	B	C
1	**Source Description**	
2		
3	Phase I ID No.	3005
4	EPA ID No.	UT5210090002
5	Facility Name	Deseret Army Depot TOCDF (Tooele Army Depot South)
6	Facility Location	
7	City	Tooele
8	State	UT
9	Unit ID Name/No.	LIC No. 2
10	Other Sister Facilities	LIC No. 1 (Phase I ID # 493)
11	Number of Sister Facilities	1
12	Combustor Class	Onsite incinerator, DoD government, chem demil
13	Combustor Type	Liquid injection
14	Combustor Characteristics	Liquid injection incinerator
15		
16	Capacity (MMBtu/hr)	
17	Soot Blowing	
18	APCS Detailed Acronym	WQ/VS/PBS/DM
19	APCS General Class	WQ, HEWS, LEWS
20	APCS Characteristics	Water quench, venturi scrubber, packed bed scrubber, demister
21	Hazardous Wastes	Liq
22	Haz Waste Description	Chemical agent GB
23	Supplemental Fuel	Natural gas
24		
25	Stack Characteristics	
26	Diameter (ft)	2.30
27	Height (ft)	
28	Gas Velocity (ft/sec)	54.6
29	Gas Temperature (°F)	276
30		
31	Permitting Status	RCRA
32	HWC Burn Status (Date if Terminated)	

	B	C
1	**Cond Description**	
2		
3	**3005C1**	
4		
5	Report Name/Date	Tooele Chemical Agent Disposal Facility (TOCDF), RCRA Agent Trial Burn Report for the Liquid Incinerator System #2, Revision 1, June 19, 1998
6	Report Prepare	EG&G Defense Materials, Inc.
7	Testing Firm	TRC Environmental
8	Testing Dates	August 20, 23, 27, 1997
9	Cond Dates	Jan-97
10	Condition Descr	GB agent trial burn
11	Content	PM, HCl/HF, metals, PCDD/PCDF, VOC/SVOC
12		
13	**3005C2**	
14		
15	Report Name/Date	Tooele Chemical Agent Disposal Facility (TOCDF), RCRA Agent Trial Burn Report for the Liquid Incinerator System #2, Revision 1, June 19, 1998
16	Report Prepare	EG&G Defense Materials, Inc.
17	Testing Firm	TRC Environmental
18	Testing Dates	August 19, 1997
19	Cond Dates	Aug-97
20	Condition Descr	Baseline, natural gas only, 1 run only
21	Content	PM, HCl/HF, metals, PCDD/PCDF, VOC/SVOC
22		
23	**3005C3**	
24		
25	Report Name/Date	LIC Metals Demonstration Test Report, September 28, 2001
26	Report Prepare	EG&G Defense Materials, Inc.
27	Testing Firm	TRC Environmental
28	Testing Dates	June 30 and July 2, 2001
29	Cond Dates	Jun-02
30	Condition Descr	GB agent trial burn w/metals spike
31	Content	PM, metals, PCDD/PCDF

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1		**Stack Gas Emissions**													
2															
3			Comme	Units	7% O2										
4															
5	1	**3005C1**	**GB agent trial burn**				R1		R2		R3		Cond Avg		
6															
7		CO (RA)	E1	ppmv	y		13		9		15		12.3		
8		CO (MHRA)	E1	ppmv	y		50		22		50		40.7		
9															
10		PM	E1	gr/dscf	y		0.0012		0.0016		0.001		0.0013		
11															
12		HCl	no Cl2 (	mg/dscf	n	nd	0.02	nd	0.02	nd	0.02				
13		HF		mg/dscf		nd	0.017	nd	0.063	nd	0.034				
14															
15		HCl	E1	ppmv	y	nd	0.54	nd	0.53	nd	0.53	100	0.5		
16		Total Chlorine		ppmv	y										no Cl2
17		HF	E1	ppmv	y		0.79		2.93		1.58		1.8		
18															
19		POHC	Agent GB												
20		POHC Feedrate		lb/hr			633		823		638				
21		Emission Rate	E1	lb/hr		nd	1.53E-07	nd	1.79E-07	nd	1.59E-07				
22		DRE	E1	%		>	99.99999998	>	99.99999998	>	99.99999998				
23															
24		Aluminum		ug/dscf	n		2		2.1		2.35				
25		Antimony		ug/dscf	n		0.05		0.019		0.008				
26		Arsenic		ug/dscf	n	nd	0.008	nd	0.007	nd	0.008				
27		Barium		ug/dscf	n		0.223		0.18		0.255				
28		Beryllium		ug/dscf	n	nd	0.019	nd	0.018	nd	0.004				
29		Boron		ug/dscf	n		0.77		0.44		0.7				
30		Cadmium		ug/dscf	n		0.002		0.002		0.002				
31		Chromium		ug/dscf	n		0.026		0.01		0.026				
32		Chromium (Hex)		ug/dscf	n		0.039		0.036		0.031				
33		Cobolt		ug/dscf	n		0.004		0.004		0.005				
34		Copper		ug/dscf	n		0.023		0.013		0.005				
35		Lead		ug/dscf	n		0.004		0.012		0.006				
36		Manganese		ug/dscf	n		0.109		0.151		0.239				
37		Mercury		ug/dscf	n	nd	0.094	nd	0.081	nd	0.082				
38		Nickel		ug/dscf	n		0.004		0.010		0.008				
39		Phosphorus		ug/dscf	n		14.9		14.9		11.2				
40		Selenium		ug/dscf	n		0.008		0.007		0.005				
41		Silver		ug/dscf	n		0.001		0.002		0.002				
42		Thallium		ug/dscf	n	nd	0.004	nd	0.003	nd	0.004				
43		Tin		ug/dscf	n		0.076		0.05		0.139				
44		Vanadium		ug/dscf	n	nd	0.077	nd	0.089	nd	0.019				
45		Zinc		ug/dscf	n		0.57		1.28		1.28				
46															
47		Sampling Train	PM, HC	E1											
48		Stack Gas Flowrate		dscfm			3533		3865		3693		3697.0		
49		O2		%			9		8.8		8.8		8.9		
50		Moisture		%			54.5		54.7		53.5		54.2		
51		Temperature		°F			273		280		275		276.0		
52															
53		Sampling Train	Metals												
54		Stack Gas Flowrate		E2			3644		3916		3741		3767.0		
55		O2		%			9		8.8		8.8		8.9		
56		Moisture		%			54.6		54.5		53.2		54.1		
57		Temperature		°F			271		279		278		276.0		
58															
59		Aluminum	E2	ug/dscm	y		82.4		85.2		95.3		87.6		
60		Antimony	E2	ug/dscm	y		2.1		0.8		0.3		1.1		
61		Arsenic	E2	ug/dscm	y	nd	0.3	nd	0.3	nd	0.3	100	0.3		
62		Barium	E2	ug/dscm	y		9.2		7.3		10.3		8.9		
63		Beryllium	E2	ug/dscm	y	nd	0.8	nd	0.7	nd	0.2	100	0.6		
64		Boron	E2	ug/dscm	y		31.7		17.8		28.4		26.0		
65		Cadmium	E2	ug/dscm	y		0.08		0.1		0.1		0.1		
66		Chromium	E2	ug/dscm	y		1.1		0.4		1.1		0.8		
67		Chromium (Hex)	E2	ug/dscm	y		1.6		1.5		1.3		1.4		
68		Cobolt	E2	ug/dscm	y		0.2		0.2		0.2		0.2		
69		Copper	E2	ug/dscm	y		0.9		0.5		0.2		0.6		
70		Lead	E2	ug/dscm	y		0.16		0.5		0.2		0.3		
71		Manganese	E2	ug/dscm	y		4.5		6.1		9.7		6.8		

