Desert View Power, Inc. an affiliate of
Greenleaf POWER

July 11, 2016

DVP-160013

Air Division Director

U.S. Environmental Protection Agency

Attn: AIR-5

75 Hawthorne Street

San Francisco, California 94105-3901

Subject: Desert View Power Inc. 2nd quarter CGA test results 2016

RE: A-3-1

NSR 4-4-11

SE 87-01

CB-OP 99-01

Dear Sir:

In compliance with our permit, enclosed is the 2nd quarter Cylinder Gas Audit (CGA) results for 2016, for Desert View Power Inc. The enclosed CGA was performed on May 12, 2016.

If you have questions or comments, please feel free to call me at (760)-262-1653.

Sincerely,

James Russell Huffman

Vice-president of CA operations / Plant Manager

62-900 Gene Wolfe Dr. | Mecca, CA 92254
(760)396-2651

Desert View Power, Inc. an affiliate of
Greenleaf POWER

rfk/
enclosure

cc: Chief, Stationary Source Division
California Air Resources Board
P.O. Box 2815
Sacramento, California 95814

Air Pollution Control Officer
Attn: Mr. David Jones, AQAC Supervisor
SCAQMD File # 100154
South Coast Air Quality Management District
21865 E. Copley Drive
Diamond Bar, California 91765-4182

Director, Air Management Division
Attn: A-3-3
U.S. Environmental Protection Agency
75 Hawthorne Street
San Francisco, California 94105-3901

62 8th Cove Walnut Dr. | Macon, CA 94254
(209) 994-2554

Delta
Air Quality Services, Incorporated

May 27, 2016
R1413758

Mr. Greg Studer
Desert View Power
62-300 Gene Welmas Drive
Mecca, CA 92254-0758

Subject: Quarterly CGA - Units 1 and 2

Dear Greg:

This letter presents the results of the Continuous Emission Monitoring System (CEMS) quarterly test audit conducted by Dave Wonderly, of Delta Air Quality Services (Delta), an affiliate of Montrose Air Quality Services, LLC (Montrose). Delta was contracted by Desert View Power to perform this audit on May 12, 2016. The program consists of a Cylinder Gas Audit (CGA) for Unit 1 and Unit 2, on NO_x, CO, SO_2, and O_2 monitors, in accordance with 40 CFR Part 60 Appendix F Section 5.1.2.

The CGA comprised of challenging the entire unit CEMS, as close to the tip of the probe as possible, with NBS traceable gases of known concentration. The gases were injected at the probe through previously installed audit ports.

Two audit gases per monitor range were selected according to the requirements of Appendix F. Each monitor was challenged by each of its two gases three separate times. The accuracy was calculated two ways. By the percent difference between the actual known gas concentration and the average value read by the monitor, and the difference in ppm from actual known gas concentration and the average value read by the monitor. Results are shown in the attached tables (Tables 1 and 2).

The results of the CGA demonstrate that the CEMS was operating within the EPA quality assurance specification of either 15% accuracy or 5 ppm difference for all parameters. All data, including gas bottle certifications and monitor response data sheets, are provided as an attachment. If you have any questions or comments, please do not hesitate to call me at (714) 279-6777.

Sincerely,

Dave Wonderly
Program Manager

DW/rcr
Attachments

1631 E. St. Andrew Pl • Santa Ana, California 92705 • www.montroseenviro.com
Phone (714) 279-6777 • Fax (714) 242-9081

MONTROSE

TABLE 1
CYLINDER GAS AUDIT RESULTS
UNIT 1
DESERT VIEW POWER
MAY 12, 2016

Parameter	Accuracy, % of Gas Value	Accuracy Acceptance Criteria	Difference From Gas Value, ppm	Difference Acceptance Criteria	Status*
SO_2 Low Range (mid span)	-1.2%	15%	-0.33	5 ppm	Pass
SO_2 Low range (low span)	-2.3%	15%	-0.28	5 ppm	Pass
NO_x Low range (mid span)	-1.6%	15%	-0.91	5 ppm	Pass
NO_x Low range(low span)	-0.3%	15%	-0.06	5 ppm	Pass
CO Low Range (mid span)	1.3%	15%	0.73	5 ppm	Pass
CO Low Range (low span)	-0.2%	15%	-0.04	5 ppm	Pass
O_2 (mid span)				N/A	Pass
O_2 (low span)	0.0%	15%	N/A	N/A	Pass
	0.5%	15%	N/A		
SO_2 High Range (mid span)				5 ppm	Pass
SO_2 High Range (low span)	-0.2%	15%	-0.47	5 ppm	Pass
	2.2%	15%	2.71		
NO_x High Range (mid span)				5 ppm	Pass
NO_x High Range (low span)	0.4%	15%	1.16	5 ppm	Pass
	-0.4%	15%	-0.55		
CO High Range (mid span)				5 ppm	Pass
CO High Range (low span)	-0.2%	15%	-0.47	5 ppm	Pass

* Pass if accuracy less than 15% or within 5 ppm and O_2 accuracy is less than 15%

TABLE 2
CYLINDER GAS AUDIT RESULTS
UNIT 2
DESERT VIEW POWER
MAY 12, 2016

Parameter	Accuracy, % of Gas Value	Accuracy Acceptance Criteria	Difference From Gas Value, ppm	Difference Acceptance Criteria	Status*
SO_2 Low Range (mid span)	-4.2%	15%	-1.17	5 ppm	Pass
SO_2 Low range (low span)	-6.8%	15%	-0.83	5 ppm	Pass
NO_x Low range (mid span)	1.2%	15%	0.69	5 ppm	Pass
NO_x Low range(low span)	5.8%	15%	1.46	5 ppm	Pass
CO Low Range (mid span)	2.4%	15%	1.34	5 ppm	Pass
CO Low Range (low span)	5.2%	15%	1.30	5 ppm	Pass
O_2 (mid span)				N/A	Pass
O_2 (low span)	0.3%	15%	NA	N/A	Pass
	0.8%	15%	NA		
SO_2 High Range (mid span)				5 ppm	Pass
SO_2 High Range (low span)	0.4%	15%	1.12	5 ppm	Pass
	-3.8%	15%	-4.65		
NO_x High Range (mid span)				5 ppm	Pass
NO_x High Range (low span)	1.1%	15%	2.91	5 ppm	Pass
	-1.6%	15%	-1.95		
CO High Range (mid span)				5 ppm	Pass
CO High Range (low span)	2.0%	15%	5.52	5 ppm	Pass

