

US EPA ARCHIVE DOCUMENT

**TABLE 2B
PARAMETERS, METHODS, AND TARGET REPORTING LIMITS
(Soil and Sediment)**

**BEAZER EAST, INC.
FORMER KOPPERS WOOD-TREATING SITE
CARBONDALE, ILLINOIS
QUALITY ASSURANCE PROJECT PLAN**

Analyte	Soil ¹ (ug/kg)			Sediment ¹ (ug/kg)		
	Action Limit ^{2,3}	Laboratory MDL	Laboratory RL	Action Limit ^{2,4}	Laboratory MDL	Laboratory RL
Semivolatile Organic Compounds (8270)^p						
Naphthalene	1800	2.4	6.67	176	2.4	6.67
Acenaphthylene	100000	2.1	6.67	5.87	2.1	6.67
Acenaphthene	100000	2.1	6.67	6.71	2.1	6.67
Fluorene	100000	2.2	6.67	77.4	2.2	6.67
Pentachlorophenol	2800	0.7	33.3	23000	0.7	33.3
Phenanthrene	100000	1.8	6.67	204	1.8	6.67
Anthracene	100000	1.7	6.67	57.2	1.7	6.67
Fluoranthene	1100	2.2	6.67	423	2.2	6.67
Pyrene	1100	1.3	6.67	195	1.3	6.67
Benzo(a)anthracene	900	1.6	6.67	108	1.6	6.67
Chrysene	1100	1.4	6.67	166	1.4	6.67
Benzo(b)fluoranthene	900	1.2	6.67	10400	1.2	6.67
Benzo(k)fluoranthene	1100	2.4	6.67	240	2.4	6.67
Benzo(a)pyrene	980	2.1	6.67	150	2.1	6.67
Indeno(1,2,3-cd)pyrene	900	1.3	6.67	200	1.3	6.67
Dibenz(a,h)anthracene	150	1.4	6.67	33	1.4	6.67
Benzo(g,h,i)perylene	1100	1.2	6.67	170	1.2	6.67
Dioxins/Furans (8290)						
1,2,3,4,6,7,8-HpCDD	NS	0.000058	0.0025	NS	0.000058	0.0025
HpCDDs (total)	NS	--	--	NS	--	--
1,2,3,4,7,8,9-HpCDF	NS	0.000038	0.0025	NS	0.000038	0.0025
1,2,3,4,6,7,8-HpCDF	NS	0.000043	0.0025	NS	0.000043	0.0025
HpCDFs (total)	NS	--	--	NS	--	--
1,2,3,4,7,8-HxCDD	NS	0.000031	0.0025	NS	0.000031	0.0025
1,2,3,6,7,8-HxCDD	NS	0.000027	0.0025	NS	0.000027	0.0025
1,2,3,7,8,9-HxCDD	NS	0.00004	0.0025	NS	0.00004	0.0025
HxCDDs (total)	NS	--	--	NS	--	--
1,2,3,4,7,8-HxCDF	NS	0.000045	0.0025	NS	0.000045	0.0025
1,2,3,6,7,8-HxCDF	NS	0.000021	0.0025	NS	0.000021	0.0025
1,2,3,7,8,9-HxCDF	NS	0.000033	0.0025	NS	0.000033	0.0025
2,3,4,6,7,8-HxCDF	NS	0.000021	0.0025	NS	0.000021	0.0025
HxCDFs (total)	NS	--	--	NS	--	--
1,2,3,7,8-PeCDD	NS	0.000015	0.0025	NS	0.000015	0.0025
PeCDDs (total)	NS	--	--	NS	--	--
1,2,3,7,8-PeCDF	NS	0.000016	0.0025	NS	0.000016	0.0025
2,3,4,7,8-PeCDF	NS	0.000014	0.0025	NS	0.000014	0.0025
PeCDFs (total)	NS	--	--	NS	--	--
2,3,7,8-TCDD	4.82	0.000023	0.0005	0.00012	0.000023	0.0005
TCDDs (total)	NS	--	--	NS	--	--
2,3,7,8-TCDF	NS	0.000012	0.0005	NS	0.000012	0.0005
TCDFs (total)	NS	--	--	NS	--	--
OCDD	NS	0.00009	0.005	NS	0.00009	0.005
OCDF	NS	0.000042	0.005	NS	0.000042	0.005

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	Action Limit ^{2,3}	Laboratory MDL	Laboratory RL	Action Limit ^{2,4}	Laboratory MDL	Laboratory RL
Inorganics (6010)						
Arsenic	11300	329	1000	9790	329	1000
Chromium	400	93.1	500	43400	93.1	500
Copper	5400	115.3	2500	31600	115.3	2500

Notes:

MDL = maximum detection limit

RL = reporting limit

NS = no standard

1. The target reporting limits are based on wet weight. The actual reporting limits will vary based on sample weight and moisture content.
2. Action limits listed above are for comparison to MDLs and RLs only, and do not indicate their applicability to any specific sample location/event. Other action limits may be specified in work plans.
3. For SVOCs, lowest value of TACO Tier 1 Soil Remediation Objectives (for residential or commercial/industrial properties) or USEPA Ecological Soil Screening Levels (Eco-SSLs). For 2,3,7,8-TCDD, LOAEL-based soil screening value determined by USEPA (11/20/07 e-mail from C. Bury). For inorganics, lower of TACO Tier 1 Soil Remediation Objectives (for residential or commercial industrial properties), USEPA Eco-SSLs, or USEPA Region 5 Ecological Screening Levels for soils.
4. USEPA Region 5 Ecological Screening Levels for sediments.
5. SVOCs may be analyzed by standard Method 8270C, 8270 SIM, or 8270 LL (MDLs and RLs specified above are for 8270 SIM).
6. MDLs and RLs are subject to variability.