Visible Emissions Evaluation

Facility Name	ECC/Floyd Bennett Field
AVOGADRO Project No.	12-9191
Location (city, state)	Brooklyn, NY
Type of Facility	national park
Control Equipment / Emission Source	~~ACB#1~~
Date of Observation	1/31/13
Start Time	0714
Stop Time	1022
Distance from observer (ft)	150'
Direction from observer	N
Stack height (fr. observer's elev.) (ft)	10'
Stack Diameter (in)	no stack
Description of plume:	
continuous? fugitive? intermittent?	interm.
color	gray
water drops present? (Y/N)	N
attached steam plume? (Y/N)	N
detached steam plume? (Y/N)	N
secondary plume? (Y/N)	N
point where opacity read	above barrier
target?	
* describe background to plume	gray sky
unique features of plume or stack	no stack
Weather:	
ambient temperature (F)	45°
relative humidity	
wind direction	NW
wind speed	15-30
barometric pressure	
rain? fog? snow? haze?	rain/clear
Glasses worn:	
corrective? (Y/N)	N
sunglasses? (Y/N)	N

Observer's name	William Reamy
Observer certification date	10-10-12
Certifying agency	Whitlow Enter.
Observer affiliation	Stack Hawk Envir.

Run Number(s) and Description: 1-8

sec	0	15	30	45
min	Run 1	Time:	0714	
1	0	5	0	5
2	0	5	0	0
3	5	0	0	0
4	5	5	0	5
5	0	0	0	5
6	5	0	0	5
6-minute Average:			2.1	
Source Conditions:				
Sun Angle (degrees):			NO SUN	
	Run 2	Time:	0740	
1	20	15	15	10
2	10	15	5	5
3	10	10	10	5
4	5	5	5	10
5	5	5	10	5
6	5	5	5	5
6-minute Average:			8.3	
Source Conditions:				
Sun Angle (degrees):			-50	
	Run 3	Time:	0806	
1	5	10	5	5
2	5	5	10	10
3	5	10	5	10
4	5	15	10	5
5	10	5	5	15
6	15	10	5	15
6-minute Average:			8.3	
Source Conditions:				
Sun Angle (degrees):			-50	
	Run 4	Time:	0832	
1	5	0	5	10
2	0	5	5	0
3	0	0	0	5
4	0	5	0	0
5	0	5	0	5
6	0	5	5	5
6-minute Average:			2.7	
Source Conditions:				
Sun Angle (degrees):			-45	

sec	0	15	30	45
min	Run 5	Time:	858	
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	5	0	5	0
6	0	0	0	0
6-minute Average:			0.4	
Source Conditions:				
Sun Angle (degrees):			-45	
	Run 6	Time:	0924	
1	0	0	0	0
2	0	0	0	0
3	0	0	0	5
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:			0.2	
Source Conditions:				
Sun Angle (degrees):			-40	
	Run 7	Time:	0950	
1	5	10	5	0
2	5	5	10	10
3	5	5	5	5
4	0	0	0	0
5	0	0	0	5
6	5	5	5	0
6-minute Average:			3.8	
Source Conditions:				
Sun Angle (degrees):			-30	
	Run 8	Time:	1016	
1	15	10	10	15
2	20	10	15	15
3	10	10	15	10
4	15	10	10	10
5	10	10	10	10
6	5	5	5	5
6-minute Average:			10.8	
Source Conditions:				
Sun Angle (degrees):			-25	

Range of opacity readings: low 0 high 20

Number of readings above 10 % were 15

W K Reamy

Observer's Signature

* partly cloudy after 0815

AVOGADRO ENVIRONMENTAL CORPORATION, Easton Pa

Visible Emissions Evaluation

Facility Name	ECC/Floyd Bennett Field
AVOGADRO Project No.	12-9191
Location (city, state)	Brooklyn, NY
Type of Facility	national park
Control Equipment / Emission Source	ACB #1
Date of Observation	1/31/13
Start Time	1042
Stop Time	1350
Distance from observer (ft)	150'
Direction from observer	N
Stack height (fr. observer's elev.) (ft)	10'
Stack Diameter (in)	no stack
Description of plume:	
continuous? fugitive? intermittent?	intern.
color	gray
water drops present? (Y/N)	N
attached steam plume? (Y/N)	N
detached steam plume? (Y/N)	N
secondary plume? (Y/N)	N
point where opacity read	above barrier
target?	
describe background to plume	blue sky
unique features of plume or stack	no stack
Weather:	
ambient temperature (F)	50°
relative humidity	
wind direction	NW
wind speed	10-25
barometric pressure	
rain? fog? snow? haze?	no
Glasses worn:	
corrective? (Y/N)	N
sunglasses? (Y/N)	N

Observer's name	William Reamy
Observer certification date	10-10-12
Certifying agency	Whitlow Enter.
Observer affiliation	Stack Hawk Envir.

