

2147 / 31 - 1

ULUSAL DENİZ ÖLÇME VE İZLEME PROGRAMI

MARMARA DENİZİ ALT PROJESİ

1990 YILLIK RAPORU

Proje No: DEBÇAG-87/G

Destekleyen Kuruluş

TÜBİTAK DENİZ BİLİMLERİ
VE
ÇEVRE ARASTIRMALARI GRUBU

ÖNSÖZ

Ulusal Deniz Ölçüm ve İzleme Programı-Marmara Denizi Alt Projesi (DEBÇAG-87/G) çerçevesinde Türk Boğazlar Sistemi'ni oluşturan Marmara Denizi ve Boğazlarında 1990 yılı içerisinde mevsimsel bazda ölçülen temel oşinografik ve biyokimyasal parametrelerin değişimleri bu rapor kapsamında sunulmuştur.

Ülkemizi çevreleyen denizlerimizle ilgili temel oşinografik bulguların eksiksliği, uluslararası platformlarda ülkemiz çatıkarlarının korunabilmesini ve gelecek kuşaklara sağlıklı ve güvenilir bilgi aktarımını sağlayacak bu Ölçüm ve İzleme Programı'nın gerçekleştirmesine önyayak olan ve gerekli koordinasyonu sağlayan T.C. Başbakanlık Devlet Planlama Teşkilatı (DPT), Türkiye Bilimsel ve Teknik Araştırma Kurumu-Deniz Bilimleri ve Çevre Araştırmaları Grubu (TÜBITAK-DEBÇAG) ile Seyir, Hidrografi ve Oşinografi Hizmetleri Plan Koordinasyon Kurulu'na teşekkürü bir borç biliriz.

Ayrıca, söz konusu saha çalışmalarının ve ölçümlerin sağlıkçı ve düzenli olarak yapılması, verilerin toplanmasında büyük özeri ile katkılarında bulunmuş tüm ODTÜ-Deniz Bilimleri Enstitüsü personeline ve R/V Bilim Gemisi personeline çalışmalarından dolayı teşekkür ederiz.

İÇİNDEKİLER

	<u>Sayfa No</u>
ÖNSÖZ.....	1
İÇİNDEKİLER.....	11
I. Giriş.....	1
II. 1990 DÖNEMİ BULGULARIN DEĞERLENDİRİLMESİ	2
II.1. Biyokimyasal ve Fiziksel Bulgular.....	2
II.2. Kırletici Parametreler.....	3
ÇİZELGELER.....	4
ŞEKİLLER.....	86

I. Giriş

Türkiye Bilimsel ve Teknik Araştırma Kurumu' nun (TÜBİTAK) desteği ile 1987 yılında filen başlayan "Ulusal Deniz Ölçüm ve İzleme Programı kapsamında denizlerimize yönelik osinografik bulguların toplanmasına başlanılmış olup, bu programın bir alt projesi olan Marmara Denizi Alt Projesi (DEBÇAG-87/G) kapsamında Marmara Denizi ve Boğazlarının dinamигini kontrol eden etkenlerin belirlenmesi, Marmara'yu çevreleyen koy ve körfezlerin mevcut kirlilik durumlarının tespiti ve bu denizimizin biyokimyasal karakterlerinin bilimsel bazda tanımlanması yönünde, 1990 yılı içinde toplam 3 saha çalışması yapılmıştır. Bu saha çalışmaları birincisi Mart, ikincisi Mayıs, üçüncü ise Temmuz, 1990 döneminde ODTÜ-DBE'ne ait R/V Bilim gemisiyle yapılmıştır.

Bu çalışmalar, biyokimyasal parametreler olarak besin tuzlarından orte-fosfat ($\text{o-PO}_4-\text{F}$), Toplam Oksitlenmiş Azot ($\text{TN}_{\text{ox}}-\text{N}$), molibdat reaktif Silikat ($\text{Si(OH)}_{\text{x}}-\text{Si}$), suda çözülmüş halde bulunan organik maddeler (DOC) ve klorofil-a (CHLL-a); kırleticili parametreler olarak ta Hümik Maddeler (HM), Toplam Askida Katı Maddeler (TAK) ve suda Toplam Civa (Hg_{w}) ölçümüleri yapılmıştır. Çözülmüş/disperse olmuş petrol hidrokarbonlarının örneklemesi yapılmış fakat analizde kullanılan cihazın arızası nedeniyle ölçümler gerçekleştirilememiştir. Bu nedenle PAH değerleri bu rapor kapsamına alınmamıştır. Bu

Çizelge-1, Çizelge-2 ve Çizelge-3'te; ölçümlerin yapıldığı istasyonların yer ve kod numaraları ise Şekil-1, Şekil-2 ve Şekil-3'te gösterilmiştir. Biyokimyasal parametrelerin yanısıra aynı derinliklerde tuzluluk, sıcaklık ve çözünlük oksijenin gibi fiziksel parametrelerin ölçümlerinin yapıldığı istasyonların yerleri ise Şekil 4-6'da gösterilmiştir.

1990 yılı I. altı aylık dönemde ait fiziksel ve kimyasal bulgular IBM disketlerinde I. Dönem Bulgu Raporu olarak TÜBİTAK-DEBÇAG grubuna daha önce sunulmuştur. Söz konusu Bulgu Raporu kapsamında verilmeyen Temmuz, 1990 bulguları bu rapor kapsamında ayrıca disketler halinde sunulmuştur.

II. 1990 DÖNEMİ BULGULARININ DEĞERLENDİRİLMESİ

II.1. BIYOKİMYASAL VE FİZİKSEL BULGULAR:

"Ulusal Deniz Ölçüm ve İzleme Programı- Marmara Denizi Alt Projesi (DEBÇAG-60/G) kapsamında 1990 yılı içinde ölçümlü yapılan biyokimyasal bulgular, tuzluluk, sıcaklık ve çözünlük oksijen değerleri ile birlikte Mart, 1990 dönemi için Çizelge-4, Mayıs, 1990 için Çizelge-5 ve Temmuz, 1990 dönemi için ise Çizelge-6'da istasyon bazında, standart derinliklerde sunulmuştur.

Cizelge 7' nin incelenmesinden, fosfat iyonu açısından en fazla kırletilmiş Körfezin yine Bandırma Körfezi olduğunu görülmektedir. Bahar döneminde artan birincil üretim sonucu tüm Marmara Denizi yüzey sularında fosfat iyonu miktarları azalırken Bandırma Körfezi'nde durum değişmemektedir. Marmara genelinde yüzey sularının içerdiği fosfat iyonu konsantrasyonu $0,10 \mu\text{M}$ dan az iken Temmuz döneminde bu körfezde $1,25 \mu\text{M}$ olarak bulunmuştur. 1987-1989 döneminde yapılan ölçümlerde de, aynı körfezin fosfat iyonu bakımından en fazla kırletilmiş bölgeler olduğu belirtilmiştir. Bandırma Körfezi yüzey sularının tüm izleme çalışmaları yüksek miktarlarda fosfat iyonu içermesi, bu bölge sularının çevrede kurulu gübre fabrikalarının atıkları ile sürekli olarak kırıldığını göstermektedir. Bu Körfezin ağzında yer alan M48 istasyonunda dahi Marmara geneline oranla yüksek miktarlara fosfat iyonunun ölçümlesi, bu kırletilmiş suların ekisinin körfez akıklarına kadar uzandığının göstergesidir.

Geçmiş dönemlerde yapılan çalışmaları azotlu bileşiklerce ($\text{TNO}_{\text{az}}-\text{N}$) kırletildiği belirlenen Gemlik Körfezi'nde 1990 Temmuz dönemi içinde K3 olarak adlandırılan Gemlik Önlərində ölçülen değerlerin mevsim normallerinin üzerinde olduğu ($7,28 \mu\text{M N}$) görülmektedir. Bunun nedeni, daha önceki dönemde de belirtildiği gibi, bölgede kurulu azotlu gübre fabrikasının atıklarıdır. 1989 döneminde aşırı azot bileşiklerinin

ÇİZELGE 1. Mart, 1990 Döneminde Marmara Denizi ve Boğazlarda ölçülen bilyok inayosal parametreler ve bunların ölçüm aralıkları

ÇİZELGE 1: (Devam)

No	İstasyon	PARAMETRELER								Hg ₄
		Hm	η-FD _a -P	TND _a -N	Si	DOC	CHL-A	TAK	PAH	
M75	P	P	P	P	-	-	-	Y	Y	Y
M77	P	P	P	P	-	-	-	-	-	-
M78	P	P	P	P	-	-	-	Y	Y	Y
M79	P	P	P	P	-	-	-	Y	Y	Y
D1	P	P	P	P	P	P	P	Y	Y	Y
D3	P	P	P	P	-	-	-	-	-	-
D5	P	P	P	P	-	-	-	-	-	-
D6	P	P	P	P	P	P	P	Y	Y	Y
C8	P	P	P	P	-	-	-	-	-	-

Y: Vüzey suyunda analizi yapılanlar

F: Su volümünde analizi yapılanlar

-: Örneklenme yapılmadı

ÇİZELGE 2: Mayıs, 1990 Döneminde Marmara Denizi ve Boğazlarda ölçülen bilyokimyasal parametreler ve bunların ölçüm aralıkları

İstasyon No	HM	PARAMETRELER						TAK	FAH	$H_{2\alpha}$
		$\sigma-Po_F$	TND _x -N	Si	DOC	CHL-A	TAK			
M1	P	P	P	P	P	P	Y	Y	Y	Y
M2	P	P	P	P	P	P	Y	Y	Y	Y
M5	P	P	P	P	P	P	Y	Y	Y	Y
M6	Y	P	P	P	P	P	Y	Y	Y	Y
M8	P	P	P	P	P	P	Y	Y	Y	Y
M11	P	P	P	P	P	P	Y	Y	Y	Y
M13	P	P	P	P	P	P	Y	Y	Y	Y
M22	P	P	P	P	P	P	Y	Y	Y	Y
M24	P	P	P	P	P	P	Y	Y	Y	Y
M25	P	P	P	P	P	P	Y	Y	Y	Y
M28	P	P	P	P	P	P	Y	Y	Y	Y
M29	P	P	P	P	P	P	Y	Y	Y	Y
M30	P	P	P	P	P	P	Y	Y	Y	Y
M39	P	P	P	P	P	P	Y	Y	Y	Y
M42	P	P	P	P	P	P	Y	Y	Y	Y
M43	P	P	P	P	P	P	Y	Y	Y	Y
M45	P	P	P	P	P	P	Y	Y	Y	Y
M51	P	P	P	P	P	P	Y	Y	Y	Y
M52	P	P	P	P	P	P	Y	Y	Y	Y
M53	P	P	P	P	P	P	Y	Y	Y	Y
M54	P	P	P	P	P	P	Y	Y	Y	Y
M55	P	P	P	P	P	P	Y	Y	Y	Y
M56	P	P	P	P	P	P	Y	Y	Y	Y
M57	P	P	P	P	P	P	Y	Y	Y	Y
M58	P	P	P	P	P	P	Y	Y	Y	Y
M61	P	P	P	P	P	P	Y	Y	Y	Y
M63	P	P	P	P	P	P	Y	Y	Y	Y
M64	P	P	P	P	P	P	Y	Y	Y	Y
M65	P	P	P	P	P	P	Y	Y	Y	Y
M71	P	P	P	P	P	P	Y	Y	Y	Y
M72	P	P	P	P	P	P	Y	Y	Y	Y

ÇİZELGE 3. Temmuz, 1990 Döneminde Marmara Denizi ve Boğazlarda ölçülen biyokimyasal parametreler ve buların ölçüm aralıkları

İstasyon No	o-PD _x -P	TNO _x -N	Si	CHL-A	TAK.	BÖLs	Hg _w
K2	-	-	-	-	-	-	-
K3	-	-	-	-	-	-	-
K4	-	-	-	-	-	-	-
M15	-	-	P	P	-	-	-
M22	-	-	P	P	-	-	-
M24	-	-	P	P	-	-	-
M28	-	-	P	P	-	-	-
M33	-	-	P	P	-	-	-
M34	-	-	P	P	-	-	-
M35	-	-	P	P	-	-	-
M36	-	-	P	P	-	-	-
M38	-	-	P	P	-	-	-
M39	-	-	P	P	-	-	-
M40	-	-	P	P	-	-	-
M41	-	-	P	P	-	-	-
M43	-	-	P	P	-	-	-
M47	-	-	P	P	-	-	-
M48	-	-	P	P	-	-	-
M49	-	-	P	P	-	-	-
M50	-	-	P	P	-	-	-
M52	-	-	P	P	-	-	-
M53	-	-	P	P	-	-	-
M54	-	-	P	P	-	-	-
M56	-	-	P	P	-	-	-
M60	-	-	P	P	-	-	-
M61	-	-	P	P	-	-	-
M62	-	-	P	P	-	-	-
M64	-	-	P	P	-	-	-
M65	-	-	P	P	-	-	-
M67	-	-	P	P	-	-	-
M69	-	-	P	P	-	-	-

**ÇİZELGE -4: MART, 1990 DÖNEMİNDE MARMARA DENİZİ VE
BOĞAZLARI BOYUNCA STANDART DERİNLİKLERDE ÖLÇÜLEN
BİYOKİMÝASAL PARAMETRELERİN DEĞİŞİMİ**

B: MARCH, 90) type tk027502.chm
 STATION NUMBER: M22
 TOTAL DEPTH: 558.0 m.
 PLACE:
 DATE:09-03-90
 BAROMETRIC PRESSURE:1028
 CLOUD:bc
 SECCHI DISK DEPTH:
 SEASON:
 STATION TYPE:
 TIME:20:10
 AIR TEMPERATURE:11
 WAVE STATE:1
 VISIBILITY:
 CHARACTER
 LONGITUDE:29. 0`
 LATITUDE:40.40`
 WIND:1
 WIND DIRECTION:N
 TSS:0.96
 SD/PH:
 SD/Cd:
 SW/PH:0.42
 SW/Cd:
 FC/0m.:
 FC/2m.:
 COO:

DEPTH	T	S	SI-T	DO	P04-P		N03-N		N02-N		Si
0,	8.57	22.06	17.06	11.10		0.11		0.41		4.79	

STATION NUMBER: M-28		SEASON:		STATION TYPE:		CHARACTER	
TOTAL DEPTH:	880.0 m.					LONGITUDE: 28.45°	LATITUDE: 40.50°
PLACE:		TIME: 00:20	AIR TEMPERATURE: 10	WAVE STATE: 2	VISIBILITY: 14	WIND: 3	WIND DIRECTION: W
DATE: 09-03-90	BAROMETRIC PRESSURE: 1027						
CLOUD: bc	SECCHI DISK DEPTH:						
SD/Hg:	SD/Cd:	TR:	TS: 1.03				
SW/Hg: 12.8	SW/Cd:	SD/PH:					
SW/Hg:	SW/Cd:	SW/PH: 0.40					
BOD-5:	CD:	FC/0m.:					
		FC/2m.:					
0.	8.28	22.28	17.27	11.31	0.18	0.08	3.15
5.	8.27	22.35	17.33	11.43	0.18	0.06	3.36
9.							
10.	7.97	23.16	18.00	11.89	.		
15.	7.80	23.77	18.49	11.59	0.14	0.07	2.86
18.							
20.	7.65	24.40	19.01	11.34			
25.	10.39	29.57	22.65	10.02			
27.					0.39	1.70	8.57
30.	14.99	38.23	28.47	5.84			
40.	15.04	38.38	28.57	2.47			
45.					0.88	8.10	31.43
50.	14.99	38.44	28.63	1.72			
60.	14.96	38.47	28.66	1.73			
68.					0.84	6.84	33.14
70.	14.91	38.50	28.69	1.57			
75.	14.87	38.51	28.71	1.43			
80.	14.87	38.52	28.72	1.44			
90.	14.85	38.54	28.74	1.48			
					0.97	8.10	35.00

STATION NUMBER:	M-29	SEASON:							
TOTAL DEPTH:	960.0 m.	STATION TYPE:							
PLACE:		CHARACTER							
DATE: 10-03-90		LONGITUDE: 28.45°							
BAROMETRIC PRESSURE: 1027		LATITUDE: 40.45°							
CLOUD: bc		WIND: 2							
SECCHI DISK DEPTH:		WIND DIRECTION: W							
0S:		TSS: 0.92							
SD/Hg:		SD/PH:							
SW/Hg:		SW/PH:							
St/Hg:		FC/0m.:							
BOD-5:		FC/2m.:							
DEPTH	T	S	SI-T	DO	P04-P	N03-N	N02-N	Si	CHL-a
0.	8.17	22.19	17.21	11.72	0.25			0.08	3.01
5.	8.10	22.44	17.42	11.81					3.36
10.	8.20	22.70	17.61	11.83	0.30			0.08	
15.	7.95	23.12	17.97	12.07					
20.	7.98	24.26	18.86	11.05	0.25			0.08	2.86
25.	10.05	28.53	21.90	10.14					
30.	14.87	38.07	28.38	6.54	1.00			7.64	29.71
40.	14.98	38.37	28.58	1.94					
50.	15.01	38.46	28.64	1.92	1.05			8.91	35.57
60.	14.96	38.49	28.67	1.93					
70.	14.90	38.51	28.70	1.47					
75.	14.87	38.52	28.72	1.45	1.01			8.91	35.57
80.	14.87	38.53	28.73	1.51					
90.	14.83	38.55	28.75	1.52					
91.					1.10				
100.	14.79	38.55	28.76	1.45					
125.	14.69	38.56	28.79	1.19					

STATION NUMBER: M-30
 TOTAL DEPTH: 320.0 m.
 PLACE:
 DATE: 10-03-90
 BAROMETRIC PRESSURE: 1026
 CLOUD: bc
 SECCHI DISK DEPTH:
 OS:
 SD/Hg:
 SW/Hg: 25.0
 SM/Hg:
 BOD-5:
 SEASIN: STATION TYPE:
 CHARACTER

TIME: 13:50
 AIR TEMPERATURE: 10
 WAVE STATE: 1
 VISIBILITY:
 LONGITUDE: 28.45°
 LATITUDE: 40.40°
 WIND: 2
 WIND DIRECTION: W

TR:
 SD/PH:
 SW/Cd:
 SM/Cd:
 SM/CD:
 COD:
 TSS: 0.67
 SD/PH:
 SW/PH: 0.40
 FC/0m.:
 FC/2m.:
 NO3-N
 +
 Si
 NO2-N

DEPTH	T	S	SI-T	DO	P04-P	NO3-N	CHL-a
0.	8.64	22.31	17.25	11.82	0.18	0.07	3.22
5.	8.63	22.31	17.25	11.86	0.07	0.06	2.66
10.	8.40	22.72	17.60	11.66	0.07		
15.	8.45	23.19	17.96	11.16			
20.	8.03	24.44	18.99	11.26	0.08	0.27	4.00
25.	11.63	32.02	24.35	9.42			
30.	14.81	37.70	28.10	5.56			
40.	15.16	38.37	28.54	2.51	0.78	4.83	28.29
50.	15.02	38.49	28.66	2.38			
60.	14.88	38.52	28.71	1.92			
65.					0.97	7.07	34.43
70.	14.80	38.54	28.75	1.53			
75.	14.75	38.55	28.77	1.37			
80.	14.73	38.55	28.77	1.36			

STATION NUMBER:	M-31	SEASON:							
TOTAL DEPTH:	219.0 m.	STATION TYPE:							
PLACE:		CHARACTER							
DATE: 10-03-90		LONGITUDE: 28° 45'							
BAROMETRIC PRESSURE: 1026		LATITUDE: 40° 35'							
CLOUD: bc		WIND: 3							
SECCHI DISK DEPTH:		WIND DIRECTION: S							
OS:		TS: 7.50							
SD/Hg:		TR:							
SM/Hg:		SD/Cd:							
SM/Hg:		SM/Cd:							
RD-5:		SM/Cd:							
		CO:							
DEPTH	T	S	SI-T	DO	P04-P	N03-N	N02-N	CHL-a	Si
0.	8.79	22.57	17.43	11.60	0.14	0.08	3.81		
5.	8.77	22.59	17.45	11.88	0.15	0.09	2.34		
10.	7.72	24.49	19.07	11.85	0.15	0.09	2.34		
15.	8.09	24.90	19.34	11.40	0.38	0.80	4.23		
20.	9.02	27.68	21.39	10.39	0.38				
25.	11.87	32.82	24.92	7.69					
30.	14.81	37.81	28.18	4.90	0.78				
40.	15.12	38.45	28.61	2.94					
50.	14.92	38.53	28.71	2.15	1.01				
60.	14.82	38.55	28.75	1.78					
70.	14.76	38.56	28.77	1.48					
75.	14.72	38.56	28.78	1.47	1.04				
80.	14.71	38.54	28.78	1.37					

STATION NUMBER: M-32
 TOTAL DEPTH: 63.0 m.
 PLACE:
 DATE: 10-03-90
 BAROMETRIC PRESSURE: 1026
 CLOUD: bc
 SECCHI DISK DEPTH:
 OS:
 SD/Hg:
 SM/Hg: 11.2
 SM/Hg:
 B00-5;

SEASON:
 STATION TYPE:
 CHARACTER
 LONGITUDE: 28.45°
 LATITUDE: 40.26°
 WIND: 1
 WIND DIRECTION: W

TIME: 10:40
 AIR TEMPERATURE: 16
 WAVE STATE: 1
 VISIBILITY:
 TR:
 SD/Cd:
 SM/PH:
 SM/Cd:
 CD:

TSS:
 SD/PH:
 SM/PH:
 FC/0m.;
 FC/2m.;

DEPTH	T	S	SI-T	DO	PO4-P	N03-N		N02-N
						+	Si	
0.	9.00	24.03	18.54	12.08	0.27		0.33	8.22
5.	8.79	24.15	18.66	12.16				
10.	8.36	24.49	18.99	12.11	0.25		0.09	6.22
15.	7.96	25.32	19.69	11.88				
20.	8.67	27.17	21.04	10.84	0.43		0.23	4.00
25.	11.87	32.55	24.71	8.38				
30.	14.76	37.66	28.08	5.06	0.75		5.37	15.29
40.	14.94	38.49	28.68	2.53				
50.	14.82	38.54	28.74	1.96	0.81		5.09	34.86

STATION NUMBER: M-33
 TOTAL DEPTH: 72.0 m.
 PLACE:
 DATE: 10-03-90
 BAROMETRIC PRESSURE: 1026
 CLOUD: bc
 SECCHI DISK DEPTH:
 OS:

SEASON:
 STATION TYPE:
 CHARACTER
 LONGITUDE: 28.51°
 LATITUDE: 40.26°
 WIND: 1
 WIND DIRECTION: W

TIME: 09:50
 AIR TEMPERATURE: 10
 WAVE STATE: 1
 VISIBILITY:
 TR:
 SD/Cd:
 SM/CD:
 SM/CD:
 SM/CD:

TSS:
 SD/PH:
 SM/PH:
 FC/0m.;
 FC/2m.;
 SD;

