

Table 1. Fixed Ambient Air Quality Monitoring Station Data (Feb 7 & 8, 2007)

Start Hour	JFK CO ppm	Troost CO ppm	JFK SO ₂ ppb	Troost SO ₂ ppb	JFK NO _x ppb	Troost NO _x Ppb	JFK PM _{2.5} µg/m ³	Troost PM _{2.5} µg/m ³
1000	0.3	N/A	6	1	17	22	31.6	26.0
1100	0.3	N/A	7	2	18	26	25.0	27.9
1200	0.3	N/A	7	4	21	28	28.2	28.7
1300	0.3	N/A	8	3	22	21	25.9	25.8
1400	0.3	N/A	8	2	21	22	23.5	23.3
1500	0.3	N/A	7	2	23	26	24.4	21.6
1600	0.3	N/A	6	1	19	19	16.5	16.1
1700	0.3	N/A	6	1	17	16	16.5	15.5
1800	0.3	N/A	6	0	13	14	15.9	14.0
1900	0.3	N/A	5	0	12	14	13.9	13.9
2000	0.3	N/A	5	0	11	15	13.6	18.9
2100	0.3	N/A	5	0	12	14	14.5	14.9
2200	0.3	N/A	5	0	10	16	12.6	19.4
2300	0.3	N/A	4	0	8	16	14.4	14.1
0000	0.2	N/A	4	0	7	12	13.3	11.9
0100	0.2	N/A	4	0	7	16	13.7	11.8
0200	0.2	N/A	4	0	5	10	15.1	13.3
0300	0.2	N/A	4	0	4	12	11.4	9.9
0400	0.2	N/A	5	0	4	12	12.7	12.0
0500	0.2	N/A	4	0	5	15	8.9	11.9
0600	0.2	N/A	4	0	7	28	6.1	6.2
0700	0.3	N/A	4	0	13	28	12.3	9.3
0800	0.4	N/A	4	0	19	32	6.6	8.7
0900	0.3	N/A	4	0	13	37	9.6	10.7
1000	0.3	N/A	4	0	11	28	10.2	8.3

NOTE: These fixed monitoring stations are operated by the Kansas City, Missouri Air Division. No data was available for the carbon monoxide monitor at the Troost location.

The addresses of the two fixed monitoring locations nearest to CHEMCENTRAL

JFK Recreational Center (JFK)
 1210 North 10th Street
 Kansas City, Kansas

Troost
 724 Troost Avenue
 Kansas City, Missouri

Table 2. Mobile Air Monitoring Laboratory Results

Sampling Location	Start Time	End Time	Sample Duration	CO ppm	SO₂ Ppb	NO_x ppb
M1) 5 th Street and Grand Avenue	1800	1900	1 hour	0.08	1.2	45.5
M1) 5 th Street and Grand Avenue	1900	2000	1 hour	0.07	0.6	11.3
M1) 5 th Street and Grand Avenue	2000	2100	1 hour	0.12	1.4	10.4
M1) 5 th Street and Grand Avenue	2100	2200	1 hour	0.14	1.9	15.2
M2) South end Fairfax Trafficway	2250	2320	30 min	0.21	0.55	12.1
M3) 18 th Street and State Avenue	2355	0025	30 min	0.88	2.7	10.9
M4) Lindbegh School, 641 State Avenue	0045	0100	15 min	0.34	1.3	10.8
M5) Turner Middle School	0125	0140	15 min	0.52	1.8	17.8
M6) Endeavor Quest School	0235	0250	15 min	0.29	3.3	15.5
M7) St. Pius X School	0310	0325	15 min	0.13	1.5	9.2
M8) John Fiske School	0415	0430	15 min	0.16	2.5	26.7
M9) Argentine Community Center	0455	0510	15 min	0.17	8.5	14.2
M10) Noble Prentis School	0520	0535	15 min	0.19	2.6	13.1

Table 3. Field Team Sampling Results

Sampling ID	Location/GPS Coordinates		Particulates	VOCs	Chlorine	CO	Time
	Latitude (°N)	Longitude (°W)	µg/m ³	ppm	ppm	ppm	hours
1	39.11868	94.51599	13.00	ND	ND		1700
2	39.10991	94.56328	11.00	ND	ND		1715
3	39.10464	94.57318	12.13	ND		ND	1735
4	5th St. and Grand Ave.		19.00	ND		ND	2018
5	8th St. and Locust Ave.		26.00	ND		ND	2018
6	8th St. and Charlotte St.		35.00	ND		ND	2018
7	Paseo Blvd. and Independence Ave.		13.40	ND		ND	2018
8	Front St. and I-35		10.30	ND		ND	2032
9	Grand Ave. and Missouri Ave.		16.10	ND		ND	2032
10	5th St. and Grand Ave.		10.60	ND		ND	2032
11	39.12686	94.57824	15.00	ND	ND		2048
12	9th St. and Grand Ave.		11.30	ND		ND	2040
13	9th St. and Main St.		11.60	ND		ND	2040
14	10th St. and Wynadotte St.		10.20	ND		ND	2040
15	9th St. and Pennsylvania Ave.		27.90	ND		ND	2040
16	11th St. and Broadway St.		9.90	ND		ND	2040
17	13th St. and Pennsylvania Ave.		10.40	ND		ND	2040
18	13th St. and Summit St.		37.20	ND		ND	2100
19	13th St. and Summit St. (FBI)		58.40	ND		ND	2100
20	16th St. and Jefferson St.		20.00	ND		ND	2100
21	West 17th Street and Belleview		23.6	ND		ND	2100
22	Harrison St. & Missouri Ave.		40	ND		ND	2122
23	18th St. & Jefferson St.		21	ND		ND	2137
24	21st St. & Madison Ave.		15.5	ND		ND	2143
25	21st St. & Jarboe St.		10.3	ND		ND	2147
26	1720 Holly St.		14.7	ND		ND	2154
27	Southwest Blvd. & Summit St.		12.5	ND		ND	2200
28	I-635 & I-70		25	ND		ND	2216
29	9th St. & McGee St.		15.4	ND		ND	2232
30	9th St. & Main St.		12.4	ND		ND	2235
31	9th St. & Central St.		9.4	ND		ND	2237
32	7th St. & Broadway St.		10.5	ND		ND	2240
33	5th St. & Wyandotte St.		9.6	ND		ND	2247
34	3rd St. & Delaware St.		8.5	ND		ND	2249
35	3rd St. & Oak St.		11.1	ND		ND	2252
36	5th St. & Grand Ave.		11.2	ND		ND	2254
37	Gillis St. & Industrial Tfwy.		8.3	ND		ND	2300
38	Cargill Facility (1/4 mile west of fire)		20-100	ND		ND	2308
39	200 yds from fire		39	ND		ND	2325
40	SW Boulevard and Belleview		12.7	ND		ND	2210
41	20th St. & Broadway St.		15.8	ND		ND	2220
42	12th St. & Wyandotte St.		62.3	ND		ND	2223
43	12th St. & Main St.		40.6	ND		ND	2225
44	12th St. & Grand Ave.		23.2	ND		ND	2228
45	10th St. & McGee St.		67.2	ND		ND	2230
46	ChemCentral Corporation Facility		600-700	ND		ND	2445
47	I 35 & Southwest Blvd.		6.6	ND		ND	0031
48	I-35 & 7th St.		6.4	ND		ND	0033
49	I-35 & 18th St.		7.5	ND		ND	0036
50	48th St. & Roe Ave.		7.6	ND		ND	0040
51	55th Terr. & Roe Ave.		5.7	ND		ND	0045
52	Johnson Dr. & Woodson Rd.		5.3	ND		ND	0048
53	Johnson Dr. & Metcalf Ave.		4.6	ND		ND	0052
54	Johnson Dr. & Foster St. (S-M High School)		7.1	ND		ND	0054
55	Johnson Dr. & Antioch Rd.		6.6	ND		ND	0056

