

US EPA ARCHIVE DOCUMENT

	B	C
1	Source Description	
2		
3	Phase I ID No.	3032
4	EPA ID No.	
5	Facility Name	McAlester Army Ammunition Plant
6	Facility Location	
7	City	McAlester
8	State	OK
9	Unit ID Name/No.	APE 1236
10	Other Sister Facilities	
11	Number of Sister Facilities	0
12	Combustor Class	Onsite Incinerator, DoD munitions popping, government
13	Combustor Type	Rotary kiln
14	Combustor Characteristics	Rotary kiln. Designed to destroy small ammunition or explosive end items and bulk explosive or propelling materials.
15	Capacity (MMBtu/hr)	
16	Soot Blowing	
17	APCS Detailed Acronym	AB/GC/C/FF
18	APCS General Class	FF, C, HE
19	APCS Characteristics	
20	Hazardous Wastes	Solid
21	Haz Waste Description	Propellant/explosive/pyrotechnic
22	Supplemental Fuel	Oil
23		
24	Stack Characteristics	
25	Diameter (ft)	
26	Height (ft)	
27	Gas Velocity (ft/sec)	
28	Gas Temperature (°F)	
29		
30	Permitting Status	
31	HWC Burn Status (Date if Terminated)	

	B	C
1	Condition Description	
2		
3	3032C1	
4		
5	Report Name/Date	Air Pollution Emission Assessment No. 42-EK-1463-97 -- Trial Burn and Health Risk Assessment Emissions Test for APE 1236 DFS - McAlester Army Ammunition Plant, McAlester, OK, February 12 - March 14, 1997
6	Report Prepare	U.S. Army CHPPM
7	Testing Firm	
8	Testing Dates	Feb 22, 27, 1997
9	Cond Dates	Feb-97
10	Condition Descr	M7 Propellant
11	Content	PM, CO, DRE
12		
13	3032C2	
14		
15	Report Name/Date	Air Pollution Emission Assessment No. 42-EK-1463-97 -- Trial Burn and Health Risk Assessment Emissions Test for APE 1236 DFS - McAlester Army Ammunition Plant, McAlester, OK, February 12 - March 14, 1997
16	Report Prepare	U.S. Army CHPPM
17	Testing Firm	
18	Testing Dates	Feb 25, 26, March 5, 1997
19	Cond Dates	Feb-97
20	Condition Descr	M1 Propellant, HCB Powder
21	Content	PM, CO, DRE
22		
23	3032C3	
24		
25	Report Name/Date	Air Pollution Emission Assessment No. 42-EK-1463-97 -- Trial Burn and Health Risk Assessment Emissions Test for APE 1236 DFS - McAlester Army Ammunition Plant, McAlester, OK, February 12 - March 14, 1997
26	Report Prepare	U.S. Army CHPPM
27	Testing Firm	
28	Testing Dates	Feb 28, March 3, 8, 1997
29	Cond Dates	Feb-97
30	Condition Descr	M43A1/M1911 Mixed munitions, metal powder
31	Content	PM, metals, CO
32		
33	3032C4	
34		
35	Report Name/Date	Air Pollution Emission Assessment No. 42-EK-1463-97 -- Trial Burn and Health Risk Assessment Emissions Test for APE 1236 DFS - McAlester Army Ammunition Plant, McAlester, OK, February 12 - March 14, 1997
36	Report Prepare	U.S. Army CHPPM
37	Testing Firm	
38	Testing Dates	March 6-8, 1997
39	Cond Dates	Feb-97
40	Condition Descr	M17 low temperature
41	Content	PM, HCl/Cl ₂ , CO, PCDD/PCDF, PICs
42		
43	3032C5	
44		
45	Report Name/Date	Air Pollution Emission Assessment No. 42-EK-1463-97 -- Trial Burn and Health Risk Assessment Emissions Test for APE 1236 DFS - McAlester Army Ammunition Plant, McAlester, OK, February 12 - March 14, 1997
46	Report Prepare	U.S. Army CHPPM
47	Testing Firm	
48	Testing Dates	March 10-12, 1997
