



UNIVERSITE DE CAEN

CENTRE REGIONAL
D'ETUDES COTIERES

Laboratoire de Géologie
marine

CONSEIL GENERAL
DE LA MANCHE



ETUDE GLOBALE CONCERNANT LA DEFENSE CONTRE LA MER

RESULTATS DES CAMPAGNES DE TERRAIN DE JANVIER A MAI 1993

2ème Phase

RAPPORT IX

ANNEXES

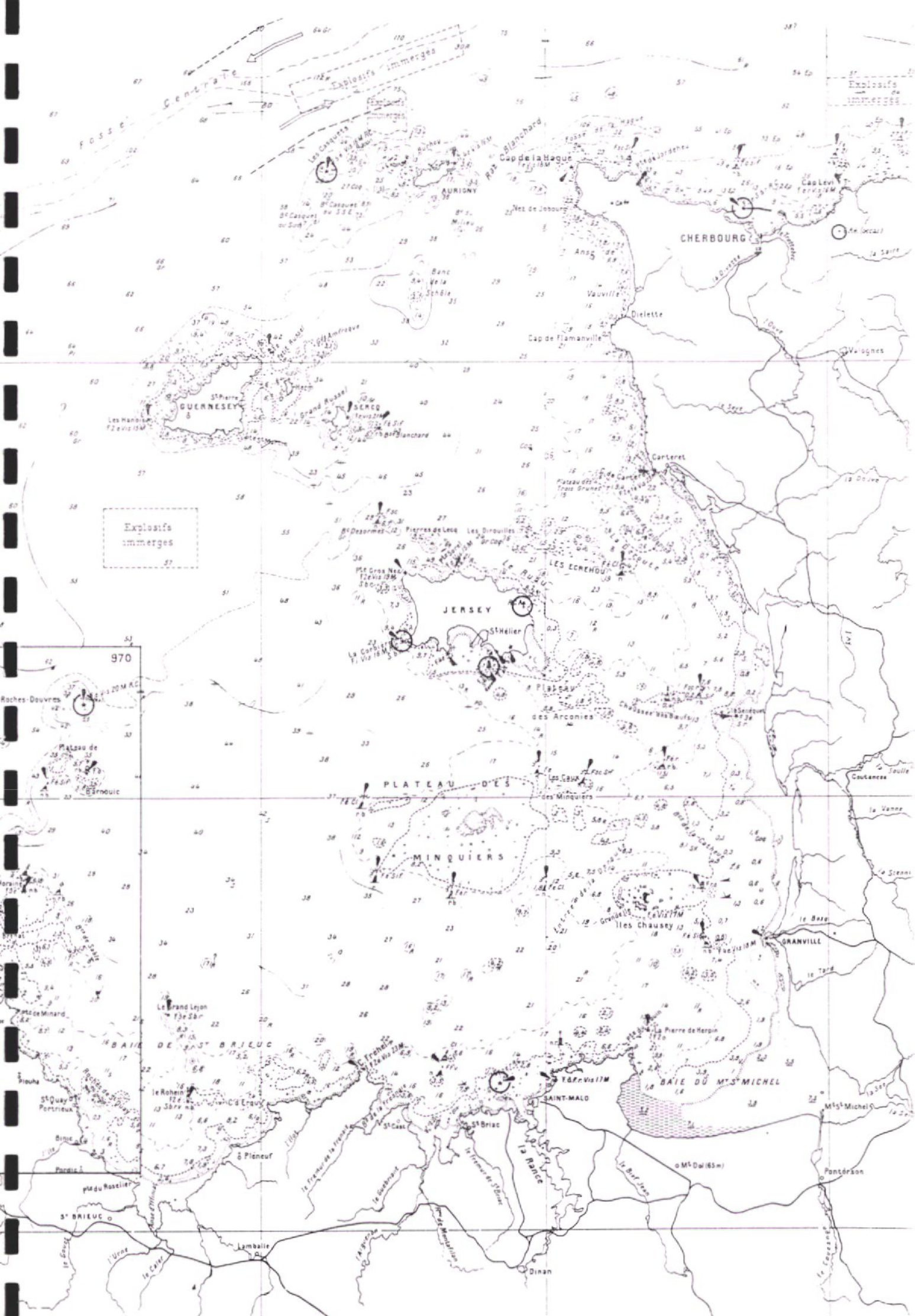
VOLUME VI

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Ingénieur d'études

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Responsable Scientifique

JUIN 1993

PLA
115



OPREVEN DÉPARTEMENTALE DE L'ÉQUIPEMENT
de CALVADOS
DO - Documentation
N° D'INVENTAIRE :

5243

ANNEXE 19

RESULTATS DES MESURES
IN SITU DE LA CAMPAGNE
N°19

LIEU :
SAINT JEAN LE THOMAS -
DRAGEY

DATE: du 11.01.93 au 14.01.93

Coefficients de marée: 103 à 79

CAMPAGNE N°19

Saint Jean le Thomas - Dragey

LOCALISATION DES
EXPERIMENTATIONS

CAMPAGNE N°19

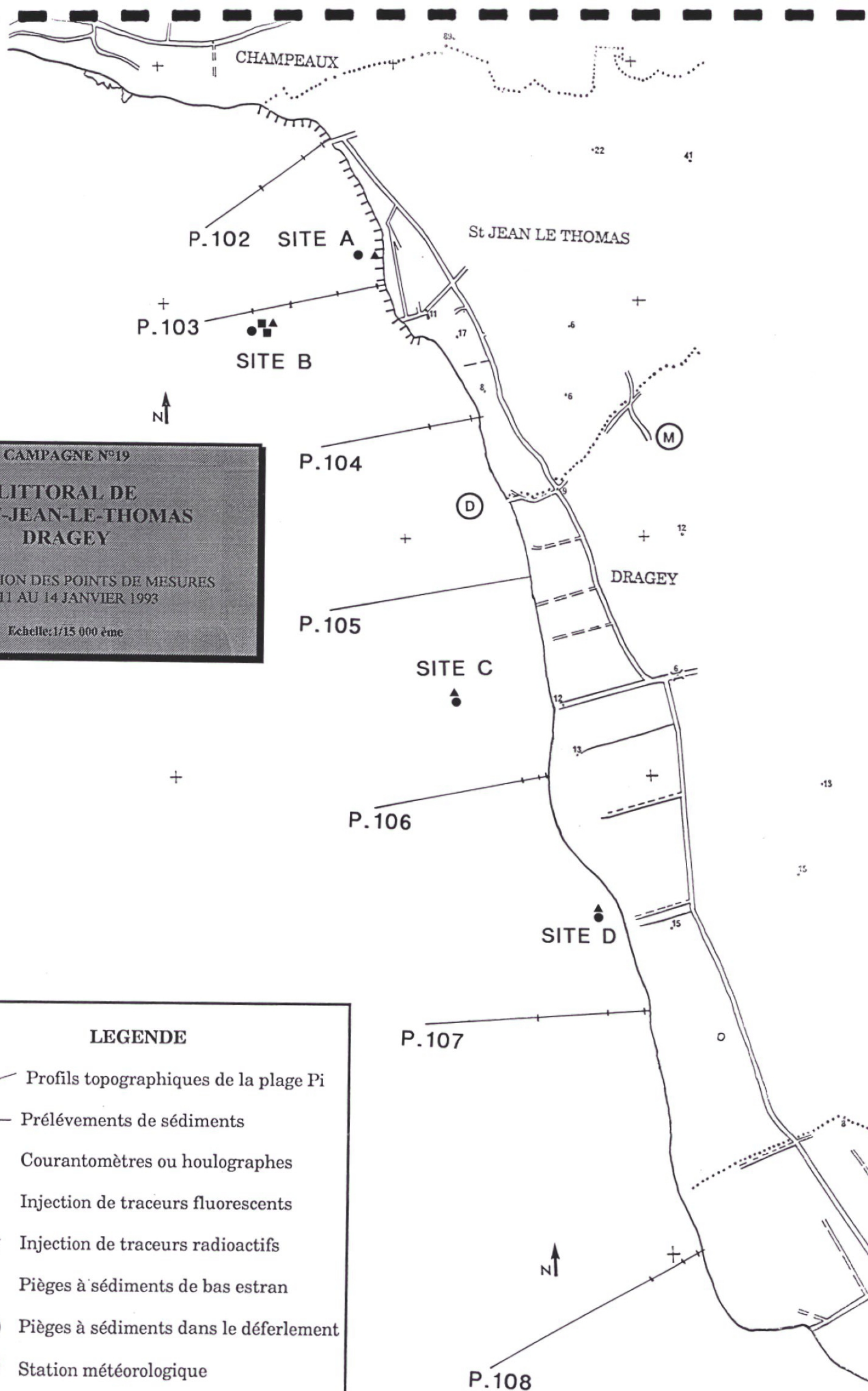
**LITTORAL DE
SAINT-JEAN-LE-THOMAS
DRAGEY**

LOCALISATION DES POINTS DE MESURES
DU 11 AU 14 JANVIER 1993

Echelle: 1/15 000 ème

LEGENDE

- Profils topographiques de la plage Pi
- +— Prélèvements de sédiments
- Courantomètres ou houlographes
- ▲ Injection de traceurs fluorescents
- ★ Injection de traceurs radioactifs
- Pièges à sédiments de bas estran
- (D) Pièges à sédiments dans le déferlement
- (M) Station météorologique



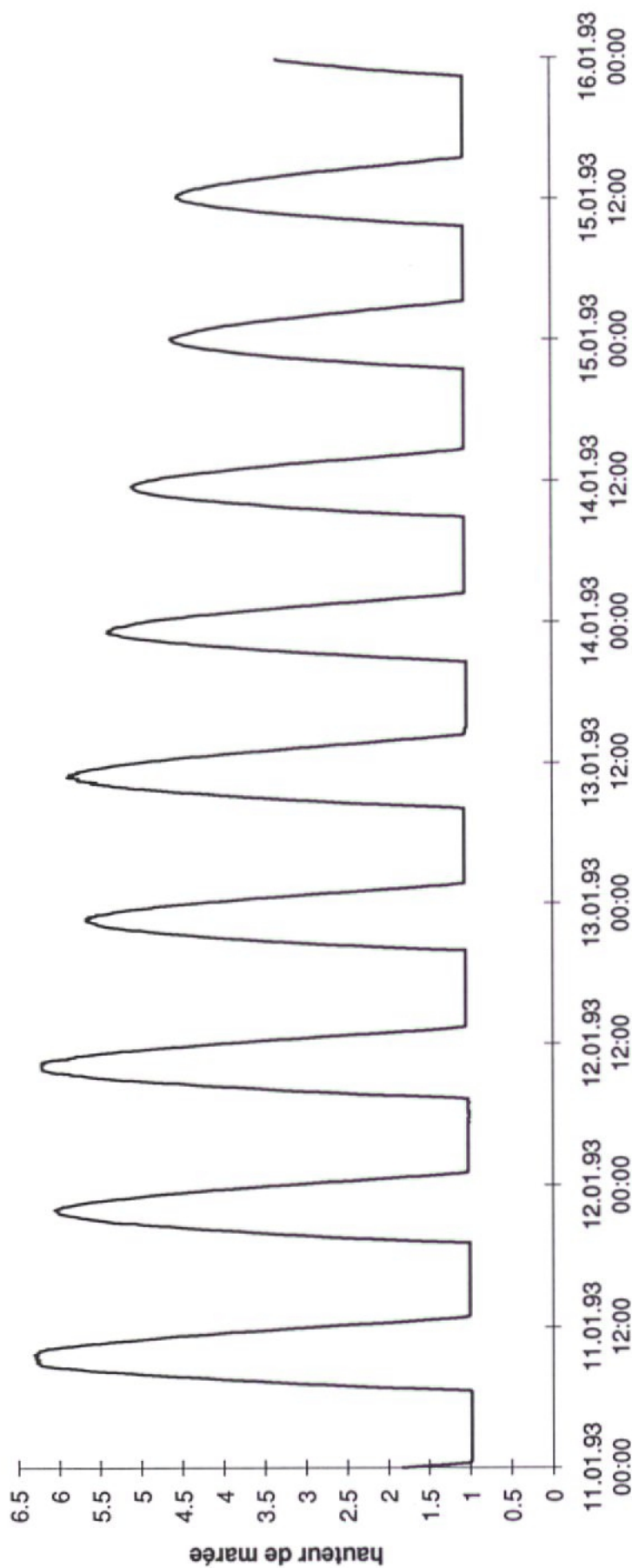
CAMPAGNE N°19

Saint Jean le Thomas - Dragey

COURBE MAREGRAPHIQUE

COURBE DE MAREE A PORTBAIL
Période du 11-01-1993 au 15-01-1993

Cote IGN 69
en mètres



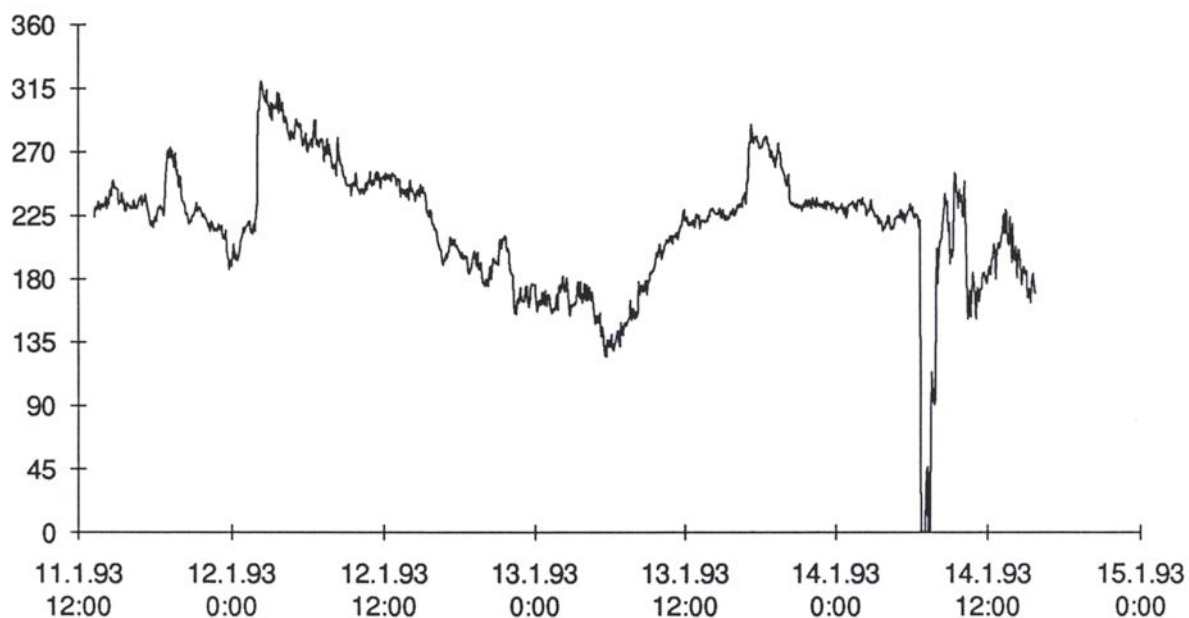
CAMPAGNE N°19

Saint Jean le Thomas - Dragey

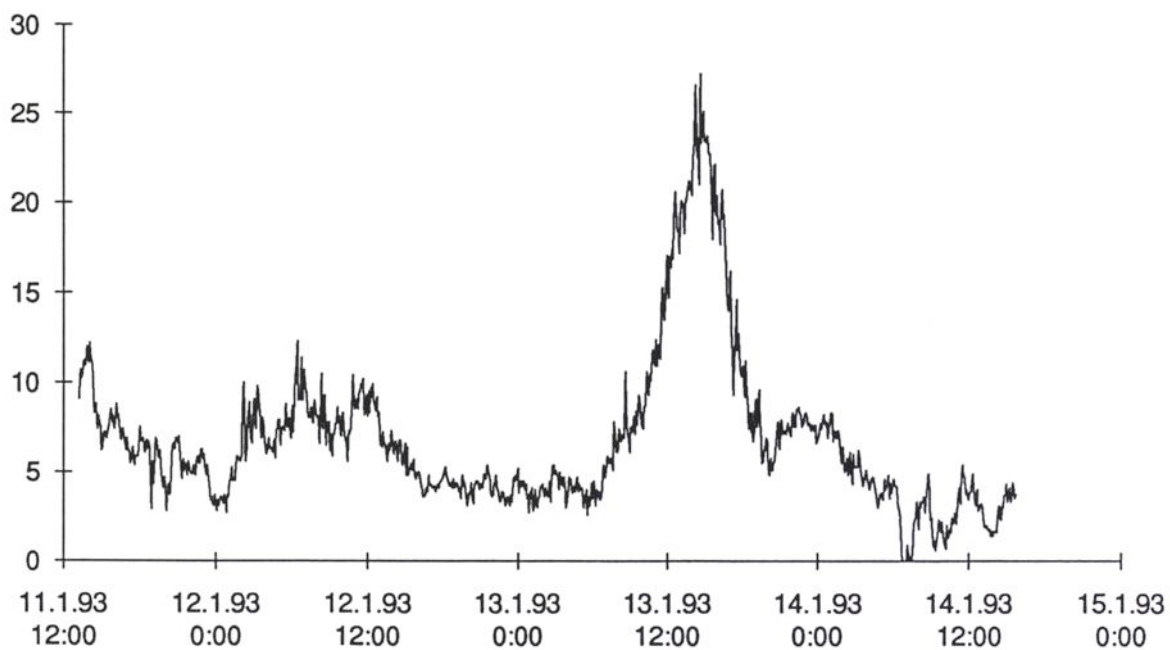
DONNEES
METEOROLOGIQUES

CAMPAGNE 19 : ST JEAN DE THOMAS - DRAGEY
PERIODE DU 11-01-1993 AU 14-01-1993

Direction des vents en degrés



Vitesse des vent en m/s



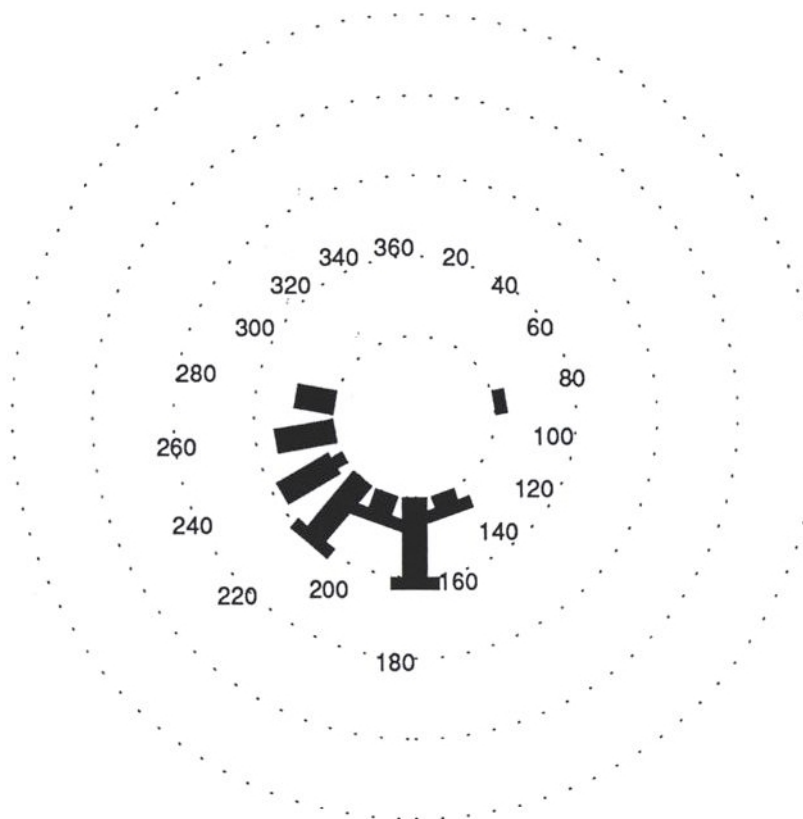
PERIODE DU 11.01.1993 AU 15.01.1993

Campagne 19

Sémaphore de Carteret

Fréquences moyennes des directions du vent en %

direction (degrés)	vitesse (> 1m/s)				total
	1/7 m/s	8 /17 m/s	18/24 m/s	>24 m/s	
20					
40					
60					
80		3			3
100					
120					
140					
160		3	3		6
180		20	3		23
200		5		3	8
220		18	3		21
240	3	15			18
260		15			15
280		10			10
300					
320					
340					
360					
vitesse < 1 m/s					



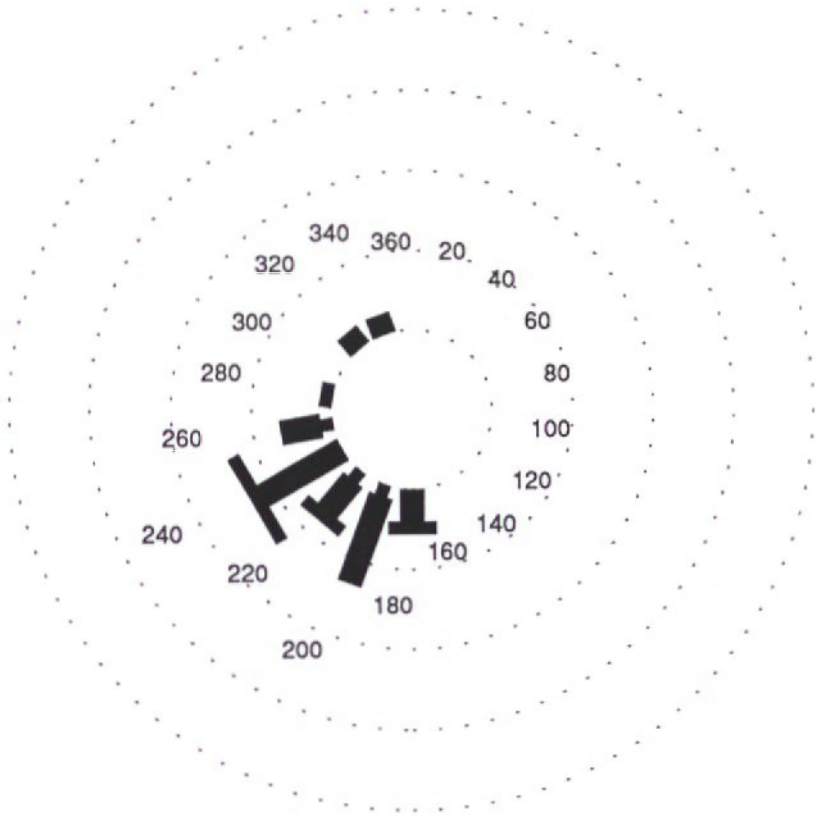
PERIODE DU 11.01.1993 AU 15.01.1993

Campagne 19

Sémaphore de Granville

Fréquences moyennes des directions du vent en %

direction (degrés)	vitesse (> 1m/s)				total
	1/7 m/s	8 /17 m/s	18/24 m/s	>24 m/s	
20					
40					
60					
80					
100					
120					
140					
160					
180		8	3		11
200	3	23			26
220	3	10	3		16
240		23		3	26
260	3	10			13
280		3			3
300					
320		5			5
340		5			5
360					
vitesse < 1 m/s					



CAMPAGNE N°19

Saint Jean le Thomas - Dragey

DONNEES TOPOGRAPHIQUES

ST JEAN DE THOMAS-DRAGEY

PROFIL 102

JANVIER 1993

ECHELLE HORIZONTALE 1/5000

ECHELLE VERTICALE 1/500



ALTITUDES IGN 69	12.20	3.98	5.50	4.86	4.32	5.04	4.26	3.33	2.65	2.50	1.82	1.61	1.64	1.41
DISTANCES CUMULEES	0.00	41.13	54.44	68.46	88.95	106.51	132.29	151.09	191.55	233.10	270.25	316.99	343.19	387.76

ST JEAN DE THOMAS-DRAGEY

PROFIL 103

JANVIER 1993

ECHELLE HORIZONTALE 1/5000

ECHELLE VERTICALE 1/500



ALTITUDES IGN 69	11.08	4.87	4.01	3.50	3.14	2.61		2.48	2.27	2.14	1.86	1.73	1.59	1.36	1.42	0.98	1.01	0.52	0.23	-0.02	-0.14	-0.19
DISTANCES CUMULEES	0.00	13.38	33.10	44.91	57.07	69.89		121.30	156.58	184.08	214.35	249.04	297.45	329.24	360.22	396.06	411.56	448.22	470.94	504.94	531.39	565.59

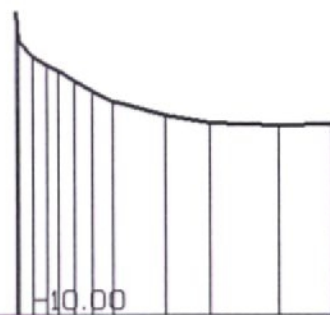
ST JEAN DE THOMAS-DRAGEY

PROFIL 104

JANVIER 1993

ECHELLE HORIZONTALE 1/5000

ECHELLE VERTICALE 1/500



ALTITUDES IGN 69	9.81	5.32	4.61	3.98	3.03	2.52	2.35	2.42
DISTANCES CUMULEES	0.00	39.17	51.27	64.00	99.31	129.02	174.08	210.01

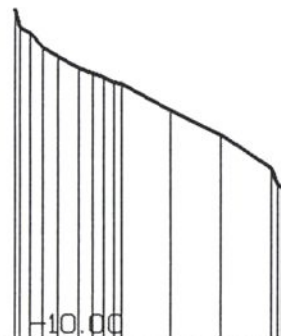
ST JEAN DE THOMAS-DRAGEY

PROFIL 106

JANVIER 1993

ECHELLE HORIZONTALE 1/5000

ECHELLE VERTICALE 1/500



ALTITUDES IGN 69	11.50	9.41	7.72	6.68	4.91	3.24	1.10	-0.20
DISTANCES CUMULEES	0.00	28.63	42.63	71.06	103.06	135.98	170.00	178.04

ST JEAN DE THOMAS-DRAGEY

PROFIL 107

JANVIER 1993

ECHELLE HORIZONTALE 1/5000

ECHELLE VERTICALE 1/500



ALTITUDES IGN 69	9.52	5.47	4.88	3.38	1.92	1.06	0.51	0.42	-0.34
DISTANCES CUMULEES	0.00	40.50	68.20	107.79	133.92	152.98	162.52	175.63	194.97

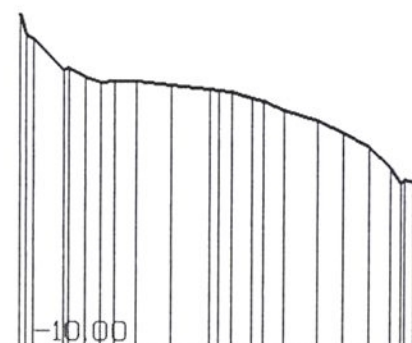
ST JEAN DE THOMAS-DRAGEY

PROFIL 108

JANVIER 1993

ECHELLE HORIZONTALE 1/5000

ECHELLE VERTICALE 1/500



ALTITUDES IGN 69	11.63	10.07	8.02	7.56	7.33	7.35	7.07	6.84	6.66	6.22	6.07	5.48	4.83	4.04	3.13	1.71	0.26
DISTANCES CUMULEES	0.00	9.78	29.64	44.06	63.76	77.62	100.88	126.12	140.16	154.51	161.85	175.05	192.60	214.51	231.11	245.59	262.67

CAMPAGNE N°19

Saint Jean le Thomas - Dragey

CARACTERISTIQUES
SEDIMENTOLOGIQUES

CAMPAGNE N°19

**LOCALISATION ET REFERENCE
DES PRELEVEMENTS DE SEDIMENTS**

Echelle: 1/15 000 ème



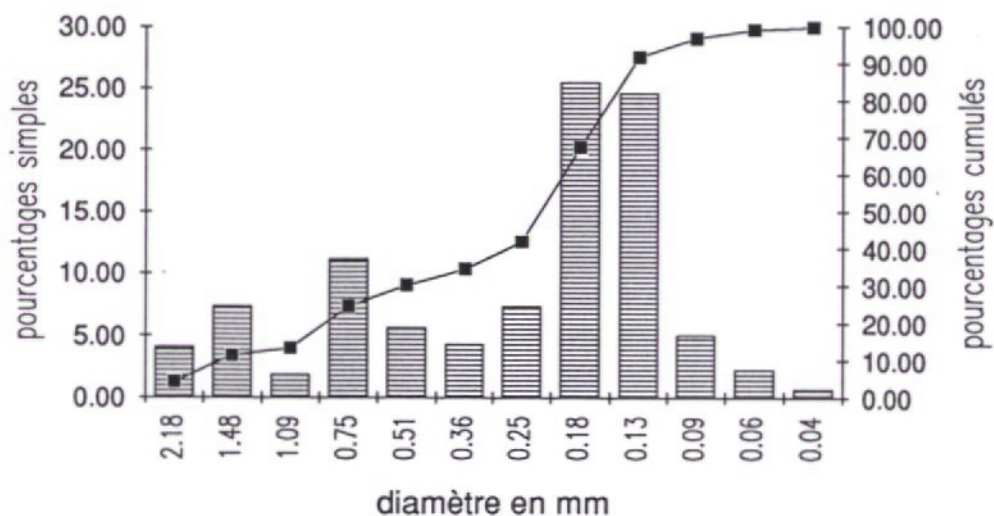
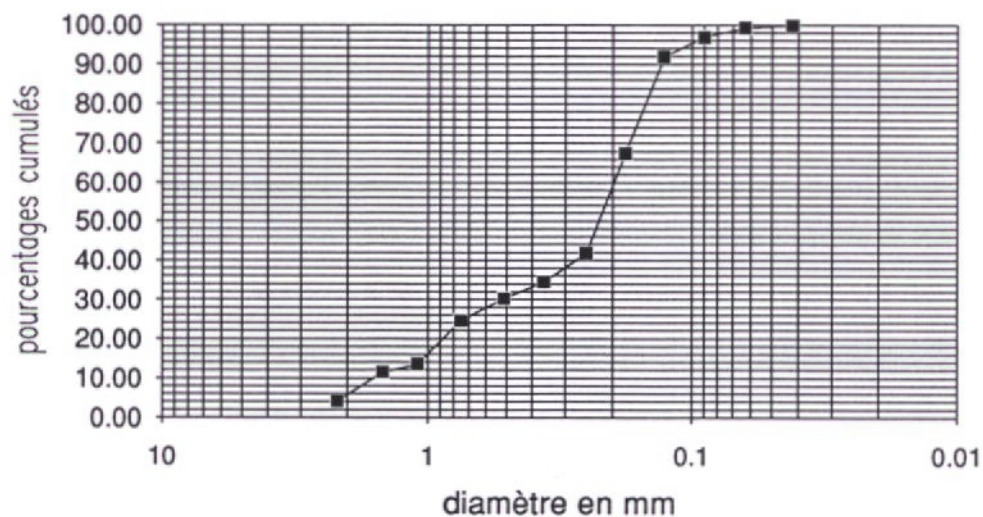
CAMPAGNE 19 : SAINT JEAN LE THOMAS DRAGEY

REFERENCE DE L'ECHANTILLON

G102P00B

Poids total : 131.64

Modules	Ouvertures en mm	Pds simples	Pds cumulés ****	% simples	% cumulés
10	2.18	5.37	5.37	4.08	4.08
14	1.48	9.70	15.07	7.37	11.45
18	1.09	2.46	17.53	1.87	13.32
25	0.75	14.66	32.19	11.14	24.45
35	0.51	7.46	39.65	5.67	30.12
50	0.36	5.65	45.30	4.29	34.41
70	0.25	9.70	55.00	7.37	41.78
110	0.18	33.52	88.52	25.46	67.24
150	0.128	32.37	120.89	24.59	91.83
200	0.09	6.59	127.48	5.01	96.84
280	0.063	2.94	130.42	2.23	99.07
350	0.042	0.85	131.27	0.65	99.72
	fines	0.37	131.64	0.28	100.00



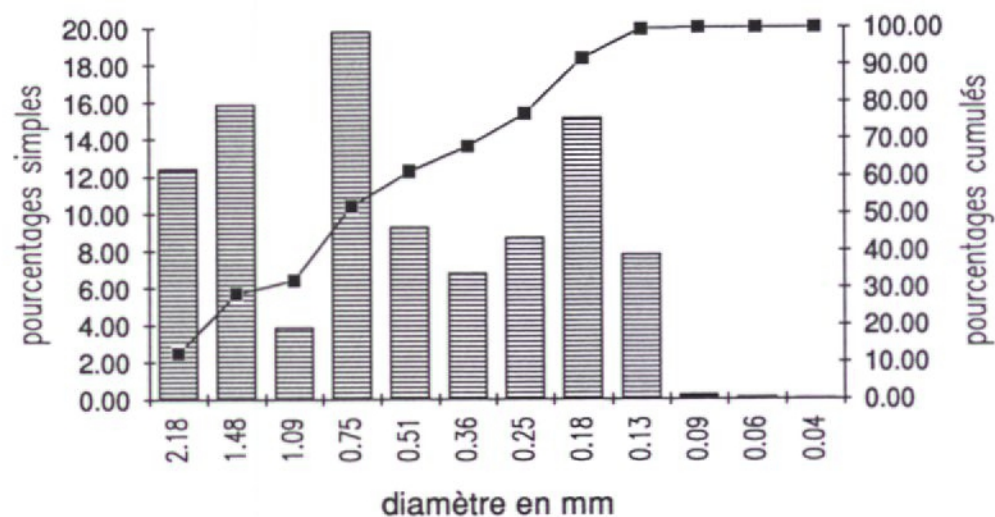
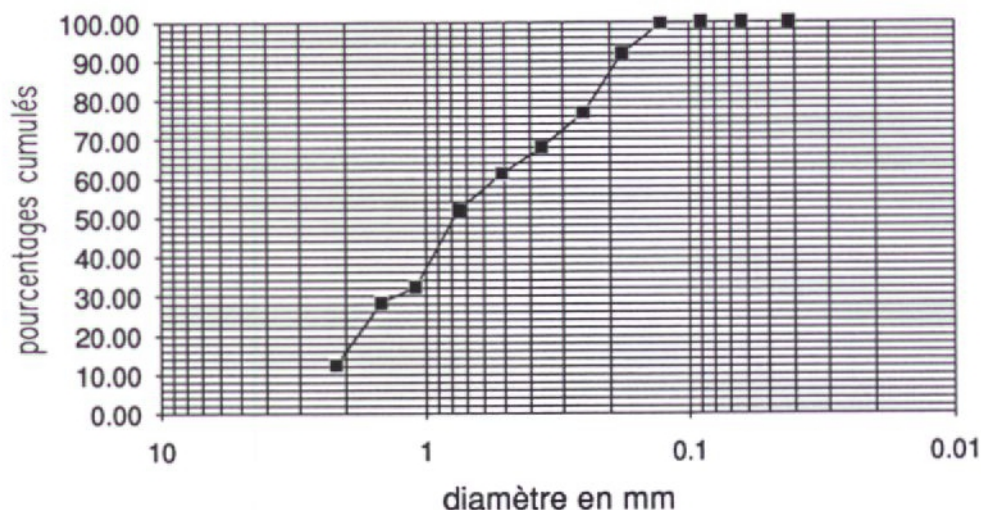
CAMPAGNE 19 : SAINT JEAN LE THOMAS - DRAGEY

REFERENCE DE L'ECHANTILLON

g102p06b

Poids total : 141.34

Modules	Ouvertures en mm	Pds simples	Pds cumulés ****	% simples	% cumulés
10	2.18	17.57	17.57	12.43	12.43
14	1.48	22.42	39.99	15.86	28.29
18	1.09	5.45	45.44	3.86	32.15
25	0.75	27.97	73.41	19.79	51.94
35	0.51	13.07	86.48	9.25	61.19
50	0.36	9.61	96.09	6.80	67.99
70	0.25	12.30	108.39	8.70	76.69
110	0.18	21.42	129.81	15.15	91.84
150	0.128	11.02	140.83	7.80	99.64
200	0.09	0.34	141.17	0.24	99.88
280	0.063	0.12	141.29	0.08	99.96
350	0.042	0.04	141.33	0.03	99.99
	fin	0.01	141.34	0.01	100.00



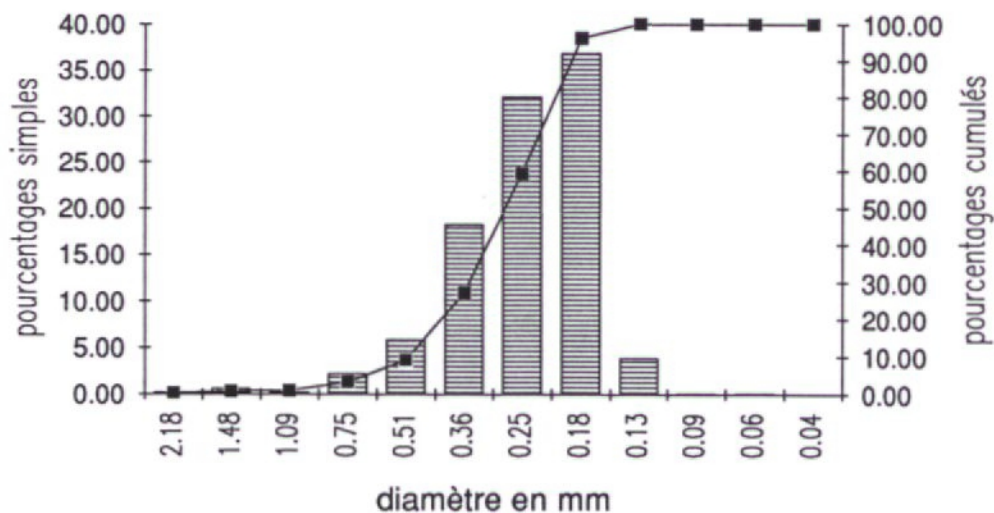
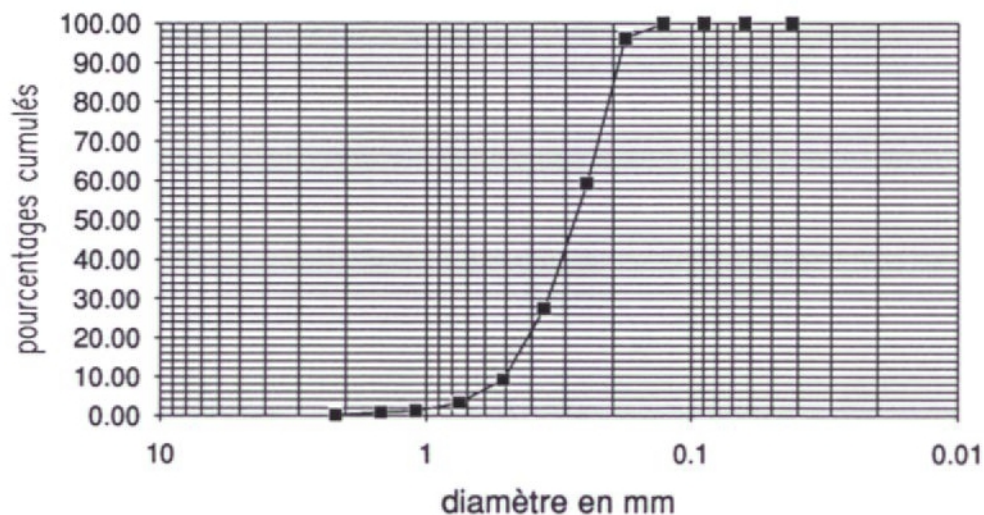
CAMPAGNE 19 : SAINT JEAN LE THOMAS - DRAGEY

REFERENCE DE L'ECHANTILLON

G102P15B

Poids total : 136.02

Modules	Ouvertures en mm	Pds simples	Pds cumulés ****	% simples	% cumulés
10	2.18	0.31	0.31	0.23	0.23
14	1.48	0.88	1.19	0.65	0.87
18	1.09	0.25	1.44	0.18	1.06
25	0.75	3.02	4.46	2.22	3.28
35	0.51	7.87	12.33	5.79	9.06
50	0.36	24.84	37.17	18.26	27.33
70	0.25	43.53	80.70	32.00	59.33
110	0.18	50.03	130.73	36.78	96.11
150	0.128	5.21	135.94	3.83	99.94
200	0.09	0.05	135.99	0.04	99.98
280	0.063	0.02	136.01	0.01	99.99
350	0.042	0.01	136.02	0.01	100.00
	fin	0.00	136.02	0.00	100.00



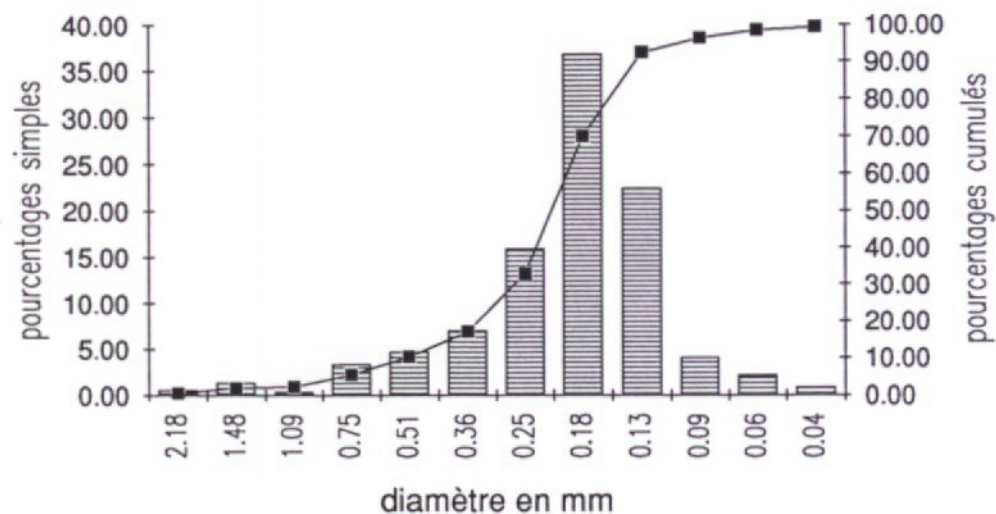
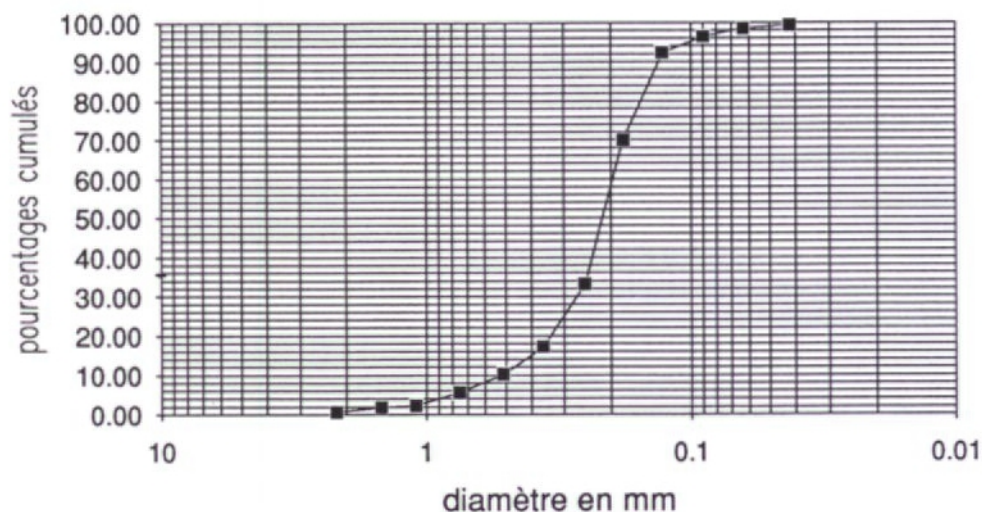
CAMPAGNE C 19 SAINT JEAN LE THOMAS - DRAGEY

REFERENCE DE L'ECHANTILLON

G103P00B

Poids total : 125.43

Modules	Ouvertures en mm	Pds simples	Pds cumulés ****	% simples	% cumulés
10	2.18	0.72	0.72	0.57	0.57
14	1.48	1.62	2.34	1.29	1.87
18	1.09	0.44	2.78	0.35	2.22
25	0.75	4.19	6.97	3.34	5.56
35	0.51	5.79	12.76	4.62	10.17
50	0.36	8.78	21.54	7.00	17.17
70	0.25	19.92	41.46	15.88	33.05
110	0.18	46.18	87.64	36.82	69.87
150	0.128	28.14	115.78	22.43	92.31
200	0.09	5.06	120.84	4.03	96.34
280	0.063	2.68	123.52	2.14	98.48
350	0.042	1.06	124.58	0.85	99.32
	fines	0.85	125.43	0.68	100.00



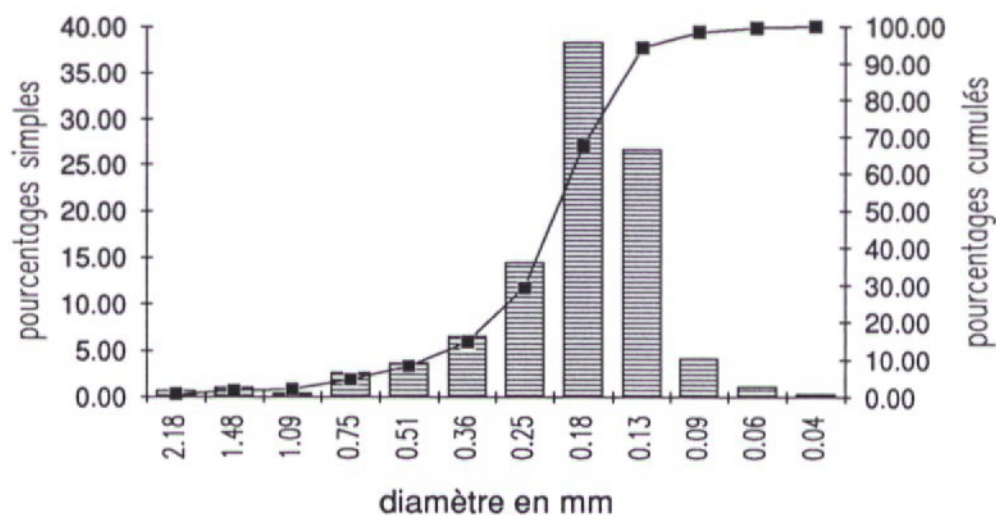
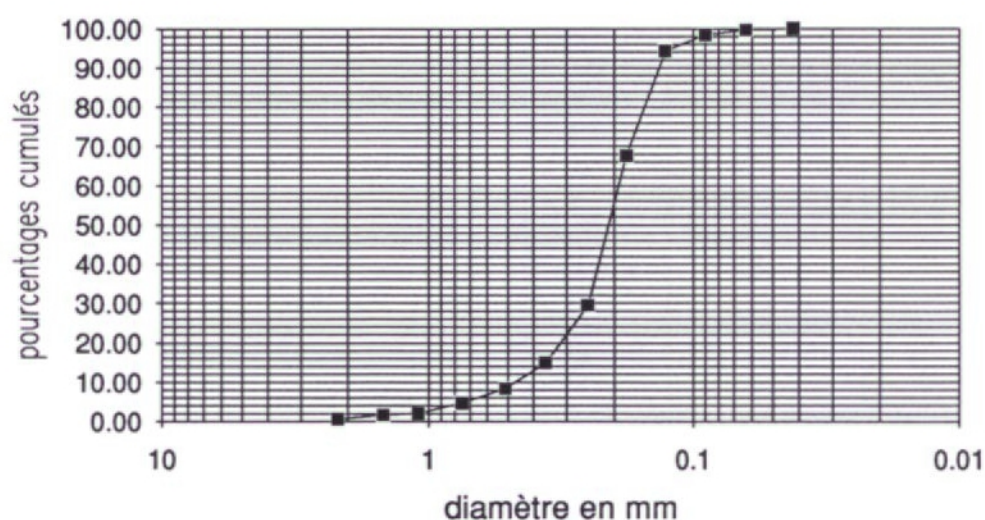
CAMPAGNE 19 : SAINT JEAN LE THOMAS - DRAGEY

REFERENCE DE L'ECHANTILLON

G103P09B

Poids total : 127.21

Modules	Ouvertures en mm	Pds simples	Pds cumulés ****	% simples	% cumulés
10	2.18	0.87	0.87	0.68	0.68
14	1.48	1.28	2.15	1.01	1.69
18	1.09	0.47	2.62	0.37	2.06
25	0.75	3.33	5.95	2.62	4.68
35	0.51	4.68	10.63	3.68	8.36
50	0.36	8.29	18.92	6.52	14.87
70	0.25	18.39	37.31	14.46	29.33
110	0.18	48.78	86.09	38.35	67.68
150	0.128	33.88	119.97	26.63	94.31
200	0.09	5.24	125.21	4.12	98.43
280	0.063	1.43	126.64	1.12	99.55
350	0.042	0.42	127.06	0.33	99.88
	fines	0.15	127.21	0.12	100.00



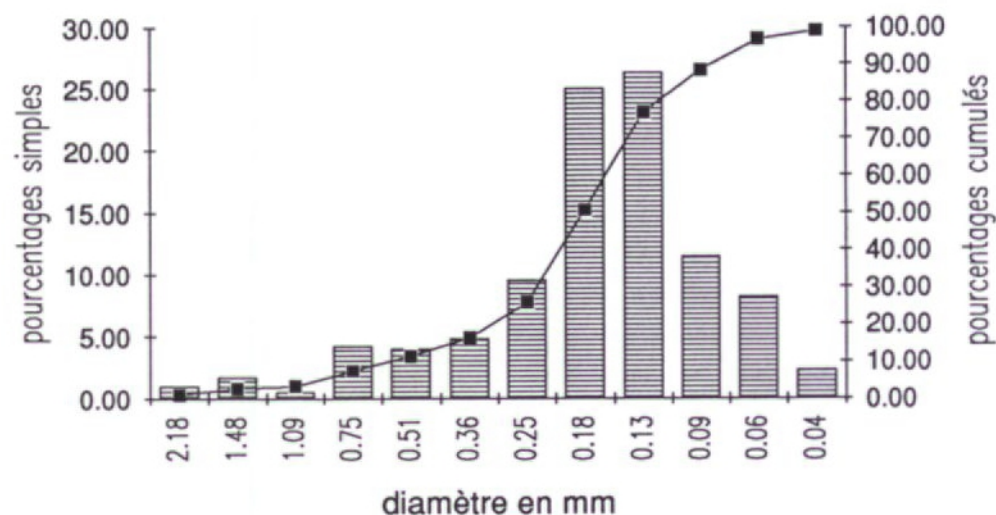
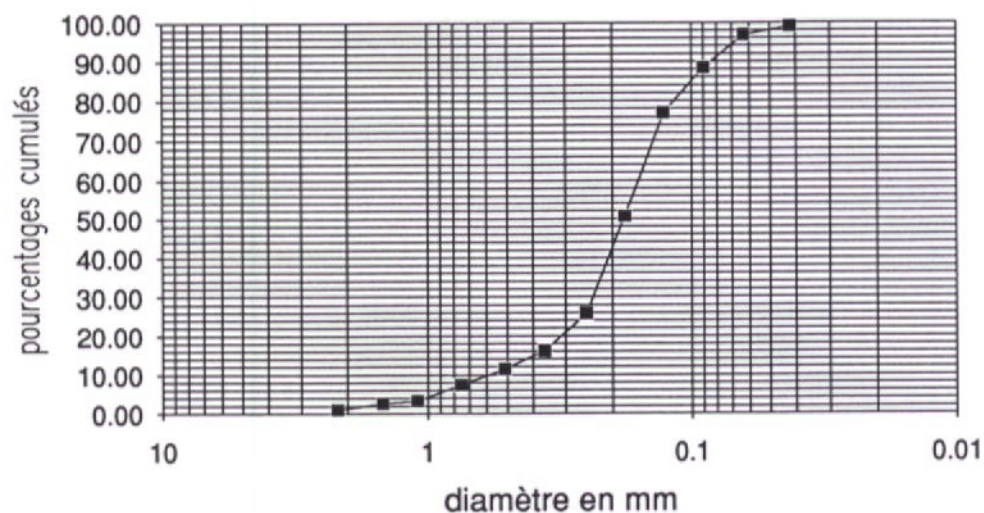
CAMPAGNE 19 : SAINT JEAN LE THOMAS - DRAGEY

REFERENCE DE L'ECHANTILLON

g103p15b

Poids total : 122.60

Modules	Ouvertures en mm	Pds simples	Pds cumulés ****	% simples	% cumulés
10	2.18	1.17	1.17	0.95	0.95
14	1.48	2.12	3.29	1.73	2.68
18	1.09	0.63	3.92	0.51	3.20
25	0.75	5.12	9.04	4.18	7.37
35	0.51	4.86	13.90	3.96	11.34
50	0.36	5.92	19.82	4.83	16.17
70	0.25	11.70	31.52	9.54	25.71
110	0.18	30.63	62.15	24.98	50.69
150	0.128	32.24	94.39	26.30	76.99
200	0.09	14.01	108.40	11.43	88.42
280	0.063	10.07	118.47	8.21	96.63
350	0.042	2.82	121.29	2.30	98.93
	fines	1.31	122.60	1.07	100.00



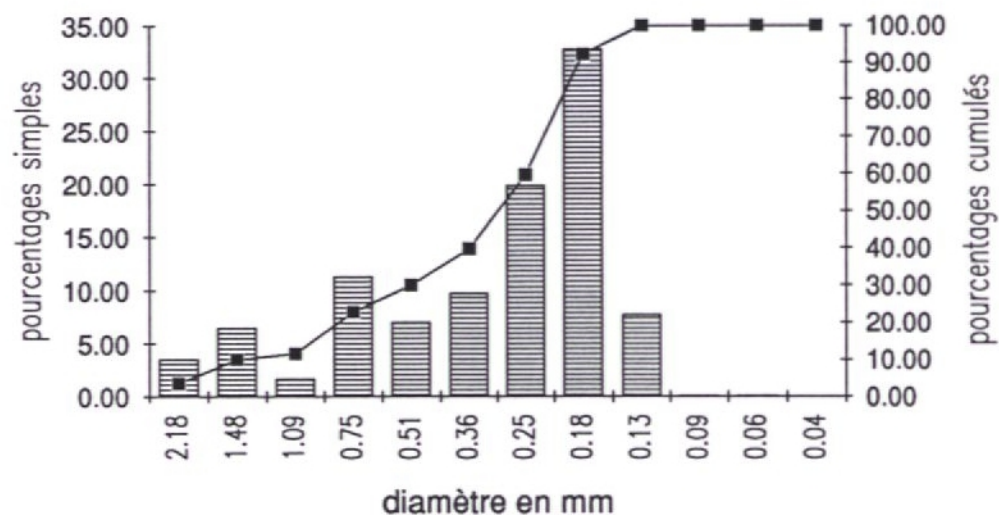
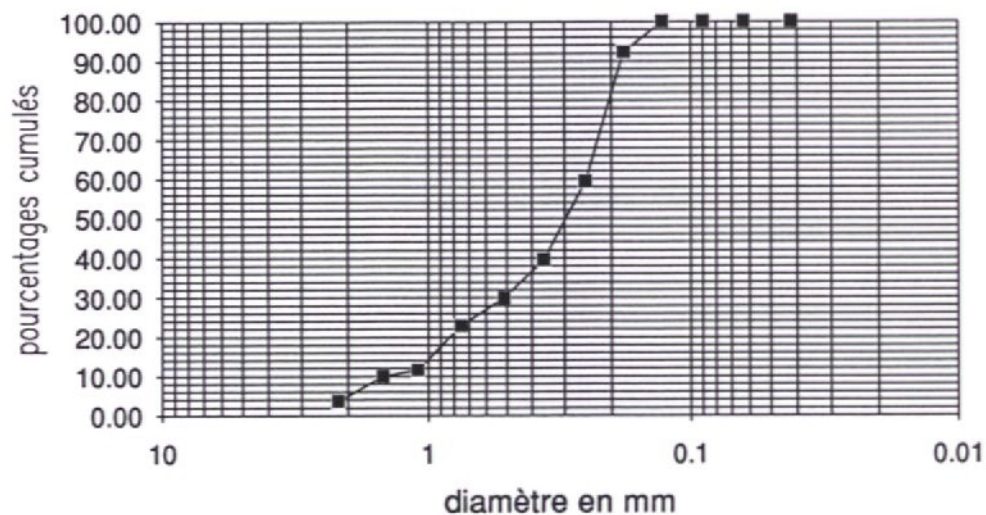
CAMPAGNE 19 : SAINT JEAN LE THOMAS - DRAGEY

REFERENCE DE L'ECHANTILLON

g103p22b

Poids total : 146.28

Modules	Ouvertures en mm	Pds simples	Pds cumulés ****	% simples	% cumulés
10	2.18	5.16	5.16	3.53	3.53
14	1.48	9.42	14.58	6.44	9.97
18	1.09	2.43	17.01	1.66	11.63
25	0.75	16.42	33.43	11.23	22.85
35	0.51	10.23	43.66	6.99	29.85
50	0.36	14.26	57.92	9.75	39.60
70	0.25	29.01	86.93	19.83	59.43
110	0.18	47.91	134.84	32.75	92.18
150	0.128	11.29	146.13	7.72	99.90
200	0.09	0.11	146.24	0.08	99.97
280	0.063	0.03	146.27	0.02	99.99
350	0.042	0.01	146.28	0.01	100.00
	finés	0.00	146.28	0.00	100.00



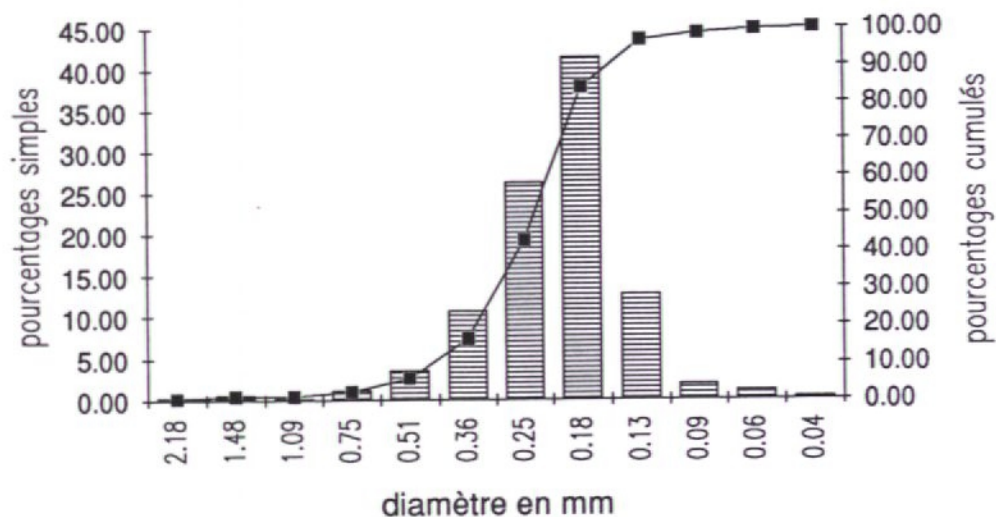
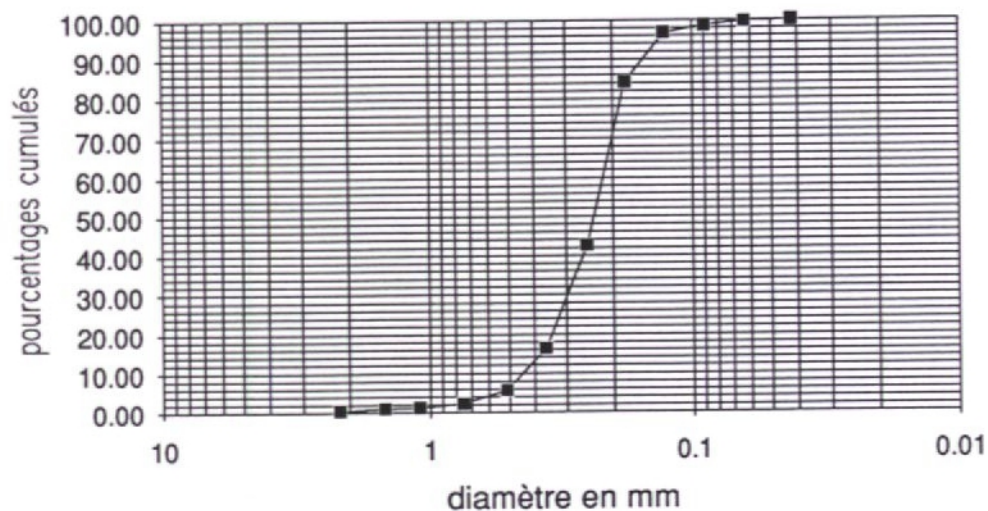
CAMPAGNE C 19 SAINT JEAN LE THOMAS - DRAGEY

REFERENCE DE L'ECHANTILLON

G104P00B

Poids total : 128.75

Modules	Ouvertures en mm	Pds simples	Pds cumulés ****	% simples	% cumulés
10	2.18	0.37	0.37	0.29	0.29
14	1.48	0.81	1.18	0.63	0.92
18	1.09	0.21	1.39	0.16	1.08
25	0.75	1.46	2.85	1.13	2.21
35	0.51	4.55	7.40	3.53	5.75
50	0.36	13.71	21.11	10.65	16.40
70	0.25	33.76	54.87	26.22	42.62
110	0.18	53.37	108.24	41.45	84.07
150	0.128	16.27	124.51	12.64	96.71
200	0.09	2.42	126.93	1.88	98.59
280	0.063	1.35	128.28	1.05	99.63
350	0.042	0.35	128.63	0.27	99.91
	fin	0.12	128.75	0.09	100.00



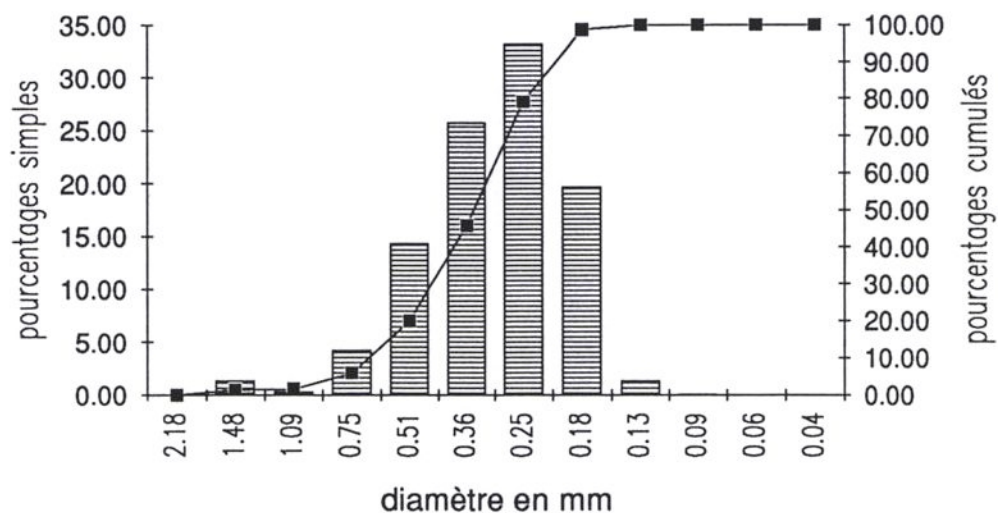
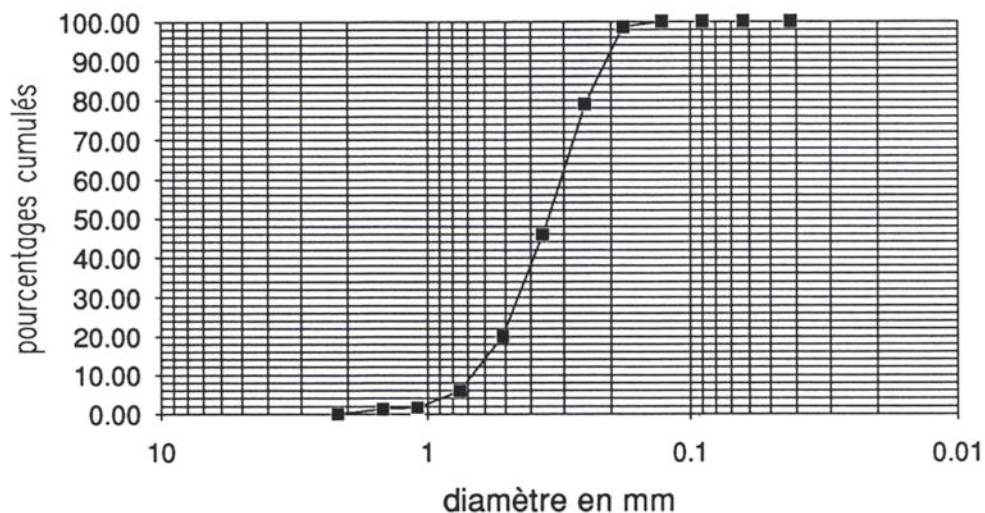
CAMPAGNE 19 : SAINT JEAN LE THOMAS - DRAGEY

REFERENCE DE L'ECHANTILLON

G104P07

Poids total : 126.58

Modules	Ouvertures en mm	Pds simples	Pds cumulés ****	% simples	% cumulés
10	2.18	0.00	0.00	0.00	0.00
14	1.48	1.67	1.67	1.32	1.32
18	1.09	0.34	2.01	0.27	1.59
25	0.75	5.33	7.34	4.21	5.80
35	0.51	18.11	25.45	14.31	20.11
50	0.36	32.54	57.99	25.71	45.81
70	0.25	42.02	100.01	33.20	79.01
110	0.18	24.89	124.90	19.66	98.67
150	0.128	1.63	126.53	1.29	99.96
200	0.09	0.03	126.56	0.02	99.98
280	0.063	0.01	126.57	0.01	99.99
350	0.042	0.00	126.57	0.00	99.99
	fin	0.01	126.58	0.01	100.00



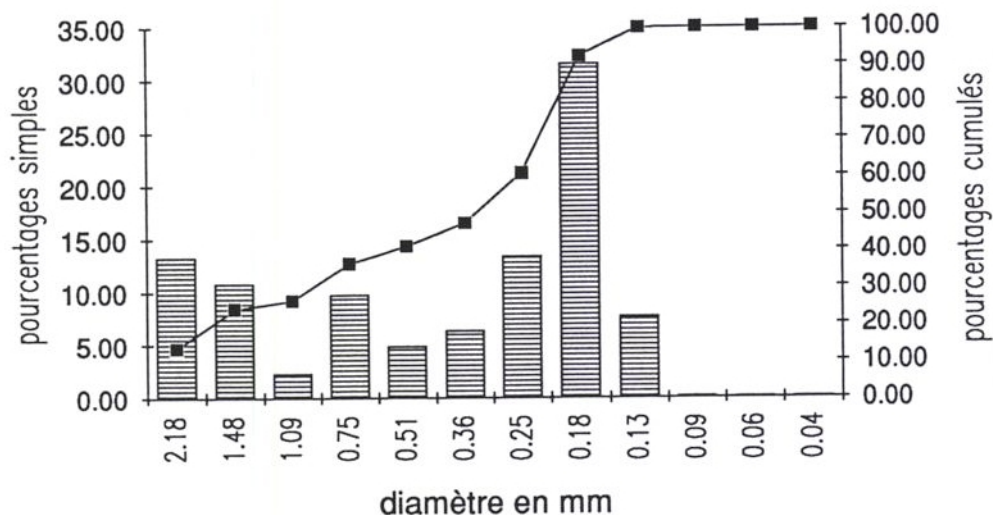
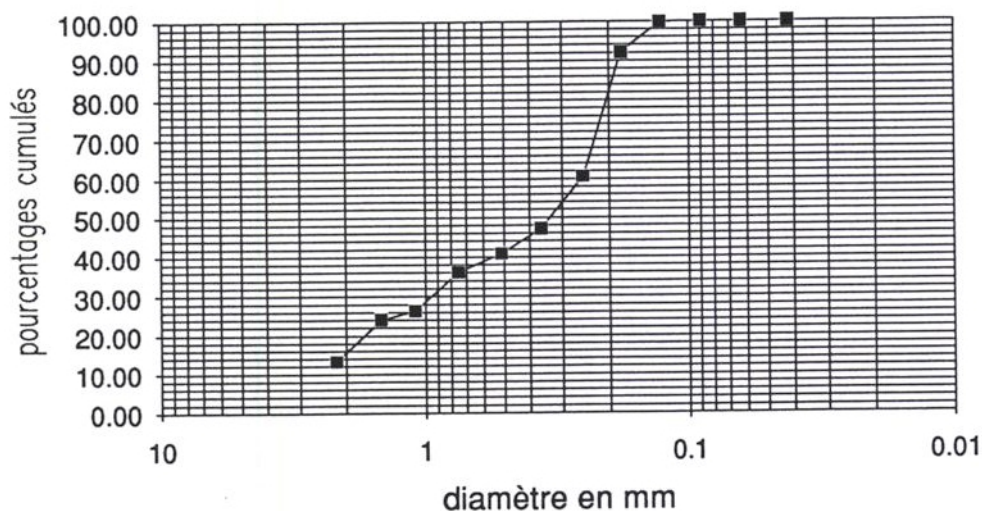
CAMPAGNE 19 : SAINT JEAN LE THOMAS - DRAGEY

REFERENCE DE L'ECHANTILLON

g106p03b

Poids total : 133.97

Modules	Ouvertures en mm	Pds simples	Pds cumulés ****	% simples	% cumulés
10	2.18	17.73	17.73	13.23	13.23
14	1.48	14.46	32.19	10.79	24.03
18	1.09	3.07	35.26	2.29	26.32
25	0.75	13.02	48.28	9.72	36.04
35	0.51	6.47	54.75	4.83	40.87
50	0.36	8.52	63.27	6.36	47.23
70	0.25	17.89	81.16	13.35	60.58
110	0.18	42.26	123.42	31.54	92.13
150	0.128	10.32	133.74	7.70	99.83
200	0.09	0.14	133.88	0.10	99.93
280	0.063	0.05	133.93	0.04	99.97
350	0.042	0.03	133.96	0.02	99.99
	fin	0.01	133.97	0.01	100.00



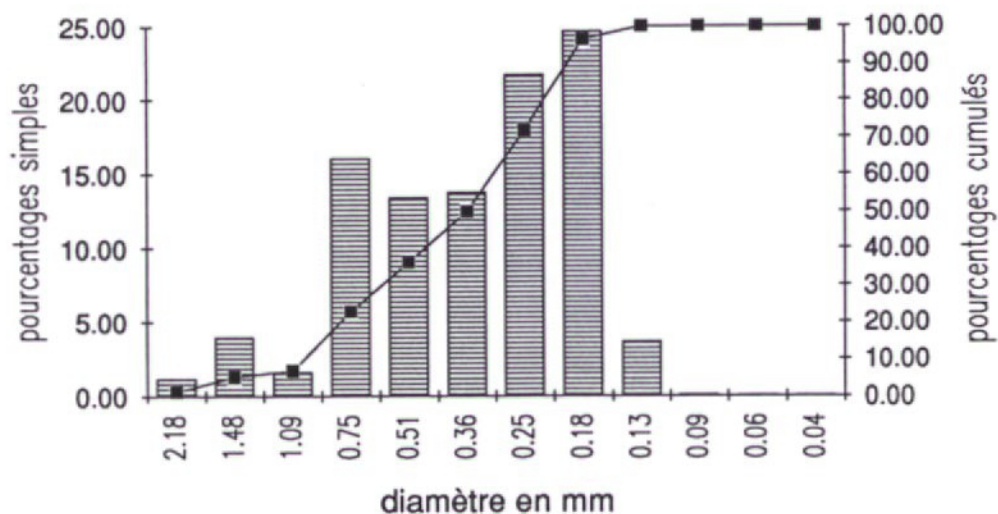
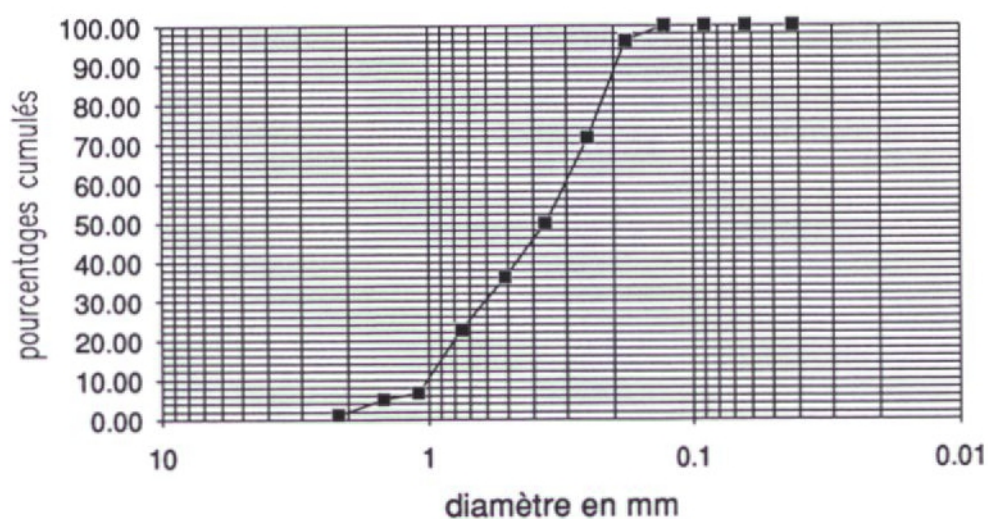
CAMPAGNE 19 : SAINT JEAN LE THOMAS - DRAGEY

REFERENCE DE L'ECHANTILLON

g106p06b

Poids total : 131.40

Modules	Ouvertures en mm	Pds simples	Pds cumulés ****	% simples	% cumulés
10	2.18	1.50	1.50	1.14	1.14
14	1.48	5.21	6.71	3.96	5.11
18	1.09	2.09	8.80	1.59	6.70
25	0.75	21.07	29.87	16.04	22.73
35	0.51	17.62	47.49	13.41	36.14
50	0.36	18.04	65.53	13.73	49.87
70	0.25	28.52	94.05	21.70	71.58
110	0.18	32.40	126.45	24.66	96.23
150	0.128	4.80	131.25	3.65	99.89
200	0.09	0.09	131.34	0.07	99.95
280	0.063	0.02	131.36	0.02	99.97
350	0.042	0.02	131.38	0.02	99.98
	fines	0.02	131.40	0.02	100.00



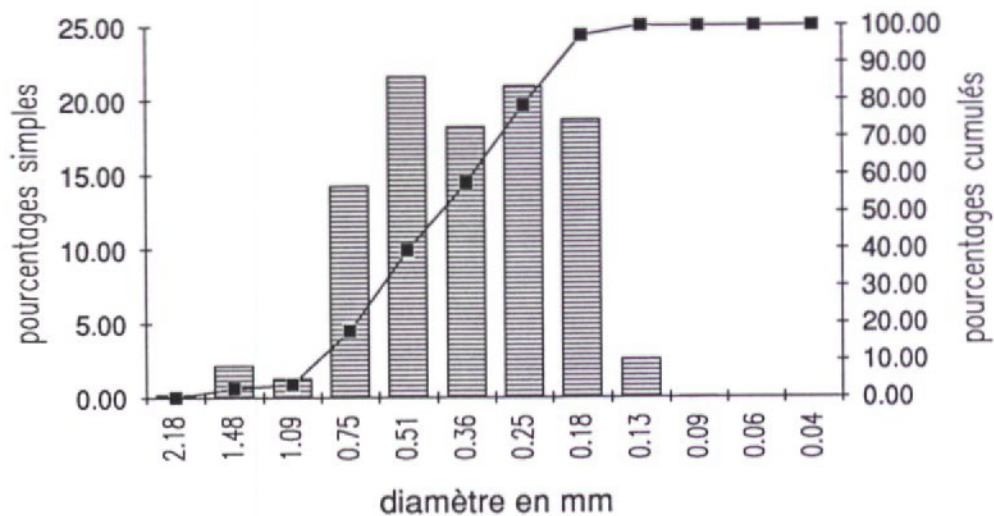
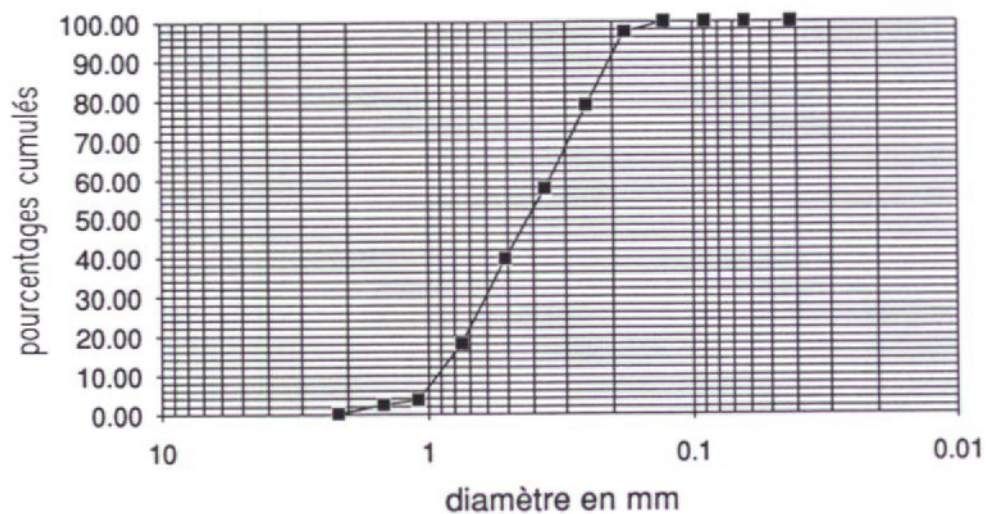
CAMPAGNE C 19 SAINT JEAN LE THOMAS DRAGEY

REFERENCE DE L'ECHANTILLON

G106P09B

Poids total : 121.74

Modules	Ouvertures en mm	Pds simples	Pds cumulés ****	% simples	% cumulés
10	2.18	0.23	0.23	0.19	0.19
14	1.48	2.63	2.86	2.16	2.35
18	1.09	1.57	4.43	1.29	3.65
25	0.75	17.33	21.76	14.26	17.91
35	0.51	26.27	48.03	21.62	39.52
50	0.36	22.09	70.12	18.18	57.70
70	0.25	25.46	95.58	20.95	78.65
110	0.18	22.70	118.28	18.68	97.33
150	0.128	3.16	121.44	2.60	99.93
200	0.09	0.06	121.50	0.05	99.98
280	0.063	0.01	121.51	0.01	99.98
350	0.042	0.01	121.52	0.01	99.99
	fines	0.01	121.53	0.01	100.00



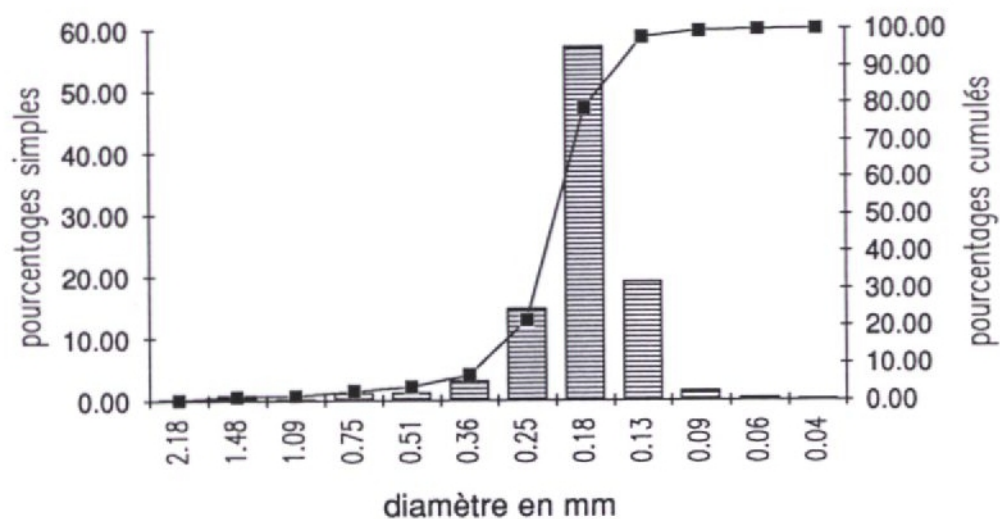
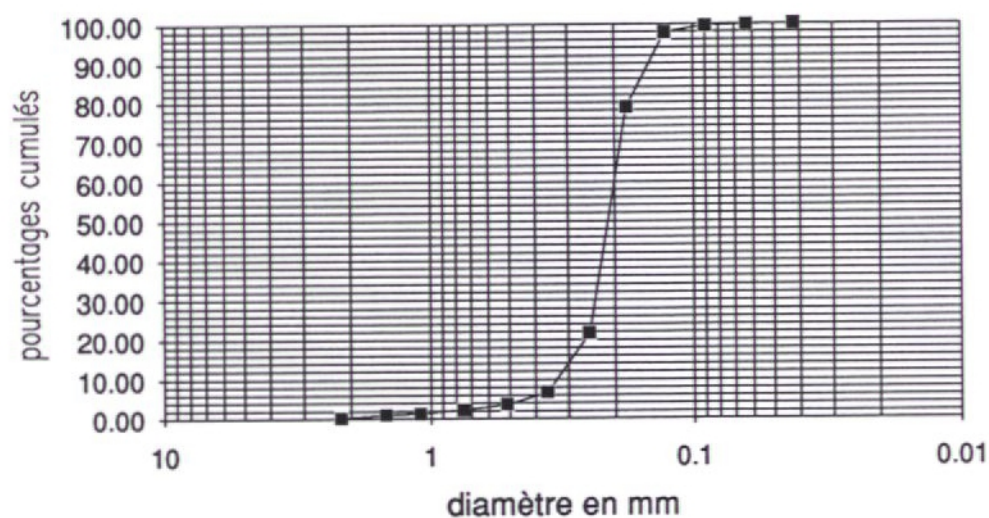
CAMPAGNE 19 : SAINT JEAN LE THOMAS - DRAGEY

REFERENCE DE L'ECHANTILLON

g106p19b

Poids total : 123.93

Modules	Ouvertures en mm	Pds simples	Pds cumulés ****	% simples	% cumulés
10	2.18	0.24	0.24	0.19	0.19
14	1.48	1.01	1.25	0.81	1.01
18	1.09	0.29	1.54	0.23	1.24
25	0.75	1.35	2.89	1.09	2.33
35	0.51	1.55	4.44	1.25	3.58
50	0.36	3.84	8.28	3.10	6.68
70	0.25	18.42	26.70	14.86	21.54
110	0.18	70.87	97.57	57.19	78.73
150	0.128	23.74	121.31	19.16	97.89
200	0.09	1.89	123.20	1.53	99.41
280	0.063	0.46	123.66	0.37	99.78
350	0.042	0.18	123.84	0.15	99.93
	fines	0.09	123.93	0.07	100.00



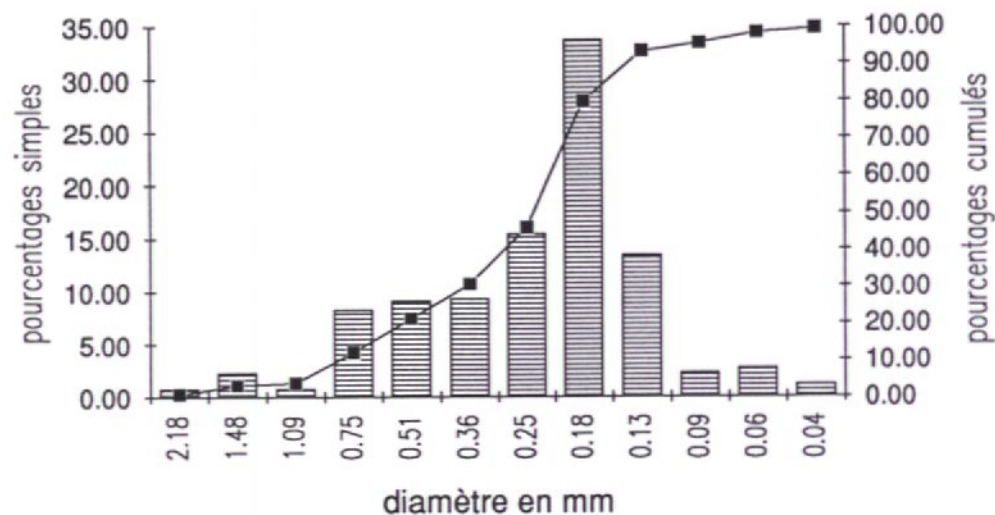
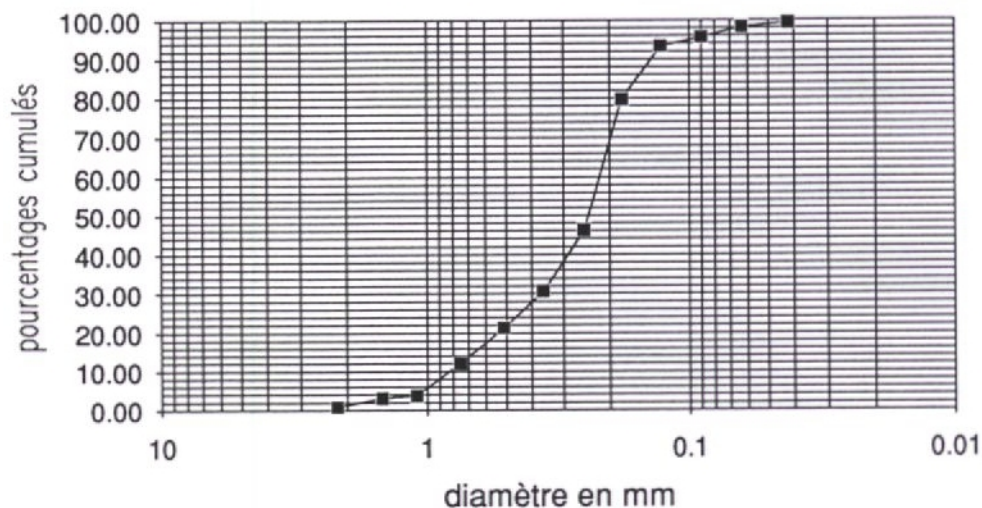
CAMPAGNE 19 : SAINT JEAN LE THOMAS - DRAGEY

REFERENCE DE L'ECHANTILLON

g107p04b

Poids total : 128.40

Modules	Ouvertures en mm	Pds simples	Pds cumulés ****	% simples	% cumulés
10	2.18	0.96	0.96	0.75	0.75
14	1.48	2.92	3.88	2.27	3.02
18	1.09	1.01	4.89	0.79	3.81
25	0.75	10.60	15.49	8.26	12.06
35	0.51	11.73	27.22	9.14	21.20
50	0.36	11.97	39.19	9.32	30.52
70	0.25	19.84	59.03	15.45	45.97
110	0.18	43.30	102.33	33.72	79.70
150	0.128	17.33	119.66	13.50	93.19
200	0.09	2.90	122.56	2.26	95.45
280	0.063	3.48	126.04	2.71	98.16
350	0.042	1.47	127.51	1.14	99.31
	fin	0.89	128.40	0.69	100.00



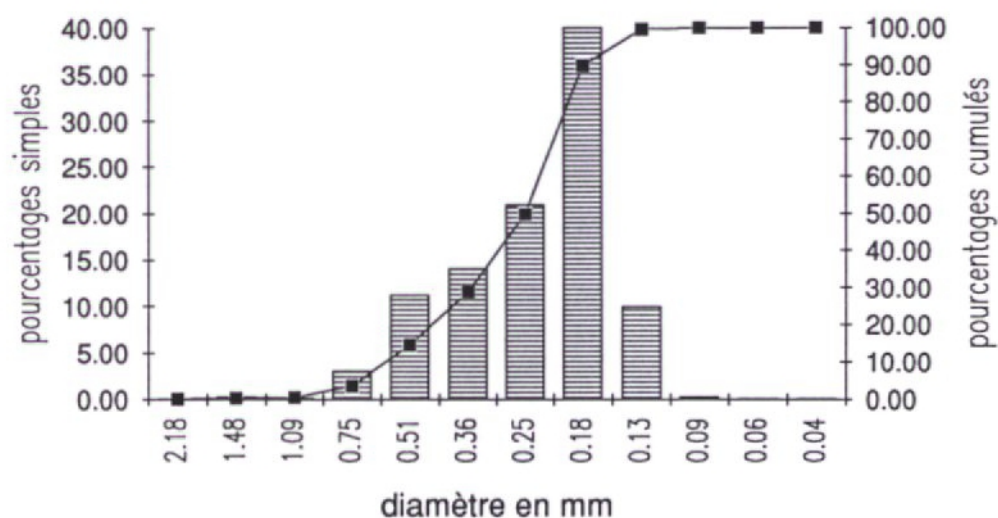
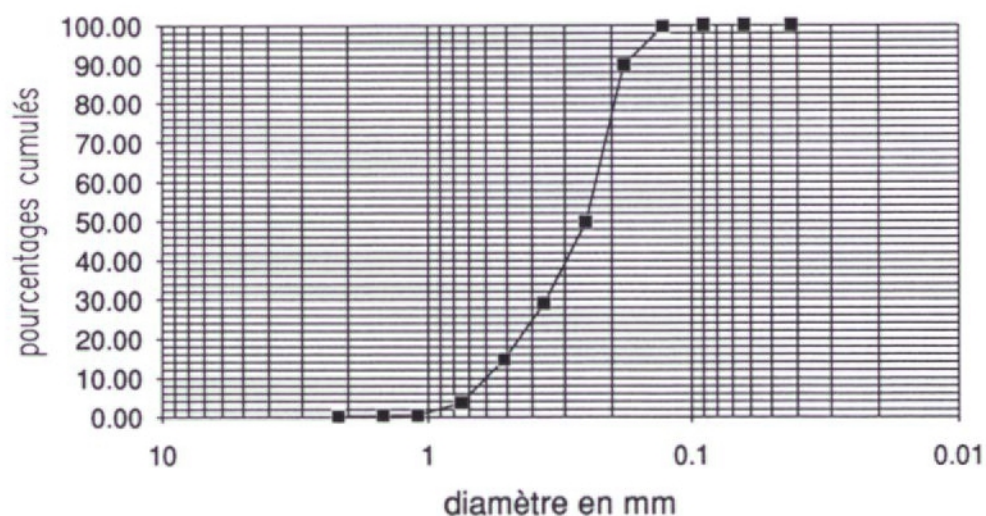
CAMPAGNE 19 : SAINT JEAN LE THOMAS - DRAGEY

