Visible Emissions Evaluation

Run Number(s) and Description: Run Early Morning, January 20th 2013

ACB 1 Runs 1-8

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	01/20/2013
Start Time	0042
Stop Time	0352
Distance from observer (ft)	2001
Direction from observer	E
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:	@0040
ambient temperature (F)	44°
relative humidity	53%
wind direction	N
wind speed	0-4 mph
barometric pressure	29.96 in
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	WhiTHow
Observer affiliation	Avogadro Env.

sec	0	15	30	45
min	Run 1 Time: 0042			
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: 0108			
1	5	5	5	5
2	5	5	5	5
3	5	5	5	5
4	5	5	5	5
5	5	5	5	5
6	5	0	5	0
6-minute Average: 4.6				
Source Conditions:				
Sun Angle (degrees):				
	Run 3 Time: 0134			
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: 0200			
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: 0226			
1	0	0	0	0
2	0	0	0	0
8 3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	5	0	0
6-minute Average: 0.2				
Source Conditions:				
Sun Angle (degrees):				
	Run 6 Time: 0252			
1	0	0	0	0
2	0	0	0	0
5 3	0	5	0	0
6 4	0	0	0	0
7 5	0	0	0	0
6	0	0	0	0
6-minute Average: 0.2				
Source Conditions:				
Sun Angle (degrees):				
	Run 7 Time: 0318			
0 1	5	5	5	5
2	5	5	5	5
2 3	5	5	5	5
4	5	5	0	0
4 5	0	0	0	0
6	0	0	0	0
6-minute Average: 2.9				
Source Conditions:				
Sun Angle (degrees):				
	Run 8 Time: 0346			
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 5

Number of readings above 10 % were 0

Observer's Signature

Visible Emissions Evaluation

Run Number(s) and Description: Aun. Early Morn, Jan 20th, 2013 — ACB 1 Runs 9-12

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	01/20/2013
Start Time	0412
Stop Time	0536
Distance from observer (ft)	200'
Direction from observer	E
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 conex lengths
target?	sky
describe background to plume	sky
unique features of plume or stack	—
Weather:	@0410
ambient temperature (F)	39°
relative humidity	66%
wind direction	N
wind speed	calm
barometric pressure	29.86 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.

sec	0	15	30	45
min	Run 9	Time: 0442		
2 1	5	5	0	0
2	0	0	0	0
4 3	0	0	0	0
4	0	0	0	0
6 5	0	0	0	0
6	0	0	0	0
6-minute Average:	0.4			
Source Conditions:				
Sun Angle (degrees):				
	Run 10	Time: 0438		
1	0	0	0	0
9 2	0	0	0	0
0 3	0	5	0	0
1 4	0	0	5	5
5	0	0	0	0
6	0	0	0	0
6-minute Average:	0.6			
Source Conditions:				
Sun Angle (degrees):				
	Run 11	Time: 0504		
1	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]
6 3	[illegible]	[illegible]	[illegible]	[illegible]
7 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 12	Time: 0530		
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
3 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	Time:		
1				
2				
3				
4				
5				
6				
6-minute Average:				
Source Conditions:				
Sun Angle (degrees):				
	Run	Time:		
1				
2				
3				
4				
5				
6				
6-minute Average:				
Source Conditions:				
Sun Angle (degrees):				
	Run	Time:		
1				
2				
3				
4				
5				
6				
6-minute Average:				
Source Conditions:				
Sun Angle (degrees):				
	Run	Time:		
1				
2				
3				
4				
5				
6				
6-minute Average:				
Source Conditions:				
Sun Angle (degrees):				

Range of opacity readings: low 0 high 5

Number of readings above 10 % were 0

Observer's Signature

UNIT 1

Run Number(s) and Description Pg. 1 1-20-13

Visible Emissions Evaluation

Facility Name	ECC FBF
AVOGADRO Project No.	12-9191
Location (city, state)	Brooklyn NY
Type of Facility	
Control Equipment / Emission Source	ACB
Date of Observation	1-20-13
Start Time	0720
Stop Time	
Distance from observer (ft)	100'
Direction from observer	NW
Stack height (fr. observer's elev.) (ft)	10'
Stack Diameter (in)	27 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	Top Edge
target?	
describe background to plume	Containers
unique features of plume or stack	
Weather:	
ambient temperature (F)	40°F
relative humidity	30%
wind direction	To: NE
wind speed	10-15
barometric pressure	
rain? fog? snow? haze?	CLEAR
Glasses worn:	
corrective? (Y/N)	Y
sunglasses? (Y/N)	N

