Appendix A

Air and Wipe Sample Results

Table 1: Analytical Air Sample Results

Performance Validation Study – Phase I – Ashland, Virginia – February 24-28, 2003								
Type	Media	Device	Location	Flow Rate (lpm)	Sample time (min)	Volume (liters)	Result (mg/m^3)	Sample #
Background	Hydrar	All	E. bay by center bay door	0.209	278	58.24	0.0047	3705-B-225-04
Background	MCEF	All	E. bay by center bay door	0.209	278	58.24	<0.00017	3705-B-225-03
Background	Hydrar	All	Middle of E. bay	0.212	278	58.94	0.0039	3705-B-225-02
Background	MCEF	All	Middle of E. bay	0.212	278	58.94	<0.00017	3705-B-225-01
Personal	Hydrar	Manufacturer A	Device operation	0.1535	112	17.19	0.012	3705-RA-227-22
Personal	MCEF	Manufacturer A	Device operation	0.1535	112	17.19	<0.00058	3705-RA-227-21
Personal	Hydrar	Manufacturer A	Device operation	0.154	112	17.25	0.011	3705-RA-227-24
Personal	MCEF	Manufacturer A	Device operation	0.154	112	17.25	<0.00058	3705-RA-227-23
Personal	Hydrar	Manufacturer A	Drum change	0.2525	12	3.03	0.02	3705-RA-227-34
Personal	MCEF	Manufacturer A	Drum change	0.2525	12	3.03	<0.0033	3705-RA-227-33
Area	Hydrar	Manufacturer A	By device exhaust	0.1515	112	16.97	0.0028	3705-RA-227-30
Area	MCEF	Manufacturer A	By device exhaust	0.1515	112	16.97	<0.00059	3705-RA-227-29
Area	Hydrar	Manufacturer A	By device exhaust	0.1535	112	17.19	0.011	3705-RA-227-32
Area	MCEF	Manufacturer A	By device exhaust	0.1535	112	17.19	<0.00058	3705-RA-227-31
Area	Hydrar	Manufacturer A	By device feed tube	0.1515	112	16.97	0.013	3705-RA-227-26
Area	MCEF	Manufacturer A	By device feed tube	0.1515	112	16.97	<0.00059	3705-RA-227-25
Area	Hydrar	Manufacturer A	By device feed tube	0.1545	112	17.3	0.011	3705-RA-227-28
Area	MCEF	Manufacturer A	By device feed tube	0.1545	112	17.3	<0.00058	3705-RA-227-27
Personal	Hydrar	Manufacturer B	Device operation	0.153	86	13.16	0.012	3705-DA-228-50
Personal	MCEF	Manufacturer B	Device operation	0.153	86	13.16	<0.00076	3705-DA-228-49
Personal	Hydrar	Manufacturer B	Device operation	0.151	86	12.99	0.013	3705-DA-228-52
Personal	MCEF	Manufacturer B	Device operation	0.151	86	12.99	<0.00077	3705-DA-228-51
Personal	Hydrar	Manufacturer B	Drum change	0.253	13	3.29	0.025	3705-DA-228-62
Personal	MCEF	Manufacturer B	Drum change	0.253	13	3.29	<0.0030	3705-DA-228-61

Performance Validation Study – Phase I – Ashland, Virginia – February 24-28, 2003								
Type	Media	Device	Location	Flow Rate (lpm)	Sample time (min)	Volume (liters)	Result (mg/m^3)	Sample #
Area	Hydrar	Manufacturer B	By device exhaust	0.1535	86	13.2	0.012	3705-DA-228-58
Area	MCEF	Manufacturer B	By device exhaust	0.1535	86	13.2	<0.00076	3705-DA-228-57
Area	Hydrar	Manufacturer B	By device exhaust	0.1515	86	13.03	0.012	3705-DA-228-60
Area	MCEF	Manufacturer B	By device exhaust	0.1515	86	13.03	<0.00077	3705-DA-228-59
Area	Hydrar	Manufacturer B	By device feed tube	0.145	86	12.47	0.0039	3705-DA-228-54
Area	MCEF	Manufacturer B	By device feed tube	0.145	86	12.47	<0.00080	3705-DA-228-53
Area	Hydrar	Manufacturer B	By device feed tube	0.1515	86	13.03	0.012	3705-DA-228-56
Area	MCEF	Manufacturer B	By device feed tube	0.1515	86	13.03	<0.00077	3705-DA-228-55
Personal	Hydrar	Manufacturer C	Device operation	0.153	100	15.3	0.012	3705-AA-226-06
Personal	MCEF	Manufacturer C	Device operation	0.153	100	15.3	<0.00065	3705-AA-226-05
Personal	Hydrar	Manufacturer C	Device operation	0.1505	100	15.05	0.015	3705-AA-226-08
Personal	MCEF	Manufacturer C	Device operation	0.1505	100	15.05	<0.00066	3705-AA-226-07
Personal	Hydrar	Manufacturer C	Drum change	0.2545	18	4.58	0.019	3705-AA-226-20
Personal	MCEF	Manufacturer C	Drum change	0.2545	18	4.58	<0.0022	3705-AA-226-19
Personal	Hydrar	Manufacturer C	Filter change	0.2555	12	3.07	0.019	3705-AA-226-18
Personal	MCEF	Manufacturer C	Filter change	0.2555	12	3.07	<0.00033	3705-AA-226-17
Area	Hydrar	Manufacturer C	By device exhaust	0.1209	100	12.09	0.0055	3705-AA-226-10
Area	MCEF	Manufacturer C	By device exhaust	0.1209	100	12.09	<0.00083	3705-AA-226-09
Area	Hydrar	Manufacturer C	By device exhaust	0.15	100	15	0.01	3705-AA-226-12
Area	MCEF	Manufacturer C	By device exhaust	0.15	100	15	<0.00067	3705-AA-226-11
Area	Hydrar	Manufacturer C	By device feed tube	0.125	100	12.56	0.0095	3705-AA-226-14
Area	MCEF	Manufacturer C	By device feed tube	0.125	100	12.56	<0.00080	3705-AA-226-13
Area	Hydrar	Manufacturer C	By device feed tube	0.158	100	15.8	0.013	3705-AA-226-16
Area	MCEF	Manufacturer C	By device feed tube	0.158	100	15.8	<0.00063	3705-AA-226-15
Personal	Hydrar	Manufacturer D	Device operation	0.153	55	8.42	0.04	3705-HA-227-36
Personal	MCEF	Manufacturer D	Device operation	0.153	55	8.42	<0.0012	3705-HA-227-35

Performance Validation Study – Phase I – Ashland, Virginia – February 24-28, 2003								
Type	Media	Device	Location	Flow Rate (lpm)	Sample time (min)	Volume (liters)	Result (mg/m^3)	Sample #
Personal	Hydrar	Manufacturer D	Device operation	0.156	55	8.58	0.13	3705-HA-227-38
Personal	MCEF	Manufacturer D	Device operation	0.156	55	8.58	<0.0012	3705-HA-227-37
Personal	Hydrar	Manufacturer D	Drum change	0.154	6	0.924	0.19	3705-HA-227-48
Personal	MCEF	Manufacturer D	Drum change	0.154	6	0.924	<0.011	3705-HA-227-47
Area	Hydrar	Manufacturer D	By device exhaust	0.1505	55	8.28	0.33	370-5-HA-227-44
Area	MCEF	Manufacturer D	By device exhaust	0.1505	55	8.28	<0.0012	3705-HA-227-43
Area	Hydrar	Manufacturer D	By device exhaust	0.253	55	13.92	0.36	3705-HA-227-46
Area	MCEF	Manufacturer D	By device exhaust	0.253	55	13.92	<0.00072	3705-HA-227-45
Area	Hydrar	Manufacturer D	By device feed tube	0.1515	55	8.33	0.58	3705-HA-227-40
Area	MCEF	Manufacturer D	By device feed tube	0.1515	55	8.33	<0.0013	3705-HA-227-39
Area	Hydrar	Manufacturer D	By device feed tube	0.155	53	8.23	0.64	3705-HA-227-42
Area	MCEF	Manufacturer D	By device feed tube	0.155	53	8.23	<0.0012	3705-HA-227-41

Performance Validation Study – Phase II – Ashland, Virginia – June 9-13, 2003								
Type	Media	Device	Location	Flow Rate (lpm)	Sample time (min)	Volume (liters)	Result (mg/m^3)	Sample #
Personal	Hydrar	Manufacturer A	Device operation (RS)	0.195	64	12.5	0.012	3705-RA-610-33
Personal	MCEF	Manufacturer A	Device operation (RS)	0.195	64	12.5	<0.00080	3705-RA-610-34
Personal	Hydrar	Manufacturer A	Device operation (LS)	0.196	64	12.5	0.013	3705-RA-610-35
Personal	MCEF	Manufacturer A	Device operation (LS)	0.196	64	12.5	<0.00080	3705-RA-610-36
Personal	Hydrar	Manufacturer A	Drum change	0.261	12	3.1	0.031	3705-RA-610-45
Personal	MCEF	Manufacturer A	Drum change	0.261	12	3.1	<0.0032	3705-RA-610-46
Personal	Hydrar	Manufacturer A	Ceiling #1	0.247	4	1	0.067	3705-RA-610-51
Personal	MCEF	Manufacturer A	Ceiling #1	0.247	4	1	<0.010	3705-RA-610-52

Performance Validation Study – Phase II – Ashland, Virginia – June 9-13, 2003								
Type	Media	Device	Location	Flow Rate (lpm)	Sample time (min)	Volume (liters)	Result (mg/m^3)	Sample #
Personal	Hydrar	Manufacturer A	Ceiling #2	0.247	4	1	0.042	3705-RA-610-53
Personal	MCEF	Manufacturer A	Ceiling #2	0.247	4	1	<0.010	3705-RA-610-54
Area	Hydrar	Manufacturer A	By device exhaust	0.197	58	11.4	0.015	3705-RA-610-37
Area	MCEF	Manufacturer A	By device exhaust	0.197	58	11.4	<0.00088	3705-RA-610-38
Area	Hydrar	Manufacturer A	By device exhaust	0.198	58	11.5	0.014	3705-RA-610-39
Area	MCEF	Manufacturer A	By device exhaust	0.198	58	11.5	<0.00087	3705-RA0610-40
Area	Hydrar	Manufacturer A	By device feed tube	0.2	58	11.6	0.015	3705-RA-610-41
Area	MCEF	Manufacturer A	By device feed tube	0.2	58	11.6	<0.00086	3705-RA-610-42
Area	Hydrar	Manufacturer A	By device feed tube	0.186	58	10.8	0.013	3705-RA-610-43
Area	MCEF	Manufacturer A	By device feed tube	0.186	58	10.8	<0.00093	3705-RA-610-44
Personal	Hydrar	Manufacturer B	Device operation (RS)	0.2	34	6.8	0.034	3705-DA-611-91
Personal	MCEF	Manufacturer B	Device operation (RS)	0.2	34	6.8	<0.0015	3705-DA-611-92
Personal	Hydrar	Manufacturer B	Device operation (LS)	0.2	34	6.8	0.034	3705-DA-611-93
Personal	MCEF	Manufacturer B	Device operation (LS)	0.2	34	6.8	<0.0015	3705-DA-611-94
Personal	Hydrar	Manufacturer B	Drum change	0.257	12	3.1	0.074	3705-DA-611-103
Personal	MCEF	Manufacturer B	Drum change	0.257	12	3.1	<0.0032	3705-DA-611-104
Personal	Hydrar	Manufacturer B	Ceiling #1	0.26	4	1	0.094	3705-DA-611-105
Personal	MCEF	Manufacturer B	Ceiling #1	0.26	4	1	<0.010	3705-DA-611-106
Personal	Hydrar	Manufacturer B	Ceiling #2	0.26	4	1	0.11	3705-DA-611-107
Personal	MCEF	Manufacturer B	Ceiling #2	0.26	4	1	<0.010	3705-DA-611-108
Area	Hydrar	Manufacturer B	By device exhaust	0.212	34	7.2	0.026	3705-DA-611-95
Area	MCEF	Manufacturer B	By device exhaust	0.212	34	7.2	<0.0014	3705-DA-611-96
Area	Hydrar	Manufacturer B	By device exhaust	0.198	34	6.7	0.034	3705-DA-611-97
Area	MCEF	Manufacturer B	By device exhaust	0.198	34	6.7	<0.0015	3705-DA-611-98
Area	Hydrar	Manufacturer B	By device feed tube	0.202	34	6.9	0.033	3705-DA-611-99
Area	MCEF	Manufacturer B	By device feed tube	0.202	34	6.9	<0.0014	3705-DA-611-100

Performance Validation Study – Phase II – Ashland, Virginia – June 9-13, 2003								
Type	Media	Device	Location	Flow Rate (lpm)	Sample time (min)	Volume (liters)	Result (mg/m^3)	Sample #
Area	Hydrar	Manufacturer B	By device feed tube	0.2	34	6.8	0.034	3705-DA-611-101
Area	MCEF	Manufacturer B	By device feed tube	0.2	34	6.8	<0.0015	3705-DA-611-102
Personal	Hydrar	Manufacturer C	Device operation (LS)	0.203	37	7.5	0.039	3705-AA-612-147
Personal	MCEF	Manufacturer C	Device operation (LS)	0.203	37	7.5	<0.0013	3705-AA-612-148
Personal	Hydrar	Manufacturer C	Device operation (RS)	0.199	37	7.4	0.018	3705-AA-612-145
Personal	MCEF	Manufacturer C	Device operation (RS)	0.199	37	7.4	<0.0013	3507-AA-612-146
Personal	Hydrar	Manufacturer C	Filter change	0.255	12	3.1	0.039	3705-AA-612-157
Personal	MCEF	Manufacturer C	Filter change	0.255	12	3.1	<0.0032	3705-AA-612-158
Personal	Hydrar	Manufacturer C	Drum change	0.255	14	3.6	0.072	3705-AA-612-159
Personal	MCEF	Manufacturer C	Drum change	0.255	14	3.6	<0.0028	3705-AA-612-160
Personal	Hydrar	Manufacturer C	Ceiling #1	0.254	4	1	0.1	3705-AA-612-161
Personal	MCEF	Manufacturer C	Ceiling #1	0.254	4	1	<0.010	3705-AA-612-162
Personal	Hydrar	Manufacturer C	Ceiling #2	0.254	4	1	0.21	3705-AA-612-163
Personal	MCEF	Manufacturer C	Ceiling #2	0.254	4	1	<0.010	3705-AA-612-164
Area	Hydrar	Manufacturer C	By device exhaust	0.2	37	7.4	0.039	3705-AA-612-149
Area	MCEF	Manufacturer C	By device exhaust	0.2	37	7.4	<0.0013	3705-AA-612-150
Area	Hydrar	Manufacturer C	By device exhaust	0.206	37	7.6	0.042	3705-AA-612-151
Area	MCEF	Manufacturer C	By device exhaust	0.206	37	7.6	<0.0013	3705-AA-612-152
Area	Hydrar	Manufacturer C	By device feed tube	0.209	37	7.7	0.042	3705-AA-612-153
Area	MCEF	Manufacturer C	By device feed tube	0.209	37	7.7	<0.0013	3705-AA-612-154
Area	Hydrar	Manufacturer C	By device feed tube	0.203	37	7.5	0.039	3705-AA-612-155
Area	MCEF	Manufacturer C	By device feed tube	0.203	37	7.5	<0.0013	3705-AA-612-156

Extended Field Test #1 – Phoenix, Arizona – March 24-28, 2003								
Type	Media	Device	Location	Flow Rate (lpm)	Sample time (min)	Volume (liters)	Result (mg/m^3)	Sample #
Background	Hydrar	All	E. of containment in warehouse	0.1365	205	27.98	0.0059	3705-B-324-03
Background	MCEF	All	E. of containment in warehouse	0.1365	205	27.98	<0.00036	3705-B-324-04
Background	Hydrar	All	N. of containment in warehouse	0.155	205	31.78	0.014	3705-B-324-01
Background	MCEF	All	N. of containment in warehouse	0.155	205	31.78	<0.00031	3705-B-324-02
Personal	Hydrar	Manufacturer A	Device operation - 2 drums	0.1635	162	26.49	0.074	3705-RA-324-05
Personal	MCEF	Manufacturer A	Device operation - 2 drums	0.1635	162	26.49	0.00053	3705-RA-324-06
Personal	Hydrar	Manufacturer A	Device operation - 2 drums	0.1505	162	24.38	0.043	3705-RA-324-07
Personal	MCEF	Manufacturer A	Device operation - 2 drums	0.1505	162	24.38	<0.00041	3705-RA-324-08
Personal	Hydrar	Manufacturer A	2nd drum change	0.257	22	5.65	0.075	3705-RA-324-13
Personal	MCEF	Manufacturer A	2nd drum change	0.257	22	5.65	<0.0018	3705-RA-324-14
Area	Hydrar	Manufacturer A	By device exhaust	0.156	162	25.27	0.045	3705-RA-324-09
Area	MCEF	Manufacturer A	By device exhaust	0.156	162	25.27	<0.00040	3705-RA-324-10
Area	Hydrar	Manufacturer A	By device feed tube	0.1765	162	28.59	0.11	3705-RA-324-11
Area	MCEF	Manufacturer A	By device feed tube	0.1765	162	28.59	0.0022	3705-RA-324-12
Overnight	Hydrar	Manufacturer A	By device exhaust	0.163	418	68.13	0.086	3705-RA-324-15
Overnight	MCEF	Manufacturer A	By device exhaust	0.163	418	68.13	<0.00015	3705-RA-324-16
Overnight	Hydrar	Manufacturer A	By device feed tube	0.1515	438	66.36	0.021	3705-RA-324-17
Overnight	MCEF	Manufacturer A	By device feed tube	0.1515	438	66.36	<0.00015	3705-RA-324-18
Personal	Hydrar	Manufacturer B	Device operation - 2 drums	0.23	125	28.75	0.084	3705-DA-325-19
Personal	MCEF	Manufacturer B	Device operation - 2 drums	0.23	125	28.75	0.00059	3705-DA-325-20
Personal	Hydrar	Manufacturer B	Device operation - 2 drums	0.1355	125	16.94	0.016	3705-DA-325-21
Personal	MCEF	Manufacturer B	Device operation - 2 drums	0.1355	125	16.94	<0.00059	3705-DA-325-22
Personal	Hydrar	Manufacturer B	1st drum change	0.2115	12	2.54	0.13	3705-DA-325-27
Personal	MCEF	Manufacturer B	1st drum change	0.2115	12	2.54	<0.0039	3705-DA-325-28
Personal	Hydrar	Manufacturer B	2nd drum change	0.2275	13	2.96	0.078	3705-DA-325-33
Personal	MCEF	Manufacturer B	2nd drum change	0.2275	13	2.96	<0.0034	3705-DA-325-34

Extended Field Test #1 – Phoenix, Arizona – March 24-28, 2003								
Type	Media	Device	Location	Flow Rate (lpm)	Sample time (min)	Volume (liters)	Result (mg/m^3)	Sample #
Area	Hydrar	Manufacturer B	By device exhaust	0.136	125	17	0.035	3705-DA-325-23
Area	MCEF	Manufacturer B	By device exhaust	0.136	125	17	<0.00059	3705-DA-325-24
Area	Hydrar	Manufacturer B	By device feed tube	0.1995	125	24.94	0.07	3705-DA-325-25
Area	MCEF	Manufacturer B	By device feed tube	0.1995	125	24.94	<0.00040	3705-DA-325-26
Overnight	Hydrar	Manufacturer B	By device exhaust	0.1218	516	62.85	0.027	3705-DA-325-29
Overnight	MCEF	Manufacturer B	By device exhaust	0.1218	516	62.85	<0.00016	3705-DA-325-30
Overnight	Hydrar	Manufacturer B	By device feed tube	0.1345	516	69.4	0.026	3705-DA-325-31
Overnight	MCEF	Manufacturer B	By device feed tube	0.1345	516	69.4	<0.00014	3705-DA-325-32
Personal	Hydrar	Manufacturer C	Device operation - 2 drums	0.1515	196	29.69	0.03	3705-AA-327-43
Personal	MCEF	Manufacturer C	Device operation - 2 drums	0.1515	196	29.69	<0.00034	3705-AA-327-44
Personal	Hydrar	Manufacturer C	Device operation - 2 drums	0.162	196	31.75	0.074	3705-AA-327-45
Personal	MCEF	Manufacturer C	Device operation - 2 drums	0.162	196	31.75	<0.00031	3705-AA-327-46
Personal	Hydrar	Manufacturer C	1st filter change	0.2455	22	5.4	0.076	3705-AA-327-51
Personal	MCEF	Manufacturer C	1st filter change	0.2455	22	5.4	<0.0018	3705-AA-327-52
Personal	Hydrar	Manufacturer C	1st drum change	0.2425	14	3.4	0.16	3705-AA-327-53
Personal	MCEF	Manufacturer C	1st drum change	0.2425	14	3.4	<0.0029	3705-AA-327-54
Personal	Hydrar	Manufacturer C	3rd filter change	0.2545	12	3.05	0.021	3705-AA-327-59
Personal	MCEF	Manufacturer C	3rd filter change	0.2454	12	3.05	<0.0033	3705-AA-327-60
Area	Hydrar	Manufacturer C	By device exhaust	0.149	196	29.2	0.014	3705-AA-327-47
Area	MCEF	Manufacturer C	By device exhaust	0.149	196	29.2	<0.00034	3705-AA-327-48
Area	Hydrar	Manufacturer C	By device feed tube	0.1395	196	27.34	0.071	3705-AA-327-49
Area	MCEF	Manufacturer C	By device feed tube	0.1395	196	27.34	<0.00037	3705-AA-327-50
Overnight	Hydrar	Manufacturer C	By device exhaust	0.1	776	77.6	0.0095	3705-AA-327-55
Overnight	MCEF	Manufacturer C	By device exhaust	0.1	776	77.6	<0.00013	3705-AA-327-56
Overnight	Hydrar	Manufacturer C	By device feed tube	0.1012	776	78.53	0.014	3705-AA-327-57
Overnight	MCEF	Manufacturer C	By device feed tube	0.1012	776	78.53	<0.00013	3705-AA-327-58

Extended Field Test #1 – Phoenix, Arizona – March 24-28, 2003								
Type	Media	Device	Location	Flow Rate (lpm)	Sample time (min)	Volume (liters)	Result (mg/m^3)	Sample #
Personal	Hydrar	Manufacturer D	Device operation - 2 drums	0.189	21	3.97	0.13	3705-HA-326-35
Personal	MCEF	Manufacturer D	Device operation - 2 drums	0.189	21	3.97	<0.0025	3705-HA-326-36
Personal	Hydrar	Manufacturer D	Device operation - 2 drums	0.1485	21	3.12	0.11	3705-HA-326-37
Personal	MCEF	Manufacturer D	Device operation - 2 drums	0.1485	21	3.12	<0.0032	3705-HA-326-38
Area	Hydrar	Manufacturer D	By device exhaust	0.1555	186	28.92	0.065	3705-HA-326-39
Area	MCEF	Manufacturer D	By device exhaust	0.1555	186	28.92	<0.00035	3705-HA-326-40
Area	Hydrar	Manufacturer D	By device feed tube	0.1605	186	29.85	0.022	3705-HA-326-41
Area	MCEF	Manufacturer D	By device feed tube	0.1605	186	29.85	<0.00034	3705-HA-326-42

Extended Field Test #2 – Melbourne, Florida – April 28 - May 2, 2003								
Type	Media	Device	Location	Flow Rate (lpm)	Sample time (min)	Volume (liters)	Result (mg/m^3)	Sample #
Background	Hydrar	All	18 ft N. of dock door	0.2175	298	64.8	0.012	3705-B-429-03
Background	MCEF	All	18 ft N. of dock door	0.2175	298	64.8	<0.00015	3705-B-429-04
Background	Hydrar	All	24 ft. E. of dock door	0.20525	298	61.16	0.016	3705-B-429-01
Background	MCEF	All	24 ft. E. of dock door	0.20525	298	61.16	<0.00016	3705-B-429-02
Personal	Hydrar	Manufacturer A	Device operation (LS) - 2 drums	0.154	142	21.87	0.018	3705-RA-51-61
Personal	MCEF	Manufacturer A	Device operation (LS) - 2 drums	0.154	142	21.87	<0.00046	3705-RA-51-62
Personal	Hydrar	Manufacturer A	Device operation (RS) - 1st drum	0.1515	79	11.97	0.026	3705-RA-51-65
Personal	MCEF	Manufacturer A	Device operation (RS) - 1st drum	0.1515	79	11.97	<0.00083	3705-RA-51-66
Personal	Hydrar	Manufacturer A	Device operation (LS) - 1st drum	0.1495	79	11.81	0.024	3705-RA-51-63
Personal	MCEF	Manufacturer A	Device operation (LS) - 1st drum	0.1495	79	11.81	<0.00085	3705-RA-51-64
Personal	Hydrar	Manufacturer A	Device operation (RS) - 2nd drum	0.15	63	9.45	0.016	3705-RA-51-81
Personal	MCEF	Manufacturer A	Device operation (RS) - 2nd drum	0.15	63	9.45	<0.0011	3705-RA-51-82

Extended Field Test #2 – Melbourne, Florida – April 28 - May 2, 2003								
Type	Media	Device	Location	Flow Rate (lpm)	Sample time (min)	Volume (liters)	Result (mg/m^3)	Sample #
Personal	Hydrar	Manufacturer A	Device operation (LS) - 2nd drum	0.148	63	9.32	0.017	3705-RA-51-79
Personal	MCEF	Manufacturer A	Device operation (LS) - 2nd drum	0.148	63	9.32	<0.0011	3705-RA-51-80
Personal	Hydrar	Manufacturer A	1st drum change	0.256	12	3.07	0.075	3705-RA-51-71
Personal	MCEF	Manufacturer A	1st drum change	0.256	12	3.07	<0.0033	3705-RA-51-72
Personal	Hydrar	Manufacturer A	2nd drum change	0.2485	12	2.98	0.081	3705-RA-52-43
Personal	MCEF	Manufacturer A	2nd drum change	0.2485	12	2.98	<0.0034	3705-RA-52-44
Personal	Hydrar	Manufacturer A	Ceiling #1 - 1st drum change	0.253	4	1.01	0.17	3705-RA-51-75
Personal	MCEF	Manufacturer A	Ceiling #1 - 1st drum change	0.253	4	1.01	<0.0099	3705-RA-51-76
Personal	Hydrar	Manufacturer A	Ceiling #2 - 1st drum change	0.253	4	1.01	0.11	3705-RA-51-77
Personal	MCEF	Manufacturer A	Ceiling #2 - 1st drum change	0.253	4	1.01	<0.0099	3705-RA-51-78
Area	Hydrar	Manufacturer A	By device exhaust	0.1565	142	22.22	0.018	3705-RA-51-67
Area	MCEF	Manufacturer A	By device exhaust	0.1565	142	22.22	<0.00045	3705-RA-51-68
Area	Hydrar	Manufacturer A	By device feed tube	0.1555	142	22.08	0.0063	3705-RA-51-69
Area	MCEF	Manufacturer A	By device feed tube	0.1555	142	22.08	<0.00045	3705-RA-51-70
Overnight	Hydrar	Manufacturer A	By device exhaust	0.154	874	134.6	0.013	3705-RA-51-83
Overnight	MCEF	Manufacturer A	By device exhaust	0.154	874	134.6	<0.00007	3705-RA-51-84
Overnight	Hydrar	Manufacturer A	By device feed tube	0.154	874	134.6	0.013	3705-RA-51-85
Overnight	MCEF	Manufacturer A	By device feed tube	0.154	874	134.6	<0.00007	3705-RA-51-86
Overnight	Hydrar	Manufacturer A	Outside containment	0.1575	874	137.66	0.017	3705-RA-51-87
Overnight	MCEF	Manufacturer A	Outside containment	0.1575	874	137.66	<0.00007	3705-RA-51-88
Personal	Hydrar	Manufacturer B	Device operation (RS) - 2 drums [1]	0.15833	163	25.81	0.14	3705-DA-429-05
Personal	MCEF	Manufacturer B	Device operation (RS) - 2 drums [1]	0.15833	163	25.81	0.00066	3705-DA-429-06
Personal	Hydrar	Manufacturer B	Device operation (LS) - 2 drums [1]	0.14867	163	24.23	0.12	3705-DA-429-07
Personal	MCEF	Manufacturer B	Device operation (LS) - 2 drums [1]	0.14867	163	24.23	<0.00041	3705-DA-429-08
Personal	Hydrar	Manufacturer B	1st drum change [1]	0.2535	12	3.04	0.015	3705-DA-429-13
Personal	MCEF	Manufacturer B	1st drum change [1]	0.2535	12	3.04	<0.0033	3705-DA-429-14

Extended Field Test #2 – Melbourne, Florida – April 28 - May 2, 2003								
Type	Media	Device	Location	Flow Rate (lpm)	Sample time (min)	Volume (liters)	Result (mg/m^3)	Sample #
Personal	Hydrar	Manufacturer B	2nd drum change [1]	0.254	20	5.08	0.041	3705-DA-429-15
Personal	MCEF	Manufacturer B	2nd drum change [1]	0.254	20	5.08	<0.0020	3705-DA-429-16
Personal	Hydrar	Manufacturer B	Ceiling #1 - 2nd drum change [1]	0.2535	4	1.01	0.23	3705-DA-429-23
Personal	MCEF	Manufacturer B	Ceiling #1 - 2nd drum change [1]	0.2535	4	1.01	<0.0099	3705-DA-429-24
Personal	Hydrar	Manufacturer B	Ceiling #2 - 2nd drum change [1]	0.2535	4	1.01	0.64	3705-DA-429-25
Personal	MCEF	Manufacturer B	Ceiling #2 - 2nd drum change [1]	0.2535	4	1.01	<0.0099	3705-DA-429-26
Area	Hydrar	Manufacturer B	By device exhaust [1]	0.153	163	24.94	0.13	3705-DA-429-09
Area	MCEF	Manufacturer B	By device exhaust [1]	0.153	163	24.94	0.00072	3705-DA-429-10
Area	Hydrar	Manufacturer B	By device feed tube [1]	0.154	163	25.1	0.27	3705-DA-429-11
Area	MCEF	Manufacturer B	By device feed tube [1]	0.154	163	25.1	0.0019	3705-DA-429-12
Overnight	Hydrar	Manufacturer B	By device exhaust [1]	0.147	714	104.96	0.035	3705-DA-429-17
Overnight	MCEF	Manufacturer B	By device exhaust [1]	0.147	714	104.96	<0.00009	3705-DA-429-18
Overnight	Hydrar	Manufacturer B	By device feed tube [1]	0.149	714	106.39	0.036	3705-DA-429-19
Overnight	MCEF	Manufacturer B	By device feed tube [1]	0.149	714	106.39	<0.00009	3705-DA-429-20
Overnight	Hydrar	Manufacturer B	Outside containment [1]	0.153	714	109.24	0.021	3705-DA-429-21
Overnight	MCEF	Manufacturer B	Outside containment [1]	0.153	714	109.24	<0.00009	3705-DA-429-22
Personal	Hydrar	Manufacturer B	Device operation (RS) - 1 drum [2]	0.1535	56	8.6	0.088	3705-DA-52-91
Personal	MCEF	Manufacturer B	Device operation (RS) - 1 drum [2]	0.1535	56	8.6	<0.0012	3705-DA-52-92
Personal	Hydrar	Manufacturer B	Device operation (LS) - 1 drum [2]	0.1535	56	8.6	0.094	3705-DA-52-89
Personal	MCEF	Manufacturer B	Device operation (LS) - 1 drum [2]	0.1535	56	8.6	<0.0012	3705-DA-52-90
Area	Hydrar	Manufacturer B	By device exhaust [2]	0.1525	57	8.69	0.076	3705-DA-52-93
Area	MCEF	Manufacturer B	By device exhaust [2]	0.1525	57	8.69	<0.0012	3705-DA-52-94
Area	Hydrar	Manufacturer B	By device feed tube [2]	0.152	57	8.66	0.09	3705-DA-52-95
Area	MCEF	Manufacturer B	By device feed tube [2]	0.152	57	8.66	<0.0012	3705-DA-52-96
Personal	Hydrar	Manufacturer B	3rd drum change [2]	0.256	12	3.07	0.2	3705-DA-52-97
Personal	MCEF	Manufacturer B	3rd drum change [2]	0.256	12	3.07	<0.0033	3705-DA-52-98

Extended Field Test #2 – Melbourne, Florida – April 28 - May 2, 2003								
Type	Media	Device	Location	Flow Rate (lpm)	Sample time (min)	Volume (liters)	Result (mg/m^3)	Sample #
Personal	Hydrar	Manufacturer C	Device operation (LS) - 2 drums	0.154	145	22.33	0.063	3705-AA-430-27
Personal	MCEF	Manufacturer C	Device operation (LS) - 2 drums	0.154	145	22.33	<0.00045	3705-AA-430-28
Personal	Hydrar	Manufacturer C	Device operation (RS) - 1st drum	0.1545	81	12.51	0.0047	3705-AA-430-29
Personal	MCEF	Manufacturer C	Device operation (RS) - 1st drum	0.1545	81	12.51	<0.00080	3705-AA-430-30
Personal	Hydrar	Manufacturer C	Device operation (LS) - 1st drum	0.153	81	12.39	0.07	3705-AA-430-31
Personal	MCEF	Manufacturer C	Device operation (LS) - 1st drum	0.153	81	12.39	<0.00081	3705-AA-430-32
Personal	Hydrar	Manufacturer C	Device operation (RS) - 2nd drum	0.1555	67	10.42	0.034	3705-AA-430-55
Personal	MCEF	Manufacturer C	Device operation (RS) - 2nd drum	0.1555	67	10.42	<0.00096	3705-AA-430-56
Personal	Hydrar	Manufacturer C	Device operation (LS) - 2nd drum	0.1505	67	10.08	0.052	3705-AA-430-57
Personal	MCEF	Manufacturer C	Device operation (LS) - 2nd drum	0.1505	67	10.08	<0.00099	3705-AA-430-58
Personal	Hydrar	Manufacturer C	1st filter change	0.2485	12	2.98	0.064	3705-AA-430-37
Personal	MCEF	Manufacturer C	1st filter change	0.2485	12	2.98	<0.0034	3705-AA-430-38
Personal	Hydrar	Manufacturer C	1st drum change	0.2485	17	4.22	0.11	3705-AA-430-39
Personal	MCEF	Manufacturer C	1st drum change	0.2485	17	4.22	<0.0024	3705-AA-430-40
Personal	Hydrar	Manufacturer C	3rd filter change	0.2485	12	2.98	0.06	3705-AA-430-41
Personal	MCEF	Manufacturer C	3rd filter change	0.2485	12	2.98	<0.0034	3705-AA-430-42
Personal	Hydrar	Manufacturer C	2nd drum change	0.2555	12	3.07	0.036	3705-AA-430-59
Personal	MCEF	Manufacturer C	2nd drum change	0.2555	12	3.07	<0.0033	3705-AA-430-60
Personal	Hydrar	Manufacturer C	Ceiling #1 - 1st drum change	0.2475	4	0.99	0.12	3705-AA-430-45
Personal	MCEF	Manufacturer C	Ceiling #1 - 1st drum change	0.2475	4	0.99	<0.010	3705-AA-430-46
Personal	Hydrar	Manufacturer C	Ceiling #2 - 1st drum change	0.2475	4	0.99	0.26	3705-AA-430-47
Personal	MCEF	Manufacturer C	Ceiling #2 - 1st drum change	0.2475	4	0.99	<0.010	3705-AA-430-48
Area	Hydrar	Manufacturer C	By device exhaust	0.154	148	22.79	0.048	3705-AA-430-33
Area	MCEF	Manufacturer C	By device exhaust	0.154	148	22.79	<0.00044	3705-AA-430-34
Area	Hydrar	Manufacturer C	By device feed tube	0.154	148	22.79	0.048	3705-AA-430-35
Area	MCEF	Manufacturer C	By device feed tube	0.154	148	22.79	<0.00044	3705-AA-430-36

