Visible Emissions Evaluation

Run Number(s) and Description: 01/02/2013 Morning Runs 1-8

Facility Name	ECC Floyd Bennett Field Op.
AVOGADRO Project No.	12-9191
Location (city, state)	Brooklyn, NY
Type of Facility	Em Ops. Sandy
Control Equipment / Emission Source	ACB
Date of Observation	01/02/2013
Start Time	0014
Stop Time	0322
Distance from observer (ft)	~100 ft
Direction from observer	NNE
Stack height (fr. observer's elev.) (ft)	~10 ft
Stack Diameter (in)	
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	1-2 isocnts
target?	150 conts/sky
describe background to plume	"
unique features of plume or stack	
	@0010 @0230
Weather:	
ambient temperature (F)	27° 26°
relative humidity	44% 46%
wind direction	ESE ESE
wind speed	~5 mph ~7mph
barometric pressure	30.02 in Hg "
rain? fog? snow? haze?	clear "
Glasses worn:	
corrective? (Y/N)	Y
sunglasses? (Y/N)	N

Observer's name	Joshua Wagner
Observer certification date	
Certifying agency	PSU & Whitlow
Observer affiliation	Avogadro Env.

sec	0	15	30	45
min	Run 1 Time: 0014			
1	10	10	5	10
2	5	5	10	10
3	10	5	5	5
4	5	10	10	5
5	5	5	5	5
6	5	5	10	5
6-minute Average: 6.7				
Source Conditions:				
Sun Angle (degrees): —				

sec	0	15	30	45
min	Run 5 Time: 0158			
1	10	15	10	10
2	10	10	15	10
3	10	10	10	15
4	10	10	15	10
5	10	20	10	10
6	15	10	10	10
6-minute Average: 11.5				
Source Conditions:				
Sun Angle (degrees):				

Run 2 Time: 0040				
1	10	10	10	5
2	10	15	10	10
3	15	10	10	10
4	5	10	5	10
5	10	10	10	15
6	10	10	15	10
6-minute Average: 10.2				
Source Conditions:				
Sun Angle (degrees): —				

Run 6 Time: 0224				
1	15	15	15	10
2	10	15	15	15
3	15	10	15	15
4	20	15	15	10
5	15	15	15	15
6	15	10	15	15
6-minute Average: 14.2				
Source Conditions: too much fuel loade				
Sun Angle (degrees): —				

Run 3 Time: 0106				
1	10	10	10	10
2	10	10	10	10
3	15	10	10	10
4	10	10	10	10
5	5	10	10	5
6	10	10	15	10
6-minute Average: 10				
Source Conditions:				
Sun Angle (degrees):				

Run 7 Time: 0250				
1	10	10	15	10
2	10	15	10	10
3	10	15	10	15
4	15	10	10	15
5	10	10	10	15
6	10	15	10	15
6-minute Average: 11.9				
Source Conditions:				
Sun Angle (degrees):				

Run 4 Time: 0132				
1	10	10	10	10
2	10	10	10	10
3	15	10	15	10
4	10	10	15	10
5	10	10	10	10
6	10	10	10	10
6-minute Average: 10.6				
Source Conditions: requested fuel				
~~Sun Angle (degrees)~~: lessening				

Run 8 Time: 0316				
1	10	10	15	10
2	10	15	10	15
3	10	10	15	10
4	15	15	10	10
5	10	15	10	15
6	10	15	10	15
6-minute Average: 12.1				
Source Conditions:				
Sun Angle (degrees):				