49	Cond Dates	Feb-97
50	Condition Descr	M17 high temperature
51	Content	PM, HCl/Cl ₂ , CO, PCDD/PCDF, PICs

	B	C	D	E	F	G	H	I	J	K	L	M
1	Stack Gas Emissions 1											
2												
3		Comments	Units		7% O2							
4												
5	3032C1					R1		R2		R3		Cond Avg
6												
7	PM	E1	gr/dscf	y		0.0051		0.0044		0.0044		0.0046
8	CO (MHRA)	E1	ppmv	y		42		78.5		13.2		44.6
9												
10	POHC DRE	NG										
11	POHC Feedrate		lb/hr			37.6		37.71		39.3		
12	Emission Rate	E1	g/sec			2.23E-05		1.95E-05		1.86E-05		
13	DRE	E1	%			99.9995		99.9996		99.9996		
14												
15	Sampling Train	PM	E1									
16	Stack Gas Flowrate		dscfm			3765		3413		3680		3619.4
17	O2		%			14.8		15.2		15.4		15.1
18	Moisture		%			5.4		5.2		5.2		5.3
19	Temperature		°F			197		198		202		199.0
20												
21	3032C2					R1		R2		R3		Cond Avg
22												
23	PM	E1	gr/dscf	y		0.0029		0.0046		0.0028		0.0034
24	CO (MHRA)	E1	ppmv	y		16		16.9		15.7		16.20
25												
26	POHC DRE	DNT										
27	POHC Feedrate		lb/hr			21.7		22.1		22.6		
28	Emission Rate	E1	g/sec			1.37E-05		1.53E-05		1.40E-05		
29	DRE	E1	%			99.9995		99.9995		99.9995		
30												
31	POHC DRE	HCB										
32	POHC Feedrate		lb/hr			3.5		3.51		3.51		
33	Emission Rate	E1	g/sec			9.12E-07		1.53E-06		2.53E-07		
34	DRE	E1	%			99.9998		99.9996		99.9998		
35												
36	Sampling Train	PM	E1									
37	Stack Gas Flowrate		dscfm			3376.7		3230.0		3523.3		3376.7
38	O2		%			14.7		15.2		14.8		14.9
39	Moisture		%			6.2		6.7		5.5		6.1
40	Temperature		°F			197		197		188		194.0
41												
42	3032C3					R1		R2		R3		Cond Avg
43												
44	PM	E2	gr/dscf	y		0.0047		0.0044		0.0042		0.0044
45	CO (MHRA)	E2	ppmv	y		15.8		13.6		29.7		19.7
46												
47	Sampling Train	metals	E1									
48	Stack Gas Flowrate		dscfm			3600		3783.3		3713.3		3698.9
49	O2		%			14.6		13.8		15		14.5
50	Moisture		%			6.4		5.5		5.6		5.8
51	Temperature		°F			184		191		198		191.0
52												
53	Sampling Train	PM	E2									
54	Stack Gas Flowrate		dscfm			3805		3688		3655		3716.1
55	O2		%			14.6		13.8		15		14.5
56	Moisture		%			5.9		5.6		6.1		5.9
57	Temperature		°F			180		196		197		191.0
58												
59	Aluminum		g/sec			2.47E-05		2.58E-05		5.55E-05		
60	Antimony		g/sec			6.38E-05		3.59E-05		4.90E-05		
61	Arsenic		g/sec			8.51E-07		6.41E-07		1.23E-06		
62	Barium		g/sec			1.41E-05		1.84E-05		6.16E-05		
63	Beryllium		g/sec			1.30E-07		1.16E-07		2.12E-07		
64	Cadmium		g/sec			1.97E-06		1.35E-06		2.20E-06		
65	Chromium		g/sec			6.19E-07		8.99E-07		9.80E-07		
66	Copper		g/sec			9.72E-06		6.32E-06		2.50E-05		
67	Lead		g/sec			1.24E-03		7.67E-04		2.15E-03		
68	Mercury		g/sec			1.29E-07		6.96E-07		2.69E-06		
69	Nickel		g/sec			7.68E-07		6.72E-07		1.26E-06		
70	Selenium		g/sec			2.56E-06		2.53E-06		4.46E-06		
71	Silver		g/sec			4.66E-07		4.65E-07		8.48E-07		

	B	C	D	E	F	G	H	I	J	K	L	M
72	Tin		g/sec			1.15E-06		3.49E-06		6.36E-07		
73	Zinc		g/sec			2.00E-05		1.00E-05		8.00E-06		
74												
75	Aluminum	E1	ug/dscm	y		31.82		28.11		73.94		44.62
