & Polychlorinated Dibenzofurans	EPA 23
Polychlorinated Dibenzodioxins in Ambient Air by GC/HRMS	EPA TO-9A

MATRIX: Biological Tissue	
Description of Test	**Method**
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Drinking Water	
Description of Test	**Method**
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613/1613B
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537.1
Determination of Per- and Polyfluoroalkyl Substances in Drinking Water by Isotope Dilution Anion Exchange Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry	EPA 533
Perfluorooctanesulonate (PFOS) and Perfluorooctanoate (PFOA) - Method for Unfiltered Samples Using Solid Phase Extraction and Liquid Chromatography/Mass Spectrometry	ISO 25101 2009

MATRIX: Non-Potable Water	
Description of Test	**Method**
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Dioxin by GC/HRMS	EPA 613
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Solids	
Description of Test	**Method**
Tetra-Octa Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

AIRx Testing

CHAIN OF CUSTODY

INVOICE TO: X SAME

ATTN:

REPORT TO: PO#

AIRx Testing
2472 Eastman Avenue, Unit 34
Ventura, CA 93003
(805) 644-1099 Fax (805) 644-2672

Contact:

2105094 3.1°C, 1.1°C, 5.1°C

LAB # 221-061 PROJECT Name: All American Asphalt IRVINE

Samplers: (Signature)

Rush: 24hr. Normal: 10 Day

Sample Method:

Return or Dispose

Sample No.	Sample Date	Sample Time	Comp	Grab	Sample Description	Volume (g) (ml)	Fuel (ng) (oil)	ANALYSIS CARB 429						REMARKS
1	6-2-21	8:00		X	Sample Solution Blank MECL2	100 mL		X						
2				X	" " " Acetone	100 mL		X						
3				X	" " " Hexane	100 mL		X						
4				X	" " " $NaHCO_3$	100 mL		X						
5				X	" " " Na_2CO_3	100 mL		X						
6			X		Field Blank Frt ½ Rinse	75 mL		X						
7			X		Filter	—		X						
8			X		Back ½ Rinse	75 mL		X						
9			X		XAD Trap	—		X						
10			X		Impingers	200 mL		X						
11			X		Impinger Rinse	75 mL		X						

Relinquished by: Date: 6-9-21 Time

Received by: Date: 6/~~10~~/21 Time 6:45 AM

Relinquished by: Date: 6/~~10~~ 9/21 Time: 1:23

Received by: Date: 06/09/21 Time 1323

AIRx Testing

CHAIN OF CUSTODY

INVOICE TO: X SAME

ATTN:

REPORT TO: PO#

163

AIRx Testing
2472 Eastman Avenue, Unit 34
Ventura, CA 93003
(805) 644-1099 Fax (805) 644-2672

2105094 3.1°C, 1.1°C, 5.1°C

Contact:

LAB # 221-061 PROJECT Name: All American Asphalt IRVINE

Samplers: (Signature)

Rush: 24hr. Normal: 10 Day

Sample Method:

Return or Dispose

ANALYSIS

Sample No.	Sample Date	Sample Time	Comp	Grab	Sample Description	Volume (g) (ml)	Fuel (ng) (oil)	CARB Method 429					REMARKS
12	6/2 6/3	6:50	X		Run 1. Front ½	75.		X					
13			X		Filter	—		X					
14			X		Back ½ Rinse	75		X					Combine
15			X		XAD Trap	—		X					Impinger Catches
16			X		Impinger Catch A	1011		X					A+B For
17			X		Impinger Catch B	566		X					Each Run
18			X		Impinger Rinse	75mL		X					
19	6-3-21	9:55	X		Run 2 Front ½	75		X					
20			X		Filter	—		X					
21			X		Back ½ Rinse	75		X					
22			X		XAD Trap	—		X					
23			X		Impinger Catch A	933		X					
24			X		Impinger Catch B	1002		X					
25			X		Impinger Rinse	75		X					
26	6-7-21	6:00	X		Run 3 Front ½	75		X					
27			X		~~Back ½ Rinse~~ Filter	—		X					
28			X		Back ½ Rinse	75		X					
29			X		XAD Trap	—		X					
30			X		Impinger Catch A	983		X					
31			X		Impinger Catch B	970		X					
32			X		Impinger Rinse	75		X					

Relinquished by: Date: 6/9/21 Time	Received by: Date: 6/9/21 Time 6:45 AM	Relinquished by: Date: 6/9/21 Time: 1323	Received by: Date: 06/09/21 Time 1323

Vista
Analytical Laboratory

Sample Log-In Checklist

WWS 06/09/21

Page # 1 of ~~2~~ 3

Vista Work Order #: 2105094 TAT Std

Samples Arrival:	**Date/Time** 06/09/21 1323	**Initials:** WWS	**Location:** WR-2 **Shelf/Rack:** N/a

Delivered By:	FedEx	UPS	On Trac	GLS	DHL	[✓ Hand Delivered]	Other

Preservation:	Ice	[✓ Blue Ice]	Techni Ice	Dry Ice	None

Temp °C: 3.1 (uncorrected) **Temp °C:** 3.1 (corrected)	**Probe used:** [✓ Y] / N	**Thermometer ID:** DT-3

	YES	NO	NA
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?			✓
Airbill — Trk # —			✓
Shipping Documentation Present?			✓

Shipping Container	Vista	Ⓐ [✓ Client]	Retain	Ⓐ [✓ Return]	Dispose

	YES	NO	NA
Chain of Custody / Sample Documentation Present?	✓		
Chain of Custody / Sample Documentation Complete?	✓		
Holding Time Acceptable?	✓		

Logged In:	**Date/Time** 06/09/21 1521	**Initials:** WWS	**Location:** R-9 **Shelf/Rack:** N/a

	YES	NO	NA
COC Anomaly/Sample Acceptance Form completed?	Ⓑ ~~✓~~	✓	~~✓~~

WWS 06/14/21

Comments: Ⓐ cooler returned at hand delivery

FH and BH rinses received in this cooler

Ⓑ anomaly form completed WWS 06/14/21

ID.: LR – SLC *Rev No.: 6* *Rev Date: 07/16/2020* *Page: 1 of 1*

Vista
Analytical Laboratory

Sample Log-In Checklist

Page # 2 of 3

WUS 06/09/21

Vista Work Order #: ~~2106~~ 2105094 TAT Std

Samples Arrival:	**Date/Time** 06/09/21 ~~1:20~~ 13:23	**Initials:**	**Location:** WR-2 **Shelf/Rack:** N/A

Delivered By:	FedEx	UPS	On Trac	GLS	DHL	[✓ Hand Delivered]	Other

Preservation:	Ice	[✓ Blue Ice]	[✓ Techni Ice]	Dry Ice	None

Temp °C: 1.2 **(uncorrected)** **Temp °C:** 1.1 **(corrected)**	**Probe used:** Y / [✓ N]	**Thermometer ID:** IR-4

	YES	NO	NA
Shipping Container(s) Intact? Ⓐ	✓		
Shipping Custody Seals Intact?		✓	✓
Airbill — Trk # —		✓	✓
Shipping Documentation Present?		✓	✓
Chain of Custody / Sample Documentation Present?	✓		
Chain of Custody / Sample Documentation Complete?	✓		
Holding Time Acceptable?	✓		

Shipping Container	Vista	[✓ Client]	Retain	[✓ Return]	Dispose

Logged In:	**Date/Time** 06/09/21 1521	**Initials:** WUS	**Location:** R-9 **Shelf/Rack:** n/a

	YES	NO	NA
COC Anomaly/Sample Acceptance Form completed?	Ⓑ ~~✓~~	~~✓~~	~~✓~~

WUS 06/14/21

Comments:

Ⓐ Sample container returned at receipt.

Impingers received in this cooler

Ⓑ anomaly form completed WUS 06/14/21

Vista
Analytical Laboratory

Sample Log-In Checklist

WWS 06/09/21

Page # 3 of 3

Vista Work Order #: ~~2106~~ 2105094 TAT std

Samples Arrival:	Date/Time 06/09/21 ~~13:20~~ 13:23	Initials:	Location: WR-2 Shelf/Rack: N/A			
Delivered By:	FedEx	UPS	On Trac	GLS	DHL	[✓ Hand Delivered]	Other
Preservation:	Ice	[✓ Blue Ice]	[✓ Techni Ice]	Dry Ice	None	
Temp °C: 5.1 (uncorrected) **Temp °C:** 5.1 (corrected)	**Probe used:** [✓ Y] / N	**Thermometer ID:** DT-3				

	YES	NO	NA
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?		✓	✓
Airbill — Trk # ——		✓	✓
Shipping Documentation Present?		✓	✓
Shipping Container: Vista / [✓ Client] / Retain / [✓ Return] / Dispose			
Chain of Custody / Sample Documentation Present?	✓		
Chain of Custody / Sample Documentation Complete?	✓		
Holding Time Acceptable?	✓		

Ⓐ

Logged In:	**Date/Time** 06/09/21 1521	**Initials:** WWS	**Location:** R-9 **Shelf/Rack:** n/a

	YES	NO	NA
COC Anomaly/Sample Acceptance Form completed?	Ⓑ ✓	~~✓~~	~~✓~~

WWS 06/14/21

Comments:

Ⓐ Shipping container returned at receipt

* Trals in this cooler

Ⓑ anomaly form completed
WWS 06/14/21

CoC/Label Reconciliation Report WO# 2105094

LabNumber	CoC Sample ID		SampleAlias	Sample Date/Time		Container	BaseMatrix	Sample Comments
2105094-01	B Sample Solution Blank	☐ 8		02-Jun-21 08:00	☐ 8	MeCl2 Rinse	Air	
2105094-01	C Sample Solution Blank	☐		02-Jun-21 08:00	☐	Acetone	Air	
2105094-01	D Sample Solution Blank	☐		02-Jun-21 08:00	☐	Hexane	Air	
2105094-01	E Sample Solution Blank	☐		02-Jun-21 08:00	☐	NaHCO3	Air	
2105094-01	F Sample Solution Blank	☐		02-Jun-21 08:00	☐	Na2CO3	Air	
2105094-02	B Field Blank	☐		02-Jun-21 08:00	☐	FH Rinse	Air	
2105094-02	C Field Blank	☐		02-Jun-21 08:00	☐	Filter	Air	
2105094-02	D Field Blank	☐		02-Jun-21 08:00	☐	BH Rinse	Air	
2105094-02	E Field Blank	☐		02-Jun-21 08:00	☐	XAD	Air	
2105094-02	F Field Blank	☐		02-Jun-21 08:00	☐	Impingers	Air	
2105094-02	G Field Blank	☐		02-Jun-21 08:00	☐	IMP Rinse	Air	
2105094-03	B Run 1	☐		02-Jun-21 06:50	☐ C	FH Rinse	Air	
2105094-03	C Run 1	☐		02-Jun-21 06:50	☐	Filter	Air	
2105094-03	D Run 1	☐		02-Jun-21 06:50	☐	BH Rinse	Air	
2105094-03	E Run 1	☐		02-Jun-21 06:50	☐	XAD	Air	
2105094-03	F Run 1	☐		02-Jun-21 06:50	☐	Impinger Catch A,B	Air	
2105094-03	G Run 1	☐		02-Jun-21 06:50	☐	Impinger Catch A,B	Air	
2105094-03	H Run 1	☐		02-Jun-21 06:50	☐	IMP Rinse	Air	
2105094-04	B Run 2	☐		03-Jun-21 09:55	☐ 8	FH Rinse	Air	
2105094-04	C Run 2	☐		03-Jun-21 09:55	☐	Filter	Air	
2105094-04	D Run 2	☐		03-Jun-21 09:55	☐	BH Rinse	Air	
2105094-04	E Run 2	☐		03-Jun-21 09:55	☐	XAD	Air	
2105094-04	F Run 2	☐		03-Jun-21 09:55	☐ D	Impinger Catch A,B	Air	
2105094-04	G Run 2	☐		03-Jun-21 09:55	☐ 8	Impinger Catch A,B	Air	
2105094-04	H Run 2	☐		03-Jun-21 09:55	☐	IMP Rinse	Air	
2105094-05	B Run 3	☐		07-Jun-21 06:00	☐ D	FH Rinse	Air	
2105094-05	C Run 3	☐		07-Jun-21 06:00	☐	Filter	Air	
2105094-05	D Run 3	☐		07-Jun-21 06:00	☐	BH Rinse	Air	

16

2105094-05	E Run 3	☐	07-Jun-21 06:00	☐	Ⓓ	XAD	Air
2105094-05	F Run 3	☐	07-Jun-21 06:00	☐	Ⓔ	Impinger Catch A,B	Air
2105094-05	G Run 3	☐	07-Jun-21 06:00	☐		Impinger Catch A,B	Air
2105094-05	H Run 3	☐	07-Jun-21 06:00	☐	Ⓓ	IMP Rinse	Air

Checkmarks indicate that information on the COC reconciled with the sample label.
Any discrepancies are noted in the following columns.

	Yes	No	NA
Sample Container Intact?	✓		
Sample Custody Seals Intact?			✓
Adequate Sample Volume?	✓		
Container Type Appropriate for Analysis(es)	✓		

Preservation Documented: Na2S2O3 Trizma NH4CH3CO2 [✓ None] all Other

Verifed by/Date: WWS 06/10/21

Comments: ⓐ all sample ID's reconciled by Run #, component, and "Lab ID" number listed on both the COC and sample labels

Ⓑ date reconciles

ⓒ 06/02/21 - 06/03/21 listed on COC, 06/02/21 listed on sample label. Used earliest date

Ⓓ sample label: 06/04/21

Ⓔ sample label: 06/03/21

no collection times listed on sample label for all samples

Received ~~2~~ 5 WWS 06/10/21 unused XADs

ANOMALY FORM

Vista Work Order 2105094

Initial/Date The following checked issues were noted during sample receipt and login:

______ ☐ **1. The samples were received out of temperature at (WI-PHT):** ______
Was ice present: Yes No Melted Blue Ice

______ ☐ 2. The Chain-of-Custody (CoC) was not relinquished properly.

______ ☐ 3. The CoC did not include collection time(s). 00:00 will be used unless notified otherwise.

______ ☐ 4. The sample(s) did not include a sample collection time. All or Sample Name: ______

______ ☐ 5. A sample ID discrepancy was found. See the Reconciliation report.
The CoC Sample ID will be used unless notified otherwise.

WJS 06/10/21 ☑ 6. A sample date and/or time discrepancy was found. See the Reconciliation report.
The CoC Sample date/time will be used unless notified otherwise.

______ ☐ **7. The CoC did not include a sample matrix. The following sample matrix will be used:** ______

______ ☐ **8. Insufficent volume received for analysis. All or Sample Name:** ______

______ ☐ 9. The backup bottle was received broken. Sample Name: ______

______ ☐ **10. CoC not received, illegible or destroyed.**

______ ☐ **11. The sample(s) were received out of holding time. All or Sample Name:** ______

______ ☐ **12. The CoC did not include an analysis. All or Sample Name:** ______

______ ☐ **13. Sample(s) received without collection date. All or Sample Name:** ______

______ ☐ **14. Sample(s) not received. All or Sample Name:** ______

______ ☐ **15. Sample(s) received broken. All or Sample Name:** ______

______ ☐ **16. An incorrect container-type was used. All or Sample Name:** ______

______ ☐ 17. Other:

Bolded items require sign-off

Client Contacted: ______

Date of Contact: ______

Vista Client Manager: ______

Resolution:

AIRx Testing Services, Inc.

SAMPLING TRAINS CHAIN OF CUSTODY

CLIENT: ALL AMERICAN ASPHALT
LOCATION: IRVINE, CA
SOURCE: BAG HOUSE
METHOD: CARB 429 RUN 1

TEST DATE: 6/2/21
LAB#:
JOB#: 221.061

EQUIPMENT	DATE BUILT: BY:	COMMENTS	By::
SAMPLING TRAIN CARB 429 RUN 1	6/2/21 FJT		
Nozzle 0.325		FRONT HALF RINSE	
Probe 4		FRONT HALF RINSE	
Filter 2		[illegible] AMBER GLASS	
Filter Holder(Front Half) 2		FRONT HALF RINSE	
Filter Holder(back half) 2		BACK HALF RINSE	
Jumper 2			
Condenser ~~2~~ 1		BACK HALF RINSE	
XAD Cartridge 2		WRAPPED/CAPPED & LABELED	
Impingers 1-3 IMP SOLUTIONS		COMBINED IMPINGER RINSE IN SEPERATE CONTAINER	
SAMPLING REAGENTS:			
SODIUM BICARB	CHESTER	IMPINGER SOLUTIONS	
CARBONATE	LAB	100ml BICARB /100ml CARB	
MeCl2		USED TO RINSE RH/FH/IMPINGER RINSES	
HEXANE		75 mls each rinse	
ACETONE		25ml MeCl2, 25ml Hex, 25ml ACE	

RELINQUISHED BY: DATE: 6/2/21 TIME: 4:45

RECEIVED BY: DATE: 6/2/21 TIME: 4:45

RELINQUISHED BY: DATE: TIME:

RECEIVED BY: DATE: TIME:

RELINQUISHED BY: DATE: TIME:

RECEIVED BY: DATE: TIME:

SAMPLING TRAIN CHAIN OF CUSTODY

CLIENT: ~~Vulcan~~ All American Asphalt

TEST DATE: 06.02.21

LOCATION: IRVINE

LAB#: 1064

SOURCE: BAGHOUSE

JOB#: 221-061

METHOD: CARB 436 / CARB 429

TRAIN NO.:	RUN NO.:	COMMENTS:
—CARB 436 MULTI-METALS	FIELD BLANK	} BOX #'s
—CARB 436 MULTI-METAL	RUN 1	
—CARB 429 PAH	FIELD BLANK	} BOX #'s
—CARB 429 PAH	RUN 1	

BUILT BY: ______ DATE: 06.02.21

RELINQUISHED BY: ______ DATE: 06.02.21 TIME: 0400

RECEIVED BY: ______ DATE: ______ TIME: ______

RELINQUISHED BY: ______ DATE: ______ TIME: ______

RECEIVED BY: ______ DATE: ______ TIME: ______

RELINQUISHED BY: ______ DATE: ______ TIME: ______

RECEIVED BY: ______ DATE: ______ TIME: ______

RECOVERED BY: ______ DATE: ______

AIRx Testing Services, Inc.

SAMPLING TRAINS CHAIN OF CUSTODY

CLIENT: ALL AMERICAN ASPHALT

TEST DATE: 6/3/21

LOCATION: IRVINE, CA

LAB#:

SOURCE: BAGHOUSE

JOB#: 221-061

METHOD: CARB 429 RUN 2

EQUIPMENT	DATE BUILT: BY:	COMMENTS	By::
SAMPLING TRAIN CARB 429 RUN 2	6/3/21 FIT		
Nozzle 0.325		FRONT HALF RINSE	
Probe 4		FRONT HALF RINSE	
Filter 3		INTO AN AMBER BOTTLE	
Filter Holder(Front Half) 2		FRONT HALF RINSE	
Filter Holder(back half) 2		BACK HALF RINSE	
Jumper 2			
Condenser 1		BACK HALF RINSE	
XAD Cartridge 3		WRAPPED/CAPPED & LABELED	
Impingers 1-3 IMP SOLUTIONS		COMBINED	
		IMPINGER RINSE IN SEPERATE CONTAINER	
SAMPLING REAGENTS:			
SODIUM BICARB	CHESTERS	IMPINGER SOLUTIONS	
SODIUM CARB	LAB	100 ml BICARB / 100 ml CARB	
$MECl_2$		USED TO RINSE BH/FH / IMPINGER RINSES	
HEXANE		75 ml each	
ACETONE		25 ml $MeCl_2$, 25 ml Hex, 25 ml ACE	

RELINQUISHED BY: DATE: 6/3/21 TIME: 0430

RECEIVED BY: DATE: 6/3/21 TIME: 0430

RELINQUISHED BY: DATE: TIME:

RECEIVED BY: DATE: TIME:

RELINQUISHED BY: DATE: TIME:

RECEIVED BY: DATE: TIME:

AIRx Testing Services, Inc.

SAMPLING TRAIN CHAIN OF CUSTODY

CLIENT: ~~Vulcan~~ All American Asphalt **TEST DATE:** 06·03·21

LOCATION: IRVINE **LAB#:**

SOURCE: BAGHOUSE **JOB#:** 221 061

METHOD: CARB 429 and 436

TRAIN NO.:	RUN NO.:	COMMENTS:
. M436 #2	2	COLD BOX #1 & 2
M429 #2	2	COLD BOX #9 & 10

BUILT BY: **DATE:** 06·03·21

RELINQUISHED BY: **DATE:** 06·03·21 **TIME:**

RECEIVED BY: **DATE:** 6/3/21 **TIME:**

RELINQUISHED BY: **DATE:** 6/3/21 **TIME:**

RECEIVED BY: **DATE:** **TIME:**

RELINQUISHED BY: **DATE:** **TIME:**

RECEIVED BY: **DATE:** **TIME:**

RECOVERED BY: **DATE:**

SAMPLING TRAINS CHAIN OF CUSTODY

CLIENT: ALL AMERICAN ASPHALT

TEST DATE: 6/7/21

LOCATION: IRVINE, CA

LAB#:

SOURCE: BAGHOUSE

JOB#: 221-061

METHOD: CARB 429 RUN 3

EQUIPMENT	DATE BUILT: BY:	COMMENTS	By::
SAMPLING TRAIN CARB 429 RUN 3	6/7/21 FJT		
Nozzle 0.325		FRONT HALF RINSE	
Probe 4		FRONT HALF RINSE	
Filter 4		INTO AN AMBER BOTTLE	
Filter Holder(Front Half) 2		FRONT HALF	
Filter Holder(back half) 2		BACK HALF	
Jumper 2		FRONT HALF	
Condenser 1		BACK HALF	
XAD Cartridge 4		WRAPPED/CAPPED/LABELED	
Impingers 1-3 IMP SOLUTIONS		COMBINED	
		IMPINGER RINSE IN A SEPERATE CONTAINER	
SAMPLING REAGENTS:			
SODIUM BICARB	CHECTER LABS	IMPINGER SOLUTIONS	
SODIUM CARB		100ml BICARB/100ml CARB	
MeCl2		USED TO RINSE RH/FH/IMPINGER RINSES	
Hexane		75 ml each rinse	
ACETONE		25ml $MeCl_2$, 25ml Hex, 25ml ACE	

RELINQUISHED BY: DATE: 6/7/21 TIME: 04:30

RECEIVED BY: DATE: 6/7/21 TIME: 04:40

RELINQUISHED BY: DATE: TIME:

RECEIVED BY: DATE: TIME:

RELINQUISHED BY: DATE: TIME:

RECEIVED BY: DATE: TIME:

AIRx Testing Services, Inc.

SAMPLING TRAIN CHAIN OF CUSTODY

CLIENT: ALL AMERICAN ASPHALT

TEST DATE: 06·7·21

LOCATION: IRVINE

LAB#:

SOURCE: BAGHOUSE

JOB#: 221-061

METHOD: 429 / 436 CARB

TRAIN NO.:	RUN NO.:	COMMENTS:
429 #3	3	PROBE, connecting glassware,
		filter, XAD, CONDENSER
		Transfer line, NOZZLE
436 #3	3	PROBE, connecting glassware
		filter, jumper nozzle

BUILT BY: **DATE:** 06·7·21

RELINQUISHED BY: **DATE:** 06·7·21 **TIME:**

RECEIVED BY: **DATE:** 6-7-21 **TIME:**

RELINQUISHED BY: **DATE:** **TIME:**

RECEIVED BY: **DATE:** **TIME:**

RELINQUISHED BY: **DATE:** **TIME:**

RECEIVED BY: **DATE:** **TIME:**

RECOVERED BY: **DATE:** 6·7·21

AIRx Testing Services, Inc.

SAMPLING TRAINS CHAIN OF CUSTODY

CLIENT: ALL AMERICAN ASPHALT

TEST DATE: 6/2/21

LOCATION: IRVINE, CA

LAB#:

SOURCE: BAGHOUSE

JOB#: 221-061

METHOD: CARB 429 BLANK TRAIN

EQUIPMENT	DATE BUILT: BY:	COMMENTS	By::
SAMPLING TRAIN CARB 429 BT	6/2/21 FJT	BLANK TRAIN - RECOVERED SAME AS SAMPLE RUNS - RE-SET FOR RUN 1	
Nozzle 0.325		FRONT HALF RINSE	
Probe 4		FRONT HALF RINSE	
Filter 1		INTO AN AMBER BOTTLE	
Filter Holder(Front Half) 2		FRONT HALF RINSE	FT
Filter Holder(back half) 2		BACK HALF RINSE	
Jumper 2		FRONT HALF RINSE	
Condenser 1		- BACK HALF RINSE	
XAD Cartridge 1		WRAPPED & LABELED	
Impingers 1-3 SODIUM BICARB & SODIUM CARB		RECOVERED & COMBINED IMPING RINSES IN SEPERATE CONTAINER	
SAMPLING REAGENTS:			
SODIUM BICARB	CHESTERS	USED AS IMP SOLUTION (100 ml/imp)	
SODIUM CARBONATE	LAB	USED AS IMP SOLUTION (100 ml/imp)	
MECL2		USED FOR RINSE BH/FH IMPINGER RINSE	
HEXANE		75 ml each rinse	
ACETONE		25 ml / MeCl2, 25 ml Hex & 25 ml ACE	

RELINQUISHED BY: DATE: 6/2/21 TIME: 4:30

RECEIVED BY: DATE: 6/2/21 TIME: 4:30

RELINQUISHED BY: DATE: TIME:

RECEIVED BY: DATE: TIME:

RELINQUISHED BY: DATE: TIME:

RECEIVED BY: DATE: TIME:

AIRx Testing Services, Inc.

GLASSWARE CLEANING

CLIENT: ~~VULCAN~~ KC All American Asphalt
TEST DATE: 06.02.21

LOCATION: IRVINE
LAB#: 1064

SOURCE: BAGHOUSE
JOB#: 221.064

METHOD: CARR 429

Impingers, connecting glassware and transfer lines:	TIME SOAKED.:	TIME WASHED:	COMMENTS:
– 3 impingers	05.19.21	05.21.12	will recover in the
Complete Set			field ~~and~~ will ~~no~~ be
– + connectors			use as run 1
– 2 filter holders			– SOAKED, WASH
+ connectors – JUMPER			RINSE w/ ACE, MeCl2 &
– PROBE			HEXAN

SOAKED BY: DATE &TIME: 8:00AM 5.29.21 WASHED BY: DATE & TIME: 3:00 pm 0727.21

RELINQUISHED BY: DATE: TIME:

RECEIVED BY: DATE: TIME:

RELINQUISHED BY: DATE: TIME:

RECEIVED BY: DATE: TIME:

RELINQUISHED BY: DATE: TIME:

RECEIVED BY: DATE: TIME:

AIRx Testing Services, Inc.

EQUIPMENT CALIBRATIONS

CLIENT: ALL AMERICAN ASPHALT

TEST DATE: 6/27/21

LOCATION: IRVINE, CA

LAB#:

SOURCE: BAGHOUSE

JOB#: 221.061

METHOD: CARB 429

EQUIPMENT	DATE CALIBRATED:	EXPIRES:	COMMENTS:
METER BOX G	1.23.21	7.23.21	FULL CAL ON OR AFTER
PROBE 4	1.23.21	7.23.21	
THERMOCOUPLE 4	1.23.21	7.23.21	
NOZZLE 0.325	1.23.21	7.23.21	
WET TEST METER AMERICAN METER SER. 15681	9.9.20	9.9.21	Used to calibrate meter boxes
MODEL: AL-19			

RELINQUISHED BY: DATE: 06.02.21 TIME: 8:00

RECEIVED BY: DATE: 06.02.21 TIME: 8:00

RELINQUISHED BY: DATE: TIME:

RECEIVED BY: DATE: TIME:

RELINQUISHED BY: DATE: TIME:

RECEIVED BY: DATE: TIME:

AIRx Testing Services, Inc.

EQUIPMENT CALIBRATIONS

CLIENT: ~~Vulcan~~ All American Asphalt.
TEST DATE: 06.02.21
LOCATION: IRVINE
LAB#: 1064
SOURCE: BAGHOUSE
JOB#: 221-061
METHOD: CARB 429

METER BOX # G

EQUIPMENT	DATE CALIBRATED:	EXPIRES:	COMMENTS:
METER BOX	01/21	7/21	NEED 3 POINTS POST.
PROBE	01/21	7/21	
THERMOCOUPLE	01/21	7/21	
NOZZLE	01/21	7/21	
WET TEST METER	9/20	9/21	Used to calibrate meter boxes

RELINQUISHED BY: DATE: 6-2-21 TIME: ~~9:00~~
RECEIVED BY: Wes Hard. DATE: 6-2-21 TIME: 6:00
RELINQUISHED BY: Wes Hard DATE: 6-3-21 TIME: 9:15
RECEIVED BY: DATE: 6.3.21 TIME: 9:15
RELINQUISHED BY: DATE: TIME:
RECEIVED BY: DATE: TIME:

DRY GAS METER CALIBRATION

Standard Pressure	29.92 in. hg.	Unit Number	G
Standard Temperature	60 F	Date:	1/23/2021
Ambient pressure	29.94 in. hg.	Leak Check:	Good
Ambient temperature	63 F		

	WET GAS		DRY GAS	Temperature					
ΔH in. H20	TIME min.	VOL. cf	VOL. in/out cf	W.G. AVG F	D.G. IN F	D.G. OUT F	D.G. AVG. F	*Y	†ΔH@ in. H20
			544.141		62.0	61.0			
0.75	13.19	5.000	549.171	60.0	63.0	61.0	61.8	0.9955	2.8820
			549.171		61.0	61.0			
0.75	13.19	5.000	554.206	60.0	63.0	62.0	61.8	0.9946	2.8820
			554.206		62.0	62.0			
0.75	13.19	5.000	559.246	60.0	64.0	62.0	62.5	0.9950	2.8779
			559.501		63.0	62.0			
1.50	9.35	5.000	564.536	60.0	63.0	62.0	62.5	0.9942	2.8922
			564.536		63.0	63.0			
1.50	9.36	5.000	569.591	60.0	64.0	62.0	63.0	0.9912	2.8957
			569.591		63.0	63.0			
1.50	9.35	5.000	574.635	60.0	64.0	63.0	63.3	0.9938	2.8881
			574.755		64.0	63.0			
2.25	7.63	5.000	579.806	60.0	64.0	63.0	63.5	0.9911	2.8835
			579.806		64.0	63.0			
2.25	7.63	5.000	584.851	60.0	65.0	64.0	64.0	0.9932	2.8808
			584.851		65.0	64.0			
2.25	7.65	5.000	589.898	60.0	65.0	64.0	64.5	0.9938	2.8931
			589.902		65.0	64.0			
3.00	6.60	5.000	594.932	61.0	66.0	64.0	64.8	0.9939	2.8809
			594.932		65.0	64.0			
3.00	6.62	5.000	599.961	61.0	66.0	64.0	64.8	0.9941	2.8984
			599.961		66.0	64.0			
3.00	6.63	5.000	604.998	61.0	66.0	64.0	65.0	0.9930	2.9058
			604.010		66.0	64.0			
3.75	5.91	5.000	609.055	61.0	66.0	64.0	65.0	0.9896	2.8862
			609.055		65.0	64.0			
3.75	5.90	5.000	614.104	61.0	65.0	64.0	64.5	0.9879	2.8791
			614.104		65.0	64.0			
3.75	5.89	5.000	619.154	61.0	65.0	64.0	64.5	0.9877	2.8694
						AVERAGE		0.9926	2.8863

Validity checks:

Meter Factor: 0.9926

* Y(max - min) ≤.02 ? √

† | ΔH@ - ΔH@ avg. | ≤ .20 in. H20 ? √

ΔH@ : 2.8863

Calibration by: FT

Reviewed by: KK

EQUATIONS USED:

Y= (VWG*PBAR*(TDGavg.+460))/((VDG*(PBAR+(ΔH/13.6))*(TWGavg.+460))

ΔH@ = ((0.0319*ΔH)/(PBAR*(TDGavg+460))*(((TWG+460)*T)/VWG)^2

DRY GAS METER CALIBRATION

Standard Pressure 29.92 in. hg.
Standard Temperature 60 F
Ambient pressure 29.89 in. hg.
Ambient temperature 65 F

Unit Number G
Date: 7/23/2021
Leak Check: Good

	WET GAS		DRY GAS		Temperature				
ΔH in. H20	TIME min.	VOL. cf	VOL. in/out cf	W.G. AVG F	D.G. IN F	D.G. OUT F	D.G. AVG. F	*Y	†ΔH@ in. H20
			132.489		62.0	61.0			
0.75	13.19	5.000	137.509	62.0	63.0	61.0	61.8	0.9937	2.9091
			137.509		61.0	61.0			
0.75	13.19	5.000	142.532	62.0	63.0	61.0	61.5	0.9926	2.9105
			142.532		62.0	62.0			
0.75	13.19	5.000	147.553	62.5	64.0	62.5	62.6	0.9942	2.9098
			147.659		63.0	62.5			
1.50	9.35	5.000	152.697	63.0	63.0	62.5	62.8	0.9883	2.9292
			152.697		63.0	62.5			
1.50	9.36	5.000	157.732	63.0	64.0	62.5	63.0	0.9894	2.9341
			157.732		63.0	62.5			
1.50	9.35	5.000	162.768	63.0	64.0	62.5	63.0	0.9892	2.9278
			162.872		64.0	62.5			
2.25	7.63	5.000	167.921	63.0	64.0	62.5	63.3	0.9853	2.9231
			167.921		64.0	62.5			
2.25	7.63	5.000	172.966	63.0	65.0	62.5	63.5	0.9866	2.9217
			172.966		65.0	62.5			
2.25	7.65	5.000	178.009	63.0	65.0	62.5	63.8	0.9874	2.9357
			178.150		65.0	62.5			
3.00	6.60	5.000	183.183	63.5	66.0	62.5	64.0	0.9871	2.9177
			183.183		65.0	62.5			
3.00	6.62	5.000	188.213	63.5	66.0	62.5	64.0	0.9877	2.9354
			188.213		66.0	62.5			
3.00	6.63	5.000	193.244	63.5	66.0	63.0	64.4	0.9882	2.9421
			193.555		66.0	63.0			
3.75	5.91	5.000	198.583	63.5	66.0	63.0	64.5	0.9872	2.9216
			198.583		65.0	63.0			
3.75	5.90	5.000	203.612	63.5	65.0	63.0	64.0	0.9861	2.9145
			203.612		65.0	63.0			
3.75	5.89	5.000	208.643	63.5	65.0	64.0	64.3	0.9862	2.9032
						AVERAGE		0.9886	2.9224

Validity checks:

Meter Factor: 0.9886

*** Y(max - min) ≤.02 ?** √

† | ΔH@ - ΔH@ avg. | ≤ .20 in. H20 ? √

ΔH@ : 2.9224

Calibration by: FT **Reviewed by:** KK

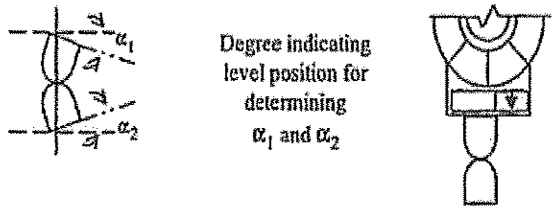
EQUATIONS USED:
Y= (VWG*PBAR*(TDGavg.+460))/((VDG*(PBAR+(ΔH/13.6))*(TWGavg.+460))
ΔH@ = ((0.0319*ΔH)/(PBAR*(TDGavg+460))*(((TWG+460)*T)/VWG)^2

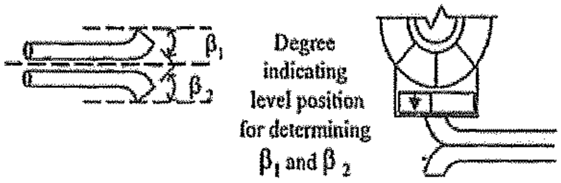
TYPE S PITOT TUBE INSPECTION SHEET

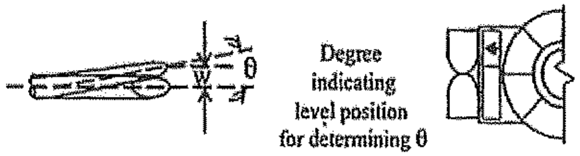
CAL DATE: 1/15/2021

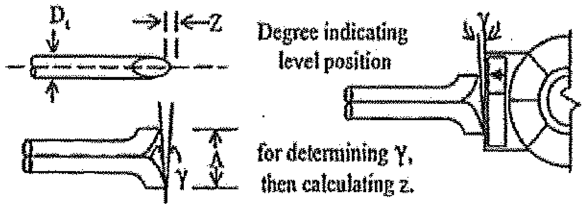
NEXT DUE DATE: Jul-21

PITOT ID: PT-4









Parameter	Values	Allowable Range
Level and Perpendicular?	Yes OR No	Yes
Obstruction?	Yes OR No	No
Damaged?	Yes OR No	No
$\alpha 1$	2	$-10^\circ \leq \alpha 1 \leq +10^\circ$
$\alpha 2$	2	$-10^\circ \leq \alpha 2 \leq +10^\circ$
$\beta 1$	1	$-5^\circ \leq \beta 1 \leq +5^\circ$
$\beta 2$	-2	$-5^\circ \leq \beta 2 \leq +5^\circ$
γ	2	NA
θ	1	NA
$Z = A (\tan \gamma)$	0.030	≤ 0.125 in.
$W = A (\tan \theta)$	0.015	≤ 0.031 in.
Dt	0.377	$0.188 \leq Dt \leq 0.375$
A	0.87	NA
A/2/(Dt)	1.15	$1.05 \leq PA/Dt \leq 1.5$

Certification:

I certify that this pitot tube meets or exceeds all specifications, criteria and/or applicable design features and is hereby assigned a pitot tube calibration factor Cp of 0.84.

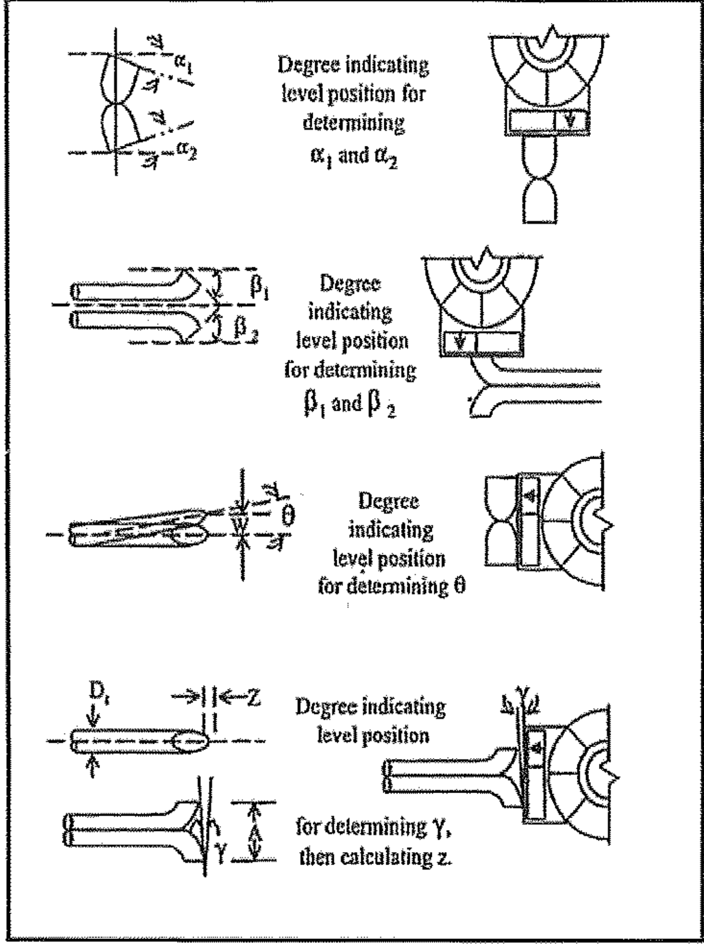
Certified By: FT **Date:** 1/15/2021

TYPE S PITOT TUBE INSPECTION SHEET

CAL DATE: 7/23/2021

NEXT DUE DATE: Jan-22

PITOT ID: PT-4



Parameter	Values	Allowable Range
Level and Perpendicular?	Yes OR No	Yes
Obstruction?	Yes OR No	No
Damaged?	Yes OR No	No
$\alpha 1$	1.5	$-10^\circ \le \alpha 1 \le +10^\circ$
$\alpha 2$	1.5	$-10^\circ \le \alpha 2 \le +10^\circ$
$\beta 1$	1	$-5^\circ \le \beta 1 \le +5^\circ$
$\beta 2$	1	$-5^\circ \le \beta 2 \le +5^\circ$
γ	2	NA
θ	2	NA
$Z = A (\tan \gamma)$	0.030	≤ 0.125 in.
$W = A (\tan \theta)$	0.030	≤ 0.031 in.
Dt	0.376	$0.188 \le Dt \le 0.375$
A	0.87	NA
A/2/(Dt)	1.16	$1.05 \le PA/Dt \le 1.5$

Certification:

I certify that this pitot tube meets or exceeds all specifications, criteria and/or applicable design features and is hereby assigned a pitot tube calibration factor Cp of 0.84.

Certified By: FT **Date:** 7/23/2021

PYROMETER CALIBRATION

Date: 7/23/2021 Unit: 4

Point	* Standard Temperature *Tstd*	Pyrometer Temperature *Tpyr*	Error %
	deg. F	deg. F	
1 Ambient	64	65	0.10%
2 Ice	32	34	0.30%
3 Boil	212	213	0.15%

Std. Corr. Factor 0.981

Calibration by: FT *Standard ID: T-1

Reviewed by: KK

PYROMETER CALIBRATION

Date: 1/15/2021 Unit: 4

Point	* Standard Temperature *Tstd*	Pyrometer Temperature *Tpyr*	Error %
	deg. F	deg. F	
1 Ambient	64	64	0.02%
2 Ice	32	33	0.24%
3 Boil	212	211	0.22%

Std. Corr. Factor 0.990

Calibration by: FT

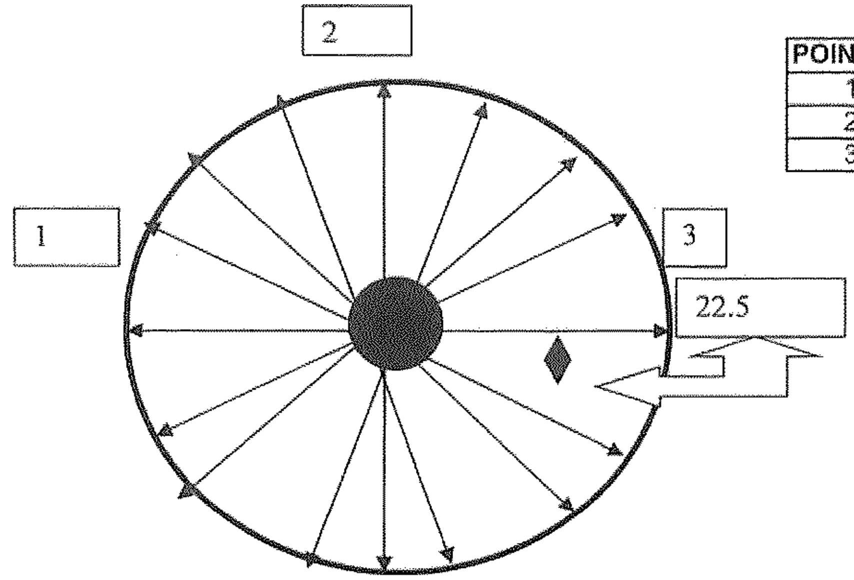
*Standard ID: T-1

Reviewed by: KK

AIR$_X$ Testing *Inc.*

PYREX NOZZLE CALIBRATION

Nozzle I.D. H



POINTS	
1	0.325
2	0.325
3	0.324

Average Nozzle Diameter = **0.325**

Analyst: FT

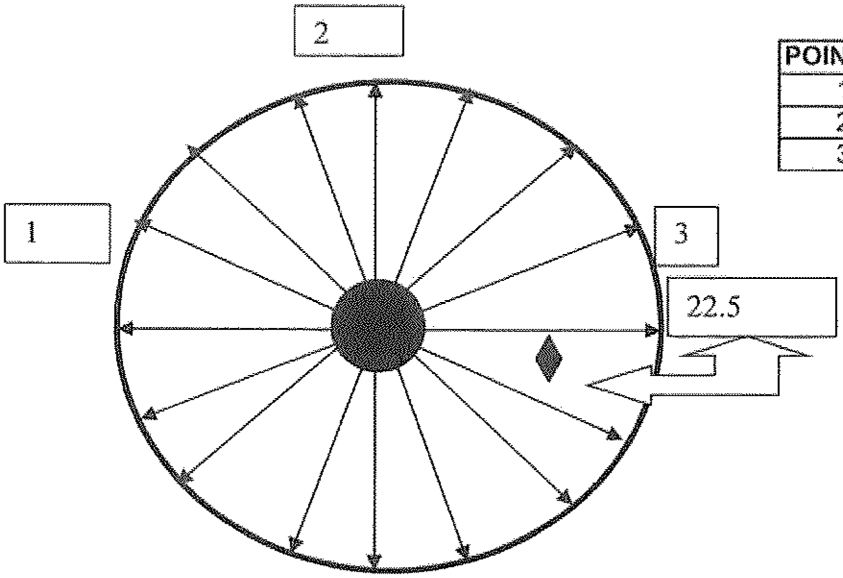
Date: January 15, 2021

*Point to point reading not to exceed .004

AIR X Testing Inc.

PYREX NOZZLE CALIBRATION

Nozzle I.D. H



POINTS	
1	0.325
2	0.324
3	0.326

Average Nozzle Diameter = **0.325**

Analyst: FJT

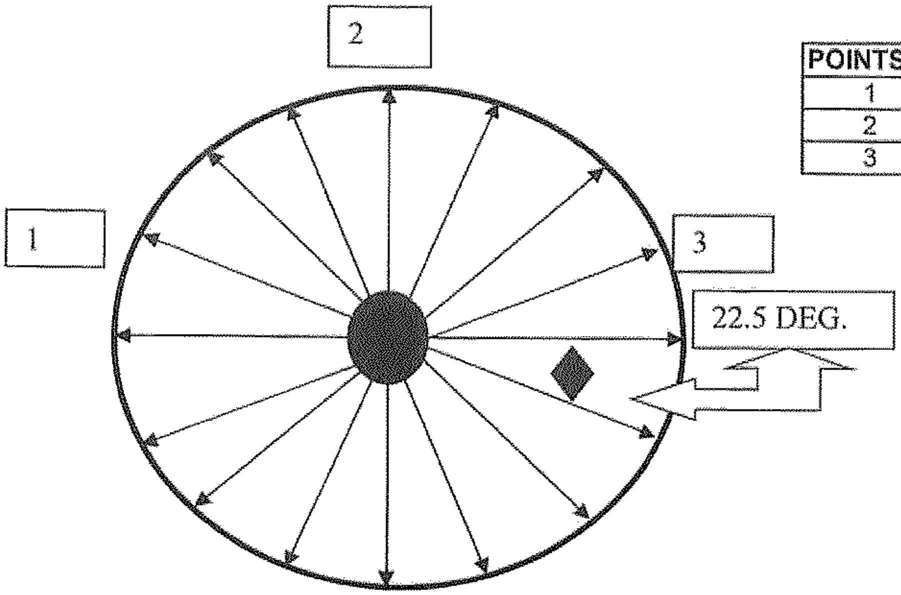
Date: July 23, 2021

*Point to point reading not to exceed .004

AIR X Testing Inc.

PYREX NOZZLE CALIBRATION

Nozzle I.D. E



POINTS	
1	0.340
2	0.340
3	0.340

Average Nozzle Diameter = **0.340**

Analyst: FT

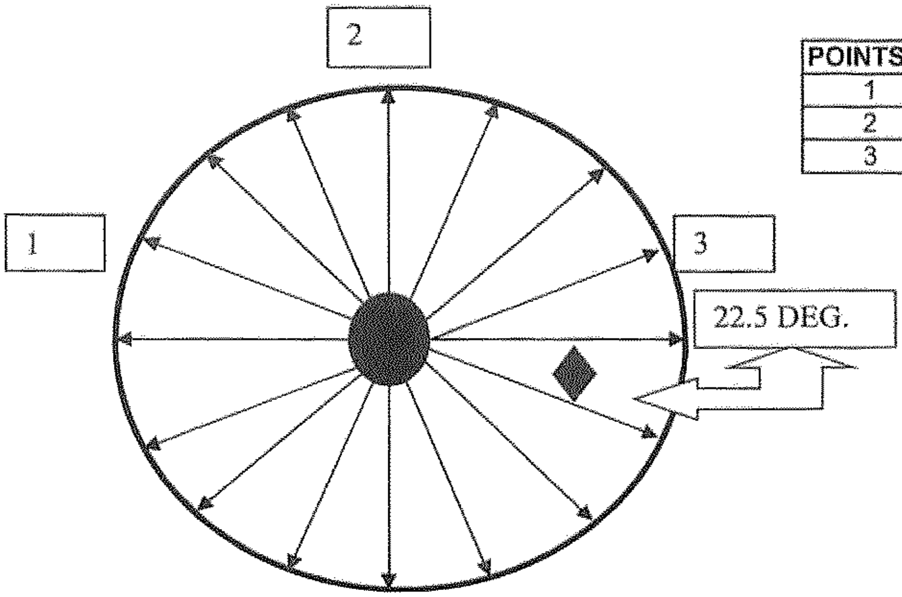
Date: January 15, 2021

*Point to point reading not to exceed .004

AIR$_x$ Testing Inc.

PYREX NOZZLE CALIBRATION

Nozzle I.D. E



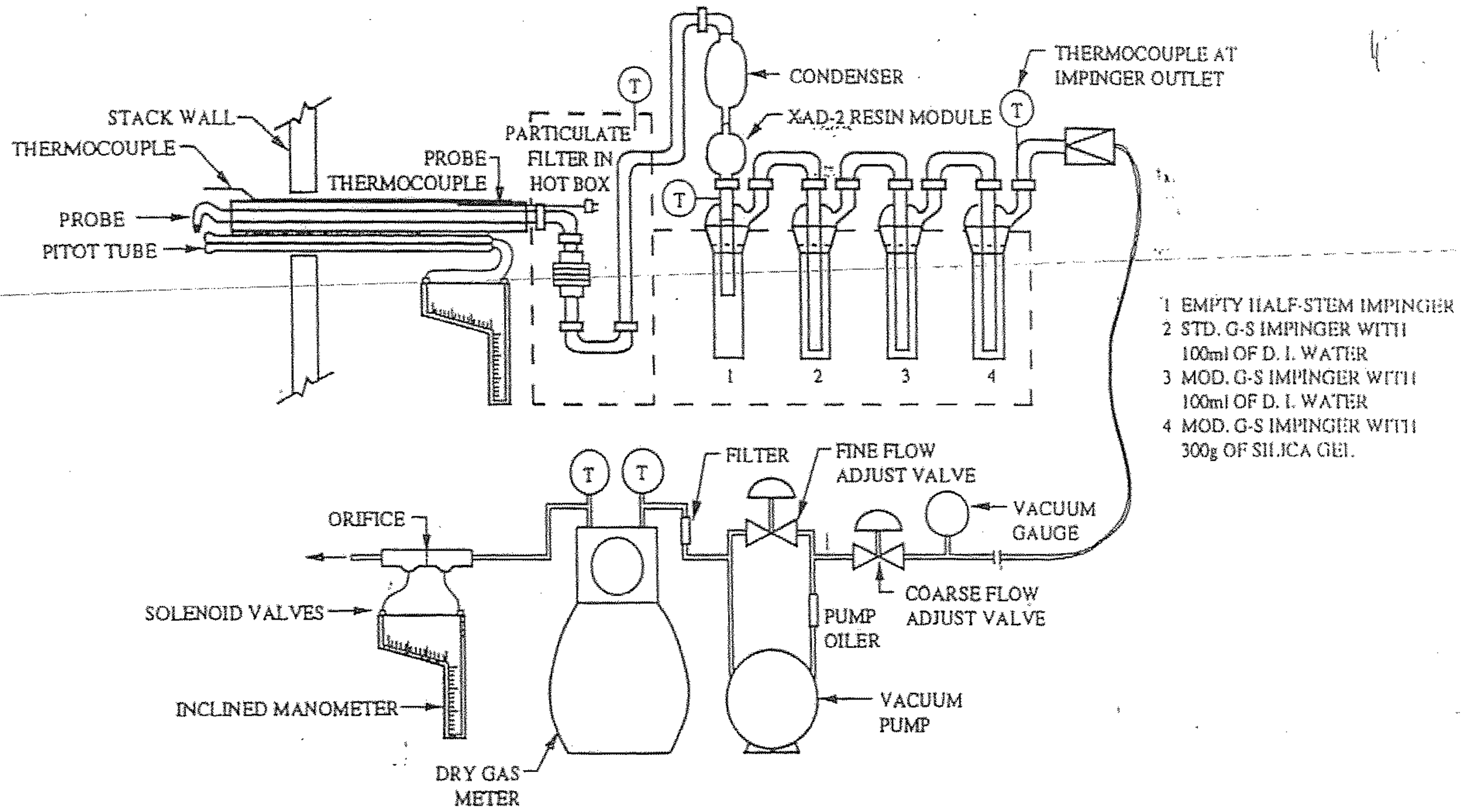
POINTS	
1	0.340
2	0.340
3	0.340

Average Nozzle Diameter = **0.340**

Analyst: FT

Date: July 15, 2021

*Point to point reading not to exceed .004



1 EMPTY HALF-STEM IMPINGER
2 STD. G-S IMPINGER WITH 100ml OF D. I. WATER
3 MOD. G-S IMPINGER WITH 100ml OF D. I. WATER
4 MOD. G-S IMPINGER WITH 300g OF SILICA GEL

CARB Method 429 sampling train.

AIRx Testing

CHAIN OF CUSTODY

INVOICE TO: X SAME

ATTN:

REPORT TO: PO#

AIRx Testing
2472 Eastman Avenue, Unit 34
Ventura, CA 93003
(805) 644-1099 Fax (805) 644-2672

Contact:

EXACT COPY OF THE ORIGINAL
INIT WWS 06/09/21

LAB # 221-061 PROJECT Name: All American Asphalt-IRVINE

Rush: 24hr. Normal: 10 Day

Samplers: (Signature)

Sample Method:

Return or Dispose

Sample No.	Sample Date	Sample Time	Comp	Grab	Sample Description	Volume (g) (ml)	Fuel (ng) (oil)	CARB Method 429						REMARKS
12	6/2 | 6/3	6:50	X		Run 1. Front ½	75		X						
13			X		Filter	—		X						Combine
14			X		Back ½ Rinse	75		X						Impinger Catches
15			X		XAD TRAP	—		X						A+B For
16			X		Impinger Catch A	1011		X						Each Run
17			X		Impinger Catch B	566		X						
18	↓	↓	X		Impinger Rinse	75ml		X						
19	6-3-21	9:55	X		Run 2 Front ½	75		X						
20			X		Filter	—		X						
21			X		Back ½ Rinse	75		X						
22			X		XAD TRAP	—		X						
23			X		Impinger Catch A	935		X						
24			X		Impinger Catch B	1002		X						
25	↓	↓	X		Impinger Rinse	75		X						
26	6-7-21	6:00	X		Run 3 Front ½	75		X						
27			X		~~Back ½ Rinse~~ Filter	—		X						
28			X		Back ½ Rinse	75		X						
29			X		XAD TRAP	—		X						
30			X		Impinger Catch A	983		X						
31			X		Impinger Catch B	970		X						
32	↓	↓	X		Impinger Rinse	75		X						

Relinquished by:
Date: 6/9/21 Time

Received by: Kyle K
Date: 6/~~10~~ 9/21 Time 6:45 AM

Relinquished by: Kyle K
Date: 6/~~10~~ 9/21 Time: 1323

Received by: WSpaulding
Date: 06/09/21 Time 1323

AIRx Testing

CHAIN OF CUSTODY

INVOICE TO: X SAME

ATTN:

REPORT TO: PO#

AIRx Testing
2472 Eastman Avenue, Unit 34
Ventura, CA 93003
(805) 644-1099 Fax (805) 644-2672

Contact:

EXACT COPY OF THE ORIGINAL
INIT WWS 06/09/21

LAB # 221-061 PROJECT Name: All American Asphalt IRVINE

Samplers: (Signature)

Rush: 24hr. Normal: 10 Day

Sample Method:

Return or Dispose

Sample No.	Sample Date	Sample Time	Comp	Grab	Sample Description	Volume (g) (ml)	Fuel (ng) (oil)	ANALYSIS CARB 429						REMARKS
1	6-2-21	8:00		X	Sample Solution Blank $MECL_2$	100 mL		X						
2				X	" " " Acetone	100 mL		X						
3				X	" " " Hexane	100 mL		X						
4				X	" " " $NaHCO_3$	100 mL		X						
5				X	" " " Na_2CO_3	100 mL		X						
6			X		Field Blank Frt ½ Rinse	75 mL		X						
7			X		Filter	—		X						
8			X		Back ½ Rinse	75 mL		X						
9			X		XAD Trap	—		X						
10			X		Impingers	200 mL		X						
11			X		Impinger Rinse	75 mL		X						

Relinquished by:
Date: 6-9-21 Time

Received by:
Date: 6/~~10~~ 9/21 Time 6:45 AM

Relinquished by:
Date: 6/~~10~~ 9/21 Time: 1323

Received by: WSpanna
Date: 06/09/21 Time 1323

CARB METHOD 436
MULTIPLE METALS

June
2-3-7

ALL AMERICAN ASPHALT IRVINE 221-061
CALCULATED EMISSION RESULTS CARB METHOD 436

	Run 1	Run 2	Run 3	Average (3 Runs)
Aluminum Weight (g)	0.00248	0.00227	0.00142	0.00206
Aluminum Emissions (grain/Dscf)	0.000092	0.000095	0.000057	0.000081
Aluminum Flow Rate (lb/hr)	0.018	0.019	0.012	0.016
Aluminum (lb/ton)	[redacted]	[redacted]	[redacted]	[redacted]
Aluminum (lb/mmbtu)	0.000360	0.000379	0.000226	0.000322
Antimony Weight (g)	< 0.00000113	< 0.00000113	< 0.00000587	<0.00000271
Antimony Emissions (grain/Dscf)	< 0.000000042	< 0.000000047	< 0.00000024	<0.00000011
Antimony Flow Rate (lb/hr)	< 0.0000083	< 0.0000096	< 0.000049	< 0.000022
Antimony (lb/ton)	[redacted]	[redacted]	[redacted]	[redacted]
Antimony (lb/mmbtu)	< 0.00000016	< 0.00000019	< 0.00000093	<0.00000043
Arsenic Weight (g)	< 0.00000158	< 0.00000158	< 0.00000158	<0.00000158
Arsenic Emissions (grain/Dscf)	< 0.000000058	< 0.000000066	< 0.000000063	< 0.000000063
Arsenic Flow Rate (lb/hr)	< 0.0000116	< 0.0000134	< 0.0000131	< 0.0000127
Arsenic (lb/ton)	[redacted]	[redacted]	[redacted]	[redacted]
Arsenic (lb/mmbtu)	< 0.00000023	< 0.00000026	< 0.00000025	<0.00000025
Barium Weight (g)	0.0000246	0.0000239	0.0000173	0.0000219
Barium Emissions (grain/Dscf)	0.00000091	0.00000100	0.00000070	0.00000087
Barium Flow Rate (lb/hr)	0.00018	0.00020	0.00014	0.00018
Barium (lb/ton)	[redacted]	[redacted]	[redacted]	[redacted]
Barium (lb/mmbtu)	0.00000358	0.00000399	0.00000275	0.00000344
Beryllium Weight (g)	< 0.000000045	< 0.000000045	< 0.000000045	< 0.000000045
Beryllium Emissions (grain/Dscf)	< 0.0000000017	< 0.0000000019	< 0.0000000018	< 0.0000000018
Beryllium Flow Rate (lb/hr)	< 0.00000033	< 0.00000038	< 0.00000037	<0.00000036
Beryllium (lb/ton)	[redacted]	[redacted]	[redacted]	[redacted]
Beryllium (lb/mmbtu)	< 0.0000000065	< 0.0000000075	< 0.0000000071	< 0.0000000071
Cadmium Weight (g)	0.00000068	0.00000126	0.00000090	0.000000946
Cadmium Emissions (grain/Dscf)	0.000000025	0.000000053	0.000000036	0.000000038
Cadmium Flow Rate (lb/hr)	0.0000050	0.0000107	0.0000075	0.0000077
Cadmium (lb/ton)	[redacted]	[redacted]	[redacted]	[redacted]
Cadmium (lb/mmbtu)	0.000000098	0.000000210	0.000000143	0.000000150
Chromium Weight (g)	0.0000125	0.0000174	0.00000479	0.00001156
Chromium Emissions (grain/Dscf)	0.00000046	0.00000073	0.00000019	0.00000046
Chromium Flow Rate (lb/hr)	0.000092	0.000148	0.000040	0.000093
Chromium (lb/ton)	[redacted]	[redacted]	[redacted]	[redacted]
Chromium (lb/mmbtu)	0.000001817	0.000002902	0.000000761	0.00000183
Cobalt Weight (g)	0.00000119	0.00000189	0.00000035	0.00000114
Cobalt Emissions (grain/Dscf)	0.000000044	0.000000079	0.000000014	0.000000046
Cobalt Flow Rate (lb/hr)	0.0000088	0.000016	0.0000029	0.0000093
Cobalt (lb/ton)	[redacted]	[redacted]	[redacted]	[redacted]
Cobalt (lb/mmbtu)	0.000000173	0.000000315	0.0000000554	0.000000181
Copper Weight (g)	0.0000117	0.0000414	0.00000585	0.00001965
Copper Emissions (grain/Dscf)	0.00000043	0.0000017	0.00000024	0.00000080
Copper Flow Rate (lb/hr)	0.000086	0.00035	0.000049	0.00016
Copper (lb/ton)	[redacted]	[redacted]	[redacted]	[redacted]
Copper (lb/mmbtu)	0.00000170	0.00000690	0.000000929	0.00000318
Lead Weight (g)	<0.00000113	<0.00000113	<0.00000113	<0.00000113
Lead Emissions (grain/Dscf)	<0.000000042	<0.000000047	<0.000000045	<0.000000045
Lead Flow Rate (lb/hr)	<0.0000083	<0.0000096	<0.0000093	<0.0000091
Lead (lb/ton)	[redacted]	[redacted]	[redacted]	[redacted]
Lead (lb/mmbtu)	<0.00000016	<0.00000019	<0.00000018	<0.00000018
Manganese Weight (g)	0.0000405	0.0000873	0.00001980	0.00004920
Manganese Emissions (grain/Dscf	0.0000015	0.0000037	0.00000080	0.0000020
Manganese Flow Rate (lb/hr)	0.00030	0.00074	0.00016	0.00040
Manganese (lb/ton)	[redacted]	[redacted]	[redacted]	[redacted]
Manganese (lb/mmbtu)	0.00000589	0.0000146	0.00000315	0.00000786

CALCULATED EMISSION RESULTS CARB METHOD 436 (Continued)

	Run 1	Run 2	Run 3	Average (3 Runs)
Mercury Weight (g)	< 0.0000074	< 0.0000062	< 0.0000054	<0.00000631
Mercury Emissions (grain/Dscf)	< 0.00000027	< 0.00000026	< 0.00000022	<0.00000025
Mercury Flow Rate (lb/hr)	< 0.000054	< 0.000053	< 0.000045	< 0.000051
Mercury (lb/ton)	[redacted]	[redacted]	[redacted]	[redacted]
Mercury (lb/mmbtu)	< 0.0000011	< 0.0000010	< 0.00000086	<0.00000099
Nickel Weight (g)	0.0000296	0.0000404	0.0000085	0.0000262
Nickel Emissions (grain/Dscf)	0.0000011	0.0000017	0.00000034	0.0000010
Nickel Flow Rate (lb/hr)	0.00022	0.00034	0.000070	0.00021
Nickel (lb/ton)	[redacted]	[redacted]	[redacted]	[redacted]
Nickel (lb/mmbtu)	0.00000430	0.00000674	0.00000134	0.00000413
Phosphorous Weight (g)	0.000113	0.000126	0.0000927	0.0001106
Phosphorous Emissions (grain/Ds	0.0000042	0.0000053	0.0000037	0.0000044
Phosphorous Flow Rate (lb/hr)	0.00083	0.0011	0.00077	0.00089
Phosphorous (lb/ton)	[redacted]	[redacted]	[redacted]	[redacted]
Phosphorous (lb/mmbtu)	0.0000164	0.0000210	0.0000147	0.0000174
Selenium Weight (g)	<0.0000034	< 0.0000034	< 0.0000034	<0.00000338
Selenium Emissions (grain/Dscf)	<0.00000013	<0.00000014	<0.00000014	<0.00000013
Selenium Flow Rate (lb/hr)	<0.000025	<0.000029	<0.000028	<0.000027
Selenium (lb/ton)	[redacted]	[redacted]	[redacted]	[redacted]
Selenium (lb/mmbtu)	<0.00000049	<0.00000056	<0.00000054	<0.00000053
Silver Weight (g)	< 0.00000045	< 0.00000045	< 0.00000045	<0.00000045
Silver Emissions (grain/Dscf)	< 0.000000017	< 0.000000019	< 0.000000018	< 0.000000018
Silver Flow Rate (lb/hr)	< 0.000003322	< 0.000003835	< 0.000003732	< 0.000003629
Silver (lb/ton)	[redacted]	[redacted]	[redacted]	[redacted]
Silver (lb/mmbtu)	< 0.000000065	< 0.000000075	< 0.000000071	< 0.000000071
Thallium Weight (g)	< 0.00000225	< 0.0000023	<0.00000225	<0.00000225
Thallium Emissions (grain/Dscf)	< 0.000000083	< 0.000000094	< 0.000000091	<0.000000090
Thallium Flow Rate (lb/hr)	< 0.000017	< 0.000019	< 0.000019	< 0.000018
Thallium (lb/ton)	[redacted]	[redacted]	[redacted]	[redacted]
Thallium (lb/mmbtu)	<0.00000033	<0.00000038	<0.00000036	<0.00000035
Vanadium Weight (g)	<0.0000061	< 0.0000069	<0.0000025	<0.00000516
Vanadium missions (grain/Dscf)	<0.00000023	<0.00000029	<0.000000099	<0.00000021
Vanadium Flow Rate (lb/hr)	<0.000045	<0.000059	<0.000020	<0.000041
Vanadium (lb/ton)	[redacted]	[redacted]	[redacted]	[redacted]
Vanadium (lb/mmbtu)	<0.00000088	<0.0000012	<0.00000039	<0.00000081
Zinc Weight (g)	0.000155	0.000169	0.0000701	0.0001314
Zinc Emissions (grain/Dscf)	0.0000058	0.0000071	0.0000028	0.0000052
Zinc Flow Rate (lb/hr)	0.0011	0.0014	0.00058	0.0011
Zinc Flow (lb/ton)	[redacted]	[redacted]	[redacted]	[redacted]
Zinc Flow (lb/mmbtu)	0.0000225	0.0000282	0.0000111	0.0000206

