

82

oso ditubiric

(tb?)

lod. era aldati fatigatle?
x uniborra

← alde xafatu harentzen

Behan hare nahiko garri (1mm)

← Bidales depresioak
ez jiteko partean

81

← azar. fendra, mikritiko hipoberria

SO or SOF → tupetako laginak

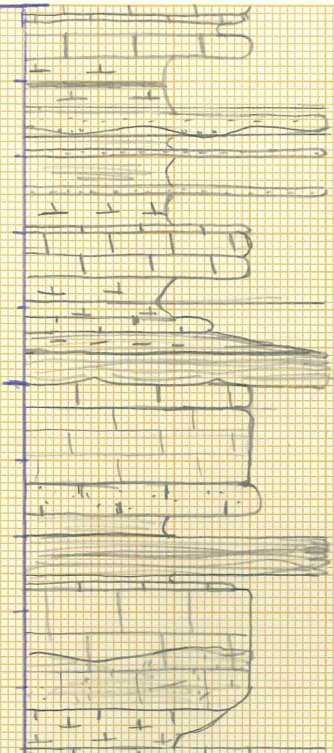
SOT → turbidite part harentsua

SOB2 → Turb. alde dibutuan

→ [SO-]

→ 2013-01
egindako
laginteketa

85



A pilor raita karkkelaan

← Eskolaia

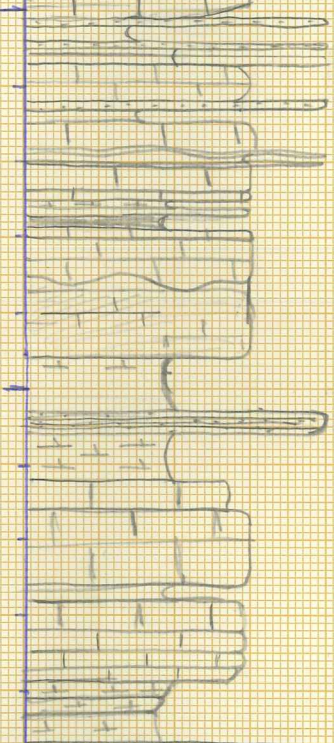
tupa ilon xoflata, lohitsu
lh lohitsu

oso karctsa, lh pilonelan
tb lohitsu xoflata

← SOB 2 84,3

Beloko, paitoa xoflata dined.
kolore ilnasoa (argontia);

84

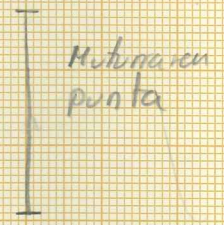


kh xoflata eta marroizte

xp

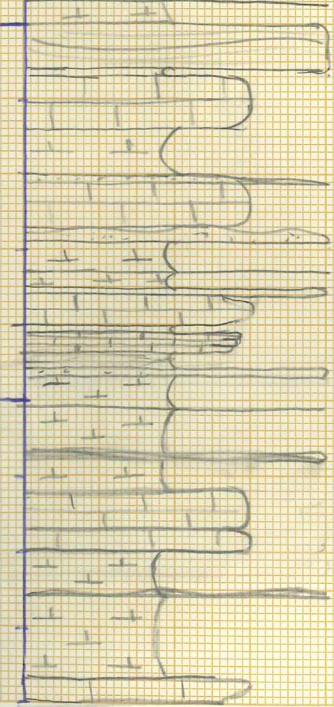
← SOB 3, 45

Mosiban



Mutunaren punta

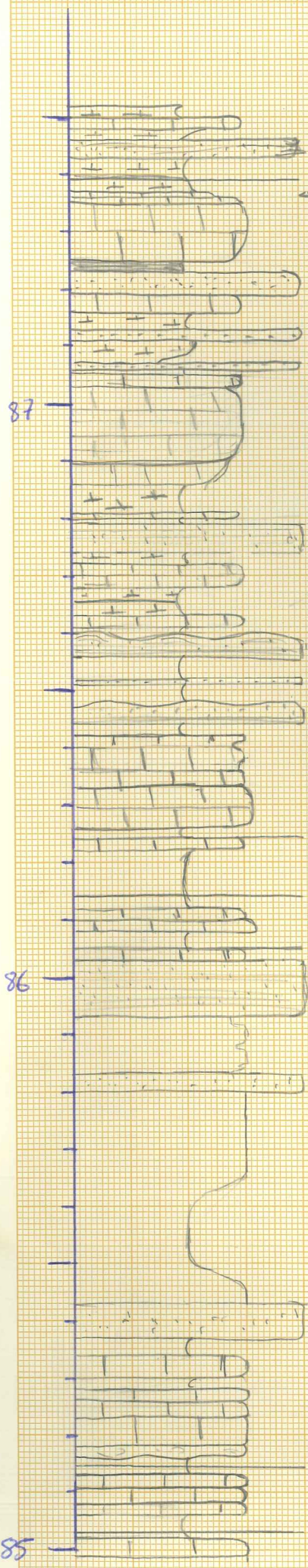
3



tupa pixkat lura
oso lohitsu eta lura

lamina beltza

lohitsu beltza



0.50 batuta eta xofletara

← hh laminatua
kalkita kristaldu gairakabea
gerura oso masiba

Rikor fina eta masiba.

oso diluitua → aietoerata desagertu

oso masiba, gerura erripkatua

erripkatu
hurrengo abaloian

← Eskaloia i
ortuago
gerura

laminario beltza

lehenengo 2cm xp
agitura gabeko

1cm xp

→ 80-86,6

← eskaloia iaren
amaiera

oso mikritatua

← zulo txo markatua

turbiditate gairara iteatu

← Beste abaloia
bat

← lehenengo 2cm Slumposo

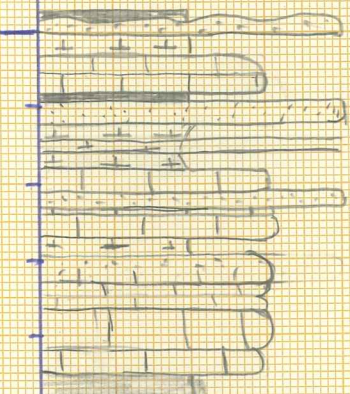
← Mjura eta
gerura hurrengo
abaloia

87

86

85

90



gaiso ten hh-tsva
hh xaflatkoak
lupardu barrua
artienago em
harratsua

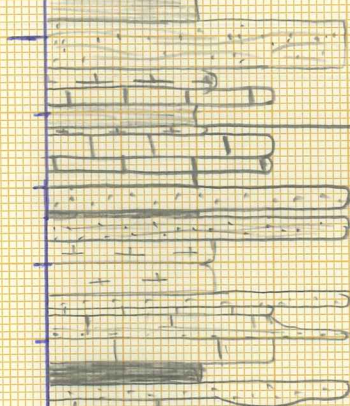
repsa hait
belorik
Sastrikak
SOB2-89,5
SOT-89,5

oso taulakara xp-kin

te?

Astienago os hipocentrik
gradu normala

89



Nahasteta hh xaflat
tupa oso lehitsuain -> oso diluitu eta
iluna
0,5

hh oso fina
oso xafalua
laminazio beltze
oso taulakara

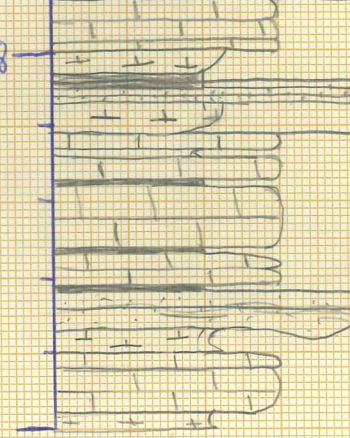
oin irregularra (2-3m) barruan taulakara

SOB2-88,5

oso diluitu eta lehitsu
oso iluna
0,5m

xp oso markatua

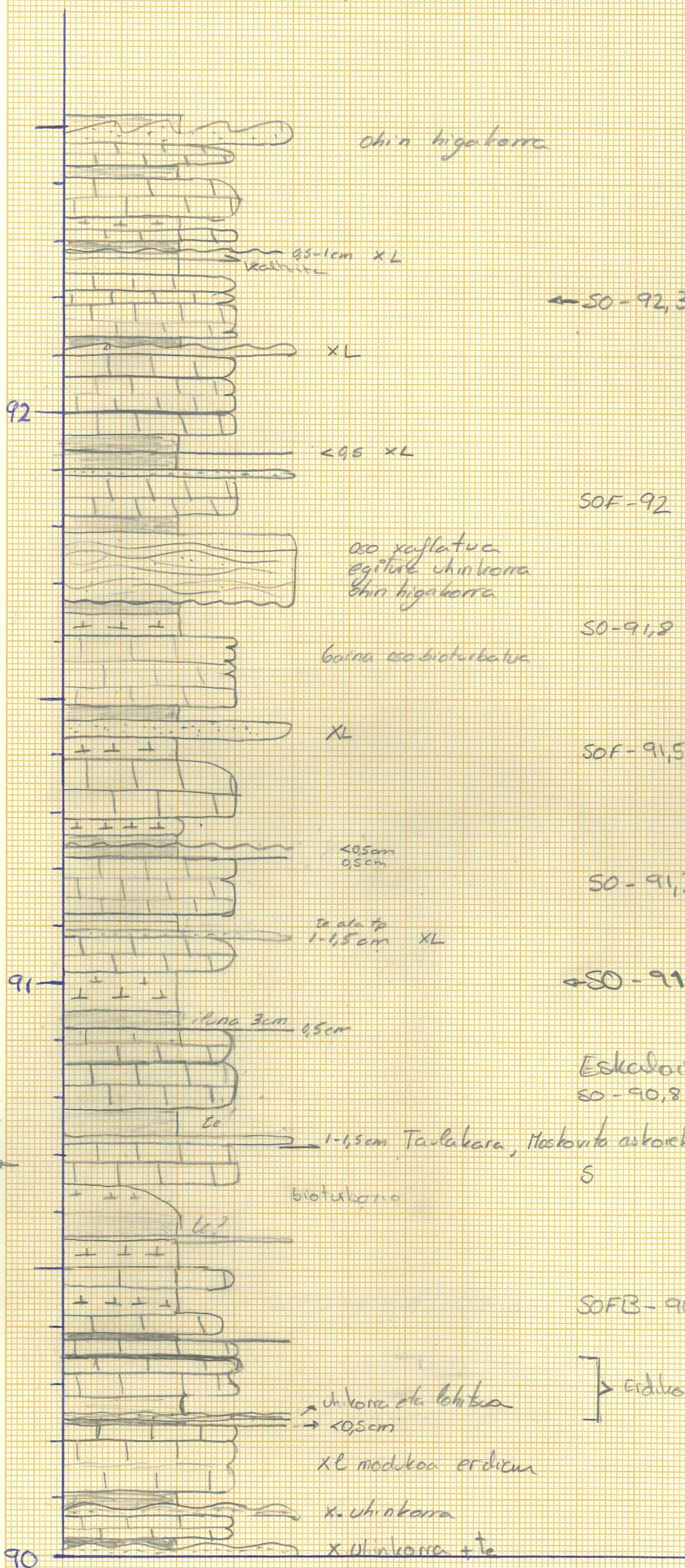
88



osa
Batu karratutako hh gorria

SOB2-87,9
SOT 87,9

te, tupa edo furka. oso tupa iluna
gain oso bioturbatua
gorria oso potolo masba
umetrikua. Gai
gain bioturbatua
gradu normala berriagana
oin jarvide
oso taulakara mas.boa



Ohin higabarra

0,5-1cm XL
Kaltzura

XL

<0,5 XL

oso xaplatua
egiturak ohin hona
Ohin higabarra

Gaina oso bioturbatu

XL

<0,5cm
0,5cm

Te ala tp
1-1,5cm XL

Pina 3cm 0,5cm

Te 1-1,5cm Taulakara, Hostonita estroekin

bioturbatu

Ohin hona da lortzea
> 0,5cm

XL modukoak erdiean

x. Ohin hona

x. Ohin hona + te

← SO-92,3 Eskalatorxo tridea

← SOT-92,1

SOF-92

SO-91,8

← SOB2-91,5

← SOT-91,5

SOF-91,5

SO-91,3

← SO-91

Eskalatoraren hasiera

SO-90,8*

↑ erliebea
deprimtu

↑ erliebea
deprimtu

SOFB-90,4 (birlan dua)

} erliebe eskalator, sastraka

↑ kh eskalatoraren
hasiera

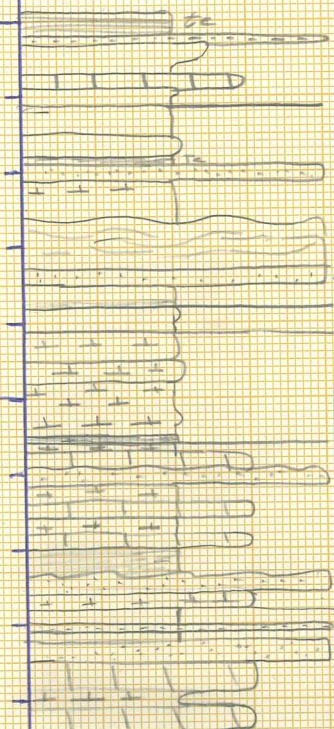
sastokada
guzuz

92

91

90

95



as oso uhinkorra

SOF-94,9
SO-95*
SOFB-94,8
SO-94,8*

te edo tp?
uhinkorra

masiba.
lehen solan dunago
95cm

SOFB-94,5

95cm

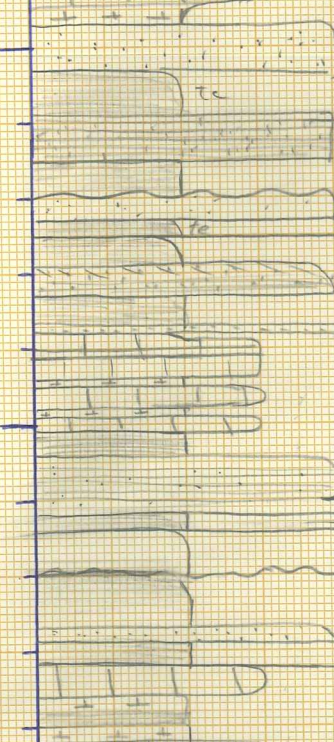
SOF-94,3/SO-943*

XL+Xg
kh tp leua

masiba

← SOT-94,2

94



masiba 4cm + 2cm Xg

lohatsua oso xeflatua eta ilua

Xg
205cm

Ta (2cm) + Te (2cm) oso ilua

Hiru paketeak, gorantz tp leua } SO-93,7*

Xp, kolore oso ilua

Te ala tp?
20,5cm
Te ala Te?
20,5cm

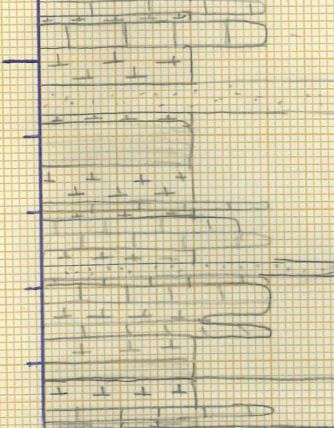
Goialdeko lurdu (te ala tp)

guro 1cm Xg

SOFB-93,3
SO-93,2

← SOF - 9

93



tp itxura te baina
masiba

argia
oso fardubara

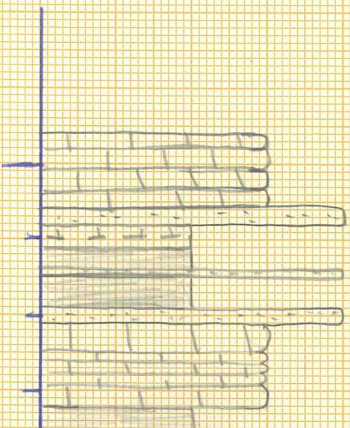
← zuloan sartu

kolore argiago
20,1

SO-92,8

28,5 te? gain irredama

97



estabota, turbidite gauda rotaria eskurarenh
 SO-97,7*

bd
 Azken 2cm argiago (Tp)
 xp
 Gaudetrotan

SOFB-97/SO-97,4*

ta+tb+tc+td
 Gaudetrotan

SO-97,2*

qs
 Xaftadura chinkorra 2 slump
 oso laburu
 291

SO-97* ← SOT-96,7

ta musboa

ta + ta^{1,5} + ta^{1,5} + ta

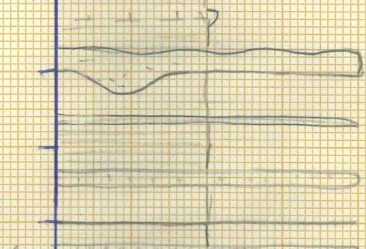
SO-96,8

oso laburu eta laminatu

SOF-96/SO-97,6*

ta + td
 kolore laminatuak → ta laburuak

96



Higadura konplexua ta+tb+tc
 kolore laminatuak
 oso laminatu (laburuak)
 kolore laminatuak
 tb + tc

oso laburu
 ta + ta + ta + ta

kolore laminatuak ? > SO-95,6*

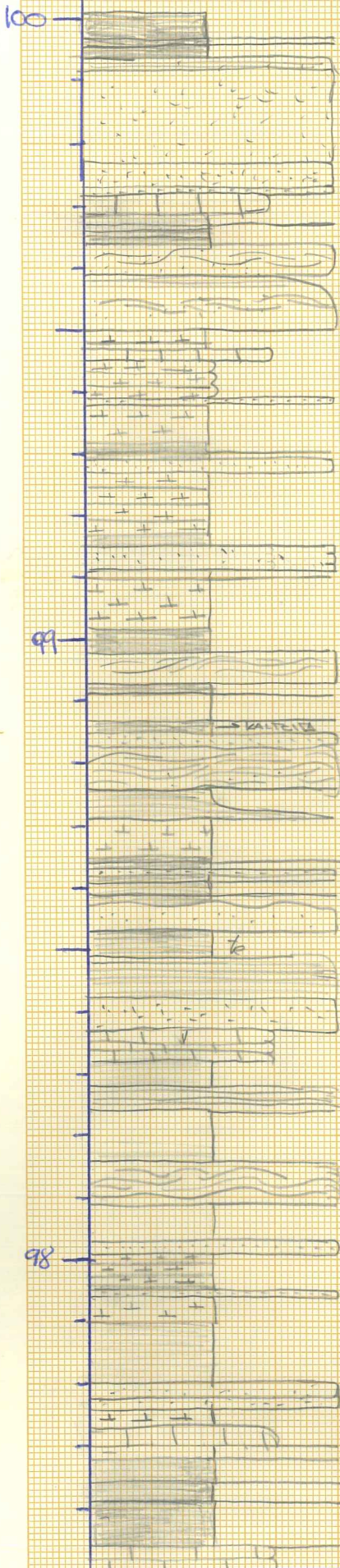
tupe eta ta → laminatuak, eta gaur chinkorra bera. Koloreko zaina
 beheko turbidite ordenatu eta tartu koratari sartu, baina
 koraxo

ta + tb + tc?
 laburu eta laminatuak
 liburu depositua, topate berria

laburuak

ta + tb + tc + td
 Musboa, gale parta chinkara

← SOT-95,7
 ← SOB2-95,1



te

→ Boturkaria oron (pikonal 1mm)

Xiflatua
Xiflatu uhinkorra

oso laminatua eta lohitsuak
Xiflatua. Din boturkaria, gurea? / *Perlictea*
händtu

Laminatua
tupa karetsua - alumina-oxido

SO-99,4*

SOF-99,1

2° bitak lamina
tupa iluna

gauri lamina
tupa laminazio Rueden

oso?
lohitsu eta laminatu
3 m. bita

SOF-98,8

99

te
Xuhinkorra

lohi

Xiflatua uhinkorra

Tupa, beheto aldean lohitsuak, iturra eta xiflatu gabe

Kolor argiago, oso xiflatu
mas. ton

SOF-98,4

Maska, hotubono gutxi

lohitsu laminatua

Maska, bit. gabe gutxi.

oso laminatua (3 bitak, gaitoa oso laminatua) SO-98,3*

lohitsu, xiflatua

tupa iluna

SOF-98 - gaitoa aldean karetsu gabe

oso lohitsu eta xiflatua uhinkorra

98

tupa xiflatua 2 bitak

argiago, erberdina?

oso iluna

oso boturkaria 2 turbidit?

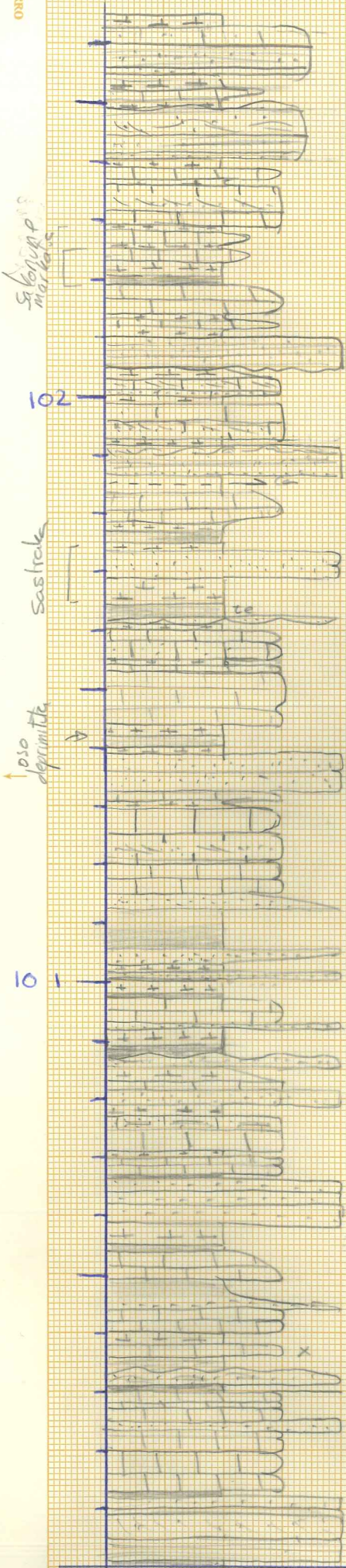
Xuhinkorra

SOFB-97,5

SO-97,25*

argiago

tupa oso iluna



mikrita nagysi
 t_b → harea su lamina mikritarekin
 t_a

t_b
 t_c → x_g ete korbelite & mikritarekin nahastit.
 t_a

kh → erdian hae laminaoak, korbelite itura

SO-102,1

oin → biotubatu eta higatu t_b (laminita) ete paker lodia
 Haradun kh, laminaoak

hh laminaoak
 t_a = 1cm; t_b = 1,5cm; t_c = 2,5cm, korbelite
 limite gradate

← SOT-101,7

oso aldean argiago.
 kurbulana, tataran deagertu
 bioturbazio aiko, tipatsua
 kh masibo; sifilikarillo kantitate handiarekin
 masibo ete mikritko homogeneoa SO-101,5*

→ kompakzio txikiagoa { xafadura II
 → oso kompakto

kh → erdian hh laminaoak oso karbu/dilitua (kh etura)

SO-101

hilara, arkenengo osan te ilua
 t_c, oso ilua, gorantz argitu
 t_a t_b t_c → t_a lodiera aldakorra (bain higakorra)
 Geroa gueso l_g
 os jnanga muy calbata, d'itimo < 0,5cm osura (te?)

t_c
 t_a bioturbazioak gauran
 bioturbazio aiko
 palastko, gorantz lundu
 kh harea laminaoekin, t_b dilitua
 SO-100,6*

t_a
 Ribor finagoa, xafadura laminao
 labenar lan ilua

SO-100,3*
 SOF-100,1

x_e → t_b, gain irregulara
 masibo, oso karbu

← SOT-100,4
 ← SOB2-100,4 (100,4)

→ kh-en mugtan t_p

SO-100,4*

masibo
 t_c
 x_e, t_b

lamina baltza
horixko 2a
nahiko iluna (te eta te)
na f. na
b. b. b. xoflatua

105

na f. na x p. rd. n
lamina baltza

← Mituna Garrant
← SOBZ-104,6

na
kh nahiko tu patzua
ta horixko
tupa b. b. b. xoflatua

tupa xoflatua baltza

na f. na x p. rd. n
xp + x0

← SO-104

104

te:
bd baltza
bc Xy + X iratze

← SOBZ-104

tb
ta

kh oso horixko Xp eta Xy
kh mikritiko puru
kh horixko p. b. b. b. xoflatua, oso masiba.

te
kh horixko p. b. b. b. xoflatua, haxa < kh
kh, horixko lamina baltza (ugaritak) Xy

lamina oso peraltu.

na f. na x p. rd. n
xoflatua II

← SOT-103,1
SOCA-100,4

ta (20,5) + tb + te

DSOCA -

Horixko kh mikritiko
Horixko eta lamina baltza, karbonatibts.

SO-103

103

} SO-102,5

oin bigarrena. ta (1,5) + te (1,5)

SASTRALA

← SO 07-108,1

108

xp oso.

→ auneke baina pinalat ty paksuogee

zaitketele xoffa luvelen

zaitketele xoffa luvelen

zaitketele xoffa luvelen

zaitketele xoffa luvelen

ca

xp

lohi kelta xoffa

← SOT-107,35

xp

ta

107

← SO-107

gyltra seba

ta

oso diluiva

laminaatio keltia

→ lohitsu xoffa

xp

← SOT-106,5

lohi luvia

} osake nauru oso blytsua
eta laminaatio kelta
tartekabekini

naurukausu, x uhrikorta

hh + lohi luvia xoffa

oso tpa (te) luvia

hh + lohi luvia xoffa

oso diluiva

laminaatio

106

kolko edeta lohitsu

← SOT-105,9

tupa oso luvia

oso ta luvia. Oivan bieterkora

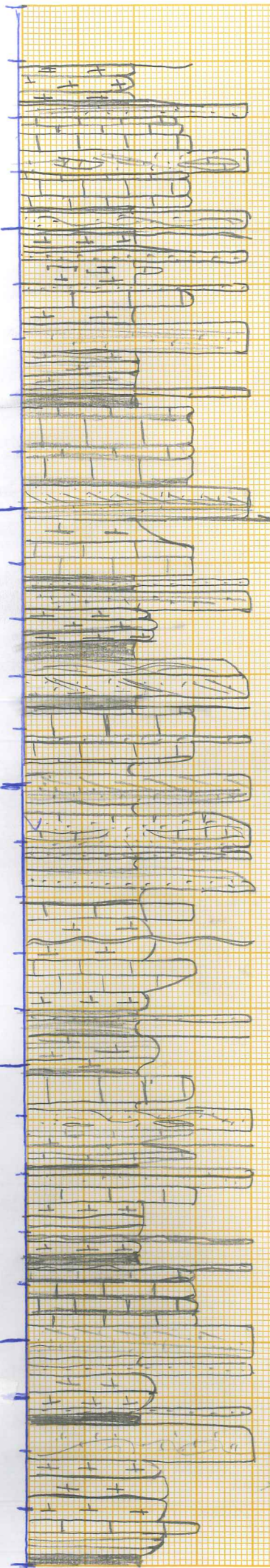
← SO 02-105,8

oso diluiva

← SO-105,5

ta oso lohitsu keltia, gradualki ty paksu

laminaatio keltia



xp
Itura sumpse kh lanta

↔ 50-110,5

x chinkore
lohi xofletu
nahiko, Puna

xp → Ohin oio botubakile
tupa oio Puna
xofletu lohi tsu batuk
tupa korixke

↔ 50T-110,2

Aakeranga 2am kuhinkore

110

xp
xofletu lohi
lohi tsu x chinkore
kh x g

↔ 50B2-109,7

↔ 50-109,5

egitara arero
kh kh-kin nahasirik

↔ 50T-109,35

xofletu keltiak

109

x chinkore
kh lanta jorid

2ahitak
xp

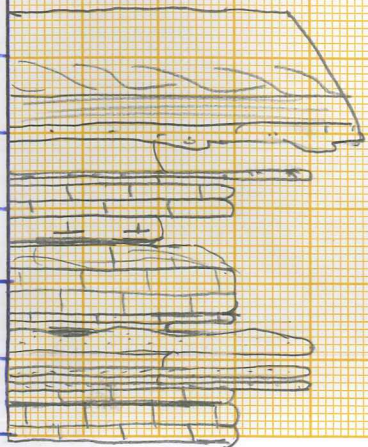
lohi tsu xofletu
lohi tsu xofletu
xofletu keltiak

↔ 50-108,5

x g
xp

hardsua x chinkorekin

xofletu keltiak



2. $f_{R, \text{ber}}$
 $t_p \times t_{\text{ber}}$

geraka beltur
 $k_h, h_h \times f_{\text{ber}}$ batruedon

Table A- 2.1 Paleomagnetic data from along the Solondotas section (ntc: no tectonic correction; tc: tectonic correction; VGP: virtual geomagnetic pole).

