

OUTFALL 005 (FSDF-1)

ANNUAL 2008 REPORTING SUMMARY THE BOEING COMPANY SANTA SUSANA FIELD LABORATORY NPDES PERMIT CA0001309

January 1 through December 31, 2008

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	2/1/2008	
			RESULT	VALIDATION QUALIFIER
Chloride	mg/L	150/-	13	*
Fluoride	mg/L	1.6/-	0.27	J* (DNQ)
Nitrate + Nitrite as Nitrogen (N)	mg/L	10/-	0.17	J* (DNQ)
Oil & Grease	mg/L	15/-	2.2	J* (DNQ)
Perchlorate	ug/L	6.0/-	ND < 1.5	*
pH (Field)	pH units	6.5-8.5/-	6.6	*
Sulfate	mg/L	250/-	140	M-3*
Temperature	deg. F	86/-	46	*
Total Cyanide	ug/L	-/-	ND < 2.2	*
Total Dissolved Solids	mg/L	850/-	310	*
Hardness	mg/L	-/-	170	--
Hardness, dissolved	mg/L	-/-	170	--
Total Suspended Solids	mg/L	-/-	55	--
Volume Discharged	MGD	17.8/-	0.1	*
METALS				
Aluminum	ug/L	-/-	3800	--
Aluminum, dissolved	ug/L	-/-	62	--
Antimony	ug/L	6.0/-	0.43	J (DNQ)
Antimony, dissolved	ug/L	-/-	0.30	J (DNQ,*III)
Arsenic	ug/L	-/-	ND < 7.0	U
Arsenic, dissolved	ug/L	-/-	ND < 7.0	U
Beryllium	ug/L	-/-	ND < 0.90	U
Beryllium, dissolved	ug/L	-/-	ND < 0.90	U
Boron	mg/L	1.0/-	0.034	J (DNQ)
Boron, dissolved	mg/L	-/-	0.031	J (DNQ)
Cadmium	ug/L	4.0/-	0.48	J (DNQ)
Cadmium, dissolved	ug/L	-/-	0.22	J (DNQ)
Calcium	mg/L	-/-	54	--
Calcium, Dissolved	mg/L	-/-	55	--
Chromium	ug/L	-/-	4.2	J (DNQ)
Chromium, dissolved	ug/L	-/-	ND < 2.0	U
Copper	ug/L	14.0/-	3.8	--
Copper, dissolved	ug/L	-/-	1.7	J (DNQ)
Iron	mg/L	-/-	3.4	--
Iron, dissolved	mg/L	-/-	0.030	J (DNQ)
Lead	ug/L	5.2/-	1.4	--
Lead, dissolved	ug/L	-/-	ND < 0.30	UJ (*III)
Magnesium	mg/L	-/-	8.1	--
Magnesium, Dissolved	mg/L	-/-	7.5	--

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			RESULT	VALIDATION QUALIFIER
Mercury	ug/L	0.13/-	ND < 0.050	U
Mercury, dissolved	ug/L	-/-	ND < 0.050	U
Nickel	ug/L	100/-	15	--
Nickel, dissolved	ug/L	-/-	12	--
Selenium	ug/L	-/-	ND < 8.0	U
Selenium, dissolved	ug/L	-/-	ND < 8.0	U
Silver	ug/L	-/-	ND < 6.0	U
Silver, dissolved	ug/L	-/-	ND < 6.0	U
Thallium	ug/L	2.0/-	ND < 0.20	U
Thallium, dissolved	ug/L	-/-	ND < 0.20	UJ (*III)
Vanadium	ug/L	-/-	7.2	J (DNQ)
Vanadium, dissolved	ug/L	-/-	ND < 3.0	U
Zinc	ug/L	-/-	25	--
Zinc, dissolved	ug/L	-/-	12	J (DNQ)
ORGANICS				
Benzene	ug/L	-/-	ND < 0.28	*
Carbon Tetrachloride	ug/L	-/-	ND < 0.28	*
Chloroform	ug/L	-/-	ND < 0.33	*
1,1-Dichloroethane	ug/L	-/-	ND < 0.27	*
1,2-Dichloroethane	ug/L	-/-	ND < 0.28	*
1,1-Dichloroethene	ug/L	-/-	ND < 0.42	*
Ethylbenzene	ug/L	-/-	ND < 0.25	*
Tetrachloroethene	ug/L	-/-	ND < 0.32	*
Toluene	ug/L	-/-	ND < 0.36	*
Xylenes (Total)	ug/L	-/-	ND < 0.90	*
1,1,1-Trichloroethane	ug/L	-/-	ND < 0.30	*
1,1,2-Trichloroethane	ug/L	-/-	ND < 0.30	*
Trichloroethene	ug/L	-/-	ND < 0.26	*
Trichlorofluoromethane	ug/L	-/-	ND < 0.34	*
Trichlorotrifluoroethane (Freon 113)	ug/L	-/-	ND < 0.50	*
Vinyl chloride	ug/L	-/-	ND < 0.30	*
ADDITIONAL ANALYTES				
2,4,5-Trichlorophenol	ug/L	-/-	ND < 2.9	*
1,1,2,2-Tetrachloroethane	ug/L	-/-	ND < 0.24	*
1,2,4-Trichlorobenzene	ug/L	-/-	ND < 2.4	*
1,2-Dichlorobenzene	ug/L	-/-	ND < 2.9	*
1,2-Dichlorobenzene	ug/L	-/-	ND < 0.32	*
1,2-Dichloropropane	ug/L	-/-	ND < 0.35	*
1,2-Diphenylhydrazine/Azobenzene	ug/L	-/-	ND < 2.4	*
1,3-Dichlorobenzene	ug/L	-/-	ND < 2.9	*

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			RESULT	VALIDATION QUALIFIER
1,3-Dichlorobenzene	ug/L	-/-	ND < 0.35	*
1,4-Dichlorobenzene	ug/L	-/-	ND < 2.4	*
1,4-Dichlorobenzene	ug/L	-/-	ND < 0.37	*
2,4,6-Trichlorophenol	ug/L	-/-	ND < 4.3	*
2,4-Dichlorophenol	ug/L	-/-	ND < 3.3	*
2,4-Dimethylphenol	ug/L	-/-	ND < 3.3	*
2,4-Dinitrophenol	ug/L	-/-	ND < 7.7	*
2,4-Dinitrotoluene	ug/L	-/-	ND < 3.3	*
2,6-Dinitrotoluene	ug/L	-/-	ND < 1.9	*
2-Chloroethylvinylether	ug/L	-/-	ND < 1.8	*
2-Chloronaphthalene	ug/L	-/-	ND < 2.9	*
2-Chlorophenol	ug/L	-/-	ND < 2.9	*
2-Methyl-4,6-dinitrophenol	ug/L	-/-	ND < 3.8	*
2-Methylnaphthalene	ug/L	-/-	ND < 1.9	*
2-Methylphenol	ug/L	-/-	ND < 2.9	*
2-Nitrophenol	ug/L	-/-	ND < 3.3	*
3,3'-Dichlorobenzidine	ug/L	-/-	ND < 2.9	*
4,4'-DDD	ug/L	-/-	ND < 0.0019	*
4,4'-DDE	ug/L	-/-	ND < 0.0028	*
4,4'-DDT	ug/L	-/-	ND < 0.0038	*
4-Bromophenylphenylether	ug/L	-/-	ND < 2.9	*
4-Chloro-3-methylphenol	ug/L	-/-	ND < 2.4	*
4-Chloroaniline	ug/L	-/-	ND < 1.9	*
4-Chlorophenylphenylether	ug/L	-/-	ND < 2.4	*
4-Nitrophenol	ug/L	-/-	ND < 5.3	*
Acenaphthene	ug/L	-/-	ND < 2.9	*
Acenaphthylene	ug/L	-/-	ND < 2.9	*
Acrolein	ug/L	-/-	ND < 4.0	*
Acrylonitrile	ug/L	-/-	ND < 0.70	*
Acute Toxicity	% SURVIVAL	70-100/-	100	*
Aldrin	ug/L	-/-	ND < 0.0014	*
alpha-BHC	ug/L	-/-	ND < 0.0024	*
Aniline	ug/L	-/-	ND < 2.4	*
Anthracene	ug/L	-/-	ND < 1.9	*
Aroclor-1016	ug/L	-/-	ND < 0.42	*
Aroclor-1221	ug/L	-/-	ND < 0.24	*
Aroclor-1232	ug/L	-/-	ND < 0.24	*
Aroclor-1242	ug/L	-/-	ND < 0.24	*
Aroclor-1248	ug/L	-/-	ND < 0.24	*
Aroclor-1254	ug/L	-/-	ND < 0.24	*

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			RESULT	VALIDATION QUALIFIER
Aroclor-1260	ug/L	-/-	ND < 0.28	*
Benzidine	ug/L	-/-	ND < 8.1	L6*
Benzo(a)anthracene	ug/L	-/-	ND < 1.9	*
Benzo(a)pyrene	ug/L	-/-	ND < 1.9	*
Benzo(b)fluoranthene	ug/L	-/-	ND < 1.9	*
Benzo(g,h,l)perylene	ug/L	-/-	ND < 3.8	*
Benzo(k)fluoranthene	ug/L	-/-	ND < 2.4	*
Benzoic acid	ug/L	-/-	ND < 9.6	*
Benzyl alcohol	ug/L	-/-	ND < 2.4	*
beta-BHC	ug/L	-/-	ND < 0.0038	*
bis (2-Chloroethyl) ether	ug/L	-/-	ND < 2.9	*
bis (2-ethylhexyl) Phthalate	ug/L	-/-	ND < 3.8	*
bis(2-Chloroethoxy) methane	ug/L	-/-	ND < 2.9	*
bis(2-Chloroisopropyl) ether	ug/L	-/-	ND < 2.4	*
Bromodichloromethane	ug/L	-/-	ND < 0.30	*
Bromoform	ug/L	-/-	ND < 0.40	*
Bromomethane	ug/L	-/-	ND < 0.42	*
Butylbenzylphthalate	ug/L	-/-	ND < 3.8	*
Chlordane	ug/L	-/-	ND < 0.028	*
Chlorobenzene	ug/L	-/-	ND < 0.36	*
Chloroethane	ug/L	-/-	ND < 0.40	*
Chloromethane	ug/L	-/-	ND < 0.40	*
Chronic Toxicity	TUC	1.0/-	1.0	*
Chrysene	ug/L	-/-	ND < 2.4	*
cis-1,3-Dichloropropene	ug/L	-/-	ND < 0.22	*
Chlorpyrifos	ug/L	-/-	ND < 0.21	U
delta-BHC	ug/L	-/-	ND < 0.0033	*
Diazinon	ug/L	-/-	ND < 0.48	R (H)
Dibenzo(a,h)anthracene	ug/L	-/-	ND < 2.9	*
Dibenzofuran	ug/L	-/-	ND < 3.8	*
Dibromochloromethane	ug/L	-/-	ND < 0.28	*
Dieldrin	ug/L	-/-	ND < 0.0019	*
Diethylphthalate	ug/L	-/-	ND < 3.3	*
Dimethylphthalate	ug/L	-/-	ND < 1.9	*
Di-n-butylphthalate	ug/L	-/-	ND < 2.9	*
Di-n-octylphthalate	ug/L	-/-	ND < 3.3	*
Endosulfan I	ug/L	-/-	ND < 0.0019	*
Endosulfan II	ug/L	-/-	ND < 0.0028	*
Endosulfan sulfate	ug/L	-/-	ND < 0.0028	*
Endrin	ug/L	-/-	ND < 0.0019	*