Extended Field Test #2 – Melbourne, Florida – April 28 - May 2, 2003								
Type	Media	Device	Location	Flow Rate (lpm)	Sample time (min)	Volume (liters)	Result (mg/m^3)	Sample #
Overnight	Hydrar	Manufacturer C	By device exhaust	0.152	991	150.63	0.019	3705-AA-430-49
Overnight	MCEF	Manufacturer C	By device exhaust	0.152	991	150.63	<0.00007	3705-AA-430-50
Overnight	Hydrar	Manufacturer C	By device feed tube	0.1505	991	149.15	0.021	3705-AA-430-51
Overnight	MCEF	Manufacturer C	By device feed tube	0.1505	991	149.15	<0.00007	3705-AA-430-52
Overnight	Hydrar	Manufacturer C	Outside containment	0.1555	991	154.1	0.016	3705-AA-430-53
Overnight	MCEF	Manufacturer C	Outside containment	0.1555	991	154.1	<0.00006	3705-AA-430-54

Extended Field Test #3 – Ashland, Virginia – June 9-13,2003								
Type	Media	Device	Location	Flow Rate (lpm)	Sample time (min)	Volume (liters)	Result (mg/m^3)	Sample #
Background	Hydrar	All	E. bay near door to W. bay	0.205	264	54.1	0.0086	3705-BA-69-03
Background	MCEF	All	E. bay near door to W. bay	0.205	264	54.1	<0.00018	3705-BA-69-04
Background	Hydrar	All	Middle of E. bay	0.221	264	58.3	0.013	3705-BA-69-01
Background	MCEF	All	Middle of E. bay	0.221	264	58.3	<0.00017	3705-BA-69-02
Personal	Hydrar	AERC	AERC personnel sample	0.202	89	18	0.089	3705-FA-611-113
Personal	MCEF	AERC	AERC personnel sample	0.202	89	18	0.0023	3705-FA-611-114
Personal	Hydrar	AERC	AERC personnel sample	0.202	89	18	0.073	3705-FA-611-115
Personal	MCEF	AERC	AERC personnel sample	0.202	89	18	0.0023	3705-FA-611-116
Personal	Hydrar	Manufacturer A	Device operation (LS) - 2 drums	0.195	129	25.2	0.0093	3705-RA-610-05
Personal	MCEF	Manufacturer A	Device operation (LS) - 2 drums	0.195	129	25.2	<0.00040	3705-RA-610-06
Personal	Hydrar	Manufacturer A	Device operation (RS) - 1st drum	0.202	67	13.5	0.011	3705-RA-610-09
Personal	MCEF	Manufacturer A	Device operation (RS) - 1st drum	0.202	67	13.5	<0.00074	3705-RA-610-10
Personal	Hydrar	Manufacturer A	Device operation (LS) - 1st drum	0.2	67	13.4	0.0062	3705-RA-610-07
Personal	MCEF	Manufacturer A	Device operation (LS) - 1st drum	0.2	67	13.4	<0.00075	3705-RA-610-08
Personal	Hydrar	Manufacturer A	Device operation (RS) - 2nd drum	0.198	62	12.3	0.015	3705-RA-610-25
Personal	MCEF	Manufacturer A	Device operation (RS) - 2nd drum	0.198	62	12.3	<0.00081	3705-RA-610-26

Extended Field Test #3 – Ashland, Virginia – June 9-13,2003								
Type	Media	Device	Location	Flow Rate (lpm)	Sample time (min)	Volume (liters)	Result (mg/m^3)	Sample #
Personal	Hydrar	Manufacturer A	Device operation (LS) - 2nd drum	0.198	62	12.3	0.015	3705-RA-610-23
Personal	MCEF	Manufacturer A	Device operation (LS) - 2nd drum	0.198	62	12.3	<0.00081	3705-RA-610-24
Personal	Hydrar	Manufacturer A	1st drum change	0.259	12	3.1	0.013	3705-RA-610-15
Personal	MCEF	Manufacturer A	1st drum change	0.259	12	3.1	<0.0032	3705-RA-610-16
Personal	Hydrar	Manufacturer A	2nd drum change	0.259	12	3.1	0.025	3705-RA-610-17
Personal	MCEF	Manufacturer A	2nd drum change	0.259	12	3.1	<0.0032	3705-RA-610-18
Personal	Hydrar	Manufacturer A	Ceiling #1 - 1st drum change	0.251	4	1	0.05	3705-RA-610-19
Personal	MCEF	Manufacturer A	Ceiling #1 - 1st drum change	0.251	4	1	<0.010	3705-RA-610-20
Personal	Hydrar	Manufacturer A	Ceiling #2 - 1st drum change	0.251	4	1	0.047	3705-RA-610-21
Personal	MCEF	Manufacturer A	Ceiling #2 - 1st drum change	0.251	4	1	<0.010	3705-RA-610-22
Area	Hydrar	Manufacturer A	By device exhaust	0.201	145	29.1	0.01	3705-RA-610-11
Area	MCEF	Manufacturer A	By device exhaust	0.201	145	29.1	<0.00034	3705-RA-610-12
Area	Hydrar	Manufacturer A	By device feed tube	0.201	145	29.1	0.011	3705-RA-610-13
Area	MCEF	Manufacturer A	By device feed tube	0.201	145	29.1	<0.00034	3705-RA-610-14
Overnight	Hydrar	Manufacturer A	By device exhaust	0.155	360	55.8	0.0066	3705-RA-610-27
Overnight	MCEF	Manufacturer A	By device exhaust	0.155	360	55.8	<0.00018	3705-RA-610-28
Overnight	Hydrar	Manufacturer A	By device feed tube	0.152	360	54.7	0.012	3705-RA-610-29
Overnight	MCEF	Manufacturer A	By device feed tube	0.152	360	54.7	<0.00018	3705-RA-610-30
Overnight	Hydrar	Manufacturer A	Outside containment	0.156	360	56.2	0.017	3705-RA-610-31
Overnight	MCEF	Manufacturer A	Outside containment	0.156	360	56.2	<0.00018	3705-RA-610-32
Personal	Hydrar	Manufacturer B	Device operation (LS) - 2 drums	0.198	97	19.2	0.064	3705-DA-611-55
Personal	MCEF	Manufacturer B	Device operation (LS) - 2 drums	0.198	97	19.2	<0.00052	3705-DA-611-56
Personal	Hydrar	Manufacturer B	Device operation (RS) - 1st drum	0.2	59	11.8	0.076	3705-DA-611-59
Personal	MCEF	Manufacturer B	Device operation (RS) - 1st drum	0.2	59	11.8	<0.00085	3705-DA-611-60
Personal	Hydrar	Manufacturer B	Device operation (LS) - 1st drum	0.198	59	11.7	0.058	3705-DA-611-57
Personal	MCEF	Manufacturer B	Device operation (LS) - 1st drum	0.198	59	11.7	<0.00085	3705-DA-611-58

Extended Field Test #3 – Ashland, Virginia – June 9-13,2003								
Type	Media	Device	Location	Flow Rate (lpm)	Sample time (min)	Volume (liters)	Result (mg/m^3)	Sample #
Personal	Hydrar	Manufacturer B	Device operation (RS) - 2nd drum	0.204	27	5.5	0.11	3705-DA-611-75
Personal	MCEF	Manufacturer B	Device operation (RS) - 2nd drum	0.204	27	5.5	<0.0018	3705-DA-611-76
Personal	Hydrar	Manufacturer B	Device operation (LS) - 2nd drum	0.202	38	7.7	0.081	3705-DA-611-73
Personal	MCEF	Manufacturer B	Device operation (LS) - 2nd drum	0.202	38	7.7	<0.0013	3705-DA-611-74
Personal	Hydrar	Manufacturer B	1st drum change	0.26	20	5.2	0.2	3705-DA-611-65
Personal	MCEF	Manufacturer B	1st drum change	0.26	20	5.2	<0.0019	3705-DA-611-66
Personal	Hydrar	Manufacturer B	2nd drum change	0.26	12	3.1	0.065	3705-DA-611-67
Personal	MCEF	Manufacturer B	2nd drum change	0.26	12	3.1	<0.0032	3705-DA-611-68
Personal	Hydrar	Manufacturer B	Ceiling #1 - 1st drum change	0.255	4	1	0.1	3705-DA-611-69
Personal	MCEF	Manufacturer B	Ceiling #1 - 1st drum change	0.255	4	1	<0.010	3705-DA-611-70
Personal	Hydrar	Manufacturer B	Ceiling #2 - 1st drum change	0.255	4	1	0.19	3705-DA-611-71
Personal	MCEF	Manufacturer B	Ceiling #2 - 1st drum change	0.255	4	1	<0.010	3705-DA-611-72
Area	Hydrar	Manufacturer B	By device exhaust	0.203	99	20.1	0.074	3705-DA-611-61
Area	MCEF	Manufacturer B	By device exhaust	0.203	99	20.1	<0.00050	3705-DA-611-62
Area	Hydrar	Manufacturer B	By device feed tube	0.21	99	20.8	0.047	3705-DA-611-63
Area	MCEF	Manufacturer B	By device feed tube	0.21	99	20.8	<0.00048	3705-DA-611-64
Overnight	Hydrar	Manufacturer B	By device exhaust	0.157	802	125.9	0.00052	3705-DA-611-77
Overnight	MCEF	Manufacturer B	By device exhaust	0.157	802	125.9	<0.00008	3705-DA-611-78
Overnight	Hydrar	Manufacturer B	By device feed tube	0.154	802	123.5	0.049	3705-DA-611-79
Overnight	MCEF	Manufacturer B	By device feed tube	0.154	802	123.5	<0.00008	3705-DA-611-80
Overnight	Hydrar	Manufacturer B	Outside containment	0.141	802	113.1	0.00052	3705-DA-611-81
Overnight	MCEF	Manufacturer B	Outside containment	0.141	802	113.1	<0.00009	3705-DA-611-82
Personal	Hydrar	Manufacturer C	Device operation (LS) - 2 drums	0.202	131	26.5	0.029	3705-AA-612-117
Personal	MCEF	Manufacturer C	Device operation (LS) - 2 drums	0.202	131	26.5	<0.00038	3705-AA-612-118
Personal	Hydrar	Manufacturer C	Device operation (RS) - 1st drum	0.211	79	16.7	0.053	3705-AA-612-121
Personal	MCEF	Manufacturer C	Device operation (RS) - 1st drum	0.211	79	16.7	<0.00060	3705-AA-612-122

Extended Field Test #3 – Ashland, Virginia – June 9-13,2003								
Type	Media	Device	Location	Flow Rate (lpm)	Sample time (min)	Volume (liters)	Result (mg/m^3)	Sample #
Personal	Hydrar	Manufacturer C	Device operation (LS) - 1st drum	0.2	79	15.8	0.049	3705-AA-612-119
Personal	MCEF	Manufacturer C	Device operation (LS) - 1st drum	0.2	79	15.8	<0.00063	3705-AA-612-120
Personal	Hydrar	Manufacturer C	Device operation (RS) - 2nd drum	0.212	52	11	0.039	3705-AA-612-137
Personal	MCEF	Manufacturer C	Device operation (RS) - 2nd drum	0.212	52	11	<0.00091	3705-AA-612-138
Personal	Hydrar	Manufacturer C	Device operation (LS) - 2nd drum	0.198	52	10.3	0.039	3705-AA-612-135
Personal	MCEF	Manufacturer C	Device operation (LS) - 2nd drum	0.198	52	10.3	<0.00097	3705-AA-612-136
Personal	Hydrar	Manufacturer C	1st filter change	0.255	12	3.1	0.055	3705-AA-612-127
Personal	MCEF	Manufacturer C	1st filter change	0.255	12	3.1	<0.0032	3705-AA-612-128
Personal	Hydrar	Manufacturer C	1st drum change	0.255	12	3.1	0.15	3705-AA-612-129
Personal	MCEF	Manufacturer C	1st drum change	0.255	12	3.1	<0.0032	3705-AA-612-130
Personal	Hydrar	Manufacturer C	3rd filter change	0.255	12	3.1	0.17	3705-AA-612-165
Personal	MCEF	Manufacturer C	3rd filter change	0.255	12	3.1	<0.0032	3705-AA-612-166
Personal	Hydrar	Manufacturer C	2nd drum change	0.255	13	3.3	0.094	3705-AA-612-167
Personal	MCEF	Manufacturer C	2nd drum change	0.255	13	3.3	<0.0030	3705-AA-612-168
Personal	Hydrar	Manufacturer C	Ceiling #1 - 1st drum change	0.26	4	1	0.19	3705-AA-612-131
Personal	MCEF	Manufacturer C	Ceiling #1 - 1st drum change	0.26	4	1	<0.010	3705-AA-612-132
Personal	Hydrar	Manufacturer C	Ceiling #2 - 1st drum change	0.26	4	1	0.22	3705-AA-612-133
Personal	MCEF	Manufacturer C	Ceiling #2 - 1st drum change	0.26	4	1	<0.010	3705-AA-612-134
Area	Hydrar	Manufacturer C	By device exhaust	0.2	132	26.4	0.041	3705-AA-612-123
Area	MCEF	Manufacturer C	By device exhaust	0.2	132	26.4	<0.00038	3705-AA-612-124
Area	Hydrar	Manufacturer C	By device feed tube	0.201	132	26.5	0.00075	3705-AA-612-125
Area	MCEF	Manufacturer C	By device feed tube	0.201	132	26.5	<0.00038	3705-AA-612-126
Overnight	Hydrar	Manufacturer C	By device exhaust	0.144	821	118.2	0.057	3705-AA-612-139
Overnight	MCEF	Manufacturer C	By device exhaust	0.144	821	118.2	<0.00008	3705-AA-612-140
Overnight	Hydrar	Manufacturer C	By device feed tube	0.157	821	128.9	0.058	3705-AA-612-141
Overnight	MCEF	Manufacturer C	By device feed tube	0.157	821	128.9	<0.00008	3705-AA-612-142

Extended Field Test #3 – Ashland, Virginia – June 9-13,2003								
Type	Media	Device	Location	Flow Rate (lpm)	Sample time (min)	Volume (liters)	Result (mg/m^3)	Sample #
Overnight	Hydrar	Manufacturer C	Outside containment	0.15	821	123.1	0.044	3705-AA-612-143
Overnight	MCEF	Manufacturer C	Outside containment	0.15	821	123.1	<0.00008	3705-AA-612-144
Box Test – Ashland, Virginia								
Box test	Hydrar	Manufacturer A	E. side of containment	0.199	64	12.7	0.018	3705-TA-610-47
Box test	MCEF	Manufacturer A	E. side of containment	0.199	64	12.7	<0.00079	3705-TA-610-48
Box test	Hydrar	Manufacturer A	W. side of containment	0.203	64	13	0.1	3705-TA-610-49
Box test	MCEF	Manufacturer A	W. side of containment	0.203	64	13	<0.00077	3705-TA-610-50
Box test	Hydrar	Manufacturer B	E. side of containment	0.201	36	7.2	0.12	3705-TA-611-109
Box test	MCEF	Manufacturer B	E. side of containment	0.201	36	7.2	<0.0014	3705-TA-611-110
Box test	Hydrar	Manufacturer B	W. side of containment	0.199	36	7.2	0.12	3705-TA-611-111
Box test	MCEF	Manufacturer B	W. side of containment	0.199	36	7.2	<0.0014	3705-TA-611-112
Box test	Hydrar	Manufacturer C	E. side of containment	0.201	45	9	0.05	3705-TA-612-167
Box test	MCEF	Manufacturer C	E. side of containment	0.201	45	9	<0.0011	3705-TA-612-168
Box test	Hydrar	Manufacturer C	W. side of containment	0.201	45	9	0.014	3705-TA-612-169
Box test	MCEF	Manufacturer C	W. side of containment	0.201	45	9	<0.0010	3705-TA-612-170
“U” Tube Test – Ashland, Virginia								
Personal	Hydrar	Manufacturer B	"U" tubes - device operation (LS)	0.2	12	2.4	0.1	3705-DA-611-83
Personal	MCEF	Manufacturer B	"U" tubes - device operation (LS)	0.2	12	2.4	<0.0042	3705-DA-611-84
Personal	Hydrar	Manufacturer B	"U" tubes - device operation (RS)	0.197	12	2.4	0.018	3705-DA-611-85
Personal	MCEF	Manufacturer B	"U" tubes - device operation (RS)	0.197	12	2.4	<0.0042	3705-DA-611-86
Area	Hydrar	Manufacturer B	"U" tubes - by device exhaust	0.198	12	2.4	0.083	3705-DA-611-87
Area	MCEF	Manufacturer B	"U" tubes - by device exhaust	0.198	12	2.4	<0.0042	3705-DA-611-88
Area	Hydrar	Manufacturer B	"U" tubes - by device feed tube	0.205	12	2.5	0.092	3705-DA-611-89
Area	MCEF	Manufacturer B	"U" tubes - by device feed tube	0.205	12	2.5	<0.0040	3705-DA-611-90
Personal	Hydrar	Manufacturer C	"U" tubes - device operation (LS)	0.209	14	2.9	0.11	3705-AA-612-171
Personal	MCEF	Manufacturer C	"U" tubes - device operation (LS)	0.209	14	2.9	<0.0034	3705-AA-612-172

Extended Field Test #3 – Ashland, Virginia – June 9-13,2003								
Type	Media	Device	Location	Flow Rate (lpm)	Sample time (min)	Volume (liters)	Result (mg/m^3)	Sample #
Personal	Hydrar	Manufacturer C	"U" tubes - device operation (RS)	0.207	14	2.9	0.026	3705-AA-612-173
Personal	MCEF	Manufacturer C	"U" tubes - device operation (RS)	0.207	14	2.9	<0.0034	3705-AA-612-174
Area	Hydrar	Manufacturer C	"U" tubes - by device exhaust	0.205	14	2.8	0.046	3705-AA-612-175
Area	MCEF	Manufacturer C	"U" tubes - by device exhaust	0.205	14	2.8	<0.0036	3705-AA-612-176
Area	Hydrar	Manufacturer C	"U" tubes - by device feed tube	0.201	14	2.8	0.05	3705-AA-612-177
Area	MCEF	Manufacturer C	"U" tubes - by device feed tube	0.201	14	2.8	<0.0036	3705-AA-612-178

Table 2: Wipe Sample Results

Performance Validation Study – Phase I – Ashland, Virginia – February 24-28, 2003						
Device	Date	Sample Location	Pre-Wipe #1	Post-Wipe #1	Pre-Wipe #2	Post-Wipe #2
Blank	2/27/2003	Blank	<0.01	<0.01	<0.01	<0.01
Blank	2/27/2003	Blank	<0.01	<0.01	<0.01	<0.01
Manufacturer A	2/27/2003	Floor-2 ft from device	0.36	0.14	0.16	0.19
Manufacturer A	2/27/2003	Floor-5 ft from device	0.21	0.11	0.18	0.15
Manufacturer A	2/27/2003	Ceiling	0.49	0.071	0.16	0.049
Manufacturer A	2/27/2003	East wall of containment	0.026	0.033	0.014	0.024
Manufacturer A	2/27/2003	West wall of containment	0.11	0.032	0.071	0.013
Manufacturer A	2/27/2003	Exterior drum surface-side	0.059	0.12	0.017	0.046
Manufacturer A	2/27/2003	DTC device	0.4	0.2	0.32	0.17
Manufacturer A	2/27/2003	DTC device feed tube exterior	0.48	0.053	0.055	0.062
Manufacturer A	2/27/2003	Floor at device exhaust	0.14	0.14	0.048	0.11
Blank	2/28/2003	Blank	<0.01	<0.01	<0.01	<0.01
Blank	2/28/2003	Blank	<0.01	<0.01	<0.01	<0.01
Manufacturer B	2/28/2003	Floor-2 ft from device	0.065	0.054	0.064	0.13
Manufacturer B	2/28/2003	Floor-5 ft from device	0.14	0.074	0.12	0.067
Manufacturer B	2/28/2003	Ceiling	0.053	0.2	0.045	0.097
Manufacturer B	2/28/2003	East wall of containment	0.017	0.02	0.029	<0.01
Manufacturer B	2/28/2003	West wall of containment	0.044	0.015	0.015	0.015
Manufacturer B	2/28/2003	Exterior drum surface-side	0.17	0.073	0.038	0.053
Manufacturer B	2/28/2003	DTC device	0.017	0.18	0.019	1.2
Manufacturer B	2/28/2003	DTC device feed tube exterior	<0.01	0.33	<0.01	0.64
Manufacturer B	2/28/2003	Floor at device exhaust	0.049	0.27	0.048	0.12
Blank	2/26/2003	Blank	<0.01	<0.01	<0.01	<0.01
Blank	2/26/2003	Blank	<0.01	<0.01	<0.01	<0.01
Manufacturer C	2/26/2003	Floor-2 ft from device	0.13	3.1	0.43	0.33
Manufacturer C	2/26/2003	Floor-5 ft from device	0.11	0.62	0.11	0.15
Manufacturer C	2/26/2003	Ceiling	0.71	0.27	0.2	0.15
Manufacturer C	2/26/2003	East wall of containment	<0.01	0.12	0.02	0.024
Manufacturer C	2/26/2003	West wall of containment	<0.01	0.034	<0.01	0.021
Manufacturer C	2/26/2003	Exterior drum surface-side	0.067	0.027	0.051	0.044
Manufacturer C	2/26/2003	DTC device	0.041	0.27	0.037	0.93
Manufacturer C	2/26/2003	DTC device feed tube exterior	0.02	0.052	0.017	0.047
Manufacturer C	2/26/2003	Floor at device exhaust	0.12	0.45	0.072	0.48
Manufacturer D	2/27/2003	Floor-2 ft from device	0.088	0.06	0.076	0.041
Manufacturer D	2/27/2003	Floor-5 ft from device	0.053	0.063	0.088	0.072

Performance Validation Study – Phase I – Ashland, Virginia – February 24-28, 2003						
Device	Date	Sample Location	Pre-Wipe #1	Post-Wipe #1	Pre-Wipe #2	Post-Wipe #2
Manufacturer D	2/27/2003	Ceiling	0.63	0.1	0.25	0.082
Manufacturer D	2/27/2003	East wall of containment	0.39	0.019	0.41	0.015
Manufacturer D	2/27/2003	West wall of containment	0.11	<0.01	0.028	0.017
Manufacturer D	2/27/2003	Exterior drum surface-side	0.31	0.052	0.4	0.037
Manufacturer D	2/27/2003	DTC device	0.067	0.067	0.049	0.051
Manufacturer D	2/27/2003	DTC device feed tube exterior	0.069	0.027	0.039	0.029
Manufacturer D	2/27/2003	Floor at device exhaust	0.27	0.097	0.31	0.085

Performance Validation Study – Phase II – Ashland, Virginia – June 9-13, 2003				
Device	Date	Sample Location	Pre-Wipe	Post-Wipe
Manufacturer A	6/10/2003	Floor-2 ft from device	0.22	0.98
Manufacturer A	6/10/2003	Floor-5 ft from device	0.093	0.47
Manufacturer A	6/10/2003	Ceiling	0.011	0.029
Manufacturer A	6/10/2003	East wall of containment	0.019	0.026
Manufacturer A	6/10/2003	West wall of containment	0.012	0.026
Manufacturer A	6/10/2003	Exterior drum surface-side	0.052	0.024
Manufacturer A	6/10/2003	DTC device	1.7	1.1
Manufacturer A	6/10/2003	DTC device feed tube exterior	0.39	0.36
Manufacturer A	6/10/2003	Floor at device exhaust	0.45	0.37
Manufacturer B	6/11/2003	Floor-2 ft from device	0.49	0.41
Manufacturer B	6/11/2003	Floor-5 ft from device	0.17	0.31
Manufacturer B	6/11/2003	Ceiling	0.081	0.16
Manufacturer B	6/11/2003	East wall of containment	0.039	0.068
Manufacturer B	6/11/2003	West wall of containment	0.048	0.073
Manufacturer B	6/11/2003	Exterior drum surface-side	0.31	0.043
Manufacturer B	6/11/2003	DTC device	0.98	0.45
Manufacturer B	6/11/2003	DTC device feed tube exterior	0.49	0.24
Manufacturer B	6/11/2003	Floor at device exhaust	0.54	0.22
Manufacturer C	6/12/2003	Floor-2 ft from device	0.13	0.17
Manufacturer C	6/12/2003	Floor-5 ft from device	0.19	0.22
Manufacturer C	6/12/2003	Ceiling	0.046	0.019
Manufacturer C	6/12/2003	East wall of containment	0.016	0.023
Manufacturer C	6/12/2003	West wall of containment	0.024	0.022
Manufacturer C	6/12/2003	Exterior drum surface-side	0.57	0.31
Manufacturer C	6/12/2003	DTC device	0.98	0.43
Manufacturer C	6/12/2003	DTC device feed tube exterior	0.25	0.17
Manufacturer C	6/12/2003	Floor at device exhaust	0.069	0.41

Extended Field Test #1 – Phoenix, Arizona – March 24-28, 2003				
Device	Date	Sample Location	Pre Wipe	Post Wipe
Background	3/24/2003	Ground in front of containment	1.4	
Background	3/24/2003	Ground in front of containment	0.69	
Blank	3/24/2003	Blank	<0.01	
Blank	3/24/2003	Blank	<0.01	
Manufacturer A	3/24/2003	Floor-2 ft from device	0.22	0.41
Manufacturer A	3/24/2003	Floor-5 ft from device	0.034	1.3
Manufacturer A	3/24/2003	Ceiling	<0.01	0.81
Manufacturer A	3/24/2003	East wall of containment	0.011	0.11
Manufacturer A	3/24/2003	West wall of containment	0.053	0.058
Manufacturer A	3/24/2003	Exterior drum surface-side	0.037	0.22
Manufacturer A	3/24/2003	DTC device	0.94	0.53
Manufacturer A	3/24/2003	DTC device feed tube exterior	0.16	0.17
Manufacturer A	3/24/2003	Floor at device exhaust	0.26	5
Blank	3/25/2003	Blank	<0.01	
Blank	3/25/2003	Blank	<0.01	
Manufacturer B	3/25/2003	Floor-2 ft from device	0.73	0.44
Manufacturer B	3/25/2003	Floor-5 ft from device	0.43	1.6
Manufacturer B	3/25/2003	Ceiling	0.18	0.51
Manufacturer B	3/25/2003	East wall of containment	0.21	0.8
Manufacturer B	3/25/2003	West wall of containment	0.088	0.11
Manufacturer B	3/25/2003	Exterior drum surface-side	0.14	0.05
Manufacturer B	3/25/2003	DTC device	0.8	0.61
Manufacturer B	3/25/2003	DTC device feed tube exterior	0.091	0.48
Manufacturer B	3/25/2003	Floor at device exhaust	0.17	0.45
Blank	3/27/2003	Blank	<0.01	
Blank	3/27/2003	Blank	<0.01	
Manufacturer C	3/27/2003	Floor-2 ft from device	0.17	1.3
Manufacturer C	3/27/2003	Floor-5 ft from device	0.042	0.17
Manufacturer C	3/27/2003	Ceiling	0.071	0.14
Manufacturer C	3/27/2003	East wall of containment	0.019	2.7
Manufacturer C	3/27/2003	West wall of containment	0.032	1
Manufacturer C	3/27/2003	Exterior drum surface-side	0.065	0.36
Manufacturer C	3/27/2003	DTC device	0.067	0.85
Manufacturer C	3/27/2003	DTC device feed tube exterior	0.11	0.23
Manufacturer C	3/27/2003	Floor at device exhaust	0.083	2.6

Extended Field Test #1 – Phoenix, Arizona – March 24-28, 2003				
Device	Date	Sample Location	Pre Wipe	Post Wipe
Blank	3/26/2003	Blank	<0.01	
Blank	3/26/2003	Blank	0.018	
Manufacturer D	3/26/2003	Floor-2 ft from device	0.28	3.1
Manufacturer D	3/26/2003	Floor-5 ft from device	0.18	0.23
Manufacturer D	3/26/2003	Ceiling	0.034	0.038
Manufacturer D	3/26/2003	East wall of containment	5.3	4.5
Manufacturer D	3/26/2003	West wall of containment	0.96	0.4
Manufacturer D	3/26/2003	Exterior drum surface-side	1.1	0.88
Manufacturer D	3/26/2003	DTC device	2.1	1.2
Manufacturer D	3/26/2003	DTC device feed tube exterior	1.3	0.56
Manufacturer D	3/26/2003	Floor at device exhaust	0.33	4.5

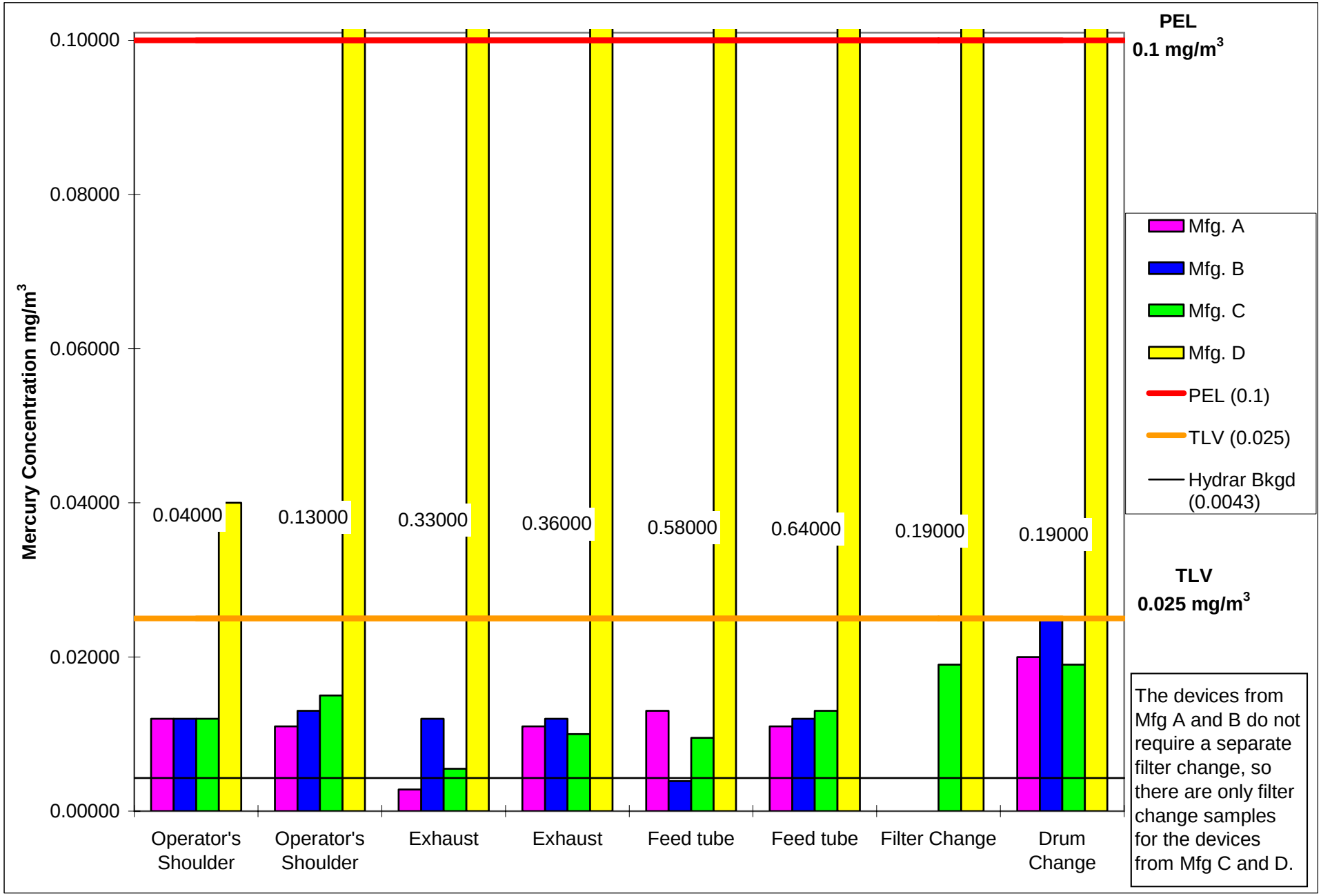
Extended Field Test #2 – Melbourne, Florida – April 28 - May 2, 2003				
Device	Date	Sample Location	Pre-Wipe	Post-Wipe
Blank	5/1/2003	Blank	<0.01	
Blank	5/1/2003	Blank	<0.01	
Manufacturer A	5/1/2003	Floor-2 ft from device	0.095	0.61
Manufacturer A	5/1/2003	Floor-5 ft from device	0.083	0.46
Manufacturer A	5/1/2003	Ceiling	0.036	0.1
Manufacturer A	5/1/2003	East wall of containment	0.015	0.14
Manufacturer A	5/1/2003	West wall of containment	0.019	0.052
Manufacturer A	5/1/2003	Exterior drum surface-side	0.036	0.18
Manufacturer A	5/1/2003	DTC device	0.54	1.3
Manufacturer A	5/1/2003	DTC device feed tube exterior	0.2	0.2
Manufacturer A	5/1/2003	Floor at device exhaust	0.1	3.6
Manufacturer A	5/2/2003	Next day: Floor-2 ft from device		0.86
Manufacturer A	5/2/2003	Next day: E. wall of containment		0.078
Blank	4/29/2003	Blank	<0.01	
Blank	4/29/2003	Blank	<0.01	
Manufacturer B	4/29/2003	Floor-2 ft from device	0.67	17
Manufacturer B	4/29/2003	Floor-5 ft from device	0.46	6
Manufacturer B	4/29/2003	Ceiling	0.057	0.39
Manufacturer B	4/29/2003	East wall of containment	0.074	0.28
Manufacturer B	4/29/2003	West wall of containment	0.035	0.17
Manufacturer B	4/29/2003	Exterior drum surface-side	0.13	0.12
Manufacturer B	4/29/2003	DTC device	0.3	2.2