REFERENCE DE L'ECHANTILLON

G107P10

Poids total : 124.43

Modules	Ouvertures en mm	Pds simples	Pds cumulés ****	% simples	% cumulés
10	2.18	0.10	0.10	0.08	0.08
14	1.48	0.31	0.41	0.25	0.33
18	1.09	0.18	0.59	0.14	0.47
25	0.75	3.80	4.39	3.05	3.53
35	0.51	13.91	18.30	11.18	14.71
50	0.36	17.58	35.88	14.13	28.84
70	0.25	26.07	61.95	20.95	49.79
110	0.18	49.72	111.67	39.96	89.75
150	0.128	12.35	124.02	9.93	99.67
200	0.09	0.29	124.31	0.23	99.90
280	0.063	0.06	124.37	0.05	99.95
350	0.042	0.04	124.41	0.03	99.98
	fines	0.02	124.43	0.02	100.00



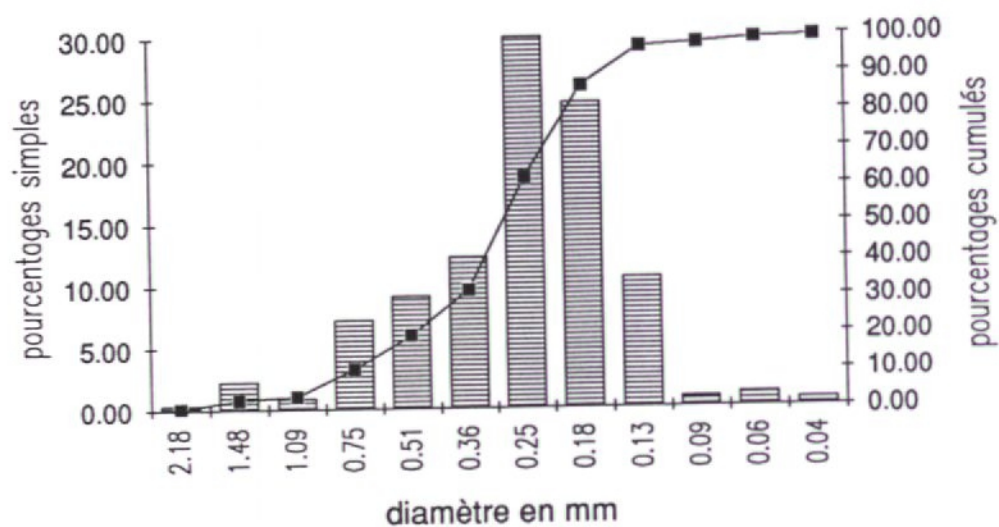
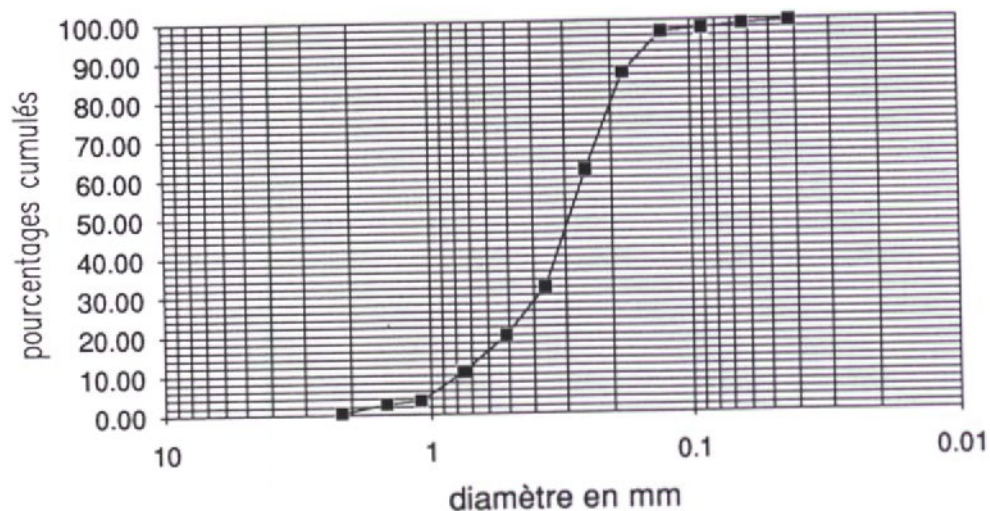
CAMPAGNE 19 SAINT JEAN LE THOMAS - DRAGEY

REFERENCE DE L'ECHANTILLON

G107P18C

Poids total : 126.25

Modules	Ouvertures en mm	Pds simples	Pds cumulés ****	% simples	% cumulés
10	2.18	0.47	0.47	0.37	0.37
14	1.48	2.83	3.30	2.24	2.61
18	1.09	1.07	4.37	0.85	3.46
25	0.75	9.09	13.46	7.20	10.66
35	0.51	11.51	24.97	9.12	19.78
50	0.36	15.43	40.40	12.22	32.00
70	0.25	37.72	78.12	29.88	61.88
110	0.18	31.04	109.16	24.59	86.46
150	0.128	13.32	122.48	10.55	97.01
200	0.09	0.99	123.47	0.78	97.80
280	0.063	1.34	124.81	1.06	98.86
350	0.042	0.73	125.54	0.58	99.44
	finer	0.71	126.25	0.56	100.00



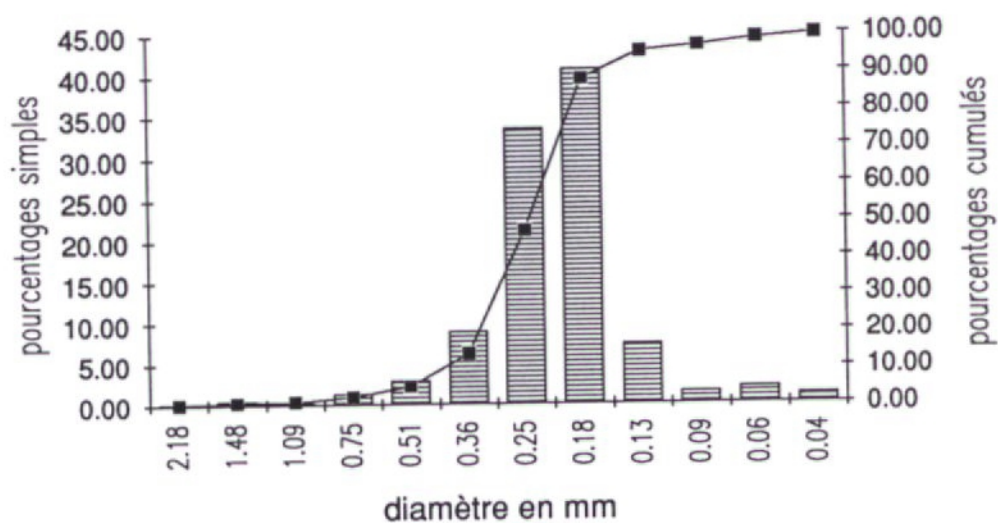
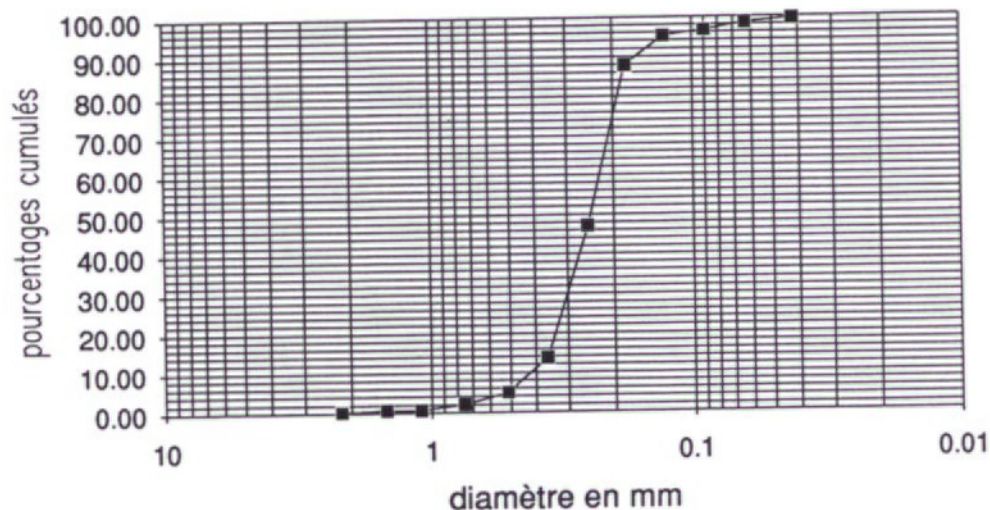
CAMPAGNE 19 SAINT JEAN LE THOMAS - DRAGEY

REFERENCE DE L'ECHANTILLON

G108P01

Poids total : 117.92

Modules	Ouvertures en mm	Pds simples	Pds cumulés ****	% simples	% cumulés
10	2.18	0.13	0.13	0.11	0.11
14	1.48	0.53	0.66	0.45	0.56
18	1.09	0.18	0.84	0.15	0.71
25	0.75	1.53	2.37	1.30	2.01
35	0.51	3.39	5.76	2.87	4.88
50	0.36	10.41	16.17	8.83	13.71
70	0.25	39.43	55.60	33.44	47.15
110	0.18	47.99	103.59	40.70	87.85
150	0.128	8.60	112.19	7.29	95.14
200	0.09	1.60	113.79	1.36	96.50
280	0.063	2.30	116.09	1.95	98.45
350	0.042	1.24	117.33	1.05	99.50
	fines	0.59	117.92	0.50	100.00



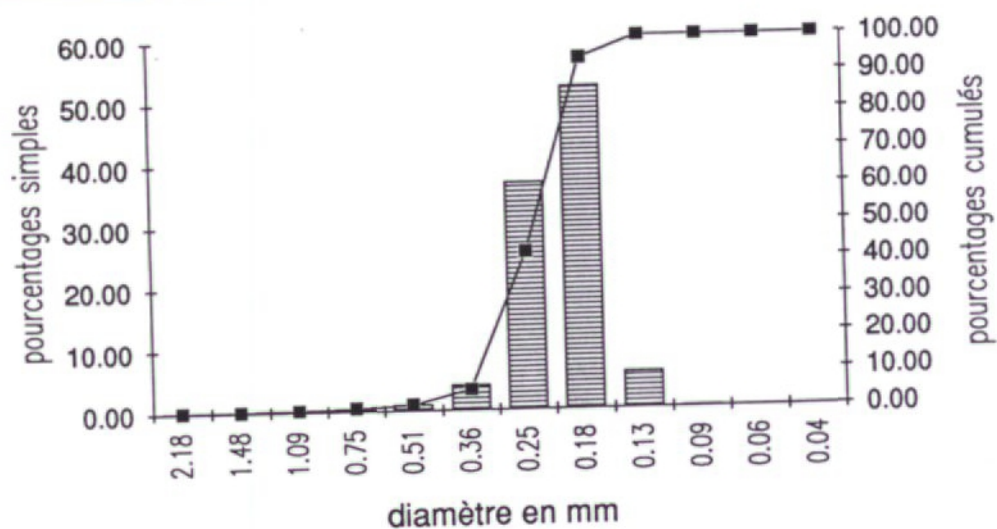
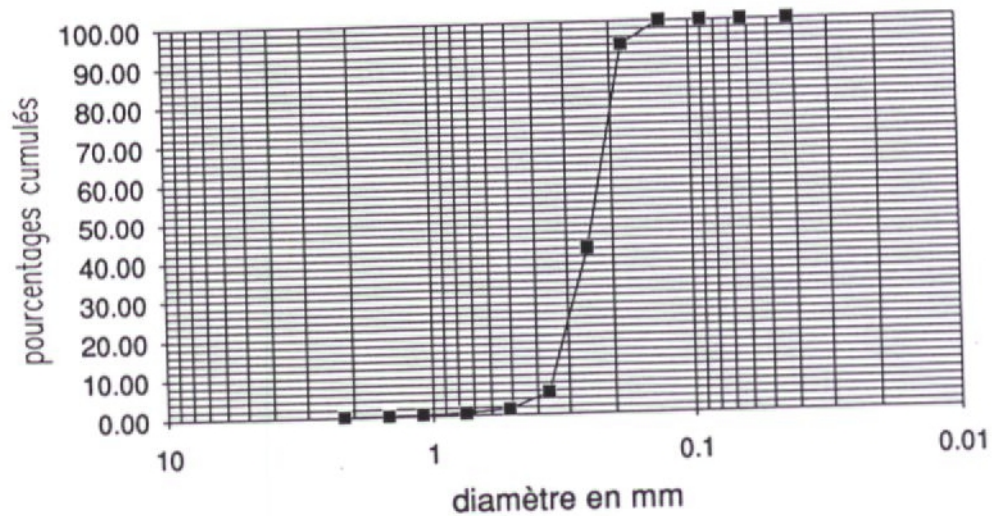
CAMPAGNE 19 : SAINT JEAN LE THOMAS - DRAGEY

REFERENCE DE L'ECHANTILLON

G108P11B

Poids total : 130.02

Modules	Ouvertures en mm	Pds simples	Pds cumulés ****	% simples	% cumulés
10	2.18	0.09	0.09	0.07	0.07
14	1.48	0.15	0.24	0.12	0.18
18	1.09	0.07	0.31	0.05	0.24
25	0.75	0.51	0.82	0.39	0.63
35	0.51	1.16	1.98	0.89	1.52
50	0.36	5.20	7.18	4.00	5.52
70	0.25	47.64	54.82	36.64	42.16
110	0.18	67.50	122.32	51.92	94.08
150	0.128	7.54	129.86	5.80	99.88
200	0.09	0.14	130.00	0.11	99.98
280	0.063	0.01	130.01	0.01	99.99
350	0.042	0.01	130.02	0.01	100.00
	fines	0.00	130.02	0.00	100.00



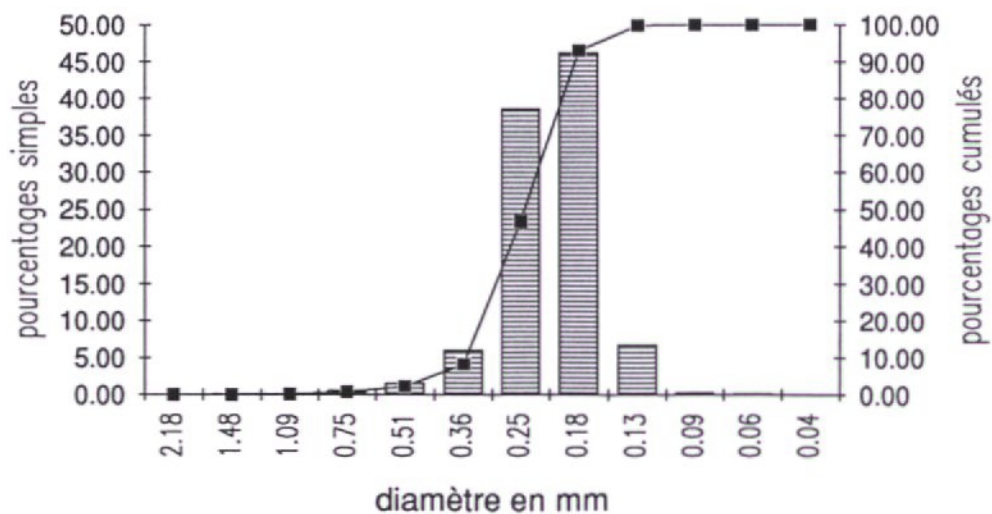
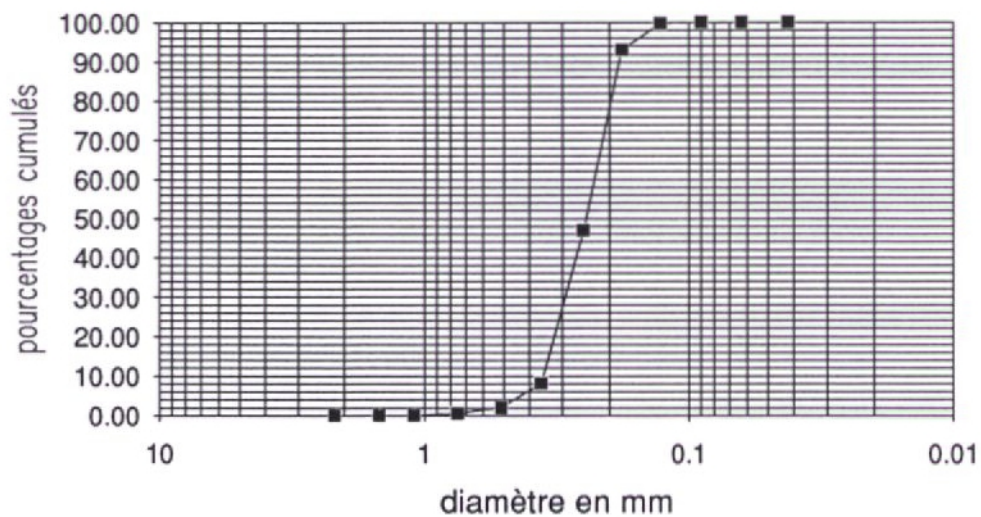
CAMPAGNE C 19 SAINT JEAN LE THOMAS - DRAGEY

REFERENCE DE L'ECHANTILLON

G108P15B

Poids total : 132.18

Modules	Ouvertures en mm	Pds simples	Pds cumulés ****	% simples	% cumulés
10	2.18	0.00	0.00	0.00	0.00
14	1.48	0.04	0.04	0.03	0.03
18	1.09	0.04	0.08	0.03	0.06
25	0.75	0.74	0.82	0.56	0.62
35	0.51	2.03	2.85	1.54	2.16
50	0.36	8.00	10.85	6.05	8.21
70	0.25	50.99	61.84	38.58	46.78
110	0.18	61.16	123.00	46.27	93.05
150	0.128	8.84	131.84	6.69	99.74
200	0.09	0.28	132.12	0.21	99.95
280	0.063	0.04	132.16	0.03	99.98
350	0.042	0.01	132.17	0.01	99.99
	fin	0.01	132.18	0.01	100.00



CAMPAGNE N°19

Saint Jean le Thomas - Dragey

COURANTOLOGIE



InterOcean Systems, Inc.

Model S4 Current Meter #19261543

U1DRAC01

File : E:U1DRAC01.S4B

Samples averaged : 1

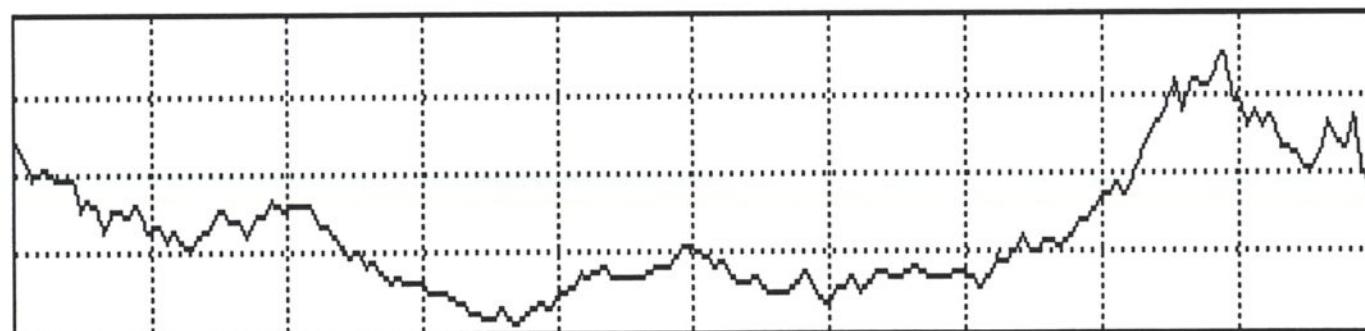
Mean : 31.39

S
p
e
e
d

100.0
cm/s

50.0

0.0



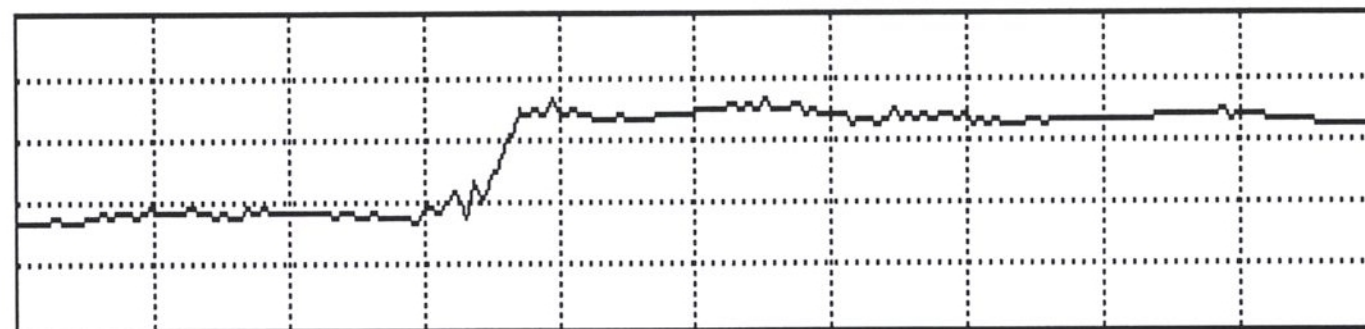
Mean : 275.10

D
i
r
.

360
deg

180

0



46

Samples

216

1/11/93 19:30:00

1/12/93 01:10:00



InterOcean Systems, Inc.

Model S4 Current Meter #19261543

U1DRAC01

File : E:U1DRAC01.S4B

Samples averaged : 1

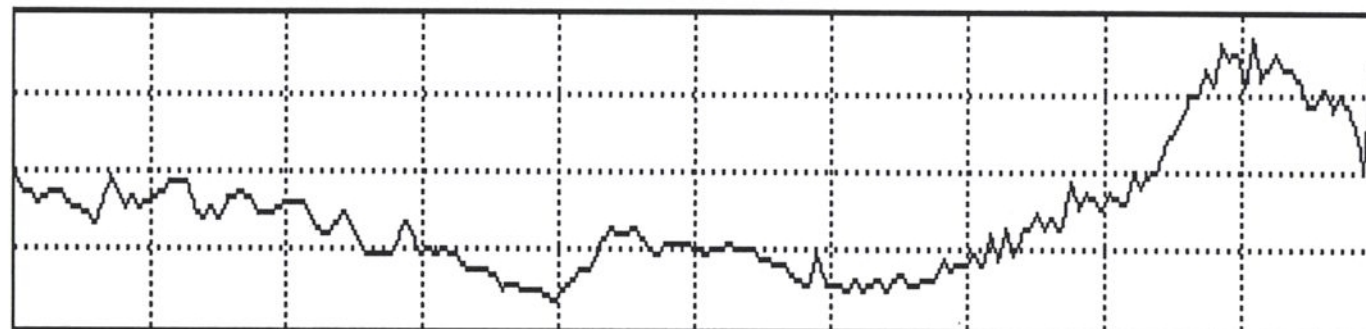
Mean : 36.31

Speed

100.0
cm/s

50.0

0.0



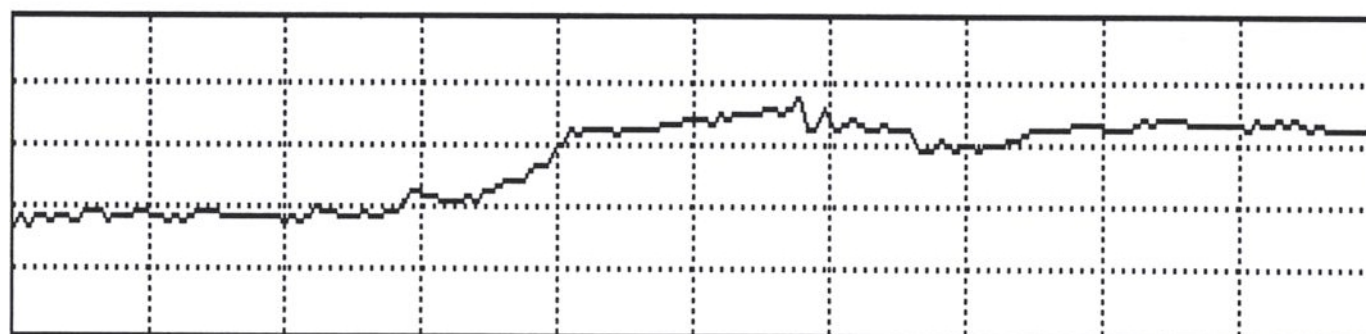
Mean : 264.99

Dir.

360
deg

180

0



413

Samples

586

1/12/93 07:44:00

1/12/93 13:30:00



InterOcean Systems, Inc.

Model S4 Current Meter #19261554

U2DRAD01

File : E:U2DRAD01.S4B

Samples averaged : 1

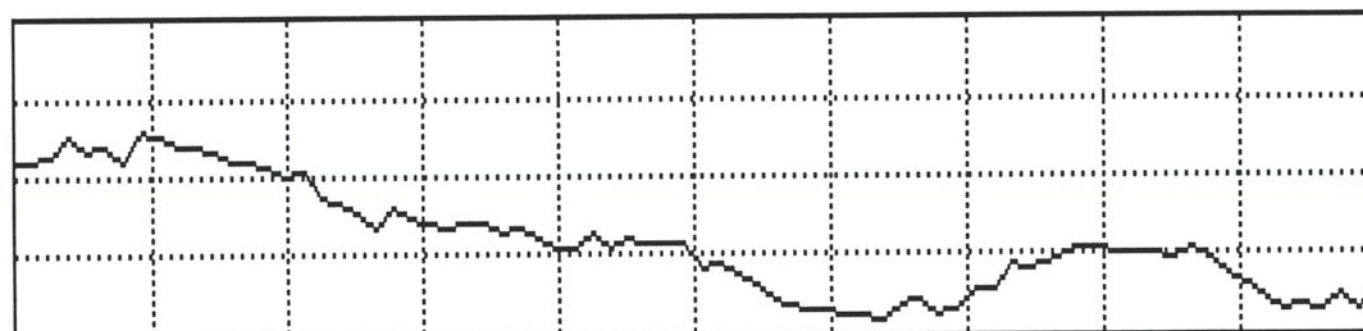
Mean : 29.00

S
p
e
e
d

100.0
cm/s

50.0

0.0



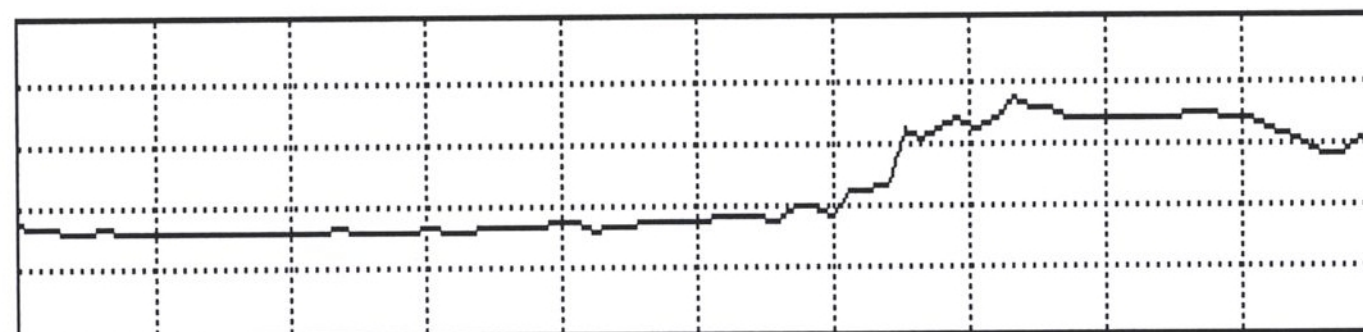
Mean : 155.02

D
i
r

360
deg

180

0



Samples

65
1/11/93 20:08:00

140
1/11/93 22:38:00



InterOcean Systems, Inc.

Model S4 Current Meter #19261554

U2DRAD01

File : E:U2DRAD01.S4B

Samples averaged : 1

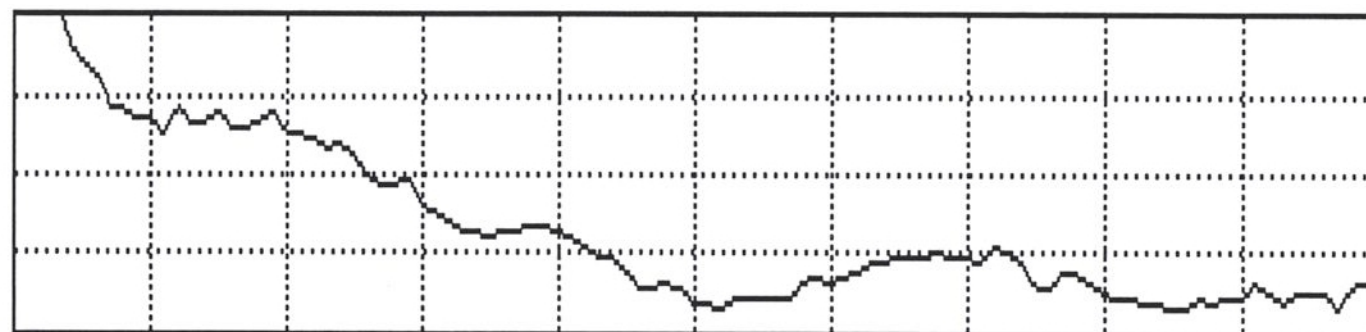
Mean : 33.34

S
p
e
e
d

100.0
cm/s

50.0

0.0



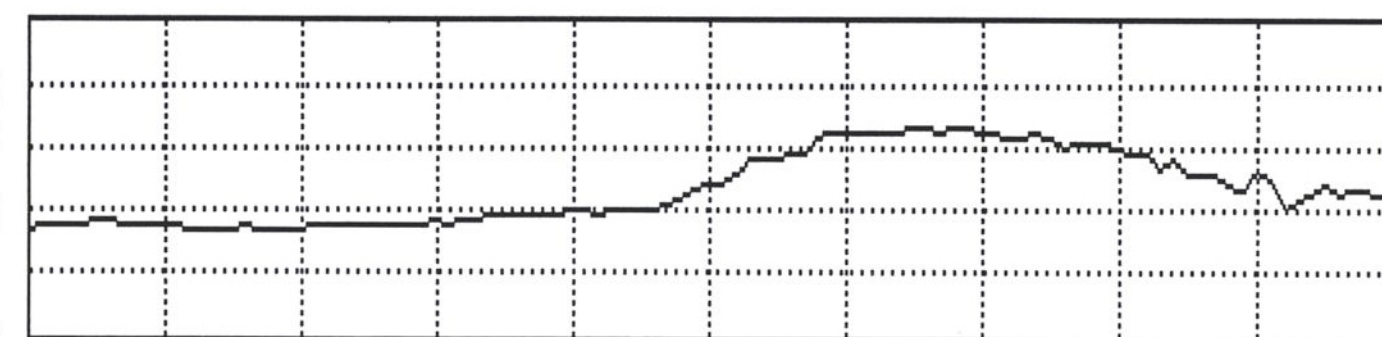
Mean : 173.07

D
i
r
.

360
deg

180

0



425
1/12/93 08:08:00

Samples

525
1/12/93 11:28:00



InterOcean Systems, Inc.
U3SJTA01
Samples averaged : 1

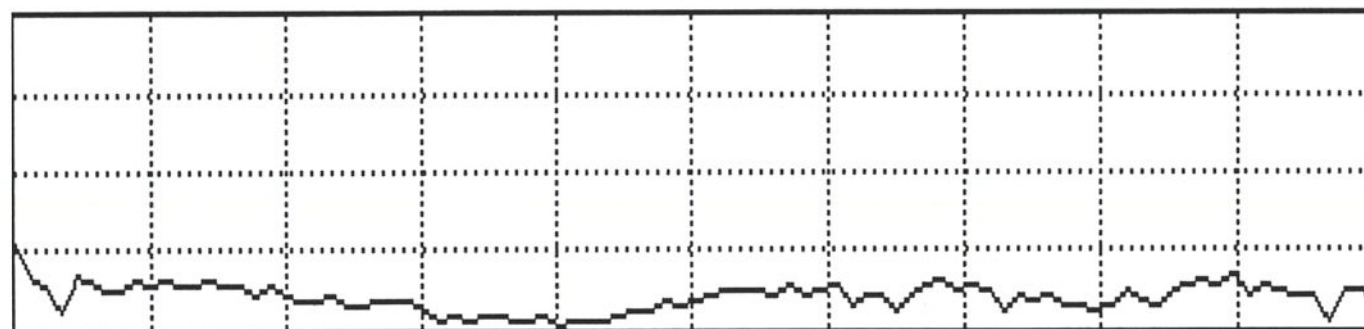
Model S4 Current Meter #19261544
File : E:U3SJTA01.S4B
Mean : 9.23

S
p
e
e
d

100.0
cm/s

50.0

0.0



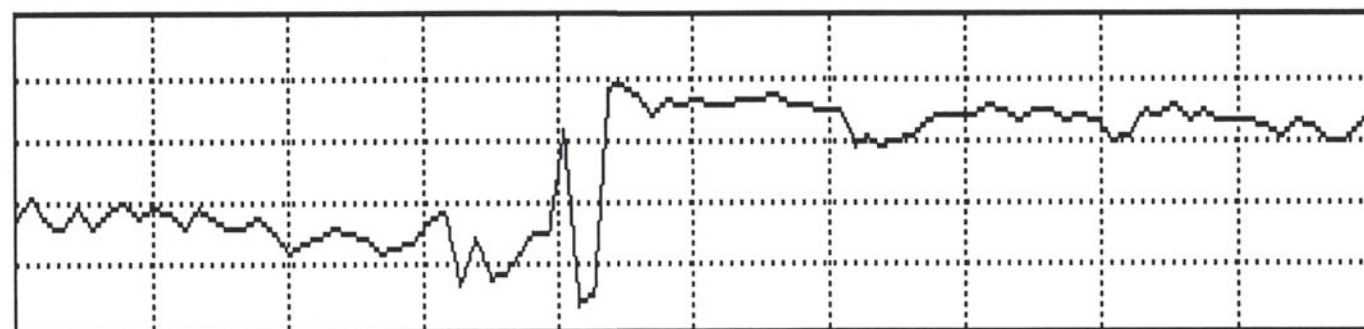
Mean : 277.85

D
i
r
.

360
deg

180

0



65
1/11/93 20:08:00

Samples

154
1/11/93 23:06:00



InterOcean Systems, Inc.

U3SJTA01

Samples averaged : 1

Model S4 Current Meter #19261544

File : E:\U3SJTA01.S4B

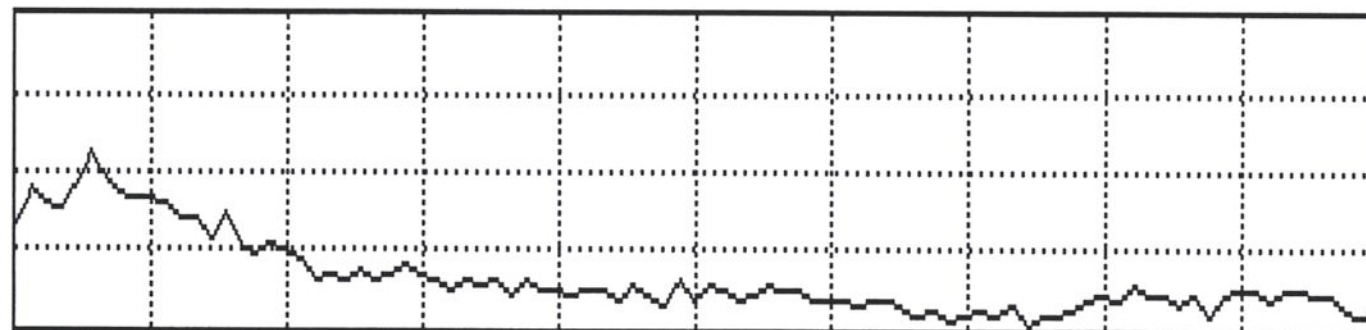
Mean : 15.56

S
p
e
e
d

100.0
cm/s

50.0

0.0



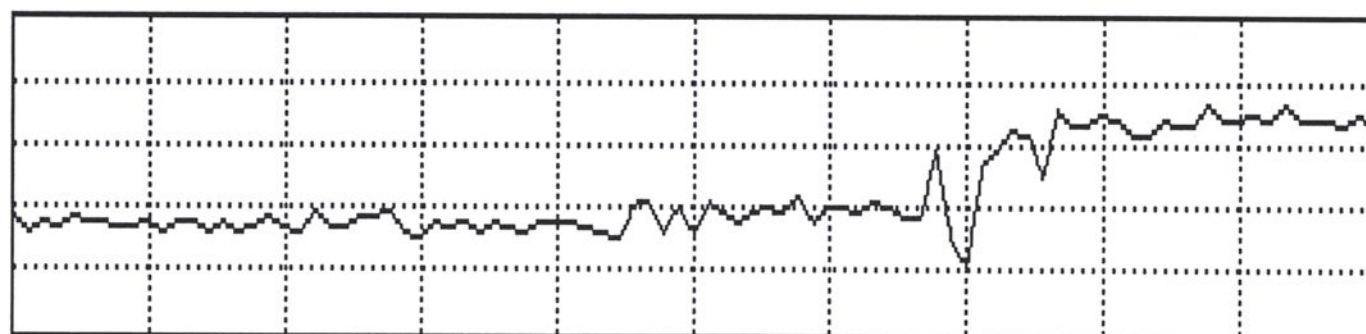
Mean : 162.96

D
i
r
.

360
deg

180

0



420

1/12/93 07:58:00

Samples

510

1/12/93 10:58:00



InterOcean Systems, Inc.

01SJTB01

Samples averaged : 120

Model S4 Current Meter #19261540

File : E:01SJTB01.S4B

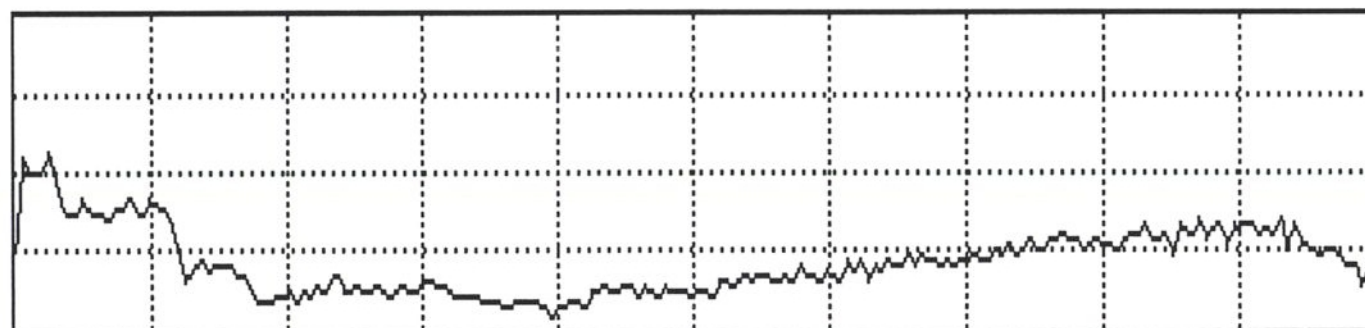
Mean : 20.99

S
p
e
e
d

100.0
cm/s

50.0

0.0



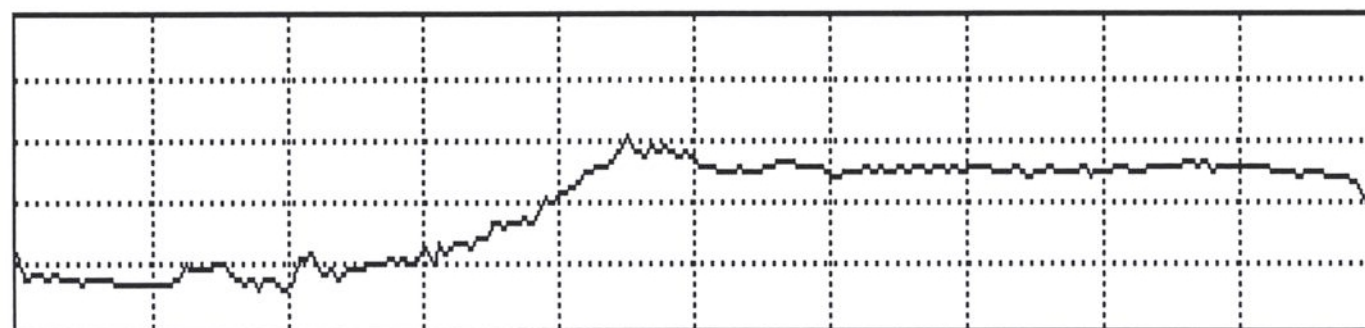
Mean : 197.23

D
i
r
.

360
deg

180

0



10110

1/11/93 19:12:14

Samples

34370

1/12/93 00:46:24



InterOcean Systems, Inc.

01SJT01

Samples averaged : 120

Model S4 Current Meter #19261540

File : E:01S1TB01.S4B

Mean : 23.43

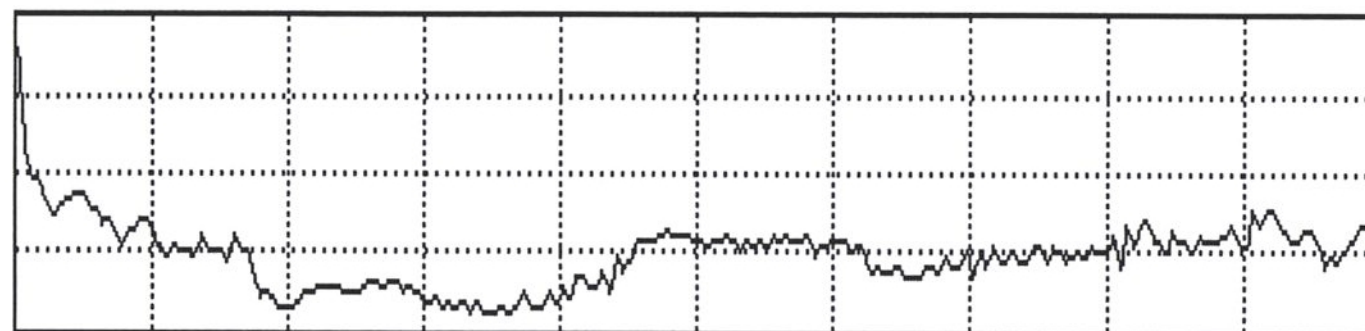
S
p
e
e
d

100.0

cm/s

50.0

0.0



Mean : 214.78

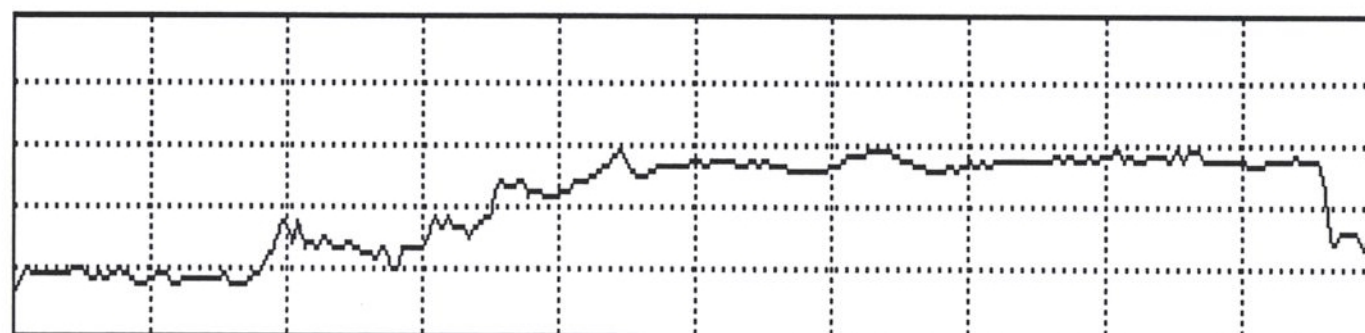
D
i
r
.

360

deg

180

0



62685

1/12/93 07:30:22

Samples

87457

1/12/93 13:08:48



InterOcean Systems, Inc.

Model S4 Current Meter #19261543

U1DRAD03

File : E:U1DRAD03.S4B

Samples averaged : 1

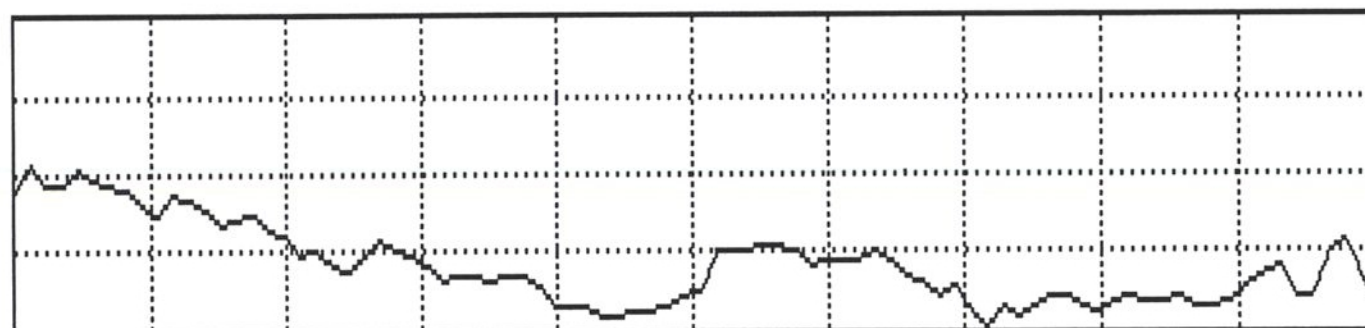
Mean : 19.97

S
p
e
e
d

100.0
cm/s

50.0

0.0



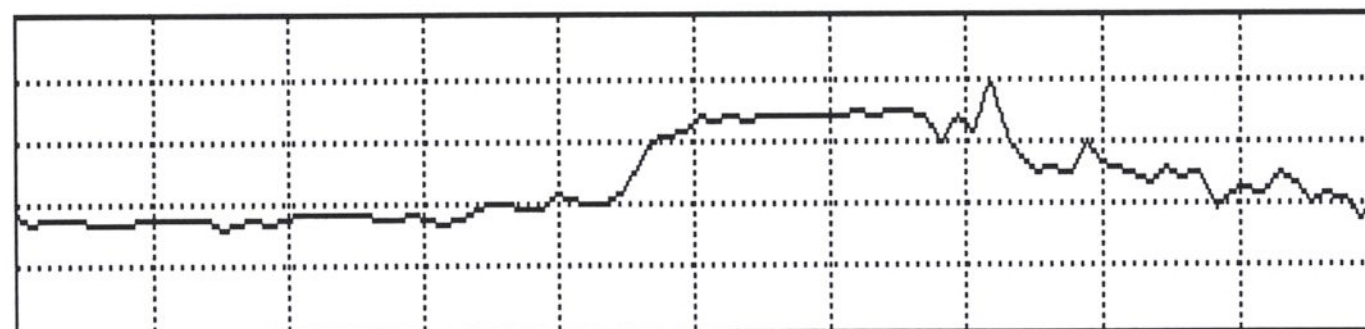
Mean : 181.75

D
i
r
.

360
deg

180

0



65

Samples

150

1/12/93 21:08:00

1/12/93 23:58:00



InterOcean Systems, Inc.

Model S4 Current Meter #19261543

U1DRAD03

File : E:U1DRAD03.S4B

Samples averaged : 1

Mean : 27.23

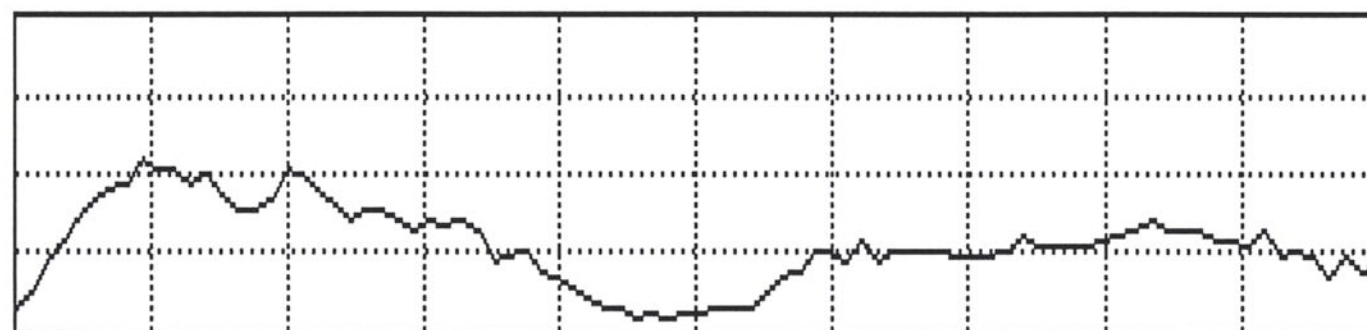
S
p
e
e
d

100.0

cm/s

50.0

0.0



Mean : 207.98

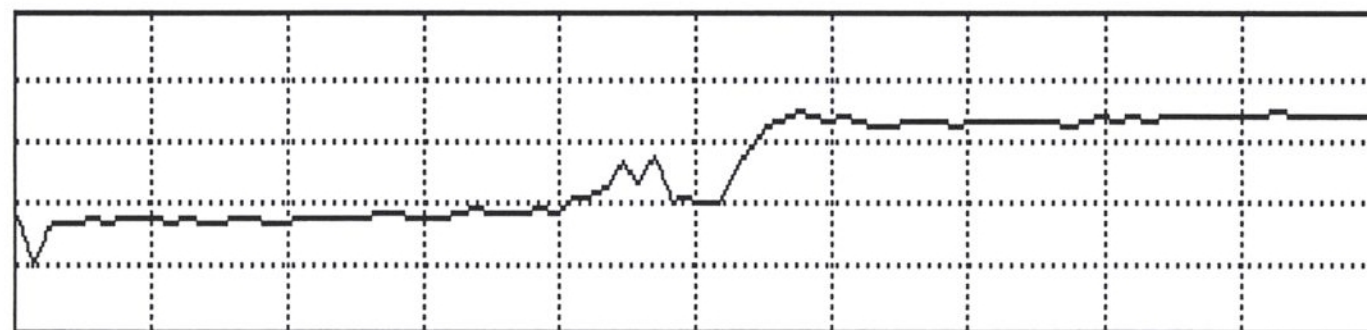
D
i
r
.

360

deg

180

0



420

1/13/93 08:58:00

Samples

505

1/13/93 11:48:00



InterOcean Systems, Inc.

U2SJTA03

Samples averaged : 1

Model S4 Current Meter #19261554

File : E:U2SJTA03.S4B

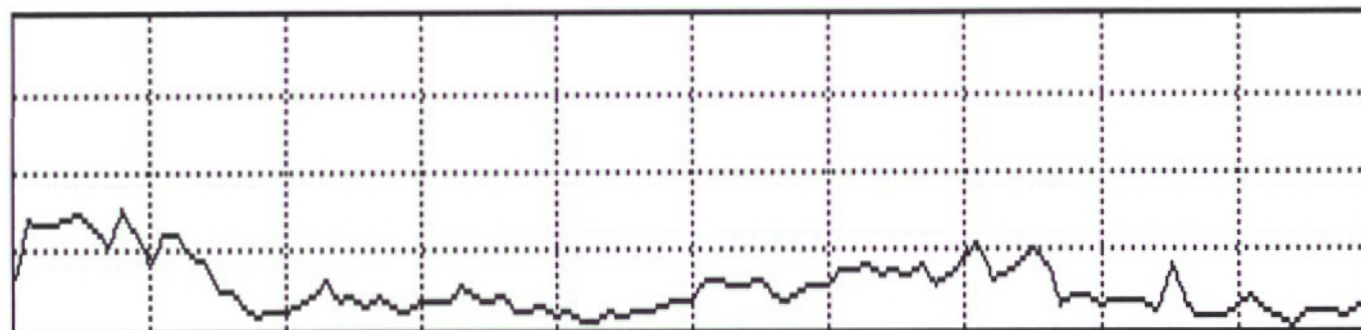
Mean : 12.70

S
p
e
e
d

100.0
cm/s

50.0

0.0



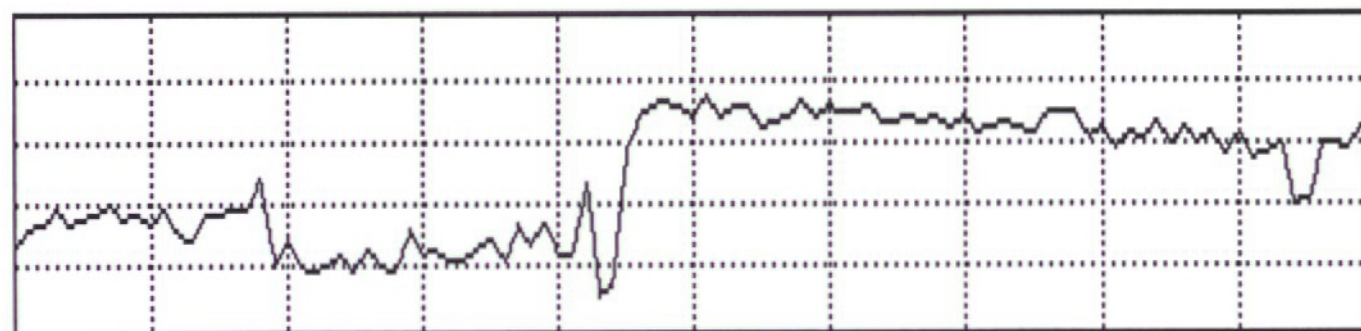
Mean : 224.75

D
i
r
.

360
deg

180

0



50

Samples

150

1/12/93 20:38:00

1/12/93 23:58:00



InterOcean Systems, Inc.

Model S4 Current Meter #19261554

U2SJTA03

File : E:U2SJTA03.S4B

Samples averaged : 1

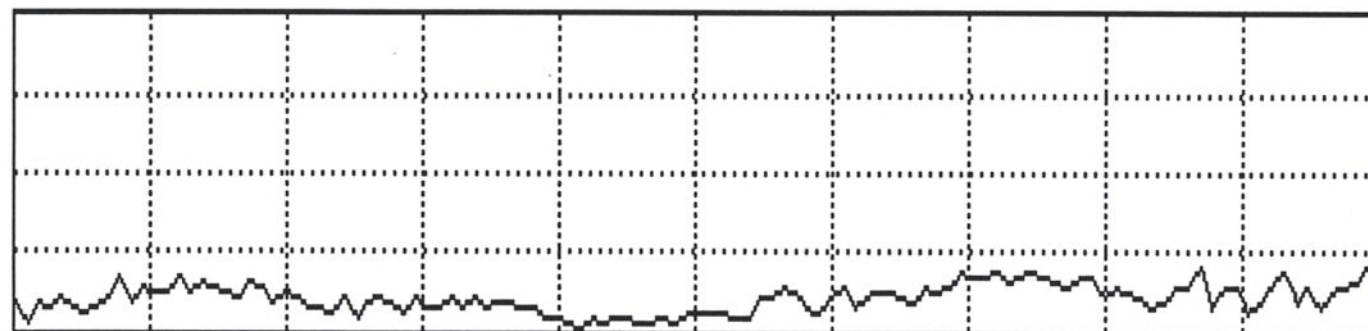
Mean : 9.83

S
p
e
e
d

100.0
cm/s

50.0

0.0



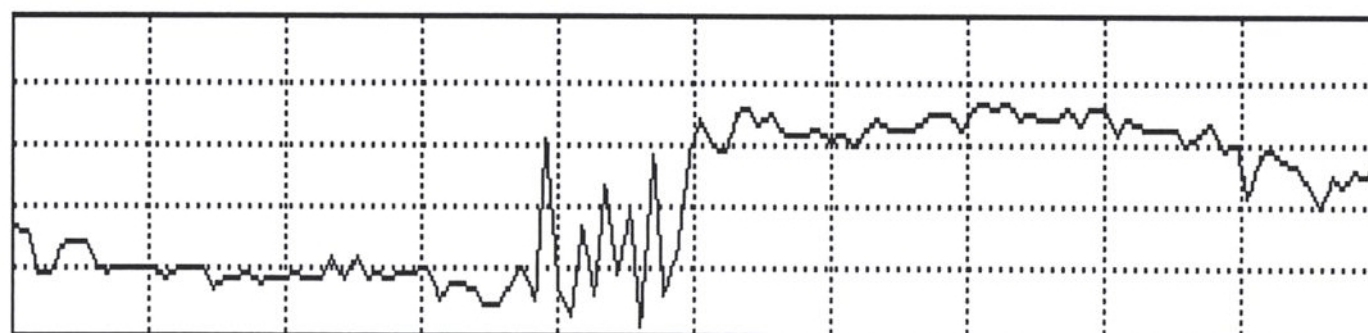
Mean : 323.07

D
i
r
.

360
deg

180

0



425

Samples

540

1/13/93 09:08:00

1/13/93 12:58:00



InterOcean Systems, Inc.

U3DRAC03

Samples averaged : 1

Model S4 Current Meter #19261544

File : E:U3DRAC03.S4B

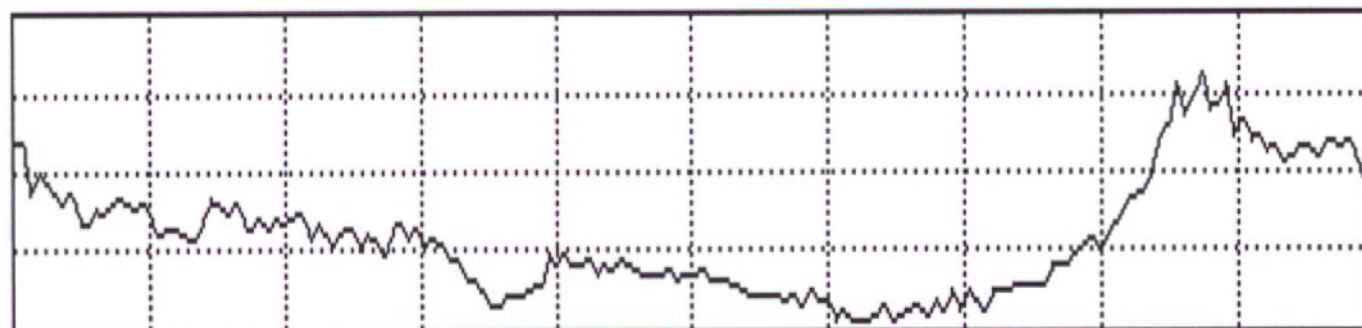
Mean : 28.90

S
p
e
e
d

100.0
cm/s

50.0

0.0



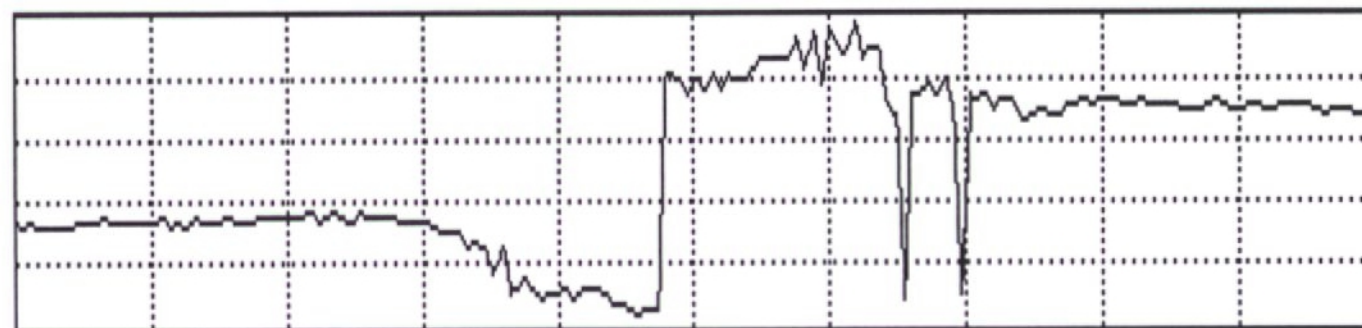
Mean : 336.85

D
i
r
.

360
deg

180

0



70

1/12/93 20:18:00

Samples

235

1/13/93 01:48:00



InterOcean Systems, Inc.

U3DRAC03

Samples averaged : 1

Model S4 Current Meter #19261544

File : E:\U3DRAC03.S4B

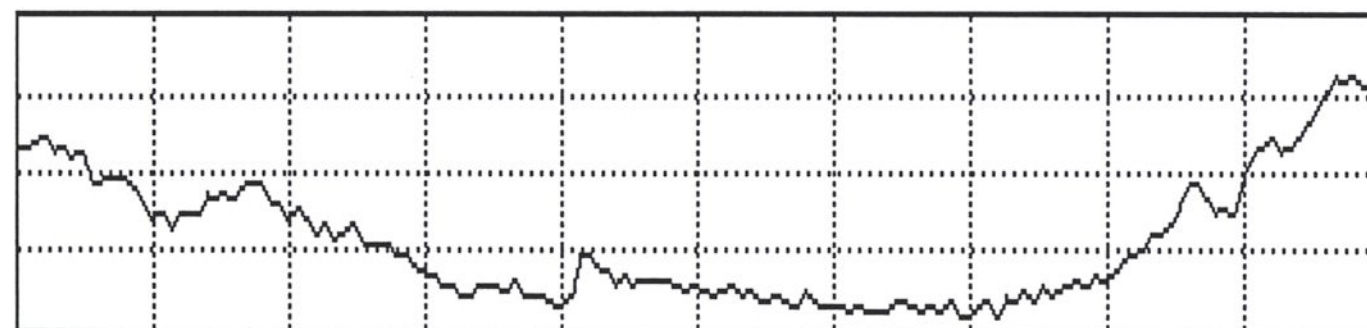
Mean : 27.78

S
p
e
e
d

100.0
cm/s

50.0

0.0



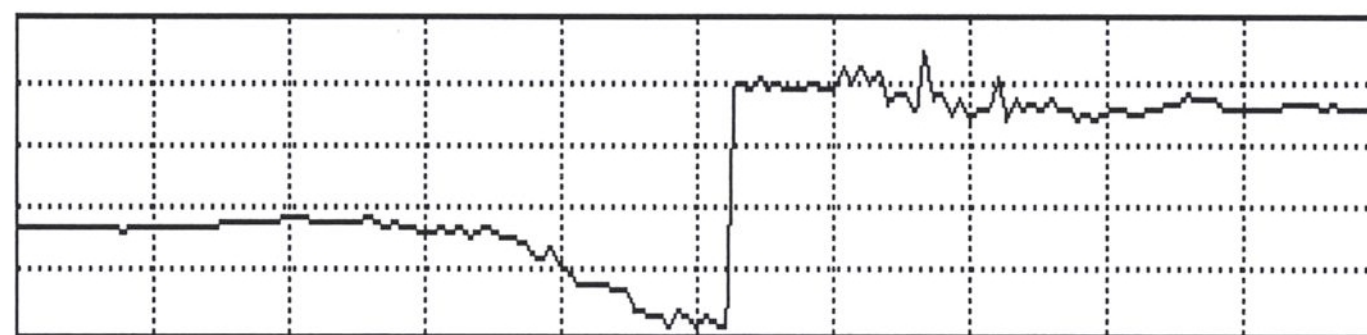
Mean : 52.16

D
i
r
.

360
deg

180

0



440
1/13/93 08:38:00

Samples

590
1/13/93 13:38:00



InterOcean Systems, Inc.

01S3TB03

Samples averaged : 120

Model S4 Current Meter #19261540

File : E:01S3TB03.S4B

Mean : 21.90

S
p
e
e
d

100.0
cm/s

50.0

0.0



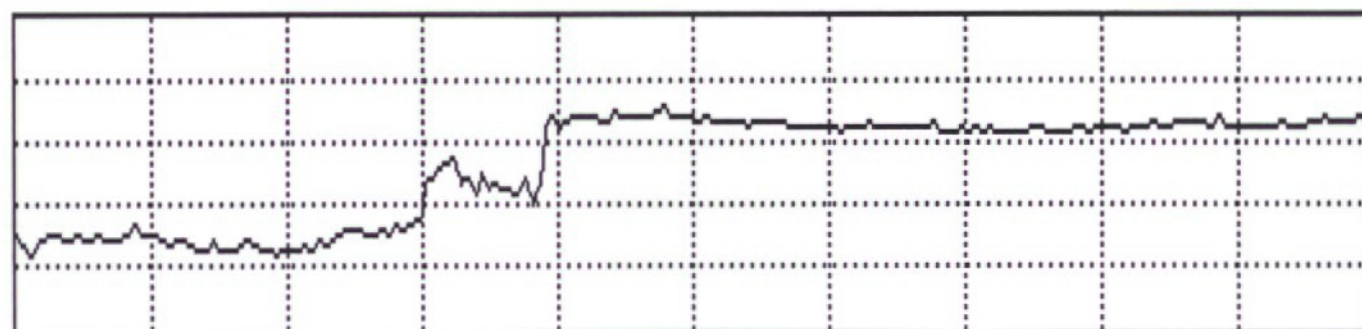
Mean : 276.07

D
i
r
.

360
deg

180

0



10500

1/12/93 19:45:30

Samples

33510

1/13/93 01:09:14



InterOcean Systems, Inc.
01S3TB03
Samples averaged : 120

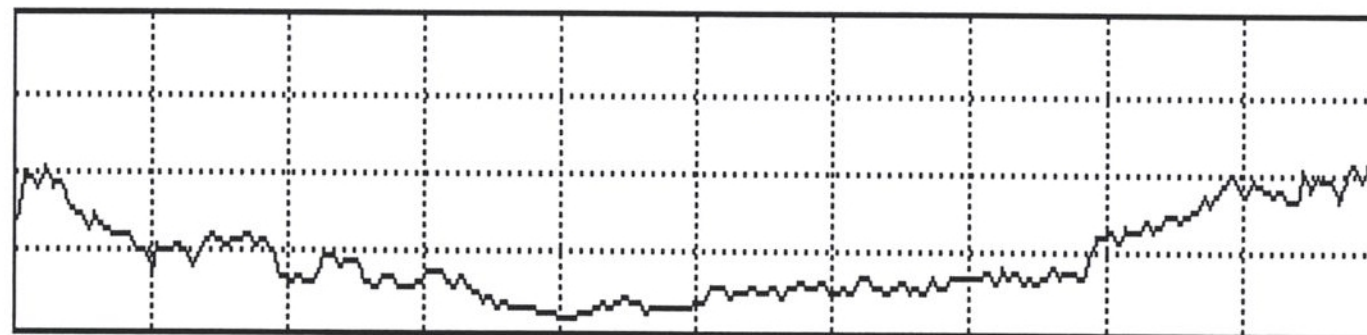
Model S4 Current Meter #19261540
File : E:01S3TB03.S4B
Mean : 22.74

S
p
e
e
d

100.0
cm/s

50.0

0.0



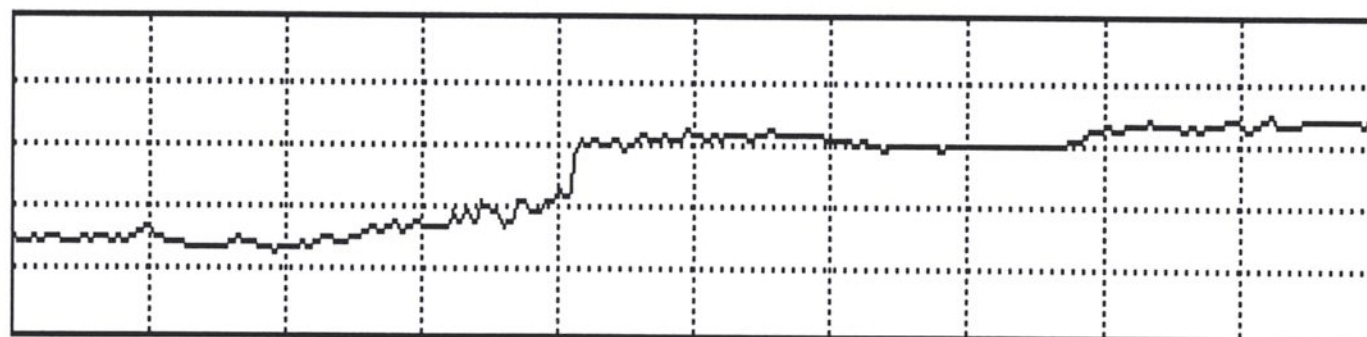
Mean : 261.63

D
i
r
.

360
deg

180

0



64020
1/13/93 08:11:30

Samples

87025
1/13/93 13:35:12



InterOcean Systems, Inc.

Model S4 Current Meter #19261543

U1SJTA05

File : E:U1SJTA05.S4B

Samples averaged : 1

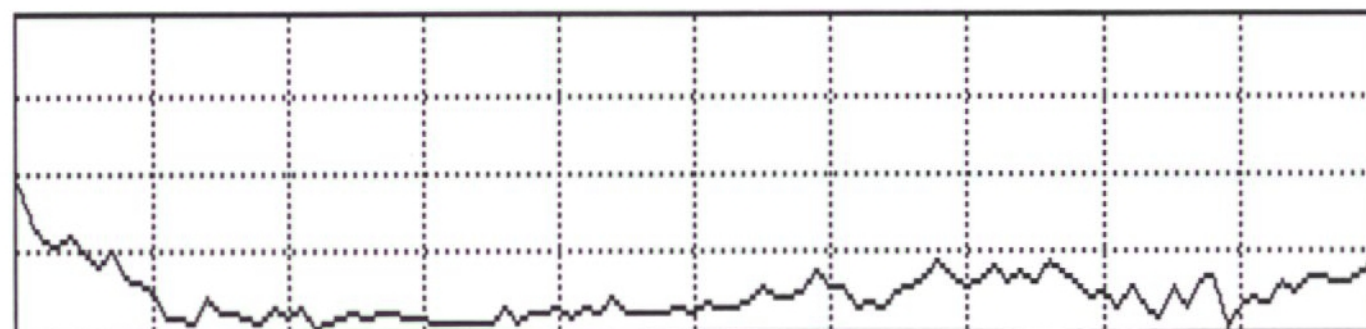
Mean : 10.37

S
p
e
e
d

100.0
cm/s

50.0

0.0



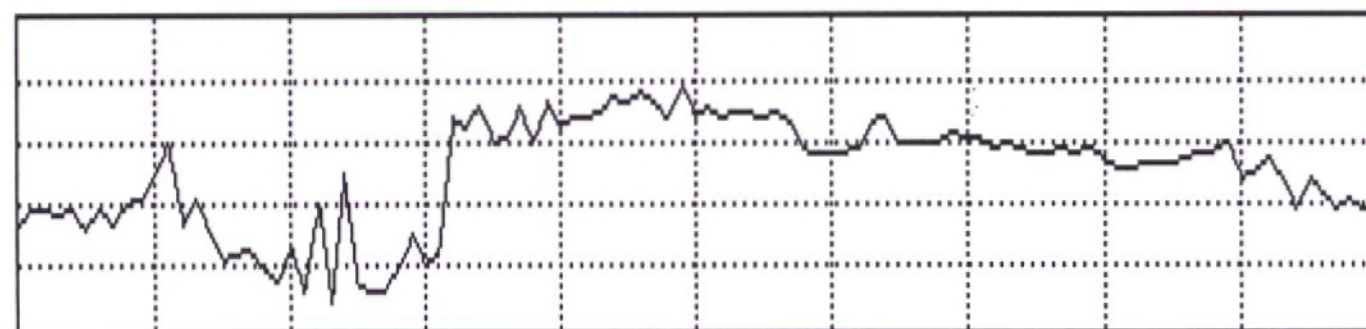
Mean : 232.72

D
i
r
.

360
deg

180

0



50

Samples

150

1/13/93 21:38:00

1/14/93 00:58:00



InterOcean Systems, Inc.

U1SJTA05

Samples averaged : 1

Model S4 Current Meter #19261543

File : E:U1SJTA05.S4B

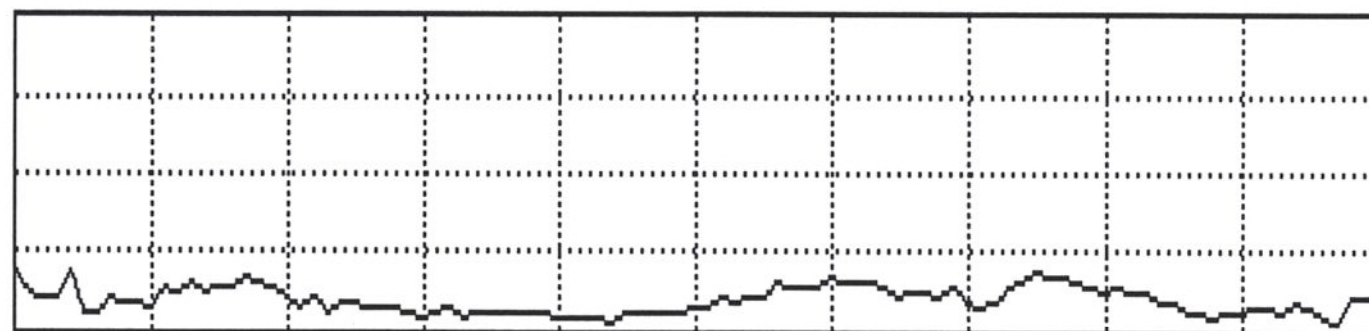
Mean : 9.09

S
p
e
e
d

100.0
cm/s

50.0

0.0



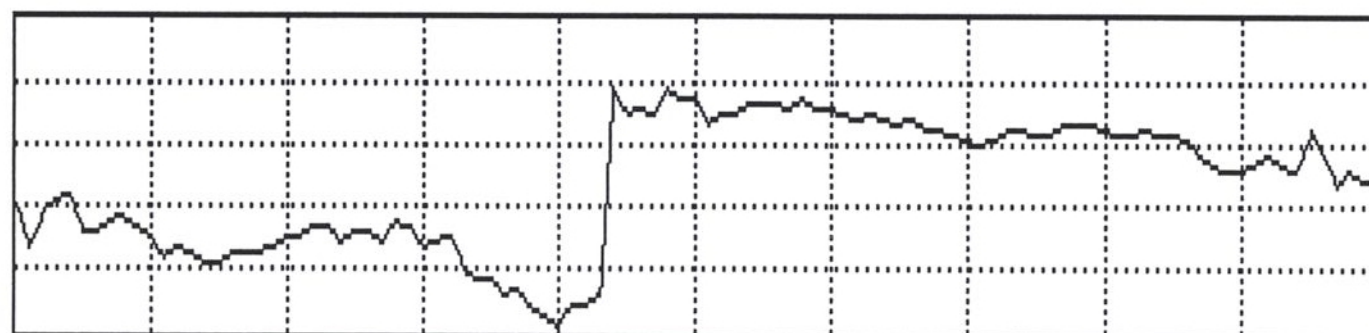
Mean : 280.75

D
i
r
.

360
deg

180

0



415
1/14/93 09:48:00

Samples

515
1/14/93 13:08:00



InterOcean Systems, Inc.

U2DRAC05

Samples averaged : 1

Model S4 Current Meter #19261554

File : E:U2DRAC05.S4B

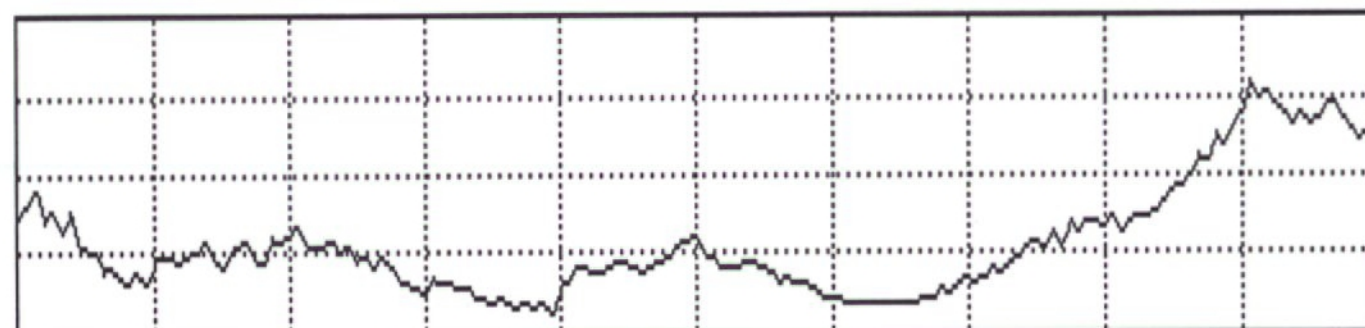
Mean : 27.81

Speed

100.0
cm/s

50.0

0.0



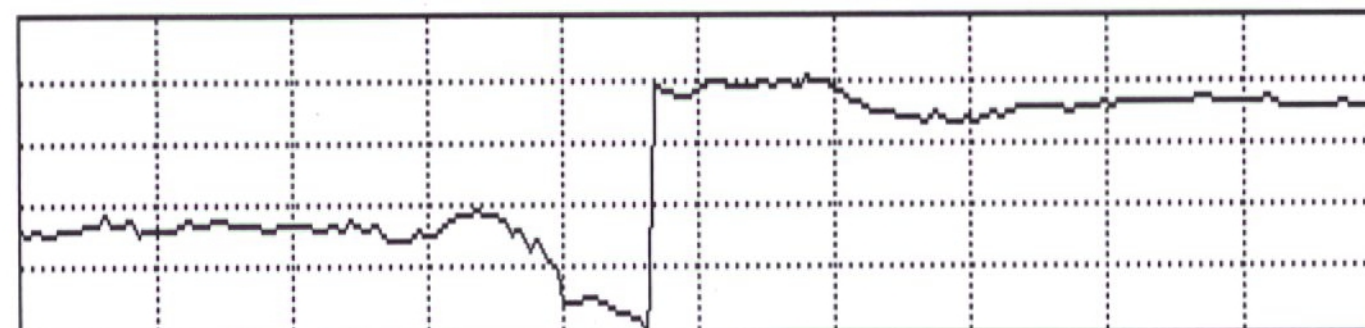
Mean : 339.28

Dir

360
deg

180

0



60

Samples

220

1/13/93 20:58:00

1/14/93 02:18:00



InterOcean Systems, Inc.

U2DRAC05

Samples averaged : 1

Model S4 Current Meter #19261554

File : E:\U2DRAC05.S4B

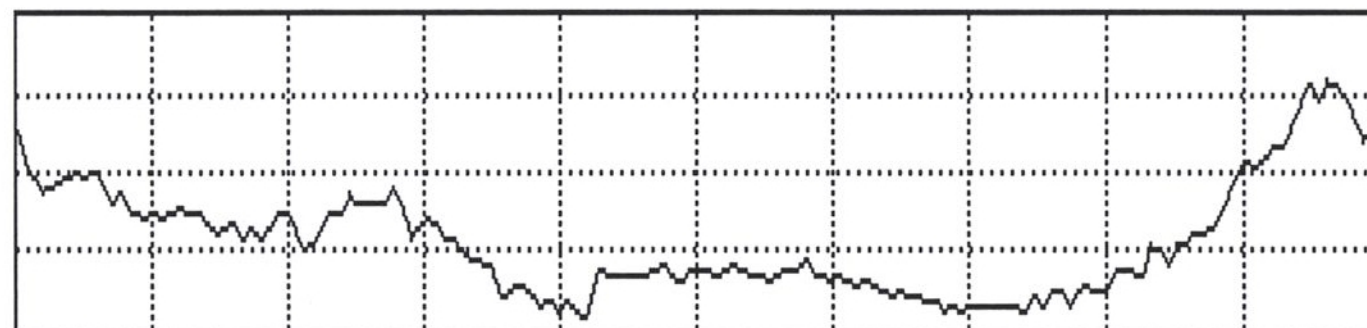
Mean : 27.85

Speed

100.0
cm/s

50.0

0.0



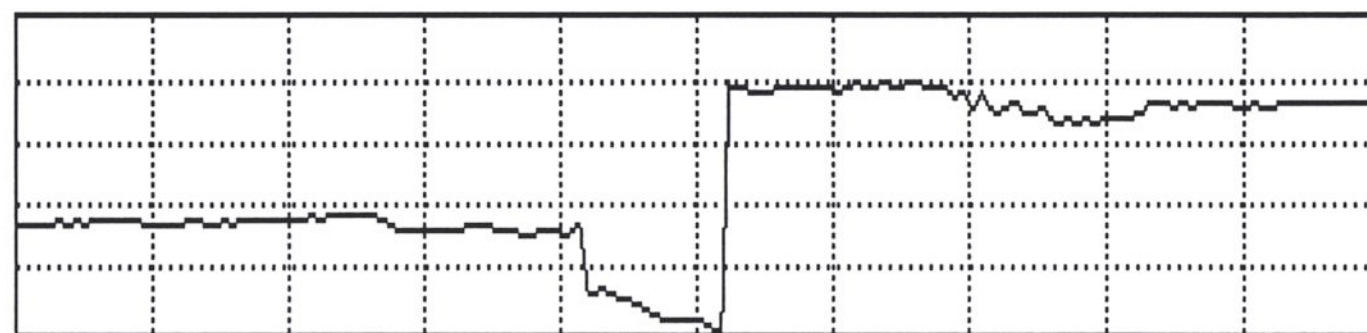
Mean : 41.58

Dir

360
deg

180

0



425

1/14/93 09:08:00

Samples

580

1/14/93 14:18:00



InterOcean Systems, Inc.

U3DRAD05

Samples averaged : 1

Model S4 Current Meter #19261544

File : E:C3DRAD03.S4B

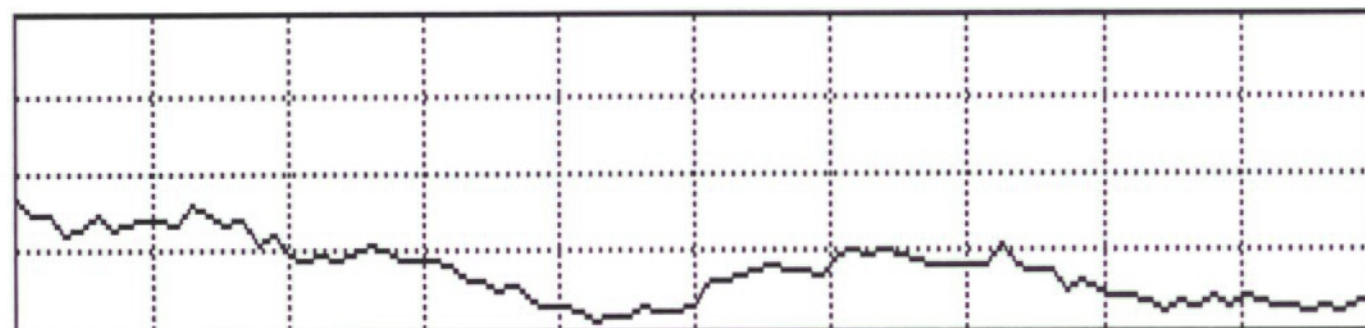
Mean : 18.04

S
p
e
e
d

100.0
cm/s

50.0

0.0



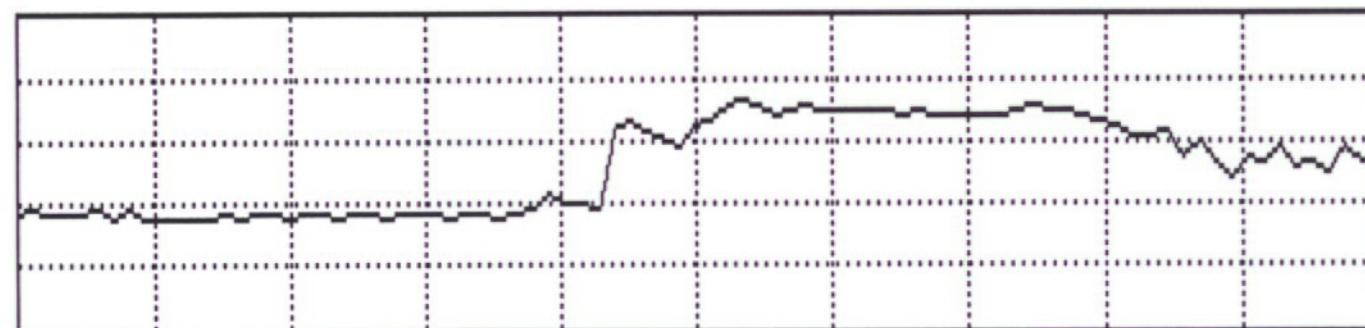
Mean : 204.46

D
i
r
.

360
deg

180

0



56
1/13/93 21:50:00

Samples

140
1/14/93 00:38:00



InterOcean Systems, Inc.

U3DRAD05

Samples averaged : 1

Model S4 Current Meter #19261544

File : E:\C3DRAD03.S4B

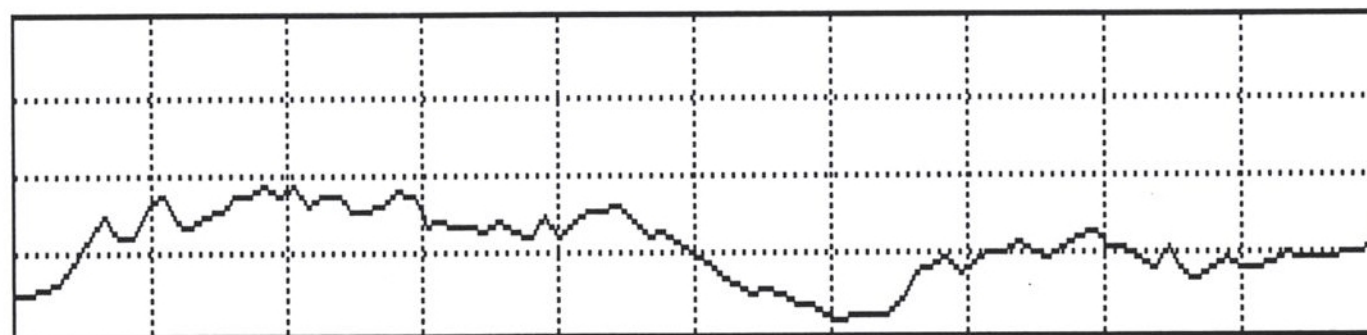
Mean : 27.11

S
p
e
e
d

100.0
cm/s

50.0

0.0



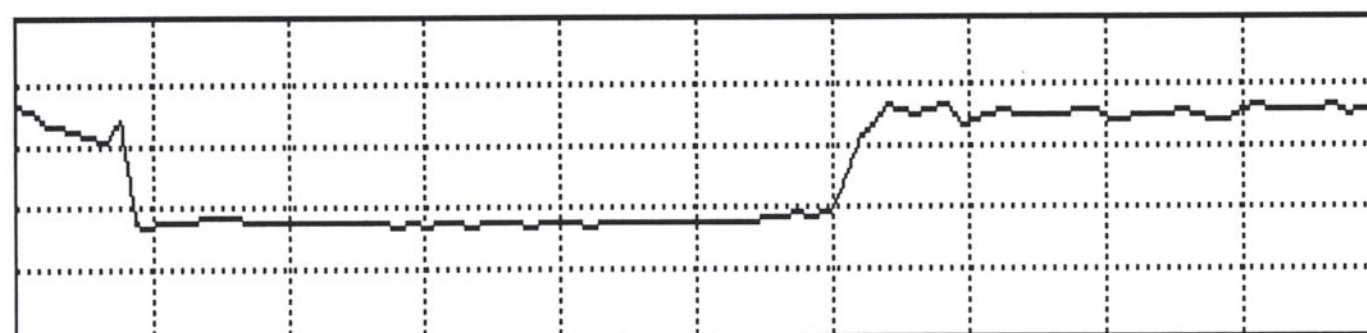
Mean : 185.05

D
i
r
.

360
deg

180

0



408

1/14/93 09:34:00

Samples

500

1/14/93 12:38:00



InterOcean Systems, Inc.
01S5TB05
Samples averaged : 120

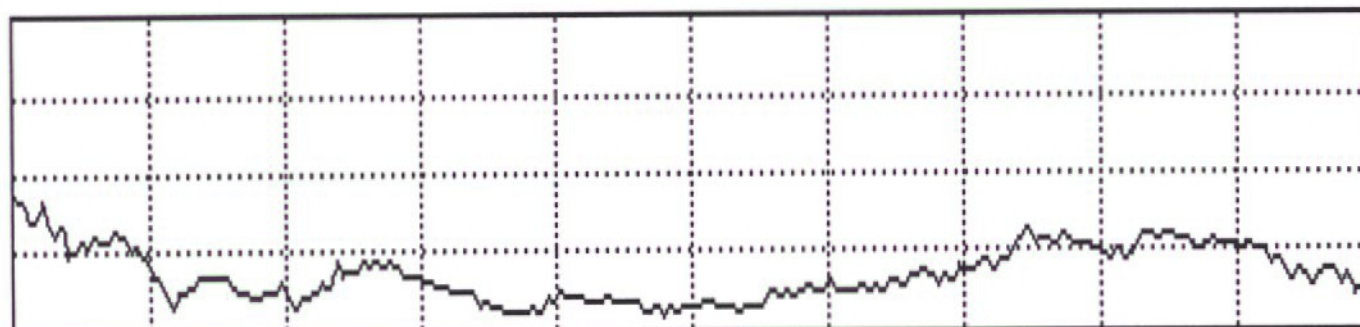
Model S4 Current Meter #19261540
File : E:01S5TB05.S4B
Mean : 17.07

S
p
e
e
d

100.0
cm/s

50.0

0.0



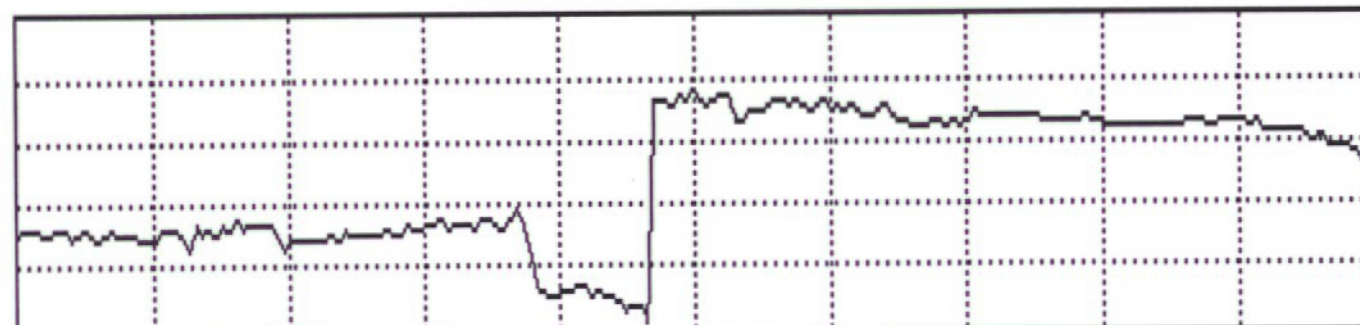
Mean : 269.05

D
i
r
.

