

US EPA ARCHIVE DOCUMENT

	B	C
1	Source Description	
2		
3	Phase I ID No.	359
4	EPA ID No.	KYD006373922
5	Facility Name	ATOCHEM
6	Facility Location	
7	City	CARROLLTON
8	State	KY
9	Unit ID Name/No.	
10	Other Sister Facilities	
11	Number of Sister Facilities	0
12	Combustor Class	Commercial incinerator
13	Combustor Type	Rotary kiln
14	Combustor Characteristics	Kiln, afterburner. Kiln has 7.5' diameter, 20' long. 18 MM Btu/hr. Progressive Equipment manufacturer.
15	Capacity (MMBtu/hr)	
16	Soot Blowing	
17	APCS Detailed Acronym	WHB/FF/S
18	APCS General Class	WHB, FF, LEWS
19	APCS Characteristics	Waste heat boiler (firtube design), fabric filter (Mikro-Pulsaire, Goretex cloth, 3000 ft2 bag area, A/C = 4), scrubber (Ceilcote Model STT-241, 183 gpm liquid, NaOH scrubber solution)
20	Hazardous Wastes	Liq, sludge
21	Haz Waste Description	Solvents, aqueous liquids
22	Supplemental Fuel	Natural gas
23		
24	Stack Characteristics	
25	Diameter (ft)	2.5
26	Height (ft)	50.0
27	Gas Velocity (ft/sec)	16.5
28	Gas Temperature (°F)	137.7
29		
30	Permitting Status	
31	HWC Burn Status (Date if Terminated)	

	B	C
1	Condition Description	
2		
3	359C1	
4		
5	Report Name/Date	Trial Burn Report, M&T Chemicals Inc., the Carrollton Plant, April 21, 1989
6	Report Prepare	
7	Testing Firm	
8	Cond Descr	Trial burn, LOW SLURRY/SOLVENT FEED
9	Testing Dates	January 19-23, 1989
10	Cond Dates	Jan-89
11		
12	359C2	
13		
14	Report Name/Date	Trial Burn Report, M&T Chemicals Inc., the Carrollton Plant, April 21, 1989
15	Report Prepare	
16	Testing Firm	
17	Cond Descr	Trial burn, MEDIUM SLURRY/SOLVENT FEED
18	Testing Dates	January 21-22, 1989
19	Cond Dates	Jan-89
20		
21	359C3	
22		
23	Report Name/Date	Trial Burn Report, M&T Chemicals Inc., the Carrollton Plant, April 21, 1989
24	Report Prepare	
25	Testing Firm	
26	Cond Descr	Trial burn, HIGH SLURRY/SOLVENT FEED
27	Testing Dates	January 23-24, 1989
28	Cond Dates	Jan-89
29		
30	359C4	
31		
32	Report Name/Date	Atochem North America, Metals Trial Burn Report Results, June 1990
33	Report Prepare	
34	Testing Firm	
35	Cond Descr	LOW METAL FEED
36	Testing Dates	April 25-26, 1990
37	Cond Dates	Apr-90
38		
39	359C5	
40		
41	Report Name/Date	Atochem North America, Metals Trial Burn Report Results, June 1990
42	Report Prepare	
43	Testing Firm	
44	Cond Descr	MEDIUM METAL FEED
45	Testing Dates	April 26-27, 1990
46	Cond Dates	Apr-90
47		
48	359C6	
49		
50	Report Name/Date	Atochem North America, Metals Trial Burn Report Results, June 1990
51	Report Prepare	
52	Testing Firm	
53	Cond Descr	HIGH METAL FEED
54	Testing Dates	April 27-30, 1990
55	Cond Dates	Apr-90