Extended Field Test #2 – Melbourne, Florida – April 28 - May 2, 2003				
Device	Date	Sample Location	Pre-Wipe	Post-Wipe
Manufacturer B	4/29/2003	DTC device feed tube exterior	0.63	0.63
Manufacturer B	4/29/2003	Floor at device exhaust	0.1	11
Manufacturer B	4/29/2003	Inside drum before crushing	0.024	
Manufacturer B	4/30/2003	Next day: Floor-2 ft from device		17.00
Manufacturer B	4/30/2003	Next day: E. wall of containment		0.550
Blank	4/30/2003	Blank	<0.01	
Blank	4/30/2003	Blank	0.017	
Manufacturer C	4/30/2003	Floor-2 ft from device	0.21	0.16
Manufacturer C	4/30/2003	Floor-5 ft from device	0.17	0.18
Manufacturer C	4/30/2003	Ceiling	0.11	0.1
Manufacturer C	4/30/2003	East wall of containment	0.11	0.02
Manufacturer C	4/30/2003	West wall of containment	0.086	0.022
Manufacturer C	4/30/2003	Exterior drum surface-side	0.11	0.046
Manufacturer C	4/30/2003	DTC device	0.25	0.24
Manufacturer C	4/30/2003	DTC device feed tube exterior	0.18	0.15
Manufacturer C	4/30/2003	Floor at device exhaust	0.08	0.49
Manufacturer C	5/1/2003	Next day: Floor-2 ft from device		0.650
Manufacturer C	5/1/2003	Next day: E. wall of containment		0.026

Extended Field Test #3 – Ashland, Virginia – June 9-13,2003				
Device	Date	Sample Location	Pre-Wipe	Post-Wipe
Blank	6/10/2003	Blank	<0.01	
Blank	6/10/2003	Blank	<0.01	
Manufacturer A	6/10/2003	Floor-2 ft from device	0.055	1.6
Manufacturer A	6/10/2003	Floor-5 ft from device	0.21	1.4
Manufacturer A	6/10/2003	Ceiling	0.025	0.19
Manufacturer A	6/10/2003	East wall of containment	<0.01	0.21
Manufacturer A	6/10/2003	West wall of containment	0.1	0.11
Manufacturer A	6/10/2003	Exterior drum surface-side	0.73	0.13
Manufacturer A	6/10/2003	DTC device	0.5	1.1
Manufacturer A	6/10/2003	DTC device feed tube exterior	0.061	0.32
Manufacturer A	6/10/2003	Floor at device exhaust	0.12	1.7
Manufacturer A	6/11/2003	Next day: Floor-2 ft from device		1.00
Manufacturer A	6/11/2003	Next day: E. wall of containment		0.022
Operator	6/10/2003	Tad's Hands	1.8	
Operator	6/10/2003	Steve's Hands	1.9	

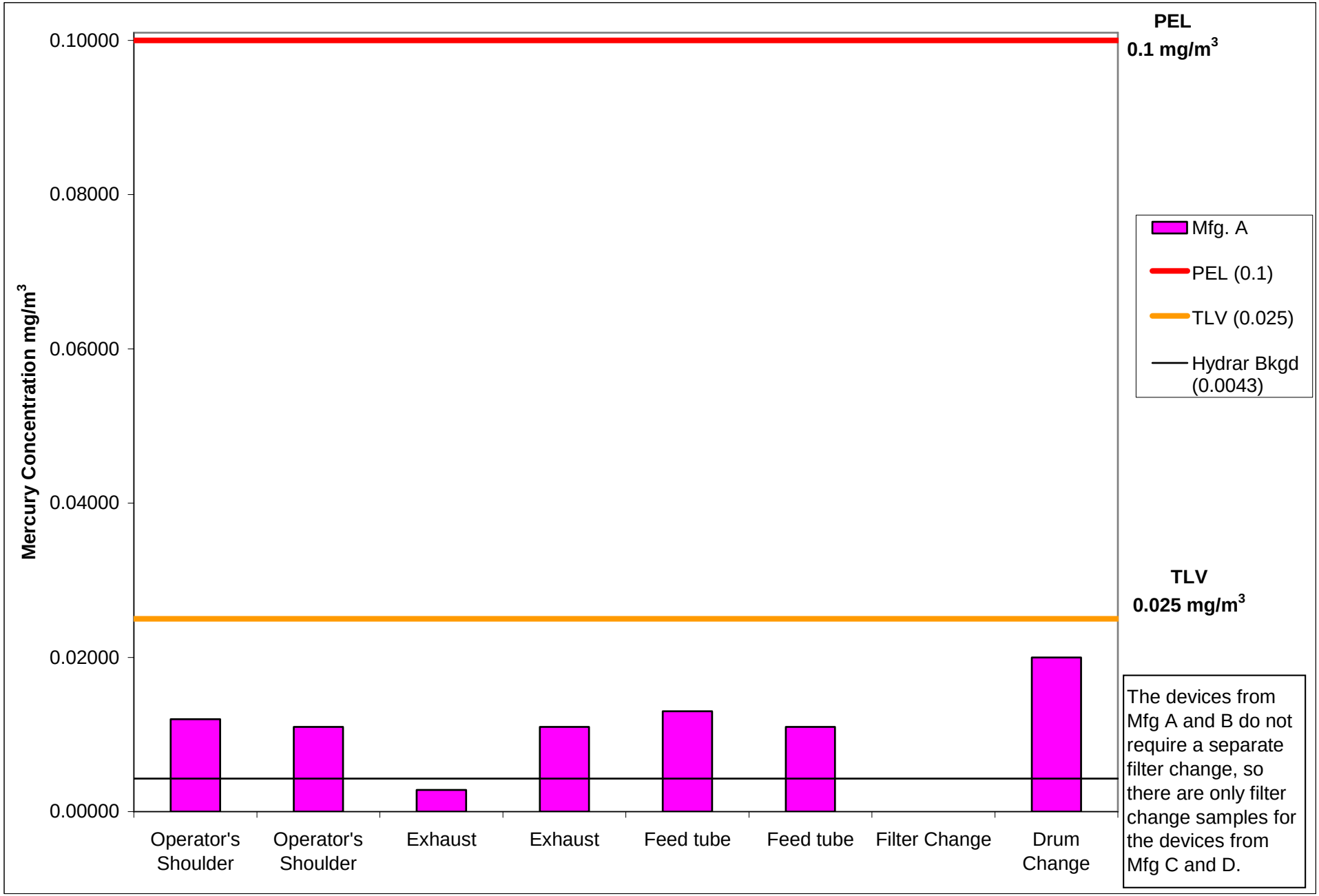
Extended Field Test #3 – Ashland, Virginia – June 9-13,2003				
Device	Date	Sample Location	Pre-Wipe	Post-Wipe
Operator	6/10/2003	Tad's Face	0.055	
Operator	6/10/2003	Steve's Face	0.53	
Blank	6/11/2003	Blank	<0.01	
Blank	6/11/2003	Blank	<0.01	
Manufacturer B	6/11/2003	Floor-2 ft from device	0.14	1.1
Manufacturer B	6/11/2003	Floor-5 ft from device	0.048	0.79
Manufacturer B	6/11/2003	Ceiling	0.031	0.099
Manufacturer B	6/11/2003	East wall of containment	0.035	0.072
Manufacturer B	6/11/2003	West wall of containment	0.024	0.055
Manufacturer B	6/11/2003	Exterior drum surface-side	0.14	0.058
Manufacturer B	6/11/2003	DTC device	0.23	3.8
Manufacturer B	6/11/2003	DTC device feed tube exterior	0.22	0.8
Manufacturer B	6/11/2003	Floor at device exhaust	0.17	1.5
Manufacturer B	6/12/2003	Next day: Floor-2 ft from device		0.230
Manufacturer B	6/12/2003	Next day: E. wall of containment		0.065
Blank	6/12/2003	Blank	<0.01	
Blank	6/12/2003	Blank	0.012	
Manufacturer C	6/12/2003	Floor-2 ft from device	0.051	1.1
Manufacturer C	6/12/2003	Floor-5 ft from device	0.059	0.12
Manufacturer C	6/12/2003	Ceiling	0.061	0.44
Manufacturer C	6/12/2003	East wall of containment	0.02	0.097
Manufacturer C	6/12/2003	West wall of containment	0.034	0.092
Manufacturer C	6/12/2003	Exterior drum surface-side	0.2	0.12
Manufacturer C	6/12/2003	DTC device	1.7	1.8
Manufacturer C	6/12/2003	DTC device feed tube exterior	0.096	0.36
Manufacturer C	6/12/2003	Floor at device exhaust	0.22	2.8
Manufacturer C	6/13/2003	Next day: Floor-2 ft from device		0.830
Manufacturer C	6/13/2003	Next day: E. wall of containment		0.017
Blank	6/13/2003	Blank	<0.01	
Blank	6/13/2003	Blank	<0.01	

Figure 1: Performance Validation Study – Phase I Analytical Air Results
All Devices – Ashland, Virginia – February 24-28, 2003



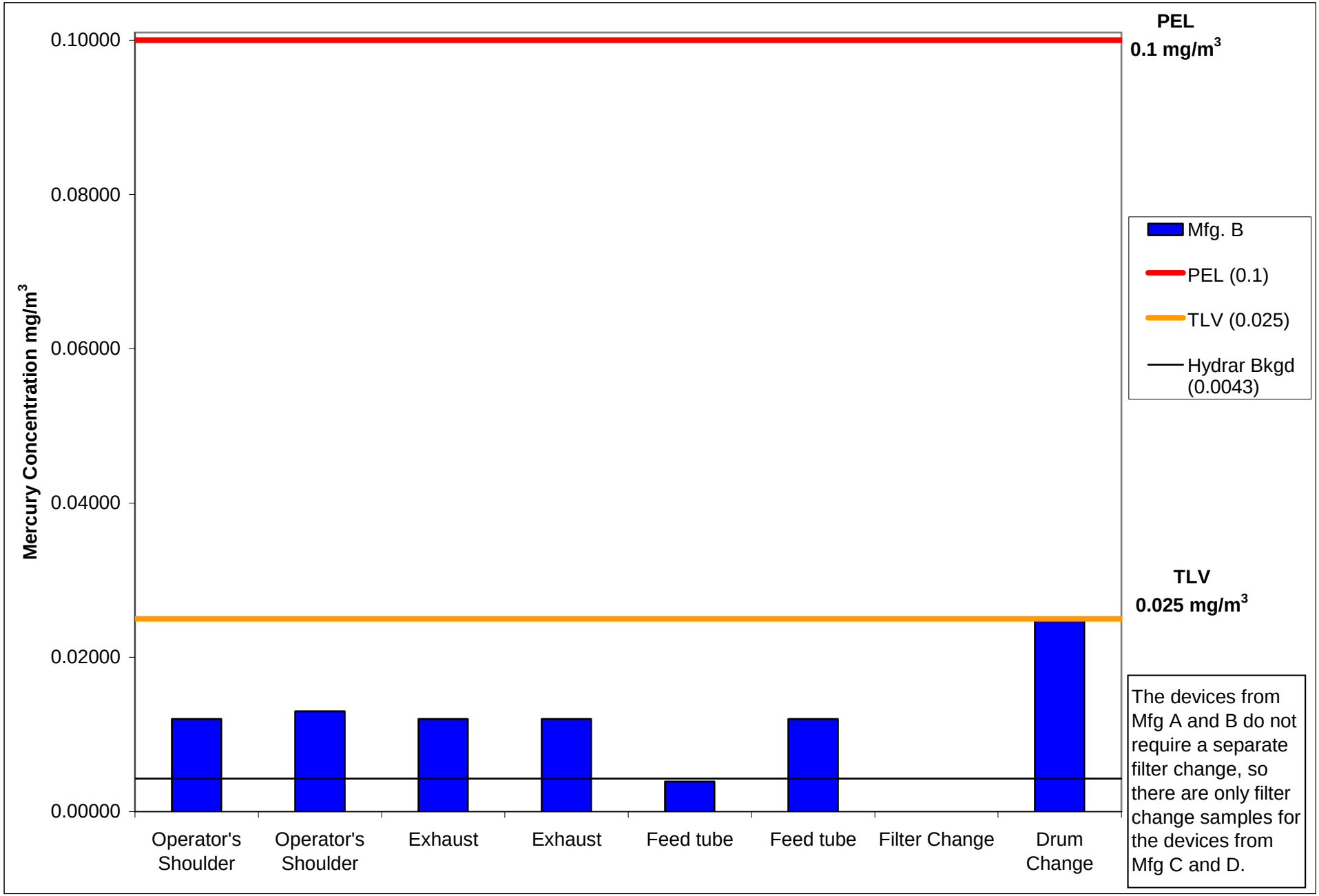
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 2: Performance Validation Study – Phase I Analytical Air Results
Manufacturer A – Ashland, Virginia – February 24-28, 2003



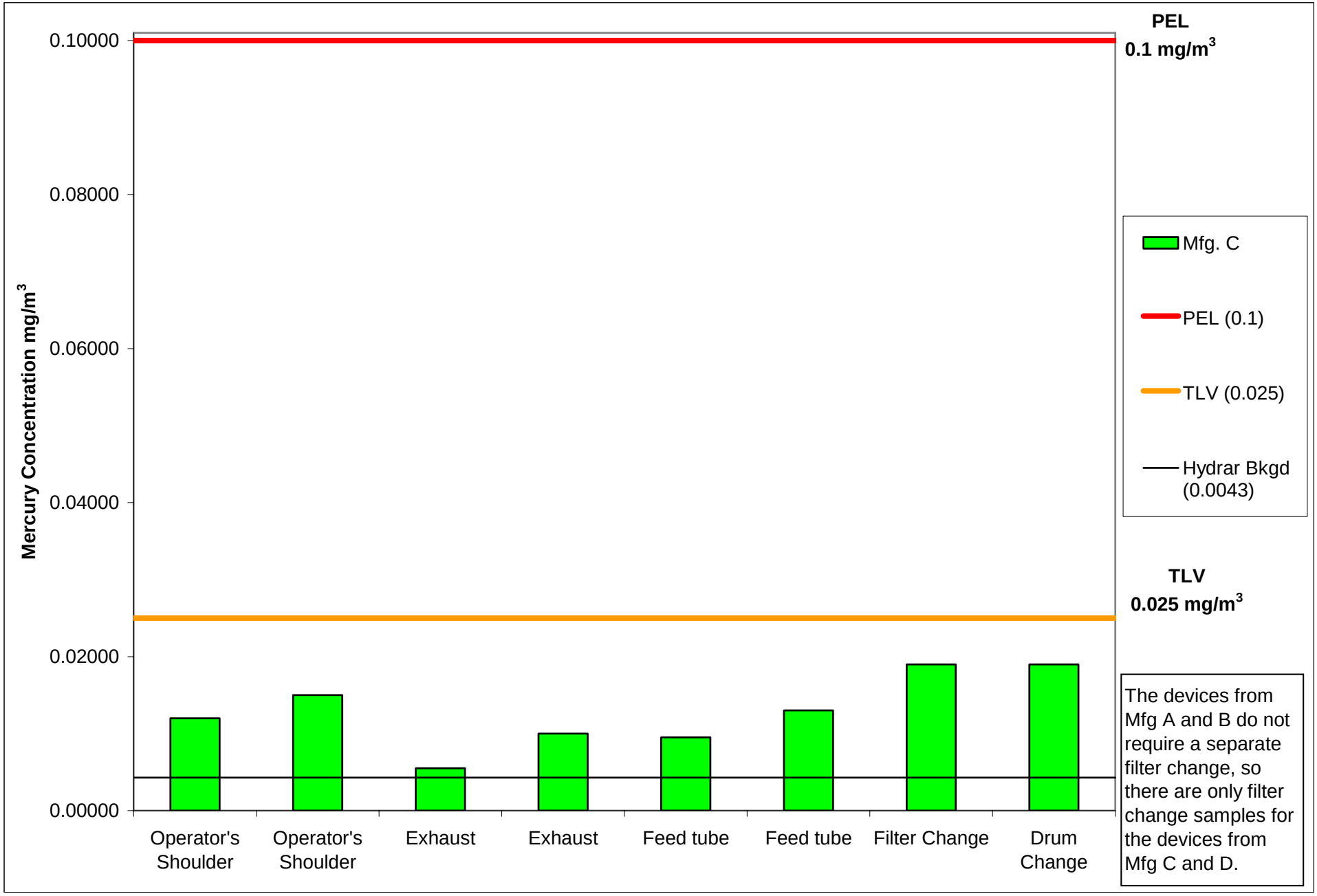
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 3: Performance Validation Study – Phase I Analytical Air Results
Manufacturer B – Ashland, Virginia – February 24-28, 2003



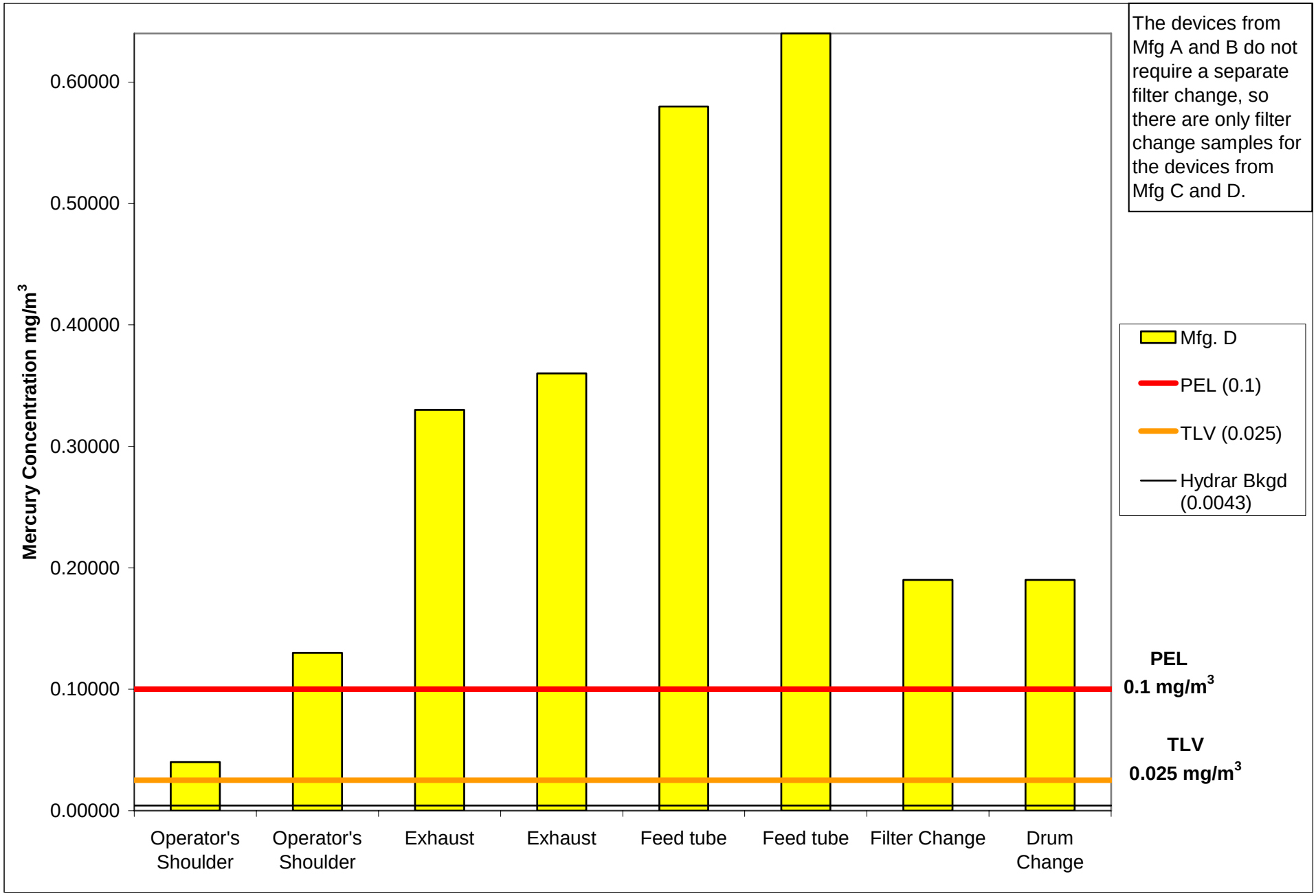
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 4: Performance Validation Study – Phase I Analytical Air Results
Manufacturer C – Ashland, Virginia – February 24-28, 2003



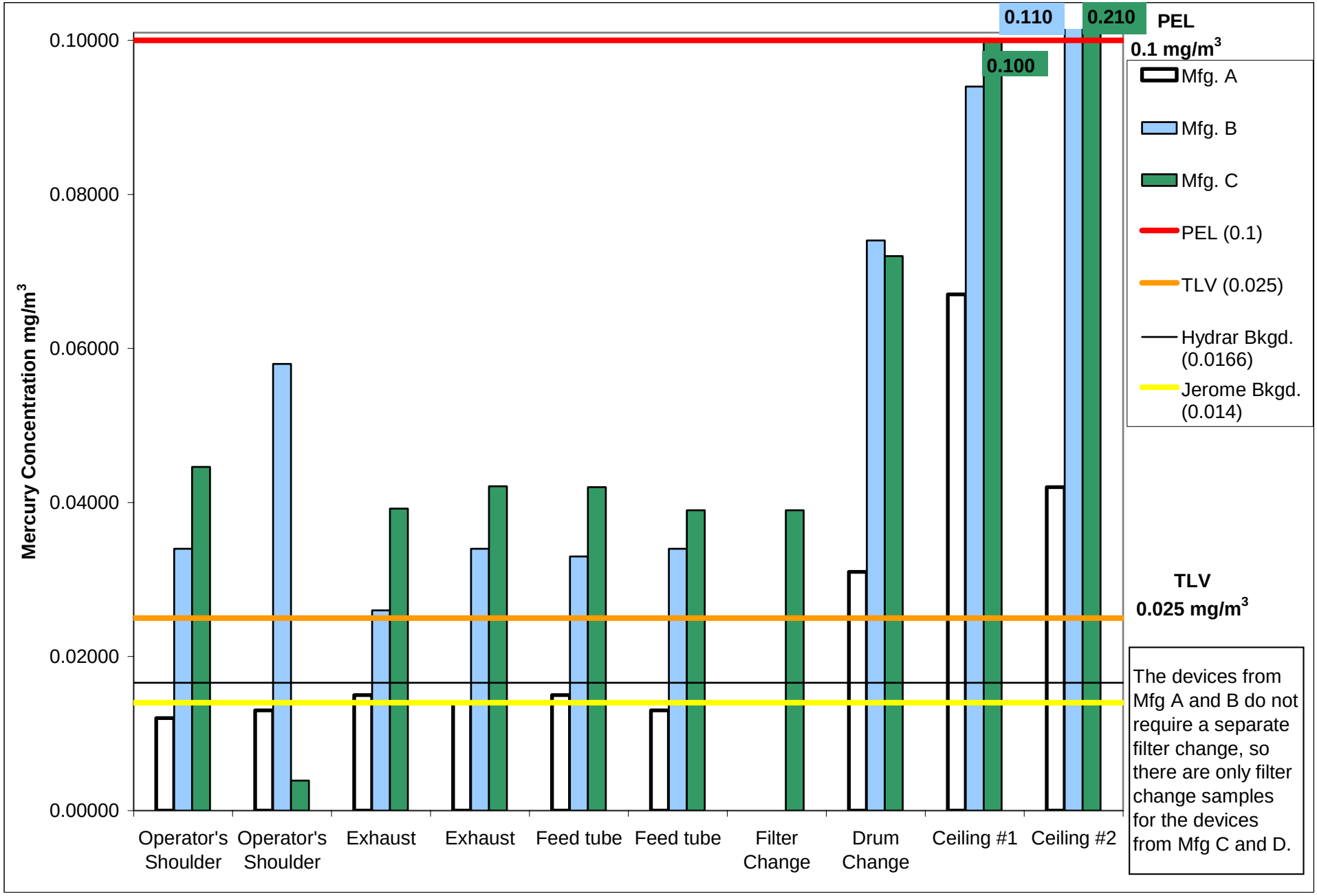
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 5: Performance Validation Study – Phase I Analytical Air Results
Manufacturer D – Ashland, Virginia – February 24-28, 2003



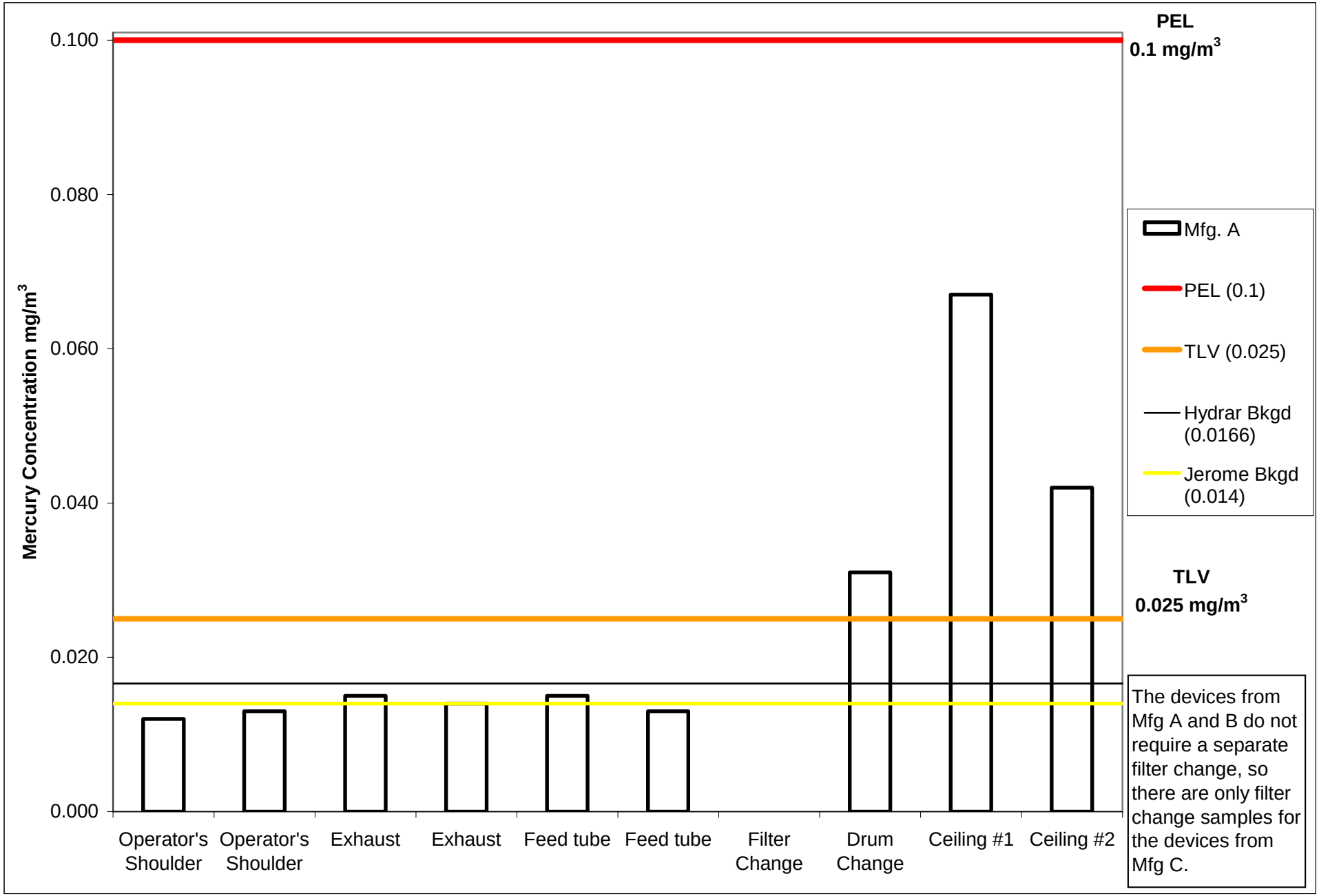
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 6: Performance Validation Study – Phase II Analytical Air Results
All Devices – Ashland, Virginia – June 9-13, 2003



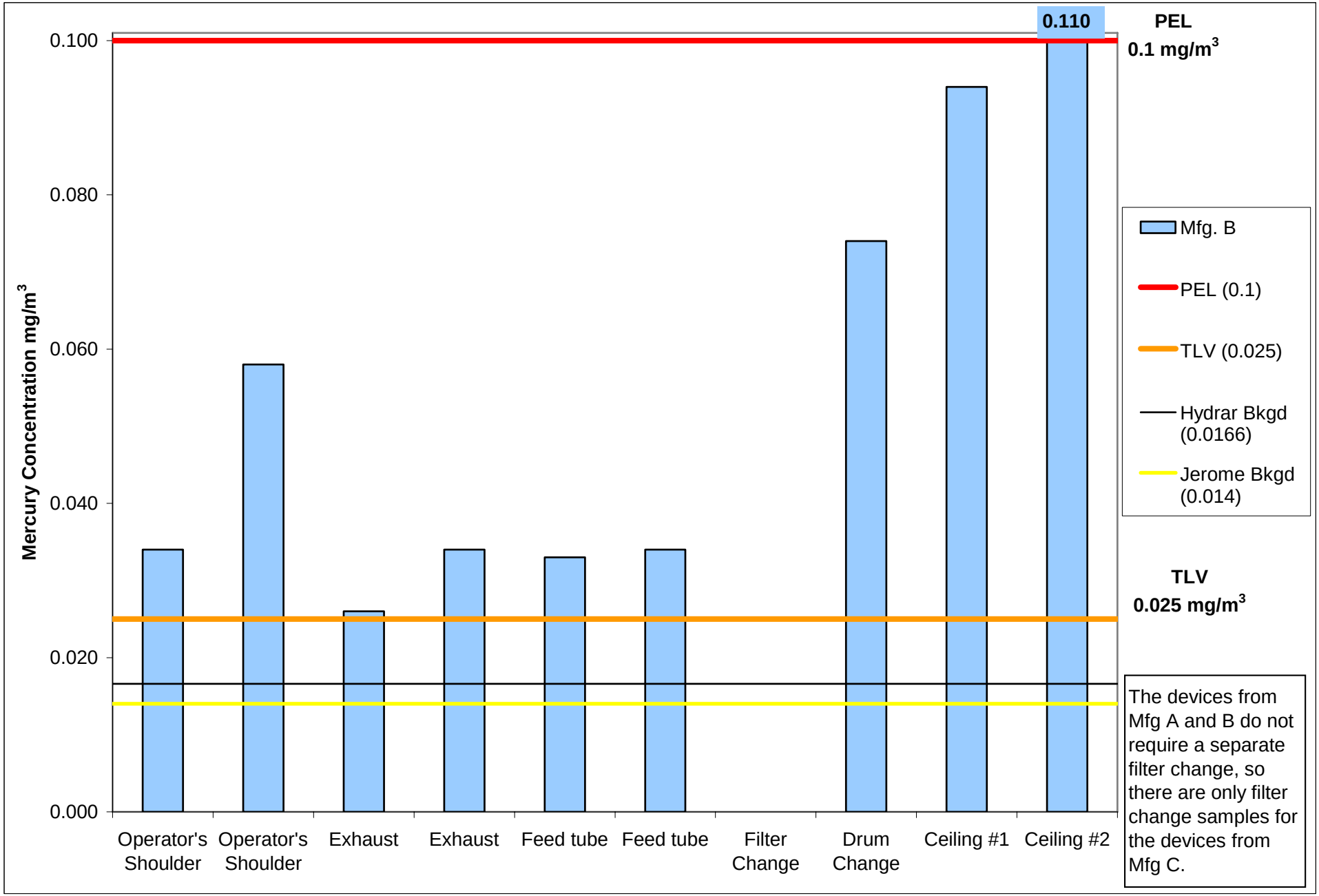
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 7: Performance Validation Study – Phase II Analytical Air Results
Manufacturer A – Ashland, Virginia – June 9-13, 2003



