Visible Emissions Evaluation

Friday Early Morn, February 8th, 2013

Run Number(s) and Description: 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	02/8/2013
Start Time	0034
Stop Time	342
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 exit lengths
target?	sky
describe background to plume	sky
unique features of plume or stack	—
	@0030
Weather:	
ambient temperature (F)	33°
relative humidity	66 %
wind direction	W
wind speed	4-8mph
barometric pressure	30.24 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	WhiTHow
Observer affiliation	Avogadro Env.

sec	0	15	30	45
min	Run 1 Time: 0034			
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 2 Time: 0100			
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: 0126			
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 4 Time: 0157			
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: 218			
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	5	5	0
5	0	0	0	0
6	0	0	0	0
6-minute Average: 0.4				
Source Conditions:				
Sun Angle (degrees):				

sec	0	15	30	45
min	Run 6 Time: 244			
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 7 Time: 310			
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 8 Time: 336			
1	0	0	0	0
2	0	0	0	0
3	0	5	5	0
4	0	0	0	0
5	0	0	0	0
6	0	5	0	0
6-minute Average: 0.6				
Source Conditions:				
Sun Angle (degrees):				

Range of opacity readings: low 0 high 5

Number of readings above 10 % were 0

Observer's Signature

Friday, Early Morn, February 8th, 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	02/8/2013
Start Time	402
Stop Time	536
Distance from observer (ft)	200'
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 cones lengths
target?	sky
describe background to plume	sky
unique features of plume or stack	—
	@ 400

Weather:

ambient temperature (F)	35°
relative humidity	72 %
wind direction	W
wind speed	8-12mph
barometric pressure	30.22 inHg
rain? fog? snow? haze?	clear

Glasses worn:

corrective? (Y/N)	yes
sunglasses? (Y/N)	—

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

Run Number(s) and Description: ACB 1 Runs 9-12

sec	0	15	30	45
min	Run 9	Time: 402		
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	Time:		
1				
2				
3				
4				
5				
6				
6-minute Average:				
Source Conditions:				
Sun Angle (degrees):				

sec	0	15	30	45
min	Run 10	Time: 428		
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	Time:		
1				
2				
3				
4				
5				
6				
6-minute Average:				
Source Conditions:				
Sun Angle (degrees):				

sec	0	15	30	45
min	Run 11	Time: 454		
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	Time:		
1				
2				
3				
4				
5				
6				
6-minute Average:				
Source Conditions:				
Sun Angle (degrees):				

sec	0	15	30	45
min	Run 12	Time: 530		
1	5	5	5	5
2	5	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:	1.0			
Source Conditions:	Clear			
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):				

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

 2-8-13

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	2-8-13
Start Time	0700
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)	35°F
relative humidity	
wind direction	TO: W
wind speed	10-15
barometric pressure	
rain? fog? snow? haze?	OVERCAST RAIN/SNOW

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: 0700			
1	10	10	10	5
2	10	10	10	10
3	10	10	5	10
4	10	10	10	10
5	5	5	10	10
6	5	5	10	5
6-minute Average:	8.5			
Source Conditions:				
Sun Angle (degrees):	10			
	Run 2 Time: 720			
1	5	10	10	5
2	10	5	5	10
3	10	10	5	5
4	5	5	10	5
5	5	5	5	5
6	10	10	10	10
6-minute Average:	7.3			
Source Conditions:				
Sun Angle (degrees):	~~720~~ 10			
	Run 3 Time: ~~720~~ 740			
1	10	10	5	5
2	5	10	10	10
3	5	5	5	5
4	10	10	10	5
5	10	10	5	10
6	10	10	5	5
6-minute Average:	~~7.7~~ 7.7			
Source Conditions:				
Sun Angle (degrees):	5			
	Run 4 Time: 2800			
1	20	15	15	15
2	15	15	10	10
3	15	15	15	20
4	15	10	15	10
5	10	10	5	10
6	10	5	10	5
6-minute Average:				
Source Conditions:				
Sun Angle (degrees):				