CALCULATED EMISSION RESULTS

Date : 6/2-3/2021 Run # : 1

Aluminum Weight (g)	**0.00248**	
Aluminum Emissions (grain/Dscf)	**0.000092**	Cs = 15.43*Ws/Vmstd
Aluminum Flow Rate (lb/hr)	**0.019**	CFs = Cs*60*Ostd/7000
Aluminum (lb/ton)	[redacted]	lb/hr/tons/hr
Antimony Weight (g)	**< 0.0000023**	
Antimony Emissions (grain/Dscf)	**< 0.000000083**	Cs = 15.43*Ws/Vmstd
Antimony Flow Rate (lb/hr)	**< 0.000017**	CFs = Cs*60*Ostd/7000
Antimony (lb/ton)	[redacted]	lb/hr/tons/hr
Arsenic Weight (g)	**< 0.0000032**	
Arsenic Emissions (grain/Dscf)	**< 0.00000012**	Cs = 15.43*Ws/Vmstd
Arsenic Flow Rate (lb/hr)	**< 0.000024**	CFs = Cs*60*Ostd/7000
Arsenic (lb/ton)	[redacted]	lb/hr/tons/hr
Barium Weight (g)	**0.0000246**	
Barium Emissions (grain/Dscf)	**0.00000091**	Cs = 15.43*Ws/Vmstd
Barium Flow Rate (lb/hr)	**0.00019**	CFs = Cs*60*Ostd/7000
Barium (lb/ton)	[redacted]	lb/hr/tons/hr
Beryllium Weight (g)	**< 0.000000090**	
Beryllium Emissions (grain/Dscf)	**< 0.0000000033**	Cs = 15.43*Ws/Vmstd
Beryllium Flow Rate (lb/hr)	**< 0.00000068**	CFs = Cs*60*Ostd/7000
Beryllium (lb/ton)	[redacted]	lb/hr/tons/hr
Cadmium Weight (g)	**0.00000068**	
Cadmium Emissions (grain/Dscf)	**0.000000025**	Cs = 15.43*Ws/Vmstd
Cadmium Flow Rate (lb/hr)	**0.0000051**	CFs = Cs*60*Ostd/7000
Cadmium (lb/ton)	[redacted]	lb/hr/tons/hr
Chromium Weight (g)	**0.0000125**	
Chromium Emissions (grain/Dscf)	**0.00000046**	Cs = 15.43*Ws/Vmstd
Chromium Flow Rate (lb/hr)	**0.000095**	CFs = Cs*60*Ostd/7000
Chromium (lb/ton)	[redacted]	lb/hr/tons/hr
Cobalt Weight (g)	**0.00000119**	
Cobalt Emissions (grain/Dscf)	**0.000000044**	Cs = 15.43*Ws/Vmstd
Cobalt Flow Rate (lb/hr)	**0.0000090**	CFs = Cs*60*Ostd/7000
Cobalt (lb/ton)	[redacted]	lb/hr/tons/hr
Copper Weight (g)	**0.0000117**	
Copper Emissions (grain/Dscf)	**0.00000043**	Cs = 15.43*Ws/Vmstd
Copper Flow Rate (lb/hr)	**0.000089**	CFs = Cs*60*Ostd/7000
Copper (lb/ton)	[redacted]	lb/hr/tons/hr
Lead Weight (g)	**<0.0000023**	
Lead Emissions (grain/Dscf)	**<0.000000083**	Cs = 15.43*Ws/Vmstd
Lead Flow Rate (lb/hr)	**<0.000017**	CFs = Cs*60*Ostd/7000
Lead (lb/ton)	[redacted]	lb/hr/tons/hr
Manganese Weight (g)	**0.0000405**	
Manganese Emissions (grain/Dscf)	**0.0000015**	Cs = 15.43*Ws/Vmstd
Manganese Flow Rate (lb/hr)	**0.00031**	CFs = Cs*60*Ostd/7000
Manganese (lb/ton)	[redacted]	lb/hr/tons/hr
Mercury Weight (g)	**< 0.0000075**	
Mercury Emissions (grain/Dscf)	**< 0.00000028**	Cs = 15.43*Ws/Vmstd
Mercury Flow Rate (lb/hr)	**< 0.000057**	CFs = Cs*60*Ostd/7000
Mercury (lb/ton)	[redacted]	lb/hr/tons/hr

CALCULATED EMISSION RESULTS

Date : 6/2-3/2021 Run # : 1

Nickel Weight (g)	0.0000296	
Nickel Emissions (grain/Dscf)	0.0000011	Cs = 15.43*Ws/Vmstd
Nickel Flow Rate (lb/hr)	0.00022	CFs = Cs*60*Qstd/7000
Nickel (lb/ton)	[redacted]	lb/hr/tons/hr
Phosphorous Weight (g)	0.000113	
Phosphorous Emissions (grain/Dscf)	0.0000042	Cs = 15.43*Ws/Vmstd
Phosphorous Flow Rate (lb/hr)	0.00086	CFs = Cs*60*Qstd/7000
Phosphorous (lb/ton)	[redacted]	lb/hr/tons/hr
Selenium Weight (g)	<0.0000068	
Selenium Emissions (grain/Dscf)	<0.00000025	Cs = 15.43*Ws/Vmstd
Selenium Flow Rate (lb/hr)	<0.000051	CFs = Cs*60*Qstd/7000
Selenium (lb/ton)	[redacted]	lb/hr/tons/hr
Silver Weight (g)	< 0.00000090	
Silver Emissions (grain/Dscf)	< 0.000000033	Cs = 15.43*Ws/Vmstd
Silver Flow Rate (lb/hr)	< 0.0000068	CFs = Cs*60*Qstd/7000
Silver (lb/ton)	[redacted]	lb/hr/tons/hr
Thallium Weight (g)	< 0.0000045	
Thallium Emissions (grain/Dscf)	< 0.00000017	Cs = 15.43*Ws/Vmstd
Thallium Flow Rate (lb/hr)	< 0.000034	CFs = Cs*60*Qstd/7000
Thallium (lb/ton)	[redacted]	lb/hr/tons/hr
Vanadium Weight (g)	<0.0000061	
Vanadium missions (grain/Dscf)	<0.00000022	Cs = 15.43*Ws/Vmstd
Vanadium Flow Rate (lb/hr)	<0.000046	CFs = Cs*60*Qstd/7000
Vanadium (lb/ton)	[redacted]	lb/hr/tons/hr
Zinc Weight (g)	0.000155	
Zinc Emissions (grain/Dscf)	0.0000057	Cs = 15.43*Ws/Vmstd
Zinc Flow Rate (lb/hr)	0.0012	CFs = Cs*60*Qstd/7000
Zinc Flow (lb/ton)	[redacted]	lb/hr/tons/hr

CALCULATED EMISSION RESULTS

Date : 6/3/2021 Run # : 2

Aluminum Weight (g)	0.00227	
Aluminum Emissions (grain/Dscf)	0.000095	Cs = 15.43*Ws/Vmstd
Aluminum Flow Rate (lb/hr)	0.020	CFs = Cs*60*Qstd/7000
Aluminum (lb/ton)	[redacted]	lb/hr/tons/hr
Antimony Weight (g)	< 0.0000023	
Antimony Emissions (grain/Dscf)	< 0.000000095	Cs = 15.43*Ws/Vmstd
Antimony Flow Rate (lb/hr)	< 0.000020	CFs = Cs*60*Qstd/7000
Antimony (lb/ton)	[redacted]	lb/hr/tons/hr
Arsenic Weight (g)	< 0.0000032	
Arsenic Emissions (grain/Dscf)	< 0.00000013	Cs = 15.43*Ws/Vmstd
Arsenic Flow Rate (lb/hr)	< 0.000028	CFs = Cs*60*Qstd/7000
Arsenic (lb/ton)	[redacted]	lb/hr/tons/hr
Barium Weight (g)	0.0000239	
Barium Emissions (grain/Dscf)	0.0000010	Cs = 15.43*Ws/Vmstd
Barium Flow Rate (lb/hr)	0.00021	CFs = Cs*60*Qstd/7000
Barium (lb/ton)	[redacted]	lb/hr/tons/hr
Beryllium Weight (g)	< 0.000000090	
Beryllium Emissions (grain/Dscf)	< 0.0000000038	Cs = 15.43*Ws/Vmstd
Beryllium Flow Rate (lb/hr)	< 0.00000079	CFs = Cs*60*Qstd/7000
Beryllium (lb/ton)	[redacted]	lb/hr/tons/hr
Cadmium Weight (g)	0.00000126	
Cadmium Emissions (grain/Dscf)	0.000000053	Cs = 15.43*Ws/Vmstd
Cadmium Flow Rate (lb/hr)	0.000011	CFs = Cs*60*Qstd/7000
Cadmium (lb/ton)	[redacted]	lb/hr/tons/hr
Chromium Weight (g)	0.0000174	
Chromium Emissions (grain/Dscf)	0.00000073	Cs = 15.43*Ws/Vmstd
Chromium Flow Rate (lb/hr)	0.00015	CFs = Cs*60*Qstd/7000
Chromium (lb/ton)	[redacted]	lb/hr/tons/hr
Cobalt Weight (g)	<0.0000019	
Cobalt Emissions (grain/Dscf)	<0.000000079	Cs = 15.43*Ws/Vmstd
Cobalt Flow Rate (lb/hr)	<0.000017	CFs = Cs*60*Qstd/7000
Cobalt (lb/ton)	[redacted]	lb/hr/tons/hr
Copper Weight (g)	0.0000414	
Copper Emissions (grain/Dscf)	0.0000017	Cs = 15.43*Ws/Vmstd
Copper Flow Rate (lb/hr)	0.00037	CFs = Cs*60*Qstd/7000
Copper (lb/ton)	[redacted]	lb/hr/tons/hr
Lead Weight (g)	<0.00000225	
Lead Emissions (grain/Dscf)	<0.000000095	Cs = 15.43*Ws/Vmstd
Lead Flow Rate (lb/hr)	<0.000020	CFs = Cs*60*Qstd/7000
Lead (lb/ton)	[redacted]	lb/hr/tons/hr
Manganese Weight (g)	0.0000873	
Manganese Emissions (grain/Dscf)	0.0000037	Cs = 15.43*Ws/Vmstd
Manganese Flow Rate (lb/hr)	0.00077	CFs = Cs*60*Qstd/7000
Manganese (lb/ton)	[redacted]	lb/hr/tons/hr
Mercury Weight (g)	0.0000064	
Mercury Emissions (grain/Dscf)	0.00000027	Cs = 15.43*Ws/Vmstd
Mercury Flow Rate (lb/hr)	0.000056	CFs = Cs*60*Qstd/7000
Mercury (lb/ton)	[redacted]	lb/hr/tons/hr

CALCULATED EMISSION RESULTS

Date : 6/3/2021 Run # : 2

Nickel Weight (g)	0.0000404	
Nickel Emissions (grain/Dscf)	0.0000017	Cs = 15.43*Ws/Vmstd
Nickel Flow Rate (lb/hr)	0.00036	CFs = Cs*60*Qstd/7000
Nickel (lb/ton)	[redacted]	lb/hr/tons/hr
Phosphorous Weight (g)	< 0.000126	
Phosphorous Emissions (grain/Dscf)	< 0.0000053	Cs = 15.43*Ws/Vmstd
Phosphorous Flow Rate (lb/hr)	< 0.0011	CFs = Cs*60*Qstd/7000
Phosphorous (lb/ton)	[redacted]	lb/hr/tons/hr
Selenium Weight (g)	< 0.0000068	
Selenium Emissions (grain/Dscf)	< 0.00000028	Cs = 15.43*Ws/Vmstd
Selenium Flow Rate (lb/hr)	< 0.000060	CFs = Cs*60*Qstd/7000
Selenium (lb/ton)	[redacted]	lb/hr/tons/hr
Silver Weight (g)	< 0.00000090	
Silver Emissions (grain/Dscf)	< 0.000000038	Cs = 15.43*Ws/Vmstd
Silver Flow Rate (lb/hr)	< 0.0000079	CFs = Cs*60*Qstd/7000
Silver (lb/ton)	[redacted]	lb/hr/tons/hr
Thallium Weight (g)	< 0.0000045	
Thallium Emissions (grain/Dscf)	< 0.00000019	Cs = 15.43*Ws/Vmstd
Thallium Flow Rate (lb/hr)	< 0.000040	CFs = Cs*60*Qstd/7000
Thallium (lb/ton)	[redacted]	lb/hr/tons/hr
Vanadium Weight (g)	< 0.0000069	
Vanadium missions (grain/Dscf)	< 0.00000029	Cs = 15.43*Ws/Vmstd
Vanadium Flow Rate (lb/hr)	< 0.000061	CFs = Cs*60*Qstd/7000
Vanadium (lb/ton)	[redacted]	lb/hr/tons/hr
Zinc Weight (g)	0.000169	
Zinc Emissions (grain/Dscf)	0.0000071	Cs = 15.43*Ws/Vmstd
Zinc Flow Rate (lb/hr)	0.0015	CFs = Cs*60*Qstd/7000
Zinc Flow (lb/ton)	[redacted]	lb/hr/tons/hr

CALCULATED EMISSION RESULTS

Date : 6/7/2021 Run # : 3

Aluminum Weight (g)	0.00142	
Aluminum Emissions (grain/Dscf)	0.000057	Cs = 15.43*Ws/Vmstd
Aluminum Flow Rate (lb/hr)	0.012	CFs = Cs*60*Qstd/7000
Aluminum (lb/ton)	[redacted]	lb/hr/tons/hr
Antimony Weight (g)	< 0.0000059	
Antimony Emissions (grain/Dscf)	< 0.00000024	Cs = 15.43*Ws/Vmstd
Antimony Flow Rate (lb/hr)	< 0.000052	CFs = Cs*60*Qstd/7000
Antimony (lb/ton)	[redacted]	lb/hr/tons/hr
Arsenic Weight (g)	< 0.0000032	
Arsenic Emissions (grain/Dscf)	< 0.00000013	Cs = 15.43*Ws/Vmstd
Arsenic Flow Rate (lb/hr)	< 0.000028	CFs = Cs*60*Qstd/7000
Arsenic (lb/ton)	[redacted]	lb/hr/tons/hr
Barium Weight (g)	0.0000173	
Barium Emissions (grain/Dscf)	0.00000070	Cs = 15.43*Ws/Vmstd
Barium Flow Rate (lb/hr)	0.00015	CFs = Cs*60*Qstd/7000
Barium (lb/ton)	[redacted]	lb/hr/tons/hr
Beryllium Weight (g)	<0.00000009	
Beryllium Emissions (grain/Dscf)	<0.0000000036	Cs = 15.43*Ws/Vmstd
Beryllium Flow Rate (lb/hr)	<0.00000079	CFs = Cs*60*Qstd/7000
Beryllium (lb/ton)	[redacted]	lb/hr/tons/hr
Cadmium Weight (g)	0.00000018	
Cadmium Emissions (grain/Dscf)	0.0000000073	Cs = 15.43*Ws/Vmstd
Cadmium Flow Rate (lb/hr)	0.0000016	CFs = Cs*60*Qstd/7000
Cadmium (lb/ton)	[redacted]	lb/hr/tons/hr
Chromium Weight (g)	0.00000479	
Chromium Emissions (grain/Dscf)	0.00000019	Cs = 15.43*Ws/Vmstd
Chromium Flow Rate (lb/hr)	0.000042	CFs = Cs*60*Qstd/7000
Chromium (lb/ton)	[redacted]	lb/hr/tons/hr
Cobalt Weight (g)	0.00000035	
Cobalt Emissions (grain/Dscf)	0.000000014	Cs = 15.43*Ws/Vmstd
Cobalt Flow Rate (lb/hr)	0.0000031	CFs = Cs*60*Qstd/7000
Cobalt (lb/ton)	[redacted]	lb/hr/tons/hr
Copper Weight (g)	0.00000585	
Copper Emissions (grain/Dscf)	0.00000024	Cs = 15.43*Ws/Vmstd
Copper Flow Rate (lb/hr)	0.000051	CFs = Cs*60*Qstd/7000
Copper (lb/ton)	[redacted]	lb/hr/tons/hr
Lead Weight (g)	<0.0000023	
Lead Emissions (grain/Dscf)	<0.000000091	Cs = 15.43*Ws/Vmstd
Lead Flow Rate (lb/hr)	<0.000020	CFs = Cs*60*Qstd/7000
Lead (lb/ton)	[redacted]	lb/hr/tons/hr
Manganese Weight (g)	0.0000198	
Manganese Emissions (grain/Dscf)	0.00000080	Cs = 15.43*Ws/Vmstd
Manganese Flow Rate (lb/hr)	0.00017	CFs = Cs*60*Qstd/7000
Manganese (lb/ton)	[redacted]	lb/hr/tons/hr
Mercury Weight (g)	<0.0000055	
Mercury Emissions (grain/Dscf)	<0.00000022	Cs = 15.43*Ws/Vmstd
Mercury Flow Rate (lb/hr)	<0.000049	CFs = Cs*60*Qstd/7000
Mercury (lb/ton)	[redacted]	lb/hr/tons/hr

CALCULATED EMISSION RESULTS

Date : 6/7/2021 Run # : 3

Nickel Weight (g)	0.0000085	
Nickel Emissions (grain/Dscf)	0.00000034	Cs = 15.43*Ws/Vmstd
Nickel Flow Rate (lb/hr)	0.000074	CFs = Cs*60*Qstd/7000
Nickel (lb/ton)	[redacted]	lb/hr/tons/hr
Phosphorous Weight (g)	0.0000927	
Phosphorous Emissions (grain/Dscf)	0.0000037	Cs = 15.43*Ws/Vmstd
Phosphorous Flow Rate (lb/hr)	0.00081	CFs = Cs*60*Qstd/7000
Phosphorous (lb/ton)	[redacted]	lb/hr/tons/hr
Selenium Weight (g)	< 0.0000068	
Selenium Emissions (grain/Dscf)	< 0.00000027	Cs = 15.43*Ws/Vmstd
Selenium Flow Rate (lb/hr)	< 0.000059	CFs = Cs*60*Qstd/7000
Selenium (lb/ton)	[redacted]	lb/hr/tons/hr
Silver Weight (g)	< 0.00000090	
Silver Emissions (grain/Dscf)	< 0.000000036	Cs = 15.43*Ws/Vmstd
Silver Flow Rate (lb/hr)	< 0.0000079	CFs = Cs*60*Qstd/7000
Silver (lb/ton)	[redacted]	lb/hr/tons/hr
Thallium Weight (g)	<0.0000045	
Thallium Emissions (grain/Dscf)	<0.00000018	Cs = 15.43*Ws/Vmstd
Thallium Flow Rate (lb/hr)	<0.000039	CFs = Cs*60*Qstd/7000
Thallium (lb/ton)	[redacted]	lb/hr/tons/hr
Vanadium Weight (g)	<0.0000025	
Vanadium missions (grain/Dscf)	<0.00000010	Cs = 15.43*Ws/Vmstd
Vanadium Flow Rate (lb/hr)	<0.000022	CFs = Cs*60*Qstd/7000
Vanadium (lb/ton)	[redacted]	lb/hr/tons/hr
Zinc Weight (g)	0.0000701	
Zinc Emissions (grain/Dscf)	0.0000028	Cs = 15.43*Ws/Vmstd
Zinc Flow Rate (lb/hr)	0.00062	CFs = Cs*60*Qstd/7000
Zinc Flow (lb/ton)	[redacted]	lb/hr/tons/hr

CARB Method 436 Metals Field Data

Client : All American Asphalt
Site : Irvine, CA
Unit : Bag House
Run # : 1
Date : 6/2-3/2021
Job # : 1064
Lab # : 221-061
Temp (Tstd): 60

SOURCE TEST CALIBRATION & STACK DATA

Baghouse Pressure
1.9
Production TPH:
[redacted]
Start-Time
6:50 6/2/2021
Stop-Time
8:53 6/3/2021

Std Pressure : 29.92
Cold Box : 7/5
Meter # : J
Meter Y : 1.0078
Time: 480
Amb Temp: 59.0
Pbar : 29.89
Pitot : 0.840
Pyro : 5
Nozzle : 0.376
Pre-pitot : OK
Qm: 0.75
Delta H@: 1.7468

K-Factor : 11.367
Mag Dp : Mano
Mag Dh : Mano
Static Pg : -0.09
Stack Dia : 62.5
"A" Eqv Dia : 1.7
"B" Eqv Dia: 3.0
From Method 100 Sheet
dcO2 : 14.48
dcCO2 : 3.61
Post Pitot : OK
pMd: 29.16
Bws: 0.2000

		Impinger Wt.
1223.5	0.0	
312.5	100.0	
156.0	100.0	
89.5	0.0	
170.5	100.0	
115.0	100.0	
1044.1	1000.1	
Total Vlc:	1711.0	

Sample Leak Checks
Pre : 0.010 in. Hg. : 20.0
Post : 0.008 in. Hg. : 20.0
pMs: 26.93
dcCO : 0.00
Constant: 846.72
Constant: 0.9244

FIELD TESTING DATA

	Traverse Points	Dwell Time	Stack Temp	Delta P In,H2O	Sqrt DP	Meter Volume	Delta H In,H2O	Meter Temp		Meter Vacuum
								Inlet	Outlet	
1	1.3	0	182	0.28	0.529	[redacted]	3.3	67	67	10.0
2	4.2	20	182	0.26	0.510	[redacted]	3.1	71	70	9.0
3	7.4	40	181	0.24	0.490	[redacted]	2.9	73	71	7.0
4	11.1	60	181	0.23	0.480	[redacted]	2.8	75	73	7.0
5	15.6	80	182	0.24	0.490	[redacted]	2.9	77	75	6.0
6	22.3	100	180	0.26	0.510	[redacted]	3.1	78	76	7.0
7	40.3	120	184	0.24	0.490	[redacted]	2.9	79	77	5.0
8	46.9	140	177	0.21	0.458	[redacted]	2.6	80	79	4.0
9	51.4	160	178	0.25	0.500	[redacted]	3.1	82	80	5.0
10	55.1	180	179	0.26	0.510	[redacted]	3.2	84	82	5.0
11	58.3	200	180	0.28	0.529	[redacted]	3.4	84	83	7.0
12	61.2	220	180	0.27	0.520	[redacted]	3.3	86	85	9.0
1		240	176	0.20	0.447	[redacted]	2.5	90	89	6.0
2		260	175	0.18	0.424	[redacted]	2.2	90	89	5.0
3		280	175	0.17	0.412	[redacted]	2.1	91	90	5.0
4		300	158	0.17	0.412	[redacted]	2.1	72	71	5.0
5		320	181	0.16	0.000	[redacted]	1.9	72	72	4.0
6		340	182	0.18	0.424	[redacted]	2.2	74	73	4.0
7		360	177	0.16	0.400	[redacted]	1.9	76	74	4.0
8		380	178	0.14	0.374	[redacted]	1.7	76	74	4.0
9		400	172	0.15	0.387	[redacted]	1.8	77	75	4.0
10		420	180	0.14	0.374	[redacted]	1.7	78	76	4.0
11		440	186	0.12	0.346	[redacted]	1.4	79	76	4.0
12		460	179	0.14	0.374	[redacted]	1.7	80	77	4.0
		480				[redacted]				

FIELD DATA AVERAGES

O2 %	Average Vacuum	CO2 %	Time Minutes	Stack temp ts	H2O Vol. Vlc	Sqrt Dp Avg sqrtDp	Meter Vol Vm	Delta H Avg Dh	Meter temp tm
14.5	5.58	3.6	480	178.5	1711.0	0.433	[redacted]	2.490	78.0

CARB Method 436 Metals Field Data

Client : All American Asphalt
Site : Irvine, CA
Unit : Bag House
Run # : 1

Date : 6/2-3/2021
Job # : 1064
Lab # : 221-061
Temp (Tstd): 60

*** SOURCE FIELD DATA***

Pbar	Barometer	29.89
Y	Meter Calibration Fac.	1.0078
Cp	Pitot Calibration Fac.	0.84
Pg	Stack Static Pressure (in. H2O)	-0.09
dcO2	Dry Concentration Oxygen	14.5
dcCO2	Dry Concentration Carbon Monoxide	3.6
tsd	Area Standard Temperature (deg F)	60.0
ts	Temperature of Stack Gas (deg.F)	178.5
μs	Stack Gas Viscosity (micropoise)	191.56
tm	Temperature of Meter (deg.F)	78.0
Delta P	Delta P Average (in H2O)	0.205
sqrtDP	Average Square root Delta P	0.433
Dh	Delta H Average (in H2O)	2.49
Vlc	Total Volume of Condensable water (g)	1711.0
Vm	Dry gas Volume Measured (dcf)	426.708
Ds	Stack Diameter (in.)	62.5
An	Area of the Nozzle	0.00077
Time	Sample duration (min)	480

*** INTERMEDIATE CALCULATIONS***

Ps	Absolute Stack Pressure (in.Hg)	29.88	Ps =Pbar+Pg/13.6
Tstd	Area Standard Temperature (deg R)	520	Tstd =tsd+460
Ts	Temperature of Stack Gas (deg.R)	638.5	Ts =ts+460
Tm	Temperature of Meter (deg.R)	538.0	Tm =tm+460
Vwstd	Volume of water vapor standard (scf)	79.32	Vwstd =(0.04707/(528/(tsd+460)))*Vlc
Vmstd	Sample gas volume (dscf)	417.7587	Vmstd =Vm*Y*(Tstd/Tm)*((Pbar+Dh/13.6)/29.92)
Bws	Moisture Content Stack Gas	0.160	Bws =Vwstd/(Vwstd+Vmstd)
dcN2	Dry Concentration Nitrogen	81.9	dcN2=100-((dcO2)+(dcCO2))
Md	Molecular Weight Stack Gas (dry)	29.157	Md =(dcCO2*0.44)+(dcO2*0.32)+(dcN2*0.28)
Ms	Molecular Weight Stack Gas (wet)	27.377	Ms =(Md*(1-Bws))+18*Bws
As	Area of Stack (Ft^2)	21.31	As =3.141592654*(Ds/12)^2/4

*** RESULTS***

Vs	Stack Gas Velocity (ft/sec)	27.5	Vs =85.49*Cp*sqrtDp*(SQRT(Ts/(Ps*Ms)))
Qa	Stack Gas Flow Rate (Acfm)	35,116	Qa =Vs*60*As
Qstd	Stack Gas Flow Rate (Dscfm)	24,004	Qstd =60*(1-Bws)*Vs*As*(Tstd/Ts)*(Ps/29.92)
I	Isokinetic Variation (%)	100.2	I =Pstd*VMstd*(ts+460)/(As*Time*Vs*Ps(tstd+460)*60 *(1-Bws))*100

CARB Method 436 Metals Field Data

Client : All American Asphalt
Site : Irvine, CA
Unit : Bag House
Run # : 2
Date : 6/3/2021
Job # : 1064
Lab # : 221-061
Temp (Tstd): 60

SOURCE TEST CALIBRATION & STACK DATA

Baghouse Pressure
1.8
Production TPH:
[redacted]
Start-Time
9:55
Stop-Time
18:00

Std Pressure : 29.92
Cold Box : 1 & 2
Meter # : J
Meter Y : 1.0078
Time: 480
Amb Temp: 68.0
Pbar : 29.86
Pitot : 0.840
Pyro : 5
Nozzle : 0.350
Pre-pitot : OK
Qm: 0.75
Delta H@: 1.7468

K-Factor : 8.713
Mag Dp : Mano
Mag Dh : Mano
Static Pg : -0.08
Stack Dia : 62.5
"A" Eqv Dia : 1.7
"B" Eqv Dia: 3.0
From Method 100 Sheet
dcO2 : 14.57
dcCO2 : 3.56
Post Pitot : OK
pMd: 29.15
Bws: 0.1905

1400.0	0.0	Impinger Wt.
332.5	100.0	
165.5	100.0	
64.5	0.0	
132.5	100.0	
100.0	100.0	
661.9	658.0	
Total Vlc:	1798.9	

Sample Leak Checks
Pre : 0.010 in. Hg. : 20.0
Post : 0.002 in. Hg. : 17.0
pMs: 27.03
dcCO : 0.00
Constant: 846.72
Constant: 0.9244

FIELD TESTING DATA

	Traverse Points	Dwell Time	Stack Temp	Delta P In,H2O	Sqrt DP	Meter Volume	Delta H In,H2O	Meter Temp Inlet	Meter Temp Outlet	Meter Vacuum
1	1.3	20	164	0.22	0.469	[redacted]	2.1	77	77	5.0
2	4.2	20	170	0.25	0.500	[redacted]	2.4	84	82	5.0
3	7.4	40	179	0.24	0.490	[redacted]	2.2	84	83	6.0
4	11.1	60	184	0.26	0.510	[redacted]	2.4	85	83	6.0
5	15.6	80	184	0.24	0.490	[redacted]	2.2	88	87	6.0
6	22.3	100	184	0.22	0.469	[redacted]	2.1	90	88	6.0
7	40.3	120	179	0.20	0.447	[redacted]	1.9	91	89	6.0
8	46.9	140	183	0.18	0.424	[redacted]	1.7	91	90	6.0
9	51.4	160	179	0.18	0.424	[redacted]	1.7	91	90	6.0
10	55.1	180	178	0.23	0.480	[redacted]	2.2	91	90	6.0
11	58.3	200	179	0.24	0.490	[redacted]	2.3	90	89	6.0
12	61.2	220	176	0.23	0.480	[redacted]	2.2	89	89	6.0
1		240	179	0.16	0.400	[redacted]	1.5	89	88	5.0
2		260	174	0.17	0.412	[redacted]	1.6	89	88	5.0
3		280	173	0.16	0.400	[redacted]	1.5	89	88	5.0
4		300	172	0.17	0.412	[redacted]	1.6	88	87	5.0
5		320	169	0.17	0.412	[redacted]	1.6	89	87	5.0
6		340	158	0.17	0.412	[redacted]	1.7	88	87	5.0
7		360	158	0.18	0.424	[redacted]	1.8	88	87	5.0
8		380	153	0.18	0.424	[redacted]	1.8	87	86	5.0
9		400	151	0.19	0.436	[redacted]	1.9	87	86	5.0
10		420	148	0.20	0.447	[redacted]	2.0	87	86	5.0
11		440	140	0.22	0.469	[redacted]	2.2	87	86	6.0
12		460	140	0.23	0.480	[redacted]	2.3	86	86	6.0
		480				[redacted]				

FIELD DATA AVERAGES

O2 %	Average Vacuum	CO2 %	Time Minutes	Stack temp ts	H2O Vol. Vlc	Sqrt Dp Avg sqrtDp	Meter Vol Vm	Delta H Avg Dh	Meter temp tm
14.57	5.50	3.56	480	168.9	1798.9	0.450	[redacted]	1.953	87.2

CARB Method 436 Metals Field Data

Client : All American Asphalt
Site : Irvine, CA
Unit : Bag House
Run # : 2

Date : 6/3/2021
Job # : 1064
Lab # : 221-061
Temp (Tstd): 60

*** SOURCE FIELD DATA***

Pbar	Barometer	29.86	
Y	Meter Calibration Fac.	1.0078	
Cp	Pitot Calibration Fac.	0.84	
Pg	Stack Static Pressure (in. H2O)	-0.08	
dcO2	Dry Concentration Oxygen	14.6	
dcCO2	Dry Concentration Carbon Monoxide	3.6	
tsd	Area Standard Temperature (deg F)	60.0	
ts	Temperature of Stack Gas (deg.F)	168.9	
μs	Stack Gas Viscosity (micropoise)	187.32	
tm	Temperature of Meter (deg.F)	87.2	
Delta P	Delta P Average (in H2O)	0.204	
sqrtDP	Average Square root Delta P	0.450	
Dh	Delta H Average (in H2O)	1.95	
Vlc	Total Volume of Condensable water (g)	1798.9	
Vm	Dry gas Volume Measured (dcf)	382.053	
Ds	Stack Diameter (in.)	62.5	
An	Area of the Nozzle	0.00067	
Time	Sample duration (min)	480	

*** INTERMEDIATE CALCULATIONS***

Ps	Absolute Stack Pressure (in.Hg)	29.85	Ps =Pbar+Pg/13.6
Tstd	Area Standard Temperature (deg R)	520	Tstd =tsd+460
Ts	Temperature of Stack Gas (deg.R)	628.9	Ts =ts+460
Tm	Temperature of Meter (deg.R)	547.2	Tm =tm+460
Vwstd	Volume of water vapor standard (scf)	83.39	Vwstd =(0.04707/(528/(tsd+460)))*Vlc
Vmstd	Sample gas volume (dscf)	366.9386	Vmstd =Vm*Y*(Tstd/Tm)*((Pbar+Dh/13.6)/29.92)
Bws	Moisture Content Stack Gas	0.185	Bws =Vwstd/(Vwstd+Vmstd)
dcN2	Dry Concentration Nitrogen	81.9	dcN2=100-((dcO2)+(dcCO2))
Md	Molecular Weight Stack Gas (dry)	29.152	Md =(dcCO2*0.44)+(dcO2*0.32)+(dcN2*0.28)
Ms	Molecular Weight Stack Gas (wet)	27.087	Ms =(Md*(1-Bws))+18*Bws
As	Area of Stack (Ft^2)	21.31	As =3.141592654*(Ds/12)^2/4

*** RESULTS***

Vs	Stack Gas Velocity (ft/sec)	28.5	Vs =85.49*Cp*sqrtDp*(SQRT(Ts/(Ps*Ms)))
Qa	Stack Gas Flow Rate (Acfm)	36,437	Qa =Vs*60*As
Qstd	Stack Gas Flow Rate (Dscfm)	24,494	Qstd =60*(1-Bws)*Vs*As*(Tstd/Ts)*(Ps/29.92)
I	Isokinetic Variation (%)	99.5	I =Pstd*VMstd*(ts+460)/(As*Time*Vs*Ps(tstd+460)*60 *(1-Bws))*100

CARB Method 436 Metals Field Data

Client : All American Asphalt
Site : Irvine, CA
Unit : Bag House
Run # : 3

Date : 6/7/2021
Job # : 1064
Lab # : 221-061
Temp (Tstd): 60

SOURCE TEST CALIBRATION & STACK DATA

	Std Pressure : 29.92	K-Factor : 8.236	1086.5	0.0	Impinger Wt.
Baghouse Pressure	Cold Box : 7/5	Mag Dp : Mano	343.0	100.0	
1.8	Meter # : J	Mag Dh : Mano	156.0	100.0	
Production	Meter Y : 1.0078	Static Pg : -0.08	90.3	0.0	
TPH:	Time: 480	Stack Dia : 62.5	135.5	100.0	
[redacted]	Amb Temp: 59.0	"A" Eqv Dia : 1.7	102.3	100.0	
	Pbar : 29.87	"B" Eqv Dia: 3.0	1059.2	1044.0	
Start-Time	Pitot : 0.840	**From Method 100 Sheet**	Total Vlc:	1528.8	
6:00	Pyro : 5	dcO2 : 14.66	**Sample Leak Checks**		
	Nozzle : 0.350	dcCO2 : 3.52	Pre : 0.002	in. Hg. :	17.0
Stop-Time	Pre-pitot : OK	Post Pitot : OK	Post : 0.002	in. Hg. :	15.0
14:07	Qm: 0.75	pMd: 29.15	pMs: 26.73	dcCO : 0.00	
	Delta H@: 1.7468	Bws: 0.2171	Constant: 846.72	Constant: 0.9244	

FIELD TESTING DATA

	Traverse Points	Dwell Time	Stack Temp	Delta P In,H2O	Sqrt DP	Meter Volume	Delta H In,H2O	Meter Temp		Meter Vacuum
								Inlet	Outlet	
1	1.3	20	189	0.22	0.469	[redacted]	1.9	69	69	8.0
2	4.2	20.0	188	0.24	0.490	[redacted]	2.0	72	69	10.0
3	7.4	40.0	182	0.25	0.500	[redacted]	2.2	71	71	10.0
4	11.1	60.0	180	0.26	0.510	[redacted]	2.3	72	71	10.0
5	15.6	80.0	171	0.24	0.490	[redacted]	2.1	72	72	10.0
6	22.3	100.0	159	0.23	0.480	[redacted]	2.1	72	72	10.0
7	40.3	120.0	156	0.21	0.458	[redacted]	1.9	72	72	10.0
8	46.9	140.0	154	0.18	0.424	[redacted]	1.6	73	72	10.0
9	55.2	160.0	172	0.19	0.436	[redacted]	1.7	74	73	10.0
10	55.1	180.0	175	0.23	0.480	[redacted]	2.0	75	74	10.0
11	58.3	200.0	175	0.24	0.490	[redacted]	2.1	76	75	10.0
12	61.2	220.0	176	0.23	0.480	[redacted]	2.0	76	75	10.0
1		240.0	175	0.17	0.412	[redacted]	1.5	76	75	10.0
2		260.0	176	0.18	0.424	[redacted]	1.6	75	74	10.0
3		280.0	175	0.16	0.400	[redacted]	1.4	76	75	10.0
4		300.0	176	0.16	0.400	[redacted]	1.4	77	76	10.0
5		320.0	174	0.17	0.412	[redacted]	1.5	77	77	10.0
6		340.0	170	0.17	0.412	[redacted]	1.5	77	77	10.0
7		360.0	162	0.18	0.424	[redacted]	1.6	77	77	9.0
8		380.0	156	0.19	0.436	[redacted]	1.7	77	76	9.0
9		400.0	152	0.20	0.447	[redacted]	1.8	76	76	10.0
10		420.0	152	0.20	0.447	[redacted]	1.8	76	76	10.0
11		440.0	151	0.22	0.469	[redacted]	2.0	76	76	10.0
12		460.0	151	0.23	0.480	[redacted]	2.1	77	76	10.0
		480.0				[redacted]				

FIELD DATA AVERAGES

O2 %	Average Vacuum	CO2 %	Time Minutes	Stack temp ts	H2O Vol. Vlc	qrt Dp Av sqrtDp	Meter Vol Vm	elta H Av Dh	Meter temp tm
14.66	9.83	3.52	480	168.6	1528.8	0.453	[redacted]	1.826	74.3

CARB Method 436 Metals Field Data

Client : All American Asphalt
Site : Irvine, CA
Unit : Bag House
Run # : 3

Date : 6/7/2021
Job # : 1064
Lab # : 221-061
Temp (Tstd): 60

*** SOURCE FIELD DATA***

Pbar	Barometer	29.87
Y	Meter Calibration Fac.	1.0078
Cp	Pitot Calibration Fac.	0.84
Pg	Stack Static Pressure (in. H2O)	-0.08
dcO2	Dry Concentration Oxygen	14.7
dcCO2	Dry Concentration Carbon Monoxide	3.5
tsd	Area Standard Temperature (deg F)	60.0
ts	Temperature of Stack Gas (deg.F)	168.6
μs	Stack Gas Viscosity (micropoise)	189.44
tm	Temperature of Meter (deg.F)	74.3
Delta P	Delta P Average (in H2O)	0.205
sqrtDP	Average Square root Delta P	0.453
Dh	Delta H Average (in H2O)	1.83
Vlc	Total Volume of Condensable water (g)	1528.8
Vm	Dry gas Volume Measured (dcf)	388.947
Ds	Stack Diameter (in.)	62.5
An	Area of the Nozzle	0.00067
Time	Sample duration (min)	480

*** INTERMEDIATE CALCULATIONS***

Ps	Absolute Stack Pressure (in.Hg)	29.86	Ps =Pbar+Pg/13.6
Tstd	Area Standard Temperature (deg R)	520	Tstd =tsd+460
Ts	Temperature of Stack Gas (deg.R)	628.6	Ts =ts+460
Tm	Temperature of Meter (deg.R)	534.3	Tm =tm+460
Vwstd	Volume of water vapor standard (scf)	70.87	Vwstd =(0.04707/(528/(tsd+460)))*Vlc
Vmstd	Sample gas volume (dscf)	382.5554	Vmstd =Vm*Y*(Tstd/Tm)*((Pbar+Dh/13.6)/29.92)
Bws	Moisture Content Stack Gas	0.156	Bws =Vwstd/(Vwstd+Vmstd)
dcN2	Dry Concentration Nitrogen	81.8	dcN2=100-((dcO2)+(dcCO2))
Md	Molecular Weight Stack Gas (dry)	29.150	Md =(dcCO2*0.44)+(dcO2*0.32)+(dcN2*0.28)
Ms	Molecular Weight Stack Gas (wet)	27.407	Ms =(Md*(1-Bws))+18*Bws
As	Area of Stack (Ft^2)	21.31	As =3.141592654*(Ds/12)^2/4

*** RESULTS***

Vs	Stack Gas Velocity (ft/sec)	28.5	Vs =85.49*Cp*sqrtDp*(SQRT(Ts/(Ps*Ms)))
Qa	Stack Gas Flow Rate (Acfm)	36,438	Qa =Vs*60*As
Qstd	Stack Gas Flow Rate (Dscfm)	25,383	Qstd =60*(1-Bws)*Vs*As*(Tstd/Ts)*(Ps/29.92)
I	Isokinetic Variation (%)	100.1	I =Pstd*VMstd*(ts+460)/(As*Time*Vs*Ps(tstd+460)*60 *(1-Bws))*100

AIR_x Testing Inc

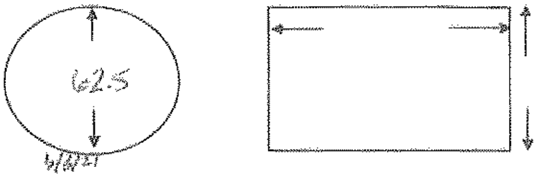
Plant : ALL AMERICAN ASPHALT
Location : Irvine, CA
Unit : Baghouse
Date : 6-2-21 → 6-3-21
Run # : 1 - Metals
Cold Box : 7/5   HB#3
Meter # : J
Meter Factor : 1.0078

Amb. Temp : 57
Pbar : 29.89
Pitot : S
Pyro : S
Mag Δ P : manometer
Mag Δ H : manometer
% H2O : ~20
Box Heat : 250 ± 25

Nozzle : 0.376
Prob Heat : 250 ± 25
Wind Vel. : —
Static Press. : -.08
O2 : ~14.3   11.89
CO2 : ~4.0   5.6
Engineer : KK
Technician : JT

Stack Dia. : 62.5
"A" : 36
"B" : 186
Port Size : 3
Offset :
M / F : F

Stack Sample Port Location



BH ΔP = 1.9

TPH = 300
20% Rubber

Imp.	Gross	Tare	Total
1	1223.5	0.0	1223.5
2	312.5	100.0	212.5
3	156.0	100.0	156.0
4	89.5	0.0	89.5
5	170.5	100.0	170.5
6	115.0	100.0	115
7	1014.1	1000.0	14

1716.0

Filter 1 :

6/2/21
START TIME: 0650
6/3/21
END TIME: 8:53
"K" FACTOR:

	Point No.	Traverse Distance	Time Minutes	Stack °F	Δ P	√Δ P	Dry Gas Meter Volume	Δ H In H2O	Inlet ° F	Outlet ° F	Impinger Exit° F	Meter Vacuum	Filter Temp.°F	Cyl. Flow
A	1	1.3	0	182	.28		400.211	3.3	67	67	60	10	260	0
	2	4.2	20	182	.26		420.6	3.1	71	70	59	9	260	0
	3	7.4	40	181	.24		440.2	2.9	73	71	59	7	258	0
	4	11.1	60	181	.23		459.1	2.8	75	73	58	6	259	0
	5	15.6	80	182	.24		478.3	2.9	77	75	59	7	252	5
	6	22.3	100	180	.26		498.1	3.1	78	76	60	5	249	5
	7	40.3	120	184	.24		515.3	2.9	79	77	59	4	247	0
	8	46.9	140	177	.21		531.5	2.6	80	79	59	5	250	0
	9	51.4	160	178	.25		552.9	3.1	82	80	59	9	258	0
	10	55.1	180	179	.26		571.4	3.2	84	82	60	10	247	0
	11	58.3	200	180	.28		591.0	3.4	84	83	58	9	246	0
	12	61.2	220	180	.27	*	611.5	3.3	86	85	59	6	260	6
B	1		240	176	.20		631.9	2.5	90	89	61	5	262	0
	2		260	175	.18		649.8	2.2	90	89	59	5	259	0
	3		280	175	.17		666.6	2.1	91	90	59	4	258	0
	4		300	158	.17		683.2 *	2.1	72	71	55	4	261	0
	5		320	181	.16		700.2	1.9	72	72	56	4	259	3
	6		340	182	.18		714.8	2.2	74	73	57	4	261	4
	7		360	177	.16		731.2	1.9	76	74	56	4	260	0
	8		380	178	.14		747.8	1.7	76	74	57	4	260	0
	9		400	172	.15		763.9	1.8	77	75	58	4	245	0
	10		420	180	.14		780.2	1.7	78	76	59	4	252	0
	11		440	186	.12		796.0	1.4	79	76	59	4	259	2
	12		460	179	.14		810.8	1.7	80	77	59	4	260	0
			480				826.919							
	Average:		480	178.5		0.435	426.7??	2.490		78.0		5.7		1.0

* AT 10:35 PLANT SHUT DOWN
RESTART @ 11:55

Leak Checks :   Pitots

Pre	Top	Bottom
ΔP	0/3.2	0/-3.2

0/3.7   0/-3.7

END   0/3.2   0/-3.7

Post	Top	Bottom
ΔP	0/3.5	0/-3.5

Port change @ 12:09
Restart @ 12:22 — stop @ 13:22
684.112 after leak ck on 6/3/21
START on 6/3 @ 553

Sample Train Leak Check

CFM 6-2	0.10	In. HG :	20	
CFM :	.008	In. HG :	20	
6-3	.008		18	
	.001		14	

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AIR Testing Inc.

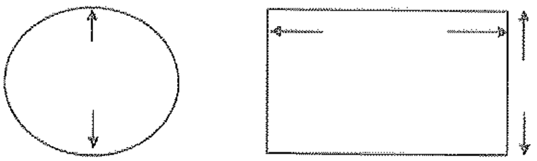
Plant : ALL AMERICAN ASPHALT
Location : CORONA, CA
Unit : BAGHOUSE
Date : 6/3/21
Run # : 2 - METALS
Cold Box : #1 and 2
Meter # : 5
Meter Factor : 1.0078

Amb. Temp : 66
Pbar : 29.36
Pitot : 5
Pyro : 5
Mag Δ P : [illegible]
Mag Δ H : -
% H2O : ~3
Box Heat : 248 ± 25

Nozzle : .350
Prob Heat : 248 ± 25
Wind Vel. : ~
Static Press. : -1.08
O2 : ~14.3 Dry
CO2 : ~4 Dry
Engineer : KE
Technician : GL

Stack Dia. : 62.5
"A" : 36
"B" : 136
Port Size : 3
Offset :
M / F : F

Stack Sample Port Location



	Imp.	Gross	Tare	Total
715.0	1	1980.0	0.0	
565.5	2	332.8	100.0	
529.6	3	165.5	100.0	
[illegible]	4	645	0.0	
659.8	5	136.5	100.0	
539.3	6	180.0	100.0	
558.0		661.9	658.0	1986.9

Filter 1 :

START TIME: 0955 END TIME: 18:00 "K" FACTOR:

Point No.	Traverse Distance	Time Minutes	Stack °F	Δ P	√Δ P	Dry Gas Meter Volume	Δ H In H2O	Inlet ° F	Outlet ° F	Impinger Exit° F	Meter Vacuum	Filter Temp.°F	Cyl. Flow
1	1.3	0	169	.22		828.328	2.1	79	79	63	5	243	
2	4.2	20	170	.25		847.1	2.4	84	82	59	5	261	
3	7.4	40	179	.24		866.3	2.2	84	83	59	6	257	
4	11.1	60	184	.26		884.3	2.4	85	85	58	6	254	
5	15.6	80	184	.24		904.3	2.2	88	87	57	6	261	
6	22.3	100	184	.22		923.1	2.1	90	88	57	6	259	
7	40.3	120	179	.20		937.8	1.9	91	89	56	6	258	
8	46.9	140	183	.18		952.9	1.7	91	90	55	6	260	
9	51.4	160	179	.18		968.2	1.7	91	90	56	6	259	
10	55.1	180	178	.23		983.3	2.2	91	90	57	6	257	
11	58.3	200	179	.24		1000.2	2.3	90	89	57	6	259	
12	61.2	220	176	.23		1017.0	2.2	89	89	56	6	257	
1		240	179	.16		1033.6	1.5	89	88	57	5	259	
2		260	174	.17		1047.5	1.6	89	88	57	5	259	
3		280	173	.16		1063.2	1.5	89	88	57	5	257	
4		300	172	.17		1075.9	1.6	88	87	57	5	262	
5		320	169	.17		1088.4	1.6	89	87	57	5	261	
6		340	158	.17		1104.1	1.7	88	87	57	5	259	
7		360	158	.18		1118.2	1.8	88	87	58	5	260	
8		380	153	.18		1132.7	1.8	87	86	57	5	258	
9		400	151	.19		1147.6	1.9	87	86	57	5	258	
10		420	148	.20		1163.0	2.0	87	86	56	5	259	
11		440	140	.22		1180.1	2.2	87	86	56	6	260	
12		460	140	.22		1196.1	2.3	86	85	57	6	258	
		480				1210.381							
Average:		480	168.4		0.4511	380.053	1.963		82.2		5.8		

Leak Checks : Pitots

Pre	Top	Bottom
ΔP	0/3.2	0/3.2

Post	Top	Bottom
ΔP	0/3.8	0/3.6

Sample Train Leak Check

CFM :	.010	In. HG :	20	
CFM :	.008	In. HG :	10	

AIR Testing Inc.

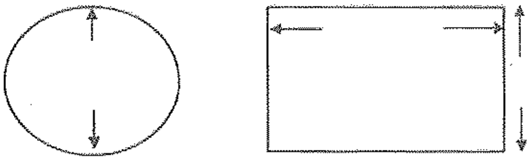
Plant : ALL AMERICAN ASPHALT
Location : IRVINE
Unit : ROTARY BAGHOUSE
Date : 6-7-21
Run # : 3 CARB 436
Cold Box : #527
Meter # : 3
Meter Factor : 1.0078

Amb. Temp : 59
Pbar : 29.37
Pitot : 3
Pyro : 3
Mag Δ P : [illegible]
Mag Δ H : [illegible]
% H2O : –
Box Heat : 250

Nozzle : .350
Prob Heat : 250
Wind Vel. : [illegible]
Static Press. : -.08
O2 : 14.6
CO2 : 4.2
Engineer : KK
Technician : ET

Stack Dia. : 62.3
"A" : 36
"B" : 186
Port Size : 4
Offset : 11
M / F : F

Stack Sample Port Location



Imp.	Gross	Tare	Total
1	1086.5	0	
2	398.0	100.0	
3	156.0	100.0	
4	90.3	0.0	
5	135.5	100.0	
6	102.3	100.0	
	1059.2	1044.0	

1538.5

START TIME: 6:00 END TIME: 14:07 "K" FACTOR:

Filter 1 :

Point No.	Traverse Distance	Time Minutes	Stack °F	Δ P	√Δ P	Dry Gas Meter Volume	Δ H In H2O	Inlet ° F	Outlet ° F	Impinger Exit° F	Meter Vacuum	Filter Temp.°F	Cyl. Flow
1	1.3	0	189	.22		211.515	1.9	63	62	57	8	260	
2	4.2	20	188	.24		228.7	2.0	72	69	57	10	260	
3	7.4	40	182	.25		247.8	2.2	71	71	56	10	260	
4	11.1	60	180	.26		266.6	2.3	72	71	56	10	259	
5	15.6	80	171	.24		286.2	2.1	72	72	56	10	260	
6	22.3	100	159	.24		295.8	2.1	72	72	55	10	259	
7	40.3	120	156	.21		323.7	1.9	72	72	56	10	261	
8	46.9	140	154	.18		341.7	1.6	73	72	56	10	260	
9	51.4	160	172	.19		358.1	1.7	74	73	57	10	261	
10	[illegible]	180	175	.23		374.4	2.0	75	74	56	10	260	
11	58.2	200	173	.24		390.3	2.1	76	75	56	10	259	
12	61.2	220	176	.23		408.2	2.0	76	75	57	10	259	
1		240	175	.17		424.3	1.5	76	75	57	10	261	
2		260	176	.18		445.3	1.6	75	74	56	10	259	
3		280	175	.16		458.6	1.4	76	75	56	10	258	
4		300	175	.16		474.0	1.4	77	76	57	10	261	
5		320	174	.17		488.9	1.5	77	77	57	10	259	
6		340	170	.17		502.4	1.5	77	77	57	10	260	
7		360	162	.18		514.8	1.6	77	77	56	9	260	
8		380	156	.19		527.7	1.7	77	76	56	9	258	
9		400	152	.20		541.0	1.8	76	76	57	10	259	
10		420	152	.20		555.3	1.8	76	76	57	10	260	
11		440	151	.22		570.5	2.0	76	76	57	10	258	
12		460	151	.23		585.7	2.1	77	76	57	10	259	
		480				600.462							

Average:	480	168.6		0.453	388.947	1.626		74.0				

Leak Checks : Pitots

Pre	Top	Bottom
ΔP	03.5	01.4

Post	Top	Bottom
ΔP	03.3	03.6

Sample Train Leak Check

CFM :	.002	In. HG :	17	
CFM :	.002	In. HG :	15	

ATMOSPHERIC ANALYSIS
& CONSULTING

PROJECT: AA IRVINE
RUBBER TESTING 221-061

CLIENT # A010
REPORT # 21-264

SUBMITTED BY:
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Case Narrative

Date: July 21, 2021

General Information

Client: Atmospheric Analysis and Consulting

Client Number: A010

Report Number: 21-264

Sample Description: Impinger Trains

Sample Numbers: 21-S715 – 21-S733

Analysis

Analytes: Al, Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Mn, Hg, Ni, P, Se, Ag, Tl, V, Zn

Analytical Protocols: CARB Method 436 (7/28/97 version)

Analytical Notes: The recovery for both the LCS and LCS duplicate for silver were below the control limit. Silver is notorious for failing QC. Results are not blank corrected.

QA/QC Review: All of the data have been reviewed by the analysts performing the analyses and the project manager. All of the quality control and sample-specific information in this package is complete and meets or exceeds the minimum requirements for acceptability.

Comments: If you have any questions or concerns regarding this analysis, please feel free to contact the project manager.

Disclaimer: This report shall not be reproduced, except in full, without the written approval of the laboratory. The results only represent that of the samples as received into the laboratory. All data are reported to the detection limit. Results <5x DL must be considered to have a higher degree of uncertainty associated with them. Due to the statistical process of detection limit determination, data in this report should not be used for statistical analysis as the data has been censored in such a manner as to bias statistical analyses high.

7/21/21

Project Manager Date
Paul Duda

Lab ID: 21-S715
Client ID: R1 FH & BH
Site: AA Irvine Rubber Testing 221-061
Sample Date: 6/ 3/21
Comments: 210991-20038,20039,20040

Analyte	Result	DL	Units
Aluminum, ICP	2,480	6.75	µg/sample
Antimony, ICP	< DL	2.25	µg/sample
Arsenic, ICP	< DL	3.15	µg/sample
Barium, ICP	24.6	0.225	µg/sample
Beryllium, ICP	< DL	0.090	µg/sample
Cadmium, ICP	0.677	0.180	µg/sample
Chromium, ICP	12.5	0.360	µg/sample
Cobalt, ICP	1.19	0.225	µg/sample
Copper, ICP	11.7	2.25	µg/sample
Lead, ICP	< DL	2.25	µg/sample
Manganese, ICP	40.5	0.135	µg/sample
Mercury, CVAA	< DL	0.345	µg/sample
Nickel, ICP	29.6	1.35	µg/sample
Phosphorus, ICP	113.	9.00	µg/sample
Selenium, ICP	< DL	6.75	µg/sample
Silver, ICP	< DL	0.900	µg/sample
Thallium, ICP	< DL	4.50	µg/sample
Vanadium, ICP	6.08	0.450	µg/sample
Zinc, ICP	155.	1.35	µg/sample

Lab ID: 21-S716
Client ID: R1 Imp 4 KO
Site: AA Irvine Rubber Testing 221-061
Sample Date: 6/ 3/21
Comments: 210991-20041

Analyte	Result	DL	Units
Mercury, CVAA	< DL	0.0334	µg/sample

Lab ID: 21-S717
Client ID: R1 Imp 5-6 KMnO4
Site: AA Irvine Rubber Testing 221-061
Sample Date: 6/ 3/21
Comments: 210991-20042

Analyte	Result	DL	Units
Mercury, CVAA	14.1	0.0723	µg/sample

Lab ID: 21-S718
Client ID: R1 HCl Rinse
Site: AA Irvine Rubber Testing 221-061
Sample Date: 6/ 3/21
Comments: 210991-20043

Analyte	Result	DL	Units
Mercury, CVAA	0.242	0.0385	µg/sample

Client: A010 - AAC
Report Number: 21-264

Lab ID: 21-S719
Client ID: R2 FH & BH
Site: AA Irvine Rubber Testing 221-061
Sample Date: 6/ 3/21
Comments: 210991-20044,20045,20046

Analyte	Result	DL	Units
Aluminum, ICP	2,270	6.75	µg/sample
Antimony, ICP	< DL	2.25	µg/sample
Arsenic, ICP	< DL	3.15	µg/sample
Barium, ICP	23.9	0.225	µg/sample
Beryllium, ICP	< DL	0.090	µg/sample
Cadmium, ICP	1.26	0.180	µg/sample
Chromium, ICP	17.4	0.360	µg/sample
Cobalt, ICP	1.89	0.225	µg/sample
Copper, ICP	41.4	2.25	µg/sample
Lead, ICP	< DL	2.25	µg/sample
Manganese, ICP	87.3	0.135	µg/sample
Mercury, CVAA	< DL	0.388	µg/sample
Nickel, ICP	40.4	1.35	µg/sample
Phosphorus, ICP	126.	9.00	µg/sample
Selenium, ICP	< DL	6.75	µg/sample
Silver, ICP	< DL	0.900	µg/sample
Thallium, ICP	< DL	4.50	µg/sample
Vanadium, ICP	6.92	0.450	µg/sample
Zinc, ICP	169.	1.35	µg/sample

Lab ID: 21-S720
Client ID: R2 Imp 4 KO
Site: AA Irvine Rubber Testing 221-061
Sample Date: 6/ 3/21
Comments: 210991-20047

Analyte	Result	DL	Units
Mercury, CVAA	< DL	0.0280	µg/sample

Lab ID: 21-S721
Client ID: R2 Imp 5-6 KMnO4
Site: AA Irvine Rubber Testing 221-061
Sample Date: 6/ 3/21
Comments: 210991-20048

Analyte	Result	DL	Units
Mercury, CVAA	11.8	0.0581	µg/sample

Lab ID: 21-S722
Client ID: R2 HCl Rinse
Site: AA Irvine Rubber Testing 221-061
Sample Date: 6/ 3/21
Comments: 210991-20049

Analyte	Result	DL	Units
Mercury, CVAA	0.133	0.0406	µg/sample

Lab ID: 21-S723
Client ID: R3 FH & BH
Site: AA Irvine Rubber Testing 221-061
Sample Date: 6/ 7/21
Comments: 210991-20050,20051,20052

Analyte	Result	DL	Units
Aluminum, ICP	1,420	6.75	µg/sample
Antimony, ICP	5.87	2.25	µg/sample
Arsenic, ICP	< DL	3.15	µg/sample
Barium, ICP	17.3	0.225	µg/sample
Beryllium, ICP	< DL	0.090	µg/sample
Cadmium, ICP	< DL	0.180	µg/sample
Chromium, ICP	4.79	0.360	µg/sample
Cobalt, ICP	0.349	0.225	µg/sample
Copper, ICP	5.85	2.25	µg/sample
Lead, ICP	< DL	2.25	µg/sample
Manganese, ICP	19.8	0.135	µg/sample
Mercury, CVAA	< DL	0.234	µg/sample
Nickel, ICP	8.46	1.35	µg/sample
Phosphorus, ICP	92.7	9.00	µg/sample
Selenium, ICP	< DL	6.75	µg/sample
Silver, ICP	< DL	0.900	µg/sample
Thallium, ICP	< DL	4.50	µg/sample
Vanadium, ICP	2.47	0.450	µg/sample
Zinc, ICP	70.1	1.35	µg/sample

Lab ID: 21-S724
Client ID: R3 Imp 4 KO
Site: AA Irvine Rubber Testing 221-061
Sample Date: 6/ 7/21
Comments: 210991-20053

Analyte	Result	DL	Units
Mercury, CVAA	< DL	0.0586	µg/sample

Lab ID: 21-S725
Client ID: R3 Imp 5-6 KMnO4
Site: AA Irvine Rubber Testing 221-061
Sample Date: 6/ 7/21
Comments: 210991-20054

Analyte	Result	DL	Units
Mercury, CVAA	10.2	0.128	µg/sample

Lab ID: 21-S726
Client ID: R3 HCl Rinse
Site: AA Irvine Rubber Testing 221-061
Sample Date: 6/ 7/21
Comments: 210991-20055

Analyte	Result	DL	Units
Mercury, CVAA	0.371	0.0406	µg/sample

Lab ID: 21-S727
Client ID: Blank Train FH & BH
Site: AA Irvine Rubber Testing 221-061
Sample Date: 6/ 2/21
Comments: 210991-20056,20057,20058

Analyte	Result	DL	Units
Aluminum, ICP	110.	6.75	µg/sample
Antimony, ICP	< DL	2.25	µg/sample
Arsenic, ICP	< DL	3.15	µg/sample
Barium, ICP	8.31	0.225	µg/sample
Beryllium, ICP	< DL	0.090	µg/sample
Cadmium, ICP	< DL	0.180	µg/sample
Chromium, ICP	1.92	0.360	µg/sample
Cobalt, ICP	< DL	0.225	µg/sample
Copper, ICP	2.50	2.25	µg/sample
Lead, ICP	< DL	2.25	µg/sample
Manganese, ICP	2.35	0.135	µg/sample
Mercury, CVAA	< DL	0.0774	µg/sample
Nickel, ICP	3.74	1.35	µg/sample
Phosphorus, ICP	< DL	9.00	µg/sample
Selenium, ICP	< DL	6.75	µg/sample
Silver, ICP	< DL	0.900	µg/sample
Thallium, ICP	< DL	4.50	µg/sample
Vanadium, ICP	< DL	0.450	µg/sample
Zinc, ICP	4.95	1.35	µg/sample

Lab ID: 21-S728
Client ID: Blank Train Imp 4 KO
Site: AA Irvine Rubber Testing 221-061
Sample Date: 6/ 2/21
Comments: 210991-20059

Analyte	Result	DL	Units
Mercury, CVAA	< DL	0.0170	µg/sample

Lab ID: 21-S729
Client ID: Blank Train Imp 5-6 KMnO4
Site: AA Irvine Rubber Testing 221-061
Sample Date: 6/ 2/21
Comments: 210991-20060

Analyte	Result	DL	Units
Mercury, CVAA	0.104	0.0662	µg/sample

Lab ID: 21-S730
Client ID: Blank Train HCl Rinse
Site: AA Irvine Rubber Testing 221-061
Sample Date: 6/ 2/21
Comments: 210991-20061

Analyte	Result	DL	Units
Mercury, CVAA	< DL	0.0406	µg/sample

Lab ID: 21-S731
Client ID: Blank FH & BH
Site: AA Irvine Rubber Testing 221-061
Sample Date: 6/ 2/21
Comments: 210991-20062,20063,20064

Analyte	Result	DL	Units
Aluminum, ICP	98.1	6.75	µg/sample
Antimony, ICP	< DL	2.25	µg/sample
Arsenic, ICP	< DL	3.15	µg/sample
Barium, ICP	4.83	0.225	µg/sample
Beryllium, ICP	< DL	0.090	µg/sample
Cadmium, ICP	< DL	0.180	µg/sample
Chromium, ICP	1.36	0.360	µg/sample
Cobalt, ICP	< DL	0.225	µg/sample
Copper, ICP	< DL	2.25	µg/sample
Lead, ICP	< DL	2.25	µg/sample
Manganese, ICP	6.04	0.135	µg/sample
Mercury, CVAA	< DL	0.0780	µg/sample
Nickel, ICP	2.31	1.35	µg/sample
Phosphorus, ICP	< DL	9.00	µg/sample
Selenium, ICP	< DL	6.75	µg/sample
Silver, ICP	< DL	0.900	µg/sample
Thallium, ICP	< DL	4.50	µg/sample
Vanadium, ICP	< DL	0.450	µg/sample
Zinc, ICP	4.15	1.35	µg/sample

Lab ID: 21-S732
Client ID: Blank Imp 5-6 KMnO4
Site: AA Irvine Rubber Testing 221-061
Sample Date: 6/ 2/21
Comments: 210991-20065

Analyte	Result	DL	Units
Mercury, CVAA	0.0470	0.0329	µg/sample

Lab ID: 21-S733
Client ID: Blank HCl Rinse
Site: AA Irvine Rubber Testing 221-061
Sample Date: 6/ 2/21
Comments: 210991-20066

Analyte	Result	DL	Units
Mercury, CVAA	0.0169	0.00847	µg/sample

QA/QC Report

Client Name: AAC
Project Number: A010
Analytical Technique: ICP - Optima 8300
Sample Description: CARB 436
Report Number: 21-264

