1735 Gardenia Drive New Braunfels Texas 78130-6250
830-606-0252

INVOICE COVER LETTER

Monday, October 8, 2018

ATTN: Andrew Hoekzema
Director of Regional Services
Capital Area Council of Governments
6800 Burleson Road, Bldg. 310, Suite 165
Austin, TX 78744

RE: Contract #: Operation of Continuous Air Monitoring Stations 2018 / 2019
Invoice #: CAPCOG 18-015
Invoice Period of Service: 9/1/18 – 9/30/18
Total Invoice Amount: $11,489.59

This invoice is for services provided by Dios Dado Environmental Ltd. for operation and network maintenance of CAPCOG sites, as the terms set forth in the above referenced contract.

See the discussion and list of deliverables as follows:

1. September Data Return reported in attachment 1: Data Return Report for Austin -- Region 11. All O3 sites reporting >99% data return, Rh units were all at >99%%. Individual RH reports are included for each site. TEOM data return from 601 is >99%. However the C601 Met reporting is lower than 75%. The WS/WD cable went bad and had to trouble shoot and replace parts until fixed. The W/D data is recoverable, the W/S was the issue.
2. Site activities are reported in attachment 2: CAPCOG activities log and operator's log set.
3. C6602 Hutto site trailer move back to some location is still pending, most construction activities completed.
4. All units have good data that is reporting to LEADS system correctly.
5. The data sets for September were validated this morning; this will result in some of the averages going up, none going down. Access to TCEQ system was blocked again. Only the O3 data from C601 was validated by request of TCEQ.
6. A site survey of C690 is on hold until CAPCOG decides to move forward.
7. We had indications that the AC unit for Lockhart had been repaired under warranty, however it has broken again, we have notified the manufacturer again.
8. We had to rebuild the WS/WD unit at Lockhart, the both sets of shaft bearings started making noise.

Please be aware that from October 1st forward Dios Dado Environmental Ltd. will no longer be working from the Selma office. We will be moving to our corporate location in New Braunfels Texas.

The address is 1735 Gardenia Drive, New Braunfels Texas, 78130.

Please remit payment to corporate address.
Respectfully,
Jim McCraw
Founding Partner
Dios Dado Environmental Ltd.
1735 Gardenia Drive
New Braunfels Texas, 78130

Attachment 1: CAPCOG Data Return Report – August 2018
Austin - Region 11

Data Return Report for Austin -- Region 11
00:00 LST September 1, 2018 through 00:00 LST October 1, 2018

CAMS	Location	Pollution Data			Meteorological Data			
		O3 %	PM2.5(Lcl)accpt %	Poll %	WDR %	WSR %	Out Temp %	Met %
601	Fayette County C601	99.7	99.7	99.7	41.4	41.4	99.9	60.9
614	Dripping Springs School C614	99.6	*	99.6	100.0	100.0	100.0	100.0
684	CAPCOG McKinney Roughs C684	99.7	*	99.7	99.4	99.4	100.0	99.6
690	CAPCOG Lake Georgetown C690	97.1	*	97.1	97.4	97.4	97.4	97.4
1603	Gorzycki Middle School C1603	99.7	*	99.7	100.0	100.0	100.0	100.0
1604	Lockhart C1604	99.6	*	99.6	96.1	96.1	98.2	96.8
1605	St. Edwards University C1605	100.0	*	100.0	100.0	100.0	100.0	100.0
1675	CAPCOG San Marcos Staples Road C1675	99.3	*	99.3	100.0	100.0	100.0	100.0
6602	CAPCOG Hutto College Street C6602	99.4	*	99.4	98.9	98.9	99.9	99.2
	Region 11 Averages	**99.4**	**99.7**	**99.4**	**92.6**	**92.6**	**99.5**	**94.9**

Relative Humidity – Hourly Data Loss Report for Austin -- Region 11
00:00 LST September 1, 2018 through 00:00 LST October 1, 2018
Selected date range: 30 days (720 hours)
Report includes data from only these CAMS: 614 684 690 1603 1604 1605 1675 6602

Data Flag	Rel Humid 62201
Null Data Codes	
PMA => BA (Preventive Maintenance)	1
FEW => AI (Insufficient Samples)	1
LST => AQ (Lost)	18
Ambient or Ambient With Qualifier Code	
VAL (Ambient Data) †	5740
Summary	
Total Monitors	8
Total Null Data Code Flags	20
Total Ambient Flags †	5740
Total Samples	5760
Invalid Percent	0.3
Valid Percent	99.7
	Rel Humid
† Ambient data includes all data with the following flags or qualifier codes: VAL	

Relative Humidity – Data Return Loss for Austin -- Region 11

00:00 LST September 1, 2018 through 00:00 LST October 1, 2018
Selected date range: 30 days (720 hours)
Selected CAMS: 614

Data Flag	Rel Humid 62201
Null Data Codes	
Ambient or Ambient With Qualifier Code	
VAL (Ambient Data) †	720
Summary	
Total Monitors	1
Total Null Data Code Flags	0
Total Ambient Flags †	720
Total Samples	720
Invalid Percent	0.0
Valid Percent	100.0
	Rel Humid
† Ambient data includes all data with the following flags or qualifier codes: VAL	

00:00 LST September 1, 2018 through 00:00 LST October 1, 2018
Selected date range: 30 days (720 hours)
Selected CAMS: 684

