GEOTRACES IDP2017 v1 Discrete Sample Parameters

	Name	Units	Description
1	PRESSURE	dbar	Sample/sensor pressure
2	DEPTH	m	Sample/sensor depth
3	GEOTRACES Sample Number		GEOTRACES Sample Number
4	Cast Identifier		Cast Identifier
5	Sampling Device		Sampling Device
6	Bottle Number		Bottle Number
7	BODC Bottle Number		BODC Bottle Number
8	Bottle Flag		Bottle Flag
9	Firing Sequence		Firing Sequence
10	CTDTMP	deg C	Temperature from CTD sensor in the ITS-90 convention
11	CTDSAL		Practical salinity from CTD sensor on the PSS-1978 scale
12	SALINITY_D_CONC_BOTTLE		Practical salinity from bottle sample on the PSS-1978 scale
13	CFC-11_D_CONC_BOTTLE	pmol/kg	Concentration of dissolved CFC-11
14	CFC-12_D_CONC_BOTTLE	pmol/kg	Concentration of dissolved CFC-12
15	CFC113_D_CONC_BOTTLE	pmol/kg	Concentration of dissolved CFC113
16	SF6_D_CONC_BOTTLE	fmol/kg	Concentration of dissolved SF6
17	He_D_CONC_BOTTLE	nmol/kg	Concentration of dissolved Helium
18	Ne_D_CONC_BOTTLE	nmol/kg	Concentration of dissolved Neon
19	Ar_D_CONC_BOTTLE	umol/kg	Concentration of Argon
20	Kr_D_CONC_BOTTLE	nmol/kg	Concentration of Krypton
21	Xe_D_CONC_BOTTLE	nmol/kg	Concentration of Xenon
22	OXYGEN_D_CONC_BOTTLE	umol/kg	Concentration of dissolved oxygen from a bottle sample
23	CTDOXY	umol/kg	Concentration of dissolved oxygen from sensor on CTD
24	PHOSPHATE_D_CONC_BOTTLE	umol/kg	Concentration of dissolved phosphate, samples may or may not have been filtered
25	PHOSPHATE_LL_D_CONC_BOTTLE	umol/kg	Concentration of low-level dissolved phosphate determined by long path length spectrophotometry using filtered seawater
26	SILICATE_D_CONC_BOTTLE	umol/kg	Concentration of dissolved silicate, samples may or may not have been filtered

27	NITRATE_D_CONC_BOTTLE	umol/kg	Concentration of dissolved NITRATE, samples may or may not have been filtered
28	NITRATE_LL_D_CONC_BOTTLE	umol/kg	Concentration of low-level dissolved NITRATE determined by long path length spectrophotometry using filtered seawater
29	NITRITE_D_CONC_BOTTLE	umol/kg	Concentration of dissolved NITRITE, samples may or may not have been filtered
30	NITRITE_LL_D_CONC_BOTTLE	umol/kg	Concentration of low-level dissolved NITRITE determined by long path length spectrophotometry using filtered seawater
31	NO2+NO3_D_CONC_BOTTLE	umol/kg	Concentration of dissolved NITRITE plus NITRATE, samples may or may not have been filtered
32	NH4_D_CONC_BOTTLE	umol/kg	Concentration of dissolved ammonium, samples may or may not have been filtered
33	TALK_D_CONC_BOTTLE	umol/kg	Concentration of total alkalinity
34	DIC_D_CONC_BOTTLE	umol/kg	Concentration of dissolved inorganic carbon
35	PH_SWS_BOTTLE		pH, referred to seawater scale
36	DOC_D_CONC_BOTTLE	umol/kg	Concentration of dissolved organic carbon
37	TN_T_CONC_BOTTLE	umol/kg	Concentration of total nitrogen (Kjeldahl)
38	DIC_13_12_D_DELTA_BOTTLE	per mil	Atom ratio of dissolved C isotopes in dissolved inorganic carbon expressed in conventional delta notation referenced to {PDB}
39	DIC_14_12_D_DELTA_BOTTLE	per mil	DELTA 14C (radiocarbon) of DIC
40	He_3_4_D_DELTA_BOTTLE	per mil	Delta 3He of dissolved He referenced to air
41	TRITIUM_D_CONC_BOTTLE	TU	Concentration of tritium
42	H2O_2_1_D_DELTA_BOTTLE	per mil	Atom ratio of hydrogen isotopes in water expressed in conventional DELTA notation referenced to {VSMOW}
43	H2O_18_16_D_DELTA_BOTTLE	per mil	Atom ratio of oxygen isotopes in water expressed in conventional DELTA notation referenced to {VSMOW}
44	NITRATE_15_14_D_DELTA_BOTTLE	per mil	Atom ratio of dissolved N isotopes in NITRATE expressed in conventional DELTA notation referenced to Air N2, samples may or may not have been filtered
45	SILICATE_30_28_D_DELTA_BOTTLE	per mil	Atom ratio of dissolved silicic acid Si isotopes expressed in conventional DELTA notation referenced to {NBS28}
46	SALINITY_D_CONC_PUMP		Practical salinity on the PSS-1978 scale
47	PHOSPHATE_D_CONC_PUMP	umol/kg	Concentration of dissolved phosphate in a water sample collected using a bottle attached to a pump, samples may or may not have been filtered
48	SILICATE_D_CONC_PUMP	umol/kg	Concentration of dissolved silicate in a water sample collected using a bottle attached to a pump, samples may or may not have been filtered
49	NITRATE_D_CONC_PUMP	umol/kg	Concentration of dissolved NITRATE in a water sample collected using a bottle attached to a pump, samples may or may not have been filtered
50	NITRITE_D_CONC_PUMP	umol/kg	Concentration of dissolved NITRITE in a water sample collected using a bottle attached to a pump, samples may or may not have been filtered
51	SALINITY_D_CONC_FISH		Practical salinity from a towed fish sample on the PSS-1978 scale

52	PHOSPHATE_D_CONC_FISH	umol/kg	Concentration of dissolved phosphate, samples may or may not have been filtered
53	PHOSPHATE_LL_D_CONC_FISH	umol/kg	Concentration of low-level dissolved phosphate determined by long path length spectrophotometry using filtered seawater
54	SILICATE_D_CONC_FISH	umol/kg	Concentration of dissolved silicate, samples may or may not have been filtered
55	NITRATE_D_CONC_FISH	umol/kg	Concentration of dissolved NITRATE, samples may or may not have been filtered
56	NITRATE_LL_D_CONC_FISH	umol/kg	Concentration of low-level dissolved NITRATE determined by long path length spectrophotometry using filtered seawter
57	NITRITE_D_CONC_FISH	umol/kg	Concentration of dissolved NITRITE, samples may or may not have been filtered
58	NITRITE_LL_D_CONC_FISH	umol/kg	Concentration of low-level dissolved NITRITE determined by long path length spectrophotometry using filtered seawater
59	NO2+NO3_D_CONC_FISH	umol/kg	Concentration of dissolved NITRITE plus NITRATE, samples may or may not have been filtered
60	DOC_D_CONC_FISH	umol/kg	Concentration of dissolved organic carbon
61	SALINITY_D_CONC_UWAY		Practical salinity from a seawater sample collected using the ship's underway sampling system on the PSS-1978 scale
62	CFC-11_D_CONC_UWAY	pmol/kg	Concentration of dissolved CFC-11
63	CFC-12_D_CONC_UWAY	pmol/kg	Concentration of dissolved CFC-12
64	CFC113_D_CONC_UWAY	pmol/kg	Concentration of dissolved CFC113
65	SF6_D_CONC_UWAY	fmol/kg	Concentration of dissolved SF6
66	PHOSPHATE_D_CONC_UWAY	umol/kg	Concentration of dissolved phosphate, samples may or may not have been filtered
67	SILICATE_D_CONC_UWAY	umol/kg	Concentration of dissolved silicate, samples may or may not have been filtered
68	NITRATE_D_CONC_UWAY	umol/kg	Concentration of dissolved NITRATE, samples may or may not have been filtered
69	NITRITE_D_CONC_UWAY	umol/kg	Concentration of dissolved NITRITE, samples may or may not have been filtered
70	DOC_D_CONC_UWAY	umol/kg	Concentration of dissolved organic carbon
71	Al_D_CONC_BOTTLE	nmol/kg	Concentration of dissolved Al
72	Ba_D_CONC_BOTTLE	nmol/kg	Concentration of dissolved Ba
73	Cd_D_CONC_BOTTLE	nmol/kg	Concentration of dissolved Cd
74	Co_D_CONC_BOTTLE	pmol/kg	Concentration of dissolved Co (after UV oxidation)
75	Cu_D_CONC_BOTTLE	nmol/kg	Concentration of dissolved Cu
76	Fe_D_CONC_BOTTLE	nmol/kg	Concentration of dissolved Fe
77	Fe_II_D_CONC_BOTTLE	nmol/kg	Concentration of dissolved Fe(II)
78	Fe_S_CONC_BOTTLE	nmol/kg	Concentration of operationally defined soluble Fe (colloids excluded)
79	Ga_D_CONC_BOTTLE	pmol/kg	Concentration of dissolved Ga
80	Hf_D_CONC_BOTTLE	pmol/kg	Concentration of dissolved Hf