STATION NUMBER:	H-34	SEASON:								
TOTAL DEPTH:	69.0 m.	STATION TYPE:								
PLACE:		CHARACTER								
DATE:10-03-90		LONGITUDE:29.4°								
BAROMETRIC PRESSURE:1026		LATITUDE:40.27°								
CLOUD:bc		WIND:3								
SECCHI DISK DEPTH:		WIND DIRECTION:S								
DS:		TSS:0.04								
SD/Hg:		SD/PH:								
SW/Hg:		SW/PH:0.34								
SI/Hg:		FC/0m.:								
BOD-5:		FC/2m.:								
DEPTH	T	S	SI-T	D0	P04-P	N03-N	4	Si	CHL-a	
0,	9.41	24.91	19.18	11.80	0.23	0.09	5.49			
5,	9.11	25.04	19.32	12.67						
10,	8.44	25.36	19.66	13.08	0.20	1.14	4.16			
15,	8.12	25.64	19.92	12.39						
20,	8.16	26.57	20.64	11.51	0.24	0.29	3.29			
25,	12.78	34.30	25.90	8.94						
30,	15.02	37.94	28.24	5.14	0.78	6.15	18.29			
40,	15.11	38.46	28.62	3.03	0.91	7.99	28.14			
50,	14.87	38.54	28.73	2.18	1.00	9.05	33.43			
60,	14.87	38.54	28.73	2.18	1.14	9.43	41.71			

STATION NUMBER:	M36	SEASON:		STATION TYPE:					
TOTAL DEPTH:	140.0 m.	PLACE:		CHARACTER					
DATE:10-03-90		TIME:13:25		LONGITUDE:28.30°					
BAROMETRIC PRESSURE:1026		AIR TEMPERATURE:16		LATITUDE:40.38°					
CLOUD:bc		WAVE STATE:1		WIND:1					
SECCHI DISK DEPTH:	/	VISIBILITY:		WIND DIRECTION:SW					
OS:		TR:		ISS:0.86					
SD/Hg:		SD/Cd:		SD/PH:					
SI/Hg:23.8		SI/Cd:		SI/PH:0.61					
SM/Hg:		SM/Cd:		FC/0m.:1					
BOD-5:		COO:		FC/2m.:1					
DEPTH	T	S	SI-T	D0	P04-P	N03-N	+ Si	N02-N	CHL-a
0.	8.87	23.64	18.26	12.63	0.25		0.09		3.04
5.	8.63	23.64	18.29	12.39					
10.	8.40	24.05	18.64	11.97	0.43		0.10		3.57
15.	8.04	24.82	19.28	12.02					
20.	9.67	28.25	21.74	9.01	0.43		1.06		5.14
25.	13.15	34.28	25.80	5.53					
30.	14.88	37.85	28.20	3.80					21.57
40.	15.13	38.51	28.65	3.08					
50.	14.94	38.55	28.73	2.01	1.00		8.89		31.43
60.	14.93	38.57	28.74	2.13					
70.	14.86	38.59	28.77	2.16					
75.	14.75	38.58	28.79	1.99					
80.	14.73	38.57	28.79	1.58					
86.	14.72	38.58	28.80	1.59					

STATION NUMBER: M-39		SEASON:		STATION TYPE:		CHARACTER	
TOTAL DEPTH: 950.0 m.							
PLACE:		TIME: 15:40		LONGITUDE: 28.30°			
DATE: 10-03-90		AIR TEMPERATURE: 13		LATITUDE: 40.50°			
BAROMETRIC PRESSURE: 1025		WAVE STATE: 1		WIND: 2			
CLOUD: bc		VISIBILITY: 10		WIND DIRECTION: SW			
SECCHI DISK DEPTH:							
06:		TSS: 1.07					
SD/Hg:		TR: .		SD/PH: .			
SI/Hg:		SD/Cd: .		SI/PH: 0.70			
SI/Hg:		SI/Cd: .		FC/0m: .			
BOD-5:		COD: .		FC/2m: .			

STATION NUMBER: M-40
 TOTAL DEPTH: 50.0 m.
 PLACE:
 DATE: 10-03-90
 BAROMETRIC PRESSURE: 1025
 CLOUD: bc
 SECCHI DISK DEPTH:
 800-3;

OS;
 SD/Hg;
 SM/Hg: 6.1
 SH/Hg;
 BOD-3;

TR;
 SD/Cd;
 SM/Cd;
 SH/Cd;
 COD;

DEPTH	T	S	SI-T	D0	P04-P	N03-N	+ N02-N	CHL-a
0.	8.90	23.52	18.16	9.90	0.14		0.10	2.69
5.	8.09	23.89	18.55	11.10				
10.	7.75	24.19	18.83	11.30				
15.	7.80	24.94	19.41	10.68				
20.	8.15	25.64	19.92	10.48				
25.	13.61	36.22	27.21	7.70				
30.	14.89	37.94	28.27	2.99				
40.	14.98	38.44	28.63	1.70				

SEASON:
 STATION TYPE:
 CHARACTER
 LONGITUDE: 28.30°
 LATITUDE: 40.59°
 WIND: 2
 WIND DIRECTION: SW

TSS: 0.97
 SD/PH:
 SM/PH: 0.40
 FC/0m.:
 FC/2m.:

SEASON:
 STATION TYPE:
 CHARACTER
 LONGITUDE: 28.15°
 LATITUDE: 41. 2°
 WIND: 4
 WIND DIRECTION: NW

TSS: 0.97
 SD/PH:
 SM/PH: 0.36
 FC/0m.:
 FC/2m.:

STATION NUMBER: M-41
 TOTAL DEPTH: 56.0 m.
 PLACE:
 DATE: 10-03-90
 BAROMETRIC PRESSURE: 1026
 CLOUD: bc
 SECCHI DISK DEPTH:
 800-5;

OS;
 SD/Hg;
 SM/Hg: 3.3
 SH/Hg;
 BOD-5;

TR;
 SD/Cd;
 SM/Cd;
 SH/Cd;
 COD;

STATION NUMBER: H-42
 TOTAL DEPTH: 300.0 m.
 PLACE:
 DATE: 10-03-90
 BAROMETRIC PRESSURE: 1030
 CLOUD: bc
 SECCHI DISK DEPTH:
 1.7
 OS:
 SD/Hg;
 SM/Hg; 7.7
 SH/Hg;
 BOD-5;
 0S;
 TR;
 SD/Cd;
 SM/Cd;
 SH/Cd;
 COD;

SEASON:
 STATION TYPE:
 TIME: 22:40
 AIR TEMPERATURE: 10
 WAVE STATE: 1
 VISIBILITY:
 100%

CHARACTER
 LONGITUDE: 28.15°
 LATITUDE: 40.56°
 WIND: 2
 WIND DIRECTION: S

DEPTH	T	S	SI-T	D0	P04-P		H03-N	H02-N	CHL-a
0.	8.27	24.84	19.27	12.03	0.20		0.09	1.75	
5.	8.28	24.84	19.27	11.79					
10.	8.26	24.85	19.28	11.78	0.17		0.09	1.78	
15.	7.86	24.90	19.37	11.85					
20.	8.17	25.74	19.99	11.36	0.20		0.10	2.29	
25.	10.73	30.52	23.34	9.59					
30.	15.10	37.96	28.23	5.87	0.68		4.97	13.71	
40.	15.12	38.47	28.63	3.58					
50.	14.96	38.51	28.69	2.42	1.01		8.85	29.86	
60.	14.84	38.54	28.74	2.10					
70.	14.77	38.55	28.76	1.55					
75.	14.75	38.55	28.77	1.42	0.93		8.03	37.43	
80.	14.75	38.56	28.77	1.40					
90.	14.70	38.56	28.79	1.28					
100.	14.70	38.56	28.79	1.56	0.98		7.95	38.57	

STATION NUMBER: H-44	SEASON:	STATION TYPE:	CHARACTER					
TOTAL DEPTH: 190.0 m.			LATITUDE: 28.15°					
PLACE:			LONGITUDE: 40.42°					
DATE: 11-03-90	TIME: 02:15	AIR TEMPERATURE: 11	WIND: 1					
BAROMETRIC PRESSURE: 1030		WAVE STATE: 1	WIND DIRECTION: N					
CLOUD: bc		VISIBILITY:						
SECCHI DISK DEPTH:								
OS:	TR:	TSS: 1.25						
SD/Hg:	SD/Ph:	SD/Ph:						
SM/Hg: 9.0	SM/Cd:	SM/Ph: 0.74						
SN/Hg:	SM/Cd:	FC/0m.:						
BOD-5:	COD:	FC/2m.:						
DEPTH	T	S	SI-T	D0	P04-P	N03-N	N02-M	CHL-a
0.	8.72	23.48	18.15	11.95	0.28	0.06	3.15	
5.	8.73	23.48	18.15	12.02	0.14	0.07	3.01	
10.	7.76	23.83	18.55	12.30	0.30	0.15	2.86	
15.	7.83	24.83	19.32	11.51				
20.	8.61	26.70	20.68	10.72				
25.	13.98	36.63	27.45	7.89				
30.	15.26	38.21	28.39	4.18	0.80	0.57	21.00	
40.	15.28	38.45	28.57	3.42				
50.	15.07	38.56	28.71	2.66	0.95	0.20	29.00	
60.	15.03	38.59	28.74	3.11				
70.	14.88	38.59	28.77	2.86				
75.	14.82	38.58	28.78	2.25	1.02	0.29	33.00	
80.	14.81	38.58	28.78	1.95				
90.	14.78	38.58	28.78	1.91				

STATION NUMBER: M-45		STATION TYPE:		CHARACTER					
TOTAL DEPTH:	64.0 m.	TIME:	03:25	LONGITUDE:	28.15°				
PLACE:			AIR TEMPERATURE:	10	LATITUDE:	40.35°			
DATE: 11-03-90		WAVE STATE:	1	WIND:	1				
BAROMETRIC PRESSURE: 1030		VISIBILITY:		WIND DIRECTION: N					
CLOUD: bc									
SECCHI DISK DEPTH:									
OS:		TR:	TSS:						
SD/Hg:		SD/Cd:	SD/PH:						
SM/Hg: 3.9		SM/Cd:	SM/PH: 0.33						
SM/Hg:		SM/Cd:	FC/0m.:						
BOD-5:		COD:	FC/2m.:						
DEPTH	T	S	SI-T	D0	P04-P	N03-N	+ N02-N	Si	CHL-a
0,	8.32	24.13	18.71	10.53	0.14	0.06	2.83		
5,	8.43	24.55	19.03	10.82					
10,	8.36	25.03	19.41	11.16	0.16	0.09	2.10		
15,	7.83	25.26	19.66	11.29					
20,	8.41	26.42	20.49	10.72	0.30	0.16	2.86		
25,	13.23	35.20	26.50	8.27					
30,	15.05	38.03	28.30	4.80	0.66	4.92	40.43		
40,	15.00	38.51	28.68	4.47	0.73	6.39	20.71		
50,	14.81	38.54	28.75	3.67	0.83	7.16	24.86		

STATION NUMBER: M-47		STATION TYPE:		CHARACTER					
TOTAL DEPTH:	55.0 m.	TIME:	04:20	LONGITUDE:	28.15°				
PLACE:		AIR TEMPERATURE:	10	LATITUDE:	40.30°				
DATE: 11-03-90		WAVE STATE:	1	WIND:	2				
BAROMETRIC PRESSURE: 1030		VISIBILITY:		WIND DIRECTION: N					
CLOUD: bc									
SECCHI DISK DEPTH:									
OS:		TR:	TSS: 1.30						
SD/Hg:		SD/Cd:	SD/PH:						
SM/Hg: 2.8		SM/Cd:	SM/PH: 0.49						
SM/Hg:		COD:	FC/0m.:						
DEPTH	T	S	SI-T	D0	P04-P	N03-N	+ N02-N	Si	CHL-a
0,	8.32	24.13	18.71	10.53	0.14	0.06	2.83		
5,	8.43	24.55	19.03	10.82					
10,	8.36	25.03	19.41	11.16	0.16	0.09	2.10		
15,	7.83	25.26	19.66	11.29					
20,	8.41	26.42	20.49	10.72	0.30	0.16	2.86		
25,	13.23	35.20	26.50	8.27					
30,	15.05	38.03	28.30	4.80	0.66	4.92	40.43		
40,	15.00	38.51	28.68	4.47	0.73	6.39	20.71		
50,	14.81	38.54	28.75	3.67	0.83	7.16	24.86		

STATION NUMBER: M-49
 TOTAL DEPTH: 35.0 m.
 PLACE:
 DATE: 11-03-90
 BAROMETRIC PRESSURE: 1031.5
 CLOUD: bc
 SECCHI DISK DEPTH:
 OS:
 SD/Hg;
 SH/Hg: 8.9
 SH/Hg;
 BOD-5;

SEASON:

STATION TYPE:

CHARACTER
 LONGITUDE: 27.58°
 LATITUDE: 40.28°
 WIND: 2
 WIND DIRECTION: N

TIME: 06:15
 AIR TEMPERATURE: 10
 WAVE STATE: 1
 VISIBILITY:
 TR:
 SD/Cd;
 SH/Cd;
 SH/Cd;
 COD;

OS:

SD/PH;
 SH/PH;
 FC/0m.;
 FC/2m.:

DEPTH	T	S	SI-T	/D	P04-P	N03-N	N02-N	CHL-a
0.	8.73	25.23	19.52	11.00		0.06	3.74	

0. 8.73 25.23 19.52 11.00 0.06 3.74

STATION NUMBER: M-50
 TOTAL DEPTH: 55.0 m.
 PLACE:
 DATE: 11-03-90
 BAROMETRIC PRESSURE: 1032
 CLOUD: bc
 SECCHI DISK DEPTH:
 OS:
 SD/Hg;
 SH/Hg: 1.4
 SH/Hg;
 BOD-5;

SEASON:

STATION TYPE:

CHARACTER
 LONGITUDE: 28. 0°
 LATITUDE: 40.34°
 WIND: 5
 WIND DIRECTION: N

TIME: 08:40
 AIR TEMPERATURE: 17
 WAVE STATE: 4
 VISIBILITY:
 TR:
 SD/Cd;
 SH/Cd;
 SH/Cd;
 COD;

OS:

SD/PH;
 SH/PH;
 FC/0m.;
 FC/2m.:

DEPTH	T	S	SI-T	D0	P04-P	N03-N	N02-N	CHL-a
0.	8.13	24.87	19.31	11.71		0.12	0.04	1.82

0. 8.13 24.87 19.31 11.71 0.12 0.04 1.82

STATION NUMBER: M-51
 TOTAL DEPTH: 500.0 m.
 PLACE:
 DATE: 11-03-90
 BAROMETRIC PRESSURE: 1033

SEASON:

STATION TYPE:

CHARACTER
 LONGITUDE: 28. 0°
 LATITUDE: 40.34°

STATION NUMBER: M-52	SEASON:	STATION TYPE:	CHARACTER						
TOTAL DEPTH: 1040.0 m.			LONGITUDE: 28. 0'						
PLACE:			LATITUDE: 40.45'						
DATE: 11-03-90	TIME: 12:25	AIR TEMPERATURE: 10	WIND: 4						
BAROMETRIC PRESSURE: 1032		WAVE STATE: 4	WIND DIRECTION: NW						
CLOUD: bc		VISIBILITY:							
SECCHI DISK DEPTH:									
 OS:	TR:	TSS: 2.85							
SD/Hg:	SD/Cd:	SD/PH:							
SU/Hg:	SU/Cd:	SU/PH:							
SM/Hg:	SM/Cd:	FC/0m.:							
BOD-5:	COD:	FC/2m.:							
<hr/>									
DEPTH	T	S	SI-T	D0	P04-P	M03-N	M02-N	Si	CHL-a
0,	8.60	23.90	18.50	11.63		0.16		0.06	2.48
<hr/>									
STATION NUMBER: M-54	SEASON:	STATION TYPE:	CHARACTER						
TOTAL DEPTH: 75.0 m.			LONGITUDE: 28. 0'						
PLACE:			LATITUDE: 40.57'						
DATE: 11-03-90	TIME: 17:00	AIR TEMPERATURE: 10	WIND: 4						
BAROMETRIC PRESSURE: 1031		WAVE STATE: 3	WIND DIRECTION: SE						
CLOUD: bc		VISIBILITY:							
SECCHI DISK DEPTH:									
 OS:	TR:	TSS: 0.56							
SD/Hg:	SD/Cd:	SD/PH:							
SU/Hg: 3.9	SU/Cd:	SU/PH: 0.45							
SM/Hg:	SM/Cd:	FC/0m.:							
<hr/>									

STATION NUMBER:	M-53	SEASON:		STATION TYPE:	
TOTAL DEPTH:	1250.0 m.	PLACE:		CHARACTER	
DATE:	11-03-90			LONGITUDE:	28. 0'
BAROMETRIC PRESSURE:	1032			LATITUDE:	40.50'
CLOUD:	bc			WIND:	4
SECCHI DISK DEPTH:				WIND DIRECTION:	NNW
OS:		TR:		TSS:	0.68
SD/Hg:		SD/Cd:		SD/Ph:	
SW/Hg:7.2		SH/Cd:		SH/Ph:1.89	
SM/Hg:		/SH/Cd:		FC/0m.:	
BOD-5:		COD:		FC/2m.:	

DEPTH	T	S	SI-T	DO	P04-P	N03-N	+ Si	CHL-a
						N02-N		
0.	8.13	24.04	18.67	11.29	0.14	0.08	2.13	2.51
5.	8.11	24.04	18.67	11.76	0.17	0.08	2.45	2.75
10.	8.03	24.05	18.69	12.04	0.15	0.08	2.17	2.93
15.	7.88	24.31	18.91	12.11	0.21	0.15	2.17	2.72
20.	8.52	26.06	20.19	11.20	0.17	0.09	2.57	1.53
25.	12.72	34.25	25.86	8.46	0.43	0.95	4.71	0.89
30.	15.18	37.97	28.22	4.89	0.73	5.64	18.71	0.19
40.	15.18	38.49	28.62	3.32	1.01	8.48	29.29	
50.	14.90	38.51	28.71	2.24	0.92	7.48	19.71	
60.	14.83	38.54	28.75	1.58				
70.	14.76	38.55	28.77	1.54				
75.	14.75	38.56	28.77	1.33	0.89	8.84	36.71	
80.	14.74	38.56	28.78	1.52				
90.	14.70	38.56	28.79	1.34				
100.	14.69	38.56	28.79	1.35	1.13	10.28	38.00	
108.					1.12	10.28	37.86	
125.	14.63	38.57	28.81	1.40				
130.					1.06	9.94	37.86	
150.	14.59	38.57	28.82	1.53				

STATION NUMBER: M-55
 TOTAL DEPTH: 85.0 m.
 PLACE: DATE:11-03-90
 BAROMETRIC PRESSURE:1031
 CLOUD:bc
 SECCHI DISK DEPTH:
 0S;
 SD/Hg: SW/Hg:7.2
 SW/Hg:
 800-5;

SEASIDE; STATION TYPE:
 TIME:18:45 AIR TEMPERATURE:9
 WAVE STATE:3
 VISIBILITY:
 TR;
 SD/Cd;
 SW/Cd;
 SW/Cd;
 COD;

DEPTH	T	S	SL-T	09	P04-P	N03-N	Si	CHL-a
						H02-N		
0.	7.72	23.85	18.57	11.89	0.21	0.06	2.62	
5.	8.33	24.19	18.76	12.08				
10.	8.39	24.50	18.99	11.94	0.20	0.05	2.62	
15.	7.92	24.80	19.29	11.91				
20.	7.95	25.01	19.44	11.78	0.20	0.07	2.71	
25.	10.08	28.33	21.74	10.44				
30.	14.48	37.66	20.15	6.93	0.51	1.46	7.57	
40.	15.07	38.47	20.63	4.36	0.62	5.17	15.86	
50.	14.92	38.51	20.70	2.35	0.90	7.81	27.14	
60.	14.84	38.53	20.73	1.73				
70.	14.74	38.54	20.76	1.49				
75.	14.73	38.54	20.77	1.18	1.05	9.44	34.29	

STATION NUMBER: M-56
 TOTAL DEPTH: 823.0 m.
 PLACE: DATE:11-03-90
 BAROMETRIC PRESSURE:1032
 CLOUD:bc
 SECCHI DISK DEPTH:
 0S;
 SD/Hg: SW/Hg:10.0
 SW/Hg:
 800-5;

SEASIDE; STATION TYPE:
 TIME:19:40 AIR TEMPERATURE:9
 WAVE STATE:2
 VISIBILITY:
 TR;
 SD/Cd;
 SW/Cd;
 SW/Cd;
 COD;

DEPTH	T	S	SL-T	00	P04-P	N03-N	Si	CHL-a
						H02-N		
0.	8.40	24.23	18.78	10.72	0.04	0.10	2.41	2.68
5.	8.40	24.23	18.78	11.16	0.06	0.03	2.45	2.42
10.	8.33	24.49	18.15	11.64	0.06	0.08	2.41	3.02
15.	7.83	25.14	19.56	11.72	0.07	0.04	2.03	2.31
20.	7.90	25.98	20.21	11.26	0.19	0.06	2.14	2.85
25.	12.37	34.40	26.05	9.13	0.20	0.15	3.86	1.10
30.	12.37	34.40	26.44	5.01	0.40	0.21	14.71	0.31

STATION NUMBER:	M-58	SEASON:									
TOTAL DEPTH:	280.0 m.	STATION TYPE:									
PLACE:		CHARACTER									
DATE:11-03-90		LONGITUDE:27.53°									
BAROMETRIC PRESSURE:1032		LATITUDE:40.40°									
CLOUD:bc		WIND:4									
SECCHI DISK DEPTH:		WIND DIRECTION:NW									
OS:		TR:	TSS:0.60								
SD/Hg:		SD/Cd:	SD/PH:								
SW/Hg:3.3		SW/OD:	SW/PH:								
SM/Hg:		SM/CD:	FC/0m.:								
800-5;		CD0;	FC/2m.:								
DEPTH	T	S	SI-T	DO	P04-P		N03-N		N02-N		CHL-a
0.	8.07	24.89	19.34	9.49		0.22		0.07		2.38	
5.	8.08	24.88	19.33	11.33		0.22		0.07		2.13	
9.											
10.	8.08	24.88	19.33	11.67							
15.	7.91	25.07	19.50	11.68							
18.						0.13		0.17		2.86	
20.	8.59	26.44	20.48	10.97							
25.	13.51	36.00	27.07	8.06							
27.						0.65		5.00		15.43	
30.	15.48	38.22	28.35	4.44							
40.	15.11	38.49	28.64	3.47							
45.						0.75		5.30		26.00	
50.	14.98	38.55	28.72	2.51							
60.	14.82	38.55	28.75	2.16							
68.											
70.	14.75	38.56	28.77	1.69				1.11		10.11	37.14
75.	14.73	38.54	28.78	1.51							

STATION NUMBER: M-58	SEASON:	CHARACTER
TOTAL DEPTH: 280.0 m.	STATION TYPE:	LONGITUDE: 27.53°
PLACE:		LATITUDE: 40.40°
DATE: 11-03-90	TIME: 09:55	WIND: 4
BAROMETRIC PRESSURE: 1032	AIR TEMPERATURE: 8	WIND DIRECTION: NW
CLOUD: 0c	WAVE STATE: 3	
SECCHI DISK DEPTH:	VISIBILITY:	
OS:	TR:	TSS: 0.60
SD/Hg:	SD/CD:	SD/PH:
SM/Hg: 3.3	SM/CD:	SM/PH:
SM/Hg:	FC/0m.:	FC/2m.:
BOD-5:	COD:	

DEPTH	T	S	SI-T	DO	P04-P	N03-N	+ N02-N	Si	CHL-a
0,	8.07	24.89	19.34	9.49	0.22	0.07	2.38		
5,	8.08	24.88	19.33	11.33		0.22	0.07	2.13	
9,									
10,	8.08	24.88	19.33	11.67					
15,	7.91	25.07	19.50	11.68					
18,									
20,	8.59	26.44	20.48	10.97					
25,	13.51	36.00	27.07	8.06					
27,									
30,	15.48	38.22	28.35	4.44					
40,	15.11	38.49	28.64	3.47					
45,									
50,	14.98	38.55	28.72	2.51					
60,	14.82	38.55	28.75	2.16					
68,									
70,	14.75	38.56	28.77	1.69					
75,	14.73	38.56	28.78	1.51					

STATION NUMBER: M-59
TOTAL DEPTH: 75.0 m.
PLACE:
DATE: 11-03-90
BAROMETRIC PRESSURE: 1032
CLOUD: bc
SECCHI DISK DEPTH:

CHARACTER
LONGITUDE: 27.55°
LATITUDE: 40.38°
WIND: 4
WIND DIRECTION: NW

0S:
SD/Hg:
SM/Hg:
SH/Hg:
BOD-5:
CDD:

TR:
SD/Cd:
SM/Cd:
SH/Cd:
FC/0m.;
FC/2m.;

DEPTH	T	S	SI-T	DO	P04-P	N03-N	N02-N	CHL-a
0.	8.15	24.85	19.30	11.41	0.13	0.05	2.31	
5.	8.18	24.79	19.25	11.55				
10.	8.17	24.80	19.25	11.42	0.13	0.10	2.52	
15.	7.93	25.03	19.46	11.29				
20.	8.74	26.76	20.71	10.09	0.39	0.46	4.14	
25.	13.22	35.47	26.72	5.93				
30.	15.42	38.19	28.34	3.77				
40.	15.25	38.52	28.63	4.41				
50.	14.89	38.57	28.75	3.65	1.32	0.23	24.86	
60.	14.79	38.57	28.78	2.78				
70.	14.69	38.57	28.80	2.12	1.02	0.56	35.14	

STATION NUMBER: M-65
TOTAL DEPTH: 88.0 m.
PLACE:
DATE: 12-03-90
BAROMETRIC PRESSURE: 1031
CLOUD: bc
SECCHI DISK DEPTH:

CHARACTER
LONGITUDE: 27.30°
LATITUDE: 40.40°
WIND: 1
WIND DIRECTION: SW

0S:
SD/Hg:
SM/Hg:
SH/Hg:
BOD-5:
CDD:

TR:
SD/Cd:
SM/Cd:
SH/Cd:
FC/0m.;
FC/2m.;

SEASON:
STATION TYPE:
TIME: 06:35
AIR TEMPERATURE: ?
WAVE STATE: 1
VISIBILITY: ?