Data Flag	Rel Humid 62201
Null Data Codes	
Ambient or Ambient With Qualifier Code	
VAL (Ambient Data) †	720
Summary	
Total Monitors	1
Total Null Data Code Flags	0
Total Ambient Flags †	720
Total Samples	720
Invalid Percent	0.0
Valid Percent	100.0
	Rel Humid
† Ambient data includes all data with the following flags or qualifier codes: VAL	

00:00 LST September 1, 2018 through 00:00 LST October 1, 2018
Selected date range: 30 days (720 hours)
Selected CAMS: 690

0Data Flag	Rel Humid 62201
Null Data Codes	
FEW => AI (Insufficient Samples)	1
LST => AQ (Lost)	18
Ambient or Ambient With Qualifier Code	
VAL (Ambient Data) †	701
Summary	
Total Monitors	1
Total Null Data Code Flags	19
Total Ambient Flags †	701
Total Samples	720
Invalid Percent	2.6
Valid Percent	97.4
	Rel Humid
† Ambient data includes all data with the following flags or qualifier codes: VAL	

00:00 LST September 1, 2018 through 00:00 LST October 1, 2018
Selected date range: 30 days (720 hours)
Selected CAMS: 1603

Data Flag	Rel Humid 62201
Null Data Codes	
Ambient or Ambient With Qualifier Code	
VAL (Ambient Data) †	720
Summary	
Total Monitors	1
Total Null Data Code Flags	0
Total Ambient Flags †	720
Total Samples	720
Invalid Percent	0.0
Valid Percent	100.0
	Rel Humid
† Ambient data includes all data with the following flags or qualifier codes: VAL	

00:00 LST September 1, 2018 through 00:00 LST October 1, 2018
Selected date range: 30 days (720 hours)
Selected CAMS: 1604

Data Flag	Rel Humid 62201
Null Data Codes	
Ambient or Ambient With Qualifier Code	
VAL (Ambient Data) †	720
Summary	
Total Monitors	1
Total Null Data Code Flags	0
Total Ambient Flags †	720
Total Samples	720
Invalid Percent	0.0
Valid Percent	100.0
	Rel Humid
† Ambient data includes all data with the following flags or qualifier codes: VAL	

00:00 LST September 1, 2018 through 00:00 LST October 1, 2018
Selected date range: 30 days (720 hours)
Selected CAMS: 1675

Data Flag	Rel Humid 62201
Null Data Codes	
Ambient or Ambient With Qualifier Code	
VAL (Ambient Data) †	720
Summary	
Total Monitors	1
Total Null Data Code Flags	0
Total Ambient Flags †	720
Total Samples	720
Invalid Percent	0.0
Valid Percent	100.0
	Rel Humid
† Ambient data includes all data with the following flags or qualifier codes: VAL	

00:00 LST September 1, 2018 through 00:00 LST October 1, 2018
Selected date range: 30 days (720 hours)
Selected CAMS: 6602

Data Flag	Rel Humid 62201
Null Data Codes	
PMA => BA (Preventive Maintenance)	1
Ambient or Ambient With Qualifier Code	
VAL (Ambient Data) †	719
Summary	
Total Monitors	1
Total Null Data Code Flags	1
Total Ambient Flags †	719
Total Samples	720
Invalid Percent	0.1
Valid Percent	99.9
	Rel Humid
† Ambient data includes all data with the following flags or qualifier codes: VAL	

Attachment 2: CAPCOG Site Activities Log and Operators Log set.

CAPCOG ACTIVITIES LOG 2018

SEPTEMBER

DATE	DESCRIPTON
09/05/2018	C6602 - resolved dead signal issue. Restarted UPS, Reset modem.
09/06/2018	C601 - Performed PMI 04-014, 01-180, 03-030, 41-030, 41-030a, 41-030b
09/10/2018	C690 - resolved dead signal issue. Performed PMI 04-014.
09/11/2018	C601 - Performed PMI 04-014, lowered and cleaned MET tower
	C684 - Perfromed PMI 04-014
	C1604 - Performed PMI 04-014, replaced nose cone bearings
09/12/2018	C1675 - Performed PMI 04-014
	C1603 - Performed PMI 04-014
	C614 - Performed PMI 04-014
	C6602 - Performed PMI 04-014
09/17/2018	C601 - Lowered MET tower, replaced W/S sensor, no change in LIM status
09/24/2018	C1675 - Conducted 5pt calibration, Performed PMI 04-014
09/25/2018	C690 - Conducted 5pt calibration, Performed PMI 04-014
	C6602 - Conducted 5pt calibration, Performed PMI 04-014
09/26/2018	C684 - Conducted 5pt calibration, Performed PMI 04-014
	C1603 - Conducted 5pt calibration, Performed PMI 04-014
	C614 - Conducted 5pt calibration, Performed PMI 04-014
09/27/2018	C1604 - Conducted 5pt calibration, Performed PMI 04-014
	C1604 - installed condensate line
	C601 - Conducted 5pt calibration, Performed PMI 04-014
	C601 - replaced SW/WD MET tower wire. Fixed LIM reading.