81	Hg_D_CONC_BOTTLE	pmol/kg	Concentration of dissolved Hg
82	I_D_CONC_BOTTLE	nmol/kg	Concentration of total dissolved Iodine
83	I_V_D_CONC_BOTTLE	nmol/kg	Concentration of dissolved Iodate, iodine in the V oxidation state
84	Mn_D_CONC_BOTTLE	nmol/kg	Concentration of dissolved Mn, method may include Mn(II) plus Mn(III)
85	Mo_D_CONC_BOTTLE	nmol/kg	Concentration of dissolved Mo
86	Ni_D_CONC_BOTTLE	nmol/kg	Concentration of dissolved Ni
87	Pb_D_CONC_BOTTLE	pmol/kg	Concentration of dissolved Pb
88	Pb_TD_CONC_BOTTLE	pmol/kg	Concentration of total dissolvable Pb (dissolved plus reactive particulate phase that dissolves while stored acidified)
89	Ti_D_CONC_BOTTLE	pmol/kg	Concentration of dissolved Ti
90	U_D_CONC_BOTTLE	nmol/kg	Concentration of dissolved U
91	V_D_CONC_BOTTLE	nmol/kg	Concentration of dissolved V
92	Zn_D_CONC_BOTTLE	nmol/kg	Concentration of dissolved Zn
93	Y_D_CONC_BOTTLE	pmol/kg	Concentration of dissolved Yttrium
94	La_D_CONC_BOTTLE	pmol/kg	Concentration of dissolved La
95	Ce_D_CONC_BOTTLE	pmol/kg	Concentration of dissolved Ce
96	Pr_D_CONC_BOTTLE	pmol/kg	Concentration of dissolved Pr
97	Nd_D_CONC_BOTTLE	pmol/kg	Concentration of dissolved Nd
98	Sm_D_CONC_BOTTLE	pmol/kg	Concentration of dissolved Sm
99	Eu_D_CONC_BOTTLE	pmol/kg	Concentration of dissolved Eu
100	Gd_D_CONC_BOTTLE	pmol/kg	Concentration of dissolved Gd
101	Tb_D_CONC_BOTTLE	pmol/kg	Concentration of dissolved Tb
102	Dy_D_CONC_BOTTLE	pmol/kg	Concentration of dissolved Dy
103	Ho_D_CONC_BOTTLE	pmol/kg	Concentration of dissolved Ho
104	Er_D_CONC_BOTTLE	pmol/kg	Concentration of dissolved Er
105	Tm_D_CONC_BOTTLE	pmol/kg	Concentration of dissolved Tm
106	Yb_D_CONC_BOTTLE	pmol/kg	Concentration of dissolved Yb
107	Lu_D_CONC_BOTTLE	pmol/kg	Concentration of dissolved Lu
108	Nd_143_144_D_EPSILON_BOTTLE	per 10000	Atom ratio of dissolved Nd isotopes expressed in conventional EPSILON notation
109	Pb_206_204_D_RATIO_BOTTLE		Atom ratio of given isotopes for dissolved Pb referenced to {NBS981}
110	Pb_206_204_TD_RATIO_BOTTLE		Atom ratio of given isotopes of total dissolvable Pb isotopes referenced to {NBS981} (dissolved plus reactive particulate phase that dissolves while stored acidified)

111	Pb_206_207_D_RATIO_BOTTLE		Atom ratio of given isotopes for dissolved Pb referenced to {NBS981}
112	Pb_206_207_TD_RATIO_BOTTLE		Atom ratio of given isotopes of total dissolvable Pb isotopes referenced to {NBS981} (dissolved plus reactive particulate phase that dissolves while stored acidified)
113	Pb_208_207_D_RATIO_BOTTLE		Atom ratio of given isotopes for dissolved Pb referenced to {NBS981}
114	Pb_208_207_TD_RATIO_BOTTLE		Atom ratio of given isotopes of total dissolvable Pb isotopes referenced to {NBS981} (dissolved plus reactive particulate phase that dissolves while stored acidified)
115	Pb_207_204_TD_RATIO_BOTTLE		Atom ratio of given isotopes of total dissolvable Pb isotopes referenced to {NBS981} (dissolved plus reactive particulate phase that dissolves while stored acidified)
116	Pb_208_204_TD_RATIO_BOTTLE		Atom ratio of given isotopes of total dissolvable Pb isotopes referenced to {NBS981} (dissolved plus reactive particulate phase that dissolves while stored acidified)
117	Pb_208_206_TD_RATIO_BOTTLE		Atom ratio of given isotopes of total (unfiltered, dissolved plus total particulate) Pb isotopes referenced to {NBS981}
118	Ba_138_134_D_DELTA_BOTTLE	per mil	Atom ratio of dissolved Ba isotopes expressed in conventional DELTA notation referenced to {NIST 3104a}
119	Cd_114_110_D_DELTA_BOTTLE	per mil	Atom ratio of dissolved Cd isotopes expressed in conventional DELTA notation referenced to {NIST3108}
120	Fe_56_54_D_DELTA_BOTTLE	per mil	Atom ratio of dissolved Fe isotopes expressed in conventional DELTA notation referenced to {IRMM-14}
121	Zn_66_64_D_DELTA_BOTTLE	per mil	Atom ratio of dissolved Zn isotopes expressed in conventional DELTA notation referenced to {Lyon-JMC}
122	Pa_231_D_CONC_BOTTLE	uBq/kg	Concentration (or activity) of dissolved 231Pa
123	Pb_210_D_CONC_BOTTLE	mBq/kg	Concentration (or activity) of dissolved 210Pb
124	Po_210_D_CONC_BOTTLE	mBq/kg	Concentration (or activity) of dissolved 210Po
125	Ra_224_D_CONC_BOTTLE	uBq/kg	Concentration (or activity) of dissolved 224Ra
126	Ra_226_T_CONC_BOTTLE	mBq/kg	Concentration (or activity) of total (unfiltered, dissolved plus total particulate) 226Ra
127	Ra_226_D_CONC_BOTTLE	mBq/kg	Concentration (or activity) of dissolved 226Ra
128	Ra_228_T_CONC_BOTTLE	mBq/kg	Concentration (or activity) of total (unfiltered, dissolved plus total particulate) 228Ra
129	Ra_228_D_CONC_BOTTLE	mBq/kg	Concentration (or activity) of dissolved 228Ra
130	Th_230_T_CONC_BOTTLE	uBq/kg	Concentration (or activity) of total (unfiltered, dissolved plus total particulate) 230Th
131	Th_230_D_CONC_BOTTLE	uBq/kg	Concentration (or activity) of dissolved 230Th
132	Th_232_T_CONC_BOTTLE	pmol/kg	Concentration (or activity) of total (unfiltered, dissolved plus total particulate) 232Th
133	Th_232_D_CONC_BOTTLE	pmol/kg	Concentration (or activity) of dissolved 232Th
134	Th_234_T_CONC_BOTTLE	mBq/kg	Concentration (or activity) of total (unfiltered, dissolved plus total particulate) 234Th
135	Cs_137_D_CONC_BOTTLE	uBq/kg	Concentration (or activity) of dissolved 137Cs
136	Np_237_D_CONC_BOTTLE	uBq/kg	Concentration of dissolved 237Np