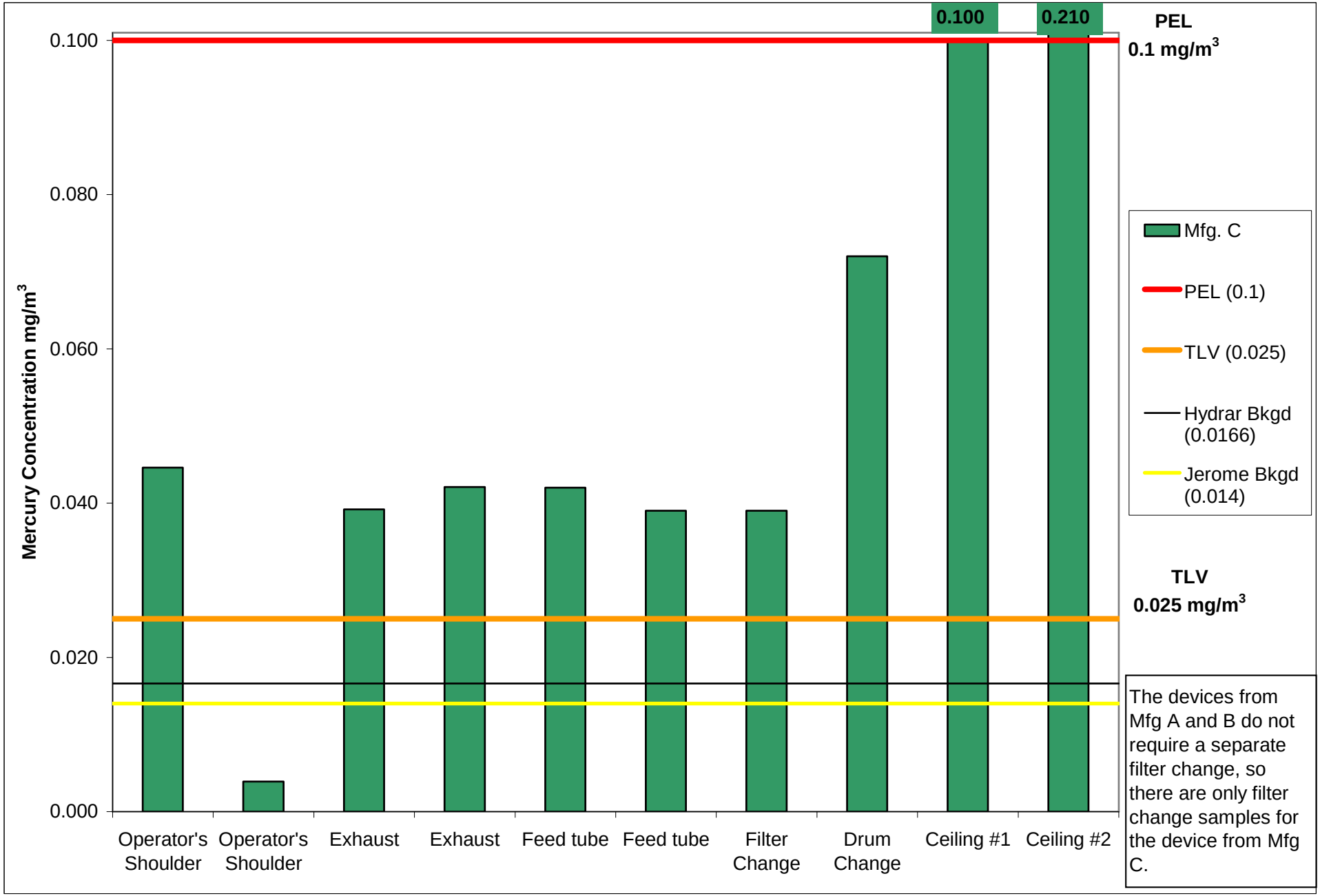
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 8: Performance Validation Study – Phase II Analytical Air Results
Manufacturer B – Ashland, Virginia – June 9-13, 2003



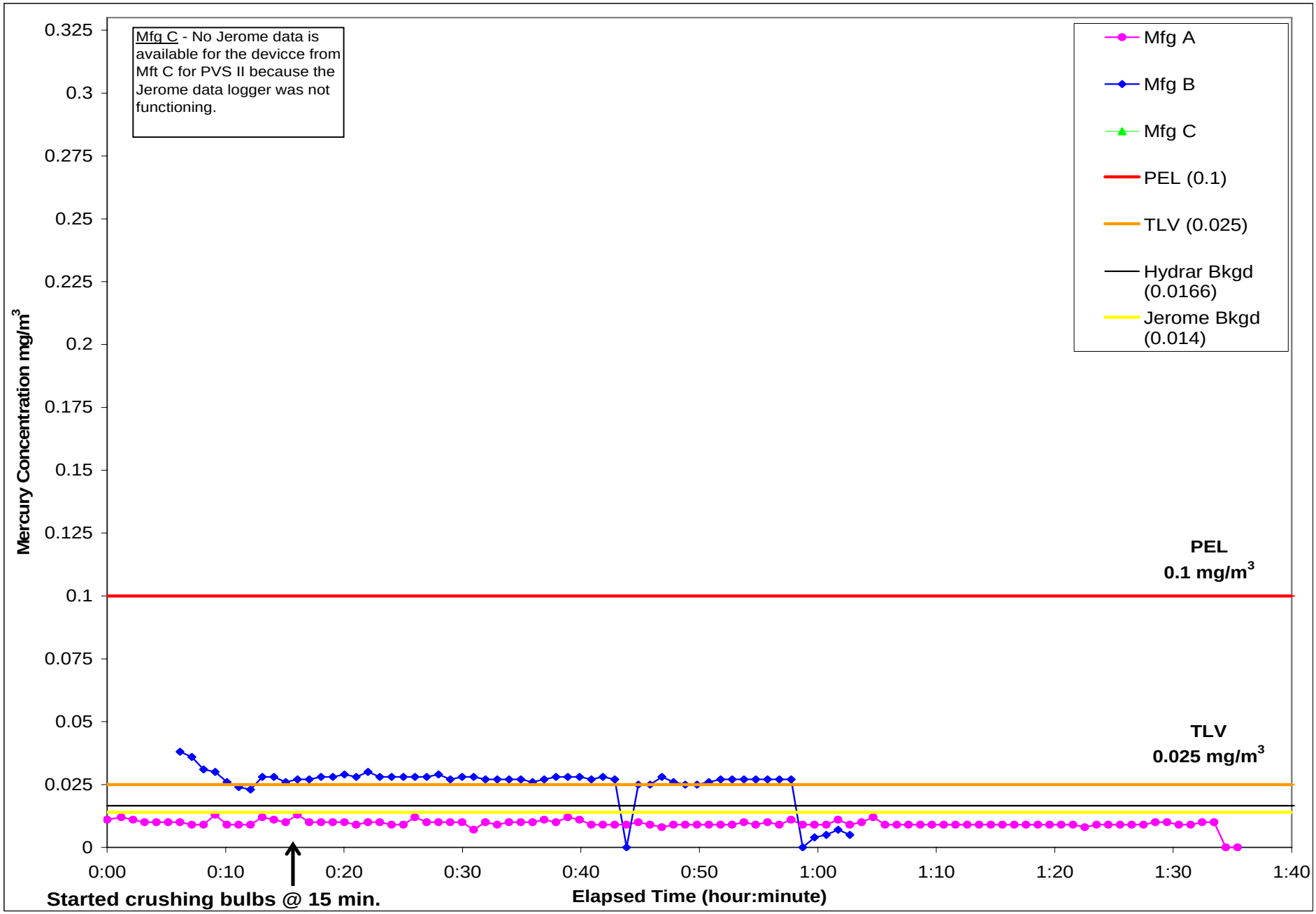
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 9: Performance Validation Study – Phase II Analytical Air Results
Manufacturer C – Ashland, Virginia – June 9-13, 2003



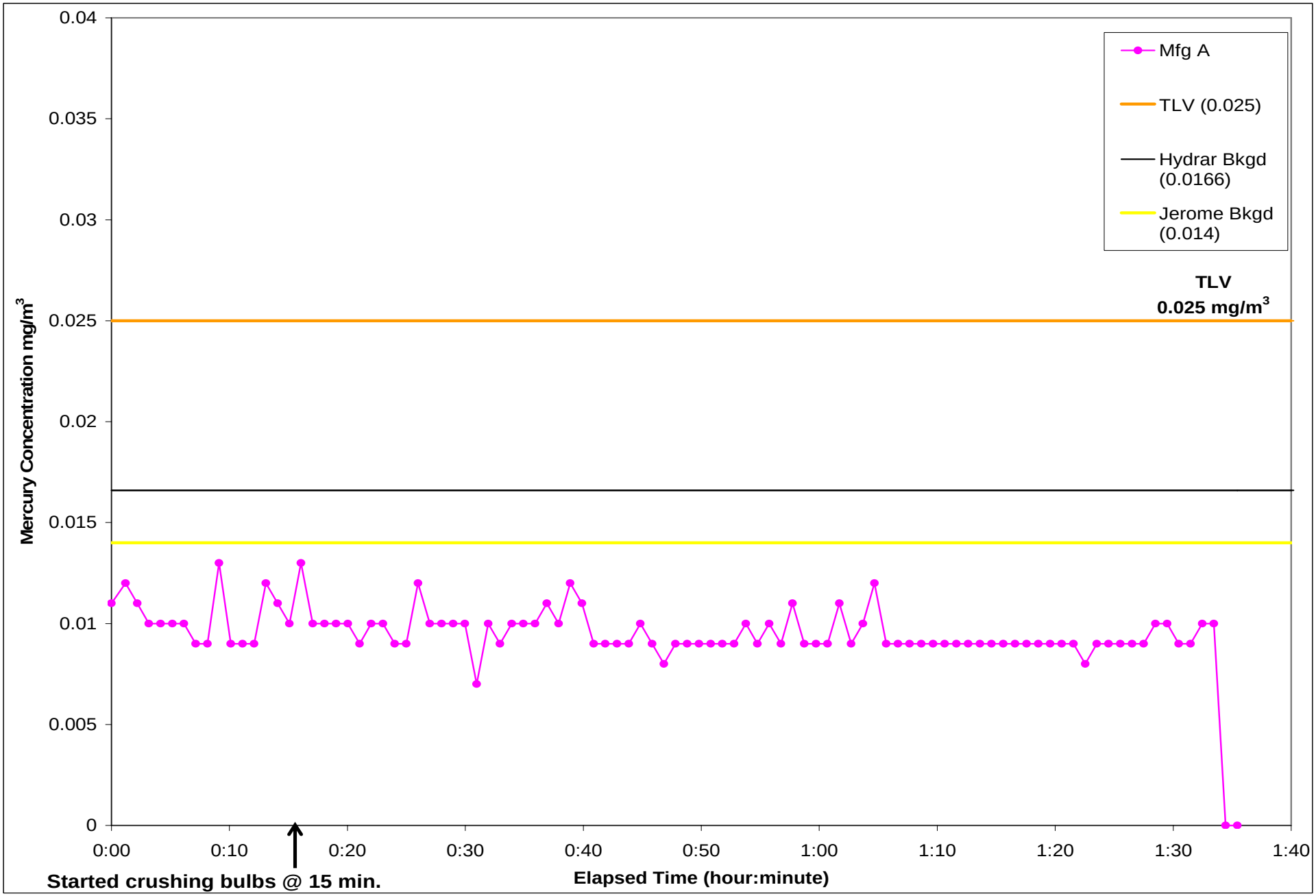
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 10: Performance Validation Study – Phase II Jerome Results
All Devices – Ashland, Virginia – June 9-13, 2003



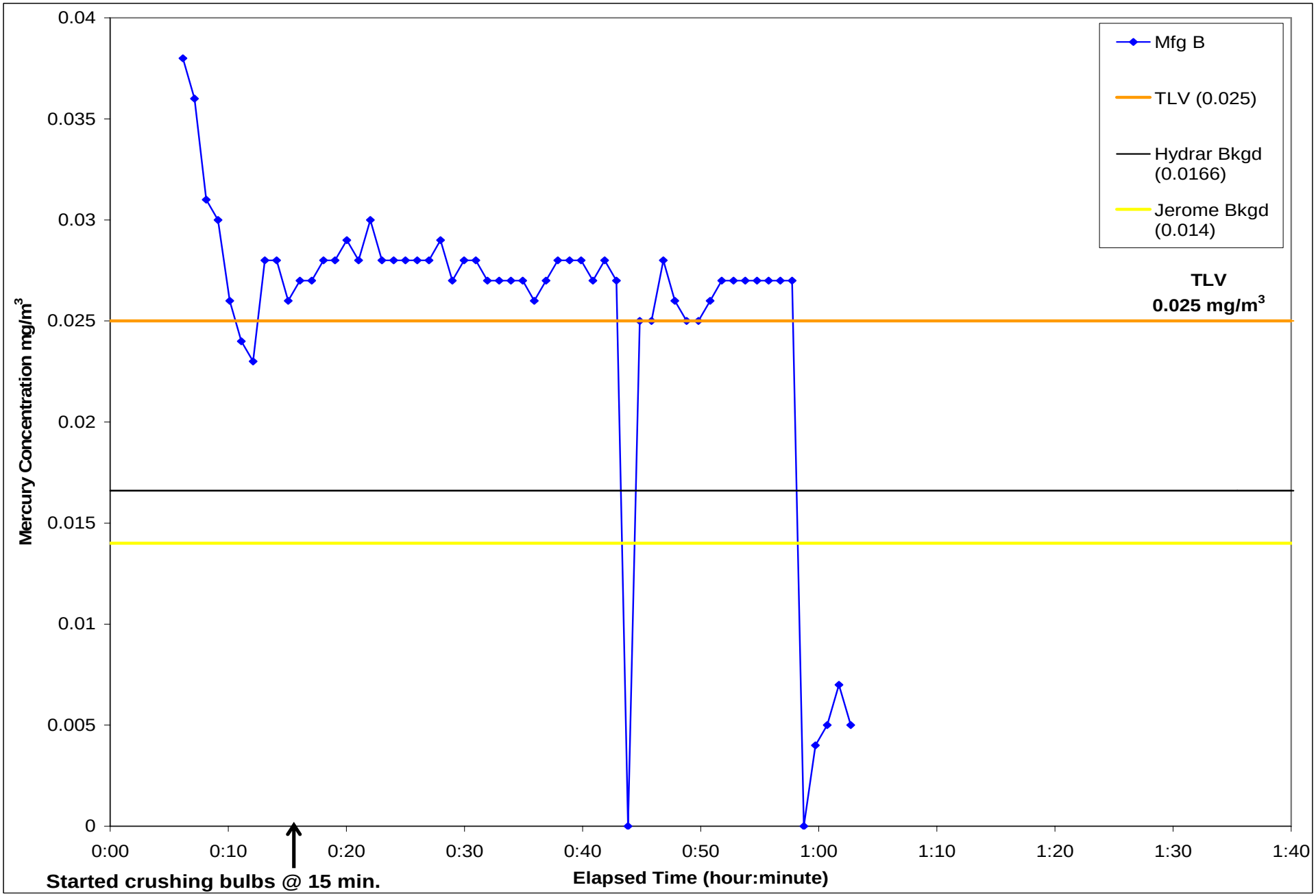
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 11: Performance Validation Study – Phase II Jerome Results
Manufacturer A – Ashland, Virginia – June 9-13, 2003



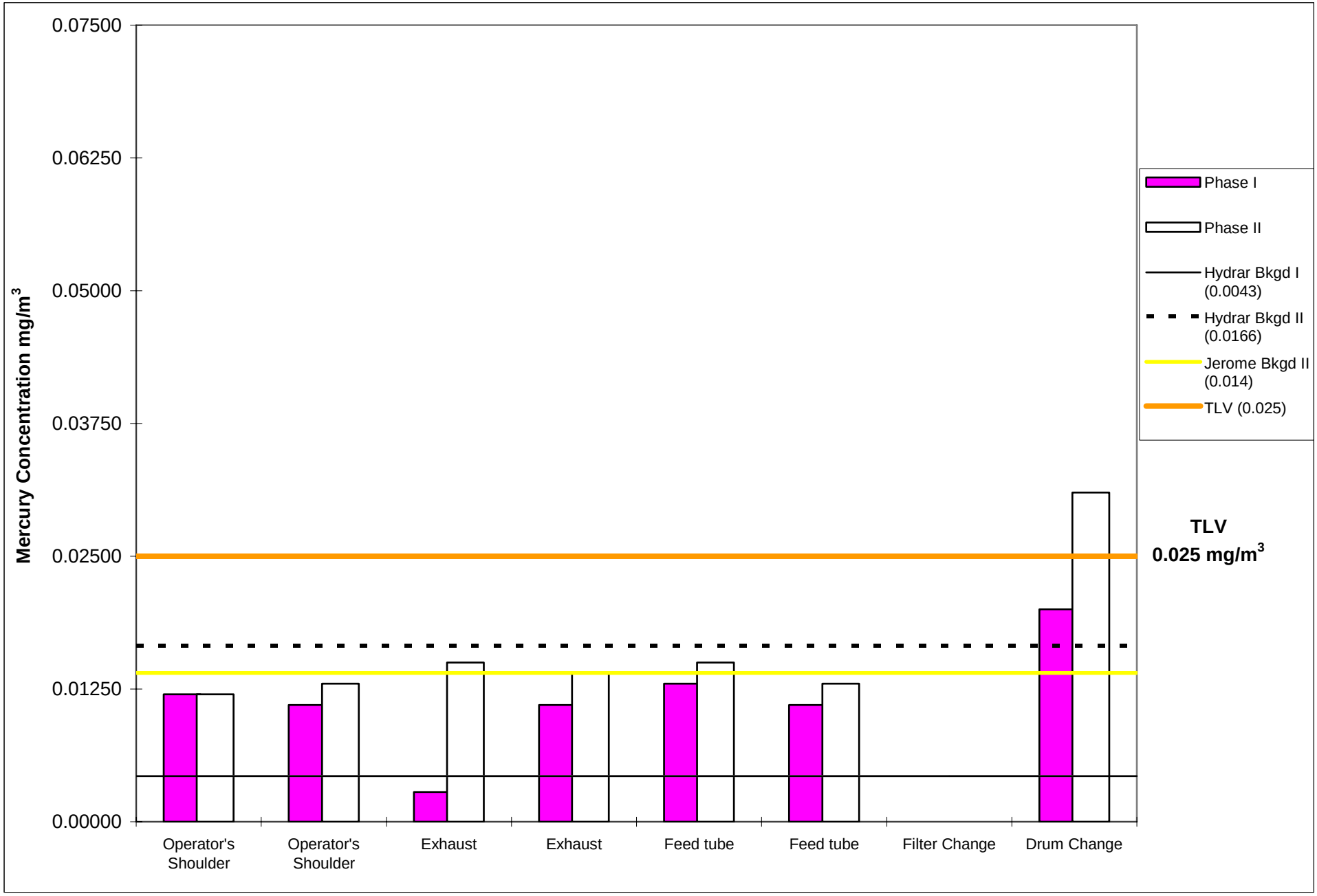
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 12: Performance Validation Study – Phase II Jerome Results
Manufacturer B – Ashland, Virginia – June 9-13, 2003



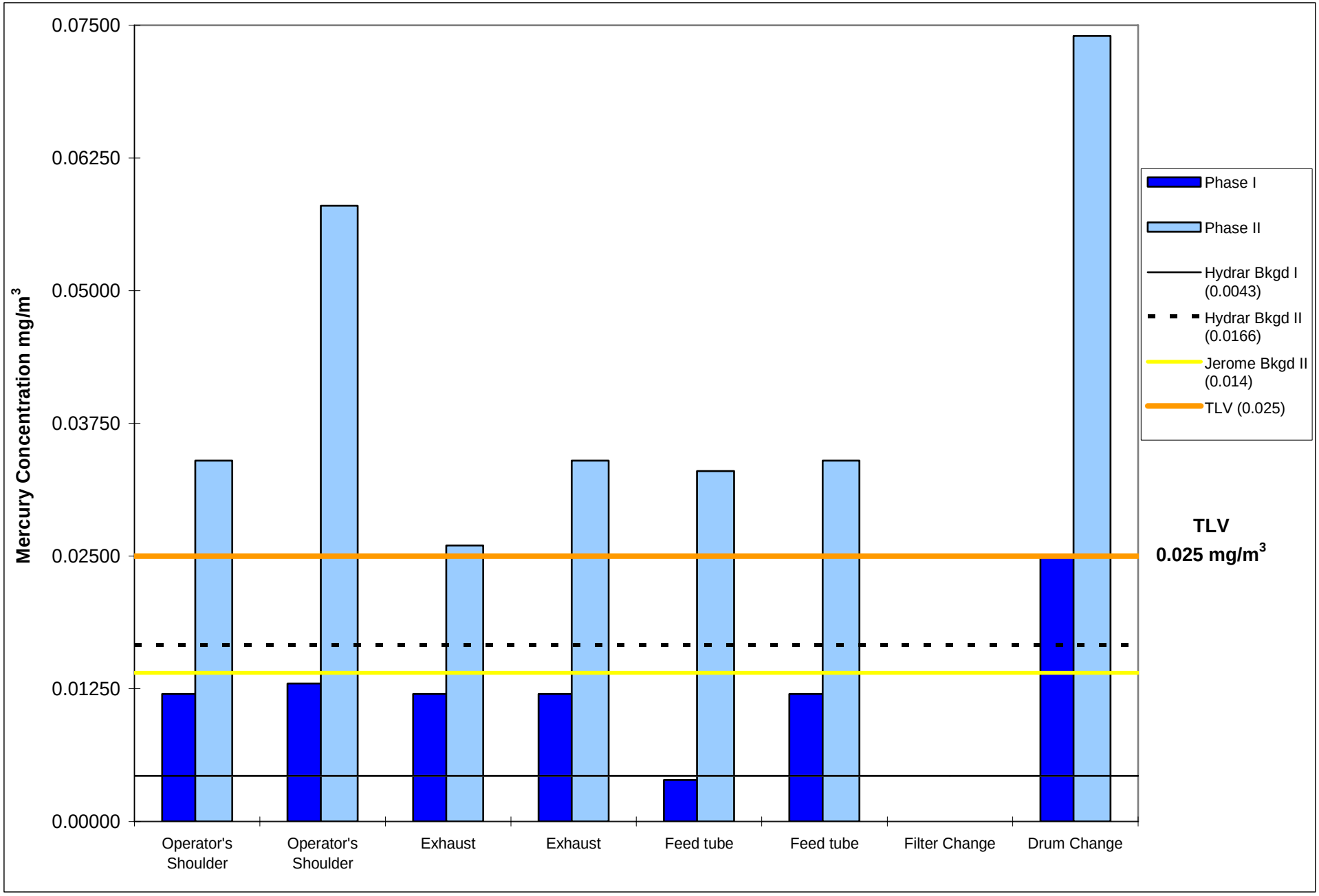
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 13: Performance Validation Study – Phase I and Phase II Analytical Air Results
Manufacturer A Device



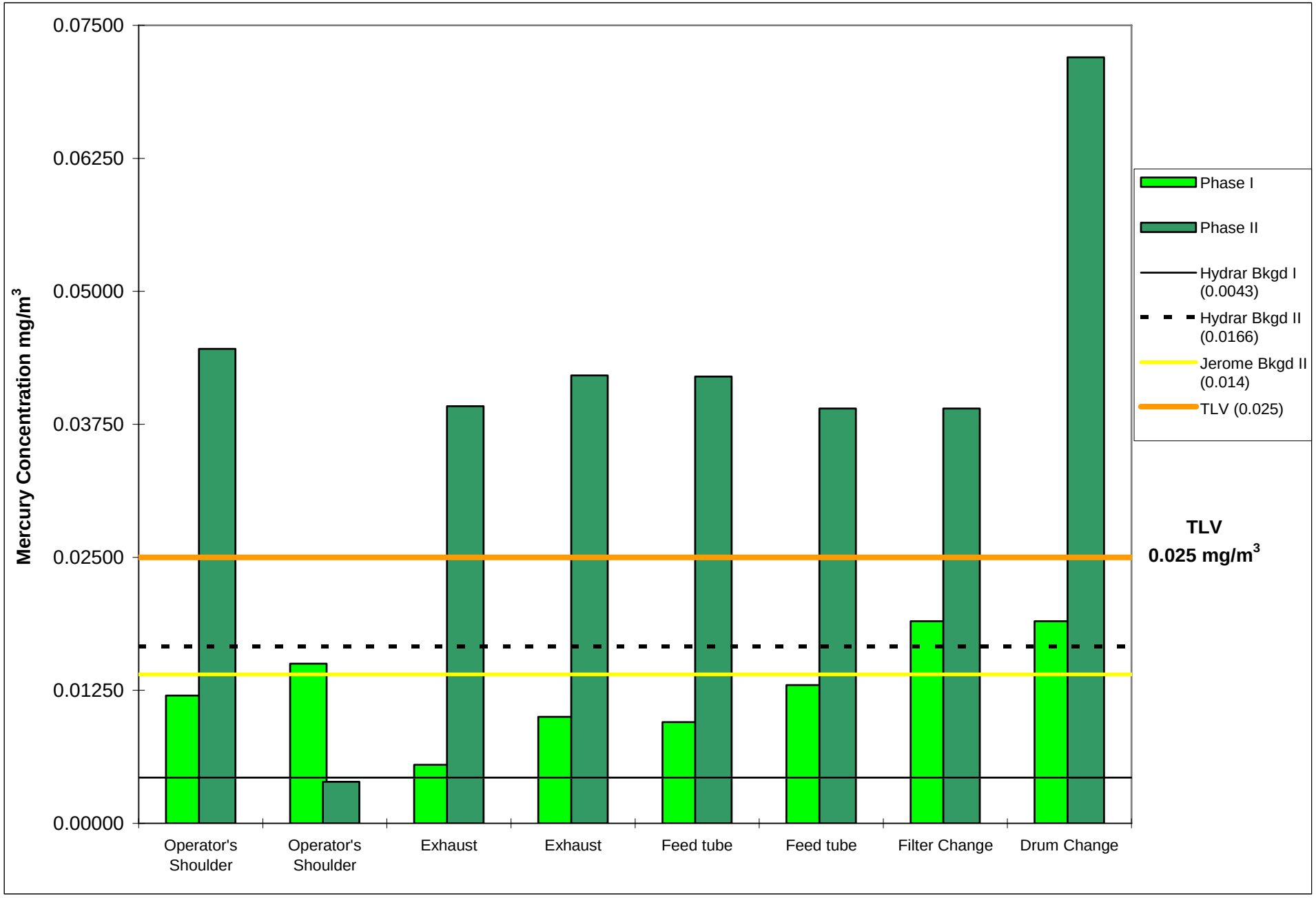
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 14: Performance Validation Study – Phase I and Phase II Analytical Air Results
Manufacturer B Device



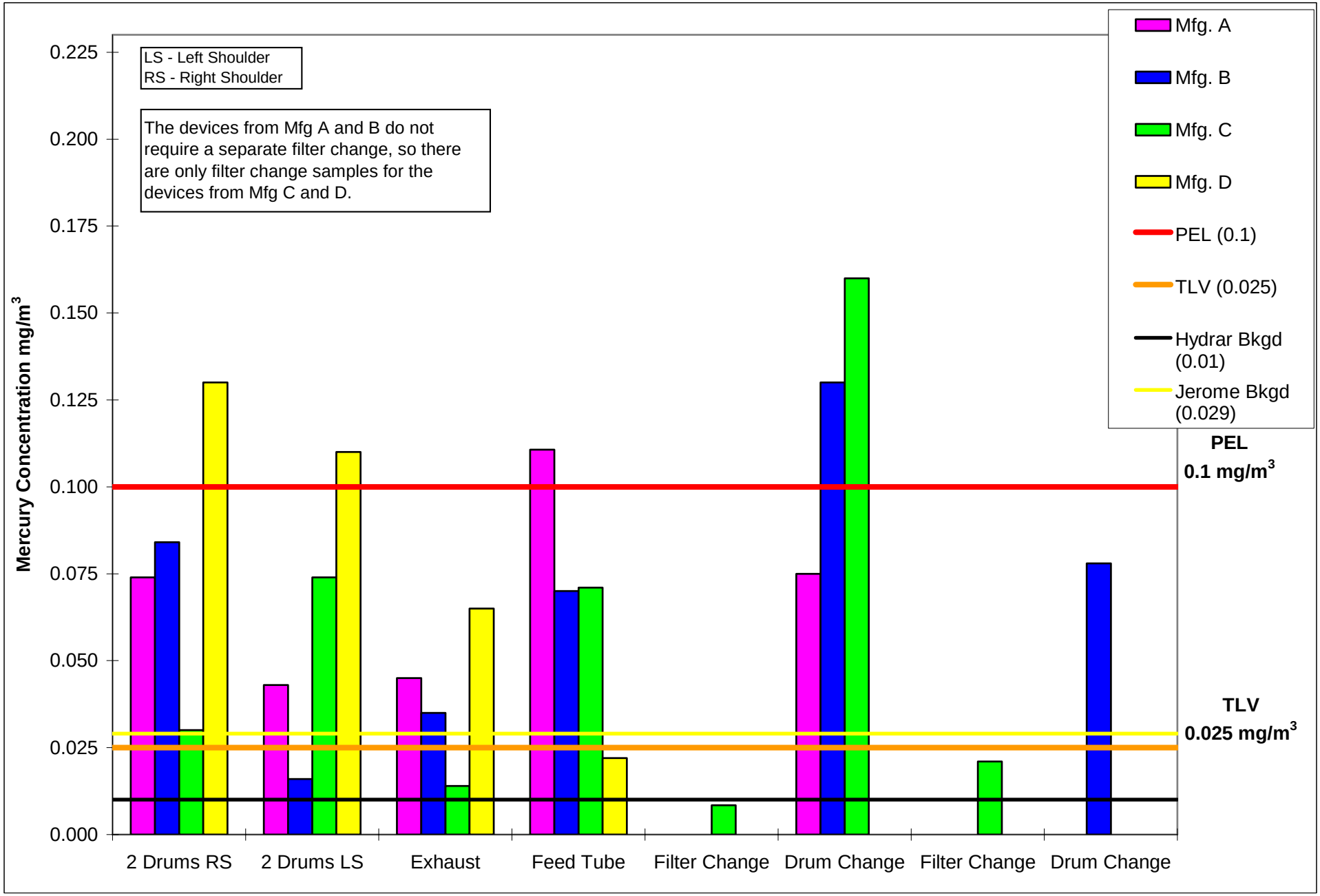
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 15: Performance Validation Study – Phase I and Phase II Analytical Air Results
Manufacturer C Device



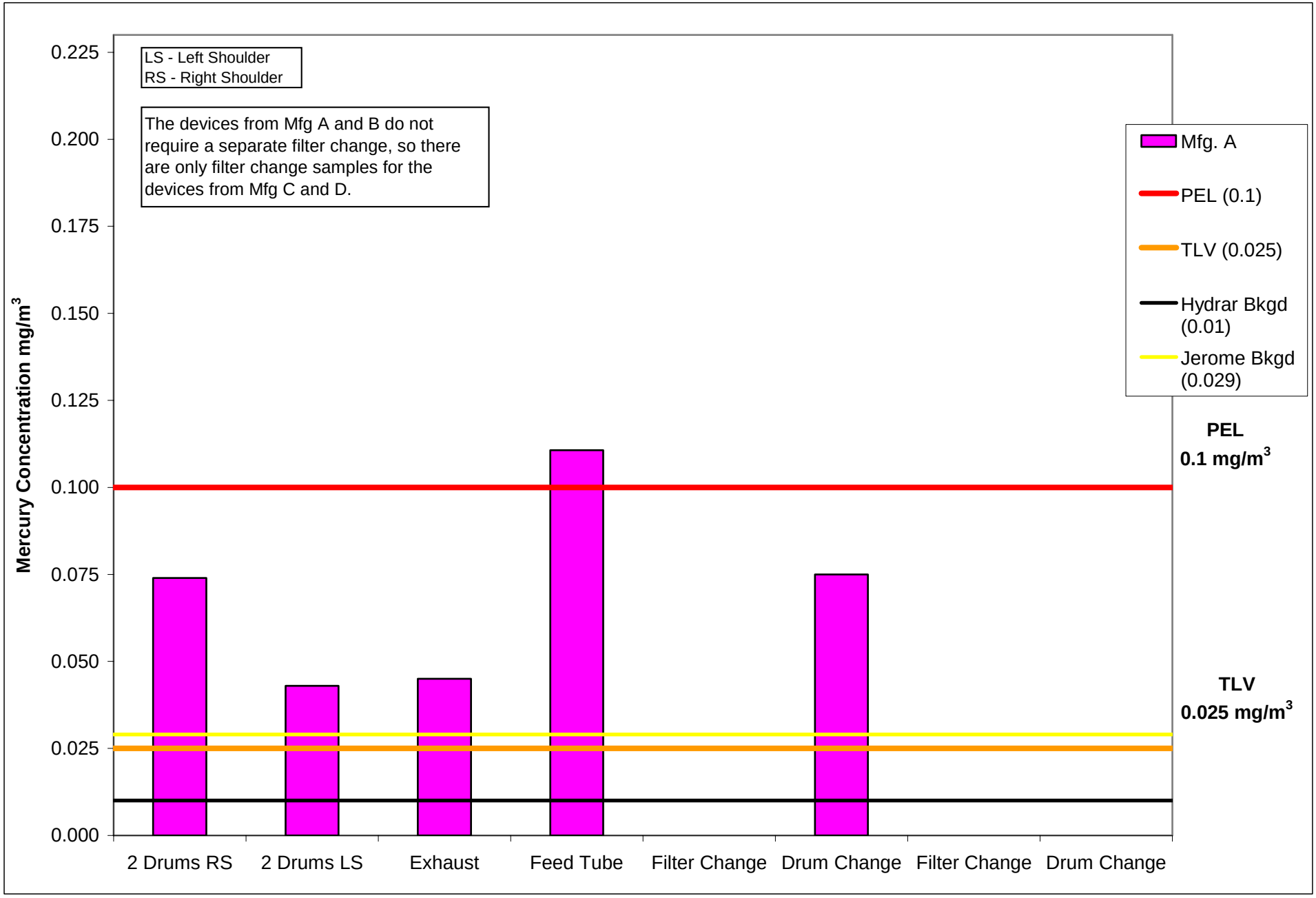
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 16: Extended Field Test #1 Analytical Air Results
All Devices – Phoenix, Arizona – March 24-28, 2003