STATION NUMBER: M-65

TOTAL DEPTH: 88.0 m.

PLACE:

DATE: 12-03-90

BAROMETRIC PRESSURE: 1031

CLOUD: bc

SECCHI DISK DEPTH:

CHARACTER

LONGITUDE: 27.30°
LATITUDE: 40.40°
WIND: 1
WIND DIRECTION: SW

TSS: 0.96
SD/PH:
SM/PH:
SH/PH:
FC/0m.;
FC/2m.;

TSS: 1.02
SD/PH:
SM/PH:
SH/PH:
FC/0m.;
FC/2m.;

STATION NUMBER: M61	SEASON:	
TOTAL DEPTH: 1143.0 m.	STATION TYPE:	
PLACE:	CHARACTER	
DATE: 12-03-90	LONGITUDE: 27.34°	
BAROMETRIC PRESSURE: 1031	LATITUDE: 40.50°	
CLOUD: br	WIND: 2	
SECCHI DISK DEPTH:	WIND DIRECTION: SE	
OS:	TR:	TSS: 0.74
SD/Hg:	SD/Cd:	SD/PH:
SM/Hg: 7.7	SM/Cd:	SM/PH: 1.14
SH/Hg:	SM/Cd:	FC/0m.:
BOD-5:	COD:	FC/2m.:

DEPTH	T	S	SI-T	DO	P04-P	N03-N	N02-N	CHL-a
0.	8.09	24.68	19.17	11.55	0.08	+		0.15 1.61
5.	8.09	24.68	19.17	11.36				
10.	8.08	24.69	19.18	11.47	0.33			0.11 1.64
15.	8.07	24.76	19.24	11.55				
20.	7.87	25.38	19.75	11.35	0.16			0.06 2.29
25.	9.06	27.54	21.28	9.88				
30.	14.99	38.02	28.31	6.65	0.66			3.58 12.00
40.	15.15	38.47	28.62	2.96				
50.	15.03	38.55	28.70	2.70	0.66			4.22 25.00
60.	14.80	38.54	28.75	1.73				
70.	14.75	38.55	28.77	1.38				
75.	14.74	38.55	28.77	1.33	0.90			5.95 37.57
80.	14.74	38.55	28.77	1.24				
90.	14.73	38.56	28.78	1.34				
100.	14.72	38.56	28.79	1.50	1.05			9.83 37.00
125.	14.71	38.58	28.80	1.71				
150.	14.69	38.59	28.81	2.03	0.90			8.09 35.71

STATION NUMBER:	M 66	SEASON:		STATION TYPE:		CHARACTER	
TOTAL DEPTH:	650.0 m.					LONGITUDE: 27.26°	
PLACE:		TIME:	03:40			LATITUDE: 40.48°	
DATE: 12-03-90		AIR TEMPERATURE:	8			WIND: 2	
BAROMETRIC PRESSURE: 1031		WAVE STATE:	2			WIND DIRECTION: SW	
CLOUD: fc		VISIBILITY:					
SECCHI DISK DEPTH:							
OS:		TR:				TSS: 0.60	
SD/Hg:		SD/Cd:				SD/PH:	
SM/Hg: ND		SM/Cd:				SM/PH: 0.82	
SI/Hg:		SM/Cd:				FC/1m.:	
BOD-5:		COD:				FC/2m.:	
DEPTH	T	S	SI-T	D0	P04-P	N03-N	N02-N
						+ Si	- CHL-a

STATION NUMBER:	M 67	SEASON:								
TOTAL DEPTH:	830.0 m.	STATION TYPE:	CHARACTER							
PLACE:		TIME:04:35	LONGITUDE:27.28'							
DATE:12-03-90		AIR TEMPERATURE:8	LATITUDE:40.46'							
BAROMETRIC PRESSURE:1031		WAVE STATE:1	WIND:1							
CLOUD:bc		VISIBILITY:	WIND DIRECTION:SW							
SECCHI DISK DEPTH:										
OS:			TSS:2.04							
SD/Hg:		TR: /.	SD/PH:							
SW/Hg:13.4		SD/Cd:	SW/PH:0.66							
SM/Hg:		SH/Cd:	FC/0m.:							
BD-5:		SH/Cd:	FC/2m.:							
		COD:	FC/2m.:							
DEPTH	T	S	SI-T	DO	P04-P	M03-N	+ M02-N	Si	CHL-a	
0.	8.19	24.78	19.24	9.89	0.14	0.07	1.71			
5.	8.20	24.78	19.24	10.40						
10.	8.21	24.79	19.24	11.21	0.07	0.08	1.75			
15.	8.20	24.92	19.35	11.10						
20.	7.99	25.48	19.81	11.13	0.16	0.06	1.71			
25.	11.12	31.34	23.90	9.37						
30.	14.96	37.87	28.20	6.70	0.68	4.55	12.14			
40.	15.14	38.47	28.62	2.89	0.83	6.69	24.29			
50.	15.04	38.55	28.71	2.76	0.90	8.01	26.57			
60.	14.91	38.57	28.75	2.44						
70.	14.82	38.57	28.77	2.06						
75.	14.80	38.58	28.78	2.36	0.84	7.79	31.43			
80.	14.79	38.58	28.78	2.42						
90.	14.76	38.58	28.79	1.97						
100.	14.72	38.58	28.80	1.98	0.90	8.09	34.86			
125.	14.64	38.58	28.82	1.75						
150.	14.52	38.57	28.82	1.24	1.00	8.56	39.86			

STATION NUMBER: M-68
TOTAL DEPTH: 140.0 m.
PLACE: DATE:12-03-90
BAROMETRIC PRESSURE:1031.5
CLOUD:bc
SECCHI DISK DEPTH:

SEASON: CHARACTER
TIME:08:45 LONGITUDE:27.24'
AIR TEMPERATURE:10.5 LATITUDE:40.40'
WAVE STATE:1 WIND:DIRECTION:S
VISIBILITY:
OS: TR:
SD/Hg: SD/Cd;
SA/Hg: SA/Cd;
SN/Hg: SN/Cd;
BD-5: CD;

TSS:0.66
SD/PH:
SA/PH:
SN/PH:
FC/0m.;
FC/2m.;

DEPTH	T	S	SI-T	D0	P01-P	N03-N	+ SI	CII-N	N02-N
0.	8.21	25.19	19.55	9.70	0.05		0.15	1.69	
5.	8.15	24.88	19.32	11.19					
10.	8.15	24.93	19.36	11.58	0.06		0.07	1.75	
15.	8.00	25.10	19.51	11.36					
20.	8.15	25.92	20.13	11.14	0.12		0.10	1.86	
25.	10.43	30.27	23.19	9.43					
30.	14.35	37.69	28.20	6.63	0.57		4.23	17.00	
40.	15.18	38.40	28.56	4.15					
50.	14.95	38.51	28.70	2.40	0.76		5.82	30.00	
60.	14.89	38.55	28.74	2.44					
70.	14.85	38.56	28.76	2.09					
75.	14.82	38.57	28.77	1.91	0.83		6.36	33.86	
80.	14.80	38.57	28.77	1.87					
90.	14.77	38.57	28.78	1.71					
100.	14.74	38.57	28.79	2.01	0.68		4.46	33.43	
110.					0.85		7.39	34.71	
120.					0.78		6.88	34.00	
125.	14.71	38.58	28.80	1.88					
130.					0.79		5.77	33.71	

STATION NUMBER: M72
TOTAL DEPTH: 75.0 m.
PLACE: DATE:12-03-90
BAROMETRIC PRESSURE:1031
CLOUD:bc
SECCHI DISK DEPTH:

SEASON: CHARACTER
TIME:08:35 LONGITUDE:27.28'
AIR TEMPERATURE:10 LATITUDE:40.34'
WAVE STATE:1 WIND:DIRECTION:S
VISIBILITY:
OS: TR:
SD/Hg: SD/Cd;
SA/Hg: SA/PH;
SN/Hg: SN/Cd;

STATION NUMBER: M-76
 TOTAL DEPTH: 53.0 m.
 PLACE:
 DATE:12-03-90
 BAROMETRIC PRESSURE:1030
 CLOUD:bc
 SECCHI DISK DEPTH:
 OS:
 SD/Hg:
 SM/Hg:7.7
 SH/Hg:
 BOD-5:
 SEASON:
 STATION TYPE:
 CHARACTER

TIME:13:55
 AIR TEMPERATURE:12
 WAVE STATE:1
 VISIBILITY:
 TR:
 SD/Cd:
 SM/Cd:
 SH/Cd:
 COD:
 TSS:1.26
 SD/PH:
 SM/PH:0.32
 FC/0m.:
 FC/2m.:
 SEASON:
 STATION TYPE:
 CHARACTER

DEPTH	T	S	SI-T	D0	P04-P	N03-N	N02-N	CHL-a
0.	9.33	25.70	19.80	5.15	0.07	0.04	1.82	
5.	8.56	25.45	19.71	10.73				
10.	8.27	25.35	19.67	12.95	0.06	0.06	1.78	
15.	8.26	25.34	19.67	12.95				
20.	7.90	25.68	19.98	12.46	0.17	0.06	2.43	
25.	8.57	27.15	21.04	11.65				
30.	13.36	37.03	27.90	8.11	0.39	1.82	7.14	
40.	14.91	38.49	28.69	3.04	0.84	6.41	27.43	
50.	14.34	38.58	28.88	2.89				

STATION NUMBER: M-77
 TOTAL DEPTH: 68.0 m.
 PLACE:
 DATE:12-03-90
 BAROMETRIC PRESSURE:1029
 CLOUD:bc
 SECCHI DISK DEPTH:
 OS:
 SD/Hg:
 SM/Hg:
 SH/Hg:
 BOD-5:
 SEASON:
 STATION TYPE:
 CHARACTER

TIME:14:35
 AIR TEMPERATURE:12
 WAVE STATE:1
 VISIBILITY:
 TR:
 SD/Cd:
 SM/Cd:
 SH/Cd:
 COD:
 TSS:0.56
 SD/PH:
 SM/PH:
 FC/0m.:
 FC/2m.:
 SEASON:
 STATION TYPE:
 CHARACTER

STATION NUMBER: H-78
TOTAL DEPTH: 71.0 m.
PLACE:

DATE: 12-03-90
BAROMETRIC PRESSURE: 1029
CLOUD: bc
SECCHI DISK DEPTH:

SEASON:
STATION TYPE:

CHARACTER
LONGITUDE: 27.10°
LATITUDE: 40.33°
WIND: 2
WIND DIRECTION: SE

OS:
SD/Hg;
SI/Hg: 11.1
SH/Hg;
BOD-5:

TR:
SD/Cd;
SI/Cd;
SH/Cd;
CO2:

TSS: 0.55
SD/PH;
SI/PH: 0.45
FC/0m.;
FC/2m.;

DEPTH	T	S	SI-T	DO	P01-P	+ NO3-N	- NO2-N	Si	CHL-a
0.	8.86	25.17	19.45	10.11	0.10			0.06	1.71
5.	8.64	25.27	19.56	11.52					
10.	8.13	25.26	19.62	11.65	0.10			0.04	1.71
15.	8.05	25.26	19.63	11.65					
20.	7.83	25.30	19.69	11.56	0.14			0.07	2.00
25.	8.70	27.18	21.05	10.99					
30.	13.83	37.66	28.28	7.67	0.40			2.31	9.71
40.	14.71	38.33	28.61	5.10	0.47			3.00	16.29
50.	14.74	38.48	28.72	4.12	0.77			6.53	23.00
60.	14.45	38.46	28.77	3.40					
65.					0.75			5.00	32.14

STATION NUMBER: H-79
TOTAL DEPTH: 70.0 m.
PLACE:

CHARACTER
LONGITUDE: 27. 9°
LATITUDE: 40.35°
WIND: 1
WIND DIRECTION: SE

OS:
SD/Hg;
SI/Hg;
SH/Hg;
BOD-5:

TR:
SD/Cd;
SI/Cd;
SH/Cd;
CO2:

TSS: 0.64
SD/PH;
SI/PH:
FC/0m.;
FC/2m.;

SEASON:
STATION TYPE:

TIME: 15:40
AIR TEMPERATURE: 12
WAVE STATE: 1
VISIBILITY:

STATION NUMBER: D-1
 TOTAL DEPTH: 45.0 m.
 PLACE:
 DATE:12-03-90
 BAROMETRIC PRESSURE:1028
 CLOUD:bc
 SECCHI DISK DEPTH:
 OS:
 SD/Hg;
 SW/Hg;3.9
 SM/Hg;
 BOD-5;

SEASON:
 STATION TYPE:
 CHARACTER
 LONGITUDE:26.45`
 LATITUDE:40.26`
 WIND:1
 WIND DIRECTION:SE

TIME:19:15
 AIR TEMPERATURE:12
 WAVE STATE:1
 VISIBILITY:

TR;
 SD/Cd;
 SW/PH;
 SM/Cd;
 FC/0m.;
 COD;
 OS:
 SD/Hg;
 SW/Hg;3.9
 SM/Hg;
 BOD-5;

TSS:0.45
 SD/PH;
 SW/PH:0.62
 FC/0m.;
 FC/2m.;;

DEPTH	T	S	SI-T	DO	P04-P	N03-N	N02-N	CHL-a
0.	8.51	25.35	19.64	8.73	0.08	0.03	1.80	1.70
5.	8.37	25.32	19.63	10.01	0.09	0.06	1.87	2.47
10.	8.05	25.30	19.66	11.09	0.08	0.07	1.75	3.79
15.	7.98	25.33	19.69	10.83	0.21	0.11	1.75	3.08
20.	8.00	25.73	20.01	10.64	0.12	0.14	2.69	1.21
25.	12.79	35.73	27.00	7.77	0.39	2.67	12.24	0.38
30.	14.33	38.11	28.52	5.08	0.43	3.45	15.00	0.22
35.	-99	-99	-99	-99	0.45	3.43	15.43	-99
40.	14.24	38.32	28.71	4.82	0.47	3.45	14.14	-99

STATION NUMBER: D-3
 TOTAL DEPTH: 95.0 m.
 PLACE:
 DATE:12-03-90
 BAROMETRIC PRESSURE:1028
 CLOUD:bc
 SECCHI DISK DEPTH:
 OS:
 SD/Hg;
 SW/Hg;
 SM/Hg;
 BOD-5;

SEASON:
 STATION TYPE:
 CHARACTER
 LONGITUDE:26.34`
 LATITUDE:40.18`
 WIND:1
 WIND DIRECTION:SE

TIME:21:15
 AIR TEMPERATURE:12
 WAVE STATE:1
 VISIBILITY:

TR;
 SD/Cd;
 SW/PH;
 SM/Cd;
 FC/0m.;
 COD;
 OS:
 SD/Hg;
 SW/Hg;
 SM/Hg;
 BOD-5;

TSS:;
 SD/PH;
 SW/PH:;
 FC/0m.;
 FC/2m.;;

N03-N

STATION NUMBER: D-5
 TOTAL DEPTH: 62.0 m.
 PLACE:
 DATE: 13-03-90
 BAROMETRIC PRESSURE: 1027.5
 CLOUD: bc
 SECCHI DISK DEPTH:
 000-5;

SEASON:
 STATION TYPE:
 CHARACTER
 LONGITUDE: 26.20°
 LATITUDE: 40. 5°
 WIND: 1
 WIND DIRECTION: SE

OS:
 SD/Hg:
 SW/Hg:
 SW/Hg:
 BOD-5:
 TR:
 SD/Cd:
 SW/Cd:
 SW/Cd:
 COD:

TSS:
 SD/PH:
 SW/PH:
 FC/0m.:
 FC/2m.:

DEPTH	T	S	SI-T	DO	P04-P	N03-N	Si	CHL-a
0.	9.15	27.32	21.09	9.46	0.17	0.12	1.85	
5.	10.24	30.08	23.07	9.34				
10.	11.55	33.68	25.65	9.52	0.12	0.27	3.60	
15.	12.47	36.00	27.28	8.66				
20.	13.57	38.78	29.21	8.36				
25.	13.47	38.78	29.23	8.11				
30.	13.45	38.80	29.25	8.04				
40.	13.44	38.82	29.26	8.04				
50.	13.43	38.83	29.27	7.84	0.15	1.97	3.43	

STATION NUMBER: D-6
 TOTAL DEPTH: 75.0 m.
 PLACE:
 DATE: 13-03-90
 BAROMETRIC PRESSURE: 1027
 CLOUD: bc
 SECCHI DISK DEPTH:
 000-5;

SEASON:
 STATION TYPE:
 CHARACTER
 LONGITUDE: 26.13°
 LATITUDE: 40. 1°
 WIND: 1
 WIND DIRECTION: SE

TSS: 1.05
 SD/Cd:
 SW/PH:
 SW/PH:
 FC/0m.:

OS:
 SD/Hg:
 SW/Hg:
 SW/Hg:
 BOD-5:
 TR:

STATION NUMBER: C-8
 TOTAL DEPTH: 51.0 m.
 PLACE:
 DATE: 13-03-90
 BAROMETRIC PRESSURE: 1027
 CLOUD: hc
 SECCHI DISK DEPTH:
 SEASON:
 STATION TYPE:
 CHARACTER
 LONGITUDE: 26. 3'
 LATITUDE: 40. 0'
 WIND: 1
 WIND DIRECTION: SW
 TSS:
 TR:
 OS:
 SD/Hg;
 SH/Hg;
 SW/Hg;
 SW/Hg;
 BOD-5;
 SD/Cd;
 SH/Cd;
 SW/Cd;
 COD;

DEPTH	T	S	SI-T	DO	P04-P	N03-N	N02-N	CHL-a
0.	10.72	32.06	24.54	9.63	0.18	0.45	2.38	
5.	11.01	32.92	25.16	9.51	0.14	0.15	1.61	
9.								
10.	12.57	37.31	28.27	8.90				
15.	13.22	38.23	28.86	8.65				
17.								
20.	13.39	38.67	29.15	8.06				
25.	13.43	38.75	29.21	8.04				
26.					0.20	1.93	2.90	
30.	13.48	38.82	29.25	7.92	0.21	2.12	3.18	
35.								
40.	13.48	38.84	29.27	7.80				

ÇİZELGE -5; MAYIS, 1990 DÖNEMİNDE MARMARA DENİZİ VE
BOĞAZLARI BOYUNCA STANDART DERİNLİKLERDE ÖLÇÜLEN
Bİ YOK İMYASAL PARAMETRELERİN DEĞİŞİMİ

STATION NUMBER: M16

TOTAL DEPTH: 1200.0 m.

PLACE:

DATE: 05-05-90

BAROMETRIC PRESSURE:

CLOUD:

SECCHI DISK DEPTH:

CHARACTER
TIME: 05:12
AIR TEMPERATURE:
WAVE STATE:
VISIBILITY:
OS:
SD/Hg;
SM/Hg; 6.7
SR/Hg;
BD-5;

TR: /
SD/Cd;
SM/Cd;
SM/Cd;
CD;

TSS:
SD/PH;
SM/PH;
FC/0m.;
FC/2m.;

DEPTH	T	S	SI-T	D0	P04-P	N03-N	+ N02-N	Si	CHL-a
0.	12.55	31.27	23.58	5.41	0.05	2.50	4.64		
5.	12.38	23.84	17.88	8.07	0.08	0.73	4.48		
10.	12.37	23.39	17.53	8.64	0.26	1.39	5.76		
15.	11.93	25.45	19.20	8.62	0.64	13.08	14.48		
20.	11.75	29.34	22.24	7.68	0.17	0.08	6.72		
25.	13.79	36.39	27.31	5.27	0.90	7.73	23.68		
30.	14.26	38.18	28.44	2.75	0.85	5.92	19.28		
40.	15.08	38.48	28.64	2.09					
50.	14.95	38.53	28.71	1.72	0.72	5.04	23.81		
60.	14.82	38.55	28.75	1.28					
70.	14.77	38.55	28.77	1.15					
75.	14.76	38.56	28.77	1.25	1.04	7.96			
80.	14.73	38.56	28.78	1.28					
90.	14.70	38.57	28.80	1.27					
100.	14.67	38.57	28.80	1.42	0.85	5.41	41.32		
125.	14.56	38.54	28.82	1.40					

STATION NUMBER: M22
TOTAL DEPTH: 100.0 m.