137	Pu_239_D_CONC_BOTTLE	uBq/kg	Concentration of dissolved 239Pu
138	Pu_239_Pu_240_D_CONC_BOTTLE	uBq/kg	Concentration (or activity) of dissolved 239Pu+240Pu
139	Pu_240_D_CONC_BOTTLE	uBq/kg	Concentration of dissolved 240Pu
140	U_236_D_CONC_BOTTLE	atoms/kg	Concentration of dissolved 236U
141	U_236_T_CONC_BOTTLE	atoms/kg	Concentration of total (unfiltered, dissolved plus total particulate) 236U
142	Be_7_T_CONC_PUMP	uBq/kg	Concentration (or activity) of total (unfiltered, dissolved plus total particulate) 7Be
143	Ra_223_D_CONC_PUMP	mBq/kg	Concentration (or activity) of dissolved 223Ra
144	Ra_224_D_CONC_PUMP	mBq/kg	Concentration (or activity) of dissolved 224Ra
145	Ra_226_D_CONC_PUMP	mBq/kg	Concentration (or activity) of dissolved 226Ra
146	Ra_228_T_CONC_PUMP	mBq/kg	Concentration (or activity) of total (unfiltered, dissolved plus total particulate) 228Ra
147	Ra_228_D_CONC_PUMP	mBq/kg	Concentration (or activity) of dissolved 228Ra
148	Th_228_D_CONC_PUMP	uBq/kg	Concentration (or activity) of dissolved 228Th
149	Th_234_T_CONC_PUMP	uBq/kg	Concentration (or activity) of total (unfiltered, dissolved plus total particulate) 234Th
150	Al_D_CONC_FISH	nmol/kg	Concentration of dissolved Al
151	Ba_D_CONC_FISH	nmol/kg	Concentration of dissolved Ba
152	Cd_D_CONC_FISH	nmol/kg	Concentration of dissolved Cd
153	Co_D_CONC_FISH	pmol/kg	Concentration of dissolved Co (after UV oxidation)
154	Cu_D_CONC_FISH	nmol/kg	Concentration of dissolved Cu
155	Fe_D_CONC_FISH	nmol/kg	Concentration of dissolved Fe
156	Fe_II_D_CONC_FISH	nmol/kg	Concentration of dissolved Fe(II)
157	Fe_S_CONC_FISH	nmol/kg	Concentration of operationally defined soluble Fe (colloids excluded)
158	Ga_D_CONC_FISH	pmol/kg	Concentration of dissolved Ga
159	Hf_D_CONC_FISH	pmol/kg	Concentration of dissolved Hf
160	Hg_D_CONC_FISH	pmol/kg	Concentration of dissolved Hg
161	Mn_D_CONC_FISH	nmol/kg	Concentration of dissolved Mn, method may include Mn(II) plus Mn(III)
162	Mo_D_CONC_FISH	nmol/kg	Concentration of dissolved Mo
163	Ni_D_CONC_FISH	nmol/kg	Concentration of dissolved Ni
164	Pb_D_CONC_FISH	pmol/kg	Concentration of dissolved Pb
165	Ti_D_CONC_FISH	pmol/kg	Concentration of dissolved Ti
166	V_D_CONC_FISH	nmol/kg	Concentration of dissolved V
167	Zn_D_CONC_FISH	nmol/kg	Concentration of dissolved Zn

168	Y_D_CONC_FISH	pmol/kg	Concentration of dissolved Yttrium
169	La_D_CONC_FISH	pmol/kg	Concentration of dissolved La
170	Ce_D_CONC_FISH	pmol/kg	Concentration of dissolved Ce
171	Pr_D_CONC_FISH	pmol/kg	Concentration of dissolved Pr
172	Nd_D_CONC_FISH	pmol/kg	Concentration of dissolved Nd
173	Sm_D_CONC_FISH	pmol/kg	Concentration of dissolved Sm
174	Eu_D_CONC_FISH	pmol/kg	Concentration of dissolved Eu
175	Gd_D_CONC_FISH	pmol/kg	Concentration of dissolved Gd
176	Tb_D_CONC_FISH	pmol/kg	Concentration of dissolved Tb
177	Dy_D_CONC_FISH	pmol/kg	Concentration of dissolved Dy
178	Ho_D_CONC_FISH	pmol/kg	Concentration of dissolved Ho
179	Er_D_CONC_FISH	pmol/kg	Concentration of dissolved Er
180	Tm_D_CONC_FISH	pmol/kg	Concentration of dissolved Tm
181	Yb_D_CONC_FISH	pmol/kg	Concentration of dissolved Yb
182	Lu_D_CONC_FISH	pmol/kg	Concentration of dissolved Lu
183	Nd_143_144_D_EPSILON_FISH	per 10000	Atom ratio of dissolved Nd isotopes expressed in conventional EPSILON notation
184	Pb_206_204_D_RATIO_FISH		Atom ratio of given isotopes for dissolved Pb referenced to {NBS981}
185	Pb_206_204_TD_RATIO_FISH		Atom ratio of given isotopes of total dissolvable Pb isotopes referenced to {NBS981} (dissolved plus reactive particulate phase that dissolves while stored acidified)
186	Pb_206_207_D_RATIO_FISH		Atom ratio of given isotopes for dissolved Pb referenced to {NBS981}
187	Pb_206_207_TD_RATIO_FISH		Atom ratio of given isotopes of total dissolvable Pb isotopes referenced to {NBS981} (dissolved plus reactive particulate phase that dissolves while stored acidified)
188	Pb_208_207_D_RATIO_FISH		Atom ratio of given isotopes for dissolved Pb referenced to {NBS981}
189	Pb_208_207_TD_RATIO_FISH		Atom ratio of given isotopes of total dissolvable Pb isotopes referenced to {NBS981} (dissolved plus reactive particulate phase that dissolves while stored acidified)
190	Pb_207_204_TD_RATIO_FISH		Atom ratio of given isotopes of total dissolvable Pb isotopes referenced to {NBS981} (dissolved plus reactive particulate phase that dissolves while stored acidified)
191	Pb_208_204_TD_RATIO_FISH		Atom ratio of given isotopes of total dissolvable Pb isotopes referenced to {NBS981} (dissolved plus reactive particulate phase that dissolves while stored acidified)
192	Pb_208_206_TD_RATIO_FISH		Atom ratio of given isotopes of total (unfiltered, dissolved plus total particulate) Pb isotopes referenced to {NBS981}
193	Cd_114_110_D_DELTA_FISH	per mil	Atom ratio of dissolved Cd isotopes expressed in conventional DELTA notation referenced to {NIST3108}
194	Fe_56_54_D_DELTA_FISH	per mil	Atom ratio of dissolved Fe isotopes expressed in conventional DELTA notation referenced to {IRMM-14}