August 2018 CAPCOG Operator Logs:

Operator Logs for Fayette County C601

Date	Time (CST)	Operator	Visit Date	Log Entry
				09/01/2018 -- 10/01/2018 Fayette County C601 (48_149_0001)
Sat Sep 01, 2018	03:28:50			Automatic time sync
Tue Sep 04, 2018	03:28:50			Automatic time sync
Tue Sep 04, 2018	07:55:24	Ccarrasco	09/04/2018	Checked site status online
Wed Sep 05, 2018	06:47:54	Ccarrasco	09/05/2018	Checked site status online
Thu Sep 06, 2018	07:10:03	Ccarrasco	09/06/2018	Checked site status online
Thu Sep 06, 2018	15:03:17			Onsite to conduct monthly TEOM verification. TEOM values pre audit: OK, 4, 33%, 3.7 mass, 0.049 noise ,252.41241 freq, temps 50,50,50, flows 3.0, 13.63. Performed 01-180 gfi test, 04-014 particulate filter change, 7-180 ups test, 3-030 building ac and TEOM PMI's 41-030,41-030a and b. TEOM passed verification, Post values= OK, 4, 20%, 0.0 mass, 0.068 noise, 252.59037, temps 50, 50, 50, 3.00, 13.64. cleaned head units and changed filter.Placed instrument back in K code, and departed site, all secure. jmccraw/ncinecoe
Fri Sep 07, 2018	05:50:39	Ccarrasco	09/07/2018	Checked site status online
Fri Sep 07, 2018	12:51:22			Status: ok, Mode: 4, %Filter loading: 20%, Mass: 0.3, Noise: 0.041, Frequency: 252.89315, Total Mass: n/a, Case Temp: 50.00, Air Temp: 50.00, Cap Temp: 50.00, Main Flow:2.99, Aux Flow: 13.63 e
Sat Sep 08, 2018	03:28:45			Automatic time sync
Mon Sep 10, 2018	06:47:52	Ccarrasco	09/10/2018	Checked site status online
Tue Sep 11, 2018	03:28:49			Automatic time sync
Tue Sep 11, 2018	05:26:21	Ccarrasco	09/11/2018	Checked site status online
Tue Sep 11, 2018	12:07:54			Entered station to investigate Met gear LIM readings. observation of units showed no signs of damage. The units were placed into q-code and the zeno test menu shows that the W/D unit is functioning but the W/S unit is stuck on zero. the tower was lowered. the cableing was disconected and reconnected, the W/S unit was diconnected and reconnected. a splice in the wire going into the trailer was inspected and remade. Still no signal from the W/S unit. performed PMI-26-180 temp boom cleaning, removed several red wasp nests and found the aspiration fan needs to be replaced. Will contact client for replacement parts. Raised tower and placed units back in k code.left site safe and secure. jrm/NC.
Wed Sep 12, 2018	07:21:18	Ccarrasco	09/12/2018	Checked site status online
Thu Sep 13, 2018	07:45:39	Ccarrasco	09/13/2018	Checked site status online
Thu Sep 13, 2018	15:18:51			Status: ok, mode: 4, %filter loading: 23, Mass: 4.7, Noise: 0.056, Freq: 252.86027, Total Mass: n/a, Case Temp: 50.00, air temp: 50.00, cap temp: 50.00, main flow: 3.00, Aux flow: 13.63 JT, LCRA 9-13-18
Fri Sep 14, 2018	06:51:04	Ccarrasco	09/14/2018	Checked site status online
Sat Sep 15, 2018	03:28:50			Automatic time sync

Mon Sep 17, 2018	08:14:24	Ccarrasco	09/17/2018	Checked site status online
Mon Sep 17, 2018	11:37:56			Entered station to replace wind speed sensor. placed W/S and W/D units in Q code. lowered tower. replaced sn: T17409 with new unit sn: 4762. checked operation, no change. still no signal from W/S unit. placed units back in K code and left site safe and secure. JRM/ NC
Tue Sep 18, 2018	03:28:49			Automatic time sync
Tue Sep 18, 2018	05:59:18	Ccarrasco	09/18/2018	Checked site status online
Wed Sep 19, 2018	07:29:02			Status: ok, Mode: 4, %filterloading: 27%, Mass: 8.9, Noise: 0.073, Freq: 252.81823, Total Mass: n/a, Case Temp: 50.00, Air Temp: 50.00, Cap Temp: 50.00, Main Flow: 3.00, Aux Flow: 13.63
Wed Sep 19, 2018	08:08:14	Ccarrasco	09/19/2018	Checked site status online
Thu Sep 20, 2018	06:45:41	Ccarrasco	09/20/2018	Checked site status online
Fri Sep 21, 2018	06:52:19	Ccarrasco	09/21/2018	Checked site status online
Sat Sep 22, 2018	03:28:50			Automatic time sync
Mon Sep 24, 2018	06:00:38	Ccarrasco	09/24/2018	Checked site status online
Tue Sep 25, 2018	07:05:49	Ccarrasco	09/25/2018	Checked site status online
Wed Sep 26, 2018	06:14:05	Ccarrasco	09/26/2018	Checked site status online
Thu Sep 27, 2018	06:19:16	Ccarrasco	09/27/2018	Checked site status online
Thu Sep 27, 2018	07:12:39			Status: ok, mode: 4, %filter loading: 32%, Mass: 3.3, Noise: 0.059, Frequency: 252.76470, Total Mass: n/a, Case Temp: 50.00, Air Temp: 50.00, Cap Temp: 50.00, Main Flow: 3.00, Aux Flow: 13.63. LCRA, Joey Tierce, 09-27-18
Thu Sep 27, 2018	19:16:03			Entered station to replace met tower WS/WD wire, perform PMI 04-014, and conduct monthly 5 pt manual calibration on capcog unit 006595 with calibrator unit 165C-45919-275 next calibration due 6-7-19 . placed o3 unit in Q code. 400 set = 399.9 ppb. 300 set = 297.8 ppb. 200 set = 197.8 ppb. 70 set = 069.6 ppb. 0 set = 000.5 ppb. Set WS and WD into P code. LOwered MET tower. REplaced WS/WD wire on MET tower. WS now reading. performed PMI 04-014. placed 03 unit back in k code. PLaced WS ans WD back on K code. Performed quarterly inventory report. Left site safe and secure. JRM NC
Fri Sep 28, 2018	08:58:58	jm	09/28/2018	Checked status online