Table 3. Field Team Sampling Results

Sampling ID	Location/GPS Coordinates		Particulates µg/m ³	VOCs ppm	Chlorine ppm	CO ppm	Time hours
	Latitude (°N)	Longitude (°W)					
56	I-35 & Johnson Dr.		6.7	ND		ND	0058
57	Johnson Dr. & Perry Ln.		9.2	ND		ND	0100
58	Johnson Dr. & Melrose Ln.		6.7	ND		ND	0101
59	Shawnee Mission Pkwy. & Goddard St.		8.8	ND		ND	0105
60	Shawnee Mission Pkwy. & I-35		7.4	ND		ND	0108
61	I-35 & 67th St.		9.4	ND		ND	0110
62	67th St. & Lee Dr.		6.3	ND		ND	0120
63	69th St. & Antioch Rd.		5.4	ND		ND	0123
64	74th St. & Antioch Rd. (S-M Medical Center)		6.7	ND		ND	0126
65	75th St. & Grandview St.		8.6	ND		ND	0130
66	75th St. & Nieman Rd.		6.7	ND		ND	0139
67	74th St. & Quivira Rd.		8.6	ND		ND	0201
68	75th St. & Switzer St.		8.5	ND		ND	0204
69	39.11473	94.62686	21.4	ND		ND	0213
70	39.1156	94.67249	38.6	ND		ND	0225
71	39.117	94.70913	25.1	ND		ND	0238
72	39.1168	94.758	21.9	ND		ND	0246
73	39.11664	94.79743	29.6	ND		ND	0252
74	39.12111	94.81655	29.3	ND		ND	0257
75	39.10632	94.88188	18.7	ND		ND	0316
76	39.06466	94.86185	24.7	ND		ND	0322
77	39.06143	94.79485	26.6	ND		ND	0329
78	39.08752	94.73534	34	ND		ND	0335
79	39.10425	94.68989	23.7	ND		ND	0340
80	39.08706	94.62562	27.7	ND		ND	0348
81	ChemCentral Corporation Facility		3500-4500	ND		ND	0403
82	38.9717299	94.723389	4.9	ND		ND	0408
83	38.956982	94.736977	5.3	ND		ND	0420
84	38.94318	94.745674	5.7	ND		ND	0427
85	39.059887	94.62263	4.8	ND		ND	0443
86	39.068108	94.6129968	6.8	ND		ND	0458
87	39.057182	94.612015	4.8	ND		ND	0505
88	39.033562	94.61245	8.4	ND		ND	0510
89	39.043644	94.588249	8.1	ND		ND	0520
90	39.064312	94.590187	8.4	ND		ND	0525
91	39.080456	94.59201	8.1	ND		ND	0530
92	39.078659	94.595001	14.3	ND		ND	0535
93	39.053852	94.595543	8.9	ND		ND	0545
94	39.039444	94.597588	8.6	ND		ND	0555

ND: The constituent was not detected.

Table 4. Comparison of Temporary Air Monitoring Results to Risk-Based Screening Levels