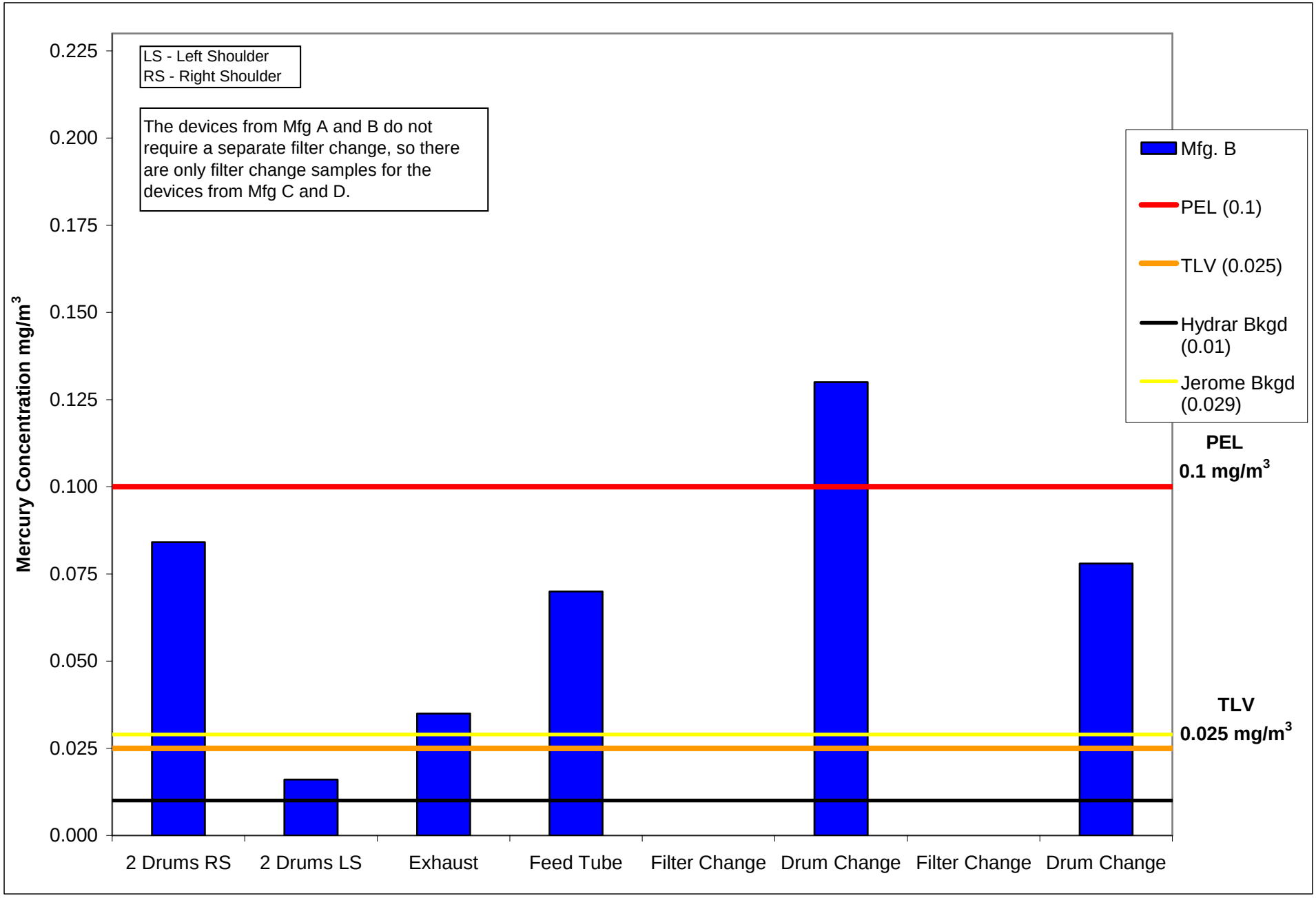
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 17: Extended Field Test #1 Analytical Air Results
Manufacturer A – Phoenix, Arizona – March 24-28, 2003



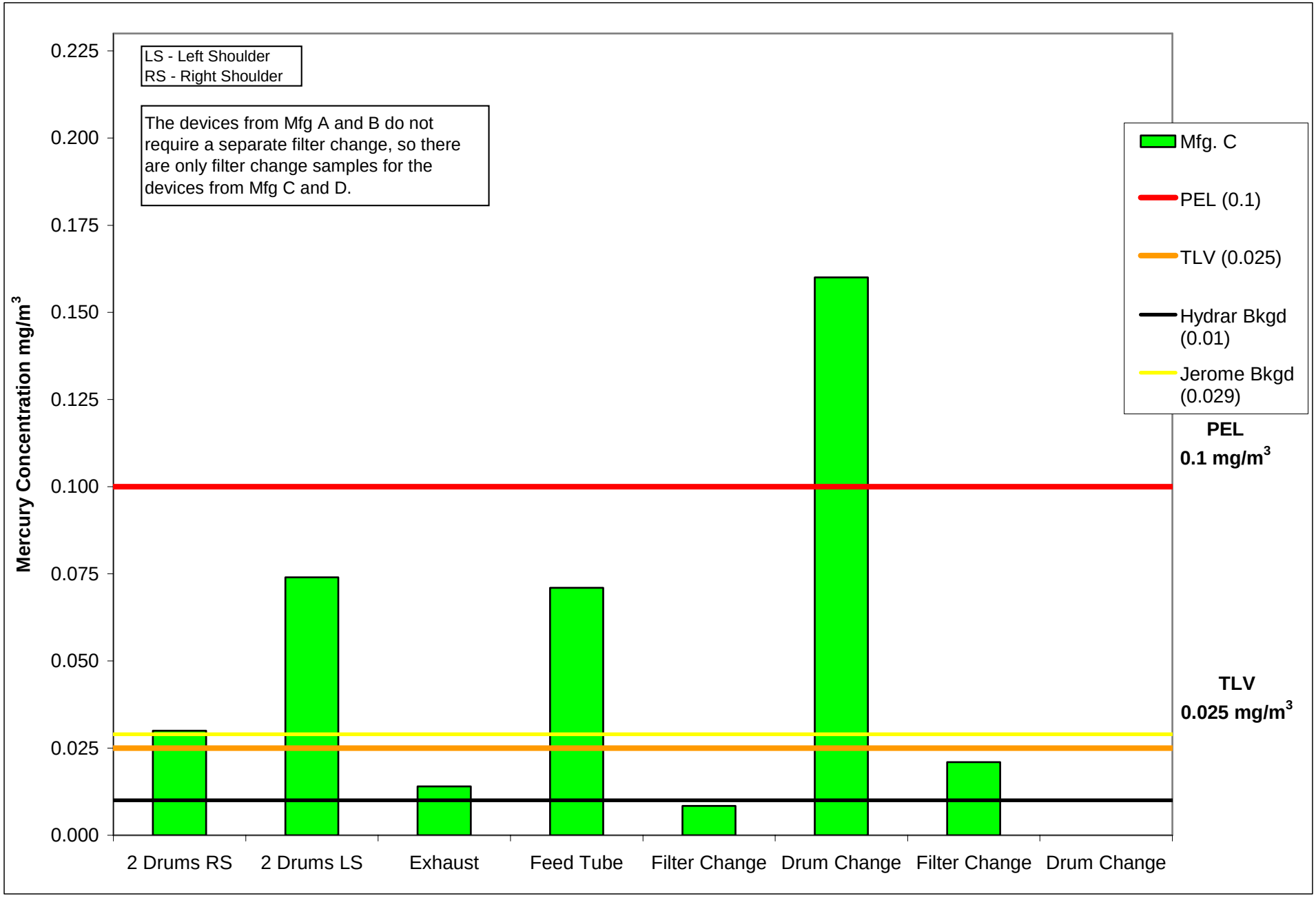
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 18: Extended Field Test #1 Analytical Air Results
Manufacturer B – Phoenix, Arizona – March 24-28, 2003



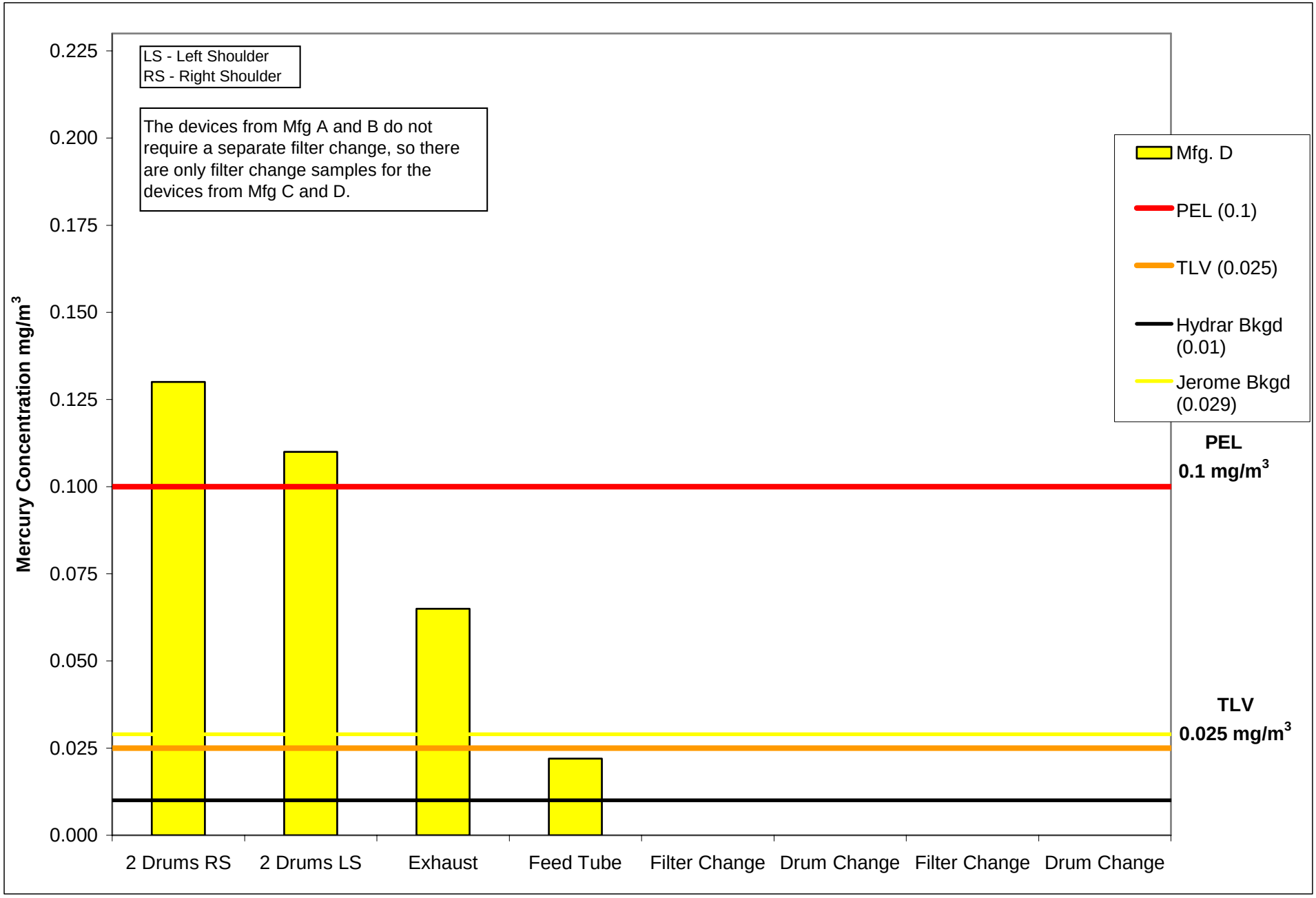
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 19: Extended Field Test #1 Analytical Air Results
Manufacturer C – Phoenix, Arizona – March 24-28, 2003



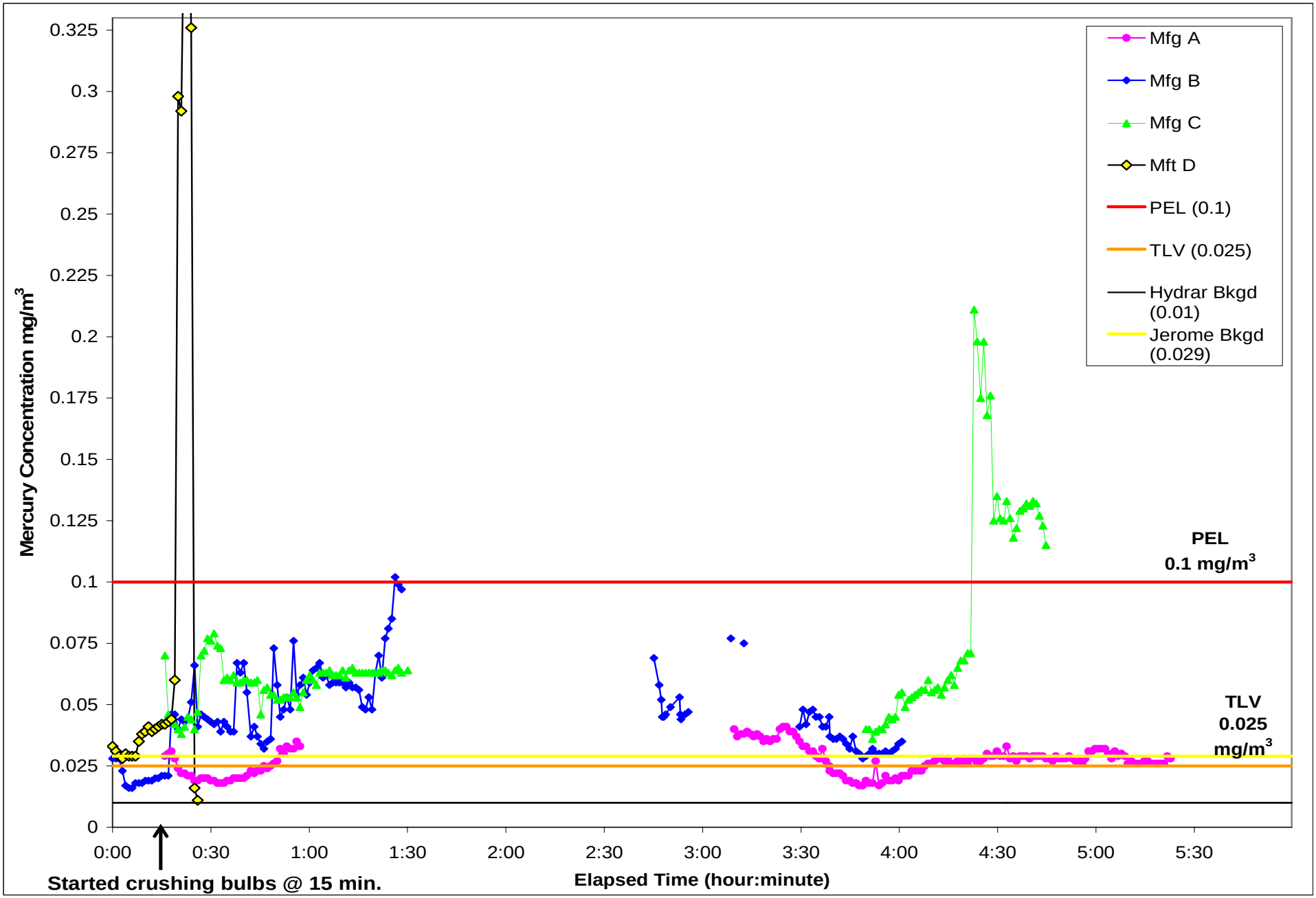
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 20: Extended Field Test #1 Analytical Air Results
Manufacturer D – Phoenix, Arizona – March 24-28, 2003



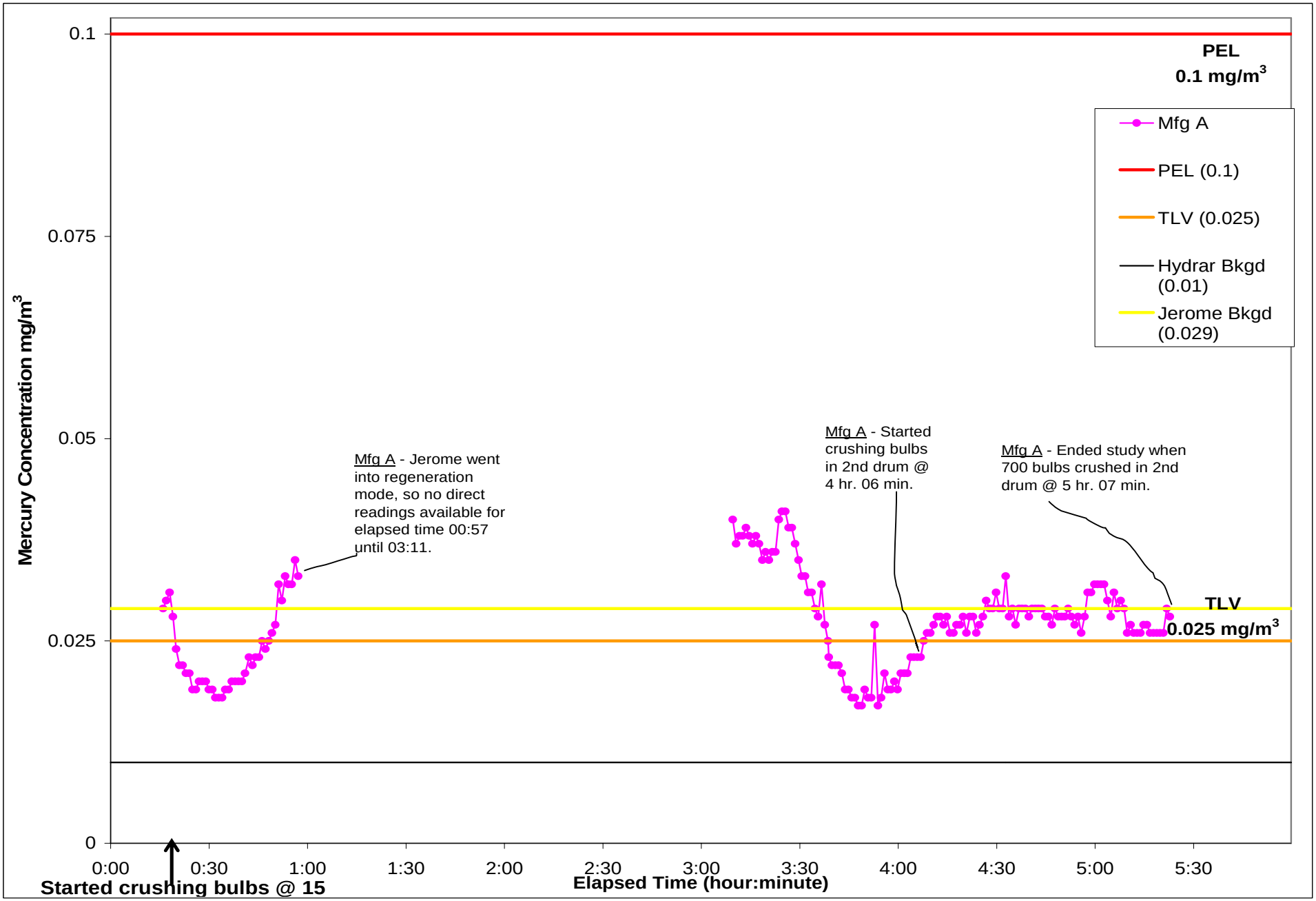
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 21: Extended Field Test #1 Jerome Results
All Devices – Phoenix, Arizona – March 24-28, 2003



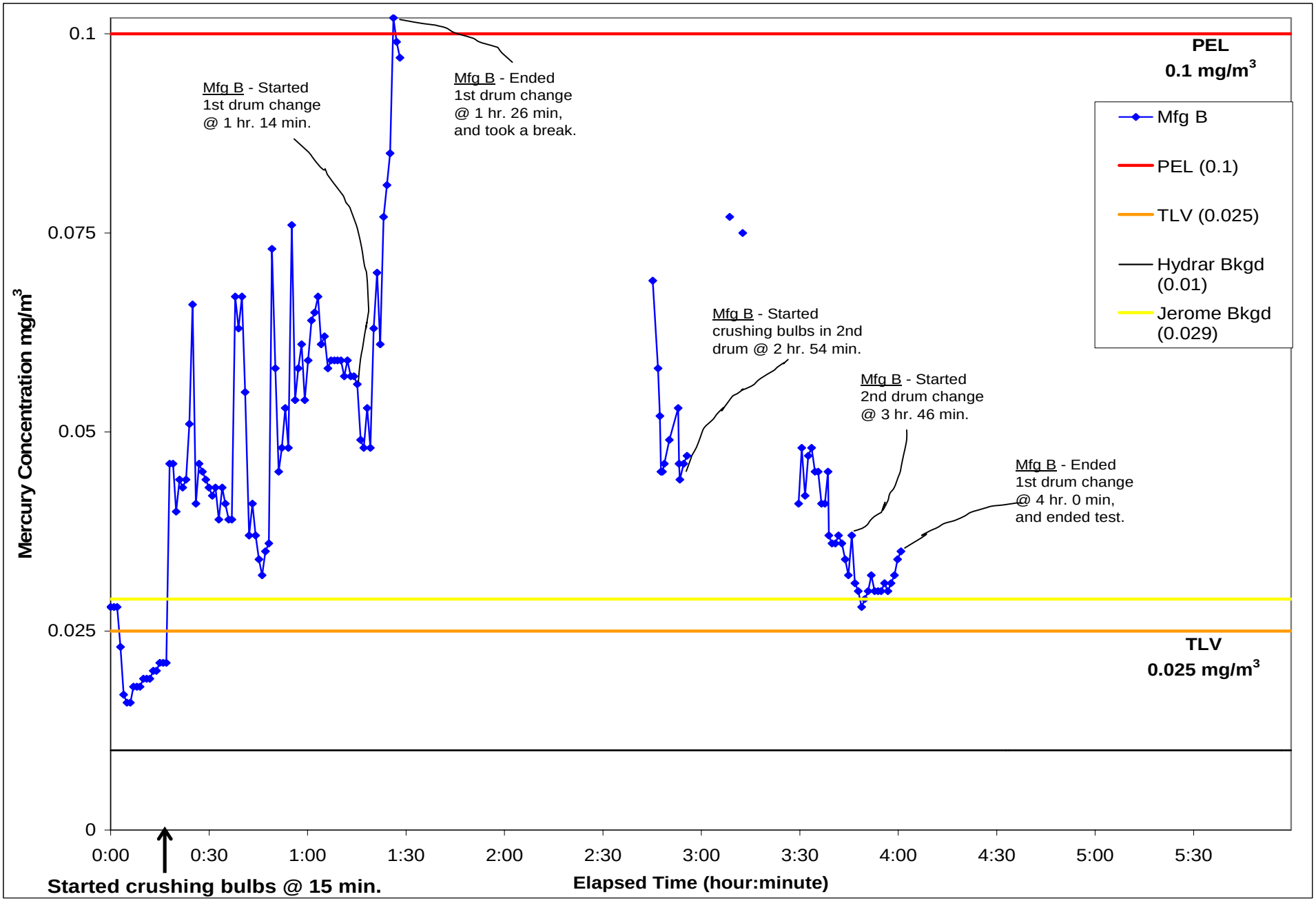
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 22: Extended Field Test #1 Jerome Results
Manufacturer A – Phoenix, Arizona – March 24-28, 2003



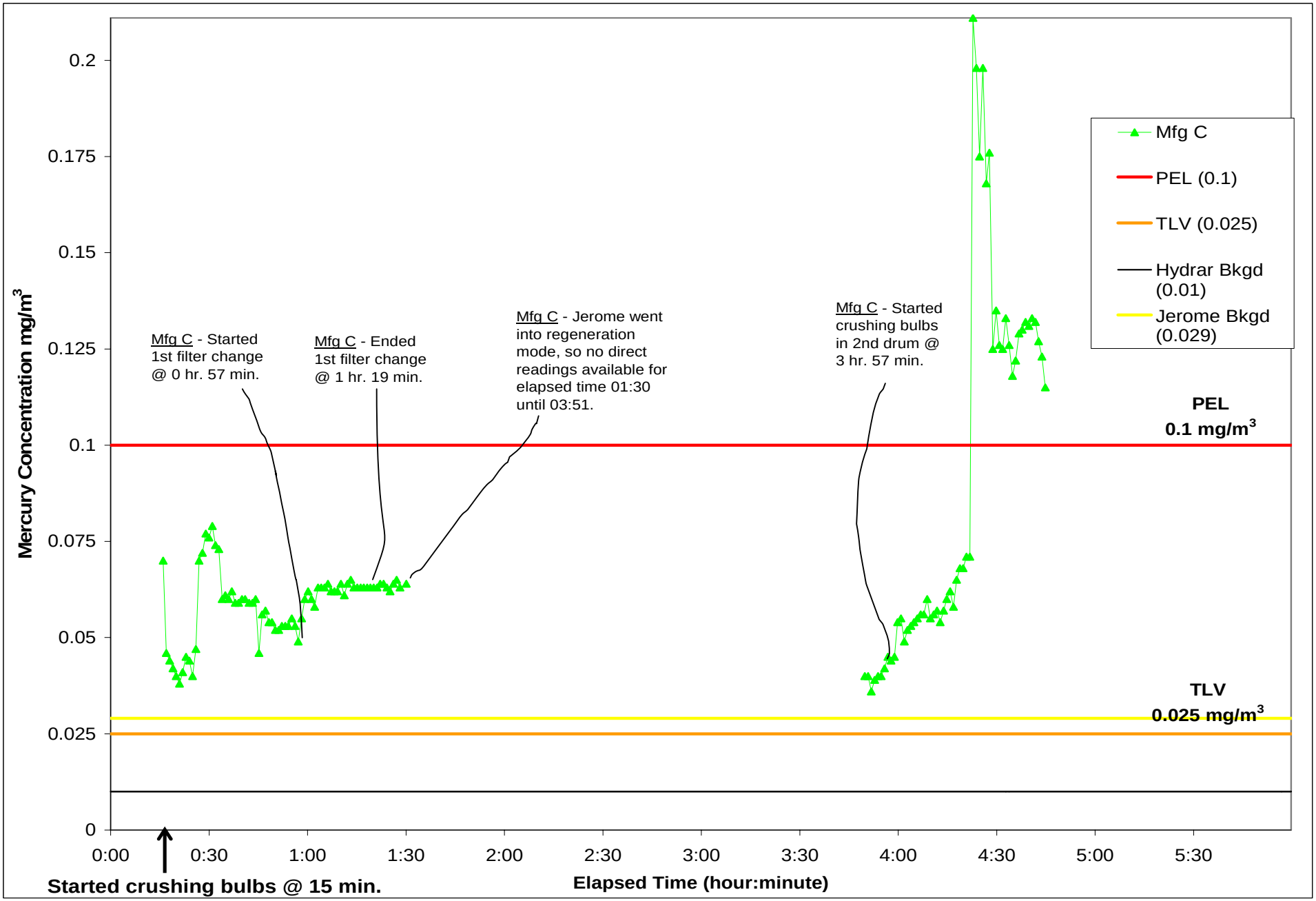
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 23: Extended Field Test #1 Jerome Results
Manufacturer B – Phoenix, Arizona – March 24-28, 2003



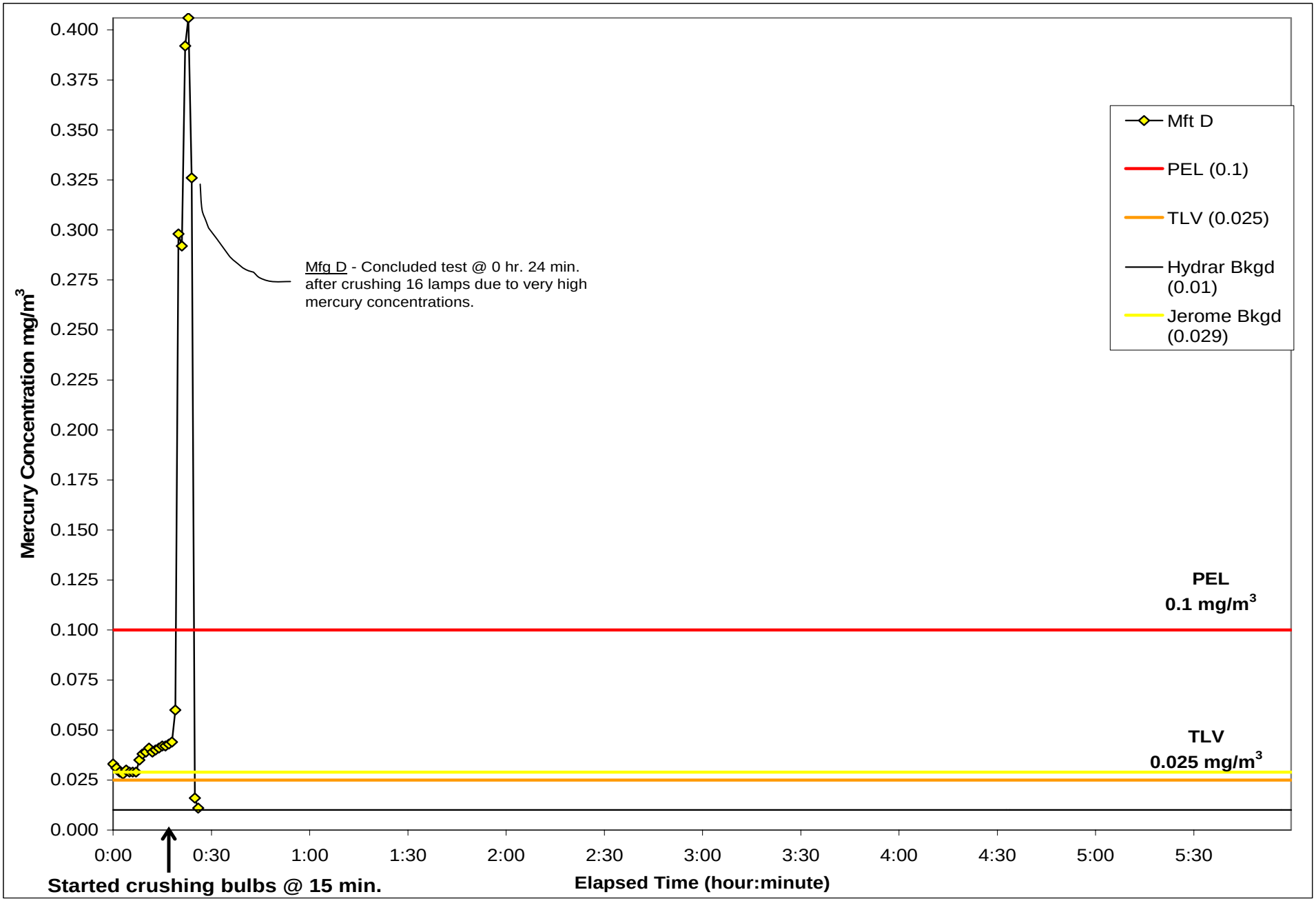
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 24: Extended Field Test #1 Jerome Results
Manufacturer C – Phoenix, Arizona – March 24-28, 2003



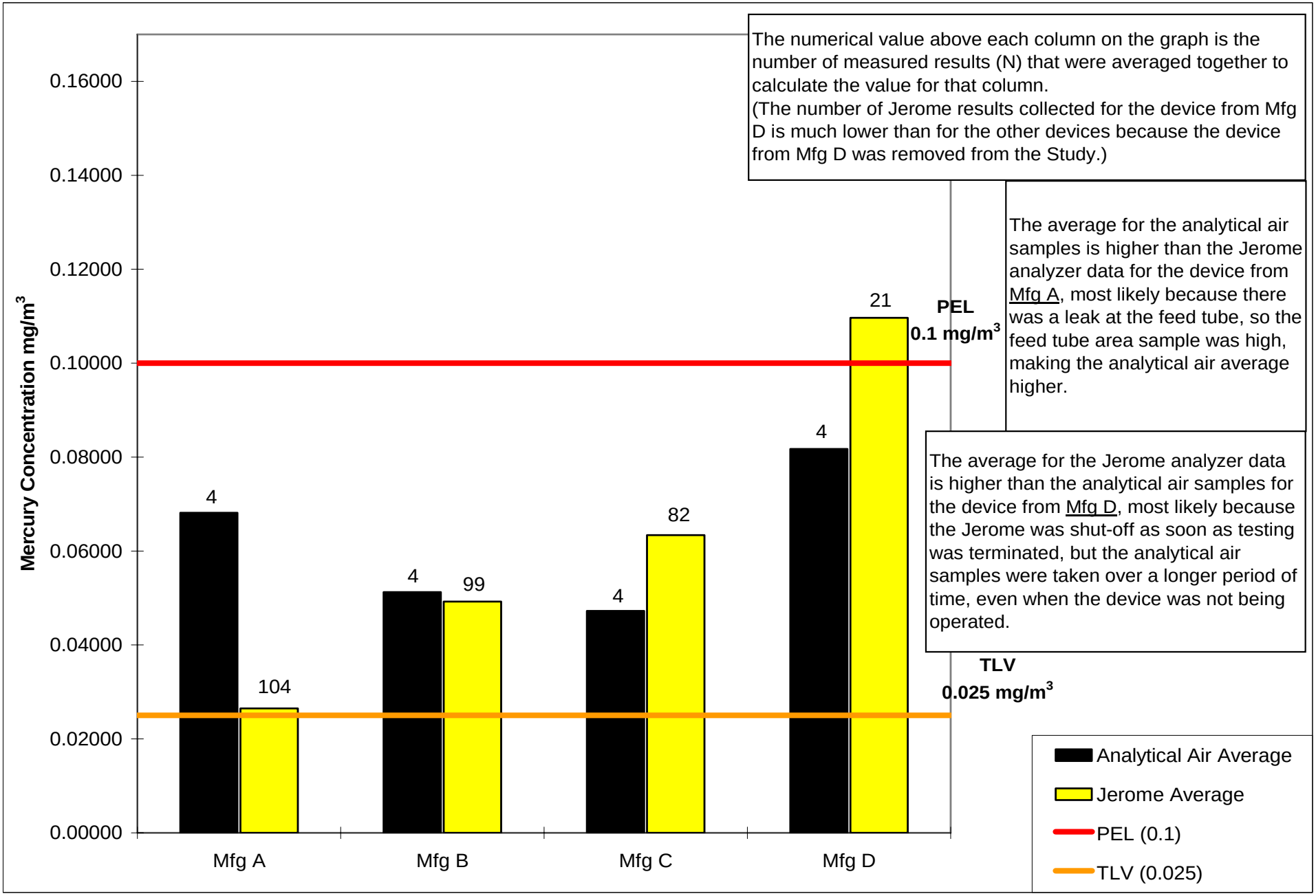
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 25: Extended Field Test #1 Jerome Results
Manufacturer D – Phoenix, Arizona – March 24-28, 2003