Sample	Height (m)	DEC1_ntc	INC1_ntc	DEC1_tc	INC1_tc	DE2C_ntc	INC2_ntc	DEC2_tc	INC2_tc	Class	VGP_lat	Polarity
BX2-1A	19.7	350.5	44.3	212.8	51.8	245.4	55.2	218.5	-10.2	A	-38.9	
BX3-1B	20.1					190.1	19.4	190.2	-60.6	A	-82.3	
BX4-1A	21	348.7	31.2	229.8	61	183.3	22.6	178.6	-56.7	A	-83.8	
BX5-1A	21.2	346	48.5	213.1	46.6	164.6	10.4	138.2	-57.5	A	-58.2	
BX6-2A	22	12.1	60.5	188.6	39.5	159.7	36.7	160.3	-35.3	A	-61	
BX31-1A	23	15.9	65.7	187.1	34.2	206.3	55.3	200	-23.3	A	-54.3	
BX31-1B	23	352.2	16.8	256.7	71.4	206.8	32.1	210.2	-45	A	-60.3	
BX7-1A	25.4	10.4	50.1	189.6	49.9	169.2	24	159.5	-50.4	A	-69.7	
BX7-2A	25.4					202.1	27.4	207.1	-50.8	A	-65.6	
BX33-1B	26	2.1	26.9	212.7	71.5	202.4	32.7	204.9	-45.7	A	-64.1	
BX34-1A	26.5					159.4	33.4	157.5	-37.7	A	-60.9	
BX35-1B	27.4	12.7	48.2	187.1	51.8	178.8	10.3	160.8	-66.8	A	-75.5	
BX36-1A	28	341.8	58.3	208.2	37.2	183.8	12.5	174.6	-66.6	A	-83.2	
BX36-1B	28	15.8	75.2	188.4	24.7	185	21.9	181.4	-57.7	A	-84.9	
BX39-1C	30.6	16.7	33.9	176.7	65.4	176.1	55	181.3	-23.9	A	-59.1	
BX40-1C	31.8	357.1	62.6	197.4	36.6	226.7	8.7	254.1	-49	A	-31	
BXA59-1A	33	6.4	55.7	192.8	44.3	205.9	52.3	200.8	-26.3	A	-55.5	
BX21-1A	34.5					222.7	21.7	235.1	-44.9	A	-42.7	
BX23-1A	36.5	1.1	34.3	207.2	64.4	184.1	17	177.6	-62.4	A	-88.2	
BXA61-1A	41					238.1	45.2	223.9	-19.8	A	-39.6	
BX33-1A	49	354.6	49	205.4	49	179.9	25.4	174.7	-53.2	A	-79.5	
BX34-1A	49.8	36.9	70.2	180.1	27	145.7	15.1	129.1	-39.4	A	-43.2	
BX17-1A	50.25					193.3	15.7	197.2	-64.1	A	-77.5	
BX17-2A	51					163.6	41.4	166.5	-33.2	A	-62.3	
BX36-1A	53	357.4	56.5	199.4	42.5	186.4	25.4	184.33	-54.5	A	-81	
BX17-3B	54					15.3	-16.5	381.2	63	A	74.7	
BX38-1A	58	0.3	70.3	193.7	29.4	354.6	-36.4	353.5	41.4	A	69.7	
BX17-5A	60					9.8	-68.9	369.9	11.1	A	51.2	
BX17-7A	61.5					343.8	-37.8	344.4	36.3	A	63.4	
BX17-9A	62					15.9	-48.7	374.5	31	A	60.6	
BX17-10A	62.75					328.3	-49.5	342.6	20.2	A	53.7	
BX17-13A	64.25					355	-29.4	330.5	38.2	A	57.2	
BXA51-1A	74.5	359.2	64.7	195.6	34.8	349.3	-11.5	325.7	60.3	A	64.7	
BXA51-1C	74.5	3.2	38.3	201.1	61	11.6	-3.3	376.9	76.7	A	66.7	
BXA52-1A	78	8.6	30.1	193.5	69.8	5.8	-16.5	361	63.1	A	88.6	
BXA53-1A	79					355	-28.6	349.8	48.7	A	74	
BXA53-1C	79	8.5	54.5	191.2	45.5	342.4	-24.3	332.3	46.4	A	62.8	
BX40-1A	79.5	352.5	46.3	209.1	50.7	354	-34.8	352.1	42.7	A	70.3	
BXA55-1B	82.5	6.3	36	196.8	63.7	5	-32	363.7	47.7	A	75.1	
BXA55-1C	82.5	6	44.9	195	54.9	329.1	-48.1	341.9	21.6	A	54.2	
BX9-1A	83.5					5.9	-61.4	368	18.5	A	55.4	
BX10-1A	84.8	7.1	29.1	197.6	70.7	39.8	-44.8	393.8	29	A	49.9	
BXA1-1A	86	12.3	71.7	210.4	42.8	357.9	-33.3	359.8	26.2	A	60.4	
BXA2-1A	87	3.3	59	223.3	52.8	11.7	-1.7	357.2	60.3	A	87	
BXA2-1B	87	6.8	53	226.4	58.9	354	-22.4	350	33.8	A	63.7	
BXA3-1A	88	7.3	57.6	221.5	55.1	34.1	-20	397	44.1	A	55.3	
BXA3-1B	88	339.5	43.5	256.6	48.7	77.5	-2	437.6	21.3	A	16.5	
BXA4-1A	89	25	56	205	59	208.3	16.7	209	-48.2	A	-62.9	
BXA4-1B	89	8.7	38.5	246.7	70.7	176.7	44.2	184.2	-16.1	A	-54.6	
BXA5-1A	90	15.2	41.7	228.6	71.5	220	53	214.1	-10.9	A	-41.7	
BXA5-1B	90	5.1	63.3	218.7	49.5	194.1	14.9	189	-48.7	A	-74.5	
BXA6-1A	91	15.5	59.2	213.5	55.2	227.2	42.3	222.3	-19.6	A	-40.5	
BXA6-1B	91	1.6	42.5	246.9	64	223.1	29.9	223.6	-32.4	A	-45.2	
BXA7-1A	92	352.8	35.3	266.9	60.5	176.6	14.2	166.7	-42	A	-68	
BXA7-1B	92	336.2	66.9	227.1	38.5	182.9	19	176.8	-41	A	-69.9	
BXA8-1A	93	351.6	66.5	222.7	43.6	212.5	11.3	217.3	-52.9	A	-59.4	
BXA9-1A	94	61.7	48	163.2	53.1	191.3	24.3	188.9	-38.9	A	-67.4	
BXA10-1A	95	356.5	56.9	230.1	52.1	162.7	17.5	156.6	-30.8	A	-56.7	
BXA10-1B	95	5.1	70.5	214	43.1	220.3	29.8	220.9	-33.3	A	-47.4	
BXA13-1A	98	7	40.3	245.3	68.6	177.7	25.7	175.5	-32.9	A	-64.3	
BXA15-1A	101	10.7	58.1	218.3	55.4	215.3	11.6	221.5	-52.1	A	-56	
BXA17-1A	102.5	357	51.4	241.5	49.4	169.8	12.3	155.8	-38.9	A	-60.7	
BXA18-1A	103	316.6	59.5	282.6	25.5	195.2	39.1	196.9	-29.3	A	-58.8	
BXA19-1A	104.9	344.3	38.9	264	46.5	208.9	8.8	207.7	-61.2	A	-69.8	

BX11-1A	106.5	3.1	41.3	199.8	58.1	174.7	26.6	168.3	-50.5	A	-74.7
BXA21-1A	107	0.4	67.5	224	38.9	194.7	8.9	181.1	-57.4	A	-84.6
BXA23-1A	109	349.7	50.5	246.4	46	204.3	28.1	203.3	-41.6	A	-62.7
BX13-1B	110	343.7	49.3	214.1	45.1	160.1	15.1	139.9	-51.2	A	-56.6
BXA25-1A	111	353.4	70.4	224.1	35.1	198	27.2	195.7	-41.3	A	-66.5
BXA27-1A	113	356.2	58.9	233.6	44.1	189.4	12.2	176.1	-51.9	A	-78.7
BXA28-1A	114					215	46.1	213.8	-23.7	A	-47.5
BXA29-1A	115	359.6	44.8	248.4	54.7	253.2	31.7	249.5	-23.8	A	-23.4
BXA33-1A	117.2	18.3	68.9	208.2	40.9	172.4	41.5	179.3	-21.5	A	-57.8
BX19-1B		333.2	27.9	247.4	51.1	180.6	41	180.9	-38.3	A	-68.2
BX1-2A	18.5	301.6	43.1	237.3	22.6	206.2	56.6	199.6	-22	B	-53.8
BX3-1A	20.1	342.4	40.9	223.6	50.7	144	35.8	149.2	-26.9	B	-50.7
BX6-1A	22	37.1	64	176.2	32.7	132	64.3	168.3	-4	B	-47.3
BX32-1B	25					196.9	34.1	198.1	-45.4	B	-67.9
BX32-2A	25	326.6	46.1	227.5	38.4	175.7	46	178.3	-32.5	B	-64.2
BX33-1A	26					239.2	-7.2	280.8	-41.3	B	-8.7
BX34-1B	26.5	337.4	39.2	229.4	48.8	98.7	-72.2	388.1	-9.1	B	35.8
BX37-1B	28.5	357.3	59.1	198.5	40	234.5	47.5	220.3	-20.3	B	-42.1
BX38-1A	29.5	349.4	66.7	199.4	31.6	164.4	-29.2	417.6	-59.3	B	-8.3
BX38-1B	29.5	349.9	49.6	209	47	139.6	29	140.4	-27.7	B	-45.7
BX8-1A	31.4	319.6	55.6	220.1	29.8	123.4	-48.4	411.4	-22.9	B	17.6
BXA60-1A	36	26.2	67.8	182.9	31.2	198.3	54.2	195.4	-25.5	B	-57.2
BX24-1A	38.5	7.8	39.9	193.4	60.1	92.9	-37.1	422.4	-0.4	B	19.5
BX26-1A	40.8					96.9	-15.8	443.9	0.2	B	4.5
BX27-1A	41.4	6.2	64.1	192	35.8	1	-17.6	352.2	61	B	84.1
BX30-1A	44.6	337.8	36	233.1	50.9	171.8	15.4	154.5	-58.9	B	-70.6
BX31-1A	45.4					349.8	-16.8	333.1	56.6	B	68.7
BX35-1A	50.5					236.3	81	196.5	3.7	B	-42.4
BX17-8A	61.75					353.1	31.4	223.8	63.5	B	6.7
BX17-11A	63.25					211.3	20.8	224.1	-52.8	B	-54.5
BX17-12A	63.75					355.6	-4.9	325.6	69.3	B	65.4
BX17-15A	66.5					63.6	-16	434.4	30.9	B	22.6
BX17-16A	67					295.9	-33.5	315.9	6.9	B	34.2
BX17-16B	67					28	-12	409.5	61.6	B	54.4
BXA50-1A	70	359.3	42.9	204	55.8	264.8	24.9	252.5	-9.3	B	-15.9
BX17-18A	73					212	-18.2	303.6	-67.2	B	-15.5
BX39-1A	75.5					264.8	-71.6	351.7	-14.2	B	38.9
BXA12-1B	97	6.7	81.4	208.2	33.1	268.8	39.3	249	-2.4	B	-16
BXA18-1B	103	300	63.2	201.3	51.7	240.5	56.2	223.9	-3.4	B	-32.9
BXA21-1B	107	358.2	66.1	220.1	45.6	230.1	26.6	231.9	-33	B	-39.7
BX12-1A	108.2	5.7	36.3	197.7	63.4	315.8	56.8	220	27.4	B	-21.5
BX13-1A	110					148.6	24.8	141.6	-36.7	B	-50.7
BXA31-1A	116					257.5	73.8	222	8.7	B	-29.1
BXA32-1A	116.7	342.7	52.5	239.6	44	236.2	32.2	235.4	-29.8	B	-35.9
BXA34-1A	118					158.2	24	156.8	-26.6	B	-54.6
BXA56-1B	136					224.9	40	270	-30	B	-11
BXA58-1A	136.7					140.5	39.5	150.5	-22.5	B	-49.4
BX15-1A						284.1	78.1	202.1	10.6	B	-37.3
BX16-1A						157.6	-14.3	448.9	-58.1	B	-24.8
BX16-1B						144.1	51	161.8	-17.2	B	-51.9
BX17-1A						185	48.7	186.1	-31.1	B	-62.9
BX17-1B						358	-37.5	357.3	41.2	B	70.1
BX18-1A		23	53.8	179.1	45	237.4	7.8	261.1	-39.5	B	-21.5
BX1-1A	18.5					270	0	270	0	C	0
BX5-1B	21.2					270	0	270	0	C	0
BX35-1A	27.4	330.5	58.8	213.1	32.8	270	0	270	0	C	0
BX37-1A	28.5					270	0	270	0	C	0
BX39-1A	30.6					270	0	270	0	C	0
BX40-1A	31.8					270	0	270	0	C	0
BX20-1A	34					270	0	270	0	C	0
BX22-1A	35.2					270	0	270	0	C	0
BX25-1A	39.6					270	0	270	0	C	0
BX28-1A	41.6					270	0	270	0	C	0
BX29-1A	43.6					270	0	270	0	C	0
BX31-1B	45.4					270	0	270	0	C	0
BX17-3A	54					270	0	270	0	C	0
BX17-3C	54					270	0	270	0	C	0

Table A-2.2 Stratigraphic height and $\delta^{13}\text{C}$ and $\delta^{18}\text{O}$ stable isotope results from the Solondotas hemipelagic limestones.

Sample	Height (m)	$\delta^{13}\text{C}$	STDEV	$\delta^{18}\text{O}$	STDEV
SO-11	11	0.480	0.050	-2.758	0.049
SO-11.5	11.5	0.656	0.084	-2.549	0.057
SO-13	13	0.776	0.035	-2.233	0.036
SO-14	14	0.670	0.071	-3.031	0.062
SO-15	15	0.486	0.041	-2.837	0.056
SO-16	16	0.597	0.082	-2.940	0.066
SO-17	17	0.518	0.048	-3.352	0.056
SO-18	18	0.378	0.036	-2.774	0.027
SO-19	19	0.335	0.033	-2.525	0.044
SO-19.4	19.4	0.302	0.046	-2.326	0.038
SO-19.6	19.6	0.116	0.050	-2.844	0.075
SO-20	20	0.083	0.057	-3.348	0.039
SO-20.6	20.6	0.280	0.047	-2.637	0.038
SO-21	21	-0.036	0.064	-3.332	0.069
SO-21.1	21.1	0.272	0.034	-2.822	0.050
SO-21.4	21.4	0.313	0.084	-2.621	0.008
SO-21.7	21.7	0.264	0.041	-2.646	0.049
SO-22.1	22.1	0.337	0.059	-2.615	0.073
SO-22.3	22.3	-0.008	0.050	-3.982	0.073
SO-22.5	22.5	0.062	0.112	-3.258	0.051
SO-22.7	22.7	0.372	0.017	-2.716	0.046
SO-23	23	0.324	0.034	-2.837	0.026
SO-24.5	24.5	0.070	0.072	-2.877	0.074
SO-25.5	25.5	0.504	0.039	-2.382	0.060
SO-26.5	26.5	0.256	0.075	-2.502	0.048
SO-27.5	27.5	0.301	0.074	-2.576	0.054
SO-28.5	28.5	0.184	0.050	-2.775	0.077
SO-29.2	29.2	0.383	0.081	-2.431	0.063
SO-30	30	0.272	0.088	-2.487	0.075
SO-31	31	0.190	0.085	-2.494	0.067
SO-31.5	31.5	0.430	0.053	-2.042	0.072
SO-33.5	33.5	0.465	0.043	-2.446	0.035
SO-34.5	34.5	0.605	0.075	-2.268	0.046
SO-36	36	0.474	0.047	-2.836	0.023
SO-37	37	0.448	0.041	-2.284	0.036
SO-38	38	0.497	0.069	-2.602	0.040
SO-38.5	38.5	0.476	0.043	-2.605	0.029
SO-39	39	0.739	0.073	-2.164	0.076
SO-39.5	39.5	0.526	0.030	-2.440	0.051
SO-40	40	0.587	0.083	-2.171	0.045
SO-40.5	40.5	0.696	0.016	-2.308	0.033
SO-41.5	41.5	0.474	0.072	-2.757	0.066
SO-43.5	43.5	0.561	0.077	-2.260	0.092
SO-44.5	44.5	0.720	0.052	-2.596	0.073
SO-45.5	45.5	0.614	0.049	-2.639	0.061
SO-47.5	47.5	0.325	0.035	-2.973	0.018
SO-49	49	0.591	0.041	-2.271	0.029

SO-50	50	0.488	0.047	-2.697	0.064
SO-50.5	50.5	0.665	0.063	-2.571	0.060
SO-51.5	51.5	0.837	0.041	-2.002	0.043
SO-52.5	52.5	0.719	0.055	-2.982	0.054
SO-55.5	55.5	0.388	0.059	-2.821	0.061
SO-57	57	-0.012	0.025	-4.874	0.064
SO-58	58	0.511	0.072	-2.052	0.077
SO-60.5	60.5	0.571	0.060	-2.474	0.033
SO-61.5	61.5	0.563	0.066	-2.390	0.035
SO-62.5	62.5	0.647	0.065	-2.088	0.048
SO-63	63	0.549	0.050	-2.237	0.050
SO-64	64	0.556	0.041	-2.468	0.058
SO-65.5	65.5	0.226	0.086	-2.263	0.090
SO-66.5	66.5	0.328	0.067	-2.485	0.064
SO-69	69	0.358	0.079	-2.267	0.030
SO-71	71	-0.289	0.101	-3.583	0.056
SO-73	73	0.368	0.074	-2.410	0.038
SO-74	74	0.396	0.068	-2.626	0.037
SO-77.5	77.5	0.672	0.044	-2.583	0.031
SO-78.5	78.5	0.788	0.018	-2.592	0.039
SO-79.5	79.5	0.518	0.016	-2.844	0.031
SO-80.5	80.5	0.674	0.056	-2.880	0.039
SO-82	82	0.649	0.036	-2.772	0.063
SO-83	83	0.739	0.021	-2.846	0.046
SO-84	84	0.851	0.057	-2.615	0.030
SO-85	85	0.807	0.050	-2.522	0.051
SO-86	86	0.852	0.064	-2.552	0.061
SO-87	87	0.834	0.082	-2.388	0.035
SO-88	88	0.717	0.064	-2.730	0.036
SO-89	89	0.759	0.044	-2.445	0.017
SO-90	90	0.760	0.033	-2.518	0.040
SO-90.8	90.80	0.70	0.02	-3.04	0.04
SO- 91.3	91.20	0.73	0.02	-2.75	0.04
SO-91.8	91.60	0.78	0.02	-2.44	0.04
SO-92.3	92.30	0.67	0.02	-2.76	0.04
SO-92.8	92.60	0.60	0.02	-3.03	0.04
SO-93.2	93.20	0.43	0.02	-2.73	0.04
SO-93.7	93.60	0.33	0.02	-2.83	0.04
SO-94.3	94.30	0.28	0.02	-2.70	0.04
SO-94.8	94.80	0.18	0.02	-2.74	0.04
SO-95.0	95.00	0.21	0.02	-2.65	0.04
SO-95.6	95.60	0.14	0.02	-2.82	0.04
SO-96.4	96.20	0.24	0.02	-3.49	0.04
SO-96.7	96.50	0.27	0.02	-2.92	0.04
SO-97	96.80	0.30	0.02	-2.75	0.04
SO-97.2	97.00	0.20	0.02	-3.02	0.04
SO-97.4	97.20	0.27	0.02	-2.74	0.04
SO-97.7	97.50	0.30	0.02	-2.64	0.04
SO-97.85	97.70	0.28	0.02	-2.88	0.05
SO-98.3	98.30	0.28	0.02	-2.64	0.04

SO-99.4	99.40	0.33	0.02	-2.62	0.04
SO-100.0	100.20	0.48	0.02	-2.44	0.04
SO-100.3	100.40	0.56	0.02	-2.51	0.04
SO-100.6	100.70	0.60	0.02	-2.96	0.05
SO-101.0	101.20	0.61	0.02	-2.68	0.04
SO-101.5	101.50	0.70	0.02	-2.49	0.05
SO-102.1	102.20	0.77	0.02	-2.32	0.04
SO-102.5	102.70	0.76	0.02	-2.31	0.04
SO-103	103	0.721	0.071	-2.094	0.063
SO-104	104	0.713	0.070	-2.579	0.025
SO-105.5	105.5	0.601	0.028	-2.311	0.027
SO-107	107	0.556	0.050	-2.105	0.057
SO-108.5	108.5	0.645	0.041	-2.291	0.025
SO-109.5	109.5	0.682	0.039	-2.268	0.051
SO-110.5	110.5	0.876	0.028	-2.015	0.039
SO-111.5	111.5	0.819	0.043	-2.442	0.051
SO-112.5	112.5	1.038	0.100	-2.089	0.102
SO-113.5	113.5	1.012	0.047	-2.090	0.036
SO-115	115	0.899	0.030	-2.477	0.051
SO-116	116	1.039	0.049	-1.821	0.052

23	90.8	
32	91.3	
9	91.8	
40	92.3	
8	92.8	
35	93.2	
13	93.7	
41	94.3	
3	94.8	
37	95	
17	95.6	
31	96.4	
19	96.7	
29	97	
15	97.2	
45	97.4	
21	97.7	
92	97.85	
24	98.3	

25	99.9
5	100
43	100.3
94	100.6
39	101
95	101.5
27	102.1
16	102.5

Table A-2.3 Numerical data of several turbiditic features from Solondotas

Intermediate height (m) of 40-cm-intervals	Number of turbidites	Number of turbidites > 3 cm	Number of turbidites > 8 cm	Thickness of sandy beds	% of sandy beds	Thickness of limy beds	% of hemipelagic limy beds
81.01	2	1	0	0.15	35.71	21	50.00
81.4	3	1	0	0.05	13.89	15	41.67
81.79	2	1	0	0.081	19.29	12	28.57
82.2	1	0	0	0.005	1.25	20	50.00
82.6	7	0	0	0.07	17.50	13	32.50
83	2	1	0	0.061	15.25	16	40.00
83.4	1	1	0	0.03	7.50	16	40.00
83.8	7	0	0	0.055	13.75	18	45.00
84.2	2	1	0	0.051	12.75	18	45.00
84.6	3	1	0	0.055	13.75	19	47.50
85	6	1	0	0.026	6.50	16	40.00
85.4	1	1	1	0.06	15.00	16	40.00
85.815	2	2	0	0.13	30.23	16	37.21
86.215	3	0	0	0.01	2.70	22	59.46
86.6	4	3	0	0.13	32.50	8	20.00
86.995	2	0	0	0.03	7.69	24	61.54
87.395	3	2	0	0.07	17.07	22	53.66
87.8	6	1	0	0.075	18.75	17	42.50
88.2	3	1	0	0.06	15.00	18	45.00
88.6	6	3	0	0.135	33.75	8	20.00
89	4	2	0	0.13	32.50	11	27.50
89.4	6	1	0	0.04	10.00	16	40.00
89.8	4	1	0	0.06	15.00	17	42.50
90.2	5	0	0	0.05	12.50	27	67.50
90.6	2	0	0	0.02	5.00	14	35.00
91	2	0	1	0.02	5.00	26	65.00
91.4	3	1	0	0.04	10.00	23	57.50
91.8	3	1	0	0.135	33.75	12	30.00
92.2	2	1	0	0.025	6.25	29	72.50
92.6	4	1	0	0.065	16.25	16	40.00
93	2	1	1	0.045	11.25	9	22.50
93.4	4	1	0	0.11	27.50	9	22.50
93.8	6	4	1	0.18	45.00	2	5.00
94.2	4	3	0	0.115	28.75	15.5	38.75
94.6	5	1	0	0.125	31.25	0	0.00
95	4	2	0	0.085	21.25	2	5.00
95.4	4	2	0	0.105	26.25	5	12.50
95.8	7	2	0	0.11	27.50	0	0.00
96.2	8	0	0	0.105	26.25	6	15.00
96.6	6	2	0	0.115	28.75	5	12.50
97	4	2	0	0.13	32.50	4	10.00
97.4	4	0	0	0.055	13.75	19	47.50
97.8	6	1	1	0.07	17.50	3	7.50
98.2	4	3	1	0.14	35.00	5	12.50
98.6	7	2	0	0.22	55.00	0	0.00

99	6	2	1	0.155	38.75	0	0.00
99.4	5	2	2	0.135	33.75	2	5.00
99.8	4	1	0	0.265	66.25	3	7.50
100.2	5	2	1	0.165	41.25	17	42.50
100.6	3	1	0	0.105	26.25	15.5	38.75
101	5	0	0	0.1	25.00	11	27.50
101.4	1	1	0	0.065	16.25	17.5	43.75
101.8	3	2	1	0.105	26.25	7	17.50
102.2	1	1	0	0.055	13.75	13	32.50
102.6	1	1	0	0.06	15.00	7.5	18.75
103	1	1	0	0.055	13.75	21	52.50
103.4	3	0	1	0.05	12.50	18	45.00
103.82	3	1	0	0.24	54.55	5	11.36
104.22	1	1	0	0.04	11.11	16	44.44
104.6	5	1	0	0.07	17.50	17	42.50
105	3	0	2	0.05	12.50	20	50.00
105.4	5	2	0	0.18	45.00	1	2.50
105.8	5	2	0	0.15	37.50	5	12.50
106.2	5	0	1	0.075	18.75	7	17.50
106.585	3	1	1	0.075	20.27	17	45.95
106.985	3	2	0	0.31	72.09	6	13.95
107.4	5	1	1	0.09	22.50	16	40.00
107.8	4	1	0	0.07	17.50	11	27.50
108.2	3	2	0	0.16	40.00	2	5.00
108.605	5	2	0	0.12	29.27	13	31.71
109.005	4	1	0	0.06	15.38	13	33.33
109.4	5	2	0	0.11	27.50	8	20.00
109.79	4	2	0	0.115	30.26	10	26.32
110.19	4	2	0	0.12	28.57	16	38.10
110.6	5	2	1	12.5	31.25	13	32.5

Table A-2.4 Whole rock mineralogy, clay mineralogy and (I+Chl)/(Sm+K) index of the Sopelana section.

Litho	depth (m)	calcite	quartz	phyllo	volomite	smeectite	illite	chlorite	kaolinite	I+chl/S+K
limestone	82	76	14	10	0	81	16	3	0	0.23
limestone	83	84	9	7	0	68	22	10	0	0.47
limestone	84	82	12	6	0	39	36	25	0	1.56
limestone	85	80	11	9	0	53	40	7	0	0.89
limestone	86	71	10	19	0	62	30	8	0	0.61
limestone	87	74	10	16	0	72	24	4	0	0.39
limestone	88	73	10	17	0	56	36	8	0	0.79
limestone	89	75	11	14	0	57	31	12	0	0.75
limestone	90.00	77	11	12	0	56	33	11	0	0.79
limestone	90.80	76	11	13	0	66	25	9	0	0.52
limestone	91.00	76	11	13	0	40	40	20	0	1.50
limestone	91.20	60	15	25	0	60	28	12	0	0.67
limestone	91.60	63	10	27	0	73	23	4	0	0.37
limestone	92.30	77	10	13	0	59	30	11	0	0.69
limestone	92.60	79	10	11	0	62	25	13	0	0.61
limestone	93.20	64	9	27	0	73	21	6	0	0.37
limestone	93.60	51	9	40	0	68	29	3	0	0.47
limestone	94.30	66	9	25	0	55	34	11	0	0.82
limestone	94.80	61	9	30	0	71	24	5	0	0.41
limestone	95.00	61	9	30	0	63	30	7	0	0.59
limestone	95.60	51	6	43	0	52	39	5	4	0.79
limestone	96.00	60	18	22	0	53	43	4	0	0.89
limestone	96.50	77	9	14	0	55	38	7	0	0.82
limestone	96.80	75	8	17	0	69	25	6	0	0.45
limestone	97.00	65	9	26	0	58	37	5	0	0.72
limestone	97.20	70	8	22	0	71	24	5	0	0.41
limestone	97.50	64	7	29	0	51	44	5	0	0.96
limestone	97.70	60	7	33	0	53	43	3	1	0.85
limestone	98.30	64	9	27	0	56	35	6	3	0.69
limestone	99.40	69	6	25	0	49	47	3	1	1.00
limestone	100.20	76	7	17	0	55	41	4	0	0.82
limestone	100.40	75	9	16	0	53	36	11	0	0.89
limestone	100.70	76	6	18	0	62	35	3	0	0.61
limestone	101.20	75	9	16	0	51	37	12	0	0.96
limestone	101.50	78	8	14	0	50	43	7	0	1.00
limestone	102.20	64	11	25	0	65	33	2	0	0.54
limestone	102.70	83	6	11	0	44	38	18	0	1.27
limestone	103	80	8	12	0	60	32	8	0	0.67
limestone	104	83	8	9	0	26	47	27	0	2.85
limestone	105.5	62	10	27	1	49	45	6	0	1.04
limestone	107	66	8	25	1	53	38	9	0	0.89
limestone	108.5	74	9	17	1	62	29	9	0	0.61
limestone	109.5	75	8	17	0	62	31	7	0	0.61
limestone	110.5	82	8	10	0	58	35	7	0	0.72
	AVERG	71	9	19	0	58	33	8	0	
	MAX	84	18	43	1	81	47	27	4	
	MIN	51	6	6	0	26	16	2	0	

Table A-2.5 Major, minor and trace element composition of limy and lutitic T_e samples from Solondotas.

Elementos analizados con ICP-OES.

Elementos analizados con ICP-MS

MUESTRA	LAB CODE	SiO ₂	Al ₂ O ₃	TiO ₂	CaO	Fe ₂ O ₃
		%	%	%	%	%
MDL PPM		2161.62	37.07	564.96	305.46	12.49
JG_2 (qcs)		76.48	12.18	0.05	0.72	1.00
2SE (%)		0%	1%	4%	1%	1%
Limestones		SiO ₂	Al ₂ O ₃	TiO ₂	CaO	Fe ₂ O ₃
SO-82	F17_01_01	15.06	2.23	0.09	43.04	0.83
SO-83	F17_01_02	14.57	2.22	0.09	42.91	0.82
SO-84	F17_01_03	13.76	2.30	0.09	44.37	1.25
SO-85	F17_01_04	20.95	2.01	0.07	39.59	0.72
SO-86	F17_01_05	17.61	3.77	0.13	40.60	1.50
SO-87	F17_01_06	18.22	3.83	0.13	39.96	1.19
SO-88	F17_01_07	19.98	3.97	0.15	38.89	1.23
SO-89	F17_01_08	15.48	2.07	0.09	35.70	0.84
SO-90	F17_01_09	18.45	4.24	0.13	40.29	1.19
SO_090.8	F15_07_01	12.29	2.15	0.12	45.26	1.26
SO-91	F17_01_10	17.37	2.89	0.10	43.43	1.18
SO_092.3	F15_07_02	16.82	4.32	0.19	41.22	1.95
SO_093.2	F15_07_03	17.33	5.25	0.26	38.59	2.04
SO_94.3	F15_07_04	17.68	5.10	0.23	38.76	2.39
SO_95	F15_07_05	21.83	7.06	0.31	33.88	2.89
SO_96	F15_07_06	19.29	6.30	0.30	37.07	2.46
SO_97	F15_07_07	15.57	4.48	0.20	40.58	2.07
SO_97.85	F15_07_08	21.81	7.32	0.38	34.97	2.34
SO_99.4	F15_07_09	14.02	4.28	0.22	43.61	1.65
SO_101	F15_07_10	15.11	3.34	0.20	42.30	1.48
SO_102.5	F15_07_11	12.51	2.88	0.15	45.21	1.18
SO-103	F17_01_11	14.39	2.73	0.11	42.69	0.92
SO-104	F17_01_12	13.37	2.44	0.09	44.27	1.15
SO-105.5	F17_01_13	26.69	7.56	0.34	32.67	2.02
SO-107	F17_01_14	22.19	5.99	0.23	34.53	2.11
SO-108.5	F17_01_15	16.62	4.08	0.16	40.27	1.63
SO-109.5	F17_01_16	16.37	3.89	0.14	41.01	1.51
SO-110.5	F17_01_17	14.00	3.13	0.12	43.60	1.24
Turbidite te		SiO ₂	Al ₂ O ₃	TiO ₂	CaO	Fe ₂ O ₃
SOBZ- 81.3	F17_09_19	51.26	5.65	0.43	17.81	1.84
SOBZ- 87.9	F17_09_20	39.31	6.67	0.32	23.10	1.71
SOBZ- 88.5	F17_09_21	31.89	6.73	0.28	27.26	1.76
SOBZ- 89.5	F17_09_22	26.22	4.82	0.21	30.86	1.26
SOBZ-91.5	F17_09_23	34.54	6.01	0.27	26.20	1.66
SOBZ-95.1	F17_09_24	47.63	8.26	0.43	16.68	2.50
SOBZ-96.5	F17_09_25	48.43	8.54	0.45	15.25	2.61
SOBZ- 100.9	F17_09_26	55.26	10.19	0.54	9.66	2.43
SOBZ-104.6	F17_09_27	46.38	7.97	0.43	16.17	2.15
SOBZ-104.7	F17_09_28	53.51	10.54	0.53	10.46	2.50
SOBZ-105.8	F17_09_29	43.13	9.11	0.40	17.59	2.31
SOBZ-108.1	F17_09_30	37.80	10.69	0.40	19.44	2.54
SOBZ -109.1	F17_09_31	49.50	8.92	0.47	14.33	2.25

itas.

