

Table R1-2

REASONABLE POTENTIAL ANALYSIS
HYPERION TREATMENT PLANT (OUTFALL 001)
(CA0109991, CI-1492)

Constituent	Unit	Jan-99	Apr-99	Jul-99	Oct-99	Jan-00	Apr-00	Jul-00	Oct-00	Jan-01	Apr-01	Jul-01	Oct-01	Jan-02	Apr-02
Water Quality Objectives															
Marine Aquatic Life Protection															
Phenolic Compounds (non-chlorinated)	µg/L	<31	<31	<31	<31	<31	<31	<31	<31	<31	<31	<31	<31	<31	<31
PHENOL	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
2-NITROPHENOL	µg/L	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
2,4-DIMETHYLPHENOL	µg/L	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
2,4-DINITROPHENOL	µg/L	<31	<31	<31	<31	<31	<31	<31	<31	<31	<31	<31	<31	<31	<31
4-NITROPHENOL	µg/L	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
4,6-DINITRO-2-METHYLPHENOL	µg/L	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6
Phenolic Compounds (chlorinated)*	µg/L	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8
2-CHLOROPHENOL	µg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
2,4-DICHLOROPHENOL	µg/L	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
4-CHLORO-3-METHYLPHENOL	µg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
2,4,6-TRICHLOROPHENOL	µg/L	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
PENTACHLOROPHENOL	µg/L	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8	<8
ENDOSULFAN	µg/L	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
ENDOSULFAN - ALPHA	µg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ENDOSULFAN - BETA	µg/L	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
ENDOSULFAN SULFATE	µg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
ENDRIN	µg/L	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
HCH*	µg/L	0.014	0.024	0.022	0.01	0.01	0.017	0.013	0.016	0.031	0.001	0.001	0.001	0.001	0.001
ALPHA-BHC	µg/L	<0.001	<0.001	0.002	<0.001	<0.001	0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
BETA-BHC	µg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
GAMMA-BHC	µg/L	0.014	0.024	0.022	0.01	0.01	0.017	0.013	0.012	0.031	<0.001	<0.001	<0.001	<0.001	<0.001
DELTA-BHC	µg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Human Health Protection (noncarcinogens)															
ACROLEIN	µg/L	<4.46	<4.46	<4.46	<4.46	<4.46	<4.46	<4.46	<2.40	<2.40	<2.40	<2.40	<2.40	<2.40	<2.40
ANTIMONY	µg/L	<u>2.5</u>	<u>2.5</u>	<u>2.5</u>	<u>2.5</u>	<u>2.5</u>	<u>2.5</u>	<u>5</u>	<u>5</u>	<u>5</u>	<u>5</u>	10	<u>2.5</u>	<u>2.5</u>	<u>2.5</u>
BIS(2-CL-ETHOXY)METHANE	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1

Underlined numbers used in the calculation are one-half of detection limits for data showing less than MDL results.

* These constituents showed RPs.

Table R1-2

REASONABLE POTENTIAL ANALYSIS
 HYPERION TREATMENT PLANT (OUTFALL 001)
 (CA0109991, CI-1492)

Constituent	Unit												
		Jul-02	Oct-02	Jan-03	Apr-03	Jun-03	Jul-03	Oct-03	January 1, 2004	January 27, 2004	Apr-04	Jun-04	
Water Quality Objectives													
Marine Aquatic Life Protection													
Phenolic Compounds (non-chlorinated)	µg/L	<1	<4	<4	<4		<4	1.9	<4	0.3	<4	<4	<4
PHENOL	µg/L	<1	<1	<0.4	<0.4		<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
2-NITROPHENOL	µg/L	<1	<2	<0.09	<0.09		<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09
2,4-DIMETHYLPHENOL	µg/L	<1	<2	<0.17	<0.17		<0.17	1.9	<0.17	0.3	<0.17	<0.17	<0.17
2,4-DINITROPHENOL	µg/L	<1	<2	<0.21	<0.21		<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	<0.21
4-NITROPHENOL	µg/L	<1	<4	<0.06	<0.06		<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
4,6-DINITRO-2-METHYLPHENOL	µg/L	<1	<2	<0.4	<0.4		<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Phenolic Compounds (chlorinated)*	µg/L	<1	<2	<0.4	0.46		<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
2-CHLOROPHENOL	µg/L	<1	<1	<0.09	<0.09		<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09
2,4-DICHLOROPHENOL	µg/L	<1	<1	<0.09	0.46		<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09
4-CHLORO-3-METHYLPHENOL	µg/L	<1	<2	<0.18	<0.18		<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18
2,4,6-TRICHLOROPHENOL	µg/L	<1	<1	<0.09	<0.09		<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09
PENTACHLOROPHENOL	µg/L	<1	<1	<0.4	<0.4		<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
ENDOSULFAN	µg/L	<0.002	<0.002	<0.0011	<0.004		<0.004	<0.004	<0.004	<0.003	<0.004	<0.004	<0.004
ENDOSULFAN - ALPHA	µg/L	<0.001	<0.001	<0.0014	<0.0014		<0.0014	<0.0014	<0.0014	<0.001	<0.0014	<0.0014	<0.0014
ENDOSULFAN - BETA	µg/L	<0.001	<0.001	<0.0011	<0.0011		0.002	<0.0011	<0.001	<0.002	<0.001	<0.001	<0.001
ENDOSULFAN SULFATE	µg/L	<0.002	<0.002	<0.004	<0.004		<0.004	<0.004	<0.004	<0.003	<0.004	<0.004	<0.004
ENDRIN	µg/L	<0.001	<0.001	<0.007	<0.007		<0.007	0.009	<0.007	<0.005	<0.007	<0.007	<0.007
HCH*	µg/L	0.0005	0.0045	0.00115	0.00115		0.006	0.005	0.00115	0.003	0.00115	0.00115	0.00115
ALPHA-BHC	µg/L	<0.001	<0.001	<0.0023	<0.0023		<0.0023	<0.0023	<0.0023	<0.001	<0.0023	<0.0023	<0.0023
BETA-BHC	µg/L	<0.001	<0.001	<0.0019	<0.0019		<0.0019	<0.0019	<0.0019	<0.002	<0.0019	<0.0019	<0.0019
GAMMA-BHC	µg/L	<0.001	0.0045	<0.0020	<0.0020		0.006	0.005	<0.002	0.003	<0.002	<0.002	<0.002
DELTA-BHC	µg/L	<0.001	<0.001	<0.0007	<0.0007		<0.0007	<0.0007	<0.0007	<0.001	<0.0007	<0.0007	<0.0007
Human Health Protection (noncarcinogens)													
ACROLEIN	µg/L	<0.9	<0.9	<0.76	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
ANTIMONY	µg/L	2.5	2.5	0.65	0.65		2	1.24	1.88		0.96	0.91	0.91
BIS(2-CL-ETHOXY)METHANE	µg/L	<1	<1	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Underlined numbers used in the calculation are one-half of detection limits for data showing less than MDL results.

* These constituents showed RPs.

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 HYPERION TREATMENT PLANT (OUTFALL 001)
 (CA0109991, CI-1492)