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
72		Mercury	E2	ug/dscm	y	nd	3.9	nd	3.3	nd	3.3	100	3.5		
73		Nickel	E2	ug/dscm	y		0.2		0.4		0.3		0.3		
74		Phosphorus	E2	ug/dscm	y		614.3		604.2		454.2		557.5		
75		Selenium	E2	ug/dscm	y		0.3		0.3		0.2		0.3		
76		Silver	E2	ug/dscm	y		0.0		0.1		0.1		0.1		
77		Thallium	E2	ug/dscm	y	nd	0.2	nd	0.1	nd	0.2	100	0.1		
78		Tin	E2	ug/dscm	y		3.1		2.0		5.6		3.6		
79		Vanadium	E2	ug/dscm	y	nd	3.2	nd	3.6	nd	0.8	100	2.5		
80		Zinc	E2	ug/dscm	y		23.5		51.9		51.9		42.4		
81															
82		SVM	E2	ug/dscm	y		0.25		0.57		0.32		0.4		
83		LVM	E2	ug/dscm	y	51	2.2	71	1.4	32	1.5	51	1.7		
84															
85															
86	2	**3005C2**	baseline natural gas only				R1								
87															
88		CO (RA)	E1	ppmv	y		8								
89		CO (MHRA)	E1	ppmv	y		9								
90															
91		PM	E1	gr/dscf	y		0.0015								
92															
93		HCl		mg/dscf	n	nd	0.01								
94		HF		mg/dscf	n	nd	0.015								
95															
96		HCl	E1	ppmv	y		0.12								
97		HF	E1	ppmv	y		0.35								
98															
99		Sampling Train	PM, HC	E1											
100		Stack Gas Flowrate		dscfm			3744								
101		O2		%			7								
102		Moisture		%			53.3								
103		Temperature		°F			277								
104															
105		Sampling Train	Metals	E2											
106		Stack Gas Flowrate		dscfm			3816.0								
107		O2		%			7.0								
108		Moisture		%			53.2								
109		Temperature		°F			277.0								
110															
111		Aluminum		ug/dscf	n	nd	2.04								
112		Antimony		ug/dscf	n	nd	0.0								
113		Arsenic		ug/dscf	n	nd	0.0								
114		Barium		ug/dscf	n		0.2								
115		Beryllium		ug/dscf	n	nd	0.0								
116		Boron		ug/dscf	n		0.62								
117		Cadmium		ug/dscf	n	nd	0.0								
118		Chromium		ug/dscf	n	nd	0.3								
119		Chromium (Hex)		ug/dscf	n										
120		Cobolt		ug/dscf	n	nd	0.0								
121		Copper		ug/dscf	n		0.0								
122		Lead		ug/dscf	n		0.0								
123		Manganese		ug/dscf	n		0.1								
124		Mercury		ug/dscf	n	nd	0.1								
125		Nickel		ug/dscf	n	nd	0.0								
126		Phosphorus		ug/dscf	n	nd	12.4								
127		Selenium		ug/dscf	n	nd	0.0								
128		Silver		ug/dscf	n	nd	0.00								
129		Thallium		ug/dscf	n	nd	0.0								
130		Tin		ug/dscf	n		0.0								
131		Vanadium		ug/dscf	n	nd	0.1								
132		Zinc		ug/dscf	n		0.7								
133															
134		Aluminum	E2	ug/dscm	y		72.1								
135		Antimony	E2	ug/dscm	y		0.2								
136		Arsenic	E2	ug/dscm	y	nd	0.2								
137		Barium	E2	ug/dscm	y		7.8								
138		Beryllium	E2	ug/dscm	y	nd	0.6								
139		Boron	E2	ug/dscm	y		21.9								
140		Cadmium	E2	ug/dscm	y		0.1								
141		Chromium	E2	ug/dscm	y		10.2								
142		Chromium (Hex)	E2	ug/dscm	y		0.0								