Observer's name	MARK T. READY
Observer certification date	10-22-12
Certifying agency	KOONTZ
Observer affiliation	AVOGADRO/DA

sec	0	15	30	45
min	Run 1 Time: 720			
1	5	10	5	10
2	10	5	5	5
3	5	10	5	5
4	5	5	5	5
5	5	5	5	5
6	5	10	5	10
6-minute Average:	6.3			
Source Conditions:				
Sun Angle (degrees):	15			
	Run 2 Time: 740			
1	5	5	5	0
2	5	5	5	5
3	5	5	5	5
4	5	5	5	5
5	5	5	5	5
6	5	0	5	5
6-minute Average:	4.6			
Source Conditions:				
Sun Angle (degrees):	10			
	Run 3 Time: 800			
1	5	5	0	5
2	5	5	5	5
3	5	5	5	5
4	5	10	5	5
5	5	5	5	5
6	5	5	5	5
6-minute Average:	5.0			
Source Conditions:				
Sun Angle (degrees):	10			
	Run 4 Time: 820			
1	5	5	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:	0.4			
Source Conditions:				
Sun Angle (degrees):	10			

sec	0	15	30	45
min	Run 5 Time: 840			
1	5	5	5	5
2	5	5	0	5
3	5	5	5	5
4	5	5	5	5
5	5	5	5	5
6	0	5	5	5
6-minute Average:	4.6			
Source Conditions:				
Sun Angle (degrees):	10			
	Run 6 Time: 900			
1	0	0	0	5
2	5	5	5	5
3	5	5	5	5
4	5	5	5	5
5	5	5	0	5
6	5	5	5	5
6-minute Average:	4.2			
Source Conditions:				
Sun Angle (degrees):	5			
	Run 7 Time: 920			
1	10	10	10	5
2	5	5	10	5
3	5	5	5	5
4	5	5	10	5
5	5	10	10	10
6	10	5	5	10
6-minute Average:	7.1			
Source Conditions:				
Sun Angle (degrees):	0			
	Run 8 Time: 940			
1	5	5	5	5
2	5	5	5	5
3	5	5	5	5
4	5	5	5	5
5	5	5	5	5
6	5	5	5	5
6-minute Average:	5.0			
Source Conditions:				
Sun Angle (degrees):	0			

Range of opacity readings:

low 0 high 10

Number of readings above 10 % were 0

Mark T. Ready

Observer's Signature

Visible Emissions Evaluation

UNIT 1

Run Number(s) and Description

 1-20-13

Facility Name	ECC FBF
AVOGADRO Project No.	12-9191
Location (city, state)	Brooklyn NY
Type of Facility	
Control Equipment / Emission Source	ACB
Date of Observation	1-20-13
Start Time	1000
Stop Time	
Distance from observer (ft)	100'
Direction from observer	NW
Stack height (fr. observer's elev.) (ft)	10'
Stack Diameter (in)	27 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	Top Edge
target?	
describe background to plume	Containers
unique features of plume or stack	
Weather:	
ambient temperature (F)	45°F
relative humidity	30%
wind direction	To: NE
wind speed	10-15
barometric pressure	
rain? fog? snow? haze?	CLEAR
Glasses worn:	
corrective? (Y/N)	Y
sunglasses? (Y/N)	N

Observer's name	MARK J. READY
Observer certification date	10-22-12
Certifying agency	KOOMTZ
Observer affiliation	AVOGADRO / DA

sec	0	15	30	45
min	Run 9 Time: 1000			
1	10	10	5	5
2	5	5	5	5
3	5	5	5	5
4	5	5	0	0
5	0	5	5	0
6	5	5	5	5
6-minute Average:	4.6			
Source Conditions:				
Sun Angle (degrees):	10			
min	Run 10 Time: 1020			
1	0	0	0	0
2	5	0	0	0
3	5	0	0	0
4	5	5	0	0
5	5	0	0	0
6	0	5	5	5
6-minute Average:	1.7			
Source Conditions:				
Sun Angle (degrees):	10			
min	Run 11 Time: 1040			
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	5	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:	0.2			
Source Conditions:				
Sun Angle (degrees):	15			
min	Run 12 Time: 1100			
1	0	5	0	5
2	5	5	5	5
3	5	5	5	5
4	5	5	5	5
5	5	5	5	5
6	5	5	5	5
6-minute Average:	4.6			
Source Conditions:				
Sun Angle (degrees):	20			