Blank Data

Analyte	Sample ID	Measured Conc. µg/L	DL Conc. µg/L
Ag	ICB	< DL	2.00
Ag	Meth_Blk	< DL	2.00
Ag	CCB	< DL	2.00
Ag	CCB	< DL	2.00
Al	ICB	< 30	15.0
Al	Meth_Blk	56.4	15.0
Al	CCB	< 30	15.0
Al	CCB	< 30	15.0
As	ICB	< DL	7.00
As	Meth_Blk	< DL	7.00
As	CCB	< DL	7.00
As	CCB	< DL	7.00
Ba	ICB	< DL	0.500
Ba	Meth_Blk	< DL	0.500
Ba	CCB	< DL	0.500
Ba	CCB	< DL	0.500
Be	ICB	< DL	0.200
Be	Meth_Blk	0.244	0.200
Be	CCB	< DL	0.200
Be	CCB	< DL	0.200
Cd	ICB	< DL	0.400
Cd	Meth_Blk	< DL	0.400
Cd	CCB	< DL	0.400
Cd	CCB	< DL	0.400
Co	ICB	< DL	0.500
Co	Meth_Blk	< DL	0.500
Co	CCB	< DL	0.500
Co	CCB	< DL	0.500
Cr	ICB	< DL	0.800
Cr	Meth_Blk	< DL	0.800
Cr	CCB	< DL	0.800
Cr	CCB	< DL	0.800
Cu	ICB	< DL	5.00
Cu	Meth_Blk	< DL	5.00
Cu	CCB	< DL	5.00
Cu	CCB	< DL	5.00
Mn	ICB	< DL	0.300
Mn	Meth_Blk	2.16	0.300
Mn	CCB	< DL	0.300
Mn	CCB	< DL	0.300
Ni	ICB	< DL	3.00
Ni	Meth_Blk	< DL	3.00
Ni	CCB	< DL	3.00
Ni	CCB	< DL	3.00
P	ICB	< DL	20.0
P	Meth_Blk	< DL	20.0
P	CCB	< DL	20.0
P	CCB	< DL	20.0
Pb	ICB	< DL	5.00
Pb	Meth_Blk	< DL	5.00
Pb	CCB	< DL	5.00
Pb	CCB	< DL	5.00
Sb	ICB	< DL	5.00
Sb	Meth_Blk	< DL	5.00
Sb	CCB	< DL	5.00
Sb	CCB	< DL	5.00
Se	ICB	< DL	15.0
Se	Meth_Blk	< DL	15.0

*: Sample Media Blank (SM_Blk) concentration in µg/filter
ICB: Initial Calibration Blank CCB: Continuing Calibration Blank
Method Blank is in control if Method Blank results are <10% of sample results

QA/QC Report

Client Name: AAC
Project Number: A010
Analytical Technique: ICP - Optima 8300
Sample Description: CARB 436
Report Number: 21-264

Blank Data

Analyte	Sample ID	Measured Conc. µg/L	DL Conc. µg/L
Se	CCB	< DL	15.0
Se	CCB	< DL	15.0
Tl	ICB	< DL	10.0
Tl	Meth_Blk	< DL	10.0
Tl	CCB	< DL	10.0
Tl	CCB	< DL	10.0
V	ICB	< DL	1.00
V	Meth_Blk	< DL	1.00
V	CCB	< DL	1.00
V	CCB	< DL	1.00
Zn	ICB	< DL	3.00
Zn	Meth_Blk	< DL	3.00
Zn	CCB	< DL	3.00
Zn	CCB	< DL	3.00

*: Sample Media Blank (SM_Blk) concentration in µg/filter
ICB: Initial Calibration Blank CCB: Continuing Calibration Blank
Method Blank is in control if Method Blank results are <10% of sample results

Calibration QC

Analyte	Sample ID	Standard Conc. µg/L	Measured Conc. µg/L	Percent Recovery
Ag	ICV	2500	2440	97.5
Ag	LL-CCV	10.0	9.47	94.7
Ag	LL-LCS	9.00	8.87	98.6
Ag	CCV	2500	2300	92.2
Ag	CCV	2500	2300	92.0
Al	ICV	2500	2380	95.2
Al	LL-CCV	150.	134.	89.2
Al	LL-LCS	75.0	118.	158.0
Al	CCV	2500	2330	93.1
Al	CCV	2500	2320	93.0
As	ICV	2500	2470	98.7
As	LL-CCV	35.0	30.8	88.1
As	LL-LCS	20.0	22.5	112.6
As	CCV	2500	2510	100.4
As	CCV	2500	2510	100.6
Ba	ICV	2500	2330	93.3
Ba	LL-CCV	2.50	2.44	97.6
Ba	LL-LCS	1.50	1.51	100.7
Ba	CCV	2500	2320	92.6
Ba	CCV	2500	2310	92.6
Be	ICV	2500	2420	96.9
Be	LL-CCV	1.00	1.03	102.6
Be	LL-LCS	0.500	0.612	122.4
Be	CCV	2500	2410	96.3
Be	CCV	2500	2400	96.1
Cd	ICV	2500	2450	98.1
Cd	LL-CCV	2.00	1.88	93.8
Cd	LL-LCS	1.50	1.46	97.6
Cd	CCV	2500	2500	99.8
Cd	CCV	2500	2470	99.0
Co	ICV	2500	2430	97.1

ICV: Initial Calibration Verification CCV: Continuing Calibration Verification
Calibration Verification Limits: 90% - 110% Recovery
LL-CCV (Low Level CCV) Limits: 60% - 140% Recovery
LL-LCS Limits: 50% - 150% Recovery
LL-LCS results are not significant if sample results are >10x LL-LCS concentration

QA/QC Report

Client Name: AAC
Project Number: A010
Analytical Technique: ICP - Optima 8300
Sample Description: CARB 436
Report Number: 21-264

Calibration QC

Analyte	Sample ID	Standard Conc. µg/L	Measured Conc. µg/L	Percent Recovery
Co	LL-CCV	2.50	2.84	113.4
Co	LL-LCS	1.50	1.84	123.0
Co	CCV	2500	2470	98.8
Co	CCV	2500	2450	98.1
Cr	ICV	2500	2460	98.5
Cr	LL-CCV	4.00	3.31	82.7
Cr	LL-LCS	2.00	1.40	70.2
Cr	CCV	2500	2420	96.9
Cr	CCV	2500	2460	98.4
Cu	ICV	2500	2370	94.8
Cu	LL-CCV	25.0	25.8	103.1
Cu	LL-LCS	15.0	16.1	107.3
Cu	CCV	2500	2430	97.1
Cu	CCV	2500	2410	96.4
Mn	ICV	2500	2450	98.1
Mn	LL-CCV	1.50	1.55	103.1
Mn	LL-LCS	1.00	1.40	140.0
Mn	CCV	2500	2420	96.7
Mn	CCV	2500	2450	98.0
Ni	ICV	2500	2440	97.7
Ni	LL-CCV	15.0	15.4	102.7
Ni	LL-LCS	6.00	6.34	105.6
Ni	CCV	2500	2510	100.2
Ni	CCV	2500	2490	99.6
P	ICV	2500	2380	95.1
P	LL-CCV	100.	98.6	98.6
P	LL-LCS	75.0	68.0	90.7
P	CCV	2500	2350	94.0
P	CCV	2500	2370	94.7
Pb	ICV	2500	2470	98.6
Pb	LL-CCV	25.0	24.5	98.0
Pb	LL-LCS	15.0	14.7	98.1
Pb	CCV	2500	2480	99.4
Pb	CCV	2500	2470	98.9
Sb	ICV	2500	2480	99.3
Sb	LL-CCV	25.0	28.7	114.9
Sb	LL-LCS	20.0	21.5	107.6
Sb	CCV	2500	2500	100.2
Sb	CCV	2500	2490	99.6
Se	ICV	2500	2440	97.6
Se	LL-CCV	75.0	68.1	90.8
Se	LL-LCS	30.0	23.2	77.2
Se	CCV	2500	2500	99.9
Se	CCV	2500	2480	99.3
Tl	ICV	2500	2410	96.4
Tl	LL-CCV	50.0	44.8	89.7
Tl	LL-LCS	30.0	29.5	98.2
Tl	CCV	2500	2420	96.9
Tl	CCV	2500	2430	97.1
V	ICV	2500	2450	98.1
V	LL-CCV	5.00	5.37	107.3
V	LL-LCS	3.00	3.31	110.5
V	CCV	2500	2480	99.4
V	CCV	2500	2460	98.5
Zn	ICV	2500	2470	98.8
Zn	LL-CCV	15.0	16.7	111.1

ICV: Initial Calibration Verification CCV: Continuing Calibration Verification
Calibration Verification Limits: 90% - 110% Recovery
LL-CCV (Low Level CCV) Limits: 60% - 140% Recovery
LL-LCS Limits: 50% - 150% Recovery
LL-LCS results are not significant if sample results are >10x LL-LCS concentration

QA/QC Report

Client Name: AAC
Project Number: A010
Analytical Technique: ICP - Optima 8300
Sample Description: CARB 436
Report Number: 21-264

Calibration QC

Analyte	Sample ID	Standard Conc. µg/L	Measured Conc. µg/L	Percent Recovery
Zn	LL-LCS	6.00	7.11	118.5
Zn	CCV	2500	2510	100.5
Zn	CCV	2500	2490	99.8

ICV: Initial Calibration Verification CCV: Continuing Calibration Verification
Calibration Verification Limits: 90% - 110% Recovery
LL-CCV (Low Level CCV) Limits: 60% - 140% Recovery
LL-LCS Limits: 50% - 150% Recovery
LL-LCS results are not significant if sample results are >10x LL-LCS concentration

Replicate Data

Analyte	Sample ID	Sample Conc. µg/L	Replicate Conc. µg/L	RPD
Ag	21-S715	< 2	< 2	N/C #
Al	21-S715	5506.	5349.	2.89
As	21-S715	< 7	< 7	N/C #
Ba	21-S715	54.62	54.33	0.53
Be	21-S715	< 0.2	< 0.2	N/C #
Cd	21-S715	1.505	1.108	30.4 #
Co	21-S715	2.646	2.335	12.5 #
Cr	21-S715	27.80	27.70	0.36
Cu	21-S715	26.01	23.72	9.21 #
Mn	21-S715	89.94	91.09	1.27
Ni	21-S715	65.83	66.09	0.39
P	21-S715	252.0	245.8	2.49
Pb	21-S715	< 5	< 5	N/C #
Sb	21-S715	< 5	< 5	N/C #
Se	21-S715	< 15	< 15	N/C #
Tl	21-S715	< 10	< 10	N/C #
V	21-S715	13.52	13.28	1.79
Zn	21-S715	343.9	338.6	1.55

N/C: RPD is not calculated when sample or replicate is below detection limit
Replicate Limit: 20% RPD
#: per EPA CLP protocol, control limits do not apply if sample and/or replicate concentration is less than 5x the detection limit

Laboratory Control Sample/Post Digestion Spike Analysis

Analyte	Sample ID	Sample Conc. µg/L	Spike Conc. µg/L	Spike Amount µg/L	Percent Recovery
Ag	LCS	< 2	158.3	2500.	6.33
Ag	LCS	< 2	157.5	2500.	6.30
Ag	21-S719	< 2	1737.	2500.	69.5
Al	LCS	56.36	2511.	2500.	98.2
Al	LCS	56.36	2478.	2500.	96.9
Al	21-S719	5050.	16500	12500	91.6
As	LCS	< 7	2698.	2500.	108.
As	LCS	< 7	2751.	2500.	110.
As	21-S719	< 7	2457.	2500.	98.3
Ba	LCS	< 0.5	2320.	2500.	92.8
Ba	LCS	< 0.5	2328.	2500.	93.1
Ba	21-S719	53.21	2223.	2500.	86.8

LCS Limit: 80% - 120% Recovery Spike Limit: 75% - 125% Recovery
*: per EPA CLP protocol, control limits do not apply if spike concentration is less than 25% of the sample concentration

QA/QC Report

Client Name:	AAC
Project Number:	A010
Analytical Technique:	ICP - Optima 8300
Sample Description:	CARB 436
Report Number:	21-264

Laboratory Control Sample/Post Digestion Spike Analysis

Analyte	Sample ID	Sample Conc. µg/L	Spike Conc. µg/L	Spike Amount µg/L	Percent Recovery
Be	LCS	0.244	2427.	2500.	97.1
Be	LCS	0.244	2408.	2500.	96.3
Be	21-S719	< 0.2	2206.	2500.	88.2
Cd	LCS	< 0.4	2722.	2500.	109.
Cd	LCS	< 0.4	2765.	2500.	111.
Cd	21-S719	2.804	2481.	2500.	99.1
Co	LCS	< 0.5	2661.	2500.	106.
Co	LCS	< 0.5	2703.	2500.	108.
Co	21-S719	4.200	2428.	2500.	97.0
Cr	LCS	< 0.8	2617.	2500.	105.
Cr	LCS	< 0.8	2646.	2500.	106.
Cr	21-S719	38.73	2505.	2500.	98.7
Cu	LCS	< 5	2576.	2500.	103.
Cu	LCS	< 5	2600.	2500.	104.
Cu	21-S719	92.07	2508.	2500.	96.6
Mn	LCS	2.159	2601.	2500.	104.
Mn	LCS	2.159	2635.	2500.	105.
Mn	21-S719	194.0	2575.	2500.	95.2
Ni	LCS	< 3	2712.	2500.	108.
Ni	LCS	< 3	2749.	2500.	110.
Ni	21-S719	89.70	2536.	2500.	97.9
P	LCS	< 20	2522.	2500.	101.
P	LCS	< 20	2550.	2500.	102.
P	21-S719	279.5	2660.	2500.	95.2
Pb	LCS	< 5	2712.	2500.	108.
Pb	LCS	< 5	2770.	2500.	111.
Pb	21-S719	< 5	2409.	2500.	96.4
Sb	LCS	< 5	2669.	2500.	107.
Sb	LCS	< 5	2714.	2500.	109.
Sb	21-S719	< 5	2429.	2500.	97.2
Se	LCS	< 15	2636.	2500.	105.
Se	LCS	< 15	2680.	2500.	107.
Se	21-S719	< 15	2345.	2500.	93.8
Tl	LCS	< 10	2443.	2500.	97.7
Tl	LCS	< 10	2478.	2500.	99.1
Tl	21-S719	< 10	2191.	2500.	87.6
V	LCS	< 1	2639.	2500.	106.
V	LCS	< 1	2678.	2500.	107.
V	21-S719	15.38	2525.	2500.	100.
Zn	LCS	< 3	2774.	2500.	111.
Zn	LCS	< 3	2815.	2500.	113.
Zn	21-S719	374.5	2950.	2500.	103.

LCS Limit: 80% - 120% Recovery   Spike Limit: 75% - 125% Recovery

*: per EPA CLP protocol, control limits do not apply if spike concentration is less than 25% of the sample concentration

Laboratory Control Sample Duplicate Data

Analyte	Sample ID	Spike Conc. µg/L	Duplicate Conc. µg/L	RPD
Ag	LCS-DUP	158.	158.	0.51
Al	LCS-DUP	2510	2480	1.32
As	LCS-DUP	2700	2750	1.95
Ba	LCS-DUP	2320	2330	0.34
Be	LCS-DUP	2430	2410	0.79
Cd	LCS-DUP	2720	2760	1.57

Duplicate Limit: 20% RPD

QA/QC Report

Client Name: AAC
Project Number: A010
Analytical Technique: ICP - Optima 8300
Sample Description: CARB 436
Report Number: 21-264

Laboratory Control Sample Duplicate Data

Analyte	Sample ID	Spike Conc. µg/L	Duplicate Conc. µg/L	RPD
Co	LCS-DUP	2660	2700	1.57
Cr	LCS-DUP	2620	2650	1.10
Cu	LCS-DUP	2580	2600	0.93
Mn	LCS-DUP	2600	2640	1.30
Ni	LCS-DUP	2710	2750	1.36
P	LCS-DUP	2520	2550	1.10
Pb	LCS-DUP	2710	2770	2.12
Sb	LCS-DUP	2670	2710	1.67
Se	LCS-DUP	2640	2680	1.66
Tl	LCS-DUP	2440	2480	1.42
V	LCS-DUP	2640	2680	1.47
Zn	LCS-DUP	2770	2820	1.47

Duplicate Limit: 20% RPD

QA/QC Report

Client Name:	AAC
Project Number:	A010
Analytical Technique:	CVAA
Sample Description:	CARB 436
Report Number:	21-264

Blank Data

Analyte	Sample ID	Measured Conc. µg	DL Conc. µg
Hg	ICB	< DL	0.007
Hg	MB_FH	< DL	0.007
Hg	CCB	< DL	0.007
Hg	CCB	< DL	0.007
Hg	CCB	< DL	0.007

ICB: Initial Calibration Blank CCB: Continuing Calibration Blank
Method Blank is in control if Method Blank results are <10% of sample results

Calibration QC

Analyte	Sample ID	Standard Conc. µg	Measured Conc. µg	Percent Recovery
Hg	ICV	5.00	5.16	103.2
Hg	LL-LCS	0.020	0.024	120.0
Hg	LL-LCS	0.020	0.021	105.0
Hg	CCV	5.00	5.27	105.5
Hg	CCV	5.00	5.27	105.4
Hg	CCV	5.00	4.82	96.3

ICV: Initial Calibration Verification CCV: Continuing Calibration Verification
Calibration Verification Limits: 90% - 100% Recovery
LL-LCS Limits: 50% - 150% Recovery
LL-LCS results are not significant if sample results are >10x LL-LCS concentration

Duplicate Data

All samples analyzed in duplicate. The reported concentrations are the average of the two measurements.

Laboratory Control Sample/Matrix Spike Analysis

Analyte	Sample ID	Sample Conc. µg/L	Spike Conc. µg/L	Spike Amount µg/L	Percent Recovery
Hg	LCS	< 0.007	4.39	5.00	87.9
Hg	LCS	< 0.007	4.48	5.00	89.6
Hg	21-S715	< 0.007	5.09	5.00	102.
Hg	21-S717	1.37	6.54	5.00	103.

LCS Limit: 80% - 120% Recovery Spike Limit: 75% - 125% Recovery
*: per EPA CLP protocol, control limits do not apply if spike concentration is less than 25% of the sample concentration

Laboratory Control Sample Duplicate Data

Analyte	Sample ID	Spike Conc. µg/L	Duplicate Conc. µg/L	RPD
Hg	LCS-DUP	4.39	4.48	1.98

Duplicate Limit: 20% RPD

QA/QC Report

Client Name: AAC
Project Number: A010
Analytical Technique: CVAA
Sample Description: CARB 436
Report Number: 21-264

Blank Data

Analyte	Sample ID	Measured Conc. µg	DL Conc. µg
Hg	ICB	< DL	0.007
Hg	CCB	< DL	0.007
Hg	CCB	< DL	0.007
Hg	CCB	< DL	0.007

ICB: Initial Calibration Blank CCB: Continuing Calibration Blank
Method Blank is in control if Method Blank results are <10% of sample results

Calibration QC

Analyte	Sample ID	Standard Conc. µg	Measured Conc. µg	Percent Recovery
Hg	ICV	5.00	4.73	94.7
Hg	LL-LCS	0.020	0.017	85.0
Hg	CCV	5.00	4.66	93.1
Hg	CCV	5.00	4.74	94.7
Hg	CCV	5.00	4.61	92.2

ICV: Initial Calibration Verification CCV: Continuing Calibration Verification
Calibration Verification Limits: 90% - 100% Recovery
LL-LCS Limits: 50% - 150% Recovery
LL-LCS results are not significant if sample results are >10x LL-LCS concentration

Duplicate Data

All samples analyzed in duplicate. The reported concentrations are the average of the two measurements.

Laboratory Control Sample/Matrix Spike Analysis

Analyte	Sample ID	Sample Conc. µg/L	Spike Conc. µg/L	Spike Amount µg/L	Percent Recovery
Hg	21-S716	< 0.007	4.58	5.00	91.6
Hg	21-S718	0.044	4.70	5.00	93.2

LCS Limit: 80% - 120% Recovery Spike Limit: 75% - 125% Recovery
*: per EPA CLP protocol, control limits do not apply if spike concentration is less than 25% of the sample concentration

QA/QC Report

Client Name: AAC
Project Number: A010
Analytical Technique: CVAA
Sample Description: CARB 436
Report Number: 21-264

Blank Data

Analyte	Sample ID	Measured Conc. µg	DL Conc. µg
Hg	ICB	< DL	0.007
Hg	CCB	< DL	0.007
Hg	CCB	< DL	0.007

ICB: Initial Calibration Blank CCB: Continuing Calibration Blank
Method Blank is in control if Method Blank results are <10% of sample results

Calibration QC

Analyte	Sample ID	Standard Conc. µg	Measured Conc. µg	Percent Recovery
Hg	ICV	5.00	5.08	101.7
Hg	LL-LCS	0.020	0.020	100.0
Hg	CCV	5.00	5.04	100.7
Hg	CCV	5.00	5.05	101.0

ICV: Initial Calibration Verification CCV: Continuing Calibration Verification
Calibration Verification Limits: 90% - 100% Recovery
LL-LCS Limits: 50% - 150% Recovery
LL-LCS results are not significant if sample results are >10x LL-LCS concentration

Duplicate Data

All samples analyzed in duplicate. The reported concentrations are the average of the two measurements.

Matrix Spike Analysis

Insufficient sample to perform matrix spike
and/or matrix spike not required

CHESTER LABNET

SOURCE SAMPLE RECEIPT CHECKLIST

Client AAC

Date 6/21/21

Runs 3+ Blanks

Report # 21-264

Package intact?	✓	
Chain-of-Custody form inspected		
CoC present with samples?	✓	
CoC indicates analytical methodology to be used? (eg M29, etc.)	CARB 436	!!
Has CoC been signed by client?	✓	
Custody release date and time noted on CoC?	✓	
All sample containers inspected	✓	
Does number of samples match number on CoC form?	✓	!!
Do all sample ID numbers match those on the CoC form?	✓	!!
Did client mark sample volumes prior to shipment?	✓	
Sample temperature recorded?	Cooler #1 -1.2 cooler 2 @ 22.1°C	
Are the sample containers intact?	✓	!!
If present, Audit Sample intact?	NA	!!
Are signs of leakage present?	minimal	*
Chain-of-Custody form signed and dated by CLN	✓	
Corrective actions		
Client contacted due to mismatching sample ID numbers	6/21/21	
Client contacted due to broken sample container(s)		
Client contacted due to leaking sample container(s)		
Client contacted for verification of methodology?		
Corrective actions documented?		
Corrective actions accomplished?		

Items marked !! shall be addressed ***prior to any analytical work being started****.*

*Items marked * shall be* ***noted in case narrative*** *upon reporting of results to client.*

Signed Lisa Bell

Notes Samples arrived in 2 coolers on different days.

minimal leakage from $KMnO_4$ bottles.

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ATMOSPHERIC ANALYSIS & CONSULTING, INC.
1534 Eastman Avenue, Suite A
Ventura, California 93003
Phone (805) 650-1642 Fax (805) 650-1644
E-mail: info@aaclab.com

AAC Project No. 210991

Page 1 of 3

Subcontractor Lab:
Paul Duda
CHESTER LabNet
12242 SW Garden Place
Tigard, OR 97223
(503)624-2183

Fedex STDOVN AAC Account

CHAIN OF CUSTODY / ANALYSIS REQUEST FORM

Client Name AAC, Inc.	Project Name AA Irvine Rubber Testing 221-061
Project Mgr (Print Name) Eric Grosjean	Project Number 210991
Sampler's Name (Print Name)	Sampler's Signature

Analysis Requested

AAC Sample No.	Date Sampled	Time Sampled	Sample Type	Client Sample ID/Description	Type/No. of containers	CARB 436 18 Metals+Hg			
210991-20038	06/03/21	05:53	Filter	21575 Run 1 Filter	Bottle 1	X			
210991-20039	06/03/21	05:53	Liquid	↓ Run 1 Front Half Rinses	Bottle 1	X			
210991-20040	06/03/21	05:53	Liquid	Run 1 Imps 1-3+Rinses -2	Bottle 2	X			
210991-20041	06/03/21	05:53	Liquid	S716 Run 1 Imp 4 K/O	Bottle 1	X			
210991-20042	06/03/21	05:53	Liquid	S717 Run 1 Imps 5-6 KMNO4	Bottle 1	X			
210991-20043	06/03/21	05:53	Liquid	S718 Run 1 HCl Rinse	Bottle 1	X			
210991-20044	06/03/21	09:55	Filter	215219 Run 2 Filter	Bottle 1	X			
210991-20045	06/03/21	09:55	Liquid	↓ Run 2 Front Half Rinses	Bottle 1	X			
210991-20046	06/03/21	09:55	Liquid	Run 2 Imps 1-3+Rinses 3	Bottle 3	X			
210991-20047	06/03/21	09:55	Liquid	S720 Run 2 Imp 4 K/O	Bottle 1	X			
210991-20048	06/03/21	09:55	Liquid	S721 Run 2 Imps 5-6 KMNO4	Bottle 1	X			
210991-20049	06/03/21	09:55	Liquid	S722 Run 2 HCl Rinse	Bottle 1	X			

Send Report:
Attn: Eric Grosjean
egrosjean@aaclab.com
Attn: Sucha Parmar
ssparmar@aaclab.com
Phone #: 805-650-1642

Send Invoice to:
Attn: Jennifer Guevara
info@aaclab.com
Phone #: 805-650-1642
P.O. # NA

Turn Around Time
24-Hr ____ 48-Hr ____
5 day ____ Normal X
Other (Specify)

Special Intructions / remarks:

Please have Chester combine front and back fractions per email with Paul

Relinquished by (Signature)	Print name: Gabriel [illegible]	Date/Time 6/17/21 1710	Received by (Signature) L Bell	Print Name Lisa Bell — 6/18/21 10:20
Relinquished by (Signature)	Print name:	Date/Time	Received by (Signature)	Print Name

ATMOSPHERIC ANALYSIS & CONSULTING, INC.
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AAC Project No. 210991 Page 2 of 3

Subcontractor Lab:
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CHESTER LabNet
12242 SW Garden Place
Tigard, OR 97223
(503)624-2183

Fedex STDOVN AAC Account

CHAIN OF CUSTODY / ANALYSIS REQUEST FORM

Client Name: AAC, Inc.
Project Name: AA Irvine Rubber Testing 221-061
Project Mgr (Print Name): Eric Grosjean
Project Number: 210991
Sampler's Name (Print Name):
Sampler's Signature:

Analysis Requested

AAC Sample No.	Date Sampled	Time Sampled	Sample Type	Client Sample ID/Description	Type/No. of containers	CARB 436 18 Metals+Hg				
210991-20050	06/07/21	06:00	Filter	215723 Run 3 Filter	Bottle 1	X				
210991-20051	06/07/21	06:00	Liquid	Run 3 Front Half Rinses	Bottle 1	X				
210991-20052	06/07/21	06:00	Liquid	Run 3 Imps 1-3+Rinses . 2	Bottle 2	X				
210991-20053	06/07/21	06:00	Liquid	5724 Run 3 Imp 4 K/O	Bottle 1	X				
210991-20054	06/07/21	06:00	Liquid	5725 Run 3 Imps 5-6 KMNO4	Bottle 1	X				
210991-20055	06/07/21	06:00	Liquid	5726 Run 3 HCl Rinse	Bottle 1	X				
210991-20056	06/02/21	06:00	Filter	215727 Blank Train Filter	Bottle 1	X				
210991-20057	06/02/21	06:00	Liquid	Blank Train Front Half Rinses	Bottle 1	X				
210991-20058	06/02/21	06:00	Liquid	Blank Train Imps 1-3+Rinses	Bottle 1	X				
210991-20059	06/02/21	06:00	Liquid	5728 Blank Train Imp 4 K/O	Bottle 1	X				
210991-20060	06/02/21	06:00	Liquid	5729 Blank Train Imps 5-6 KMNO4	Bottle 1	X				
210991-20061	06/02/21	06:00	Liquid	5730 Blank Train HCl Rinse	Bottle 1	X				

Send Report:
Attn: Eric Grosjean
egrosjean@aaclab.com
Attn: Sucha Parmar
ssparmar@aaclab.com
Phone #: 805-650-1642

Send Invoice to:
Attn: Jennifer Guevara
info@aaclab.com
Phone #: 805-650-1642
P.O. # NA

Turn Around Time
24-Hr ____ 48-Hr ____
5 day ____ Normal X
Other (Specify)

Special Intructions / remarks:

Please have Chester combine front and back fractions per email with Paul

Relinquished by (Signature)	Print name: Gabriel [illegible]	Date/Time 6/7/21 1710	Received by (Signature)	Print Name Lisa Bau 6/8/21 10:20
Relinquished by (Signature)	Print name:	Date/Time	Received by (Signature)	Print Name

Report #21-264
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AAC Project No. 210991

Page 3 of 3

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Fedex STDOVN AAC Account

CHAIN OF CUSTODY / ANALYSIS REQUEST FORM

Client Name AAC, Inc.	Project Name AA Irvine Rubber Testing 221-061
Project Mgr (Print Name) Eric Grosjean	Project Number 210991
Sampler's Name (Print Name)	Sampler's Signature

Analysis Requested

AAC Sample No.	Date Sampled	Time Sampled	Sample Type	Client Sample ID/Description	Type/No. of containers	CARB 436 18 Metals+Hg			
210991-20062	06/02/21	05:00	Liquid	20731 Blank 0.1N HNO3	Bottle 1	X			
210991-20063	06/02/21	05:00	Liquid	↓ Blank 5% HNO3/10% H2O2	Bottle 1	X			
210991-20064	06/02/21	05:00	Liquid	5732 Blank KMNO4	Bottle 1	X			
210991-20065	06/02/21	05:00	Liquid	5733 Blank 8N HCL	Bottle 1	X			
210991-20066	06/02/21	05:00	Filter	5731 Filter Blank	Bottle 1	X			

Send Report:
Attn: Eric Grosjean
egrosjean@aaclab.com
Attn: Sucha Parmar
ssparmar@aaclab.com
Phone #: 805-650-1642

Send Invoice to:
Attn: Jennifer Guevara
info@aaclab.com
Phone #: 805-650-1642
P.O. # NA

Turn Around Time
24-Hr ____ 48-Hr ____
5 day ____ Normal X
Other (Specify)

Special Intructions / remarks:

Please have Chester combine front and back fractions per email with Paul

Relinquished by (Signature)	Print name: Gabriel Nicolas	Date/Time 6/17/21 1310	Received by (Signature) Lisa Bell	Print Name Lisa Bell 6/18/21 10:20
Relinquished by (Signature)	Print name:	Date/Time	Received by (Signature)	Print Name

RAW DATA

Available upon request

AIRx Testing Services, Inc.

SAMPLING TRAINS CHAIN OF CUSTODY

CLIENT: ALL AMERICAN ASPHALT

TEST DATE: 6/1/21

LOCATION: IRVINE, CA

LAB#:

SOURCE: BAGHOUSE

JOB#: 221-061

METHOD: CARB 436 RUN 1

EQUIPMENT	DATE BUILT: BY:	COMMENTS	By::
SAMPLING TRAIN CARB 436 RUN 1	6/2/21 PJT		
Nozzle 0.376		FRONT HALF RINSE (0.1 N HNO3)	
Probe 5		FRONT HALF RINSE (0.1 N HNO3)	
Filter 2		RECOVERED IN AMBER BOTTLE	
Filter Holder(Front Half) 1		FRONT HALF RINSE (0.1 N HNO3)	
Filter Holder(back half) 1		BACK HALF RINSE (0.1 N HNO3)	
Jumper		FRONT HALF RINSE (0.1 N HNO3)	
Impingers 1,2 &3 5% HNO3 10% H2O2		BACK HALF RINSE (0.1 N HNO3) + IMPINGER CONTENTS	
Impinger 4 EMPTY		SEPERATE SAMPLE CONTAINER RINSE w/ 100 ml HNO3	
Impinger 5 and 6 4% KMNO4/10% H2SO4		RINSED W/ 100ml KMNO4 & CONTENTS	
Impingers 5 and 6		IMPINGERS 5 6 RINSED W/ 8N HCL INTO	
8N HCL rinse 200ml DI + 25ml 8N HCL		A CONTAINER W/ 200ml H2O	
SAMPLING REAGENTS:			
0.1 N HNO3	6/1/21	USED TO RINSE FRONT HALF (100 ml) & BACK HALF (100mls)	
5% HNO3 /10% H2O2		1, 2 & 3 SOLUTION & 100ml 0.1 N HNO3 rinse	
4% KMNO4 /10% H2SO4		5 & 6 IMPINGER CONTENTS & 100 mls OF KMNO4 RINSE	
8N HCL		25 MLS OF 8N HCl RINSE (IMPS. 5 & 6)	
		INTO A CONTAINER W/ 200 ml H2O	

RELINQUISHED BY: ____________ DATE: 6/2/21 TIME: 4:30

RECEIVED BY: ____________ DATE: ________ TIME: 4:40

RELINQUISHED BY: ____________ DATE: ________ TIME: ________

RECEIVED BY: ____________ DATE: ________ TIME: ________

RELINQUISHED BY: ____________ DATE: ________ TIME: ________

RECEIVED BY: ____________ DATE: ________ TIME: ________

AIRx Testing Services, Inc.

SAMPLING TRAINS CHAIN OF CUSTODY

CLIENT: ALL AMERICAN ASPHALT

TEST DATE: 6/1/21

LOCATION: IRVINE, CA

LAB#:

SOURCE: BAGHOUSE

JOB#: 221-061

METHOD: CARB 436 BLANK TRAIN

EQUIPMENT	DATE BUILT: BY:	COMMENTS	By::
SAMPLING TRAIN CARB 436 BT	6/2/21 EJT	BLANK TRAIN - RECOVERED SAME AC SAMPLE RUNS - RE-SET FOR RUN 1	
Nozzle 0.376		FRONT HALF RINSE	
Probe 5		FRONT HALF RINSE	
Filter 1		RECOVERED IN AMBER BOTTLE	
Filter Holder(Front Half) 1		FRONT HALF RINSE	
Filter Holder(back half) 1		BACK HALF RINSE	
Jumper 1		FRONT HALF RINSE	
Impingers 1,2 &3 5% HNO_3 / 10% H_2O_2		BACK HALF RINSE	
Impinger 4 EMPTY		SEPARATE SAMPLE CONTAINER RINSE W/ 100 ml 0.1 HNO_3	
Impinger 5 and 6 $KMNO_4$ 4% / 10% H_2SO_4		RINSED WITH 200 ml $KMNO_4$ + CONTENTS	
Impingers 5 and 6 8N HCL **8N HCL rinse** 200 DI + ~~KM~~		RINSED WITH 25 ml (total) ~~AU~~ 5 & 6 (8N HCL) IMPINGERS INTO CONTAINER W/ 200 ml H_2O	
SAMPLING REAGENTS:			
0.1 N HNO_3	6/1/21	USED TO RINSE BACK & FRONT HALF 100 mls/each	
5% HNO_3 / 10% H_2O_2	↓	1, 2 & 3 SOLUTION & BACK HALF RINSE 100 mls total	
4% $KMNO_4$ / 10% 10 H_2SO_4	↓	5 & 6 IMP SOLUTION & $KMNO_4$ rinse 200 mls total	
8N HCL	↓	25 mls 8N HCL RINSE (IMP 5 & 6) INTO	
		A CONTAINER W/ 200 ml DI H_2O	

RELINQUISHED BY: DATE: 6/2/21 TIME: 4:30

RECEIVED BY: DATE: 6/2/21 TIME: 4:40

RELINQUISHED BY: DATE: TIME:

RECEIVED BY: DATE: TIME:

RELINQUISHED BY: DATE: TIME:

RECEIVED BY: DATE: TIME:

AIRx Testing Services, Inc.

EQUIPMENT CALIBRATIONS

CLIENT: ~~Vulcan~~ KC All American Asphalt TEST DATE: 06.02.21

LOCATION: IRVINE LAB#: 1061

SOURCE: BAG HOUSE JOB#: 221.061

METHOD: CARB 436

METERBOX # J

EQUIPMENT	DATE CALIBRATED:	EXPIRES:	COMMENTS:
METER BOX	01/23/21	7/21	need 3 points past
PROBE	01/23/21	7/21	
THERMOCOUPLE	01/23/21	7/21	
NOZZLE	01/23/21	7/21	
WET TEST METER	9/20/21	9/21	Used to calibrate meter boxes

RELINQUISHED BY: DATE: 06.2.21 TIME: 1000

RECEIVED BY: DATE: TIME:

RELINQUISHED BY: DATE: TIME:

RECEIVED BY: DATE: TIME:

RELINQUISHED BY: DATE: TIME:

RECEIVED BY: DATE: TIME:

AIRx Testing Services, Inc.

GLASSWARE CLEANING

CLIENT: ~~Vulcan~~ All American Asphalt

TEST DATE: 08 . 02 . 21

LOCATION: IRVINE

LAB#: 1064

SOURCE: BAGHOUSE

JOB#: 221- 061

METHOD: CAR 436

Impingers, connecting glassware and transfer lines:	TIME SOAKED.:	TIME WASHED:	COMMENTS:
– 7 impingers			
Complete set	05. 19·21	05·21·21	◦ FIELD TRAIN – WILL
– 6 "u" tubes			CONVERT TO RUN 1 RECOVER IN FIELD
– 2 filter holder + connections			ALSO DO ~~FIELD~~ SAMPLE (SOLUTION BLANKS)
– 1 transfer line			
– 1 Probe			

SOAKED BY: DATE &TIME: 05·21·21 8:00am WASHED BY: DATE & TIME: 3:00p 05·21·21

RELINQUISHED BY: DATE: 08·2·2 TIME:

RECEIVED BY: DATE: TIME:

RELINQUISHED BY: DATE: TIME:

RECEIVED BY: DATE: TIME:

RELINQUISHED BY: DATE: TIME:

RECEIVED BY: DATE: TIME:

AIRx Testing Services, Inc.

EQUIPMENT CALIBRATIONS

CLIENT: ALL AMERICAN ASPHALT

LOCATION: IRVINE, CA

SOURCE: BAGHOUSE

METHOD: CARB 436

TEST DATE: 6/2-7/21

LAB#:

JOB#: 221-061

EQUIPMENT		DATE CALIBRATED:	EXPIRES:	COMMENTS:
METER BOX	J	1-23-21	7-23-21	FULL CAL ON OR AFTER
PROBE	5	1-23-21	7-23-21	
THERMOCOUPLE	5	1-23-21	7-23-21	
NOZZLE	0.376	1-23-21	7-23-21	
WET TEST METER	AMERICAN METER SER. 15681 MODEL: AL-19	9-9-20	9-9-21	Used to calibrate meter boxes

RELINQUISHED BY: DATE: 6/1/21 TIME: 8:00

RECEIVED BY: DATE: 6/1/21 TIME: 8:00

RELINQUISHED BY: DATE: TIME:

RECEIVED BY: DATE: TIME:

RELINQUISHED BY: DATE: TIME:

RECEIVED BY: DATE: TIME:

AIRx Testing Services, Inc.

SAMPLING TRAINS CHAIN OF CUSTODY

CLIENT: ALL AMERICAN ASPHALT
TEST DATE: 6/2/21
LOCATION: IRVINE, CA
LAB#:
SOURCE: BAGHOUSE
JOB#: 221.061
METHOD: CARB 436 RUN 2

EQUIPMENT	DATE BUILT: BY:	COMMENTS	By::
SAMPLING TRAIN CARB 436 RUN 2 Nozzle 0.376 Probe 5 Filter 3 Filter Holder(Front Half) 1 Filter Holder(back half) 1 Jumper 1 Impingers 1,2 &3 5% HNO3 / 10% H_2O_2 Impinger 4 EMPTY Impinger 5 and 6 4% KMNO4 Impingers 5 and 6 8N HCL rinse	6/1/21 FJT	FRONT HALF RINSE (0.1N HNO3) FRONT HALF RINSE (0.1N HNO3) RECOVERED IN AMBER BOTTLE FRONT HALF RINSE (0.1N HNO3) BACK HALF RINSE (0.1N HNO3) FRONT HALF RINSE (0.1N HNO3) BACK HALF RINSE (0.1N HNO3) + IMP. CONTENTS SEPERATE CONTAINER RINSED W/ 0.1N HNO3 RINSED W/ 100ml KMNO4 + IMPINGER CONTENTS IMPINGERS 5 & 6 RINSED W/ 25ml 8N HCL INTO A CONTAINER W/ 200ml H_2O	
SAMPLING REAGENTS: 0.1 N HNO3 5% HNO3 / 10% H_2O_2 4% KMNO4 / 10% H_2SO_4 8N HCL	6/2/21 FJT	USED TO RINSE FRONT HALF (100mls) & BACK HALF (100mls) 1,2 & 3 SOLUTION & 100ml 0.1N HNO3 rinse 5 & 6 IMPINGER CONTENTS & 100ml KMNO4 rinse 25mls OF 8N HCL RINSE (IMPS. 5,6) INTO A CONTAINER W/ 200ml H_2O	

RELINQUISHED BY: DATE: 7/ /21 TIME:
RECEIVED BY: DATE: TIME:
RELINQUISHED BY: DATE: TIME:
RECEIVED BY: DATE: TIME:
RELINQUISHED BY: DATE: TIME:
RECEIVED BY: DATE: TIME:

SAMPLING TRAINS CHAIN OF CUSTODY

CLIENT: ALL AMERICAN ASPHALT

LOCATION: IRVINE CA

SOURCE: BAGHOUSE

METHOD: CARB 436 RUN3

TEST DATE: 6/7/21

LAB#:

JOB#: 221-061

EQUIPMENT	DATE BUILT: BY:	COMMENTS	By::
SAMPLING TRAIN CARB 436 RUN3	6/1/21 FJT		
Nozzle 0.376		FRONT HALF RINSE (0.1 N HNO_3)	
Probe 5		FRONT HALF RINSE (0.1 N HNO_3)	
Filter 4		RECOVERED IN AMBER BOTTLE	
Filter Holder(Front Half) 1		FRONT HALF RINSE (0.1 N HNO_3)	
Filter Holder(back half) 1		BACK HALF RINSE (0.1 N HNO_3)	
Jumper 1		FRONT HALF RINSE (0.1 N HNO_3)	
Impingers 1,2 &3 5% HNO_3 10% H_2O_2		BACK HALF RINSE (0.1 N HNO_3) + IMPINGER CONTENTS	
Impinger 4 EMPTY		SEPERATE CONTAINER RINSE W/ 0.1 N HNO_3	
Impinger 5 and 6 4% $KMnO_4$ /10% H_2SO_4		RINSED W/ 100 ml $KMnO_4$ + IMPINGER CONTENTS	
Impingers 5 and 6		IMPINGERS 5 & 6 RINSED W/ 25 ml 8n HCL	
8N HCL rinse 200 DI + 25ml 8N HCL		INTO A CONTAINER W/ 200	
SAMPLING REAGENTS:			
0.1 N HNO_3	6/1/21 FJT	USED TO RINSE FRONT HALF (100 mls) & BACK HALF (100 mls)	
5% HNO_3 / 10% H_2O_2		1,2,3 SOLUTIONS & 100ml 0.1 N HNO_3 rinse.	
4% $KMnO_4$ / 10% H_2SO_4		5&6 IMPINGERS CONTENTS & 100ml $KMnO_4$ rinse	
		25ml of 8N HCL (IMPS 5 & 6)	
		INTO A CONTAINER W/ 200ml H_2O	

RELINQUISHED BY: DATE: 6/7/21 TIME: 4:30

RECEIVED BY: DATE: 6/7/21 TIME: 4:45

RELINQUISHED BY: DATE: TIME:

RECEIVED BY: DATE: TIME:

RELINQUISHED BY: DATE: TIME:

RECEIVED BY: DATE: TIME:

AIRx Testing Services, Inc.

SAMPLING TRAIN CHAIN OF CUSTODY

CLIENT: ~~Vulcan~~ LC All American Asphalt TEST DATE: 06.02.21

LOCATION: IRVINE LAB#: 1064

SOURCE: BAGHOUSE JOB#: 221-061

METHOD: CARB 436 / CARB 429

TRAIN NO.:	RUN NO.:	COMMENTS:
- CARB 436 MULTI-METALS	FIELD BLANK	} BOX #'s
- CARB 436 MULTI-METAL	RUN 1	
- CARB 429 PAH	FIELD BLANK	} BOX #'s
- CARB 429 PAH	RUN 1	

BUILT BY: DATE: 06.02.21

RELINQUISHED BY: DATE: 06.02.21 TIME: 0400

RECEIVED BY: DATE: TIME:

RELINQUISHED BY: DATE: TIME:

RECEIVED BY: DATE: TIME:

RELINQUISHED BY: DATE: TIME:

RECEIVED BY: DATE: TIME:

RECOVERED BY: DATE:

AIRx Testing Services, Inc.

SAMPLING TRAIN CHAIN OF CUSTODY

CLIENT: KC ~~Vul Cast~~ All American Asphalt TEST DATE: 06·03·21

LOCATION: IRVINE LAB#:

SOURCE: BAGHOUSE JOB#: 221.061

METHOD: CARB 429 and 436

TRAIN NO.:	RUN NO.:	COMMENTS:
M436 #2	2	COLD BOX #1 & 2
M429 #2	2	COLD BOX #9 & 10

BUILT BY: DATE: 06·03·21

RELINQUISHED BY: DATE: 06·03·21 TIME:

RECEIVED BY: DATE: 6/3/21 TIME:

RELINQUISHED BY: DATE: 6/3/21 TIME: [illegible]

RECEIVED BY: DATE: TIME:

RELINQUISHED BY: DATE: TIME:

RECEIVED BY: DATE: TIME:

RECOVERED BY: DATE:

AIRx Testing Services, Inc.

SAMPLING TRAIN CHAIN OF CUSTODY

CLIENT: ALL AMERICAN ASPHALT

TEST DATE: 06·7·21

LOCATION: IRVINE

LAB#:

SOURCE: BAGHOUSE

JOB#: 221-061

METHOD: 429 / 436 CARB

TRAIN NO.:	RUN NO.:	COMMENTS:
429 #3	3	PROBE, connecting glassware,
		filter, XAD, CONDENSER
		Transfer line. NOZZLE
436 #3	3	PROBE, connecting glassware
		filter, jumper nozzle

BUILT BY: **DATE:** 06·7·26

RELINQUISHED BY: **DATE:** 06·7·21 **TIME:**

RECEIVED BY: **DATE:** 6·7·21 **TIME:**

RELINQUISHED BY: **DATE:** **TIME:**

RECEIVED BY: **DATE:** **TIME:**

RELINQUISHED BY: **DATE:** **TIME:**

RECEIVED BY: **DATE:** **TIME:**

RECOVERED BY: **DATE:** 6·7·21

AIRx Testing

CHAIN OF CUSTODY

INVOICE TO: ✓ SAME

ATTN: AP

REPORT TO: PO# 221-061

AIRx Testing
2472 Eastman Avenue, Unit 34
Ventura, CA 93003
(805) 644-1099 Fax (805) 644-2672

Contact: KEN KENNEPOHL

AB #: 221-061

PROJECT Name: AA IRVINE RUBBER TESTING

Rush: 24hr. Normal: 10 Day

amplers: (Signature) KEN KENNEPOHL

Sample Method:

Return or Dispose

ANALYSIS

ample No.	Sample Date	Sample Time	Comp	Grab	Sample Description	Volume (g) [✓ (ml)]	Fuel (ng) (oil)	CARB METHOD 436						REMARKS
1	6/2/21	0850-1322	✓		RUN 1. FILTER	–		X						
2	6/3/21	0553-0953	✓		FRONT ½ RINSES	100		X						~~3A & 3B (2 BOTTLES)~~
3			✓		IMPS 1-3 + RINSES	1785		X						3A & 3B (2 BOTTLES)
4			✓		IMPINGER 4 K/O	193		X						
5			✓		IMPS 5-6 KMNO4	~~200~~ 498		X						
6			✓		HCl RINSE	215		X						
7	6/3/21	0955	✓		RUN 2 FILTER	–		X						
8			✓		FRONT ½ RINSES	110		X						
9			✓		IMPINGERS 1-3 + RINSES	2024		X						9A, B & C (3 BOTTLES)
10			✓		IMPINGER 4 K/O	160		X						
11			✓		IMPS 5-6 KMNO4	350		X						
12			✓		HCl RINSE	234		X						
13	6/7/21	0600	✓		RUN 3 FILTER	–		X						
14			✓		FRONT ½ RINSES	100		X						
15			✓		IMPINGERS 1-3 + RINSES	~~2034~~ 1159		X						15A & 15B (2 BOTTLES)
16			✓		IMPINGER 4 K/O	326		X						
17			✓		IMPS 5-6 KMNO4	740		X						
18			✓		HCl RINSE	224		X						
19	6/2/21	0600	✓		BLANK TRAIN FILTER	–		X						
20			✓		FRONT ½ RINSES	100		X						
21			✓		IMPINGERS 1-3 + RINSES	200		X						
22			✓		IMPINGER 4 K/O	100		X						
23			✓		IMPS 5-6 KMNO4	400		X						
24			✓		HCl RINSE	225		X						

elinquished by:
ate: 6-8-21 Time 6:00 AM

Received by:
Date: 6/8/21 Time 0600

Relinquished by:
Date: 6/10/21 Time: 1600

Received by:
Date: 6/10/21 Time 1558

— PAGE TWO OF TWO —

AIRx Testing

CHAIN OF CUSTODY

INVOICE TO: X SAME
SAME

ATTN: AP

REPORT TO: PO# 221-061

AIRx Testing
2472 Eastman Avenue, Unit 34
Ventura, CA 93003
(805) 644-1099 Fax (805) 644-2672

Contact: KEN KENNEPOHL

LAB # 221-061

PROJECT Name: AA IRVINE RUBBER

Rush: 24hr. Normal: 10 Day

Samplers: (Signature) KEN KENNEPOHL

Sample Method:

Return or Dispose

ANALYSIS

Sample No.	Sample Date	Sample Time	Comp	Grab	Sample Description	Volume (g) [✓ (ml)]	Fuel (ng) (oil)	CARB METHOD 436						REMARKS
25	6/2/21	0500		X	BLANK 0.1 N HNO3	300		X						
26	↓	↓		X	5% HNO3/10% H2O2	200		X						
27				X	KMNO4	200		X						
28				X	8N HCl	50ml		X						
29				X	FILTER BLANK	—		X						

Relinquished by:	Received by:	Relinquished by:	Received by:
Date: 6-8-21 Time 6:00am	Date: 6/8/21 Time 0600	Date: 6/10/21 Time: 1600	Date: 6/10/21 Time 1558

243

DRY GAS METER CALIBRATION

Standard Pressure 29.92 in. hg.
Standard Temperature 60 F
Ambient pressure 29.96 in. hg.
Ambient temperature 65 F

Unit Number: J
Date: 1/23/2021
Leak Check: .004 @ 20"

		WET GAS	DRY GAS	Temperature					
ΔH in. H20	TIME min.	VOL. cf	VOL. in/out cf	W.G. AVG F	D.G. IN F	D.G. OUT F	D.G. AVG. F	*Y	†ΔH@ in. H20
			818.537		62.0	61.0			
0.75	9.94	5.000	823.518	61.0	63.0	61.0	61.8	1.0034	1.6419
			823.518		61.0	61.0			
0.75	9.94	5.000	828.501	61.0	63.0	62.0	61.8	1.0030	1.6419
			828.501		62.0	62.0			
0.75	9.96	5.000	833.444	61.0	64.0	62.0	62.5	1.0126	1.6462
			833.512		63.0	62.0			
1.50	7.30	5.000	838.487	61.0	63.0	62.0	62.5	1.0042	1.7686
			838.487		63.0	63.0			
1.50	7.32	5.000	843.461	61.0	64.0	62.0	63.0	1.0054	1.7766
			843.461		63.0	63.0			
1.50	7.32	5.000	848.434	61.5	64.0	63.0	63.3	1.0051	1.7792
			848.513		64.0	63.0			
2.25	5.92	5.000	853.466	61.5	64.0	63.0	63.5	1.0078	1.7447
			853.466		64.0	63.0			
2.25	5.92	5.000	858.419	62.0	65.0	64.0	64.0	1.0078	1.7464
			858.419		65.0	64.0			
2.25	5.95	5.000	863.374	62.0	65.0	64.0	64.5	1.0083	1.7625
			863.444		65.0	64.0			
3.00	5.18	5.000	868.382	63.0	66.0	64.0	64.8	1.0085	1.7871
			868.382		65.0	64.0			
3.00	5.18	5.000	873.313	63.0	66.0	64.0	64.8	1.0099	1.7871
			873.313		66.0	64.0			
3.00	5.15	5.000	878.248	63.0	66.0	64.0	64.8	1.0091	1.7664
			878.275		66.0	64.0			
3.75	4.63	5.000	883.190	63.0	66.0	64.0	65.0	1.0119	1.7838
			883.190		65.0	64.0			
3.75	4.62	5.000	888.098	64.0	65.0	64.0	64.5	1.0104	1.7846
			888.098		65.0	64.0			
3.75	4.62	5.000	893.008	64.0	65.0	64.0	64.5	1.0100	1.7846
						AVERAGE		1.0078	1.7468

Validity checks:

Meter Factor: 1.0078

*** Y(max - min) ≤.02 ?** √

† | ΔH@ - ΔH@ avg. | ≤ .20 in. H20 ? √

ΔH@ : 1.7468

Calibration by: FT Reviewed by: KK

EQUATIONS USED:

Y= (VWG*PBAR*(TDGavg.+460))/((VDG*(PBAR+(ΔH/13.6))*(TWGavg.+460))

ΔH@ = ((0.0319*ΔH)/(PBAR*(TDGavg+460))*(((TWG+460)*T)/VWG)^2

DRY GAS METER CALIBRATION

Standard Pressure	29.92	in. hg.
Standard Temperature	60	F
Ambient pressure	29.89	in. hg.
Ambient temperature	68	F

Unit Number: J
Date: 7/23/2021
Leak Check: .002 @ 20"

	WET GAS		DRY GAS	Temperature					
ΔH in. H20	TIME min.	VOL. cf	VOL. in/out cf	W.G. AVG F	D.G. IN F	D.G. OUT F	D.G. AVG. F	*Y	†ΔH@ in. H20
			520.005		63.0	63.0			
0.75	10.05	5.000	524.985	60.0	64.0	61.0	62.8	1.0075	1.6727
			524.985		64.0	61.0			
0.75	10.04	5.000	529.970	60.0	63.0	61.0	62.3	1.0055	1.6710
			529.970		62.0	61.0			
0.75	10.04	5.000	534.951	60.0	63.0	61.0	61.8	1.0053	1.6726
			535.023		63.0	61.0			
1.50	7.25	5.000	539.998	61.0	63.0	61.0	62.0	1.0033	1.7502
			539.998		63.0	61.0			
1.50	7.26	5.000	544.968	61.0	64.0	61.5	62.4	1.0050	1.7538
			544.968		63.0	61.5			
1.50	7.26	5.000	549.939	61.0	65.0	63.0	63.1	1.0062	1.7513
			550.001		65.0	63.0			
2.25	5.85	5.000	554.967	61.0	65.0	63.0	64.0	1.0071	1.7028
			554.967		65.0	63.0			
2.25	5.86	5.000	559.926	62.0	65.0	64.0	64.3	1.0070	1.7144
			559.926		65.0	64.0			
2.25	5.87	5.000	564.888	62.0	65.5	64.0	64.6	1.0072	1.7190
			564.921		65.5	64.0			
3.00	5.12	5.000	569.871	62.0	66.0	64.0	64.9	1.0082	1.7429
			569.871		65.0	64.0			
3.00	5.11	5.000	574.823	63.0	66.0	64.0	64.8	1.0056	1.7432
			574.823		66.0	64.0			
3.00	5.12	5.000	579.772	63.0	66.0	64.0	64.8	1.0063	1.7500
			579.882		66.0	64.0			
3.75	4.55	5.000	584.815	63.0	66.0	64.0	65.0	1.0082	1.7267
			584.815		65.0	64.0			
3.75	4.56	5.000	589.744	64.0	65.0	64.0	64.5	1.0061	1.7426
			589.744		65.0	64.0			
3.75	4.56	5.000	594.676	64.0	65.0	64.0	64.5	1.0055	1.7426
						AVERAGE		1.0063	1.7237

Validity checks:

Meter Factor: 1.0063

* Y(max - min) ≤.02 ? √

† | ΔH@ - ΔH@ avg. | ≤ .20 in. H20 ? √

ΔH@ : 1.7237

Calibration by: FT Reviewed by: KK

EQUATIONS USED:

Y= (VWG*PBAR*(TDGavg.+460))/((VDG*(PBAR+(ΔH/13.6))*(TWGavg.+460))

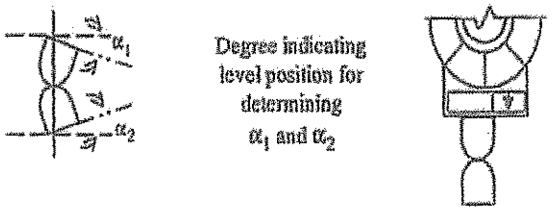
ΔH@ = ((0.0319*ΔH)/(PBAR*(TDGavg+460))*(((TWG+460)*T)/VWG)^2

TYPE S PITOT TUBE INSPECTION SHEET

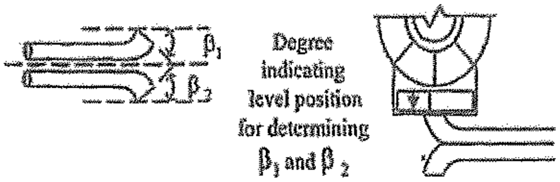
CAL DATE: 7/23/2021

NEXT DUE DATE: Jan-22

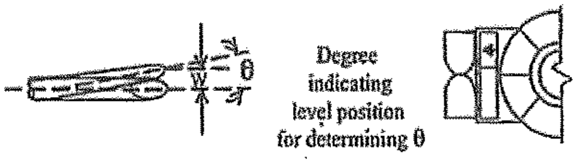
PITOT ID: PT-5



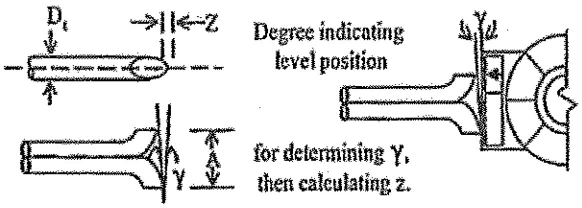
Degree indicating level position for determining α_1 and α_2



Degree indicating level position for determining β_1 and β_2



Degree indicating level position for determining θ



Degree indicating level position for determining γ, then calculating z.

Parameter	Values	Allowable Range
Level and Perpendicular?	Yes OR No	Yes
Obstruction?	Yes OR No	No
Damaged?	Yes OR No	No
$\alpha1$	2	$-10^\circ \le \alpha1 \le +10^\circ$
$\alpha2$	3	$-10^\circ \le \alpha2 \le +10^\circ$
$\beta1$	1	$-5^\circ \le \beta1 \le +5^\circ$
$\beta2$	2	$-5^\circ \le \beta2 \le +5^\circ$
γ	3	NA
θ	2	NA
Z = A (tan γ)	0.046	≤0.125 in.
W = A (tan θ)	0.031	≤0.031 in.
Dt	0.374	0.188 ≤ Dt ≤ 0.375
A	0.885	NA
A/2/(Dt)	1.18	1.05 ≤ PA/Dt ≤ 1.5

Certification:

I certify that this pitot tube meets or exceeds all specifications, criteria and/or applicable design features and is hereby assigned a pitot tube calibration factor Cp of 0.84.

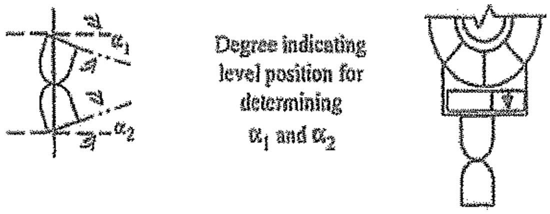
Certified By: FT **Date:** 7/23/2021

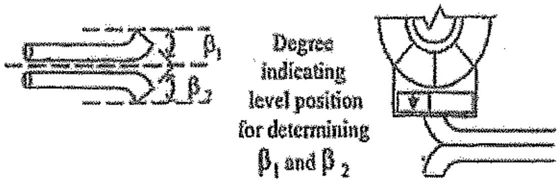
TYPE S PITOT TUBE INSPECTION SHEET

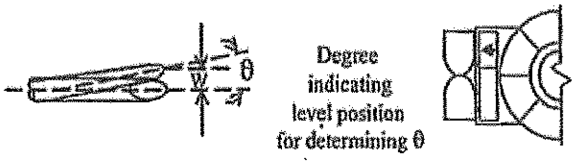
CAL DATE: 1/15/2021

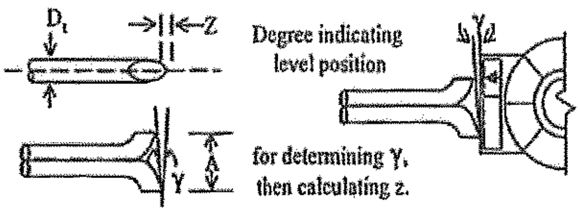
NEXT DUE DATE: Jul-21

PITOT ID: PT-5







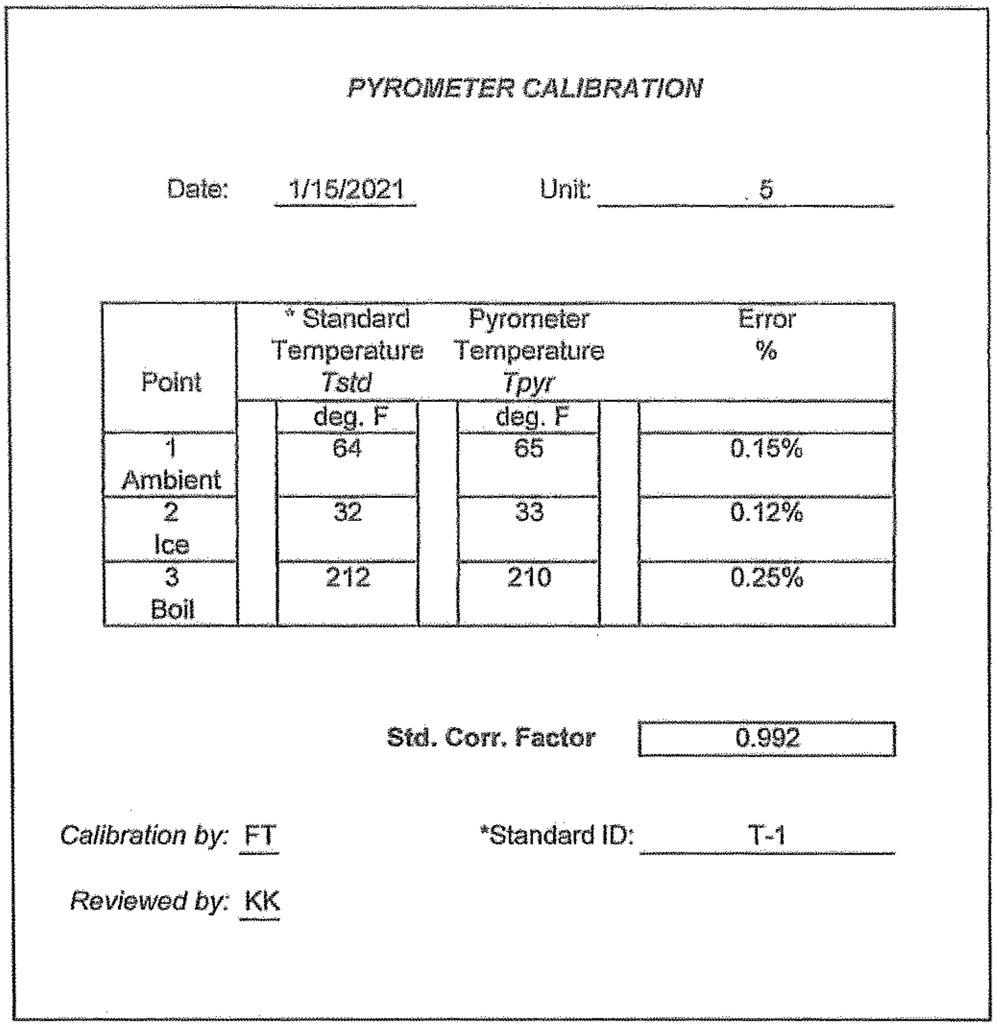


Parameter	Values	Allowable Range
Level and Perpendicular?	Yes OR No	Yes
Obstruction?	Yes OR No	No
Damaged?	Yes OR No	No
α1	2	$-10^\circ \leq \alpha 1 \leq +10^\circ$
α2	3	$-10^\circ \leq \alpha 2 \leq +10^\circ$
β1	0	$-5^\circ \leq \beta 1 \leq +5^\circ$
β2	3	$-5^\circ \leq \beta 2 \leq +5^\circ$
γ	3	NA
θ	3	NA
Z = A (tan γ)	0.046	≤0.125 in.
W = A (tan θ)	0.046	≤0.031 in.
Dt	0.374	$0.188 \leq Dt \leq 0.375$
A	0.884	NA
A/2/(Dt)	1.18	$1.05 \leq PA/Dt \leq 1.5$

Certification:

I certify that this pitot tube meets or exceeds all specifications, criteria and/or applicable design features and is hereby assigned a pitot tube calibration factor Cp of 0.84.