Constituent	Unit	Number of Nondetect	Number of Samples	Percent of Nondetect	Maximum Detected Effluent Concentration	Maximum Reported Effluent Concentration (max MDL if 100% ND or max MDL > max detect)	Standard Deviation	Mean	CV (set as 0.6 if nondetect >80%)	Multiplier	Projected Maximum Effluent Concentration (99/99)	Dilution Ratio	Background Seawater Concentration	Projected Maximum Receiving Water Concentration
Water Quality Objectives														
Marine Aquatic Life Protection														
Phenolic Compounds (non-chlorinated)	µg/L	22	24	92%	1.9	31			0.6	2.16166	67.0113398	13		4.786524
PHENOL	µg/L													
2-NITROPHENOL	µg/L													
2,4-DIMETHYLPHENOL	µg/L													
2,4-DINITROPHENOL	µg/L													
4-NITROPHENOL	µg/L													
4,6-DINITRO-2-METHYLPHENOL	µg/L													
Phenolic Compounds (chlorinated)*	µg/L	23	24	96%	0.46	8			0.6	2.16166	17.293249	13		1.235232
2-CHLOROPHENOL	µg/L													
2,4-DICHLOROPHENOL	µg/L													
4-CHLORO-3-METHYLPHENOL	µg/L													
2,4,6-TRICHLOROPHENOL	µg/L													
PENTACHLOROPHENOL	µg/L													
ENDOSULFAN	µg/L	24	24	100%		0.004			0.6	2.16166	0.00864662	13		0.000618
ENDOSULFAN - ALPHA	µg/L													
ENDOSULFAN - BETA	µg/L													
ENDOSULFAN SULFATE	µg/L													
ENDRIN	µg/L	23	24	96%	0.009	0.009			0.6	2.16166	0.01945491	13		0.00139
HCH*	µg/L	11	24	46%	0.031	0.031	0.0088	0.0078	1.1306	3.53052	0.10944627	13		0.007818
ALPHA-BHC	µg/L													
BETA-BHC	µg/L													
GAMMA-BHC	µg/L													
DELTA-BHC	µg/L													
Human Health Protection (noncarcinogens)														
ACROLEIN	µg/L	25	25	100%		4.46			0.6	2.1319	9.50825851	13		0.679161
ANTIMONY	µg/L	17	23	74%	10	10	2.0475	2.8604	0.7158	2.48695	24.869546	13		1.776396
BIS(2-CL-ETHOXY)METHANE	µg/L	24	24	100%		1			0.6	2.16166	2.16165612	13		0.154404

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 HYPERION TREATMENT PLANT (OUTFALL 001)
 (CA0109991, CI-1492)

Constituent	Unit	Ocean Plan Water Quality Objectives	REASONABLE POTENTIAL (RP)	Calculated Effluent Limitations (EFLt)	Maximum MDL Reported (Jan 2003 - Jun 2004)	Performance Goals (PG) = MDLx 5 (for carcinogens) or 10 (for noncarcinogens)	PG = 95th Percentile (if nondetect < 80%)	Maximum Detected Effluent Concentration	Proposed Effluent Limits	Possible PG	Proposed PG	Basis for PG
Water Quality Objectives												
Marine Aquatic Life Protection												
Phenolic Compounds (non-chlorinated)	µg/L	30	No	420	0.4	2		1.9	No Limit	1.9	1.9	Max eff conc
PHENOL	µg/L											
2-NITROPHENOL	µg/L											
2,4-DIMETHYLPHENOL	µg/L											
2,4-DINITROPHENOL	µg/L											
4-NITROPHENOL	µg/L											
4,6-DINITRO-2-METHYLPHENOL	µg/L											
Phenolic Compounds (chlorinated)*	µg/L	1	Yes	14	0.4	2		0.46	14	0.46	0.46	Max eff conc
2-CHLOROPHENOL	µg/L											
2,4-DICHLOROPHENOL	µg/L											
4-CHLORO-3-METHYLPHENOL	µg/L											
2,4,6-TRICHLOROPHENOL	µg/L											
PENTACHLOROPHENOL	µg/L											
ENDOSULFAN	µg/L	0.009	No	0.126	0.004	0.02		ND	No Limit	0.02	0.02	from MDL
ENDOSULFAN - ALPHA	µg/L											
ENDOSULFAN - BETA	µg/L											
ENDOSULFAN SULFATE	µg/L											
ENDRIN	µg/L	0.002	No	0.028	0.007	0.035		0.009	No Limit	0.009	0.009	Max eff conc
HCH*	µg/L	0.004	Yes	0.056	0.0023	0.0115	0.026	0.031	0.056	0.026	0.026	95th percentile
ALPHA-BHC	µg/L											
BETA-BHC	µg/L											
GAMMA-BHC	µg/L											
DELTA-BHC	µg/L											
Human Health Protection (noncarcinogens)												
ACROLEIN	µg/L	220	No	3080	2	20		ND	No Limit	20	20	from MDL
ANTIMONY	µg/L	1200	No	16800	1.24	12.4	5	10	No Limit	5	5	95th percentile
BIS(2-CL-ETHOXY)METHANE	µg/L	4.4	No	61.6	0.05	0.5		ND	No Limit	0.5	0.5	from MDL

Underlined numbers used in the calculation are one-half of detection limits for data showing less than MDL results.

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 HYPERION TREATMENT PLANT (OUTFALL 001)
 (CA0109991, CI-1492)

Constituent	Unit	Jan-99	Apr-99	Jul-99	Oct-99	Jan-00	Apr-00	Jul-00	Oct-00	Jan-01	Apr-01	Jul-01	Oct-01	Jan-02	Apr-02
		<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
BIS(2-CL-ISOPROPYL)ETHER	µg/L	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
CHROMIUM (total)															
CHLOROBENZENE	µg/L	<0.066	<0.066	<0.066	<0.066	<0.066	<0.066	<0.066	<0.113	<0.113	<0.113	<0.113	<0.113	<0.113	<0.113
DI-N-BUTYL PHTHALATE	µg/L	<u>1.5</u>	<u>1.5</u>	<u>1.5</u>	<u>1.5</u>	<u>1.5</u>	<u>1.5</u>	<u>1.5</u>	<u>1.5</u>	<u>1.5</u>	<u>1.5</u>	<u>1.5</u>	<u>1.5</u>	<u>1.5</u>	<u>1.5</u>
DICHLOROBENZENES (BNA)	µg/L	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5
1,2-DICHLOROBENZENE	µg/L	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5
1,3-DICHLOROBENZENE	µg/L	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5
DIETHYL PHTHALATE	µg/L	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
DIMETHYL PHTHALATE	µg/L	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
2-METHYL-4,6-DINITROPHENOL	µg/L	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6	<6
2,4-DINITROPHENOL*	µg/L	<31	<31	<31	<31	<31	<31	<31	<31	<31	<31	<31	<31	<31	<31
ETHYL BENZENE	µg/L	0.17	<0.036	<0.036	<0.036	<0.036	<0.036	<0.036	<0.062	<0.062	<0.062	<0.062	<0.062	<0.062	<0.062
FLUORANTHENE	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
HEXACHLOROCYCLOPENTADIENE	µg/L	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
NITROBENZENE	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
THALLIUM	µg/L	<u>2.5</u>	<u>2.5</u>	<u>2.5</u>	<u>2.5</u>	<u>2.5</u>	<u>2.5</u>	<u>2.5</u>	<u>2.5</u>	<u>2.5</u>	<u>2.5</u>	<u>2.5</u>	<u>2.5</u>	<u>2.5</u>	<u>2.5</u>
TOLUENE	µg/L	<u>0.03</u>	<u>0.29</u>	<u>0.03</u>	<u>0.397</u>	<u>0.03</u>	<u>0.03</u>	<u>0.03</u>	<u>0.03</u>	<u>0.03</u>	<u>0.234</u>	<u>0.163</u>	<u>0.165</u>	<u>0.176</u>	<u>0.0305</u>
Tributyltin*	ng/L	<u>7</u>	<u>3</u>	<u>1</u>	<u>1</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>28</u>	<u>6</u>	<u>2</u>	<u>1</u>	<u>4</u>	<u>4</u>
1,1,1-TRICHLOROETHANE	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.067	<0.067	<0.067	<0.067	<0.067	<0.067	<0.067
Human Health Protection (carcinogens)															
ACRYLONITRILE*	µg/L	<0.72	<0.72	<0.72	<0.72	<0.72	<0.72	<0.72	<2.21	<2.21	<2.21	<2.21	<2.21	<2.21	<2.21
ALDRIN*	µg/L	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008	<0.008
BENZENE	µg/L	<0.064	<0.064	<0.064	<0.064	<0.064	0.36	<0.087	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090
BENZIDINE*	µg/L	<47	<47	<47	<47	<47	<47	<47	<47	<47	<47	<47	<47	<47	<47
BERYLLIUM*	µg/L	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
BIS(2-CHLOROETHYL)ETHER*	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
BIS(2-ETHYLHEXYL) PHTHALATE*	µg/L	<u>17.4</u>	<u>12.6</u>	<u>4.87</u>	<u>8.28</u>	<u>7.15</u>	<u>1.5</u>	<u>3.1</u>	<u>1.5</u>	<u>1.5</u>	<u>1.5</u>	<u>3.9</u>	<u>1.5</u>	<u>1.5</u>	<u>1.5</u>
CARBON TETRACHLORIDE	µg/L	<0.079	<0.079	<0.079	<0.079	<0.079	<0.079	1.289	<0.114	<0.114	<0.114	<0.114	<0.114	<0.114	<0.114

Underlined numbers used in the calculation are one-half of detection limits for data showing less than MDL results.

