

TABLE 2.— X-ray diffraction data of the Mata Amarilla Formation at C^o Waring (locality 1).

FM	Sample	Whole Rock											Clay fraction							Clay ass.
		Q	FK	Pl	Ca	D	S	Cli	A	Ht	Mg	Clays	I	Cl	K	I/S	C/S	Sm	Pg	
La Anita	CW 153	vA	vS	vS	vS	Tr	-	-	-	-	-	S	1	2	86	7	2	1	0	-
	CW 152	vA	Tr	-	M	-	-	-	-	-	-	vS	0	6	61	17	6	11	0	-
	CW 151	vA	Tr	S	vS	-	-	-	-	-	-	S	4	0	56	2	0	38	0	-
	CW 149	vA	vS	vS	vS	vS	vS	-	vS	-	-	M	0	1	20	0	0	79	0	S
	CW 148	vA	vS	-	Tr	vS	-	-	-	-	-	S	1	0	53	2	0	44	0	S-K
	CW 147	vA	vS	-	vS	vS	-	-	-	-	-	S	0	0	64	1	0	34	0	S-K
	CW 146	vA	S	vS	S	S	-	-	-	-	-	M	0	0	32	0	0	67	0	S-K
	CW 145	vA	S	M	vS	Tr	-	-	-	-	-	S	1	1	13	1	0	84	0	S
	CW 143	A	Tr	M	vS	Tr	-	-	-	-	-	A	0	0	6	0	0	94	0	S
	CW 142	vA	vS	S	-	vS	-	-	Tr	-	-	M	0	0	4	0	0	96	0	S
	CW 141	vA	vS	M	Tr	-	-	-	vS	-	-	S	1	1	10	1	0	87	0	S
	CW 140	A	S	A	vS	-	-	-	Tr	-	-	A	0	0	4	0	0	96	0	S
	CW 139	vA	vS	vS	vS	Tr	-	-	-	-	-	S	0	0	4	0	0	96	0	S
	CW 138	vA	vS	S	vS	vS	-	-	-	-	-	A	0	0	1	0	0	99	0	S
	CW 137	vA	Tr	vS	Tr	Tr	-	-	-	-	-	S	0	0	1	0	0	99	0	S
	CW 136	vA	Tr	vS	-	-	-	-	-	-	-	S	0	0	5	0	0	95	0	S
	CW 135	vA	vS	S	S	Tr	-	-	Tr	-	-	S	0	0	4	0	0	96	0	S
	CW 134	vA	vS	vS	vS	Tr	-	-	-	-	-	S	0	0	2	0	0	98	0	S
	CW 133	A	vS	M	Tr	-	-	-	-	-	-	A	0	0	0	0	0	100	0	S
	CW 131	A	S	M	vS	Tr	-	-	-	-	-	A	0	0	1	0	0	99	0	S
	CW 130	vA	vS	S	vS	Tr	-	-	Tr	-	-	M	0	0	0	0	0	100	0	S
	CW 129	vA	vS	vS	Tr	Tr	-	-	-	-	-	S	0	0	1	0	0	99	0	S
	CW 128	vA	S	vS	-	-	-	-	-	-	-	S	0	0	0	0	0	100	0	S
	CW 127	S	M	-	-	vS	-	S	S	A	A	M	28	16	24	0	0	32	0	S-K
	CW 125	vA	vS	vS	-	-	-	-	Tr	-	-	S	0	0	3	0	0	97	0	S
	CW 123	vA	vS	S	-	-	vS	-	-	-	-	S	0	0	4	0	0	96	0	S
	CW 122	A	Tr	A	Tr	Tr	-	-	-	-	-	A	0	0	3	0	0	97	0	S
	CW 121	vA	vS	S	Tr	vS	-	-	-	-	-	S	0	0	2	0	0	98	0	S
	CW 120	vA	vS	S	vS	vS	-	-	-	-	-	S	0	0	3	0	0	97	0	S
	CW 118	vA	-	vS	Tr	-	-	-	-	-	-	S	0	0	2	0	0	98	0	S
CW 116	vA	Tr	vS	-	-	-	-	-	-	-	vS	0	0	1	0	0	99	0	S	
CW 115	M	A	M	S	-	-	-	vS	-	-	vA	0	0	3	0	0	97	0	S	
CW 114	vA	vS	M	-	-	-	-	-	-	-	M	0	0	1	0	0	99	0	S	
CW 112	vA	Tr	vS	-	-	Tr	-	-	-	-	S	1	1	2	3	0	93	0	S	
CW 111	vA	Tr	vS	Tr	-	-	-	-	-	-	S	1	1	0	0	0	98	0	S	
CW 110	vA	vS	M	vS	Tr	-	-	vS	-	-	S	5	0	2	0	0	93	0	S	