sec	0	15	30	45
min	Run 5 Time: 820			
1	5	5	10	10
2	10	5	5	5
3	5	10	10	5
4	5	10	5	5
5	5	5	5	5
6	5	5	5	10
6-minute Average:	6.5			
Source Conditions:				
Sun Angle (degrees):	10			
	Run 6 Time: 840			
1	10	5	5	5
2	10	10	5	10
3	10	10	10	10
4	10	10	10	5
5	5	10	10	10
6	10	10	10	10
6-minute Average:	8.18			
Source Conditions:				
Sun Angle (degrees):	15			
	Run 7 Time: 900			
1	5	10	10	10
2	5	5	5	10
3	10	5	5	5
4	5	5	10	10
5	10	10	10	5
6	5	10	10	10
6-minute Average:	7.7			
Source Conditions:				
Sun Angle (degrees):	15			
	Run 8 Time: 920			
1	5	10	10	5
2	5	10	10	10
3	5	5	5	5
4	10	10	5	10
5	5	5	10	10
6	5	5	10	5
6-minute Average:	7.3			
Source Conditions:				
Sun Angle (degrees):	20			

Range of opacity readings:

low 5 high 20

Number of readings above 10 % were 12

Observer's Signature

UNIT 1

Pg. 2 2-8-13

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	2-8-13
Start Time	940
Stop Time	
Distance from observer (ft)	100'
Direction from observer	NW
Stack height (fr. observer's elev.) (ft)	10'
Stack Diameter (in)	27x8
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)	35°F
relative humidity	
wind direction	TO: W
wind speed	10-15-20
barometric pressure	
rain? fog? snow? haze?	Overcast RAIN/SNOW
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

Run Number(s) and Description

sec	0	15	30	45
min	Run 9 Time: 940			
1	10	10	10	5
2	10	10	10	10
3	10	10	5	5
4	5	10	10	10
5	10	10	10	10
6	5	5	10	10
6-minute Average:	8.8			
Source Conditions:				
Sun Angle (degrees):	25			
	Run 10 Time: 1000			
1	5	5	5	5
2	0	0	5	5
3	5	5	5	5
4	5	0	0	0
5	5	10	10	10
6	5	5	5	5
6-minute Average:	4.6			
Source Conditions:				
Sun Angle (degrees):	25			
	Run 11 Time: 1020			
1	10	10	10	10
2	10	5	5	5
3	10	10	10	10
4	10	5	5	10
5	10	10	10	10
6	10	15	10	10
6-minute Average:	9.2			
Source Conditions:				
Sun Angle (degrees):	25			
	Run 12 Time: 1040			
1	15	15	15	10
2	10	5	5	5
3	5	5	5	10
4	10	5	5	5
5	5	5	15	15
6	10	10	10	10
6-minute Average:	8.8			
Source Conditions:				
Sun Angle (degrees):	25			

sec	0	15	30	45
min	Run 13 Time: 1100			
1	5	5	10	10
2	10	5	5	5
3	5	5	5	5
4	10	10	10	5
5	5	5	5	5
6	5	10	10	5
6-minute Average:	6.7			
Source Conditions:				
Sun Angle (degrees):	25			
	Run 14 Time: 1120			
1	5	5	5	5
2	5	5	5	0
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			
	Run 15 Time: 1140			
1	10	10	10	10
2	5	5	10	10
3	5	10	10	10
4	10	10	10	5
5	5	5	10	10
6	10	10	10	10
6-minute Average:	8.8			
Source Conditions:				
Sun Angle (degrees):	30			
	Run 16 Time: 1200			
1	10	10	10	10
2	5	10	5	10
3	5	10	10	10
4	5	10	10	10
5	10	10	10	10
6	10	10	10	10
6-minute Average:	9.2			
Source Conditions:				
Sun Angle (degrees):	30			

Range of opacity readings:
low 0 high 15

Number of readings above 10 % were 6

Observer's Signature

UNIT 1

Run Number(s) and Description Pg. 3 2-8-13

Visible Emissions Evaluation

Facility Name	FBF ECC
AVOGADRO Project No.	12-9191
Location (city, state)	Brooklyn NY
Type of Facility	
Control Equipment / Emission Source	ACB
Date of Observation	2-8-13
Start Time	1220
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)	35°F
relative humidity	100%
wind direction	W & SW
wind speed	15-25
barometric pressure	
rain? fog? snow? haze?	Overcast Rain
Glasses worn:	
corrective? (Y/N)	Y
sunglasses? (Y/N)	N