Resum
compli
as a
result

Range of opacity readings: low 5 high 20

Number of readings above _____ % were _____

Observer's Signature

Visible Emissions Evaluation

Run Number(s) and Description 01/02/2013 Morning Runs 9-14

Facility Name	ECC Floyd Bennett Op.
AVOGADRO Project No.	12-9191
Location (city, state)	Brooklyn, NY
Type of Facility	Em. Sandy Op.
Control Equipment / Emission Source	ACB
Date of Observation	01/02/2013
Start Time	0342
Stop Time	0558
Distance from observer (ft)	~100 ft
Direction from observer	NE
Stack height (fr. observer's elev.) (ft)	~10 ft
Stack Diameter (in)	
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	1-2 150 cont. lengths
target?	150 conts/sky
describe background to plume	"
unique features of plume or stack	
Weather:	@0330
ambient temperature (F)	24°
relative humidity	62%
wind direction	SE
wind speed	7-12
barometric pressure	30.04 in Hg
rain? fog? snow? haze?	clear
Glasses worn:	
corrective? (Y/N)	Y
sunglasses? (Y/N)	N

Observer's name	Joshua Wagner
Observer certification date	
Certifying agency	PSA & Whitlaw
Observer affiliation	Avogadro Env.

sec	0	15	30	45
min	Run 9 Time: 0342			
1	10	10	10	10
2	10	10	10	10
3	10	10	10	10
4	10	10	10	10
5	10	10	10	10
6	10	10	10	10
6-minute Average: 10				
Source Conditions: better fuel ratio				
Sun Angle (degrees): —				

sec	0	15	30	45
min	Run 13 Time: 0526			
1	10	10	10	10
2	5	10	5	5
3	5	10	5	10
4	10	10	5	5
5	10	5	5	10
6	10	10	5	5
6-minute Average: 7.7				
Source Conditions:				
Sun Angle (degrees): —				

	Run 10 Time: 0408			
1	10	10	10	10
2	10	10	10	10
3	10	10	10	10
4	10	10	10	10
5	5	10	10	10
6	5	10	10	10
6-minute Average: 9.6				
Source Conditions:				
Sun Angle (degrees): —				

	Run 14 Time: 0552			
1	10	10	10	5
2	5	10	10	5
3	10	5	10	10
4	5	10	5	10
5	5	10	5	5
6	10	5	10	10
6-minute Average: 7.9				
Source Conditions:				
Sun Angle (degrees): —				

	Run 11 Time: 0434			
1	10	10	10	10
2	10	5	10	10
3	10	10	10	10
4	10	10	10	10
5	10	10	10	10
6	10	10	5	10
6-minute Average: 9.6				
Source Conditions:				
Sun Angle (degrees): —				

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

	Run 12 Time: 0500			
1	5	10	5	10
2	5	5	10	5
3	5	10	10	5
4	5	5	10	5
5	10	5	5	10
6	10	10	5	5
6-minute Average: 7.0				
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 _____ high _____

Number of readings above _____ % were _____

_____

Observer's Signature

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	1-2-13
Start Time	0720
Stop Time	945
Distance from observer (ft)	100'
Direction from observer	NE
Stack height (fr. observer's elev.) (ft)	10'
Stack Diameter (in)	27.17 x 8.42

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	25' DOWNWIND
target?	
describe background to plume	CONTAINERS
unique features of plume or stack	

Weather:

ambient temperature (F)	25 - 30 °F
relative humidity	45%
wind direction	ESE
wind speed	10-15
barometric pressure	29.99
rain? fog? snow? haze?	OVERCAST

Glasses worn:

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

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

Run Number(s) and Description PAGE 1 1-2-13

sec	0	15	30	45
min	Run 15 Time: 720			
1	15	15	15	15
2	15	15	10	10
3	15	15	15	15
4	10	10	10	15
5	15	10	10	10
6	15	10	10	10
6-minute Average:	12.5			
Source Conditions:				
Sun Angle (degrees):	65			
	Run 16 Time: 740			
1	5	10	15	10
2	10	15	15	15
3	10	5	15	15
4	10	5	5	10
5	10	10	10	10
6	10	15	10	15
6-minute Average:	10.8			
Source Conditions:				
Sun Angle (degrees):	65			
	Run 17 Time: 800			
1	20	15	15	15
2	15	15	15	15
3	15	15	15	10
4	10	10	15	15
5	15	15	15	15
6	10	10	15	15
6-minute Average:	14.2			
Source Conditions:				
Sun Angle (degrees):	60			
	Run 18 Time: 820			
1	10	10	10	10
2	10	15	10	10
3	15	10	15	15
4	10	10	15	10
5	15	15	15	10
6	10	10	10	10
6-minute Average:	11.7			
Source Conditions:				
Sun Angle (degrees):	60			