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	Y
1	Stack Gas Emissions 2														
2															
3															
4	359C1					R1		R2		R3		R4		Cond Avg	
5															
6	PM	E1	gr/dscf	y		0.0088		0.0063		0.0355		0.0056		0.0141	
7	HCl	E1	ppmv	y		1.0		2.3		3.0		6.4		3.2	
8	Total Chlorine	E1	ppmv	y		1.0		2.3		3.0		6.4		3.2	
9															
10	Sampling Train	Halogen		E1											
11	Stack Gas Flowrate		dscfm			9130.0		9080.0		9070.0		9600.0			
12	O2		%			15.9		15.9		15.2		15.3			
13	Moisture		%			14.9		15.3		15.2		14.5			
14	Temperature		°F			137.0		138.0		139.0		137.0			
15															
16	Chlorobenzene	E1	%			99.9978		99.9968		99.9989					
17	Tetrachloroethylene	E1	%			99.9925		99.9958		99.9948					
18															
19	359C2					R1		R2		R3		R4		Cond Avg	
20															
21	PM	E1	gr/dscf	y		0.0061		0.0435		0.0083				0.0193	
22	HCl	E1	ppmv	y		1.3		1.8		1.6				1.6	
23	Total Chlorine	E1	ppmv	y		1.3		1.8		1.6				1.6	
24															
25	Chlorobenzene	E1	%			99.9996		99.9986		99.9979					
26	Tetrachloroethylene	E1	%			99.9941		99.9956		99.9965					
27															
28	Sampling Train	Halogen		E1											
29	Stack Gas Flowrate		dscfm			6500.0		9620.0		9580.0					
30	O2		%			14.8		16.2		15.1					
31	Moisture		%			14.8		13.5		14.7					
32	Temperature		°F			131.0		130.0		130.0					
33															
34	359C3					R1		R2		R3		R4		Cond Avg	
35															
36	PM	E1	gr/dscf	y		0.0072		0.0663		0.0058				0.0264	
37	HCl	E1	ppmv	y		4.0		0.6		1.5				2.0	
38	Total Chlorine	E1	ppmv	y		4.0		0.6		1.5				2.0	
39															
40	Sampling Train	Halogen		E1											
41	Stack Gas Flowrate		dscfm			9470.0		9420.0		9420.0					
42	O2		%			14.6		15.3		15.2					
43	Moisture		%			14.8		15.6		15.6					
44	Temperature		°F			132.0		132.0		132.0					
45															
46	Chlorobenzene	E1	%			99.9968		99.9991		99.9993					
47	Tetrachloroethylene	E1	%			99.9932		99.9949		99.9981					
48															
49	359C4					R1		R2		R3		R4		Cond Avg	
50															
51	PM	E1	gr/dscf	y				0.0027		0.0034		0.0030		0.0030	
52	CO (RA)	E1	ppmv	y		148.2		167.0		34.4		130.8		120.1	
53	HCl	E1	ppmv	y				5.2		1.5		5.0		3.9	
54	Total Chlorine	E1	ppmv	y				5.2		1.5		5.0		3.9	
55															
56	Antimony	E1	ug/dscm	y			nd	821.4	nd	228.8	nd	1747.5		932.6	
57	Arsenic	E1	ug/dscm	y				110.1		83.0		88.0		93.7	
58	Beryllium	E1	ug/dscm	y			nd	0.4	nd	0.1	nd	0.1		0.2	
59	Cadmium	E1	ug/dscm	y				21.5		6.5	nd	5.0		11.0	
60	Chromium	E1	ug/dscm	y			nd	61.7	nd	32.6	nd	19.8		38.0 high NDs?	
61	Lead	E1	ug/dscm	y				241.7		236.8		170.1		216.2	
62	SVM	E1	ug/dscm	y				263.1		243.3		175.1		227.2	
63	LVM	E1	ug/dscm	y				172.3		115.8		107.8		132.0	
64															
65	Sampling Train	Metals		E1											
66	Stack Gas Flowrate		dscfm					11409.0		12125.0		12210.0			
67	O2		%					14.1		12.5		13.1			
68	Moisture		%					15.2		16.2		15.3			
69	Temperature		°F					139.0		135.0		139.0			
70															
71	359C5					R1		R2		R3		R4		Cond Avg	

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	Y
72															
73	PM	E1	gr/dscf	y		0.0084		0.0055		0.0127				0.0089	
74	CO (RA)	E1	ppmv	y		129.4		116.6		80.9		155.4		120.5	
75	HCl	E1	ppmv	y		5.7		3.2		6.5				5.1	
76	Total Chlorine	E1	ppmv	y		5.7		3.2		6.5				5.1	
77	Antimony	E1	ug/dscm	y	nd	11171.4	nd	8597.0	nd	12924.0				10897.5	
78	Arsenic	E1	ug/dscm	y		3.1	nd	2.9	nd	7.6				4.5	
79	Beryllium	E1	ug/dscm	y	nd	0.3	nd	0.8	nd	0.8				0.7	
80	Cadmium	E1	ug/dscm	y		8.3		5.7		6.3				6.8	
81	Chromium	E1	ug/dscm	y	nd	55.2	nd	40.7	nd	109.8				68.6	
82	Lead	E1	ug/dscm	y		275.1		185.0		515.3				325.1	
83	SVM	E1	ug/dscm	y		283.4		190.7		521.6				331.9	
84	LVM	E1	ug/dscm	y		58.6		44.4		118.3				73.8	
85															
86	Sampling Train	Halogens	E1												