* These constituents showed RPs.

Table R1-2

REASONABLE POTENTIAL ANALYSIS
 HYPERION TREATMENT PLANT (OUTFALL 001)
 (CA0109991, CI-1492)

Constituent	Unit												
		Jul-02	Oct-02	Jan-03	Apr-03	Jun-03	Jul-03	Oct-03	January 1, 2004	January 27, 2004	Apr-04	Jun-04	
BIS(2-CL-ISOPROPYL)ETHER	µg/L	<1	<1	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
CHROMIUM (total)													
CHLOROBENZENE	µg/L	<0.2	<0.2	<0.10	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	<0.12	
DI-N-BUTYL PHTHALATE	µg/L	<u>1.5</u>	<u>1.5</u>	<u>0.25</u>	<u>0.035</u>		<u>0.035</u>	0.77	0.65	0.22	0.35	0.18	
DICHLOROBENZENES (BNA)	µg/L	<1	<1	<0.06	<0.06		0.15	0.17	<0.06	<0.06	<0.06	<0.06	
1,2-DICHLOROBENZENE	µg/L	<1	<1	<0.06	<0.06		0.15	0.17	<0.06	<0.06	<0.06	<0.06	
1,3-DICHLOROBENZENE	µg/L	<1	<1	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
DIETHYL PHTHALATE	µg/L	<0.3	<0.4	<0.06	<0.06		<0.06	<0.06	0.1	<0.06	<0.06	<0.06	
DIMETHYL PHTHALATE	µg/L	<0.1	<0.3	<0.27	<0.27		<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	
2-METHYL-4,6-DINITROPHENOL	µg/L	<1	<2	<0.4	<0.4		<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	
2,4-DINITROPHENOL*	µg/L	<1	<2	<0.21	<0.21		<0.21	<0.21	<0.21	<0.21	<0.21	<0.21	
ETHYL BENZENE	µg/L	<0.06	<0.06	<0.12	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	
FLUORANTHENE	µg/L	<1	<1	<0.06	<0.06		<0.06	0.18	0.11	<0.06	<0.06	<0.06	
HEXACHLOROCYCLOPENTADIENE	µg/L	<1	<1	<2.9	<2.9		<2.9	<2.9	<2.9	<2.9	<2.9	<2.9	
NITROBENZENE	µg/L	<1	<2	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
THALLIUM	µg/L	<u>1</u>	<u>1</u>	<u>0.15</u>	<u>0.15</u>		0.68	0.54	2.92		<u>0.025</u>	0.47	
TOLUENE	µg/L	<u>0.1</u>	<u>0.1</u>	<u>0.04</u>	0.23	0.78	0.21	0.32	0.04	0.22	0.18	0.6	
Tributyltin*	ng/L	<u>1</u>	<u>1</u>	<u>1</u>	<u>1.6</u>		<u>1.65</u>	10.0	<u>0.5</u>		<u>0.5</u>		
1,1,1-TRICHLOROETHANE	µg/L	<0.07	<0.07	<0.09	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	
Human Health Protection (carcinogens)													
ACRYLONITRILE*	µg/L	<0.7	<0.7	<0.23	<0.31	<0.31	<0.31	<0.31	<0.31	<0.31	<0.31	<0.31	
ALDRIN*	µg/L	<0.001	<0.001	<0.0016	<0.0016		<0.0016	<0.0016	<0.0016	<0.001	<0.0016	<0.0016	
BENZENE	µg/L	<0.3	<0.3	<0.14	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	<0.22	
BENZIDINE*	µg/L	<2	<2	<5	<5		<5	<5	<5	<5	<5	<5	
BERYLLIUM*	µg/L	<1	<1	<0.01	<0.01		0.171	<0.006	<0.012		<0.006	0.162	
BIS(2-CHLOROETHYL)ETHER*	µg/L	<1	<1	<0.09	<0.09		<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	
BIS(2-ETHYLHEXYL) PHTHALATE*	µg/L	3.04	2.02	6.42	1.86		0.88	2.51	1.1	1.8	1.2	1.7	
CARBON TETRACHLORIDE	µg/L	<0.1	<0.1	<0.14	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	<0.15	

Underlined numbers used in the calculation are one-half of detection limits for data showing less than MDL results.

* These constituents showed RPs.

Table R1-2

REASONABLE POTENTIAL ANALYSIS
 HYPERION TREATMENT PLANT (OUTFALL 001)
 (CA0109991, CI-1492)

Constituent	Unit	Number of Nondetect	Number of Samples	Percent of Nondetect	Maximum Detected Effluent Concentration	Maximum Reported Effluent Concentration (max MDL if 100% ND or max MDL > max detect)	Standard Deviation	Mean	CV (set as 0.6 if nondetect >80%)	Multiplier	Projected Maximum Effluent Concentration (99/99)	Dilution Ratio	Background Seawater Concentration	Projected Maximum Receiving Water Concentration
BIS(2-CL-ISOPROPYL)ETHER	µg/L	24	24	100%		3			0.6	2.16166	6.48496836	13		0.463212
CHROMIUM (total)														
CHLOROBENZENE	µg/L	25	25	100%		0.2			0.6	2.1319	0.42637931	13		0.030456
DI-N-BUTYL PHTHALATE	µg/L	18	24	75%	0.77	3	0.5914	1.1038	0.5358	2.01061	6.03182416	13		0.430845
DICHLOROBENZENES (BNA)	µg/L	22	24	92%	0.17	1.5			0.6	2.16166	3.24248418	13		0.231606
1,2-DICHLOROBENZENE	µg/L													
1,3-DICHLOROBENZENE	µg/L													
DIETHYL PHTHALATE	µg/L	23	24	96%	0.1	3			0.6	2.16166	6.48496836	13		0.463212
DIMETHYL PHTHALATE	µg/L	24	24	100%		3			0.6	2.16166	6.48496836	13		0.463212
2-METHYL-4,6-DINITROPHENOL	µg/L	24	24	100%		6			0.6	2.16166	12.9699367	13		0.926424
2,4-DINITROPHENOL*	µg/L	24	24	100%		31			0.6	2.16166	67.0113398	13		4.786524
ETHYL BENZENE	µg/L	24	25	96%	0.17	0.17			0.6	2.1319	0.36242241	13		0.025887
FLUORANTHENE	µg/L	22	24	92%	0.18	1			0.6	2.16166	2.16165612	13		0.154404
HEXACHLOROCYCLOPENTADIENE	µg/L	24	24	100%		3			0.6	2.16166	6.48496836	13		0.463212
NITROBENZENE	µg/L	24	24	100%		2			0.6	2.16166	4.32331224	13		0.308808
THALLIUM	µg/L	18	23	78%	5	5	1.2051	1.9320	0.6238	2.25254	11.2626963	13		0.804478
TOLUENE	µg/L	12	25	48%	0.78	0.78	0.1888	0.1794	1.0523	3.24998	2.53498384	13		0.18107
Tributyltin*	ng/L	15	22	68%	28	28	5.9654	3.6023	1.6560	5.25491	147.13734	13		10.50981
1,1,1-TRICHLOROETHANE	µg/L	25	25	100%		0.18			0.6	2.1319	0.38374137	13		0.02741
Human Health Protection (carcinogens)														
ACRYLONITRILE*	µg/L	25	25	100%		2.21			0.6	2.1319	4.71149132	13		0.336535
ALDRIN*	µg/L	24	24	100%		0.008			0.6	2.16166	0.01729325	13		0.001235
BENZENE	µg/L	24	25	96%	0.36	0.36			0.6	2.1319	0.76748275	13		0.05482
BENZIDINE*	µg/L	24	24	100%		47			0.6	2.16166	101.597838	13		7.256988
BERYLLIUM*	µg/L	21	23	91%	0.171	1			0.6	2.19343	2.19343455	13		0.156674
BIS(2-CHLOROETHYL)ETHER*	µg/L	24	24	100%		1			0.6	2.16166	2.16165612	13		0.154404
BIS(2-ETHYLHEXYL) PHTHALATE*	µg/L	7	24	29%	17.4	17.4	4.0613	3.7638	1.0790	3.39247	59.0289893	13		4.216356
CARBON TETRACHLORIDE	µg/L	24	25	96%	1.289	1.289			0.6	2.1319	2.74801462	13		0.196287

Underlined numbers used in the calculation are one-half of detection limits for data showing less than MDL results.