360
deg

180

0



10620
1/13/93 20:46:30

Samples

34380
1/14/93 02:16:30



InterOcean Systems, Inc.

01S5TB05

Samples averaged : 120

Model S4 Current Meter #19261540

File : E:01S5TB05.S4B

Mean : 14.97

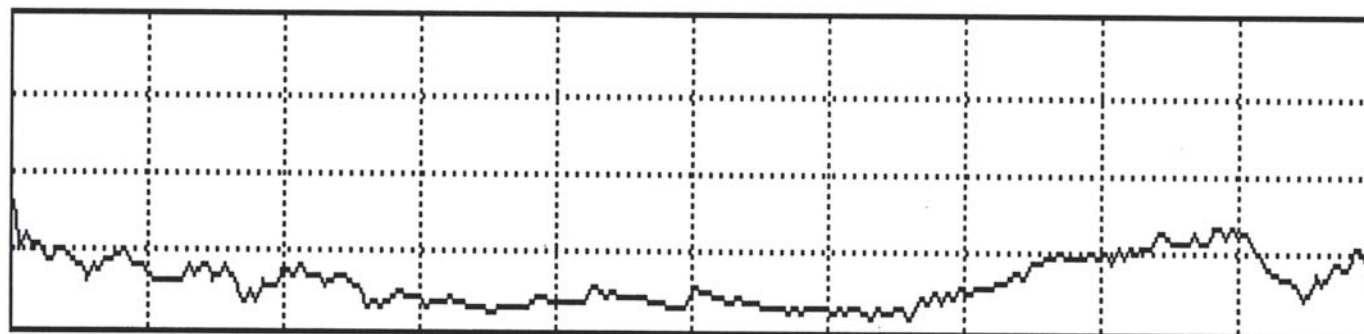
S
p
e
e
d

100.0

cm/s

50.0

0.0



Mean : 306.16

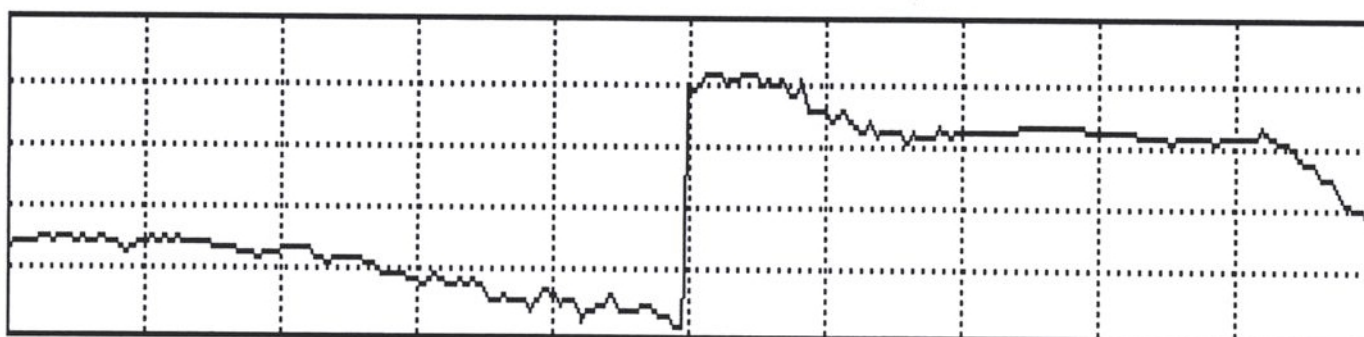
D
i
r
.

360

deg

180

0



62690

1/14/93 09:00:24

Samples

88680

1/14/93 15:00:00

CAMPAGNE N°19

Saint Jean le Thomas - Dragey

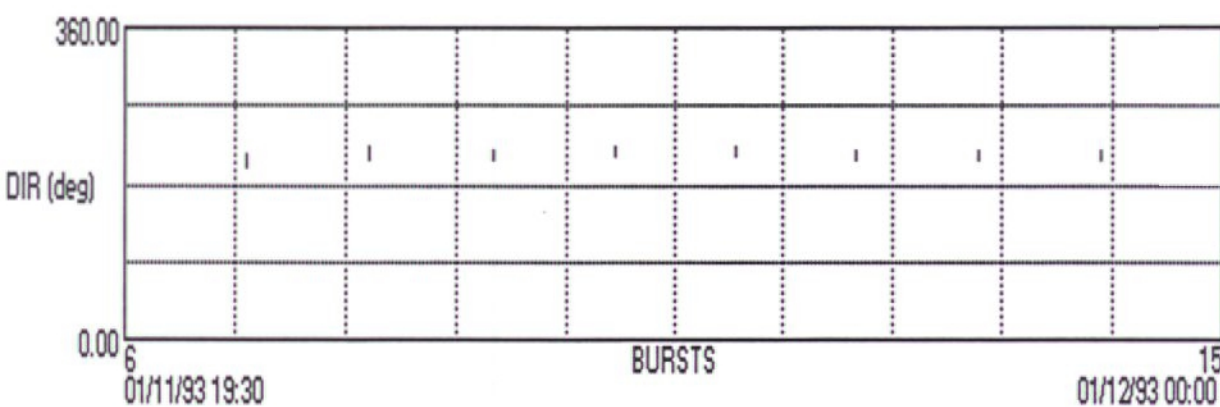
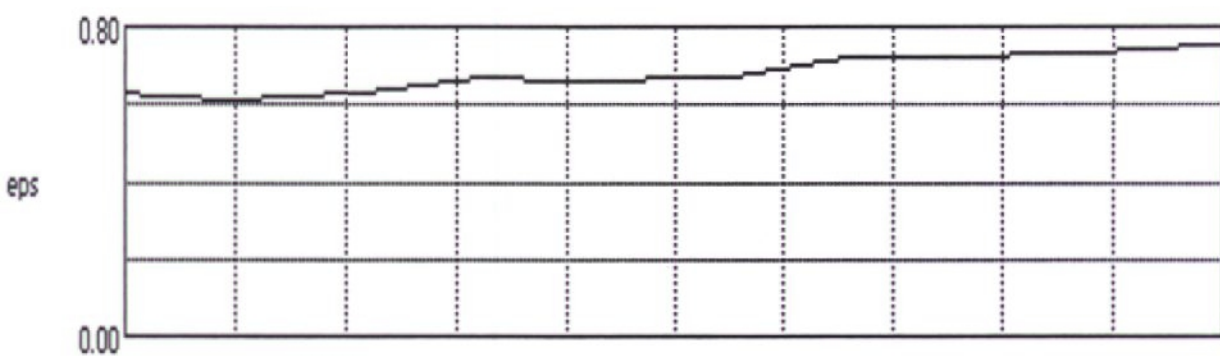
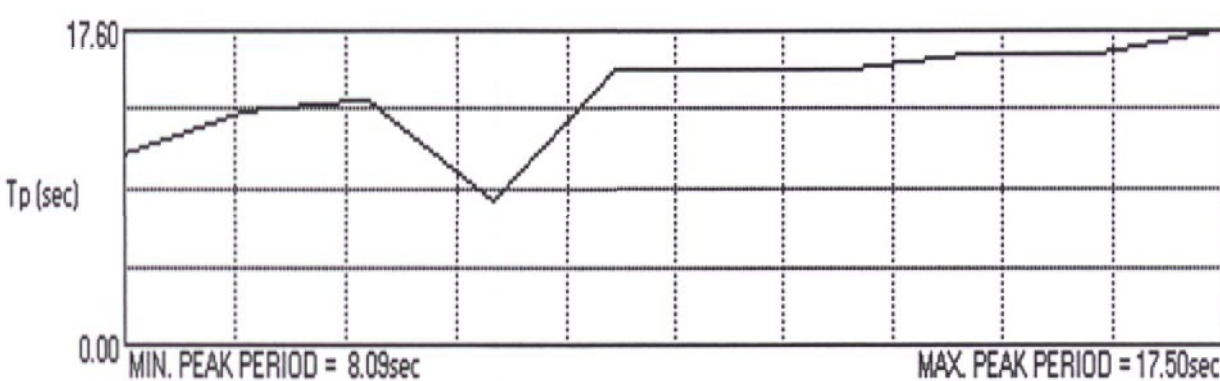
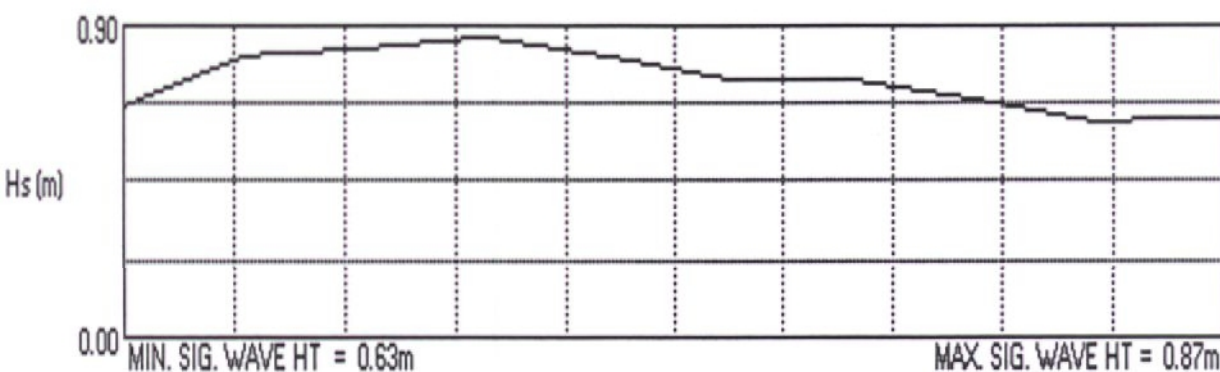
MESURES DE HOULE
DIRECTIONNELLE



InterOcean Systems, Inc

WAVE PARAMETERS

FILE: o1S1TB01.S4B

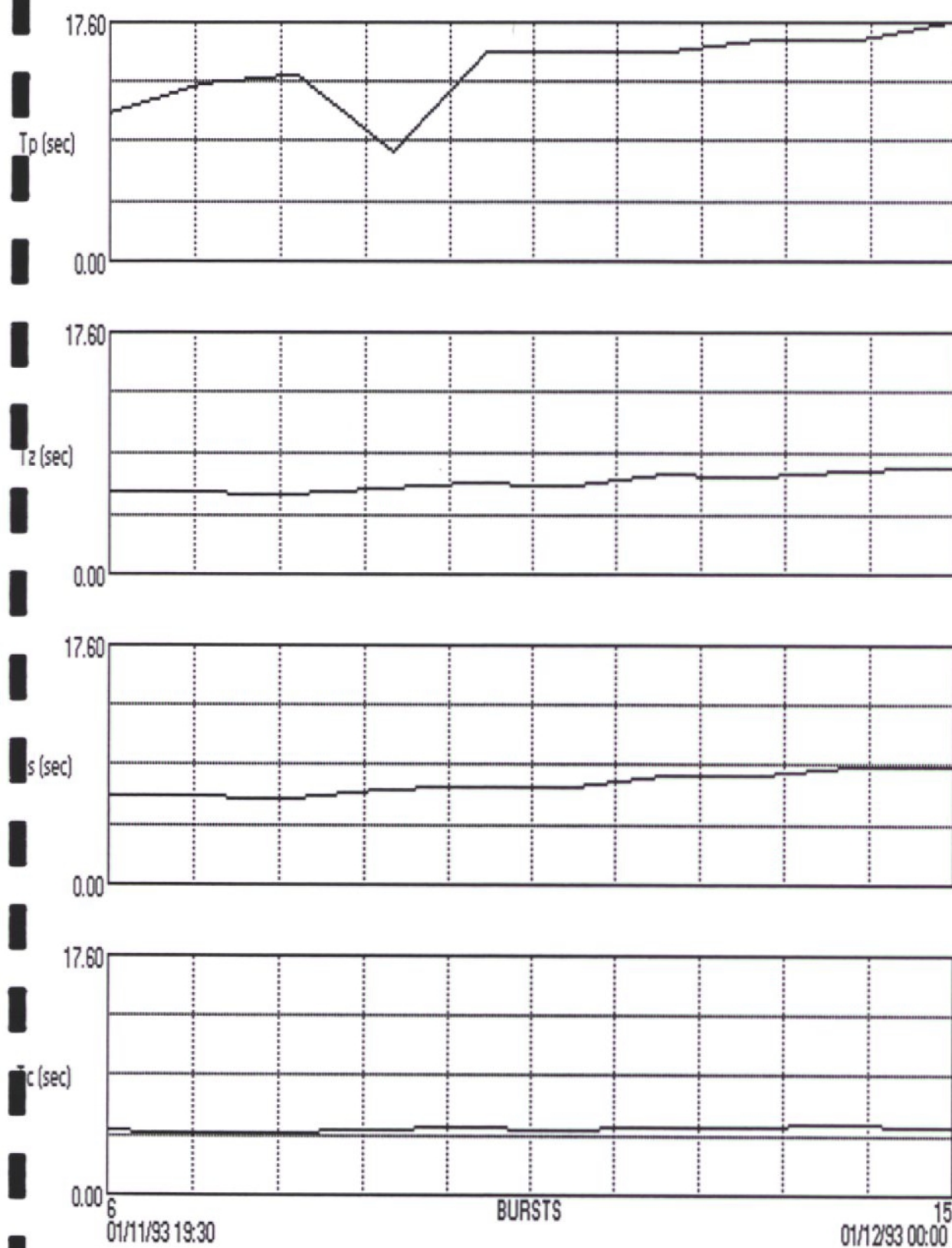




InterOcean Systems, Inc

WAVE PERIOD ESTIMATES

FILE: o1S1TB01.S4B

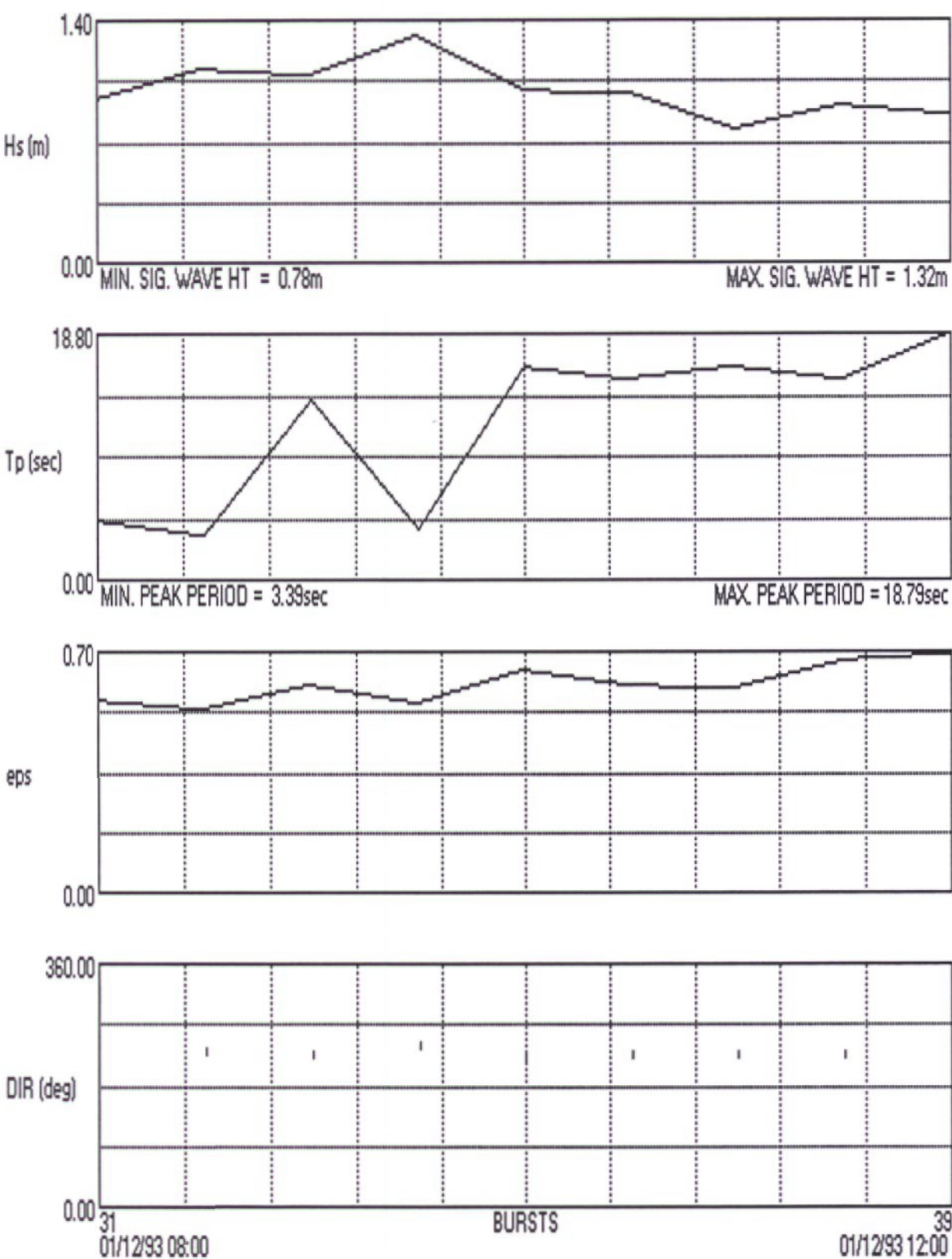




InterOcean Systems, Inc

WAVE PARAMETERS

FILE: o1S1TB01.S4B

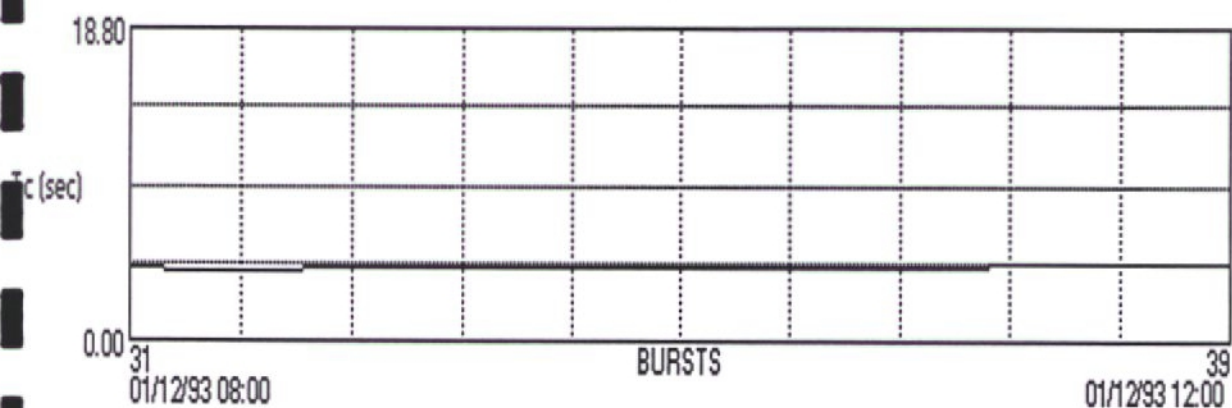
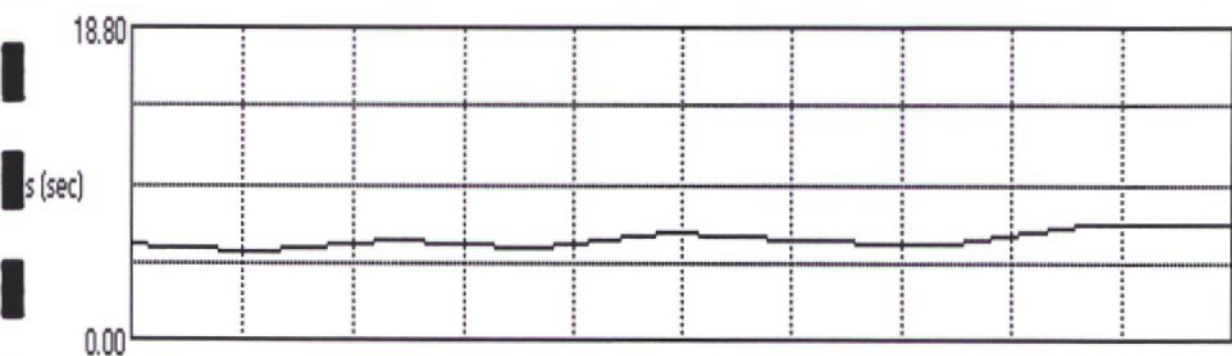
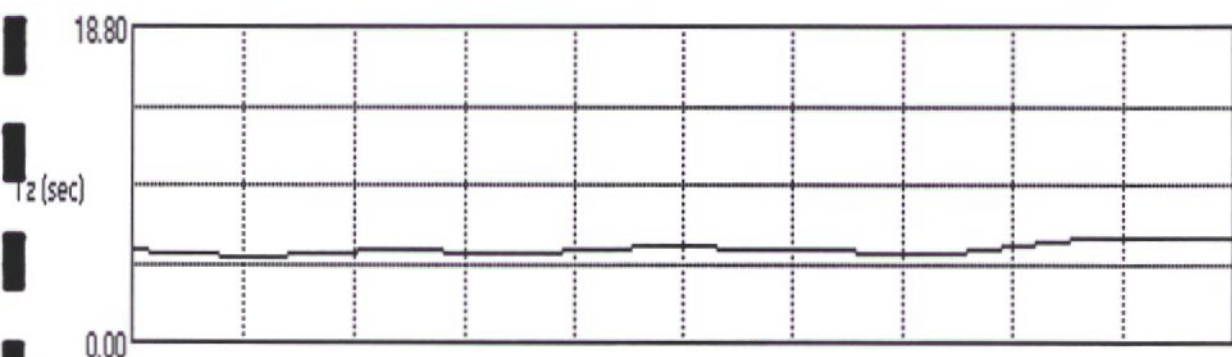
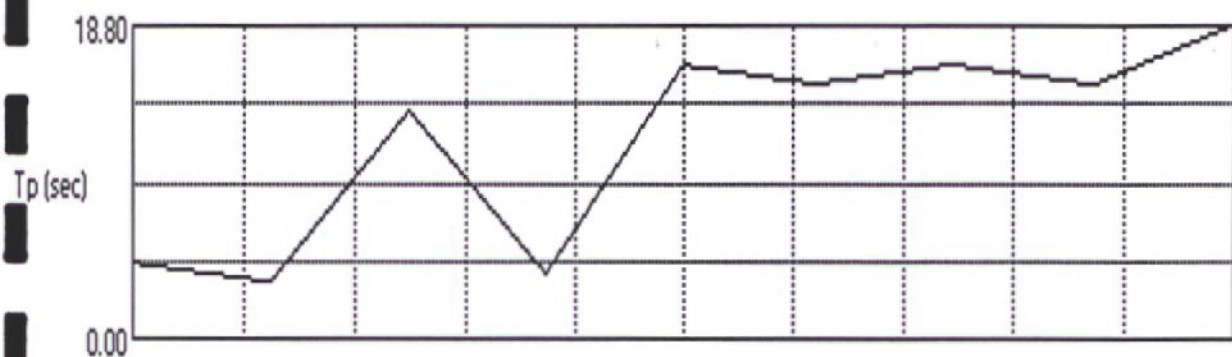




InterOcean Systems, Inc

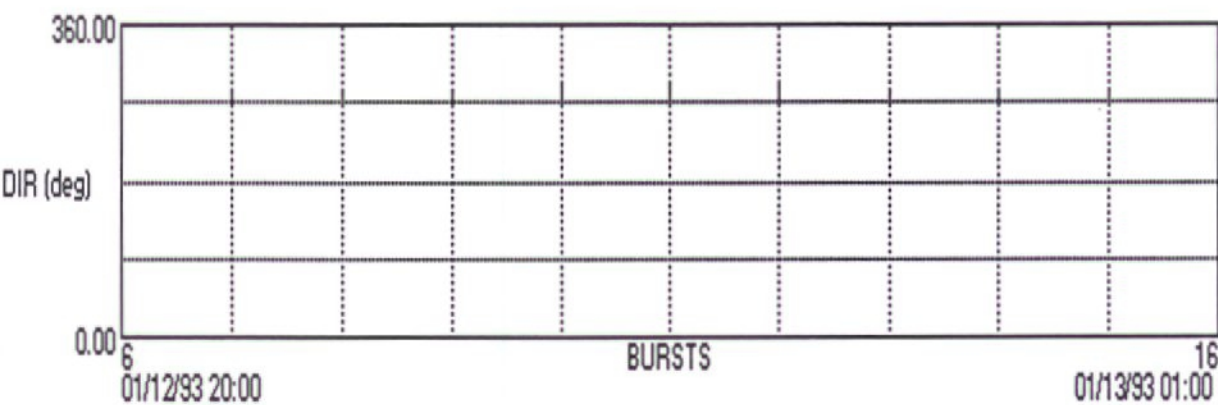
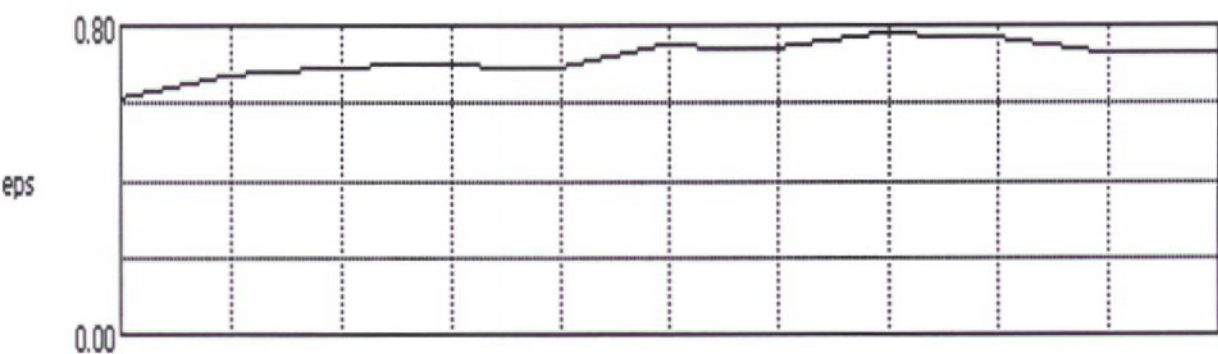
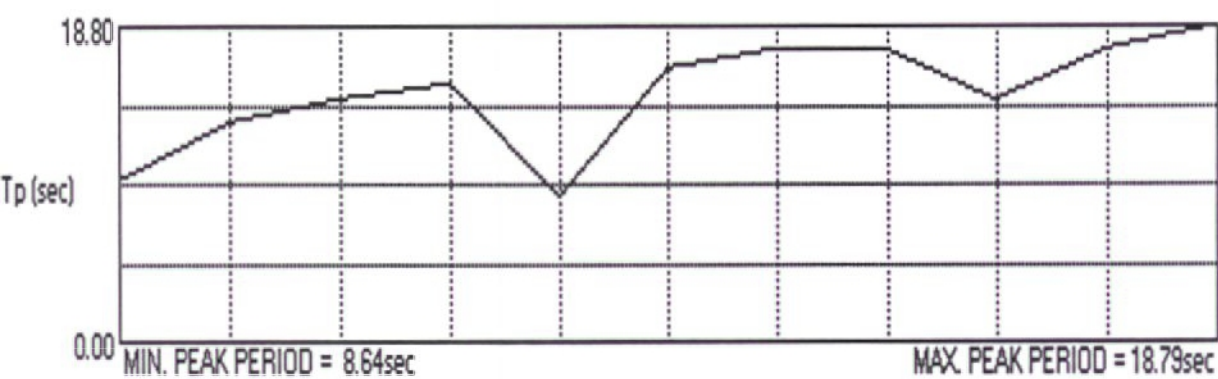
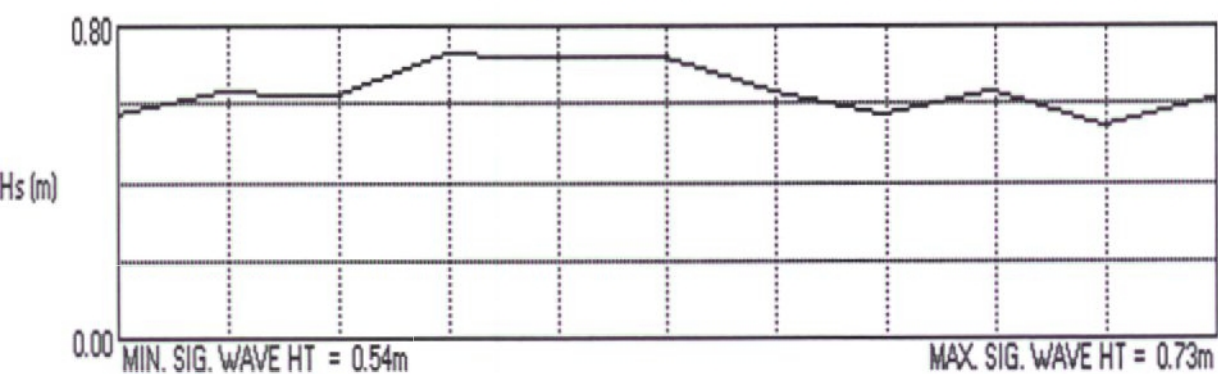
WAVE PERIOD ESTIMATES

FILE: o1S1TB01.S4B



WAVE PARAMETERS

FILE: 01S3TB03.S4B

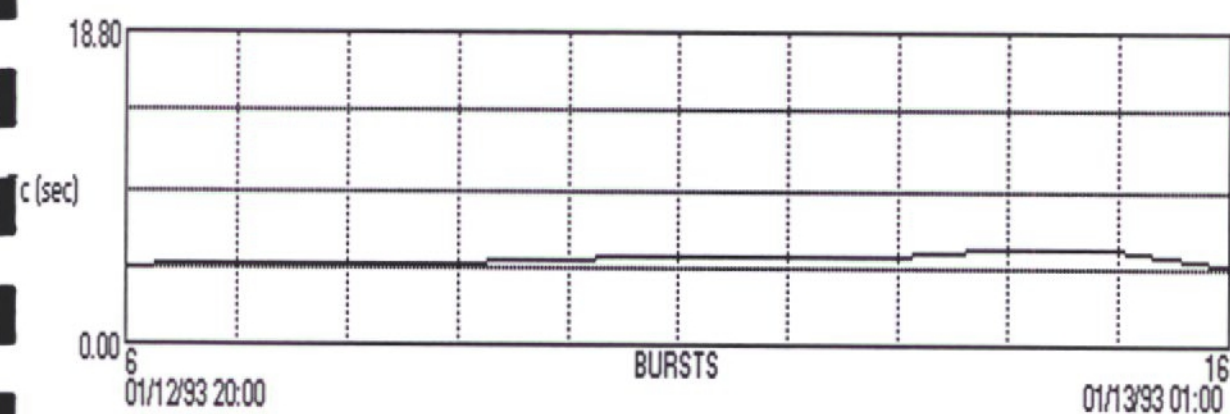
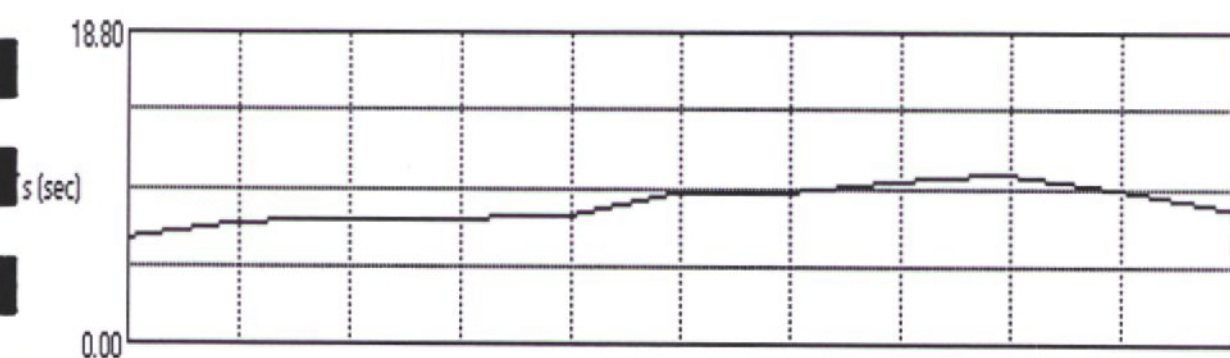
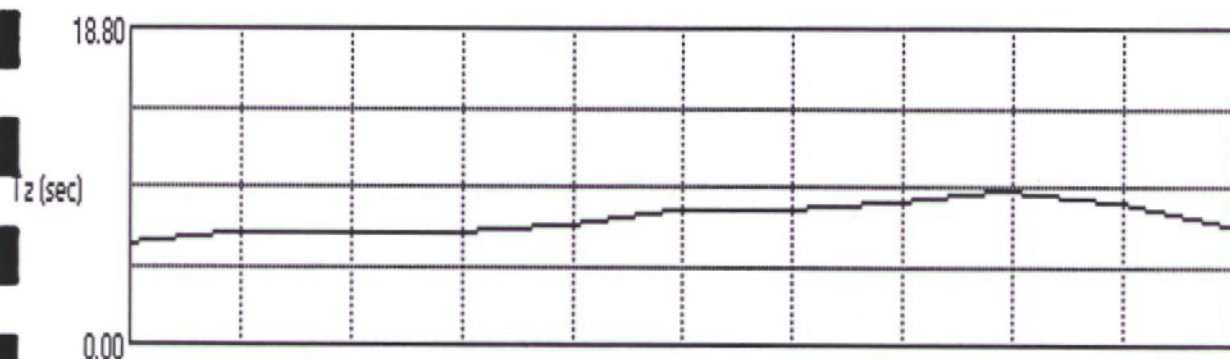
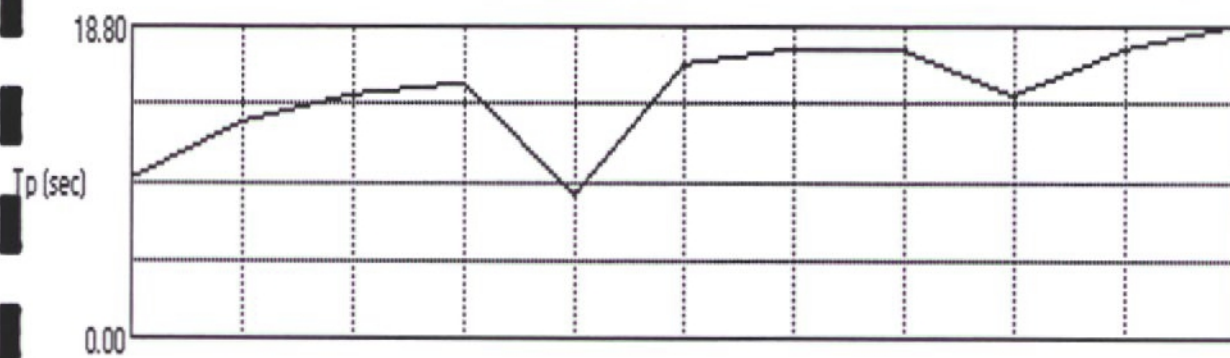




InterOcean Systems, Inc

WAVE PERIOD ESTIMATES

FILE: 01S3TB03.S4B

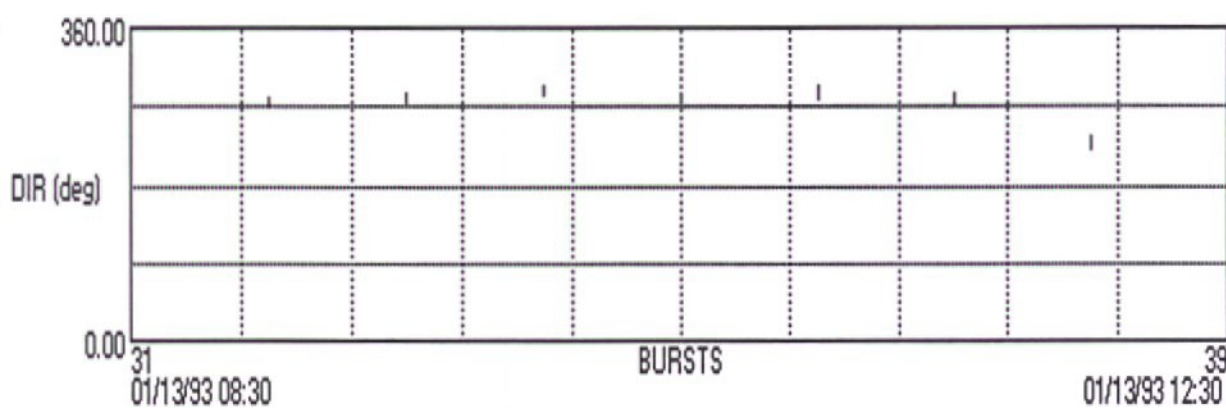
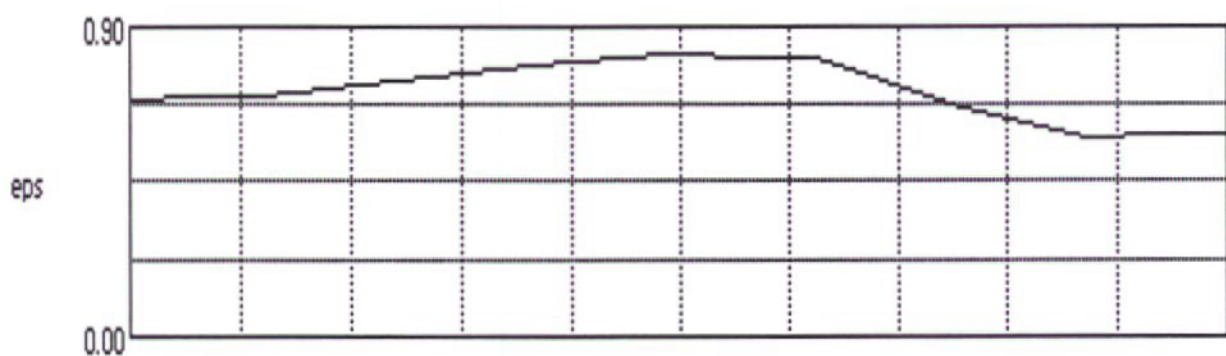
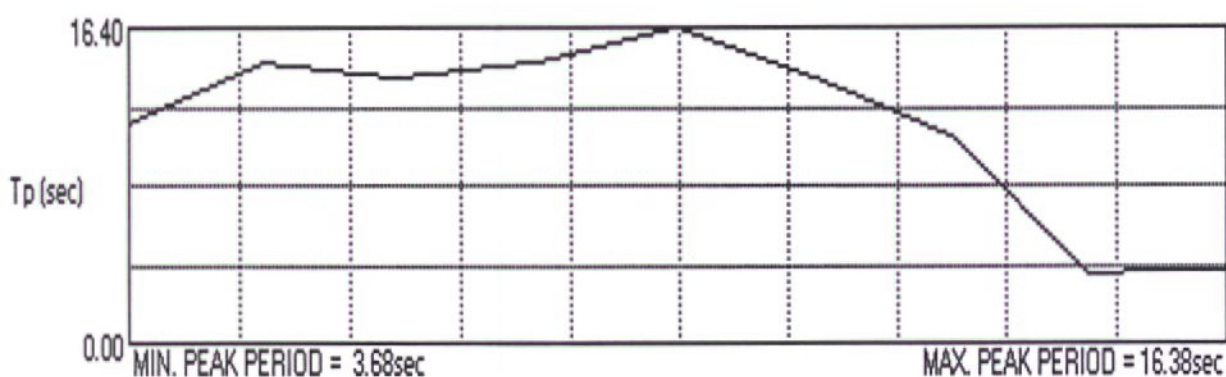
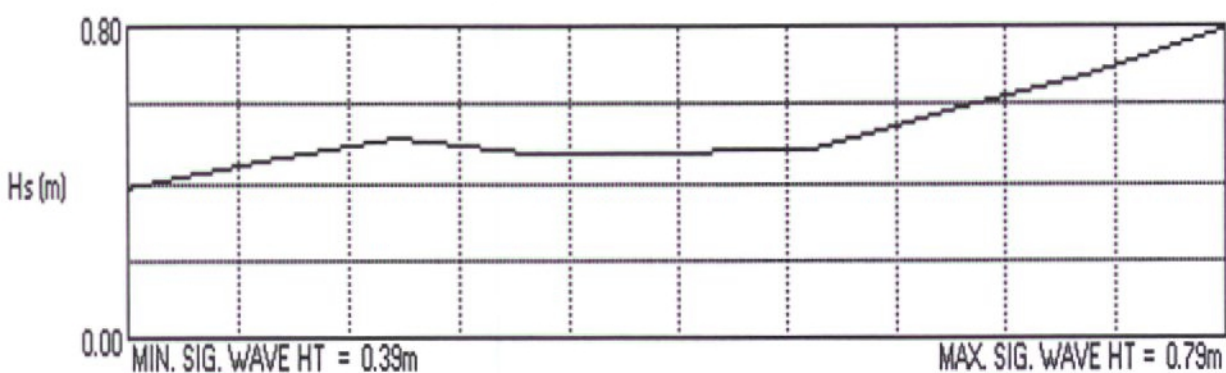




InterOcean Systems, Inc

WAVE PARAMETERS

FILE: 01S3TB03.S4B

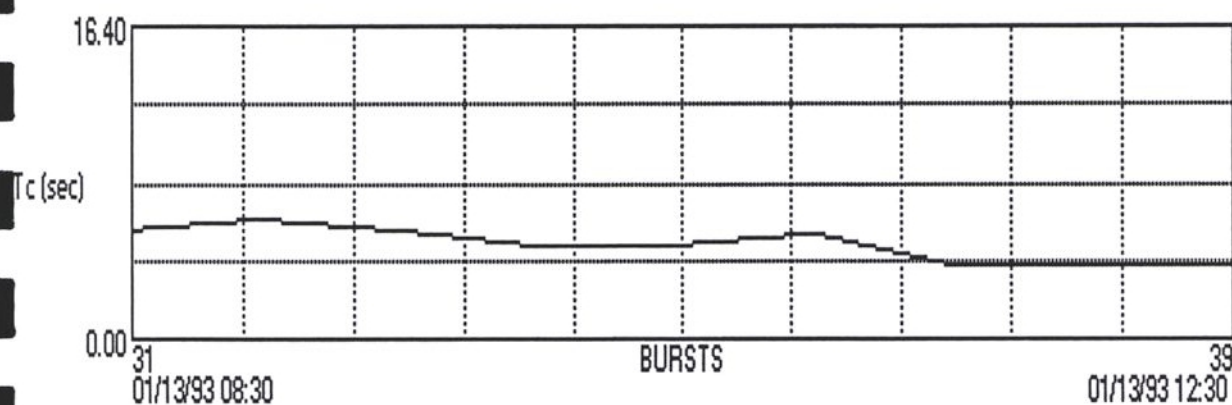
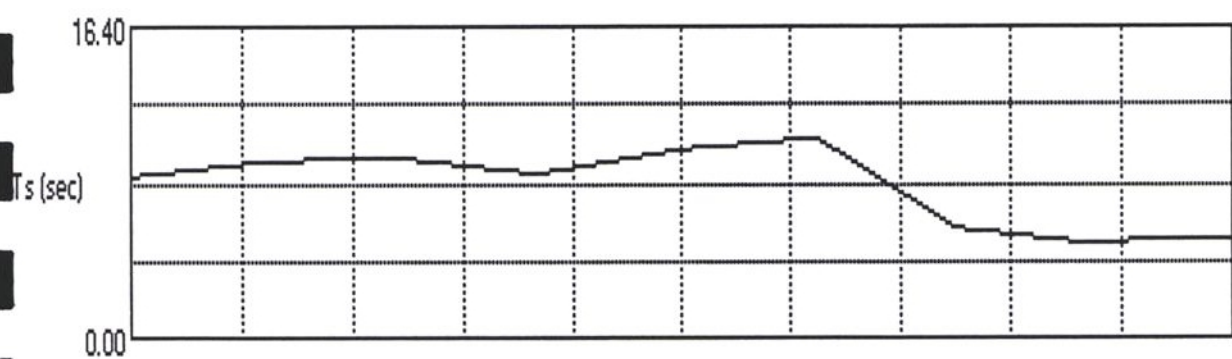
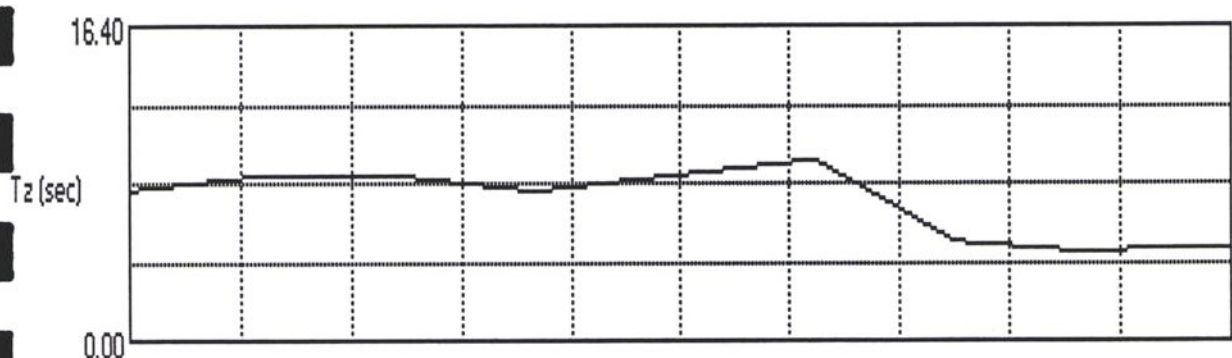
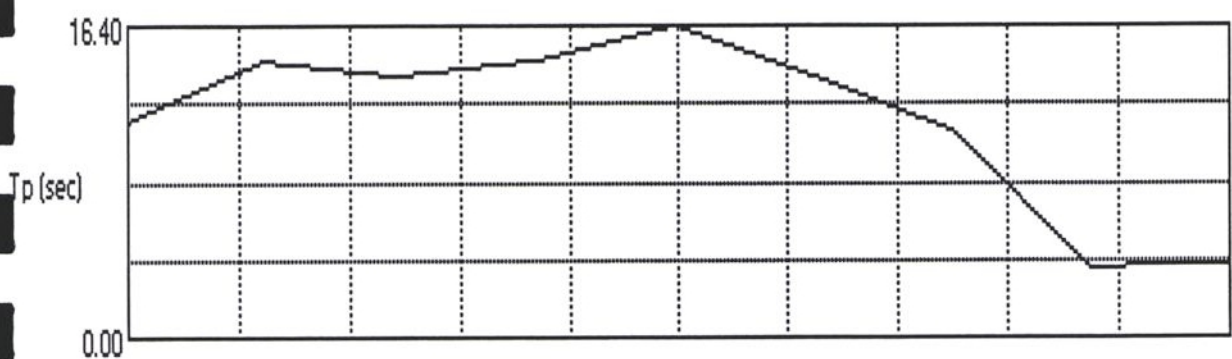




InterOcean Systems, Inc

WAVE PERIOD ESTIMATES

FILE: 01S3TB03.S4B

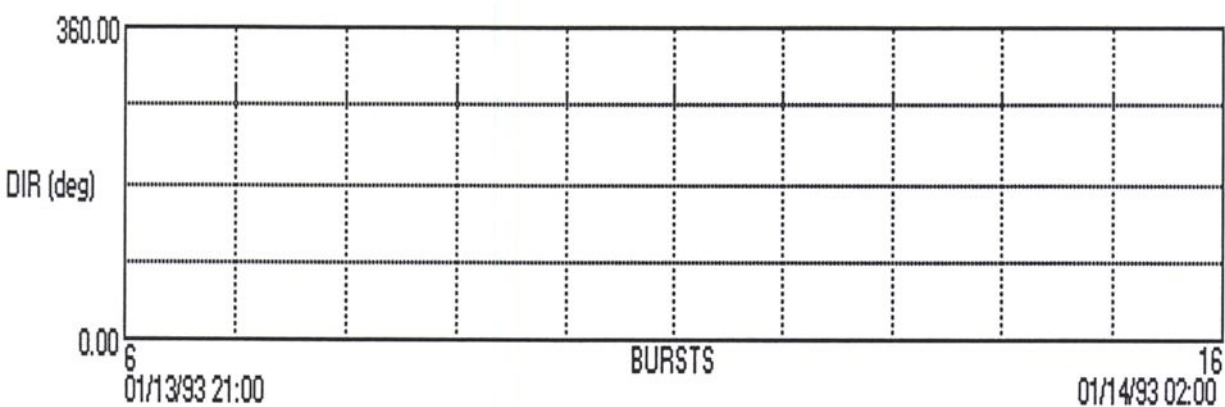
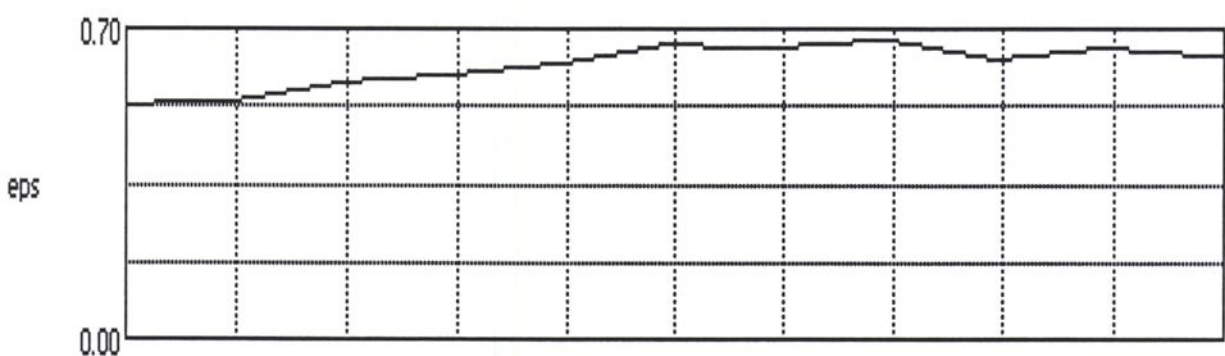
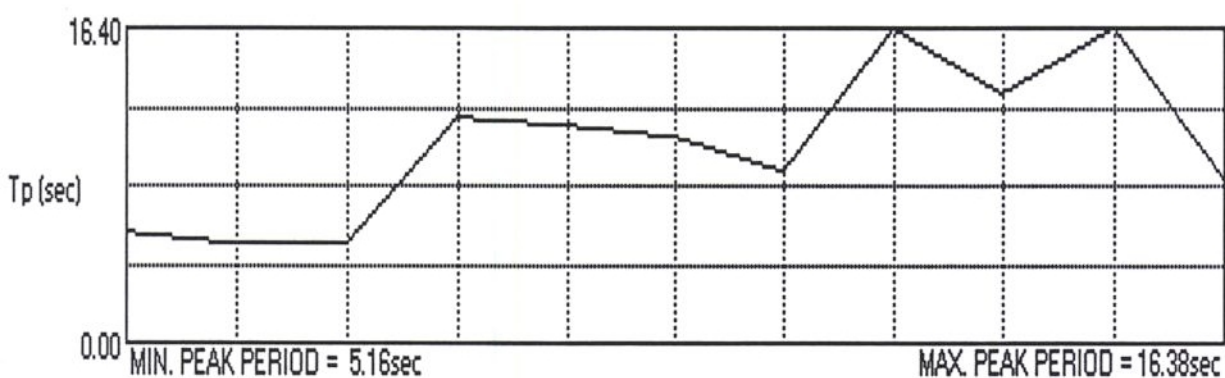
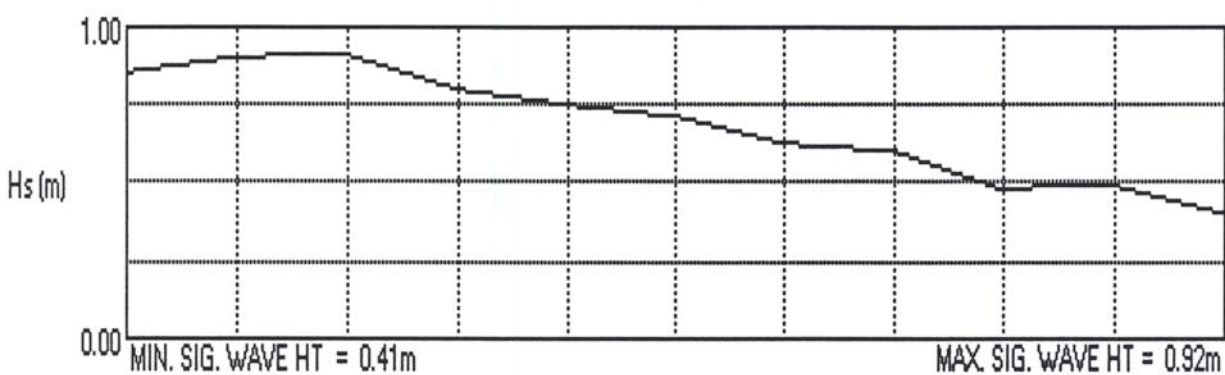




InterOcean Systems, Inc

WAVE PARAMETERS

FILE: 01S5TB05.S4B

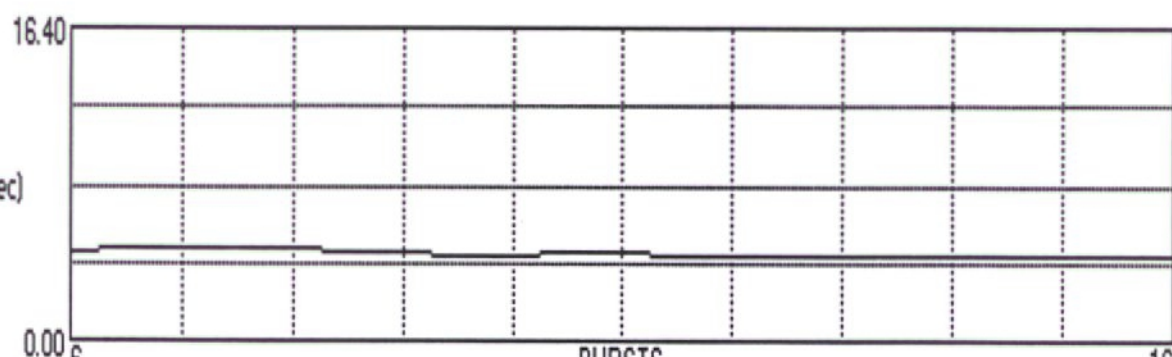
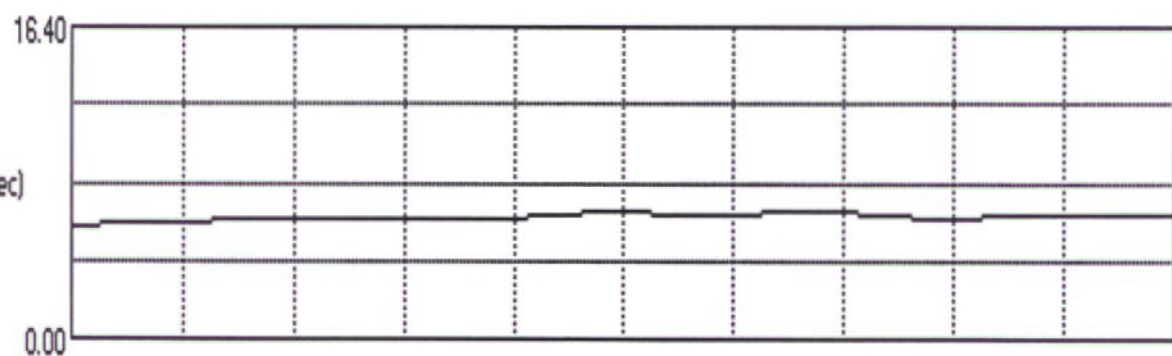
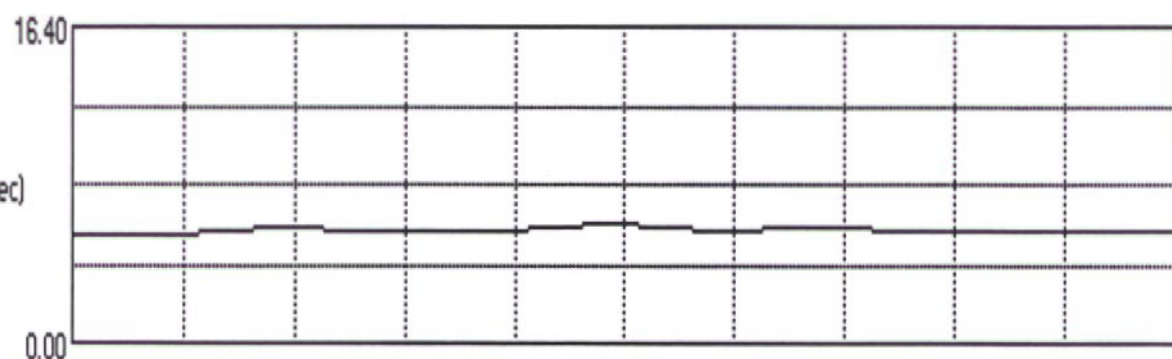
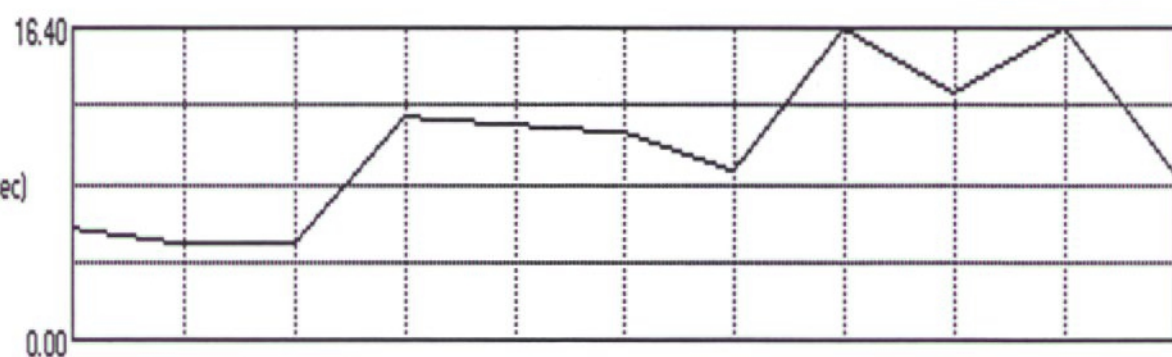




InterOcean Systems, Inc

WAVE PERIOD ESTIMATES

FILE: 01S5TB05.S4B



6
01/13/93 21:00

BURSTS

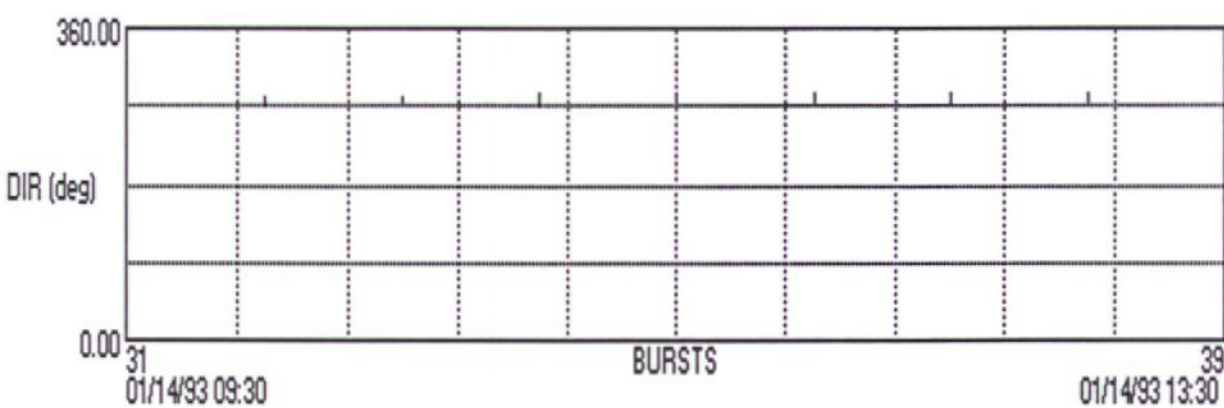
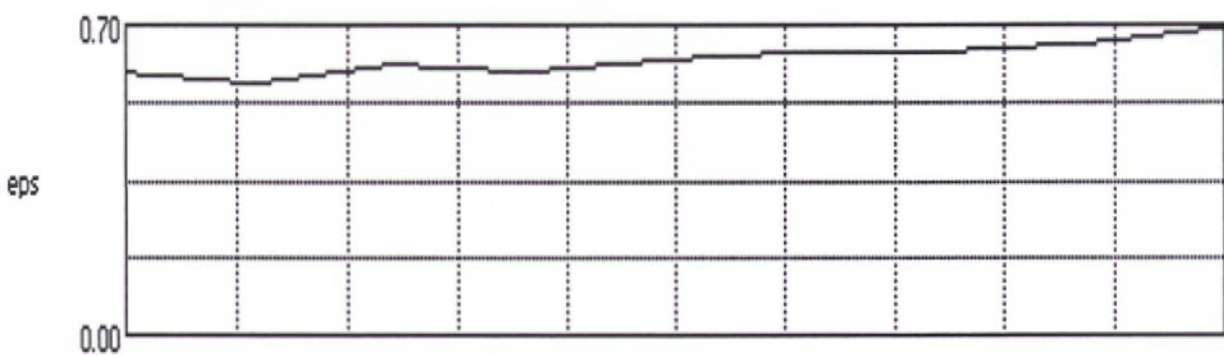
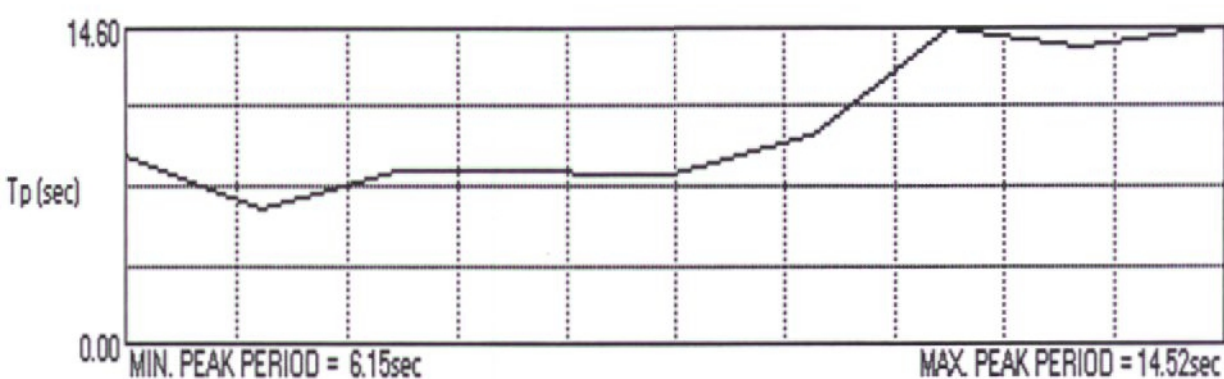
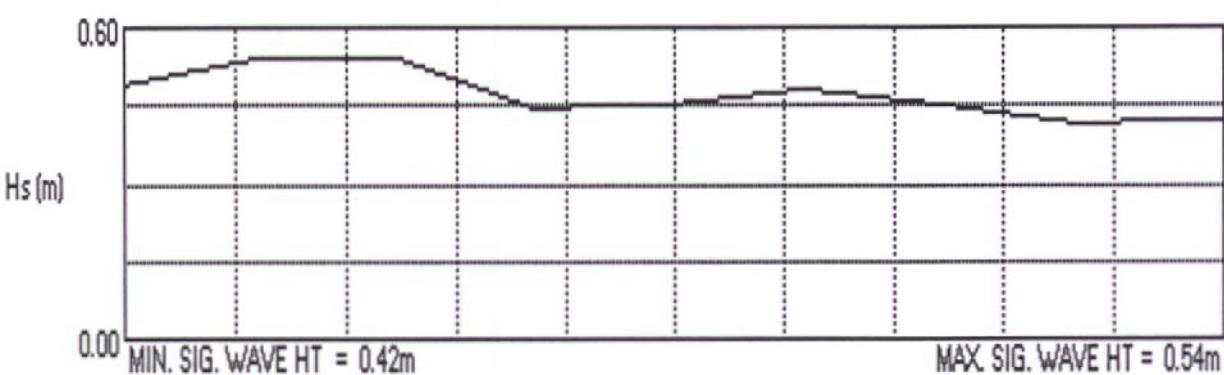
16
01/14/93 02:00



InterOcean Systems, Inc

WAVE PARAMETERS

FILE: 01S5TB05.S4B

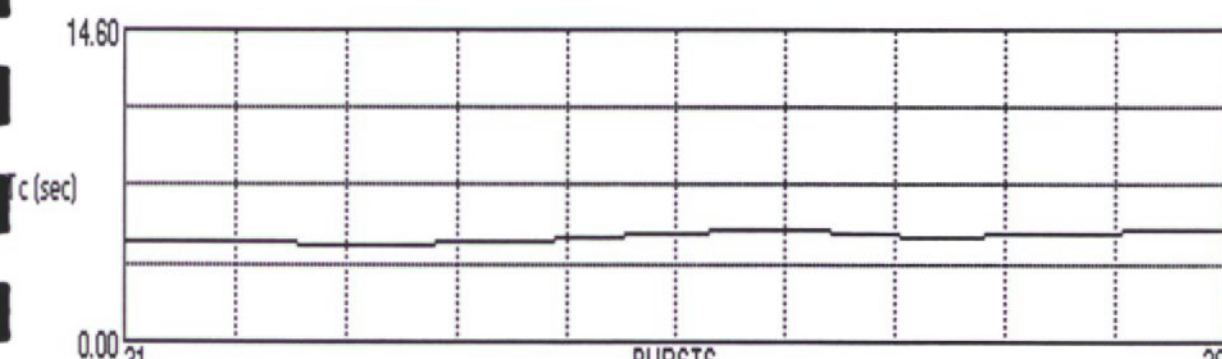
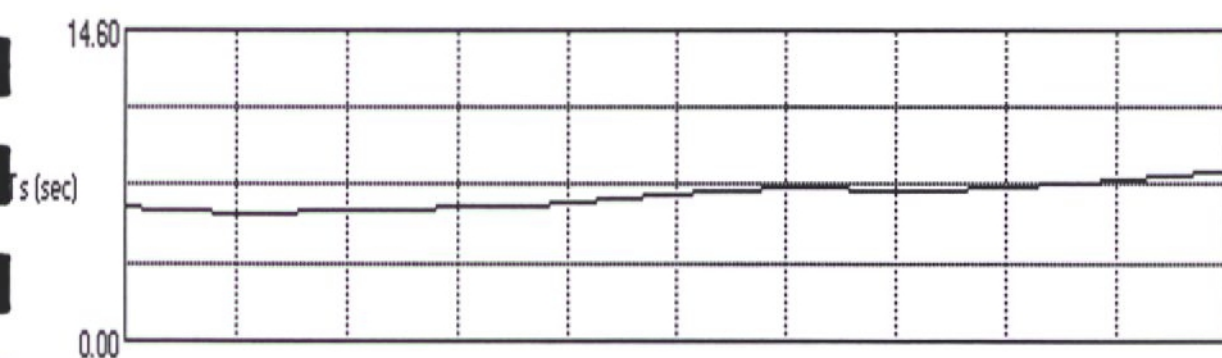
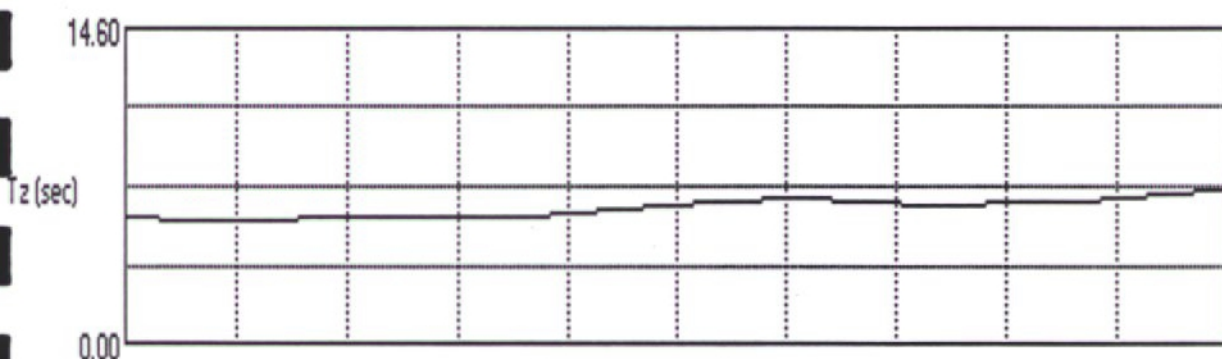
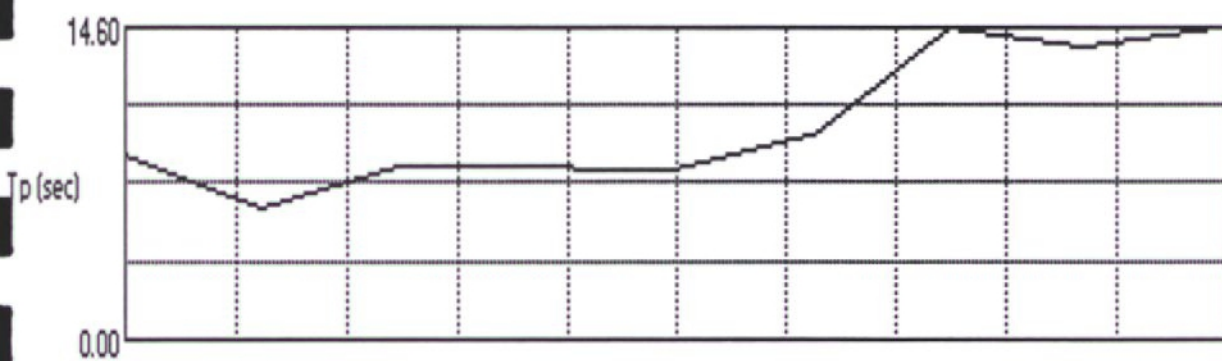




InterOcean Systems, Inc

WAVE PERIOD ESTIMATES

FILE: 01S5TB05.S4B



31
01/14/93 09:30

BURSTS

39
01/14/93 13:30

InterOcean Systems, Inc
FILE: 01S1TB01.S4B

B#	DATE	TIME	STD	HS	TP	TZ	TS	TC	DIR	EPSI
6	01/11/93	19:30	.17	.66	10.8	6.0	6.5	4.7	203.3	.63
7	01/11/93	20:00	.20	.81	13.0	5.9	6.4	4.7	207.2	.62
8	01/11/93	20:30	.21	.84	13.7	5.8	6.3	4.5	215.0	.63
9	01/11/93	21:00	.22	.87	8.1	6.3	6.9	4.7	213.9	.67
10	01/11/93	21:30	.20	.82	15.4	6.6	7.2	4.9	218.1	.66
11	01/11/93	22:00	.19	.75	15.4	6.5	7.2	4.9	219.2	.67
12	01/11/93	22:30	.19	.74	15.4	7.2	8.1	5.0	214.2	.72
13	01/11/93	23:00	.17	.69	16.4	7.1	8.1	5.0	213.1	.72
14	01/11/93	23:30	.16	.63	16.4	7.6	8.6	5.2	214.7	.73
15	01/12/93	00:00	.16	.63	17.5	7.6	8.7	5.1	211.5	.75

InterOcean Systems, Inc
FILE: 01S1TB01.S4B

B#	DATE	TIME	STD	HS	TP	TZ	TS	TC	DIR	EPSI
31	01/12/93	08:00	.24	.95	4.7	5.5	5.9	4.5	212.8	.56
32	01/12/93	08:30	.28	1.13	3.4	5.0	5.3	4.2	230.5	.53
33	01/12/93	09:00	.27	1.09	13.7	5.5	6.0	4.4	228.2	.60
34	01/12/93	09:30	.33	1.32	3.9	5.2	5.6	4.3	238.9	.55
35	01/12/93	10:00	.25	1.01	16.4	5.8	6.4	4.4	222.5	.65
36	01/12/93	10:30	.25	.99	15.4	5.5	6.0	4.4	225.6	.60
37	01/12/93	11:00	.20	.78	16.4	5.4	5.9	4.3	226.5	.59
38	01/12/93	11:30	.23	.92	15.4	6.2	6.9	4.6	226.2	.67
39	01/12/93	12:00	.22	.87	18.8	6.2	7.0	4.5	225.4	.69

InterOcean Systems, Inc
FILE: 01S3TB03.S4B

B#	DATE	TIME	STD	HS	TP	TZ	TS	TC	DIR	EPSI
6	01/12/93	20:00	.14	.58	9.6	5.9	6.4	4.7	276.4	.61
7	01/12/93	20:30	.16	.63	13.0	6.6	7.3	4.9	276.1	.67
8	01/12/93	21:00	.16	.63	14.5	6.6	7.3	4.8	279.7	.69
9	01/12/93	21:30	.18	.73	15.4	6.7	7.5	4.8	274.7	.70
10	01/12/93	22:00	.18	.72	8.6	7.0	7.7	5.1	283.3	.69
11	01/12/93	22:30	.18	.72	16.4	8.1	9.1	5.3	284.0	.75
12	01/12/93	23:00	.16	.63	17.5	8.0	9.0	5.4	286.4	.74
13	01/12/93	23:30	.14	.58	17.5	8.4	9.7	5.3	280.8	.78
14	01/13/93	00:00	.16	.63	14.5	9.1	10.3	5.8	280.6	.77
15	01/13/93	00:30	.14	.54	17.5	8.4	9.4	5.7	280.9	.73
16	01/13/93	01:00	.15	.61	18.8	7.0	8.1	4.8	280.8	.73

InterOcean Systems, Inc
FILE: 01S3TB03.S4B

B#	DATE	TIME	STD	HS	TP	TZ	TS	TC	DIR	EPSI
31	01/13/93	08:30	.10	.39	11.3	7.7	8.4	5.6	268.7	.69
32	01/13/93	09:00	.11	.46	14.5	8.6	9.3	6.2	274.3	.70
33	01/13/93	09:30	.13	.52	13.7	8.6	9.4	5.8	278.5	.74
34	01/13/93	10:00	.12	.48	14.5	7.7	8.8	4.8	289.8	.79
35	01/13/93	10:30	.12	.48	16.4	8.7	10.0	5.0	281.1	.82
36	01/13/93	11:00	.12	.48	13.7	9.3	10.5	5.4	286.2	.81
37	01/13/93	11:30	.14	.58	10.8	5.2	6.0	3.8	280.8	.68
38	01/13/93	12:00	.17	.67	3.7	4.6	5.1	3.8	228.7	.58
39	01/13/93	12:30	.20	.79	3.8	4.8	5.3	3.8	238.9	.59

InterOcean Systems, Inc
FILE: 01S5TB05.S4B

B#	DATE	TIME	STD	HS	TP	TZ	TS	TC	DIR	EPSI
6	01/13/93	21:00	.21	.85	5.9	5.5	5.8	4.7	278.5	.53
7	01/13/93	21:30	.23	.90	5.2	5.7	6.0	4.8	282.4	.53
8	01/13/93	22:00	.23	.92	5.2	5.9	6.3	4.9	279.0	.58
9	01/13/93	22:30	.20	.80	11.8	5.8	6.3	4.7	281.9	.60
10	01/13/93	23:00	.19	.75	11.3	5.8	6.3	4.6	280.3	.63
11	01/13/93	23:30	.18	.72	10.8	6.2	6.8	4.6	282.5	.66
12	01/14/93	00:00	.16	.63	8.9	5.9	6.5	4.4	281.1	.66
13	01/14/93	00:30	.15	.60	16.4	6.0	6.7	4.4	280.4	.67
14	01/14/93	01:00	.12	.48	13.0	5.7	6.3	4.4	276.5	.64
15	01/14/93	01:30	.12	.49	16.4	5.9	6.5	4.4	279.8	.66
16	01/14/93	02:00	.10	.41	8.6	5.9	6.4	4.5	278.6	.64

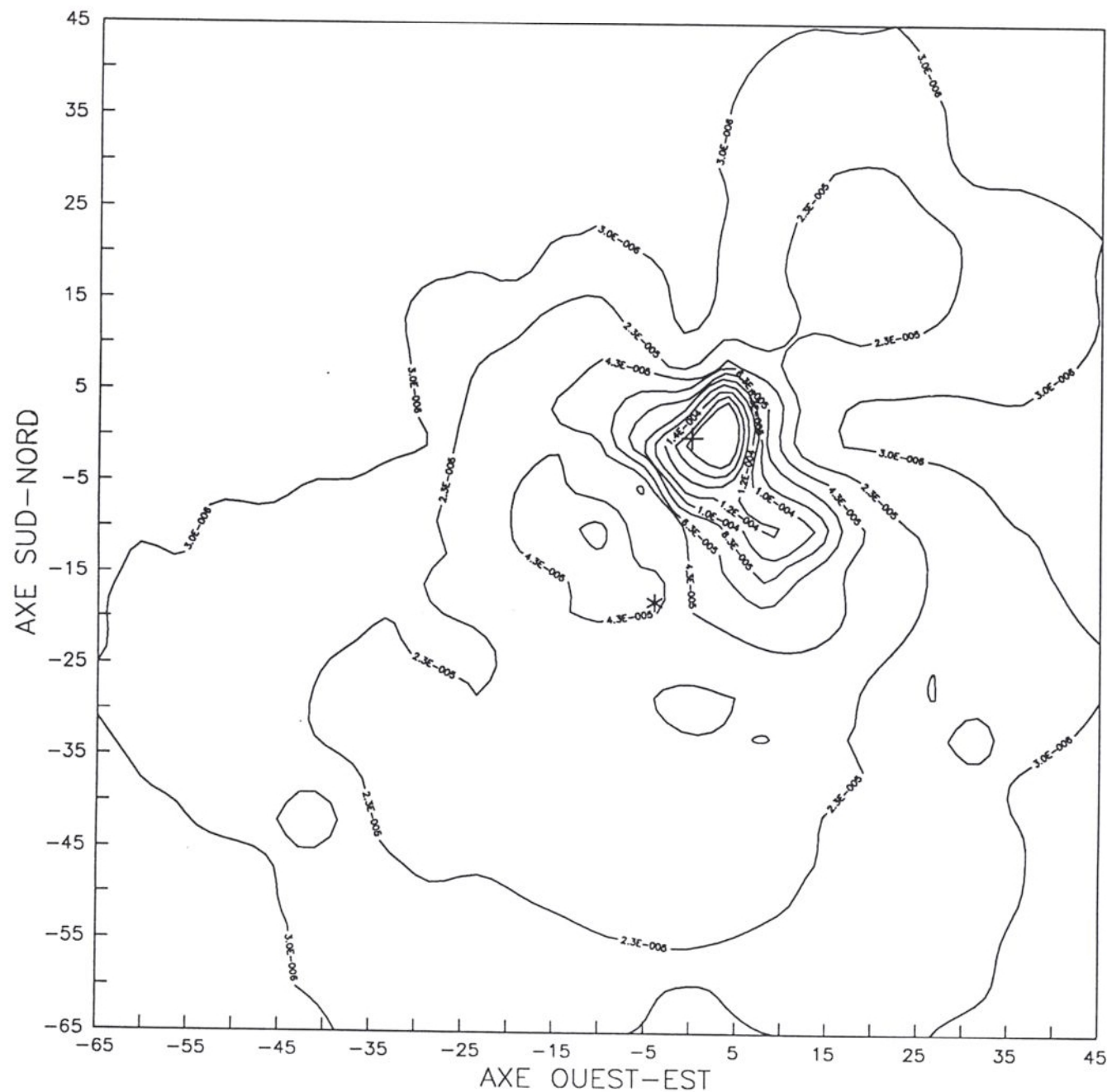
InterOcean Systems, Inc
FILE: 01S5TB05.S4B

B#	DATE	TIME	STD	HS	TP	TZ	TS	TC	DIR	EPSI
31	01/14/93	09:30	.12	.49	8.6	5.9	6.3	4.7	269.1	.60
32	01/14/93	10:00	.14	.54	6.2	5.6	6.0	4.6	277.2	.57
33	01/14/93	10:30	.13	.54	8.1	5.8	6.2	4.6	276.8	.61
34	01/14/93	11:00	.11	.44	8.1	5.9	6.3	4.7	277.3	.60
35	01/14/93	11:30	.11	.45	7.8	6.4	6.8	5.0	278.8	.62
36	01/14/93	12:00	.12	.48	9.6	6.7	7.2	5.2	280.4	.64
37	01/14/93	12:30	.11	.45	14.5	6.4	7.0	4.9	281.1	.64
38	01/14/93	13:00	.10	.42	13.7	6.7	7.3	5.0	279.6	.66
39	01/14/93	13:30	.11	.42	14.5	7.1	7.9	5.2	282.0	.69

CAMPAGNE N°19

Saint Jean le Thomas - Dragey

TRANSPORTS
SEDIMENTAIRES



TRACEUR FLUORESCENT

Courbes d'isoconcentration

Campagne 19
profil 106
Haute plage

du 11.1.93 à 19 heures
au 13.1.93 à 20 heures

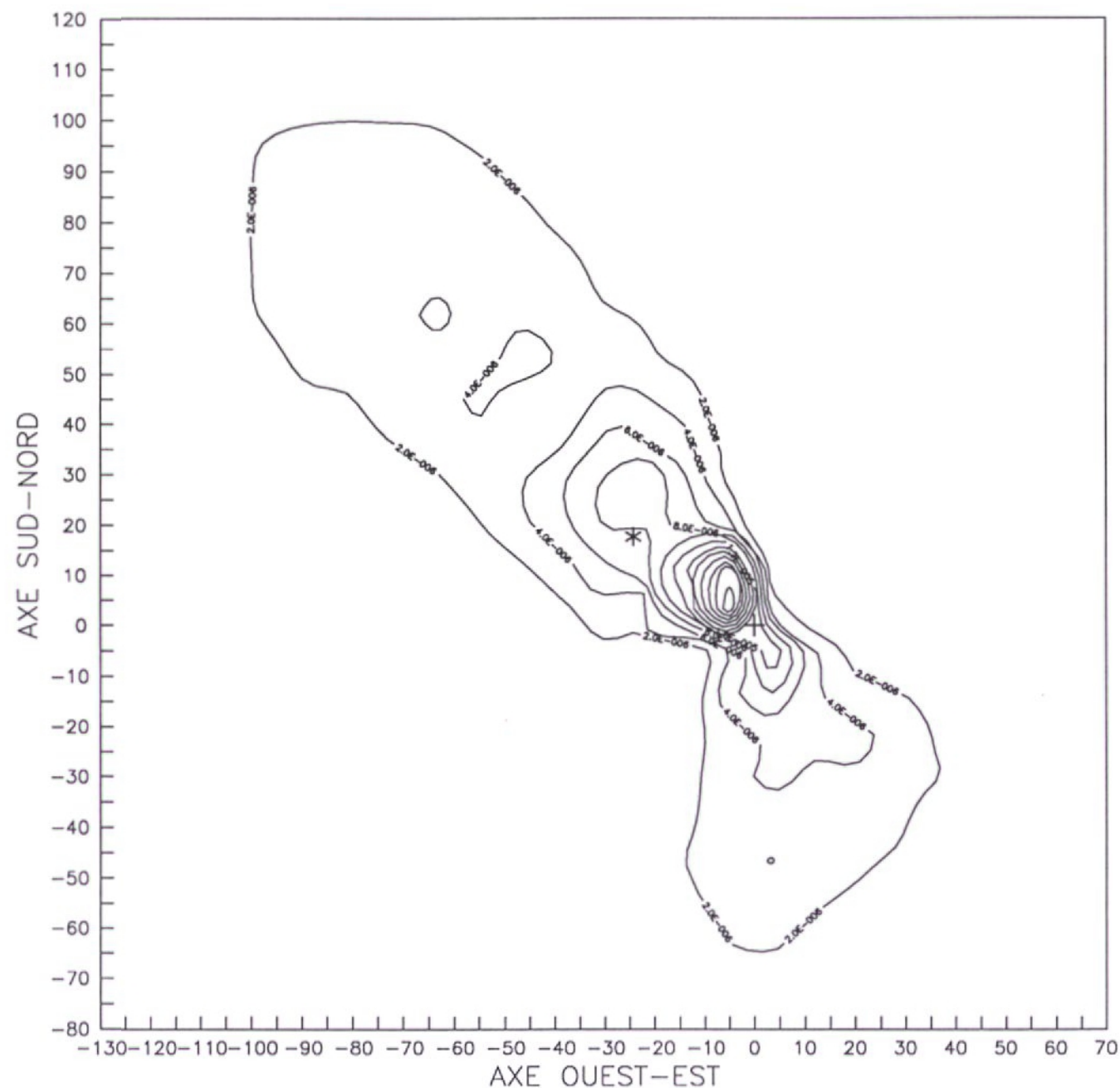
Nombre de marées : 4

Temps d'immersion : 949 minutes

Taux de récupération du traceur :
9 %

Taux de transport :
Norme Direction
0.7 kg/m.mn 193 deg.

+ point d'immersion
* centre de gravité



TRACEUR FLUORESCENT

Courbes d'isoconcentration

Campagne 19
profil 105
Basse plage

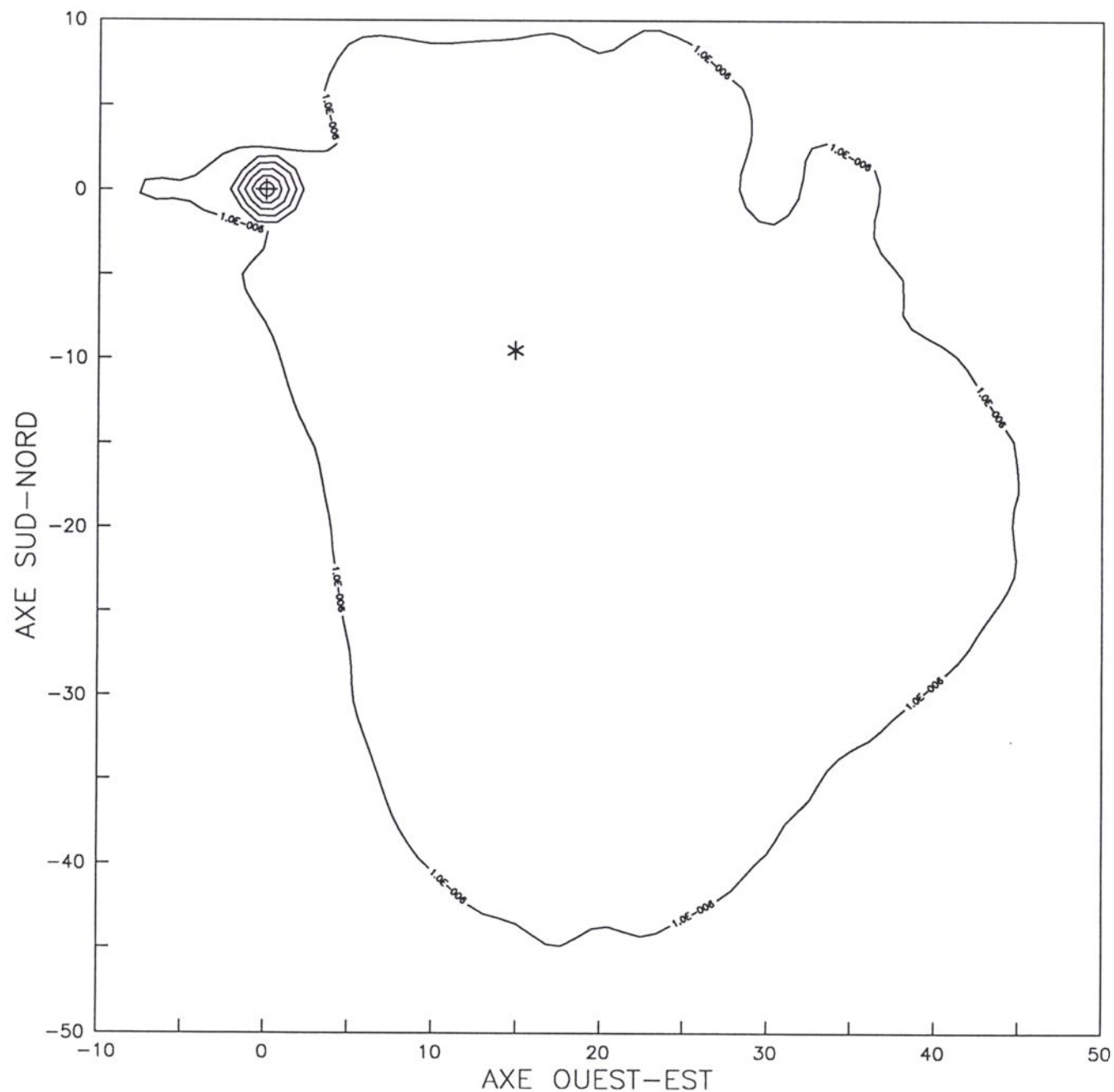
du 11.1.93 à 18 heures
au 13.1.93 à 5 heures

Nombre de marées : 3

Temps d'immersion : 1139 minutes

Taux de récupération du traceur :
8 %
Taux de transport :
Norme Direction
6.3 kg/m.mn 306 deg.

+ point d'immersion
* centre de gravité



TRACEUR FLUORESCENT

Courbes d'isoconcentration

Campagne 19
profil 103
Basse plage

du 11.1.93 à 16 heures
au 13.1.93 à 7 heures

Nombre de marées : 3

Temps d'immersion : 1143 minutes

Taux de récupération du traceur :

1 %

Taux de transport :

Norme	Direction
2.6 kg/m.mn	123 deg.

