

# Proposal to Encode Proto-Cuneiform

Steve Tinney, Anshuman Pandey, and Robin Leroy

July 10, 2025

## Contents

<b>Acknowledgements</b>	<b>3</b>
<b>1 Summary</b>	<b>3</b>
<b>2 Previous Proposals</b>	<b>3</b>
<b>3 The Archaic Period in Mesopotamia</b>	<b>4</b>
3.1 Birth of Cities . . . . .	4
3.2 History . . . . .	5
3.3 Major Text Corpora . . . . .	5
3.3.1 Administrative Texts . . . . .	5
3.3.2 Lexical Lists . . . . .	7
3.4 Writing . . . . .	9
3.4.1 Technology, Technique, Phases . . . . .	9
3.4.2 Orientation and Disposition . . . . .	10
3.4.3 Semantics . . . . .	10
<b>4 Rationale for Separately Encoding Proto-Cuneiform</b>	<b>10</b>
4.1 ED I-II Excluded from the Proposal . . . . .	12
4.1.1 PC signs in ED I-II . . . . .	13
4.1.2 Pcusn and Xsux Relationships Not in Unicode Scope . . . . .	13
<b>5 Materials for Encoding Proto-Cuneiform</b>	<b>13</b>
5.1 Texts . . . . .	14
5.1.1 The Print Corpus . . . . .	14
5.1.2 The Digital Corpus . . . . .	15
5.1.3 PCSL Corpus . . . . .	15
5.1.4 PC25 Corpus . . . . .	15
5.2 Signs . . . . .	16
5.2.1 Grapheme Distribution . . . . .	16
5.2.2 PCSL Corpus Grapheme Distribution . . . . .	16
5.3 Lists . . . . .	16
5.3.1 Historic Lists . . . . .	16
5.3.2 The Intended Standard List . . . . .	16
5.3.3 Revisionist Lists . . . . .	16
5.3.4 The Digital List . . . . .	17
5.3.5 The Oracc List . . . . .	17
5.3.6 Sign Lists and Prior PC Proposals . . . . .	17
5.3.7 Sign List Cautions . . . . .	17
5.4 Coverage . . . . .	18

<b>6 Principles for Encoding</b>	<b>18</b>
6.1 (Non-)Contrastive Usage . . . . .	18
6.1.1 (Non-)Contrastive Usage in Complex and Compound Signs . . . . .	19
6.2 Sequences . . . . .	19
6.3 Principles . . . . .	19
6.4 Advantages of the Revised Approach . . . . .	20
6.5 Reference Glyphs . . . . .	21
<b>7 Proposal Documents</b>	<b>21</b>
7.1 Code Charts . . . . .	22
7.2 Character List . . . . .	27
<b>References</b>	<b>45</b>
<b>Appendices</b>	<b>45</b>
<b>A PCSL Table</b>	<b>46</b>
<b>B ZATU-PCSL Concordance</b>	<b>194</b>
<b>C Index of Alternate CDLI Sign Names</b>	<b>202</b>
<b>D PCSL Non-PC25</b>	<b>205</b>
<b>E PC25 Not Encoded: Broken</b>	<b>212</b>
<b>F PC25 Not Encoded: Uruk V not in Sub-corpus</b>	<b>214</b>
<b>G PC25 Not Encoded: Uruk IV/III not in Sub-corpus</b>	<b>215</b>
<b>H PC25 Not Encoded: ED I-II not in Sub-corpus</b>	<b>225</b>
<b>I PC25 Not Encoded: Delete</b>	<b>229</b>
<b>J PC25 Not Encoded: Number (non-ACN)</b>	<b>230</b>
<b>K PC25 Sequences Encoded as Exceptions</b>	<b>233</b>
K.1 Reasons for Exceptions . . . . .	233
K.1.1 Reanalysis . . . . .	233
K.1.2 Container Equivalency . . . . .	233
K.1.3 Unencoded Constituents . . . . .	233
K.1.4 Analogy: BAPPIR Group . . . . .	233
K.1.5 Analogy: Sheep Group . . . . .	233
K.1.6 Analogy: UTUL Group . . . . .	233
<b>L Sequences Data</b>	<b>236</b>
<b>M Implementation Notes on Sequences</b>	<b>251</b>
M.1 Sequences have constant character names . . . . .	251
M.2 Glyphs have unique names . . . . .	252
M.3 How unique glyph names are constructed . . . . .	252
M.4 How glyph names are turned into ligatures . . . . .	252
<b>N Fonts for the Proposal</b>	<b>252</b>
N.1 PCSL.ttf . . . . .	252
N.2 pc25-cc.ttf . . . . .	253