* These constituents showed RPs.

Table R1-2

REASONABLE POTENTIAL ANALYSIS
 HYPERION TREATMENT PLANT (OUTFALL 001)
 (CA0109991, CI-1492)

Constituent	Unit	Ocean Plan Water Quality Objectives	REASONABLE POTENTIAL (RP)	Calculated Effluent Limitations (EffL)	Maximum MDL Reported (Jan 2003 - Jun 2004)	Performance Goals (PG) = MDL x 5 (for carcinogens) or 10 (for noncarcinogens)	PG = 95th Percentile (if nondetect < 80%)	Maximum Detected Effluent Concentration	Proposed Effluent Limits	Possible PG	Proposed PG	Basis for PG
BIS(2-CL-ISOPROPYL)ETHER	µg/L	1200	No	16800	0.05	0.5		ND	No Limit	0.5	0.5	from MDL
CHROMIUM (total)												
CHLOROBENZENE	µg/L	570	No	7980	0.12	1.2		ND	No Limit	1.2	1.2	from MDL
DI-N-BUTYL PHTHALATE	µg/L	3500	No	49000	0.07	0.7	3.9	0.77	No Limit	0.77	0.77	Max eff conc
DICHLOROBENZENES (BNA)	µg/L	5100	No	71400	0.06	0.6		0.17	No Limit	0.17	0.17	Max eff conc
1,2-DICHLOROBENZENE	µg/L				0.06							
1,3-DICHLOROBENZENE	µg/L				0.05							
DIETHYL PHTHALATE	µg/L	33000	No	462000	0.06	0.6		0.1	No Limit	0.1	0.1	Max eff conc
DIMETHYL PHTHALATE	µg/L	820000	No	11480000	0.27	2.7		ND	No Limit	2.7	2.7	from MDL
2-METHYL-4,6-DINITROPHENOL	µg/L	220	No	3080	0.4	4		ND	No Limit	4	4	from MDL
2,4-DINITROPHENOL*	µg/L	4.0	Yes	56	0.21	2.1		ND	56	2.1	2.1	from MDL
ETHYL BENZENE	µg/L	4100	No	57400	0.12	1.2		0.17	No Limit	0.17	0.17	Max eff conc
FLUORANTHENE	µg/L	15	No	210	0.06	0.6		0.18	No Limit	0.18	0.18	Max eff conc
HEXACHLOROCYCLOPENTADIENE	µg/L	58	No	812	2.9	29		ND	No Limit	29	29	from MDL
NITROBENZENE	µg/L	4.9	No	68.6	0.05	0.5		ND	No Limit	0.5	0.5	from MDL
THALLIUM	µg/L	2	No	28	0.3	3	7.8	5	No Limit	5	5	Max eff conc
TOLUENE	µg/L	85000	No	1190000	0.08	0.8	0.46	0.78	No Limit	0.46	0.46	95th percentile
Tributyltin*	ng/L	1.4	Yes	19.6	3.3	33	7.2	28	19.6	7.2	7.2	95th percentile
1,1,1-TRICHLOROETHANE	µg/L	540000	No	7560000	0.18	1.8		ND	No Limit	1.8	1.8	from MDL
Human Health Protection (carcinogens)												
ACRYLONITRILE*	µg/L	0.10	Yes	1.4	0.31	1.55		ND	1.4	1.55	No PG	--
ALDRIN*	µg/L	0.000022	Yes	0.000308	0.0016	0.008		ND	0.000308	0.008	No PG	--
BENZENE	µg/L	5.9	No	82.6	0.22	1.1		0.36	No Limit	0.36	0.36	Max eff conc
BENZIDINE*	µg/L	0.000069	Yes	0.000966	5	25		ND	0.000966	25	No PG	--
BERYLLIUM*	µg/L	0.033	Yes	0.462	0.01	0.05		0.171	0.462	0.05	0.05	from MDL
BIS(2-CHLOROETHYL)ETHER*	µg/L	0.045	Yes	0.63	0.09	0.45		ND	0.63	0.45	0.45	from MDL
BIS(2-ETHYLHEXYL) PHTHALATE*	µg/L	3.5	Yes	49	0.88	4.4	6.9	17.4	49	6.9	6.9	95th percentile
CARBON TETRACHLORIDE	µg/L	0.90	No	12.6	0.15	0.75		1.289	No Limit	0.75	0.75	from MDL

Underlined numbers used in the calculation are one-half of detection limits for data showing less than MDL results.

* These constituents showed RPs.

Table R1-2

REASONABLE POTENTIAL ANALYSIS
 HYPERION TREATMENT PLANT (OUTFALL 001)
 (CA0109991, CI-1492)

Constituent	Unit																
		Jan-99	Apr-99	Jul-99	Oct-99	Jan-00	Apr-00	Jul-00	Oct-00	Jan-01	Apr-01	Jul-01	Oct-01	Jan-02	Apr-02		
Chlordane*	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		
CHLORDANE - ALPHA	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		
CHLORDANE - GAMA	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		
NONACHLOR - ALPHA	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		
NONACHLOR - GAMA	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001		
OXYCHLORDANE	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		
CHLORDENE - ALPHA	µg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.005		
CHLORDENE - GAMA	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		
CHLORODIBROMOMETHANE	µg/L	0.11	0.89	0.46	7.03	1.74	0.11	2.43	1.80	2.26	1.93	1.00	1.00	2.69	2.98		
CHLOROFORM	µg/L	7.34	5.77	5.75	5.45	5.3	7.26	6.58	6.61	5.33	5.02	6.19	5.52	4.59	4.97		
DDT, total*	ng/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10		
4,4'-DDT	ng/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2		
4,4'-DDE	ng/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2		
4,4'-DDD	ng/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2		
2,4'-DDT	ng/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2		
2,4'-DDE	ng/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2		
2,4'-DDD	ng/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10		
1,4-DICHLOROBENZENE (BNA)	µg/L	3.21	3.24	0.025	0.025	0.025	0.025	0.025	3.42	3.24	2.8	3.09	3.93	0.032	0.032		
3,3'-DICHLOROENZIDINE*	µg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2		
1,2-DICHLOROETHANE	µg/L	<0.072	<0.072	<0.072	<0.072	<0.072	<0.072	<0.072	<0.104	<0.104	<0.104	<0.104	<0.104	<0.104	<0.104		
1,1-DICHLOROETHYLENE	µg/L	<0.132	<0.132	<0.132	<0.132	<0.132	<0.132	<0.132	<0.076	<0.076	<0.076	<0.076	<0.076	<0.076	<0.076		
DICHLOROBROMOMETHANE	µg/L	0.75	0.90	0.59	0.69	1.25	1.52	1.22	1.57	1.67	1.42	1.39	0.92	1.64	1.2		
METHYLENE CHLORIDE	µg/L	0.211	5.72	5.91	5.72	8.90	0.211	6.65	4.64	10.68	3.12	2.85	18.06	3.677	6.113		
1,3-DICHLOROPROPENE	µg/L	<0.091	<0.091	<0.091	<0.091	<0.091	<0.091	<0.091	<0.099	<0.099	<0.099	<0.099	<0.099	<0.099	<0.099		
CIS-1,3-DICHLOROPROPENE	µg/L	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	<0.099	<0.099	<0.099	<0.099	<0.099	<0.099	<0.099		
TRANS-1,3-DICHLOROPROPENE	µg/L	<0.091	<0.091	<0.091	<0.091	<0.091	<0.091	<0.091	<0.088	<0.088	<0.088	<0.088	<0.088	<0.088	<0.088		
DIELDRIN*	µg/L	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006		
2,4-DINITROTOLUENE	µg/L	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5		
1,2-DIPHENYLHYDRAZINE	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1		

Underlined numbers used in the calculation are one-half of detection limits for data showing less than MDL results.

* These constituents showed RPs.

