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[1945]

DENSITY OF SEA WATER

AT

COAST AND GEODETIC SURVEY TIDE STATIONS

ATLANTIC AND GULF COASTS

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LOCATIONS OF STATIONS

DENSITY OF SEA WATER

U. S. COAST AND GEODETIC SURVEY TIDE STATIONS

ATLANTIC AND GULF COASTS

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DENSITY OF SEA WATER
AT
COAST AND GEODETIC SURVEY TIDE STATIONS

ATLANTIC AND GULF COASTS

EXPLANATION

The monthly mean and the yearly mean and extreme densities of sea water given on the following pages are based on hydrometer readings made at tide stations maintained by the U. S. Coast and Geodetic Survey along the Atlantic and Gulf coasts of the United States. The readings are usually made once each day, except Sundays and holidays, from water samples which are drawn from near the surface. Inferred values are given in parentheses.

The UNIT OF DENSITY is the density of fresh water at a temperature of 4° C. The actual density of the water at tide stations may vary from a little less than unity for fresh water at a temperature other than 4° C. to approximately 1.031 for the heaviest sea water. Since the density of sea water as observed depends not only upon the amount of soluble matter contained in a unit volume but also upon the temperature of the water at the time the reading is made, it is necessary to reduce the observed densities to some standard temperature in order that they may be comparable and indicate the amount of matter held in solution. IN THIS PUBLICATION THE OBSERVED DENSITIES HAVE BEEN REDUCED TO A STANDARD TEMPERATURE OF 15° C. The density of pure water at a temperature of 15° C. is taken as 0.9991.

The SALINITY of sea water is defined as the number of grams of salts contained in 1,000 grams of sea water. While the total amount of salts contained in a given volume of sea water varies in different places, the relative portions of the different kinds of salts are nearly constant in all parts of the ocean. The salinity of sea water may be determined by several different methods, one of the simplest being based upon the density of the water as obtained from the use of the hydrometer. The table on the last page gives the salinity corresponding to different densities at the standard temperature of 15° C., to which the densities in this publication are reduced.

Density of Sea Water

EASTPORT, ME.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Extremes Max. Min.
1930	1.0236	1.0235	1.0230	1.0230	1.0230	1.0232	1.0236	1.0240	1.0239	1.0239	1.0236	1.0237	1.0235	1.0244 1.0215
1931	237	236	233	227	225	227	230	233	235	236	238	240	233	244 220
1932	239	236	235	(229)	(227)	234	236	237	239	237	234	236	235	245 226
1933	236	236	235	229	228	230	234	235	(237)	237	236	236	234	241 219
1934	236	234	234	228	228	230	234	236	237	237	238	237	234	242 218
1935	235	234	233	230	228	230	233	236	238	239	239	232	234	243 215
1936	232	234	230	228	223	231	234	235	238	238	238	235	233	244 213
1937	234	233	234	232	228	229	234	235	237	239	239	237	234	243 222
1938	236	234	233	228	227	230	232	234	233	236	235	234	233	240 216
1939	235	235	233	231	228	230	232	235	236	237	238	236	234	241 224
1940	236	236	234	224	227	228	230	234	233	237	238	237	233	241 218
1941	235	235	235	230	228	231	233	238	237	239	238	240	235	244 223
1942	238	236	234	230	230	230	232	237	239	240	239	239	235	244 222
1943	242	239	242	239	237	239	242	241	242	240	234	238	240	246 226
1944	240	240	239	236	237	239	243	246	247	247	243	238	241	251 230
Means	1.0236	1.0236	1.0234	1.0230	1.0229	1.0231	1.0234	1.0237	1.0238	1.0238	1.0238	1.0237	1.0235	1.0251 1.0213

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Extremes Max. Min.
1922	1.0236	1.0230	1.0212	1.0212	1.0206	(1.0205)	1.0204	1.0219	1.0220	1.0220	1.0224	1.0225	1.0218	1.0244 1.0137
1923	223	224	216	206	197	215	222	223	224	229	227	222	219	239 134
1924	225	225	223	214	207	223	230	230	222	227	230	224	223	236 168
1925	228	218	218	199	217	224	223	226	224	229	226	223	221	246 114
1926	224	225	227	214	220	224	225	224	225	228	223	221	223	235 202
1927	218	214	212	214	215	217	221	221	218	216	216	209	216	232 192
1928	210	209	212	207	180	196	205	198	213	222	224	213	207	232 112
1929	211	214	230	224	228	240	234	236	237	229	215	217	226	233 181
1930	215	218	213	219	222	230	234	234	231	226	228	215	224	254 196
1931	222	220	211	212	226	220	232	230	230	225	222	227	223	248 155
1932	219	227	225	220	226	236	240	235	232	222	221	218	227	250 178
1933	222	224	224	222	222	232	241	233	229	216	224	223	226	248 146
1934	(221)	219	217	190	211	211	231	221	232	218	216	219	217	237 116
1935	218	(221)	203	208	210	221	227	217	226	232	223	213	218	273 169
1936	219	216	163	175	228	227	223	224	224	226	(223)	216	214	238 100
1937	219	213	220	198	166	195	222	226	230	228	220	220	213	238 104
1938	225	214	215	204	208	215	219	222	223	222	225	215	217	236 166
1939	225	225	216	183	194	218	219	218	227	228	228	229	218	241 126
1940	229	227	221	186	196	200	222	227	228	228	224	224	218	242 127
1941	224	220	223	220	223	231	235	235	235	238	237	234	230	245 189
1942	232	231	211	213	212	210	221	223	223	227	223	227	221	242 126
1943	226	227	215	220	201	217	223	224	222	218	211	224	219	235 171
1944	225	223	214	203	208	222	225	230	224	227	218	216	220	239 158
Means	1.0222	1.0221	1.0215	1.0207	1.0210	1.0219	1.0225	1.0225	1.0226	1.0225	1.0223	1.0220	1.0220	1.0273 1.0100

PORTSMOUTH, N. H.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Extremes Max. Min.
1944	1.0233	1.0230	1.0209	1.0178	1.0204	1.0221	1.0217	1.0238	1.0227	1.0231	1.0226	1.0199	1.0218	1.0241 1.0136