Run Number(s) and Description: 9-16

sec	0	15	30	45
min	Run 9 Time:		1042	
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:			0.0	
Source Conditions:				
Sun Angle (degrees):			-20	
	Run 10 Time:		1108	
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:			0.0	
Source Conditions:				
Sun Angle (degrees):			-15	
	Run 11 Time:		1134	
1	5	10	10	5
2	15	10	10	10
3	15	5	20	10
4	5	5	10	15
5	15	10	5	5
6	0	5	5	0
6-minute Average:			8.5	
Source Conditions:				
Sun Angle (degrees):			-10	
	Run 12 Time:		1200	
1	10	15	10	5
2	10	10	10	10
3	10	15	10	10
4	10	10	5	5
5	5	10	5	5
6	10	10	5	5
6-minute Average:			8.7	
Source Conditions:				
Sun Angle (degrees):			0	

sec	0	15	30	45
min	Run 13 Time:		1226	
1	20	15	10	10
2	15	5	0	5
3	10	5	5	5
4	15	10	10	15
5	10	10	15	10
6	5	10	10	10
6-minute Average:			9.8	
Source Conditions:				
Sun Angle (degrees):			+5	
	Run 14 Time:		1252	
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:			0.0	
Source Conditions:				
Sun Angle (degrees):			+10	
	Run 15 Time:		1318	
1	10	15	10	15
2	10	10	10	10
3	5	10	10	5
4	5	10	10	10
5	15	5	10	0
6	10	10	10	5
6-minute Average:			9.2	
Source Conditions:				
Sun Angle (degrees):			+15	
	Run 16 Time:		1344	
1	5	5	10	5
2	5	0	5	0
3	0	15	10	10
4	5	5	5	10
5	10	5	0	0
6	0	0	5	0
6-minute Average:			4.8	
Source Conditions:				
Sun Angle (degrees):			+20	

Range of opacity readings: low 0 high 20

Number of readings above 10 % were 16

W M Reamy

Observer's Signature

AVOGADRO ENVIRONMENTAL CORPORATION, Easton Pa

Visible Emissions Evaluation

Facility Name	ECC/Floyd Bennett Field
AVOGADRO Project No.	12-9191
Location (city, state)	Brooklyn, NY
Type of Facility	national park
Control Equipment / Emission Source	ACB #1
Date of Observation	1/31/13
Start Time	1410
Stop Time	1652
Distance from observer (ft)	150'
Direction from observer	N
Stack height (fr. observer's elev.) (ft)	10'
Stack Diameter (in)	no stack
Description of plume:	
continuous? fugitive? intermittent?	interm.
color	gray
water drops present? (Y/N)	N
attached steam plume? (Y/N)	N
detached steam plume? (Y/N)	N
secondary plume? (Y/N)	N
point where opacity read	above barrier
target?	
describe background to plume	mixed clouds
unique features of plume or stack	no stack
Weather:	
ambient temperature (F)	45°
relative humidity	
wind direction	NW
wind speed	10-20
barometric pressure	
rain? fog? snow? haze?	no
Glasses worn:	
corrective? (Y/N)	N
sunglasses? (Y/N)	N

Observer's name	William Reamy
Observer certification date	10-10-12
Certifying agency	Whitlow Enter.
Observer affiliation	Stack Hawk Envir.