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

sec	0	15	30	45
min	Run 17 Time: 1220			
1	10	10	5	5
2	10	5	5	5
3	10	10	10	5
4	5	5	5	5
5	5	10	10	10
6	10	5	5	10
6-minute Average:			7.3	
Source Conditions:			ST by	
Sun Angle (degrees):			50	
	Run 18 Time: 1240			
1	10	10	5	5
2	5	5	10	10
3	10	10	10	5
4	5	5	10	10
5	10	10	10	15
6	5	10	5	10
6-minute Average:			8.3	
Source Conditions:			ST by	
Sun Angle (degrees):			50	
	Run 19 Time: 1300			
1	10	10	10	10
2	10	10	10	10
3	10	10	10	5
4	10	10	10	10
5	10	10	10	10
6	5	10	10	10
6-minute Average:			9.6	
Source Conditions:			ST by	
Sun Angle (degrees):			45	
	Run 20 Time: 1320			
1	10	10	5	10
2	10	10	15	10
3	10	10	5	5
4	10	5	10	10
5	5	10	5	10
6	10	10	10	10
6-minute Average:			9.0	
Source Conditions:			ST by	
Sun Angle (degrees):			40	

sec	0	15	30	45
min	Run 21 Time: 1340			
1	10	10	15	10
2	10	15	15	15
3	15	10	15	15
4	15	15	15	15
5	15	15	15	15
6	15	10	15	15
6-minute Average:			13.8	
Source Conditions:			ST by	
Sun Angle (degrees):			40	
	Run 22 Time: 1400			
1	15	10	15	15
2	15	15	15	15
3	15	10	15	15
4	10	10	15	15
5	15	15	15	15
6	10	15	15	15
6-minute Average:			14.0	
Source Conditions:			ST By	
Sun Angle (degrees):			40	
	Run 23 Time: 1420			
1	10	5	10	10
2	10	10	10	10
3	10	10	10	10
4	5	10	10	10
5	5	5	10	10
6	5	10	10	5
6-minute Average:			8.8	
Source Conditions:			ST By	
Sun Angle (degrees):			40	
	Run 24 Time: 1440			
1	15	15	15	15
2	15	10	15	15
3	15	15	15	15
4	15	15	10	10
5	15	15	15	15
6	10	15	15	15
6-minute Average:			14.2	
Source Conditions:			ST By	
Sun Angle (degrees):			35	

Range of opacity readings: low 5 high 15

Number of readings above 10 % were 59

Observer's Signature

Visible Emissions Evaluation

UNIT 1

Run Number(s) and Description

 2-8-13

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	2-8-13
Start Time	1500
Stop Time	
Distance from observer (ft)	150
Direction from observer	NE
Stack height (fr. observer's elev.) (ft)	10'
Stack Diameter (in)	27x8
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)	32°F
relative humidity	100%
wind direction	WSW
wind speed	15-20+
barometric pressure	
rain? fog? snow? haze?	OVERCAST RAIN/SLEET
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 25 Time: 1500			
1	10	10	10	10
2	10	10	10	10
3	5	5	10	10
4	10	10	10	5
5	10	10	10	10
6	5	5	10	10
6-minute Average:	9,0			
Source Conditions:	ST BY			
Sun Angle (degrees):	30			
	Run 26 Time: 1520			
1	20	20	20	20
2	15	15	15	15
3	20	15	15	15
4	15	15	15	15
5	15	15	10	10
6	10	10	10	10
6-minute Average:	14,8			
Source Conditions:	ST BY			
Sun Angle (degrees):	25			
	Run 27 Time: 1540			
1	10	10	10	10
2	5	10	10	10
3	10	10	5	5
4	10	10	10	10
5	10	5	5	5
6	10	5	10	10
6-minute Average:	8,5			
Source Conditions:	ST BY			
Sun Angle (degrees):	20			
	Run 28 Time: 1600			
1	10	10	10	10
2	5	10	10	5
3	10	10	10	10
4	10	10	10	10
5	10	5	5	10
6	5	10	5	10
6-minute Average:	8,8			
Source Conditions:	ST BY			
Sun Angle (degrees):	15			

