INFORME COMPLETO DE RESULTADOS
MEDIDAS DE SONDA OCEÁNICA (CTD)
REALIZADAS POR EL IMIDA EN EL MM

Fecha: Jueves 12/08/2021

El presente informe muestra los resultados de los muestreos realizados en el Mar Menor (MM) por el Instituto Murciano de Investigación y Desarrollo Agrario y Medioambiental (IMIDA) en la fecha indicada mediante SONDA OCEÁNICA 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 automática por técnicos del IMIDA. Tal cantidad de información requiere, además de su descarga, un complejo proceso de análisis, procesado y transformación de datos.

Para facilitar su lectura e interpretación, este informe incluye:

- Una ficha con las gráficas correspondientes a las variables oxígeno (mg/l), turbidez, clorofila y temperatura para los datos obtenidos de todos los puntos de muestreo.
- Una ficha individual de cada punto muestreado en la fecha arriba indicada. Cada ficha incluye, a su vez:
    - Mapa de situación de todos los puntos de muestreo del día, especificando la situación exacta del punto específico de cada ficha.
    - Resumen de resultados de cada una de las variables expresado mediante gráficas sencillas.
    - Tabla de resultados sobre la columna de agua, con las medias por metro para cada variable.
    - Alertas (mediante marcas de color) de valores anómalos detectados en los niveles de oxígeno.
    - Observaciones y valoración.

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 anoxia o de hipoxia en base a la siguiente clasificación. Se considerarán no preocupantes los valores de oxígeno superiores a 4 miligramos por litro:

0-2 mg/l: ANOXIA

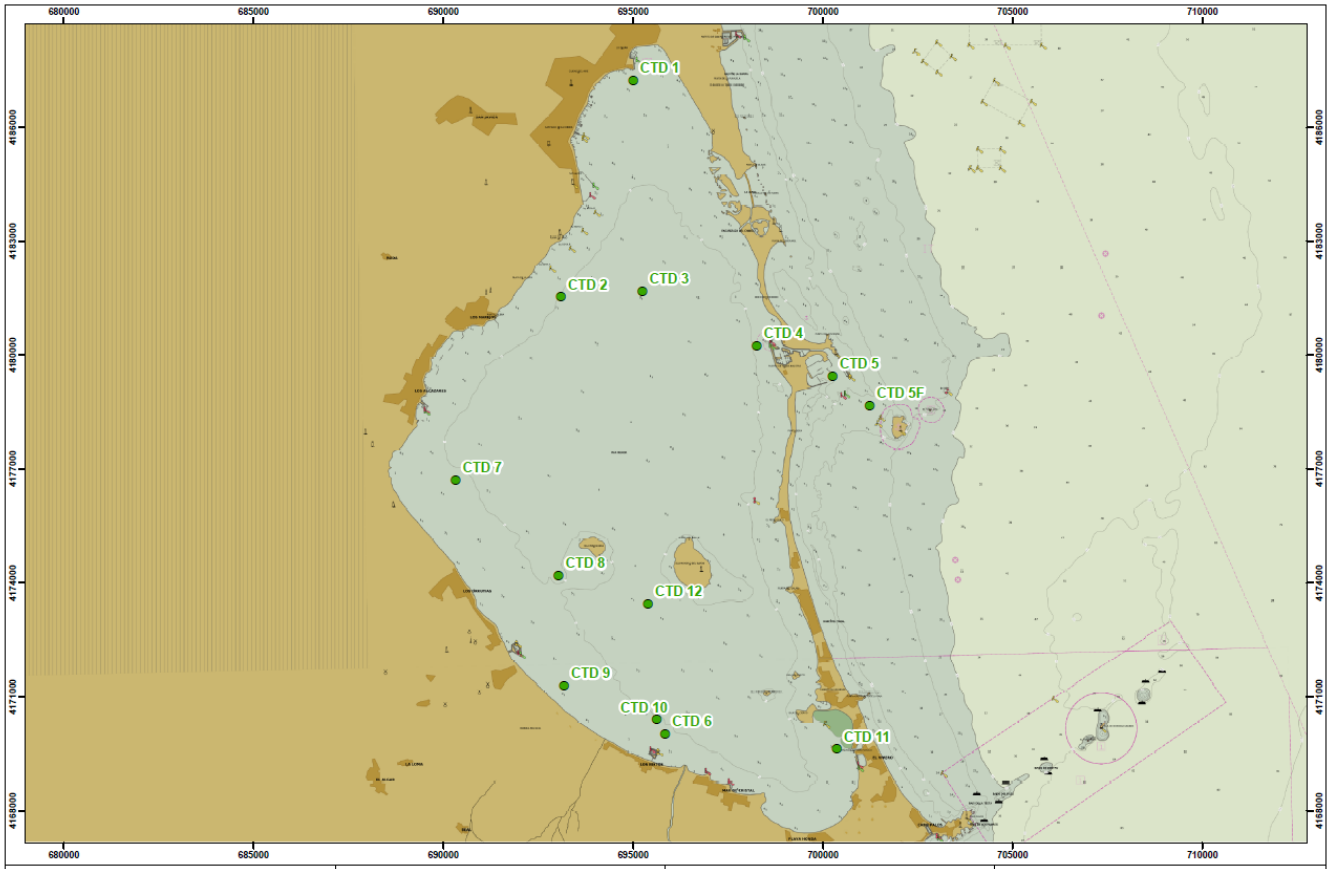
2-4 mg/l: HIPOXIA

>4 mg/l: NO PREOCUPANTE

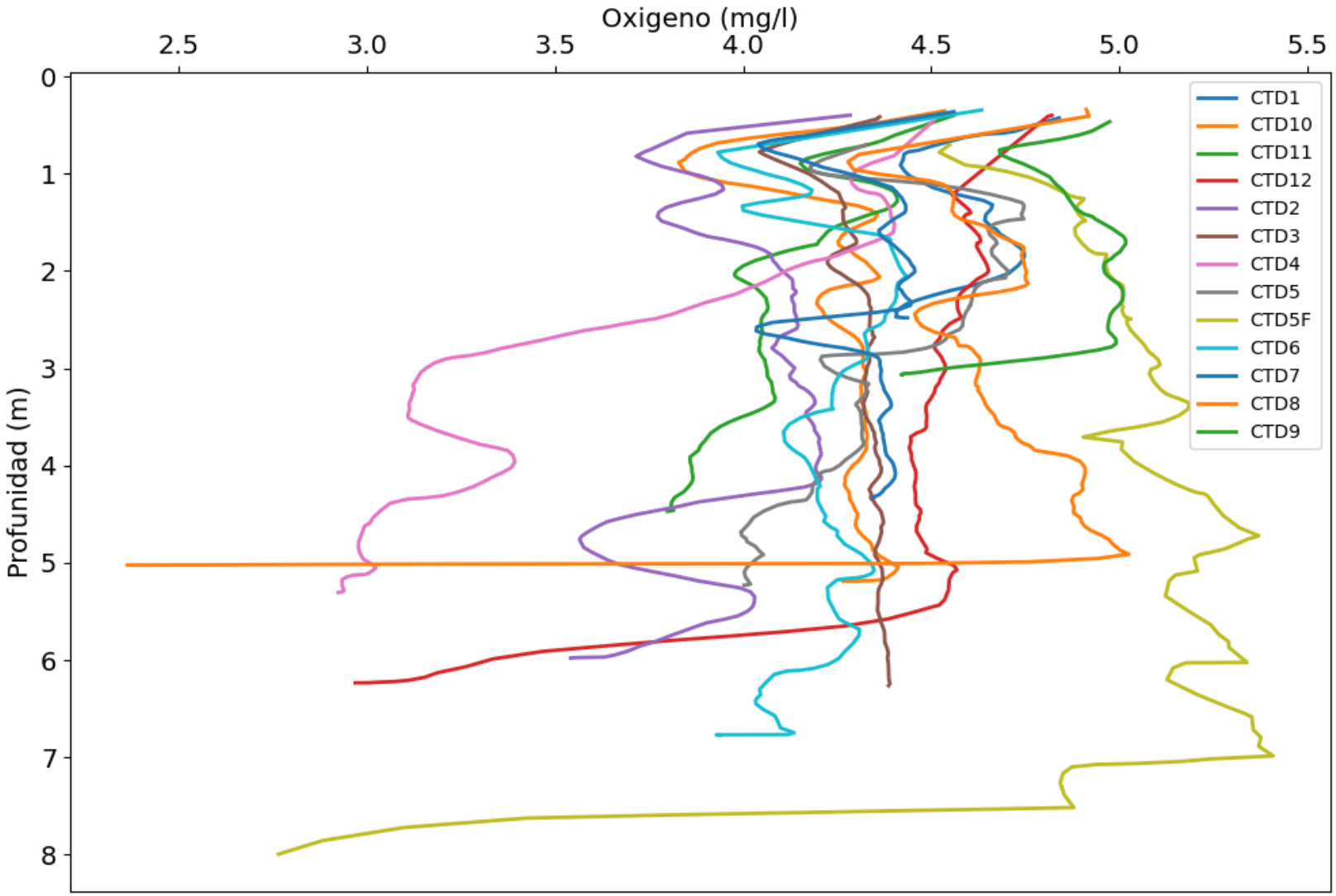
Las tablas siguientes incluyen los datos necesarios para tener una visión global de todo el proceso:

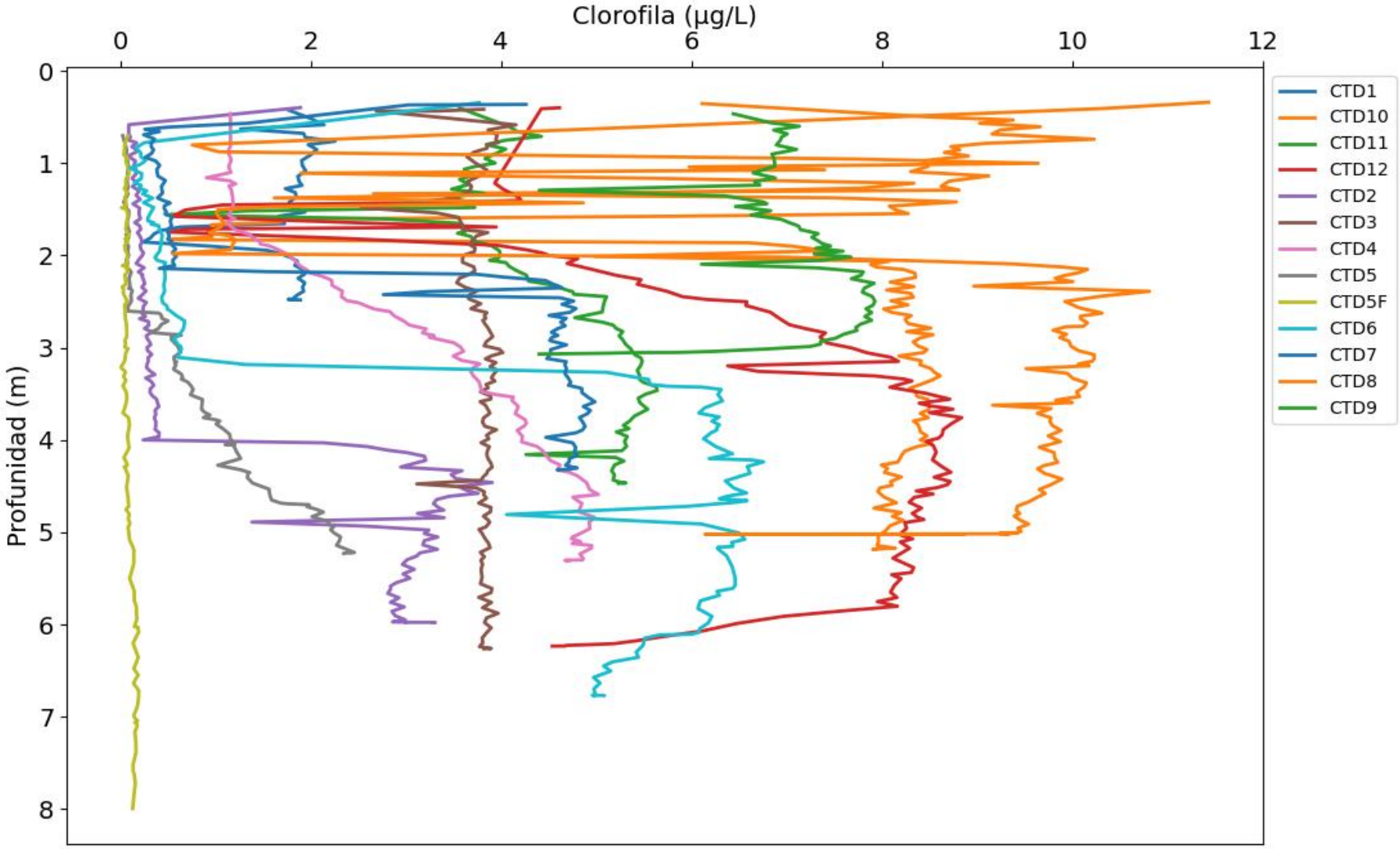
OBSERVACIONES GENERALES
Se realiza **UNA SALIDA** en barco para muestreo por la mañana, en horario de 08:00 a 12:00 horas. Salida desde el puerto de Lo Pagán, con dos personas a bordo (un técnico del IMIDA y un patrón).

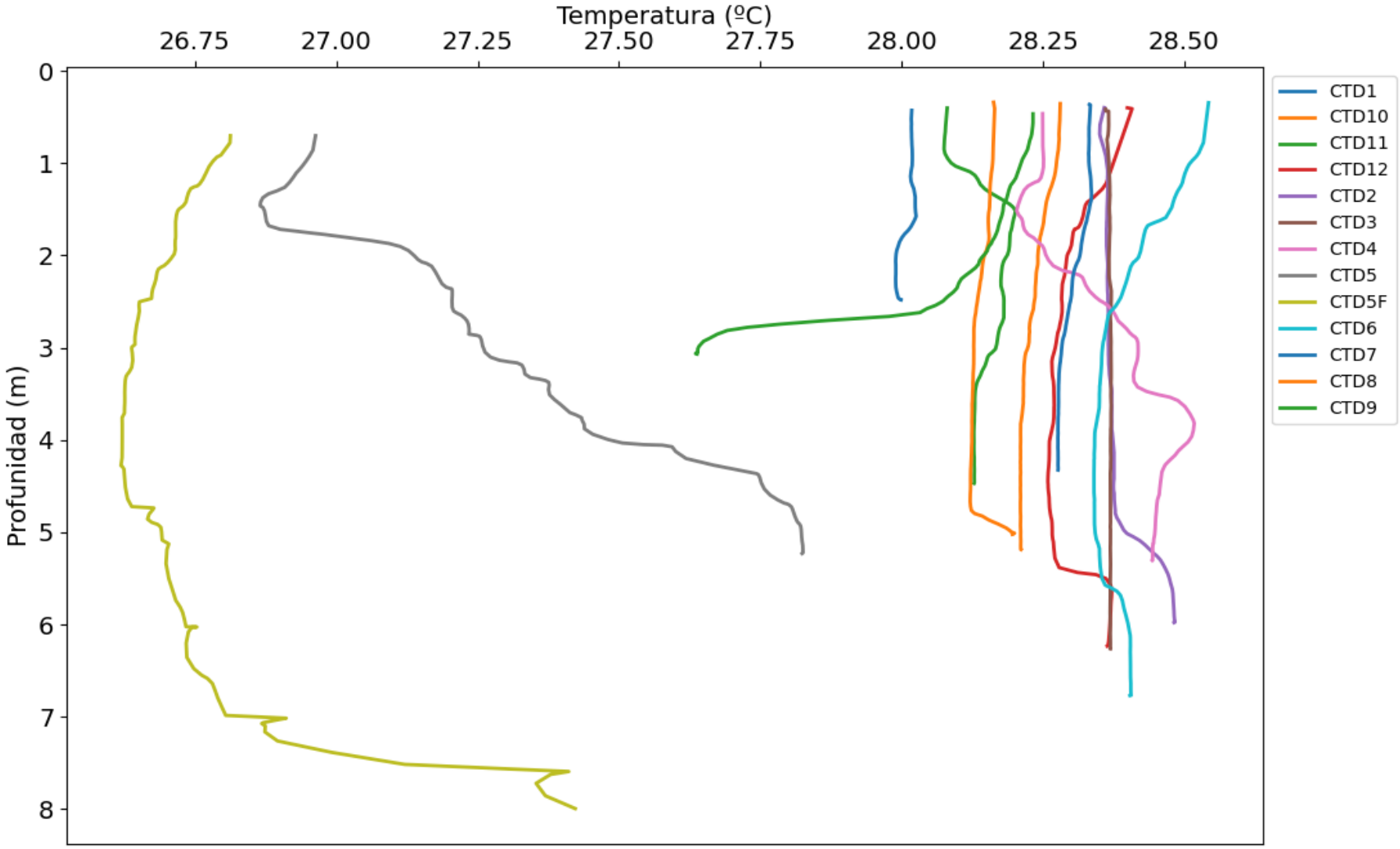
UBICACIÓN DE LOS TRABAJOS
Estación de Acuicultura Marina de San Pedro del Pinatar: organización de las salidas al mar, manejo y mantenimiento de sondas, toma de muestras, análisis de muestras de agua tomadas en distintos puntos de muestreo y tratamiento de los datos de nutrientes y oxígeno.
Instalaciones del IMIDA de La Alberca: Procesamiento, tratamiento y análisis de datos, cartografía, maquetación.
Mar Menor: Se muestrea un total de 13 puntos con el CTD:


680000
685000
690000
695000
700000
705000
710000
4186000
4183000
4180000
4177000
4174000
4171000
4168000
CTD 1
CTD 2
CTD 3
CTD 4
CTD 5
CTD 5F
CTD 7
CTD 8
CTD 12
CTD 9
CTD 10
CTD 6
CTD 11
Escala 1:85.000 (A3)
0 850 1.700 3.400 5.100 6.800
m
Sistema de Referencia Espacial:
European Terrestrial Reference System (ETRS89). Elipsoide: GRS 1980
Proyección:
Universal Transversa de Mercator (U.T.M.) Huso 30S
Puntos de control en el Mar Menor.
Fecha: 12 de agosto de 2021.
Fuente: IMIDA.

FICHA GENERAL DE MUESTREOS PARA OXÍGENO, TURBIDEZ, CLOROFILA Y TEMPERATURA **FECHA: 12-08-2021**




Clorofila (µg/L)
0
2
4
6
8
10
12
Profunidad (m)
0
1
2
3
4
5
6
7
8
CTD1
CTD10
CTD11
CTD12
CTD2
CTD3
CTD4
CTD5
CTD5F
CTD6
CTD7
CTD8
CTD9


Temperatura (ºC)
26.75
27.00
27.25
27.50
27.75
28.00
28.25
28.50
Profunidad (m)
0
1
2
3
4
5
6
7
8
CTD1
CTD10
CTD11
CTD12
CTD2
CTD3
CTD4
CTD5
CTD5F
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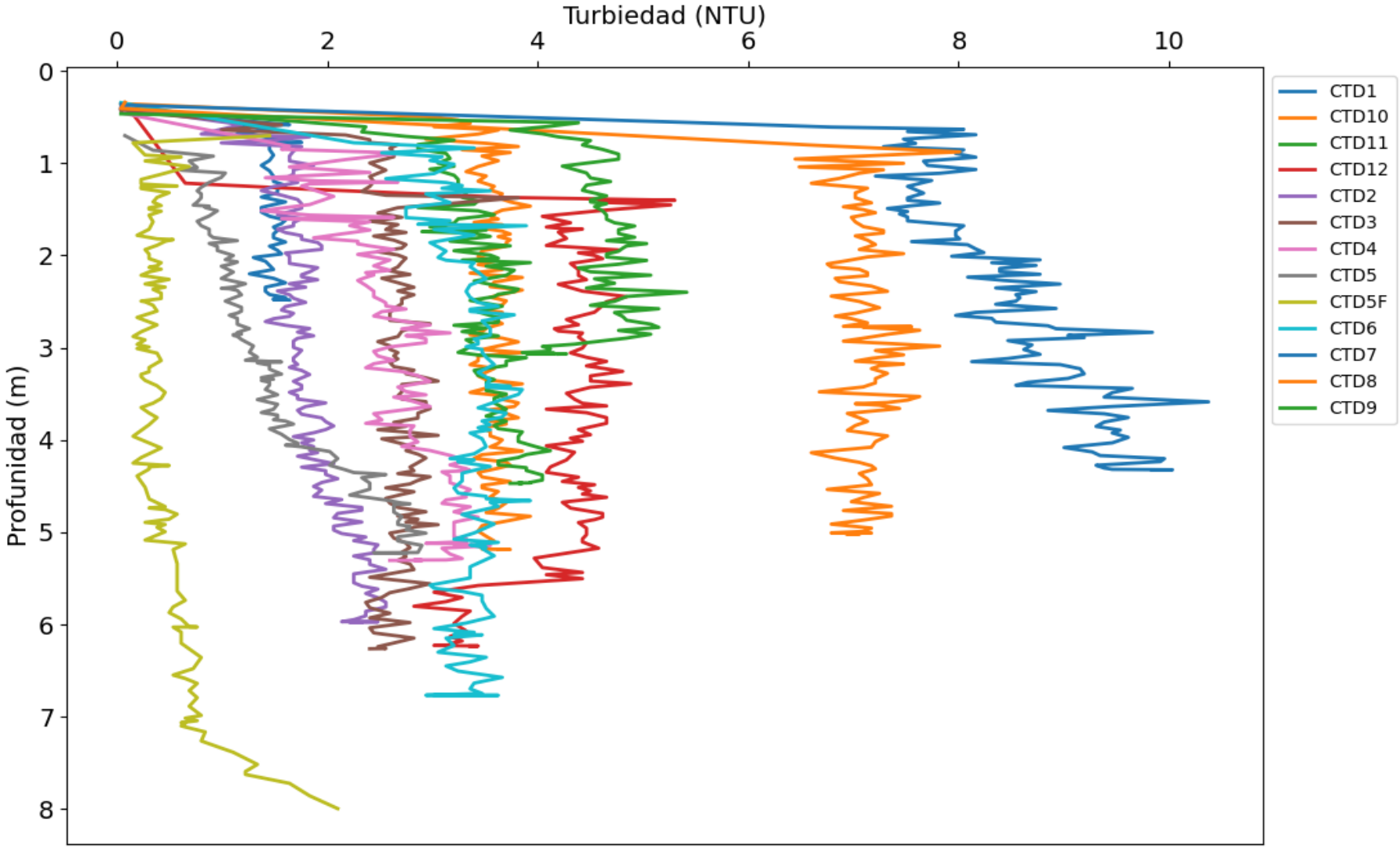
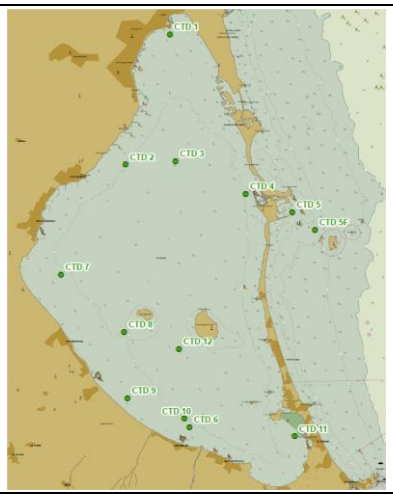
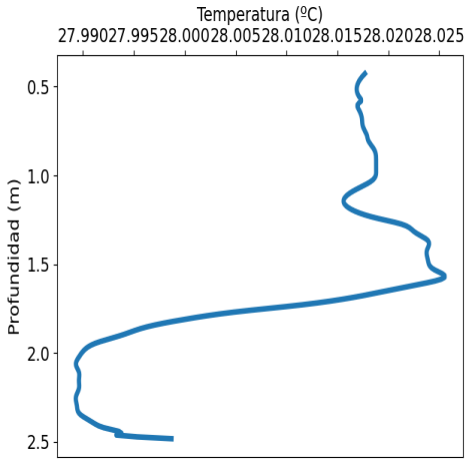
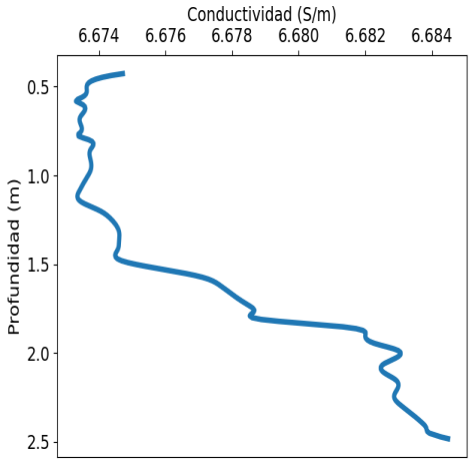
CTD7
CTD8
CTD9

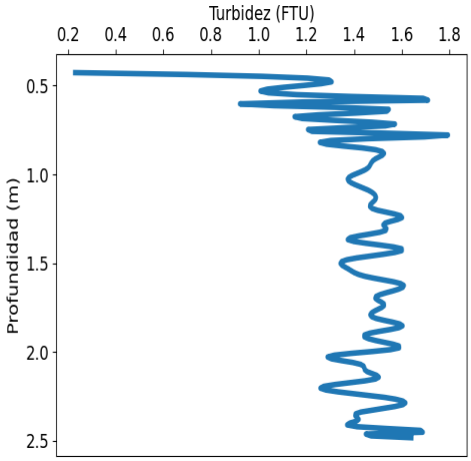

Turbiedad (NTU)
0
2
4
6
8
10
Profunidad (m)
0
1
2
3
4
5
6
7
8
CTD1
CTD10
CTD11
CTD12
CTD2
CTD3
CTD4
CTD5
CTD5F
CTD6
CTD7
CTD8
CTD9

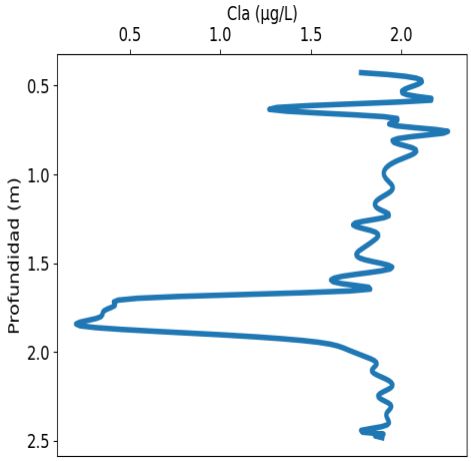
Nombre: CTD CTD1 - Punto 001 **Fecha: 12/08/2021** **Hora: 07:08:11**

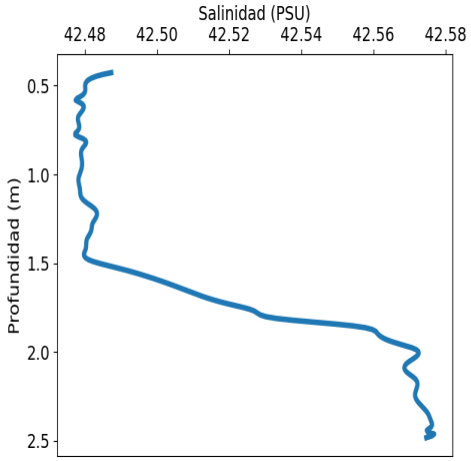


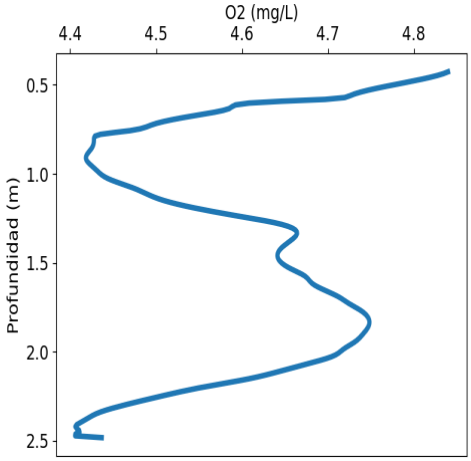


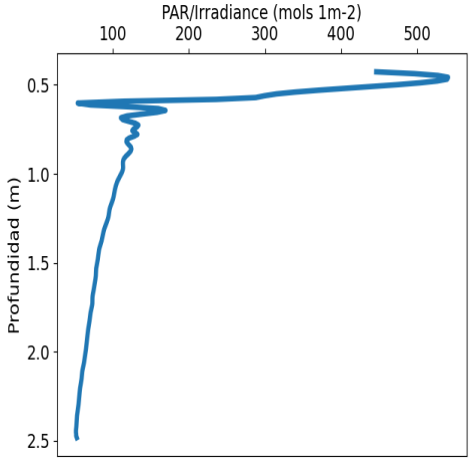


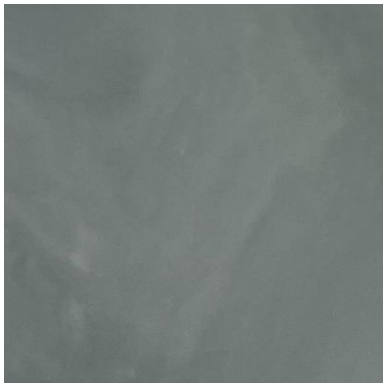












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp (°C)	Conductivity (S/m)	Turbidity (FTU)	Oxygen (mg/l)	PAR/Irradiance (mols-1m-2)	[Cla] (mg/m^3)	Salinity (PSU)
MÍNIMO	27.99	6.67	0.23	4.41	51.46	0.24	42.48
PROF (metros)	1.899	0.427	0.427	2.424	2.456	1.855	0.521
MÁXIMO	28.03	28.03	1.76	4.84	446.26	2.26	42.58
PROF (metros)	1.575	1.53	0.775	0.427	0.427	0.761	2.344