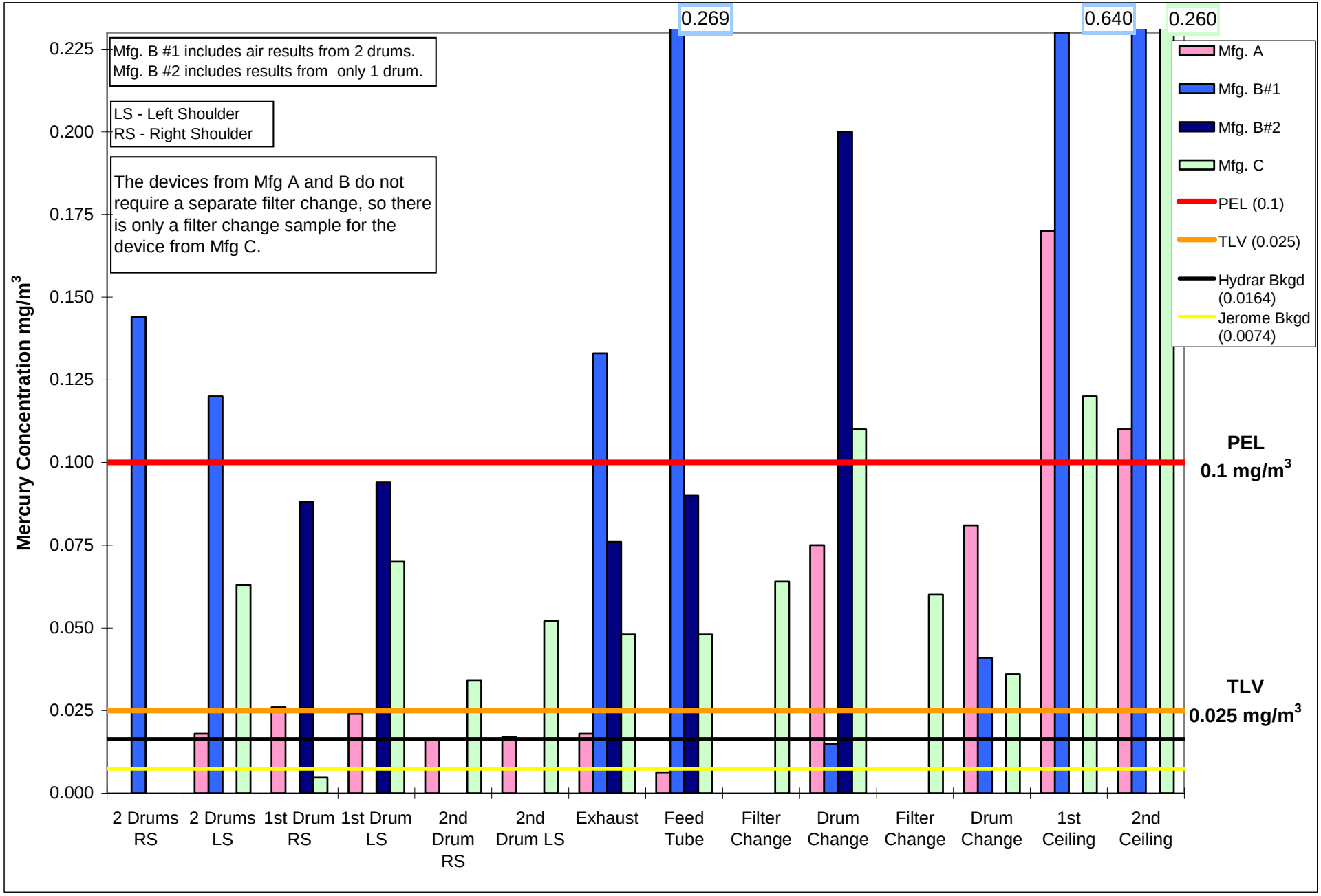
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 26: Extended Field Test #1 – Comparison of Analytical Air and Jerome Results
All Devices – Phoenix, Arizona – March 24-28, 2003



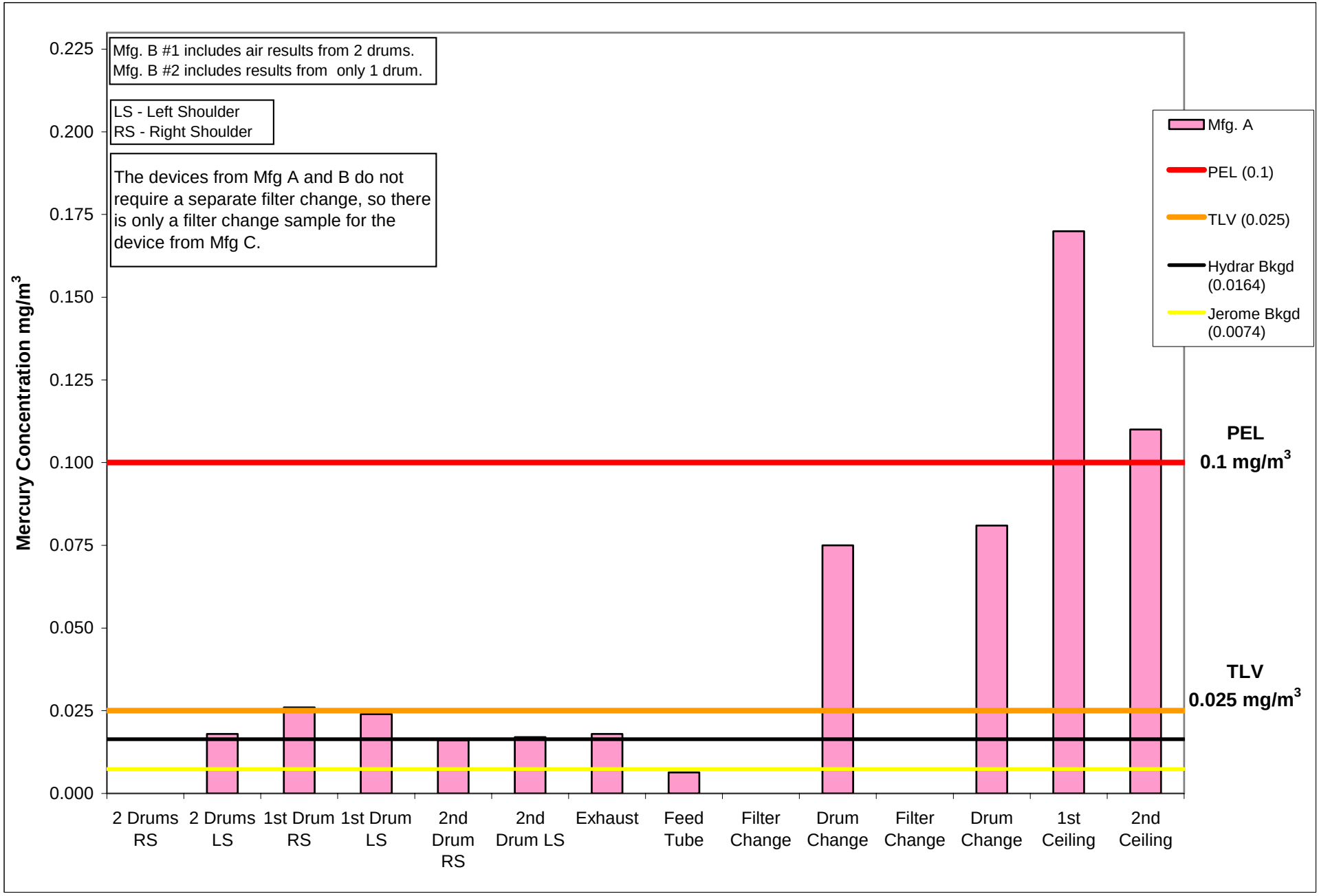
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 27: Extended Field Test #2 Analytical Air Results
All Devices – Melbourne, Florida – April 28-May 2, 2003



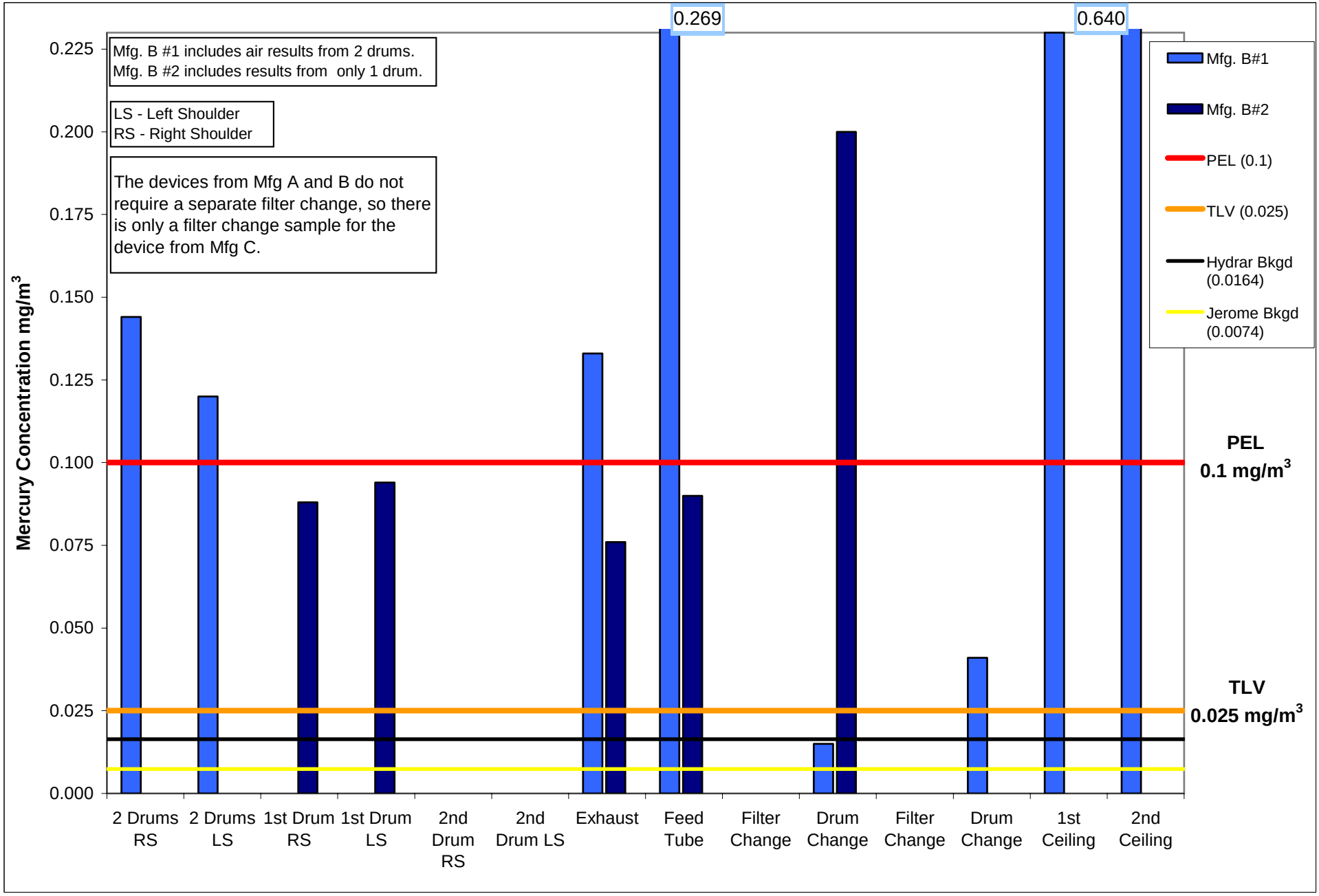
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 28: Extended Field Test #2 Analytical Air Results
Manufacturer A – Melbourne, Florida – April 28-May 2, 2003



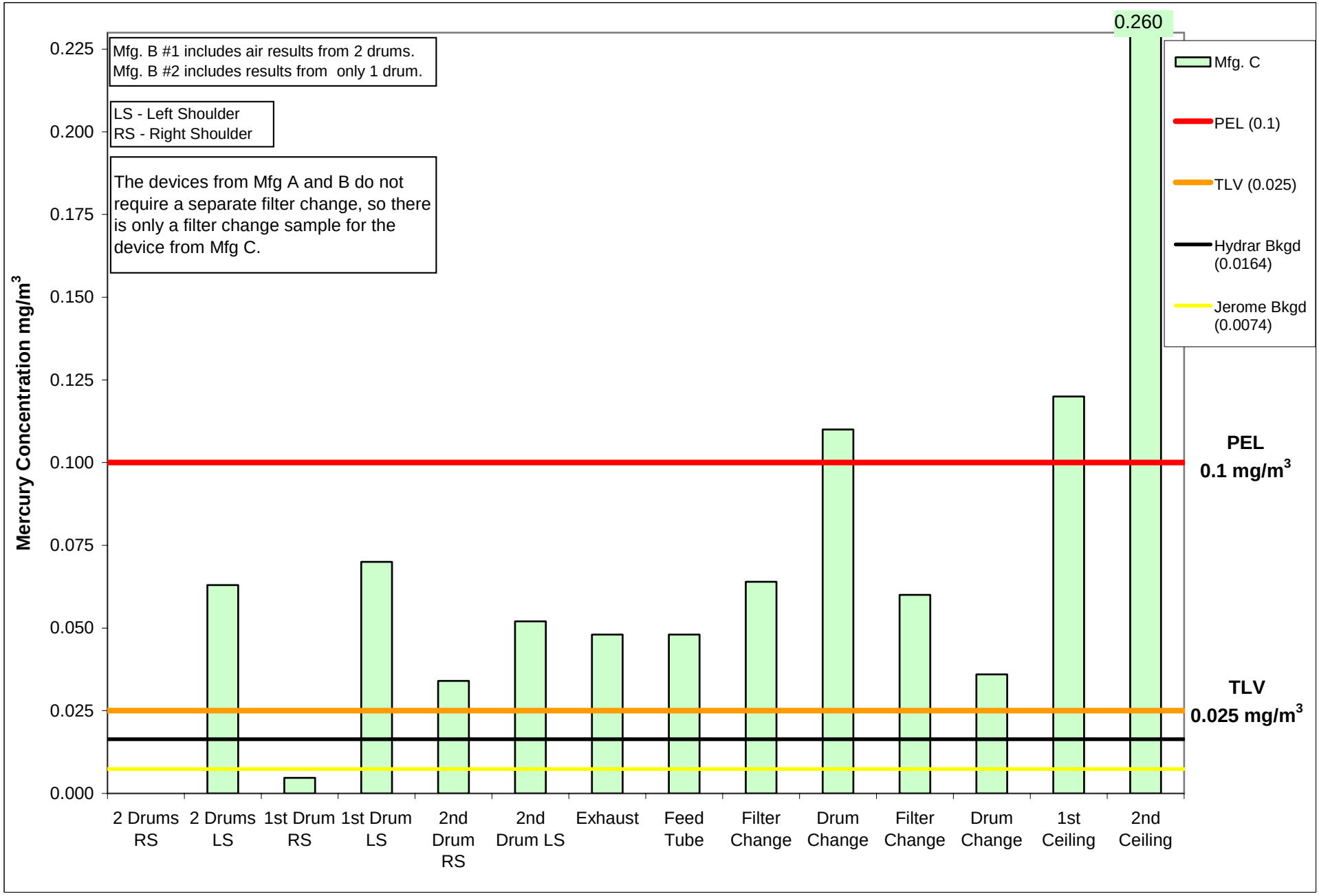
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 29: Extended Field Test #2 Analytical Air Results
Manufacturer B – Melbourne, Florida – April 28-May 2, 2003



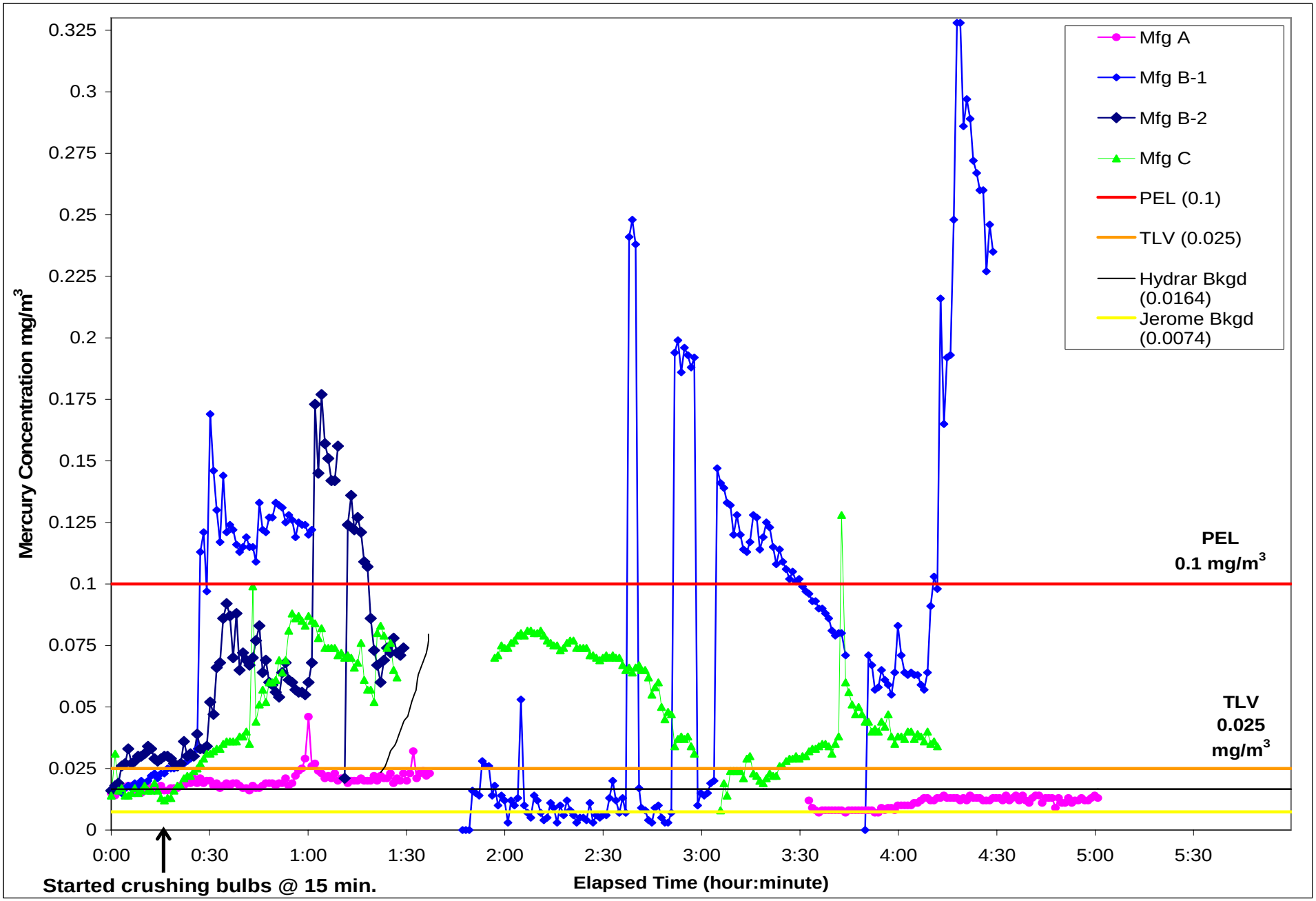
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 30: Extended Field Test #2 Analytical Air Results
Manufacturer C – Melbourne, Florida – April 28-May 2, 2003



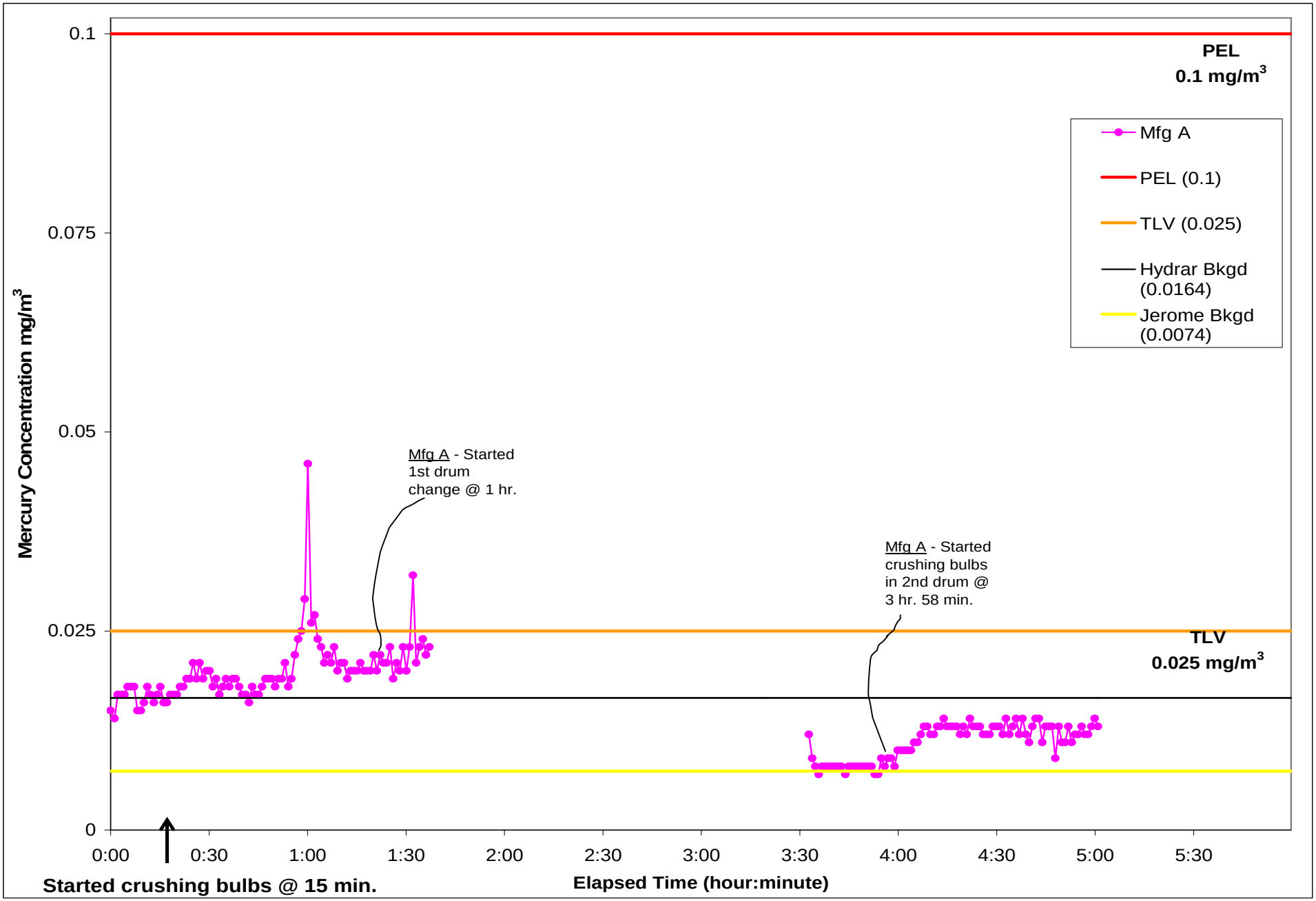
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 31: Extended Field Test #2 Jerome Results
All Devices – Melbourne, Florida – April 28-May 2, 2003



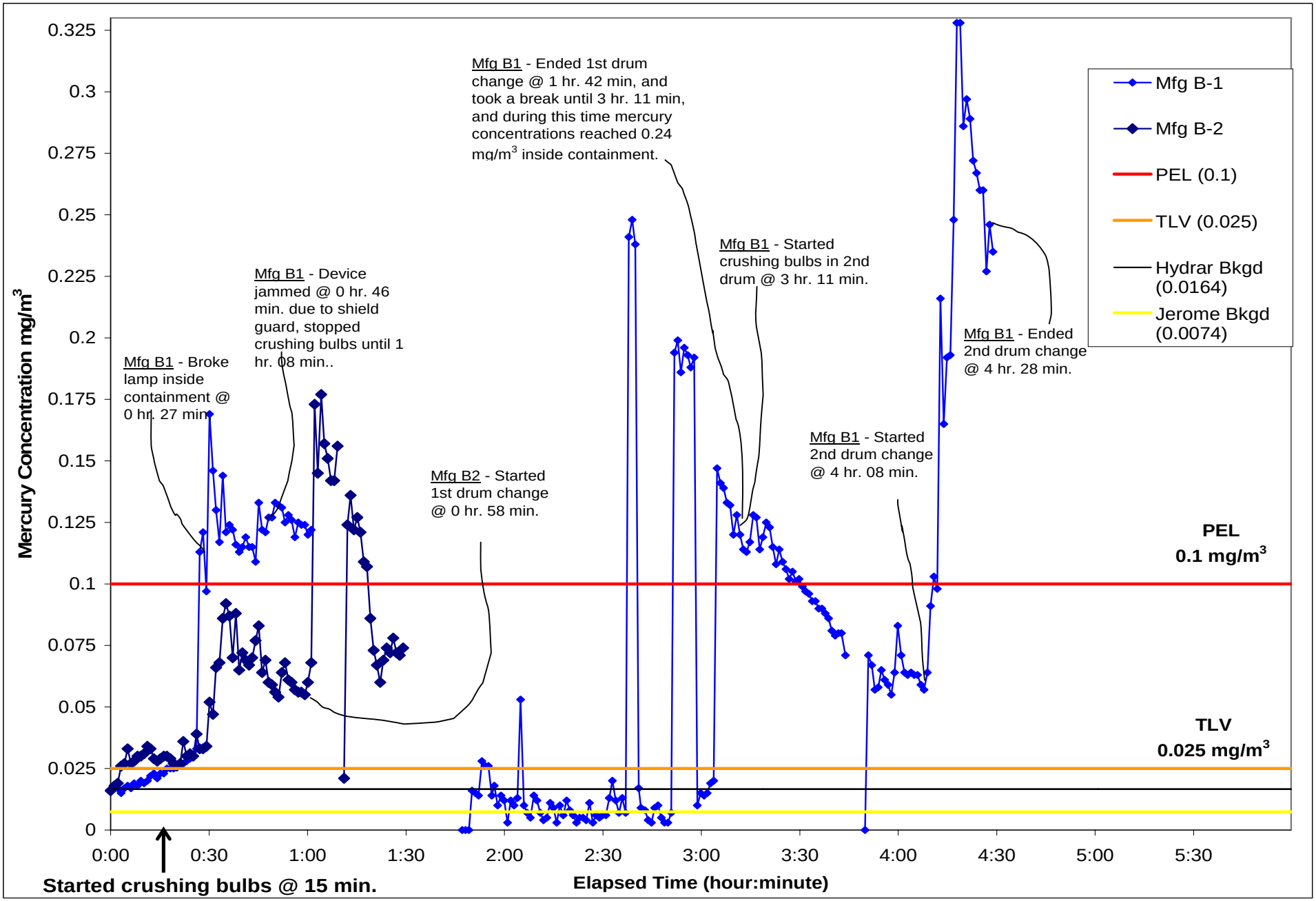
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 32: Extended Field Test #2 Jerome Results
Manufacturer A – Melbourne, Florida – April 28-May 2, 2003



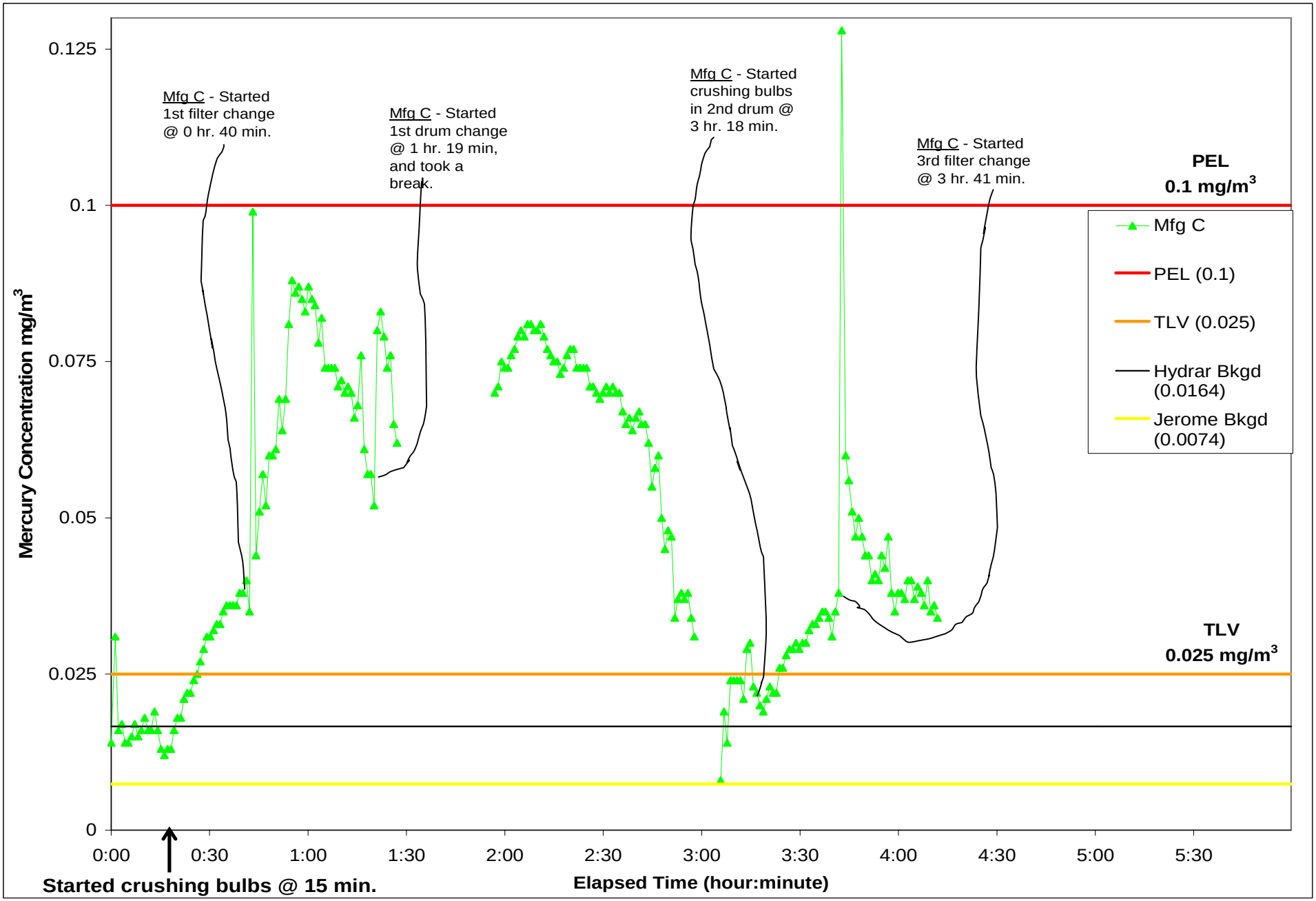
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 33: Extended Field Test #2 Jerome Results
Manufacturer B – Melbourne, Florida – April 28-May 2, 2003



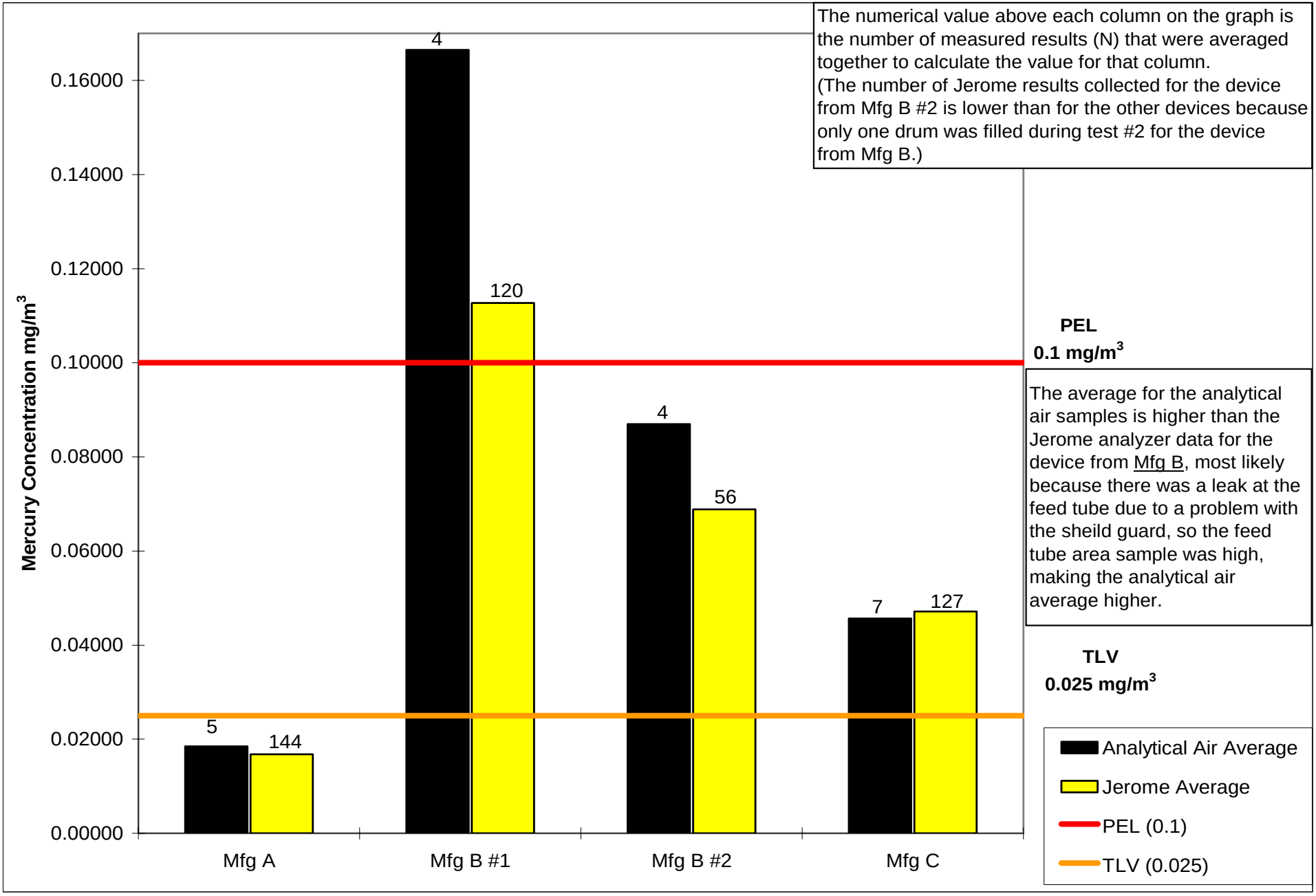
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 34: Extended Field Test #2 Jerome Results
Manufacturer C – Melbourne, Florida – April 28-May 2, 2003