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			RESULT	VALIDATION QUALIFIER
Endrin aldehyde	ug/L	-/-	ND < 0.0019	*
Endrin ketone	ug/L	-/-	ND < 0.0028	*
Fluoranthene	ug/L	-/-	ND < 2.9	*
Fluorene	ug/L	-/-	ND < 2.9	*
Heptachlor	ug/L	-/-	ND < 0.0028	*
Heptachlor epoxide	ug/L	-/-	ND < 0.0024	*
Hexachlorobenzene	ug/L	-/-	ND < 2.9	*
Hexachlorobutadiene	ug/L	-/-	ND < 3.8	*
Hexachlorocyclopentadiene	ug/L	-/-	ND < 4.8	*
Hexachloroethane	ug/L	-/-	ND < 3.3	*
Indeno(1,2,3-cd)pyrene	ug/L	-/-	ND < 3.3	*
Isophorone	ug/L	-/-	ND < 2.4	*
Lindane (gamma-BHC)	ug/L	-/-	ND < 0.0028	*
Methoxychlor	ug/L	-/-	ND < 0.0033	*
Methylene Chloride	ug/L	-/-	ND < 0.95	*
m-Nitroaniline	ug/L	-/-	ND < 2.9	*
Naphthalene	ug/L	-/-	ND < 2.9	*
Nitrobenzene	ug/L	-/-	ND < 2.4	*
n-Nitrosodimethylamine	ug/L	-/-	ND < 2.4	*
n-Nitroso-di-n-propylamine	ug/L	-/-	ND < 3.3	*
n-Nitrosodiphenylamine	ug/L	-/-	ND < 1.9	*
o-Nitroaniline	ug/L	-/-	ND < 1.9	*
p-Cresol	ug/L	-/-	ND < 2.9	*
Pentachlorophenol	ug/L	-/-	ND < 3.3	*
Phenanthrene	ug/L	-/-	ND < 3.3	*
Phenol	ug/L	-/-	ND < 1.9	*
p-Nitroaniline	ug/L	-/-	ND < 3.8	*
Pyrene	ug/L	-/-	ND < 3.8	*
Toxaphene	ug/L	-/-	ND < 0.066	*
trans-1,2-Dichloroethene	ug/L	-/-	ND < 0.27	*
trans-1,3-Dichloropropene	ug/L	-/-	ND < 0.32	*

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**ANNUAL 2008 REPORTING SUMMARY
THE BOEING COMPANY
SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

Sample Date February 1, 2008

ANALYTE	LAB LOD (ug/L)	LAB RL (ug/L)	LAB RESULT (ug/L)	VALIDATION QUALIFIER	1998 WHO TEF	TCDD Equivalent (w/DNQ Values) (ug/L)	TCDD Equivalent (w/out DNQ Values) (ug/L)
1,2,3,4,6,7,8-HpCDD	0.00E+00	2.50E-05	1.01E-05	J (DNQ)	0.01	1.01E-07	ND
1,2,3,4,6,7,8-HpCDF	0.00E+00	2.50E-05	1.56E-06	J (DNQ)	0.01	1.56E-08	ND
1,2,3,4,7,8,9-HpCDF	1.13E-06	2.50E-05	ND	U	0.01	ND	ND
1,2,3,4,7,8-HxCDD	1.72E-06	2.50E-05	ND	U	0.1	ND	ND
1,2,3,4,7,8-HxCDF	8.32E-07	2.50E-05	ND	U	0.1	ND	ND
1,2,3,6,7,8-HxCDD	1.58E-06	2.50E-05	ND	U	0.1	ND	ND
1,2,3,6,7,8-HxCDF	9.02E-07	2.50E-05	ND	U	0.1	ND	ND
1,2,3,7,8,9-HxCDD	1.58E-06	2.50E-05	ND	U	0.1	ND	ND
1,2,3,7,8,9-HxCDF	1.25E-06	2.50E-05	ND	U	0.1	ND	ND
1,2,3,7,8-PeCDD	7.55E-07	2.50E-05	ND	U	1	ND	ND
1,2,3,7,8-PeCDF	8.12E-07	2.50E-05	ND	U	0.05	ND	ND
2,3,4,6,7,8-HxCDF	1.01E-06	2.50E-05	ND	U	0.1	ND	ND
2,3,4,7,8-PeCDF	8.23E-07	2.50E-05	ND	U	0.5	ND	ND
2,3,7,8-TCDD	6.23E-07	5.00E-06	ND	U	1	ND	ND
2,3,7,8-TCDF	5.65E-07	5.00E-06	ND	U	0.1	ND	ND
OCDD	0.00E+00	5.00E-05	1.65E-04	*	0.0001	1.65E-08	1.65E-08
OCDF	0.00E+00	5.00E-05	3.10E-06	J (DNQ)	0.0001	3.10E-10	ND

TCDD TEQ w/ DNQ Values	1.33E-07	
TCDD TEQ w/out DNQ Values		1.65E-08

Dioxin TCDD TEQ compliance limit established for this outfall?

Yes

TCDD TEQ PERMIT LIMIT = 2.80E-08

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SANTA SUSANA FIELD LABORATORY
NPDES PERMIT CA0001309**

January 1 through December 31, 2008

ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	2/1/2008		
			RESULT	MDA	VALIDATION QUALIFIER
RADIOACTIVITY					
Gross Alpha	pCi/L	15/-	0.763 ± 0.99	1.3	UJ (R)
Gross Beta	pCi/L	50/-	14.2 ± 0.93	0.97	--
Strontium-90	pCi/L	8.0/-	0.026 ± 0.31	0.72	UJ (H)
Total Combined Radium-226 & Radium 228	pCi/L	5.0/-	0.721 ± 0.48	1.19	UJ (H)
Tritium	pCi/L	20000/-	7.12 ± 78	130	U
Cs-137 (G)	pCi/L	----	ND < 0.86	0.86	U (H)
K-40 (G)	pCi/L	----	24.0 ± 11	8.2	J (H)
Uranium, Total	pCi/L	20/-	0.578 ± 0.064	0.022	J (H)

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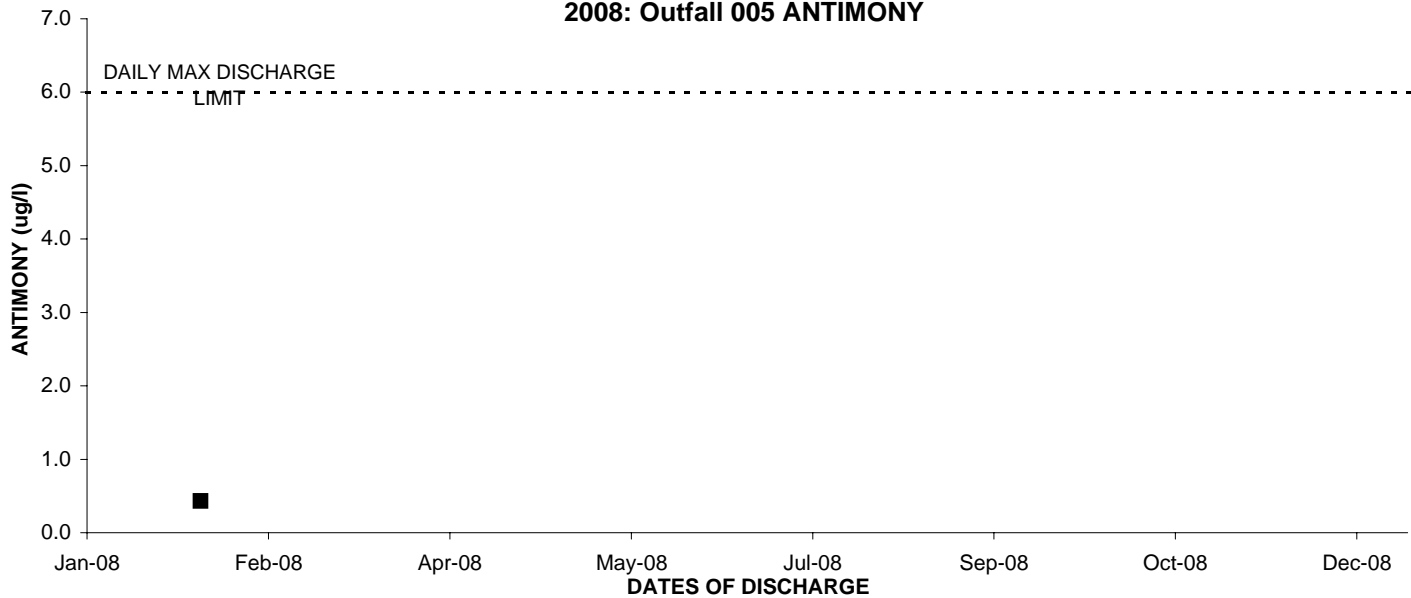
ANNUAL 2008 REPORTING SUMMARY THE BOEING COMPANY SANTA SUSANA FIELD LABORATORY NPDES PERMIT CA0001309

January 1 through December 31, 2008

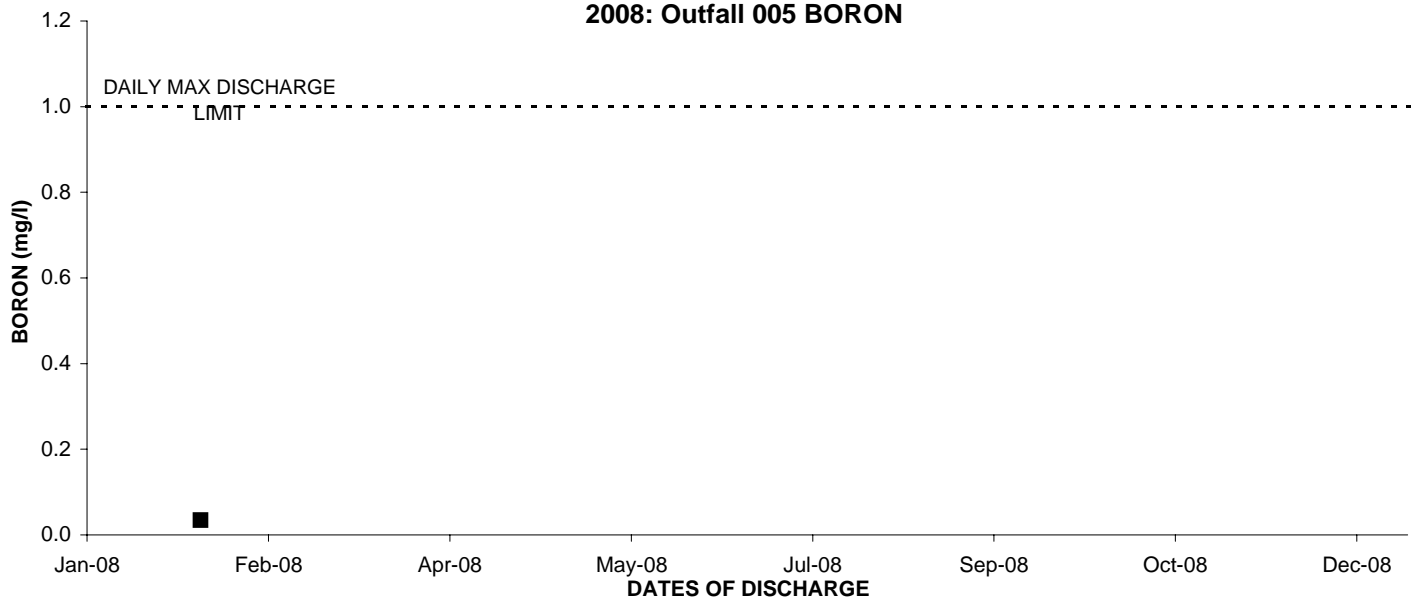
ANALYTE	UNITS	Permit Limit Daily Max/Monthly Avg	2/1/2008	
			Result	CONCENTRATION RESULT VALIDATION QUALIFIER
Chloride	LBS/DAY	22,268/-	10.84	*
Fluoride	LBS/DAY	238/-	0.23	J* (DNQ)
Nitrate + Nitrite as Nitrogen (N)	LBS/DAY	1,485/-	0.14	J* (DNQ)
Oil & Grease	LBS/DAY	2,227/-	1.83	J* (DNQ)
Perchlorate	LBS/DAY	0.89/-	ND	*
Sulfate	LBS/DAY	37,113/-	116.76	M-3*
Total Dissolved Solids	LBS/DAY	126,184/-	258.54	*
Antimony	LBS/DAY	0.89/-	0.000359	J (DNQ)
Boron	LBS/DAY	148/-	0.03	J (DNQ)
Cadmium	LBS/DAY	0.59/-	0.0004	J (DNQ)
Copper	LBS/DAY	2.08/-	0.00317	--
Lead	LBS/DAY	0.77/-	0.00117	--
Mercury	LBS/DAY	0.02/-	ND	U
Nickel	LBS/DAY	14.9/-	0.01	--
Thallium	LBS/DAY	0.3/-	ND	U
TCDD TEQ_NoDNQ	LBS/DAY	4.2E-09/-	1.38E-11	--