Analytes	Units	101	102	103	104	105	Screening Level
Acenaphthene	µg/m ³	1.8 U	1.8 U	2.1 U	2.1 U	2.1 U	100 NIOSH REL ¹
Acenaphthylene	µg/m ³	1.8 U	1.8 U	2.1 U	2.1 U	2.1 U	100 NIOSH REL ¹
Anthracene	µg/m ³	1.8 U	1.8 U	2.1 U	2.1 U	2.1 U	100 NIOSH REL ¹
Benzo(a)anthracene	µg/m ³	1.8 U	1.8 U	2.1 U	2.1 U	2.1 U	100 NIOSH REL ¹
Benzo(a)pyrene	µg/m ³	1.8 U	1.8 U	2.1 U	2.1 U	2.1 U	100 NIOSH REL ¹
Benzo(b)fluoranthene	µg/m ³	1.8 U	1.8 U	2.1 U	2.1 U	2.1 U	100 NIOSH REL ¹
Benzo(g,h,i)perylene	µg/m ³	1.8 U	1.8 U	2.1 U	2.1 U	2.1 U	100 NIOSH REL ¹
Benzo(k)fluoranthene	µg/m ³	1.8 U	1.8 U	2.1 U	2.1 U	2.1 U	100 NIOSH REL ¹
Chrysene	µg/m ³	1.8 U	1.8 U	2.1 U	2.1 U	2.1 U	100 NIOSH REL ¹
Dibenz(a,h)anthracene	µg/m ³	1.8 U	1.8 U	2.1 U	2.1 U	2.1 U	100 NIOSH REL ¹
Fluoranthene	µg/m ³	1.8 U	1.8 U	2.1 U	2.1 U	2.1 U	100 NIOSH REL ¹
Fluorene	µg/m ³	1.8 U	1.8 U	2.1 U	2.1 U	2.1 U	100 NIOSH REL ¹
Indeno(1,2,3-cd)pyrene	µg/m ³	1.8 U	1.8 U	2.1 U	2.1 U	2.1 U	100 NIOSH REL ¹
Naphthalene	µg/m ³	1.8 U	1.8 U	2.1 U	2.1 U	2.1 U	50,000 NIOSH REL
Phenanthrene	µg/m ³	1.8 U	1.8 U	2.1 U	2.1 U	2.1 U	100 NIOSH REL ¹
Pyrene	µg/m ³	1.8 U	1.8 U	2.1 U	2.1 U	2.1 U	100 NIOSH REL ¹
Aroclor 1016	µg/m ³	3.0 U	3.0 U	4.0 U	4.0 U	4.0 U	1 NIOSH REL
Aroclor 1221	µg/m ³	3.0 U	3.0 U	4.0 U	4.0 U	4.0 U	1 NIOSH REL
Aroclor 1232	µg/m ³	3.0 U	3.0 U	4.0 U	4.0 U	4.0 U	1 NIOSH REL
Aroclor 1242	µg/m ³	3.0 U	3.0 U	4.0 U	4.0 U	4.0 U	1 NIOSH REL
Aroclor 1248	µg/m ³	3.0 U	3.0 U	4.0 U	4.0 U	4.0 U	1 NIOSH REL
Aroclor 1254	µg/m ³	3.0 U	3.0 U	4.0 U	4.0 U	4.0 U	1 NIOSH REL
Aroclor 1260	µg/m ³	3.0 U	3.0 U	4.0 U	4.0 U	4.0 U	1 NIOSH REL
Aldrin	µg/m ³	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	250 NIOSH REL
Alpha-BHC	µg/m ³	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	na NIOSH REL
Beta-BHC	µg/m ³	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	na NIOSH REL
Delta-BHC	µg/m ³	0.4 U	0.2 U	0.2 U	0.2 U	0.5 U	na NIOSH REL
Gamma-BHC	µg/m ³	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	500 NIOSH REL
DDD	µg/m ³	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	na
DDE	µg/m ³	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	na
DDT	µg/m ³	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	500 NIOSH REL
Dieldren	µg/m ³	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	250 NIOSH REL
Endrin	µg/m ³	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	100 NIOSH REL
Endrin Aldehyde	µg/m ³	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	na
Endrin Ketone	µg/m ³	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	na
Endosulfan I	µg/m ³	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	100 NIOSH REL
Endosulfan II	µg/m ³	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	100 NIOSH REL
Endosulfan Sulfate	µg/m ³	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	na
Heptachlor	µg/m ³	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	50 ACGIH TLV
Heptachlor Epoxide	µg/m ³	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	50 ACGIH TLV
Methoxychlor	µg/m ³	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10,000 ACGIH TLV

na: Screening level is not available.

U: The analyte was not detected above the reporting limit.

UJ: The analyte was not detected above the estimated reporting limit.

1: Based on coal tar pitch volatiles (cyclohexane-extractable fraction).

See Attachment 3 for analytical data

Table 4. Comparison of Temporary Air Monitoring Results to Risk-Based Screening Levels