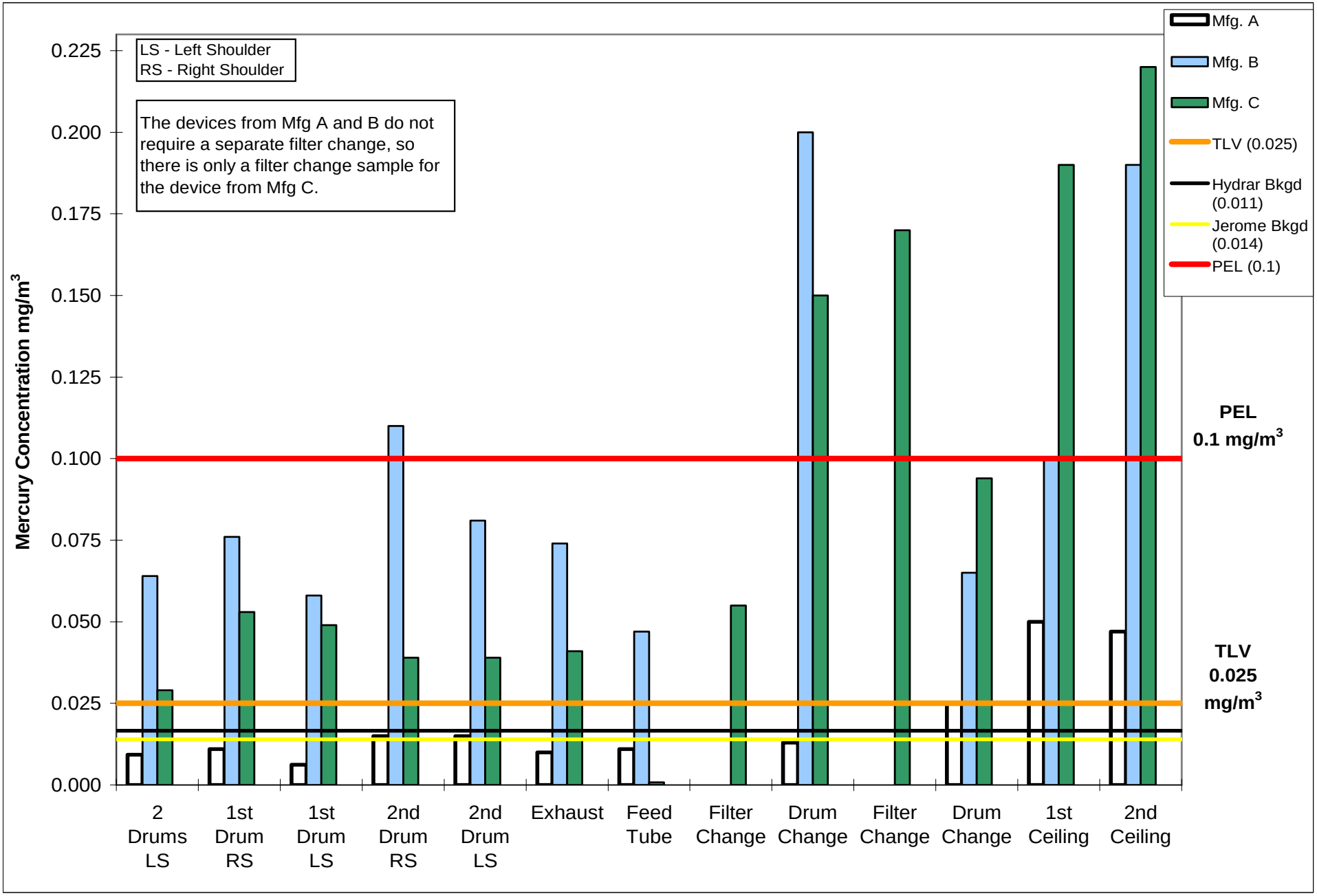
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 35: Extended Field Test #2 – Comparison of Analytical Air and Jerome Results
All Devices – Melbourne, Florida – April 28-May 2, 2003



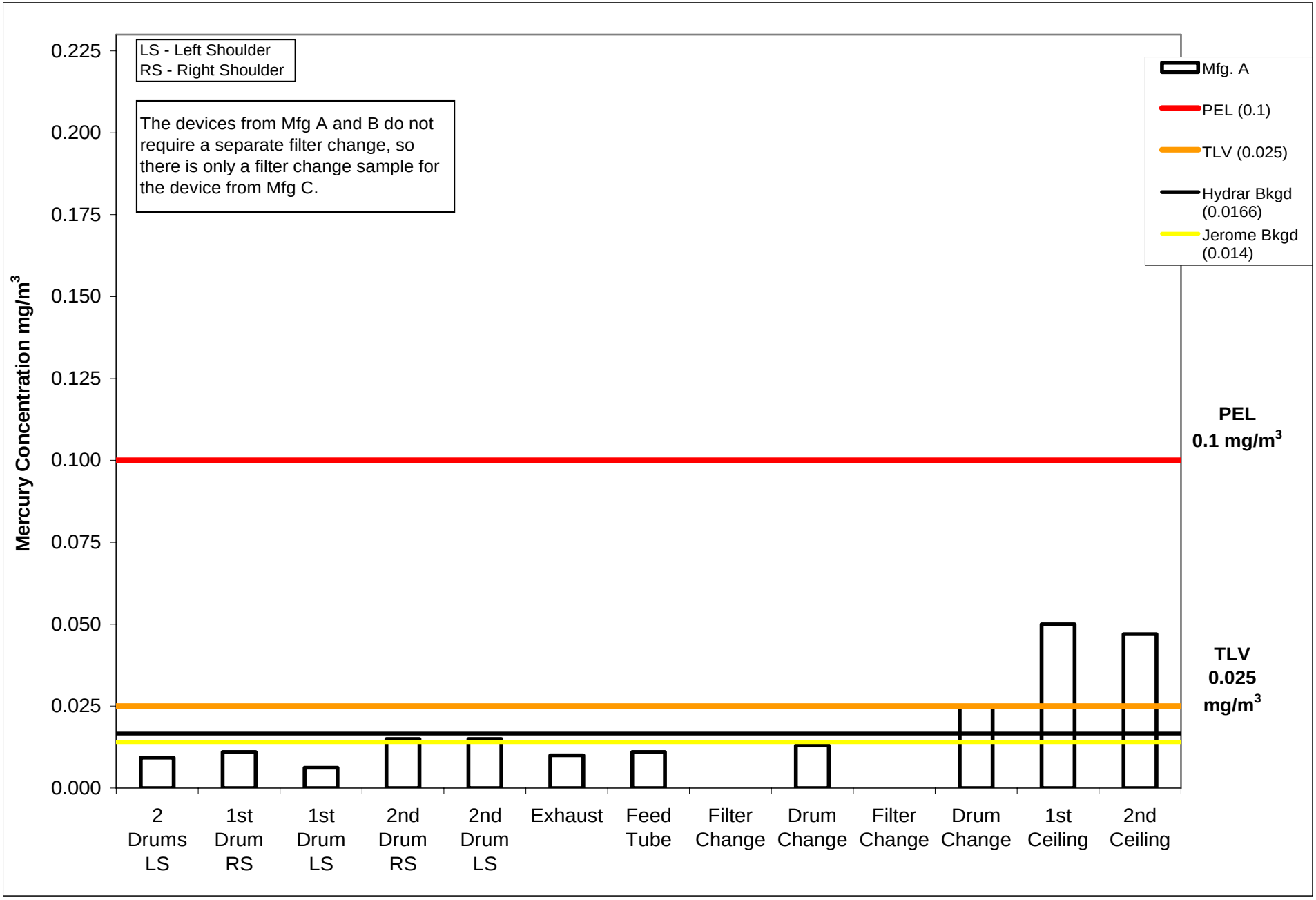
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 36: Extended Field Test #3 Analytical Air Results
All Devices – Ashland, Virginia – June 9-13, 2003



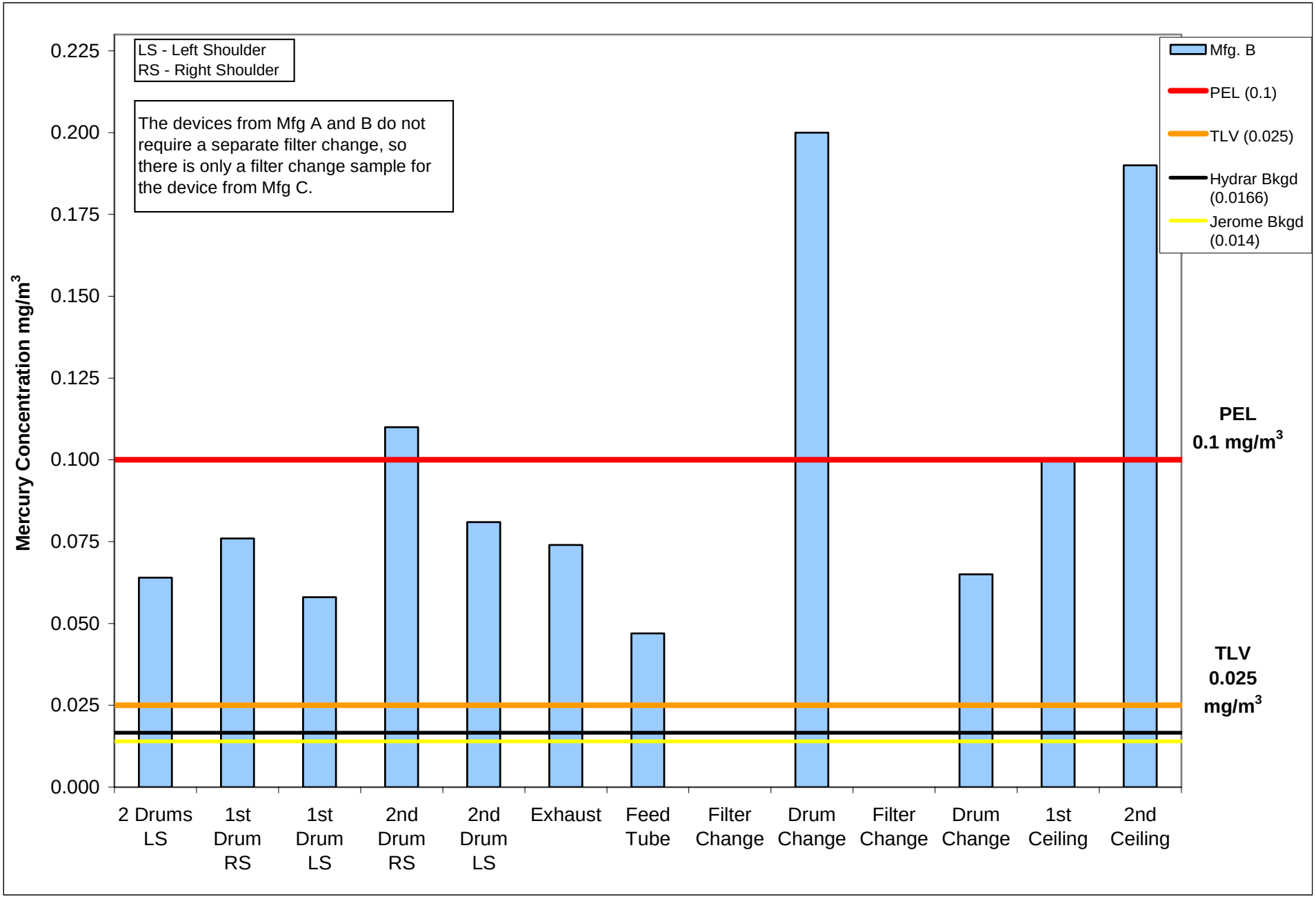
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 37: Extended Field Test #3 Analytical Air Results
Manufacturer A – Ashland, Virginia – June 9-13, 2003



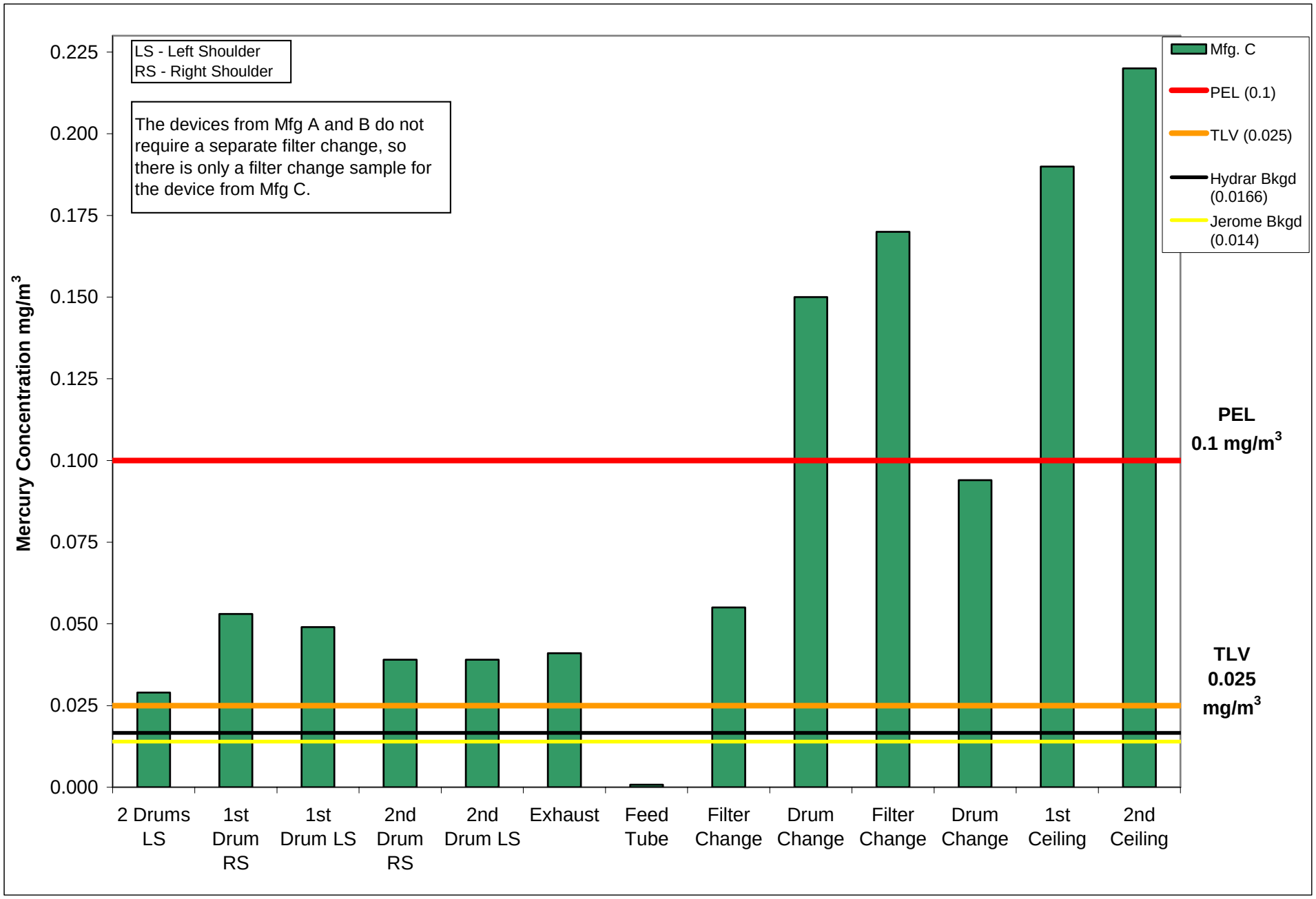
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 38: Extended Field Test #3 Analytical Air Results
Manufacturer B – Ashland, Virginia – June 9-13, 2003



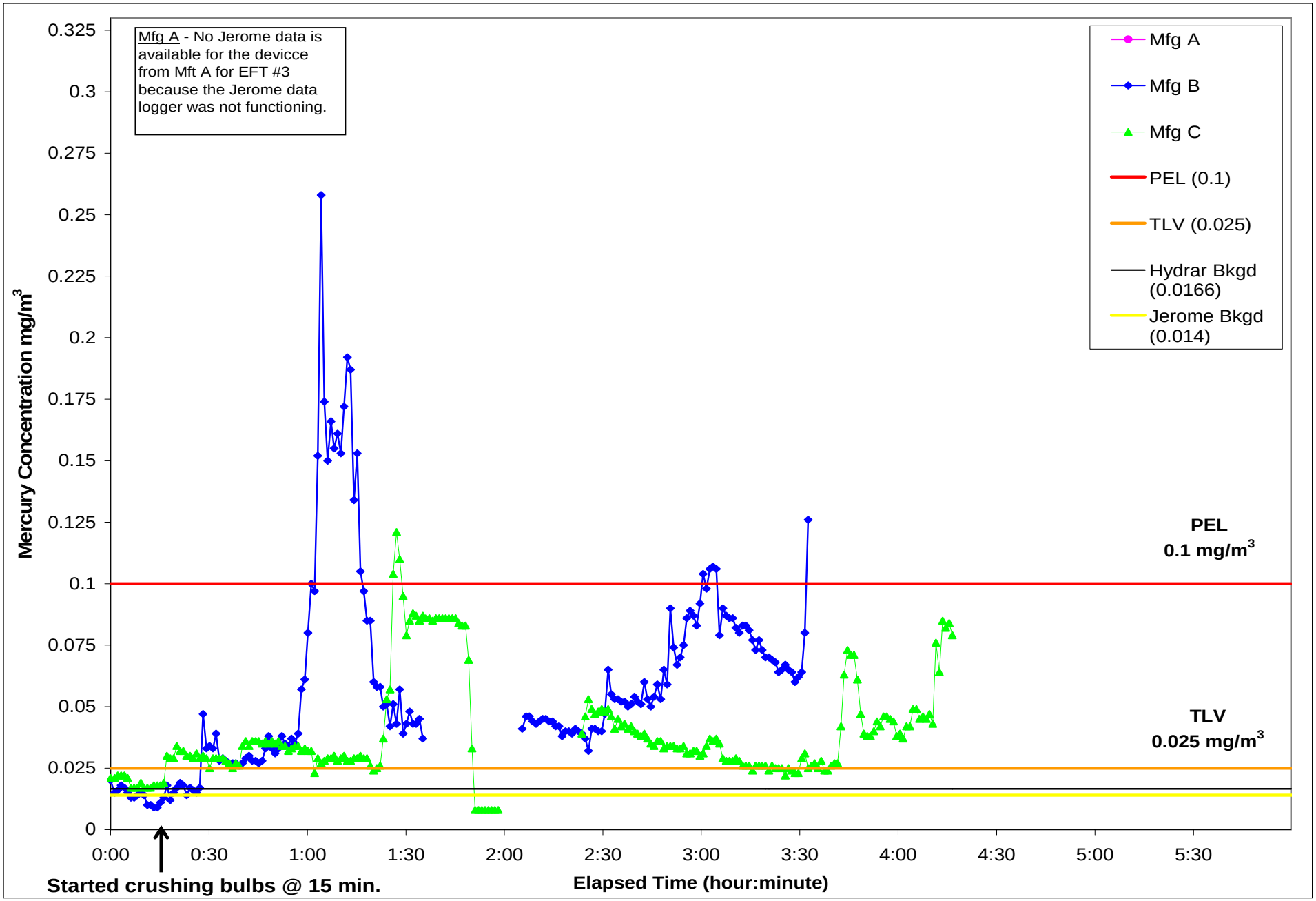
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 39: Extended Field Test #3 Analytical Air Results
Manufacturer C – Ashland, Virginia – June 9-13, 2003



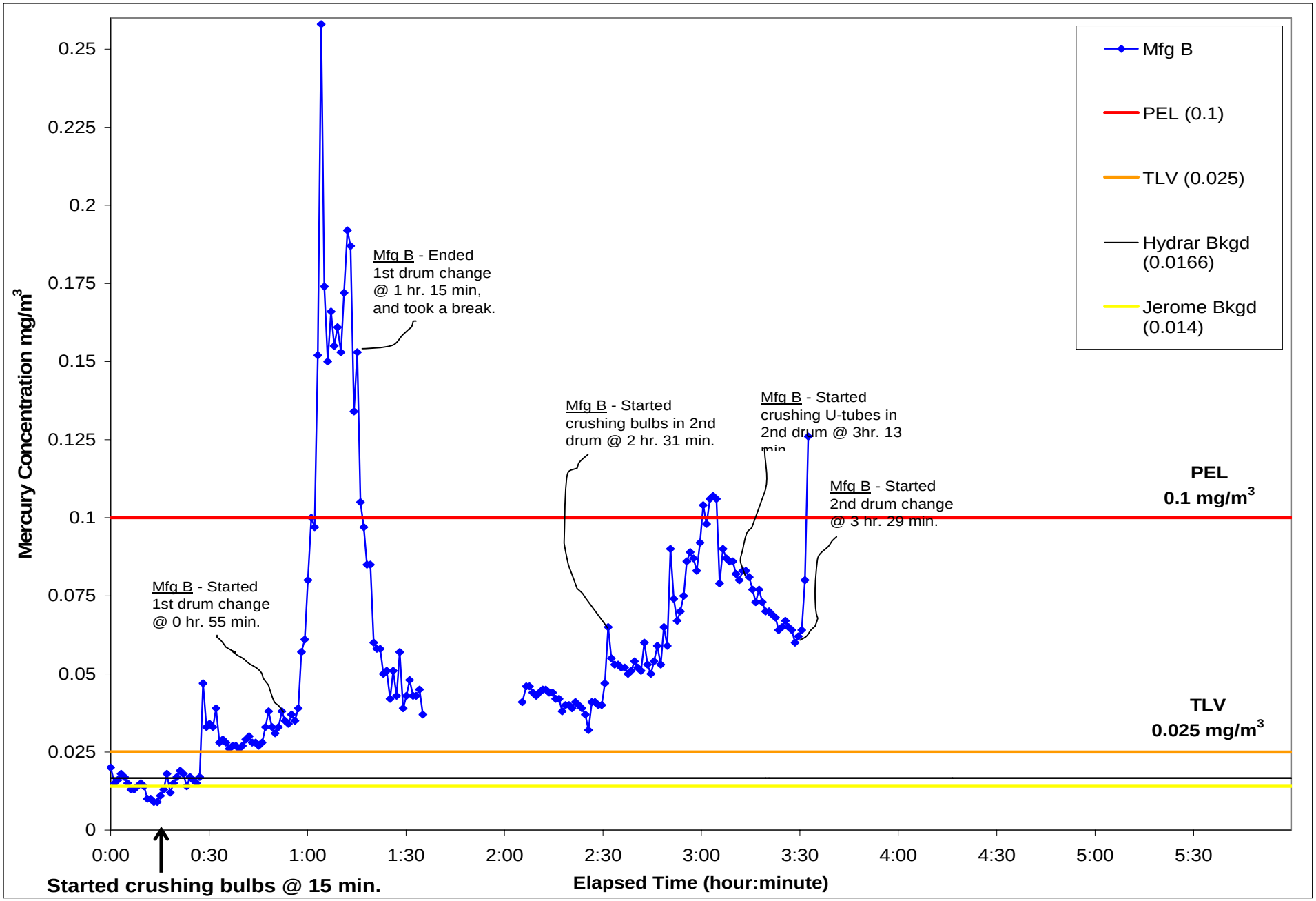
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 40: Extended Field Test #3 Jerome Results
All Devices – Ashland, Virginia – June 9-13, 2003



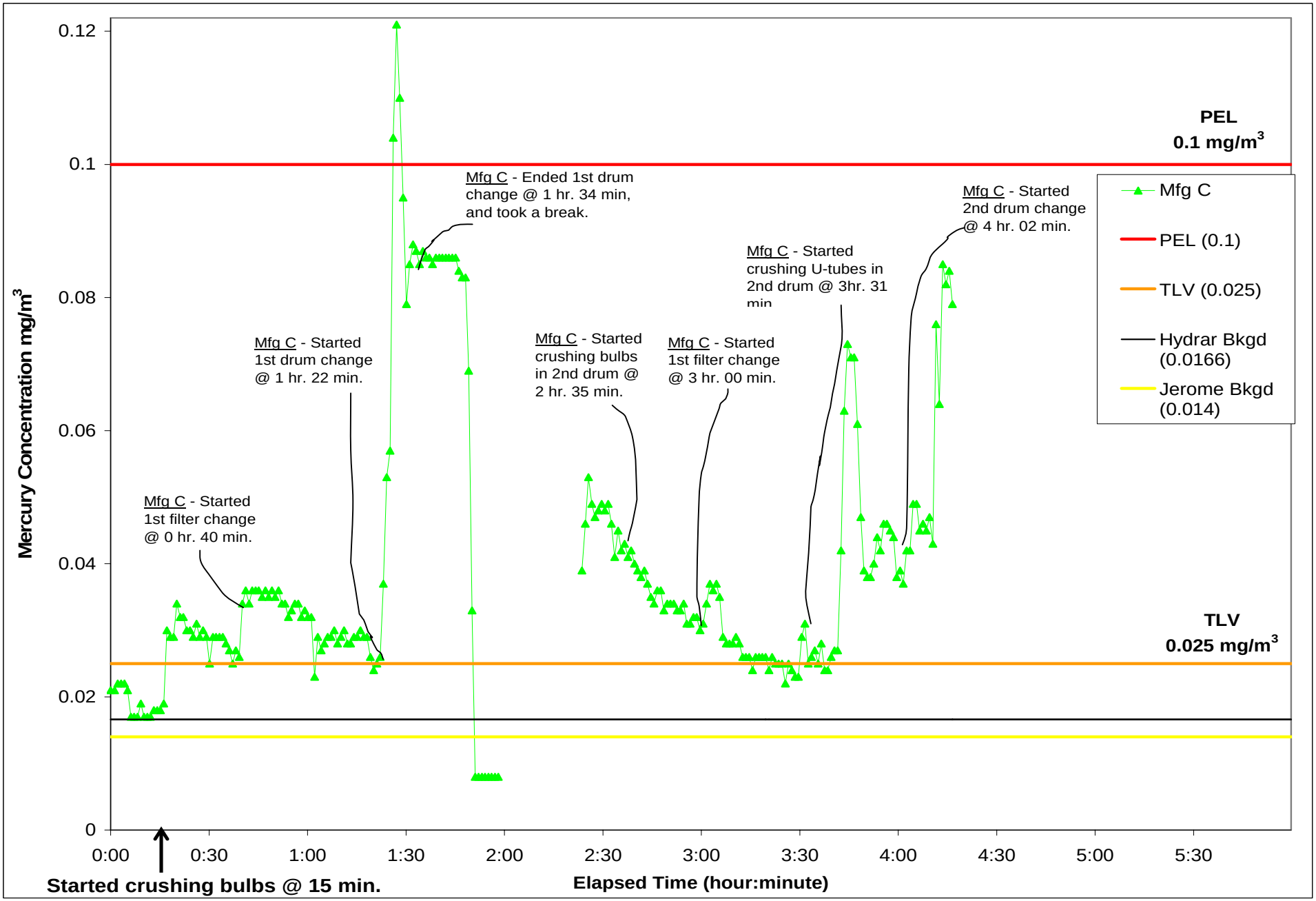
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 41: Extended Field Test #3 Jerome Results
Manufacturer B – Ashland, Virginia – June 9-13, 2003



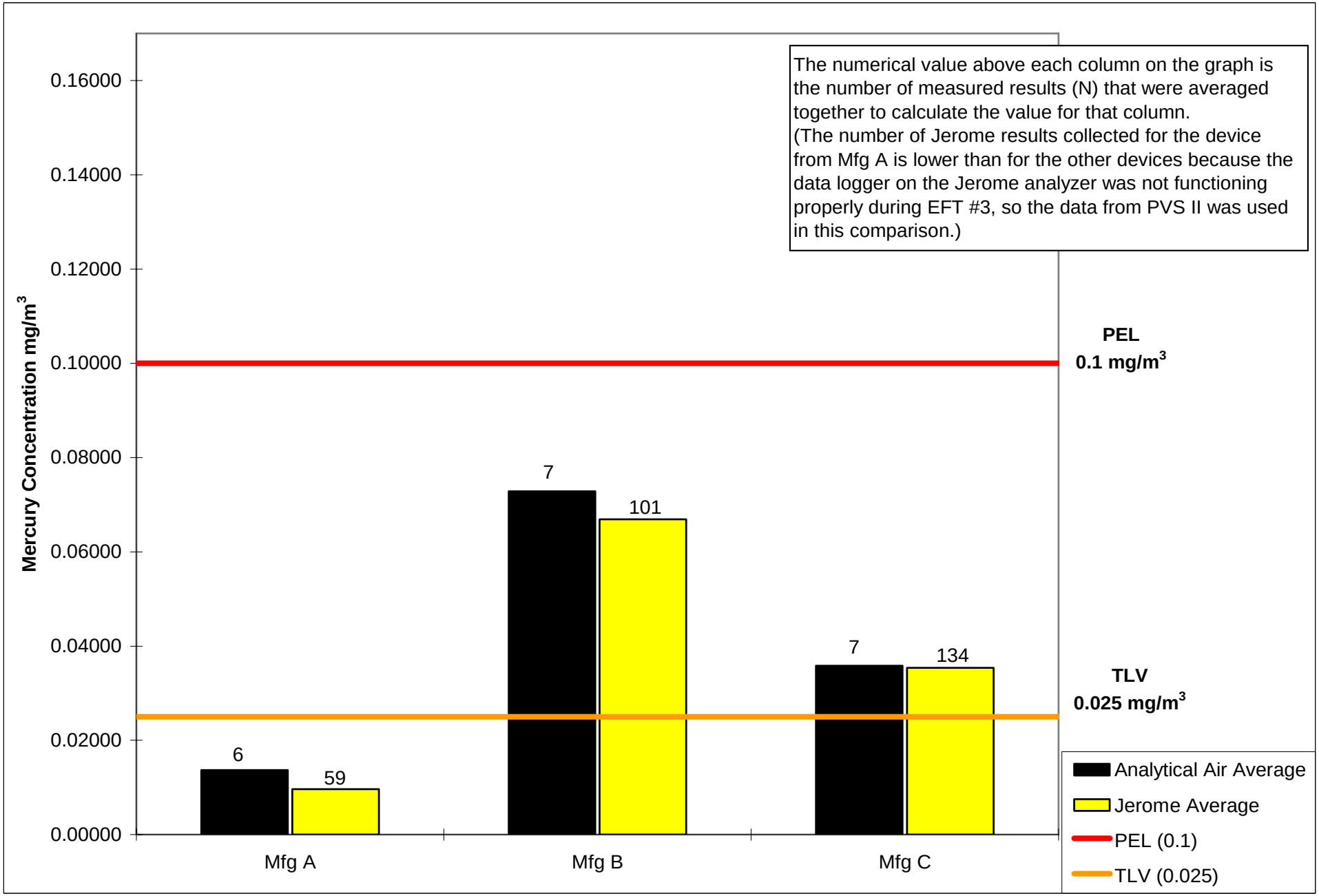
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 42: Extended Field Test #3 Jerome Results
Manufacturer C – Ashland, Virginia – June 9-13, 2003



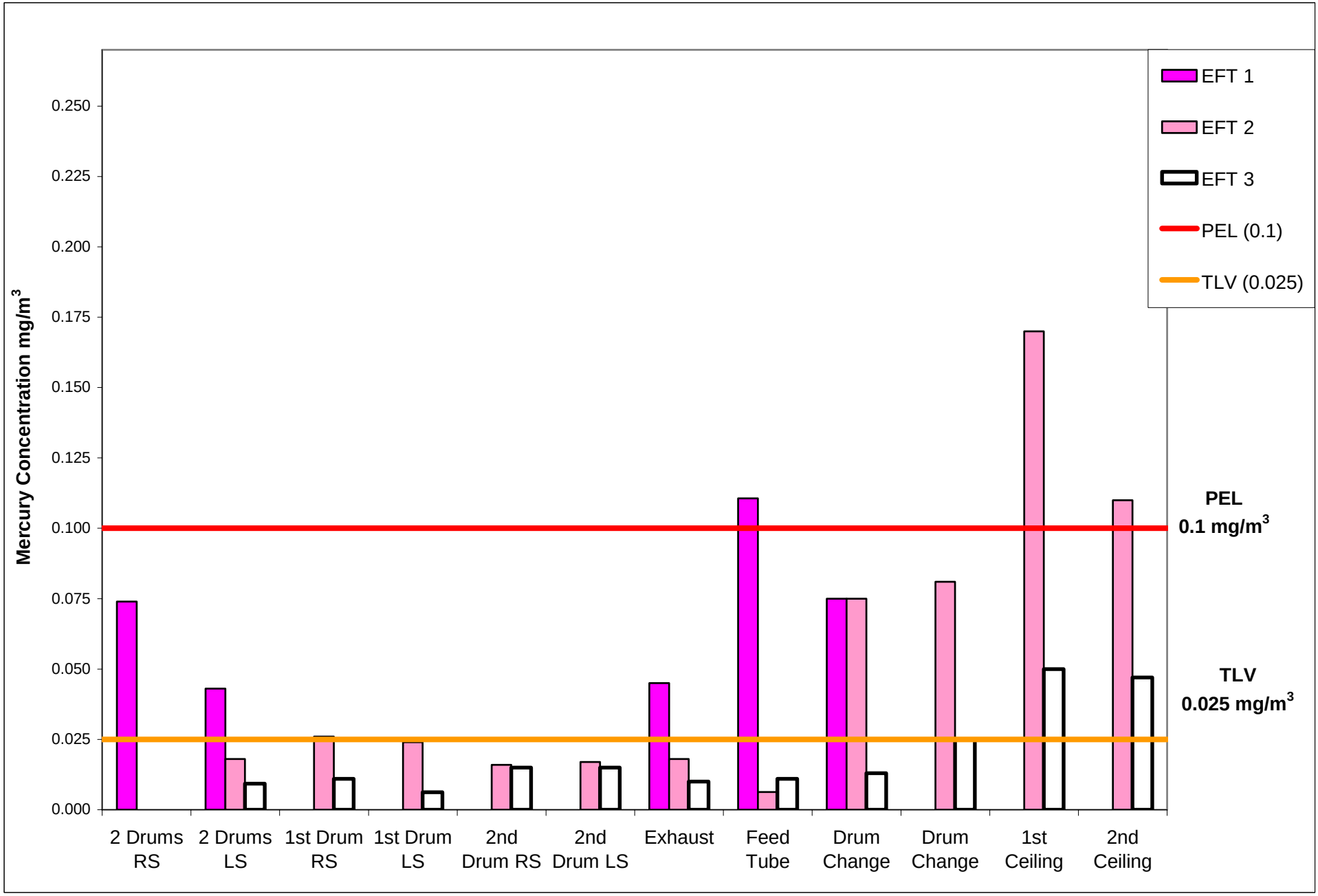
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 43: Extended Field Test #3 – Comparison of Analytical Air and Jerome Results
All Devices – Ashland, Virginia – June 9-13, 2003