WOODS HOLE, MASS.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Extremes Max. Min.
1944	---	---	1.0237	1.0236	1.0238	1.0240	1.0240	1.0240	1.0241	1.0240	1.0238	1.0237	---	1.0254 1.0223

NANTUCKET SHOALS LIGHTSHIP

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Extremes Max. Min.
1923	---	---	---	---	---	---	---	---	---	---	1.0241	1.0240	---	---
1924	1.0240	1.0243	1.0244	1.0245	1.0247	1.0242	1.0242	1.0251	1.0252	1.0244	237	241	1.0244	1.0269 1.0232
1925	241	242	244	244	247	245	243	---	---	---	---	---	---	---
Means	1.0240	1.0243	1.0244	1.0244	1.0247	1.0244	1.0242	1.0251	1.0252	1.0244	1.0239	1.0240	1.0244	---

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Extremes Max. Min.
1922	1.0228	1.0227	1.0206	1.0206	1.0204	1.0199	1.0194	1.0220	1.0214	1.0225	1.0228	1.0230	1.0215	1.0236 1.0128
1923	211	219	204	197	204	219	224	227	230	229	225	209	216	234 140
1924	213	220	211	197	201	218	224	223	212	223	227	229	216	234 160
1925	229	214	208	207	220	225	230	229	228	231	227	217	222	237 167
1926	225	224	209	210	215	226	230	226	231	232	227	226	223	238 165
1927	222	216	206	217	220	234	227	216	208	215	219	206	217	232 166
1928	217	215	219	220	201	206	215	225	221	226	228	226	216	232 167
1929	222	221	209	194	210	222	228	232	231	231	230	226	221	235 143
1930	221	223	223	218	223	228	229	228	233	230	226	227	226	238 202
1931	224	216	187	203	207	186	211	219	222	229	229	227	213	232 117
1932	217	220	214	205	220	228	233	230	225	209	196	220	218	236 140
1933	202	222	185	170	208	223	224	226	210	211	222	221	210	230 141
1934	205	227	194	187	212	217	227	227	221	220	222	223	215	233 159
1935	209	216	201	182	209	206	220	227	224	231	225	224	215	234 131
1936	220	221	171	185	215	224	226	228	219	223	228	200	213	233 129
1937	205	215	215	201	199	205	218	226	221	227	219	203	213	233 152
1938	212	201	213	208	205	210	192	189	203	198	214	196	203	233 132
1939	215	210	192	166	192	219	229	230	229	229	222	228	213	235 102
1940	223	228	199	169	191	202	220	228	229	229	224	221	214	238 101
1941	215	216	225	213	219	223	232	231	234	234	233	231	226	243 175
1942	224	219	172	200	214	216	222	222	229	227	223	216	215	235 098
1943	203	216	191	217	192	216	229	230	230	226	226	229	217	257 118
1944	229	228	217	197	206	225	(230)	232	222	224	219	210	220	237 160
Means	1.0217	1.0219	1.0203	1.0199	1.0208	1.0216	1.0222	1.0224	1.0223	1.0224	1.0223	1.0219	1.0216	1.0257 1.0098

WILLETS POINT, EAST RIVER, N. Y.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Extremes Max. Min.
1932	1.0189	1.0186	1.0192	1.0184	1.0184	1.0193	1.0191	1.0202	1.0203	1.0196	1.0188	1.0192	1.0192	1.0215 1.0169
1933	192	193	190	174	173	180	185	190	184	184	184	189	185	198 160
1934	186	185	166	173	177	182	187	192	187	185	187	190	183	201 120
1935	192	162	176	185	186	193	196	204	195	188	188	188	188	214 130
1936	192	(179)	183	182	(177)	196	197	203	206	203	195	190	192	214 151
1937	189	185	186	184	181	186	188	195	190	192	188	188	187	202 168
1938	178	174	176	174	178	181	180	185	(194)	177	174	163	178	191 149
1939	168	167	163	157	163	171	183	190	191	191	189	191	185	200 148
1940	194	195	186	170	171	(175)	178	184	184	185	186	187	183	204 158
1941	184	183	188	184	186	190	191	201	201	203	200	203	193	209 162
1942	200	200	191	185	188	186	186	184	187	182	181	179	187	208 153
1943	179	181	171	173	166	171	183	190	190	191	188	193	181	200 156
1944	194	195	186	177	179	185	187	194	(195)	(196)	197	189	190	210 165
Means	1.0187	1.0183	1.0181	1.0177	1.0178	1.0183	1.0187	1.0193	1.0193	1.0190	1.0188	1.0188	1.0187	1.0215 1.0120

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Extremes Max. Min.
1927	1.0160	1.0143	1.0106	1.0137	1.0132	1.0125 (1.0160)	1.0171	1.0171	1.0168	1.0153	1.0113	1.0113	1.0140	1.0195 1.0056
1928	139	142	140	128	143	145	133	144	154	179	181	175	150	196 103
1929	163	167	127	108	124	161	170	182	186	178	172	166	159	196 076
1930	148	159	128	142	165	162	180	185	186	187	181	182	167	198 103
1931	179	181	167	131	140	151	158	171	177	175	168	156	163	195 102
1932	139	144	158	122	145	172	177	179	184	162	133	153	156	201 091
1933	160	150	140	105	146	171	175	175	158	172	171	169	158	201 078
1934	158	173	149	120	152	170	183	191	181	175	175	157	165	203 074
1935	159	165	142	155	159	181	159	177	186	191	171	156	167	203 101
1936	159	180	106	110	154	176	188	199	191	186	160	160	163	204 024
1937	133	142	153	134	138	162	167	176	169	173	152	153	154	192 080
1938	156	128	141	131	157	165	152	155	138	144	152	113	144	182 035
1939	148	138	112	088	134	163	179	181	182	180	165	169	153	197 063
1940	174	180	162	084	123	130	157	171	166	174	155	144	152	196 052
1941	144	141	148	122	160	177	183	190	194	192	177	170	166	220 094
1942	158	164	128	124	154	151	153	163	166	146	132	141	148	193 062
1943	141	141	098	120	086	130	165	170	177	179	147	154	142	206 046
1944	173	173	137	101	125	152	166	180	178	177	171	153	157	206 063
Means	1.0155	1.0156	1.0136	1.0120	1.0141	1.0158	1.0167	1.0176	1.0174	1.0174	1.0160	1.0155	1.0156	1.0220 1.0024