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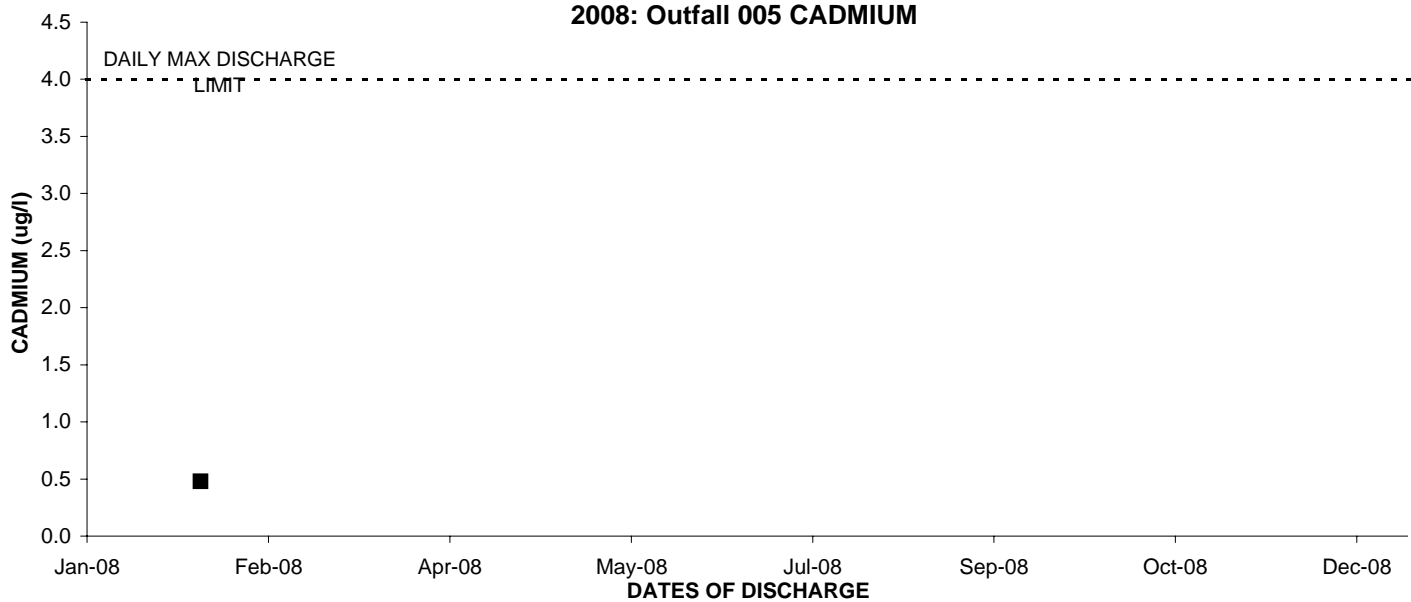
2008: Outfall 005 ANTIMONY