* Pass if accuracy less than 15% or within 5 ppm and O_2 accuracy is less than 15%

CYLINDER GAS AUDIT
WORK SHEET

Client: DESERT VIEW POWER
Location: Mecca

Unit No: 1
Data By: DW

Date. 5/12/2016

NORMAL RANGE

	NOx ppm		CO ppm		SO2 ppm		O2 %	
Reference Gas	Point 1	Point 2	Point 1	Point 2	Point 1	Point 2	Point 1	Point 2
Concentration	25.3	57.6	25	55.6	12.2	27.8	5.08	9.95
Replicate								
1	25.23	56.66	24.70	56.09	11.24	27.31	5.11	9.96
2	25.17	56.62	25.07	56.31	12.29	27.52	5.10	9.95
3	25.31	56.79	25.11	56.60	12.23	27.58	5.10	9.95
Average	25.24	56.69	24.96	56.33	11.92	27.47	5.10	9.95
Difference, ppm	-0.06	-0.91	-0.04	0.73	-0.28	-0.33	n/a	n/a
Accuracy	-0.3%	-1.6%	-0.2%	1.3%	-2.3%	-1.2%	0.5%	0.0%

Client: Colmac
Location: Mecca
Date: 5/12/2016

Unit No: 1
Data By: DW

HIGH RANGE

	NOx ppm		CO ppm		SO2 ppm	
Reference Gas	Point 1	Point 2	Point 1	Point 2	Point 1	Point 2
Concentration	124	274	130	274	124	274.0
Replicate						
1	123.09	275.19	133.25	271.93	123.29	271.93
2	123.44	274.89	133.97	273.93	127.79	273.93
3	123.82	275.39	134.56	274.73	129.04	274.73
Average	123.45	275.16	133.93	273.53	126.71	273.53
Difference, ppm	-0.55	1.16	3.93	-0.47	2.71	-0.47
Accuracy	-0.4%	0.4%	3.0%	-0.2%	2.2%	-0.2%

Client: Colmac
Location: Mecca
Date: 5/12/2016

Unit No: 2
Data By: DW

CYLINDER GAS AUDIT
WORK SHEET

NORMAL RANGE

	NOx ppm		CO ppm		SO2 ppm		O2 %	
Reference Gas	Point 1	Point 2	Point 1	Point 2	Point 1	Point 2	Point 1	Point 2
Concentration	25.3	57.6	25	55.6	12.2	27.8	5.08	9.95
Replicate								
1	26.46	57.76	26.31	56.97	10.96	26.63	5.13	9.99
2	26.92	58.53	26.24	56.97	11.65	26.70	5.12	9.98
3	26.91	58.57	26.34	56.87	11.49	26.56	5.11	9.98
Average	26.76	58.29	26.30	56.94	11.37	26.63	5.12	9.98
Difference, ppm	1.46	0.69	1.30	1.34	-0.83	-1.17	n/a	n/a
Accuracy	5.8%	1.2%	5.2%	2.4%	-6.8%	-4.2%	0.8%	0.3%

Client: Colmac
Location: Mecca
Date: 5/12/2016

Unit No: 2
Data By: DW

HIGH RANGE

	NOx ppm		CO ppm		SO2 ppm	
Reference Gas	Point 1	Point 2	Point 1	Point 2	Point 1	Point 2
Concentration	124	274	130	274	124	274.0
Replicate						
1	127 15	276.84	134.78	279.24	124.05	274.30
2	120.22	277.15	135.49	279.60	117.83	275.36
3	118.78	276.75	135.34	279.73	116.16	275.71
Average	122.05	276.91	135.20	279.52	119.35	275.12
Difference, ppm	-1.95	2.91	5.20	5.52	-4.65	1.12
Accuracy	-1.6%	1.1%	4.0%	2.0%	-3.8%	0.4%