NEW YORK (Fort Hamilton), N. Y.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Extremes Max. Min.
1911	1.0183	1.0189	1.0175	1.0129	1.0166	1.0181	1.0197	1.0207	1.0194	1.0168	1.0159	1.0158	1.0176	1.0244 1.0090
1912	184	190	150	099	135	172	201	211	206	197	164	157	172	223 008
1913	132	173	132	128	169	178	200	209	207	198	167	175	172	226 017
1914	187	172	164	096	139	184	191	202	203	209	210	198	180	226 046
1915	165	158	161	167	182	199	174	164	175	181	184	160	172	213 075
1916	130	146	157	110	140	153	166	180	188	193	185	156	159	214 058
1917	168	179	138	123	148	144	166	190	191	158	162	179	162	222 044
1918	(166)	(173)	123	118	147	170	184	221	201	152	167	164	166	242 088
1919	160	174	140	124	144	171	177	175	169	166	144	151	158	215 083
1920	176	187	138	104	141	163	174	175	177	169	167	(165)	161	218 060
**														
1927	182	176	142	164	161	174	190	184	163	166	120	126	162	216 054
1928	156	160	155	134	148	149	151	164	167	193	193	187	163	209 078
Means	1.0166	1.0173	1.0148	1.0125	1.0152	1.0170	1.0181	1.0190	1.0187	1.0179	1.0168	1.0165	1.0167	1.0242 1.0008

SANDY HOOK, N. J.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Extremes Max. Min.
1887	(1.0157)	(1.0166)	(1.0156)	1.0125	1.0149	1.0179	1.0181	1.0171	1.0183	1.0194	1.0193	1.0189	1.0170	1.0217 1.0088
1888	153	161	147	120	151	176	194	198	180	175	166	157	165	209 081
1889	144	170	172	162	165	174	176	161	183	177	149	146	165	214 102
1890	164	173	152	154	160	166	187	199	181	170	167	182	171	220 116
1891	157	143	140	141	182	194	202	200	191	199	202	188	178	216 104
1892	150	189	178	164	184	177	193	201	194	199	188	171	182	227 116
1893	175	155	150	150	137	181	(189)	(188)	(185)	(186)	(178)	(172)	170	205 072
Means	1.0157	1.0165	1.0156	1.0145	1.0162	1.0178	1.0190	1.0188	1.0185	1.0186	1.0173	1.0172	1.0172	1.0227 1.0072

ATLANTIC CITY, N. J.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Extremes Max. Min.
1912	1.0232	1.0239	1.0231	1.0233	1.0234	1.0240	1.0239	1.0239	1.0238	1.0237	1.0237	1.0237	1.0236	1.0247 1.0211
1913	232	238	238	231	225	231	242	238	239	235	233	236	235	245 202
1914	240	238	237	234	221	234	232	232	236	237	237	237	235	247 210
1915	236	227	230	234	235	233	237	235	232	233	236	235	234	244 212
1916	232	232	230	(229)	232	229	230	230	233	236	233	229	231	239 219
1917	231	231	228	224	225	231	231	230	230	231	228	229	229	239 212
1918	(230)	233	226	224	230	229	231	231	233	231	233	230	230	240 210
1919	228	230	225	226	225	229	232	230	230	228	226	227	228	240 212
1920	231	229	226	228	223	219	230	229	229	235	233	228	228	239 214
**														
1923	231	229	229	228	235	237	233	232	232	230	228	227	231	242 210
1924	225	226	227	226	222	225	230	231	229	227	230	229	227	238 199
1925	234	233	230	224	235	243	241	236	239	236	232	234	235	247 205
1926	237	237	237	236	236	242	240	237	236	241	242	235	238	247 217
1927	237	237	232	231	242	239	238	238	231	229	226	222	234	250 209
1928	227	229	231	236	227	238	241	233	226	237	244	251	235	251 208
1929	238	238	233	230	236	240	242	242	241	238	236	235	238	250 210
1930	232	233	233	237	243	243	245	242	244	244	241	240	240	257 223
1931	238	239	236	235	239	236	232	229	234	238	239	238	236	247 207
1932	234	232	229	231	232	243	248	245	244	242	235	232	237	256 213
1933	232	241	245	237	241	244	242	236	236	237	236	234	238	260 210
1934	227	232	228	223	231	235	235	230	227	232	234	236	231	248 212

BREAKWATER HARBOR, DEL.

1935	232	231	232	226	235	234	235	236	223	231	228	234	231	243	206
1936	231	230	230	228	239	237	234	235	234	233	235	227	233	249	205
1937	223	222	229	227	235	235	228	233	231	232	232	230	230	247	207
1938	230	231	234	235	237	235	235	236	232	222	234	228	232	244	204
1939	230	229	230	231	224	237	239	229	230	237	237	240	233	246	204
1940	237	237	235	225	227	229	231	237	234	237	234	232	233	244	202
1941	231	235	237	236	242	241	243	242	247	247	246	242	241	253	223
1942	240	238	239	237	240	239	237	232	232	230	234	229	236	254	220
1943	228	230	229	230	233	236	239	243	239	241	240	244	236	251	211
1944	246	246	238	228	237	237	243	239	238	232	229	228	237	256	207
Means	1.0233	1.0233	1.0232	1.0230	1.0233	1.0235	1.0237	1.0235	1.0234	1.0235	1.0234	1.0233	1.0234	1.0260	1.0199

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Extremes Max. Min.
1921	---	---	---	---	---	---	---	1.0225	1.0228	1.0231	1.0225	1.0214	---	---
1922	1.0203	1.0209	(1.0206)	1.0205	1.0209	1.0208	1.0214	220	218	219	220	214	1.0212	1.0241 1.0187
1923	216	209	206	198	---	---	---	---	---	---	---	---	---	---
Means	1.0210	1.0209	1.0206	1.0202	1.0209	1.0208	1.0214	1.0222	1.0223	1.0225	1.0222	1.0214	1.0214	---