Run Number(s) and Description: 17-23

sec	0	15	30	45
min	Run 17	Time:	1410	
1	0	0	0	0
2	0	0	0	0
3	0	5	0	5
4	0	0	0	0
5	0	0	5	0
6	0	0	0	0
6-minute Average:			0.6	
Source Conditions:				
Sun Angle (degrees):			+25	
	Run 18	Time:	1436	
1	5	5	5	5
2	5	5	5	5
3	0	5	5	5
4	5	5	5	5
5	0	0	5	5
6	0	0	5	0
6-minute Average:			3.7	
Source Conditions:				
Sun Angle (degrees):			+35	
	Run 19	Time:	1502	
1	5	5	0	5
2	0	5	0	0
3	0	0	0	5
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:			1.0	
Source Conditions:				
Sun Angle (degrees):			+40	
	Run 20	Time:	1528	
1	15	15	20	10
2	10	20	10	20
3	20	10	5	10
4	15	10	10	10
5	5	5	10	5
6	5	10	5	10
6-minute Average:			11.0	
Source Conditions:				
Sun Angle (degrees):			+15	

sec	0	15	30	45
min	Run 21	Time:	1554	
1	20	20	15	20
2	15	20	15	15
3	15	15	20	15
4	15	20	20	10
5	15	15	10	15
6	10	10	15	10
6-minute Average:			15.4	
Source Conditions:			*	
Sun Angle (degrees):			+20	
	Run 22	Time:	1620	
1	5	5	5	0
2	5	5	0	0
3	0	5	0	0
4	5	0	0	5
5	0	0	0	0
6	0	0	0	0
6-minute Average:			1.7	
Source Conditions:				
Sun Angle (degrees):			+25	
	Run 23	Time:	1646	
1	0	0	0	0
2	0	0	0	10
3	10	5	10	10
4	15	15	20	10
5	15	15	15	10
6	10	10	10	10
6-minute Average:			8.3	
Source Conditions:				
Sun Angle (degrees):			NO SUN	
	Run	Time:		
1				
2				
3				
4				
5				
6				
6-minute Average:				
Source Conditions:				
Sun Angle (degrees):				

Range of opacity readings: low 0 high 20

Number of readings above 10 % were 32

WMReamy
Observer's Signature

* Adding wood, pressing wood, pushing burner contents around. Six minutes later, the opacity was 0-5%.

AVOGADRO ENVIRONMENTAL CORPORATION, Easton Pa

Thurs. Night January 31st 2013

Visible Emissions Evaluation

Facility Name	ECC Floyd Bennett Field
AVOGADRO Project No.	12-9191
Location (city, state)	Brooklyn, NY
Type of Facility	Debris Removal
Control Equipment / Emission Source	ACB 1
Date of Observation	01/31/2013
Start Time	2054
Stop Time	2402
Distance from observer (ft)	250'
Direction from observer	N
Stack height (fr. observer's elev.) (ft)	9'
Stack Diameter (in)	27'x9'
Description of plume:	
continuous? fugitive? intermittent?	cont.
color	white
water drops present? (Y/N)	N
attached steam plume? (Y/N)	N
detached steam plume? (Y/N)	N
secondary plume? (Y/N)	N
point where opacity read	1-3 corex lengths
target?	sky
describe background to plume	sky
unique features of plume or stack	—
Weather:	@ 2050
ambient temperature (F)	33°
relative humidity	53%
wind direction	SE
wind speed	
barometric pressure	29.76 inHg
rain? fog? snow? haze?	clear
Glasses worn:	
corrective? (Y/N)	yes
sunglasses? (Y/N)	—

Observer's name	Joshua Wagner
Observer certification date	Night 12/20/2012
Certifying agency	Whittlow
Observer affiliation	Avogadro Env.

Operation delayed due to high winds starting @ ~ 6pm.

Run Number(s) and Description: ACB 1 Runs 1-8

sec	0	15	30	45
min	Run 1 Time: 2054			
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:				
Source Conditions:				
Sun Angle (degrees):				
	Run 2 Time: 2120			
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:	0			
Source Conditions:				
Sun Angle (degrees):				
	Run 3 Time: 2146			
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:	0			
Source Conditions:				
Sun Angle (degrees):				
	Run 4 Time: 2212			
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:	0			
Source Conditions:				
Sun Angle (degrees):				

sec	0	15	30	45
min	Run 5 Time: 2238			
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:	0			
Source Conditions:				
Sun Angle (degrees):				
	Run 6 Time: 2304			
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:	0			
Source Conditions:				
Sun Angle (degrees):				
	Run 7 Time: 2330			
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	10	10	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:	0.8			
Source Conditions:				
Sun Angle (degrees):				
	Run 8 Time: 2356			
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:	0			
Source Conditions:				
Sun Angle (degrees):				