CYLINDER GAS AUDIT
WORK SHEET

CeDAR 1-Minute Data
Data for 5/12/2016 8:39 AM thru 5/12/2016 10:10 AM

Timestamp	(Boiler 1) NOx ppm 1-Min	(Boiler 1) SO2 ppm 1-Min	(Boiler 1) CO ppm 1-Min	(Boiler 1) O2% 1-Min	(Boiler 2) NOx ppm 1-Min	(Boiler 2) SO2 ppm 1-Min	(Boiler 2) CO ppm 1-Min	(Boiler 2) O2% 1-Min
5/12/2016 8:39	16.57	0.07	6.67	11.63	35.28	0.00	54.49	11.22
5/12/2016 8:40	1.56	0.00	24.56	5.14	2.13	0.00	26.49	5.15
5/12/2016 8:41	0.00	0.00	24.80	5.12	1.56	0.00	26.34	5.13
5/12/2016 8:42	0.00	0.00	24.70	5.11	0.73	0.00	26.31	5.13
5/12/2016 8:43	0.00	0.00	36.03	7.89	0.72	0.00	39.29	8.27
5/12/2016 8:44	0.00	0.00	55.88	9.95	1.05	0.00	56.89	9.99
5/12/2016 8:45	0.00	0.00	56.09	9.96	0.78	0.00	56.97	9.99
5/12/2016 8:46	0.00	0.00	53.54	8.77	0.54	0.00	52.73	8.38
5/12/2016 8:47	0.00	0.00	25.92	5.12	0.72	0.00	26.73	5.13
5/12/2016 8:48	0.00	0.00	25.07	5.10	0.50	0.00	26.24	5.12
5/12/2016 8:49	0.00	0.00	33.60	7.39	0.61	0.00	36.56	7.79
5/12/2016 8:50	0.00	0.00	56.17	9.95	0.77	0.00	56.90	9.98
5/12/2016 8:51	0.00	0.00	56.31	9.95	0.51	0.00	56.97	9.98
5/12/2016 8:52	0.00	0.00	45.92	7.40	0.67	0.00	44.79	7.09
5/12/2016 8:53	0.00	0.00	25.18	5.11	0.71	0.00	26.30	5.12
5/12/2016 8:54	0.00	0.00	25.11	5.10	0.78	0.00	26.34	5.11
5/12/2016 8:55	0.00	0.00	35.03	7.59	0.80	0.00	37.82	7.94
5/12/2016 8:56	0.00	0.00	56.41	9.94	0.50	0.00	56.99	9.98
5/12/2016 8:57	0.00	0.00	56.54	9.95	0.54	0.00	57.00	9.98
5/12/2016 8:58	0.00	0.00	56.60	9.95	0.70	0.00	56.87	9.98
5/12/2016 8:59	0.02	0.00	56.61	9.95	0.67	0.00	57.00	9.94
5/12/2016 9:00	0.00	5.19	18.93	1.38	0.71	8.17	15.81	0.78
5/12/2016 9:01	0.00	10.46	0.39	0.01	1.02	10.70	0.93	0.02
5/12/2016 9:02	0.00	11.01	0.36	0.00	0.82	10.86	0.91	0.01
5/12/2016 9:03	0.00	11.24	0.19	0.00	0.80	10.96	0.95	0.02
5/12/2016 9:04	0.00	20.81	0.45	0.00	1.20	22.99	0.91	0.03
5/12/2016 9:05	0.00	26.73	0.32	0.00	0.95	26.21	0.93	0.01
5/12/2016 9:06	0.29	27.21	0.43	0.00	0.99	26.48	0.97	0.01
5/12/2016 9:07	0.20	27.31	0.35	0.00	1.15	26.63	0.94	0.01
5/12/2016 9:08	0.00	26.54	0.36	0.00	0.82	24.05	1.00	0.00
5/12/2016 9:09	0.02	13.75	0.44	0.00	1.21	12.05	0.95	0.00
5/12/2016 9:10	0.00	12.29	0.49	0.00	0.98	11.65	0.97	0.00
5/12/2016 9:11	0.03	16.35	0.52	0.00	0.94	18.09	0.95	0.00
5/12/2016 9:12	0.01	26.73	0.49	0.00	1.23	26.53	0.94	0.00
5/12/2016 9:13	0.00	27.52	0.56	0.00	1.17	26.70	0.89	0.00
5/12/2016 9:14	0.10	23.19	0.47	0.00	1.11	19.81	0.97	0.00
5/12/2016 9:15	0.00	12.88	0.67	0.00	1.01	11.57	1.04	0.00
5/12/2016 9:16	0.00	12.23	0.70	0.00	1.13	11.49	1.06	0.00
5/12/2016 9:17	0.00	16.81	0.74	0.00	1.03	18.16	1.11	0.00
5/12/2016 9:18	0.00	27.10	0.67	0.00	1.02	26.46	0.99	0.00
5/12/2016 9:19	0.00	27.58	0.59	0.00	1.23	26.56	1.04	0.00
5/12/2016 9:20	0.00	23.04	0.68	0.00	1.22	19.64	0.94	0.00
5/12/2016 9:21	0.00	12.76	0.77	0.00	1.46	11.43	1.15	0.00
5/12/2016 9:22	0.00	12.11	0.81	0.00	1.35	11.34	1.12	0.00
5/12/2016 9:23	0.00	17.10	0.84	0.00	1.34	18.13	1.11	0.00
5/12/2016 9:24	0.00	27.12	0.77	0.00	1.27	26.19	1.05	0.00
5/12/2016 9:25	0.00	27.63	0.92	0.00	1.31	26.44	1.18	0.00
5/12/2016 9:26	1.92	23.94	1.05	0.00	5.99	19.19	1.23	0.00
5/12/2016 9:27	23.84	2.63	1.04	0.00	26.40	0.00	1.22	0.00
5/12/2016 9:28	24.91	0.65	0.94	0.00	26.55	0.00	1.18	0.00
5/12/2016 9:29	25.23	0.29	1.00	0.00	26.46	0.00	1.20	0.00
5/12/2016 9:30	29.50	0.21	1.07	0.00	34.73	0.00	1.06	0.00
5/12/2016 9:31	55.79	0.09	1.10	0.00	58.36	0.00	1.35	0.00

