RESULTADOS
MEDIDAS DE SONDA OCEÁNICA (CTD-IMIDA)
COORDINADAS POR EL IMIDA EN EL MM

Fecha: Martes 07/12/2021

El presente informe muestra un resumen inicial de los resultados de los muestreos coordinados por el IMIDA y realizados por el IMIDA en el Mar Menor (MM) en la fecha indicada mediante SONDA multiparamétrica (CTD), que mide un total de 7 variables: temperatura, conductividad, turbidez, pH, oxígeno, salinidad y clorofila.

Cada punto de muestreo puede llegar a proporcionar en torno a 10.000 datos, que son tratados de forma automatizada por los técnicos del IMIDA. Tal cantidad de información requiere, además de su descarga, un complejo proceso de análisis, procesado y de transformación de datos.

Para controlar rápidamente la situación de la laguna con respecto a los niveles de oxígeno y llevar un seguimiento diario de la misma, se ha decidido identificar y alertar únicamente de los valores que representan situaciones de posible anoxia/hipoxia en base a la siguiente clasificación. Se considerarán no preocupantes los valores de oxígeno superiores a 4 miligramos por litro (mg/L):

0-2 mg/L: ANOXIA

2-4 mg/L: HIPOXIA

>4 mg/L: NO PREOCUPANTE

Las tablas siguientes incluyen los datos necesarios para tener una visión global de todo el proceso:

OBSERVACIONES GENERALES

Se realiza **UNA SALIDA** en barco para muestreo por la mañana, en horario de 8:00 a 11:00 horas.
Salida desde el puerto de Lo Pagán, con los técnicos y un patrón del IMIDA.

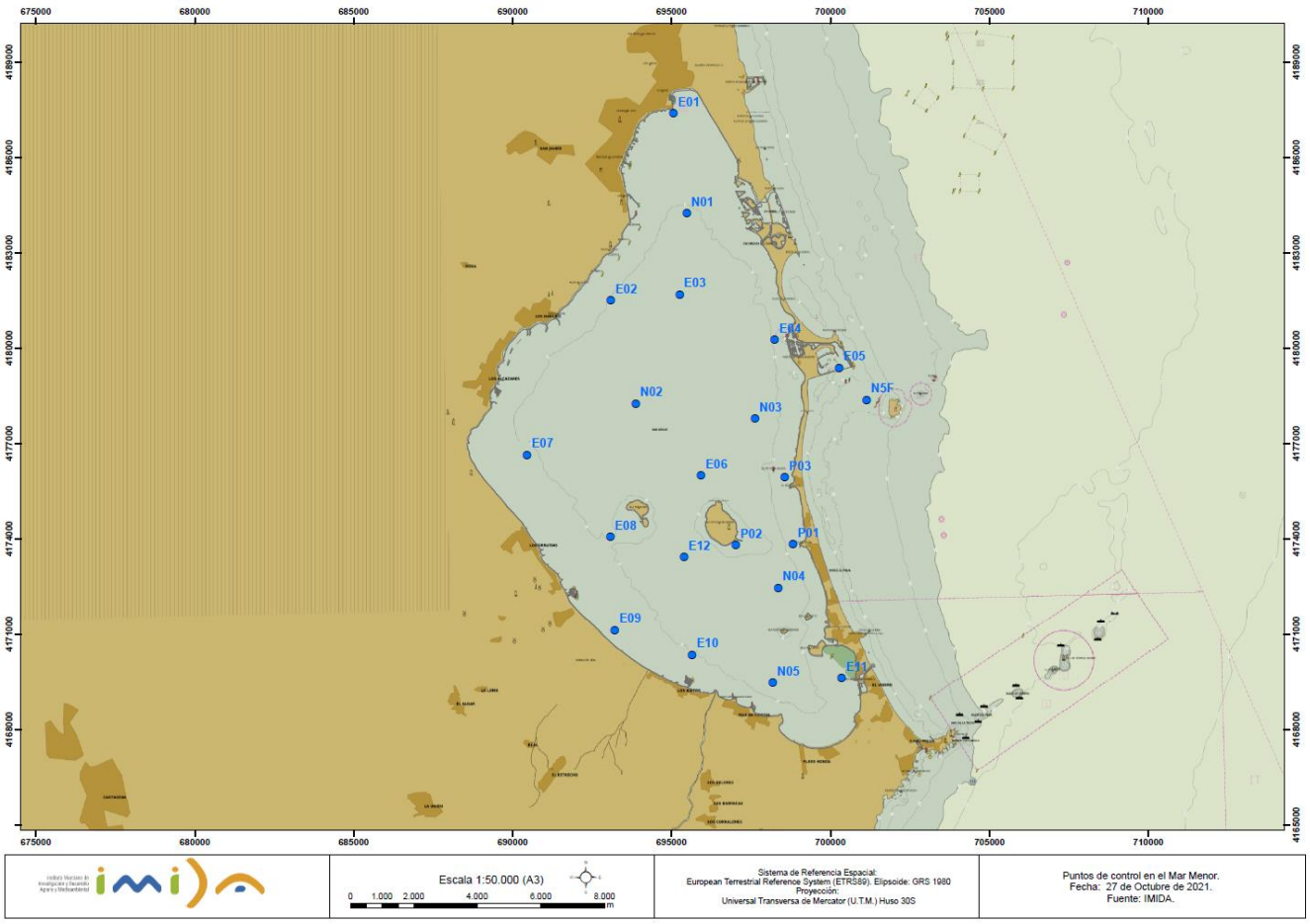
ORDEN	Punto	D. Secchi	Hora	Fondo	Viento (km/h)	Dirección	Sonda
1	E01	2.40	08:00	SI	0	SO	2.40
2	N01	5.60	08:05	No	6	SO	5.60
3	E03	6.30	08:14	No	10	SO	6.30
4	E02	5.60	08:21	No	10	SO	5.60
5	N02	4.60	08:28	No	10	SO	6.10
6	E07	3.60	08:38	No	10	SO	4.70
7	E08	5.00	08:59	No	10	SO	5.00
8	E09	2.00	09:12	Si	10	SO	2.00
9	E10	4.00	09:20	No	6	SO	5.00
10	N05	3.20	09:28	No	6	SO	5.60
11	E11	4.20	09:35	No	6	SO	4.20
12	N04	6.00	09:40	No	6	SO	6.00
13	P01	1.60	09:49	Si	6	SO	1.60
14	P02	3.10	09:56	Si	6	SO	3.10
15	E12	2.80	10:01	No	6	SO	5.90
16	E06	6.00	10:06	No	6	SO	6.60
17	P03	1.40	10:13	Si	6	SO	1.40
18	N03	6.40	10:22	No	6	SO	6.40
19	E04	5.30	10:26	No	6	SO	5.30
20	E05	5.00	10:33	Si	6	SO	5.00
21	N5F	9.70	10:42	Si	6	SO	9.70

UBICACIÓN DE LOS TRABAJOS

Estación de Acuicultura Marina de San Pedro del Pinatar: Coordinación para la organización de las salidas al mar, manejo y mantenimiento de sondas.

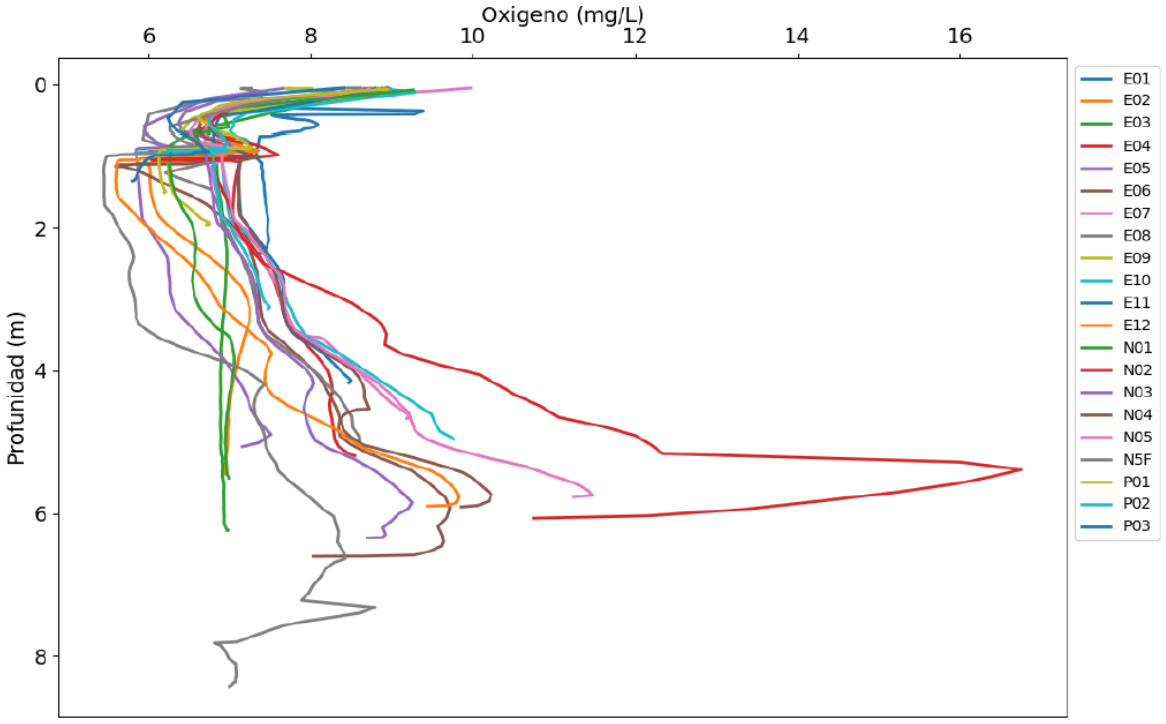
Instalaciones del IMIDA de La Alberca: Diseño y puesta en marcha de la encuesta para la toma de datos, procesamiento, tratamiento, análisis de datos, cartografía y maquetación.

Mar Menor: El IMIDA ha muestreado un total de 21 puntos con el CTD, previamente establecidos por el grupo de monitorización.

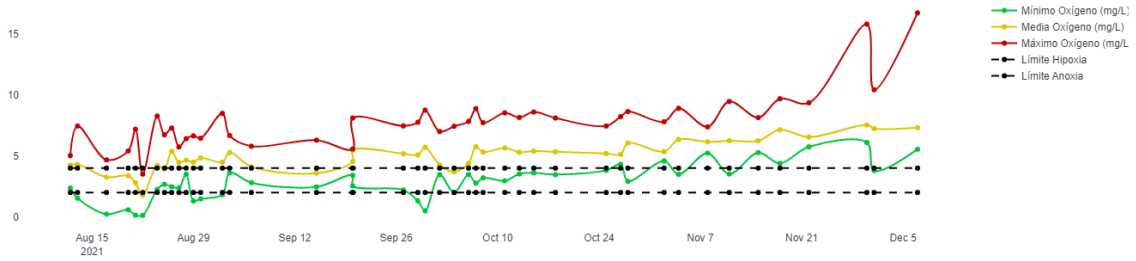


SITUACIÓN GENERAL

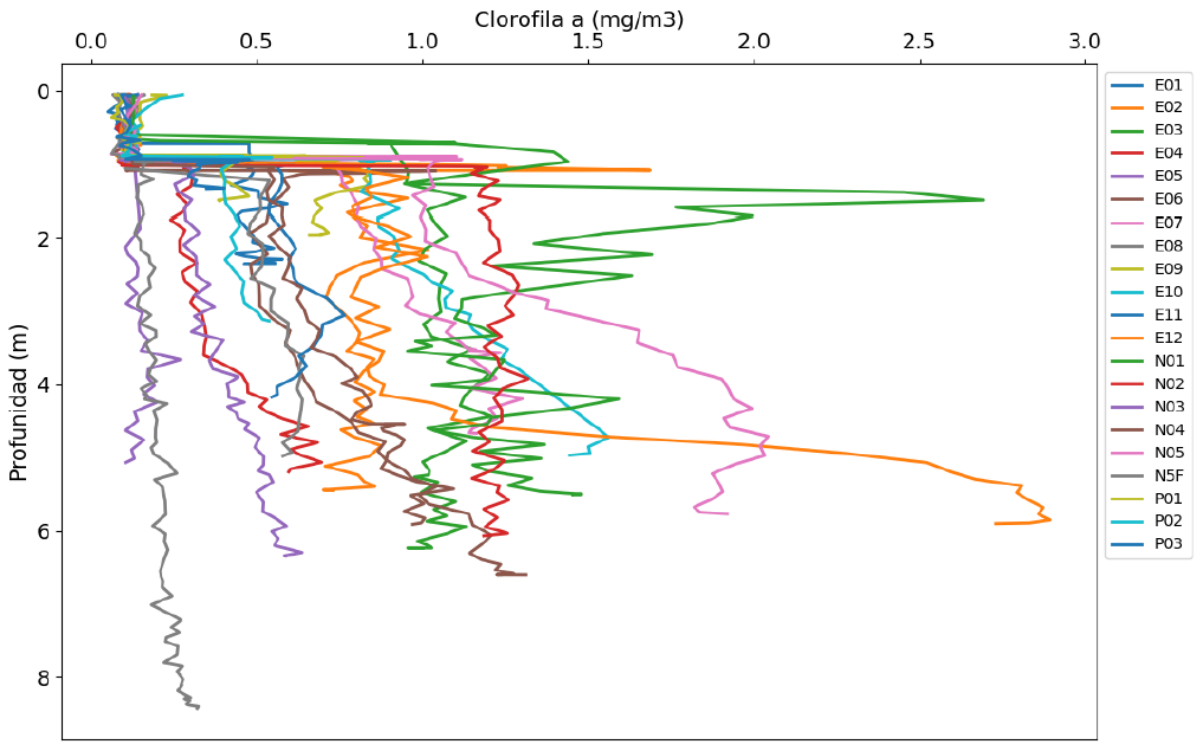
Los niveles medios de oxígeno son normales en todos los puntos (> 6 mg/L). Los valores medios de clorofila están por debajo 1 mg/m3 y los máximos por debajo de 3 mg/m3. Los valores medios de turbidez siguen bajando, pero todavía se han registrado máximos altos en dos estaciones. La transparencia del agua sigue aumentando.



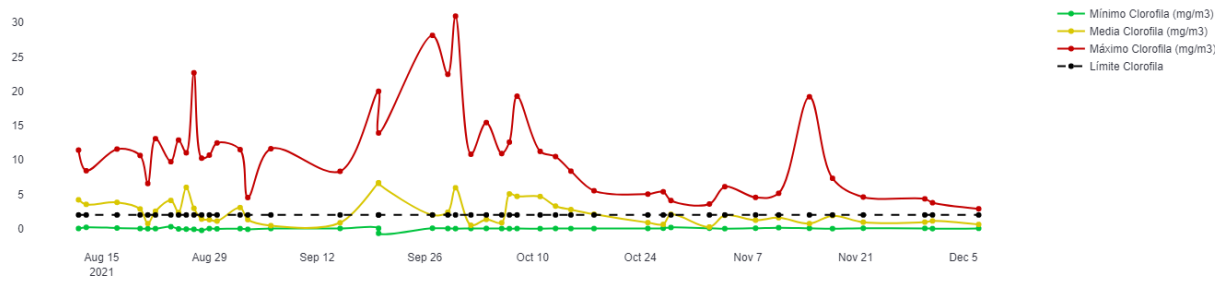
Perfiles de oxígeno (mg/L) por estación



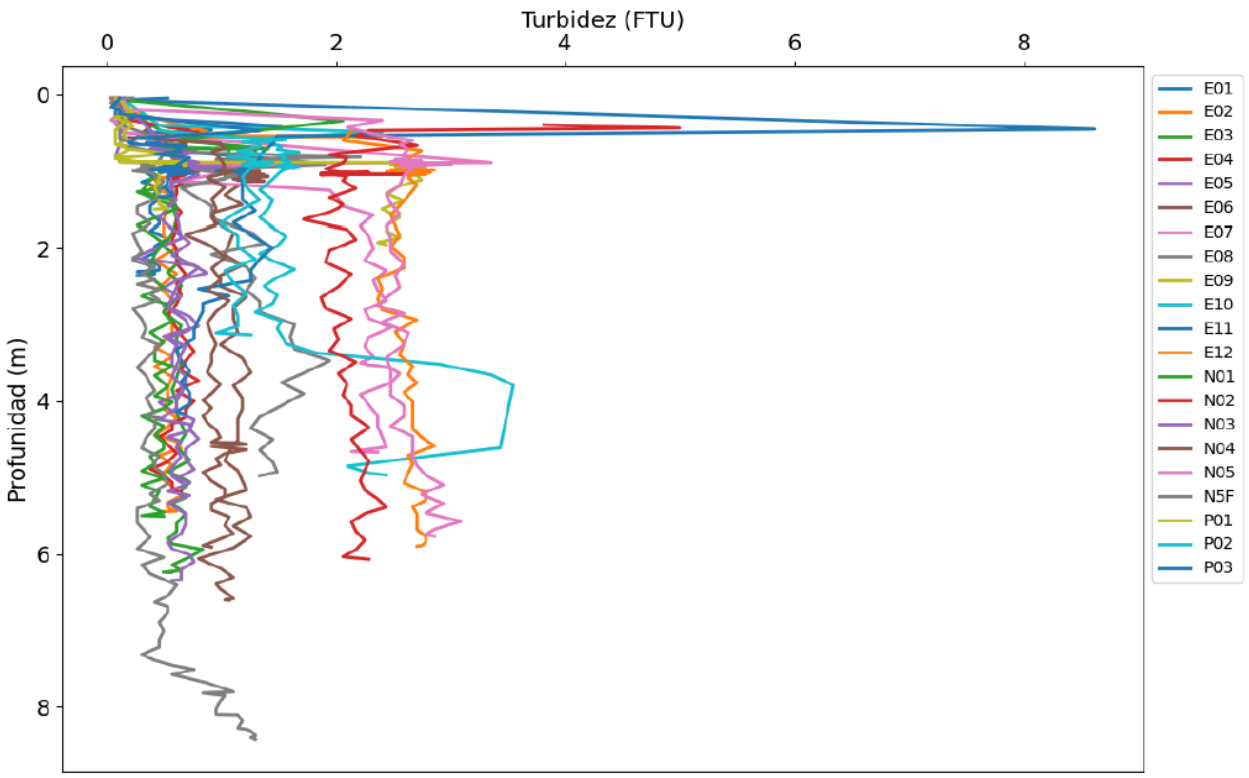
Evolución del contenido de oxígeno (mg/L)



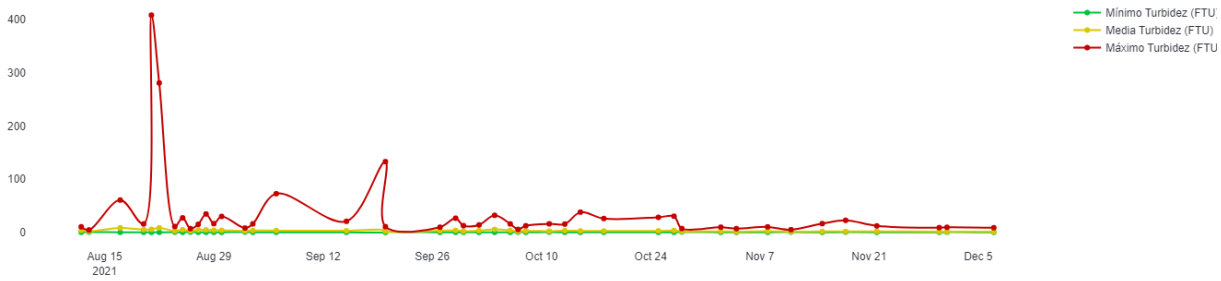
Perfiles de los valores de clorofila (mg/m3)



Evolución del contenido en clorofila (mg/m3)



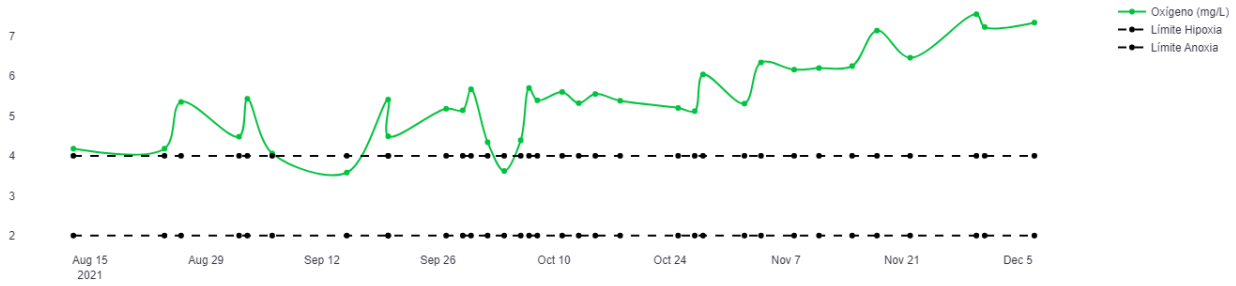
Perfiles de los valores de turbidez (FTU)



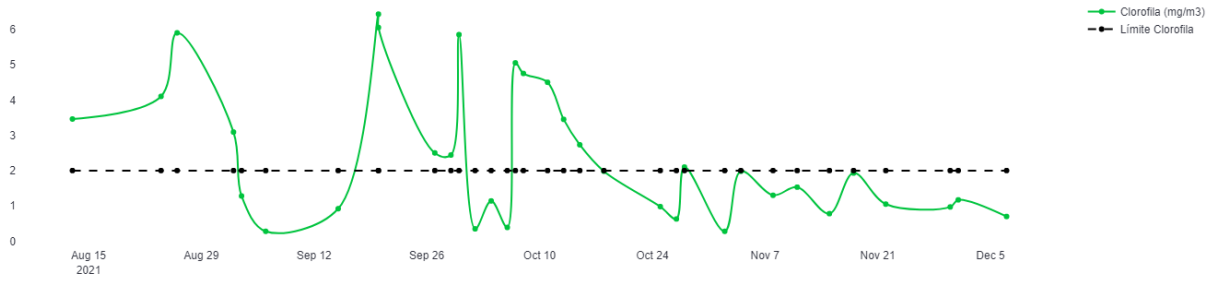
Evolución de la turbidez (FTU)

Valores medios (media geométrica por isobata) del Mar Menor:

- Clorofila (mg/m3): 0.62
- Turbidez (FTU): 1.09
- Oxigeno (mg/L): 7.32
- Temperatura (º C): 12.33
- Salinidad (PSU): 41.34

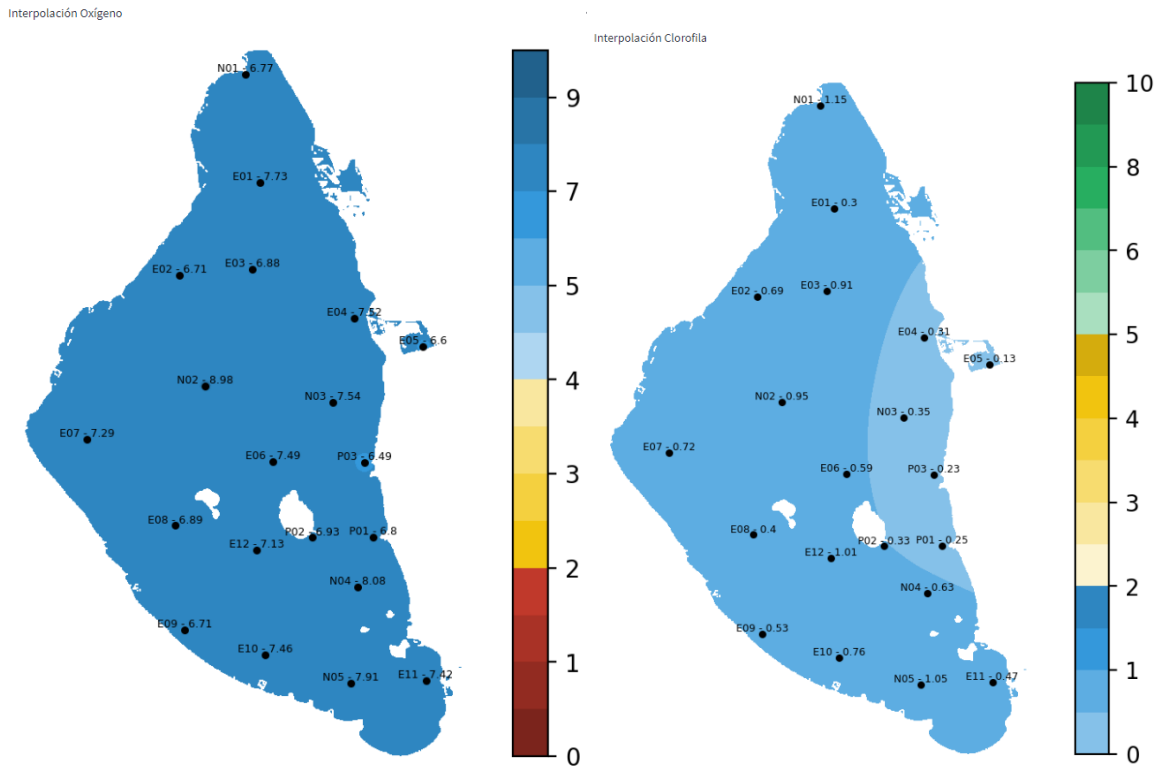


Evolución del contenido de oxígeno (mg/L)



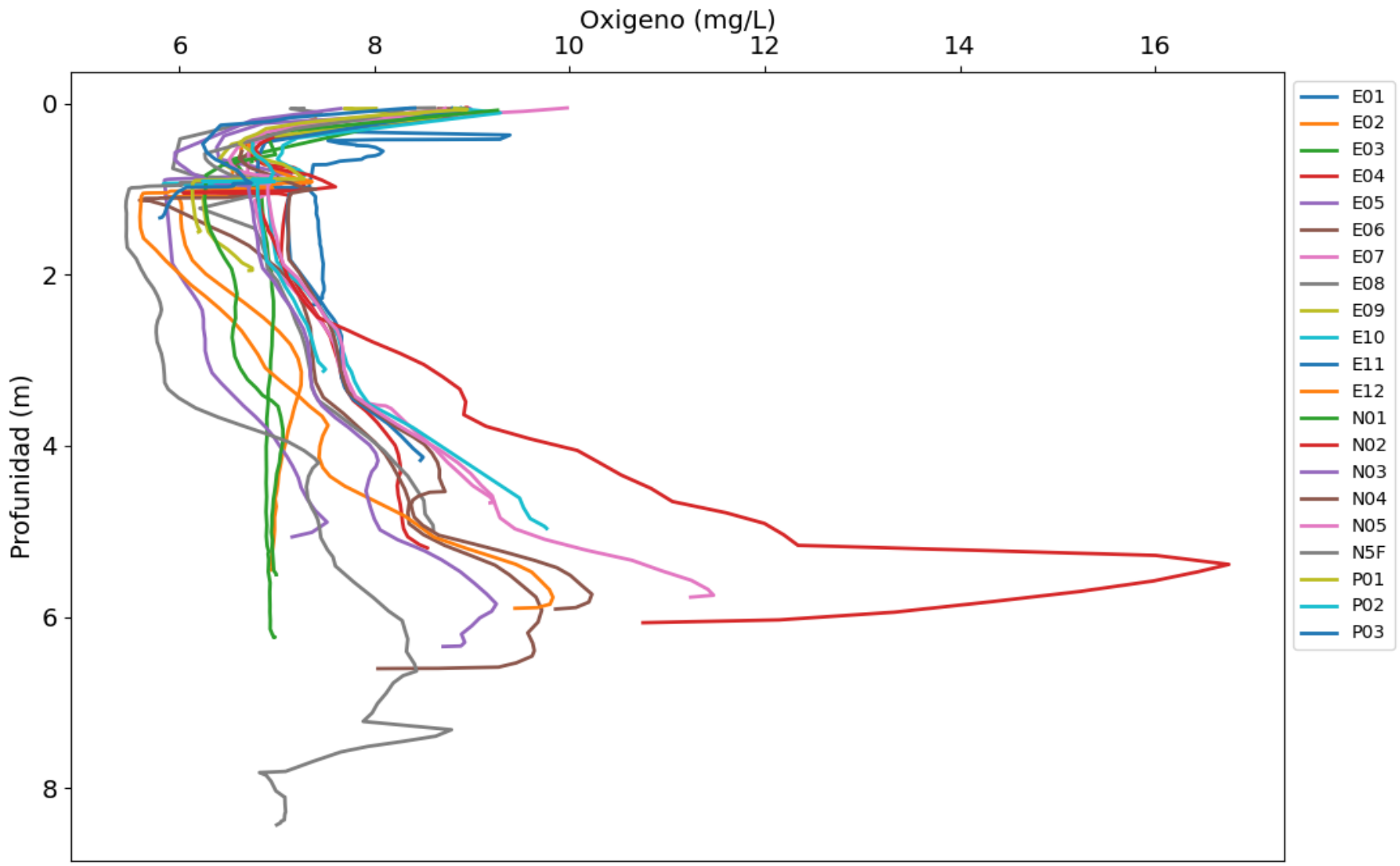
Evolución de la clorofila *a* (mg/m3)

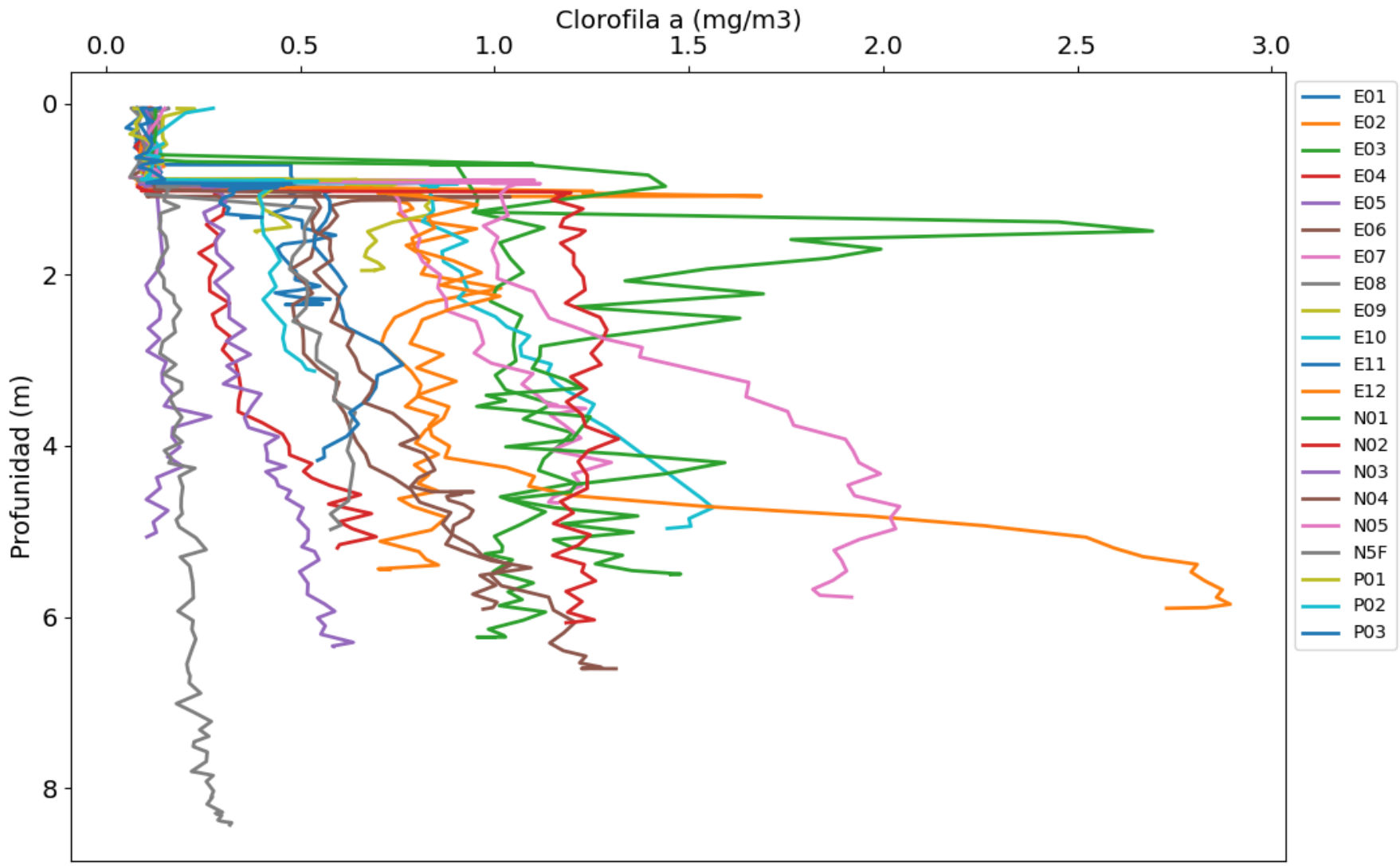
Evolución de la turbidez (FTU)