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
143		Cobolt	E2	ug/dscm	y		0.1								
144		Copper	E2	ug/dscm	y		1.7								
145		Lead	E2	ug/dscm	y		0.2								
146		Manganese	E2	ug/dscm	y		2.4								
147		Mercury	E2	ug/dscm	y	nd	2.4								
148		Nickel	E2	ug/dscm	y		0.3								
149		Phosphorus	E2	ug/dscm	y		438.2								
150		Selenium	E2	ug/dscm	y		0.2								
151		Silver	E2	ug/dscm	y		0.1								
152		Thallium	E2	ug/dscm	y	nd	0.1								
153		Tin	E2	ug/dscm	y		1.2								
154		Vanadium	E2	ug/dscm	y	nd	3.1								
155		Zinc	E2	ug/dscm	y		25.4								
156															
157		SVM	E2	ug/dscm	y		0.28								
158		LVM	E2	ug/dscm	y		10.7								
159															
160															
161	3	**3005C3**	GB agent trial burn w/metals sp				R1		R2		R3		Cond Avg		
162															
163		CO (RA)	E1	ppmv	y		7		8		9		8.0		
164		CO (MHRA)	E1	ppmv	y		8		9		42		19.7		
165															
166		PM	E1	gr/dscf	y		0.0021		0.001		0.0003		0.0011		
167															
168															
169		Aluminum		ug/dscm	n		57		47		44				
170		Antimony		ug/dscm	n	nd	2.2	nd	1.2	nd	0.56				
171		Arsenic		ug/dscm	n		3.5	nd	1.2	nd	0.8				
172		Barium		ug/dscm	n	nd	0.9		0.25		0.11				
173		Beryllium		ug/dscm	n	nd	0.12	nd	0.12	nd	0.12				
174		Boron		ug/dscm	n		31.8	nd	15	nd	16				
175		Cadmium		ug/dscm	n	nd	0.35	nd	0.25	nd	0.46				
176		Chromium		ug/dscm	n		2.9	nd	1.2		1.2				
177		Chromium (Hex)		ug/dscm	n	nd	23.4		4.58		1.3				
178		Cobolt		ug/dscm	n		1.24		0.09		0.17				
179		Copper		ug/dscm	n		6.1	nd	0.9		7.2				
180		Lead		ug/dscm	n		8.7		4.1		14				
181		Manganese		ug/dscm	n		2.4		2.1		1.6				
182		Mercury		ug/dscm	n	nd	2.3	nd	2.4	nd	2.8				
183		Nickel		ug/dscm	n		3.4		1.800		2.9				
184		Phosphorus		ug/dscm	n		281		232		226				
185		Selenium		ug/dscm	n	nd	0.22	nd	0.25	nd	0.3				
186		Silver		ug/dscm	n		0.55	nd	0.12	nd	0.45				
187		Thallium		ug/dscm	n	nd	0.16	nd	0.12	nd	0.12				
188		Tin		ug/dscm	n	nd	3.1	nd	2.6	nd	2.8				
189		Vanadium		ug/dscm	n	nd	1.2	nd	1.2	nd	1.2				
190		Zinc		ug/dscm	n		47		52		30				
191															
192		Sampling Train	PM, HC	E1											
193		Stack Gas Flowrate		dscfm			3533		3865		3693		3697.0		
194		O2		%			9		8.8		8.8		8.9		
195		Moisture		%			54.5		54.7		53.5		54.2		
196		Temperature		°F			273		280		275		276.0		
197															
198		Sampling Train	Metals	E2											
199		Stack Gas Flowrate		dscfm			4056		4233		3893		4060.7		
200		O2		%			8.9		9		9		9.0		
201		Moisture		%			52.7		50.1		52.9		51.9		
202		Temperature		°F			267		273		274		271.3		
203															
204		Aluminum	E2	ug/dscm	y		66.0		54.8		51.3		57.4		
205		Antimony	E2	ug/dscm	y	nd	2.5	nd	1.4	nd	0.7	100	1.5		
206		Arsenic	E2	ug/dscm	y		4.0	nd	1.4	nd	0.9	100	2.1		
207		Barium	E2	ug/dscm	y	nd	1.0		0.3		0.1		0.5		
208		Beryllium	E2	ug/dscm	y	nd	0.1	nd	0.1	nd	0.1	100	0.1		
209		Boron	E2	ug/dscm	y		36.8	nd	17.5	nd	18.7		24.3		
210		Cadmium	E2	ug/dscm	y	nd	0.4	nd	0.3	nd	0.5	100	0.4		
211		Chromium	E2	ug/dscm	y		3.4	nd	1.4		1.4		2.1		
212		Chromium (Hex)	E2	ug/dscm	y	nd	27.1		5.3		1.5		11.3		
213		Cobolt	E2	ug/dscm	y		1.4		0.1		0.2		0.6		

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
214		Copper	E2	ug/dscm	y		7.1	nd	1.1		8.4		5.5		
215		Lead	E2	ug/dscm	y		10.1		4.8		16.3		10.4		
216		Manganese	E2	ug/dscm	y		2.8		2.5		1.9		2.4		
217		Mercury	E2	ug/dscm	y	nd	2.7	nd	2.8	nd	3.3	100	2.9		
218		Nickel	E2	ug/dscm	y		3.9		2.1		3.4		3.1		
219		Phosphorus	E2	ug/dscm	y		325.1		270.7		263.7		286.5		
220		Selenium	E2	ug/dscm	y	nd	0.3	nd	0.3	nd	0.4	100	0.3		
221		Silver	E2	ug/dscm	y		0.6	nd	0.1	nd	0.5		0.4		
222		Thallium	E2	ug/dscm	y	nd	0.2	nd	0.1	nd	0.1	100	0.2		
223		Tin	E2	ug/dscm	y	nd	3.6	nd	3.0	nd	3.3	100	3.3		
224		Vanadium	E2	ug/dscm	y	nd	1.4	nd	1.4	nd	1.4	100	1.4		
225		Zinc	E2	ug/dscm	y		54.4		60.7		35.0		50.0		
226															
227		SVM	E2	ug/dscm	y		10.47		5.08		16.87		10.8		
228		LVM	E2	ug/dscm	y		7.5		2.9		2.5		4.3		
229															
230		Note: Cr+6 suspect because > total Cr													