sec	0	15	30	45
min	Run 29 Time: 1620			
1	10	10	5	5
2	5	5	10	10
3	10	10	10	5
4	5	5	5	5
5	10	10	5	5
6	5	10	5	10
6-minute Average:	7,3			
Source Conditions:	ST BY			
Sun Angle (degrees):	10			
	Run 30 Time: 1640			
1	10	10	10	5
2	5	5	15	5
3	5	5	10	10
4	10	10	10	10
5	10	10	10	10
6	5	5	10	5
6-minute Average:	8,3			
Source Conditions:	ST BY			
Sun Angle (degrees):	10			
	Run 31 Time: 1700			
1	15	15	15	15
2	15	15	15	15
3	15	15	15	15
4	15	10	10	15
5	15	15	15	15
6	15	15	10	10
6-minute Average:	14,2			
Source Conditions:	ST BY			
Sun Angle (degrees):	10			
	Run Time:			
1				
2				
3				
4				
5				
6				
6-minute Average:				
Source Conditions:				
Sun Angle (degrees):				

Range of opacity readings:

low 5 high 20

Number of readings above 10 % were 38

Observer's Signature

Visible Emissions Evaluation

Friday Night, February 8th, 2013

Run Number(s) and Description: 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	02/8/2013
Start Time	1844
Stop Time	2152
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 exit lengths
target?	sky
describe background to plume	sky
unique features of plume or stack	—
	@1840
Weather:	
ambient temperature (F)	30°
relative humidity	86%
wind direction	S
wind speed	12-15mph
barometric pressure	29.62 inHg
rain? fog? snow? haze?	light snow/fog
Glasses worn:	
corrective? (Y/N)	yes
sunglasses? (Y/N)	—

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

sec	0	15	30	45
min	Run 1 Time: 1844			
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: 1910			
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: 1936			
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: 2002			
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: 2028			
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: 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 7 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 8 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):				

Range of opacity readings: low 0 high 0

Number of readings above 10 % were 0

Observer's Signature

Friday Night, February 8th, 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	02/8/2013
Start Time	2212
Stop Time	2336
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 exit lengths
target?	sky
describe background to plume	sky
unique features of plume or stack	—
	@ 2210

Weather:

ambient temperature (F)	30°
relative humidity	86 %
wind direction	S
wind speed	12-16mph
barometric pressure	29.68 inHg
rain? fog? snow? haze?	snow/fog

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.

Run Number(s) and Description: ACB 1 Runs 9-12

sec	0	15	30	45
min	Run 9	Time: 2212		
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):				

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

	Run 10	Time: 2238		
1	0	0	0	5
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	5	0	0	0
6	0	0	0	0
6-minute Average:	0.4			
Source Conditions:				
Sun Angle (degrees):				

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

	Run 11	Time: 2304		
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	5	0	0
6	0	0	0	5
6-minute Average:	0.4			
Source Conditions:				
Sun Angle (degrees):				

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

	Run 12	Time: 2330		
1	0	0	0	0
2	5	0	0	0
3	5	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	5	0
6-minute Average:	0.6			
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

Friday, Early M. February 8th, 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	02/8/2013
Start Time	0034
Stop Time	342
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 const lengths
target?	sky
describe background to plume	sky
unique features of plume or stack	—
	@ 0030
Weather:	
ambient temperature (F)	33°
relative humidity	66 %
wind direction	W
wind speed	4-8mph
barometric pressure	30.24 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 1 Time: 0034			
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: 0100			
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: 120			
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: 152			
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: 218			
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: 244			
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: 310			
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: 336			
1	0	0	0	0
2	0	0	5	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):				

Range of opacity readings: low 0 high 5

Number of readings above 10 % were 0

Observer's Signature

Friday, Early Morning, February 8th, 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	02/8/2013
Start Time	402
Stop Time	536
Distance from observer (ft)	200'
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	—
	@ 400

Weather:

ambient temperature (F)	35°
relative humidity	72 %
wind direction	W
wind speed	8-12 mph
barometric pressure	30.22 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	WhiteHow
Observer affiliation	Avogadro Env.

