



Glyph Dwellers

Report 51

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A Sign Catalog of the Isthmian Script

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It has been 110 years since the publication of the inscription on a six-inch jade figurine, the Tuxtla Statuette, found in a field in San Andrés, Tuxtla, Veracruz (Holmes 1907; Holmes 1916), and 30 years since the six-foot La Mojarra Stela was pulled out of the Acula River in the municipio of Alvarado, Veracruz (Winfield Capitaine 1988). Since that time the script has seen a somewhat overstated claim of decipherment (Justeson and Kaufman 1993), and the discovery of an extended text on the back of a feldspar mask resulting in a challenge to that decipherment (Houston and Coe 2003).

E. Logan Wagner's photographs of the La Mojarra inscription were shown at the Maya Meetings at the University of Texas at Austin in March of 1987 to an amazed audience—this author included. Immediately upon the publication of the monument by George Stuart and Winfield Capitaine (1988), Laura Stark and I began analysis of the two texts and began to put together a sign list. One of the first tasks necessary for decipherment is to establish the list of signs, also called *graphemes*, which represent the minimal meaningful graphic elements of the script. This involves determining the number of occurrences of a grapheme, identifying the variants of a single sign, and distinguishing between compound graphemes (signs composed of two or more elements) and compound signs (sign groups composed of two or more graphemes). Since the meanings of the signs are unknown, they must be named or numbered so that they can be referred to in a uniform manner by scholars.

We distributed a preliminary sign list to participating scholars prior to the La Mojarra Stela Conference sponsored by the Pre-Columbian Art Research Institute and the de Young Museum in San Francisco, in October of 1990. The first published version was a working paper (Macri and Stark 1991) modified to include changes suggested by a number of the participants. A sign list with a catalog of all known signs arranged by number was published as a monograph by the Pre-Columbian Art Research Institute (Macri and Stark 1993). The numbers 1-19 are reserved for bar-and-dot numbers. The rest of the ordering should be considered arbitrary, though we made an effort to group some similar signs together. The MS



prefixed to catalog numbers (for Macri-Stark) is maintained in this publication despite the fact that Laura Stark, now professor of Ethnology at the University of Jyväskylä, Finland, declined co-authorship of the updated materials.

This catalog includes signs from texts based on the following criteria: the texts have a large number of signs in common; the texts are formatted in single columns; and the texts are clear enough to be used with confidence. La Mojarrá Stela 1 is the most extensive, followed by the Feldspar Mask, and the Tuxtla Statuette. Only clearly recognizable signs from the Ceramic Mask (Méluzin 1995) and the Chiapa de Corzo Sherd (Lee 1969) are included. That is, no "new" signs from these texts have been added to the catalog. There are, of course, a number of other inscriptions on monuments and jade celts that are relevant to understanding the Isthmian script, but they either represent a separate script or are too brief or too eroded to be included with confidence. Monuments with a single Isthmian sign or with long counts and day signs in Isthmian style, but with no other legible texts, are not included in this study.

When several new signs came to light with the publication of the Feldspar Mask, it became necessary to offer an updated version of the earlier catalog. To avoid any confusion, since the numbers for signs in our original list have been used in at least three significant publications (Houston and Coe 2003; Justeson and Kaufman 1993; Mora-Marin 2010), none of the original numbers have been changed. Nineteen new signs have been added to the end of the sign list, beginning with the number MS201. Unrecognizable (eroded or partial) signs are not included in the sign list proper, but are referred to by a decimal beginning with .01.

One change to the original catalog that does not require new numbering is that because the sky-earth configuration represents a unique meaning (word or syllable) separate from either of the signs alone, an earth sign is now shown as part of MS36. When the catalog was first created, the authors were extremely conservative about grouping signs together with the consequence that several similar signs appear simply to be variants of each other. The numbering has not been changed, but at this point in time, the following sets may well represent variants single signs: 26, 27; 34, 35; 40, 41; 53, 54, 55; 57, 58; 85, 86; 87, 88; 107, 108; 127, 128; 142, 143; 174, 175, 176. Undoubtedly some of the signs beginning with 201 and some of the eroded signs may in the future be identified as variants of other known signs.

One of the characteristics of the Isthmian script is that it is written in single columns, with the result that within a text all the signs tend to be of the same width, but of varying height. For this project all of the signs have been redrawn by the author 1.45" wide, up to 2" high, on a canvas of 2" x 2" at 600 dpi with a pen size of about 21 pixels. A few of the tallest signs have required reduction of width to less than 1.45". When multiple drawings of a text are available, the variations tend to be insignificant. A few signs have been modified from Stuart's drawing of the La Mojarrá: in five examples of MS24 the central circle is changed to a scroll; lines are added to the top of scrolls at LMP19a and the center scroll at LMP14; the "mouth" of LMQ42 has been rounded; central elements of LMC5 and LMN27 are both modified slightly. Guide lines that appear along the back side of the columns were deleted. None of these changes appear to be important.

The drawings used in this publication are based on examination by this author of the Tuxtla Statuette and La Mojarrá Stela 1 and on photographs, rubbings, and drawings from the following published and unpublished sources:

Chiapa de Corzo Sherd (Justeson and Kaufman 2008; Lee 1969; Winfield Capitaine 1988)



Ceramic Mask, also called the ceramic O'Boyle Mask (Méluzin 1995), the clay O'Boyle "mask" (Justeson and Kaufman 2008; Pérez de Lara and Justeson 2006), and a clay Epi-Olmec Monkey Skull (Kerr 2010)

Feldspar Mask, also called the Teo Mask (Houston and Coe 2003), from photographs by Michael Coe (Macri 2016)

La Mojarra Stela 1, front, from drawings by George Stuart; photographs of a rubbing by Merle Greene Robertson (Robertson 1995); full size photographic negatives by George Stuart of John M. Keshishian's rubbing (Keshishian 1988); Pérez de Lara and Justeson's (2006) high resolution photographs

La Mojarra Stela 1, side, column V drawn by John Justeson (Justeson and Kaufman 1997)

Tuxtla Statuette (Covarrubias 1946; Holmes 1907; Holmes 1916; Houston 2004; Winfield Capitaine 1988)