Operator Logs for Dripping Springs School C614

Date	Time (CST)	Operator	Visit Date	Log Entry 09/01/2018 -- 10/01/2018 Dripping Springs School C614 (48_209_0614)
Sat Sep 01, 2018	03:28:41			Automatic time sync
Tue Sep 04, 2018	03:28:44			Automatic time sync
Tue Sep 04, 2018	07:56:36	Ccarrasco	09/04/2018	Checked site status online
Wed Sep 05, 2018	06:48:14	Ccarrasco	09/05/2018	Checked site status online
Thu Sep 06, 2018	07:10:18	Ccarrasco	09/06/2018	Checked site status online
Fri Sep 07, 2018	05:50:54	Ccarrasco	09/07/2018	Checked site status online
Sat Sep 08, 2018	03:28:44			Automatic time sync
Mon Sep 10, 2018	06:48:10	Ccarrasco	09/10/2018	Checked site status online
Tue Sep 11, 2018	03:28:41			Automatic time sync
Tue Sep 11, 2018	05:26:38	Ccarrasco	09/11/2018	Checked site status online
Wed Sep 12, 2018	07:21:35	Ccarrasco	09/12/2018	Checked site status online
Wed Sep 12, 2018	10:59:15			Entered station to conduct bi-weekly maintenance, PMI 04-014 changed particulate filter,checked all parameters on ozone unit, all ok. left site safe and secure. nc/jmccraw
Thu Sep 13, 2018	07:46:29	Ccarrasco	09/13/2018	Checked site status online
Fri Sep 14, 2018	06:51:24	Ccarrasco	09/14/2018	Checked site status online
Mon Sep 17, 2018	08:14:41	Ccarrasco	09/17/2018	Checked site status online
Tue Sep 18, 2018	06:00:00	Ccarrasco	09/18/2018	Checked site status online
Wed Sep 19, 2018	08:08:39	Ccarrasco	09/19/2018	Checked site status online
Thu Sep 20, 2018	06:45:58	Ccarrasco	09/20/2018	Checked site status online
Fri Sep 21, 2018	06:52:40	Ccarrasco	09/21/2018	Checked site status online
Sat Sep 22, 2018	03:28:43			Automatic time sync
Mon Sep 24, 2018	06:00:56	Ccarrasco	09/24/2018	Checked site status online
Tue Sep 25, 2018	07:06:10	Ccarrasco	09/25/2018	Checked site status online
Wed Sep 26, 2018	06:14:23	Ccarrasco	09/26/2018	Checked site status online
Wed Sep 26, 2018	17:28:37			Entered station to perform PMI 04-014 and 5-pt calibration. placed unit in Q code and Commenced calibration with transfer standard 165C-45919-275 cal due date 6/7/19, on 03 unit 49i capcog 006593. 400 set = 400.1 ppb, 300 set = 299.9 ppb, 200 set = 200.2 ppb, 070 set = 069.9 ppb. 000 set = 000.1. calibration completed satisfactory. all parameters OK. changed particulate filter. Placed unit in k-code and left station safe and secure. Ncinecoe
Thu Sep 27, 2018	06:19:34	Ccarrasco	09/27/2018	Checked site status online
Fri Sep 28, 2018	08:59:28	jm	09/28/2018	checked status on line.
Sat Sep 29, 2018	03:28:40			Automatic time sync

Operator Logs for CAPCOG McKinney Roughs C684

Date	Time (CST)	Operator	Visit Date	Log Entry 09/01/2018 -- 10/01/2018 CAPCOG McKinney Roughs C684 (48_021_0684)
Sat Sep 01, 2018	03:43:38			Automatic time sync
Tue Sep 04, 2018	03:43:39			Automatic time sync
Tue Sep 04, 2018	07:56:51	Ccarrasco	09/04/2018	Checked site status online
Wed Sep 05, 2018	06:48:34	Ccarrasco	09/05/2018	Checked site status online
Thu Sep 06, 2018	07:10:34	Ccarrasco	09/06/2018	Checked site status online
Fri Sep 07, 2018	05:51:10	Ccarrasco	09/07/2018	Checked site status online
Mon Sep 10, 2018	06:48:29	Ccarrasco	09/10/2018	Checked site status online
Tue Sep 11, 2018	03:43:40			Automatic time sync
Tue Sep 11, 2018	05:26:54	Ccarrasco	09/11/2018	Checked site status online
Tue Sep 11, 2018	13:20:58			Entered station to conduct pmi04-014, replaced particulate filter wrench, checked all perameters on ozone unit, all ok. Made log entry and left site safe and secure.jrm/nc
Wed Sep 12, 2018	07:21:49	Ccarrasco	09/12/2018	Checked site status online
Thu Sep 13, 2018	07:46:44	Ccarrasco	09/13/2018	Checked site status online
Fri Sep 14, 2018	06:51:41	Ccarrasco	09/14/2018	Checked site status online
Sat Sep 15, 2018	03:43:39			Automatic time sync
Mon Sep 17, 2018	08:14:59	Ccarrasco	09/17/2018	Checked site status online
Tue Sep 18, 2018	03:43:37			Automatic time sync
Tue Sep 18, 2018	06:00:19	Ccarrasco	09/18/2018	Checked site status online
Wed Sep 19, 2018	08:09:20	Ccarrasco	09/19/2018	Checked site status online
Thu Sep 20, 2018	06:46:14	Ccarrasco	09/20/2018	Checked site status online
Fri Sep 21, 2018	06:52:56	Ccarrasco	09/21/2018	Checked site status online
Sat Sep 22, 2018	03:43:38			Automatic time sync
Mon Sep 24, 2018	06:01:14	Ccarrasco	09/24/2018	Checked site status online
Tue Sep 25, 2018	03:43:38			Automatic time sync
Tue Sep 25, 2018	07:06:27	Ccarrasco	09/25/2018	Checked site status online
Wed Sep 26, 2018	06:14:39	Ccarrasco	09/26/2018	Checked site status online
Wed Sep 26, 2018	11:54:31			Entered station to perform PMI 04-014 and 5-pt calibration. placed unit in Q code and Commenced calibration with transfer standard 165C-45919-275 cal due date 6/7/19, on 03 unit 49i capcog 006521. 400 set = 400.1 ppb, 300 set = 299.6 ppb, 200 set = 200.2 ppb, 070 set = 069.9 ppb. 000 set = 000.1. calibration completed satisfactory. all parameters OK. changed particulate filter. Placed unit in k-code and left station safe and secure. Ncinecoe
Thu Sep 27, 2018	06:19:52	Ccarrasco	09/27/2018	Checked site status online
Fri Sep 28, 2018	08:59:54	jm	09/28/2018	checked status on line.