CYLINDER GAS AUDIT
WORK SHEET

5/12/2016 9:32	56.66	0.00	1.10	0.00	57.76	0.00	1.21	1.28
5/12/2016 9:33	52.45	0.00	1.21	0.00	47.87	0.00	1.23	0.06
5/12/2016 9:34	26.04	0.00	1.26	0.00	26.66	0.00	1.07	0.00
5/12/2016 9:35	25.17	0.00	1.24	0.00	26.92	0.00	1.28	0.00
5/12/2016 9:36	26.94	0.00	1.23	0.00	31.01	0.00	1.15	0.00
5/12/2016 9:37	54.54	0.00	1.23	0.00	58.22	0.00	1.23	0.00
5/12/2016 9:38	56.62	0.00	1.39	0.00	58.53	0.00	1.25	0.00
5/12/2016 9:39	50.08	0.00	1.29	0.00	47.17	0.00	1.28	0.00
5/12/2016 9:40	25.53	0.00	1.28	0.00	26.69	0.00	1.24	0.00
5/12/2016 9:41	25.31	0.00	1.35	0.00	26.91	0.00	1.23	0.00
5/12/2016 9:42	33.23	0.00	1.33	0.00	38.97	0.00	1.25	0.00
5/12/2016 9:43	56.56	0.00	1.38	0.00	58.49	0.00	1.28	0.00
5/12/2016 9:44	56.79	0.00	1.49	0.00	58.57	0.00	1.31	0.00
5/12/2016 9:45	56.90	0.00	1.52	0.00	58.49	0.00	1.35	0.00
5/12/2016 9:46	81.86	60.69	69.45	1.34	85.75	80.34	88.97	3.86
5/12/2016 9:47	115.56	115.45	123.08	0.17	119.92	116.56	135.92	0.23
5/12/2016 9:48	123.09	123.29	133.25	0.00	127.15	124.05	134.78	0.00
5/12/2016 9:49	160.41	179.36	179.80	0.00	183.88	193.57	189.99	0.00
5/12/2016 9:50	274.12	268.56	276.68	0.00	276.59	272.50	278.98	0.00
5/12/2016 9:51	275.19	271.93	276.78	0.00	276.84	274.30	279.24	0.00
5/12/2016 9:52	223.90	204.41	216.62	0.00	207.89	193.73	212.11	0.27
5/12/2016 9:53	124.19	129.69	134.08	0.00	121.77	120.27	135.61	1.19
5/12/2016 9:54	123.44	127.79	133.97	0.00	120.22	117.83	135.49	1.27
5/12/2016 9:55	178.21	199.58	197.27	0.00	197.54	208.57	206.90	0.35
5/12/2016 9:56	274.88	271.82	277.11	0.00	276.68	274.13	279.36	0.00
5/12/2016 9:57	274.89	273.93	277.42	0.00	277.15	275.36	279.60	0.00
5/12/2016 9:58	230.40	210.93	223.10	0.00	212.89	199.30	218.11	0.45
5/12/2016 9:59	124.42	131.21	134.82	0.00	120.13	118.61	135.82	1.48
5/12/2016 10:00	123.82	129.04	134.56	0.00	118.78	116.16	135.34	1.52
5/12/2016 10:01	178.88	202.14	198.56	0.00	198.40	209.55	209.11	0.42
5/12/2016 10:02	274.98	272.61	277.67	0.00	276.60	274.47	279.58	0.00
5/12/2016 10:03	275.39	274.73	277.97	0.00	276.75	275.71	279.73	0.00
5/12/2016 10:04	275.48	275.37	277.96	0.00	277.40	276.25	279.90	0.00
5/12/2016 10:05	187.08	136.92	143.33	6.28	129.12	91.46	194.94	14.45

Client: DESERT VIEW POWER
Location: Mecca
Date: 5/12/2016

Unit No: Boiler 1&2
Data By: Dave Wonderly

Instrument	NOx ppm Low Range		SO2 ppm Low Range		O2 %		CO ppm Low Range	
Range	100		50		25		100	
Gas Specification	Point 1	Point 2	Point 1	Point 2	Point 1	Point 2	Point 1	Point 2
Min	20	50	20	50	4	8	20	50
Max	30	60	30	60	6	12	30	60
Units	% FS	% FS	% FS	% FS	% O2	% O3	% FS	% FS
Gas Requirement	ppm NOx	ppm NOx	ppm SO2	ppm SO2	% O2	% O2	ppm CO	ppm CO
Min	**20**	**50**	**10**	**25**	**4**	**8**	**20**	**50**
Max	**30**	**60**	**15**	**30**	**6**	**12**	**30**	**60**
Gas Used	25.3	57.6	12.2	27.8	5.08	9.95	25	55.6
% of Range	25%	58%	24%	56%	20%	40%	25%	56%
Status	OK	OK	OK	OK	OK	OK	OK	OK
Cylinder No.	CC358132	CC325587	CC31695	CC99793	SA4726	CC72871	SA4726	CC72871
Ending Pressure	400	800	1400	1400	700	800	700	800
Exp Date	5/10/2016	6/10/2021	6/10/2017	cc99793	6/3/2021	6/5/2021	6/3/2021	6/5/2021

Instrument	NOx ppm High Range		SO2 ppm High Range		CO ppm High Range	
Range	500		500		500	
Gas Specification	Point 1	Point 2	Point 1	Point 2	Point 1	Point 2
Min	20	50	20	50	20	50
Max	30	60	30	60	30	60
Units	% FS	% FS	% FS	% FS	% FS	% FS
Gas Requirement	ppm NOx	ppm NOx	ppm SO2	ppm SO2	ppm CO	ppm CO
Min	**100**	**250**	**100**	**250**	**100**	**250**
Max	**150**	**300**	**150**	**300**	**150**	**300**
Gas Used	124	274	124	274	130	274
% of Range	25%	55%	25%	55%	26%	55%
Status	OK	OK	OK	OK	OK	OK
Cylinder No.	CC318251	CC121194	CC318251	CC121194	CC318251	CC121194
Ending Pressure	1500	empty	1500	500	1500	500
Exp Date	6/29/2021	6/13/2021	6/29/2021	6/13/2021	6/29/2021	6/13/2021

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PRAXAIR

Praxair
5700 South Alameda Street
Los Angeles, CA 90058
Tel (323) 585-2154 Fax (714) 542-6689
PGVPID: F22014

DocNumber 000071788

CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

Customer & Order Information.