sec	0	15	30	45
min	Run 13 Time: 1120			
1	5	5	10	5
2	5	5	5	5
3	10	5	5	5
4	10	5	5	5
5	5	5	5	5
6	5	5	10	5
6-minute Average:	5.8			
Source Conditions:				
Sun Angle (degrees):	45			
min	Run 14 Time: 1140			
1	0	0	0	5
2	5	5	5	0
3	5	5	5	5
4	5	5	5	5
5	5	0	5	0
6	0	0	0	0
6-minute Average:	2.9			
Source Conditions:				
Sun Angle (degrees):	45			
min	Run 15 Time: 1200			
1	0	0	0	0
2	0	5	5	5
3	0	5	0	0
4	0	0	0	0
5	5	5	5	0
6	0	0	0	5
6-minute Average:	1.7			
Source Conditions:				
Sun Angle (degrees):	40			
min	Run 16 Time: 1220			
1	5	0	0	0
2	5	5	5	5
3	5	5	5	5
4	0	0	0	0
5	5	5	0	5
6	5	5	0	5
6-minute Average:	3.1			
Source Conditions:				
Sun Angle (degrees):	40			

Range of opacity readings:

low 0 high 10

Number of readings above 10 % were 0

Observer's Signature

* CHANGE LOCATION @ 1120

- DISTANCE - 150'
- DIRECTION - NE

Visible Emissions Evaluation

UNIT 1
Run Number(s) and Description

Pg. 3 1-20-13

Facility Name	ECC FBF
AVOGADRO Project No.	12-9191
Location (city, state)	Brooklyn NY
Type of Facility	
Control Equipment / Emission Source	ACB
Date of Observation	1-20-13
Start Time	1240
Stop Time	
Distance from observer (ft)	150'
Direction from observer	NE
Stack height (fr. observer's elev.) (ft)	10'
Stack Diameter (in)	27 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	Top Edge
target?	
describe background to plume	Containers
unique features of plume or stack	
Weather:	
ambient temperature (F)	55°F
relative humidity	30%
wind direction	To: NE
wind speed	15-20
barometric pressure	
rain? fog? snow? haze?	MOSTLY SUNNY
Glasses worn:	
corrective? (Y/N)	Y
sunglasses? (Y/N)	N

Observer's name	MARK T. READY
Observer certification date	10-22-12
Certifying agency	KOONTZ
Observer affiliation	AVOGADRO / DA

sec	0	15	30	45
min	Run 1 Time: 1240			
1	15	15	10	15
2	10	10	10	10
3	5	5	5	10
4	5	5	5	5
5	5	5	5	5
6	5	5	5	5
6-minute Average:	7.5			
Source Conditions:				
Sun Angle (degrees):	35			
	Run 12 Time: 1300			
1	5	5	5	0
2	0	5	5	5
3	0	5	0	5
4	5	5	5	5
5	5	5	0	0
6	0	0	0	0
6-minute Average:	2.9			
Source Conditions:				
Sun Angle (degrees):	35			
	Run 13 Time: 1320			
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):	35			
	Run 20 Time: 1340			
1	5	5	5	5
2	5	0	5	5
3	5	5	5	5
4	5	5	5	5
5	5	5	5	5
6	5	5	5	5
6-minute Average:	4.8			
Source Conditions:				
Sun Angle (degrees):	30			

sec	0	15	30	45
min	Run 2 Time: 1400			
1	0	0	0	0
2	0	0	0	0
3	0	0	5	5
4	0	0	0	0
5	0	0	0	0
6	0	0	0	5
6-minute Average:	0.6			
Source Conditions:				
Sun Angle (degrees):	15			
	Run 22 Time: 1420			
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):	5			
	Run 23 Time: 1440			
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			
	Run 24 Time: 1500			
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	5	5	0	0
6	0	0	0	0
6-minute Average:	0.4			
Source Conditions:				
Sun Angle (degrees):	5			

Range of opacity readings:
low 0 high 15

Number of readings above 10 % were 3

Mark Ready
Observer's Signature

Visible Emissions Evaluation

UNIT 1

Run Number(s) and Description

Pg. 4 1-20-13

Facility Name	ECC EBF
AVOGADRO Project No.	12-9191
Location (city, state)	Brooklyn NY
Type of Facility	
Control Equipment / Emission Source	ACB
Date of Observation	1-20-13
Start Time	1520
Stop Time	
Distance from observer (ft)	150'
Direction from observer	NE
Stack height (fr. observer's elev.) (ft)	10'
Stack Diameter (in)	27 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	Top Edge
target?	
describe background to plume	Containers
unique features of plume or stack	
Weather:	
ambient temperature (F)	55°F
relative humidity	30%
wind direction	TO: E
wind speed	15-30
barometric pressure	
rain? fog? snow? haze?	PTly Cldy
Glasses worn:	
corrective? (Y/N)	Y
sunglasses? (Y/N)	N