	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
1	**Feedstream 1**																								
2																									
3																									
4	**3005C1**		GB agent trial burn	7%O2		R1		R2		R3		Cond Avg		R1		R2		R3		Cond Avg					
5																									
6	Feedstream Number					F1		F1		F1		F1		F2		F2		F2		F2					
7	Feed Class					Liq HW		Liq HW		Liq HW		Liq HW		Total		Total		Total		Total					
8	Feed Class 2					HW		HW		HW		HW		Total		Total		Total		Total					
9	Feedstream Description					Agent GB		Agent GB		Agent GB		Agent GB		Total		Total		Total		Total					
10	Agent GB Feed Rate		lb/hr			633		823		638		698													
11	Density		g/cc			1.09		1.07		1.08		1.08													
12	Agent GB %					87.5		78.1		89.2															
13	Total Waste Feed		lb/hr			723		1054		715															
14																									
15																									
16	Aluminum		mg/L			850.0		1021.5		880															
17	Antimony		mg/L		nd	23.0	nd	23.0	nd	23.0															
18	Arsenic		mg/L		nd	6.9		8.45	nd	6.8															
19	Barium		mg/L			9.6		8		10.4															
20	Beryllium		mg/L		nd	0.09	nd	0.09	nd	0.09															
21	Boron		mg/L			2458.0		3193		2632															
22	Cadmium		mg/L		nd	0.91	nd	0.91	nd	0.91															
23	Chromium		mg/L		nd	2.3		6.25	nd	2.3															
24	Cobalt		mg/L			5.3		6.03		7.50															
25	Copper		mg/L			36.7		17.2		16.9															
26	Lead		mg/L		nd	9.1	nd	9.1	nd	9.1															
27	Manganese		mg/L			1.6		1.4		0.9															
28	Mercury		mg/L		nd	0.02	nd	0.02	nd	0.02															
29	Nickel		mg/L		nd	6.9	nd	6.9		8.2															
30	Selenium		mg/L		nd	16	nd	16	nd	16															
31	Silver		mg/L		nd	1.4	nd	1.4	nd	1.4															
32	Thallium		mg/L		nd	23	nd	23	nd	23															
33	Tin		mg/L		nd	91	nd	91	nd	91															
34	Vanadium		mg/L		nd	0.91	nd	0.91	nd	0.91															
35	Zinc		mg/L			74		26.5		20															
36																									
37	Stack Gas Flowrate		dscfm			3644.0		3916		3741		3767													
38	Oxygen		%			9.0		8.8		8.8		9													
39																									
40																									
41																									
42	*Feedrate MTEC Calculations*																								
43																									
44	Aluminum		ug/dscm			48292		78822		47798		58304		48292		78822		47798		58304					
45	Antimony		ug/dscm		100	1307	100	1775	100	1249	100	1444	100	1307	100	1775	100	1249	100	1444					
46	Arsenic		ug/dscm		100	392		652	100	369	54	471	100	392		652	100	369	54	471					
47	Barium		ug/dscm			545		617		565		576		545		617		565		576					
48	Beryllium		ug/dscm		100	5	100	7	100	5	100	6	100	5	100	7	100	5	100	6					
49	Boron		ug/dscm			139649		246381		142961		176330		139649		246381		142961		176330					
50	Cadmium		ug/dscm		100	52	100	70	100	49	100	57	100	52	100	70	100	49	100	57					
51	Chromium		ug/dscm		100	131		482	100	125	35	246	100	131		482	100	125	35	246					
52	Cobalt		ug/dscm			301		465		407		391		301		465		407		391					
53	Copper		ug/dscm			2085		1327		918		1443		2085		1327		918		1443					
54	Lead		ug/dscm		100	517	100	702	100	494	100	571	100	517	100	702	100	494	100	571					
55	Manganese		ug/dscm			91		108		49		83		91		108		49		83					
56	Mercury		ug/dscm		100	1.14	100	1.54	100	1.09	100	1	100	1	100	2	100	1	100	1					
57	Nickel		ug/dscm		100	392	100	532		445	67	457	100	392	100	532		445	67	457					
58	Selenium		ug/dscm		100	909	100	1235	100	869	100	1004	100	909	100	1235	100	869	100	1004					
59	Silver		ug/dscm		100	80	100	108	100	76	100	88	100	80	100	108	100	76	100	88					
60	Thallium		ug/dscm		100	1307	100	1775	100	1249	100	1444	100	1307	100	1775	100	1249	100	1444					

	B	AA	AB	AC
1	**Feedstream 1**			
2				
3				
4	**3005C1**			
5				
6	Feedstream Number			
7	Feed Class			
8	Feed Class 2			
9	Feedstream Description			
10	Agent GB Feed Rate			
11	Density			
12	Agent GB %			
13	Total Waste Feed			
14				
15				
16	Aluminum			
17	Antimony			
18	Arsenic			
19	Barium			
20	Beryllium			
21	Boron			
22	Cadmium			
23	Chromium			
24	Cobalt			
25	Copper			
26	Lead			
27	Manganese			
28	Mercury			
29	Nickel			
30	Selenium			
31	Silver			
32	Thallium			
33	Tin			
34	Vanadium			
35	Zinc			
36				
37	Stack Gas Flowrate			
38	Oxygen			
39				
40				
41				
42	*Feedrate MTEC Calculation*			
43				
44	Aluminum			
45	Antimony			
46	Arsenic			
47	Barium			
48	Beryllium			
49	Boron			
50	Cadmium			
51	Chromium			
52	Cobalt			
53	Copper			
54	Lead			
55	Manganese			
56	Mercury			
57	Nickel			
58	Selenium			
59	Silver			
60	Thallium			