		SiO2	TiO2	Al2O3	CaO	Fe2O3
		Ba	Co	Cr	Cs	Cu
K2O	MgO	MnO	Na2O	P2O5	Ba	Co
%	%	%	%	%	ppm	ppm
3879.98	20.82	0.78	6226.26	51.42	0.54	0.06
4.68	0.06	0.02	3.39	<mdl	58.80	2.35
3%	12%	2%	4%		5%	4%
K2O	MgO	MnO	Na2O	P2O5	LOI	Ba
0.36	0.62	0.041	0.15	0.03	35.82	127.1
0.45	0.63	0.047	0.15	0.04	36.08	212.9
0.41	0.69	0.063	0.12	0.03	36.02	273.6
0.39	0.65	0.043	0.14	0.03	34.18	129.9
0.61	0.77	0.058	0.13	0.04	34.20	225.7
0.65	0.74	0.057	0.15	0.03	34.32	115.2
0.70	0.75	0.055	0.17	0.05	33.52	341.7
0.40	0.60	0.041	0.10	0.02	35.17	63.1
0.57	0.74	0.050	0.11	0.03	34.39	277.3
0.41	0.60	0.08	0.12	<mdl	37.21	254.3
0.50	0.63	0.046	0.11	0.03	35.00	98.1
0.77	0.86	0.08	0.13	<mdl	34.02	91.4
0.98	0.93	0.09	0.14	<mdl	33.43	98.1
0.94	0.98	0.12	0.13	<mdl	33.48	203.9
1.39	1.34	0.12	0.16	<mdl	31.13	269.3
1.21	1.21	0.12	0.14	<mdl	32.36	248.4
0.77	0.95	0.12	0.12	<mdl	34.59	338.2
1.51	1.35	0.11	0.17	<mdl	31.49	185.4
0.83	0.94	0.09	0.13	<mdl	35.72	88.7
0.66	0.80	0.06	0.14	<mdl	35.45	80.8
0.49	0.76	0.04	0.13	<mdl	37.04	68.0
0.51	0.74	0.034	0.11	0.03	35.97	76.4
0.40	0.69	0.055	0.11	0.03	36.41	67.7
1.24	1.42	0.043	0.21	0.04	29.24	148.7
1.16	1.36	0.053	0.15	0.04	31.75	121.9
0.74	1.02	0.067	0.11	0.05	34.44	90.3
0.65	0.88	0.058	0.12	0.03	35.09	89.7
0.60	0.89	0.043	0.13	0.04	35.96	91.7
1.25	0.82	0.029	0.43	0.03	18.32	180.300
1.37	0.92	0.033	0.28	0.03	24.39	164.100
1.30	0.98	0.038	0.26	0.04	27.99	322.600
0.89	0.89	0.038	0.23	0.03	31.08	172.200
1.26	0.86	0.043	0.26	0.04	26.80	139.600
1.63	1.14	0.033	0.32	0.04	20.38	203.300
1.83	1.27	0.034	0.39	0.04	19.22	244.600
2.19	1.27	0.019	0.51	0.03	15.13	256.600
1.70	1.16	0.029	0.36	0.03	20.24	185.300
2.36	1.39	0.020	0.37	0.04	15.91	223.000
1.98	1.36	0.032	0.29	0.04	22.13	200.900
2.19	1.50	0.042	0.30	0.04	24.00	196.300
2.02	1.45	0.028	0.38	0.03	18.58	194.400

K2O	MgO	MnO	Na2O	Sc	V	
Ga	Hf	Nb	Ni	Sr	Ta	Th
Cr	Cs	Cu	Ga	Hf	Nb	Ni
ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.67	0.08	3.60	0.09	0.03	0.10	0.91
4.66	5.99	#jDIV/0!	16.44	4.51	13.52	3.92
4%	4%	#jDIV/0!	4%	4%	4%	5%
Co	Cr	Cs	Cu	Ga	Hf	Nb
1.1	16.5	0.56	<MDL	2.92	0.49	1.70
1.1	14.8	0.78	<MDL	2.93	0.87	1.70
2.0	15.2	0.63	<MDL	3.24	0.51	1.76
0.6	13.2	0.86	<MDL	2.52	0.36	1.18
1.7	21.0	1.20	<MDL	4.67	0.72	2.65
3.6	22.0	1.70	<MDL	4.98	0.80	2.90
2.0	25.0	1.44	<MDL	5.34	0.83	3.41
1.5	11.6	0.82	<MDL	2.65	0.33	1.40
1.9	19.2	1.11	9.3	4.43	0.77	2.52
2.065	12.99	0.48	<MDL	2.75	0.841	2.10
2.0	17.3	1.29	8.2	3.95	0.52	2.08
2.072	19.33	1.59	<MDL	5.34	1.088	4.79
2.401	23.44	2.33	<MDL	6.08	1.069	4.01
2.015	24.55	2.50	<MDL	6.45	1.185	4.22
7.578	35.74	4.28	<MDL	8.99	1.535	5.64
3.467	31.35	3.58	<MDL	7.81	1.488	5.24
1.669	21.16	1.95	<MDL	5.68	0.945	3.41
3.002	42.33	4.62	<MDL	9.66	1.905	6.77
1.857	22.67	1.79	<MDL	5.51	1.281	4.09
1.297	17.37	1.58	<MDL	4.41	1.578	3.38
2.536	17.23	0.44	<MDL	3.84	0.885	2.78
1.8	19.1	0.88	7.2	4.16	0.61	2.37
1.2	15.4	0.98	<MDL	3.34	0.50	1.79
5.3	38.1	3.29	19.1	9.00	3.79	7.86
3.9	35.8	3.97	25.0	8.24	1.62	5.31
1.3	21.3	1.34	19.7	5.12	0.86	3.45
1.5	19.7	1.70	13.3	4.94	0.83	3.13
1.4	18.8	1.31	11.8	4.65	0.89	2.94
7.638	29.130	4.179	<MDL	6.587	5.793	8.860
5.868	32.090	4.625	<MDL	8.315	2.398	7.394
3.365	31.320	3.294	<MDL	8.202	2.110	6.188
4.773	35.290	1.171	<MDL	6.056	1.636	4.452
2.419	29.520	3.531	<MDL	7.106	2.106	5.969
6.697	42.930	5.423	<MDL	10.340	3.830	9.778
10.130	45.380	7.223	<MDL	11.130	4.409	10.800
8.814	47.140	7.085	<MDL	12.110	5.774	12.050
7.610	38.040	6.181	<MDL	9.082	3.707	9.142
7.340	51.160	8.203	<MDL	11.950	3.894	11.230
3.828	41.770	7.271	<MDL	11.010	2.530	9.280
3.826	46.490	6.707	<MDL	12.050	2.239	8.436
7.799	37.510	7.475	<MDL	9.891	3.380	9.637

U	Y	Zn	Zr	La	Ce	Pr
Pb	Rb	Sc	Sn	Sr	Ta	Th
ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.63	1.63	2805.76	0.27	0.18	0.11	0.18
27.56	282.41	2.17	1.85	22.45	2.47	30.82
4%	4%	4%	12%	5%	4%	4%
Ni	Pb	Rb	Sc	Sn	Sr	Ta
5.1	2.77	13.7	2.40	1.40	1165.0	<MDL
6.3	3.13	15.6	2.59	1.82	1255.0	<MDL
10.7	3.66	15.1	2.02	2.59	1373.0	<MDL
3.8	1.95	14.9	2.03	2.32	1115.0	<MDL
12.5	4.88	26.5	4.09	3.13	1098.0	<MDL
14.9	5.10	31.7	3.96	3.49	1132.0	<MDL
12.1	4.88	31.6	4.28	2.89	1064.0	<MDL
8.7	3.56	15.6	2.80	1.77	877.6	<MDL
12.2	4.25	24.2	3.59	2.61	1176.0	<MDL
4.89	3.90	14.30	<MDL	0.859	1474.00	0.168
12.2	4.76	23.3	3.02	2.75	1361.0	<MDL
10.33	6.24	29.42	<MDL	1.383	1034.00	0.269
11.54	5.58	38.16	<MDL	1.765	1085.00	0.344
14.34	5.93	39.58	<MDL	1.768	1206.00	0.384
29.70	9.17	60.44	<MDL	2.562	1095.00	0.537
14.29	9.69	51.44	<MDL	2.263	1176.00	0.485
10.23	5.36	32.85	<MDL	1.513	1418.00	0.293
11.79	10.58	70.80	<MDL	3.122	1246.00	0.664
34.96	5.81	34.14	<MDL	1.492	1706.00	0.336
6.31	5.15	26.68	<MDL	1.278	1313.00	0.296
6.91	4.08	17.52	<MDL	1.199	1349.00	0.241
8.9	3.85	22.1	2.97	2.93	1324.0	<MDL
8.3	3.93	19.1	2.74	2.54	1386.0	<MDL
22.5	9.79	64.1	6.15	2.35	1270.0	0.87
16.6	9.15	66.6	5.94	2.17	1322.0	0.47
9.1	4.75	31.0	4.33	1.18	1440.0	0.22
10.4	5.26	32.1	3.63	1.17	1613.0	0.20
9.1	5.27	28.4	3.19	1.10	1830.0	0.25
20.490	16.020	52.550	6.37	2.291	633.300	0.536
20.100	13.850	66.860	6.39	2.614	694.800	0.423
18.240	8.199	58.290	5.52	2.683	807.000	0.288
9.484	4.121	32.430	4.44	2.141	908.200	0.166
12.160	6.253	55.720	5.65	2.310	801.800	0.303
19.940	21.660	79.740	6.95	4.123	555.700	0.643
23.810	20.950	93.300	7.93	4.470	588.600	0.743
23.980	21.950	94.890	8.21	5.730	346.700	0.934
20.290	15.550	79.330	7.56	3.487	546.600	0.605
21.500	18.100	106.700	9.37	4.279	369.700	0.792
20.820	10.100	97.910	7.67	3.963	535.400	0.610
18.330	12.370	98.690	8.74	4.591	609.500	0.544
33.100	13.610	91.760	8.51	3.339	425.900	0.618

Nd	Sm	Eu	Gd	Tb	Dy	Ho
U	V	Y	Zn	Zr	La	Ce
ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.06	1.70	0.49	3.26	0.56	0.09	0.22
10.84	3.17	83.35	10.43	96.29	17.24	42.87
4%	9%	4%	4%	4%	4%	4%
Th	U	V	Y	Zn	Zr	La
1.37	0.61	20.00	10.4	10.7	25.0	10.30
1.57	0.37	20.74	9.1	13.9	37.3	9.58
1.54	0.22	21.01	8.9	14.0	24.9	9.51
1.02	0.37	18.26	7.8	6.7	19.4	8.34
2.19	0.49	31.92	10.5	15.6	30.9	12.52
2.50	0.55	28.94	11.7	18.2	33.8	13.32
2.72	0.65	34.61	14.1	25.1	33.7	16.41
1.14	0.15	21.37	5.1	10.4	16.3	6.41
2.23	0.37	27.89	9.3	13.0	33.3	10.93
2.137	0.834	23.08	12.98	25.33	32.02	10.74
1.71	0.28	23.02	8.7	13.1	24.5	10.01
2.794	0.590	36.83	13.24	20.64	46.74	15.78
3.506	0.886	46.31	13.40	21.05	37.37	13.37
3.568	0.926	47.37	15.17	24.46	41.70	14.66
4.874	1.057	57.77	16.78	27.04	52.94	18.33
4.342	1.309	55.16	17.07	33.03	52.34	18.12
3.199	0.842	36.66	15.22	19.76	34.24	14.28
5.507	1.905	59.61	23.55	34.88	66.55	25.54
3.269	1.328	40.20	23.02	21.49	48.59	19.45
3.293	0.863	29.41	13.84	22.76	57.08	14.14
2.489	0.552	22.62	9.32	16.43	31.87	8.38
1.93	0.56	24.87	9.0	16.2	26.4	10.12
1.50	0.33	21.15	7.8	10.4	24.6	8.61
6.54	1.40	47.69	17.9	27.8	138.5	18.74
4.86	0.57	48.98	14.3	18.2	60.2	15.31
2.24	0.50	35.43	12.1	17.0	40.9	10.79
2.24	0.27	29.41	13.3	14.3	39.4	11.13
2.34	0.30	24.29	10.9	16.1	35.7	9.99
8.097	2.168	48.14	18.050	39.310	214.500	22.050
5.573	1.368	52.83	14.950	40.690	85.840	19.700
5.271	1.091	49.41	12.020	25.650	76.060	17.020
4.099	1.452	41.77	13.060	24.230	58.510	15.200
5.188	1.265	48.34	13.590	41.940	76.530	16.890
8.230	2.012	74.52	16.820	59.110	141.800	22.540
9.468	2.175	73.20	20.140	56.410	162.000	24.200
11.700	2.450	73.88	19.380	59.250	214.700	28.240
7.569	1.752	73.02	17.190	44.140	137.800	20.450
8.693	2.004	88.22	15.210	49.760	144.400	23.210
7.109	1.500	72.28	14.570	39.850	91.990	21.200
7.090	1.810	79.28	16.260	44.810	80.880	22.910
7.557	1.700	74.16	16.030	52.750	123.200	20.910

Er	Tm	Yb	Lu			
Pr	Nd	Sm	Eu	Gd	Tb	Dy
ppm	ppm	ppm	ppm	ppm	ppm	ppm
0.03	0.12	0.04	0.03	0.05	0.01	0.07
5.67	23.26	7.22	0.09	7.83	1.56	10.20
4%	4%	4%	3%	4%	4%	4%
Ce	Pr	Nd	Sm	Eu	Gd	Tb
10.90	1.73	6.90	1.27	0.32	1.43	0.20
10.87	1.70	6.70	1.28	0.32	1.40	0.19
11.78	1.82	7.25	1.36	0.33	1.47	0.21
9.25	1.38	5.50	1.01	0.27	1.22	0.16
16.32	2.48	9.78	1.76	0.41	1.79	0.26
17.85	2.63	10.36	1.90	0.42	1.88	0.27
20.93	3.28	12.94	2.35	0.52	2.23	0.33
8.29	1.21	4.63	0.85	0.21	0.91	0.13
14.93	2.22	8.61	1.63	0.38	1.61	0.23
13.88	2.15	8.81	1.693	0.369	1.694	0.254
12.64	1.88	7.35	1.36	0.33	1.44	0.20
24.24	3.37	13.25	2.433	0.530	2.207	0.326
21.03	2.89	11.55	2.178	0.450	2.054	0.304
23.89	3.33	13.45	2.526	0.519	2.303	0.352
31.09	4.26	17.19	3.248	0.669	2.782	0.415
30.13	4.15	16.52	3.108	0.649	2.757	0.421
23.39	3.22	13.29	2.528	0.555	2.382	0.353
42.87	5.67	22.93	4.195	0.867	3.707	0.558
31.90	4.28	18.00	3.493	0.739	3.411	0.521
21.20	2.93	11.80	2.206	0.420	2.067	0.305
12.33	1.78	7.09	1.396	0.281	1.359	0.202
13.18	1.96	7.67	1.44	0.33	1.47	0.21
10.80	1.60	6.30	1.18	0.28	1.28	0.18
31.85	4.27	16.60	3.00	0.58	2.71	0.40
24.75	3.41	13.49	2.54	0.52	2.34	0.34
15.84	2.24	9.02	1.66	0.37	1.78	0.25
16.44	2.30	9.39	1.77	0.39	1.88	0.27
14.03	2.08	8.49	1.60	0.36	1.76	0.25
39.920	5.232	19.750	3.663	0.626	2.918	0.453
33.650	4.475	17.150	3.102	0.611	2.484	0.377
27.820	3.808	14.600	2.701	0.531	2.180	0.321
21.870	3.286	12.920	2.381	0.478	2.031	0.299
27.720	3.962	15.330	2.848	0.557	2.322	0.351
40.240	5.244	19.750	3.630	0.667	2.885	0.437
45.210	5.824	22.140	4.077	0.730	3.326	0.516
51.010	6.407	23.840	4.242	0.666	3.319	0.498
38.290	4.964	18.780	3.440	0.637	2.846	0.439
41.140	5.138	18.850	3.238	0.585	2.520	0.383
37.490	4.829	18.180	3.257	0.616	2.579	0.380
41.580	5.396	20.700	3.773	0.736	3.023	0.446
38.870	4.993	18.850	3.435	0.635	2.748	0.419

Ho	Er	Tm	Yb	Lu	
ppm	ppm	ppm	ppm	ppm	
0.01	0.04	0.01	0.04	0.01	
1.71	6.01	1.13	6.72	1.17	
3%	4%	4%	4%	4%	
Dy	Ho	Er	Tm	Yb	Lu
1.31	0.30	0.87	0.11	0.74	0.09
1.24	0.29	0.84	0.10	0.72	0.08
1.29	0.29	0.81	0.10	0.68	0.07
1.08	0.26	0.73	0.09	0.60	0.06
1.59	0.34	0.97	0.13	0.85	0.11
1.64	0.34	1.00	0.13	0.90	0.12
1.99	0.39	1.16	0.17	1.07	0.15
0.81	0.19	0.53	0.06	0.44	0.05
1.42	0.31	0.87	0.11	0.77	0.09
1.533	0.291	0.885	0.122	0.762	0.117
1.31	0.29	0.83	0.10	0.71	0.08
1.942	0.357	1.100	0.158	1.017	0.155
1.840	0.336	1.037	0.147	0.942	0.142
2.109	0.384	1.166	0.165	1.080	0.165
2.441	0.443	1.344	0.187	1.243	0.185
2.502	0.461	1.374	0.197	1.282	0.189
2.068	0.377	1.139	0.158	1.001	0.152
3.379	0.619	1.889	0.260	1.728	0.260
3.146	0.579	1.728	0.235	1.511	0.232
1.817	0.347	1.066	0.153	0.968	0.151
1.185	0.218	0.666	0.097	0.605	0.092
1.31	0.29	0.81	0.11	0.72	0.09
1.14	0.27	0.74	0.09	0.61	0.07
2.40	0.45	1.42	0.22	1.45	0.22
1.99	0.38	1.14	0.16	1.08	0.15
1.50	0.32	0.90	0.12	0.79	0.10
1.61	0.34	0.97	0.13	0.86	0.11
1.54	0.32	0.93	0.12	0.82	0.10
 					
2.710	0.488	1.591	0.269	1.763	0.282
2.223	0.395	1.262	0.204	1.308	0.200
1.858	0.344	1.063	0.163	1.064	0.159
1.752	0.324	1.000	0.152	0.967	0.144
2.036	0.364	1.132	0.178	1.138	0.173
2.539	0.454	1.442	0.234	1.510	0.235
3.050	0.530	1.693	0.277	1.736	0.274
2.944	0.518	1.690	0.285	1.825	0.294
2.598	0.454	1.459	0.239	1.513	0.238
2.304	0.421	1.375	0.233	1.496	0.237
2.234	0.400	1.276	0.208	1.345	0.208
2.534	0.436	1.367	0.218	1.382	0.213
2.478	0.446	1.421	0.238	1.495	0.235

Table A-3.1 Bed thickness

strat_centr	Bed	thickness (cm)
15	M1	30
45	L1	30
72.5	M2	25
100	L2	30
127.5	M3	25
165	L3	50
202.5	M4	25
232.5	L4	35
260	M5	20
290	L5	40
325	M6	30
355	L6	30
382.5	M7	25
422.5	L7	55
460	M8	20
490	L8	40
522.5	M9	25
547.5	L9	25
570	M10	20
590	L10	20
607.5	M11	15
627.5	L11	25
650	M12	20
675	L12	30
695	M13	10
715	L13	30
737.5	M14	15
757.5	L14	25
777.5	M15	15
807.5	L15	45
837.5	M16	15
872.5	L16	55
912.5	M17	25
937.5	L17	25
962.5	M18	25
990	L18	30
1015	M19	20
1040	L19	30
1065	M20	20
1095	L20	40
1125	M21	20
1160	L21	50
1200	M22	30
1230	L22	30
1255	M23	20
1282.5	L23	35
1320	M24	40
1370	L24	60

1427.5	M25	55
1470	L25	30
1520	M26	70
1570	L26	30
1605	M27	40
1660	L27	70
1705	M28	20
1722.5	L28	15
1742.5	M29	25
1785	L29	60
1840	M30	50
1895	L30	60
1950	M31	50
1997.5	L31	45
2040	M32	40
2102.5	L32	85
2155	M33	20
2210	L33	90
2270	M34	30
2322.5	L34	75
2370	M35	20
2407.5	L35	55
2447.5	M35B	25
2470	L35B	20
2487.5	M36	15
2522.5	L36	55
2572.5	M37	45
2620	L37	50
2660	M38	30
2695	L38	40
2730	M39	30
2770	L39	50
2802.5	M40	15
2840	L40	60
2880	M41	20
2912.5	L41	45
2945	M42	20
2987.5	L42	65
3032.5	M43	25
3075	L43	60
3127.5	M44	45
3165	L44	30
3205	M45	50
3255	L45	50
3307.5	M46	55
3357.5	L46	45
3397.5	M47	35
3460	L47	90
3530	M48	50
3580	L48	50

3632.5	M49	55
3682.5	L49	45
3732.5	M50	55
3785	L50	50
3832.5	M51	45
3880	L51	50
3927.5	M52	45
3995	L52	90
4062.5	M53	45
4100	L53	30
4147.5	M54	65
4195	L54	30
4235	M55	50
4285	L55	50
4330	M56	40
4365	L56	30
4397.5	M57	35
4440	L57	50
4482.5	M58	35
4542.5	L58	85
4620	M59	70
4675	L59	40
4712.5	M60	35
4762.5	L60	65
4847.5	M61	25
4872.5	L61	25
4900	M62	40
4960	L62	65
5010	M63	35
5060	L63	65
5125	M64	25
5150	L64	35
5185	M65	40
5260	L65	45
5305	M66	55
5385	L66	25
5410	M67	35
5460	L67	50
5510	M68	40
5570	L68	40
5605	M69	40
5650	L69	45
5705	M70	55
5790	L70	85
5885	M71	45
5940	L71	50
5990	M72	25
6010	L72	40
6050	M73	15
6090	L73	25

6165	OYEL	25
6225	OYDM	35
6260	OYDL	59
6310	OYCM	30
6355	OYCL	105
6428	OYBM	23
6464	OYBL	60
6550	OYAM/YAM	20
6595	YAL	45
6645	YBM	20
6675	YBL	35
6730	YCM	35
6765	YCL	35
6795	YDM	20
6825	YDL	30
6855	YEM	30
6883	YEL	35
6910	YFM	25
6935	YFL	25
6965	YGM	30
7005	YGL	55
7045	YHM	30
7075	YHL	20
7100	YIM	20
7125	YIL	30
7150	YJM	20
7170	YJL	30
7190	YLM	10
7210	YLL	18
7230	YMM	20
7260	YML	40
7295	YNM	50
7360	YNL	60
7440	YOM	85
7495	YOL	20
7535	YPM	45
7580	YPL	60
7625	YQM	40
7665	YQL	40
7705	YRM	40
7740	YRL	25
7770	YSM	30
7810	YSL	40
7840	YTM	35
7885	YTL	45
7925	YUM	35
7965	YUL	45
7980	YVM	30
8025	YVL	25
8055	YWM	35

8085	YWL	20
8110	YXM	25
8130	YXL	30
8160	YYM	25
8190	YYL	35
8220	YZM	20
8255	YZL	60
8305	YAAM	35
8360	YAAL	70
8415	YABM	50
8455	YABL	30
8480	YACM	20
8500	YAAL	20
8520	YADM	25
8550	YADL	25
8570	YAEM	25
8605	YAEL	35
8645	YAFM	40
8695	YAFL	60
8735	YAGM	25
8770	YAGL	40
8810	YAHM	40
8840	Y AHL	20
8880	YAIM	65
8930	YAIL	30
8965	YAKM	40
9000	YAKL	45
9040	YALM	35
9090	YALL	60
9150	YAMM	50
9190	YAML	35
9220	YANM	25
9255	YANL	30
9285	YAOM	40
9315	YAOL	20
9340	YAPM	30
9365	YAPL	30
9400	YAQM	50
9450	YAQL	60
9490	YARM	30
9560	YARL	40
9587	YASM	20
9620	YASL	40
9650	YATM	25
9680	YATL	35
9720	YAUM	70
9760	YAUL	35
9820	YAVM	25
9850	YAVL	50
9890	YAWM	35

9935	YAWL	65
9990	YAXM	30
10025	YAXL	40
10050	YAYM	10
10070	YAYL	20
10080	YAZM	70
10170	YAZL	40
10190	YBAM	20
10230	YBAL	50
10265	YBBM	20
10295	YBBL	35
10325	YBCM	25
10345	YBC L	20
10380	YBDM	40
10410	YBDL	30
10450	YBEM	40
10485	YBEL	30
10520	YBFM	40
10555	YBFL	35
10590	YBGM	35
10630	YBGL	40
10660	YBHM	20
10705	YBHL	60
10770	YBIM	65
10815	YBIL	35

Table A-3.2 . MS values (raw and detrended) according to stratigraphic (strat real) and pelagic-only heights (strat_hemip).

Sigla	strat real	strat_hemip	Sus	Sus_detrend
J1	2	2	1.74067991	0.255325
J2	10	10	1.824117957	0.326502
J3	18	18	1.656425901	0.146739
J4	26	26	1.6023955	0.0808255
J5	34	34	1.268517187	-0.26475
J6	42	42	1.20182661	-0.342955
J7	50	50	1.257238451	-0.298876
J8	58	58	1.547629329	-0.0196386
J9	66	66	1.619608135	0.0413642
J10	74	74	1.607102311	0.0180576
J11	82	82	1.600498259	0.000826038
J12	98	98	1.334274621	-0.286141
J13	105	105	1.44192467	-0.187354
J14	112	112	1.348250143	-0.289766
J15	122	122	1.575779291	-0.074501
J16	130	130	1.331281477	-0.328628
J17	138	138	1.442313859	-0.227066
J18	146	146	1.288460643	-0.390232
J19	154	154	1.181860179	-0.505989
J20	162	162	1.087344029	-0.609508
J21	170	170	1.526643657	-0.179059
J22	178	178	1.43374585	-0.280658
J23	186	186	1.740322436	0.0173654
J24	194	194	1.970589952	0.239226
J25	202	202	1.975845411	0.23622
J26	210	210	1.860014104	0.112269
J27	218	218	1.567404593	-0.188319
J28	226	226	1.595274937	-0.168288
J29	234	234	1.918810711	0.147546
J30	242	242	1.643463795	-0.135367
J31	252	252	2.516327477	0.728226
J32	264	264	2.312795586	0.513841
J33	276	276	2.200838302	0.391321
J34	284	284	1.581499965	-0.234901
J35	292	292	1.676242399	-0.146917
J36	305	305	2.10631119	0.272431
J37	316	316	2.487917941	0.645214
J38	326	326	2.88113879	1.03061
J39	334	334	2.944357825	1.0877
A1	346	346	1.719948006	-0.145697
A2	354	354	1.586721545	-0.284772
A3	362	362	1.719462074	-0.157769
A4	375	375	2.305294553	0.418971
A5	381	381	2.109704641	0.21928
A6	387	387	2.462304606	0.567838
A7	410	410	1.89110816	-0.0183182
A8	426	426	1.877061641	-0.0422836

A9	442	442	1.89485835	-0.0340195
A10	451	451	2.083166284	0.149092
A11	459	459	2.016502314	0.0779063
A12	465	465	2.514814815	0.572887
A13	479	479	2.017944771	0.068438
A14	491	491	1.680682061	-0.275109
A15	501	501	1.795322848	-0.165559
A16	515	515	2.118697623	0.150907
A17	523	523	2.419499494	0.447872
A18	531	531	2.319752102	0.344368
A19	539	539	1.887056884	-0.0920066
A20	547	547	1.878662734	-0.104003
A21	555	555	2.044799613	0.0586066
A22	563	563	2.318112245	0.328466
A23	571	571	2.178667641	0.185641
A24	575	575	2.6883977	0.693708
A25	586	586	2.126459698	0.127287
A26	591	591	1.672925713	-0.328241
A27	596	596	1.699222283	-0.303912
A28	602	602	2.060160895	0.0546997
A29	607	607	2.338081671	0.33071
A30	612	612	2.301157221	0.291901
A31	621	621	1.830539327	-0.182045
A32	629	629	1.794977276	-0.220497
A33	637	637	1.842381943	-0.175921
A34	643	643	2.301403799	0.28102
A35	649	649	2.049453744	0.0270226
A36	655	655	2.058635492	0.0341907
D1	663	663	1.940613701	-0.0864649
D2	671	671	1.850025164	-0.17963
D3	682	682	1.656216951	-0.376889
D4	692	692	1.573586711	-0.462567
D5	695	695	1.77215656	-0.264895
D6	698	698	1.92211209	-0.11583
D7	706	706	1.800423043	-0.239858
D8	714	714	1.889457743	-0.153112
D9	722	722	2.020813495	-0.0239936
D10	732	732	1.848650927	-0.198885
D11	737	737	2.105876262	0.0570046
D12	741	741	1.930855993	-0.119071
D13	753	753	1.745398646	-0.307627
D14	759	759	1.714404936	-0.340131
D15	763	763	1.897276549	-0.158253
D16	775	775	2.07973654	0.0212911
D17	778	778	2.124197269	0.0650378
D18	781	781	2.155477032	0.0956093
D19	798	798	1.960201614	-0.103571
D20	808	808	1.864548495	-0.201439
D21	818	818	2.289352547	0.22121
D22	834	834	2.263959946	0.192488

D23	838	838	2.37625828	0.303975
D24	842	842	1.707707398	-0.365378
D25	860	860	1.634284309	-0.442307
D26	873	873	1.535064185	-0.54396
D27	890	890	1.990726342	-0.0913596
D28	910	910	1.861825919	-0.2237
D29	916	916	1.730445247	-0.35608
D30	922	922	2.113597369	0.0260862
D32	937	937	2.052039049	-0.0378759
D33	944	944	1.837228929	-0.25378
D34	955	955	1.78319624	-0.309497
D35	963	963	2.038688796	-0.0552039
D36	968	968	2.110760674	0.0161285
A37	982	982	1.8405837	-0.256078
A38	990	990	1.815671384	-0.282124
A39	998	998	1.783301266	-0.315611
A40	1010	1010	1.843156007	-0.257399
A41	1015	1015	2.148866308	0.0476368
A42	1020	1020	2.106171987	0.00427448
A43	1032	1032	1.805806235	-0.297671
A44	1040	1040	1.798394821	-0.306119
A45	1048	1048	1.846015095	-0.259522
A46	1058	1058	2.403945158	0.297147
A47	1065	1065	2.283557443	0.175887
A48	1072	1072	2.276050264	0.167515
A49	1085	1085	2.079315631	-0.0308044
A50	1095	1095	1.737445546	-0.373877
A51	1105	1105	1.899782007	-0.212731
J40	1118	1118	2.118395926	0.00435327
J41	1125	1125	2.157458297	0.0425989
J42	1127	1127	2.116014432	0.000922481
J43	1145	1145	1.890269547	-0.226901
J44	1160	1160	1.90592474	-0.212961
J45	1175	1175	1.886347189	-0.234243
J46	1193	1193	2.06740602	-0.055222
J47	1200	1200	2.170194132	0.046775
J48	1207	1207	2.112834115	-0.0113761
J49	1223	1223	2.06406458	-0.0619554
J50	1230	1230	2.075914694	-0.0508987
J51	1237	1237	1.928874949	-0.198733
J52	1247	1247	1.865348775	-0.263398
J53	1255	1255	1.871065114	-0.258596
J54	1263	1263	2.138947784	0.0083682
J55	1270	1270	1.995187143	-0.136199
J57	1290	1290	1.659984502	-0.473727
J58	1310	1310	2.385926069	0.249854
J59	1320	1320	3.189946834	1.05268
J60	1330	1330	2.908342096	0.769867
J61	1355	1355	2.384078095	0.242527
J62	1370	1370	2.099264012	-0.0441761