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

sec	0	15	30	45	sec	0	15	30	45
min	Run 9 Time: 402				min	Run Time:			
1	0	0	0	0	1				
2	0	0	0	0	2				
3	0	0	0	0	3				
4	0	0	0	0	4				
5	0	0	0	0	5				
6	0	0	0	0	6				
6-minute Average:	0				6-minute Average:				
Source Conditions:					Source Conditions:				
Sun Angle (degrees):					Sun Angle (degrees):				
	Run 10 Time: 428					Run Time:			
1	0	0	0	0	1				
2	0	0	0	0	2				
3	0	0	0	0	3				
4	0	0	0	0	4				
5	0	0	0	0	5				
6	0	0	0	0	6				
6-minute Average:	0				6-minute Average:				
Source Conditions:					Source Conditions:				
Sun Angle (degrees):					Sun Angle (degrees):				
	Run 11 Time: 454					Run Time:			
1	0	0	0	0	1				
2	0	0	0	0	2				
3	0	0	0	0	3				
4	0	0	0	0	4				
5	0	0	0	0	5				
6	0	0	0	0	6				
6-minute Average:	0				6-minute Average:				
Source Conditions:					Source Conditions:				
Sun Angle (degrees):					Sun Angle (degrees):				
	Run 12 Time: 530					Run Time:			
1	0	0	0	0	1				
2	0	0	0	0	2				
3	0	0	0	0	3				
4	0	0	0	0	4				
5	0	0	0	0	5				
6	0	0	0	0	6				
6-minute Average:	0				6-minute Average:				
Source Conditions:					Source Conditions:				
Sun Angle (degrees):					Sun Angle (degrees):				

Range of opacity readings: low 0 high 0

Number of readings above 10 % were 0

Observer's Signature

Visible Emissions Evaluation

UNIT 2

Run Number(s) and Description

 2-8-13

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	2-8-13
Start Time	0700
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)	35°F
relative humidity	
wind direction	W
wind speed	10-15
barometric pressure	
rain? fog? snow? haze?	Overcast RAIN/SNOW

Glasses worn:

corrective? (Y/N)	Y
sunglasses? (Y/N)	N

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

sec	0	15	30	45
min	Run 1 Time: 0700			
1	10	10	10	10
2	10	10	10	5
3	5	10	10	10
4	10	10	10	10
5	5	5	10	5
6	5	5	5	10
6-minute Average:	8.3			
Source Conditions:				
Sun Angle (degrees):	10			
	Run 2 Time: 720			
1	10	5	5	5
2	5	5	10	5
3	5	10	5	5
4	5	5	5	5
5	5	5	5	5
6	5	5	5	5
6-minute Average:	5.6			
Source Conditions:				
Sun Angle (degrees):	10			
	Run 3 Time: 740			
1	5	5	0	0
2	0	5	5	5
3	5	5	5	5
4	0	0	0	5
5	5	5	5	0
6	5	0	0	5
6-minute Average:	3.1			
Source Conditions:				
Sun Angle (degrees):	5			
	Run 4 Time: 800			
1	20	15	15	15
2	10	5	5	10
3	10	10	15	10
4	5	10	10	10
5	5	5	5	10
6	5	5	10	10
6-minute Average:				
Source Conditions:				
Sun Angle (degrees):				