Observer's name	MARK J. DEADY
Observer certification date	10-22-12
Certifying agency	KOONTZ
Observer affiliation	AVOGADRO / DA

sec	0	15	30	45	sec	0	15	30	45
min	Run 25 Time: 1520				min	Run 29 Time: 1610			
1	0	0	0	0	1	0	0	0	0
2	0	0	0	0	2	0	0	0	0
3	0	0	0	0	3	0	5	0	0
4	0	0	0	0	4	0	0	0	0
5	0	0	0	0	5	0	0	0	0
6	0	0	0	0	6	0	5	5	0
6-minute Average:			0.0		6-minute Average:			0.6	
Source Conditions:					Source Conditions:				
Sun Angle (degrees):			10		Sun Angle (degrees):			20	
	Run 26 Time: 1540					Run Time:			
1	0	0	0	0	1				
2	5	5	5	5	2				
3	5	5	5	5	3				
4	5	5	0	0	4				
5	5	5	5	5	5				
6	5	5	5	5	6				
6-minute Average:			3.8		6-minute Average:				
Source Conditions:					Source Conditions:				
Sun Angle (degrees):			15		Sun Angle (degrees):				
	Run 27 Time: 1600					Run Time:			
1	5	5	5	5	1				
2	5	5	5	5	2				
3	5	5	5	5	3				
4	5	5	5	5	4				
5	5	5	5	5	5				
6	5	5	5	5	6				
6-minute Average:			5.0		6-minute Average:				
Source Conditions:					Source Conditions:				
Sun Angle (degrees):			20		Sun Angle (degrees):				
	Run 28 Time: 1620					Run Time:			
1	5	5	5	5	1				
2	5	5	5	5	2				
3	5	5	5	5	3				
4	5	0	5	5	4				
5	5	5	5	5	5				
6	5	0	0	0	6				
6-minute Average:			4.2		6-minute Average:				
Source Conditions:					Source Conditions:				
Sun Angle (degrees):			20		Sun Angle (degrees):				

Range of opacity readings:

low 0 high 5

Number of readings above 10 % were 0

WIND DOWN TO 10-15 @ 1530 APPROX.

Observer's Signature

Aun. Night, January 20th, 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	01/20/2013
Start Time	1932
Stop Time	2240
Distance from observer (ft)	150'
Direction from observer	E
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 chimney lengths
target?	sky
describe background to plume	sky
unique features of plume or stack	—
Weather:	@1930
ambient temperature (F)	44°
relative humidity	24%
wind direction	NW SE
wind speed	4-8 mph
barometric pressure	29.91
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	Whittaw
Observer affiliation	Avogadro Env.

Note: high winds limiting burn capacity

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

sec	0	15	30	45
min	Run 1 Time: 1932			
1	5	5	5	5
2	5	5	5	5
3	5	5	5	5
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average: 2.5				
Source Conditions:				
Sun Angle (degrees):				
	Run 2 Time: 1958			
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: 2024			
1	5	5	5	5
2	5	5	5	5
3	5	5	5	5
4	5	5	5	5
5	5	5	5	5
6	5	5	5	5
6-minute Average: 5				
Source Conditions:				
Sun Angle (degrees):				
	Run 4 Time: 2050			
0 1	0	0	0	0
1 2	0	0	0	0
2 3	0	0	0	5
3 4	0	0	0	0
4 5	0	0	0	0
5 6	0	0	0	0
6-minute Average: 0.8				
Source Conditions:				
Sun Angle (degrees):				

sec	0	15	30	45
min	Run 5 Time: 2116			
6 1	10	10	10	10
2	10	10	10	10
3	10	10	10	10
9 4	10	10	10	10
0 5	10	10	10	5
6	5	5	5	5
6-minute Average: 9.2				
Source Conditions:				
Sun Angle (degrees):				
	Run 6 Time: 2142			
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
5 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: 2208			
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 8 Time: 2234			
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):				

Range of opacity readings: low 0 high 10

Number of readings above 10 % were 0

Observer's Signature

Aun. Night, January 20th, 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	01/20/2013
Start Time	2308
Stop Time	2340
Distance from observer (ft)	150'
Direction from observer	E
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 conex lengths
target?	sky
describe background to plume	sky
unique features of plume or stack	—
Weather:	@2300
ambient temperature (F)	33°
relative humidity	38%
wind direction	SE
wind speed	4-8 mph
barometric pressure	30.02in
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	WiHow
Observer affiliation	Avogadro Env.