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Extremes Max. Min.
1923	0.9995	0.9995	0.9996	0.9996	0.9996	1.0001	0.9999	1.0000	0.9999	0.9997	0.9995	0.9995	0.9997	1.0012 0.9990
1924	0.9996	0.9996	0.9994	0.9996	0.9999	(0.9997)	0.9994	0.9997	0.9995	0.9992	0.9991	0.9990	0.9995	1.0002 0.9988
1925	0.9991	0.9992	0.9992	0.9994	0.9996	0.9996	0.9996	0.9997	0.9996	0.9994	0.9992	0.9991	0.9994	1.0005 0.9989
1926	0.9992	0.9992	0.9991	0.9991	0.9995	0.9995	0.9997	0.9996	0.9995	0.9993	0.9992	0.9992	0.9993	1.0000 0.9990
1927	0.9992	0.9992	0.9991	0.9992	0.9994	0.9997	0.9999	0.9996	0.9997	0.9995	0.9992	0.9992	0.9994	1.0004 0.9990
1928	0.9993	0.9994	0.9992	0.9996	0.9999	1.0000	0.9999	1.0001	0.9999	0.9999	0.9997	0.9996	0.9997	1.0009 0.9989
1929	0.9995	0.9996	0.9998	0.9997	0.9998	0.9999	1.0000	1.0001	1.0000	1.0001	1.0000	0.9997	0.9999	1.0007 0.9990
1930	0.9997	0.9996	0.9998	0.9999	1.0002	1.0003	1.0003	0.9999	0.9999	0.9998	0.9998	0.9997	0.9999	1.0009 0.9992
1931	0.9996	0.9997	0.9996	0.9999	1.0001	1.0001	1.0002	1.0002	1.0003	1.0001	1.0000	0.9999	1.0000	1.0011 0.9993
1932	0.9999	0.9999	0.9999	0.9999	0.9999	1.0000	0.9999	0.9999	1.0001	1.0002	1.0000	0.9997	0.9999	1.0007 0.9992
1933	0.9998	0.9998	0.9999	0.9996	1.0000	1.0000	1.0003	1.0002	1.0003	1.0001	1.0001	0.9999	1.0000	1.0008 0.9991
1934	0.9999	0.9996	0.9998	1.0000	1.0001	1.0002	1.0001	1.0001	1.0000	1.0000	0.9998	0.9997	0.9999	1.0007 0.9985
1935	0.9998	0.9996	0.9999	1.0000	1.0002	1.0003	1.0001	1.0000	1.0000	1.0002	0.9998	0.9995	1.0000	1.0008 0.9992
1936	0.9995	0.9996	0.9995	0.9997	0.9999	0.9997	0.9998	0.9999	0.9999	0.9995	0.9994	0.9994	0.9997	1.0005 0.9990
1937	0.9994	0.9995	0.9995	0.9994	0.9996	1.0000	1.0000	0.9996	1.0000	0.9997	0.9995	0.9995	0.9996	1.0006 0.9989
1938	0.9996	0.9995	0.9996	0.9998	1.0003	1.0000	1.0000	1.0001	1.0000	0.9998	0.9998	0.9993	0.9998	1.0008 0.9992
1939	0.9993	0.9993	0.9993	0.9993	0.9995	0.9995	0.9997	0.9996	0.9997	0.9994	0.9993	0.9993	0.9995	1.0001 0.9991
1940	0.9992	0.9993	0.9993	0.9992	0.9995	0.9996	0.9996	0.9996	0.9994	0.9993	0.9996	0.9993	0.9994	1.0005 0.9987
1941	0.9993	0.9993	0.9993	0.9994	0.9996	0.9996	0.9996	0.9998	0.9998	0.9997	0.9994	0.9995	0.9995	1.0002 0.9991
1942	0.9993	0.9993	0.9994	0.9994	0.9997	0.9997	1.0000	0.9997	0.9998	0.9997	0.9996	0.9995	0.9996	1.0007 0.9973
1943	0.9994	0.9994	0.9994	0.9995	0.9998	0.9999	0.9997	0.9997	0.9997	0.9996	0.9994	0.9994	0.9996	1.0005 0.9991
1944	0.9992	0.9992	0.9990	0.9991	0.9998	0.9998	0.9997	0.9996	0.9995	0.9993	0.9994	0.9993	0.9994	1.0002 0.9988
Means	0.9995	0.9995	0.9995	0.9996	0.9998	0.9999	0.9999	0.9998	0.9998	0.9997	0.9995	0.9995	0.9997	1.0012 0.9973

OLD POINT COMFORT, VA.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Extremes Max. Min.
1943	---	---	---	---	---	---	---	---	---	1.0167	1.0166	1.0170	---	---
1944	1.0158	1.0157	1.0117	1.0125	1.0144	1.0145	1.0164	1.0182	1.0169	153	167	157	1.0153	1.0192 1.0068
Means	1.0158	1.0157	1.0117	1.0125	1.0144	1.0145	1.0164	1.0182	1.0169	1.0160	1.0166	1.0164	1.0154	1.0192 1.0068

SOLOMONS ISLAND, PATUXENT RIVER, MD.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Extremes Max. Min.
1938	1.0093	1.0094	1.0084	1.0074	1.0082	1.0089	1.0099	1.0097	1.0103	1.0108	1.0122	1.0108	1.0096	1.0127 1.0064
1939	107	101	063	(061)	059	078	088	101	108	117	123	(123)	094	131 041
1940	124	127	(100)	066	062	071	087	098	108	116	120	109	099	139 042
1941	099	108	108	086	093	106	107	112	124	136	136	140	113	148 065
1942	137	132	117	088	092	079	096	105	106	113	105	093	105	145 068
1943	077	078	069	067	061	054	077	094	107	128	123	116	088	135 033
1944	118	126	114	085	069	083	099	100	109	120	132	130	107	136 047
Means	1.0108	1.0110	1.0094	1.0075	1.0074	1.0080	1.0093	1.0101	1.0109	1.0120	1.0123	1.0117	1.0100	1.0148 1.0033

