

Table 5-3. Water quality of the Savannah River and Four Mile Creek above the C-Reactor outfall, and predicted L-Reactor incremental changes in concentrations in Four Mile Creek resulting from incremental discharges to the Separations Area seepage basins

Parameter	Units	Water quality drinking- water standard ^a	Savannah River 1982 average ^b	Four Mile Creek average ^c		Incremental increase at Four Mile Creek
				1982	1983	
pH	None	6.5 - 8.5 (S)	6.2 - 7.0	6.2 - 7.4	7.2 - 5.8	-0.5
Dissolved oxygen (DO)	mg/liter	>4 (WQS)	9.4	8.8	8.3	NCD
Total susp. solids (TSS)	mg/liter	<50 (WQS)	10.0	3.0	4.8	NC
Conductivity	μmhos/cm	--e	+f	+	7.1	10.0
Chemical oxygen demand (COD)	mg/liter	--	+	7.4	8.7	0.6
Ammonia-N	mg/liter	--	0.2	0.003	<0.02	0.004
Chloride (Cl)	mg/liter	<250 (S)	6.1	4.1	3.4	0.4
Alkalinity (CaCO ₃)	mg/liter	--	+	9.5	10.0	1.3
Sulfite/sulfate (S)	mg/liter	<250 (S)	7.6	7.5	6.5	1.0
Nitrite/nitrate (N)	mg/liter	<10 (P)	0.52	2.7	1.8	0.4
Total phosphate (PO ₄) ^{-P}	mg/liter	--	0.19	0.02	0.06	0.008

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Table 5-3. Water quality of the Savannah River and Four Mile Creek above the C-Reactor outfall, and predicted L-Reactor incremental changes in concentrations in Four Mile Creek resulting from incremental discharges to the Separations Area seepage basins (continued)

Parameter	Units	Water quality drinking- water standard ^a	Savannah River 1982 average ^b	Four Mile Creek average ^c		Incremental increase at Four Mile Creek
				1982	1983	
Calcium (Ca)	mg/liter	--	3.8	2.8	+	0.4
Sodium (Na)	mg/liter	--	10.0	9.5	5.6	1.3
Aluminum (Al)	mg/liter	--	1.3	0.9	0.2	0.1
Total iron (Fe)	mg/liter	<0.3 (S)	0.58	0.38	0.83	0.1
Magnesium (Mg)	mg/liter	--	+	+	0.7	0.1
Manganese (Mn)	mg/liter	<0.05 (S)	+	+	0.14	0.02
Chromium (Cr)	mg/liter	<0.05 (P)	+	+	<0.08	0.01
Zinc (Zn)	mg/liter	<5.0 (S)	+	+	<0.02	0.002

^a(P) = 40 CFR Part 141; (S) = 40 CFR Part 143; (WQS) = Water-quality standards--Federal Register, Part V, Vol. 45, No. 231, 28 November 1980.

^b3.6 kilometers above SRP (Du Pont, 1983c).

^cWater samples obtained at Road A-7, about 5.5 kilometers downstream from the Separations Area.

^dNC = Little or no change expected.

^e-- = No standard.

^f+ = No data.

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