

APPENDIX 3

FIELD DATA SHEETS

CEM FIELD DATA SHEET

Plant : Beaver Manufacturing
 Source : Cocifier
 Date : Aug 18/05

Technician : Martin S.
 Ambient Temp °C : _____
 Bar. Pressure in Hg : 28.5 "Hg

Approximate Source Parameters
 Moisture : _____
 Temperature °C : _____
 Flowrate dscm/min : _____

Stack Diameter in. : 12" x 12"
 Stack Height ft : _____
 Static Pressure H₂O : _____

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CEM Readings

Time	Source	NO _x	O ₂	CO ✓	CO ₂ ✓	SO ₂	THC	Approx. Response Time (sec)
	<u>Cal Gases:</u>	81.1	0.0 ✓	160	/	160	/	NO _x up 125
		222	11.07 ✓	435	15.01 ✓	450	31.2	NO _x dn 125
		465 ✓	20.9 <small>from air bottle</small>	906	/	889 ✓	82.5	O ₂ up 35
								O ₂ dn 35
	<u>Direct Cal:</u>	0	0.0	2	0	0	NA	CO up 50
		222	10.9	435	14.9	446	NA	CO dn 50
		464	21.0	905	/	873	NA	CO ₂ up 15
								CO ₂ dn 15
	<u>System Cal:</u>	2	0.1	1	0	-2	0	SO ₂ up 130
		223	10.9	431	14.8	439	31	SO ₂ dn 140
		459	20.9	896	/	865	82	THC up 10
								THC dn 10
1005-1105	(Test #1) 20% Waste / 80% pellets (by wt)							
		2	0.1	0	0	-2	2	
		219	11.0	426	14.8	436	84	
1345-1445	(Test #2A) 40% Waste / 60% Pellets (by wt)							
		3	0.3	-12	0	-5	3	
		216	11.2	414	14.7	415	83	

line Press Cal
 P₂ Gas flow
 2/min

26/7

PM/Bag

PM/Bag

Files save on C/PC 20:30/W/AUG 18

Stand by due to water pump failure and pipe burst

2.41
2008
PART 6 PROS
UNIT 1

Point	Clock Time	Dry Gas Meter Ft ³	Pilot IN. H ₂ O ΔP	Office ΔH ₂ O		Dry Gas Temp. °F		Pump Vac. IN. Hg Gauge	Temperature °F			Impinger Exit	Temperature °F	Stack	Fylices	
				Inlet °F	Outlet °F	Inlet °F	Box		Probe	CO ₂ Vol %	O ₂ Vol %					
1	13:30	551.123	0.13	1.49	87	85	1	248	252	160.0	135	5.0	16.0			
2		554.713	0.13	1.70	91	84	1	252	261	80	140					
3		550.537	0.12	1.62	91	84	1	253	265	80	147					
4		562.374	0.08	1.08	95	90	1	263	271	50	151					
5		565.40	0.09	1.21	96	93	1	269	276	50	155					
6		568.66	0.09	1.27	97	94	1	261	278	50	153					
7		571.91	0.08	1.08	97	94	1	256	272	50	160					
8		575.00	0.09	1.21	100	95	2	260	275	50	162					
9		578.19	0.09	1.17	101	94	2	266	282	50	175					
10		581.57	0.08	1.07	102	97	2	269	280	50	180					
11		584.39	0.09	1.17	102	97	2	260	283	50	185					
12	14:35	590.77	0.09	1.17	102	98	2	258	279	50	187					

PLANT: Thomp. University
 TEST NO: Part 6 / SOx
 LOCATION: 12° x 12
 DATE: Aug 19/08
 OPERATOR: JZ
 CONTROL UNIT / Y: 31D-6216-9997
 PROBE LENGTH, FT / ORifice: 8220
 NOZZLE ID / DIAMETER (Inches): 3673
 BAROMETRIC PRESSURE (In. Hg): 28.50
 FILTER ID:

STACK DIAMETER: 12" x 12
 STACK HEIGHT: 10' 13"
 UP-STREAM DIA.: 5"
 DOWN-STREAM DIA.: 5"
 ASSUMED MOISTURE (%): 10%
 STATIC PRESS. (In. H₂O):
 LEAK RATE INITIAL: 0.010015"
 LEAK RATE FINAL: 0.010015"

IMPINGER VOLUMES
 imp. #1: 100
 imp. #2: 100
 imp. #3:
 imp. #4:

INITIAL (ml): 100
 FINAL (ml): 188
 178

BMZ 2.41 15.98

Point	Clock Time	Dry Gas Meter ft ³	Pilot IN. H ₂ O ΔP	Orifice ΔH IN. H ₂ O	Dry Gas Temp. Inlet °F	Dry Gas Temp. Outlet °F	Pump Vac. IN. Hg Gauge	Temperature °F		Impinger	Temperature °F	Stack	CO ₂ Vol. %	O ₂ Vol. %
								Box	Probc					
1	16:56	626.746	.09	1.44	109	107	1	150	246	50	209	209		
2		629.377	.10	1.60	110	107	1	140	250	50	214	214		
3		633.928	.10	1.60	109	105	1	153	261	50	211	211		
4		637.327	.09	1.44	109	105	1	158	265	50	210	210		
5		641.913	.09	1.44	109	105	1	160	262	50	211	211		
6		646.924	.09	1.44	109	105	1	163	260	50	208	208		
7		649.869	.09	1.44	109	104	1	160	261	50	209	209		
8		653.694	.10	1.60	109	104	1	156	256	50	210	210		
9		657.497	.09	1.44	109	104	1	157	256	50	209	209		
10		663.179	.09	1.44	109	103	1	165	250	50	209	209		
11		666.729	.09	1.44	109	103	1	165	250	50	209	209		
12	17:56	670.355	.09	1.44	109	103	1	161	248	50	208	208		

STACK DIAMETER 12 X 12"
 STACK HEIGHT 15
 UPSTREAM DIA. S
 DOWNSTREAM DIA. S
 ASSUMED MOISTURE (%) 10.1
 STATIC PRESS. (in. H₂O)
 LEAK RATE INITIAL 0.01005
 LEAK RATE FINAL 0.011

PLANT Thompson University
 TEST NO. 2304 Pentac
 LOCATION Stack
 DATE Aug 18 1965
 OPERATOR J. J. Hales
 CONTROL UNIT 31D 621C 19997
 PROBE LENGTH, FT/CP 3C 8220
 NOZZLE ID / DIAMETER (inches) 3817
 BAROMETRIC PRESSURE (in. Hg) 28.50
 FILTER ID

INITIAL (ml) 100
 FINAL (ml) 185

IMPINGER VOLUMES
 Imp. #1
 Imp. #2
 Imp. #3
 Imp. #4

Temperature °F
 Box
 Probc
 Impinger
 Stack

CO₂ Vol. %
 O₂ Vol. %

1.37710 5.18

18245

8 Thompson Unit

PLANT	TEST NO.	STACK DIAMETER	INITIAL (ml)	FINAL (ml)
LOCATION	DATE	STACK HEIGHT	100	188
OPERATOR	CONTROL UNIT	UPSTREAM DIA.'s	100	110
PROBE LENGTH, FT./Cp	NOZZLE ID / DIAMETER (inches)	DOWNSTREAM DIA.'s		
BAROMETRIC PRESSURE (in. Hg)	FILTER ID	ASSUMED MOISTURE (%)		
		STATIC PRESS. (in. H ₂ O)		
		LEAK RATE INITIAL		
		LEAK RATE FINAL		

Point	Clock Time	Dry Gas Meter Ft ³	Pilot IN. H ₂ O ΔP	Orifice ΔH IN. H ₂ O	Dry Gas Temp.		Pump Vac. IN. Hg Gauge	Temperature °F		Impinger Exit	Temperature °F Stack	CO ₂ Vol. %	O ₂ Vol. %
					Inlet °F	Outlet °F		Box	Probe				
1	15:18	591.206	.09	0.47	110	109	1	252	260	50	199		
2		593.248	.09	0.47	110	108	1	260	258	50	197		
3		595.377	.09	0.47	109	106	1	260	248	50	197		
4		599.473	.09	0.47	107	105	2	252	250	50	200		
5		601.49	.09	0.47	106	104	2	252	251	50	200		
6		603.54	.09	0.47	106	104	2	252	251	50	201		
7		605.60	.09	0.47	106	104	2	252	250	50	201		
8		607.66	.09	0.47	106	104	2	252	250	50	201		
9		609.71	.09	0.47	106	104	2	252	250	50	201		
10		611.77	.09	0.47	106	104	2	252	250	50	201		
11		613.82	.09	0.47	106	104	2.5	252	250	50	201		
12		615.88	.09	0.47	105	103	3	252	250	50	201		
13		617.93	.09	0.47	105	103	3	252	250	50	201		
14		619.99	.09	0.47	105	103	3	252	250	50	201		
15		621.04	.09	0.47	105	103	3	252	250	50	201		
16	16:43	622.10	.09	0.47	105	103	3	252	250	50	201		
17		626.15	.09	0.47	106	103	3	252	252	50	210		
		34.94											

26°C / sunny