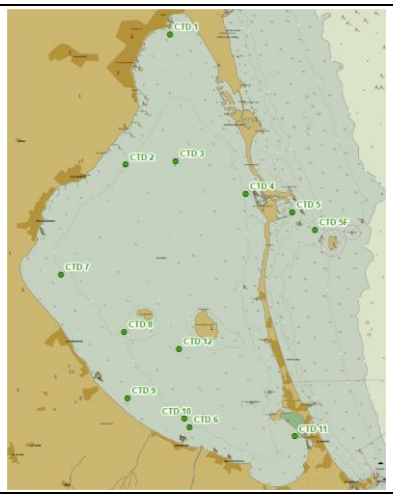
DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD E01-Cast1	Temp (°C)	Conductivity (S/m)	Turbidity (FTU)	Oxygen (mg/l)	PAR/Irradiance (mols-1m-2)	[Cla] (mg/m3)	Salinity (PSU)
0 - 1m	28.02	6.67	1.32	4.56	185.39	1.96	42.48
1 - 2m	28.01	6.68	1.5	4.65	81.2	1.44	42.51
2 - 3m	27.99	6.68	1.48	4.5	54.98	1.86	42.57

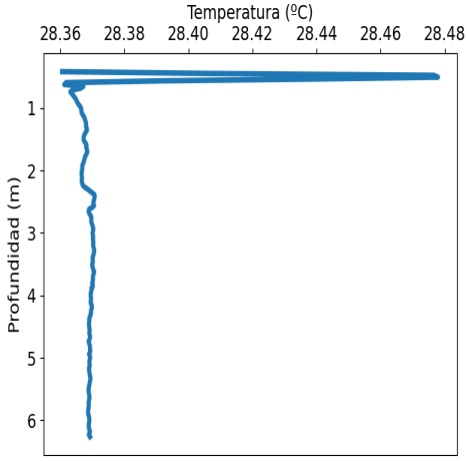
OBSERVACIONES GENERALES

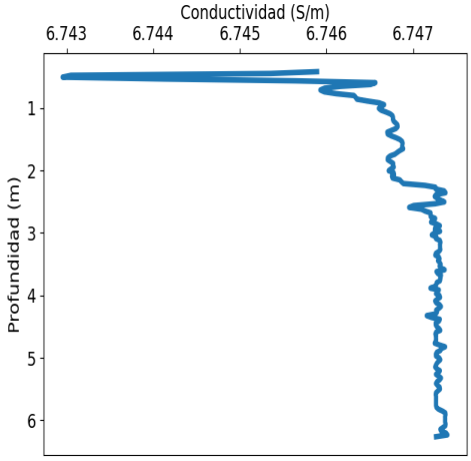
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Depth (m)	Temp (°C)	Conductivity (S/m)	Turbidity (FTU)	Oxygen (mg/l)	PAR/Irradiance (mols-1m-2)	[Cla] (mg/m3)	Salinity (PSU)
0.427	28.02	6.67	0.23	4.84	446.26	1.78	42.49
0.521	28.02	6.67	1.03	4.76	401.32	2.01	42.48
0.562	28.02	6.67	1.41	4.73	298.99	2.09	42.48
0.584	28.02	6.67	1.64	4.69	215.39	2.14	42.48
0.593	28.02	6.67	1.14	4.64	106.52	1.97	42.48
0.629	28.02	6.67	1.49	4.59	146.22	1.27	42.48
0.677	28.02	6.67	1.14	4.54	115.73	1.93	42.48
0.723	28.02	6.67	1.56	4.50	133.06	1.95	42.48
0.761	28.02	6.67	1.30	4.46	126.09	2.26	42.48
0.775	28.02	6.67	1.75	4.44	132.26	2.17	42.48
0.799	28.02	6.67	1.45	4.43	121.45	1.98	42.48
0.853	28.02	6.67	1.45	4.43	124.07	2.07	42.48
0.913	28.02	6.67	1.49	4.42	114.77	2.00	42.48
0.971	28.02	6.67	1.45	4.43	113.29	1.91	42.48
1.024	28.02	6.67	1.37	4.44	107.86	1.91	42.48
1.083	28.02	6.67	1.45	4.48	102.90	1.95	42.48
1.143	28.02	6.67	1.49	4.50	100.03	1.87	42.48
1.198	28.02	6.67	1.49	4.55	95.70	1.88	42.48
1.241	28.02	6.67	1.60	4.60	94.09	1.91	42.48
1.276	28.02	6.67	1.53	4.64	91.49	1.74	42.48
1.319	28.02	6.67	1.53	4.66	88.02	1.84	42.48
1.367	28.02	6.67	1.37	4.66	85.72	1.85	42.48
1.420	28.02	6.67	1.60	4.65	82.12	1.78	42.48
1.479	28.02	6.67	1.37	4.64	80.17	1.79	42.48
1.530	28.02	6.68	1.37	4.66	78.04	1.94	42.49
1.575	28.03	6.68	1.45	4.67	77.47	1.66	42.50
1.618	28.02	6.68	1.60	4.68	75.99	1.69	42.50
1.655	28.02	6.68	1.56	4.70	74.58	1.73	42.51
1.692	28.02	6.68	1.49	4.71	73.16	0.64	42.51
1.731	28.01	6.68	1.53	4.73	72.90	0.42	42.52
1.767	28.01	6.68	1.49	4.74	71.13	0.36	42.53
1.809	28.00	6.68	1.49	4.75	69.84	0.32	42.53
1.855	28.00	6.68	1.60	4.75	68.13	0.24	42.56
1.899	27.99	6.68	1.45	4.74	66.76	0.94	42.56
1.945	27.99	6.68	1.53	4.73	65.67	1.54	42.57
1.984	27.99	6.68	1.56	4.72	64.61	1.70	42.57
2.022	27.99	6.68	1.30	4.71	63.25	1.79	42.57
2.063	27.99	6.68	1.41	4.68	61.90	1.86	42.57
2.107	27.99	6.68	1.45	4.65	59.81	1.84	42.57

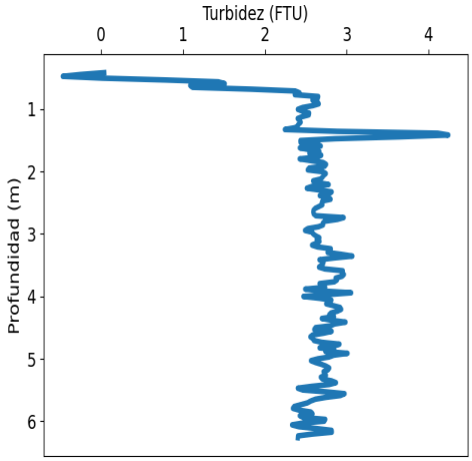
2.152	27.99	6.68	1.49	4.61	58.74	1.91	42.57
2.199	27.99	6.68	1.26	4.55	56.97	1.94	42.57
2.248	27.99	6.68	1.49	4.51	55.84	1.87	42.57
2.297	27.99	6.68	1.60	4.46	54.73	1.94	42.57
2.344	27.99	6.68	1.41	4.43	53.14	1.92	42.58
2.388	27.99	6.68	1.41	4.42	52.36	1.93	42.58
2.424	27.99	6.68	1.45	4.41	51.80	1.87	42.58
2.456	27.99	6.68	1.60	4.41	51.46	1.83	42.58
2.472	28.00	6.68	1.49	4.41	51.61	1.84	42.58
2.475	28.00	6.68	1.60	4.41	51.52	1.77	42.57
2.478	28.00	6.68	1.49	4.42	51.85	1.82	42.57
2.481	28.00	6.68	1.64	4.43	52.23	1.82	42.57
2.482	28.00	6.68	1.64	4.44	52.46	1.89	42.57

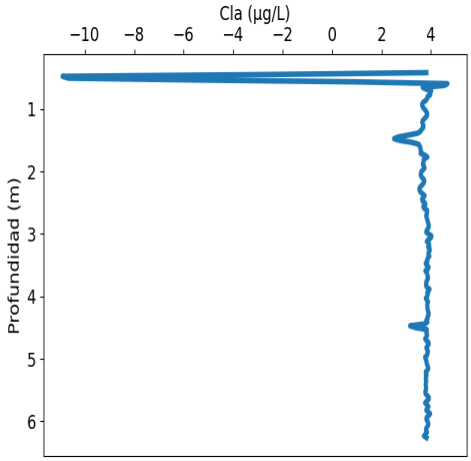
Nombre: CTD CTD3 - Punto 002 **Fecha: 12/08/2021** **Hora: 08:08:13**

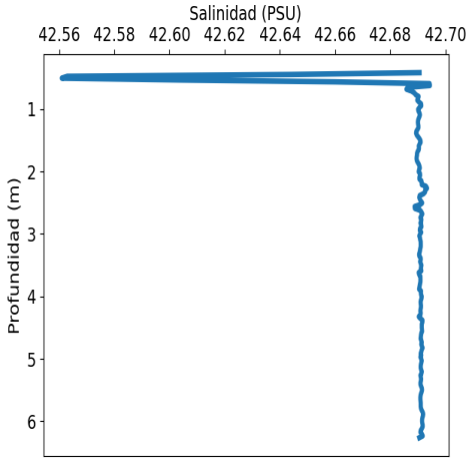


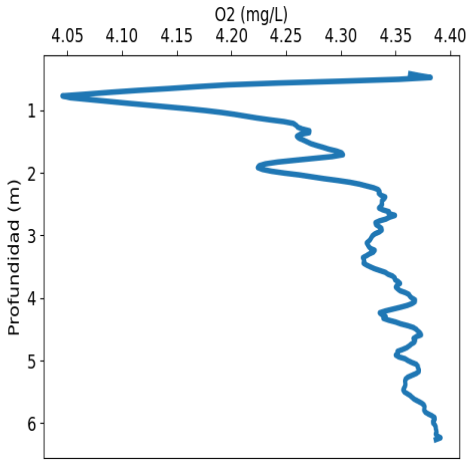


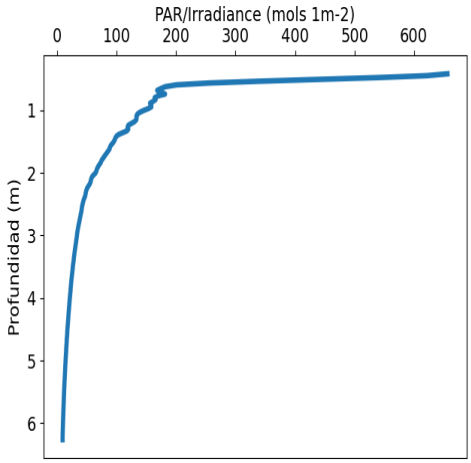












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp (°C)	Conductivity (S/m)	Turbidity (FTU)	Oxygen (mg/l)	PAR/Irradiance (mols-1m-2)	[Cla] (mg/m^3)	Salinity (PSU)
MÍNIMO	28.36	6.75	0.04	4.04	8.8	2.54	42.69
PROF (metros)	0.416	0.416	0.416	0.776	6.24	1.483	0.416
MÁXIMO	28.37	28.37	3.82	4.39	656.58	4.16	42.7
PROF (metros)	0.436	0.416	1.376	5.928	0.416	0.585	0.435

DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD E01-Cast1	Temp (°C)	Conductivity (S/m)	Turbidity (FTU)	Oxygen (mg/l)	PAR/Irradiance (mols-1m-2)	[Cla] (mg/m3)	Salinity (PSU)
0 - 1m	28.36	6.75	1.74	4.17	279.32	3.73	42.69
1 - 2m	28.37	6.75	2.62	4.26	93.0	3.6	42.69
2 - 3m	28.37	6.75	2.68	4.33	44.16	3.74	42.69
3 - 4m	28.37	6.75	2.76	4.34	26.44	3.88	42.69
4 - 5m	28.37	6.75	2.78	4.36	17.03	3.81	42.69
5 - 6m	28.37	6.75	2.65	4.37	11.55	3.84	42.69
6 - 7m	28.37	6.75	2.53	4.39	9.0	3.84	42.69

OBSERVACIONES GENERALES
CLOROFILA elevada en la(s) columna(s) de agua 0 - 1m, 1 - 2m, 2 - 3m, 3 - 4m, 4 - 5m, 5 - 6m, 6 - 7m con los valores 3.73, 3.6, 3.74, 3.88, 3.81, 3.84, 3.84 respectivamente

DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Depth (m)	Temp (°C)	Conductivity (S/m)	Turbidity (FTU)	Oxygen (mg/l)	PAR/Irradiance (mols-1m-2)	[Cla] (mg/m3)	Salinity (PSU)
0.416	28.36	6.75	0.04	4.36	656.58	3.82	42.69
0.435	28.36	6.75	0.08	4.36	641.68	3.32	42.70
0.436	28.37	6.75	0.04	4.36	640.05	2.69	42.69
0.585	28.37	6.75	1.56	4.21	210.26	4.16	42.69
0.640	28.37	6.75	0.99	4.15	177.49	3.86	42.69
0.695	28.36	6.75	2.17	4.10	168.59	3.96	42.69
0.746	28.36	6.75	2.40	4.06	180.56	3.95	42.69
0.776	28.36	6.75	2.40	4.04	165.87	3.97	42.69
0.800	28.36	6.75	2.67	4.05	163.81	3.86	42.69
0.839	28.36	6.75	2.59	4.08	164.76	3.85	42.69
0.880	28.37	6.75	2.63	4.10	156.32	3.72	42.69
0.931	28.37	6.75	2.63	4.13	158.98	3.64	42.69
0.998	28.37	6.75	2.40	4.17	146.22	3.73	42.69
1.076	28.37	6.75	2.56	4.21	133.43	3.85	42.69
1.145	28.37	6.75	2.40	4.23	133.15	3.76	42.69
1.198	28.37	6.75	2.44	4.25	126.94	3.65	42.69
1.252	28.37	6.75	2.40	4.26	118.17	3.69	42.69
1.307	28.37	6.75	2.33	4.27	119.38	3.67	42.69
1.348	28.37	6.75	2.56	4.27	112.58	3.58	42.69
1.376	28.37	6.75	3.81	4.26	105.17	3.54	42.69
1.483	28.37	6.75	2.67	4.27	96.08	2.54	42.69
1.540	28.37	6.75	2.48	4.27	91.73	3.33	42.69
1.587	28.37	6.75	2.71	4.28	88.53	3.55	42.69
1.629	28.37	6.75	2.40	4.29	87.23	3.57	42.69
1.666	28.37	6.75	2.67	4.30	84.21	3.59	42.69
1.695	28.37	6.75	2.59	4.30	82.55	3.61	42.69
1.720	28.37	6.75	2.56	4.30	79.91	3.60	42.69
1.751	28.37	6.75	2.75	4.28	78.13	3.86	42.69
1.790	28.37	6.75	2.44	4.26	75.06	3.74	42.69
1.835	28.37	6.75	2.63	4.24	72.92	3.71	42.69
1.882	28.37	6.75	2.75	4.23	69.70	3.67	42.69
1.920	28.37	6.75	2.71	4.22	67.38	3.73	42.69
1.960	28.37	6.75	2.48	4.23	65.94	3.72	42.69

1.995	28.37	6.75	2.67	4.24	64.73	3.62	42.69
2.029	28.37	6.75	2.75	4.26	61.33	3.60	42.69
2.074	28.37	6.75	2.71	4.28	57.71	3.60	42.69
2.124	28.37	6.75	2.67	4.30	56.44	3.71	42.69
2.167	28.37	6.75	2.59	4.31	55.07	3.73	42.69
2.206	28.37	6.75	2.79	4.32	52.51	3.67	42.69
2.247	28.37	6.75	2.52	4.33	50.05	3.56	42.69
2.296	28.37	6.75	2.67	4.34	48.29	3.54	42.69
2.345	28.37	6.75	2.82	4.34	47.33	3.62	42.69
2.386	28.37	6.75	2.67	4.34	46.17	3.75	42.69
2.426	28.37	6.75	2.82	4.34	44.48	3.67	42.69
2.470	28.37	6.75	2.71	4.34	43.23	3.66	42.69
2.523	28.37	6.75	2.71	4.34	41.80	3.79	42.69
2.577	28.37	6.75	2.63	4.34	41.10	3.68	42.69
2.620	28.37	6.75	2.59	4.34	40.41	3.85	42.69
2.655	28.37	6.75	2.59	4.34	39.48	3.83	42.69
2.680	28.37	6.75	2.59	4.35	39.05	3.84	42.69
2.704	28.37	6.75	2.59	4.35	38.47	3.81	42.69
2.739	28.37	6.75	2.98	4.34	37.75	3.83	42.69
2.775	28.37	6.75	2.82	4.33	36.95	3.86	42.69
2.821	28.37	6.75	2.71	4.33	35.94	3.88	42.69
2.880	28.37	6.75	2.67	4.34	34.89	3.91	42.69
2.934	28.37	6.75	2.48	4.34	33.83	3.85	42.69
2.979	28.37	6.75	2.59	4.33	33.32	3.82	42.69
3.017	28.37	6.75	2.59	4.33	32.89	3.98	42.69
3.053	28.37	6.75	2.67	4.33	32.12	4.02	42.69
3.088	28.37	6.75	2.63	4.33	31.74	3.90	42.69
3.121	28.37	6.75	2.67	4.32	31.21	3.84	42.69
3.162	28.37	6.75	2.59	4.33	30.41	3.95	42.69
3.205	28.37	6.75	2.63	4.33	29.95	3.89	42.69
3.243	28.37	6.75	2.82	4.33	29.46	3.96	42.69
3.282	28.37	6.75	2.75	4.33	28.83	3.93	42.69
3.326	28.37	6.75	2.94	4.32	28.25	3.90	42.69
3.362	28.37	6.75	3.05	4.32	27.87	3.94	42.69
3.398	28.37	6.75	2.71	4.32	27.39	3.85	42.69
3.435	28.37	6.75	2.71	4.32	26.97	3.87	42.69
3.478	28.37	6.75	2.71	4.32	26.23	3.78	42.69
3.522	28.37	6.75	2.67	4.33	25.85	3.89	42.69
3.556	28.37	6.75	2.71	4.33	25.57	3.89	42.69
3.585	28.37	6.75	2.94	4.34	25.18	3.78	42.69
3.622	28.37	6.75	2.94	4.34	24.73	3.84	42.69
3.661	28.37	6.75	2.98	4.35	24.30	3.86	42.69
3.709	28.37	6.75	2.86	4.35	23.72	3.89	42.69
3.763	28.37	6.75	2.86	4.35	23.29	3.82	42.69
3.809	28.37	6.75	2.63	4.35	22.80	3.81	42.69
3.852	28.37	6.75	2.75	4.35	22.33	3.83	42.69
3.889	28.37	6.75	2.48	4.35	22.15	3.95	42.69
3.918	28.37	6.75	2.79	4.36	21.78	3.89	42.69
3.950	28.37	6.75	3.05	4.36	21.45	3.85	42.69
3.987	28.37	6.75	2.52	4.36	21.06	3.87	42.69
4.030	28.37	6.75	2.67	4.37	20.80	3.79	42.69
4.073	28.37	6.75	2.82	4.37	20.38	3.88	42.69
4.115	28.37	6.75	2.75	4.36	20.09	3.86	42.69
4.154	28.37	6.75	2.86	4.35	19.69	3.85	42.69
4.195	28.37	6.75	2.94	4.34	19.25	3.86	42.69
4.246	28.37	6.75	2.86	4.34	18.83	3.89	42.69
4.294	28.37	6.75	2.79	4.34	18.56	3.91	42.69
4.334	28.37	6.75	2.82	4.34	18.33	3.86	42.69

4.364	28.37	6.75	2.67	4.35	18.07	3.85	42.69
4.399	28.37	6.75	2.98	4.35	17.78	3.81	42.69
4.438	28.37	6.75	2.86	4.36	17.50	3.79	42.69
4.476	28.37	6.75	2.79	4.37	17.19	3.12	42.69
4.519	28.37	6.75	2.56	4.37	16.76	3.74	42.69
4.561	28.37	6.75	2.82	4.37	16.67	3.83	42.69
4.590	28.37	6.75	2.71	4.37	16.48	3.82	42.69
4.632	28.37	6.75	2.56	4.37	16.01	3.85	42.69
4.684	28.37	6.75	2.59	4.37	15.79	3.77	42.69
4.731	28.37	6.75	2.67	4.36	15.49	3.90	42.69
4.778	28.37	6.75	2.94	4.36	15.13	3.89	42.69
4.825	28.37	6.75	2.67	4.36	14.89	3.82	42.69
4.859	28.37	6.75	2.86	4.35	14.80	3.86	42.69
4.890	28.37	6.75	2.75	4.35	14.51	3.88	42.69
4.918	28.37	6.75	3.05	4.35	14.41	3.86	42.69
4.943	28.37	6.75	2.82	4.35	14.27	3.84	42.69
4.970	28.37	6.75	2.79	4.36	14.03	3.77	42.69
5.010	28.37	6.75	2.59	4.36	13.79	3.80	42.69
5.063	28.37	6.75	2.63	4.37	13.46	3.83	42.69
5.116	28.37	6.75	2.75	4.37	13.26	3.87	42.69
5.167	28.37	6.75	2.79	4.37	12.98	3.89	42.69
5.217	28.37	6.75	2.71	4.37	12.71	3.78	42.69
5.265	28.37	6.75	2.75	4.36	12.50	3.83	42.69
5.305	28.37	6.75	2.67	4.36	12.38	3.79	42.69
5.344	28.37	6.75	2.79	4.36	12.09	3.81	42.69
5.404	28.37	6.75	2.82	4.36	11.70	3.79	42.69
5.488	28.37	6.75	2.40	4.36	11.38	3.80	42.69
5.558	28.37	6.75	2.98	4.36	11.17	3.78	42.69
5.610	28.37	6.75	2.79	4.37	10.97	3.91	42.69
5.655	28.37	6.75	2.59	4.37	10.77	3.89	42.69
5.706	28.37	6.75	2.52	4.38	10.52	3.77	42.69
5.760	28.37	6.75	2.37	4.38	10.36	3.90	42.69
5.818	28.37	6.75	2.40	4.38	10.13	3.81	42.69
5.878	28.37	6.75	2.59	4.38	9.92	3.97	42.69
5.928	28.37	6.75	2.40	4.39	9.81	3.85	42.69
5.979	28.37	6.75	2.79	4.38	9.55	3.83	42.69
6.036	28.37	6.75	2.40	4.39	9.40	3.90	42.69
6.091	28.37	6.75	2.44	4.39	9.20	3.85	42.69
6.147	28.37	6.75	2.82	4.39	9.03	3.80	42.69
6.200	28.37	6.75	2.63	4.39	8.88	3.81	42.69
6.240	28.37	6.75	2.48	4.39	8.80	3.77	42.69
6.260	28.37	6.75	2.56	4.39	8.83	3.90	42.69
6.263	28.37	6.75	2.40	4.39	8.87	3.82	42.69

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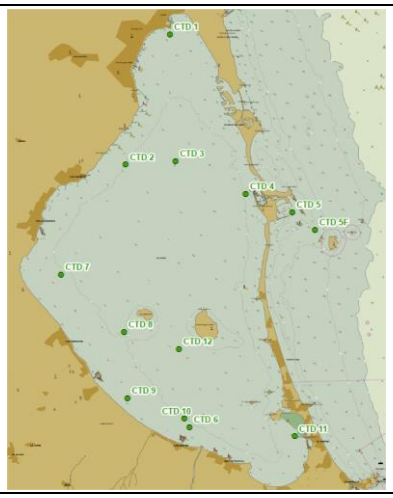
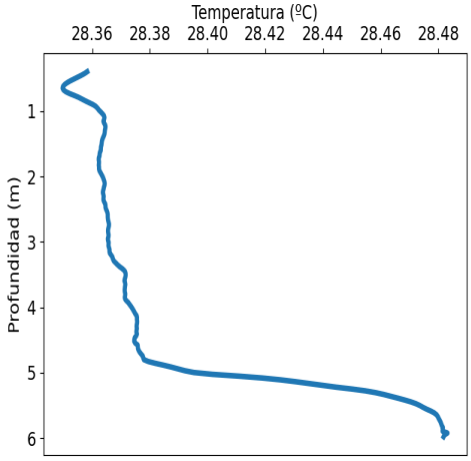
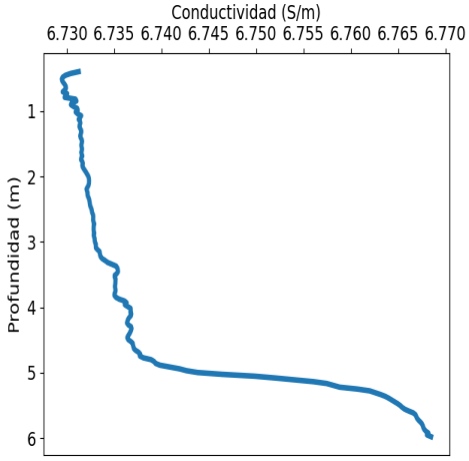
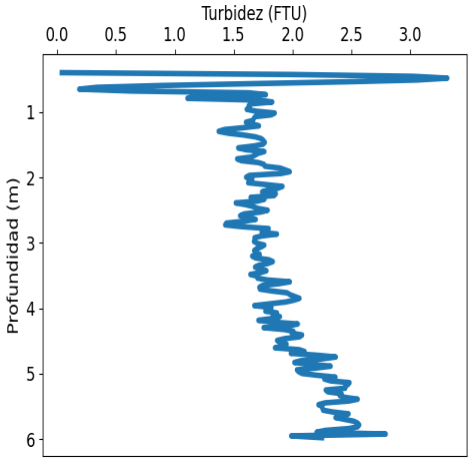
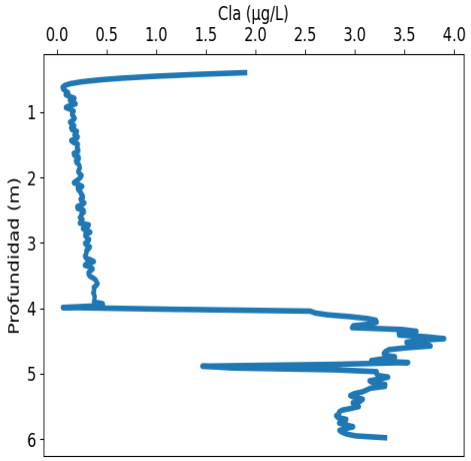
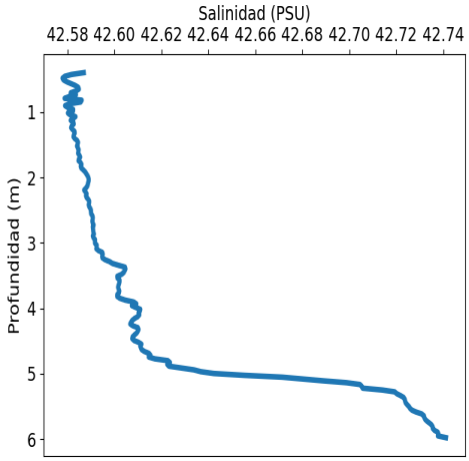


