



Legend

- Approximate Surface Water Sample Location With Latitude and Longitude



SUMMARY: Detections were primarily limited to the surface water sampling location SW-1 (Pilgrim Bay), with the exception of boron which was observed at all sampling locations

Priority Pollutants and Boron							Surface Water Sampling Results (Non-validated)									
EPA NPDES Form 2C Table and Listing Number	Parameter	Units	EPA Drinking Water Criteria (MCL) ¹	EPA Aquatic Life Criteria Saltwater CMC (acute) ²	NOAA (SQUIRTS) Screening Levels Marine Surface Water (acute) ³	NPDES Minimum Level of Detection ⁴	Date Collected: August 15									
							SW-1	SW-2	SW-3	SW-4	SW-5	SW-6				
Metals/Inorganics																
B 1.1	Antimony	µg/l	6		1,500	10	<	50	<	50	<	50	<	50	<	50
B 1.2	Arsenic	µg/l	10	69		20	<	52	<	5	<	5	<	5	<	7
D 1	Asbestos	MFL	7					NA		NA		NA		NA		NA
B 1.3	Beryllium	µg/l	4		1,500		<	5	<	5	<	5	<	5	<	5
C 16	Boron	µg/l						2,900		3,970		3,770		3,710		3,770
B 1.4	Cadmium	µg/l	5	33		10	<	5	<	5	<	5	<	5	<	5
B 1.5	Chromium, Total	µg/l	100	1,100	10,300	15	<	102	<	10	<	10	<	10	<	10
B 1.6	Copper	µg/l	1.3	5		3	<	175	<	10	<	10	<	10	<	10
B 1.14	Cyanide, Total	µg/l	200	1		10	<	5	<	5	<	5	<	5	<	5
B 1.7	Lead	µg/l	15	210		0.5	<	158	<	10	<	10	<	10	<	10
B 1.8	Mercury	µg/l	2	2		0.2	<	1.86	<	0.2	<	0.2	<	0.2	<	0.2
B 1.9	Nickel	µg/l		74		20	<	33	<	25	<	25	<	25	<	25
B 1.1	Selenium	µg/l	50	290		20	<	10	<	10	<	10	<	10	<	10
B 1.11	Silver	µg/l		2		10	<	7	<	7	<	7	<	7	<	7
B 1.12	Thallium	µg/l	2		2,130		<	20	<	20	<	20	<	20	<	20
B 1.13	Zinc	µg/l		90		15		416	<	50	<	50	<	50	<	50
PCBs																
B 5.24	PCB-1016 (Arochlor 1016)	µg/l	0.5				<	0.269	<	0.25	<	0.255	<	0.258	<	0.255
B 5.20	PCB-1221 (Arochlor 1221)	µg/l	0.5				<	0.269	<	0.25	<	0.255	<	0.258	<	0.255
B 5.21	PCB-1232 (Arochlor 1232)	µg/l	0.5				<	0.269	<	0.25	<	0.255	<	0.258	<	0.255
B 5.18	PCB-1242 (Arochlor 1242)	µg/l	0.5			0.033	<	0.269	<	0.25	<	0.255	<	0.258	<	0.255
B 5.22	PCB-1248 (Arochlor 1248)	µg/l	0.5				<	0.269	<	0.25	<	0.255	<	0.258	<	0.255
B 5.19	PCB-1254 (Arochlor 1254)	µg/l	0.5				<	0.269	<	0.25	<	0.255	<	0.258	<	0.255
B 5.23	PCB-1260 (Arochlor 1260)	µg/l	0.5				<	0.215	<	0.2	<	0.204	<	0.206	<	0.204
Pesticides																
B 5.9	4,4-DDD	µg/l			3.6		<	0.04	<	0.043	<	0.042	<	0.041	<	0.042
B 5.8	4,4-DDE	µg/l			14		<	0.04	<	0.043	<	0.042	<	0.041	<	0.042
B 5.7	4,4-DDT	µg/l		0.13	0.065		<	0.04	<	0.043	<	0.042	<	0.041	<	0.042
B 5.1	Aldrin	µg/l		1.3	0.65		<	0.02	<	0.022	<	0.021	<	0.02	<	0.021
B 5.6	Chlordane	µg/l	2	0.09	0.045		<	0.202	<	0.215	<	0.208	<	0.204	<	0.21
B 5.10	Dieldrin	µg/l		0.71	0.355		<	0.04	<	0.043	<	0.042	<	0.041	<	0.042
B 5.11	Alpha-endosulfan (Endosulfan I)	µg/l		0.034	0.017		<	0.02	<	0.022	<	0.021	<	0.02	<	0.021
B 5.12	Beta-endosulfan (Endosulfan II)	µg/l		0.034	0.017		<	0.04	<	0.043	<	0.042	<	0.041	<	0.042