The reading order of all known texts is in single columns, top to bottom, and usually from left to right. On two monuments, however, the reading order of some columns is right to left: the La Mojarra text is read from the center columns with long count dates to the outer edges (A-L), and the Feldspar Mask has two columns (D-C) that are read right to left (see Macri 2016). In both cases, not only is the reading order changed, but the signs themselves are reversed along the vertical axis. This reversal is not apparent in symmetrical abstract signs, but can be seen in asymmetrical signs including faces. That right to left reflects an unusual order can be seen in inconsistencies in sign reversal. Minor "errors" occur on the La Mojarra stela: the direction of the diagonal line in MS37 on LMB8, as well as with that element (MS37) in MS179 on LMF5. MS75 at LMD1b is not reversed as would be expected. Orientation of the signs does not appear to be important other than to reflect the reading order. The inconsistencies in the reversals are significant only in that they demonstrate that left to right is the customary order and right to left is the less common. In this sign list and catalog all examples are shown oriented as they are in the text.

Abbreviations

CD	Chiapa de Corzo Sherd
CM	Ceramic Mask
FM	Feldspar Mask
LM	La Mojarra Stela 1
TS	Tuxtla Statuette



Acknowledgements: The original sign list and catalog were truly joint efforts between this author and Laura Stark. I would like to thank her sincerely for our collaboration. Debts of gratitude are also due to a number of scholars supportive of our efforts: George Stuart, Merle Greene Robertson, Sylvia Méluzin, and more recently, Michael Coe and Steve Houston for photographs of the Feldspar Mask. Thanks also to John Justeson and Terrence Kaufman who played an important role in publicizing the extraordinary text on La Mojarra Stela 1. Support for the original investigation came from a University of California President's Fellowship, a grant from the Pre-Columbian Art Research Institute in San Francisco, and the de Young Museum of San Francisco.

References

Covarrubias, Miguel

1946 *Mexico South: The Isthmus of Tehuantepec*. New York: Alfred A. Knopf, Inc.

Holmes, W.H.

1907 On a Nephrite Statuette from San Andres Tuxtla, Vera Cruz, Mexico. *American Anthropologist* 9: 691–701.

1916 The Oldest Dated American Monument: A Nephrite Figurine from Mexico. *Art and Archaeology* 3(5): 274–278.

Houston, Stephen D.

2004 Writing in Early Mesoamerica. In *The First Writing: Script Invention as History and Process*, Stephen D. Houston, ed., Pp. 274-309 Cambridge: Cambridge University Press.

Houston, Stephen D., and Michael D. Coe

2003 Has Isthmian Writing Been Deciphered? *Mexicon* 25: 151–161.

Justeson, John S., and Terrence S. Kaufman

1993 A Decipherment of Epi-Olmec Hieroglyphic Writing. *Science* 259: 1703–1711.

1997 A Newly Discovered Column in the Hieroglyphic Text on La Mojarra Stela 1: A Test of the Epi-Olmec Decipherment. *Science* 277: 207–210.

2008 The Epi-Olmec Tradition at Cerro de Las Mesas in the Classic Period. In *Classic Period Cultural Currents in Southern and Central Veracruz*. Philip Arnold III and Christopher A. Pool, eds. Pp. 159–194. Washington, D.C.: Dumbarton Oaks Research Library and Collection.

Kerr, Justin

2010 Epi Olmec Monkey Skull. Photograph. A Precolumbian Portfolio, An Archive of Photographs created by Justin Kerr.

http://research.mayavase.com/portfolio_hires.php?search=Mo&date_added=&image=1780&display=8&rowstart=0, accessed January 18, 2017.



Keshishian, John M.

1988 Notes on the Rubbing of the La Mojarra Stela. In *La Estela 1 de La Mojarra, Veracruz, México. Research Reports on Ancient Maya Writing*, 16. Washington, D. C.: Center for Maya Research.

Lee, Thomas A.

1969 *Artifacts of Chiapa de Corzo, Chiapas, Mexico*. Papers of the New World Archaeological Foundation, vol. 26. Provo, Utah: Brigham Young University.

Macri, Martha J.

2016 A New Drawing of the Isthmian Inscription on the Feldspar Mask Published by Houston and Coe. *Glyph Dwellers*, Report 38
<http://myweb.csuchico.edu/~mlooper/glyphdwellers/pdf/R38.pdf>.

Macri, Martha J., and Laura Stark

1993 *A Sign Catalog of the La Mojarra Script*. Monograph 5. San Francisco: Pre-Columbian Art Research Institute.

Macri, Martha J., and Laura M. Stark

1991 A Sign List of the La Mojarra Script. *Davis Working Papers in Linguistics* 4: 25–29. University of California, Davis.

Méluzin, Sylvia

1995 *Further Investigations of the Tuxtla Script: An Inscribed Mask and La Mojarra Stela 1*. Papers of the New World Archaeological Foundation 65. Provo, Utah: Brigham Young University.

Mora-Marin, David F.

2010 A Review of Recent Work on the Decipherment of Epi-Olmec Hieroglyphic Writing. *Mexicon* 32: 31–37.

Pérez de Lara, Jorge, and John Justeson

2006 Photographic Documentation of Monuments with Epi-Olmec Script/Imagery. Foundation for the Advancement of Mesoamerican Studies.
<http://www.famsi.org/reports/05084/index.html>, accessed February 18, 2017.

Robertson, Merle Greene

1995 *Merle Greene Robertson: Rubbings of Maya Sculpture*. CD-ROMs. San Francisco: Pre-Columbian Art Research Institute.