Table R1-2

REASONABLE POTENTIAL ANALYSIS
 HYPERION TREATMENT PLANT (OUTFALL 001)
 (CA0109991, CI-1492)

Constituent	Unit												
		Jul-02	Oct-02	Jan-03	Apr-03	Jun-03	Jul-03	Oct-03	January 1, 2004	January 27, 2004	Apr-04	Jun-04	
Chlordane*	µg/L	<0.001	<0.001	<0.09	<0.09		<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	
CHLORDANE - ALPHA	µg/L	<0.001	<0.001	<0.07	<0.07		<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	
CHLORDANE - GAMA	µg/L	<0.001	<0.001	<0.07	<0.07		<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	
NONACHLOR - ALPHA	µg/L	<0.001	<0.001	<0.09	<0.09		<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	
NONACHLOR - GAMA	µg/L	<0.001	<0.001	<0.09	<0.09		<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	
OXYCHLORDANE	µg/L	<0.001	<0.001	<0.08	<0.08		<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	
CHLORDENE - ALPHA	µg/L	<0.001	<0.001	--	--		--	--	--	--	--	--	
CHLORDENE - GAMA	µg/L	<0.001	<0.001	--	--		--	--	--	--	--	--	
CHLORODIBROMOMETHANE	µg/L	1.26	1.28	1.33	2.37	1.47	1.03	0.81	1.11	1.73	1.37	1.79	
CHLOROFORM	µg/L	4.99	5.76	3.71	5.92	7.09	6.49	5.72	4.32	5.23	5.34	7.94	
DDT, total*	ng/L	<1	<1	<6	<6		<6	<6	<6	<3	<6	<6	
4,4'-DDT	ng/L	<1	<1	<6	<6		<6	<6	<6	<2	<6	<6	
4,4'-DDE	ng/L	<1	<1	<1.8	<1.8		<1.8	<1.8	3	<2	<1.8	<1.8	
4,4'-DDD	ng/L	<1	<1	<1.7	<1.7		<1.7	<1.7	<1.7	<1	<1.7	<1.7	
2,4'-DDT	ng/L	<1	<1	<5	<5		<5	<5	<5	<3	<5	<5	
2,4'-DDE	ng/L	<1	<1	<2.7	<2.7		<2.7	<2.7	<2.7	<1	<2.7	<2.7	
2,4'-DDD	ng/L	<1	<1	<3.0	<3.0		<3.0	<3.0	<3.0	<1	<3.0	<3.0	
1,4-DICHLOROBENZENE (BNA)	µg/L	0.030	0.030	0.035	1.88		2.48	5.29	0.035	0.035	0.035	1.95	
3,3'-DICHLOROBENZIDINE*	µg/L	<1	<1	<0.11	<0.11		<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	
1,2-DICHLOROETHANE	µg/L	<0.2	<0.2	<0.08	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
1,1-DICHLOROETHYLENE	µg/L	<0.05	<0.05	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	
DICHLOROBROMOMETHANE	µg/L	1.08	1.22	1.25	1.38	1.56	1.03	0.93	0.98	1.15	1.14	1.66	
METHYLENE CHLORIDE	µg/L	2.16	23.2	1.7	3.72	3.25	2.51	5.35	0.065	1.89	2.51	2.93	
1,3-DICHLOROPROPENE	µg/L	<0.2	<0.2	<0.18	<0.11		<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	
CIS-1,3-DICHLOROPROPENE	µg/L	<0.06	<0.06	<0.13	<0.11		<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	
TRANS-1,3-DICHLOROPROPENE	µg/L	<0.2	<0.2	<0.18	<0.07		<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	
DIELDRIN*	µg/L	<0.001	<0.001	<0.0009	<0.0009		<0.0009	<0.0009	<0.0009	<0.001	<0.0009	<0.0009	
2,4-DINITROTOLUENE	µg/L	<1	<1	<0.08	<0.08		<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	
1,2-DIPHENYLHYDRAZINE	µg/L	<1	<1	<0.06	<0.06		<0.06	<0.06	0.18	<0.06	<0.06	<0.06	

Underlined numbers used in the calculation are one-half of detection limits for data showing less than MDL results.

* These constituents showed RPs.

Table R1-2

REASONABLE POTENTIAL ANALYSIS
 HYPERION TREATMENT PLANT (OUTFALL 001)
 (CA0109991, CI-1492)

Constituent	Unit	Number of Nondetect	Number of Samples	Percent of Nondetect	Maximum Detected Effluent Concentration	Maximum Reported Effluent Concentration (max MDL if 100% ND or max MDL > max detect)	Standard Deviation	Mean	CV (set as 0.6 if nondetect >80%)	Multiplier	Projected Maximum Effluent Concentration (99/99)	Dilution Ratio	Background Seawater Concentration	Projected Maximum Receiving Water Concentration
Chlordane*	µg/L	24	24	100%		0.09			0.6	2.16166	0.19454905	13		0.013896
CHLORDANE - ALPHA	µg/L													
CHLORDANE - GAMA	µg/L													
NONACHLOR - ALPHA	µg/L													
NONACHLOR - GAMA	µg/L													
OXYCHLORDANE	µg/L													
CHLORDENE - ALPHA	µg/L													
CHLORDENE - GAMA	µg/L													
CHLORODIBROMOMETHANE	µg/L	2	25	8%	7.03	7.03	1.3365	1.6793	0.7959	2.60205	18.2923942	13		1.3066
CHLOROFORM	µg/L	0	25	0%	7.94	7.94	0.9963	5.7676	0.1727	1.26376	10.0342915	13		0.716735
DDT, total*	ng/L	24	24	100%		10			0.6	2.16166	21.6165612	13		1.54404
4,4'-DDT	ng/L													
4,4'-DDE	ng/L													
4,4'-DDD	ng/L													
2,4'-DDT	ng/L													
2,4'-DDE	ng/L													
2,4'-DDD	ng/L													
1,4-DICHLOROBENZENE (BNA)	µg/L	13	24	54%	5.29	5.29	1.7005	5.2566	0.3235	1.5505	8.20212718	13		0.585866
3,3'-DICHLOROBENZIDINE*	µg/L	24	24	100%		2			0.6	2.16166	4.32331224	13		0.308808
1,2-DICHLOROETHANE	µg/L	25	25	100%		0.2			0.6	2.1319	0.42637931	13		0.030456
1,1-DICHLOROETHYLENE	µg/L	25	25	100%		0.132			0.6	2.1319	0.28141034	13		0.020101
DICHLOROBROMOMETHANE	µg/L	0	25	0%	1.67	1.67	0.3086	4.6876	0.0658	1.09393	1.82686307	13		0.13049
METHYLENE CHLORIDE	µg/L	3	25	12%	23.2	23.2	5.3373	6.4281	0.8303	2.68742	62.348187	13		4.453442
1,3-DICHLOROPROPENE	µg/L	24	24	100%		0.2			0.6	2.16166	0.43233122	13		0.030881
CIS-1,3-DICHLOROPROPENE	µg/L													
TRANS-1,3-DICHLOROPROPENE	µg/L													
DIELDRIN*	µg/L	24	24	100%		0.006			0.6	2.16166	0.01296994	13		0.000926
2,4-DINITROTOLUENE	µg/L	24	24	100%		1.5			0.6	2.16166	3.24248418	13		0.231606
1,2-DIPHENYLHYDRAZINE	µg/L	23	24	96%	0.18	1			0.6	2.16166	2.16165612	13		0.154404

Underlined numbers used in the calculation are one-half of detection limits for data showing less than MDL results.

* These constituents showed RPs.