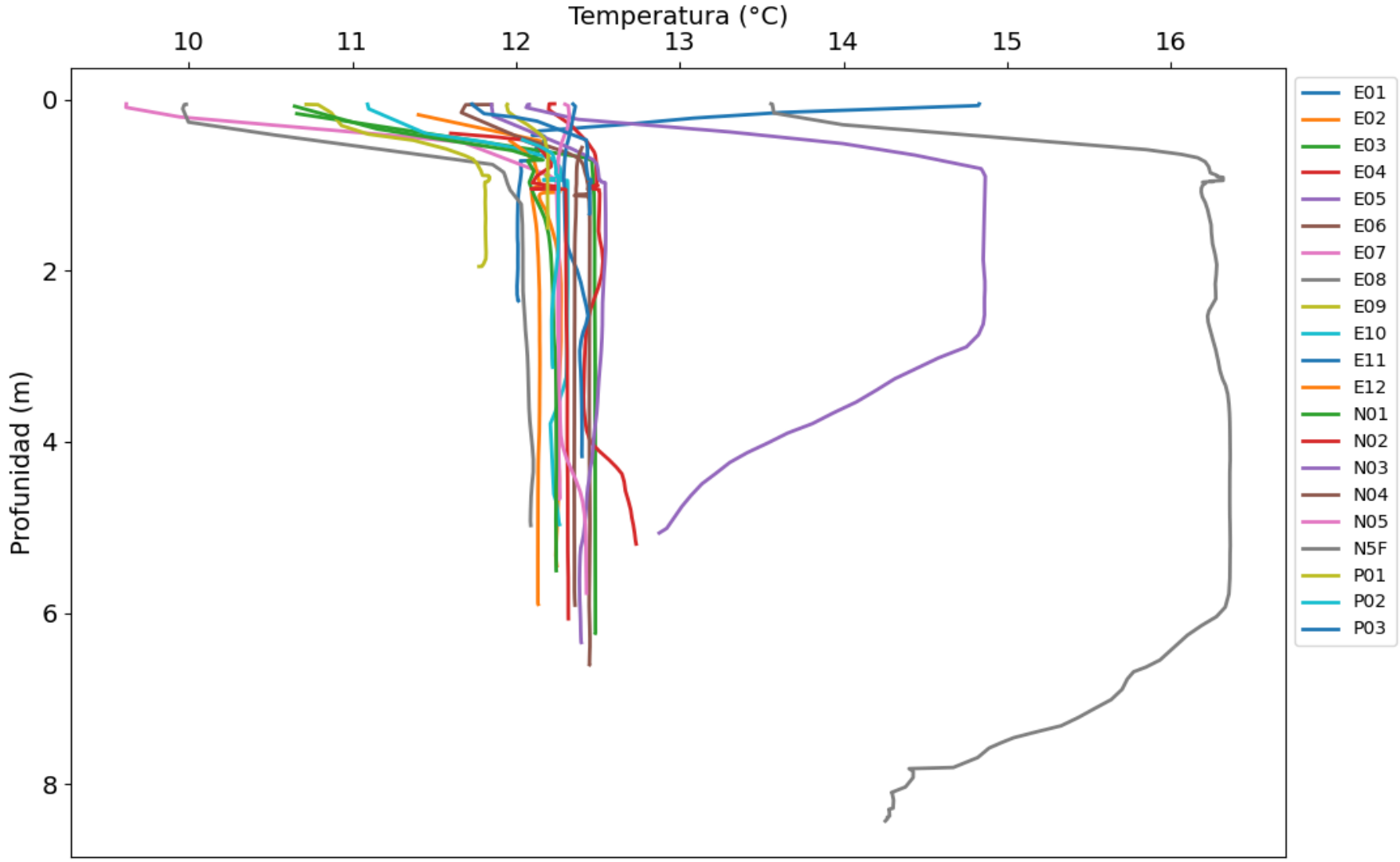


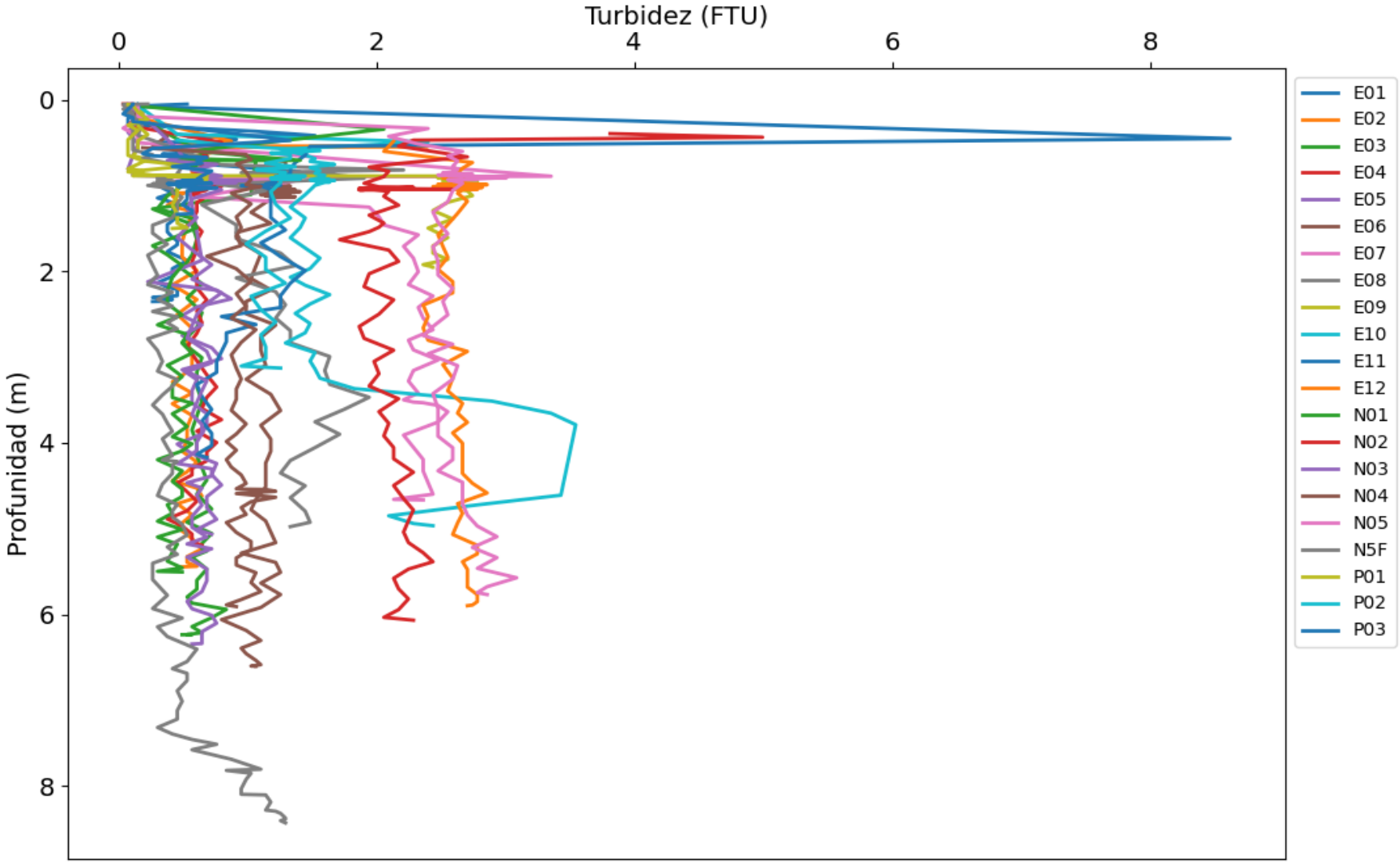
Interpolación de los valores medios de oxígeno (mg/L) y clorofila a (mg/m3)

FICHA GENERAL DE MUESTREOS PARA OXÍGENO, TURBIDEZ, CLOROFILA Y TEMPERATURA **FECHA: 07-12-2021**

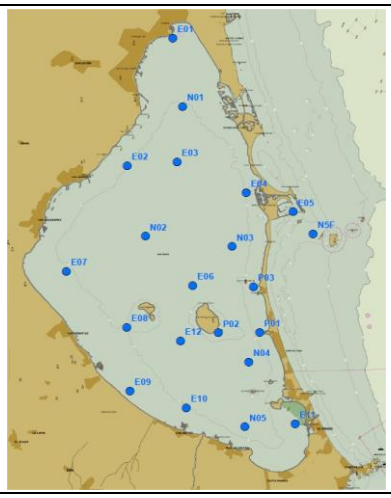


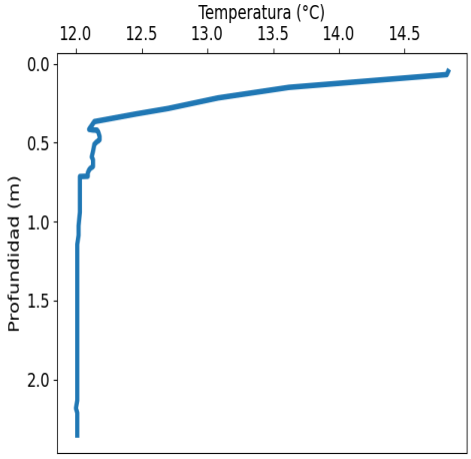

Clorofila a (mg/m3)
0.0
0.5
1.0
1.5
2.0
2.5
3.0
Profunidad (m)
0
2
4
6
8
E01
E02
E03
E04
E05
E06
E07
E08
E09
E10
E11
E12
N01
N02
N03
N04
N05
N5F
P01
P02
P03

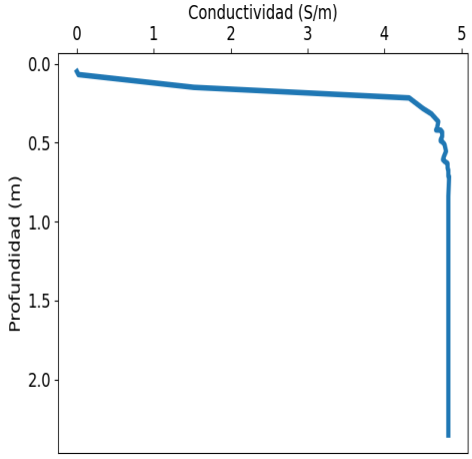

Temperatura (°C)
10
11
12
13
14
15
16
Profunidad (m)
0
2
4
6
8
E01
E02
E03
E04
E05
E06
E07
E08
E09
E10
E11
E12
N01
N02
N03
N04
N05
N5F
P01
P02
P03

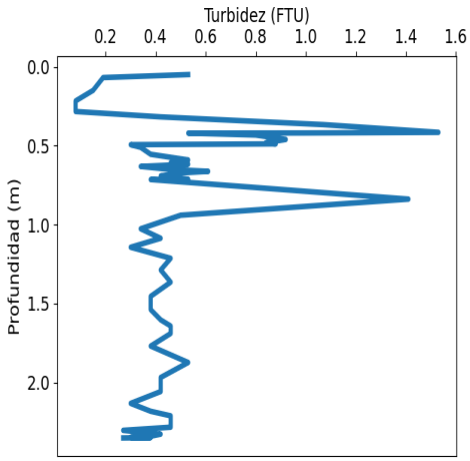

Turbidez (FTU)
0
2
4
6
8
Profunidad (m)
0
2
4
6
8
E01
E02
E03
E04
E05
E06
E07
E08
E09
E10
E11
E12
N01
N02
N03
N04
N05
N5F
P01
P02
P03

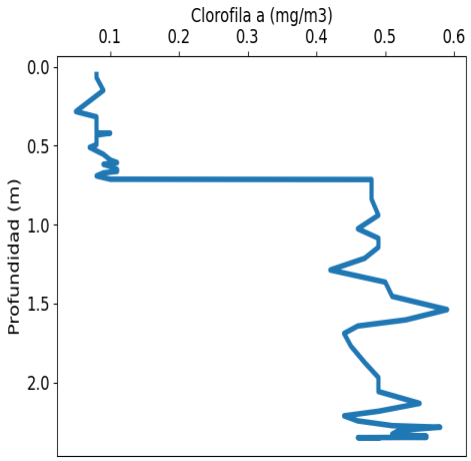
Nombre: CTD E01 - Punto 001 **Fecha: 07/12/2021** **Hora: 08:12:53**

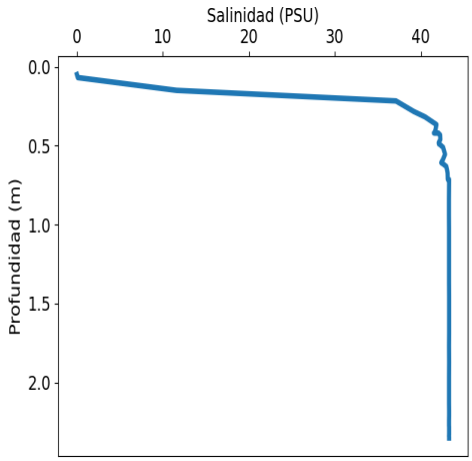


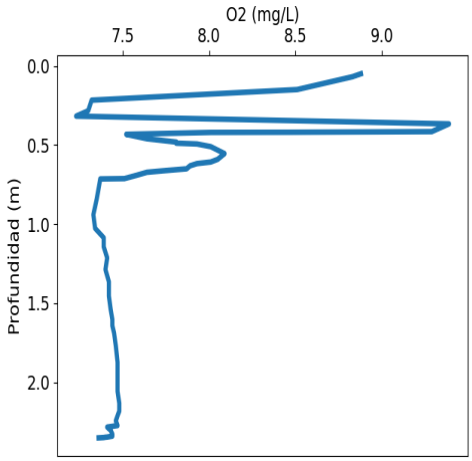


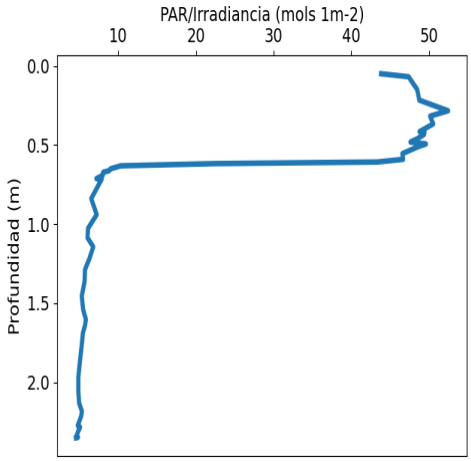












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	12.0	0.0	0.08	7.23	4.55	0.05	0.02
PROF (metros)	2.182	0.049	0.216	0.317	2.351	0.283	0.049
MÁXIMO	14.83	14.83	1.53	9.39	52.47	0.59	43.28
PROF (metros)	0.049	0.714	0.415	0.366	0.283	1.538	0.714

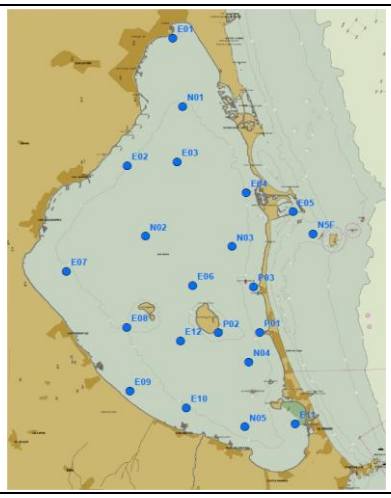
DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD E01 - Punto 001	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	12.42	4.3	0.58	7.94	34.95	0.13	38.19
1 - 2m	12.01	4.83	0.42	7.42	5.68	0.48	43.27
2 - 3m	12.01	4.83	0.38	7.44	4.88	0.51	43.28

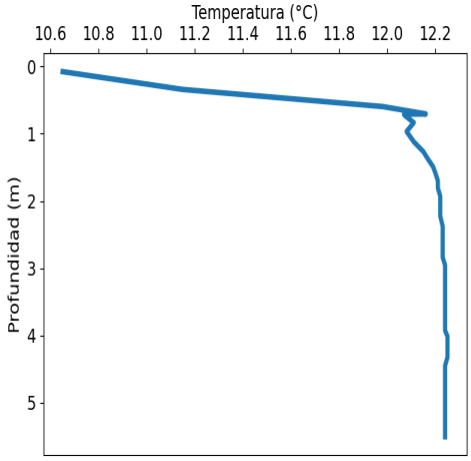
OBSERVACIONES GENERALES

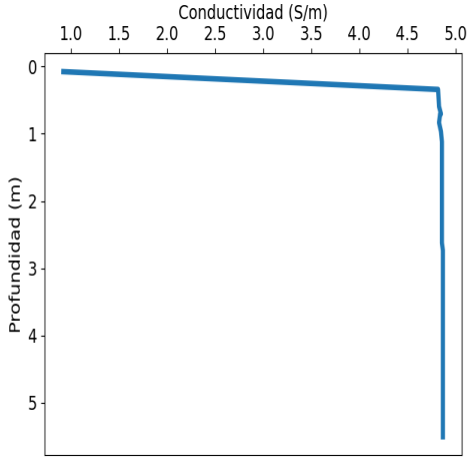
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.049	14.83	0.0	0.53	8.88	43.84	0.08	0.02
0.068	14.82	0.02	0.19	8.83	47.38	0.08	0.12
0.149	13.62	1.52	0.15	8.51	48.49	0.09	11.59
0.216	13.08	4.32	0.08	7.32	48.76	0.07	37.1
0.283	12.7	4.5	0.08	7.3	52.47	0.05	39.18
0.317	12.46	4.61	0.42	7.23	50.15	0.08	40.48
0.366	12.14	4.7	1.07	9.39	50.55	0.08	41.81
0.415	12.1	4.68	1.53	9.29	48.79	0.08	41.64
0.419	12.13	4.67	0.99	8.46	49.44	0.08	41.51
0.42	12.16	4.73	0.53	8.01	49.07	0.1	42.04
0.432	12.17	4.75	0.8	7.52	49.39	0.08	42.24
0.46	12.18	4.75	0.92	7.64	48.5	0.08	42.26
0.481	12.18	4.73	0.84	7.81	47.62	0.08	42.07
0.488	12.17	4.73	0.88	7.81	48.76	0.08	42.09
0.493	12.16	4.75	0.3	7.93	49.62	0.08	42.23
0.51	12.14	4.78	0.34	8.01	48.62	0.07	42.58
0.554	12.13	4.8	0.38	8.09	46.58	0.09	42.81
0.59	12.12	4.77	0.53	8.05	46.68	0.1	42.54
0.607	12.13	4.76	0.46	8.01	43.32	0.11	42.36
0.617	12.13	4.78	0.53	7.93	22.53	0.09	42.63
0.631	12.13	4.82	0.34	7.89	10.31	0.1	42.95
0.65	12.13	4.82	0.46	7.87	9.01	0.11	43.03
0.662	12.11	4.82	0.61	7.74	8.81	0.11	43.07
0.672	12.1	4.83	0.5	7.64	8.05	0.09	43.1
0.691	12.09	4.83	0.42	7.58	8.01	0.08	43.11
0.712	12.09	4.83	0.53	7.51	7.18	0.1	43.12
0.714	12.03	4.84	0.38	7.37	7.88	0.48	43.28
0.838	12.03	4.83	1.41	7.35	6.52	0.48	43.26
0.94	12.03	4.83	0.5	7.33	7.22	0.49	43.26
1.026	12.02	4.83	0.34	7.34	6.11	0.46	43.27
1.086	12.02	4.83	0.42	7.39	6.04	0.49	43.27
1.143	12.01	4.83	0.3	7.39	6.78	0.49	43.27
1.213	12.01	4.83	0.46	7.41	6.32	0.47	43.27
1.287	12.01	4.83	0.42	7.4	5.72	0.42	43.27
1.364	12.01	4.83	0.46	7.42	5.66	0.5	43.27
1.454	12.01	4.83	0.38	7.42	5.3	0.51	43.28
1.538	12.01	4.83	0.38	7.43	5.47	0.59	43.28
1.603	12.01	4.83	0.42	7.44	5.83	0.53	43.28
1.642	12.01	4.83	0.46	7.44	5.71	0.46	43.28

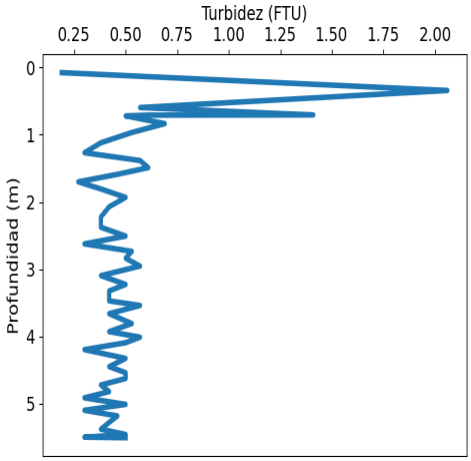
1.689	12.01	4.83	0.46	7.45	5.44	0.44	43.28
1.769	12.01	4.83	0.38	7.46	5.29	0.45	43.27
1.873	12.01	4.83	0.53	7.47	5.05	0.47	43.28
1.968	12.01	4.83	0.42	7.47	4.86	0.49	43.27
2.057	12.01	4.83	0.42	7.47	4.86	0.49	43.27
2.132	12.01	4.83	0.3	7.48	4.96	0.55	43.27
2.182	12.0	4.83	0.38	7.48	5.32	0.49	43.28
2.211	12.01	4.83	0.46	7.47	5.24	0.44	43.28
2.243	12.01	4.83	0.46	7.46	5.01	0.46	43.27
2.273	12.01	4.83	0.46	7.47	4.78	0.51	43.27
2.283	12.01	4.83	0.46	7.41	5.09	0.58	43.28
2.303	12.01	4.83	0.27	7.43	4.9	0.52	43.28
2.327	12.01	4.83	0.42	7.44	4.7	0.51	43.28
2.34	12.01	4.83	0.38	7.44	4.65	0.56	43.27
2.346	12.01	4.83	0.38	7.41	4.72	0.53	43.28
2.347	12.01	4.83	0.3	7.4	4.82	0.56	43.28
2.349	12.01	4.83	0.38	7.39	4.74	0.46	43.28
2.351	12.01	4.83	0.27	7.36	4.55	0.49	43.28

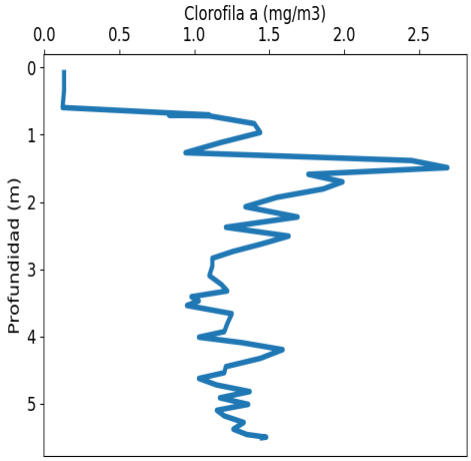
Nombre: CTD N01 - Punto 002 **Fecha: 07/12/2021** **Hora: 08:12:09**

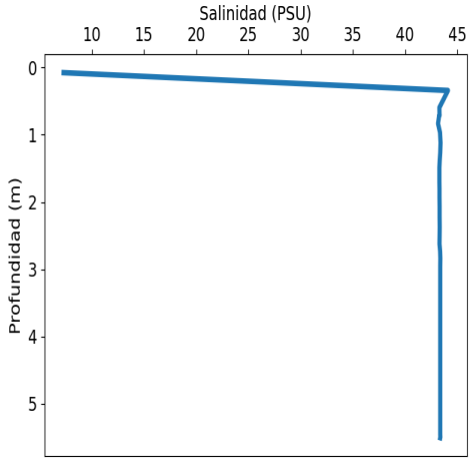


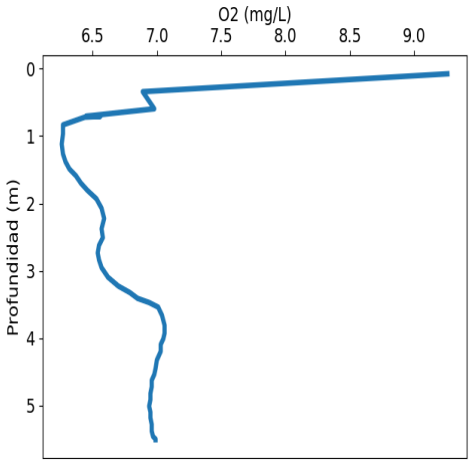


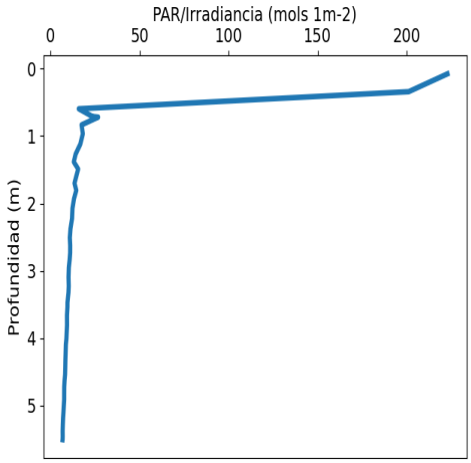












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	10.65	0.92	0.19	6.26	6.8	0.12	7.29
PROF (metros)	0.076	0.076	0.076	1.119	5.506	0.595	0.076
MÁXIMO	12.25	12.25	2.06	9.26	222.75	2.69	44.11
PROF (metros)	4.011	2.734	0.341	0.076	0.076	1.489	0.341

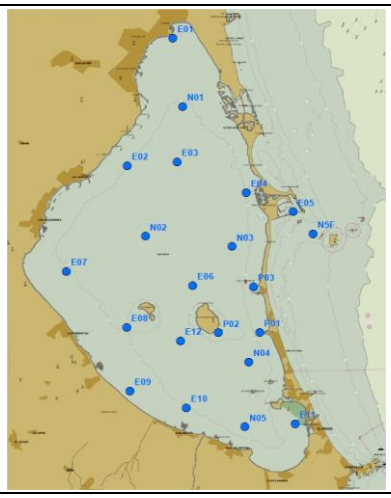
DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD N01 - Punto 002	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	11.78	4.35	0.82	6.89	68.53	0.78	38.88
1 - 2m	12.18	4.86	0.43	6.36	14.41	1.8	43.32
2 - 3m	12.23	4.86	0.45	6.56	11.22	1.35	43.33
3 - 4m	12.24	4.87	0.45	6.9	9.67	1.13	43.37
4 - 5m	12.24	4.87	0.44	6.99	8.21	1.25	43.37
5 - 6m	12.24	4.87	0.42	6.96	7.02	1.32	43.37

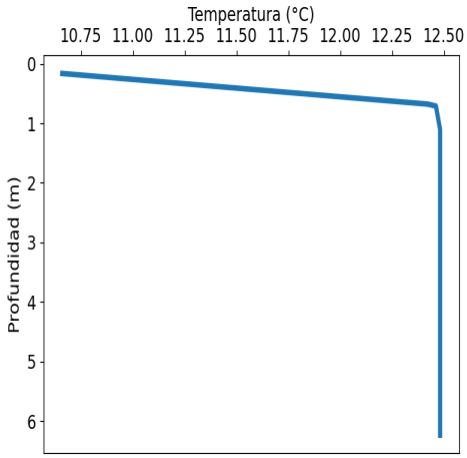
OBSERVACIONES GENERALES

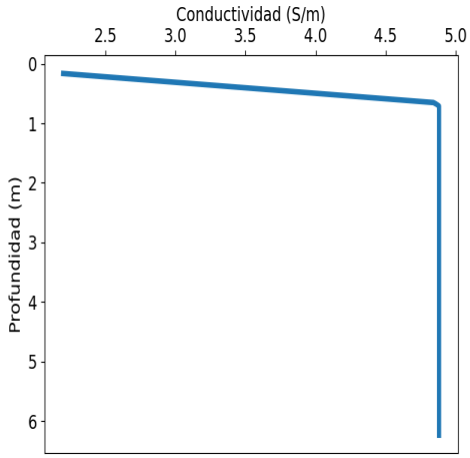
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.076	10.65	0.92	0.19	9.26	222.75	0.13	7.29
0.341	11.15	4.82	2.06	6.89	200.97	0.13	44.11
0.595	11.98	4.83	0.57	6.98	15.86	0.12	43.29
0.705	12.16	4.85	1.41	6.45	23.25	1.1	43.3
0.708	12.07	4.84	0.61	6.56	23.01	0.83	43.31
0.719	12.07	4.84	0.5	6.44	26.77	1.1	43.26
0.834	12.11	4.83	0.69	6.27	17.45	1.4	43.16
0.966	12.08	4.85	0.53	6.27	18.16	1.44	43.35
1.119	12.11	4.86	0.38	6.26	16.76	1.17	43.4
1.267	12.15	4.86	0.3	6.27	14.13	0.94	43.37
1.383	12.17	4.86	0.57	6.29	13.09	2.45	43.32
1.489	12.19	4.86	0.61	6.32	15.55	2.69	43.29
1.588	12.2	4.86	0.46	6.37	14.56	1.76	43.29
1.7	12.21	4.86	0.27	6.41	13.49	1.99	43.29
1.806	12.21	4.86	0.38	6.46	14.47	1.86	43.3
1.931	12.22	4.86	0.5	6.53	13.2	1.55	43.3
2.071	12.22	4.86	0.42	6.57	12.36	1.34	43.31
2.223	12.22	4.86	0.38	6.59	12.12	1.69	43.31
2.376	12.23	4.86	0.38	6.57	11.23	1.21	43.32
2.507	12.23	4.86	0.5	6.58	10.86	1.63	43.31
2.623	12.23	4.86	0.3	6.55	11.06	1.45	43.3
2.734	12.23	4.87	0.53	6.54	11.04	1.26	43.36
2.837	12.23	4.87	0.5	6.55	10.76	1.12	43.38
2.953	12.24	4.87	0.57	6.57	10.31	1.12	43.37
3.095	12.24	4.87	0.38	6.62	10.14	1.1	43.37
3.226	12.24	4.87	0.5	6.7	10.26	1.18	43.37
3.323	12.24	4.87	0.42	6.79	10.11	1.22	43.37
3.409	12.24	4.87	0.42	6.85	9.78	0.98	43.37
3.471	12.24	4.87	0.42	6.94	9.55	1.03	43.37
3.539	12.24	4.87	0.57	7.01	9.53	0.95	43.37
3.661	12.24	4.87	0.42	7.04	9.27	1.25	43.37
3.808	12.24	4.87	0.53	7.06	9.29	1.22	43.37
3.928	12.24	4.87	0.42	7.06	9.08	1.2	43.37
4.011	12.25	4.87	0.57	7.05	8.95	1.03	43.37
4.093	12.25	4.87	0.5	7.03	8.65	1.32	43.37
4.196	12.25	4.87	0.3	7.03	8.54	1.59	43.37

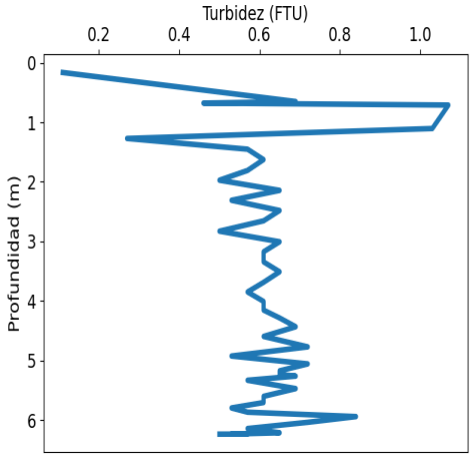
4.326	12.25	4.87	0.5	7.0	8.39	1.44	43.37
4.449	12.24	4.87	0.42	6.99	8.3	1.21	43.37
4.539	12.24	4.87	0.5	6.98	8.21	1.2	43.37
4.625	12.24	4.87	0.5	6.96	7.93	1.03	43.37
4.722	12.24	4.87	0.38	6.96	7.73	1.15	43.37
4.82	12.24	4.87	0.42	6.95	7.7	1.37	43.37
4.913	12.24	4.87	0.3	6.95	7.69	1.17	43.37
5.01	12.24	4.87	0.5	6.94	7.47	1.36	43.37
5.098	12.24	4.87	0.3	6.95	7.3	1.15	43.37
5.182	12.24	4.87	0.46	6.95	7.1	1.2	43.37
5.279	12.24	4.87	0.42	6.96	6.95	1.33	43.37
5.379	12.24	4.87	0.38	6.96	6.84	1.26	43.37
5.458	12.24	4.87	0.5	6.97	6.87	1.35	43.37
5.498	12.24	4.87	0.3	6.99	6.83	1.48	43.38
5.506	12.24	4.87	0.5	6.99	6.8	1.45	43.37

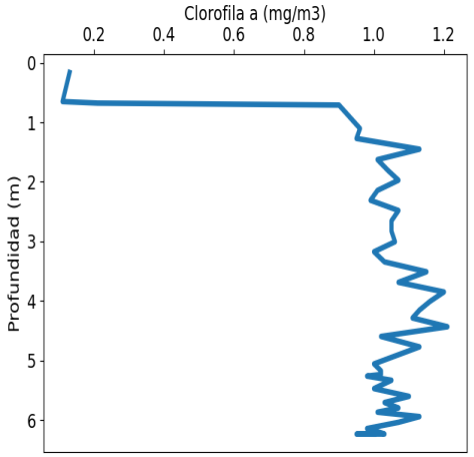
Nombre: CTD E03 - Punto 003 **Fecha: 07/12/2021** **Hora: 08:12:19**