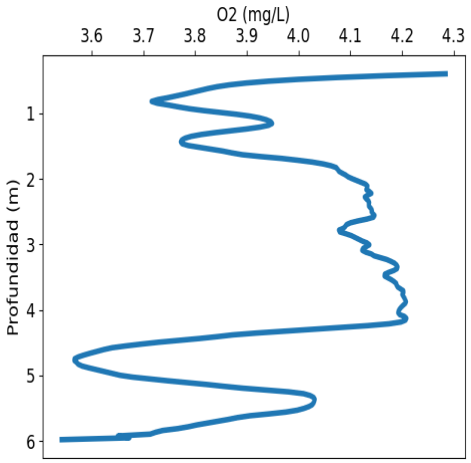


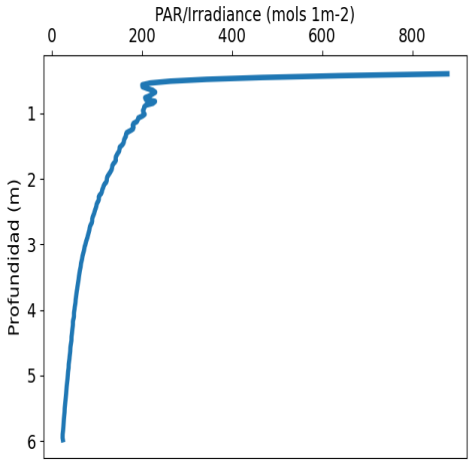


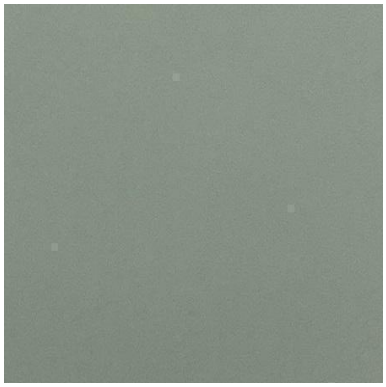












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp (°C)	Conductivity (S/m)	Turbidity (FTU)	Oxygen (mg/l)	PAR/Irradiance (mols-1m-2)	[Cla] (mg/m^3)	Salinity (PSU)
MÍNIMO	28.35	6.73	0.04	3.54	23.58	0.08	42.58
PROF (metros)	0.583	0.398	0.398	5.979	5.948	0.748	0.583
MÁXIMO	28.48	28.48	2.56	4.28	878.24	3.91	42.74
PROF (metros)	5.547	5.498	5.402	0.398	0.398	4.461	5.81

DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD E01-Cast1	Temp (°C)	Conductivity (S/m)	Turbidity (FTU)	Oxygen (mg/l)	PAR/Irradiance (mols-1m-2)	[Cla] (mg/m3)	Salinity (PSU)
0 - 1m	28.36	6.73	1.3	3.83	279.09	0.3	42.58
1 - 2m	28.36	6.73	1.69	3.93	155.0	0.19	42.58
2 - 3m	28.36	6.73	1.69	4.12	95.2	0.25	42.59
3 - 4m	28.37	6.73	1.78	4.18	60.61	0.34	42.6
4 - 5m	28.38	6.74	1.99	3.84	42.65	3.05	42.61
5 - 6m	28.47	6.76	2.35	3.79	27.77	3.04	42.72

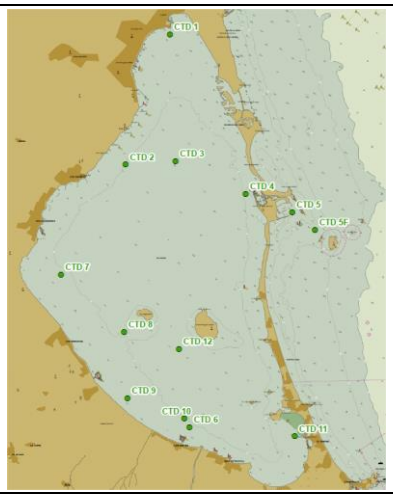
OBSERVACIONES GENERALES
HIPOXIA en la(s) columna(s) de agua 0 - 1m, 1 - 2m, 4 - 5m, 5 - 6m con los valores 3.83, 3.93, 3.84, 3.79 respectivamente. CLOROFILA elevada en la(s) columna(s) de agua 4 - 5m, 5 - 6m con los valores 3.05, 3.04 respectivamente

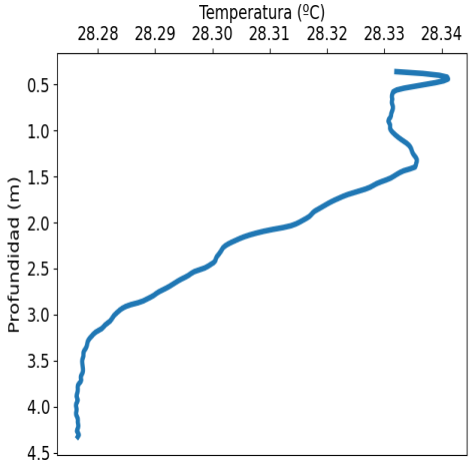
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Depth (m)	Temp (°C)	Conductivity (S/m)	Turbidity (FTU)	Oxygen (mg/l)	PAR/Irradiance (mols-1m-2)	[Cla] (mg/m3)	Salinity (PSU)
0.398	28.36	6.73	0.04	4.28	878.24	1.89	42.59
0.583	28.35	6.73	1.18	3.85	199.06	0.09	42.58
0.684	28.35	6.73	0.80	3.79	228.92	0.09	42.58
0.715	28.35	6.73	1.83	3.78	220.18	0.11	42.58
0.748	28.35	6.73	1.49	3.76	213.35	0.08	42.58
0.780	28.35	6.73	0.99	3.74	203.64	0.17	42.58
0.821	28.36	6.73	1.75	3.72	229.77	0.12	42.59
0.869	28.36	6.73	1.68	3.74	211.23	0.19	42.58
0.923	28.36	6.73	1.64	3.78	204.68	0.09	42.58
0.977	28.36	6.73	1.64	3.84	201.81	0.16	42.58
1.024	28.36	6.73	1.87	3.89	205.34	0.15	42.58
1.072	28.36	6.73	1.68	3.93	191.55	0.17	42.58
1.119	28.36	6.73	1.68	3.94	189.83	0.17	42.58
1.163	28.36	6.73	1.60	3.95	179.56	0.13	42.58
1.210	28.36	6.73	1.72	3.93	181.23	0.17	42.58
1.254	28.36	6.73	1.49	3.88	177.08	0.13	42.58
1.298	28.36	6.73	1.37	3.84	165.57	0.20	42.58
1.347	28.36	6.73	1.56	3.80	164.38	0.17	42.58
1.394	28.36	6.73	1.72	3.78	160.50	0.21	42.58
1.440	28.36	6.73	1.75	3.77	159.54	0.14	42.58
1.488	28.36	6.73	1.75	3.78	155.09	0.21	42.58
1.526	28.36	6.73	1.64	3.81	149.76	0.20	42.58
1.560	28.36	6.73	1.53	3.84	150.10	0.20	42.58
1.601	28.36	6.73	1.75	3.87	146.83	0.21	42.58
1.644	28.36	6.73	1.68	3.90	143.24	0.16	42.58
1.680	28.36	6.73	1.68	3.96	141.19	0.21	42.59
1.717	28.36	6.73	1.53	4.00	141.95	0.22	42.58
1.752	28.36	6.73	1.60	4.03	138.66	0.18	42.58
1.786	28.36	6.73	1.75	4.06	134.64	0.21	42.59
1.825	28.36	6.73	1.75	4.07	133.52	0.22	42.59
1.860	28.36	6.73	1.91	4.08	132.38	0.23	42.59
1.895	28.36	6.73	1.95	4.08	129.56	0.21	42.59

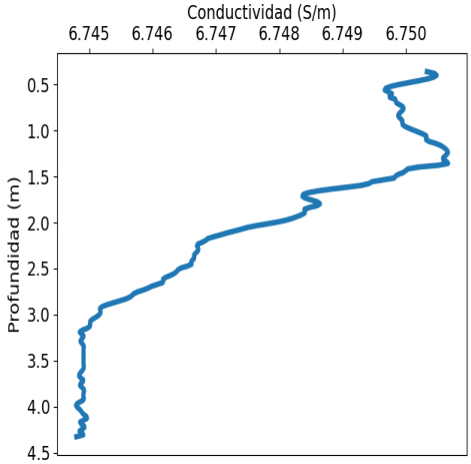
1.934	28.36	6.73	1.95	4.09	126.07	0.22	42.59
1.974	28.36	6.73	1.60	4.10	122.49	0.25	42.59
2.009	28.36	6.73	1.64	4.11	121.81	0.23	42.59
2.047	28.36	6.73	1.64	4.12	120.75	0.20	42.59
2.087	28.36	6.73	1.64	4.13	116.03	0.17	42.59
2.133	28.36	6.73	1.91	4.13	113.66	0.25	42.59
2.178	28.36	6.73	1.83	4.13	111.16	0.19	42.59
2.209	28.36	6.73	1.75	4.14	110.51	0.24	42.59
2.231	28.36	6.73	1.75	4.14	108.31	0.23	42.59
2.264	28.36	6.73	1.91	4.13	104.20	0.25	42.59
2.307	28.36	6.73	1.64	4.13	104.32	0.26	42.59
2.344	28.36	6.73	1.79	4.14	102.31	0.23	42.59
2.385	28.36	6.73	1.53	4.14	99.29	0.27	42.59
2.426	28.36	6.73	1.64	4.14	98.28	0.23	42.59
2.464	28.36	6.73	1.68	4.14	96.23	0.19	42.59
2.509	28.36	6.73	1.79	4.14	94.40	0.28	42.59
2.554	28.37	6.73	1.60	4.15	92.11	0.24	42.59
2.592	28.37	6.73	1.56	4.14	89.96	0.24	42.59
2.627	28.37	6.73	1.68	4.12	89.25	0.23	42.59
2.660	28.37	6.73	1.64	4.11	88.96	0.27	42.59
2.686	28.37	6.73	1.49	4.10	87.23	0.20	42.59
2.717	28.37	6.73	1.41	4.09	84.97	0.30	42.59
2.757	28.37	6.73	1.60	4.09	83.51	0.30	42.59
2.792	28.37	6.73	1.83	4.08	82.66	0.26	42.59
2.830	28.37	6.73	1.72	4.09	80.82	0.34	42.59
2.871	28.37	6.73	1.87	4.10	79.54	0.28	42.59
2.898	28.37	6.73	1.72	4.11	78.57	0.28	42.59
2.928	28.37	6.73	1.68	4.12	77.04	0.30	42.59
2.966	28.37	6.73	1.68	4.13	75.41	0.32	42.59
2.997	28.37	6.73	1.68	4.14	74.42	0.28	42.59
3.028	28.37	6.73	1.75	4.13	72.82	0.29	42.59
3.072	28.37	6.73	1.72	4.12	71.63	0.33	42.59
3.110	28.37	6.73	1.68	4.13	70.41	0.29	42.59
3.144	28.37	6.73	1.68	4.14	68.96	0.30	42.59
3.181	28.37	6.73	1.72	4.15	67.74	0.28	42.59
3.213	28.37	6.73	1.64	4.16	67.03	0.28	42.59
3.246	28.37	6.73	1.75	4.17	65.99	0.31	42.60
3.291	28.37	6.73	1.83	4.19	64.49	0.37	42.60
3.328	28.37	6.73	1.75	4.19	63.95	0.27	42.60
3.364	28.37	6.74	1.68	4.19	62.91	0.33	42.60
3.408	28.37	6.74	1.75	4.18	61.68	0.35	42.60
3.447	28.37	6.74	1.75	4.17	60.73	0.32	42.60
3.483	28.37	6.74	1.64	4.17	59.98	0.32	42.60
3.519	28.37	6.74	1.72	4.17	59.41	0.34	42.60
3.556	28.37	6.74	1.72	4.18	58.60	0.38	42.60
3.598	28.37	6.74	1.98	4.19	57.61	0.40	42.60
3.638	28.37	6.74	1.79	4.19	56.64	0.41	42.60
3.678	28.37	6.74	1.72	4.20	55.96	0.37	42.60
3.721	28.37	6.74	1.75	4.20	54.86	0.38	42.60
3.761	28.37	6.74	1.95	4.20	54.26	0.36	42.60
3.801	28.37	6.74	1.98	4.20	53.23	0.38	42.60
3.848	28.37	6.74	2.06	4.21	52.48	0.37	42.60
3.887	28.37	6.74	1.98	4.21	52.15	0.37	42.61
3.922	28.37	6.74	1.87	4.20	51.33	0.41	42.61
3.964	28.37	6.74	1.68	4.20	50.38	0.41	42.61
4.000	28.37	6.74	1.87	4.19	49.85	0.24	42.61
4.031	28.37	6.74	1.75	4.19	49.07	2.14	42.61
4.072	28.37	6.74	1.87	4.20	48.77	2.60	42.61

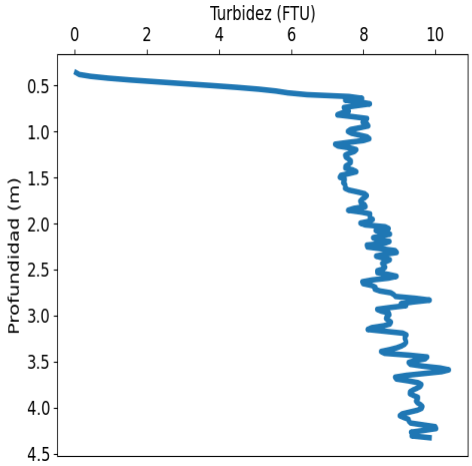
4.109	28.38	6.74	1.83	4.21	48.66	2.80	42.61
4.137	28.38	6.74	1.91	4.21	47.71	3.01	42.61
4.176	28.38	6.74	1.72	4.20	46.49	3.20	42.61
4.221	28.38	6.74	1.91	4.16	46.49	3.21	42.61
4.256	28.38	6.74	2.06	4.10	45.92	3.08	42.61
4.294	28.38	6.74	1.75	4.03	45.27	2.95	42.61
4.333	28.38	6.74	1.98	3.96	44.77	3.59	42.61
4.374	28.38	6.74	1.98	3.88	43.98	3.48	42.61
4.420	28.38	6.74	2.10	3.83	43.29	3.53	42.61
4.461	28.37	6.74	1.95	3.77	43.27	3.91	42.61
4.503	28.37	6.74	1.87	3.72	42.30	3.55	42.61
4.543	28.37	6.74	1.95	3.67	41.44	3.63	42.61
4.578	28.38	6.74	1.91	3.64	40.85	3.76	42.61
4.611	28.38	6.74	1.87	3.62	40.72	3.45	42.61
4.646	28.38	6.74	2.14	3.60	40.30	3.32	42.61
4.689	28.38	6.74	1.98	3.58	39.43	3.29	42.61
4.731	28.38	6.74	2.33	3.57	38.93	3.34	42.62
4.761	28.38	6.74	2.33	3.57	38.51	3.40	42.62
4.796	28.38	6.74	2.10	3.57	37.62	3.12	42.62
4.843	28.38	6.74	2.06	3.58	37.07	3.40	42.62
4.889	28.39	6.74	2.33	3.60	36.82	1.38	42.62
4.934	28.39	6.74	2.06	3.62	35.88	2.58	42.63
4.976	28.39	6.74	2.06	3.64	35.40	3.24	42.64
5.014	28.40	6.75	2.14	3.67	34.84	3.20	42.65
5.052	28.41	6.75	2.37	3.71	34.49	3.34	42.67
5.091	28.42	6.75	2.25	3.76	33.78	3.20	42.68
5.136	28.43	6.76	2.48	3.82	33.04	3.18	42.70
5.185	28.44	6.76	2.44	3.88	32.44	3.33	42.71
5.224	28.45	6.76	2.44	3.94	32.15	3.15	42.71
5.258	28.45	6.76	2.25	3.99	31.69	3.12	42.72
5.299	28.46	6.76	2.40	4.02	31.12	3.01	42.72
5.349	28.46	6.76	2.40	4.03	30.29	2.97	42.72
5.402	28.47	6.76	2.56	4.03	29.67	3.09	42.72
5.451	28.47	6.76	2.25	4.03	28.98	2.97	42.72
5.498	28.47	6.77	2.25	4.01	28.30	3.04	42.73
5.547	28.48	6.77	2.25	3.99	28.03	2.90	42.73
5.583	28.48	6.77	2.33	3.95	27.66	2.84	42.73
5.616	28.48	6.77	2.48	3.90	27.12	2.84	42.73
5.663	28.48	6.77	2.37	3.87	26.45	2.81	42.73
5.710	28.48	6.77	2.48	3.84	26.07	2.93	42.73
5.759	28.48	6.77	2.56	3.80	25.58	2.84	42.73
5.810	28.48	6.77	2.56	3.77	25.01	2.98	42.74
5.857	28.48	6.77	2.37	3.73	24.36	2.85	42.74
5.906	28.48	6.77	2.37	3.70	23.61	2.89	42.74
5.948	28.48	6.77	2.25	3.66	23.58	2.99	42.74
5.969	28.48	6.77	2.14	3.63	23.60	2.87	42.74
5.971	28.48	6.77	2.48	3.60	23.71	2.86	42.74
5.974	28.48	6.77	2.21	3.57	23.78	3.01	42.74
5.976	28.48	6.77	2.21	3.55	23.78	2.99	42.74
5.977	28.48	6.77	2.21	3.55	23.96	3.30	42.74
5.978	28.48	6.77	2.33	3.55	24.12	3.28	42.74
5.979	28.48	6.77	2.25	3.54	24.18	3.31	42.74

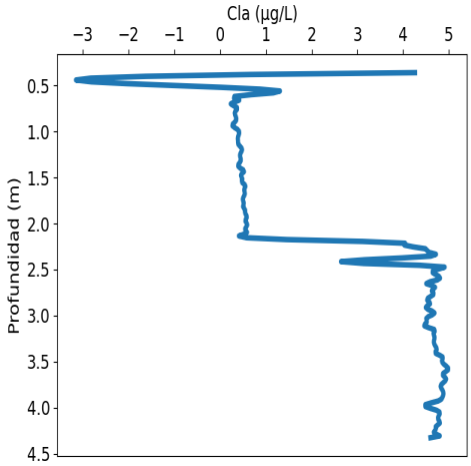
Nombre: CTD CTD7 - Punto 004 **Fecha: 12/08/2021** **Hora: 08:08:30**

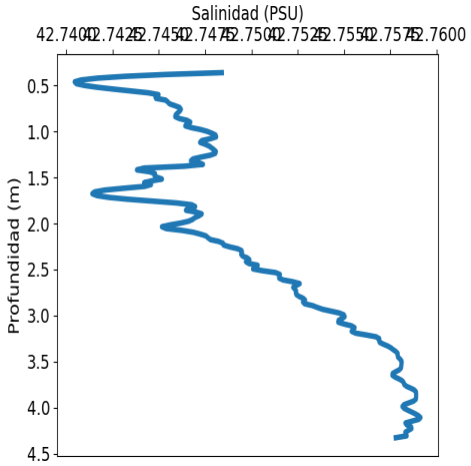


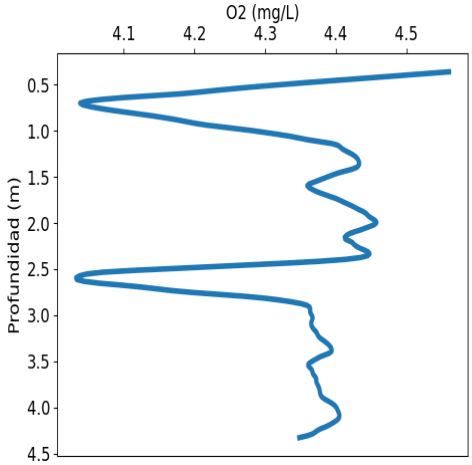


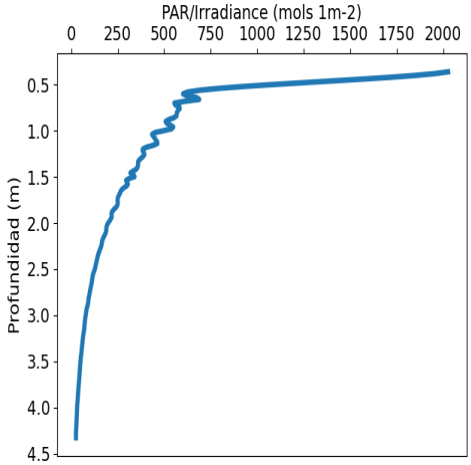












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp (°C)	Conductivity (S/m)	Turbidity (FTU)	Oxygen (mg/l)	PAR/Irradiance (mols-1m-2)	[Cla] (mg/m^3)	Salinity (PSU)
MÍNIMO	28.28	6.74	0.04	4.03	25.22	0.25	42.74
PROF (metros)	2.923	3.151	0.363	2.617	4.318	0.692	0.568
MÁXIMO	28.34	28.34	10.38	4.56	2026.7	4.99	42.76
PROF (metros)	1.252	0.363	3.587	0.363	0.363	3.587	3.02

DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD E01-Cast1	Temp (°C)	Conductivity (S/m)	Turbidity (FTU)	Oxygen (mg/l)	PAR/Irradiance (mols-1m-2)	[Cla] (mg/m3)	Salinity (PSU)
0 - 1m	28.33	6.75	6.46	4.2	791.6	0.89	42.75
1 - 2m	28.33	6.75	7.73	4.4	322.66	0.48	42.75
2 - 3m	28.3	6.75	8.6	4.31	132.9	3.61	42.75
3 - 4m	28.28	6.74	9.18	4.38	52.06	4.76	42.76
4 - 5m	28.28	6.74	9.54	4.38	27.27	4.72	42.76

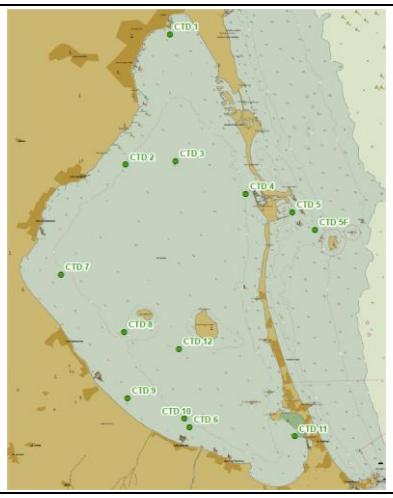
OBSERVACIONES GENERALES
CLOROFILA elevada en la(s) columna(s) de agua 2 - 3m, 3 - 4m, 4 - 5m con los valores 3.61, 4.76, 4.72 respectivamente

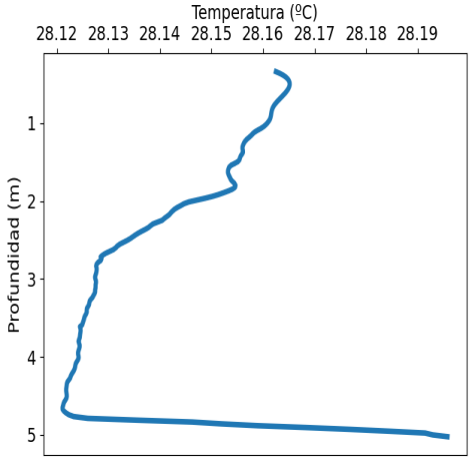
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Depth (m)	Temp (°C)	Conductivity (S/m)	Turbidity (FTU)	Oxygen (mg/l)	PAR/Irradiance (mols-1m-2)	[Cla] (mg/m3)	Salinity (PSU)
0.363	28.33	6.75	0.04	4.56	2026.70	4.26	42.75
0.369	28.33	6.75	0.04	4.55	2008.50	3.03	42.75
0.568	28.33	6.75	5.68	4.23	668.40	1.33	42.74
0.609	28.33	6.75	6.79	4.17	603.18	0.51	42.74
0.633	28.33	6.75	8.05	4.12	649.46	0.26	42.74
0.658	28.33	6.75	7.51	4.07	694.30	0.41	42.75
0.692	28.33	6.75	8.16	4.04	572.53	0.25	42.75
0.739	28.33	6.75	7.48	4.05	580.01	0.36	42.75
0.785	28.33	6.75	7.59	4.09	572.66	0.33	42.75
0.822	28.33	6.75	7.29	4.12	567.64	0.33	42.75
0.855	28.33	6.75	8.05	4.15	557.73	0.35	42.75
0.895	28.33	6.75	7.97	4.18	509.76	0.33	42.75
0.936	28.33	6.75	8.16	4.21	528.65	0.27	42.75
0.978	28.33	6.75	7.67	4.26	542.93	0.38	42.75
1.024	28.33	6.75	7.71	4.30	445.54	0.42	42.75
1.069	28.33	6.75	8.16	4.34	445.64	0.39	42.75
1.110	28.33	6.75	7.82	4.37	457.36	0.39	42.75
1.140	28.33	6.75	7.21	4.39	463.23	0.40	42.75
1.188	28.33	6.75	7.74	4.41	393.31	0.48	42.75
1.252	28.34	6.75	7.51	4.42	394.03	0.43	42.75
1.325	28.34	6.75	7.67	4.43	362.49	0.45	42.75
1.376	28.34	6.75	7.51	4.43	359.40	0.39	42.75
1.401	28.34	6.75	7.51	4.43	355.58	0.44	42.74
1.432	28.33	6.75	7.82	4.42	339.16	0.53	42.74
1.462	28.33	6.75	7.55	4.40	318.66	0.47	42.74
1.492	28.33	6.75	7.32	4.39	343.59	0.46	42.74
1.524	28.33	6.75	7.51	4.38	304.02	0.49	42.75
1.550	28.33	6.75	7.44	4.37	295.88	0.47	42.74
1.583	28.33	6.75	7.51	4.36	304.86	0.55	42.74
1.626	28.33	6.75	7.51	4.36	278.39	0.53	42.74
1.678	28.32	6.75	8.05	4.38	261.86	0.54	42.74
1.735	28.32	6.75	7.97	4.40	249.88	0.50	42.74
1.786	28.32	6.75	7.97	4.41	250.41	0.52	42.75
1.822	28.32	6.75	8.01	4.42	244.27	0.50	42.75
1.850	28.32	6.75	7.55	4.43	231.54	0.54	42.75
1.884	28.32	6.75	8.09	4.44	218.05	0.54	42.75

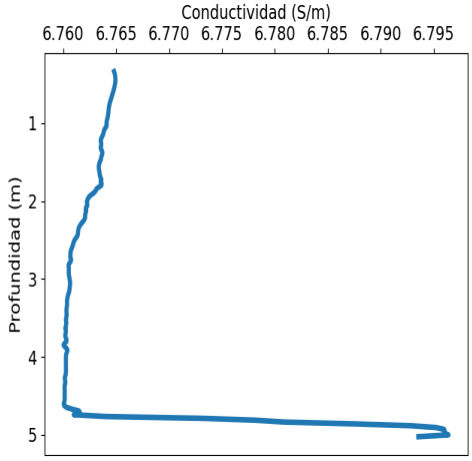
1.930	28.32	6.75	8.16	4.45	217.75	0.59	42.75
1.969	28.32	6.75	8.24	4.46	209.04	0.55	42.75
2.009	28.31	6.75	7.93	4.46	196.04	0.59	42.75
2.048	28.31	6.75	8.77	4.44	189.56	0.56	42.75
2.079	28.31	6.75	8.32	4.43	188.42	0.56	42.75
2.108	28.31	6.75	8.74	4.42	185.56	0.57	42.75
2.141	28.31	6.75	8.39	4.41	177.57	0.41	42.75
2.176	28.30	6.75	8.39	4.41	169.60	1.55	42.75
2.204	28.30	6.75	8.77	4.42	165.49	3.74	42.75
2.235	28.30	6.75	8.09	4.43	163.51	4.03	42.75
2.271	28.30	6.75	8.43	4.43	157.85	4.46	42.75
2.310	28.30	6.75	8.96	4.45	150.03	4.55	42.75
2.352	28.30	6.75	8.35	4.45	143.67	4.64	42.75
2.392	28.30	6.75	8.74	4.42	139.18	3.23	42.75
2.425	28.30	6.75	8.54	4.35	135.71	2.77	42.75
2.459	28.30	6.75	8.58	4.26	131.56	4.62	42.75
2.495	28.30	6.75	8.54	4.17	127.86	4.76	42.75
2.529	28.30	6.75	8.35	4.08	121.96	4.64	42.75
2.575	28.30	6.75	8.93	4.04	115.28	4.79	42.75
2.617	28.29	6.75	8.16	4.03	112.50	4.72	42.75
2.650	28.29	6.75	7.97	4.06	110.00	4.50	42.75
2.682	28.29	6.75	8.32	4.11	106.52	4.69	42.75
2.723	28.29	6.75	8.35	4.16	102.28	4.63	42.75
2.762	28.29	6.75	8.85	4.21	99.29	4.67	42.75
2.794	28.29	6.75	8.93	4.27	95.74	4.59	42.75
2.833	28.29	6.75	9.84	4.32	92.41	4.53	42.75
2.866	28.29	6.75	9.04	4.35	91.11	4.60	42.75
2.891	28.29	6.75	9.19	4.36	88.49	4.53	42.75
2.923	28.28	6.75	8.47	4.36	83.93	4.51	42.75
2.969	28.28	6.75	8.70	4.36	80.04	4.69	42.75
3.020	28.28	6.75	8.62	4.37	76.22	4.52	42.76
3.072	28.28	6.75	8.77	4.37	73.05	4.52	42.75
3.117	28.28	6.75	8.47	4.37	71.20	4.48	42.76
3.151	28.28	6.74	8.12	4.37	70.00	4.69	42.76
3.183	28.28	6.74	8.96	4.37	67.19	4.67	42.76
3.228	28.28	6.74	9.15	4.38	63.90	4.69	42.76
3.283	28.28	6.74	9.19	4.38	61.09	4.67	42.76
3.333	28.28	6.74	9.04	4.39	58.49	4.71	42.76
3.375	28.28	6.74	8.66	4.39	56.31	4.73	42.76
3.407	28.28	6.74	8.54	4.39	54.97	4.71	42.76
3.441	28.28	6.74	9.65	4.38	52.55	4.85	42.76
3.487	28.28	6.74	9.46	4.37	50.45	4.85	42.76
3.535	28.28	6.74	9.38	4.36	48.39	4.91	42.76
3.587	28.28	6.74	10.38	4.37	46.41	4.99	42.76
3.637	28.28	6.74	9.46	4.37	44.65	4.86	42.76
3.680	28.28	6.74	8.85	4.37	43.47	4.94	42.76
3.716	28.28	6.74	9.38	4.37	41.73	4.91	42.76
3.757	28.28	6.74	9.61	4.37	40.16	4.82	42.76
3.806	28.28	6.74	9.38	4.38	38.20	4.86	42.76
3.853	28.28	6.74	9.31	4.38	36.70	4.88	42.76
3.893	28.28	6.74	9.54	4.38	35.58	4.85	42.76
3.924	28.28	6.74	9.46	4.39	34.46	4.78	42.76
3.972	28.28	6.74	9.61	4.40	32.31	4.47	42.76
4.031	28.28	6.74	9.46	4.40	31.30	4.75	42.76
4.082	28.28	6.74	9.00	4.41	30.08	4.79	42.76
4.129	28.28	6.74	9.27	4.40	29.00	4.77	42.76
4.169	28.28	6.74	9.35	4.39	28.22	4.80	42.76
4.202	28.28	6.74	9.96	4.39	27.52	4.72	42.76