PLACE: CHARACTER

DATE: 05-05-90

TIME: 13:33

LONGITUDE: 29.38°

BAROMETRIC PRESSURE:

LATITUDE: 40.45°

CLOUD:

AIR TEMPERATURE:

WAVE STATE:

VISIBILITY:

SECCHI DISK DEPTH:
BOD-5;

WIND:
WIND DIRECTION:

OS: SD/Hg;
SW/Hg: 44.8
SM/Hg;
BOD-5;

TR: SD/Cd;
SW/Cd;
SM/Cd;
CDD;

TSS: 2.44
SD/PH;
SW/PH;
FC/0m.;
FC/2m.;

DEPTH	T	S	SI-T	DO	PO4-P	N03-N		N02-N		CHL-a
						+	Si	+	Si	
0.	14.32	23.64	17.36	9.04	0.04	0.35	0.80	4.17		
1.	14.32	23.64	17.36	9.05	0.12	0.19				
5.	14.31	23.64	17.37	9.11						0.85
10.	14.20	23.70	17.44	9.11	0.14	2.64				5.07
15.	12.30	25.62	19.26	9.43						4.24
20.	10.86	27.87	21.25	7.86	0.15	1.10	8.48			0.64
25.	13.12	34.49	25.97	6.49						
30.	14.73	38.10	28.42	3.91	1.01	7.64	31.37			
40.	14.81	38.31	28.57	1.76						
50.	14.87	38.38	28.61	1.17	1.22	9.43	36.41			
60.	14.87	38.41	28.63	.89						
70.	14.86	38.42	28.65	.80						
75.	14.87	38.43	28.65	.79	1.06	7.24	38.38			
80.	14.86	38.44	28.66	.75						
90.	14.85	38.45	28.67	.68	1.00	5.80	40.90			

STATION NUMBER: M-24
TOTAL DEPTH: 158.0 m.
PLACE: CHARACTER

STATION NUMBER: M-28
TOTAL DEPTH: 880.0 m

卷之三

PLACE:

DATE : 05-05-90

DARMETIC DRESSING

BARUM EIRIC PRESSURE!

Column:

EECHU DICV DEBTY

SELCHI DISK DEPTH:

.30

05:

1100

155:1.14

SD/PH:

51/PH

50/0

FLJ.UM.8

FC/2m.:

DEPTH	T	S	SI-T	DO	P04/P	N03-N	+ N02-N	-Si	C/NL-a
0.	12.82	22.94	17.11	9.34	0.05	0.18	2.72		
5.	12.82	22.94	17.11	9.32					
10.	12.61	23.20	17.34	9.37	0.05	0.18	3.52		
15.	12.46	23.52	17.62	9.24					
20.	11.75	25.03	18.90	8.96	0.12	0.97	5.68		
25.	11.87	31.21	23.67	8.10					
30.	15.05	38.35	28.55	4.82	0.93	8.46	33.28		
40.	15.03	38.44	28.62	1.70					
50.	14.95	38.46	28.65	1.46	0.64	4.53	30.95		
60.	14.90	38.47	28.67	1.46					
70.	14.88	38.49	28.69	1.49					
75.	14.89	38.50	28.70	1.38	0.73	4.78	36.13		
80.	14.88	38.51	28.70	1.35					
90.	14.87	38.53	28.72	1.30					
100.	14.84	38.54	28.74	1.28	0.94	8.36	39.64		
125.	14.75	38.55	28.77	1.20	1.10	10.35	39.27		
150.	14.66	38.56	28.80	1.06	0.83	6.42	35.57		

STATION NUMBER: M-29
 TOTAL DEPTH: 960.0 m.
 PLACE:
 DATE: 06-05-90
 BAROMETRIC PRESSURE:
 CLOUD:
 SECCHI DISK DEPTH:
 DS:
 SD/Hg:
 SW/Hg:
 SW/Hg:
 BOD-5;

CHARACTER
 LONGITUDE: 28.45°
 LATITUDE: 40.45°
 WIND:
 WIND DIRECTION:
 TIME: 02:10
 AIR TEMPERATURE:
 WAVE STATE:
 VISIBILITY:

DEPTH	T	S	SI-T	DO	P04-P	H03-N		CHL-a
						+ H02-N	Si	
0.	12.77	23.18	17.30	9.59	0.01	0.10	3.52	0.80
5.	12.76	23.18	17.30	9.59				1.14
10.	12.76	23.20	17.31	9.60	0.09	0.13	3.84	
15.	13.11	24.13	17.97	9.42				0.80
20.	11.01	25.95	19.74	9.93	0.28	1.55	6.96	
25.	13.20	34.83	26.22	7.95				
30.	14.73	37.90	28.27	5.04	0.79	7.92	26.32	0.17
40.	15.08	38.39	28.57	2.17				
50.	15.01	38.46	28.64	1.76	1.01	9.17	28.15	
60.	14.93	38.50	28.69	1.59				
70.	14.88	38.52	28.72	1.46				
75.	14.86	38.53	28.73	1.39	1.04	9.11	35.29	
80.	14.86	38.54	28.74	1.39				

STATION NUMBER: M-30
TOTAL DEPTH: 320.0 m.

PLACE:

DATE: 06-05-90

BAROMETRIC PRESSURE:

CLOUD:

SECCHI DISK DEPTH:

CHARACTER
TIME: 03:48
AIR TEMPERATURE:
WAVE STATE:
VISIBILITY:
OS;
SD/Hg;
SW/Hg;
SM/Hg;
800-5;

LONGITUDE: 28.45°
LATITUDE: 40.40°
WIND;
WIND DIRECTION:

TR;
SD/Cd;
SW/Cd;
SM/Cd;
CD;

TSS 1.35
SD/PH;
SW/PH;
FC/1m.;
FC/2m.;

DEPTH	T	S	SI-T	D0	P04-P	H03-N	H02-N	CHL-a
0.	12.90	22.80	16.98	9.75	0.01	0.47	4.40	
5.	12.80	22.99	17.15	9.79	0.02	0.41	4.08	
10.	12.60	23.57	17.63	9.88				
15.	11.74	25.17	19.10	10.21				
20.	10.46	27.23	20.82	9.93	0.03	1.62	6.56	
25.	12.62	33.91	25.63	8.12	0.41	2.77	13.36	
30.	14.45	37.55	28.07	3.28	0.68	5.99	25.60	
40.	15.01	38.38	28.58	2.22				
50.	14.89	38.49	28.69	1.82	0.82	7.73	26.61	
60.	14.81	38.54	28.74	1.44				
70.	14.76	38.55	28.77	1.30				
75.	14.73	38.55	28.77	1.26	0.86	7.08	30.11	
80.	14.71	38.55	28.78	1.22				

STATION NUMBER: M-39
 TOTAL DEPTH: 630.0 m.
 PLACE:
 DATE: 06-05-90
 BAROMETRIC PRESSURE:
 CLOUD:
 SECCHI DISK DEPTH:
 AIR TEMPERATURE:
 WAVE STATE:
 VISIBILITY:
 DS:
 SD/Hg:
 SW/Hg: 7.0
 SH/Hg:
 BOD-5:
 TR:
 SD/Cd:
 SW/Cd:
 SH/Cd:
 COD:
 TIME: 07:11
 LONGITUDE: 28.30°
 LATITUDE: 40.50°
 WIND:
 WIND DIRECTION:
 / /

TSS: 0.70
 SD/PH:
 SW/PH:
 SH/PH:
 FC/0m.:
 FC/2m.:
 N03-N
 N02-N

DEPTH	T	S	SI-T	DO	P04-P	N04-P	N03-N	N02-N	CHL-a
0.	13.88	23.72	17.51	8.95	0.01		0.16	2.16	0.60
5.	13.88	23.72	17.52	9.01					0.60
10.	13.76	23.79	17.59	8.98	0.03		0.68	2.56	0.50
15.	13.65	23.84	17.65	9.04					
20.	10.14	26.46	20.27	9.59	0.12		0.10	7.68	
25.	11.54	30.71	23.34	8.68					
30.	15.02	38.18	28.42	5.41	0.63		6.38	31.60	
40.	15.02	38.42	28.61	2.42					
50.	14.95	38.49	28.68	1.70	0.70		5.13	31.09	
60.	14.88	38.52	28.72	1.48					
70.	14.82	38.54	28.75	1.29					
75.	14.79	38.54	28.75	1.25	0.75		6.30	37.53	
80.	14.79	38.54	28.76	1.14					
90.	14.74	38.55	28.78	1.16					
100.	14.69	38.56	28.79	1.10	0.84		7.29	39.50	
115.	14.72	38.54	28.77	1.22					

STATION NUMBER: M-42
TOTAL DEPTH: 163.0 m.
PLACE:
DATE: 06-05-90

BAROMETRIC PRESSURE:
CLOUD:
SECCHI DISK DEPTH:
VISIBILITY:

TIME: 10:21
AIR TEMPERATURE:
WAVE STATE:
VISIBILITY:

OS:
SD/Hg;
SD/Hg;
SM/Hg;
SM/Hg;
BOD-5;
CD0;

TR:
SD/Cd;
SM/Cd;
SM/Cd;
CO0;

TSS: 0.66
SD/PH;
SM/PH;
FC/0m.;
FC/2m.;

DEPTH	T	S	SI-T	D0	P04-P	N03-N	N02-N	CHL-a
0.	13.88	23.70	17.50	9.29	0.05	0.15	2.40	
5.	13.87	23.71	17.51	9.37				
10.	13.50	23.85	17.69	9.43	0.07	0.19	2.83	
15.	12.93	24.45	18.25	9.59				
20.	10.75	26.50	20.21	9.74	0.04	0.40	4.64	
25.	11.86	31.87	24.18	8.68	0.02	0.49	10.32	
30.	14.25	37.48	26.05	5.70	0.48	4.38	21.76	
40.	14.95	38.47	28.67	2.69				
50.	14.80	38.54	28.75	1.72	0.86	7.68	32.49	
60.	14.71	38.56	28.79	1.72				
70.	14.68	38.57	28.80	1.57				
75.	14.68	38.57	28.80	1.55				
80.	14.72	38.57	28.80	1.55				
90.	14.72	38.57	28.80	1.55				

STATION NUMBER:	H-43	CHARACTER						
TOTAL DEPTH:	700.0 m.	TIME:	11:20					
PLACE:		LONGITUDE:	28.15°					
DATE: 06-05-90		LATITUDE:	40.50°					
BAROMETRIC PRESSURE:		WIND:						
CLOUD:		WIND DIRECTION:						
SECCHI DISK DEPTH:								
OS:	TR:	TSS:	0.84					
SD/Hg;	SD/Cd:	SD/PH:						
SM/Hg:N.D	SM/Cd:	SM/PH:						
SM/Hg;	SM/Cd:	FC/0m.:						
BOD-5;	COD:	FC/2m.:						
DEPTH	T	S	SI-T	DO	P04-P	N03-N	N02-N	CHL-a
0.	14.06	23.67	17.44	9.16	0.01	0.11	2.40	
5.	14.06	23.67	17.44	9.17	0.06	0.17	2.48	
10.	13.91	23.71	17.50	9.19	0.06			
15.	13.06	24.12	17.97	9.43				
20.	10.68	26.08	19.89	9.92	0.10	0.26	6.08	
25.	11.50	30.90	23.50	8.89	0.38	2.39	11.68	
30.	14.23	37.49	28.06	6.20	0.72	6.28	24.16	
40.	14.92	38.44	28.65	3.28				
50.	14.85	38.53	28.73	2.00	0.78	6.93	34.59	
60.	14.84	38.54	28.74	1.57				
70.	14.75	38.56	28.77	1.37				
75.	14.74	38.56	28.78	1.34	0.88	8.49	36.83	
80.	14.72	38.56	28.79	1.31				
85.	14.72	38.57	28.77	1.27				
90.	14.72	38.57	28.77	1.27				
95.	14.72	38.57	28.77	1.27				

STATION NUMBER: M-46
TOTAL DEPTH: 190.0 m.

PLACE:

DATE: 06-05-90

BAROMETRIC PRESSURE:

CLOUD:

SECCHI DISK DEPTH:

CHARACTER

LONGITUDE: 28°15'

LATITUDE: 40°42'

WIND:

WIND DIRECTION:

TIME: 13:37

AIR TEMPERATURE:

WAVE STATE:

VISIBILITY:

OS:

SD/Cd:

SW/PH:

SM/Cd:

FC/0m.:

FC/2m.:

TR:

SD/Cd:

SW/PH:

SM/Cd:

CD:

DEPTH	T	S	SI-T	DO	P04-P		N03-N		N02-N	
					+	Si	CHL-a	+	Si	CHL-a
0.	13.63	22.79	16.85	9.81	0.01		0.24	1.76		0.70
5.	13.50	22.79	16.86	9.84						0.45
10.	13.39	23.34	17.31	9.77	0.01		0.11	2.48		0.80
15.	12.88	23.90	17.83	9.90						0.60
20.	10.15	27.36	20.97	10.45	0.26		0.22	6.96		0.22
25.	11.78	31.73	24.09	8.75						
30.	14.70	37.90	28.28	5.72	0.27		8.65	28.24		0.18
40.	15.04	38.43	28.61	2.88						
50.	14.92	38.51	28.70	1.99	0.84		8.18	33.75		
60.	14.84	38.53	28.73	1.58						
70.	14.80	38.54	28.75	1.39						
75.	14.77	38.54	28.76	1.33	0.93		8.75	37.11		
80.	14.75	38.55	28.77	1.24						
90.	14.72	38.55	28.78	1.19						
100.	14.68	38.56	28.79	1.26	0.63		4.79	31.37		

STATION NUMBER: M-51
TOTAL DEPTH: 100.0 m.

PLACE:

DATE: 06-05-90

BAROMETRIC PRESSURE:

CLOUD:

CHARACTER

LONGITUDE: 28° 0'

LATITUDE: 40° 40'

WIND:

TIME: 15:28

AIR TEMPERATURE:

WAVE STATE:

STATION NUMBER: M-53

TOTAL DEPTH: 1250.0 m.

PLACE:

DATE: 06-05-90

BAROMETRIC PRESSURE:

CLOUD:

SECCHI DISK DEPTH:

CHARACTER
TIME: 18:11
LONGITUDE: 28.0°
LATITUDE: 40.50°
WIND:
WIND DIRECTION:

OS:

SD/Hg;

SM/Hg; 9.9

SM/Hg;

B00-5;

TSS: 1.02

SD/PtH;

SM/PtH;

FC/0m.;

FC/2m.;

TR:

.5D/Cd;

SM/Cd;

SM/Cd;

COD;

DEPTH	T	S	SI-T	DO	P04-P	N03-N	+ N02-N	Si	CHL-a
0.	13.96	23.55	17.37	9.24	0.01	0.13	2.16	0.45	
5.	13.84	23.60	17.43	9.34					
10.	13.74	23.70	17.52	9.30	0.02	0.28	2.16	0.32	
15.	11.84	24.82	18.73	9.65	0.07	0.17	3.12	0.63	
20.	10.38	27.26	20.86	9.67	0.14	0.15	8.40	0.68	
25.	12.55	33.96	25.67	8.01	0.72	5.96	17.60	1.16	
30.	14.29	37.40	27.98	5.01	0.77	7.71	25.84	0.89	
40.	15.15	38.40	28.56	2.86					
50.	15.03	38.52	28.68	2.16					
60.	14.86	38.54	28.74	1.39	0.88	8.85	32.63		
70.	14.79	38.55	28.76	1.35					
75.	14.76	38.56	28.77	1.20	0.77	7.29	36.55		
80.	14.75	38.56	28.77	1.19					
90.	14.73	38.56	28.78	1.17					
100.	14.72	38.57	28.79	1.26	0.89	9.43	37.59		
125.	14.68	38.57	28.80	1.43	0.97	10.00	38.66		
150.	14.63	38.57	28.81	1.47	0.93	9.79	38.38		

STATION NUMBER: M-52
TOTAL DEPTH: 1000.0 m.
PLACE:
DATE: 06-05-90

CHARACTER
LONGITUDE: 28. 0'
LATITUDE: 40. 45'

WIND:

WIND DIRECTION:
VISIBILITY:
TIME: 16:48
AIR TEMPERATURE:
WAVE STATE:
SECCHI DISK DEPTH:

OS: TR: TSS:1.10
SD/Hg: SD/Cd: SD/PH:
SW/Hg: SW/Cd: SW/PH:
SM/Hg: SM/Cd: FC/0m.;
BOD-5: COD: FC/2m.;

DEPTH	T	S	SI-T	DO	P04-P	N03-N	+ Si	CHL-a
						N02-N		

0. 15.31 23.20 16.83 9.05 0.40 0.18 1.52

STATION NUMBER: M-54
TOTAL DEPTH: 75.0 m.
PLACE:
DATE: 06-05-90

CHARACTER
LONGITUDE: 28. 0'
LATITUDE: 40. 57'

WIND:

WIND DIRECTION:
VISIBILITY:
TIME: 21:31
AIR TEMPERATURE:
WAVE STATE:
SECCHI DISK DEPTH:

OS: TR: TSS:2.00
SD/Hg: SD/Cd: SD/PH:
SW/Hg: SW/Cd: SW/PH:
SM/Hg: SM/Cd: FC/0m.;
BOD-5: COD: FC/2m.;

DEPTH	T	S	SI-T	DO	P04-P	N03-N	+ Si	CHL-a
						N02-N		

0. 14.72 24.22 17.17 8.82 0.33 0.20 1.45 0.37

STATION NUMBER: M-56
TOTAL DEPTH: 791.0 m.

PLACE:

DATE: 08-05-90

BAROMETRIC PRESSURE:

CLOUD:

SECCHI DISK DEPTH:

CHARACTER
LONGITUDE: 27.47°
LATITUDE: 40.52°
WIND:
WIND DIRECTION:

TIME: 17:42
AIR TEMPERATURE:
WAVE STATE:
VISIBILITY:

DS:
SD/Hg:
SW/Hg:
SI/Hg:
BOD-5:
TR:
SD/Cd:
SW/Cd:
SI/Cd:
COD:

TSS:
SD/PH:
SW/PH:
FC/0m.:
FC/2m.:

DEPTH	T	S	SI-T	DO	P04-P	NO3-N		CHL-a
						+ N02-N	- Si	
0.	14.50	23.13	16.94	9.00	0.18		0.15	1.51
5.	14.29	23.16	17.01	9.05				2.20
10.	13.82	23.52	17.37	9.03				
15.	11.76	24.86	18.77	9.40				
20.	10.41	27.36	20.93	9.24	0.15		0.10	5.23
25.	12.26	32.78	24.81	7.72	0.17		0.50	9.28
30.	14.92	38.13	28.41	4.96	0.54		5.17	22.21
40.	15.09	38.47	28.63	2.61	0.65		5.17	31.09
50.	14.93	38.53	28.72	1.99	0.75		7.43	38.09
60.	14.83	38.54	28.75	1.53				
70.	14.76	38.55	28.77	1.26				
75.	14.75	38.56	28.77	1.24	0.74		6.42	38.37
80.	14.73	38.56	28.78	1.22				
90.	14.72	38.56	28.78	1.15				
100.	14.71	38.57	28.79	1.20	0.71		6.47	37.96
125.	14.67	38.57	28.80	1.41	0.66		5.66	38.09
150.	14.60	38.57	28.82	1.44	0.81		7.83	37.25
					0.04		7.83	42.02

STATION NUMBER: M-57
TOTAL DEPTH: 850.0 m.

PLACE:

DATE: 08-05-90

BAROMETRIC PRESSURE:

CLOUD:

SEUCHI DISK DEPTH:

CHARACTER
TIME: 19:43
LONGITUDE: 27.49°
LATITUDE: 40.47°
WIND:
WIND DIRECTION:
VISIBILITY:

OS:
SD/Hg;
SW/Hg;
SM/Hg;
B00-5;
TR:
SD/Cd;
SW/Cd;
SM/Cd;
CD;

DEPTH	T	S	SI-T	D0	P04-P	N03-N		N02-N	
						+ Si	CHL-a	+ Si	CHL-a
0.	15.77	23.17	16.72	8.85	0.20	0.22	1.24	0.38	0.56
5.	14.94	23.36	17.03	8.94	0.04	0.10	2.06	0.26	0.86
10.	14.62	24.15	17.70	8.77	0.22	0.18	7.01	1.67	0.63
15.	11.15	25.40	19.29	9.30					
20.	10.46	28.10	21.49	8.77					
25.	13.18	35.24	26.54	5.70					
30.	14.86	38.05	28.36	2.84	0.78	6.94	24.48		
40.	15.07	38.43	28.60	2.03					
50.	15.01	38.52	28.69	1.52	0.71	5.23	31.51		
60.	14.89	38.55	28.73	1.51					
70.	14.81	38.55	28.76	1.19					
75.	14.77	38.55	28.77	1.18	0.50	3.31	36.27		
80.	14.77	38.55	28.77	1.11					
90.	14.74	38.56	28.78	1.06					
100.	14.72	38.56	28.79	1.29	0.70	4.60	37.11		
125.	14.66	38.57	28.80	1.23	0.97	9.94	38.94		
150.	14.66	38.57	28.82	1.24	0.83	7.63	30.39		

STATION NUMBER: M-58
TOTAL DEPTH: 293.0 m.

PLACE:

DATE: 08-05-90

BAROMETRIC PRESSURE:

CLOUD:

SECCHI DISK DEPTH:

CHARACTER
TIME: 21:58
LONGITUDE: 27.53°
LATITUDE: 40.40°
WAVE STATE:
WIND:
VISIBILITY:

OS: TR: TSS:
SD/Hg: SD/CD: SD/PH:
SI/Hg: SM/CD: SM/PH:
SI/Hg: FC/0m.: FC/0m.:
BOD-5: COD: FC/2m.:

DEPTH	T	S	SI-T	DO	PO4-P	N03-N		CHL-a
						N02-N	Si	
0.	14.79	23.13	16.89	8.90	0.13	0.13	2.34	0.53
5.	14.74	23.15	16.91	8.82				0.51
10.	13.42	23.58	17.49	9.08	0.21	0.13	2.20	
15.	12.60	25.42	19.06	9.09				0.80
20.	10.88	27.37	20.86	8.97	0.13	0.15	5.09	1.03
25.	12.54	33.43	25.42	7.38				1.00
30.	14.64	37.86	28.26	4.43	0.69	5.84	14.30	
40.	14.99	38.41	28.61	2.31	0.72	6.42	21.01	
50.	14.82	38.50	28.71	1.75	0.51	2.98	28.43	
60.	14.76	38.54	28.76	1.56				
70.	14.74	38.55	28.77	1.39				
75.	14.71	38.55	28.77	1.38	0.59	3.58	36.69	
80.	14.72	38.55	28.78	1.44				
90.	14.57	38.55	28.81	1.31				
100.	14.55	38.55	28.81	1.25	0.66	5.20	37.96	

STATION NUMBER: M64

TOTAL DEPTH: 88.0 m.