Run Number(s) and Description: ACB 1 Runs 9-10

sec	0	15	30	45
min	Run 9 Time: 2308			
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	5	5	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:	0.4			
Source Conditions:				
Sun Angle (degrees):				
	Run 10 Time: 2334			
1	5	5	5	5
2	5	5	5	5
3	5	5	5	5
4	5	5	5	5
5	5	5	5	5
6	0	0	0	0
6-minute Average:	4.2			
Source Conditions:				
Sun Angle (degrees):				
	Run Time:			
1				
2				
3				
4				
5				
6				
6-minute Average:				
Source Conditions:				
Sun Angle (degrees):				
	Run Time:			
1				
2				
3				
4				
5				
6				
6-minute Average:				
Source Conditions:				
Sun Angle (degrees):				

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

Range of opacity readings: low 0 high —

Number of readings above 10 % were —

Observer's Signature

Saturday Early Morning, January 20th 2013

Visible Emissions Evaluation

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

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	01/20/2013
Start Time	0042
Stop Time	0352
Distance from observer (ft)	200'
Direction from observer	E
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	—
Weather: @0040	
ambient temperature (F)	44°
relative humidity	53%
wind direction	N
wind speed	0-4mph
barometric pressure	29.96in
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.

sec	0	15	30	45
min	Run 1 Time: 0042			
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: 0108			
1	5	5	5	5
2	5	5	5	5
10 3	5	5	5	5
4	5	10	10	10
5	10	10	5	5
6	10	10	5	5
6-minute Average: 6.5				
Source Conditions:				
Sun Angle (degrees):				
	Run 3 Time: 0134			
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: 0200			
1	0	0	0	0
2	0	0	0	0
4 3	0	0	0	0
5 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: 226			
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: 252			
1	0	0	0	0
2	0	0	0	0
3	0	5	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):				
	Run 7 Time: 0320			
0 1	5	5	5	5
2	5	5	5	5
2 3	5	5	5	5
4	5	5	5	5
5	5	5	5	5
5 6	5	5	5	5
6-minute Average: 5				
Source Conditions:				
Sun Angle (degrees):				
	Run 8 Time: 0346			
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

Visible Emissions Evaluation

Aun. Early Morn. Jan. 20th 2013

Run Number(s) and Description: ACB 2 Runs 9-12

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	01/20/2013
Start Time	0412
Stop Time	0536
Distance from observer (ft)	200'
Direction from observer	E
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	—
Weather:	@410
ambient temperature (F)	39°
relative humidity	66%
wind direction	N
wind speed	calm
barometric pressure	29.86 in Hg
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.

sec	0	15	30	45
Run 9 Time: 0412				
2 1	0	0	0	0
3 2	0	0	0	0
4 3	5	5	0	0
5 4	0	0	0	0
6 5	0	0	0	0
7 6	0	0	0	0
6-minute Average: 0.4				
Source Conditions:				
Sun Angle (degrees):				
Run 10 Time: 0438				
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 11 Time: 0504				
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 12 Time: 0530				
1	0	0	0	0
2	0	5	5	0
3	0	0	0	0
4	0	5	0	0
4 5	5	5	5	0
6	0	0	0	0
6-minute Average: 1.3				
Source Conditions:				
Sun Angle (degrees):				

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

Range of opacity readings: low 0 high 5

Number of readings above 10 % were 0

Observer's Signature

Visible Emissions Evaluation

UNIT 2

Run Number(s) and Description

 1-20-13

Facility Name	ECC EBF
AVOGADRO Project No.	12-9191
Location (city, state)	Brooklyn NY
Type of Facility	
Control Equipment / Emission Source	ACB
Date of Observation	1-20-13
Start Time	0720
Stop Time	
Distance from observer (ft)	100'
Direction from observer	NW
Stack height (fr. observer's elev.) (ft)	10'
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	Top edge
target?	
describe background to plume	Containers
unique features of plume or stack	
Weather:	
ambient temperature (F)	40°F
relative humidity	30%
wind direction	TO: NE
wind speed	10-15
barometric pressure	
rain? fog? snow? haze?	CLEAR
Glasses worn:	
corrective? (Y/N)	Y
sunglasses? (Y/N)	N