WASHINGTON, D. C.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Extremes Max. Min.
1944	0.9993	0.9994	0.9994	0.9993	0.9995	0.9995	0.9997	0.9997	0.9997	0.9996	0.9995	0.9995	0.9995	1.0007 0.9974

BALTIMORE, MD.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Extremes Max. Min.
1914	1.0076	1.0053	1.0062	1.0024	1.0026	1.0042	1.0051	1.0058	1.0066	1.0089	1.0099	1.0100	1.0062	1.0109 1.0013
1915	065	050	074	074	061	052	047	041	048	058	067	076	060	108 021
1916	050	050	059	031	026	025	019	023	051	057	066	071	044	077 014
1917	062	061	047	031	045	039	024	032	047	070	063	077	050	083 020
1918	059	056	026	032	030	023	038	047	059	062	062	067	047	079 012
1919	062	080	060	046	031	018	028	035	049	055	058	047	047	090 013
1920	063	067	041	014	022	036	045	036	059	064	063	053	047	079 011
1921	050	058	035	026	031	040	047	049	063	073	073	064	051	080 017
1922	061	069	046	030	028	025	021	042	050	060	072	082	049	087 019
1923	080	074	050	028	036	033	053	057	057	079	087	074	059	089 019
1924	042	048	(048)	015	014	009	010	026	043	040	062	062	035	067 007
1925	069	043	031	050	056	050	051	058	071	077	072	081	059	096 014
1926	083	068	053	045	048	059	064	065	061	060	043	035	057	094 026
1927	063	044	042	034	036	027	043	047	071	064	045	034	046	081 016
1928	043	043	050	032	024	027	014	020	038	049	059	065	039	071 009
1929	070	080	044	023	012	022	037	050	062	065	063	061	049	088 008

1930	050	062	046	039	049	066	058	065	083	106	125	124	073	132	028
1931	123	122	125	067	051	041	054	062	083	086	094	091	083	132	022
1932	078	061	075	043	037	036	056	065	076	081	068	070	062	090	025
1933	070	070	060	030	023	042	051	053	047	059	071	068	053	080	015
1934	063	078	062	040	039	044	048	053	058	070	069	065	057	084	026
1935	062	064	043	042	045	049	042	044	061	070	072	073	056	089	024
1936	066	051	023	013	017	035	051	063	068	077	082	079	052	089	006
1937	050	058	063	053	026	028	048	049	064	079	057	059	053	091	016
1938	059	052	050	042	048	050	052	055	070	083	084	078	060	093	028
1939	077	053	033	030	035	042	052	062	081	083	089	100	061	105	016
1940	102	100	092	031	029	037	053	064	079	081	080	067	068	115	017
1941	078	085	080	045	070	069	059	081	085	093	100	106	079	111	028
1942	096	102	073	051	049	040	058	057	069	070	058	052	064	126	024
1943	035	046	033	040	019	019	030	050	082	101	078	086	052	107	012
1944	086	094	071	053	024	043	043	053	078	097	104	097	070	118	017
Means	1.0068	1.0066	1.0055	1.0038	1.0035	1.0038	1.0043	1.0050	1.0064	1.0073	1.0074	1.0073	1.0056	1.0132	1.0006

DIAMOND SHOAL LIGHTSHIP

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Extremes Max. Min.
1923	---	---	---	1.0268	1.0272	1.0274	1.0261	1.0247	1.0239	1.0230	1.0249	1.0255	---	1.0285 1.0215
1924	(1.0260)	1.0243	1.0236	242	239	244	256	267	260	249	247	267	1.0251	293 199
1925	254	264	268	260	266	277	276	275	274	269	266	272	268	286 229
1926	267	258	260	262	273	275	272	271	262	270	266	245	265	294 224
1927	259	259	249	253	272	253	255	265	252	253	254	255	257	291 213
1928	269	268	268	271	---	---	---	---	---	---	---	---	---	--- ---
Means	1.0262	1.0258	1.0256	1.0259	1.0264	1.0265	1.0264	1.0265	1.0257	1.0254	1.0256	1.0259	1.0260	1.0294 1.0199

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Extremes Max. Min.
1922	1.0239	1.0227	1.0203	1.0208	1.0219	1.0211	(1.0222)	(1.0218)	1.0217	1.0222	1.0224	1.0220	1.0219	1.0244 1.0185
1923	203	208	207	197	209	206	219	214	200	220	237	226	212	249 184
1924	206	201	199	171	198	220	200	208	207	134	198	210	196	240 023
1925	184	158	195	212	233	237	233	243	250	252	244	238	223	258 133
1926	214	179	174	187	216	224	228	234	241	249	248	246	220	269 147
1927	245	244	240	240	249	247	238	198	217	234	240	244	236	257 181
1928	240	232	182	198	197	222	214	210	169	162	215	227	205	258 070
1929	219	191	170	196	210	210	215	224	221	211	217	211	208	240 143
1930	202	199	209	195	218	228	229	245	246	244	241	238	224	282 166
1931	227	228	226	213	228	242	241	248	247	248	253	254	238	269 196
1932	250	243	240	246	243	222	221	240	229	217	206	219	231	255 130
1933	216	188	191	216	229	240	233	233	187	222	227	236	218	248 122
1934	240	235	239	242	243	241	251	253	248	237	241	236	242	259 220
1935	235	234	239	245	245	244	225	214	175	211	228	235	228	254 137
1936	223	201	191	184	195	229	237	238	239	225	217	223	217	251 161
1937	218	187	192	199	200	220	228	226	211	224	230	230	214	241 162
1938	222	230	234	238	239	236	241	240	244	238	239	243	237	257 215
1939	243	237	185	214	228	222	226	228	235	244	245	245	229	253 154
1940	253	237	219	222	234	241	242	218	216	234	245	241	234	285 160
1941	238	242	236	224	243	240	168	194	214	235	240	225	225	255 116
1942	200	205	144	139	142	108	160	175	164	166	146	135	157	264 035
1943	121	109	101	098	099	117	112	121	137	154	138	155	121	246 050
1944	147	117	084	085	086	110	114	116	135	132	153	132	118	216 034
Means	1.0217	1.0206	1.0196	1.0199	1.0209	1.0214	1.0213	1.0215	1.0211	1.0214	1.0220	1.0220	1.0211	1.0285 1.0023