195	Zn_66_64_D_DELTA_FISH	per mil	Atom ratio of dissolved Zn isotopes expressed in conventional DELTA notation referenced to {Lyon-JMC}
196	Pa_231_D_CONC_FISH	uBq/kg	Concentration (or activity) of dissolved 231Pa
197	Pb_210_D_CONC_FISH	mBq/kg	Concentration (or activity) of dissolved 210Pb
198	Po_210_D_CONC_FISH	mBq/kg	Concentration (or activity) of dissolved 210Po
199	Ra_226_T_CONC_FISH	mBq/kg	Concentration (or activity) of total (unfiltered, dissolved plus total particulate) 226Ra
200	Ra_228_T_CONC_FISH	mBq/kg	Concentration (or activity) of total (unfiltered, dissolved plus total particulate) 228Ra
201	Th_230_D_CONC_FISH	uBq/kg	Concentration (or activity) of dissolved 230Th
202	Th_232_D_CONC_FISH	pmol/kg	Concentration (or activity) of dissolved 232Th
203	Th_234_T_CONC_FISH	mBq/kg	Concentration (or activity) of total (unfiltered, dissolved plus total particulate) 234Th
204	U_236_D_CONC_FISH	atoms/kg	Concentration of dissolved 236U
205	Hf_D_CONC_UWAY	pmol/kg	Concentration of dissolved Hf
206	La_D_CONC_UWAY	pmol/kg	Concentration of dissolved La
207	Ce_D_CONC_UWAY	pmol/kg	Concentration of dissolved Ce
208	Pr_D_CONC_UWAY	pmol/kg	Concentration of dissolved Pr
209	Nd_D_CONC_UWAY	pmol/kg	Concentration of dissolved Nd
210	Sm_D_CONC_UWAY	pmol/kg	Concentration of dissolved Sm
211	Eu_D_CONC_UWAY	pmol/kg	Concentration of dissolved Eu
212	Gd_D_CONC_UWAY	pmol/kg	Concentration of dissolved Gd
213	Tb_D_CONC_UWAY	pmol/kg	Concentration of dissolved Tb
214	Dy_D_CONC_UWAY	pmol/kg	Concentration of dissolved Dy
215	Ho_D_CONC_UWAY	pmol/kg	Concentration of dissolved Ho
216	Er_D_CONC_UWAY	pmol/kg	Concentration of dissolved Er
217	Tm_D_CONC_UWAY	pmol/kg	Concentration of dissolved Tm
218	Yb_D_CONC_UWAY	pmol/kg	Concentration of dissolved Yb
219	Lu_D_CONC_UWAY	pmol/kg	Concentration of dissolved Lu
220	Nd_143_144_D_EPSILON_UWAY	per 10000	Atom ratio of dissolved Nd isotopes expressed in conventional EPSILON notation
221	Pa_231_D_CONC_UWAY	uBq/kg	Concentration (or activity) of dissolved 231Pa
222	Po_210_D_CONC_UWAY	mBq/kg	Concentration (or activity) of dissolved 210Po
223	Pb_210_D_CONC_UWAY	mBq/kg	Concentration (or activity) of dissolved 210Pb
224	Ra_224_D_CONC_UWAY	mBq/kg	Concentration (or activity) of dissolved 224Ra

225	Ra_226_T_CONC_UWAY	mBq/kg	Concentration (or activity) of total (unfiltered, dissolved plus total particulate) 226Ra
226	Ra_226_D_CONC_UWAY	mBq/kg	Concentration (or activity) of dissolved 226Ra
227	Ra_228_T_CONC_UWAY	mBq/kg	Concentration (or activity) of total (unfiltered, dissolved plus total particulate) 228Ra
228	Ra_228_D_CONC_UWAY	mBq/kg	Concentration (or activity) of dissolved 228Ra
229	Th_230_D_CONC_UWAY	uBq/kg	Concentration (or activity) of dissolved 230Th
230	Th_232_D_CONC_UWAY	pmol/kg	Concentration (or activity) of dissolved 232Th
231	Th_234_T_CONC_UWAY	mBq/kg	Concentration (or activity) of total 234Th
232	Cs_137_D_CONC_UWAY	uBq/kg	Concentration (or activity) of dissolved 137Cs
233	Pu_239_Pu_240_D_CONC_UWAY	uBq/kg	Concentration (or activity) of dissolved 239Pu+240Pu
234	L1Cu_D_CONC_BOTTLE	nmol/kg	Concentration of dissolved L1 Cu-binding ligand
235	L1Cu_D_LogK_BOTTLE		Log of the conditional stability constant for binding of Cu by L1 Cu-binding ligand
236	L1Fe_D_CONC_BOTTLE	nmol/kg	Concentration of dissolved L1 Fe-binding ligand
237	L1Fe_D_LogK_BOTTLE		Log of the conditional stability constant for binding of Fe by L1 Fe-binding ligand
238	L2Fe_D_CONC_BOTTLE	nmol/kg	Concentration of dissolved L2 Fe-binding ligand
239	L2Fe_D_LogK_BOTTLE		Log of the conditional stability constant for binding of Fe by L2 Fe-binding ligand
240	L1Cu_D_CONC_FISH	nmol/kg	Concentration of dissolved L1 Cu-binding ligand
241	L1Cu_D_LogK_FISH		Log of the conditional stability constant for binding of Cu by L1 Cu-binding ligand
242	L1Fe_D_CONC_FISH	nmol/kg	Concentration of the operationally-defined soluble L1 Fe-binding ligand (colloids excluded)
243	L1Fe_D_LogK_FISH		Log of the conditional stability constant for binding of Fe by the operationally-defined soluble L1 Fe-binding ligand (colloids excluded)
244	L2Fe_D_CONC_FISH	nmol/kg	Concentration of dissolved L2 Fe-binding ligand
245	L2Fe_D_LogK_FISH		Log of the conditional stability constant for binding of Fe by L2 Fe-binding ligand
246	Filtration_Volume	l	Sample volume (filtration)
247	P_TP_CONC_BOTTLE	nmol P/kg	Concentration of total particulate phosphorus determined by filtration from a water sampling bottle
248	P_TPL_CONC_BOTTLE	nmol P/kg	Concentration of labile particulate phosphorus determined by filtration from a water sampling bottle
249	Al_TP_CONC_BOTTLE	nmol/kg	Concentration of total particulate aluminium determined by filtration from a water sampling bottle
250	Al_TPL_CONC_BOTTLE	nmol/kg	Concentration of labile particulate aluminium determined by filtration from a water sampling bottle
251	Al_TPR_CONC_BOTTLE	nmol/kg	Concentration of refractory particulate aluminium determined by filtration from a water sampling bottle
252	Ba_TP_CONC_BOTTLE	pmol/kg	Concentration of total particulate barium determined by filtration from a water sampling bottle