PLACE:

DATE: 08-05-90

BAROMETRIC PRESSURE:

CLOUD:

SECCHI DISK DEPTH:
BOD-5;

CHARACTER
LONGITUDE: 27.30'
LATITUDE: 40.40'
WIND:
WIND DIRECTION:

OS:

SD/Hg;

SM/Hg;

SM/Hg;

BOD-5;

TR:

SD/CD;

SM/CD;

SM/CD;

CD;

TSS:

SD/PH;

SM/PH;

SM/PH;

FC/0m.;

FC/2m.;

DEPTH	T	S	SI-T	DO	P04-P	N03-H	Si	CHL-a
0.	14.87	23.38	17.06	9.01	0.23	0.17	1.86	
5.	14.45	23.40	17.16	9.09				
10.	13.78	23.81	17.60	9.19	0.27	0.32	2.27	
15.	12.38	25.30	19.01	9.41				
20.	11.23	28.46	21.65	9.24	0.30	1.33	9.97	
25.	13.27	35.87	27.01	6.96				
30.	14.33	37.90	28.36	4.86	0.45	3.90	18.57	
40.	15.03	38.48	28.65	3.01	0.89	8.79	31.93	
50.	14.88	38.53	28.72	1.87	0.78	7.86	33.75	
60.	14.75	38.55	28.77	1.46	0.68	5.78	38.80	
70.	14.67	38.55	28.79	1.33	0.73	5.55	31.79	
75.	14.67	38.56	28.79	1.37				
80.	14.63	38.56	28.80	1.15	0.84	7.34	40.62	

STATION NUMBER: M60

TOTAL DEPTH: 700.0 m.

PLACE:

DATE: 08-05-90

BAROMETRIC PRESSURE:

SL GUN:

CHARACTER
LONGITUDE: 27.36'
LATITUDE: 40.45'
WIND:

TIME: 12:15
AIR TEMPERATURE:
WAVE STATE:

STATION NUMBER: M61

TOTAL DEPTH: 1143.0 m.

PLACE:

DATE: 08-05-90

BAROMETRIC PRESSURE:

CLOUD:

SECCHI DISK DEPTH:

CHARACTER
 TIME: 13:24
 LONGITUDE: 27.34°
 LATITUDE: 40.50°
 WIND:
 WAVE STATE:
 VISIBILITY:

OS:
 SD/Hg;
 SL/Hg; 9.8
 SM/Hg;
 BD-5;
 TR:
 SD/Cd;
 SL/Cd;
 SM/Cd;
 CD;

TSS: 0.76
 SD/PH;
 SL/PH;
 FC/0m.;
 FC/2m.;

DEPTH	T	S	SI-T	DO	P04-P	N03-N		CHL-a
						N02-N	Si	
0.	14.64	24.35	17.85	8.60	0.03	0.11	2.27	0.35
5.	14.41	24.36	17.91	8.69				0.45
10.	13.81	24.43	18.07	8.72	0.01	0.49	2.48	0.40
15.	13.22	24.65	18.35	8.87				0.51
20.	10.14	27.17	20.82	9.30	0.15	0.11	5.64	1.12
25.	12.22	32.97	24.97	7.83				0.80
30.	14.55	37.74	28.18	5.09	0.69	5.84	20.29	
40.	14.98	38.44	28.64	2.80				
50.	14.89	38.51	28.71	1.90	0.64	4.80	34.87	
60.	14.81	38.54	28.74	1.42				
70.	14.77	38.55	28.77	1.47				
75.	14.76	38.55	28.77	1.30	0.78	5.78	37.82	
80.	14.74	38.56	28.78	1.24				
90.	14.70	38.56	28.79	1.13				
100.	14.66	38.56	28.80	1.14	0.99	9.34	36.55	
125.	14.55	38.56	28.82	.95	0.70	5.03	34.03	
150.	14.48	38.55	28.83	.88		4.10	45.24	0.65

STATION NUMBER: M62
TOTAL DEPTH: 85.0 m.

PLACE:

DATE: 08-05-90

BAROMETRIC PRESSURE:

CLOUD:

SEECHEI DISK DEPTH:

CHARACTER
TIME: 16:53
LONGITUDE: 27° 44'
LATITUDE: 40° 56'
WIND:
WAVE STATE:
VISIBILITY:

OS:
SD/Hg;
SW/Hg;
SM/Hg;
BOD-5;
TR:
SD/Cd;
SW/Cd;
SM/Cd;
CD;

TSS:
SD/PH;
SW/PH;
FC/0m.;
FC/2m.;

DEPTH T S SI-T DO P04-P N03-N N02-N CHL-a
0.08 2.06
0.13 2.27
0.13 2.61
4.60 14.03
4.13 30.39
5.90 34.59
7.63 34.73
9.02 28.57

0, 15.47 24.16 17.54 9.33 0.06
5, 15.07 24.22 17.67 9.33
10, 13.62 24.51 18.17 9.92 0.01
15, 13.11 24.64 18.37 9.90
20, 10.32 26.76 20.48 10.47 0.04
25, 11.99 32.47 24.63 8.83
30, 14.21 37.39 27.99 5.30 0.58
40, 15.10 38.47 28.63 2.48 0.63
50, 14.92 38.53 28.72 2.01 0.79
60, 14.82 38.55 28.75 1.64 0.85
70, 14.78 38.56 28.77 1.60 0.95

STATION NUMBER: M-63

TOTAL DEPTH: 680.0 m.

PLACE:

DATE: 08-05-90

BAROMETRIC PRESSURE:

CLOUD:

SECCHI DISK DEPTH:

CHARACTER
LONGITUDE: 27.28°
LATITUDE: 40.36°
WIND:
WIND DIRECTION:

AIR TEMPERATURE:
WAVE STATE:
VISIBILITY:

OS:

SD/Hg:

SW/Hg:

SH/Hg:

800-5;

TR:

SD/Cd:

SW/Cd:

SH/Cd:

COD:

TSS: 0.84

SD/PH:

SW/PH:

SH/PH:

FL/0m.;

FC/2m.;

DEPTH	T	S	SI-T	DO	P04-P	N03-N		CHL-a
						N02-N	Si	
0.	15.48	23.22	16.82	8.74	0.50	3.60	2.06	0.48
5.	14.31	23.29	17.10	9.09		2.34	0.51	0.51
10.	13.43	23.50	17.43	9.08	0.06	0.10	0.88	0.57
15.	11.35	25.30	19.18	9.55				0.93
20.	10.80	27.68	21.11	9.23	0.06	0.10	6.60	1.07
25.	12.11	32.67	24.76	7.68	0.62	4.05	12.17	0.31
30.	14.57	37.89	28.30	4.90	0.30	5.49	18.29	
40.	15.02	38.42	28.61	2.98				
50.	14.92	38.54	28.72	2.19				
60.	14.85	38.55	28.75	1.74				
70.	14.79	38.56	28.77	1.87				
75.	14.76	38.56	28.78	1.83				
80.	14.72	38.56	28.78	1.73				
90.	14.70	38.56	28.79	1.48				
100.	14.68	38.57	28.80	1.35				
110.	14.62	38.57	28.81	1.22				
120.	14.55	38.57	28.81	1.12				
130.	14.48	38.57	28.81	1.02				
140.	14.40	38.57	28.81	0.92				
150.	14.32	38.57	28.81	0.82				

STATION NUMBER: M 66
TOTAL DEPTH: 590.0 m.

PLACE:

DATE: 08-05-90

BAROMETRIC PRESSURE:

CLOUD:

SECCHI DISK DEPTH:

CHARACTER
TIME: 09:15
LONGITUDE: 27.29°
LATITUDE: 40.43°
WIND:
WIND DIRECTION:
VISIBILITY:
WAVE STATE:

OS:
SD/Hg:
SW/Hg:
SM/Hg:
BOD-5:

TSS:
TR:
SD/Cd:
SW/Cd:
SM/Cd:
CDD:

DEPTH	T	S	SI-T	DO	P04-P	N03-N	N02-N	CHL-a
0.	14.87	23.25	16.97	8.91	0.14	0.12	1.99	
5.	14.23	23.31	17.13	9.45				
10.	13.98	23.65	17.44	9.48	0.06	2.63	2.13	
15.	12.42	25.00	18.77	9.75				
20.	10.30	27.20	20.82	9.94	0.02	0.39	4.68	
25.	12.27	33.37	25.27	8.27				
30.	14.52	37.87	28.30	4.79	0.50	3.47	16.92	
40.	15.09	38.48	28.64	3.12				
50.	14.92	38.53	28.72	2.35	0.47	3.06	30.11	
60.	14.84	38.55	28.75	1.78				
70.	14.79	38.56	28.77	1.70				
75.	14.77	38.56	28.77	1.62	0.87	7.80	33.61	
80.	14.74	38.56	28.78	1.49				
90.	14.72	38.56	28.79	1.41				
100.	14.69	38.56	28.79	1.34	0.73	6.94	33.80	

STATION NUMBER: M72

TOTAL DEPTH: 89.0 m.

PLACE:

DATE: 08-05-90

BAROMETRIC PRESSURE:

CLOUD:

SECCHI DISK DEPTH:

CHARACTER
 LONGITUDE: 27.18°
 LATITUDE: 40.36°
 WIND:
 WIND DIRECTION:
 TIME: 01:27
 AIR TEMPERATURE:
 WAVE STATE:
 VISIBILITY:

06:

SD/Hg:

SM/Hg:

SH/Hg:

B00-5;

TR:

SD/Cd:

SM/Cd:

SH/Cd:

CD0:

TSS:

SD/PH:

SM/PH:

FC/0m:

FC/2m:

DEPTH	T	S	SI-T	DO	P04-P	N03-N		N02-N	CHL-a
						+ Si	- Si		
0.	14.79	24.11	17.64	8.91	0.07	0.11	2.13		
5.	14.50	24.15	17.72	8.97					
10.	13.90	24.23	17.90	9.06	-11	0.19	2.41		
15.	12.86	24.72	18.47	9.24					
20.	10.35	26.47	20.25	9.68	0.06	0.22	4.40		
25.	12.24	33.65	25.49	8.29					
30.	14.06	37.61	28.20	5.98	0.36	3.72	10.80		
40.	15.11	38.40	28.57	3.28	0.40	6.79	25.63		
50.	14.70	38.41	28.68	2.71	0.57	6.13	23.81		
60.	14.72	38.49	28.73	2.66					
70.	14.81	38.56	28.76	2.31	0.62	4.77	31.37		
80.	14.73	38.56	28.78	1.57	0.69	6.27	35.35		

STATION NUMBER: M73

TOTAL DEPTH: 69.0 m.

PLACE:

DATE: 08-05-90

BAROMETRIC PRESSURE:

CLOUD:

SECCHI DISK DEPTH:

CHARACTER
 LONGITUDE: 27.20°
 LATITUDE: 40.33°
 WIND:
 WIND DIRECTION:

TIME: 02:19
 AIR TEMPERATURE:
 WAVE STATE:
 VISIBILITY:

STATION NUMBER: M-78
TOTAL DEPTH: 69.0 m.
PLACE:
DATE: 07-05-90
BAROMETRIC PRESSURE:
CLOUD:
SECCHI DISK DEPTH:

CHARACTER
LONGITUDE: 27.10°
LATITUDE: 40.33°
WIND:
WIND DIRECTION:

OS:
SD/Hg:
SM/Hg: 2.5
SH/Hg:
BOD-5;

TIME: 23:14
AIR TEMPERATURE:
WAVE STATE:
VISIBILITY:

TR:
SD/Cd:
SM/Cd:
SH/Cd:
COD:

TSS: 0.74
SD/PH:
SM/PH:
FC/0m.:
FC/2m.:

DEPTH	T	S	SI-T	BOD	P04-P		N03-N		N02-N	
					Si	CHL-a	Si	CHL-a	Si	CHL-a
0.	11.25	23.94	18.19	12.09	0.06	0.56	2.06	0.43	0.34	0.34
5.	14.36	24.13	17.74	10.06	-	-	-	-	0.14	2.48
10.	14.44	24.39	17.92	9.68	-11	-	-	-	0.47	0.81
15.	13.06	24.74	18.45	9.99	-	-	-	-	0.10	0.46
20.	10.61	26.97	20.59	10.30	0.14	0.14	5.23	0.93	0.37	1.26
25.	11.91	32.37	24.57	8.80	-	-	-	-	3.29	12.24
30.	14.08	37.71	28.27	6.20	0.40	-	-	-	2.77	24.69
40.	14.45	38.31	28.65	4.00	0.47	-	-	-	6.88	29.83
50.	14.45	38.47	28.77	3.55	0.68	-	-	-	3.87	22.97
60.	14.45	38.47	28.77	3.55	0.37	-	-	-	-	-

STATION NUMBER: M-79
TOTAL DEPTH: 68.0 m.
PLACE:
DATE: 07-05-90
BAROMETRIC PRESSURE:
CLOUD:
SECCHI DISK DEPTH:

CHARACTER
LONGITUDE: 27. 9°
LATITUDE: 40.35°
WIND:
WIND DIRECTION:

OS:
SD/Hg:
SM/Hg:
SH/Hg:
BOD-5;

TR:
SD/Cd:
SM/Cd:
SH/Cd:
COD:

TSS:
SD/PH:
SM/PH:
FC/0m.:
FC/2m.:

TIME: 23:45
AIR TEMPERATURE:
WAVE STATE:
VISIBILITY:

STATION NUMBER: 0-1
 TOTAL DEPTH: 68.0 m.
 PLACE:
 DATE: 07-05-90
 BAROMETRIC PRESSURE:
 CLOUD:
 SECCHI DISK DEPTH:
 OS:
 SD/Hg;
 SW/Hg; 5.5
 SM/Hg;
 SH/Hg;
 BOD-5;

CHARACTER
 TIME: 18:24
 AIR TEMPERATURE:
 WAVE STATE:
 VISIBILITY:
 TR:
 SD/Cd;
 SW/Cd;
 SM/Cd;
 FC/0m.;
 DO;

DEPTH	T	S	SI-T	D0	P04-P	+ N02-N	SI N03-N	CHL-a
0.	15.32	24.31	17.69	9.72	0.08	0.14	2.06	0.62
5.	14.24	24.56	18.09	9.95				0.45
10.	13.79	24.53	18.16	9.93	-11	0.96	2.20	0.38
15.	12.77	25.32	18.95	10.21				0.67
20.	11.60	26.38	19.97	10.16	0.08	0.15	3.30	0.89
25.	11.81	30.95	23.48	9.34				1.68
30.	14.20	37.92	28.41	6.59	0.38	3.50	10.87	0.35
40.	14.48	38.41	28.72	3.97	0.57	5.20	19.88	
50.	14.46	38.78	29.01	5.66	0.20	1.85	13.20	
65.	14.46	38.78	29.01	5.66	0.03	0.77	1.65	

STATION NUMBER: D-2
TOTAL DEPTH: 78.0 m.

PLACE:
DATE:07-05-90
BAROMETRIC PRESSURE:
CLOUD:
SECCHI DISK DEPTH:
OS:
SD/Hg:
SM/Hg:8.8
SI/Hg:
BOD-5:

CHARACTER
LONGITUDE:26.38'
LATITUDE:40.20'
WIND:
WIND DIRECTION:

TIME:16:53
AIR TEMPERATURE:
WAVE STATE:
VISIBILITY:

TR:
SD/Cd;
SM/Cd;
SM/Cd;
COD;

DEPTH	T	S	SI-T	DO	P04-P	N03-N	+	Si	CHL-a
						N02-N			
0.	14.86	24.53	17.94	10.03	0.08	0.15	2.13		
5.	14.42	24.58	18.07	10.04					
10.	13.49	24.92	18.51	10.19	0.02	0.20	2.54		
15.	12.64	25.38	19.02	10.26					
20.	11.01	27.49	20.93	10.38	0.06	0.08	4.54		
25.	12.52	33.53	25.35	8.50			7.15		
30.	14.29	38.15	28.56	6.09	0.19	4.20	9.42		
35.					0.10	5.20	12.38		
40.	14.38	38.45	28.78	5.43	0.04	3.23	11.83		
50.	14.47	38.87	29.08	7.88	0.06	1.42	1.38		
60.	14.39	38.94	29.15	8.38	0.06	0.88	0.55		
65.					0.04	0.74	1.10		
75.					0.02	0.51	0.55		

STATION NUMBER: C-5
TOTAL DEPTH: 78.0 m.
PLACE:
DATE:07-05-90
BAROMETRIC PRESSURE:
CLOUD:
SECCHI DISK DEPTH:
OS:
SD/Hg:
SM/Hg:2.5

CHARACTER
LONGITUDE:26.27'
LATITUDE:40.13'
WIND:
WIND DIRECTION:

TIME:14:49
AIR TEMPERATURE:
WAVE STATE:
VISIBILITY:

TR:
SD/Cd;
SM/Cd;
CHL-a

TSS:1.04
SD/PH:
SM/PH:

STATION NUMBER: D-6

TOTAL DEPTH: 87.0 m.

PLACE:

DATE: 07-05-90

BAROMETRIC PRESSURE:

CLOUD:

SECCHI DISK DEPTH:

CHARACTER
LONGITUDE: 26.13°
LATITUDE: 40. 1°
WIND:
WIND DIRECTION:

OS:

SD/Hg:

SM/Hg:

SN/Hg:

BOD-5:

TR:

SD/Cd:

SM/Cd:

SN/Cd:

CO₂:

TSS: 0.58

SD/PH:

SM/PH:

FC/0m.:

FC/2m.:

DEPTH	T	S	SI-T	DO	P04-P	N03-N	Si	CHL-a
0.	13.78	31.88	23.82	8.45	-11	0.84	1.83	0.30
5.	13.82	33.80	25.30	8.36				
10.	14.24	38.21	28.62	7.92	-11	0.54	1.24	0.35
15.	14.28	38.76	29.04	8.06				
20.	14.21	38.91	29.16	8.23	0.05	0.49	0.62	3.05
25.	14.28	38.96	29.19	8.18				
30.	14.27	38.98	29.21	8.21	0.04	0.31	0.55	0.60
40.	14.14	38.97	29.23	8.21	0.07	1.03	0.55	0.36
50.	14.24	39.03	29.25	8.06	0.06	0.74	0.41	
60.	14.18	39.02	29.26	8.06	0.04	0.23	0.48	
70.	14.18	39.02	29.26	8.01	0.04	0.33	0.69	
80.	14.16	39.02	29.26	7.93	0.06	0.57	0.62	

STATION NUMBER: C-7

TOTAL DEPTH: 66.0 m.

PLACE:

DATE: 07-05-90

BAROMETRIC PRESSURE:

CLOUD:

SECCHI DISK DEPTH:

CHARACTER
LONGITUDE: 26. 8°
LATITUDE: 40. 1°
WIND:
WIND DIRECTION:

OS:

SD/Hg:

SM/Hg:

SN/Cd:

FC/0m.:

FC/2m.:

TSS: 0.82

SD/PH:

SM/PH:

FC/0m.:

FC/2m.:

TR:

SD/Cd:

SM/Cd:

SN/Cd:

FC/0m.:

FC/2m.:

Bİ YOK İMYASAI, PARAMETRELERİN DEĞİŞİMİ

BOĞAZLARI BOYUNCA STANDART DERİNLİKLERDE ÖLÇÜLEN

ÇİZELGE -6: TEMMUZ, 1990 DÖNEMİNDE MARMARA DENİZİ VE

STATION NUMBER: 14-16
TOTAL DEPTH: 1220.0 m.

PLACE:

DATE: 28-07-90

BAROMETRIC PRESSURE:

CLOUD:

SECCHI DISK DEPTH:

SEASON:
STATION TYPE:

CHARACTER

LONGITUDE: 23°. 0'

LATITUDE: 40. 46'

WIND:

WIND DIRECTION:

WS;

SD/Hg;

SH/Hg; 0.2

AIR TEMPERATURE:

MALE STATE:

VISIBILITY:

TIME: 13:10

FC/1m; ;

FC/2m; ;

CO; ;

TR;

SD/Cd;

SH/Cd;

SH/Cd;

CO; ;

TSS; 0.84

SD/PH;

SH/PH;

FC/1m; ;

FC/2m; ;

DEPTH	T	S	SI-T	D	P14-P	NO3-N		CHL-a
						N02-N	N03-N	
0,	21.57	23.52	15.64	6.65	0.06	0.35	3.79	0.56
5,	21.57	23.55	15.65	7.35	0.22	1.52	8.93	0.76
9,								
10,	20.32	24.19	16.46	7.64				
15,	13.66	29.03	21.65	6.14				
20,	13.92	36.80	27.60	1.82	0.61	2.03	21.53	0.79
25,	14.58	38.17	28.51	-15				
30,	14.82	38.48	28.70	-18	1.08	8.72	32.43	0.19
40,	14.91	38.68	28.83	.35				
45,								
50,	14.82	38.70	28.87	.14				
60,	14.77	38.71	28.89	-.01				
70,	14.72	38.71	28.90	-.10				
75,	14.69	38.71	28.91	-.12	0.99	9.68	36.35	
80,	14.66	38.71	28.91	-.19				
90,	14.62	38.70	28.91	-.27				
100,	14.58	38.70	28.92	-.13				
125,	14.52	38.70	28.93	-.22				
150,	14.43	38.68	28.94	-.35				
200,	14.36	38.67	28.95	-.29				
250,	14.34	38.66	28.95	-.18	1.01	9.36	43.24	
300,	14.33	38.66	28.95	-.06				

STATION NUMBER: M-22
TOTAL DEPTH: 103.0 m.
PLACE: DATE: 28-07-90
BAROMETRIC PRESSURE:
CLOUD: SECCHI DISK DEPTH:

SEASON: STATION TYPE: CHARACTER
TIME: AIR TEMPERATURE: LONGITUDE: 29° 38'
WAVE STATE: LATITUDE: 40° 45'
VISIBILITY: WIND DIRECTION:
WS: SW/Hg: SW/rd: SW/rp: TSS: 1.59
SW/Hg: SW/rd: SW/rp: FC/0m.:
SW/Hg: SW/rd: FC/2m.:
B00-5;4.04 C00: FC/2m.:

DEPTH T S SI-T DEP P04-P H03-H H02-H CHL-a
0, 20.01 25.14 17.26 7.40 0.12 0.22 3.93 0.53
5, 20.10 25.25 17.32 6.93 0.09 0.38 3.59 1.85
10, 16.61 26.24 18.89 8.82 0.27 0.35 8.35 0.46
12, 13.42 27.76 20.71 4.99 0.15 0.36 10.53 2.50
15, 13.42 27.76 20.71 4.99 0.16 0.26 19.64 2.10
19, 13.99 36.53 27.37 1.58 0.22 33.33 0.85
20, 13.99 36.53 27.37 1.58 0.22 33.33 0.85
22, 14.63 38.17 28.50 .49 0.65 0.27 35.68
30, 14.70 38.30 28.59 ,14 0.65 0.27 35.68
40, 14.75 38.41 28.66 ,26 0.29 7.86 37.30
49, 14.78 39.49 28.71 ,28 0.29 7.97 40.19
50, 14.78 39.49 28.71 ,28 0.29 7.97 40.19
60, 14.82 38.54 28.75 ,14 0.29 7.97 40.19
70, 14.81 38.55 28.75 ,07 0.29 7.97 40.19
75, 14.81 38.55 28.76 ,10 0.29 7.97 40.19
76, 14.81 38.56 28.76 ,10 0.29 7.97 40.19
80, 14.81 38.57 28.77 ,18 0.29 7.97 40.19
90, 14.81 38.57 28.77 ,18 0.29 7.97 40.19