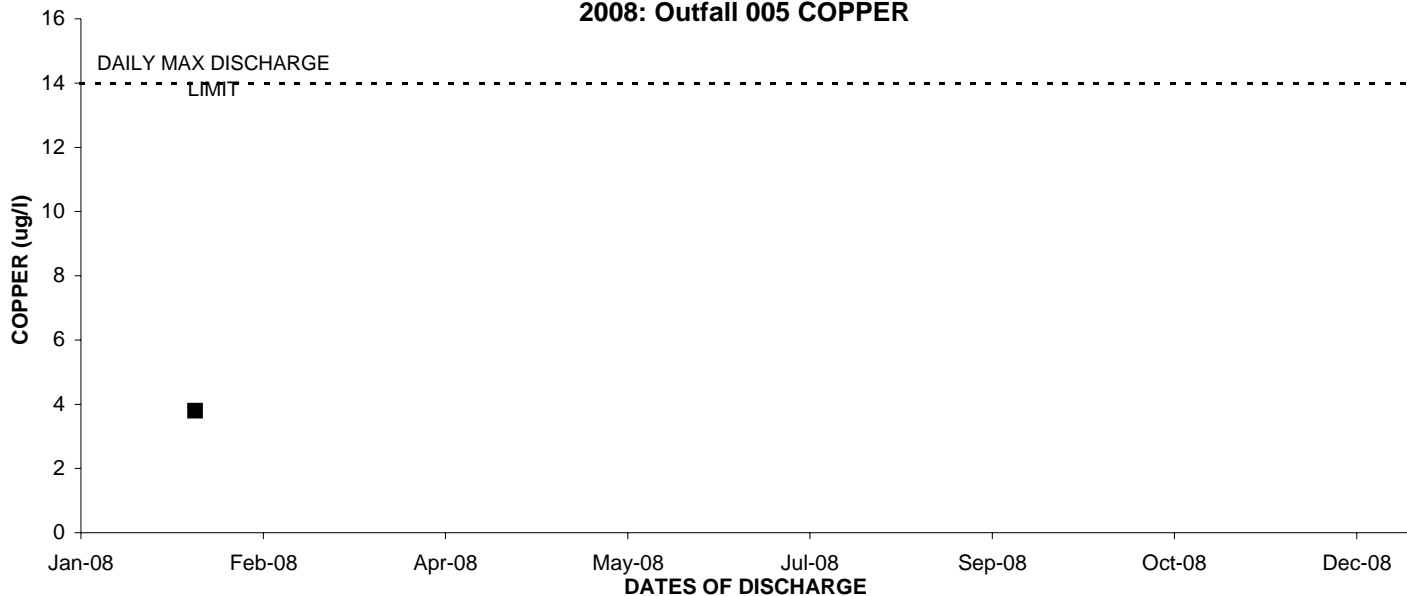
2008: Outfall 005 BORON



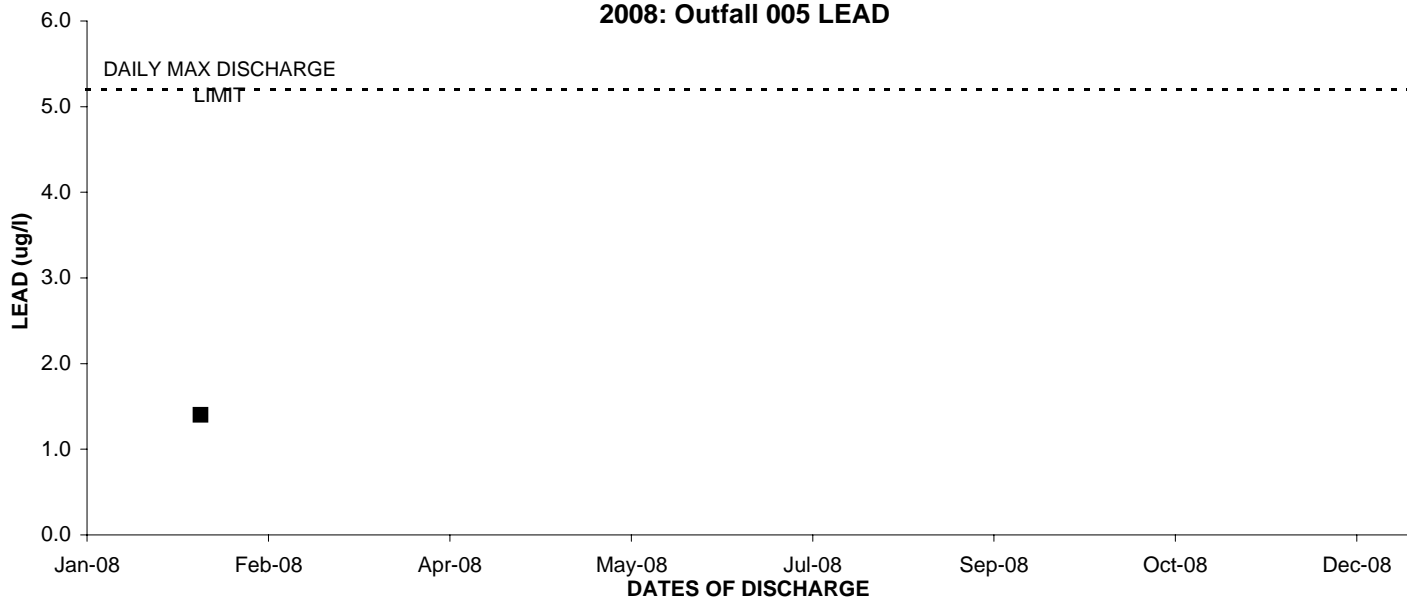
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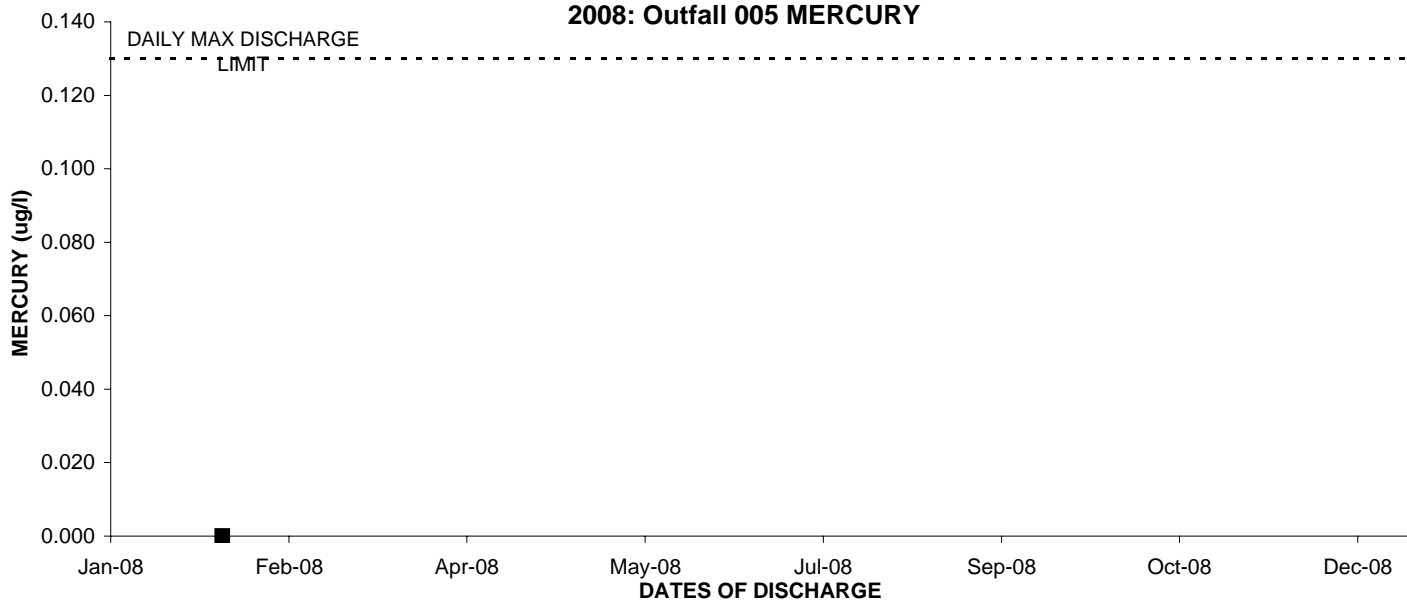
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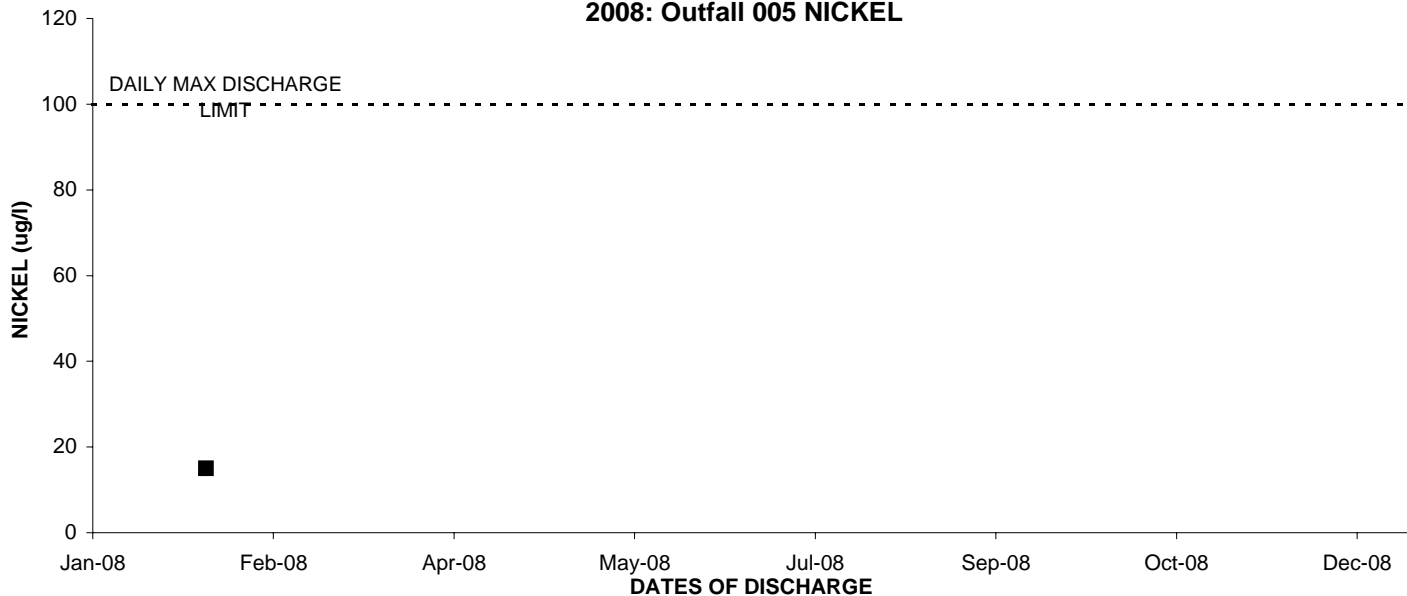
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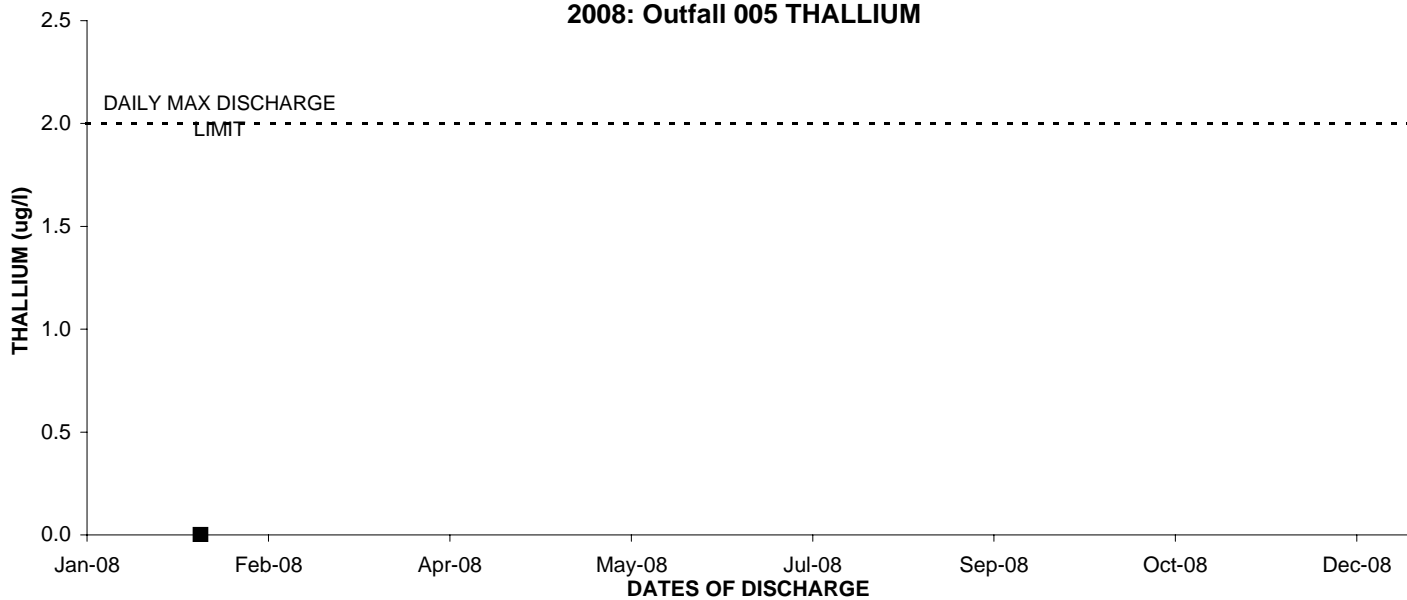
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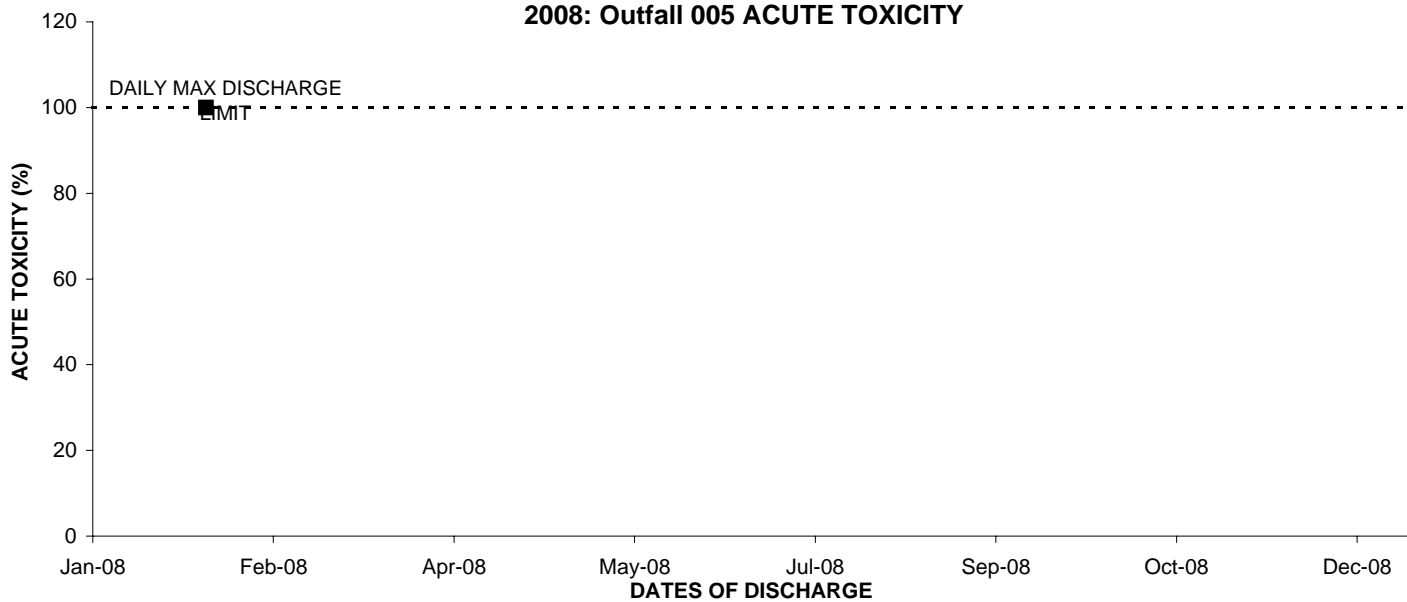
2008: Outfall 005 NICKEL