253	Ba_TPL_CONC_BOTTLE	pmol/kg	Concentration of labile particulate barium determined by filtration from a water sampling bottle
254	Cd_TP_CONC_BOTTLE	pmol/kg	Concentration of total particulate cadmium determined by filtration from a water sampling bottle
255	Cd_TPL_CONC_BOTTLE	pmol/kg	Concentration of labile particulate cadmium determined by filtration from a water sampling bottle
256	Cd_TPR_CONC_BOTTLE	pmol/kg	Concentration of refractory particulate cadmium determined by filtration from a water sampling bottle
257	Co_TP_CONC_BOTTLE	pmol/kg	Concentration of total particulate cobalt determined by filtration from a water sampling bottle
258	Co_TPL_CONC_BOTTLE	pmol/kg	Concentration of labile particulate cobalt determined by filtration from a water sampling bottle
259	Co_TPR_CONC_BOTTLE	pmol/kg	Concentration of refractory particulate cobalt determined by filtration from a water sampling bottle
260	Cr_TP_CONC_BOTTLE	pmol/kg	Concentration of total particulate chromium determined by filtration from a water sampling bottle
261	Cu_TP_CONC_BOTTLE	pmol/kg	Concentration of total particulate copper determined by filtration from a water sampling bottle
262	Cu_TPL_CONC_BOTTLE	pmol/kg	Concentration of labile particulate copper determined by filtration from a water sampling bottle
263	Fe_TP_CONC_BOTTLE	nmol/kg	Concentration of total particulate iron determined by filtration from a water sampling bottle
264	Fe_TPL_CONC_BOTTLE	nmol/kg	Concentration of labile particulate iron determined by filtration from a water sampling bottle
265	Fe_TPR_CONC_BOTTLE	nmol/kg	Concentration of refractory particulate iron determined by filtration from a water sampling bottle
266	Mn_TP_CONC_BOTTLE	nmol/kg	Concentration of total particulate manganese determined by filtration from a water sampling bottle
267	Mn_TPL_CONC_BOTTLE	nmol/kg	Concentration of labile particulate manganese determined by filtration from a water sampling bottle
268	Mn_TPR_CONC_BOTTLE	nmol/kg	Concentration of refractory particulate manganese determined by filtration from a water sampling bottle
269	Mo_TP_CONC_BOTTLE	pmol/kg	Concentration of total particulate molybdenum determined by filtration from a water sampling bottle
270	Mo_TPL_CONC_BOTTLE	pmol/kg	Concentration of labile particulate molybdenum determined by filtration from a water sampling bottle
271	Ni_TP_CONC_BOTTLE	pmol/kg	Concentration of total particulate nickel determined by filtration from a water sampling bottle
272	Ni_TPL_CONC_BOTTLE	pmol/kg	Concentration of labile particulate nickel determined by filtration from a water sampling bottle
273	P_TPR_CONC_BOTTLE	nmol/kg	Concentration of refractory particulate phosphorus determined by filtration from a water sampling bottle
274	Pb_TP_CONC_BOTTLE	pmol/kg	Concentration of total particulate lead determined by filtration from a water sampling bottle
275	Pb_TPL_CONC_BOTTLE	pmol/kg	Concentration of labile particulate lead determined by filtration from a water sampling bottle
276	Sc_TP_CONC_BOTTLE	pmol/kg	Concentration of total particulate scandium determined by filtration from a water sampling bottle
277	Th_TP_CONC_BOTTLE	pmol/kg	Concentration of total particulate thorium determined by filtration from a water sampling bottle
278	Th_TPL_CONC_BOTTLE	pmol/kg	Concentration of labile particulate thorium determined by filtration from a water sampling bottle
279	Ti_TP_CONC_BOTTLE	nmol/kg	Concentration of total particulate titanium determined by filtration from a water sampling bottle

280	Ti_TPL_CONC_BOTTLE	nmol/kg	Concentration of labile particulate titanium determined by filtration from a water sampling bottle
281	Ti_TPR_CONC_BOTTLE	nmol/kg	Concentration of refractory particulate titanium determined by filtration from a water sampling bottle
282	V_TP_CONC_BOTTLE	pmol/kg	Concentration of total particulate vanadium determined by filtration from a water sampling bottle
283	V_TPL_CONC_BOTTLE	pmol/kg	Concentration of labile particulate vanadium determined by filtration from a water sampling bottle
284	Zn_TP_CONC_BOTTLE	pmol/kg	Concentration of total particulate zinc determined by filtration from a water sampling bottle
285	Zn_TPL_CONC_BOTTLE	pmol/kg	Concentration of labile particulate zinc determined by filtration from a water sampling bottle
286	Y_TP_CONC_BOTTLE	pmol/kg	Concentration of total particulate yttrium determined by filtration from a water sampling bottle
287	La_TP_CONC_BOTTLE	pmol/kg	Concentration of total particulate lanthanum determined by filtration from a water sampling bottle
288	Ce_TP_CONC_BOTTLE	pmol/kg	Concentration of total particulate cerium determined by filtration from a water sampling bottle
289	Pr_TP_CONC_BOTTLE	pmol/kg	Concentration of total particulate praseodymium determined by filtration from a water sampling bottle
290	Nd_TP_CONC_BOTTLE	pmol/kg	Concentration of total particulate neodymium determined by filtration from a water sampling bottle
291	Sm_TP_CONC_BOTTLE	pmol/kg	Concentration of total particulate samarium determined by filtration from a water sampling bottle
292	Gd_TP_CONC_BOTTLE	pmol/kg	Concentration of total particulate gadolinium determined by filtration from a water sampling bottle
293	Tb_TP_CONC_BOTTLE	pmol/kg	Concentration of total particulate terbium determined by filtration from a water sampling bottle
294	Dy_TP_CONC_BOTTLE	pmol/kg	Concentration of total particulate dysprosium determined by filtration from a water sampling bottle
295	Ho_TP_CONC_BOTTLE	pmol/kg	Concentration of total particulate holmium determined by filtration from a water sampling bottle
296	Er_TP_CONC_BOTTLE	pmol/kg	Concentration of total particulate erbium determined by filtration from a water sampling bottle
297	Tm_TP_CONC_BOTTLE	pmol/kg	Concentration of total particulate thullium determined by filtration from a water sampling bottle
298	Yb_TP_CONC_BOTTLE	pmol/kg	Concentration of total particulate ytterbium determined by filtration from a water sampling bottle
299	Lu_TP_CONC_BOTTLE	pmol/kg	Concentration of total particulate lutetium determined by filtration from a water sampling bottle
300	Fe_56_54_TP_DELTA_BOTTLE	per mil	Atom ratio of total particulate Fe isotopes expressed in conventional DELTA notation determined by filtration from a water sampling bottle referenced to {IRMM-14}
301	Po_210_TP_CONC_BOTTLE	mBq/kg	Concentration of total particulate Po-210 determined by filtration from a water sampling bottle
302	Pb_210_TP_CONC_BOTTLE	mBq/kg	Concentration of total particulate Pb-210 determined by filtration from a water sampling bottle
303	PIC_LPT_CONC_PUMP	umol C/kg	Concentration of particulate inorganic carbon determined by in situ filtration (pump) collected on a prefilter (large particles)
304	PIC_SPT_CONC_PUMP	umol C/kg	Concentration of particulate inorganic carbon determined by in situ filtration (pump) collected on a main filter (small particles)

305	POC_LPT_CONC_PUMP	umol C/kg	Concentration of particulate organic carbon determined by in situ filtration (pump) collected on a prefilter (large particles)
306	POC_SPT_CONC_PUMP	umol C/kg	Concentration of particulate organic carbon determined by in situ filtration (pump) collected on a main filter (small particles)
307	PN_LPT_CONC_PUMP	nmol N/kg	Concentration of particulate nitrogen determined by in situ filtration (pump) collected on a prefilter (large particles)
308	PN_SPT_CONC_PUMP	nmol N/kg	Concentration of particulate nitrogen determined by in situ filtration (pump) collected on a main filter (small particles)
309	bSi_TP_CONC_PUMP	nmol Si/kg	Concentration of particulate biogenic silicon determined by in situ filtration (pump) without size fractionation, see metadata for assumed molecular composition (e.g., opal, calculated as 67.9 g opal/mole Si)
310	bSi_LPT_CONC_PUMP	nmol Si/kg	Concentration of particulate biogenic silicon determined by in situ filtration (pump) collected on a prefilter (large particles), see metadata for assumed molecular composition (e.g., opal, calculated as 67.9 g opal/mole Si)
311	bSi_SPT_CONC_PUMP	nmol Si/kg	Concentration of particulate biogenic silicon determined by in situ filtration (pump) collected on a main filter (small particles), see metadata for assumed molecular composition (e.g., opal, calculated as 67.9 g opal/mole Si)
312	PARTICLEMASS_LPT_CONC_PUMP	ug/kg	Concentration of particulate mass (dry weight) determined by in situ filtration (pump) collected on a prefilter (large particles)
313	PARTICLEMASS_SPT_CONC_PUMP	ug/kg	Concentration of particulate mass (dry weight) determined by in situ filtration (pump) collected on a main filter (small particles)
314	Ag_LPT_CONC_PUMP	pmol/kg	Concentration of total particulate silver determined by in situ filtration (pump) collected on a prefilter (large particles)
315	Ag_SPT_CONC_PUMP	pmol/kg	Concentration of total particulate silver determined by in situ filtration (pump) collected on a main filter (small particles)
316	Al_TP_CONC_PUMP	nmol/kg	Concentration of total particulate aluminium determined by in situ filtration (pump) without size fractionation
317	Al_LPT_CONC_PUMP	nmol/kg	Concentration of total particulate aluminium determined by in situ filtration (pump) collected on a prefilter (large particles)
318	Al_SPT_CONC_PUMP	nmol/kg	Concentration of total particulate aluminium determined by in situ filtration (pump) collected on a main filter (small particles)
319	Ba_LPT_CONC_PUMP	pmol/kg	Concentration of total particulate barium determined by in situ filtration (pump) collected on a prefilter (large particles)
320	Ba_SPT_CONC_PUMP	pmol/kg	Concentration of total particulate barium determined by in situ filtration (pump) collected on a main filter (small particles)
321	Cd_TP_CONC_PUMP	pmol/kg	Concentration of total particulate cadmium determined by in situ filtration (pump) without size fractionation
322	Cd_LPT_CONC_PUMP	pmol/kg	Concentration of total particulate cadmium determined by in situ filtration (pump) collected on a prefilter (large particles)
323	Cd_SPT_CONC_PUMP	pmol/kg	Concentration of total particulate cadmium determined by in situ filtration (pump) collected on a main filter (small particles)