STATION NUMBER: M-24
TOTAL DEPTH: 103.0 m.
PLACE: DATE: 29-07-90
BAROMETRIC PRESSURE:
CLOUD: SECCHI DISK DEPTH:
SEASON: STATION TYPE: CHARACTER
TIME: AIR TEMPERATURE: LONGITUDE: 29° 0'
WAVE STATE: LATITUDE: 40° 40'
VISIBILITY: WIND DIRECTION:
WS: SW/Hg: SW/rd: SW/rp: TSS: 1.59
SW/Hg: SW/rd: SW/rp: FC/0m.:
SW/Hg: SW/rd: FC/2m.:
B00-5; C00: FC/2m.:

STATION NUMBER: K3
TOTAL DEPTH: 43.0 m.
PLACE: DATE: 30-07-90
BAROMETRIC PRESSURE:
CLOUD:
SECCHI DISK DEPTH:
OS: SD/Hg;
SI/Hg; 0.2
SI/Hg;
800-51.80

SEASON:
STATION TYPE:
CHARACTER
LONGITUDE: 29°. 8'
LATITUDE: 40.25'
WIND:
WIND DIRECTION:

TB: TSS:0.71
SD/Pt;
SI/Cd;
SI/Cd;
COO;

DEPTH T S SI-T DO P04-P H02-N Si CHL-a
0. 20.76 24.08 16.27 5.95 0.08 7.28 4.71
5. 20.74 24.09 16.28 6.96
10. 18.78 24.80 17.30 8.59 0.08 0.58 4.17
15. 16.22 25.46 18.38 8.59
20. 13.92 28.67 21.32 7.52 0.73 5.29 21.67
25. 14.19 31.07 27.75 3.74
30. 14.59 38.12 28.47 1.97
35. , , , , 1.01 9.32 40.03

STATION NUMBER: K4
TOTAL DEPTH: 10.0 m.
PLACE: DATE: 30-07-90
BAROMETRIC PRESSURE:
CLOUD:
SECCHI DISK DEPTH:
OS: SD/Hg;
SI/Hg; 0.5
SI/Hg;
800-51.71

SEASON:
STATION TYPE:
CHARACTER
LONGITUDE: 28.31'
LATITUDE: 40.24'
WIND:
WIND DIRECTION:

TB: TSS:1.92
SD/Pt;
SI/Cd;
SI/Cd;
COO:0.59

DEPTH T S SI-T DO P04-P H02-N Si CHL-a
0. 22.03 23.22 15.28 9.24 0.09 0.39 3.47
5. 22.01 23.72 15.30 9.26

STATION NUMBER: H-35
TOTAL DEPTH: 52.0 m.
PLACE: DATE: 30-07-90
TIME: 02:15
CHARACTER
LONGITUDE: 28.30'
LATITUDE: 40.15'

STATION NUMBER: H-26
 TOTAL DEPTH: 1090.0 m.
 PLACE: DATE: 29-07-90
 BAROMETRIC PRESSURE:
 CLOUD:
 SECHI DISK DEPTH:
 05;
 SD/Hg;
 SW/Hg;
 SH/Hg;
 R00-5;

SEASON:
STATION TYPE:

CHARACTER
 LONGITUDE: 28° 45'
 LATITUDE: 40° 50'
 WIND:
 WAVE STATE:
 VISIBILITY:

DEPTH	T	S	SI-T	P00	P04-P	H03-H	H02-H	CHL-a
0.	22.18	21.82	14.19	8.00	-11	0.21	2.96	
5.	21.29	22.08	14.62	8.88	-11	0.24	3.25	
10.	19.94	21.89	14.81	9.68	-11	0.20	3.88	
15.	15.67	26.20	19.06	10.12				
20.	13.46	32.25	24.17	7.78				
25.	14.82	38.35	28.60	3.52	1.04	9.18	30.08	
30.	14.95	38.47	28.66	1.80	1.10	10.11	31.43	
40.	14.97	38.52	28.70	3.46				
50.	14.92	38.54	28.72	1.44	0.95	8.58	32.97	
60.	14.88	38.56	28.75	1.49				
70.	14.86	38.58	28.77	1.52				
75.	14.84	38.59	28.78	1.56	0.99	9.39	34.27	
80.	14.83	38.59	28.78	1.56				
90.	14.77	38.60	28.80	1.42				
100.	14.72	38.60	28.81	1.23	1.08	10.11	37.57	
125.	14.63	38.61	28.84	1.21	1.07	9.98	38.92	
150.	14.58	38.61	28.85	1.17				
154.					0.94	8.26	40.14	
175.					1.01	10.05	41.35	
200.	14.45	38.59	28.87	.98	0.98	7.79	43.51	
225.					1.00	10.05	44.14	
250.	14.38	38.58	28.88	.94	0.90	8.71	45.78	
300.	14.35	38.58	28.88	1.10	1.02	9.68	46.05	
400.	14.32	38.58	28.89	1.49	0.84	7.79	44.11	
500.	14.31	38.59	28.89	1.66	0.87	7.74	42.05	
600.	14.31	38.59	28.90	1.79	0.82	7.29	41.22	
700.	14.31	38.59	28.90	1.81	0.89	8.45	40.81	
800.	14.30	38.59	28.90	1.83	1.01	9.16	40.41	
900.	14.30	38.59	28.90	1.94	0.83	8.00	39.81	
1000.	14.29	38.59	28.90	2.09				

STATION NUMBER: H-34
 TOTAL DEPTH: 67.0 m.
 PLACE: DATE: 30-07-90
 BAROMETRIC PRESSURE:
 CLOUD:
 SECHI DISK DEPTH:

SEASON:
STATION TYPE:

CHARACTER
 LONGITUDE: 29° 4'
 LATITUDE: 40° 27'
 WIND:
 WAVE STATE:
 VISIBILITY:

DEPTH	T	S	SI-T	P00	P04-P	H03-H	H02-H	CHL-a
0.	22.18	21.82	14.19	8.00	-11	0.21	2.96	
5.	21.29	22.08	14.62	8.88	-11	0.24	3.25	
10.	19.94	21.89	14.81	9.68	-11	0.20	3.88	
15.	15.67	26.20	19.06	10.12				
20.	13.46	32.25	24.17	7.78				
25.	14.82	38.35	28.60	3.52	1.04	9.18	30.08	
30.	14.95	38.47	28.66	1.80	1.10	10.11	31.43	
40.	14.97	38.52	28.70	3.46				
50.	14.92	38.54	28.72	1.44	0.95	8.58	32.97	
60.	14.88	38.56	28.75	1.49				
70.	14.86	38.58	28.77	1.52				
75.	14.84	38.59	28.78	1.56	0.99	9.39	34.27	
80.	14.83	38.59	28.78	1.56				
90.	14.77	38.60	28.80	1.42				
100.	14.72	38.60	28.81	1.23	1.08	10.11	37.57	
125.	14.63	38.61	28.84	1.21	1.07	9.98	38.92	
150.	14.58	38.61	28.85	1.17				
154.					0.94	8.26	40.14	
175.					1.01	10.05	41.35	
200.	14.45	38.59	28.87	.98	0.98	7.79	43.51	
225.					1.00	10.05	44.14	
250.	14.38	38.58	28.88	.94	0.90	8.71	45.78	
300.	14.35	38.58	28.88	1.10	1.02	9.68	46.05	
400.	14.32	38.58	28.89	1.49	0.84	7.79	44.11	
500.	14.31	38.59	28.89	1.66	0.87	7.74	42.05	
600.	14.31	38.59	28.90	1.79	0.82	7.29	41.22	
700.	14.31	38.59	28.90	1.81	0.89	8.45	40.81	
800.	14.30	38.59	28.90	1.83	1.01	9.16	40.41	
900.	14.30	38.59	28.90	1.94	0.83	8.00	39.81	
1000.	14.29	38.59	28.90	2.09				

STATION NUMBER: M-36
 TOTAL DEPTH: 65.0 m.
 PLACE: DATE: 30-07-90
 BAROMETRIC PRESSURE:
 CLOUD:
 SECCHI DISK DEPTH:
 BS:
 SD/Hg:
 SW/Hg:
 SW/Hg:
 BOD-5:

SEASON:
 STATION TYPE:
 CHARACTER
 LONGITUDE: 28.30°
 LATITUDE: 40.35°
 WIND:
 WIND DIRECTION:

DEPTH	T	S	SI-T	DO	P04-P	H03-N	H02-N	Si	CHL-a
0,	22.85	22.96	14.87	7.83	0.05	0.17	3.28	0.56	
5,	22.82	22.96	14.88	8.52	0.04	0.12	3.12	1.05	
10,	22.76	22.95	14.89	8.71	0.04	0.15	3.28	0.90	
15,	19.40	23.98	16.53	9.57	0.05	0.43	4.72	0.70	
20,	13.43	28.47	21.22	7.74	0.27	0.38	8.83	1.05	
25,	13.93	36.92	27.69	4.66	0.84	6.71	23.06	1.26	
30,	14.57	38.19	28.53	2.59	0.81	7.30	29.44		
40.,	14.68	39.52	28.76	2.32	0.93	8.37	31.11		
50.,	14.64	38.54	28.79	1.45	1.12	8.52	27.44		
60.,	14.64	38.54	28.79	1.37	1.14	8.57	36.94		

STATION NUMBER: M-38
 TOTAL DEPTH: 490.0 m.
 PLACE: DATE: 30-07-90
 BAROMETRIC PRESSURE:
 CLOUD:
 SECCHI DISK DEPTH:
 BS:
 SD/Hg:
 SW/Hg:
 SW/Hg:
 BOD-5:

SEASON:
 STATION TYPE:
 CHARACTER
 LONGITUDE: 28.30°
 LATITUDE: 40.45°
 WIND:
 WIND DIRECTION:

DEPTH	T	S	SI-T	DO	P04-P	H03-N	H02-N	Si	CHL-a
0,	22.80	23.04	14.94	11.36	0.06	0.15	2.95		
5,	22.75	22.92	14.87	7.82					

STATION NUMBER: M-39
 TOTAL DEPTH: 720.0 m.
 PLACE: DATE: 30-07-90
 BAROMETRIC PRESSURE:
 CLOUD: SEECHI DISK DEPTH:
 OS: 05;
 SD/Hg: SD/Cd;
 SH/Hg: SH/Cd;
 COO: 800-5;

DEPTH	T	S	SI-T	DO	PO4-P	M03-N		M02-N	
						Si	CHL-a	Si	CHL-a
0,	22.78	22.87	14.83	6.40	0.05	0.13	3.09	0.54	0.56
5,	22.62	22.82	14.83	7.71	0.21	0.33	3.07	0.56	2.04
10,	22.51	22.81	14.85	8.39	0.07	0.12	3.09	2.30	2.30
15,	21.74	23.46	15.55	8.55	0.13	0.17	3.67	0.34	0.34
20,	13.80	27.91	20.76	9.14	0.23	0.68	8.19	0.70	0.70
25,	14.39	37.64	28.14	5.45	0.87	7.76	26.67		
30,	14.89	38.38	28.61	2.69					
40,	14.96	38.54	28.71	1.78	0.99	9.18	33.33		
50,	14.88	38.58	28.76	1.51					
60,	14.82	38.59	28.78	1.25					
70,	14.77	38.60	28.80	1.25					
75,	14.74	39.60	28.81	1.29	0.85	7.86	35.56		
80,	14.71	39.40	28.82	1.23					
90,	14.67	39.60	28.83	1.15					
100,	14.66	38.61	28.83	1.19	1.02	9.03	38.41		
125,	14.58	38.61	28.85	1.19	1.05	9.77	38.28		
150,	14.51	38.60	28.86	1.04	1.08	9.95	40.31		
175,					1.03	9.80	40.93		
200,	14.44	38.59	28.87	1.08	1.03	10.10	43.06		
250,	14.39	38.59	28.88	1.30	1.07	9.87	43.89		
300,	14.36	38.59	28.88	1.31	1.02	9.59	44.17		
400,	14.32	38.59	28.89	1.46	0.89	8.57	45.42		
500,	14.31	38.60	28.90	2.08	0.60	5.05	27.33		
600,	14.27	38.60	28.91	2.39	0.75	8.21	38.06		
700,	14.27	38.60	28.92	2.50					

STATION NUMBER: M-40
 TOTAL DEPTH: 93.0 m.
 PLACE: DATE: 30-07-90
 BAROMETRIC PRESSURE:
 CLOUD: SEECHI DISK DEPTH:
 OS: 05;
 SD/Hg: SD/Cd;
 SH/Hg: SH/Cd;
 COO: 800-5;

SEASON:

STATION TYPE:

CHARACTER

LONGITUDE: 28.30°

LATITUDE: 40.56°

AIR TEMPERATURE:

WAVE STATE:

WIND DIRECTION:

TSS:

SD/PPh:

SH/FPh:

FC/0m.:

FC/2m.:

COO:

STATION NUMBER: M-41
TOTAL DEPTH: 54.0 m.
PLACE: DATE: 30-07-90
BAROMETRIC PRESSURE:
CLOUD: SECCHI DISK DEPTH:

SEASIN: STATION TYPE: CHARACTER
TIME: 16:10 LONGITUDE: 28.15°
WAVE STATE: LATITUDE: 41. 2°
VISIBILITY: WIND: WIND DIRECTION:
OS: TR: TSS: 1.11
SD/Hg: SD/Cd: SD/PH:
SM/Hg: 0.2 SW/Tr: SW/PH:
SM/Cd: FC/0m.: FC/2m.:
BOD-5: CO2:

DEPTH	T	S	SI-T	DO	P04-p	P04-p	H03-H	H02-H	CHL-a
0.	23.43	23.06	14.79	7.13	0.06	0.16	3.07		
5.	22.95	23.30	15.13	7.40					
10.	22.98	23.12	14.96	6.52	0.09	0.11	3.30		
15.	22.76	23.17	15.05	8.88					
20.	13.16	30.70	23.04	10.31	0.35	0.83	9.00		
25.	14.47	37.99	28.40	3.76					
30.	14.85	38.46	28.68	2.45	1.09	8.72	30.00		
40.	14.83	38.60	28.79	1.90	1.09	8.78	35.56		

STATION NUMBER: M-43
TOTAL DEPTH: 643.0 m.
PLACE: DATE: 30-07-90
BAROMETRIC PRESSURE:
CLOUD: SECCHI DISK DEPTH:
SEASIN: STATION TYPE: CHARACTER
TIME: 18:00 LONGITUDE: 28.15°
WAVE STATE: LATITUDE: 40. 50°
VISIBILITY: WIND: WIND DIRECTION:
OS: TR: TSS: 1.11
SD/Hg: SD/Cd: SD/PH:
SM/Hg: 0.2 SW/Tr: SW/PH:
SM/Cd: FC/0m.: FC/2m.:
BOD-5: CO2:

DEPTH	T	S	SI-T	DO	P04-p	P04-p	H03-H	H02-H	CHL-a
0.	22.98	22.98	14.86	63.76	0.04	0.25	3.19		
5.	22.72	22.75	14.74	63.77					

STATION NUMBER:	H-47	SESSION:	
TOTAL DEPTH:	50.0 m.	STATION TYPE:	
PLACE:		TIME:	21:15
DATE:	20-07-90	AIR TEMPERATURE:	
		WAVE STATE:	
		VISIBILITY:	
		BAROMETRIC PRESSURE:	
		CLOUD:	
		SEUCHI DISK DEPTH:	

TOUCH DERTIN:	July 9, 1950.
PLACE:	
DATE: 30-07-90	
BAROMETRIC PRESSURE:	
CLOUD:	
SECCHI DISK DEPTH:	
TIME: 21:15	
AIR TEMPERATURE:	
WAVE STATE:	
VISIBILITY:	
CHARACTER:	
LONGITUDE: 28° 15'	
LATITUDE: 40° 30'	
MIND:	
MIND DIRECTION:	
TSS:	
SD/PL:	
SM/PH:	
FC./Rm.:;	
FC./20.:;	
TR:	
SD:	
SD/Cd:	
SM/Cd:	
SM/Cd:	
FCD:	
DD:	
OS:	
SD/Hg:	
SM/Hg:	
SM/Hg:	
800-5:	

DEPTH	T	S	S1-T	D0	P04-P	N02-N	+ Si	CHL-a
0,	26,32	22,75	13,77	5,87	0,11	0,17	3,09	0,26
5,	23,85	23,10	14,71	7,56	0,06	0,09	3,00	0,92
10,	22,82	23,21	15,07	8,40	0,11	0,10	3,26	0,81
15,	18,63	24,03	16,75	9,44	0,10	0,17	4,44	1,80
20,	13,70	29,05	21,65	8,40	0,19	1,68	14,03	1,73
25,	13,95	37,34	28,01	5,03	0,84	7,14	23,06	2,80
30,	14,57	38,28	28,60	3,36				
38,					0,76	7,15	29,06	
40,	14,67	38,55	28,78	2,59				8,14
45,					0,75			31,81

STATION NUMBER:	H-48	SEASON:	
TOTAL DEPTH:	47.0 m.	STATION TYPE:	
PLACE:		CHARACTER	
DATE:	30-07-90	TIME:	23:00
BAROMETRIC PRESSURE:		AIR TEMPERATURE:	
CLOUD:		WAVE STATE:	
SECCHI DISK DEPTH:		VISIBILITY:	
		LONGITUDE:	28.8'
		LATITUDE:	40.25'
		WIND:	
		WIND DIRECTION:	

TSS:1.33
SD/PH:
Cu/PH:

STATION NUMBER: M-49
 TOTAL DEPTH: 32.0 m.
 PLACE: DATE: 31-07-90
 BAROMETRIC PRESSURE:
 CLOUD: SECCHI DISK DEPTH:
 OS: SD/Hg: SW/Hg: SH/Hg: BOD-5:
 SEASON: STATION TYPE: CHARACTER
 TIME: 00:05 AIR TEMPERATURE:
 WAVE STATE: VISIBILITY:
 WIND DIRECTION:
 TR: SD/Fd: SW/Fd: SH/Cd: COD:
 TSS: 1.94 SD/FH: SW/FH: FC/0m.: FC/2m.:
 SD/Cd: SW/Cd: SH/Cd: COD:
 CHL-a

DEPTH	T	S	SI-T	DO	P04-P	N02-N	N03-N	Si	CHL-a
0,	23.28	23.40	15.09	3.75		1.25		0.09	3.47
5,	23.36	23.38	15.03	7.92					
10,	23.37	23.35	15.02	8.79	0.05			0.15	23.00
15,	17.65	25.32	17.96	9.77					
20,	14.14	31.32	23.32	6.40	0.91			5.10	3.61
25,	14.26	37.66	26.19	3.51					

STATION NUMBER: M-50
 TOTAL DEPTH: 48.0 m.
 PLACE: DATE: 31-07-90
 BAROMETRIC PRESSURE:
 CLOUD: SECCHI DISK DEPTH:
 OS: SD/Hg: SW/Hg: SH/Hg: BOD-5:
 SEASON: STATION TYPE: CHARACTER
 TIME: 02:00 AIR TEMPERATURE:
 WAVE STATE: VISIBILITY:
 WIND DIRECTION:
 TR: SD/Fd: SW/Fd: SH/Cd: COD:
 TSS: 1.90 SD/FH: SW/FH: FC/0m.: FC/2m.:
 SD/Cd: SW/Cd: SH/Cd: COD:
 CHL-a

STATION NUMBER: M-52
 TOTAL DEPTH: 1030.0 m.
 PLACE:
 DATE: 31-07-90
 BAROMETRIC PRESSURE:
 CLOUD:
 SECCHI DISK DEPTH:
 05;
 SD/Hg;
 SH/Hg;
 SH/Hg;
 800-5;

SEASON:
 STATION TYPE:
 CHARACTER
 TIME: 04:40
 AIR TEMPERATURE:
 WAVE STATE:
 VISIBILITY:

LONGITUDE: 28. 0'
 LATITUDE: 40. 45'
 WIND:
 WIND DIRECTION:

TR:
 SD/Cd;
 SH/Cd;
 SH/Cd;
 C00;

TSS:
 SD/PH;
 SH/PH;
 FC/0m.;
 FC/2m. ;

DEPTH	T	S	SI-T	D0	P04-P	N03-N	N02-N	CHL-a
0.	21.41	23.63	15.76	9.07	0.24	0.10	3.14	
5.	22.47	23.07	15.06	8.72	0.14	0.10	4.07	
10.	22.50	23.03	15.02	8.73				
15.	19.38	24.30	16.77	9.30				
20.	13.35	29.50	22.07	8.61	0.61	2.65	18.89	
25.	14.07	37.22	27.89	5.08				
30.	14.75	38.29	28.57	2.93	0.98	8.21	26.81	
40.	14.93	38.54	28.72	2.21				
50.	14.85	38.58	28.77	1.71	0.68	9.59	34.31	
60.	14.77	38.60	28.80	1.44				
70.	14.69	38.60	28.82	1.32				
75.	14.67	38.67	28.88	1.21	1.13	9.59	38.72	
80.	14.66	38.56	28.80	1.18				
90.	14.60	37.93	28.32	1.02				
100.	14.57	37.03	27.63	.94	1.12	0.67	39.17	
125.	14.52	35.81	26.70	1.06				
150.	14.49	35.44	26.42	1.07	1.08	9.59	41.25	
200.	14.40	30.01	22.25	1.03				
250.	14.38	29.24	21.67	1.09	1.08	9.59	44.17	
300.	14.36	28.69	21.25	1.15				
400.	14.42	38.62	28.89	2.52				
500.	14.38	38.62	28.90	2.91	0.91	7.86	34.03	
600.	14.28	38.60	28.91	2.59				

STATION NUMBER:	M-53	STATION TYPE:						
TOTAL DEPTH:	1260.0 m.							
PLACE:								
DATE: 31-07-90								
BAROMETRIC PRESSURE:								
CLOUD:								
SECCHI DISK DEPTH:								
OS:	TR;	TSS;						
SD/Hg:	SD/Cd;	SD/PH;						
SW/Hg:	SW/CD;	SW/PH;						
SW/Hg:	SW/Cd;	FC/0m.;						
BOD-5:	CD;	FC/2m.;						
DEPTH	T	S	SI-T	00	P04-P	N03-N	N02-N	SI
0.	22.90	22.95	14.85	9.52	0.18	0.19	2.98	
5.	22.90	22.94	14.84	7.93	0.10	0.08	3.05	
9.								
10.	22.73	22.93	14.87	7.99				
15.	18.15	24.36	17.57	9.55				
20.	13.41	30.04	22.48	7.93	0.50	1.33	15.28	
25.	14.18	36.81	27.55	4.58				
28.					1.00	8.62	27.78	
30.	14.83	38.31	28.56	2.90				
40.	14.99	38.56	28.72	2.10				
50.	14.89	38.58	28.76	1.76				
51.					1.13	9.69	34.31	
60.	14.82	38.59	28.79	1.43				
70.	14.76	38.60	28.80	1.32				
73.					1.16	9.92	36.53	
75.	14.73	38.60	28.81	1.24				
80.	14.72	38.60	28.82	1.15				
90.	14.69	38.60	28.82	1.21				
100.	14.67	38.61	28.83	1.34				
125.	14.64	38.61	28.84	1.49				
150.	14.60	38.61	28.85	1.34				
155.					1.11	9.80	38.61	