FORT PULASKI, SAVANNAH RIVER, GA.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Extremes Max. Min.
1939	---	---	---	---	---	1.0104	1.0148	1.0114	1.0135	1.0151	1.0157	1.0166	---	1.0237 1.0041
1940	1.0111	1.0099	1.0079	1.0104	1.0125	142	146	126	107	142	140	127	1.0121	232 013
1941	092	123	106	111	148	160	084	148	169	168	159	140	134	237 026
1942	080	091	059	075	126	109	154	145	139	157	168	139	120	234 001
1943	---	---	067	078	114	---	---	---	---	156	148	147	---	224 027
1944	087	118	137	130	164	198	185	179	183	162	170	143	154	240 0.9998
Means	1.0092	1.0108	1.0090	1.0100	1.0135	1.0143	1.0143	1.0142	1.0147	1.0154	1.0157	1.0144	1.0130	1.0240 0.9998

FERNANDINA, FLA.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Extremes Max. Min.
1944	---	---	---	---	---	1.0219	1.0204	1.0197	1.0188	1.0185	1.0195	1.0216	---	1.0246 1.0097

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Extremes Max. Min.
1925	---	---	---	---	1.0257	1.0262	1.0270	---	1.0267	1.0269	---	---	---	---
1926	---	1.0271	1.0278	1.0257	272	275	---	---	---	---	---	---	---	---
1927	---	---	---	---	---	---	271	1.0267	---	262	1.0258	1.0265	---	---
1928	1.0266	271	266	273	268	271	271	268	269	226	230	(237)	1.0260	1.0278 1.0184
1929	---	---	256	261	---	266	265	---	---	241	251	247	---	279 191
1930	236	231	249	256	268	268	270	265	268	259	(256)	254	257	280 220
1931	253	251	(255)	(259)	262	266	268	265	262	261	264	265	261	274 244
1932	267	263	263	270	---	---	---	---	---	---	---	---	---	---
**	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1939	---	---	---	---	---	---	---	272	267	254	255	258	---	---
1940	257	267	269	270	271	270	269	269	265	255	259	252	264	277 244
1941	252	252	253	263	270	270	267	266	258	262	257	251	260	275 236
1942	248	259	260	257	271	272	271	269	269	265	268	265	264	276 235
1943	270	269	263	271	276	274	275	269	268	260	266	262	268	293 240
1944	257	264	267	262	268	266	263	279	269	258	256	252	263	278 222
Means	1.0256	1.0260	1.0262	1.0264	1.0268	1.0269	1.0269	1.0269	1.0266	1.0256	1.0256	1.0256	1.0263	1.0293 1.0184

KEY WEST, FLA.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Extremes Max. Min.
1926	1.0272	1.0270	1.0274	1.0275	1.0272	1.0268	1.0268	1.0261	1.0264	1.0264	1.0261	1.0261	1.0268	1.0279 1.0233
1927	270	271	274	276	278	276	275	273	265	260	270	275	272	284 235
1928	275	273	268	272	271	275	266	261	256	255	265	264	267	280 237
1929	261	268	271	274	277	272	269	274	270	258	265	258	268	283 242
1930	258	257	266	266	271	253	262	265	266	267	270	264	264	279 238
1931	257	259	259	264	264	269	267	269	263	260	264	266	263	274 246
1932	248	266	271	274	274	269	275	272	270	266	272	270	269	282 206
1933	270	271	273	272	273	271	277	275	275	254	255	255	268	285 214
1934	262	268	269	273	272	272	273	272	269	268	272	272	270	282 256
1935	270	271	275	274	282	284	277	278	264	263	266	266	272	288 253
1936	265	261	258	268	275	264	268	267	268	270	275	268	267	279 246
1937	271	270	270	272	269	278	274	272	269	267	278	274	272	289 247
1938	270	276	275	277	277	274	274	276	273	278	275	274	275	285 233
1939	272	274	277	274	278	272	277	274	269	261	275	273	273	289 242
1940	267	268	270	269	278	280	280	276	264	270	---	---	---	286 253
Means	1.0266	1.0268	1.0270	1.0272	1.0274	1.0272	1.0272	1.0271	1.0267	1.0264	1.0269	1.0267	1.0269	1.0289 1.0206

MIAMI BEACH, FLA.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Extremes Max. Min.
1939	---	---	---	---	---	---	1.0266	1.0267	1.0264	1.0253	1.0251	1.0264	---	---
1940	1.0267	1.0269	1.0268	1.0270	1.0270	1.0267	269	269	253	259	260	263	1.0265	274 229
1941	263	264	265	264	267	271	266	269	261	266	265	262	265	275 253
1942	266	270	272	269	267	269	271	279	274	276	278	(274)	272	287 255
1943	270	268	271	272	272	271	272	265	256	257	260	275	267	279 252
1944	261	263	(267)	270	267	272	271	266	266	259	259	264	265	278 250
Means	1.0265	1.0267	1.0269	1.0269	1.0269	1.0270	1.0269	1.0269	1.0262	1.0262	1.0262	1.0267	1.0267	1.0287 1.0229

CEDAR KEYS, FLA.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Extremes Max. Min.
1922	1.0204	1.0214	1.0208	1.0213	1.0211	1.0206	1.0198	1.0192	1.0191	1.0206	1.0201	1.0207	1.0203	1.0233 1.0155
1923	208	203	208	212	186	212	192	175	195	184	200	218	199	231 137
1924	207	188	160	160	171	172	177	189	205	196	206	215	187	231 102
1925	214	184	166	179	196	211	202	193	219	211	207	198	198	231 097
1926	201	160	152	151	166	188	---	---	---	---	---	---	---	---
**	---	---	---	---	---	---	---	---	---	---	---	---	---	---
1944	---	---	---	---	212	204	200	209	213	180	193	181	---	253 109
Means	1.0207	1.0190	1.0179	1.0183	1.0190	1.0199	1.0194	1.0192	1.0205	1.0195	1.0201	1.0204	1.0197	1.0233 1.0095