+ point d'immersion

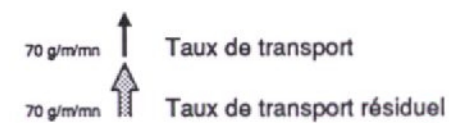
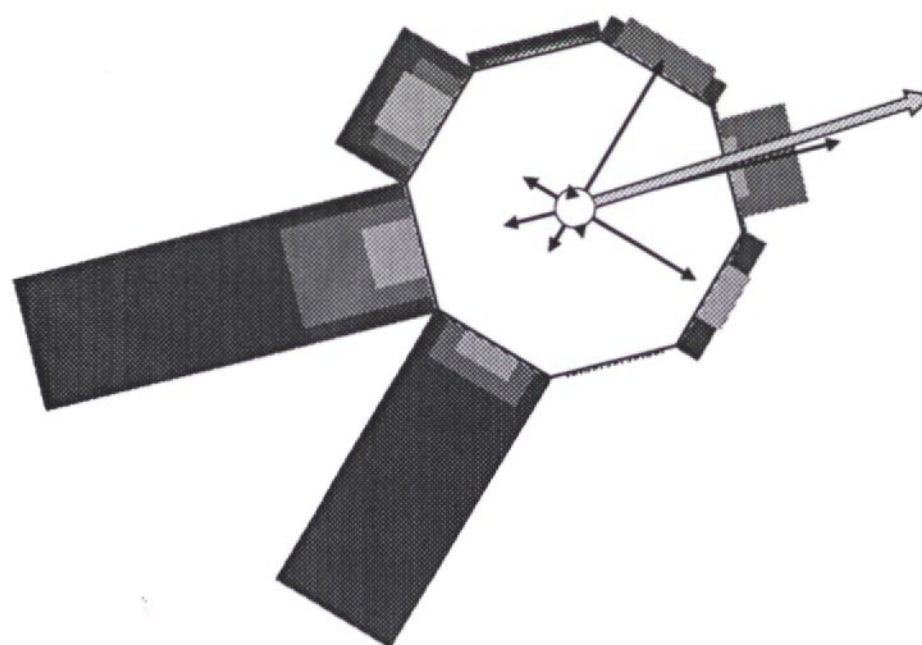
* centre de gravité

Campagne 19
Profil 103

Direction d'ouverture des nacelles (degrés)	Hauteur au sol (cm)	Flux (g/m ² /mn)	Taux de transport (g/m/mn)
166	136	0.32	0.6
	67.5	0.78	
	5.5	?	
121	136	46.33	63.4
	67.5	0.84	
	5.5	40.04	
76	136	21.55	86.8
	67.5	118.60	
	5.5	1.19	
31	136	0.15	48.7
	67.5	53.79	
	5.5	39.91	
346	136	1.64	13.8
	67.5	6.40	
	5.5	26.37	
301	136	96.62	204.6
	67.5	84.93	
	5.5	137.56	
256	136	89.75	436.9
	67.5	230.45	
	5.5	703.90	
211	136	38.37	257.5
	67.5	70.97	
	5.5	544.21	

Taux de transport résiduel :			
Direction (degrés)	Norme (g/m/mn)	Composante long-shore (g/m/mn)	Composante cross-shore (g/m/mn)
72.7	598.5	55.4	596.0

Transports sédimentaires sur la basse plage de Saint-Jean-le-Thomas
Période du 11.1.93 au 12.1.93



Flux par nacelle en g/m²/mn :

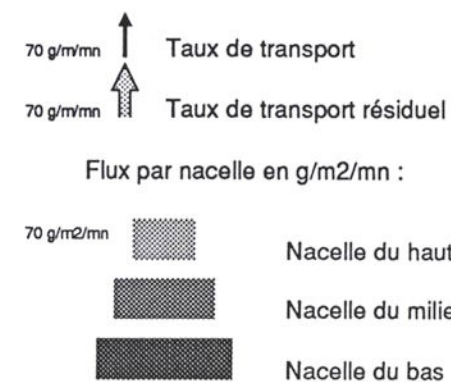
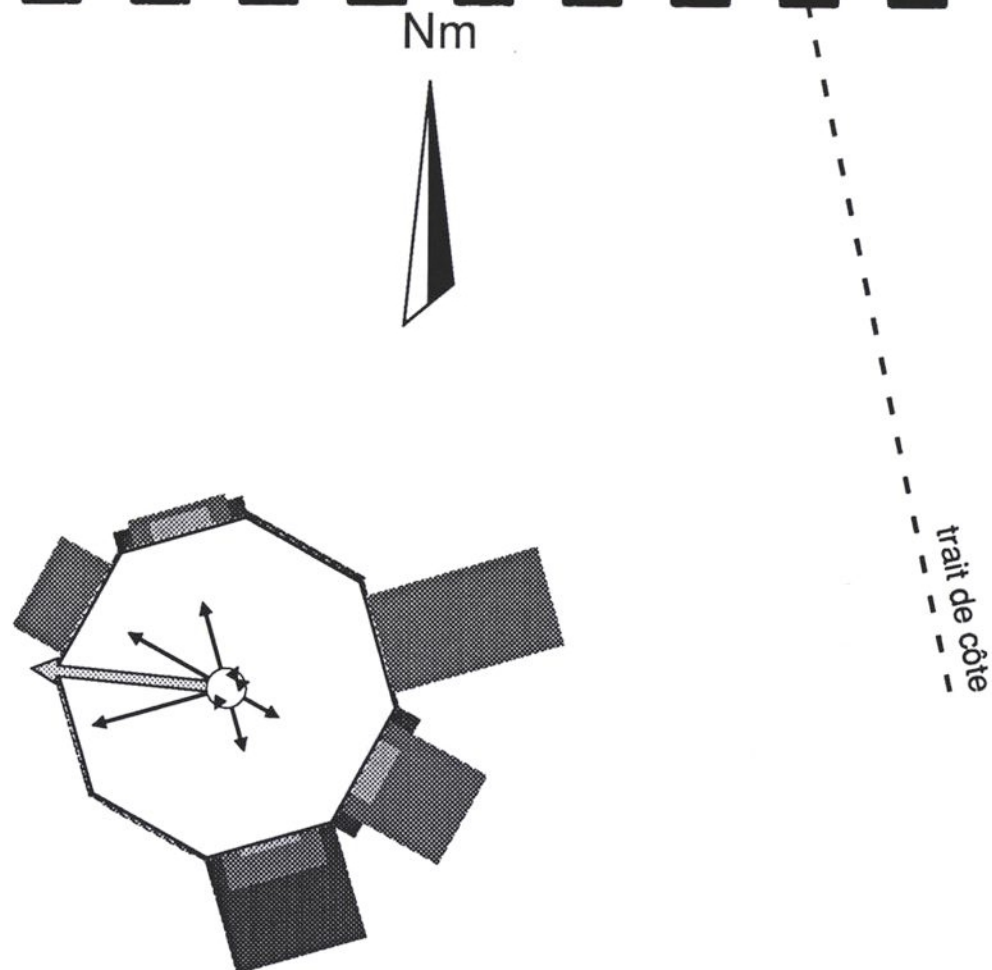


Campagne 19
Profil 103

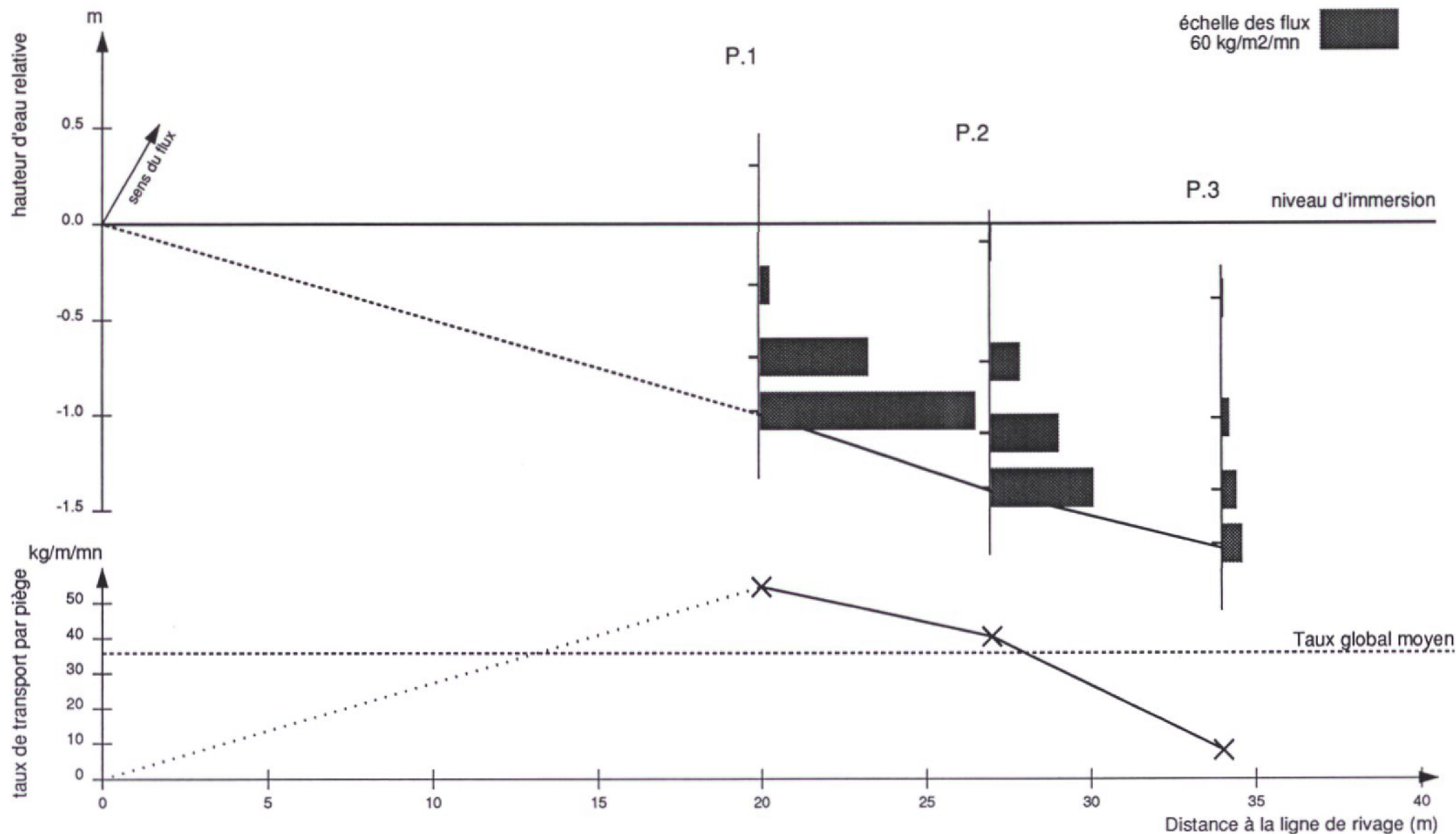
Direction d'ouverture des nacelles (degrés)	Hauteur au sol (cm)	Flux (g/m ² /mn)	Taux de transport (g/m/mn)
29	137	0.02	1.9
	69.7	0.05	
	5.6	5.29	
74	137	0.13	202.3
	69.7	307.21	
	5.6	0.95	
119	137	38.11	155.8
	69.7	190.56	
	5.6	42.13	
164	137	9.20	114.7
	69.7	61.40	
	5.6	204.24	
209	137	0.04	2.0
	69.7	2.94	
	5.6	0.16	
254	137	0.06	1.3
	69.7	0.64	
	5.6	2.44	
299	137	0.47	65.2
	69.7	98.36	
	5.6	0.42	
344	137	30.85	74.4
	69.7	44.14	
	5.6	31.62	

Taux de transport résiduel :			
Direction (degrés)	Norme (g/m/mn)	Composante long-shore (g/m/mn)	Composante cross-shore (g/m/mn)
275.5	284.8	85.7	-271.6

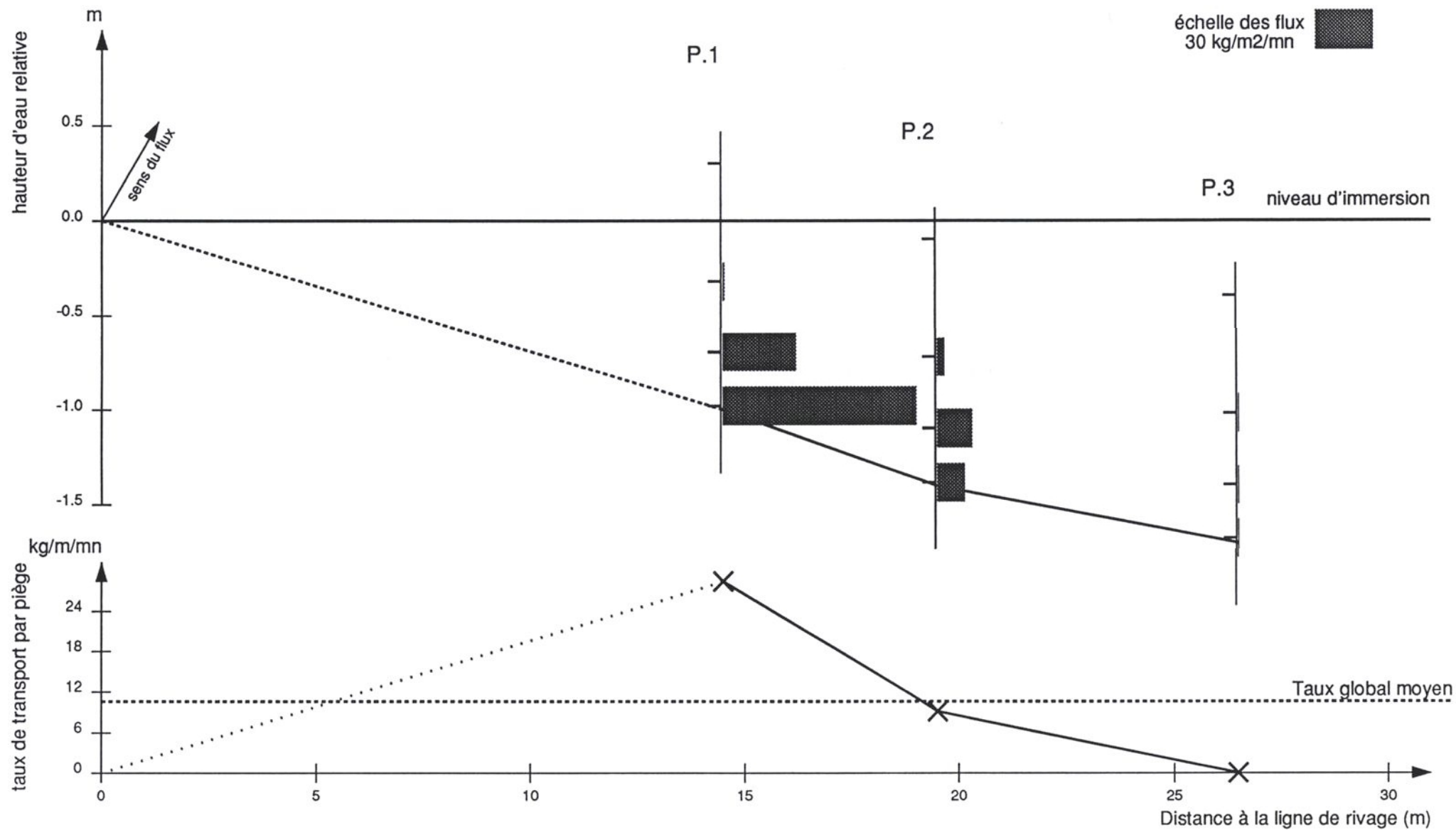
Transports sédimentaires sur la basse plage de Saint-Jean-le-Thomas
Période du 14.1.93 au 14.1.93



Campagne 19 Profil 104
Transports sédimentaires dans la zone de déferlement
le 12.1.93 à 11:30



Campagne 19 Profil 104
Transports sédimentaires dans la zone de déferlement
le 14.1.93 à 11:55



ANNEXE 20

RESULTATS DES MESURES
IN SITU DE LA CAMPAGNE
N°20

LIEU :
BREVILLE SUR MER -
DONVILLE LES BAINS

DATE: du 06.04.93 au 09.04.93

Coefficients de marée: 107 à 114

CAMPAGNE N°20

Breville sur Mer -
Donville les Bains

LOCALISATION DES
EXPERIMENTATIONS

CAMPAGNE N°20

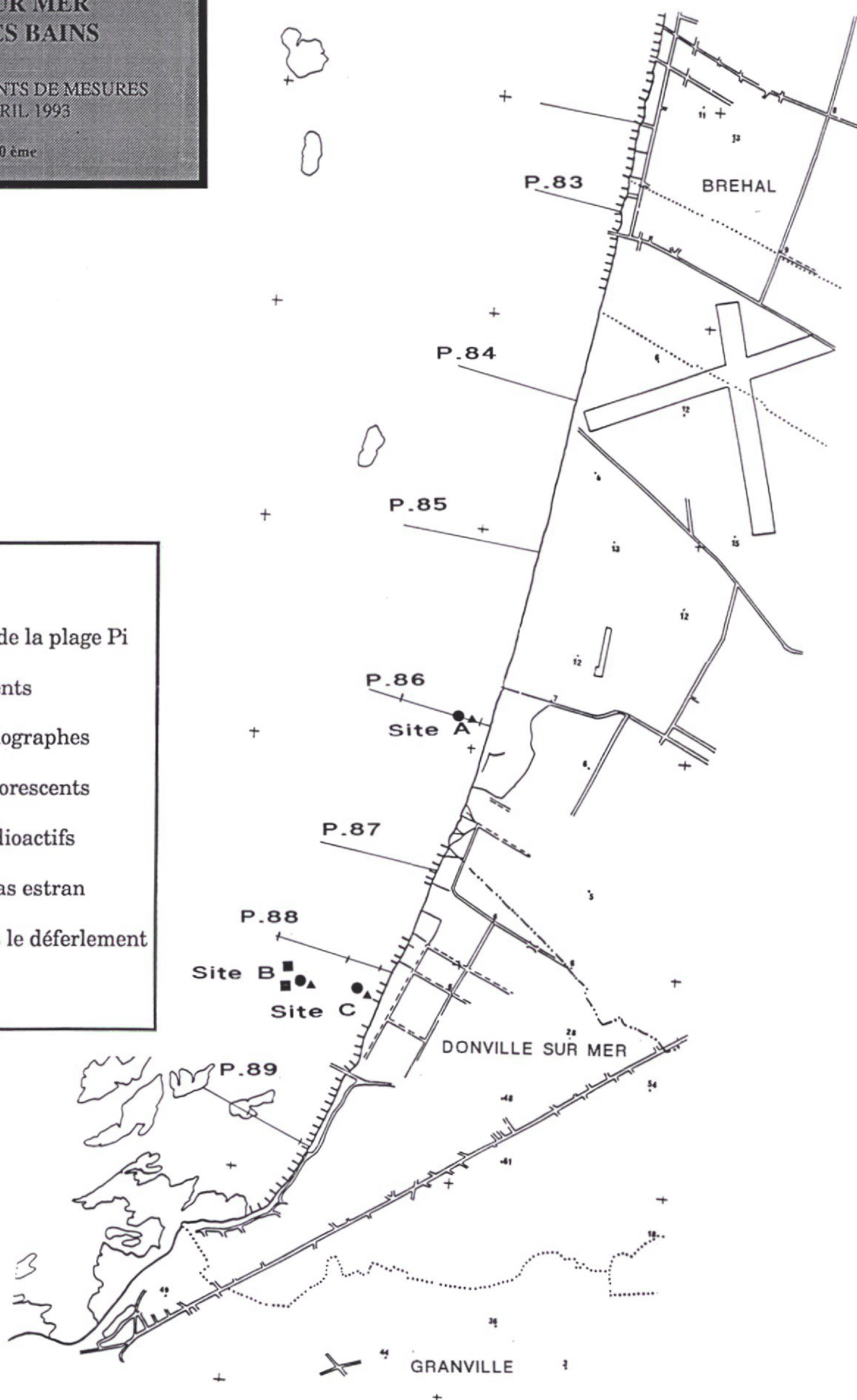
LITTORAL DE
BREVILLE SUR MER
DONVILLE LES BAINS

LOCALISATION DES POINTS DE MESURES
DU 06 AU 09 AVRIL 1993

Echelle: 1/20 000 ème

LEGENDE

- Profils topographiques de la plage Pi
- + — Prélèvements de sédiments
- Courantomètres ou houlographes
- ▲ Injection de traceurs fluorescents
- ★ Injection de traceurs radioactifs
- Pièges à sédiments de bas estran
- ⓓ Pièges à sédiments dans le déferlement
- Ⓜ Station météorologique



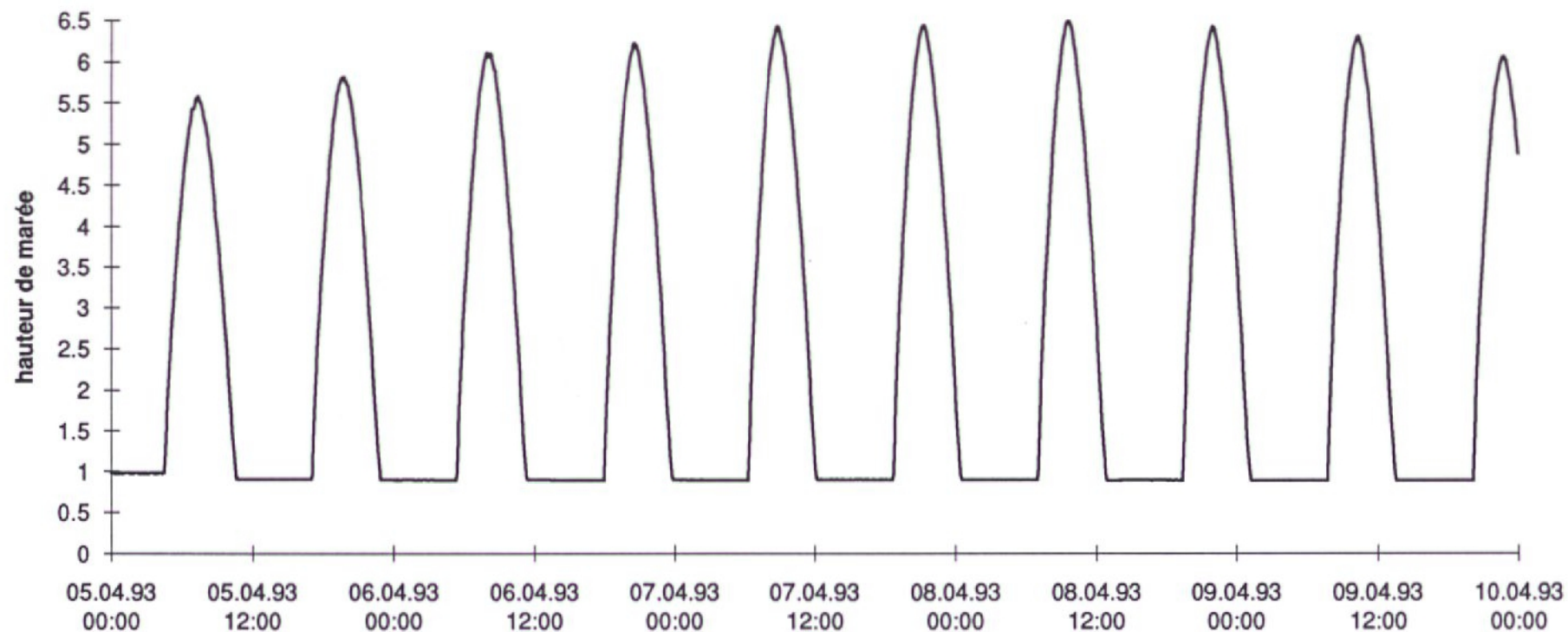
CAMPAGNE N°20

Breville sur Mer -
Donville les Bains

COURBE MAREGRAPHIQUE

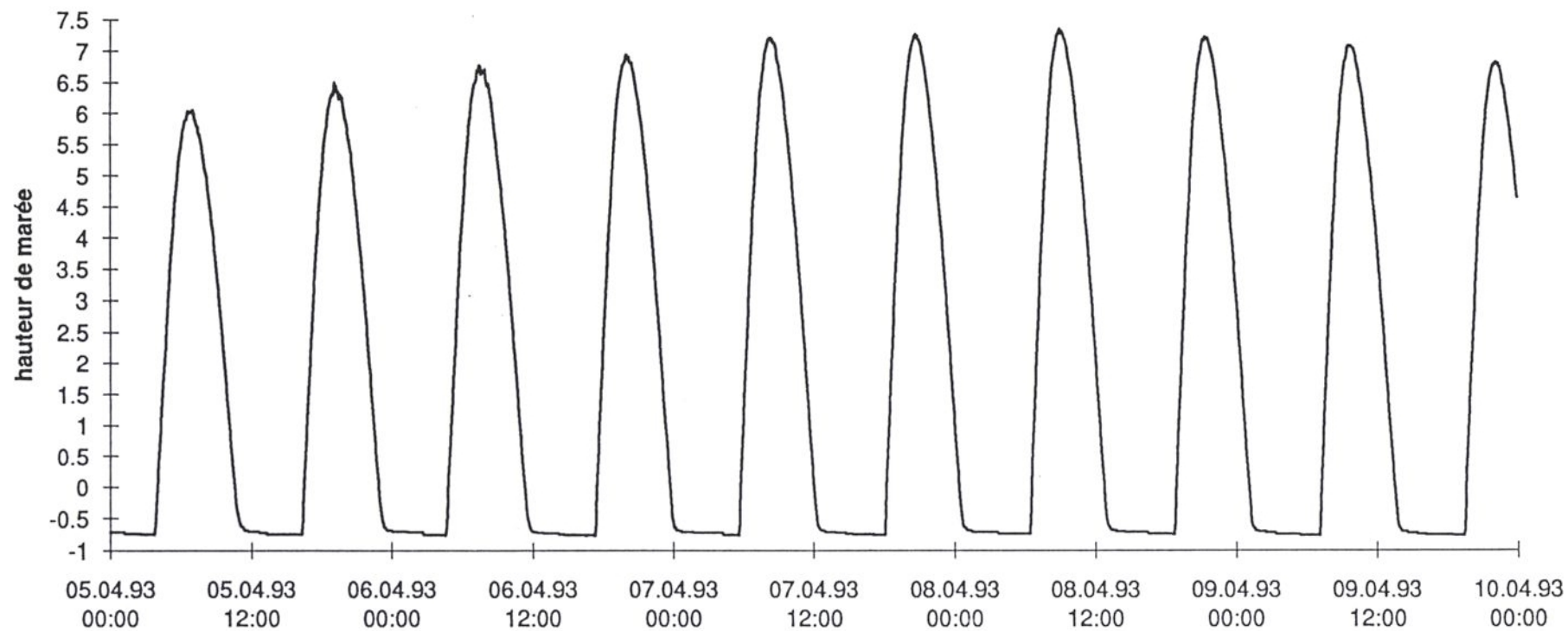
COURBE DE MAREE A PORTBAIL
Période du 05-04-1993 au 09-04-1993

Cote IGN 69
en mètres



Cote IGN 69
en mètres

COURBE DE MAREE A GRANVILLE **Période du 05-04-1993 au 09-04-1993**



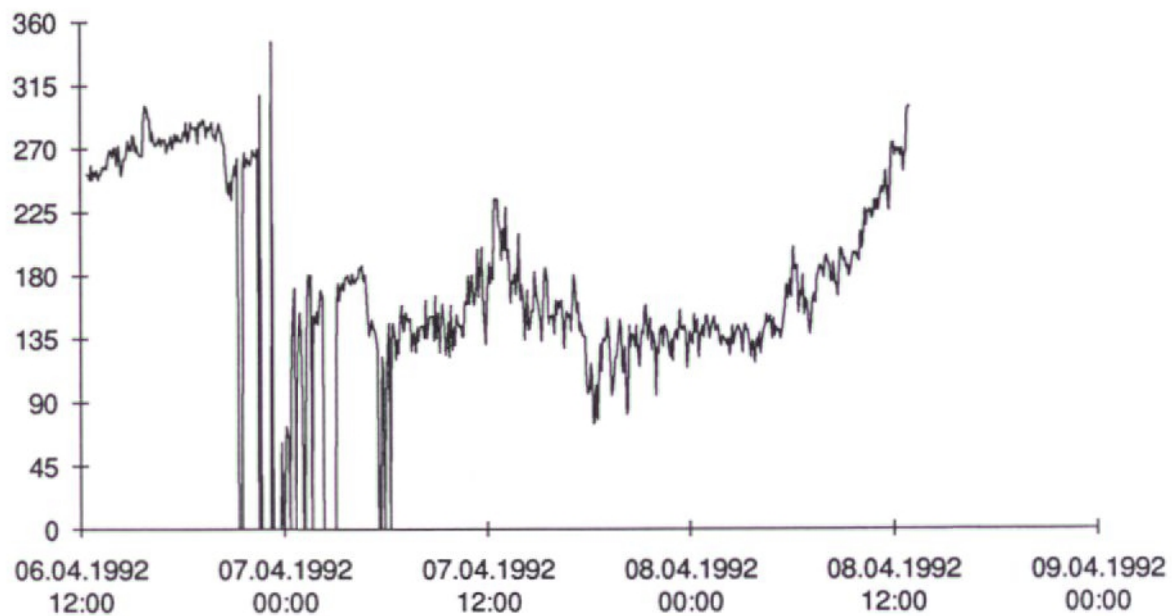
CAMPAGNE N°20

Breville sur Mer -
Donville les Bains

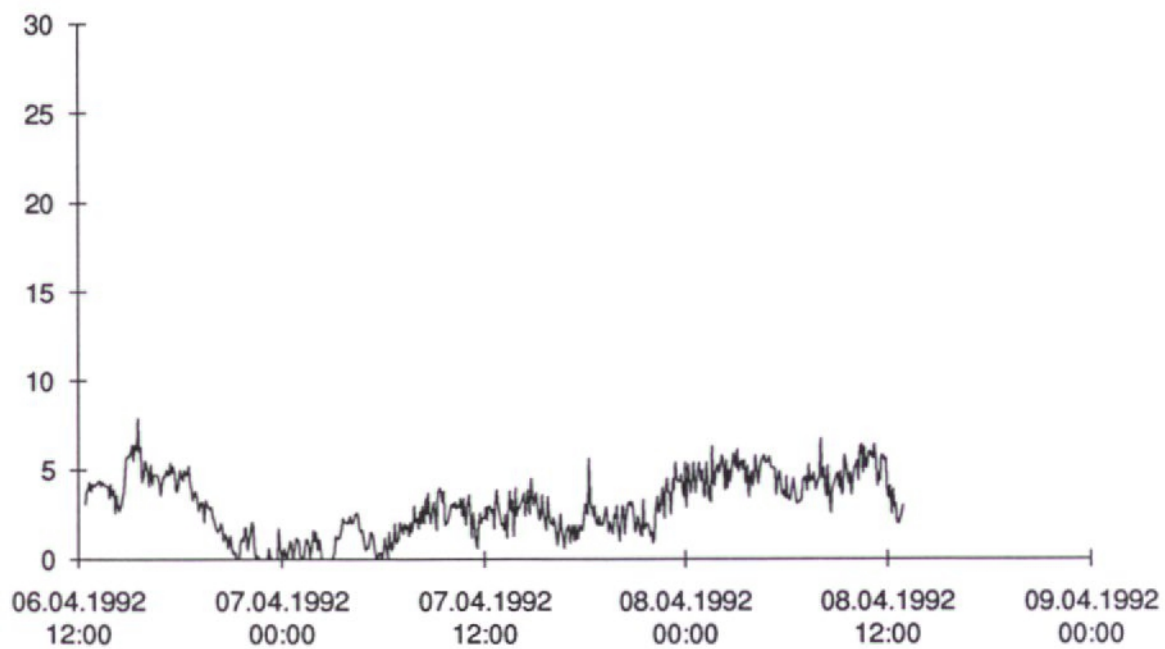
DONNEES
METEOROLOGIQUES

CAMPAGNE 20 : BREVILLE-DONVILLE
PERIODE DU 06-04-1993 AU 09-04-1993

Direction des vents en degrés



Vitesse des vent en m/s



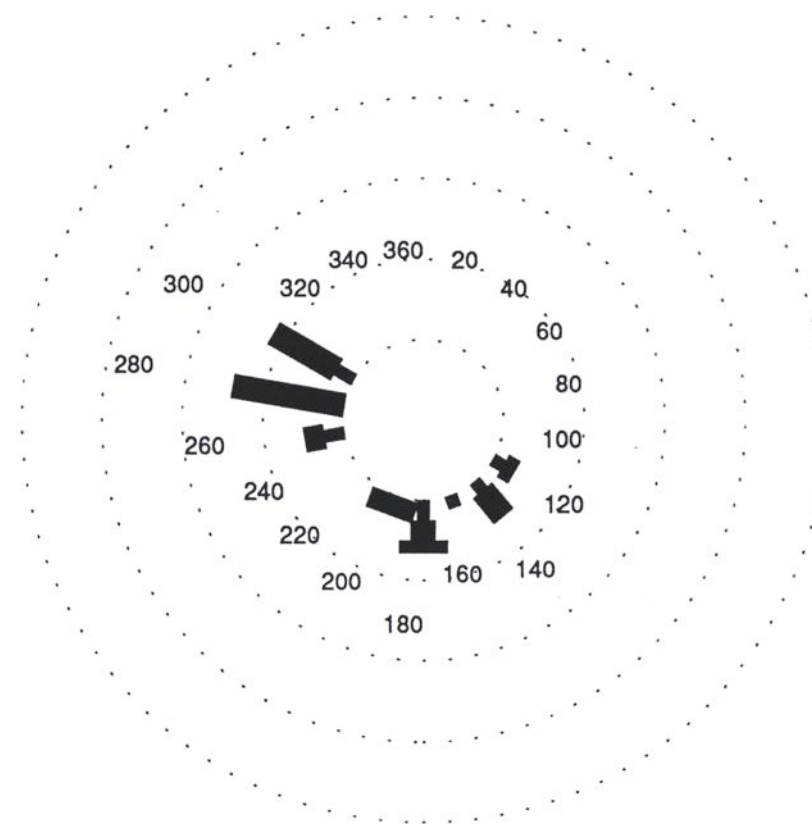
PERIODE DU 05.04.1993 AU 09.04.1993

Campagne 20

Sémaphore de Carteret

Fréquences moyennes des directions du vent en %

direction (degrés)	vitesse (> 1m/s)				total
	1/7 m/s	8 /17 m/s	18/24 m/s	>24 m/s	
20					
40					
60					
80					
100					
120	3	3			6
140	3	8			11
160	3				3
180	5	5	3		13
200			5		5
220					
240					
260	5	5			10
280		28			28
300	5	18			23
320					
340					
360					
vitesse < 1 m/s		5	%		



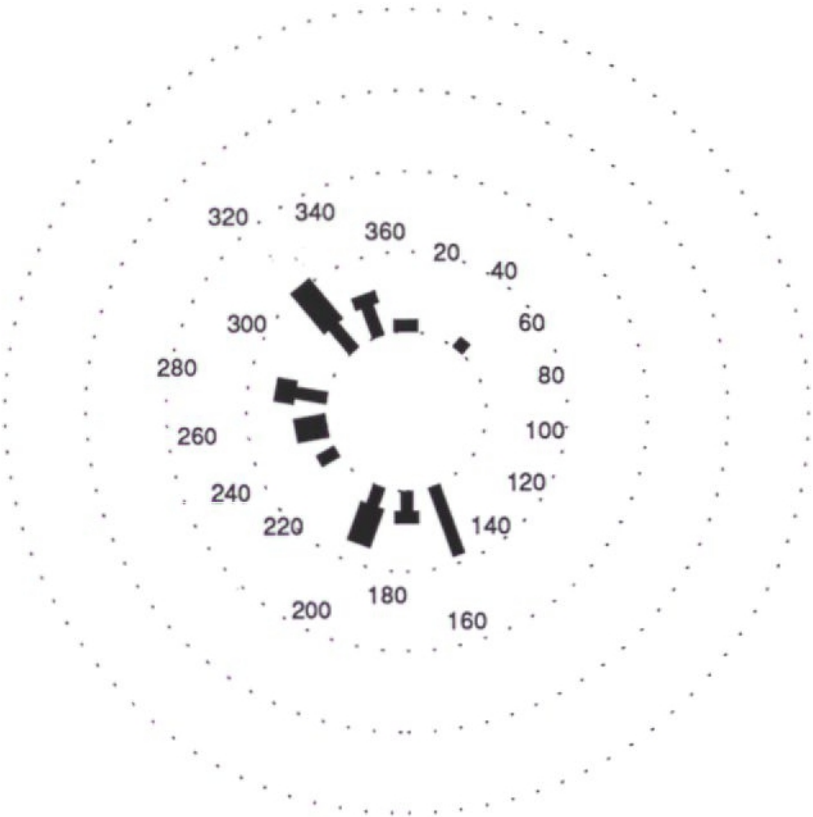
PERIODE DU 05.04.1993 AU 09.04.1993

Campagne 20

Sémaphore de Granville

Fréquences moyennes des directions du vent en %

direction (degrés)	vitesse (> 1m/s)				total
	1/7 m/s	8 /17 m/s	18/24 m/s	>24 m/s	
20					
40	3				3
60					
80					
100					
120					
140					
160	18				18
180	5	3			8
200	5	10			15
220					
240	5				5
260		8			8
280	8	5			13
300					
320	8	13			21
340	8	3			11
360		3			3
vitesse < 1 m/s					



CAMPAGNE N°20

Breville sur Mer -
Donville les Bains

DONNEES TOPOGRAPHIQUES

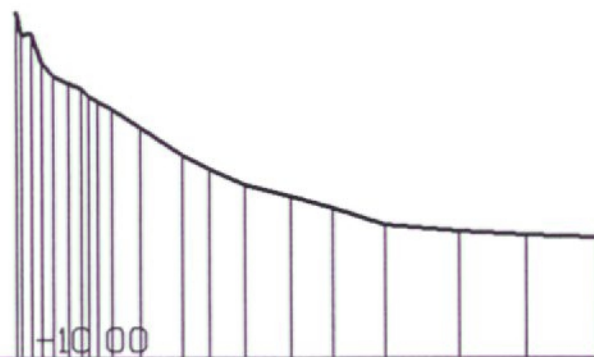
BREVILLE SUR MER - DONVILLE

PROFIL 78

AVRIL 1993

ECHELLE HORIZONTALE 1/5000

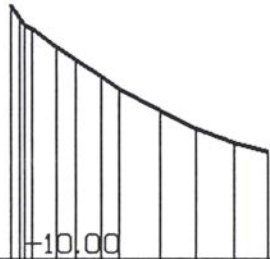
ECHELLE VERTICALE 1/500



ALTITUDES IGN 69	12.70	6.27	5.06	3.27	2.32	1.97	0.54	-0.20	-1.32	-1.73	-1.99	-2.13
DISTANCES CUMULEES	0.00	63.38	82.61	110.41	127.81	151.67	181.94	210.07	244.61	293.63	339.04	386.13

BREVILLE SUR MER - DONVILLE
PROFIL 80
AVRIL 1993

ECHELLE HORIZONTALE 1/5000
ECHELLE VERTICALE 1/500



ALTITUDES IGN 69	6.59	5.04	3.91	3.02	1.90	1.11	-0.32	-1.51	-2.44	-3.06
DISTANCES CUMULEES	0.00	14.16	30.63	43.35	60.01	72.46	99.47	123.30	148.13	171.62

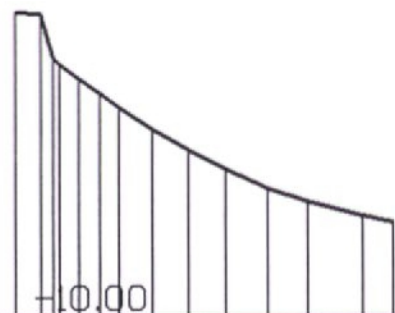
BREVILLE SUR MER - DONVILLE

PROFIL 81

AVRIL 1993

ECHELLE HORIZONTALE 1/5000

ECHELLE VERTICALE 1/500



ALTITUDES IGN 69

9.82 9.70 5.51 4.55 3.64 2.16 0.81 -0.40 -1.70 -2.57 -3.53 -3.88

DISTANCES CUMULEES

0.00 17.52 42.71 56.25 68.88 91.11 114.84 138.66 167.35 193.51 230.42 250.46

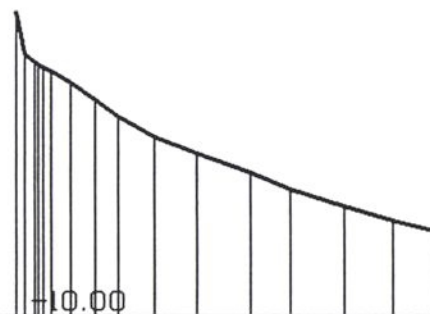
BREVILLE SUR MER - DONVILLE

PROFIL 82

AVRIL 1993

ECHELLE HORIZONTALE 1/5000

ECHELLE VERTICALE 1/500



ALTITUDES IGN 69	9.80	5.24	4.11	3.07	1.64	0.60	-0.73	-1.80	-2.92	-3.85	-4.52
DISTANCES CUMULEES	0.00	36.97	53.03	68.26	91.41	119.47	155.53	181.36	216.73	249.51	275.18

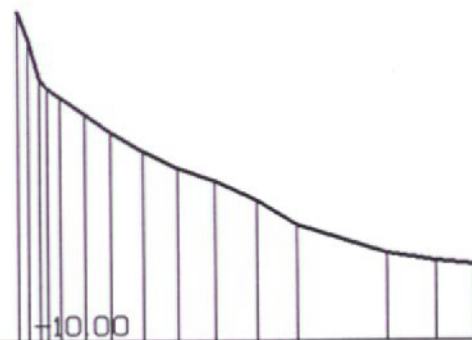
BREVILLE SUR MER - DONVILLE

PROFIL 83

AVRIL 1993

ECHELLE HORIZONTALE 1/5000

ECHELLE VERTICALE 1/500



ALTITUDES IGN 69	11.52	5.90	4.81	3.62	2.34	1.25	0.39	-0.88	-2.48	-4.34	-4.87	-5.13
DISTANCES CUMULEES	0.00	28.02	44.45	61.48	81.99	105.53	129.51	158.09	184.16	242.86	275.23	301.51

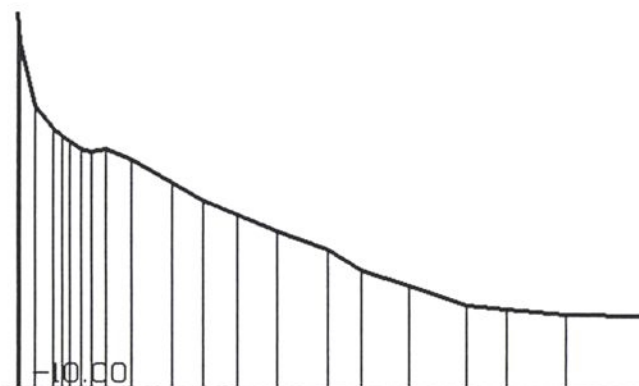
BREVILLE SUR MER - DONVILLE

PROFIL 86

AVRIL 1993

ECHELLE HORIZONTALE 1/5000

ECHELLE VERTICALE 1/500



ALTITUDES IGN 69	14.48	8.34	5.55	4.91	3.35	2.18	1.27	0.18	-1.03	-2.42	-3.44	-4.64	-4.94	-5.24	-5.38
DISTANCES CUMULEES	0.00	11.81	58.64	75.48	102.24	123.25	145.61	171.81	205.63	228.10	259.51	297.57	323.63	362.72	416.72

BREVILLE SUR MER - DONVILLE

PROFIL 88

AVRIL 1993

ECHELLE HORIZONTALE 1/5000

ECHELLE VERTICALE 1/500



ALTITUDES IGN 69	12.21	5.08	4.56	3.73	2.47	0.97	-0.18	-1.39	-2.90	-3.92	-4.35	-4.50	-4.81	-4.96	-5.19
DISTANCES CUMULEES	0.00	42.29	57.76	79.15	107.49	150.06	186.66	232.90	282.98	320.10	361.93	398.35	441.15	491.74	535.98

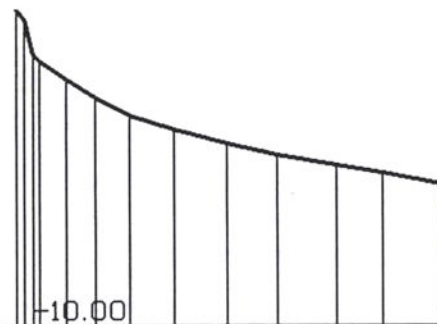
BREVILLE SUR MER - DONVILLE

PROFIL 89

AVRIL 1993

ECHELLE HORIZONTALE 1/5000

ECHELLE VERTICALE 1/500



ALTITUDES IGN 69	10.56	7.26	6.07	4.86	3.70	2.75	1.83	1.05	0.41	-0.09	-0.87
DISTANCES CUMULEES	0.00	15.10	33.54	52.88	75.74	105.41	140.17	172.69	211.65	242.21	281.10

CAMPAGNE N°20

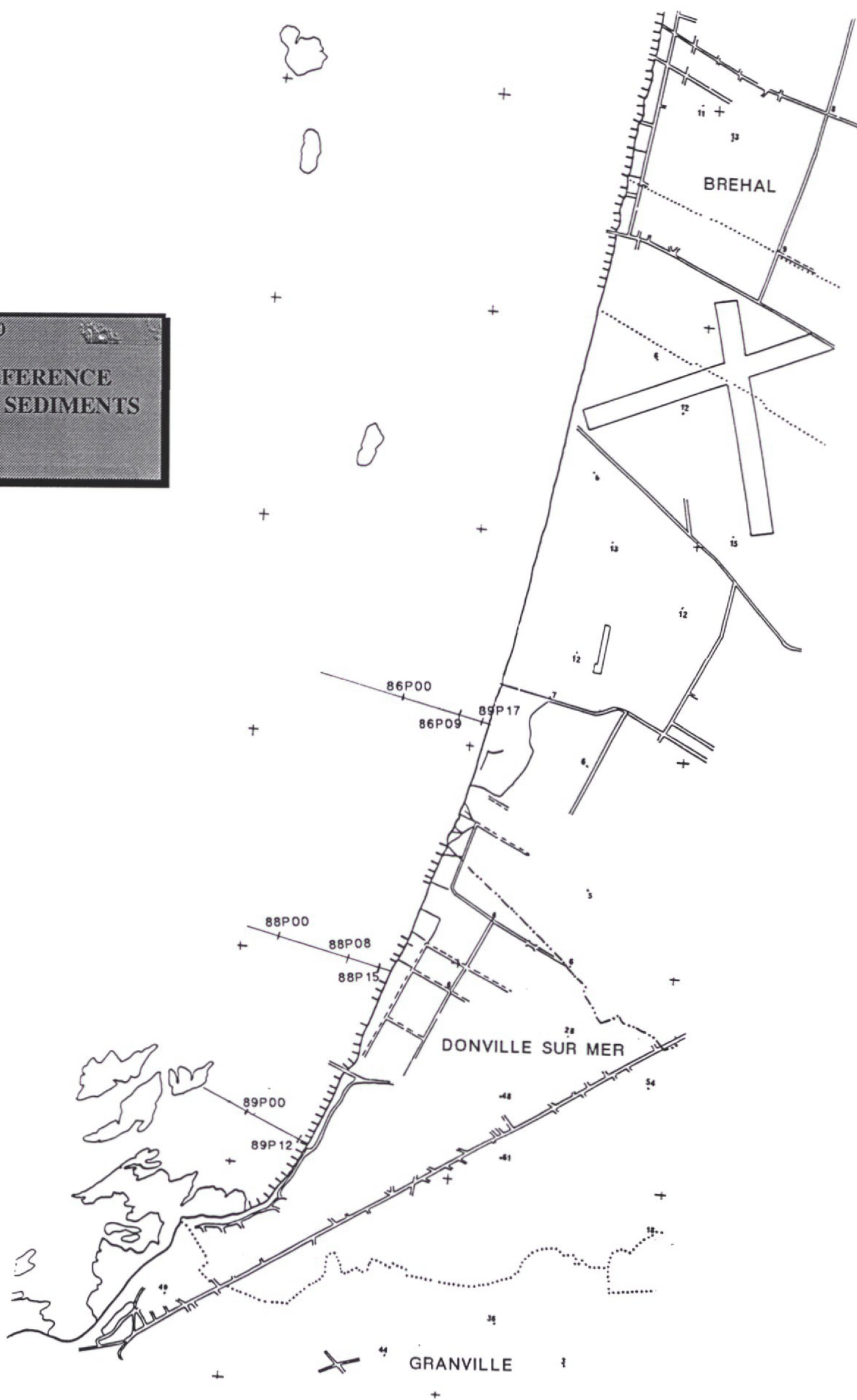
Breville sur Mer -
Donville les Bains

CARACTERISTIQUES
SEDIMENTOLOGIQUES

CAMPAGNE N°20

LOCALISATION ET REFERENCE
DES PRELEVEMENTS DE SEDIMENTS

Echelle: 1/20 000 ème



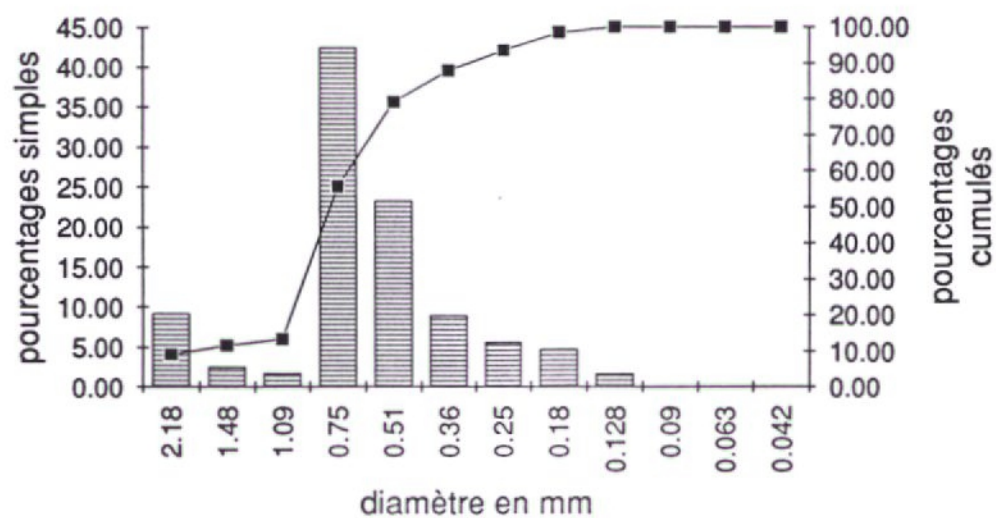
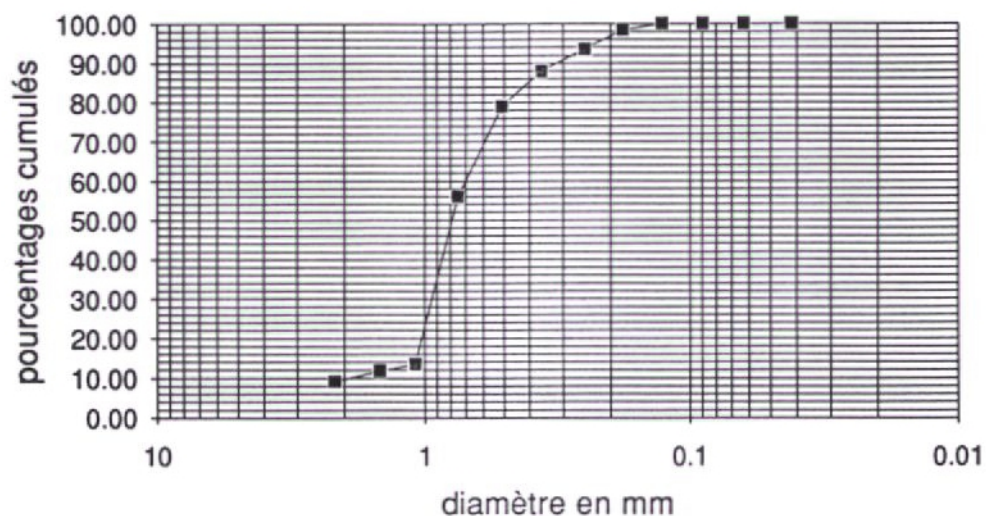
CAMPAGNE 20 : BREVILLE SUR MER - DONVILLE

REFERENCE DE L'ECHANTILLON

G86P00B

Poids total : 121.95

Modules	Ouvertures en mm	Pds simples	Pds cumulés ****	% simples	% cumulés
10	2.18	11.20	11.20	9.18	9.18
14	1.48	3.09	14.29	2.53	11.72
18	1.09	2.05	16.34	1.68	13.40
25	0.75	51.72	68.06	42.41	55.81
35	0.51	28.33	96.39	23.23	79.04
50	0.36	10.84	107.23	8.89	87.93
70	0.25	6.88	114.11	5.64	93.57
110	0.18	5.81	119.92	4.76	98.34
150	0.128	1.96	121.88	1.61	99.94
200	0.09	0.05	121.93	0.04	99.98
280	0.063	0.02	121.95	0.02	100.00
350	0.042	0.00	121.95	0.00	100.00
	finés	0.00	121.95	0.00	100.00



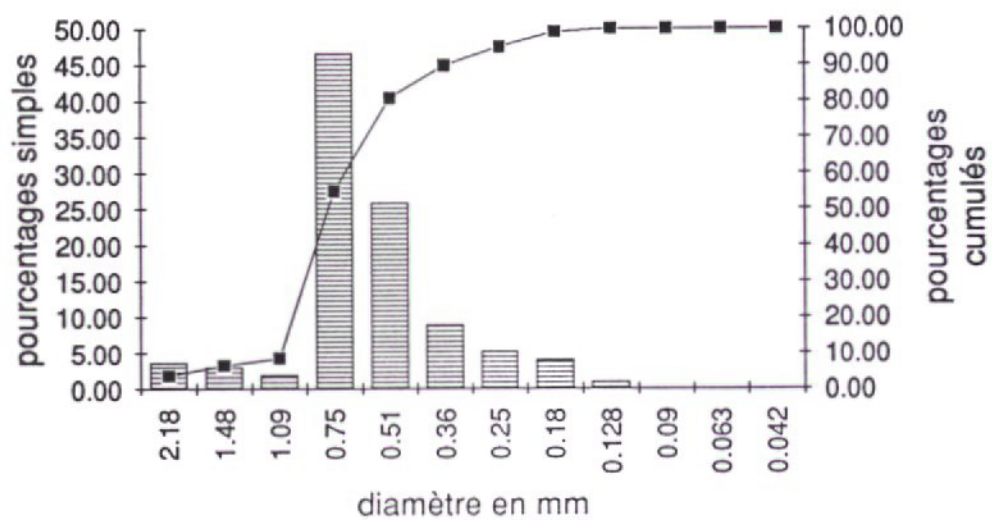
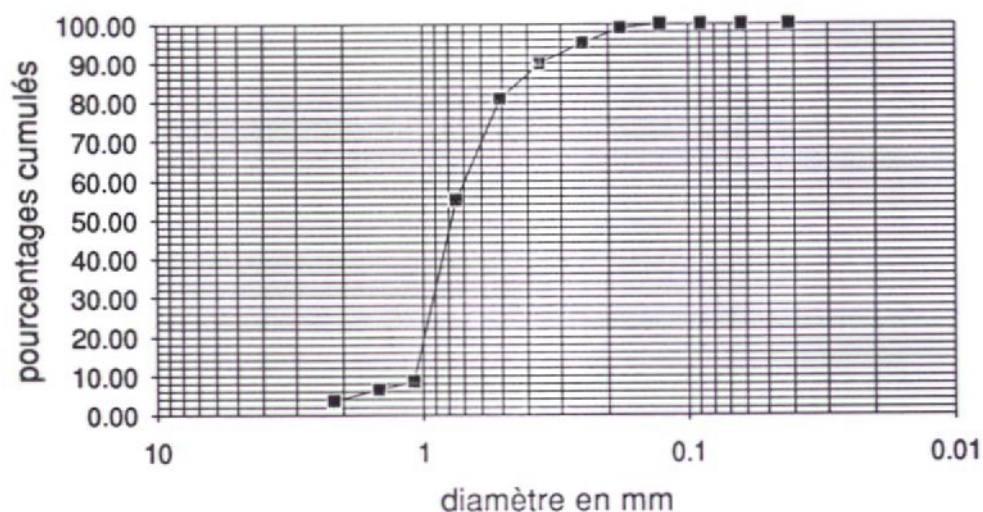
CAMPAGNE 20 : BREVILLE SUR MER - DONVILLE

REFERENCE DE L'ECHANTILLON

G86P10B

Poids total : 107.86

Modules	Ouvertures en mm	Pds simples	Pds cumulés ****	% simples	% cumulés
10	2.18	3.87	3.87	3.59	3.59
14	1.48	3.21	7.08	2.98	6.56
18	1.09	2.04	9.12	1.89	8.46
25	0.75	50.23	59.35	46.57	55.03
35	0.51	27.87	87.22	25.84	80.86
50	0.36	9.62	96.84	8.92	89.78
70	0.25	5.59	102.43	5.18	94.97
110	0.18	4.39	106.82	4.07	99.04
150	0.128	0.99	107.81	0.92	99.95
200	0.09	0.04	107.85	0.04	99.99
280	0.063	0.01	107.86	0.01	100.00
350	0.042	0.00	107.86	0.00	100.00
	finer	0.00	107.86	0.00	100.00



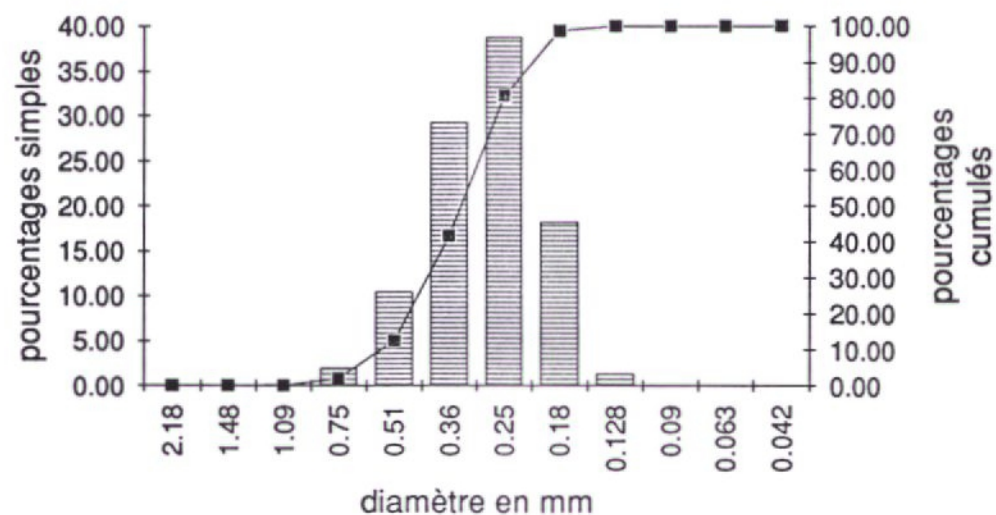
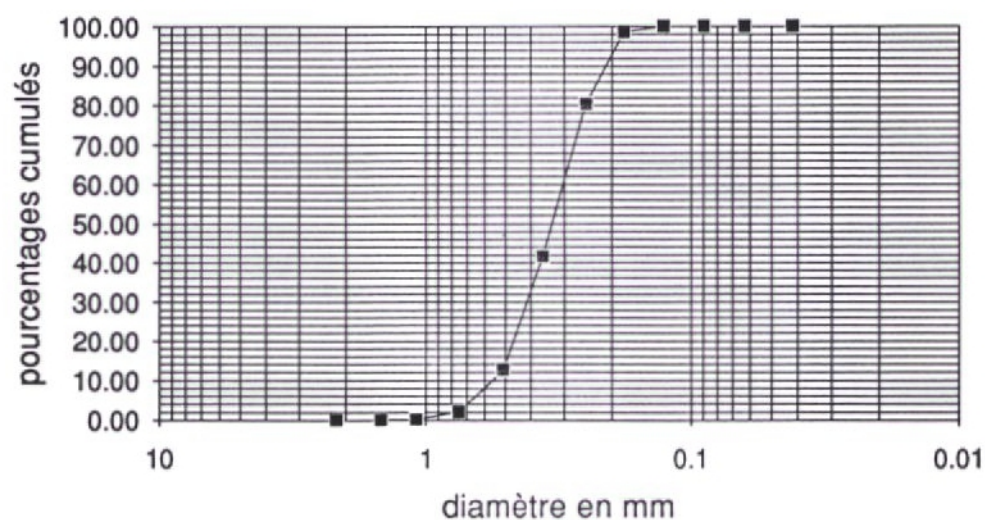
CAMPAGNE 20 : BREVILLE SUR MER - DONVILLE

REFERENCE DE L'ECHANTILLON

G86P17B

Poids total : 108.64

Modules	Ouvertures en mm	Pds simples	Pds cumulés ****	% simples	% cumulés
10	2.18	0.00	0.00	0.00	0.00
14	1.48	0.04	0.04	0.04	0.04
18	1.09	0.07	0.11	0.06	0.10
25	0.75	2.14	2.25	1.97	2.07
35	0.51	11.32	13.57	10.42	12.49
50	0.36	31.73	45.30	29.21	41.70
70	0.25	42.12	87.42	38.77	80.47
110	0.18	19.73	107.15	18.16	98.63
150	0.128	1.45	108.60	1.33	99.96
200	0.09	0.03	108.63	0.03	99.99
280	0.063	0.01	108.64	0.01	100.00
350	0.042	0.00	108.64	0.00	100.00
	fines	0.00	108.64	0.00	100.00



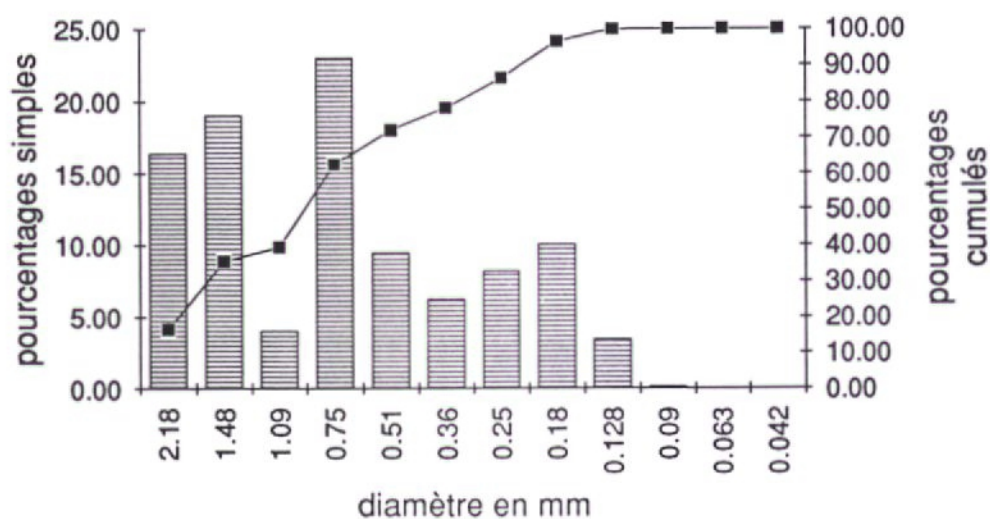
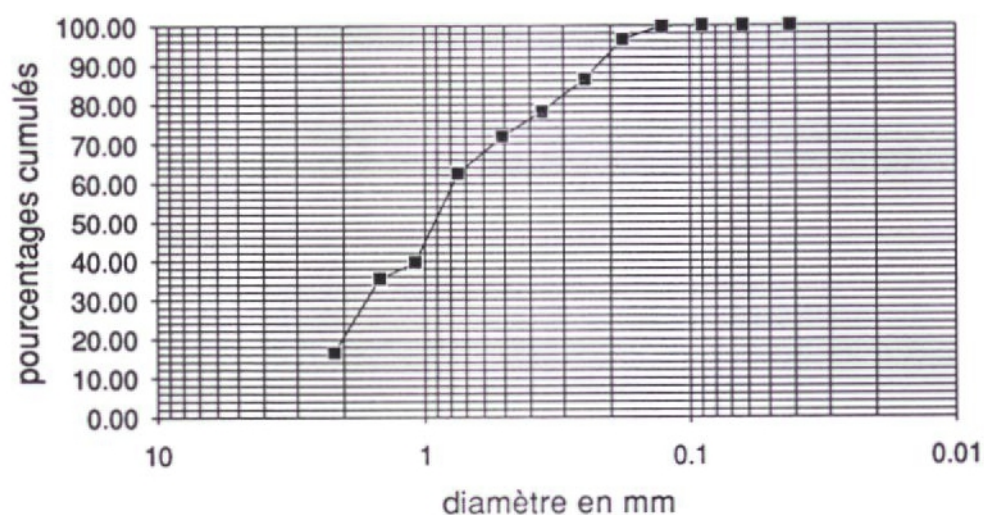
CAMPAGNE 20 : BREVILLE SUR MER - DONVILLE

REFERENCE DE L'ECHANTILLON

G88P00B

Poids total : 137.12

Modules	Ouvertures en mm	Pds simples	Pds cumulés ****	% simples	% cumulés
10	2.18	22.49	22.49	16.40	16.40
14	1.48	26.09	48.58	19.03	35.43
18	1.09	5.54	54.12	4.04	39.47
25	0.75	31.54	85.66	23.00	62.47
35	0.51	12.96	98.62	9.45	71.92
50	0.36	8.57	107.19	6.25	78.17
70	0.25	11.19	118.38	8.16	86.33
110	0.18	13.74	132.12	10.02	96.35
150	0.128	4.74	136.86	3.46	99.81
200	0.09	0.20	137.06	0.15	99.96
280	0.063	0.02	137.08	0.01	99.97
350	0.042	0.02	137.10	0.01	99.99
	fin	0.02	137.12	0.01	100.00



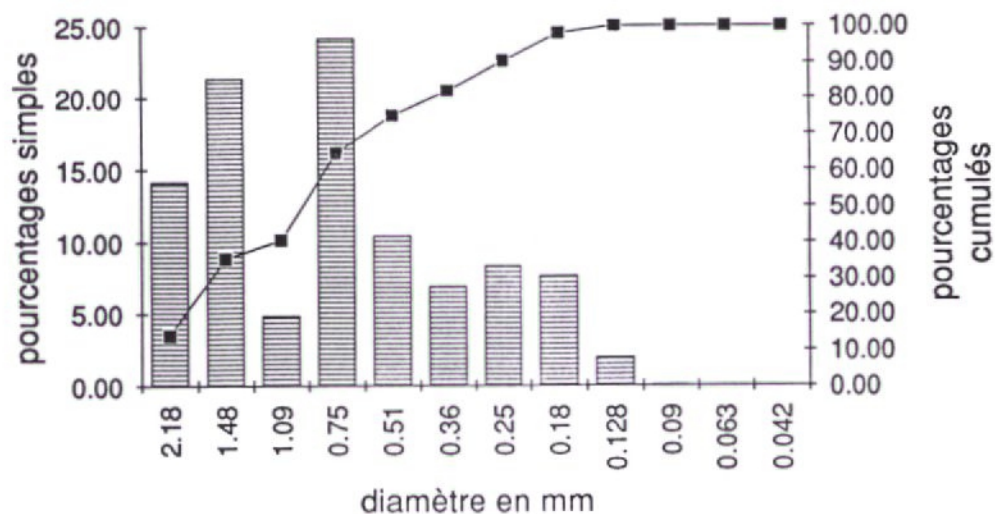
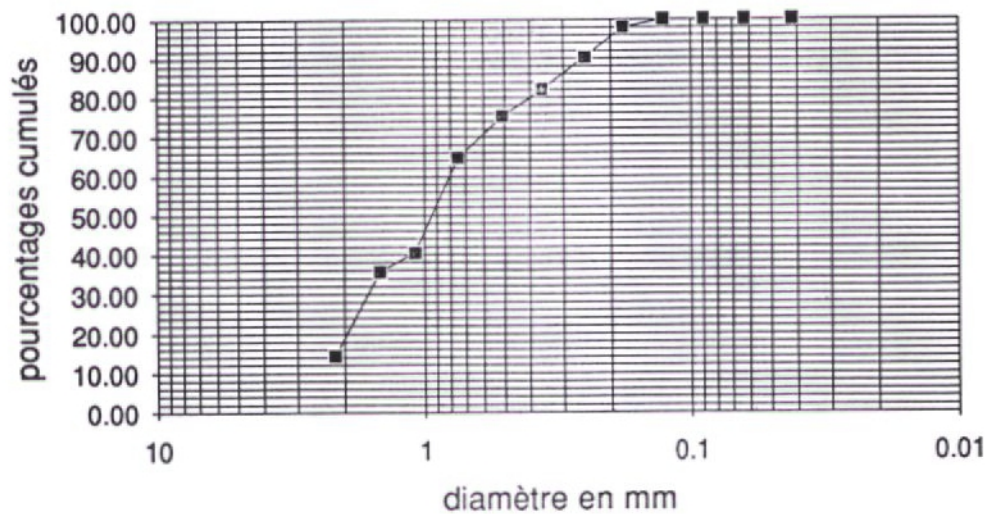
CAMPAGNE 20 : BREVILLE SUR MER - DONVILLE

REFERENCE DE L'ECHANTILLON

G88P08B

Poids total : 123.20

Modules	Ouvertures en mm	Pds simples	Pds cumulés ****	% simples	% cumulés
10	2.18	17.47	17.47	14.18	14.18
14	1.48	26.34	43.81	21.38	35.56
18	1.09	6.01	49.82	4.88	40.44
25	0.75	29.79	79.61	24.18	64.62
35	0.51	12.86	92.47	10.44	75.06
50	0.36	8.54	101.01	6.93	81.99
70	0.25	10.25	111.26	8.32	90.31
110	0.18	9.43	120.69	7.65	97.96
150	0.128	2.40	123.09	1.95	99.91
200	0.09	0.08	123.17	0.06	99.98
280	0.063	0.02	123.19	0.02	99.99
350	0.042	0.01	123.20	0.01	100.00
	finés	0.00	123.20	0.00	100.00



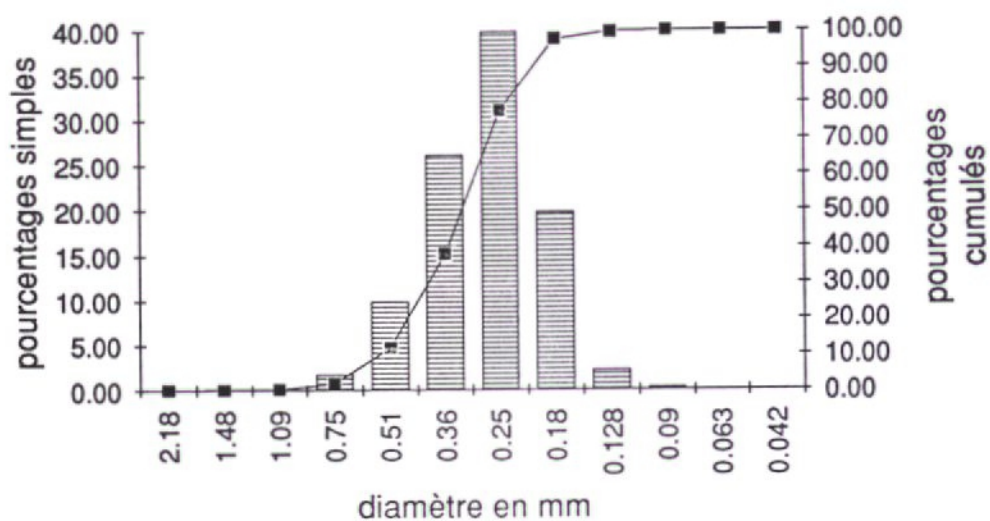
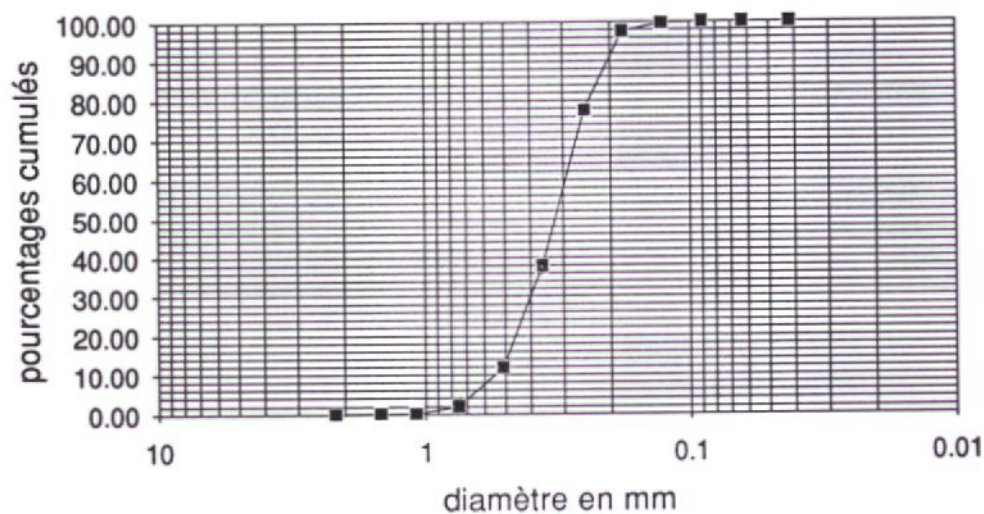
CAMPAGNE 20 : BREVILLE SUR MER - DONVILLE

REFERENCE DE L'ECHANTILLON

G88P15B

Poids total : 106.97

Modules	Ouvertures en mm	Pds simples	Pds cumulés ****	% simples	% cumulés
10	2.18	0.00	0.00	0.00	0.00
14	1.48	0.12	0.12	0.11	0.11
18	1.09	0.05	0.17	0.05	0.16
25	0.75	1.88	2.05	1.76	1.92
35	0.51	10.52	12.57	9.83	11.75
50	0.36	27.87	40.44	26.05	37.80
70	0.25	42.58	83.02	39.81	77.61
110	0.18	21.22	104.24	19.84	97.45
150	0.128	2.36	106.60	2.21	99.65
200	0.09	0.30	106.90	0.28	99.93
280	0.063	0.05	106.95	0.05	99.98
350	0.042	0.02	106.97	0.02	100.00
	finés	0.00	106.97	0.00	100.00



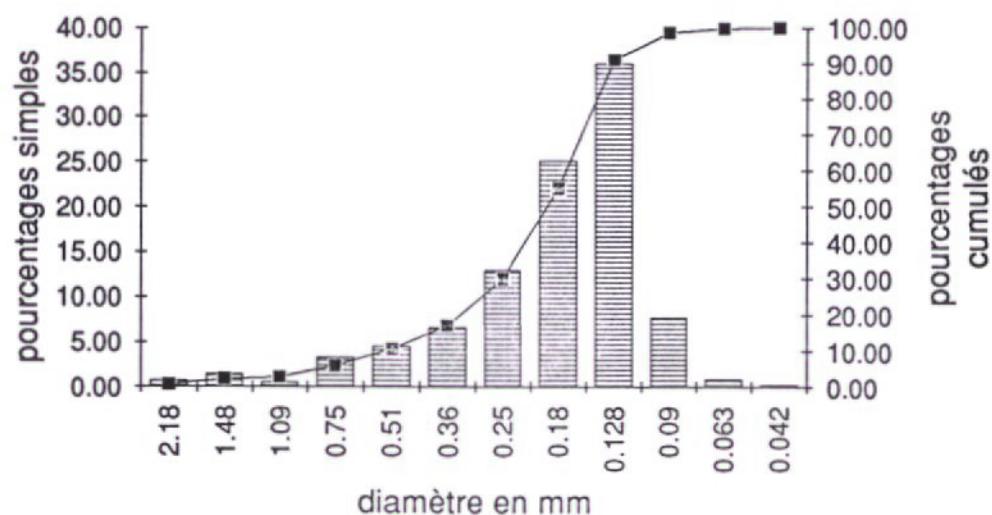
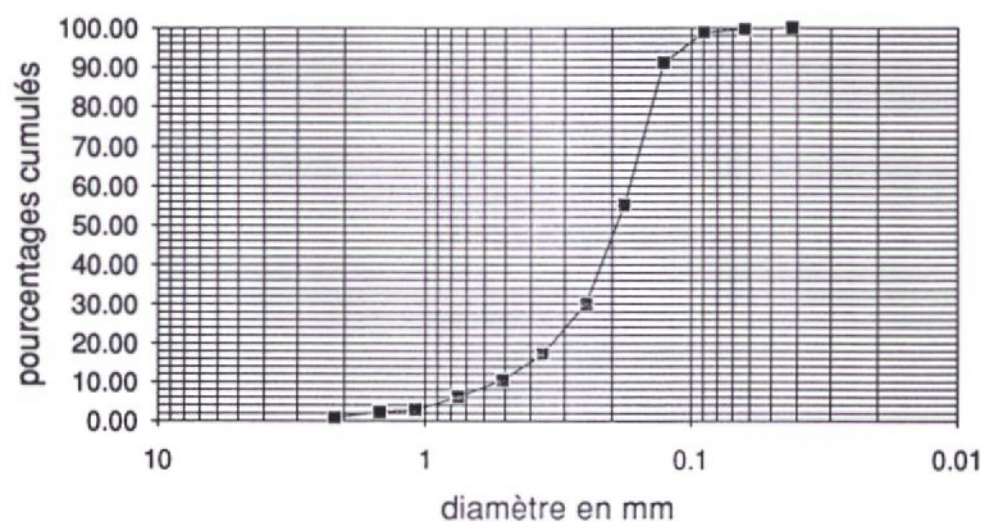
CAMPAGNE 20 : BREVILLE SUR MER - DONVILLE

REFERENCE DE L'ECHANTILLON

G89P00B

Poids total : 113.97

Modules	Ouvertures en mm	Pds simples	Pds cumulés ****	% simples	% cumulés
10	2.18	0.85	0.85	0.75	0.75
14	1.48	1.65	2.50	1.45	2.19
18	1.09	0.58	3.08	0.51	2.70
25	0.75	3.74	6.82	3.28	5.98
35	0.51	5.14	11.96	4.51	10.49
50	0.36	7.47	19.43	6.55	17.05
70	0.25	14.73	34.16	12.92	29.97
110	0.18	28.59	62.75	25.09	55.06
150	0.128	41.01	103.76	35.98	91.04
200	0.09	8.80	112.56	7.72	98.76
280	0.063	1.03	113.59	0.90	99.67
350	0.042	0.27	113.86	0.24	99.90
	fines	0.11	113.97	0.10	100.00



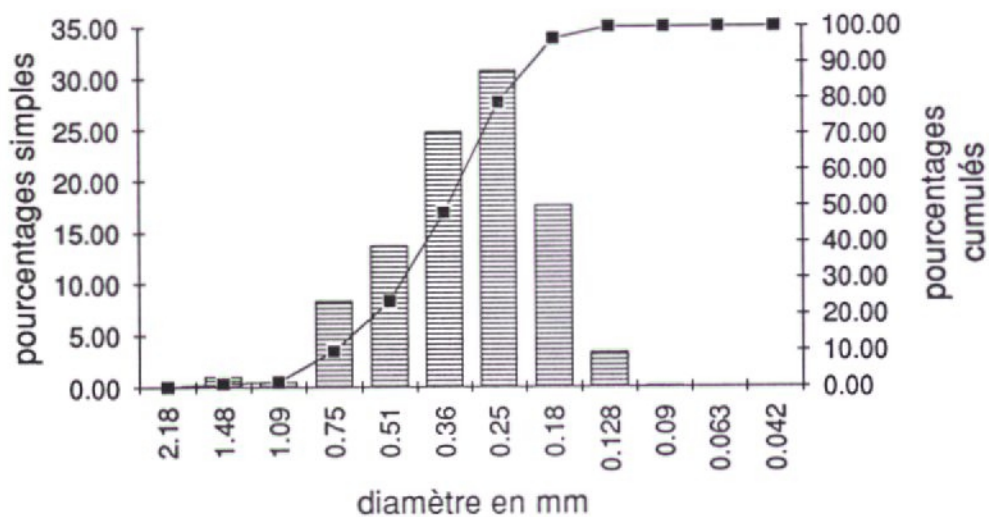
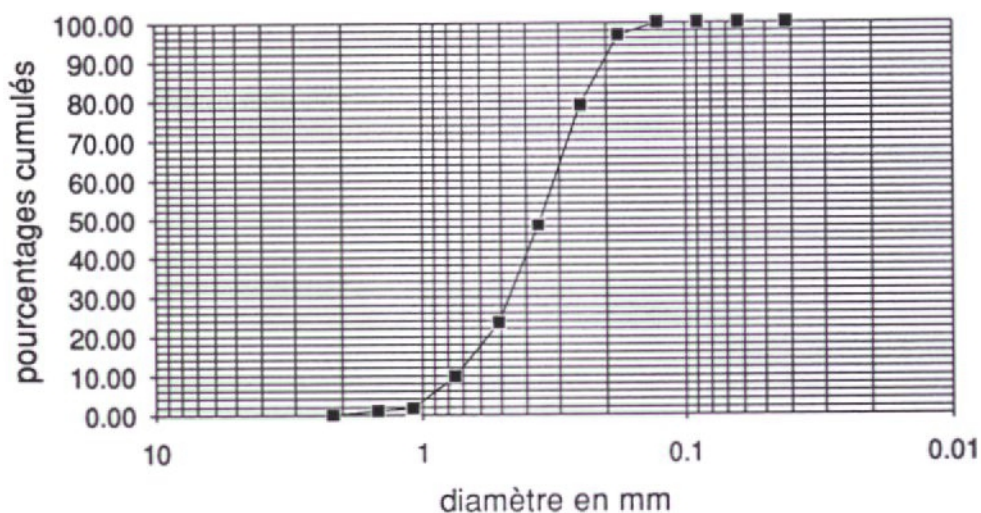
CAMPAGNE 20 : BREVILLE SUR MER - DONVILLE

REFERENCE DE L'ECHANTILLON

G89P12B

Poids total : 114.22

Modules	Ouvertures en mm	Pds simples	Pds cumulés ****	% simples	% cumulés
10	2.18	0.00	0.00	0.00	0.00
14	1.48	1.15	1.15	1.01	1.01
18	1.09	0.62	1.77	0.54	1.55
25	0.75	9.47	11.24	8.29	9.84
35	0.51	15.63	26.87	13.68	23.52
50	0.36	28.27	55.14	24.75	48.28
70	0.25	35.11	90.25	30.74	79.01
110	0.18	20.11	110.36	17.61	96.62
150	0.128	3.79	114.15	3.32	99.94
200	0.09	0.06	114.21	0.05	99.99
280	0.063	0.01	114.22	0.01	100.00
350	0.042	0.00	114.22	0.00	100.00
	fin	0.00	114.22	0.00	100.00



CAMPAGNE N°20

Breville sur Mer -
Donville les Bains

COURANTOLOGIE



InterOcean Systems, Inc.

C3BREA01

Samples averaged : 1

Model S4 Current Meter #19261544

File : E:\c3BREA01.S4B

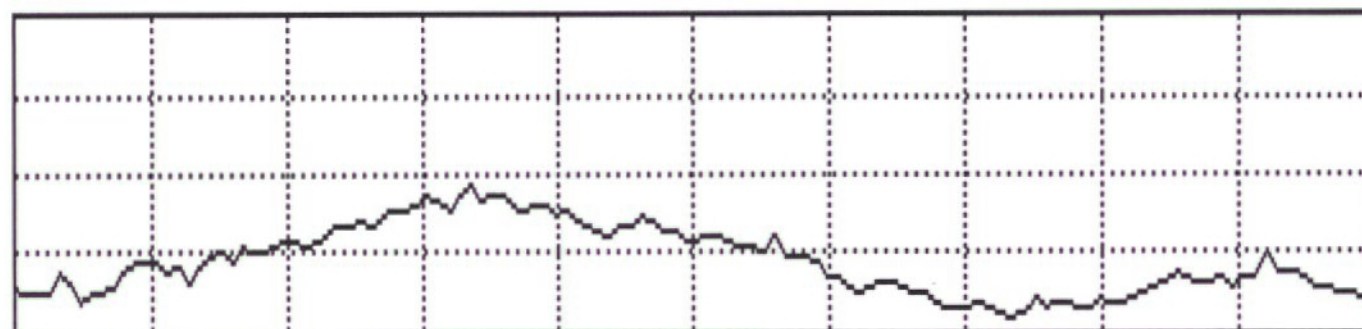
Mean : 10.93

S
p
e
e
d

50.0
cm/s

25.0

0.0



Mean : 352.21

D
i
r
.

360
deg

180

0



35
4/07/93 19:08:00

Samples

160
4/07/93 23:18:00



InterOcean Systems, Inc.

C3BREA01

Samples averaged : 1

Model S4 Current Meter #19261544

File : E:\c3BREA01.S4B

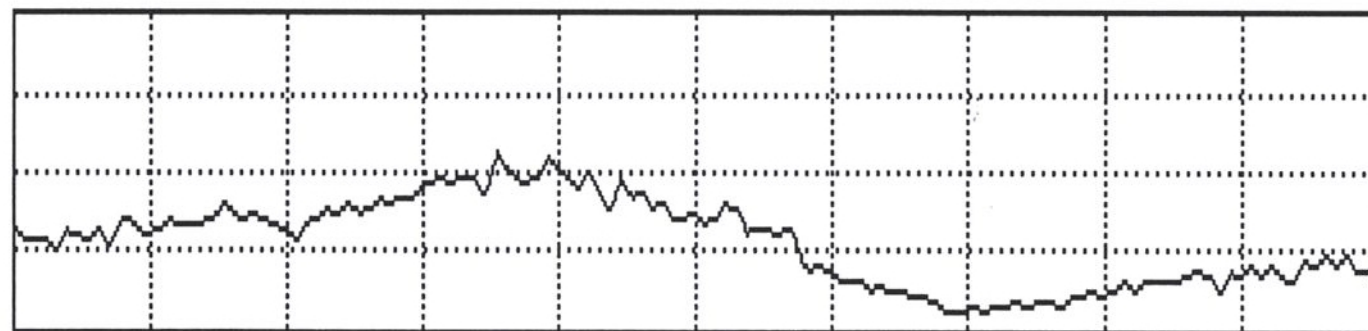
Mean : 13.78

S
p
e
e
d

50.0
cm/s

25.0

0.0



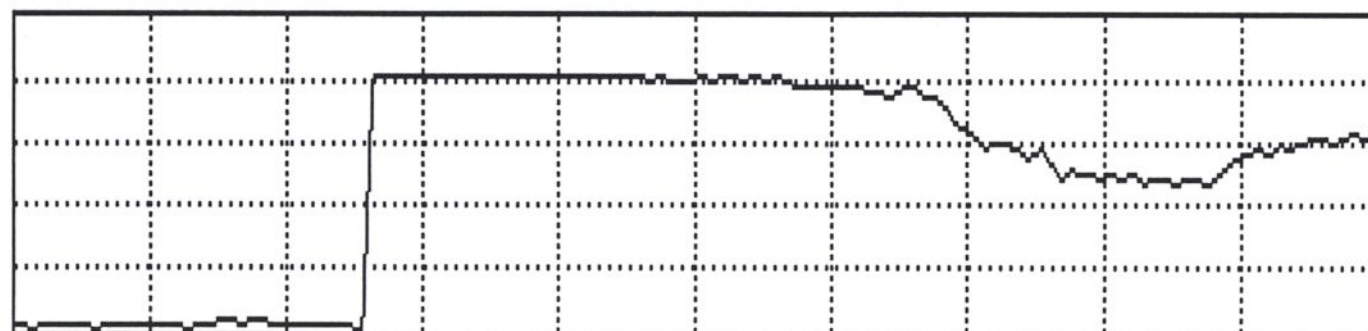
Mean : 356.95

D
i
r
.

360
deg

180

0



405
4/08/93 07:28:00

Samples

535
4/08/93 11:48:00



InterOcean Systems, Inc.
H1DONB01
Samples averaged : 120

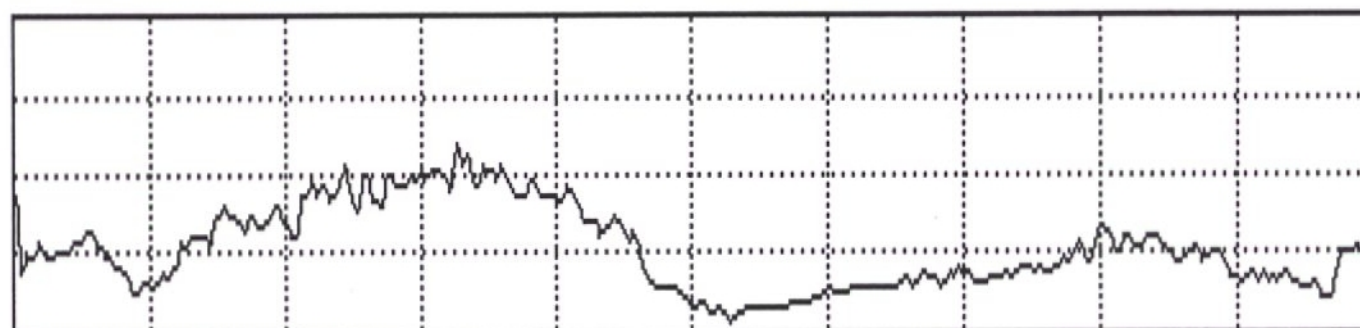
Model S4 Current Meter #19261540
File : E:H1DONB01.S4B
Mean : 12.92

S
p
e
e
d

50.0
cm/s

25.0

0.0



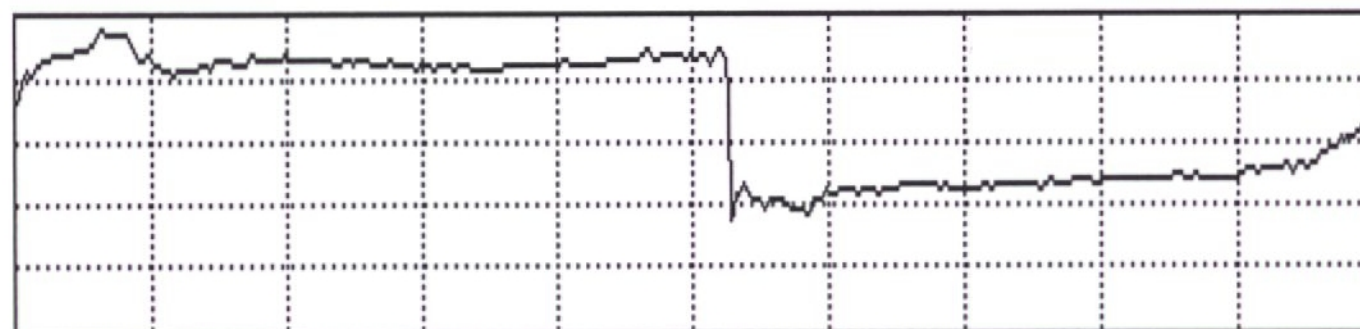
Mean : 16.66

D
i
r
.