PRAXAIR WHSE INDIO CA
64481 CABAZON RD
INDIO CA 922010

Praxair Order Number 36623632
Customer P.O. Number 05125090
Customer Reference Number

Fill Date 9/18/2014
Fill Number EV-HXAE284-S
Lot Number 109439195
Cylinder Size & Type AS CGA 660
Cylinder Pressure & Volume 2000 psig 140 cu ft

Certified Concentration:

Expiration Date		9/30/2022	NIST Traceable
Cylinder Number		CC318251	Analytical Uncertainty
130	ppm	CARBON MONOXIDE	± 0.6 %
124	ppm	NITRIC OXIDE	± 0.5 %
124	ppm	SULFUR DIOXIDE	± 0.6 %
	Balance	NITROGEN	

NOx = 124 ppm NOx for Reference Only

Certification Information. *Certification Date* 9/30/2014 *Term* 96 months *Expiration Date* 9/30/2022

This cylinder was certified according to the 2012 EPA Traceability Protocol, Document #EPA-600/R-12/531, using Procedure G1. Do Not Use this Standard if Pressure is less than 100 PSIG

Analytical Data (R=Reference Standard, Z=Zero Gas, C=Gas Candidate)

1 Component CARBON MONOXIDE

Reference Concentration 125 ppm
Certified Concentration 130 ppm
Instrument Used HORIBA VIA-510 S/N 26 6 L5
Analytical Method NDIR
Last Multipoint Calibration 9/12/2014

First Analysis Data — Date 9/30/2014

Z	0	R	148.0	C	130	Conc	130
R	148.0	Z	0	C	130	Conc	130
Z	0	C	130	R	148.0	Conc	130

UOM ppm Mean Test Assay 130 ppm

Reference Standard Type GMIS
Ref Std Cylinder # CC181210
Ref Std Conc 149.5 ppm
Ref Std Traceable to SRM # 1675b
SRM Sample # [illegible]
SRM Cylinder # CC331865

Second Analysis Data — Date

Z	0	R	0	C	0	Conc	0
R	0	Z	0	C	0	Conc	0
Z	0	C	0	R	0	Conc	0

UOM ppm Mean Test Assay 0 ppm

2 Component NITRIC OXIDE

Reference Concentration 125 ppm
Certified Concentration 124 ppm
Instrument Used Thermo Electron 42i NO SN 0824-0XL
Analytical Method Chemiluminescence
Last Multipoint Calibration 9/12/2014

First Analysis Data — Date 9/30/2014

Z	0	R	104.8	C	124.5	Conc	124.5
R	104.8	Z	0	C	124.5	Conc	124.5
Z	0	C	124.5	R	104.8	Conc	124.5

UOM ppm Mean Test Assay 124.50 ppm

Reference Standard Type GMIS
Ref Std Cylinder # SAC0315
Ref Std Conc 104.8 ppm
Ref Std Traceable to SRM # 1-Feb
SRM Sample # 44-T-20
SRM Cylinder # PF6010

Second Analysis Data — Date 9/30/2014

Z	0	R	104.8	C	124.5	Conc	124.5
R	104.8	Z	0	C	124	Conc	124
Z	0	C	124.2	R	104.8	Conc	124.2

UOM ppm Mean Test Assay 124.23 ppm

3 Component SULFUR DIOXIDE

Reference Concentration 125 ppm
Certified Concentration 124 ppm
Instrument Used MOPITA, VIA-510, S/N 4604
Analytical Method NDIR
Last Multipoint Calibration 9/12/2014

First Analysis Data — Date 9/30/2014

Z	0	R	251	C	124	Conc	124
R	251	Z	0	C	124	Conc	124
Z	0	C	124	R	251	Conc	124

UOM ppm Mean Test Assay 124 ppm

Reference Standard Type GMIS
Ref Std Cylinder # CC340571
Ref Std Conc 251 ppm
Ref Std Traceable to SRM # 1661a
SRM Sample # 94-1-8
SRM Cylinder # FF-22307

Second Analysis Data — Date 9/30/2014

Z	0	R	251	C	124	Conc	124
R	251	Z	0	C	124	Conc	124
Z	0	C	125	R	251	Conc	126

UOM ppm Mean Test Assay 124.33 ppm

Information contained herein has been prepared at your request by qualified experts within Praxair Distribution, Inc. While we believe that the information and data within the limits of the analytical methods employed and to the extent of the specific analyses performed, we make no representation as to the suitability of the information or any purpose. The information is offered with the understanding that any use of the information is at the sole discretion and risk of the user. In no event shall the liability of Praxair Distribution, Inc. arising out of the use of the information contained herein exceed the fee charged for providing such information.

5700 South Alameda Street
Los Angeles, CA 90058
Tel (323) 585-2154 Fax (714) 542-6689
PGVPID: F22013

DocNumber: 000065561

CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

Customer & Order Information:

PRAXAIR WHSE INDIO CA
84481 CABAZON RD
INDIO CA 922010

Praxair Order Number: 24065203
Customer P. O. Number: 04456403
Customer Reference Number:

Fill Date: 6/16/2011
Part Number: EV NIX4E269-AS
Lot Number: 109113600
Cylinder Style & Outlet: AS CGA 660
Cylinder Pressure & Volume: 1000 psig 126 cu ft

Certified Concentration:

Expiration Date:		6/29/2021	NIST Traceable
Cylinder Number:		CC121194	Analytical Uncertainty:
274	ppm	CARBON MONOXIDE	± 1 %
274	ppm	NITRIC OXIDE	± 0.5 %
274	ppm	SULFUR DIOXIDE	± 0.9 %
	Balance	NITROGEN	

NOx = 274 ppm

NOx for Reference Only

Certification Information: *Certification Date:* 6/29/2013 *Term:* 96 Months *Expiration Date:* 6/29/2021

This cylinder was certified according to the 2012 EPA Traceability Protocol, Document #EPA-600/R-12/531, using Procedure G1. Do Not Use this Standard if Pressure is less than 100 PSIG.