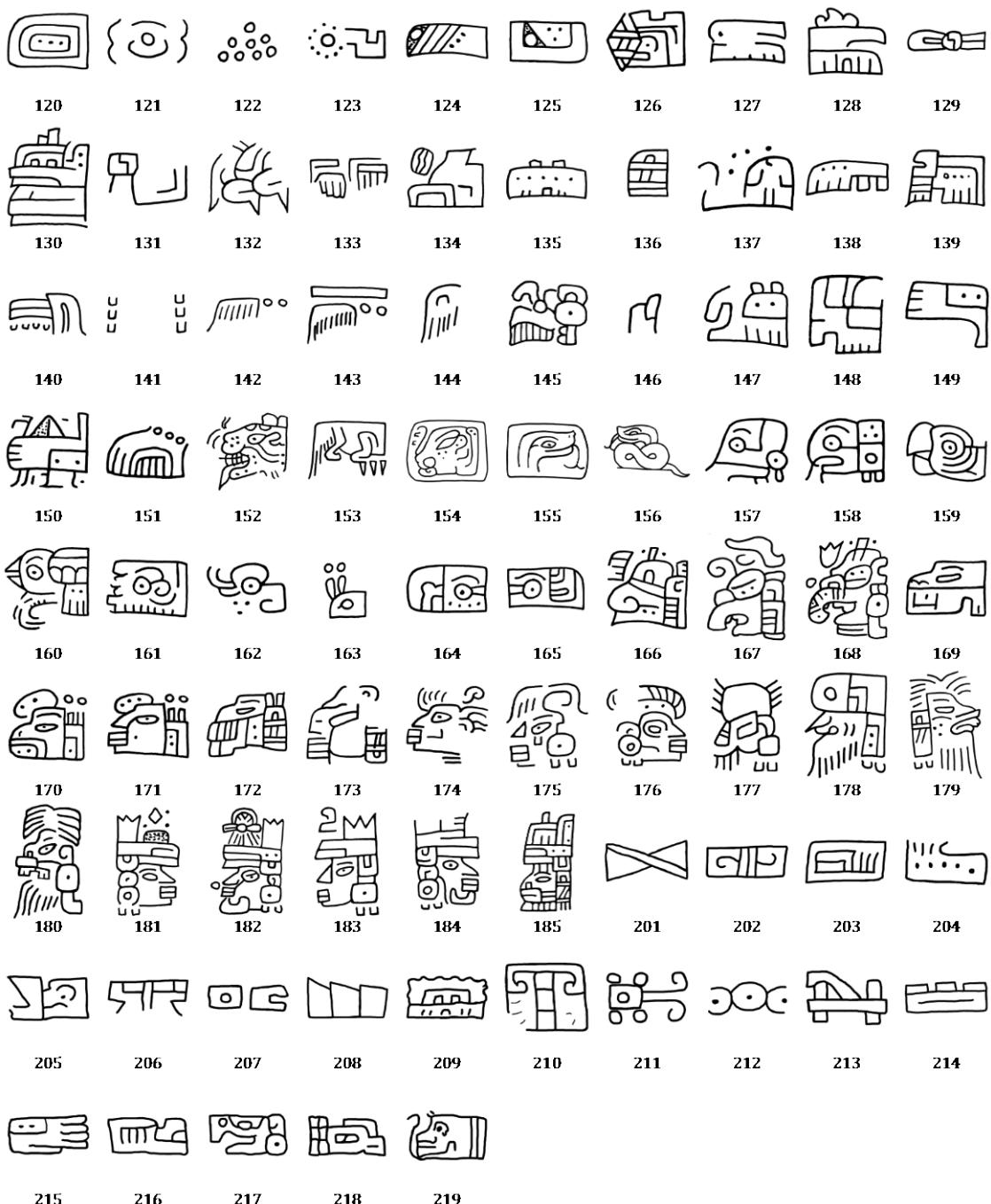
Winfield Capitaine, Fernando

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A Sign List of the Isthmian Script

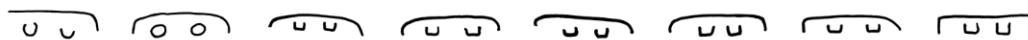
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30	31	32	33	34	35	36	37	38	39
40	41	42	43	44	45	46	47	48	49
50	51	52	53	54	55	56	57	58	59
60	61	62	63	64	65	66	67	68	69
70	71	72	73	74	75	76	77	78	79
80	81	82	83	84	85	86	87	88	89
90	91	92	93	94	95	96	97	98	99
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110	111	112	113	114	115	116	117	118	119



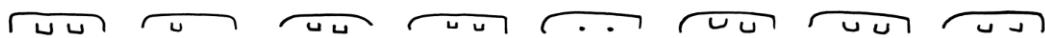


A Catalog of Signs Grouped by Number

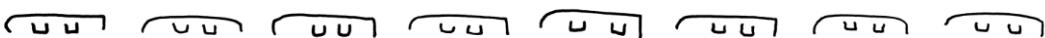
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CDB02 CDC03 LMB09 LMC04 LMC07 LME03 LMF06 LMH02



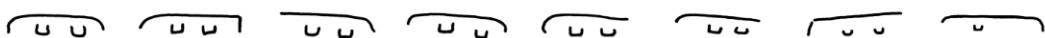
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LMO14 LMO28 LMP09 LMP26 LMP39 LMQ11 LMQ25 LMQ33



LMQ47 LMR03 LMR08 LMR40 LMS12 LMS24 LMS34 LMT06



LMT12 LMT23 LMT28 LMT32 LMT46 LMU14 LMV10 LMV18



LMV23 LMV30 TSC03 TSC10 TSD07 TSD11 TSE03 TSF08

21



TSG03 TSG08 TSH02 TSI02 LM004 TSF01 FMA05 LMP04



LMR42 LMS02 LMS14 LMS23 LMS26 LMS33 LMS36 LMS51

22



FMA05 LMP04



LMS36 LMS51



23



TSD08



LMB05



LM035



LMP24



LMQ22

24



LMN33



LMP40



LMQ22

25



LMQ34



LMQ48



LMS35



LMS44



LMR48



LMS30



LMU09



LMQ04

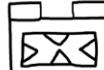
27



TSC09b



TSF12



FMB01



FMB04



FMC10



FMF06



LMP41



LMQ37

28



LMR15



LMT21



LMP43b



LMS17b



LMC02b



LMR06b



LMC03



LMR06a

32



LMR07



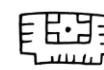
LMC02a



LMN13



LMR18



LMI05



LMV06b



TSG13



LMS15

33



LMT01



CMC02



LMB08



LMN25



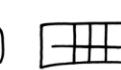
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LMT34