sec	0	15	30	45
min	Run 19 Time: 840			
1	10	10	5	5
2	10	5	5	15
3	10	10	10	10
4	10	10	5	15
5	5	10	10	10
6	10	5	10	10
6-minute Average:	8.5			
Source Conditions:				
Sun Angle (degrees):	55			
	Run 20 Time: 900			
1	10	10	10	10
2	10	10	15	10
3	10	10	10	10
4	15	10	10	10
5	15	10	15	10
6	10	5	5	5
6-minute Average:	10.2			
Source Conditions:				
Sun Angle (degrees):	55			
	Run 21 Time: 920			
1	10	10	10	15
2	10	10	10	5
3	10	5	10	10
4	10	10	10	5
5	10	10	10	10
6	10	10	10	15
6-minute Average:	9.8			
Source Conditions:				
Sun Angle (degrees):	45			
	Run 22 Time: 940			
1	10	10	10	10
2	10	10	10	10
3	5	10	10	10
4	10	10	10	10
5	10	10	10	10
6	10	10	10	10
6-minute Average:	9.8			
Source Conditions:				
Sun Angle (degrees):	40			

Range of opacity readings:
low 5% high 70%

Number of readings above 10 % were 54

Observer's Signature

Visible Emissions Evaluation

Facility Name	ECC FBF
AVOGADRO Project No.	12-9191
Location (city, state)	Riverdale NJ, NY
Type of Facility	
Control Equipment / Emission Source	ACR
Date of Observation	1-2-13
Start Time	10:00
Stop Time	12:05
Distance from observer (ft)	125'
Direction from observer	E
Stack height (fr. observer's elev.) (ft)	10'
Stack Diameter (in)	27.17 x 8.42

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	25' Downwind
target?	
describe background to plume	Containers
unique features of plume or stack	

Weather:

ambient temperature (F)	35°F
relative humidity	45%
wind direction	ESE
wind speed	10
barometric pressure	29.99
rain? fog? snow? haze?	OVERCAST

Glasses worn:

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

Observer's name	MARKET READY
Observer certification date	10-22-12
Certifying agency	EPA
Observer affiliation	AVOGADRO/DA

Run Number(s) and Description PAGE 2 1-2-13

sec	0	15	30	45
min	Run 23 Time: 1000			
1	10	10	10	15
2	10	10	10	10
3	10	5	10	10
4	10	10	10	10
5	10	10	10	10
6	10	5	5	10
6-minute Average:	9.6			
Source Conditions:				
Sun Angle (degrees):	60			
	Run 24 Time: 1020			
1	5	5	10	10
2	5	10	10	10
3	10	10	10	10
4	5	10	5	5
5	5	10	10	10
6	10	5	10	10
6-minute Average:	8.3			
Source Conditions:				
Sun Angle (degrees):	55			
	Run 25 Time: 1040			
1	15	10	10	5
2	10	5	10	10
3	10	10	10	10
4	10	5	5	5
5	5	10	5	10
6	10	5	5	10
6-minute Average:	8.3			
Source Conditions:				
Sun Angle (degrees):	50			
	Run 26 Time: 1100			
1	10	5	5	10
2	10	10	10	10
3	10	10	10	10
4	15	10	10	15
5	10	10	5	5
6	10	10	15	10
6-minute Average:	9.8			
Source Conditions:				
Sun Angle (degrees):	45			