Last certified concentration was [CO] = 274 ppm, [NO] = 274 ppm, [SO2] = 274 ppm and [NOx] = 274 ppm on 06/07/2011

Analytical Data: *(R=Reference Standard, Z=Zero Gas, C=Gas Candidate)*

1. Component: CARBON MONOXIDE

Requested Concentration: 275 ppm
Certified Concentration: 274 ppm
Instrument Used: Horiba VIA-510, S/N 577172043
Analytical Method: NDIR
Last Multipoint Calibration: 6/5/2013

First Analysis Date: Date: 6/29/2013

Z:	0	R:	247.2	C:	274	Conc:	274
R:	247.2	Z:	0	C:	274	Conc:	274
Z:	0	C:	274	R:	247.2	Conc:	274

UOM: ppm Mean Test Assay: 274 ppm

Reference Standard Type: GMIS
Ref Std Cylinder #: CC110115
Ref Std Conc: 247.2 ppm
Ref Std Traceable to SRM #: 2636b
SRM Sample #: 57-9-C
SRM Cylinder #: CLM-004462

Second Analysis Date: Date:

Z:	0	R:	0	C:	0	Conc:	0
R:	0	Z:	0	C:	0	Conc:	0
Z:	0	C:	0	R:	0	Conc:	0

UOM: ppm Mean Test Assay: 0 ppm

2. Component: NITRIC OXIDE

Requested Concentration: 275 ppm
Certified Concentration: 274 ppm
Instrument Used: Thermo Electron 42i S/N 0726024320
Analytical Method: Chemiluminescence
Last Multipoint Calibration: 6/5/2013

First Analysis Date: Date: 6/29/2013

Z:	0	R:	253	C:	273	Conc:	273
R:	253	Z:	0	C:	273	Conc:	273
Z:	0	C:	273	R:	253	Conc:	273

UOM: ppm Mean Test Assay: 273 ppm

Reference Standard Type: GMIS
Ref Std Cylinder #: CC121758
Ref Std Conc: 253.0 ppm
Ref Std Traceable to SRM #: vs 1685b
SRM Sample #: 43-L-11
SRM Cylinder #: CAL017304

Second Analysis Date: Date:

Z:	0	R:	0	C:	0	Conc:	0
R:	0	Z:	0	C:	0	Conc:	0
Z:	0	C:	0	R:	0	Conc:	0

UOM: ppm Mean Test Assay: 0 ppm

3. Component: SULFUR DIOXIDE

Requested Concentration: 275 ppm
Certified Concentration: 274 ppm
Instrument Used: HORIBA, VIA-510, 56946604
Analytical Method: NDIR11
Last Multipoint Calibration: 6/5/2013

First Analysis Date: Date: 6/29/2013

Z:	0	R:	250	C:	274	Conc:	274
R:	250	Z:	0	C:	274	Conc:	274
Z:	0	C:	274	R:	250	Conc:	274

UOM: ppm Mean Test Assay: 274 ppm

Reference Standard Type: GMIS
Ref Std Cylinder #: CC107920
Ref Std Conc: 250 ppm
Ref Std Traceable to SRM #: vs 1661a
SRM Sample #: 94-H-05
SRM Cylinder #: FF20146

Second Analysis Date: Date:

Z:	0	R:	0	C:	0	Conc:	0
R:	0	Z:	0	C:	0	Conc:	0
Z:	0	C:	0	R:	0	Conc:	0

UOM: ppm Mean Test Assay: 0 ppm

Analyzed by: Nelson Ma

Certified by: Diego Mostanza

Information contained herein has been prepared at your request by qualified experts within Praxair Distribution, Inc. While we believe that the information is accurate within the limits of the analytical methods employed and is complete to the extent of the specific analyses performed, we make no warranty or representation as to the suitability of the use of the information for any purpose. The information is offered with the understanding that any use of the information is at the sole discretion and risk of the user. In no event shall the liability of Praxair Distribution, Inc. arising out of the use of the information contained herein exceed the fee established for providing such information.

PRAXAIR

Praxair
5700 South Alameda Street
Los Angeles, CA 90058
Tel: (323) 585-2154 Fax:(714) 542-6689
PGVPID: F22015

DocNumber: 000079874

CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

er & Order Information:

'RAXAIR WHSE INDIO CA
14481 CABAZON RD
INDIO CA 922010

Praxair Order Number 31160285
Customer P. O. Number: 05518343
Customer Reference Number:

Fill Date: 5/4/2015
Part Number: EV NIS012ME-AS
Lot Number: 109512403
Cylinder Valve Outlet AS CGA 660
Cylinder Pressure & Volume: 2000 psig 140 cu ft

Certified Concentration:

Expiration Date:	5/19/2019		NIST Traceable
Cylinder Number:	CC31695		Analytical Uncertainty:
12.2 ppm	SULFUR DIOXIDE		± 1.1 %
Balance	NITROGEN		

fcation Information: *Certification Date:* 5/19/2015 *Term:* 48 Months *Expiration Date.* 5/19/2019

: cylinder was certified according to the 2012 EPA Traceability Protocol, Document #EPA-600/R-12/531, using Procedure G1. Do Not this Standard if Pressure is less than 100 PSIG.

lytical Data: *(R=Reference Standard, Z=Zero Gas, C=Gas Candidate)*

Component: SULFUR DIOXIDE

Requested Concentration	12 ppm
Certified Concentration	12.2 ppm
Instrument Used	Ametek 921GI S/N AW-921-5321
Analytical Method	[illegible]
Last Multipoint Calibration	4/27/2015

Reference Standard Type	GMIS
Ref. Std Cylinder #	CC35621
Ref. Std Conc.	10.02 ppm
Ref. Std Traceable to SRM #	1689
SRM Sample #	98-A-26
SRM Cylinder #	FF40552

First Analysis Data: Date: 5/12/2015

Z:	0	R:	99	C:	121.3	Conc:	12.261
R:	99.2	Z:	0	C:	121.1	Conc:	12.24
Z:	0	C:	121	R:	99.2	Conc:	12.23

UOM: ppm Mean Test Assay: 12.244 ppm

Second Analysis Data: Date: 5/19/2015

Z:	0	R:	100.3	C:	120.3	Conc:	12.038
R:	100	Z:	0	C:	121	Conc:	12.108
Z:	0	C:	120.8	R:	[illegible]	Conc:	12.088

UOM: ppm Mean Test Assay: 12.078 ppm

Analyzed by: Nelson M. Nelson Ma

Certified by: N. Haddad Nassim Haddad

mation contained herein has been prepared at your request by qualified experts within Praxair Distribution, Inc. While we believe that the information is accurate within the limits of the analytical ods employed and is complete to the extent of the specific analyses performed, we make no warranty or representation as to the suitability of the use of the information for any purpose. The mation is offered with the understanding that any use of the information is at the sole discretion and risk of the user. In no event shall the liability of Praxair Distribution, Inc., arising out of the of the information contained herein exceed the fee established for providing such information.