87	Stack Gas Flowrate		dscfm			11912.0		9971.0		11644.0					
88	O2		%			11.9		11.8		13.4					
89	Moisture		%												
90	Temperature		°F												
91															
92	359C6					R1		R2		R3		R4		Cond Avg	
93															
94	PM	E1	gr/dscf	y		0.0779		0.0954		0.0569				0.0767	
95	CO (RA)	E1	ppmv	y		191.3		40.9		130.1		36.9		120.8	
96	HCl	E1	ppmv	y		32.7		31.7		27.5				30.6	
97	Total Chlorine	E1	ppmv	y		32.7		31.7		27.5				30.6	
98	Antimony	E1	ug/dscm	y		143534.4		155963.0		96364.2				131953.9	
99	Arsenic	E1	ug/dscm	y		197.2		1181.9		279.8				553.0	
100	Beryllium	E1	ug/dscm	y	nd	9.2	nd	10.8	nd	4.2				8.0	
101	Cadmium	E1	ug/dscm	y	nd	17.0	nd	20.0		9.3				15.4	
102	Chromium	E1	ug/dscm	y	nd	87.1	nd	300.1	nd	101.9				163.0	high nds?
103	Lead	E1	ug/dscm	y		1384.9		1009.2		537.4				977.2	
104	SVM	E1	ug/dscm	y		1401.9		1029.1		546.7				992.6	
105	LVM	E1	ug/dscm	y		293.5		1492.7		385.9				724.0	
106															
107	Sampling Train	Metals	E1												
108	Stack Gas Flowrate		dscfm			11912.0		9971.0		11644.0					
109	O2		%			11.9		11.8		13.4					
110	Moisture		%			15.5		15.9		15.7					
111	Temperature		°F			139.0		141.0		136.0					

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	
1	Feedstream 2																											
2																												
3																												
4	359C1				R1		R2		R3		R4		Cond Avg		R1		R2		R3		R4		Cond Avg		R1		R2	
5																												
6	Feedstream Number				F1		F1		F1		F1		F1		F2		F2		F2		F2		F2		F2		F2	
7	Feed Class				Liq HW		Liq HW		Liq HW		Liq HW		Liq HW		Sludge HW		Sludge HW		Sludge HW		Sludge HW		Sludge HW		Sludge HW		Sludge HW	
8	Feed Class 2																											
9	Feedstream Description				Liquid		Liquid		Liquid		Liquid		Liquid		Sludge		Sludge		Sludge		Sludge		Sludge		Sludge		Sludge	
10	Feed Rate		lb/hr		958		1009		1105		1012				2065		1703		2025		1872							
11	Heating Value		Btu/lb		11000		11000		11000		11000				0		0		0		0							
12	Thermal Feedrate		MMBtu/hr		10.5		11.1		12.2		11.1																	
13																												
14	Ash		wt %		2.74		2.33		2.95		2.11				18.4		20.8		18.9		17.4							
15	Chlorine		ppmw		175000		174000		175000		164000				94000		67900		33300		59000							
16																												
17																												
18	Stack Gas Flowrate		dscfm		9130		9080		9070		9600				9130		9080		9070		9600							
19	Oxygen		%		15.9		15.9		15.2		15.3				15.9		15.9		15.2		15.3							
20																												
21	<i>Feedrate MTEC Calculations</i>																											
22	Ash		mg/dscm		2110		1900		2320		1461				30545		28633		27233		22282				32655		30533	
23	Chlorine		ug/dscm		13477483		14191575		13759772		11353362				15604619		9347051		4798220		7555409				29082102		23538626	
24																												
25																												
26	359C2				R1		R2		R3		R4		Cond Avg		R1		R2		R3		R4		Cond Avg		R1		R2	
27																												
28	Feedstream Number				F1		F1		F1		F1		F1		F2		F2		F2		F2		F2		F2		F2	
29	Feed Class				Liq HW		Liq HW		Liq HW		Liq HW		Liq HW		Sludge HW		Sludge HW		Sludge HW		Sludge HW		Sludge HW		Sludge HW		Sludge HW	
30	Feed Class 2																											
31	Feedstream Description				Liquid		Liquid		Liquid		Liquid		Liquid		Sludge		Sludge		Sludge		Sludge		Sludge		Sludge		Sludge	
32	Feed Rate		lb/hr		963		1111		1071						2135		2247		2327									
33	Heating Value		Btu/lb		11000		11000		11000						0		0		0									
34	Thermal Feedrate		MMBtu/hr		10.6		12.2		11.8																			
35	Ash		wt %		1.78		1.4		1.84						19.1		19.4		19.1									
36	Chlorine		ppmw		167000		161000		160000						61300		46800		91700									
37																												
38																												