## Acknowledgements

This proposal would not have come about without the prior work of many people, whom it would be impractical to name exhaustively here although most of their names occur *passim* in the References section of this document. The Berlin/UCLA team led by Robert Englund and Peter Damerow, which itself gave rise to CDLI [CDLI], most recently managed by Émilie Pagé-Perron and Jacob Dahl and others, carried out foundational work on the print and digital resources on which all work on Proto-Cuneiform is based.

Michael Everson, Laura Hawkins and Debbie Anderson carried out and fostered work on Proto-Cuneiform for Unicode under the auspices of the Script Encoding Initiative [L2/16-267; L2/17-157; L2/19-284]. More recently, Anshuman Pandey laid the basis for the current proposal in several important proposal documents of his own [L2/20-193; L2/22-239; L2/23-190].

Steve Tinney authored the bulk of the current proposal and created the Oracc PCSL project [Tin24], the digital corpus (based on CDLI) and resources from which the appendices are derived.

Robin Leroy authored the section “Rationale for Separately Encoding Proto-Cuneiform” and frequently shared his expertise on cuneiform, Unicode, and LaTeX.

The PCSL font was initially created by Anshuman Pandey based on Bob Englund’s collection of signs and was an essential basis for the current proposal. The font was revised and augmented by Steve Tinney.

## 1 Summary

This is a new proposal to encode 1392 ‘Proto-Cuneiform’ ([ISO15924] Pcusn) characters in Unicode. These characters belong to the earliest attested writing system, which emerged at the end of the 4th millennium BCE in Uruk, a region between the Tigris and Euphrates rivers, in what is commonly referred to as Mesopotamia.

Proto-Cuneiform is a pictographic script, with symbols etched or pressed onto clay surfaces. This writing system was used initially for administrative and accounting purposes. Over time, these pictographs were replaced with more abstract signs, which are known as ‘cuneiform’ ([ISO15924] Xsux). Accordingly, this ancestral writing system is known as ‘proto-cuneiform’. The ‘Sumero-Akkadian Cuneiform’ and ‘Early Dynastic Cuneiform’ blocks in Unicode cover most of the Xsux cuneiform repertoire.

Apart from the source materials, Proto-Cuneiform signs are depicted in scholarly publications, both in tables and in running text. Currently, these signs are displayed using images or fonts mapped to other script blocks due to the absence of a Unicode encoding. The aim of this proposal is to encode in Unicode a well-defined repertoire that will enable the representation of Proto-Cuneiform characters in plain text.

## 2 Previous Proposals

This proposal supersedes the following documents:

- [L2/16-267] = L2/16-267: “Preliminary proposal to encode Proto-Cuneiform in the SMP” (Everson & Hawkins)
- [L2/17-157] = L2/17-157: “Proposal to encode Proto-Cuneiform in the SMP of the UCS” (Everson & Hawkins)
- [L2/19-284] = L2/19-284: “Proposal to Encode Proto-Cuneiform in the SMP of the UCS” (Hawkins)
- [L2/20-193] = L2/20-193: “Preliminary proposal to encode Proto-Cuneiform in Unicode” (Pandey)
- [L2/22-239] = L2/22-239: “Revised proposal to encode Proto-Cuneiform in Unicode” (Pandey)
- [L2/23-190] = L2/23-190: “Revised proposal to encode Proto-Cuneiform in Unicode” (Pandey)

This revision supersedes recommendations made by Steve Tinney in [L2/24-211] = L2/24-211: “Comments on L2/23-190 Revised proposal to encode Proto-Cuneiform in Unicode”.

Most numerical signs have been moved to:

- [L2/24-210] = L2/24-210: “Archaic Cuneiform Numerals” (Leroy)

Major changes and enhancements from the previous proposal (L2/23-190) include:

- A revised set of principles on which the encoding is based
- Alignment of the encoding with established disciplinary practices
- Use of all available published and digital data for Proto-Cuneiform rather than sole reliance on the CDLI-gh collection of sign images
- Several hundred previously encoded characters are treated as non-contrastive variants, following disciplinary standards, and are not encoded separately
- Over two hundred previously encoded characters are treated as sequences and are not encoded separately.