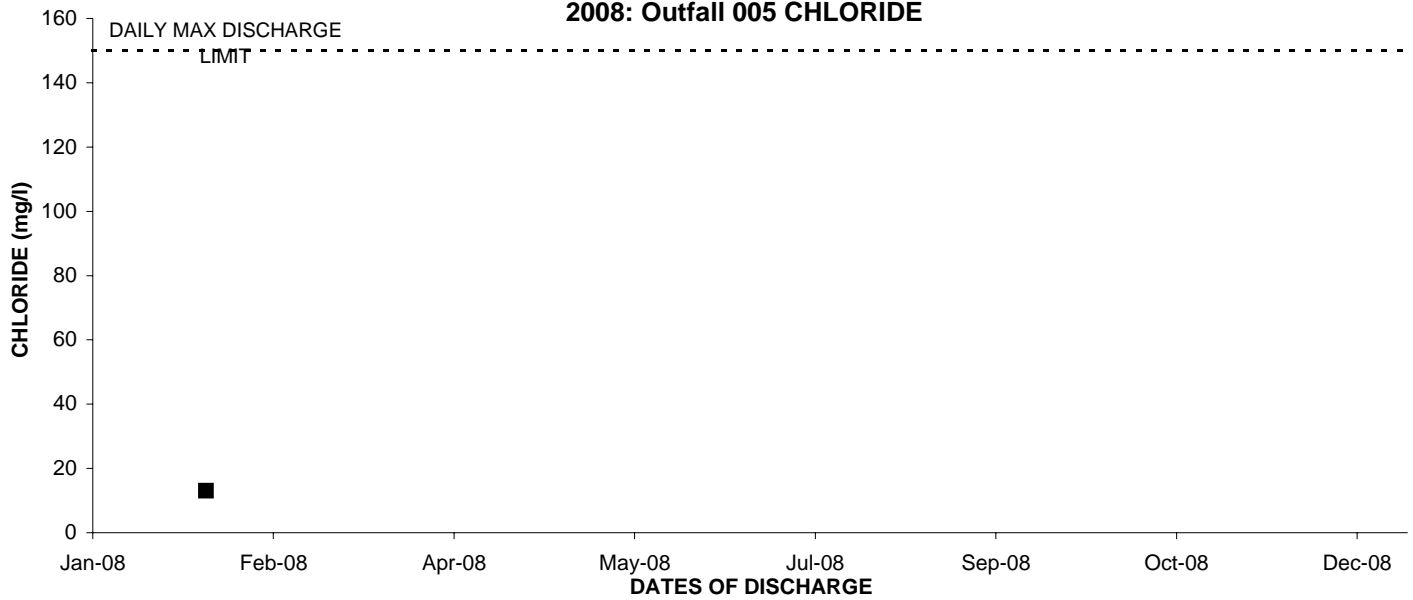
2008: Outfall 005 THALLIUM



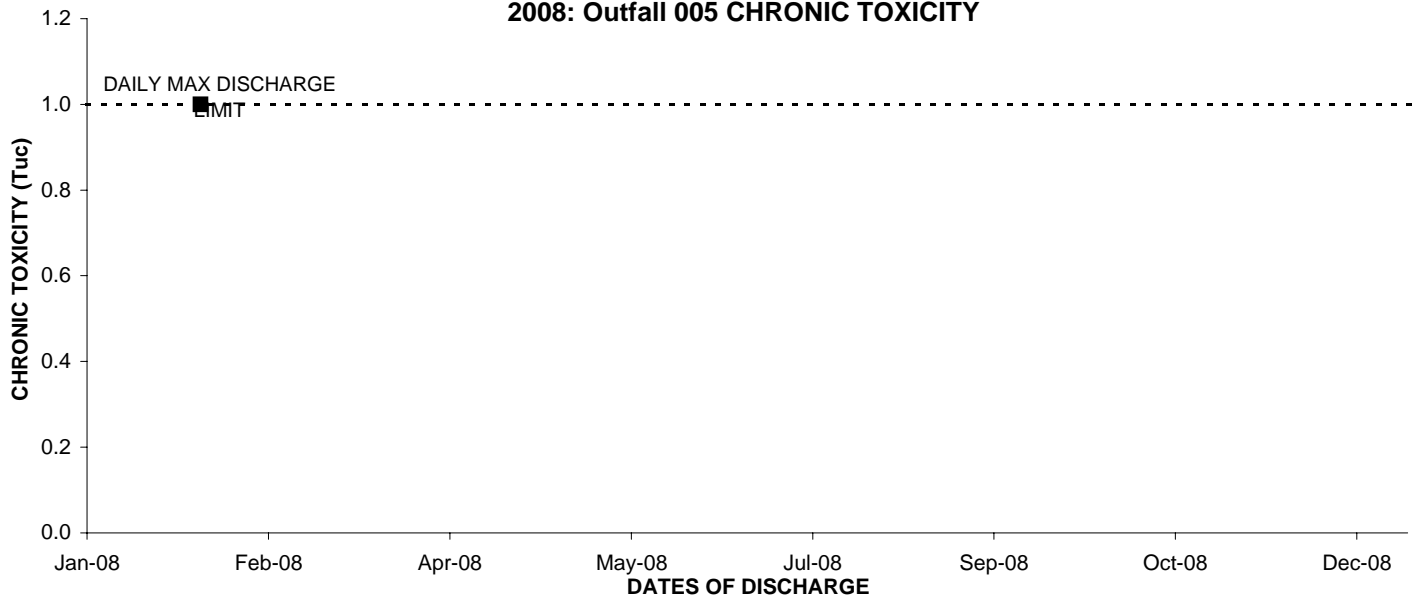
2008: Outfall 005 ACUTE TOXICITY



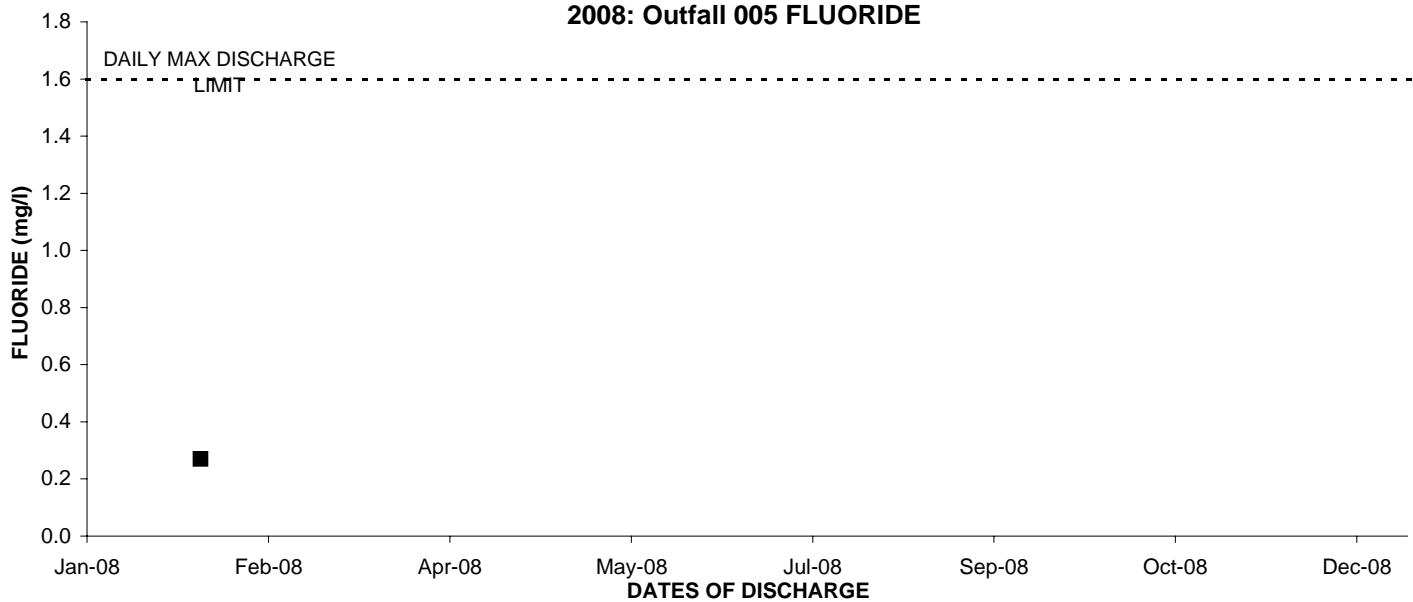
2008: Outfall 005 CHLORIDE



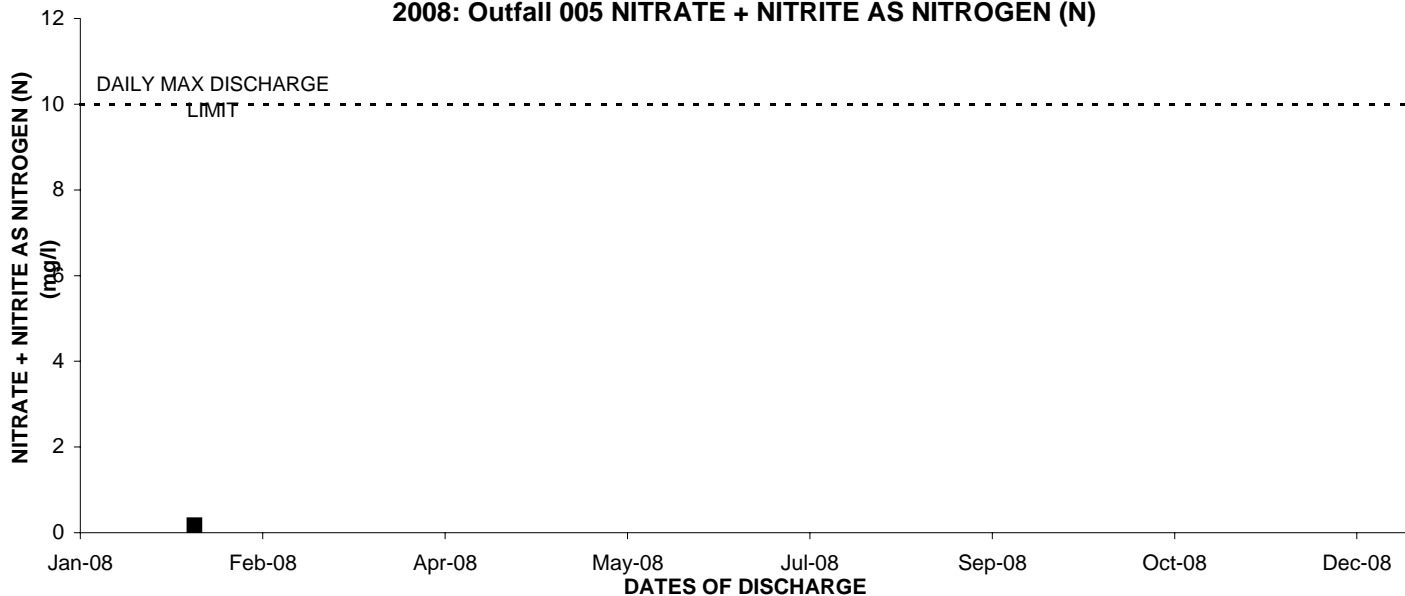
2008: Outfall 005 CHRONIC TOXICITY



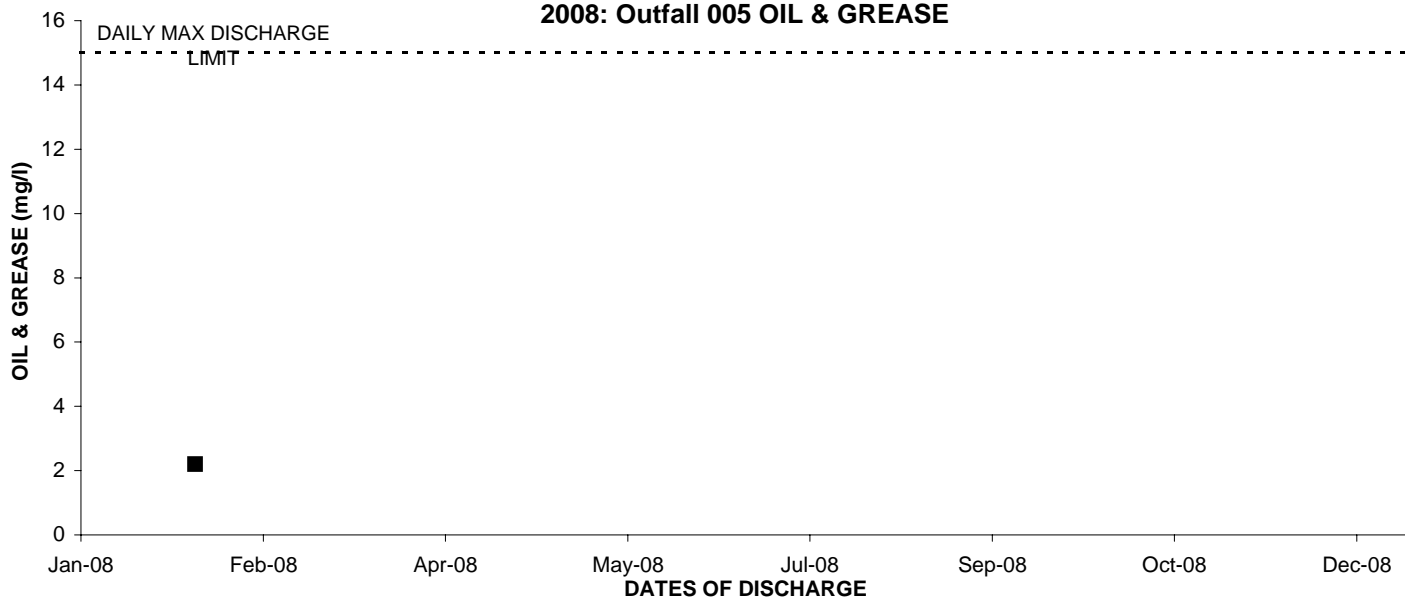