5700 South Alameda Street
Los Angeles, CA 90058
Tel (323) 585-7194 Fax (213) 581-6620
REVISED 12/2015

DocNumber: 000081865

CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

stomer & Order Information:

PRAXAIR WHSE INDIO CA
84481 CABAZON RD
INDIO CA 922010

Proxair Order Number 31735123
Customer P. O. Number 0501104
Customer Reference Number

Fill Date [illegible]
Part Number [illegible]
Lot Number [illegible]
Cylinder Style & Outlet [illegible]
Cylinder Pressure & Volume [illegible]

Certified Concentration:

Expiration Date:	7/24/2019		NIST Traceable
Cylinder Number:	CC99793		Analytical Uncertainty
27.8	ppm	SULFUR DIOXIDE	± 1 %
	Balance	NITROGEN	

rtification Information: *Certification Date:* 7/24/2015 *Term:* 48 Months *Expiration Date* 7/24/2019

his cylinder was certified according to the 2012 EPA Traceability Protocol Document #EPA-600/R-12/531, using Procedure G1. Do Not se this Standard if Pressure is less than 100 PSIG.

nalytical Data: *(R=Reference Standard, Z=Zero Gas, C=Gas Candidate)*

. Component: SULFUR DIOXIDE

Requested Concentration	27.5 ppm
Certified Concentration	27.8 ppm
Instrument Used	Ametek 921CL SIN AW-921-5321
Analytical Method	Ultraviolet Absorption
Last Multipoint Calibration	6/25/2015

Reference Standard Type	NTRM
Reference Standard #	[illegible]
Ref Std Conc.	48.91 ppm
Ref Std Traceable to SRM #	NA
NIST Sample #	120701
NIST Cylinder #	NA

First Analysis Date: Date: 7/17/2015

Z:	0	R:	489.7	C:	280.8	Conc:	27.651		
R:	490.2	Z:	0	C:	280.6	Conc:	27.621		
Z:	0	C:	281.1	R:	490	Conc:	27.671		

UOM: ppm Mean Test Assay: 27.645 ppm

Second Analysis Date: Date: 7/24/2015

Z:	0	R:	490	C:	27[illegible]	Conc:	27.677		
R:	490.3	Z:	0	C:	280.5	Conc:	27.588		
Z:	0	C:	281.3	R:	491	Conc:	27.845		

UOM: ppm Mean Test Assay: 27.809 ppm

Analyzed by: Nassim Haddad

Certified by: Nelson Ma

formation contained herein has been prepared at your request by qualified experts within Praxair Distribution, Inc. While we believe that the information is accurate within the limits of the analytical ethods employed and is complete to the extent of the specific analyses performed, we make no warranty or representation as to the suitability of the use of the information [illegible] formation is offered with the understanding that any use of the information is at the sole discretion and risk of the user. In no event [illegible] e of the information contained herein exceed the fee established for providing such [illegible]

PRAXAIR

Praxair

Doc Number [illegible]

CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

Customer & Order Information

PRAXAIR WHSE INDIO CA
84451 CABAZON RD
INDIO CA 92201

Certified Concentration:

Expiration Date		6/5/2021	NIST Traceability
Cylinder Number		CC72871	Analytical Uncertainty
55.6	ppm	CARBON MONOXIDE	± 1 %
9.95	%	OXYGEN	± 1 %
	Balance	NITROGEN	

Certification Information Certification Date: 6/5/2019 Term: 36 Months Expiration: 6/5/2021

This cylinder was certified according to the 2012 EPA Traceability Protocol, Document EPA [illegible] Procedure G1. Do Not Use This Standard if Pressure is less than 100 PSIG

Analytical Data

1. Component: CARBON MONOXIDE

First Analysis Data — Date [illegible]

Mean Test Assay [illegible]

Second Analysis Data — Date

Mean Test Assay [illegible]

2. Component: OXYGEN

First Analysis Data — Date [illegible]

Mean Test Assay [illegible]

Second Analysis Data — Date

Mean Test Assay [illegible]

Analyzed by: Vinh Tri

Certified by: Henry Khung

PRAXAIR

Doc Number: 0000[illegible]467

Praxair
[illegible]

CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

Customer & Order Information

PRAXAIR WHSE INDIO CA
84481 CARAZON RD
INDIO CA 92210

Praxair Order Number: 2[illegible]
Customer P.O. Number: 0[illegible]
Customer Reference Number:

Certified Concentration

Expiration Date	6/3/2021		NIST Traceable
Cylinder Number	SA4726		Analytical Uncertainty
25.0	ppm	CARBON MONOXIDE	± 0.5 %
5.08	%	OXYGEN	± 1 %
	Balance	NITROGEN	

Certification Information: *Certification Date* 6/3/2013 *Term* 96 Months *Expiration Date* 6/3/2021

This cylinder was certified according to the 2012 EPA Traceability Protocol Document #EPA-600/R-12/531 using Procedure G1. Do Not Use this Standard if Pressure is less than 100 PSIG

Analytical Data: *EPA Reference Standard Pressure: [illegible] Gas Candidate*

1. Component: CARBON MONOXIDE

Requested Concentration: 25 ppm
Certified Concentration: [illegible] ppm
Instrument Used: Horiba VIA-510 SN [illegible]
Analytical Method: NDIR
Last Multi-Point Calibration: [illegible]

Reference Standard Type: CMR
Ref Std Cylinder #: [illegible]
Ref Std Conc: [illegible]
Ref Std Traceability SRM #: [illegible]
SRM Serial #: [illegible]
SRM Cylinder #: [illegible]