MATA AMARILLA

CW 109	vA	S	S	vS	Tr	-	-	Tr	-	-	S	0	0	0	0	0	100	0	S
CW 108	vA	vS	S	-	-	-	-	-	-	-	S	0	0	1	0	0	99	0	S
CW 107	vA	vS	M	S	-	-	-	vS	-	-	M	0	0	2	0	0	98	0	S
CW 104	vA	vS	S	vS	Tr	-	-	vS	-	-	M	0	1	1	0	0	98	0	S
CW 103	vA	Tr	vS	-	-	-	-	Tr	-	-	M	0	0	0	0	0	100	0	S
CW 101	vA	Tr	S	Tr	-	-	-	Tr	-	-	S	0	0	1	0	0	99	0	S
CW 100	vA	Tr	S	vS	-	-	-	-	-	-	S	0	0	1	0	0	99	0	S
CW 99	A	vS	M	-	-	-	-	vS	-	-	vA	0	0	1	0	0	99	0	S
CW 98	vA	Tr	vS	Tr	Tr	-	-	-	-	-	S	0	0	1	0	0	99	0	S
CW 97	vA	vS	vS	-	-	-	-	-	-	-	S	0	0	1	0	0	99	0	S
CW 96	M	M	M	-	vS	-	-	-	-	-	vA	0	0	0	0	0	100	0	S
CW 94	vA	-	S	-	Tr	-	-	-	-	-	S	0	0	0	0	0	100	0	S
CW 92	vA	S	S	A	Tr	-	-	-	-	-	vS	0	0	44	0	0	56	0	S-K
CW 89	vA	Tr	S	Tr	-	-	-	-	-	-	S	0	0	1	0	0	99	0	S
CW 88	vA	vS	Tr	-	Tr	-	-	Tr	-	-	M	2	0	0	0	0	98	0	S
CW 80	vA	Tr	Tr	-	Tr	-	-	-	-	-	M	0	0	0	0	0	100	0	S
CW 79	vA	Tr	Tr	-	Tr	-	-	Tr	-	-	M	0	0	0	0	0	100	0	S
CW 78	vA	Tr	S	-	-	-	-	Tr	-	-	M	0	0	0	0	0	100	0	S
CW 77	vA	Tr	vS	-	Tr	-	-	-	-	-	M	0	0	2	0	0	98	0	S
CW 76	vA	vS	S	-	Tr	-	-	-	-	-	S	7	2	3	0	0	88	0	S
CW 75	vA	vS	S	-	-	-	-	-	-	-	S	0	0	1	0	0	99	0	S
CW 74	vA	-	M	Tr	-	-	-	Tr	-	-	S	6	1	4	7	0	82	0	S
CW 73	vA	S	M	vS	-	-	-	Tr	-	-	S	0	2	2	0	0	96	0	S
CW 72	vA	S	S	vS	Tr	-	-	-	-	-	S	0	1	2	0	0	97	0	S
CW 71	vA	Tr	S	-	vS	-	-	-	-	-	S	0	0	4	0	0	96	0	S
CW 70	vA	Tr	vS	-	-	-	-	-	-	-	S	0	0	2	0	0	98	0	S
CW 69	vA	vS	S	-	-	-	-	Tr	-	-	M	0	0	1	0	0	99	0	S
CW 68	vA	S	S	-	-	-	-	Tr	-	-	S	0	0	1	0	0	99	0	S
CW 67	vA	-	S	vS	-	-	-	-	-	-	S	0	0	2	0	0	98	0	S
CW 66	vA	Tr	S	Tr	S	-	-	-	-	-	S	1	0	4	0	0	95	0	S
CW 64	vA	Tr	vS	Tr	vS	-	-	-	-	-	S	0	0	4	0	0	96	0	S
CW 63	vA	S	S	vS	S	-	-	-	-	-	M	0	0	6	0	0	94	0	S
CW 62	vA	vS	vS	vS	vS	-	-	-	-	-	A	2	0	7	0	0	91	0	S
CW 61	vA	vS	S	S	vS	-	-	-	-	-	A	4	0	10	0	0	86	0	S
CW 60	vA	vS	Tr	vS	vS	-	-	-	-	-	M	0	0	11	0	0	89	0	S
CW 59	vA	vS	vS	Tr	Tr	-	-	-	-	-	S	0	3	4	0	0	60	33	Pg
CW 58	vA	S	A	S	S	-	-	-	-	-	A	2	0	3	0	0	95	0	S
CW 57	M	vS	M	S	vS	-	-	-	-	-	vA	0	0	0	0	0	100	0	S
CW 56	vA	Tr	Tr	Tr	Tr	-	-	-	-	-	S	1	0	2	0	0	96	0	S
CW 55	vA	vS	vS	vS	Tr	-	-	-	-	-	A	4	0	2	0	0	94	0	S
CW 54	vA	Tr	vS	Tr	Tr	-	-	Tr	-	-	M	0	0	3	0	0	97	0	S