Operator Logs for CAPCOG Lake Georgetown C690

Date	Time (CST)	Operator	Visit Date	Log Entry 09/01/2018 -- 10/01/2018 CAPCOG Lake Georgetown C690 (48_491_0690)
Sat Sep 01, 2018	03:13:09			Automatic time sync
Tue Sep 04, 2018	03:13:08			Automatic time sync
Tue Sep 04, 2018	07:57:09	Ccarrasco	09/04/2018	Checked site status online
Wed Sep 05, 2018	06:48:51	Ccarrasco	09/05/2018	Checked site status online
Thu Sep 06, 2018	07:10:48	Ccarrasco	09/06/2018	Checked site status online
Fri Sep 07, 2018	05:51:26	Ccarrasco	09/07/2018	Checked site status online
Fri Sep 07, 2018	05:51:42	Ccarrasco	09/07/2018	Checked site status online
Sat Sep 08, 2018	03:13:09			Automatic time sync
Mon Sep 10, 2018	06:49:22	Ccarrasco	09/10/2018	Could not check site status online
Mon Sep 10, 2018	11:25:09			8-10-18: Entered station, no power to equipment, UPs off-line. reset UPS, moved equipment to surge protected outlets. UPS needs to be replaced. performed PMI 04-014. Left site safe and secure. NC/JRM
Tue Sep 11, 2018	03:13:08			Automatic time sync
Tue Sep 11, 2018	05:27:13	Ccarrasco	09/11/2018	Checked site status online
Wed Sep 12, 2018	07:22:06	Ccarrasco	09/12/2018	Checked site status online
Thu Sep 13, 2018	07:47:01	Ccarrasco	09/13/2018	Checked site status online
Fri Sep 14, 2018	06:52:03	Ccarrasco	09/14/2018	Checked site status online
Sat Sep 15, 2018	03:13:06			Automatic time sync
Mon Sep 17, 2018	08:15:15	Ccarrasco	09/17/2018	Checked site status online
Tue Sep 18, 2018	03:13:10			Automatic time sync
Tue Sep 18, 2018	06:00:38	Ccarrasco	09/18/2018	Checked site status online
Wed Sep 19, 2018	08:09:38	Ccarrasco	09/19/2018	Checked site status online
Thu Sep 20, 2018	06:46:35	Ccarrasco	09/20/2018	Checked site status online
Fri Sep 21, 2018	06:53:23	Ccarrasco	09/21/2018	Checked site status online
Sat Sep 22, 2018	03:13:09			Automatic time sync
Mon Sep 24, 2018	06:01:30	Ccarrasco	09/24/2018	Checked site status online
Tue Sep 25, 2018	03:13:09			Automatic time sync
Tue Sep 25, 2018	07:06:44	Ccarrasco	09/25/2018	Checked site status online
Tue Sep 25, 2018	12:08:44			Entered station to perform monthly 5-pt calibration check and PMI 04-014. Station temp at 78F. Commenced 5-pt with calibration unit transfer standard 165C-45919-275 cal due date 6/7/19, on 03 unit 49i capcog 006592. 400 set = 400.4 ppb, 300 set = 299.9 ppb, 200 set = 201.5 ppb, 070 set = 071.5 ppb. 000 set = 001.5. calibration completed satisfactory. all parameters OK. changed particulate filter. Placed unit in k-code and left station safe and secure. Ncinecoe
Wed Sep 26, 2018	06:14:57	Ccarrasco	09/26/2018	Checked site status online
Thu Sep 27, 2018	06:20:08	Ccarrasco	09/27/2018	Checked site status online
Fri Sep 28, 2018	09:00:08	jm	09/28/2018	checked status on line.
Sat Sep 29, 2018	03:13:09			Automatic time sync