Analytes	Units	101	102	103	104	105	Screening Level
Acenaphthene	µg/m ³	1.8 U	1.8 U	2.1 U	2.1 U	2.1 U	100 NIOSH REL ¹
Acenaphthylene	µg/m ³	1.8 U	1.8 U	2.1 U	2.1 U	2.1 U	100 NIOSH REL ¹
Anthracene	µg/m ³	1.8 U	1.8 U	2.1 U	2.1 U	2.1 U	100 NIOSH REL ¹
Benzo(a)anthracene	µg/m ³	1.8 U	1.8 U	2.1 U	2.1 U	2.1 U	100 NIOSH REL ¹
Benzo(a)pyrene	µg/m ³	1.8 U	1.8 U	2.1 U	2.1 U	2.1 U	100 NIOSH REL ¹
Benzo(b)fluoranthene	µg/m ³	1.8 U	1.8 U	2.1 U	2.1 U	2.1 U	100 NIOSH REL ¹
Benzo(g,h,i)perylene	µg/m ³	1.8 U	1.8 U	2.1 U	2.1 U	2.1 U	100 NIOSH REL ¹
Benzo(k)fluoranthene	µg/m ³	1.8 U	1.8 U	2.1 U	2.1 U	2.1 U	100 NIOSH REL ¹
Chrysene	µg/m ³	1.8 U	1.8 U	2.1 U	2.1 U	2.1 U	100 NIOSH REL ¹
Dibenz(a,h)anthracene	µg/m ³	1.8 U	1.8 U	2.1 U	2.1 U	2.1 U	100 NIOSH REL ¹
Fluoranthene	µg/m ³	1.8 U	1.8 U	2.1 U	2.1 U	2.1 U	100 NIOSH REL ¹
Fluorene	µg/m ³	1.8 U	1.8 U	2.1 U	2.1 U	2.1 U	100 NIOSH REL ¹
Indeno(1,2,3-cd)pyrene	µg/m ³	1.8 U	1.8 U	2.1 U	2.1 U	2.1 U	100 NIOSH REL ¹
Naphthalene	µg/m ³	1.8 U	1.8 U	2.1 U	2.1 U	2.1 U	50,000 NIOSH REL
Phenanthrene	µg/m ³	1.8 U	1.8 U	2.1 U	2.1 U	2.1 U	100 NIOSH REL ¹
Pyrene	µg/m ³	1.8 U	1.8 U	2.1 U	2.1 U	2.1 U	100 NIOSH REL ¹
Aroclor 1016	µg/m ³	3.0 U	3.0 U	4.0 U	4.0 U	4.0 U	1 NIOSH REL
Aroclor 1221	µg/m ³	3.0 U	3.0 U	4.0 U	4.0 U	4.0 U	1 NIOSH REL
Aroclor 1232	µg/m ³	3.0 U	3.0 U	4.0 U	4.0 U	4.0 U	1 NIOSH REL
Aroclor 1242	µg/m ³	3.0 U	3.0 U	4.0 U	4.0 U	4.0 U	1 NIOSH REL
Aroclor 1248	µg/m ³	3.0 U	3.0 U	4.0 U	4.0 U	4.0 U	1 NIOSH REL
Aroclor 1254	µg/m ³	3.0 U	3.0 U	4.0 U	4.0 U	4.0 U	1 NIOSH REL
Aroclor 1260	µg/m ³	3.0 U	3.0 U	4.0 U	4.0 U	4.0 U	1 NIOSH REL
Aldrin	µg/m ³	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	250 NIOSH REL
Alpha-BHC	µg/m ³	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	na NIOSH REL
Beta-BHC	µg/m ³	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	na NIOSH REL
Delta-BHC	µg/m ³	0.4 U	0.2 U	0.2 U	0.2 U	0.5 U	na NIOSH REL
Gamma-BHC	µg/m ³	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	500 NIOSH REL
DDD	µg/m ³	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	na
DDE	µg/m ³	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	na
DDT	µg/m ³	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	500 NIOSH REL
Dieldren	µg/m ³	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	250 NIOSH REL
Endrin	µg/m ³	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	100 NIOSH REL
Endrin Aldehyde	µg/m ³	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	na
Endrin Ketone	µg/m ³	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	na
Endosulfan I	µg/m ³	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	100 NIOSH REL
Endosulfan II	µg/m ³	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	100 NIOSH REL
Endosulfan Sulfate	µg/m ³	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	na
Heptachlor	µg/m ³	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	50 ACGIH TLV
Heptachlor Epoxide	µg/m ³	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	50 ACGIH TLV
Methoxychlor	µg/m ³	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	10,000 ACGIH TLV

na: Screening level is not available.

U: The analyte was not detected above the reporting limit.

UJ: The analyte was not detected above the estimated reporting limit.

1: Based on coal tar pitch volatiles (cyclohexane-extractable fraction).

Data reflects lowest reporting limit for XAD(vapor) & Puff (particulates) samples

See Attachment 3 for analytical data NOTE: Sample numbers above correspond to analytical sample numbers as follows:

101(kcf/001); 102(kcf/002); 103(kcf/003); 104(kcf/004); 105(kcf/005)

Table 5. Temporary Air Monitoring Stations - Dioxin and Furan Results

Analytes	Units	101	102	103	104	105
2,3,7,8-Tetrachlorodibenzo-p-dioxin	pg/m ³	26.6 U	26.6 U	31.3 U	31.3 U	31.3 U
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	pg/m ³	133 U	133 U	156 U	156 U	156 U
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	pg/m ³	133 U	133 U	156 U	156 U	156 U
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	pg/m ³	133 U	133 U	156 U	156 U	156 U
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	pg/m ³	133 UJ	133 UJ	156 UJ	156 UJ	156 UJ
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	pg/m ³	133 U	133 U	156 U	156 U	156 U
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	pg/m ³	266 U	266 U	383	313 U	313 U
2,3,7,8-Tetrachlorodibenzo-p-furan	pg/m ³	26.6 U	26.6 U	31.3 U	31.3 U	31.3 U
1,2,3,7,8-Pentachlorodibenzo-p-furan	pg/m ³	133 U	133 U	156 U	156 U	156 U
2,3,4,7,8-Pentachlorodibenzo-p-furan	pg/m ³	133 U	133 U	156 U	156 U	156 U
1,2,3,4,7,8-Hexachlorodibenzo-p-furan	pg/m ³	133 U	133 U	156 U	156 U	156 U
1,2,3,6,7,8-Hexachlorodibenzo-p-furan	pg/m ³	133 U	133 U	156 U	156 U	156 U
1,2,3,7,8,9-Hexachlorodibenzo-p-furan	pg/m ³	133 U	133 U	156 U	156 U	156 U
2,3,4,6,7,8-Hexachlorodibenzo-p-furan	pg/m ³	133 U	133 U	156 U	156 U	156 U
1,2,3,4,6,7,8-Heptachlorodibenzo-p-furan	pg/m ³	133 U	133 U	156 U	156 U	156 U
1,2,3,4,7,8,9-Heptachlorodibenzo-p-furan	pg/m ³	133 U	133 U	156 U	156 U	156 U
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-furan	pg/m ³	266 U	266 U	313 U	313 U	313 U
2,3,7,8-Dioxin Total Equivalentents (TEQ)	pg/m ³	0.000	0.000	0.038	0.000	0.000
Analytes Present at Detection Limit	pg/m ³	333	333	390	390	390
Analytes Present at 1/2 Detection Limit	pg/m ³	167	167	195	195	195

U: The analyte was not detected above the reporting limit.

UJ: The analyte was not detected above the estimated reporting limit.