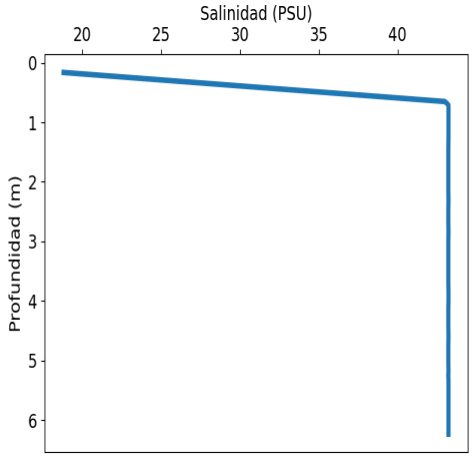


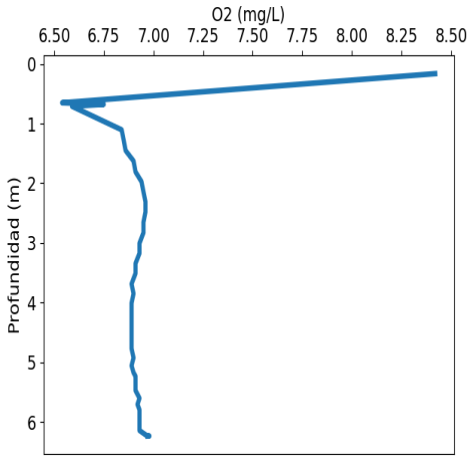


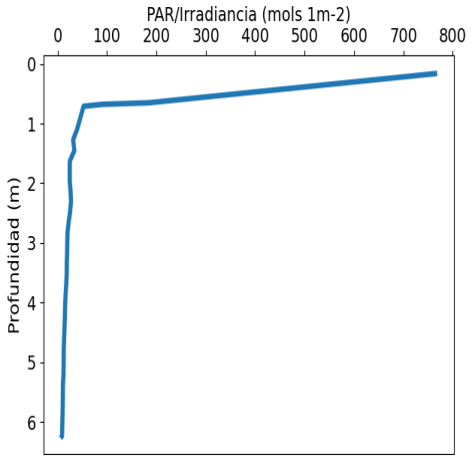


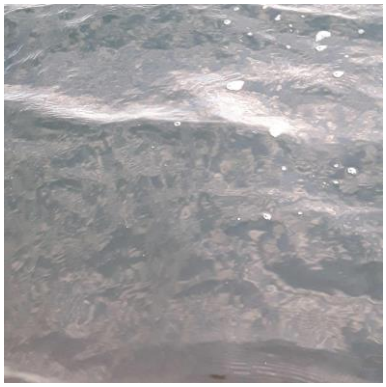












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	10.66	2.2	0.11	6.54	9.04	0.11	18.8
PROF (metros)	0.163	0.163	0.163	0.651	6.237	0.651	0.163
MÁXIMO	12.48	12.48	1.07	8.42	764.4	1.21	43.23
PROF (metros)	1.104	0.71	0.71	0.163	0.163	4.433	0.71

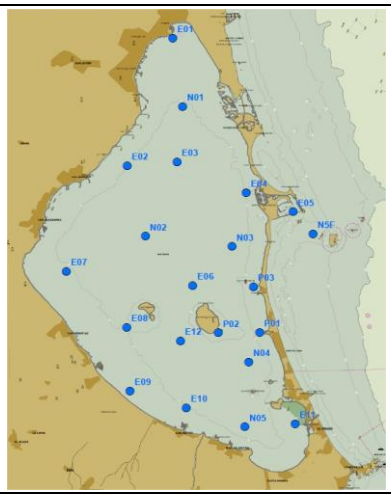
DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD E03 - Punto 003	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	11.97	4.2	0.58	7.07	273.07	0.34	37.03
1 - 2m	12.48	4.88	0.59	6.88	29.89	1.03	43.22
2 - 3m	12.48	4.88	0.59	6.96	24.37	1.03	43.23
3 - 4m	12.48	4.88	0.62	6.91	18.44	1.09	43.22
4 - 5m	12.48	4.88	0.63	6.89	13.96	1.12	43.22
5 - 6m	12.48	4.88	0.65	6.92	11.11	1.04	43.23
6 - 7m	12.48	4.88	0.59	6.96	9.28	1.01	43.23

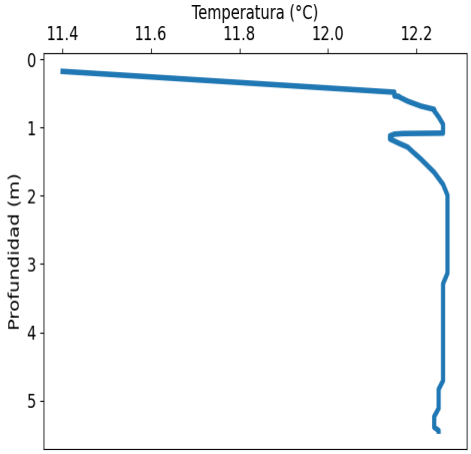
OBSERVACIONES GENERALES

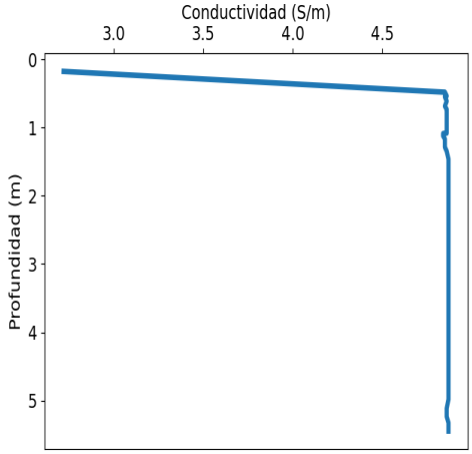
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.163	10.66	2.2	0.11	8.42	764.4	0.13	18.8
0.651	12.33	4.84	0.69	6.54	184.71	0.11	43.0
0.677	12.42	4.86	0.46	6.75	90.46	0.21	43.11
0.71	12.46	4.88	1.07	6.59	52.72	0.9	43.23
1.104	12.48	4.88	1.03	6.84	39.32	0.96	43.23
1.271	12.48	4.88	0.27	6.85	31.55	0.95	43.23
1.451	12.48	4.88	0.57	6.86	34.1	1.13	43.22
1.626	12.48	4.88	0.61	6.9	24.97	1.01	43.22
1.808	12.48	4.88	0.57	6.91	24.65	1.04	43.22
1.972	12.48	4.88	0.5	6.94	24.77	1.07	43.22
2.143	12.48	4.88	0.65	6.95	26.45	1.01	43.22
2.309	12.48	4.88	0.53	6.96	27.3	0.99	43.23
2.481	12.48	4.88	0.65	6.96	25.34	1.07	43.22
2.654	12.48	4.88	0.61	6.95	22.57	1.05	43.22
2.828	12.48	4.88	0.5	6.95	20.22	1.05	43.23
3.006	12.48	4.88	0.65	6.93	19.68	1.06	43.22
3.174	12.48	4.88	0.61	6.93	19.41	1.0	43.22
3.344	12.48	4.88	0.61	6.91	18.75	1.03	43.22
3.51	12.48	4.88	0.65	6.91	18.65	1.15	43.22
3.687	12.48	4.88	0.61	6.89	17.71	1.07	43.22
3.849	12.48	4.88	0.57	6.9	16.44	1.2	43.23
4.008	12.48	4.88	0.61	6.89	15.5	1.16	43.23
4.154	12.48	4.88	0.61	6.89	15.04	1.13	43.22
4.286	12.48	4.88	0.65	6.89	14.68	1.11	43.22
4.433	12.48	4.88	0.69	6.89	14.11	1.21	43.22
4.596	12.48	4.88	0.61	6.89	13.3	1.02	43.23
4.771	12.48	4.88	0.72	6.89	12.67	1.13	43.22
4.925	12.48	4.88	0.53	6.9	12.46	1.06	43.22
5.057	12.48	4.88	0.72	6.89	12.38	1.0	43.22
5.173	12.48	4.88	0.65	6.9	12.1	1.02	43.23
5.235	12.48	4.88	0.65	6.91	12.11	1.02	43.22
5.262	12.48	4.88	0.69	6.91	11.74	0.98	43.22
5.332	12.48	4.88	0.57	6.91	11.12	1.05	43.23
5.472	12.48	4.88	0.69	6.91	10.8	1.0	43.23
5.602	12.48	4.88	0.61	6.93	10.73	1.1	43.23

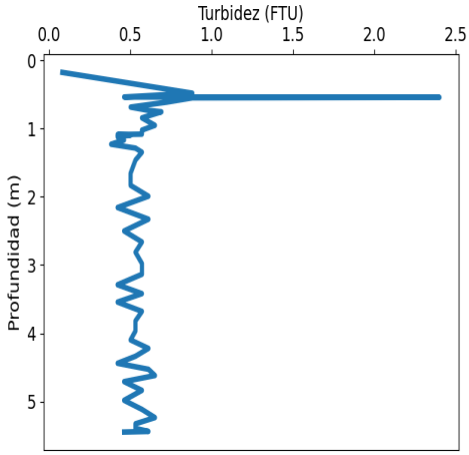
5.706	12.48	4.88	0.61	6.92	10.58	1.03	43.23
5.797	12.48	4.88	0.53	6.93	10.37	1.07	43.23
5.868	12.48	4.88	0.57	6.93	10.28	1.01	43.23
5.942	12.48	4.88	0.84	6.93	9.96	1.13	43.23
6.038	12.48	4.88	0.72	6.93	9.66	1.07	43.23
6.143	12.48	4.88	0.57	6.93	9.39	0.98	43.23
6.214	12.48	4.88	0.65	6.96	9.32	1.02	43.23
6.235	12.48	4.88	0.53	6.97	9.13	1.03	43.23
6.236	12.48	4.88	0.57	6.98	9.12	0.95	43.23
6.237	12.48	4.88	0.5	6.97	9.04	1.0	43.23

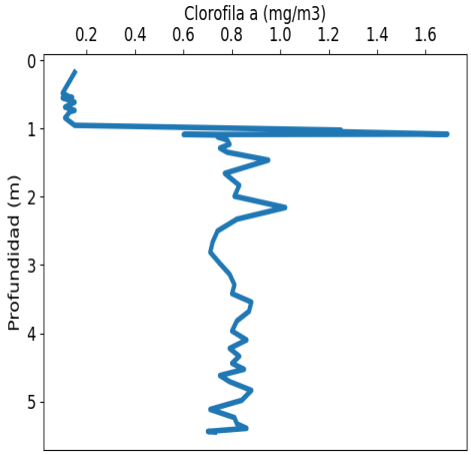
Nombre: CTD E02 - Punto 004 **Fecha: 07/12/2021** **Hora: 08:12:40**

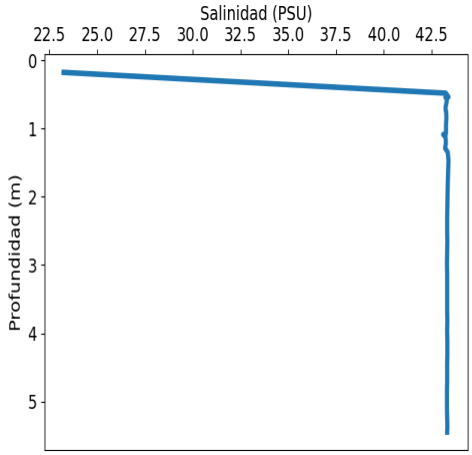


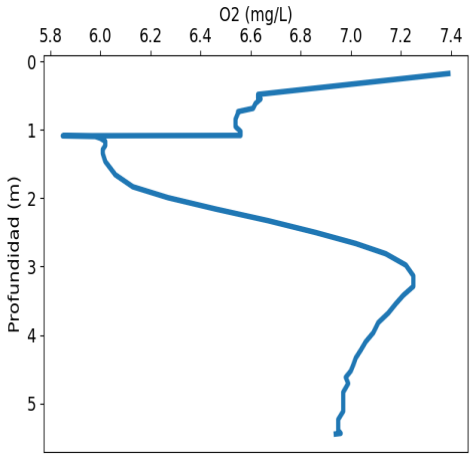


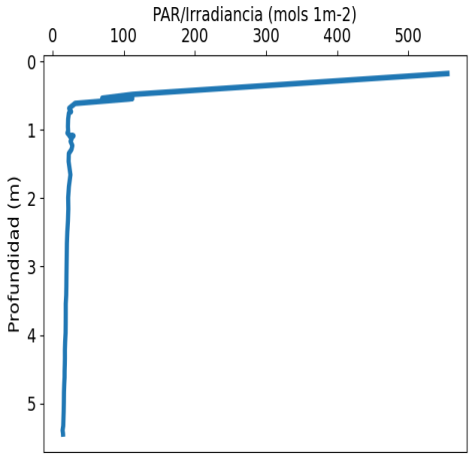












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	11.4	2.72	0.08	5.85	13.84	0.1	23.24
PROF (metros)	0.176	0.176	0.176	1.087	5.394	0.481	0.176
MÁXIMO	12.27	12.27	2.4	7.39	555.15	1.69	43.39
PROF (metros)	1.991	1.462	0.542	0.176	0.176	1.081	0.537

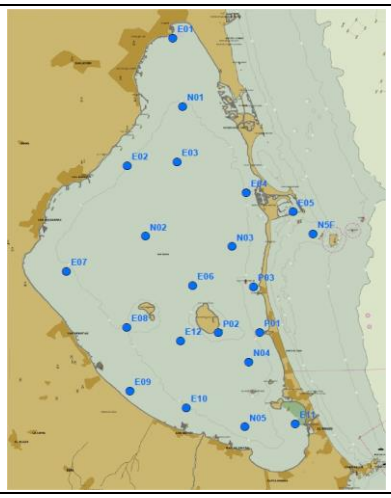
DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD E02 - Punto 004	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	12.13	4.66	0.77	6.67	100.13	0.13	41.45
1 - 2m	12.21	4.86	0.51	6.15	24.27	0.91	43.27
2 - 3m	12.27	4.87	0.53	6.89	20.48	0.79	43.32
3 - 4m	12.26	4.87	0.52	7.18	18.61	0.82	43.32
4 - 5m	12.26	4.87	0.53	7.0	16.63	0.82	43.32
5 - 6m	12.25	4.87	0.56	6.95	14.66	0.77	43.32

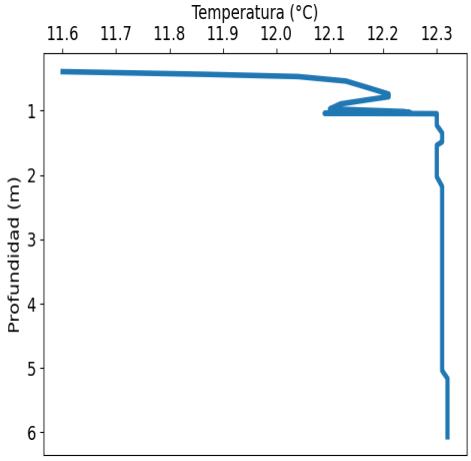
OBSERVACIONES GENERALES

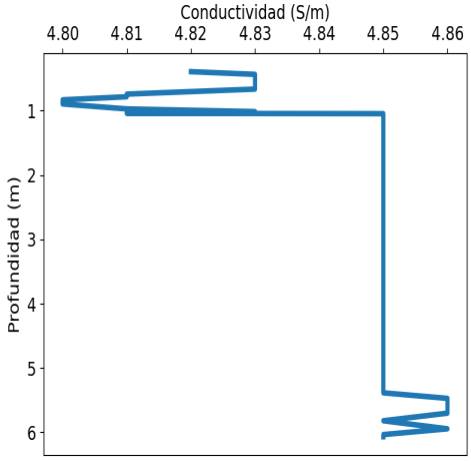
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.176	11.4	2.72	0.08	7.39	555.15	0.15	23.24
0.481	12.15	4.85	0.88	6.63	112.3	0.1	43.25
0.537	12.15	4.86	0.46	6.63	69.54	0.13	43.39
0.542	12.16	4.85	2.4	6.64	111.98	0.14	43.23
0.549	12.16	4.85	0.88	6.64	106.47	0.1	43.31
0.613	12.18	4.86	0.72	6.62	31.47	0.15	43.29
0.685	12.21	4.85	0.5	6.61	23.0	0.11	43.24
0.733	12.24	4.86	0.61	6.55	25.86	0.15	43.24
0.754	12.24	4.86	0.69	6.55	22.67	0.13	43.27
0.843	12.25	4.86	0.57	6.54	21.64	0.11	43.28
0.952	12.26	4.86	0.65	6.54	21.35	0.15	43.26
1.022	12.26	4.86	0.57	6.56	21.7	1.25	43.26
1.045	12.26	4.86	0.57	6.56	20.6	1.23	43.26
1.081	12.26	4.86	0.57	6.56	23.7	1.69	43.25
1.087	12.17	4.84	0.42	5.85	29.3	0.6	43.11
1.096	12.15	4.84	0.5	5.98	24.31	0.77	43.16
1.121	12.14	4.84	0.42	6.0	26.98	0.74	43.23
1.167	12.14	4.85	0.46	6.02	25.0	0.78	43.25
1.229	12.16	4.85	0.38	6.02	27.62	0.79	43.25
1.286	12.18	4.85	0.53	6.01	26.37	0.75	43.21
1.346	12.19	4.86	0.57	6.01	22.6	0.78	43.35
1.462	12.21	4.87	0.53	6.02	22.31	0.95	43.39
1.656	12.24	4.87	0.5	6.06	24.88	0.77	43.37
1.832	12.26	4.87	0.5	6.13	22.69	0.83	43.35
1.991	12.27	4.87	0.61	6.27	21.71	0.81	43.34
2.157	12.27	4.87	0.42	6.46	21.93	1.02	43.33
2.328	12.27	4.87	0.61	6.67	21.4	0.82	43.32
2.501	12.27	4.87	0.46	6.86	20.47	0.74	43.32
2.662	12.27	4.87	0.57	7.02	19.9	0.72	43.33
2.812	12.27	4.87	0.53	7.14	19.71	0.71	43.32
2.978	12.27	4.87	0.57	7.22	19.49	0.75	43.31
3.135	12.27	4.87	0.57	7.25	19.3	0.79	43.32
3.289	12.26	4.87	0.42	7.25	19.17	0.81	43.32
3.419	12.26	4.87	0.57	7.21	18.95	0.8	43.32
3.543	12.26	4.87	0.42	7.18	18.29	0.88	43.32
3.679	12.26	4.87	0.57	7.15	18.28	0.87	43.32

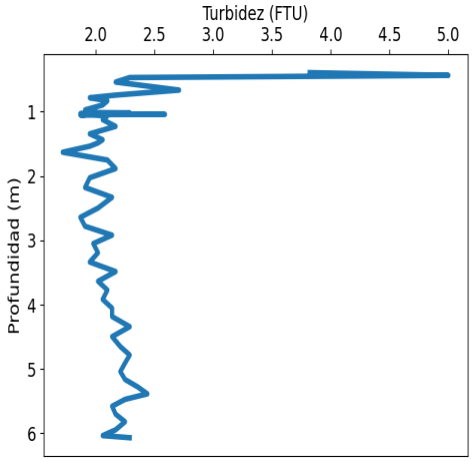
3.819	12.26	4.87	0.53	7.11	18.22	0.82	43.33
3.967	12.26	4.87	0.53	7.09	18.08	0.8	43.32
4.098	12.26	4.87	0.5	7.06	17.47	0.86	43.33
4.222	12.26	4.87	0.61	7.04	17.1	0.79	43.33
4.337	12.26	4.87	0.53	7.02	17.12	0.83	43.33
4.44	12.26	4.87	0.42	7.01	16.94	0.8	43.32
4.528	12.26	4.87	0.61	7.0	16.7	0.85	43.32
4.619	12.26	4.87	0.65	6.98	16.65	0.75	43.32
4.709	12.26	4.87	0.46	6.99	16.23	0.79	43.32
4.837	12.25	4.87	0.57	6.97	15.8	0.88	43.31
4.983	12.25	4.87	0.46	6.97	15.63	0.84	43.31
5.116	12.25	4.86	0.57	6.97	15.39	0.71	43.31
5.236	12.24	4.86	0.65	6.95	15.04	0.81	43.32
5.327	12.24	4.87	0.53	6.95	14.79	0.82	43.33
5.394	12.24	4.87	0.53	6.95	13.84	0.86	43.33
5.439	12.25	4.87	0.61	6.96	14.43	0.7	43.32
5.448	12.25	4.87	0.46	6.94	14.48	0.73	43.32

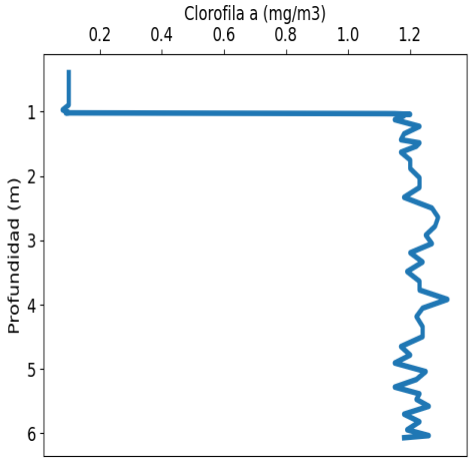
Nombre: CTD N02 - Punto 005 **Fecha: 07/12/2021** **Hora: 08:12:01**

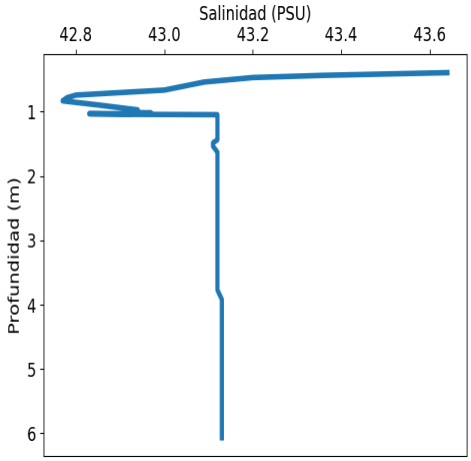


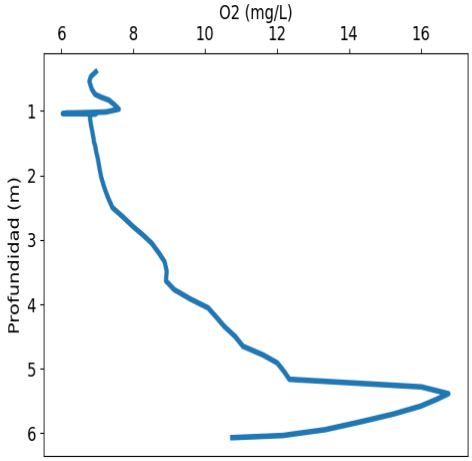


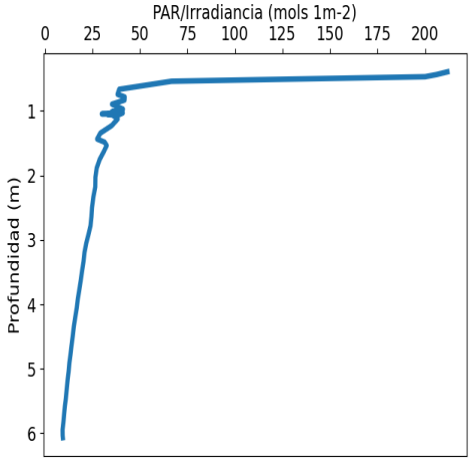












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	11.6	4.8	1.72	6.04	9.28	0.08	42.77
PROF (metros)	0.393	0.831	1.63	1.041	5.945	0.972	0.831
MÁXIMO	12.32	12.32	5.0	16.76	211.77	1.32	43.64
PROF (metros)	5.163	5.472	0.435	5.386	0.393	3.918	0.393

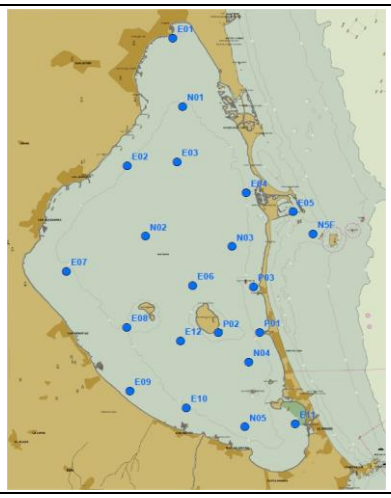
DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD N02 - Punto 005	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	12.07	4.82	2.62	7.07	92.19	0.1	43.04
1 - 2m	12.28	4.84	2.04	6.81	34.1	1.07	43.06
2 - 3m	12.31	4.85	1.99	7.56	24.95	1.25	43.12
3 - 4m	12.31	4.85	2.04	8.95	19.51	1.24	43.12
4 - 5m	12.31	4.85	2.21	10.91	14.69	1.21	43.13
5 - 6m	12.32	4.85	2.25	14.74	10.87	1.21	43.13
6 - 7m	12.32	4.85	2.17	11.45	9.37	1.22	43.13

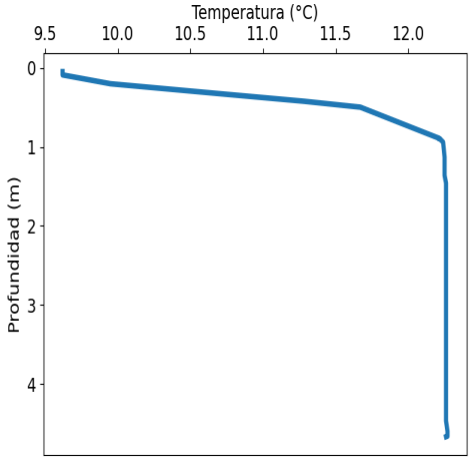
OBSERVACIONES GENERALES

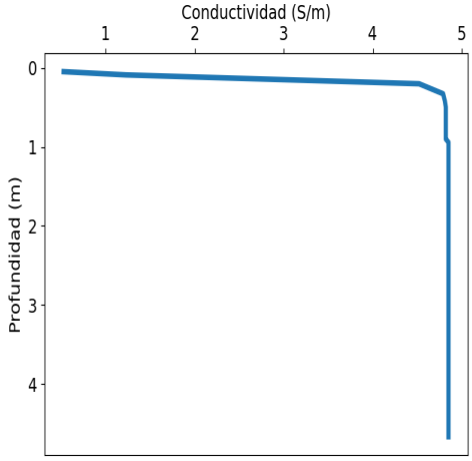
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.393	11.6	4.82	3.82	6.96	211.77	0.1	43.64
0.435	11.87	4.83	5.0	6.88	206.06	0.1	43.36
0.469	12.04	4.83	2.29	6.82	199.99	0.1	43.2
0.539	12.13	4.83	2.17	6.78	66.6	0.1	43.09
0.664	12.18	4.83	2.71	6.85	39.06	0.1	43.0
0.742	12.21	4.81	2.17	6.94	38.2	0.1	42.8
0.783	12.21	4.81	1.95	7.09	41.98	0.1	42.78
0.831	12.17	4.8	2.1	7.32	41.88	0.1	42.77
0.895	12.12	4.8	2.06	7.46	35.25	0.1	42.85
0.972	12.1	4.81	1.91	7.6	41.07	0.08	42.94
1.014	12.24	4.83	2.02	7.26	35.09	0.1	42.94
1.018	12.24	4.83	2.29	7.15	39.34	0.09	42.97
1.03	12.25	4.83	2.14	6.38	38.05	1.12	42.92
1.031	12.17	4.81	1.87	6.16	40.98	1.15	42.83
1.041	12.09	4.81	2.59	6.04	36.69	1.2	42.91
1.046	12.29	4.85	1.87	6.96	29.88	1.17	43.11
1.047	12.3	4.85	1.91	6.82	38.75	1.17	43.12
1.049	12.3	4.85	1.87	6.82	39.75	1.16	43.12
1.05	12.3	4.85	1.98	6.79	32.84	1.17	43.12
1.064	12.3	4.85	2.1	6.8	35.59	1.18	43.12
1.124	12.3	4.85	2.06	6.8	38.29	1.15	43.12
1.228	12.3	4.85	2.17	6.83	35.11	1.23	43.12
1.344	12.31	4.85	1.95	6.87	29.16	1.18	43.12
1.436	12.31	4.85	2.06	6.9	27.46	1.17	43.12
1.485	12.31	4.85	2.02	6.91	31.43	1.23	43.11
1.536	12.3	4.85	1.95	6.94	32.49	1.22	43.11
1.63	12.3	4.85	1.72	6.97	30.97	1.17	43.12
1.751	12.3	4.85	2.1	7.02	28.82	1.2	43.12
1.884	12.3	4.85	2.17	7.06	27.25	1.2	43.12
2.027	12.3	4.85	1.95	7.11	26.56	1.23	43.12
2.178	12.31	4.85	1.91	7.19	26.48	1.23	43.12
2.331	12.31	4.85	2.14	7.29	25.5	1.18	43.12
2.498	12.31	4.85	2.02	7.42	24.78	1.27	43.12
2.642	12.31	4.85	1.87	7.71	24.46	1.29	43.12
2.781	12.31	4.85	1.91	7.97	23.98	1.28	43.12

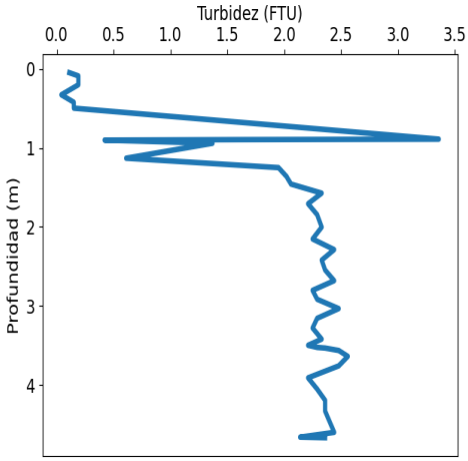
2.919	12.31	4.85	2.14	8.26	22.88	1.25	43.12
3.05	12.31	4.85	1.98	8.51	21.75	1.27	43.12
3.193	12.31	4.85	2.02	8.7	20.82	1.2	43.12
3.337	12.31	4.85	1.95	8.87	20.29	1.24	43.12
3.485	12.31	4.85	2.17	8.93	19.52	1.19	43.12
3.636	12.31	4.85	2.02	8.91	18.8	1.23	43.12
3.772	12.31	4.85	2.1	9.14	18.09	1.23	43.12
3.918	12.31	4.85	2.06	9.59	17.29	1.32	43.13
4.054	12.31	4.85	2.14	10.08	16.74	1.24	43.13
4.185	12.31	4.85	2.14	10.29	16.03	1.22	43.13
4.342	12.31	4.85	2.29	10.53	15.21	1.24	43.13
4.497	12.31	4.85	2.14	10.83	14.61	1.24	43.13
4.651	12.31	4.85	2.21	11.05	13.94	1.17	43.13
4.783	12.31	4.85	2.29	11.6	13.43	1.2	43.13
4.907	12.31	4.85	2.25	12.0	12.87	1.15	43.13
5.04	12.31	4.85	2.21	12.19	12.47	1.25	43.13
5.163	12.32	4.85	2.25	12.34	11.97	1.22	43.13
5.281	12.32	4.85	2.36	16.01	11.58	1.15	43.13
5.386	12.32	4.85	2.44	16.76	11.24	1.23	43.13
5.472	12.32	4.86	2.25	16.44	10.96	1.22	43.13
5.579	12.32	4.86	2.14	15.99	10.5	1.26	43.13
5.702	12.32	4.86	2.17	15.23	10.1	1.18	43.13
5.82	12.32	4.85	2.25	14.34	9.75	1.23	43.13
5.945	12.32	4.86	2.17	13.33	9.28	1.19	43.13
6.035	12.32	4.85	2.06	12.15	9.32	1.26	43.13
6.068	12.32	4.85	2.29	10.75	9.43	1.18	43.13

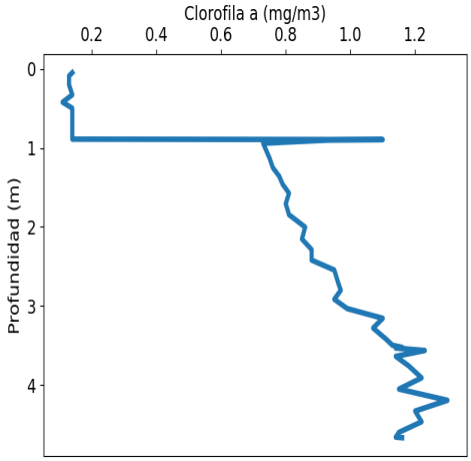
Nombre: CTD E07 - Punto 006 **Fecha: 07/12/2021** **Hora: 08:12:57**

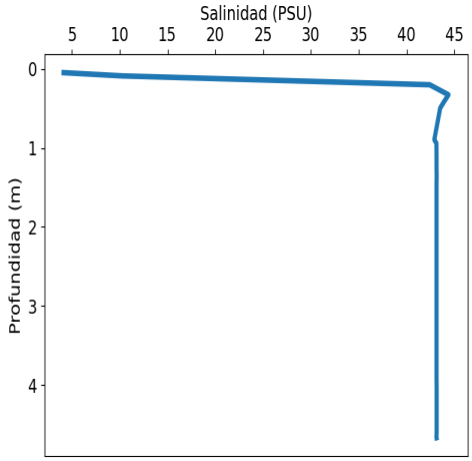


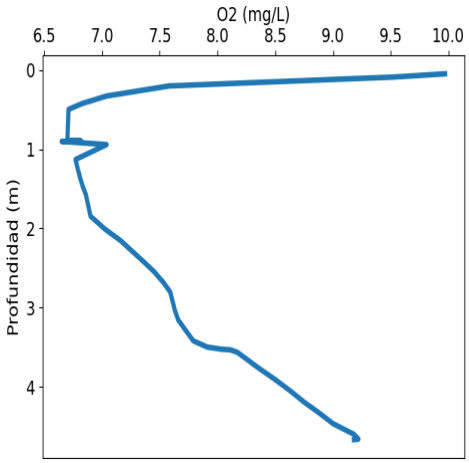


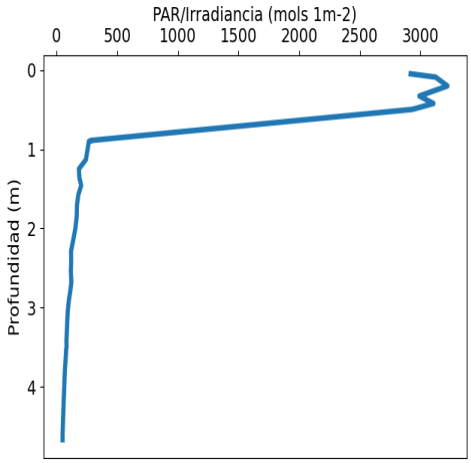












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	9.62	0.53	0.04	6.65	49.6	0.11	4.12
PROF (metros)	0.049	0.049	0.329	0.902	4.598	0.423	0.049
MÁXIMO	12.27	12.27	3.36	9.97	3224.1	1.3	44.39
PROF (metros)	4.464	0.942	0.89	0.049	0.202	4.193	0.329