### 3 The Archaic Period in Mesopotamia

Proto-cuneiform script was invented in the second half of the third millennium BCE and used until the early part of the second millennium BCE, approximately 3500–2900 BCE, generally known as the Archaic Period. This period was extensively described and discussed, with special reference to texts and writing, by the late Robert K. Englund in his magisterial book-within-a-book “Texts from the Late Uruk Period” [Eng98]. The following sketch is based largely on Englund’s discussion to which the reader is referred for a detailed account.

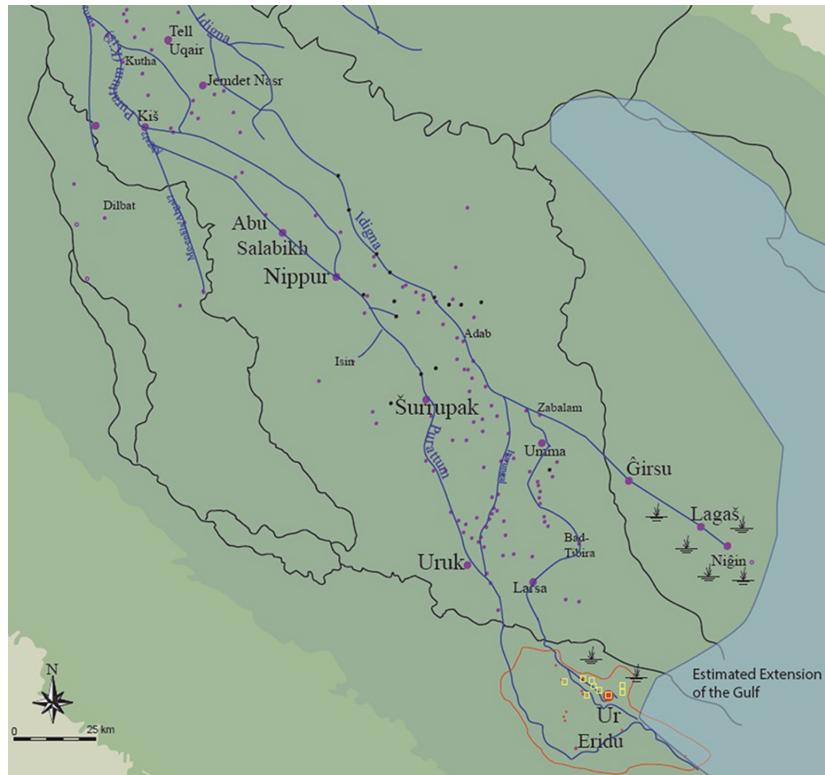


Figure 1: Map of southern Iraq showing canal networks and key settlements of the late fourth and early third millennia BCE (from [Ben15])

#### 3.1 Birth of Cities

The flourishing of urbanization in southern Mesopotamia during the fourth millennium BCE gave rise to several major centres of which the best known and most excavated is that of Uruk. Major institutional buildings, new

artistic forms illustrating the importance of the ruler and the relationship of the ruler and the gods, and the invention of writing are all features of socio-political developments in the first cities.

Networks of canals connected important centres and the distribution of material culture and writing show that the world of the Archaic Uruk period was characterized by significant interaction between communities, not only within southern Mesopotamia but in “Uruk enclaves” in the Susiana plain of modern Iran and in modern Syria and Türkiye where Uruk architecture, visual arts, and administrative systems indicate the presence of Uruk colonies for trading or resource extraction [Alg93; Alg05].

### 3.2 History

We cannot write a political history of the late fourth millennium, and the lack of archaeological context for key Uruk period textual finds means that we must resort to dating the tablet finds by relative paleographical criteria rather than by documented archaeological findspots.

The sporadic nature of both archaeological excavations and text corpora is another impediment to a continuous history of these early periods, as Algaze notes in his excellent synthesis of the Uruk period primarily from the archaeological perspective [Alg13]. Algaze reviews the surface survey data, excavations, and (in less detail) the textual finds from all parts of the Uruk world and presents a coherent picture of a cyclical efflorescence and decline of major cities in the south each with their own networks of smaller settlements in a hierarchy up to four levels deep. In addition, as mentioned above, there is extensive evidence of relatively far-flung colonial outcrops. Considering the extent of these hundreds of settlements active, albeit often episodically or intermittently, over five to six hundred years, the text-corpus of less than 7000 documents from a handful of sites presumably only represents a small subset of the ancient textual material generated and, in some cases, still awaiting excavation.