See attachment 4 for analytical data

Table 6. Comparison of ASPECT Results to Health-Based Benchmarks

Contaminant	Concentration (ppm)	AEGL-1 Values (ppm)	Workplace Limits (ppm)
Ammonia	< 1	30 ¹	25
Methanol	< 1	270 ¹	200
Trimethylbenzene	< 1	45 ²	25

¹Interim value.

²Proposed value.

Table 7. Ash Sample Data Comparison to Risk-Based Screening Levels

Analyte	Units	201*		202**		203***		204****		Screening Level ¹	
Mercury	mg/kg	0.219		0.0436	U	0.0147	U	0.0154	U	23	nc
Arsenic	mg/kg	10	U	10	U	10	U	10	U	22	nc ²
Barium	mg/kg	34.0		3.66		5	U	5	U	5,400	nc
Cadmium	mg/kg	5	U	5	U	5	UJ	5	U	37	nc
Chromium	mg/kg	6.81		5	U	5	U	5	U	21,000	c
Lead	mg/kg	13.2		13.5		10	U	10	U	400	nc
Selenium	mg/kg	10	U	10	U	10	UJ	10	U	390	nc
Silver	mg/kg	10	U	10	U	10	U	10	U	390	nc
2,3,7,8-Tetrachlorodibenzo-p-dioxin	ng/kg	16.7	U	10.0	U	20.0	U	10.0	U	4	
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	ng/kg	83.3	U	50.0	U	100	U	50.0	U	4	
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	ng/kg	83.3	U	50.0	U	100	U	50.0	U	4	
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	ng/kg	83.3	U	50.0	U	100	U	50.0	U	4	
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	ng/kg	83.3	U	50.0	U	100	U	50.0	U	4	
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	ng/kg	83.3	U	50.0	U	100	U	50.0	U	4	
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	ng/kg	167	U	100	U	200	U	125		4	
2,3,7,8-Tetrachlorodibenzo-p-furan	ng/kg	16.7	U	10.0	U	20.0	U	10.0	U	4	
1,2,3,7,8-Pentachlorodibenzo-p-furan	ng/kg	83.3	U	50.0	U	100	U	50.0	U	4	
2,3,4,7,8-Pentachlorodibenzo-p-furan	ng/kg	83.3	U	50.0	U	100	U	50.0	U	4	
1,2,3,4,7,8-Hexachlorodibenzo-p-furan	ng/kg	83.3	U	50.0	U	100	U	50.0	U	4	
1,2,3,6,7,8-Hexachlorodibenzo-p-furan	ng/kg	83.3	U	50.0	U	100	U	50.0	U	4	
1,2,3,7,8,9-Hexachlorodibenzo-p-furan	ng/kg	83.3	U	50.0	U	100	U	50.0	U	4	
2,3,4,6,7,8-Hexachlorodibenzo-p-furan	ng/kg	83.3	U	50.0	U	100	U	50.0	U	4	
1,2,3,4,6,7,8-Heptachlorodibenzo-p-furan	ng/kg	83.3	U	50.0	U	100	U	50.0	U	4	
1,2,3,4,7,8,9-Heptachlorodibenzo-p-furan	ng/kg	83.3	U	50.0	U	100	U	50.0	U	4	
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-furan	ng/kg	167	U	100	U	332		213		4	
2,3,7,8-Dioxin Total Equivalents	ng/kg	0.000		0.000		0.327		0.034		390	c
Acenaphthene	mg/kg	3.7	U	3.9	U	3.7	U	3.9	U	3,700	nc
Acenaphthylene	mg/kg	3.7	U	3.9	U	3.7	U	3.9	U	na	
Anthracene	mg/kg	3.7	U	3.9	U	3.7	U	3.9	U	22,000	nc
Benzo(a)anthracene	mg/kg	3.7	UJ	3.9	UJ	3.7	UJ	3.9	UJ	62	c
Benzo(a)pyrene	mg/kg	N/A	R	N/A	R	N/A	R	N/A	R	6	c
Benzo(b)fluoranthene	mg/kg	3.7	UJ	3.9	UJ	3.7	UJ	3.9	UJ	62	c
Benzo(g,h,i)perylene	mg/kg	N/A	R	N/A	R	N/A	R	N/A	R	na	
Benzo(k)fluoranthene	mg/kg	3.7	UJ	3.9	UJ	3.7	UJ	3.9	UJ	620	c
Benzoic acid	mg/kg	18	UJ	20	UJ	19	UJ	19	UJ	100,000	max/nc
Benzyl alcohol	mg/kg	9.2	UJ	9.8	UJ	9.4	UJ	9.7	UJ	18,000	nc
bis(2-Chloroethoxy)methane	mg/kg	3.7	UJ	3.9	UJ	3.7	UJ	3.9	UJ	na	
bis(2-Chloroethyl)ether	mg/kg	3.7	UJ	3.9	U	3.7	U	3.9	U	22	c
bis(2-Chloroisopropyl)ether	mg/kg	3.7	U	3.9	U	3.7	U	3.9	U	290	c
bis(2-Ethylhexyl)phthalate	mg/kg	9.2	U	9.8	U	9.4	U	9.7	U	1,200	nc ²
4-Bromophenyl-phenylether	mg/kg	3.7	U	3.9	U	3.7	U	3.9	U	na	
Butylbenzylphthalate	mg/kg	9.2	U	9.8	U	9.4	U	9.7	U	12,000	nc
Carbazole	mg/kg	9.2	UJ	9.8	UJ	9.4	UJ	9.7	UJ	2,400	c
4-Chloro-3-methylphenol	mg/kg	9.2	UJ	9.8	U	9.4	UJ	9.7	U	na	
4-Chloroaniline	mg/kg	18	UJ	20	UJ	19	UJ	19	UJ	240	nc
2-Chloronaphthalene	mg/kg	3.7	U	3.9	U	3.7	U	3.9	U	4,900	nc
2-Chlorophenol	mg/kg	9.2	UJ	9.8	U	9.4	UJ	9.7	U	63	nc
4-Chlorophenyl-phenylether	mg/kg	3.7	U	3.9	U	3.7	U	3.9	U	na	