Certified By: FT **Date:** 1/15/2021



PYROMETER CALIBRATION

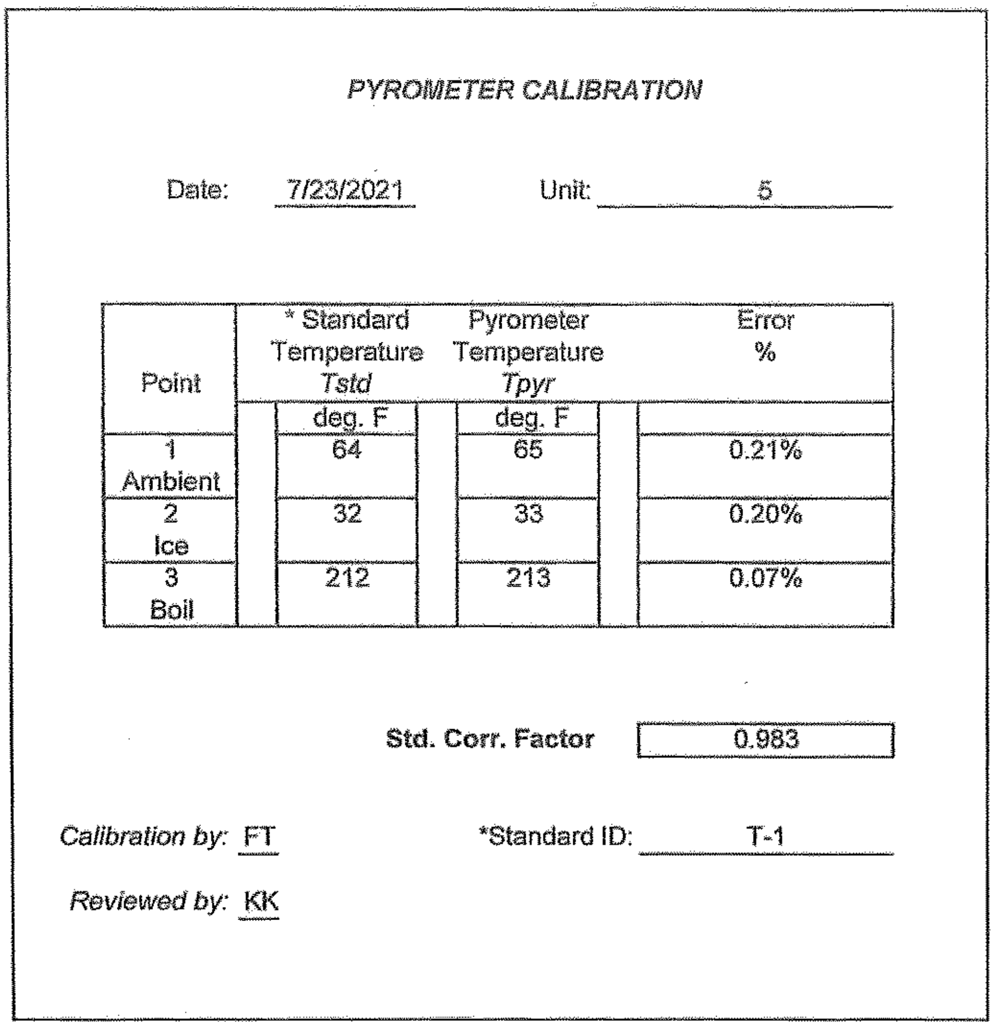
Date: 1/15/2021 Unit: 5

Point	* Standard Temperature *Tstd*	Pyrometer Temperature *Tpyr*	Error %
	deg. F	deg. F	
1 Ambient	64	65	0.15%
2 Ice	32	33	0.12%
3 Boil	212	210	0.25%

Std. Corr. Factor 0.992

Calibration by: FT *Standard ID: T-1

Reviewed by: KK



PYROMETER CALIBRATION

Date: 7/23/2021 Unit: 5

Point	* Standard Temperature *Tstd* deg. F	Pyrometer Temperature *Tpyr* deg. F	Error %
1 Ambient	64	65	0.21%
2 Ice	32	33	0.20%
3 Boil	212	213	0.07%

Std. Corr. Factor 0.983

Calibration by: FT

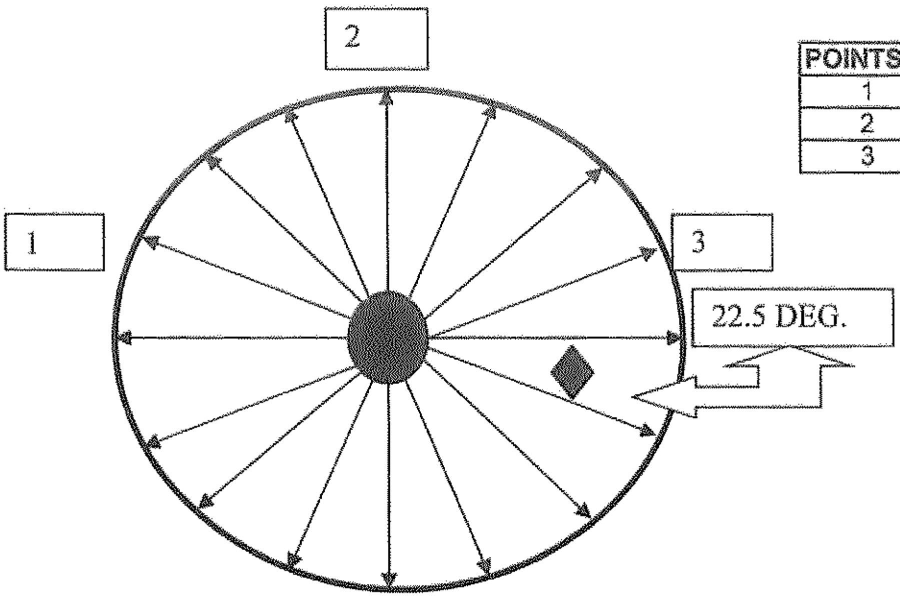
*Standard ID: T-1

Reviewed by: KK

AIR Testing Inc.

PYREX NOZZLE CALIBRATION

Nozzle I.D. O



POINTS	
1	0.376
2	0.375
3	0.376

Average Nozzle Diameter = **0.376**

Analyst: FJT

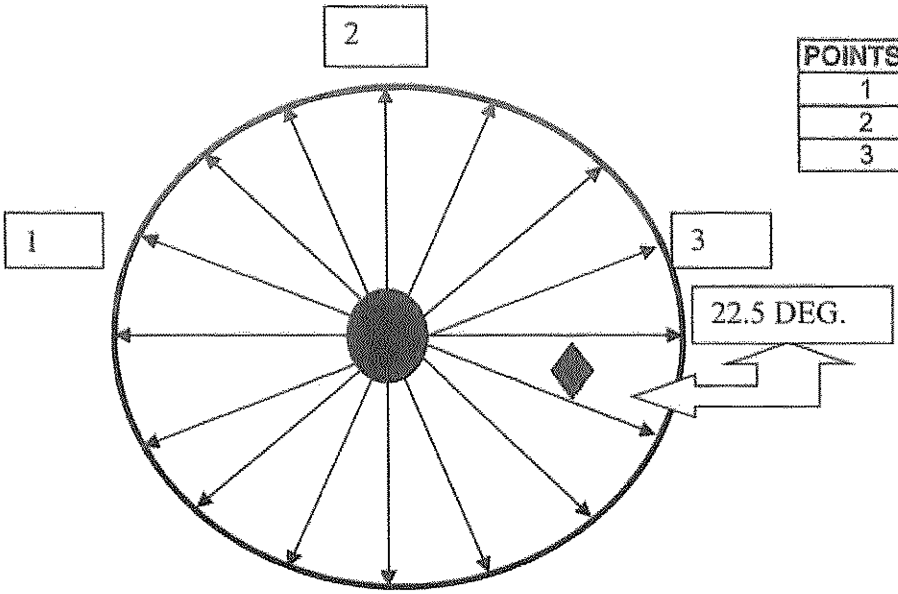
Date: January 15, 2021

*Point to point reading not to exceed .004

AIR_x Testing Inc.

PYREX NOZZLE CALIBRATION

Nozzle I.D. O



POINTS	
1	0.376
2	0.375
3	0.376

Average Nozzle Diameter = **0.376**

Analyst: FJT

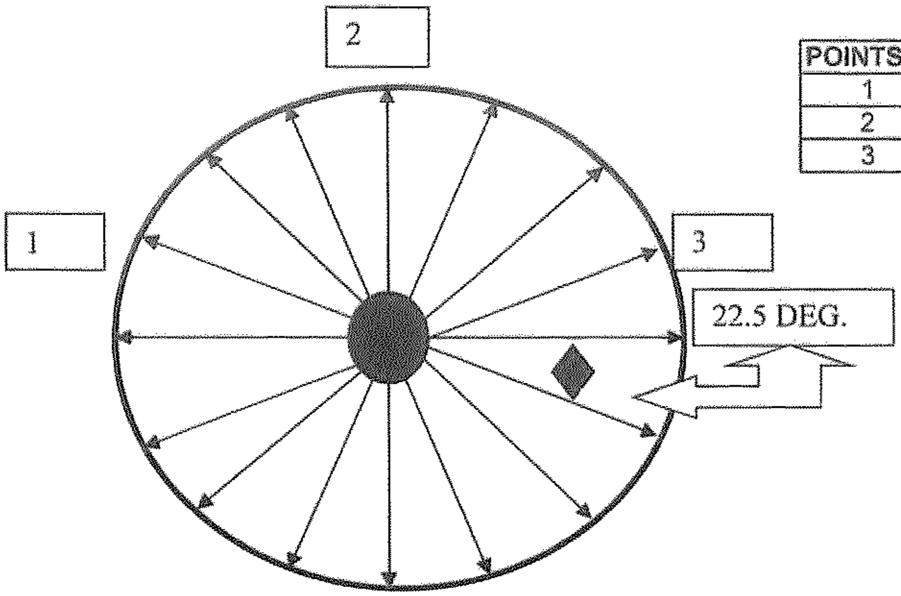
Date: July 23, 2021

*Point to point reading not to exceed .004

AIRx Testing Inc.

PYREX NOZZLE CALIBRATION

Nozzle I.D. L



POINTS	
1	0.350
2	0.350
3	0.350

Average Nozzle Diameter = **0.350**

Analyst: FT

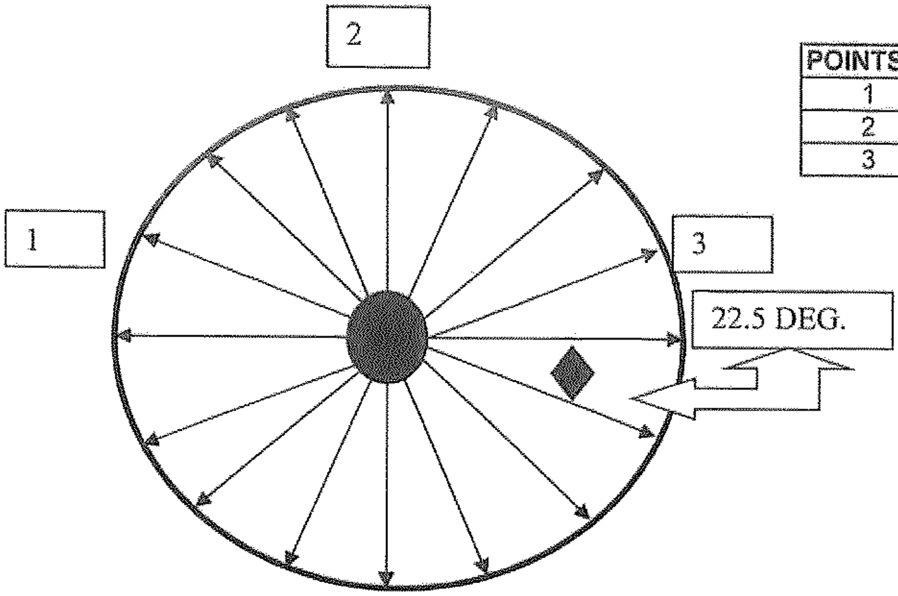
Date: January 15, 2021

*Point to point reading not to exceed .004

AIR X Testing Inc.

PYREX NOZZLE CALIBRATION

Nozzle I.D. L



POINTS	
1	0.350
2	0.350
3	0.350

Average Nozzle Diameter = **0.350**

Analyst: FT

Date: July 23, 2021

*Point to point reading not to exceed .004

ATMOSPHERIC ANALYSIS & CONSULTING

PROJECT: ALL AMERICAN

CLIENT # A010
REPORT # 21-083

SUBMITTED BY:
CHESTER LabNet
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TIGARD, OR 97223
(503)624-2183/FAX (503)624-2653
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CHESTER LabNet

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Case Narrative

Date: March 19, 2021

General Information

Client: Atmospheric Analysis & Consulting

Client Number: A010

Report Number: 21-083

Sample Description: Impinger Train Blanks

Sample Numbers: 21-S160 – 21-S2164

Analysis

Analytes: Hexavalent Chromium, Total Chromium, Al, Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Mn, Hg, Ni, P, Se, Ag, Tl, V, Zn

Analytical Protocols: CARB Method 425 (7/28/97 version)
CARB Method 436 (7/28/97 version)

Analytical Notes: The recoveries for Ag in both LCS samples were low. Ag has historically had low spike recoveries because it has a tendency to plate out during the digestion or analysis. Be was detected in the front half method blank which in turn may have caused the low level LCS to have a high recovery. Results have not been blank corrected.

QA/QC Review: All of the data have been reviewed by the analysts performing the analyses and the project manager. All of the quality control and sample-specific information in this package is complete and meets or exceeds the minimum requirements for acceptability.

Comments: If you have any questions or concerns regarding this analysis, please feel free to contact the project manager.

Disclaimer: This report shall not be reproduced, except in full, without the written approval of the laboratory. The results only represent that of the samples as received into the laboratory. All data are reported to the detection limit. Results <5x DL must be considered to have a higher degree of uncertainty associated with them. Due to the statistical process of detection limit determination, data in this report should not be used for statistical analysis as the data has been censored in such a manner as to bias statistical analyses high.

Paul Duda 3/19/21
Project Manager Date
Paul Duda

Lab ID: 21-S161
Client ID: 210347-17234 0.1N HNO3
Source: All American
Sample Date: 3/ 8/21
Sample Time: 10:30

Analyte	Result	DL	Units
Aluminum, ICP	4.77	3.75	µg/sample
Antimony, ICP	< DL	1.25	µg/sample
Arsenic, ICP	< DL	1.75	µg/sample
Barium, ICP	< DL	0.125	µg/sample
Beryllium, ICP	0.172	0.050	µg/sample
Cadmium, ICP	< DL	0.100	µg/sample
Chromium, ICP	< DL	0.200	µg/sample
Cobalt, ICP	< DL	0.125	µg/sample
Copper, ICP	< DL	1.25	µg/sample
Lead, ICP	< DL	1.25	µg/sample
Manganese, ICP	0.106	0.075	µg/sample
Mercury, CVAA	< DL	0.0219	µg/sample
Nickel, ICP	< DL	0.750	µg/sample
Phosphorus, ICP	< DL	5.00	µg/sample
Selenium, ICP	< DL	3.75	µg/sample
Silver, ICP	2.80	0.500	µg/sample
Thallium, ICP	< DL	2.50	µg/sample
Vanadium, ICP	< DL	0.250	µg/sample
Zinc, ICP	< DL	0.750	µg/sample

Lab ID: 21-S162
Client ID: 210347-17235 Blank Filter
Source: All American CAU 221-024
Sample Date: 3/ 8/21
Sample Time: 10:30

Analyte	Result	DL	Units
Aluminum, ICP	95.7	3.75	µg/sample
Antimony, ICP	< DL	1.25	µg/sample
Arsenic, ICP	3.58	1.75	µg/sample
Barium, ICP	0.917	0.125	µg/sample
Beryllium, ICP	< DL	0.050	µg/sample
Cadmium, ICP	0.358	0.100	µg/sample
Chromium, ICP	0.934	0.200	µg/sample
Cobalt, ICP	< DL	0.125	µg/sample
Copper, ICP	< DL	1.25	µg/sample
Lead, ICP	< DL	1.25	µg/sample
Manganese, ICP	1.27	0.075	µg/sample
Nickel, ICP	< DL	0.750	µg/sample
Phosphorus, ICP	13.8	5.00	µg/sample
Selenium, ICP	< DL	3.75	µg/sample
Silver, ICP	< DL	0.500	µg/sample
Thallium, ICP	< DL	2.50	µg/sample
Vanadium, ICP	< DL	0.250	µg/sample
Zinc, ICP	2.33	0.750	µg/sample

Lab ID: 21-S163
Client ID: 210347-17232 10% H2O2/5%HNO3
Source: All American
Sample Date: 3/ 8/21
Sample Time: 10:30

Analyte	Result	DL	Units
Aluminum, ICP	4.53	2.50	µg/sample
Antimony, ICP	< DL	0.835	µg/sample
Arsenic, ICP	< DL	1.17	µg/sample
Barium, ICP	0.252	0.084	µg/sample
Beryllium, ICP	< DL	0.033	µg/sample
Cadmium, ICP	< DL	0.067	µg/sample
Chromium, ICP	0.480	0.134	µg/sample
Cobalt, ICP	< DL	0.084	µg/sample
Copper, ICP	1.99	0.835	µg/sample
Lead, ICP	< DL	0.835	µg/sample
Manganese, ICP	0.199	0.050	µg/sample
Mercury, CVAA	0.00995	0.00871	µg/sample
Nickel, ICP	< DL	0.501	µg/sample
Phosphorus, ICP	< DL	3.34	µg/sample
Selenium, ICP	< DL	2.50	µg/sample
Silver, ICP	< DL	0.334	µg/sample
Thallium, ICP	< DL	1.67	µg/sample
Vanadium, ICP	< DL	0.167	µg/sample
Zinc, ICP	< DL	0.501	µg/sample

Lab ID: 21-S164
Client ID: 210347-17233 4% KMNO4/10% H2SO4
Source: All American CAU 221-024
Sample Date: 3/ 8/21
Sample Time: 10:30

Analyte	Result	DL	Units
Mercury, CVAA	0.00975	0.00682	µg/sample

QA/QC Report

Client Name: AAC
Project Number: A010
Analytical Technique: ICP - Optima 8300
Sample Description: CARB 436 Front Half
Report Number: 21-083

Blank Data

Analyte	Sample ID	Measured Conc. µg/L	DL Conc. µg/L
Ag	ICB	< DL	2.00
Ag	Meth_Blk	< DL	2.00
Ag	CCB	< DL	2.00
Al	ICB	< DL	15.0
Al	Meth_Blk	< DL	15.0
Al	CCB	< DL	15.0
As	ICB	< DL	7.00
As	Meth_Blk	< DL	7.00
As	CCB	< DL	7.00
Ba	ICB	< DL	0.500
Ba	Meth_Blk	< DL	0.500
Ba	CCB	< DL	0.500
Be	ICB	< DL	0.200
Be	Meth_Blk	0.261	0.200
Be	CCB	< DL	0.200
Cd	ICB	< DL	0.400
Cd	Meth_Blk	< DL	0.400
Cd	CCB	< DL	0.400
Co	ICB	< DL	0.500
Co	Meth_Blk	< DL	0.500
Co	CCB	< DL	0.500
Cr	ICB	< DL	0.800
Cr	Meth_Blk	< DL	0.800
Cr	CCB	< DL	0.800
Cu	ICB	< DL	5.00
Cu	Meth_Blk	< DL	5.00
Cu	CCB	< DL	5.00
Mn	ICB	< DL	0.300
Mn	Meth_Blk	< DL	0.300
Mn	CCB	< DL	0.300
Mn	CCB	< DL	0.300
Ni	ICB	< DL	3.00
Ni	Meth_Blk	< DL	3.00
Ni	CCB	< DL	3.00
P	ICB	< DL	20.0
P	Meth_Blk	< DL	20.0
P	CCB	< DL	20.0
Pb	ICB	< DL	5.00
Pb	Meth_Blk	< DL	5.00
Pb	CCB	< DL	5.00
Sb	ICB	< DL	5.00
Sb	Meth_Blk	< DL	5.00
Sb	CCB	< DL	5.00
Se	ICB	< DL	15.0
Se	Meth_Blk	< DL	15.0
Se	CCB	< DL	15.0
Tl	ICB	< DL	10.0
Tl	Meth_Blk	< DL	10.0
Tl	CCB	< DL	10.0
V	ICB	< DL	1.00
V	Meth_Blk	< DL	1.00
V	CCB	< DL	1.00
Zn	ICB	< DL	3.00
Zn	Meth_Blk	< DL	3.00
Zn	CCB	< DL	3.00

*: Sample Media Blank (SM_Blk) concentration in µg/filter
ICB: Initial Calibration Blank CCB: Continuing Calibration Blank
Method Blank is in control if Method Blank results are <10% of sample results

QA/QC Report

Client Name: AAC
Project Number: A010
Analytical Technique: ICP - Optima 8300
Sample Description: CARB 436 Front Half
Report Number: 21-083

Calibration QC

Analyte	Sample ID	Standard Conc. µg/L	Measured Conc. µg/L	Percent Recovery
Ag	ICV	2500	2490	99.5
Ag	LL-CCV	10.0	10.2	102.2
Ag	LL-LCS	9.00	10.2	113.2
Ag	CCV	2500	2700	108.0
Al	ICV	2500	2540	101.5
Al	LL-CCV	75.0	71.1	94.8
Al	LL-LCS	30.0	33.4	111.4
Al	CCV	2500	2460	98.2
As	ICV	2500	2530	101.1
As	LL-CCV	35.0	33.3	95.1
As	LL-LCS	20.0	18.4	91.8
As	CCV	2500	2500	99.9
Ba	ICV	2500	2520	100.6
Ba	LL-CCV	2.50	2.18	87.2
Ba	LL-LCS	1.50	1.45	96.7
Ba	CCV	2500	2450	98.0
Be	ICV	2500	2480	99.1
Be	LL-CCV	1.00	1.14	113.8
Be	LL-LCS	0.500	0.752	150.4
Be	CCV	2500	2480	99.2
Cd	ICV	2500	2480	99.2
Cd	LL-CCV	2.00	2.05	102.6
Cd	LL-LCS	1.50	1.58	105.3
Cd	CCV	2500	2320	92.8
Co	ICV	2500	2470	98.8
Co	LL-CCV	2.50	2.95	117.9
Co	LL-LCS	1.50	1.88	125.6
Co	CCV	2500	2300	92.0
Cr	ICV	2500	2560	102.3
Cr	LL-CCV	4.00	4.25	106.3
Cr	LL-LCS	2.00	1.80	89.8
Cr	CCV	2500	2370	94.7
Cu	ICV	2500	2440	97.5
Cu	LL-CCV	25.0	27.0	108.0
Cu	LL-LCS	15.0	16.4	109.1
Cu	CCV	2500	2410	96.5
Mn	ICV	2500	2480	99.4
Mn	LL-CCV	1.50	1.79	119.2
Mn	LL-LCS	1.00	1.18	117.8
Mn	CCV	2500	2570	102.9
Mn	CCV	2500	2300	92.2
Ni	ICV	2500	2490	99.5
Ni	LL-CCV	15.0	15.5	103.1
Ni	LL-LCS	6.00	4.28	71.4
Ni	CCV	2500	2330	93.0
P	ICV	2500	2480	99.0
P	LL-CCV	100.	97.0	97.0
P	LL-LCS	75.0	78.3	104.4
P	CCV	2500	2280	91.2
Pb	ICV	2500	2500	100.2
Pb	LL-CCV	25.0	24.1	96.2
Pb	LL-LCS	15.0	16.7	111.3
Pb	CCV	2500	2330	93.3
Sb	ICV	2500	2520	101.0
Sb	LL-CCV	25.0	23.6	94.6
Sb	LL-LCS	15.0	13.5	89.7

ICV: Initial Calibration Verification CCV: Continuing Calibration Verification
Calibration Verification Limits: 90% - 110% Recovery
LL-CCV (Low Level CCV) Limits: 60% - 140% Recovery
LL-LCS Limits: 50% - 150% Recovery
LL-LCS results are not significant if sample results are >10x LL-LCS concentration

QA/QC Report

Client Name:	AAC
Project Number:	A010
Analytical Technique:	ICP - Optima 8300
Sample Description:	CARB 436 Front Half
Report Number:	21-083

Calibration QC

Analyte	Sample ID	Standard Conc. µg/L	Measured Conc. µg/L	Percent Recovery
Sb	CCV	2500	2480	99.0
Se	ICV	2500	2500	99.8
Se	LL-CCV	75.0	74.0	98.6
Se	LL-LCS	30.0	29.9	99.6
Se	CCV	2500	2300	91.8
Tl	ICV	2500	2650	105.9
Tl	LL-CCV	50.0	53.0	106.0
Tl	LL-LCS	30.0	33.7	112.4
Tl	CCV	2500	2610	104.3
V	ICV	2500	2520	100.8
V	LL-CCV	5.00	5.50	110.1
V	LL-LCS	3.00	3.14	104.7
V	CCV	2500	2320	92.9
Zn	ICV	2500	2480	99.2
Zn	LL-CCV	15.0	17.1	113.9
Zn	LL-LCS	6.00	6.11	101.9
Zn	CCV	2500	2470	98.6

ICV: Initial Calibration Verification CCV: Continuing Calibration Verification
Calibration Verification Limits: 90% - 110% Recovery
LL-CCV (Low Level CCV) Limits: 60% - 140% Recovery
LL-LCS Limits: 50% - 150% Recovery
LL-LCS results are not significant if sample results are >10x LL-LCS concentration

Replicate Data

Analyte	Sample ID	Sample Conc. µg/L	Replicate Conc. µg/L	RPD
Ag	21-S161	11.22	12.26	8.86
Al	21-S161	19.07	19.19	0.63 #
As	21-S161	< 7	< 7	N/C #
Ba	21-S161	< 0.5	< 0.5	N/C #
Be	21-S161	0.688	0.452	41.4 #
Cd	21-S161	< 0.4	< 0.4	N/C #
Co	21-S161	< 0.5	< 0.5	N/C #
Cr	21-S161	< 0.8	< 0.8	N/C #
Cu	21-S161	< 5	< 5	N/C #
Mn	21-S161	0.424	0.309	31.4 #
Ni	21-S161	< 3	< 3	N/C #
P	21-S161	< 20	< 20	N/C #
Pb	21-S161	< 5	< 5	N/C #
Sb	21-S161	< 5	< 5	N/C #
Se	21-S161	< 15	< 15	N/C #
Tl	21-S161	< 10	< 10	N/C #
V	21-S161	< 1	< 1	N/C #
Zn	21-S161	< 3	< 3	N/C #

N/C: RPD is not calculated when sample or replicate is below detection limit
Replicate Limit: 20% RPD
#: per EPA CLP protocol, control limits do not apply if sample and/or
replicate concentration is less than 5x the detection limit

QA/QC Report

Client Name: AAC
Project Number: A010
Analytical Technique: ICP - Optima 8300
Sample Description: CARB 436 Front Half
Report Number: 21-083

Laboratory Control Sample/Post Digestion Spike Analysis

Analyte	Sample ID	Sample Conc. µg/L	Spike Conc. µg/L	Spike Amount µg/L	Percent Recovery
Ag	LCS	< 2	560.5	2500.	22.4
Ag	LCS	< 2	2110.	2500.	84.4
Ag	21-S162	4.143	2188.	2500.	87.4
Al	LCS	< 15	2681.	2500.	107.
Al	LCS	< 15	2593.	2500.	104.
Al	21-S162	74630	197300	125000	98.1
As	LCS	< 7	2703.	2500.	108.
As	LCS	< 7	2706.	2500.	108.
As	21-S162	< 7	2357.	2500.	94.3
Ba	LCS	< 0.5	2695.	2500.	108.
Ba	LCS	< 0.5	2593.	2500.	104.
Ba	21-S162	37670	158800	125000	96.9
Be	LCS	0.261	2452.	2500.	98.1
Be	LCS	0.261	2468.	2500.	98.7
Be	21-S162	0.694	1949.	2500.	77.9
Cd	LCS	< 0.4	2727.	2500.	109.
Cd	LCS	< 0.4	2739.	2500.	110.
Cd	21-S162	< 0.4	2233.	2500.	89.3
Co	LCS	< 0.5	2616.	2500.	105.
Co	LCS	< 0.5	2640.	2500.	106.
Co	21-S162	< 0.5	2178.	2500.	87.1
Cr	LCS	< 0.8	2649.	2500.	106.
Cr	LCS	< 0.8	2671.	2500.	107.
Cr	21-S162	60.32	2353.	2500.	91.7
Cu	LCS	< 5	2535.	2500.	101.
Cu	LCS	< 5	2538.	2500.	102.
Cu	21-S162	< 5	2230.	2500.	89.2
Mn	LCS	< 0.3	2676.	2500.	107.
Mn	LCS	< 0.3	2719.	2500.	109.
Mn	21-S162	24.90	2267.	2500.	89.7
Ni	LCS	< 3	2662.	2500.	106.
Ni	LCS	< 3	2682.	2500.	107.
Ni	21-S162	13.32	2225.	2500.	88.5
P	LCS	< 20	2612.	2500.	104.
P	LCS	< 20	2639.	2500.	106.
P	21-S162	97.13	2531.	2500.	97.4
Pb	LCS	< 5	2736.	2500.	109.
Pb	LCS	< 5	2768.	2500.	111.
Pb	21-S162	< 5	2227.	2500.	89.1
Sb	LCS	< 5	2659.	2500.	106.
Sb	LCS	< 5	2673.	2500.	107.
Sb	21-S162	< 5	2202.	2500.	88.1
Se	LCS	< 15	2656.	2500.	106.
Se	LCS	< 15	2689.	2500.	108.
Se	21-S162	< 15	2264.	2500.	90.6
Tl	LCS	< 10	2756.	2500.	110.
Tl	LCS	< 10	2731.	2500.	109.
Tl	21-S162	< 10	1941.	2500.	77.6
V	LCS	< 1	2583.	2500.	103.
V	LCS	< 1	2610.	2500.	104.
V	21-S162	26.00	2314.	2500.	91.5
Zn	LCS	< 3	2722.	2500.	109.
Zn	LCS	< 3	2786.	2500.	111.
Zn	21-S162	79140	200500	125000	97.1

LCS Limit: 80% - 120% Recovery   Spike Limit: 75% - 125% Recovery

*: per EPA CLP protocol, control limits do not apply if spike concentration is less than 25% of the sample concentration

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QA/QC Report

Client Name: AAC
Project Number: A010
Analytical Technique: ICP - Optima 8300
Sample Description: CARB 436 Front Half
Report Number: 21-083

Laboratory Control Sample Duplicate Data

Analyte	Sample ID	Spike Conc. µg/L	Duplicate Conc. µg/L	RPD
Ag	LCS-DUP	560.	2110	116.
Al	LCS-DUP	2680	2590	3.34
As	LCS-DUP	2700	2710	0.11
Ba	LCS-DUP	2700	2590	3.86
Be	LCS-DUP	2450	2470	0.65
Cd	LCS-DUP	2730	2740	0.44
Co	LCS-DUP	2620	2640	0.91
Cr	LCS-DUP	2650	2670	0.83
Cu	LCS-DUP	2540	2540	0.12
Mn	LCS-DUP	2680	2720	1.59
Ni	LCS-DUP	2660	2680	0.75
P	LCS-DUP	2610	2640	1.03
Pb	LCS-DUP	2740	2770	1.16
Sb	LCS-DUP	2660	2670	0.53
Se	LCS-DUP	2660	2690	1.23
Tl	LCS-DUP	2760	2730	0.91
V	LCS-DUP	2580	2610	1.04
Zn	LCS-DUP	2720	2790	2.32

Duplicate Limit: 20% RPD

QA/QC Report

Client Name: AAC
Project Number: A010
Analytical Technique: ICP - Optima 8300
Sample Description: CARB 436 Back Half
Report Number: 21-083

Blank Data

Analyte	Sample ID	Measured Conc. µg/L	DL Conc. µg/L
Ag	ICB	< DL	2.00
Ag	Meth_Blk	< DL	2.00
Ag	CCB	< DL	2.00
Al	ICB	< DL	15.0
Al	Meth_Blk	< DL	15.0
Al	CCB	< DL	15.0
As	ICB	< DL	7.00
As	Meth_Blk	< DL	7.00
As	CCB	< DL	7.00
Ba	ICB	< DL	0.500
Ba	Meth_Blk	< DL	0.500
Ba	CCB	< DL	0.500
Be	ICB	< DL	0.200
Be	Meth_Blk	< DL	0.200
Be	CCB	< DL	0.200
Cd	ICB	< DL	0.400
Cd	Meth_Blk	< DL	0.400
Cd	CCB	< DL	0.400
Co	ICB	< DL	0.500
Co	Meth_Blk	< DL	0.500
Co	CCB	< DL	0.500
Cr	ICB	< DL	0.800
Cr	Meth_Blk	< DL	0.800
Cr	CCB	< DL	0.800
Cu	ICB	< DL	5.00
Cu	Meth_Blk	< DL	5.00
Cu	CCB	< DL	5.00
Mn	ICB	< DL	0.300
Mn	Meth_Blk	< DL	0.300
Mn	CCB	< DL	0.300
Ni	ICB	< DL	3.00
Ni	Meth_Blk	< DL	3.00
Ni	CCB	< DL	3.00
P	ICB	< DL	20.0
P	Meth_Blk	< DL	20.0
P	CCB	< DL	20.0
Pb	ICB	< DL	5.00
Pb	Meth_Blk	< DL	5.00
Pb	CCB	< DL	5.00
Sb	ICB	< DL	5.00
Sb	Meth_Blk	< DL	5.00
Sb	CCB	< DL	5.00
Se	ICB	< DL	15.0
Se	Meth_Blk	< DL	15.0
Se	CCB	< DL	15.0
Tl	ICB	< DL	10.0
Tl	Meth_Blk	< DL	10.0
Tl	CCB	< DL	10.0
V	ICB	< DL	1.00
V	Meth_Blk	< DL	1.00
V	CCB	< DL	1.00
Zn	ICB	< DL	3.00
Zn	Meth_Blk	< DL	3.00
Zn	CCB	< DL	3.00

*: Sample Media Blank (SM_Blk) concentration in µg/filter
ICB: Initial Calibration Blank CCB: Continuing Calibration Blank
Method Blank is in control if Method Blank results are <10% of sample results

QA/QC Report

Client Name: AAC
Project Number: A010
Analytical Technique: ICP - Optima 8300
Sample Description: CARB 436 Back Half
Report Number: 21-083

Calibration QC

Analyte	Sample ID	Standard Conc. µg/L	Measured Conc. µg/L	Percent Recovery
Ag	ICV	2500	2400	96.0
Ag	LL-CCV	10.0	9.92	99.2
Ag	LL-LCS	9.00	10.3	114.0
Ag	CCV	2500	2470	99.0
Al	ICV	2500	2550	101.8
Al	LL-CCV	75.0	75.9	101.1
Al	LL-LCS	30.0	38.7	129.0
Al	CCV	2500	2540	101.8
As	ICV	2500	2420	96.6
As	LL-CCV	35.0	36.3	103.8
As	LL-LCS	20.0	21.0	105.0
As	CCV	2500	2330	93.1
Ba	ICV	2500	2560	102.3
Ba	LL-CCV	2.50	2.66	106.3
Ba	LL-LCS	1.50	1.75	116.5
Ba	CCV	2500	2590	103.7
Be	ICV	2500	2550	101.8
Be	LL-CCV	1.00	1.02	102.3
Be	LL-LCS	0.500	0.444	88.8
Be	CCV	2500	2520	100.9
Cd	ICV	2500	2460	98.5
Cd	LL-CCV	2.00	2.04	101.8
Cd	LL-LCS	1.50	1.57	104.7
Cd	CCV	2500	2340	93.4
Co	ICV	2500	2430	97.1
Co	LL-CCV	2.50	2.52	100.9
Co	LL-LCS	1.50	1.18	78.8
Co	CCV	2500	2320	93.0
Cr	ICV	2500	2500	99.9
Cr	LL-CCV	4.00	4.51	112.7
Cr	LL-LCS	2.00	2.08	103.8
Cr	CCV	2500	2360	94.4
Cu	ICV	2500	2400	95.9
Cu	LL-CCV	25.0	26.9	107.7
Cu	LL-LCS	15.0	15.6	104.0
Cu	CCV	2500	2290	91.5
Mn	ICV	2500	2540	101.4
Mn	LL-CCV	1.50	1.76	117.7
Mn	LL-LCS	1.00	1.05	105.3
Mn	CCV	2500	2560	102.3
Ni	ICV	2500	2560	102.3
Ni	LL-CCV	15.0	16.4	109.1
Ni	LL-LCS	6.00	7.62	127.0
Ni	CCV	2500	2310	92.5
P	ICV	2500	2390	95.7
P	LL-CCV	100.	108.	108.5
P	LL-LCS	75.0	72.3	96.4
P	CCV	2500	2280	91.2
Pb	ICV	2500	2440	97.8
Pb	LL-CCV	25.0	25.3	101.1
Pb	LL-LCS	15.0	15.5	103.2
Pb	CCV	2500	2430	97.2
Sb	ICV	2500	2440	97.6
Sb	LL-CCV	25.0	26.0	104.0
Sb	LL-LCS	15.0	21.9	145.7
Sb	CCV	2500	2370	94.8

ICV: Initial Calibration Verification CCV: Continuing Calibration Verification
Calibration Verification Limits: 90% - 110% Recovery
LL-CCV (Low Level CCV) Limits: 60% - 140% Recovery
LL-LCS Limits: 50% - 150% Recovery
LL-LCS results are not significant if sample results are >10x LL-LCS concentration

QA/QC Report

Client Name: AAC
Project Number: A010
Analytical Technique: ICP - Optima 8300
Sample Description: CARB 436 Back Half
Report Number: 21-083

Calibration QC

Analyte	Sample ID	Standard Conc. µg/L	Measured Conc. µg/L	Percent Recovery
Se	ICV	2500	2380	95.2
Se	LL-CCV	75.0	75.0	100.0
Se	LL-LCS	30.0	28.6	95.2
Se	CCV	2500	2260	90.6
Tl	ICV	2500	2540	101.7
Tl	LL-CCV	50.0	56.0	111.9
Tl	LL-LCS	30.0	25.6	85.3
Tl	CCV	2500	2520	100.7
V	ICV	2500	2460	98.6
V	LL-CCV	5.00	5.58	111.7
V	LL-LCS	3.00	2.99	99.6
V	CCV	2500	2320	93.0
Zn	ICV	2500	2520	101.0
Zn	LL-CCV	15.0	17.1	114.2
Zn	LL-LCS	6.00	6.93	115.6
Zn	CCV	2500	2530	101.2

ICV: Initial Calibration Verification CCV: Continuing Calibration Verification
Calibration Verification Limits: 90% - 110% Recovery
LL-CCV (Low Level CCV) Limits: 60% - 140% Recovery
LL-LCS Limits: 50% - 150% Recovery
LL-LCS results are not significant if sample results are >10x LL-LCS concentration

Replicate Data

Analyte	Sample ID	Sample Conc. µg/L	Replicate Conc. µg/L	RPD
Ag	21-S163	< 2	< 2	N/C #
Al	21-S163	27.15	27.10	0.18 #
As	21-S163	< 7	< 7	N/C #
Ba	21-S163	1.508	1.524	1.06 #
Be	21-S163	< 0.2	< 0.2	N/C #
Cd	21-S163	< 0.4	< 0.4	N/C #
Co	21-S163	< 0.5	< 0.5	N/C #
Cr	21-S163	2.876	2.490	14.4 #
Cu	21-S163	11.93	10.47	13.0 #
Mn	21-S163	1.193	1.088	9.21 #
Ni	21-S163	< 3	< 3	N/C #
P	21-S163	< 20	< 20	N/C #
Pb	21-S163	< 5	< 5	N/C #
Sb	21-S163	< 5	< 5	N/C #
Se	21-S163	< 15	< 15	N/C #
Tl	21-S163	< 10	< 10	N/C #
V	21-S163	< 1	< 1	N/C #
Zn	21-S163	< 3	< 3	N/C #

N/C: RPD is not calculated when sample or replicate is below detection limit
Replicate Limit: 20% RPD
#: per EPA CLP protocol, control limits do not apply if sample and/or replicate concentration is less than 5x the detection limit

QA/QC Report

Client Name: AAC
Project Number: A010
Analytical Technique: ICP - Optima 8300
Sample Description: CARB 436 Back Half
Report Number: 21-083

Laboratory Control Sample/Post Digestion Spike Analysis

Analyte	Sample ID	Sample Conc. µg/L	Spike Conc. µg/L	Spike Amount µg/L	Percent Recovery
Ag	LCS	< 2	1350.	2500.	54.0
Ag	LCS	< 2	2105.	2500.	84.2
Ag	21-S163	< 2	2293.	2500.	91.7
Al	LCS	< 15	2481.	2500.	99.2
Al	LCS	< 15	2707.	2500.	108.
Al	21-S163	27.15	2518.	2500.	99.6
As	LCS	< 7	2376.	2500.	95.0
As	LCS	< 7	2397.	2500.	95.9
As	21-S163	< 7	2314.	2500.	92.6
Ba	LCS	< 0.5	2633.	2500.	105.
Ba	LCS	< 0.5	2766.	2500.	111.
Ba	21-S163	1.508	2655.	2500.	106.
Be	LCS	< 0.2	2350.	2500.	94.0
Be	LCS	< 0.2	2387.	2500.	95.5
Be	21-S163	< 0.2	2347.	2500.	93.9
Cd	LCS	< 0.4	2415.	2500.	96.6
Cd	LCS	< 0.4	2471.	2500.	98.8
Cd	21-S163	< 0.4	2378.	2500.	95.1
Co	LCS	< 0.5	2395.	2500.	95.8
Co	LCS	< 0.5	2456.	2500.	98.2
Co	21-S163	< 0.5	2377.	2500.	95.1
Cr	LCS	< 0.8	2475.	2500.	99.0
Cr	LCS	< 0.8	2522.	2500.	101.
Cr	21-S163	2.876	2419.	2500.	96.6
Cu	LCS	< 5	2305.	2500.	92.2
Cu	LCS	< 5	2358.	2500.	94.3
Cu	21-S163	11.93	2238.	2500.	89.0
Mn	LCS	< 0.3	2595.	2500.	104.
Mn	LCS	< 0.3	2670.	2500.	107.
Mn	21-S163	1.193	2599.	2500.	104.
Ni	LCS	< 3	2383.	2500.	95.3
Ni	LCS	< 3	2434.	2500.	97.4
Ni	21-S163	< 3	2343.	2500.	93.7
P	LCS	< 20	2264.	2500.	90.6
P	LCS	< 20	2288.	2500.	91.5
P	21-S163	< 20	2240.	2500.	89.6
Pb	LCS	< 5	2491.	2500.	99.6
Pb	LCS	< 5	2539.	2500.	102.
Pb	21-S163	< 5	2457.	2500.	98.3
Sb	LCS	< 5	2440.	2500.	97.6
Sb	LCS	< 5	2485.	2500.	99.4
Sb	21-S163	< 5	2349.	2500.	94.0
Se	LCS	< 15	2262.	2500.	90.5
Se	LCS	< 15	2283.	2500.	91.3
Se	21-S163	< 15	2202.	2500.	88.1
Tl	LCS	< 10	2655.	2500.	106.
Tl	LCS	< 10	2738.	2500.	110.
Tl	21-S163	< 10	2671.	2500.	107.
V	LCS	< 1	2436.	2500.	97.4
V	LCS	< 1	2485.	2500.	99.4
V	21-S163	< 1	2375.	2500.	95.0
Zn	LCS	< 3	2519.	2500.	101.
Zn	LCS	< 3	2595.	2500.	104.
Zn	21-S163	< 3	2528.	2500.	101.

LCS Limit: 80% - 120% Recovery   Spike Limit: 75% - 125% Recovery
*: per EPA CLP protocol, control limits do not apply if spike concentration is less than 25% of the sample concentration

QA/QC Report

Client Name: AAC
Project Number: A010
Analytical Technique: ICP - Optima 8300
Sample Description: CARB 436 Back Half
Report Number: 21-083

Laboratory Control Sample Duplicate Data

Analyte	Sample ID	Spike Conc. µg/L	Duplicate Conc. µg/L	RPD
Ag	LCS-DUP	1350	2100	43.7
Al	LCS-DUP	2480	2710	8.71
As	LCS-DUP	2380	2400	0.88
Ba	LCS-DUP	2630	2770	4.93
Be	LCS-DUP	2350	2390	1.56
Cd	LCS-DUP	2420	2470	2.29
Co	LCS-DUP	2400	2460	2.51
Cr	LCS-DUP	2480	2520	1.88
Cu	LCS-DUP	2300	2360	2.27
Mn	LCS-DUP	2600	2670	2.85
Ni	LCS-DUP	2380	2430	2.12
P	LCS-DUP	2260	2290	1.05
Pb	LCS-DUP	2490	2540	1.91
Sb	LCS-DUP	2440	2480	1.83
Se	LCS-DUP	2260	2280	0.92
Tl	LCS-DUP	2660	2740	3.08
V	LCS-DUP	2440	2480	1.99
Zn	LCS-DUP	2520	2600	2.97

Duplicate Limit: 20% RPD

CHESTER LABNET
SOURCE SAMPLE RECEIPT CHECKLIST

Client AAC

Date 3/10/21

Runs 1 set blanks

Report # 21-083

Package intact?	✓	
Chain-of-Custody form inspected	✓	
CoC present with samples?	✓	
CoC indicates analytical methodology to be used? (eg M29, etc.)	CARB 425, CARB 436	!!
Has CoC been signed by client?	✓	
Custody release date and time noted on CoC?	✓	
All sample containers inspected	✓	
Does number of samples match number on CoC form?	✓	!!
Do all sample ID numbers match those on the CoC form?	✓	!!
Did client mark sample volumes prior to shipment?	NA	
Sample temperature recorded?	NA	
Are the sample containers intact?	✓	!!
If present, Audit Sample intact?	NA	!!
Are signs of leakage present?	NO	*
Chain-of-Custody form signed and dated by CLN	✓	

Corrective actions	
Client contacted due to mismatching sample ID numbers	
Client contacted due to broken sample container(s)	
Client contacted due to leaking sample container(s)	3/10/21
Client contacted for verification of methodology?	LWB
Corrective actions documented?	
Corrective actions accomplished?	

Items marked !! shall be addressed ***prior to any analytical work being started*****.**
*Items marked * shall be* ***noted in case narrative*** *upon reporting of results to client.*

Signed Lisa Ball

Notes

ATMOSPHERIC ANALYSIS & CONSULTING, INC.
1534 Eastman Avenue, Suite A
Ventura, California 93003
Phone (805) 650-1642 Fax (805) 650-1644
E-mail: info@aaclab.com

AAC Project No. 210347 Page 1 of 1

Subcontractor Lab: RK # 21-083
Paul Duda
CHESTER LabNet
12242 SW Garden Place
Tigard, OR 97223
(503)624-2183

CHAIN OF CUSTODY / ANALYSIS REQUEST FORM

Client Name: AAC, Inc.
Project Name: All American CAU 221-024
Project Mgr (Print Name): Eric Grosjean
Project Number: 210347
Sampler's Name (Print Name):
Sampler's Signature:

Analysis Requested

AAC Sample No.	Date Sampled	Time Sampled	Sample Type	Client Sample ID/Description	Type/No. of containers	CARB 436 18 Metals+Hg	CARB 425 Total Cr and Cr+6	
210347-17232	03/08/21	1030	21-5163 Reagent Blank	CARB 436 10% H202/5% HNO3 3	Bottle 1	X		
210347-17233	03/08/21	1030	21-5164 Reagent Blank	CARB 436 4% KMNO4/10% H2SO4 4	Bottle 1	X		
210347-17234	03/08/21	1030	215161 Reagent Blank	CARB 436 0.1N HNO3 1	Bottle 1	X		
210347-17235	03/08/21	1030	215162 Blank Filter	CARB 436 Filter 2	Petri Dish 1	X		
210347-17236	03/08/21	1100	215160 Probe Rinse	CARB 425 Probe Rinse	Bottle 1		X	

Send Report:
Attn: Eric Grosjean
egrosjean@aaclab.com
Phone #: 805-650-1642

Send Invoice to:
Attn: Jennifer Guevara
info@aaclab.com
Phone #: 805-650-1642
P.O. # NA

5 day ____ Normal X
need results by 3/18

Other (Specify)

Special Intructions / remarks:

Relinquished by (Signature)	Print name: Eric Grosjean	Date/Time 3/9/21 06:22	Received by (Signature) 3/10/21 9:25	Print Name Lisa Bove
Relinquished by (Signature)	Print name:	Date/Time	Received by (Signature)	Print Name

Report # 21-083

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RAW DATA

Available upon request

AIRx Testing

CHAIN OF CUSTODY

INVOICE TO: X SAME

ATTN:

REPORT TO: PO#

AIRx Testing
2472 Eastman Avenue, Unit 34
Ventura, CA 93003
(805) 644-1099 Fax (805) 644-2672

Contact:

LAB # 221-024 PROJECT Name: All American CAU

Samplers: (Signature)

Rush: 24hr. Normal: 10 Day

Sample Method:

Return or Dispose

ANALYSIS

Sample No.	Sample Date	Sample Time	Comp	Grab	Sample Description	Volume (g) [✓ (ml)]	Fuel (ng) (oil)	CARB 436						REMARKS
1	3/8/21	–		X	CARB 436 10% H_2O_2 - 5% HNO_3	100		X						
2	↓	–		X	CARB 436 4% $KMnO_4$ - 10% H_2SO_4	100		X						Solution
3	↓	–		X	CARB 436 0.1N HNO_3	100		X						blanks
4	↓	–		X	Filter	Filter		X						
														Need
														Results
														by
														3-19-21

Relinquished by:
Date: 3-8-21 Time 11:00

Received by:
Date: Time

Relinquished by:
Date: Time:

Received by:
Date: 3/8/21 Time 1100

EPA METHOD TO-15
TOXIC ORGANICS

EPA TO-15

Tank 1352

Client : All American Asphalt
Site : Irvine, CA
Unit : Rotary Dryer Baghouse

T std: 60 °F
Run No.: 1

Test Date : 6/3/2021
Job #: 1064
Lab #: 221-061

Q std: 24,100 dscfm (Method 429)
Production Rate: [redacted] TPH

Compound Name	Lab Results ppb	lb/hr	lb/Ton	lb/Mmbtu	MW
Propene	**1010**	**0.16**	[redacted]	**0.00318**	42.08
Chlorodifluoromethane	< 14.8	<0.0049	[redacted]	< 0.000096	86.47
Dichlorodifluoromethane	< 14.8	<0.0058	[redacted]	< 0.00011	102.92
Chloromethane	< 14.8	<0.0028	[redacted]	< 0.000056	50.50
1,2 Dichloro-1,1,2,2-Tetrafluoroethane	< 14.8	<0.010	[redacted]	< 0.00019	170.92
Vinyl Chloride	< 14.8	<0.0035	[redacted]	< 0.000069	62.50
1,3-Butadiene	**81.1**	**0.017**	[redacted]	**0.000328**	54.09
Bromomethane	< 14.8	<0.0054	[redacted]	< 0.00010	94.94
Methanol	**186**	**0.023**	[redacted]	**0.000445**	32.04
Chloroethane	< 14.8	<0.0036	[redacted]	< 0.000071	64.50
Dichlorofluoromethane	< 14.8	<0.0058	[redacted]	< 0.00011	102.92
Ethanol	< 59.2	**0.010**	[redacted]	**0.000204**	46.07
Vinyl Bromide	< 14.8	<0.006	[redacted]	< 0.00012	106.96
Trichlorofluoromethane	< 14.8	<0.007	[redacted]	< 0.00014	127.50
Acetone	**363**	**0.080**	[redacted]	**0.00158**	58.08
Isopropyl Alcohol	< 59.2	<0.014	[redacted]	< 0.00027	60.10
Allyl Chloride	< 29.6	<0.0086	[redacted]	< 0.00017	76.53
1,1-Dichloroethene	< 14.8	<0.0054	[redacted]	< 0.00011	96.00
Acrylonitrile	< 59.2	<0.012	[redacted]	< 0.00023	53.06
Methylene Chloride	< 29.6	<0.011	[redacted]	< 0.00022	98.00
Carbon Disulfide	< 59.2	<0.017	[redacted]	< 0.00034	76.14
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 14.8	<0.011	[redacted]	< 0.00021	187.40
trans-1,2- Dichloroethene	< 14.8	<0.0055	[redacted]	< 0.00011	96.94
1,1- Dichloroethane	< 14.8	<0.0055	[redacted]	< 0.00011	98.00
MTBE	< 14.8	<0.0050	[redacted]	< 0.00010	88.15
Vinyl Acetate	< 29.6	<0.010	[redacted]	< 0.00019	86.09
MEK	**45.0**	**0.012**	[redacted]	**0.000242**	72.11
cis-1,2- Dichloroethene	< 14.8	<0.0054	[redacted]	< 0.00011	96.00
Hexane	< 14.8	<0.0049	[redacted]	< 0.000095	86.18
Chloroform	< 14.8	<0.0067	[redacted]	< 0.00013	119.50
Ethyl Acetate	< 14.8	<0.0050	[redacted]	< 0.000097	88.11
Tetrahydrofuran	< 14.8	<0.0041	[redacted]	< 0.000080	72.11
1,2-Dichloroethane	< 14.8	<0.0055	[redacted]	< 0.00011	98.00
Benzene	**302**	**0.090**	[redacted]	**0.00176**	78.11
Cyclohexane	< 14.8	<0.0047	[redacted]	< 0.000093	84.16
Heptane	< 14.8	<0.0057	[redacted]	< 0.00011	100.21
Toluene	**99.7**	**0.035**	[redacted]	**0.000686**	92.14
Carbon Tetrachloride	< 14.8	<0.0086	[redacted]	< 0.00017	153.24
1,2-Dichloropropane	< 14.8	<0.0064	[redacted]	< 0.00012	112.99
Bromodichloromethane	< 14.8	<0.0092	[redacted]	< 0.00018	163.83
1,4-Dioxane	< 59.2	<0.0199	[redacted]	< 0.00039	88.11
Trichloroethene	< 14.8	<0.0074	[redacted]	< 0.00015	131.40
2,2,4-Trimethylpentane	< 14.8	<0.0064	[redacted]	< 0.00013	114.23
cis-1,3-Dichloropropene	< 14.8	<0.0063	[redacted]	< 0.00012	110.97
4-Methyl-2-Pentanone (MiBK)	< 29.6	<0.011	[redacted]	< 0.00022	100.16
t-1,3-Dichloropropene	< 14.8	<0.0063	[redacted]	< 0.00012	110.97
1,1,2-Trichloroethane	< 14.8	<0.0075	[redacted]	< 0.00015	133.40
2-Hexanone	< 59.2	<0.030	[redacted]	< 0.00060	134.60
Dibromochloromethane	< 14.8	<0.012	[redacted]	< 0.00023	208.28
1,2-Dibromomethane	< 14.8	<0.011	[redacted]	< 0.00021	187.88
Tetrachloroethylene	< 14.8	<0.0094	[redacted]	< 0.00018	165.83
Chlorobenzene	< 14.8	<0.0063	[redacted]	< 0.00012	112.56
Ethylbenzene	< 14.8	<0.0060	[redacted]	< 0.00012	106.16
m & p-Xylenes	**44.1**	**0.018**	[redacted]	**0.000350**	106.16
Bromoform	< 14.8	<0.014	[redacted]	< 0.00028	252.72
Styrene	**16.9**	**0.0067**	[redacted]	**0.000131**	104.14
1,1,2,2-Tetrachloroethane	< 14.8	<0.0095	[redacted]	< 0.00019	167.85
o-Xylene	< 14.8	<0.0060	[redacted]	< 0.00012	106.16
4-Ethyltoluene	< 14.8	<0.0068	[redacted]	< 0.00013	120.19
1,3,5-Trimethylbenzene	< 14.8	<0.0064	[redacted]	< 0.00012	112.99
1,2,4-Trimethylbenzene	< 29.6	<0.014	[redacted]	< 0.00027	120.19
Benzyl Chloride	< 148	<0.071	[redacted]	< 0.0014	126.59
1,3-Dichlorobenzene	< 14.8	<0.0083	[redacted]	< 0.00016	147.00
1,4-Dichlorobenzene	< 14.8	<0.0083	[redacted]	< 0.00016	147.01
1,2-Dichlorobenzene	< 14.8	<0.0083	[redacted]	< 0.00016	147.01
1,2,4-Trichlorobenzene	< 59.2	<0.041	[redacted]	< 0.00080	181.45
Hexachlorobutadiene	< 59.2	<0.059	[redacted]	< 0.0012	260.76
1,1,1-Trichloroethene	< 14.8	<0.0074	[redacted]	< 0.00015	131.40

lb/hr = (ppb/1000) * Ostd * MW * 0.0000001581
lb/MMBtu = F-Factor (8710)*lb/hr/(60*Ostd)*20.9/(20.9-O2)
lb/ton = lb/hr/tons/hr

EPA TO-15
Tank 1192

Client : All American Asphalt
Site : Irvine, CA
Unit : Rotary Dryer Baghouse

T std: 60 °F
Run No.: 1A

Date : 6/3/2021
Job #: 1064
Lab #: 221-061

Q std: 24,100 dscfm (Method 429)
Production Rate: [redacted] TPH

Compound Name	Lab Results ppb	lb/hr	lb/Ton	lb/Mmbtu	MW
Propene	**1080**	**0.17**	[redacted]	**0.00340**	42.08
Chlorodifluoromethane	< 13	< 0.0043	[redacted]	< 0.000085	86.47
Dichlorodifluoromethane	< 13	< 0.0051	[redacted]	< 0.00010	102.92
Chloromethane	< 13	< 0.0025	[redacted]	< 0.000049	50.50
1,2 Dichloro-1,1,2,2-Tetrafluoroethane	< 13	< 0.0085	[redacted]	< 0.00017	170.92
Vinyl Chloride	< 13	< 0.0031	[redacted]	< 0.000061	62.50
1,3-Butadiene	**152**	**0.031**	[redacted]	**0.00061**	54.09
Bromomethane	< 13	< 0.0047	[redacted]	< 0.000093	94.94
Methanol	**790**	**0.096**	[redacted]	**0.0019**	32.04
Chloroethane	< 13	< 0.0032	[redacted]	< 0.000063	64.50
Dichlorofluoromethane	< 13	< 0.0051	[redacted]	< 0.00010	102.92
Ethanol	**168**	**0.029**	[redacted]	**0.00058**	46.07
Vinyl Bromide	< 13	< 0.0053	[redacted]	< 0.00010	106.96
Trichlorofluoromethane	< 13	< 0.0064	[redacted]	< 0.00012	127.50
Acetone	**389**	**0.086**	[redacted]	**0.00169**	58.08
Isopropyl Alcohol	< 52	< 0.012	[redacted]	< 0.00024	60.10
Allyl Chloride	< 26	< 0.0076	[redacted]	< 0.00015	76.53
1,1-Dichloroethene	< 52	< 0.019	[redacted]	< 0.00038	96.00
Acrylonitrile	< 52	< 0.011	[redacted]	< 0.00021	53.06
Methylene Chloride	< 26	< 0.0098	[redacted]	< 0.00019	98.00
Carbon Disulfide	< 52	< 0.015	[redacted]	< 0.00030	76.14
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 13	< 0.0094	[redacted]	< 0.00018	187.40
trans-1,2- Dichloroethene	< 13	< 0.0048	[redacted]	< 0.000095	96.94
1,1- Dichloroethane	< 13	< 0.0049	[redacted]	< 0.000096	98.00
MTBE	< 13	< 0.0044	[redacted]	< 0.000086	88.15
Vinyl Acetate	< 26	< 0.0086	[redacted]	< 0.00017	86.09
MEK	**34.1**	**0.0094**	[redacted]	**0.000184**	72.11
cis-1,2- Dichloroethene	< 13	< 0.0048	[redacted]	< 0.000094	96.00
Hexane	< 13	< 0.0043	[redacted]	< 0.000084	86.18
Chloroform	< 13	< 0.0060	[redacted]	< 0.00012	119.50
Ethyl Acetate	< 13	< 0.0044	[redacted]	< 0.000086	88.11
Tetrahydrofuran	< 13	< 0.0036	[redacted]	< 0.000071	72.11
1,2-Dichloroethane	< 13	< 0.0049	[redacted]	< 0.000096	98.00
Benzene	**310**	**0.092**	[redacted]	**0.00181**	78.11
Cyclohexane	< 13	<0.0042	[redacted]	< 0.000082	84.16
Heptane	< 13	<0.0050	[redacted]	<0.000098	100.21
Toluene	**104**	**0.037**	[redacted]	**0.000716**	92.14
Carbon Tetrachloride	< 13	<0.0076	[redacted]	< 0.00015	153.24
1,2-Dichloropropane	< 13	<0.0056	[redacted]	< 0.00011	112.99
Bromodichloromethane	< 13	<0.0082	[redacted]	< 0.00016	163.83
1,4-Dioxane	< 52	<0.018	[redacted]	< 0.00034	88.11
Trichloroethene	< 13	<0.0066	[redacted]	< 0.00013	131.40
2,2,4-Trimethylpentane	< 13	<0.0057	[redacted]	< 0.00011	114.23
cis-1,3-Dichloropropene	< 13	<0.0055	[redacted]	< 0.00011	110.97
4-Methyl-2-Pentanone (MiBK)	< 26	<0.010	[redacted]	< 0.00020	100.16
t-1,3-Dichloropropene	< 13	<0.0055	[redacted]	< 0.00011	110.97
1,1,2-Trichloroethane	< 13	<0.0067	[redacted]	< 0.00013	133.40
2-Hexanone	< 52	<0.027	[redacted]	< 0.00053	134.60
Dibromochloromethane	< 13	<0.010	[redacted]	< 0.00020	208.28
1,2-Dibromomethane	< 13	<0.0094	[redacted]	< 0.00018	187.88
Tetrachloroethylene	< 13	<0.0083	[redacted]	< 0.00016	165.83
Chlorobenzene	< 13	<0.0056	[redacted]	< 0.00011	112.56
Ethylbenzene	< 13	<0.0053	[redacted]	< 0.00010	106.16
m & p-Xylenes	**43.5**	**0.018**	[redacted]	**0.000345**	106.16
Bromoform	< 13	<0.013	[redacted]	< 0.00025	252.72
Styrene	**19.9**	**0.0079**	[redacted]	**0.000155**	104.14
1,1,2,2-Tetrachloroethane	< 13	<0.0084	[redacted]	< 0.00016	167.85
o-Xylene	< 13	<0.0053	[redacted]	< 0.00010	106.16
4-Ethyltoluene	< 13	<0.0060	[redacted]	< 0.00012	120.19
1,3,5-Trimethylbenzene	< 13	<0.0056	[redacted]	< 0.00011	112.99
1,2,4-Trimethylbenzene	**29.6**	**0.014**	[redacted]	**0.000266**	120.19
Benzyl Chloride	< 131	<0.063	[redacted]	< 0.0012	126.59
1,3-Dichlorobenzene	< 13	<0.0073	[redacted]	< 0.00014	147.00
1,4-Dichlorobenzene	< 13	<0.0073	[redacted]	< 0.00014	147.01
1,2-Dichlorobenzene	< 13	<0.0073	[redacted]	< 0.00014	147.01
1,2,4-Trichlorobenzene	< 52	<0.036	[redacted]	< 0.00071	181.45
Hexachlorobutadiene	< 52	<0.052	[redacted]	< 0.0010	260.76
1,1,1-Trichloroethene	< 13	<0.0066	[redacted]	< 0.00013	131.40

lb/hr = (ppb/1000) * Qstd * MW * 0.0000001581
lb/MMBtu = F-Factor (8710)*lb/hr/(60*Qstd)*20.9/(20.9-O2)
lb/ton = lb/hr/tons/hr

EPA TO-15
Tank 1172

Client : All American Asphalt
Site : Irvine, CA
Unit : Rotary Dryer Baghouse

T std: 60 °F
Run No.: 2

Date : 6/3/2021
Job #: 1064
Lab #: 221-061

Q std: **24,090** dscfm (Method 429)
Production Rate: [redacted] TPH

Compound Name	Lab Results ppb	lb/hr	lb/Ton	lb/Mmbtu	MW
Propene	**890**	**0.14**	[redacted]	**0.00280**	42.08
Chlorodifluoromethane	< 12.0	< 0.0040	[redacted]	< 0.000078	86.47
Dichlorodifluoromethane	< 12.0	< 0.0047	[redacted]	< 0.000092	102.92
Chloromethane	< 12.0	< 0.0023	[redacted]	< 0.000045	50.50
1,2 Dichloro-1,1,2,2-Tetrafluoroethane	< 12.0	< 0.0078	[redacted]	< 0.00015	170.92
Vinyl Chloride	< 12.0	< 0.0029	[redacted]	< 0.000056	62.50
1,3-Butadiene	**66.8**	**0.014**	[redacted]	**0.000270**	54.09
Bromomethane	< 12.0	< 0.0043	[redacted]	< 0.000085	94.94
Methanol	**421**	**0.051**	[redacted]	**0.00101**	32.04
Chloroethane	< 12.0	< 0.0029	[redacted]	< 0.000058	64.50
Dichlorofluoromethane	< 12.0	< 0.0047	[redacted]	< 0.000092	102.92
Ethanol	**80.3**	**0.014**	[redacted]	**0.000276**	46.07
Vinyl Bromide	< 12.0	< 0.0049	[redacted]	< 0.000096	106.96
Trichlorofluoromethane	< 12.0	< 0.0058	[redacted]	< 0.00011	127.50
Acetone	**298**	**0.0659**	[redacted]	**0.00129**	58.08
Isopropyl Alcohol	< 47.9	< 0.011	[redacted]	< 0.00022	60.10
Allyl Chloride	< 24.0	< 0.0070	[redacted]	< 0.00014	76.53
1,1-Dichloroethene	< 12.0	< 0.0044	[redacted]	< 0.000086	96.00
Acrylonitrile	< 47.9	< 0.0097	[redacted]	< 0.00019	53.06
Methylene Chloride	< 24.0	< 0.0090	[redacted]	< 0.00018	98.00
Carbon Disulfide	**68.5**	**0.020**	[redacted]	**0.000390**	76.14
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 12.0	< 0.0086	[redacted]	< 0.00017	187.40
trans-1,2- Dichloroethene	< 12.0	< 0.0044	[redacted]	< 0.000087	96.94
1,1- Dichloroethane	< 12.0	< 0.0045	[redacted]	< 0.000088	98.00
MTBE	< 12.0	< 0.0040	[redacted]	< 0.000079	88.15
Vinyl Acetate	< 24.0	< 0.0079	[redacted]	< 0.00015	86.09
MEK	**54.6**	**0.015**	[redacted]	**0.000294**	72.11
cis-1,2- Dichloroethene	< 12.0	< 0.0044	[redacted]	< 0.000086	96.00
Hexane	< 12.0	< 0.0039	[redacted]	< 0.000077	86.18
Chloroform	< 12.0	< 0.0055	[redacted]	< 0.00011	119.50
Ethyl Acetate	< 12.0	< 0.0040	[redacted]	< 0.000079	88.11
Tetrahydrofuran	< 12.0	< 0.0033	[redacted]	< 0.000065	72.11
1,2-Dichloroethane	< 12.0	< 0.0045	[redacted]	< 0.000088	98.00
Benzene	**262**	**0.078**	[redacted]	**0.00153**	78.11
Cyclohexane	< 12.0	<0.0038	[redacted]	< 0.000075	84.16
Heptane	< 12.0	<0.0046	[redacted]	< 0.000090	100.21
Toluene	**85.8**	**0.030**	[redacted]	**0.000591**	92.14
Carbon Tetrachloride	< 12.0	<0.0070	[redacted]	< 0.00014	153.24
1,2-Dichloropropane	< 12.0	<0.0052	[redacted]	< 0.00010	112.99
Bromodichloromethane	< 12.0	<0.0075	[redacted]	< 0.00015	163.83
1,4-Dioxane	< 47.9	<0.0161	[redacted]	< 0.00032	88.11
Trichloroethene	< 12.0	<0.0060	[redacted]	< 0.00012	131.40
2,2,4-Trimethylpentane	< 12.0	<0.0052	[redacted]	< 0.00010	114.23
cis-1,3-Dichloropropene	< 12.0	<0.0051	[redacted]	< 0.000099	110.97
4-Methyl-2-Pentanone (MiBK)	< 24.0	<0.0092	[redacted]	< 0.00018	100.16
t-1,3-Dichloropropene	< 12.0	<0.0051	[redacted]	< 0.000099	110.97
1,1,2-Trichloroethane	< 12.0	<0.0061	[redacted]	< 0.00012	133.40
2-Hexanone	< 47.9	<0.025	[redacted]	< 0.00048	134.60
Dibromochloromethane	< 12.0	<0.0095	[redacted]	< 0.00019	208.28
1,2-Dibromomethane	< 12.0	<0.0086	[redacted]	< 0.00017	187.88
Tetrachloroethylene	< 12.0	<0.0076	[redacted]	< 0.00015	165.83
Chlorobenzene	< 12.0	<0.0051	[redacted]	< 0.00010	112.56
Ethylbenzene	< 12.0	<0.0049	[redacted]	< 0.000095	106.16
m & p-Xylenes	**44.3**	**0.018**	[redacted]	**0.000351**	106.16
Bromoform	< 12.0	<0.012	[redacted]	< 0.00023	252.72
Styrene	**13.4**	**0.0053**	[redacted]	**0.000104**	104.14
1,1,2,2-Tetrachloroethane	< 12.0	<0.0077	[redacted]	< 0.00015	167.85
o-Xylene	< 12.0	<0.0049	[redacted]	< 0.00010	106.16
4-Ethyltoluene	< 12.0	<0.0055	[redacted]	< 0.00011	120.19
1,3,5-Trimethylbenzene	< 12.0	<0.0052	[redacted]	< 0.00010	112.99
1,2,4-Trimethylbenzene	< 24.0	<0.011	[redacted]	< 0.00022	120.19
Benzyl Chloride	< 120.0	<0.058	[redacted]	< 0.0011	126.59
1,3-Dichlorobenzene	< 12.0	<0.0067	[redacted]	< 0.00013	147.00
1,4-Dichlorobenzene	< 12.0	<0.0067	[redacted]	< 0.00013	147.01
1,2-Dichlorobenzene	< 12.0	<0.0067	[redacted]	< 0.00013	147.01
1,2,4-Trichlorobenzene	< 47.9	<0.033	[redacted]	< 0.00065	181.45
Hexachlorobutadiene	< 47.9	<0.048	[redacted]	< 0.00093	260.76
1,1,1-Trichloroethene	< 12.0	<0.0060	[redacted]	< 0.00012	131.40

lb/hr = (ppb/1000) * Qstd * MW * 0.0000001581
lb/MMBtu = F-Factor (8710)*lb/hr/(60*Qstd)*20.9/(20.9-O2)
lb/ton = lb/hr/tons/hr

