TABLE 4-2 METHOD DETECTION LIMITS (MDLS) FOR SEDIMENT SAMPLES

Parameter	Units	Target MDL (a)	Laboratory MDL (c)
Pesticides - GC/ECD (SW846 3540A/3660A/8080A)			
Aldrin	ug/kg (dry)	3.3	0.43
γ-BHC (Lindane)	ug/kg (dry)	3.3	3.0
α-Chlordane	ug/kg (dry)	1.7	0.77
γ-Chlordane	ug/kg (dry)	1.7	0.64
4,4'-DDD	ug/kg (dry)	3.3	0.68
4,4'-DDE	ug/kg (dry)	3.3	0.60
4,4'-DDT	ug/kg (dry)	3.3	0.37
Dieldrin	ug/kg (dry)	3.3	3.2
Endrin	ug/kg (dry)	3.3	3.2
Heptachlor	ug/kg (dry)	3.3	0.43
Toxaphene	ug/kg (dry)	3.3 (RIM = 10)	14
Polynuclear Aromatic Hydrocarbons - HPLC (SW846 3540A/8310)			
Acenaphthene	ug/kg (dry)	3.3 (RIM = 30)	14
Acenaphthylene	ug/kg (dry)	3.3 (RIM = 30)	24
Anthracene	ug/kg (dry)	3.3	1.4
Benzo[a]anthracene	ug/kg (dry)	3.3	0.69
Benzo[b]fluoranthene	ug/kg (dry)	3.3	2.1
Benzo[k]fluoranthene	ug/kg (dry)	3.3	0.87
Benzo[a]pyrene	ug/kg (dry)	3.3	1.9
Benzo[ghi]perylene	ug/kg (dry)	3.3	1.9
Chrysene	ug/kg (dry)	3.3	0.89
Dibenzo[a,h]anthracene	ug/kg (dry)	3.3	0.97
Fluoranthene	ug/kg (dry)	3.3	1.9
Fluorene	ug/kg (dry)	3.3	2.9
Indeno[1,2,3-cd]pyrene	ug/kg (dry)	3.3	1.6
1-Methyl Naphthalene	ug/kg (dry)	3.3 (RIM = 30)	26
2-Methyl Naphthalene	ug/kg (dry)	3.3 (RIM = 30)	29
Naphthalene	ug/kg (dry)	3.3 (RIM = 30)	14
Phenanthrene	ug/kg (dry)	3.3	0.84
Pyrene	ug/kg (dry)	3.3	1.8
PCB Congeners - GC/ECD - (NOAA, 1989)			
2,4'-Dichlorobiphenyl (IUPAC # 8)	ug/kg (dry)	3.3	0.97
2,2',5-Trichlorobiphenyl (IUPAC # 18)	ug/kg (dry)	3.3	0.72
2,4,4'-Trichlorobiphenyl (IUPAC # 28)	ug/kg (dry)	3.3	0.84
2,2',3,5'-Tetrachlorobiphenyl (IUPAC # 44)	ug/kg (dry)	3.3	0.72
2,2',5,5'-Tetrachlorobiphenyl (IUPAC # 52)	ug/kg (dry)	3.3	1.3
2,3',4,4'-Tetrachlorobiphenyl (IUPAC # 66)	ug/kg (dry)	3.3	0.89
3,3',4,4'-Tetrachlorobiphenyl (IUPAC # 77) (b)	ug/kg (dry)	3.3	1.8
2,2',4,5,5'-Pentachlorobiphenyl (IUPAC # 101)	ug/kg (dry)	3.3	0.83
2,3,3',4,4'-Pentachlorobiphenyl (IUPAC # 105)	ug/kg (dry)	3.3	0.86
2,3',4,4',5-Pentachlorobiphenyl (IUPAC # 118)	ug/kg (dry)	3.3	1.0
3,3',4,4',5-Pentahlorobiphenyl (IUPAC # 126) (b)	ug/kg (dry)	3.3	1.3
2,2',3,3',4,4'-Hexachlorobiphenyl (IUPAC # 128)	ug/kg (dry)	3.3	1.0
2,2',3,4,4',5'-Hexachlorobiphenyl (IUPAC # 138)	ug/kg (dry)	3.3	1.0
2,2',4,4',5,5'-Hexachlorobiphenyl (IUPAC # 153)	ug/kg (dry)	3.3	0.99

