

Test ID	FNSB 19048
Date	1/3/20

Module 1			
Variable	Description	Value	Units
	final volume module 1	#N/A	cubic feet
	initial volume module 1	0.000	cubic feet
V <sub>tot</sub>	total gas volume collected (module 1)	#N/A	cubic feet
Average ΔH	average delta H over entirety of run	#DIV/0!	in water
T <sub>av</sub>	average gas meter temperature	#DIV/0!	°F
P <sub>bar</sub>	barometric pressure	29.5	in Hg
Y	DGM calibration factor	0.000	unitless
K <sub>c</sub>	volume corrected to standard conditions	17.64	R/(in Hg)
V <sub>corr</sub>	volume gas sampled (corrected to standard conditions)	#N/A	dscf
Total Catch	total catch (raw data)	0	mg
C <sub>p</sub>	concentration of PM in tunnel gas (dry basis, corrected to standard conditions)	#N/A	g/dscf

Module 2			
Variable	Description	Value	Units
	final volume module 2	826.435	cubic feet
	initial volume module 2	722.308	cubic feet
V <sub>tot</sub>	total gas volume collected (module 2)	104.127	cubic feet
Average ΔH	average delta H over entirety of run	0.13	in water
T <sub>av</sub>	average gas meter temperature	72	°F
P <sub>bar</sub>	barometric pressure	29.5	in Hg
Y	DGM calibration factor	1.003	unitless
K <sub>c</sub>	volume corrected to standard conditions	17.64	°F/(in Hg)
V <sub>corr</sub>	volume gas sampled (corrected to standard conditions)	102.1359519	dscf
Total Catch	total catch (raw data)	1.105	mg
C <sub>p</sub>	concentration of PM in tunnel gas (dry basis, corrected to standard conditions)	1.08389E-05	g/dscf

Ambient			
Variable	Description	Value	Units
	final volume ambient		cubic meters
	initial volume ambient		cubic meters
V <sub>tot</sub>	total gas volume collected (ambient)	0.0000	cubic feet
Average ΔH	average delta H over entirety of run	7.00	in water
T <sub>av</sub>	average gas meter temperature	65.1	°F
P <sub>bar</sub>	barometric pressure	29.5	in Hg
Y	DGM calibration factor	1.002	unitless
K <sub>c</sub>	volume corrected to standard conditions	17.64	°F/(in Hg)
V <sub>corr</sub>	volume gas sampled (corrected to standard conditions)	0	dscf
Total Catch	total catch (raw data)	0	mg
C <sub>p</sub>	concentration of PM in tunnel gas (dry basis, corrected to standard conditions)	#DIV/0!	g/dscf

Total Particulate Matter ISS2			
C <sub>p</sub>	concentration of PM in tunnel gas (dry basis, corrected to standard conditions)	1.0819E-05	g/dscf
C <sub>a</sub>	concentration of PM in tunnel gas (dry basis, corrected to standard conditions)		g/dscf
Q <sub>td</sub>	average gas flow rate through dilution tunnel	35.4	dscf/min
B <sub>av</sub>	water vapor in gas stream (assumed) (proportion by volume)	0.02	unitless
V <sub>c</sub>	average velocity of gas through dilution tunnel	#DIV/0!	ft/s
A	cross-sectional area of dilution tunnel	0.349	square ft
T <sub>c</sub>	average gas temperature in dilution tunnel	709.83927	R
T <sub>td</sub>	absolute average gas temperature in dilution tunnel	528	R
P <sub>c</sub>	average gas static pressure in dilution tunnel	29.5	in Hg
P <sub>td</sub>	standard absolute pressure	29.92	in Hg
F <sub>p</sub>	adjustment factor for center of tunnel pitot tube placement	#DIV/0!	unitless
V <sub>adv</sub>	average gas velocity after multi point pitot traverse	0	ACFM
V <sub>corr</sub>	average gas velocity at center of dilution tunnel calculated after pitot tube traverse	0	ACFM
K <sub>p</sub>	pilot tube constant	85.49	$\frac{\text{ft/sec}^2(\text{lb}/\text{ft}^2 \cdot \text{sec}^2/\text{in}^2)}{\text{mm}^2(\text{in}^2 \cdot \text{lb}/\text{ft}^2)}$
C <sub>p</sub>	pilot tube coefficient	0.99	unitless
ΔP <sub>avg</sub>	average velocity pressure in dilution tunnel		in H <sub>2</sub> O
M <sub>d</sub>	dilution tunnel dry gas MW (assumed)	29	lb/(lb-mol)
Θ	total sampling time	420.00	min
E <sub>t</sub>	total particulate emissions	0.16	g