### 3.3 Major Text Corpora

Figure 2 provides a schematic overview of the sequence of major text finds in the ‘Writing Phase’ column. The entry ‘Clay bullae and numerical tablets’ in the Writing Phase column is the equivalent of the periodic classification Uruk V. Only small groups of texts are omitted from the subsequent Late Uruk (Uruk IV and Uruk III) into the Jemdet Nasr period (examples include Uqair, Larsa). For ED I-II we have the ED I-II Ur texts [Bur35; LV13]; a few tablets from Uruk which are later than archaic [Gre82]; and some tablets from Fara that are earlier than ED IIIa [Kre14]. Then the record is silent until Fara (Šuruppak) [Kre98].

The largest and most important group of archaic texts was excavated in the city of Uruk. The tablets were found in secondary context, meaning that the relative dating of tablets to Uruk IV or the later Uruk III is not based on stratigraphy but on formal and palaeographic features [Nis86, pp. 318–323]. About 100 tablets and bullae are assigned to the Uruk V period which precedes Uruk IV by an uncertain amount of time. The Uruk period text corpus is described in more detail in section 5.1.

As Englund demonstrates the archaic text corpus reflects organized agriculture, animal husbandry, and other production. The documents evidence social hierarchy and specialization, including the birth of scribal culture in early Mesopotamia.

#### 3.3.1 Administrative Texts

The bulk of the archaic tablets are administrative documents. They exhibit varying degrees of complexity from simple tags or one-transaction memos to multi-transactional summaries with a relatively complex organization of cases as indicated in figures 3 and 4.

A number of studies have analysed subgroups of the administrative texts, with the result that the content and methodologies of the archaic accounting records are well understood.

An early example is Margaret Green’s work on animal husbandry [Gre80], which is complemented by Englund’s work on dairy metrology [Eng91] and production [Eng95a] and the herding of pigs and other animals [Eng95b], as well as J. Cale Johnson’s essays on butchering [Joh16] and ritual meat distribution [Joh19].

Other studies have examined grain accounting [Eng01] and time designations [Eng88, p. XXX]. One of the earliest dossiers of activity of a named individual, Kušim the brewer, is studied by Peter Damerow and Bob Englund in [DE93].

	Period	Writing Phase	Historical Developments
3400		Clay bullae and numerical tablets	Beginning of large-scale settlement of Babylonia
3300			
3200	Late Uruk	Archaic texts from Uruk: Writing Phase Uruk IV,	First urban centers
3100		Writing Phase Uruk III	Age of early civilization
3000	Jemdet Nasr		
2900			
2800	Early Dynastic I	Archaic texts from Ur	
2700			Formation of large irrigation networks
2600	Early Dynastic II	Texts from Fara	
2500			Rival city-states
2400	Early Dynastic III	Old Sumerian texts	
2300	Dynasty of Akkad	Old Akkadian texts	First regional state
2200			
2100	Gudea of Lagash Ur III	Neo-Sumerian texts	Centralized state of the 3rd Dynasty of Ur
2000			

Figure 2: Chronological overview of early Mesopotamia from [Eng98, p. 23]

In another important contribution with far-reaching implications, Englund also forged new paths in the identification of personal names of labourers—probably captured slaves—in a small group of tablets from Uruk and Umma [Eng09].

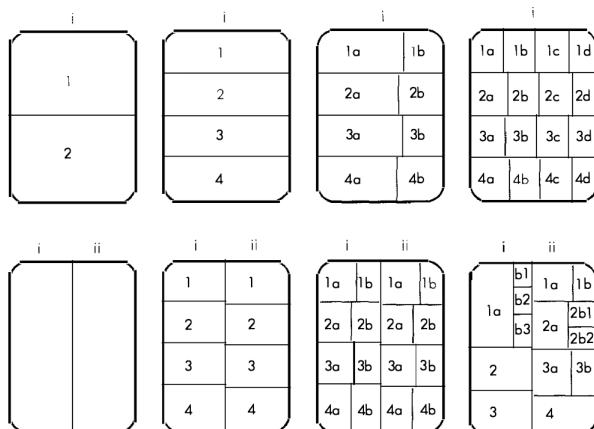


Figure 3: Sample tablet organizations; the CDLI transliterations utilize dotted line numbers to address cases of the form 1a.b2 etc.