324	Co_LPT_CONC_PUMP	pmol/kg	Concentration of total particulate cobalt determined by in situ filtration (pump) collected on a prefilter (large particles)
325	Co_SPT_CONC_PUMP	pmol/kg	Concentration of total particulate cobalt determined by in situ filtration (pump) collected on a main filter (small particles)
326	Cu_LPT_CONC_PUMP	pmol/kg	Concentration of total particulate copper determined by in situ filtration (pump) collected on a prefilter (large particles)
327	Cu_SPT_CONC_PUMP	pmol/kg	Concentration of total particulate copper determined by in situ filtration (pump) collected on a main filter (small particles)
328	Fe_TP_CONC_PUMP	nmol/kg	Concentration of total particulate iron determined by in situ filtration (pump) without size fractionation
329	Fe_LPT_CONC_PUMP	nmol/kg	Concentration of total particulate iron determined by in situ filtration (pump) collected on a prefilter (large particles)
330	Fe_SPT_CONC_PUMP	nmol/kg	Concentration of total particulate iron determined by in situ filtration (pump) collected on a main filter (small particles)
331	Ga_TP_CONC_PUMP	pmol/kg	Concentration of total particulate gallium determined by in situ filtration (pump) without size fractionation
332	Mn_TP_CONC_PUMP	nmol/kg	Concentration of total particulate manganese determined by in situ filtration (pump) without size fractionation
333	Mn_LPT_CONC_PUMP	nmol/kg	Concentration of total particulate manganese determined by in situ filtration (pump) collected on a prefilter (large particles)
334	Mn_SPT_CONC_PUMP	nmol/kg	Concentration of total particulate manganese determined by in situ filtration (pump) collected on a main filter (small particles)
335	Mo_TP_CONC_PUMP	pmol/kg	Concentration of total particulate molybdenum determined by in situ filtration (pump) without size fractionation
336	Ni_TP_CONC_PUMP	pmol/kg	Concentration of total particulate nickel determined by in situ filtration (pump) without size fractionation
337	Ni_LPT_CONC_PUMP	pmol/kg	Concentration of total particulate nickel determined by in situ filtration (pump) collected on a prefilter (large particles)
338	Ni_SPT_CONC_PUMP	pmol/kg	Concentration of total particulate nickel determined by in situ filtration (pump) collected on a main filter (small particles)
339	P_TP_CONC_PUMP	nmol/kg	Concentration of total particulate phosphorus determined by in situ filtration (pump) without size fractionation
340	P_LPT_CONC_PUMP	nmol/kg	Concentration of total particulate phosphorus determined by in situ filtration (pump) collected on a prefilter (large particles)
341	P_SPT_CONC_PUMP	nmol/kg	Concentration of total particulate phosphorus determined by in situ filtration (pump) collected on a main filter (small particles)
342	Pb_TP_CONC_PUMP	pmol/kg	Concentration of total particulate lead determined by in situ filtration (pump) without size fractionation
343	Pb_LPT_CONC_PUMP	pmol/kg	Concentration of total particulate lead determined by in situ filtration (pump) collected on a prefilter (large particles)

344	Pb_SPT_CONC_PUMP	pmol/kg	Concentration of total particulate lead determined by in situ filtration (pump) collected on a main filter (small particles)
345	Th_TP_CONC_PUMP	pmol/kg	Concentration of total particulate thorium determined by in situ filtration (pump) without size fractionation
346	Th_LPT_CONC_PUMP	pmol/kg	Concentration of total particulate thorium determined by in situ filtration (pump) collected on a prefilter (large particles)
347	Th_SPT_CONC_PUMP	pmol/kg	Concentration of total particulate thorium determined by in situ filtration (pump) collected on a main filter (small particles)
348	Ti_LPT_CONC_PUMP	pmol/kg	Concentration of total particulate titanium determined by in situ filtration (pump) collected on a prefilter (large particles)
349	Ti_SPT_CONC_PUMP	pmol/kg	Concentration of total particulate titanium determined by in situ filtration (pump) collected on a main filter (small particles)
350	U_TP_CONC_PUMP	pmol/kg	Concentration of total particulate uranium determined by in situ filtration (pump) without size fractionation
351	V_TP_CONC_PUMP	pmol/kg	Concentration of total particulate vanadium determined by in situ filtration (pump) without size fractionation
352	V_LPT_CONC_PUMP	pmol/kg	Concentration of total particulate vanadium determined by in situ filtration (pump) collected on a prefilter (large particles)
353	V_SPT_CONC_PUMP	pmol/kg	Concentration of total particulate vanadium determined by in situ filtration (pump) collected on a main filter (small particles)
354	Zn_TP_CONC_PUMP	pmol/kg	Concentration of total particulate zinc determined by in situ filtration (pump) without size fractionation
355	Y_LPT_CONC_PUMP	pmol/kg	Concentration of total particulate yttrium determined by in situ filtration (pump) collected on a prefilter (large particles)
356	Y_SPT_CONC_PUMP	pmol/kg	Concentration of total particulate yttrium determined by in situ filtration (pump) collected on a main filter (small particles)
357	Nd_TP_CONC_PUMP	pmol/kg	Concentration of total particulate neodymium determined by in situ filtration (pump) without size fractionation
358	Nd_LPT_CONC_PUMP	pmol/kg	Concentration of total particulate neodymium determined by in situ filtration (pump) collected on a prefilter (large particles)
359	Nd_SPT_CONC_PUMP	pmol/kg	Concentration of total particulate neodymium determined by in situ filtration (pump) collected on a main filter (small particles)
360	Nd_143_144_TP_EPSILON_PUMP	per 10000	Atom ratio of total particulate Nd isotopes expressed in conventional EPSILON notation determined by in situ filtration (pump) without size fractionation
361	Pa_231_TP_CONC_PUMP	uBq/kg	Concentration of total particulate Pa-231 determined by in situ filtration (pump) without size fractionation
362	Pa_231_SPT_CONC_PUMP	uBq/kg	Concentration of total particulate Pa-231 determined by in situ filtration (pump) collected on a main filter (small particles)
363	Th_228_SPT_CONC_PUMP	uBq/kg	Concentration of total particulate Th-228 determined by in situ filtration (pump) collected on a main filter (small particles)