J63	1385	1385	2.148687762	0.00332343
J64	1411	1411	2.730841646	0.58205
J65	1422	1422	2.874796748	0.724517
J66	1434	1434	2.86977088	0.717841
J67	1445	1445	2.835816215	0.682348
J68	1463	1463	1.915253196	-0.240789
J69	1470	1470	1.807211744	-0.349851
J70	1476	1476	1.761351637	-0.396594
A52	1500	1500	2.217679128	0.0561144
A53	1520	1520	2.738690969	0.574003
A54	1540	1540	3.155981494	0.988066
A55	1562	1562	2.033456688	-0.138132
A56	1570	1570	2.208100759	0.0351437
A57	1578	1578	2.092131639	-0.0822124
A58	1595	1595	2.296770323	0.119418
A59	1605	1605	2.202605232	0.0234437
A60	1615	1615	2.053015777	-0.127985
A61	1640	1640	2.291108108	0.105378
A62	1660	1660	1.964357271	-0.225297
A63	1680	1680	2.159699366	-0.0340055
A64	1700	1700	2.154626866	-0.0432584
A65	1705	1705	2.273453549	0.0745026
A66	1710	1710	2.449029423	0.249005
A67	1717	1717	2.163403513	-0.0381387
A68	1722	1722	2.247343166	0.044707
A69	1727	1727	2.215916768	0.0121783
A70	1735	1735	2.334682861	0.129163
A71	1742	1742	2.239290546	0.0321947
A72	1752	1752	2.164209345	-0.0451673
A73	1770	1770	2.131058127	-0.0825101
A74	1785	1785	2.127104577	-0.0900421
A75	1800	1800	1.92823659	-0.292567
A76	1827	1827	2.670758617	0.443174
A77	1840	1840	3.16624668	0.935306
A78	1853	1853	2.908468777	0.674112
D37	1880	1880	2.164995442	-0.0766493
D38	1895	1895	1.959212695	-0.286593
D39	1910	1910	2.054249213	-0.195798
D40	1938	1938	3.25109288	0.992913
D41	1950	1950	2.846572612	0.584822
D42	1962	1962	3.083952027	0.818579
D43	1985	1985	1.728303748	-0.544155
D44	1997	1997	1.645447629	-0.630783
D45	2007	2007	1.925098219	-0.354314
D46	2030	2030	1.823443104	-0.463421
D47	2040	2040	2.682374971	0.392214
D48	2050	2050	2.004002287	-0.289491
J71	2080	2080	2.090076154	-0.213621
J72	2095	2095	1.987721606	-0.321193
J73	2125	2125	2.277899699	-0.0416781

J74	2150	2150	2.372166579	0.0434746
J75	2155	2155	2.41603702	0.0854976
J76	2160	2160	2.058302464	-0.274093
J77	2180	2180	2.182786475	-0.157111
J78	2195	2195	2.245250432	-0.100358
J79	2215	2215	2.067908903	-0.285423
J80	2240	2240	2.308961291	-0.0541989
J81	2247	2247	2.03462014	-0.331326
J82	2260	2260	2.139189337	-0.231968
J83	2270	2270	2.537363002	0.162162
J84	2275	2275	2.405778353	0.0285455
J85	2280	2280	2.390676402	0.011404
J86	2295	2295	2.25143741	-0.133996
J87	2315	2315	1.812777746	-0.580969
J88	2335	2335	2.225964777	-0.176204
J89	2365	2365	2.685763347	0.270764
J90	2370	2370	2.948529979	0.531369
J91	2375	2375	2.767437914	0.34811
J92	2390	2390	2.261226542	-0.16464
J93	2405	2405	2.350981118	-0.0814782
J94	2420	2420	2.359280615	-0.0798245
J95	2440	2440	2.472210953	0.0241652
J96	2447	2447	2.759139227	0.307943
J97	2455	2455	2.811452154	0.356643
J98	2465	2465	2.67713033	0.217786
J99	2470	2470	2.462532655	0.000913037
J100	2475	2475	2.583396513	0.119496
J101	2483	2483	2.913380379	0.445821
J102	2487	2487	3.025592502	0.556199
J103	2491	2491	2.957334077	0.486103
N1	2505	2505	2.189147932	-0.288539
N2	2520	2520	2.043110561	-0.441534
N3	2535	2535	2.28445038	-0.207192
N4	2557	2557	2.455745663	-0.0462292
N5	2570	2570	2.659889742	0.151773
N6	2583	2583	2.342527554	-0.171757
N7	2605	2605	2.279350994	-0.245427
N8	2620	2620	2.293161416	-0.238809
N9	2635	2635	2.227710987	-0.311479
N10	2653	2653	2.568341672	0.0204539
N11	2660	2660	2.750367647	0.199088
N12	2667	2667	2.613367974	0.0586913
N13	2685	2685	1.892166836	-0.671266
N14	2695	2695	2.073577184	-0.494733
N15	2705	2705	2.180324214	-0.392871
N16	2722	2722	2.517935258	-0.0635816
N17	2730	2730	2.730872184	0.145433
N18	2738	2738	2.693002174	0.103636
N19	2755	2755	2.339330255	-0.258391
N20	2770	2770	2.346493144	-0.258611

N21	2785	2785	2.314978473	-0.297516
N22	2797	2797	2.933068496	0.314657
N23	2802	2802	2.515174831	-0.105703
N24	2807	2807	2.740130482	0.116786
N25	2825	2825	2.178223367	-0.454002
N26	2840	2840	2.21574344	-0.423884
N27	2855	2855	2.29858137	-0.348445
N28	2875	2875	2.887994684	0.231109
N29	2880	2880	3.095045664	0.435697
N30	2885	2885	2.585149542	-0.0766616
N31	2898	2898	2.640517723	-0.0276904
N32	2912	2912	2.35683978	-0.318249
N33	2927	2927	2.251062053	-0.431386
N34	2938	2938	2.24144711	-0.446389
N35	2945	2945	2.530113538	-0.161147
N36	2952	2952	2.615584416	-0.0790964
N37	2970	2970	2.542966152	-0.160491
N38	2985	2985	2.480794533	-0.229954
N39	3000	3000	2.506596306	-0.21142
N40	3025	3025	2.504101546	-0.22597
N41	3030	3030	2.30636833	-0.426105
N42	3035	3035	2.274605799	-0.460266
N43	3055	3055	2.394620634	-0.349811
N44	3075	3075	2.237801274	-0.51613
N45	3095	3095	2.271825889	-0.49154
J104	3118	3115	3.605956885	0.833226
J105	3130	3127	3.408717625	0.630403
J106A	3142	3139	3.142477502	0.358608
J106B	3161	3158	2.748799134	-0.0438059
J107	3168	3165	2.437557287	-0.358247
J108	3176	3173	2.720684394	-0.0787622
J109	3196	3193	3.226974819	0.418486
J110	3208	3205	4.015540686	1.20167
J111	3220	3217	3.58020202	0.760988
J112	3245	3242	3.179403506	0.349173
J113	3258	3255	2.462338949	-0.373554
J114	3271	3268	2.820602868	-0.0209061
J115	3298	3295	3.653882666	0.800866
J116	3311	3308	3.734352188	0.875873
J117	3323	3320	3.354072646	0.490597
J118	3350	3347	2.535636205	-0.338911
J119	3360	3357	2.413733758	-0.464853
J120	3370	3367	2.435755564	-0.446837
J121	3391	3388	2.769696307	-0.121194
J122	3400	3397	3.237185376	0.342786
J123	3409	3406	3.348622183	0.450744
J124	3433	3430	2.921821262	0.0148139
J125	3448	3445	2.901274359	-0.0113275
J126	3463	3460	2.466134621	-0.451974
J127	3478	3475	2.495474741	-0.42805

J128	3493	3490	2.766769411	-0.16208
J129	3518	3515	3.023255814	0.0857406
J130	3533	3530	3.113566383	0.17098
J131	3548	3545	2.729497498	-0.218061
J132	3568	3565	2.749489401	-0.204543
J133	3583	3580	2.416445623	-0.542323
J134	3598	3595	2.277501545	-0.685899
J135	3613	3610	3.449729274	0.481802
J136	3633	3630	4.193399705	1.21961
J137	3653	3650	3.375749598	0.396282
J138	3673	3670	2.731540949	-0.253401
J139	3685	3682	2.819584624	-0.168545
J140	3698	3695	2.757223873	-0.234276
J141	3718	3715	3.768188084	0.771673
J142	3735	3732	4.014353139	1.01374
J143	3748	3745	3.968274112	0.96463
J144	3776	3773	2.748931975	-0.260931
J145	3788	3785	2.990854252	-0.021543
J146	3800	3797	2.622413793	-0.392439
J147	3824	3821	3.488235294	0.468712
J148	3835	3832	3.799915398	0.77836
J149	3846	3843	3.681835276	0.658316
N46	3871	3868	2.723165185	-0.304561
N47	3883	3880	2.911593436	-0.118025
N48	3895	3892	2.871279789	-0.160146
N49	3918	3915	3.366032946	0.331377
N50	3930	3927	2.894147745	-0.14207
N51	3943	3940	2.958480819	-0.0793324
N52	3968	3965	2.719984669	-0.320614
N53	3988	3985	2.836494748	-0.206063
N54	4008	4005	2.816191065	-0.228083
N55	4028	4025	3.092474901	0.0467262
N56	4053	4050	3.063201045	0.0159525
N57	4065	4062	3.335825079	0.287993
N58	4078	4075	2.928111723	-0.120254
N59	4098	4095	2.672616798	-0.376366
N60	4103	4100	2.658191822	-0.390906
N61	4108	4105	2.650893193	-0.398305
N62	4123	4120	3.34818362	0.298777
N63	4139	4136	3.378289904	0.328814
N64	4155	4152	3.165182987	0.115796
N65	4171	4168	2.979748158	-0.069392
N66	4188	4185	2.740692284	-0.308012
N67	4198	4195	2.580943838	-0.467421
N68	4208	4205	2.859148749	-0.188815
N69	4223	4220	3.182494063	0.135247
N70	4233	4230	3.424298447	0.377606
N71	4243	4240	3.624779371	0.578703
N72	4253	4250	3.824878999	0.77948
N73	4273	4270	3.187553394	0.143692

N74	4288	4285	2.786025083	-0.256524
N75	4303	4300	2.796721189	-0.244379
N76	4323	4320	2.926064493	-0.112893
N77	4333	4330	3.225454347	0.187658
N78	4343	4340	3.03945785	0.00288242
N79	4360	4357	2.861941845	-0.172422
N80	4368	4365	2.864227519	-0.169037
N81	4376	4373	3.1540732	0.121946
J150	4392	4389	3.46692112	0.43718
J151	4400	4397	3.638552315	0.61006
J152	4408	4405	3.176384372	0.149178
J153	4431	4428	2.68759057	-0.335715
J154	4443	4440	2.71407438	-0.307077
J155	4455	4452	2.864773821	-0.154142
J156	4472	4469	2.86826889	-0.147344
J157	4485	4482	2.683631963	-0.329347
J158	4498	4495	3.344672745	0.334418
J159	4523	4520	2.904188852	-0.100571
J160	4546	4543	2.631578947	-0.367835
J161	4568	4565	2.827065042	-0.166983
J162	4605	4602	3.07197471	0.0874942
J163	4623	4620	2.977753465	-0.00183446
J164	4641	4638	2.989369399	0.0148247
J165	4668	4665	3.108480338	0.141774
J166	4678	4675	3.196425083	0.232703
J167	4688	4685	2.822955567	-0.13774
J168	4697	4694	2.738603189	-0.219333
J169	4716	4713	2.523752461	-0.42825
J170	4725	4722	2.691859982	-0.257282
J171	4743	4740	2.423990351	-0.519336
J172	4755	4752	2.35038037	-0.589003
A82-2	4850	4817	3.02022302	0.103062
A83-2	4858	4825	3.103861119	0.189528
A84-2	4866	4833	2.676157804	-0.23533
A85-2	4874	4841	2.626283798	-0.28234
A86-2	4882	4849	2.832142857	-0.0735996
A87-2	4896	4863	2.774203924	-0.126456
A88-2	4905	4872	3.293359762	0.395993
A89-2	4914	4881	2.920011071	0.0259564
A90	4942	4909	2.522113858	-0.361522
A91	4956	4923	2.315773539	-0.562594
A92	4972	4939	2.533914729	-0.338389
A93	5000	4967	2.981009495	0.11941
A94	5008	4975	3.861268939	1.00275
A95	5016	4983	2.988939165	0.133501
A96	5036	5003	2.473177	-0.374525
A97	5057	5024	2.386983007	-0.452565
A98	5076	5043	2.441323586	-0.39083
A99	5121	5064	2.54178758	-0.282188
A100	5130	5073	2.440301468	-0.380171

A101	5167	5090	2.222954634	-0.590909
A102	5175	5098	2.268345519	-0.542413
A103	5185	5108	2.423908249	-0.382975
A104	5196	5119	2.747181009	-0.05545
A105	5208	5129	2.786096257	-0.0126799
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A107	5248	5167	2.525247128	-0.259006
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A109	5278	5195	3.0572	0.283482
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N156	5327	5240	3.036941857	0.279749
N157	5379	5262	2.324380165	-0.424959
N158	5385	5268	2.706288622	-0.0409377
N159	5391	5274	2.884792627	0.139665
N160	5403	5286	3.311922754	0.570951
N161	5411	5294	3.215356929	0.477123
N162	5419	5302	3.062709966	0.327186
N163	5437	5320	2.496908558	-0.232623
N164	5457	5336	2.567151411	-0.157184
N165	5473	5346	2.521281923	-0.199872
N166	5499	5364	3.541416567	0.825852
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N168	5521	5384	2.938684954	0.229111
N169	5549	5412	3.083615437	0.382007
N170	5559	5422	3.014120668	0.315229
N171	5569	5432	2.908687943	0.212442
N172	5589	5452	3.073603212	0.382428
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N176	5649	5505	2.475454356	-0.20385
N177	5659	5515	2.825969828	0.148628
N178	5681	5534	2.834623894	0.160752
N179	5709	5562	3.643981198	0.974565
N180	5727	5578	2.937199852	0.269958
N181	5787	5624	2.767701863	0.105092
N182	5801	5638	2.225725095	-0.435983
N183	5817	5654	2.563658838	-0.0973258
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N187	5928	5723	2.082787168	-0.579128
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N193	6032	5811	2.601519337	-0.072363
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N98	6237	5939	2.754502325	0.452817
N97	6253	5950	2.359084881	0.0236015
N96C	6268	5965	2.172500748	-0.207126
N96B	6291	5980	2.756909993	0.335327
N96	6305	5994	2.625744642	0.16692
N95	6315	6004	2.677205507	0.192884
N94	6323	6012	2.638821915	0.134753
N93	6345	6034	2.525703604	-0.0297756
N92	6359	6048	2.448009005	-0.138038
N91	6377	6064	2.138654569	-0.480355
N90	6393	6080	2.399605888	-0.250328
N89	6433	6108	2.335018318	-0.364333
N88	6445	6120	2.289189709	-0.429583
N87	6462	6132	2.948021722	0.210843
N86	6469	6139	2.668349203	-0.0791086
N85	6476	6146	2.798684578	0.0412784
N84	6500	6166	2.19203809	-0.592016
N83	6515	6181	2.010183876	-0.792185
N82	6530	6196	2.2305843	-0.588723
YAM1	6545	6211	2.787581198	-0.0473377
YAM2	6555	6221	3.418351614	0.573739
YAM3	6565	6231	3.286152559	0.4324
YAL1	6585	6240	2.938090241	0.0765745
YAL2	6615	6252	2.78394582	-0.0872573
YAL3	6625	6262	2.696680309	-0.182032
YBM1	6638	6276	2.868402065	-0.0199884
YBM3	6660	6290	3.06889845	0.171177
YBL1	6670	6307	2.835359969	-0.0711653
YBL2	6680	6317	2.440862266	-0.470592
YBL3	6705	6327	3.373801355	0.457845
YCM1	6718	6340	3.117700454	0.19651
YCM2	6728	6350	3.335821453	0.411067
YCM3	6738	6360	2.950141873	0.0222099
YCM4	6748	6370	2.903043437	-0.02769
YCL1	6758	6380	2.771319341	-0.161851
YCL2	6768	6390	2.719446004	-0.215809
YCL3	6778	6400	2.686996144	-0.250002
YDM1	6788	6410	2.802764977	-0.135646
YDM2	6798	6420	2.997858672	0.0583541
YDM3	6808	6430	3.136986301	0.196697
YDL2	6828	6450	2.840483132	-0.100494
YDL3	6838	6460	3.302927762	0.362027
YEM1	6848	6470	3.610827375	0.67027
YEM2	6858	6480	3.934857052	0.9949
YEM3	6868	6490	3.140942499	0.201832

YEL1	6878	6500	2.691562353	-0.246465
YEL2	6888	6510	2.949717541	0.013001
YEL3	6898	6520	2.877453678	-0.0577345
YFM1	6908	6530	3.221866477	0.288415
YFM2	6918	6540	3.795048345	0.863533
YFL1	6928	6550	2.912966252	-0.0164227
YFL2	6938	6560	2.68487395	-0.242207
YFL3	6948	6570	2.90295594	-0.0216451
YGM1	6958	6580	3.09334745	0.171391
YGM2	6968	6590	3.831465813	0.912309
YGM3	6983	6605	3.808405729	0.893721
YGL1	6998	6620	2.822074897	-0.0878329
YGL2	7008	6630	2.701400726	-0.205167
YGL4	7028	6650	2.522230233	-0.37732
YHM1	7038	6660	2.618316912	-0.277571
YHM2	7048	6670	2.893115942	0.000984031
YHM3	7058	6680	3.044704555	0.156414
YHL1	7068	6690	2.960984824	0.0766135
YHL2	7078	6700	2.730118973	-0.150261
YHL3	7088	6710	3.166932604	0.290608
YIM1	7098	6720	3.334634231	0.462423
YIM2	7108	6730	3.01702396	0.148978
YIL1	7118	6740	2.045481464	-0.818355
YIL2	7128	6750	2.196487377	-0.663101
YIL3	7138	6760	2.664378613	-0.190929
YJM1	7148	6770	3.018541231	0.167541
YJM2	7158	6780	3.016219044	0.169546
YJL1	7168	6790	2.757663681	-0.084667
YJL2	7178	6800	2.534338358	-0.303641
YLM1	7189	6808	3.254218049	0.419722
YLM2	7193	6812	3.087899963	0.255145
YLM3	7198	6817	3.543749356	0.713171
YLL1	7208	6819	2.467669317	-0.362039
YLL2	7213	6824	2.769826201	-0.0577083
YLL3	7218	6829	2.81279222	-0.0125707
YLL4	7223	6834	2.757427359	-0.065767
YMM1	7228	6839	2.895962733	0.0749332
YMM2	7233	6844	3.014102564	0.195234
YMM3	7238	6849	2.818674448	0.00196108
YMM4	7243	6854	3.136842105	0.322279
YML1	7248	6859	2.624760356	-0.187659
YML2	7258	6869	2.285808147	-0.522345
YML3	7268	6879	2.328082981	-0.475835
YML4	7278	6889	2.610933283	-0.188786
YNM1	7281	6892	2.552697238	-0.245771
YNM2	7291	6902	2.616807135	-0.177517
YNM3	7301	6912	2.782319648	-0.0079068
YNM4	7311	6922	2.81790242	0.0317223
YNM6	7321	6932	2.628822594	-0.153366
YNM5	7331	6942	2.63255469	-0.145702

YNL1	7335	6946	2.699773647	-0.0769279
YNL2	7345	6956	2.686557246	-0.0863017
YNL3	7365	6972	1.986003405	-0.780851
YNL4	7375	6982	2.26993865	-0.493259
YNL5	7385	6992	2.327150084	-0.432468
YNL6	7395	7002	3.258369537	0.502249
YOM1	7400	7007	2.516357396	-0.238045
YOM2	7415	7017	3.295618051	0.544586
YOM3	7425	7027	2.785507246	0.0377561
YOM4	7435	7037	2.292726348	-0.451836
YOM5	7445	7047	2.525951557	-0.215517
YOM6	7455	7057	2.708579238	-0.0298933
YOM7	7465	7067	2.74600286	0.0104255
YOM8	7475	7077	2.352181258	-0.380604
YOM9	7485	7087	2.5313358	-0.198764
YOL1	7490	7092	2.0522758	-0.676521
YOL2	7498	7100	2.259091271	-0.467678
YOL3	7508	7110	2.115884116	-0.608452
YPM1	7523	7125	2.542930738	-0.177968
YPM2	7533	7135	3.257551669	0.538798
YPM3	7543	7145	3.063795205	0.347069
YPM4	7553	7155	2.497389349	-0.21743
YPL1	7565	7167	2.731841023	0.0191485
YPL2	7575	7177	2.232215863	-0.478841
YPL3	7585	7187	2.621318076	-0.0882292
YPL4	7595	7197	2.763265977	0.0551009
YPL5	7605	7207	2.73314964	0.026238
YQM1	7615	7217	2.602556082	-0.103232
YQM2	7625	7227	2.921250495	0.216454
YQM3	7635	7237	2.808568295	0.104631
YQM4	7645	7247	3.156140643	0.452929
YQL1	7655	7257	2.50190959	-0.200711
YQL2	7665	7267	2.901131914	0.198966
YQL3	7675	7277	2.872801876	0.170955
YQL4	7685	7287	2.582241069	-0.119424
YRM1	7695	7297	2.846282324	0.144662
YRM2	7705	7307	2.704240723	0.00252569
YRM3	7715	7317	3.341954023	0.640006
YRM4	7725	7327	3.165092426	0.462772
YRL1	7735	7337	2.728234583	0.0254014
YRL2	7745	7347	2.437848606	-0.265637
YRL3	7755	7357	2.243804421	-0.460474
YSM1	7765	7367	3.078893779	0.373683
YSM2	7775	7377	3.415915595	0.709632
YSM3	7785	7387	2.822256086	0.114758
YSL1	7800	7402	2.42056667	-0.289014
YSL2	7810	7412	2.590609042	-0.120536
YSL3	7820	7422	2.921550947	0.208702
YSL4	7828	7430	2.777119331	0.062807
YTM1	7830	7432	3.229264292	0.514572

YTM2	7840	7442	3.620386643	0.903712
YTM3	7850	7452	3.309480282	0.590685
YTM4	7863	7465	2.734555924	0.0127968
YTL1	7875	7477	2.585049239	-0.139652
YTL2	7885	7487	2.467728732	-0.259574
YTL3	7895	7497	2.605729217	-0.124311
YTL4	7905	7507	2.723259081	-0.00965297
YUM1	7914	7516	3.59767115	0.862059
YUM2	7924	7526	3.443442223	0.704704
YUM3	7934	7536	2.972727617	0.230731
YUM4	7944	7546	2.796867508	0.0514809
YUL1	7954	7556	2.221371122	-0.527535
YUL2	7964	7566	2.248370746	-0.504185
YUL3	7974	7576	2.404593043	-0.351739
YUL4	7984	7586	2.146064613	-0.614171
YVM1	7994	7596	2.624512337	-0.139752
YVM2	8004	7606	2.740022439	-0.0283942
YVM3	8014	7616	2.536723164	-0.235968
YVL1	8019	7621	2.685636856	-0.0892375
YVL2	8029	7631	2.338750209	-0.44058
YVL3	8039	7641	2.665474061	-0.11843
YWM1	8049	7651	2.846159533	0.0575636
YWM2	8059	7661	2.888908116	0.0955053
YWM3	8069	7671	2.884112282	0.0857888
YWL1	8080	7682	2.275347025	-0.528518
YWL2	8090	7692	2.630465444	-0.178554
YWL3	8098	7700	2.763584872	-0.0496353
YXM1	8108	7710	3.54013104	0.721564
YXM2	8115	7717	3.423245614	0.600873
YXL1	8125	7727	2.961813842	0.133917
YXL2	8135	7737	2.762443439	-0.0710793
YXL3	8145	7747	2.650743767	-0.188504
YYM1	8155	7757	3.353001857	0.507931
YYM2	8165	7767	3.474957678	0.623969
YYM3	8175	7777	2.958028441	0.101029
YYL1	8185	7787	2.730485287	-0.132616
YYL2	8195	7797	2.679199254	-0.190093
YYL3	8205	7807	2.976249077	0.10068
YZM1	8215	7817	3.259851199	0.377921
YZM2	8225	7827	3.126879134	0.238505
YZL1	8235	7837	2.654069471	-0.240828
YZL2	8245	7847	2.780658863	-0.120838
YZL3	8255	7857	2.781819024	-0.126353
YZL4	8265	7867	2.748059576	-0.16686
YZL5	8275	7877	2.562869014	-0.358868
YZL6	8285	7887	2.668295602	-0.260326
YAAM1	8295	7897	3.161149639	0.225578
YAAM2	8305	7907	3.59929404	0.65671
YAAM3	8315	7917	3.432684595	0.483029
YAAM4	8325	7927	2.929580228	-0.0272041

YAAL1	8335	7937	2.693078324	-0.27089
YAAL2	8345	7947	2.58059564	-0.390608
YAAL3	8360	7962	2.724918901	-0.257229
YAAL4	8370	7972	2.807076601	-0.182425
YAAL5	8380	7982	2.552354971	-0.444542
YAAL6	8390	7992	2.365935781	-0.638397
YABM1	8400	8002	2.896253602	-0.115552
YABM2	8410	8012	3.099687725	0.0803757
YABM3	8420	8022	3.119764122	0.0929139
YABM4	8430	8032	3.217895521	0.183478
YABM5	8440	8042	3.323998982	0.281989
YABL1	8450	8052	3.151254561	0.101629
YABL2	8460	8062	2.521024284	-0.536236
YABL3	8470	8072	2.403526486	-0.661387
YACM1	8480	8082	3.340462323	0.267882
YACM2	8485	8087	3.52698496	0.450566
YACM3	8490	8092	3.352351067	0.272092
YACL1	8500	8102	2.605332699	-0.482614
YACL2	8505	8107	2.700947635	-0.390845
YACL3	8510	8112	2.489344262	-0.606295
YADM1	8520	8122	3.255320929	0.151985
YADM2	8530	8132	3.917978762	0.806948
YADL1	8543	8145	3.654369894	0.533339
YADL2	8553	8155	2.589157558	-0.539557
YADL3	8563	8165	2.731657781	-0.404731
YAEM1	8573	8175	3.435942436	0.291892
YAEM2	8583	8185	3.557853125	0.406156
YAEL1	8595	8197	2.655452088	-0.505395
YAEL2	8605	8207	2.231927711	-0.936521
YAEL3	8615	8217	2.652463508	-0.523561
YAEL4	8625	8227	3.00211782	-0.181455
YAFM1	8635	8237	3.601804478	0.410714
YAFM2	8645	8247	2.742560227	-0.456013
YAFM3	8655	8257	3.17418102	-0.0318391
YAFM4	8665	8267	3.235555556	0.0221286
YAFL1	8675	8277	2.774131802	-0.446659
YAFL2	8685	8287	2.667808953	-0.560301
YAFL3	8695	8297	2.568265983	-0.667114
YAFL4	8705	8307	2.594594595	-0.648005
YAFL5	8715	8317	2.794344168	-0.45542
YAFL6	8725	8327	3.011370162	-0.245501
YAGM1	8730	8332	3.289306579	0.0289036
YAGM2	8740	8342	3.720462769	0.453043
YAGM3	8750	8352	3.805875738	0.531504
YAGL1	8765	8367	3.132984021	-0.15169
YAGL2	8775	8377	2.759621623	-0.531832
YAGL3	8785	8387	2.499281462	-0.798877
YAHM1	8795	8397	3.661304319	0.356517
YAHM2	8805	8407	4.523609276	1.21227
YAHM3	8815	8417	4.308429791	0.990627

YAHM4	8825	8427	3.652632633	0.328449
YAHL1	8835	8437	3.016664563	-0.313813
YAHL2	8843	8445	2.614002146	-0.721445
YAHL3	8853	8455	3.186532903	-0.155043
YAIM1	8863	8465	3.737355159	0.389745
YAIM2	8873	8475	4.459203036	1.10566
YAIM3	8883	8485	4.543574186	1.18419
YAIM4	8893	8495	4.731527488	1.36641
YAIM5	8903	8505	4.462353556	1.09161
YAIM6	8913	8515	4.010501313	0.634243
YAIL1	8923	8525	2.935342732	-0.446323
YAIL2	8933	8535	2.663960692	-0.723
YAIL3	8945	8547	3.035357571	-0.357805
YAKM1	8955	8557	3.652613559	0.254414
YAKM2	8965	8567	4.275583167	0.872467
YAKM3	8975	8577	4.302944144	0.895034
YAKM4	8985	8587	4.022488662	0.60991
YAKL1	8995	8597	3.214256553	-0.202863
YAKL2	9005	8607	3.192515432	-0.229014
YAKL3	9015	8617	3.107068141	-0.31874
YAKL4	9025	8627	3.284797743	-0.145155
YALM1	9035	8637	3.60598654	0.172026
YALM2	9045	8647	3.553874014	0.116044
YALM3	9055	8657	3.320609313	-0.12095
YALL1	9065	8667	3.235601703	-0.209544
YALL2	9075	8677	3.087353801	-0.361234
YALL3	9085	8687	2.892878474	-0.559004
YALL4	9095	8697	3.129462161	-0.325568
YALL5	9105	8707	2.842350682	-0.615676
YALL6	9115	8717	3.123183546	-0.337689
YALL7	9125	8727	3.981970602	0.518407
YAMM1	9135	8737	3.702104384	0.236005
YAMM2	9145	8747	4.41338523	0.944907
YAMM3	9155	8757	4.397394137	0.926696
YAMM4	9165	8767	4.351472233	0.878714
YAMM5	9175	8780	4.019531755	0.544337
YAML1	9185	8787	3.429320833	-0.0470707
YAML2	9195	8797	3.210012659	-0.267949
YAML3	9205	8807	3.793044176	0.313678
YANM1	9215	8817	3.994549348	0.513946
YANM2	9225	8827	4.129162363	0.647491
YANM3	9238	8840	4.230809509	0.748003
YANL1	9248	8850	3.108206245	-0.375277
YANL2	9258	8860	2.603377687	-0.88061
YANL3	9268	8870	2.946781648	-0.537537
YAOM	9280	8882	3.960295972	0.475811
YAOM	9285	8887	3.815964256	0.331484
YAOM	9290	8892	4.346410661	0.861979
YAOM	9297	8899	3.535508336	0.0512193
YAOL	9305	8907	3.246136245	-0.237884