2008: Outfall 005 FLUORIDE



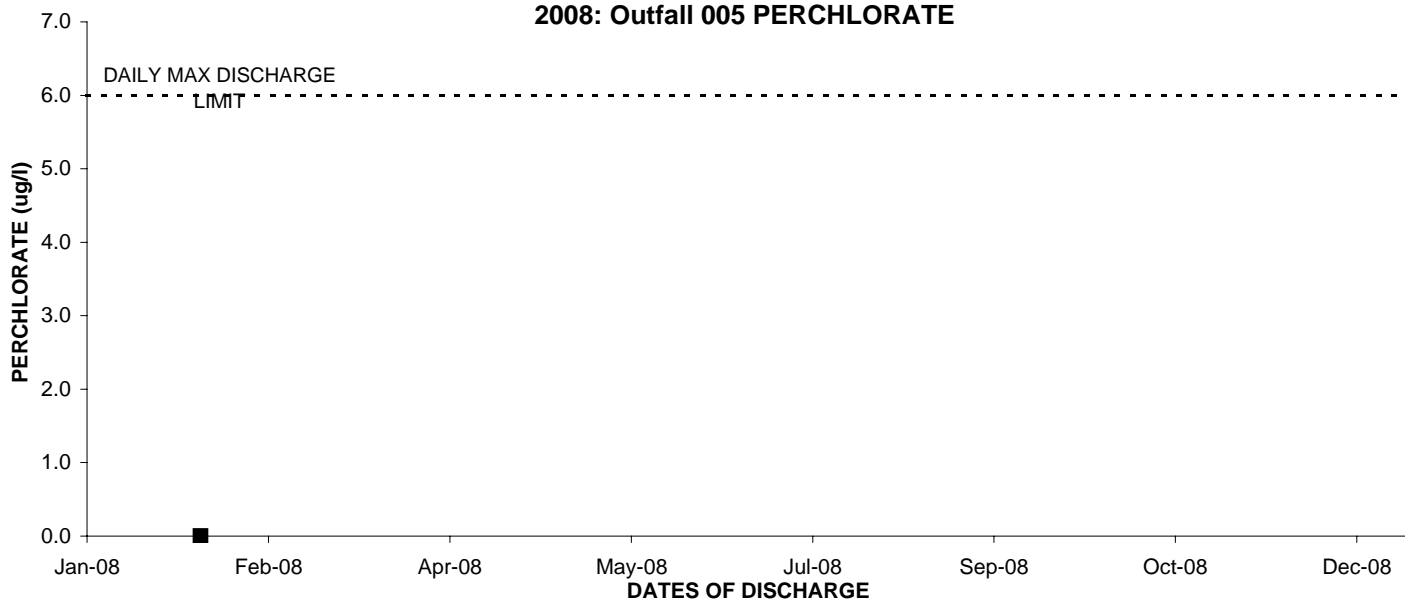
2008: Outfall 005 NITRATE + NITRITE AS NITROGEN (N)



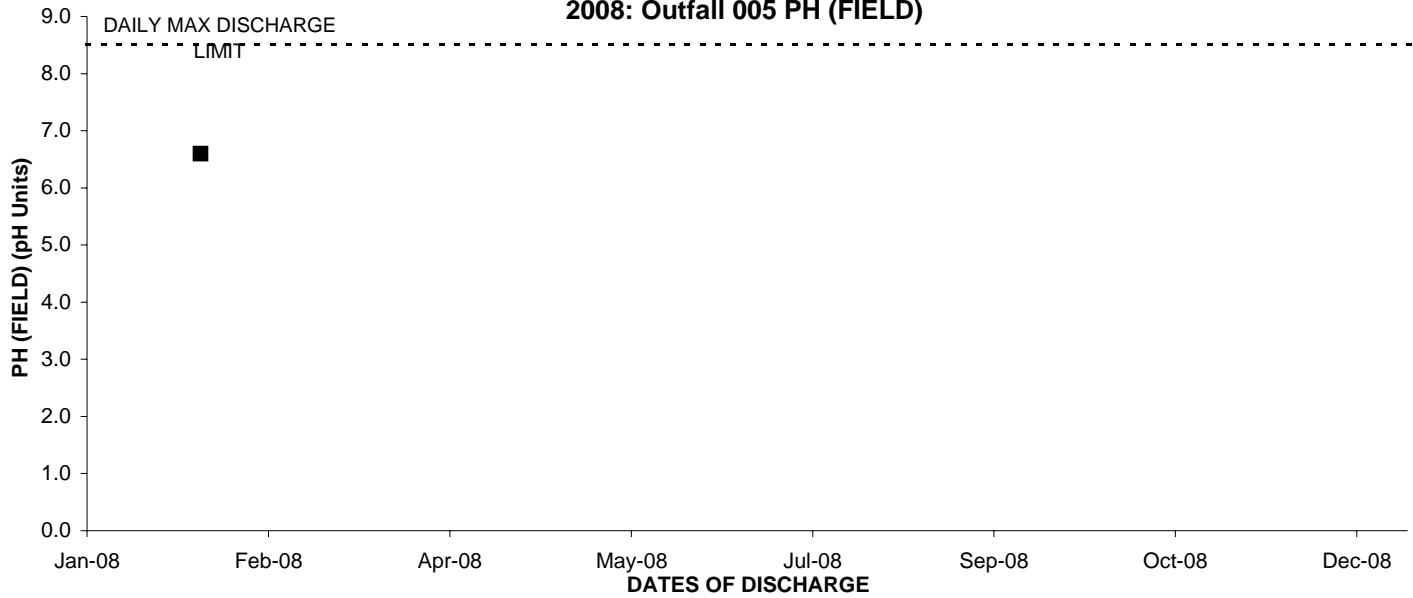
2008: Outfall 005 OIL & GREASE



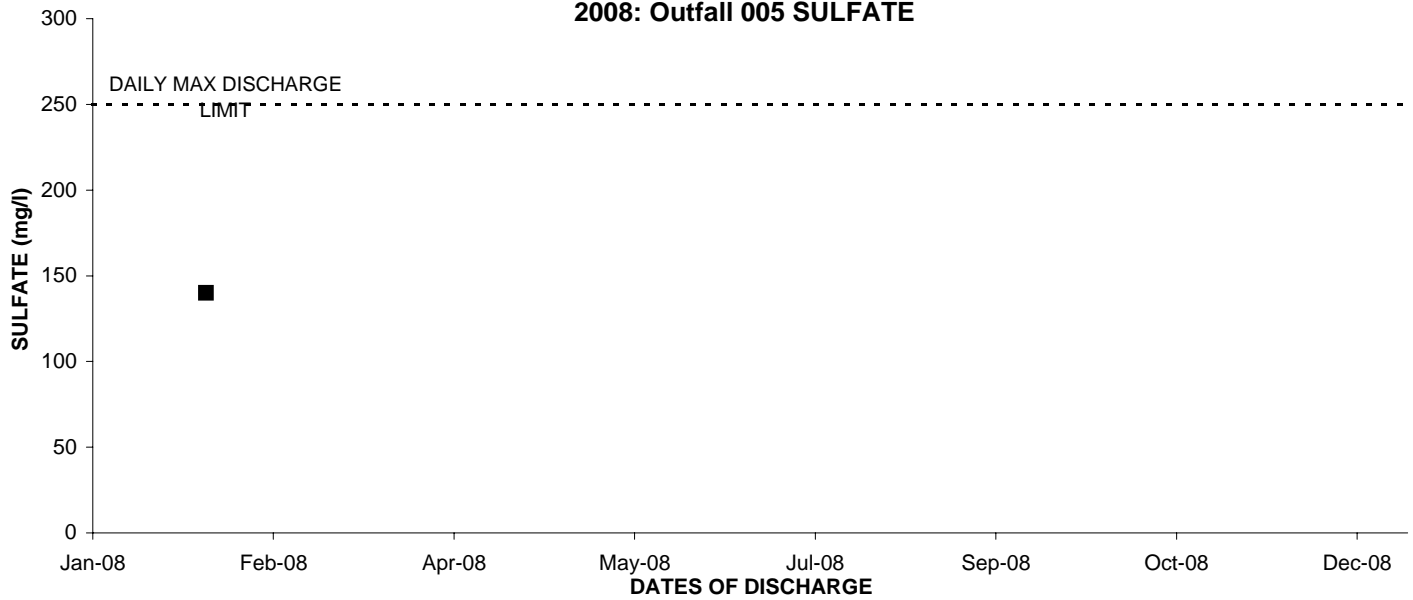
2008: Outfall 005 PERCHLORATE



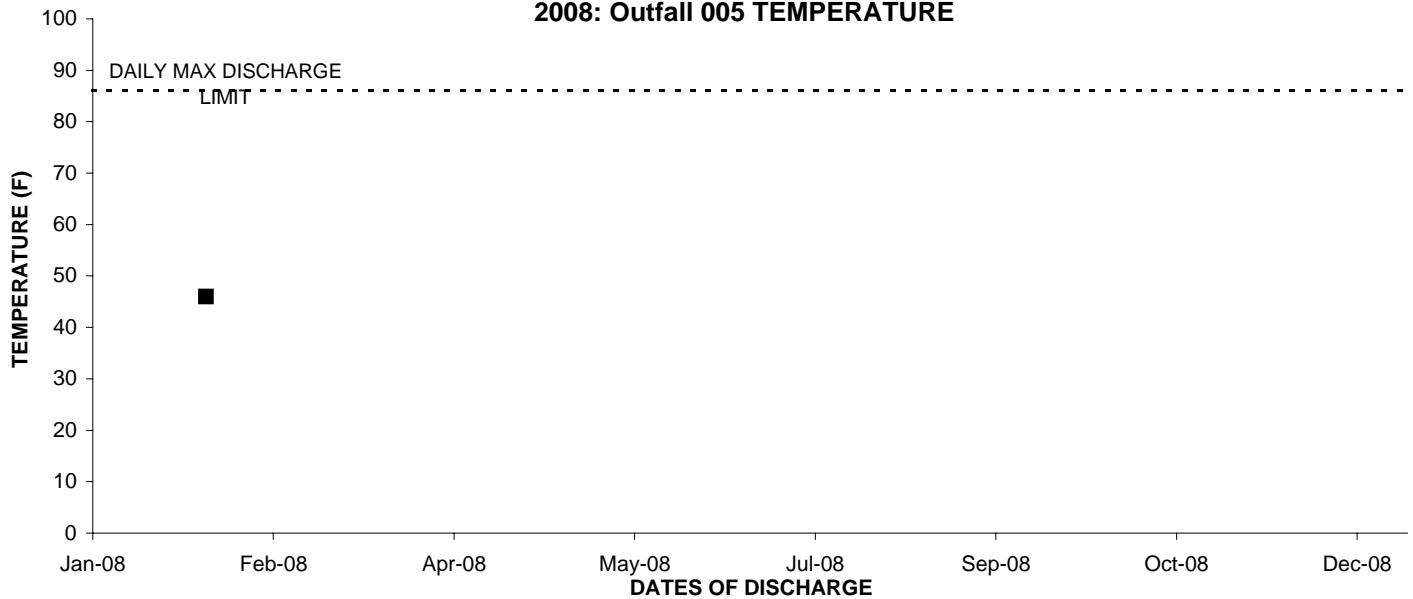
2008: Outfall 005 PH (FIELD)