sec	0	15	30	45
min	Run 5 Time: 820			
1	10	10	5	5
2	10	10	10	10
3	10	10	5	5
4	10	10	10	10
5	5	10	5	10
6	10	10	10	5
6-minute Average:	8.5			
Source Conditions:				
Sun Angle (degrees):	10			
	Run 6 Time: 840			
1	0	5	0	0
2	0	5	5	5
3	5	0	0	5
4	5	0	5	0
5	5	0	5	5
6	5	0	5	5
6-minute Average:	2.9			
Source Conditions:				
Sun Angle (degrees):	15			
	Run 7 Time: 900			
1	0	5	5	0
2	5	5	5	10
3	10	5	5	5
4	5	5	0	0
5	0	5	5	5
6	5	5	0	5
6-minute Average:	4.2			
Source Conditions:				
Sun Angle (degrees):	15			
	Run 8 Time: 920			
1	0	0	5	5
2	5	5	0	0
3	0	0	5	0
4	0	5	5	5
5	5	5	5	5
6	0	0	5	0
6-minute Average:	2.7			
Source Conditions:				
Sun Angle (degrees):	20			

Range of opacity readings:

low 0 high 20

Number of readings above 10 % were 4

Observer's Signature

Visible Emissions Evaluation

UNIT 2

Run Number(s) and Description: Pg. 2 2-8-13

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	2-8-13
Start Time	940
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)	35°F
relative humidity	
wind direction	To : W
wind speed	10-15-20
barometric pressure	
rain? fog? snow? haze?	OVERCAST RAIN/SNOW
Glasses worn:	
corrective? (Y/N)	Y
sunglasses? (Y/N)	N

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

sec	0	15	30	45
min	Run 9 Time: 940			
1	5	5	5	5
2	5	5	0	0
3	5	5	5	5
4	5	0	0	0
5	5	5	5	5
6	5	5	0	0
6-minute Average: 3.5				
Source Conditions:				
Sun Angle (degrees): 25				
	Run 10 Time: 1000			
1	5	5	5	5
2	5	0	0	0
3	0	0	0	0
4	0	0	0	5
5	5	5	5	5
6	0	5	0	5
6-minute Average: 2.3				
Source Conditions:				
Sun Angle (degrees): 25				
	Run 11 Time: 1020			
1	10	10	10	5
2	5	5	5	5
3	10	10	10	10
4	10	10	10	10
5	10	5	5	10
6	10	10	10	10
6-minute Average: 8.5				
Source Conditions:				
Sun Angle (degrees): 25				
	Run 12 Time: 1040			
1	5	5	5	0
2	5	5	5	0
3	0	5	5	5
4	5	10	5	5
5	5	5	5	5
6	5	0	5	5
6-minute Average: 4.4				
Source Conditions:				
Sun Angle (degrees): 25				

sec	0	15	30	45
min	Run 13 Time: 1100			
1	5	0	0	5
2	10	5	5	10
3	5	0	0	5
4	0	5	5	5
5	0	0	5	5
6	5	5	5	5
6-minute Average: 4.0				
Source Conditions:				
Sun Angle (degrees): 25				
	Run 14 Time: 1120			
1	5	5	0	5
2	5	5	5	5
3	5	5	5	5
4	10	5	5	5
5	5	5	5	5
6	5	5	5	0
6-minute Average: 4.8				
Source Conditions:				
Sun Angle (degrees): 30				
	Run 15 Time: 1140			
1	5	5	5	10
2	5	5	10	5
3	0	10	5	10
4	5	10	5	5
5	10	5	5	5
6	10	10	5	5
6-minute Average: 6.5				
Source Conditions:				
Sun Angle (degrees): 30				
	Run 16 Time: 1200			
1	5	5	5	10
2	10	5	5	5
3	5	5	5	10
4	5	10	10	10
5	10	10	10	5
6	5	5	5	10
6-minute Average: 7.1				
Source Conditions:				
Sun Angle (degrees): 30				

Range of opacity readings: low 0 high 10

Number of readings above 10 % were 0

Observer's Signature

Visible Emissions Evaluation

UNIT 2

Run Number(s) and Description

 2-8-13

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	2-8-13
Start Time	1220
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)	35°F
relative humidity	100%
wind direction	W
wind speed	Mins-25
barometric pressure	
rain? fog? snow? haze?	Overcast RAIN
Glasses worn:	
corrective? (Y/N)	Y
sunglasses? (Y/N)	N