360
deg

180

0



8000

4/07/93 18:12:40

Samples

42100

4/08/93 02:08:50



InterOcean Systems, Inc.

H1DONB01

Samples averaged : 120

Model S4 Current Meter #19261540

File : E:H1DONB01.S4B

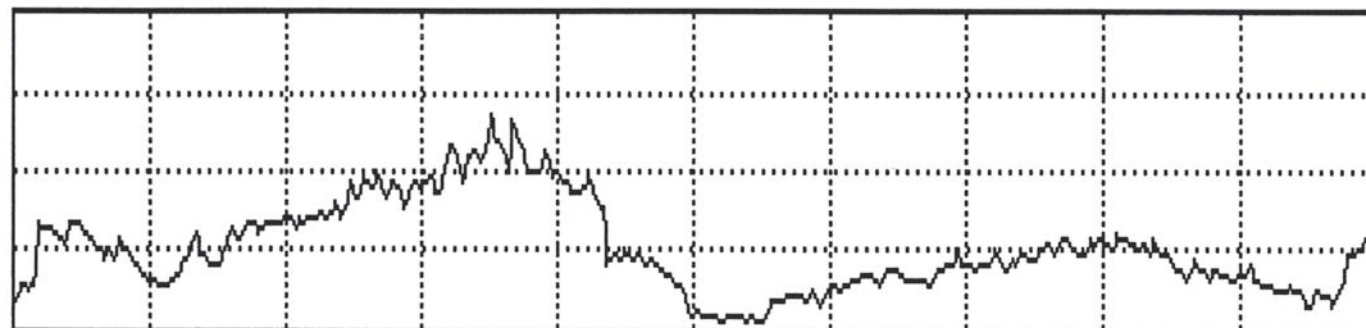
Mean : 12.76

S
p
e
e
d

50.0
cm/s

25.0

0.0



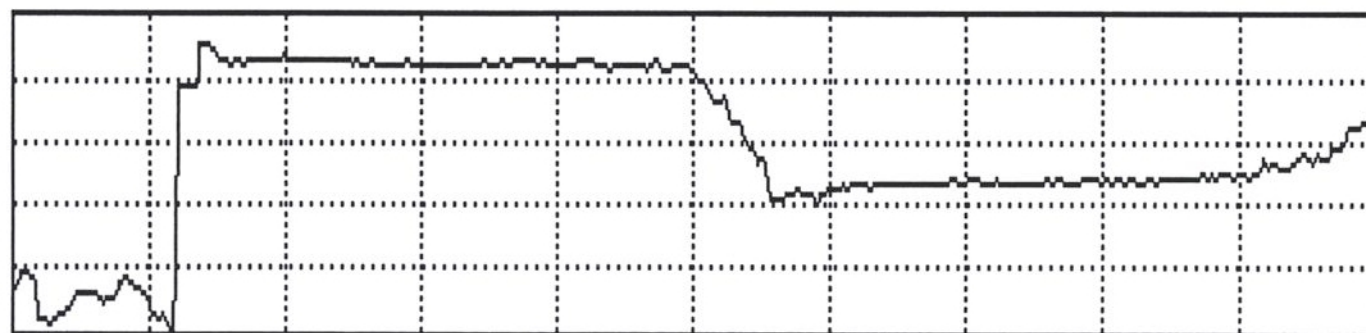
Mean : 17.52

D
i
r
.

360
deg

180

0



60000

4/08/93 06:13:00

Samples

96000

4/08/93 14:37:00



InterOcean Systems, Inc.
H4DONC01
Samples averaged : 120

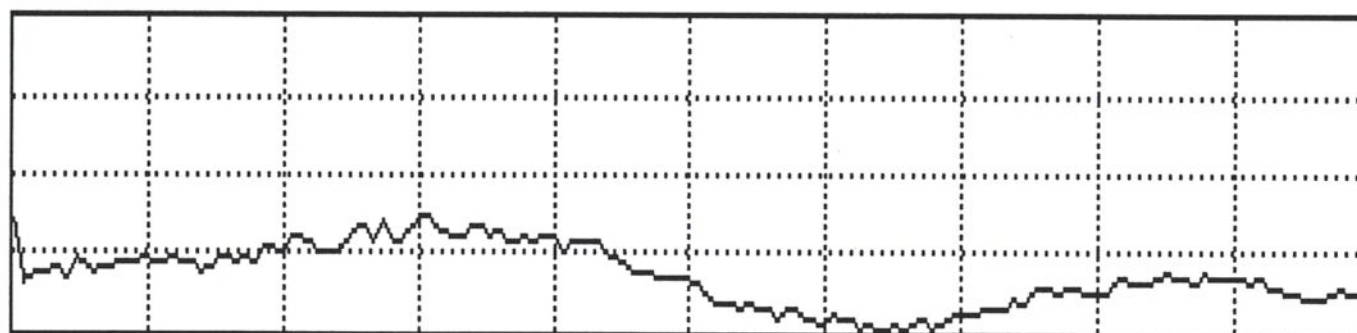
Model S4 Current Meter #05451482
File : E:H4DONC01.S4B
Mean : 8.66

S
p
e
e
d

50.0
cm/s

25.0

0.0



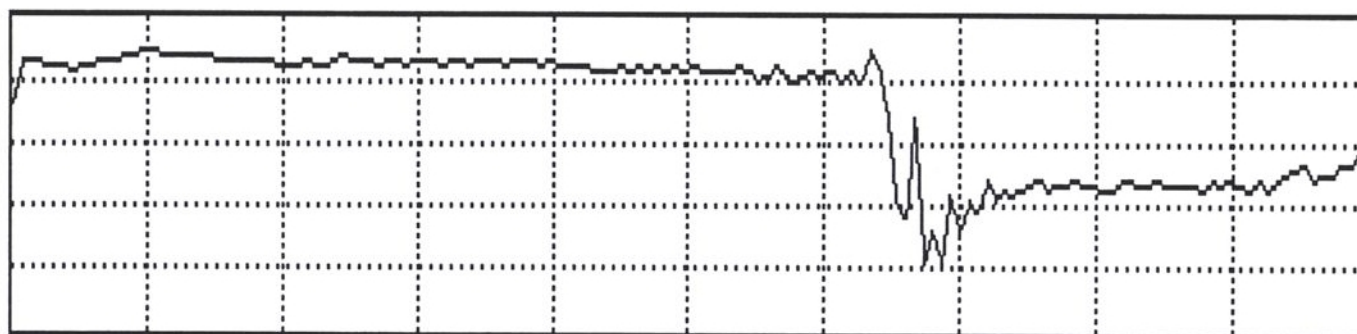
Mean : 23.48

D
i
r
.

360
deg

180

0



6000

4/07/93 19:19:00

Samples

24000

4/07/93 23:31:00



InterOcean Systems, Inc.

H4DONC01

Samples averaged : 120

Model S4 Current Meter #05451482

File : E:H4DONC01.S4B

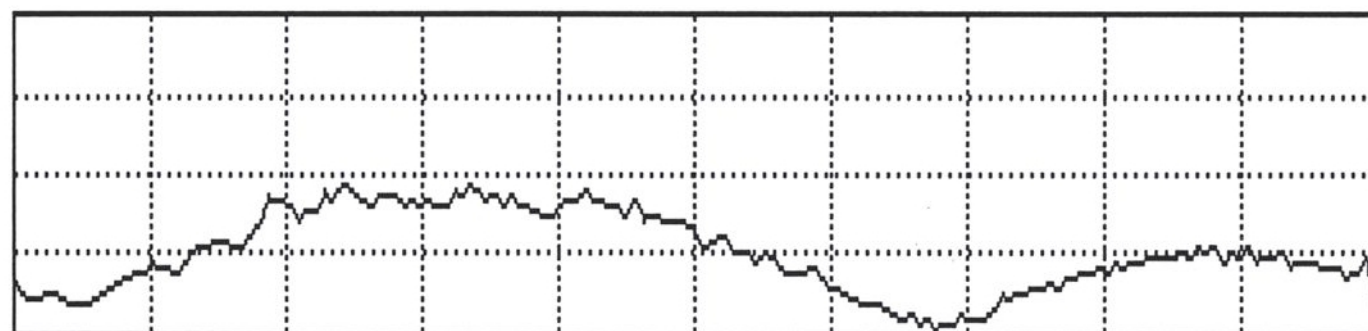
Mean : 12.39

S
p
e
e
d

50.0
cm/s

25.0

0.0



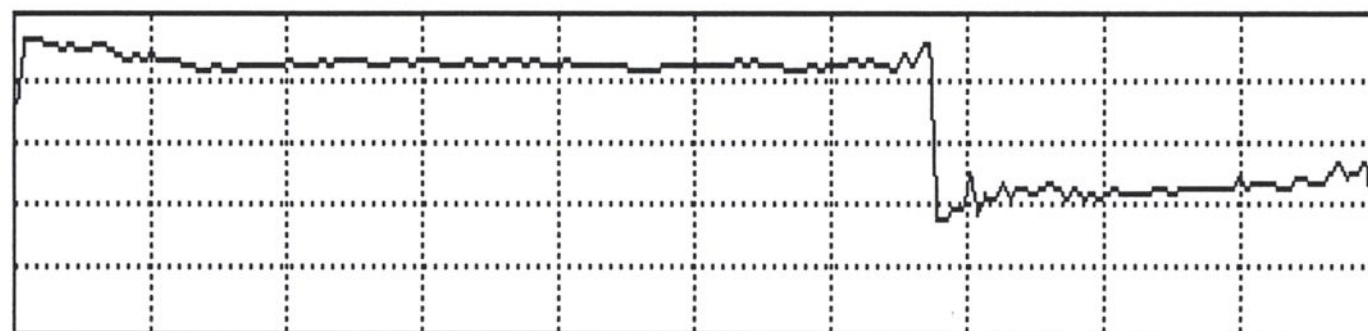
Mean : 27.20

D
i
r
.

360
deg

180

0



58000

4/08/93 07:21:20

Samples

78000

4/08/93 12:01:00



InterOcean Systems, Inc.

C2BREA03

Samples averaged : 1

Model S4 Current Meter #19261554

File : E:\C2BREA03.S4B

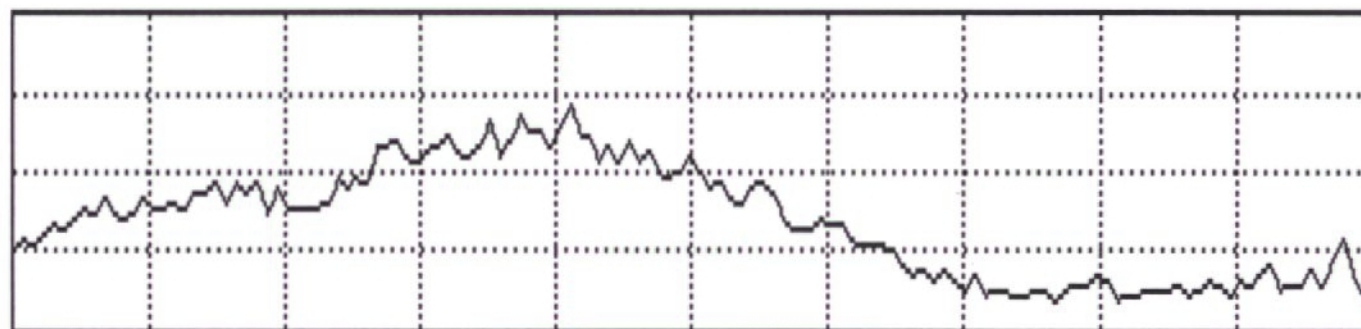
Mean : 17.21

S
p
e
e
d

50.0
cm/s

25.0

0.0



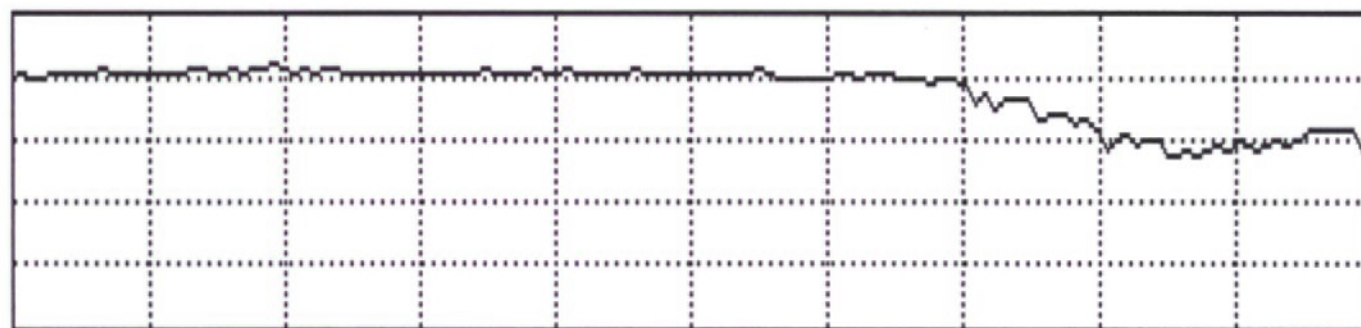
Mean : 2.42

D
i
r
.

360
deg

180

0



22
4/08/93 19:42:00

Samples

156
4/09/93 00:10:00



InterOcean Systems, Inc.

C2BREA03

Samples averaged : 1

Model S4 Current Meter #19261554

File : E:\C2BREA03.S4B

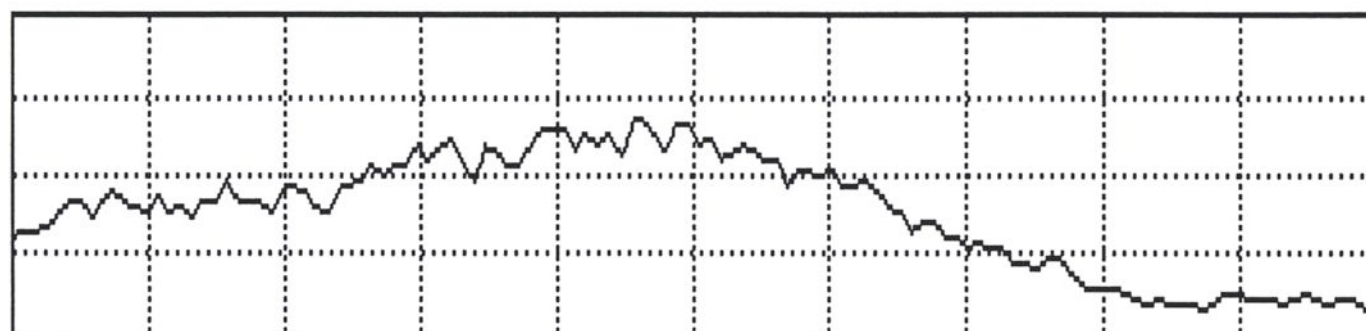
Mean : 19.18

S
p
e
e
d

50.0
cm/s

25.0

0.0



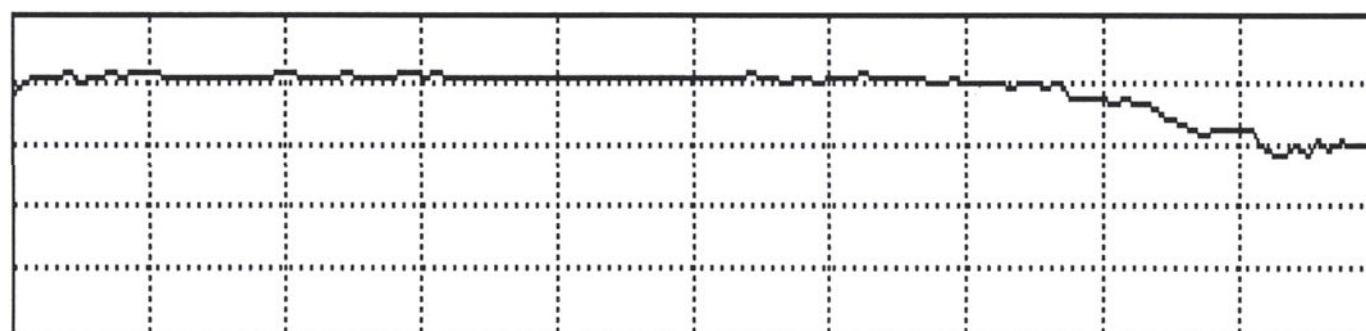
Mean : 5.19

D
i
r
.

360
deg

180

0



389
4/09/93 07:56:00

Samples

510
4/09/93 11:58:00

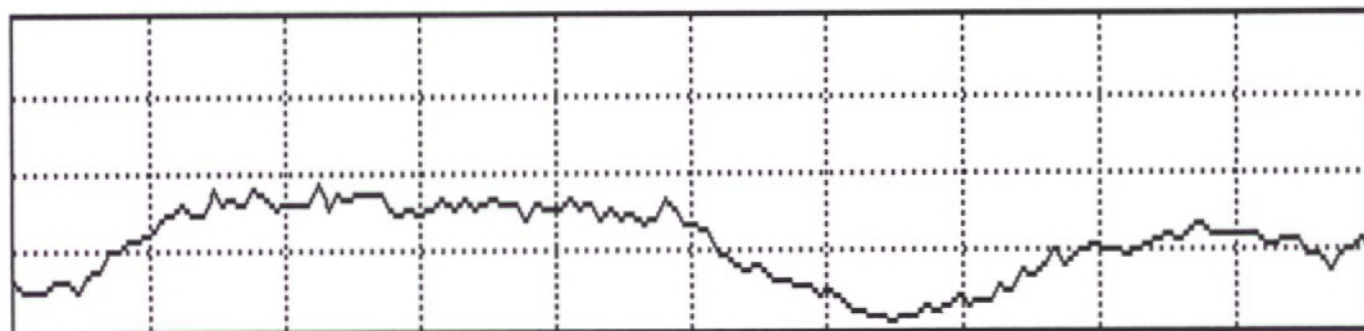


InterOcean Systems, Inc.
C1DONC03
Samples averaged : 1

Model S4 Current Meter #19261543
File : E:C1DONC03.S4B
Mean : 13.60

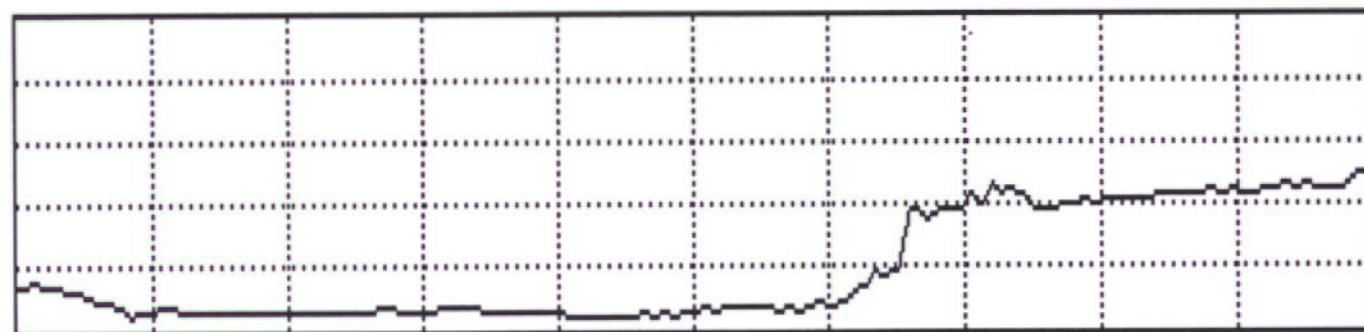
S
p
e
e
d

50.0
cm/s
25.0
0.0



D
i
r
.

360
deg
180
0



30
4/08/93 19:58:00

159
4/09/93 00:16:00



InterOcean Systems, Inc.

C1DONC03

Samples averaged : 1

Model S4 Current Meter #19261543

File : E:C1DONC03.S4B

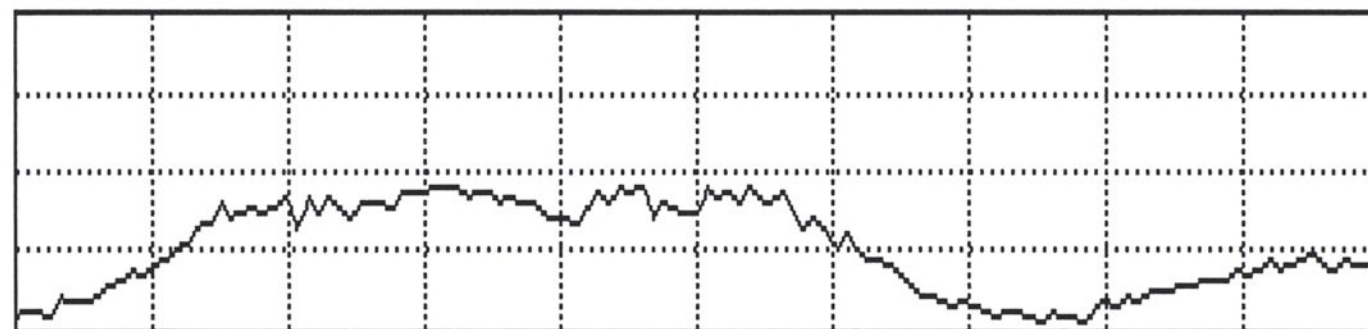
Mean : 12.77

S
p
e
e
d

50.0
cm/s

25.0

0.0



Mean : 33.00

D
i
r
.

360
deg

180

0



390
4/09/93 07:58:00

Samples

516
4/09/93 12:10:00



InterOcean Systems, Inc.
CIDONC03
Samples averaged : 1

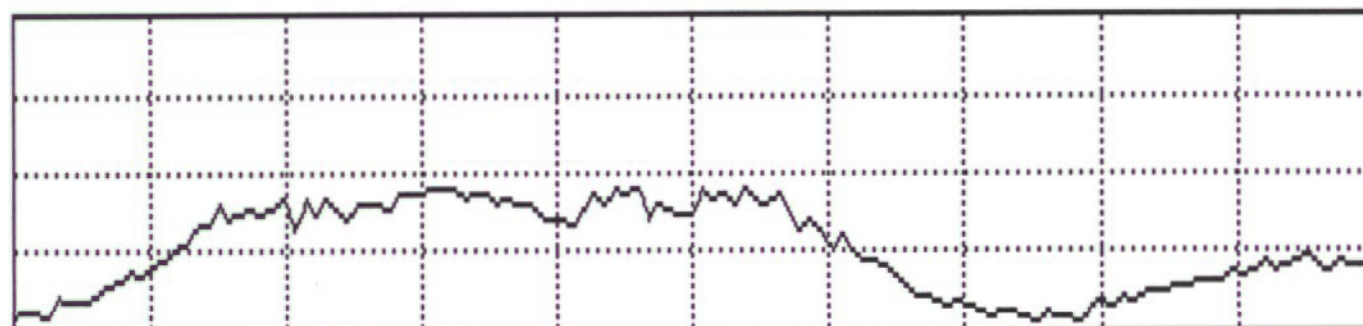
Model S4 Current Meter #19261543
File : E:\CIDONC03.S4B
Mean : 12.77

S
p
e
e
d

50.0
cm/s

25.0

0.0



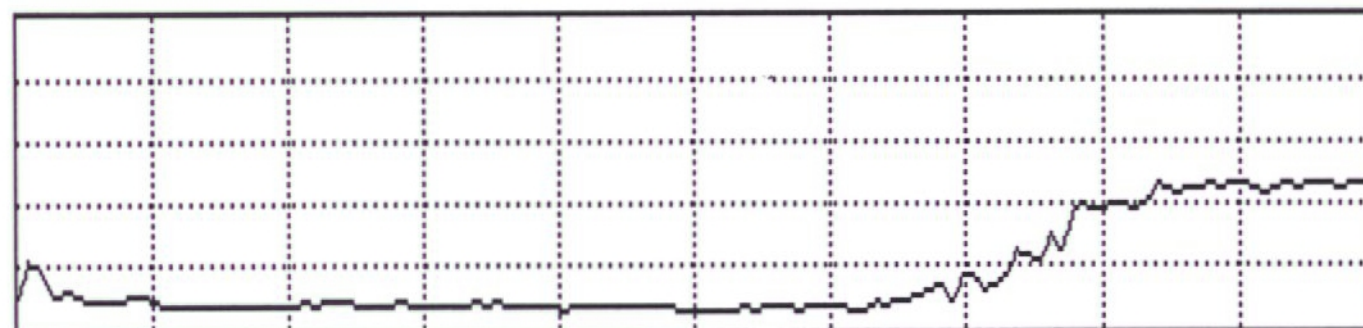
Mean : 33.00

D
i
r
.

360
deg

180

0



390
4/09/93 07:58:00

Samples

516
4/09/93 12:10:00



InterOcean Systems, Inc.

H4DONB03

Samples averaged : 120

Model S4 Current Meter #05451482

File : E:H4DONB03.S4B

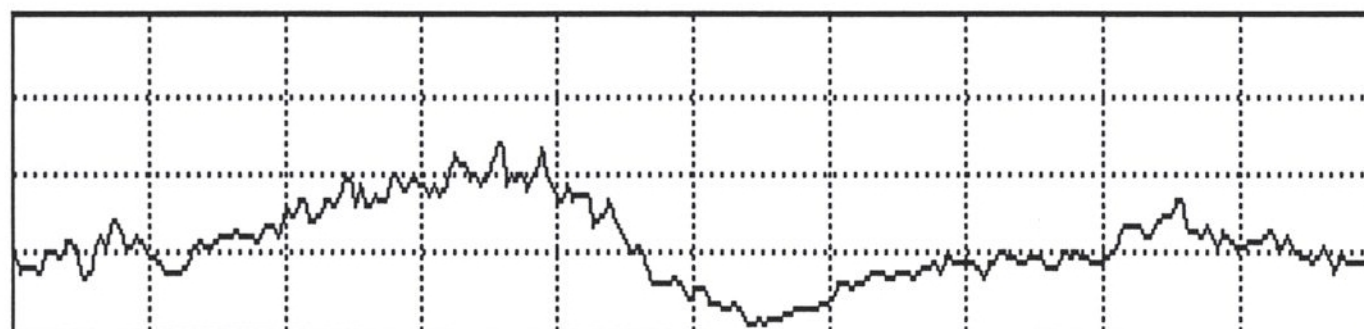
Mean : 13.81

S
p
e
e
d

50.0
cm/s

25.0

0.0



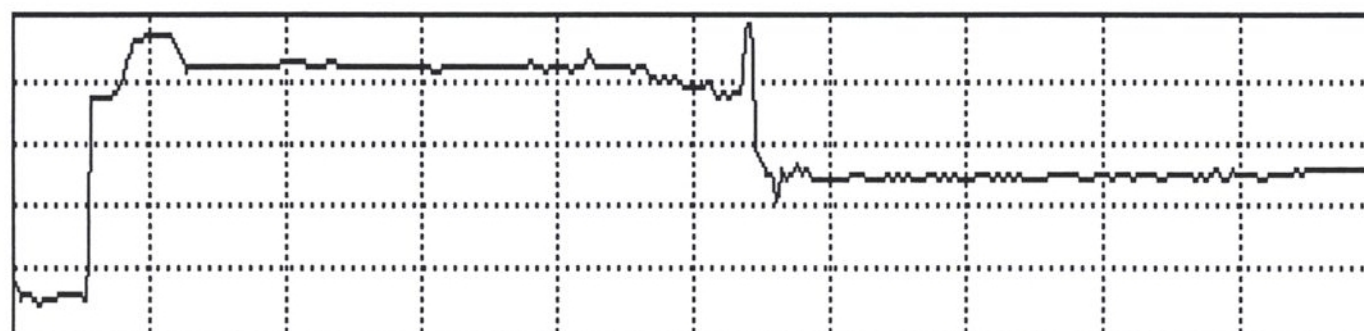
Mean : 359.73

D
i
r
.

360
deg

180

0



7000

4/08/93 19:04:20

Samples

38500

4/09/93 02:14:50



InterOcean Systems, Inc.
H4DONB03
Samples averaged : 120

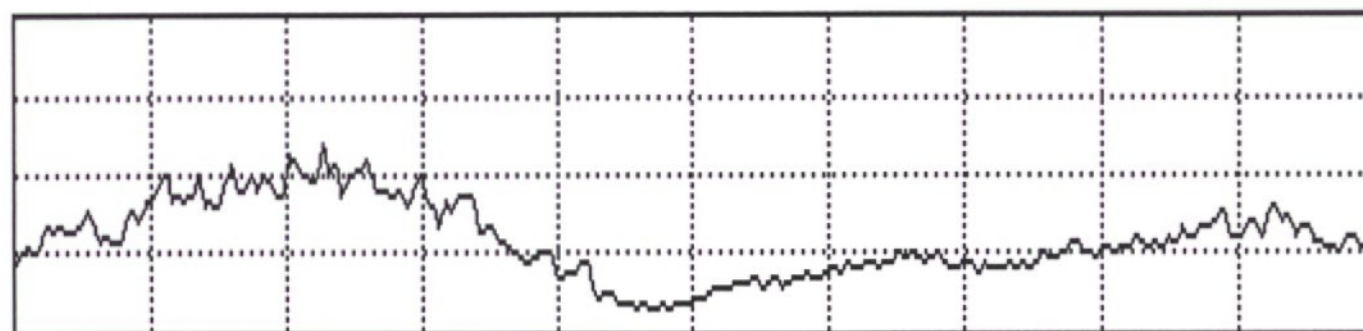
Model S4 Current Meter #05451482
File : E:H4DONB03.S4B
Mean : 14.46

S
p
e
e
d

50.0
cm/s

25.0

0.0



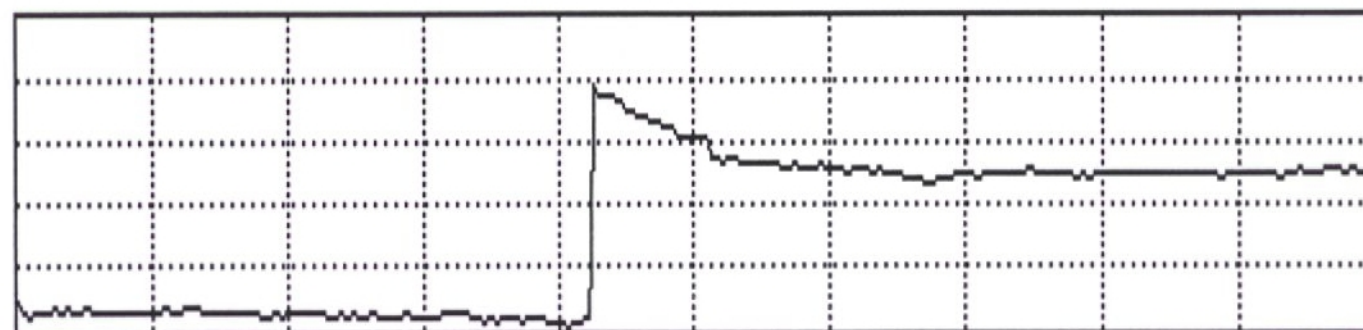
Mean : 333.80

D
i
r
.

360
deg

180

0



65000

4/09/93 08:31:40

Samples

90000

4/09/93 14:11:00

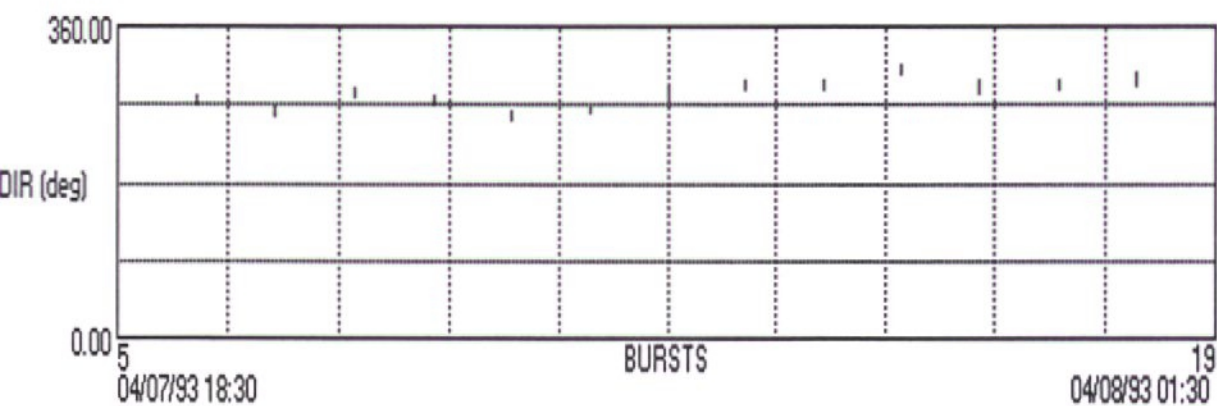
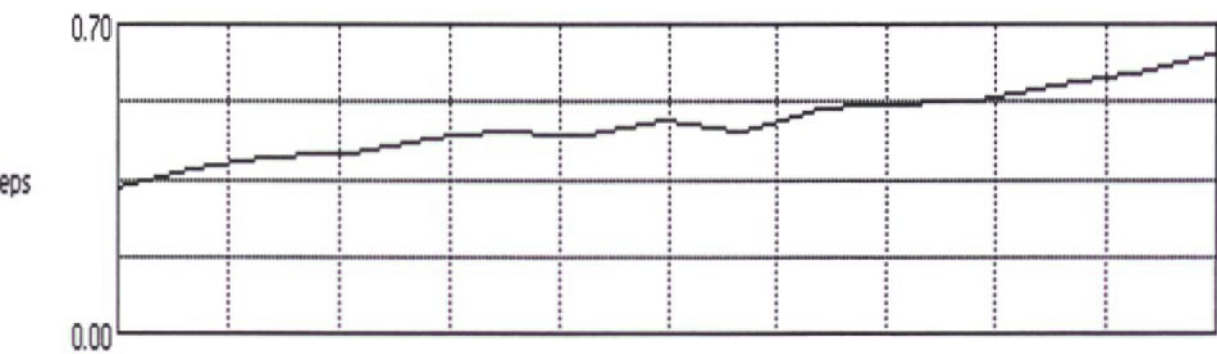
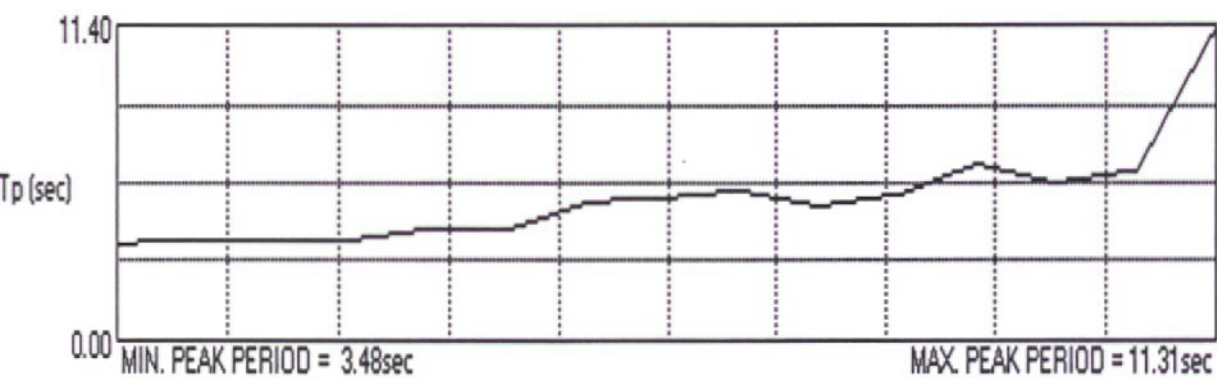
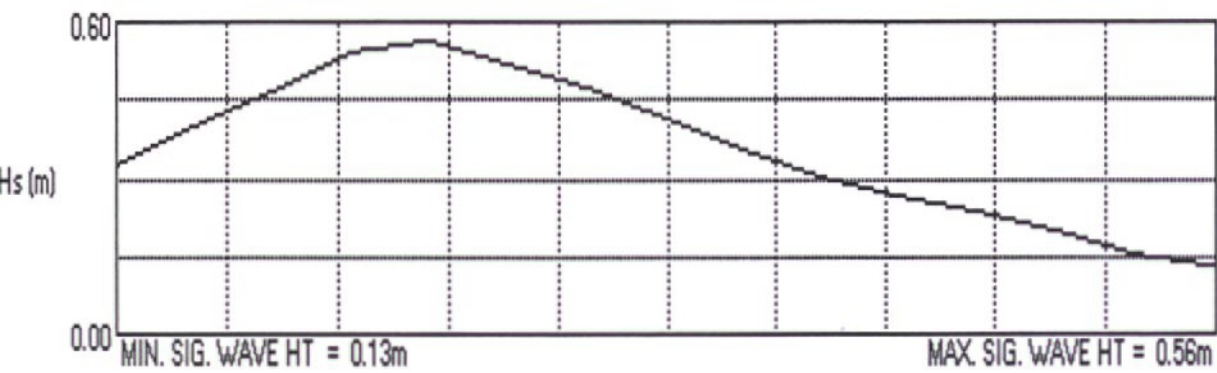
CAMPAGNE N°20

Breville sur Mer -
Donville les Bains

MESURES DE HOULE
DIRECTIONNELLE

WAVE PARAMETERS

FILE: H1DONB01.S4B

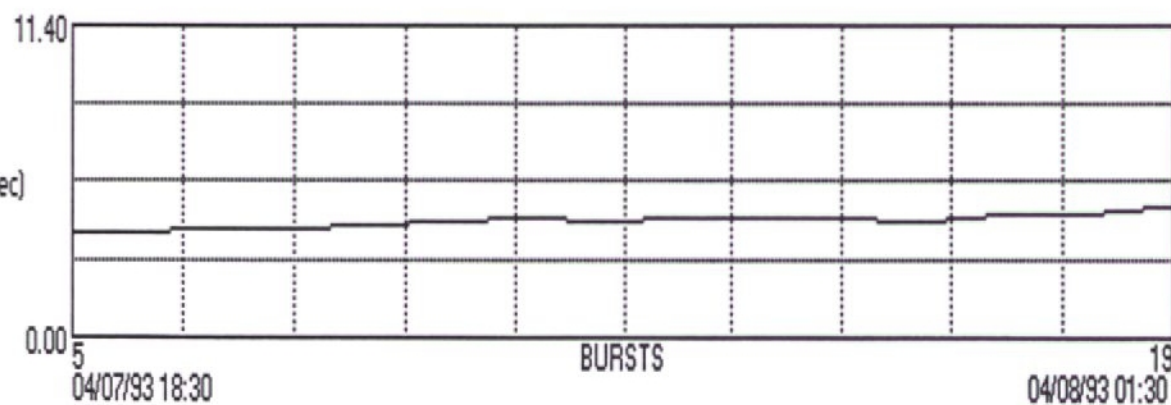
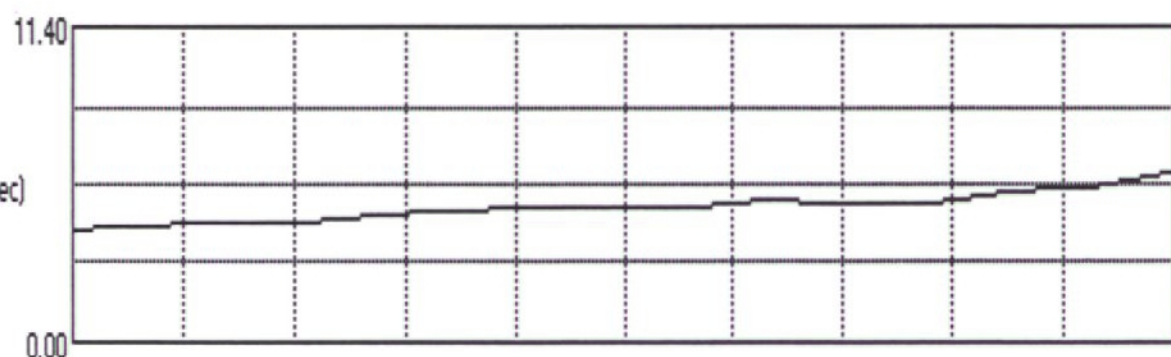
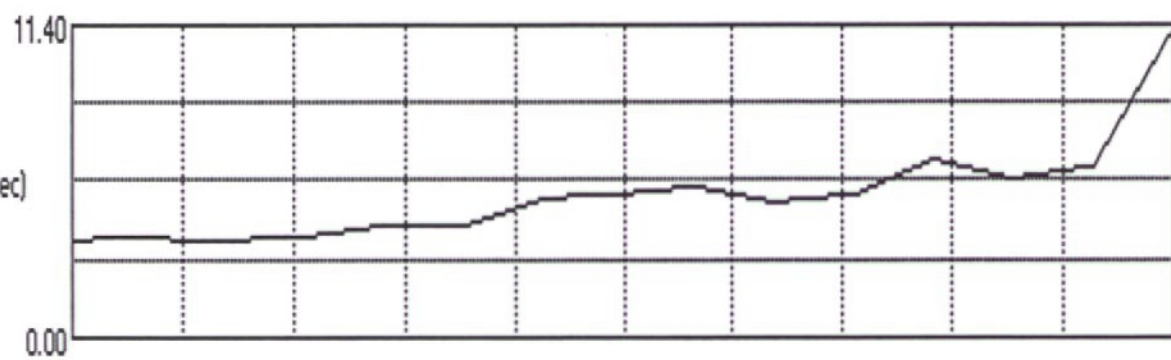




InterOcean Systems, Inc

WAVE PERIOD ESTIMATES

FILE: H1DONB01.S4B



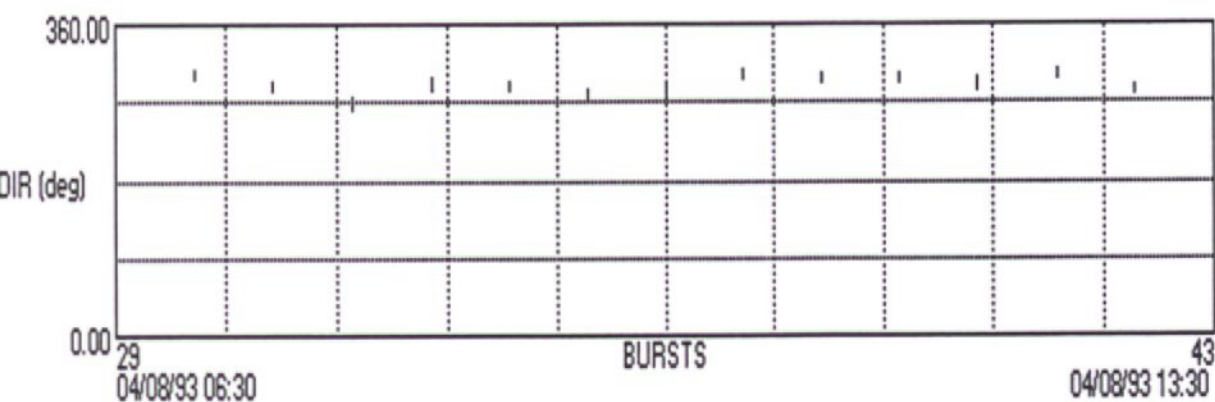
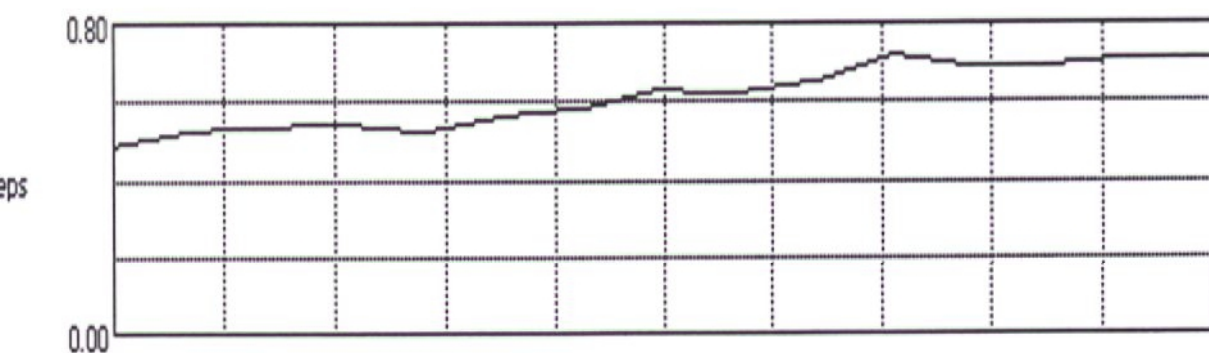
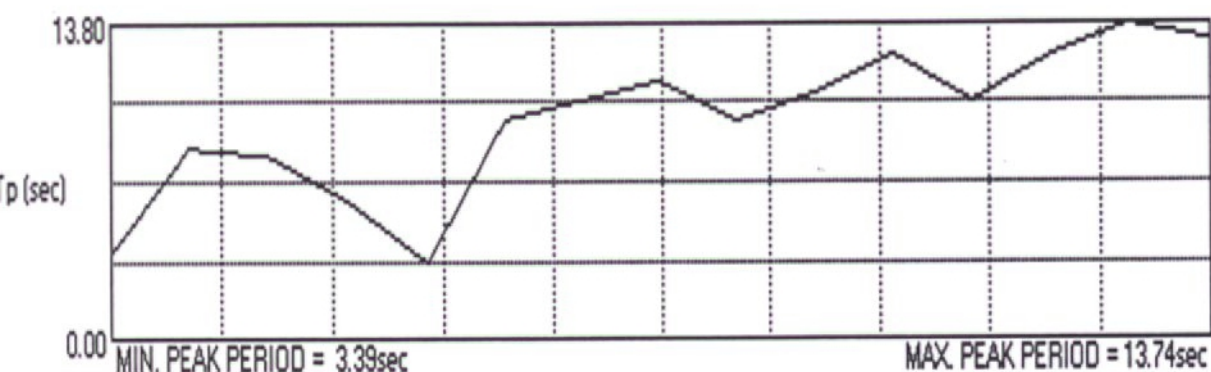
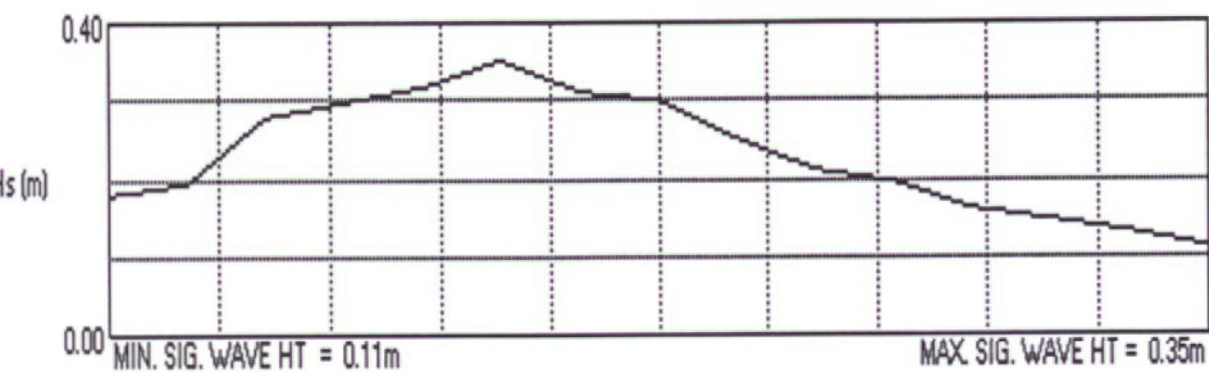
BURSTS

04/07/93 18:30

04/08/93 01:30

WAVE PARAMETERS

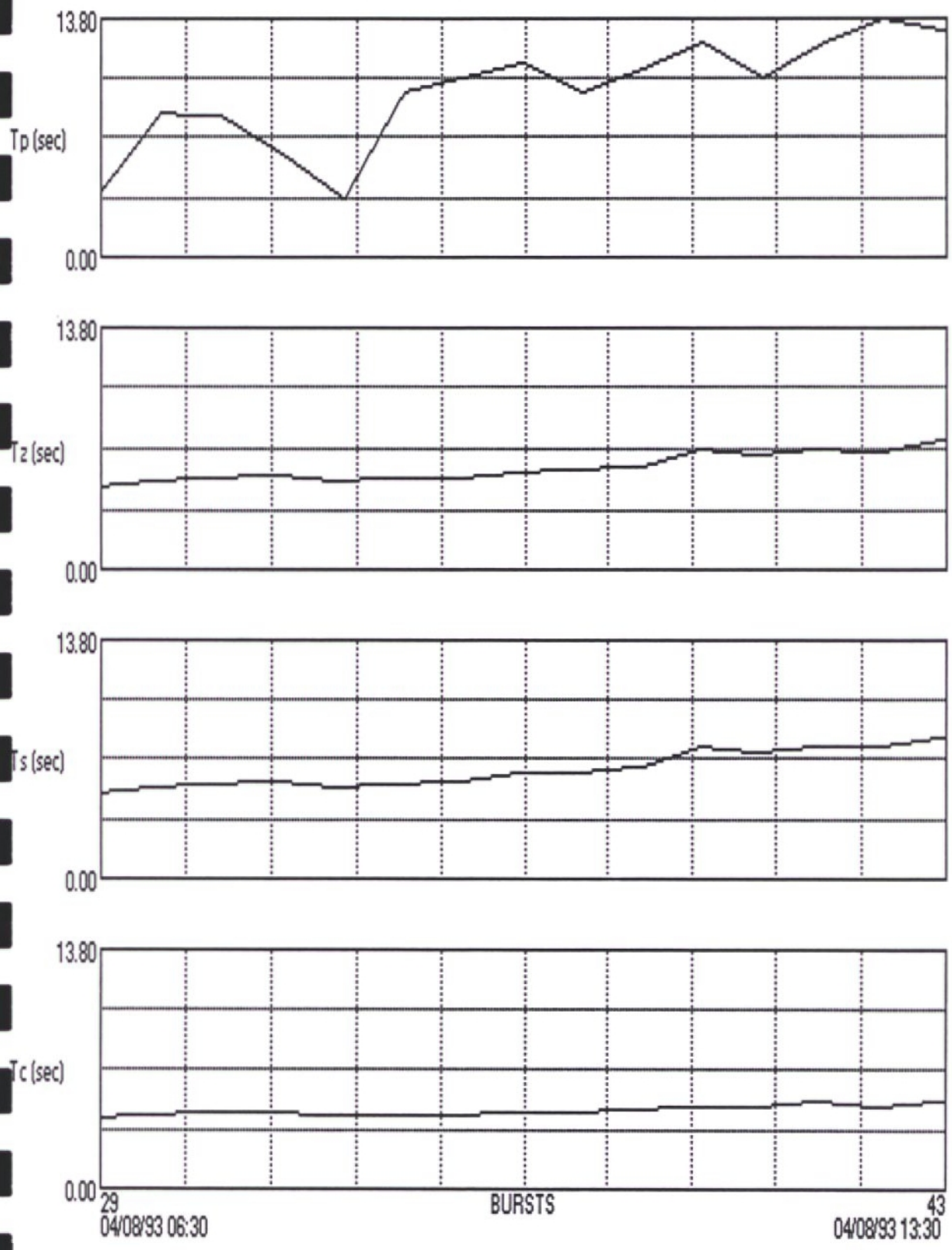
FILE: H1DONB01.S4B





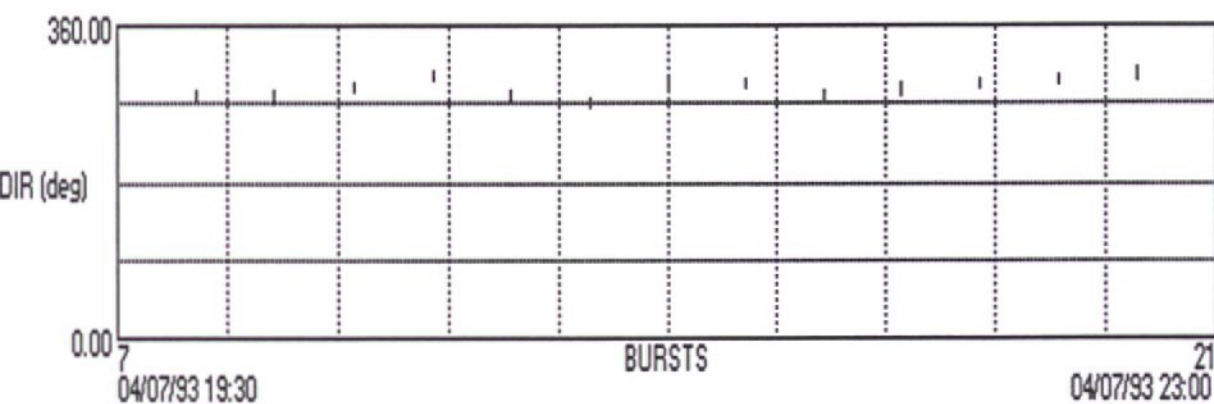
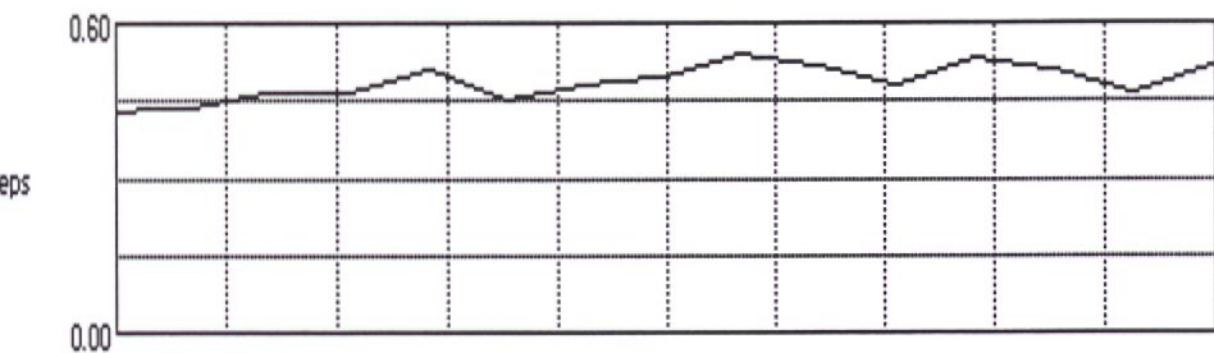
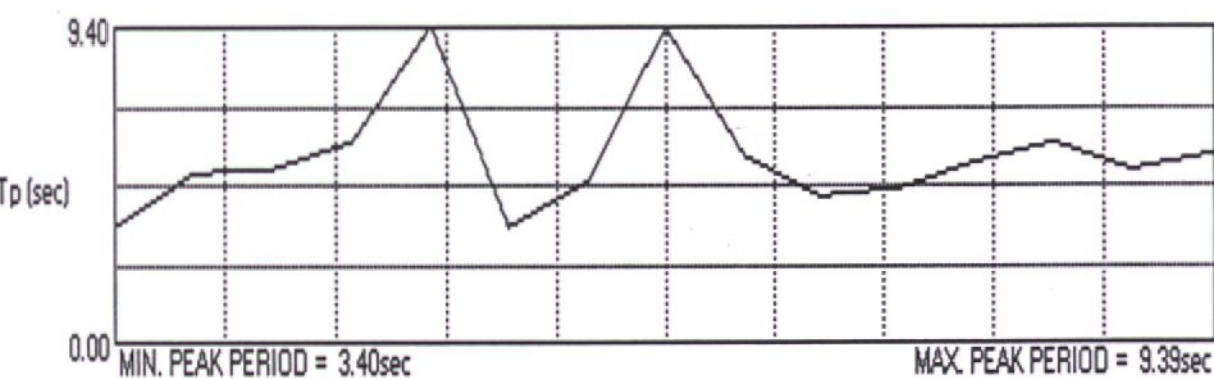
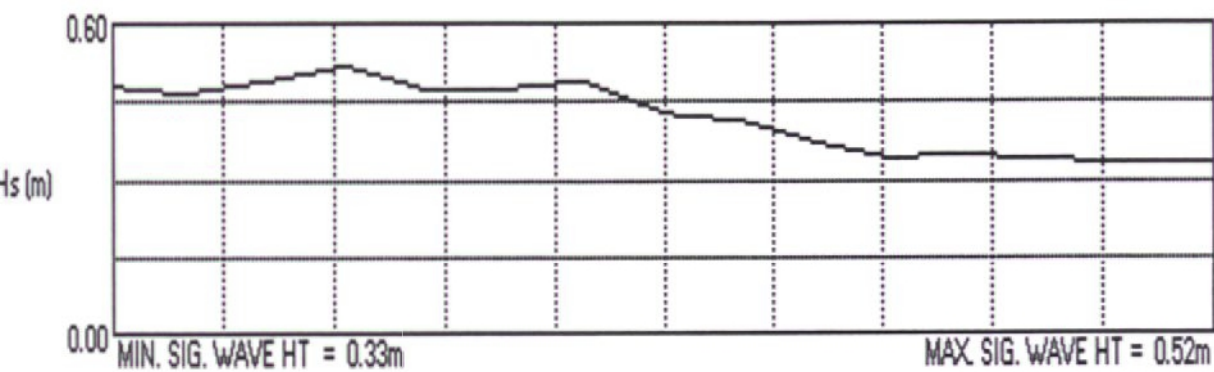
WAVE PERIOD ESTIMATES

FILE: H1DONB01.S4B



WAVE PARAMETERS

FILE: H4DONC01.S4B

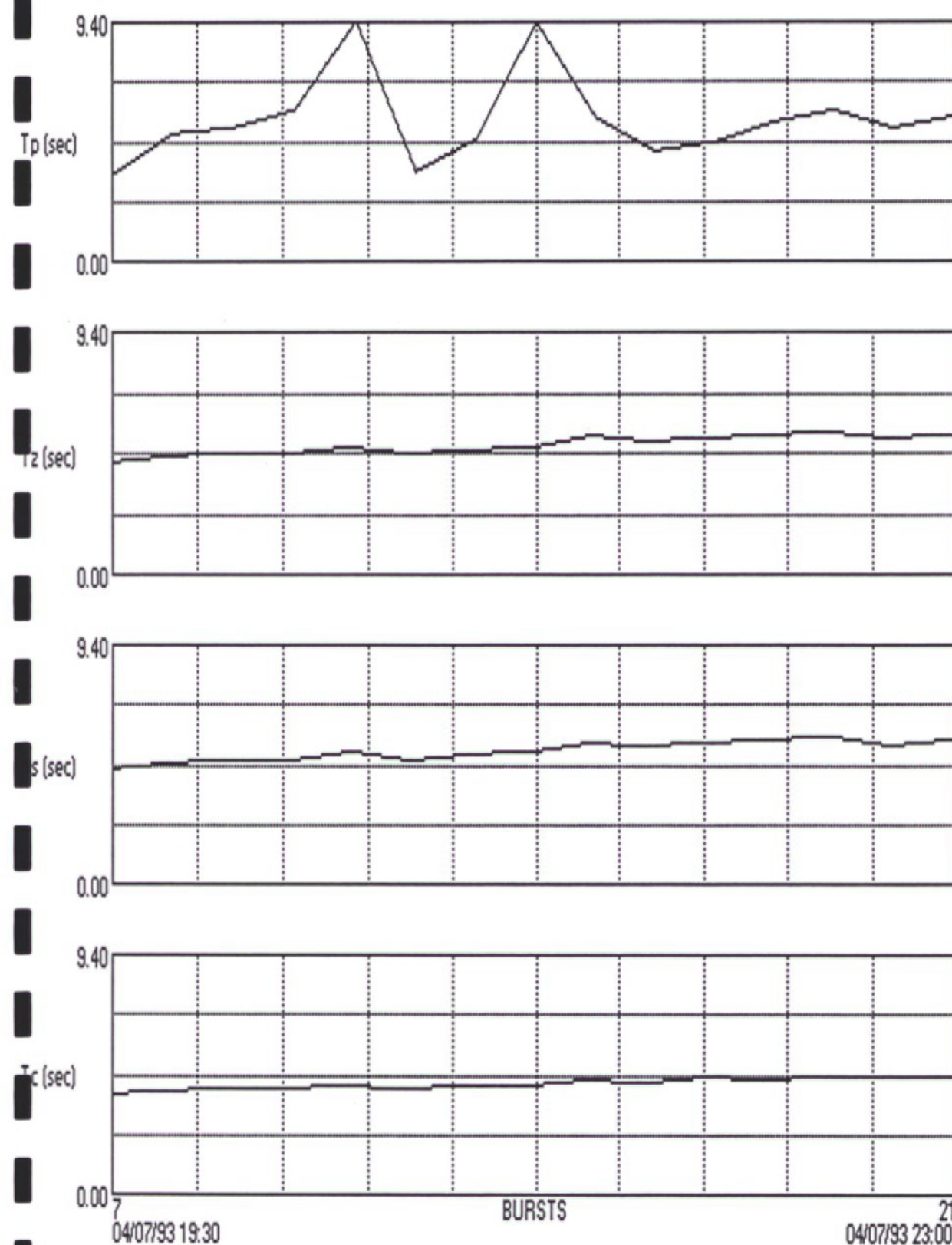




InterOcean Systems, Inc

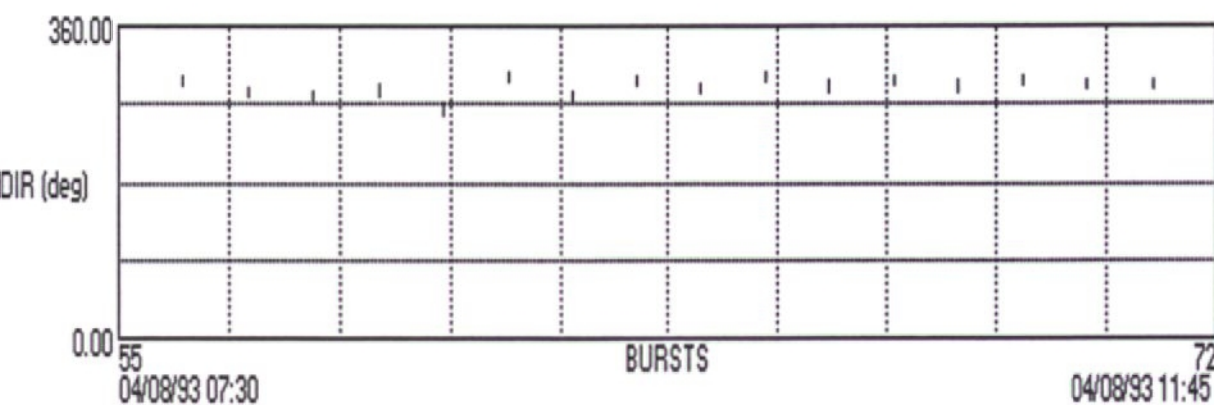
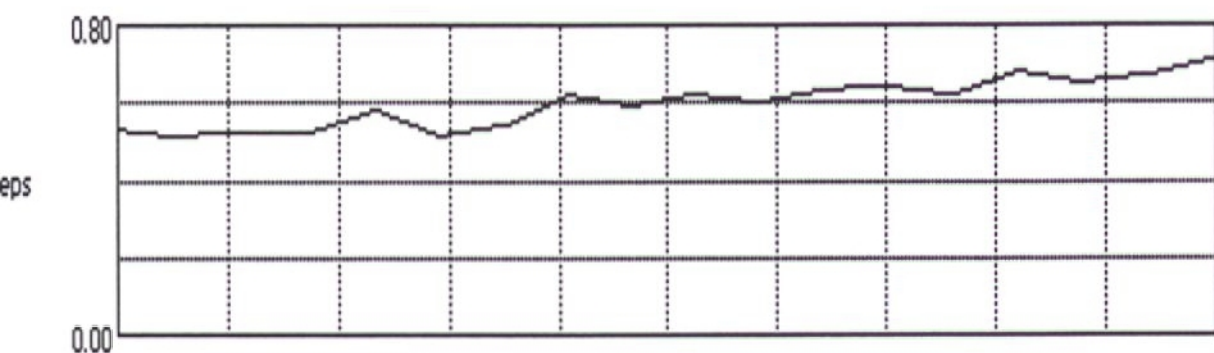
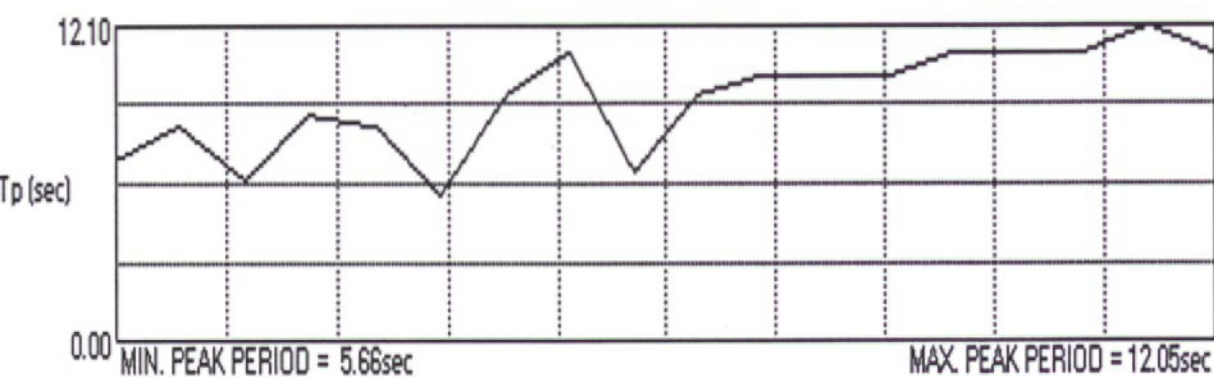
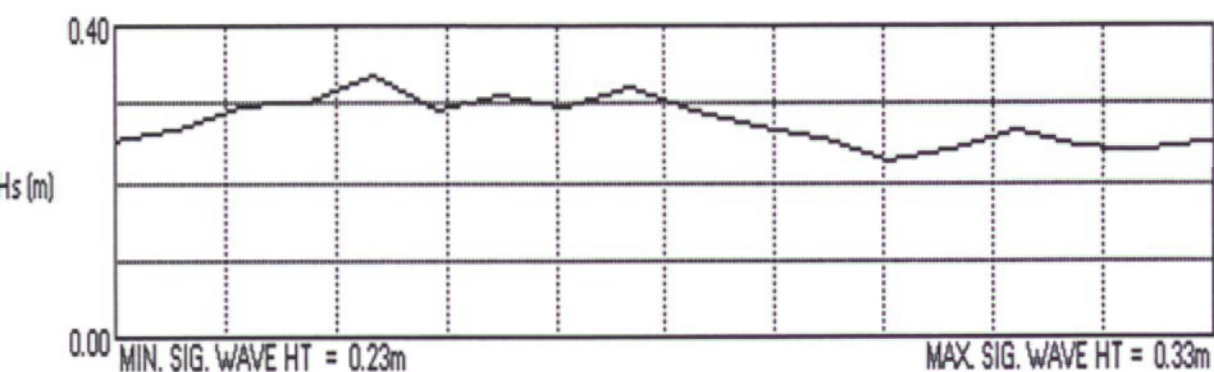
WAVE PERIOD ESTIMATES

FILE: H4DONC01.S4B



WAVE PARAMETERS

FILE: H4DONC01.S4B

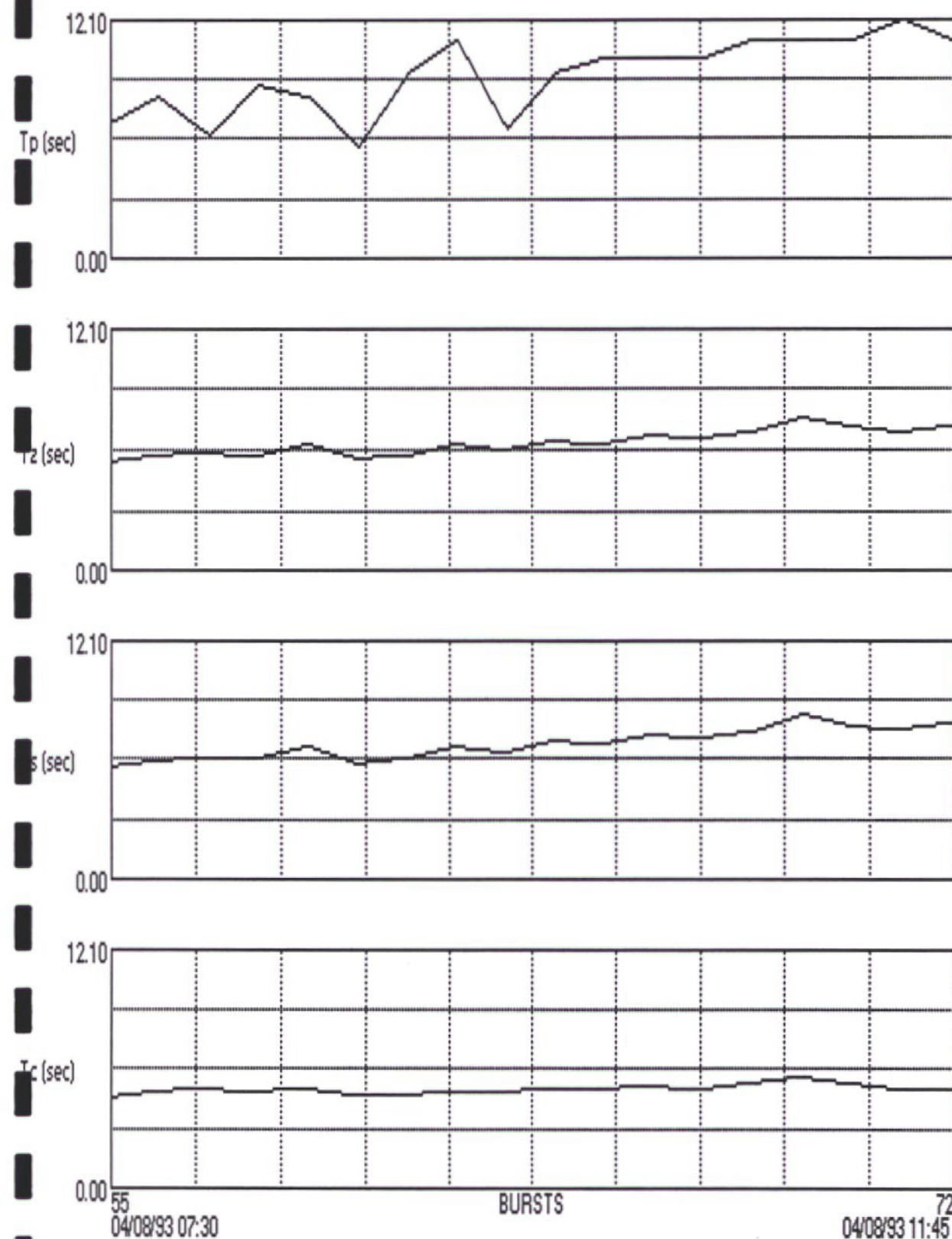




InterOcean Systems, Inc

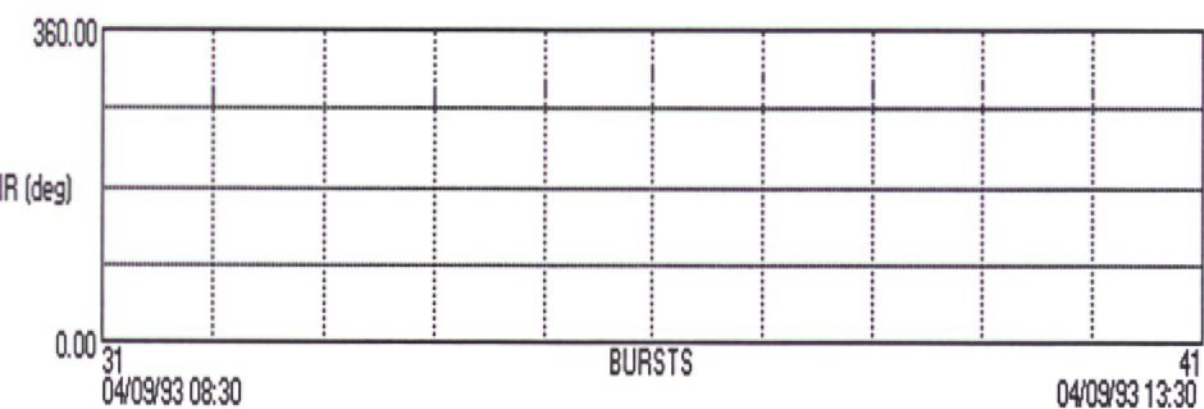
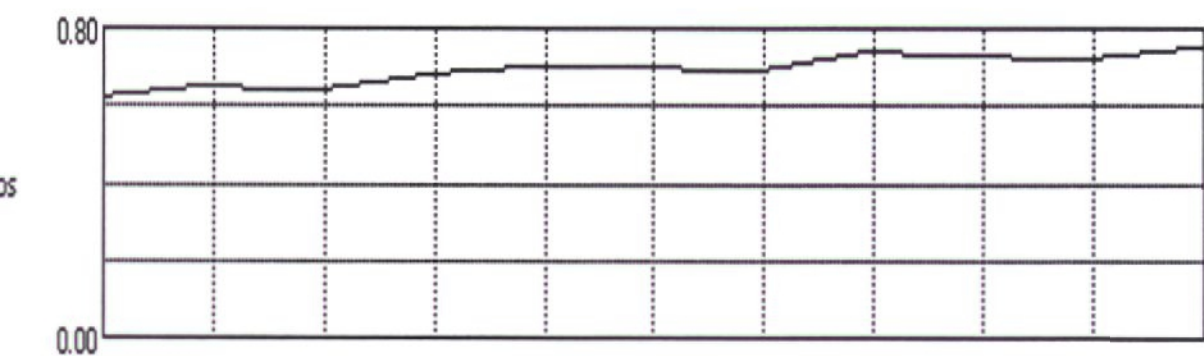
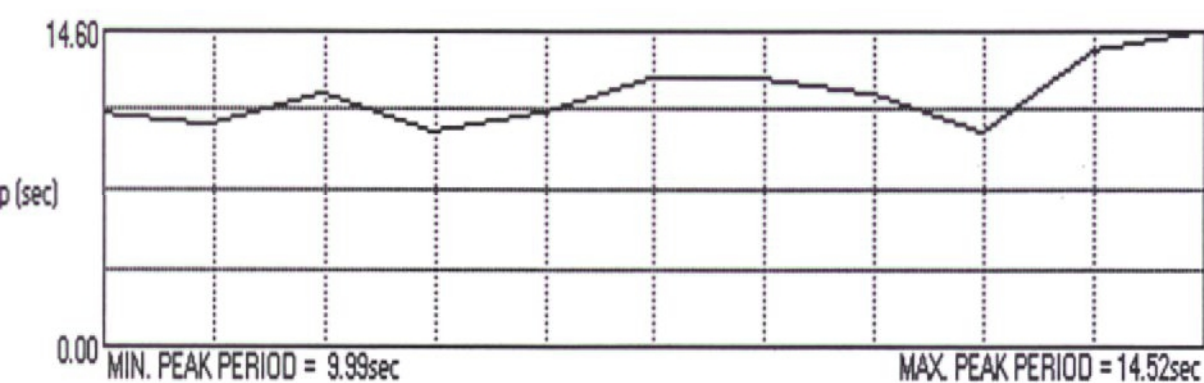
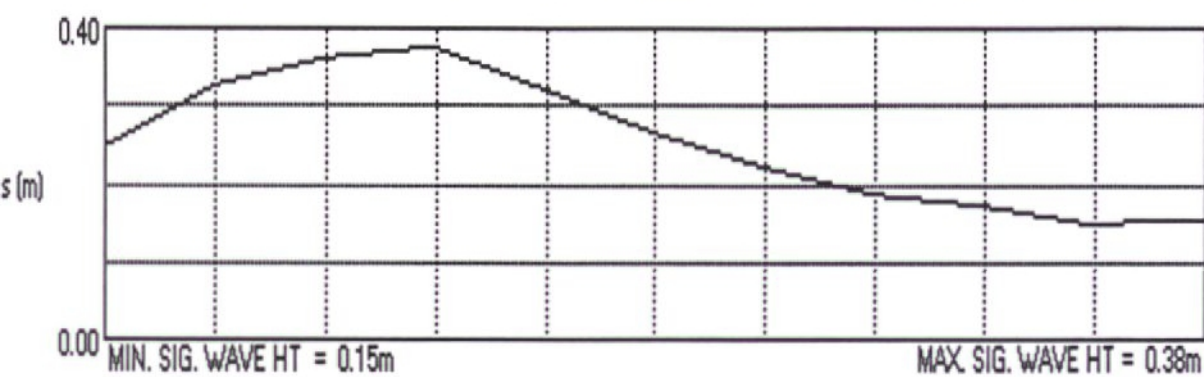
WAVE PERIOD ESTIMATES

FILE: H4DONC01.S4B



WAVE PARAMETERS

FILE: H4DONB03.S4B

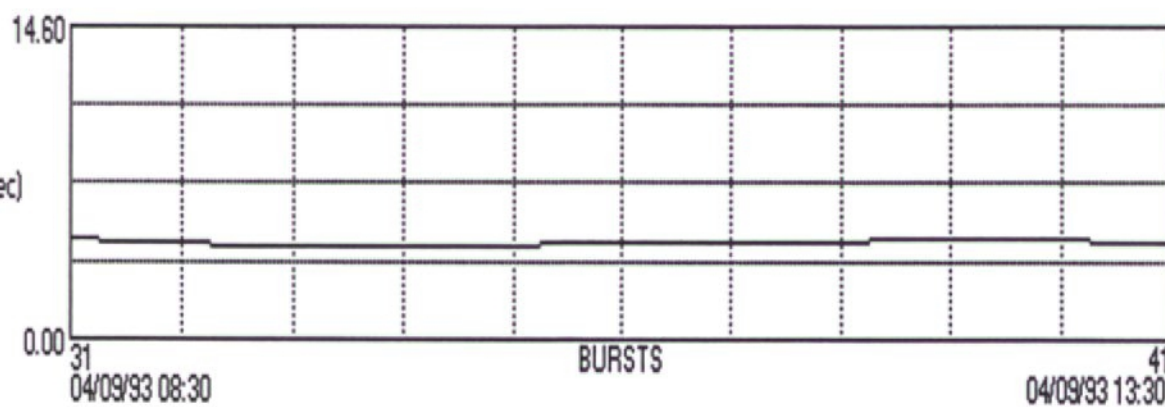
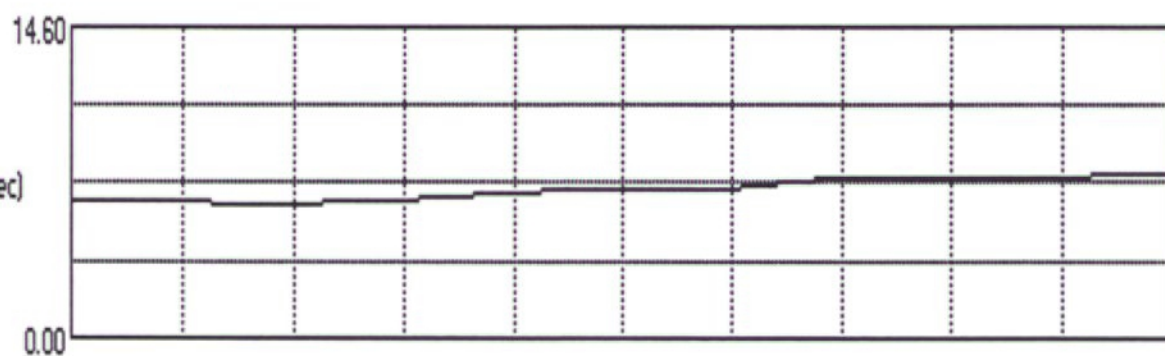
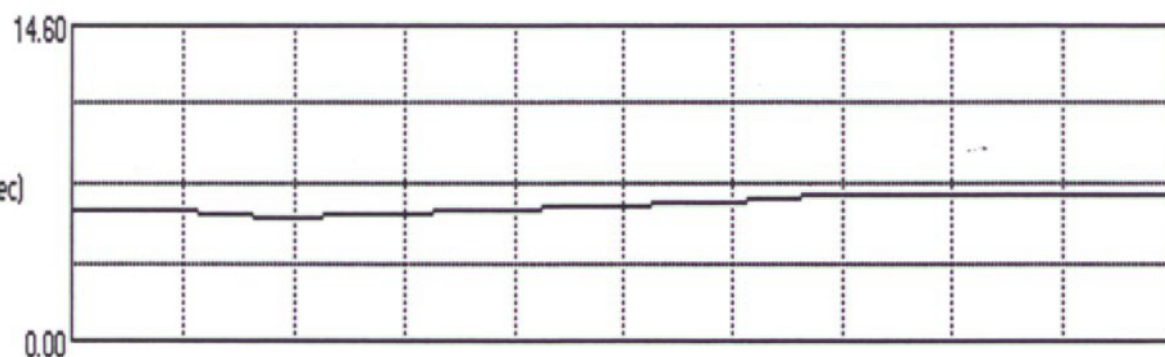
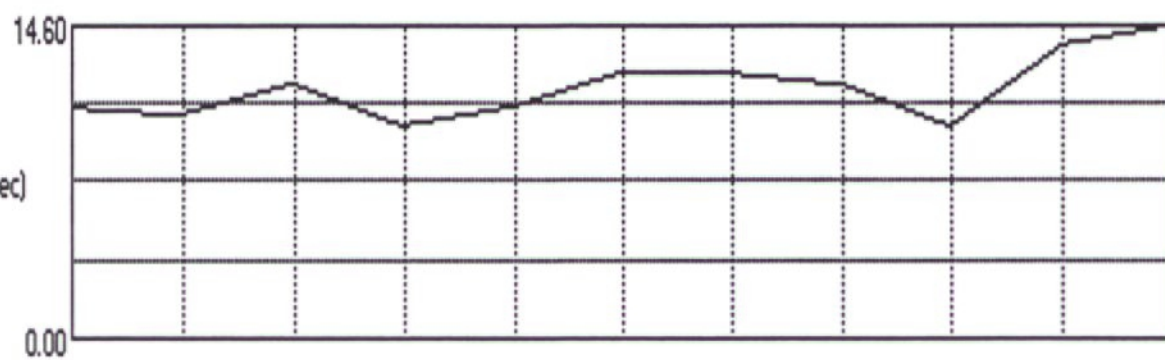




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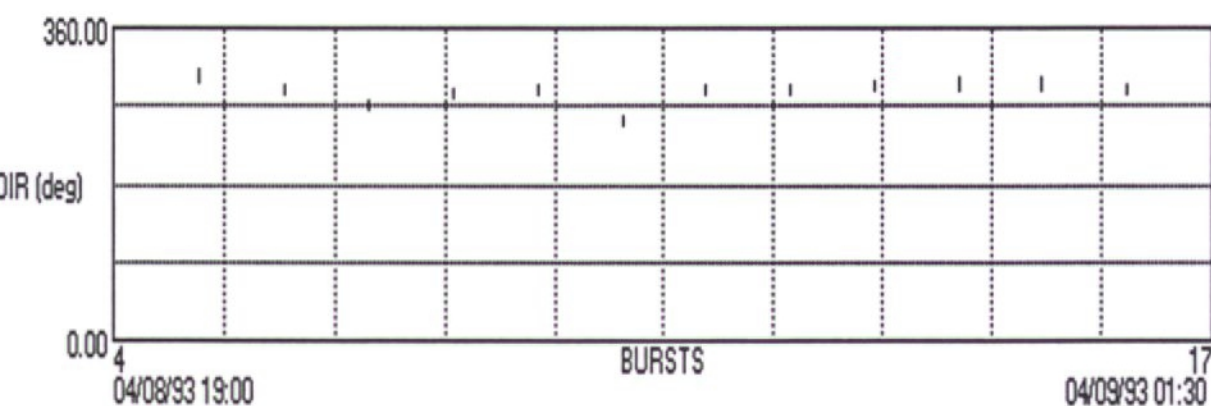
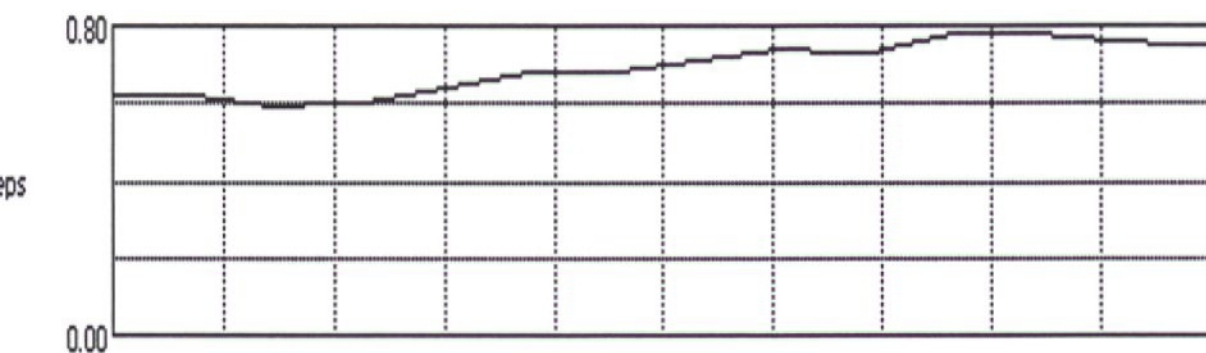
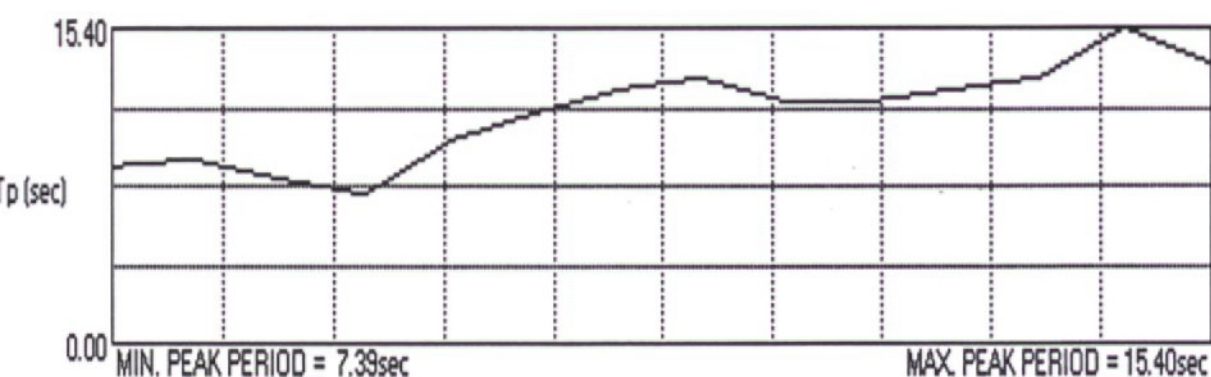
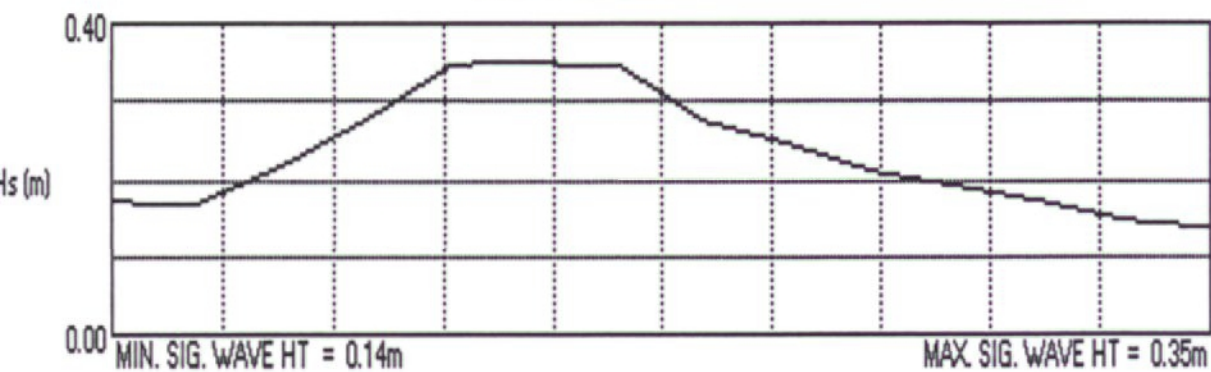
WAVE PERIOD ESTIMATES