39	Stack Gas Flowrate		dscfm		6500		9620		9580						6500		9620		9580									
40	Oxygen		%		14.8		16.2		15.1						14.8		16.2		15.1									
41																												
42	<i>Feedrate MTEC Calcs</i>																											
43	Ash		mg/dscm		1592		1261		1305						37877		35337		29435						39469		36598	
44	Chlorine		ug/dscm		14937706		14500061		11348491						12156247		8524694		14131700						27093953		23024755	
45																												
46																												
47	359C3				R1		R2		R3		R4		Cond Avg		R1		R2		R3		R4		Cond Avg		R1		R2	
48																												
49	Feedstream Number				F1		F1		F1		F1		F1		F2		F2		F2		F2		F2		F2		F2	
50	Feed Class				Liq HW		Liq HW		Liq HW		Liq HW		Liq HW		Sludge HW		Sludge HW		Sludge HW		Sludge HW		Sludge HW		Sludge HW		Sludge HW	
51	Feed Class 2																											
52	Feedstream Description				Liquid		Liquid		Liquid		Liquid		Liquid		Sludge		Sludge		Sludge		Sludge		Sludge		Sludge		Sludge	
53	Feed Rate		lb/hr		1160		1054		1012						2043		2536		2473									
54	Heating Value		Btu/lb		11000		11000		11000						0		0		0									
55	Thermal Feedrate		MMBtu/hr		12.8		11.6		11.1																			
56	Ash		wt %		1.49		2.05		2.31						14		16.5		14.7									
57	Chlorine		ppmw		155000		163000		163000						19700				66000									
58																												
59																												
60	Stack Gas Flowrate		dscfm		9470		9420		9420						9470		9420		9420									

	B	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB		
1	Feedstream 2																												
2																													
3																													
4	359C1		R3		R4		Cond Avg		R1		R2		R3		R4		Cond Avg												
5																													
6	Feedstream Number								F3		F3		F3		F3		F3		F3										
7	Feed Class								Total		Total		Total		Total		Total		Total										
8	Feed Class 2	HW		HW		HW		Total		Total		Total		Total		Total		Total											
9	Feedstream Description	Spike		Spike		Spike		Total		Total		Total		Total		Total		Total											
10	Feed Rate																												
11	Heating Value																												
12	Thermal Feedrate																												
13																													
14	Ash																												
15	Chlorine																												
16																													
17																													
18	Stack Gas Flowrate																												
19	Oxygen																												
20																													
21	<i>Feedrate MTEC Calculations</i>																												
22	Ash	29553		23743		29121		32655		30533		29553		23743		29121													
23	Chlorine	18557993		18908771		22521873		29082102		23538626		18557993		18908771		22521873													
24																													
25																													
26	359C2		R3		R4		Cond Avg		R1		R2		R3		R4		Cond Avg												
27																													
28	Feedstream Number								F3		F3		F3		F3		F3		F3										
29	Feed Class								Total		Total		Total		Total		Total		Total										
30	Feed Class 2	HW		HW		HW		Total		Total		Total		Total		Total		Total											
31	Feedstream Description								Total		Total		Total		Total		Total		Total										
32	Feed Rate																												
33	Heating Value																												
34	Thermal Feedrate																												
35	Ash																												
36	Chlorine																												
37																													
38																													
39	Stack Gas Flowrate																												
40	Oxygen																												
41																													
42	<i>Feedrate MTEC Calcs</i>																												
43	Ash	30740				35602		39469		36598		30740				35602													
44	Chlorine	25480191				18899725		27093953		23024755		25480191				18899725													