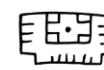


LMF03



LMH03

34



LMN22



LMN24



LMO34

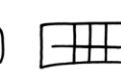


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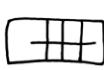


TSG13

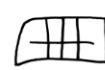


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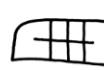
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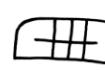
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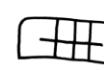
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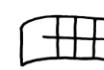
LMN11



LMN20



LMN22



LMN24

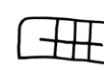


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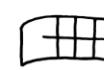


LMO37

37



38



LMH03



LMH03



LMP05



LMP27



LMP29



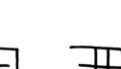
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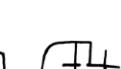
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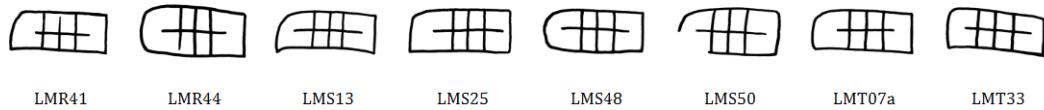
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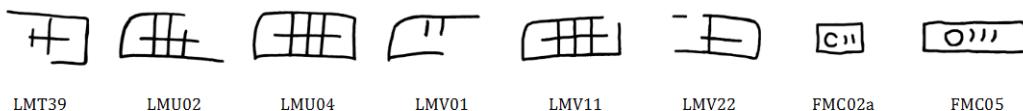
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LMR37

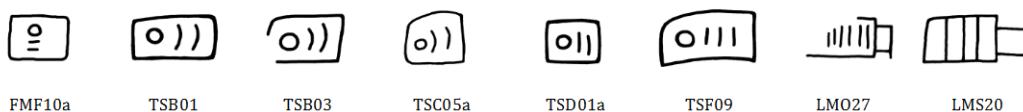


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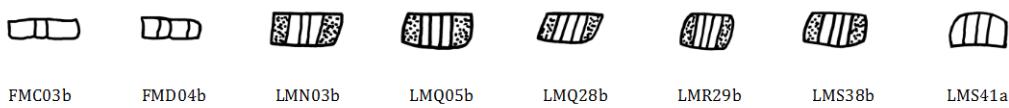


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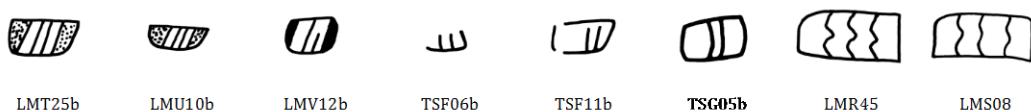
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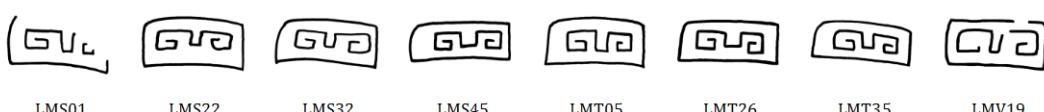
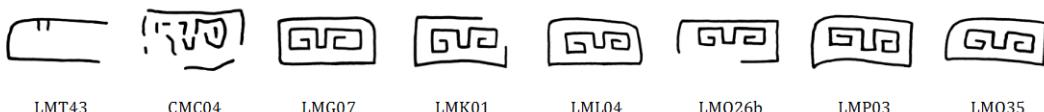
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43

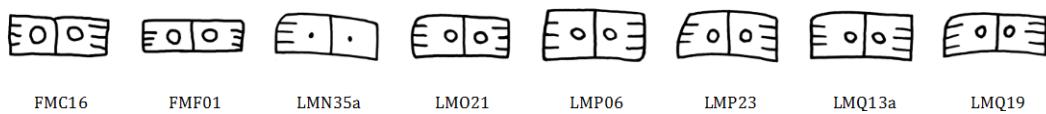


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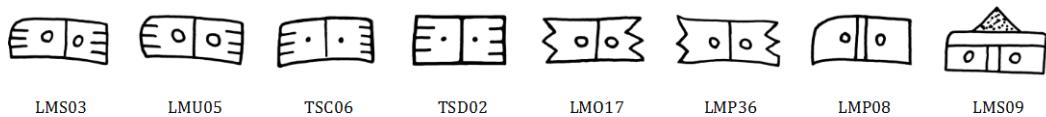




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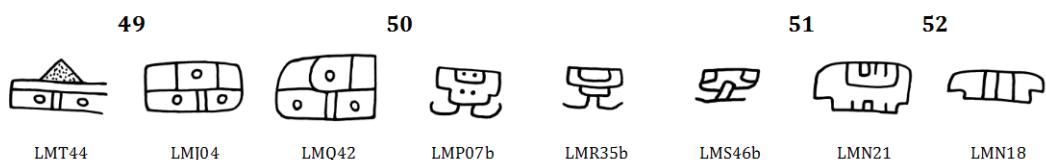


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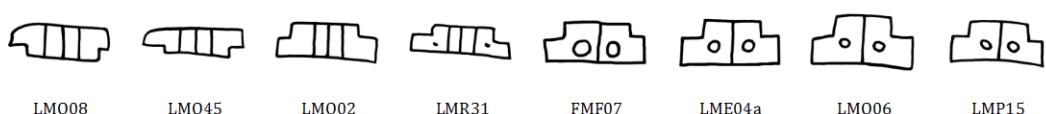
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48