Table 7. Ash Sample Data Comparison to Risk-Based Screening Levels

Analyte	Units	201*		202**		203***		204****		Screening Level ¹	
Chrysene	mg/kg	3.7	U	3.9	U	3.7	U	3.9	U	6,200	c
Di-n-butylphthalate (Dibutylphthalate)	mg/kg	9.2	U	9.8	U	9.4	U	9.7	U	6,100	nc
Di-n-octylphthalate	mg/kg	9.2	U	9.8	U	9.4	U	9.7	U	2,400	nc
Dibenz(a,h)anthracene	mg/kg	N/A	R	N/A	R	N/A	R	N/A	R	6	c
Dibenzofuran	mg/kg	3.7	U	3.9	U	3.7	U	3.9	U	150	nc
1,2-Dichlorobenzene	mg/kg	3.7	U	3.9	U	3.7	U	3.9	U	600	sat/nc
1,3-Dichlorobenzene	mg/kg	3.7	U	3.9	U	3.7	U	3.9	U	530	nc
1,4-Dichlorobenzene	mg/kg	3.7	U	3.9	U	3.7	U	3.9	U	340	c
3,3'-Dichlorobenzidine	mg/kg	18	U	20	U	19	U	19	U	110	c
2,4-Dichlorophenol	mg/kg	9.2	UJ	9.8	UJ	9.4	UJ	9.7	UJ	180	nc
Diethylphthalate	mg/kg	3.7	U	3.9	U	3.7	U	3.9	U	49,000	nc
2,4-Dimethylphenol	mg/kg	9.2	UJ	9.8	U	9.4	UJ	9.7	U	1,200	nc
Dimethylphthalate	mg/kg	3.7	U	3.9	U	3.7	U	3.9	U	100,000	max/nc
4,6-Dinitro-2-methylphenol (4,6-Dinitro-o-cresol)	mg/kg	N/A	R	N/A	R	N/A	R	N/A	R	6	nc
2,4-Dinitrophenol	mg/kg	N/A	R	N/A	R	N/A	R	N/A	R	120	nc
2,4-Dinitrotoluene	mg/kg	3.7	U	3.9	U	3.7	U	3.9	U	72	c
2,6-Dinitrotoluene	mg/kg	3.7	U	3.9	U	3.7	U	3.9	U	61	nc ²
Fluoranthene	mg/kg	3.7	U	3.9	U	3.7	U	3.9	U	2,300	nc
Fluorene	mg/kg	3.7	U	3.9	U	3.7	U	3.9	U	2,700	nc
Hexachlorobenzene	mg/kg	3.7	U	3.9	U	3.7	U	3.9	U	30	c
Hexachlorobutadiene	mg/kg	3.7	U	3.9	U	3.7	U	3.9	U	18	nc ²
Hexachlorocyclopentadiene	mg/kg	3.7	U	3.9	U	3.7	U	3.9	U	370	nc
Hexachloroethane	mg/kg	3.7	U	3.9	U	3.7	U	3.9	U	61	nc ²
Indeno(1,2,3-cd)pyrene	mg/kg	N/A	R	N/A	R	N/A	R	N/A	R	62	c
Isophorone	mg/kg	3.7	U	3.9	U	3.7	U	3.9	U	12,000	nc ²
2-Methylnaphthalene	mg/kg	3.7	U	3.9	U	3.7	U	3.9	U	310	nc ³
2-Methylphenol	mg/kg	9.2	UJ	9.8	U	9.4	UJ	9.7	U	3,100	nc
4-Methylphenol	mg/kg	9.2	UJ	9.8	U	9.4	UJ	9.7	U	3,100	nc
Naphthalene	mg/kg	3.7	U	3.9	U	3.7	U	3.9	U	56	nc
2-Nitroaniline	mg/kg	9.2	U	9.8	U	9.4	U	9.7	U	180	nc
3-Nitroaniline	mg/kg	9.2	UJ	9.8	UJ	9.4	UJ	9.7	UJ	18	nc
4-Nitroaniline	mg/kg	18	UJ	20	UJ	19	UJ	19	UJ	180	nc ²
Nitrobenzene	mg/kg	3.7	U	3.9	U	3.7	U	3.9	U	20	nc
2-Nitrophenol	mg/kg	9.2	UJ	9.8	UJ	9.4	UJ	9.7	UJ	na	
4-Nitrophenol	mg/kg	18	UJ	20	UJ	19	UJ	19	UJ	na	
N-nitroso-di-n-propylamine	mg/kg	9.2	U	9.8	U	9.4	U	9.7	U	7	c
N-nitrosodiphenylamine	mg/kg	3.7	U	3.9	U	3.7	U	3.9	U	1,200	nc ²
Pentachlorophenol	mg/kg	N/A	R	N/A	R	N/A	R	N/A	R	300	c
Phenanthrene	mg/kg	3.7	U	3.9	U	3.7	U	3.9	U	na	
Phenol	mg/kg	3.7	UJ	3.9	U	3.7	UJ	3.9	U	18,000	nc
Pyrene	mg/kg	3.7	U	3.9	U	3.7	U	3.9	U	2,300	nc
1,2,4-Trichlorobenzene	mg/kg	3.7	U	3.9	U	3.7	U	3.9	U	62	nc
2,4,5-Trichlorophenol	mg/kg	9.2	UJ	9.8	UJ	9.4	UJ	9.7	UJ	6,100	nc
2,4,6-Trichlorophenol	mg/kg	9.2	UJ	9.8	U	9.4	UJ	9.7	U	6	nc ²
Acetone	mg/kg	34	U	33	U	73	U	35	U	14,000	nc
Benzene	mg/kg	5.0	U	5.0	U	15		16		33	nc ²
Bromodichloromethane	mg/kg	5.0	U	5.0	U	10	U	5.0	U	82	c
Bromoform	mg/kg	5.0	U	5.0	U	10	U	5.0	U	1,200	nc ²
Bromomethane	mg/kg	5.0	U	5.0	U	10	UJ	5.0	U	4	nc