PENSACOLA, FLA.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Extremes Max. Min.
1924	1.0113	1.0061	1.0095	1.0098	1.0104	1.0088	1.0099	1.0122	1.0169	1.0180	1.0196	1.0177	1.0125	1.0227 1.0010
1925	078	049	111	154	175	181	175	193	206	203	180	174	157	228 001
1926	110	081	084	037	097	120	141	107	056	063	130	129	096	202 010
1927	143	108	086	086	147	136	125	110	162	163	176	154	131	218 017
1928	125	140	098	077	052	040	047	097	136	143	176	165	108	215 010
1929	126	130	026	084	094	117	090	110	134	107	107	075	100	189 000
1930	112	079	103	112	150	176	181	161	163	153	117	127	136	215 017
1931	117	131	127	107	135	166	164	141	166	186	198	170	151	228 018
1932	111	131	137	145	142	141	154	149	159	167	171	146	146	216 027
1933	107	103	083	029	057	151	111	091	153	191	201	188	122	229 011
1934	194	252	130	126	150	140	155	121	152	096	151	153	152	237 029
1935	155	154	075	073	070	109	131	102	124	176	191	174	128	229 016
1936	047	065	090	083	107	132	124	072	126	135	127	115	102	215 004
1937	109	108	090	050	035	067	105	102	092	120	107	099	090	158 013
1938	104	105	086	045	087	112	110	075	138	105	142	182	108	239 014
1939	---	---	060	095	122	082	095	093	093	108	175	175	---	212 000
1940	182	113	070	105	109	106	039	093	154	176	176	157	123	220 009
1941	121	154	125	088	174	181	119	111	159	174	188	156	146	217 019
1942	106	132	061	055	093	109	070	082	123	145	181	172	111	217 003
1943	150	150	072	059	118	127	118	124	160	191	163	179	134	216 002
1944	131	119	073	014	032	102	144	092	047	134	176	128	099	230 0.9997
Means	1.0122	1.0118	1.0089	1.0081	1.0107	1.0123	1.0119	1.0112	1.0137	1.0148	1.0163	1.0152	1.0123	1.0239 0.9997

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Extremes Max. Min.
1944	---	---	---	1.0040	1.0001	0.9998	1.0010	1.0055	1.0079	1.0062	1.0073	1.0054	---	1.0221 0.9991

GALVESTON, TEX.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Extremes Max. Min.
1922	1.0196	1.0171	1.0171	1.0120	1.0068	1.0074	1.0177	1.0226	1.0204	1.0192	1.0192	1.0197	1.0166	1.0259 1.0020
1923	207	146	154	063	138	134	143	224	191	175	171	124	156	249 018
1924	090	146	110	121	126	095	186	229	221	192	185	193	158	250 022
1925	200	218	204	199	203	191	228	256	244	(187)	130	169	202	266 059
1926	148	151	123	064	066	137	172	209	(196)	182	169	161	148	231 020
1927	162	117	164	193	115	(136)	158	201	195	147	178	153	160	270 041
1928	155	151	156	157	171	182	192	208	171	168	178	163	171	250 097
1929	141	125	129	110	118	085	121	191	170	---	---	---	---	239 036
1930	---	---	162	202	154	130	230	243	234	187	---	155	---	256 040
1931	141	136	174	180	188	227	230	235	237	213	211	193	197	282 051
1932	125	065	099	171	149	175	222	234	212	197	206	213	172	299 011
1933	181	167	143	165	153	156	196	176	188	177	194	210	176	242 061
1934	177	127	132	096	163	208	226	241	222	218	212	187	184	263 028

PORT ISABEL, TEX.

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Means	Extremes Max. Min.
1944	---	---	---	1.0254	1.0246	1.0247	1.0276	1.0266	1.0119	1.0215	1.0248	1.0252	---	1.0290 1.0040

1935	179	148	172	184	084	079	140	206	189	166	164	131	154	248	022
1936	171	175	185	200	168	152	179	229	202	191	184	201	186	278	087
1937	163	149	135	151	193	205	230	244	221	208	209	193	192	256	011
1938	151	152	150	134	104	167	220	225	185	212	210	209	177	251	031
1939	196	186	202	182	176	179	189	234	248	228	216	216	204	256	069
1940	200	217	219	210	202	187	190	219	205	208	178	048	190	246	015
1941	101	119	122	146	125	099	124	206	205	133	114	154	137	259	038
1942	159	182	191	150	078	119	119	195	152	169	179	181	156	231	021
1943	162	191	192	179	192	169	---	---	---	179	181	173	---	264	052
1944	155	135	149	168	111	116	210	247	216	191	200	163	172	265	034
Means	1.0162	1.0153	1.0158	1.0154	1.0141	1.0148	1.0185	1.0222	1.0205	1.0187	1.0184	1.0172	1.0173	1.0299	1.0011

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CORRESPONDING DENSITIES AND SALINITIES

[Density at 15° C.—Salinity in parts per 1,000]