Table R1-2

REASONABLE POTENTIAL ANALYSIS
 HYPERION TREATMENT PLANT (OUTFALL 001)
 (CA0109991, CI-1492)

Constituent	Unit	Ocean Plan Water Quality Objectives	REASONABLE POTENTIAL (RP)	Calculated Effluent Limitations (EffL)	Maximum MDL Reported (Jan 2003 - Jun 2004)	Performance Goals (PG) = MDLx 5 (for carcinogens) or 10 (for noncarcinogens)	PG = 95th Percentile (if nondetect < 80%)	Maximum Detected Effluent Concentration	Proposed Effluent Limits	Possible PG	Proposed PG	Basis for PG
Chlordane*	µg/L	0.000023	Yes	0.000322	0.09	0.45		ND	0.000322	0.45	No PG	--
CHLORDANE - ALPHA	µg/L											
CHLORDANE - GAMA	µg/L											
NONACHLOR - ALPHA	µg/L											
NONACHLOR - GAMA	µg/L											
OXYCHLORDANE	µg/L											
CHLORDENE - ALPHA	µg/L											
CHLORDENE - GAMA	µg/L											
CHLORODIBROMOMETHANE	µg/L	8.6	No	120.4	0.13	0.65	3.9	7.03	No Limit	3.9	3.9	95th percentile
CHLOROFORM	µg/L	130	No	1820	0.13	0.65	6.6	7.94	No Limit	6.6	6.6	95th percentile
DDT, total*	ng/L	0.17	Yes	2.38	6	30		ND	2.38	30	No PG	--
4,4'-DDT	ng/L											
4,4'-DDE	ng/L											
4,4'-DDD	ng/L											
2,4'-DDT	ng/L											
2,4'-DDE	ng/L											
2,4'-DDD	ng/L											
1,4-DICHLOROBENZENE (BNA)	µg/L	18	No	252	0.07	0.35	14	5.29	No Limit	5.29	5.29	Max eff conc
3,3'-DICHLOROBENZIDINE*	µg/L	0.0081	Yes	0.1134	0.11	0.55		ND	0.1134	0.55	No PG	--
1,2-DICHLOROETHANE	µg/L	28	No	392	0.05	0.25		ND	No Limit	0.25	0.25	from MDL
1,1-DICHLOROETHYLENE	µg/L	0.9	No	12.6	0.13	0.65		ND	No Limit	0.65	0.65	from MDL
DICHLOROBROMOMETHANE	µg/L	6.2	No	86.8	0.16	0.8	1.5	1.67	No Limit	1.5	1.5	95th percentile
METHYLENE CHLORIDE	µg/L	450	No	6300	0.13	0.65	22	23.2	No Limit	22	22	95th percentile
1,3-DICHLOROPROPENE	µg/L	8.9	No	124.6	0.18	0.9		ND	No Limit	0.9	0.9	from MDL
CIS-1,3-DICHLOROPROPENE	µg/L											
TRANS-1,3-DICHLOROPROPENE	µg/L											
DIELDRIN*	µg/L	0.00004	Yes	0.00056	0.0009	0.0045		ND	0.00056	0.0045	No PG	--
2,4-DINITROTOLUENE	µg/L	2.6	No	36.4	0.08	0.4		ND	No Limit	0.4	0.4	from MDL
1,2-DIPHENYLHYDRAZINE	µg/L	0.16	No	2.24	0.06	0.3		0.18	No Limit	0.18	0.18	Max eff conc

Underlined numbers used in the calculation are one-half of detection limits for data showing less than MDL results.

* These constituents showed RPs.

Table R1-2

REASONABLE POTENTIAL ANALYSIS
 HYPERION TREATMENT PLANT (OUTFALL 001)
 (CA0109991, CI-1492)

Constituent	Unit																
		Jan-99	Apr-99	Jul-99	Oct-99	Jan-00	Apr-00	Jul-00	Oct-00	Jan-01	Apr-01	Jul-01	Oct-01	Jan-02	Apr-02		
Halomethanes	µg/L	<u>0.15</u>	<u>0.42</u>	<u>0.17</u>	<u>0.23</u>	<u>0.52</u>	<u>0.15</u>	<u>0.29</u>	<u>0.64</u>	<u>0.72</u>	<u>0.89</u>	<u>0.18</u>	<u>0.53</u>	<u>1.49</u>	<u>3.81</u>		
CHLOROMETHANE	µg/L	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11		
BROMOMETHANE	µg/L	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36	<0.36		
BROMOFORM	µg/L	<0.15	0.42	0.17	0.23	0.52	<0.15	0.29	0.64	0.72	0.89	<0.145	0.53	1.49	3.81		
HEPTACHLOR*	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		
HEPTACHLOR EPOXIDE*	µg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
HEXACHLOROEBENZENE*	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1		
HEXACHLOROBUTADIENE	µg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2		
HEXACHLOROETHANE	µg/L	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2		
ISOPHORONE	µg/L	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>		
N-NITROSODIMETHYLAMINE	µg/L	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3		
N-NITROSODI-N-PROPYLAMINE*	µg/L	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5	<4.5		
N-NITROSODIPHENYLAMINE	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1		
PAHs*	µg/L	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5		
ACENAPHTHYLENE	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1		
ANTHRACENE	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1		
BENZO(A) ANTHRACENE	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1		
BENZO(B) FLUORANTHENE	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1		
BENZO(K) FLUORANTHENE	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1		
1,12-BENZOPERYLENE	µg/L	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5		
BENZO(A) PYRENE	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1		
CHRYSENE	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1		
1,2,5,6-DIBENZANTHRACENE	µg/L	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5		
FLUORENE	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1		
INDENO (1,2,3-CD) PYRENE	µg/L	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5		
PHENANTHRENE	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1		
PYRENE	µg/L	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1		

Underlined numbers used in the calculation are one-half of detection limits for data showing less than MDL results.

* These constituents showed RPs.

Table R1-2

REASONABLE POTENTIAL ANALYSIS
 HYPERION TREATMENT PLANT (OUTFALL 001)
 (CA0109991, CI-1492)

Constituent	Unit												
		Jul-02	Oct-02	Jan-03	Apr-03	Jun-03	Jul-03	Oct-03	January 1, 2004	January 27, 2004	Apr-04	Jun-04	
Halomethanes	µg/L	0.6	0.51	0.09	1.12		0.14	0.14	0.14	1.11	0.61	0.14	
CHLOROMETHANE	µg/L	<0.07	<0.07	<0.18	<0.14		<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	
BROMOMETHANE	µg/L	<0.2	<0.2	<0.16	<0.28		<0.28	<0.28	<0.28	<0.28	<0.28	<0.28	
BROMOFORM	µg/L	0.6	0.51	<0.08	1.12		<0.19	<0.19	<0.19	1.11	0.61	<0.19	
HEPTACHLOR*	µg/L	<0.001	<0.001	<0.0020	<0.0020		<0.0020	<0.0020	<0.0020	<0.001	<0.0020	<0.0020	
HEPTACHLOR EPOXIDE*	µg/L	<0.001	<0.001	<0.0018	<0.0018		<0.0018	<0.0018	<0.0018	<0.001	<0.0018	<0.0018	
HEXACHLOROBTADIENE*	µg/L	<1	<0.3	<0.07	<0.07		<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	
HEXACHLOROBUTADIENE	µg/L	<1	<1	<0.07	<0.07		<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	
HEXACHLOROETHANE	µg/L	<1	<1	<0.07	<0.07		<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	
ISOPHORONE	µg/L	0.5	0.1	0.12	0.17		0.035	0.21	0.23	0.035	0.3	0.33	
N-NITROSODIMETHYLAMINE	µg/L	<3	<1	<0.17	<0.17		<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	
N-NITROSODI-N-PROPYLAMINE*	µg/L	<3	<2	<0.13	<0.13		<0.13	<0.13	<0.13	<0.13	<0.13	<0.13	
N-NITROSODIPHENYLAMINE	µg/L	<1	<1	<0.09	<0.09		<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	
PAHs*	µg/L	<1	<2	<0.19	<0.19		<0.19	1.58	0.2	<0.19	<0.19	<0.19	
ACENAPHTHYLENE	µg/L	<1	<1	<0.06	<0.06		<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	
ANTHRACENE	µg/L	<1	<1	<0.06	<0.06		<0.06	0.16	0.22	<0.06	<0.06	<0.06	
BENZO(A) ANTHRACENE	µg/L	<0.4	<2	<0.09	<0.09		<0.09	0.28	<0.09	<0.09	<0.09	<0.09	
BENZO(B) FLUORANTHENE	µg/L	<0.5	<1	<0.07	<0.07		<0.07	0.13	<0.07	<0.07	<0.07	<0.07	
BENZO(K) FLUORANTHENE	µg/L	<1	<2	<0.19	<0.19		<0.19	0.21	<0.19	<0.19	<0.19	<0.19	
1,12-BENZOPERYLENE	µg/L	<0.3	<1	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
BENZO(A) PYRENE	µg/L	<0.4	<1	<0.06	<0.06		<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	
CHRYSENE	µg/L	<1	<1	<0.05	<0.05		<0.05	0.19	<0.05	<0.05	<0.05	<0.05	
1,2:5,6-DIBENZANTHRACENE	µg/L	<0.3	<1	<0.05	<0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
FLUORENE	µg/L	<1	<1	<0.05	<0.05		<0.05	0.18	<0.05	<0.05	<0.05	<0.05	
INDENO (1,2,3-CD) PYRENE	µg/L	<1	<1	<0.07	<0.07		<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	
PHENANTHRENE	µg/L	<1	<1	<0.08	<0.08		<0.08	0.23	0.2	<0.08	<0.08	<0.08	
PYRENE	µg/L	<1	<1	<0.07	<0.07		<0.07	0.2	<0.07	<0.07	<0.07	<0.07	

Underlined numbers used in the calculation are one-half of detection limits for data showing less than MDL results.