First Analysis Data						Date	6/3/2013
Z	[illegible]	R	[illegible]	C	[illegible]	Conc	25
R	[illegible]	Z	[illegible]	C	[illegible]	Conc	25
Z	[illegible]	C	[illegible]	R	[illegible]	Conc	25
UOM	[illegible]			Mean Test Assay			[illegible] ppm

Second Analysis Data						Date	
Z	[illegible]	R	[illegible]	C	[illegible]	Conc	
R	[illegible]	Z	[illegible]	C	[illegible]	Conc	
Z	[illegible]	C	[illegible]	R	[illegible]	Conc	
UOM	[illegible]			Mean Test Assay			[illegible]

2. Component: OXYGEN

Requested Concentration: 5 %
Certified Concentration: [illegible] %
Instrument Used: OXYMAT 6F
Analytical Method: PARAMAGNETIC
Last Multi-Point Calibration: [illegible]

Reference Standard Type: [illegible]
Ref Std Cylinder #: [illegible]
Ref Std Conc: [illegible]
Ref Std Traceability SRM #: [illegible]
SRM Serial #: [illegible]
SRM Cylinder #: [illegible]

First Analysis Data						Date	6/3/2013
Z	[illegible]	R	[illegible]	C	[illegible]	Conc	[illegible]
R	[illegible]	Z	[illegible]	C	[illegible]	Conc	[illegible]
Z	[illegible]	C	[illegible]	R	[illegible]	Conc	5.02
UOM	%			Mean Test Assay			[illegible] %

Second Analysis Data						Date	
Z	[illegible]	R	[illegible]	C	[illegible]	Conc	
R	[illegible]	Z	[illegible]	C	[illegible]	Conc	
Z	[illegible]	C	[illegible]	R	[illegible]	Conc	
UOM	%			Mean Test Assay			[illegible]

Analyzed by: [illegible]

Certified by: Henry [illegible]

[illegible]

PRAXAIR

CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

Certified Concentration

Expiration Date	6/10/2013	Total Impurities
Cylinder No.	CC325587	Analytical Uncertainty
57.2 ppm	NITRIC OXIDE	1.97 %
Balance	NITROGEN	

NOx = 57.6 ppm

NOx for Rule 61-46 Only

Reference Calibration Certification Date 6/10/2013 Term: 90 Months Expiration Date

This cylinder was certified according to the 2012 EPA Traceability Protocol Document #EPA-600/R-12/531 using
Protocol G. Do Not Use this Standard if Pressure is less than 100 PSIG

Analytical Data

Component: NITRIC OXIDE

First Analysis Data						Date	
Z		R		C	57.6	Conc	
R		Z		C	57.2	Conc	
Z		C		R	59.1	Conc	57.2

Mean Test Assay

Second Analysis Data						Date	
Z	G	R	59.1	C		Conc	
R		Z		C		Conc	
Z		C		R		Conc	

Mean Test Assay

Reviewed by Nelson Ma

Certified by

PRAXAIR

Praxair
5700 South Alameda Street
Los Angeles, CA 90058
Tel (323) 585-2150 Fax (714) 542-6689
PGVPID: F22015

DocNumber: 000079837

CERTIFICATE OF ANALYSIS / EPA PROTOCOL GAS

Customer & Order Information:

PRAXAIR WHSE INDIO CA
84481 CABAZON RD
INDIO CA 922010

Praxair Order Number: 31160500
Customer P.O. Number: 05518378
Customer Reference Number:

Fill Date: 5/4/2015
Part Number: NI NO25ME-AS
Lot Number: 1U9512412
Cylinder Style & Outlet: AB CGA 660
Cylinder Pressure & Volume: 2000 psig 140 cu ft

Certified Concentration:

Expiration Date	5/18/2018		NIST Traceable
Cylinder Number	CC358132		Analytical Uncertainty:
25.1	ppm	NITRIC OXIDE	± 1 %
	Balance	NITROGEN	

NOx = 25.3 ppm

NOx for Reference Only

Certification Information: *Certification Date:* 5/18/2015 *Term.* 36 Months *Expiration Date:* 5/18/2018

This cylinder was certified according to the 2012 EPA Traceability Protocol, Document #EPA-600/R-12/531, using Procedure G1. Do Not Use this Standard if Pressure is less than 100 PSIG

Analytical Data: (Reference Standard - Zero Gas Dilution Method)

1. Component: NITRIC OXIDE

Required Concentration	25 ppm
Certified Concentration	25.1 ppm
Instrument	Thermo Electron 42i [illegible]-077
Analytical Method	Chemiluminescence
Last Instrument Calibration	4/27/2015

Reference Standard Type:	GMIS
Ref. Std. Cylinder #	CC457687
Ref. Std. Conc.	20.2 ppm
Ref. Std. Traceable to SRM #	2679a
SRM Sample #	50-G-17
SRM Cylinder #	FF31891

First Analysis Data: Date: [illegible]

Z:		R:	20.2	C:	20.2	Conc:	[illegible]
R:	[illegible]	Z:	0	C:	25.2	Conc:	[illegible]
Z:		C:	25.2	R:	20.2	Conc:	[illegible]

UOM: ppm Mean Test Assay: 25.2 ppm

Second Analysis Data: Date: 5/18/2015

Z:	0	R:	20.2	C:	25.1	Conc:	25.1
R:	20.2	Z:	0	C:	25.1	Conc:	25.1
Z:	0	C:	25.1	R:	20.2	Conc:	25.1

UOM: ppm Mean Test Assay: 25.1 ppm

Analyzed by: Nelson Ma

Certified by: Nassim Haddad

[illegible] by qualified experts within Praxair Distribution, Inc. While we believe that the information is accurate within the limits of the analytical analysis performed, we make no warranty or representation as to the suitability of the use of the information for any purpose. The information is at the sole discretion and risk of the user. In no event shall the liability of Praxair Distribution, Inc. exceed the [illegible] such information.

END OF DOCUMENT