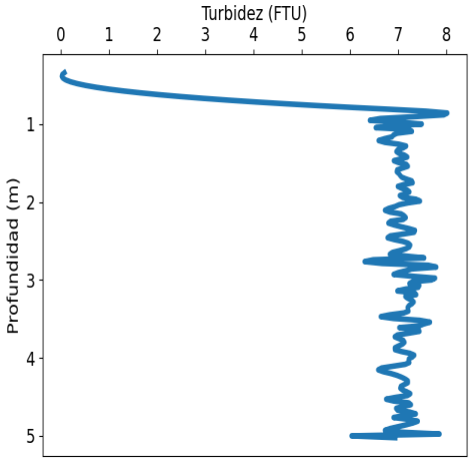
4.234	28.28	6.74	9.92	4.38	26.39	4.72	42.76
4.274	28.28	6.74	9.31	4.37	25.68	4.68	42.76
4.304	28.28	6.74	9.38	4.36	25.58	4.80	42.76
4.318	28.28	6.74	9.46	4.35	25.22	4.71	42.76
4.323	28.28	6.74	10.03	4.35	25.45	4.59	42.76
4.325	28.28	6.74	9.84	4.35	25.49	4.60	42.76

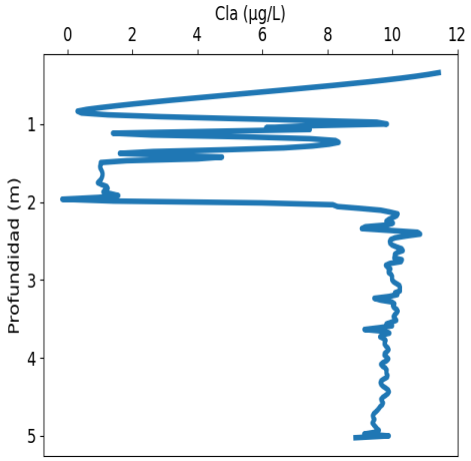
Nombre: CTD CTD8 - Punto 005 **Fecha: 12/08/2021** **Hora: 09:08:49**

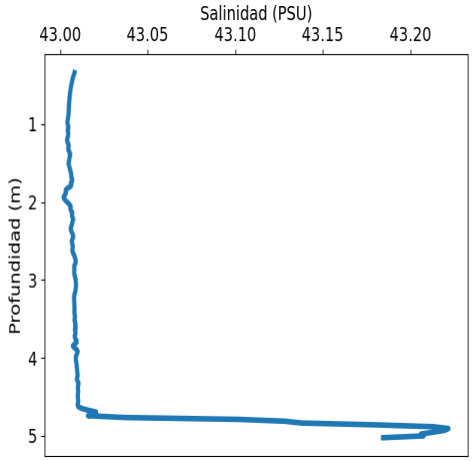


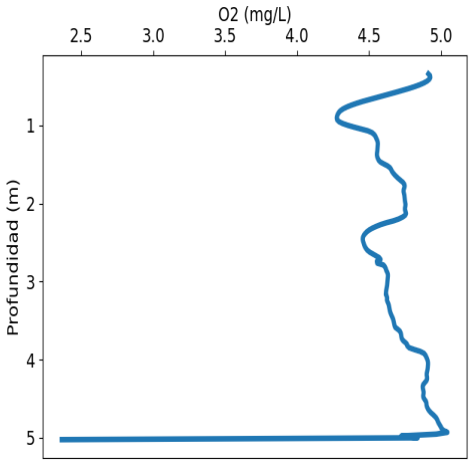


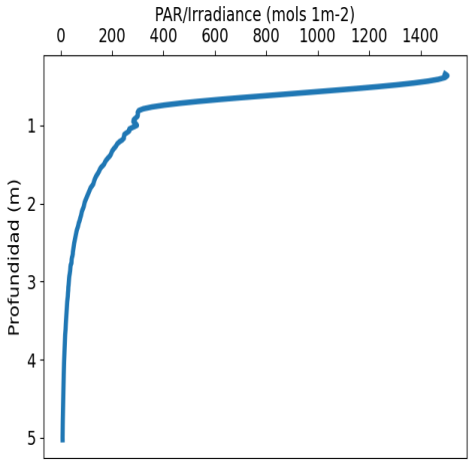


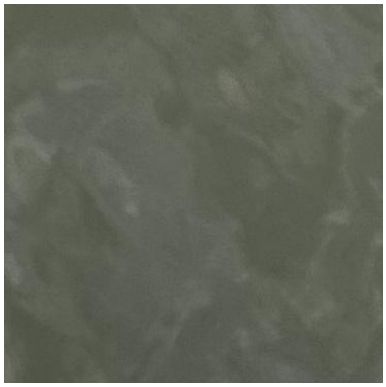












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp (°C)	Conductivity (S/m)	Turbidity (FTU)	Oxygen (mg/l)	PAR/Irradiance (mols-1m-2)	[Cla] (mg/m^3)	Salinity (PSU)
MÍNIMO	28.12	6.76	0.04	2.36	7.55	0.55	43.0
PROF (metros)	3.594	0.34	0.408	5.023	5.012	1.981	0.877
MÁXIMO	28.2	28.2	8.01	5.03	1494.9	11.43	43.22
PROF (metros)	5.007	4.912	0.877	4.912	0.34	0.34	4.912

DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD E01-Cast1	Temp (°C)	Conductivity (S/m)	Turbidity (FTU)	Oxygen (mg/l)	PAR/Irradiance (mols-1m-2)	[Cla] (mg/m3)	Salinity (PSU)
0 - 1m	28.16	6.76	4.23	4.54	772.09	6.25	43.01
1 - 2m	28.16	6.76	7.08	4.62	176.21	3.16	43.0
2 - 3m	28.13	6.76	7.1	4.61	56.99	9.8	43.01
3 - 4m	28.13	6.76	7.2	4.69	22.14	9.91	43.01
4 - 5m	28.13	6.77	7.08	4.92	10.05	9.63	43.06
5 - 6m	28.2	6.8	7.0	3.31	7.7	8.81	43.19

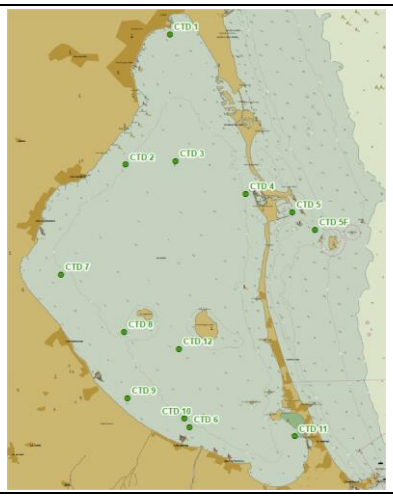
OBSERVACIONES GENERALES
HIPOXIA en la(s) columna(s) de agua 5 - 6m con los valores 3.31 respectivamente.
CLOROFILA elevada en la(s) columna(s) de agua 0 - 1m, 1 - 2m, 2 - 3m, 3 - 4m, 4 - 5m, 5 - 6m con los valores 6.25, 3.16, 9.8, 9.91, 9.63, 8.81 respectivamente

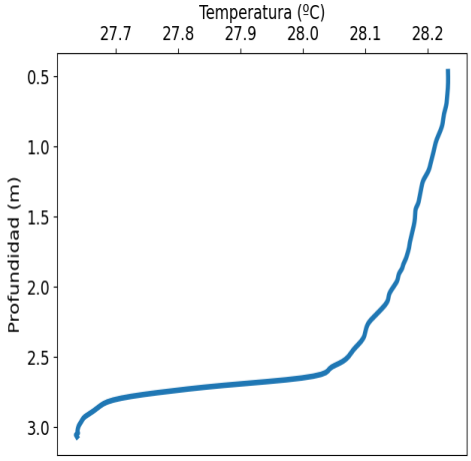
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Depth (m)	Temp (°C)	Conductivity (S/m)	Turbidity (FTU)	Oxygen (mg/l)	PAR/Irradiance (mols-1m-2)	[Cla] (mg/m3)	Salinity (PSU)
0.340	28.16	6.76	0.08	4.91	1494.90	11.43	43.01
0.408	28.16	6.76	0.04	4.92	1472.90	10.32	43.01
0.802	28.16	6.76	6.56	4.31	308.63	0.76	43.01
0.877	28.16	6.76	8.01	4.28	300.58	1.04	43.00
0.955	28.16	6.76	6.45	4.29	283.46	7.72	43.00
1.002	28.16	6.76	7.48	4.36	296.36	9.64	43.00
1.041	28.16	6.76	6.49	4.43	268.75	5.98	43.00
1.072	28.16	6.76	7.29	4.50	267.26	7.40	43.00
1.109	28.16	6.76	7.06	4.53	249.71	1.90	43.00
1.165	28.16	6.76	6.87	4.55	246.15	5.65	43.00
1.218	28.16	6.76	6.60	4.56	225.61	8.34	43.00
1.271	28.16	6.76	7.13	4.56	214.09	7.78	43.00
1.322	28.16	6.76	7.02	4.56	201.57	5.51	43.00
1.376	28.16	6.76	7.02	4.55	194.68	1.62	43.01
1.430	28.16	6.76	7.17	4.56	180.93	4.87	43.01
1.473	28.16	6.76	6.91	4.58	172.34	1.59	43.01
1.504	28.15	6.76	7.09	4.61	167.50	1.03	43.00
1.537	28.15	6.76	7.21	4.64	157.52	1.01	43.01
1.586	28.15	6.76	6.98	4.66	149.83	1.04	43.01
1.637	28.15	6.76	7.02	4.68	140.64	1.08	43.01
1.688	28.15	6.76	7.09	4.71	133.00	1.06	43.01
1.729	28.15	6.76	7.29	4.74	129.08	0.99	43.01
1.756	28.15	6.76	7.29	4.75	126.39	0.94	43.01
1.788	28.15	6.76	7.02	4.75	118.89	1.15	43.01
1.834	28.15	6.76	7.13	4.74	112.56	1.22	43.00
1.882	28.15	6.76	7.21	4.74	106.15	1.18	43.00
1.936	28.15	6.76	7.06	4.75	99.71	1.17	43.00
1.981	28.15	6.76	7.48	4.75	94.07	0.55	43.00
2.017	28.15	6.76	7.13	4.75	91.53	6.94	43.00
2.056	28.14	6.76	6.94	4.75	88.26	8.29	43.01
2.092	28.14	6.76	6.75	4.75	83.80	9.37	43.01
2.124	28.14	6.76	6.79	4.76	81.37	9.88	43.01

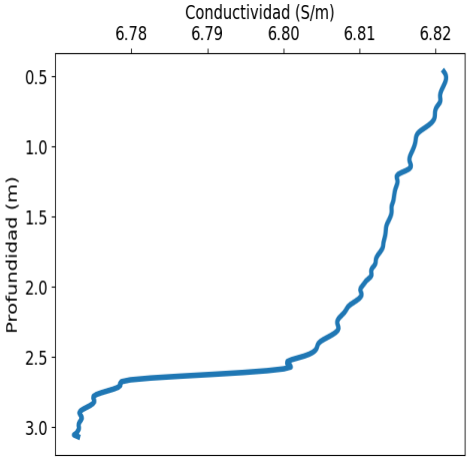
2.151	28.14	6.76	7.06	4.75	79.67	10.16	43.01
2.187	28.14	6.76	7.13	4.72	76.36	10.07	43.01
2.219	28.14	6.76	7.13	4.67	74.03	9.91	43.01
2.248	28.14	6.76	6.83	4.62	70.77	9.82	43.01
2.285	28.14	6.76	6.87	4.56	68.37	10.01	43.01
2.333	28.14	6.76	7.17	4.51	63.70	8.97	43.01
2.389	28.14	6.76	7.32	4.47	59.95	10.81	43.01
2.441	28.14	6.76	6.79	4.46	56.70	10.31	43.01
2.499	28.13	6.76	7.06	4.46	53.25	9.92	43.01
2.567	28.13	6.76	7.25	4.48	50.21	10.07	43.01
2.625	28.13	6.76	7.02	4.51	47.70	10.31	43.01
2.658	28.13	6.76	6.83	4.54	46.88	10.09	43.01
2.685	28.13	6.76	6.98	4.56	44.73	10.09	43.01
2.731	28.13	6.76	7.13	4.57	42.55	10.16	43.01
2.768	28.13	6.76	6.91	4.57	42.00	10.11	43.01
2.772	28.13	6.76	7.55	4.59	41.67	9.94	43.01
2.780	28.13	6.76	7.09	4.60	40.19	9.91	43.01
2.811	28.13	6.76	7.63	4.61	38.29	9.80	43.01
2.855	28.13	6.76	7.32	4.62	37.31	9.94	43.01
2.890	28.13	6.76	7.13	4.63	35.99	9.87	43.01
2.929	28.13	6.76	6.91	4.63	33.96	9.96	43.01
2.983	28.13	6.76	7.82	4.63	32.59	9.99	43.01
3.031	28.13	6.76	7.21	4.63	31.57	10.06	43.01
3.077	28.13	6.76	7.48	4.62	29.96	10.23	43.01
3.115	28.13	6.76	7.17	4.62	29.59	10.23	43.01
3.146	28.13	6.76	7.02	4.62	28.62	10.21	43.01
3.177	28.13	6.76	7.48	4.62	28.22	10.06	43.01
3.196	28.13	6.76	7.25	4.63	27.71	10.18	43.01
3.227	28.13	6.76	7.17	4.62	26.56	9.51	43.01
3.278	28.13	6.76	7.32	4.63	25.30	9.95	43.01
3.335	28.13	6.76	7.21	4.64	24.33	10.01	43.01
3.381	28.13	6.76	7.21	4.65	23.53	10.15	43.01
3.425	28.13	6.76	7.09	4.65	22.29	10.12	43.01
3.479	28.13	6.76	6.68	4.67	21.18	10.04	43.01
3.529	28.13	6.76	7.63	4.67	20.46	10.08	43.01
3.568	28.12	6.76	7.51	4.68	20.01	9.83	43.01
3.594	28.12	6.76	7.32	4.69	19.82	10.00	43.01
3.607	28.12	6.76	7.02	4.70	19.43	9.76	43.01
3.623	28.12	6.76	7.25	4.71	19.02	9.16	43.01
3.659	28.12	6.76	7.44	4.72	18.13	9.78	43.01
3.712	28.12	6.76	6.94	4.73	17.33	9.63	43.01
3.760	28.12	6.76	7.06	4.74	16.95	9.78	43.01
3.798	28.12	6.76	7.13	4.76	16.37	9.76	43.01
3.843	28.12	6.76	7.02	4.78	15.65	9.79	43.01
3.897	28.12	6.76	6.94	4.86	14.99	9.88	43.01
3.956	28.12	6.76	7.32	4.90	14.29	9.75	43.01
4.018	28.12	6.76	7.21	4.91	13.65	9.88	43.01
4.078	28.12	6.76	7.17	4.91	13.03	9.65	43.01
4.138	28.12	6.76	6.60	4.91	12.59	9.81	43.01
4.196	28.12	6.76	6.83	4.90	12.15	9.82	43.01
4.243	28.12	6.76	7.06	4.90	11.92	9.85	43.01
4.279	28.12	6.76	7.17	4.89	11.65	9.70	43.01
4.313	28.12	6.76	7.21	4.88	11.31	9.64	43.01
4.363	28.12	6.76	7.06	4.87	10.85	9.71	43.01
4.423	28.12	6.76	7.13	4.88	10.41	9.89	43.01
4.485	28.12	6.76	7.17	4.88	10.02	9.77	43.01
4.536	28.12	6.76	6.75	4.90	9.79	9.65	43.01
4.579	28.12	6.76	7.25	4.90	9.54	9.72	43.01

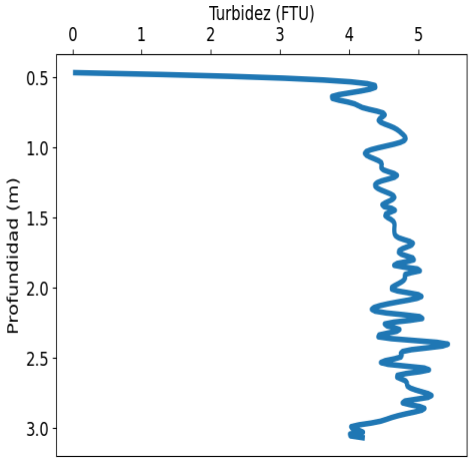
4.624	28.12	6.76	7.09	4.91	9.28	9.63	43.01
4.669	28.12	6.76	6.98	4.92	9.05	9.55	43.02
4.719	28.12	6.76	7.36	4.95	8.80	9.42	43.02
4.765	28.12	6.76	6.91	4.97	8.59	9.41	43.04
4.798	28.13	6.78	7.36	4.98	8.54	9.45	43.12
4.824	28.14	6.78	7.36	4.99	8.34	9.39	43.13
4.868	28.15	6.79	7.09	5.00	8.12	9.45	43.20
4.912	28.17	6.80	6.79	5.03	7.94	9.54	43.22
4.955	28.19	6.80	7.17	4.94	7.81	9.43	43.21
4.990	28.19	6.80	7.09	4.76	7.66	9.46	43.21
5.007	28.20	6.80	6.79	4.46	7.70	9.39	43.20
5.009	28.20	6.80	7.17	4.07	7.73	9.25	43.20
5.010	28.20	6.80	7.02	3.64	7.74	9.43	43.20
5.012	28.20	6.79	6.94	3.22	7.55	9.24	43.19
5.017	28.20	6.79	7.06	2.84	7.71	9.34	43.19
5.022	28.20	6.79	7.06	2.55	7.72	6.14	43.19
5.023	28.20	6.79	6.94	2.36	7.77	8.86	43.18

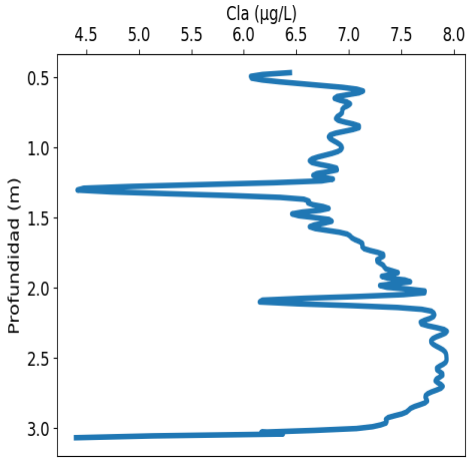
Nombre: CTD CTD9 - Punto 006 **Fecha: 12/08/2021** **Hora: 09:08:37**

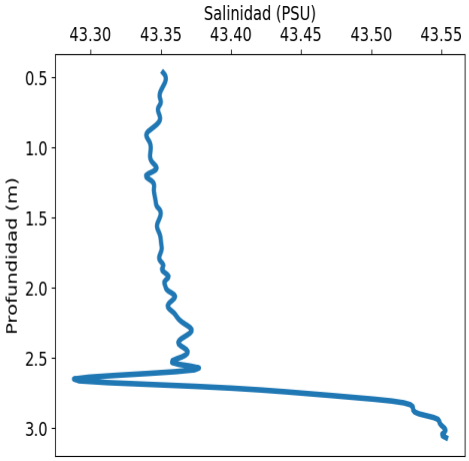


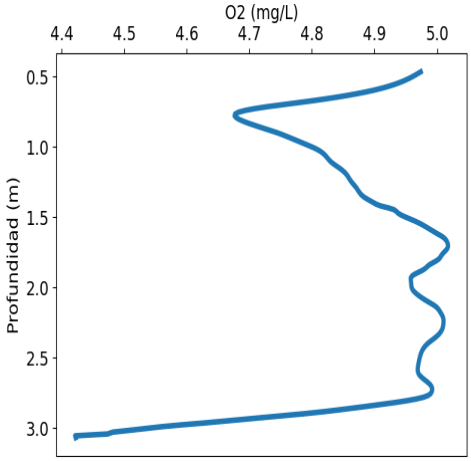


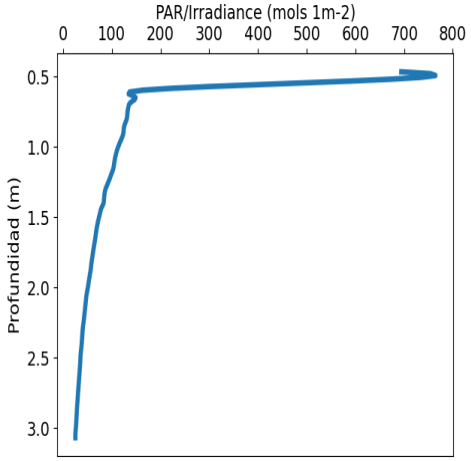












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp (°C)	Conductivity (S/m)	Turbidity (FTU)	Oxygen (mg/l)	PAR/Irradiance (mols-1m-2)	[Cla] (mg/m^3)	Salinity (PSU)
MÍNIMO	27.64	6.77	0.04	4.42	25.22	4.4	43.29
PROF (metros)	2.962	2.854	0.465	3.06	3.054	1.294	2.661
MÁXIMO	28.23	28.23	5.42	5.02	694.3	7.93	43.55
PROF (metros)	0.465	0.465	2.399	1.681	0.465	2.497	2.931

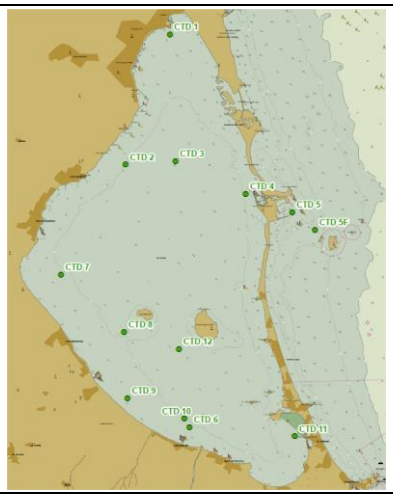
DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD E01-Cast1	Temp (°C)	Conductivity (S/m)	Turbidity (FTU)	Oxygen (mg/l)	PAR/Irradiance (mols-1m-2)	[Cla] (mg/m3)	Salinity (PSU)
0 - 1m	28.23	6.82	3.96	4.8	204.79	6.9	43.35
1 - 2m	28.18	6.81	4.66	4.94	74.22	6.87	43.35
2 - 3m	27.95	6.79	4.76	4.93	36.29	7.63	43.41
3 - 4m	27.64	6.77	4.06	4.44	25.4	5.38	43.55

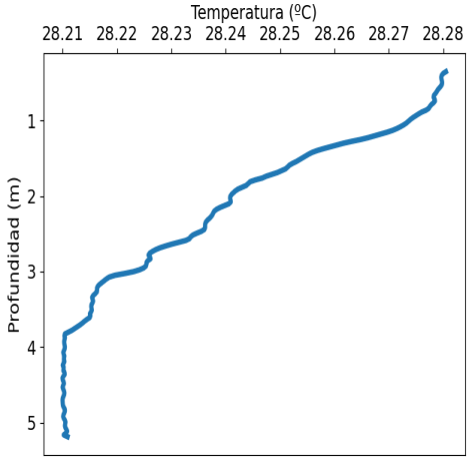
OBSERVACIONES GENERALES
CLOROFILA elevada en la(s) columna(s) de agua 0 - 1m, 1 - 2m, 2 - 3m, 3 - 4m con los valores 6.9, 6.87, 7.63, 5.38 respectivamente

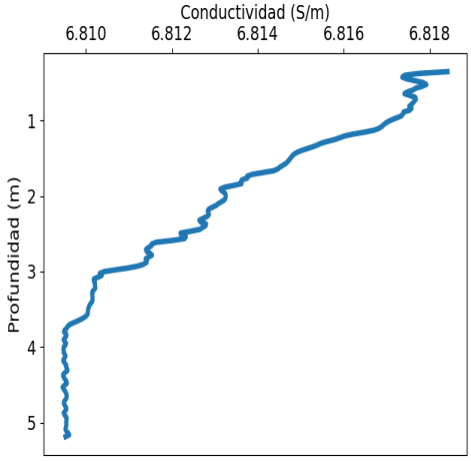
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Depth (m)	Temp (°C)	Conductivity (S/m)	Turbidity (FTU)	Oxygen (mg/l)	PAR/Irradiance (mols-1m-2)	[Cla] (mg/m3)	Salinity (PSU)
0.465	28.23	6.82	0.04	4.97	694.30	6.44	43.35
0.562	28.23	6.82	4.39	4.93	356.41	6.83	43.35
0.600	28.23	6.82	4.12	4.89	151.43	7.13	43.35
0.641	28.23	6.82	3.74	4.85	147.00	6.86	43.35
0.682	28.23	6.82	4.04	4.78	139.05	7.01	43.35
0.715	28.23	6.82	4.20	4.73	134.14	6.95	43.35
0.755	28.23	6.82	4.50	4.68	132.26	6.93	43.35
0.803	28.22	6.82	4.42	4.68	130.62	6.89	43.35
0.851	28.22	6.82	4.62	4.71	125.54	7.10	43.35
0.902	28.22	6.82	4.77	4.75	123.89	6.85	43.34
0.957	28.21	6.82	4.77	4.78	118.06	6.87	43.34
1.032	28.21	6.82	4.23	4.81	110.03	6.88	43.34
1.106	28.20	6.82	4.46	4.83	105.46	6.65	43.34
1.160	28.20	6.82	4.50	4.85	102.61	6.88	43.35
1.199	28.20	6.82	4.69	4.86	98.51	6.66	43.34
1.238	28.19	6.81	4.46	4.86	94.49	6.72	43.34
1.294	28.19	6.81	4.42	4.87	87.77	4.40	43.35
1.355	28.19	6.81	4.65	4.88	84.54	6.35	43.35
1.399	28.18	6.81	4.50	4.90	83.16	6.62	43.35
1.420	28.18	6.81	4.50	4.91	80.80	6.75	43.35
1.439	28.18	6.81	4.65	4.93	78.24	6.79	43.35
1.470	28.18	6.81	4.54	4.94	75.95	6.46	43.35
1.516	28.18	6.81	4.62	4.96	72.73	6.83	43.35
1.563	28.18	6.81	4.65	4.98	69.84	6.63	43.35
1.608	28.17	6.81	4.65	5.00	67.78	6.94	43.35
1.646	28.17	6.81	4.73	5.01	66.36	7.03	43.35
1.681	28.17	6.81	4.92	5.02	64.61	7.13	43.35
1.721	28.17	6.81	4.77	5.02	62.84	7.15	43.35
1.763	28.17	6.81	4.77	5.01	61.09	7.33	43.35
1.803	28.16	6.81	4.92	5.00	59.22	7.26	43.35
1.840	28.16	6.81	4.65	4.99	57.78	7.33	43.35
1.872	28.16	6.81	5.04	4.98	56.89	7.38	43.35
1.897	28.15	6.81	4.84	4.97	55.66	7.46	43.35
1.922	28.15	6.81	4.81	4.96	54.56	7.31	43.36
1.954	28.15	6.81	4.77	4.96	52.87	7.59	43.35
1.985	28.15	6.81	4.65	4.96	51.72	7.29	43.35