76	Antimony	E1	ug/dscm	y		82.19		39.12		65.28		62.20
77	Arsenic	E1	ug/dscm	y		1.10		0.70		1.64		1.14
78	Barium	E1	ug/dscm	y		18.16		20.05		82.07		40.09
79	Beryllium	E1	ug/dscm	y		0.17		0.13		0.28		0.19
80	Cadmium	E1	ug/dscm	y		2.54		1.47		2.93		2.31
81	Chromium	E1	ug/dscm	y		0.80		0.98		1.31		1.03
82	Copper	E1	ug/dscm	y		12.52		6.89		33.31		17.57
83	Lead	E1	ug/dscm	y		1597.47		835.76		2864.28		1765.84
84	Mercury	E1	ug/dscm	y		0.17		0.76		3.58		1.50
85	Nickel	E1	ug/dscm	y		0.99		0.73		1.68		1.13
86	Selenium	E1	ug/dscm	y		3.30		2.76		5.94		4.00
87	Silver	E1	ug/dscm	y		0.60		0.51		1.13		0.75
88	Tin	E1	ug/dscm	y		1.48		3.80		0.85		2.04
89	Zinc	E1	ug/dscm	y		25.77		10.90		10.66		15.77
90												
91	SVM	E1	ug/dscm	y		1600.0		837.2		2867.2		1768.2
92	LVM	E1	ug/dscm	y		20.06		21.73		85.01		42.27
93												
94	3032C4					R1		R2		R3		Cond Avg
95												
96	PM	E1	gr/dscf	y		0.0011				0.0015		0.0013
97	CO (MHRA)	E1	ppmv	y		11.8		11.2		11.2		11.4
98	HCl		g/sec			3.03E-03		1.05E-03		9.38E-04		
99	Cl2		g/sec			4.06E-04		5.35E-04		5.70E-05		
100	HCl	E1	ppmv	y		2.6		0.9		0.8		1.5
101	Cl2	E1	ppmv	y		0.2		0.2		0.0		0.1
102	Total Chlorine	E1	ppmv	y		2.9		1.4		0.9		1.7
103												
104	Sampling Train	PM, HCl/Cl2	E1									
105	Stack Gas Flowrate		dscfm			3733.3		3728.3		3640.0		3700.6
106	O2		%			14.8		15.2		15		15.00
107	Moisture		%			4.8		4.8				4.80
108	Temperature		°F			206		190		199		198.3
109												
110	3032C5					R1		R2		R3		Cond Avg
111												
112	PM	E1	gr/dscf	y		0.0013		0.0027				0.0020
113	CO (MHRA)	E1	ppmv	y		10.2		10.2		11.3		10.6
114	HCl		g/sec			9.17E-04		6.79E-04		5.17E-04		
115	Cl2		g/sec			6.18E-04		5.01E-04		2.87E-04		
116	HCl	E1	ppmv	y		0.7		0.6		0.5		0.59
117	Cl2	E1	ppmv	y		0.2		0.2		0.1		0.20
118	Total Chlorine	E1	ppmv	y		1.2		1.0		0.8		1.0
119												
120	Sampling Train	PM, HCl/Cl2	E1									
121	Stack Gas Flowrate		dscfm			3870		3708.3		3715		3764.4
122	O2		%			14.4		14.8		15.4		14.87
123	Moisture		%			5		5.2		5		5.07
124	Temperature		°F			217		205		197		206.3

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	
1	Feedrate																			
2																				
3	3032C1					R1		R2		R3		Cond Avg		R1		R2		R3		Cond Avg
4																				
5	Feedstream Description					M7		M7		M7		M7		Total		Total		Total		Total
6	Feed Class 2					HW		HW		HW		HW		Total		Total		Total		Total
7	Feed Rate				lb/hr	119.3		119.3		119.3		119.3		119.3		119.3		119.3		119.3
8																				
9	3032C2					R1		R2		R3		Cond Avg		R1		R2		R3		Cond Avg
10																				
11	Feedstream Description					M1		M1		M1		M1		Total		Total		Total		Total
12	Feed Class 2					HW		HW		HW		HW		Total		Total		Total		Total
13	Feed Rate				lb/hr	243.6		243.6		243.6		243.6		243.6		243.6		243.6		243.6
14																				
15	3032C3					R1		R2		R3		Cond Avg		R1		R2		R3		Cond Avg
16																				
17	Feedstream Description					M48A1 /		M48A1 /		M48A1 /		M48A1 /		Total		Total		Total		Total
18	Feed Class 2					M1911		M1911		M1911		M1911		Total		Total		Total		Total
