Table 8. Comparison of Traditional Fuel Contaminant Concentrations With Pulp Mill Sludge Data From the EPA's Boiler MACT Database

Lit. Source Range[1]	Compound	Units	Data from EPA OAQPS Databases									Data from Boiler MACT Database, v. 7[2] Industrial Sludge NAICS 322					
			Coal			Biomass			Fuel Oils								
			Min	Max	Avg.	Min	Max	Avg.	Min	Max	Avg.	No.	NDs	Min	Max	90% UPL[3]	K-M[4] Mean
ND - 26	Antimony (Sb)	ppm	ND	6.9	1.7	ND	6	0.9	ND	3.8	3.5	116	37	ND	3.14	2.0	0.45
ND - 80	Arsenic (As)	ppm	ND	174	8.2	ND	298	6.3	ND	13	1.3	376	94	ND	105.0	70.6	7.94
0.1 - 15	Beryllium (Be)	ppm	ND	206	1.9	ND	10	0.3	ND	19	2.3	358	102	ND	2.6	1.97	0.35
ND - 3	Cadmium (Cd)	ppm	ND	19	0.6	ND	17	0.6	ND	1.4	0.4	385	53	ND	19.0	8.2	1.55
ND - 130	Chromium (Cr)	ppm	ND	168	13.4	ND	340	5.9	ND	37	3.7	388	5	ND	170.0	77.3	17.14
ND - 30	Cobalt (Co)	ppm	ND	25.2	6.9	ND	213	6.5	ND	8.5	1.1	127	22	ND	14.4	16.7	3.78
ND - 340	Lead (Pb)	ppm	ND	148	8.7	ND	229	4.5	ND	52	4.3	347	19	ND	201.0	64.2	11.53
5 - 840	Manganese (Mn)	ppm	ND	512	26.2	ND	15,800	302	ND	3200	118	369	3	ND	3,310	2,650	559.8
ND - 1	Mercury (Hg)	ppm	ND	3.1	0.09	ND	1.1	0.03	ND	0.2	0.02	397	40	ND	1.40	0.72	0.114
ND - 540	Nickel (Ni)	ppm	ND	730	21.5	ND	175	2.8	ND	270	24.1	381	9	ND	180.0	67.7	14.990
ND -	Seleni	pp	ND	74	3.	ND	9	1	ND	4	0.	3	1	ND	6.	4.	0.9