

PREBURN

JOB # 035-S-075-1

Model Designation ARADA\_FARRINGDON16

TECHNICIAN BTN

DATE: 2\_17\_17

RUN #: EPA4

READING INTERVAL: 10

.

Run Time: 60

Tunnel Traverse Information								
	Pt.1	Pt.2	Pt.3	Pt.4	Pt.5	Pt.6	Pt.7	Pt.8
dP	0.037	0.045	0.040	0.041	0.042	0.046	0.042	0.035
Temperature	120	120	120	120	120	120	120	120

0.041

120.000

			1	2	3	4	5	
			TEMPERATURES					
ET	SCALE READING	FLUE DRAFT	LEFT SIDE	RIGHT SIDE	BACK	TOP	BOTTOM	STOVE AVG T
0	8.9	-0.067	392	420	479	546	155	398.4
10	7	-0.063	408	424	507	589	161	417.8
20	5.2	-0.062	436	430	537	598	165	433.2
30	3.7	-0.057	471	465	532	609	168	449
40	3.2	-0.049	465	461	514	574	169	436.6
50	2.4	-0.046	422	417	473	491	169	394.4
60	2.3	-0.043	385	378	429	428	168	357.6

Dilution Tunnel MW(dry): 29.00 lb/lb-mole  
Dilution Tunnel MW(wet): 28.78 lb/lb-mole  
Dilution Tunnel H2O: 2.00 %  
Dilution Tunnel Static: -0.400 In H2O  
Tunnel Area: 0.196 ft²  
Pitot Tube Cp: 0.99

Tunnel Velocity: 13.87974 ft/sec.  
Intial Tunnel Flow: 146.5631 scfm  
Average Tunnel Flow: 149.5266 scfm

Notes:

Run # EPA4  
 Date: 2/17/17

Dilution Tunnel MW(dry): 29.00 lb/lb-mole  
 Dilution Tunnel MW(wet): 28.78 lb/lb-mole  
 Dilution Tunnel H2O: 2.00 %  
 Dilution Tunnel Static: -0.400 In H2O  
 Tunnel Area: 0.196 ft<sup>2</sup>  
 Pitot Tube Cp: 0.99

Dilution Tunnel Traverse Data								
	Pt.1	Pt.2	Pt.3	Pt.4	Pt.5	Pt.6	Pt.7	Pt.8
dP	0.037	0.045	0.040	0.041	0.042	0.046	0.042	0.035
Temperature	120	120	120	120	120	120	120	120

0.041  
 120.000

Tunnel Velocity:	13.88	ft/sec.
Intial Tunnel Flow:	146.56	scfm
Average Tunnel Flow	149.53	scfm

Dirigo Laboratories, Inc. Page 1 of 3

[illegible]

TEST START TIME:		12:54								1	2	3	4	5	6	
										TEMPERATURES						
	GAS METER	SAMPLE	TUNNEL	ORIFICE	FILTER	TUNNEL VEL	Proportional	Scale	Weight	TUNNEL	FLUE	FILTER	FB REAR	CAT	METER	AMBIENT
ET	VOLUME	RATE(FT3/MIN)	DELTA P	DELTA H	VAC	FT/SEC	Rate (%)	Weight	Chg	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP	TEMP
	27.043		0.041	2.02		13.828	100.2			98	357				90	68

JOB #	035-S-075-1									
TECHNICIA	BTN									
DATE:	2_17_17									
RUN #:	EPA4									
READING INTERVAL:	10									
SAMPLE BOX :	B	METER Y FACTOR:	1.002	PROBE MATERIAL:			SS			
FRONT FILTER #:	3048				REAR FILTER #:	3049				
FINAL LEAK RATE (CFM):	<0.01	@	18	IN-HG	FINAL LEAK RATE (CFM):	<0.01	@	18	IN-HG	

Run Time:

190

Firebox Delta T

42.8

							1	2	3	4	5	6		
							TEMPERATURES							
ET	GAS METER VOLUME	SAMPLE RATE(FT3/MIN)	PROPORTIONAL RATE	FLUE DRAFT	ORIFICE DELTA H	FILTER VAC	LEFT SIDE	RIGHT SIDE	FILTER	FB	FB	METER	STOVE AVG T	
										TOP	BOT			
0	0	0	NA	0	0	1	382	375	70	421	167	73	354	
10	1.364	0.136	100	-0.05	1.98	1.61	326	317	74	380	163	73	314	
20	2.738	0.137	101	-0.07	1.98	2	309	295	76	443	159	76	315	
30	4.116	0.138	101	-0.06	1.98	1.77	325	325	77	523	154	79	343	
40	5.497	0.138	101	-0.06	1.96	2.02	365	370	77	559	151	82	373	
50	6.882	0.139	101	-0.05	1.97	1.42	381	394	77	562	147	84	384	
60	8.282	0.140	101	-0.05	1.99	1.77	397	413	77	557	144	87	392	
70	9.688	0.141	101	-0.05	1.99	1.56	400	411	77	519	141	88	383	
80	11.098	0.141	101	-0.05	1.99	1.64	388	395	76	472	138	90	364	
90	12.508	0.141	100	-0.04	1.99	1.72	383	390	76	453	137	91	356	
100	13.920	0.141	100	-0.04	2	1.3	386	391	76	451	136	92	356	
110	15.336	0.142	100	-0.04	2.01	1.5	387	387	75	435	136	93	352	
120	16.749	0.141	100	-0.04	2.01	1.33	384	385	75	415	136	93	347	
130	18.166	0.142	100	-0.04	2	2.02	380	384	75	406	136	94	344	
140	19.580	0.141	100	-0.04	2	2.04	372	375	75	394	137	94	336	
150	20.998	0.142	100	-0.04	2	1.65	363	366	74	382	139	94	330	
160	22.413	0.142	100	-0.04	1.99	1.97	354	357	75	372	141	94	324	
170	23.832	0.142	100	-0.03	2	1.62	345	347	75	361	143	95	318	
180	25.246	0.141	99	-0.04	1.99	2.05	340	339	75	354	145	95	313	
190	26.665	0.142	100	-0.03	1.99	1.72	339	333	75	350	148	95	311	

Run No

[illegible]

Page 3 of 3



## Ambient Sample Results:

JOB NUMBER: 035-S-075-1  
TECHNICIAN: BTN  
DATE: 2\_17\_17  
RUN NUMBER: EPA4

METER Y FACTOR: **0.997**

	<u>Sample Volume (L)</u>	<u>Meter Temp °F</u>	<u><math>\Delta H</math></u>	<u><math>\Delta P</math></u>
Start	0	80.5	0	0
End	1003.027	97	0	0

Total Sample Volume - Vm  
Total Sample Volume - Vm  
Average Sample Rate  
Sample Time  
Average Meter Temperature  
Total Sample Volume (Standard Conditions) - Vmstd

Total Particulates

Particulate Concentration (dry-standard)

Particulate Emission Rate

SAMPLE INFORMATION	
1003.027	Liters
35.422	ft <sup>3</sup>
0.19	ft <sup>3</sup> /min
190.00	Minutes
88.75	°F
33.616	dscf
0.0	mg
0.000000000	grams/dscf
0.000000000	grams/hour

JOB NUMBER

035-S-075-1

RUN #

EPA4

DATE:

2\_17\_17

BURN RATE

1.29

KG/HR DRY

FILTER A  
PARTICULATE

4.3

mg

FILTER B  
PARTICULATE

4.5

mg

Total Sample Volume - Vm

Average Gas Velocity in Dilution Tunnel - vs

Average Gas Flow Rate in Dilution Tunnel - Qsd

Total Sample Volume (Standard Conditions) - Vmstd

Average Tunnel Temperature

Average Delta p

Average Gas Meter Temperature

Average Delta H

Total Time of Test

Total Particulates

Particulate Concentration (dry-standard)

Ambient Train (dry-standard)

Net (dry-standard)

Particulate Emission Rate

Total PM Emissions

Average Total PM Emissions

AVERAGE PARTICULATE

EMISSIONS RATE

% OF AVERAGE

Emissions Factor

SAMPLE A  
INFORMATION

27.04

13.88

8971.59

26.09

feet/second

dscf/hour

dscf

98.3

F

0.041

90

F

2.02

in-h20

190

min

4.3

mg

0.00016

grams/dscf

0.000000000

grams/dscf

0.000164800

grams/dscf

1.48

grams/hour

4.68

grams

4.84

grams

1.53

grams/hour

96.8

1.144

g/Kg -Dry

SAMPLE B  
INFORMATION

26.67

13.88

8971.59

25.59

feet/second

dscf/hour

dscf

98.3

F

0.041

88

F

1.99

in-h20

190

min

4.5

mg

0.00018

grams/dscf

0.000000000

grams/dscf

0.00017586

grams/dscf

1.58

grams/hour

5.00

grams