FILE: H4DONB03.S4B



WAVE PARAMETERS

FILE: H4DONB03.S4B

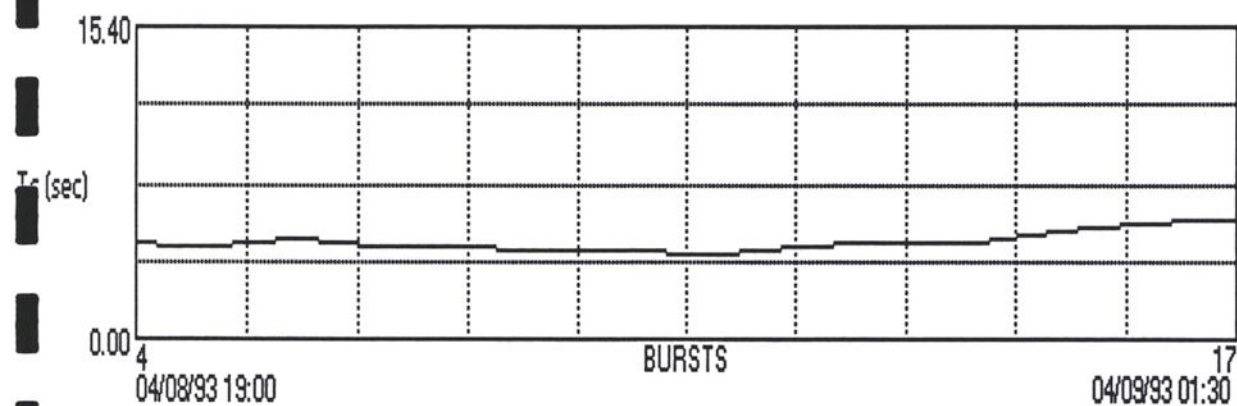
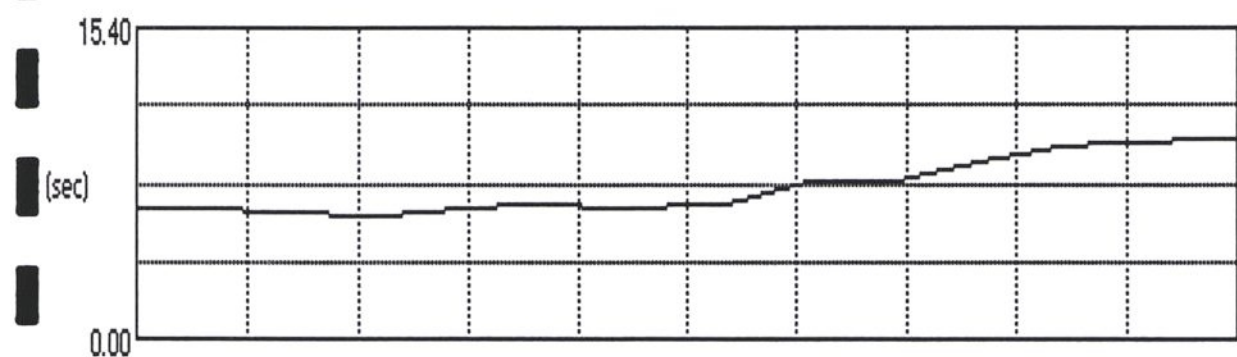
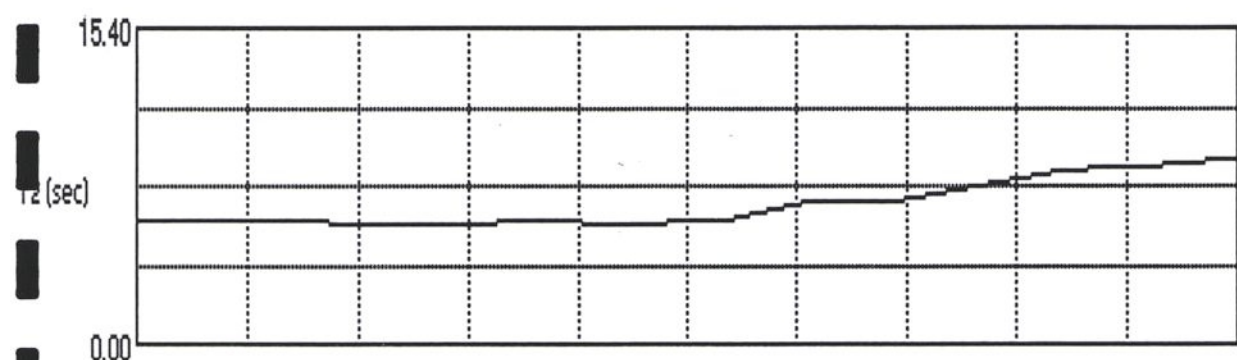
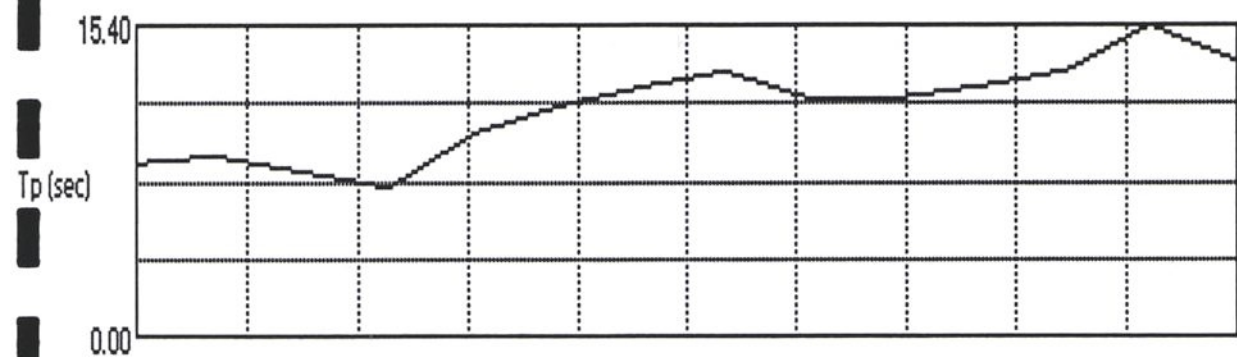




InterOcean Systems, Inc

WAVE PERIOD ESTIMATES

FILE: H4DONB03.S4B



InterOcean Systems, Inc
 FILE: H1DONB01.S4B

B#	DATE	TIME	STD	HS	TP	TZ	TS	TC	DIR	EPSI
5	04/07/93	18:30	.08	.32	3.5	4.0	4.1	3.8	283.7	.33
6	04/07/93	19:00	.10	.40	3.6	4.1	4.3	3.9	275.3	.37
7	04/07/93	19:30	.12	.47	3.6	4.3	4.4	4.0	263.3	.40
8	04/07/93	20:00	.14	.54	3.7	4.3	4.4	3.9	283.1	.41
9	04/07/93	20:30	.14	.56	4.0	4.6	4.8	4.1	276.5	.44
10	04/07/93	21:00	.13	.52	4.0	4.7	4.9	4.2	257.9	.46
11	04/07/93	21:30	.12	.47	5.1	4.9	5.1	4.4	268.2	.45
12	04/07/93	22:00	.10	.42	5.2	4.8	5.0	4.2	284.7	.48
13	04/07/93	22:30	.09	.36	5.5	4.8	5.0	4.3	293.8	.46
14	04/07/93	23:00	.08	.30	4.9	5.1	5.3	4.4	294.4	.51
15	04/07/93	23:30	.07	.27	5.3	5.1	5.3	4.3	309.7	.52
16	04/08/93	00:00	.06	.23	6.5	5.0	5.3	4.3	291.2	.52
17	04/08/93	00:30	.05	.20	5.7	5.4	5.8	4.5	293.4	.56
18	04/08/93	01:00	.04	.16	6.2	5.5	5.9	4.5	300.2	.59
19	04/08/93	01:30	.03	.13	11.3	6.1	6.7	4.8	299.1	.63

InterOcean Systems, Inc
 FILE: H1DONB01.S4B

B#	DATE	TIME	STD	HS	TP	TZ	TS	TC	DIR	EPSI
29	04/08/93	06:30	.04	.18	3.7	4.7	4.9	4.1	280.3	.48
30	04/08/93	07:00	.05	.19	8.4	5.0	5.3	4.3	300.9	.52
31	04/08/93	07:30	.07	.28	8.1	5.2	5.4	4.4	289.4	.53
32	04/08/93	08:00	.07	.30	6.0	5.4	5.6	4.5	268.6	.54
33	04/08/93	08:30	.08	.32	3.4	5.1	5.3	4.3	291.4	.53
34	04/08/93	09:00	.09	.35	9.6	5.2	5.5	4.3	288.1	.56
35	04/08/93	09:30	.08	.31	10.4	5.2	5.6	4.2	278.2	.58
36	04/08/93	10:00	.07	.30	11.3	5.6	6.1	4.4	284.2	.63
37	04/08/93	10:30	.06	.25	9.6	5.7	6.1	4.5	302.6	.62
38	04/08/93	11:00	.05	.21	10.8	5.9	6.5	4.5	297.9	.65
39	04/08/93	11:30	.05	.20	12.4	6.9	7.6	4.8	296.3	.72
40	04/08/93	12:00	.04	.16	10.4	6.6	7.2	4.8	290.8	.69
41	04/08/93	12:30	.04	.15	12.4	7.0	7.7	5.1	302.9	.69
42	04/08/93	13:00	.03	.14	13.7	6.8	7.6	4.8	285.7	.71
43	04/08/93	13:30	.03	.11	13.0	7.3	8.1	5.1	304.0	.71

InterOcean Systems, Inc
 FILE: H4DONC01.S4B

B#	DATE	TIME	STD	HS	TP	TZ	TS	TC	DIR	EPSI
55	04/08/93	07:30	.06	.25	6.9	5.4	5.7	4.6	288.6	.54
56	04/08/93	07:45	.07	.27	8.2	5.8	6.0	4.9	297.2	.52
57	04/08/93	08:00	.07	.30	6.2	5.9	6.1	5.0	283.8	.52
58	04/08/93	08:15	.07	.30	8.8	5.8	6.1	5.0	278.1	.52
59	04/08/93	08:30	.08	.33	8.2	6.3	6.7	5.2	287.0	.58
60	04/08/93	08:45	.07	.29	5.7	5.6	5.8	4.8	264.7	.51
61	04/08/93	09:00	.08	.31	9.4	5.8	6.1	4.8	301.7	.55
62	04/08/93	09:15	.07	.30	11.0	6.3	6.8	4.9	278.6	.62
63	04/08/93	09:30	.08	.32	6.5	6.1	6.5	4.9	298.1	.60
64	04/08/93	09:45	.07	.29	9.4	6.6	7.0	5.1	288.0	.62
65	04/08/93	10:00	.07	.27	10.1	6.4	6.8	5.1	302.3	.61
66	04/08/93	10:15	.06	.26	10.1	6.8	7.3	5.3	291.2	.64
67	04/08/93	10:30	.06	.23	10.1	6.7	7.2	5.1	298.8	.64
68	04/08/93	10:45	.06	.24	11.0	6.9	7.4	5.4	290.6	.62
69	04/08/93	11:00	.07	.27	11.0	7.7	8.4	5.7	299.1	.68
70	04/08/93	11:15	.06	.25	11.0	7.2	7.8	5.5	294.4	.65
71	04/08/93	11:30	.06	.24	12.0	7.0	7.6	5.1	294.9	.67

InterOcean Systems, Inc
FILE: H4DONC01.S4B

B#	DATE	TIME	STD	HS	TP	TZ	TS	TC	DIR	EPSI
72	04/08/93	11:45	.06	.25	11.0	7.2	8.0	5.1	298.4	.71

InterOcean Systems, Inc
FILE: H4DONC01.S4B

B#	DATE	TIME	STD	HS	TP	TZ	TS	TC	DIR	EPSI
7	04/07/93	19:30	.12	.48	3.4	4.4	4.6	4.0	261.2	.43
8	04/07/93	19:45	.12	.47	5.0	4.5	4.7	4.1	279.4	.44
9	04/07/93	20:00	.12	.49	5.2	4.7	4.9	4.2	278.1	.47
10	04/07/93	20:15	.13	.52	5.9	4.7	4.9	4.1	287.4	.47
11	04/07/93	20:30	.12	.48	9.4	5.0	5.2	4.3	302.1	.51
12	04/07/93	20:45	.12	.48	3.5	4.7	4.9	4.2	280.3	.45
13	04/07/93	21:00	.12	.49	4.8	4.8	5.1	4.3	272.4	.48
14	04/07/93	21:15	.11	.43	9.4	5.0	5.2	4.3	292.4	.50
15	04/07/93	21:30	.10	.41	5.7	5.3	5.6	4.5	291.9	.54
16	04/07/93	21:45	.09	.37	4.3	5.2	5.5	4.5	279.1	.52
17	04/07/93	22:00	.09	.34	4.6	5.3	5.5	4.6	286.6	.48
18	04/07/93	22:15	.09	.35	5.4	5.4	5.7	4.6	291.9	.54
19	04/07/93	22:30	.09	.34	5.9	5.5	5.8	4.7	298.7	.51
20	04/07/93	22:45	.08	.34	5.2	5.3	5.5	4.7	303.9	.47
21	04/07/93	23:00	.08	.33	5.7	5.4	5.7	4.6	298.5	.52

InterOcean Systems, Inc
FILE: H4DONB03.S4B

B#	DATE	TIME	STD	HS	TP	TZ	TS	TC	DIR	EPSI
4	04/08/93	19:00	.04	.17	8.6	6.0	6.4	4.7	299.9	.62
5	04/08/93	19:30	.04	.17	8.9	6.0	6.4	4.6	304.7	.63
6	04/08/93	20:00	.05	.22	8.1	6.0	6.4	4.9	287.4	.59
7	04/08/93	20:30	.07	.28	7.4	5.7	6.1	4.6	270.8	.60
8	04/08/93	21:00	.09	.34	10.0	5.9	6.4	4.5	285.8	.64
9	04/08/93	21:30	.09	.35	11.3	5.9	6.6	4.3	289.0	.69
10	04/08/93	22:00	.09	.35	12.4	5.8	6.5	4.3	254.2	.68
11	04/08/93	22:30	.07	.28	13.0	6.0	6.7	4.2	288.1	.71
12	04/08/93	23:00	.06	.25	11.8	6.9	7.8	4.6	288.5	.74
13	04/08/93	23:30	.05	.21	11.8	6.9	7.7	4.7	292.1	.73
14	04/09/93	00:00	.05	.19	12.4	7.7	8.8	4.8	295.3	.78
15	04/09/93	00:30	.04	.17	13.0	8.5	9.5	5.4	296.0	.78
16	04/09/93	01:00	.04	.15	15.4	8.7	9.7	5.6	290.1	.76
17	04/09/93	01:30	.03	.14	13.7	9.0	9.8	5.9	300.1	.75

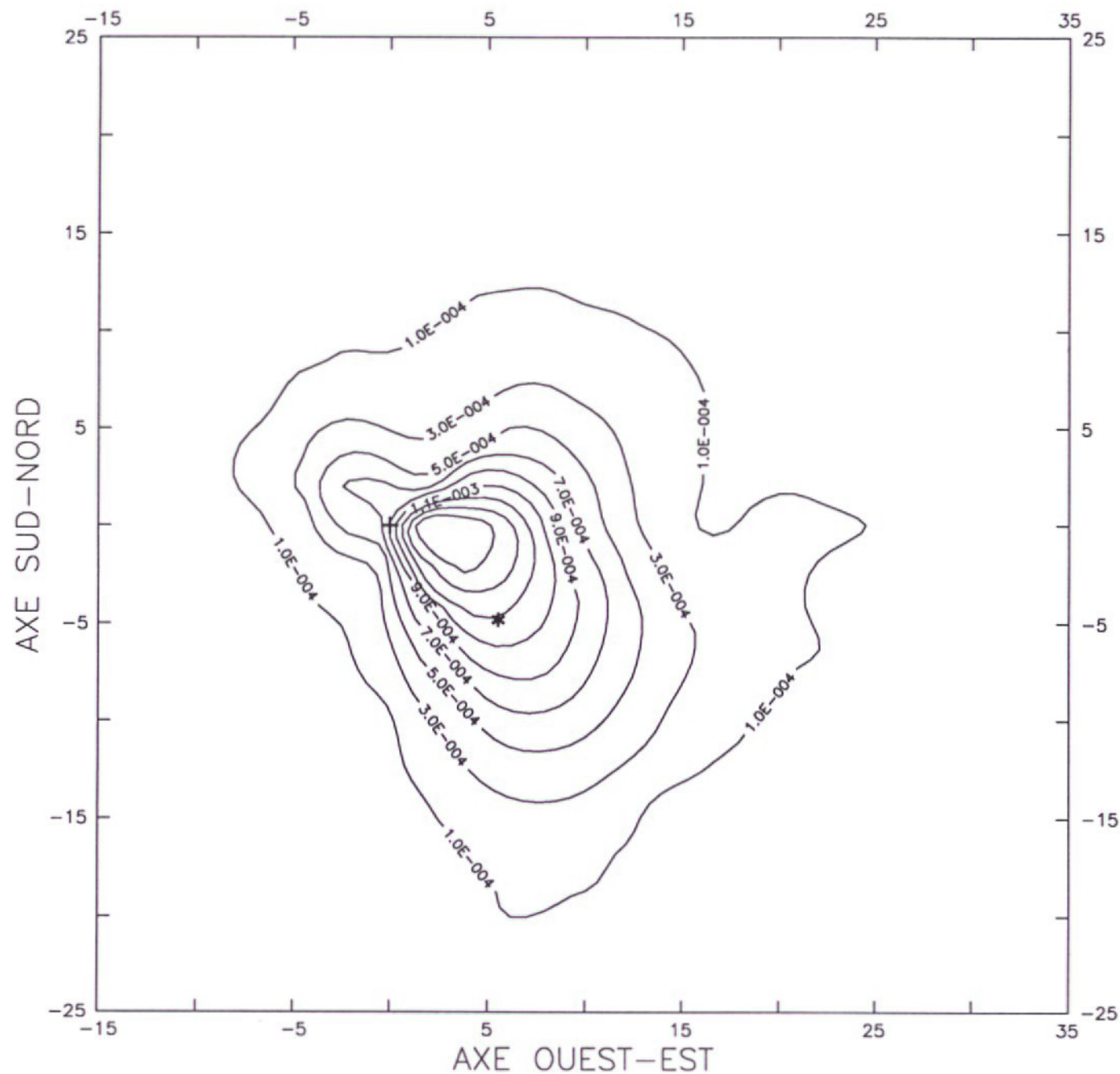
InterOcean Systems, Inc
FILE: H4DONB03.S4B

B#	DATE	TIME	STD	HS	TP	TZ	TS	TC	DIR	EPSI
31	04/09/93	08:30	.06	.25	10.8	6.0	6.4	4.7	286.1	.62
32	04/09/93	09:00	.08	.33	10.4	6.0	6.5	4.6	283.6	.65
33	04/09/93	09:30	.09	.36	11.8	5.7	6.2	4.4	271.2	.64
34	04/09/93	10:00	.09	.38	10.0	5.9	6.5	4.3	281.8	.68
35	04/09/93	10:30	.08	.32	10.8	6.1	6.8	4.4	295.9	.70
36	04/09/93	11:00	.07	.27	12.4	6.3	7.0	4.5	309.2	.70
37	04/09/93	11:30	.06	.22	12.4	6.4	7.0	4.6	305.5	.69
38	04/09/93	12:00	.05	.19	11.8	6.8	7.6	4.6	291.1	.74
39	04/09/93	12:30	.04	.17	10.0	6.8	7.6	4.6	297.3	.73
40	04/09/93	13:00	.04	.15	13.7	6.8	7.6	4.7	290.3	.72
41	04/09/93	13:30	.04	.15	14.5	6.7	7.7	4.5	298.3	.75

CAMPAGNE N°20

Breville sur Mer -
Donville les Bains

TRANSPORTS
SEDIMENTAIRES



TRACEUR FLUORESCENT
Courbes d'isoconcentration

Campagne 20
profil 86
Haute plage

du 7.4.93 à 16 heures
au 7.4.93 à 23 heures

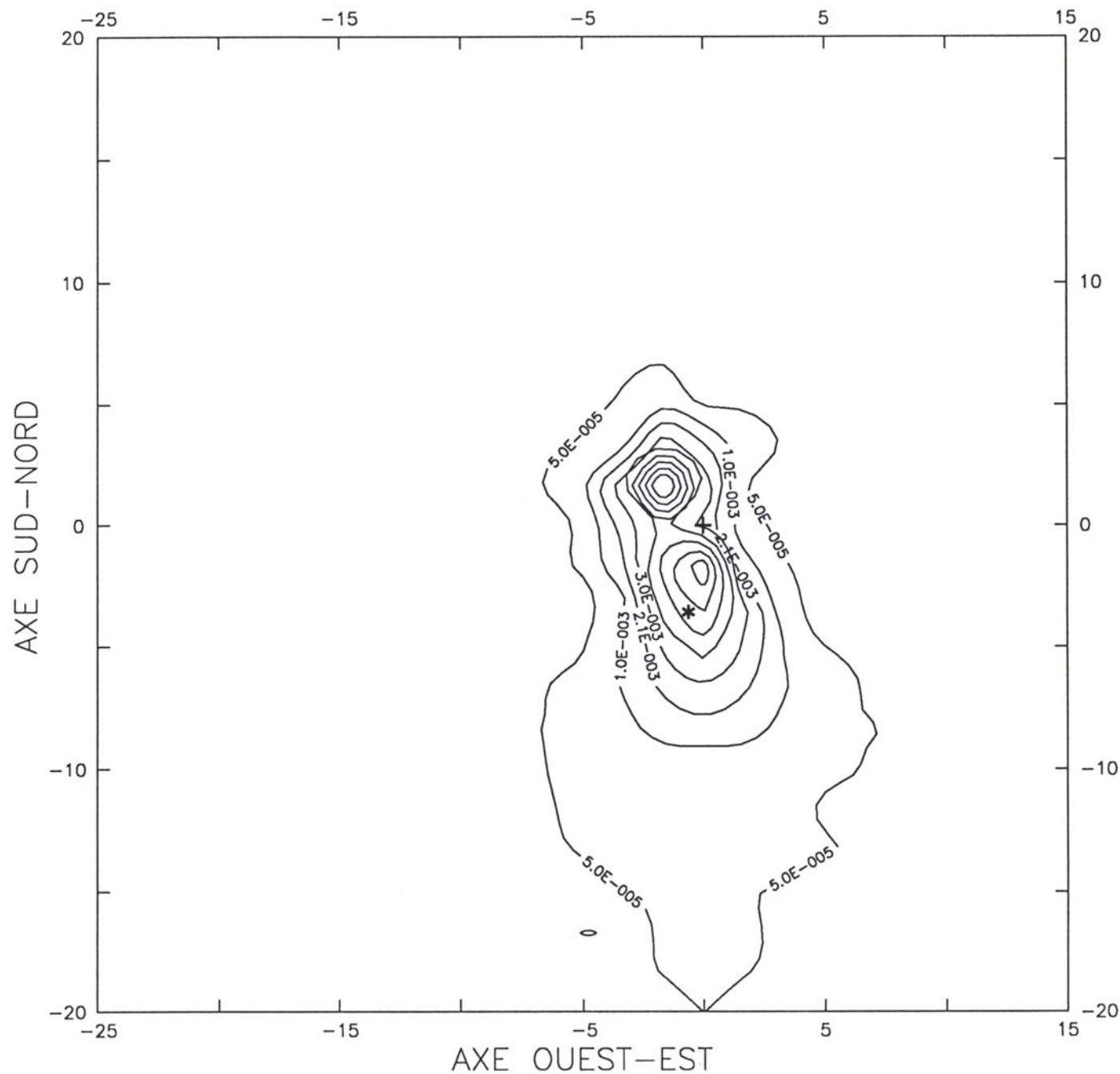
Nombre de marées : 1

Temps d'immersion : 188 minutes

Taux de récupération du traceur
94 %

Taux de transport :
Norme Direction
8 kg/m.mn 131 deg.

+ point d'immersion
* centre de gravité



TRACEUR FLUORESCENT
Courbes d'isoconcentration

Campagne 20
profil 88
Basse plage

du 7.4.93 à 16 heures
au 9.4.93 à 4 heures

Nombre de marées : 3

Temps d'immersion : 1734 minutes

Taux de récupération du traceur
32 %
Taux de transport :
Norme Direction
0.1 kg/m.mn 190 deg.

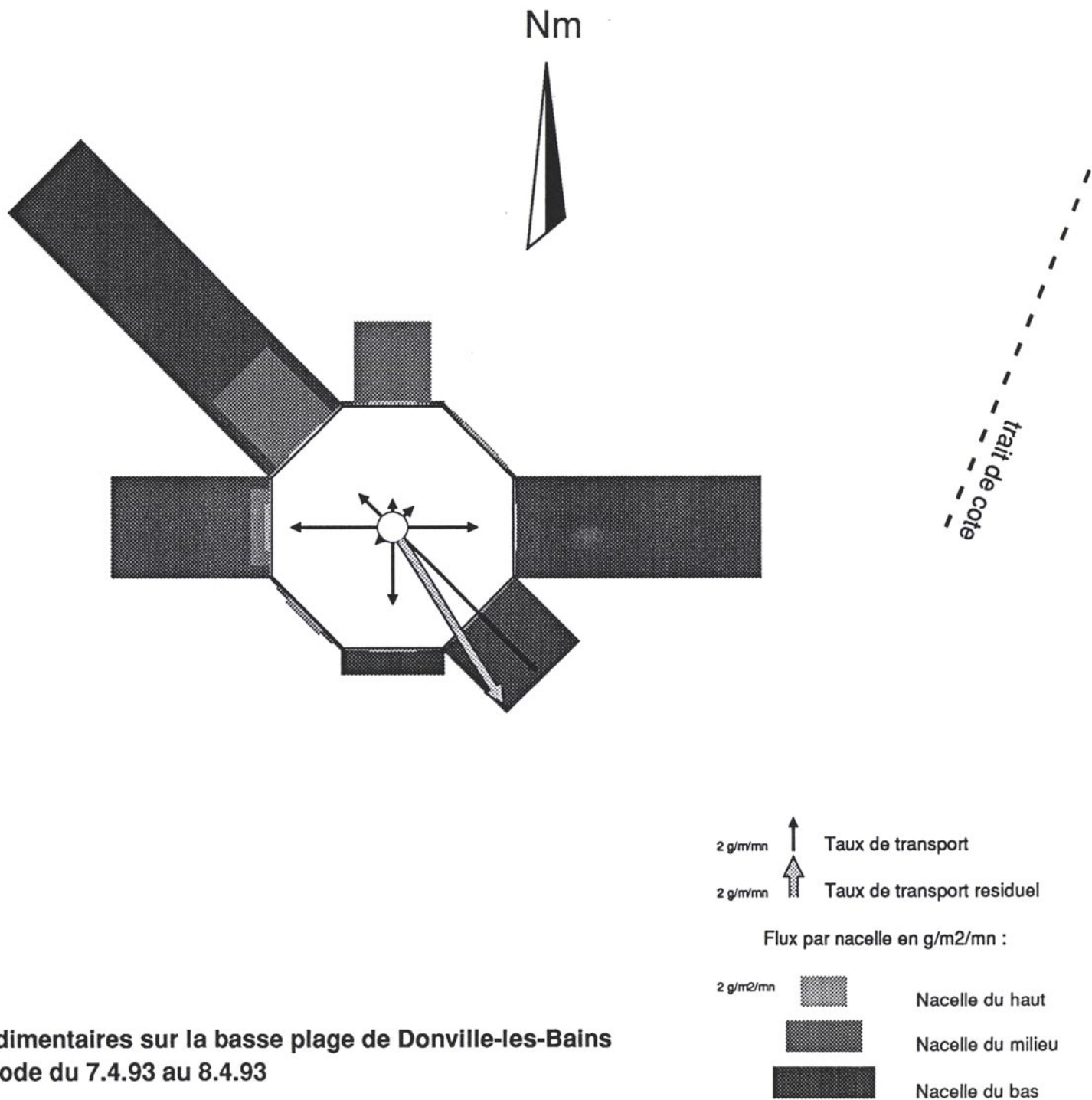
+ point d'immersion
* centre de gravité

Campagne 20
Profil 88

Direction d'ouverture des nacelles (degrés)	Hauteur au sol (cm)	Flux (g/m ² /mn)	Taux de transport (g/m/mn)
0	136	0.21	
	67.5	5.34	3.9
	5.5	0.16	
315	136	0.12	
	67.5	6.02	12.2
	5.5	24.07	
270	136	0.27	
	67.5	1.23	4.4
	5.5	10.29	
225	136	0.39	
	67.5	0.16	0.8
	5.5	0.05	
180	136	0.09	
	67.5	0.01	0.7
	5.5	1.62	
135	136	0.01	
	67.5	0.00	2.0
	5.5	5.80	
90	136	0.08	
	67.5	0.00	5.5
	5.5	15.88	
45	136	0.20	
	67.5	0.11	0.4
	5.5	0.08	

Taux de transport résiduel :			
Direction (degrés)	Norme (g/m/mn)	Composante long-shore (g/m/mn)	Composante cross-shore (g/m/mn)
148.0	12.0	-7.1	9.7

Transports sédimentaires sur la basse plage de Donville-les-Bains
Période du 7.4.93 au 8.4.93

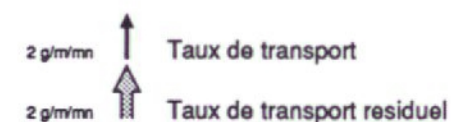
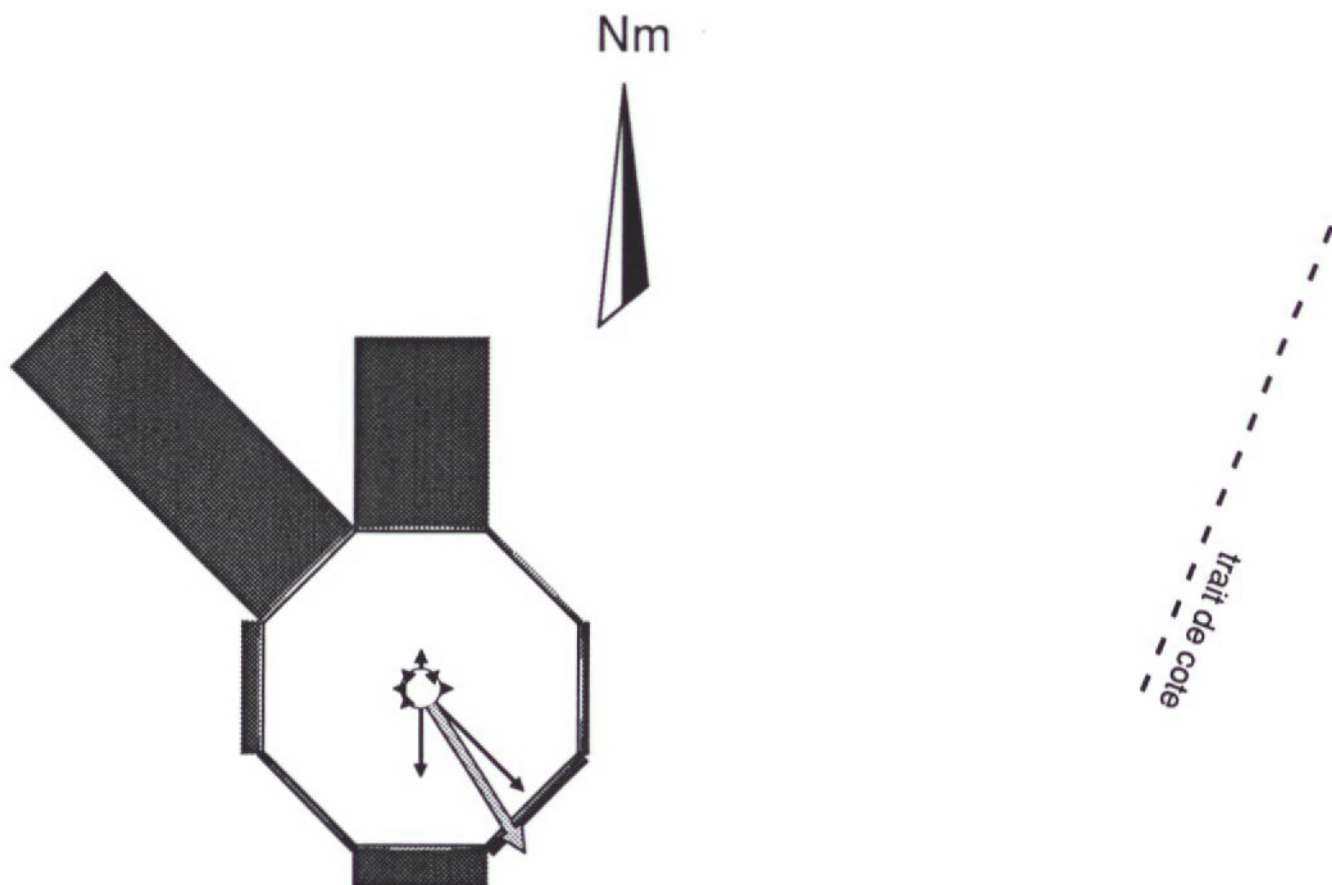


Campagne 20
Profil 88

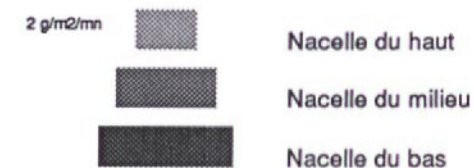
Direction d'ouverture des nacelles (degrés)	Hauteur au sol (cm)	Flux (g/m ² /mn)	Taux de transport (g/m/mn)
0	136	0.07	3.3
	67.5	0.03	
	5.5	9.41	
315	136	0.02	6.1
	67.5	0.24	
	5.5	17.78	
270	136	0.03	0.5
	67.5	0.18	
	5.5	0.97	
225	136	0.01	0.1
	67.5	0.06	
	5.5	0.22	
180	136	0.04	0.8
	67.5	0.04	
	5.5	2.02	
135	136	0.01	0.2
	67.5	0.02	
	5.5	0.49	
90	136	0.04	0.2
	67.5	0.09	
	5.5	0.39	
45	136	0.13	0.3
	67.5	0.02	
	5.5	0.09	

Taux de transport résiduel :			
Direction (degrés)	Norme (g/m/mn)	Composante long-shore (g/m/mn)	Composante cross-shore (g/m/mn)
147.5	8.1	-4.7	6.6

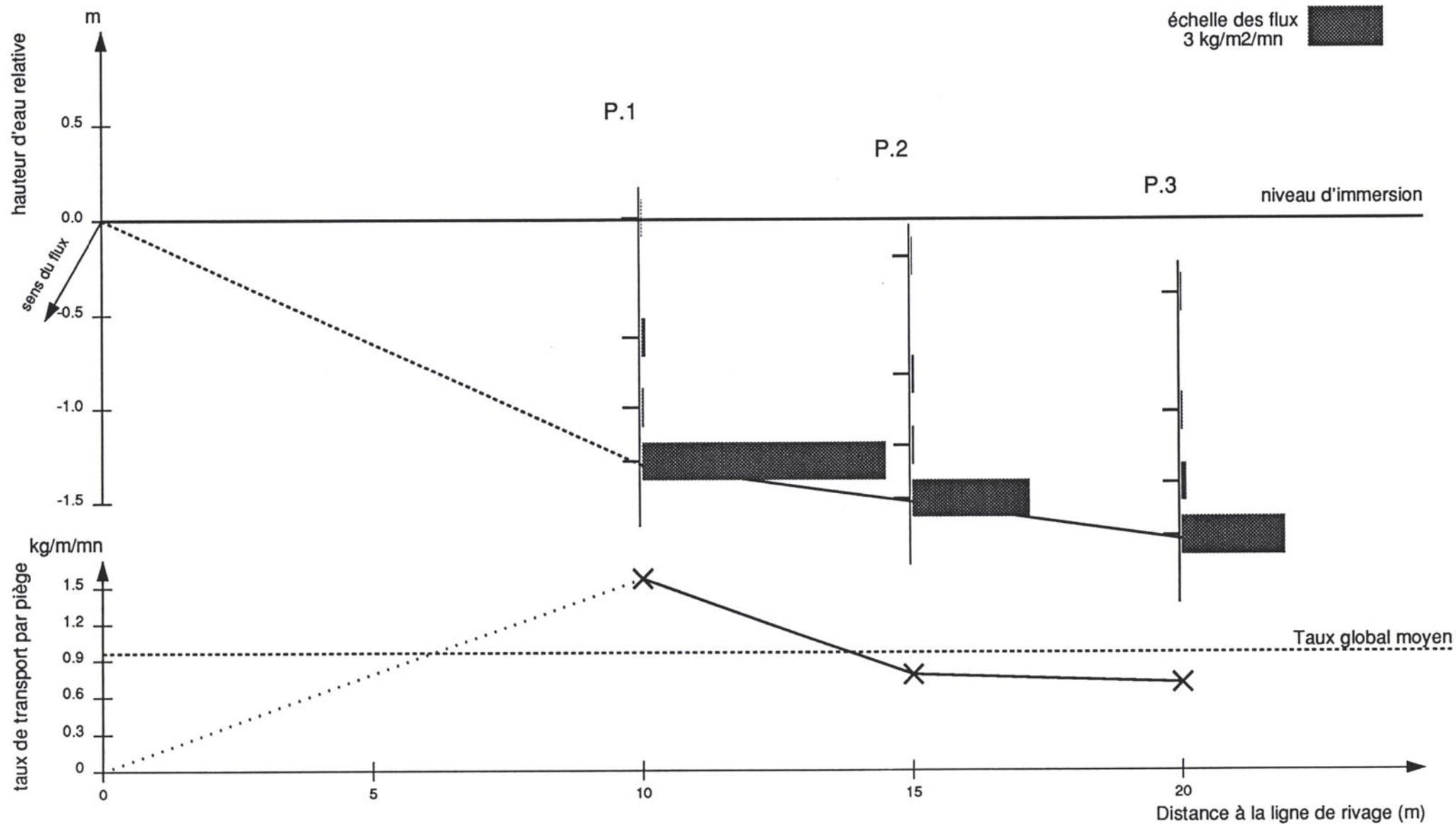
Transports sédimentaires sur la basse plage de Donville-les-Bains
Période du 8.4.93 au 9.4.93



Flux par nacelle en g/m²/mn :



Campagne 20 Profil 88
Transports sédimentaires dans la zone de déferlement
le 7.4.93 à 19:35



ANNEXE 21

RESULTATS DES MESURES
IN SITU DE LA CAMPAGNE
N°21

LIEU :
DENNEVILLE - SURVILE

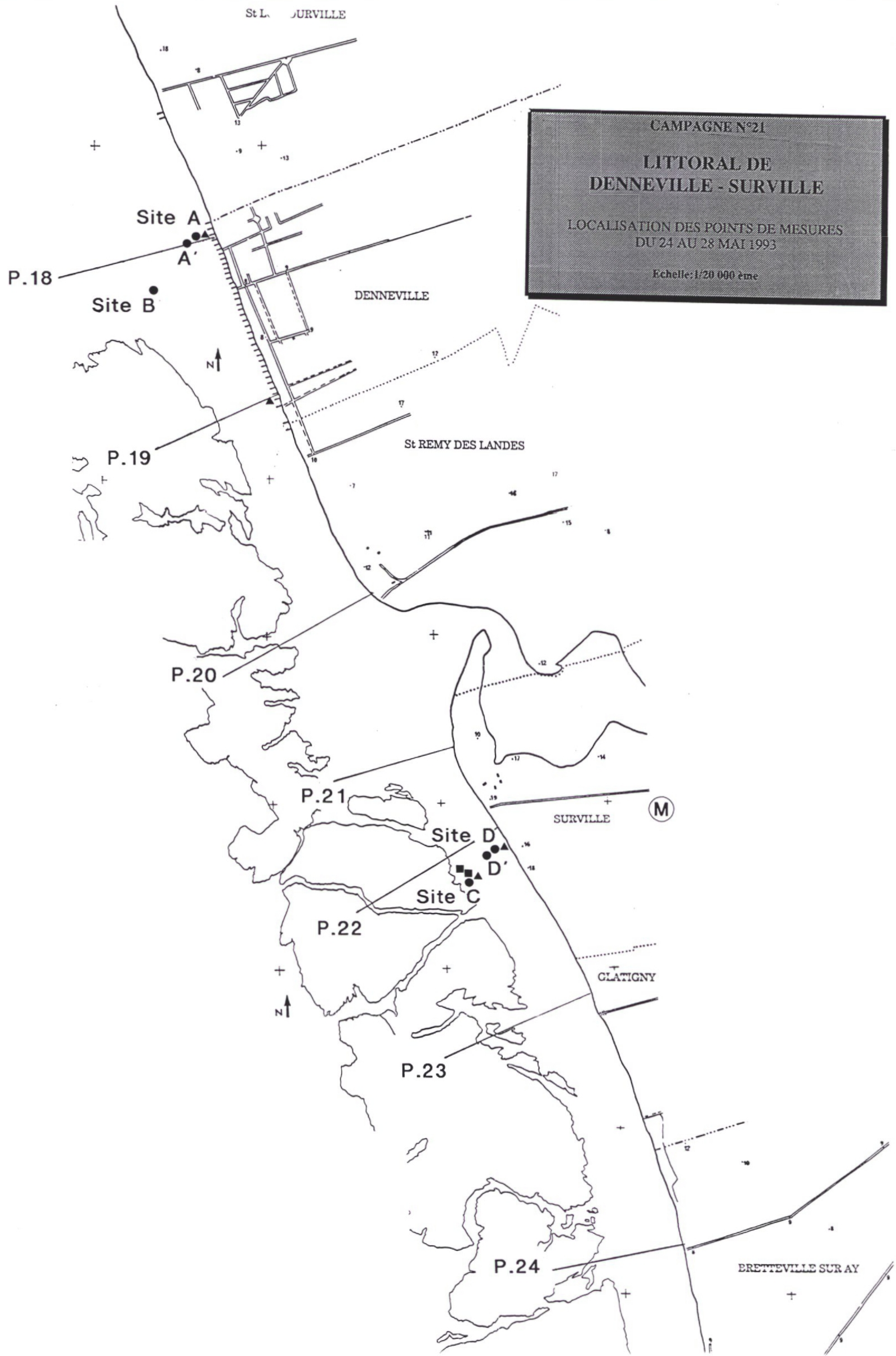
DATE: du 24.05.93 au 27.05.93

Coefficients de marée: 82 à 68

CAMPAGNE N°21

Denneville - Surveillance

LOCALISATION DES
EXPERIMENTATIONS



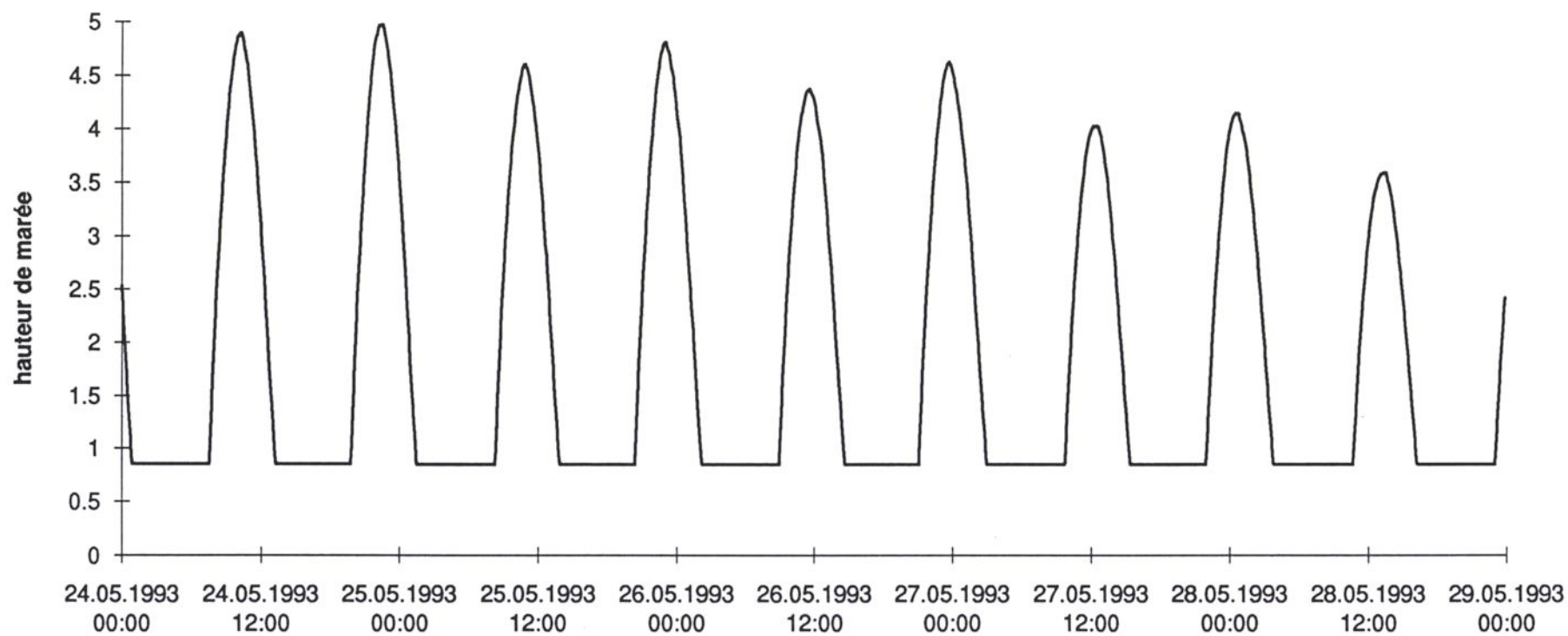
CAMPAGNE N°21

Denneville - Surville

COURBE MAREGRAPHIQUE

Cote IGN 69
en mètres

COURBE DE MAREE A PORTBAIL **Période du 24-05-1993 au 29-05-1993**



CAMPAGNE N°21

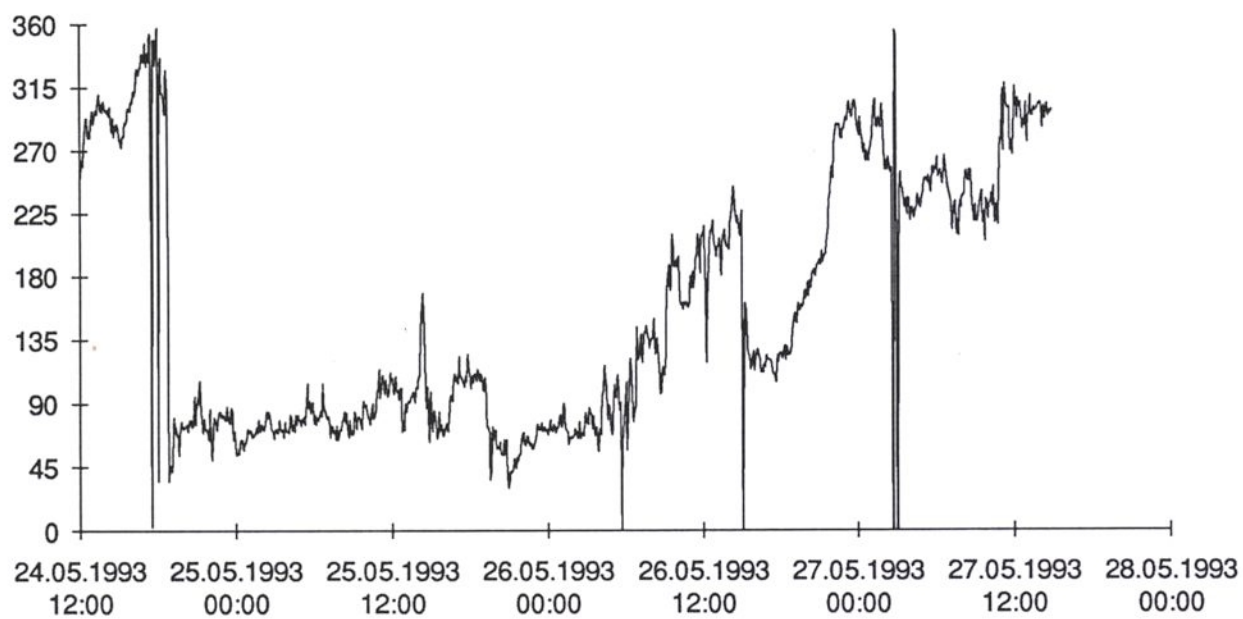
Denneville - Surville

DONNEES
METEOROLOGIQUES

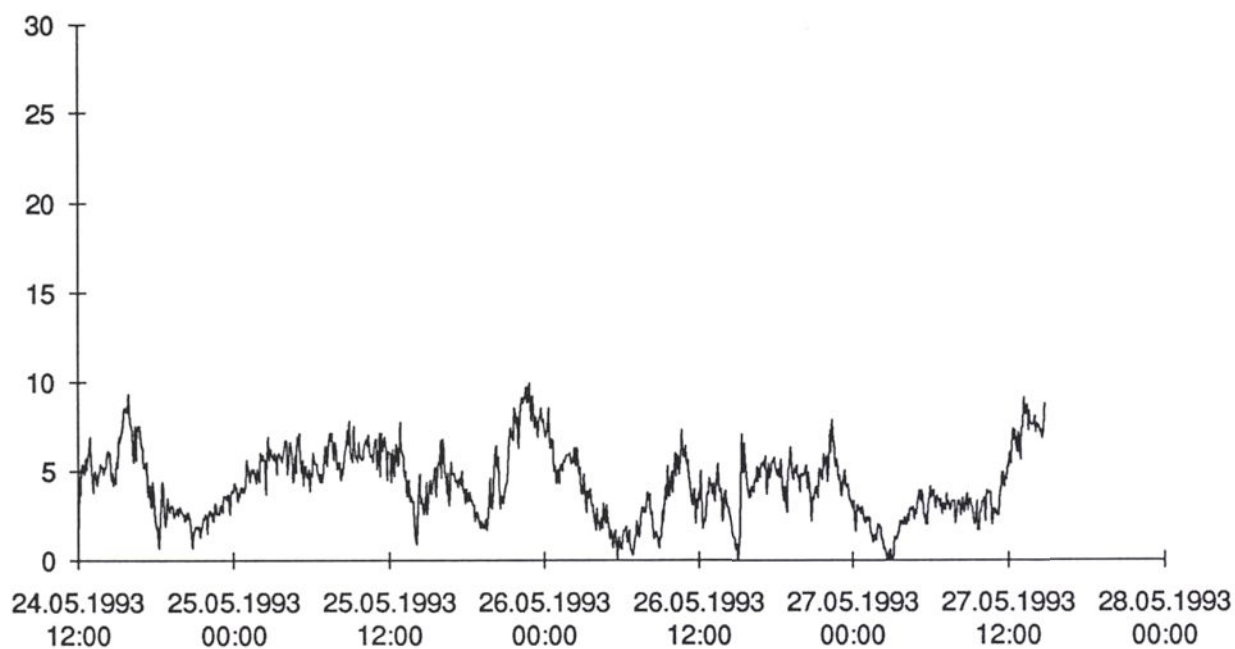
CAMPAGNE 21

PERIODE DU 24-05-1993 AU 27-05-1993

Direction des vents en degrés



Vitesse des vent en m/s



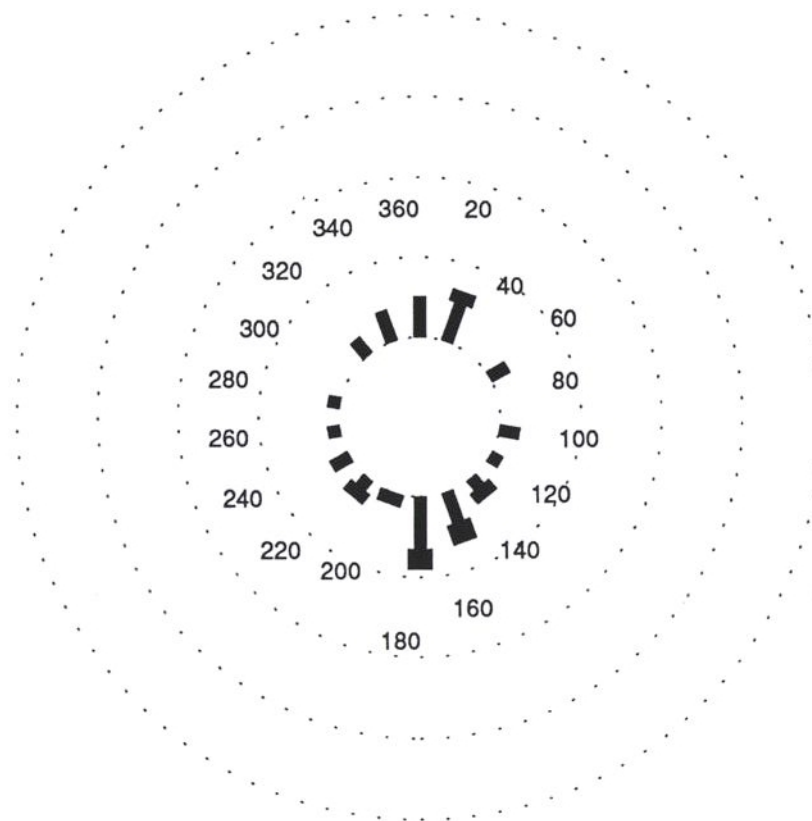
PERIODE DU 24.05.1993 AU 28.05.1993

Campagne 21

Sémaphore de Granville

Fréquences moyennes des directions du vent en %

direction (degrés)	vitesse (> 1m/s)				total
	1/7 m/s	8 /17 m/s	18/24 m/s	>24 m/s	
20	10	3			13
40					
60	5				5
80					
100	5				5
120	3				3
140	3	3			6
160	8	5			13
180	13	5			18
200		3			3
220	3	3			6
240	5				5
260	3				3
280	3				3
300					
320	5				5
340	8				8
360	10				10
vitesse < 1 m/s					



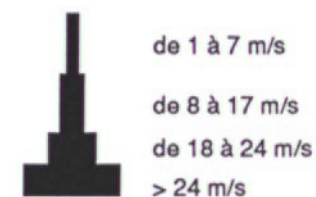
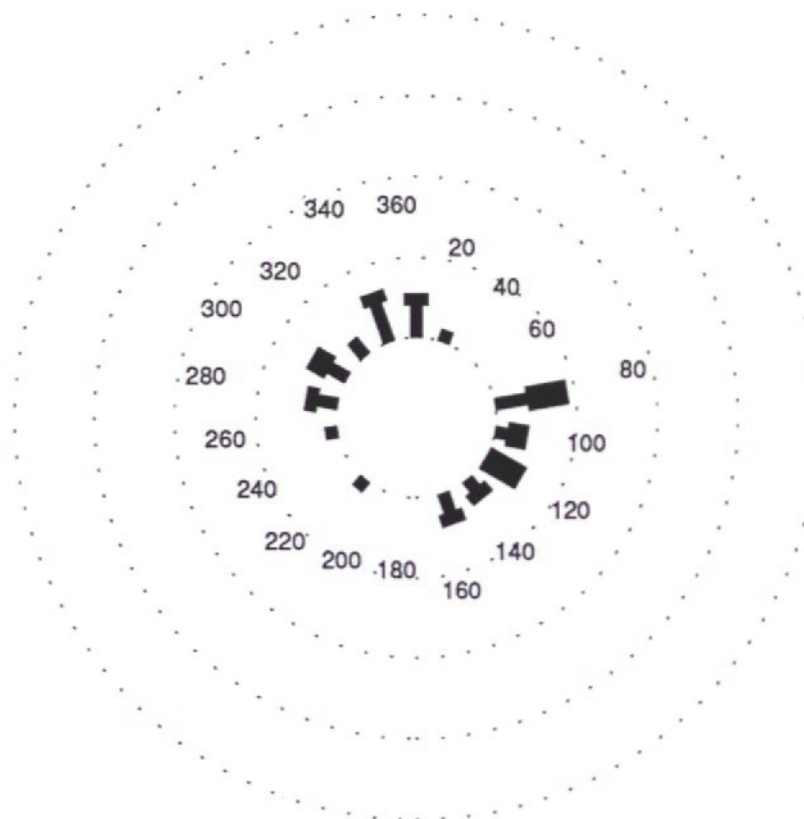
PERIODE DU 24.05.1993 AU 28.05.1993

Campagne 21

Sémaphore de Carteret

Fréquences moyennes des directions du vent en %

direction (degrés)	vitesse (> 1m/s)				total
	1/7 m/s	8 /17 m/s	18/24 m/s	>24 m/s	
20	3				3
40					
60					
80	8	10			18
100	3	5			8
120		10			10
140	3	3			6
160	5	3			8
180					
200					
220	3				3
240					
260	3				3
280	5	3			8
300	5	5			10
320	5				5
340	10	3			13
360	8	3			11
vitesse < 1 m/s					%



CAMPAGNE N°21

Denneville - Surville

DONNEES TOPOGRAPHIQUES

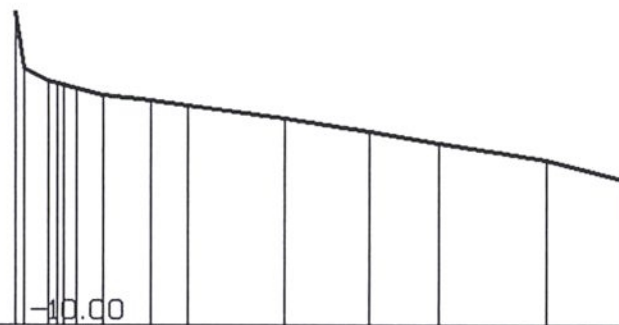
DENNEVILLE-SURVILLE

PROFIL 18

MAI 1993

ECHELLE HORIZONTALE 1/5000

ECHELLE VERTICALE 1/500



ALTITUDES IGN 69	10.40	6.63	5.93	5.40	5.01	4.59	4.28	3.41	2.60	1.87	0.72	-0.56
DISTANCES CUMULEES	0.00	5.87	22.08	40.94	58.55	89.70	114.58	178.41	234.34	281.37	353.08	404.11

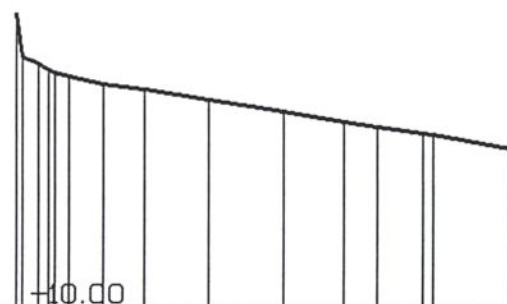
DENNEVILLE-SURVILLE

PROFIL 19

MAI 1993

ECHELLE HORIZONTALE 1/5000

ECHELLE VERTICALE 1/500



ALTITUDES IGN 69	9.19	5.10	4.63	4.29	3.63	2.86	2.21	1.87	1.41	1.31	0.97
DISTANCES CUMULEES	0.00	35.26	58.55	85.92	128.32	177.90	217.76	239.62	269.18	275.81	327.17

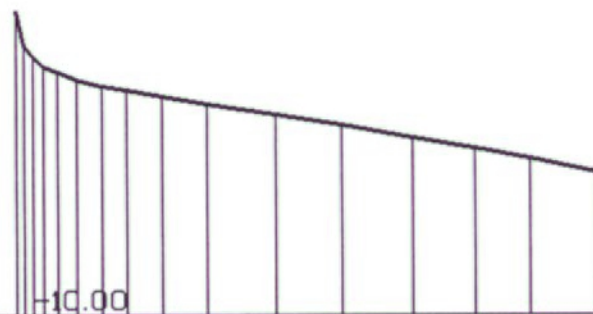
DENNEVILLE-SURVILLE

PROFIL 22

MAI 1993

ECHELLE HORIZONTALE 1/5000

ECHELLE VERTICALE 1/500



ALTITUDES IGN 69	9.85	5.89	5.40	4.98	4.69	4.31	3.81	3.14	2.39	1.58	0.94	0.22	-0.72
DISTANCES CUMULEES	0.00	27.52	40.04	56.92	72.85	96.63	126.31	172.22	215.76	262.84	303.69	340.86	385.31

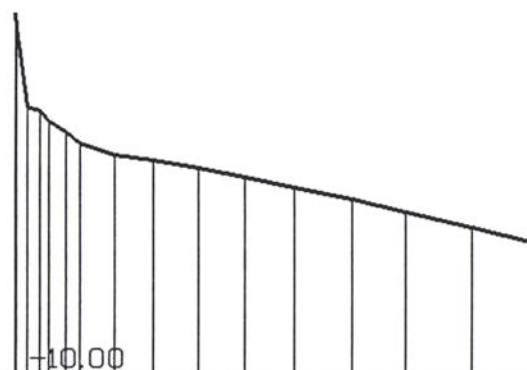
DENNEVILLE-SURVILLE

PROFIL 23

MAI 1993

ECHELLE HORIZONTALE 1/5000

ECHELLE VERTICALE 1/500



ALTITUDES IGN 69	13.40	5.73	4.94	4.22	3.84	3.32	2.73	2.08	1.30	0.48	-0.56	-1.47
DISTANCES CUMULEES	0.00	34.11	43.71	66.52	91.46	121.10	151.74	184.32	223.08	258.55	302.15	341.72

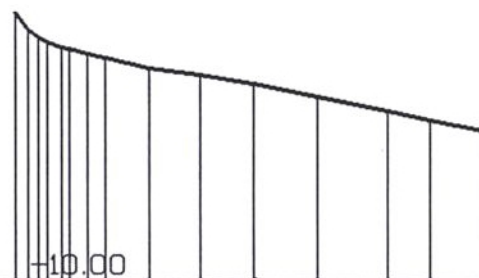
DENNEVILLE-SURVILLE

PROFIL 25

MAI 1993

ECHELLE HORIZONTALE 1/5000

ECHELLE VERTICALE 1/500



ALTITUDES IGN 69	7.46	4.71	4.42	3.80	3.38	2.79	1.93	1.00	0.43	-0.32
DISTANCES CUMULEES	0.00	47.88	59.24	87.94	121.99	157.87	200.20	246.72	274.35	309.05

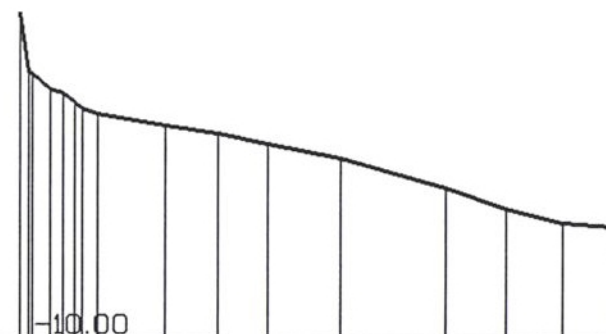
DENNEVILLE-SURVILLE

PROFIL 27

MAI 1993

ECHELLE HORIZONTALE 1/5000

ECHELLE VERTICALE 1/500



ALTITUDES IGN 69	11.36	6.90	4.73	3.91	3.40	2.79	1.81	-0.09	-1.48	-2.44	-2.68
DISTANCES CUMULEES	0.00	20.69	51.56	96.27	131.47	164.50	212.67	281.82	321.89	358.96	392.08

CAMPAGNE N°21

Denneville - Surville

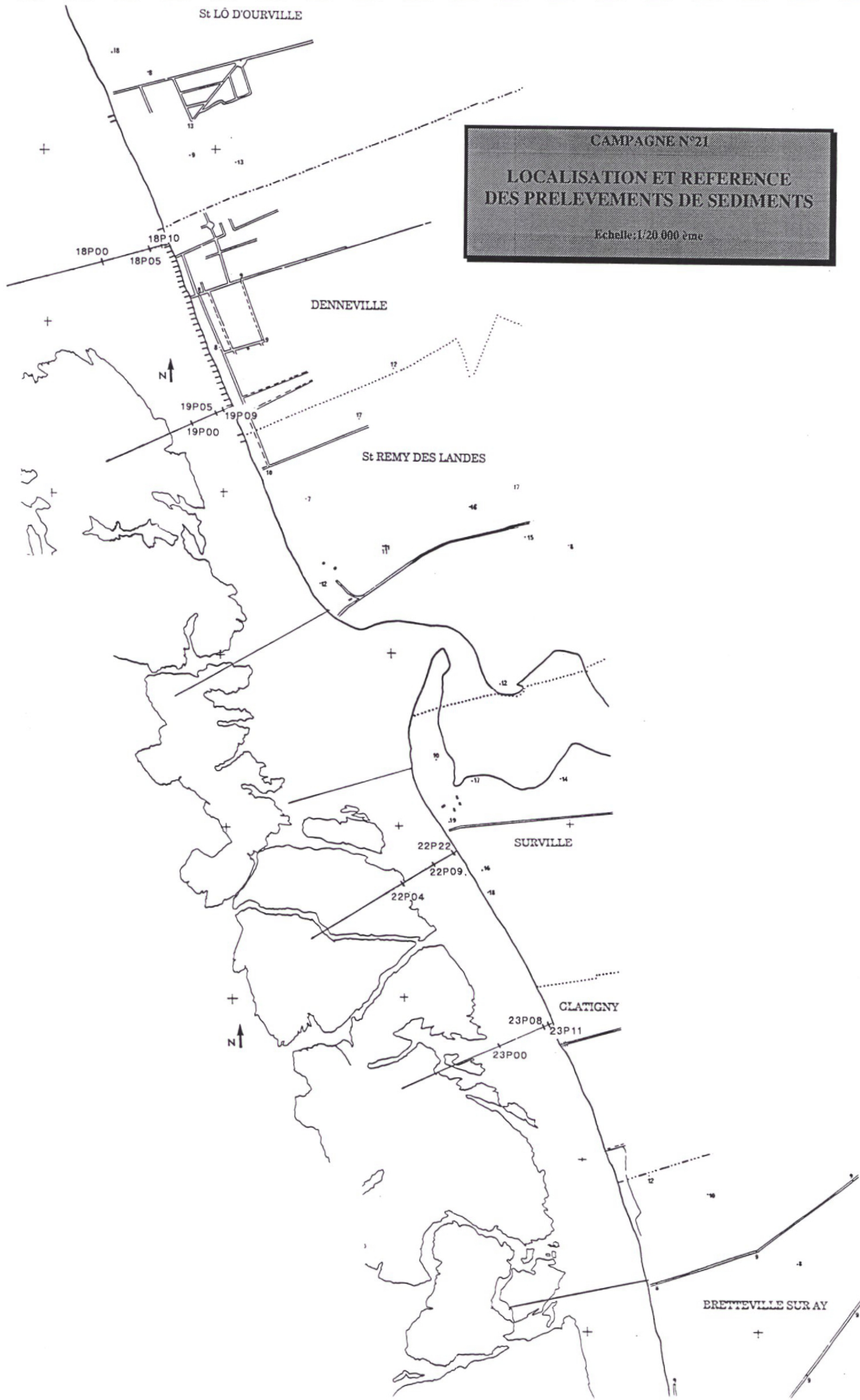
CARACTERISTIQUES
SEDIMENTOLOGIQUES

St LÔ D'OURVILLE

CAMPAGNE N°21

LOCALISATION ET REFERENCE
DES PRELEVEMENTS DE SEDIMENTS

Echelle: 1/20 000 ème



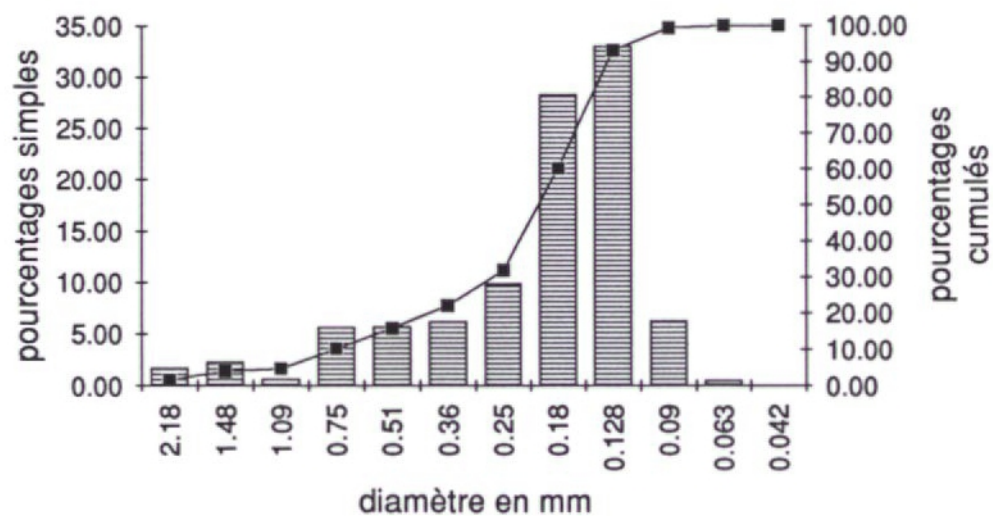
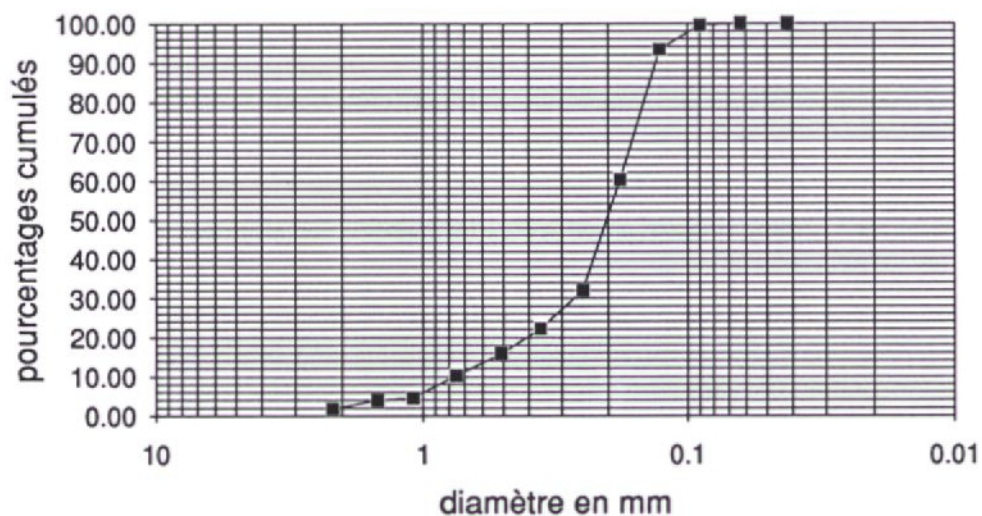
CAMPAGNE 21 : DENNEVILLE-SURVILLE

REFERENCE DE L'ECHANTILLON

G18P00C

Poids total : 138.80

Modules	Ouvertures en mm	Pds simples	Pds cumulés ****	% simples	% cumulés
10	2.18	2.37	2.37	1.71	1.71
14	1.48	3.13	5.50	2.26	3.96
18	1.09	0.89	6.39	0.64	4.60
25	0.75	7.80	14.19	5.62	10.22
35	0.51	7.89	22.08	5.68	15.91
50	0.36	8.62	30.70	6.21	22.12
70	0.25	13.71	44.41	9.88	32.00
110	0.18	39.20	83.61	28.24	60.24
150	0.128	45.74	129.35	32.95	93.19
200	0.09	8.71	138.06	6.28	99.47
280	0.063	0.72	138.78	0.52	99.99
350	0.042	0.02	138.80	0.01	100.00
	fin	0.00	138.80	0.00	100.00



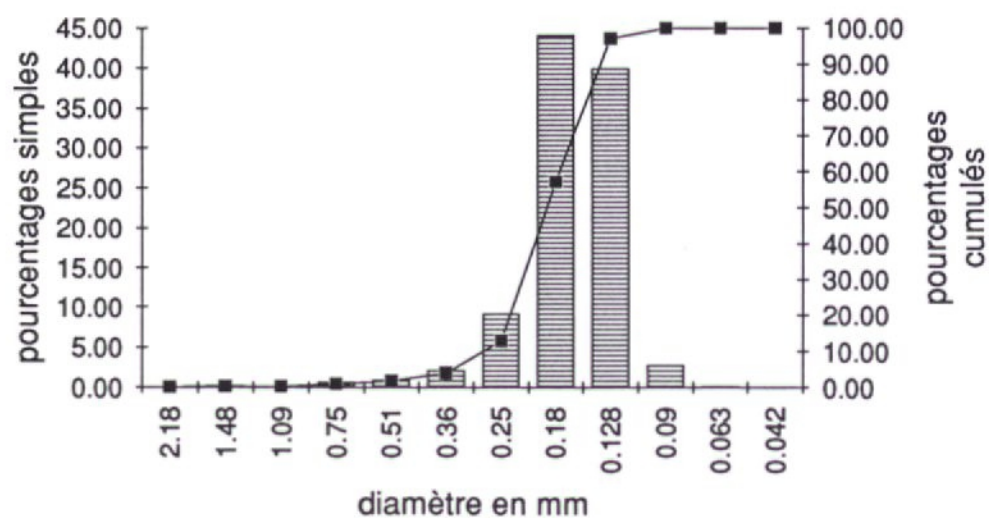
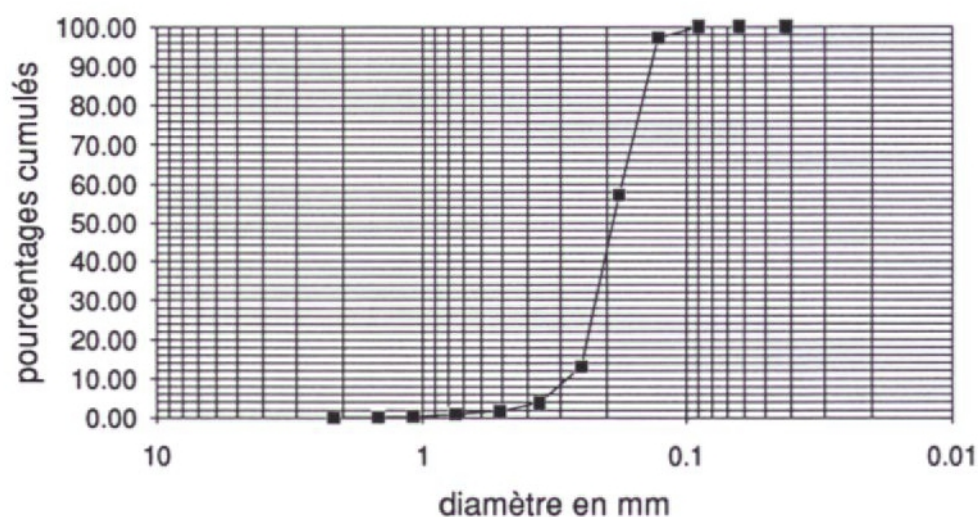
CAMPAGNE 21 : DENNEVILLE-SURVILLE

REFERENCE DE L'ECHANTILLON

G18P05C

Poids total : 116.96

Modules	Ouvertures en mm	Pds simples	Pds cumulés ****	% simples	% cumulés
10	2.18	0.00	0.00	0.00	0.00
14	1.48	0.23	0.23	0.20	0.20
18	1.09	0.06	0.29	0.05	0.25
25	0.75	0.79	1.08	0.68	0.92
35	0.51	1.08	2.16	0.92	1.85
50	0.36	2.46	4.62	2.10	3.95
70	0.25	10.72	15.34	9.17	13.12
110	0.18	51.58	66.92	44.10	57.22
150	0.128	46.69	113.61	39.92	97.14
200	0.09	3.21	116.82	2.74	99.88
280	0.063	0.13	116.95	0.11	99.99
350	0.042	0.01	116.96	0.01	100.00
	finer	0.00	116.96	0.00	100.00



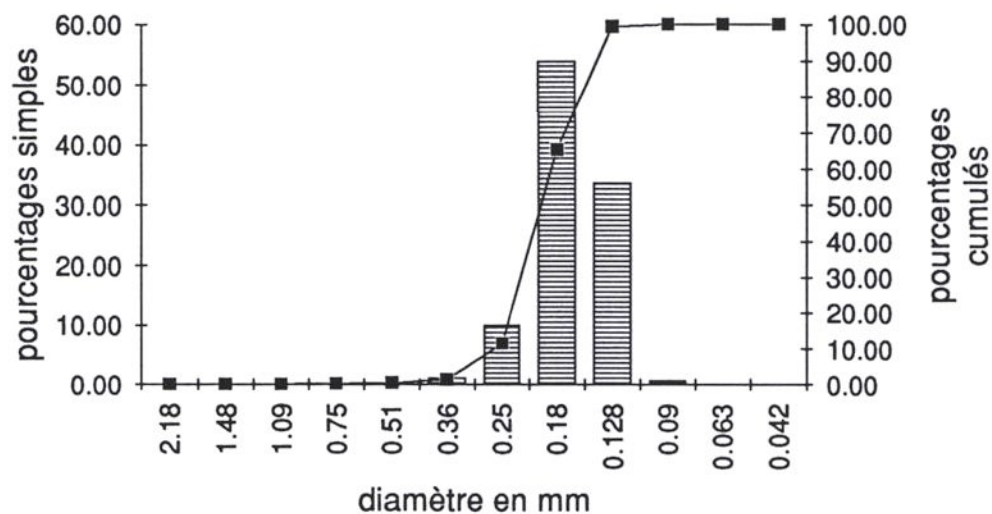
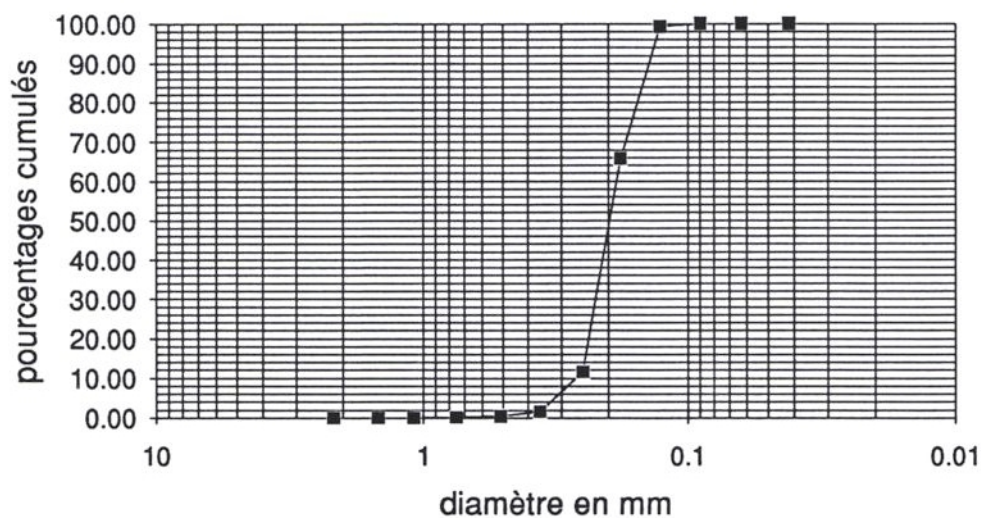
CAMPAGNE 21 : DENNEVILLE-SURVILLE

REFERENCE DE L'ECHANTILLON

G18P10C

Poids total : 125.94

Modules	Ouvertures en mm	Pds simples	Pds cumulés ****	% simples	% cumulés
10	2.18	0.00	0.00	0.00	0.00
14	1.48	0.03	0.03	0.02	0.02
18	1.09	0.01	0.04	0.01	0.03
25	0.75	0.17	0.21	0.13	0.17
35	0.51	0.39	0.60	0.31	0.48
50	0.36	1.34	1.94	1.06	1.54
70	0.25	12.61	14.55	10.01	11.55
110	0.18	68.05	82.60	54.03	65.59
150	0.128	42.41	125.01	33.67	99.26
200	0.09	0.89	125.90	0.71	99.97
280	0.063	0.04	125.94	0.03	100.00
350	0.042	0.00	125.94	0.00	100.00
	fines	0.00	125.94	0.00	100.00



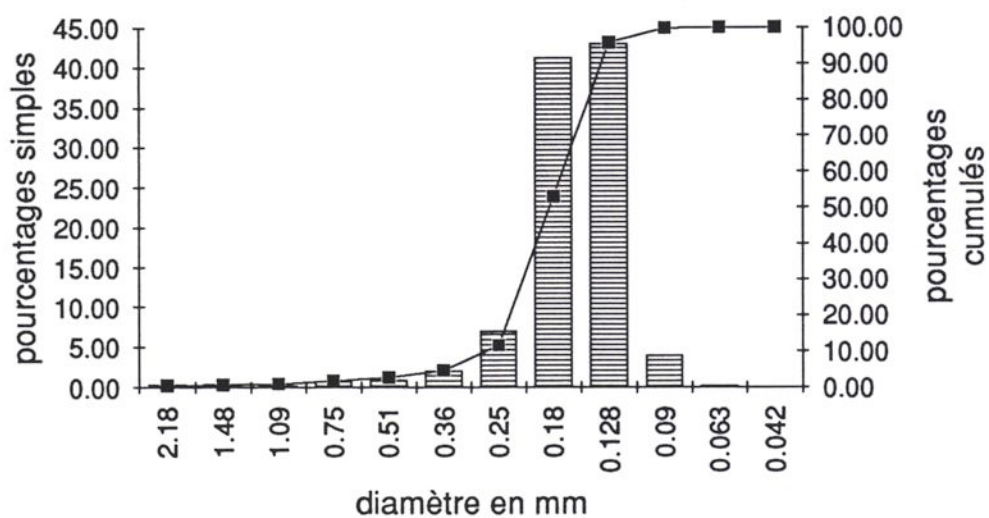
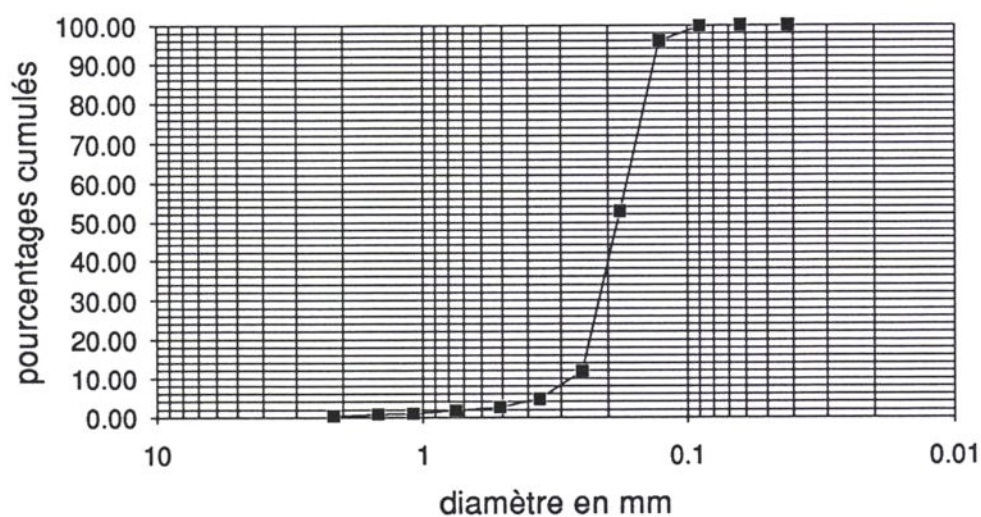
CAMPAGNE 21 : DENNEVILLE-SURVILLE

REFERENCE DE L'ECHANTILLON

G19P00C

Poids total : 141.89

Modules	Ouvertures en mm	Pds simples	Pds cumulés ****	% simples	% cumulés
10	2.18	0.49	0.49	0.35	0.35
14	1.48	0.61	1.10	0.43	0.78
18	1.09	0.29	1.39	0.20	0.98
25	0.75	1.11	2.50	0.78	1.76
35	0.51	1.31	3.81	0.92	2.69
50	0.36	2.83	6.64	1.99	4.68
70	0.25	9.95	16.59	7.01	11.69
110	0.18	58.48	75.07	41.22	52.91
150	0.128	60.99	136.06	42.98	95.89
200	0.09	5.56	141.62	3.92	99.81
280	0.063	0.26	141.88	0.18	99.99
350	0.042	0.01	141.89	0.01	100.00
	finer	0.00	141.89	0.00	100.00



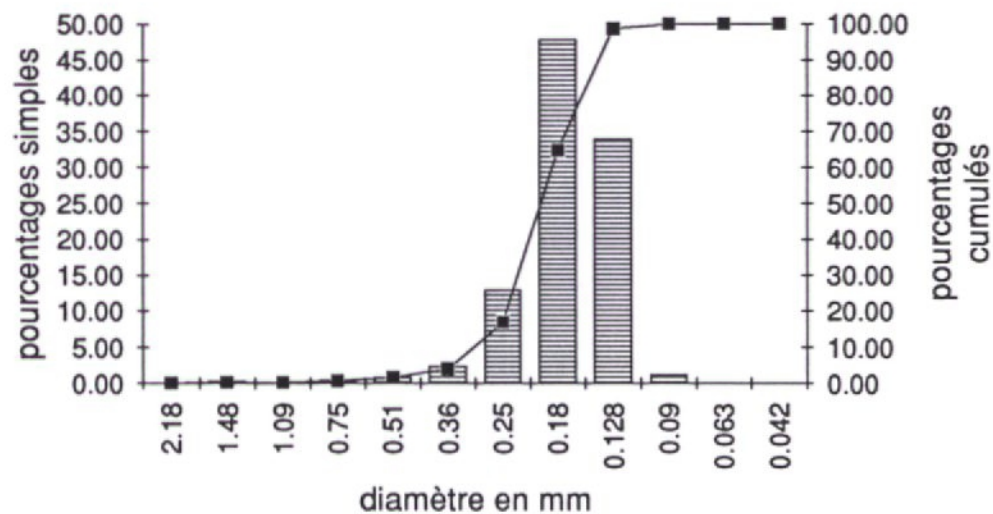
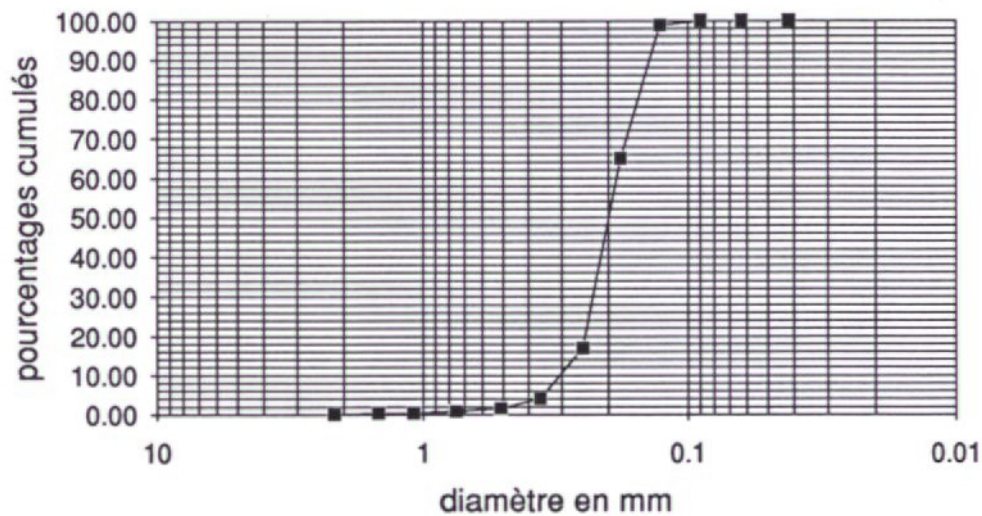
CAMPAGNE 21 : DENNEVILLE-SURVILLE

REFERENCE DE L'ECHANTILLON

G19P09C

Poids total : 134.18

Modules	Ouvertures en mm	Pds simples	Pds cumulés ****	% simples	% cumulés
10	2.18	0.00	0.00	0.00	0.00
14	1.48	0.35	0.35	0.26	0.26
18	1.09	0.08	0.43	0.06	0.32
25	0.75	0.69	1.12	0.51	0.83
35	0.51	1.13	2.25	0.84	1.68
50	0.36	3.21	5.46	2.39	4.07
70	0.25	17.30	22.76	12.89	16.96
110	0.18	64.14	86.90	47.80	64.76
150	0.128	45.59	132.49	33.98	98.74
200	0.09	1.61	134.10	1.20	99.94
280	0.063	0.05	134.15 "	0.04	99.98
350	0.042	0.03	134.18	0.02	100.00
	fin	0.00	134.18	0.00	100.00



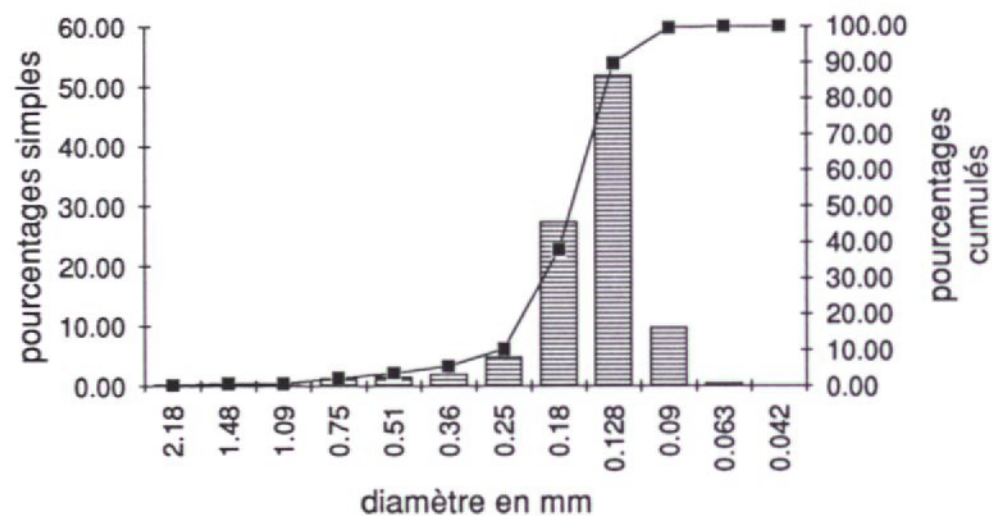
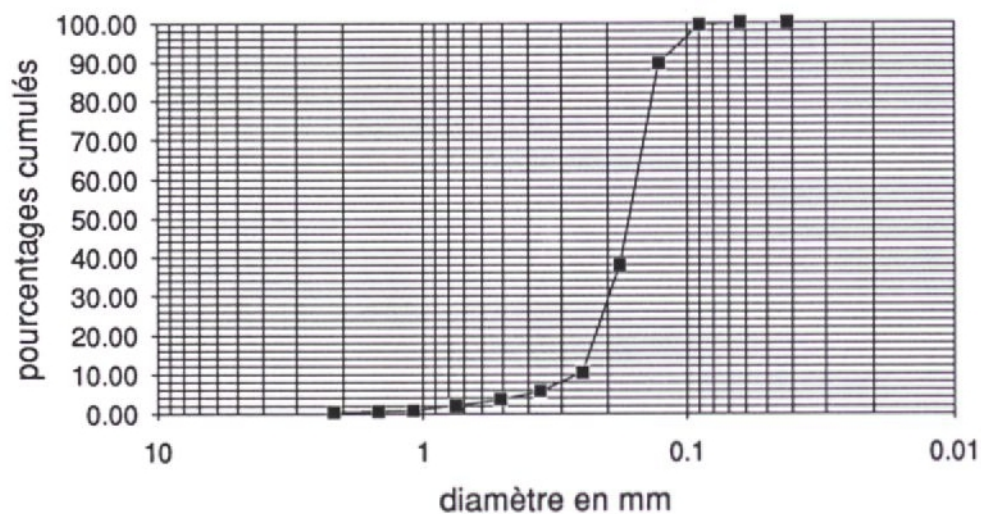
CAMPAGNE 21 : DENNEVILLE-SURVILLE