364	Th_230_TP_CONC_PUMP	uBq/kg	Concentration of total particulate Th-230 determined by in situ filtration (pump) without size fractionation
365	Th_230_SPT_CONC_PUMP	uBq/kg	Concentration of total particulate Th-230 determined by in situ filtration (pump) collected on a main filter (small particles)
366	Th_232_TP_CONC_PUMP	pmol/kg	Concentration of total particulate Th-232 determined by in situ filtration (pump) without size fractionation
367	Th_232_SPT_CONC_PUMP	pmol/kg	Concentration of total particulate Th-232 determined by in situ filtration (pump) collected on a main filter (small particles)
368	Th_232_LPT_CONC_PUMP	pmol/kg	Concentration of total particulate Th-232 determined by in situ filtration (pump) collected on a pre filter (large particles)
369	Th_234_SPT_CONC_PUMP	mBq/kg	Concentration of total particulate Th-234 determined by in situ filtration (pump) collected on a main filter (small particles)
370	Th_234_LPT_CONC_PUMP	mBq/kg	Concentration of total particulate Th-234 determined by in situ filtration (pump) collected on a pre filter (large particles)
371	P_TP_CONC_FISH	nmol P/kg	Concentration of total particulate phosphorus determined by towed fish without size fractionation
372	Al_TP_CONC_FISH	nmol/kg	Concentration of total particulate aluminium determined by towed fish without size fractionation
373	Al_TPL_CONC_FISH	nmol/kg	Concentration of labile particulate aluminum determined by towed fish without size fractionation
374	Ba_TP_CONC_FISH	pmol/kg	Concentration of total particulate barium determined by towed fish without size fractionation
375	Ba_TPL_CONC_FISH	pmol/kg	Concentration of labile particulate barium determined by towed fish without size fractionation
376	Cd_TP_CONC_FISH	pmol/kg	Concentration of total particulate cadmium determined by towed fish without size fractionation
377	Cd_TPL_CONC_FISH	pmol/kg	Concentration of labile particulate cadmium determined by towed fish without size fractionation
378	Co_TP_CONC_FISH	pmol/kg	Concentration of total particulate cobalt determined by towed fish without size fractionation
379	Co_TPL_CONC_FISH	pmol/kg	Concentration of labile particulate cobalt determined by towed fish without size fractionation
380	Cu_TP_CONC_FISH	pmol/kg	Concentration of total particulate copper determined by towed fish without size fractionation
381	Cu_TPL_CONC_FISH	pmol/kg	Concentration of labile particulate copper determined by towed fish without size fractionation
382	Fe_TP_CONC_FISH	nmol/kg	Concentration of total particulate iron determined by towed fish without size fractionation
383	Fe_TPL_CONC_FISH	nmol/kg	Concentration of labile particulate iron determined by towed fish without size fractionation
384	Mn_TP_CONC_FISH	nmol/kg	Concentration of total particulate manganese determined by towed fish without size fractionation
385	Mn_TPL_CONC_FISH	nmol/kg	Concentration of labile particulate manganese determined by towed fish without size fractionation
386	Ni_TP_CONC_FISH	pmol/kg	Concentration of total particulate nickel determined by towed fish without size fractionation
387	Ni_TPL_CONC_FISH	pmol/kg	Concentration of labile particulate nickel determined by towed fish without size fractionation
388	P_TPL_CONC_FISH	nmol/kg	Concentration of labile particulate phosphorus determined by towed fish without size fractionation
389	Pb_TP_CONC_FISH	pmol/kg	Concentration of total particulate lead determined by towed fish without size fractionation

390	Pb_TPL_CONC_FISH	pmol/kg	Concentration of labile particulate lead determined by towed fish without size fractionation
391	Th_TP_CONC_FISH	pmol/kg	Concentration of total particulate thorium determined by towed fish without size fractionation
392	Th_TPL_CONC_FISH	pmol/kg	Concentration of labile particulate thorium determined by towed fish without size fractionation
393	Ti_TP_CONC_FISH	pmol/kg	Concentration of total particulate titanium determined by towed fish without size fractionation
394	Ti_TPL_CONC_FISH	pmol/kg	Concentration of labile particulate titanium determined by towed fish without size fractionation
395	V_TP_CONC_FISH	pmol/kg	Concentration of total particulate vanadium determined by towed fish without size fractionation
396	V_TPL_CONC_FISH	pmol/kg	Concentration of labile particulate vanadium determined by towed fish without size fractionation
397	Zn_TP_CONC_FISH	pmol/kg	Concentration of total particulate zinc determined by towed fish without size fractionation
398	Zn_TPL_CONC_FISH	pmol/kg	Concentration of labile particulate zinc determined by towed fish without size fractionation
399	Y_TP_CONC_FISH	pmol/kg	Concentration of total particulate yttrium determined by towed fish without size fractionation
400	La_TP_CONC_FISH	pmol/kg	Concentration of total particulate lantanum determined by towed fish without size fractionation
401	Po_210_TP_CONC_UWAY	mBq/kg	Concentration of total particulate Po-210 determined by ship's underway seawater system without size fractionation
402	Pb_210_TP_CONC_UWAY	mBq/kg	Concentration of total particulate Pb-210 determined by ship's underway seawater system without size fractionation
403	CHLA_FLUOR_TP_CONC_BOTTLE	ng/liter	Concentration of Chlorophyll a via fluorometric method without size fractionation of particles
404	PHAEO_FLUOR_TP_CONC_BOTTLE	ng/liter	Concentration of phaeopigments via fluorometric method without size fractionation of particles
405	Chl a_HPLC_P_CONC_BOTTLE	ng/liter	concentration of Chlorophyll a measured using HPLC method
406	Chl b_HPLC_P_CONC_BOTTLE	ng/liter	concentration of Chlorophyll b measured using HPLC method
407	Chl c3_HPLC_P_CONC_BOTTLE	ng/liter	concentration of Chlorophyll c3 measured using HPLC method
408	Chl c TOT_HPLC_P_CONC_BOTTLE	ng/liter	sum of the concentrations of chl c1 + chl c2 + chl c3 when reported together
409	Chlide a_HPLC_P_CONC_BOTTLE	ng/liter	concentration of chlorophyllide a measured using HPLC method
410	DV chl a_HPLC_P_CONC_BOTTLE	ng/liter	concentration of divinyl chlorophyll a measured using HPLC method
411	Chl a-DV chla_HPLC_P_CONC_BOTTLE	ng/liter	concentration of chlorophyll a + divinyl chlorophyll a measured using HPLC method
412	Allo_HPLC_P_CONC_BOTTLE	ng/liter	concentration of Alloxanthin measured using HPLC method
413	But fuco_HPLC_P_CONC_BOTTLE	ng/liter	concentration of 19' Butanoyloxyfucoxanthin measured using HPLC method
414	Alpha Car_HPLC_P_CONC_BOTTLE	ng/liter	concentration of alpha-Carotene measured using HPLC method
415	Beta Car_HPLC_P_CONC_BOTTLE	ng/liter	concentration of beta-Carotene measured using HPLC method
416	Diadino_HPLC_P_CONC_BOTTLE	ng/liter	concentration of Diadinoxanthin measured using HPLC method
417	Diato_HPLC_P_CONC_BOTTLE	ng/liter	concentration of Diatoxanthin measured using HPLC method
418	Fuco_HPLC_P_CONC_BOTTLE	ng/liter	concentration of Fucoxanthin measured using HPLC method
419	Hex fuco_HPLC_P_CONC_BOTTLE	ng/liter	concentration of 19' hexanoyloxyfucoxanthin measured using HPLC method