STATION NUMBER: M-54
 TOTAL DEPTH: 933.0 m.
 PLACE:
 DATE: 31-07-90
 BAROMETRIC PRESSURE:
 CLOUD:
 SECCHI DISK DEPTH:
 800-5;

SEASON:

STATION TYPE:

CHARACTER

LONGITUDE: 29° 0'
 LATITUDE: 40.54°
 WIND:
 WIND DIRECTION:

DS:
 SD/Hg;
 SH/Hg;
 SH/Hg;
 800-5;

TR:
 SD/Cd;
 SH/Cd;
 SH/Cd;
 C00;

TSS:
 SD/PH;
 SH/PH;
 FC/0m.;
 FC/2m.;

DEPTH	T	S	SI-T	DO	P04-P	NO3-N		CHL-a
						H02-N	+ Si	
0.	22.83	23.02	14.92	7.81	0.04	0.21	3.09	
5.	22.83	23.02	14.93	8.11	0.04	0.08	3.19	
10.	22.72	23.07	14.99	8.36	0.11	0.08	5.56	
15.	18.51	24.51	17.14	9.54				
20.	13.53	29.44	21.99	8.62	0.63	0.94	3.47	
25.	14.37	32.79	23.27	5.29				
30.	14.91	38.43	28.64	2.95	1.00	3.62	27.78	
40.	14.96	38.57	28.74	2.16				
50.	14.83	38.60	28.79	1.70	1.12	3.74	35.00	
60.	14.76	38.60	28.81	1.37				
70.	14.72	38.60	28.82	1.27				
75.	14.71	38.61	28.82	1.28	1.11	3.80	36.81	
80.	14.70	38.61	28.82	1.32				
90.	14.67	38.61	28.83	1.38				
100.	14.66	38.62	28.84	1.49	1.08	3.74	37.50	
125.	14.60	38.61	28.85	1.31				
150.	14.54	38.61	28.86	1.42	1.04	10.10	40.56	
200.	14.46	38.60	28.87	1.27				
250.	14.40	38.59	29.09	1.22	1.11	2.62	43.61	

STATION NUMBER: M-56
 TOTAL DEPTH: 950.0 m.
 PLACE:
 DATE: 31-07-90
 BAROMETRIC PRESSURE:
 CLOUD:
 SECCHI DISK DEPTH:
 SEASON:
 STATION TYPE:
 CHARACTER:
 TIME: 10:40
 AIR TEMPERATURE:
 WAVE STATE:
 VISIBILITY:
 DS:
 SD/Hg:
 Sd/Hg:
 SM/Hg:
 B00-5:
 TR:
 SD/Cd:
 Sd/Cd:
 SM/Cd:
 C00:
 TSS:
 SD/PH:
 Sd/PH:
 FC/0m.:
 FC/2m.:
 WIND DIRECTION:
 NO3-N
 NO2-N
 Si
 CHL-a

DEPTH	T	S	SI-T	D0	P04-P	N03-N	N02-N	Si	CHL-a
0.	23.63	23.01	14.70	1.38	0.08	0.22	2.67		
5.	23.53	22.96	14.68	6.79					
10.	23.47	22.94	14.68	8.58	0.04	0.07	2.77		
15.	23.22	22.96	14.77	8.58					
20.	13.30	29.53	22.11	10.25	0.45	1.45	12.92		
25.	14.25	37.33	27.93	5.14					
30.	14.74	38.33	28.60	4.19	0.89	0.86	25.80		
40.	14.88	38.52	28.72	2.37					
50.	14.80	38.59	28.79	1.88	1.07	9.67	34.73		
60.	14.72	38.60	28.81	1.53					
70.	14.67	38.61	28.83	1.47					
75.	14.65	38.61	28.83	1.47					
80.	14.63	38.61	28.84	1.48					
90.	14.59	38.61	28.85	1.51					
100.	14.56	38.61	28.86	1.58	1.08	9.72	38.75		
125.	14.49	38.60	28.87	1.56					
150.	14.46	38.60	28.87	1.42	1.08	10.00	41.28		
200.	14.39	38.59	28.88	1.37					
250.	14.37	38.59	28.89	1.57	1.04	9.34	42.36		
300.	14.35	38.59	28.89	1.71					
400.	14.35	38.59	28.89	2.29					

STATION NUMBER: M-60
 TOTAL DEPTH: 690.0 m.
 PLACE:
 DATE: 31-07-90
 BAROMETRIC PRESSURE:
 CLOUD:
 SECCHI DISK DEPTH:
 DS:
 SD/Hg;
 SH/Hg;
 SH/Hg;
 BOD-5;

SEASON:

STATION TYPE:

CHARACTER

TIME: 14:05

LONGITUDE: 27.37°

LATITUDE: 40.46°

WIND:

WIND DIRECTION:

TR:
 SD/Cd;
 SH/PH;
 SH/Cd;
 COO;

TSS:
 SD/PH;
 SH/PH;
 FC/10m.;
 FC/2m.;

DEPTH	T	S	SH-T	D0	P04-P	N03-N		N02-N	
						Si	CHL-a	Si	CHL-a
0.	23.83	23.12	14.73	7.10	0.05	0.09	3.28		
5.	23.74	23.13	14.75	8.05					
10.	23.21	23.10	14.88	8.73	0.05	0.13	3.37		
15.	20.06	23.86	16.28	9.51					
20.	13.56	22.44	21.98	8.55					
25.	14.08	37.15	27.83	4.33	0.70	6.79	20.97		
30.	14.77	38.35	28.61	3.18					
40.	14.88	38.55	28.74	2.12					
50.	14.79	38.59	28.79	1.76	1.09	9.64	34.58		
60.	14.74	38.60	28.81	1.59					
70.	14.69	38.61	28.83	1.51					
75.	14.67	38.61	28.83	1.55	1.06	9.80	37.22		
80.	14.64	38.61	28.84	1.48					
90.	14.60	38.61	28.85	1.58					
100.	14.57	38.61	28.85	1.56	1.09	9.85	38.97		
125.	14.51	38.60	28.86	1.47	1.08	9.85	40.56		
150.	14.46	38.60	28.87	1.41	1.08	9.69	41.39		
200.	14.40	38.59	28.88	1.34	1.10	9.82	44.11		
250.	14.38	38.59	28.88	1.54	1.04	9.18	41.94		
300.	14.36	38.59	28.89	1.81	1.05	8.93	41.11		
400.	14.34	38.60	28.90	2.29	0.95	8.62	37.72		
500.	14.30	38.60	28.91	2.47	0.90	8.47	35.83		
600.	14.31	38.61	28.91	2.71					

STATION NUMBER:	M-61	SEASON:		STATION TYPE:	
TOTAL DEPTH:	1100.0 m.	PLACE:		CHARACTER	
DATE:31-07-90		BAROMETRIC PRESSURE:	TIME:15:5	LONGITUDE:27.34°	
CLOUD:		WAVE STATE:	AIR TEMPERATURE:	LATITUDE:40.50°	
SECCHI DISK DEPTH:		VISIBILITY:		WIND:	
OS:	TR:	TSS:			
SD/Hg:	SD/Cd:	SD/PH:			
SL/Hg:	SL/Cd:	SL/PH:			
SM/Hg:	SM/Cd:	FC/0m.:			
BOD-5:	COD:	FC/2m.:			
DEPTH	T	S	SI-T	P04-P	N03-N
					H02-N
0,	23.82	23.04	14.66	8.53	0.08
5,	23.04	22.98	14.84	8.73	0.08
10,	22.98	22.96	14.83	8.68	0.05
15,	22.85	22.97	14.88	8.71	0.07
20,	13.53	28.22	21.05	9.69	0.15
25,	14.32	37.79	28.28	5.28	0.92
30,	14.84	38.35	28.60	2.77	
40,	14.94	38.57	23.74	1.99	
50,	14.83	38.60	28.78	1.63	0.18
60,	14.75	38.60	28.81	1.39	
70,	14.70	38.61	28.82	2.32	
75,	14.68	38.61	28.83	1.34	1.07
80,	14.67	38.61	28.84	1.42	
90,	14.64	38.61	28.84	1.46	
100,	14.62	38.62	28.85	1.59	
125,	14.55	38.61	28.86	1.48	
150,	14.49	38.60	28.87	1.38	
175,					
200,	14.42	38.59	28.88	1.21	1.10
250,	14.38	38.59	28.88	1.33	1.11
300,	14.36	38.59	28.89	1.46	1.03
400,	14.34	38.60	28.89	1.91	1.01
500,	14.33	38.61	28.89	2.22	1.02

STATION NUMBER: H-62
 TOTAL DEPTH: 100.0 m.
 PLACE:
 DATE: 31-07-80
 BAROMETRIC PRESSURE:
 CLOUD:
 SECCHI DISK DEPTH:

SEASON:
 STATION TYPE:
 CHARACTER
 LONGITUDE: 27.32°
 LATITUDE: 40.54°
 WIND:
 WIND DIRECTION:

OS:
 Sp/Ig;
 Sh/Ig;
 Sh/Hg;
 B00-S;

TR:
 TSS;
 Sp/Cd;
 Sh/Cd;
 Sh/Hd;
 B00;

DEPTH	T	S	SI-T	00	P04-P	H02-H	+ H03-H	- H02-H	Si	CHL-a
0.	24.49	23.15	14.56	8.15		0.05		0.08	2.60	0.90
5.	24.32	23.17	14.62	8.28		0.60		0.16	2.67	0.78
10.	23.77	23.20	14.81	8.40		0.95		0.11	3.00	0.88
15.	23.55	23.22	14.88	8.36		0.79		0.64	8.67	1.81
20.	19.88	26.46	18.32	9.06		0.74		6.34	19.17	0.20
25.	13.81	37.08	27.84	5.87						
30.	14.74	38.28	28.56	3.20						
40.	14.84	38.54	28.74	3.88						
50.	14.80	38.59	28.79	2.04		1.04		9.59	34.67	
60.	14.73	38.60	28.81	1.57						
70.	14.68	38.60	28.83	1.61						
75.	14.66	38.60	28.83	1.64		1.06		9.65	36.86	
80.	14.64	38.60	28.84	1.56						
90.	14.63	38.61	28.84	1.43						

STATION NUMBER: H-64
 TOTAL DEPTH: 740.0 m.
 PLACE:
 DATE: 31-07-80
 BAROMETRIC PRESSURE:
 CLOUD:
 SECCHI DISK DEPTH:

SEASON:
 STATION TYPE:
 CHARACTER
 LONGITUDE: 27.28°
 LATITUDE: 40.46°
 WIND:
 WIND DIRECTION:

OS:
 Sp/Ig;
 Sh/Cd;
 Sh/Hg;
 B00-S;

TR:
 TSS;
 Sp/Cd;
 Sh/PH;
 FC/0m.;
 FC/2m.;
 COO;

DEPTH	T	S	SI-T	00	P04-P	H02-H	+ H03-H	- H02-H	Si	CHL-a
0.	23.54	23.05	14.75	9.00		-11		0.08	2.84	
5.	23.55	23.05	14.75	9.01						0.13
10.	23.39	23.17	14.88	9.10						0.03

STATION NUMBER: M-66
 TOTAL DEPTH: 64.0 m.
 PLACE:
 DATE: 01-08-90
 BAROMETRIC PRESSURE:
 CLOUD:
 SECCHI DISK DEPTH:
 DS:
 SD/Hg:
 SH/Hg: 0.3
 SM/Hg:
 BD-5;

SEASON:
STATION TYPE:

CHARACTER
LONGITUDE: 27.22°
LATITUDE: 40.43°
WIND:
WIND DIRECTION:

TIME: 10:40
AIR TEMPERATURE:
WAVE STATE:
VISIBILITY:

TR:
 SD/CD:
 SH/CD:
 SM/CD:
 COO:

DEPTH	T	S	SI-T	DO	N03-N		CHL-a
					P04-P	N02-N	
0,	23.50	23.07	14.78	8.18	0.06	1.44	2.86
5,	23.48	23.07	14.78	8.20	0.06	1.55	2.77
10,	23.43	23.07	14.79	8.23	0.06	1.57	2.79
15,	23.26	23.19	14.93	8.22	0.36	0.25	12.92
20,	21.60	24.87	16.63	8.17	0.29	1.19	6.39
25,	14.52	37.26	27.82	6.81	0.48	3.49	10.97
30,	14.73	38.32	28.60	6.19			0.51
40,	14.92	38.58	28.78	3.40			
50,	14.75	38.61	28.81	2.27			
60,					1.05	9.48	38.17

STATION NUMBER: M-67
 TOTAL DEPTH: 151.0 m.
 PLACE:
 DATE: 01-08-90
 BAROMETRIC PRESSURE:
 CLOUD:
 SECCHI DISK DEPTH:
 DS:
 SD/Hg:
 SH/Hg:
 SM/Hg:
 BD-5;

SEASON:
STATION TYPE:

CHARACTER
LONGITUDE: 27.24°
LATITUDE: 40.40°
WIND:
WIND DIRECTION:

TIME: 09:58
AIR TEMPERATURE:
WAVE STATE:
VISIBILITY:

TR:
 SD/CD:
 SH/CD:
 SM/CD:
 COO:

N03-N

STATION NUMBER: M-89
 TOTAL DEPTH: 72.0 m.
 PLACE:
 DATE: 01-08-90
 BAROMETRIC PRESSURE:
 CLOUD:
 SECCHI DISK DEPTH:

SEASON:
 STATION TYPE:
 CHARACTER
 LONGITUDE: 27.28°
 LATITUDE: 40.34°
 WIND:
 WIND DIRECTION:

TSS:
 DS:
 SD/Hg:
 SW/Hg:
 SW/Hg:
 BOD-5:
 COD:

TR:
 SD/Cd:
 SW/PH:
 SW/CD:
 SW/CD:
 COD:

DEPTH	T	S	SI-T	DO	P04-P	N03-N		CHL-a
						N02-N	Si	
0.	23.16	23.74	15.00	7.59	0.09	0.09	2.81	0.55
5.	23.16	23.24	15.00	7.65	0.07	0.07	2.86	0.64
6.							0.78	0.49
10.	23.17	23.24	15.00	7.73	0.10	0.78	2.95	
15.	23.17	23.27	15.02	7.75	0.07	0.20	3.89	
20.	16.10	34.24	25.14	7.87	0.40	1.98		0.10
21.								
25.	15.11	38.39	28.57	6.43	0.48	4.10	12.50	0.20
26.								
30.	14.87	38.64	28.82	5.70				
40.	14.70	38.62	28.84	2.04				
45.								
50.	14.62	38.62	28.85	1.47	1.03	9.33	38.33	
60.	14.73	38.65	28.85	1.86	0.85	7.88	27.86	
61.								

STATION NUMBER: M-74
 TOTAL DEPTH: 42.0 m.
 PLACE:
 DATE: 01-08-90
 BAROMETRIC PRESSURE:
 CLOUD:
 SECCHI DISK DEPTH:

SEASON:
 STATION TYPE:
 CHARACTER
 LONGITUDE: 27.30°
 LATITUDE: 40.24°
 WIND:
 WIND DIRECTION:

TSS:
 SD/PH:
 TR:
 SD/PH:

STATION NUMBER: M-75
 TOTAL DEPTH: 36.0 m.
 PLACE: DATE: 01-08-90
 BAROMETRIC PRESSURE:
 CLOUD:
 SECCHI DISK DEPTH:

SEASON: STATION TYPE:
 CHARACTER
 LONGITUDE: 27.44°
 LATITUDE: 40.21°
 WIND:
 WIND DIRECTION:
 VISIBILITY:
 SECCHI DISK DEPTH:
 OS: TR:
 SD/Hg: SD/Pt;
 SW/Hg: 0.6 SW/Cd;
 SW/Hg: SW/Cd;
 BOD-5: COD;

DEPTH	T	S	SI-T	DO	P04-P	N03-N	
						+ Si	CHL-a
0.	22.54	23.98	15.72	6.97	0.03	0.16	2.95
5.	22.54	23.97	15.72	7.34	0.09	0.29	2.79
10.	22.51	24.01	15.75	7.50	0.10	0.09	2.93
15.	22.46	24.05	15.80	7.62	0.10	0.15	3.19
20.	13.47	37.82	28.49	8.31	0.81	6.10	22.22
25.	14.38	38.21	28.59	4.23	1.03	8.14	28.58
30.					1.11	7.44	31.39

STATION NUMBER: M-76
 TOTAL DEPTH: 51.0 m.
 PLACE: DATE: 01-08-90
 BAROMETRIC PRESSURE:
 CLOUD:
 SECCHI DISK DEPTH:
 OS: TR:
 SD/Hg: SD/Pt;
 SW/Hg: SW/Cd;
 SW/Hg: SW/Cd;
 BOD-5: COD;

SEASON: STATION TYPE:
 CHARACTER
 LONGITUDE: 27.13°
 LATITUDE: 40.28°
 WIND:
 WIND DIRECTION:
 VISIBILITY:
 SECCHI DISK DEPTH:
 OS: TR:
 SD/Hg: SD/Pt;
 SW/Hg: SW/Cd;
 SW/Hg: SW/Cd;
 BOD-5: COD;

STATION NUMBER: H-77
 TOTAL DEPTH: 62.0 m.
 PLACE:
 DATE: 01-08-90
 BAROMETRIC PRESSURE:
 CLOUD:
 SECCHI DISK DEPTH:
 OS:
 SD/Hg;
 SW/Hg;
 SW/Hg;
 BOD-5;

SEASON:
 STATION TYPE:
 CHARACTER
 LONGITUDE: 27.11°
 LATITUDE: 40.30°
 WIND:
 WIND DIRECTION:

TIME: 13:40
 AIR TEMPERATURE:
 WAVE STATE:
 VISIBILITY:
 TR:
 SD/Cd;
 SW/Cd;
 SW/Cd;
 CO2;

TSS:
 SD/PH;
 SW/PH;
 FC/0m.;
 FC/2m. ;

DEPTH	T	S	SI-T	DO	P04-P	H03-N	S	CHL-a
						H02-N		
0,	23.37	23.35	15.03	7.43	0.05		0.58	2.68
5,	23.37	23.35	15.03	7.47				
10,	23.33	23.36	15.04	7.54	0.04		0.31	2.73
15,	23.20	23.36	15.08	7.61				
20,	18.98	26.62	18.64	8.13	0.29		0.49	2.39
25,	15.05	38.25	28.47	5.82				
30,	15.07	38.59	28.73	6.17	0.38		3.37	10.28
40,	14.92	38.69	28.84	3.95	0.47		6.45	24.03
50,	14.72	38.83	28.99	6.10	0.27		1.10	4.03
60,					0.24		1.05	3.83

STATION NUMBER: H-78
 TOTAL DEPTH: 65.0 m.
 PLACE:
 DATE: 01-08-90
 BAROMETRIC PRESSURE:
 CLOUD:
 SECCHI DISK DEPTH:
 OS:
 SD/Hg;
 SW/Hg;
 SW/Hg;

SEASON:
 STATION TYPE:
 CHARACTER
 LONGITUDE: 27.10°
 LATITUDE: 40.33°
 WIND:
 WIND DIRECTION:

TIME: 13:27
 AIR TEMPERATURE:
 WAVE STATE:
 VISIBILITY:
 TR:
 SD/Cd;
 SW/Cd;

TSS:
 SD/PH;
 SW/PH;
 FC/0m. ;

STATION NUMBER: H-79
 TOTAL DEPTH: 66.0 m.
 PLACE:
 DATE: 01-08-94
 BAROMETRIC PRESSURE:
 CLOUD:
 SECCHI DISK DEPTH:
 800-5;

SEASON: STATION TYPE: CHARACTER
 LONGITUDE: 27. 9'
 LATITUDE: 40. 35'
 WIND:
 WIND DIRECTION:

DEPTH	T	S	SI-T	00	PNA-P	H03-N	+ Si	- H02-N	CHL-a
0.	23.51	23.18	14.86	7.50	0.08	0.08			2.49
5.	23.52	23.15	14.83	7.57					0.08
10.	23.49	23.14	14.84	7.66	0.07				2.53
15.	23.43	23.14	14.85	7.74					
20.	23.22	23.33	15.05	7.81	0.34				
25.	14.85	37.93	28.27	7.35					
30.	14.76	38.35	28.61	6.03	0.65				
40.	14.85	38.57	28.76	4.12	0.78				
50.	14.78	38.60	28.80	2.61	1.01				
					1.10				

STATION NUMBER: D-1	STATION TYPE:	
TOTAL DEPTH: 43.0 m.	CHARACTER	
PLACE:	LONGITUDE: 26.45°	
DATE: 01-08-90	LATITUDE: 40.26°	
BAROMETRIC PRESSURE:	WIND:	
CLOUD:	WIND DIRECTION:	
SECCHI DISK DEPTH:		
OS:	TSS:	
SD/Hg: 0.8	SD/PH:	
SD/Hg: 0.8	SM/PH:	
	FC/10m:	
	SM/CD:	
	SD/CD:	

STATION NUMBER: D-6
 TOTAL DEPTH: 85.0 m.
 PLACE:
 DATE: 01-08-90
 BAROMETRIC PRESSURE:
 CLOUD:
 SECHI DISK DEPTH:
 800-5;

SEASON:
 STATION TYPE:
 CHARACTER
 LONGITUDE: 26.13°
 LATITUDE: 40. 1°
 WIND:
 WIND DIRECTION:
 0S;
 TR;
 SD/Hg;
 SH/Hg: 0.4
 SH/Hg;
 BOD-5;