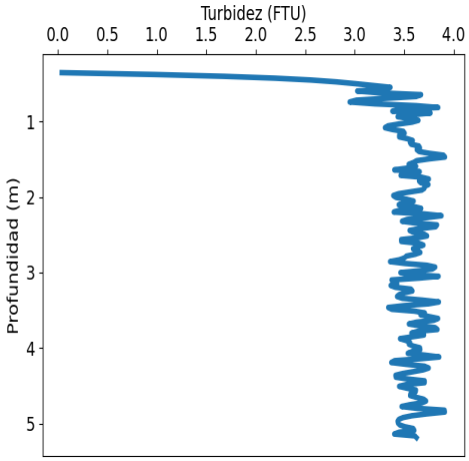
2.017	28.14	6.81	4.65	4.96	50.12	7.68	43.35
2.054	28.14	6.81	5.04	4.97	48.10	7.36	43.36
2.095	28.14	6.81	4.77	4.98	46.99	6.10	43.36
2.135	28.13	6.81	4.39	5.00	45.67	7.32	43.35
2.177	28.12	6.81	4.50	5.01	44.50	7.80	43.36
2.214	28.11	6.81	5.07	5.01	43.37	7.78	43.36
2.253	28.11	6.81	4.54	5.01	41.88	7.68	43.37
2.301	28.10	6.81	4.73	5.01	40.24	7.92	43.37
2.354	28.10	6.81	4.46	5.00	39.32	7.82	43.37
2.399	28.09	6.80	5.42	4.99	38.36	7.79	43.36
2.445	28.08	6.80	4.84	4.98	36.91	7.90	43.37
2.497	28.07	6.80	4.73	4.97	35.74	7.93	43.36
2.541	28.06	6.80	4.50	4.97	35.19	7.91	43.36
2.578	28.04	6.80	5.15	4.97	34.36	7.83	43.38
2.619	28.03	6.79	4.73	4.97	33.49	7.89	43.33
2.661	27.98	6.78	4.81	4.98	32.45	7.82	43.29
2.703	27.87	6.78	4.84	4.99	31.62	7.89	43.38
2.745	27.78	6.78	5.07	4.99	30.90	7.78	43.44
2.780	27.73	6.78	5.15	4.98	30.30	7.73	43.49
2.813	27.69	6.78	4.77	4.94	29.61	7.74	43.52
2.854	27.67	6.77	5.07	4.87	28.71	7.60	43.53
2.896	27.66	6.77	4.84	4.79	28.11	7.52	43.53
2.931	27.65	6.77	4.58	4.71	27.59	7.36	43.55
2.962	27.64	6.77	4.35	4.63	27.18	7.36	43.55
2.987	27.64	6.77	4.04	4.57	26.55	7.25	43.55
3.014	27.64	6.77	4.12	4.51	25.89	6.78	43.55
3.040	27.64	6.77	4.08	4.47	25.48	6.23	43.55
3.052	27.64	6.77	3.85	4.45	25.24	5.84	43.55
3.054	27.64	6.77	3.89	4.43	25.22	5.36	43.55
3.060	27.64	6.77	4.16	4.42	25.33	5.10	43.55
3.064	27.64	6.77	3.89	4.42	25.38	4.78	43.55
3.067	27.64	6.77	4.27	4.42	25.38	4.53	43.55
3.069	27.64	6.77	4.20	4.42	25.32	4.40	43.55

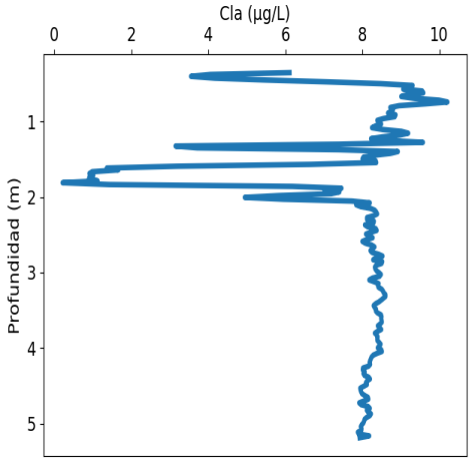
Nombre: CTD CTD10 - Punto 007 **Fecha: 12/08/2021** **Hora: 09:08:34**

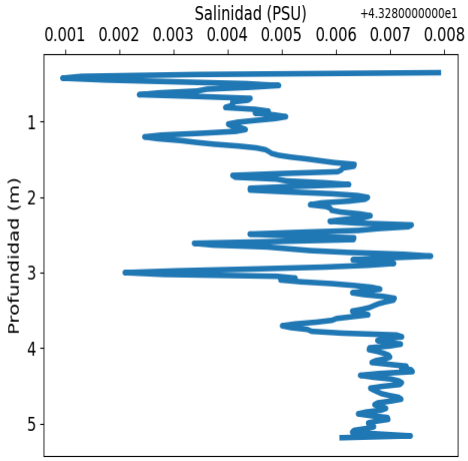


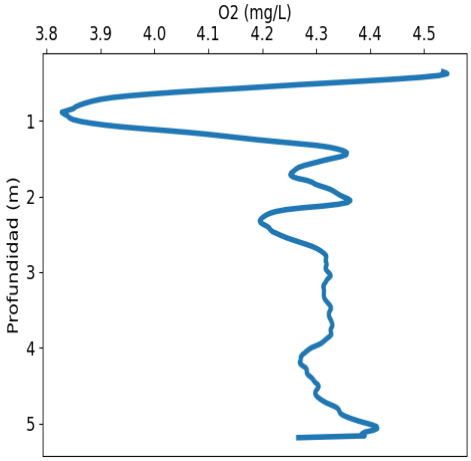


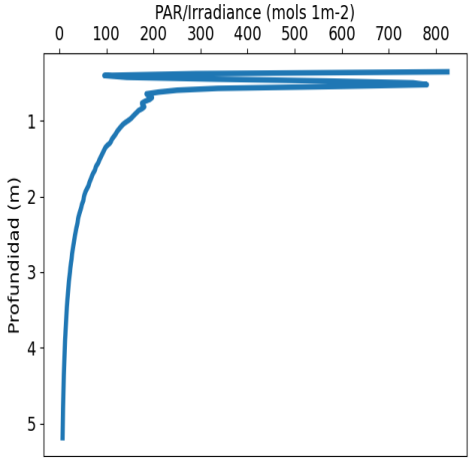












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp (°C)	Conductivity (S/m)	Turbidity (FTU)	Oxygen (mg/l)	PAR/Irradiance (mols-1m-2)	[Cla] (mg/m^3)	Salinity (PSU)
MÍNIMO	28.21	6.81	0.04	3.83	6.63	0.5	43.28
PROF (metros)	3.637	1.42	0.354	0.884	5.172	1.829	0.501
MÁXIMO	28.28	28.28	3.93	4.54	824.77	10.23	43.29
PROF (metros)	0.354	0.354	1.466	0.354	0.354	0.74	0.354

DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD E01-Cast1	Temp (°C)	Conductivity (S/m)	Turbidity (FTU)	Oxygen (mg/l)	PAR/Irradiance (mols-1m-2)	[Cla] (mg/m3)	Salinity (PSU)
0 - 1m	28.28	6.82	3.15	4.02	321.45	8.86	43.28
1 - 2m	28.25	6.81	3.6	4.24	87.08	5.46	43.28
2 - 3m	28.23	6.81	3.6	4.28	35.07	8.11	43.29
3 - 4m	28.21	6.81	3.59	4.32	15.79	8.43	43.29
4 - 5m	28.21	6.81	3.6	4.3	8.95	8.13	43.29
5 - 6m	28.21	6.81	3.55	4.36	6.71	7.97	43.29

OBSERVACIONES GENERALES
CLOROFILA elevada en la(s) columna(s) de agua 0 - 1m, 1 - 2m, 2 - 3m, 3 - 4m, 4 - 5m, 5 - 6m con los valores 8.86, 5.46, 8.11, 8.43, 8.13, 7.97 respectivamente

DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Depth (m)	Temp (°C)	Conductivity (S/m)	Turbidity (FTU)	Oxygen (mg/l)	PAR/Irradiance (mols-1m-2)	[Cla] (mg/m3)	Salinity (PSU)
0.354	28.28	6.82	0.04	4.54	824.77	6.11	43.29
0.501	28.28	6.82	3.01	4.32	758.04	8.54	43.28
0.532	28.28	6.82	3.24	4.25	740.85	9.38	43.28
0.568	28.28	6.82	3.36	4.17	370.99	9.03	43.28
0.605	28.28	6.82	3.01	4.08	237.74	9.66	43.28
0.641	28.28	6.82	3.62	4.00	187.25	9.24	43.28
0.685	28.28	6.82	3.43	3.93	195.54	9.16	43.28
0.740	28.28	6.82	2.94	3.89	183.17	10.23	43.28
0.785	28.28	6.82	3.51	3.86	174.96	9.09	43.28
0.820	28.28	6.82	3.81	3.85	180.52	8.73	43.28
0.855	28.28	6.82	3.28	3.84	170.75	8.82	43.28
0.884	28.28	6.82	3.74	3.83	165.34	8.66	43.28
0.922	28.28	6.82	3.47	3.84	159.06	8.91	43.28
0.974	28.27	6.82	3.62	3.85	151.36	8.43	43.28
1.036	28.27	6.82	3.43	3.89	137.39	8.49	43.28
1.092	28.27	6.82	3.32	3.96	129.02	8.30	43.28
1.139	28.27	6.82	3.51	4.04	123.01	9.12	43.28
1.195	28.27	6.82	3.43	4.12	117.41	8.71	43.28
1.251	28.26	6.82	3.59	4.19	110.93	8.62	43.28
1.292	28.26	6.82	3.55	4.25	107.86	8.81	43.28
1.332	28.26	6.82	3.66	4.31	100.61	2.66	43.28
1.375	28.26	6.82	3.62	4.34	95.99	7.47	43.28
1.420	28.26	6.81	3.74	4.36	92.47	8.78	43.28
1.466	28.25	6.81	3.93	4.35	88.92	8.08	43.29
1.509	28.25	6.81	3.66	4.32	85.41	8.15	43.29
1.547	28.25	6.81	3.59	4.30	83.12	8.28	43.29
1.575	28.25	6.81	3.55	4.29	80.67	5.86	43.29
1.606	28.25	6.81	3.62	4.27	77.54	1.74	43.29
1.641	28.25	6.81	3.40	4.26	76.06	1.67	43.29
1.667	28.25	6.81	3.66	4.26	74.27	0.96	43.29
1.698	28.25	6.81	3.43	4.25	71.30	0.98	43.28
1.737	28.25	6.81	3.66	4.26	68.81	0.92	43.28
1.768	28.25	6.81	3.74	4.27	66.86	0.95	43.28
1.796	28.25	6.81	3.62	4.29	64.97	0.97	43.29

1.829	28.24	6.81	3.74	4.30	63.03	0.50	43.29
1.863	28.24	6.81	3.70	4.31	61.47	6.60	43.29
1.900	28.24	6.81	3.70	4.32	58.14	7.06	43.28
1.950	28.24	6.81	3.47	4.34	54.69	7.42	43.29
2.011	28.24	6.81	3.43	4.35	51.85	4.99	43.29
2.062	28.24	6.81	3.59	4.36	50.43	8.08	43.29
2.098	28.24	6.81	3.43	4.35	48.16	7.88	43.29
2.126	28.24	6.81	3.59	4.31	47.10	7.94	43.29
2.154	28.24	6.81	3.66	4.27	45.93	8.23	43.29
2.192	28.24	6.81	3.36	4.23	43.99	8.35	43.29
2.239	28.24	6.81	3.85	4.21	41.88	8.35	43.29
2.289	28.24	6.81	3.59	4.20	39.81	8.09	43.29
2.338	28.24	6.81	3.55	4.20	38.69	8.34	43.29
2.375	28.24	6.81	3.85	4.20	37.56	8.05	43.29
2.412	28.24	6.81	3.70	4.21	36.14	8.30	43.29
2.453	28.24	6.81	3.55	4.22	34.93	8.33	43.29
2.492	28.23	6.81	3.70	4.23	33.61	8.10	43.28
2.536	28.23	6.81	3.66	4.24	32.48	8.28	43.29
2.580	28.23	6.81	3.43	4.26	31.41	8.02	43.29
2.616	28.23	6.81	3.66	4.27	30.43	8.10	43.28
2.652	28.23	6.81	3.66	4.29	29.45	8.31	43.28
2.692	28.23	6.81	3.59	4.30	28.51	8.24	43.29
2.739	28.23	6.81	3.66	4.31	27.22	8.28	43.29
2.788	28.23	6.81	3.51	4.32	26.39	8.51	43.29
2.827	28.23	6.81	3.47	4.32	25.76	8.26	43.29
2.859	28.23	6.81	3.36	4.32	24.93	8.54	43.29
2.896	28.23	6.81	3.66	4.32	24.17	8.40	43.29
2.937	28.23	6.81	3.81	4.32	23.28	8.33	43.29
2.981	28.22	6.81	3.62	4.32	22.69	8.38	43.28
3.020	28.22	6.81	3.47	4.32	22.02	8.47	43.28
3.052	28.22	6.81	3.85	4.33	21.49	8.44	43.28
3.090	28.22	6.81	3.43	4.32	20.59	8.18	43.28
3.142	28.22	6.81	3.43	4.32	19.84	8.41	43.29
3.184	28.22	6.81	3.36	4.31	19.28	8.40	43.29
3.225	28.22	6.81	3.59	4.31	18.71	8.51	43.29
3.266	28.22	6.81	3.51	4.31	18.22	8.55	43.29
3.305	28.22	6.81	3.43	4.31	17.75	8.61	43.29
3.347	28.22	6.81	3.51	4.32	17.07	8.53	43.29
3.392	28.22	6.81	3.85	4.32	16.66	8.42	43.29
3.438	28.22	6.81	3.51	4.33	16.00	8.29	43.29
3.485	28.22	6.81	3.36	4.33	15.56	8.36	43.29
3.526	28.22	6.81	3.70	4.32	15.21	8.37	43.29
3.560	28.21	6.81	3.66	4.32	14.88	8.48	43.29
3.598	28.22	6.81	3.81	4.32	14.56	8.49	43.29
3.637	28.21	6.81	3.78	4.33	14.18	8.50	43.29
3.672	28.21	6.81	3.55	4.33	13.88	8.49	43.29
3.712	28.21	6.81	3.70	4.33	13.46	8.40	43.28
3.759	28.21	6.81	3.81	4.33	13.03	8.49	43.29
3.795	28.21	6.81	3.55	4.33	12.88	8.33	43.29
3.827	28.21	6.81	3.70	4.33	12.61	8.38	43.29
3.868	28.21	6.81	3.47	4.32	12.18	8.39	43.29
3.911	28.21	6.81	3.55	4.31	11.88	8.40	43.29
3.956	28.21	6.81	3.55	4.31	11.60	8.47	43.29
3.999	28.21	6.81	3.66	4.29	11.32	8.40	43.29
4.036	28.21	6.81	3.62	4.28	11.15	8.53	43.29
4.075	28.21	6.81	3.55	4.28	10.89	8.36	43.29
4.120	28.21	6.81	3.85	4.27	10.60	8.24	43.29
4.159	28.21	6.81	3.47	4.27	10.40	8.21	43.29

4.199	28.21	6.81	3.40	4.27	10.14	8.19	43.29
4.240	28.21	6.81	3.70	4.28	9.94	8.17	43.29
4.272	28.21	6.81	3.74	4.28	9.81	7.99	43.29
4.306	28.21	6.81	3.62	4.28	9.59	8.06	43.29
4.352	28.21	6.81	3.43	4.28	9.34	8.03	43.29
4.401	28.21	6.81	3.47	4.29	9.13	8.20	43.29
4.451	28.21	6.81	3.74	4.30	8.91	8.09	43.29
4.492	28.21	6.81	3.47	4.30	8.84	8.11	43.29
4.519	28.21	6.81	3.47	4.30	8.66	7.98	43.29
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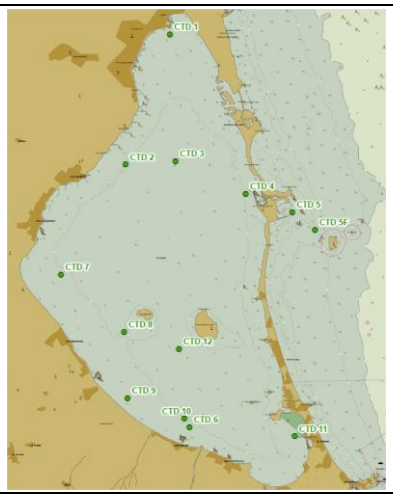
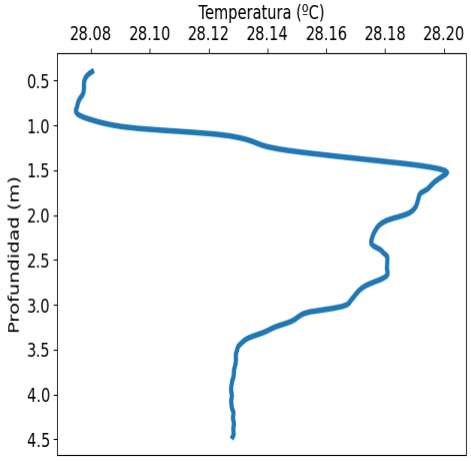
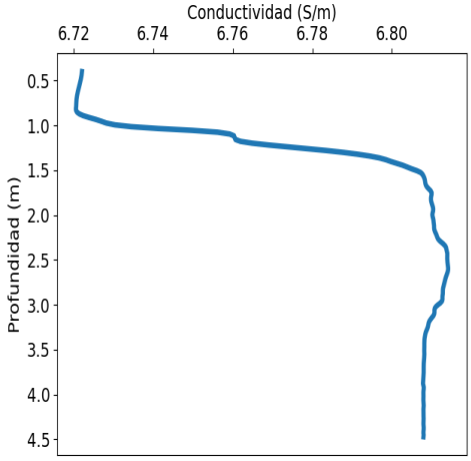
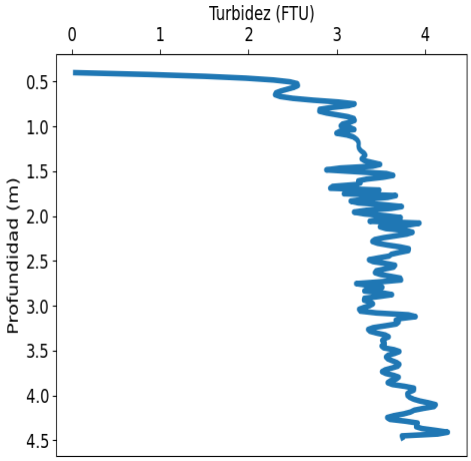
4.617	28.21	6.81	3.55	4.30	8.22	8.02	43.29
4.680	28.21	6.81	3.70	4.31	7.96	8.15	43.29
4.739	28.21	6.81	3.62	4.32	7.83	7.92	43.29
4.787	28.21	6.81	3.51	4.34	7.67	8.20	43.29
4.827	28.21	6.81	3.93	4.34	7.57	8.11	43.29
4.871	28.21	6.81	3.74	4.35	7.43	8.22	43.29
4.928	28.21	6.81	3.47	4.36	7.22	8.09	43.29
4.988	28.21	6.81	3.43	4.39	7.06	8.03	43.29
5.044	28.21	6.81	3.51	4.41	6.93	7.96	43.29
5.095	28.21	6.81	3.59	4.40	6.80	7.97	43.29
5.144	28.21	6.81	3.43	4.39	6.66	7.95	43.29
5.172	28.21	6.81	3.47	4.37	6.63	8.14	43.29
5.182	28.21	6.81	3.47	4.35	6.66	7.93	43.29
5.187	28.21	6.81	3.74	4.30	6.66	7.90	43.29
5.188	28.21	6.81	3.62	4.27	6.64	7.93	43.29

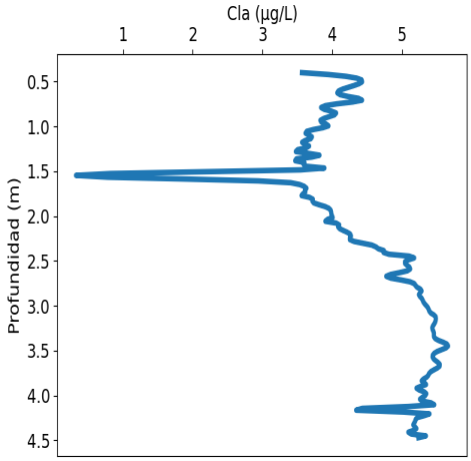
Nombre: CTD CTD11 - Punto 008 **Fecha: 12/08/2021** **Hora: 09:08:11**

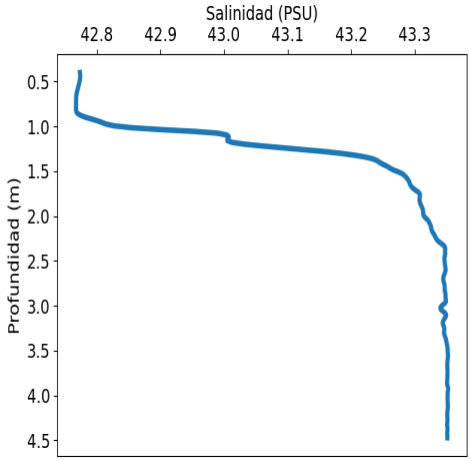


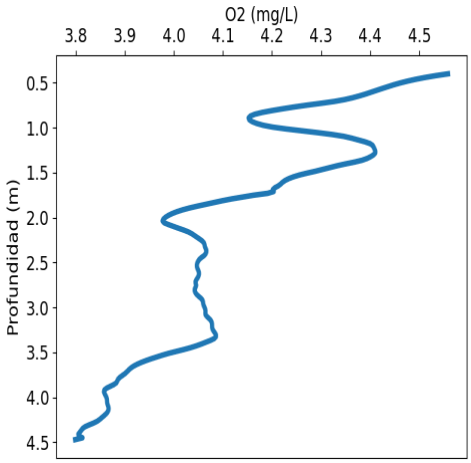


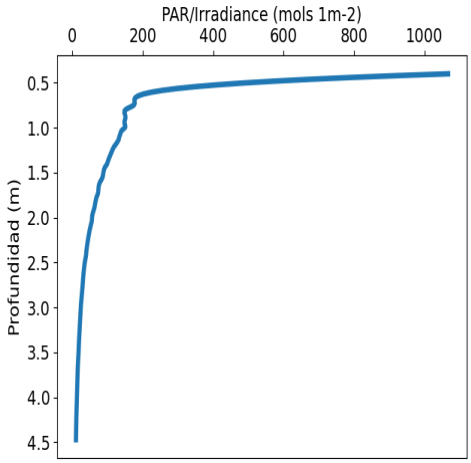


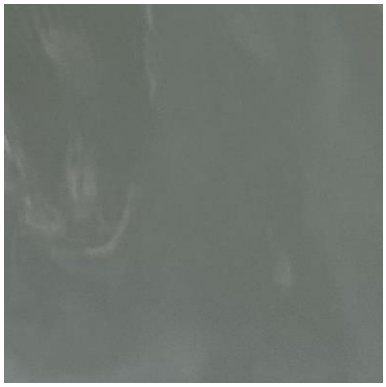












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp (°C)	Conductivity (S/m)	Turbidity (FTU)	Oxygen (mg/l)	PAR/Irradiance (mols-1m-2)	[Cla] (mg/m^3)	Salinity (PSU)
MÍNIMO	28.07	6.72	0.04	3.8	9.89	0.48	42.77
PROF (metros)	0.848	0.402	0.402	4.469	4.465	1.559	0.402
MÁXIMO	28.2	28.2	4.12	4.56	1067.0	5.64	43.35
PROF (metros)	1.481	1.517	4.116	0.402	0.402	3.464	2.331

DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD E01-Cast1	Temp (°C)	Conductivity (S/m)	Turbidity (FTU)	Oxygen (mg/l)	PAR/Irradiance (mols-1m-2)	[Cla] (mg/m3)	Salinity (PSU)
0 - 1m	28.08	6.72	2.57	4.28	256.98	3.99	42.78
1 - 2m	28.17	6.79	3.28	4.24	91.86	3.42	43.21
2 - 3m	28.18	6.81	3.55	4.04	37.58	4.75	43.34
3 - 4m	28.14	6.81	3.59	3.99	17.93	5.44	43.35
4 - 5m	28.13	6.81	3.87	3.83	10.74	5.18	43.35

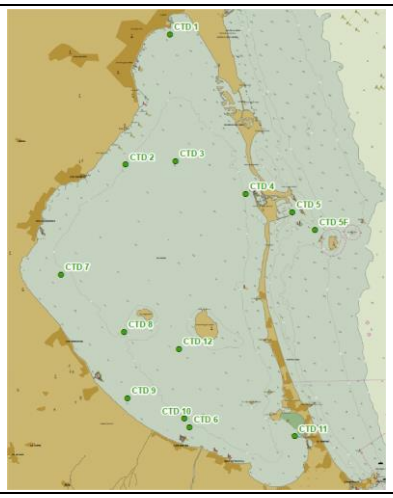
OBSERVACIONES GENERALES
HIPOXIA en la(s) columna(s) de agua 3 - 4m, 4 - 5m con los valores 3.99, 3.83 respectivamente.
CLOROFILA elevada en la(s) columna(s) de agua 0 - 1m, 1 - 2m, 2 - 3m, 3 - 4m, 4 - 5m con los valores 3.99, 3.42, 4.75, 5.44, 5.18 respectivamente

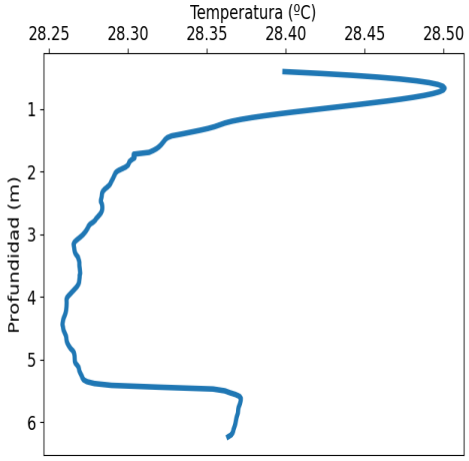
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Depth (m)	Temp (°C)	Conductivity (S/m)	Turbidity (FTU)	Oxygen (mg/l)	PAR/Irradiance (mols-1m-2)	[Cla] (mg/m3)	Salinity (PSU)
0.402	28.08	6.72	0.04	4.56	1067.00	3.56	42.77
0.606	28.08	6.72	2.37	4.40	224.77	4.09	42.77
0.661	28.08	6.72	2.33	4.37	180.31	4.18	42.77
0.710	28.08	6.72	2.75	4.33	176.34	4.42	42.77
0.751	28.08	6.72	3.20	4.27	174.11	4.05	42.77
0.799	28.08	6.72	2.86	4.21	151.15	3.85	42.77
0.848	28.07	6.72	2.86	4.17	148.62	4.05	42.77
0.894	28.08	6.72	3.13	4.15	150.59	3.95	42.78
0.949	28.08	6.73	3.17	4.17	147.45	3.83	42.81
0.999	28.09	6.73	3.05	4.21	149.48	3.94	42.83
1.034	28.10	6.74	3.20	4.26	139.24	3.74	42.89
1.065	28.11	6.75	2.98	4.31	136.62	3.62	42.97
1.093	28.12	6.76	3.09	4.34	133.71	3.65	43.00
1.131	28.13	6.76	3.20	4.37	131.25	3.71	43.01
1.176	28.13	6.76	3.24	4.40	124.82	3.57	43.01
1.231	28.14	6.77	3.24	4.41	115.44	3.66	43.08
1.282	28.15	6.78	3.28	4.41	110.16	3.48	43.16
1.326	28.16	6.79	3.32	4.40	105.22	3.82	43.21
1.371	28.17	6.80	3.28	4.38	101.22	3.44	43.24
1.410	28.18	6.80	3.43	4.34	97.49	3.62	43.25
1.445	28.19	6.80	3.40	4.32	91.75	3.62	43.26
1.481	28.20	6.80	2.86	4.29	88.73	3.73	43.26
1.517	28.20	6.81	3.43	4.26	87.33	1.34	43.28
1.559	28.20	6.81	3.59	4.24	84.83	0.48	43.29
1.604	28.20	6.81	3.24	4.22	78.62	2.77	43.29
1.650	28.20	6.81	3.20	4.21	74.70	3.54	43.29
1.693	28.20	6.81	2.98	4.20	73.67	3.63	43.30
1.726	28.19	6.81	3.51	4.20	72.80	3.60	43.30
1.742	28.19	6.81	2.90	4.17	71.86	3.62	43.31
1.759	28.19	6.81	3.40	4.15	69.71	3.54	43.31
1.794	28.19	6.81	3.55	4.12	67.14	3.68	43.31
1.845	28.19	6.81	3.17	4.07	64.40	3.72	43.31
1.896	28.19	6.81	3.74	4.03	62.06	3.90	43.31