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

sec	0	15	30	45
min	Run 17 Time: 1220			
1	20	20	20	20
2	20	20	15	15
3	20	20	15	20
4	15	15	20	15
5	20	20	20	20
6	15	15	15	15
6-minute Average:	17.9			
Source Conditions:	ST BY			
Sun Angle (degrees):	50			
	Run 18 Time: 1240			
1	5	5	5	10
2	5	5	5	5
3	5	5	5	5
4	5	5	10	10
5	10	10	10	10
6	5	10	5	5
6-minute Average:	6.7			
Source Conditions:	ST by			
Sun Angle (degrees):	50			
	Run 19 Time: 1300			
1	15	15	10	10
2	10	10	10	5
3	10	10	5	5
4	10	10	10	10
5	5	10	10	5
6	5	5	5	10
6-minute Average:	8.8			
Source Conditions:	ST by			
Sun Angle (degrees):	45			
	Run 20 Time: 1320			
1	5	5	10	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:	5.2			
Source Conditions:	ST by			
Sun Angle (degrees):	40 45			

sec	0	15	30	45
min	Run 21 Time: 1340			
1	5	5	5	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:	5.2			
Source Conditions:	ST by			
Sun Angle (degrees):	40			
	Run 22 Time: 1400			
1	15	15	15	15
2	15	15	15	15
3	15	10	15	15
4	10	15	10	15
5	15	15	10	15
6	15	15	15	15
6-minute Average:	14.2			
Source Conditions:	ST BY			
Sun Angle (degrees):	40			
	Run 23 Time: 1420			
1	5	5	5	5
2	5	5	5	5
3	5	10	5	5
4	5	5	5	5
5	5	10	5	5
6	5	5	5	5
6-minute Average:	5.4			
Source Conditions:	ST BY			
Sun Angle (degrees):	40			
	Run 24 Time: 1440			
1	5	5	5	0
2	0	0	5	5
3	0	0	0	0
4	0	0	5	0
5	5	0	0	0
6	5	0	5	5
6-minute Average:	2.1			
Source Conditions:	ST BY			
Sun Angle (degrees):	25			

Range of opacity readings:

low 0 high 20

Number of readings above 10 % were 46

Observer's Signature

UNIT 2

Pg. 4 2-8-13

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	2-8-13
Start Time	1500
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)	32°F
relative humidity	100%
wind direction	WSW
wind speed	15-20+
barometric pressure	
rain? fog? snow? haze?	OVERCAST RAIN/SLEET
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

Run Number(s) and Description

sec	0	15	30	45
min	Run 23 Time: 1500			
1	0	0	0	0
2	0	0	5	5
3	0	0	0	0
4	0	5	5	5
5	0	0	0	0
6	5	5	0	0
6-minute Average:	1.5			
Source Conditions:	ST BY			
Sun Angle (degrees):	30			
	Run 26 Time: 1520			
1	15	15	15	15
2	20	15	15	15
3	20	20	15	15
4	15	15	15	10
5	15	15	0	15
6	15	15	15	15
6-minute Average:	15.6			
Source Conditions:	ST BY			
Sun Angle (degrees):	23			
	Run 27 Time: 1540			
1	5	5	10	10
2	10	10	5	5
3	5	5	5	5
4	10	5	10	10
5	10	10	5	5
6	5	5	10	10
6-minute Average:	7.3			
Source Conditions:	ST BY			
Sun Angle (degrees):	20			
	Run 28 Time: 1600			
1	5	10	10	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:	5.6			
Source Conditions:	ST BY			
Sun Angle (degrees):	15			

sec	0	15	30	45
min	Run 29 Time: 1620			
1	10	5	5	5
2	5	5	5	5
3	5	10	10	5
4	5	5	5	5
5	5	5	5	5
6	5	5	5	5
6-minute Average:	5.6			
Source Conditions:	ST BY			
Sun Angle (degrees):	10			
	Run 30 Time: 1640			
1	5	5	5	5
2	10	10	10	5
3	5	5	5	5
4	5	10	10	5
5	5	5	5	5
6	5	5	5	5
6-minute Average:	6.0			
Source Conditions:	ST BY			
Sun Angle (degrees):	10			
	Run 31 Time: 1700			
1	5	5	5	5
2	5	5	5	0
3	0	5	5	5
4	5	5	5	10
5	10	5	5	5
6	10	5	5	5
6-minute Average:	5.2			
Source Conditions:	ST BY			
Sun Angle (degrees):	10			
	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 24