Density	Salinity	Density	Salinity	Density	Salinity	Density	Salinity	Density	Salinity	Density	Salinity
0.9991	0.0	1.0046	7.1	1.0101	14.2	1.0156	21.4	1.0211	28.6	1.0266	35.8
.9992	.0	1.0047	7.2	1.0102	14.4	1.0157	21.6	1.0212	28.8	1.0267	35.9
.9993	.1	1.0048	7.3	1.0103	14.5	1.0158	21.7	1.0213	28.9	1.0268	36.0
.9994	.3	1.0049	7.5	1.0104	14.6	1.0159	21.8	1.0214	29.0	1.0269	36.2
.9995	.4	1.0050	7.6	1.0105	14.8	1.0160	22.0	1.0215	29.1	1.0270	36.3
.9996	.5	1.0051	7.7	1.0106	14.9	1.0161	22.1	1.0216	29.3	1.0271	36.4
.9997	.7	1.0052	7.9	1.0107	15.0	1.0162	22.2	1.0217	29.4	1.0272	36.6
.9998	.8	1.0053	8.0	1.0108	15.2	1.0163	22.4	1.0218	29.5	1.0273	36.7
.9999	.9	1.0054	8.1	1.0109	15.3	1.0164	22.5	1.0219	29.7	1.0274	36.8
1.0000	1.1	1.0055	8.2	1.0110	15.4	1.0165	22.6	1.0220	29.8	1.0275	37.0
1.0001	1.2	1.0056	8.4	1.0111	15.6	1.0166	22.7	1.0221	29.9	1.0276	37.1
1.0002	1.3	1.0057	8.5	1.0112	15.7	1.0167	22.9	1.0222	30.0	1.0277	37.2
1.0003	1.4	1.0058	8.6	1.0113	15.8	1.0168	23.0	1.0223	30.2	1.0278	37.3
1.0004	1.6	1.0059	8.8	1.0114	16.0	1.0169	23.1	1.0224	30.3	1.0279	37.5
1.0005	1.7	1.0060	8.9	1.0115	16.1	1.0170	23.3	1.0225	30.4	1.0280	37.6
1.0006	1.8	1.0061	9.0	1.0116	16.2	1.0171	23.4	1.0226	30.6	1.0281	37.7
1.0007	2.0	1.0062	9.2	1.0117	16.3	1.0172	23.5	1.0227	30.7	1.0282	37.9
1.0008	2.1	1.0063	9.3	1.0118	16.5	1.0173	23.7	1.0228	30.8	1.0283	38.0
1.0009	2.2	1.0064	9.4	1.0119	16.6	1.0174	23.8	1.0229	31.0	1.0284	38.1
1.0010	2.4	1.0065	9.6	1.0120	16.7	1.0175	23.9	1.0230	31.1	1.0285	38.2
1.0011	2.5	1.0066	9.7	1.0121	16.8	1.0176	24.0	1.0231	31.2	1.0286	38.4
1.0012	2.6	1.0067	9.8	1.0122	16.9	1.0177	24.1	1.0232	31.3	1.0287	38.5
1.0013	2.8	1.0068	10.0	1.0123	17.0	1.0178	24.2	1.0233	31.4	1.0288	38.6
1.0014	2.9	1.0069	10.1	1.0124	17.1	1.0179	24.3	1.0234	31.5	1.0289	38.8
1.0015	3.0	1.0070	10.2	1.0125	17.2	1.0180	24.4	1.0235	31.6	1.0290	38.9
1.0016	3.2	1.0071	10.4	1.0126	17.3	1.0181	24.5	1.0236	31.7	1.0291	39.0
1.0017	3.3	1.0072	10.5	1.0127	17.4	1.0182	24.6	1.0237	31.8	1.0292	39.2
1.0018	3.4	1.0073	10.6	1.0128	17.5	1.0183	24.7	1.0238	31.9	1.0293	39.3
1.0019	3.5	1.0074	10.7	1.0129	17.6	1.0184	24.8	1.0239	32.0	1.0294	39.4
1.0020	3.7	1.0075	10.9	1.0130	17.7	1.0185	24.9	1.0240	32.1	1.0295	39.6
1.0021	3.8	1.0076	11.0	1.0131	17.8	1.0186	25.0	1.0241	32.2	1.0296	39.7
1.0022	3.9	1.0077	11.1	1.0132	17.9	1.0187	25.1	1.0242	32.3	1.0297	39.8
1.0023	4.1	1.0078	11.2	1.0133	18.0	1.0188	25.2	1.0243	32.4	1.0298	39.9
1.0024	4.2	1.0079	11.3	1.0134	18.1	1.0189	25.3	1.0244	32.5	1.0299	40.1
1.0025	4.3	1.0080	11.4	1.0135	18.2	1.0190	25.4	1.0245	32.6	1.0300	40.2
1.0026	4.5	1.0081	11.6	1.0136	18.3	1.0191	25.5	1.0246	32.7	1.0301	40.3
1.0027	4.6	1.0082	11.7	1.0137	18.4	1.0192	25.6	1.0247	32.8	1.0302	40.4
1.0028	4.7	1.0083	11.8	1.0138	18.5	1.0193	25.7	1.0248	32.9	1.0303	40.6
1.0029	4.8	1.0084	11.9	1.0139	18.6	1.0194	25.8	1.0249	33.0	1.0304	40.7
1.0030	5.0	1.0085	12.0	1.0140	18.7	1.0195	25.9	1.0250	33.1	1.0305	40.8
1.0031	5.1	1.0086	12.1	1.0141	18.8	1.0196	26.0	1.0251	33.2	1.0306	41.0
1.0032	5.2	1.0087	12.2	1.0142	18.9	1.0197	26.1	1.0252	33.3	1.0307	41.1
1.0033	5.4	1.0088	12.4	1.0143	19.0	1.0198	26.2	1.0253	33.4	1.0308	41.2
1.0034	5.5	1.0089	12.5	1.0144	19.1	1.0199	26.3	1.0254	33.5	1.0309	41.4
1.0035	5.6	1.0090	12.6	1.0145	19.2	1.0200	26.4	1.0255	33.6	1.0310	41.5
1.0036	5.8	1.0091	12.8	1.0146	19.3	1.0201	26.5	1.0256	33.7	1.0311	41.6
1.0037	5.9	1.0092	12.9	1.0147	19.4	1.0202	26.6	1.0257	33.8	1.0312	41.8
1.0038	6.0	1.0093	13.0	1.0148	19.5	1.0203	26.7	1.0258	33.9	1.0313	41.9
1.0039	6.2	1.0094	13.2	1.0149	19.6	1.0204	26.8	1.0259	34.0	1.0314	42.0
1.0040	6.3	1.0095	13.3	1.0150	19.7	1.0205	26.9	1.0260	34.1	1.0315	42.1
1.0041	6.4	1.0096	13.4	1.0151	19.8	1.0206	27.0	1.0261	34.2	1.0316	42.3
1.0042	6.6	1.0097	13.6	1.0152	19.9	1.0207	27.1	1.0262	34.3	1.0317	42.4
1.0043	6.7	1.0098	13.7	1.0153	20.0	1.0208	27.2	1.0263	34.4	1.0318	42.5
1.0044	6.8	1.0099	13.8	1.0154	20.1	1.0209	27.3	1.0264	34.5	1.0319	42.7
1.0045	7.0	1.0100	14.0	1.0155	20.2	1.0210	27.4	1.0265	34.6	1.0320	42.8