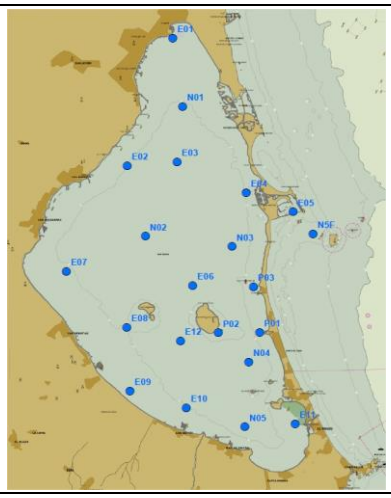
DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD E07 - Punto 006	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	11.17	4.0	0.76	7.49	1940.05	0.37	36.05
1 - 2m	12.26	4.85	1.92	6.84	190.28	0.79	43.14
2 - 3m	12.26	4.85	2.34	7.37	123.1	0.91	43.14
3 - 4m	12.26	4.85	2.36	8.01	79.88	1.14	43.14
4 - 5m	12.26	4.85	2.34	8.98	53.99	1.19	43.14

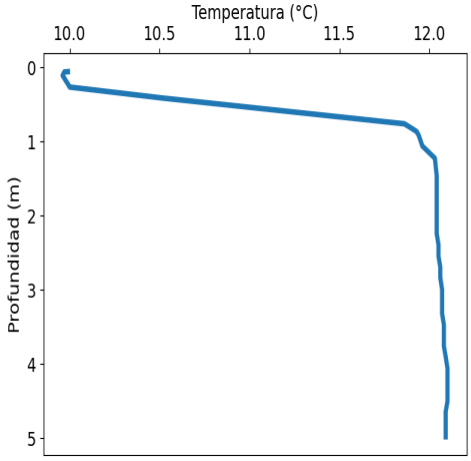
OBSERVACIONES GENERALES

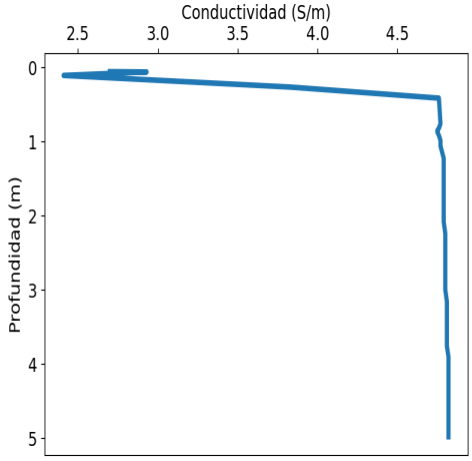
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.049	9.62	0.53	0.11	9.97	2920.3	0.14	4.12
0.09	9.62	1.23	0.19	9.52	3125.5	0.13	10.26
0.202	9.95	4.52	0.19	7.58	3224.1	0.13	42.43
0.329	10.71	4.79	0.04	7.04	2992.2	0.14	44.39
0.423	11.28	4.81	0.15	6.83	3108.9	0.11	43.89
0.498	11.67	4.82	0.15	6.71	2934.6	0.14	43.52
0.89	12.21	4.82	3.36	6.7	283.46	0.14	42.92
0.896	12.21	4.82	1.6	6.82	283.4	1.1	42.92
0.902	12.22	4.82	0.42	6.65	265.84	0.93	42.93
0.942	12.24	4.85	1.37	7.04	262.17	0.73	43.13
1.131	12.25	4.85	0.61	6.77	242.24	0.75	43.14
1.25	12.25	4.85	1.95	6.79	183.94	0.76	43.14
1.361	12.25	4.85	2.02	6.81	188.29	0.78	43.15
1.458	12.26	4.85	2.06	6.83	203.12	0.79	43.14
1.573	12.26	4.85	2.33	6.86	179.72	0.81	43.14
1.707	12.26	4.85	2.21	6.88	168.31	0.8	43.14
1.845	12.26	4.85	2.29	6.9	166.33	0.81	43.14
2.003	12.26	4.85	2.33	7.02	154.95	0.86	43.14
2.153	12.26	4.85	2.25	7.16	136.56	0.85	43.14
2.287	12.26	4.85	2.44	7.26	119.58	0.88	43.14
2.42	12.26	4.85	2.33	7.36	120.63	0.88	43.14
2.545	12.26	4.85	2.36	7.45	117.76	0.95	43.14
2.68	12.26	4.85	2.44	7.53	122.47	0.96	43.14
2.802	12.26	4.85	2.25	7.59	112.09	0.97	43.14
2.915	12.26	4.85	2.29	7.61	100.8	0.95	43.14
3.033	12.26	4.85	2.48	7.63	93.03	0.99	43.14
3.156	12.26	4.85	2.29	7.66	88.55	1.1	43.14
3.279	12.26	4.85	2.25	7.72	85.41	1.07	43.14
3.419	12.26	4.85	2.33	7.79	81.5	1.11	43.14
3.497	12.26	4.85	2.21	7.91	82.53	1.13	43.14
3.524	12.26	4.85	2.29	8.03	79.95	1.16	43.14
3.532	12.26	4.85	2.36	8.11	78.59	1.14	43.14
3.563	12.26	4.85	2.48	8.17	78.62	1.23	43.14
3.637	12.26	4.85	2.56	8.24	75.27	1.14	43.14
3.757	12.26	4.85	2.48	8.35	69.89	1.18	43.14
3.909	12.26	4.85	2.21	8.5	65.32	1.22	43.14
4.051	12.26	4.85	2.29	8.63	62.16	1.15	43.15

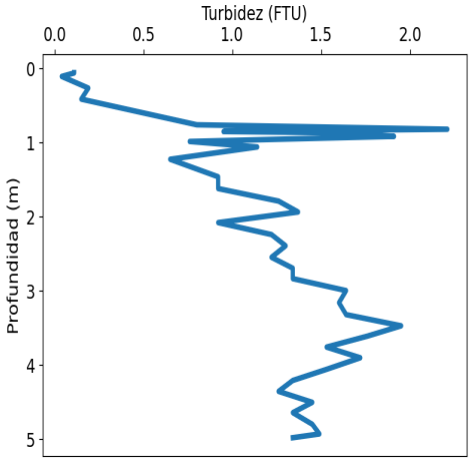
4.193	12.26	4.85	2.36	8.75	58.41	1.3	43.15
4.329	12.26	4.85	2.36	8.88	55.55	1.2	43.15
4.464	12.26	4.85	2.4	9.0	52.59	1.22	43.15
4.598	12.27	4.85	2.44	9.18	49.6	1.15	43.15
4.659	12.27	4.85	2.14	9.22	49.84	1.14	43.13
4.666	12.26	4.85	2.36	9.18	49.79	1.16	43.14

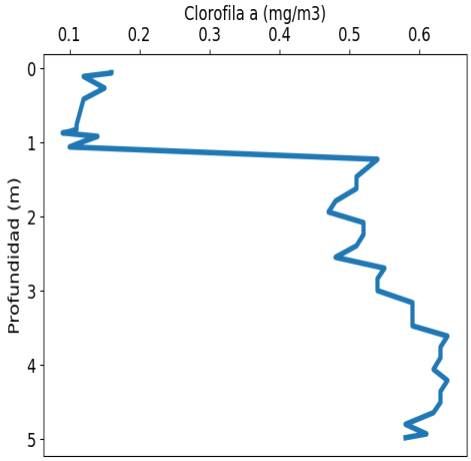
Nombre: CTD E08 - Punto 007 **Fecha: 07/12/2021** **Hora: 09:12:09**

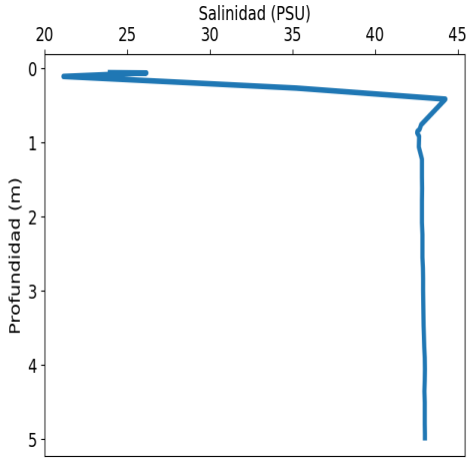


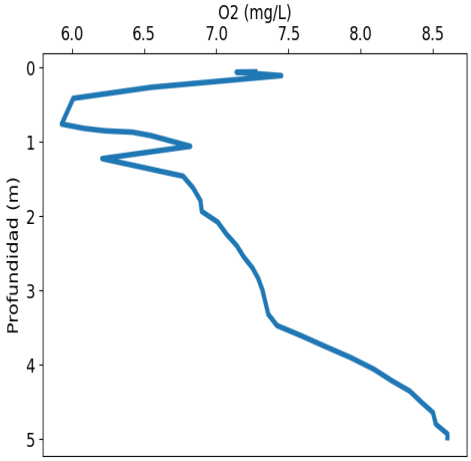


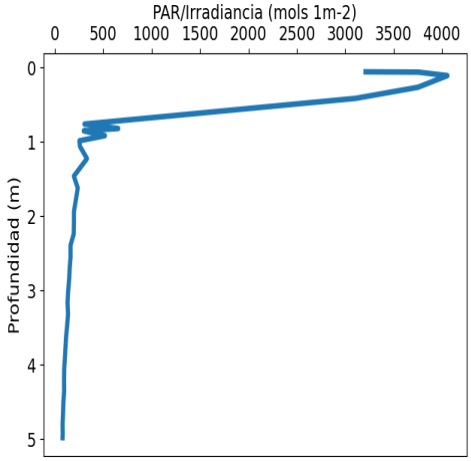












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	9.96	2.41	0.04	5.93	79.28	0.09	21.15
PROF (metros)	0.105	0.105	0.105	0.757	4.977	0.866	0.105
MÁXIMO	12.1	12.1	2.21	8.6	4056.6	0.64	44.26
PROF (metros)	4.055	3.899	0.817	4.926	0.105	3.607	0.411

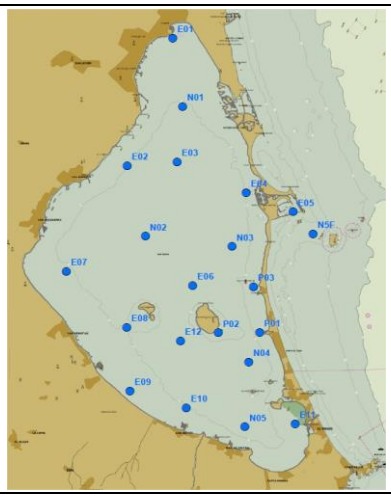
DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD E08 - Punto 007	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	11.08	4.11	0.81	6.57	1842.3	0.13	36.97
1 - 2m	12.03	4.79	1.04	6.74	239.06	0.44	42.81
2 - 3m	12.05	4.8	1.28	7.18	164.68	0.52	42.88
3 - 4m	12.08	4.81	1.7	7.57	120.36	0.61	42.96
4 - 5m	12.09	4.82	1.4	8.41	87.18	0.61	43.01

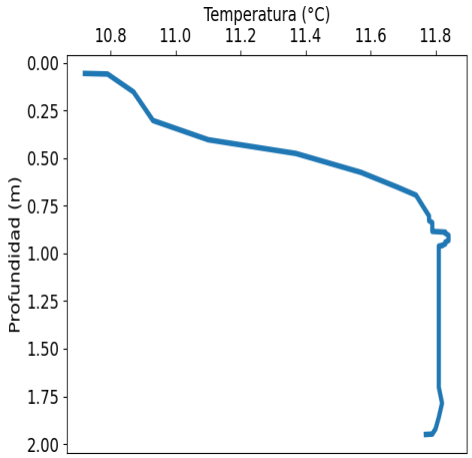
OBSERVACIONES GENERALES

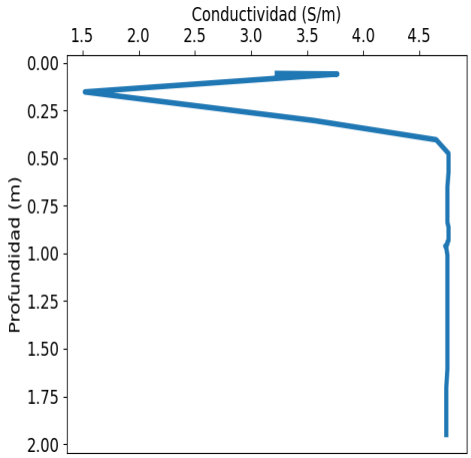
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.054	9.99	2.7	0.11	7.27	3209.9	0.16	23.96
0.058	9.97	2.93	0.11	7.14	3756.2	0.16	26.17
0.105	9.96	2.41	0.04	7.45	4056.6	0.12	21.15
0.262	10.0	3.83	0.19	6.55	3750.9	0.15	35.24
0.411	10.52	4.76	0.15	6.01	3107.5	0.12	44.26
0.757	11.86	4.77	0.8	5.93	305.0	0.11	42.79
0.817	11.9	4.76	2.21	6.09	654.6	0.11	42.7
0.848	11.92	4.75	0.95	6.23	297.6	0.1	42.56
0.866	11.93	4.75	1.64	6.42	356.0	0.09	42.55
0.913	11.94	4.76	1.91	6.55	517.86	0.14	42.67
0.982	11.95	4.77	0.76	6.68	253.15	0.12	42.66
1.056	11.96	4.77	1.14	6.82	258.49	0.1	42.65
1.222	12.03	4.79	0.65	6.21	331.47	0.54	42.84
1.458	12.04	4.79	0.92	6.77	196.04	0.51	42.84
1.617	12.04	4.79	0.92	6.84	236.09	0.51	42.85
1.786	12.04	4.79	1.26	6.89	215.49	0.48	42.84
1.933	12.04	4.79	1.37	6.9	196.77	0.47	42.84
2.076	12.04	4.79	0.92	7.01	196.82	0.52	42.84
2.237	12.04	4.8	1.22	7.07	194.19	0.52	42.87
2.389	12.05	4.8	1.3	7.14	161.29	0.51	42.87
2.544	12.05	4.8	1.22	7.19	161.85	0.48	42.87
2.691	12.06	4.8	1.34	7.25	152.98	0.55	42.9
2.832	12.06	4.8	1.34	7.29	147.96	0.54	42.91
2.993	12.07	4.8	1.64	7.32	137.7	0.54	42.91
3.156	12.07	4.81	1.6	7.34	130.4	0.59	42.92
3.317	12.07	4.81	1.64	7.36	135.61	0.59	42.93
3.468	12.08	4.81	1.95	7.42	126.33	0.59	42.94
3.607	12.08	4.81	1.76	7.59	116.57	0.64	42.96
3.755	12.08	4.81	1.53	7.76	109.67	0.63	42.98
3.899	12.09	4.82	1.72	7.93	103.55	0.63	43.01
4.055	12.1	4.82	1.53	8.09	95.99	0.62	43.02
4.205	12.1	4.82	1.34	8.21	94.42	0.64	43.01
4.352	12.1	4.82	1.26	8.34	95.39	0.63	42.99
4.5	12.1	4.82	1.45	8.42	87.65	0.63	43.01
4.639	12.09	4.82	1.34	8.5	84.44	0.62	43.01
4.796	12.09	4.82	1.45	8.52	79.65	0.58	43.01
4.926	12.09	4.82	1.49	8.6	80.64	0.61	43.02

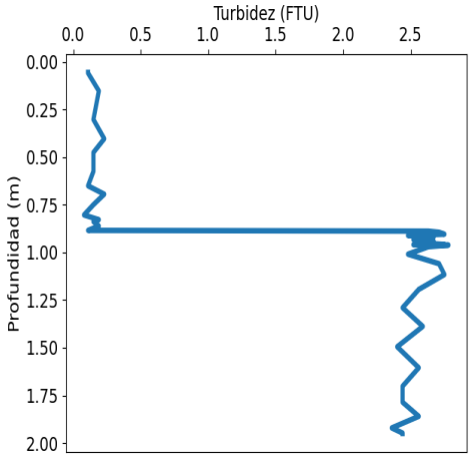
4.977	12.09	4.82	1.34	8.6	79.28	0.58	43.02

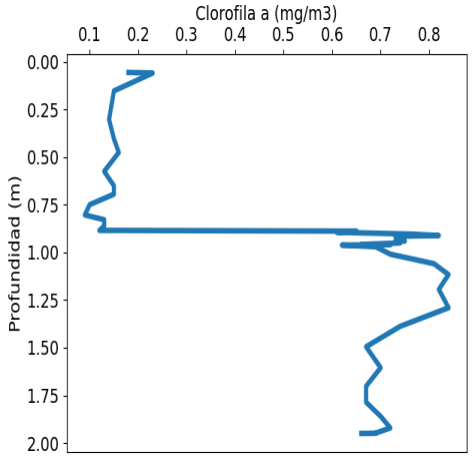
Nombre: CTD E09 - Punto 008 **Fecha: 07/12/2021** **Hora: 09:12:51**

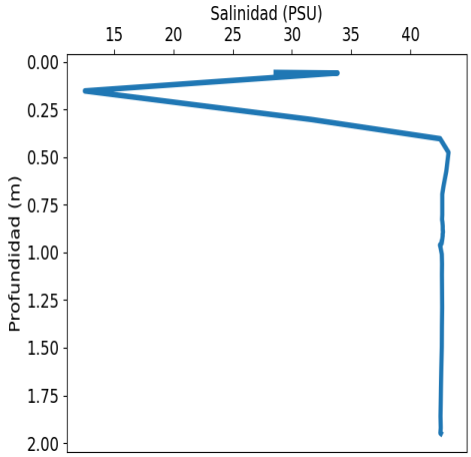


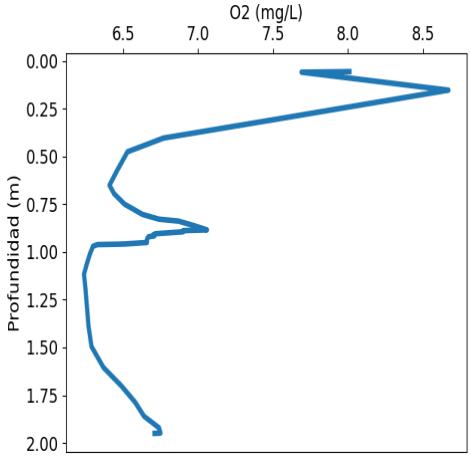


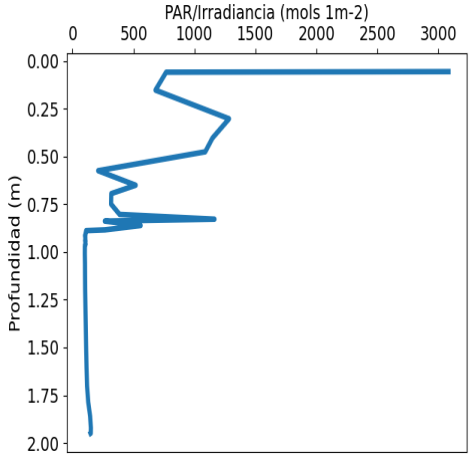












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	10.72	1.52	0.08	6.24	100.96	0.09	12.5
PROF (metros)	0.055	0.152	0.803	1.116	1.009	0.803	0.152
MÁXIMO	11.84	11.84	2.79	8.67	3083.8	0.84	43.23
PROF (metros)	0.904	0.475	0.961	0.152	0.055	1.116	0.475

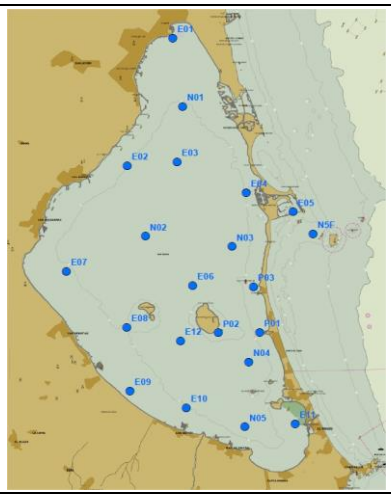
DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD E09 - Punto 008	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	11.63	4.52	1.4	6.83	454.63	0.43	40.57
1 - 2m	11.81	4.75	2.51	6.46	122.82	0.73	42.62

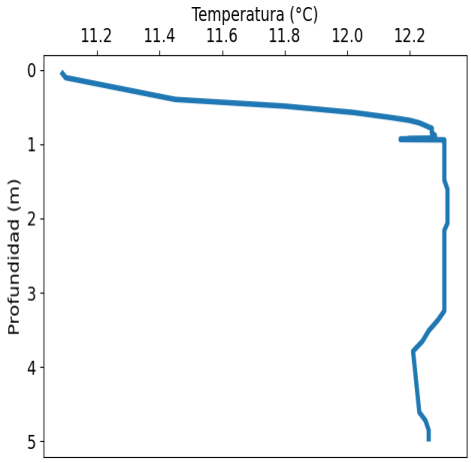
OBSERVACIONES GENERALES

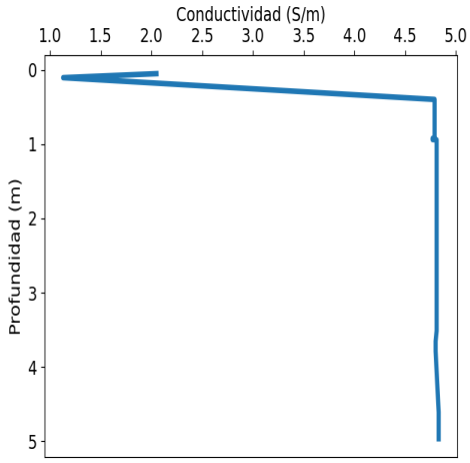
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.055	10.72	3.23	0.11	8.01	3083.8	0.18	28.62
0.058	10.79	3.77	0.11	7.69	767.95	0.23	33.86
0.152	10.87	1.52	0.19	8.67	680.28	0.15	12.5
0.302	10.93	3.56	0.15	7.54	1284.1	0.14	31.64
0.403	11.1	4.65	0.23	6.77	1147.8	0.15	42.52
0.475	11.37	4.76	0.15	6.53	1088.5	0.16	43.23
0.574	11.57	4.76	0.15	6.46	210.01	0.13	43.04
0.65	11.68	4.75	0.11	6.41	518.46	0.15	42.81
0.694	11.74	4.75	0.23	6.44	318.07	0.15	42.7
0.749	11.76	4.75	0.15	6.51	316.31	0.1	42.7
0.803	11.78	4.75	0.08	6.63	386.35	0.09	42.7
0.828	11.78	4.75	0.19	6.74	1164.4	0.13	42.68
0.838	11.79	4.75	0.15	6.87	264.73	0.13	42.71
0.861	11.79	4.76	0.19	6.97	559.15	0.13	42.74
0.884	11.79	4.76	0.11	7.06	265.96	0.12	42.74
0.888	11.83	4.76	2.63	6.9	111.54	0.65	42.76
0.894	11.83	4.76	2.71	6.9	109.9	0.61	42.76
0.904	11.84	4.76	2.75	6.72	106.62	0.77	42.73
0.906	11.84	4.76	2.67	6.71	105.31	0.78	42.73
0.911	11.84	4.76	2.48	6.7	105.44	0.82	42.74
0.915	11.84	4.76	2.63	6.71	102.38	0.73	42.73
0.92	11.84	4.76	2.67	6.67	104.88	0.74	42.72
0.932	11.84	4.76	2.52	6.66	104.97	0.74	42.7
0.94	11.83	4.75	2.63	6.66	105.93	0.75	42.65
0.941	11.83	4.75	2.67	6.66	103.67	0.73	42.64
0.95	11.83	4.75	2.59	6.66	106.07	0.74	42.66
0.958	11.82	4.74	2.75	6.51	104.92	0.66	42.56
0.959	11.82	4.74	2.52	6.47	103.91	0.72	42.57
0.961	11.81	4.73	2.78	6.33	106.29	0.62	42.5
0.97	11.81	4.74	2.63	6.3	101.32	0.69	42.54
1.009	11.81	4.75	2.48	6.28	100.96	0.72	42.66
1.059	11.81	4.75	2.71	6.26	102.28	0.81	42.68
1.116	11.81	4.75	2.75	6.24	102.69	0.84	42.67
1.194	11.81	4.75	2.56	6.25	103.59	0.82	42.68
1.29	11.81	4.75	2.44	6.26	106.1	0.84	42.69
1.388	11.81	4.75	2.59	6.27	108.76	0.74	42.67
1.495	11.81	4.75	2.4	6.29	111.62	0.67	42.66
1.605	11.81	4.75	2.56	6.37	115.09	0.7	42.62
1.702	11.81	4.74	2.44	6.49	119.44	0.67	42.59
1.786	11.82	4.74	2.44	6.58	128.87	0.67	42.57

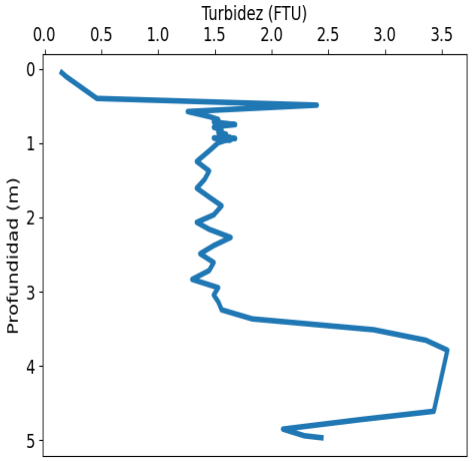
1.86	11.81	4.74	2.56	6.64	144.51	0.7	42.55
1.921	11.8	4.74	2.36	6.74	150.63	0.72	42.57
1.948	11.79	4.74	2.44	6.75	149.79	0.69	42.54
1.949	11.78	4.74	2.44	6.74	150.07	0.69	42.56
1.95	11.77	4.74	2.44	6.71	147.89	0.66	42.58

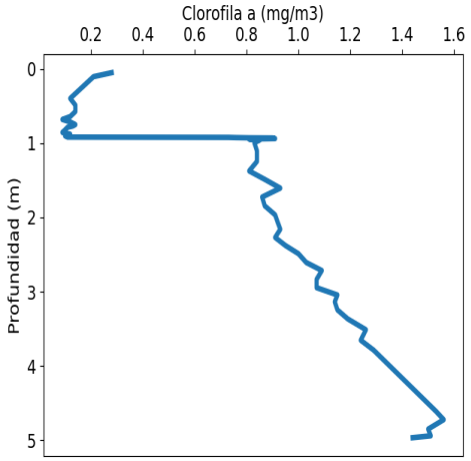
Nombre: CTD E10 - Punto 009 **Fecha: 07/12/2021** **Hora: 09:12:44**

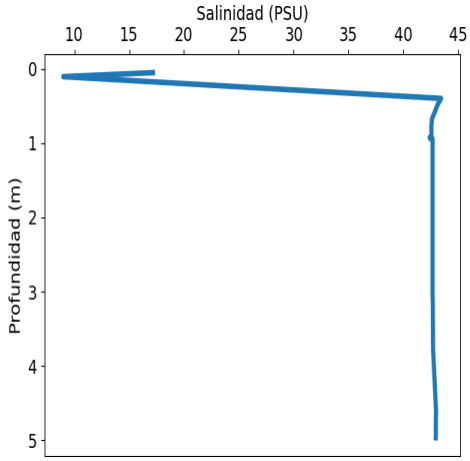


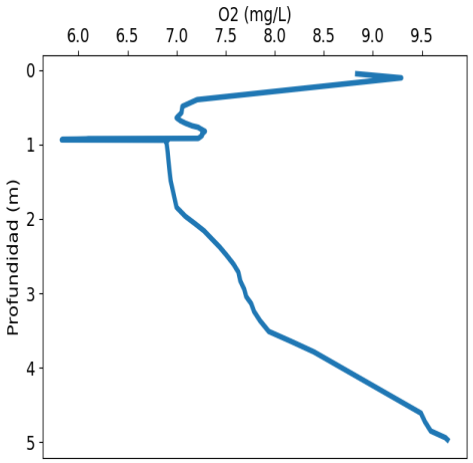


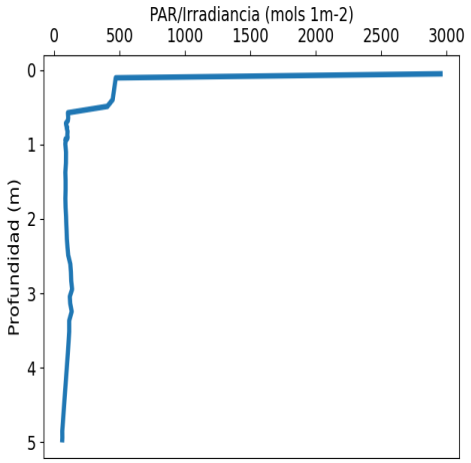












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	11.09	1.13	0.15	5.83	60.82	0.09	8.99
PROF (metros)	0.053	0.107	0.053	0.94	4.966	0.683	0.107
MÁXIMO	12.32	12.32	3.55	9.76	2952.3	1.56	43.44
PROF (metros)	1.607	4.61	3.788	4.966	0.053	4.723	0.4

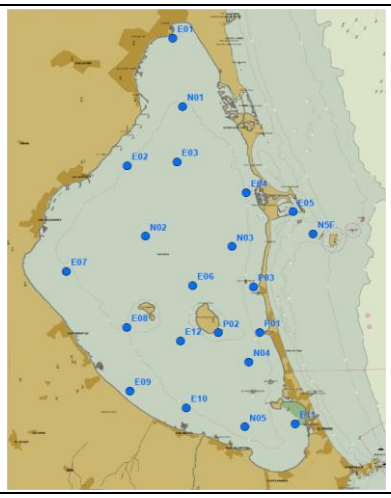
DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD E10 - Punto 009	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	12.1	4.54	1.43	7.03	244.01	0.4	40.35
1 - 2m	12.31	4.81	1.44	6.97	87.07	0.87	42.66
2 - 3m	12.31	4.81	1.45	7.48	111.63	1.0	42.66
3 - 4m	12.27	4.81	2.32	7.95	116.37	1.2	42.69
4 - 5m	12.25	4.83	2.61	9.62	64.03	1.51	42.96

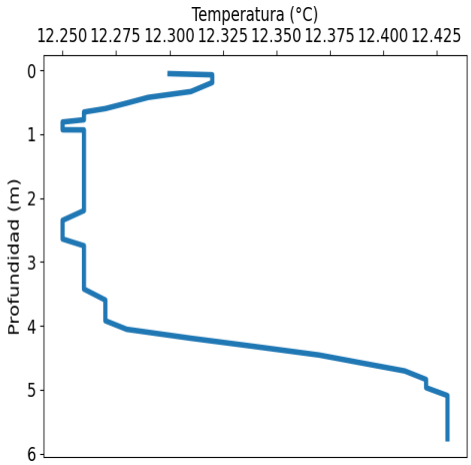
OBSERVACIONES GENERALES

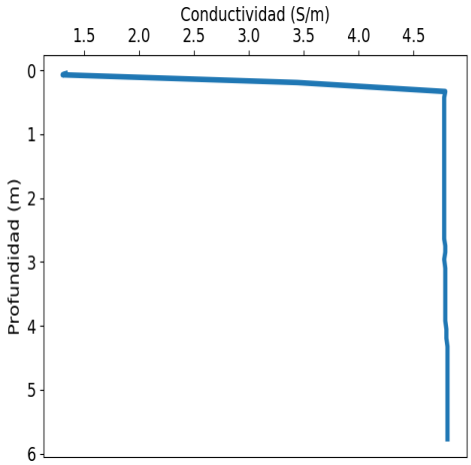
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.053	11.09	2.05	0.15	8.84	2952.3	0.28	17.17
0.107	11.1	1.13	0.19	9.29	469.71	0.21	8.99
0.4	11.45	4.79	0.46	7.21	446.16	0.12	43.44
0.49	11.8	4.79	2.4	7.06	405.62	0.14	43.1
0.576	12.02	4.79	1.26	7.05	104.1	0.14	42.88
0.644	12.14	4.79	1.45	7.0	106.42	0.12	42.69
0.683	12.2	4.79	1.53	7.04	103.86	0.09	42.59
0.716	12.23	4.79	1.49	7.09	88.74	0.12	42.59
0.752	12.25	4.79	1.68	7.16	92.43	0.14	42.56
0.771	12.26	4.79	1.56	7.22	98.81	0.13	42.54
0.788	12.27	4.79	1.49	7.24	95.72	0.11	42.55
0.825	12.27	4.79	1.56	7.29	101.6	0.1	42.56
0.857	12.27	4.79	1.53	7.26	100.29	0.09	42.55
0.881	12.28	4.79	1.6	7.26	99.27	0.12	42.55
0.903	12.28	4.79	1.56	7.24	101.79	0.1	42.55
0.92	12.28	4.79	1.53	7.22	100.4	0.11	42.51
0.924	12.2	4.77	1.56	6.1	92.84	0.73	42.41
0.927	12.2	4.77	1.64	6.08	86.48	0.76	42.42
0.93	12.19	4.77	1.6	5.98	85.76	0.81	42.4
0.932	12.17	4.77	1.49	5.84	86.88	0.9	42.41
0.94	12.17	4.77	1.68	5.83	92.9	0.91	42.44
0.944	12.31	4.81	1.53	6.91	88.3	0.85	42.66
0.947	12.31	4.81	1.53	6.91	87.17	0.81	42.66
0.958	12.31	4.81	1.64	6.9	86.82	0.85	42.66
0.961	12.31	4.81	1.6	6.89	85.58	0.85	42.66
0.996	12.31	4.81	1.53	6.9	84.27	0.83	42.66
1.105	12.31	4.81	1.45	6.91	89.54	0.84	42.66
1.248	12.31	4.81	1.34	6.92	89.02	0.84	42.66
1.376	12.31	4.81	1.45	6.93	84.52	0.81	42.66
1.489	12.31	4.81	1.41	6.94	86.34	0.87	42.66
1.607	12.32	4.81	1.34	6.96	86.36	0.93	42.66
1.727	12.32	4.81	1.45	6.98	84.74	0.86	42.66
1.845	12.32	4.81	1.56	7.0	86.2	0.87	42.66
1.967	12.32	4.81	1.49	7.09	89.85	0.91	42.66
2.067	12.32	4.81	1.34	7.19	91.73	0.92	42.66
2.161	12.31	4.81	1.45	7.28	94.09	0.93	42.66
2.271	12.31	4.81	1.64	7.36	96.32	0.91	42.66