B 5.13	Endosulfan sulfate	µg/l					<	0.04	<	0.043	<	0.042	<	0.041	<	0.042
B 5.14	Endrin	µg/l	2	0.037	0.0185		<	0.04	<	0.043	<	0.042	<	0.041	<	0.042
B 5.15	Endrin aldehyde	µg/l					<	0.04	<	0.043	<	0.042	<	0.041	<	0.042
B 5.16	Heptachlor	µg/l	0.4	0.053	0.0265		<	0.02	<	0.022	<	0.021	<	0.02	<	0.021
B 5.17	Heptachlor epoxide	µg/l	0.2	0.053	0.0265		<	0.02	<	0.022	<	0.021	<	0.02	<	0.021
B 5.2	alpha-BHC	µg/l					<	0.02	<	0.022	<	0.021	<	0.02	<	0.021
B 5.3	beta-BHC	µg/l					<	0.02	<	0.022	<	0.021	<	0.02	<	0.021
	cis-Chlordane	µg/l					<	0.02	<	0.022	<	0.021	<	0.02	<	0.021
B 5.4	delta-BHC	µg/l					<	0.02	<	0.022	<	0.021	<	0.02	<	0.021
B 5.5	Gamma-BHC	µg/l		0.16	0.08		<	0.02	<	0.022	<	0.021	<	0.02	<	0.021
	trans-Chlordane	µg/l					<	0.02	<	0.022	<	0.021	<	0.02	<	0.021
B 5.25	Toxaphene	µg/l	3	0.21	0.21		<	0.404	<	0.43	<	0.417	<	0.408	<	0.421
SVOAs																
B4.46	1,2,4-Trichlorobenzene	µg/l	70		160		<	5	<	5	<	5	<	5	<	5
B 4.30	1,2-Diphenylhydrazine	µg/l					<	2	<	2	<	2	<	2	<	2
B 4.23	1,4-Dichlorobenzene	µg/l			1,970		<	5	<	5	<	5	<	5	<	5
B 3.11	2,4,6-Trichlorophenol	µg/l					<	5	<	5	<	5	<	5	<	5
B 3.5	2,4-Dinitrophenol	µg/l			4,850		<	20	<	20	<	20	<	20	<	20
B 4.27	2,4-Dinitrotoluene	µg/l			590		<	5	<	5	<	5	<	5	<	5
B 4.28	2,6-Dinitrotoluene	µg/l					<	5	<	5	<	5	<	5	<	5
B 3.2	2,4-Dichlorophenol	µg/l					<	5	<	5	<	5	<	5	<	5
B 3.3	2,4-Dimethylphenol	µg/l					<	5	<	5	<	5	<	5	<	5
B 4.16	2-Chloronaphthalene	µg/l			7.5		<	2	<	2	<	2	<	2	<	2
B 3.1	2-Chlorophenol	µg/l					<	2	<	2	<	2	<	2	<	2
B 3.4	2-Methyl-4,6-dinitrophenol	µg/l					<	10	<	10	<	10	<	10	<	10
B 3.6	2-Nitrophenol	µg/l					<	5	<	5	<	5	<	5	<	5
B 4.23	3,3-Dichlorobenzidine	µg/l					<	5	<	5	<	5	<	5	<	5
B 4.14	4-Bromophenylphenylether	µg/l					<	2	<	2	<	2	<	2	<	2
B 3.8	3-Chloro-4-methylphenol	µg/l					<	5	<	5	<	5	<	5	<	5
B 4.17	4-Chlorophenylphenylether	µg/l					<	2	<	2	<	2	<	2	<	2
B 3.7	4-Nitrophenol	µg/l			4,850		<	10	<	10	<	10	<	10	<	10
B 4.1	Acenaphthene	µg/l			970		<	2	<	2	<	2	<	2	<	2
B 4.2	Acenaphthylene	µg/l			300		<	2	<	2	<	2	<	2	<	2
B 4.3	Anthracene	µg/l			300		<	2	<	2	<	2	<	2	<	2
B 4.4	Benidine	µg/l					<	20	<	20	<	20	<	20	<	20
B 4.5	Benzo(a)anthracene	µg/l			300		<	2	<	2	<	2	<	2	<	2
B 4.6	Benzo(a)pyrene	µg/l	0.2		300		<	2	<	2	<	2	<	2	<	2
B 4.7	Benzo(b)fluoranthene	µg/l			300		<	2	<	2	<	2	<	2	<	2
B 4.8	Benzo(ghi)perylene	µg/l			300		<	2	<	2	<	2	<	2	<	2
B 4.9	Benzo(k)fluoranthene	µg/l			300		<	2	<	2	<	2	<	2	<	2
B 4.10	bis(2-Chloroethoxy)methane	µg/l			12,000		<	5	<	5	<	5	<	5	<	5
B 4.11	bis(2-Chloroethyl)ether	µg/l					<	2	<	2	<	2	<	2	<	2
B 4.12	bis(2-Chloroisopropyl)ether	µg/l					<	2	<	2	<	2	<	2	<	2
B 4.13	bis(2-Ethylethyl) phthalate	µg/l			400	5	<	2.2	<	2.2	<	2.2	<	2.2	<	2.2
B 4.15	Butyl benzyl phthalate	µg/l			2,944		<	5	<	5	<	5	<	5	<	5
B 4.18	Chrysene	µg/l			300		<	2	<	2	<	2	<	2	<	2