45																													
46																													
47	359C3		R3		R4		Cond Avg		R1		R2		R3		R4		Cond Avg												
48																													
49	Feedstream Number								F3		F3		F3		F3		F3		F3										
50	Feed Class								Total		Total		Total		Total		Total		Total										
51	Feed Class 2	HW		HW		HW		Total		Total		Total		Total		Total		Total											
52	Feedstream Description	Spike		Spike		Spike		Total		Total		Total		Total		Total		Total											
53	Feed Rate																												
54	Heating Value																												
55	Thermal Feedrate																												
56	Ash																												
57	Chlorine																												
58																													
59																													
60	Stack Gas Flowrate																												

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	
31	Oxygen		%		14.6		15.3		15.2						14.6		15.3		15.2									
32																												
33	<i>Feedrate MTEC Calculations</i>																											
34	Ash		mg/dscm		1067		1506		1602						17665		29171		24906						18732		30677	
35	Chlorine		ug/dscm		11104677		11977017		11301483						2485712		0		11182409						13590389		11977017	
36																												
37																												
38	359C4				R1		R2		R3		R4		Cond Avg		R1		R2		R3		R4		Cond Avg		R1		R2	
39																												
40	Feedstream Number				F1		F1		F1		F1		F1		F2		F2		F2		F2		F2		F3		F3	
41	Feed Class				Liq HW		Liq HW		Liq HW		Liq HW		Liq HW		Sludge HW		Sludge HW		Sludge HW		Sludge HW		Sludge HW		Spike		Spike	
42	Feed Class 2																								Spike		Spike	
43	Feedstream Description				Liquid		Liquid		Liquid		Liquid		Liquid		Sludge		Sludge		Sludge		Sludge		Sludge		Sludge		Spike	
44	Feed Rate		lb/hr		1136.4		1159.8		1212.6		1131						1265		1394		1389							
45	Feed Rate		gpm												2.31		2.54		2.8		2.79							
46	Heating Value		Btu/lb		0		9363		9349		9326				0		0		0		0							
47	Thermal Feedrate		MMBtu/hr		0.0		10.9		11.3		10.5																	
48	Ash		wt %		0		0.13		0.17		0.52						21.64		21.42		18.24							
49	Chlorine		ppmw				149000		154000		148000						16000		8600		10600							
50	Arsenic		lb/hr																									
51	Beryllium		lb/hr																									
52	Cadmium		lb/hr																									
53	Chromium		lb/hr																									
54	Antimony		lb/hr																									
55	Lead		lb/hr																									
56																												
57	Stack Gas Flowrate		dscfm				11409		12125		12210						11409		12125		12210						11409	
58	Oxygen		%				14.1		12.5		13.1						14.1		12.5		13.1						14.1	
59																												
60	<i>Feedrate MTEC Calculations</i>																											
61	Ash		mg/dscm				72		75		228				13016		10848		9835									
62	Chlorine		ug/dscm				8217106		6782406		6495727				962349		435543		571535									
63	Arsenic		ug/dscm																									
64	Beryllium		ug/dscm																									
65	Cadmium		ug/dscm																									
66	Chromium		ug/dscm																									
67	Antimony		ug/dscm																									
68	Lead		ug/dscm																									
69	SVM		ug/dscm																									
70	LVM		ug/dscm																									
71																												
72																												
73																												
74	359C5				R1		R2		R3		R4		Cond Avg		R1		R2		R3		R4		Cond Avg		R1		R2	
75																												
76	Feedstream Number				F1		F1		F1		F1		F1		F2		F2		F2		F2		F2		F3		F3	
77	Feed Class				Liq HW		Liq HW		Liq HW		Liq HW		Liq HW		Sludge HW		Sludge HW		Sludge HW		Sludge HW		Sludge HW		Spike		Spike	
78	Feed Class 2																								Spike		Spike	