53

54



55

56



57

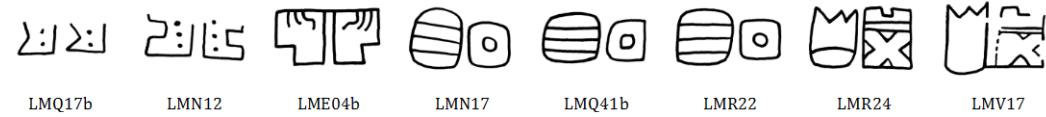


58

59

60

61



62

63





LMD06	LME02	LMG01	LMG03	LMG06	LML08	LMN04	LM003
LMP20	LMQ03	LMQ32	LMQ38	LMR05	LMR13	LMU12	LMV26
64		65					
TSJ03	LM004	LMJ01	LMS28	LMO23	LMS27a	LMT03	TSG12
66	67	68					
LMN34a	LMN26	LMR32	LMT29	LMT36	LMU11	LMV15	TSG01
69	70	71	72				
LMP16	LMT41	LMR47	FME15	LMA03b	LMI02	LMM09b	LMN07
73							
LMN14	LMO29	LMR19	LMR26b	LMT08b	LMV04	TSA01c	TSB04
74		75					
TSD04	LMC05	LMN27	FMD17	FME06	LMD01b	LM025	LMP17b
76		77					
LMQ24	LMR23	LMS42b	TSD10	TSF13b	LMP38a	LM007	LMQ44



78	79	80	81
LMP38b	FMA09	FMF09	LMQ09a
LMQ09b	LMQ23	LMT11	LMR25
82	83	84	85
LMT10	LMQ01	LMN23	LMP10
LMQ10	TSG06	LM103	LMN08
86	87	88	89
LM106	FMD15	LMP30	FMA08
IMS11	LMN38	LMR09	LMT17
90	91	92	93
LM030	LM013	LMR02	LMV29
TSH01	LMS47	CDC04	FMB09a
FMC04a	FMD11a	LMJ07	LMK03
LMO33a	LMP01	LMV07a	TSF07a
94	95	96	
TSG02a	TSG07a	LMP19b	LMA01
LMM08	LMG04b	LMP14	LMP19a
97	98		
TSA01a	FMC06	LMJ06	LMO38
LMP43a	LMS17a	TSB02	LMR21
99	100		
FMC14	FMF11	LMU03	GDB05
CDC02	FMB09b	FMC04b	FMD11b



101



LMO33b LMP18 LMQ08 LMV07b TSF07b TSG02b TSG07b LMH04



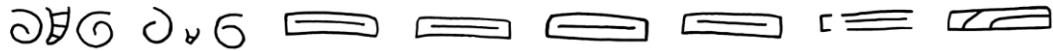
LMK04b LMK06 LMM06b LMO36 LMP28b LMQ02b LMR33 LMR46