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B 4.19	Dibenzo(a,h)anthracene	µg/l		300		<	2	<	2	<	2	<	2	<	2	<	2
B 4.24	Diethylphthalate	µg/l		2,944		<	5	<	5	<	5	<	5	<	5	<	5
B 4.25	Dimethylphthalate	µg/l		2,944		<	5	<	5	<	5	<	5	<	5	<	5
B 4.26	Di-n-butyl phthalate	µg/l		2,944		<	5	<	5	<	5	<	5	<	5	<	5
B 4.29	Di-n-octyl phthalate	µg/l		2,944		<	5	<	5	<	5	<	5	<	5	<	5
B 4.31	Fluoranthene	µg/l		40		<	2	<	2	<	2	<	2	<	2	<	2
B 4.32	Fluorene	µg/l		300		<	2	<	2	<	2	<	2	<	2	<	2
B 4.33	Hexachlorobenzene	µg/l	1	160		<	2	<	2	<	2	<	2	<	2	<	2
B 4.34	Hexachlorobutadiene	µg/l		32		<	2	<	2	<	2	<	2	<	2	<	2
B 4.35	Hexachlorocyclopentadiene	µg/l		7		<	10	<	10	<	10	<	10	<	10	<	10
B 4.36	Hexachloroethane	µg/l		940		<	2	<	2	<	2	<	2	<	2	<	2
B 4.37	Indeno (1,2,3-cd) pyrene	µg/l		300		<	2	<	2	<	2	<	2	<	2	<	2
B 4.38	Isophorone	µg/l		12,900		<	5	<	5	<	5	<	5	<	5	<	5
B 4.39	Naphthalene	µg/l		2,350	2	<	2	<	2	<	2	<	2	<	2	<	2
B 4.40	Nitrobenzene	µg/l		6,680		<	2	<	2	<	2	<	2	<	2	<	2
B 4.41	N-Methyl-N-nitrosodimethylamine	µg/l				<	2	<	2	<	2	<	2	<	2	<	2
B 4.43	N-nitrosodiphenylamine	µg/l		3,300,000		<	2	<	2	<	2	<	2	<	2	<	2
B 4.42	N-nitrosodi-n-propylamine	µg/l				<	5	<	5	<	5	<	5	<	5	<	5
B 3.9	Pentachlorophenol	µg/l	1	13	13	<	5	<	5	<	5	<	5	<	5	<	5
B 4.44	Phenanthrene	µg/l		7.7		<	2	<	2	<	2	<	2	<	2	<	2
B 3.10	Phenol	µg/l		5,800	50	<	5	<	5	<	5	<	5	<	5	<	5
B 4.45	Pyrene	µg/l		300		<	2	<	2	<	2	<	2	<	2	<	2
VOAs																	
B 2.21	1,1,2,2-Tetrachloroethane	µg/l		9,020		<	1	<	1	<	1	<	1	<	1	<	1
B 2.25	1,1,1-Trichloroethane	µg/l	20	31,200		<	2	<	2	<	2	<	2	<	2	<	2
B 2.26	1,1,2-Trichloroethane	µg/l				<	1.5	<	1.5	<	1.5	<	1.5	<	1.5	<	1.5
B 2.12	1,1-Dichloroethane	µg/l				<	1.5	<	1.5	<	1.5	<	1.5	<	1.5	<	1.5
B 2.14	1,1-Dichloroethylene	µg/l	7	224,000		<	1	<	1	<	1	<	1	<	1	<	1
B 4.20	1,2-Dichlorobenzene	µg/l		1,970		<	5	<	5	<	5	<	5	<	5	<	5
B 2.13	1,2-Dichloroethane	µg/l	5	113,000		<	1.5	<	1.5	<	1.5	<	1.5	<	1.5	<	1.5
B 2.15	1,2-Dichloropropane	µg/l	5	10,300		<	3.5	<	3.5	<	3.5	<	3.5	<	3.5	<	3.5
B 4.21	1,3-Dichlorobenzene	µg/l		1,970		<	5	<	5	<	5	<	5	<	5	<	5
B 4.22	1,4-Dichlorobenzene	µg/l		1,970		<	5	<	5	<	5	<	5	<	5	<	5
B 2.9	2-Chloroethylvinylether	µg/l				<	10	<	10	<	10	<	10	<	10	<	10