YAOL	9320	8922	3.761351125	0.278141
YAOL	9330	8932	3.57481563	0.0923676
YAPM	9340	8942	3.976933347	0.495427
YAPM	9345	8947	3.517645846	0.0366771
YAPM	9350	8952	3.559573725	0.0791877
YAPL	9360	8962	2.868807238	-0.610278
YAPL	9370	8972	2.950013413	-0.527592
YAPL	9375	8977	2.956431535	-0.520366
YAPL	9385	8987	2.962598157	-0.512448
YAQM	9395	8997	3.265780362	-0.207334
YAQM	9405	9007	3.100941998	-0.370059
YAQM	9415	9017	2.379352696	-1.08935
YAQL	9440	9042	3.020478065	-0.441703
YAQL	9450	9052	2.978780674	-0.480474
YAQL	9460	9062	2.817101898	-0.639046
YAQL	9470	9072	2.427862805	-1.025
YARM	9480	9082	3.747506894	0.298112
YARM	9495	9097	3.727122136	0.283263
YARM	9515	9107	3.086822129	-0.353124
YARL	9540	9142	3.003178803	-0.421679
YARL	9565	9167	2.90452241	-0.508247
YARL	9570	9172	2.819902428	-0.59032
YARL	9585	9177	2.986406979	-0.421226
YASM	9590	9192	3.466864728	0.0672556
YASM	9595	9197	3.408684052	0.011834
YASL	9610	9212	2.671681234	-0.716641
YASL	9620	9222	2.842128101	-0.540302
YASL	9630	9232	2.667190622	-0.709184
YASL	9635	9237	3.261868414	-0.111417
YATM	9645	9247	4.139862723	0.772875
YATM	9655	9257	4.313040759	0.95251
YATM	9660	9262	4.289500889	0.932258
YATL	9675	9277	3.043028072	-0.304119
YATL	9685	9287	2.834877437	-0.505348
YATL	9695	9297	3.035105259	-0.298048
YAUM	9725	9327	3.654074408	0.343018
YAUL	9745	9347	2.950882919	-0.344736
YAUL	9785	9387	3.379057152	0.115909
YAVM	9825	9427	4.110869928	0.882151
YAVL	9845	9447	2.721158064	-0.489681
YAVL	9855	9457	2.956884832	-0.244862
YAVL	9865	9467	3.424481031	0.231924
YAWM	9885	9487	3.821080002	0.647175
YAWM	9895	9497	3.749482336	0.585032
YAWM	9905	9507	2.810192024	-0.344725
YAWL	9925	9527	2.708988657	-0.42664
YAWL	9940	9542	2.36452796	-0.756461
YAWL	9965	9567	2.559657729	-0.53665
YAXM	9985	9587	3.289593348	0.213238
YAXM	9995	9597	3.684998639	0.618673

YAXM	10005	9607	3.778299968	0.722033
YAXL	10020	9622	2.853009259	-0.188129
YAXL	10030	9632	2.408581015	-0.622453
YAXL	10040	9642	2.380114636	-0.640807
YAYM	10055	9657	3.948478111	0.942726
YAYL	10075	9677	3.306022711	0.320465
YAZM	10085	9687	3.357824542	0.382335
YAZM	10115	9717	4.267416432	1.32194
YAZL	10165	9767	2.629697712	-0.266841
YAZL	10180	9782	2.163365836	-0.71887
YBAM	10195	9797	4.050560184	1.1824
YBAL	10225	9827	3.100178713	0.259402
YBAL	10235	9837	2.307159886	-0.524752
YBAL	10255	9857	2.595616024	-0.219013
YBBM	10265	9867	2.414687687	-0.391541
YBBM	10270	9872	3.064265273	0.262173
YBBM	10275	9877	3.725052684	0.927052
YBBL	10290	9892	3.123255472	0.33725
YBBL	10300	9902	2.607930455	-0.170322
YBBL	10310	9912	1.974151355	-0.796554
YBCM	10325	9927	2.795655439	0.0358606
YBCM	10330	9932	3.115306361	0.359034
YBCM	10335	9937	2.989882689	0.237074
YBCL	10345	9947	2.330716389	-0.415348
YBCL	10350	9952	2.704690432	-0.038096
YBCL	10355	9957	2.722509407	-0.0170635
YBDM	10375	9977	3.136940786	0.409551
YBDM	10385	9987	2.989631952	0.267912
YBDM	10395	9997	2.943548387	0.227202
YBDL	10405	10007	2.537839616	-0.17344
YBDL	10415	10017	1.888684606	-0.817846
YBDL	10425	10027	2.109917102	-0.592196
YBEM	10445	10047	3.486315087	0.792001
YBEM	10455	10057	3.244676151	0.553719
YBEM	10465	10067	2.881339667	0.193362
YBEL	10480	10082	2.43307294	-0.251172
YBEL	10488	10090	2.233418032	-0.449209
YBEL	10495	10097	2.664565977	-0.0168661
YBFM	10515	10117	3.029629247	0.35044
YBFM	10525	10127	3.064172302	0.38543
YBFM	10535	10137	2.576489533	-0.102274
YBFL	10550	10152	2.496017989	-0.183685
YBFL	10560	10162	2.029554003	-0.6514
YBFL	10570	10172	2.073698064	-0.609022
YBGM	10585	10187	2.892924233	0.206556
YBGM	10595	10197	2.683133925	-0.00635355
YBGM	10605	10207	2.536869449	-0.156303
YBGL	10625	10227	2.683482062	-0.0188178
YBGL	10645	10247	2.361302155	-0.352569
YBHM	10665	10267	2.653504957	-0.0745039

YBHL	10685	10287	2.687101291	-0.0577377
YBHL	10710	10312	2.647347531	-0.122511
YBHL	10725	10327	2.620419267	-0.166674
YBIM	10760	10362	4.381756541	1.5476
YBIM	10785	10387	3.597824744	0.723846
YBIL	10805	10407	2.555637982	-0.354129
YBIL	10815	10417	2.237831235	-0.691192
YBIL	10825	10427	2.658054971	-0.291156

Table A-3.3 MS, ARM_{0.1T}, MDF_{ARM} and IRM_{0.9T} values according to stratigraphic height.

Strat_real	Sigla	MS	ARM	ARM_MDF mT	IRM
		x10 ⁻⁸ m ³ /kg	Am ² /kg	mT	Am ² /kg
18	J3	1.656425901	1.92573E-06	33.09	6.12116E-05
42	J6	1.20182661	2.29068E-06	32.96	4.7204E-05
74	J10	1.607102311	2.75865E-06	33.47	5.57277E-05
98	J12	1.334274621	2.31718E-06	34.04	4.5774E-05
130	J16	1.331281477	2.49448E-06	33.48	4.71401E-05
146	J18	1.288460643	1.07457E-06	32.04	3.57788E-05
154	J19	1.181860179	2.83994E-06	32.81	5.00509E-05
170	J21	1.526643657	2.68733E-06	33.65	5.3719E-05
202	J25	1.975845411	2.21348E-06	32.45	6.53077E-05
234	J29	1.918810711	1.89775E-06	34.27	3.96788E-05
264	J32	2.312795586	1.74059E-06	31.10	6.55654E-05
292	J35	1.676242399	1.6802E-06	33.06	4.30084E-05
326	J38	2.88113879	1.42925E-06	31.68	6.67825E-05
354	A2	1.586721545	2.00759E-06	33.00	5.30887E-05
381	A5	2.109704641	1.68623E-06	32.97	5.69376E-05
426	A8	1.877061641	2.0445E-06	34.03	5.25144E-05
459	A11	2.016502314	2.54903E-06	33.20	5.67238E-05
491	A14	1.680682061	2.80828E-06	32.97	5.44671E-05
523	A17	2.419499494	1.71441E-06	32.29	6.6048E-05
547	A20	1.878662734	1.87397E-06	32.58	5.78107E-05
571	A23	2.178667641	1.9263E-06	32.28	9.63626E-05
591	A26	1.672925713	3.21634E-06	33.03	7.70936E-05
607	A29	2.338081671	1.84166E-06	33.37	7.05268E-05
629	A32	1.794977276	2.15663E-06	33.30	5.0746E-05
649	A35	2.049453744	1.82227E-06	33.41	5.65488E-05
671	D2	1.850025164	1.96098E-06	32.40	5.7201E-05
695	D5	1.77215656	2.30598E-06	33.12	5.54907E-05
714	D8	1.889457743	2.74442E-06	33.38	5.51766E-05
737	D11	2.105876262	2.21675E-06	32.93	5.93307E-05
759	D14	1.714404936	1.99191E-06	33.48	6.12338E-05
778	D17	2.124197269	1.91042E-06	32.42	7.26465E-05
808	D20	1.864548495	1.85174E-06	32.94	4.95562E-05
838	D23	2.37625828	1.67446E-06	32.70	5.98686E-05
873	D26	1.535064185	2.55527E-06	33.36	4.22635E-05
916	D29	1.730445247	1.78749E-06	32.10	4.80791E-05
937	D32	2.052039049	2.03503E-06	33.55	5.51362E-05
963	D35	2.038688796	1.74169E-06	33.43	5.18973E-05
990	A38	1.815671384	2.16028E-06	34.36	5.07065E-05
1015	A41	2.148866308	1.50339E-06	33.29	5.88795E-05
1040	A44	1.798394821	1.86626E-06	33.30	5.15033E-05
1065	A47	2.283557443	1.76839E-06	33.28	5.73315E-05
1095	A50	1.737445546	2.55535E-06	34.02	4.97972E-05
1125	J41	2.157458297	1.69869E-06	32.70	6.38711E-05
1160	J44	1.90592474	2.39656E-06	33.73	4.54421E-05
1200	J47	2.170194132	1.58056E-06	32.16	5.10196E-05
1230	J50	2.075914694	1.7036E-06	32.74	4.64992E-05
1255	J53	1.871065114	1.7423E-06	32.77	4.66885E-05
1270	J55	1.995187143	1.64991E-06	32.72	5.37225E-05
1290	J57	1.659984502	1.76656E-06	33.29	4.07854E-05
1320	J59	3.189946834	1.35098E-06	30.62	5.47568E-05
1370	J62	2.099264012	1.34084E-06	32.63	3.89665E-05
1434	J66	2.86977088	1.19158E-06	31.27	4.6927E-05
1470	J69	1.807211744	1.48803E-06	33.54	4.25678E-05
1520	A53	2.738690969	1.27959E-06	32.25	4.60244E-05
1570	A56	2.208100759	1.34937E-06	33.54	3.78535E-05
1605	A59	2.202605232	1.49379E-06	32.57	4.73814E-05
1660	A62	1.964357271	1.22171E-06	32.66	3.46947E-05
1705	A65	2.273453549	1.32384E-06	32.01	4.58529E-05
1722	A68	2.247343166	1.51575E-06	32.87	4.52092E-05
1742	A71	2.239290546	1.56447E-06	32.60	4.56972E-05

1785	A74	2.127104577	1.54435E-06	31.30	4.50305E-05
1840	A77	3.16624668	1.45099E-06	31.01	5.05778E-05
1895	D38	1.959212695	1.27076E-06	32.47	3.14665E-05
1950	D41	2.846572612	1.08732E-06	31.13	3.77147E-05
1997	D44	1.645447629	1.23866E-06	32.43	3.60414E-05
2040	D47	2.682374971	1.56177E-06	31.11	5.75446E-05
2095	J72	1.987721606	1.46858E-06	33.81	3.04107E-05
2155	J75	2.41603702	1.18194E-06	30.98	3.78109E-05
2195	J78	2.245250432	1.3424E-06	31.97	3.78808E-05
2247	J81	2.03462014	1.53539E-06	32.03	3.88827E-05
2275	J84	2.405778353	1.37661E-06	31.74	3.62568E-05
2315	J87	1.812777746	1.22047E-06	30.84	3.9101E-05
2370	J90	2.948529979	1.36493E-06	29.82	4.79514E-05
2405	J93	2.350981118	1.21238E-06	31.43	3.82854E-05
2447	J96	2.759139227	1.20922E-06	30.80	3.87147E-05
2470	J99	2.462532655	1.22749E-06	31.91	3.75602E-05
2487	J102	3.025592502	1.18126E-06	30.91	4.20902E-05
2520	N2	2.043110561	1.4109E-06	32.54	2.98679E-05
2570	N5	2.659889742	1.30905E-06	30.83	4.84358E-05
2620	N8	2.293161416	1.15477E-06	32.30	3.39058E-05
2660	N11	2.750367647	1.34508E-06	31.93	4.14179E-05
2695	N14	2.073577184	1.17301E-06	30.73	3.28157E-05
2730	N17	2.730872184	1.39614E-06	29.96	4.71502E-05
2770	N20	2.346493144	1.26982E-06	32.25	3.46537E-05
2802	N23	2.515174831	1.37076E-06	31.40	4.40855E-05
2825	N25	2.178223367	1.45765E-06	30.45	3.56021E-05
2855	N27	2.29858137	1.29477E-06	32.54	3.15806E-05
2880	N29	3.095045664	1.37853E-06	30.77	3.77981E-05
2912	N32	2.35683978	1.94725E-06	32.75	3.3162E-05
2945	N35	2.530113538	1.19371E-06	31.08	3.02702E-05
2985	N38	2.480794533	1.31825E-06	31.60	3.4658E-05
3030	N41	2.30636833	1.26025E-06	31.65	3.40668E-05
3075	N44	2.237801274	1.39315E-06	31.86	3.30249E-05
3127	J105	3.408717625	1.26952E-06	30.75	4.63495E-05
3165	J107	2.437557287	1.1099E-06	31.94	3.0733E-05
3205	J110	4.015540686	1.13691E-06	30.54	4.06062E-05
3255	J113	2.462338949	1.184E-06	31.65	3.26856E-05
3308	J116	3.734352188	1.00527E-06	30.99	3.42642E-05
3357	J119	2.413733758	1.25924E-06	32.34	2.65475E-05
3397	J122	3.237185376	1.19235E-06	30.76	3.69498E-05
3445	J125	2.901274359	1.34382E-06	30.52	3.37348E-05
3475	J127	2.495474741	1.42924E-06	31.68	2.87748E-05
3530	J130	3.113566383	1.14531E-06	31.45	3.79483E-05
3580	J133	2.416445623	1.46847E-06	32.06	2.73335E-05
3630	J136	4.193399705	1.30876E-06	29.77	5.14405E-05
3682	J139	2.819584624	9.74145E-07	30.66	3.3543E-05
3732	J142	4.014353139	1.22895E-06	30.51	4.51095E-05
3785	J145	2.990854252	1.0286E-06	30.52	3.39373E-05
3832	J148	3.799915398	1.17514E-06	29.99	3.88066E-05
3880	N47	2.911593436	1.24514E-06	31.63	2.83375E-05
3927	N50	2.894147745	1.21318E-06	31.13	3.35934E-05
3985	N53	2.836494748	1.2023E-06	31.81	3.07051E-05
4005	N54	2.816191065	1.53093E-06	31.70	3.11225E-05
4025	N55	3.092474901	1.14901E-06	31.35	3.0719E-05
4062	N57	3.335825079	1.17679E-06	30.63	3.66358E-05
4100	N60	2.658191822	1.52273E-06	32.44	3.55472E-05
4136	N63	3.378289904	1.2353E-06	31.23	4.13942E-05
4195	N67	2.580943838	1.53684E-06	31.94	3.10034E-05
4240	N71	3.624779371	1.152E-06	30.74	3.98109E-05
4285	N74	2.786025083	1.58271E-06	32.97	3.3414E-05
4330	N77	3.225454347	1.18787E-06	31.02	3.10436E-05
4365	N80	2.864227519	1.29802E-06	31.02	3.65849E-05
4397	J151	3.638552315	1.30366E-06	31.48	3.62936E-05

4440	J154	2.71407438	1.40634E-06	32.29	2.99957E-05
4482	J157	2.683631963	1.34054E-06	31.39	3.67293E-05
4543	J160	2.631578947	1.1402E-06	31.03	3.7914E-05
4620	J163	2.977753465	1.20112E-06	30.91	3.35803E-05
4675	J166	3.196425083	1.2223E-06	30.93	3.15938E-05
4713	J169	2.523752461	1.0753E-06	30.38	2.9049E-05
4752	J172	2.35038037	1.18407E-06	32.09	2.68738E-05
6187	N101	1.521374686	1.05E-06	31.14	2.44E-05
6263	N96C	2.172500748	1.13E-06	32.32	2.90E-05
6286	N96B	2.756909993	1.13E-06	30.62	3.64E-05
6310	N95	2.677205507	1.13E-06	30.81	2.54E-05
6354	N92	2.448009005	1.07E-06	31.51	2.96E-05
6388	N90	2.399605888	1.12E-06	31.23	2.65E-05
6428	N89	2.335018318	9.31E-07	31.85	3.08E-05
6464	N86	2.668349203	1.10E-06	31.03	3.55E-05
6510	N83	2.010183876	1.35E-06	31.81	2.19E-05
6550	YAM2	3.418351614	1.47E-06	30.50	3.68E-05
6620	YAL3	2.696680309	1.54E-06	31.29	2.82E-05
6655	YBM3	3.06889845	1.59E-06	29.57	4.79E-05
6675	YBL2	2.440862266	1.66E-06	31.45	2.98E-05
6723	YCM2	3.335821453	1.38E-06	30.34	3.08E-05
6773	YCL3	2.686996144	1.96E-06	29.54	2.98E-05
6803	YDM3	3.136986301	1.34E-06	29.86	3.35E-05
6833	YDL3	3.302927762	1.48E-06	30.07	4.40E-05
6853	YEM2	3.934857052	1.54E-06	30.60	4.63E-05
6873	YEL1	2.691562353	1.19E-06	30.94	3.41E-05
6913	YFM2	3.795048345	1.41E-06	30.72	3.43E-05
6933	YFL2	2.68487395	1.34E-06	31.14	2.87E-05
6978	YGM3	3.808405729	1.93E-06	30.44	3.93E-05
7003	YGL2	2.701400726	1.87E-06	29.52	3.51E-05
7053	YHM3	3.044704555	2.22E-06	30.34	3.35E-05
7073	YHL2	2.730118973	1.18E-06	30.58	2.81E-05
7093	YIM1	3.334634231	1.32E-06	29.82	3.79E-05
7113	YIL1	2.045481464	1.74E-06	31.02	2.70E-05
7143	YJM1	3.018541231	1.19E-06	30.80	3.57E-05
7163	YJL1	2.757663681	1.31E-06	30.58	3.26E-05
7193	YLM3	3.543749356	1.72E-06	31.01	3.97E-05
7208	YLL2	2.769826201	1.22E-06	31.30	2.86E-05
7228	YMM2	3.014102564	1.17E-06	30.63	2.84E-05
7253	YML2	2.285808147	1.30E-06	31.84	2.58E-05
7296	YNM3	2.782319648	1.73E-06	29.64	3.35E-05
7360	YNL3	1.986003405	1.84E-06	31.88	3.64E-05
7410	YOM2	3.295618051	1.48E-06	30.86	3.83E-05
7420	YOM3	2.785507246	1.91E-06	29.99	3.53E-05
7460	YOM7	2.74600286	1.80E-06	30.90	2.96E-05
7493	YOL2	2.259091271	1.74E-06	31.73	2.70E-05
7528	YPM2	3.257551669	1.50E-06	29.91	3.26E-05
7590	YPL4	2.763265977	1.49E-06	31.27	2.77E-05
7630	YQM3	2.808568295	1.23E-06	29.99	2.90E-05
7670	YQL3	2.872801876	1.40E-06	30.49	2.61E-05
7710	YRM3	3.341954023	1.28E-06	31.12	2.94E-05
7750	YRL3	2.243804421	1.36E-06	31.27	2.59E-05
7770	YSM2	3.415915595	1.51E-06	29.36	4.31E-05
7795	YSL1	2.42056667	1.34E-06	30.09	3.27E-05
7845	YTM3	3.309480282	1.31E-06	31.18	3.52E-05
7890	YTL3	2.605729217	1.34E-06	31.70	2.74E-05
7929	YUM3	2.972727617	1.13E-06	30.70	3.04E-05
7969	YUL3	2.404593043	1.76E-06	32.05	2.83E-05
7999	YVM2	2.740022439	1.19E-06	31.67	2.20E-05
8024	YVL2	2.338750209	2.02E-06	30.95	3.03E-05
8054	YWM2	2.888908116	1.75E-06	30.68	3.59E-05
8075	YW11	2.275347025	1.41E-06	30.62	3.20E-05

8110	YXM2	3.423245614	1.33E-06	29.54	3.49E-05
8140	YXL3	2.650743767	1.72E-06	30.49	2.76E-05
8160	YYM2	3.474957678	1.48E-06	30.55	3.54E-05
8190	YYL2	2.679199254	1.63E-06	30.95	2.42E-05
8210	YZM1	3.259851199	1.30E-06	30.86	2.82E-05
8270	YZL5	2.562869014	1.35E-06	30.84	2.70E-05
8300	YAAM2	3.59929404	1.31E-06	29.96	3.55E-05
8375	YAAL5	2.552354971	2.25E-06	30.19	3.21E-05
8435	YABM5	3.323998982	1.23E-06	30.68	3.45E-05
8455	YABL2	2.521024284	1.09E-06	31.04	2.90E-05
8480	YACM2	3.52698496	1.61E-06	29.86	3.52E-05
8505	YAAL3	2.489344262	1.34E-06	30.72	2.28E-05
8525	YADM2	3.917978762	1.72E-06	30.13	4.03E-05
8548	YADL2	2.589157558	1.41E-06	29.34	2.89E-05
8578	YAEM2	3.557853125	1.10E-06	30.43	2.87E-05
8600	Yael2	2.231927711	8.03E-07	30.39	1.76E-05
8650	YAFM3	3.17418102	1.32E-06	29.78	2.78E-05
8690	YAFL3	2.568265983	1.63E-06	30.10	2.23E-05
8735	YAGM2	3.720462769	1.18E-06	28.74	3.02E-05
8780	YAGL3	2.499281462	1.03E-06	30.06	1.95E-05
8800	YAHM2	4.523609276	1.29E-06	29.92	3.44E-05
8838	Y AHL2	2.614002146	1.09E-06	29.78	2.20E-05
8868	YAIM2	4.459203036	1.38E-06	30.27	3.75E-05
8888	YAIM4	4.731527488	1.56E-06	29.79	4.28E-05
8908	YAIM6	4.010501313	1.30E-06	30.11	3.79E-05
8928	YAIL2	2.663960692	1.07E-06	29.06	2.35E-05
8950	YAKM1	3.652613559	1.04E-06	29.85	2.66E-05
8970	YAKM3	4.302944144	1.40E-06	29.79	5.19E-05
9010	YAKL3	3.107068141	9.87E-07	29.31	1.79E-05
9040	YALM2	3.553874014	1.16E-06	29.87	2.79E-05
9080	YALL3	2.892878474	1.24E-06	30.50	3.11E-05
9140	YAMM2	4.41338523	1.34E-06	29.82	3.16E-05
9190	YAML2	3.210012659	9.61E-07	29.55	2.53E-05
9233	YANM3	4.230809509	1.48E-06	29.56	3.64E-05
9253	YANL2	2.603377687	1.65E-06	29.99	2.38E-05
9280	N129	3.815964256	1.06E-06	29.97	3.12E-05
9315	N128	3.987032192	1.15E-06	30.20	3.74E-05
9340	N127	3.728704597	9.07E-07	30.03	3.19E-05
9370	N126	2.956431535	1.01E-06	29.93	3.40E-05
9400	N125	3.100941998	9.79E-07	29.76	3.21E-05
9445	N124	2.978780674	8.65E-07	29.55	2.81E-05
9500	N123	3.086822129	9.33E-07	30.13	3.10E-05
9560	N122	2.90452241	8.74E-07	29.42	2.91E-05
9585	N121	3.466864728	1.10E-06	29.33	3.48E-05
9615	N120	2.842128101	8.20E-07	28.64	2.31E-05
9680	N118	2.834877437	8.70E-07	29.31	2.31E-05
9850	N116	2.956884832	9.46E-07	29.34	1.15E-05
9890	J228	3.749482336	1.11E-06	29.96	8.76E-06
9935	J224	2.36452796	7.55E-07	30.19	1.11E-05
9990	J221	3.684998639	1.07E-06	30.07	2.62E-05
10025	J218	2.408581015	7.79E-07	29.50	6.85E-06
10050	J216	3.948478111	1.04E-06	29.95	3.60E-05
10070	J215	3.306022711	8.81E-07	29.33	1.01E-05
10110	J213	4.267416432	1.10E-06	30.23	3.41E-05
10160	N114	2.629697712	8.22E-07	29.80	1.13E-05
10230	N111	2.307159886	7.47E-07	29.97	9.37E-06
10250	N110	2.595616024	8.63E-07	29.65	7.81E-06
10265	N108	3.064265273	7.84E-07	29.62	2.35E-05
10295	N105	2.607930455	7.13E-07	29.77	9.28E-06
10325	J211	3.115306361	8.10E-07	30.10	3.27E-05
10345	J208	2.704690432	1.15E-06	31.04	2.52E-05
10380	J205	2.989631952	8.70E-07	30.20	1.32E-05
10410	J202	1.888684606	6.21E-07	30.42	1.19E-05

10450	J199	3.244676151	1.01E-06	29.61	2.16E-05
10483	J196	2.233418032	9.43E-07	28.97	6.19E-05
10520	J193	3.064172302	8.21E-07	29.94	1.11E-05
10555	J190	2.029554003	7.37E-07	29.91	1.52E-05
10590	J187	2.683133925	9.24E-07	29.74	2.23E-05
10620	J185	2.683482062	9.42E-07	29.52	4.78E-05
10660	J183	2.653504957	9.45E-07	29.65	9.00E-06
10705	J181	2.647347531	8.76E-07	31.47	1.04E-04
10755	J178	4.381756541	1.00E-06	30.55	1.09E-05
10810	J175	2.237831235	7.37E-07	29.71	1.68E-05

Table A-3.4 Values of AF thermal demagnetization curve of ARM_{0.1}T and of IRM_{0.9}T acquisition curve of the selected 14 samples.

Thermal demag			IRM acquisition			
Sample	T (C)	ARM 10-6 Am ² /kg	IRM Field (mT)	Z intensity_norm (mT/Kg)	Z procesed	Bcr
J10	-	0.551330	0	-5.13E-03	0.00	76
	100	0.436350	2	-5.04E-03	0.01	
	150	0.373340	4	-4.95E-03	0.02	
	200	0.303420	6	-4.82E-03	0.03	
	250	0.230910	8	-4.69E-03	0.05	
	280	0.190590	10	-4.63E-03	0.05	
	310	0.153280	12	-4.38E-03	0.08	
	340	0.113690	14	-4.34E-03	0.08	
	360	0.101820	16	-4.14E-03	0.10	
	380	0.096113	18	-4.09E-03	0.10	
	420	0.079340	20	-3.99E-03	0.11	
	470	0.065248	24	-3.64E-03	0.15	
	530	0.037518	28	-3.29E-03	0.18	
	585	0.001949	32	-3.07E-03	0.20	
		36	-2.81E-03	0.23		
		40	-2.42E-03	0.27		
		48	-1.86E-03	0.32		
		56	-1.34E-03	0.37		
		64	-7.09E-04	0.43		
		72	-2.08E-04	0.48		
		80	2.52E-04	0.52		
		90	6.85E-04	0.57		
		100	1.21E-03	0.62		
		120	1.98E-03	0.69		
		140	2.46E-03	0.74		
		160	2.94E-03	0.79		
		180	3.34E-03	0.82		
		200	3.51E-03	0.84		
		220	3.89E-03	0.88		
		270	4.35E-03	0.92		
		320	4.60E-03	0.95		
		370	4.78E-03	0.96		
		420	4.74E-03	0.96		
		470	4.89E-03	0.97		
		570	5.03E-03	0.99		
		670	5.15E-03	1.00		
		770	5.10E-03	0.99		
		900	5.16E-03	1.00		
J12	-	0.680380	0	-4.25E-03	-0.01	79
	100	0.479890	2	-4.23E-03	-0.01	
	150	0.424250	4	-4.08E-03	0.01	
	200	0.353570	6	-3.92E-03	0.03	
	250	0.274590	8	-3.91E-03	0.03	
	280	0.210600	10	-3.80E-03	0.04	
	310	0.164280	12	-3.71E-03	0.05	
	340	0.126690	14	-3.62E-03	0.06	
	360	0.111810	16	-3.56E-03	0.07	
	380	0.110970	18	-3.39E-03	0.09	
	420	0.091305	20	-3.22E-03	0.11	
	470	0.073152	24	-3.02E-03	0.14	
	530	0.041024	28	-2.67E-03	0.18	
	585	0.001517	32	-2.59E-03	0.19	
		36	-2.23E-03	0.23		
		40	-1.98E-03	0.26		
		48	-1.52E-03	0.32		
		56	-1.10E-03	0.37		

64	-6.83E-04	0.42
72	-2.92E-04	0.46
80	6.61E-05	0.51
90	4.39E-04	0.55
100	8.30E-04	0.60
120	1.45E-03	0.68
140	1.88E-03	0.73
160	2.23E-03	0.77
180	2.56E-03	0.81
200	2.79E-03	0.84
220	2.80E-03	0.84
270	3.43E-03	0.91
320	3.51E-03	0.92
370	3.78E-03	0.96
420	3.87E-03	0.97
470	3.85E-03	0.96
570	4.04E-03	0.99
670	4.12E-03	1.00
770	4.16E-03	1.00
900	4.14E-03	1.00

A38	-	1.095500	0	-4.67E-03	0.16	78
	100	0.850570	2	-6.67E-03	0.01	
	150	0.685010	4	-6.57E-03	0.02	
	200	0.555910	6	-6.42E-03	0.03	
	250	0.410150	8	-6.32E-03	0.04	
	280	0.327510	10	-6.12E-03	0.05	
	310	0.259140	12	-6.08E-03	0.06	
	340	0.194860	14	-5.81E-03	0.08	
	360	0.185270	16	-5.69E-03	0.09	
	380	0.168710	18	-5.39E-03	0.11	
	420	0.144600	20	-5.32E-03	0.11	
	470	0.115990	24	-4.96E-03	0.14	
	530	0.061972	28	-4.57E-03	0.17	
	585	0.002089	32	-4.17E-03	0.20	

36	-3.65E-03	0.23
40	-3.29E-03	0.26
48	-2.42E-03	0.32
56	-1.71E-03	0.38
64	-9.81E-04	0.43
72	-3.43E-04	0.47
80	1.02E-04	0.51
90	8.46E-04	0.56
100	1.71E-03	0.62
120	2.53E-03	0.68
140	3.24E-03	0.74
160	3.81E-03	0.78
180	4.42E-03	0.82
200	4.84E-03	0.85
220	5.12E-03	0.87
270	5.69E-03	0.92
320	6.11E-03	0.95
370	6.30E-03	0.96
420	6.40E-03	0.97
470	6.42E-03	0.97
570	6.60E-03	0.98
670	6.78E-03	0.99
770	6.66E-03	0.99
900	6.86E-03	1.00

A41	-	1.515200	0	-6.10E-03	-0.01	83
	100	1.125500	2	-5.91E-03	0.00	
	150	0.933870	4	-5.68E-03	0.02	
	200	0.700290	6	-5.67E-03	0.02	

250	0.493690
280	0.359030
310	0.267960
340	0.192000
360	0.177240
380	0.161790
420	0.136100
470	0.105970
530	0.049066
585	0.002435

8	-5.54E-03	0.03
10	-5.54E-03	0.04
12	-5.43E-03	0.04
14	-5.12E-03	0.07
16	-5.18E-03	0.07
18	-4.78E-03	0.10
20	-4.83E-03	0.09
24	-4.50E-03	0.12
28	-4.17E-03	0.15
32	-3.91E-03	0.17
36	-3.61E-03	0.20
40	-3.27E-03	0.23
48	-2.50E-03	0.29
56	-1.85E-03	0.34
64	-1.28E-03	0.39
72	-7.40E-04	0.44
80	-1.87E-04	0.48
90	4.53E-04	0.54
100	1.18E-03	0.60
120	2.03E-03	0.67
140	2.77E-03	0.73
160	3.27E-03	0.77
180	3.70E-03	0.81
200	4.12E-03	0.85
220	4.33E-03	0.86
270	4.72E-03	0.90
320	5.27E-03	0.94
370	5.37E-03	0.95
420	5.51E-03	0.96
470	5.78E-03	0.99
570	5.87E-03	0.99
670	5.90E-03	1.00
770	5.99E-03	1.00
900	5.96E-03	1.00