Table 7. Ash Sample Data Comparison to Risk-Based Screening Levels

Analyte	Units	201*		202**		203***		204****		Screening Level ¹	
2-Butanone (Methyl Ethyl Ketone)	mg/kg	165	U	159	U	350	U	170	U	22,000	nc
Carbon Disulfide	mg/kg	5.0	U	5.0	U	10	U	5.0	U	360	nc
Carbon Tetrachloride	mg/kg	5.0	UJ	5.0	UJ	10	UJ	5.0	UJ	2	nc ²
Chlorobenzene	mg/kg	5.0	U	5.0	U	10	U	5.0	U	150	nc
Chloroethane	mg/kg	5.0	U	5.0	U	10	U	5.0	U	300	c
Chloroform	mg/kg	5.0	U	5.0	U	10	U	5.0	U	22	c
Chloromethane	mg/kg	5.0	U	5.0	U	10	U	5.0	U	47	nc
Dibromochloromethane	mg/kg	5.0	U	5.0	U	10	U	5.0	U	110	c
1,2-Dibromoethane	mg/kg	5.0	U	5.0	U	10	U	5.0	U	3	c
1,2-Dichlorobenzene	mg/kg	5.0	U	5.0	U	10	UJ	5.0	U	600	sat/nc
1,3-Dichlorobenzene	mg/kg	5.0	U	5.0	U	10	UJ	5.0	U	530	nc
1,4-Dichlorobenzene	mg/kg	5.0	U	5.0	U	10	UJ	5.0	U	340	c
1,1-Dichloroethane	mg/kg	5.0	U	5.0	U	10	U	5.0	U	510	nc
1,2-Dichloroethane	mg/kg	5.0	U	5.0	U	10	U	5.0	U	9	nc ²
1,1-Dichloroethene	mg/kg	5.0	U	5.0	U	10	U	5.0	U	120	nc
cis-1,2-Dichloroethene	mg/kg	5.0	U	5.0	U	10	U	5.0	U	na	nc
trans-1,2-Dichloroethene	mg/kg	5.0	U	5.0	U	10	U	5.0	U	na	nc
1,2-Dichloropropane	mg/kg	5.0	U	5.0	U	10	U	5.0	U	6	nc ²
cis-1,3-Dichloropropene	mg/kg	5.0	U	5.0	U	10	U	5.0	U	78	c
trans-1,3-Dichloropropene	mg/kg	5.0	U	5.0	U	10	U	5.0	U	78	c
Ethyl Benzene	mg/kg	5.0	U	5.0	U	10	U	5.0	U	400	sat/nc
2-Hexanone	mg/kg	5.0	U	5.0	U	10	U	5.0	U	na	
Methylene Chloride	mg/kg	5.0	U	5.0	U	10	U	5.0	U	910	c
4-Methyl-2-Pentanone (Methyl isobutyl ketone)	mg/kg	5.0	U	5.0	U	10	U	5.0	U	5,300	nc
Styrene	mg/kg	5.0	U	5.0	U	10	UJ	5.0	U	1,700	sat/nc
1,1,2,2-Tetrachloroethane	mg/kg	5.0	U	5.0	U	10	U	5.0	U	41	c
Tetrachloroethene	mg/kg	5.0	U	5.0	U	10	U	5.0	U	38	nc ²
Toluene	mg/kg	5.0	U	5.0	U	10	U	16		520	sat/nc
1,1,1-Trichloroethane	mg/kg	5.0	U	5.0	U	10	U	5.0	U	1,200	sat/nc
1,1,2-Trichloroethane	mg/kg	5.0	U	5.0	U	10	U	5.0	U	36	nc ²
Trichloroethene	mg/kg	5.0	U	5.0	U	10	U	5.0	U	5	c
Vinyl Chloride	mg/kg	5.0	U	5.0	U	10	U	5.0	U	8	c
m and/or p-Xylene	mg/kg	5.0	U	5.0	U	10	UJ	5.0	U	270	nc
o-Xylene	mg/kg	5.0	U	5.0	U	10	UJ	5.0	U	270	nc

nc: Screening level based on non-cancer endpoint (HI = 1).

c: Screening level based on cancer endpoint (Target cancer risk = 1E-04).

na: Screening level not available due to lack of toxicity data.

sat: Soil Saturation Limit max: Ceiling Limit

U: The analyte was not detected above the reporting limit.

UJ: The analyte was not detected above the estimated reporting limit.

R: The presence or absence of the analyte cannot be determined and the data are rejected.

1: Screening levels derived from USEPA Region 9 PRGs for surface soil.

2: Screening level based on non-cancer endpoint is lower than screening level based on cancer endpoint.

3: Screening level derived from USEPA Region 3 Risk-Based Concentrations for surface soil.

4: See 2,3,7,8-Dioxin Total Equivalents.