EPA TO-15
Tank 1266

Client : All American Asphalt
Site : Irvine, CA
Unit : Rotary Dryer Baghouse

T std: 60 °F
Run No.: 2A

Date : 6/3/2021
Job #: 1064
Lab #: 221-061

Q std: 24,090 dscfm (Method 429)
Production Rate: [redacted] TPH

Compound Name	Lab Results ppb	lb/hr	lb/Ton	lb/MMBtu	MW
Propene	**997**	**0.16**	[redacted]	**0.00313**	42.08
Chlorodifluoromethane	< 15.6	< 0.0051	[redacted]	< 0.00010	86.47
Dichlorodifluoromethane	< 15.6	< 0.0061	[redacted]	< 0.00012	102.92
Chloromethane	< 15.6	< 0.0030	[redacted]	< 0.000059	50.50
1,2 Dichloro-1,1,2,2-Tetrafluoroethane	< 15.6	< 0.010	[redacted]	< 0.00020	170.92
Vinyl Chloride	< 15.6	< 0.0037	[redacted]	< 0.000073	62.50
1,3-Butadiene	**138**	**0.028**	[redacted]	**0.000558**	54.09
Bromomethane	< 15.6	< 0.0056	[redacted]	< 0.00011	94.94
Methanol	**309**	**0.038**	[redacted]	**0.000740**	32.04
Chloroethane	< 15.6	< 0.0038	[redacted]	< 0.000075	64.50
Dichlorofluoromethane	< 15.6	< 0.0061	[redacted]	< 0.00012	102.92
Ethanol	**98.7**	**0.017**	[redacted]	**0.000340**	46.07
Vinyl Bromide	< 15.6	< 0.0064	[redacted]	< 0.00012	106.96
Trichlorofluoromethane	< 15.6	< 0.0076	[redacted]	< 0.00015	127.50
Acetone	**355**	**0.079**	[redacted]	**0.00154**	58.08
Isopropyl Alcohol	< 62.3	< 0.014	[redacted]	< 0.00028	60.10
Allyl Chloride	< 31.1	< 0.0091	[redacted]	< 0.00018	76.53
1,1-Dichloroethene	< 15.6	< 0.0057	[redacted]	< 0.00011	96.00
Acrylonitrile	< 62.3	< 0.013	[redacted]	< 0.00025	53.06
Methylene Chloride	< 31.1	< 0.012	[redacted]	< 0.00023	98.00
Carbon Disulfide	< 62.3	< 0.018	[redacted]	< 0.00035	76.14
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 15.6	< 0.011	[redacted]	< 0.00022	187.40
trans-1,2- Dichloroethene	< 15.6	< 0.0058	[redacted]	< 0.00011	96.94
1,1- Dichloroethane	< 15.6	< 0.0058	[redacted]	< 0.00011	98.00
MTBE	< 15.6	< 0.0052	[redacted]	< 0.00010	88.15
Vinyl Acetate	< 31.1	< 0.010	[redacted]	< 0.00020	86.09
MEK	**39.2**	**0.011**	[redacted]	**0.000211**	72.11
cis-1,2- Dichloroethene	< 15.6	< 0.0057	[redacted]	< 0.00011	96.00
Hexane	< 15.6	< 0.0051	[redacted]	< 0.00010	86.18
Chloroform	< 15.6	< 0.0071	[redacted]	< 0.00014	119.50
Ethyl Acetate	< 15.6	< 0.0052	[redacted]	< 0.00010	88.11
Tetrahydrofuran	< 15.6	< 0.0043	[redacted]	< 0.000084	72.11
1,2-Dichloroethane	< 15.6	< 0.0058	[redacted]	< 0.00011	98.00
Benzene	**288**	**0.086**	[redacted]	**0.00168**	78.11
Cyclohexane	< 15.6	< 0.0050	[redacted]	< 0.000098	84.16
Heptane	< 15.6	< 0.0060	[redacted]	< 0.00012	100.21
Toluene	**101**	**0.035**	[redacted]	**0.000695**	92.14
Carbon Tetrachloride	< 15.6	<0.0091	[redacted]	< 0.00018	153.24
1.2-Dichloropropane	< 15.6	<0.0067	[redacted]	< 0.00013	112.99
Bromodichloromethane	< 15.6	<0.0097	[redacted]	< 0.00019	163.83
1.4-Dioxane	< 62.3	<0.0209	[redacted]	< 0.00041	88.11
Trichloroethene	< 15.6	<0.0078	[redacted]	< 0.00015	131.40
2,2,4-Trimethylpentane	< 15.6	<0.0068	[redacted]	< 0.00013	114.23
cis-1.3-Dichloropropene	< 15.6	<0.0066	[redacted]	< 0.00013	110.97
4-Methyl-2-Pentanone (MiBK)	< 31.1	<0.012	[redacted]	< 0.00023	100.16
t-1.3-Dichloropropene	< 15.6	<0.0066	[redacted]	< 0.00013	110.97
1.1.2-Trichloroethane	< 15.6	<0.0079	[redacted]	< 0.00016	133.40
2-Hexanone	< 62.3	<0.032	[redacted]	< 0.00063	134.60
Dibromochloromethane	< 15.6	<0.012	[redacted]	< 0.00024	208.28
1.2-Dibromomethane	< 15.6	<0.011	[redacted]	< 0.00022	187.88
Tetrachloroethylene	< 15.6	<0.0099	[redacted]	< 0.00019	165.83
Chlorobenzene	< 15.6	<0.0067	[redacted]	< 0.00013	112.56
Ethylbenzene	< 15.6	<0.0063	[redacted]	< 0.00012	106.16
m & p-Xylenes	**42.7**	**0.017**	[redacted]	**0.000339**	106.16
Bromoform	< 15.6	<0.015	[redacted]	< 0.00029	252.72
Styrene	**17.1**	**0.0068**	[redacted]	**0.000133**	104.14
1.1.2.2-Tetrachloroethane	< 15.6	<0.010	[redacted]	< 0.00020	167.85
o-Xylene	< 15.6	<0.0063	[redacted]	< 0.00012	106.16
4-Ethyltoluene	< 15.6	<0.0071	[redacted]	< 0.00014	120.19
1.3.5-Trimethylbenzene	< 15.6	<0.0067	[redacted]	< 0.00013	112.99
1.2.4-Trimethylbenzene	< 31.1	<0.014	[redacted]	< 0.00028	120.19
Benzyl Chloride	< 156	<0.075	[redacted]	< 0.00148	126.59
1.3-Dichlorobenzene	< 15.6	<0.0087	[redacted]	< 0.00017	147.00
1.4-Dichlorobenzene	< 15.6	<0.0087	[redacted]	< 0.00017	147.01
1.2-Dichlorobenzene	< 15.6	<0.0087	[redacted]	< 0.00017	147.01
1.2.4-Trichlorobenzene	< 62.3	<0.043	[redacted]	< 0.00084	181.45
Hexachlorobutadiene	< 62.3	<0.062	[redacted]	< 0.0012	260.76
1.1.1-Trichloroethene	< 15.6	<0.0078	[redacted]	< 0.00015	131.40

lb/hr = (ppb/1000) * Qstd * MW * 0.0000001581
lb/MMBtu = F-Factor (8710)*lb/hr/(60*Qstd)*20.9/(20.9-O2)
lb/ton = lb/hr/tons/hr

EPA TO-15
Tank 1191

Client : All American Asphalt
Site : Irvine, CA
Unit : Rotary Dryer Baghouse

T std: 60 °F
Run No.: 3

Date : 6/3/2021
Job #: 1064
Lab #: 221-061

Q std: 23,888 dscfm (Method 429)
Production Rate: [redacted] TPH

Compound Name	Lab Results ppb	lb/hr	lb/Ton	lb/Mmbtu	MW
Propene	**7520**	**1.20**	[redacted]	**0.0236**	42.08
Chlorodifluoromethane	< 61.4	<0.020	[redacted]	<0.00040	86.47
Dichlorodifluoromethane	< 61.4	<0.024	[redacted]	<0.00047	102.92
Chloromethane	< 61.4	<0.012	[redacted]	<0.00023	50.50
1,2 Dichloro-1,1,2,2-Tetrafluoroethane	< 61.4	<0.040	[redacted]	<0.00078	170.92
Vinyl Chloride	< 61.4	<0.014	[redacted]	<0.00029	62.50
1,3-Butadiene	**501**	**0.10**	[redacted]	**0.00202**	54.09
Bromomethane	< 61.4	<0.022	[redacted]	<0.00044	94.94
Methanol	**1770**	**0.21**	[redacted]	**0.00424**	32.04
Chloroethane	< 61.4	<0.015	[redacted]	<0.00030	64.50
Dichlorofluoromethane	< 61.4	<0.024	[redacted]	<0.00047	102.92
Ethanol	< 245	<0.043	[redacted]	<0.00084	46.07
Vinyl Bromide	< 61.4	<0.025	[redacted]	<0.00049	106.96
Trichlorofluoromethane	< 61.4	<0.030	[redacted]	<0.00058	127.50
Acetone	**1700**	**0.37**	[redacted]	**0.00738**	58.08
Isopropyl Alcohol	< 245	<0.056	[redacted]	<0.0011	60.10
Allyl Chloride	< 31.6	<0.009	[redacted]	<0.00018	76.53
1,1-Dichloroethene	< 61.4	<0.022	[redacted]	<0.00044	96.00
Acrylonitrile	< 245	<0.049	[redacted]	<0.00097	53.06
Methylene Chloride	< 123	<0.046	[redacted]	<0.00090	98.00
Carbon Disulfide	< 245	<0.070	[redacted]	<0.0014	76.14
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 61.4	<0.043	[redacted]	<0.00086	187.40
trans-1,2- Dichloroethene	< 61.4	<0.022	[redacted]	<0.00044	96.94
1,1- Dichloroethane	< 61.4	<0.023	[redacted]	<0.00045	98.00
MTBE	< 61.4	<0.020	[redacted]	<0.00040	88.15
Vinyl Acetate	< 123.0	<0.040	[redacted]	<0.00079	86.09
MEK	**210**	**0.057**	[redacted]	**0.0011**	72.11
cis-1,2- Dichloroethene	< 61.4	<0.022	[redacted]	<0.00044	96.00
Hexane	< 61.4	<0.020	[redacted]	<0.00040	86.18
Chloroform	< 61.4	<0.028	[redacted]	<0.00055	119.50
Ethyl Acetate	< 61.4	<0.020	[redacted]	<0.00040	88.11
Tetrahydrofuran	< 61.4	<0.017	[redacted]	<0.00033	72.11
1,2-Dichloroethane	< 61.4	<0.023	[redacted]	<0.00045	98.00
Benzene	**1640**	**0.48**	[redacted]	**0.0096**	78.11
Cyclohexane	< 61.4	<0.020	[redacted]	<0.00039	84.16
Heptane	< 61.4	<0.023	[redacted]	<0.00046	100.21
Toluene	**609**	**0.21**	[redacted]	**0.00419**	92.14
Carbon Tetrachloride	< 61.4	<0.036	[redacted]	<0.00070	153.24
1,2-Dichloropropane	< 61.4	<0.026	[redacted]	<0.00052	112.99
Bromodichloromethane	< 61.4	<0.038	[redacted]	<0.00075	163.83
1,4-Dioxane	< 245	<0.082	[redacted]	<0.0016	88.11
Trichloroethene	< 61.4	<0.030	[redacted]	<0.00060	131.40
2,2,4-Trimethylpentane	< 61.4	<0.026	[redacted]	<0.00052	114.23
cis-1,3-Dichloropropene	< 61.4	<0.026	[redacted]	<0.00051	110.97
4-Methyl-2-Pentanone (MiBK)	< 123	<0.047	[redacted]	<0.00092	100.16
t-1,3-Dichloropropene	< 61.4	<0.026	[redacted]	<0.00051	110.97
1,1,2-Trichloroethane	< 61.4	<0.031	[redacted]	<0.00061	133.40
2-Hexanone	< 245	<0.12	[redacted]	<0.0025	134.60
Dibromochloromethane	< 61.4	<0.048	[redacted]	<0.00096	208.28
1,2-Dibromomethane	< 61.4	<0.044	[redacted]	<0.00086	187.88
Tetrachloroethylene	< 61.4	<0.038	[redacted]	<0.00076	165.83
Chlorobenzene	< 61.4	<0.026	[redacted]	<0.00052	112.56
Ethylbenzene	< 61.4	<0.025	[redacted]	<0.00049	106.16
m & p-Xylenes	**158**	**0.063**	[redacted]	**0.00125**	106.16
Bromoform	< 61.4	<0.059	[redacted]	<0.0012	252.72
Styrene	**72.4**	**0.028**	[redacted]	**0.000563**	104.14
1,1,2,2-Tetrachloroethane	< 61.4	<0.039	[redacted]	<0.00077	167.85
o-Xylene	< 61.4	<0.025	[redacted]	<0.00049	106.16
4-Ethyltoluene	< 61.4	<0.028	[redacted]	<0.00055	120.19
1,3,5-Trimethylbenzene	< 61.4	<0.026	[redacted]	<0.00052	112.99
1,2,4-Trimethylbenzene	< 123	<0.056	[redacted]	<0.0011	120.19
Benzyl Chloride	< 614	<0.29	[redacted]	<0.0058	126.59
1,3-Dichlorobenzene	< 61.4	<0.034	[redacted]	<0.00067	147.00
1,4-Dichlorobenzene	< 61.4	<0.034	[redacted]	<0.00067	147.01
1,2-Dichlorobenzene	< 61.4	<0.034	[redacted]	<0.00067	147.01
1,2,4-Trichlorobenzene	< 245	<0.17	[redacted]	<0.0033	181.45
Hexachlorobutadiene	< 245	<0.24	[redacted]	<0.0048	260.76
1,1,1-Trichloroethene	< 61.4	<0.030	[redacted]	<0.00060	131.40

lb/hr = (ppb/1000) * Qstd * MW * 0.0000001581
lb/MMBtu = F-Factor (8710)*lb/hr/(60*Qstd)*20.9/(20.9-O2)
lb/ton = lb/hr/tons/hr

EPA TO-15
Taak 1345

Client : All American Asphalt
Site : Irvine, CA
Unit : Rotary Dryer Baghouse

T std: 60 °F
Run No.: 3A

Date : 6/3/2021
Job #: 1064
Lab #: 221-061

Q std: 23,888 dscfm (Method 429)
Production Rate: [redacted] TPH

Compound Name	Lab Results ppb	lb/hr	lb/Ton	lb/Mmbtu	MW
Propene	**5180**	**0.82**	[redacted]	**0.0163**	42.08
Chlorodifluoromethane	< 73.3	< 0.024	[redacted]	<0.00047	86.47
Dichlorodifluoromethane	< 73.3	< 0.028	[redacted]	<0.00056	102.92
Chloromethane	< 73.3	< 0.014	[redacted]	<0.00028	50.50
1,2 Dichloro-1,1,2,2-Tetrafluoroethane	< 73.3	< 0.047	[redacted]	<0.00094	170.92
Vinyl Chloride	< 73.3	< 0.017	[redacted]	<0.00034	62.50
1,3-Butadiene	**1420**	**0.29**	[redacted]	**0.00574**	54.09
Bromomethane	< 73.3	< 0.026	[redacted]	<0.00052	94.94
Methanol	< 733	< 0.089	[redacted]	<0.0018	32.04
Chloroethane	< 73.3	< 0.018	[redacted]	<0.00035	64.50
Dichlorofluoromethane	< 73.3	< 0.028	[redacted]	<0.00056	102.92
Ethanol	< 293	< 0.051	[redacted]	<0.0010	46.07
Vinyl Bromide	< 73.3	< 0.030	[redacted]	<0.00059	106.96
Trichlorofluoromethane	< 73.3	< 0.035	[redacted]	<0.0007	127.50
Acetone	**1110**	**0.24**	[redacted]	**0.00482**	58.08
Isopropyl Alcohol	< 293	< 0.067	[redacted]	<0.0013	60.10
Allyl Chloride	< 147	< 0.042	[redacted]	<0.00084	76.53
1,1-Dichloroethene	< 73.3	< 0.027	[redacted]	<0.00053	96.00
Acrylonitrile	< 293	< 0.059	[redacted]	<0.0012	53.06
Methylene Chloride	< 147	< 0.054	[redacted]	<0.0011	98.00
Carbon Disulfide	< 293	< 0.084	[redacted]	<0.0017	76.14
1,1,2-Trichloro-1,2,2-Trifluoroethane	< 73.3	< 0.052	[redacted]	<0.0010	187.40
trans-1,2- Dichloroethene	< 73.3	< 0.027	[redacted]	<0.00053	96.94
1,1- Dichloroethane	< 73.3	< 0.027	[redacted]	<0.00054	98.00
MTBE	< 73.3	< 0.024	[redacted]	<0.00048	88.15
Vinyl Acetate	< 147	< 0.048	[redacted]	<0.00095	86.09
MEK	< 147	< 0.040	[redacted]	<0.00079	72.11
cis-1,2- Dichloroethene	< 73.3	< 0.027	[redacted]	<0.00053	96.00
Hexane	< 73.3	< 0.024	[redacted]	<0.00047	86.18
Chloroform	< 73.3	< 0.033	[redacted]	<0.00065	119.50
Ethyl Acetate	< 73.3	< 0.024	[redacted]	<0.00048	88.11
Tetrahydrofuran	< 73.3	< 0.020	[redacted]	<0.00039	72.11
1,2-Dichloroethane	< 73.3	< 0.027	[redacted]	<0.00054	98.00
Benzene	**987**	**0.29**	[redacted]	**0.00576**	78.11
Cyclohexane	< 73.3	<0.023	[redacted]	<0.00046	84.16
Heptane	< 73.3	<0.028	[redacted]	<0.00055	100.21
Toluene	**353**	**0.12**	[redacted]	**0.00243**	92.14
Carbon Tetrachloride	< 73.3	<0.042	[redacted]	<0.00084	153.24
1,2-Dichloropropane	< 73.3	<0.031	[redacted]	<0.00062	112.99
Bromodichloromethane	< 73.3	<0.045	[redacted]	<0.00090	163.83
1,4-Dioxane	< 293	<0.097	[redacted]	<0.0019	88.11
Trichloroethene	< 73.3	<0.036	[redacted]	<0.00072	131.40
2,2,4-Trimethylpentane	< 73.3	<0.032	[redacted]	<0.00063	114.23
cis-1,3-Dichloropropene	< 73.3	<0.031	[redacted]	<0.00061	110.97
4-Methyl-2-Pentanone (MiBK)	< 147	<0.056	[redacted]	<0.0011	100.16
t-1,3-Dichloropropene	< 73.3	<0.031	[redacted]	<0.00061	110.97
1,1,2-Trichloroethane	< 73.3	<0.037	[redacted]	<0.00073	133.40
2-Hexanone	< 293	<0.149	[redacted]	<0.0029	134.60
Dibromochloromethane	< 73.3	<0.058	[redacted]	<0.0011	208.28
1,2-Dibromomethane	< 73.3	<0.052	[redacted]	<0.0010	187.88
Tetrachloroethylene	< 73.3	<0.046	[redacted]	<0.00091	165.83
Chlorobenzene	< 73.3	<0.031	[redacted]	<0.00062	112.56
Ethylbenzene	< 73.3	<0.029	[redacted]	<0.00058	106.16
m & p-Xylenes	< 147	<0.059	[redacted]	<0.0012	106.16
Bromoform	< 73.3	<0.070	[redacted]	<0.0014	252.72
Styrene	**89.4**	**<0.035**	[redacted]	**0.00070**	104.14
1,1,2,2-Tetrachloroethane	< 73.3	<0.046	[redacted]	<0.00092	167.85
o-Xylene	< 73.3	<0.029	[redacted]	<0.00058	106.16
4-Ethyltoluene	< 73.3	<0.033	[redacted]	<0.00066	120.19
1,3,5-Trimethylbenzene	< 73.3	<0.031	[redacted]	<0.00062	112.99
1,2,4-Trimethylbenzene	< 147	<0.067	[redacted]	<0.0013	120.19
Benzyl Chloride	< 733	<0.35	[redacted]	<0.0069	126.59
1,3-Dichlorobenzene	< 73.3	<0.041	[redacted]	<0.00081	147.00
1,4-Dichlorobenzene	< 73.3	<0.041	[redacted]	<0.00081	147.01
1,2-Dichlorobenzene	< 73.3	<0.041	[redacted]	<0.00081	147.01
1,2,4-Trichlorobenzene	< 293	<0.201	[redacted]	<0.0040	181.45
Hexachlorobutadiene	< 293	<0.29	[redacted]	<0.0057	260.76
1,1,1-Trichloroethene	< 73.3	<0.036	[redacted]	<0.00072	131.40

lb/hr = (ppb/1000) * Qstd * MW * 0.0000001581
lb/MMBtu = F-Factor (8710)*lb/hr/(60*Qstd)*20.9/(20.9-O2)
lb/ton = lb/hr/tons/hr

AIRX TESTING SERVICES Inc.

Method 25 - Field Sampling Data Sheet

Client: All American Asphalt
Site: Irvine
Unit: Baghouse
Date: 6-3-21
Client #: 1064
Lab #: 286061

Operator: WH
Ambient Temperature: 73
Barometric Pressure: 29.87

R-2

Sample A		Sample B	
Tank #:	001172	Tank #:	001266
Trap #:	—	Trap #:	—
Rotometer #:		Rotometer #:	
Initial Vacuum:	30 "Hg	Initial Vacuum:	30 "Hg
Final Vacuum:	6 "Hg	Final Vacuum:	5 "Hg

Start Time: 11:45
End Time: 12:45

Time	Vacuum ("Hg)	Flow (cc/min)	Time	Vacuum ("Hg)	Flow (cc/min)
0	30	Pre-Set	0	30	Pre-Set
5	28	↓	5	28	↓
10	26		10	26	
15	24		15	24	
20	22		20	22	
25	20		25	20	
30	18		30	18	
35	16		35	16	
40	14		40	14	
45	12		45	12	
50	10		50	10	
55	8		55	7	
60	6		60	5	

Leak Rate Pre Test: 0 | 0
Post Test: 0 | 0

AIRX TESTING SERVICES Inc.

Method 25 - Field Sampling Data Sheet

Client: All American Asphalt
Date: 6-3-21
Site: IRVINE
Client #: 1064
Unit: Baghouse
Lab #: 221-061

Operator: WH
Ambient Temperature: 73
Barometric Pressure: 29.86

R-5

Sample A		Sample B	
Tank #:	001191	Tank #:	001345
Trap #:	—	Trap #:	—
Rotometer #:		Rotometer #:	
Initial Vacuum:	30 "Hg	Initial Vacuum:	30 "Hg
Final Vacuum:	5 "Hg	Final Vacuum:	5 "Hg

Start Time: 13:15
End Time: 14:15

Time	Vacuum ("Hg)	Flow (cc/min)	Time	Vacuum ("Hg)	Flow (cc/min)
0	30	Press	0	30	Press
5	27		5	27	
10	25		10	25	
15	23		15	23	
20	21		20	21	
25	19		25	19	
30	17		30	17	
35	15		35	15	
40	13		40	13	
45	11		45	11	
50	9		50	9	
55	7		55	7	
60	5	✓	60	5	✓

Leak Rate Pre Test: 0 | 0
Post Test: 0 | 0

AIRX TESTING SERVICES Inc.

Method 25 - Field Sampling Data Sheet

Client: All American Asphalt
Site: Irvine
Unit: Baghouse
Date: 6-3-21
Client #: 1064
Lab #: 221-061

Operator: WH
Ambient Temperature: 66
Barometric Pressure: 29.86

Run 1 TO:15

Sample A

Tank #: 001352
Trap #: —
Rotometer #:
Initial Vacuum: 30 "Hg
Final Vacuum: 6 "Hg

Sample B

Tank #: 001192
Trap #: —
Rotometer #:
Initial Vacuum: 30 "Hg
Final Vacuum: 6 "Hg

Start Time: 9:55
End Time: 10:55

Time	Vacuum ("Hg)	Flow (cc/min)	Time	Vacuum ("Hg)	Flow (cc/min)
0	30	Preset	0	30	Preset
5	28		5	28	
10	26		10	26	
15	24		15	24	
20	22		20	22	
25	20		25	20	
30	18		30	18	
35	16		35	16	
40	14		40	14	
45	12		45	12	
50	10		50	10	
55	8		55	8	
60	6		60	6	

Leak Rate Pre Test: 0 | 0
Post Test: 0 | 0

Atmospheric Analysis & Consulting, Inc.

CLIENT : AIRx Testing
PROJECT NAME : All American - Irvine
PROJECT NO. : 221-061
AAC PROJECT NO. : 210938
REPORT DATE : 6/16/2021

On June 4, 2021, Atmospheric Analysis & Consulting, Inc. received six (6) 3.2-Liter Silonite Canisters for Volatile Organic Compounds analysis by EPA Method TO-15. Upon receipt, the samples were assigned unique Laboratory ID numbers as follows:

Client ID	Lab ID	Return Pressure (mmHga)
Run 1 Rubber	210938-19830	521.4
Run 1 Rubber Dup	210938-19831	585.6
Run 2 Rubber	210938-19832	638.0
Run 2 Rubber Dup	210938-19833	493.5
Run 3 Rubber	210938-19834	623.0
Run 3 Rubber Dup	210938-19835	528.6

This analysis is accredited under the laboratory's ISO/IEC 17025:2017 accreditation issued by the ANSI National Accreditation Board. Refer to certificate and scope of accreditation AT-1908. Test results apply to the sample(s) as received. For detailed information pertaining to specific EPA, NCASI, ASTM and SCAQMD accreditations (Methods & Analytes), please visit our website at www.aaclab.com.

I certify that this data is technically accurate, complete, and in compliance with the terms and conditions of the contract. MTBE was biased high and Methanol was biased low as reflected in the daily CCV report; however, MTBE was not detected in the sample and a low level standard was run to confirm the visibility of Methanol at a low concentration. No other problems were encountered during receiving, preparation, and/or analysis of these samples.

The Technical Director or his designee, as verified by the following signature, has authorized release of the data contained in this hardcopy report.

If you have any questions or require further explanation of data results, please contact the undersigned.

Sucha Parmar, Ph.D.
Technical Director

This report consists of 12 pages.

Atmospheric Analysis & Consulting, Inc.

Laboratory Analysis Report

CLIENT : AIRx Testing
PROJECT NO : 210938
MATRIX : AIR
UNITS : PPB (v/v)

DATE RECEIVED : 06/04/2021
DATE REPORTED : 06/16/2021
ANALYST : MB/RC

Done Done

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Run 1 Rubber			Sample Reporting Limit (SRL) (MRLxDF's)	Run 1 Rubber Dup			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
AAC ID	210938-19830				210938-19831				
Date Sampled	06/03/2021				06/03/2021				
Date Analyzed	06/15/2021				06/15/2021				
Can Dilution Factor	2.96				2.62				
Compound	**Result**	**Qualifier**	**Analysis DF**		**Result**	**Qualifier**	**Analysis DF**		
Chlorodifluoromethane	<SRL	U	10	14.8	<SRL	U	10	13.1	0.5
Propene	1010		10	29.6	1080		10	26.2	1.0
Dichlorodifluoromethane	<SRL	U	10	14.8	<SRL	U	10	13.1	0.5
Chloromethane	<SRL	U	10	14.8	<SRL	U	10	13.1	0.5
Dichlorotetrafluoroethane	<SRL	U	10	14.8	<SRL	U	10	13.1	0.5
Vinyl Chloride	<SRL	U	10	14.8	<SRL	U	10	13.1	0.5
Methanol	186		10	148	790		10	131	5.0
1,3-Butadiene	81.1		10	14.8	152		10	13.1	0.5
Bromomethane	<SRL	U	10	14.8	<SRL	U	10	13.1	0.5
Chloroethane	<SRL	U	10	14.8	<SRL	U	10	13.1	0.5
Dichlorofluoromethane	<SRL	U	10	14.8	<SRL	U	10	13.1	0.5
Ethanol	<SRL	U	10	59.2	168		10	52.4	2.0
Vinyl Bromide	<SRL	U	10	14.8	<SRL	U	10	13.1	0.5
Acetone	363		10	59.2	389		10	52.4	2.0
Trichlorofluoromethane	<SRL	U	10	14.8	<SRL	U	10	13.1	0.5
2-Propanol (IPA)	<SRL	U	10	59.2	<SRL	U	10	52.4	2.0
Acrylonitrile	<SRL	U	10	59.2	<SRL	U	10	52.4	2.0
1,1-Dichloroethene	<SRL	U	10	14.8	<SRL	U	10	13.1	0.5
Methylene Chloride (DCM)	<SRL	U	10	29.6	<SRL	U	10	26.2	1.0
Allyl Chloride	<SRL	U	10	29.6	<SRL	U	10	26.2	1.0
Carbon Disulfide	<SRL	U	10	59.2	<SRL	U	10	52.4	2.0
Trichlorotrifluoroethane	<SRL	U	10	14.8	<SRL	U	10	13.1	0.5
trans-1,2-Dichloroethene	<SRL	U	10	14.8	<SRL	U	10	13.1	0.5
1,1-Dichloroethane	<SRL	U	10	14.8	<SRL	U	10	13.1	0.5
Methyl Tert Butyl Ether (MTBE)	<SRL	U	10	14.8	<SRL	U	10	13.1	0.5
Vinyl Acetate	<SRL	U	10	29.6	<SRL	U	10	26.2	1.0
2-Butanone (MEK)	45.0		10	29.6	34.1		10	26.2	1.0
cis-1,2-Dichloroethene	<SRL	U	10	14.8	<SRL	U	10	13.1	0.5
Hexane	<SRL	U	10	14.8	<SRL	U	10	13.1	0.5
Chloroform	<SRL	U	10	14.8	<SRL	U	10	13.1	0.5
Ethyl Acetate	<SRL	U	10	14.8	<SRL	U	10	13.1	0.5
Tetrahydrofuran	<SRL	U	10	14.8	<SRL	U	10	13.1	0.5
1,2-Dichloroethane	<SRL	U	10	14.8	<SRL	U	10	13.1	0.5
1,1,1-Trichloroethane	<SRL	U	10	14.8	<SRL	U	10	13.1	0.5
Benzene	302		10	14.8	310		10	13.1	0.5

Laboratory Analysis Report

CLIENT : AIRx Testing
PROJECT NO : 210938
MATRIX : AIR
UNITS : PPB (v/v)

DATE RECEIVED : 06/04/2021
DATE REPORTED : 06/16/2021
ANALYST : MB/RC

Done Done

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Run 1 Rubber			Sample Reporting Limit (SRL) (MRLxDF's)	Run 1 Rubber Dup			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
AAC ID	210938-19830				210938-19831				
Date Sampled	06/03/2021				06/03/2021				
Date Analyzed	06/15/2021				06/15/2021				
Can Dilution Factor	2.96				2.62				
Compound	**Result**	**Qualifier**	**Analysis DF**		**Result**	**Qualifier**	**Analysis DF**		
Carbon Tetrachloride	<SRL	U	10	14.8	<SRL	U	10	13.1	0.5
Cyclohexane	<SRL	U	10	14.8	<SRL	U	10	13.1	0.5
1,2-Dichloropropane	<SRL	U	10	14.8	<SRL	U	10	13.1	0.5
Bromodichloromethane	<SRL	U	10	14.8	<SRL	U	10	13.1	0.5
1,4-Dioxane	<SRL	U	10	59.2	<SRL	U	10	52.4	2.0
Trichloroethene (TCE)	<SRL	U	10	14.8	<SRL	U	10	13.1	0.5
2,2,4-Trimethylpentane	<SRL	U	10	14.8	<SRL	U	10	13.1	0.5
Heptane	<SRL	U	10	14.8	<SRL	U	10	13.1	0.5
cis-1,3-Dichloropropene	<SRL	U	10	14.8	<SRL	U	10	13.1	0.5
4-Methyl-2-pentanone (MiBK)	<SRL	U	10	29.6	<SRL	U	10	26.2	1.0
trans-1,3-Dichloropropene	<SRL	U	10	14.8	<SRL	U	10	13.1	0.5
1,1,2-Trichloroethane	<SRL	U	10	14.8	<SRL	U	10	13.1	0.5
Toluene	99.7		10	14.8	104		10	13.1	0.5
2-Hexanone (MBK)	<SRL	U	10	59.2	<SRL	U	10	52.4	2.0
Dibromochloromethane	<SRL	U	10	14.8	<SRL	U	10	13.1	0.5
1,2-Dibromoethane	<SRL	U	10	14.8	<SRL	U	10	13.1	0.5
Tetrachloroethene (PCE)	<SRL	U	10	14.8	<SRL	U	10	13.1	0.5
Chlorobenzene	<SRL	U	10	14.8	<SRL	U	10	13.1	0.5
Ethylbenzene	<SRL	U	10	14.8	<SRL	U	10	13.1	0.5
m & p-Xylene	44.1		10	29.6	43.5		10	26.2	1.0
Bromoform	<SRL	U	10	14.8	<SRL	U	10	13.1	0.5
Styrene	16.9		10	14.8	19.9		10	13.1	0.5
1,1,2,2-Tetrachloroethane	<SRL	U	10	14.8	<SRL	U	10	13.1	0.5
o-Xylene	<SRL	U	10	14.8	<SRL	U	10	13.1	0.5
4-Ethyltoluene	<SRL	U	10	14.8	<SRL	U	10	13.1	0.5
1,3,5-Trimethylbenzene	<SRL	U	10	14.8	<SRL	U	10	13.1	0.5
1,2,4-Trimethylbenzene	<SRL	U	10	29.6	<SRL	U	10	26.2	1.0
Benzyl Chloride (a-Chlorotoluene)	<SRL	U	10	148	<SRL	U	10	131	5.0
1,3-Dichlorobenzene	<SRL	U	10	14.8	<SRL	U	10	13.1	0.5
1,4-Dichlorobenzene	<SRL	U	10	14.8	<SRL	U	10	13.1	0.5
1,2-Dichlorobenzene	<SRL	U	10	14.8	<SRL	U	10	13.1	0.5
1,2,4-Trichlorobenzene	<SRL	U	10	59.2	<SRL	U	10	52.4	2.0
Hexachlorobutadiene	<SRL	U	10	59.2	<SRL	U	10	52.4	2.0
BFB-Surrogate Std. % Recovery		94%				96%			70-130%

U - Compound was not detected at or above the SRL.

Laboratory Analysis Report

CLIENT : AIRx Testing
PROJECT NO : 210938
MATRIX : AIR
UNITS : PPB (v/v)

DATE RECEIVED : 06/04/2021
DATE REPORTED : 06/16/2021
ANALYST : MB/RC

Dove

Dove

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Run 2 Rubber			Sample Reporting Limit (SRL) (MRLxDF's)	Run 2 Rubber Dup			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
AAC ID	210938-19832				210938-19833				
Date Sampled	06/03/2021				06/03/2021				
Date Analyzed	06/15/2021				06/15/2021				
Can Dilution Factor	2.40				3.11				
Compound	Result	Qualifier	Analysis DF		Result	Qualifier	Analysis DF		
Chlorodifluoromethane	<SRL	U	10	12.0	<SRL	U	10	15.6	0.5
Propene	890		10	24.0	997		10	31.1	1.0
Dichlorodifluoromethane	<SRL	U	10	12.0	<SRL	U	10	15.6	0.5
Chloromethane	<SRL	U	10	12.0	<SRL	U	10	15.6	0.5
Dichlorotetrafluoroethane	<SRL	U	10	12.0	<SRL	U	10	15.6	0.5
Vinyl Chloride	<SRL	U	10	12.0	<SRL	U	10	15.6	0.5
Methanol	421		10	120	309		10	156	5.0
1,3-Butadiene	66.8		10	12.0	138		10	15.6	0.5
Bromomethane	<SRL	U	10	12.0	<SRL	U	10	15.6	0.5
Chloroethane	<SRL	U	10	12.0	<SRL	U	10	15.6	0.5
Dichlorofluoromethane	<SRL	U	10	12.0	<SRL	U	10	15.6	0.5
Ethanol	80.3		10	47.9	98.7		10	62.3	2.0
Vinyl Bromide	<SRL	U	10	12.0	<SRL	U	10	15.6	0.5
Acetone	298		10	47.9	355		10	62.3	2.0
Trichlorofluoromethane	<SRL	U	10	12.0	<SRL	U	10	15.6	0.5
2-Propanol (IPA)	<SRL	U	10	47.9	<SRL	U	10	62.3	2.0
Acrylonitrile	<SRL	U	10	47.9	<SRL	U	10	62.3	2.0
1,1-Dichloroethene	<SRL	U	10	12.0	<SRL	U	10	15.6	0.5
Methylene Chloride (DCM)	<SRL	U	10	24.0	<SRL	U	10	31.1	1.0
Allyl Chloride	<SRL	U	10	24.0	<SRL	U	10	31.1	1.0
Carbon Disulfide	68.5		10	47.9	<SRL	U	10	62.3	2.0
Trichlorotrifluoroethane	<SRL	U	10	12.0	<SRL	U	10	15.6	0.5
trans-1,2-Dichloroethene	<SRL	U	10	12.0	<SRL	U	10	15.6	0.5
1,1-Dichloroethane	<SRL	U	10	12.0	<SRL	U	10	15.6	0.5
Methyl Tert Butyl Ether (MTBE)	<SRL	U	10	12.0	<SRL	U	10	15.6	0.5
Vinyl Acetate	<SRL	U	10	24.0	<SRL	U	10	31.1	1.0
2-Butanone (MEK)	54.6		10	24.0	39.2		10	31.1	1.0
cis-1,2-Dichloroethene	<SRL	U	10	12.0	<SRL	U	10	15.6	0.5
Hexane	<SRL	U	10	12.0	<SRL	U	10	15.6	0.5
Chloroform	<SRL	U	10	12.0	<SRL	U	10	15.6	0.5
Ethyl Acetate	<SRL	U	10	12.0	<SRL	U	10	15.6	0.5
Tetrahydrofuran	<SRL	U	10	12.0	<SRL	U	10	15.6	0.5
1,2-Dichloroethane	<SRL	U	10	12.0	<SRL	U	10	15.6	0.5
1,1,1-Trichloroethane	<SRL	U	10	12.0	<SRL	U	10	15.6	0.5
Benzene	262		10	12.0	288		10	15.6	0.5

Laboratory Analysis Report

CLIENT : AIRx Testing
PROJECT NO : 210938
MATRIX : AIR
UNITS : PPB (v/v)

DATE RECEIVED : 06/04/2021
DATE REPORTED : 06/16/2021
ANALYST : MB/RC

Done

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Done

Client ID	Run 2 Rubber			Sample Reporting Limit (SRL) (MRLxDF's)	Run 2 Rubber Dup			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
AAC ID	210938-19832				210938-19833				
Date Sampled	06/03/2021				06/03/2021				
Date Analyzed	06/15/2021				06/15/2021				
Can Dilution Factor	2.40				3.11				
Compound	**Result**	**Qualifier**	**Analysis DF**		**Result**	**Qualifier**	**Analysis DF**		
Carbon Tetrachloride	<SRL	U	10	12.0	<SRL	U	10	15.6	0.5
Cyclohexane	<SRL	U	10	12.0	<SRL	U	10	15.6	0.5
1,2-Dichloropropane	<SRL	U	10	12.0	<SRL	U	10	15.6	0.5
Bromodichloromethane	<SRL	U	10	12.0	<SRL	U	10	15.6	0.5
1,4-Dioxane	<SRL	U	10	47.9	<SRL	U	10	62.3	2.0
Trichloroethene (TCE)	<SRL	U	10	12.0	<SRL	U	10	15.6	0.5
2,2,4-Trimethylpentane	<SRL	U	10	12.0	<SRL	U	10	15.6	0.5
Heptane	<SRL	U	10	12.0	<SRL	U	10	15.6	0.5
cis-1,3-Dichloropropene	<SRL	U	10	12.0	<SRL	U	10	15.6	0.5
4-Methyl-2-pentanone (MiBK)	<SRL	U	10	24.0	<SRL	U	10	31.1	1.0
trans-1,3-Dichloropropene	<SRL	U	10	12.0	<SRL	U	10	15.6	0.5
1,1,2-Trichloroethane	<SRL	U	10	12.0	<SRL	U	10	15.6	0.5
Toluene	85.8 ✓		10	12.0	101 ✓		10	15.6	0.5
2-Hexanone (MBK)	<SRL	U	10	47.9	<SRL	U	10	62.3	2.0
Dibromochloromethane	<SRL	U	10	12.0	<SRL	U	10	15.6	0.5
1,2-Dibromoethane	<SRL	U	10	12.0	<SRL	U	10	15.6	0.5
Tetrachloroethene (PCE)	<SRL	U	10	12.0	<SRL	U	10	15.6	0.5
Chlorobenzene	<SRL	U	10	12.0	<SRL	U	10	15.6	0.5
Ethylbenzene	<SRL	U	10	12.0	<SRL	U	10	15.6	0.5
m & p-Xylene	44.3 ✓		10	24.0	42.7 ✓		10	31.1	1.0
Bromoform	<SRL	U	10	12.0	<SRL	U	10	15.6	0.5
Styrene	13.4 ✓		10	12.0	17.1 ✓		10	15.6	0.5
1,1,2,2-Tetrachloroethane	<SRL	U	10	12.0	<SRL	U	10	15.6	0.5
o-Xylene	<SRL	U	10	12.0	<SRL	U	10	15.6	0.5
4-Ethyltoluene	<SRL	U	10	12.0	<SRL	U	10	15.6	0.5
1,3,5-Trimethylbenzene	<SRL	U	10	12.0	<SRL	U	10	15.6	0.5
1,2,4-Trimethylbenzene	<SRL	U	10	24.0	<SRL	U	10	31.1	1.0
Benzyl Chloride (a-Chlorotoluene)	<SRL	U	10	120	<SRL	U	10	156	5.0
1,3-Dichlorobenzene	<SRL	U	10	12.0	<SRL	U	10	15.6	0.5
1,4-Dichlorobenzene	<SRL	U	10	12.0	<SRL	U	10	15.6	0.5
1,2-Dichlorobenzene	<SRL	U	10	12.0	<SRL	U	10	15.6	0.5
1,2,4-Trichlorobenzene	<SRL	U	10	47.9	<SRL	U	10	62.3	2.0
Hexachlorobutadiene	<SRL	U	10	47.9	<SRL	U	10	62.3	2.0
BFB-Surrogate Std. % Recovery		93%				89%			70-130%

U - Compound was not detected at or above the SRL.

Laboratory Analysis Report

CLIENT : AIRx Testing
PROJECT NO : 210938
MATRIX : AIR
UNITS : PPB (v/v)

DATE RECEIVED : 06/04/2021
DATE REPORTED : 06/16/2021
ANALYST : MB/RC

Dave

Dave

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Run 3 Rubber			Sample Reporting Limit (SRL) (MRLxDF's)	Run 3 Rubber Dup			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
AAC ID	210938-19834				210938-19835				
Date Sampled	06/03/2021				06/03/2021				
Date Analyzed	06/15/2021				06/15/2021				
Can Dilution Factor	2.45				2.93				
Compound	**Result**	**Qualifier**	**Analysis DF**		**Result**	**Qualifier**	**Analysis DF**		
Chlorodifluoromethane	<SRL	U	50	61.4	<SRL	U	50	73.3	0.5
Propene	7520		50	123	5180		50	147	1.0
Dichlorodifluoromethane	<SRL	U	50	61.4	<SRL	U	50	73.3	0.5
Chloromethane	<SRL	U	50	61.4	<SRL	U	50	73.3	0.5
Dichlorotetrafluoroethane	<SRL	U	50	61.4	<SRL	U	50	73.3	0.5
Vinyl Chloride	<SRL	U	50	61.4	<SRL	U	50	73.3	0.5
Methanol	1770		50	614	<SRL	U	50	733	5.0
1,3-Butadiene	501		50	61.4	1420		50	73.3	0.5
Bromomethane	<SRL	U	50	61.4	<SRL	U	50	73.3	0.5
Chloroethane	<SRL	U	50	61.4	<SRL	U	50	73.3	0.5
Dichlorofluoromethane	<SRL	U	50	61.4	<SRL	U	50	73.3	0.5
Ethanol	<SRL	U	50	245	<SRL	U	50	293	2.0
Vinyl Bromide	<SRL	U	50	61.4	<SRL	U	50	73.3	0.5
Acetone	1700		50	245	1110		50	293	2.0
Trichlorofluoromethane	<SRL	U	50	61.4	<SRL	U	50	73.3	0.5
2-Propanol (IPA)	<SRL	U	50	245	<SRL	U	50	293	2.0
Acrylonitrile	<SRL	U	50	245	<SRL	U	50	293	2.0
1,1-Dichloroethene	<SRL	U	50	61.4	<SRL	U	50	73.3	0.5
Methylene Chloride (DCM)	<SRL	U	50	123	<SRL	U	50	147	1.0
Allyl Chloride	<SRL	U	50	123	<SRL	U	50	147	1.0
Carbon Disulfide	<SRL	U	50	245	<SRL	U	50	293	2.0
Trichlorotrifluoroethane	<SRL	U	50	61.4	<SRL	U	50	73.3	0.5
trans-1,2-Dichloroethene	<SRL	U	50	61.4	<SRL	U	50	73.3	0.5
1,1-Dichloroethane	<SRL	U	50	61.4	<SRL	U	50	73.3	0.5
Methyl Tert Butyl Ether (MTBE)	<SRL	U	50	61.4	<SRL	U	50	73.3	0.5
Vinyl Acetate	<SRL	U	50	123	<SRL	U	50	147	1.0
2-Butanone (MEK)	210		50	123	<SRL	U	50	147	1.0
cis-1,2-Dichloroethene	<SRL	U	50	61.4	<SRL	U	50	73.3	0.5
Hexane	<SRL	U	50	61.4	<SRL	U	50	73.3	0.5
Chloroform	<SRL	U	50	61.4	<SRL	U	50	73.3	0.5
Ethyl Acetate	<SRL	U	50	61.4	<SRL	U	50	73.3	0.5
Tetrahydrofuran	<SRL	U	50	61.4	<SRL	U	50	73.3	0.5
1,2-Dichloroethane	<SRL	U	50	61.4	<SRL	U	50	73.3	0.5
1,1,1-Trichloroethane	<SRL	U	50	61.4	<SRL	U	50	73.3	0.5
Benzene	1640		50	61.4	987		50	73.3	0.5

Laboratory Analysis Report

CLIENT : AIRx Testing
PROJECT NO : 210938
MATRIX : AIR
UNITS : PPB (v/v)

DATE RECEIVED : 06/04/2021
DATE REPORTED : 06/16/2021
ANALYST : MB/RC

VOLATILE ORGANIC COMPOUNDS BY EPA TO-15

Client ID	Run 3 Rubber			Sample Reporting Limit (SRL) (MRLxDF's)	Run 3 Rubber Dup			Sample Reporting Limit (SRL) (MRLxDF's)	Method Reporting Limit (MRL)
AAC ID	210938-19834				210938-19835				
Date Sampled	06/03/2021				06/03/2021				
Date Analyzed	06/15/2021				06/15/2021				
Can Dilution Factor	2.45				2.93				
Compound	Result	Qualifier	Analysis DF		Result	Qualifier	Analysis DF		
Carbon Tetrachloride	<SRL	U	50	61.4	<SRL	U	50	73.3	0.5
Cyclohexane	<SRL	U	50	61.4	<SRL	U	50	73.3	0.5
1,2-Dichloropropane	<SRL	U	50	61.4	<SRL	U	50	73.3	0.5
Bromodichloromethane	<SRL	U	50	61.4	<SRL	U	50	73.3	0.5
1,4-Dioxane	<SRL	U	50	245	<SRL	U	50	293	2.0
Trichloroethene (TCE)	<SRL	U	50	61.4	<SRL	U	50	73.3	0.5
2,2,4-Trimethylpentane	<SRL	U	50	61.4	<SRL	U	50	73.3	0.5
Heptane	<SRL	U	50	61.4	<SRL	U	50	73.3	0.5
cis-1,3-Dichloropropene	<SRL	U	50	61.4	<SRL	U	50	73.3	0.5
4-Methyl-2-pentanone (MiBK)	<SRL	U	50	123	<SRL	U	50	147	1.0
trans-1,3-Dichloropropene	<SRL	U	50	61.4	<SRL	U	50	73.3	0.5
1,1,2-Trichloroethane	<SRL	U	50	61.4	<SRL	U	50	73.3	0.5
Toluene	609		50	61.4	353		50	73.3	0.5
2-Hexanone (MBK)	<SRL	U	50	245	<SRL	U	50	293	2.0
Dibromochloromethane	<SRL	U	50	61.4	<SRL	U	50	73.3	0.5
1,2-Dibromoethane	<SRL	U	50	61.4	<SRL	U	50	73.3	0.5
Tetrachloroethene (PCE)	<SRL	U	50	61.4	<SRL	U	50	73.3	0.5
Chlorobenzene	<SRL	U	50	61.4	<SRL	U	50	73.3	0.5
Ethylbenzene	<SRL	U	50	61.4	<SRL	U	50	73.3	0.5
m & p-Xylene	158		50	123	<SRL	U	50	147	1.0
Bromoform	<SRL	U	50	61.4	<SRL	U	50	73.3	0.5
Styrene	72.4		50	61.4	89.4		50	73.3	0.5
1,1,2,2-Tetrachloroethane	<SRL	U	50	61.4	<SRL	U	50	73.3	0.5
o-Xylene	<SRL	U	50	61.4	<SRL	U	50	73.3	0.5
4-Ethyltoluene	<SRL	U	50	61.4	<SRL	U	50	73.3	0.5
1,3,5-Trimethylbenzene	<SRL	U	50	61.4	<SRL	U	50	73.3	0.5
1,2,4-Trimethylbenzene	<SRL	U	50	123	<SRL	U	50	147	1.0
Benzyl Chloride (a-Chlorotoluene)	<SRL	U	50	614	<SRL	U	50	733	5.0
1,3-Dichlorobenzene	<SRL	U	50	61.4	<SRL	U	50	73.3	0.5
1,4-Dichlorobenzene	<SRL	U	50	61.4	<SRL	U	50	73.3	0.5
1,2-Dichlorobenzene	<SRL	U	50	61.4	<SRL	U	50	73.3	0.5
1,2,4-Trichlorobenzene	<SRL	U	50	245	<SRL	U	50	293	2.0
Hexachlorobutadiene	<SRL	U	50	245	<SRL	U	50	293	2.0
BFB-Surrogate Std. % Recovery		93%				92%			70-130%

U - Compound was not detected at or above the SRL.

QUALITY CONTROL / QUALITY ASSURANCE REPORT

ANALYSIS DATE : 06/15/2021
MATRIX : High Purity N_2
UNITS : PPB (v/v)

INSTRUMENT ID : GC/MS-03
CALIBRATION STD ID : PS061421-03
ANALYST : MB/RC

VOLATILE ORGANIC COMPOUNDS BY EPA METHOD TO-15

Continuing Calibration Verification of the 06/14/2021 Calibration

Analyte Compounds	*Source*[1]	*CCV*[2]	*% Recovery*[3]
4-BFB (surrogate standard)	10.00	9.70	97
Chlorodifluoromethane	10.70	9.05	85
Propene	10.90	9.31	85
Dichlorodifluoromethane	10.30	9.19	89
Dimethyl Ether	10.70	9.20	86
Chloromethane	10.30	8.53	83
Dichlorotetrafluoroethane	9.80	8.99	92
Vinyl Chloride	10.10	9.05	90
Acetaldehyde	20.50	18.33	89
Methanol LR	16.20	11.08	68
1,3-Butadiene	10.70	9.55	89
Bromomethane	10.30	10.43	101
Chloroethane	9.90	9.04	91
Dichlorofluoromethane	10.40	9.23	89
Ethanol	10.50	8.51	81
Vinyl Bromide	10.60	10.05	95
Acrolein	10.90	10.15	93
Acetone	10.40	8.78	84
Trichlorofluoromethane	10.20	9.12	89
2-Propanol (IPA)	10.90	9.31	85
Acrylonitrile	11.30	10.25	91
1,1-Dichloroethene	10.70	10.18	95
Methylene Chloride (DCM)	10.90	9.61	88
TertButanol (TBA)	10.80	11.05	102
Allyl Chloride	10.90	7.78	71
Carbon Disulfide	10.50	9.43	90
Trichlorotrifluoroethane	10.90	10.15	93
trans-1,2-Dichloroethene	10.40	10.66	103
1,1-Dichloroethane	10.30	10.76	104
Methyl Tert Butyl Ether (MTBE) HR	10.80	14.73	136
Vinyl Acetate	11.00	11.94	109
2-Butanone (MEK)	10.50	11.74	112
cis-1,2-Dichloroethene	10.50	11.52	110
Hexane	10.70	12.09	113
Chloroform	10.60	11.28	106
Ethyl Acetate	10.60	10.93	103
Tetrahydrofuran	10.60	12.20	115
1,2-Dichloroethane	10.60	11.53	109
1,1,1-Trichloroethane	10.50	11.63	111
Benzene	10.60	11.29	107
Carbon Tetrachloride	10.70	12.31	115
Cyclohexane	10.50	12.37	118

Analyte Compounds (Continued)	*Source*[1]	*CCV*[2]	*% Recovery*[3]
1,2-Dichloropropane	10.60	11.49	108
Bromodichloromethane	10.50	11.79	112
1,4-Dioxane	10.50	11.51	110
Trichloroethene (TCE)	10.50	12.21	116
2,2,4-Trimethylpentane	10.60	12.17	115
Methyl Methacrylate	10.60	13.72	129
Heptane	10.60	12.89	122
cis-1,3-Dichloropropene	10.20	12.09	119
4-Methyl-2-pentanone (MiBK)	10.20	12.05	118
trans-1,3-Dichloropropene	10.10	12.60	125
1,1,2-Trichloroethane	10.80	12.01	111
Toluene	10.80	12.39	115
2-Hexanone (MBK)	10.70	11.13	104
Dibromochloromethane	10.60	12.04	114
1,2-Dibromoethane	10.90	12.33	113
Tetrachloroethene (PCE)	10.50	12.30	117
Chlorobenzene	10.90	11.84	109
Ethylbenzene	10.90	13.14	121
m & p-Xylene	21.60	24.48	113
Bromoform	10.80	12.53	116
Styrene	10.70	12.85	120
1,1,2,2-Tetrachloroethane	10.70	11.58	108
o-Xylene	10.70	11.96	112
1,2,3-Trichloropropane	10.80	11.98	111
Isopropylbenzene (Cumene)	10.80	12.75	118
α-Pinene	11.60	14.75	127
2-Chlorotoluene	10.90	11.75	108
n-Propylbenzene	10.20	10.23	100
4-Ethyltoluene	10.60	11.52	109
1,3,5-Trimethylbenzene	10.50	11.00	105
β-Pinene HR	9.30	13.29	143
1,2,4-Trimethylbenzene	10.50	10.97	104
Benzyl Chloride (a-Chlorotoluene)	10.60	9.49	90
1,3-Dichlorobenzene	10.60	11.14	105
1,4-Dichlorobenzene	10.40	10.96	105
Sec-ButylBenzene	10.80	10.26	95
1,2-Dichlorobenzene	10.30	10.66	103
n-ButylBenzene	10.60	9.30	88
1,2-Dibromo-3-Chloropropane	10.70	9.15	86
1,2,4-Trichlorobenzene	10.50	8.86	84
Naphthalene	10.50	7.50	71
Hexachlorobutadiene	10.70	9.68	90

[1] Concentration of analyte compound in certified source standard.

[2] Measured result from daily Continuing Calibration Verification (CCV).

[3] The acceptable range for analyte recovery is 100±30%.

HR - Recovery for this compound was high. Results should be consider biased high.

LR - Recovery for this compound was low. Results should be consider estimated.

QUALITY CONTROL / QUALITY ASSURANCE REPORT

ANALYSIS DATE : 06/15/2021
MATRIX : High Purity N_2
UNITS : PPB (v/v)

INSTRUMENT ID : GC/MS-03
CALIBRATION STD ID : PS061421-03
ANALYST : MB/RC

VOLATILE ORGANIC COMPOUNDS BY EPA METHOD TO-15

Laboratory Control Spike Analysis

System Monitoring Compounds	*Sample Concentration*	*Spike Added*	*LCS[1] Recovery*	*LCSD[1] Recovery*	*LCS[1] % Recovery[2]*	*LCSD[1] % Recovery[2]*	*RPD[3]*
4-BFB (surrogate standard)	0.0	10.00	9.70	9.86	97	98.6	1.6
1,1-Dichloroethene	0.0	10.70	10.18	10.07	95	94	1.1
Methylene Chloride (DCM)	0.0	10.90	9.61	9.42	88	86	2.0
Benzene	0.0	10.60	11.29	11.37	107	107	0.7
Trichloroethene (TCE)	0.0	10.50	12.21	12.39	116	118	1.5
Toluene	0.0	10.80	12.39	12.45	115	115	0.5
Tetrachloroethene (PCE)	0.0	10.50	12.30	12.40	117	118	0.8
Chlorobenzene	0.0	10.90	11.84	12.11	109	111	2.3
Ethylbenzene	0.0	10.90	13.14	13.29	121	122	1.1
m & p-Xylene	0.0	21.60	24.48	24.74	113	115	1.1
o-Xylene	0.0	10.70	11.96	12.27	112	115	2.6

[1] Laboratory Control Spike (LCS) / Laboratory Control Spike Duplicate (LCSD)

[2] The acceptable range for analyte recovery is 100±30%.

[3] Relative Percent Difference (RPD) between LCS recovery and LCSD recovery (acceptable range is <25%).

Atmospheric Analysis & Consulting, Inc.

QUALITY CONTROL / QUALITY ASSURANCE REPORT

ANALYSIS DATE : 06/15/2021
MATRIX : High Purity He or N_2
UNITS : PPB (v/v)

INSTRUMENT ID : GC/MS-03
ANALYST : MB/RC

VOLATILE ORGANIC COMPOUNDS BY EPA METHOD TO-15

Method Blank Analysis

Analyte Compounds	*MB 061521*	*Reporting Limit (RL)*
4-BFB (surrogate standard)	87%	100±30%
Chlorodifluoromethane	<RL	0.5
Propene	<RL	1.0
Dichlorodifluoromethane	<RL	0.5
Dimethyl Ether	<RL	1.0
Chloromethane	<RL	0.5
Dichlorotetrafluoroethane	<RL	0.5
Vinyl Chloride	<RL	0.5
Acetaldehyde	<RL	5.0
Methanol	<RL	5.0
1,3-Butadiene	<RL	0.5
Bromomethane	<RL	0.5
Chloroethane	<RL	0.5
Dichlorofluoromethane	<RL	0.5
Ethanol	<RL	2.0
Vinyl Bromide	<RL	0.5
Acrolein	<RL	1.0
Acetone	<RL	2.0
Trichlorofluoromethane	<RL	0.5
2-Propanol (IPA)	<RL	2.0
Acrylonitrile	<RL	2.0
1,1-Dichloroethene	<RL	0.5
Methylene Chloride (DCM)	<RL	1.0
TertButanol (TBA)	<RL	0.5
Allyl Chloride	<RL	1.0
Carbon Disulfide	<RL	2.0
Trichlorotrifluoroethane	<RL	0.5
trans-1,2-Dichloroethene	<RL	0.5
1,1-Dichloroethane	<RL	0.5
Methyl Tert Butyl Ether (MTBE)	<RL	0.5
Vinyl Acetate	<RL	1.0
2-Butanone (MEK)	<RL	1.0
cis-1,2-Dichloroethene	<RL	0.5
Hexane	<RL	0.5
Chloroform	<RL	0.5
Ethyl Acetate	<RL	0.5
Tetrahydrofuran	<RL	0.5
1,2-Dichloroethane	<RL	0.5
1,1,1-Trichloroethane	<RL	0.5
Benzene	<RL	0.5
Carbon Tetrachloride	<RL	0.5
Cyclohexane	<RL	0.5

Analyte Compounds (Continued)	*MB 061521*	*Reporting Limit (RL)*
1,2-Dichloropropane	<RL	0.5
Bromodichloromethane	<RL	0.5
1,4-Dioxane	<RL	2.0
Trichloroethene (TCE)	<RL	0.5
2,2,4-Trimethylpentane	<RL	0.5
Methyl Methacrylate	<RL	0.5
Heptane	<RL	0.5
cis-1,3-Dichloropropene	<RL	0.5
4-Methyl-2-pentanone (MIBK)	<RL	1.0
trans-1,3-Dichloropropene	<RL	0.5
1,1,2-Trichloroethane	<RL	0.5
Toluene	<RL	0.5
2-Hexanone (MBK)	<RL	2.0
Dibromochloromethane	<RL	0.5
1,2-Dibromoethane	<RL	0.5
Tetrachloroethene (PCE)	<RL	0.5
Chlorobenzene	<RL	0.5
Ethylbenzene	<RL	0.5
m & p-Xylene	<RL	1.0
Bromoform	<RL	0.5
Styrene	<RL	0.5
1,1,2,2-Tetrachloroethane	<RL	0.5
o-Xylene	<RL	0.5
1,2,3-Trichloropropane	<RL	0.5
Isopropylbenzene (Cumene)	<RL	0.5
α-Pinene	<RL	0.5
2-Chlorotoluene	<RL	0.5
n-Propylbenzene	<RL	1.0
4-Ethyltoluene	<RL	0.5
1,3,5-Trimethylbenzene	<RL	0.5
β-Pinene	<RL	0.5
1,2,4-Trimethylbenzene	<RL	1.0
Benzyl Chloride (α-Chlorotoluene)	<RL	5.0
1,3-Dichlorobenzene	<RL	0.5
1,4-Dichlorobenzene	<RL	0.5
Sec-ButylBenzene	<RL	1.0
1,2-Dichlorobenzene	<RL	0.5
n-ButylBenzene	<RL	2.0
1,2-Dibromo-3-Chloropropane	<RL	2.0
1,2,4-Trichlorobenzene	<RL	2.0
Naphthalene	<RL	2.0
Hexachlorobutadiene	<RL	2.0

QUALITY CONTROL / QUALITY ASSURANCE REPORT

ANALYSIS DATE : 06/15/2021
MATRIX : Air
UNITS : PPB (v/v)

INSTRUMENT ID : GC/MS-03
ANALYST : MB/RC
DILUTION FACTOR[1] : x29.59

VOLATILE ORGANIC COMPOUNDS BY EPA METHOD TO-15

Duplicate Analysis of AAC Sample ID: 210938-19830

Analyte Compounds	*Sample*	*Duplicate*	*RPD*[2]
4-BFB (surrogate standard)	9.43	9.26	1.8
Chlorodifluoromethane	<SRL	<SRL	*NA*
Propene	1010.00	1200.00	17.2
Dichlorodifluoromethane	<SRL	<SRL	*NA*
Dimethyl Ether	<SRL	<SRL	*NA*
Chloromethane	<SRL	<SRL	*NA*
Dichlorotetrafluoroethane	<SRL	<SRL	*NA*
Vinyl Chloride	<SRL	<SRL	*NA*
Acetaldehyde	525.00	431.00	19.7
Methanol	<SRL	<SRL	*NA*
1,3-Butadiene	<SRL	<SRL	*NA*
Bromomethane	<SRL	<SRL	*NA*
Chloroethane	<SRL	<SRL	*NA*
Dichlorofluoromethane	<SRL	<SRL	*NA*
Ethanol	<SRL	<SRL	*NA*
Vinyl Bromide	<SRL	<SRL	*NA*
Acrolein	519.00	544.00	4.7
Acetone	363.00	391.00	7.4
Trichlorofluoromethane	<SRL	<SRL	*NA*
2-Propanol (IPA)	<SRL	<SRL	*NA*
Acrylonitrile	<SRL	<SRL	*NA*
1,1-Dichloroethene	<SRL	<SRL	*NA*
Methylene Chloride (DCM)	<SRL	<SRL	*NA*
TertButanol (TBA)	<SRL	<SRL	*NA*
Allyl Chloride	<SRL	<SRL	*NA*
Carbon Disulfide	<SRL	<SRL	*NA*
Trichlorotrifluoroethane	<SRL	<SRL	*NA*
trans-1,2-Dichloroethene	<SRL	<SRL	*NA*
1,1-Dichloroethane	<SRL	<SRL	*NA*
Methyl Tert Butyl Ether (MTBE)	<SRL	<SRL	*NA*
Vinyl Acetate	<SRL	<SRL	*NA*
2-Butanone (MEK)	<SRL	<SRL	*NA*
cis-1,2-Dichloroethene	<SRL	<SRL	*NA*
Hexane	<SRL	<SRL	*NA*
Chloroform	<SRL	<SRL	*NA*
Ethyl Acetate	<SRL	<SRL	*NA*
Tetrahydrofuran	<SRL	<SRL	*NA*
1,2-Dichloroethane	<SRL	<SRL	*NA*
1,1,1-Trichloroethane	<SRL	<SRL	*NA*
Benzene	302.00	311.00	2.9
Carbon Tetrachloride	<SRL	<SRL	*NA*
Cyclohexane	<SRL	<SRL	*NA*

Analyte Compounds (Continued)	*Sample*	*Duplicate*	*RPD*[2]
1,2-Dichloropropane	<SRL	<SRL	*NA*
Bromodichloromethane	<SRL	<SRL	*NA*
1,4-Dioxane	<SRL	<SRL	*NA*
Trichloroethene (TCE)	<SRL	<SRL	*NA*
2,2,4-Trimethylpentane	<SRL	<SRL	*NA*
Methyl Methacrylate	<SRL	<SRL	*NA*
Heptane	<SRL	<SRL	*NA*
cis-1,3-Dichloropropene	<SRL	<SRL	*NA*
4-Methyl-2-pentanone (MIBK)	<SRL	<SRL	*NA*
trans-1,3-Dichloropropene	<SRL	<SRL	*NA*
1,1,2-Trichloroethane	<SRL	<SRL	*NA*
Toluene	<SRL	<SRL	*NA*
2-Hexanone (MBK)	<SRL	<SRL	*NA*
Dibromochloromethane	<SRL	<SRL	*NA*
1,2-Dibromoethane	<SRL	<SRL	*NA*
Tetrachloroethene (PCE)	<SRL	<SRL	*NA*
Chlorobenzene	<SRL	<SRL	*NA*
Ethylbenzene	<SRL	<SRL	*NA*
m & p-Xylene	<SRL	<SRL	*NA*
Bromoform	<SRL	<SRL	*NA*
Styrene	<SRL	<SRL	*NA*
1,1,2,2-Tetrachloroethane	<SRL	<SRL	*NA*
o-Xylene	<SRL	<SRL	*NA*
1,2,3-Trichloropropane	<SRL	<SRL	*NA*
Isopropylbenzene (Cumene)	<SRL	<SRL	*NA*
α-Pinene	<SRL	<SRL	*NA*
2-Chlorotoluene	<SRL	<SRL	*NA*
n-Propylbenzene	<SRL	<SRL	*NA*
4-Ethyltoluene	<SRL	<SRL	*NA*
1,3,5-Trimethylbenzene	<SRL	<SRL	*NA*
β-Pinene	<SRL	<SRL	*NA*
1,2,4-Trimethylbenzene	<SRL	<SRL	*NA*
Benzyl Chloride (α-Chlorotoluene)	<SRL	<SRL	*NA*
1,3-Dichlorobenzene	<SRL	<SRL	*NA*
1,4-Dichlorobenzene	<SRL	<SRL	*NA*
Sec-ButylBenzene	<SRL	<SRL	*NA*
1,2-Dichlorobenzene	<SRL	<SRL	*NA*
n-ButylBenzene	<SRL	<SRL	*NA*
1,2-Dibromo-3-Chloropropane	<SRL	<SRL	*NA*
1,2,4-Trichlorobenzene	<SRL	<SRL	*NA*
Naphthalene	<SRL	<SRL	*NA*
Hexachlorobutadiene	<SRL	<SRL	*NA*

[1] Dilution factor is the product of the Canister Dilution Factor and the Analysis Dilution Factor.