420	Lut_HPLC_P_CONC_BOTTLE	ng/liter	concentration of lutein measured using HPLC method
421	Perid_HPLC_P_CONC_BOTTLE	ng/liter	concentration of Peridinin measured using HPLC method
422	Pras_HPLC_P_CONC_BOTTLE	ng/liter	concentration of Prasinoxanthin measured using HPLC method
423	Viola_HPLC_P_CONC_BOTTLE	ng/liter	concentration of Violaxanthin measured using HPLC method
424	Zea_HPLC_P_CONC_BOTTLE	ng/liter	concentration of Zeaxanthin measured using HPLC method
425	PEP_VAAEAVLSMTK_NiSOD_ProSyn_PUMP	fmol/liter	Nickel-containing superoxide dismutase [Synechococcus WH8102 and Prochlorococcus]. The letters correspond to abbreviations while the numbers are unique internal identifiers to differentiate sequences. Refer to Table S3 (PDF) for more information, including the sequence.
426	PEP_SPYNQSLVANQIVNK_IdiA_Pro_PUMP	fmol/liter	Iron ABC transporter, substrate binding protein (IdiA) [Prochlorococcus marinus MIT 9515]. The letters correspond to abbreviations while the numbers are unique internal identifiers to differentiate sequences. Refer to Table S3 (PDF) for more information, including the sequence.
427	PEP_LHNFISSAESPK_Fld_Pro_PUMP	fmol/liter	Flavodoxin [Prochlorococcus marinus MIT 9515]. The letters correspond to abbreviations while the numbers are unique internal identifiers to differentiate sequences. Refer to Table S3 (PDF) for more information, including the sequence.
428	PEP_AGADMVGYVDK_Fld_Pro_PUMP	fmol/liter	Flavodoxin [Prochlorococcus marinus MIT 9515]. The letters correspond to abbreviations while the numbers are unique internal identifiers to differentiate sequences. Refer to Table S3 (PDF) for more information, including the sequence.
429	PEP_TVGIYYATTTGK_Fld_Pro_PUMP	fmol/liter	Flavodoxin [Prochlorococcus marinus MIT 9515]. The letters correspond to abbreviations while the numbers are unique internal identifiers to differentiate sequences. Refer to Table S3 (PDF) for more information, including the sequence.
430	PEP_VNSVIDAIAEAAK_P-II-glnB-glnK_Pro_PUMP	fmol/liter	Nitrogen Regulatory Protein P-II glnB glnK [Prochlorococcus]. The letters correspond to abbreviations while the numbers are unique internal identifiers to differentiate sequences. Refer to Table S3 (PDF) for more information, including the sequence.
431	PEP_LSHQAIAEAIGSTR_NtcA_Cyano_PUMP	fmol/liter	Nitrogen Regulatory Protein NtcA [Cyanobacteria]. The letters correspond to abbreviations while the numbers are unique internal identifiers to differentiate sequences. Refer to Table S3 (PDF) for more information, including the sequence.
432	PEP_SKLEDDPANPELILTAR_PhoP_Syn_PUMP	fmol/liter	Two Component Phosphate Regulator PhoP [Synechococcus WH8109] (45% Identity to Bacillus subtilis PY79 PhoP). The letters correspond to abbreviations while the numbers are unique internal identifiers to differentiate sequences. Refer to Table S3 (PDF) for more information, including the sequence.
433	PEP_LIDQDGVPVVFGGWTSASR_UreaTran_Pro_PUMP	fmol/liter	Urea ABC transporter, substrate binding protein [Prochlorococcus marinus MIT 9215]. The letters correspond to abbreviations while the numbers are unique internal identifiers to differentiate sequences. Refer to Table S3 (PDF) for more information, including the sequence.
434	PEP_VVGEDYLPLGNTEVAPIISK_UreaTran_Pro_PUMP	fmol/liter	Urea ABC transporter, substrate binding protein [Prochlorococcus marinus MIT 9215]. The letters correspond to abbreviations while the numbers are unique internal identifiers to differentiate sequences. Refer to Table S3 (PDF) for more information, including the sequence.
435	PEP_IEYIVEDGASDWPTFAEK_UreaTran_ProSyn_PUMP	fmol/liter	Urea ABC transporter [Prochlorococcus and Synechococcus]. The letters correspond to abbreviations while the numbers are unique internal identifiers to differentiate sequences. Refer to Table S3 (PDF) for more information, including the sequence.

436	PEP_IPEDIAFAESR_UreC_Pro_PUMP	fmol/liter	Urease Alpha subunit UreC (Prochlorococcus). The letters correspond to abbreviations while the numbers are unique internal identifiers to differentiate sequences. Refer to Table S3 (PDF) for more information, including the sequence.
437	PEP_VGVAGPVGSGK_UreG_Pro_PUMP	fmol/liter	Urease UreG (Prochlorococcus). The letters correspond to abbreviations while the numbers are unique internal identifiers to differentiate sequences. Refer to Table S3 (PDF) for more information, including the sequence.
438	PEP_FDYDGDYGTVLNR_UDP-sulfoquin_m-taxa_PUMP	fmol/liter	sulfolipid (UDP-sulfoquinovose, multiple taxa). The letters correspond to abbreviations while the numbers are unique internal identifiers to differentiate sequences. Refer to Table S3 (PDF) for more information, including the sequence.
439	PEP_NEAVENDLIVDNK_UDP-sulfoquin_Pro_PUMP	fmol/liter	sulfolipid (UDP-sulfoquinovose, Prochlorococcus). The letters correspond to abbreviations while the numbers are unique internal identifiers to differentiate sequences. Refer to Table S3 (PDF) for more information, including the sequence.
440	PEP_EAYPDFASAK_NH4-transporter_Pro_PUMP	fmol/liter	Ammonium transporter [Prochlorococcus MIT9312]. The letters correspond to abbreviations while the numbers are unique internal identifiers to differentiate sequences. Refer to Table S3 (PDF) for more information, including the sequence.
441	PEP_FDSLINSADNVMTYK_Glut-synt_Pro_PUMP	fmol/liter	Glutamine synthetase, glutamate--ammonia ligase [Prochlorococcus marinus MIT 9215]. The letters correspond to abbreviations while the numbers are unique internal identifiers to differentiate sequences. Refer to Table S3 (PDF) for more information, including the sequence.
442	PEP_EGYFPVSPNDTAQDIR_Glut-synt_Pro_PUMP	fmol/liter	Glutamine synthetase, glutamate--ammonia ligase [Prochlorococcus marinus MIT 9215]. The letters correspond to abbreviations while the numbers are unique internal identifiers to differentiate sequences. Refer to Table S3 (PDF) for more information, including the sequence.
443	PEP_HAPSFLAFTNPTTNSYK_Glut-synt_ProSyn_PUMP	fmol/liter	Glutamine synthetase, glutamate--ammonia ligase [Prochlorococcus and Synechococcus]. The letters correspond to abbreviations while the numbers are unique internal identifiers to differentiate sequences. Refer to Table S3 (PDF) for more information, including the sequence.
444	PEP_VASLTGADINYLPNPR_UDP-sulfoquin_Pro_PUMP	fmol/liter	sulfolipid (UDP-sulfoquinovose, Prochlorococcus). The letters correspond to abbreviations while the numbers are unique internal identifiers to differentiate sequences. Refer to Table S3 (PDF) for more information, including the sequence.
445	Chl a_HPLC_P_CONC_FISH	ng/liter	concentration of Chlorophyll a measured using HPLC method
446	Chl b_HPLC_P_CONC_FISH	ng/liter	concentration of Chlorophyll b measured using HPLC method
447	Chl c3_HPLC_P_CONC_FISH	ng/liter	concentration of Chlorophyll c3 measured using HPLC method
448	DV chl a_HPLC_P_CONC_FISH	ng/liter	concentration of divinyl chlorophyll a measured using HPLC method
449	Allo_HPLC_P_CONC_FISH	ng/liter	concentration of Alloxanthin measured using HPLC method
450	But fuco_HPLC_P_CONC_FISH	ng/liter	concentration of 19' Butanoyloxyfucoxanthin measured using HPLC method
451	Beta Car_HPLC_P_CONC_FISH	ng/liter	concentration of beta-Carotene measured using HPLC method
452	Diadino_HPLC_P_CONC_FISH	ng/liter	concentration of Diadinoxanthin measured using HPLC method
453	Fuco_HPLC_P_CONC_FISH	ng/liter	concentration of Fucoxanthin measured using HPLC method
454	Hex fuco_HPLC_P_CONC_FISH	ng/liter	concentration of 19' hexanoyloxyfucoxanthin measured using HPLC method
455	Lut_HPLC_P_CONC_FISH	ng/liter	concentration of lutein measured using HPLC method

456	Perid_HPLC_P_CONC_FISH	ng/liter	concentration of Peridinin measured using HPLC method
457	Viola_HPLC_P_CONC_FISH	ng/liter	concentration of Violaxanthin measured using HPLC method
458	Zea_HPLC_P_CONC_FISH	ng/liter	concentration of Zeaxanthin measured using HPLC method