D38	-	0.587790	0	-2.92E-03	0.01	76
	100	0.440320	2	-2.87E-03	0.02	
	150	0.362810	4	-2.87E-03	0.01	
	200	0.266850	6	-2.67E-03	0.05	
	250	0.197700	8	-2.68E-03	0.05	
	280	0.159180	10	-2.63E-03	0.06	
	310	0.127230	12	-2.57E-03	0.07	
	340	0.096834	14	-2.50E-03	0.08	
	360	0.088655	16	-2.37E-03	0.10	
	380	0.082390	18	-2.41E-03	0.09	
	420	0.070252	20	-2.24E-03	0.12	
	470	0.055150	24	-2.10E-03	0.15	
	530	0.027653	28	-1.91E-03	0.18	
	585	0.001156	32	-1.74E-03	0.21	
		-	36	-1.56E-03	0.24	
			40	-1.43E-03	0.26	
			48	-1.09E-03	0.32	
			56	-7.47E-04	0.37	
			64	-4.40E-04	0.43	
			72	-1.57E-04	0.47	
		80	1.35E-04	0.52		
		90	3.99E-04	0.57		
		100	7.44E-04	0.63		
		120	1.10E-03	0.69		
		140	1.46E-03	0.75		
		160	1.71E-03	0.79		
		180	1.89E-03	0.82		
		200	2.01E-03	0.84		
		220	2.23E-03	0.88		

270	2.42E-03	0.91
320	2.61E-03	0.94
370	2.71E-03	0.96
420	2.76E-03	0.97
470	2.81E-03	0.98
570	2.81E-03	0.98
670	2.88E-03	0.99
770	2.87E-03	0.99
900	2.96E-03	1.00

D41	-	0.887260	0	-3.39E-03	0.01	79
	100	0.681450	2	-3.43E-03	0.01	
	150	0.565690	4	-3.30E-03	0.03	
	200	0.423120	6	-3.19E-03	0.04	
	250	0.303850	8	-3.03E-03	0.06	
	280	0.229770	10	-3.07E-03	0.06	
	310	0.185410	12	-2.73E-03	0.11	
	340	0.128080	14	-2.94E-03	0.08	
	360	0.107560	16	-2.74E-03	0.11	
	380	0.100080	18	-2.76E-03	0.10	
	420	0.085007	20	-2.61E-03	0.12	
	470	0.062002	24	-2.39E-03	0.16	
	530	0.030513	28	-2.23E-03	0.18	
	585	0.002168	32	-2.07E-03	0.20	
		-				

36	-1.81E-03	0.24
40	-1.70E-03	0.25
48	-1.31E-03	0.31
56	-9.62E-04	0.36
64	-6.06E-04	0.41
72	-2.97E-04	0.46
80	3.20E-05	0.50
90	3.03E-04	0.54
100	6.52E-04	0.59
120	1.18E-03	0.67
140	1.57E-03	0.73
160	1.93E-03	0.78
180	2.14E-03	0.81
200	2.33E-03	0.84
220	2.50E-03	0.86
270	2.76E-03	0.90
320	3.02E-03	0.93
370	3.13E-03	0.95
420	3.22E-03	0.96
470	3.28E-03	0.97
570	3.36E-03	0.98
670	3.37E-03	0.99
770	3.41E-03	0.99
900	3.48E-03	1.00

J122	-	0.798190	0	-3.47E-03	0.00	77	
	100	0.634800	2	-3.40E-03	0.01		
	150	0.528450	4	-3.37E-03	0.02		
	200	0.416070	6	-3.29E-03	0.03		
	250	0.297880	8	-3.21E-03	0.04		
	280	0.229210	10	-3.11E-03	0.05		
	310	0.182850	12	-3.00E-03	0.07		
	340	0.132000	14	-2.93E-03	0.08		
	360	0.108350	16	-2.87E-03	0.09		
	380	0.098500	18	-2.77E-03	0.10		
	420	0.083898	20	-2.66E-03	0.12		
	470	0.064179	24	-2.46E-03	0.15		
	530	0.026352	28	-2.26E-03	0.18		
	585	-	0.005483	32	-2.06E-03		0.21
		-		36	-1.85E-03		0.23
	-		40	-1.68E-03	0.26		

48	-1.24E-03	0.32
56	-8.98E-04	0.37
64	-5.09E-04	0.43
72	-1.95E-04	0.47
80	9.44E-05	0.51
90	3.99E-04	0.56
100	7.58E-04	0.61
120	1.28E-03	0.68
140	1.64E-03	0.74
160	1.98E-03	0.78
180	2.22E-03	0.82
200	2.38E-03	0.84
220	2.58E-03	0.87
270	2.91E-03	0.92
320	3.06E-03	0.94
370	3.24E-03	0.96
420	3.30E-03	0.97
470	3.34E-03	0.98
570	3.38E-03	0.98
670	3.43E-03	0.99
770	3.49E-03	1.00
900	3.49E-03	1.00

J127	-	0.320090	0	-2.71E-03	-0.01	73
	100	0.253840	2	-2.61E-03	0.00	
	150	0.206390	4	-2.58E-03	0.01	
	200	0.171080	6	-2.49E-03	0.03	
	250	0.126760	8	-2.45E-03	0.03	
	280	0.100710	10	-2.42E-03	0.04	
	310	0.081050	12	-2.26E-03	0.07	
	340	0.060153	14	-2.24E-03	0.07	
	360	0.054954	16	-2.19E-03	0.08	
	380	0.051854	18	-2.06E-03	0.11	
	420	0.044832	20	-1.95E-03	0.13	
	470	0.035318	24	-1.84E-03	0.15	
	530	0.018457	28	-1.68E-03	0.18	
	585	0.001636	32	-1.50E-03	0.21	

36	-1.34E-03	0.25
40	-1.16E-03	0.28
48	-8.47E-04	0.34
56	-5.60E-04	0.39
64	-2.82E-04	0.45
72	-3.88E-05	0.49
80	1.96E-04	0.54
90	4.41E-04	0.58
100	7.13E-04	0.64
120	1.05E-03	0.70
140	1.33E-03	0.75
160	1.56E-03	0.80
180	1.75E-03	0.83
200	1.88E-03	0.86
220	2.01E-03	0.88
270	2.19E-03	0.92
320	2.38E-03	0.95
370	2.40E-03	0.96
420	2.48E-03	0.97
470	2.50E-03	0.98
570	2.61E-03	1.00
670	2.58E-03	0.99
770	2.63E-03	1.00
900	2.63E-03	1.00

YGM3	-	0.110340	0	-3.69E-03	0.00	69
	100	0.078317	2	-3.59E-03	0.01	

150	0.065787
200	0.053447
250	0.039215
280	0.031222
310	0.025428
340	0.018616
360	0.017557
380	0.016439
420	0.013902
470	0.010463
530	0.005114
585	0.000804

4	-3.55E-03	0.02
6	-3.43E-03	0.03
8	-3.31E-03	0.05
10	-3.24E-03	0.06
12	-3.17E-03	0.07
14	-3.02E-03	0.09
16	-2.96E-03	0.10
18	-2.79E-03	0.12
20	-2.72E-03	0.13
24	-2.48E-03	0.16
28	-2.19E-03	0.20
32	-2.00E-03	0.23
36	-1.70E-03	0.27
40	-1.48E-03	0.30
48	-1.02E-03	0.36
56	-5.87E-04	0.42
64	-2.00E-04	0.47
72	1.22E-04	0.52
80	4.10E-04	0.56
90	7.39E-04	0.60
100	1.11E-03	0.65
120	1.58E-03	0.71
140	1.99E-03	0.77
160	2.27E-03	0.81
180	2.51E-03	0.84
200	2.67E-03	0.86
220	2.85E-03	0.89
270	3.10E-03	0.92
320	3.33E-03	0.95
370	3.42E-03	0.96
420	3.46E-03	0.97
470	3.46E-03	0.97
570	3.62E-03	0.99
670	3.60E-03	0.99
770	3.66E-03	1.00
900	3.69E-03	1.00

YGL2	-	0.098815	0	-3.33E-03	0.00	68
	100	0.076151	2	-3.23E-03	0.01	
	150	0.063411	4	-3.15E-03	0.02	
	200	0.050685	6	-3.09E-03	0.03	
	250	0.036817	8	-2.95E-03	0.05	
	280	0.031445	10	-2.90E-03	0.06	
	310	0.024536	12	-2.79E-03	0.08	
	340	0.018050	14	-2.72E-03	0.09	
	360	0.016825	16	-2.62E-03	0.10	
	380	0.015365	18	-2.50E-03	0.12	
	420	0.012807	20	-2.40E-03	0.14	
	470	0.009871	24	-2.16E-03	0.17	
	530	0.005055	28	-1.94E-03	0.21	
	585	0.000856	32	-1.70E-03	0.24	
			36	-1.47E-03	0.28	
			40	-1.31E-03	0.30	
			48	-8.62E-04	0.37	
			56	-4.97E-04	0.42	
			64	-1.39E-04	0.48	
		72	1.51E-04	0.52		
		80	4.15E-04	0.56		
		90	6.87E-04	0.60		
		100	1.02E-03	0.65		
		120	1.42E-03	0.72		
		140	1.75E-03	0.76		
		160	1.99E-03	0.80		
		180	2.18E-03	0.83		

200	2.39E-03	0.86
220	2.53E-03	0.88
270	2.76E-03	0.92
320	2.95E-03	0.95
370	3.03E-03	0.96
420	3.07E-03	0.96
470	3.08E-03	0.97
570	3.17E-03	0.98
670	3.24E-03	0.99
770	3.29E-03	1.00
900	3.31E-03	1.00

YRM3	-	0.315700	0	-2.68E-03	-0.01	68
	100	0.239760	2	-2.57E-03	0.01	
	150	0.196300	4	-2.54E-03	0.02	
	200	0.154180	6	-2.46E-03	0.03	
	250	0.115880	8	-2.39E-03	0.05	
	280	0.093034	10	-2.33E-03	0.06	
	310	0.075528	12	-2.25E-03	0.07	
	340	0.058543	14	-2.16E-03	0.09	
	360	0.052838	16	-2.09E-03	0.10	
	380	0.049488	18	-2.00E-03	0.12	
	420	0.041826	20	-1.90E-03	0.14	
	470	0.031996	24	-1.75E-03	0.17	
	530	0.014395	28	-1.56E-03	0.20	
	585	0.001415	32	-1.39E-03	0.24	

36	-1.17E-03	0.28
40	-1.05E-03	0.30
48	-7.04E-04	0.37
56	-4.07E-04	0.42
64	-1.27E-04	0.48
72	1.08E-04	0.52
80	3.26E-04	0.56
90	5.48E-04	0.60
100	8.20E-04	0.66
120	1.15E-03	0.72
140	1.42E-03	0.77
160	1.63E-03	0.81
180	1.80E-03	0.84
200	1.92E-03	0.86
220	2.04E-03	0.89
270	2.23E-03	0.92
320	2.37E-03	0.95
370	2.45E-03	0.96
420	2.47E-03	0.97
470	2.51E-03	0.97
570	2.53E-03	0.98
670	2.60E-03	0.99
770	2.62E-03	1.00
900	2.64E-03	1.00

YRL3	-	0.403950	0	-2.46E-03	0.00	67
	100	0.311140	2	-2.45E-03	0.00	
	150	0.255690	4	-2.32E-03	0.03	
	200	0.206380	6	-2.31E-03	0.03	
	250	0.161240	8	-2.24E-03	0.04	
	280	0.132170	10	-2.17E-03	0.06	
	310	0.110860	12	-2.13E-03	0.07	
	340	0.083524	14	-2.03E-03	0.09	
	360	0.075870	16	-1.94E-03	0.10	
	380	0.070424	18	-1.88E-03	0.12	
	420	0.060901	20	-1.77E-03	0.14	
	470	0.046687	24	-1.63E-03	0.17	
	530	0.021639	28	-1.43E-03	0.21	
	585	0.001756	32	-1.26E-03	0.24	

36	-1.10E-03	0.28
40	-9.63E-04	0.30
48	-6.35E-04	0.37
56	-3.39E-04	0.43
64	-7.47E-05	0.48
72	1.53E-04	0.53
80	3.58E-04	0.57
90	5.84E-04	0.62
100	8.21E-04	0.67
120	1.15E-03	0.73
140	1.37E-03	0.78
160	1.55E-03	0.82
180	1.70E-03	0.85
200	1.80E-03	0.87
220	1.91E-03	0.89
270	2.09E-03	0.93
320	2.19E-03	0.95
370	2.26E-03	0.96
420	2.32E-03	0.97
470	2.33E-03	0.97
570	2.41E-03	0.99
670	2.41E-03	0.99
770	2.46E-03	1.00
900	2.45E-03	1.00

YAIM4	-	0.491630	0	3.88E-03	0.99	68
	100	0.380290	2	-3.86E-03	0.01	
	150	0.296840	4	-3.76E-03	0.02	
	200	0.237940	6	-3.64E-03	0.04	
	250	0.184550	8	-3.52E-03	0.05	
	280	0.141450	10	-3.43E-03	0.06	
	310	0.117640	12	-3.33E-03	0.08	
	340	0.083174	14	-3.26E-03	0.08	
	360	0.076279	16	-3.15E-03	0.10	
	380	0.069708	18	-3.01E-03	0.12	
	420	0.056922	20	-2.85E-03	0.14	
	470	0.043115	24	-2.58E-03	0.17	
	530	0.020956	28	-2.32E-03	0.20	
	585	0.002050	32	-2.09E-03	0.23	

36	-1.76E-03	0.28
40	-1.54E-03	0.30
48	-1.04E-03	0.37
56	-5.84E-04	0.43
64	-1.74E-04	0.48
72	1.75E-04	0.52
80	4.62E-04	0.56
90	8.21E-04	0.60
100	1.21E-03	0.65
120	1.74E-03	0.72
140	2.05E-03	0.76
160	2.47E-03	0.81
180	2.71E-03	0.85
200	2.87E-03	0.87
220	3.00E-03	0.88
270	3.31E-03	0.92
320	3.59E-03	0.96
370	3.67E-03	0.97
420	3.75E-03	0.98
470	3.82E-03	0.99
570	3.84E-03	0.99
670	3.93E-03	1.00
770	3.87E-03	0.99
900	3.92E-03	1.00

YAIM2	-	0.137530	0	-2.12E-03	0.02	70
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100	0.108870
150	0.090365
200	0.070387
250	0.057165
280	0.044777
310	0.037294
340	0.026349
360	0.022616
380	0.020003
420	0.017629
470	0.013014
530	0.007007
585	0.001209

2	-2.16E-03	0.01
4	-2.10E-03	0.03
6	-2.03E-03	0.04
8	-1.98E-03	0.05
10	-1.93E-03	0.06
12	-1.83E-03	0.09
14	-1.82E-03	0.09
16	-1.75E-03	0.11
18	-1.67E-03	0.12
20	-1.60E-03	0.14
24	-1.49E-03	0.16
28	-1.33E-03	0.20
32	-1.18E-03	0.23
36	-1.01E-03	0.27
40	-9.00E-04	0.30
48	-6.17E-04	0.36
56	-3.71E-04	0.42
64	-1.40E-04	0.47
72	5.96E-05	0.51
80	2.30E-04	0.55
90	4.19E-04	0.59
100	6.40E-04	0.64
120	9.10E-04	0.71
140	1.16E-03	0.76
160	1.30E-03	0.79
180	1.47E-03	0.83
200	1.58E-03	0.86
220	1.69E-03	0.88
270	1.84E-03	0.91
320	1.97E-03	0.94
370	2.03E-03	0.96
420	2.07E-03	0.97
470	2.09E-03	0.97
570	2.11E-03	0.98
670	2.23E-03	1.00
770	2.17E-03	0.99
900	2.22E-03	1.00

Table A-3.5 Colour values according to stratigraphic (strat) and pelagic-only (start hemi) heights

Sample	strat	strat hemi	Mean Colour
YM1A	2	2	173.836
YM1B	10	10	165.715
YM1C	18	18	163.961
YM1D	26	26	170.466
YL1A	34	34	175.596
YL1B	42	42	182.562
YL1C	50	50	177.476
YL1D	58	58	181.414
YM2A	66	66	170.704
YM2B	74	74	173.374
YM2C	82	82	170.126
YL2A	90	90	170.38
YL2B	98	98	173.046
YL2C	105	105	175.687
YL2D	112	112	178.47
YM3A	122	122	175.754
YM3B	130	130	175.466
YM3C	138	138	171.093
YL3A	146	146	173.812
YL3B	154	154	170.859
YL3C	162	162	172.537
YL3D	170	170	179.223
YL3E	178	178	176.912
YL3F	186	186	172.875
YM4A	194	194	160.02
YM4B	202	202	157.24
YM4C	210	210	167.987
YL4A	218	218	175.711
YL4B	226	226	180.623
YL4C	234	234	175.816
YL4D	242	242	176.622
YM5A	252	252	168.605
YM5B	260	260	158.332
YM5C	268	268	155.626
YL5A	276	276	163.517
YL5B	284	284	175.568
YL5C	292	292	173.443
YL5D	300	300	172.717
YL5E	308	308	179.551
YM6A	314	314	158.306
YM6B	322	322	153.064
YM6C	330	330	153.543
YM6D	338	338	154.401
YL6A	346	346	167.492
YL6B	354	354	173.872
YL6C	362	362	172.716
YL6D	370	370	168.829
YM7A	378	378	162.038
YM7B	386	386	166.943
YM7C	394	394	167.838
YL7A	402	402	175.831
YL7B	410	410	174.054
YL7C	418	418	172.197
YL7D	426	426	170.221
YL7E	434	434	179.745
YL7F	442	442	169.121
YM8A	451	451	167.793
YM8B	459	459	172.996
YM8C	467	467	170.7

YL8A	475	475	169.026
YL8B	483	483	175.78
YL8C	491	491	173.864
YL8D	499	499	178.597
YL8E	507	507	157.564
YM9A	515	515	161.121
YM9B	523	523	155.757
YM9C	531	531	157.908
YL9A	539	539	170.553
YL9B	547	547	171.886
YL9C	555	555	168.933
YM10A	563	563	155.427
YM10B	571	571	143.978
YM10C	579	579	140.699
YL10A	585	585	165.031
YL10B	591	591	172.866
YL10C	597	597	178.358
YM11A	601	601	168.648
YM11B	607	607	163.06
YM11C	613	613	158.579
YL11A	621	621	173.061
YL11B	629	629	172.488
YL11C	637	637	176.901
YM12A	643	643	165.436
YM12B	649	649	167.411
YM12C	655	655	168.727
YL12A	663	663	171.797
YL12B	671	671	173.515
YL12C	679	679	177.725
YL12D	687	687	177.419
YM13A	692	692	167.568
YM13B	695	695	168.149
YM13C	698	698	164.66
YL13A	706	706	167.504
YL13B	714	714	176.3
YL13C	722	722	172.547
YM14A	731	731	176.02
YM14B	737	737	170.271
YM14C	743	743	168.589
YL14A	751	751	177.292
YL14B	759	759	172.845
YL14C	767	767	168.075
YM15A	772	772	155.966
YM15B	778	778	159.942
YM15C	784	784	157.74
YL15A	792	792	175.602
YL15B	800	800	174.504
YL15C	808	808	171.848
YL15D	816	816	165.483
YL15E	824	824	172.247
YM16A	832	832	160.764
YM16B	838	838	159.2
YM16C	844	844	166.795
YL16A	852	852	179.015
YL16B	860	860	177.098
YL16C	868	868	181.848
YL16D	876	876	176.031
YL16E	884	884	170.091
YL16F	892	892	175.473
YM17A	905	905	162.89
YM17B	913	913	168.66
YM17C	921	921	169.923
YL17A	929	929	175.469

YL17B	937	937	181.493
YL17C	945	945	174.295
YM18A	953	953	174.07
YM18B	961	961	165.235
YM18C	969	969	158.981
YL18A	977	977	168.425
YL18B	985	985	167.062
YL18C	993	993	176.837
YL18D	1001	1001	179.544
YM19A	1009	1009	165.991
YM19B	1017	1017	160.818
YM19C	1024	1024	162.727
YL19A	1032	1032	175.398
YL19B	1040	1040	176.267
YL19C	1048	1048	174.638
YM20A	1056	1056	171.371
YM20B	1064	1064	164.402
YM20C	1072	1072	172.369
YL20A	1081	1081	174.325
YL20B	1090	1090	185.95
YL20C	1099	1099	184.787
YL20D	1108	1108	181.307
YM21A	1116	1116	171.267
YM21B	1124	1124	160.739
YM21C	1132	1132	164.001
YL21A	1140	1140	172.923
YL21B	1148	1148	182.446
YL21C	1156	1156	181.588
YL21D	1164	1164	183.054
YL21E	1172	1172	182.412
YL21F	1180	1180	182.55
YM22A	1188	1188	181.152
YM22B	1196	1196	182.657
YM22C	1204	1204	179.555
YM22D	1212	1212	173.121
YL22A	1221	1221	176.691
YL22B	1230	1230	174.36
YL22C	1239	1239	172.314
YM23A	1247	1247	169.789
YM23B	1255	1255	157.835
YM23C	1263	1263	159.961
YL23A	1271	1271	165.917
YL23B	1279	1279	179.651
YL23C	1287	1287	182.49
YL23D	1295	1295	184.617
YM24A	1303	1303	162.434
YM24B	1311	1311	165.566
YM24C	1319	1319	164.573
YM24D	1327	1327	156.988
YM24E	1335	1335	169.18
YL24A	1343	1343	168.474
YL24B	1351	1351	174.728
YL24C	1359	1359	169.69
YL24D	1367	1367	165.745
YL24E	1375	1375	173.727
YL24F	1383	1383	173.651
YL24G	1391	1391	171.52
YM25A	1401	1401	167.687
YM25B	1409	1409	169.787
YM25C	1417	1417	163.46
YM25D	1425	1425	157.937
YM25E	1433	1433	142.057
YM25F	1441	1441	160.113

YM25G	1449	1449	167.756
YL25A	1457	1457	170.183
YL25B	1465	1465	170.524
YL25C	1473	1473	180.213
YL25D	1481	1481	181.465
YM26A	1489	1489	177.584
YM26B	1497	1497	174.283
YM26C	1505	1505	169.959
YM26D	1513	1513	160.342
YM26E	1521	1521	157.675
YM26F	1529	1529	151.338
YM26G	1537	1537	156.289
YM26H	1545	1545	166.109
YL26A	1555	1555	176.33
YL26B	1563	1563	172.57
YL26C	1571	1571	181.009
YL26D	1579	1579	175.728
YM27A	1587	1587	169.666
YM27B	1595	1595	172.2
YM27C	1603	1603	165.307
YM27D	1611	1611	163.655
YM27E	1619	1619	167.429
YL27A	1630	1630	175.733
YL27B	1638	1638	188.13
YL27C	1646	1646	182.84
YL27D	1654	1654	180.123
YL27E	1662	1662	165.372
YL27F	1670	1670	173.599
YL27G	1678	1678	167.945
YL27H	1686	1686	171.239
YL27I	1694	1694	173.116
YM28A	1700	1700	170.228
YM28B	1706	1706	171.303
YM28C	1712	1712	172.104
YL28A	1718	1718	179.4
YL28B	1724	1724	178.602
YL28C	1730	1730	174.455
YM29A	1738	1738	163.182
YM29B	1746	1746	166.217
YM29C	1754	1754	171.439
YL29A	1762	1762	177.932
YL29B	1770	1770	179.096
YL29C	1778	1778	177.444
YL29D	1786	1786	166.732
YL29E	1794	1794	170.677
YL29F	1802	1802	174.09
YL29G	1810	1810	173.338
YM30A	1818	1818	174.461
YM30B	1826	1826	163.771
YM30C	1834	1834	158.429
YM30D	1842	1842	149.845
YM30E	1850	1850	155.194
YM30F	1858	1858	154.257
YL30A	1866	1866	161.669
YL30B	1874	1874	175.904
YL30C	1882	1882	175.649
YL30D	1890	1890	180.396
YL30E	1898	1898	180.56
YL30F	1906	1906	182.554
YL30G	1914	1914	177.349
YL30H	1922	1922	180.187
YM31A	1930	1930	176.478
YM31B	1938	1938	165.537

YM31C	1946	1946	162.073
YM31D	1954	1954	156.649
YM31E	1962	1962	157.632
YM31F	1970	1970	163.404
YL31A	1978	1978	165.066
YL31B	1986	1986	171.338
YL31C	1994	1994	179.316
YL31D	2002	2002	184.317
YL31E	2010	2010	171.114
YL31F	2018	2018	173.636
YM32A	2026	2026	155.523
YM32B	2034	2034	147.97
YM32C	2042	2042	153.869
YM32D	2050	2050	162.474
YM32E	2058	2058	166.654
YL32A	2066	2066	174.559
YL32B	2074	2074	173.103
YL32C	2082	2082	180.85
YL32D	2090	2090	176.981
YL32E	2098	2098	174.387
YL32F	2106	2106	172.935
YL32G	2114	2114	176.534
YL32H	2122	2122	188.636
YL32I	2130	2130	176.972
YL32J	2138	2138	181.051
YM33A	2146	2146	180.067
YM33B	2154	2154	175.185
YM33C	2162	2162	174.51
YL33A	2170	2170	178.342
YL33B	2178	2178	172.517
YL33C	2186	2186	172.909
YL33D	2194	2194	166.767
YL33E	2202	2202	165.172
YL33F	2210	2210	174.43
YL33G	2218	2218	180.514
YL33H	2226	2226	181.402
YLM33A	2234	2234	177.772
YLM33B	2242	2242	177.03
YLM33C	2250	2250	176.427
YLM33D	2258	2258	173.569
YLM33E	2266	2266	173.914
YM34A	2274	2274	162
YM34B	2282	2282	173.101
YL34A	2290	2290	174.509
YL34B	2298	2298	179.926
YL34C	2306	2306	170.163
YL34D	2314	2314	176.814
YL34E	2322	2322	181.237
YL34F	2330	2330	184.32
YL34G	2338	2338	175.927
YL34H	2346	2346	167.097
YL34I	2354	2354	163.732
YM35A	2362	2362	170.948
YM35B	2370	2370	165.442
YM35C	2378	2378	167.755
YL35A	2386	2386	169.979
YL35B	2394	2394	165.348
YL35C	2402	2402	166.841
YL35D	2410	2410	164.808
YL35E	2418	2418	164.35
YL35F	2426	2426	177.359
YL35G	2434	2434	172.961
YL35H	2442	2442	172.359

YL35I	2450	2450	175.106
YL35J	2458	2458	176.039
YL35K	2466	2466	166.596
YL35L	2474	2474	170.121
YM36A	2482	2482	158.822
YM36B	2490	2490	173.676
YL36A	2498	2498	174.473
YL36B	2506	2506	182.831
YL36C	2514	2514	178.462
YL36D	2522	2522	179.906
YL36E	2530	2530	183.09
YL36F	2538	2538	179.26
YL36G	2546	2546	177.059
YM37A	2554	2554	172.377
YM37B	2562	2562	170.844
YM37C	2570	2570	167.842
YM37D	2578	2578	170.203
YM37E	2586	2586	174.786
YM37F	2594	2594	171.488
YL37A	2602	2602	181.904
YL37B	2610	2610	178.89
YL37C	2618	2618	184.355
YL37D	2626	2626	179.429
YL37E	2634	2634	179.375
YL37F	2642	2642	171.41
YM38A	2650	2650	168.423
YM38B	2658	2658	160.222
YM38C	2666	2666	161.034
YL38A	2674	2674	182.52
YL38B	2682	2682	185.212
YL38C	2690	2690	172.409
YL38D	2698	2698	185.528
YL38E	2706	2706	178.61
YL38F	2714	2714	165.24
YM39A	2722	2722	171.545
YM39B	2730	2730	162.381
YM39C	2738	2738	152.774
YL39A	2746	2746	165.506
YL39B	2754	2754	176.054
YL39C	2762	2762	181.061
YL39D	2770	2770	182.337
YL39E	2778	2778	186.364
YL39F	2786	2786	177.903
YL39G	2794	2794	172.195
YM40A	2800	2800	162.18
YM40B	2808	2808	159.257
YL40A	2816	2816	172.453
YL40B	2824	2824	175.318
YL40C	2832	2832	175.841
YL40D	2840	2840	176.64
YL40E	2848	2848	177.191
YL40F	2856	2856	182.235
YL40G	2864	2864	174.076
YM41A	2872	2872	173.171
YM41B	2880	2880	155.23
YM41C	2888	2888	169.497
YL41A	2896	2896	173.418
YL41B	2904	2904	175.383
YL41C	2912	2912	179.85
YL41D	2920	2920	175.309
YL41E	2928	2928	185.264
YM42A	2936	2936	176.63
YM42B	2944	2944	179.24

YM42C	2952	2952	180.524
YL42A	2960	2960	177.525
YL42B	2968	2968	173.027
YL42C	2976	2976	166.699
YL42D	2984	2984	174.469
YL42E	2992	2992	171.26
YL42F	3000	3000	175.775
YL42G	3008	3008	181.944
YL42H	3016	3016	182.155
YM43A	3024	3024	178.079
YM43B	3032	3032	176.026
YM43C	3040	3040	174.314
YL43A	3048	3048	172.796
YL43B	3056	3056	179.398
YL43C	3064	3064	185.648
YL43D	3072	3072	176.44
YL43E	3080	3080	180.003
YL43F	3088	3088	185.084
YL43G	3096	3096	175.825
YL43H	3104	3104	171.827
<i>YL43Hp</i>	3104	3104	172.49
YM44A	3112	3109	157.811
YM44B	3120	3117	135.112
YM44C	3128	3125	134.188
YM44D	3136	3133	139.889
YM44E	3144	3141	138.896
YL44A	3152	3149	172.69
YL44B	3160	3157	175.467
YL44C	3168	3165	184.627
YL44D	3176	3173	170.886
YM45A	3184	3181	170.432
YM45B	3192	3189	160.533
YM45C	3200	3197	137.014
YM45D	3208	3205	132.79
YM45E	3216	3213	136.796
YM45F	3224	3221	138.912
YL45A	3232	3229	160.659
YL45B	3240	3237	179.241
YL45C	3248	3245	181.295
YL45D	3256	3253	182.691
YL45E	3264	3261	179.025
YL45F	3272	3269	174.201
YL45G	3280	3277	170.463
YM46A	3288	3285	163.124
YM46B	3296	3293	168.92
YM46C	3304	3301	155.284
YM46D	3312	3309	151.268
YM46E	3320	3317	148.664
YM46F	3328	3325	151.56
YL46Ap*	3336	3333	165.665
YL46Aarrasa	3336	3333	168.666
YL46B	3344	3341	169.519
YL46C	3352	3349	178.72
YL46D	3360	3357	178.849
YL46E	3368	3365	175.755
YL46F	3376	3373	176.232
YM47A	3384	3381	171.417
YM47B	3392	3389	163.638
YM47C	3400	3397	162.296
YM47D	3408	3405	167.931
YL47A	3416	3413	178.896
YL47B	3424	3421	180.193
YL47C	3432	3429	188.737