[2] Relative Percent Difference (RPD) between Sample analysis and Duplicate analysis (acceptable range is <25%).

SRL - Sample Reporting Limit (minimum)

210938

AIRx Testing

CHAIN OF CUSTODY

INVOICE TO: SAME

ATTN:

REPORT TO: PO# 221-061

AIRx Testing
2472 Eastman Avenue, Unit 34
Ventura, CA 93003
(805) 644-1099 Fax (805) 644-2672

Contact: KEN KENNEALLY

LAB # 221-061
PROJECT Name: ALL AMERICAN - IRVINE
Samplers: (Signature)

Rush: 24hr. Normal: 10 Day
Sample Method:
Return or Dispose

ANALYSIS

Sample No.	Sample Date	Sample Time	Comp	Grab	Sample Description	Volume (g) (ml)	Fuel (ng) (oil)	EPA METHOD TO15						REMARKS
1	6-3-21	9:55	X		SUMMA 001352 RUN 1 RUBBER	19830		X						
2	6-3-21	9:55	X		SUMMA 001192 RUN 1 DUP	19831		X						
3	6-3-21	11:45	X		Summa 001172 RUN 2	19832		X						
4	6-3-21	11:45	X		Summa 001266 RUN 2 DUP	19833		X						
5	6-3-21	13:15	X		Summa 001191 RUN 3	19834		X						
6	6-3-21	13:15	X		Summa 001345 RUN 3 DUP	19835		X						

Relinquished by:
Date: 6/4/21 Time 10:22

Received by:
Date: 6/4/21 Time 1022

Relinquished by:
Date: Time:

Received by:
Date: Time

6x 3.2L cans + 2x Entechs w/probes

AIRx Testing

CHAIN OF CUSTODY

INVOICE TO: SAME

ATTN:

REPORT TO: PO# 221-061

AIRx Testing
2472 Eastman Avenue, Unit 34
Ventura, CA 93003
(805) 644-1099 Fax (805) 644-2672

Contact: KEN [illegible]

LAB # 221-061

PROJECT Name: ALL AMERICAN [illegible]

Samplers: (Signature)

Rush: 24hr. Normal: 10 Day

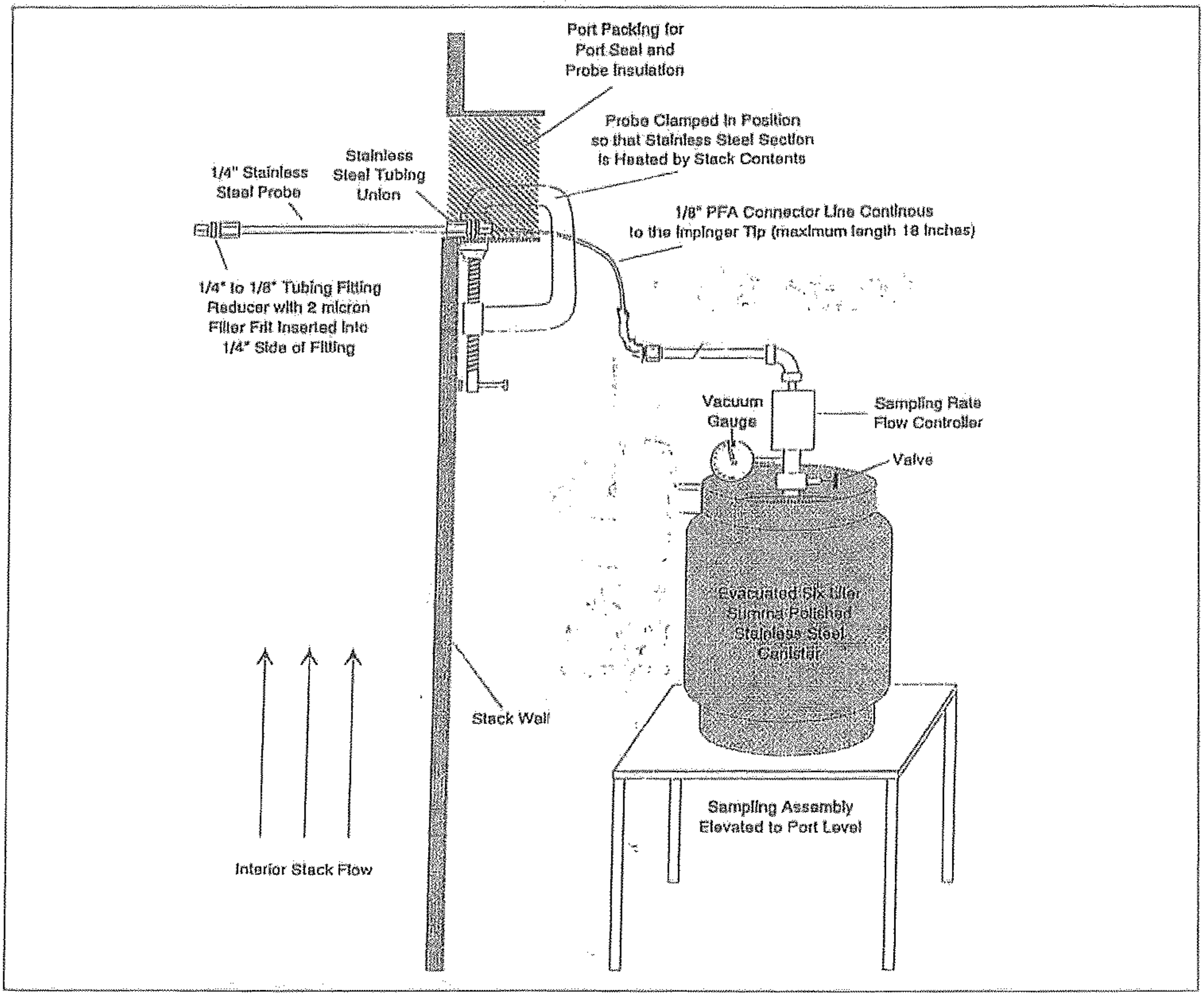
Sample Method:

Return or Dispose

Sample No.	Sample Date	Sample Time	Comp	Grab	Sample Description	Volume (g) (ml)	Fuel (ng) (oil)	ANALYSIS EPA Meth 15						REMARKS
1	6-3-21	9:55	X		Summa 001352 Run 1 Rubber			X						
2	6-3-21	9:55	X		Summa 001192 Run 1 Dup			X						
3	6-3-21	11:45	X		Summa 001192 Run 2			X						
4	6-3-21	11:45	X		Summa 001266 Run 2 Dup			X						
5	6-3-21	13:15	X		Summa 001191 Run 3			X						
6	6-3-21	13:15	X		Summa 001345 Run 3 Dup			X						

Relinquished by:	Received by:	Relinquished by:	Received by:
Date: 6/4/21 Time 10:22	Date: 6/4/21 Time 1022	Date: Time:	Date: Time

Sampling Apparatus



Sampling Procedure: Insert probe as far as possible in the stack (to avoid condensation in the probe). Open sample flow control valve and maintain steady flow so that the canister is filled from its full 30 in. Hg gauge vacuum to between 2–15 in. Hg. vacuum in the specified sampling period (usually 60 min.). Initial vacuum must be no less than 28 in. Hg. Record canister vacuums at regular intervals. At end of run, record final pressure, time and close flow valve.

EPA METHOD 0011/SW846
FROMALDEHYDE& ACETALDEHYDE

July
13-14-15

ALL AMERICAN ASPHALT IRVINE 221-061

CALCULATED EMISSION RESULTS EPA METHOD 0011

	Run 1	**Run 2**	**Run 3**	**Average (3 Runs)**
Formaldehyde (HCHO)				
HCHO Weight (ug/sample)	5220	7630	7950	6933
HCHO Flow Rate (lb/hr)	0.17	0.24	0.26	0.22
HCHO Flow Rate (lb/Ton)	[redacted]	[redacted]	[redacted]	[redacted]
HCHO Flow Rate (lb/MMbtu)	0.00355	0.00469	0.00528	0.00451
Acetaldehyde (CH3CHO)				
CH3CHO Weight (ug/sample)	1560	1180	2160	1633
CH3CHO Flow Rate (lb/hr)	0.050	0.037	0.070	0.052
CH3CHO Flow Rate (lb/Ton)	[redacted]	[redacted]	[redacted]	[redacted]
CH3CHO Flow Rate (lb/MMbtu)	0.00104	0.000723	0.00142	0.00106

FORMALDEHYDE (HCHO) ANALYSIS

EPA METHOD 0011

Client : All American Asphalt
Site : Irvine, CA
Unit : Rotary Dryer Baghouse

Pstd, mm Hg: 760
T std (deg C): 15.5
Meter #: J

Date : 7/13 - 7/15/21
Job #: 1064
Lab #: 221-061

Sample Flowrate Calculation

RUN ID	Vstd dscf	Vstd dscm	Qstd dscfm
1	97.6758	**2.77**	**23271**
2	101.0571	**2.86**	**24070**
3	96.5387	**2.73**	**24070**

Aldehyde Concentration and Concentration Calculation

Run#/ Imp#	Mfs Mass of Aldehyde µg/sample	Vfs Vol of DNPH ml	Cfs Conc of Sample µg/ml	Crb Avg Conc of Rgt Blank µg/ml	Corrected Conc of Sample Cfsc µg/ml	Corrected Conc of Sample Cfsc µg/sample	Cm Conc Sample in Exhaust µg/dscm	Cs ppmv
R1	5220	400.0	13.05	0	13.05	5220.0	1887.3	**1.49**
R2	7630	400.0	19.08	0	19.08	7630.0	2666.3	**2.11**
R3	7950	400.0	19.88	0	19.88	7950.0	2908.2	**2.30**

Run 1	**Cm**	**1887.3**	**lb/hr**	**0.17**	**lb/ton**	[redacted]
Run 2	**Cm**	**2666.3**	**lb/hr**	**0.24**	**lb/ton**	[redacted]
Run 3	**Cm**	**2908.2**	**lb/hr**	**0.26**	**lb/ton**	[redacted]

Q std, stack dscfm (avg): **23,804**
Average Cs: **1.96** **ppmv**
Average lb/hr : **0.22**
Average tons/hr: [redacted]
Average lb/ton : [redacted]

Equations:

V= Q pump * Time/10^6
Vstd= V*(Tstd/Tm)*(Pbar/Pstd)
Cfs= Mfs/Vfs
Cfsc= Cfs - Average Crb
Cs= (Cm/1000)*(23.7/MW)

Cm= Cfsc/Vstd
lb/hr HCHO = (Cm/1000)*Qstd*60*0.000437/7000
MW HCHO= 30 g/g-mole
1 dscf= 0.0283168 dscm

ACETALDEHYDE (CH3CHO) ANALYSIS

EPA METHOD 0011

Client : All American Asphalt
Site : Irvine, CA
Unit : Rotary Dryer Baghouse

Pstd, mm Hg: 760
T std (deg C): 15.5
Meter #: J

Date : 7/13 - 7/15/21
Job #: 1064
Lab #: 221-061

Sample Flowrate Calculation

RUN ID	Vstd dscf	Vstd dscm	Qstd dscfm
1	97.6758	**2.77**	**23276**
2	101.0571	**2.86**	**24055**
3	96.5387	**2.73**	**24064**

Aldehyde Concentration and Concentration Calculation

Run#/ Imp#	Mfs Mass of Aldehyde µg/sample	Vfs Vol of DNPH ml	Cfs Conc of Sample µg/ml	Crb Avg Conc of Rgt Blank µg/ml	Corrected Conc of Sample Cfsc µg/ml	Corrected Conc of Sample Cfsc µg/sample	Cm Conc Sample in Exhaust µg/dscm	Cs ppmv
R1	1560	400.0	3.90	0	3.90	1560.0	564.0	**0.304**
R2	1180	400.0	2.95	0	2.95	1180.0	412.4	**0.222**
R3	2160	400.0	5.40	0	5.40	2160.0	790.1	**0.426**

Run 1	**Cm**	**564.0**	**lb/hr**	**0.050**	**lb/ton**	[redacted]
Run 2	**Cm**	**412.4**	**lb/hr**	**0.037**	**lb/ton**	[redacted]
Run 3	**Cm**	**790.1**	**lb/hr**	**0.070**	**lb/ton**	[redacted]

Q std, stack dscfm (avg): **23,798**
Average lb/hr : **0.052**
Average Cs: **0.317** **ppmv**
Average tons/hr: [redacted]
Average lb/ton : [redacted]

Equations:

V= Q pump * Time/10^6
Vstd= V*(Tstd/Tm)*(Pbar/Pstd)
Cfs= Mfs/Vfs
Cfsc= Cfs - Average Crb
Cs= (Cm/1000)*(23.7/MW)

Cm= Cfsc/Vstd
lb/hr CH3CHO = (Cm/1000)*Qstd*60*0.000437/7000
MW CH3CHO= 44 g/g-mole
1 dscf = 0.0283168 dscm

All American Asphalt
Irvine, CA
Bag House
EPA Method 0011 and 2315A Formaldehyde
Emission Summary

	Run #1	Run #2	Run #3	*Averages*
ø - Start of Run, time	6:35	8:00	5:45	
ø - End of Run, time	10:41	10:05	7:50	
Vlc - Volume of water collected, ml	587.5	550.6	503.3	*547.1*
Vm - Gas volume, meter cond., dcf	100.723	104.135	99.332	*101.397*
Y - Meter calibration factor	1.0078	1.0078	1.0078	*1.0078*
Pbar - Barometric pressure, in. Hg	29.88	29.96	29.98	*29.94*
Pg - Stack static pressure, in. H2O	-0.07	-0.07	-0.08	*-0.07*
Ps - Stack absolute pressure, in. H2O	29.87	29.95	29.97	*29.93*
ˆH - Avg. meter press. diff., in. H2O	2.074	2.065	2.100	*2.080*
Tm - Absolute meter temperature, °R	542.4	543.5	543.1	*543.0*
Bws - Water vapor part in gas stream	0.218	0.202	0.195	*0.205*
Bws - Moisture @ Saturation	0.547	0.534	0.522	*0.534*
CO2 - Dry concentration, volume %	3.5	3.6	3.5	*3.6*
O2 - Dry concentration, volume %	14.7	14.5	14.7	*14.6*
Md - Mole wt. stack gas, dry, g/mole	29.150	29.159	29.148	*29.152*
Ms - Mole wt. stack gas, wet, g/gmole	26.719	26.909	26.978	*26.868*
Cp - Pitot tube coef., dimensionless	0.84	0.84	0.84	*0.84*
ˆp - Avg. of sq. roots of eachˆp	0.447	0.454	0.450	*0.450*
Ts - Absolute stack Temp. °R	643.0	641.6	640.7	*641.7*
A - Area of stack, square feet	21.31	21.31	21.31	*21.31*
Vs - Stack Gas Flow, ft/sec	28.8	29.1	28.8	*28.9*
An - Area of nozzle, square feet	0.00071	0.00071	0.00071	*0.00071*
ø - Sampling time, minutes	120	120	120	*120*
I - Isokinetic variation, percent	105.4	105.5	100.7	*103.9*
µs - Gas Viscosity, micropoise	188.41	189.18	189.60	*189.06*
Qstd - Volumetric flow rate, dscfm	23,271	24,070	24,070	*23,804*
Vm(std) - Standard sample gas vol., dscf	97.6758	101.0571	96.5387	*98.4239*

EPA Method 0011 and 2315A Formaldehyde Emission Determination Field Data

Client :	All American Asphalt	Date :	7/13/2021
Site :	Irvine, CA	Job # :	1064
Unit :	Bag House	Lab # :	221-061
Run # :	1	Temp (Tstd):	60

SOURCE TEST CALIBRATION & STACK DATA

	Std Pressure :	29.92	K-Factor :	9.555				
	Cold Box :	1	Mag Dp :	Mano		Impinger Wt.		
Bag House Pres.	Meter # :	J	Mag Dh :	Mano		462.5	0.0	
1.5	Meter Y :	1.0078	Static Pg :	-0.07		306.0	200.0	
	Time:	120	Stack Dia :	62.5		110.0	100.0	
Start-Time	Amb Temp:	69.0	" Eqv Dia :	1.7		100.5	100.0	
6:35	Pbar :	29.88	" Eqv Dia:	3.0		704.0	695.5	
	Pitot :	0.840	**From Method 100 Sheet**			Total Vlc:	587.5	
End-Time	Pyro :	5	dcO2 :	14.66		**Sample Leak Checks**		
10:41	Nozzle :	0.360	dcCO2 :	3.52	Pre :	0.012	in. Hg. :	21.0
	Pre-pitot :	OK	Post Pitot :	OK	Post :	0.000	in. Hg. :	18.0
	Qm:	0.75	pMd:	29.15	pMs:	26.92	dcCO :	0.00
	Delta H@:	1.7468	Bws:	0.2000	Constant:	846.72	Constant:	0.9244

FIELD TESTING DATA

	Traverse Points	Dwell Time	Stack Temp	Delta P In,H_2O	Sqrt DP	Meter Volume	Delta H In,H_2O	Meter Temp		Meter Vacuum
								Inlet	Outlet	
1	**1.3**	**0**	188	0.26	0.510	[redacted]	2.59	74	74	6.0
2	**4.2**	**5**	188	0.25	0.500	[redacted]	2.50	77	75	6.0
3	**7.4**	**10**	187	0.24	0.490	[redacted]	2.41	79	76	5.0
4	**11.1**	**15**	187	0.25	0.500	[redacted]	2.52	80	77	5.0
5	**15.6**	**20**	187	0.23	0.480	[redacted]	2.32	81	78	4.0
6	**22.3**	**25**	188	0.27	0.520	[redacted]	2.72	82	79	5.0
7	**40.3**	**30**	186	0.24	0.490	[redacted]	2.43	83	80	4.0
8	**46.9**	**35**	185	0.23	0.480	[redacted]	2.34	84	81	3.0
9	**51.4**	**40**	185	0.25	0.500	[redacted]	2.55	85	82	4.0
10	**55.1**	**45**	184	0.26	0.510	[redacted]	2.66	86	83	5.0
11	**58.3**	**50**	183	0.28	0.529	[redacted]	2.87	86	83	6.0
12	**61.2**	**55**	183	0.27	0.520	[redacted]	2.77	87	83	6.0
13		**60**	180	0.20	0.447	[redacted]	2.04	79	78	3.0
14		**65**	181	0.18	0.424	[redacted]	1.84	82	80	2.0
15		**70**	181	0.18	0.424	[redacted]	1.84	83	80	2.0
16		**75**	181	0.17	0.412	[redacted]	1.74	84	81	2.0
17		**80**	181	0.16	0.400	[redacted]	1.64	85	82	2.0
18		**85**	181	0.16	0.400	[redacted]	1.64	86	82	2.0
19		**90**	180	0.15	0.387	[redacted]	1.54	87	83	2.0
20		**95**	180	0.14	0.374	[redacted]	1.44	88	84	2.0
21		**100**	179	0.16	0.400	[redacted]	1.65	88	85	2.0
22		**105**	180	0.13	0.361	[redacted]	1.34	89	85	2.0
23		**110**	178	0.11	0.332	[redacted]	1.14	89	86	2.0
24		**115**	178	0.12	0.346	[redacted]	1.25	90	86	2.0
		120				[redacted]				

FIELD DATA AVERAGES

O_2 %	Average Vacuum	CO_2 %	Time Minutes	Stack temp ts	H_2O Vol. Vlc	Sqrt Dp Av sqrtDp	Meter Vol Vm	Deta H Av Dh	Meter temp tm
14.66	**3.50**	**3.52**	**120**	**183.0**	**587.5**	**0.447**	[redacted]	**2.074**	**82.4**

EPA Method 0011 and 2315A Formaldehyde Emission Determination Field Data

Client : All American Asphalt
Site : Irvine, CA
Unit : Bag House
Run # : 1

Date : 7/13/2021
Job # : 1064
Lab # : 221-061
Temp (Tstd): 60

*** SOURCE FIELD DATA***

Pbar	Barometer	29.88
Y	Meter Calibration Fac.	1.0078
Cp	Pitot Calibration Fac.	0.84
Pg	Stack Static Pressure (in. H2O)	-0.07
dcO2	Dry Concentration Oxygen	14.66
dcCO2	Dry Concentration Carbon Monoxide	3.52
tsd	Area Standard Temperature (deg F)	60.0
ts	Temperature of Stack Gas (deg.F)	183.0
µs	Stack Gas Viscosity (micropoise)	188.41
tm	Temperature of Meter (deg.F)	82.4
Delta P	Delta P Average (in H2O)	0.204
sqrtDP	Average Square root Delta P	0.447
Dh	Delta H Average (in H2O)	2.07
Vlc	Total Volume of Condensable water (g)	587.5
Vm	Dry gas Volume Measured (dcf)	100.723
Ds	Stack Diameter (in.)	62.5
An	Area of the Nozzle	0.00071
Time	Sample duration (min)	120

*** INTERMEDIATE CALCULATIONS***

Ps	Absolute Stack Pressure (in.Hg)	29.87	Ps =Pbar+Pg/13.6
Tstd	Area Standard Temperature (deg R)	520	Tstd =tsd+460
Ts	Temperature of Stack Gas (deg.R)	643	Ts =ts+460
Tm	Temperature of Meter (deg.R)	542	Tm =tm+460
Vwstd	Volume of water vapor standard (scf)	27.23	Vwstd =(0.04707/(528/(tsd+460)))*Vlc
Vmstd	Sample gas volume (dscf)	97.68	Vmstd =Vm*Y*(Tstd/Tm)*((Pbar+Dh/13.6)/29.92)
Bws	Moisture Content Stack Gas	0.218	Bws =Vwstd/(Vwstd+Vmstd)
dcN2	Dry Concentration Nitrogen	81.82	dcN2=100-((dcO2)+(dcCO2))
Md	Molecular Weight Stack Gas (dry)	29.15	Md =(dcCO2*0.44)+(dcO2*0.32)+(dcN2*0.28)
Ms	Molecular Weight Stack Gas (wet)	26.72	Ms =(Md*(1-Bws))+18*Bws
As	Area of Stack (Ft^2)	21.31	As =3.141592654*(Ds/12)^2/4

*** RESULTS***

Vs	Stack Gas Velocity (ft/sec)	28.8	Vs =85.49*Cp*sqrtDp*(SQRT(Ts/(Ps*Ms)))
Qa	Stack Gas Flowrate (Acfm)	36,853	Vs =Vs*60*As
Qstd	Stack Gas Flowrate (Dscfm)	23,271	Qstd =60*(1-Bws)*Vs*As*(Tstd/Ts)*(Ps/29.92)
I	Isokinetic Variation (%)	105.4	I =Pstd*VMstd*(ts+460)/(As*Time*Vs*Ps(tstd+460)*60 *(1-Bws))*100

EPA Method 0011 and 2315A Formaldehyde Emission Determination Field Data

Client : All American Asphalt
Site : Irvine, CA
Unit : Bag House
Run # : 2

Date : 6/14/2021
Job # : 1064
Lab # : 221-061
Temp (Tstd): 60

SOURCE TEST CALIBRATION & STACK DATA

Bag House Pres. 1.5
Start-Time 8:00
End-Time 10:05

Std Pressure : 29.92
Cold Box : 5
Meter # : J
Meter Y : 1.0078
Time: 120
Amb Temp: 74.0
Pbar : 29.96
Pitot : 0.840
Pyro : 5
Nozzle : 0.360
Pre-pitot : OK
Qm: 0.75
Delta H@: 1.7468

K-Factor : 9.174
Mag Dp : Mano
Mag Dh : Mano
Static Pg : -0.07
Stack Dia : 62.5
"A" Eqv Dia : 1.7
"B" Eqv Dia: 3.0
From Method 100 Sheet
dcO2 : 14.45
dcCO2 : 3.63
Post Pitot : OK
pMd: 29.16
Bws: 0.2180

Impinger Wt.

321.5	0.0
373.5	200.0
132.5	100.0
105.0	100.0
671.7	653.6
Total Vlc:	550.6

Sample Leak Checks

Pre : 0.005 in. Hg. : 18.0
Post : 0.002 in. Hg. : 12.0
pMs: 26.73
dcCO : 0.00
Constant: 846.72
Constant: 0.9244

FIELD TESTING DATA

	Traverse Points	Dwell Time	Stack Temp	Delta P In,H2O	Sqrt DP	Meter Volume	Delta H In,H2O	Meter Temp Inlet	Meter Temp Outlet	Meter Vacuum
1	**1.3**	**0**	185	0.27	0.520	[redacted]	2.61	75	75	4.0
2	**4.2**	**5**	184	0.26	0.510	[redacted]	2.53	81	77	4.0
3	**7.4**	**10**	183	0.23	0.480	[redacted]	2.26	85	80	4.0
4	**11.1**	**15**	183	0.24	0.490	[redacted]	2.36	87	80	5.0
5	**15.6**	**20**	184	0.23	0.480	[redacted]	2.26	87	81	5.0
6	**22.3**	**25**	183	0.26	0.510	[redacted]	2.56	86	80	4.0
7	**40.3**	**30**	182	0.23	0.480	[redacted]	2.26	86	80	5.0
8	**46.9**	**35**	182	0.24	0.490	[redacted]	2.36	85	80	5.0
9	**51.4**	**40**	181	0.26	0.510	[redacted]	2.57	86	81	5.0
10	**55.1**	**45**	181	0.27	0.520	[redacted]	2.67	86	81	5.0
11	**58.3**	**50**	180	0.29	0.539	[redacted]	2.87	87	82	4.0
12	**61.2**	**55**	179	0.26	0.510	[redacted]	2.59	89	83	5.0
13		**60**	181	0.25	0.500	[redacted]	2.45	80	80	4.0
14		**65**	182	0.22	0.469	[redacted]	2.16	82	81	4.0
15		**70**	182	0.20	0.447	[redacted]	1.97	84	81	4.0
16		**75**	182	0.17	0.412	[redacted]	1.68	85	82	4.0
17		**80**	182	0.17	0.412	[redacted]	1.68	86	82	4.0
18		**85**	181	0.16	0.400	[redacted]	1.58	86	82	3.0
19		**90**	179	0.16	0.400	[redacted]	1.59	87	83	3.0
20		**95**	179	0.15	0.387	[redacted]	1.49	87	83	3.0
21		**100**	180	0.15	0.387	[redacted]	1.49	88	84	3.0
22		**105**	181	0.14	0.374	[redacted]	1.39	89	84	3.0
23		**110**	182	0.12	0.346	[redacted]	1.19	90	85	2.0
24		**115**	180	0.10	0.316	[redacted]	1.00	90	86	2.0
		120				[redacted]				

FIELD DATA AVERAGES

O2 %	Average Vacuum	CO2 %	Time Minutes	Stack temp ts	H2O Vol. Vlc	Sqrt Dp Avg sqrtDp	Meter Vol Vm	Deta H Avg Dh	Meter temp tm
14.45	**3.92**	**3.63**	**120**	**181.6**	**550.6**	**0.454**	[redacted]	**2.065**	**83.5**

EPA Method 0011 and 2315A Formaldehyde Emission Determination Field Data

Client : All American Asphalt
Site : Irvine, CA
Unit : Bag House
Run # : 2
Date : 6/14/2021
Job # : 1064
Lab # : 221-061
Temp (Tstd): 60

*** SOURCE FIELD DATA***

Pbar	Barometer	29.96
Y	Meter Calibration Fac.	1.0078
Cp	Pitot Calibration Fac.	0.84
Pg	Stack Static Pressure (in. H2O)	-0.07
dcO2	Dry Concentration Oxygen	14.45
dcCO2	Dry Concentration Carbon Monoxide	3.63
tsd	Area Standard Temperature (deg F)	60.0
ts	Temperature of Stack Gas (deg.F)	181.6
μs	Stack Gas Viscosity (micropoise)	189.18
tm	Temperature of Meter (deg.F)	83.5
Delta P	Delta P Average (in H2O)	0.210
sqrtDP	Average Square root Delta P	0.454
Dh	Delta H Average (in H2O)	2.06
Vlc	Total Volume of Condensable water (g)	550.6
Vm	Dry gas Volume Measured (dcf)	104.135
Ds	Stack Diameter (in.)	62.5
An	Area of the Nozzle	0.00071
Time	Sample duration (min)	120

*** INTERMEDIATE CALCULATIONS***

Ps	Absolute Stack Pressure (in.Hg)	29.95	Ps =Pbar+Pg/13.6
Tstd	Area Standard Temperature (deg R)	520	Tstd =tsd+460
Ts	Temperature of Stack Gas (deg.R)	642	Ts =ts+460
Tm	Temperature of Meter (deg.R)	543	Tm =tm+460
Vwstd	Volume of water vapor standard (scf)	25.52	Vwstd =(0.04707/(528/(tsd+460)))*Vlc
Vmstd	Sample gas volume (dscf)	101.06	Vmstd =Vm*Y*(Tstd/Tm)*((Pbar+Dh/13.6)/29.92)
Bws	Moisture Content Stack Gas	0.202	Bws =Vwstd/(Vwstd+Vmstd)
dcN2	Dry Concentration Nitrogen	81.92	dcN2=100-((dcO2)+(dcCO2))
Md	Molecular Weight Stack Gas (dry)	29.16	Md =(dcCO2*0.44)+(dcO2*0.32)+(dcN2*0.28)
Ms	Molecular Weight Stack Gas (wet)	26.91	Ms =(Md*(1-Bws))+18*Bws
As	Area of Stack (Ft^2)	21.31	As =3.141592654*(Ds/12)^2/4

*** RESULTS***

Vs	Stack Gas Velocity (ft/sec)	29.1	Vs =85.49*Cp*sqrtDp*(SQRT(Ts/(Ps*Ms)))
Qa	Stack Gas Flowrate (Acfm)	37,156	Vs =Vs*60*As
Qstd	Stack Gas Flowrate (Dscfm)	24,070	Qstd =60*(1-Bws)*Vs*As*(Tstd/Ts)*(Ps/29.92)
I	Isokinetic Variation (%)	105.5	I =Pstd*VMstd*(ts+460)/(As*Time*Vs*Ps(tstd+460)*60 *(1-Bws))*100

EPA Method 0011 and 2315A Formaldehyde Emission Determination Field Data

Client : All American Asphalt
Site : Irvine, CA
Unit : Bag House
Run # : 3
Date : 7/15/2021
Job # : 1064
Lab # : 221-061
Temp (Tstd): 60

SOURCE TEST CALIBRATION & STACK DATA

Std Pressure : 29.92
Cold Box : 1
Meter # : J
Meter Y : 1.0078
Time: 120
Amb Temp: 74.0
Pbar : 29.98
Pitot : 0.840
Pyro : 5
Nozzle : 0.360
Pre-pitot : OK
Qm: 0.75
Delta H@: 1.7468

Bag House Pres.
1.5

Start-Time
5:45

End-Time
7:50

K-Factor : 9.491
Mag Dp : Mano
Mag Dh : Mano
Static Pg : -0.08
Stack Dia : 62.5
"A" Eqv Dia : 1.73
"B" Eqv Dia: 3

From Method 100 Sheet
dcO2 : 14.69
dcCO2 : 3.5
Post Pitot : OK
pMd: 29.15
Bws: 0.2016

Impinger Wt.

443.5	0.0
237.5	200.0
108.5	100.0
100.5	100.0
717.3	704.0
Total Vlc:	503.3

Sample Leak Checks

Pre :	0.003	in. Hg. :	18.0
Post :	0.002	in. Hg. :	14.0

pMs: 26.90
dcCO : 0.00
Constant: 846.72
Constant: 0.9244

FIELD TESTING DATA

	Traverse Points	Dwell Time	Stack Temp	Delta P In,H2O	Sqrt DP	Meter Volume	Delta H In,H2O	Meter Temp		Meter Vacuum
								Inlet	Outlet	
1	**1.3**	**0**	182	0.27	0.520	[redacted]	2.71	75	75	6.0
2	**4.2**	**5**	180	0.26	0.510	[redacted]	2.63	78	76	6.0
3	**7.4**	**10**	181	0.23	0.480	[redacted]	2.33	79	77	5.0
4	**11.1**	**15**	182	0.24	0.490	[redacted]	2.43	81	77	5.0
5	**15.6**	**20**	182	0.23	0.480	[redacted]	2.33	82	78	5.0
6	**22.3**	**25**	183	0.26	0.510	[redacted]	2.63	82	79	5.0
7	**40.3**	**30**	184	0.23	0.480	[redacted]	2.33	84	80	4.0
8	**46.9**	**35**	183	0.24	0.490	[redacted]	2.44	85	80	4.0
9	**51.4**	**40**	182	0.26	0.510	[redacted]	2.65	86	81	5.0
10	**55.1**	**45**	181	0.27	0.520	[redacted]	2.76	87	81	6.0
11	**58.3**	**50**	180	0.29	0.539	[redacted]	2.98	88	82	6.0
12	**61.2**	**55**	178	0.26	0.510	[redacted]	2.68	90	83	6.0
13		**60**	181	0.21	0.458	[redacted]	2.13	81	80	4.0
14		**65**	182	0.16	0.400	[redacted]	1.63	83	81	3.0
15		**70**	183	0.19	0.436	[redacted]	1.93	84	81	3.0
16		**75**	183	0.17	0.412	[redacted]	1.73	86	82	3.0
17		**80**	182	0.17	0.412	[redacted]	1.74	87	82	3.0
18		**85**	180	0.16	0.400	[redacted]	1.64	88	82	2.0
19		**90**	178	0.16	0.400	[redacted]	1.65	88	82	2.0
20		**95**	179	0.15	0.387	[redacted]	1.54	89	83	2.0
21		**100**	178	0.15	0.387	[redacted]	1.55	90	84	2.0
22		**105**	178	0.14	0.374	[redacted]	1.45	91	84	2.0
23		**110**	178	0.12	0.346	[redacted]	1.24	91	85	2.0
24		**115**	176	0.12	0.346	[redacted]	1.25	92	86	2.0
		120				[redacted]				

FIELD DATA AVERAGES

O2 %	Average Vacuum	CO2 %	Time Minutes	Stack temp ts	H2O Vol. Vlc	Sqrt Dp Avg sqrtDp	Meter Vol Vm	Deta H Avg Dh	Meter temp tm
14.69	**3.88**	**3.50**	**120**	**180.7**	**503.3**	**0.450**	[redacted]	**2.100**	**83.1**

EPA Method 0011 and 2315A Formaldehyde Emission Determination Field Data

Client :	All American Asphalt	Date :	7/15/2021
Site :	Irvine, CA	Job # :	1064
Unit :	Bag House	Lab # :	221-061
Run # :	3	Temp (Tstd):	60

*** SOURCE FIELD DATA***

Pbar	Barometer	29.98	
Y	Meter Calibration Fac.	1.0078	
Cp	Pitot Calibration Fac.	0.84	
Pg	Stack Static Pressure (in. H2O)	-0.08	
dcO2	Dry Concentration Oxygen	14.69	
dcCO2	Dry Concentration Carbon Monoxide	3.50	
tsd	Area Standard Temperature (deg F)	60.0	
ts	Temperature of Stack Gas (deg.F)	180.7	
μs	Stack Gas Viscosity (micropoise)	189.60	
tm	Temperature of Meter (deg.F)	83.1	
Delta P	Delta P Average (in H2O)	0.206	
sqrtDP	Average Square root Delta P	0.450	
Dh	Delta H Average (in H2O)	2.10	
Vlc	Total Volume of Condensable water (g)	503.3	
Vm	Dry gas Volume Measured (dcf)	99.332	
Ds	Stack Diameter (in.)	62.5	
An	Area of the Nozzle	0.00071	
Time	Sample duration (min)	120	

*** INTERMEDIATE CALCULATIONS***

Ps	Absolute Stack Pressure (in.Hg)	29.97	Ps =Pbar+Pg/13.6
Tstd	Area Standard Temperature (deg R)	520	Tstd =tsd+460
Ts	Temperature of Stack Gas (deg.R)	641	Ts =ts+460
Tm	Temperature of Meter (deg.R)	543	Tm =tm+460
Vwstd	Volume of water vapor standard (scf)	23.33	Vwstd =(0.04707/(528/(tsd+460)))*Vlc
Vmstd	Sample gas volume (dscf)	96.54	Vmstd =Vm*Y*(Tstd/Tm)*((Pbar+Dh/13.6)/29.92)
Bws	Moisture Content Stack Gas	0.195	Bws =Vwstd/(Vwstd+Vmstd)
dcN2	Dry Concentration Nitrogen	81.81	dcN2=100-((dcO2)+(dcCO2))
Md	Molecular Weight Stack Gas (dry)	29.15	Md =(dcCO2*0.44)+(dcO2*0.32)+(dcN2*0.28)
Ms	Molecular Weight Stack Gas (wet)	26.98	Ms =(Md*(1-Bws))+18*Bws
As	Area of Stack (Ft^2)	21.31	As =3.141592654*(Ds/12)^2/4

*** RESULTS***

Vs	Stack Gas Velocity (ft/sec)	28.8	Vs =85.49*Cp*sqrtDp*(SQRT(Ts/(Ps*Ms)))
Qa	Stack Gas Flowrate (Acfm)	36,757	Vs =Vs*60*As
Qstd	Stack Gas Flowrate (Dscfm)	24,070	Qstd =60*(1-Bws)*Vs*As*(Tstd/Ts)*(Ps/29.92)
I	Isokinetic Variation (%)	100.7	I =Pstd*VMstd*(ts+460)/(As*Time*Vs*Ps(tstd+460)*60 *(1-Bws))*100

AIR X TESTING

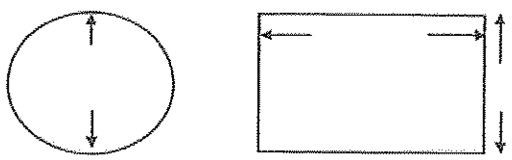
Plant : ALL AMERICAN ASPHALT
Location : IRVINE
Unit : ROTARY DRYER BAGHOUSE
Date : 7/13/21
Run # : 1 - EPA 0011/R315A
Cold Box : 1
Meter # : ~~1003878~~ J
Meter Factor : 1.0028

Amb. Temp : 69
Pbar : 29.08
Pitot : D
Pyro : 5
Mag Δ P : MANOMETER
Mag Δ H : MANOMETER
% H2O : ~20
Box Heat : –

Nozzle : .300
Prob Heat : –
Wind Vel. : –
Static Press. : -0.09
O2 : ~21.5 19.06
CO2 : ~0 0.52
Engineer : WH
Technician : JT

Stack Dia. : 61.5
"A" : 10.5
"B" : 2.85
Port Size : 3
Offset :
M / F : E

Stack Sample Port Location



BH ΔP = 1.5
307 TPH
100.0

Imp.	Gross	Tare	Total
1	462.5	0.0	462.5
2	354.5	200.0	154.5
3	110	100.0	10.0
4	100.5	[illegible]	0
S	740.0	695.5	8.6

Filter 1 :
Filter 2 : 5825

START TIME: 0635 END TIME: 1041 "K" FACTOR:

Point No.	Traverse Distance	Time Minutes	Stack °F	Δ P	√Δ P	Dry Gas Meter Volume	Δ H In H2O	Inlet ° F	Outlet ° F	Impinger Exit° F	Meter Vacuum	Filter Temp.°F	Probe Temp.°F	Cyl. Flow
A - 1	1.3	0	188	.26		205.505	2.69	74	74	70	5	–	–	–
2	4.2	5	188	.25		210.3	2.50	77	75	60	4	–	–	–
3	7.4	10	187	.24		215.0	2.41	79	76	58	3	–	–	–
4	11.1	15	187	.25		219.6	2.59	80	77	57	3	–	–	–
5	15.6	20	187	.23		223.7	2.37	81	78	57	3	–	–	–
6	22.3	25	188	.27		228.2	2.77	82	79	58	5	–	–	–
7	40.3	30	186	.24		233.0	2.49	84	81	57	3	–	–	–
8	46.9	35	185	.23		237.9	2.34	85	82	57	3	–	–	–
9	51.4	40	185	.25		242.1	2.55	86	83	58	4	–	–	–
10	55.1	45	184	.26		246.9	2.76	86	83	57	5	–	–	–
11	58.3	50	183	.28		252.1	2.87	86	83	57	5	–	–	–
12	61.2	55	183	.27		256.9	2.87	87	83	57	6	–	–	–
B 1		60*	180	.20		261.8	2.04	79	78	64	3	–	–	–
2		65	181	.18		265.9	1.84	82	80	57	3	–	–	–
3		70	181	.18		269.9	1.84	83	80	57	3	–	–	–
4		75	181	.17		273.8	1.74	84	81	56	3	–	–	–
5		80	181	.16		277.7	1.64	85	82	57	3	–	–	–
6		85	181	.16		281.5	1.64	86	82	56	3	–	–	–
7		90	180	.15		285.3	1.54	87	83	57	3	–	–	–
8		95	180	.14		288.9	1.44	88	84	56	3	–	–	–
9		100	179	.16		292.3	1.65	88	85	57	3	–	–	–
10		105	180	.13		296.1	1.34	89	85	57	2	–	–	–
11		110	178	.11		299.6	1.14	89	86	58	2	–	–	–
12		115	178	.12		302.8	1.25	90	86	57	2	–	–	–
		120				306.228								
Average:		120	180.0		.8447	100.723	2.07		82.4		3.5			

Leak Checks : Pitots

Pre	Top	Bottom
ΔP	0/3.2	0/-3.6

Post	Top	Bottom
ΔP	0/3.7	0/3.2

Sample Train Leak Check

CFM :	.012	In. HG :	21	
CFM :	0	In. HG :	16	

* WAIT FOR CASS 425 & CLEAR OTHER PORT
FOR PORT CHANGE

AIR X TESTING

Plant : ALL AMERICAN ASPHALT
Location : IRVINE
Unit : ROTARY DRYER BAGHOUSE
Date : 7/14/21
Run # : 2 - EPA 0011/8315A
Cold Box : 3
Meter # : I
Meter Factor : 1.0078

Amb. Temp : 74
Pbar : 29.96
Pitot : 5
Pyro : 5
Mag Δ P : manometer
Mag Δ H : ~
% H2O : ~2.0
Box Heat : —

Nozzle : .360
Prob Heat : –
Wind Vel. : –
Static Press. : -0.09
O2 : ~15 14.65
CO2 : ~4 3.69
Engineer : RG/WH
Technician : JT

Stack Dia. : 61.5
"A" : 105
"B" : 183
Port Size : 3
Offset : ~12"
M / F : E

Stack Sample Port Location

ΔP = 1.5

TPH = 300

Imp.	Gross	Tare	Total
1	321.5	9.0	
2	373.5	200.0	
3	132.3	100.0	
4	105.0	100.0	
5	671.7	653.6	

Filter 1 :

Filter 2 :

550.6

START TIME: 08:00 END TIME: 10:05 "K" FACTOR:

	Point No.	Traverse Distance	Time Minutes	Stack °F	Δ P	√Δ P	Dry Gas Meter Volume	Δ H In H2O	Inlet ° F	Outlet ° F	Impinger Exit° F	Meter Vacuum	Filter Temp.°F	Probe Temp.°F	Cyl. Flow
A -	1	1.3	0	186	.27		310.130	2.61	75	75	55	4.0	—	–	✓
	2	4.2	5	182	.26		315.0	2.53	81	77	57	4	—	—	—
	3	7.4	10	183	.23		319.8	2.26	85	80	58	4	—	—	—
	4	11.1	15	183	.24		324.2	2.36	87	80	59	5	–	—	–
	5	15.6	20	184	.23		328.8	2.26	87	81	56	5	–	–	—
	6	22.3	25	183	.26		333.3	2.56	86	80	56	4	—	—	–
	7	40.3	30	182	.23		338.0	2.26	86	80	57	5	—	—	—
	8	46.9	35	182	.24		342.1	2.36	85	80	57	5	—	—	—
	9	51.4	40	181	.26		346.7	2.57	86	81	57	5	—	—	—
	10	55.1	45	181	.27		351.6	2.67	86	81	57	5	—	—	—
	11	58.3	50	180	.29		356.1	2.87	87	82	58	4	—	–	—
	12	61.2	55	179	.26		361.2	2.59	89	83	57	5	–	–	–
B	1		60	181	.25		366.1	2.45	80	86	56	4	—	—	—
	2		65	182	.22		370.2	2.16	82	81	56	4	—	—	—
	3		70	182	.20		376.8	1.97	84	81	55	4	—	—	—
	4		75	182	.17		380.9	1.68	85	82	56	4	—	—	—
	5		80	182	.17		384.6	1.68	86	82	57	4	–	—	–
	6		85	181	.16		388.3	1.58	86	82	57	3	—	—	—
	7		90	179	.16		391.9	1.59	87	83	57	3	—	—	—
	8		95	179	.15		395.5	1.49	87	83	58	3	—	—	—
	9		100	180	.15		401.0	1.49	88	84	58	3	–	—	–
	10		105	181	.14		404.5	1.39	89	84	57	3	–	–	—
	11		110	182	.12		407.8	1.19	90	85	57	2	–	—	–
	12		115	181	.10		411.1	1.00	90	86	57	2	–	—	–
			120	—	—	—	414.265	—	—	–	–	–	—	—	–
	Average:		120	181.6		.454	104.135	2.065		83.5		3.9			

Leak Checks : Pitots

Pre	Top	Bottom
ΔP	0/3.5	0/3.3

Post	Top	Bottom
ΔP	0/3.2	0/3.4

Sample Train Leak Check

CFM :	.004	In. HG :	16	
CFM :	.002	In. HG :	10	

AIR X TESTING

Plant : ALL AMERICAN ASPHALT
Location : IRVINE
Unit : ROTARY DRYER BAGHOUSE
Date : 7-15-21
Run # : 3 - EPA 0011 / 18359
Cold Box : 1
Meter # : 5
Meter Factor : 1.0078

Amb. Temp : 74
Pbar : 29.98
Pitot : 5
Pyro : 5
Mag Δ P : MANO
Mag Δ H : MANO
% H2O : ~2
Box Heat : —

Nozzle : 0.360
Prob Heat : —
Wind Vel. : calm
Static Press. : -.08
O2 : 19.69
CO2 : 3.6
Engineer : WR
Technician : ET

Stack Dia. : 61.5
"A" : 105
"B" : 183
Port Size : 3
Offset : 12
M / F : F

Stack Sample Port Location

61.5

ΔP = 1.5

TPH = 300

Imp.	Gross	Tare	Total
1	443.5	0.0	
2	227.5	200	
3	108.5	100	
4	140.5	100	
	717.3	704.4	

Filter 1 : 5038

Filter 2 :

START TIME: 5:45 END TIME: 7:45 "K" FACTOR:

	Point No.	Traverse Distance	Time Minutes	Stack °F	Δ P	√Δ P	Dry Gas Meter Volume	Δ H In H2O	Inlet ° F	Outlet ° F	Impinger Exit° F	Meter Vacuum	Filter Temp.°F	Probe Temp.°F	Cyl. Flow
A -	1	1.3	0	182	.27		418.326	2.71	75	75	59	6	—	—	—
	2	4.2	5	180	.26		423.2	2.63	78	76	60	6			
	3	7.4	10	181	.23		428.0	2.33	79	77	60	5			
	4	11.1	15	182	.24		432.3	2.43	81	77	58	5			
	5	15.6	20	182	.23		436.7	2.33	82	78	58	5			
	6	22.3	25	183	.26		441.5	2.63	82	79	58	5			
	7	40.3	30	184	.23		446.4	2.33	84	80	57	5			
	8	46.9	35	183	.24		451.0	2.44	85	80	57	4			
	9	51.4	40	182	.26		455.5	2.65	86	81	57	4			
	10	55.1	45	181	.27		460.2	2.76	87	81	57	5			
	11	58.3	50	180	.29		465.0	2.98	88	82	59	6			
	12	60.2	55	178	.26		470.1	2.68	90	83	57	6			
B	1		60	181	.21		475.0	2.13	81	80	56	6			
	2		65	182	.16		479.0	1.63	83	81	57	4			
	3		70	183	.19		482.5	1.93	84	81	58	3			
	4		75	183	.17		486.6	1.73	86	82	59	3			
	5		80	182	.17		490.3	1.74	87	82	60	3			
	6		85	180	.16		494.0	1.64	88	82	60	2			
	7		90	178	.16		497.6	1.65	88	82	61	2			
	8		95	179	.15		501.1	1.54	89	83	61	2			
	9		100	178	.15		504.6	1.55	90	84	62	2			
	10		105	178	.14		507.9	1.45	91	84	61	2			
	11		110	178	.12		511.2	1.24	91	85	60	2			
	12		115	176	.12		514.4	1.25	92	86	60	2	—	—	—
			120	—	—	—	517.658	—	—	—	—	—	—	—	—
	Average:		120	180.7		0.450									

Leak Checks : Pitots

Pre	Top	Bottom
ΔP	0/3.6	0/3.2

Post	Top	Bottom
ΔP	0/3.4	0/3.3

Sample Train Leak Check

CFM : .003 In. HG : 16
CFM : .002 In. HG : 14

Atmospheric Analysis & Consulting, Inc.

Client	: AirX Testing
Client Project Name	: All American Asphalt
Client Project No.	: 221.061
AAC Project No.	: 211265
Reporting Date	: 07/27/2021

On July 16, 2021, Atmospheric Analysis & Consulting, Inc. received five (5) DNPH impinger contents for Formaldehyde and Acetaldehyde analysis by EPA Method 0011. Upon receipt, the samples were assigned unique Laboratory ID numbers as follows:

Client Sample ID	AAC Sample ID
R1 Impingers 1, 2 & 3 + Rinses (A+B)	211265-21590
R2 Impingers 1, 2 & 3 + Rinses (A+B)	211265-21591
R3 Impingers 1, 2 & 3 + Rinses (A+B)	211265-21592
Blank Train (BT) Impingers 1, 2 & 3 + A + B	211265-21593
Blank Solution	211265-21594

This analysis is performed in accordance with AAC's Quality Manual. Test results apply to the sample(s) as received. For detailed information pertaining to specific EPA, NCASI, ASTM and SCAQMD accreditations (Methods & Analytes), please visit our website at www.aaclab.com.

The DNPH solution was certified on 06/02/2021 and was recleaned and recertified on 07/09/2021.

I certify that this data is technically accurate, complete, and in compliance with the terms and conditions of the contract. No problems were encountered during receiving, preparation, and/or analysis of these samples. The Laboratory Director or his/her designee, as verified by the following signature, has authorized release of the data contained in this hardcopy report.

If you have any questions or require further explanation of data results, please contact the undersigned.

Dr. Sucha Parmar, PhD
Technical Director

This report consists of 7 pages.

LABORATORY ANALYSIS REPORT
Formaldehyde/Acetaldehyde by SW-846 EPA 0011

Client : AirX
Client Project Name : All American Asphalt
AAC Project No. : 211265
Analyst : RS/CH
Units : ug/sample

Sampling Date : 07/13-15/2021
Receiving Date : 07/16/2021
Analysis Date : 07/21-22/2021
Reporting Date : 07/27/2021

Client Sample ID	AAC Sample ID	Analysis Dilution Factor	Formaldehyde (ug/sample)	Acetaldehyde (ug/sample)	SRL (ug/sample)
R1 Impingers 1, 2 & 3 + Rinses (A+B)	211265-21590	10	5220	1560	40.0
R2 Impingers 1, 2 & 3 + Rinses (A+B)	211265-21591	10	7630	1180	40.0
R3 Impingers 1, 2 & 3 + Rinses (A+B)	211265-21592	10	7950	2160	40.0
Blank Train (BT) Impingers 1, 2 & 3 + A + B	211265-21593	1	<SRL	<SRL	2.43
Blank Solution	211265-21594	1	<SRL	<SRL	2.00
AAC Trip Blank		1	<SRL	<SRL	0.250
AAC Trip Spike		1	104 % Recovery	95.6 % Recovery	0.250

<SRL-compound was analyzed for but not detected at or above the SRL (Sample Reporting Limit)

SRL (ug/sample) = MRL (0.025 ug/mL) x Sample Volume (mL) x Analysis Dilution Factor x Method Dilution Factor

All samples were blank corrected for Formaldehyde using the method blank value.

Quality Control/Quality Assurance Report

EPA 0011

HPLC Calibration Verification of the 04/06/2021 Calibration

Analysis Date : 07/21-22/2021 Instrument ID : HPLC 01

Analyst : CH/RS

Sample ID	Analyte	Target Concentration (ug/mL)	Measured Concentration (ug/mL)	Percent Recovery (%)*
Opening CV	Formaldehyde	2.50	2.57	103
	Acetaldehyde	2.50	2.58	103
Continuing CV	Formaldehyde	2.50	2.54	102
	Acetaldehyde	2.50	2.68	107
Continuing CV	Formaldehyde	2.50	2.49	99.5
	Acetaldehyde	2.50	2.59	104
Continuing CV	Formaldehyde	2.50	2.44	97.7
	Acetaldehyde	2.50	2.54	102
Continuing CV	Formaldehyde	2.50	2.62	105
	Acetaldehyde	2.50	2.74	110
Continuing CV	Formaldehyde	2.50	2.49	99.5
	Acetaldehyde	2.50	2.62	105
Closing CV	Formaldehyde	2.50	2.58	103
	Acetaldehyde	2.50	2.69	107
Second Source	Formaldehyde	2.50	2.48	99.3
	Acetaldehyde	2.50	2.63	105

* Must be 90 - 110 %

Second Source must be 85 - 115 %

Quality Control/Quality Assurance Report

EPA 0011

Analysis Date : 07/21-22/2021 Analyst : CH/RS Instrument ID : HPLC 01

Laboratory Control Spike Analysis

Analyte	Sample Concentration (ug/mL)	Spike Concentration (ug/mL)	Measured Spike Concentration (ug/mL)	Measured Spike Dup Concentration (ug/mL)	Spike Recovery (%)*	Spike Dup Recovery (%)*	%RPD**
Formaldehyde	0.000	1.25	1.31	1.27	104	101	3.0
Acetaldehyde	0.000	1.25	1.41	1.36	113	109	3.1

* Must be 85-115%

** Must be ≤ 25%

Matrix Spike Analysis (211265-21592)

Analyte	Sample Concentration (ug/mL)	Spike Concentration (ug/mL)	Measured Spike Concentration (ug/mL)	Measured Spike Dup Concentration (ug/mL)	Spike Recovery (%)*	Spike Dup Recovery (%)*	%RPD**
Formaldehyde	4.05	1.25	5.29	5.31	99.0	100	1.3
Acetaldehyde	4.82	1.25	6.23	6.26	113	115	2.2

* Must be 75-125%

** Must be ≤ 25%

Quality Control/Quality Assurance Report

EPA 0011

Analysis Date	: 07/21-22/2021	Instrument ID	: HPLC 01
Analyst	: CH/RS		

Duplicate Analysis

Sample ID	Analyte	Dilution Factor	Sample Concentration (ug/mL)	Duplicate Concentration (ug/mL)	%RPD*
211265-21590 A	Formaldehyde	10.0	62.1	63.2	1.8
	Acetaldehyde	5.0	12.4	12.6	1.6
211265-21591 A	Formaldehyde	10.0	91.6	95.5	4.1
	Acetaldehyde	5.0	6.43	6.42	0.3

* Must be <20%

System and Method Blank Analysis

Sample ID	Analyte	Concentration (ug/mL)	RL / SRL (ug/mL)
Opening Acetonitrile Blank	Formaldehyde	<RL	0.025
	Acetaldehyde	<RL	0.025
Method Blank	Formaldehyde	0.017	0.010
	Acetaldehyde	0.018	0.010
Closing Acetonitrile Blank	Formaldehyde	<RL	0.025
	Acetaldehyde	<RL	0.025

RL - Reporting Limit

SRL - Sample Reporting Limit

211265

AIRx Testing *Inc*

CHAIN OF CUSTODY

INVOICE TO:

ATTN:

REPORT TO: PO# 221-061

AIRx Testing Inc.
2472 Eastman Avenue, Unit 34
Ventura, CA 93003
(805) 644-1099 Fax (805) 644-2672

Contact: RYAN YANAGIHARA

LAB # 221.061

PROJECT Name: ALL AMERICAN ASPHALT

Rush: 24hr. Normal: 10 Day

Samplers: (Signature)

Sample Method: EPA 0011

Return or Dispose

ANALYSIS

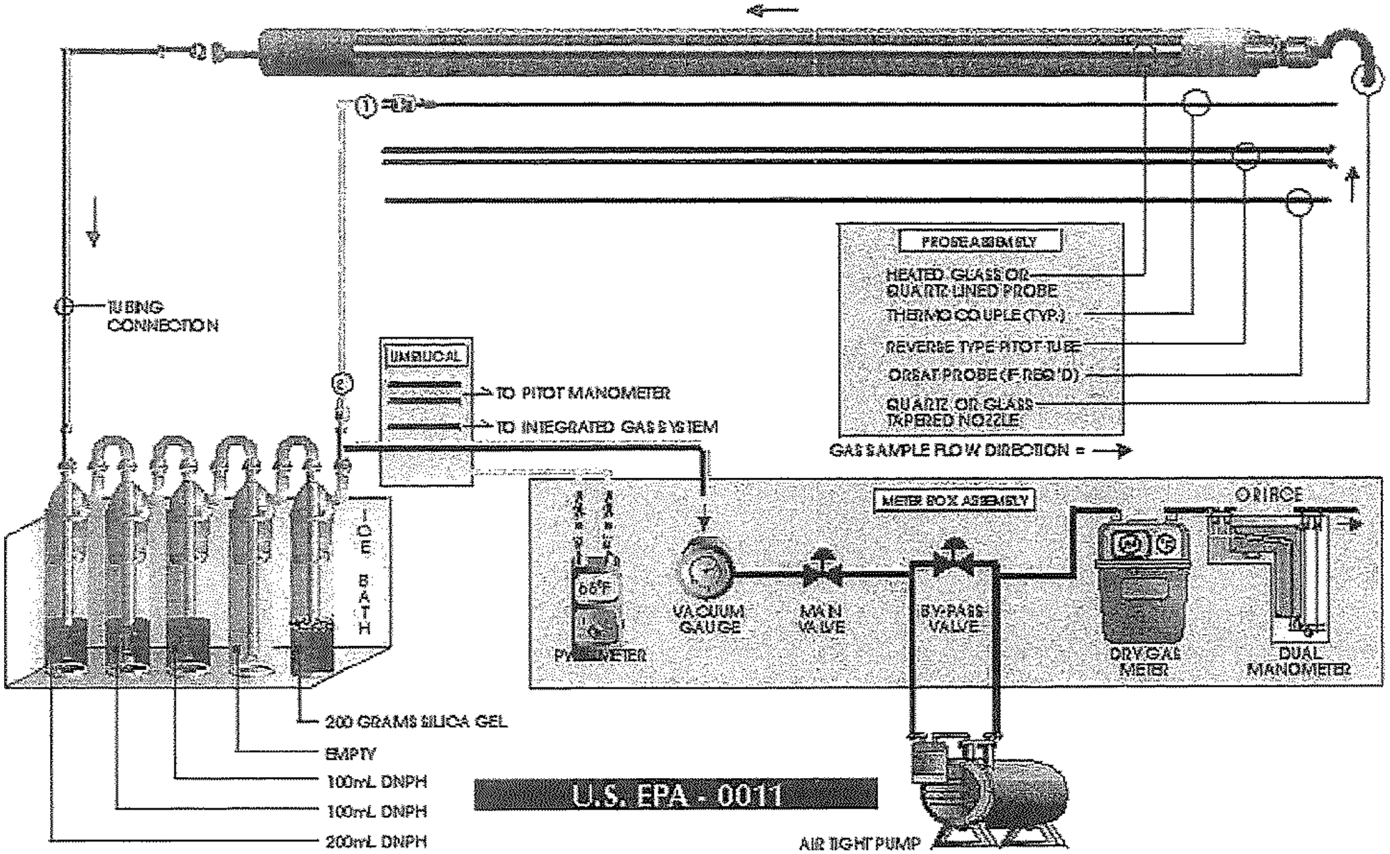
Sample No.	Sample Date	Sample Time	Comp	Grab	Sample Description	Volume (g) [✓ (ml)]	Fuel (ng) (oil)	EPA 0011						REMARKS
1	7/13/21	6:35	X		-R1A IMPINGERS 1,2 & 3 + RINSES -R1B (RUN 1, CONTAINERS A&B) rinse: 250ml $MeCl_2$ /100 H_2O	A:944.5 B:466.5		✓ ✓	21590 ~~21591~~					COMBINE
2	7/14/21	8:00	X		-R2A IMPINGERS 1,2 & 3 + RINSES -R2B (RUN 2, CONTAINERS A&B) rinse: 250ml $MeCl_2$ /100 H_2O	A:962.5 B:262.0		✓ ✓	CP ~~21592~~ 21591					Combine
3	7/15/21	5:45	X		-R3A IMPINGERS 1,2 & 3 + RINSES -R3B (RUN 3, CONTAINERS A&B) rinse: 250ml $MeCl_2$ /100 H_2O	A:963.5 B:371.5		✓ ✓	21592					Combine
4	7/13/21	4:00am	X		BLANK TRAIN (BT) IMPINGERS 1,2 & 3 + rinses (250ml $MeCl_2$ /100 H_2O) → BT-A and BT-B	A+B = 893.0 (TOTAL)		✓	21593					Combine
5	7/13/21	4:00am	X		BLANK SOLUTION (FROM WASH BOTTLE)	200		✓	21594					
6	7/13/21	4:00 am	X		TRIP BLANK	20		✓						AAC
7			X		TRIP SPIKES	20		✓						AAC

Relinquished by:	Received by:	Relinquished by:	Received by:
Date: 7/16/21 Time 9:10	Date: 7/16/21 Time 09:11	Date: Time:	Date: Time

Stack Testing -Illustrated Air Quality Test Methods - Isokinetic Stationary Source Emissions Sampling Train

U.S. EPA METHOD 0011

Determination of Selected Aldehyde and Ketone Emissions from Stationary Sources



DRY GAS METER CALIBRATION

Standard Pressure	29.92	in. hg.	Unit Number	J
Standard Temperature	60	F	Date:	1/23/2021
Ambient pressure	29.96	in. hg.	Leak Check:	.004 @ 20"
Ambient temperature	65	F		

	WET GAS		DRY GAS	Temperature					
ΔH in. H20	TIME min.	VOL. cf	VOL. in/out cf	W.G. AVG F	D.G. IN F	D.G. OUT F	D.G. AVG. F	*Y	†ΔH@ in. H20
			818.537		62.0	61.0			
0.75	9.94	5.000	823.518	61.0	63.0	61.0	61.8	1.0034	1.6419
			823.518		61.0	61.0			
0.75	9.94	5.000	828.501	61.0	63.0	62.0	61.8	1.0030	1.6419
			828.501		62.0	62.0			
0.75	9.96	5.000	833.444	61.0	64.0	62.0	62.5	1.0126	1.6462
			833.512		63.0	62.0			
1.50	7.30	5.000	838.487	61.0	63.0	62.0	62.5	1.0042	1.7686
			838.487		63.0	63.0			
1.50	7.32	5.000	843.461	61.0	64.0	62.0	63.0	1.0054	1.7766
			843.461		63.0	63.0			
1.50	7.32	5.000	848.434	61.5	64.0	63.0	63.3	1.0051	1.7792
			848.513		64.0	63.0			
2.25	5.92	5.000	853.466	61.5	64.0	63.0	63.5	1.0078	1.7447
			853.466		64.0	63.0			
2.25	5.92	5.000	858.419	62.0	65.0	64.0	64.0	1.0078	1.7464
			858.419		65.0	64.0			
2.25	5.95	5.000	863.374	62.0	65.0	64.0	64.5	1.0083	1.7625
			863.444		65.0	64.0			
3.00	5.18	5.000	868.382	63.0	66.0	64.0	64.8	1.0085	1.7871
			868.382		65.0	64.0			
3.00	5.18	5.000	873.313	63.0	66.0	64.0	64.8	1.0099	1.7871
			873.313		66.0	64.0			
3.00	5.15	5.000	878.248	63.0	66.0	64.0	64.8	1.0091	1.7664
			878.275		66.0	64.0			
3.75	4.63	5.000	883.190	63.0	66.0	64.0	65.0	1.0119	1.7838
			883.190		65.0	64.0			
3.75	4.62	5.000	888.098	64.0	65.0	64.0	64.5	1.0104	1.7846
			888.098		65.0	64.0			
3.75	4.62	5.000	893.008	64.0	65.0	64.0	64.5	1.0100	1.7846
						AVERAGE		1.0078	1.7468

Validity checks:

Meter Factor: 1.0078

* Y(max - min) ≤.02 ? ☑

† | ΔH@ - ΔH@ avg. | ≤ .20 in. H20 ? ☑

ΔH@ : 1.7468

Calibration by: FT   Reviewed by: KK

EQUATIONS USED:

Y= (VWG*PBAR*(TDGavg.+460))/((VDG*(PBAR+(ΔH/13.6))*(TWGavg.+460))

ΔH@ = ((0.0319*ΔH)/(PBAR*(TDGavg+460))*(((TWG+460)*T)/VWG)^2

DRY GAS METER CALIBRATION

Standard Pressure 29.92 in. hg.
Standard Temperature 60 F
Ambient pressure 29.89 in. hg.
Ambient temperature 68 F

Unit Number J
Date: 7/23/2021
Leak Check: .002 @ 20"

	WET GAS		DRY GAS	Temperature					
ΔH in. H20	TIME min.	VOL. cf	VOL. in/out cf	W.G. AVG F	D.G. IN F	D.G. OUT F	D.G. AVG. F	*Y	†ΔH@ in. H20
			520.005		63.0	63.0			
0.75	10.05	5.000	524.985	60.0	64.0	61.0	62.8	1.0075	1.6727
			524.985		64.0	61.0			
0.75	10.04	5.000	529.970	60.0	63.0	61.0	62.3	1.0055	1.6710
			529.970		62.0	61.0			
0.75	10.04	5.000	534.951	60.0	63.0	61.0	61.8	1.0053	1.6726
			535.023		63.0	61.0			
1.50	7.25	5.000	539.998	61.0	63.0	61.0	62.0	1.0033	1.7502
			539.998		63.0	61.0			
1.50	7.26	5.000	544.968	61.0	64.0	61.5	62.4	1.0050	1.7538
			544.968		63.0	61.5			
1.50	7.26	5.000	549.939	61.0	65.0	63.0	63.1	1.0062	1.7513
			550.001		65.0	63.0			
2.25	5.85	5.000	554.967	61.0	65.0	63.0	64.0	1.0071	1.7028
			554.967		65.0	63.0			
2.25	5.86	5.000	559.926	62.0	65.0	64.0	64.3	1.0070	1.7144
			559.926		65.0	64.0			
2.25	5.87	5.000	564.888	62.0	65.5	64.0	64.6	1.0072	1.7190
			564.921		65.5	64.0			
3.00	5.12	5.000	569.871	62.0	66.0	64.0	64.9	1.0082	1.7429
			569.871		65.0	64.0			
3.00	5.11	5.000	574.823	63.0	66.0	64.0	64.8	1.0056	1.7432
			574.823		66.0	64.0			
3.00	5.12	5.000	579.772	63.0	66.0	64.0	64.8	1.0063	1.7500
			579.882		66.0	64.0			
3.75	4.55	5.000	584.815	63.0	66.0	64.0	65.0	1.0082	1.7267
			584.815		65.0	64.0			
3.75	4.56	5.000	589.744	64.0	65.0	64.0	64.5	1.0061	1.7426
			589.744		65.0	64.0			
3.75	4.56	5.000	594.676	64.0	65.0	64.0	64.5	1.0055	1.7426
						AVERAGE		1.0063	1.7237

Validity checks:

Meter Factor: 1.0063

* Y(max - min) ≤.02 ?	√
† | ΔH@ - ΔH@ avg. | ≤ .20 in. H20 ?	√

ΔH@ : 1.7237

Calibration by: FT Reviewed by: KK

EQUATIONS USED:

Y= (VWG*PBAR*(TDGavg.+460))/((VDG*(PBAR+(ΔH/13.6))*(TWGavg.+460))

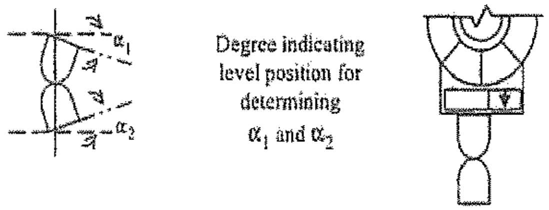
ΔH@ = ((0.0319*ΔH)/(PBAR*(TDGavg+460))*(((TWG+460)*T)/VWG)^2

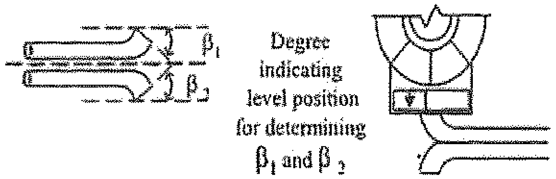
TYPE S PITOT TUBE INSPECTION SHEET

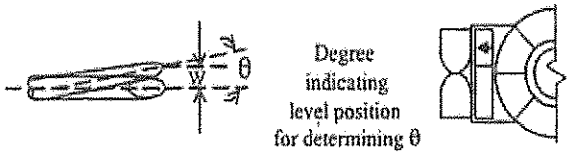
CAL DATE: 1/15/2021

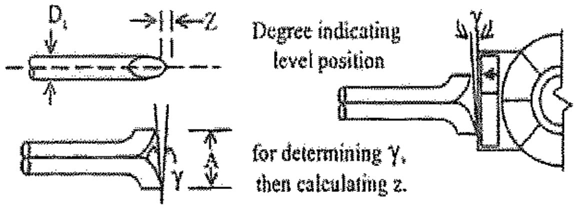
NEXT DUE DATE: Jul-21

PITOT ID: PT-5









Parameter	Values	Allowable Range
Level and Perpendicular?	Yes OR No	Yes
Obstruction?	Yes OR No	No
Damaged?	Yes OR No	No
α1	2	$-10^\circ \leq \alpha 1 \leq +10^\circ$
α2	3	$-10^\circ \leq \alpha 2 \leq +10^\circ$
β1	0	$-5^\circ \leq \beta 1 \leq +5^\circ$
β2	3	$-5^\circ \leq \beta 2 \leq +5^\circ$
γ	3	NA
θ	3	NA
$Z = A (\tan \gamma)$	0.046	≤ 0.125 in.
$W = A (\tan \theta)$	0.046	≤ 0.031 in.
Dt	0.374	$0.188 \leq Dt \leq 0.375$
A	0.884	NA
A/2/(Dt)	1.18	$1.05 \leq PA/Dt \leq 1.5$

Certification:

I certify that this pitot tube meets or exceeds all specifications, criteria and/or applicable design features and is hereby assigned a pitot tube calibration factor Cp of 0.84.