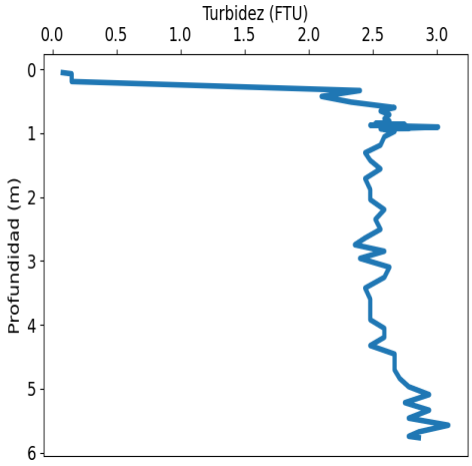
2.38	12.31	4.81	1.49	7.44	100.85	0.95	42.66
2.49	12.31	4.81	1.37	7.51	106.42	1.0	42.66
2.608	12.31	4.81	1.49	7.58	122.55	1.03	42.66
2.716	12.31	4.81	1.45	7.63	127.09	1.09	42.66
2.835	12.31	4.81	1.3	7.65	129.47	1.07	42.66
2.947	12.31	4.81	1.53	7.69	136.15	1.07	42.66
3.045	12.31	4.81	1.49	7.71	118.42	1.15	42.66
3.137	12.31	4.81	1.53	7.76	121.59	1.14	42.68
3.245	12.31	4.81	1.56	7.79	133.03	1.15	42.69
3.367	12.29	4.81	1.83	7.85	114.05	1.19	42.69
3.513	12.26	4.81	2.9	7.94	114.03	1.26	42.7
3.654	12.24	4.8	3.36	8.18	109.17	1.24	42.7
3.788	12.21	4.8	3.55	8.4	104.27	1.29	42.71
4.61	12.23	4.83	3.43	9.49	70.61	1.53	42.98
4.723	12.25	4.83	2.78	9.53	66.2	1.56	42.96
4.85	12.26	4.83	2.1	9.59	61.04	1.5	42.96
4.94	12.26	4.83	2.29	9.74	61.5	1.51	42.96
4.966	12.26	4.83	2.44	9.76	60.82	1.44	42.95

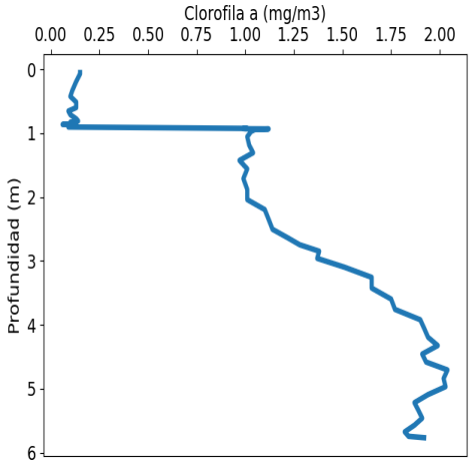
Nombre: CTD N05 - Punto 010 **Fecha: 07/12/2021** **Hora: 09:12:58**

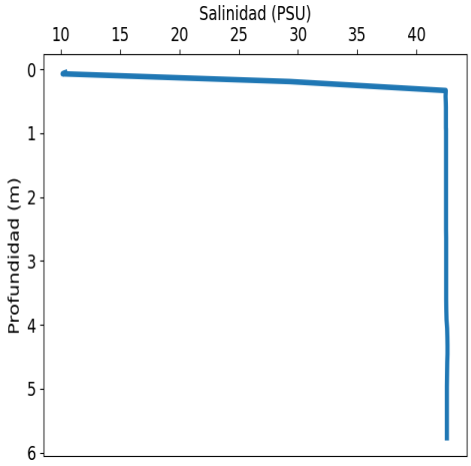


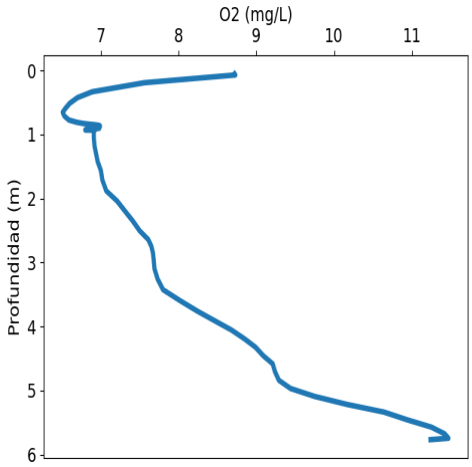


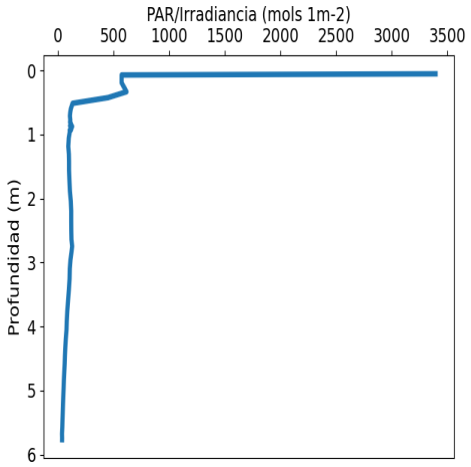












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	12.25	1.3	0.08	6.51	34.4	0.06	10.15
PROF (metros)	0.81	0.071	0.053	0.654	5.677	0.864	0.071
MÁXIMO	12.43	12.43	3.09	11.47	3392.8	2.04	42.61
PROF (metros)	5.094	4.326	5.573	5.747	0.053	4.708	4.326

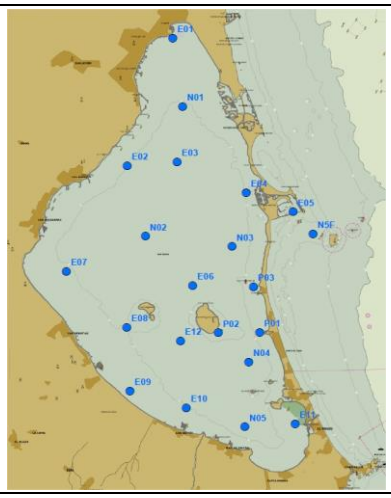
DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD N05 - Punto 010	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	12.27	4.46	2.32	6.98	305.67	0.33	39.5
1 - 2m	12.26	4.78	2.51	6.97	97.64	1.01	42.49
2 - 3m	12.26	4.78	2.49	7.51	117.41	1.2	42.5
3 - 4m	12.27	4.79	2.52	7.99	91.78	1.71	42.51
4 - 5m	12.37	4.81	2.65	9.1	60.17	1.97	42.59
5 - 6m	12.43	4.81	2.88	10.86	38.85	1.88	42.56

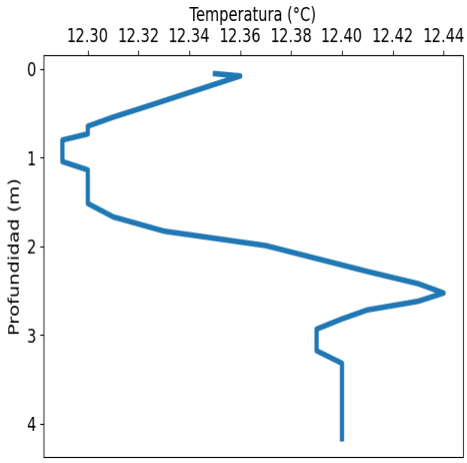
OBSERVACIONES GENERALES

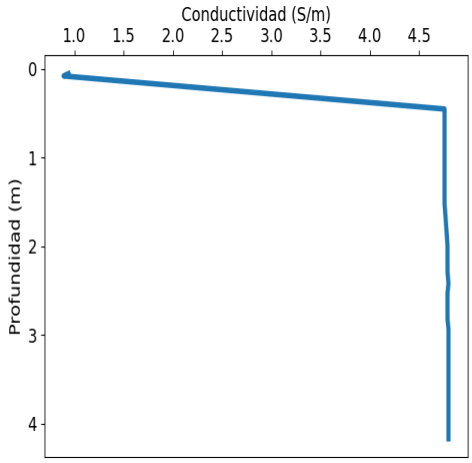
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.053	12.3	1.33	0.08	8.72	3392.8	0.15	10.39
0.071	12.32	1.3	0.15	8.73	570.28	0.15	10.15
0.192	12.32	3.44	0.15	7.56	570.14	0.13	29.3
0.333	12.31	4.79	2.4	6.89	614.32	0.11	42.47
0.425	12.29	4.78	2.1	6.7	447.92	0.1	42.45
0.514	12.28	4.78	2.33	6.6	129.5	0.13	42.47
0.6	12.27	4.78	2.67	6.54	113.58	0.13	42.48
0.654	12.26	4.78	2.56	6.51	108.53	0.09	42.48
0.711	12.26	4.78	2.63	6.53	105.41	0.1	42.48
0.775	12.26	4.78	2.59	6.59	109.01	0.13	42.48
0.81	12.25	4.78	2.63	6.69	106.49	0.14	42.48
0.828	12.25	4.78	2.59	6.77	113.87	0.1	42.48
0.841	12.25	4.78	2.59	6.86	115.33	0.11	42.48
0.848	12.25	4.78	2.52	6.92	117.19	0.12	42.48
0.855	12.25	4.78	2.59	6.96	115.12	0.13	42.48
0.86	12.25	4.78	2.71	6.98	108.23	0.09	42.48
0.864	12.25	4.78	2.75	6.98	105.93	0.06	42.48
0.87	12.25	4.78	2.67	6.99	119.85	0.13	42.48
0.876	12.25	4.78	2.48	6.98	126.04	0.1	42.48
0.904	12.25	4.78	3.01	6.98	113.9	0.09	42.48
0.926	12.25	4.78	2.71	6.8	116.76	1.01	42.48
0.928	12.25	4.78	2.78	6.8	109.42	0.99	42.48
0.932	12.25	4.78	2.56	6.8	107.19	1.0	42.49
0.934	12.26	4.78	2.67	6.92	102.97	1.12	42.49
0.943	12.26	4.78	2.59	6.91	104.8	1.05	42.49
0.973	12.26	4.78	2.67	6.91	102.95	1.03	42.49
1.056	12.26	4.78	2.59	6.91	95.15	1.01	42.49
1.188	12.26	4.78	2.56	6.92	90.86	1.02	42.49
1.307	12.26	4.78	2.44	6.94	96.08	1.04	42.49
1.427	12.26	4.78	2.48	6.96	97.54	0.97	42.49
1.56	12.26	4.78	2.56	7.0	97.63	1.01	42.49
1.712	12.26	4.78	2.44	7.02	100.92	0.99	42.49
1.882	12.26	4.78	2.48	7.07	105.31	1.01	42.49
2.041	12.26	4.78	2.48	7.21	113.26	1.01	42.49
2.197	12.26	4.78	2.59	7.31	117.13	1.1	42.49
2.35	12.25	4.78	2.52	7.41	117.11	1.12	42.49

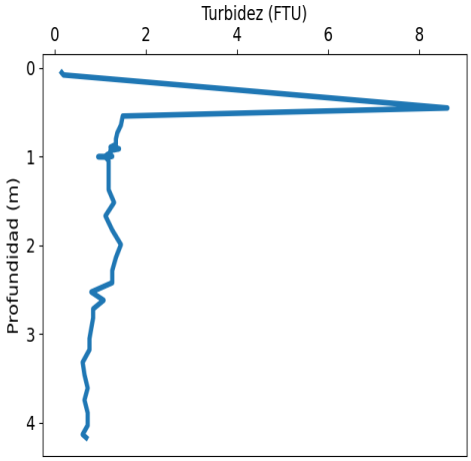
2.506	12.25	4.78	2.56	7.5	117.71	1.14	42.49
2.642	12.25	4.78	2.44	7.61	119.3	1.22	42.5
2.748	12.26	4.79	2.36	7.65	125.54	1.28	42.5
2.849	12.26	4.79	2.59	7.67	118.83	1.38	42.5
2.961	12.26	4.78	2.4	7.68	110.41	1.37	42.5
3.099	12.26	4.79	2.63	7.69	104.34	1.51	42.5
3.258	12.26	4.79	2.59	7.73	102.35	1.65	42.5
3.426	12.26	4.79	2.44	7.8	96.19	1.65	42.5
3.598	12.27	4.79	2.48	8.02	88.8	1.75	42.5
3.76	12.27	4.79	2.48	8.24	81.94	1.77	42.51
3.922	12.27	4.79	2.48	8.48	77.05	1.9	42.53
4.056	12.28	4.8	2.59	8.68	74.75	1.92	42.58
4.196	12.31	4.8	2.59	8.85	68.43	1.94	42.6
4.326	12.34	4.81	2.48	8.99	64.24	1.99	42.61
4.459	12.37	4.81	2.67	9.09	60.73	1.91	42.61
4.584	12.39	4.81	2.67	9.21	58.4	1.93	42.59
4.708	12.41	4.81	2.67	9.24	54.93	2.04	42.58
4.842	12.42	4.81	2.71	9.29	51.21	2.02	42.57
4.97	12.42	4.81	2.78	9.44	48.71	2.03	42.56
5.094	12.43	4.81	2.94	9.75	45.88	1.94	42.56
5.22	12.43	4.81	2.75	10.17	43.21	1.87	42.56
5.338	12.43	4.81	2.94	10.64	41.14	1.89	42.56
5.463	12.43	4.81	2.78	10.95	38.82	1.91	42.56
5.573	12.43	4.81	3.09	11.25	37.1	1.87	42.56
5.677	12.43	4.81	2.86	11.42	34.4	1.82	42.56
5.747	12.43	4.81	2.78	11.47	35.24	1.84	42.56
5.769	12.43	4.81	2.86	11.24	35.04	1.92	42.56

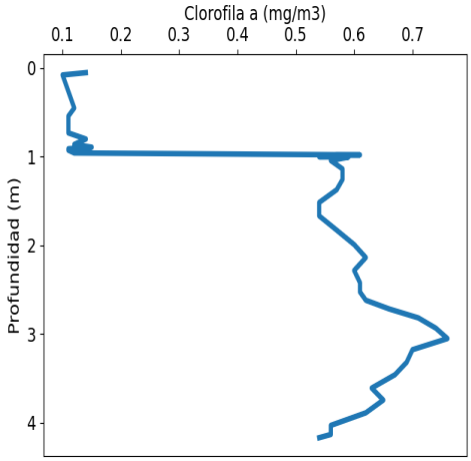
Nombre: CTD E11 - Punto 011 **Fecha: 07/12/2021** **Hora: 09:12:38**

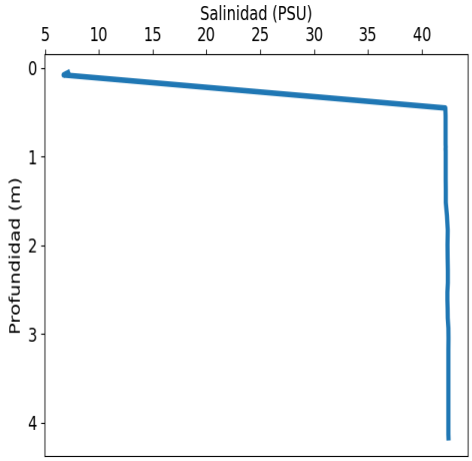


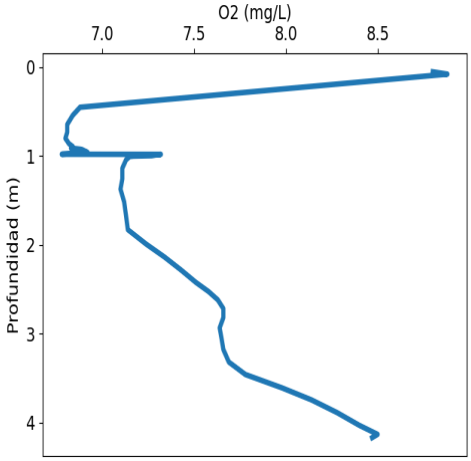


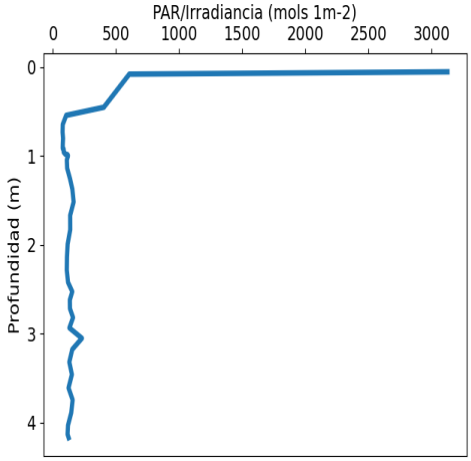


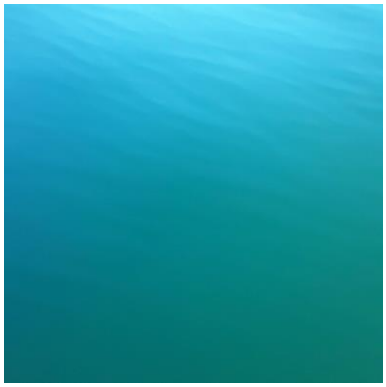












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	12.29	0.89	0.15	6.78	76.01	0.1	6.72
PROF (metros)	0.8	0.077	0.051	0.979	0.731	0.077	0.077
MÁXIMO	12.44	12.44	8.62	8.88	3126.2	0.76	42.48
PROF (metros)	2.526	2.421	0.45	0.077	0.051	3.051	3.051

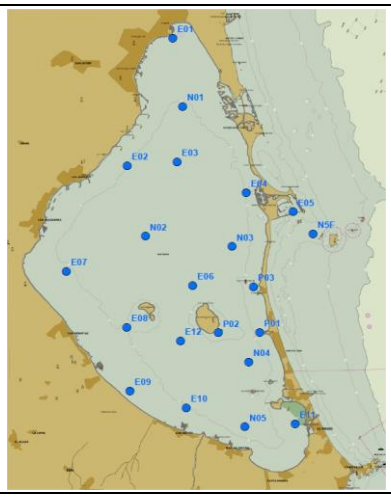
DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD E11 - Punto 011	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	12.3	4.31	1.59	7.16	317.48	0.23	38.06
1 - 2m	12.31	4.77	1.19	7.14	129.59	0.56	42.27
2 - 3m	12.41	4.79	1.03	7.56	131.16	0.65	42.41
3 - 4m	12.4	4.8	0.7	7.88	154.96	0.68	42.47
4 - 5m	12.4	4.8	0.67	8.45	119.51	0.56	42.47

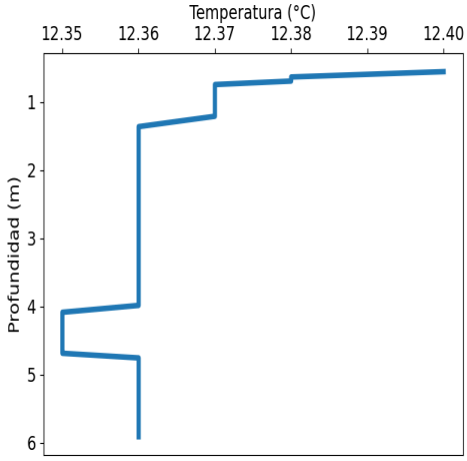
OBSERVACIONES GENERALES

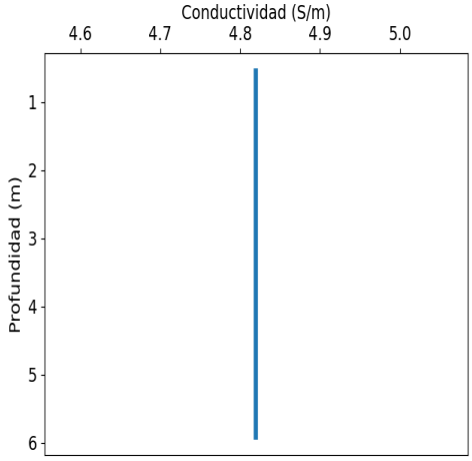
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.051	12.35	0.94	0.15	8.8	3126.2	0.14	7.14
0.077	12.36	0.89	0.19	8.88	605.0	0.1	6.72
0.45	12.32	4.76	8.62	6.88	402.71	0.12	42.19
0.541	12.31	4.76	1.49	6.84	104.85	0.11	42.21
0.644	12.3	4.76	1.45	6.81	77.41	0.11	42.21
0.731	12.3	4.76	1.37	6.81	76.01	0.11	42.21
0.8	12.29	4.76	1.34	6.8	79.93	0.14	42.21
0.861	12.29	4.76	1.34	6.82	77.88	0.12	42.21
0.892	12.29	4.76	1.22	6.84	77.39	0.15	42.22
0.91	12.29	4.76	1.41	6.83	76.98	0.11	42.21
0.922	12.29	4.76	1.3	6.88	84.48	0.11	42.21
0.926	12.29	4.76	1.22	6.89	82.64	0.11	42.22
0.957	12.29	4.76	1.22	6.92	85.46	0.12	42.22
0.979	12.29	4.76	1.14	6.78	98.76	0.61	42.22
0.98	12.29	4.76	1.14	7.32	106.81	0.57	42.22
0.984	12.29	4.76	1.22	7.3	115.33	0.56	42.22
0.995	12.29	4.76	1.26	7.27	119.22	0.58	42.22
1.0	12.29	4.76	0.95	7.17	115.49	0.54	42.22
1.004	12.29	4.76	1.11	7.15	117.3	0.59	42.22
1.043	12.29	4.76	1.18	7.13	109.72	0.56	42.22
1.137	12.3	4.76	1.18	7.11	112.37	0.58	42.22
1.256	12.3	4.76	1.18	7.11	135.14	0.58	42.22
1.372	12.3	4.76	1.18	7.1	153.48	0.57	42.23
1.516	12.3	4.76	1.3	7.12	163.58	0.54	42.23
1.667	12.31	4.77	1.11	7.13	136.12	0.54	42.34
1.828	12.33	4.78	1.26	7.14	136.5	0.57	42.41
1.991	12.37	4.79	1.45	7.24	116.19	0.6	42.39
2.137	12.39	4.79	1.34	7.34	110.8	0.62	42.4
2.283	12.41	4.79	1.26	7.43	109.37	0.6	42.42
2.421	12.43	4.8	1.26	7.51	119.24	0.61	42.42
2.526	12.44	4.79	0.8	7.58	152.84	0.61	42.38
2.619	12.43	4.79	1.07	7.63	133.52	0.62	42.38
2.717	12.41	4.79	0.84	7.66	134.49	0.66	42.4
2.818	12.4	4.79	0.84	7.66	158.87	0.71	42.41
2.934	12.39	4.8	0.8	7.64	130.13	0.74	42.47
3.051	12.39	4.8	0.76	7.65	229.19	0.76	42.48
3.177	12.39	4.8	0.76	7.66	152.63	0.7	42.47

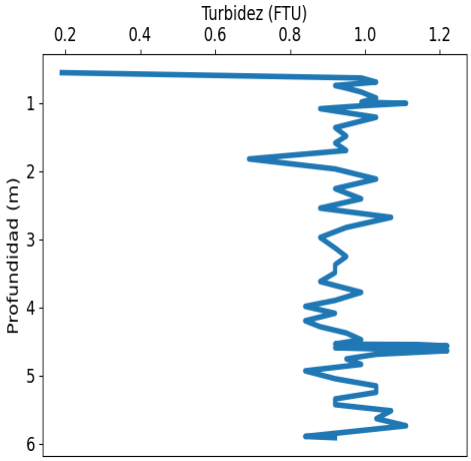
3.319	12.4	4.8	0.61	7.69	129.44	0.69	42.47
3.459	12.4	4.8	0.65	7.78	149.79	0.67	42.47
3.61	12.4	4.8	0.72	7.98	123.21	0.63	42.47
3.745	12.4	4.8	0.65	8.14	155.74	0.65	42.47
3.889	12.4	4.8	0.72	8.28	144.74	0.62	42.47
4.031	12.4	4.8	0.72	8.4	119.05	0.56	42.47
4.133	12.4	4.8	0.61	8.5	115.57	0.56	42.47
4.17	12.4	4.8	0.69	8.47	123.92	0.54	42.48

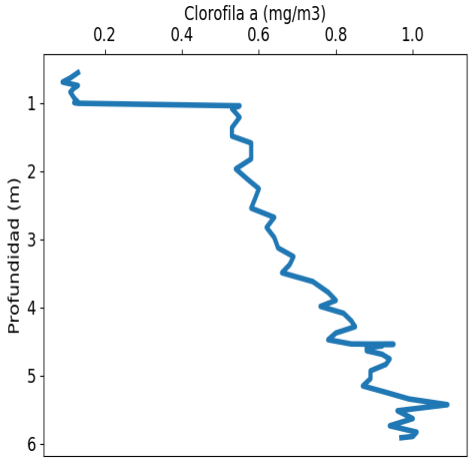
Nombre: CTD N04 - Punto 012 **Fecha: 07/12/2021** **Hora: 09:12:27**

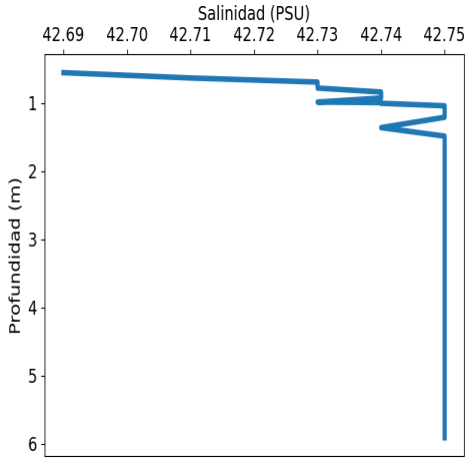


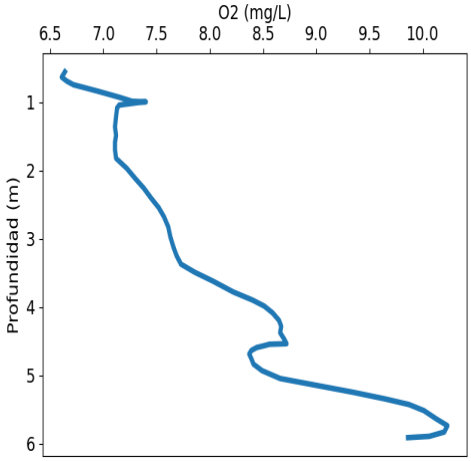


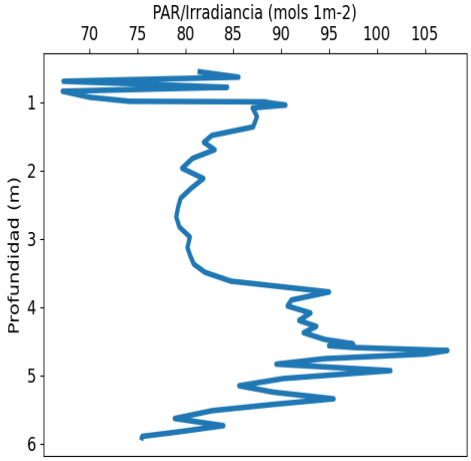












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	12.35	4.82	0.19	6.61	67.19	0.09	42.69
PROF (metros)	4.085	0.558	0.558	0.636	0.842	0.696	0.558
MÁXIMO	12.4	12.4	1.22	10.23	107.33	1.09	42.75
PROF (metros)	0.558	0.558	4.564	5.734	4.634	5.425	1.044

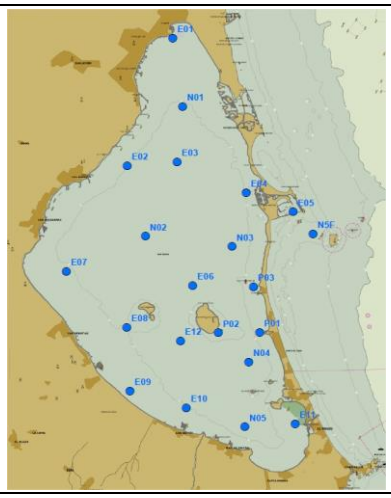
DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD N04 - Punto 012	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	12.38	4.82	0.9	6.91	77.32	0.12	42.73
1 - 2m	12.36	4.82	0.93	7.15	84.87	0.51	42.75
2 - 3m	12.36	4.82	0.96	7.49	80.02	0.61	42.75
3 - 4m	12.36	4.82	0.92	8.01	85.64	0.72	42.75
4 - 5m	12.35	4.82	0.98	8.55	96.43	0.88	42.75
5 - 6m	12.36	4.82	0.97	9.73	84.11	0.97	42.75

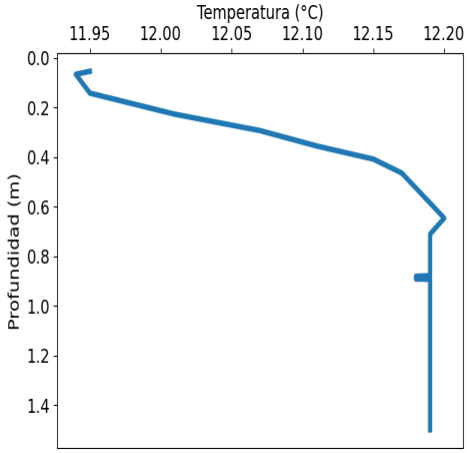
OBSERVACIONES GENERALES

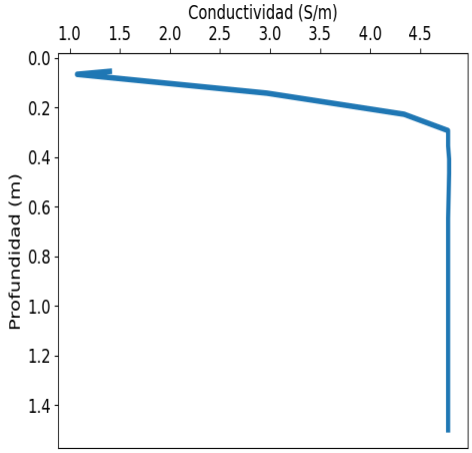
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.558	12.4	4.82	0.19	6.64	81.48	0.13	42.69
0.636	12.38	4.82	0.99	6.61	85.54	0.11	42.71
0.696	12.38	4.82	1.03	6.66	67.28	0.09	42.73
0.747	12.37	4.82	0.92	6.72	77.43	0.13	42.73
0.784	12.37	4.82	0.95	6.81	84.36	0.12	42.73
0.842	12.37	4.82	0.99	6.95	67.19	0.11	42.74
0.93	12.37	4.82	1.03	7.15	70.02	0.12	42.74
0.989	12.37	4.82	0.99	7.27	74.16	0.13	42.73
0.997	12.37	4.82	1.03	7.4	88.37	0.12	42.74
1.007	12.37	4.82	1.11	7.33	88.55	0.13	42.74
1.044	12.37	4.82	0.99	7.15	90.44	0.55	42.75
1.086	12.37	4.82	0.88	7.13	87.0	0.53	42.75
1.212	12.37	4.82	1.03	7.12	87.47	0.55	42.75
1.364	12.36	4.82	0.92	7.11	87.06	0.53	42.74
1.488	12.36	4.82	0.95	7.12	82.76	0.53	42.75
1.589	12.36	4.82	0.92	7.11	81.92	0.58	42.75
1.698	12.36	4.82	0.95	7.11	83.06	0.58	42.75
1.823	12.36	4.82	0.69	7.12	80.75	0.58	42.75
1.969	12.36	4.82	0.92	7.22	79.65	0.54	42.75
2.118	12.36	4.82	1.03	7.3	81.88	0.57	42.75
2.259	12.36	4.82	0.92	7.38	80.62	0.6	42.75
2.407	12.36	4.82	0.99	7.45	79.5	0.59	42.75
2.544	12.36	4.82	0.88	7.52	79.23	0.58	42.75
2.679	12.36	4.82	1.07	7.57	79.04	0.64	42.75
2.827	12.36	4.82	0.95	7.61	79.37	0.62	42.75
2.974	12.36	4.82	0.88	7.63	80.47	0.64	42.75
3.128	12.36	4.82	0.92	7.66	80.21	0.65	42.75
3.254	12.36	4.82	0.95	7.69	80.52	0.69	42.75
3.372	12.36	4.82	0.92	7.73	80.88	0.68	42.75
3.491	12.36	4.82	0.92	7.86	82.05	0.66	42.75
3.62	12.36	4.82	0.88	8.03	84.74	0.74	42.75
3.778	12.36	4.82	0.99	8.22	94.99	0.78	42.75
3.896	12.36	4.82	0.92	8.4	91.05	0.8	42.75
3.984	12.36	4.82	0.84	8.51	90.65	0.76	42.75
4.085	12.35	4.82	0.92	8.59	93.05	0.82	42.75
4.195	12.35	4.82	0.84	8.65	91.85	0.84	42.75