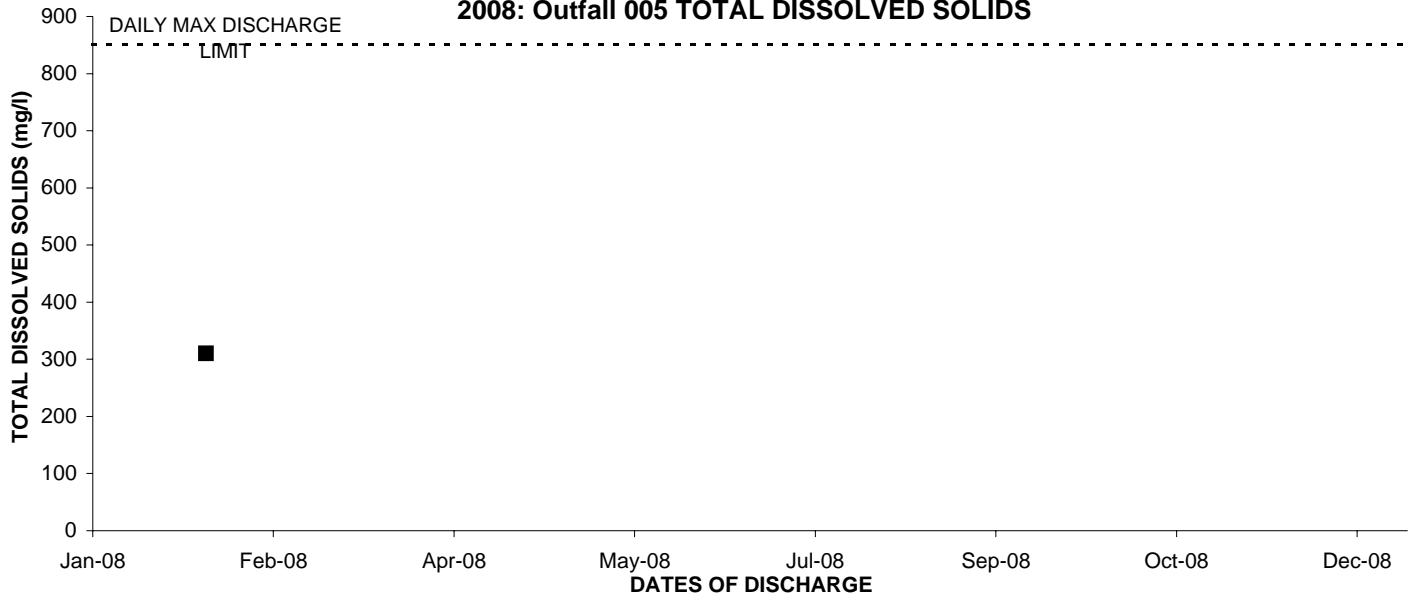
2008: Outfall 005 SULFATE



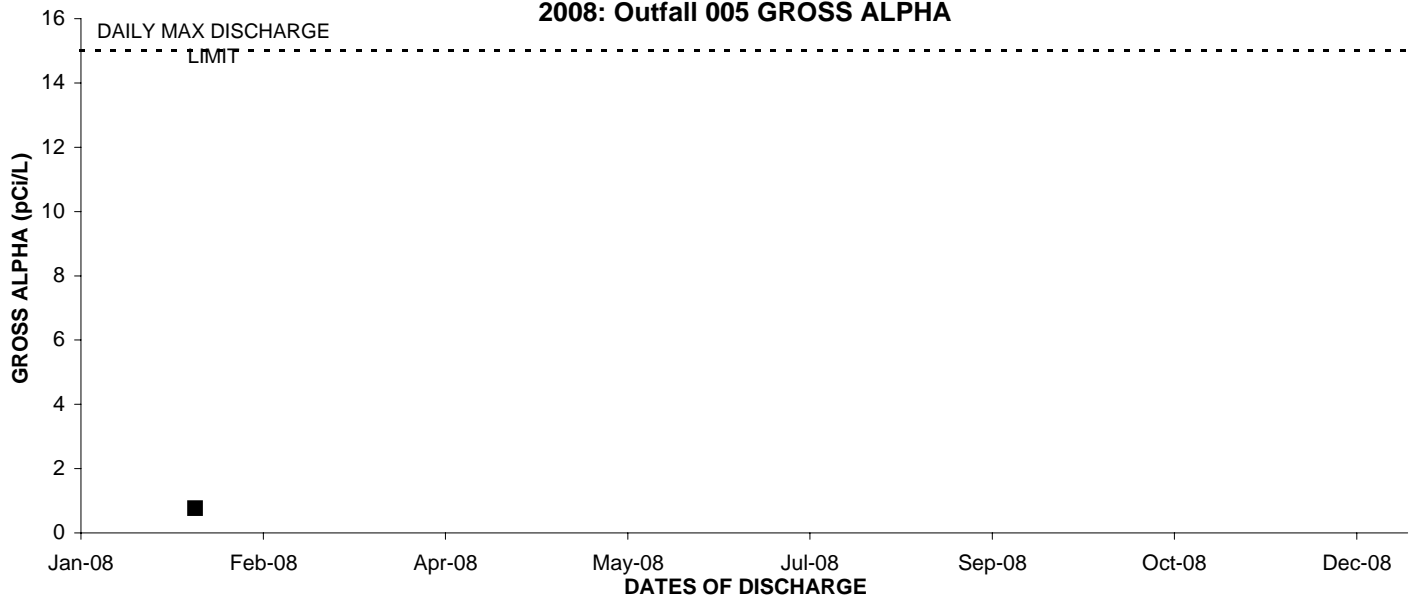
2008: Outfall 005 TEMPERATURE



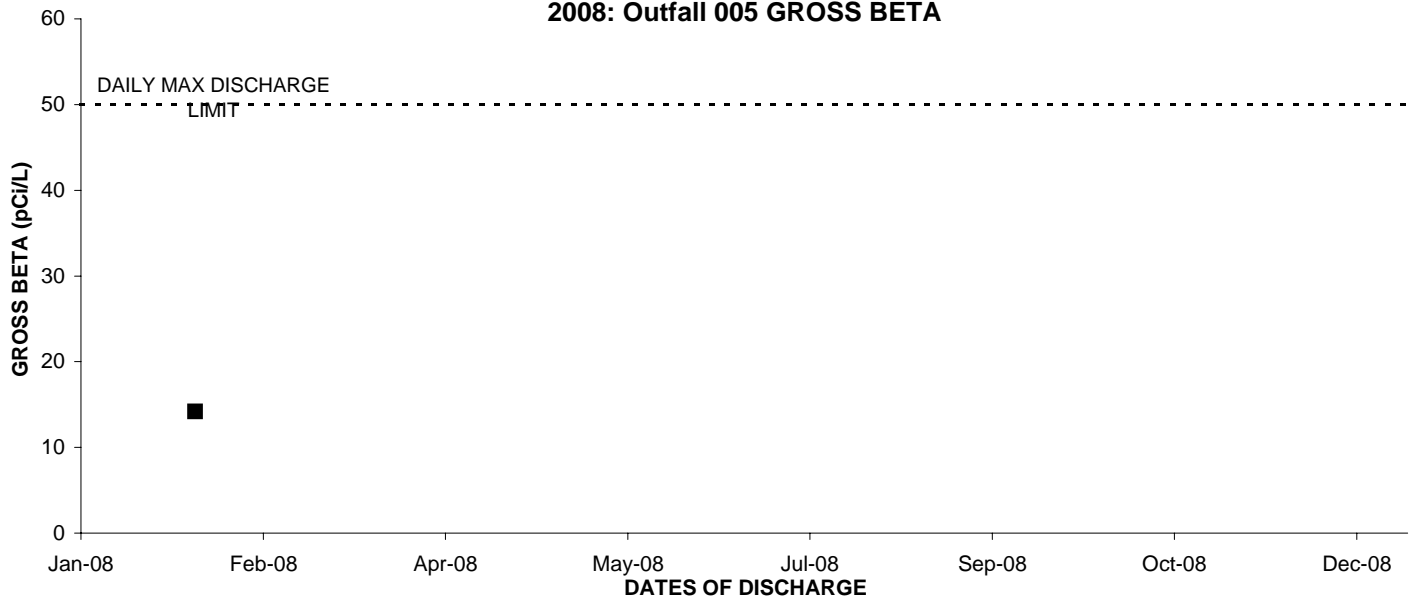
2008: Outfall 005 TOTAL DISSOLVED SOLIDS