19	Feed Rate				lb/hr	156.5		156.5		156.5		156.5		156.5		156.5		156.5		156.5
20	Ash				lb/hr									59.49		59.49		59.49		59.49
21	Lead				lb/hr									6.38		6.38		6.38		6.38
22	Antimony				lb/hr									3.98		3.98		3.98		3.98
23	Barium				lb/hr									10.21		10.21		10.21		10.21
24	Chromium				lb/hr									0.0054		0.0054		0.0054		0.0054
25																				
26	Stack Gas Flowrate				dscfm									3805		3688.333		3655		
27	Oxygen				%									14.6		13.8		15		
28																				
29	Thermal Feedrate				MMBtu/hr															
30	Estimated Firing Rate				MMBtu/hr															
31																				
32	<i>Feedrate MTEC Calculations</i>																			
33	Ash				mg/dscm	y								9144		8385		10154		9228
34	Lead				ug/dscm	y								980691		899299		1089001		989664
35	Antimony				ug/dscm	y								611779		561005		679345		617376
36	Barium				ug/dscm	y								1569413		1439161		1742743		1583772
37	Chromium				ug/dscm	y								830		761		922		838
38																				
39	3032C4					R1		R2		R3		Cond Avg		R1		R2		R3		Cond Avg
40																				
41	Feedstream Description					M17		M17		M17		M17		Total		Total		Total		Total
42	Feed Class 2					HW		HW		HW		HW		Total		Total		Total		Total
43	Feed Rate				lb/hr	237.56		237.56		237.56		237.6		237.56		237.56		237.56		237.56
44	Chlorine				lb/hr									3.54		3.54		3.54		3.54
45	Ash				lb/hr									46.68		46.68		46.68		46.68
46																				
47	Stack Gas Flowrate				dscfm									3733		3728		3640		
48	Oxygen				%									14.8		15.2		15		
49																				
50	Thermal Feedrate				MMBtu/hr															
51	Estimated Firing Rate				MMBtu/hr															
52																				
53	<i>Feedrate MTEC Calculations</i>																			
54	Chlorine				ug/dscm	y								572481		612783		606732		597332
55	Ash				mg/dscm	y								7549				8001		7775
56																				
57	3032C5					R1		R2		R3		Cond Avg		R1		R2		R3		Cond Avg
58																				
59	Feedstream Description					M17		M17		M17		M17		Total		Total		Total		Total
60	Feed Class 2					HW		HW		HW		HW		Total		Total		Total		Total
61	Feed Rate				lb/hr	237.56		237.56		237.56		237.6		237.56		237.56		237.56		237.56
62	Chlorine				lb/hr									3.54		3.54		3.54		3.54
63	Ash				lb/hr									46.68		46.68		46.68		46.68
64																				
65	Stack Gas Flowrate				dscfm									3870		3708		3715		
66	Oxygen				%									14.4		14.8		15.4		
67																				
68	Thermal Feedrate				MMBtu/hr															
69	Estimated Firing Rate				MMBtu/hr															
70																				
71	<i>Feedrate MTEC Calculations</i>																			
72	Chlorine				ug/dscm	y								518794		576340		636946		577360
73	Ash				mg/dscm	y								6841		7600				7220

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	
1	PCDD/PCDF																	
2	N																	
3	Facility Name and ID:	McAlester Army Ammunition Plant																
4	Condition ID:	3032C4																
5	Condition/Test Date:	Trial burn, low temperature, March 1997																
6																		
7		I-TEF				Run 1				Run 2				Run 3				