sec	0	15	30	45
min	Run 27 Time: 1120			
1	10	5	10	15
2	15	10	10	10
3	15	10	10	10
4	10	10	10	5
5	5	5	5	5
6	5	5	5	5
6-minute Average:	8.9			
Source Conditions:				
Sun Angle (degrees):	35			
	Run 28 Time: 1140			
1	5	5	5	5
2	0	5	5	0
3	0	0	0	0
4	5	0	0	0
5	0	0	0	0
6	0	0	0	0
6-minute Average:	1.5			
Source Conditions:				
Sun Angle (degrees):	30			
	Run 29 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			
Source Conditions:				
Sun Angle (degrees):	25			
	Run 30 Time: 1220			
1	5	10	5	10
2	10	5	5	5
3	5	5	10	5
4	10	10	5	10
5	10	5	5	5
6	5	5	5	10
6-minute Average:	6.9			
Source Conditions:				
Sun Angle (degrees):	25			

Range of opacity readings:
low 0 high 15%

Number of readings above 10 % were 7

Observer's Signature

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	1-2-13
Start Time	1240
Stop Time	1506
Distance from observer (ft)	125'
Direction from observer	ENE
Stack height (fr. observer's elev.) (ft)	10'
Stack Diameter (in)	27.17 x 8.42
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	25' DOWNWIND
target?	
describe background to plume	CONTAINERS
unique features of plume or stack	
Weather:	
ambient temperature (F)	40°F
relative humidity	45%
wind direction	ESE
wind speed	10-15
barometric pressure	29.99
rain? fog? snow? haze?	OVERCAST
Glasses worn:	
corrective? (Y/N)	Y
sunglasses? (Y/N)	N

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

Run Number(s) and Description: PAGE 3 1-2-13

sec	0	15	30	45
min	Run 31 Time:	1240		
1	15	10	15	15
2	10	15	10	10
3	5	10	10	10
4	10	10	10	15
5	10	5	5	10
6	10	10	5	5
6-minute Average:	10.0			
Source Conditions:				
Sun Angle (degrees):	0			
	Run 32 Time:	1300		
1	10	10	10	5
2	10	10	15	10
3	10	10	10	10
4	10	10	10	5
5	10	10	10	10
6	5	10	10	10
6-minute Average:	9.6			
Source Conditions:				
Sun Angle (degrees):	5			
	Run 33 Time:	1320		
1	10	10	10	15
2	10	10	10	10
3	15	10	10	10
4	15	15	10	10
5	10	10	10	10
6	5	10	10	10
6-minute Average:	10.6			
Source Conditions:				
Sun Angle (degrees):	10			
	Run 34 Time:	1340		
1	15	15	10	10
2	10	10	5	5
3	10	10	10	10
4	10	5	10	10
5	10	10	10	10
6	15	10	10	10
6-minute Average:	10.0			
Source Conditions:				
Sun Angle (degrees):	10			

sec	0	15	30	45
min	Run 35 Time:	1400		
1	5	10	10	10
2	5	10	10	5
3	10	10	10	15
4	10	10	10	10
5	10	15	10	10
6	10	10	10	10
6-minute Average:	9.8			
Source Conditions:				
Sun Angle (degrees):	10			
	Run 36 Time:	1420		
1	10	10	10	10
2	10	5	10	10
3	10	10	10	10
4	5	10	10	10
5	10	10	10	15
6	10	10	10	10
6-minute Average:	9.8			
Source Conditions:				
Sun Angle (degrees):	10			
	Run 37 Time:	1440		
1	5	5	0	0
2	10	5	10	5
3	0	0	0	5
4	0	0	0	0
5	10	5	0	0
6	5	0	0	5
6-minute Average:	2.9			
Source Conditions:				
Sun Angle (degrees):	15			
	Run 38 Time:	1500		
1	5	5	5	5
2	5	10	5	5
3	5	5	5	5
4	5	5	5	5
5	5	5	5	5
6	10	5	5	5
6-minute Average:	5.2			
Source Conditions:				
Sun Angle (degrees):	15			