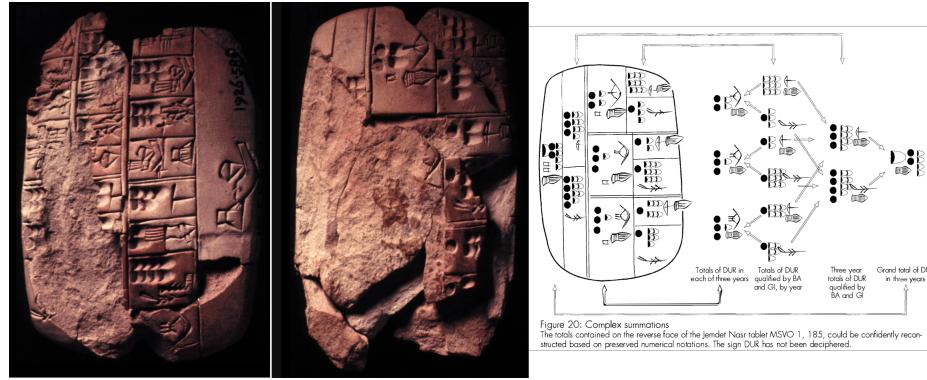


Figure 4: The complex summation MSVO 1, 185 with Englund's analysis.

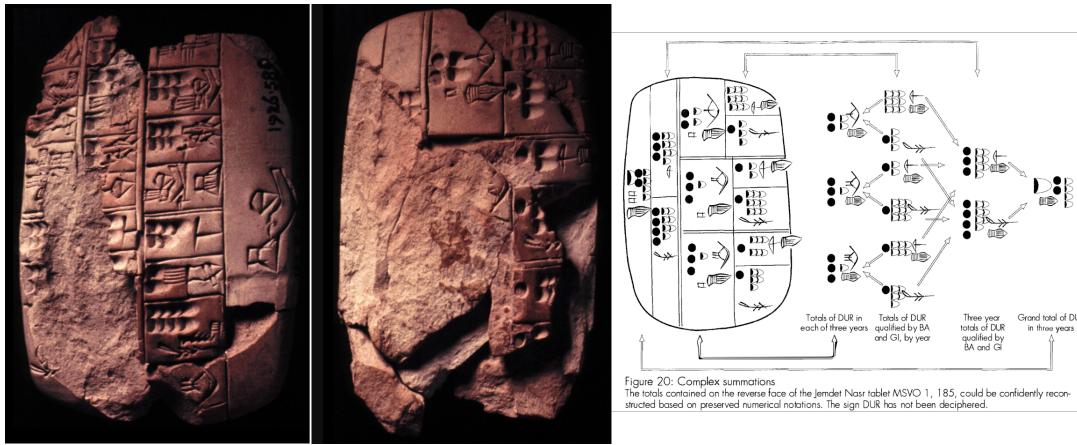


Figure 5: The complex summation MSVO 1, 185 with Englund's analysis.

### 3.3.2 Lexical Lists

The other important—but numerically far fewer—group of texts are the word lists that Assyriologists generally refer to as ‘Lexical Texts’. These appear in the earliest phases of writing and are especially well evidenced in Uruk III texts.

The best attested of these is the list of professions and occupations usually called ‘Archaic Lu A’, ‘Professions’, or some combination thereof. More than 60 fragments of this list have been identified, from which an almost complete composite text can be reconstructed. The creation of a composite text is a common disciplinary practice with lexical lists which are attested mostly in small fragments containing only a few lines of the text: combining these overlapping fragments, which exhibit a generally if not perfectly consistent order and selection of lines, results in a reconstructed text which facilitates working with the data.

The range of archaic lexical texts is modest but invaluable. The lists are primarily thematic, covering Vessels and Garments (the second-best attested list after Professions); Metals; Wood; Cattle; Officials; Cities; Geography; Fish; Food; Birds; and Plants. There are also some word lists which are not strictly thematic. An excellent overview is given by Niek Veldhuis in [Vel14, pp. 27–59].