YL47D	3440	3437	175.013
YL47E	3448	3445	180.506
YL47F	3456	3453	177.01
YL47G	3464	3461	180.637
YL47H	3472	3469	179.553
YL47I	3480	3477	178.017
YL47J	3488	3485	177.516
YL47K	3496	3493	177.627
YL47L	3504	3501	174.26
YM48A	3512	3509	167.15
YM48B	3520	3517	169.458
YM48C	3528	3525	169.208
YM48D	3536	3533	168.119
YM48E	3544	3541	171.055
YM48F	3552	3549	177.592
YL48A	3560	3557	185.84
YL48B	3568	3565	180.55
YL48C	3576	3573	182.504
YL48D	3584	3581	178.476
YL48E	3592	3589	186.06
YL48F	3600	3597	179.386
YL48Fpareta	3600	3597	188.636
YM49A	3608	3605	167.651
YM49B	3616	3613	169.318
YM49C	3624	3621	162.676
YM49D	3632	3629	150.575
YM49E	3640	3637	153.286
YM49F	3648	3645	155.441
YM49G	3656	3653	161.355
YL49A	3664	3661	169.56
YL49B	3672	3669	176.853
YL49C	3680	3677	175.067
YL49D	3688	3685	177.078
YL49E	3696	3693	169.208
YL49F	3704	3701	169.231
YM50A	3712	3709	169.542
YM50B	3720	3717	154.954
YM50C	3728	3725	155.182
YM50D	3738	3735	135.208
YM50E	3746	3743	135.766
YM50F	3754	3751	147.036
YL50A	3762	3759	159.412
YL50B	3770	3767	173.234
YL50C	3778	3775	174.387
YL50D	3786	3783	177.743
YL50E	3794	3791	180.21
YL50F	3802	3799	179.212
YL50G	3810	3807	168.016
YM51A	3818	3815	143.341
YM51B	3826	3823	153.717
YM51C	3834	3831	161.534
YM51D	3842	3839	160.148
YM51E	3850	3847	162.104
YL51A	3858	3855	162.585
YL51B	3866	3863	174.949
YL51C	3874	3871	177.666
YL51D	3882	3879	175.86
YL51E	3890	3887	170.816
YL51F	3898	3895	166.755
YM52A	3906	3903	167.927
YM52B	3914	3911	171.273
YM52C	3922	3919	176.399
YM52E	3938	3935	172.082

YL51C	3874
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YM52F	3946	3943	167.354
YL52A	3954	3951	170.643
YL52B	3962	3959	170.702
YL52C	3970	3967	179.476
YL52D	3978	3975	178.921
YL52E	3986	3983	180.652
YL52H	4010	4007	179.195
YL52I	4018	4015	174.777
YL52J	4026	4023	172.803
YL52K	4034	4031	167.992
YM53A	4042	4039	173.564
YM53B	4050	4047	169.122
YM53C	4058	4055	169.398
YM53D	4066	4063	162.078
YM53E	4074	4071	169.868
YL53A	4090	4087	176.46
YL53B	4098	4095	180.702
YL53C	4106	4103	181.317
YL53D	4114	4111	187.651
YM54A	4122	4119	179.408
YM54B	4130	4127	177.908
YM54C	4138	4135	173.415
YM54D	4146	4143	176.858
YM54E	4154	4151	167.137
YM54F	4162	4159	167.654
YM54G	4170	4167	172.737
YM54H	4178	4175	177.776
YL54A	4186	4183	181.532
YL54B	4194	4191	182.184
YL54C	4202	4199	181.532
YL54D	4210	4207	180.415
YM55A	4218	4215	178.327
YM55B	4226	4223	174.436
YM55C	4234	4231	173.72
YM55D	4242	4239	168.072
YM55E	4250	4247	164.798
YM55F	4258	4255	172.133
YL55A	4266	4263	181.616
YL55B	4274	4271	181.874
YL55C	4282	4279	174.042
YL55D	4290	4287	184.504
YL55E	4298	4295	181.937
YL55F	4306	4303	180.509
YM56A	4314	4311	167.954
YM56B	4322	4319	168.731
YM56C	4330	4327	165.099
YM56D	4338	4335	168.89
YM56E	4346	4343	172.013
YL56A	4354	4351	174.157
YL56B	4362	4359	174.43
YL56C	4370	4367	177.306
YL56D	4378	4375	181.257
YM57A	4386	4383	177.068
YM57B	4394	4391	177.579
YM57C	4402	4399	169.621
YM57D	4410	4407	166.979
YL57A	4418	4415	176.767
YL57B	4426	4423	178.301
YL57C	4434	4431	182.861
YL57D	4442	4439	179.424
YL57E	4450	4447	176.07
YL57F	4458	4455	176.869
YM58A	4466	4463	173.302

YM58C	4482	4479	173.97
YM58D	4490	4487	170.879
YM58E	4498	4495	172.106
YL58A	4506	4503	171.442
YL58B	4514	4511	172.859
YL58C	4522	4519	173.463
YL58D	4530	4527	172.809
YL58F	4546	4543	172.137
YL58G	4554	4551	170.39
YL58H	4562	4559	176.727
YL58I	4570	4567	175.228
YL58J	4578	4575	173.799
YM59A	4586	4583	173.179
YM59B	4594	4591	169.48
YM59C	4602	4599	165.856
YM59D	4610	4607	169.8
YM59E	4618	4615	168.511
YM59F	4626	4623	165.874
YM59G	4634	4631	164.377
YM59H	4642	4639	170.438
YM59I	4650	4647	172.429
YL59A	4658	4655	172.369
YL59B	4666	4663	180.754
YL59C	4674	4671	181.127
YL59D	4682	4679	170.99
YL59E	4690	4687	170.305
YM60A	4698	4695	178.746
YM60B	4706	4703	179.617
YM60C	4714	4711	180.998
YM60D	4722	4719	179.503
YM60E	4730	4727	180.895
YL60A	4738	4735	186.374
YL60B	4746	4743	186.233
YL60C	4754	4751	172.92
YL60D	4762	4759	178.574
YL60E	4770	4767	176.309
YL60F	4818	4815	173.31
YL60G	4826	4823	183.553
YL60H	4834	4831	182.033
YM61A	4842	4839	171.001
YM61B	4850	4817	171.538
YM61C	4858	4825	167.097
YL61A	4866	4833	174.378
YL61B	4874	4841	175.591
YL61C	4882	4849	180.715
YM62A	4890	4857	169.126
YM62B	4898	4865	167.437
YM62C	4906	4873	166.235
YM62D	4914	4881	167.259
YM62E	4922	4889	171.353
YL62A	4930	4897	176.603
YL62B	4938	4905	176.775
YL62C	4951	4918	174.883
YL62D	4959	4926	173.744
YL62E	4967	4934	179.533
YL62F	4975	4942	176.115
YL62G	4983	4950	175.387
YM63A	4991	4958	154.554
YM63B	4999	4966	155.051
YM63C	5007	4974	136.362
YM63D	5015	4982	167.977
YM63E	5023	4990	170.846
YL63A	5031	4998	175.067

YL63B	5039	5006	178.399
YL63C	5047	5014	183.143
YL63D	5055	5022	175.707
YL63E	5063	5030	180.576
YL63F	5071	5038	174.42
YL63G	5079	5046	157.537
YL63H	5087	5054	179.814
YM64A	5121	5064	154.594
YM64B	5129	5072	157.854
YM64C	5156	5099	169.995
YL64A	5164	5087	185.808
YL64B	5172	5095	180.086
YL64C	5180	5103	179.018
YL64D	5188	5111	177.209
YM65A	5196	5119	154.789
YM65B	5206	5127	139.397
YM65C	5214	5135	152.751
YM65D	5222	5143	149.406
YM65E	5230	5149	159.344
YL65A	5238	5157	178.624
YL65B	5246	5165	178.573
YL65C	5258	5177	178.877
YL65D	5266	5185	184.338
YL65E	5277	5196	159.957
YM66A	5287	5204	151.508
YM66B	5295	5210	149.877
YM66C	5303	5218	132.613
YM66D	5311	5226	129.977
YM66E	5321	5236	125.793
YM66F	5329	5242	136.132
YM66G	5337	5250	171.712
YL66A	5376	5259	179.492
YL66B	5384	5267	172.318
YL66C	5392	5275	170.138
YM67A	5400	5283	148.525
YM67B	5408	5291	148.225
YM67C	5416	5299	156.465
YM67D	5424	5307	161.134
YL67A	5432	5315	178.262
YL67B	5440	5323	175.684
YL67C	5448	5331	175.109
YL67D	5459	5338	172.399
YL67E	5473	5346	172.803
YL67F	5481	5354	159.052
YM68A	5497	5362	153.83
YM68B	5505	5370	150.518
YM68C	5515	5378	148.851
YM68D	5523	5386	160.868
YM68E	5531	5394	165.154
YL68A	5539	5402	177.999
YL68B	5547	5410	173.976
YL68C	5555	5418	177.156
YL68D	5563	5426	169.266
YL68E	5571	5434	167.435
YM69A	5579	5442	179.166
YM69B	5587	5450	155.685
YM69C	5595	5458	161.244
YM69D	5603	5466	163.519
YM69E	5611	5474	157.06
YL69A	5623	5486	179.82
YL69B	5631	5494	176.158
YL69C	5639	5495	177.153
YL69D	5647	5503	185.25

YL69E	5655	5511	178.333
YL69F	5663	5519	163.168
YM70A	5674	5530	156.306
YM70B	5682	5535	145.956
YM70C	5690	5543	148.838
YM70D	5700	5553	158.723
YM70E	5708	5561	163.059
YM70F	5716	5569	152.214
YM70G	5724	5575	151.929
YL70A	5742	5593	178.941
YL70B	5750	5601	171.155
YL70C	5758	5609	166.715
YL70D	5770	5621	159.891
YL70E	5778	5629	175.474
YL70F	5786	5623	166.717
YL70G	5794	5631	176.879
YL70H	5802	5639	182.485
YL70I	5812	5649	169.205
YL70J	5820	5657	171.656
YM71A	5837	5674	171.357
YM71B	5848	5685	170.349
YM71C	5856	5693	166.332
YM71D	5864	5684	173.678
YM71E	5872	5692	160.863
YM71F	5880	5700	164.731
YL71A	5912	5732	181.612
YL71B	5928	5723	183.838
YL71C	5936	5731	184.062
YL71D	5945	5732	175.017
YL71E	5953	5740	175.585
YL71F	5961	5748	155.018
YM72A	5971	5758	148.934
YM72B	5979	5766	159.371
YM72C	5987	5774	161.329
YL72A	6001	5786	169.814
YL72B	6009	5794	179.375
YL72C	6017	5802	175.36
YL72D	6025	5804	169.818
YL72E	6033	5812	171.565
YM73A	6041	5820	143.152
YM73B	6056	5835	137.234
YL73A	6073	5852	141.105
YL73B	6081	5860	178.505
YL73C	6089	5868	173.751
YM74A	6097	5876	147.468
YM74B	6105	5884	143.458

177.666

5866	5686	2.147364771	2.66057	-0.513205	5869	180
5878	5698	2.642958748	2.66079	-0.0178263	5881	180
5888	5708	2.774021909	2.66112	0.112897	5891	180
5928	5723	2.082787168	2.66191	-0.579128	5931	205
5948	5735	2.284202846	2.6628	-0.378593	5951	213
5970	5757	2.550013628	2.665	-0.114991	5973	213
5996	5781	2.713588049	2.66833	0.045262	5999	215
6002	5787	2.546331381	2.66931	-0.122979	6005	215
6021	5800	2.525742202	2.67166	-0.145917	6024	221
6032	5811	2.601519337	2.67388	-0.072363	6035	221
6042	5821	2.426178933	2.6761	-0.249917	6045	221

Table A-3.6 $\delta^{13}\text{C}$ values (raw and detrended) according to stratigraphic and pelagic-only heights

	strat hemi	strat real	$\delta^{13}\text{C}$ (‰)	$\delta^{13}\text{C}$ (detrended)
OYCL	6106	6435	0.544	0.315642
OYBM	6141	6470	0.219	-0.0501111
OYBL	6191	6520	0.53	0.204686
OYAM/YAM	6221	6550	0.093	-0.264884
YAL	6271	6620	0.118	-0.312478
YBL	6316	6675	-0.103	-0.587138
YCM	6349	6723	0.363	-0.165519
YCL	6399	6773	0.504	-0.0683114
YDM	6411	6785	0.912	0.329549
YDL	6439	6813	0.751	0.14545
YEL	6509	6883	0.917	0.257122
YFM	6539	6913	0.543	-0.13867
YFL	6559	6933	0.98	0.284298
YGM	6604	6978	0.455	-0.270829
YGL	6619	6993	1.114	0.378571
YHM	6676	7050	0.866	0.0960966
YHL	6699	7073	0.88	0.0970792
YIM	6719	7093	0.787	-0.00682598
YIL	6749	7123	1.17	0.360534
YJM	6779	7153	0.827	0.00275035
YJL	6799	7173	0.742	-0.0916342
YLM	6814	7188	0.463	-0.377427
YLL	6824	7203	0.996	0.14899
YMM	6854	7233	0.945	0.085448
YML	6884	7263	0.843	-0.0282696
YNM	6947	7326	0.734	-0.159237
YNL	7001	7380	1.124	0.21472
YOM	7031	7410	1.026	0.108891
YOM	7081	7460	0.676	-0.252473
YOL	7099	7493	1.095	0.160153
YPM	7144	7538	0.842	-0.100131
YPL	7196	7590	1.016	0.0674182
YQM	7226	7620	1.034	0.0826273
YQL	7276	7670	0.771	-0.18356
YRM	7306	7700	0.978	0.0223808
YRL	7356	7750	1.155	0.198986
YSM	7376	7770	0.799	-0.156706
YSL	7421	7815	0.87	-0.0840764
YTM	7441	7835	0.753	-0.199947
YTL	7496	7890	0.935	-0.0136087
YUM	7515	7909	0.734	-0.212705
YUL	7565	7959	0.756	-0.184746
YVM	7615	8009	0.654	-0.279482
YVL	7636	8030	0.924	-0.00606211
YWM	7681	8075	0.901	-0.0210396
YWL	7688	8082	0.974	0.0532903
YXM	7709	8103	0.621	-0.295592
YXL	7736	8130	1.118	0.206973
YYM	7766	8160	0.915	0.0105013
YYL	7786	8180	0.777	-0.122955
YZM	7816	8210	0.818	-0.0748671
YZL	7836	8230	1.16	0.272032
YZL	7876	8270	0.959	0.0812199
YAAM	7906	8300	0.731	-0.138821
YAAL	7946	8340	1.249	0.390179
YAAL	7981	8375	0.896	0.047132
YABM	8031	8425	0.795	-0.0391817
YABL	8061	8455	1.132	0.30686
YACM	8081	8475	0.674	-0.145029

YACL	8111	8505	1.043	0.233249
YADM	8121	8515	0.513	-0.293632
YADL	8154	8548	0.719	-0.0772571
YAEM	8184	8578	0.802	0.0152663
YAEL	8216	8610	0.886	0.109498
YAFM	8236	8630	0.827	0.0569213
YAFM	8256	8650	0.948	0.184359
YAFL	8286	8680	1.017	0.263031
YAFL	8316	8710	1.095	0.350704
YAGM	8331	8725	0.887	0.147535
YAGM	8341	8735	0.64	-0.0962477
YAGM	8351	8745	0.8	0.0669655
YAGL	8366	8760	0.943	0.214777
YAGL	8386	8780	1.046	0.324172
YAHM	8396	8790	0.752	0.0333593
YAHM	8406	8800	0.625	-0.0904608
YAKM	8426	8820	0.639	-0.0701265
YAHL	8454	8848	0.912	0.211675
YAIM	8464	8858	0.551	-0.146203
YAIM	8474	8868	0.703	0.00890746
YAIM	8484	8878	-0.078	-0.768995
YAIM	8494	8888	-0.139	-0.826912
YAIM	8504	8898	-0.082	-0.766843
YAIM	8514	8908	0.172	-0.509788
YAIL	8524	8918	0.701	0.0222503
YAIL	8546	8940	0.609	-0.0631226
YAKM	8551	8945	0.684	0.0133719
YAKM	8556	8950	0.505	-0.164138
YAKM	8566	8960	0.346	-0.320172
YAKM	8576	8970	0.565	-0.0982249
YAKL	8591	8985	0.624	-0.0348412
YAKL	8606	9000	0.917	0.262496
YAKL	8626	9020	0.827	0.178204
YALM	8636	9030	0.746	0.100024
YALM	8646	9040	0.903	0.25982
YALM	8656	9050	0.885	0.244593
YALL	8666	9060	0.776	0.138341
YALL	8681	9075	0.693	0.0594152
YALL	8696	9090	0.918	0.288431
YALL	8716	9110	0.904	0.27969
YAMM	8731	9125	0.719	0.0985604
YAMM	8746	9140	0.495	-0.121635
YAMM	8756	9150	0.639	0.0248648
YAML	8776	9170	0.869	0.259771
YAML	8801	9195	0.91	0.306726
YANM	8821	9215	0.635	0.0363412
YANM	8831	9225	0.614	0.0175978
YANL	8849	9243	0.832	0.239572
YANL	8859	9253	0.764	0.17373
YANL	8869	9263	0.84	0.251852
YAOM	8881	9275	0.579	-0.0066497
YAOM	8891	9285	0.497	-0.0866091
YAOM	8898	9292	0.415	-0.167203
YAOL?	8921	9315	0.599	0.0212839
YAPM	8941	9335	0.35	-0.223983
YAPM/YAPI	8951	9345	0.777	0.204823
YAPL	8961	9355	0.702	0.131589
YAPL?YAQM?	8971	9365	0.8	0.231313
YAQM	8996	9390	0.591	0.0264403
YAQM	9016	9410	0.57	0.00854979
YAQL	9051	9445	0.921	0.364568
YAQL	9061	9455	0.669	0.113901
YAQL	9071	9465	0.784	0.230189

YARM	9086	9480	0.115	-0.436967
YARM	9106	9500	0.364	-0.185671
YARL	9146	9540	0.666	0.120349
YARL	9171	9565	0.276	-0.267534
YARL	9176	9570	0.28	-0.263148
YASL	9236	9630	0.685	0.145502
YATM	9256	9650	0.259	-0.279693
YATL	9286	9680	0.713	0.175121
YAUM	9326	9720	0.335	-0.202539
YAUM	9356	9750	0.621	0.0831478
YAUJ	9396	9790	0.256	-0.283038
YAVM	9421	9815	-0.061	-0.601229
YAVL	9456	9850	0.464	-0.0784857
YAWM	9496	9890	0.101	-0.444911
YAWL	9541	9935	0.729	0.178147
YAWL	9566	9960	0.695	0.140902
YAXM	9596	9990	0.397	-0.161465
YAXL	9631	10025	0.671	0.106788
YAYM	9658	10052	0.289	-0.280124
YAZM	9736	10130	0.401	-0.184649
YAZL	9766	10160	0.778	0.185079
YBAM	9806	10200	0.428	-0.175399
YBAL	9826	10220	0.73	0.12103
YBAL	9851	10245	0.73	0.113759
YBBL	9901	10295	0.883	0.251206
YBDM	9986	10380	0.709	0.0477636
YBD L	10016	10410	0.853	0.180503
YBEM	10056	10450	0.834	0.145813
YBEL	10091	10485	0.952	0.249471
YBFM	10121	10515	0.769	0.0537408
YBFL	10161	10555	0.862	0.129165
YBGM	10196	10590	0.721	-0.0277502
YBGL	10226	10620	0.845	0.0822307
YBGL	10236	10630	0.863	0.0954836
YBGL	10246	10640	0.7	-0.0722994
YBHM	10266	10660	0.745	-0.03697
YBHL	10306	10700	0.897	0.0952907
YBIM	10366	10760	0.521	-0.311219
YBIL	10416	10810	0.678	-0.180353

Table A-3.7 Previous (Payros et al. 2015) and new paleomagnetic data from the Lutetian (middle Eocene) interval containing the C20r/C20n chron boundary along the Oyambre section (Cantabria, Spain) (ntc: no tectonic correction; tc: tectonic correction; VGP: virtual geomagnetic pole).

Sample	Position_m	DEC_ntc	INC_ntc	DEC_tc	INC_tc	Class	VGP_lat	Study
OY18-1A	0.5	152.0	16.6	176.0	9.1	A	-41.9	Payros et al. (2015)
OY17-1A	4.5	208.7	-4.2	251.2	-41.5	A	-29.5	Payros et al. (2015)
OY16-1A	12.5	144.2	62.9	152.4	-21.0	A	-49.6	Payros et al. (2015)
OY15-1A	20.5	208.2	41.6	198.3	-26.0	A	-56.4	Payros et al. (2015)
YB40-1B	25	112.9	54.6	135.7	-20.9	A	-39.8	Payros et al. (2015)
YB40-1A	25	216.9	71.7	179.6	-11.2	B	-52.3	Payros et al. (2015)
YB39-1A	27	162.9	59.2	163.8	-30.8	A	-59.9	Payros et al. (2015)
OY14-1A	27			270.0	0	C	0	Payros et al. (2015)
YB38-1B	28	93.5	47.7	124.2	-12.3	A	-28.7	Payros et al. (2015)
YB38-1A	28	155.6	25.6	146.2	-62.9	B	-65.8	Payros et al. (2015)
YB37-1B	28.5	216.9	59.4	189.9	-18.3	A	-54.9	Payros et al. (2015)
YB36-1B	29	173.4	49.3	172.2	-40.0	A	-68.4	Payros et al. (2015)
YB36-1C	29	190.5	17.2	219.2	-59.6	A	-61	Payros et al. (2015)
YB35-1A	30	161.9	52.4	162.6	-37.5	A	-63.3	Payros et al. (2015)
YB34-1B	31	179.3	43.6	179.5	-44.6	A	-72.8	Payros et al. (2015)
YB33-1A	31.5	206.0	41.4	201.6	-34.5	A	-59.6	Payros et al. (2015)
YB33-1B	31.5	116.2	40.9	124.0	-29.8	A	-35.4	Payros et al. (2015)
YB32-1A	32.5	177.2	61.8	171.5	-27.5	A	-60.3	Payros et al. (2015)
YB31-1B	34	151.2	45.7	151.9	-42.7	A	-60.4	Payros et al. (2015)
J130-2A	35.3	192.0	30.2	194.1	-35.3	A	-63.3	This study
J130-2B	35.3	236.7	-6.9	253.4	-14.6	B	-17.1	This study
J130-1A	35.3			270.0	0	C	0	This study
OY13-1A	35.5	4.5	-22.4	380.3	53.6	B	71.7	Payros et al. (2015)
J136-1A	36.2	213.7	67.2	178.2	-1.0	A	-47.1	This study
J136-2A	36.2	116.1	71.6	147.4	1.5	A	-37.1	This study
J136-1B	36.2	239.1	-23.4	270.0	-15.7	B	-5.5	This study
J136-2B	36.2			270.0	0	C	0	This study
YB30-1A	36.5	167.6	38.2	168.2	-51.7	A	-75.6	Payros et al. (2015)
J142-1A	37.2	192.7	17.1	206.4	-44.5	A	-62.5	This study
J142-2A	37.2	206.5	30.3	204.4	-26.3	A	-53.8	This study
YB29-1B	37.5	223.2	53.3	197.3	-18.3	A	-52.8	Payros et al. (2015)
YB29-1A	37.5	235.1	48.2	205.0	-13.1	B	-47.2	Payros et al. (2015)
J148-1A	38.2	187.6	28.5	191.5	-39.0	A	-66.6	This study
J148-1B	38.2	329.4	-53.4	333.2	20.9	B	50	This study
51L-1B	38.9	56.4	-4.7	421.7	11.9	A	24.5	This study
51L-1A	38.9			270.0	0.0	C	0	This study
N50-1A	39.2	18.0	-26.5	381.9	34.4	A	59.4	This study
N50-1B	39.2	8.2	-0.4	403.6	58.2	A	57.2	This study
N50-2A	39.2	244.1	30.0	219.6	2.5	B	-33	This study
N50-2B	39.2			270.0	0	C	0	This study
52M1-1A	39.3	352.3	-42.8	350.5	31.1	A	62.2	This study
52M-1B	39.3			270.0	0.0	C	0	This study
52L-1A	40	303.1	32.1	216.4	52.4	B	-6.7	This study
YB28-1A	40.5			270.0	0	C	0	Payros et al. (2015)
53M-1B	40.7	348.2	-51.1	345.6	23.6	A	56.5	This study
53M-1A	40.7			270.0	0.0	C	0	This study
53L-1A	41	356.7	-50.9	351.3	22.5	A	57.4	This study
53L-1B	41	32.9	-4.4	413.8	34.1	B	38.8	This study
54M-1A	41.4	356.0	64.9	151.4	38.9	B	-19.5	This study
54M-1B	41.4			270.0	0.0	C	0	This study
YB27-1A	41.5	352.3	-60.3	349.2	29.4	B	60.8	Payros et al. (2015)
YB27-1B	41.5	47.7	-40.8	390.8	20.4	B	47.7	Payros et al. (2015)
54L-1A	42	340.1	-40.3	340.1	34.7	A	60.5	This study
54L-1B	42	6.1	-21.7	375.5	45.2	A	69.1	This study
55M-1A	42.3			270.0	0.0	C	0	This study
55M-1B	42.3			270.0	0.0	C	0	This study
OY12-1A	42.5	333.6	-78.2	342.6	16.6	B	51.9	Payros et al. (2015)
55L-1A	42.9			270.0	0.0	C	0	This study
56M-1A	43.3	340.5	-61.1	340.2	13.9	A	49.7	This study

YB26-1C	43.5	38.7	-42.0	386.8	26.1	A	52.5	Payros et al. (2015)
56L-1A	43.8	6.8	-51.0	357.6	19.9	B	56.8	This study
YB25-1A	45	64.4	-25.8	408.8	9.5	B	32.3	Payros et al. (2015)
YB25-1B	45	351.2	-31.3	355.0	58.2	B	84.1	Payros et al. (2015)
YB24-1B	46			270.0	0	C	0	Payros et al. (2015)
YB23-1B	47.2			270.0	0	C	0	Payros et al. (2015)
YB22-1B	49	21.5	-25.7	396.0	46.4	A	57.1	Payros et al. (2015)
YB21-1B	50	6.7	-39.1	369.5	46.2	B	72.4	Payros et al. (2015)
OY11-1A	50	215.1	30.3	220.5	-36.6	B	-49.2	Payros et al. (2015)
YB20-1B	51	272.1	-65.3	321.3	7.0	B	37.5	Payros et al. (2015)
YB19-1B	52	253.3	-59.8	314.8	-0.9	B	30.4	Payros et al. (2015)
YB18-1C	53	10.1	-62.0	357.7	25.1	B	59.7	Payros et al. (2015)
YB18-1B	53			270.0	0	C	0	Payros et al. (2015)
YB17-1B	55	39.0	-63.2	367.2	15.4	A	53.9	Payros et al. (2015)
YB17-1C	55	145.7	-31.2	348.8	5.9	A	48.4	Payros et al. (2015)
YB16-1A	56	319.5	-54.8	328.1	31.3	B	52.2	Payros et al. (2015)
YB16-1B	56	22.9	-18.1	407.0	48.6	B	50.4	Payros et al. (2015)
YB15-1A	57	339.4	-25.3	333.3	64.1	A	70.9	Payros et al. (2015)
YB15-1B	57	23.1	-39.1	382.2	37.6	A	61	Payros et al. (2015)
OY10-1A	58.5	4.1	-82.8	347.4	11.8	A	51	Payros et al. (2015)
YB14-1A	59	37.8	-46.4	382.2	24.6	B	54	Payros et al. (2015)
YB14-1B	59	27.2	-34.8	388.9	37.5	B	57.1	Payros et al. (2015)
YB13-1A	60	19.9	-52.7	368.5	29.8	A	61.6	Payros et al. (2015)
YB12-1C	63.8	295.6	-57.1	318.8	20.7	A	41.7	Payros et al. (2015)
YB12-1B	63.8			270.0	0	C	0	Payros et al. (2015)
YB11-1B	65	329.2	-48.4	331.4	39.7	A	58.5	Payros et al. (2015)
YB11-2C	65	356.7	-45.8	356.2	43.0	A	71.3	Payros et al. (2015)
YB11-2D	65	55.9	4.1	439.3	19.1	B	14.5	Payros et al. (2015)
YB11-3B	65			270.0	0	C	0	Payros et al. (2015)
YB10-1A	66.1	229.3	45.1	206.9	-17.8	A	-48.5	Payros et al. (2015)
OY9-1A	67.2			270.0	0	C	0	Payros et al. (2015)
YB9-1A	69.1	242.5	29.0	225.4	-10.9	A	-35	Payros et al. (2015)
YB8-1A	70.4	71.6	-17.3	417.7	3.3	B	24.1	Payros et al. (2015)
YB8-1B	70.4	25.1	-37.0	385.5	37.6	B	59.2	Payros et al. (2015)
YB7-1B	72.3	3.6	-57.9	356.4	30.3	A	62.7	Payros et al. (2015)
YB7-1C	72.3	43.4	-43.5	386.9	22.3	A	50.6	Payros et al. (2015)
YB6-1A	74.4	17	7.0	448.0	57.3	B	26.2	Payros et al. (2015)
YB6-1B	74.4	281.1	-31.8	289.6	21.9	B	22	Payros et al. (2015)
OY8-1A	75.3			270.0	0	C	0	Payros et al. (2015)
YB5-1B	76.3	41.9	-46.8	383.2	22.0	B	52.2	Payros et al. (2015)
YB4-1B	78.4	14.9	-16.2	404.7	56.4	B	55.7	Payros et al. (2015)
YB4-2A	78.4	185.7	29.0	197.5	-55.0	B	-74.4	Payros et al. (2015)
YB3-1A	80	316.4	-64.0	331.8	22.6	B	50.1	Payros et al. (2015)
OY7-1A	85.7	145.8	38.3	139.9	-52.4	A	-57.2	Payros et al. (2015)
YB2-1A	85.7	219.7	3.0	251.3	-35.2	B	-26.6	Payros et al. (2015)
YB2-1C	85.7	217.5	53.4	195.5	-21.3	B	-55	Payros et al. (2015)
YB2-2A	85.7	192.3	19.1	218.0	-57.1	B	-60.8	Payros et al. (2015)
YB2-2B	85.7	26.5	-54.9	140.0	-25.5	B	-44.5	Payros et al. (2015)
YM15-1B	87.7	172.2	46.5	171.8	-43.1	A	-70.5	Payros et al. (2015)
YB1-1A	87.7	170.0	39.3	171.1	-50.5	A	-75.9	Payros et al. (2015)
YB1-1B	87.7	244.9	66.0	188.7	-4.1	A	-47.9	Payros et al. (2015)
YM15-1A	87.7	196.6	49.1	189.4	-33.9	B	-63.9	Payros et al. (2015)
YM14-1B	89.7	117.6	-60.5	367.6	-19.5	B	36.1	Payros et al. (2015)
YM13-1A	90.5			270.0	0	C	0	Payros et al. (2015)
YM13-1C	90.5			270.0	0	C	0	Payros et al. (2015)
YM12-1B	91	153.4	54.7	156.9	-34.4	A	-58.7	Payros et al. (2015)
OY6-1A	91.5			270.0	0	C	0	Payros et al. (2015)
YM11-1B	93	47.7	-21.3	411.3	25.3	B	36.9	Payros et al. (2015)
YM11-1A	93			270.0	0	C	0	Payros et al. (2015)
YM10-1B	95	167.4	57.2	166.5	-32.8	B	-62	Payros et al. (2015)
YM9-1A	96.5	196.5	-78.9	399.1	-9.4	B	30.3	Payros et al. (2015)
YM9-1B	96.5			270.0	0	C	0	Payros et al. (2015)
YM8-1B	98	243.6	-49.1	304.7	-7.4	B	21.6	Payros et al. (2015)

Table A-4.1 Stratigraphic location of the Sopelana samples and their %CaCO₃, δ¹³C and δ¹⁸O values, alongside the mean value and standard deviation of each bed.