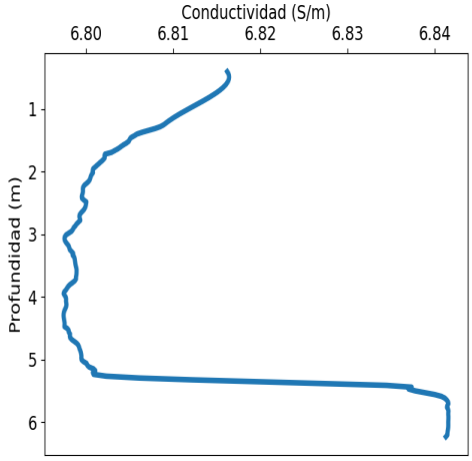
1.949	28.19	6.81	3.20	4.00	57.98	3.98	43.31
1.996	28.19	6.81	3.55	3.98	55.64	4.00	43.31
2.030	28.18	6.81	3.62	3.98	55.34	3.97	43.32
2.052	28.18	6.81	3.28	3.98	54.19	3.88	43.32
2.078	28.18	6.81	3.93	3.99	52.46	4.05	43.32
2.116	28.18	6.81	3.51	4.01	50.15	4.08	43.33
2.160	28.18	6.81	3.78	4.03	47.89	4.16	43.33
2.215	28.18	6.81	3.70	4.05	45.38	4.27	43.33
2.278	28.18	6.81	3.40	4.06	42.81	4.29	43.34
2.331	28.18	6.81	3.62	4.06	40.93	4.60	43.35
2.365	28.18	6.81	3.81	4.07	39.79	4.66	43.35
2.393	28.18	6.81	3.78	4.07	39.09	4.75	43.35
2.421	28.18	6.81	3.62	4.06	38.59	4.76	43.35
2.447	28.18	6.81	3.59	4.06	37.51	5.11	43.35
2.488	28.18	6.81	3.36	4.05	35.42	5.09	43.35
2.550	28.18	6.81	3.66	4.05	33.44	5.07	43.35
2.613	28.18	6.81	3.43	4.05	31.62	5.06	43.35
2.675	28.18	6.81	3.62	4.05	30.33	4.77	43.35
2.724	28.18	6.81	3.62	4.04	29.52	5.07	43.35
2.757	28.18	6.81	3.20	4.05	28.83	5.18	43.35
2.787	28.17	6.81	3.51	4.04	28.11	5.20	43.35
2.825	28.17	6.81	3.28	4.04	27.06	5.28	43.35
2.872	28.17	6.81	3.62	4.05	26.23	5.24	43.35
2.914	28.17	6.81	3.32	4.06	25.35	5.28	43.35
2.963	28.17	6.81	3.40	4.06	24.27	5.31	43.35
3.014	28.17	6.81	3.32	4.06	23.54	5.36	43.34
3.051	28.16	6.81	3.24	4.06	23.19	5.39	43.34
3.079	28.15	6.81	3.43	4.06	22.72	5.41	43.35
3.108	28.15	6.81	3.89	4.07	22.18	5.47	43.35
3.144	28.15	6.81	3.70	4.08	21.48	5.48	43.35
3.193	28.15	6.81	3.70	4.08	20.76	5.47	43.34
3.246	28.14	6.81	3.40	4.08	19.96	5.43	43.35
3.301	28.14	6.81	3.43	4.09	19.42	5.46	43.35
3.345	28.14	6.81	3.59	4.08	19.05	5.46	43.35
3.377	28.13	6.81	3.51	4.07	18.58	5.50	43.35
3.420	28.13	6.81	3.55	4.05	18.03	5.63	43.35
3.464	28.13	6.81	3.51	4.02	17.78	5.64	43.35
3.502	28.13	6.81	3.70	4.00	17.25	5.52	43.35
3.547	28.13	6.81	3.59	3.97	16.70	5.44	43.35
3.598	28.13	6.81	3.59	3.94	15.97	5.46	43.35
3.667	28.13	6.81	3.70	3.91	15.11	5.54	43.35
3.740	28.13	6.81	3.51	3.90	14.65	5.40	43.35
3.797	28.13	6.81	3.70	3.89	14.28	5.35	43.35
3.842	28.13	6.81	3.59	3.88	13.84	5.29	43.35
3.877	28.13	6.81	3.62	3.87	13.73	5.34	43.35
3.912	28.13	6.81	3.85	3.86	13.30	5.21	43.35
3.962	28.13	6.81	3.81	3.86	12.84	5.33	43.35
4.017	28.13	6.81	3.81	3.86	12.44	5.30	43.35
4.068	28.13	6.81	3.97	3.86	12.08	5.32	43.35
4.116	28.13	6.81	4.12	3.87	11.76	5.27	43.35
4.158	28.13	6.81	3.89	3.87	11.54	4.26	43.35
4.190	28.13	6.81	3.81	3.86	11.33	5.21	43.35
4.228	28.13	6.81	3.62	3.85	11.04	5.29	43.35
4.270	28.13	6.81	3.62	3.84	10.86	5.19	43.35
4.300	28.13	6.81	3.89	3.83	10.71	5.18	43.35
4.331	28.13	6.81	3.89	3.82	10.49	5.16	43.35
4.380	28.13	6.81	4.04	3.81	10.11	5.19	43.35
4.434	28.13	6.81	4.04	3.81	9.94	5.18	43.35

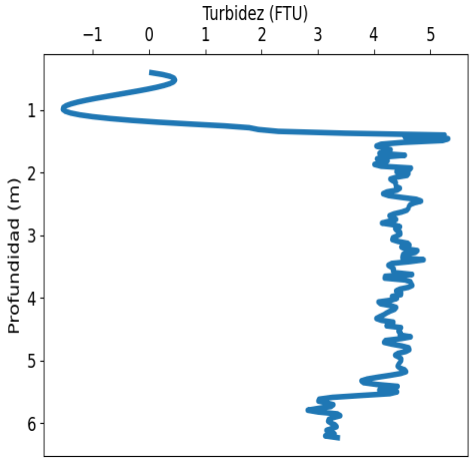
4.460	28.13	6.81	3.93	3.82	9.93	5.26	43.35
4.465	28.13	6.81	3.93	3.81	9.89	5.26	43.35
4.466	28.13	6.81	3.81	3.81	9.91	5.31	43.35
4.469	28.13	6.81	3.85	3.80	9.95	5.24	43.35
4.470	28.13	6.81	3.74	3.80	9.91	5.23	43.35

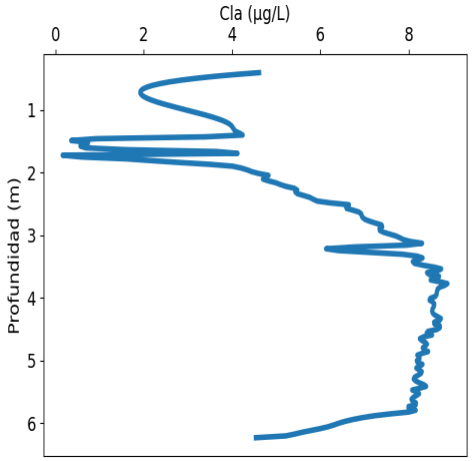
Nombre: CTD CTD12 - Punto 009 **Fecha: 12/08/2021** **Hora: 09:08:00**

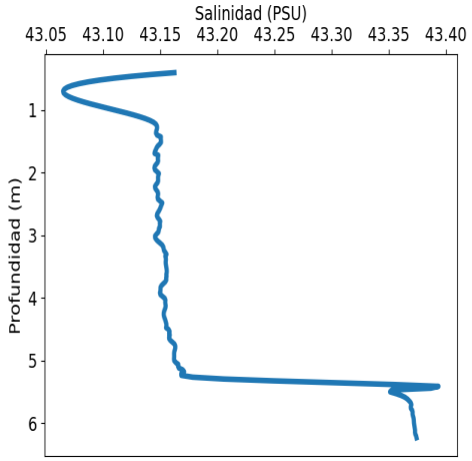


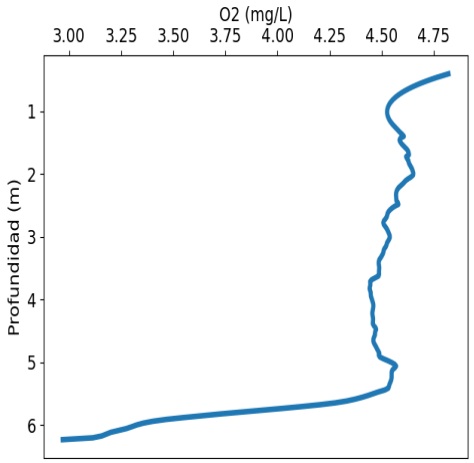


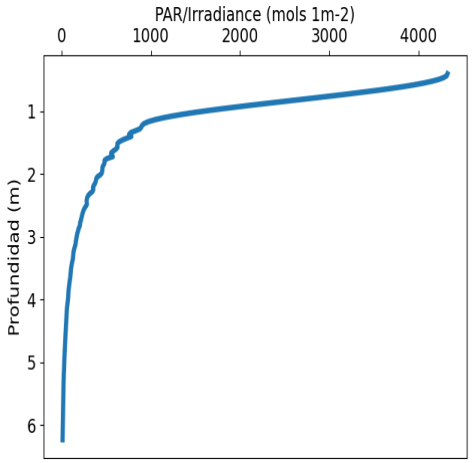












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp (°C)	Conductivity (S/m)	Turbidity (FTU)	Oxygen (mg/l)	PAR/Irradiance (mols-1m-2)	[Cla] (mg/m^3)	Salinity (PSU)
MÍNIMO	28.26	6.8	0.04	2.97	12.3	0.53	43.15
PROF (metros)	3.943	1.508	0.4	6.234	6.234	1.747	1.217
MÁXIMO	28.41	28.41	5.3	4.82	4323.6	8.84	43.39
PROF (metros)	0.41	5.436	1.402	0.4	0.4	3.758	5.436

DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD E01-Cast1	Temp (°C)	Conductivity (S/m)	Turbidity (FTU)	Oxygen (mg/l)	PAR/Irradiance (mols-1m-2)	[Cla] (mg/m3)	Salinity (PSU)
0 - 1m	28.4	6.82	0.08	4.82	4323.6	4.52	43.16
1 - 2m	28.32	6.8	4.04	4.61	626.27	2.73	43.15
2 - 3m	28.28	6.8	4.45	4.56	284.26	6.18	43.15
3 - 4m	28.27	6.8	4.48	4.48	114.66	8.22	43.15
4 - 5m	28.26	6.8	4.38	4.47	47.24	8.48	43.16
5 - 6m	28.33	6.83	3.79	4.22	21.59	7.98	43.31
6 - 7m	28.37	6.84	3.24	3.1	12.94	5.15	43.37

OBSERVACIONES GENERALES
HIPOXIA en la(s) columna(s) de agua 6 - 7m con los valores 3.1 respectivamente.
CLOROFILA elevada en la(s) columna(s) de agua 0 - 1m, 1 - 2m, 2 - 3m, 3 - 4m, 4 - 5m, 5 - 6m, 6 - 7m con los valores 4.52, 2.73, 6.18, 8.22, 8.48, 7.98, 5.15 respectivamente

DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Depth (m)	Temp (°C)	Conductivity (S/m)	Turbidity (FTU)	Oxygen (mg/l)	PAR/Irradiance (mols-1m-2)	[Cla] (mg/m3)	Salinity (PSU)
0.400	28.40	6.82	0.04	4.82	4323.60	4.61	43.16
0.410	28.41	6.82	0.11	4.81	4323.60	4.42	43.16
1.217	28.36	6.81	0.65	4.56	904.27	3.93	43.15
1.281	28.35	6.81	1.79	4.57	874.58	4.02	43.15
1.371	28.34	6.81	3.70	4.60	759.45	4.19	43.15
1.402	28.33	6.81	5.30	4.61	781.59	4.21	43.15
1.423	28.33	6.81	4.58	4.59	738.11	3.60	43.15
1.453	28.33	6.81	5.26	4.59	686.14	1.08	43.15
1.508	28.32	6.80	4.65	4.59	627.71	0.68	43.15
1.576	28.32	6.80	4.04	4.61	626.98	0.56	43.15
1.646	28.32	6.80	4.31	4.63	565.93	2.50	43.15
1.692	28.31	6.80	4.08	4.63	559.93	3.95	43.15
1.709	28.31	6.80	4.23	4.63	575.72	1.49	43.15
1.714	28.31	6.80	4.42	4.62	577.86	0.71	43.15
1.747	28.30	6.80	4.20	4.62	516.66	0.53	43.15
1.816	28.30	6.80	4.27	4.63	482.96	2.37	43.15
1.892	28.30	6.80	4.08	4.64	458.21	3.98	43.15
1.941	28.30	6.80	4.77	4.65	458.00	4.28	43.15
1.972	28.29	6.80	4.39	4.65	452.41	4.43	43.15
2.000	28.29	6.80	4.54	4.65	445.43	4.50	43.15
2.035	28.29	6.80	4.62	4.64	407.50	4.81	43.15
2.087	28.29	6.80	4.31	4.62	388.05	4.70	43.15
2.154	28.29	6.80	4.39	4.60	372.89	4.97	43.15
2.217	28.29	6.80	4.39	4.58	352.79	5.22	43.15
2.263	28.29	6.80	4.46	4.57	354.51	5.47	43.15
2.312	28.28	6.80	4.20	4.57	316.60	5.43	43.15
2.387	28.28	6.80	4.42	4.57	285.97	5.74	43.15
2.447	28.28	6.80	4.84	4.58	282.68	5.91	43.15
2.478	28.28	6.80	4.73	4.58	285.64	6.17	43.15
2.502	28.28	6.80	4.65	4.57	276.46	6.58	43.15
2.543	28.28	6.80	4.62	4.55	258.67	6.57	43.15

2.615	28.28	6.80	4.54	4.53	238.29	6.83	43.15
2.694	28.28	6.80	4.27	4.52	224.98	6.94	43.15
2.751	28.28	6.80	4.39	4.51	214.29	7.03	43.15
2.794	28.28	6.80	4.16	4.51	206.92	7.20	43.15
2.819	28.28	6.80	4.20	4.51	207.64	7.32	43.15
2.840	28.28	6.80	4.42	4.52	199.57	7.41	43.15
2.884	28.27	6.80	4.39	4.53	189.56	7.35	43.15
2.948	28.27	6.80	4.46	4.54	176.71	7.42	43.15
3.004	28.27	6.80	4.42	4.54	169.45	7.69	43.15
3.056	28.27	6.80	4.31	4.53	162.19	7.85	43.15
3.104	28.27	6.80	4.46	4.53	158.76	8.09	43.15
3.148	28.27	6.80	4.65	4.52	151.43	8.17	43.15
3.197	28.27	6.80	4.46	4.51	141.19	6.38	43.15
3.256	28.27	6.80	4.81	4.51	133.52	6.70	43.15
3.306	28.27	6.80	4.50	4.50	131.41	7.93	43.16
3.340	28.27	6.80	4.50	4.49	129.05	8.23	43.15
3.361	28.27	6.80	4.50	4.49	126.92	8.32	43.16
3.390	28.27	6.80	4.88	4.49	121.50	8.22	43.16
3.429	28.27	6.80	4.50	4.49	115.89	8.08	43.15
3.494	28.27	6.80	4.27	4.49	108.13	8.46	43.16
3.558	28.27	6.80	4.35	4.49	103.67	8.71	43.16
3.602	28.27	6.80	4.42	4.49	101.50	8.39	43.16
3.631	28.27	6.80	4.65	4.48	99.34	8.50	43.16
3.646	28.27	6.80	4.35	4.47	98.56	8.62	43.16
3.666	28.27	6.80	4.08	4.46	96.06	8.75	43.16
3.704	28.27	6.80	4.46	4.45	91.92	8.50	43.16
3.758	28.27	6.80	4.65	4.45	87.39	8.84	43.15
3.819	28.27	6.80	4.65	4.44	82.05	8.74	43.15
3.887	28.27	6.80	4.39	4.45	77.41	8.64	43.15
3.943	28.26	6.80	4.50	4.45	75.67	8.63	43.15
3.980	28.26	6.80	4.31	4.45	74.27	8.60	43.15
4.014	28.26	6.80	4.42	4.45	70.95	8.47	43.15
4.063	28.26	6.80	4.08	4.46	67.00	8.54	43.15
4.133	28.26	6.80	4.35	4.46	61.70	8.57	43.15
4.216	28.26	6.80	4.27	4.46	57.94	8.53	43.15
4.292	28.26	6.80	4.12	4.46	55.20	8.64	43.15
4.350	28.26	6.80	4.08	4.46	53.04	8.73	43.15
4.403	28.26	6.80	4.39	4.46	50.54	8.55	43.16
4.450	28.26	6.80	4.23	4.47	49.42	8.72	43.16
4.485	28.26	6.80	4.54	4.47	48.40	8.69	43.16
4.515	28.26	6.80	4.39	4.47	46.73	8.59	43.16
4.552	28.26	6.80	4.50	4.47	45.19	8.36	43.16
4.586	28.26	6.80	4.42	4.46	44.13	8.54	43.16
4.621	28.26	6.80	4.65	4.46	42.43	8.34	43.16
4.675	28.26	6.80	4.23	4.46	40.12	8.29	43.16
4.738	28.26	6.80	4.31	4.47	38.11	8.42	43.16
4.796	28.26	6.80	4.62	4.48	36.57	8.32	43.16
4.837	28.26	6.80	4.62	4.49	36.25	8.38	43.16
4.863	28.27	6.80	4.54	4.49	35.39	8.44	43.16
4.895	28.27	6.80	4.39	4.49	33.83	8.24	43.16
4.956	28.27	6.80	4.46	4.52	31.82	8.26	43.16
5.027	28.27	6.80	4.46	4.56	30.79	8.19	43.16
5.072	28.27	6.80	4.42	4.57	30.10	8.32	43.17
5.105	28.27	6.80	4.42	4.56	28.79	8.19	43.17
5.173	28.27	6.80	4.58	4.55	26.45	8.29	43.17
5.281	28.27	6.80	3.97	4.55	24.08	8.12	43.19
5.383	28.28	6.83	4.04	4.54	22.85	8.33	43.35
5.436	28.31	6.84	4.42	4.52	22.89	8.31	43.39

5.460	28.34	6.84	4.08	4.50	22.32	8.10	43.36
5.503	28.36	6.84	4.42	4.46	20.93	8.20	43.35
5.577	28.37	6.84	3.43	4.39	19.73	8.13	43.36
5.650	28.37	6.84	3.01	4.27	18.78	8.09	43.37
5.707	28.37	6.84	3.28	4.12	18.32	8.16	43.37
5.752	28.37	6.84	3.13	3.97	17.70	7.95	43.37
5.802	28.37	6.84	2.82	3.80	16.82	8.16	43.37
5.854	28.37	6.84	3.36	3.64	16.31	7.57	43.37
5.911	28.37	6.84	3.28	3.47	15.56	6.97	43.37
5.988	28.37	6.84	3.20	3.34	14.67	6.48	43.37
6.069	28.37	6.84	3.32	3.26	14.05	6.12	43.37
6.130	28.37	6.84	3.17	3.19	13.55	5.70	43.37
6.178	28.37	6.84	3.28	3.15	13.16	5.41	43.37
6.207	28.37	6.84	3.17	3.11	12.97	5.19	43.37
6.221	28.36	6.84	3.20	3.07	12.64	4.85	43.37
6.227	28.36	6.84	3.01	3.03	12.46	4.68	43.37
6.233	28.36	6.84	3.43	3.01	12.41	4.67	43.37
6.234	28.36	6.84	3.36	2.97	12.30	4.54	43.37

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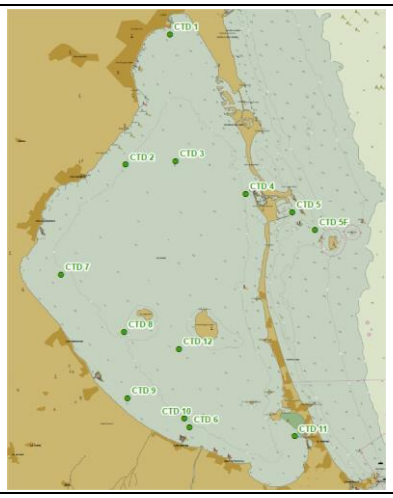

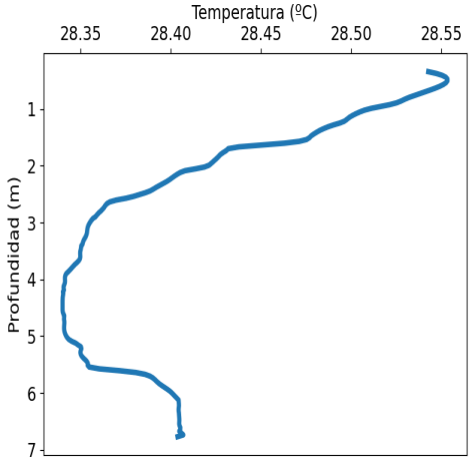

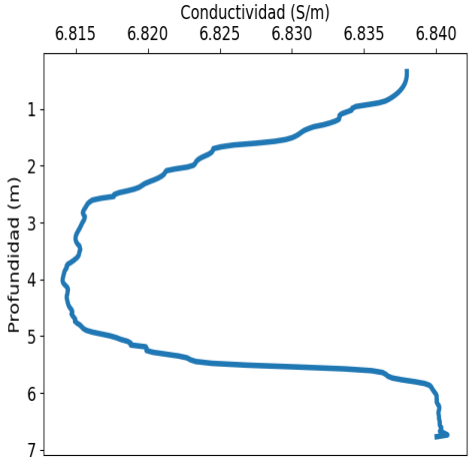

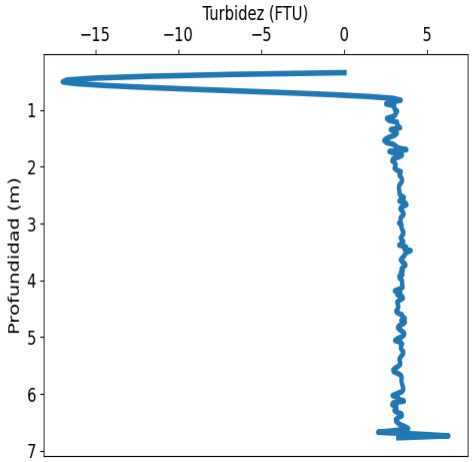

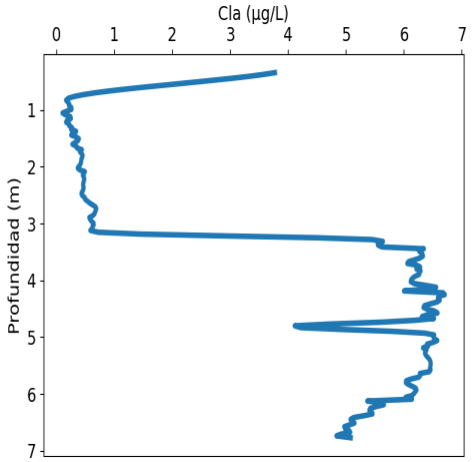

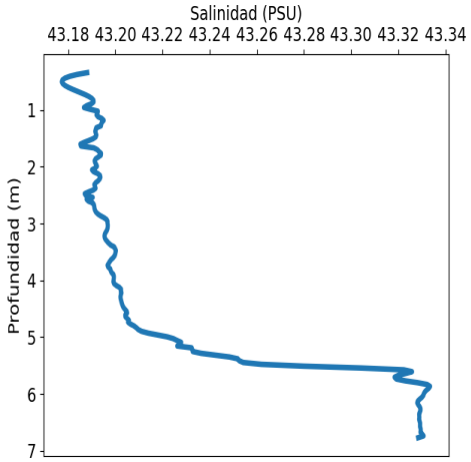

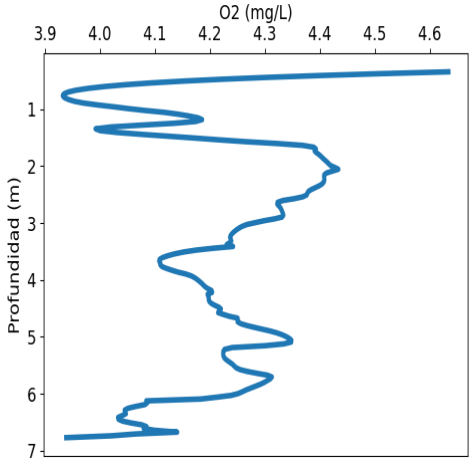

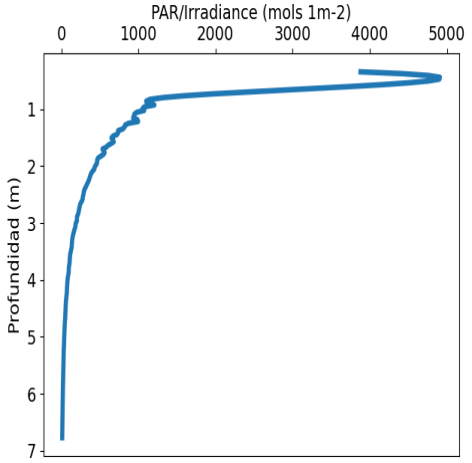

VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp (°C)	Conductivity (S/m)	Turbidity (FTU)	Oxygen (mg/l)	PAR/Irradiance (mols-1m-2)	[Cla] (mg/m^3)	Salinity (PSU)
MÍNIMO	28.34	6.81	0.04	3.93	11.44	0.1	43.18
PROF (metros)	3.836	3.267	0.345	0.779	6.769	1.054	1.623
MÁXIMO	28.54	28.54	3.93	4.63	3880.0	6.76	43.33
PROF (metros)	0.345	0.345	4.658	0.345	0.345	4.237	5.607

DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD E01-Cast1	Temp (°C)	Conductivity (S/m)	Turbidity (FTU)	Oxygen (mg/l)	PAR/Irradiance (mols-1m-2)	[Cla] (mg/m3)	Salinity (PSU)
0 - 1m	28.53	6.84	2.38	4.09	1641.87	0.82	43.19
1 - 2m	28.47	6.83	3.1	4.22	740.21	0.29	43.19
2 - 3m	28.38	6.82	3.41	4.36	293.15	0.52	43.19
3 - 4m	28.35	6.81	3.56	4.19	124.31	5.05	43.2
4 - 5m	28.34	6.81	3.43	4.22	58.03	6.28	43.2
5 - 6m	28.36	6.83	3.38	4.28	28.65	6.34	43.27
6 - 7m	28.4	6.84	3.29	4.08	14.57	5.33	43.33

OBSERVACIONES GENERALES
CLOROFILA elevada en la(s) columna(s) de agua 3 - 4m, 4 - 5m, 5 - 6m, 6 - 7m con los valores 5.05, 6.28, 6.34, 5.33 respectivamente

DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Depth (m)	Temp (°C)	Conductivity (S/m)	Turbidity (FTU)	Oxygen (mg/l)	PAR/Irradiance (mols-1m-2)	[Cla] (mg/m3)	Salinity (PSU)
0.345	28.54	6.84	0.04	4.63	3880.00	3.77	43.19
0.779	28.53	6.84	2.25	3.93	1467.10	0.25	43.19
0.835	28.53	6.84	3.40	3.94	1130.70	0.17	43.19
0.888	28.53	6.84	2.52	3.97	1138.00	0.22	43.19
0.931	28.52	6.84	3.09	4.00	1198.90	0.22	43.19
0.971	28.51	6.83	2.98	4.04	1036.50	0.27	43.19
1.011	28.51	6.83	3.20	4.07	1088.00	0.22	43.19
1.054	28.50	6.83	3.13	4.11	982.27	0.10	43.19
1.113	28.50	6.83	3.01	4.16	944.76	0.23	43.19
1.168	28.50	6.83	2.56	4.18	947.17	0.22	43.19
1.210	28.50	6.83	3.13	4.18	1011.40	0.15	43.19
1.243	28.49	6.83	3.28	4.14	889.30	0.22	43.19
1.272	28.49	6.83	3.09	4.09	834.97	0.20	43.19
1.300	28.49	6.83	3.55	4.04	815.84	0.28	43.19
1.333	28.49	6.83	2.94	4.00	819.06	0.24	43.19
1.379	28.48	6.83	3.05	4.00	735.03	0.34	43.19
1.428	28.48	6.83	3.17	4.05	739.82	0.25	43.19
1.481	28.48	6.83	2.75	4.13	659.63	0.35	43.19
1.590	28.47	6.83	2.75	4.30	668.40	0.29	43.19
1.623	28.46	6.83	3.17	4.35	614.89	0.29	43.18
1.646	28.45	6.83	2.98	4.38	603.60	0.35	43.19
1.662	28.44	6.83	2.86	4.39	597.47	0.33	43.19
1.678	28.43	6.82	3.89	4.39	555.79	0.41	43.19
1.718	28.43	6.82	3.01	4.39	542.18	0.41	43.19
1.779	28.43	6.82	3.40	4.40	557.99	0.44	43.19
1.861	28.43	6.82	2.98	4.41	474.86	0.43	43.19
1.953	28.42	6.82	3.13	4.42	461.94	0.42	43.19
2.022	28.42	6.82	3.05	4.43	430.71	0.37	43.19
2.052	28.41	6.82	3.13	4.43	428.32	0.39	43.19
2.078	28.41	6.82	3.40	4.43	412.83	0.48	43.19
2.122	28.41	6.82	3.36	4.41	389.49	0.46	43.19
2.181	28.40	6.82	3.43	4.41	373.06	0.47	43.19
2.252	28.40	6.82	3.51	4.41	355.42	0.47	43.19