	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
61	Tin		ug/dscm		100	5170	100	7022	100	4943	100	5712	100	5170	100	7022	100	4943	100	5712					
62	Vanadium		ug/dscm		100	52	100	70	100	49	100	57	100	52	100	70	100	49	100	57					
63	Zinc		ug/dscm			4204		2045		1086		2445		4204		2045		1086		2445					
64																									
65	SVM		ug/dscm		100	569	100	772	100	544	100	628	100	568.71	100	772.40	100	543.71	100	628.27					
66	LVM		ug/dscm		100	528	1	1141	100	499	48	723	100	527.80	1	1141.24	100	499.17	48	722.74					
67																									
68																									
69																									
70	**3005C3**		GB agent trial burn w/metals sp			R1		R2		R3		Cond Avg		R1		R2		R3		Cond Avg		R1		R2	
71																									
72	Feedstream Number					F1		F1		F1		F1		F2		F2		F2		F2		F3		F3	
73	Feed Class					Solid HW		Solid HW		Solid HW		Solid HW		Spike		Spike		Spike		Spike		Total		Total	
74	Feed Class 2					HW		HW		HW		HW		Spike		Spike		Spike		Spike		Total		Total	
75	Feedstream Description					Agent GB		Agent GB		Agent GB		Agent GB		Spike		Spike		Spike		Spike		Total		Total	
76	Feed Rate		lb/hr			847.28		852.23		851.39		850													
77	Density		g/cc																						
78	Aluminum		lb/hr		nd	9.87E-03	nd	9.62E-03	nd	9.71E-03		0.0097													
79	Antimony		lb/hr		nd	3.91E-04	nd	3.85E-04	nd	3.89E-04		0.0004													
80	Arsenic		lb/hr			3.67E-03		3.52E-03		3.78E-03		0.0037													
81	Barium		lb/hr		nd	2.00E-04		2.01E-04	nd	1.96E-04		0.0002													
82	Beryllium		lb/hr		nd	2.00E-04	nd	1.92E-04	nd	1.96E-04		0.0002													
83	Boron		lb/hr		nd	9.87E-03	nd	9.62E-03	nd	9.71E-03		0.0097													
84	Cadmium		lb/hr		nd	2.00E-04	nd	1.92E-04	nd	2.51E-04		0.0002													
85	Chromium		lb/hr			1.38E-03		2.17E-03		7.40E-04		0.0014		5.12E-02		5.49E-02		5.32E-02		5.31E-02					
86	Cobalt		lb/hr		nd	2.00E-04		3.10E-04	nd	1.96E-04		0.0002		1.91E-02		2.05E-02		2.03E-02		2.00E-02					
87	Copper		lb/hr			3.20E-02		2.23E-02		2.78E-02		0.0274		1.07E-01		1.15E-01		1.15E-01		1.12E-01					
88	Iron		lb/hr			9.90E-02		0.267		0.115		0.1603													
89	Lead		lb/hr			7.89E-03		8.86E-03		1.81E-02		0.0116		7.40E-01		7.93E-01		7.86E-01		7.73E-01					
90	Manganese		lb/hr			8.65E-04		1.73E-03		9.11E-04		0.0012		1.14E-01		1.22E-01		1.21E-01		1.19E-01					
91	Mercury		lb/hr		nd	1.66E-05	nd	1.67E-05	nd	1.67E-05		0.0000													
92	Nickel		lb/hr			5.13E-02		5.02E-02		5.44E-02		0.0520		3.87E-01		0.414		4.09E-01		4.03E-01					
93	Selenium		lb/hr		nd	5.91E-04	nd	5.77E-04	nd	5.81E-04		0.0006													
94	Silver		lb/hr		nd	1.97E-03	nd	1.92E-04	nd	1.96E-04		0.0008													
95	Thallium		lb/hr		nd	2.00E-04	nd	1.92E-04	nd	1.96E-04		0.0002													
96	Tin		lb/hr		nd	1.97E-03	nd	1.92E-03	nd	1.94E-03		0.0019													
97	Vanadium		lb/hr		nd	1.97E-03	nd	1.92E-03	nd	1.94E-03		0.0019													
98	Zinc		lb/hr			9.47E-02		0.2		1.67E-02		0.1038		1.74E-01		0.187		1.85E-01		1.82E-01					
99																									
100	Stack Gas Flowrate		dscfm			4056.0		4233		3893				4063		4056.0		4233							
101	Oxygen		%			8.9		9		9				9.0		8.9		9.0							
102																									
103	*Feedrate MTEC Calculations*																								
104	Aluminum		ug/dscm	y	100	752.1	100	708.3	100	777.4	100	746									100	752.1	100	708.3	100
105	Antimony		ug/dscm	y	100	29.8	100	28.3	100	31.1	100	30									100	29.8	100	28.3	100
106	Arsenic		ug/dscm	y		279.7		259.2		302.6		280										279.7		259.2	
107	Barium		ug/dscm	y	100	15.2	100	14.8	100	15.7	100	15									100	15.2	100	14.8	100
108	Beryllium		ug/dscm	y	100	15.2	100	14.1	100	15.7	100	15									100	15.2	100	14.1	100
109	Boron		ug/dscm	y	100	752.1	100	708.3	100	777.4	100	746									100	752.1	100	708.3	100
110	Cadmium		ug/dscm	y	100	15.2	100	14.1	100	20.1	100	16									100	15.2	100	14.1	100
111	Chromium		ug/dscm	y		105.2		159.8		59.2		108		3927.4		4183.6		3916.9		4009		4032.6		4343.4	
112	Cobalt		ug/dscm	y	100	15.2	100	22.8	100	15.7	100	18		1465.1		1562.2		1494.6		1507	1	1480.3	1.4	1585.0	1
113	Copper		ug/dscm	y		2438.5		1641.9		2225.6		2102		8207.7		8763.5		8467.0		8479		10646.2		10405.4	
114	Iron		ug/dscm	y		7544.2		19658.3		9206.5		12136										7544.2		19658.3	
115	Lead		ug/dscm	y		601.3		652.3		1449.0		901		56763.2		60430.1		57870.4		58355		57364.5		61082.4	
116	Manganese		ug/dscm	y		65.9		127.4		72.9		89		8744.6		9296.9		8908.8		8983		8810.5		9424.3	
117	Mercury		ug/dscm	y	100	1.3	100	1.2	100	1.3	100	1									100	1.3	100	1.2	100
118	Nickel		ug/dscm	y		3909.3		3696.0		4355.1		3987		29685.6		31548.6		30113.2		30449		33594.9		35244.7	
119	Selenium		ug/dscm	y	100	45.0	100	42.5	100	46.5	100	45									100	45.0	100	42.5	100
120	Silver		ug/dscm	y	100	150.1	100	14.1	100	15.7	100	60									100	150.1	100	14.1	100