79	Feedstream Description				Liquid		Liquid		Liquid		Liquid		Liquid		Sludge		Sludge		Sludge		Sludge		Sludge		Sludge		Spike	
80	Feedrate		lb/hr		1164.6		1039.2		1147.2		1260.6				1175		1056		1116									
81	Feedrate		gpm												2.36		2.12		2.24		2.22							
82	Heating value		Btu/lb		9467		9536		9728																			
83	Thermal Feedrate		MMBtu/hr		11.0		9.9		11.2																			
84	Ash		wt %		0.28		0.32		0.17						12.07		10.33		16.38									
85	Chlorine		ppmw		158000		183000		161000						9600		8700		9600									
86	Arsenic		lb/hr																									
87	Beryllium		lb/hr																									
88	Cadmium		lb/hr																									
89	Chromium		lb/hr																									
90	Antimony		lb/hr																									

	B	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	
61	Oxygen																											
62																												
63	<i>Feedrate MTEC Calculations</i>																											
64	Ash		26508			25306		18732		30677		26508					25306											
65	Chlorine		22483891			16017099		13590389		11977017		22483891					16017099											
66																												
67																												
68	359C4		R3		R4	Cond Avg		R1		R2		R3		R4	Cond Avg		R1		R2		R3		R4	Cond Avg				
69																												
70	Feedstream Number		F3		F3	F3		F4		F4		F4		F4	F4		F4		F4		F4		F4		F4		F4	
71	Feed Class		Spike		Spike	Spike		Total		Total		Total		Total	Total		Total		Total		Total		Total		Total		Total	
72	Feed Class 2		Spike		Spike	Spike		Total		Total		Total		Total	Total		Total		Total		Total		Total		Total		Total	
73	Feedstream Description		Spike		Spike	Spike		Total		Total		Total		Total	Total		Total		Total		Total		Total		Total		Total	
74	Feed Rate																											
75	Feed Rate																											
76	Heating Value																											
77	Thermal Feedrate																											
78	Ash																											
79	Chlorine																											
80	Arsenic							0.133																				
81	Beryllium							0.008																				
82	Cadmium							0.006																				
83	Chromium							0.124																				
84	Antimony							14.3																				
85	Lead							5.045																				
86																												
87	Stack Gas Flowrate		12125		12210	11915																						
88	Oxygen		12.5		13.1	13.2																						
89																												
90	<i>Feedrate MTEC Calculations</i>																											
91	Ash							13087		10923		10063		12005			13087		10923		10063		12005					
92	Chlorine							9179455		7217950		7067262		8198703			9179455		7217950		7067262		8198703					
93	Arsenic							5380.0						5380.0														
94	Beryllium							323.6						323.6														
95	Cadmium							242.7						242.7														
96	Chromium							5015.9						5015.9														
97	Antimony							578449.8						578449.8														
98	Lead							204075.5						204075.5														
99	SVM							204318						204318.2														
100	LVM							10720						10719.5														
101																												
102																												
103																												
104	359C5		R3		R4	Cond Avg		R1		R2		R3		R4	Cond Avg		R1		R2		R3		R4	Cond Avg				
105																												
106	Feedstream Number		F3		F3	F3		F4		F4		F4		F4	F4		F4		F4		F4		F4		F4		F4	
107	Feed Class		Spike		Spike	Spike		Total		Total		Total		Total	Total		Total		Total		Total		Total		Total		Total	
108	Feed Class 2		Spike		Spike	Spike		Total		Total		Total		Total	Total		Total		Total		Total		Total		Total		Total	
109	Feedstream Description		Spike		Spike	Spike		Total		Total		Total		Total	Total		Total		Total		Total		Total		Total		Total	
110	Feedrate																											
111	Feedrate																											
112	Heating value																											