2.320	28.40	6.82	3.36	4.40	332.32	0.46	43.19
2.390	28.39	6.82	3.32	4.39	307.13	0.47	43.19
2.455	28.39	6.82	3.36	4.38	291.39	0.44	43.19
2.510	28.38	6.82	3.43	4.38	284.72	0.45	43.19
2.551	28.38	6.82	3.62	4.36	277.03	0.50	43.19
2.583	28.37	6.82	3.36	4.35	276.39	0.50	43.19
2.607	28.37	6.82	3.36	4.33	269.69	0.54	43.19
2.644	28.37	6.82	3.78	4.32	253.27	0.58	43.19
2.710	28.36	6.82	3.47	4.33	237.41	0.68	43.19
2.791	28.36	6.82	3.55	4.33	227.23	0.67	43.19
2.863	28.36	6.82	3.55	4.33	211.97	0.62	43.19
2.907	28.36	6.82	3.40	4.33	200.97	0.56	43.20
2.934	28.36	6.82	3.43	4.31	202.70	0.59	43.20
2.959	28.36	6.82	3.43	4.30	202.56	0.60	43.20
2.989	28.36	6.82	3.32	4.28	191.51	0.64	43.20
3.019	28.35	6.82	3.47	4.27	183.98	0.65	43.20
3.051	28.35	6.82	3.47	4.26	183.81	0.63	43.20
3.104	28.35	6.82	3.51	4.25	172.98	0.60	43.20
3.182	28.35	6.82	3.59	4.24	156.72	1.32	43.20
3.267	28.35	6.81	3.43	4.24	143.54	5.11	43.20
3.345	28.35	6.82	3.55	4.24	138.31	5.55	43.20
3.399	28.35	6.82	3.51	4.24	135.21	5.56	43.20
3.418	28.35	6.82	3.74	4.24	135.46	5.76	43.20
3.427	28.35	6.82	3.51	4.23	133.99	6.11	43.20
3.453	28.35	6.82	3.85	4.20	128.87	6.31	43.20
3.506	28.35	6.82	3.81	4.15	120.35	6.28	43.20
3.576	28.35	6.82	3.62	4.12	112.66	6.33	43.20
3.652	28.35	6.81	3.43	4.11	108.61	6.14	43.20
3.709	28.35	6.81	3.70	4.11	105.66	6.08	43.20
3.751	28.35	6.81	3.66	4.11	100.64	6.29	43.20
3.795	28.35	6.81	3.47	4.12	96.91	6.21	43.20
3.836	28.34	6.81	3.55	4.13	95.99	6.29	43.20
3.867	28.34	6.81	3.43	4.14	95.50	6.27	43.20
3.890	28.34	6.81	3.55	4.15	92.45	6.27	43.20
3.924	28.34	6.81	3.36	4.16	87.43	6.20	43.20
3.987	28.34	6.81	3.47	4.18	81.39	6.13	43.20
4.072	28.34	6.81	3.51	4.19	76.48	6.26	43.20
4.150	28.34	6.81	3.40	4.20	73.00	6.43	43.20
4.202	28.34	6.81	3.17	4.20	72.06	6.19	43.20
4.217	28.34	6.81	3.40	4.20	71.80	6.64	43.20
4.237	28.34	6.81	3.24	4.20	69.75	6.76	43.20
4.287	28.34	6.81	3.55	4.20	65.85	6.59	43.20
4.360	28.34	6.81	3.28	4.20	60.96	6.62	43.20
4.444	28.34	6.81	3.28	4.21	56.61	6.36	43.20
4.520	28.34	6.81	3.20	4.22	54.34	6.44	43.20
4.575	28.34	6.81	3.24	4.21	52.93	6.58	43.20
4.610	28.34	6.81	3.51	4.23	51.96	6.37	43.20
4.637	28.34	6.81	3.51	4.23	51.15	6.29	43.20
4.658	28.34	6.81	3.93	4.25	50.59	6.58	43.20
4.676	28.34	6.81	3.55	4.25	49.54	6.46	43.21
4.720	28.34	6.81	3.62	4.25	46.73	5.95	43.21
4.808	28.34	6.82	3.28	4.27	43.04	4.06	43.21
4.911	28.34	6.82	3.59	4.32	39.76	6.11	43.21
5.008	28.34	6.82	3.40	4.34	37.48	6.50	43.22
5.076	28.34	6.82	3.20	4.35	36.44	6.56	43.23
5.110	28.35	6.82	3.62	4.34	35.99	6.42	43.23
5.138	28.35	6.82	3.36	4.32	34.84	6.44	43.23
5.154	28.35	6.82	3.43	4.30	35.23	6.43	43.23

5.162	28.35	6.82	3.51	4.28	35.29	6.28	43.23
5.177	28.35	6.82	3.47	4.25	33.95	6.27	43.23
5.255	28.35	6.82	3.59	4.22	30.72	6.37	43.23
5.374	28.35	6.82	3.36	4.23	28.02	6.43	43.25
5.495	28.35	6.83	3.36	4.24	26.02	6.46	43.27
5.573	28.36	6.83	2.98	4.25	25.64	6.46	43.32
5.607	28.37	6.84	3.01	4.27	25.32	6.44	43.33
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5.683	28.39	6.84	3.47	4.31	23.78	6.29	43.32
5.743	28.39	6.84	3.47	4.31	22.36	6.10	43.32
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5.911	28.40	6.84	3.59	4.27	20.03	6.22	43.33
5.984	28.40	6.84	3.32	4.25	19.15	6.18	43.33
6.044	28.40	6.84	3.01	4.23	18.61	6.09	43.33
6.085	28.40	6.84	3.40	4.19	18.35	6.08	43.33
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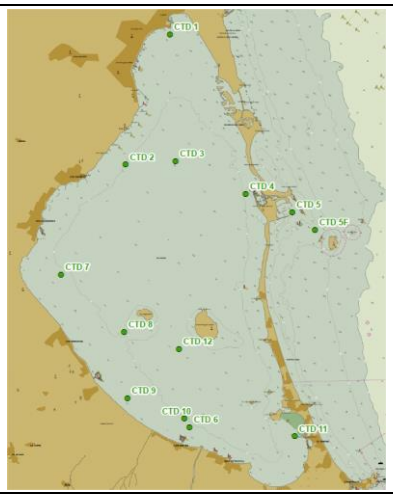
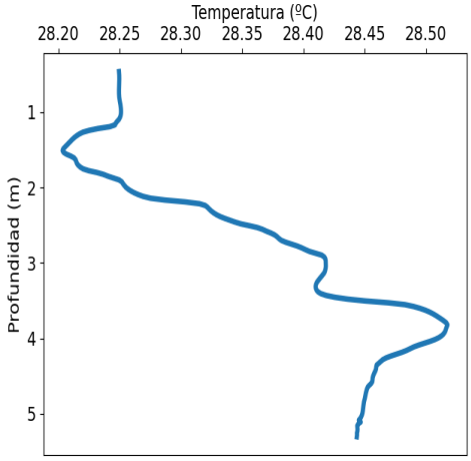
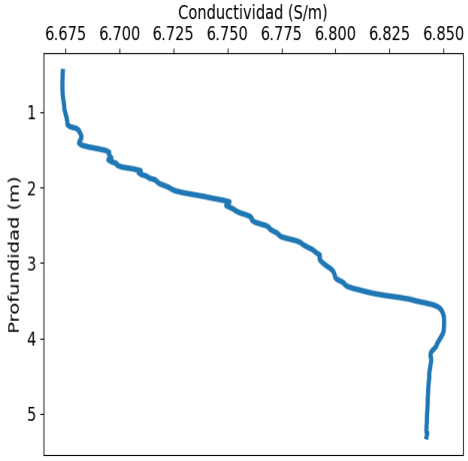
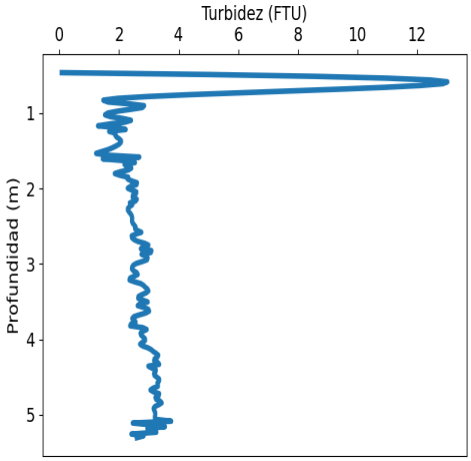
6.112	28.40	6.84	3.47	4.12	18.17	5.67	43.33
6.147	28.40	6.84	3.13	4.08	17.14	5.51	43.33
6.227	28.40	6.84	3.20	4.06	16.12	5.49	43.33
6.300	28.40	6.84	3.05	4.04	15.64	5.42	43.33
6.355	28.40	6.84	3.51	4.05	15.11	5.45	43.33
6.405	28.40	6.84	3.36	4.03	14.68	5.17	43.33
6.449	28.40	6.84	3.13	4.03	14.37	5.08	43.33
6.505	28.40	6.84	3.24	4.05	13.66	5.15	43.33
6.573	28.40	6.84	3.66	4.08	13.22	4.97	43.33
6.635	28.41	6.84	3.40	4.09	12.80	5.04	43.33
6.697	28.41	6.84	3.36	4.10	12.21	4.97	43.33
6.747	28.41	6.84	3.47	4.14	12.03	4.99	43.33
6.766	28.41	6.84	2.94	4.12	11.82	4.98	43.33
6.767	28.41	6.84	3.62	4.05	11.73	4.96	43.33
6.768	28.40	6.84	3.01	3.93	11.48	5.08	43.32
6.769	28.40	6.84	3.28	3.94	11.44	5.08	43.33

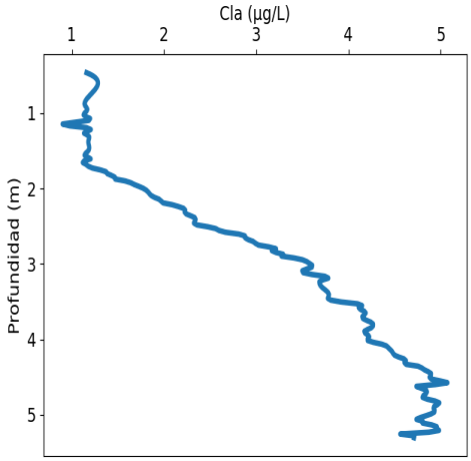
Nombre: CTD CTD4 - Punto 011 **Fecha: 12/08/2021** **Hora: 10:08:47**

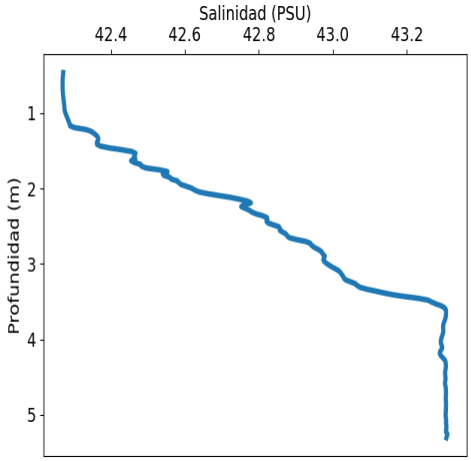


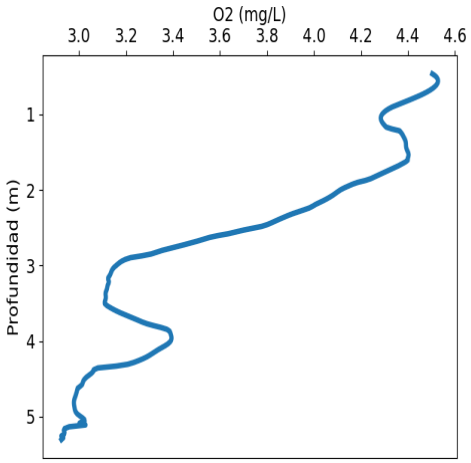


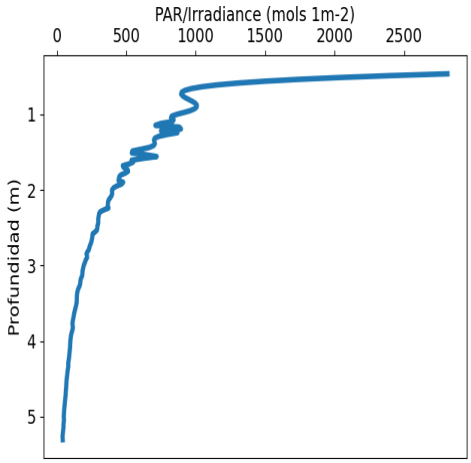


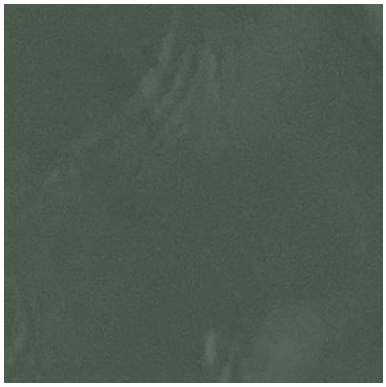












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp (°C)	Conductivity (S/m)	Turbidity (FTU)	Oxygen (mg/l)	PAR/Irradiance (mols-1m-2)	[Cla] (mg/m^3)	Salinity (PSU)
MÍNIMO	28.2	6.67	0.08	2.92	41.92	0.91	42.27
PROF (metros)	1.515	0.463	0.463	5.305	5.301	1.158	0.463
MÁXIMO	28.52	28.52	3.55	4.5	2812.0	5.02	43.31
PROF (metros)	3.782	3.572	5.145	0.463	0.463	4.591	3.637

DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD E01-Cast1	Temp (°C)	Conductivity (S/m)	Turbidity (FTU)	Oxygen (mg/l)	PAR/Irradiance (mols-1m-2)	[Cla] (mg/m3)	Salinity (PSU)
0 - 1m	28.25	6.67	1.63	4.38	1344.59	1.15	42.27
1 - 2m	28.23	6.69	2.07	4.32	620.34	1.26	42.44
2 - 3m	28.36	6.77	2.61	3.65	283.82	2.65	42.86
3 - 4m	28.46	6.83	2.67	3.19	143.12	3.93	43.19
4 - 5m	28.46	6.84	3.18	3.11	75.09	4.72	43.3
5 - 6m	28.44	6.84	3.14	2.97	46.57	4.8	43.31

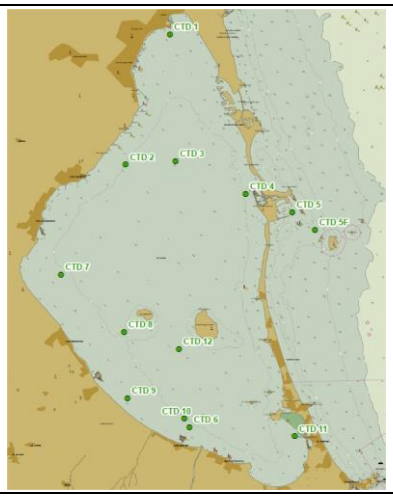
OBSERVACIONES GENERALES
HIPOXIA en la(s) columna(s) de agua 2 - 3m, 3 - 4m, 4 - 5m, 5 - 6m con los valores 3.65, 3.19, 3.11, 2.97 respectivamente. CLOROFILA elevada en la(s) columna(s) de agua 2 - 3m, 3 - 4m, 4 - 5m, 5 - 6m con los valores 2.65, 3.93, 4.72, 4.8 respectivamente

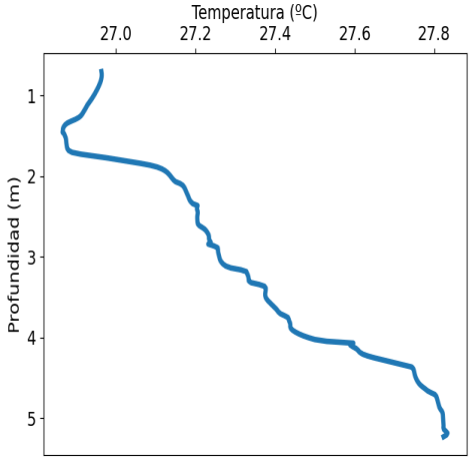
DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Depth (m)	Temp (°C)	Conductivity (S/m)	Turbidity (FTU)	Oxygen (mg/l)	PAR/Irradiance (mols-1m-2)	[Cla] (mg/m3)	Salinity (PSU)
0.463	28.25	6.67	0.08	4.50	2812.00	1.16	42.27
0.816	28.25	6.67	1.64	4.40	964.23	1.16	42.27
0.849	28.25	6.67	1.56	4.37	994.64	1.14	42.27
0.891	28.25	6.67	2.71	4.34	1009.50	1.14	42.27
0.961	28.25	6.67	2.17	4.30	942.57	1.17	42.27
1.041	28.25	6.68	1.64	4.28	819.44	1.14	42.28
1.101	28.25	6.68	2.40	4.29	818.49	1.16	42.28
1.158	28.25	6.68	1.41	4.30	776.18	0.91	42.29
1.192	28.24	6.68	1.91	4.33	908.89	1.16	42.30
1.205	28.24	6.68	2.67	4.35	693.49	1.18	42.32
1.224	28.23	6.68	1.83	4.37	827.26	1.21	42.34
1.248	28.22	6.68	1.75	4.37	850.20	1.15	42.35
1.290	28.22	6.68	1.87	4.38	735.03	1.17	42.36
1.360	28.21	6.68	2.06	4.39	702.71	1.18	42.37
1.449	28.21	6.68	1.83	4.39	640.20	1.19	42.38
1.515	28.20	6.69	1.37	4.40	554.76	1.17	42.46
1.563	28.21	6.70	1.83	4.40	713.88	1.14	42.46
1.586	28.21	6.70	2.63	4.40	600.25	1.18	42.46
1.603	28.21	6.70	1.56	4.40	541.80	1.21	42.47
1.636	28.21	6.69	2.40	4.39	550.41	1.12	42.45
1.676	28.21	6.70	2.21	4.36	478.39	1.15	42.48
1.725	28.22	6.70	2.40	4.33	505.99	1.21	42.49
1.773	28.22	6.71	2.10	4.29	498.31	1.36	42.55
1.810	28.23	6.71	1.87	4.27	453.14	1.39	42.54
1.846	28.24	6.71	2.29	4.25	448.85	1.47	42.56
1.875	28.25	6.71	2.29	4.22	444.92	1.47	42.56
1.897	28.25	6.72	2.40	4.19	477.07	1.57	42.58
1.935	28.25	6.72	2.63	4.16	448.23	1.66	42.58
1.989	28.25	6.72	2.29	4.12	400.20	1.76	42.62
2.049	28.26	6.73	2.59	4.09	399.18	1.83	42.64
2.113	28.27	6.74	2.44	4.06	380.92	1.89	42.72

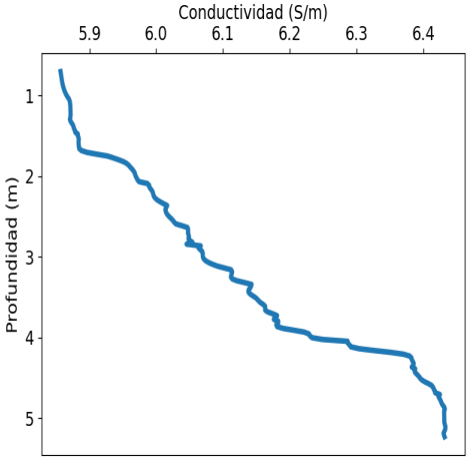
2.161	28.28	6.75	2.59	4.03	368.68	1.97	42.76
2.187	28.30	6.75	2.37	4.01	368.59	1.98	42.78
2.212	28.31	6.75	2.44	4.00	365.36	2.08	42.76
2.238	28.32	6.75	2.37	3.98	372.80	2.15	42.75
2.271	28.32	6.75	2.29	3.95	329.17	2.22	42.77
2.324	28.33	6.75	2.37	3.90	304.02	2.23	42.79
2.387	28.33	6.76	2.44	3.85	298.36	2.33	42.82
2.447	28.34	6.76	2.44	3.81	297.60	2.33	42.82
2.489	28.35	6.77	2.52	3.77	291.26	2.38	42.84
2.515	28.36	6.77	2.56	3.73	292.14	2.51	42.86
2.547	28.37	6.77	2.56	3.68	281.76	2.58	42.86
2.581	28.37	6.77	2.75	3.63	258.61	2.67	42.87
2.609	28.37	6.77	2.52	3.58	256.40	2.83	42.87
2.656	28.38	6.78	2.44	3.53	252.74	2.88	42.88
2.711	28.38	6.78	2.71	3.46	244.73	2.98	42.93
2.754	28.39	6.78	2.98	3.41	235.65	3.04	42.94
2.796	28.40	6.79	2.71	3.36	229.03	3.21	42.96
2.840	28.40	6.79	3.17	3.31	214.59	3.18	42.97
2.869	28.41	6.79	2.75	3.27	217.19	3.30	42.97
2.884	28.41	6.79	2.86	3.24	221.20	3.25	42.98
2.905	28.42	6.79	2.94	3.21	214.34	3.32	42.98
2.945	28.42	6.79	2.94	3.18	205.34	3.50	42.97
2.991	28.42	6.79	2.59	3.16	195.82	3.57	42.98
3.039	28.42	6.80	2.44	3.14	189.12	3.61	43.00
3.090	28.42	6.80	2.48	3.14	184.79	3.50	43.02
3.136	28.42	6.80	2.63	3.13	182.45	3.58	43.02
3.174	28.41	6.80	2.44	3.12	173.74	3.78	43.03
3.217	28.41	6.80	2.37	3.13	169.68	3.71	43.04
3.258	28.41	6.80	2.71	3.12	166.53	3.69	43.06
3.303	28.41	6.80	2.86	3.12	156.21	3.71	43.07
3.365	28.41	6.81	2.98	3.11	146.97	3.77	43.12
3.426	28.42	6.82	2.67	3.11	144.51	3.79	43.18
3.475	28.43	6.83	2.75	3.11	143.94	3.80	43.25
3.511	28.46	6.84	2.94	3.11	141.19	3.97	43.27
3.535	28.47	6.84	2.63	3.12	138.47	4.13	43.28
3.572	28.49	6.85	2.79	3.14	132.91	4.12	43.30
3.637	28.50	6.85	2.98	3.18	124.99	4.18	43.31
3.715	28.51	6.85	2.44	3.24	117.71	4.15	43.30
3.782	28.52	6.85	2.52	3.30	113.19	4.26	43.30
3.820	28.52	6.85	2.37	3.35	116.03	4.27	43.30
3.847	28.52	6.85	2.82	3.38	113.68	4.25	43.30
3.896	28.52	6.85	2.79	3.39	106.17	4.17	43.30
3.961	28.51	6.85	2.79	3.39	100.08	4.23	43.30
4.021	28.51	6.85	2.86	3.38	97.22	4.22	43.29
4.070	28.50	6.85	2.71	3.36	96.30	4.38	43.29
4.114	28.49	6.85	2.98	3.34	94.18	4.43	43.30
4.167	28.48	6.84	3.17	3.31	91.66	4.48	43.29
4.222	28.47	6.84	3.32	3.28	88.33	4.52	43.29
4.270	28.47	6.84	3.17	3.24	84.46	4.62	43.30
4.310	28.46	6.84	3.32	3.20	82.58	4.60	43.31
4.331	28.46	6.84	3.36	3.16	83.62	4.62	43.31
4.345	28.46	6.84	3.09	3.11	82.28	4.70	43.31
4.389	28.46	6.84	3.17	3.06	78.61	4.80	43.30
4.463	28.46	6.84	3.17	3.04	74.08	4.90	43.30
4.538	28.46	6.84	3.36	3.02	69.66	4.93	43.30
4.591	28.46	6.84	3.28	3.01	68.46	5.02	43.30
4.619	28.45	6.84	3.32	3.00	67.64	4.75	43.30
4.650	28.45	6.84	3.13	2.99	65.92	4.79	43.31

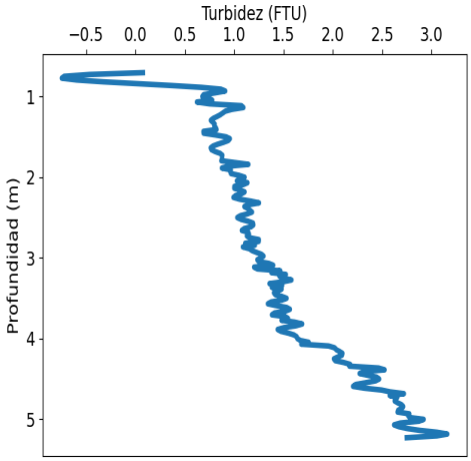
4.687	28.45	6.84	3.09	2.99	65.06	4.85	43.31
4.724	28.45	6.84	3.36	2.98	63.38	4.84	43.31
4.778	28.45	6.84	3.20	2.98	60.05	4.81	43.31
4.837	28.45	6.84	3.43	2.98	57.35	4.98	43.31
4.891	28.45	6.84	3.20	2.98	54.30	4.93	43.31
4.960	28.45	6.84	3.20	2.99	51.78	4.93	43.31
5.024	28.45	6.84	3.20	3.02	51.04	4.81	43.31
5.054	28.45	6.84	3.20	3.02	51.78	4.75	43.31
5.069	28.45	6.84	3.32	3.02	50.49	4.74	43.31
5.101	28.45	6.84	3.32	3.01	48.71	4.84	43.31
5.121	28.45	6.84	2.94	3.00	48.72	4.75	43.31
5.123	28.44	6.84	3.32	2.98	48.91	4.75	43.31
5.128	28.44	6.84	3.20	2.96	48.95	4.82	43.31
5.145	28.44	6.84	3.55	2.95	48.34	4.95	43.31
5.173	28.44	6.84	3.09	2.93	46.38	4.95	43.31
5.236	28.44	6.84	3.17	2.93	43.11	4.83	43.31
5.285	28.44	6.84	3.28	2.94	42.85	4.86	43.31
5.300	28.44	6.84	3.13	2.93	42.36	4.86	43.31
5.301	28.44	6.84	2.82	2.93	41.92	4.76	43.31
5.304	28.44	6.84	2.90	2.93	42.07	4.67	43.31
5.305	28.44	6.84	2.59	2.92	42.89	4.71	43.31

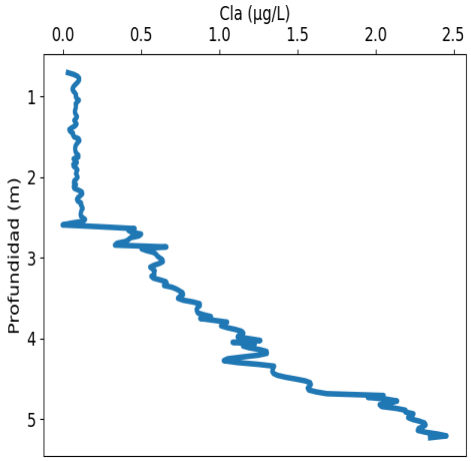
Nombre: CTD CTD5 - Punto 012 **Fecha: 12/08/2021** **Hora: 10:08:28**

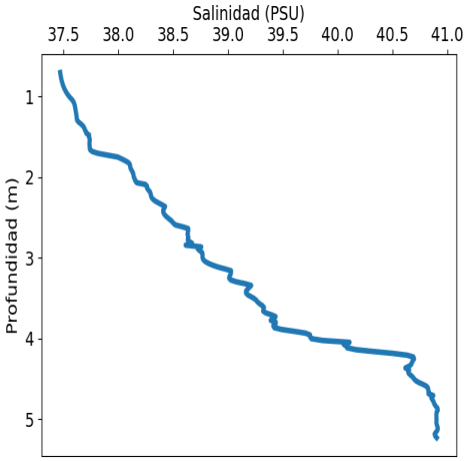


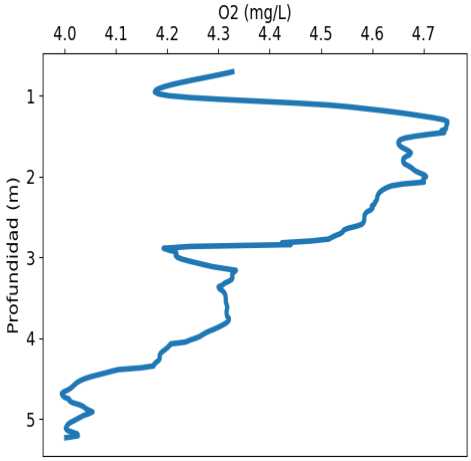


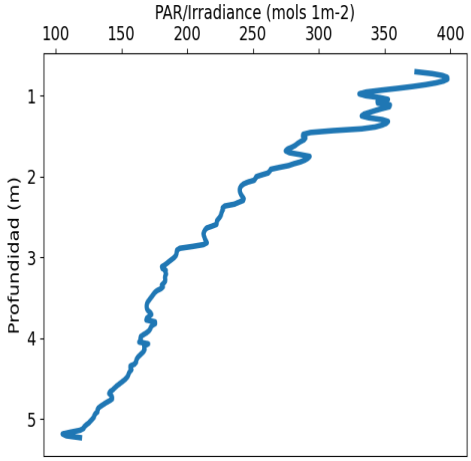












VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp (°C)	Conductivity (S/m)	Turbidity (FTU)	Oxygen (mg/l)	PAR/Irradiance (mols-1m-2)	[Cla] (mg/m^3)	Salinity (PSU)
MÍNIMO	26.87	5.86	0.08	3.99	115.84	0.03	37.47
PROF (metros)	1.375	0.702	0.702	4.683	5.219	0.702	0.702
MÁXIMO	27.83	27.83	2.94	4.75	381.63	2.46	40.91
PROF (metros)	5.142	4.782	5.01	1.333	0.86	5.219	4.884

DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD E01-Cast1	Temp (°C)	Conductivity (S/m)	Turbidity (FTU)	Oxygen (mg/l)	PAR/Irradiance (mols-1m-2)	[Cla] (mg/m3)	Salinity (PSU)
0 - 1m	26.96	5.86	0.51	4.22	359.32	0.06	37.51
1 - 2m	26.93	5.9	0.85	4.64	308.07	0.08	37.78
2 - 3m	27.21	6.03	1.13	4.52	223.15	0.27	38.49
3 - 4m	27.38	6.15	1.46	4.31	176.4	0.79	39.24
4 - 5m	27.73	6.39	2.37	4.09	149.96	1.61	40.65
5 - 6m	27.82	6.43	2.73	4.01	119.87	2.36	40.9

OBSERVACIONES GENERALES
CLOROFILA elevada en la(s) columna(s) de agua 5 - 6m con los valores 2.36 respectivamente

DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Depth (m)	Temp (°C)	Conductivity (S/m)	Turbidity (FTU)	Oxygen (mg/l)	PAR/Irradiance (mols-1m-2)	[Cla] (mg/m3)	Salinity (PSU)
0.702	26.96	5.86	0.08	4.33	374.27	0.03	37.47
0.860	26.96	5.86	0.34	4.21	381.63	0.07	37.50
0.924	26.95	5.86	0.92	4.18	350.51	0.06	37.52
0.976	26.95	5.86	0.69	4.18	330.86	0.08	37.54
1.015	26.94	5.87	0.72	4.23	343.59	0.08	37.56
1.047	26.94	5.87	0.76	4.32	352.30	0.10	37.58
1.076	26.93	5.87	0.61	4.41	342.08	0.08	37.59
1.107	26.93	5.87	1.03	4.50	352.96	0.08	37.60
1.154	26.92	5.87	0.99	4.58	348.89	0.08	37.61
1.209	26.92	5.87	0.88	4.65	337.75	0.08	37.62
1.261	26.91	5.87	0.80	4.71	334.63	0.09	37.62
1.300	26.89	5.87	0.76	4.74	350.43	0.07	37.63
1.333	26.88	5.87	0.80	4.75	351.98	0.08	37.65
1.375	26.87	5.88	0.80	4.74	345.35	0.06	37.68
1.421	26.87	5.88	0.76	4.74	321.03	0.04	37.70
1.455	26.87	5.88	0.72	4.74	294.11	0.06	37.71
1.466	26.87	5.88	0.88	4.75	295.54	0.06	37.71
1.469	26.87	5.88	0.84	4.73	292.41	0.06	37.72
1.481	26.87	5.88	0.84	4.70	287.30	0.06	37.73
1.516	26.87	5.88	0.95	4.67	289.71	0.09	37.74
1.572	26.87	5.88	0.88	4.65	285.44	0.09	37.74
1.630	26.88	5.88	0.76	4.66	280.33	0.08	37.74
1.678	26.88	5.89	0.80	4.67	274.86	0.08	37.76
1.717	26.90	5.90	0.88	4.68	282.09	0.09	37.87
1.746	26.94	5.93	0.88	4.67	292.75	0.10	37.99
1.774	26.98	5.94	0.88	4.66	291.46	0.06	38.03
1.807	27.02	5.95	0.92	4.66	287.97	0.09	38.08
1.840	27.06	5.96	1.14	4.66	281.04	0.06	38.10
1.870	27.09	5.96	0.88	4.67	275.18	0.07	38.11
1.903	27.11	5.96	0.95	4.68	264.42	0.09	38.12
1.947	27.13	5.97	0.95	4.69	262.35	0.08	38.13
2.001	27.14	5.97	1.11	4.71	252.39	0.09	38.14
2.046	27.14	5.97	1.03	4.70	250.70	0.07	38.15
2.071	27.15	5.98	1.14	4.70	245.29	0.07	38.18
2.087	27.16	5.99	1.11	4.67	243.14	0.08	38.24

2.117	27.17	5.99	0.99	4.64	240.96	0.06	38.26
2.180	27.18	5.99	1.11	4.62	240.01	0.12	38.29
2.250	27.18	6.00	0.99	4.61	242.13	0.09	38.30
2.307	27.19	6.00	1.22	4.61	241.07	0.10	38.35
2.343	27.19	6.01	1.11	4.61	235.87	0.11	38.40
2.357	27.20	6.01	0.99	4.60	233.32	0.09	38.42
2.361	27.20	6.02	1.07	4.60	229.93	0.11	38.42
2.380	27.20	6.02	1.14	4.60	226.50	0.13	38.42
2.427	27.20	6.01	1.18	4.59	226.55	0.11	38.41
2.495	27.20	6.02	1.03	4.58	225.08	0.12	38.44
2.562	27.20	6.03	1.18	4.58	222.39	0.08	38.50
2.604	27.21	6.03	1.18	4.57	220.74	0.09	38.55
2.625	27.21	6.04	1.14	4.56	216.09	0.41	38.62
2.648	27.22	6.05	1.07	4.55	214.04	0.43	38.64
2.682	27.23	6.05	1.14	4.54	212.81	0.44	38.63
2.710	27.23	6.05	1.14	4.54	212.36	0.50	38.63
2.746	27.23	6.05	1.14	4.52	213.05	0.44	38.64
2.793	27.23	6.05	1.26	4.49	214.19	0.40	38.64
2.835	27.23	6.05	1.14	4.43	213.50	0.32	38.64
2.854	27.23	6.05	1.18	4.36	208.56	0.53	38.65
2.857	27.24	6.06	1.11	4.30	207.50	0.62	38.69
2.866	27.25	6.07	1.11	4.24	202.65	0.64	38.77
2.877	27.25	6.07	1.14	4.21	197.23	0.54	38.74
2.911	27.26	6.07	1.18	4.21	192.22	0.54	38.74
2.981	27.26	6.07	1.30	4.22	191.20	0.60	38.77
3.049	27.26	6.07	1.26	4.25	186.30	0.64	38.80
3.102	27.27	6.09	1.33	4.28	182.03	0.57	38.88
3.136	27.29	6.10	1.22	4.31	181.10	0.57	38.97
3.154	27.31	6.11	1.56	4.33	184.06	0.59	39.02
3.165	27.32	6.11	1.33	4.33	183.21	0.57	39.03
3.188	27.33	6.11	1.45	4.33	183.81	0.59	39.03
3.233	27.33	6.11	1.45	4.33	183.17	0.56	39.01
3.286	27.33	6.12	1.56	4.32	183.38	0.64	39.05
3.324	27.34	6.14	1.37	4.31	181.69	0.66	39.17
3.341	27.36	6.14	1.49	4.31	180.68	0.64	39.21
3.355	27.37	6.14	1.37	4.30	181.35	0.68	39.20
3.375	27.38	6.14	1.45	4.30	181.19	0.71	39.19
3.405	27.38	6.14	1.45	4.31	177.65	0.74	39.17
3.453	27.38	6.14	1.41	4.31	174.47	0.77	39.17
3.510	27.38	6.15	1.53	4.31	171.86	0.74	39.24
3.562	27.39	6.16	1.33	4.31	169.68	0.87	39.28
3.613	27.40	6.16	1.53	4.32	169.21	0.86	39.33
3.667	27.41	6.16	1.49	4.32	170.75	0.86	39.32
3.703	27.41	6.17	1.37	4.32	172.82	0.89	39.39
3.730	27.42	6.18	1.53	4.32	170.91	0.94	39.43
3.758	27.43	6.18	1.53	4.32	168.94	0.87	39.39
3.780	27.43	6.18	1.49	4.32	170.08	1.00	39.40
3.795	27.44	6.18	1.60	4.32	175.20	1.05	39.43
3.828	27.44	6.18	1.68	4.31	174.47	1.01	39.42
3.879	27.44	6.19	1.45	4.29	172.06	1.08	39.46
3.938	27.45	6.22	1.56	4.27	168.55	1.15	39.72
3.996	27.48	6.23	1.64	4.26	164.30	1.16	39.75
4.033	27.51	6.26	1.72	4.24	164.00	1.21	39.96
4.050	27.54	6.29	1.72	4.23	164.88	1.10	40.11
4.056	27.58	6.29	1.60	4.22	168.98	1.20	40.07
4.074	27.59	6.29	1.75	4.21	169.45	1.20	40.06
4.125	27.60	6.30	2.02	4.20	167.61	1.22	40.11
4.201	27.62	6.37	2.10	4.19	164.57	1.27	40.61

4.274	27.67	6.38	2.02	4.18	161.29	1.03	40.68
4.324	27.71	6.39	2.17	4.17	159.50	1.27	40.67
4.353	27.73	6.38	2.25	4.17	156.17	1.36	40.63
4.364	27.74	6.38	2.44	4.15	156.72	1.35	40.61
4.375	27.75	6.39	2.56	4.13	157.59	1.34	40.64
4.409	27.75	6.39	2.33	4.09	156.57	1.34	40.64
4.467	27.75	6.39	2.40	4.06	154.91	1.39	40.68
4.533	27.76	6.40	2.40	4.03	151.01	1.56	40.72
4.597	27.77	6.41	2.21	4.02	145.99	1.57	40.81
4.651	27.78	6.42	2.56	4.00	142.34	1.59	40.83
4.683	27.79	6.42	2.71	3.99	140.61	1.68	40.83
4.692	27.80	6.42	2.79	4.00	141.33	1.76	40.83
4.701	27.80	6.42	2.63	4.00	142.01	1.99	40.86
4.723	27.80	6.42	2.63	4.00	142.74	1.96	40.86
4.750	27.81	6.42	2.63	4.01	143.01	2.06	40.86
4.782	27.81	6.43	2.63	4.01	139.99	2.14	40.87
4.831	27.81	6.43	2.71	4.03	135.17	2.02	40.89
4.884	27.82	6.43	2.67	4.04	131.77	2.19	40.91
4.916	27.82	6.43	2.67	4.05	131.62	2.20	40.90
4.937	27.82	6.43	2.79	4.04	129.95	2.25	40.90
4.972	27.82	6.43	2.75	4.03	129.26	2.21	40.90
5.010	27.82	6.43	2.94	4.02	127.30	2.25	40.90
5.050	27.82	6.43	2.67	4.01	125.08	2.32	40.90
5.094	27.82	6.43	2.67	4.00	121.84	2.30	40.91
5.142	27.82	6.43	2.90	4.01	117.84	2.27	40.91
5.219	27.83	6.43	2.86	4.02	115.84	2.46	40.90
5.220	27.82	6.43	2.82	4.02	116.67	2.46	40.90
5.223	27.82	6.43	2.44	4.01	117.60	2.43	40.90
5.227	27.82	6.43	2.56	4.01	118.17	2.35	40.90
5.230	27.82	6.43	2.75	4.00	118.53	2.35	40.90

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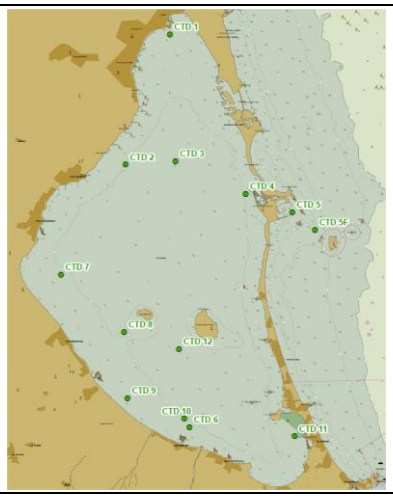

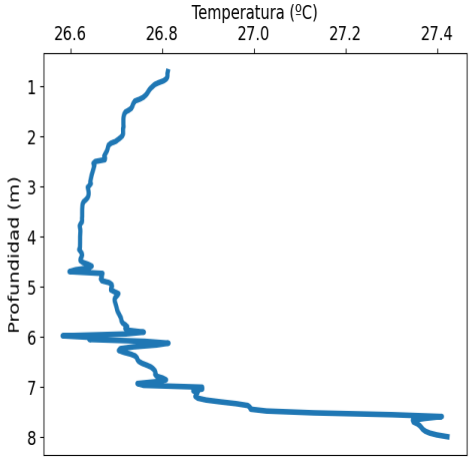

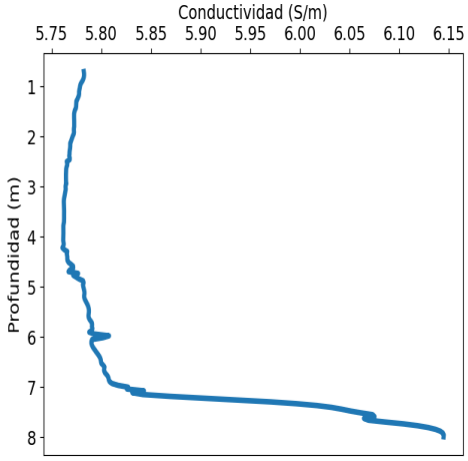

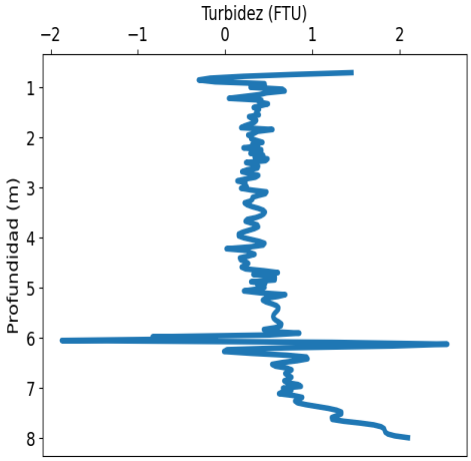

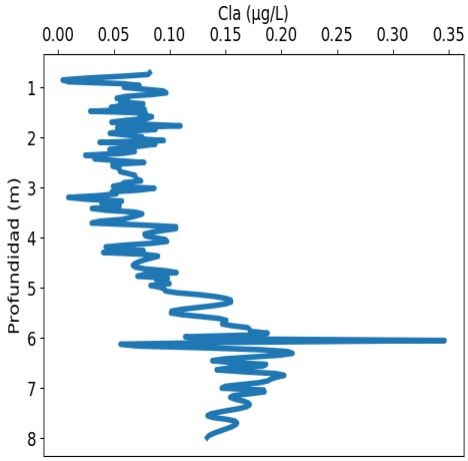

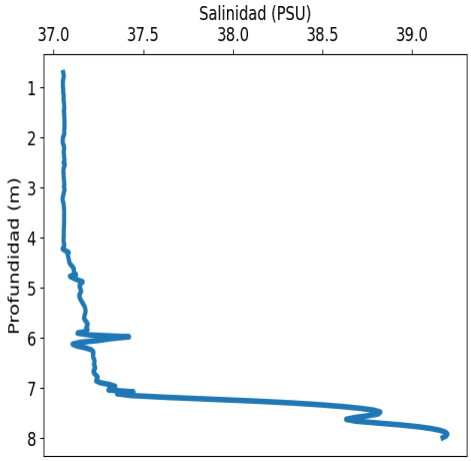

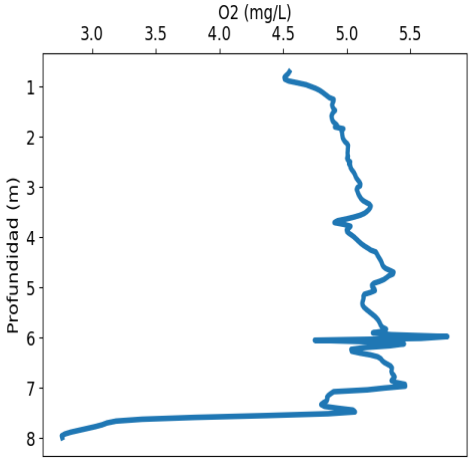

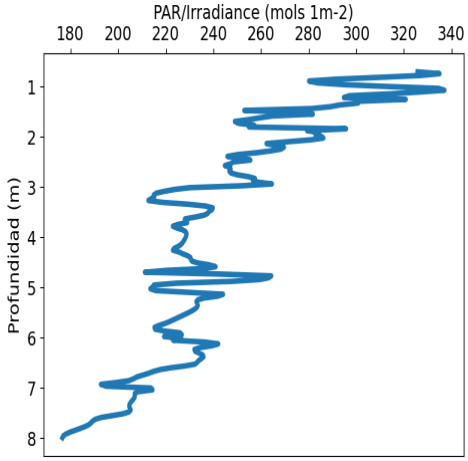

VALORACIÓN PRELIMINAR DE DATOS: NIVELES MÍNIMOS Y MÁXIMOS PARA CADA VARIABLE							
	Temp (°C)	Conductivity (S/m)	Turbidity (FTU)	Oxygen (mg/l)	PAR/Irradiance (mols-1m-2)	[Cla] (mg/m^3)	Salinity (PSU)
MÍNIMO	26.62	5.76	0.15	2.77	176.58	0.01	37.05
PROF (metros)	3.757	2.672	0.78	7.995	7.995	1.483	0.702
MÁXIMO	27.42	27.42	2.1	5.41	335.96	0.2	39.17
PROF (metros)	7.995	7.856	7.995	6.985	1.036	6.082	7.995

DATOS MEDIOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
CTD E01-Cast1	Temp (°C)	Conductivity (S/m)	Turbidity (FTU)	Oxygen (mg/l)	PAR/Irradiance (mols-1m-2)	[Cla] (mg/m3)	Salinity (PSU)
0 - 1m	26.8	5.78	0.55	4.6	304.38	0.06	37.05
1 - 2m	26.73	5.77	0.37	4.9	286.81	0.07	37.06
2 - 3m	26.67	5.77	0.32	5.03	257.34	0.06	37.06
3 - 4m	26.63	5.76	0.31	5.08	226.19	0.06	37.06
4 - 5m	26.65	5.77	0.36	5.25	232.98	0.08	37.11
5 - 6m	26.71	5.79	0.55	5.22	227.04	0.14	37.17
6 - 7m	26.76	5.8	0.69	5.29	223.73	0.17	37.22
7 - 8m	27.09	5.97	1.1	4.33	200.61	0.16	38.17

OBSERVACIONES GENERALES

DATOS DETALLADOS PARA CADA VARIABLE EN TODA LA COLUMNA DE AGUA							
Depth (m)	Temp (°C)	Conductivity (S/m)	Turbidity (FTU)	Oxygen (mg/l)	PAR/Irradiance (mols-1m-2)	[Cla] (mg/m3)	Salinity (PSU)
0.702	26.81	5.78	1.45	4.55	325.76	0.08	37.05
0.780	26.81	5.78	0.15	4.52	325.15	0.05	37.06
0.912	26.80	5.78	0.27	4.59	280.91	0.04	37.05
0.934	26.79	5.78	0.61	4.64	287.77	0.07	37.05
0.976	26.78	5.78	0.27	4.70	302.33	0.06	37.05
1.036	26.77	5.78	0.69	4.76	335.96	0.08	37.05
1.109	26.77	5.78	0.46	4.81	325.08	0.10	37.05
1.177	26.76	5.78	0.23	4.84	297.95	0.06	37.06
1.225	26.76	5.78	0.23	4.87	311.51	0.06	37.06
1.248	26.75	5.78	0.57	4.89	334.94	0.07	37.06
1.256	26.75	5.78	0.23	4.91	303.59	0.05	37.06
1.275	26.74	5.78	0.23	4.90	293.83	0.05	37.06
1.320	26.74	5.77	0.50	4.89	301.70	0.08	37.06
1.371	26.74	5.77	0.38	4.88	291.73	0.05	37.06
1.421	26.73	5.77	0.34	4.89	285.51	0.06	37.06
1.460	26.73	5.77	0.42	4.90	264.30	0.07	37.06
1.483	26.72	5.77	0.30	4.91	248.56	0.01	37.06
1.499	26.72	5.77	0.30	4.90	262.77	0.07	37.06
1.521	26.72	5.77	0.42	4.89	283.60	0.07	37.06
1.564	26.72	5.77	0.30	4.88	271.63	0.08	37.06
1.635	26.72	5.77	0.34	4.88	257.95	0.07	37.06
1.717	26.72	5.77	0.30	4.90	248.79	0.06	37.06
1.782	26.72	5.77	0.19	4.92	256.52	0.10	37.06
1.820	26.72	5.77	0.38	4.94	276.14	0.05	37.06
1.828	26.72	5.77	0.53	4.96	293.76	0.08	37.06
1.847	26.71	5.77	0.46	4.97	286.84	0.08	37.06
1.890	26.71	5.77	0.38	4.96	282.81	0.05	37.06
1.937	26.72	5.77	0.27	4.96	282.81	0.05	37.06
1.985	26.71	5.77	0.30	4.97	285.24	0.08	37.05
2.034	26.71	5.77	0.30	4.97	285.24	0.07	37.05
2.079	26.70	5.77	0.42	4.98	275.56	0.08	37.05
2.111	26.70	5.77	0.38	4.99	267.01	0.02	37.05
2.129	26.69	5.77	0.30	5.00	262.53	0.08	37.05
2.149	26.69	5.77	0.42	5.01	263.08	0.07	37.06

2.179	26.68	5.77	0.30	5.01	267.26	0.08	37.06
2.215	26.68	5.77	0.23	5.01	269.94	0.05	37.06
2.260	26.68	5.77	0.50	5.01	266.33	0.06	37.06
2.309	26.68	5.77	0.27	5.01	259.21	0.06	37.06
2.343	26.68	5.77	0.46	5.01	252.21	0.02	37.06
2.368	26.68	5.77	0.34	5.01	246.95	0.04	37.06
2.408	26.67	5.77	0.42	5.01	248.04	0.03	37.06
2.467	26.67	5.77	0.42	5.01	254.38	0.06	37.06
2.495	26.66	5.77	0.23	5.03	247.81	0.08	37.06
2.503	26.65	5.77	0.27	5.02	249.71	0.07	37.06
2.540	26.65	5.77	0.34	5.02	246.21	0.05	37.06
2.603	26.65	5.77	0.38	5.03	246.83	0.05	37.06
2.672	26.65	5.76	0.19	5.05	246.78	0.05	37.06
2.753	26.65	5.76	0.38	5.06	249.88	0.07	37.06
2.828	26.64	5.76	0.23	5.08	257.47	0.07	37.06
2.879	26.64	5.76	0.15	5.09	256.64	0.07	37.06
2.916	26.64	5.76	0.27	5.10	261.14	0.05	37.06
2.964	26.64	5.76	0.19	5.11	259.03	0.06	37.06
2.993	26.64	5.76	0.30	5.10	236.91	0.05	37.06
3.009	26.64	5.76	0.19	5.08	230.52	0.08	37.06
3.059	26.64	5.76	0.38	5.08	222.23	0.06	37.06
3.139	26.64	5.76	0.42	5.09	215.14	0.05	37.06
3.215	26.64	5.76	0.30	5.11	214.79	0.01	37.05
3.261	26.63	5.76	0.30	5.12	212.61	0.06	37.05
3.289	26.63	5.76	0.23	5.14	214.79	0.05	37.05
3.314	26.63	5.76	0.23	5.16	221.46	0.04	37.06
3.354	26.63	5.76	0.27	5.18	232.51	0.06	37.06
3.413	26.63	5.76	0.38	5.18	239.73	0.03	37.06
3.484	26.63	5.76	0.46	5.16	238.23	0.07	37.06
3.551	26.63	5.76	0.42	5.12	236.69	0.07	37.06
3.601	26.63	5.76	0.34	5.05	231.86	0.06	37.06
3.648	26.63	5.76	0.23	4.97	227.34	0.05	37.06
3.708	26.63	5.76	0.30	4.90	228.98	0.03	37.06
3.757	26.62	5.76	0.38	5.01	223.68	0.09	37.06
3.835	26.62	5.76	0.30	5.01	226.08	0.10	37.06
3.960	26.62	5.76	0.15	5.04	228.66	0.08	37.06
4.087	26.62	5.76	0.42	5.10	227.34	0.09	37.06
4.191	26.62	5.76	0.23	5.15	224.87	0.04	37.06
4.251	26.62	5.76	0.15	5.19	222.90	0.07	37.06
4.277	26.62	5.77	0.50	5.21	223.99	0.08	37.08
4.291	26.62	5.77	0.30	5.23	225.34	0.04	37.09
4.316	26.62	5.77	0.30	5.24	226.50	0.06	37.08
4.390	26.63	5.77	0.19	5.25	230.09	0.09	37.08
4.512	26.63	5.77	0.27	5.28	233.32	0.07	37.09
4.639	26.63	5.77	0.30	5.32	230.90	0.09	37.11
4.722	26.64	5.77	0.46	5.37	227.44	0.09	37.12
4.737	26.68	5.78	0.30	5.36	247.06	0.07	37.12
4.754	26.68	5.77	0.46	5.34	259.81	0.06	37.10
4.804	26.67	5.77	0.57	5.31	263.45	0.10	37.11
4.858	26.67	5.78	0.50	5.28	256.04	0.09	37.15
4.893	26.67	5.78	0.27	5.24	240.01	0.10	37.17
4.916	26.68	5.78	0.46	5.21	224.51	0.10	37.15
4.947	26.69	5.78	0.38	5.20	215.49	0.08	37.15
4.994	26.69	5.78	0.46	5.20	214.59	0.09	37.15
5.085	26.69	5.78	0.27	5.21	222.34	0.10	37.15
5.126	26.70	5.78	0.65	5.15	241.79	0.12	37.15
5.188	26.70	5.78	0.53	5.13	239.34	0.14	37.15
5.341	26.70	5.79	0.57	5.12	233.42	0.14	37.17

5.502	26.70	5.79	0.57	5.19	229.61	0.10	37.18
5.637	26.71	5.79	0.57	5.24	223.58	0.15	37.17
5.738	26.72	5.79	0.65	5.26	218.50	0.15	37.19
5.809	26.72	5.79	0.53	5.29	214.99	0.17	37.18
5.871	26.73	5.79	0.50	5.29	219.57	0.17	37.18
5.939	26.73	5.79	0.61	5.31	227.28	0.18	37.18
6.024	26.73	5.79	0.69	5.34	232.61	0.15	37.20
6.027	26.75	5.79	0.76	5.22	233.91	0.17	37.16
6.028	26.74	5.79	0.53	5.18	232.99	0.19	37.17
6.082	26.74	5.79	0.61	5.14	233.75	0.20	37.17
6.202	26.73	5.79	0.61	5.13	234.13	0.14	37.18
6.357	26.74	5.80	0.80	5.21	235.82	0.19	37.22
6.478	26.75	5.80	0.72	5.28	233.37	0.14	37.23
6.548	26.76	5.80	0.53	5.33	230.68	0.19	37.23
6.585	26.77	5.80	0.65	5.35	224.82	0.17	37.23
6.638	26.78	5.80	0.76	5.35	217.64	0.14	37.23
6.716	26.79	5.80	0.69	5.36	212.51	0.20	37.23
6.793	26.79	5.81	0.76	5.38	207.45	0.19	37.25
6.886	26.80	5.81	0.69	5.37	201.06	0.18	37.25
6.985	26.80	5.82	0.80	5.41	201.52	0.14	37.34
7.015	26.91	5.83	0.65	5.25	217.44	0.16	37.31
7.042	26.89	5.83	0.76	5.16	214.49	0.18	37.31
7.063	26.87	5.83	0.61	5.05	210.79	0.15	37.35
7.073	26.87	5.84	0.65	4.94	209.09	0.18	37.43
7.099	26.87	5.84	0.61	4.87	207.21	0.18	37.39
7.164	26.87	5.85	0.84	4.85	207.02	0.16	37.49
7.262	26.90	5.94	0.80	4.84	205.77	0.17	38.12
7.385	26.99	6.02	1.11	4.85	204.73	0.17	38.65
7.516	27.12	6.06	1.33	4.88	202.32	0.14	38.81
7.593	27.41	6.07	1.22	3.79	192.89	0.14	38.68
7.625	27.38	6.07	1.22	3.42	190.58	0.15	38.63
7.721	27.35	6.10	1.64	3.10	188.16	0.16	38.88
7.856	27.37	6.14	1.83	2.88	181.44	0.15	39.16
7.995	27.42	6.14	2.10	2.77	176.58	0.13	39.17