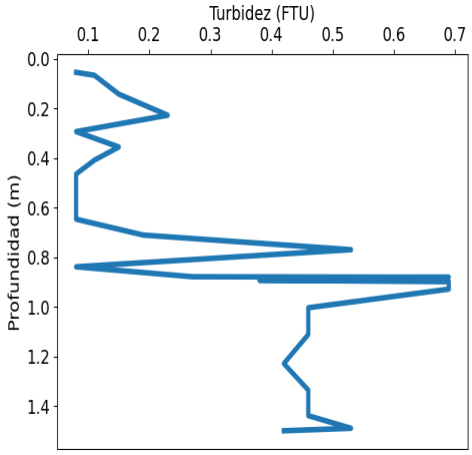
4.282	12.35	4.82	0.88	8.67	93.66	0.85	42.75
4.374	12.35	4.82	0.95	8.66	92.32	0.8	42.75
4.473	12.35	4.82	0.99	8.7	94.53	0.78	42.75
4.535	12.35	4.82	0.92	8.72	97.42	0.84	42.75
4.539	12.35	4.82	0.95	8.64	95.77	0.95	42.75
4.543	12.35	4.82	1.14	8.56	97.51	0.89	42.75
4.564	12.35	4.82	1.22	8.51	94.97	0.92	42.75
4.591	12.35	4.82	0.92	8.44	97.6	0.88	42.75
4.634	12.35	4.82	1.22	8.39	107.33	0.88	42.75
4.686	12.35	4.82	1.03	8.37	105.02	0.92	42.75
4.754	12.36	4.82	0.95	8.39	94.47	0.94	42.75
4.834	12.36	4.82	0.99	8.41	89.48	0.93	42.75
4.929	12.36	4.82	0.84	8.49	101.39	0.89	42.75
5.044	12.36	4.82	0.92	8.66	90.23	0.89	42.75
5.15	12.36	4.82	1.03	9.02	85.6	0.87	42.75
5.244	12.36	4.82	1.03	9.34	89.17	0.93	42.75
5.341	12.36	4.82	0.92	9.64	95.46	0.99	42.75
5.425	12.36	4.82	0.92	9.87	89.0	1.09	42.75
5.514	12.36	4.82	1.07	10.01	82.81	0.96	42.75
5.629	12.36	4.82	1.03	10.12	78.88	1.0	42.75
5.734	12.36	4.82	1.11	10.23	83.97	0.94	42.75
5.827	12.36	4.82	0.95	10.2	79.14	1.01	42.75
5.89	12.36	4.82	0.84	10.06	75.5	1.0	42.75
5.909	12.36	4.82	0.92	9.86	75.46	0.97	42.75

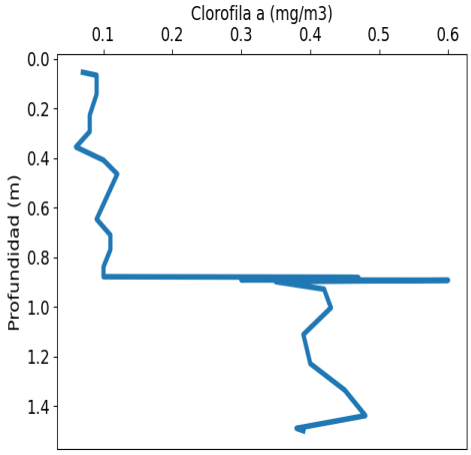
Nombre: CTD P01 - Punto 013 **Fecha: 07/12/2021** **Hora: 09:12:51**

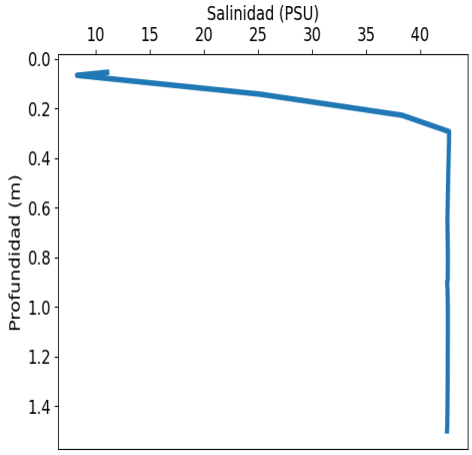


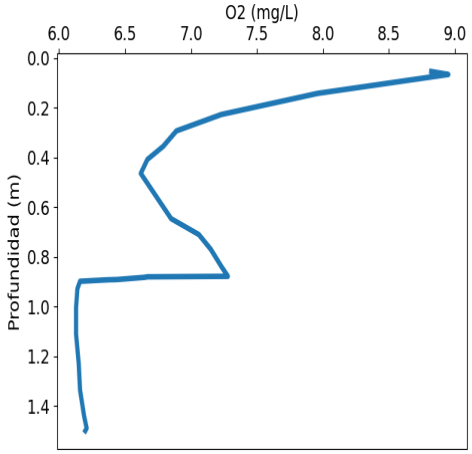


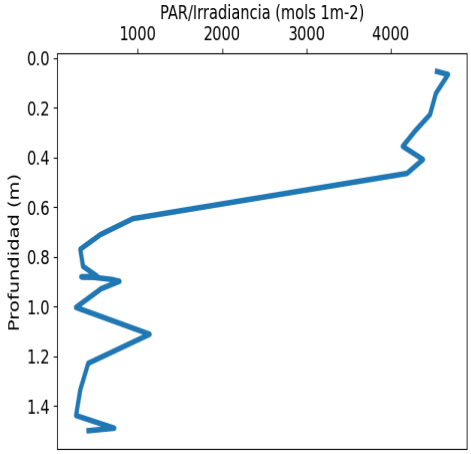












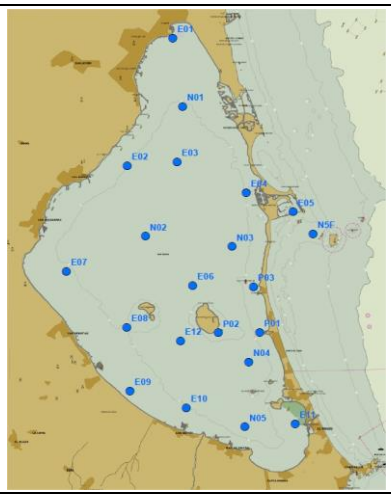
VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	11.94	1.07	0.08	6.13	266.52	0.06	8.26
PROF (metros)	0.066	0.066	0.054	1.003	1.003	0.355	0.066
MÁXIMO	12.2	12.2	0.69	8.95	4678.1	0.6	42.68
PROF (metros)	0.646	0.408	0.88	0.066	0.066	0.892	0.293

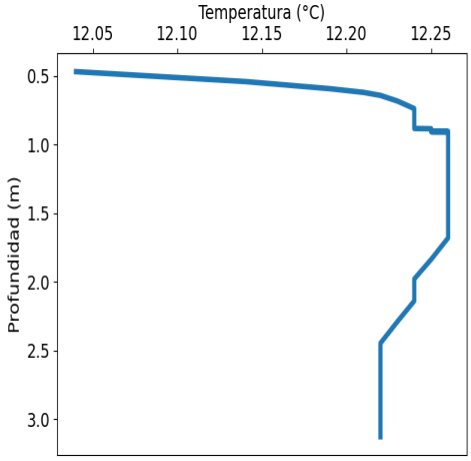
DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD P01 - Punto 013	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	12.13	4.29	0.29	7.05	2182.47	0.2	37.97
1 - 2m	12.19	4.78	0.46	6.17	505.93	0.42	42.53

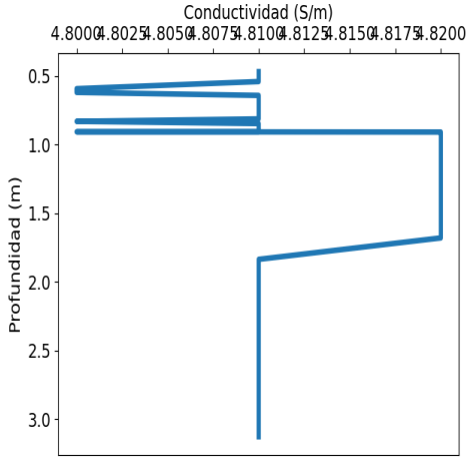
OBSERVACIONES GENERALES

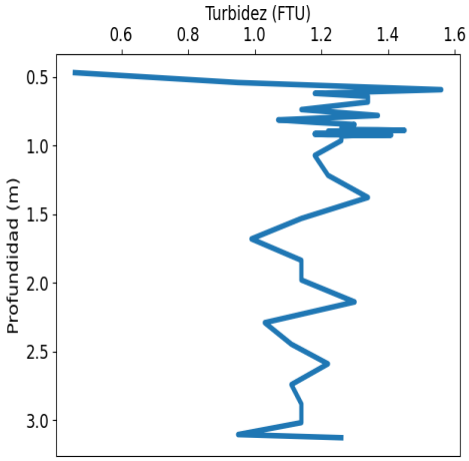
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.054	11.95	1.4	0.08	8.82	4545.5	0.07	11.06
0.066	11.94	1.07	0.11	8.95	4678.1	0.09	8.26
0.142	11.95	2.97	0.15	7.96	4532.9	0.09	25.18
0.227	12.01	4.34	0.23	7.23	4464.1	0.08	38.33
0.293	12.07	4.78	0.08	6.89	4287.7	0.08	42.68
0.355	12.11	4.78	0.15	6.79	4140.2	0.06	42.66
0.408	12.15	4.79	0.11	6.67	4381.1	0.1	42.63
0.464	12.17	4.79	0.08	6.62	4190.4	0.12	42.6
0.646	12.2	4.78	0.08	6.85	941.48	0.09	42.52
0.71	12.19	4.78	0.19	7.06	557.73	0.11	42.54
0.769	12.19	4.78	0.53	7.15	318.37	0.11	42.56
0.838	12.19	4.78	0.08	7.23	350.35	0.1	42.56
0.878	12.19	4.78	0.27	7.28	518.94	0.1	42.55
0.88	12.18	4.78	0.69	6.67	328.87	0.46	42.56
0.882	12.18	4.78	0.38	6.65	473.65	0.47	42.56
0.891	12.18	4.78	0.61	6.44	701.09	0.3	42.55
0.892	12.19	4.78	0.38	6.37	708.11	0.6	42.55
0.898	12.19	4.78	0.69	6.16	782.86	0.35	42.49
0.928	12.19	4.78	0.69	6.14	565.54	0.42	42.53
1.003	12.19	4.78	0.46	6.13	266.52	0.43	42.56
1.111	12.19	4.78	0.46	6.13	1140.4	0.39	42.56
1.228	12.19	4.78	0.42	6.15	411.97	0.4	42.55
1.335	12.19	4.78	0.46	6.16	317.63	0.45	42.54
1.438	12.19	4.78	0.46	6.19	267.88	0.48	42.52
1.489	12.19	4.78	0.53	6.21	721.53	0.38	42.5
1.499	12.19	4.78	0.42	6.2	415.61	0.39	42.48

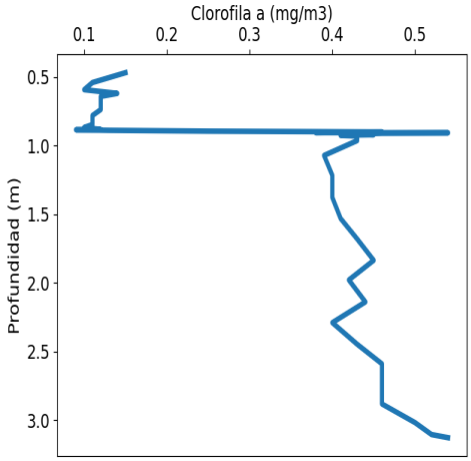
Nombre: CTD P02 - Punto 014 **Fecha: 07/12/2021** **Hora: 10:12:05**

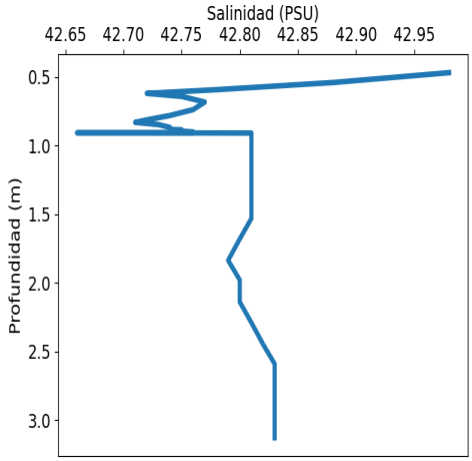


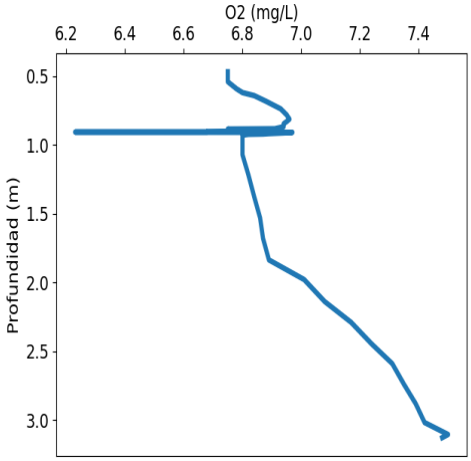


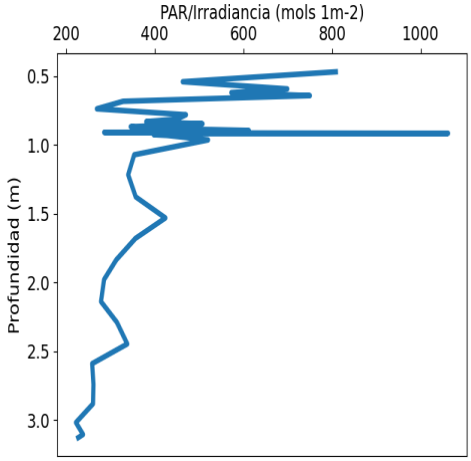












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	12.04	4.8	0.46	6.23	222.03	0.09	42.66
PROF (metros)	0.468	0.592	0.468	0.906	3.017	0.884	0.906
MÁXIMO	12.26	12.26	1.56	7.5	1062.1	0.54	42.98
PROF (metros)	0.903	0.908	0.592	3.104	0.915	0.906	0.468

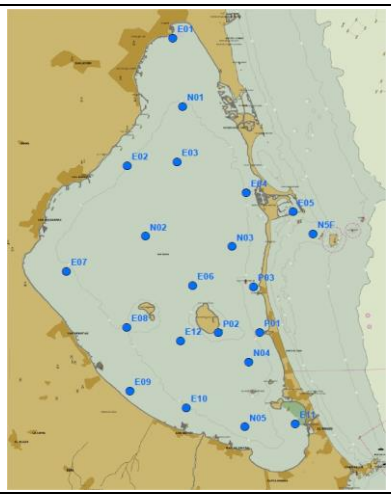
DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD P02 - Punto 014	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	12.24	4.81	1.24	6.82	502.91	0.27	42.78
1 - 2m	12.26	4.82	1.17	6.87	347.02	0.42	42.8
2 - 3m	12.22	4.81	1.15	7.26	285.31	0.44	42.82
3 - 4m	12.22	4.81	1.12	7.47	229.09	0.52	42.83

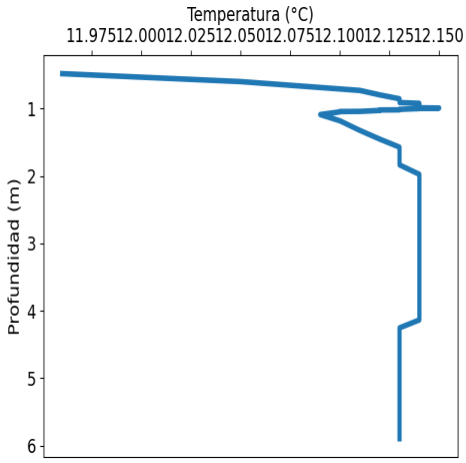
OBSERVACIONES GENERALES

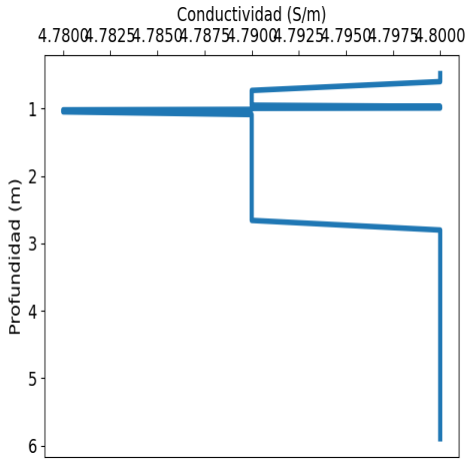
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.468	12.04	4.81	0.46	6.75	808.68	0.15	42.98
0.54	12.14	4.81	0.95	6.75	463.01	0.11	42.88
0.592	12.19	4.8	1.56	6.78	699.14	0.1	42.78
0.619	12.21	4.8	1.18	6.8	572.66	0.14	42.72
0.641	12.22	4.81	1.34	6.84	750.18	0.12	42.75
0.682	12.23	4.81	1.34	6.88	328.64	0.12	42.77
0.737	12.24	4.81	1.14	6.93	269.19	0.12	42.76
0.78	12.24	4.81	1.37	6.95	470.48	0.11	42.74
0.812	12.24	4.81	1.07	6.96	449.17	0.11	42.72
0.83	12.24	4.8	1.18	6.95	380.66	0.11	42.71
0.846	12.24	4.81	1.3	6.94	507.87	0.11	42.73
0.867	12.24	4.81	1.26	6.94	345.51	0.1	42.74
0.882	12.24	4.81	1.26	6.91	381.81	0.12	42.74
0.884	12.25	4.81	1.37	6.75	425.55	0.09	42.75
0.888	12.25	4.81	1.45	6.76	528.28	0.13	42.75
0.894	12.25	4.81	1.22	6.77	612.19	0.25	42.75
0.9	12.25	4.81	1.26	6.78	522.2	0.46	42.76
0.903	12.26	4.81	1.26	6.68	379.6	0.4	42.76
0.905	12.26	4.81	1.3	6.68	606.96	0.38	42.76
0.906	12.25	4.8	1.22	6.23	538.92	0.54	42.66
0.908	12.26	4.82	1.34	6.97	285.64	0.46	42.81
0.912	12.26	4.82	1.18	6.94	467.43	0.44	42.81
0.915	12.26	4.82	1.26	6.91	1062.1	0.42	42.81
0.917	12.26	4.82	1.18	6.89	443.17	0.44	42.81
0.92	12.26	4.82	1.22	6.87	471.9	0.45	42.81
0.922	12.26	4.82	1.41	6.82	467.43	0.43	42.81
0.925	12.26	4.82	1.3	6.81	397.61	0.41	42.81
0.93	12.26	4.82	1.26	6.8	428.03	0.43	42.81
0.963	12.26	4.82	1.26	6.8	520.27	0.43	42.81
1.071	12.26	4.82	1.18	6.8	353.53	0.39	42.81
1.216	12.26	4.82	1.22	6.82	339.95	0.4	42.81
1.377	12.26	4.82	1.34	6.84	356.99	0.4	42.81
1.53	12.26	4.82	1.14	6.86	423.98	0.41	42.81
1.679	12.26	4.82	0.99	6.87	356.24	0.43	42.8
1.835	12.25	4.81	1.14	6.89	312.95	0.45	42.79
1.978	12.24	4.81	1.14	7.01	285.51	0.42	42.8
2.138	12.24	4.81	1.3	7.08	278.58	0.44	42.8
2.289	12.23	4.81	1.03	7.17	314.55	0.4	42.81

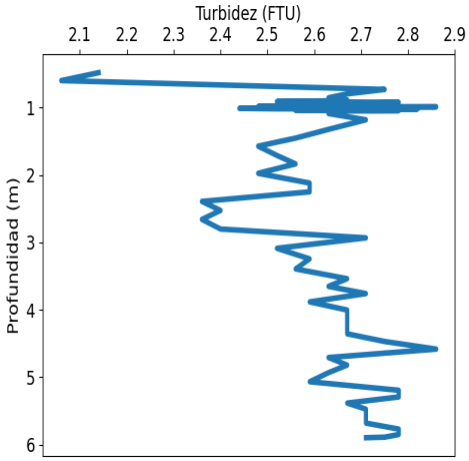
2.446	12.22	4.81	1.11	7.24	337.91	0.43	42.82
2.589	12.22	4.81	1.22	7.31	258.67	0.46	42.83
2.74	12.22	4.81	1.11	7.35	261.56	0.46	42.83
2.881	12.22	4.81	1.14	7.39	260.59	0.46	42.83
3.017	12.22	4.81	1.14	7.42	222.03	0.5	42.83
3.104	12.22	4.81	0.95	7.5	238.07	0.52	42.83
3.127	12.22	4.81	1.26	7.48	227.18	0.54	42.83

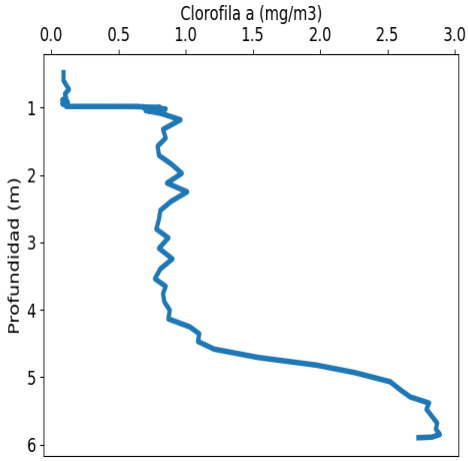
Nombre: CTD E12 - Punto 015 **Fecha: 07/12/2021** **Hora: 10:12:30**

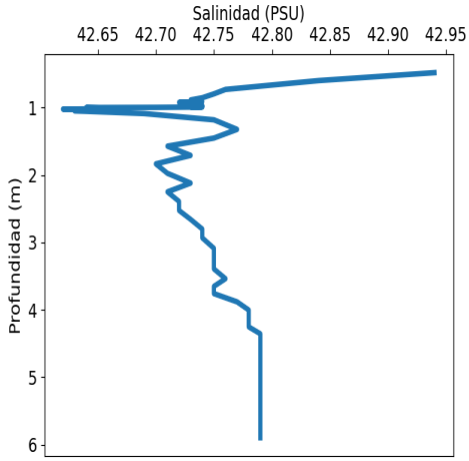


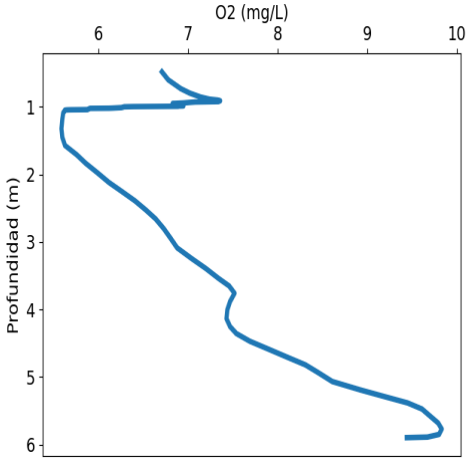


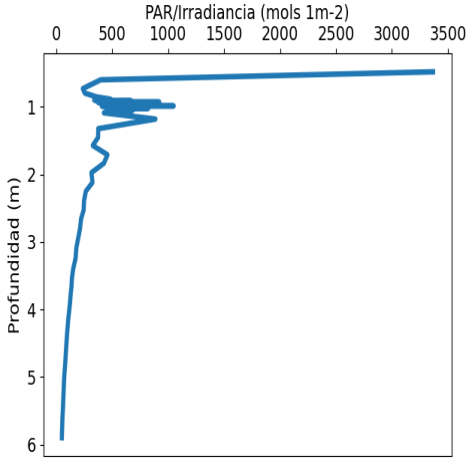












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	11.96	4.78	2.06	5.59	48.81	0.08	42.62
PROF (metros)	0.481	1.018	0.599	1.323	5.899	0.886	1.022
MÁXIMO	12.15	12.15	2.86	9.83	3367.7	2.89	42.94
PROF (metros)	0.988	0.481	0.988	5.771	0.481	5.851	0.481

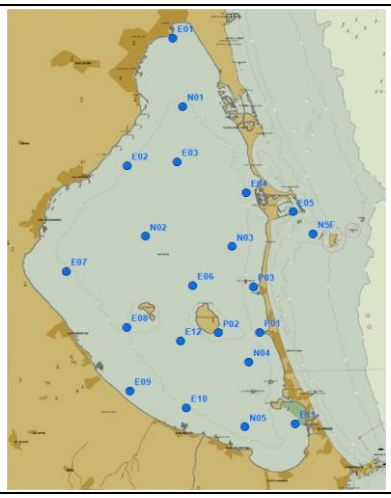
DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD E12 - Punto 015	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	12.12	4.79	2.61	6.94	660.36	0.27	42.74
1 - 2m	12.12	4.79	2.62	5.81	535.28	0.81	42.67
2 - 3m	12.14	4.79	2.49	6.5	243.28	0.86	42.73
3 - 4m	12.14	4.8	2.61	7.27	146.22	0.83	42.75
4 - 5m	12.13	4.8	2.69	7.82	91.84	1.33	42.79
5 - 6m	12.13	4.8	2.73	9.46	56.14	2.76	42.79

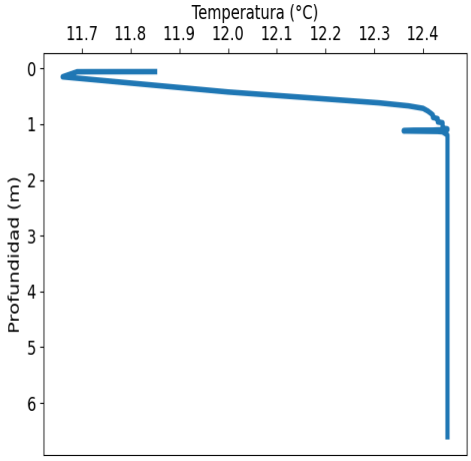
OBSERVACIONES GENERALES
CLOROFILA elevada en la(s) columna(s) de agua 5 - 6m con los valores 2.76 respectivamente

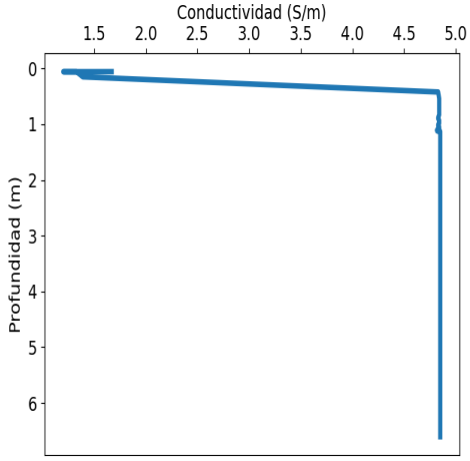
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.481	11.96	4.8	2.14	6.71	3367.7	0.09	42.94
0.599	12.05	4.8	2.06	6.78	396.23	0.09	42.84
0.73	12.11	4.79	2.75	6.92	235.38	0.13	42.76
0.796	12.12	4.79	2.67	7.02	253.56	0.1	42.75
0.854	12.13	4.79	2.63	7.14	361.65	0.11	42.74
0.886	12.13	4.79	2.67	7.24	483.3	0.08	42.73
0.899	12.13	4.79	2.63	7.33	337.99	0.11	42.73
0.91	12.13	4.79	2.52	7.36	667.47	0.12	42.74
0.922	12.14	4.79	2.78	7.34	410.54	0.09	42.72
0.928	12.14	4.79	2.75	7.08	919.48	0.12	42.73
0.934	12.14	4.79	2.71	7.02	372.2	0.11	42.73
0.942	12.14	4.79	2.67	6.95	408.64	0.08	42.73
0.948	12.14	4.79	2.67	6.86	800.48	0.12	42.73
0.949	12.14	4.79	2.63	6.83	491.09	0.09	42.73
0.966	12.14	4.8	2.67	6.83	547.61	0.11	42.74
0.982	12.14	4.79	2.59	6.82	804.01	0.11	42.73
0.983	12.14	4.8	2.48	6.95	437.66	0.64	42.74
0.986	12.14	4.8	2.63	6.95	1048.9	0.64	42.73
0.988	12.14	4.8	2.86	6.9	404.96	0.69	42.74
0.991	12.15	4.8	2.75	6.89	559.02	0.68	42.74
0.996	12.14	4.79	2.63	6.39	530.0	0.78	42.7
0.999	12.14	4.79	2.59	6.29	690.13	0.81	42.64
1.011	12.13	4.79	2.44	6.26	496.01	0.75	42.66
1.018	12.13	4.78	2.52	6.16	582.57	0.83	42.64
1.02	12.12	4.78	2.82	6.12	822.1	0.85	42.64
1.022	12.12	4.78	2.78	5.91	471.9	0.76	42.62
1.027	12.12	4.78	2.63	5.9	560.97	0.75	42.64
1.041	12.11	4.78	2.56	5.88	672.75	0.81	42.65
1.043	12.1	4.78	2.63	5.7	684.55	0.77	42.63
1.044	12.1	4.78	2.71	5.67	636.2	0.7	42.63
1.045	12.1	4.78	2.78	5.65	450.0	0.73	42.63
1.048	12.1	4.78	2.67	5.63	683.44	0.72	42.63
1.088	12.09	4.79	2.63	5.61	423.98	0.82	42.69
1.181	12.1	4.79	2.71	5.6	885.39	0.96	42.75
1.323	12.11	4.79	2.63	5.59	373.67	0.83	42.77

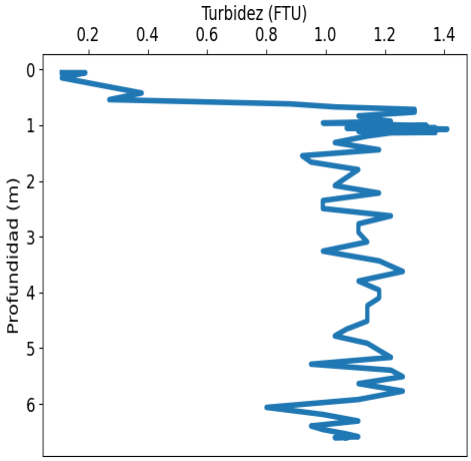
1.452	12.12	4.79	2.56	5.6	372.8	0.85	42.75
1.572	12.13	4.79	2.48	5.63	324.85	0.79	42.71
1.709	12.13	4.79	2.52	5.76	456.51	0.8	42.73
1.835	12.13	4.79	2.56	5.86	424.37	0.89	42.7
1.975	12.14	4.79	2.48	5.99	312.95	0.97	42.71
2.12	12.14	4.79	2.59	6.12	322.38	0.86	42.73
2.25	12.14	4.79	2.59	6.26	262.65	1.01	42.71
2.392	12.14	4.79	2.36	6.41	246.95	0.89	42.72
2.526	12.14	4.79	2.4	6.53	243.59	0.81	42.72
2.659	12.14	4.79	2.36	6.64	220.59	0.8	42.73
2.802	12.14	4.8	2.4	6.73	210.94	0.78	42.74
2.933	12.14	4.8	2.71	6.8	195.86	0.87	42.74
3.088	12.14	4.8	2.52	6.88	178.19	0.8	42.75
3.245	12.14	4.8	2.59	7.04	171.03	0.9	42.75
3.394	12.14	4.8	2.56	7.2	150.49	0.81	42.75
3.539	12.14	4.8	2.67	7.34	138.41	0.77	42.76
3.653	12.14	4.8	2.63	7.46	135.05	0.85	42.75
3.76	12.14	4.8	2.71	7.52	128.22	0.83	42.75
3.883	12.14	4.8	2.59	7.47	122.15	0.84	42.77
4.004	12.14	4.8	2.67	7.44	115.36	0.88	42.78
4.136	12.14	4.8	2.67	7.43	106.12	0.87	42.78
4.254	12.13	4.8	2.67	7.47	100.52	1.03	42.78
4.357	12.13	4.8	2.67	7.54	95.19	1.1	42.79
4.471	12.13	4.8	2.75	7.69	90.86	1.09	42.79
4.584	12.13	4.8	2.86	7.89	86.58	1.21	42.79
4.709	12.13	4.8	2.63	8.11	81.73	1.54	42.79
4.821	12.13	4.8	2.67	8.31	77.88	1.97	42.79
4.934	12.13	4.8	2.63	8.45	72.3	2.26	42.79
5.068	12.13	4.8	2.59	8.61	67.55	2.52	42.79
5.195	12.13	4.8	2.78	8.93	64.64	2.6	42.79
5.294	12.13	4.8	2.78	9.2	62.24	2.67	42.79
5.385	12.13	4.8	2.67	9.45	60.26	2.81	42.79
5.475	12.13	4.8	2.71	9.61	58.12	2.79	42.79
5.579	12.13	4.8	2.71	9.7	54.67	2.83	42.79
5.682	12.13	4.8	2.71	9.79	52.49	2.87	42.79
5.771	12.13	4.8	2.78	9.83	50.74	2.86	42.79
5.851	12.13	4.8	2.78	9.8	49.04	2.89	42.79
5.891	12.13	4.8	2.75	9.67	49.05	2.83	42.79
5.899	12.13	4.8	2.71	9.44	48.81	2.73	42.79

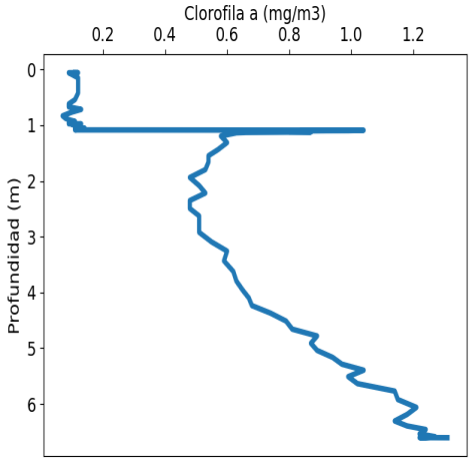
Nombre: CTD E06 - Punto 016 **Fecha: 07/12/2021** **Hora: 10:12:36**