CW 53	vA	Tr	vS	vS	vS	-	-	vS	-	-	M	0	0	2	0	0	98	0	S
CW 52	A	vS	vS	vS	vS	-	-	-	-	-	A	0	0	3	0	0	97	0	S
CW 51	vA	Tr	vS	vS	vS	-	-	Tr	-	-	M	1	0	2	0	0	97	0	S
CW 50	vA	vS	S	S	vS	-	-	Tr	-	-	S	0	1	3	0	0	96	0	S
CW 49	vA	vS	vS	-	Tr	-	-	Tr	-	-	M	0	0	1	0	0	99	0	S
CW 48	vA	vS	S	Tr	Tr	-	-	-	-	-	M	0	0	1	0	0	99	0	S
CW 46	vA	S	S	vS	Tr	-	-	-	-	-	S	1	1	10	0	0	88	0	S
CW 45	vA	vS	S	-	-	-	-	-	-	-	M	1	0	2	0	0	97	0	S
CW 44	vA	Tr	vS	-	Tr	-	-	Tr	-	-	S	0	0	1	0	0	99	0	S
CW 42	vA	vS	S	S	Tr	-	-	Tr	-	-	A	0	0	1	0	0	99	0	S
CW 41	vA	Tr	Tr	-	-	-	-	-	-	-	vS	0	1	2	0	0	87	10	S
CW 40	vA	-	vS	-	-	-	-	-	-	-	S	0	2	9	0	0	62	27	Pg
CW 39	vA	Tr	vS	-	Tr	-	-	-	-	-	S	0	0	1	0	0	99	0	S
CW 38	vA	Tr	vS	-	Tr	-	-	-	-	-	M	6	1	4	0	0	90	0	S
CW 37	vA	Tr	vS	Tr	Tr	-	-	-	-	-	S	3	0	6	0	0	91	0	S
CW 36	vA	vS	M	-	-	-	-	-	-	-	S	0	0	16	0	0	84	0	S
CW 35	vA	Tr	vS	-	-	-	-	-	-	-	M	0	0	2	0	0	98	0	S
CW 34	vA	S	S	vS	Tr	-	-	Tr	-	-	M	0	0	3	0	0	97	0	S
CW 33	vA	S	M	vS	Tr	-	-	vS	-	-	M	0	0	7	0	0	93	0	S
CW 32	A	M	S	Tr	-	-	-	Tr	-	-	M	0	0	5	0	0	95	0	S
CW 31	vA	Tr	vS	Tr	Tr	-	-	Tr	-	-	S	3	0	4	0	0	92	0	S
CW 30	vA	Tr	Tr	Tr	-	-	-	Tr	-	-	S	0	1	3	0	0	96	0	S
CW 29	vA	Tr	Tr	Tr	-	-	-	Tr	-	-	S	2	1	6	0	0	91	0	S
CW 28	vA	Tr	vS	-	-	-	-	Tr	-	-	S	2	1	3	4	0	89	0	S
CW 27	vA	Tr	vS	-	-	-	-	-	-	-	S	3	2	6	0	0	88	0	S