TABLE 4-2 Continued

Parameter	Units	Target MDL (a)	Laboratory MDL (c)
2,3,3',4,4',5-Hexachlorobiphenyl (IUPAC # 156) (b)	ug/kg (dry)	3.3	1.2
3,3',4,4',5,5'-Hexachlorobiphenyl (IUPAC # 169)	ug/kg (dry)	3.3	1.6
2,2',3,3',4,4',5-Heptachlorobiphenyl (IUPAC # 170)	ug/kg (dry)	3.3	0.98
2,2',3,4,4',5,5'-Heptachlorobiphenyl (IUPAC # 180)	ug/kg (dry)	3.3	1.1
2,2',3,4',5,5',6-Heptachlorobiphenyl (IUPAC # 187)	ug/kg (dry)	3.3	0.78
2,2',3,3',4,4',5,6-Octachlorobiphenyl (IUPAC # 195)	ug/kg (dry)	3.3	1.2
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl (IUPAC # 206)	ug/kg (dry)	3.3	1.2
2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl (IUPAC # 209)	ug/kg (dry)	3.3	1.0
Dioxins and Furans - HRGC/HRMS (EPA 1613)			
2,3,7,8-TCDD	ng/kg (dry)	1	0.12
1,2,3,7,8-PeCDD	ng/kg (dry)	1	0.13
1,2,3,4,7,8-HxCDD	ng/kg (dry)	1	0.27
1,2,3,6,7,8-HxCDD	ng/kg (dry)	1	0.29
1,2,3,7,8,9-HxCDD	ng/kg (dry)	1	0.24
1,2,3,4,6,7,8-HpCDD	ng/kg (dry)	1	0.17
OCDD	ng/kg (dry)	10	0.97
2,3,7,8-TCDF	ng/kg (dry)	1	0.10
1,2,3,7,8-PeCDF	ng/kg (dry)	1	0.24
2,3,4,7,8-PeCDF	ng/kg (dry)	1	0.17
1,2,3,4,7,8-HxCDF	ng/kg (dry)	1	0.18
1,2,3,6,7,8-HxCDF	ng/kg (dry)	1	0.16
1,2,3,7,8,9-HxCDF	ng/kg (dry)	1	0.60
1,2,3,4,6,7,8-HpCDF	ng/kg (dry)	1	1.13
1,2,3,4,7,8,9-HpCDF	ng/kg (dry)	1	0.37
OCDF	ng/kg (dry)	10	1.09
Organometals			
Tributyltins	mg/kg (dry)	0.01	0.012
Inorganic nonmetals (d)			
Fluoride	mg/kg(dry)	7.0	0.12
TOC	mg/kg(dry)	24.1 (RIM = 0.1%)	4880
Physical Parameters			
Total Solids	%	1.0% solids	N/A
Grain Size	--	1.0%	N/A
Metals - Cold Vapor			
Mercury	mg/kg (dry)	0.05	0.047
Metals -(SW3050A/6010A) - ICP Trace			
Arsenic	mg/kg (dry)	0.50	0.20
Metals - (SW3050A/6010A)			
Zinc	mg/kg (dry)	0.50	0.60

TABLE 4-2 Continued

Parameter	Units	Target MDL (a)	Laboratory MDL (c)
Metals - (SW3050A/7000 series)			
Antimony	mg/kg (dry)	0.50	0.28
Cadmium	mg/kg (dry)	0.10	0.049
Chromium	mg/kg (dry)	0.10	0.07
Copper	mg/kg (dry)	0.10	0.10
Lead	mg/kg (dry)	0.10	0.10
Nickel	mg/kg (dry)	0.10	0.10
Phosphorus [(d)]	mg/kg (dry)	1.2	1.92
Selenium	mg/kg (dry)	0.20	0.20
Silver	mg/kg (dry)	0.062	0.023

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(a) URS Greiner. 1998. *Sediment Sampling and Analysis Plan for Dredging Associated with the Proposed Daniel Island Marine Cargo Terminal.* Where the SSAP differs with the U.S. EPA Region IV RIM, the RIM value is provided in ( ).

(b) Coplanar PCB Congener

(c) Method detection limits determined using sediment/soil matrix.

(d) MDL determined concurrently with sample ananlysis.