REFERENCE DE L'ECHANTILLON

G19P05C

Poids total : 119.75

Modules	Ouvertures en mm	Pds simples	Pds cumulés ****	% simples	% cumulés
10	2.18	0.32	0.32	0.27	0.27
14	1.48	0.50	0.82	0.42	0.68
18	1.09	0.16	0.98	0.13	0.82
25	0.75	1.61	2.59	1.34	2.16
35	0.51	1.80	4.39	1.50	3.67
50	0.36	2.39	6.78	2.00	5.66
70	0.25	5.74	12.52	4.79	10.46
110	0.18	32.79	45.31	27.38	37.84
150	0.128	62.12	107.43	51.87	89.71
200	0.09	11.70	119.13	9.77	99.48
280	0.063	0.61	119.74	0.51	99.99
350	0.042	0.01	119.75	0.01	100.00
	finer	0.00	119.75	0.00	100.00



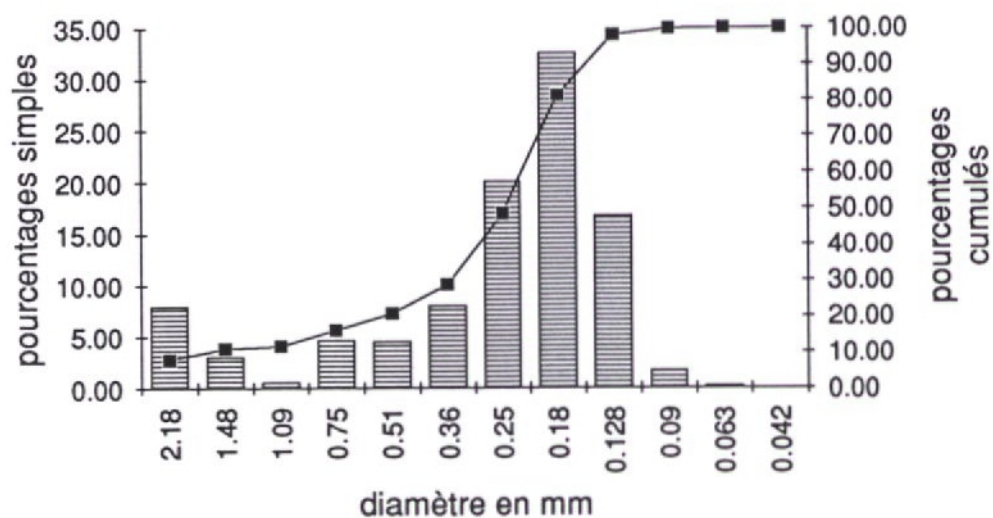
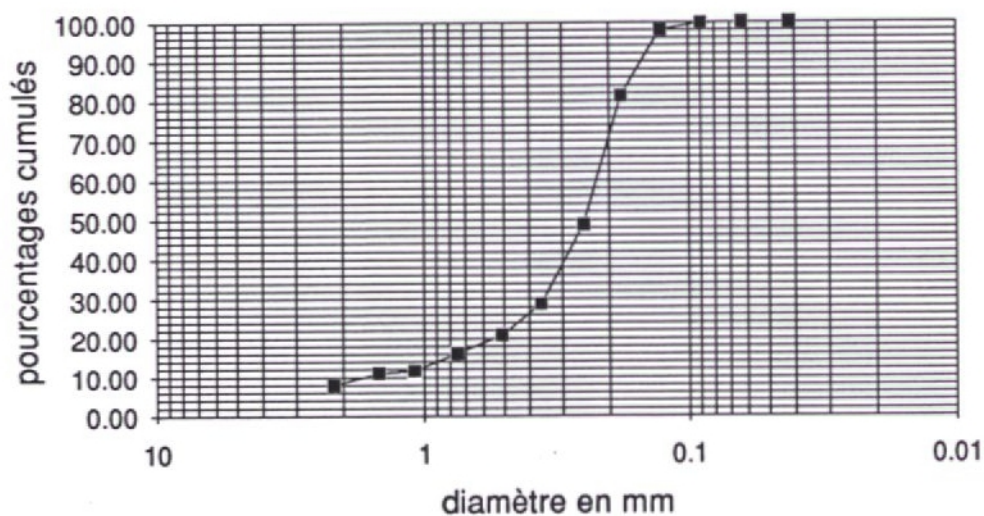
CAMPAGNE 21 : DENNEVILLE-SURVILLE

REFERENCE DE L'ECHANTILLON

G22P04C

Poids total : 103.48

Modules	Ouvertures en mm	Pds simples	Pds cumulés ****	% simples	% cumulés
10	2.18	8.23	8.23	7.95	7.95
14	1.48	3.10	11.33	3.00	10.95
18	1.09	0.61	11.94	0.59	11.54
25	0.75	4.76	16.70	4.60	16.14
35	0.51	4.70	21.40	4.54	20.68
50	0.36	8.26	29.66	7.98	28.66
70	0.25	20.77	50.43	20.07	48.73
110	0.18	33.67	84.10	32.54	81.27
150	0.128	17.36	101.46	16.78	98.05
200	0.09	1.79	103.25	1.73	99.78
280	0.063	0.22	103.47	0.21	99.99
350	0.042	0.01	103.48	0.01	100.00
	finés	0.00	103.48	0.00	100.00



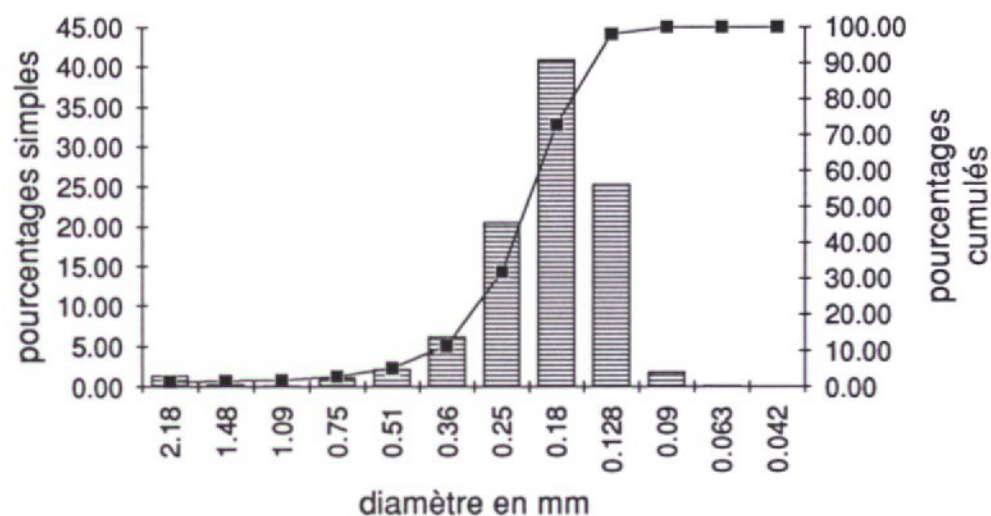
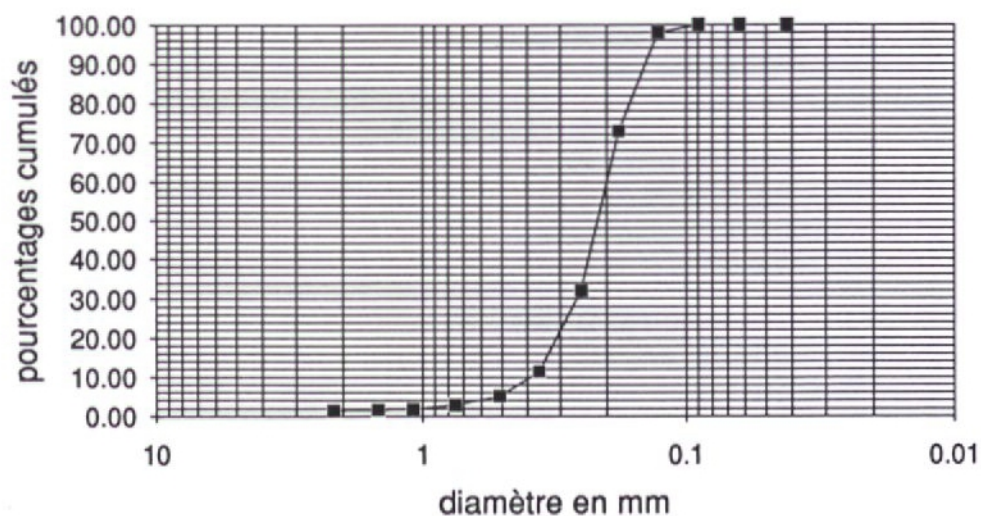
CAMPAGNE 21 : DENNEVILLE-SURVILLE

REFERENCE DE L'ECHANTILLON

G22P09C

Poids total : 119.82

Modules	Ouvertures en mm	Pds simples	Pds cumulés ****	% simples	% cumulés
10	2.18	1.68	1.68	1.40	1.40
14	1.48	0.30	1.98	0.25	1.65
18	1.09	0.13	2.11	0.11	1.76
25	0.75	1.38	3.49	1.15	2.91
35	0.51	2.65	6.14	2.21	5.12
50	0.36	7.47	13.61	6.23	11.36
70	0.25	24.65	38.26	20.57	31.93
110	0.18	48.98	87.24	40.88	72.81
150	0.128	30.22	117.46	25.22	98.03
200	0.09	2.25	119.71	1.88	99.91
280	0.063	0.10	119.81	0.08	99.99
350	0.042	0.01	119.82	0.01	100.00
	finer	0.00	119.82	0.00	100.00



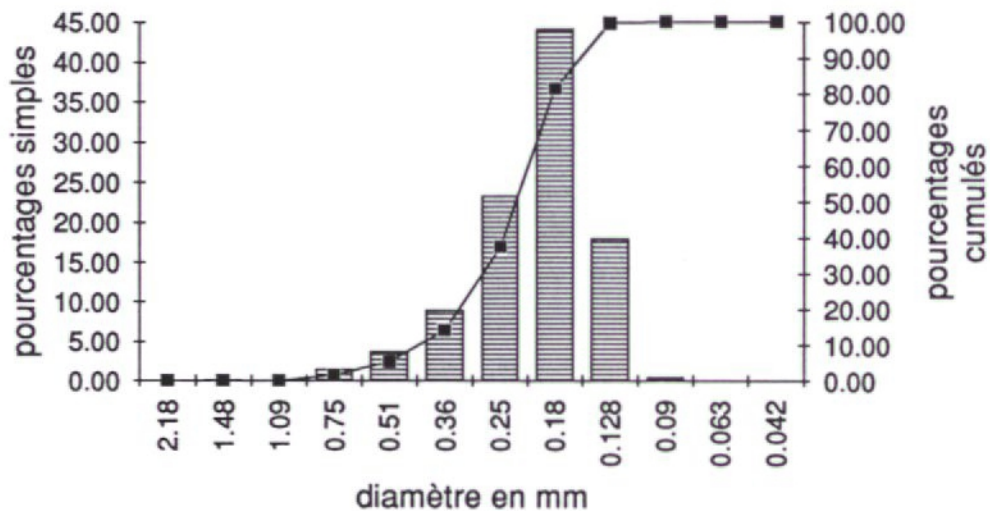
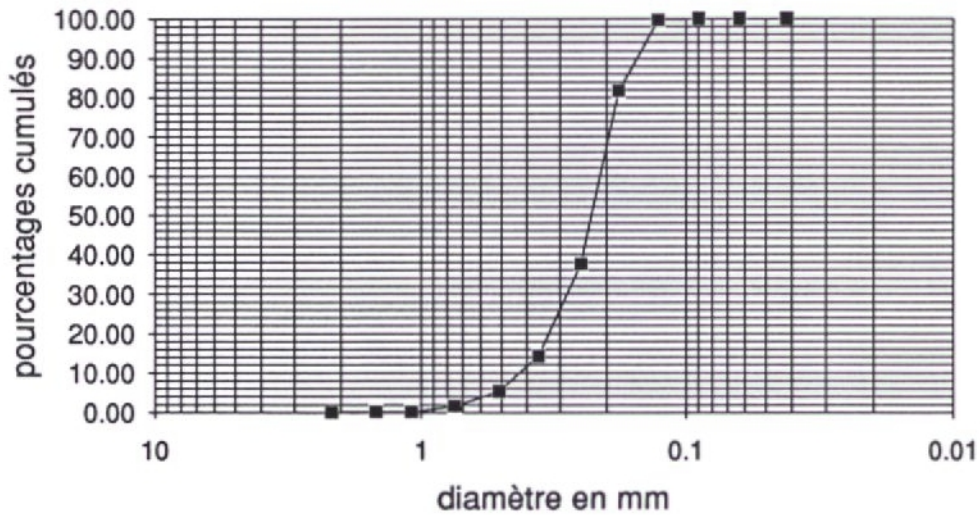
CAMPAGNE 21 : DENNEVILLE-SURVILLE

REFERENCE DE L'ECHANTILLON

G22P18C

Poids total : 133.29

Modules	Ouvertures en mm	Pds simples	Pds cumulés ****	% simples	% cumulés
10	2.18	0.00		0.00	0.00
14	1.48	0.12	0.12	0.09	0.09
18	1.09	0.06	0.18	0.05	0.14
25	0.75	1.97	2.15	1.48	1.61
35	0.51	5.00	7.15	3.75	5.36
50	0.36	11.93	19.08	8.95	14.31
70	0.25	30.97	50.05	23.24	37.55
110	0.18	58.80	108.85	44.11	81.66
150	0.128	23.83	132.68	17.88	99.54
200	0.09	0.55	133.23	0.41	99.95
280	0.063	0.05	133.28	0.04	99.99
350	0.042	0.01	133.29	0.01	100.00
	fin	0.00	133.29	0.00	100.00



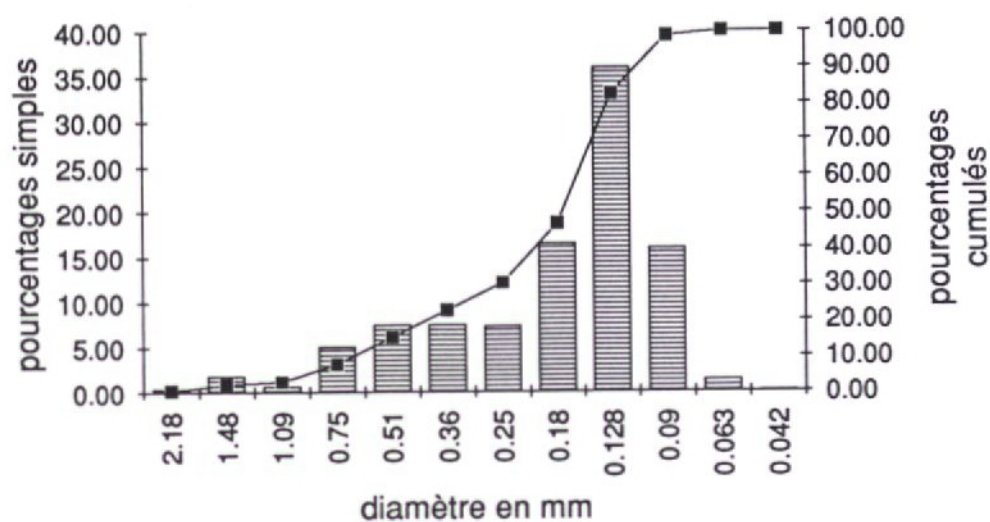
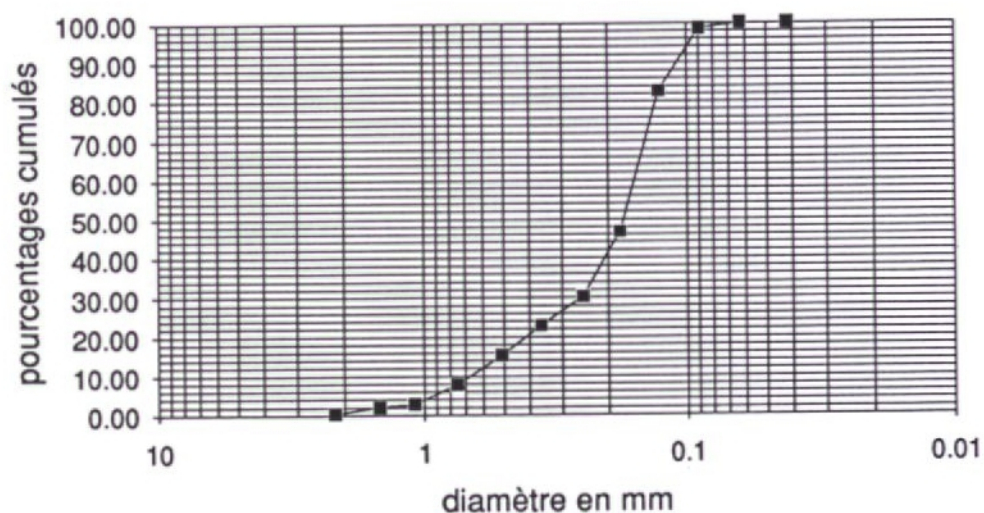
CAMPAGNE 21 : DENNEVILLE-SURVILLE

REFERENCE DE L'ECHANTILLON

G23P00C

Poids total : 116.33

Modules	Ouvertures en mm	Pds simples	Pds cumulés ****	% simples	% cumulés
10	2.18	0.44	0.44	0.38	0.38
14	1.48	2.06	2.50	1.77	2.15
18	1.09	0.79	3.29	0.68	2.83
25	0.75	5.88	9.17	5.05	7.88
35	0.51	8.74	17.91	7.51	15.40
50	0.36	8.73	26.64	7.50	22.90
70	0.25	8.53	35.17	7.33	30.23
110	0.18	19.19	54.36	16.50	46.73
150	0.128	41.74	96.10	35.88	82.61
200	0.09	18.61	114.71	16.00	98.61
280	0.063	1.51	116.22	1.30	99.91
350	0.042	0.09	116.31	0.08	99.98
	fin	0.02	116.33	0.02	100.00



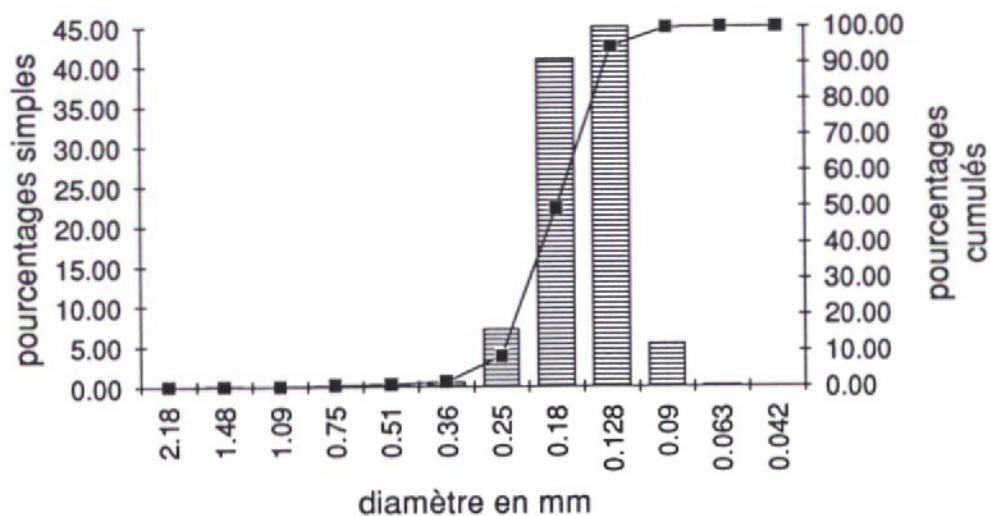
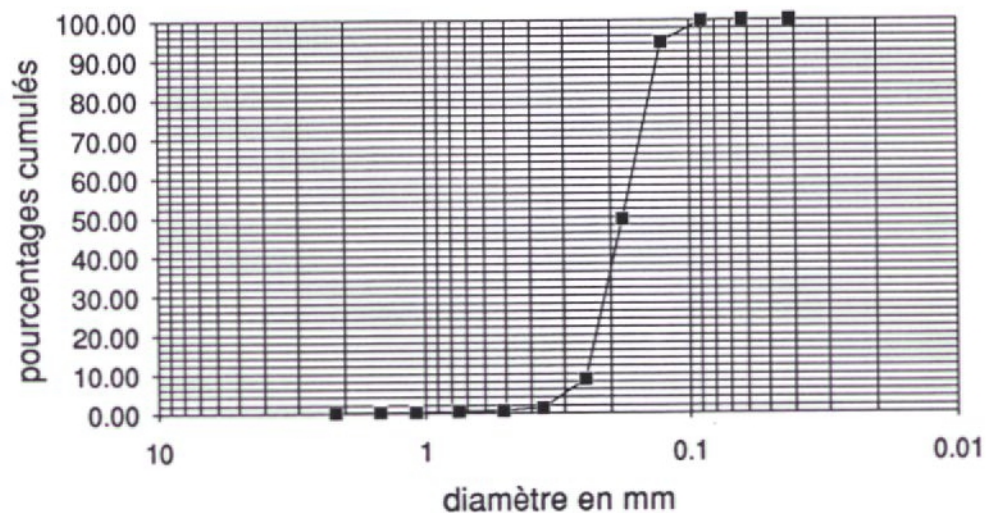
CAMPAGNE 21 : DENNEVILLE-SURVILLE

REFERENCE DE L'ECHANTILLON

G23P08C

Poids total : 131.25

Modules	Ouvertures en mm	Pds simples	Pds cumulés ****	% simples	% cumulés
10	2.18	0.00	0.00	0.00	0.00
14	1.48	0.10	0.10	0.08	0.08
18	1.09	0.08	0.18	0.06	0.14
25	0.75	0.28	0.46	0.21	0.35
35	0.51	0.42	0.88	0.32	0.67
50	0.36	0.82	1.70	0.62	1.30
70	0.25	9.51	11.21	7.25	8.54
110	0.18	53.73	64.94	40.94	49.48
150	0.128	58.98	123.92	44.94	94.42
200	0.09	7.11	131.03	5.42	99.83
280	0.063	0.21	131.24	0.16	99.99
350	0.042	0.01	131.25	0.01	100.00
	fines	0.00	131.25	0.00	100.00



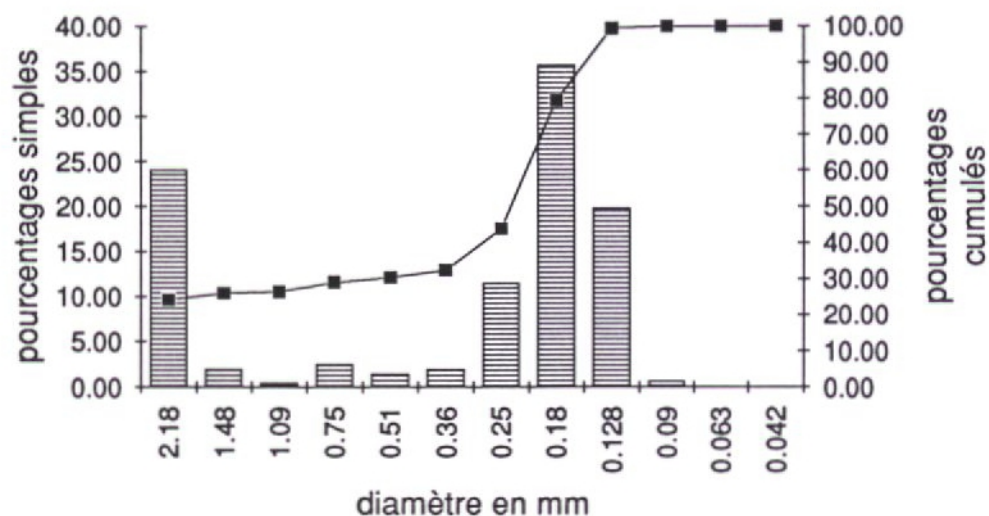
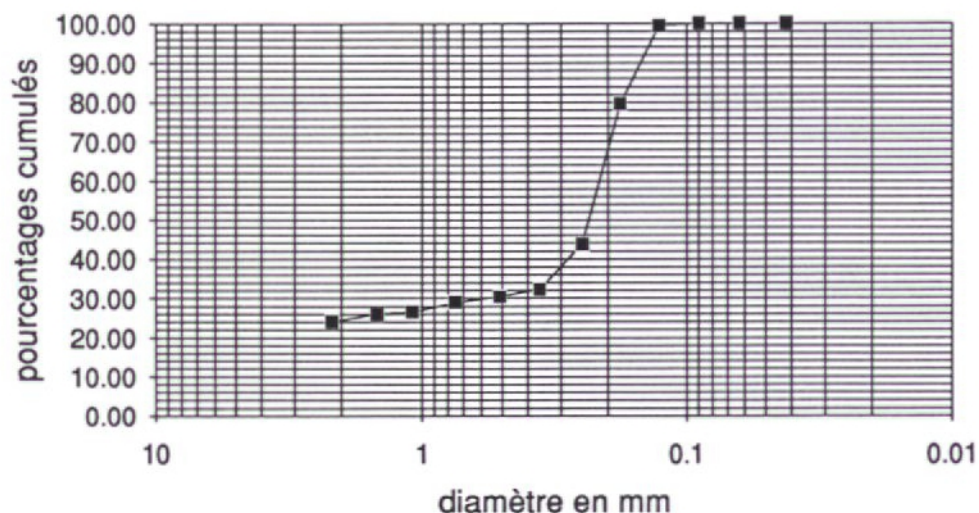
CAMPAGNE 21 : DENNEVILLE-SURVILLE

REFERENCE DE L'ECHANTILLON

G23P11C

Poids total : 128.31

Modules	Ouvertures en mm	Pds simples	Pds cumulés ****	% simples	% cumulés
10	2.18	30.82	30.82	24.02	24.02
14	1.48	2.49	33.31	1.94	25.96
18	1.09	0.56	33.87	0.44	26.40
25	0.75	3.25	37.12	2.53	28.93
35	0.51	1.84	38.96	1.43	30.36
50	0.36	2.49	41.45	1.94	32.30
70	0.25	14.74	56.19	11.49	43.79
110	0.18	45.86	102.05	35.74	79.53
150	0.128	25.44	127.49	19.83	99.36
200	0.09	0.80	128.29	0.62	99.98
280	0.063	0.02	128.31	0.02	100.00
350	0.042	0.00	128.31	0.00	100.00
	fin	0.00	128.31	0.00	100.00



CAMPAGNE N°21

Denneville - Surville

COURANTOLOGIE



InterOcean Systems, Inc.

Model S4 Current Meter #19261554

U2DENA01

File : E:U2DENA01.S4B

Samples averaged : 1

Mean : 14.14

S
p
e
e
d

100.0
cm/s

50.0

0.0



Mean : 304.13

D
i
r
.

360
deg

180

0



58
5/24/93 21:24:00

Samples

115
5/24/93 23:18:00



InterOcean Systems, Inc.

U2DENA01

Samples averaged : 1

Model S4 Current Meter #19261554

File : E:U2DENA01.S4B

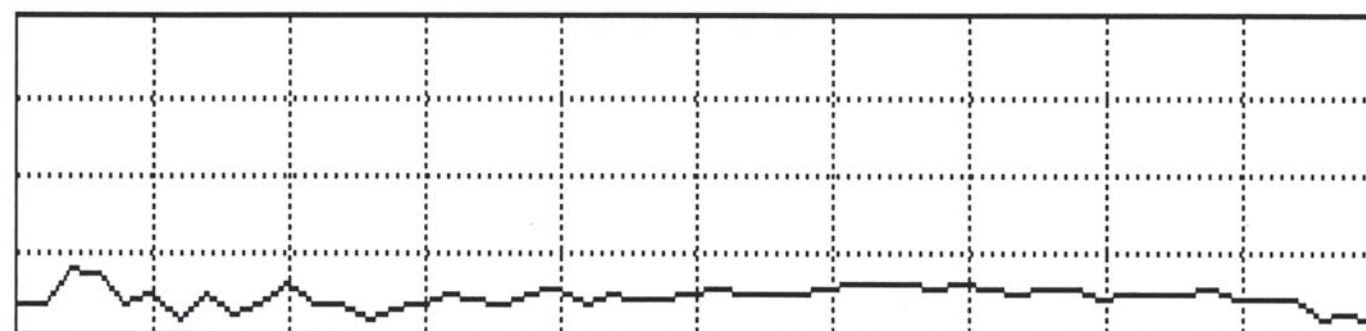
Mean : 10.77

S
p
e
e
d

100.0
cm/s

50.0

0.0



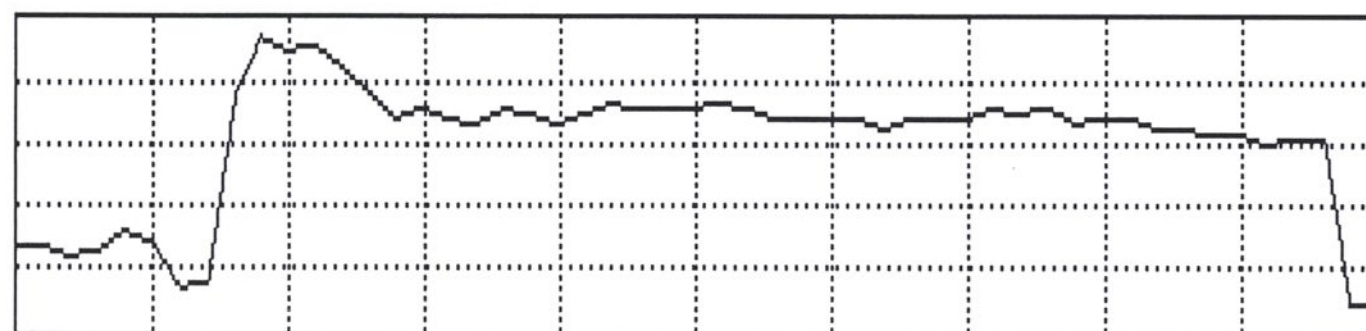
Mean : 319.84

D
i
r
.

360
deg

180

0



430
5/25/93 09:48:00

Samples

480
5/25/93 11:28:00



InterOcean Systems, Inc.

U3DENB01

Samples averaged : 1

Model S4 Current Meter #19261544

File : E:\U3DENB01.S4B

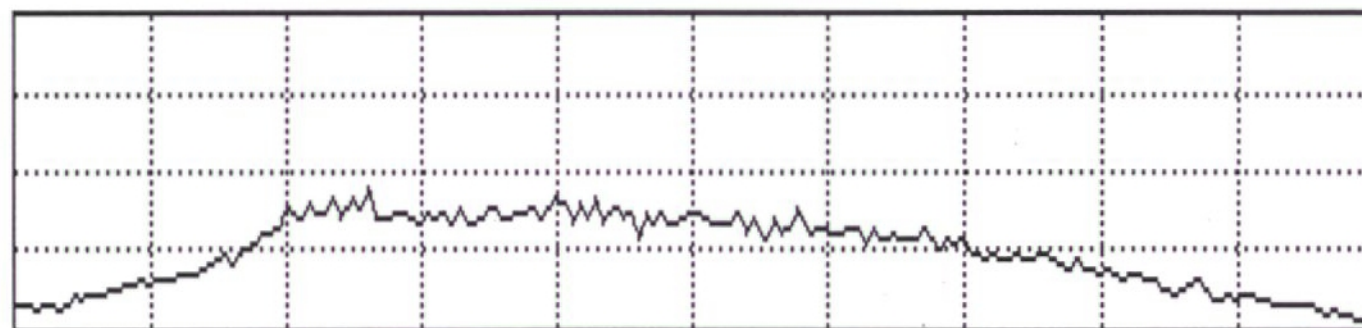
Mean : 24.34

S
p
e
e
d

100.0
cm/s

50.0

0.0



Mean : 338.23

D
i
r
,

360
deg

180

0



45
5/24/93 19:28:00

Samples

225
5/25/93 01:28:00



InterOcean Systems, Inc.

Model S4 Current Meter #19261544

U3DENB01

File : E:\U3DENB01.S4B

Samples averaged : 1

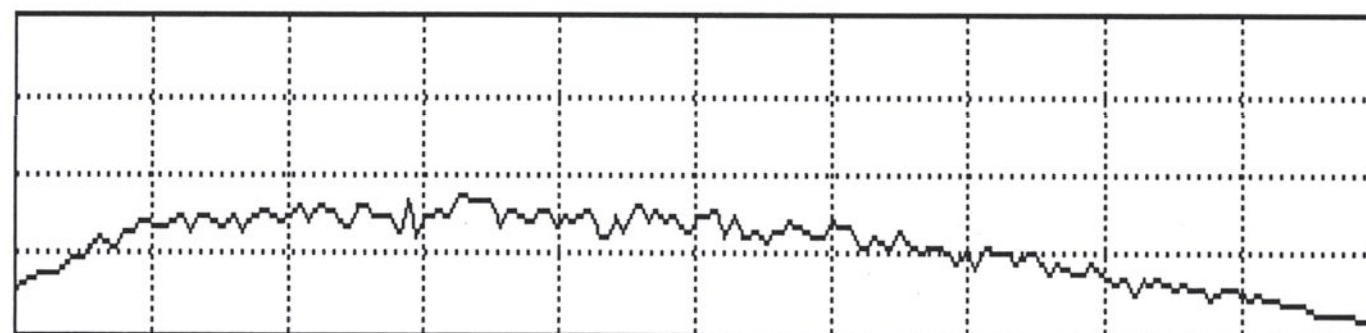
Mean : 27.34

S
p
e
e
d

100.0
cm/s

50.0

0.0



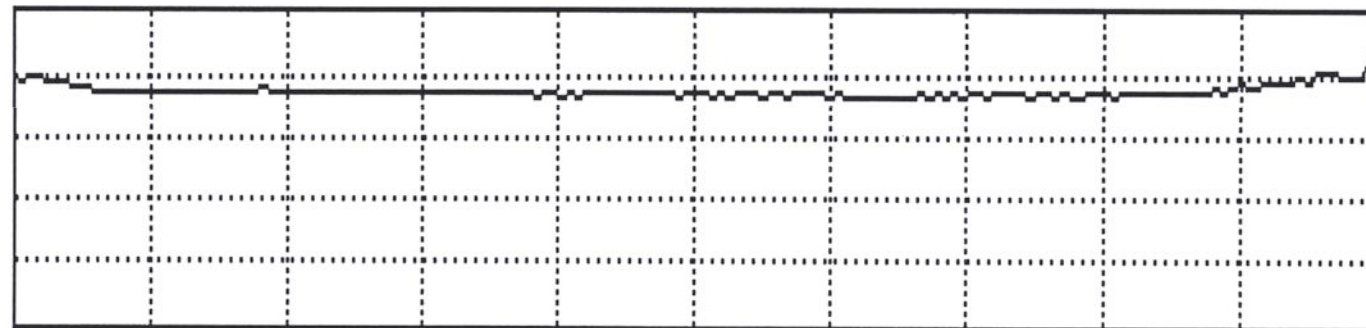
Mean : 337.39

D
i
r
.

360
deg

180

0



437
5/25/93 08:32:00

Samples

600
5/25/93 13:58:00



InterOcean Systems, Inc.

04SURC01

Samples averaged : 120

Model S4 Current Meter #05451482

File : E:04SURC01.S4B

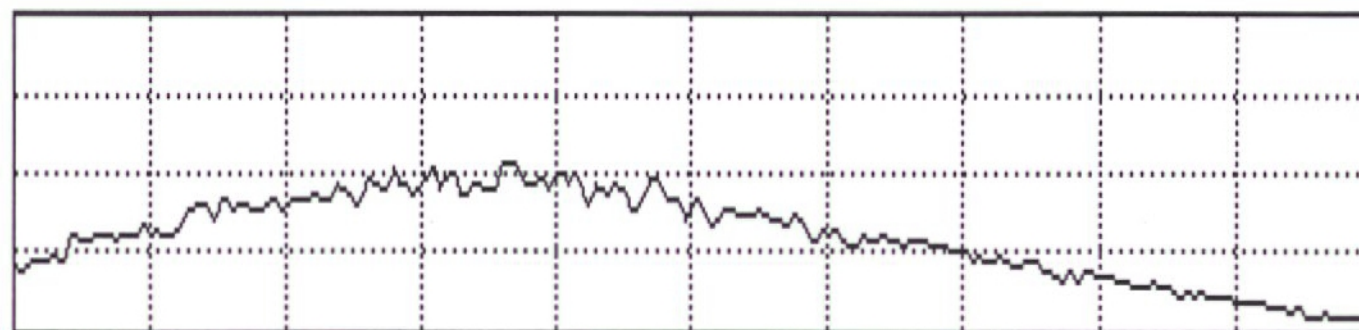
Mean : 29.99

S
p
e
e
d

100.0
cm/s

50.0

0.0



Mean : 323.01

D
i
r
.

360
deg

180

0



7790

5/24/93 19:40:54

Samples

31500

5/25/93 01:10:30



InterOcean Systems, Inc.

04SURC01

Samples averaged : 120

Model S4 Current Meter #05451482

File : E:04SURC01.S4B

Mean : 30.44

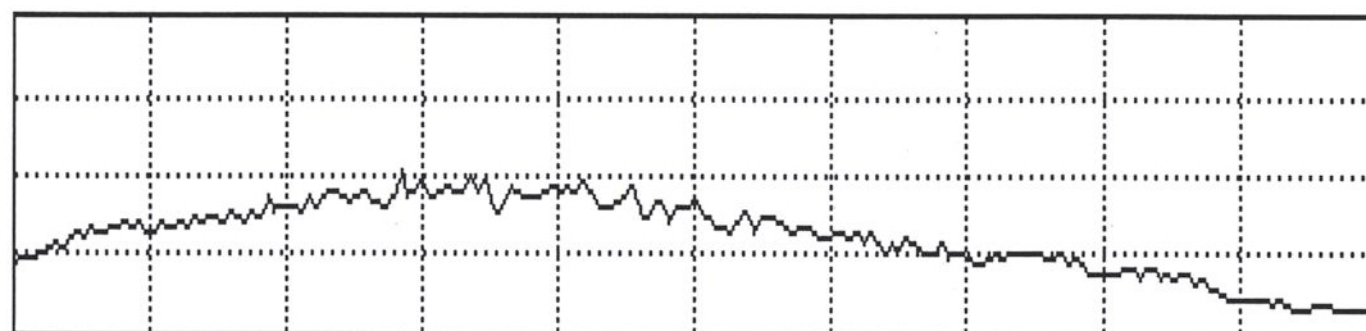
S
p
e
e
d

100.0

cm/s

50.0

0.0



Mean : 323.02

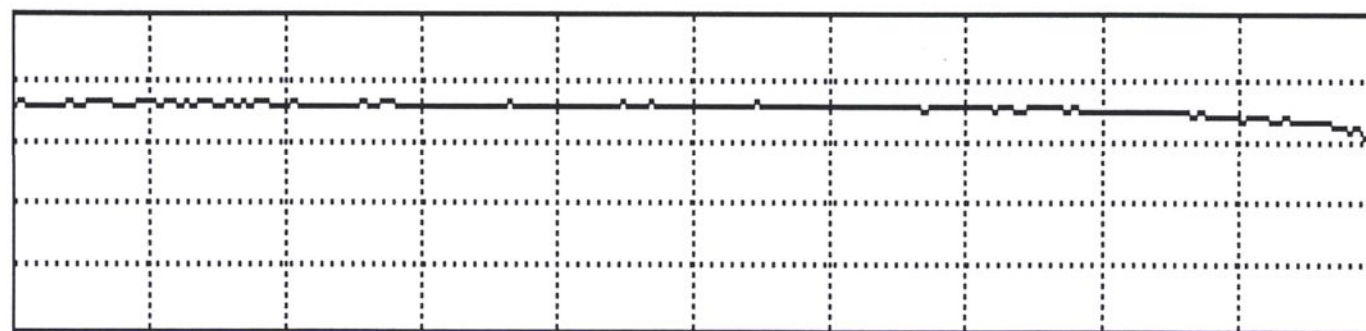
D
i
r
.

360

deg

180

0



61780

5/25/93 08:10:50

Samples

85000

5/25/93 13:36:20



InterOcean Systems, Inc.

Model S4 Current Meter #19261543

U1SURD01

File : E:U1SURD01.S4B

Samples averaged : 1

Mean : 25.46

S
p
e
e
d

100.0
cm/s

50.0

0.0



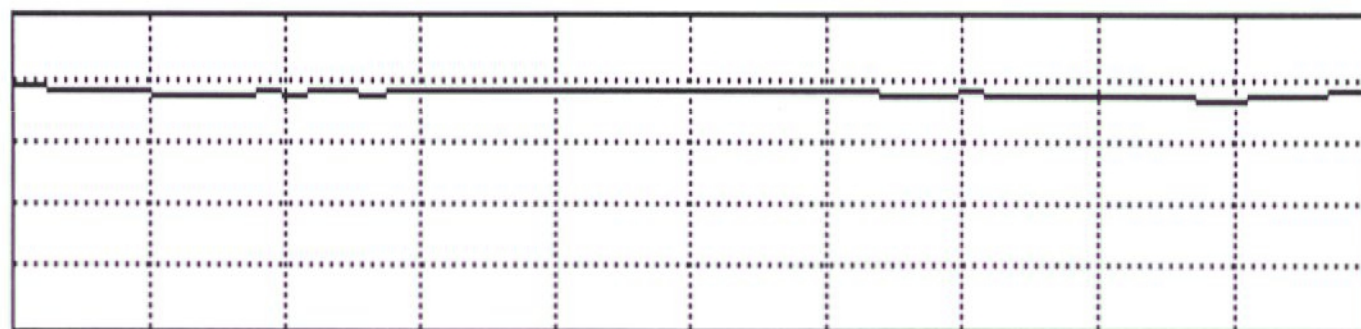
Mean : 341.66

D
i
r
.

360
deg

180

0



58
5/24/93 21:24:00

Samples

110
5/24/93 23:08:00



InterOcean Systems, Inc.

U1SURD01

Samples averaged : 1

Model S4 Current Meter #19261543

File : E:U1SURD01.S4B

Mean : 20.39

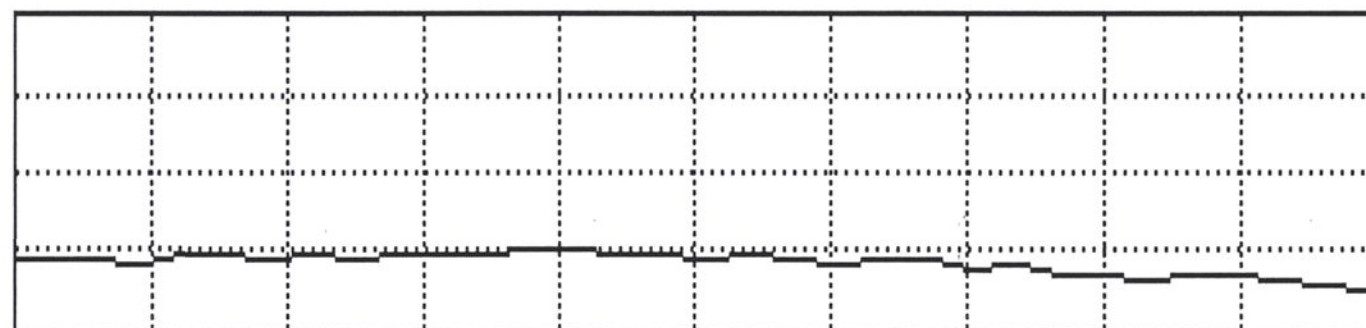
S
p
e
e
d

100.0

cm/s

50.0

0.0



Mean : 343.59

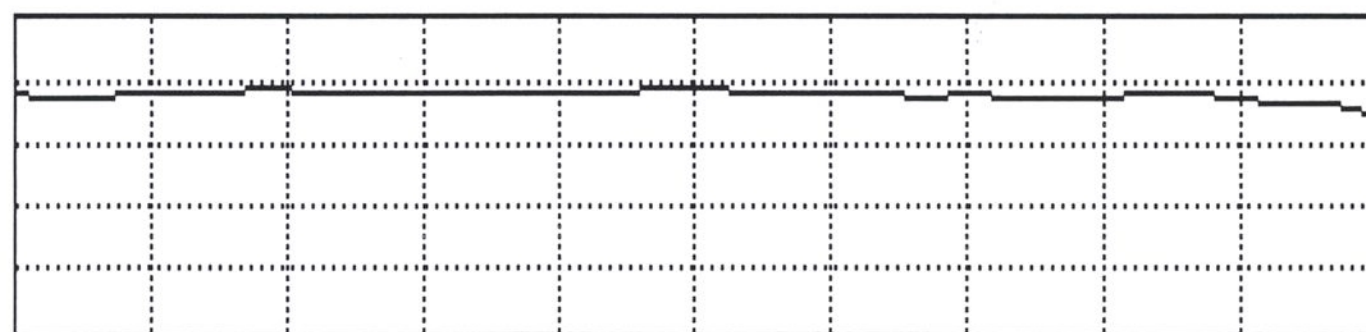
D
i
r
.

360

deg

180

0



444

5/25/93 10:16:00

Samples

475

5/25/93 11:18:00



InterOcean Systems, Inc.

U3DENA03

Samples averaged : 1

Model S4 Current Meter #19261544

File : E:U3DENA03.S4B

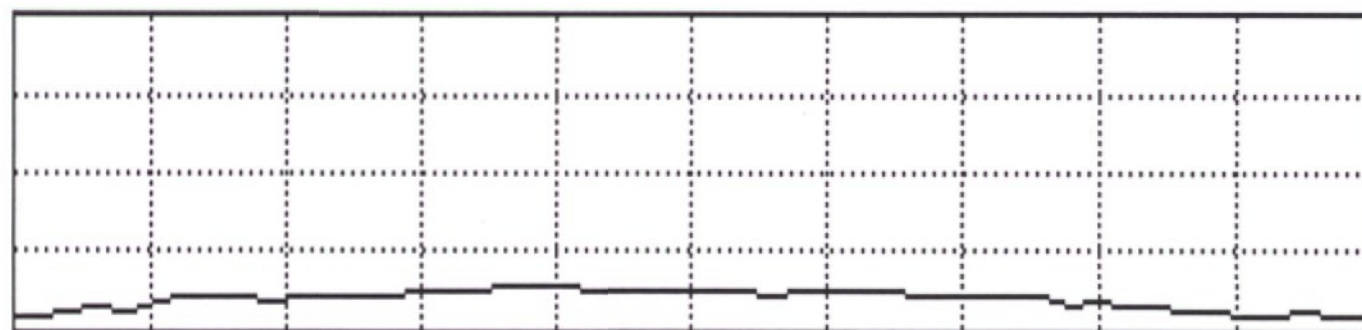
Mean : 8.92

S
p
e
e
d

100.0
cm/s

50.0

0.0



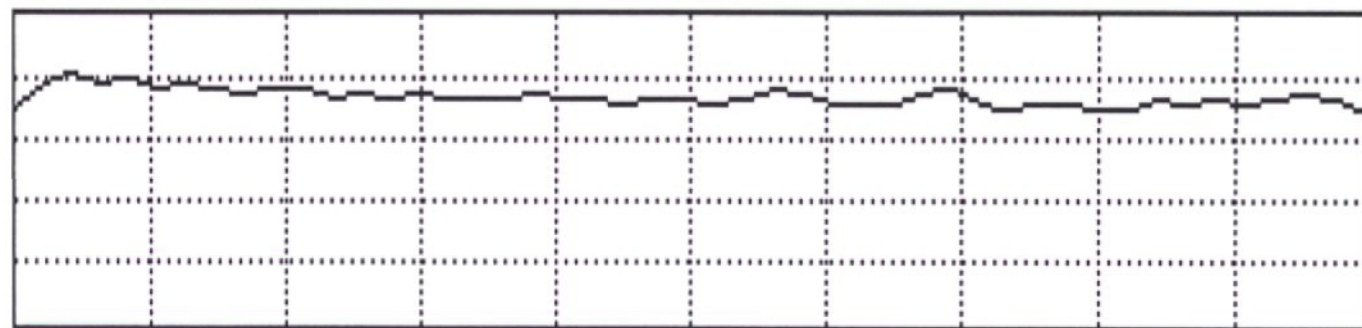
Mean : 332.71

D
i
r
.

360
deg

180

0



52
5/25/93 22:12:00

Samples

98
5/25/93 23:44:00



InterOcean Systems, Inc.

U1DENB03

Samples averaged : 1

Model S4 Current Meter #19261543

File : E:U1DENB03.S4B

Mean : 25.36

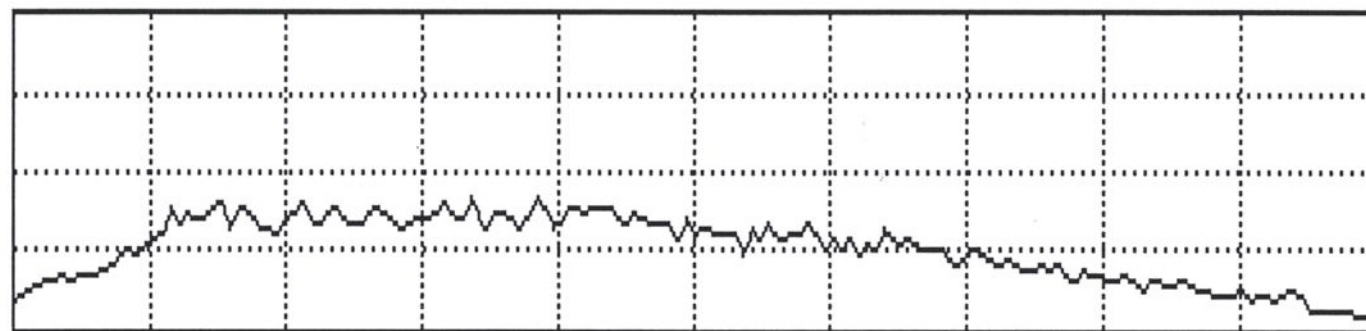
Speed

100.0

cm/s

50.0

0.0



Mean : 323.18

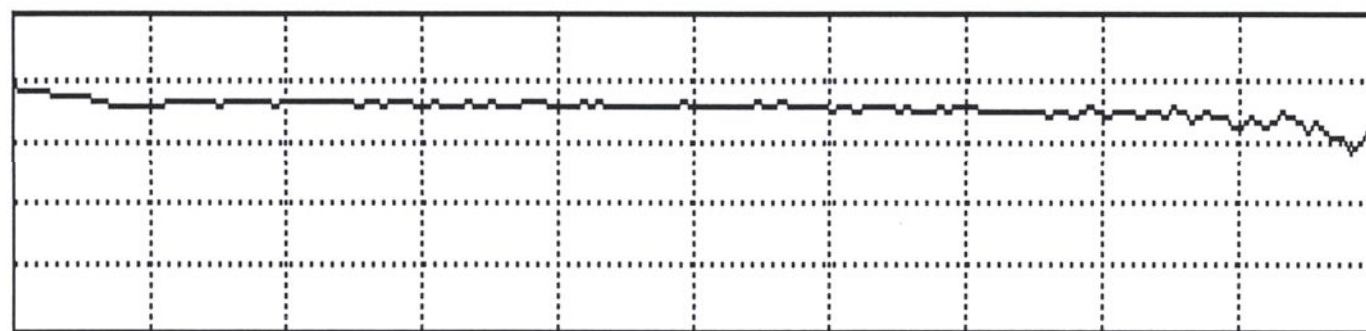
Dir.

360

deg

180

0



52

5/25/93 20:42:00

Samples

216

5/26/93 02:10:00



InterOcean Systems, Inc.
U1DENB03
Samples averaged : 1

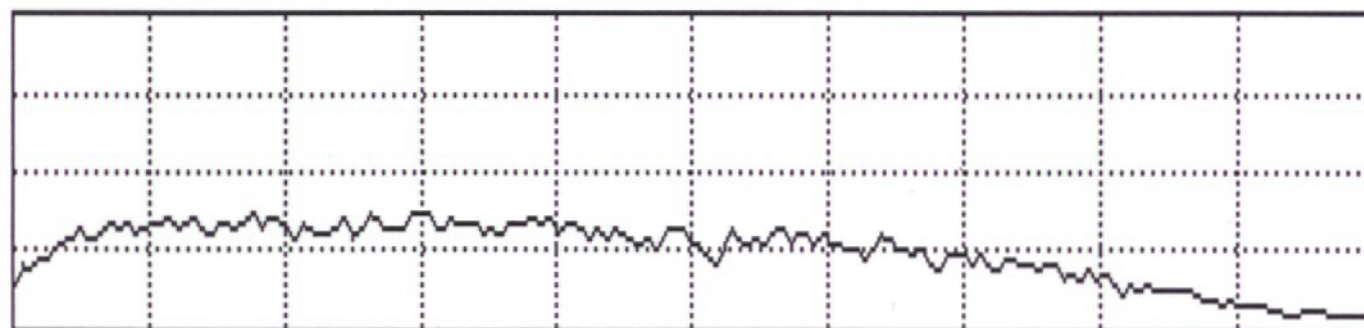
Model S4 Current Meter #19261543
File : E:U1DENB03.S4B
Mean : 24.30

S
p
e
e
d

100.0
cm/s

50.0

0.0



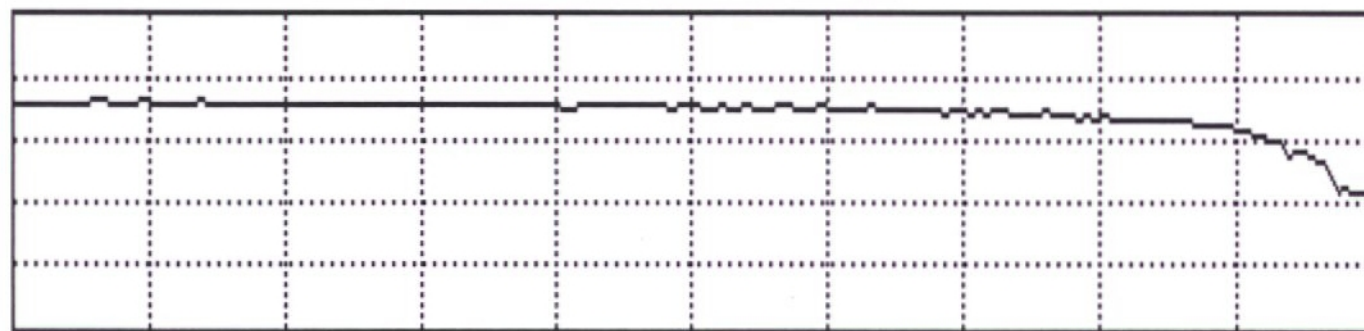
Mean : 318.48

D
i
r
.

360
deg

180

0



432
5/26/93 09:22:00

Samples

596
5/26/93 14:50:00



InterOcean Systems, Inc.

04SURC03.S4B

Samples averaged : 120

Model S4 Current Meter #05451482

File : E:04SURC03.S4B

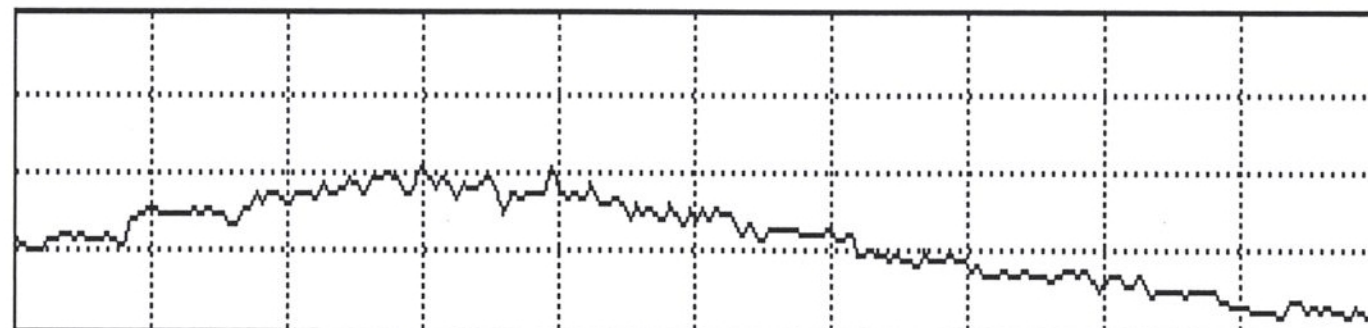
Mean : 28.65

S
p
e
e
d

100.0
cm/s

50.0

0.0



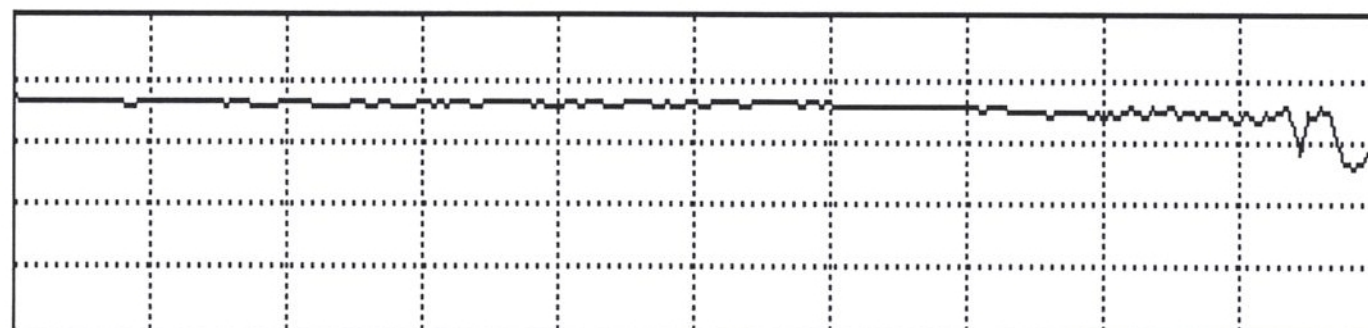
Mean : 324.77

D
i
r
.

360
deg

180

0



6600

5/25/93 20:30:00

Samples

31000

5/26/93 02:06:20



InterOcean Systems, Inc.
04SURC03.S4B
Samples averaged : 120

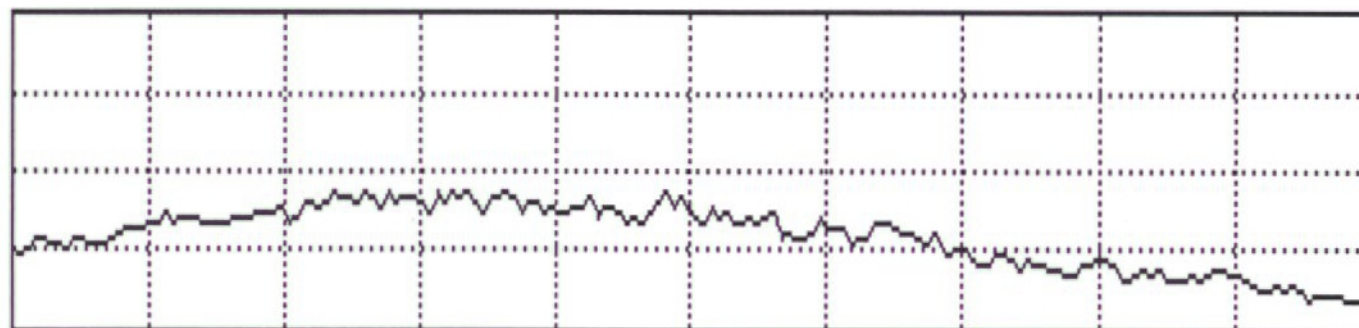
Model S4 Current Meter #05451482
File : E:04SURC03.S4B
Mean : 29.01

S
p
e
e
d

100.0
cm/s

50.0

0.0



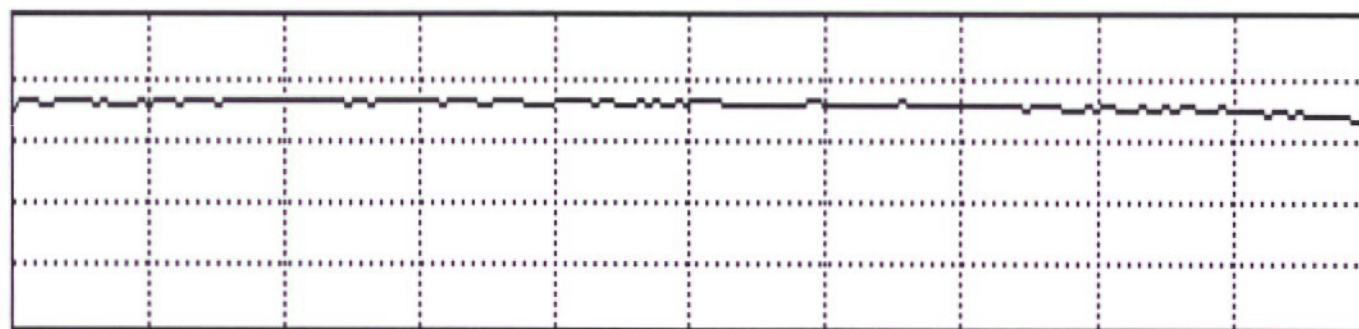
Mean : 324.98

D
i
r
.

360
deg

180

0



60770
5/26/93 09:02:24

Samples

81900
5/26/93 13:46:30



InterOcean Systems, Inc.

U2SURD03

Samples averaged : 1

Model S4 Current Meter #19261554

File : E:\U2SURD03.S4B

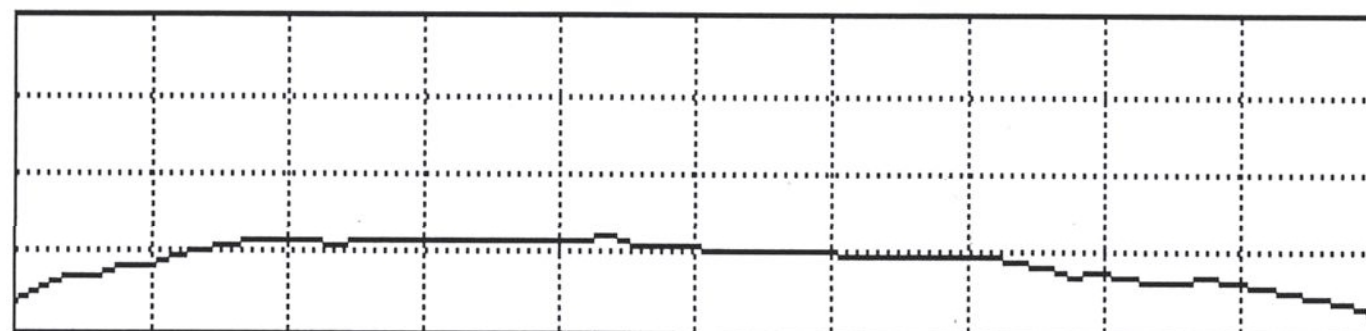
Mean : 22.04

S
p
e
e
d

100.0
cm/s

50.0

0.0

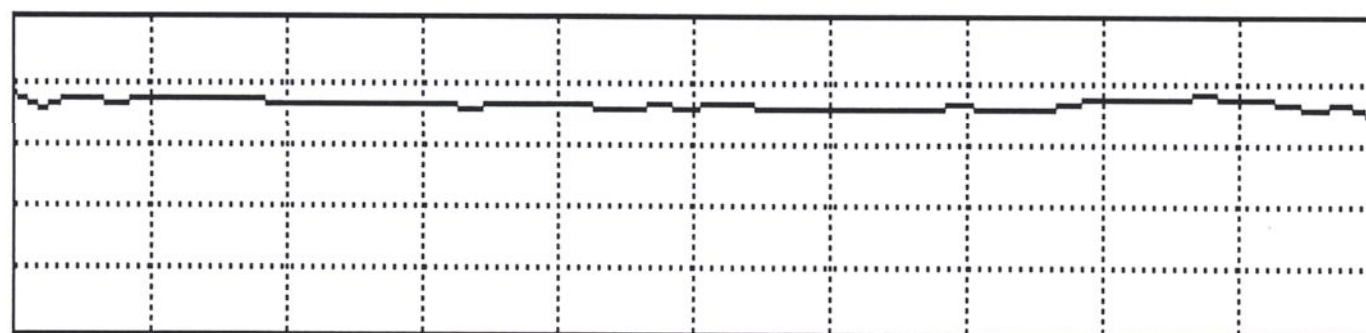


D
i
r
.

360
deg

180

0



50

5/25/93 22:08:00

Samples

100

5/25/93 23:48:00



InterOcean Systems, Inc.

U1DENA05

Samples averaged : 1

Model S4 Current Meter #19261543

File : E:U1DENA05.S4B

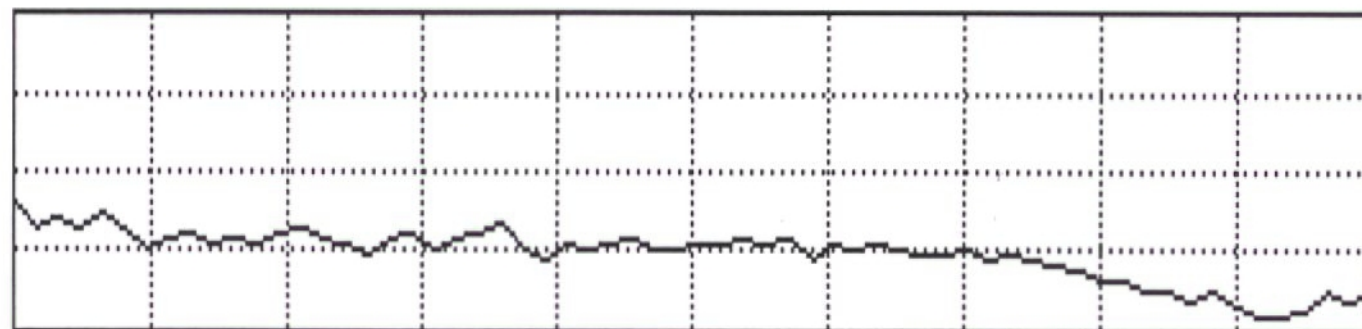
Mean : 11.51

S
p
e
e
d

50.0
cm/s

25.0

0.0



Mean : 311.12

D
i
r
.

360
deg

180

0



39

5/26/93 22:46:00

Samples

100

5/27/93 00:48:00



InterOcean Systems, Inc.

U2DENB05

Samples averaged : 1

Model S4 Current Meter #19261554

File : E:U2DENB05.S4B

Mean : 23.45

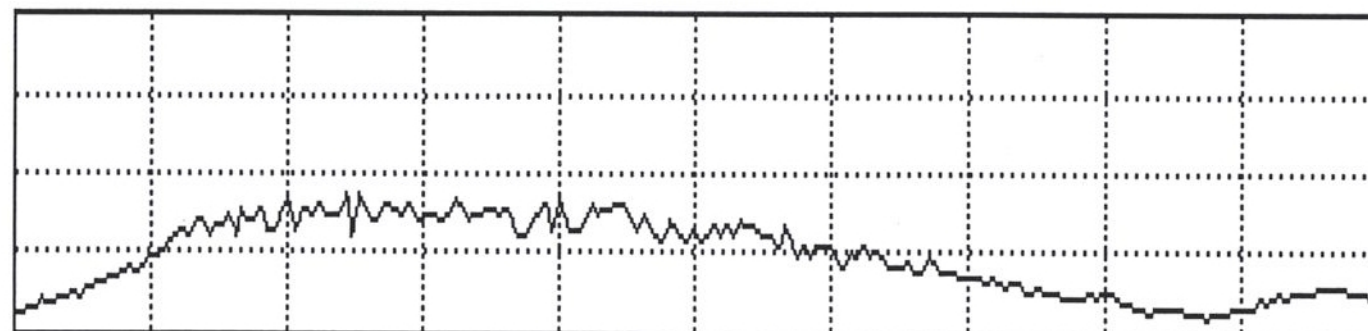
S
p
e
e
d

100.0

cm/s

50.0

0.0



Mean : 319.18

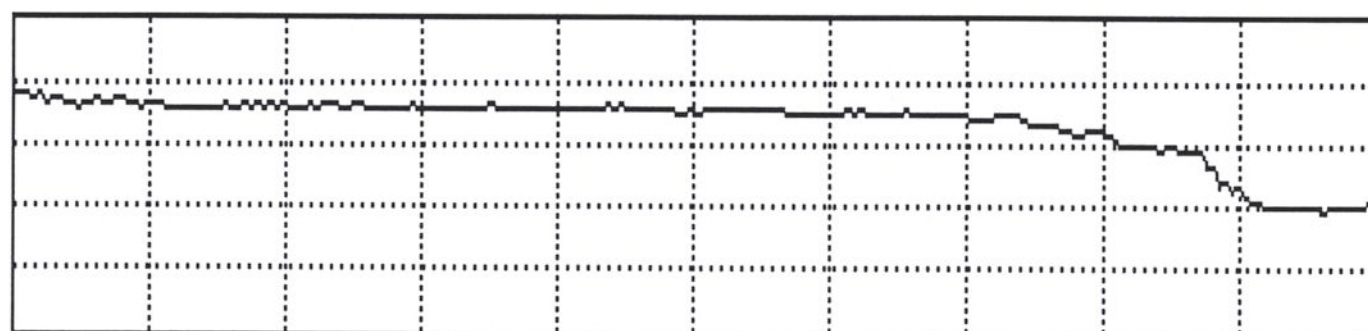
D
i
r
.

360

deg

180

0



45

5/26/93 20:58:00

Samples

255

5/27/93 03:58:00



InterOcean Systems, Inc.

U2DENB05

Samples averaged : 1

Model S4 Current Meter #19261554

File : E:U2DENB05.S4B

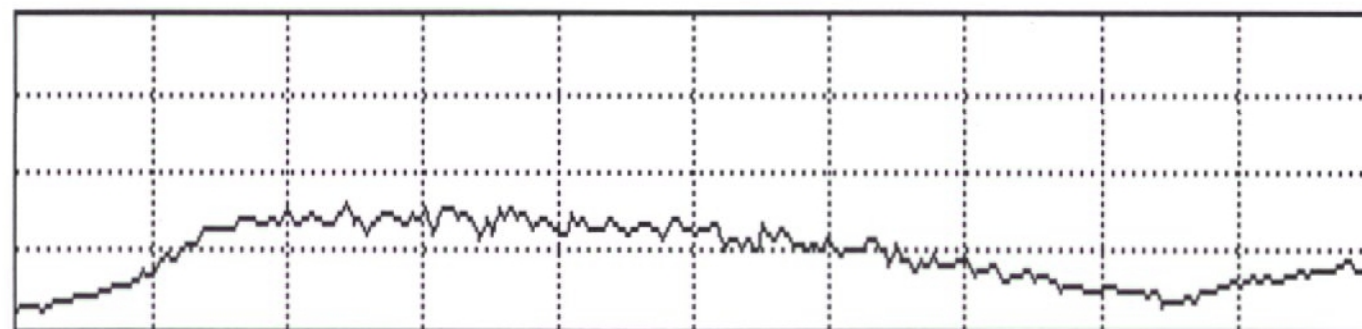
Mean : 23.82

S
p
e
e
d

100.0
cm/s

50.0

0.0



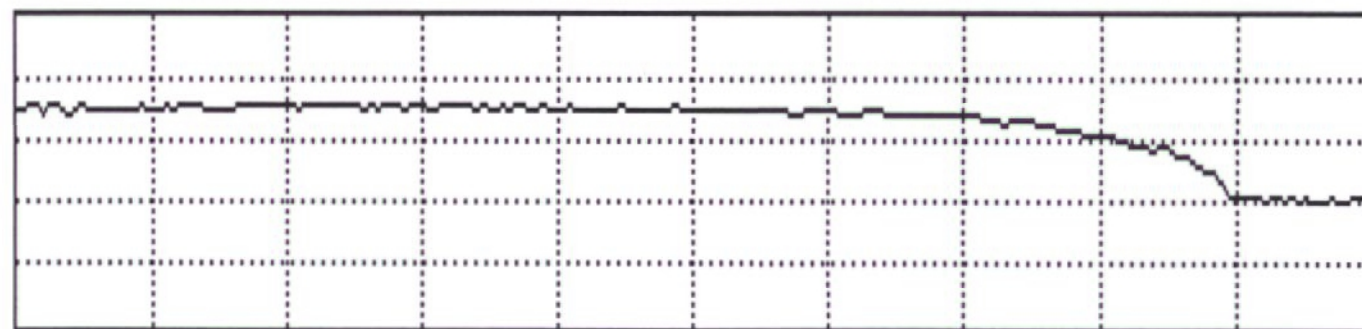
Mean : 308.96

D
i
r
.

360
deg

180

0



418
5/27/93 09:24:00

Samples

623
5/27/93 16:14:00



InterOcean Systems, Inc.

03SURC05

Samples averaged : 120

Model S4 Current Meter #19261542

File : E:03SURC05.S4B

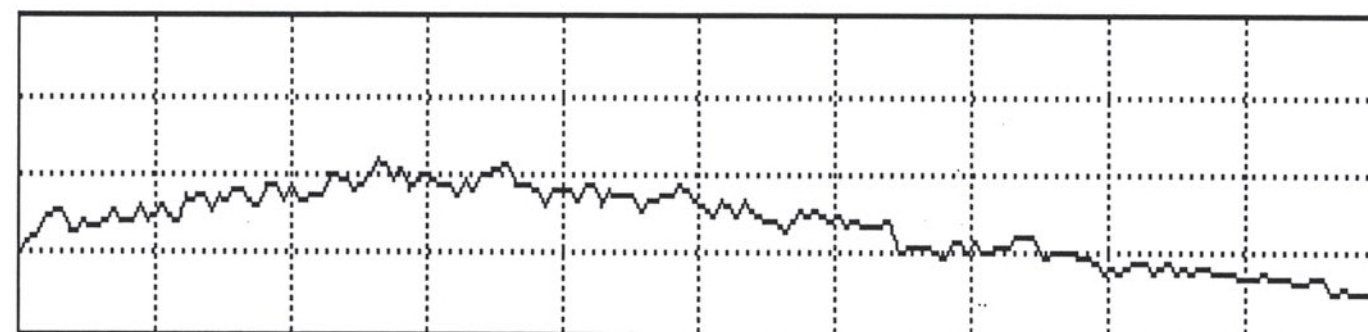
Mean : 34.03

S
p
e
e
d

100.0
cm/s

50.0

0.0



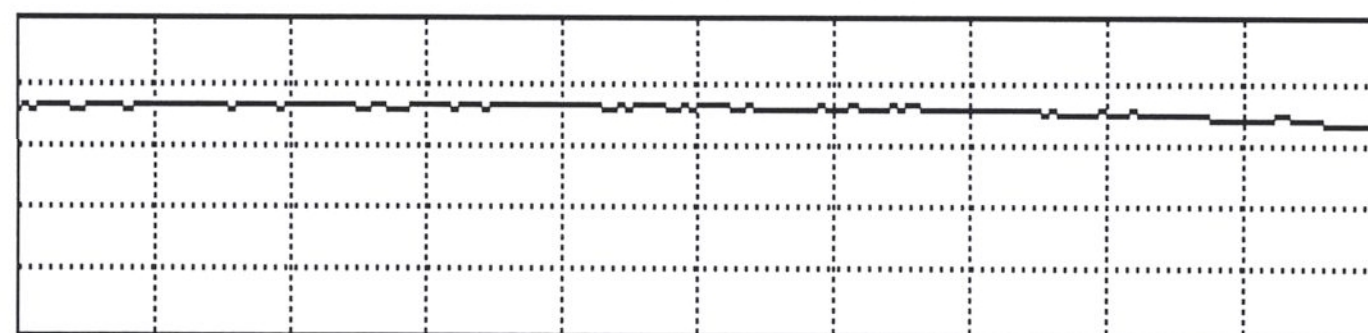
Mean : 325.03

D
i
r
.

360
deg

180

0



6350

5/26/93 21:16:54

Samples

26800

5/27/93 02:07:20



InterOcean Systems, Inc.
03SURC05
Samples averaged : 120

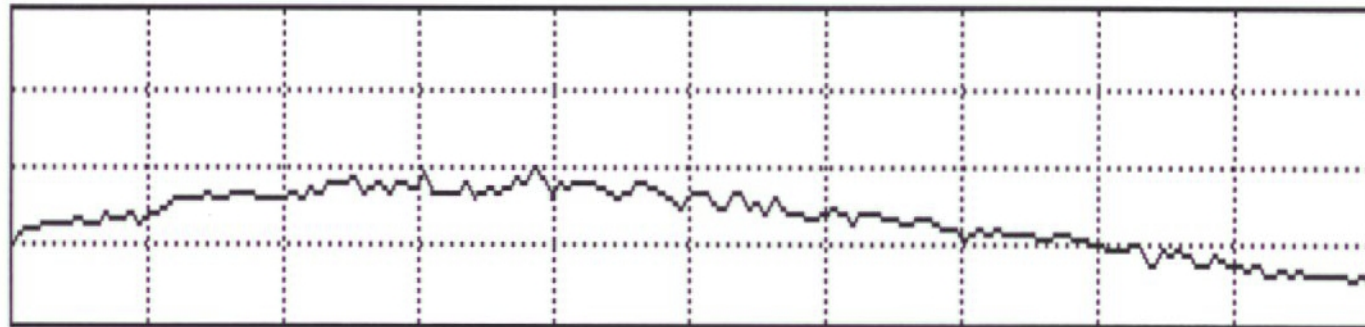
Model S4 Current Meter #19261542
File : E:03SURC05.S4B
Mean : 33.70

S
p
e
e
d

100.0
cm/s

50.0

0.0



Mean : 325.36

D
i
r
,

360
deg

180

0



60550
5/27/93 10:00:34

Samples

79500
5/27/93 14:14:30



InterOcean Systems, Inc.

U3SURD05

Samples averaged : 1

Model S4 Current Meter #19261544

File : E:\U3SURD05.S4B

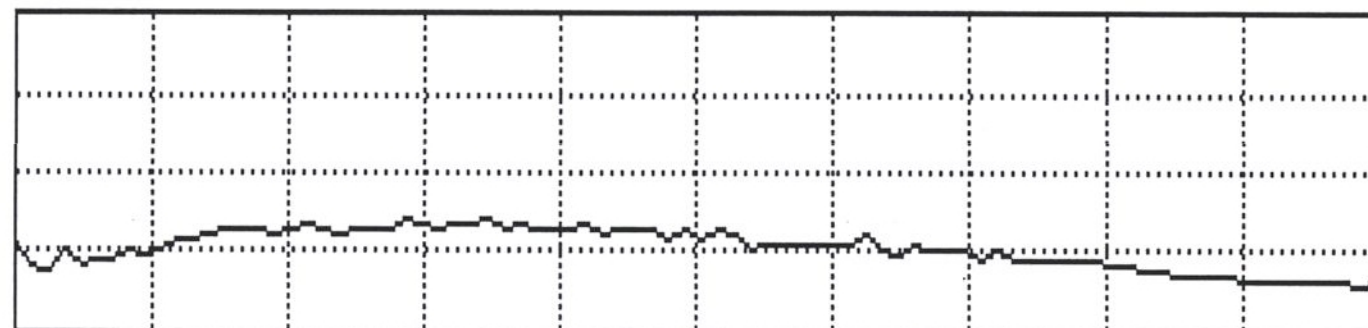
Mean : 25.54

Speed

100.0
cm/s

50.0

0.0



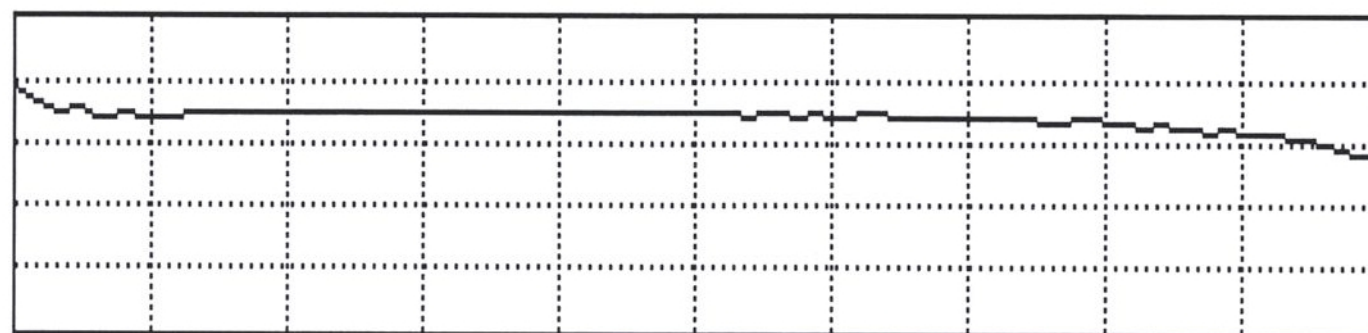
Mean : 309.71

Dir

360
deg

180

0



22
5/26/93 22:12:00

Samples

105
5/27/93 00:58:00



InterOcean Systems, Inc.

U3SURD05

Samples averaged : 1

Model S4 Current Meter #19261544

File : E:\U3SURD05.S4B

Mean : 21.36

S
p
e
e
d

100.0
cm/s

50.0

0.0



Mean : 305.23

D
i
r
.