Observer's name	MARK T. READY
Observer certification date	10-22-12
Certifying agency	KOONTZ
Observer affiliation	AVOGADRO / DA

sec	0	15	30	45
min	Run 1 Time: 720			
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	5	5
6	0	5	0	5
6-minute Average:	0.8			
Source Conditions:				
Sun Angle (degrees):	15			
	Run 2 Time: 740			
1	5	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	5	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:	0.4			
Source Conditions:				
Sun Angle (degrees):	10			
	Run 3 Time: 800			
1	0	0	0	0
2	5	5	0	5
3	0	0	0	0
4	5	5	0	0
5	5	0	0	0
6	0	0	0	0
6-minute Average:	1.3			
Source Conditions:				
Sun Angle (degrees):	10			
	Run 4 Time: 820			
1	0	0	5	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:	0.2			
Source Conditions:				
Sun Angle (degrees):	10			

sec	0	15	30	45
min	Run 5 Time: 840			
1	5	5	5	5
2	5	5	0	5
3	5	5	5	5
4	5	5	5	5
5	5	5	5	5
6	0	0	5	5
6-minute Average:	4.4			
Source Conditions:				
Sun Angle (degrees):	10			
	Run 6 Time: 900			
1	0	0	0	0
2	5	5	5	5
3	0	5	5	5
4	5	5	5	5
5	0	5	5	5
6	5	5	5	5
6-minute Average:	3.3			
Source Conditions:				
Sun Angle (degrees):	5			
	Run 7 Time: 920			
1	5	5	5	10
2	0	5	5	0
3	0	0	0	0
4	5	5	5	5
5	5	5	0	5
6	5	5	0	5
6-minute Average:	3.5			
Source Conditions:				
Sun Angle (degrees):	0			
	Run 8 Time: 940			
1	5	5	5	5
2	5	5	5	5
3	5	5	5	5
4	5	5	5	5
5	5	5	5	5
6	5	5	5	5
6-minute Average:	5.0			
Source Conditions:				
Sun Angle (degrees):	0			

Range of opacity readings:

low 0 high 10

Number of readings above 10, % were 0

Mark T. Ready

Observer's Signature

UNIT 2

Visible Emissions Evaluation

Run Number(s) and Description: Pg. 2 1-20-13

Facility Name	ECC FBF
AVOGADRO Project No.	12-9191
Location (city, state)	Brooklyn NY
Type of Facility	
Control Equipment / Emission Source	ACB
Date of Observation	1-20-13
Start Time	1000
Stop Time	
Distance from observer (ft)	100'
Direction from observer	NW
Stack height (fr. observer's elev.) (ft)	10'
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	Top Edge
target?	
describe background to plume	Containers
unique features of plume or stack	
Weather:	
ambient temperature (F)	45°F
relative humidity	30%
wind direction	NE
wind speed	10-15
barometric pressure	
rain? fog? snow? haze?	CLEAR
Glasses worn:	
corrective? (Y/N)	Y
sunglasses? (Y/N)	N

Observer's name	MARK J. READY
Observer certification date	10-22-12
Certifying agency	VCOMTZ
Observer affiliation	AVOGADRO / DA

sec	0	15	30	45
min	Run 9 Time: 1000			
1	5	0	5	5
2	5	5	5	5
3	5	0	0	0
4	0	0	0	0
5	5	0	0	5
6	0	0	0	5
6-minute Average:	2.3			
Source Conditions:				
Sun Angle (degrees):	10			
	Run 10 Time: 1020			
1	0	0	0	0
2	0	5	0	0
3	5	0	0	0
4	5	5	0	0
5	5	0	0	0
6	0	0	5	5
6-minute Average:	1.5			
Source Conditions:				
Sun Angle (degrees):	10			
	Run 11 Time: 1040			
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	5	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:	0.2			
Source Conditions:				
Sun Angle (degrees):	15			
	Run 12 Time: 1100			
1	0	0	0	0
2	0	0	0	5
3	5	5	5	5
4	5	0	0	5
5	0	0	0	0
6	5	5	0	0
6-minute Average:	1.9			
Source Conditions:				
Sun Angle (degrees):	20			

sec	0	15	30	45
min	Run 13 Time: 1120 *			
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	5	0	0	5
5	0	0	0	0
6	0	0	0	0
6-minute Average:	0.4			
Source Conditions:				
Sun Angle (degrees):	45			
	Run 14 Time: 1140			
1	5	5	10	5
2	5	5	5	5
3	5	5	5	5
4	5	5	5	5
5	5	5	0	0
6	0	0	0	5
6-minute Average:	4.2			
Source Conditions:				
Sun Angle (degrees):	45			
	Run 15 Time: 1200			
1	10	10	0	5
2	5	5	5	5
3	0	5	0	0
4	0	0	0	0
5	5	5	0	0
6	0	0	0	5
6-minute Average:	7.1			
Source Conditions:				
Sun Angle (degrees):	40			
	Run 16 Time: 1220			
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	5	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:	0.2			
Source Conditions:				
Sun Angle (degrees):	40			

