GSA Data Repository Item 2018149

Pérez-Asensio, J.N., Larrasoaña, J.C., Samankassou, E., Sierro, F.J., Garcia-Castellanos, D., Jiménez-Moreno, G., Salazar, Á., Maria Salvany, J., Ledesma, S., Mata, M.P., Civis, J., and Mediavilla, C., 2018, Magnetobiochronology of Lower Pliocene marine sediments from the lower Guadalquivir Basin: Insights into the tectonic evolution of the Strait of Gibraltar area: GSA Bulletin, https://doi.org/10.1130/B31892.1.

Data Repository

Appendix 1 table: sample-by-sample demagnetization data.

Appendix 1 table

Sample	Depth (m)	Selected temperature range (°C)	Anchored	Declination (arbitrary °)	Inclination (°)	MAD (°)	Quality
LM29	29	225-350	No	314.3	22.3	8.3	2
LM30-7	30.7	225-350	No	45.6	4.8	10.2	2
LM31-8	31.8	-	-	-	-	-	-
LM32-7	32.7	225-350	No	44.7	40.5	4.5	2
LM35-25	35.25	225-430	Yes	338.5	44.0	7.8	2
LM38-9	38.9	225-390	Yes	344.1	48.7	13.9	3
LM40-4	40.4	225-350	Yes	16.4	27.9	10.1	3
LM42	42	225-430	No	325.7	-8.1	7.1	1
LM45-1	45.1	225-390	Yes	22.8	16.8	11.1	2
LM50-5	50.5	225-430	Yes	41.7	38.6	14.6	2
LM54-7	54.7	225-350	No	356.8	-4.3	9.7	1
LM55-75	55.75	225-390	Yes	326.9	14.9	6.5	3
LM57-3	57.3	-	-	-	-	-	-
LM60-5	60.5	290-430	Yes	359.3	9.9	9.2	2
LM62-8	62.8	225-430	No	312.8	17.3	14.7	1
LM66-15	66.15	225-430	Yes	350.7	-16.2	9.0	2
LM68-9	68.9	225-390	No	307.4	-5.5	6.2	2
LM70-3	70.3	225-430	No	359.6	65.2	15.8	1
LM72	72	225-350	Yes	350.9	-6.6	12.6	3
LM73-85	73.85	-	-	-	-	-	-
LM75-2	75.2	-	-	-	-	-	-
LM76-6	76.6	-	-	-	-	-	-
LM77-45	77.45	-	-	-	-	-	-
LM79-2	79.2	-	-	-	-	-	-
LM80-5	80.5	225-350	Yes	94.2	-51.0	18.2	3
LM84-7	84.7	-	-	-	-	-	-
LM87-35	87.35	225-390	Yes	354.3	52.3	18.6	3
LM88-4	88.4	-	-	-	-	-	-
LM89-75	89.75	225-350	Yes	91.3	-24.6	5.6	2
LM91	91	-	-	-	-	-	-
LM93-4	93.4	-	-	-	-	-	-
LM95-85	95.85	225-390	Yes	105.3	-58.5	10.5	3
LM97-55	97.55	225-390	Yes	308.5	-26.4	10.1	2
LM98-6	98.6	225-350	Yes	29.3	-9.4	13.1	3
LM101-8	101.8	290-390	Yes	346.4	-31.3	14.3	3
LM103-1	103.1	225-350	Yes	305.3	-48.4	5.3	2
LM105	105	225-470	No	330.8	-51.4	7.5	2
LM107-5	107.5	225-390	No	83.2	-65.5	11.4	1
LM109	109	225-500	No	11.4	-30.8	21.9	2
LM111-5	111.5	225-500	Yes	355.7	-59.0	6.7	3
LM112-8	112.8	225-390	Yes	235.0	-6.0	14.7	2
LM114	114	225-350	Yes	221.3	-41.6	13.1	3
LM115-6	115.6	-	-	-	-	-	-
LM116-8	116.8	-	-	-	-	-	-
LM118-1	118.1	-	-	-	-	-	-
LM120-7	120.7	225-350	Yes	183.7	-27.0	16.2	3
LM122-5	122.5	290-390	Yes	205.6	-2.6	25.6	3
LM124-35	124.35	225-350	Yes	267.7	-49.8	9.4	3
LM126-6	126.6	-	-	-	-	-	-
LM127-9	127.9	225-390	Yes	321.4	62.0	22.7	3
LM129-1	129.1	225-430	Yes	331.2	6.0	14.3	3
LM130-3	130.3	-	-	-	-	-	-
LM132-7	132.7	225-390	Yes	295.3	43.4	12.3	3