Operator Logs for Gorzycki Middle School C1603

Date	Time (CST)	Operator	Visit Date	Log Entry 09/01/2018 -- 10/01/2018 Gorzycki Middle School C1603 (48_453_1603)
Sat Sep 01, 2018	03:13:08			Automatic time sync
Tue Sep 04, 2018	03:13:09			Automatic time sync
Tue Sep 04, 2018	07:58:29	Ccarrasco	09/04/2018	Checked site status online
Wed Sep 05, 2018	06:50:19	Ccarrasco	09/05/2018	Checked site status online
Thu Sep 06, 2018	07:11:54	Ccarrasco	09/06/2018	Checked site status online
Fri Sep 07, 2018	05:52:34	Ccarrasco	09/07/2018	Checked site status online
Sat Sep 08, 2018	03:13:09			Automatic time sync
Mon Sep 10, 2018	06:50:38	Ccarrasco	09/10/2018	Checked site status online
Tue Sep 11, 2018	03:13:08			Automatic time sync
Tue Sep 11, 2018	05:28:19	Ccarrasco	09/11/2018	Checked site status online
Wed Sep 12, 2018	07:23:08	Ccarrasco	09/12/2018	Checked site status online
Wed Sep 12, 2018	10:16:53			Entered station to conduct bi-weekly maintenance, PMI 04-014 changed particulate filter,checked all parameters on ozone unit, all ok. left site safe and secure. Ncinecoe
Thu Sep 13, 2018	07:48:11	Ccarrasco	09/13/2018	Checked site status online
Fri Sep 14, 2018	06:53:06	Ccarrasco	09/14/2018	Checked site status online
Sat Sep 15, 2018	03:13:06			Automatic time sync
Mon Sep 17, 2018	08:16:38	Ccarrasco	09/17/2018	Checked site status online
Tue Sep 18, 2018	03:13:08			Automatic time sync
Tue Sep 18, 2018	06:01:44	Ccarrasco	09/18/2018	Checked site status online
Wed Sep 19, 2018	08:11:06	Ccarrasco	09/19/2018	Checked site status online
Thu Sep 20, 2018	06:47:44	Ccarrasco	09/20/2018	Checked site status online
Fri Sep 21, 2018	06:54:31	Ccarrasco	09/21/2018	Checked site status online
Sat Sep 22, 2018	03:13:09			Automatic time sync
Mon Sep 24, 2018	06:02:38	Ccarrasco	09/24/2018	Checked site status online
Tue Sep 25, 2018	03:13:09			Automatic time sync
Tue Sep 25, 2018	07:07:47	Ccarrasco	09/25/2018	Checked site status online
Wed Sep 26, 2018	06:16:07	Ccarrasco	09/26/2018	Checked site status online
Wed Sep 26, 2018	14:41:20			Entered station to perform PMI 04-014 and 5-pt calibration. placed unit in Q code and Commenced calibration with transfer standard 165C-45919-275 cal due date 6/7/19, on 03 unit 49i capcog 006522. 400 set = 399.7 ppb, 300 set = 299.5 ppb, 200 set = 200.0 ppb, 070 set = 069.8 ppb. 000 set = 000.1. calibration completed satisfactory. all parameters OK. changed particulate filter. Placed unit in k-code and left station safe and secure. Ncinecoe
Thu Sep 27, 2018	06:21:18	Ccarrasco	09/27/2018	Checked site status online
Fri Sep 28, 2018	09:00:22	jm	09/28/2018	checked status on line.
Sat Sep 29, 2018	03:13:09			Automatic time sync

Operator Logs for Lockhart C1604

Date	Time (CST)	Operator	Visit Date	Log Entry 09/01/2018 -- 10/01/2018 Lockhart C1604 (48_055_1604)
Sat Sep 01, 2018	03:13:09			Automatic time sync
Tue Sep 04, 2018	03:13:08			Automatic time sync
Tue Sep 04, 2018	07:58:14	Ccarrasco	09/04/2018	Checked site status online
Wed Sep 05, 2018	06:50:02	Ccarrasco	09/05/2018	Checked site status online
Thu Sep 06, 2018	07:11:40	Ccarrasco	09/06/2018	Checked site status online
Fri Sep 07, 2018	05:52:20	Ccarrasco	09/07/2018	Checked site status online
Sat Sep 08, 2018	03:13:09			Automatic time sync
Mon Sep 10, 2018	06:50:22	Ccarrasco	09/10/2018	Checked site status online
Tue Sep 11, 2018	03:13:09			Automatic time sync
Tue Sep 11, 2018	05:28:03	Ccarrasco	09/11/2018	Checked site status online
Tue Sep 11, 2018	15:13:49			Entered station to conduct pmi04-014, checked all parameters on ozone unit, all ok. Replaced the W/S unit nose cone bearings, Turned on station ac unit and found still not functioning properly fan not workinng. Made log entry and left site safe and secure. jrm/nc
Wed Sep 12, 2018	07:22:52	Ccarrasco	09/12/2018	Checked site status online
Thu Sep 13, 2018	07:47:52	Ccarrasco	09/13/2018	Checked site status online
Fri Sep 14, 2018	06:52:52	Ccarrasco	09/14/2018	Checked site status online
Sat Sep 15, 2018	03:13:06			Automatic time sync
Mon Sep 17, 2018	08:16:10	Ccarrasco	09/17/2018	Checked site status online
Tue Sep 18, 2018	03:13:09			Automatic time sync
Tue Sep 18, 2018	06:01:28	Ccarrasco	09/18/2018	Checked site status online
Wed Sep 19, 2018	08:10:49	Ccarrasco	09/19/2018	Checked site status online
Thu Sep 20, 2018	06:47:28	Ccarrasco	09/20/2018	Checked site status online
Fri Sep 21, 2018	06:54:14	Ccarrasco	09/21/2018	Checked site status online
Sat Sep 22, 2018	03:13:08			Automatic time sync
Mon Sep 24, 2018	06:02:23	Ccarrasco	09/24/2018	Checked site status online
Tue Sep 25, 2018	03:13:10			Automatic time sync
Tue Sep 25, 2018	07:07:30	Ccarrasco	09/25/2018	Checked site status online
Wed Sep 26, 2018	06:15:51	Ccarrasco	09/26/2018	Checked site status online
Thu Sep 27, 2018	06:21:02	Ccarrasco	09/27/2018	Checked site status online
Thu Sep 27, 2018	12:29:03			Entered station to perform PMI 04-014 and 5-pt calibration. station temp at 72F. placed unit in Q code and Commenced calibration with transfer standard 165C-45919-275 cal due date 6/7/19, on 03 unit 49i capcog 006733. 400 set = 400.4 ppb, 300 set = 299.7 ppb, 200 set = 200.1 ppb, 070 set = 070.7 ppb. 000 set = 000.0. calibration completed satisfactory. all parameters OK. changed particulate filter. installed condensate collection jar on sample line. Placed unit in k-code and left station safe and secure. Ncinecoe
Fri Sep 28, 2018	09:00:35	jm	09/28/2018	checked status on line.
Fri Sep 28, 2018	09:01:34	jm	09/28/2018	checked status on line.
Sat Sep 29, 2018	03:13:08			Automatic time sync