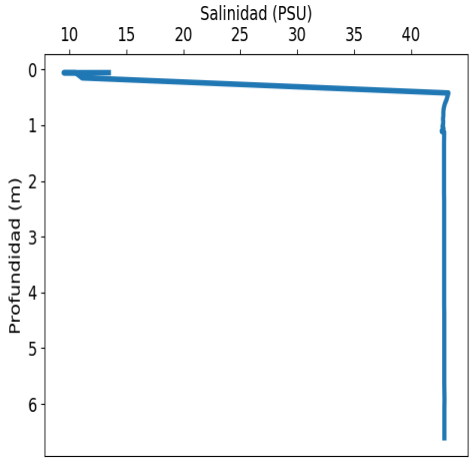


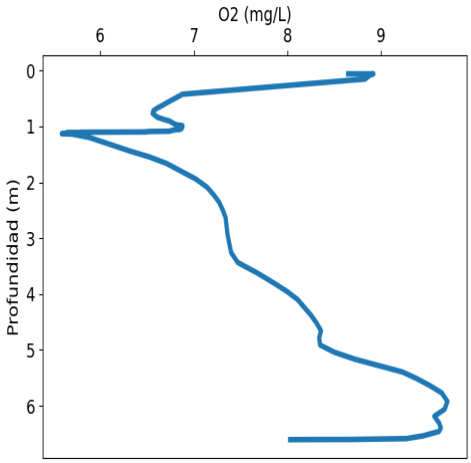


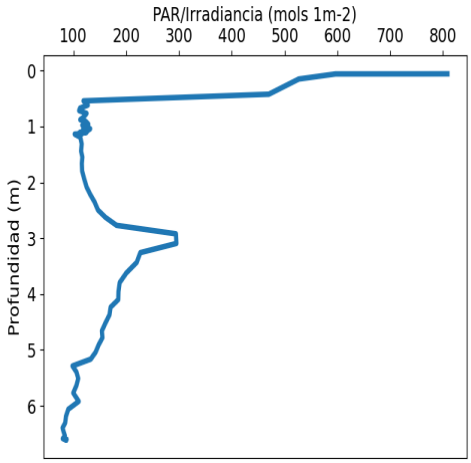












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	11.67	1.2	0.11	5.59	79.3	0.07	9.47
PROF (metros)	0.15	0.058	0.057	1.129	6.394	0.832	0.058
MÁXIMO	12.45	12.45	1.41	9.71	808.68	1.31	43.28
PROF (metros)	1.069	1.129	1.069	5.92	0.057	6.605	0.422

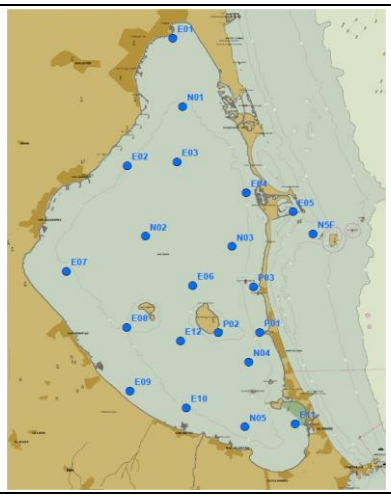
DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD E06 - Punto 016	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	12.22	4.07	0.83	7.2	262.6	0.1	35.83
1 - 2m	12.43	4.84	1.2	6.41	119.46	0.51	42.82
2 - 3m	12.45	4.85	1.09	7.28	168.43	0.5	42.9
3 - 4m	12.45	4.85	1.14	7.63	219.0	0.6	42.9
4 - 5m	12.45	4.85	1.12	8.27	162.88	0.78	42.9
5 - 6m	12.45	4.85	1.16	9.21	112.78	1.02	42.91
6 - 7m	12.45	4.85	1.02	9.19	83.95	1.22	42.92

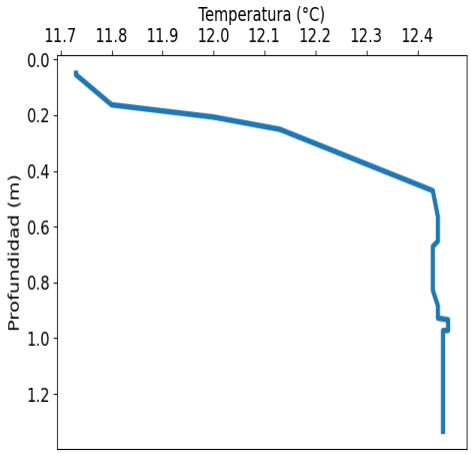
OBSERVACIONES GENERALES

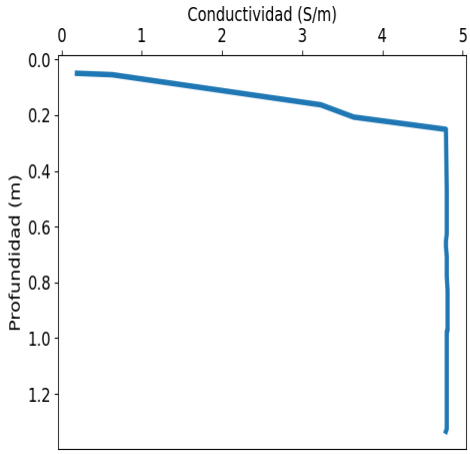
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.057	11.85	1.67	0.11	8.65	808.68	0.11	13.45
0.058	11.72	1.2	0.19	8.92	762.1	0.12	9.47
0.059	11.69	1.33	0.19	8.9	596.5	0.09	10.54
0.15	11.66	1.39	0.11	8.83	526.94	0.12	11.1
0.422	12.0	4.83	0.38	6.88	470.15	0.12	43.28
0.541	12.19	4.84	0.27	6.75	118.89	0.11	43.11
0.617	12.31	4.84	0.88	6.67	127.18	0.09	42.96
0.671	12.37	4.84	1.03	6.61	112.32	0.09	42.89
0.716	12.4	4.84	1.3	6.57	110.62	0.13	42.85
0.765	12.41	4.84	1.3	6.56	124.82	0.1	42.83
0.832	12.42	4.84	1.11	6.61	119.11	0.07	42.83
0.878	12.42	4.83	1.18	6.69	112.71	0.08	42.8
0.901	12.43	4.83	1.18	6.74	122.04	0.09	42.8
0.931	12.43	4.84	1.22	6.77	125.63	0.11	42.82
0.959	12.43	4.84	0.99	6.8	128.13	0.09	42.81
0.974	12.44	4.84	1.18	6.83	123.01	0.09	42.81
0.976	12.44	4.84	1.22	6.85	116.57	0.13	42.81
0.984	12.44	4.84	1.14	6.88	121.34	0.1	42.81
1.005	12.44	4.83	1.34	6.88	122.15	0.11	42.77
1.027	12.44	4.83	1.22	6.87	125.86	0.11	42.75
1.039	12.44	4.83	1.18	6.87	131.68	0.12	42.78
1.047	12.44	4.84	1.37	6.86	131.16	0.11	42.82
1.051	12.44	4.84	1.07	6.84	123.69	0.14	42.82
1.055	12.44	4.84	1.26	6.84	118.03	0.11	42.83
1.056	12.44	4.84	1.26	6.82	119.05	0.14	42.82
1.058	12.44	4.84	1.3	6.8	128.39	0.11	42.83
1.069	12.44	4.84	1.41	6.77	126.89	0.12	42.83
1.084	12.45	4.84	1.22	6.74	126.24	0.11	42.83
1.089	12.45	4.84	1.34	6.52	120.61	1.02	42.83
1.09	12.45	4.84	1.34	6.51	121.08	1.04	42.83
1.097	12.45	4.84	1.11	6.49	118.8	0.99	42.83
1.098	12.45	4.84	1.26	6.41	118.75	0.92	42.82
1.102	12.43	4.82	1.22	5.8	112.74	0.84	42.68
1.106	12.42	4.83	1.14	5.78	111.7	0.83	42.73
1.107	12.38	4.82	1.11	5.65	124.35	0.82	42.71

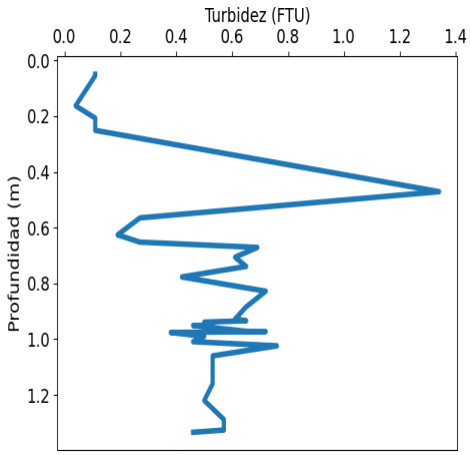
1.114	12.36	4.82	1.22	5.64	116.03	0.8	42.74
1.121	12.36	4.82	1.14	5.63	117.08	0.87	42.77
1.129	12.43	4.85	1.37	5.59	116.4	0.66	42.91
1.136	12.44	4.85	1.22	5.7	102.14	0.63	42.9
1.194	12.45	4.85	1.14	5.88	112.98	0.58	42.9
1.311	12.45	4.85	1.03	6.09	115.52	0.6	42.89
1.44	12.45	4.85	1.18	6.32	114.37	0.57	42.89
1.547	12.45	4.85	0.92	6.53	116.76	0.54	42.89
1.661	12.45	4.85	0.95	6.71	115.76	0.54	42.89
1.796	12.45	4.85	1.11	6.86	116.32	0.53	42.89
1.937	12.45	4.85	1.07	7.02	120.24	0.48	42.89
2.083	12.45	4.85	1.03	7.14	124.82	0.51	42.89
2.216	12.45	4.85	1.18	7.21	131.74	0.53	42.89
2.351	12.45	4.85	0.99	7.27	139.92	0.48	42.9
2.494	12.45	4.85	0.99	7.31	146.33	0.48	42.9
2.626	12.45	4.85	1.22	7.34	160.5	0.51	42.9
2.769	12.45	4.85	1.11	7.35	181.61	0.51	42.9
2.921	12.45	4.85	1.11	7.36	294.11	0.51	42.9
3.093	12.45	4.85	1.14	7.38	294.99	0.55	42.9
3.258	12.45	4.85	0.99	7.4	226.6	0.6	42.9
3.433	12.45	4.85	1.18	7.47	219.72	0.59	42.9
3.623	12.45	4.85	1.26	7.68	199.99	0.62	42.9
3.795	12.45	4.85	1.11	7.85	187.47	0.63	42.9
3.956	12.45	4.85	1.18	8.0	185.22	0.65	42.9
4.098	12.45	4.85	1.18	8.11	184.83	0.67	42.9
4.235	12.45	4.85	1.14	8.18	170.27	0.68	42.9
4.371	12.45	4.85	1.14	8.25	168.16	0.74	42.91
4.513	12.45	4.85	1.14	8.31	160.73	0.79	42.91
4.658	12.45	4.85	1.07	8.36	153.77	0.81	42.91
4.78	12.45	4.85	1.03	8.34	154.87	0.89	42.91
4.911	12.45	4.85	1.14	8.35	147.52	0.87	42.91
5.039	12.45	4.85	1.18	8.5	141.95	0.89	42.91
5.164	12.45	4.85	1.22	8.72	132.66	0.94	42.91
5.286	12.45	4.85	0.95	8.99	98.08	0.97	42.91
5.394	12.45	4.85	1.22	9.23	105.56	1.04	42.91
5.51	12.45	4.85	1.26	9.38	108.96	0.99	42.91
5.635	12.45	4.85	1.11	9.52	105.58	1.02	42.91
5.769	12.45	4.85	1.26	9.65	99.55	1.14	42.92
5.92	12.45	4.85	1.11	9.71	109.88	1.15	42.93
6.061	12.45	4.85	0.8	9.68	90.12	1.21	42.92
6.187	12.45	4.85	0.99	9.57	85.76	1.18	42.92
6.305	12.45	4.85	1.11	9.62	84.28	1.14	42.92
6.394	12.45	4.85	0.95	9.64	79.3	1.18	42.92
6.458	12.45	4.85	0.99	9.62	81.07	1.24	42.92
6.537	12.45	4.85	1.07	9.45	83.74	1.22	42.92
6.587	12.45	4.85	1.11	9.27	79.63	1.27	42.92
6.602	12.45	4.85	1.03	8.66	87.02	1.24	42.92
6.603	12.45	4.85	1.07	8.33	83.3	1.22	42.92
6.605	12.45	4.85	1.07	8.03	85.25	1.31	42.92

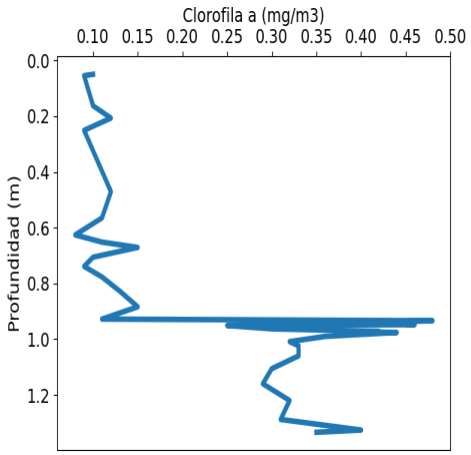
Nombre: CTD P03 - Punto 017 **Fecha: 07/12/2021** **Hora: 10:12:37**

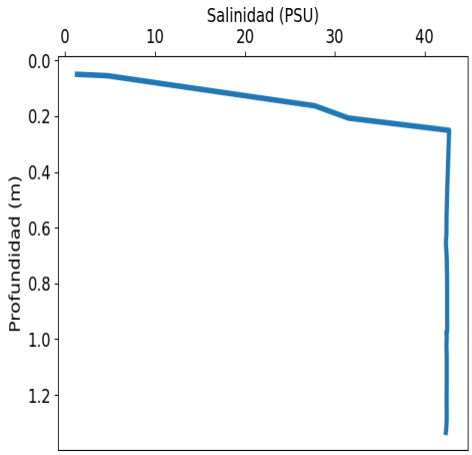


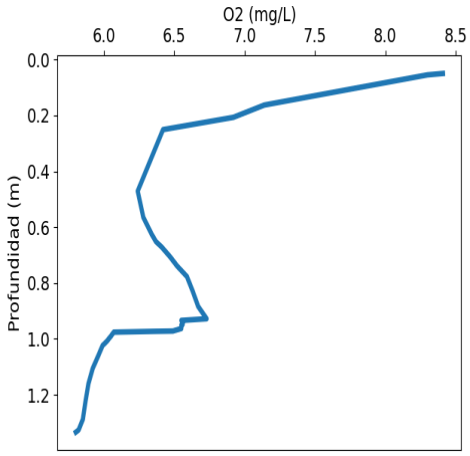


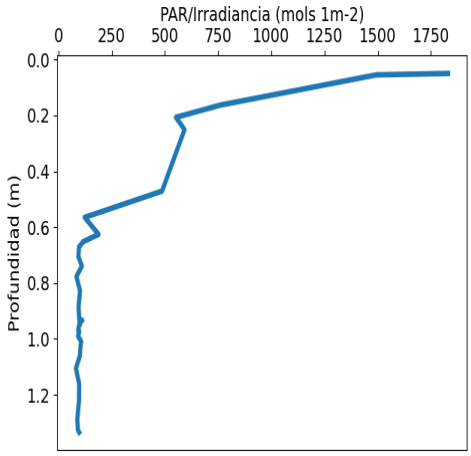












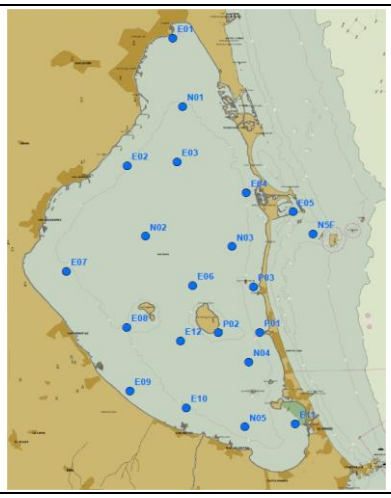
VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	11.73	0.19	0.04	5.8	82.13	0.08	1.31
PROF (metros)	0.05	0.05	0.163	1.334	1.106	0.626	0.05
MÁXIMO	12.46	12.46	1.34	8.41	1830.6	0.48	42.72
PROF (metros)	0.934	0.828	0.471	0.05	0.05	0.934	0.251

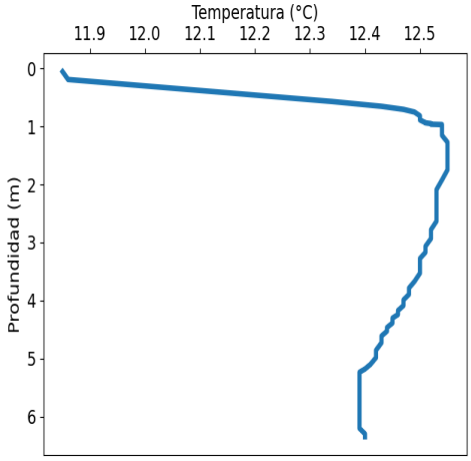
DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD P03 - Punto 017	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	12.33	4.36	0.48	6.64	300.12	0.21	38.46
1 - 2m	12.45	4.8	0.55	5.9	95.98	0.33	42.43

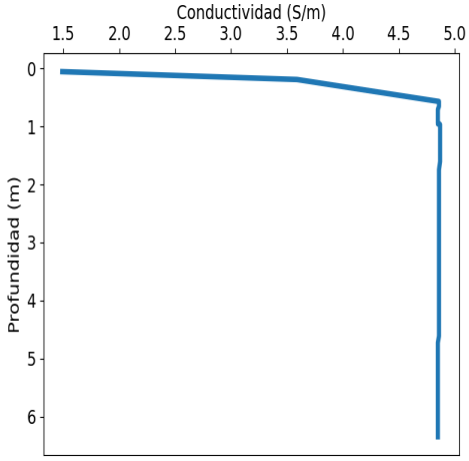
OBSERVACIONES GENERALES

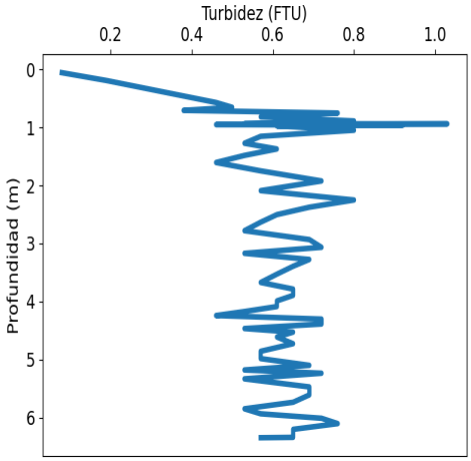
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.05	11.73	0.19	0.11	8.41	1830.6	0.1	1.31
0.055	11.73	0.63	0.11	8.3	1493.2	0.09	4.68
0.163	11.8	3.23	0.04	7.14	761.57	0.1	27.77
0.207	12.0	3.64	0.11	6.92	551.81	0.12	31.52
0.251	12.13	4.79	0.11	6.42	592.23	0.09	42.72
0.471	12.43	4.8	1.34	6.24	486.67	0.12	42.5
0.565	12.44	4.8	0.27	6.28	123.38	0.11	42.43
0.626	12.44	4.8	0.19	6.34	188.38	0.08	42.42
0.652	12.44	4.79	0.27	6.37	116.59	0.11	42.36
0.671	12.43	4.79	0.69	6.41	96.61	0.15	42.39
0.706	12.43	4.8	0.61	6.47	93.64	0.1	42.45
0.739	12.43	4.8	0.65	6.52	110.13	0.09	42.47
0.777	12.43	4.8	0.42	6.59	84.34	0.11	42.49
0.828	12.43	4.81	0.72	6.63	101.39	0.13	42.5
0.884	12.44	4.81	0.65	6.67	94.29	0.15	42.5
0.928	12.44	4.81	0.61	6.73	97.42	0.11	42.5
0.934	12.46	4.81	0.65	6.55	112.01	0.48	42.5
0.939	12.46	4.81	0.5	6.56	98.33	0.42	42.51
0.948	12.46	4.81	0.5	6.56	101.5	0.46	42.5
0.95	12.46	4.81	0.53	6.55	98.63	0.29	42.5
0.951	12.46	4.81	0.46	6.55	97.63	0.25	42.51
0.963	12.46	4.81	0.57	6.55	93.25	0.3	42.5
0.972	12.46	4.81	0.65	6.49	97.0	0.42	42.49
0.973	12.45	4.81	0.72	6.36	93.08	0.39	42.49
0.976	12.45	4.8	0.38	6.07	97.4	0.44	42.41
0.99	12.45	4.8	0.5	6.05	91.96	0.36	42.45
1.009	12.45	4.8	0.46	6.02	106.66	0.32	42.44
1.024	12.45	4.8	0.76	5.99	103.84	0.33	42.42
1.06	12.45	4.8	0.53	5.96	100.61	0.33	42.45
1.106	12.45	4.8	0.53	5.92	82.12	0.3	42.45
1.16	12.45	4.8	0.53	5.89	97.06	0.29	42.45
1.22	12.45	4.8	0.5	5.87	96.64	0.32	42.44
1.288	12.45	4.8	0.57	5.85	88.55	0.31	42.45
1.326	12.45	4.8	0.57	5.82	91.43	0.4	42.39
1.334	12.45	4.79	0.46	5.8	96.95	0.35	42.36

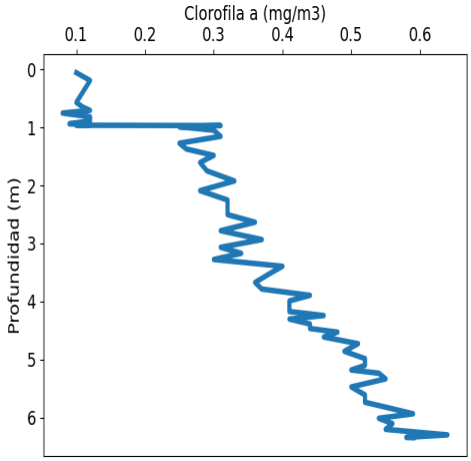
Nombre: CTD N03 - Punto 018 **Fecha: 07/12/2021** **Hora: 10:12:40**

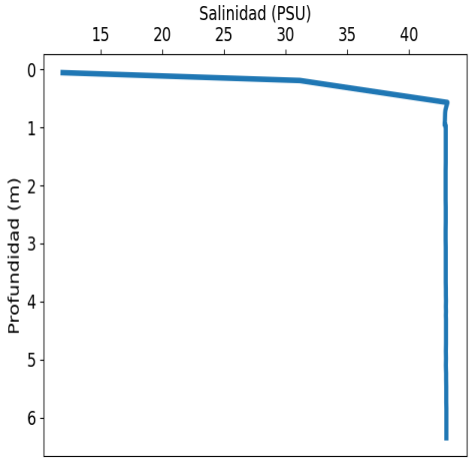


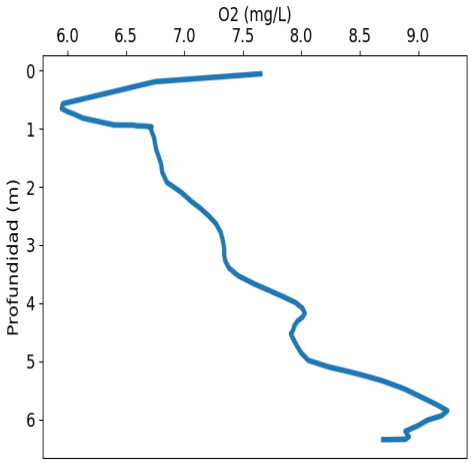


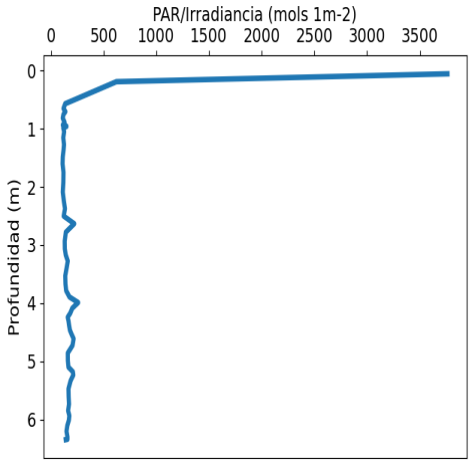


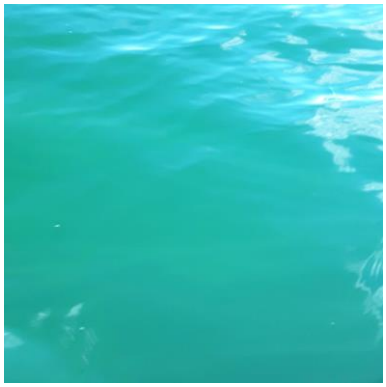












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	11.85	1.49	0.08	5.95	110.87	0.08	11.89
PROF (metros)	0.056	0.056	0.056	0.653	1.604	0.752	0.056
MÁXIMO	12.55	12.55	1.03	9.25	3763.1	0.64	43.12
PROF (metros)	1.153	0.968	0.938	5.848	0.056	6.297	0.57

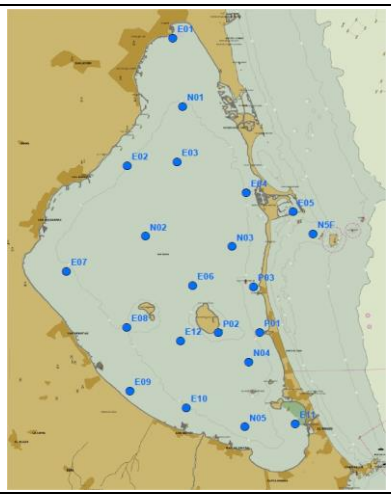
DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD N03 - Punto 018	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	12.42	4.57	0.57	6.49	385.45	0.14	40.27
1 - 2m	12.55	4.87	0.6	6.78	118.57	0.29	42.98
2 - 3m	12.53	4.86	0.64	7.18	140.88	0.32	42.98
3 - 4m	12.49	4.86	0.63	7.56	159.77	0.37	42.98
4 - 5m	12.44	4.86	0.6	7.98	182.15	0.46	43.0
5 - 6m	12.39	4.85	0.62	8.82	180.04	0.53	43.02
6 - 7m	12.39	4.85	0.67	8.91	154.97	0.58	43.03

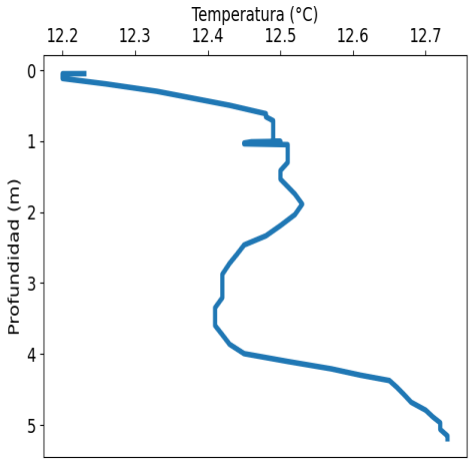
OBSERVACIONES GENERALES

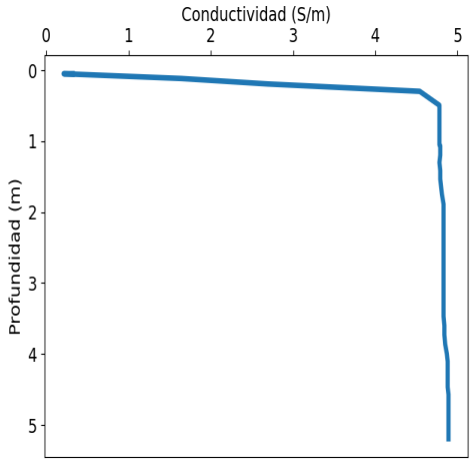
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.056	11.85	1.49	0.08	7.65	3763.1	0.1	11.89
0.191	11.86	3.59	0.19	6.75	621.48	0.12	31.14
0.57	12.34	4.86	0.46	5.96	135.83	0.1	43.12
0.653	12.43	4.86	0.5	5.95	119.49	0.11	43.01
0.706	12.47	4.85	0.38	6.0	137.9	0.12	42.95
0.752	12.49	4.85	0.76	6.06	119.55	0.08	42.93
0.817	12.5	4.85	0.57	6.13	112.61	0.12	42.92
0.888	12.5	4.85	0.8	6.29	129.32	0.12	42.91
0.936	12.51	4.85	0.53	6.4	113.16	0.09	42.89
0.938	12.51	4.85	1.03	6.56	132.48	0.09	42.91
0.951	12.52	4.86	0.46	6.6	126.45	0.12	42.91
0.955	12.52	4.85	0.61	6.67	147.14	0.12	42.89
0.962	12.52	4.86	0.92	6.69	147.69	0.1	42.92
0.968	12.54	4.87	0.65	6.72	121.73	0.31	42.98
0.974	12.54	4.87	0.61	6.71	121.7	0.29	42.98
0.989	12.54	4.87	0.65	6.71	117.52	0.25	42.98
1.048	12.54	4.87	0.8	6.72	125.66	0.3	42.98
1.153	12.54	4.87	0.57	6.74	117.43	0.31	42.98
1.272	12.55	4.87	0.53	6.75	124.32	0.25	42.98
1.371	12.55	4.87	0.61	6.76	119.91	0.26	42.98
1.482	12.55	4.87	0.53	6.78	112.82	0.3	42.98
1.604	12.55	4.87	0.46	6.8	110.87	0.28	42.98
1.748	12.55	4.86	0.57	6.81	119.41	0.29	42.97
1.922	12.54	4.86	0.72	6.85	118.17	0.33	42.97
2.089	12.53	4.86	0.57	6.97	112.92	0.28	42.97
2.25	12.53	4.86	0.8	7.06	123.41	0.32	42.97
2.374	12.53	4.86	0.69	7.14	133.62	0.32	42.98
2.502	12.53	4.86	0.61	7.21	121.67	0.32	42.98
2.633	12.53	4.86	0.57	7.27	221.56	0.36	42.98
2.779	12.52	4.86	0.53	7.31	141.88	0.31	42.97
2.932	12.52	4.86	0.69	7.33	131.13	0.37	42.97
3.065	12.51	4.86	0.72	7.34	132.23	0.31	42.98
3.169	12.51	4.86	0.53	7.34	140.9	0.34	42.98
3.275	12.5	4.86	0.69	7.35	160.21	0.3	42.98
3.392	12.5	4.86	0.65	7.38	149.48	0.4	42.98

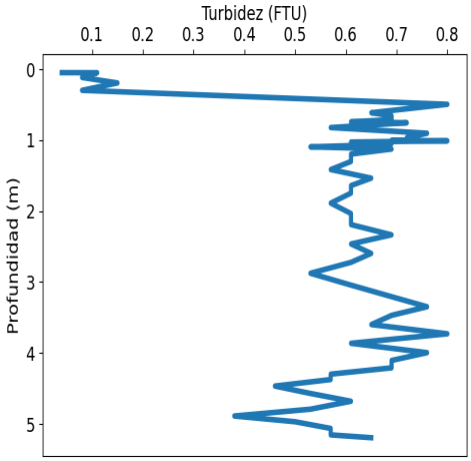
3.528	12.5	4.86	0.61	7.46	136.28	0.38	42.98
3.671	12.49	4.86	0.57	7.6	138.38	0.36	42.98
3.785	12.48	4.86	0.65	7.73	145.04	0.37	42.99
3.893	12.48	4.86	0.65	7.85	176.54	0.44	42.99
3.989	12.47	4.86	0.61	7.95	258.85	0.41	43.0
4.086	12.47	4.86	0.61	8.01	203.26	0.41	42.99
4.172	12.46	4.86	0.53	8.03	183.51	0.41	43.0
4.241	12.46	4.86	0.46	8.01	159.43	0.46	42.99
4.302	12.45	4.86	0.72	7.97	166.8	0.41	43.0
4.387	12.45	4.86	0.72	7.94	173.3	0.44	43.0
4.465	12.44	4.86	0.53	7.93	180.77	0.44	43.0
4.527	12.44	4.86	0.65	7.91	194.73	0.48	43.0
4.611	12.43	4.86	0.61	7.93	215.39	0.46	43.0
4.726	12.43	4.85	0.65	7.96	205.2	0.51	43.0
4.857	12.42	4.85	0.57	8.0	160.43	0.49	42.99
4.983	12.42	4.85	0.57	8.06	160.84	0.52	43.0
5.099	12.41	4.85	0.69	8.24	166.6	0.52	42.99
5.179	12.4	4.85	0.53	8.41	208.32	0.5	43.0
5.235	12.39	4.85	0.72	8.52	212.36	0.54	43.01
5.332	12.39	4.85	0.53	8.69	187.12	0.55	43.01
5.471	12.39	4.85	0.69	8.88	166.91	0.5	43.02
5.608	12.39	4.85	0.69	9.02	168.51	0.52	43.02
5.735	12.39	4.85	0.65	9.15	172.06	0.52	43.02
5.848	12.39	4.85	0.53	9.25	163.32	0.56	43.03
5.934	12.39	4.85	0.57	9.2	175.16	0.59	43.03
6.011	12.39	4.85	0.72	9.08	170.75	0.54	43.03
6.103	12.39	4.85	0.76	9.0	156.03	0.56	43.03
6.202	12.39	4.85	0.65	8.89	148.03	0.55	43.03
6.297	12.4	4.85	0.65	8.92	156.9	0.64	43.03
6.34	12.4	4.85	0.65	8.89	157.12	0.58	43.03
6.346	12.4	4.85	0.57	8.7	141.0	0.59	43.03

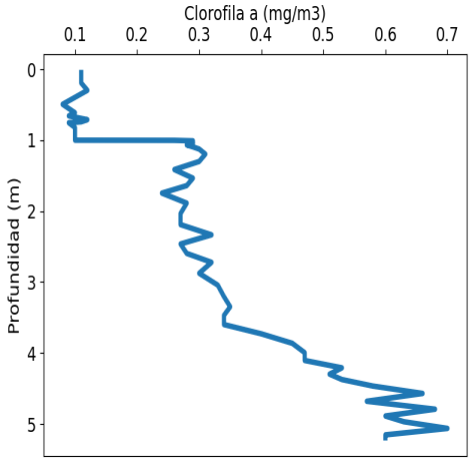
Nombre: CTD E04 - Punto 019 **Fecha: 07/12/2021** **Hora: 10:12:09**