B 2.1	Acrolein	µg/l		55		<	8	<	8	<	8	<	8	<	8	<	8
B 2.2	Acrylonitrile	µg/l				<	10	<	10	<	10	<	10	<	10	<	10
B 2.3	Benzene	µg/l	5	5,100	2	<	1	<	1	<	1	<	1	<	1	<	1
B 2.11	Bromodichloromethane	µg/l		12,000		<	1	<	1	<	1	<	1	<	1	<	1
B 2.4	Bromoform	µg/l				<	1	<	1	<	1	<	1	<	1	<	1
B 2.18	Bromomethane (Methyl bromide)	µg/l				<	5	<	5	<	5	<	5	<	5	<	5
B 2.5	Carbon Tetrachloride	µg/l		50,000		<	1	<	1	<	1	<	1	<	1	<	1
B 2.6	Chlorobenzene	µg/l	100			<	3.5	<	3.5	<	3.5	<	3.5	<	3.5	<	3.5
B 2.8	Chloroethane	µg/l				<	2	<	2	<	2	<	2	<	2	<	2
B 2.10	Chloroform	µg/l				<	1	<	1	<	1	<	1	<	1	<	1
B 2.19	Chloromethane (Methyl chloride)	µg/l				<	5	<	5	<	5	<	5	<	5	<	5
B 2.11	Dibromochloromethane	µg/l		12,000		<	1	<	1	<	1	<	1	<	1	<	1
	Dichlorodifluoromethane	µg/l					NA		NA		NA		NA		NA		NA
B 2.17	Ethylbenzene	µg/l	700	430	2	<	1	<	1	<	1	<	1	<	1	<	1
B 2.20	Methylene chloride	µg/l		12,000		<	1	<	1	<	1	<	1	<	1	<	1
B 2.22	Tetrachloroethylene	µg/l	5	10,200		<	1	<	1	<	1	<	1	<	1	<	1
B 2.23	Toluene	µg/l	1000	6,300	2	<	1	<	1	<	1	<	1	<	1	<	1
B 2.27	Trichloroethylene	µg/l		2,000		<	1	<	1	<	1	<	1	<	1	<	1
B 2.28	Vinyl chloride	µg/l				<	1	<	1	<	1	<	1	<	1	<	1
B 2.16	cis-1,3-Dichloropropylene	µg/l				<	1.5	<	1.5	<	1.5	<	1.5	<	1.5	<	1.5
B 2.24	trans-1,2-Dichloroethylene	µg/l	100	224,000		<	1.5	<	1.5	<	1.5	<	1.5	<	1.5	<	1.5
B 2.16	trans-1,3-Dichloropropylene	µg/l				<	1.5	<	1.5	<	1.5	<	1.5	<	1.5	<	1.5
Dioxins/Furans																	
E	2,3,7,8-TCDD	µg/l	0.00003				NA		NA		NA		NA		NA		NA

Notes and Abbreviations:

RESULTS HAVE NOT BEEN VALIDATED

Bolded result indicates constituent was detected above the reporting limit

1) <https://www.epa.gov/ground-water-and-drinking-water/national-primary-drinking-water-regulations>

2) <https://www.epa.gov/wqc/national-recommended-water-quality-criteria-aquatic-life-criteria-table>

3) <https://response.restoration.noaa.gov/sites/default/files/SQIRTs.pdf>

4) Pilgrim NPDES Permit MA0003557, Attachment C

PCBs = polychlorinated biphenyls

µg/l=micrograms per liter

MFL = micro fibers per liter

EPA MCL = Environmental Protection Agency Maximum Contaminant Level

CMC = Criterion Maximum Concentration

NA = Not Analyzed

< = Not Detected at the concentration result listed