Range of opacity readings: low 0 high 10

Number of readings above 10 % were 0

Observer's Signature

AVOGADRO ENVIRONMENTAL CORPORATION, Easton Pa

Visible Emissions Evaluation

Facility Name	ECC/Floyd Bennett Field
AVOGADRO Project No.	12-9191
Location (city, state)	Brooklyn, NY
Type of Facility	national park
Control Equipment / Emission Source	ACB #2
Date of Observation	1/31/13
Start Time	0714
Stop Time	1022
Distance from observer (ft)	150'
Direction from observer	N
Stack height (fr. observer's elev.) (ft)	10'
Stack Diameter (in)	no stack
Description of plume:	
continuous? fugitive? intermittent?	interm.
color	gray
water drops present? (Y/N)	N
attached steam plume? (Y/N)	N
detached steam plume? (Y/N)	N
secondary plume? (Y/N)	N
point where opacity read	above barrier
target?	
* describe background to plume	gray sky
unique features of plume or stack	no stack
Weather:	
ambient temperature (F)	45°
relative humidity	
wind direction	NW
wind speed	15-30
barometric pressure	
rain? fog? snow? haze?	rain/clear
Glasses worn:	
corrective? (Y/N)	N
sunglasses? (Y/N)	N

Observer's name	William Reamy
Observer certification date	10-10-12
Certifying agency	Whitlow Enter.
Observer affiliation	Stack Hawk Envir.

* partly cloudy after 0815

Run Number(s) and Description: 1-8

sec	0	15	30	45
min	Run 1	Time:	0714	
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:			0.0	
Source Conditions:				
Sun Angle (degrees):			NO SUN	
	Run 2	Time:	0740	
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:			0.0	
Source Conditions:				
Sun Angle (degrees):			-50	
	Run 3	Time:	0806	
1	0	0	0	5
2	0	5	0	0
3	5	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:			0.6	
Source Conditions:				
Sun Angle (degrees):			-50	
	Run 4	Time:	0832	
1	5	10	5	5
2	5	0	5	0
3	0	0	10	10
4	10	10	5	5
5	0	5	0	0
6	0	0	0	0
6-minute Average:			3.8	
Source Conditions:				
Sun Angle (degrees):			-45	

sec	0	15	30	45
min	Run 5	Time:	0858	
1	0	5	0	0
2	5	0	5	0
3	5	0	0	0
4	5	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:			1.0	
Source Conditions:				
Sun Angle (degrees):			-45	
	Run 6	Time:	0924	
1	0	0	0	0
2	0	0	0	0
3	0	5	5	0
4	10	10	5	0
5	20	10	5	15
6	15	10	10	15
6-minute Average:			5.6	
Source Conditions:				
Sun Angle (degrees):			-40	
	Run 7	Time:	0950	
1	0	0	0	0
2	0	0	0	0
3	10	10	15	5
4	5	10	10	10
5	5	10	10	5
6	0	0	0	0
6-minute Average:			4.4	
Source Conditions:				
Sun Angle (degrees):			-30	
	Run 8	Time:	1016	
1	10	10	10	10
2	10	10	10	10
3	10	10	10	10
4	10	5	5	5
5	5	5	5	5
6	5	5	5	5
6-minute Average:			7.7	
Source Conditions:				
Sun Angle (degrees):			-25	

Range of opacity readings: low 0 high 20

Number of readings above 10 % were 5

WKReamy

Observer's Signature

AVOGADRO ENVIRONMENTAL CORPORATION, Easton Pa

Visible Emissions Evaluation

Facility Name	ECC/Floyd Bennett Field
AVOGADRO Project No.	12-9191
Location (city, state)	Brooklyn, NY
Type of Facility	national park
Control Equipment / Emission Source	ACB #2
Date of Observation	1/31/13
Start Time	1042
Stop Time	1350
Distance from observer (ft)	150'
Direction from observer	N
Stack height (fr. observer's elev.) (ft)	10'
Stack Diameter (in)	no stack
Description of plume:	
continuous? fugitive? intermittent?	intermi.
color	gray
water drops present? (Y/N)	N
attached steam plume? (Y/N)	N
detached steam plume? (Y/N)	N
secondary plume? (Y/N)	N
point where opacity read	above barrier
target?	
describe background to plume	blue sky
unique features of plume or stack	no stack
Weather:	
ambient temperature (F)	50°
relative humidity	
wind direction	NW
wind speed	10-25
barometric pressure	
rain? fog? snow? haze?	no
Glasses worn:	
corrective? (Y/N)	N
sunglasses? (Y/N)	N