LMS27b LMS43 LMT4b LMT07b LMT15b LMT30 LMT38b LMV02b

102

103



LMS07 LMT42 LMK04a LMM06a LMQ02a LMT4a LMV02a LMV06a

104

105

106

107



LMB04 LMT15a LMO32a LMQ06 LMV08 TSA01b FMC08a LMP34

108

109

110

111

112

113

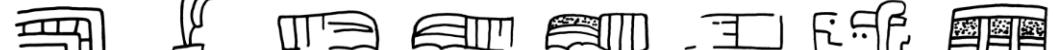


LMQ36 TSC09a LMB07 LMR04a LMA02 LMO24b LMO12b LMS21

114

115

116



TSF04 LMB01a LML02 LMO10 LMQ16 LMV24 LML06 LMN03a

117

118

119

120

121

122



LMQ39 TSF03 LML03a LMO11a LMQ17a LMP35 LMQ12 LMJ03



123

124



LMV21



TSE01



CDB01



CDC05



FMB02



FMB06



LMK02



LMP25

125



LMP37



LMQ21



LMR16



LMT22



FMB11



LMB02



LMN34b



LMS41b

126

127

128

129



TSC07



LMD05



LMP01



LMD01a



LMP17a



LMQ41a



LMS42a



LMT37

130

131

132

133

134

135



TSF13a



LMQ29



TSA07b



LMP33



LMQ15



LMV20



LMO26a



LMQ27

136

137

138



LMG04c



LM018b



LMP22b



LMN02



FMD09



LMC06



LML07



LMR30

139

140



LMS16



LMS40



LMT02



FME04



LMO15



LMP11



LMK05



LMM03

141



LMV14



FMC02b



FMC09b



FMC13b



FMD03b



FMD06b



FME02b



FME10b

142

143



FMF05b



FMF10b



TSC05b



TSD01b



LMQ07



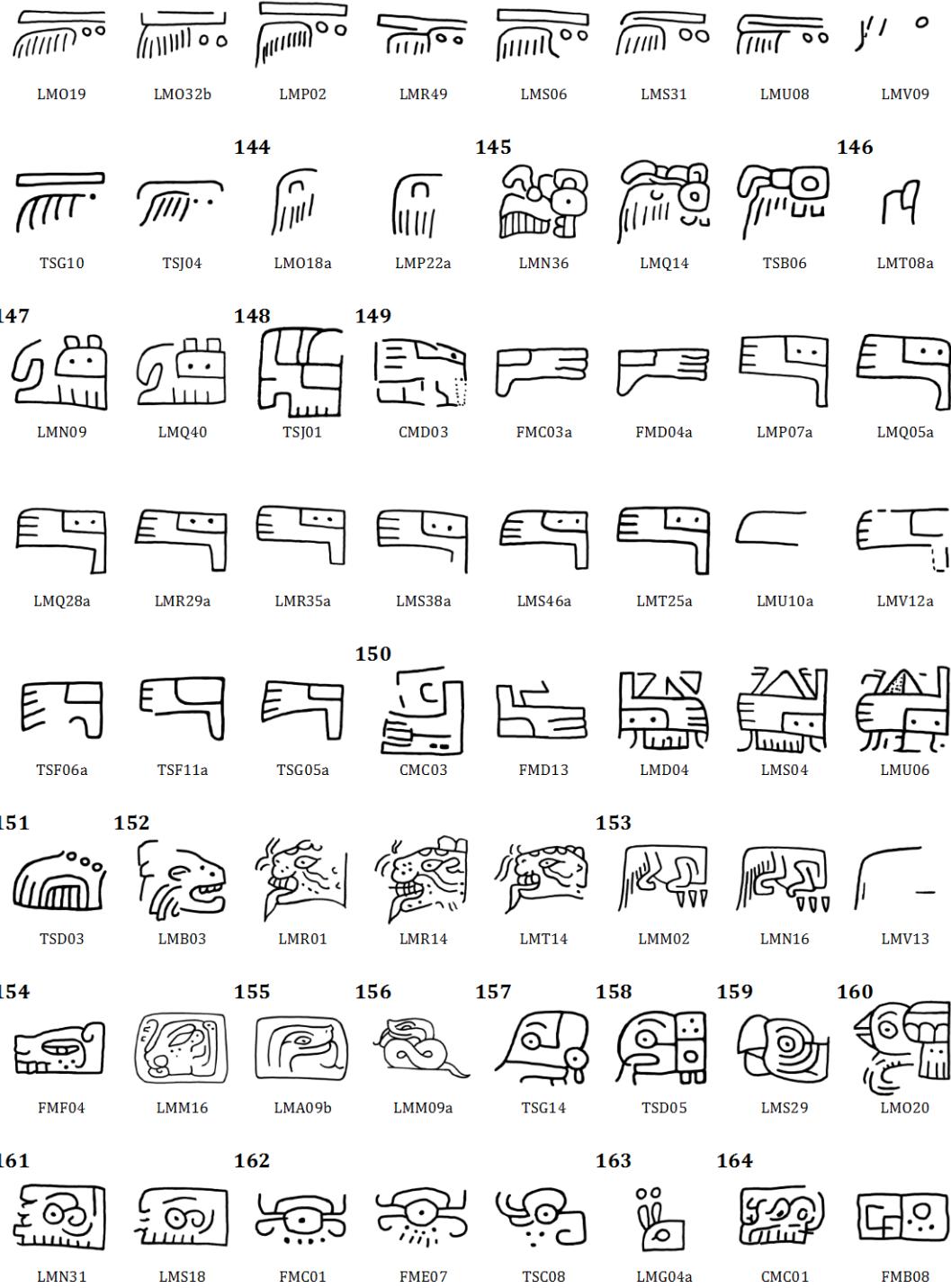
LMQ30



LMB01b

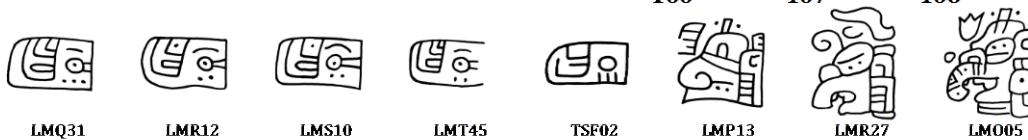
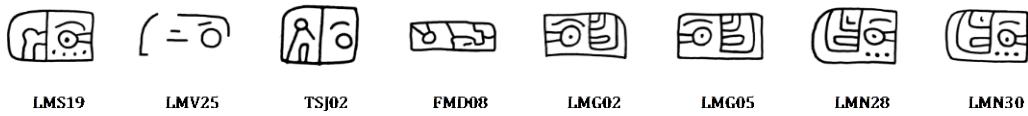


LMJ08

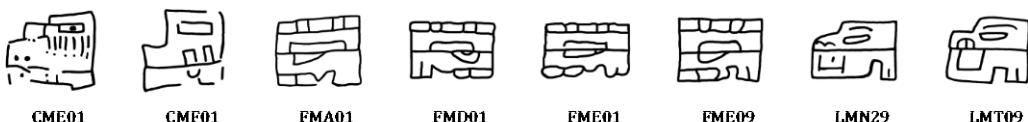




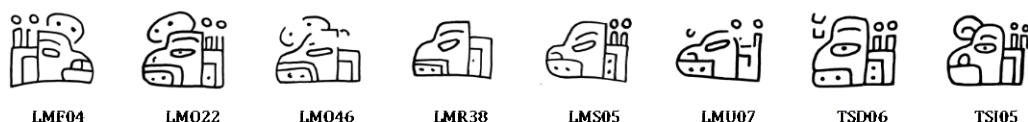
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169



170



171



172

173

174

175

176



177

178

179



180

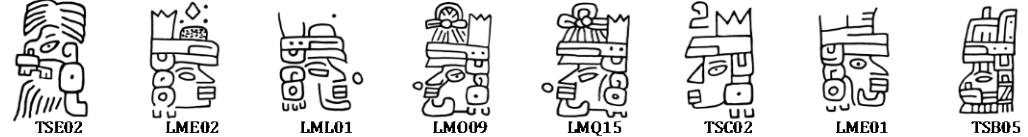
181

182

183

184

185





201



FMA02

202



FMB03

203



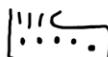
FME12

204



FMB07

205



FMF12

206



FMB12

207



FMC08b

208



FME03

209



FMA06

210



FMC17

211



FMA11

212



FMF08

213



FMC11

214



FMA03

215



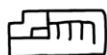
FMD02

216



FME16

217



FMD05

218



FMD16

219



FME13



Eroded and Partial Signs

0.01	0.02	0.03	0.04	0.05	0.06	0.07
CDB03	CDB04	CDC01	CDC06	GMA01	GMA02	GMA03
0.08	0.09	0.1	0.11	0.12	0.13	0.14
CMB01	CMB02	GMB03	GMB04	GMD01	GMD02	GMD04
0.15	0.16	0.17	0.18	0.19	0.2	0.21
GME02	GME03	GMF02	GMG01	GMG03	FMB14	FMC12
0.22	0.23	0.24	0.25	0.26	0.27	0.28
FMD12	LMP31	LMP32	LMR36	LMS39	LMU01	LMV05
0.29	0.3	0.31	0.32	0.33		
LMV16	LMV28	TSD12	TSG11	TSI01		