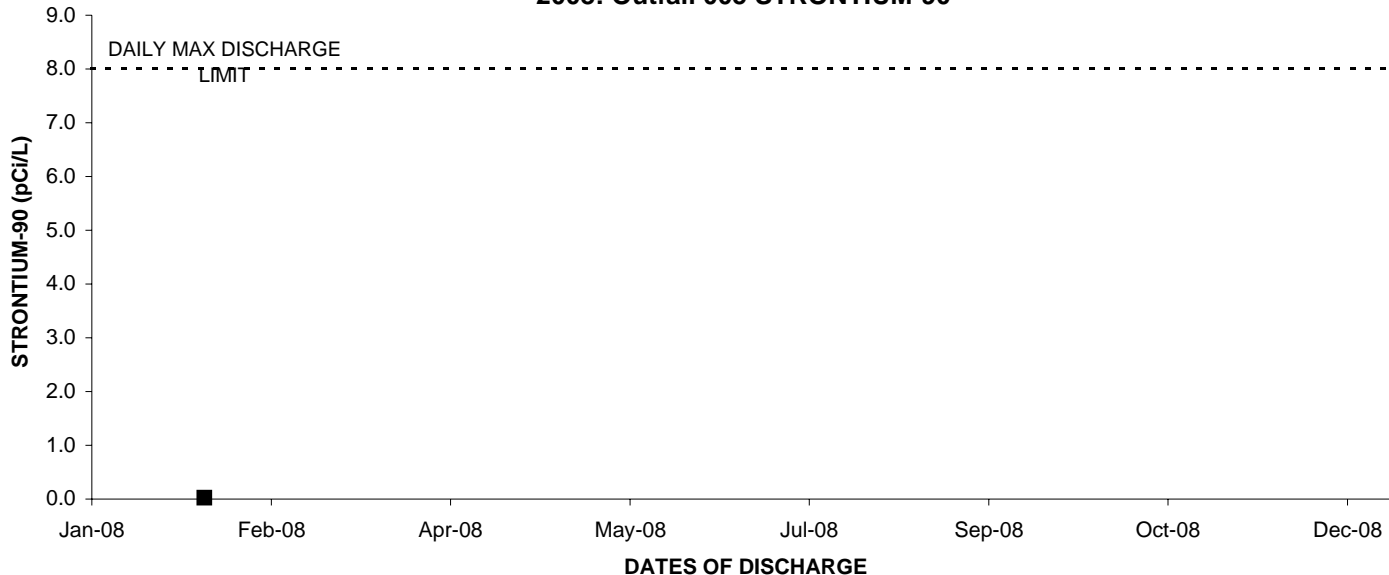
2008: Outfall 005 GROSS ALPHA



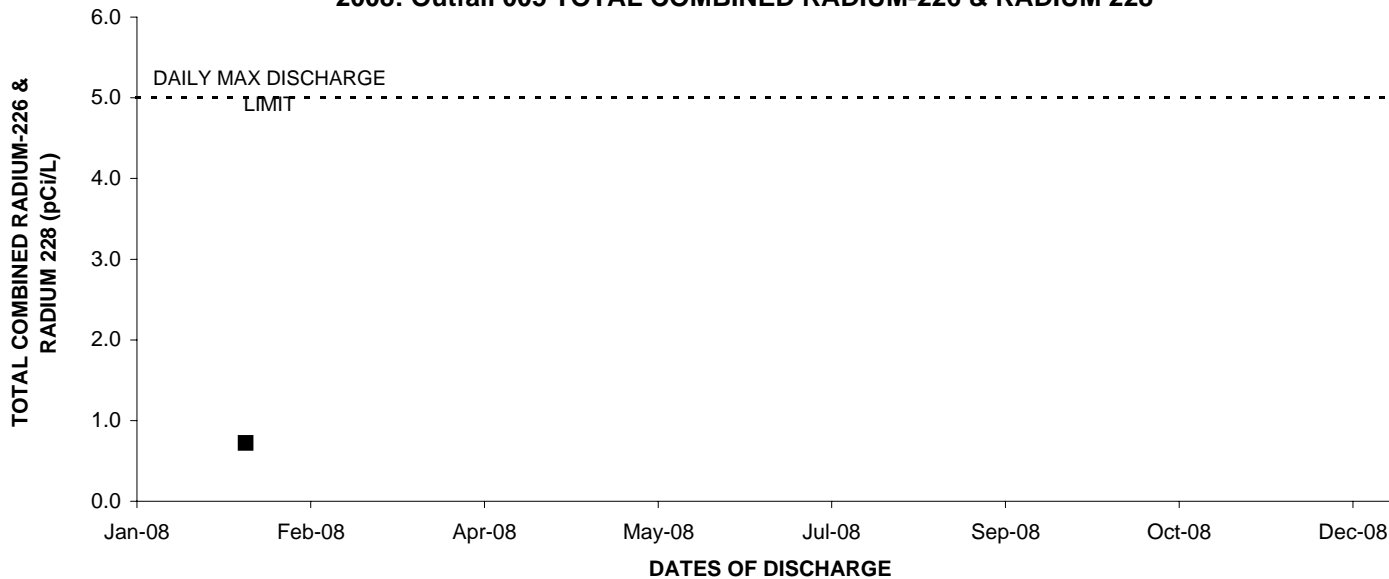
2008: Outfall 005 GROSS BETA



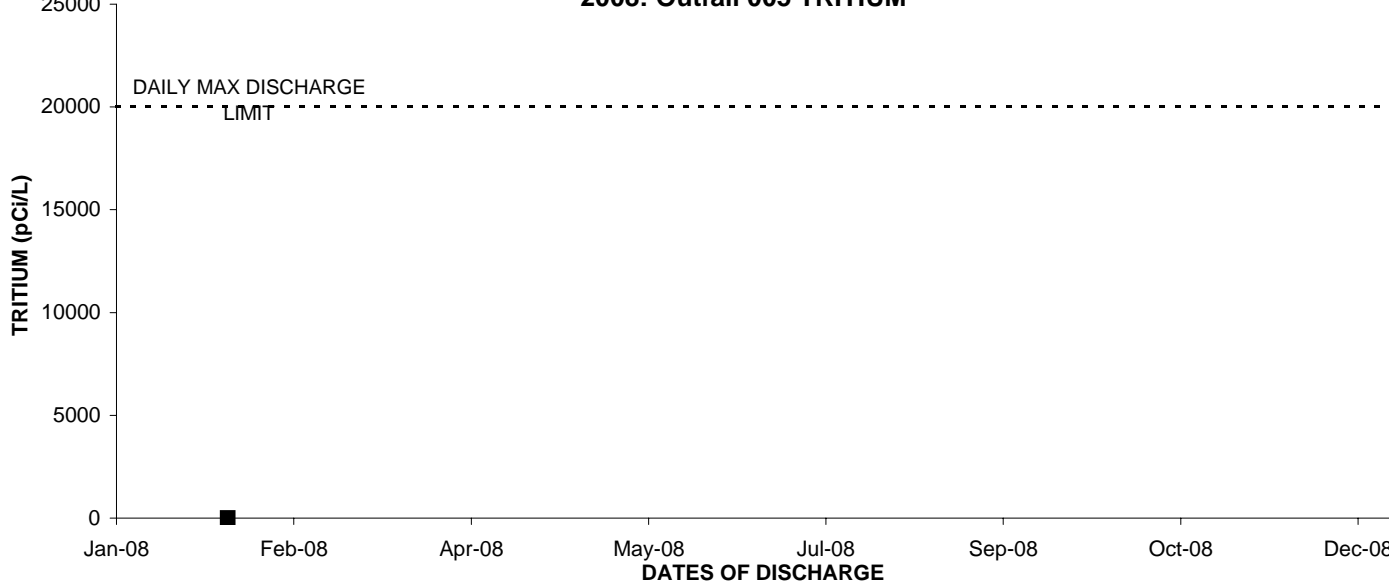
2008: Outfall 005 STRONTIUM-90



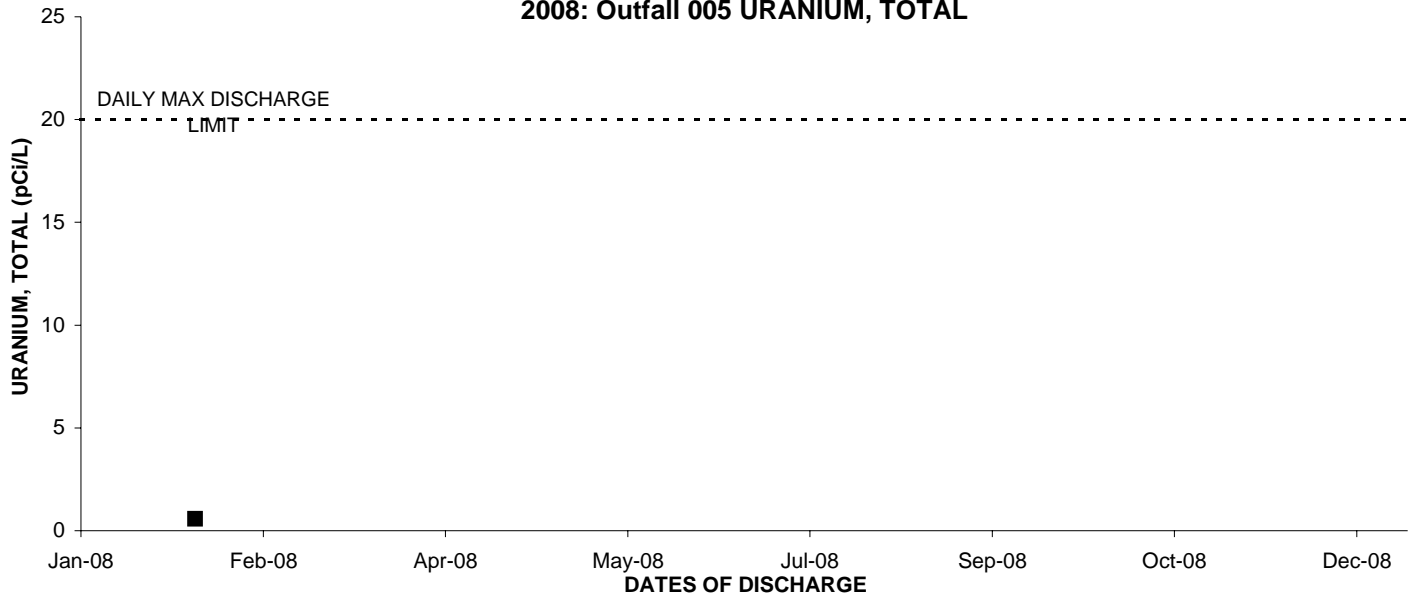
2008: Outfall 005 TOTAL COMBINED RADIUM-226 & RADIUM 228



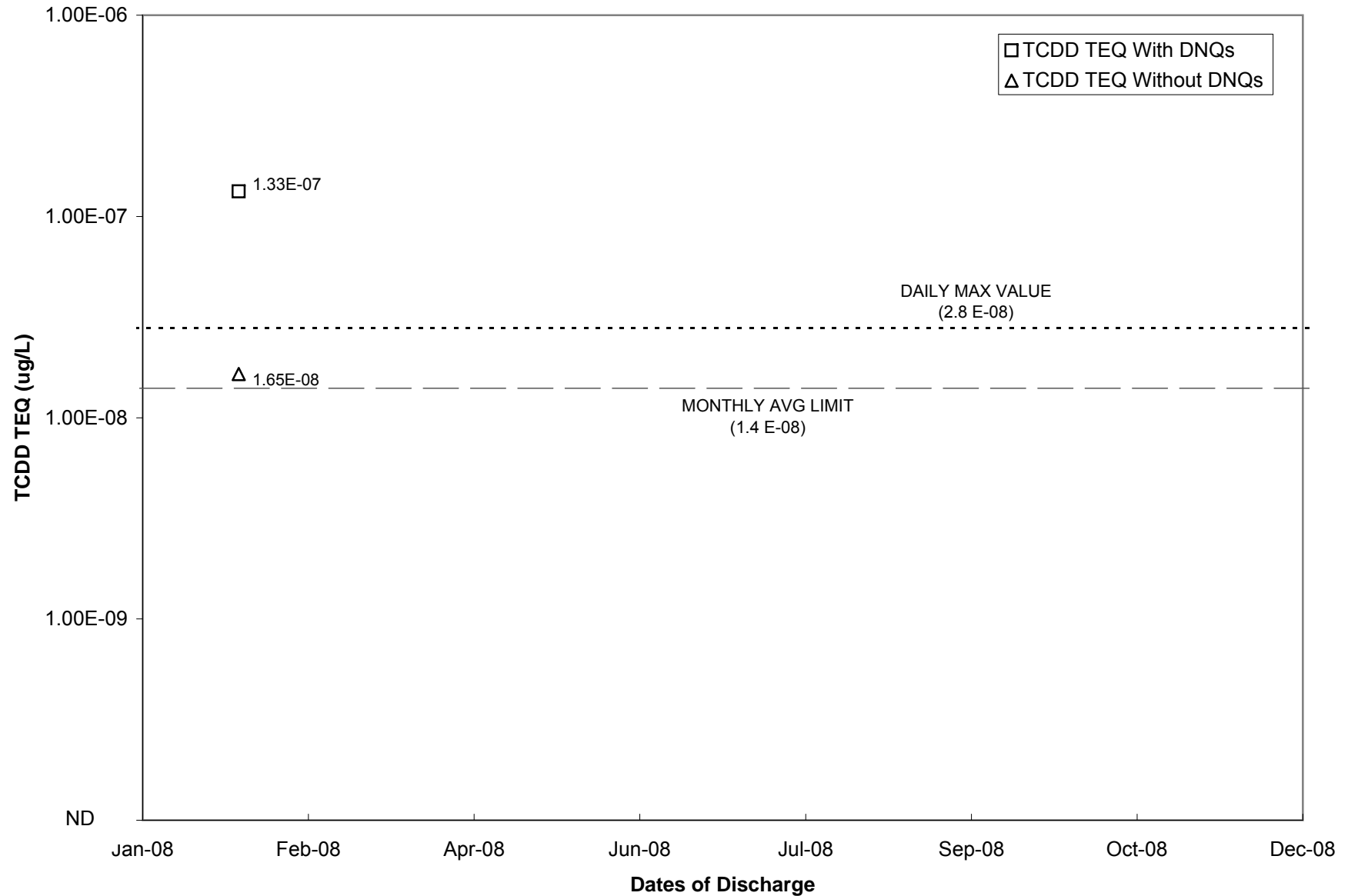
2008: Outfall 005 TRITIUM



2008: Outfall 005 URANIUM, TOTAL



2008: Outfall 005 TCDD



Note: Only TCDD TEQ Without DNQs (Δ) are used for compliance purposes and if greater than the daily max value, are a permit limit exceedance. TCDD TEQ With DNQ values are shown for information purposes only.