Observer's name	William Reamy
Observer certification date	10-10-12
Certifying agency	Whitlow Enter.
Observer affiliation	Stack Hawk Envir.

Run Number(s) and Description: 9-16

sec	0	15	30	45
min	Run 9	Time:	1042	
1	10	5	10	5
2	5	0	5	0
3	10	5	5	5
4	5	0	0	5
5	5	5	0	0
6	5	0	0	0
6-minute Average:	3.8			
Source Conditions:				
Sun Angle (degrees):	-20			
	Run 10	Time:	1108	
1	0	0	0	0
2	0	5	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:	0.2			
Source Conditions:				
Sun Angle (degrees):	-15			
	Run 11	Time:	1134	
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:	0.0			
Source Conditions:				
Sun Angle (degrees):	-10			
	Run 12	Time:	1200	
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:	0.0			
Source Conditions:				
Sun Angle (degrees):	0			

sec	0	15	30	45
min	Run 13	Time:	1226	
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	20	20	15	15
6-minute Average:	2.9			
Source Conditions:				
Sun Angle (degrees):	+5			
	Run 14	Time:	1252	
1	10	15	15	10
2	10	10	10	15
3	10	5	10	10
4	5	5	10	5
5	10	10	10	5
6	10	10	10	5
6-minute Average:	9.4			
Source Conditions:				
Sun Angle (degrees):	+10			
	Run 15	Time:	1318	
1	0	0	0	0
2	0	5	0	0
3	5	0	0	5
4	0	0	0	0
5	5	5	0	0
6	5	0	0	0
6-minute Average:	1.3			
Source Conditions:				
Sun Angle (degrees):	+15			
	Run 16	Time:	1344	
1	5	5	5	0
2	5	5	0	0
3	0	5	5	5
4	0	5	0	5
5	0	0	0	0
6	0	0	0	0
6-minute Average:	2.1			
Source Conditions:				
Sun Angle (degrees):	+20			

Range of opacity readings: low 0 high 20

Number of readings above 10 % were 7

WMReamy

Observer's Signature

AVOGADRO ENVIRONMENTAL CORPORATION, Easton Pa

Visible Emissions Evaluation

Facility Name	ECC/Floyd Bennett Field
AVOGADRO Project No.	12-9191
Location (city, state)	Brooklyn, NY
Type of Facility	national park
Control Equipment / Emission Source	ACB #2
Date of Observation	1/31/13
Start Time	1410
Stop Time	1652
Distance from observer (ft)	150'
Direction from observer	N
Stack height (fr. observer's elev.) (ft)	10'
Stack Diameter (in)	no stack
Description of plume:	
continuous? fugitive? intermittent?	intermi.
color	gray
water drops present? (Y/N)	N
attached steam plume? (Y/N)	N
detached steam plume? (Y/N)	N
secondary plume? (Y/N)	N
point where opacity read	above barrier
target?	
describe background to plume	mixed clouds
unique features of plume or stack	no stack
Weather:	
ambient temperature (F)	45°
relative humidity	
wind direction	NW
wind speed	10-20
barometric pressure	
rain? fog? snow? haze?	no
Glasses worn:	
corrective? (Y/N)	N
sunglasses? (Y/N)	N

Observer's name	William Reamy
Observer certification date	10-10-12
Certifying agency	Whitlow Enter.
Observer affiliation	Stack Hawk Envir.