Range of opacity readings: low 0 high 10

Number of readings above 10 % were 0

Observer's Signature

* LOCATION CHANGE @ 1120

DISTANCE - 150'

DIRECTION - NE

Visible Emissions Evaluation

UNIT 2

Run Number(s) and Description

 1-20-13

Facility Name	ECC FBF
AVOGADRO Project No.	12-9191
Location (city, state)	Brooklyn NY
Type of Facility	
Control Equipment / Emission Source	ACB
Date of Observation	1-20-13
Start Time	1240
Stop Time	
Distance from observer (ft)	150'
Direction from observer	NE
Stack height (fr. observer's elev.) (ft)	10'
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	Top Edge
target?	
describe background to plume	Continuous
unique features of plume or stack	
Weather:	
ambient temperature (F)	55°F
relative humidity	30%
wind direction	To: NE
wind speed	15-20
barometric pressure	
rain? fog? snow? haze?	Mostly Sunny
Glasses worn:	
corrective? (Y/N)	Y
sunglasses? (Y/N)	N

Observer's name	MARK J. READY
Observer certification date	10-22-12
Certifying agency	KOONTZ
Observer affiliation	AVOGADRO / DA

sec	0	15	30	45
min	Run 17 Time: 1240			
1	5	5	0	0
2	0	5	0	0
3	5	5	5	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:	1.3			
Source Conditions:				
Sun Angle (degrees):	35			
	Run 18 Time: 1300			
1	5	5	0	0
2	5	0	0	5
3	0	0	5	0
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):	35			
	Run 19 Time: 1320			
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):	35			
	Run 20 Time: 1340			
1	5	0	0	0
2	5	5	5	0
3	5	5	5	5
4	5	5	5	5
5	5	0	0	5
6	5	5	5	0
6-minute Average:	3.5			
Source Conditions:				
Sun Angle (degrees):	30			

sec	0	15	30	45
min	Run 21 Time: 1400			
1	0	0	0	5
2	5	0	0	0
3	0	0	0	0
4	0	0	5	5
5	5	0	0	0
6	0	0	0	0
6-minute Average:	1.0			
Source Conditions:				
Sun Angle (degrees):	15			
	Run 22 Time: 1420			
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):	5			
	Run 23 Time: 1440			
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			
	Run 24 Time: 1500			
1	0	0	0	0
2	0	0	0	0
3	5	5	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):	5			

Range of opacity readings:

low 0 high 5

Number of readings above 10 % were 0

Observer's Signature

Visible Emissions Evaluation

UNIT 2

Run Number(s) and Description

 1-20-13

Facility Name	ECC FBF
AVOGADRO Project No.	12-9191
Location (city, state)	Brooklyn NY
Type of Facility	
Control Equipment / Emission Source	ACB
Date of Observation	1-20-13
Start Time	1520
Stop Time	
Distance from observer (ft)	150'
Direction from observer	NE
Stack height (fr. observer's elev.) (ft)	10'
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	Top Edge
target?	
describe background to plume	Containers
unique features of plume or stack	
Weather:	
ambient temperature (F)	55°F
relative humidity	30%
wind direction TO:	E
wind speed	15-30
barometric pressure	
rain? fog? snow? haze?	P/Cly Cldy
Glasses worn:	
corrective? (Y/N)	Y
sunglasses? (Y/N)	N

Observer's name	MARK T. READY
Observer certification date	10-22-12
Certifying agency	KOONTZ ~~KOONTZ~~
Observer affiliation	AVOGADRO / DA

sec	0	15	30	45
min	Run 1 Time: 1520			
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			

sec	0	15	30	45
min	Run 2 Time: 1540			
1	5	5	10	5
2	5	5	5	5
3	10	5	5	10
4	5	5	5	5
5	5	10	5	5
6	5	5	5	5
6-minute Average:	5.8			
Source Conditions:				
Sun Angle (degrees):	20			

Run 3 Time: 1550				
1	0	0	5	5
2	5	5	5	0
3	0	0	0	0
4	0	5	0	0
5	0	5	5	5
6	0	5	5	5
6-minute Average:	2.5			
Source Conditions:				
Sun Angle (degrees):	15			

Run Time:				
1				
2				
3				
4				
5				
6				
6-minute Average:				
Source Conditions:				
Sun Angle (degrees):				

Run 4 Time: 1600				
1	0	0	0	5
2	5	5	0	0
3	0	0	0	0
4	0	5	5	0
5	0	0	0	0
6	0	0	0	5
6-minute Average:	1.3			
Source Conditions:				
Sun Angle (degrees):	20			

Run Time:				
1				
2				
3				
4				
5				
6				
6-minute Average:				
Source Conditions:				
Sun Angle (degrees):				

Run 5 Time: 1620				
1	15	15	15	15
2	10	5	10	15
3	10	10	10	10
4	10	10	10	10
5	10	5	5	5
6	5	10	5	5
6-minute Average:	9.6			
Source Conditions:				
Sun Angle (degrees):	20			

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 5

WIND DOWN TO 10-15 @ 1530 APPROX.