Range of opacity readings:
low 0 high 15%

Number of readings above 10 % were 14

Observer's Signature

Visible Emissions Evaluation

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	1-2-13
Start Time	1520
Stop Time	1625
Distance from observer (ft)	125'
Direction from observer	ENE
Stack height (fr. observer's elev.) (ft)	10'
Stack Diameter (in)	27.17 x 8.42

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	25' DOWNWIND
target?	
describe background to plume	Container
unique features of plume or stack	

Weather:

ambient temperature (F)	40°F
relative humidity	45%
wind direction	ESE
wind speed	5-10
barometric pressure	29.99
rain? fog? snow? haze?	OVERCAST

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: PAGE 4 1-2-13

sec	0	15	30	45	sec	0	15	30	45
min	Run 39 Time: 1520				min	Run ___ Time:			
1	5	5	10	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:	5.2				6-minute Average:				
Source Conditions:					Source Conditions:				
Sun Angle (degrees):	10				Sun Angle (degrees):				
	Run 40 Time: 1540					Run ___ Time:			
1	5	10	10	10	1				
2	5	5	5	5	2				
3	5	10	10	10	3				
4	5	10	5	5	4				
5	5	5	5	10	5				
6	5	10	10	10	6				
6-minute Average:	7.3				6-minute Average:				
Source Conditions:					Source Conditions:				
Sun Angle (degrees):	15				Sun Angle (degrees):				
	Run 41 Time: 1600					Run ___ Time:			
1	5	5	5	5	1				
2	10	5	5	10	2				
3	10	5	10	10	3				
4	5	5	5	5	4				
5	5	5	5	5	5				
6	10	5	5	10	6				
6-minute Average:	6.5				6-minute Average:				
Source Conditions:					Source Conditions:				
Sun Angle (degrees):	15				Sun Angle (degrees):				
	Run 42 Time: 1620					Run ___ Time:			
1	5	5	5	5	1				
2	5	5	5	5	2				
3	5	10	5	10	3				
4	5	5	5	5	4				
5	5	5	5	5	5				
6	5	5	5	5	6				
6-minute Average:	5.4				6-minute Average:				
Source Conditions:					Source Conditions:				
Sun Angle (degrees):	15				Sun Angle (degrees):				

Range of opacity readings:
low 5 high 10

Number of readings above 10 % were 0

Mark T. Ready
Observer's Signature

Visible Emissions Evaluation

Run Number(s) and Description: Wed, Jan 2nd Night Runs 1-8

Facility Name	ECC Floyd Bennett Field Op
AVOGADRO Project No.	12-9191
Location (city, state)	Brooklyn, NY
Type of Facility	Em. Op. Sandy
Control Equipment / Emission Source	Air Curtain Burner
Date of Observation	01/02/2013
Start Time	1900
Stop Time	2210
Distance from observer (ft)	~100 Ft
Direction from observer	N
Stack height (fr. observer's elev.) (ft)	~10 Ft
Stack Diameter (in)	~27'x 9'
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	1-2 isocont. lengths
target?	Sky / isoconts.
describe background to plume	"
unique features of plume or stack	—
Weather:	@1900
ambient temperature (F)	31°
relative humidity	45%
wind direction	SE
wind speed	3-6 mph
barometric pressure	30.14 in Hg
rain? fog? snow? haze?	clear
Glasses worn:	
corrective? (Y/N)	Y
sunglasses? (Y/N)	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: 1900		
1	5	5	10	5
2	5	5	5	5
3	5	5	5	5
4	10	10	5	5
5	5	5	5	5
6	10	5	10	5
6-minute Average: 6.0				
Source Conditions: better loading				
Sun Angle (degrees): —				

sec	0	15	30	45
min	Run 5	Time: 2044		
1	10	10	10	5
2	5	10	10	5
3	5	5	10	10
4	10	10	10	5
5	10	5	5	5
6	10	10	5	10
6-minute Average: 7.9				
Source Conditions:				
Sun Angle (degrees): —				