	B	AA	AB	AC
61	Tin			
62	Vanadium			
63	Zinc			
64				
65	SVM			
66	LVM			
67				
68				
69				
70	**3005C3**	R3		Cond Avg
71				
72	Feedstream Number	F3		F3
73	Feed Class	Total		Total
74	Feed Class 2	Total		Total
75	Feedstream Description	Total		Total
76	Feed Rate			
77	Density			
78	Aluminum			
79	Antimony			
80	Arsenic			
81	Barium			
82	Beryllium			
83	Boron			
84	Cadmium			
85	Chromium			
86	Cobalt			
87	Copper			
88	Iron			
89	Lead			
90	Manganese			
91	Mercury			
92	Nickel			
93	Selenium			
94	Silver			
95	Thallium			
96	Tin			
97	Vanadium			
98	Zinc			
99				
100	Stack Gas Flowrate			
101	Oxygen			
102				
103	*Feedrate MTEC Calculation*			
104	Aluminum	777.4	100	7.46E+02
105	Antimony	31.1	100	2.98E+01
106	Arsenic	302.6		2.80E+02
107	Barium	15.7	100	1.52E+01
108	Beryllium	15.7	100	1.50E+01
109	Boron	777.4	100	7.46E+02
110	Cadmium	20.1	100	1.65E+01
111	Chromium	3976.2		4.12E+03
112	Cobalt	1510.3	1	1.53E+03
113	Copper	10692.6		1.06E+04
114	Iron	9206.5		1.21E+04
115	Lead	59319.4		5.93E+04
116	Manganese	8981.7		9.07E+03
117	Mercury	1.3	100	1.28E+00
118	Nickel	34468.3		3.44E+04
119	Selenium	46.5	100	4.47E+01
120	Silver	15.7	100	6.00E+01

	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
121	Thallium		ug/dscm	y	100	15.2	100	14.1	100	15.7	100	15									100	15.2	100	14.1	100
122	Tin		ug/dscm	y	100	150.1	100	141.4	100	155.3	100	149									100	150.1	100	141.4	100
123	Vanadium		ug/dscm	y	100	150.1	100	141.4	100	155.3	100	149									100	150.1	100	141.4	100
124	Zinc		ug/dscm	y		7216.6		14725.3		1336.9		7760		13347.0		14250.2		13620.9		13739		20563.6		28975.5	
125																									
126	SVM		ug/dscm	y	2.5	616	2.1	666	1.4	1469	2	917		56763		60430		57870		58355	0	57379.7	0	61096.6	0
127	LVM		ug/dscm	y	3.8	400	3.3	433	4.2	378	4	404		3927		4184		3917		4009	0.4	4327.5	0.3	4616.7	0.4

	B	AA	AB	AC
121	Thallium	15.7	100	1.50E+01
122	Tin	155.3	100	1.49E+02
123	Vanadium	155.3	100	1.49E+02
124	Zinc	14957.8		2.15E+04
125				
126	SVM	59339.5	0	5.93E+04
127	LVM	4294.5	0	4.41E+03

	B	C	D	E	F	G	H	I	J
1	**Process Information**								
2									
3	**3005C1**	GB agent trial burn							
4				Cond Avg					
5	Comb Chamb Temp	^{o}F		2619					
6	Afterburner Temp	^{o}F		1930					
7	Comb Cham Pressure	in H2O		-5.8					
8	VS Pressure Drop	in H2O		30					
9	VS Brine Flow	gpm		110					
10	PBS Liquor Feed Pressure	psig		47					
11	PBS Liquor Flow	gpm		500					
12	PBS Clean Liquor pH			8.1					
13	Brine pH			8					
14									
15	**3005C2**	Baseline - Nat gas only							
16				Cond Avg					
17	Comb Chamb Temp	^{o}F		2616					
18	Afterburner Temp	^{o}F		1915					
19	Comb Cham Pressure	in H2O		-4.6					
20	VS Pressure Drop	in H2O		30					
21	VS Brine Flow	gpm		110					
22	PBS Liquor Feed Pressure	psig		95					
23	PBS Liquor Flow	gpm		500					
24	PBS Clean Liquor pH			8.1					
25	Brine pH			8					
26									
27									
28	**3005C3**	GB agent trial burn w/metals spike							
29				Cond Avg					
30	Comb Chamb Temp	^{o}F		Table 3-1 process data on page 20 not copied for SS data entry					
31	Afterburner Temp	^{o}F							
32	Comb Cham Pressure	in H2O							
33	VS Pressure Drop	in H2O							
34	VS Brine Flow	gpm							
35	PBS Liquor Feed Pressure	psig							
36	PBS Liquor Flow	gpm							
37	PBS Clean Liquor pH			7.7	Table 3-1 process data on page 21 copied for SS data entry				
38	Brine pH			8	Table 3-1 process data on page 21 copied for SS data entry				