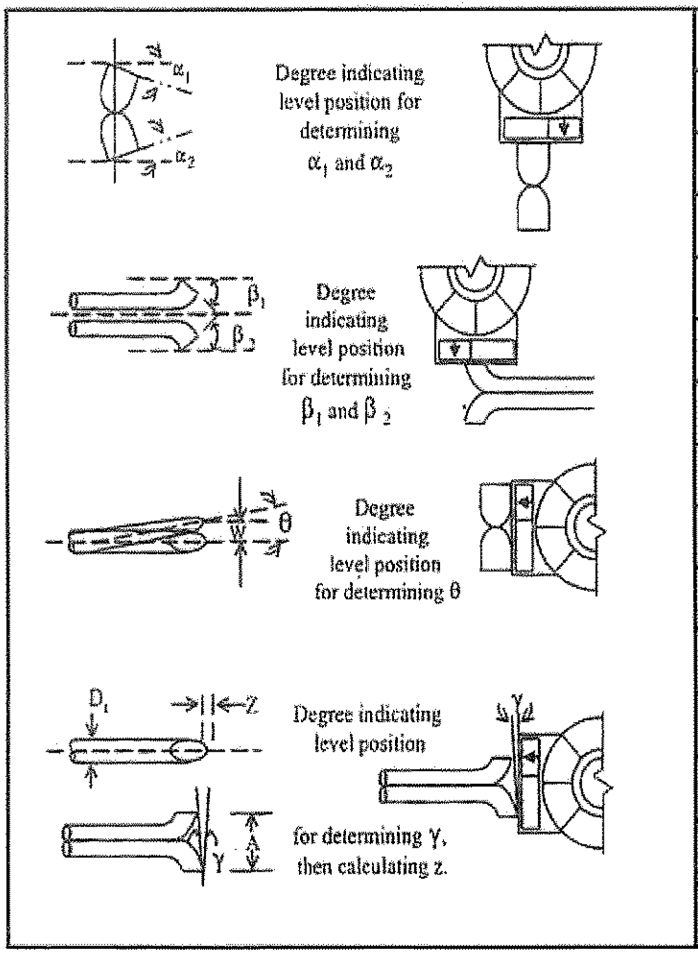
Certified By: FT **Date:** 1/15/2021

TYPE S PITOT TUBE INSPECTION SHEET

CAL DATE: 7/23/2021

NEXT DUE DATE: Jan-22

PITOT ID: PT-5



Parameter	Values	Allowable Range
Level and Perpendicular?	Yes OR No	Yes
Obstruction?	Yes OR No	No
Damaged?	Yes OR No	No
$\alpha 1$	2	$-10^\circ \leq \alpha 1 \leq +10^\circ$
$\alpha 2$	3	$-10^\circ \leq \alpha 2 \leq +10^\circ$
$\beta 1$	1	$-5^\circ \leq \beta 1 \leq +5^\circ$
$\beta 2$	2	$-5^\circ \leq \beta 2 \leq +5^\circ$
γ	3	NA
θ	2	NA
$Z = A (\tan \gamma)$	0.046	≤ 0.125 in.
$W = A (\tan \theta)$	0.031	≤ 0.031 in.
Dt	0.374	$0.188 \leq Dt \leq 0.375$
A	0.885	NA
A/2/(Dt)	1.18	$1.05 \leq PA/Dt \leq 1.5$

Certification:

I certify that this pitot tube meets or exceeds all specifications, criteria and/or applicable design features and is hereby assigned a pitot tube calibration factor Cp of 0.84.

Certified By: FT **Date:** 7/23/2021

PYROMETER CALIBRATION

Date: 1/15/2021 Unit: 5

Point	* Standard Temperature *Tstd*	Pyrometer Temperature *Tpyr*	Error %
	deg. F	deg. F	
1 Ambient	64	65	0.15%
2 Ice	32	33	0.12%
3 Boil	212	210	0.25%

Std. Corr. Factor 0.992

Calibration by: FT *Standard ID: T-1

Reviewed by: KK

PYROMETER CALIBRATION

Date: 7/23/2021 Unit: 5

Point	* Standard Temperature *Tstd*	Pyrometer Temperature *Tpyr*	Error %
	deg. F	deg. F	
1 Ambient	64	65	0.21%
2 Ice	32	33	0.20%
3 Boil	212	213	0.07%

Std. Corr. Factor 0.983

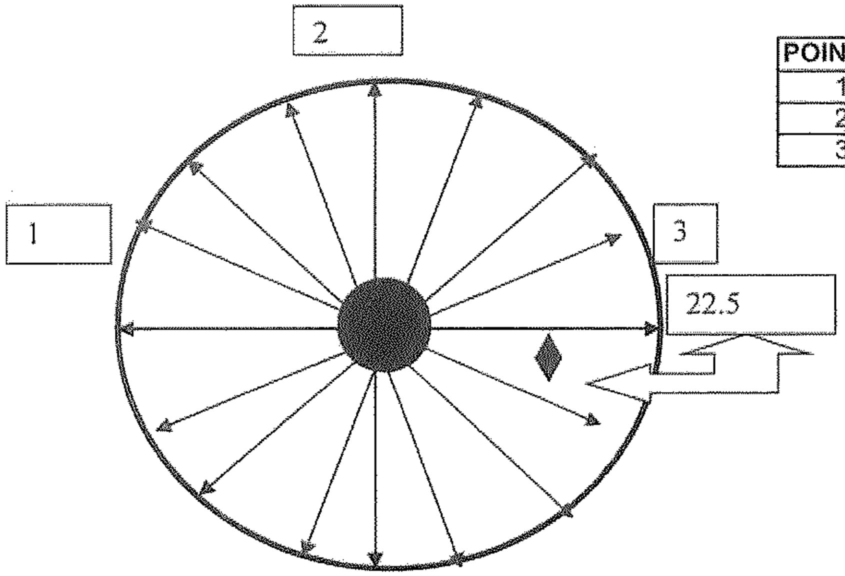
Calibration by: FT

*Standard ID: T-1

Reviewed by: KK

PYREX NOZZLE CALIBRATION

Nozzle I.D. J



POINTS	
1	0.361
2	0.360
3	0.359

Average Nozzle Diameter = **0.360**

Analyst: FT

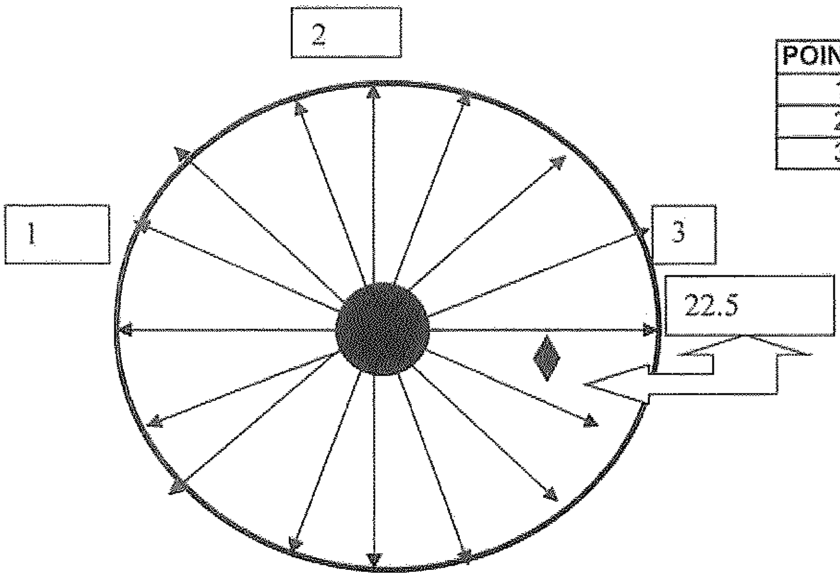
Date: January 15, 2021

*Point to point reading not to exceed .004

AIR X Testing Inc.

PYREX NOZZLE CALIBRATION

Nozzle I.D. J



POINTS	
1	0.359
2	0.360
3	0.360

Average Nozzle Diameter = **0.360**

Analyst: FJT

Date: July 23, 2021

*Point to point reading not to exceed .004

AIRx Testing Services, Inc.

SAMPLING TRAINS CHAIN OF CUSTODY

CLIENT: ALL AMERICAN ASPHALT

LOCATION: IRVINE, CA

SOURCE: BAGHOUSE

METHOD: EPA 0011 BLANK TRAIN

TEST DATE: 07/12-15/21

LAB#:

JOB#: 221-061

EQUIPMENT	DATE BUILT: BY:	COMMENTS	By::
SAMPLING TRAIN BLANK TRAIN	07.13.21 PT	RECOVERED 07.13.21. RECOVERED AS FIELD BLANK - RE-SET FOR RUN 1	
PROBE 5		RINSED W/ 250 ml OF ~~DNPH~~ MeCl2 & 100ml H2O into 1 SAMPLE	
NOZZLE 0.360		CONTAINER BLANK TRAIN	
FILTER NA		— BLANK SOLUTION - 200 ml	
FILTER HOLDER NA		[illegible]	
JUMPER 1		into container BLANK TRAIN	
SAMPLING REAGENT	DNPH	TRIP BLANK BY A.A.C SPIKE BY AAC.	

RELINQUISHED BY: DATE: 07.13.21 TIME: 4:00

RECEIVED BY: DATE: 07.13.21 TIME: 0400

RELINQUISHED BY: DATE: TIME:

RECEIVED BY: DATE: TIME:

RELINQUISHED BY: DATE: TIME:

RECEIVED BY: DATE: TIME:

AIRx Testing Services, Inc.

EQUIPMENT CALIBRATIONS

CLIENT: ALL AMERICAN ASPHALT

TEST DATE: 07.13-15 21

LOCATION: IRVINE, CA

LAB#:

SOURCE: BAGHOUSE

JOB#: 221.061

METHOD: EPA 0011

EQUIPMENT		DATE CALIBRATED:	EXPIRES:	COMMENTS:
METER BOX	J	01.23.21	07.23.21	FULL CAL AFTER JOB
PROBE	5			
THERMOCOUPLE	5			
NOZZLE	0.360			
WET TEST METER	AMERICAN METER 15681	09.09.20	09.09.21	Used to calibrate meter boxes

RELINQUISHED BY: ____ DATE: 07.11.21 TIME: 16:00

RECEIVED BY: ____ DATE: 07.12.21 TIME: 8:00

RELINQUISHED BY: ____ DATE: ____ TIME: ____

RECEIVED BY: ____ DATE: ____ TIME: ____

RELINQUISHED BY: ____ DATE: ____ TIME: ____

RECEIVED BY: ____ DATE: ____ TIME: ____

AIRx Testing Services, Inc.

SAMPLING TRAINS CHAIN OF CUSTODY

CLIENT: ALL AMERICAN ASPHALT

LOCATION: IRVINE, CA

SOURCE: BAGHOUSE

METHOD: EPA0011 RUN 1

TEST DATE: 07.13.21

LAB#:

JOB#: 221.061

EQUIPMENT	DATE BUILT: BY:	COMMENTS	By::
SAMPLING TRAIN 1	07.13.21 FT	RECOVERED 07.13.21, RE-SET FOR RUN 3	
PROBE 5		RINSED WITH 250ml MeCl2 & 100ml of DI INTO CONTAINER RUN 1A	
NOZZLE 0.360		& RUN 1B (2 Containers - high volume)	
FILTER NA			
FILTER HOLDER NA			
JUMPER 1		- in run 1A & 1B	
SAMPLING REAGENT	DNPH	200 imp / 100 imp / 100 imp : each imps (1) (2) (3)	

MECL2 FOR RINSE
HPLC GRADE H2O

ONLY 1 CONTAINER
(RUN 1A + RUN 1B)

RELINQUISHED BY: DATE: 07.13.21 TIME: 4:00 AM

RECEIVED BY: DATE: 07.15.21 TIME: 4:00 am

RELINQUISHED BY: DATE: 07.15.21 TIME: 10:45

RECEIVED BY: DATE: 07.15.21 TIME: 10:45

RELINQUISHED BY: DATE: TIME:

RECEIVED BY: DATE: TIME:

AIRx Testing Services, Inc.

SAMPLING TRAINS CHAIN OF CUSTODY

CLIENT: ALL AMERICAN ASPHALT

TEST DATE: 07.14.21

LOCATION: IRVINE, CA

LAB#:

SOURCE: BAGHOUSE

JOB#: 221-081

METHOD: EPA 0011 RUN 2

EQUIPMENT	DATE BUILT: BY:	COMMENTS	By::
SAMPLING TRAIN 2	07.14.21 FJT	RECOVERED 07.14.21	
PROBE 5		RINSED WITH 250ml MeCl2 & 100ml DI INTO CONTAINER RUN 2A	
NOZZLE 0.360		& RUN 2B (2 containers)	
FILTER NA			
FILTER HOLDER NA			
JUMPER 2		– in run 2A & 2B	
SAMPLING REAGENT	DNPH MeCl2 H2O	200ml / 100ml / 100ml DNPH each imps.	

RELINQUISHED BY: DATE: 07.14.21 TIME: 4:00 am

RECEIVED BY: DATE: 07.14.21 TIME: 4:00 am

RELINQUISHED BY: DATE: 07.14.21 TIME: 1015

RECEIVED BY: DATE: 07.14.21 TIME: 1015

RELINQUISHED BY: DATE: TIME:

RECEIVED BY: DATE: TIME:

AIRx Testing Services, Inc.

SAMPLING TRAINS CHAIN OF CUSTODY

CLIENT: ALL AMERICAN ASPHALT
LOCATION: IRVINE, CA
SOURCE: BAGHOUSE
METHOD: EPA 0011 RUN 3

TEST DATE: 07/15/21
LAB#:
JOB#: 221-061

EQUIPMENT	DATE BUILT: BY:	COMMENTS	By::
SAMPLING TRAIN 3	07.15.21 PT	RECOVERED 07.13.21	
PROBE 4		RINSED W/ 250 · $MeCl_2$ & 100ml DI INTO CONTAINER	
NOZZLE 0.376		RUN 3A & RUN 3 B (2 containers)	
FILTER NA			
FILTER HOLDER NA			
JUMPER 13		← in RUN 3A & 3B	
SAMPLING REAGENT	DNPH $MECL_2$ DI H_2O	200ml / 100ml / 100ml each impingers only 1 container (RUN 3A & 3B)	

RELINQUISHED BY: DATE: 07.15.21 TIME: 0645
RECEIVED BY: DATE: 07.15.21 TIME: 0645
RELINQUISHED BY: DATE: 07.15.21 TIME: 0755
RECEIVED BY: DATE: 07.15.21 TIME: 0755
RELINQUISHED BY: DATE: TIME:
RECEIVED BY: DATE: TIME:

CARB METHOD 425
TOTAL & HEXAVALENT CHROMIUM

July

13-14-15

ALL AMERICAN ASPHALT IRVINE 221-061

CALCULATED EMISSION RESULTS CARB METHOD 425

	Run 1	**Run 2**	**Run 3**	**Average (3 Runs)**
Probe Rinse CR+6 Weight (g)	0.000000022	0.000000009	0.000000051	0.000000028
Impinger #1 CR+6 Weight (g)	0.000000038	0.000000035	0.000000047	0.000000040
Impinger #2 CR+6 Weight (g)	0.000000024	0.000000065	0.000000031	0.000000040
Total CR+6 Weight (g)	0.000000085	0.000000072	0.000000104	0.000000087
Cr+6 Emissions (grain/Dscf)	0.0000000056	0.0000000047	0.0000000068	0.0000000057
Cr+6 Flow Rate (lb/hr)	0.0000011	0.00000098	0.0000014	0.0000012
Cr+6 Flow Rate (lb/ton)	[redacted]	[redacted]	[redacted]	[redacted]
Cr+6 Flow Rate (lb/MMBtu)	0.0000000234	0.000000191	0.000000286	0.000000167

All American Asphalt
Irvine, CA
Baghouse
Method 425 Hexavalant Chromium

CARB Method 425	**Run #1**	**Run #2**	**Run #3**	***Averages***
Date of Testing	7/13/2021	7/14/2021	12/15/2021	
ø - Start of Run, time	6:35	6:00	7:00	
ø - End of Run, time	12:40	12:05	13:07	
Vlc - Volume of water collected, ml	1345.4	1221.0	1264.2	*1276.9*
Vm - Gas volume, meter cond., dcf	244.471	244.962	247.294	*245.576*
Y - Meter calibration factor	0.9926	0.9926	0.9926	*0.9926*
Pbar - Barometric pressure, in. Hg	29.88	29.93	29.98	*29.93*
Pg - Stack static pressure, in. H2O	-0.07	-0.07	-0.07	*-0.07*
Ps - Stack absolute pressure, in. H2O	29.87	29.92	29.97	*29.92*
ˆH - Avg. meter press. diff., in. H2O	2.20	2.28	2.23	*2.24*
Tm - Absolute meter temperature, °R	546.6	544.1	549.1	*546.6*
Bws - Water vapor part in gas stream	0.212	0.195	0.200	*0.202*
Bws - Moisture @ Saturation	0.55	0.57	0.56	*0.56*
CO2 - Dry concentration, volume %	3.5	3.6	3.5	*3.6*
O2 - Dry concentration, volume %	14.7	14.5	14.7	*14.6*
Md - Mole wt. stack gas, dry, g/mole	29.150	29.159	29.148	*29.152*
Ms - Mole wt. stack gas, wet, g/gmole	26.786	26.984	26.916	*26.895*
Cp - Pitot tube coef., dimensionless	0.84	0.84	0.84	*0.84*
ˆp - Avg. of sq. roots of eachˆp	0.440	0.454	0.440	*0.445*
Ts - Absolute stack Temp. °R	643.1	644.8	644.1	*644.0*
A - Area of stack, square feet	21.31	21.31	21.31	*21.31*
Vs - Stack Gas Flow, ft/sec	28.3	29.1	28.2	*28.6*
An - Area of nozzle, square feet	0.000576	0.000576	0.000576	*0.000576*
ø - Sampling time, minutes	360	360	360	*360*
I - Isokinetic variation, percent	103.4	99.2	103.1	*101.9*
Qm - Sampling rate, acfm	0.68	0.68	0.69	*0.68*
µs - Gas Viscosity, micropoise	188.89	190.47	190.04	*189.80*
Qa - Volumetric flow rate, acfm	36,192	37,262	36,066	*36,507*
Qstd - Volumetric flow rate, dscfm	23,025	24,197	23,332	*23,518*
Vm(std) - Standard sample gas vol., dscf	231.7810	233.7744	234.1849	*233.2468*

CARB Method 425 Total Hex-Chrome Emission Determination Field Data

Client : All American Asphalt
Site : Irvine, CA
Unit : Baghouse
Run # : 1
Date : 7/13/2021
Job # : 1064
Lab # : 221-061
Temp (Tstd): 60

SOURCE TEST CALIBRATION & STACK DATA

Bag House Pressure
1.5
TPH
[redacted]
Start-Time
6:35
Stop-Time
12:40
Filter

Std Pressure : 29.92
Cold Box : 5
Meter # : G
Meter Y : 0.9926
Time: 360
Amb Temp: 69.0
Pbar : 29.88
Pitot : 0.84
Pyro : 4
Nozzle : 0.325
Pre-pitot : OK
Qm: 0.75
Delta H@: 2.8863

K-Factor : 11.027
Mag Dp : Mano
Mag Dh : Mano
Static Pg : -0.07
Stack Dia : 62.5
"A" Eqv Dia : 1.7
"B" Eqv Dia: 3.0
From Method 100 Sheet
dcO2 : 14.66
dcCO2 : 3.52
Post Pitot : OK
pMd: 29.15
Bws: 0.2000

Impinger Wt.

1037.5	0.0	1037.5
344.0	100.0	244.0
144.5	100.0	44.5
659.0	639.6	19.4
		0.0
Total Vlc:	1345.4	

Sample Leak Checks

Pre : 0.003 in. Hg. : 16.0
Post : 0.003 in. Hg. : 14.0
pMs: 26.92
dcCO : 0.00
Constant: 846.72
Constant: 0.9244

FIELD TESTING DATA

	Traverse Points	Dwell Time	Stack Temp	Delta P In,H2O	Sqrt DP	Meter Volume	Delta H In,H2O	Meter Temp		Meter Vacuum
								Inlet	Outlet	
1	**1.3**	**0**	188	0.25	0.500	[redacted]	2.75	80	77	3.0
2	**4.2**	**15.0**	187	0.23	0.480	[redacted]	2.55	84	79	3.0
3	**7.4**	**30.0**	184	0.19	0.436	[redacted]	2.12	86	80	3.0
4	**11.1**	**45.0**	182	0.18	0.424	[redacted]	2.02	88	81	3.0
5	**15.6**	**60.0**	184	0.17	0.412	[redacted]	1.90	89	81	3.0
6	**22.3**	**75.0**	185	0.16	0.400	[redacted]	1.79	89	82	3.0
7	**40.3**	**90.0**	183	0.17	0.412	[redacted]	1.91	90	83	3.0
8	**46.9**	**105.0**	181	0.16	0.400	[redacted]	1.80	88	83	3.0
9	**51.4**	**120.0**	182	0.17	0.412	[redacted]	1.91	87	83	3.0
10	**55.1**	**135.0**	180	0.16	0.400	[redacted]	1.80	86	81	3.0
11	**58.3**	**150.0**	181	0.14	0.374	[redacted]	1.57	87	81	3.0
12	**61.2**	**165.0**	180	0.11	0.332	[redacted]	1.24	87	81	3.0
13		**180.0**	182	0.27	0.520	[redacted]	3.03	89	81	5.0
14		**195.0**	183	0.25	0.500	[redacted]	2.81	89	82	4.0
15		**210.0**	181	0.19	0.436	[redacted]	2.15	91	83	4.0
16		**225.0**	180	0.24	0.490	[redacted]	2.72	92	84	4.0
17		**240.0**	181	0.25	0.500	[redacted]	2.84	94	85	4.0
18		**255.0**	183	0.23	0.480	[redacted]	2.61	94	87	4.0
19		**270.0**	184	0.21	0.458	[redacted]	2.38	95	87	3.0
20		**285.0**	184	0.20	0.447	[redacted]	2.27	96	88	3.0
21		**300.0**	183	0.21	0.458	[redacted]	2.39	96	88	3.0
22		**315.0**	185	0.20	0.447	[redacted]	2.26	95	87	3.0
23		**330.0**	185	0.18	0.424	[redacted]	2.04	95	87	3.0
24		**345.0**	186	0.17	0.412	[redacted]	1.92	94	86	3.0
		360.0				[redacted]				

FIELD DATA AVERAGES

O2 %	Average Vacuum	CO2 %	Time Minutes	Stack temp ts	H2O Vol. Vlc	Sqrt Dp Avg sqrtDp	Meter Vol Vm	Delta H Avg Dh	Meter temp tm
14.7	**3.3**	**3.5**	**360**	**183.1**	**1345.4**	**0.440**	[redacted]	**2.20**	**86.6**

CARB Method 425 Hexavalent Chromium Emission Determination Calculations

Client : All American Asphalt
Site : Irvine, CA
Unit : Baghouse
Run # : 1

Date : 7/13/2021
Job # : 1064
Lab # : 221-061
Temp (Tstd): 60

*** SOURCE FIELD DATA***

Pbar	Barometer	29.88	
Y	Meter Calibration Fac.	0.9926	
Cp	Pitot Calibration Fac.	0.84	
Pg	Stack Static Pressure (in. H2O)	-0.07	
dcO2	Dry Concentration Oxygen	14.7	
dcCO2	Dry Concentration Carbon Monoxide	3.5	
tsd	Area Standard Temperature (deg F)	60.0	
ts	Temperature of Stack Gas (deg.F)	183.1	
µs	Stack Gas Viscosity (micropoise)	188.89	
tm	Temperature of Meter (deg.F)	86.6	
Delta P	Delta P Average (in H2O)	0.195	
sqrtDP	Average Square root Delta P	0.440	
Dh	Delta H Average (in H2O)	2.20	
Vlc	Total Volume of Condensable water (g)	1345.4	
Vm	Dry gas Volume Measured (dcf)	244.471	
Ds	Stack Diameter (in.)	62.5	
An	Area of the Nozzle	0.00058	
Time	Sample duration (min)	360	

*** INTERMEDIATE CALCULATIONS***

Ps	Absolute Stack Pressure (in.Hg)	29.87	Ps =Pbar+Pg/13.6
Tstd	Area Standard Temperature (deg R)	520	Tstd =tsd+460
Ts	Temperature of Stack Gas (deg.R)	643.1	Ts =ts+460
Tm	Temperature of Meter (deg.R)	546.6	Tm =tm+460
Vwstd	Volume of water vapor standard (scf)	62.37	Vwstd =(0.04707/(528/(tsd+460)))*Vlc
Vmstd	Sample gas volume (dscf)	231.7810	Vmstd =Vm*Y*(Tstd/Tm)*((Pbar+Dh/13.6)/29.92)
Bws	Moisture Content Stack Gas	0.212	Bws =Vwstd/(Vwstd+Vmstd)
dcN2	Dry Concentration Nitrogen	81.8	dcN2=100-((dcO2)+(dcCO2))
Md	Molecular Weight Stack Gas (dry)	29.150	Md =(dcCO2*0.44)+(dcO2*0.32)+(dcN2*0.28)
Ms	Molecular Weight Stack Gas (wet)	26.786	Ms =(Md*(1-Bws))+18*Bws
As	Area of Stack (Ft^2)	21.31	As =3.141592654*(Ds/12)^2/4

*** RESULTS***

Vs	Stack Gas Velocity (ft/sec)	28.3	Vs =85.49*Cp*sqrtDp*(SQRT(Ts/(Ps*Ms)))
Qa	Stack Gas Flow Rate (Acfm)	36,192	Qa =Vs*60*As
Qstd	Stack Gas Flow Rate (Dscfm)	23,025	Qstd =60*(1-Bws)*Vs*As*(Tstd/Ts)*(Ps/29.92)
I	Isokinetic Variation (%)	103.4	I =Pstd*VMstd*(ts+460)/(As*Time*Vs*Ps(tstd+460)*60 *(1-Bws))*100

CALCULATED EMISSION RESULTS

Probe	CR+6 Weight (g)	0.0000000224	
Imp #1	CR+6 Weight (g)	0.0000000378	
Imp #2	CR+6 Weight (g)	0.0000000243	
Total	CR+6 Weight (g)	0.0000000845	
	Cr+6 Emissions (grain/Dscf)	0.0000000056	= 15.43*Ws/Vmstd
	Cr+6 Flow Rate (lb/hr)	0.0000011	= gr/dscf*60*Qstd/7000
	Cr+6 Flow Rate (lb/MMBtu)	0.0000000234	= "F"-Factor(8710)*lb/hr/(60*Qstd)*20.9(20.9-O2)

CARB Method 425 Field Data

Client : All American Asphalt
Site : Irvine, CA
Unit : Baghouse
Run # : 2 Cr+6
Date : 7/14/2021
Job # : 1064
Lab # : 221-061
Temp (Tstd): 60

SOURCE TEST CALIBRATION & STACK DATA

Bag House Pressure
1.5
TPH
[redacted]
Start-Time
6:00
Stop-Time
12:05
Filter

Std Pressure : 29.92
Cold Box : 2
Meter # : G
Meter Y : 0.9926
Time: 360
Amb Temp: 72.0
Pbar : 29.93
Pitot : 0.840
Pyro : 4
Nozzle : 0.325
Pre-pitot : OK
Qm: 0.75
Delta H@: 2.8863

K-Factor : 10.734
Mag Dp : Mano
Mag Dh : Mano
Static Pg : -0.07
Stack Dia : 62.5
"A" Eqv Dia : 1.7
"B" Eqv Dia: 3.0
From Method 100 Sheet
dcO2 : 14.45
dcCO2 : 3.63
Post Pitot : OK
pMd: 29.16
Bws: 0.2120

Impinger Wt.

946.5	0.0	946.5
314.5	100.0	214.5
134.5	100.0	34.5
1035.3	1009.8	25.5
		0.0
Total Vlc:	1221.0	

Sample Leak Checks
Pre : 0.002 in. Hg. : 16.0
Post : 0.001 in. Hg. : 12.0
pMs: 26.79
dcCO : 0.00
Constant: 846.72
Constant: 0.9244

FIELD TESTING DATA

	Traverse Points	Dwell Time	Stack Temp	Delta P In,H2O	Sqrt DP	Meter Volume	Delta H In,H2O	Meter Temp Inlet	Meter Temp Outlet	Meter Vacuum
1	1.3	0	190	0.28	0.529	[redacted]	2.99	78	78	4.0
2	4.2	15.0	191	0.25	0.500	[redacted]	2.69	87	78	4.0
3	7.4	30.0	189	0.20	0.447	[redacted]	2.16	87	80	4.0
4	11.1	45.0	188	0.17	0.412	[redacted]	1.84	87	81	3.0
5	15.6	60.0	187	0.16	0.400	[redacted]	1.74	87	81	3.0
6	22.3	75.0	188	0.15	0.387	[redacted]	1.63	88	81	3.0
7	40.3	90.0	185	0.17	0.412	[redacted]	1.85	89	81	3.0
8	46.9	105.0	186	0.18	0.424	[redacted]	1.96	89	82	3.0
9	51.4	120.0	186	0.16	0.400	[redacted]	1.75	89	83	3.0
10	55.1	135.0	185	0.15	0.387	[redacted]	1.64	89	83	3.0
11	58.3	150.0	185	0.13	0.361	[redacted]	1.42	89	84	3.0
12	61.2	165.0	182	0.12	0.346	[redacted]	1.32	89	84	3.0
13		180.0	180	0.26	0.510	[redacted]	2.87	90	84	3.0
14		195.0	183	0.26	0.510	[redacted]	2.86	90	85	3.0
15		210.0	181	0.25	0.500	[redacted]	2.76	90	86	3.0
16		225.0	182	0.25	0.500	[redacted]	2.76	91	86	3.0
17	End Day	240.0	182	0.24	0.490	[redacted]	2.65	92	86	3.0
18		255.0	188	0.23	0.480	[redacted]	2.45	78	73	3.0
19		270.0	181	0.22	0.469	[redacted]	2.37	84	74	3.0
20		285.0	180	0.21	0.458	[redacted]	2.28	85	76	3.0
21		300.0	184	0.22	0.469	[redacted]	2.39	87	77	3.0
22		315.0	182	0.25	0.500	[redacted]	2.72	87	77	3.0
23		330.0	184	0.27	0.520	[redacted]	2.96	87	79	3.0
24		345.0	186	0.24	0.490	[redacted]	2.63	88	79	3.0
		360.0				[redacted]				

FIELD DATA AVERAGES

O2 %	Average Vacuum	CO2 %	Time Minutes	Stack temp ts	H2O Vol. Vlc	Sqrt Dp Avg sqrtDp	Meter Vol Vm	Delta H Avg Dh	Meter temp tm
14.5	3.1	3.6	360	184.8	1221.0	0.454	[redacted]	2.28	84.1

CARB Method 425 Field Data

Client : All American Asphalt
Site : Irvine, CA
Unit : Baghouse
Run # : 3 Cr+6

Date : ########
Job # : 1064
Lab # : 221-061
Temp (Tstd): 60

SOURCE TEST CALIBRATION & STACK DATA

Bag House Pressure
1.5
TPH
[redacted]
Start-Time
7:00
Stop-Time
13:07
Filter

Std Pressure : 29.92
Cold Box : 10
Meter # : G
Meter Y : 0.9926
Time: 360
Amb Temp: 72.0
Pbar : 29.98
Pitot : 0.84
Pyro : 4
Nozzle : 0.325
Pre-pitot : OK
Qm: 0.75
Delta H@: 2.8863

K-Factor : 11.107
Mag Dp : Mano
Mag Dh : Mano
Static Pg : -0.07
Stack Dia : 62.5
"A" Eqv Dia : 1.7
"B" Eqv Dia: 3.0

From Method 100 Sheet

dcO2 : 14.69
dcCO2 : 3.50
Post Pitot : OK
pMd: 29.15
Bws: 0.1949

Impinger Wt.

929.5	0.0	929.5
360.5	100.0	260.5
129.5	100.0	29.5
703.7	659.0	44.7
		0.0
Total Vlc:	1264.2	

Sample Leak Checks

Pre : 0.003 in. Hg. : 18.0
Post : 0.003 in. Hg. : 15.0
pMs: 26.97
dcCO : 0.00
Constant: 846.72
Constant: 0.9244

FIELD TESTING DATA

	Traverse Points	Dwell Time	Stack Temp	Delta P In,H2O	Sqrt DP	Meter Volume	Delta H In,H2O	Meter Temp Inlet	Meter Temp Outlet	Meter Vacuum
1	**1.3**	**0**	178	0.22	0.469	[redacted]	2.50	83	81	3.0
2	**4.2**	**15.0**	177	0.19	0.436	[redacted]	2.17	89	81	3.0
3	**7.4**	**30.0**	178	0.18	0.424	[redacted]	2.06	89	82	3.0
4	**11.1**	**45.0**	177	0.17	0.412	[redacted]	1.95	89	82	3.0
5	**15.6**	**60.0**	177	0.18	0.424	[redacted]	2.07	90	83	3.0
6	**22.3**	**75.0**	178	0.17	0.412	[redacted]	1.95	90	83	2.0
7	**40.3**	**90.0**	177	0.18	0.424	[redacted]	2.06	89	83	2.0
8	**46.9**	**105.0**	175	0.17	0.412	[redacted]	1.96	89	84	2.0
9	**51.4**	**120.0**	173	0.15	0.387	[redacted]	1.73	90	83	2.0
10	**55.1**	**135.0**	188	0.16	0.400	[redacted]	1.81	91	84	2.0
11	**58.3**	**150.0**	202	0.14	0.374	[redacted]	1.55	92	84	2.0
12	**61.2**	**165.0**	235	0.13	0.361	[redacted]	1.37	92	85	2.0
13		**180.0**	211	0.16	0.400	[redacted]	1.75	92	86	2.0
14		**195.0**	185	0.18	0.424	[redacted]	2.05	93	87	2.0
15		**210.0**	179	0.20	0.447	[redacted]	2.30	94	87	3.0
16		**225.0**	180	0.24	0.490	[redacted]	2.76	94	88	3.0
17		**240.0**	184	0.26	0.510	[redacted]	2.98	95	89	3.0
18		**255.0**	185	0.24	0.490	[redacted]	2.75	94	89	3.0
19		**270.0**	178	0.25	0.500	[redacted]	2.90	96	90	3.0
20		**285.0**	175	0.23	0.480	[redacted]	2.68	95	91	3.0
21		**300.0**	177	0.22	0.469	[redacted]	2.55	95	91	3.0
22		**315.0**	182	0.22	0.469	[redacted]	2.54	96	92	3.0
23		**330.0**	183	0.23	0.480	[redacted]	2.65	96	92	3.0
24		**345.0**	184	0.21	0.458	[redacted]	2.42	96	92	3.0
		360.0				[redacted]				

FIELD DATA AVERAGES

O2 %	Average Vacuum	CO2 %	Time Minutes	Stack temp ts	H2O Vol. Vlc	Sqrt Dp Avg sqrtDp	Meter Vol Vm	Delta H Avg Dh	Meter temp tm
14.7	**2.6**	**3.5**	**360**	**184.1**	**1264.2**	**0.440**	[redacted]	**2.23**	**89.1**

CARB Method 425 Hexavalent Chromium Emission Determination Calculations

Client : All American Asphalt
Site : Irvine, CA
Unit : Baghouse
Run # : 2 Cr+6

Date : 7/14/2021
Job # : 1064
Lab # : 221-061
Temp (Tstd): 60

*** SOURCE FIELD DATA***

Pbar	Barometer	29.93	
Y	Meter Calibration Fac.	0.9926	
Cp	Pitot Calibration Fac.	0.84	
Pg	Stack Static Pressure (in. H2O)	-0.07	
dcO2	Dry Concentration Oxygen	14.5	
dcCO2	Dry Concentration Carbon Monoxide	3.6	
tsd	Area Standard Temperature (deg F)	60.0	
ts	Temperature of Stack Gas (deg.F)	184.8	
µs	Stack Gas Viscosity (micropoise)	190.47	
tm	Temperature of Meter (deg.F)	84.1	
Delta P	Delta P Average (in H2O)	0.209	
sqrtDP	Average Square root Delta P	0.454	
Dh	Delta H Average (in H2O)	2.28	
Vlc	Total Volume of Condensable water (g)	1221.0	
Vm	Dry gas Volume Measured (dcf)	244.962	
Ds	Stack Diameter (in.)	62.5	
An	Area of the Nozzle	0.00058	
Time	Sample duration (min)	360	

*** INTERMEDIATE CALCULATIONS***

Ps	Absolute Stack Pressure (in.Hg)	29.92	Ps =Pbar+Pg/13.6
Tstd	Area Standard Temperature (deg R)	520	Tstd =tsd+460
Ts	Temperature of Stack Gas (deg.R)	644.8	Ts =ts+460
Tm	Temperature of Meter (deg.R)	544.1	Tm =tm+460
Vwstd	Volume of water vapor standard (scf)	56.60	Vwstd =(0.04707/(528/(tsd+460)))*Vlc
Vmstd	Sample gas volume (dscf)	233.7744	Vmstd =Vm*Y*(Tstd/Tm)*((Pbar+Dh/13.6)/29.92)
Bws	Moisture Content Stack Gas	0.195	Bws =Vwstd/(Vwstd+Vmstd)
dcN2	Dry Concentration Nitrogen	81.9	dcN2=100-((dcO2)+(dcCO2))
Md	Molecular Weight Stack Gas (dry)	29.159	Md =(dcCO2*0.44)+(dcO2*0.32)+(dcN2*0.28)
Ms	Molecular Weight Stack Gas (wet)	26.984	Ms =(Md*(1-Bws))+18*Bws
As	Area of Stack (Ft^2)	21.31	As =3.141592654*(Ds/12)^2/4

*** RESULTS***

Vs	Stack Gas Velocity (ft/sec)	29.1	Vs =85.49*Cp*sqrtDp*(SQRT(Ts/(Ps*Ms)))
Qa	Stack Gas Flow Rate (Acfm)	37,262	Qa =Vs*60*As
Qstd	Stack Gas Flow Rate (Dscfm)	24,197	Qstd =60*(1-Bws)*Vs*As*(Tstd/Ts)*(Ps/29.92)
I	Isokinetic Variation (%)	99.2	I =Pstd*VMstd*(ts+460)/(As*Time*Vs*Ps(tstd+460)*60 *(1-Bws))*100

CALCULATED EMISSION RESULTS

Probe	CR+6 Weight (g)	0.0000000090	
Imp #1	CR+6 Weight (g)	0.0000000349	
Imp #2	CR+6 Weight (g)	0.0000000645	
Total	CR+6 Weight (g)	0.0000000717	
	Cr+6 Emissions (grain/Dscf)	0.0000000047	= 15.43*Ws/Vmstd
	Cr+6 Flow Rate (lb/hr)	0.00000098	= gr/dscf*60*Qstd/7000
	Cr+6 Flow Rate (lb/MMBtu)	0.000000191	= "F"-Factor(8710)*lb/hr/(60*Qstd)*20.9(20.9-O2)

CARB Method 425 Hexavalent Chromium Emission Determination Calculations

Client : All American Asphalt
Site : Irvine, CA
Unit : Baghouse
Run # : 3 Cr+6

Date : 12/15/2021
Job # : 1064
Lab # : 221-061
Temp (Tstd): 60

*** SOURCE FIELD DATA***

Pbar	Barometer	29.98	
Y	Meter Calibration Fac.	0.9926	
Cp	Pitot Calibration Fac.	0.84	
Pg	Stack Static Pressure (in. H2O)	-0.07	
dcO2	Dry Concentration Oxygen	14.7	
dcCO2	Dry Concentration Carbon Monoxide	3.5	
tsd	Area Standard Temperature (deg F)	60.0	
ts	Temperature of Stack Gas (deg.F)	184.1	
μs	Stack Gas Viscosity (micropoise)	190.04	
tm	Temperature of Meter (deg.F)	89.1	
Delta P	Delta P Average (in H2O)	0.195	
sqrtDP	Average Square root Delta P	0.440	
Dh	Delta H Average (in H2O)	2.23	
Vlc	Total Volume of Condensable water (g)	1264.2	
Vm	Dry gas Volume Measured (dcf)	247.294	
Ds	Stack Diameter (in.)	62.5	
An	Area of the Nozzle	0.00058	
Time	Sample duration (min)	360	

*** INTERMEDIATE CALCULATIONS***

Ps	Absolute Stack Pressure (in.Hg)	29.97	Ps =Pbar+Pg/13.6
Tstd	Area Standard Temperature (deg R)	520	Tstd =tsd+460
Ts	Temperature of Stack Gas (deg.R)	644.1	Ts =ts+460
Tm	Temperature of Meter (deg.R)	549.1	Tm =tm+460
Vwstd	Volume of water vapor standard (scf)	58.60	Vwstd =(0.04707/(528/(tsd+460)))*Vlc
Vmstd	Sample gas volume (dscf)	234.1849	Vmstd =Vm*Y*(Tstd/Tm)*((Pbar+Dh/13.6)/29.92)
Bws	Moisture Content Stack Gas	0.200	Bws =Vwstd/(Vwstd+Vmstd)
dcN2	Dry Concentration Nitrogen	81.8	dcN2=100-((dcO2)+(dcCO2))
Md	Molecular Weight Stack Gas (dry)	29.148	Md =(dcCO2*0.44)+(dcO2*0.32)+(dcN2*0.28)
Ms	Molecular Weight Stack Gas (wet)	26.916	Ms =(Md*(1-Bws))+18*Bws
As	Area of Stack (Ft^2)	21.31	As =3.141592654*(Ds/12)^2/4

*** RESULTS***

Vs	Stack Gas Velocity (ft/sec)	28.2	Vs =85.49*Cp*sqrtDp*(SQRT(Ts/(Ps*Ms)))
Qa	Stack Gas Flow Rate (Acfm)	36,066	Qa =Vs*60*As
Qstd	Stack Gas Flow Rate (Dscfm)	23,332	Qstd =60*(1-Bws)*Vs*As*(Tstd/Ts)*(Ps/29.92)
I	Isokinetic Variation (%)	103.1	I =Pstd*VMstd*(ts+460)/(As*Time*Vs*Ps(tstd+460)*60 *(1-Bws))*100

CALCULATED EMISSION RESULTS

Probe	CR+6 Weight (g)	0.0000000514	
Imp #1	CR+6 Weight (g)	0.0000000472	
Imp #2	CR+6 Weight (g)	0.0000000307	
Total	CR+6 Weight (g)	0.000000104	
	Cr+6 Emissions (grain/Dscf)	0.0000000068	= 15.43*Ws/Vmstd
	Cr+6 Flow Rate (lb/hr)	0.0000014	= gr/dscf*60*Qstd/7000
	Cr+6 Flow Rate (lb/MMBtu)	0.000000286	= "F"-Factor(8710)*lb/hr/(60*Qstd)*20.9(20.9-O2)

AIR X TESTING

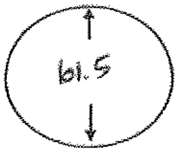
Plant : ALL AMERICAN ASPHALT
Location : IRVINE
Unit : ROTARY DRYER BAGHOUSE
Date : 9/13/21
Run # : 1 - HEX
Cold Box : 5
Meter # : 6
Meter Factor : .9926

Amb. Temp : 69.
Pbar : 29.88
Pitot : 4
Pyro : 4
Mag Δ P : MANO
Mag Δ H : MANO
% H2O :
Box Heat : 250 +/- 25

Nozzle : .323
Prob Heat : 250 +/- 25
Wind Vel. : calm
Static Press. : -.07
O2 : ~13.7 14.16
CO2 : ~3.9 3.52
Engineer : WH
Technician : FT

Stack Dia. : 61.5
"A" : 105
"B" : 185
Port Size : 3"
Offset :
M / F : F

Stack Sample Port Location



ΔP = 1.5
TPH = 300

18-20% Rubber
(25% RAP)

Imp.	Gross	Tare	Total
1	1037.5	0.0	1037.5
2	344.0	100.0	244.0
3	144.2	100.0	44.2
4	659.0	630.6	18.4

1345.4

Filter 1 :
Filter 2 :

START TIME: 6:35 END TIME: 12:40 "K" FACTOR:

Point No.	Traverse Distance	Time Minutes	Stack °F	Δ P	√Δ P	Dry Gas Meter Volume	Δ H In H2O	Inlet ° F	Outlet ° F	Impinger Exit° F	Meter Vacuum	Filter Temp.°F	Probe Temp.°F	Cyl. Flow
3- 1	1.3	0	188	.25	.500	394.770	2.75	80	77	58	3	247	250	/
2	4.2	15	187	.23	.480	405.9	2.55	83	78	58	3	249	253	
3	7.4	30	184	.19	.436	417.2	2.12	86	80	57	3	250	255	
4	11.1	45	182	.18	.424	427.6	2.02	88	81	56	3	251	252	
5	15.6	60	184	.17	.412	437.6	1.90	89	81	57	3	253	256	
6	22.3	75	185	.16	.400	447.1	1.79	89	82	56	3	248	251	
7	40.3	90	183	.17	.412	455.3	1.91	90	83	57	3	245	249	
8	46.9	105	181	.16	.400	465.0	1.80	88	83	58	3	253	257	
9	51.4	120	182	.17	.412	474.0	1.91	87	83	57	3	252	254	
10	55.1	135	180	.16	.400	484.2	1.80	86	81	56	3	254	255	
11	58.3	150	181	.14	.374	492.0	1.57	87	81	57	3	250	256	
12	61.2	165	180	.11	.332	501.5	1.24	87	81	58	3	253	257	
4 1		180	182	.27	.520	509.3	3.03	89	81	59	5	255	259	
2		195	183	.25	.500	522.0	2.81	89	82	57	4	251	253	
3		210	181	.19	.436	532.5	2.15	91	83	56	4	253	256	
4		225	180	.24	.490	542.5	2.72	92	84	57	4	250	254	
5		240	181	.25	.500	553.9	2.84	94	85	56	4	248	252	
6		255	183	.23	.480	565.6	2.61	94	87	58	4	245	250	
7		270	184	.21	.458	577.0	2.38	95	87	59	3	248	250	
8		285	184	.20	.447	587.9	2.27	96	88	60	3	250	254	
9		300	183	.21	.458	598.5	2.39	96	88	62	3	247	255	
10		315	185	.20	.447	609.8	2.26	95	87	60	3	251	252	
11		330	185	.18	.424	619.9	2.04	95	87	58	3	253	256	
12		345	186	.17	.412	629.7	1.92	94	86	58	3	250	255	/
		360	—	—	—	639.241		—	—	—	—	—	—	
Average:		360	183.1		0.440	244.471	2.20		86.6		3.8			—

Leak Checks : Pitots

Pre	Top	Bottom
ΔP	0/3.6	0/3.2

Post	Top	Bottom
ΔP	0/3.4	0/3.2

Sample Train Leak Check

CFM :	.003	In. HG :	16	
CFM :	.003	In. HG :	14	

AIR X TESTING

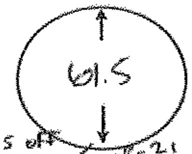
Plant : ALL AMERICAN ASPHALT
Location : IRVINE
Unit : ROTARY DRYER BAGHOUSE
Date : 7-14-21
Run # : 2 Hex CARB 425
Cold Box : 2
Meter # : G
Meter Factor : .9926

Amb. Temp : 72
Pbar : 29.93
Pitot : 4
Pyro : 4
Mag Δ P : MANO
Mag Δ H : MANO
% H2O : ~20
Box Heat : 250 +/- 25

Nozzle : .325
Prob Heat : 250 +/- 25
Wind Vel. : Calm
Static Press. : -.07
O2 : ~14.0 14.5
CO2 : ~3.9 3.6
Engineer : WH
Technician : FI

Stack Dia. : 62.5
"A" : 105
"B" : 105
Port Size : 3"
Offset : ~12"~
M / F : F

Stack Sample Port Location



ΔP = 1.5
TPH = 300

Imp.	Gross	Tare	Total
1	946.5	0.0	
2	314.5	1000	
3	134.5	1000	
4	1035.7	1007.8	
5		1221.0	

Filter 1 :

Filter 2 :

7-14-21
START TIME: 6:00 → 10:05 off
END TIME: 7-15-21 4:45 START → END 6:45
"K" FACTOR:

	Point No.	Traverse Distance	Time Minutes	Stack °F	Δ P	√Δ P	Dry Gas Meter Volume	Δ H In H2O	Inlet ° F	Outlet ° F	Impinger Exit° F	Meter Vacuum	Filter Temp.°F	Probe Temp.°F	Cyl. Flow
A -	1	1.3	0	190	.28		639.542	2.99	78	78	55	4.0	258	260	✓
	2	4.2	15	191	.25		651.2	2.69	87	78	57	4	251	255	
	3	7.4	30	189	.20		662.6	2.16	87	80	58	4	250	254	
	4	11.1	45	188	.17		672.8	1.84	87	81	57	3	247	254	
	5	15.6	60	187	.16		682.3	1.74	87	81	56	3	245	256	
	6	22.3	75	188	.15		690.8	1.63	88	81	57	3	249	254	
	7	40.3	90	185	.17		699.7	1.85	89	81	57	3	250	258	
	8	46.9	105	186	.18		708.9	1.96	89	82	58	3	253	260	
	9	51.4	120	186	.16		717.7	1.75	89	83	58	3	253	263	
	10	55.1	135	185	.15		726.9	1.64	89	83	57	3	256	258	
	11	58.3	150	185	.13		735.7	1.42	89	84	58	3	253	255	
	12	61.2	165	182	.12		744.2	1.32	89	84	57	3	250	254	
B	1		180	180	.26		752.2	2.87	90	84	59	3	244	250	
	2		195	183	.26		764.1	2.86	90	85	59	3	246	255	
	3		210	181	.25		775.6	2.76	90	86	58	3	247	251	
	4		225	182	.25		787.2	2.76	91	86	57	3	249	253	
	5		240	182	.24		798.6	2.65	92	87	59	3	250	257	
7-15-21 71° 29.88	6		255	182	.23		810.0	2.45	78	73	56	3	247	254	
	7		270	181	.22		820.9	2.37	84	74	56	3	248	254	
	8		285	180	.24		831.6	2.28	85	76	57	3	247	256	
	9		300	184	.22		840.6	2.39	87	77	57	3	250	258	
	10		315	184	.25		850.7	2.72	87	77	58	3	248	257	
	11		330	184	.27		861.8	2.96	87	79	58	3	252	251	
	12		345	186	.24		873.7	2.67	88	79	79	3	250	252	
			360	—	—	—	884.504	—	—	—	—	—	—	—	—
				—	—										
	Average:		360	187.8		.454	244.962	2.25		84.1					

Leak Checks : Pitots

Pre	Top	Bottom
ΔP	0/3.1	0/3.6

Post	Top	Bottom
ΔP	0/3.3	0/2.4

Sample Train Leak Check

CFM :	.002	In. HG :	16	
CFM :	.001	In. HG :	12	
	.002		17	
	.003		14	

AIR X TESTING

Plant : ALL AMERICAN ASPHALT
Location : IRVINE
Unit : ROTARY DRYER BAGHOUSE
Date : 7-13-21
Run # : 3 – Hrx CARB 425
Cold Box : 5
Meter # : G
Meter Factor : .9926

Amb. Temp : 72
Pbar : 29.98
Pitot : 4
Pyro : 4
Mag Δ P : Mano
Mag Δ H : Mano
% H2O : ~20
Box Heat : 250 +/- 25°

Nozzle : .325
Prob Heat : 250 +/- 25
Wind Vel. : calm
Static Press. : -.07
O2 : ~ 14.x 14.8
CO2 : ~ 3.6 3.5
Engineer : WH
Technician : FT

Stack Dia. : 61.5
"A" : 105
"B" : 185
Port Size : 3
Offset : 12
M / F : F

Stack Sample Port Location

Imp.	Gross	Tare	Total
1	129.5	0.0	
2	360.5	100.0	
3	129.5	100.0	
4	703.7	689.0	

Filter 1 :
Filter 2 :

RG#2

START TIME: 7:00 END TIME: 13:00 "K" FACTOR:

Point No.	Traverse Distance	Time Minutes	Stack °F	Δ P	√Δ P	Dry Gas Meter Volume	Δ H In H2O	Inlet ° F	Outlet ° F	Impinger Exit° F	Meter Vacuum	Filter Temp.°F	Probe Temp.°F	Cyl. Flow
A – 1	1.3	0	178	.22		885.007	2.50	83	81	62	3	247	245	—
2	4.2	15	177	.19		895.9	2.17	89	81	58	3	249	248	—
3	7.4	30	178	.18		906.2	2.06	89	82	57	3	248	250	—
4	11.1	45	177	.17		916.8	1.95	89	82	59	3	249	252	—
5	15.6	60	177	.18		925.8	2.07	90	83	59	3	250	253	—
6	22.3	75	178	.17		935.6	1.95	90	83	60	[illegible]	249	257	—
7	40.3	90	177	.18		944.8	2.06	89	83	60	2	247	252	—
8	46.9	105	175	.17		955.0	1.96	89	84	59	2	250	255	—
9	51.4	120	173	.15		964.6	1.73	90	83	56	2	248	249	—
10	55.1	135	178	.16		973.4	1.81	91	84	57	2	249	253	—
11	58.3	150	202	.14		982.9	1.55	92	84	56	2	250	251	—
12	61.2	165	235	.13		991.5	1.57	92	85	57	2	253	254	—
B – 1		180	211	.16		999.4	1.73	92	86	58	2	250	255	—
2		195	185	.18		1008.7	2.05	93	87	60	2	247	251	—
3		210	179	20		1018.2	2.30	94	87	60	3	245	254	—
4		225	180	.24		1028.6	2.76	94	88	59	3	244	253	—
5		240	184	.26		1039.9	2.98	93	89	59	3	248	256	—
6		255	185	.24		1051.8	2.75	94	89	58	3	247	254	—
7		270	178	.25		1063.3	2.90	96	90	59	3	253	251	—
8		285	175	.23		1076.4	2.68	93	91	60	3	251	252	—
9		300	177	.22		1086.6	2.55	95	91	58	3	254	258	—
10		315	182	.22		1098.1	2.54	96	92	57	3	250	256	—
11		330	183	.23		1109.6	2.65	96	92	59	3	251	258	—
12		345	184	.21		1120.8	2.42	96	92	60	3	253	257	—
		360	—	—	—	1132.361	—	—	—	—	—	—	—	—
						—								
Average:	[illegible]										3.0			

Leak Checks : Pitots

Pre	Top	Bottom
ΔP	0/3.5	0/2.7

Post	Top	Bottom
ΔP	0/3.4	0/3.2

Sample Train Leak Check

CFM :	.003	In. HG :	16	
CFM :	.003	In. HG :	15	

ATMOSPHERIC ANALYSIS & CONSULTING

PROJECT: ALL AMERICAN ASPHALT
211265

CLIENT # A010
REPORT # 21-335

SUBMITTED BY:
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Case Narrative

Date: August 9, 2021

General Information

Client:	Atmospheric Analysis & Consulting
Client Number:	A010
Report Number:	21-335
Sample Description:	Impinger Train Blanks
Sample Numbers:	21-S866 – 21-S878

Analysis

Analytes:	Hexavalent Chromium, Total Chromium
Analytical Protocols:	CARB Method 425 (7/28/97 version)
Analytical Notes:	The hexavalent chromium analyses were unremarkable. There was seemingly sporadic contamination in the method blank and possibly the low level LCS for total Cr. Several samples were reanalyzed to confirm original results. There was insufficient sample remaining to redigest the samples for total chromium. Results have not been blank corrected.
QA/QC Review:	All of the data have been reviewed by the analysts performing the analyses and the project manager. All of the quality control and sample-specific information in this package is complete and meets or exceeds the minimum requirements for acceptability.
Comments:	If you have any questions or concerns regarding this analysis, please feel free to contact the project manager.
Disclaimer:	This report shall not be reproduced, except in full, without the written approval of the laboratory. The results only represent that of the samples as received into the laboratory. All data are reported to the detection limit. Results <5x DL must be considered to have a higher degree of uncertainty associated with them. Due to the statistical process of detection limit determination, data in this report should not be used for statistical analysis as the data has been censored in such a manner as to bias statistical analyses high.