Run 2	Time: 1926			
1	5	10	5	5
2	5	5	10	5
3	5	5	10	5
4	5	5	10	5
5	5	5	5	5
6	5	5	5	5
6-minute Average: 5.8				
Source Conditions:				
Sun Angle (degrees): —				

Run 6	Time: 2110			
1	10	10	10	10
2	10	5	10	5
3	5	10	5	10
4	5	10	5	10
5	5	10	5	10
6	5	5	5	10
6-minute Average: 7.7				
Source Conditions:				
Sun Angle (degrees): —				

Run 3	Time: 1952			
1	10	10	10	10
2	10	10	10	10
3	10	10	10	10
4	10	10	10	10
5	10	10	10	10
6	10	10	10	10
6-minute Average: 10				
Source Conditions:				
Sun Angle (degrees): —				

Run 7	Time: 2136			
1	10	5	10	10
2	5	10	5	10
3	5	5	5	10
4	10	10	5	10
5	10	5	10	10
6	10	15	15	10
6-minute Average: 8.8				
Source Conditions:				
Sun Angle (degrees): —				

Run 4	Time: 2018			
1	10	10	10	10
2	10	10	10	10
3	10	10	10	10
4	10	10	10	10
5	10	10	10	10
6	10	10	10	10
6-minute Average: 10				
Source Conditions:				
Sun Angle (degrees): —				

Run 8	Time: 2202			
1	10	10	5	10
2	10	10	5	10
3	5	5	10	5
4	5	5	5	10
5	10	5	5	5
6	10	5	10	5
6-minute Average: 7.3				
Source Conditions:				
Sun Angle (degrees): —				

Range of opacity readings: low 5 high 15

Number of readings above 15 % were 0

Observer's Signature

Visible Emissions Evaluation

Run Number(s) and Description: Wednesday, Jan 2nd 2013, Night Runs 9-14

Facility Name	ECC Floyd Bennett Field
AVOGADRO Project No.	12-9191
Location (city, state)	Brooklyn, NY
Type of Facility	Em. Op. Truck Debris
Control Equipment / Emission Source	ACB
Date of Observation	01/02/2013
Start Time	2240
Stop Time	2404
Distance from observer (ft)	100 Ft
Direction from observer	N
Stack height (fr. observer's elev.) (ft)	10 Ft
Stack Diameter (in)	27' x 9'
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	1-2 conex boxes
target?	Sky / conex boxes
describe background to plume	"
unique features of plume or stack	—
Weather:	@ 2300
ambient temperature (F)	31°
relative humidity	49%
wind direction	SE
wind speed	3-9 mph
barometric pressure	30.16 inHg
rain? fog? snow? haze?	clear
Glasses worn:	
corrective? (Y/N)	Y
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: 2240		
1	5	10	5	10
2	5	10	10	5
3	10	10	5	10
4	5	10	5	10
5	5	10	10	5
6	10	10	10	5
6-minute Average: 7.9				
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: 2306			
1	10	10	5	10
2	10	10	5	10
3	5	10	5	10
4	10	10	10	10
5	10	10	10	10
6	10	5	10	10
6-minute Average: 9.0				
Source Conditions:				
Sun Angle (degrees):				

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

Run 11	Time: 2332			
1	10	10	10	10
2	10	10	10	10
3	5	5	10	5
4	10	5	10	5
5	5	5	10	10
6	10	10	10	10
6-minute Average: 8.5				
Source Conditions:				
Sun Angle (degrees):				

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

Run 12	Time: 2358			
1	10	10	10	10
2	10	5	10	10
3	5	5	10	10
4	5	10	5	10
5	5	10	5	10
6	10	5	5	10
6-minute Average: 8.1				
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 5 high 10

Number of readings above 10 % were 0

Observer's Signature