Observer's Signature

Visible Emissions Evaluation

Friday Night, February 8th, 2013

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	02/8/2013
Start Time	1844
Stop Time	2152
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	—
	@ 1840
Weather:	
ambient temperature (F)	30°
relative humidity	86 %
wind direction	S
wind speed	12-15mph
barometric pressure	29.62 in Hg
rain? fog? snow? haze?	light snow/fog
Glasses worn:	
corrective? (Y/N)	yes
sunglasses? (Y/N)	—

sec	0	15	30	45	sec	0	15	30	45
min	Run 1 Time: 1844				min	Run 5 Time: 2028			
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	0	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	0	0	0
6-minute Average:	0				6-minute Average:	0			
Source Conditions:					Source Conditions:				
Sun Angle (degrees):					Sun Angle (degrees):				
	Run 2 Time: 1910					Run 6 Time: 2054			
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	0	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	0	0	0
6-minute Average:	0				6-minute Average:	0			
Source Conditions:					Source Conditions:				
Sun Angle (degrees):					Sun Angle (degrees):				
	Run 3 Time: 1936					Run 7 Time: 2120			
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	0	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	0	0	0
6-minute Average:	0				6-minute Average:	0			
Source Conditions:					Source Conditions:				
Sun Angle (degrees):					Sun Angle (degrees):				
	Run 4 Time: 2002					Run 8 Time: 2146			
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	0	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	0	0	0
6-minute Average:	0				6-minute Average:	0			
Source Conditions:					Source Conditions:				
Sun Angle (degrees):					Sun Angle (degrees):				

Range of opacity readings: low 0 high 0

Number of readings above 10 % were 0

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

Observer's Signature

Friday Night, February 8th, 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	02/8/2013
Start Time	2212
Stop Time	2336
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	—
	@ 2210

Weather:

ambient temperature (F)	30°
relative humidity	86 %
wind direction	S
wind speed	12 gusts-16 mph
barometric pressure	29.68 in Hg
rain? fog? snow? haze?	snow/fog

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 9-12

sec	0	15	30	45	sec	0	15	30	45
min	Run 9 Time: 2212				min	Run Time:			
1	0	0	0	0	1				
2	0	0	0	0	2				
3	0	0	0	0	3				
4	0	0	0	0	4				
5	0	0	0	0	5				
6	0	0	0	0	6				
6-minute Average: 0					6-minute Average:				
Source Conditions:					Source Conditions:				
Sun Angle (degrees):					Sun Angle (degrees):				
	Run 10 Time: 2238					Run Time:			
1	0	0	0	0	1				
2	0	0	0	0	2				
3	0	0	0	0	3				
4	0	0	0	0	4				
5	0	0	0	0	5				
6	0	0	0	0	6				
6-minute Average: 0					6-minute Average:				
Source Conditions:					Source Conditions:				
Sun Angle (degrees):					Sun Angle (degrees):				
	Run 11 Time: 2304					Run Time:			
1	0	0	0	0	1				
2	0	0	0	0	2				
3	0	0	0	0	3				
4	0	0	0	0	4				
5	0	0	0	0	5				
6	0	0	0	0	6				
6-minute Average: 0					6-minute Average:				
Source Conditions:					Source Conditions:				
Sun Angle (degrees):					Sun Angle (degrees):				
	Run 12 Time: 2330					Run Time:			
1	0	0	0	0	1				
2	0	0	0	0	2				
3	0	0	0	0	3				
4	0	0	0	0	4				
5	0	0	0	0	5				
6	0	0	0	0	6				
6-minute Average: 0					6-minute Average:				
Source Conditions:					Source Conditions:				
Sun Angle (degrees):					Sun Angle (degrees):				

Range of opacity readings: low 0 high 0

Number of readings above 10 % were 0

Observer's Signature

AVOGADRO ENVIRONMENTAL CORPORATION, Easton Pa