* These constituents showed RPs.

Table R1-2

REASONABLE POTENTIAL ANALYSIS
 HYPERION TREATMENT PLANT (OUTFALL 001)
 (CA0109991, CI-1492)

Constituent	Unit	Number of Nondetect	Number of Samples	Percent of Nondetect	Maximum Detected Effluent Concentration	Maximum Reported Effluent Concentration (max MDL if 100% ND or max MDL > max detect)	Standard Deviation	Mean	CV (set as 0.6 if nondetect >80%)	Multiplier	Projected Maximum Effluent Concentration (99/99)	Dilution Ratio	Background Seawater Concentration	Projected Maximum Receiving Water Concentration
Halomethanes	µg/L	8	24	33%	3.81	3.81	0.7768	4.8988	0.1586	1.24492	4.74313795	13		0.338796
CHLOROMETHANE	µg/L													
BROMOMETHANE	µg/L													
BROMOFORM	µg/L													
HEPTACHLOR*	µg/L	24	24	100%		0.005			0.6	2.16166	0.01080828	13		0.000772
HEPTACHLOR EPOXIDE*	µg/L	24	24	100%		0.0018			0.6	2.16166	0.00389098	13		0.000278
HEXACHLOROBENZENE*	µg/L	24	24	100%		1			0.6	2.16166	2.16165612	13		0.154404
HEXACHLOROBUTADIENE	µg/L	24	24	100%		2			0.6	2.16166	4.32331224	13		0.308808
HEXACHLOROETHANE	µg/L	24	24	100%		2			0.6	2.16166	4.32331224	13		0.308808
ISOPHORONE	µg/L	18	24	75%	0.33	4	0.9095	5.6141	0.1620	1.25078	5.00310272	13		0.357364
N-NITROSODIMETHYLAMINE	µg/L	24	24	100%		3			0.6	2.16166	6.48496836	13		0.463212
N-NITROSODI-N-PROPYLAMINE*	µg/L	24	24	100%		4.5			0.6	2.16166	9.72745254	13		0.694818
N-NITROSODIPHENYLAMINE	µg/L	24	24	100%		1			0.6	2.16166	2.16165612	13		0.154404
PAHs*	µg/L	22	24	92%	1.58	2			0.6	2.16166	4.32331224	13		0.308808
ACENAPHTHYLENE	µg/L													
ANTHRACENE	µg/L													
BENZO(A) ANTHRACENE	µg/L													
BENZO(B) FLUORANTHENE	µg/L													
BENZO(K) FLUORANTHENE	µg/L													
1,12-BENZOPERYLENE	µg/L													
BENZO(A) PYRENE	µg/L													
CHRYSENE	µg/L													
1,2:5,6-DIBENZANTHRACENE	µg/L													
FLUORENE	µg/L													
INDENO (1,2,3-CD) PYRENE	µg/L													
PHENANTHRENE	µg/L													
PYRENE	µg/L													

Underlined numbers used in the calculation are one-half of detection limits for data showing less than MDL results.

* These constituents showed RPs.

Table R1-2

REASONABLE POTENTIAL ANALYSIS
 HYPERION TREATMENT PLANT (OUTFALL 001)
 (CA0109991, CI-1492)

Constituent	Unit	Ocean Plan Water Quality Objectives	REASONABLE POTENTIAL (RP)	Calculated Effluent Limitations (EFLt)	Maximum MDL Reported (Jan 2003 - Jun 2004)	Performance Goals (PG) = MDLx 5 (for carcinogens) or 10 (for noncarcinogens)	PG = 95th Percentile (if nondetect < 80%)	Maximum Detected Effluent Concentration	Proposed Effluent Limits	Possible PG	Proposed PG	Basis for PG
Halomethanes	µg/L	130	No	1820	0.28	1.4	1.3	3.81	No Limit	1.3	1.3	95th percentile
CHLOROMETHANE	µg/L											
BROMOMETHANE	µg/L											
BROMOFORM	µg/L											
HEPTACHLOR*	µg/L	0.00005	Yes	0.0007	0.002	0.01		ND	0.0007	0.01	No PG	--
HEPTACHLOR EPOXIDE*	µg/L	0.00002	Yes	0.00028	0.0018	0.009		ND	0.00028	0.009	No PG	--
HEXACHLOROBENZENE*	µg/L	0.00021	Yes	0.00294	0.07	0.35		ND	0.00294	0.35	No PG	--
HEXACHLOROBUTADIENE	µg/L	14	No	196	0.07	0.35		ND	No Limit	0.35	0.35	from MDL
HEXACHLOROETHANE	µg/L	2.5	No	35	0.07	0.35		ND	No Limit	0.35	0.35	from MDL
ISOPHORONE	µg/L	730	No	10220	0.07	0.35	5.8	0.33	No Limit	0.33	0.33	Max eff conc
N-NITROSODIMETHYLAMINE	µg/L	7.3	No	102.2	0.17	0.85		ND	No Limit	0.85	0.85	from MDL
N-NITROSODI-N-PROPYLAMINE*	µg/L	0.38	Yes	5.32	0.13	0.65		ND	5.32	0.65	0.65	from MDL
N-NITROSODIPHENYLAMINE	µg/L	2.5	No	35	0.09	0.45		ND	No Limit	0.45	0.45	from MDL
PAHs*	µg/L	0.0088	Yes	0.1232	0.19	0.95		1.58	0.1232	0.95	No PG	--
ACENAPHTHYLENE	µg/L											
ANTHRACENE	µg/L											
BENZO(A) ANTHRACENE	µg/L											
BENZO(B) FLUORANTHENE	µg/L											
BENZO(K) FLUORANTHENE	µg/L											
1,12-BENZOPERYLENE	µg/L											
BENZO(A) PYRENE	µg/L											
CHRYSENE	µg/L											
1,2:5,6-DIBENZANTHRACENE	µg/L											
FLUORENE	µg/L											
INDENO (1,2,3-CD) PYRENE	µg/L											
PHENANTHRENE	µg/L											
PYRENE	µg/L											

Underlined numbers used in the calculation are one-half of detection limits for data showing less than MDL results.

* These constituents showed RPs.

Table R1-2

REASONABLE POTENTIAL ANALYSIS
 HYPERION TREATMENT PLANT (OUTFALL 001)
 (CA0109991, CI-1492)