113	Thermal Feedrate																											
114	Ash																											
115	Chlorine																											
116	Arsenic							0.434																				
117	Beryllium							0.014																				
118	Cadmium							0.014																				
119	Chromium							0.169																				
120	Antimony							14.839																				

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	
21	Lead		lb/hr																									
22																												
23	Stack Gas Flowrate		dscfm		11912		9971		11644						11912		9971		11644						11912		9971	
24	Oxygen		%		11.9		11.8		13.4						11.9		11.8		13.4						11.9		11.8	
25																												
26	Feedrate MTEC Calculations																											
27	Ash		mg/dscm		113		136		82				110		4899		4450		7729						5693			
28	Chlorine		ug/dscm		6354099		7760146		7812597				7308947		389612		374804		452980						405799			
29	Arsenic		ug/dscm																									
30	Beryllium		ug/dscm																									
31	Cadmium		ug/dscm																									
32	Chromium		ug/dscm																									
33	Antimony		ug/dscm																									
34	Lead		ug/dscm																									
35	SVM		ug/dscm																									
36	LVM		ug/dscm																									
37																												
38	359C6				R1		R2		R3		R4		Cond Avg		R1		R2		R3		R4		Cond Avg		R1		R2	
39																												
40	Feedstream Number				F1		F1		F1		F1		F1		F2		F2		F2		F2		F2		F2			
41	Feed Class				Liq HW		Liq HW		Liq HW		Liq HW		Liq HW		Sludge HW		Sludge HW		Sludge HW		Sludge HW		Sludge HW		Sludge HW		Spike	
42	Feed Class 2																									Spike	Spike	
43	Feedstream Description				Liquid		Liquid		Liquid		Liquid		Liquid		Sludge		Sludge		Sludge		Sludge		Sludge		Sludge		Spike	
44	Feedrate		lb/hr		1036.8		1140.6		1041.6		960.6				876		1190		966									
45	Feedrate		gpm												1.76		2.39		1.94				2					
46	Heating value		Btu/lb		9052		9341		9540		0																	
47	Thermal Feedrate		MMBtu/hr		9.4		10.7		9.9																			
48	Ash		wt %		1.5		1.36		0.92		0				27.61		29.15		35.55									
49	Chlorine		ppmw		112000		121000		124000						700		500		900									
50	Arsenic		lb/hr																									
51	Beryllium		lb/hr																									
52	Cadmium		lb/hr																									
53	Chromium		lb/hr																									
54	Antimony		lb/hr																									
55	Lead		lb/hr																									
56																												
57	Stack gas flowrate				11912		9971		11644						11912		9971		11644						11912		9971	
58	Oxygen				11.9		11.8		13.4						11.9		11.8		13.4						11.9		11.8	
59																												
60	Feedrate MTEC Calcs																											
61	Ash		mg/dscm		537		633		405						8357		14157		14528									
62	Chlorine		ug/dscm		4009896		5631686		5463275						21187		24284		36779									
63	Arsenic		ug/dscm																									
64	Beryllium		ug/dscm																									
65	Cadmium		ug/dscm																									
66	Chromium		ug/dscm																									
67	Antimony		ug/dscm																									
68	Lead		ug/dscm																									
69	SVM		ug/dscm																									
70	LVM		ug/dscm																									

	B	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB
121	Lead						5.554																				
122																											
123	Stack Gas Flowrate		11644				11176																				
124	Oxygen		13.4				12.4																				
125																											
126	Feedrate MTEC Calculations																										
127	Ash								5011		4586		7811				5803		5011		4586		7811		0		5803
128	Chlorine								6743712		8134950		8265577				7714746		6743712		8134950		8265577		0		7714746
129	Arsenic						16838										16838										0