	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:		TOCDF, LIC No. 2															
4	Condition ID:		3005C1															
5	Condition/Test Date:		GB trial burn, Aug 20, 22, 23, 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
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
10	Detected in sample volume (pg)																	
11		2,3,7,8-TCDD	1	nd	19.00	19.00	9.50	9.50	nd	15.00	15.00	7.50	7.50	nd	14.00	14.00	7.00	7.00
12		Total TCDD	0	nd	26.00	0.00	13.00	0.00	nd	53.00	0.00	26.50	0.00		34.00	0.00	34.00	0.00
13		1,2,3,7,8-PCDD	0.5	nd	23.00	11.50	11.50	5.75	nd	26.00	13.00	13.00	6.50	nd	21.00	10.50	10.50	5.25
14		Total PCDD	0	nd	39.00	0.00	19.50	0.00	nd	66.00	0.00	33.00	0.00	nd	77.00	0.00	38.50	0.00
15		1,2,3,4,7,8-HxCDD	0.1	nd	21.00	2.10	10.50	1.05	nd	22.00	2.20	11.00	1.10	nd	23.00	2.30	11.50	1.15
16		1,2,3,6,7,8-HxCDD	0.1	nd	18.00	1.80	9.00	0.90	nd	26.00	2.60	13.00	1.30	nd	26.00	2.60	13.00	1.30
17		1,2,3,7,8,9-HxCDD	0.1	nd	19.00	1.90	9.50	0.95	nd	31.00	3.10	15.50	1.55	nd	29.00	2.90	14.50	1.45
18		Total HxCDD	0	nd	46.00	0.00	23.00	0.00	nd	105.00	0.00	52.50	0.00	nd	120.00	0.00	60.00	0.00
19		1,2,3,4,6,7,8-HpCDD	0.01	nd	34.00	0.34	17.00	0.17	nd	59.00	0.59	29.50	0.30	nd	69.00	0.69	34.50	0.35
20		Total HpCDD	0	nd	34.00	0.00	17.00	0.00	nd	59.00	0.00	29.50	0.00	nd	69.00	0.00	34.50	0.00
21		OCDD	0.001	nd	98.00	0.10	49.00	0.05	nd	126.00	0.13	63.00	0.06	nd	153.00	0.15	76.50	0.08
22		2,3,7,8-TCDF	0.1	nd	56.00	5.60	28.00	2.80	nd	36.00	3.60	18.00	1.80	nd	21.00	2.10	10.50	1.05
23		Total TCDF	0	nd	414.00	0.00	207.00	0.00	nd	485.00	0.00	242.50	0.00	nd	152.00	0.00	76.00	0.00
24		1,2,3,7,8-PCDF	0.05	nd	41.00	2.05	20.50	1.03	nd	51.00	2.55	25.50	1.28	nd	11.00	0.55	5.50	0.28
25		2,3,4,7,8-PCDF	0.5	nd	32.00	16.00	16.00	8.00	nd	37.00	18.50	18.50	9.25	nd	20.00	10.00	10.00	5.00
26		Total PCDF	0	nd	119.00	0.00	59.50	0.00	nd	123.00	0.00	61.50	0.00	nd	32.00	0.00	16.00	0.00
27		1,2,3,4,7,8-HxCDF	0.1	nd	15.00	1.50	7.50	0.75	nd	22.00	2.20	11.00	1.10	nd	15.00	1.50	7.50	0.75
28		1,2,3,6,7,8-HxCDF	0.1	nd	12.00	1.20	6.00	0.60	nd	14.00	1.40	7.00	0.70	nd	15.00	1.50	7.50	0.75
29		2,3,4,6,7,8-HxCDF	0.1	nd	9.00	0.90	4.50	0.45	nd	16.00	1.60	8.00	0.80	nd	18.00	1.80	9.00	0.90
30		1,2,3,7,8,9-HxCDF	0.1	nd	11.00	1.10	5.50	0.55	nd	13.00	1.30	6.50	0.65	nd	9.00	0.90	4.50	0.45
31		Total HxCDF	0	nd	39.00	0.00	19.50	0.00	nd	49.00	0.00	24.50	0.00	nd	24.00	0.00	12.00	0.00
32		1,2,3,4,6,7,8-HpCDF	0.01	nd	27.00	0.27	13.50	0.14	nd	42.00	0.42	21.00	0.21	nd	48.00	0.48	24.00	0.24
33		1,2,3,4,7,8,9-HpCDF	0.01	nd	14.00	0.14	7.00	0.07	nd	20.00	0.20	10.00	0.10	nd	12.00	0.12	6.00	0.06
34		Total HpCDF	0	nd	27.00	0.00	13.50	0.00	nd	42.00	0.00	21.00	0.00	nd	48.00	0.00	24.00	0.00
35		OCDF	0.001	nd	40.00	0.04	20.00	0.02	nd	45.00	0.05	22.50	0.02	nd	51.00	0.05	25.50	0.03
36																		
37		Gas sample volume (dscf)				228.73	228.73	228.73			244.72	244.72	244.72			233.72	233.72	233.72
38		O2 (%)				9	9	9			8.8	8.8	8.8			8.8	8.8	8.8
39																		
40		PCDD/PCDF (ng in sample)				0.066	0.4	0.033			0.068	0.6	0.034			0.05	0.4	0.03
41		PCDD/PCDF (ng/dscm @ 7% O2)		100.0		0.012	0.079	0.006	100.0		0.01	0.10	0.01	100.0		0.01	0.07	0.00
42																		
43		TEQ Cond Avg	0.0054															
44		Total Cond Avg	0.0813															

	A	B	C	D	E	F	G	H
1	**PCDD/PCDF**							
2	N							
3	Facility Name and ID:		TOCDF, LIC No. 2					
4	Condition ID:		3005C2					
5	Condition/Test Date:		Nat gas baseline, Aug 19, 1997					
6								
7			I-TEF			Run 1		
8			Wght Fact		Total	TEQ	Total	TEQ
9					Full ND	Full ND	1/2 ND	1/2 ND
10	Detected in sample volume (pg)							
11		2,3,7,8-TCDD	1	nd	18	18.00	9.00	9.00
12		Total TCDD	0	nd	36	0	18	0
13		1,2,3,7,8-PCDD	0.5	nd	26	13.00	13.00	6.50
14		Total PCDD	0	nd	53	0	27	0
15		1,2,3,4,7,8-HxCDD	0.1	nd	15	1.50	7.50	0.75
16		1,2,3,6,7,8-HxCDD	0.1	nd	18	1.80	9.00	0.90
17		1,2,3,7,8,9-HxCDD	0.1	nd	24	2.40	12.00	1.20
18		Total HxCDD	0	nd	95	0	48	0
19		1,2,3,4,6,7,8-HpCDD	0.01	nd	35	0.35	17.50	0.18
20		Total HpCDD	0	nd	35	0	18	0
21		OCDD	0.001	nd	110	0.11	55.00	0.06
22		2,3,7,8-TCDF	0.1	nd	46	4.60	23.00	2.30
23		Total TCDF	0	nd	311	0	156	0
24		1,2,3,7,8-PCDF	0.05	nd	45	2	23	1
25		2,3,4,7,8-PCDF	0.5	nd	33	17	17	8
26		Total PCDF	0	nd	108	0	54	0
27		1,2,3,4,7,8-HxCDF	0.1	nd	25	3	13	1
28		1,2,3,6,7,8-HxCDF	0.1	nd	14	1	7	1
29		2,3,4,6,7,8-HxCDF	0.1	nd	17	2	9	1
30		1,2,3,7,8,9-HxCDF	0.1	nd	14	1	7	1
31		Total HxCDF	0	nd	45	0	23	0
32		1,2,3,4,6,7,8-HpCDF	0.01	nd	32	0	16	0
33		1,2,3,4,7,8,9-HpCDF	0.01	nd	14	0	7	0
34		Total HpCDF	0	nd	32	0	16	0
35		OCDF	0.001	nd	39	0	20	0
36								
37		Gas sample volume (dscf)				246.3	246.3	246.3
38		O2 (%)				7	7	7
39								
40		PCDD/PCDF (ng in sample)				0.068	0.4	0.034
41		PCDD/PCDF (ng/dscm @ 7% O2)		100.0		0.010	0.062	0.005
42								
43		TEQ Cond Avg	0.0049					
44		Total Cond Avg	0.0620					