8/9/21

Project Manager   Date
Paul Duda

Lab ID: 21-S866
Client ID: 211265-21577
Run Number: 1
Site: All American Asphalt
Sample Date: 7/13/21
Sample Time: 6:35
Comments: Front half rinse
Sample Volume: 94.6 mL

	µg/L		µg/sample	
Analyte	Conc.	DL	Conc.	DL
Cr VI	0.237	0.010	0.0224	0.0009
Total Cr	10.2	0.800	0.961	0.0757

Lab ID: 21-S867
Client ID: 211265-21578
Run Number: 1
Site: All American Asphalt
Sample Date: 7/13/21
Sample Time: 6:35
Comments: 1st impinger
Sample Volume: 491. mL

	µg/L		µg/sample	
Analyte	Conc.	DL	Conc.	DL
Cr VI	0.0770	0.010	0.0378	0.0049
Total Cr	4.56	0.800	2.24	0.393

Lab ID: 21-S868
Client ID: 211265-21579
Run Number: 1
Site: All American Asphalt
Sample Date: 7/13/21
Sample Time: 6:35
Comments: 2nd impinger
Sample Volume: 148. mL

	µg/L		µg/sample	
Analyte	Conc.	DL	Conc.	DL
Cr VI	0.164	0.010	0.0243	0.0015
Total Cr	5.32	0.800	0.787	0.118

Lab ID: 21-S869
Client ID: 211265-21580
Run Number: 2
Site: All American Asphalt
Sample Date: 7/14/21
Sample Time: 6:00
Comments: Front half rinse
Sample Volume: 90.7 mL

	µg/L		µg/sample	
Analyte	Conc.	DL	Conc.	DL
Cr VI	0.0990	0.010	0.0090	0.0009
Total Cr	1.88	0.800	0.171	0.0726

Lab ID: 21-S870
Client ID: 211265-21581
Run Number: 2
Site: All American Asphalt
Sample Date: 7/14/21
Sample Time: 6:00
Comments: 1st impinger
Sample Volume: 478. mL

	µg/L		µg/sample	
Analyte	Conc.	DL	Conc.	DL
Cr VI	0.0730	0.010	0.0349	0.0048
Total Cr	2.97	0.800	1.42	0.382

Lab ID: 21-S871
Client ID: 211265-21582
Run Number: 2
Site: All American Asphalt
Sample Date: 7/14/21
Sample Time: 6:00
Comments: 2nd impinger
Sample Volume: 130. mL

	µg/L		µg/sample	
Analyte	Conc.	DL	Conc.	DL
Cr VI	0.496	0.010	0.0645	0.0013
Total Cr	2.36	0.800	0.306	0.104

Lab ID: 21-S872
Client ID: 211265-21583
Run Number: 3
Site: All American Asphalt
Sample Date: 7/15/21
Sample Time: 7:00
Comments: Front half rinse
Sample Volume: 85.5 mL

	µg/L		µg/sample	
Analyte	Conc.	DL	Conc.	DL
Cr VI	0.601	0.010	0.0514	0.0009
Total Cr	8.89	0.800	0.760	0.0684

Lab ID: 21-S873
Client ID: 211265-21584
Run Number: 3
Site: All American Asphalt
Sample Date: 7/15/21
Sample Time: 7:00
Comments: 1st impinger
Sample Volume: 508. mL

	µg/L		µg/sample	
Analyte	Conc.	DL	Conc.	DL
Cr VI	0.0930	0.010	0.0472	0.0051
Total Cr	1.34	0.800	0.683	0.406

Lab ID: 21-S874
Client ID: 211265-21585
Run Number: 3
Site: All American Asphalt
Sample Date: 7/15/21
Sample Time: 7:00
Comments: 2nd impinger
Sample Volume: 129. mL

	µg/L		µg/sample	
Analyte	Conc.	DL	Conc.	DL
Cr VI	0.238	0.010	0.0307	0.0013
Total Cr	1.05	0.800	0.135	0.103

Lab ID: 21-S875
Client ID: 211265-21586
Run Number: Blank Train
Site: All American Asphalt
Sample Date: 7/13/21
Sample Time: 4:00
Comments: Front half rinse
Sample Volume: 100. mL

	µg/L		µg/sample	
Analyte	Conc.	DL	Conc.	DL
Cr VI	0.0700	0.010	0.0070	0.0010
Total Cr	0.964	0.800	0.0964	0.0800

Lab ID: 21-S876
Client ID: 211265-21587
Run Number: Blank Train
Site: All American Asphalt
Sample Date: 7/13/21
Sample Time: 4:00
Comments: 1st impinger
Sample Volume: 89.5 mL

	µg/L		µg/sample	
Analyte	Conc.	DL	Conc.	DL
Cr VI	2.37	0.010	0.212	0.0009
Total Cr	3.43	0.800	0.307	0.0716

Lab ID: 21-S877
Client ID: 211265-21588
Run Number: Blank Train
Site: All American Asphalt
Sample Date: 7/13/21
Sample Time: 4:00
Comments: 2nd impinger
Sample Volume: 95.0 mL

	µg/L		µg/sample	
Analyte	Conc.	DL	Conc.	DL
Cr VI	0.0810	0.010	0.0077	0.0010
Total Cr	< DL	0.800	< DL	0.0760

Lab ID: 21-S878
Client ID: 211265-21589
Site: All American Asphalt
Sample Date: 7/13/21
Sample Time: 4:00
Comments: Solution blank
Sample Volume: 195. mL

	µg/L		µg/sample	
Analyte	Conc.	DL	Conc.	DL
Cr VI	0.0170	0.010	0.0033	0.0020
Total Cr	< DL	0.800	< DL	0.156

QA/QC Report

Client Name: AAC
Project Number: A010
Analytical Technique: IC-PCR
Sample Description: CARB 425
Report Number: 21-335

Blank Data

Analyte	Sample ID	Measured Conc. µg/L	DL Conc. µg/L
Cr VI	ICB	< DL	0.010
Cr VI	CCB	< DL	0.010
Cr VI	CCB	< DL	0.010
Cr VI	CCB	< DL	0.010
Cr VI	CCB	< DL	0.010

*: Sample Media Blank (SM_Blk) concentration in µg/filter
ICB: Initial Calibration Blank CCB: Continuing Calibration Blank
Method Blank is in control if Method Blank results are <10% of sample results

Calibration QC

Analyte	Sample ID	Standard Conc. µg/L	Measured Conc. µg/L	Percent Recovery
Cr VI	ICV	0.500	0.503	100.6
Cr VI	LL-LCS	0.030	0.033	110.0
Cr VI	CCV	0.500	0.502	100.4
Cr VI	CCV	0.500	0.498	99.6
Cr VI	CCV	0.500	0.524	104.8
Cr VI	CCV	0.500	0.502	100.4

ICV: Initial Calibration Verification CCV: Continuing Calibration Verification
Calibration Verification Limits: 90% - 110% Recovery
LL-CCV (Low Level CCV) Limits: 60% - 140% Recovery
LL-LCS Limits: 50% - 150% Recovery
LL-LCS results are not significant if sample results are >10x LL-LCS concentration

Duplicate Data

Analyte	Sample ID	Sample Conc. µg/L	Duplicate Conc. µg/L	RPD
Cr VI	21-S866	0.237	0.237	0.00

RPD = {(sample-duplicate)/[(sample+duplicate)/2]}x100
N/C: RPD is not calculated when sample or duplicate is below detection limit
#: per EPA CLP protocol, control limits do not apply if sample and/or duplicate concentration is less than 5x the detection limit

Laboratory Control Sample/Matrix Spike Analysis

Analyte	Sample ID	Sample Conc. µg/L	Spike Conc. µg/L	Spike Amount µg/L	Percent Recovery
Cr VI	21-S867	0.077	0.524	0.500	89.4

*: per EPA CLP protocol, control limits do not apply if spike concentration is less than 25% of the sample concentration

QA/QC Report

Client Name: AAC
Project Number: A010
Analytical Technique: ICP - Optima 8300
Sample Description: CARB 425
Report Number: 21-335

Blank Data

Analyte	Sample ID	Measured Conc. µg/L	DL Conc. µg/L
Cr	ICB	< DL	0.800
Cr	Meth_Blk	5.52	0.800
Cr	CCB	< DL	0.800
Cr	CCB	< DL	0.800
Cr	CCB	< DL	0.800

*: Sample Media Blank (SM_Blk) concentration in µg/filter
ICB: Initial Calibration Blank CCB: Continuing Calibration Blank
Method Blank is in control if Method Blank results are <10% of sample results

Calibration QC

Analyte	Sample ID	Standard Conc. µg/L	Measured Conc. µg/L	Percent Recovery
Cr	ICV	2500	2340	93.6
Cr	LL-CCV	4.00	3.93	98.2
Cr	LL-LCS	2.00	5.32	266.0
Cr	CCV	2500	2350	94.2
Cr	CCV	2500	2340	93.7
Cr	CCV	2500	2320	92.8

ICV: Initial Calibration Verification CCV: Continuing Calibration Verification
Calibration Verification Limits: 90% - 110% Recovery
LL-CCV (Low Level CCV) Limits: 60% - 140% Recovery
LL-LCS Limits: 50% - 150% Recovery
LL-LCS results are not significant if sample results are >10x LL-LCS concentration

Duplicate Data

Analyte	Sample ID	Sample Conc. µg/L	Duplicate Conc. µg/L	RPD
Cr	21-S866	10.16	12.58	21.3
Cr	21-S867	4.559	4.845	6.08
Cr	21-S868	5.316	4.972	6.69

RPD = {(sample-duplicate)/[(sample+duplicate)/2]}x100
N/C: RPD is not calculated when sample or duplicate is below detection limit
Duplicate Limit: 20% RPD
#: per EPA CLP protocol, control limits do not apply if sample and/or duplicate concentration is less than 5x the detection limit

Laboratory Control Sample/Matrix Spike Analysis

Analyte	Sample ID	Sample Conc. µg/L	Spike Conc. µg/L	Spike Amount µg/L	Percent Recovery
Cr	LCS	5.524	2194.	2500.	87.5
Cr	21-S869	1.881	1779.	2500.	71.1
Cr	21-S870	2.967	2105.	2500.	84.1
Cr	21-S871	2.357	1839.	2500.	73.5

LCS Limit: 80% - 120% Recovery Spike Limit: 75% - 125% Recovery
*: per EPA CLP protocol, control limits do not apply if spike concentration is less than 25% of the sample concentration

CHESTER LABNET

SOURCE SAMPLE RECEIPT CHECKLIST

Client AAC

Date 7/28/21

Runs 3 + blanks

Report # 21-335

Package intact?	✓	
Chain-of-Custody form inspected	✓	
CoC present with samples?	✓	
CoC indicates analytical methodology to be used? (eg M29, etc.)	CARB 425	!!
Has CoC been signed by client?	✓	
Custody release date and time noted on CoC?	✓	
All sample containers inspected	✓	
Does number of samples match number on CoC form?	✓	!!
Do all sample ID numbers match those on the CoC form?	✓	!!
Did client mark sample volumes prior to shipment?	No	
Sample temperature recorded?	✓	
Are the sample containers intact?	✓	!!
If present, Audit Sample intact?	N/A	!!
Are signs of leakage present?	No	*
Chain-of-Custody form signed and dated by CLN	✓	
Corrective actions		
Client contacted due to mismatching sample ID numbers	—	
Client contacted due to broken sample container(s)	—	
Client contacted due to leaking sample container(s)	—	
Client contacted for verification of methodology?	✓	
Corrective actions documented?	✓	
Corrective actions accomplished?	✓	

*Items marked !! shall be addressed **prior to any analytical work being started**.*

*Items marked * shall be **noted in case narrative** upon reporting of results to client.*

Signed

Notes

ATMOSPHERIC ANALYSIS & CONSULTING, INC.
1534 Eastman Avenue, Suite A
Ventura, California 93003
Phone (805) 650-1642 Fax (805) 650-1644
E-mail: info@aaclab.com

AAC Project No. 211265

Page 1 of 1

Subcontractor Lab:
Paul Duda
CHESTER LabNet
12242 SW Garden Place
Tigard, OR 97223
(503)624-2183

Fedex STDOVN AAC Account

21-335

CHAIN OF CUSTODY / ANALYSIS REQUEST FORM

Client Name: AAC, Inc.

Project Name: All American Asphalt 221-061

Project Mgr (Print Name): John Yokoyama

Project Number: 211265

Sampler's Name (Print Name):

Sampler's Signature:

Analysis Requested

AAC Sample No.	Date Sampled	Time Sampled	Sample Type	Client Sample ID/Description	Type/No. of containers	CARB 425			
211265-21577	7/13/2021	06:35	Liquid	213866 Run 1 Front Half Rinses	Bottle 1	X			
211265-21578	7/13/2021	06:35	Liquid	867 Run 1 - 1st Impinger	Bottle 1	X			
211265-21579	7/13/2021	06:35	Liquid	868 Run 1 - 2nd Impinger	Bottle 1	X			
211265-21580	7/14/2021	06:00	Liquid	869 Run 2 Front Half Rinses	Bottle 1	X			
211265-21581	7/14/2021	06:00	Liquid	870 Run 2 - 1st Impinger	Bottle 1	X			
211265-21582	7/14/2021	06:00	Liquid	871 Run 2 - 2nd Impinger	Bottle 1	X			
211265-21583	7/15/2021	07:00	Liquid	872 Run 3 Front Half Rinses	Bottle 1	X			
211265-21584	7/15/2021	07:00	Liquid	873 Run 3 - 1st Impinger	Bottle 1	X			
211265-21585	7/15/2021	07:00	Liquid	874 Run 3 - 2nd Impinger	Bottle 1	X			
211265-21586	7/13/2021	04:00	Liquid	875 Blank Train Front Half Rinse	Bottle 1	X			
211265-21587	7/13/2021	04:00	Liquid	876 Blank Train - 1st Impinger	Bottle 1	X			
211265-21588	7/13/2021	04:00	Liquid	877 Blank Train - 2nd Impinger	Bottle 1	X			
211265-21589	7/13/2021	04:00	Liquid	878 Solution Blank	Bottle 1	X			

Send Report:
Attn: John Yokoyama
jyokoyama@aaclab.com
Attn: Sucha Parmar
ssparmar@aaclab.com
Phone #: 805-650-1642

Send Invoice to:
Attn: Jennifer Guevara
info@aaclab.com
Phone #: 805-650-1642
P.O. # NA

Turn Around Time
24-Hr ___ 48-Hr ___
5 day ___ Normal X

Other (Specify)

Special Intructions / remarks:

-0.6 °C

Relinquished by (Signature)	Print name: Gabriel Ruelas	Date/Time 07/23/2021 1228	Received by (Signature)	Print Name Paul Duda 7/28/21 1050
Relinquished by (Signature)	Print name:	Date/Time	Received by (Signature)	Print Name

pduda@chesterlab.net

From:	ssparmar aaclab.com <ssparmar@aaclab.com>
Sent:	Thursday, July 29, 2021 9:07 AM
To:	pduda@chesterlab.net
Subject:	RE: CARB 425 samples

Hi Paul,
Please analyze for total chromium and hexavalent chromium. Thanks

Sucha Parmar Ph.D.
Technical Director
Atmospheric Analysis and Consulting Inc.
1534 Eastman Ave. Suite A, Ventura, CA 93003
Phone: 805-650-1642
Fax: 805-650-1644
Email: ssparmar@aaclab.com
Website: www.aaclab.com

From: pduda@chesterlab.net
Sent: Wednesday, July 28, 2021 1:36 PM
To: ssparmar aaclab.com <ssparmar@aaclab.com>; jyokoyama aaclab.com <jyokoyama@aaclab.com>
Subject: CARB 425 samples

We received some CARB 425 samples from your All American Asphalt project. The chain of custody just says CARB 425 for the analysis. Do you want us to analyze for hexavalent chromium, total chromium or both?

Paul Duda
CHESTER LabNet
12242 SW Garden Place
Tigard, OR 97223
pduda@chesterlab.net
http:\\www.chesterlab.net
(503)624-2183 ext. 100
fax (503)624-2653

RAW DATA

Available upon request

DRY GAS METER CALIBRATION

Standard Pressure 29.92 in. hg.
Standard Temperature 60 F
Ambient pressure 29.94 in. hg.
Ambient temperature 63 F

Unit Number G
Date: 1/23/2021
Leak Check: Good

	WET GAS		DRY GAS	Temperature					
ΔH in. H20	TIME min.	VOL. cf	VOL. in/out cf	W.G. AVG F	D.G. IN F	D.G. OUT F	D.G. AVG. F	*Y	†ΔH@ in. H20
0.75	13.19	5.000	544.141		62.0	61.0	61.8	0.9955	2.8820
			549.171	60.0	63.0	61.0			
0.75	13.19	5.000	549.171		61.0	61.0	61.8	0.9946	2.8820
			554.206	60.0	63.0	62.0			
0.75	13.19	5.000	554.206		62.0	62.0	62.5	0.9950	2.8779
			559.246	60.0	64.0	62.0			
1.50	9.35	5.000	559.501		63.0	62.0	62.5	0.9942	2.8922
			564.536	60.0	63.0	62.0			
1.50	9.36	5.000	564.536		63.0	63.0	63.0	0.9912	2.8957
			569.591	60.0	64.0	62.0			
1.50	9.35	5.000	569.591		63.0	63.0	63.3	0.9938	2.8881
			574.635	60.0	64.0	63.0			
2.25	7.63	5.000	574.755		64.0	63.0	63.5	0.9911	2.8835
			579.806	60.0	64.0	63.0			
2.25	7.63	5.000	579.806		64.0	63.0	64.0	0.9932	2.8808
			584.851	60.0	65.0	64.0			
2.25	7.65	5.000	584.851		65.0	64.0	64.5	0.9938	2.8931
			589.898	60.0	65.0	64.0			
3.00	6.60	5.000	589.902		65.0	64.0	64.8	0.9939	2.8809
			594.932	61.0	66.0	64.0			
3.00	6.62	5.000	594.932		65.0	64.0	64.8	0.9941	2.8984
			599.961	61.0	66.0	64.0			
3.00	6.63	5.000	599.961		66.0	64.0	65.0	0.9930	2.9058
			604.998	61.0	66.0	64.0			
3.75	5.91	5.000	604.010		66.0	64.0	65.0	0.9896	2.8862
			609.055	61.0	66.0	64.0			
3.75	5.90	5.000	609.055		65.0	64.0	64.5	0.9879	2.8791
			614.104	61.0	65.0	64.0			
3.75	5.89	5.000	614.104		65.0	64.0	64.5	0.9877	2.8694
			619.154	61.0	65.0	64.0			
						AVERAGE		0.9926	2.8863

Validity checks:

Meter Factor: 0.9926

* Y(max - min) ≤.02 ? √

† | ΔH@ - ΔH@ avg. | ≤ .20 in. H20 ? √

ΔH@ : 2.8863

Calibration by: FT **Reviewed by:** KK

EQUATIONS USED:

Y= (VWG*PBAR*(TDGavg.+460))/((VDG*(PBAR+(ΔH/13.6))*(TWGavg.+460))
ΔH@ = ((0.0319*ΔH)/(PBAR*(TDGavg+460))*(((TWG+460)*T)/VWG)^2

DRY GAS METER CALIBRATION

Standard Pressure	29.92	in. hg.	**Unit Number**	G	
Standard Temperature	60	F	**Date:**	7/23/2021	
Ambient pressure	29.89	in. hg.	**Leak Check:**	Good	
Ambient temperature	65	F			

	WET GAS		DRY GAS	Temperature					
ΔH in. H20	TIME min.	VOL. cf	VOL. in/out cf	W.G. AVG F	D.G. IN F	D.G. OUT F	D.G. AVG. F	*Y	†ΔH@ in. H20
0.75	12.68	5.000	132.489		62.0	61.0	61.8	0.9937	2.6885
			137.509	62.0	63.0	61.0			
0.75	12.65	5.000	137.509		61.0	61.0	61.5	0.9926	2.6770
			142.532	62.0	63.0	61.0			
0.75	12.63	5.000	142.532		62.0	62.0	62.6	0.9942	2.6679
			147.553	62.5	64.0	62.5			
1.50	9.12	5.000	147.659		63.0	62.5	62.8	0.9883	2.7869
			152.697	63.0	63.0	62.5			
1.50	9.12	5.000	152.697		63.0	62.5	63.0	0.9894	2.7855
			157.732	63.0	64.0	62.5			
1.50	9.15	5.000	157.732		63.0	62.5	63.0	0.9892	2.8039
			162.768	63.0	64.0	62.5			
2.25	7.35	5.000	162.872		64.0	62.5	63.3	0.9853	2.7125
			167.921	63.0	64.0	62.5			
2.25	7.36	5.000	167.921		64.0	62.5	63.5	0.9866	2.7186
			172.966	63.0	65.0	62.5			
2.25	7.35	5.000	172.966		65.0	62.5	63.8	0.9874	2.7100
			178.009	63.0	65.0	62.5			
3.00	6.34	5.000	178.150		65.0	62.5	64.0	0.9871	2.6923
			183.183	63.5	66.0	62.5			
3.00	6.35	5.000	183.183		65.0	62.5	64.0	0.9877	2.7008
			188.213	63.5	66.0	62.5			
3.00	6.35	5.000	188.213		66.0	62.5	64.4	0.9882	2.6989
			193.244	63.5	66.0	63.0			
3.75	5.59	5.000	193.555		66.0	63.0	64.5	0.9872	2.6138
			198.583	63.5	66.0	63.0			
3.75	5.60	5.000	198.583		65.0	63.0	64.0	0.9861	2.6256
			203.612	63.5	65.0	63.0			
3.75	5.60	5.000	203.612		65.0	63.0	64.3	0.9862	2.6244
			208.643	63.5	65.0	64.0			
						AVERAGE		0.9886	2.7004

Validity checks:

Meter Factor: 0.9886

* Y(max - min) ≤.02 ? ☑

† | ΔH@ - ΔH@ avg. | ≤ .20 in. H20 ? ☑

ΔH@ : 2.7004

Calibration by: FT

Reviewed by: KK

EQUATIONS USED:

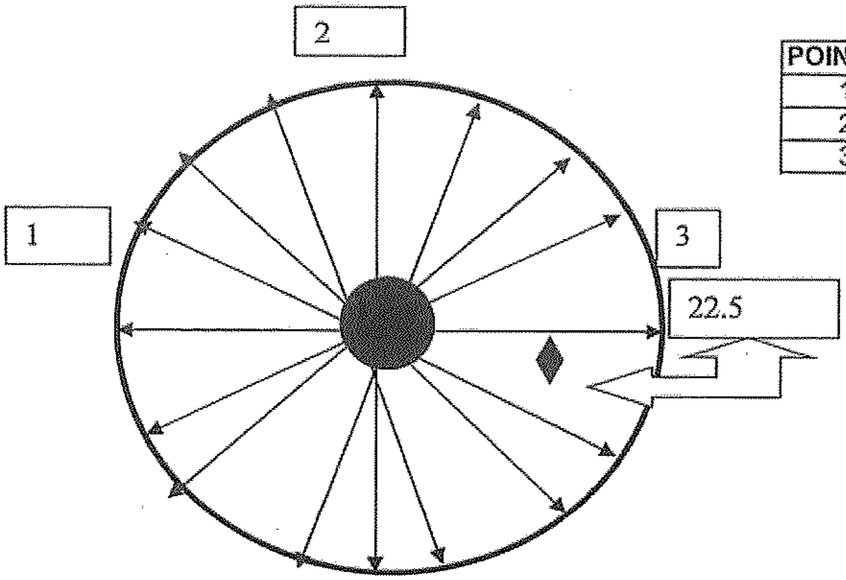
Y= (VWG*PBAR*(TDGavg.+460))/((VDG*(PBAR+(ΔH/13.6))*(TWGavg.+460))

ΔH@ = ((0.0319*ΔH)/(PBAR*(TDGavg+460))*(((TWG+460)*T)/VWG)^2

AIR$_X$ Testing *Inc.*

PYREX NOZZLE CALIBRATION

Nozzle I.D. H



POINTS	
1	0.325
2	0.325
3	0.324

Average Nozzle Diameter = **0.325**

Analyst: FT

Date: January 15, 2021

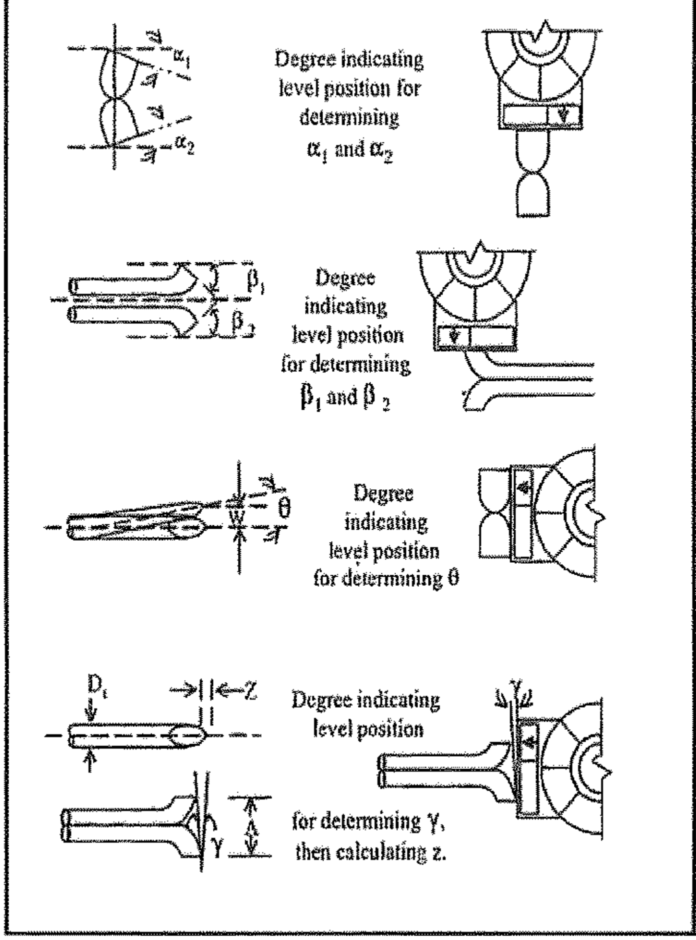
*Point to point reading not to exceed .004

TYPE S PITOT TUBE INSPECTION SHEET

CAL DATE: 1/15/2021

NEXT DUE DATE: Jul-21

PITOT ID: PT-4



Parameter	Values	Allowable Range
Level and Perpendicular?	Yes OR No	Yes
Obstruction?	Yes OR No	No
Damaged?	Yes OR No	No
$\alpha 1$	2	$-10^\circ \leq \alpha 1 \leq +10^\circ$
$\alpha 2$	2	$-10^\circ \leq \alpha 2 \leq +10^\circ$
$\beta 1$	1	$-5^\circ \leq \beta 1 \leq +5^\circ$
$\beta 2$	-2	$-5^\circ \leq \beta 2 \leq +5^\circ$
γ	2	NA
θ	1	NA
$Z = A (\tan \gamma)$	0.030	≤ 0.125 in.
$W = A (\tan \theta)$	0.015	≤ 0.031 in.
Dt	0.377	$0.188 \leq Dt \leq 0.375$
A	0.87	NA
A/2/(Dt)	1.15	$1.05 \leq PA/Dt \leq 1.5$

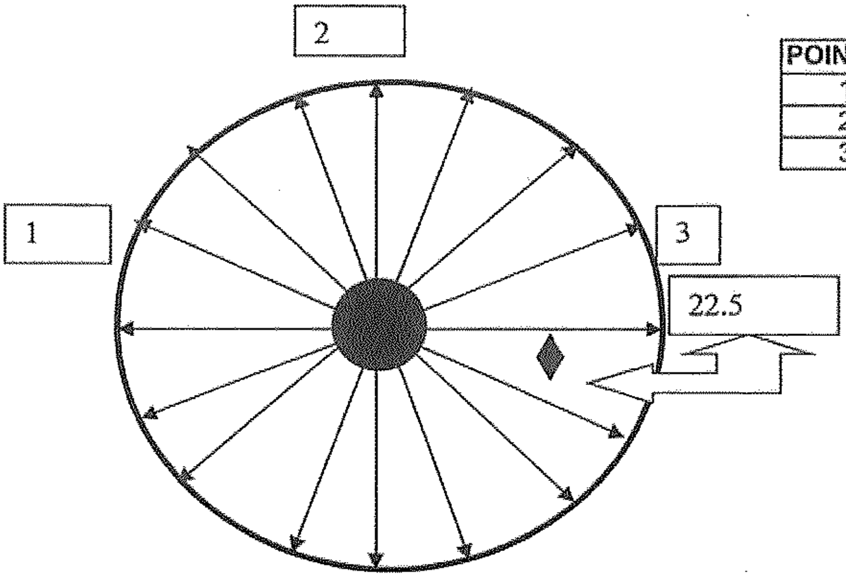
Certification:

I certify that this pitot tube meets or exceeds all specifications, criteria and/or applicable design features and is hereby assigned a pitot tube calibration factor Cp of 0.84.

Certified By: FT **Date:** 1/15/2021

PYREX NOZZLE CALIBRATION

Nozzle I.D. H



POINTS	
1	0.325
2	0.324
3	0.326

Average Nozzle Diameter = **0.325**

Analyst: FJT

Date: July 23, 2021

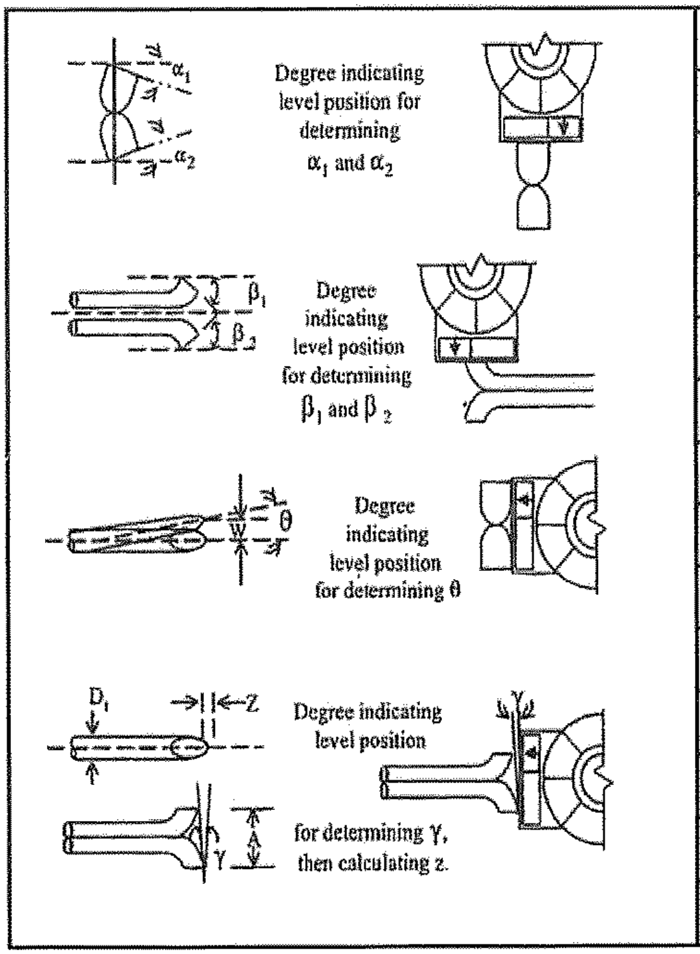
*Point to point reading not to exceed .004

TYPE S PITOT TUBE INSPECTION SHEET

CAL DATE: 7/23/2021

NEXT DUE DATE: Jan-22

PITOT ID: PT-4



Parameter	Values	Allowable Range
Level and Perpendicular?	Yes OR No	Yes
Obstruction?	Yes OR No	No
Damaged?	Yes OR No	No
α1	1.5	$-10° \leq \alpha1 \leq +10°$
α2	1.5	$-10° \leq \alpha2 \leq +10°$
β1	1	$-5° \leq \beta1 \leq +5°$
β2	1	$-5° \leq \beta2 \leq +5°$
γ	2	NA
θ	2	NA
Z = A (tan γ)	0.030	≤ 0.125 in.
W = A (tan θ)	0.030	≤ 0.031 in.
Dt	0.376	$0.188 \leq Dt \leq 0.375$
A	0.87	NA
A/2/(Dt)	1.16	$1.05 \leq PA/Dt \leq 1.5$

Certification:

I certify that this pitot tube meets or exceeds all specifications, criteria and/or applicable design features and is hereby assigned a pitot tube calibration factor Cp of 0.84.

Certified By: FT **Date:** 7/23/2021

PYROMETER CALIBRATION

Date: 1/15/2021 Unit: 4

Point	* Standard Temperature *Tstd* deg. F	Pyrometer Temperature *Tpyr* deg. F	Error %
1 Ambient	64	64	0.02%
2 Ice	32	33	0.24%
3 Boil	212	211	0.22%

Std. Corr. Factor 0.990

Calibration by: FT *Standard ID: T-1

Reviewed by: KK

PYROMETER CALIBRATION

Date: 7/23/2021　　Unit: 4

Point	* Standard Temperature *Tstd*	Pyrometer Temperature *Tpyr*	Error %
	deg. F	deg. F	
1 Ambient	64	65	0.10%
2 Ice	32	34	0.30%
3 Boil	212	213	0.15%

Std. Corr. Factor 0.981

Calibration by: FT　　*Standard ID: T-1

Reviewed by: KK

AIRx Testing Services, Inc.

SAMPLING TRAINS CHAIN OF CUSTODY

CLIENT: ALL AMERICAN ASPHALT

TEST DATE: 07/13-15/21

LOCATION: IRVINE, CA

LAB#:

SOURCE: BAGHOUSE

JOB#: 221.061

METHOD: CARB 425

EQUIPMENT	DATE BUILT: BY:	COMMENTS	By::
SAMPLING TRAIN BT	07.12.21 FT	RECOVERED ON 07.13.21 AS "FIELD BLANK" RE-SET FOR USE AS RUN # 1	FT
PROBE 4	*	FH RINSE W/ 0.1 N SODIUM BICARB (FRONT HALF) INCLUDES NOZZLE,	
NOZZLE 0.325		FH FILTER HOLDER & JUMPER 100ml total rinse IN CONTAINER 1	
FILTER 1		STORED IN AMBER BOTTLE	
FILTER HOLDER 1	*	FRONT HALF RINSE TO CONTAINER 1	
JUMPER 1	*	RINSED ADDED TO CONTAINER 1	
SAMPLING REAGENT	0.1 N SODIUM BICARB	USED FOR RINSING & IMP. CONTENTS BLANK CHECKED BY: CHESTERS LAB	

RELINQUISHED BY: DATE: 7.13.21 TIME: 0400 am

RECEIVED BY: DATE: 7.13.21 TIME: 0400 am

RELINQUISHED BY: DATE: TIME:

RECEIVED BY: DATE: TIME:

RELINQUISHED BY: DATE: TIME:

RECEIVED BY: DATE: TIME:

AIRx Testing Services, Inc.

SAMPLING TRAINS CHAIN OF CUSTODY

CLIENT: ALL AMERICAN ASPHALT
LOCATION: IRVINE, CA
SOURCE: BAGHOUSE
METHOD: CARB 425 RUN 1

TEST DATE: 07/13-15/21
LAB#:
JOB#: 221-061

EQUIPMENT	DATE BUILT: BY:	COMMENTS	By::
SAMPLING TRAIN 1	07.13.21. FJT	*RECOVERED ON 07.13.21 - AS RUN 1 2 SEPERATE CONTAINERS - IMPINGER 1A & B	FT
PROBE 4		FRONT HALF RINSE W/ SOLUTION INCLUDES NOZZLE, FH FILTER HOLDER & JUMPER	
NOZZLE 0.325		W/ A ~~VOL~~ TOTAL VOLUME OF 100mls INTO SAMPLE CONTAINER - RUN 1 FRONT HALF	
FILTER 2		INTO AN AMBLE BOTTLE - RUN 1 FILTER	
FILTER HOLDER 1		- PART OF FRONT HALF RINSE FH ONLY OF HOLDER - RUN 1 FRONT HALF	
JUMPER 1		- PART OF FRONT HALF RINSE IN RUN 1 FRONT HALF	
SAMPLING REAGENT	0.1N SODIUM BICARBONATE	200ml = 100ml in each of the 2 impingers - recovered seperately - no rinse	

* Impingers 1A & 1B

RELINQUISHED BY: DATE: 07.13.21 TIME: 4:00
RECEIVED BY: DATE: 07.13.21 TIME: 4:00
RELINQUISHED BY: DATE: 07.13.21 TIME: 12:45
RECEIVED BY: DATE: 07.13.21 TIME: 12:45
RELINQUISHED BY: DATE: TIME:
RECEIVED BY: DATE: TIME:

AIRx Testing Services, Inc.

SAMPLING TRAINS CHAIN OF CUSTODY

CLIENT: ALL AMERICAN ASPHALT

LOCATION: IRVINE, CA

SOURCE: BAGHOUSE

METHOD: CARB 425 RUN 2

TEST DATE: 07/13-15/21

LAB#:

JOB#: 221-061

EQUIPMENT	DATE BUILT: BY:	COMMENTS	By::
SAMPLING TRAIN 2	07·14·21 FT	* RECOVERED ON 07·14·21–AS RUN 2 2 SEPARATE CONTAINERS–IMPINGERS 2A & 2B	
PROBE 4		FRONT HALF RINSE W/ SOLUTION; INCLUDES NOZZLE, FH FILTER HOLDER & JUMPER	
NOZZLE 0.325		W/ A TOTAL VOLUME OF 100mls INTO SAMPLE CONTAINER–RUN 2 FRONT HALF	
FILTER 3		–INTO AN AMBER BOTTLE–RUN 2 FILTER	
FILTER HOLDER 2		PART OF FRONT HALF RINSE –FH ONLY OF FILTER HOLDER–RUN 2 FRONT HALF	
JUMPER 2		– PART OF FRONT HALF RINSE INTO RUN 2 FRONT HALF CONTAINER	
SAMPLING REAGENT	SODIUM BICARB	200 mls = 100 mls of each 2 impingers impingers recovered separately–no rinse	

*) impingers 2A & 2B

RELINQUISHED BY: DATE: 07.14.21 TIME: 4:00

RECEIVED BY: DATE: 07.14.21 TIME: 4:00

RELINQUISHED BY: DATE: 07.15.21 TIME: 7:00

RECEIVED BY: DATE: 07.15.21 TIME: 7:00

RELINQUISHED BY: DATE: TIME:

RECEIVED BY: DATE: TIME:

AIRx Testing Services, Inc.

SAMPLING TRAINS CHAIN OF CUSTODY

CLIENT: ALL AMERICAN ASPHALT

LOCATION: IRVINE, CA

SOURCE: BAGHOUSE

METHOD: CARB 425 RUN 3

TEST DATE: 07/15/21

LAB#:

JOB#: C 221-061

EQUIPMENT	DATE BUILT: BY:	COMMENTS	By::
SAMPLING TRAIN 3	071521 FT *	* RECOVERED ON 0715.21 AS RUN 3 2 SEPARATE CONTAINERS - IMPINGERS 3A & 3B	FT
PROBE 4		FRONT HALF RINSE W/ SOLUTION INCLUDES NOZZLE, FH FILTER HOLDER & JUMPER	
NOZZLE 0.325		W/ A TOTAL VOLUME OF 100 MLS INTO SAMPLE CONTAINER RUN 2 FRONT HALF	
FILTER 4		INTO AN AMBER BOTTLE - RUN 3 FILTER	
FILTER HOLDER ~~2~~ 3		- PART OF FRONT HALF RINSE FH OF FILTER HOLDER - RUN 3 FRONT HALF	
JUMPER 3		- PART OF FRONT HALF RINSE INTO RUN 3 FRONT HALF	
SAMPLING REAGENT	SODIUM BICARBONATE	200ml = 100ml in each of the 2 impingers recovered separately - no rinse	

* impingers 3A & 3B

RELINQUISHED BY: DATE: 07.15.21 TIME: 4:00

RECEIVED BY: DATE: 07.15.21 TIME: 4:10

RELINQUISHED BY: DATE: 07.15.21 TIME: 1310

RECEIVED BY: DATE: 07.15.21 TIME: 1310

RELINQUISHED BY: DATE: TIME:

RECEIVED BY: DATE: TIME:

AIRx Testing Services, Inc.

EQUIPMENT CALIBRATIONS

CLIENT: ALL AMERICAN ASPHALT

LOCATION: IRVINE, CA

SOURCE: BAGHOUSE

METHOD: CARB 425

TEST DATE: 07.13-15.21

LAB#:

JOB#: 221.061

EQUIPMENT	DATE CALIBRATED:	EXPIRES:	COMMENTS:
METER BOX G	01.23.21	07.23.21	FULL CAL AFTER JOB
PROBE 4			
THERMOCOUPLE 4			
NOZZLE 0.325			
WET TEST METER AMERICAN METER 15681	09.09.20	09.09.21	Used to calibrate meter boxes

RELINQUISHED BY: DATE: 07.10.21 TIME: 16:00

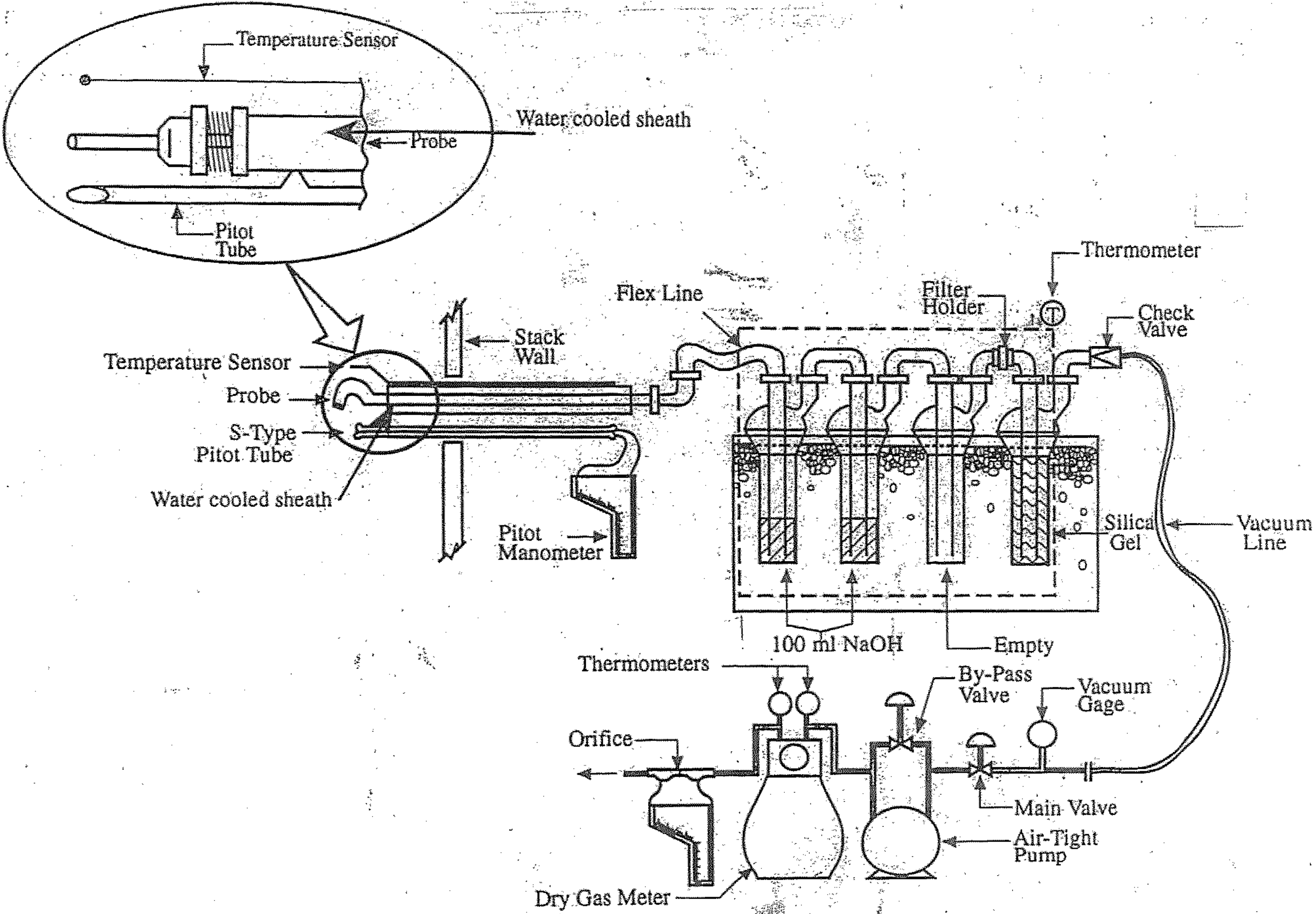
RECEIVED BY: DATE: 07.12.21 TIME: 08:00

RELINQUISHED BY: DATE: TIME:

RECEIVED BY: DATE: TIME:

RELINQUISHED BY: DATE: TIME:

RECEIVED BY: DATE: TIME:



CARB 425 Hexavalent Chromium Train.

ATMOSPHERIC ANALYSIS & CONSULTING

PROJECT: ALL AMERICAN

CLIENT # A010
REPORT # 21-083

SUBMITTED BY:
CHESTER LabNet
12242 S.W. GARDEN PLACE
TIGARD, OR 97223
(503)624-2183/FAX (503)624-2653
www.ChesterLab.Net

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CHESTER LabNet

12242 SW Garden Place ❖ Tigard, OR 97223-8246 ❖ USA
Telephone 503-624-2183 ❖ Fax 503-624-2653 ❖ www.chesterlab.net

Case Narrative

Date: March 19, 2021

General Information

Client:	Atmospheric Analysis & Consulting
Client Number:	A010
Report Number:	21-083
Sample Description:	Impinger Train Blanks
Sample Numbers:	21-S160 – 21-S2164

Analysis

Analytes:	Hexavalent Chromium, Total Chromium, Al, Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Mn, Hg, Ni, P, Se, Ag, Tl, V, Zn
Analytical Protocols:	CARB Method 425 (7/28/97 version) CARB Method 436 (7/28/97 version)
Analytical Notes:	The recoveries for Ag in both LCS samples were low. Ag has historically had low spike recoveries because it has a tendency to plate out during the digestion or analysis. Be was detected in the front half method blank which in turn may have caused the low level LCS to have a high recovery. Results have not been blank corrected.
QA/QC Review:	All of the data have been reviewed by the analysts performing the analyses and the project manager. All of the quality control and sample-specific information in this package is complete and meets or exceeds the minimum requirements for acceptability.
Comments:	If you have any questions or concerns regarding this analysis, please feel free to contact the project manager.
Disclaimer:	This report shall not be reproduced, except in full, without the written approval of the laboratory. The results only represent that of the samples as received into the laboratory. All data are reported to the detection limit. Results <5x DL must be considered to have a higher degree of uncertainty associated with them. Due to the statistical process of detection limit determination, data in this report should not be used for statistical analysis as the data has been censored in such a manner as to bias statistical analyses high.

3/19/21

Project Manager Date
Paul Duda

Client: A010 - AAC
Report Number: 21-083

Lab ID: 21-S160
Client ID: 210347-17236 Probe Rinse
Source: All American
Sample Date: 3/ 8/21
Sample Time: 11:00
Sample Volume: 150. mL

	µg/L		µg/sample	
Analyte	Conc.	DL	Conc.	DL
Cr VI	< DL	0.010	< DL	0.0015
Total Cr	< DL	0.800	< DL	0.120

QA/QC Report

Client Name: AAC
Project Number: A010
Analytical Technique: IC-PCR
Sample Description: CARB 425
Report Number: 21-083

Blank Data

Analyte	Sample ID	Measured Conc. µg/L	DL Conc. µg/L
Cr VI	ICB	< DL	0.010
Cr VI	CCB	< DL	0.010

*: Sample Media Blank (SM_Blk) concentration in µg/filter
ICB: Initial Calibration Blank CCB: Continuing Calibration Blank
Method Blank is in control if Method Blank results are <10% of sample results

Calibration QC

Analyte	Sample ID	Standard Conc. µg/L	Measured Conc. µg/L	Percent Recovery
Cr VI	ICV	0.500	0.500	100.0
Cr VI	LL-LCS	0.030	0.028	93.3
Cr VI	CCV	0.500	0.491	98.2

ICV: Initial Calibration Verification CCV: Continuing Calibration Verification
Calibration Verification Limits: 90% - 110% Recovery
LL-CCV (Low Level CCV) Limits: 60% - 140% Recovery
LL-LCS Limits: 50% - 150% Recovery
LL-LCS results are not significant if sample results are >10x LL-LCS concentration

Duplicate Data

Analyte	Sample ID	Sample Conc. µg/L	Duplicate Conc. µg/L	RPD
Cr VI	21-S160	< 0.01	< 0.01	N/C #

RPD = |(sample-duplicate)/[(sample+duplicate)/2]|x100
N/C: RPD is not calculated when sample or duplicate is below detection limit
#: per EPA CLP protocol, control limits do not apply if sample and/or duplicate concentration is less than 5x the detection limit

Laboratory Control Sample/Matrix Spike Analysis

Analyte	Sample ID	Sample Conc. µg/L	Spike Conc. µg/L	Spike Amount µg/L	Percent Recovery
Cr VI	21-S160	< 0.01	0.489	0.500	97.8

*: per EPA CLP protocol, control limits do not apply if spike concentration is less than 25% of the sample concentration

QA/QC Report

Client Name: AAC
Project Number: A010
Analytical Technique: ICP - Optima 8300
Sample Description: CARB 425
Report Number: 21-083

Blank Data

Analyte	Sample ID	Measured Conc. µg/L	DL Conc. µg/L
Cr	ICB	< DL	0.800
Cr	Meth_Blk	< DL	0.800
Cr	CCB	< DL	0.800

*: Sample Media Blank (SM_Blk) concentration in µg/filter
ICB: Initial Calibration Blank CCB: Continuing Calibration Blank
Method Blank is in control if Method Blank results are <10% of sample results

Calibration QC

Analyte	Sample ID	Standard Conc. µg/L	Measured Conc. µg/L	Percent Recovery
Cr	ICV	2500	2530	101.2
Cr	LL-CCV	4.00	4.06	101.6
Cr	LL-LCS	2.00	2.78	139.1
Cr	CCV	2500	2570	102.9

ICV: Initial Calibration Verification CCV: Continuing Calibration Verification
Calibration Verification Limits: 90% - 110% Recovery
LL-CCV (Low Level CCV) Limits: 60% - 140% Recovery
LL-LCS Limits: 50% - 150% Recovery
LL-LCS results are not significant if sample results are >10x LL-LCS concentration

Duplicate Data

Analyte	Sample ID	Sample Conc. µg/L	Duplicate Conc. µg/L	RPD
Cr	21-S160	< 0.8	< 0.8	N/C #

RPD = |(sample-duplicate)/[(sample+duplicate)/2]|x100
N/C: RPD is not calculated when sample or duplicate is below detection limit
Duplicate Limit: 20% RPD
#: per EPA CLP protocol, control limits do not apply if sample and/or
duplicate concentration is less than 5x the detection limit

Laboratory Control Sample/Matrix Spike Analysis

Analyte	Sample ID	Sample Conc. µg/L	Spike Conc. µg/L	Spike Amount µg/L	Percent Recovery
Cr	LCS	< 0.8	2684.	2500.	107.
Cr	LCS	< 0.8	2604.	2500.	104.
Cr	21-S160	< 0.8	2061.	2500.	82.4

LCS Limit: 80% - 120% Recovery Spike Limit: 75% - 125% Recovery
*: per EPA CLP protocol, control limits do not apply if spike
concentration is less than 25% of the sample concentration

QA/QC Report

Client Name: AAC
Project Number: A010
Analytical Technique: ICP - Optima 8300
Sample Description: CARB 425
Report Number: 21-083

Laboratory Control Sample Duplicate Data

Analyte	Sample ID	Spike Conc. µg/L	Duplicate Conc. µg/L	RPD
Cr	LCS-DUP	2680	2600	3.03

Duplicate Limit: 20% RPD

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AIRx Testing

CHAIN OF CUSTODY

INVOICE TO: X SAME

ATTN:

REPORT TO: PO#

AIRx Testing
2472 Eastman Avenue, Unit 34
Ventura, CA 93003
(805) 644-1099 Fax (805) 644-2672

Contact:

LAB # —

PROJECT Name: CARB 425 Probe Rinse Blank

Samplers: (Signature)

Rush: 24hr. Normal: 10 Day

Sample Method:

Return or Dispose

ANALYSIS

Sample No.	Sample Date	Sample Time	Comp	Grab	Sample Description	Volume (g) [✓ (ml)]	Fuel (ng) (oil)	CARB Method 425						REMARKS
1	3/8/21			x	Method 425 probe Rinse	150		X						
														Probe Rinse
														Blank

Relinquished by:	Received by:	Relinquished by:	Received by:
Date: 3-8-21 Time 11:35	Date: 3/8/21 Time 1137	Date: Time:	Date: Time

June

2-3-7

Asphalt Plant - Field Record Sheet

Client: ALL American Asphalt
Location: Irvine

Test Date: 6-2-21
Lab #: 221-061
Plant Operator: Mike

Meter #1

Serial #:
Maufacturer: Honeywell
Units: ccf [✓ mcf] mmcf other:
Description: Totalizer
Temp. Cor.: [✓ Yes] No
Pres. Cor.: [✓ Yes] No

Meter #2

Serial #:
Maufacturer:
Units: [✓ ccf] mcf mmcf other:
Description: Annular
Temp. Cor.: Yes [✓ No]
Pres. Cor.: Yes [✓ No]

AP 1.9

Total Fuel Consumption:	Run #1	Run #2	Run #3
High	462000/480 = 964		
Low			

Total Production During:	Run #1	Run #2	Run #3
High			
Low			

Run #	Time	Meter Read Meter #1	Meter Read Meter #2	Plant Production TPH	~~Rap~~ Rubber Production TPH	~~Rubber~~ RAP Production TPH	Baghouse ΔH
1	6:50	673924	566414	[redacted]	[redacted]	[redacted]	1.9
	7:20	673948	566572	[redacted]	[redacted]	[redacted]	2.0
	7:50	673977	566764	[redacted]	[redacted]	[redacted]	2.0
	8:20	674004	566950	[redacted]	[redacted]	[redacted]	2.0
	8:50	674032	567135	[redacted]	[redacted]	[redacted]	2.0
	9:20	674057	567314	[redacted]	[redacted]	[redacted]	2.0
	9:50	674088	567506	[redacted]	[redacted]	[redacted]	2.0
STOP	10:20	674117	567683	[redacted]	[redacted]	[redacted]	2.0
10:35	~~10:50~~	674127	567773	[redacted]	[redacted]	[redacted]	2.0
6-2 11:55	~~11:20~~	674144	567884	[redacted]	[redacted]	[redacted]	2.0
12:25	~~11:50~~	674168	568051	[redacted]	[redacted]	[redacted]	2.0
12:55	~~12:20~~	674194	568224	[redacted]	[redacted]	[redacted]	2.0
12:25	~~12:50~~	674217	568385	[redacted]	[redacted]	[redacted]	2.0
6-3 5:55	~~13:20~~	674278	568789	[redacted]	[redacted]	[redacted]	1.8
6:25	~~13:50~~	674309	568991	[redacted]	[redacted]	[redacted]	1.8
6:55	~~14:20~~	674337	569179	[redacted]	[redacted]	[redacted]	1.8
7:25	~~14:50~~	674366	569374	[redacted]	[redacted]	[redacted]	1.8
7:55		674393	569554	[redacted]	[redacted]	[redacted]	1.8
8:25		674422	569749	[redacted]	[redacted]	[redacted]	1.8
8:55		674448	569922	[redacted]	[redacted]	[redacted]	.8

Avg = [redacted]

Asphalt Plant - Field Record Sheet

Client: All American Asphalt
Location: IRVINE

Test Date: 6-3-21
Lab #: 221-061
Plant Operator: Mike

Meter #1

Serial #:
Maufacturer: Honeywell
Units: ccf [✓ mcf] mmcf other:
Description: Totalizer
Temp. Cor.: [✓ Yes] No
Pres. Cor.: [✓ Yes] No

Meter #2

Serial #:
Maufacturer:
Units: [✓ ccf] mcf mmcf other:
Description: Analog
Temp. Cor.: Yes [✓ No]
Pres. Cor.: Yes [✓ No]

Total Fuel Consumption:	Run #1	Run #2	Run #3
High	428×1000/485 = 882.		
Low			

Total Production During:	Run #1	Run #2	Run #3
High			
Low			

Run #	Time	Meter Read		Plant Production TPH	Rap Production TPH	Rubber Production TPH / %	
		Meter #1	Meter #2				
2	9:55	674467	570050	[redacted]	[redacted]	[redacted]	1.8
	10:25	674491	570209	[redacted]	[redacted]	[redacted]	1.8
	10:56	674521	570413	[redacted]	[redacted]	[redacted]	1.8
	11:25	674547	570584	[redacted]	[redacted]	[redacted]	1.8
	11:55	674574	570770	[redacted]	[redacted]	[redacted]	1.8
	12:25	674599	570940	[redacted]	[redacted]	[redacted]	1.8
	12:55	674628	571134	[redacted]	[redacted]	[redacted]	1.8
	13:25	674653	571307	[redacted]	[redacted]	[redacted]	1.8
	13:55	674678	571480	[redacted]	[redacted]	[redacted]	1.8
	14:25	674707	571675	[redacted]	[redacted]	[redacted]	1.8
	14:55	674737	571870	[redacted]	[redacted]	[redacted]	1.8
	15:25	674760	572027	[redacted]	[redacted]	[redacted]	1.8
	16:00	674792	572248	[redacted]	[redacted]	[redacted]	1.8
	16:30	674818	572427	[redacted]	[redacted]	[redacted]	1.8
	17:00	674845	572605	[redacted]	[redacted]	[redacted]	1.8
	17:30	674872	572783	[redacted]	[redacted]	[redacted]	1.8
	18:00	674895	572948	[redacted]	[redacted]	[redacted]	1.8

Avg [redacted]

Asphalt Plant - Field Record Sheet

Client: All American Asphalt

Location: Irvine

Test Date: 6-7-21

Lab #: 221-061

Plant Operator: Mike

Meter #1

Serial #:

Maufacturer: Honeywell

Units: ccf [✓ mcf] mmcf other:

Description: Totalizer

Temp. Cor.: [✓ Yes] No

Pres. Cor.: [✓ Yes] No

Meter #2

Serial #:

Maufacturer: [illegible]

Units: [✓ ccf] mcf [✓ mmcf] other:

Description: Analog

Temp. Cor.: Yes [✓ No]

Pres. Cor.: Yes [✓ No]

Total Fuel Consumption:

	Run #1	Run #2	Run #3
High	449*1000/489=918		
Low			

Total Production During:

	Run #1	Run #2	Run #3
High			
Low			

Run #	Time	Meter Read Meter #1	Meter Read Meter #2	Plant Production TPH	Rap Production TPH	Rubber Production TPH / %	
3	6:00	675405	576381	[redacted]	[redacted]	[redacted]	1.8
	6:30	675432	576564	[redacted]	[redacted]	[redacted]	1.8
	7:00	675463	576771	[redacted]	[redacted]	[redacted]	1.8
	7:30	675493	576970	[redacted]	[redacted]	[redacted]	1.8
	8:00	675515	577116	[redacted]	[redacted]	[redacted]	1.8
	8:30	675544	577306	[redacted]	[redacted]	[redacted]	1.8
	9:00	675574	577508	[redacted]	[redacted]	[redacted]	1.8
	9:30	675600	577687	[redacted]	[redacted]	[redacted]	1.8
	10:00	675629	577877	[redacted]	[redacted]	[redacted]	1.8
	10:30	675657	578065	[redacted]	[redacted]	[redacted]	1.8
	11:00	675686	578253	[redacted]	[redacted]	[redacted]	1.8
	11:30	675715	578450	[redacted]	[redacted]	[redacted]	1.8
	12:00	675737	578696	[redacted]	[redacted]	[redacted]	1.8
	12:30	675769	578806	[redacted]	[redacted]	[redacted]	1.8
	13:00	675797	578992	[redacted]	[redacted]	[redacted]	1.8
	13:30	675824	579173	[redacted]	[redacted]	[redacted]	1.8
	14:00	675851	579254	[redacted]	[redacted]	[redacted]	1.8

14:09 675854 579411

Au [redacted]

July
13-14-15

Asphalt Plant - Field Record Sheet

Client: All American Asphalt
Location: Irvine CA

Test Date: 7/13/21
Lab #: 221-061
Plant Operator: Mike

Meter #1

Serial #:
Maufacturer: Honeywell
Units: ccf [✓ mcf] mmcf other:
Description: Digital
Temp. Cor.: [✓ Yes] No
Pres. Cor.: [✓ Yes] No

Meter #2

Serial #:
Maufacturer: ELSTER
Units: [✓ ccf] mcf mmcf other:
Description: Analog
Temp. Cor.: Yes [✓ No]
Pres. Cor.: Yes [✓ No]

Total Fuel Consumption:	Run #1	Run #2	Run #3
High	360*1000/360=1000		
Low			

Total Production During:	Run #1	Run #2	Run #3
High	[redacted]		
Low			

[redacted]

Run #	~~Time~~ 6:35	Meter Read Meter #1	Meter Read Meter #2	Plant Production TPH	~~Rap~~ Rubber Production TPH	~~Rubber~~ RAP Production TPH / %
1	0	691976	689147	[redacted]	[redacted]	[redacted]
	30	692006	689345	[redacted]	[redacted]	[redacted]
	60	692035	689542	[redacted]	[redacted]	[redacted]
	90	692066	689749	[redacted]	[redacted]	[redacted]
	120	692097	689960	[redacted]	[redacted]	[redacted]
	150	692128	690165	[redacted]	[redacted]	[redacted]
	180	692159	690375	[redacted]	[redacted]	[redacted]
	210	692192	690650	[redacted]	[redacted]	[redacted]
	240	692220	690759	[redacted]	[redacted]	[redacted]
	270	692245	690944	[redacted]	[redacted]	[redacted]
	300	692275	691165	[redacted]	[redacted]	[redacted]
	330	692308	691390	[redacted]	[redacted]	[redacted]
1	360	692336	691587	[redacted]	[redacted]	[redacted]
—	—	—	—	[redacted]	[redacted]	[redacted]
				[redacted]	[redacted]	[redacted]
				[redacted]	[redacted]	[redacted]
				[redacted]	[redacted]	[redacted]

Asphalt Plant - Field Record Sheet

Client: ALL AMERICAN ASPHALT
Location: IRVINE, CA

Test Date: 7-14-21 → 7-15-21
Lab #: 221-061
Plant Operator: Mike

Meter #1

Serial #:
Maufacturer: Honeywell
Units: ccf [✓ mcf] mmcf other:
Description: Digital
Temp. Cor.: [✓ Yes] No
Pres. Cor.: [✓ Yes] No

Meter #2

Serial #:
Maufacturer: ELSTER
Units: [✓ ccf] mcf mmcf other:
Description: ANALOG
Temp. Cor.: Yes [✓ No]
Pres. Cor.: Yes [✓ No]

Total Fuel Consumption:	Run #1	Run #2	Run #3
High	276×1000/360=767		
Low			

Total Production During:	Run #1	Run #2	Run #3
High	[redacted]		
Low			

MCF USED DURING DOWNTIME
7-15-21

Run #	Time (6:00)	Meter Read Meter #1	Meter Read Meter #2	Plant Production TPH	Rap Production TPH	Rubber Production TPH / %
1	0	692570	693189	[redacted]	[redacted]	[redacted]
6:30	30	692603	693406	[redacted]	[redacted]	[redacted]
7:00	60	692636	693632	[redacted]	[redacted]	[redacted]
7:30	90	692662	693803	[redacted]	[redacted]	[redacted]
8:00	120	692690	693996	[redacted]	[redacted]	[redacted]
8:30	150	692722	694208	[redacted]	[redacted]	[redacted]
9:00	180	692751	694407	[redacted]	[redacted]	[redacted]
9:30	210	692780	694603	[redacted]	[redacted]	[redacted]
10:00 (OFF)	240*	692809	694796	[redacted]	[redacted]	[redacted]
10:45 (ON)	240*	692905	695448	[redacted]	[redacted]	[redacted]
5:15	270	692931	965618	[redacted]	[redacted]	[redacted]
5:45	300	692960	695820	[redacted]	[redacted]	[redacted]
6:15	330	692991	696025	[redacted]	[redacted]	[redacted]
6:45	360	693022	696230	[redacted]	[redacted]	[redacted]
				[redacted]	[redacted]	[redacted]
				[redacted]	[redacted]	[redacted]
				[redacted]	[redacted]	[redacted]

Asphalt Plant - Field Record Sheet

Client: ALL AMERICAN ASPHALT
Location: IRVINE, CA
Test Date: 7-15-21
Lab #: 221-061
Plant Operator: Mike

Meter #1
Serial #:
Maufacturer: Honeywell
Units: ccf [✓ mcf] mmcf other:
Description: Digital
Temp. Cor.: [✓ Yes] No
Pres. Cor.: [✓ Yes] No

Meter #2
Serial #:
Maufacturer: ELSTER
Units: [✓ ccf] mcf mmcf other:
Description: ANALOG
Temp. Cor.: Yes [✓ No]
Pres. Cor.: Yes [✓ No]

Total Fuel Consumption:	Run #1	Run #2	Run #3
High	340×1000/360=944		
Low			

Total Production During:	Run #1	Run #2	Run #3
High	[redacted]		
Low			

Run #	Time	Meter Read		Plant Production TPH	Rap Production TPH	Rubber Production TPH / %
		Meter #1	Meter #2			
(700) 1	0	693032	696325	[redacted]	[redacted]	[redacted]
7:30	30	693064	696514	[redacted]	[redacted]	[redacted]
8:00	60	693091	696694	[redacted]	[redacted]	[redacted]
8:30	90	693120	696888	[redacted]	[redacted]	[redacted]
9:00	120	693149	697087	[redacted]	[redacted]	[redacted]
9:30	150	693176	697266	[redacted]	[redacted]	[redacted]
10:00	180	693203	697453	[redacted]	[redacted]	[redacted]
10:30	210	693233	697655	[redacted]	[redacted]	[redacted]
11:00	240	693261	697846	[redacted]	[redacted]	[redacted]
11:30	270	693290	698040	[redacted]	[redacted]	[redacted]
12:00	300	693320	698248	[redacted]	[redacted]	[redacted]
12:30	330	693348	698445	[redacted]	[redacted]	[redacted]
13:00	360	693376	698632	[redacted]	[redacted]	[redacted]
	—	—	—	[redacted]	[redacted]	[redacted]
				[redacted]	[redacted]	[redacted]
				[redacted]	[redacted]	[redacted]
				[redacted]	[redacted]	[redacted]

All American Asphalt - Irvine Plant Rubber Plant Production
SCAQMD Testing Dates 6/2-6/7 and 7/13-7/15

TEST #1	BINDER OIL	VIRGIN OIL	CRUMB RUBBER	HI-NAT RUBBER	EXTENDER OIL	%
6/2/2021	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
6/3/2021	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
6/7/2021	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
TEST #2	BINDER OIL	VIRGIN OIL	CRUMB RUBBER	HI-NAT RUBBER	EXTENDER OIL	%
7/13/2021	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
7/14/2021	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
7/15/2021	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]