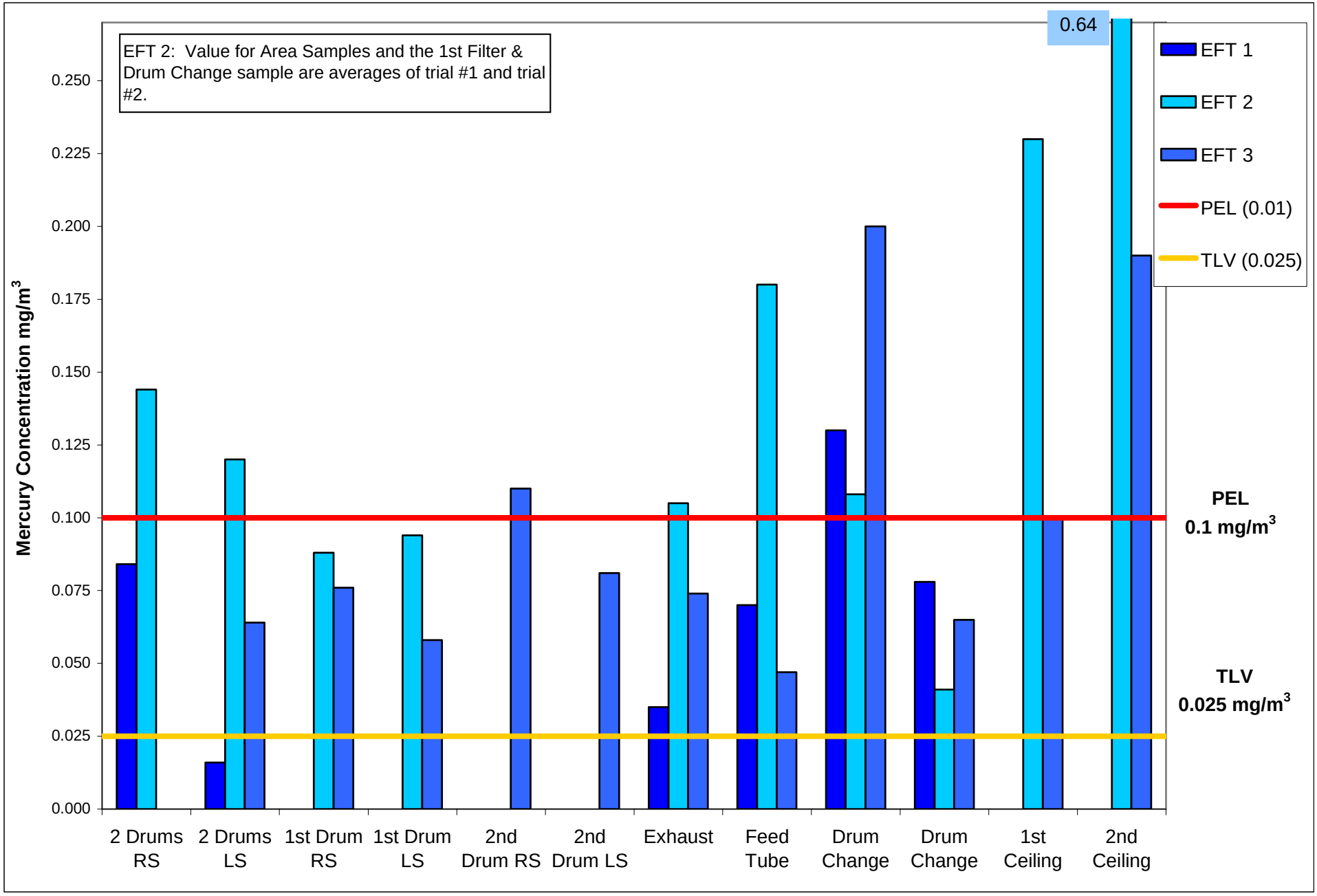
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 44: Analytical Air Results – Manufacturer A
Extended Field Test Study



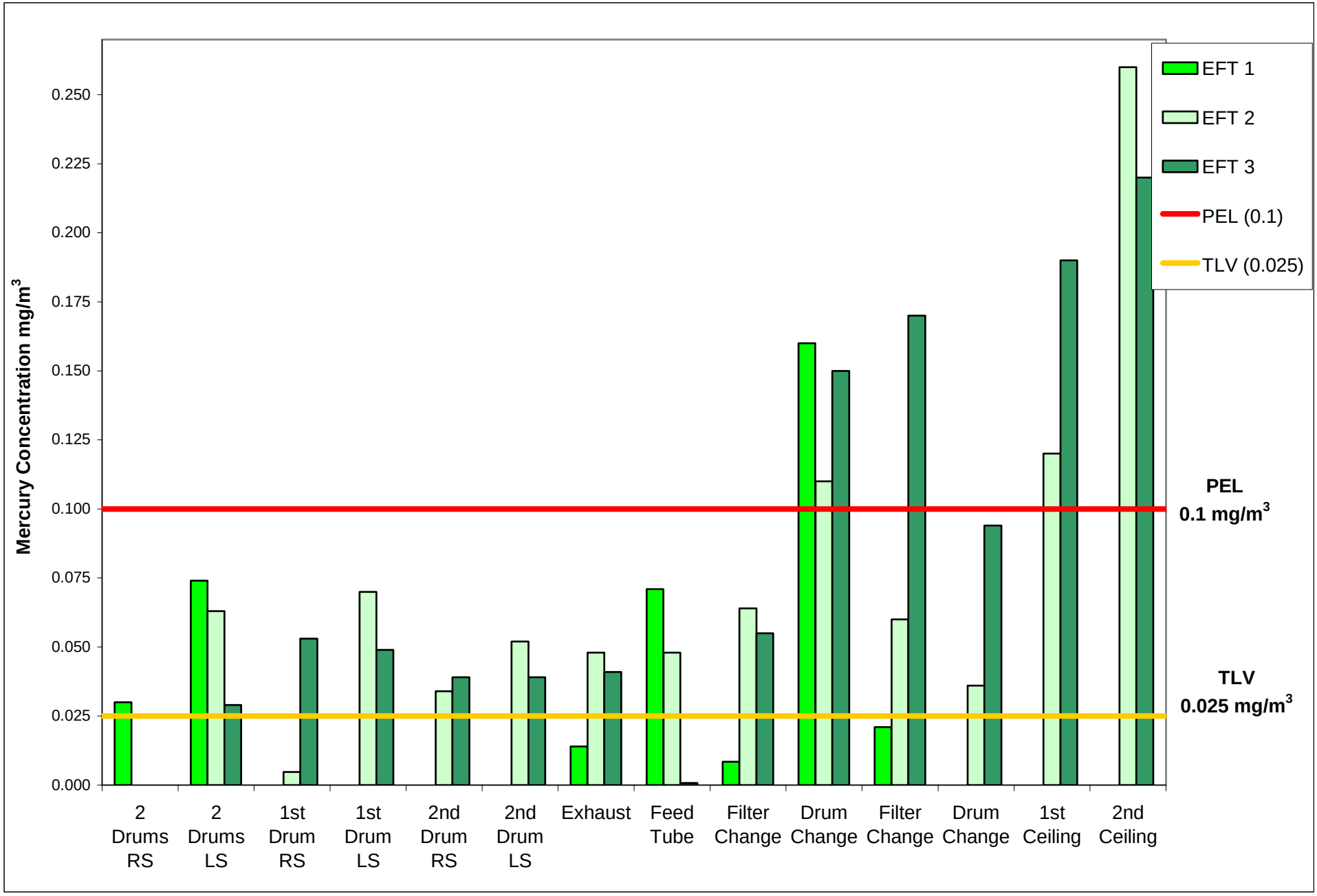
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 45: Analytical Air Results – Manufacturer B
Extended Field Test Study



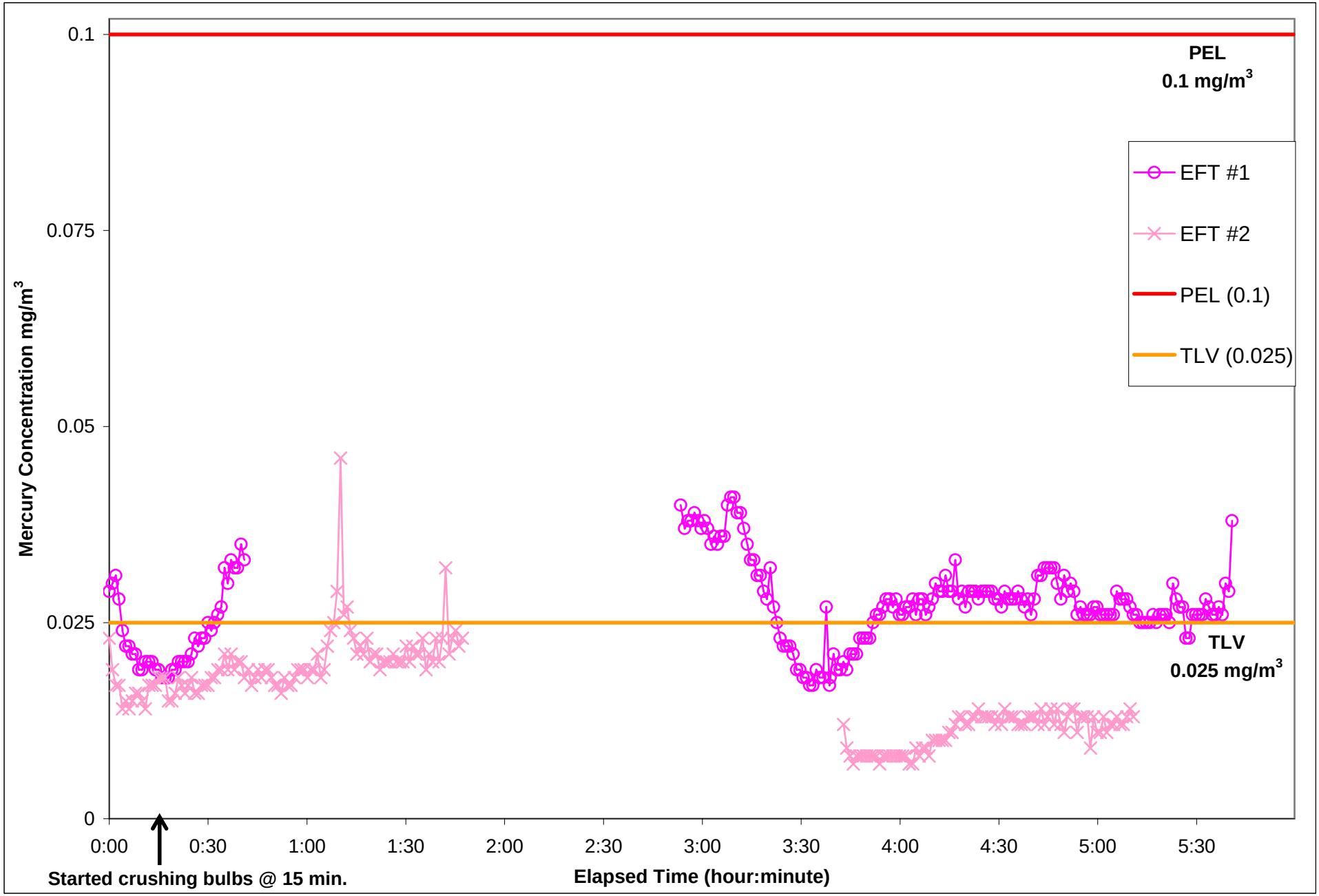
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 46: Analytical Air Results – Manufacturer C
Extended Field Test Study



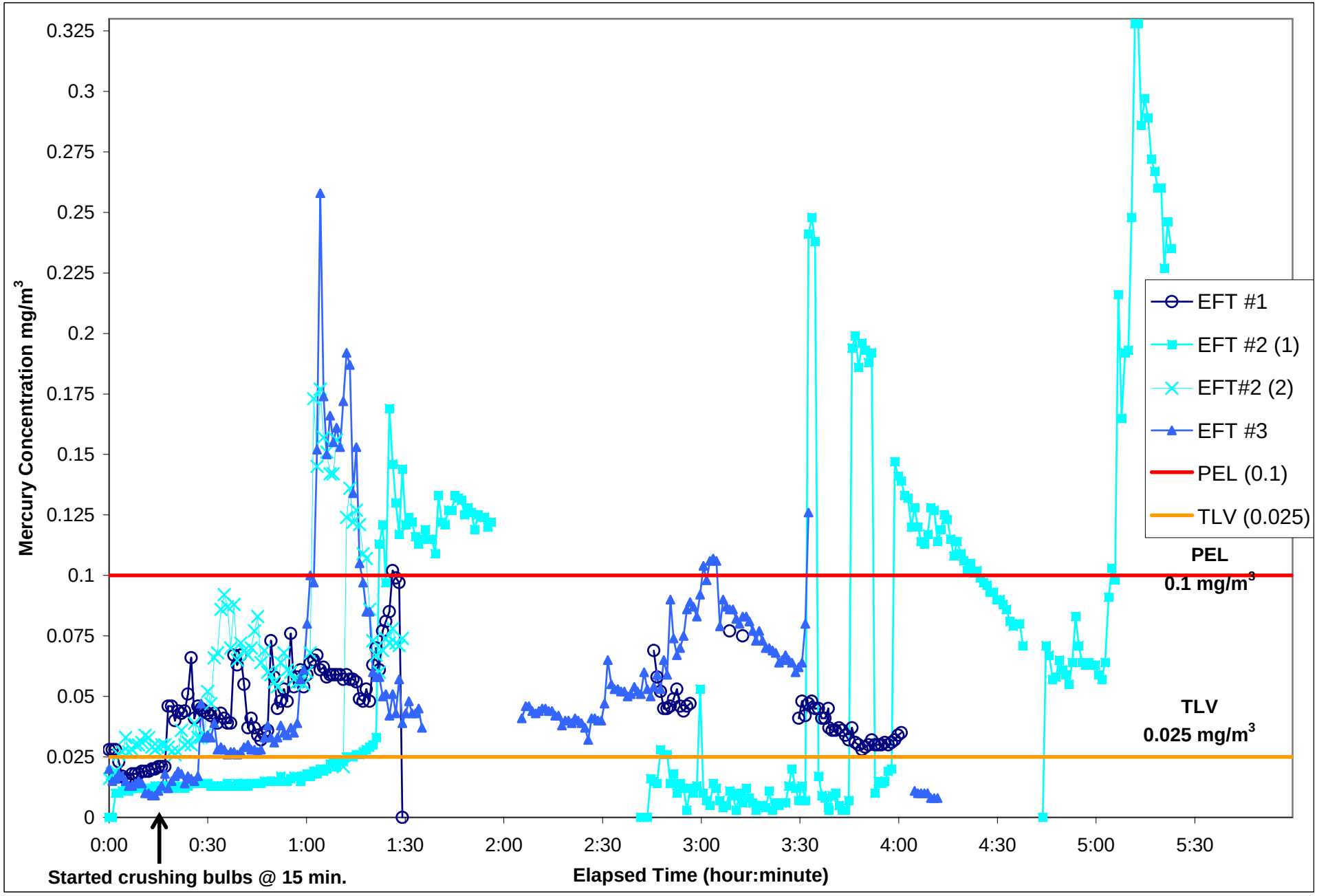
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 47: Jerome Results – Manufacturer A
Extended Field Test Study



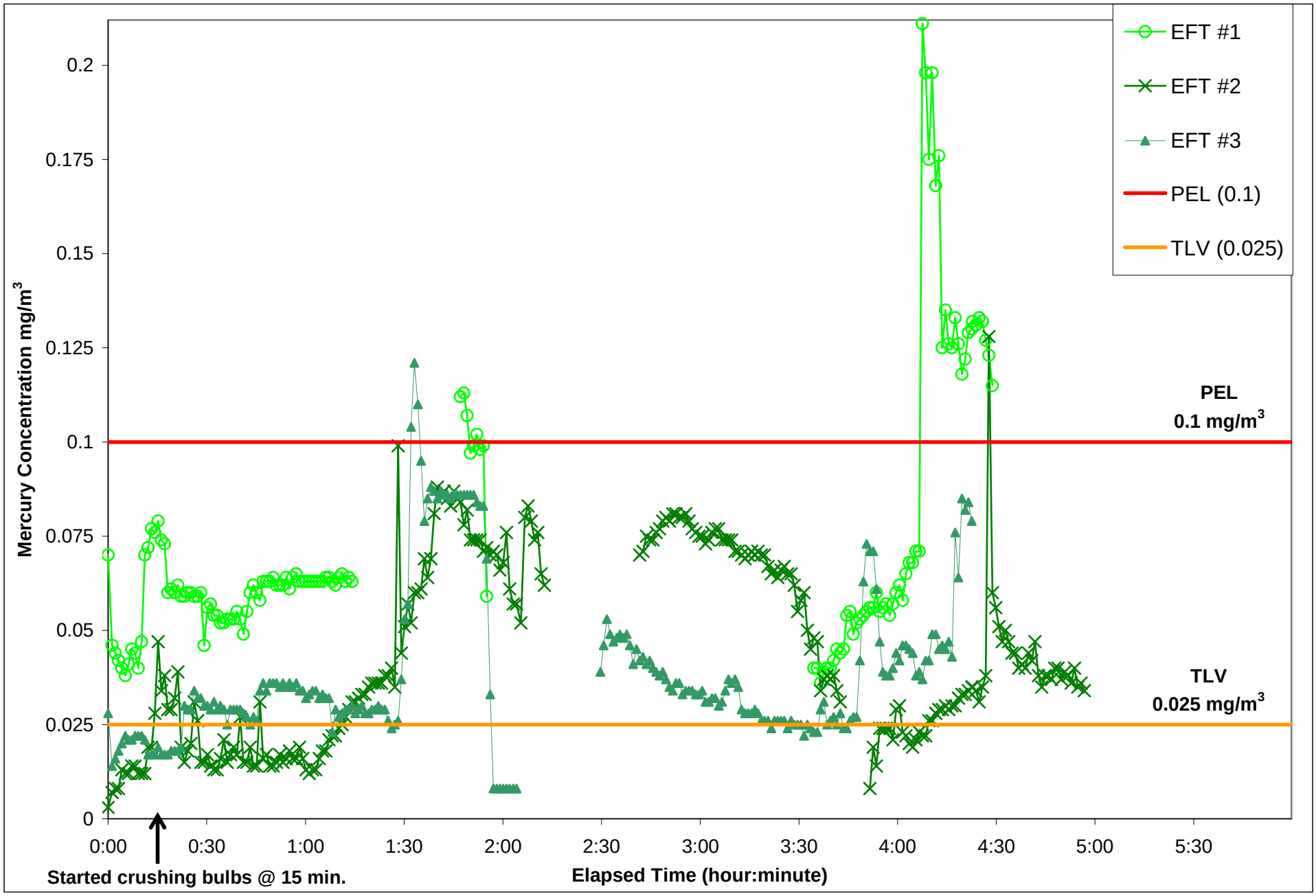
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 48: Jerome Results – Manufacturer B
Extended Field Test Study



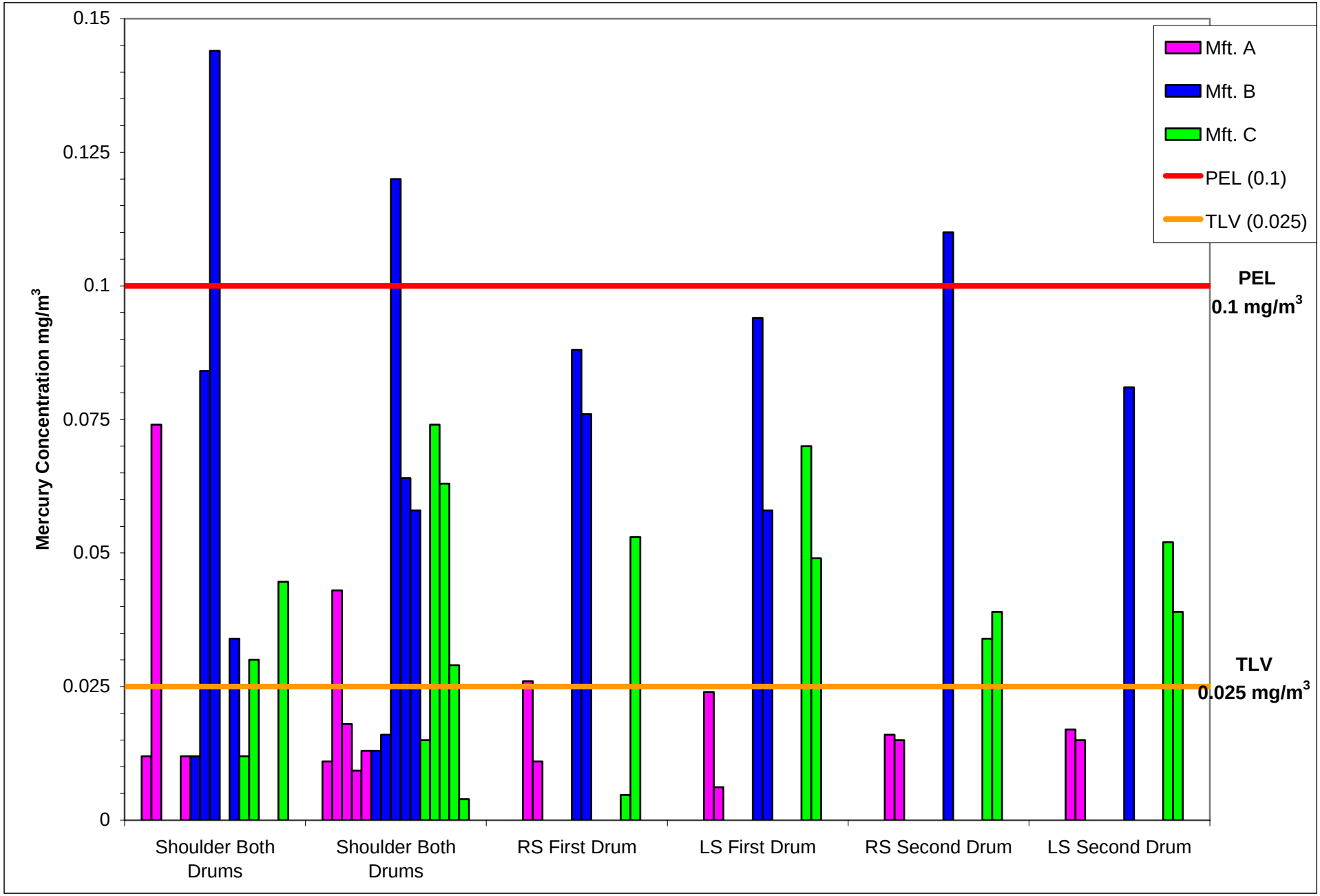
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 49: Jerome Results – Manufacturer C
Extended Field Test Study



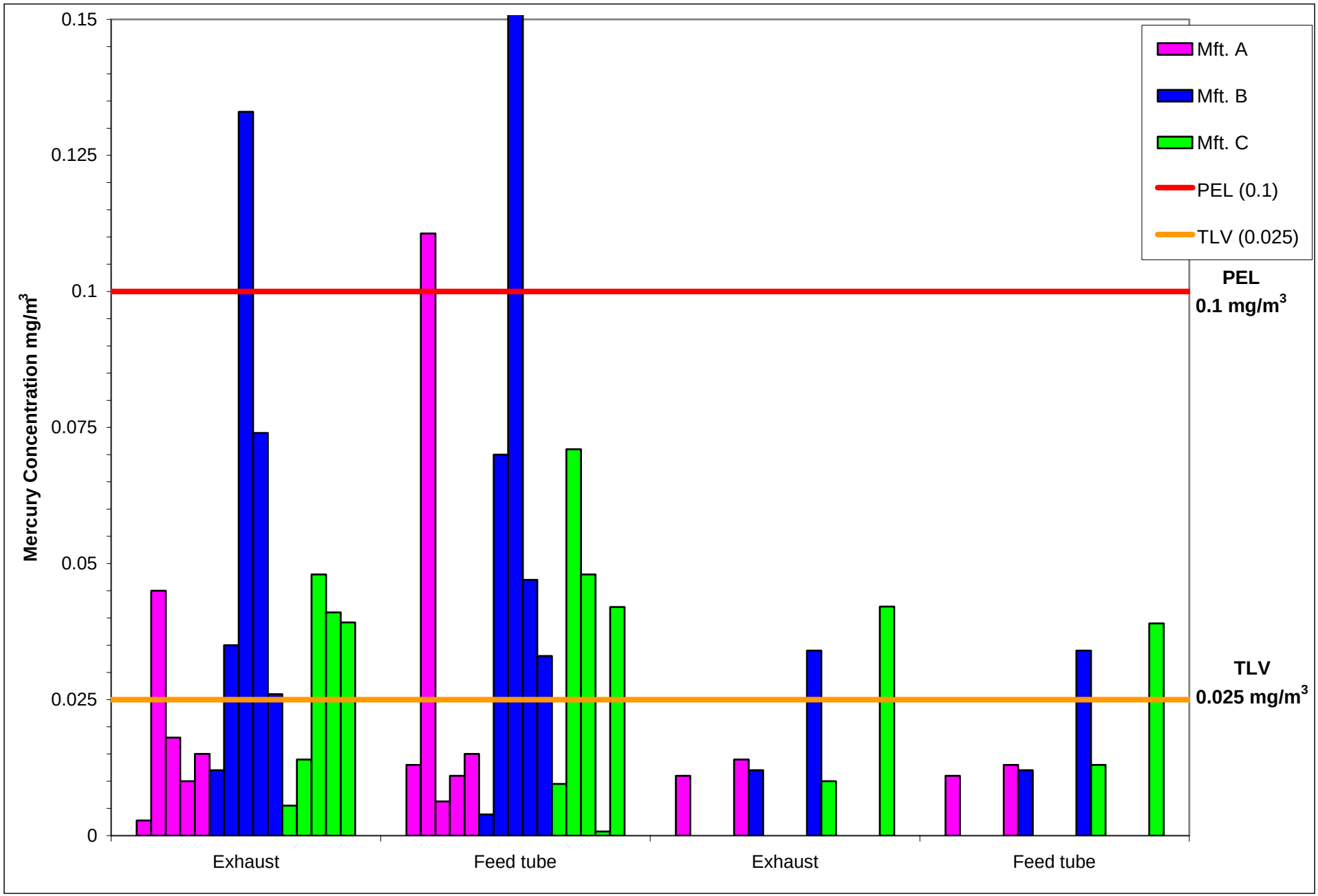
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 50: Analytical Air Results – Operator Shoulder Samples
All Devices – All Locations



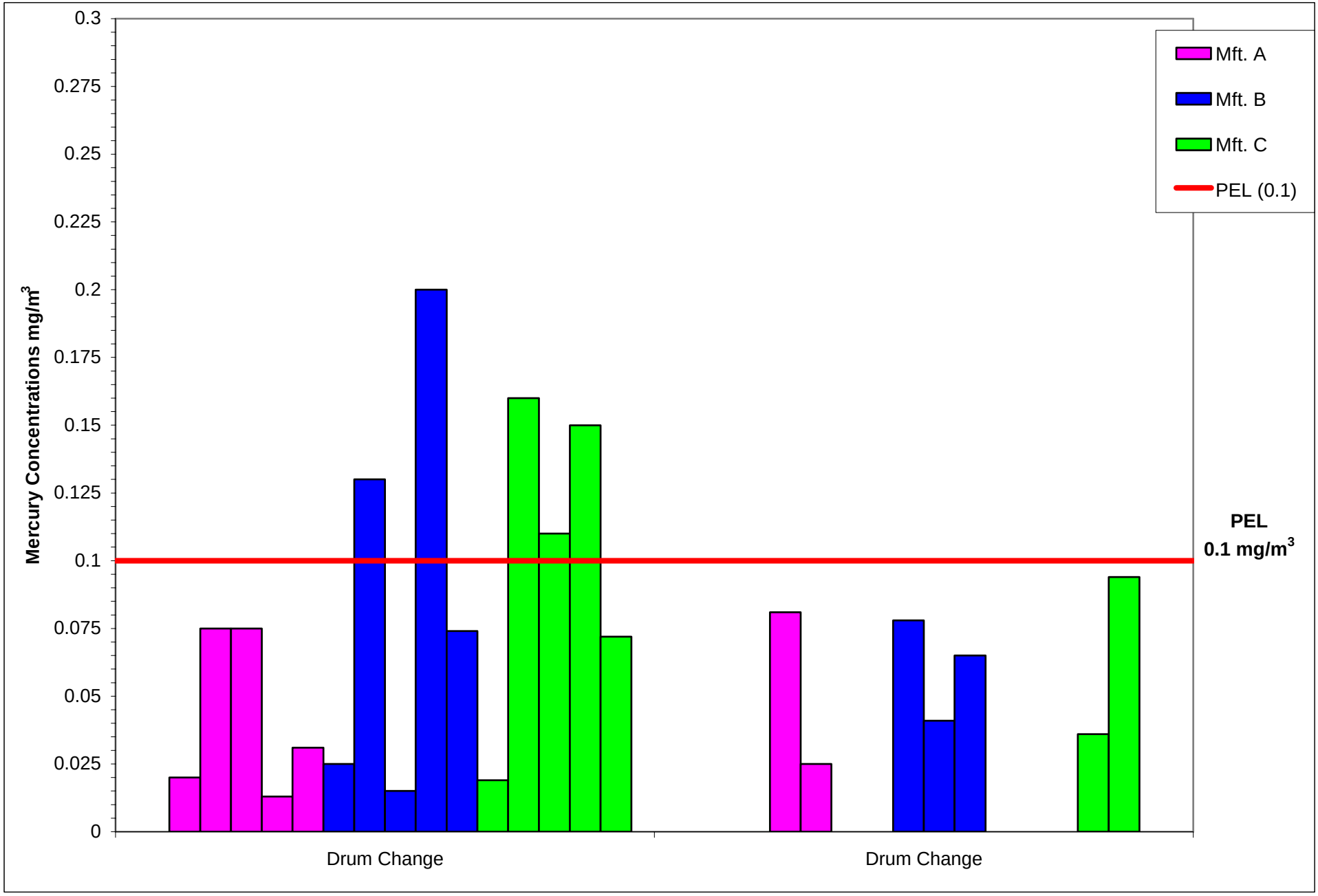
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 51: Analytical Air Results – Area Samples
All Devices – All Locations



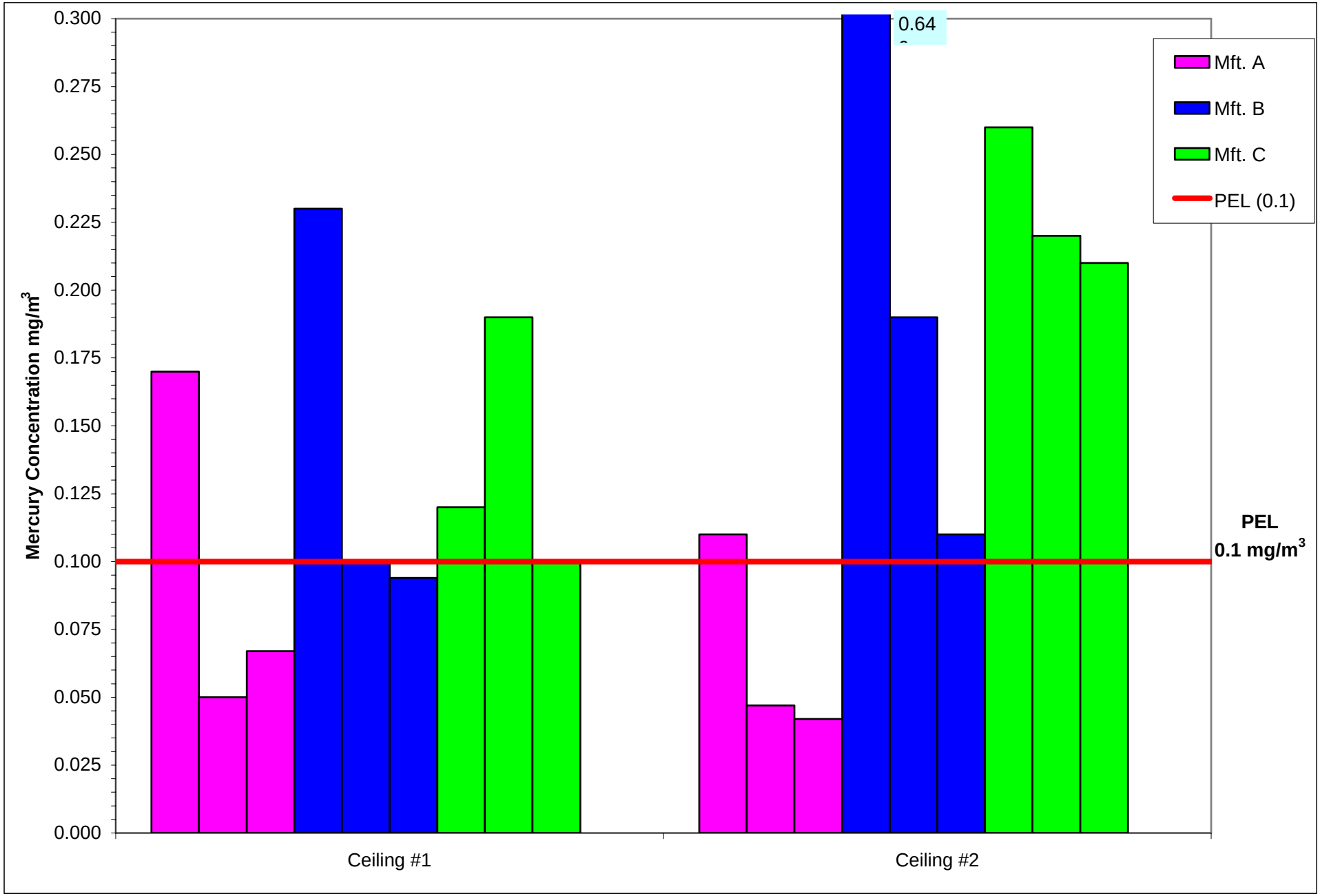
The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 52: Analytical Air Results – Drum Change Samples
All Devices – All Locations



The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.

Figure 53: Analytical Air Results – Ceiling Samples
All Devices – All Locations



The TLV is included on the graph as a point of reference. The results shown on this graph do not represent eight-hour, time-weighted averages.