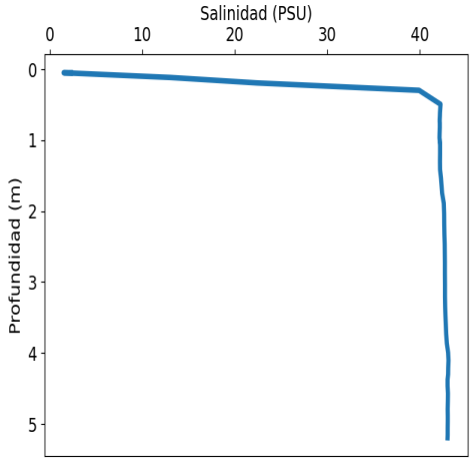


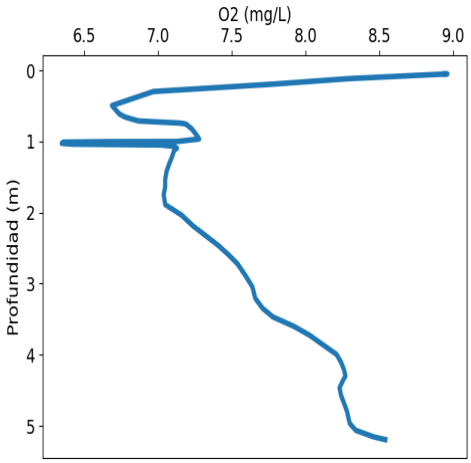


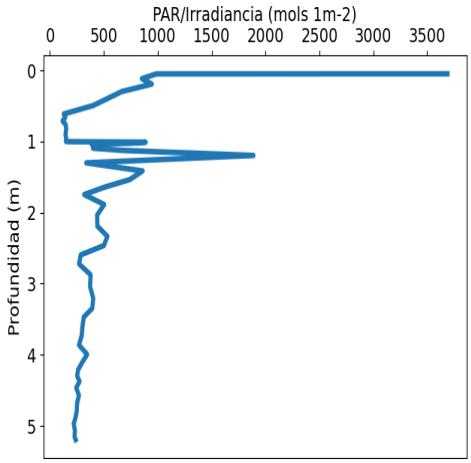












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	12.2	0.21	0.04	6.35	117.22	0.08	1.47
PROF (metros)	0.049	0.049	0.048	1.026	0.711	0.494	0.049
MÁXIMO	12.73	12.73	0.8	8.96	3688.9	0.7	43.13
PROF (metros)	5.154	4.57	0.494	0.049	0.048	5.063	4.105

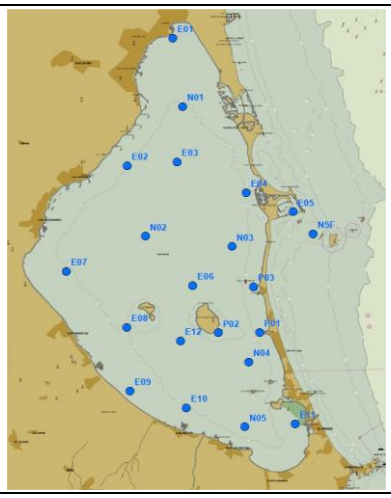
DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD E04 - Punto 019	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	12.4	3.74	0.48	7.44	618.22	0.1	32.78
1 - 2m	12.5	4.79	0.64	6.92	587.59	0.27	42.27
2 - 3m	12.46	4.83	0.62	7.39	406.43	0.29	42.71
3 - 4m	12.42	4.84	0.7	7.88	336.63	0.38	42.85
4 - 5m	12.65	4.89	0.55	8.26	256.11	0.58	43.06
5 - 6m	12.73	4.89	0.6	8.45	232.81	0.63	43.04

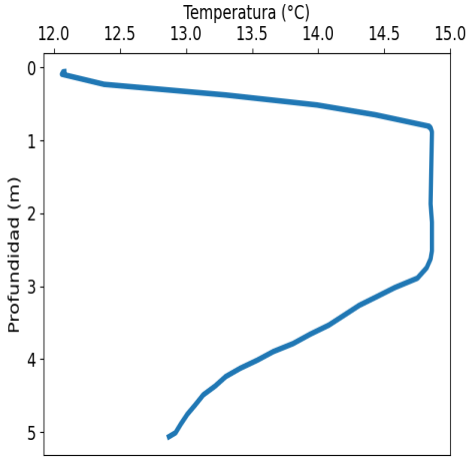
OBSERVACIONES GENERALES

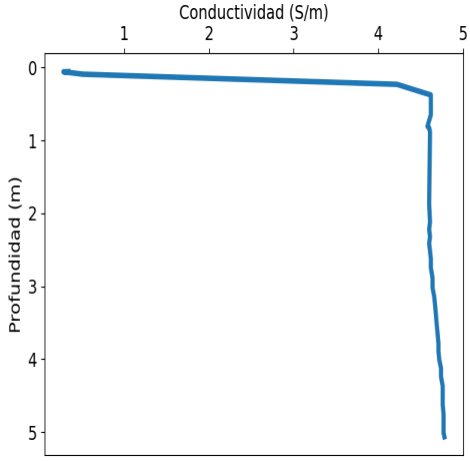
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.048	12.23	0.32	0.04	8.94	3688.9	0.11	2.25
0.049	12.2	0.21	0.11	8.96	987.29	0.11	1.47
0.116	12.2	1.64	0.08	8.29	852.76	0.11	13.05
0.193	12.26	2.69	0.15	7.78	945.2	0.11	22.43
0.297	12.33	4.54	0.08	6.97	667.16	0.12	39.95
0.494	12.43	4.78	0.8	6.69	401.04	0.08	42.27
0.613	12.48	4.78	0.65	6.74	128.19	0.1	42.21
0.657	12.48	4.78	0.69	6.78	142.94	0.09	42.2
0.711	12.49	4.78	0.69	6.87	117.22	0.12	42.18
0.741	12.49	4.78	0.61	7.15	133.0	0.11	42.18
0.754	12.49	4.78	0.72	7.19	144.97	0.09	42.19
0.822	12.49	4.78	0.57	7.23	151.01	0.1	42.19
0.902	12.49	4.78	0.76	7.26	144.0	0.1	42.17
0.965	12.49	4.78	0.72	7.28	151.4	0.1	42.16
1.0	12.49	4.78	0.72	7.13	148.62	0.1	42.18
1.002	12.5	4.78	0.69	6.66	175.24	0.26	42.19
1.009	12.46	4.78	0.8	6.36	888.48	0.29	42.18
1.026	12.45	4.78	0.61	6.35	726.23	0.29	42.21
1.037	12.45	4.78	0.65	6.42	385.9	0.28	42.19
1.049	12.51	4.78	0.69	7.02	446.26	0.29	42.22
1.067	12.51	4.79	0.65	7.11	400.2	0.28	42.22
1.094	12.51	4.79	0.53	7.13	399.37	0.29	42.22
1.125	12.51	4.79	0.69	7.11	672.28	0.3	42.22
1.196	12.51	4.79	0.61	7.1	1888.4	0.31	42.22
1.3	12.51	4.78	0.61	7.08	336.5	0.3	42.21
1.414	12.5	4.79	0.57	7.06	860.11	0.26	42.22
1.535	12.5	4.79	0.65	7.05	741.19	0.29	42.32
1.64	12.51	4.8	0.61	7.05	511.66	0.28	42.38
1.746	12.52	4.81	0.61	7.04	317.63	0.24	42.44
1.887	12.53	4.83	0.57	7.05	503.3	0.28	42.62
2.034	12.52	4.83	0.61	7.16	437.76	0.27	42.66
2.19	12.5	4.83	0.61	7.24	440.0	0.27	42.67
2.334	12.48	4.83	0.69	7.33	533.08	0.32	42.69
2.463	12.45	4.83	0.61	7.41	500.86	0.27	42.72
2.596	12.44	4.83	0.65	7.48	285.64	0.28	42.73
2.722	12.43	4.83	0.61	7.54	270.44	0.32	42.74

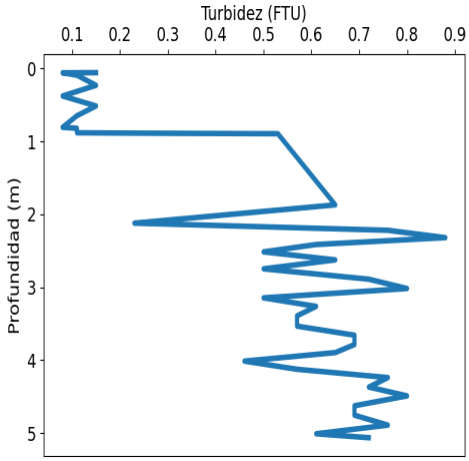
2.876	12.42	4.83	0.53	7.59	377.23	0.3	42.74
3.043	12.42	4.83	0.61	7.64	372.63	0.33	42.75
3.206	12.42	4.83	0.69	7.66	401.69	0.34	42.75
3.348	12.41	4.83	0.76	7.71	392.58	0.35	42.77
3.469	12.41	4.83	0.69	7.78	314.33	0.34	42.8
3.599	12.41	4.84	0.65	7.92	301.84	0.34	42.84
3.729	12.42	4.84	0.8	8.03	295.06	0.4	42.88
3.863	12.43	4.85	0.61	8.12	269.31	0.45	42.95
3.995	12.45	4.87	0.76	8.21	345.59	0.47	43.09
4.105	12.51	4.88	0.69	8.24	300.58	0.47	43.13
4.209	12.57	4.88	0.69	8.26	261.62	0.53	43.1
4.298	12.61	4.88	0.57	8.27	252.5	0.51	43.09
4.374	12.65	4.88	0.57	8.25	275.05	0.53	43.03
4.466	12.66	4.88	0.46	8.23	243.88	0.58	43.03
4.57	12.67	4.89	0.53	8.24	268.81	0.66	43.07
4.68	12.68	4.89	0.61	8.26	252.27	0.57	43.06
4.792	12.7	4.89	0.53	8.28	248.56	0.68	43.04
4.888	12.71	4.89	0.38	8.29	236.86	0.6	43.05
4.969	12.72	4.89	0.5	8.3	221.0	0.63	43.05
5.063	12.72	4.89	0.57	8.34	231.32	0.7	43.04
5.154	12.73	4.89	0.57	8.46	228.39	0.6	43.04
5.194	12.73	4.89	0.65	8.54	238.73	0.6	43.03

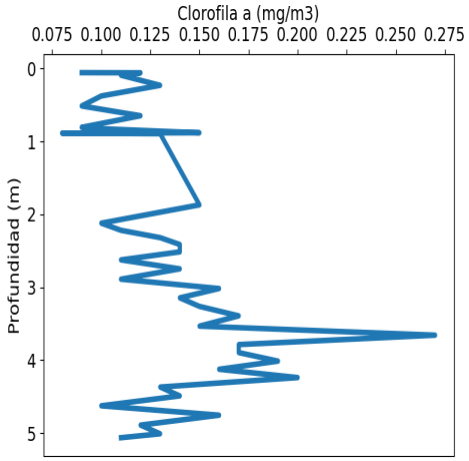
Nombre: CTD E05 - Punto 020 **Fecha: 07/12/2021** **Hora: 10:12:40**

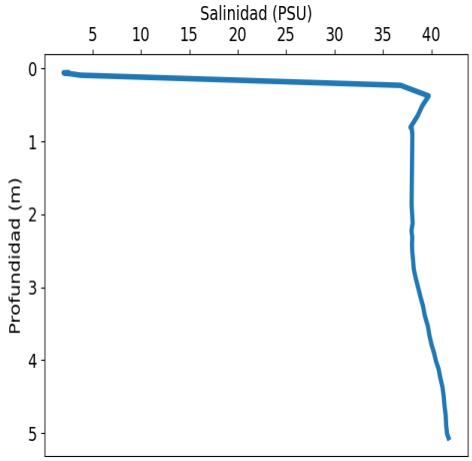


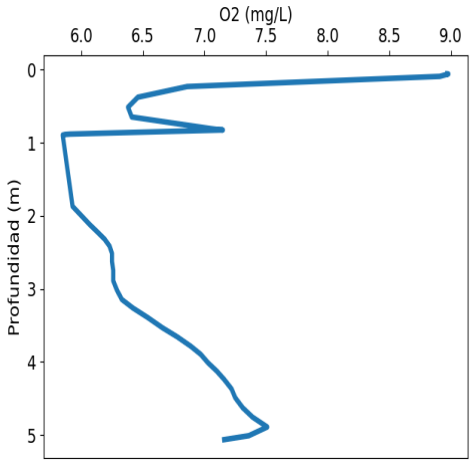


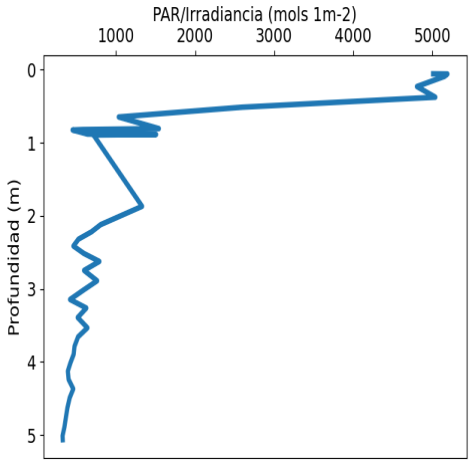












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	12.06	0.28	0.08	5.85	323.65	0.08	2.01
PROF (metros)	0.091	0.058	0.058	0.894	5.011	0.886	0.058
MÁXIMO	14.86	14.86	0.88	8.98	5192.4	0.27	41.77
PROF (metros)	0.881	5.065	2.32	0.058	0.058	3.658	5.065

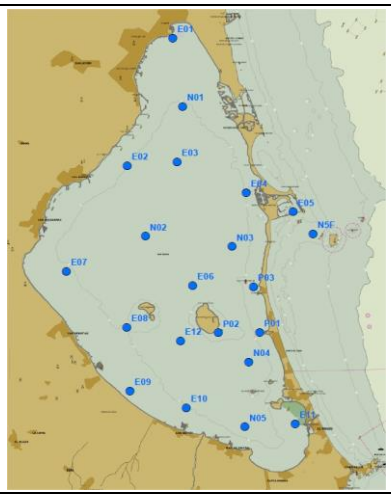
DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD E05 - Punto 020	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	13.8	3.6	0.16	7.07	2635.7	0.11	30.02
1 - 2m	14.85	4.6	0.65	5.93	1329.5	0.15	37.96
2 - 3m	14.84	4.61	0.61	6.21	652.32	0.12	38.1
3 - 4m	14.13	4.68	0.63	6.61	529.86	0.17	39.47
4 - 5m	13.21	4.75	0.68	7.25	398.08	0.15	41.12
5 - 6m	12.9	4.78	0.67	7.26	324.66	0.12	41.69

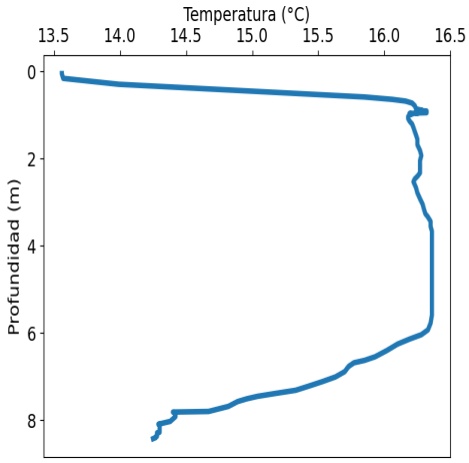
OBSERVACIONES GENERALES

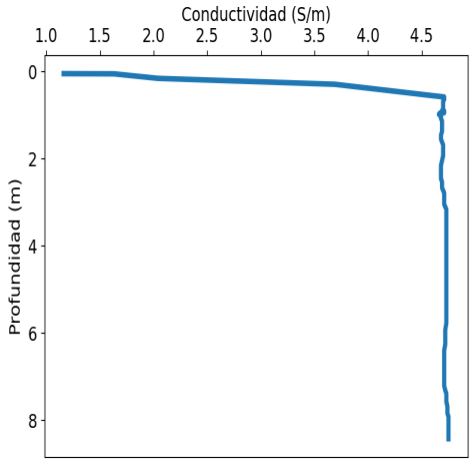
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.056	12.08	0.34	0.15	8.97	5010.3	0.09	2.43
0.058	12.07	0.28	0.08	8.98	5192.4	0.12	2.01
0.091	12.06	0.51	0.11	8.91	5155.2	0.11	3.77
0.23	12.38	4.22	0.15	6.86	4805.6	0.13	36.82
0.376	13.3	4.62	0.08	6.46	5039.4	0.1	39.73
0.513	13.99	4.62	0.15	6.38	2594.7	0.09	39.05
0.647	14.43	4.62	0.11	6.41	1033.4	0.12	38.59
0.806	14.84	4.58	0.08	7.05	1542.5	0.09	37.84
0.819	14.84	4.59	0.11	7.11	579.2	0.1	37.92
0.825	14.85	4.6	0.11	7.15	449.69	0.1	37.99
0.881	14.86	4.61	0.11	5.91	638.72	0.15	38.01
0.886	14.86	4.61	0.23	5.87	1507.8	0.08	38.04
0.894	14.86	4.61	0.53	5.85	715.2	0.13	38.04
1.87	14.85	4.6	0.65	5.93	1329.5	0.15	37.96
2.121	14.86	4.61	0.23	6.07	805.88	0.1	38.07
2.219	14.86	4.6	0.76	6.13	689.81	0.11	37.95
2.32	14.86	4.61	0.88	6.19	524.75	0.13	38.03
2.414	14.86	4.6	0.61	6.23	460.44	0.14	38.0
2.515	14.86	4.61	0.5	6.25	592.1	0.14	38.03
2.625	14.85	4.62	0.65	6.25	789.42	0.11	38.11
2.748	14.82	4.62	0.5	6.26	595.12	0.14	38.18
2.89	14.75	4.64	0.72	6.26	761.04	0.11	38.41
3.018	14.58	4.64	0.8	6.29	586.5	0.16	38.66
3.146	14.44	4.66	0.5	6.33	417.54	0.14	38.9
3.263	14.31	4.67	0.61	6.42	624.37	0.15	39.15
3.393	14.2	4.68	0.57	6.54	514.63	0.17	39.33
3.534	14.08	4.69	0.57	6.66	638.12	0.15	39.64
3.658	13.94	4.7	0.69	6.78	519.3	0.27	39.8
3.787	13.81	4.71	0.69	6.89	474.64	0.17	40.02
3.897	13.66	4.71	0.65	6.97	463.76	0.17	40.27
4.014	13.54	4.72	0.46	7.03	422.9	0.19	40.48
4.126	13.41	4.74	0.57	7.1	390.31	0.16	40.76
4.24	13.3	4.74	0.76	7.16	399.65	0.2	40.92
4.37	13.22	4.76	0.72	7.22	458.95	0.13	41.15
4.491	13.13	4.76	0.8	7.25	413.98	0.14	41.27
4.627	13.07	4.76	0.69	7.31	385.19	0.1	41.36

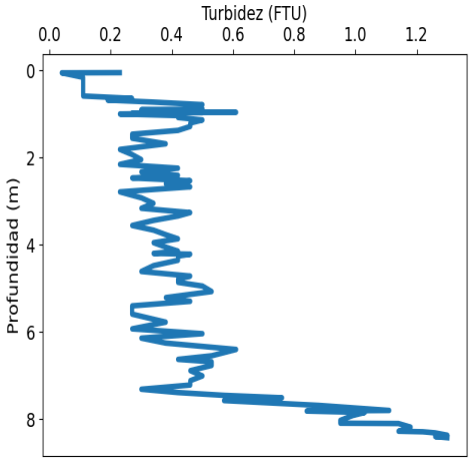
4.756	13.01	4.77	0.69	7.39	366.38	0.16	41.48
4.892	12.96	4.77	0.76	7.51	347.28	0.12	41.53
5.011	12.92	4.77	0.61	7.36	323.65	0.13	41.62
5.065	12.87	4.78	0.72	7.16	325.68	0.11	41.77

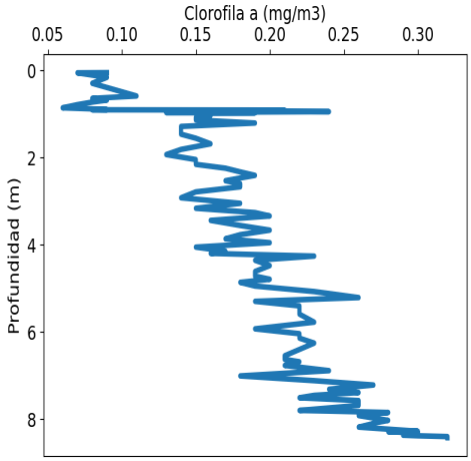
Nombre: CTD N5F - Punto 021 **Fecha: 07/12/2021** **Hora: 10:12:27**

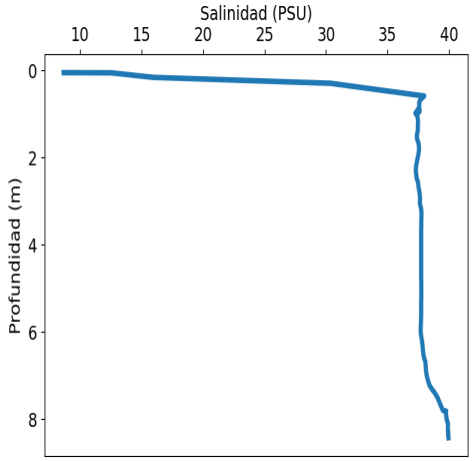


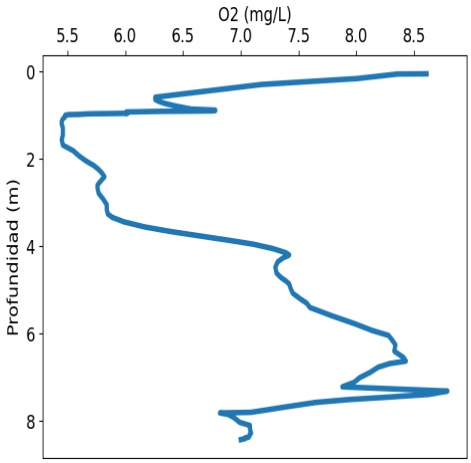


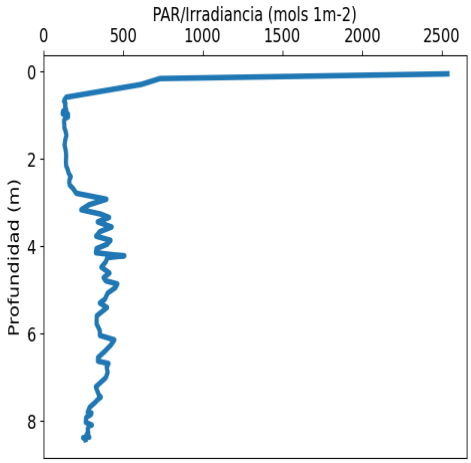


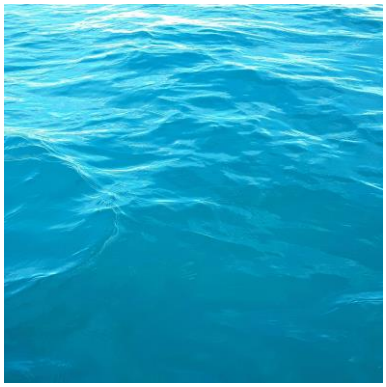












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/l)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m^3)	Salinidad (PSU)
MÍNIMO	13.56	1.16	0.04	5.45	117.73	0.06	8.67
PROF (metros)	0.048	0.048	0.052	1.135	0.958	0.856	0.048
MÁXIMO	16.36	16.36	1.3	8.79	2535.9	0.32	39.95
PROF (metros)	3.665	7.924	8.375	7.319	0.048	8.406	8.432

DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD N5F - Punto 021	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0 - 1m	15.84	4.31	0.33	6.43	349.45	0.12	34.46
1 - 2m	16.23	4.69	0.37	5.48	135.5	0.15	37.46
2 - 3m	16.25	4.69	0.34	5.77	183.4	0.17	37.43
3 - 4m	16.34	4.73	0.36	6.26	354.8	0.18	37.73
4 - 5m	16.36	4.73	0.41	7.37	403.89	0.19	37.73
5 - 6m	16.35	4.73	0.36	7.72	364.13	0.22	37.72
6 - 7m	15.95	4.71	0.47	8.3	387.09	0.22	37.93
7 - 8m	14.98	4.73	0.68	7.71	322.82	0.24	39.04
8 - 9m	14.29	4.75	1.18	7.06	272.55	0.29	39.91

OBSERVACIONES GENERALES

DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Profundidad (m)	Temp. (°C)	Conductividad (S/m)	Turbidez (FTU)	Oxígeno (mg/L)	PAR/Irradiancia (mols-1m-2)	Clorofila (mg/m3)	Salinidad (PSU)
0.048	13.56	1.16	0.23	8.61	2535.9	0.09	8.67
0.052	13.56	1.63	0.04	8.36	2487.6	0.07	12.54
0.156	13.57	2.04	0.11	8.01	729.94	0.09	15.95
0.292	13.99	3.69	0.11	7.18	610.77	0.08	30.35
0.584	15.85	4.71	0.11	6.26	140.93	0.11	37.98
0.639	16.06	4.71	0.27	6.26	130.34	0.08	37.77
0.678	16.16	4.7	0.19	6.29	126.74	0.09	37.65
0.724	16.21	4.7	0.34	6.34	135.83	0.08	37.57
0.783	16.23	4.7	0.5	6.43	133.46	0.07	37.57
0.856	16.24	4.7	0.46	6.57	139.54	0.06	37.57
0.88	16.27	4.7	0.5	6.78	141.33	0.08	37.56
0.891	16.28	4.7	0.42	6.78	134.33	0.08	37.51
0.898	16.29	4.69	0.34	6.74	123.75	0.09	37.44
0.899	16.28	4.69	0.3	6.69	120.94	0.08	37.44
0.901	16.28	4.7	0.34	6.63	131.25	0.08	37.55
0.907	16.32	4.71	0.42	6.32	139.44	0.21	37.61
0.922	16.32	4.71	0.3	6.01	136.84	0.18	37.6
0.944	16.32	4.71	0.3	6.0	125.02	0.24	37.6
0.952	16.24	4.7	0.38	6.02	122.55	0.19	37.53
0.958	16.25	4.67	0.61	5.9	117.73	0.16	37.31
0.959	16.22	4.68	0.46	5.86	148.07	0.17	37.43
0.964	16.19	4.67	0.5	5.7	129.14	0.15	37.34
0.966	16.2	4.68	0.5	5.67	122.1	0.13	37.4
0.971	16.2	4.68	0.38	5.64	139.76	0.19	37.42
0.978	16.21	4.68	0.27	5.6	152.63	0.15	37.38
0.983	16.2	4.66	0.38	5.51	138.25	0.16	37.26
0.997	16.19	4.67	0.23	5.48	141.1	0.16	37.32
1.034	16.18	4.68	0.42	5.48	152.24	0.16	37.41
1.078	16.18	4.68	0.42	5.46	131.31	0.15	37.44
1.135	16.19	4.69	0.5	5.45	126.33	0.15	37.47
1.205	16.21	4.69	0.46	5.45	128.6	0.19	37.47
1.283	16.22	4.69	0.46	5.46	128.93	0.14	37.46
1.374	16.23	4.69	0.42	5.46	137.61	0.14	37.46

1.461	16.24	4.68	0.27	5.46	141.98	0.14	37.39
1.554	16.25	4.68	0.27	5.45	135.05	0.15	37.38
1.682	16.25	4.7	0.38	5.46	130.1	0.16	37.53
1.811	16.27	4.7	0.23	5.55	137.9	0.14	37.56
1.929	16.28	4.7	0.27	5.6	140.41	0.13	37.5
2.044	16.27	4.69	0.3	5.66	138.7	0.15	37.42
2.154	16.27	4.68	0.23	5.73	139.92	0.15	37.34
2.242	16.27	4.68	0.42	5.77	149.83	0.17	37.3
2.327	16.27	4.68	0.3	5.8	156.28	0.18	37.3
2.407	16.25	4.68	0.42	5.82	169.41	0.19	37.34
2.467	16.23	4.68	0.27	5.8	161.51	0.18	37.35
2.53	16.22	4.69	0.46	5.78	159.1	0.17	37.44
2.598	16.23	4.69	0.38	5.76	162.86	0.18	37.49
2.67	16.24	4.69	0.46	5.76	181.99	0.18	37.51
2.786	16.25	4.71	0.23	5.77	204.39	0.15	37.59
2.922	16.27	4.71	0.3	5.81	393.4	0.14	37.64
3.049	16.29	4.71	0.34	5.84	283.6	0.18	37.62
3.163	16.3	4.73	0.3	5.84	234.89	0.15	37.72
3.262	16.31	4.73	0.46	5.85	356.74	0.19	37.76
3.34	16.33	4.73	0.42	5.89	410.25	0.2	37.75
3.441	16.35	4.73	0.34	5.99	338.22	0.16	37.74
3.558	16.35	4.73	0.27	6.17	426.44	0.18	37.74
3.665	16.36	4.73	0.34	6.4	352.3	0.2	37.73
3.769	16.36	4.73	0.38	6.66	328.26	0.18	37.73
3.864	16.36	4.73	0.42	6.9	419.29	0.17	37.73
3.953	16.36	4.73	0.34	7.11	397.98	0.2	37.73
4.055	16.36	4.73	0.38	7.28	330.4	0.15	37.73
4.148	16.36	4.73	0.42	7.39	326.74	0.17	37.73
4.199	16.36	4.73	0.34	7.42	445.23	0.16	37.73
4.217	16.36	4.73	0.46	7.41	506.11	0.18	37.73
4.261	16.36	4.73	0.42	7.37	399.0	0.23	37.73
4.357	16.36	4.73	0.42	7.32	388.95	0.19	37.73
4.48	16.36	4.73	0.34	7.3	361.23	0.2	37.73
4.614	16.36	4.73	0.3	7.31	412.73	0.19	37.73
4.72	16.36	4.73	0.46	7.35	375.23	0.19	37.73
4.793	16.36	4.73	0.42	7.39	389.68	0.2	37.73
4.864	16.36	4.73	0.42	7.42	462.05	0.18	37.74
4.949	16.36	4.73	0.5	7.43	449.37	0.19	37.74
5.075	16.36	4.73	0.53	7.45	400.76	0.23	37.74
5.214	16.36	4.73	0.38	7.52	383.49	0.26	37.74
5.3	16.36	4.73	0.46	7.57	351.49	0.19	37.73
5.404	16.36	4.73	0.27	7.6	397.34	0.22	37.73
5.594	16.36	4.73	0.27	7.79	332.55	0.22	37.73
5.778	16.35	4.73	0.38	7.99	331.32	0.23	37.71
5.932	16.33	4.72	0.27	8.14	351.98	0.19	37.69
6.043	16.28	4.72	0.5	8.28	351.9	0.22	37.7
6.145	16.19	4.72	0.3	8.31	443.07	0.22	37.76
6.259	16.1	4.72	0.38	8.34	422.02	0.23	37.82
6.405	16.02	4.71	0.61	8.33	383.85	0.22	37.87
6.55	15.93	4.71	0.53	8.41	340.42	0.21	37.93
6.633	15.85	4.71	0.42	8.43	339.87	0.21	38.0
6.688	15.77	4.71	0.53	8.29	406.84	0.22	38.07
6.772	15.73	4.71	0.53	8.19	394.67	0.21	38.1
6.892	15.7	4.71	0.46	8.12	401.13	0.24	38.12
7.013	15.63	4.71	0.5	8.03	389.13	0.18	38.19
7.122	15.53	4.71	0.46	7.98	356.24	0.23	38.29
7.222	15.43	4.71	0.46	7.88	326.51	0.27	38.4
7.319	15.33	4.72	0.3	8.79	336.34	0.24	38.61

7.395	15.17	4.73	0.42	8.63	344.39	0.26	38.82
7.459	15.04	4.73	0.57	8.27	358.07	0.23	38.95
7.515	14.96	4.73	0.76	7.93	338.14	0.22	39.07
7.579	14.89	4.73	0.57	7.65	322.15	0.26	39.16
7.69	14.82	4.74	0.88	7.37	288.1	0.26	39.32
7.806	14.67	4.74	1.11	7.09	275.18	0.22	39.5
7.82	14.4	4.74	0.84	6.82	299.47	0.24	39.77
7.853	14.42	4.74	1.03	6.89	297.05	0.28	39.74
7.924	14.42	4.75	0.99	6.94	265.84	0.26	39.76
8.034	14.38	4.75	0.95	6.99	263.08	0.28	39.82
8.099	14.29	4.75	0.95	7.07	301.91	0.27	39.91
8.106	14.3	4.75	1.14	7.08	285.31	0.27	39.91
8.189	14.3	4.75	1.18	7.08	275.43	0.26	39.9
8.283	14.3	4.75	1.14	7.09	279.42	0.3	39.9
8.296	14.28	4.75	1.22	7.08	272.32	0.28	39.93
8.321	14.28	4.75	1.26	7.08	267.88	0.3	39.93
8.375	14.28	4.75	1.3	7.07	285.64	0.29	39.92
8.388	14.27	4.75	1.3	7.04	246.15	0.3	39.94
8.406	14.27	4.75	1.26	7.04	259.87	0.32	39.94
8.432	14.25	4.75	1.3	7.0	261.07	0.32	39.95