360
deg

180

0



415
5/27/93 11:18:00

Samples

470
5/27/93 13:08:00

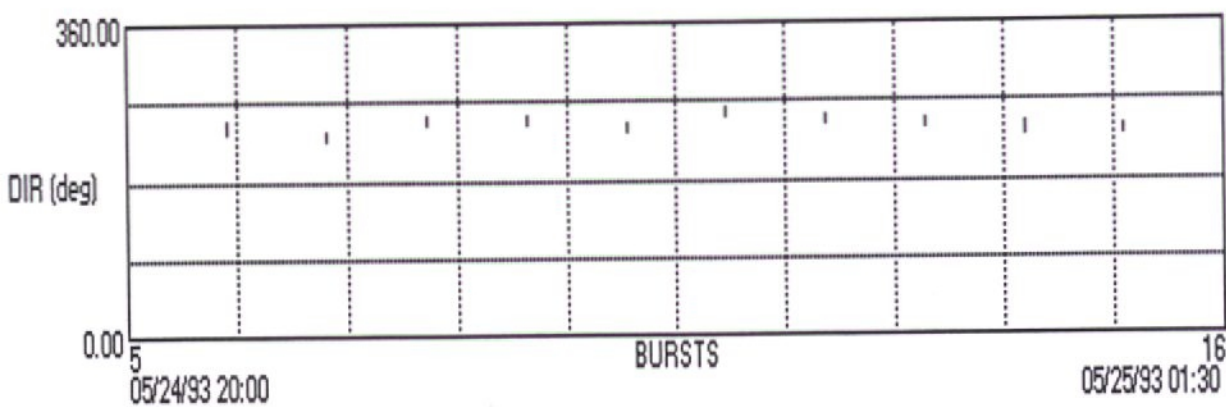
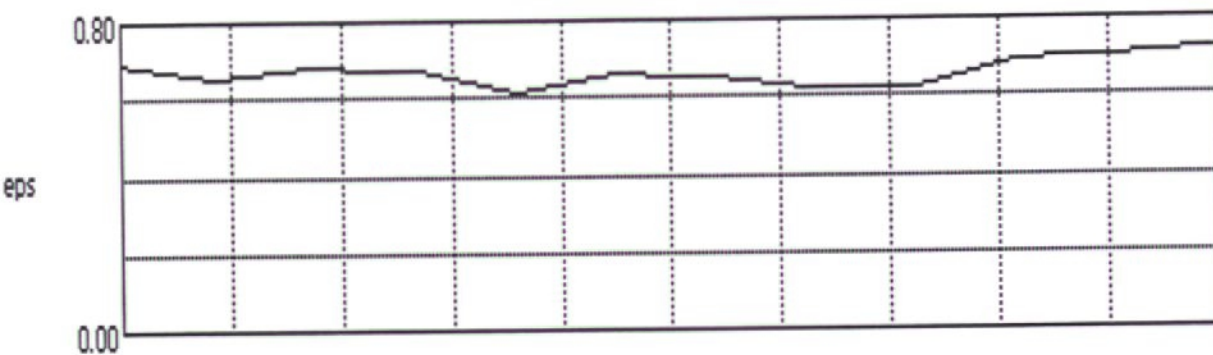
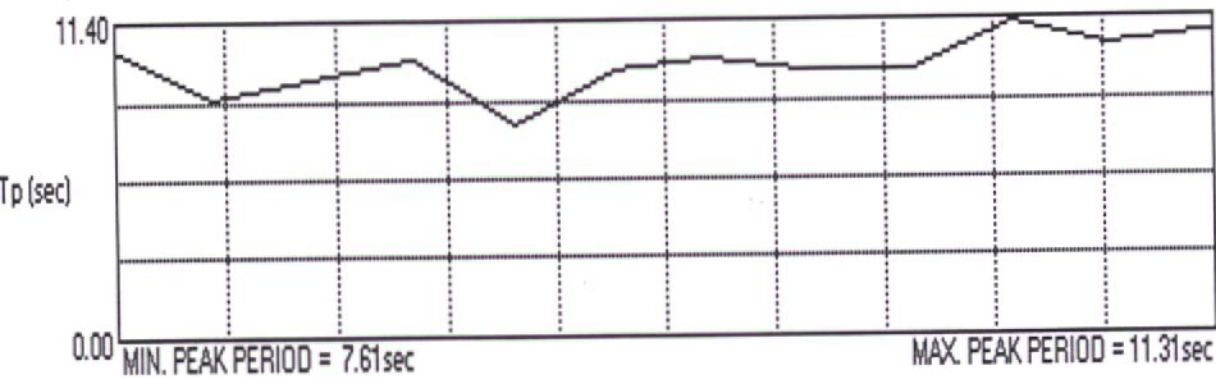
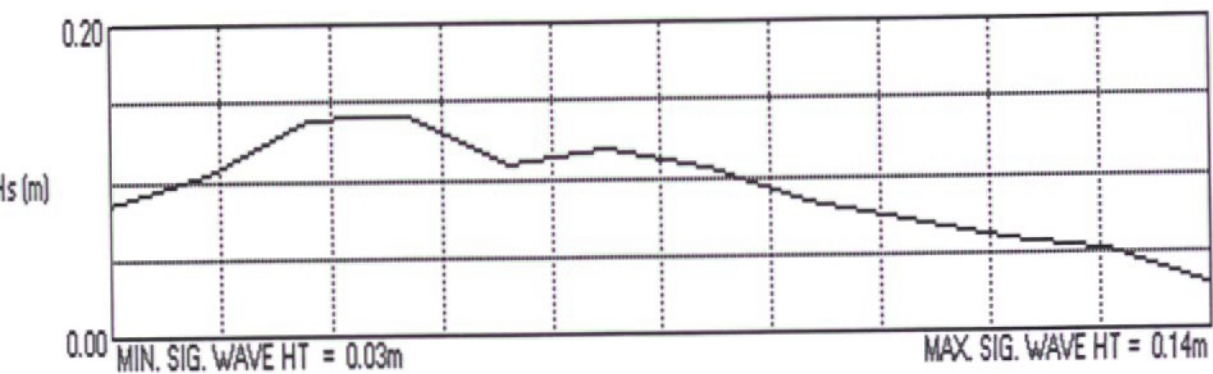
CAMPAGNE N°21

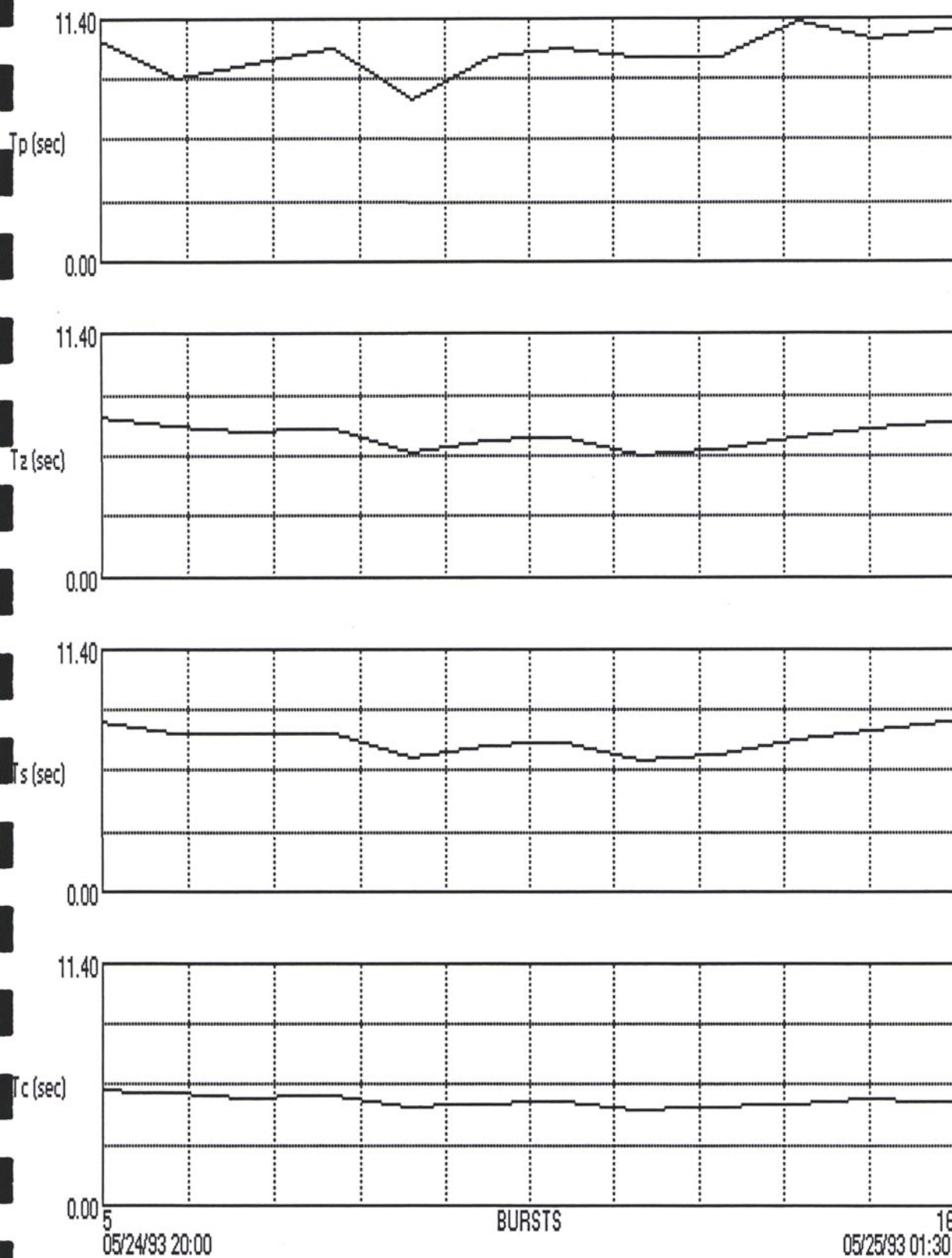
Denneville - Surville

MESURES DE HOULE
DIRECTIONNELLE

WAVE PARAMETERS

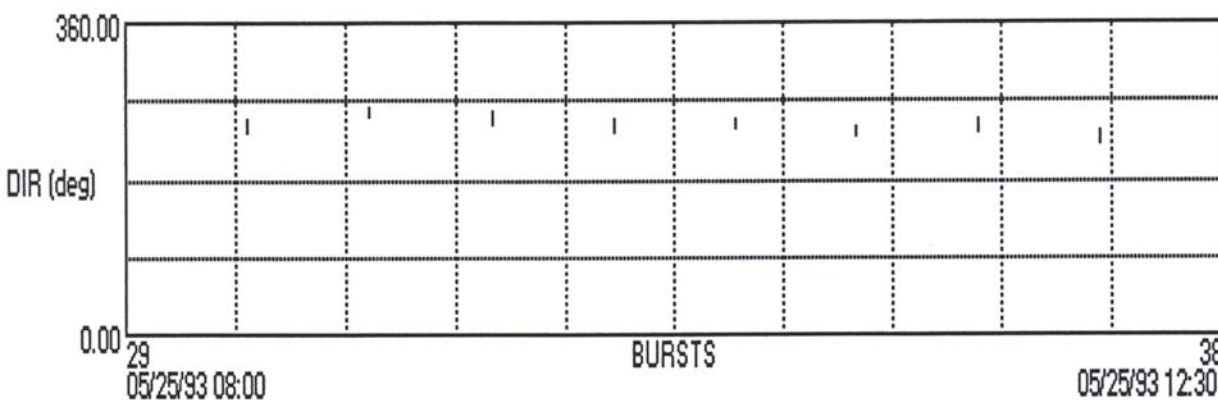
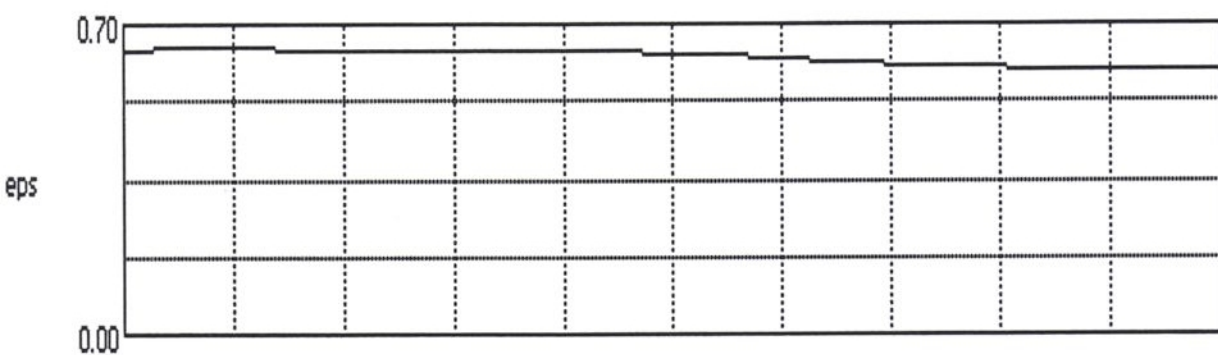
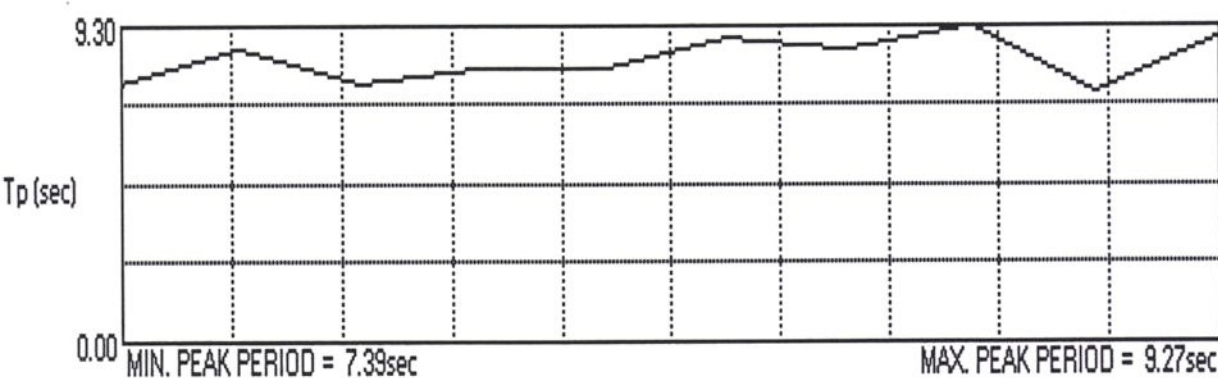
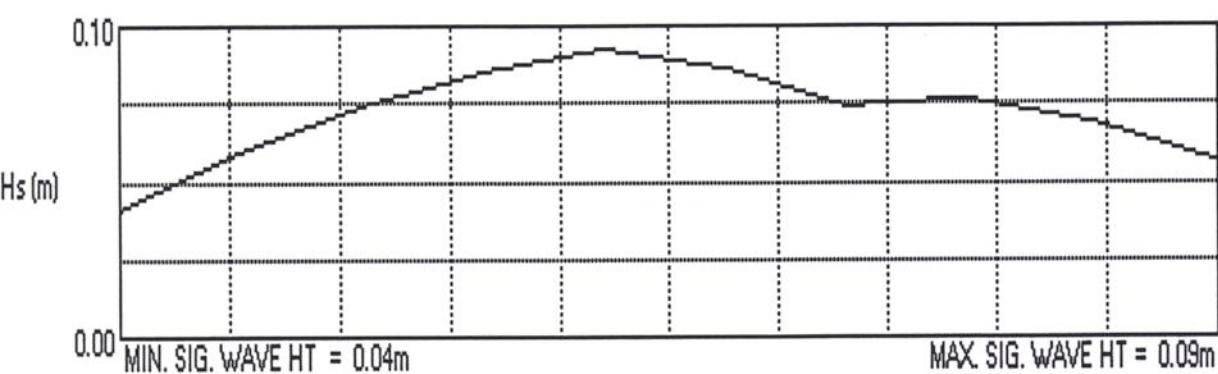
FILE: 04SURC01.S4B

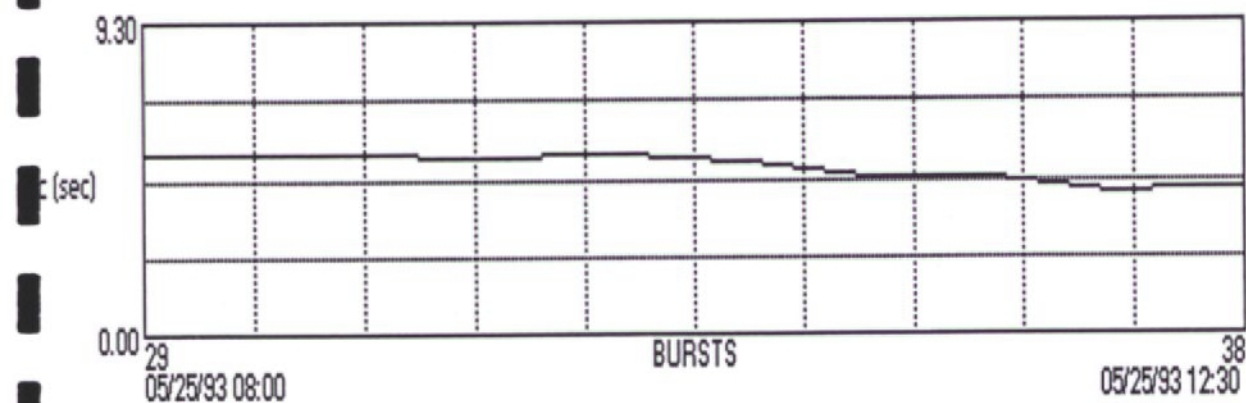
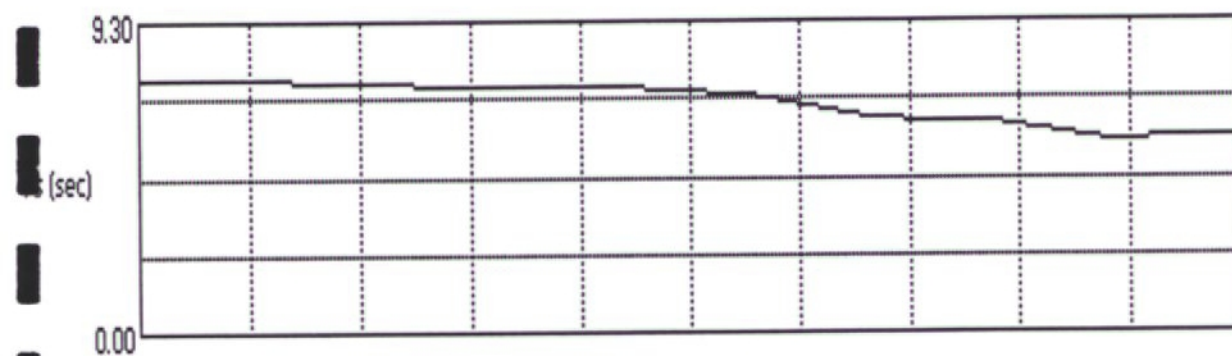
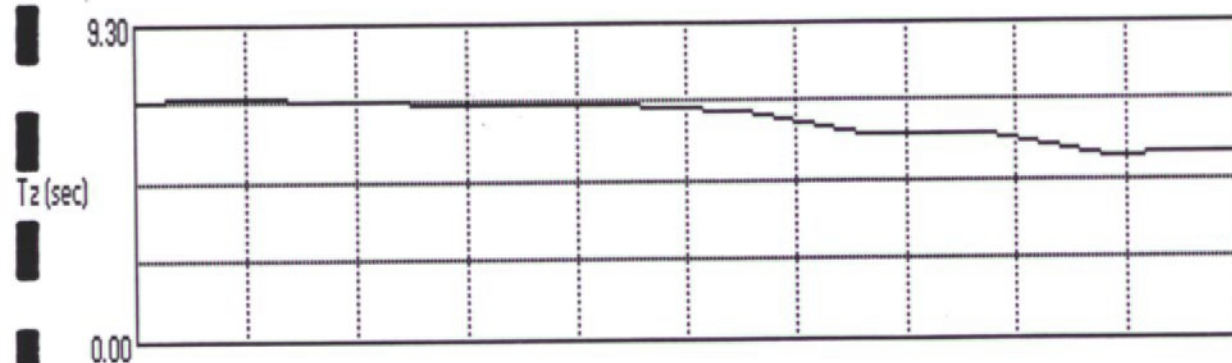
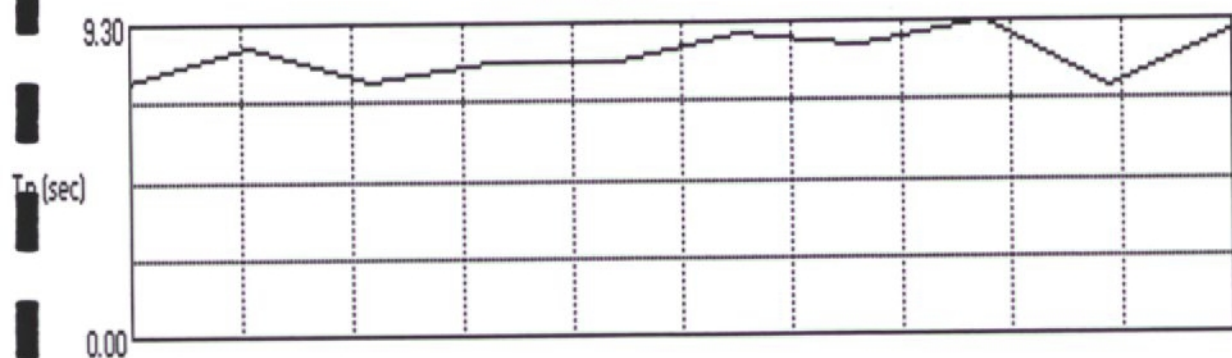




WAVE PARAMETERS

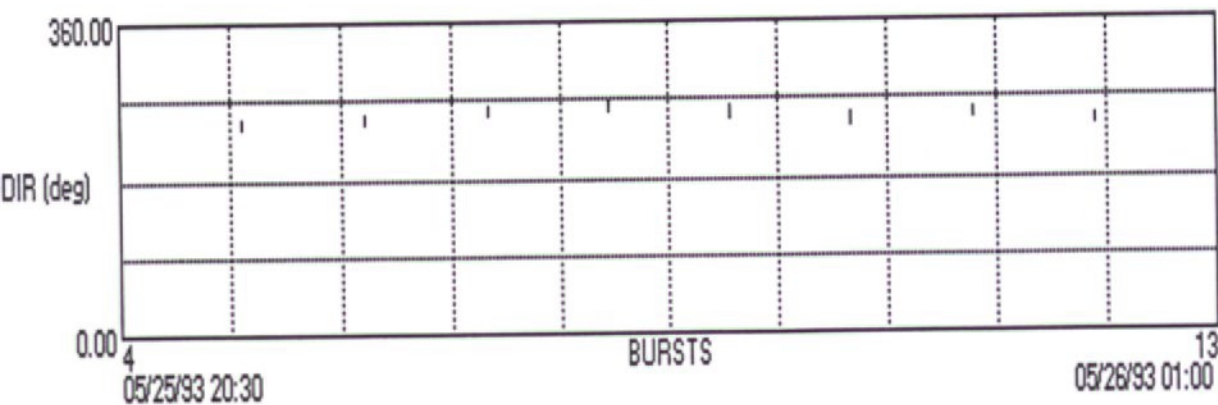
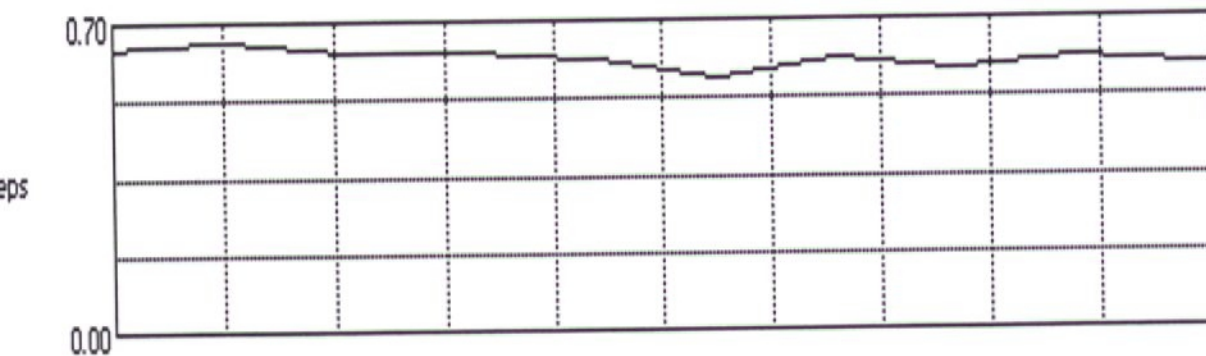
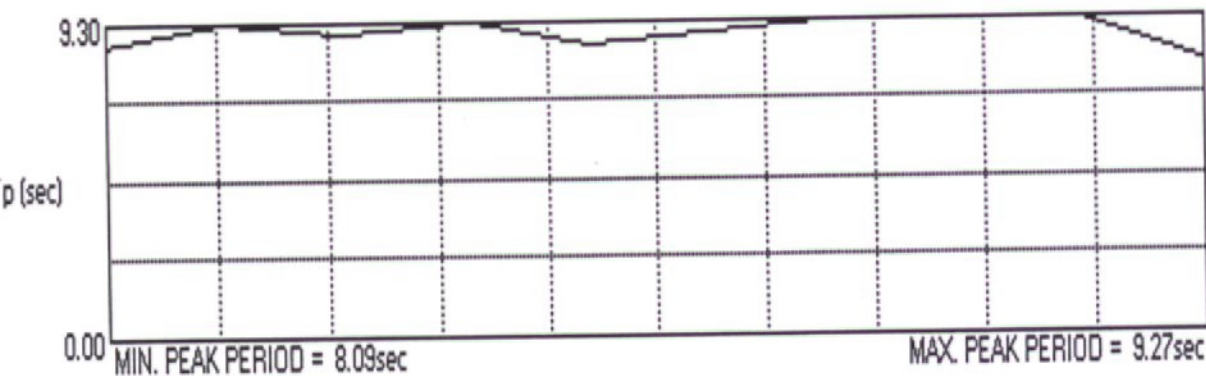
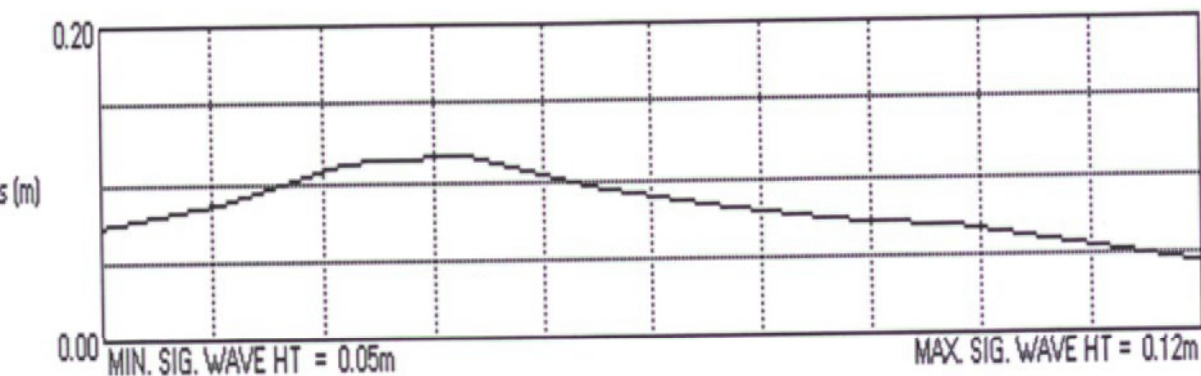
FILE: 04SURC01.S4B





WAVE PARAMETERS

FILE: 04SURC03.S4B

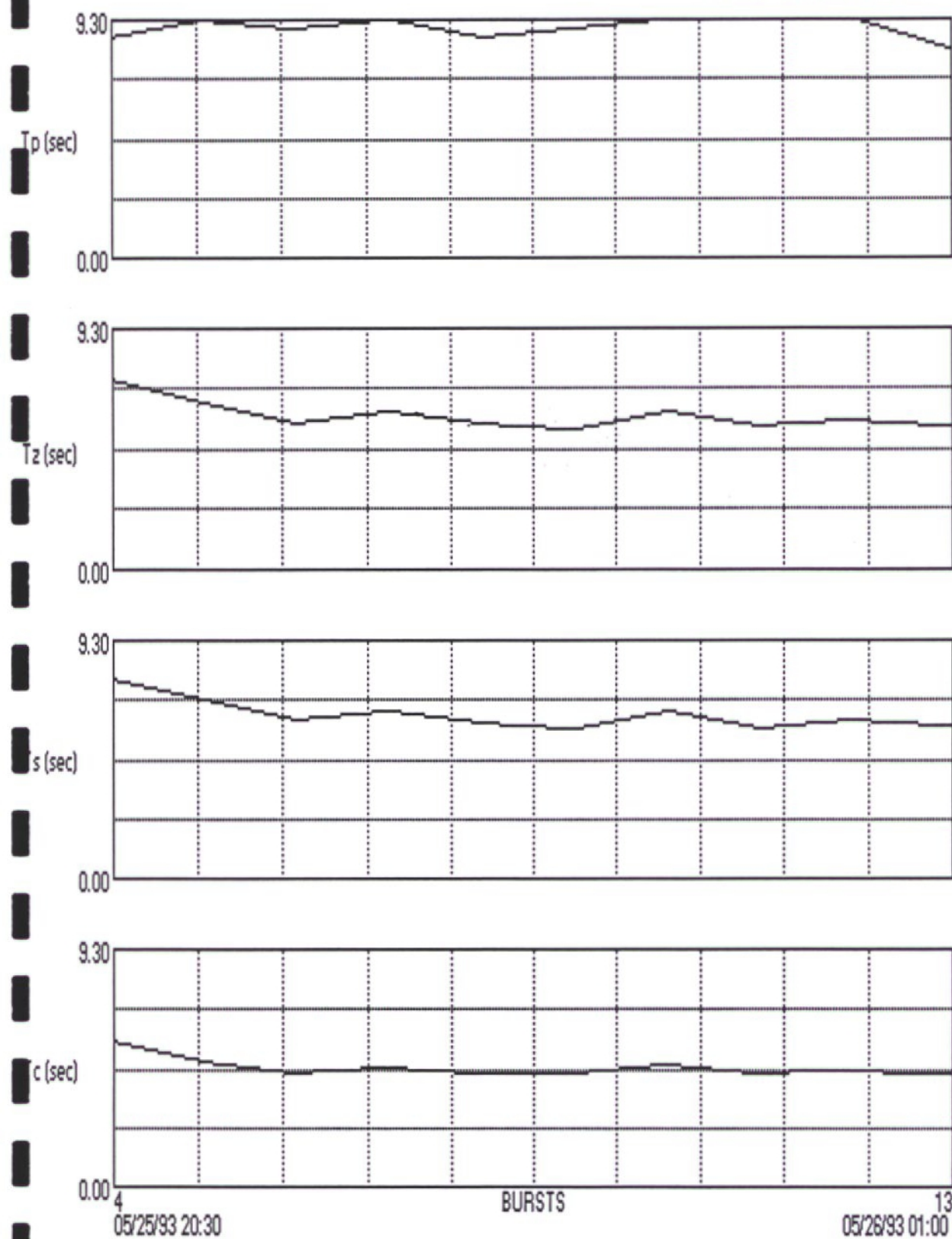




InterOcean Systems, Inc

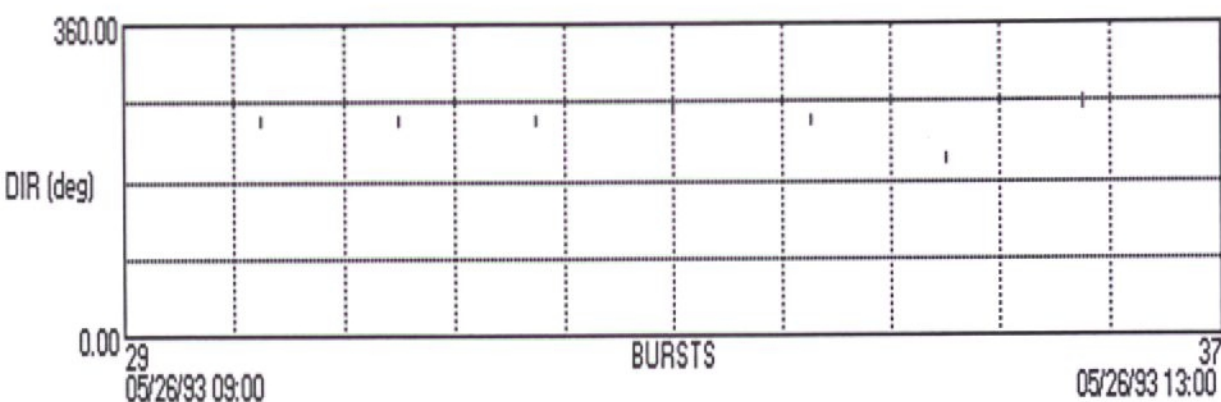
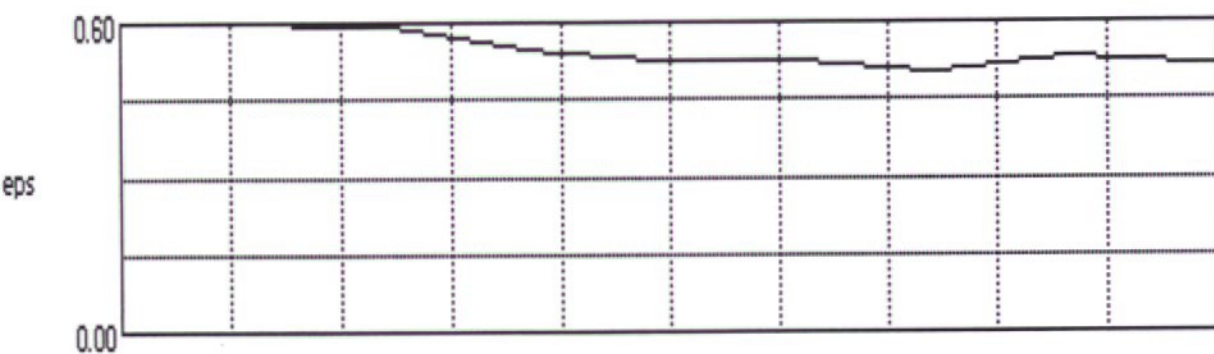
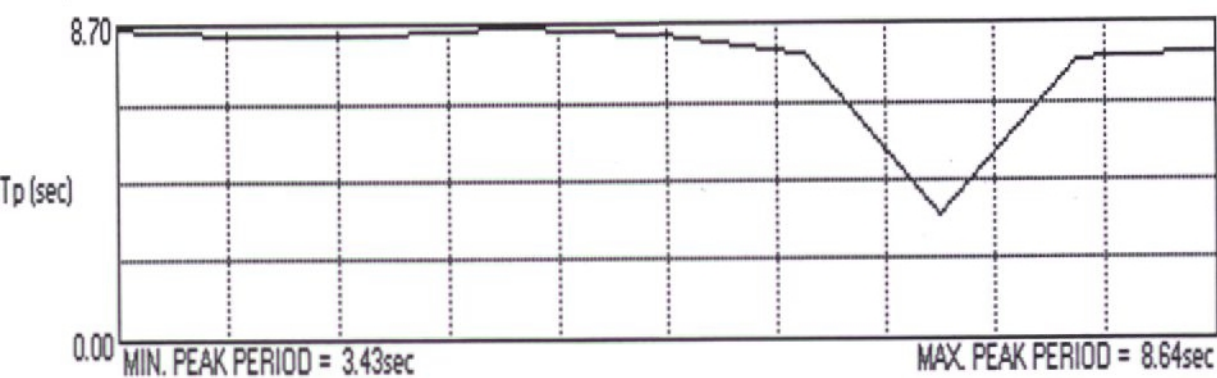
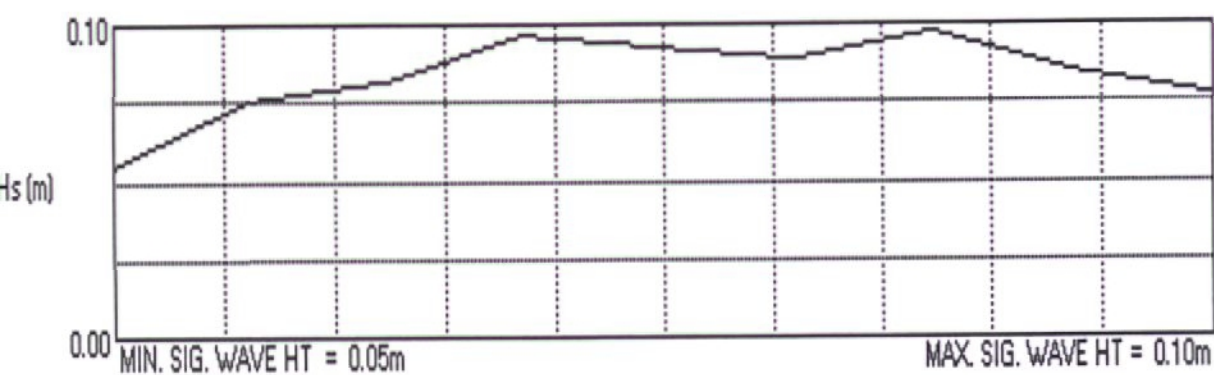
WAVE PERIOD ESTIMATES

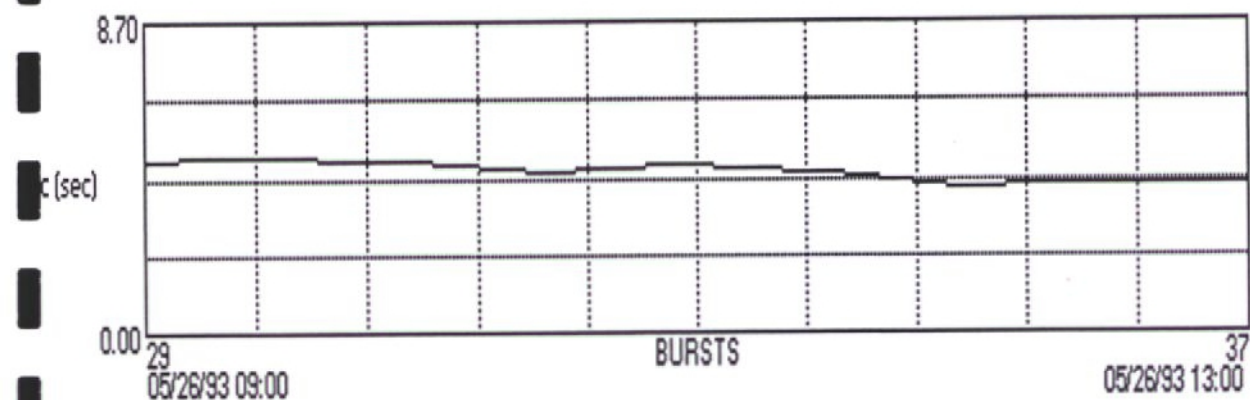
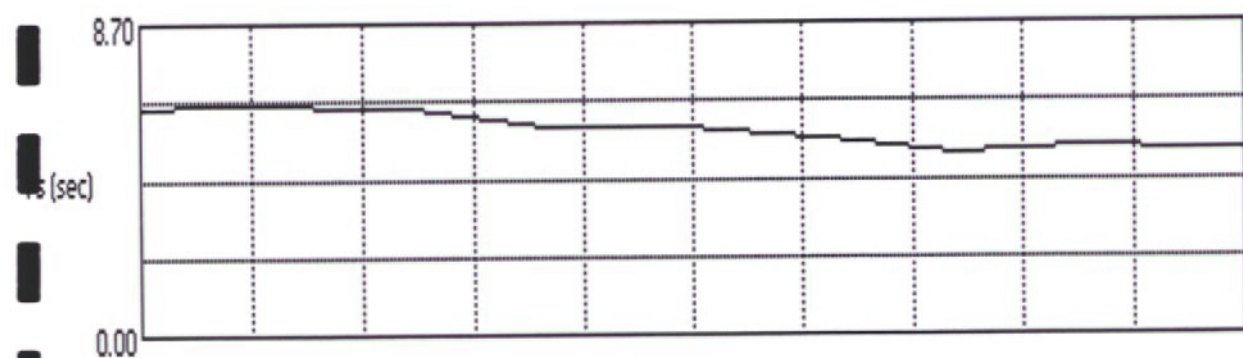
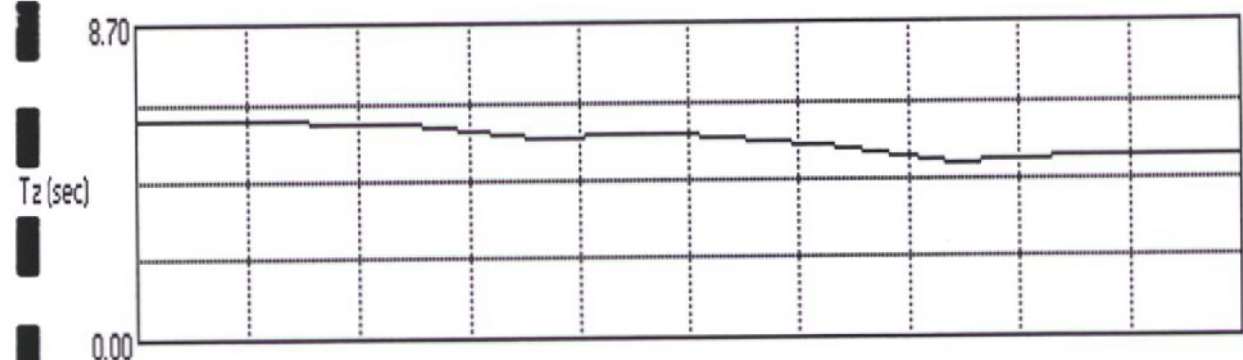
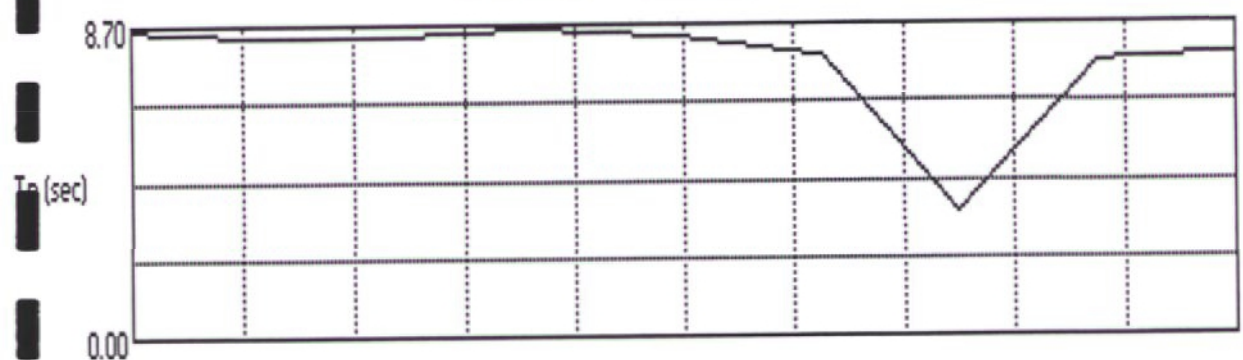
FILE: 04SURC03.S4B



WAVE PARAMETERS

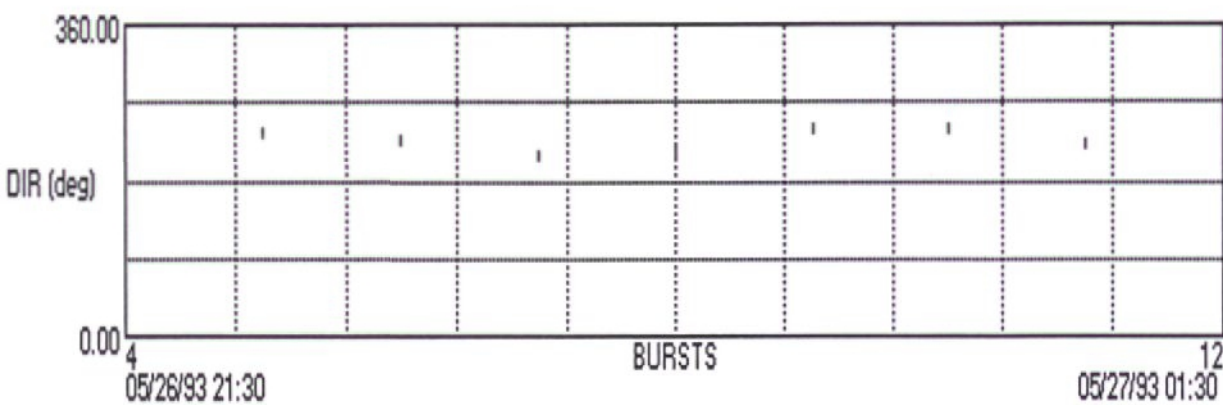
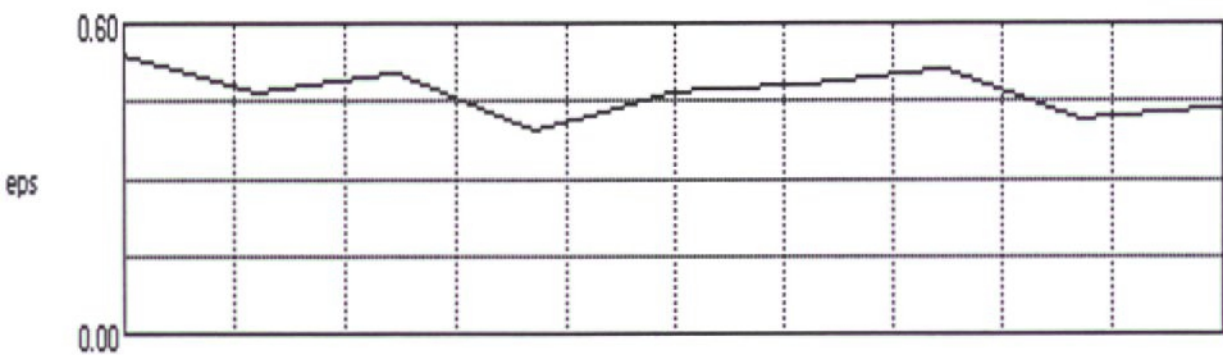
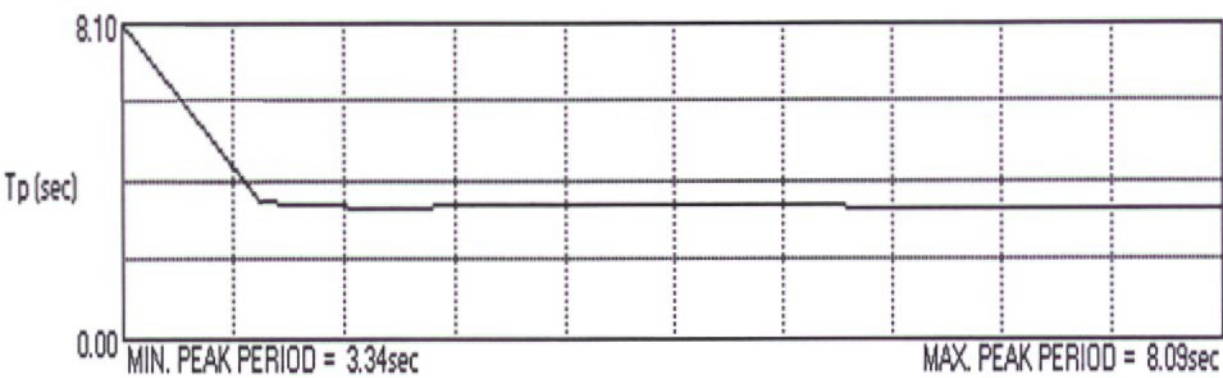
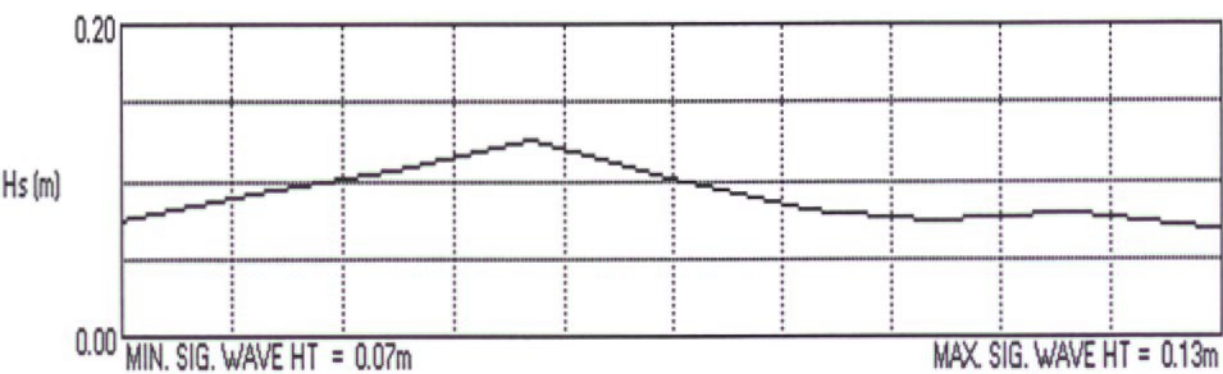
FILE: 04SURC03.S4B





WAVE PARAMETERS

FILE: 03SURC05.S4B

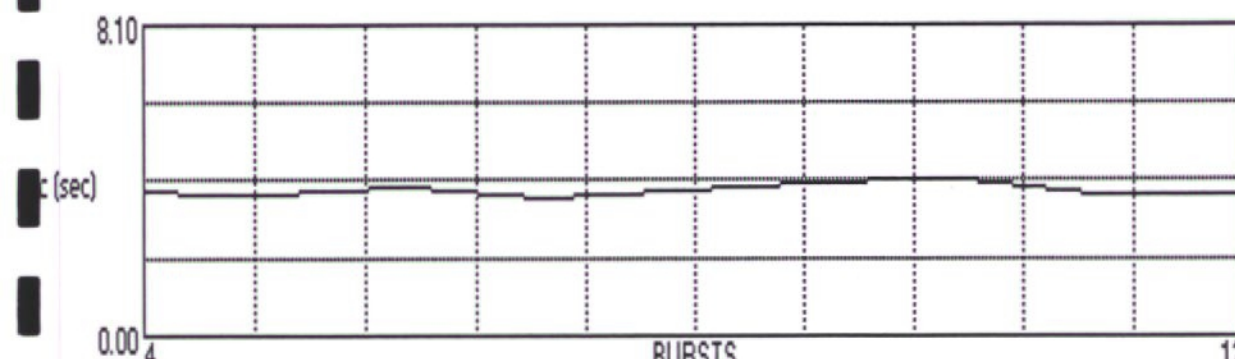
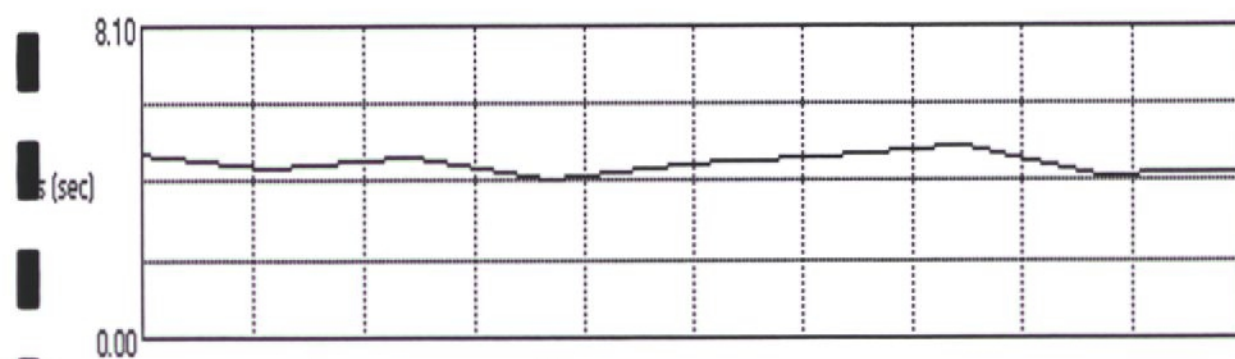
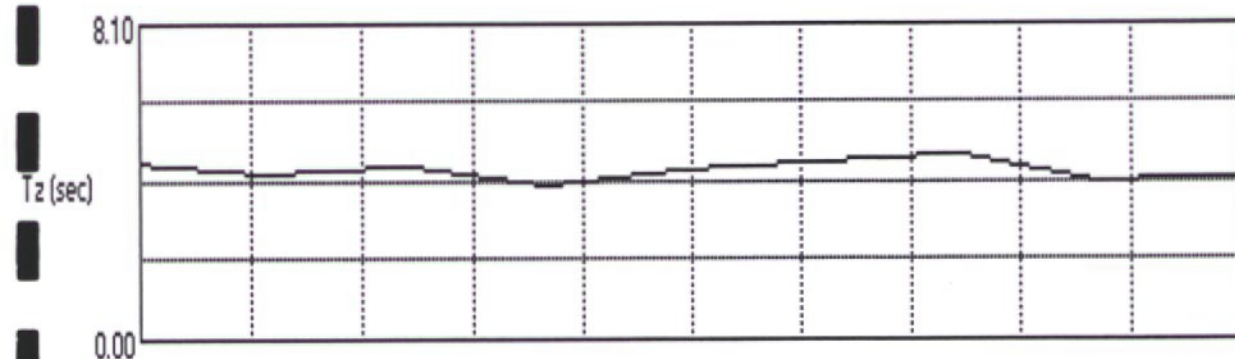
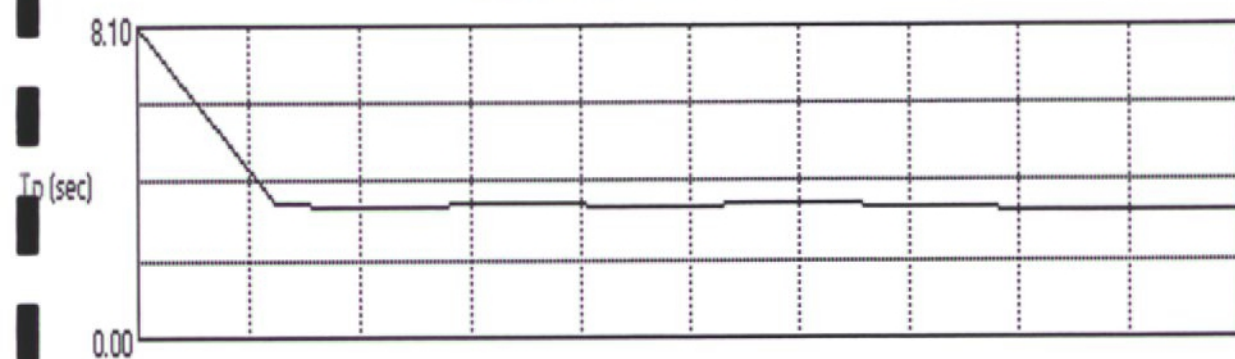




InterOcean Systems, Inc

WAVE PERIOD ESTIMATES

FILE: 03SURC05.S4B



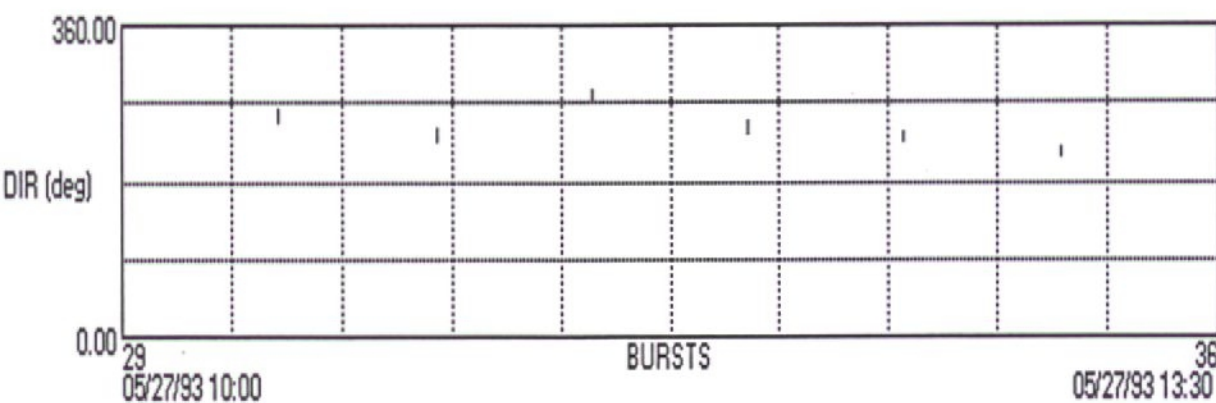
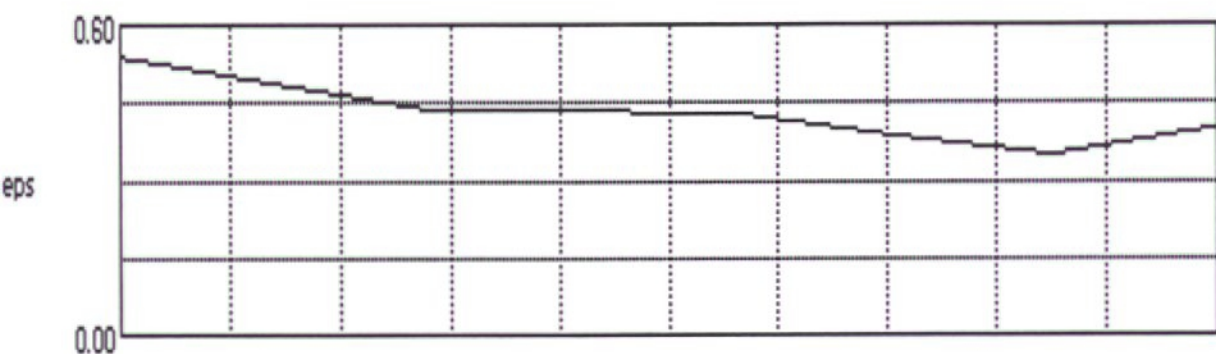
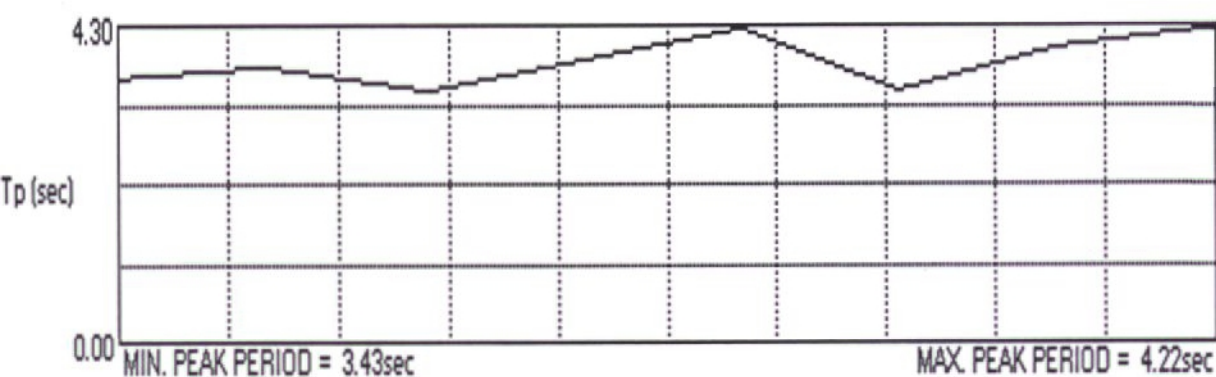
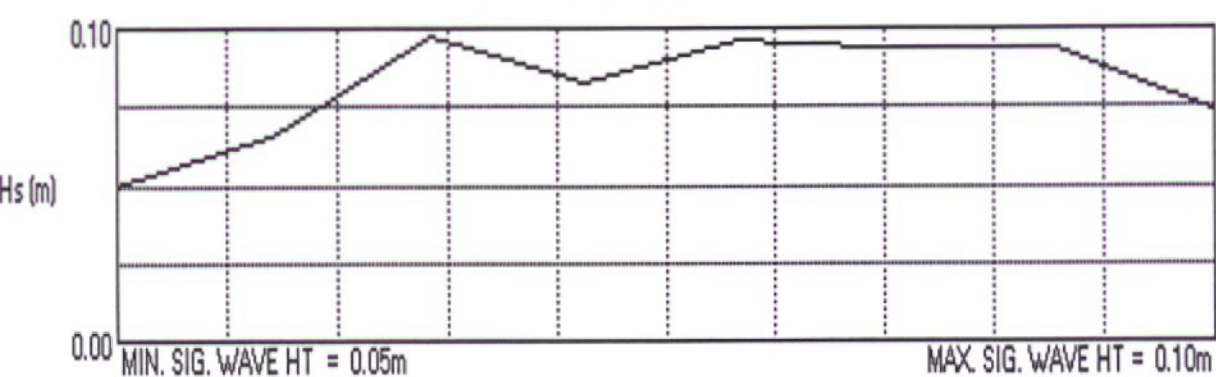
4 05/26/93 21:30

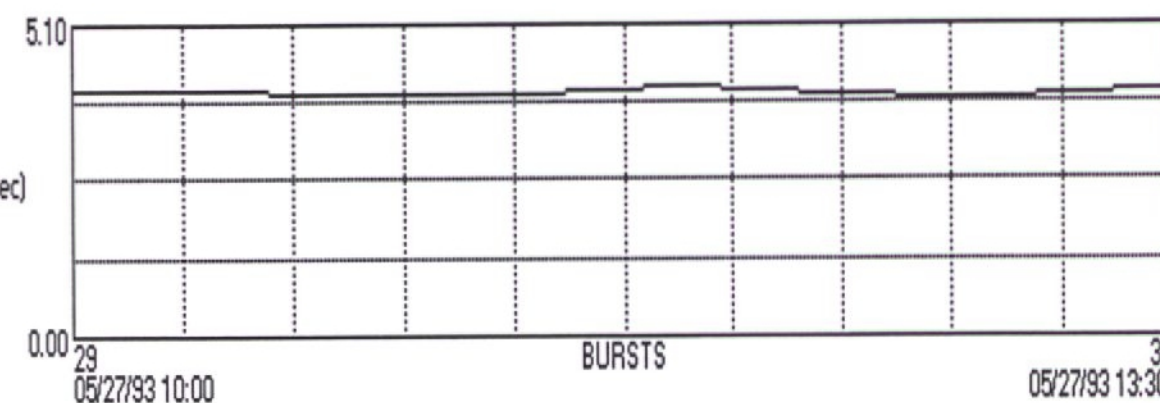
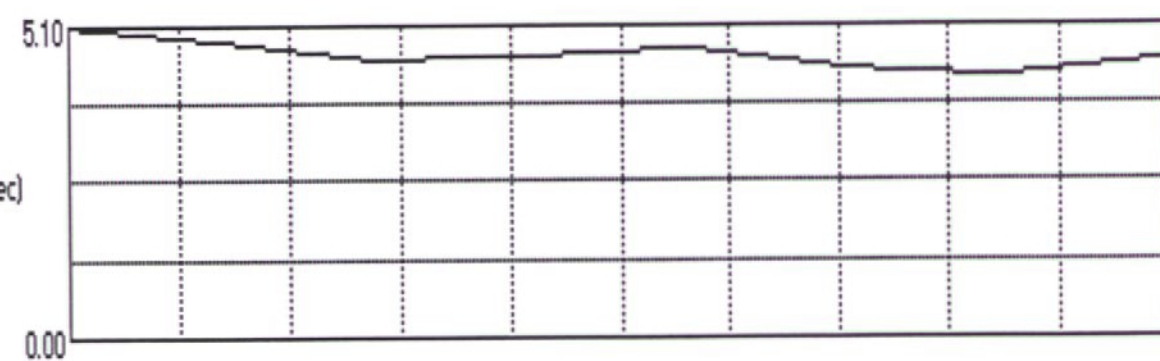
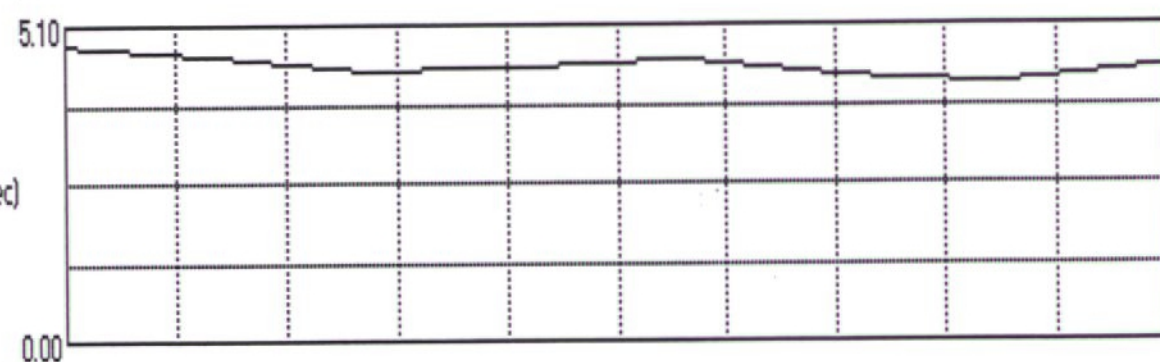
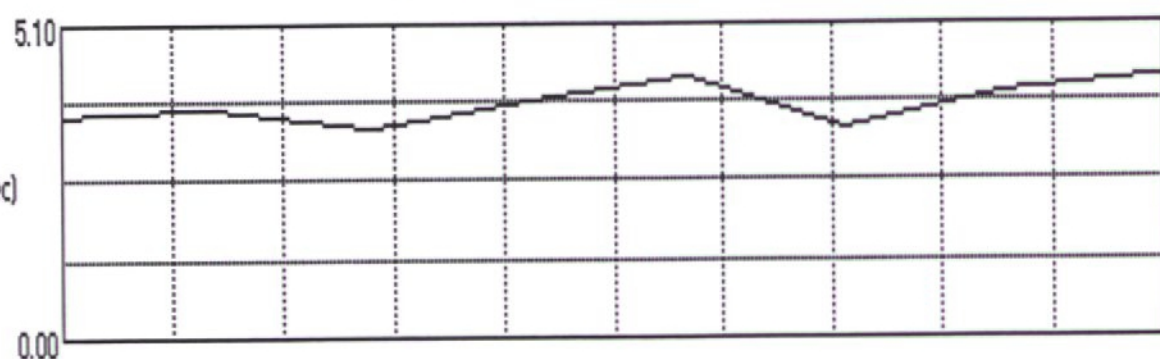
BURSTS

12 05/27/93 01:30

WAVE PARAMETERS

FILE: 03SURC05.S4B





InterOcean Systems, Inc
FILE: 04SURC01.S4B

B#	DATE	TIME	STD	HS	TP	TZ	TS	TC	DIR	EPSI
5	05/24/93	20:00	.02	.08	10.4	7.5	8.0	5.4	238.9	.69
6	05/24/93	20:30	.03	.10	8.6	7.1	7.5	5.4	242.6	.65
7	05/24/93	21:00	.03	.14	9.3	6.9	7.4	5.0	230.3	.68
8	05/24/93	21:30	.04	.14	10.0	6.9	7.4	5.2	247.8	.67
9	05/24/93	22:00	.03	.11	7.6	5.9	6.3	4.6	248.2	.61
10	05/24/93	22:30	.03	.12	9.6	6.4	6.9	4.8	240.6	.66
11	05/24/93	23:00	.03	.10	10.0	6.5	7.0	5.0	259.3	.65
12	05/24/93	23:30	.02	.08	9.6	5.8	6.2	4.5	247.5	.62
13	05/25/93	00:00	.02	.07	9.6	5.9	6.4	4.6	243.0	.63
14	05/25/93	00:30	.01	.06	11.3	6.5	7.2	4.7	237.2	.69
15	05/25/93	01:00	.01	.05	10.4	7.0	7.6	5.0	236.5	.70
16	05/25/93	01:30	.01	.03	10.8	7.2	8.0	4.9	249.1	.72

InterOcean Systems, Inc
FILE: 04SURC01.S4B

B#	DATE	TIME	STD	HS	TP	TZ	TS	TC	DIR	EPSI
29	05/25/93	08:00	.01	.04	7.6	7.1	7.5	5.4	185.2	.64
30	05/25/93	08:30	.01	.06	8.6	7.2	7.6	5.4	242.2	.65
31	05/25/93	09:00	.02	.07	7.6	7.0	7.4	5.4	259.3	.64
32	05/25/93	09:30	.02	.08	8.1	6.9	7.3	5.3	251.4	.64
33	05/25/93	10:00	.02	.09	8.1	7.0	7.3	5.4	242.5	.64
34	05/25/93	10:30	.02	.09	8.9	6.7	7.1	5.2	244.6	.63
35	05/25/93	11:00	.02	.07	8.6	6.0	6.4	4.7	236.9	.61
36	05/25/93	11:30	.02	.08	9.3	6.0	6.4	4.8	242.7	.60
37	05/25/93	12:00	.02	.07	7.4	5.3	5.7	4.3	228.5	.60
38	05/25/93	12:30	.01	.06	8.9	5.5	5.9	4.4	238.7	.60

InterOcean Systems, Inc
FILE: 04SURC03.S4B

B#	DATE	TIME	STD	HS	TP	TZ	TS	TC	DIR	EPSI
4	05/25/93	20:30	.02	.07	8.6	7.4	7.8	5.7	247.0	.64
5	05/25/93	21:00	.02	.09	9.3	6.5	7.0	4.9	246.1	.66
6	05/25/93	21:30	.03	.11	8.9	5.7	6.2	4.5	249.6	.63
7	05/25/93	22:00	.03	.12	9.3	6.1	6.5	4.7	258.4	.63
8	05/25/93	22:30	.02	.10	8.6	5.7	6.1	4.5	262.3	.62
9	05/25/93	23:00	.02	.08	8.9	5.5	5.8	4.5	255.4	.57
10	05/25/93	23:30	.02	.07	9.3	6.1	6.5	4.8	246.4	.62
11	05/26/93	00:00	.02	.07	9.3	5.5	5.9	4.5	253.5	.59
12	05/26/93	00:30	.01	.06	9.3	5.8	6.2	4.5	245.9	.62
13	05/26/93	01:00	.01	.05	8.1	5.5	5.9	4.5	243.2	.59

InterOcean Systems, Inc
FILE: 04SURC03.S4B

B#	DATE	TIME	STD	HS	TP	TZ	TS	TC	DIR	EPSI
29	05/26/93	09:00	.01	.05	8.6	6.0	6.4	4.8	238.8	.60
30	05/26/93	09:30	.02	.08	8.4	6.1	6.5	4.9	250.0	.60
31	05/26/93	10:00	.02	.08	8.4	5.9	6.3	4.8	248.3	.59
32	05/26/93	10:30	.02	.10	8.6	5.5	5.8	4.6	249.3	.55
33	05/26/93	11:00	.02	.09	8.4	5.6	5.8	4.8	261.6	.53
34	05/26/93	11:30	.02	.09	7.8	5.3	5.5	4.5	248.3	.53
35	05/26/93	12:00	.02	.10	3.4	4.8	5.0	4.1	204.0	.51
36	05/26/93	12:30	.02	.08	7.6	5.0	5.2	4.2	269.3	.53
37	05/26/93	13:00	.02	.08	7.8	4.9	5.2	4.2	247.5	.52

InterOcean Systems, Inc
FILE: 03SURC05.S4B

B#	DATE	TIME	STD	HS	TP	TZ	TS	TC	DIR	EPSI
4	05/26/93	21:30	.02	.07	8.1	4.5	4.8	3.8	247.5	.54
5	05/26/93	22:00	.02	.09	3.5	4.2	4.4	3.7	235.7	.46
6	05/26/93	22:30	.03	.11	3.4	4.5	4.7	3.9	228.1	.50
7	05/26/93	23:00	.03	.13	3.5	3.9	4.1	3.6	207.9	.39
8	05/26/93	23:30	.03	.10	3.4	4.3	4.5	3.8	212.4	.47
9	05/27/93	00:00	.02	.08	3.5	4.5	4.7	4.0	239.0	.48
10	05/27/93	00:30	.02	.07	3.4	4.7	5.0	4.1	238.4	.51
11	05/27/93	01:00	.02	.08	3.3	4.1	4.2	3.7	222.8	.42
12	05/27/93	01:30	.02	.07	3.3	4.1	4.3	3.7	222.7	.44

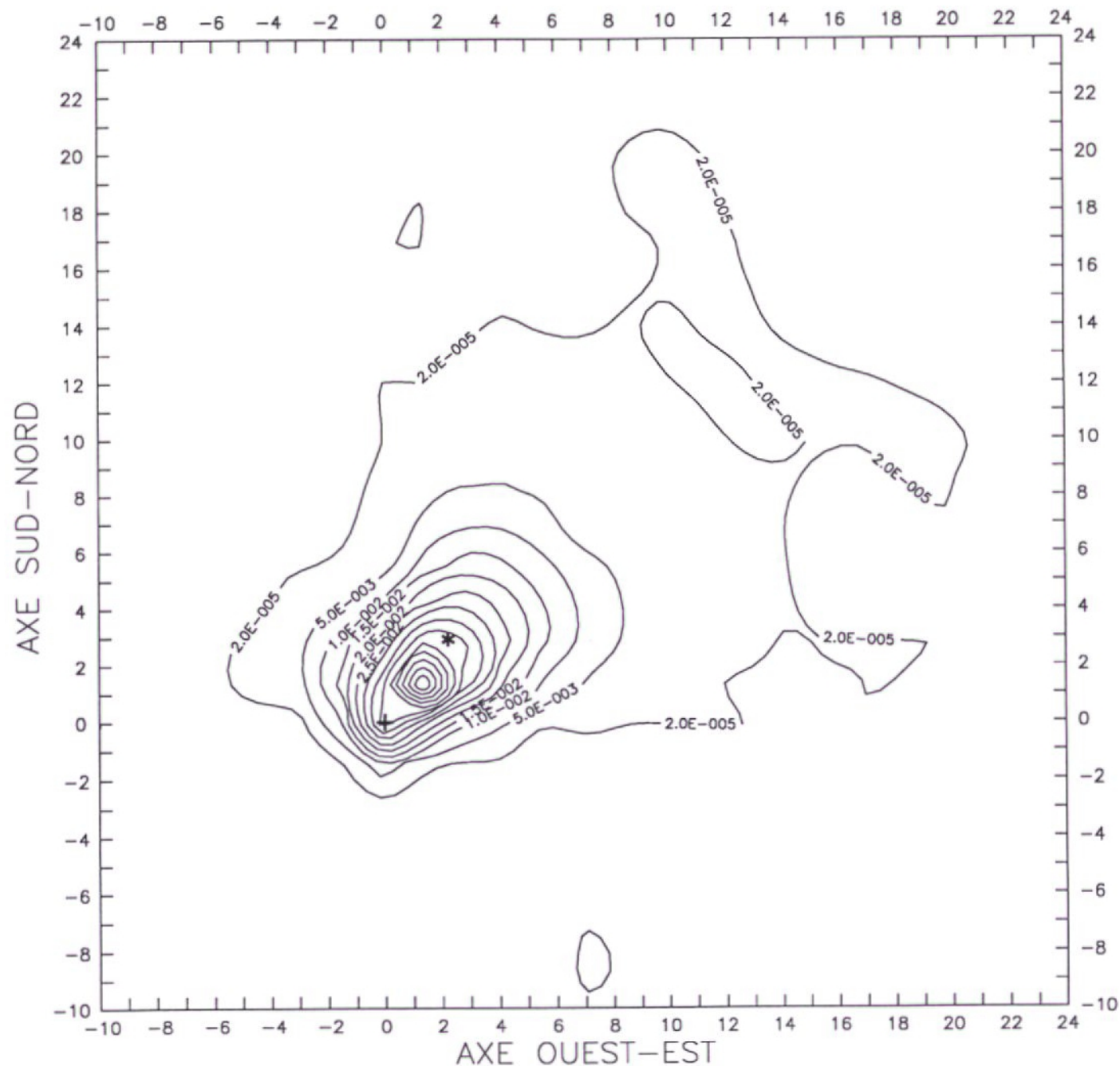
InterOcean Systems, Inc
FILE: 03SURC05.S4B

B#	DATE	TIME	STD	HS	TP	TZ	TS	TC	DIR	EPSI
29	05/27/93	10:00	.01	.05	3.6	4.8	5.1	4.0	258.9	.54
30	05/27/93	10:30	.02	.07	3.7	4.6	4.8	4.0	255.5	.49
31	05/27/93	11:00	.02	.10	3.4	4.4	4.6	3.9	233.0	.44
32	05/27/93	11:30	.02	.08	3.8	4.4	4.6	4.0	281.0	.44
33	05/27/93	12:00	.02	.10	4.2	4.6	4.7	4.1	242.2	.43
34	05/27/93	12:30	.02	.09	3.4	4.3	4.4	3.9	232.0	.38
35	05/27/93	13:00	.02	.09	4.0	4.1	4.3	3.9	215.0	.35
36	05/27/93	13:30	.02	.07	4.2	4.4	4.5	4.0	235.2	.40

CAMPAGNE N°21

Denneville - Surville

TRANSPORTS
SEDIMENTAIRES



TRACEUR FLUORESCENT

Courbes d'isoconcentration

Campagne 21
profil 18
Haute plage

du 24.5.93 à 15 heures
au 27.5.93 à 2 heures

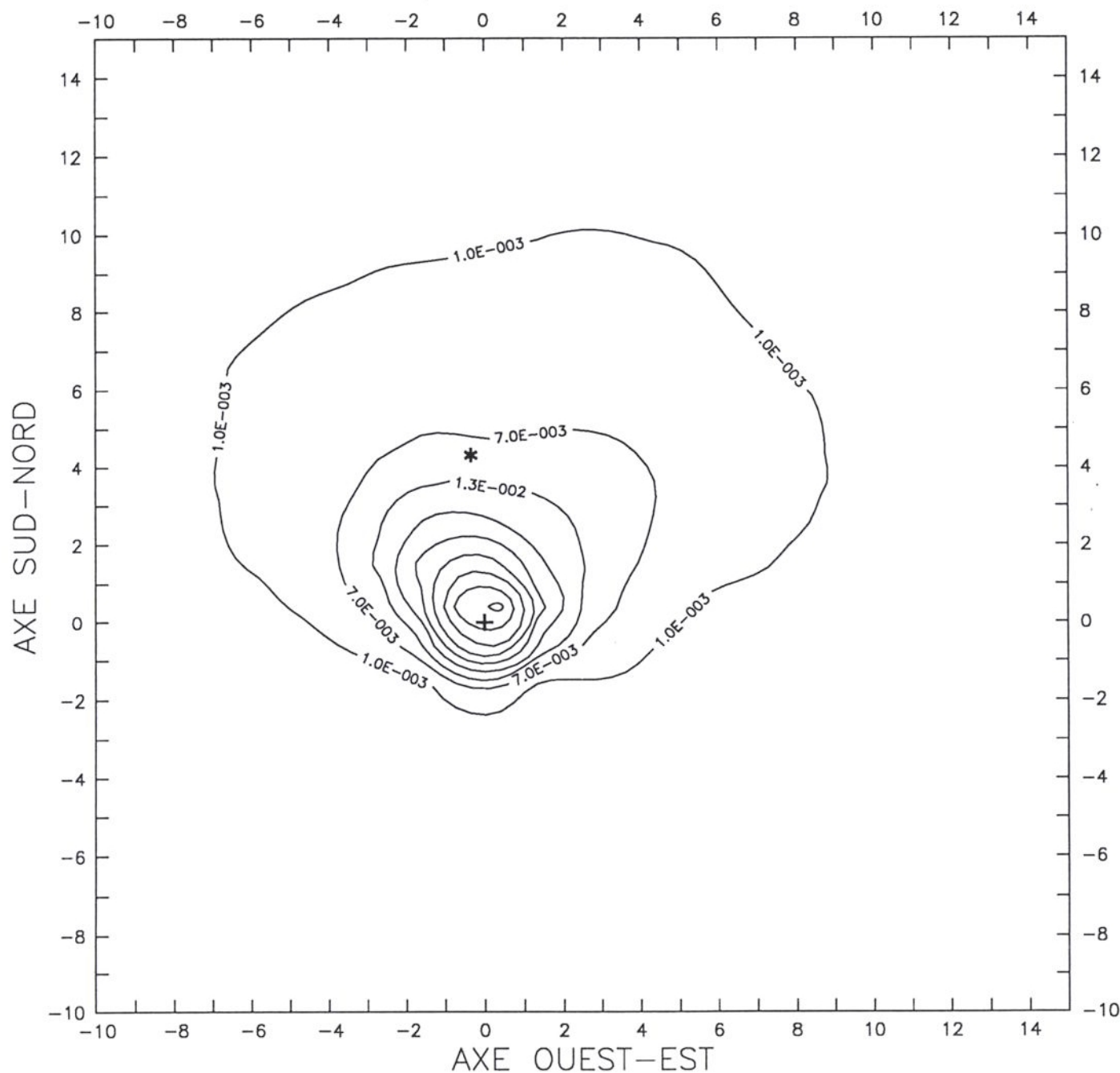
Nombre de marées : 5

Temps d'immersion : 386 minutes

Taux de récupération du traceur
80 %

Taux de transport :
Norme Direction
0.1 kg/m.mn 37 deg.

+ point d'immersion
* centre de gravité



TRACEUR FLUORESCENT

Courbes d'isoconcentration

Campagne 21
profil 19
Haute plage

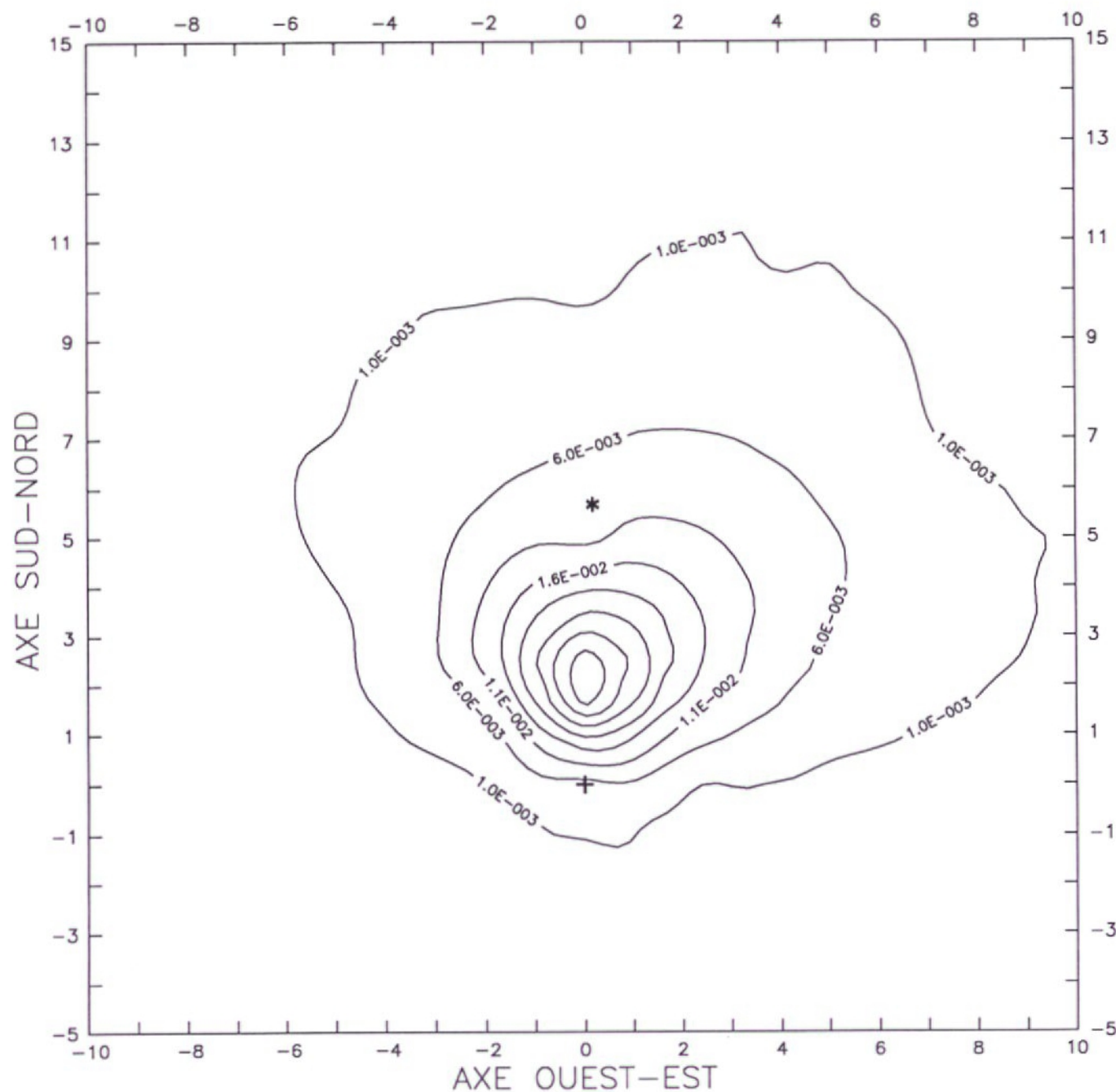
du 24.5.93 à 15 heures
au 27.5.93 à 2 heures

Nombre de marées : 5

Temps d'immersion : 351 minutes

Taux de récupération du traceur
165 %
Taux de transport :
Norme Direction
0.4 kg/m.mn 355 deg.

+ point d'immersion
* centre de gravité



TRACEUR FLUORESCENT

Courbes d'isoconcentration

Campagne 21
profil 22
Haute plage

du 24.5.93 à 14 heures
au 27.5.93 à 3 heures

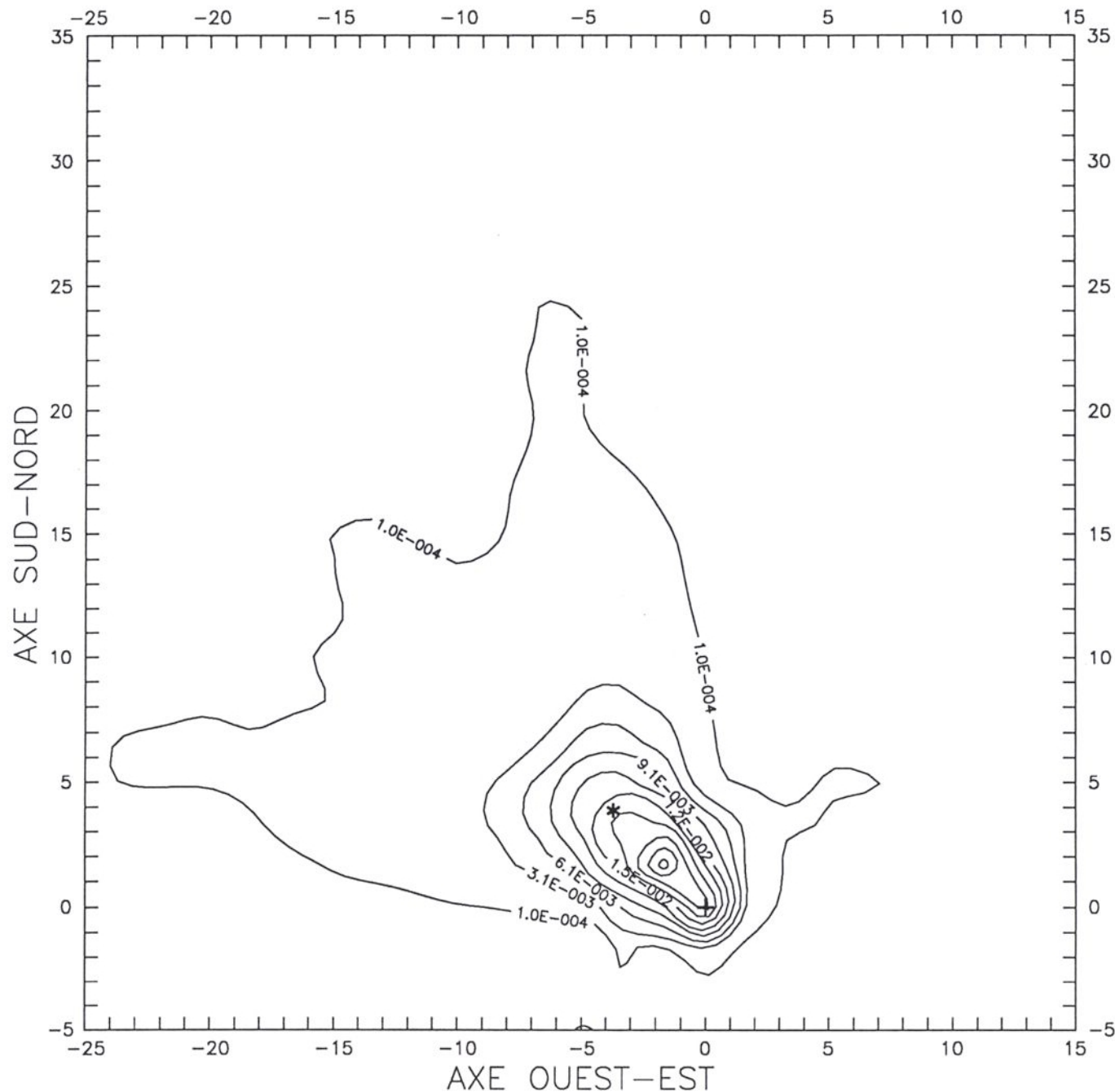
Nombre de marées : 5

Temps d'immersion : 481 minutes

Taux de récupération du traceur
26 %

Taux de transport :
Norme Direction
0.1 kg/m.mn 2 deg.

+ point d'immersion
* centre de gravité



TRACEUR FLUORESCENT

Courbes d'isoconcentration

Campagne 21

profil 22

Basse plage

du 24.5.93 à 14 heures

au 27.5.93 à 3 heures

Nombre de marées : 5

Temps d'immersion : 1812 minutes

Taux de récupération du traceur

98 %

Taux de transport :

Norme Direction

0.1 kg/m.mn 316 deg.

+ point d'immersion

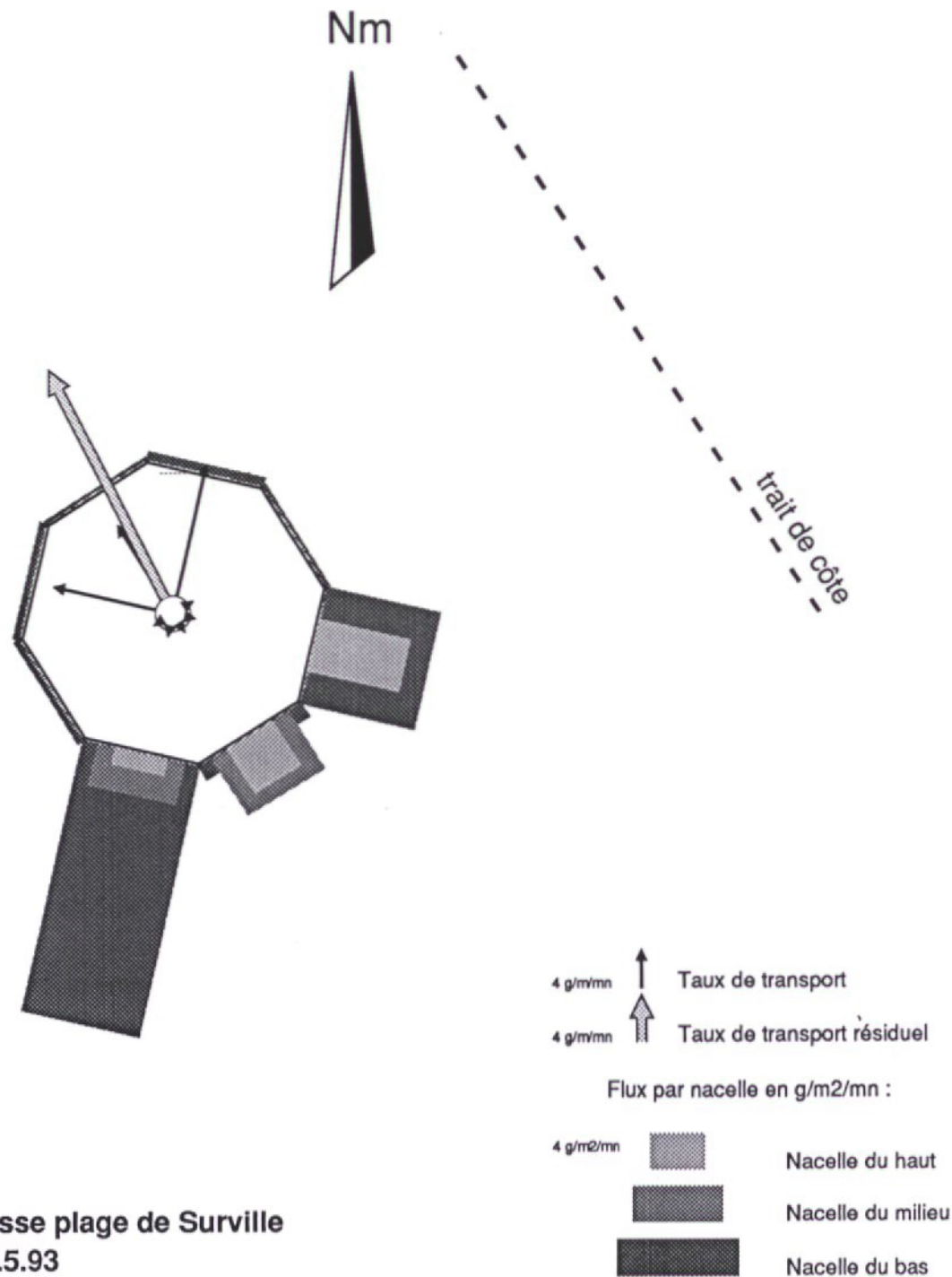
* centre de gravité

Campagne 21
Profil 22

Direction d'ouverture des nacelles (degrés)	Hauteur au sol (cm)	Flux (g/m ² /mn)	Taux de transport (g/m/mn)
13	136	0.01	
	67.5	0.00	0.3
	5.5	0.96	
328	136	0.05	
	67.5	0.01	0.2
	5.5	0.37	
283	136	0.00	
	67.5	0.04	0.3
	5.5	0.77	
238	136	0.03	
	67.5	0.18	0.4
	5.5	0.75	
193	136	1.87	
	67.5	4.81	14.5
	5.5	30.91	
148	136	5.85	
	67.5	7.54	9.4
	5.5	1.76	
103	136	10.45	
	67.5	0.16	11.4
	5.5	13.00	
58	136	0.05	
	67.5	0.08	0.2
	5.5	0.39	

Taux de transport résiduel :			
Direction (degrés)	Norme (g/m/mn)	Composante long-shore (g/m/mn)	Composante cross-shore (g/m/mn)
333.0	27.2	27.0	2.8

Transports sédimentaires sur la basse plage de Surville
Période du 25.5.93 au 26.5.93

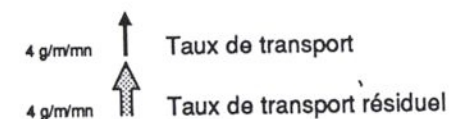
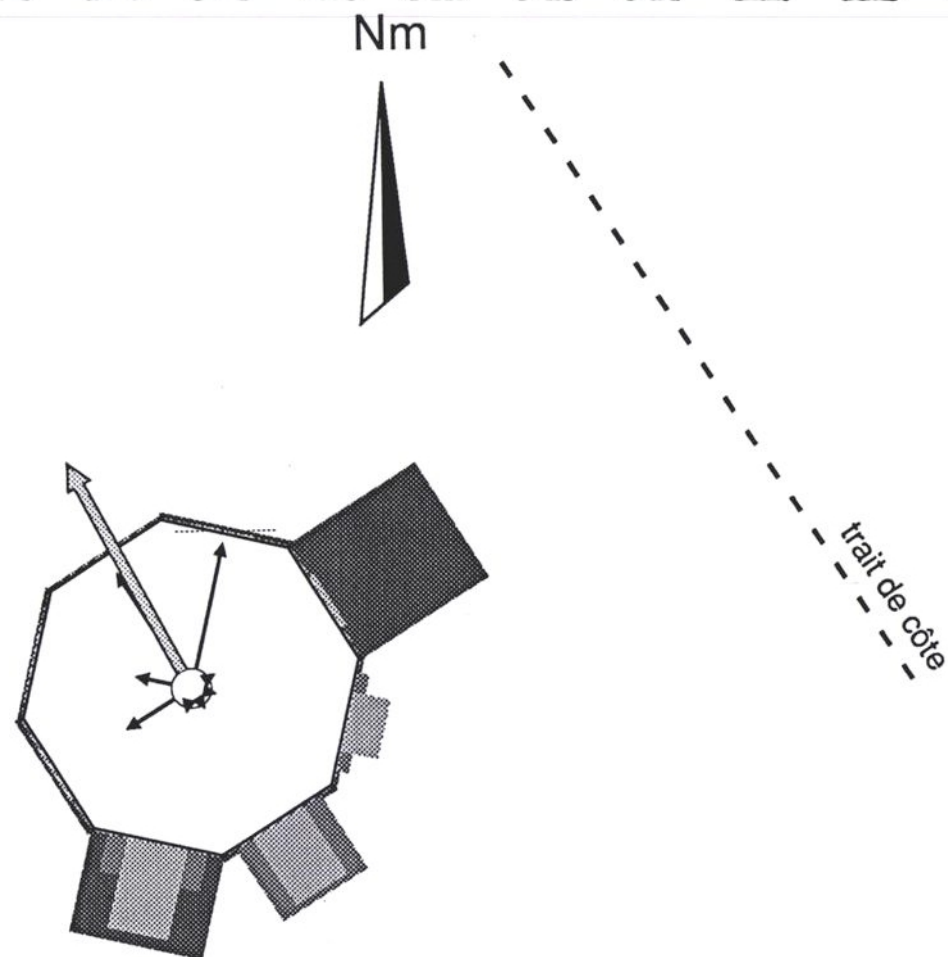


Campagne 21
Profil 22

Direction d'ouverture des nacelles (degrés)	Hauteur au sol (cm)	Flux (g/m ² /mn)	Taux de transport (g/m/mn)
13	136	0.01	0.1
	67.5	0.00	
	5.5	0.38	
328	136	0.00	0.1
	67.5	0.05	
	5.5	0.07	
283	136	0.01	0.1
	67.5	0.09	
	5.5	0.23	
238	136	0.20	0.4
	67.5	0.10	
	5.5	0.54	
193	136	9.27	12.4
	67.5	3.80	
	5.5	10.46	
148	136	8.01	11.4
	67.5	8.64	
	5.5	0.39	
103	136	3.66	3.3
	67.5	1.07	
	5.5	0.24	
58	136	0.46	5.3
	67.5	0.02	
	5.5	14.91	

Taux de transport résiduel :			
Direction (degrés)	Norme (g/m/mn)	Composante long-shore (g/m/mn)	Composante cross-shore (g/m/mn)
331.9	22.3	22.2	1.9

Transports sédimentaires sur la basse plage de Surville
Période du 24.5.93 au 25.5.93



Flux par nacelle en g/m²/mn :