Run Number(s) and Description: 17-23

sec	0	15	30	45
min	Run 17	Time:	1410	
1	0	5	0	0
2	0	0	5	0
3	5	0	5	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	5
6-minute Average:			1.0	
Source Conditions:				
Sun Angle (degrees):			+25	
	Run 18	Time:	1436	
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	5	0	5
5	0	0	0	0
6	0	0	0	0
6-minute Average:			0.4	
Source Conditions:				
Sun Angle (degrees):			+35	
	Run 19	Time:	1502	
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:			0.0	
Source Conditions:				
Sun Angle (degrees):			+40	
	Run 20	Time:	1528	
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	10
5	10	10	10	10
6	5	10	10	10
6-minute Average:			3.5	
Source Conditions:				
Sun Angle (degrees):			+5	

sec	0	15	30	45
min	Run 21	Time:	1554	
1	0	0	5	5
2	5	5	5	5
3	5	5	5	5
4	0	5	5	0
5	5	5	5	0
6	5	5	5	0
6-minute Average:			3.8	
Source Conditions:				
Sun Angle (degrees):			+10	
	Run 22	Time:	1620	
1	0	5	0	5
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:			0.4	
Source Conditions:				
Sun Angle (degrees):			+15	
	Run 23	Time:	1646	
1	10	0	5	15
2	15	5	5	5
3	10	10	10	5
4	10	10	10	10
5	10	10	10	10
6	10	5	10	5
6-minute Average:			8.5	
Source Conditions:				
Sun Angle (degrees):			NO SUN	
	Run	Time:		
1				
2				
3				
4				
5				
6				
6-minute Average:				
Source Conditions:				
Sun Angle (degrees):				

Range of opacity readings: low 0 high 15

Number of readings above 10 % were 2

W H Reamy
Observer's Signature

AVOGADRO ENVIRONMENTAL CORPORATION, Easton Pa

Thurs. Night January 31st 2013

Run Number(s) and Description: ACB 2 Runs 1-8

Visible Emissions Evaluation

Facility Name	ECC Floyd Bennett Field
AVOGADRO Project No.	12-9191
Location (city, state)	Brooklyn, NY
Type of Facility	Debris Removal
Control Equipment / Emission Source	ACB 2
Date of Observation	01/31/2013
Start Time	2054
Stop Time	2402
Distance from observer (ft)	250'
Direction from observer	N
Stack height (fr. observer's elev.) (ft)	8'
Stack Diameter (in)	20' x 8'
Description of plume:	
continuous? fugitive? intermittent?	cont.
color	white
water drops present? (Y/N)	N
attached steam plume? (Y/N)	N
detached steam plume? (Y/N)	N
secondary plume? (Y/N)	N
point where opacity read 1-3	conex lengths
target?	sky
describe background to plume	sky
unique features of plume or stack	—
	@2050
Weather:	
ambient temperature (F)	33°
relative humidity	53%
wind direction	SE
wind speed	[illegible]
barometric pressure	29.76 inHg
rain? fog? snow? haze?	clear
Glasses worn:	
corrective? (Y/N)	yes
sunglasses? (Y/N)	—

Observer's name	Joshua Wagner
Observer certification date	Night 12/20/2012
Certifying agency	Whitlow
Observer affiliation	Avogadro Env.

Operation delayed due to high winds starting @ 6pm.

sec	0	15	30	45
Run 1 Time: 2054				
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average: 0				
Source Conditions:				
Sun Angle (degrees):				
Run 2 Time: 2120				
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	5	5	5	5
5	5	5	5	5
6	5	5	5	5
6-minute Average: 2.5				
Source Conditions:				
Sun Angle (degrees):				
Run 3 Time: 2146				
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average: 0				
Source Conditions:				
Sun Angle (degrees):				
Run 4 Time: 2212				
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average: 0				
Source Conditions:				
Sun Angle (degrees):				

sec	0	15	30	45
Run 5 Time: 2238				
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average: 0				
Source Conditions:				
Sun Angle (degrees):				
Run 6 Time: 2304				
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average: 0				
Source Conditions:				
Sun Angle (degrees):				
Run 7 Time: 2330				
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	10	10	0
5	0	0	0	0
6	0	0	0	0
6-minute Average: 0.8				
Source Conditions:				
Sun Angle (degrees):				
Run 8 Time: 2356				
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average: 0				
Source Conditions:				
Sun Angle (degrees):				

Range of opacity readings: low 0 high 10

Number of readings above 10 % were 0

Observer's Signature

AVOGADRO ENVIRONMENTAL CORPORATION, Easton Pa