A List of Texts by Coordinate and Sign Number

CDB01	124	FMA10	13	FMD03	141	FMF07	54	LME01	184
CDB02	20	FMA11	210	FMD04	149	FMF08	211	LME02	181
CDB03	0.01	FMB01	28	FMD04	42	FMF09	79	LME03	20
CDB04	0.02	FMB02	124	FMD05	215	FMF10	39	LME04	54
CDB05	100	FMB03	202	FMD06	39	FMF10	141	LME04	59
CDC01	0.03	FMB04	28	FMD06	141	FMF11	99	LMF01	128
CDC02	100	FMB05	212	FMD07	218	FMF12	204	LMF02	63
CDC03	20	FMB06	124	FMD08	165	LMA01	95	LMF03	38
CDC04	93	FMB07	203	FMD09	138	LMA03	3	LMF04	170
CDC05	124	FMB08	164	FMD10	57	LMA02	110	LMF05	179
CDC06	0.04	FMB09	93	FMD11	93	LMA03	72	LMF06	20
CMA01	0.05	FMB09	100	FMD11	100	LMA04	8	LMG01	63
CMA02	0.06	FMB10	5	FMD12	0.22	LMA05	5	LMG02	165
CMA03	0.07	FMB11	125	FMD13	150	LMA06	3	LMG03	63
CMB01	0.08	FMB12	205	FMD14	207	LMA07	3	LMG04	163
CMB02	0.09	FMB13	63	FMD15	87	LMA08	5	LMG04	96
CMB03	0.1	FMB14	0.2	FMD16	216	LMA09	13	LMG04	136
CMB04	0.11	FMC01	162	FMD17	75	LMA09	155	LMG05	165
CMC01	164	FMC02	39	FME01	169	LMB01	114	LMG06	63
CMC02	37	FMC02	141	FME02	39	LMB01	143	LMG07	44
CMC03	150	FMC03	149	FME02	141	LMB02	125	LMH01	176
CMC04	44	FMC03	42	FME03	207	LMB03	152	LMH02	20
CMD01	0.12	FMC04	93	FME04	139	LMB04	104	LMH03	38
CMD02	0.13	FMC04	100	FME05	216	LMB05	23	LMH04	101
CMD03	149	FMC05	39	FME06	75	LMB06	63	LMI01	13
CMD04	0.14	FMC06	97	FME07	162	LMB07	109	LMI02	72
CME01	169	FMC07	10	FME08	217	LMB08	37	LMI03	85
CME02	0.15	FMC08	107	FME09	169	LMB09	20	LMI04	64
CME03	0.16	FMC08	206	FME10	39	LMC01	63	LMI05	34
CMF01	169	FMC09	39	FME10	141	LMC02	32	LMI06	86
CMF02	0.17	FMC09	141	FME11	63	LMC02	30	LMJ01	64
CMG01	0.18	FMC10	28	FME12	202	LMC03	31	LMJ02	6
CMG02	56	FMC11	213	FME13	219	LMC04	20	LMJ03	122
CMG03	0.19	FMC12	0.21	FME14	57	LMC05	74	LMJ04	49
FMA01	169	FMC13	39	FME15	72	LMC06	138	LMJ05	20
FMA02	201	FMC13	141	FME16	214	LMC07	20	LMJ06	97
FMA03	214	FMC14	99	FMF01	45	LMD01	129	LMJ07	93
FMA04	2	FMC15	39	FMF02	212	LMD01	75	LMJ08	143
FMA05	22	FMC16	45	FMF03	9	LMD02	63	LMK01	44
FMA06	208	FMC17	209	FMF04	154	LMD03	176	LMK02	124
FMA07	63	FMD01	169	FMF05	39	LMD04	150	LMK03	93
FMA08	88	FMD02	214	FMF05	141	LMD05	127	LMK04	103
FMA09	79	FMD03	39	FMF06	28	LMD06	63	LMK04	101



LMK05	140	LMN12	58	LMO13	91	LMP12	171	LMQ05	42
LMK06	101	LMN13	33	LMO14	20	LMP13	166	LMQ06	105
LMK07	20	LMN14	72	LMO15	139	LMP14	96	LMQ07	142
LML01	182	LMN15	55	LMO16	171	LMP15	54	LMQ08	100
LML02	114	LMN16	153	LMO17	46	LMP16	69	LMQ09	79
LML03	119	LMN17	60	LMO18	136	LMP17	129	LMQ09	79
LML03	57	LMN18	52	LMO18	144	LMP17	75	LMQ10	83
LML04	44	LMN19	20	LMO19	143	LMP18	100	LMQ11	20
LML05	133	LMN20	38	LMO20	160	LMP19	96	LMQ12	121
LML06	115	LMN21	51	LMO21	45	LMP19	94	LMQ13	45
LML07	138	LMN22	38	LMO22	170	LMP20	63	LMQ13	57
LML08	63	LMN23	83	LMO23	65	LMP21	10	LMQ14	145
LML09	20	LMN24	38	LMO24	171	LMP22	136	LMQ15	182
LMM01	171	LMN25	37	LMO24	111	LMP22	144	LMQ16	114
LMM02	153	LMN26	67	LMO25	75	LMP23	45	LMQ17	119
LMM03	140	LMN27	74	LMO26	134	LMP24	23	LMQ17	57
LMM04	56	LMN28	165	LMO26	44	LMP25	124	LMQ18	38
LMM05	38	LMN29	169	LMO27	40	LMP26	20	LMQ19	45
LMM06	103	LMN30	165	LMO28	20	LMP27	38	LMQ20	56
LMM06	101	LMN31	161	LMO29	72	LMP28	171	LMQ21	124
LMM07	20	LMN32	20	LMO30	90	LMP28	101	LMQ22	23
LMM08	95	LMN33	24	LMO31	8	LMP29	38	LMQ22	24
LMM09	156	LMN34	66	LMO32	105	LMP30	87	LMQ23	80
LMM09	72	LMN34	125	LMO32	143	LMP31	0.23	LMQ24	75
LMM10	15	LMN35	45	LMO33	93	LMP32	0.24	LMQ25	20
LMM11	8	LMN35	57	LMO33	100	LMP33	132	LMQ26	56
LMM12	5	LMN36	145	LMO34	38	LMP34	107	LMQ27	135
LMM13	16	LMN37	20	LMO35	23	LMP35	120	LMQ28	149
LMM14	9	LMN38	89	LMO36	101	LMP36	46	LMQ28	42
LMM15	7	LMO01	13	LMO37	38	LMP37	124	LMQ29	130
LMM16	154	LMO02	53	LMO38	97	LMP38	76	LMQ30	142
LMN01	4	LMO03	63	LMP01	93	LMP38	78	LMQ31	165
LMN02	137	LMO04	21	LMP02	143	LMP39	20	LMQ32	63
LMN03	116	LMO05	168	LMP03	44	LMP40	24	LMQ33	20
LMN03	42	LMO06	54	LMP04	22	LMP41	28	LMQ34	24
LMN04	63	LMO07	77	LMP05	38	LMP43	97	LMQ35	44
LMN05	38	LMO08	52	LMP06	45	LMP43	29	LMQ36	107
LMN06	171	LMO09	182	LMP07	149	LMQ01	82	LMQ37	28
LMN07	72	LMO10	114	LMP07	50	LMQ02	103	LMQ38	63
LMN08	85	LMO11	119	LMP08	47	LMQ02	101	LMQ39	117
LMN09	147	LMO11	57	LMP09	20	LMQ03	63	LMQ40	147
LMN10	20	LMO12	171	LMP10	83	LMQ04	26	LMQ41	129
LMN11	38	LMO12	112	LMP11	139	LMQ05	149	LMQ41	60