An important feature of the archaic lexical lists is that some of them continue into the Early Dynastic period, where manuscripts from Fara and Abu Salabikh write the same content but in contemporary cuneiform—see [Lec09; Wag16] with previous literature.

The image displays a large grid of 40 rows by 10 columns of Egyptian hieroglyphs. Each row contains ten distinct symbols, likely representing different words or concepts in the Egyptian language. The symbols are drawn in black ink on a white background and include various shapes: geometric forms like rectangles and triangles, animal representations like a cat, a dog, and a bird, and more abstract symbols like a fan and a hand. Some symbols have internal details, such as a grid pattern or a cross-like shape.

Figure 6: Englund's composite of the professions/occupations list, Lu. Shaded areas are entries that cannot be fully reconstructed from the extant manuscripts.



Figure 7: Sample lexical tablets: P000006, P000011, P000025

### 3.4 Writing

#### 3.4.1 Technology, Technique, Phases

Proto-Cuneiform tablets are made of refined and formed clay, which was inscribed when still slightly moist, establishing a practice that continued for millennia to come [Tay11]. The earliest tablets were inscribed with a pointed instrument—likely a sharpened reed—with circular indentations made with a round tool, presumably the other end of the stylus. The pointed tool was replaced with a triangular-ended stylus which was impressed into, and in some cases then dragged lightly across, the surface of the clay to produce the characteristic triangular indentations with a deep head and a shallow tail that give rise to the term ‘cuneiform’ [Gre81; Nis86].

	Uruk IV	Uruk III	Uruk IV	Uruk III
DUG <sub>b</sub>			EN	
DUG <sub>a</sub>			Chief Administrators	
DUG <sub>c</sub>			SANGA	
KAŠ <sub>a</sub>			Exchequers	
AB <sub>a</sub>				
			NUN	
			GURUŠ	
			MUŠ <sub>3</sub>	
			GI <sub>b</sub>	
			AN	
			GA <sub>a</sub>	
Shapes of Stylus and their marks	Breaking up of curved lines resulting from change of stylus ca. 3100      ca. 3000			

Figure 22: Paleographic differences  
The table demonstrates some of the graphic developments between the Uruk IV and III periods. 1: straightening of oblique lines, 2: abstraction of pictograms, 3: simplification of elements, standardization of sign orientation, 4: varia

Figure 9: Englund's overview of Uruk IV/Uruk III sign forms.

The precise analysis of writing phases in the Uruk texts is hampered by the lack of tablet finds in primary archaeological context [Nis86, pp. 318–323]. The general assumption is that earlier sign forms are more curved; have a greater variety of angles; or are drawn with a pointed stylus rather than being constructed of cuneiform strokes. Englund's discussion of this is accomplished with a figure which is unfortunately absent from the PDF of the book; his Figure 22 is reproduced here [Eng98, p. 69].

### 3.4.2 Orientation and Disposition

One longstanding point of discussion in the study of Proto-Cuneiform and its descendants is the orientation of the script, a discussion rooted in the fact that the later cuneiform versions of signs as normally represented in hand copies and published images are rotated 90 degrees from the expected natural orientation of their pictographic forebears. Thus the sign SAG, head, with forms  approximately matches the cuneiform . A more naturalistic rendering of SAG, however, would be , and this orientation is preferred in some recent literature, e.g., [Sel25]. In this proposal we follow conventional disciplinary practice as adopted in the standard corpus publications of Proto-Cuneiform and the CDLI.

The spatial division of Proto-Cuneiform administrative and lexical tablets into cases which are often quite narrow gives rise to an important feature of the disposition of combinations of signs, which may be placed beside, above, or otherwise near each other as space permits, and may be written in varying order depending partly on the space available in the box into which the signs have to fit. This has an important impact on the determination and treatment of sequences, as explained in 6.2.

### 3.4.3 Semantics

The language of the archaic corpus is uncertain: many would accept that it is Sumerian, but for Englund and others this remains stubbornly unprovable (see recently [Kee20]). Despite this, continuities between PC and later cuneiform, contextual inferences drawn from counting and measuring systems, and the similarity of some signs to the objects they picture all combine to allow the general sense of many signs or groups of signs to be divined. Two of Englund's figures are chosen here to illustrate this point, but the entirety of "Texts from the Late Uruk Period" is in a sense his demonstration that the archaic corpus—contrary to what some might think—is increasingly well understood.