Sample	Strati. level (cm)	CaCO ₃ (%)	Mean CaCO ₃ (%)	σ	δ ¹³ C (‰)	Mean δ ¹³ C (‰)	σ	δ ¹⁸ O (‰)	Mean δ ¹⁸ O (‰)	σ
NM1-01	3	60.6	60.52	4.27	0.98	0.94	0.08	-2.58	-2.84	0.21
NM1-02	6	59.5			0.84			-2.98		
NM1-03	8	53.5			1.02			-2.97		
NM1-04	11	57.9			0.91			-3.03		
NM1-05	14	57.8			0.90			-2.87		
NM1-06	17	60.4			0.92			-3.04		
NM1-07	20	66.4			1.06			-2.84		
NM1-08	26	61.3			0.84			-2.44		
NM1-09	29	67.3			0.99			-2.78		
NL1-01	34	69.6	75.44	2.57	1.15	1.16	0.04	-2.75	-2.84	0.10
NL1-02	36	77.9			1.10			-2.69		
NL1-03	38	75.6			1.19			-2.74		
NL1-04	40	75.6			1.21			-2.81		
NL1-05	42	75.6			1.12			-2.87		
NL1-06	44	74.5			1.17			-2.97		
NL1-07	46	74.6			1.18			-2.95		
NL1-08	48	77.8			1.20			-2.86		
NL1-09	50	77.8			1.10			-2.89		
NM2-01	54	68	67.14	1.98	1.14	1.14	0.06	-2.64	-2.70	0.16
NM2-02	56	68.7			1.17			-2.61		
NM2-03	58	67.2			1.14			-2.67		
NM2-04	60	67.3			1.17			-2.72		
NM2-05	62	70.5			1.13			-2.79		
NM2-06	64	63.1			1.18			-2.52		
NM2-07	66	66.8			1.14			-2.63		
NM2-08	68	68.1			1.08			-2.81		
NM2-09	70	66.1			1.02			-3.08		
NM2-10	72	65.6			1.24			-2.58		
NL2-01	75	69.4	71.88	3.17	1.16	1.17	0.03	-2.68	-2.74	0.09
NL2-02	77	70.1			1.21			-2.73		
NL2-03	79	73.7			1.18			-2.62		
NL2-04	81	75.1			1.21			-2.65		
NL2-05	84	72.8			1.12			-2.88		
NL2-06	86	63.4			1.12			-2.83		
NL2-07	89	69.7			1.20			-2.72		
NL2-08	91	72.7			1.17			-2.79		
NL2-09	93	74			1.16			-2.82		
NL2-10	95	74			1.16			-2.65		
NL2-11	97	76.2			1.17			-2.87		

NM3-01	99	72.2			1.14			-2.70		
NM3-02	102	72.4			1.19			-2.75		
NM3-03	104	70.6			1.21			-2.66		
NM3-04	107	61.4			1.40			-2.46		
NM3-05	109	61.5			1.10			-2.63		
NM3-06	111	60.1			1.16			-2.66		
NM3-07	113	57.4	56.34	5.09	1.24	1.23	0.09	-2.44	-2.56	0.10
NM3-08	115	48.8			1.24			-2.49		
NM3-09	117	53.9			1.27			-2.58		
NM3-10	119	51.3			1.22			-2.68		
NM3-11	124	67.6			1.20			-2.63		
NL3-01	126	68.5			1.08			-2.77		
NL3-02	129	70			1.17			-2.61		
NL3-03	131	64.8			1.05			-3.02		
NL3-04	133	66.8	66.19	2.81	1.28	1.16	0.08	-2.64	-2.71	0.13
NL3-05	136	62.5			1.14			-2.75		
NL3-06	138	61.4			1.27			-2.61		
NL3-07	140	64.5			1.17			-2.78		
NL3-08	142	67			1.13			-2.69		
NL3-09	145	68.8			1.11			-2.62		
NM4-01	148	64.1			1.07			-2.65		
NM4-02	151	62.2			1.14			-2.37		
NM4-03	154	52.9			1.09			-2.59		
NM4-04	157	52	57.38	4.89	1.13	1.12	0.06	-2.54	-2.54	0.10
NM4-05	160	57.6			1.04			-2.59		
NM4-06	163	55.4			1.17			-2.62		
NM4-07	166	52.6			1.15			-2.58		
NM4-08	169	62.2			1.21			-2.40		
NL4-01	172	70			1.25			-2.60		
NL4-02	174	73.1			1.14			-2.60		
NL4-03	177	73.1			1.20			-2.50		
NL4-04	179	72.7			1.19			-2.65		
NL4-05	181	72.4			1.21			-2.48		
NL4-06	184	71.4	72.36	1.30	1.18	1.19	0.05	-2.58	-2.63	0.15
NL4-07	186	73.9			1.22			-2.76		
NL4-08	188	72.6			1.22			-2.63		
NL4-09	190	70.2			1.25			-2.51		
NL4-10	193	72.9			1.07			-3.01		
NL4-11	195	73.7			1.17			-2.66		
NM5-01	198	60.6			1.17			-2.53		
NM5-02	200	54.5			1.15			-2.70		
NM5-03	202	59.8	60.03	3.14	1.23	1.22	0.13	-2.50	-2.50	0.13
NM5-04	205	61.5			1.19			-2.48		
NM5-05	207	57.6			1.09			-2.57		
NM5-06	209	62.3			1.19			-2.46		

NM5-07	211	63.9			1.50			-2.28		
NL5-01	216	64.5	64.87	2.74	1.19	1.17	0.05	-2.64	-2.63	0.11
NL5-02	218	64.3			1.25			-2.49		
NL5-03	219	65.7			1.20			-2.48		
NL5-04	221	67.3			1.23			-2.53		
NL5-05	222	67.3			1.19			-2.57		
NL5-06	224	63.2			1.16			-2.80		
NL5-07	226	67.5			1.13			-2.88		
NL5-08	227	67.7			1.19			-2.63		
NL5-09	229	67.8			1.25			-2.62		
NM6-01	230	62.5			1.14			-2.63		
NM6-02	232	57.7			1.07			-2.65		
NM6-03	234	63.8			1.15			-2.66		
NM6-04	235	64.4			1.13			-2.64		
NM6-05	237	64.5			1.13			-2.66		
NM6-06	240	57	59.03	2.67	1.20	1.19	0.02	-2.47	-2.51	0.11
NM6-07	243	56.7			1.17			-2.50		
NM6-08	246	61.3			1.21			-2.48		
NM6-09	249	60			1.16			-2.34		
NM6-10	252	62.7			1.21			-2.63		
NL6-01	255	56.5			1.20			-2.64		
NL6-02	261	66.2	65.99	2.03	1.32	1.21	0.07	-2.50	-2.72	0.16
NL6-03	263	64.5			1.13			-2.97		
NL6-04	265	63.4			1.23			-2.70		
NL6-05	267	69.7			1.34			-2.46		
NL6-06	269	63.7			1.16			-2.72		
NL6-07	271	68.1			1.17			-2.83		
NL6-08	273	65.5			1.21			-2.64		
NL6-09	275	64.7			1.21			-2.71		
NL6-10	277	67.6			1.11			-2.90		
NL6-11	279	66.5			1.22			-2.75		

Table A-4.2 Whole rock mineralogy, clay mineralogy and (I+Chl)/(Sm+K) index of the Sopelana section. The illite crystallinity and the Esquevin index were measured on the XRD diagrams. The illite crystallinity corresponds to the full width at half maximum measured on the illite peak at 10 Å. The Esquevin index or chemical weathering index is the ratio between the illite intensity measured at 5 Å and the illite intensity measured at 10 Å. Both parameters show that the source area of the Sopelana deposits did not change in line with the limestone-marl alternation.

Bed	Whole rock mineralogy			Clay Mineralogy				Paleoclimatic index	Mineralogical indices	
	Calcite (%)	Quartz (%)	Clays (%)	Smectite (%)	Illite (%)	Kaolinite (%)	Chlorite (%)	(I+Chl)/(Sm+K)	Illite crystallinity	Esquevin index
Sc52M	59	8	33	58	39	0	3	0.72	0.31	0.20
Sc52L	78	7	15	24	26	0	50	3.17	0.33	0.14
Sc53M	73	7	20	56	34	0	10	0.79	0.39	0.17
Sc53L	77	6	17	52	28	0	20	0.92	0.36	0.17
Sc54M	66	6	28	55	38	0	7	0.82	0.28	0.17
Sc54L	79	7	14	52	26	0	22	0.92	0.36	0.12
Sc55M	64	7	29	73	23	0	4	0.37	0.52	0.12
Sc55L	69	6	25	56	24	0	20	0.79	0.47	0.15
Sc56M	71	7	22	65	29	0	6	0.54	0.48	0.15
Sc56L	73	7	20	45	34	0	21	1.22	0.48	0.13
Sc57M	69	7	24	62	32	0	6	0.61	0.46	0.21
Sc57L	75	8	17	54	44	0	2	0.85	0.42	0.14

Table A-4.3 Stratigraphic location of the Gorrondatxe samples and their %CaCO₃, δ¹³C and δ¹⁸O values, alongside the mean value and standard deviation of each bed.

Sample	Strat. level (cm)	CaCO ₃ (%)	Mean CaCO ₃ (%)	σ	δ ¹³ C (‰)	Mean δ ¹³ C (‰)	σ	δ ¹⁸ O (‰)	Mean δ ¹⁸ O (‰)	σ						
G9L-1	279	49.3	57.44	5.72	-0.04	0.30	0.21	-3.51	-3.08	0.31						
G9L-2	285	60.3			0.22			-2.95								
G9L-3	294	49.8			0.37			-3.05								
G9L-4	303	57.9			0.27			-3.33								
G9L-7	334	61.8			0.63			-2.53								
G9L-8	341	59.1			0.20			-3.05								
G9L-9	353	63.9			0.44			-3.12								
G9M-1	366	52.5	47.1	6.48	-0.04	0.13	0.22	-3.62	-3.48	0.16						
G9M-2	372	48.8			0.06			-3.53								
G9M-3	387	39.9			0.37			-3.30								
G10L-2	410	60.5	58.77	1.75	0.47	0.49	0.03	-2.89	-2.70	0.42						
G10L-3	423	58.8			0.52			-2.99								
G10L-4	434	57.0			0.48			-2.22								
G10L-5	443	53.9	47.70	11.09	0.54	0.17	0.54	-2.82	-3.05	0.40						
G10M-2	467	34.9			-0.44			-3.51								
G10M-3	508	54.3			0.41			-2.82								
G10M-5	523	60.1	55.32	4.12	0.41	0.40	0.09	-2.81	-3.03	0.20						
G10M-7	535	57.7			0.33			-2.85								
G10M-8	547	60.9			0.32			-2.90								
G10M-9	554	54.9			0.32			-2.84								
G10M-10	563	54.5			0.31			-3.37								
G11L-1	577	50.5			0.57			-3.23								
G11L-4	600	55.7			0.45			-3.00								
G11L-5	616	55.5	0.35	-3.16												
G11L-6	627	48.1	0.50	-3.15												
G11M-1	646	29.7	39.96	9.84	-0.68	-0.14	0.35	-4.30	-3.70	0.39						
G11M-2	652	60.0			0.24			-2.99								
G11M-3	657	27.7			-0.57			-3.95								
G11M-5	677	34.6			-0.17			-3.68								
G11M-6	686	34.1			-0.13			-3.63								
G11M-7	697	37.6			-0.15			-3.78								
G11M-8	713	40.5			-0.11			-4.28								
G11M-10	728	47.8			-0.09			-3.60								
G11M-11	734	50.9			0.19			-3.41								
G11M-12	752	36.8			0.11			-3.36								
G11M-13	762	31.3			-0.70			-4.05								
G11M-14	776	48.5			0.33			-3.43								
G12L-1	788	54.2			53.46			6.97			0.17	0.01	0.12	-3.21	-3.30	0.23

G12L-2	796	61.1			-0.08			-3.20		
G12L-3	802	59.3			0.12			-3.05		
G12L-6	828	46.4			-0.09			-3.64		
G12L-7	843	46.3			-0.05			-3.38		
G12M-1	855	34.3			-0.37			-3.90		
G12M-3	870	28.9			-0.75			-4.19		
G12M-5	896	35.9			-0.82			-4.49		
G12M-6	907	34.1			-0.37			-4.13		
G12M-7	912	45.6			0.07			-3.78		
G12M-8	923	40.7			0.10			-3.53		
G12M-9	938	53.6	42.48	9.00	0.29	-0.13	0.38	-3.31	-3.74	0.39
G12M-10	944	48.9			0.18			-3.37		
G12M-11	954	46.8			0.25			-3.86		
G12M-12	963	45.1			0.09			-3.58		
G12M-13	975	59.4			0.06			-3.21		
G12M-14	979	36.5			-0.32			-3.55		
G13L-1	1001	39.1			-0.16			-3.83		
G13L-3	1016	61.5			0.35			-2.96		
G13L-4	1028	66.9			0.19			-3.01		
G13L-5	1037	65.7	60.15	10.48	0.23	0.18	0.18	-3.33	-3.23	0.35
G13L-6	1056	64.2			0.26			-2.91		
G13L-7	1062	63.5			0.21			-3.34		
G13M-1	1073	27.6			-0.92			-4.19		
G13M-3	1103	50.5			-0.23			-3.95		
G13M-4	1108	32.4			-0.56			-3.74		
G13M-5	1119	29.6	32.68	8.91	-1.28	-0.61	0.51	-5.24	-4.19	0.58
G13M-7	1145	27.6			0.15			-3.67		
G13M-8	1160	28.4			-0.85			-4.37		
G13M-11	1193	53.4			-0.41			-3.60		
G14L-1	1218	53.3			0.47			-2.89		
G14L-2	1224	55.7			0.04			-3.09		
G14L-3	1230	49.1			0.12			-3.19		
G14L-4	1248	60.9	57.58	6.26	0.17	0.09	0.24	-3.21	-3.12	0.22
G14L-5	1255	56.8			0.13			-2.98		
G14L-6	1270	68.8			0.13			-2.92		
G14L-7	1274	62.6			0.06			-3.08		
G14M-1	1303	47.6			0.24			-3.10		
G14M-2	1313	38.0			0.14			-3.22		
G14M-3	1329	48.1	44.54	4.11	-0.26	-0.03	0.22	-2.83	-3.05	0.14
G14M-4	1335	45.7			-0.21			-3.07		
G14M-5	1348	43.3			-0.04			-3.04		
G15L-1	1361	55.1	57.74	5.90	0.15	0.03	0.18	-2.88	-2.96	0.08

G15L-2	1367	60.5			0.06			-2.83		
G15L-3	1376	47.2			-0.14			-2.99		
G15L-4	1390	57.1			-0.08			-3.08		
G15L-4.5	1398	62.2			-0.30			-2.94		
G15L-7	1433	50.6			0.11			-2.96		
G15L-8	1439	54.1			0.01			-3.05		
G15L-9	1444	62.2			0.37			-2.94		
G15L-10	1472	64.5			0.13			-2.93		
G15L-11	1478	63.9			0.04			-3.00		
G15M-1	1494	54.9			-0.01			-3.20		
G15M-2	1501	45.7			-0.45			-3.42		
G15M-3	1508	44.5			-0.39			-3.52		
G15M-4	1515	35.6			-0.77			-3.88		
G15M-6	1543	29.7			-1.28			-4.39		
G15M-7	1549	26.8			-1.98			-6.30		
G15M-8	1563	42.1	38.59	10.24	-0.41	-0.70	0.69	-3.53	-3.96	0.90
G15M-9	1575	40.2			-0.12			-3.79		
G15M-10	1584	25.3			-1.10			-3.87		
G15M-11	1590	24.80			-1.75			-4.98		
G15M-12	1598	52.2			0.17			-3.19		
G15M-13	1604	41.3			-0.25			-3.44		

Table A-4.4 Whole rock mineralogy, clay mineralogy and paleoclimatic indices of the Gorrondatxe section. The illite crystallinity and the Esquevin index were measured on the XRD diagrams. The illite crystallinity corresponds to the full width at half maximum measured on the illite peak at 10 Å. The Esquevin index or chemical weathering index is the ratio between the illite intensity measured at 5 Å and the illite intensity measured at 10 Å. Both parameters show that the source area of the Gorrondatxe deposits did not change in line with the limestone-marl alternation.

Bed	Whole rock mineralogy			Clay Mineralogy				Paleoclimatic indices		Mineralogical indices	
	Calcite (%)	Quartz (%)	Clays (%)	Smectite (%)	Illite (%)	Kaolinite (%)	Chlorite (%)	(I+Chl)/(Sm+K)	K/Sm	Illite crystallinity	Esquevin index
Gc9L	64	7	29	43	51	0	6	1.33	0	0.33	0.39
Gc9M	65	15	20	55	39	0	6	0.82	0	0.40	0.37
Gc10L	73	5	22	69	26	0	5	0.45	0	0.33	0.38
Gc10M	71	9	20	63	31	3	3	0.52	0.05	0.29	0.33
Gc11L	71	5	24	38	50	6	6	1.27	0.16	0.33	0.37
Gc11M	45	16	39	33	45	15	7	1.08	0.45	0.30	0.36
Gc12L	75	5	20	35	53	6	6	1.44	0.17	0.37	0.39
Gc12M	40	26	34	49	42	6	3	0.82	0.12	0.59	0.34
Gc13L	77	9	14	52	38	5	5	0.75	0.10	0.35	0.37
Gc13M	42	17	41	35	56	4	5	1.56	0.11	0.38	0.32
Gc14L	81	4	15	60	33	2	5	0.61	0.03	0.35	0.38
Gc14M	66	10	24	62	30	4	4	0.52	0.06	0.29	0.19
Gc15L	70	10	20	50	40	6	4	0.79	0.12	0.38	0.41
Gc15M	37	24	39	42	48	7	3	1.04	0.17	0.41	0.31

Table A-4.5 Numerical data of several turbiditic features from Gorrondatxe, showed in Figures 4.12 and 4.13.

	Amount of turbidites	Amount of turbidites with Ta at the base	Amount of turbidites with Tb at the base	Amount of turbidites with Tc at the base	Amount of turbidites with Td at the base	Amount of complete turbidites	Thickest sandy thickness	Thickest turbidite thickness	Cumulative sand thickness	Cumulative turbidite thickness
Gc9L	10	0	2	6	2	9	3	8	12	35
Gc9M	3	0	1	2	0	3	3	8	4.5	15
Gc10L	4	0	0	3	1	4	1.5	4	3.5	11
Gc10M	11	3	1	5	2	7	3	9	27.5	65
Gc11L	9	0	1	2	6	6	2	5	7.5	27
Gc11M	13	2	0	8	3	10	5	10	17	62.5
Gc12L	5	0	0	4	1	5	2	6	5	22.5
Gc12M	15	0	6	9	0	11	3	12	19.5	64
Gc13L	5	0	0	2	3	4	2	9	4	20
Gc13M	15	1	4	8	2	10	4	11	16.5	80
Gc14L	5	0	0	3	2	4	1.5	13	4	34
Gc14M	7	2	1	3	1	5	4	9	8.5	21
Gc15L	8	0	2	6	0	7	3.5	12.5	10.5	58
Gc15M	10	1	2	5	2	9	5	14.5	24	59

Table A-4.6 Stratigraphic height, thickness of sandy layer and thickness of Td division of every complete turbidite from Gorrondatxe.

Height (m)	T(cm)	Te(cm)	Sand/Clay
0.12	3	8	0.375
0.43	1	4	0.25
0.52	2	7	0.285714
0.72	1	3	0.333333
0.85	0.5	1	0.5
0.95	2	7.5	0.266667
1.13	1	4	0.25
1.22	1	2	0.5
1.34	4.5	13.5	0.333333
1.77	2	3	0.666667
1.99	1	0.5	2
2.14	1	3	0.333333
2.33	1	1	1
2.38	1	4	0.25
2.48	1	4	0.25
2.58	0.5	1.5	0.333333
2.62	0.5	1.5	0.333333
2.67	1	2	0.5
2.72	1	3	0.333333
2.87	1.5	3.5	0.428571
2.97	1.5	1.5	1
3.04	1	2	0.5
3.09	3	5	0.6
3.23	2	3	0.666667
3.42	0.5	1.5	0.333333
3.46	0.5	3.5	0.142857
3.59	1	2	0.5
3.73	2	6	0.333333
3.89	1	2	0.5
3.95	1	2	0.5
4.14	1	0.5	2
4.17	0.5	0.5	1
4.25	1	3	0.333333
4.46	1.5	2.5	0.6
4.53	0.5	2.5	0.2
4.6	1	3	0.333333
5	0.5	3.5	0.142857
5.12	1	2	0.5
5.43	0.5	1.5	0.333333
5.57	1	2	0.5

5.66	3	5	0.6
5.8	1.5	3.5	0.428571
5.95	0.5	2.5	0.2
6.04	1	4	0.25
6.17	1	2	0.5
6.25	0.5	1.5	0.333333
6.4	0.5	3	0.166667
6.6	2	5	0.4
6.71	2	3	0.666667
6.8	1	3	0.333333
6.93	0.5	2	0.25
7.09	1	2	0.5
7.19	2	1	2
7.37	2	7	0.285714
7.56	1.5	2.5	0.6
7.66	5	3	1.666667
7.8	1	6	0.166667
7.92	0.5	1	0.5
8.03	1	5.5	0.181818
8.21	2	4	0.5
8.31	1	1.5	0.666667
8.46	1	5	0.2
8.58	1	2	0.5
8.7	1.5	3	0.5
8.81	3	3	1
8.9	1	3	0.333333
9.03	1	1.5	0.666667
9.16	1	3.5	0.285714
9.24	1.5	1.5	1
9.47	1.5	2.5	0.6
9.56	1	4	0.25
9.64	2	2	1
9.81	3	9	0.333333
10.13	0.5	1.5	0.333333
10.32	0.5	2	0.25
10.45	2	7	0.285714
10.65	1	5	0.2
10.76	2	4	0.5
10.87	2	9	0.222222
11.09	1.5	4.5	0.333333
11.22	1.5	4.5	0.333333
11.33	2	6	0.333333
11.46	1	4.5	0.222222
11.54	1	2	0.5
11.67	1	3	0.333333

11.79	0.5	2.5	0.2
12.08	0.5	3.5	0.142857
12.32	1.5	7.5	0.2
12.43	0.5	4.5	0.111111
12.5	1	12	0.083333
12.75	1	8	0.125
12.97	0.5	3.5	0.142857
13.07	0.5	3.5	0.142857
13.23	0.5	4.5	0.111111
13.36	2.5	3.5	0.714286
13.5	0.5	2.5	0.2
13.77	1	4	0.25
13.84	1	4	0.25
14.05	3.5	9	0.388889
14.23	1	3	0.333333
14.45	2	8	0.25
14.59	2	8.5	0.235294
14.84	1	7	0.142857
15.03	1	3	0.333333
15.1	0.5	1.5	0.333333
15.22	15	2	7.5
15.56	1.5	5.5	0.272727
15.59	1	1	1
15.66	2	4	0.5
15.78	0.5	2.5	0.2
16.08	2	7	0.285714
16.18	2.5	9.5	0.263158
16.37	0.5	2.5	0.2
16.4	1	4	0.25
16.67	0.5	3.5	0.142857
16.88	0.5	1.5	0.333333
16.95	1	6	0.166667
17.06	1	7	0.142857
17.28	12	5	2.4
17.51	2	3	0.666667
17.59	3	7	0.428571
17.85	1.5	2.5	0.6
17.94	1	3.5	0.285714
18.1	1.5	5.5	0.272727
18.32	1	4	0.25
18.52	1.5	8.5	0.176471
18.87	1.5	5.5	0.272727
19.01	1.5	10	0.15
19.35	0.5	2.5	0.2
19.4	0.5	4.5	0.111111

19.48	1	4	0.25
19.62	1	4	0.25
19.81	0.5	3.5	0.142857
19.91	1	8	0.125
20.14	1	3	0.333333

Table A-4.7 Stratigraphic location of the Oyambre samples and their %CaCO₃, δ¹³C and δ¹⁸O values, alongside the mean value and standard deviation of each bed.

Sample	Strati. level (cm)	CaCO ₃ (%)	Mean CaCO ₃ (%)	σ	δ ¹³ C (‰)	Mean δ ¹³ C (‰)	σ	δ ¹⁸ O (‰)	Mean δ ¹⁸ O (‰)	σ
YAL1	7	61.4	59.40	1.67	0.84	0.91	0.16	-2.06	-2.12	0.23
YAL2	15	59.2			0.95			-1.90		
YAL3	22	59.3			1.00			-2.05		
YAL4	30	61.8			0.93			-2.24		
YAM1	37	56.5			0.69			-2.36		
YAM2	45	60.1			0.65			-2.45		
YBL1	52	58.0			0.99			-2.30		
YBL2	60	58.3			1.03			-1.73		
YBL3	67	60.0			1.14			-1.99		
YBM1	75	58.4	57.80	0.85	0.83	1.00	0.26	-2.06	-1.87	0.24
YBM2	83	57.2			1.16			-1.69		
YOL1	90	54.6	60.05	3.23	0.80	1.02	0.22	-2.40	-1.96	0.12
YOL2	97	58.5			0.93			-1.85		
YOL3	105	63.6			1.05			-2.14		
YOL4	113	64.6			1.06			-1.84		
YOL5	120	61.7			1.05			-2.04		
YOL6	127	59.3			1.15			-2.08		
YOL7	135	63.2			1.03			-1.59		
YOL8	142	59.6			1.16			-1.81		
YOL9	150	56.3			0.86			-1.97		
YOL10	157	59.1			1.11			-1.92		
YOM1	165	52.9	45.08	5.37	0.60	0.42	0.36	-2.31	-2.71	0.14
YOM2	172	40.9			0.46			-2.51		
YOM3	180	44.0			0.27			-3.06		
YOM4	187	42.5			0.35			-2.97		
Y1L1	195	51.8	60.73	4.10	0.56	0.82	0.27	-2.34	-2.09	0.23
Y1L2	202	56.7			0.55			-2.44		
Y1L3	208	58.1			0.50			-2.41		
Y1L4	215	58.0			0.77			-2.25		
Y1L5	220	59.4			0.54			-2.39		
Y1L6	227	63.7			1.01			-1.85		
Y1L7	233	67.2			0.83			-2.20		
Y1L8	238	62.0			0.93			-1.94		
Y1L9	245	63.4			1.01			-1.77		
Y1L10	250	62.6			1.08			-1.77		
Y1L11	256	63.2			1.04			-1.90		
Y1L12	263	62.6			1.03			-1.78		
Y1M1	270	43.0	46.67	4.30	0.34	0.37	0.16	-2.88	-2.66	0.07
Y1M2	276	43.0			0.29			-2.85		
Y1M3	284	42.3			0.29			-2.66		

Y1M4	293	49.9			0.36			-2.54		
Y1M5	300	45.0			0.44			-2.50		
Y1M6	307	51.4			0.45			-2.49		
Y1M7	318	52.1			0.42			-2.67		
Y2L1	325	63.9			0.84			-1.95		
Y2L2	332	62.8			0.83			-2.01		
Y2L3	337	65.8	61.80	4.10	0.87	0.88	0.11	-2.00	-2.03	0.06
Y2L4	344	64.9			1.00			-1.87		
Y2L5	349	56.0			0.85			-2.16		
Y2L6	356	57.4			0.89			-2.16		
Y2M1	363	45.0			0.52			-2.50		
Y2M2	370	44.8			0.24			-2.90		
Y2M3	377	43.6	43.65	3.19	0.57	0.39	0.23	-3.13	-2.76	0.16
Y2M4	382	38.4			0.17			-2.77		
Y2M5	390	42.2			0.40			-2.67		
Y2M6	396	47.9			0.44			-2.58		
Y3L1	403	59.3			0.63			-2.50		
Y3L2	408	66.9			1.08			-1.92		
Y3L3	413	64.3			0.94			-1.86		
Y3L4	419	65.6			1.02			-1.76		
Y3L5	424	65.9			1.10			-1.71		
Y3L6	430	65.2	64.78	2.52	1.17	1.04	0.24	-1.84	-1.89	0.16
Y3L7	437	61.5			0.92			-2.06		
Y3L8	445	65.0			1.12			-2.02		
Y3L9	453	65.6			1.16			-1.85		
Y3L10	462	64.6			1.15			-1.66		
Y3L11	471	68.7			1.13			-1.64		
Y3M1	478	63.8			1.11			-1.86		
Y3M2	485	56.1	60.33	3.91	0.97	1.01	0.10	-1.90	-1.94	0.09
Y3M3	490	61.1			0.94			-2.05		
Y4L1	496	60.9			1.01			-2.15		
Y4L2	505	59.9			0.98			-2.07		
Y4L3	512	61.7			1.11			-1.91		
Y4L4	520	61.4			0.87			-2.33		
Y4L5	527	58.4			1.15			-2.06		
Y4L6	536	62.7			1.04			-1.91		
Y4L7	544	63.8	61.39	1.70	1.09	1.04	0.16	-1.96	-2.05	0.10
Y4L8	551	63.3			1.13			-1.82		
Y4L9	558	60.9			1.02			-2.11		
Y4L10	565	61.0			1.18			-1.85		
Y4L11	570	58.1			0.84			-2.32		
Y4L12	577	62.8			1.00			-2.03		
Y4L13	586	62.0			0.98			-2.17		
Y4L14	594	62.5			1.09			-2.05		
Y4M1	598	57.8	57.45	2.83	1.12	1.08	0.20	-2.09	-2.06	0.10

Y4M2	605	53.4			1.15			-1.79		
Y4M3	612	58.7			1.12			-2.23		
Y4M4	618	59.9			0.93			-2.16		

Table A-4.8 Whole rock mineralogy, clay mineralogy and (I+Chl)/(Sm+K) index of the Oyambre section. The illite crystallinity and the Esquevin index were measured on the XRD diagrams. The illite crystallinity corresponds to the full width at half maximum measured on the illite peak at 10 Å. The Esquevin index or chemical weathering index is the ratio between the illite intensity measured at 5 Å and the illite intensity measured at 10 Å. Both parameters show that the source area of the Oyambre deposits did not change in line with the limestone-marl alternation.

Bed	Whole rock mineralogy			Clay Mineralogy				Paleoclimatic index	Mineralogical indices	
	Calcite (%)	Quartz (%)	Clays (%)	Smectite (%)	Illite (%)	Kaolinite (%)	Chlorite (%)	(I+Chl)/(Sm+K)	Illite crystallinity	Esquevin index
Oc29L	66	18	16	80	19	0	1	0.25	0.41	0.16
Oc29M	57	14	29	77	22	0	1	0.30	0.46	0.18
Oc30L	62	21	17	77	22	0	1	0.30	0.48	0.21
Oc30M	44	31	25	80	19	0	1	0.25	0.35	0.16
Oc31L	65	16	19	74	25	0	1	0.35	0.39	0.19
Oc31M	47	19	34	83	17	0	0	0.20	0.45	0.13
Oc32L	70	18	12	66	32	0	2	0.52	0.27	0.15
Oc32M	55	18	27	87	13	0	0	0.15	0.4	0.13
Oc33L	69	10	21	74	25	0	1	0.35	0.39	0.18
Oc33M	58	16	26	83	17	0	0	0.20	0.38	0.17
Oc34L	59	15	26	74	25	0	1	0.35	0.3	0.19
Oc34M	65	20	15	82	17	0	1	0.22	0.43	0.16