Constituent	Unit	Jan-99	Apr-99	Jul-99	Oct-99	Jan-00	Apr-00	Jul-00	Oct-00	Jan-01	Apr-01	Jul-01	Oct-01	Jan-02	Apr-02
PCBs*	ng/L	<65	<65	<65	<65	<65	<65	<65	<65	<65	<65	<65	<65	<65	<65
PCB 1016	ng/L	<46	<46	<46	<46	<46	<46	<46	<46	<46	<46	<46	<46	<46	<46
PCB 1221	ng/L	<34	<34	<34	<34	<34	<34	<34	<34	<34	<34	<34	<34	<34	<34
PCB 1232	ng/L	<33	<33	<33	<33	<33	<33	<33	<33	<33	<33	<33	<33	<33	<33
PCB 1242	ng/L	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40	<40
PCB 1248	ng/L	<57	<57	<57	<57	<57	<57	<57	<57	<57	<57	<57	<57	<57	<57
PCB 1254	ng/L	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25	<25
PCB 1260	ng/L	<65	<65	<65	<65	<65	<65	<65	<65	<65	<65	<65	<65	<65	<65
TCDD equivalents*	ng/L	<0.87		<0.058		0.069		<0.140		<0.230		<0.500		<0.082	
1,1,2,2-TETRACHLOROETHANE	µg/L	<0.129	<0.129	<0.129	<0.129	<0.129	<0.129	<0.129	<0.119	<0.119	<0.119	<0.119	<0.119	<0.119	<0.119
TETRACHLOROETHENE*	µg/L	3.09	7.47	2.00	6.85	7.81	1.78	2.17	1.59	3.65	1.44	2.47	2.02	0.956	4.167
TOXAPHENE*	µg/L	<0.113	<0.113	<0.113	<0.113	<0.113	<0.113	<0.113	<0.113	<0.113	<0.113	<0.113	<0.113	<0.113	<0.113
TRICHLOROETHENE	µg/L	<0.078	0.53	<0.078	0.333	<0.078	<0.078	<0.078	<0.106	<0.106	<0.106	<0.106	<0.106	<0.106	<0.106
1,1,2-TRICHLOROETHANE	µg/L	<0.095	<0.095	<0.095	<0.095	<0.095	<0.095	<0.095	<0.085	<0.085	<0.085	<0.085	<0.085	<0.085	<0.085
2,4,6-TRICHLOROPHENOL*	µg/L	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
VINYL CHLORIDE	µg/L	<0.167	<0.167	<0.167	<0.167	<0.167	<0.167	<0.167	<0.154	<0.154	<0.154	<0.154	<0.154	<0.154	<0.154

Underlined numbers used in the calculation are one-half of detection limits for data showing less than MDL results.

* These constituents showed RPs.

Table R1-2

REASONABLE POTENTIAL ANALYSIS
 HYPERION TREATMENT PLANT (OUTFALL 001)
 (CA0109991, CI-1492)

Constituent	Unit												
		Jul-02	Oct-02	Jan-03	Apr-03	Jun-03	Jul-03	Oct-03	January 1, 2004	January 27, 2004	Apr-04	Jun-04	
PCBs*	ng/L	<40	<40	<300	<300		<300	<300	<300	<490	<300	<300	
PCB 1016	ng/L	<20	<20	<80	<80		<80	<80	<80	<60	<80	<80	
PCB 1221	ng/L	<30	<30	<300	<300		<300	<300	<300	<490	<300	<300	
PCB 1232	ng/L	<20	<20	<40	<40		<40	<40	<40	<100	<40	<40	
PCB 1242	ng/L	<40	<40	<50	<50		<50	<50	<50	<200	<50	<50	
PCB 1248	ng/L	<20	<20	<120	<120		<120	<120	<120	<100	<120	<120	
PCB 1254	ng/L	<10	<10	<50	<50		<50	<50	<50	<20	<50	<50	
PCB 1260	ng/L	<30	<30	<100	<100		<100	<100	<100	<70	<100	<100	
TCDD equivalents*	ng/L		<0.46	<1.4	<0.070		<0.28	<0.1	<0.097		<0.36		
1,1,2,2-TETRACHLOROETHANE	µg/L	<0.2	<0.2	<0.12	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	
TETRACHLOROETHENE*	µg/L	0.8	1.39	1.86	2.4	0.96	1	2.21	1.31	1.91	3.27	19.2	
TOXAPHENE*	µg/L	<0.09	<0.09	<0.13	<0.13		<0.13	<0.13	<0.1	<0.1	<0.1	<0.1	
TRICHLOROETHENE	µg/L	<0.2	<0.2	<0.07	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17	
1,1,2-TRICHLOROETHANE	µg/L	<0.2	<0.2	<0.17	<0.14		<0.14	<0.14	<0.14	<0.14	<0.14	<0.14	
2,4,6-TRICHLOROPHENOL*	µg/L	<1	<1	<0.09	<0.09		<0.09	<0.09	<0.09	<0.09	<0.09	<0.09	
VINYL CHLORIDE	µg/L	<0.05	<0.05	<0.17	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	

Underlined numbers used in the calculation are one-half of detection limits for data showing less than MDL results.

* These constituents showed RPs.

Table R1-2

REASONABLE POTENTIAL ANALYSIS
 HYPERION TREATMENT PLANT (OUTFALL 001)
 (CA0109991, CI-1492)

Constituent	Unit	Number of Nondetect	Number of Samples	Percent of Nondetect	Maximum Detected Effluent Concentration	Maximum Reported Effluent Concentration (max MDL if 100% ND or max MDL > max detect)	Standard Deviation	Mean	CV (set as 0.6 if nondetect >80%)	Multiplier	Projected Maximum Effluent Concentration (99/99)	Dilution Ratio	Background Seawater Concentration	Projected Maximum Receiving Water Concentration
PCBs*	ng/L	24	24	100%		300			0.6	2.16166	648.496836	13		46.3212
PCB 1016	ng/L													
PCB 1221	ng/L													
PCB 1232	ng/L													
PCB 1242	ng/L													
PCB 1248	ng/L													
PCB 1254	ng/L													
PCB 1260	ng/L													
TCDD equivalents*	ng/L	13	14	93%	0.069	1.4			0.6	2.63086	3.68320532	13		0.263086
1,1,2,2-TETRACHLOROETHANE	µg/L	25	25	100%		0.2			0.6	2.1319	0.42637931	13		0.030456
TETRACHLOROETHENE*	µg/L	0	25	0%	19.2	19.2	3.8411	5.7296	0.6704	2.2973	44.1080839	13		3.150577
TOXAPHENE*	µg/L	24	24	100%		0.13			0.6	2.16166	0.2810153	13		0.020073
TRICHLOROETHENE	µg/L	23	25	92%	0.53	0.53			0.6	2.1319	1.12990516	13		0.080708
1,1,2-TRICHLOROETHANE	µg/L	24	24	100%		0.2			0.6	2.16166	0.43233122	13		0.030881
2,4,6-TRICHLOROPHENOL*	µg/L	24	24	100%		3			0.6	2.16166	6.48496836	13		0.463212
VINYL CHLORIDE	µg/L	25	25	100%		0.17			0.6	2.1319	0.36242241	13		0.025887

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* These constituents showed RPs.

Table R1-2

REASONABLE POTENTIAL ANALYSIS
 HYPERION TREATMENT PLANT (OUTFALL 001)
 (CA0109991, CI-1492)

Constituent	Unit	Ocean Plan Water Quality Objectives	REASONABLE POTENTIAL (RP)	Calculated Effluent Limitations (EFLT)	Maximum MDL Reported (Jan 2003 - Jun 2004)	Performance Goals (PG) = MDLx 5 (for carcinogens) or 10 (for noncarcinogens)	PG = 95th Percentile (if nondetect < 80%)	Maximum Detected Effluent Concentration	Proposed Effluent Limits	Possible PG	Proposed PG	Basis for PG
PCBs*	ng/L	0.019	Yes	0.266	300	1500		ND	0.266	1500	No PG	--
PCB 1016	ng/L											
PCB 1221	ng/L											
PCB 1232	ng/L											
PCB 1242	ng/L											
PCB 1248	ng/L											
PCB 1254	ng/L											
PCB 1260	ng/L											
TCDD equivalents*	ng/L	0.0000039	Yes	0.0000546	1.4	7		0.069	0.00005	0.069	No PG	--
1,1,2,2-TETRACHLOROETHANE	µg/L	2.3	No	32.2	0.2	1		ND	No Limit	1	1	from MDL
TETRACHLOROETHENE*	µg/L	2.0	Yes	28	0.16	0.8	5.8	19.2	28	5.8	5.8	95th percentile
TOXAPHENE*	µg/L	0.00021	Yes	0.00294	0.13	0.65		ND	0.003	0.65	No PG	--
TRICHLOROETHENE	µg/L	27	No	378	0.17	0.85		0.53	No Limit	0.53	0.53	Max eff conc
1,1,2-TRICHLOROETHANE	µg/L	9.4	No	131.6	0.17	0.85		ND	No Limit	0.85	0.85	from MDL
2,4,6-TRICHLOROPHENOL*	µg/L	0.29	Yes	4.06	0.09	0.45		ND	4.06	0.45	0.45	from MDL
VINYL CHLORIDE	µg/L	36	No	504	0.17	0.85		ND	No Limit	0.85	0.85	from MDL

Underlined numbers used in the calculation are one-half of detection limits for data showing less than MDL results.

* These constituents showed RPs.