Observer's Signature

Night, January 20th, 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 2
Date of Observation	01/20/2013
Start Time	1932
Stop Time	2240
Distance from observer (ft)	150'
Direction from observer	E
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	—
Weather:	@1930
ambient temperature (F)	44°
relative humidity	24%
wind direction	SE
wind speed	4-8 mph
barometric pressure	29.91
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	WhiteHouse
Observer affiliation	Avogadro Env.

Note: High winds limiting burn capacity.

Run Number(s) and Description

ACB 2 Runs 1-8

sec	0	15	30	45
min	Run 1 Time: 1932			
1	5	5	5	5
2	5	5	5	5
3	5	5	5	5
4	5	5	5	5
5	0	0	0	0
6	0	0	0	0
6-minute Average: 3.3				
Source Conditions:				
Sun Angle (degrees):				

sec	0	15	30	45
min	Run 2 Time: 1958			
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 3 Time: 2024			
1	5	5	5	5
2	5	5	5	5
3	5	5	5	5
4	5	5	5	5
5	5	5	5	5
6	5	5	5	5
6-minute Average: 5				
Source Conditions:				
Sun Angle (degrees):				

sec	0	15	30	45
min	Run 4 Time: 2050			
0 1	10	10	10	10
2	10	10	10	10
3	10	10	10	10
4	10	10	10	10
5	5	5	5	5
5 6	10	10	5	5
6-minute Average: 8.8				
Source Conditions:				
Sun Angle (degrees):				

sec	0	15	30	45
min	Run 5 Time: 2116			
1	10	10	10	10
2	10	10	10	10
3	10	10	10	10
4	10	10	10	10
0 5	10	10	10	5
1 6	5	10	20	15
6-minute Average: 10.2				
Source Conditions:	spike due to			
Sun Angle (degrees):	stoking			

sec	0	15	30	45
min	Run 6 Time: 2142			
1	10	10	10	10
2	10	10	10	10
3	10	10	10	10
5 4	10	10	10	10
5	10	10	10	10
6	5	5	5	5
6-minute Average: 9.2				
Source Conditions:				
Sun Angle (degrees):				

sec	0	15	30	45
min	Run 7 Time: 2208			
1	5	5	5	5
2	5	5	5	5
3	5	5	5	5
4	5	5	5	5
5	5	5	5	5
6	5	5	5	5
6-minute Average: 5				
Source Conditions:				
Sun Angle (degrees):				

sec	0	15	30	45
min	Run 8 Time: 2234			
1	5	5	5	5
2	5	5	5	5
3	5	5	5	5
4	5	5	5	5
5	5	5	5	5
6	5	5	5	5
6-minute Average: 5				
Source Conditions:				
Sun Angle (degrees):				

Range of opacity readings: low 0 high 20

Number of readings above 10 % were 2

Observer's Signature

Ann. Night, January 20th, 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 2
Date of Observation	01/20/2013
Start Time	2308
Stop Time	2340
Distance from observer (ft)	150'
Direction from observer	E
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	—
Weather:	@2300
ambient temperature (F)	33°
relative humidity	38%
wind direction	SE
wind speed	4-8 mph
barometric pressure	30.02 in
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.

Run Number(s) and Description: ACB 2 Runs 9-10

sec	0	15	30	45
min	Run 9	Time: 2308		
1	5	5	5	5
2	5	5	5	5
3	5	5	5	5
4	0	0	0	0
5	5	5	5	5
6	5	5	5	5
6-minute Average:	4.2			
Source Conditions:				
Sun Angle (degrees):				
	Run 10	Time: 2334		
1	5	5	5	5
2	5	5	5	5
3	5	5	5	5
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:	2.5			
Source Conditions:				
Sun Angle (degrees):				
	Run	Time:		
1				
2				
3				
4				
5				
6				
6-minute Average:				
Source Conditions:				
Sun Angle (degrees):				
	Run	Time:		
1				
2				
3				
4				
5				
6				
6-minute Average:				
Source Conditions:				
Sun Angle (degrees):				

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

Range of opacity readings: low 0 high 5

Number of readings above 10 % were 0

Observer's Signature