CW 26	vA	-	Tr	-	-	-	-	-	-	-	vS	0	0	2	0	0	42	55	Pg
CW 25	vA	Tr	vS	-	Tr	-	-	-	-	-	S	0	0	2	0	0	56	42	Pg
CW 24	vA	Tr	vS	vS	-	-	-	Tr	-	-	M	3	1	3	0	0	94	0	S
CW 23	vA	-	Tr	Tr	-	-	-	-	-	-	S	4	1	11	0	0	84	0	S
CW 22	vA	vS	vS	vS	Tr	-	-	-	-	-	M	3	0	9	0	0	88	0	S
CW 21	vA	Tr	Tr	Tr	Tr	-	-	Tr	-	-	vS	5	2	5	0	0	56	32	Pg
CW 20	vA	Tr	vS	-	-	-	-	Tr	-	-	S	0	1	7	70	0	10	6	I/S
CW 17	Tr	Tr	-	vA	-	-	-	-	-	-	Tr	13	31	38	14	0	4	0	-
CW 16	Tr	vS	-	vA	-	-	-	-	-	-	-	13	18	48	15	6	0	0	-
CW 15	S	vS	-	vA	-	-	-	-	-	-	-	0	0	0	0	0	0	0	-
CW 13	A	S	M	vA	-	-	-	-	-	-	Tr	8	9	66	7	9	1	0	-
CW 12	vA	Tr	Tr	Tr	Tr	-	-	-	-	-	M	20	14	16	27	21	1	0	-
CW 11	vA	Tr	vS	-	-	-	-	-	-	-	vS	13	0	60	17	9	1	0	-
CW 10	vA	Tr	Tr	-	-	-	-	-	-	-	vS	5	2	38	6	0	49	0	-
CW 9	vA	Tr	Tr	Tr	Tr	-	-	-	-	-	vS	3	0	60	11	22	4	0	-
CW 8	vA	Tr	Tr	Tr	Tr	-	-	-	-	-	M	2	3	31	0	0	64	0	-

CW 7	vA	Tr	Tr	Tr	Tr	-	-	-	-	-	vS	9	22	40	0	15	14	0	-
CW 6	vS	Tr	-	vA	-	-	-	-	-	-	-	0	0	0	0	0	0	0	-
CW 5	vA	Tr	vS	S	Tr	-	-	-	-	-	S	10	0	18	4	2	66	0	-

Abbreviations: Q = quartz, FK = potassium feldspar, Pl = plagioclase, Ca = calcite, D = dolomite, S = siderite, A = analcime, Ht = hematite, Mg = magnetite, Cla. = clays, I = illite, Cl = chlorite, K = kaolinite, I/S = illite/smectite, C/S = Chlorite/smectite, Sm = smectite, Pg = palygorskite.