	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:		TOCDF, LIC No. 2															
4	Condition ID:		3005C3															
5	Condition/Test Date:		Metals test w/GB, June 30, July 2, 2001															
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
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
10	Detected in sample volume (pg)																	
11		2,3,7,8-TCDD	1	nd	3.30	3.30	1.65	1.65	nd	3.00	3.00	1.50	1.50	nd	1.80	1.80	0.90	0.90
12		Total TCDD	0	nd	28.50	0.00	14.25	0.00	nd	4.40	0.00	2.20	0.00		1.80	0.00	1.80	0.00
13		1,2,3,7,8-PCDD	0.5	nd	3.50	1.75	1.75	0.88	nd	2.80	1.40	1.40	0.70	nd	2.80	1.40	1.40	0.70
14		Total PCDD	0	nd	9.00	0.00	4.50	0.00	nd	4.70	0.00	2.35	0.00	nd	4.80	0.00	2.40	0.00
15		1,2,3,4,7,8-HxCDD	0.1	nd	8.20	0.82	4.10	0.41	nd	4.50	0.45	2.25	0.23	nd	3.60	0.36	1.80	0.18
16		1,2,3,6,7,8-HxCDD	0.1	nd	8.80	0.88	4.40	0.44	nd	4.70	0.47	2.35	0.24	nd	4.00	0.40	2.00	0.20
17		1,2,3,7,8,9-HxCDD	0.1	nd	7.80	0.78	3.90	0.39	nd	4.20	0.42	2.10	0.21	nd	3.50	0.35	1.75	0.18
18		Total HxCDD	0	nd	13.00	0.00	6.50	0.00	nd	4.70	0.00	2.35	0.00	nd	7.60	0.00	3.80	0.00
19		1,2,3,4,6,7,8-HpCDD	0.01	nd	11.00	0.11	5.50	0.06	nd	8.40	0.08	4.20	0.04	nd	14.00	0.14	7.00	0.07
20		Total HpCDD	0	nd	11.00	0.00	5.50	0.00	nd	8.40	0.00	4.20	0.00	nd	14.00	0.00	7.00	0.00
21		OCDD	0.001	nd	55.00	0.06	27.50	0.03	nd	46.00	0.05	23.00	0.02	nd	60.00	0.06	30.00	0.03
22		2,3,7,8-TCDF	0.1	nd	6.60	0.66	3.30	0.33	nd	7.10	0.71	3.55	0.36	nd	2.80	0.28	1.40	0.14
23		Total TCDF	0	nd	17.00	0.00	8.50	0.00	nd	7.10	0.00	3.55	0.00	nd	2.80	0.00	1.40	0.00
24		1,2,3,7,8-PCDF	0.05	nd	4.20	0.21	2.10	0.11	nd	2.10	0.11	1.05	0.05	nd	2.40	0.12	1.20	0.06
25		2,3,4,7,8-PCDF	0.5	nd	4.00	2.00	2.00	1.00	nd	1.70	0.85	0.85	0.43	nd	2.90	1.45	1.45	0.73
26		Total PCDF	0	nd	8.50	0.00	4.25	0.00	nd	4.80	0.00	2.40	0.00	nd	2.90	0.00	1.45	0.00
27		1,2,3,4,7,8-HxCDF	0.1	nd	4.90	0.49	2.45	0.25	nd	4.50	0.45	2.25	0.23	nd	5.20	0.52	2.60	0.26
28		1,2,3,6,7,8-HxCDF	0.1	nd	2.80	0.28	1.40	0.14	nd	2.70	0.27	1.35	0.14	nd	4.80	0.48	2.40	0.24
29		2,3,4,6,7,8-HxCDF	0.1	nd	2.60	0.26	1.30	0.13	nd	2.40	0.24	1.20	0.12	nd	6.50	0.65	3.25	0.33
30		1,2,3,7,8,9-HxCDF	0.1	nd	2.70	0.27	1.35	0.14	nd	2.50	0.25	1.25	0.13	nd	2.90	0.29	1.45	0.15
31		Total HxCDF	0	nd	4.90	0.00	2.45	0.00	nd	4.50	0.00	2.25	0.00	nd	6.80	0.00	3.40	0.00
32		1,2,3,4,6,7,8-HpCDF	0.01	nd	9.40	0.09	4.70	0.05	nd	5.60	0.06	2.80	0.03	nd	17.00	0.17	8.50	0.09
33		1,2,3,4,7,8,9-HpCDF	0.01	nd	6.20	0.06	3.10	0.03	nd	4.50	0.05	2.25	0.02	nd	13.00	0.13	6.50	0.07
34		Total HpCDF	0	nd	9.40	0.00	4.70	0.00	nd	5.80	0.00	2.90	0.00	nd	17.00	0.00	8.50	0.00
35		OCDF	0.001	nd	28.00	0.03	14.00	0.01	nd	16.00	0.02	8.00	0.01	nd	38.00	0.04	19.00	0.02
36																		
37		Gas sample volume (dscf)				189.95	189.95	189.95			154	154	154			151.39	151.39	151.39
38		O2 (%)				8.9	8.9	8.9			9	9	9			9	9	9
39																		
40		PCDD/PCDF (ng in sample)				0.012	0.1	0.006			0.009	0.1	0.004			0.0086	0.1	0.0043
41		PCDD/PCDF (ng/dscm @ 7% O2)		100.0		0.003	0.020	0.001	100.0		0.0024	0.01	0.0012	100.0		0.0024	0.02	0.0012
42																		
43		TEQ Cond Avg	0.0012															
44		Total Cond Avg	0.0185															