8		Wght Fact	Total	TEQ	Total	TEQ	Total	TEQ	Total	TEQ	Total	TEQ	Total	TEQ	Total	TEQ		
9			Full ND	Full ND	1/2 ND	1/2 ND	Full ND	Full ND	1/2 ND	1/2 ND	Full ND	Full ND	1/2 ND	1/2 ND	Full ND	Full ND	1/2 ND	1/2 ND
10	Detected in sample volume (pg)																	
11	2,3,7,8-TCDD	1	18.156	18.156	18.156	18.156												
12	TCDD Total	0	1273	0.000	1273.000	0.000	294	0.000	294.0	0.000	201	0.000	201.0	0.000				
13	1,2,3,7,8-PCDD	0.5	61.852	30.926	61.852	30.926	16.8	8.400	16.8	8.400	12.9	6.450	12.9	6.450				
14	PCDD Total	0	958	0.000	958.000	0.000	235	0.000	235.0	0.000	152	0.000	152.0	0.000				
15	1,2,3,4,7,8-HxCDD	0.1	30.104	3.010	30.104	3.010	12.3	1.230	12.3	1.230	6.7	0.670	6.7	0.670				
16	1,2,3,6,7,8-HxCDD	0.1	87.88	8.788	87.880	8.788	32.3	3.230	32.3	3.230	22.1	2.210	22.1	2.210				
17	1,2,3,7,8,9-HxCDD	0.1	87.7	8.770	87.700	8.770	33.4	3.340	33.4	3.340	21.5	2.150	21.5	2.150				
18	HxCDD Total	0	1100	0.000	1100.000	0.000	381	0.000	381.0	0.000	245	0.000	245.0	0.000				
19	1,2,3,4,6,7,8-HpCDD	0.01	317.1	3.171	317.100	3.171	167	1.670	167.0	1.670	96	0.960	96.0	0.960				
20	HpCDD Total	0	700	0.000	700.000	0.000	307	0.000	307.0	0.000	183	0.000	183.0	0.000				
21	OCDD	0.001	702	0.702	702.000	0.702	400	0.400	400.0	0.400	220	0.220	220.0	0.220				
22	2,3,7,8-TCDF	0.1	1654.7	165.470	1654.700	165.470	419	41.900	419.0	41.900	268	26.800	268.0	26.800				
23	TCDF Total	0	6100	0.000	6100.000	0.000	2104	0.000	2104.0	0.000	1254	0.000	1254.0	0.000				
24	1,2,3,7,8-PCDF	0.05	262	13.100	262.000	13.100	75	3.750	75.0	3.750	53.7	2.685	53.7	2.685				
25	2,3,4,7,8-PCDF	0.5	413	206.500	413.000	206.500	104	52.000	104.0	52.000	79.6	39.800	79.6	39.800				
26	PCDF Total	0	5028	0.000	5028.000	0.000	1304	0.000	1304.0	0.000	920	0.000	920.0	0.000				
27	1,2,3,4,7,8-HxCDF	0.1	500	50.000	500.000	50.000	147	14.700	147.0	14.700	105	10.500	105.0	10.500				
28	1,2,3,6,7,8-HxCDF	0.1	218	21.800	218.000	21.800	53	5.300	53.0	5.300	39.4	3.940	39.4	3.940				
29	2,3,4,6,7,8-HxCDF	0.1	240	24.000	240.000	24.000	68.7	6.870	68.7	6.870	52.2	5.220	52.2	5.220				
30	1,2,3,7,8,9-HxCDF	0.1																
31	HxCDF Total	0	1376	0.000	1376.000	0.000	365	0.000	365.0	0.000	230	0.000	230.0	0.000				
32	1,2,3,4,6,7,8-HpCDF	0.01	408	4.080	408.000	4.080	180	1.800	180.0	1.800	115	1.150	115.0	1.150				
33	1,2,3,4,7,8,9-HpCDF	0.01	48	0.480	48.000	0.480	23.5	0.235	23.5	0.235	15.2	0.152	15.2	0.152				
34	HpCDF Total	0	570	0.000	570.000	0.000	210	0.000	210.0	0.000	158	0.000	158.0	0.000				
35	OCDF	0.001	116	0.116	116.000	0.116	79	0.079	79.0	0.079	53	0.053	53.0	0.053				
36																		
37	Gas sample volume (dscf)			115.239	115.239	115.239		155.62	155.62	155.62		153.626	153.626	153.626				
38	O2 (%)			14.8	14.8	14.8		15.2	15.2	15.2		15	15	15				
39																		
40	PCDD/PCDF (ng in sample)			0.559	17.923	0.559		0.145	5.679	0.145		0.103	3.616	0.103				
41	PCDD/PCDF (ng/dscm @ 7% O2)	0		0.387	12.410	0.387	0	0.079	3.113	0.079	0	0.055	1.941	0.055				
42																		
43	TEQ Cond Avg	0.174																