Operator Logs for CAPCOG San Marcos Staples Road C1675

Date	Time (CST)	Operator	Visit Date	Log Entry 09/01/2018 -- 10/01/2018 CAPCOG San Marcos Staples Road C1675 (48_209_1675)
Sat Sep 01, 2018	03:43:37			Automatic time sync
Tue Sep 04, 2018	03:43:38			Automatic time sync
Tue Sep 04, 2018	07:57:28	Ccarrasco	09/04/2018	Checked site status online
Wed Sep 05, 2018	06:49:12	Ccarrasco	09/05/2018	Checked site status online
Thu Sep 06, 2018	07:11:06	Ccarrasco	09/06/2018	Checked site status online
Sat Sep 08, 2018	03:43:37			Automatic time sync
Mon Sep 10, 2018	06:49:41	Ccarrasco	09/10/2018	Checked site status online
Tue Sep 11, 2018	03:43:38			Automatic time sync
Tue Sep 11, 2018	05:27:28	Ccarrasco	09/11/2018	Checked site status online
Wed Sep 12, 2018	07:22:23	Ccarrasco	09/12/2018	Checked site status online
Wed Sep 12, 2018	09:16:21			Entered station to conduct bi-weekly maintenance, PMI 04-014 changed particulate filter,checked all parameters on ozone unit, all ok. left site safe and secure. nc/jmccraw
Thu Sep 13, 2018	07:47:17	Ccarrasco	09/13/2018	Checked site status online
Fri Sep 14, 2018	06:52:21	Ccarrasco	09/14/2018	Checked site status online
Sat Sep 15, 2018	03:43:39			Automatic time sync
Mon Sep 17, 2018	08:15:39	Ccarrasco	09/17/2018	Checked site status online
Tue Sep 18, 2018	03:43:38			Automatic time sync
Tue Sep 18, 2018	06:00:55	Ccarrasco	09/18/2018	Checked site status online
Wed Sep 19, 2018	08:10:10	Ccarrasco	09/19/2018	Checked site status online
Thu Sep 20, 2018	06:46:55	Ccarrasco	09/20/2018	Checked site status online
Fri Sep 21, 2018	06:53:40	Ccarrasco	09/21/2018	Checked site status online
Sat Sep 22, 2018	03:43:37			Automatic time sync
Mon Sep 24, 2018	06:01:48	Ccarrasco	09/24/2018	Checked site status online
Mon Sep 24, 2018	10:50:26			Entered station to conduct PMI 04-014 and O3 unit 5-pt manual calibration . Station Temperature at 66F . Placed unit in q-code. Cleared moisture from sample line. could not complete calibration, will return with new calibratior unit. particulate filter replaced, Placed unit in back k-code and left station safe and secure. NCinecoe
Mon Sep 24, 2018	14:28:28			Entered station to conduct 5-pt manual calibration. Station temp at 74F .Placed unit in q-code. Commenced 5-pt calibration with Transfer standard sn 165c-45919-275 cal due date 6/7/2019, on O3 unit 49i capcog 006523, and completed satisfactory. 400 set = 400.8 ppb, 300 set = 300.3 ppb, 200 set = 200.3 ppb, 070 set = 069.9 ppb. 000 set = 000.4 ppb. calibration completed satisfactory. no adjustments made. Placed unit in k-code and left station safe and secure. Ncinecoe
Tue Sep 25, 2018	03:43:37			Automatic time sync
Tue Sep 25, 2018	07:07:01	Ccarrasco	09/25/2018	Checked site status online
Wed Sep 26, 2018	06:15:13	Ccarrasco	09/26/2018	Checked site status online
Thu Sep 27, 2018	06:20:27	Ccarrasco	09/27/2018	Checked site status online
Fri Sep 28, 2018	09:01:46	jm	09/28/2018	checked status on line.