130	Beryllium						543										543										0
131	Cadmium						543										543										0
132	Chromium						6557										6557										0
133	Antimony						575704										575704										0
134	Lead						215477										215477										0
135	SVM						216020										216020										0
136	LVM						23938										23938										0
137																											
138	359C6		R3		R4		Cond Avg		R1		R2		R3		R4		Cond Avg		R1		R2		R3		R4		Cond Avg
139																											
140	Feedstream Number						F3		F4		F4		F4		F4		F4										
141	Feed Class		Spike		Spike		Spike		Total		Total		Total		Total		Total										
142	Feed Class 2		Spike		Spike		Spike		Total		Total		Total		Total		Total		HW		HW		HW		HW		HW
143	Feedstream Description		Spike		Spike		Spike		Total		Total		Total		Total		Total										
144	Feedrate																										
145	Feedrate																										
146	Heating value																										
147	Thermal Feedrate																										
148	Ash																										
149	Chlorine																										
150	Arsenic						1.46																				
151	Beryllium						0.105																				
152	Cadmium						0.025																				
153	Chromium						0.333																				
154	Antimony						122.177																				
155	Lead						42.94																				
156																											
157	Stack gas flowrate		11644				11176																				
158	Oxygen		13.4				12.4																				
159																											
160	Feedrate MTEC Calcs																										
161	Ash								8894		14790		14933				12872		8894		14790		14933		0		12872
162	Chlorine								4031083		5655969		5500054				5062369		4031083		5655969		5500054		0		5062369
163	Arsenic						56643										56643										
164	Beryllium						4074										4074										
165	Cadmium						970										970										
166	Chromium						12919										12919										
167	Antimony						4740059										4740059										
168	Lead						1665928										1665928										
169	SVM						1666898										1666898										
170	LVM						73636										73636										

	C	D	E	F	G	H
1	Process Information 2					
2						
3	359C1					
4						
5	Kiln Temperature	F	1603	1597	1594	1591
6	Afterburner Temperature	F	2091	2209	2164	2290
7	WS Temperature	F	132	133	134	131
8	FF Temperature	F	349	354	355	350
9	WS Pressure Drop	in H2O	2.6	2.5	2.6	2.7
10	FF Pressure Drop	in H2O	3.6	3.5	3.9	4.8
11	WS pH		8.5	8.3	8.4	8.4
12						
13	359C2					
14						
15	Kiln Temperature	F	1596	1625	1610	
16	Afterburner Temperature	F	2044	2115	2213	
17	WS Temperature	F	133	134	133	
18	FF Temperature	F	348	351	352	
19	WS Pressure Drop	in H2O	2.6	2.6	2.6	
20	FF Pressure Drop	in H2O	4.3	4.1	3.9	
21	WS pH		8.4	8.4	8.4	
22						
23	359C3					
24						
25	Kiln Temperature	F	1591	1585	1603	
26	Afterburner Temperature	F	2336	2362	2307	
27	WS Temperature	F	134	133	134	
28	FF Temperature	F	354	349	357	
29	WS Pressure Drop	in H2O	2.6	2.7	2.6	
30	FF Pressure Drop	in H2O	4.8	4.9	6.2	
31	WS pH		8.4	8.3	8.4	
32						
33	359C4					
34						
35	Kiln Temperature	F	1973	2026	2037	1984
36	Afterburner Temperature	F	2270	2251	2386	2363
37	FF Temperature	F	400	398	399	397
38	FF Pressure Drop	in H2O	4.8	4.8	4.9	4.8
39	WS pH		8.61	8.58	8.61	8.62
40						
41	359C5					
42						
43	Kiln Temperature	F	1936	2034	1961	1964
44	Afterburner Temperature	F	2354	2317	2338	2252
45	FF Temperature	F	399	398	399	399
46	FF Pressure Drop	in H2O	5	7.5	5.2	5.1
47	WS pH		6.45	6.79	6.22	7.39
48						
49	359C6					
50						
51	Kiln Temperature	F	1910	1944	1951	1945
52	Afterburner Temperature	F	2464	2341	2283	2340
53	FF Temperature	F	398	400	399	399
54	FF Pressure Drop	in H2O	5.6	5.8	5.6	5.8
55	WS pH		7.95	6.83	7.17	4.71