* 201 - Sample Collected at 8th & Troost

**202 - Sample Collected at Troost & Admiral

***203 - Sample Collected at Missouri & Harrison

****204 - Sample Collected at Forest & Missouri

See Attachment 5 for analytical data

Table 8. School Indoor and Outdoor Air Sampling Results

Location	VOCs ppm*	Particulates µg/m ³ **	CO ppm	Asbestos s/cc***
Woodland Elementary 711 Woodland Avenue, Kansas City, Missouri				
Front Entrance Outside	ND	8.8	ND	< 0.0046 (ND) Sample was taken on the south side of school at the rooftop
Front Entrance Inside	ND	1	ND	
1st Floor NE Corner	ND	ND	ND	
1st Floor SE Corner	ND	ND	ND	
1st Floor NW	ND	ND	ND	
1st Floor SW	ND	ND	ND	
Scarritt Elementary 3509 Anderson Avenue, Kansas City, Missouri				
Front Entrance Outside	ND	4.2	ND	< 0.0045 (ND) Sample was taken in the schoolyard by the entrance
Front Entrance Inside	ND	10	ND	
1st Floor SE Corner	ND	0.9	ND	
1st Floor NW Corner	ND	ND	ND	
2nd Floor NW	ND	ND	ND	
2nd Floor NE	ND	ND	ND	
Gladstone Elementary 335 North Elmwood Avenue, Kansas City, Missouri				
Front Entrance Outside	ND	3.5	ND	< 0.0043 (ND) Sample was taken in the front(west entrance)
Front Entrance Inside	ND	ND	ND	
1st Floor NW Corner	ND	ND	ND	
1st Floor SW	ND	ND	ND	
Basement Center	ND	ND	ND	
Office	ND	ND	ND	
James Elementary 5810 Scarritt Avenue, Kansas City, Missouri				
Outside Door	ND	2	ND	< 0.0049 (ND) Sample was taken at the north entrance
Inside Door	ND	11.9	ND	
Ground Floor NW	ND	ND	ND	
Ground Floor SW	ND	4.6	ND	
2nd Floor SW	ND	ND	ND	
2nd Floor NW	ND	ND	ND	
Garfield Elementary 436 Prospect Avenue, Kansas City, Missouri				
Outside Entrance Door	ND	2.3	ND	< 0.0028 (ND) Sample was taken at the front entrance
Inside Entrance Door	ND	ND	ND	
Ground NW Corner	ND	ND	ND	
Gym	ND	ND	ND	
2nd Floor NE	ND	ND	ND	
Whittier Elementary 1012 Bales Avenue, Kansas City, Missouri				
Outside Rear Door	ND	41	ND	< 0.0049 (ND) Sample was taken at the north entrance
Inside Rear Door	ND	1	ND	
1st Floor NW	ND	ND	ND	
1st Floor West	ND	ND	ND	
1st Floor SW	ND	ND	ND	
Gymn	ND	ND	ND	
NE Corner	ND	ND	ND	
Basement	ND	ND	ND	

ND: The constituents were not detected.

* ppm = Parts per million

** µg/m³ = micrograms per cubic meter *** s/cc = structures per cubic centimeter

See Attachment 6 for analytical data

Table 9. Comparison of Wipe Sample Results Risk-Based Screening Levels

Analytes	Woodland (µg/100cm ²)	Scarritt (µg/100cm ²)	Gladstone (µg/100cm ²)	James (µg/100cm ²)	Garfield (µg/100cm ²)	Whittier (µg/100cm ²)	Screening Level (µg/100cm ²)
Arsenic	nd	nd	nd	nd	nd	nd	3.9 nc ¹
Barium	5.2	7.8	6.2	7.0	3.8	11.4	1098 nc ¹
Cadmium	nd	nd	nd	nd	nd	nd	15.6 nc ¹
Chromium	nd	0.79	0.62	0.93	nd	1.7	47.0 nc ¹
Lead	1.5	8.2	1.7	2.1	1.9	5.7	2.7 ¹
Selenium	nd	nd	nd	nd	nd	nd	78.4 nc ¹
Silver	nd	nd	nd	nd	nd	nd	78.4 nc ¹
Mercury	nd	nd	nd	nd	nd	0.029	1.6 nc ¹
Acenaphthene	nd	nd	nd	nd	nd	nd	na
Acenaphthylene	nd	nd	nd	nd	nd	nd	na
Anthracene	nd	nd	nd	nd	nd	nd	1500 nc ²
Benzo(a)anthracene	nd	0.30	nd	nd	nd	0.12	14.5 c ¹
Benzo(a)pyrene	nd	0.39	nd	nd	nd	0.13	1.5 c ¹
Benzo(b)fluoranthene	0.13	0.74	nd	0.14	nd	0.34	14.5 c ¹
Benzo(g,h,i)perylene	nd	0.35	nd	nd	nd	nd	na
Benzo(k)fluoranthene	nd	nd	nd	nd	nd	nd	145 c ¹
Chrysene	nd	0.52	nd	nd	nd	0.20	1450 c ¹
Dibenz(a,h)anthracene	nd	0.12	nd	nd	nd	nd	1.5 c ¹
Fluoranthene	0.18	0.99	0.14	0.17	nd	0.87	200 nc ²
Fluorene	nd	nd	nd	nd	nd	nd	200 nc ²
Indeno(1,2,3-cd)pyrene	nd	0.34	nd	nd	nd	nd	14.5 c ¹
Naphthalene	0.40	0.40	0.38	0.43	0.37	0.12	100 nc ²
Phenanthrene	0.24	0.63	0.16	0.18	nd	0.98	na
Pyrene	0.16	0.75	0.10	0.12	nd	0.69	150 nc ²

nd: The constituent was not detected.

na: Screening level not available due to lack of toxicity data.

nc: Screening level based on non-cancer endpoint set at a hazard quotient of 1.

c: Screening level based on cancer endpoint set at a 10⁻⁴ excess cancer risk level.

1: Values obtained from Table A-3 in USEPA (2003).

2: Screening levels were derived using the general equations obtained from USEPA (2003). The health-based benchmarks assume ingestion of settled dust via hand-to-mouth transfer. Note the cancer screening level was age-adjusted to account for a child and adult exposure. The non-cancer screening level accounted for an exposure to a child 0-6 years of age.

See Attachment 7 for analytical data.

School	Address	Sample Location
Woodland Elementary	711 Woodland Avenue, KC, MO	Playground slide
Scarritt Elementary	3509 Anderson Avenue, KC, MO	Metal handrail
Gladstone Elementary	335 N. Elmwood Avenue, KC, MO	Playground equipment
James Elementary	5810 Scarritt Avenue, KC, MO	Playground equipment
Garfield Elementary	436 Prospect Avenue, KC, MO	School flagpole
Whittier Elementary	1012 Bales Avenue, KC, MO	Playground equipment