44	Total Cond Avg	5.821																

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1		PCDD/PCDF																
2		N																
3		Facility Name and ID:																
4		Condition ID:																
5		Condition/Test Date:																
6																		
7																		
8		I-TEF																
9		Wght Fact																
10		Detected in sample volume (pg)																
11		2,3,7,8-TCDD	1															
12		TCDD Total	0	155.6	0.000	155.6	0.000	120	0.000	120.0	0.000	83	0.000	83.0	0.000			
13		1,2,3,7,8-PCDD	0.5	12.3	6.150	12.3	6.150	13.6	6.800	13.6	6.800							
14		PCDD Total	0	51.4	0.000	51.4	0.000	137	0.000	137.0	0.000	13.8	0.000	13.8	0.000			
15		1,2,3,4,7,8-HxCDD	0.1	9.8	0.980	9.8	0.980	7.5	0.750	7.5	0.750							
16		1,2,3,6,7,8-HxCDD	0.1	25.2	2.520	25.2	2.520	32.1	3.210	32.1	3.210	9.28	0.928	9.3	0.928			
17		1,2,3,7,8,9-HxCDD	0.1	21.3	2.130	21.3	2.130	29.4	2.940	29.4	2.940	10.7	1.070	10.7	1.070			
18		HxCDD Total	0	104	0.000	104.0	0.000	334	0.000	334.0	0.000	109	0.000	109.0	0.000			
19		1,2,3,4,6,7,8-HpCDD	0.01	121	1.210	121.0	1.210	147	1.470	147.0	1.470	88	0.880	88.0	0.880			
20		HpCDD Total	0	217	0.000	217.0	0.000	290	0.000	290.0	0.000	127	0.000	127.0	0.000			
21		OCDD	0.001	192	0.192	192.0	0.192	230	0.230	230.0	0.230	170	0.170	170.0	0.170			
22		2,3,7,8-TCDF	0.1	256	25.600	256.0	25.600	215	21.500	215.0	21.500	185	18.500	185.0	18.500			
23		TCDF Total	0	1404	0.000	1404.0	0.000	885	0.000	885.0	0.000	821	0.000	821.0	0.000			
24		1,2,3,7,8-PCDF	0.05	43.5	2.175	43.5	2.175	54.9	2.745	54.9	2.745	24.6	1.230	24.6	1.230			
25		2,3,4,7,8-PCDF	0.5	63.4	31.700	63.4	31.700	77	38.500	77.0	38.500	37.8	18.900	37.8	18.900			
26		PCDF Total	0	776	0.000	776.0	0.000	851	0.000	851.0	0.000	432	0.000	432.0	0.000			
27		1,2,3,4,7,8-HxCDF	0.1	95	9.500	95.0	9.500	135	13.500	135.0	13.500	40	4.000	40.0	4.000			
28		1,2,3,6,7,8-HxCDF	0.1	41.7	4.170	41.7	4.170	57	5.700	57.0	5.700	14.4	1.440	14.4	1.440			
29		2,3,4,6,7,8-HxCDF	0.1	37.9	3.790	37.9	3.790	65.6	6.560	65.6	6.560	16.8	1.680	16.8	1.680			
30		1,2,3,7,8,9-HxCDF	0.1															
31		HxCDF Total	0	224	0.000	224.0	0.000	340	0.000	340.0	0.000	126	0.000	126.0	0.000			
32		1,2,3,4,6,7,8-HpCDF	0.01	112	1.120	112.0	1.120	159	1.590	159.0	1.590	46	0.460	46.0	0.460			
33		1,2,3,4,7,8,9-HpCDF	0.01	18	0.180	18.0	0.180	20.8	0.208	20.8	0.208	5.5	0.055	5.5	0.055			
34		HpCDF Total	0	162	0.000	162.0	0.000	229.8	0.000	229.8	0.000	46	0.000	46.0	0.000			
35		OCDF	0.001	60	0.060	60.0	0.060	83	0.083	83.0	0.083	23	0.023	23.0	0.023			
36																		
37		Gas sample volume (dscf)			161.61	161.61	161.61		155.241	155.241	155.241		152.334	152.334	152.334			
38		O2 (%)			14.4	14.4	14.4		14.8	14.8	14.8		15.4	15.4	15.4			
39																		
40		PCDD/PCDF (ng in sample)			0.091	3.346	0.091		0.106	3.500	0.106		0.049	1.951	0.049			
41		PCDD/PCDF (ng/dscm @ 7% O2)	0		0.042	1.552	0.042	0	0.054	1.799	0.054	0	0.029	1.131	0.029			
42																		
43		TEQ Cond Avg		0.042														
44		Total Cond Avg		1.494														