LMQ42	49	LMR32	68	LMS24	20	LMT08	72	LMU03	99
LMQ43	54	LMR33	101	LMS25	38	LMT09	169	LMU04	38
LMQ44	77	LMR34	38	LMS26	22	LMT10	81	LMU05	45
LMQ45	52	LMR35	149	LMS27	65	LMT11	80	LMU06	150
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LMQ47	20	LMR36	0.25	LMS28	64	LMT13	171	LMU08	143
LMQ48	24	LMR37	38	LMS29	159	LMT14	152	LMU09	25
LMQ49	173	LMR38	170	LMS30	25	LMT15	104	LMU10	149
LMR01	152	LMR39	179	LMS31	143	LMT15	101	LMU10	42
LMR02	91	LMR40	20	LMS32	44	LMT16	3	LMU11	68
LMR03	20	LMR41	38	LMS33	22	LMT17	89	LMU12	63
LMR04	109	LMR42	22	LMS34	20	LMT18	178	LMU13	176
LMR04	37	LMR43	2	LMS35	24	LMT19	13	LMU14	20
LMR05	63	LMR44	38	LMS36	22	LMT20	172	LMV01	38
LMR06	31	LMR45	43	LMS37	56	LMT21	28	LMV02	103
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LMR07	31	LMR47	71	LMS38	42	LMT23	20	LMV03	12
LMR08	20	LMR48	25	LMS39	0.26	LMT24	56	LMV04	72
LMR09	89	LMR49	143	LMS40	138	LMT25	149	LMV05	0.28
LMR10	178	LMS01	44	LMS41	42	LMT25	42	LMV06	103
LMR11	9	LMS02	22	LMS41	125	LMT26	44	LMV06	34
LMR12	165	LMS03	45	LMS42	129	LMT27	54	LMV07	93
LMR13	63	LMS04	150	LMS42	75	LMT28	20	LMV07	100
LMR14	152	LMS05	170	LMS43	101	LMT29	68	LMV08	105
LMR15	28	LMS06	143	LMS44	24	LMT30	101	LMV09	143
LMR16	124	LMS07	102	LMS45	44	LMT31	176	LMV10	20
LMR17	38	LMS08	43	LMS46	149	LMT32	20	LMV11	38
LMR18	33	LMS09	48	LMS46	50	LMT33	38	LMV12	149
LMR19	72	LMS10	165	LMS47	92	LMT34	37	LMV12	42
LMR20	55	LMS11	88	LMS48	38	LMT35	44	LMV13	153
LMR21	98	LMS12	20	LMS49	174	LMT36	68	LMV14	140
LMR22	60	LMS13	38	LMS50	38	LMT37	129	LMV15	68
LMR23	75	LMS14	22	LMS51	22	LMT38	101	LMV16	0.29
LMR24	61	LMS15	36	LMT01	36	LMT39	38	LMV17	61
LMR25	81	LMS16	138	LMT02	138	LMT40	179	LMV18	20
LMR26	1	LMS17	97	LMT03	65	LMT41	70	LMV19	44
LMR26	72	LMS17	29	LMT4a	103	LMT42	102	LMV20	133
LMR27	167	LMS18	161	LMT4b	101	LMT43	43	LMV21	123
LMR28	38	LMS19	164	LMT05	44	LMT44	48	LMV22	38
LMR29	149	LMS20	41	LMT06	20	LMT45	165	LMV23	20
LMR29	42	LMS21	113	LMT07	38	LMT46	20	LMV24	114
LMR30	138	LMS22	44	LMT07	101	LMU01	0.27	LMV25	164
LMR31	53	LMS23	22	LMT08	146	LMU02	38	LMV26	63



LMV27	176	TSD11	20	TSJ01	148
LMV28	0.3	TSD12	0.31	TSJ02	164
LMV29	91	TSE01	123	TSJ03	63
LMV30	20	TSE02	180	TSJ04	143
TSA01a	96	TSE03	20	TSJ05	170
TSA01b	106	TSF01	21		
TSA01c	72	TSF02	165		
TSA02	8	TSF03	118		
TSA03	6	TSF04	113		
TSA04	2	TSF05	62		
TSA05	4	TSF06a	149		
TSA06	17	TSF06b	42		
TSA07a	8	TSF07a	93		
TSA07b	131	TSF07b	100		
TSB01	39	TSF08	20		
TSB02	97	TSF09	39		
TSB03	39	TSF10	177		
TSB04	73	TSF11a	149		
TSB05	185	TSF11b	42		
TSB06	145	TSF12	27		
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TSC07	126	TSG05a	149		
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TSC09a	108	TSG06	84		
TSC09b	27	TSG07a	93		
TSC10	20	TSG07b	100		
TSD01a	39	TSG08	20		
TSD01b	141	TSG09	171		
TSD02	45	TSG10	143		
TSD03	151	TSG11	0.32		
TSD04	73	TSG12	65		
TSD05	158	TSG13	35		
TSD06	170	TSG14	157		
TSD07	20	TSH01	91		
TSD08	22	TSH02	20		
TSD09	8	TSI01	0.33		
TSD10	75	TSI02	20		



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