Appendix 1 table

LM134	134	-	-	-	-	-	-
LM135	135	225-430	Yes	306.6	39.8	15.3	2
LM137-2	137.2	-	-	-	-	-	-
LM138-4	138.4	-	-	-	-	-	-
LM140	140	-	-	-	-	-	-
LM142-5	142.5	225-350	Yes	297.5	46.1	8.7	2
LM144-95	144.95	225-390	Yes	345.1	43.7	12.5	2
LM146-1	146.1	-	-	-	-	-	-
LM147-25	147.25	-	-	-	-	-	-
LM148-95	148.95	150-350	No	291.5	15.4	10.1	1
LM151-3	151.3	225-320	Yes	214.4	42.2	6.6	3
LM154-4	154.4	225-350	No	289.9	31.5	11.9	2
LM155-35	155.35	-	-	-	-	-	-
LM157-7	157.7	-	-	-	-	-	-
LM158-35	158.35	225-390	Yes	107.3	56.9	11.0	2
LM159-6	159.6	225-350	Yes	57.4	56.6	13.0	2
LM161-85	161.85	290-470	No	35.8	49.8	2.6	1
LM163-3	163.3	225-430	No	28.9	43.5	9.0	2
LM165-9	165.9	-	-	-	-	-	-
LM167	167	-	-	-	-	-	-
LM168-3	168.3	-	-	-	-	-	-
LM169-8	169.8	-	-	-	-	-	-
LM171-55	171.55	-	-	-	-	-	-
LM173-05	173.05	225-350	No	261.8	53.9	6.4	2
LM174-9	174.9	225-350	No	250.9	49.9	4.7	2
LM176	176	-	-	-	-	-	-
LM178-3	178.3	-	-	-	-	-	-
LM179-35	179.35	-	-	-	-	-	-
LM180-7	180.7	-	-	-	-	-	-
LM183-15	183.15	-	-	-	-	-	-
LM184-3	184.3	-	-	-	-	-	-
LM185-4	185.4	225-350	Yes	178.9	78.7	10.9	3
LM187-8	187.8	225-350	Yes	16.3	-20.0	12.2	3
LM189	189	225-390	Yes	339.7	5.2	14.1	3
LM191	191	-	-	-	-	-	-
LM192-55	192.55	-	-	-	-	-	-
LM193-5	193.5	-	-	-	-	-	-
LM195-9	195.9	290-350	Yes	146.4	-15.3	13.0	3
LM197	197	225-390	Yes	124.4	-47.9	15.7	3
LM198-3	198.3	225-350	Yes	323.9	-42.0	4.8	3
LM200-55	200.55	-	-	-	-	-	-
LM201-9	201.9	225-320	Yes	221.4	-53.8	15.1	3
LM204-3	204.3	225-320	Yes	315.6	-57.6	5.0	3
LM206-6	206.6	225-320	Yes	281.7	-75.2	11.0	3
LM207-8	207.8	225-430	No	69.3	-45.8	4.5	2
LM209-65	209.65	290-430	No	21.5	-60.2	3.4	1
LM211-8	211.8	225-430	No	148.7	-35.8	15.8	1
LM213	213	225-430	No	168.2	-42.6	10.6	1
LM214-3	214.3	225-430	No	127.8	-47.7	10.2	1
LM216-85	216.85	225-430	No	223.3	-55.8	4.1	2
LM218	218	225-390	No	330.4	-38.8	23.4	1
LM220-3	220.3	290-430	Yes	76.3	53.0	3.4	3
LM222-85	222.85	225-430	No	140.6	-56.0	6.8	2
LM225-15	225.15	225-430	No	183.4	-59.3	4.4	2
LM226-6	226.6	225-430	No	17.9	-60.4	5.3	2
LM228	228	225-430	No	12.0	-59.4	10.3	1

Appendix 1 table

LM230-4	230.4	225-390	No	328.0	-59.4	2.3	2
LM231-6	231.6	225-430	No	144.9	-54.1	5.2	2
LM232-75	232.75	225-500	No	45.9	-60.7	13.8	2
LM233-85	233.85	225-390	No	278.2	-28.7	2.5	2
LM235-7	235.7	225-430	No	359.8	-61.5	10.6	1
LM236-75	236.75	225-390	No	10.6	-60.3	3.7	2
LM239-1	239.1	225-430	No	343.6	-57.4	7.6	2
LM240	240	225-430	No	122.9	-48.9	8.0	1
LM242-4	242.4	225-430	No	111.8	-53.9	4.2	2
LM243-6	243.6	225-430	No	191.1	-65.1	6.8	1
LM244-7	244.7	225-390	No	12.5	-61.5	4.1	2
LM246-1	246.1	225-500	No	300.1	-59.9	5.2	2
LM248-05	248.05	225-430	No	183.9	-61.8	9.9	1
LM249-1	249.1	225-430	No	44.4	-55.8	6.9	2
LM251-35	251.35	225-430	No	229.5	-54.7	2.8	2
LM252-6	252.6	225-430	No	147.1	-50.8	3.8	2
LM255	255	225-430	No	79.1	-60.2	2.9	1
LM256-3	256.3	225-430	No	158.2	-46.0	7.3	1
LM258-4	258.4	225-430	No	228.2	-59.7	5.3	2
LM259-2	259.2	225-430	No	317.9	-58.6	5.5	1
LM261-9	261.9	225-430	No	91.9	-55.7	5.1	2
LM263-2	263.2	225-430	No	45.0	-44.9	11.2	1
LM265-5	265.5	225-430	No	53.5	-59.5	5.0	2
LM267-6	267.6	225-390	Yes	34.1	-57.8	7.1	3
LM269-7	269.7	225-430	No	43.5	-61.2	5.6	2
LM273-2	273.2	225-430	No	181.0	-47.7	11.9	1
LM275-2	275.2	225-390	No	221.1	59.8	6.5	2

Supplementary Table. Name, stratigraphic position, and detailed data for the ChRM of the studied paleomagnetic samples of La Matilla core. Notice that Declination values are arbitrary. MAD = maximum angular deviation. - indicate that no data were calculated due to the poor quality of the samples.