		Six Age	Females	Males
		Adults	Ug	UDUNITA
Wool Sheep			 	  
	Juveniles	SLA <sub>a</sub> 	KR <sub>11</sub> 	SLANITA 
SMALL CATTLE, SHEEP AND GOATS	UDU	  		
	Fat-tailed Sheep (?)		GUKKAI  	 
			 	 
			<img alt="Female sheep head." data-b	

The initial scope of the encoding covered the cuneiform script as used from the Ur III period through the first millennium, although a few distinctions only apparent in the Early Dynastic period, such as 𒂔 IM vs. 𒂔 NI<sub>2</sub>, and a few characters used only in the Early Dynastic period, such as 𒀭 ZAM<sub>x</sub> (ELLes 396), were also captured in the initial encoding in Unicode Version 5.0. The scope of the cuneiform script was expanded two and a half centuries back in time in Unicode Version 8.0 with the addition of the Early Dynastic Cuneiform block, based on the Early Dynastic IIIa repertoire in [Dei22]; see the proposal [L2/12-208].

At first glance, it may therefore seem possible to expand the scope of the cuneiform script further to the fourth millennium. The expansion of the glyptic range would be minor compared to its current extent; consider the variety of glyphs for U+1214B 𒂗 CUNEIFORM SIGN IL, from Early Dynastic IIb 𒂗 to Old Babylonian 𒂗 and Neo-Assyrian 𒂗. Indeed the glyphs of some proto-cuneiform signs would lie within the glyptic range of some archaizing Early Dynastic inscriptions: compare the sign LAK500 𒂗 or 𒂗 on the shoulder of the ED IIb statue of 𒂗 [P222640] with the reference glyph proposed for U+12860 𒂗 PROTO-CUNEIFORM SIGN IL.

This impression of unifiability is reinforced by the treatment of the Uruk and Jemdet Nasr forms as another column in the diachronic [LL95], and the concordances with [Dei22] and multiple Sumerian readings for each sign given in [GN87, pp. 167–346], as in any other cuneiform sign list.

However, a discontinuity in the approach to sign identity in proto-cuneiform appears in [GN87, pp. 347 sqq.]. Wary of letting a Sumerian reading based on third millennium texts hide distinctions specific to the fourth millennium corpus, Englund makes major changes to the identification of signs, which have been followed in proto-cuneiform studies since:

1. Switching to a system of opaque sign names without interpretation, for instance, always GAR for the proposed U+127EF 𒈠 PROTO-CUNEIFORM SIGN GAR regardless of context rather than a context-dependent reading gar (heap), nin<sub>2</sub> (thing), or ninda (bread) and interchangeable GAR, NIJ<sub>2</sub>, or NINDA when referring to the abstract sign for U+120FB 𒈣 CUNEIFORM SIGN GAR.
2. Avoiding sign names based on Sumerian readings of sign sequences, so that 𒈰 is generally transliterated as a sequence, MUŠEN ŠE<sub>a</sub>, rather than UZ<sub>a</sub>.
3. Classifying allographs, for instance, KAŠ<sub>a</sub> through KAŠ<sub>d</sub> for variants of signs representing pots, whose cuneiform reflex is likely U+12049 𒉃 CUNEIFORM SIGN BI (=KAŠ).

The classification of allographs can reveal semantic contrasts; for instance, the signs 𒉃 KAŠ<sub>a</sub> and 𒉄 KAŠ<sub>b</sub> appear to correspond to pots containing different substances, see [Eng98, p. 168], even though the linguistic distinction is unknown. In other cases, no semantic contrast can be identified, as between 𒉃 KAŠ<sub>b</sub> and 𒉄 KAŠ<sub>c</sub>. Effectively, from a character encoding standpoint, this approach to character identity is more akin to the one used for undeciphered scripts, and is contradictory to the model for a fully-deciphered script, where orthographic distinctions are encodable, but stylistic ones are not, even when they are somewhat systematic.