Operator Logs for CAPCOG Hutto College Street C6602

Date	Time (CST)	Operator	Visit Date	Log Entry 09/01/2018 -- 10/01/2018 CAPCOG Hutto College Street C6602 (48_491_6602)
Sat Sep 01, 2018	03:13:09			Automatic time sync
Tue Sep 04, 2018	07:58:01	Ccarrasco	09/04/2018	Could not check site status online
Wed Sep 05, 2018	06:49:46	Ccarrasco	09/05/2018	Could not check site status online
Wed Sep 05, 2018	15:40:55			entered station to fix dead signal issue. restarted ups unit that had run completely down. and the O3 unit. Station temp at 80"F all units back up and running, checked all parameters OK.left site safe and secure. ncinecoe
Thu Sep 06, 2018	07:11:25	Ccarrasco	09/06/2018	Checked site status online
Fri Sep 07, 2018	05:52:03	Ccarrasco	09/07/2018	Checked site status online
Sat Sep 08, 2018	03:13:08			Automatic time sync
Mon Sep 10, 2018	06:50:04	Ccarrasco	09/10/2018	Checked site status online
Tue Sep 11, 2018	03:13:08			Automatic time sync
Tue Sep 11, 2018	05:27:48	Ccarrasco	09/11/2018	Checked site status online
Wed Sep 12, 2018	07:22:38	Ccarrasco	09/12/2018	Checked site status online
Wed Sep 12, 2018	13:31:19			u
Wed Sep 12, 2018	13:33:46			Entered station to conduct bi-weekly maintenance, PMI 04-014 changed particulate filter,checked all parameters on ozone unit, all ok. replaced missing filter wrench. left site safe and secure. nc/jmccraw
Thu Sep 13, 2018	07:47:33	Ccarrasco	09/13/2018	Checked site status online
Fri Sep 14, 2018	06:52:39	Ccarrasco	09/14/2018	Checked site status online
Sat Sep 15, 2018	03:13:06			Automatic time sync
Mon Sep 17, 2018	08:15:56	Ccarrasco	09/17/2018	Checked site status online
Tue Sep 18, 2018	03:13:08			Automatic time sync
Tue Sep 18, 2018	06:01:11	Ccarrasco	09/18/2018	Checked site status online
Wed Sep 19, 2018	08:10:31	Ccarrasco	09/19/2018	Checked site status online
Thu Sep 20, 2018	06:47:13	Ccarrasco	09/20/2018	Checked site status online
Fri Sep 21, 2018	06:53:58	Ccarrasco	09/21/2018	Checked site status online
Sat Sep 22, 2018	03:13:09			Automatic time sync
Mon Sep 24, 2018	06:02:07	Ccarrasco	09/24/2018	Checked site status online
Tue Sep 25, 2018	03:13:11			Automatic time sync
Tue Sep 25, 2018	07:07:17	Ccarrasco	09/25/2018	Checked site status online
Tue Sep 25, 2018	15:20:48			Entered station to perform monthly 5-pt calibration check and PMI 04-014. Station temp at 86F. Commenced 5-pt with calibration unit transfer standard 165C-45919-275 cal due date 6/7/19, on 03 unit 49i capcog 006270. 400 set = 400.3 ppb, 300 set = 300.2 ppb, 200 set = 200.2 ppb, 070 set = 069.7 ppb. 000 set = 000.2. calibration completed satisfactory. all parameters OK. changed particulate filter. Placed unit in k-code and left station safe and secure. Ncinecoe
Wed Sep 26, 2018	06:15:33	Ccarrasco	09/26/2018	Checked site status online
Thu Sep 27, 2018	06:20:44	Ccarrasco	09/27/2018	Checked site status online
Fri Sep 28, 2018	09:02:04	jm	09/28/2018	checked status on line.
Sat Sep 29, 2018	03:13:08			Automatic time sync

Attachment 3: CAPCOG 5 pt calibration results*.

CAPCOG 5 pt Calibration Results for September 2018																
5pt. Monthly Calibrations Site	Calibration Date	0 ppb check	% out	DQO met	70 ppb check	% out	DQO met	200 ppb check	% out	DQO met	300 ppb check	% out	DQO met	400 ppb check	% out	DQO met
C601	9/27/2018	0.5	0.1	yes	69.6	0.0	yes	197.8	0.3	yes	297.8	-0.1	yes	399.9	0.2	yes
C614	9/26/2018	0.1	0.0	yes	69.9	-0.6	yes	200.2	-0.3	yes	299.9	-0.3	yes	400.1	0.4	yes
C684	9/26/2018	0.1	0.1	yes	69.9	0.4	yes	200.2	0.4	yes	299.6	-0.1	yes	400.1	-0.1	yes
C690	9/25/2018	1.5	0.3	yes	71.5	1.1	yes	201.5	0.7	yes	299.9	0.0	yes	400.4	0.2	yes
C1603	9/26/2018	0.1	0.0	yes	69.8	-0.1	yes	200.0	-0.2	yes	299.5	0.0	yes	399.7	0.6	yes
C1604	9/27/2018	0.0	0.0	yes	70.7	1.4	yes	200.1	0.5	yes	299.7	-0.1	yes	400.4	0.0	yes
C1675	9/24/2018	0.4	0.0	yes	69.9	-1.3	yes	200.3	0.3	yes	300.3	-0.2	yes	400.8	-0.1	yes
C6602	9/25/2018	0.2	0.0	yes	69.7	1.4	yes	200.2	0.2	yes	300.2	-0.1	yes	400.3	-0.2	yes

This table shows the percentage of error of the machine from the known source.
<3% outstanding; <5% excellent; <7% good; >7% DQO not met.

In many cases we are able to maintain < 1% error for the most accurate data possible. None of the data was more than 5% out, and that is due to normal machine linearity imperfections.