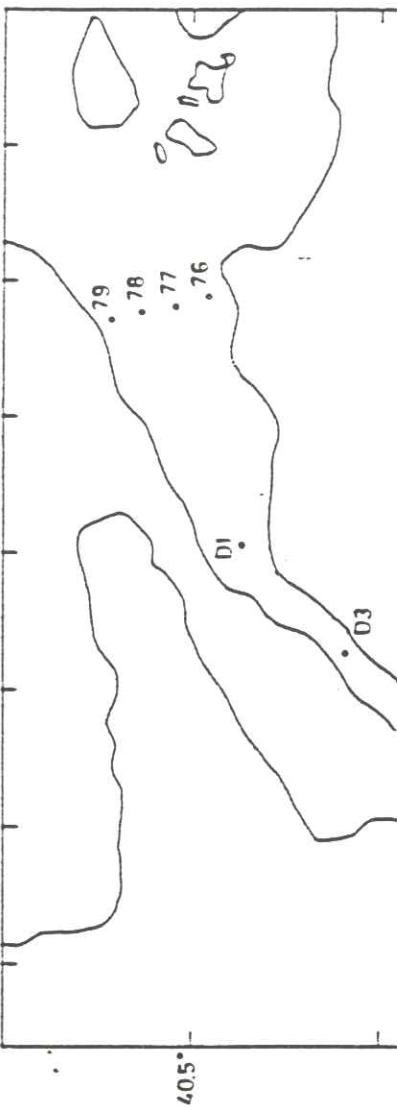
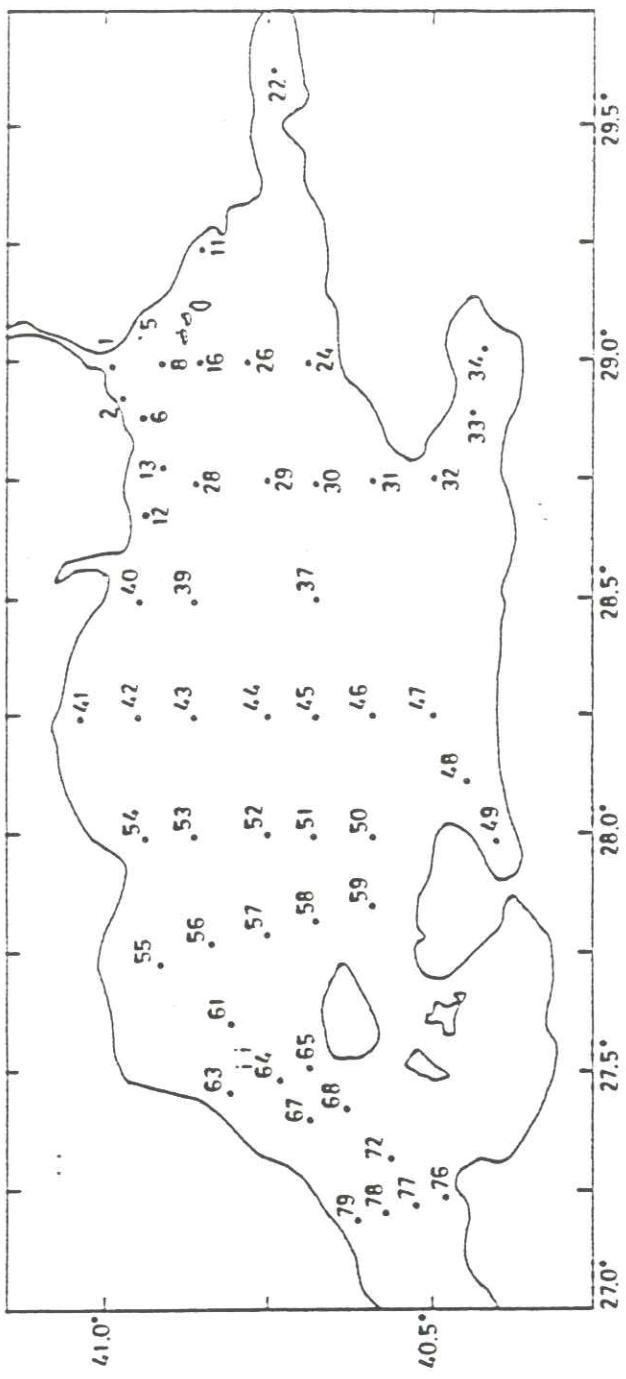
DEPTH	T	S	SI-T	B0	P04-P	H03-N	H02-N	CHL-a
0.	21.38	27.45	18.66	5.39	0.04	0.14	2.25	0.59
4.					0.03	0.09	2.34	1.16
5.	20.39	28.96	20.07	6.73				
10.	18.73	32.40	23.11	7.10	0.04	0.48	1.91	0.49
15.	14.85	38.71	28.87	7.59	0.03	0.14	1.47	1.36
18.					0.03	0.17	1.57	1.31
20.	15.11	38.83	28.91	7.56				
25.	14.91	38.83	28.95	7.57	0.04	0.20	1.81	0.30
30.	15.32	39.03	29.01	7.59				
38.					0.05	0.47		
40.	15.31	39.11	29.07	7.46				
50.	15.33	38.12	29.08	7.43	0.50	0.78	2.51	
60.	15.27	39.12	29.09	7.37	0.05	0.81	2.59	
70.	15.26	38.12	29.09	7.32	0.07	0.97	2.73	
75.	15.26	38.12	29.09	7.29				
80.	15.26	38.12	29.09	7.29	0.07	0.96	2.73	

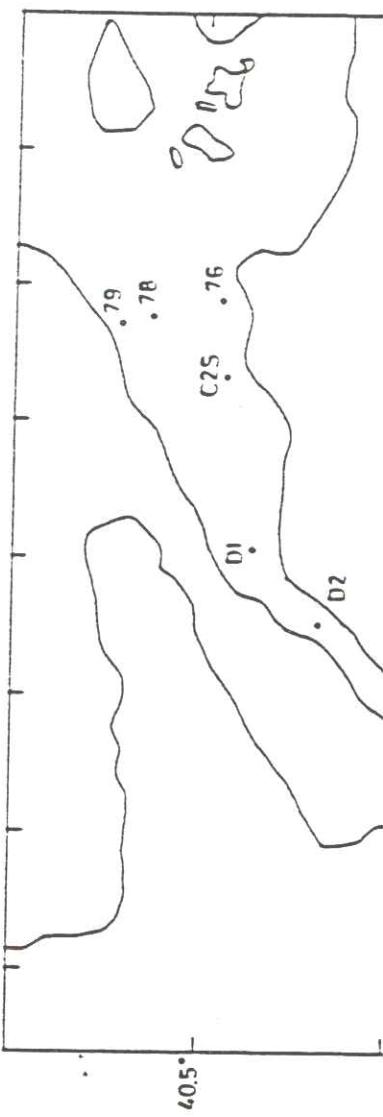
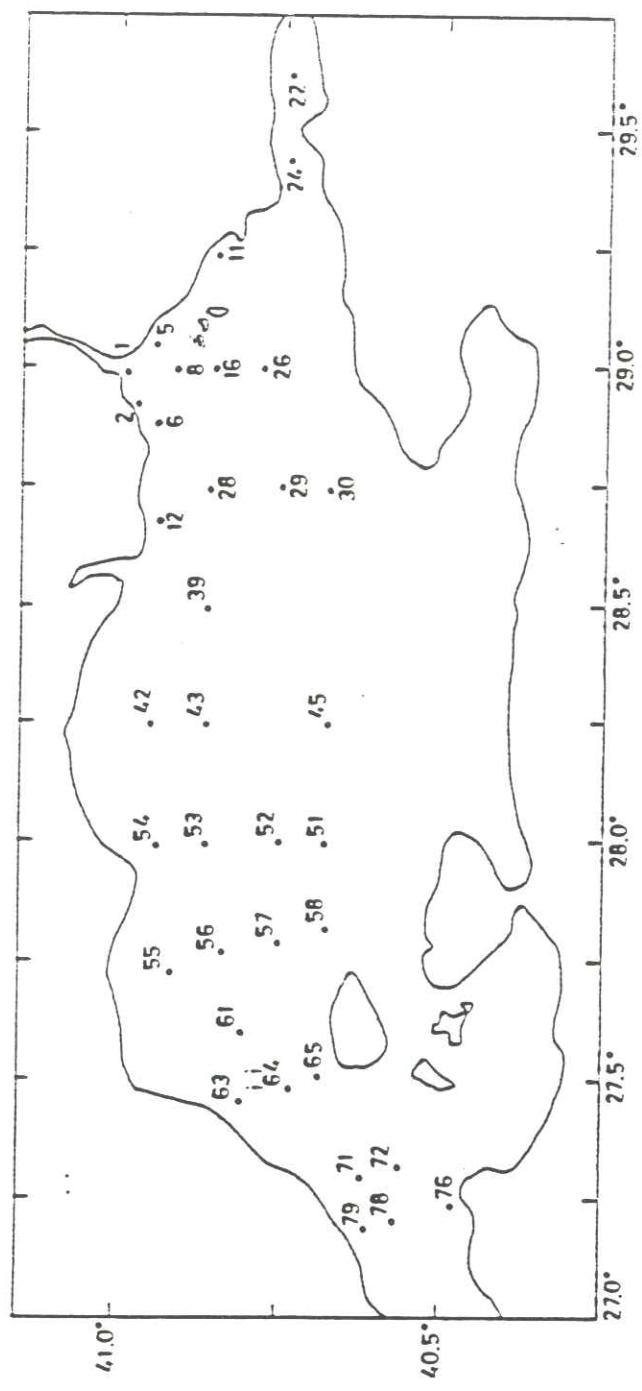
STATION NUMBER: E-14
 TOTAL DEPTH: 66.0 m.
 PLACE:
 DATE: 01-08-90
 BAROMETRIC PRESSURE:
 CLOUD:
 SECHI DISK DEPTH:
 800-5;

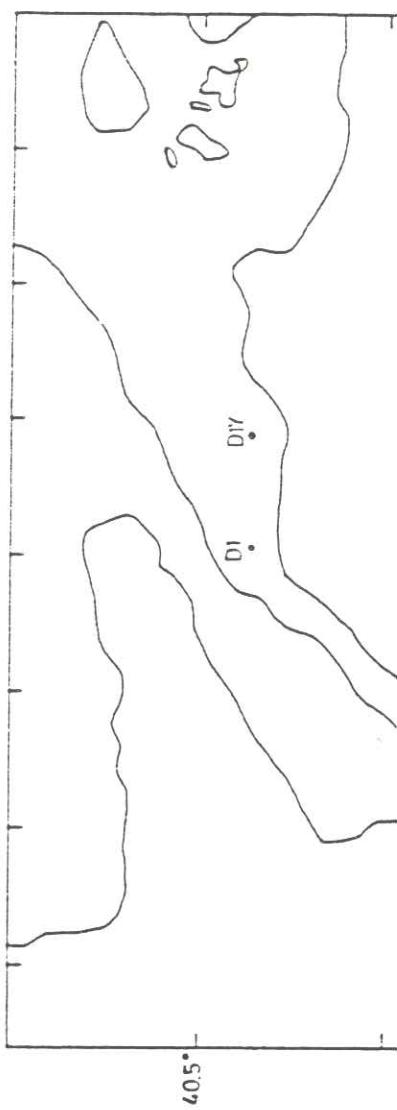
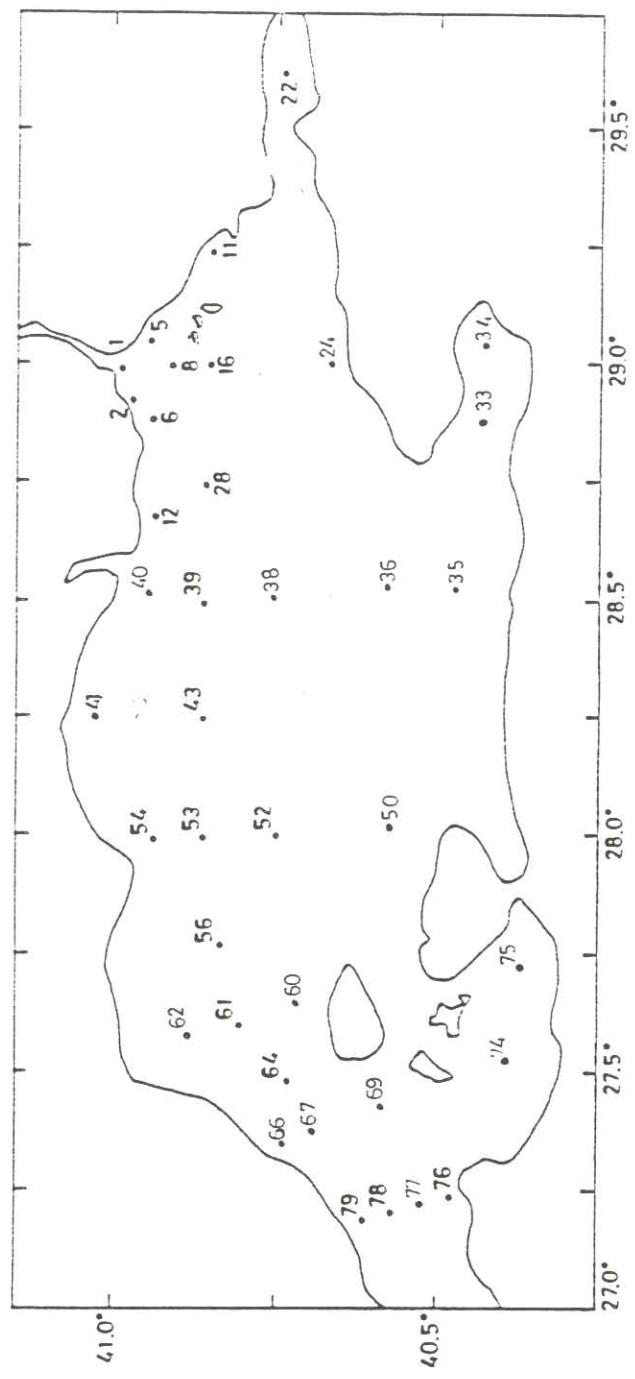
SEASON:
 STATION TYPE:
 CHARACTER
 LONGITUDE: 25.58°
 LATITUDE: 39.57°
 WIND:
 WIND DIRECTION:
 TR;
 TSS;
 SD/Cd;
 SH/PH;
 SH/PH;
 FC/0m.;
 BOD;

ÇİZELGE 7. Temmuz, 1990 Döneminde Marmara Denizi ve Boğazlarda ölçülen bilyokimyasal parametreler ve buların ölçüm aralıkları

Koy Körfez	İst. No	Depth	PARAMETRELER					BOIs	H2w
			D-FD _a -P	TND _a -N	Si	TAK			
İZMIT	M22	0	0,10	0,30	3,75	1,59	4,04	-,-	-,-
		75	1,08	7,97	40,19	-,-	-,-	-,-	-,-
K2	0	0,36	0,78	3,25	1,53	3,86	-,-	-,-	-,-
GEMlik	M33	0	0,03	0,26	3,59	-,-	-,-	-,-	-,-
	49	0,99	9,89	39,44	-,-	-,-	-,-	-,-	-,-
M34	0	0,08	0,16	3,54	0,98	-,-	-,-	0,56	-,-
K3	0	0,08	7,28	4,71	0,71	1,80	0,16	-,-	-,-
	35	1,01	9,32	40,03	-,-	-,-	-,-	-,-	-,-
KOCAÇAY	K4	0	0,09	0,39	3,47	1,92	1,71	0,54	-,-
BANDIRMA	M48	0	0,71	0,79	3,14	1,33	1,42	0,23	-,-
	40	1,46	8,16	43,06	-,-	-,-	-,-	-,-	-,-
M49	0	1,25	0,09	3,47	1,94	1,97	0,16	-,-	-,-
	20	0,91	5,10	3,61	-,-	-,-	-,-	-,-	-,-
ERDEK	M75	0	0,03	0,16	2,95	-,-	-,-	-,-	0,59







İll-6-a: Mart, 1990 döneminde Marmara Denizi' boğazında tespit edilen kolumnaları
parametrelere İlgili ölçüleri istasyonları arasında konumları

$27\frac{1}{2}$

$28\frac{1}{2}$

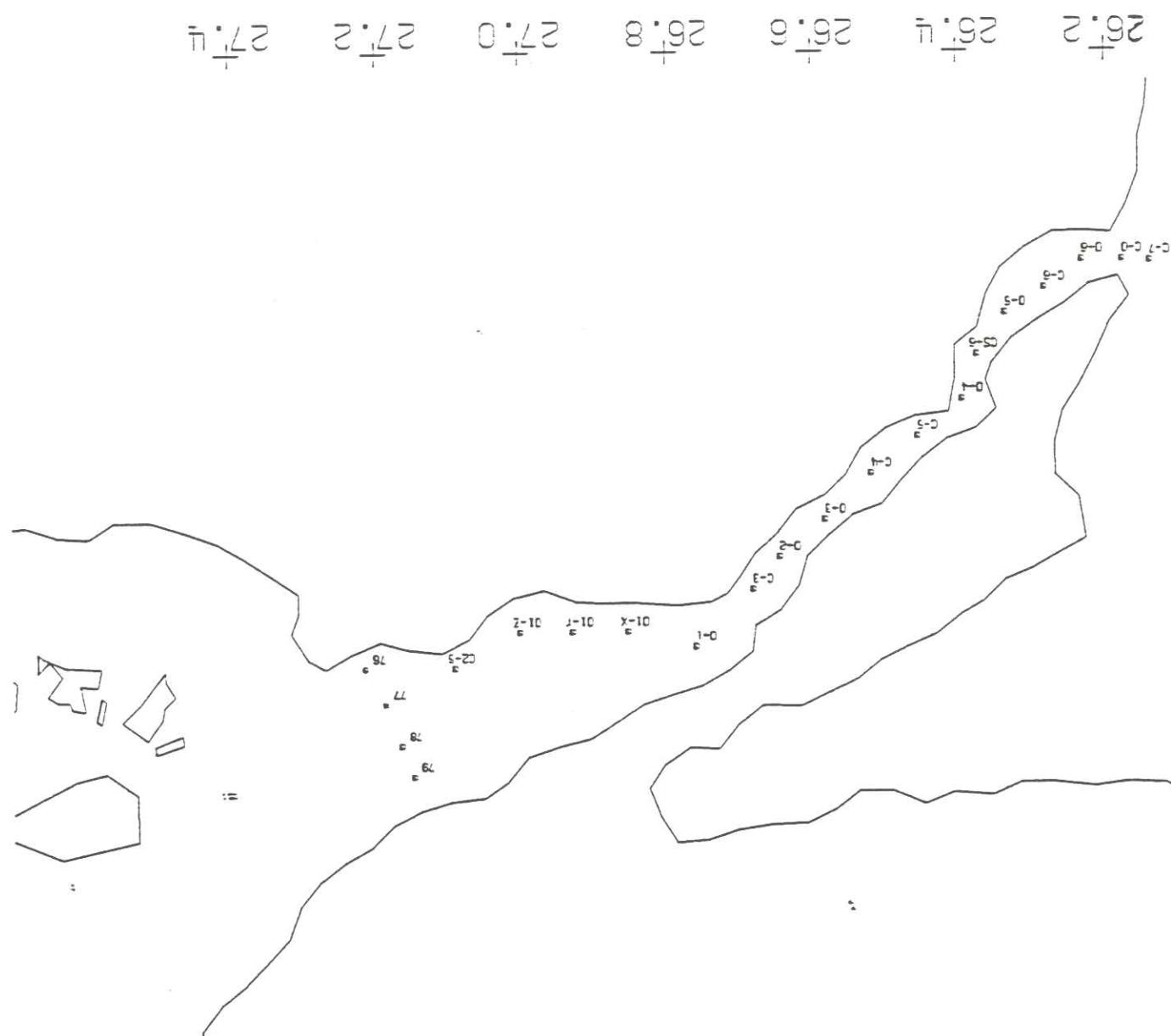
$29\frac{1}{2}$

$28\frac{1}{2}$

$27\frac{1}{2}$



çil-4b: Mart, 1990 denemeinde Marmara Denizi boyunca elzitksel parametreların ölçümüldüğü istasyonları arasında konumları



Mayıs, 1990 doneminden Marmara Denizi boyunca fiziksel parametrelerein ölçütüldüğü istasyonları konumları

295

292

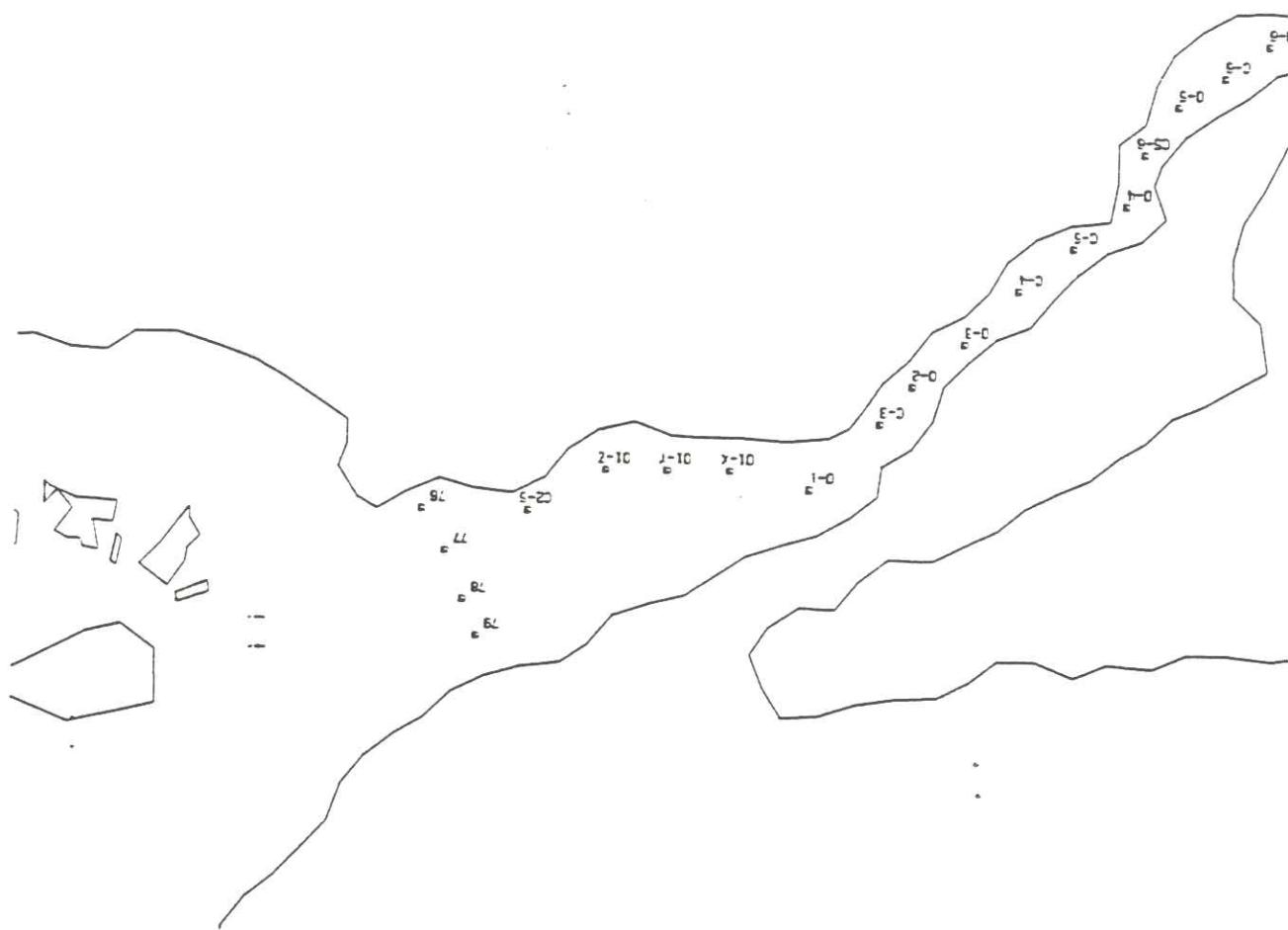
28.5

280



1990 dənəməsi qanaklaşdırıla bəyazuncası füzərələr
məzclətəcək qılıqlı düşəngi lətəsyonlarıdırək könüllürlər

$\frac{26}{7}\frac{4}{4}$ $\frac{26}{7}\frac{6}{4}$ $\frac{26}{7}\frac{8}{4}$ $\frac{27}{7}\frac{0}{4}$ $\frac{27}{7}\frac{2}{4}$ $\frac{27}{7}\frac{4}{4}$



TEMMUZ, 1990 Döneminde Marmara Denizi boyunca fiziksel parametrelerein ölçütüldüğü istasyonların konumları

28° 0 28° 5 29° 0 29° 5 30° 0



Temmuz, 1990 Döneminde Çanakkale Boğazı geçişlerin konumları
parametrelerein ölçütüne istasyonlarla ilişkilendirilmiştir

26.2 26.4 26.6 26.8 27.0 27.2 27.4