The avoidance of readings is also incompatible with a unified model, because it conflicts with the diachronic handling of mergers and splits. For signs that split in later phases of cuneiform, but have identical appearances in the early third millennium, such as 𒉃 MES and 𒉄 DUB, an interoperable encoding is obtained based on the reading: a sign read mes is encoded as U+12229, and a sign read dub is encoded as U+1207E. However, if the proto-cuneiform approach is followed and the sign is invariably transliterated as DUB, the resulting encoding may be incompatible with the one based on a Sumerian reading; see the example of the personal name 𒉃-𒉄-𒉃 mes-lu<sub>2</sub>-nu-še<sub>3</sub> in Section 4.1.

The same holds for the avoidance of readings of sign sequences; an interoperable encoding of cuneiform 𒉃-𒉄-𒉃 is achieved by reading it as nunuz uz<sup>mušen</sup> “duck eggs”, and accordingly using the UZ sign, U+122BB 𒉃, whereas 𒉃-𒉄-𒉃 is read as sila<sub>3</sub> še mušen niga “šilā of barley for fattening the birds”, and thus encoded using the sequence (U+122BA 𒉃, U+12137 𒉄). In general, this means that in the cuneiform script, interoperability is retained regardless of whether a particular diri (compound sign sequence) is encoded as a sequence, like 𒉃-𒉃 or 𒉄-𒉄, or atomically, like 𒉃-𒉄 or 𒉄. In contrast, most transliterations of proto-cuneiform texts involving ducks transliterate them as a sequence, MUŠEN ŠE<sub>a</sub>. Even ignoring this inconsistency of encoding between fourth and third millennium texts in a putative unified encoding, a further problem would arise from the occasional transliteration that lets itself be influenced by a Sumerian reading: a few transliterations, primarily those of composite lexical texts, use compound readings such as UZa. If these were encoded as cuneiform, the composites would then use the atomic signs, and would have an encoding inconsistent with their witnesses.

Finally, the opaque labels used as sign names, while initially based on an educated guess at the cuneiform reflex, need to be stable, and are therefore retained even when they prove to be incorrect as mappings to cuneiform signs; for instance, the proto-cuneiform sign  ŠITA<sub>b3</sub> turns out not to be related to  ŠITA, but instead to  SILA<sub>x</sub>(LAK636) [Wag16, p. 220]; proto-cuneiform  KAB is not the ancestor of cuneiform  KAB, but instead that of  HUB<sub>2</sub> and  TUKU [Wag16, p. 274], a misnomer perhaps attributable to the second millennium - merger. Similarly, the realisation that in ED cuneiform the signs  LAK031 and  LAK032 correspond to uri<sub>3</sub>, “standard” and šeš, “brother”, respectively, is reversed in the naming of PC  URI<sub>3</sub>-a and  ŠEŠ-a and  ŠEŠ-b, as frequently observed (most recently [Sel25, pp. 154–158]). The PC names, however, are strictly conventional, making this apparent misalignment irrelevant (if inconvenient) for the description of the PC signs. The actual relation between proto-cuneiform and cuneiform signs is often more complex than a one-to-one mapping; see for instance [Wag16, p. 217] on the development of proto-cuneiform  IM<sub>a</sub> and  NI<sub>2</sub> into cuneiform  TE,  IM, and  NI<sub>2</sub>, or [Wag16, p. 220] on the three proto-cuneiform ancestors of  LAK636. In many cases, it is still poorly understood and may remain so.

These structural incompatibilities in the analysis of character identity, which stem from a now well-established approach to the fourth millennium texts ultimately motivated by the avoidance of assumptions about their language, therefore require a disunified approach.

#### 4.1 ED I-II Excluded from the Proposal

It is generally recognized that there is a group of about 400 texts from the site of Ur which are later than Proto-Cuneiform but earlier than the ED IIIa corpus from Fara (Šuruppak): these are conventionally assigned to the Early Dynastic I-II period. There are also about two dozen tablets and fragments from Uruk that are assigned to the same period (Green; Lecompte nXXX).

Texts and signs from this period are excluded from the proto-cuneiform proposal.

In Englund's exhaustive discussion of the Archaic texts, he includes this period in his concluding remarks as the 8th phase of proto-cuneiform:

##### 8. Period of late proto-cuneiform

Ca. 2800-2700 B.C. (Early Dynastic 1), this period is characterized by the earliest apparently multi-valent use of proto-cuneiform to write Sumerian words in personal names. The archaic numerical systems were used, but in simplified forms, and the lexical lists were copied and transmitted, but no new lists were added. Tablets were as a rule clumsily formed and inscribed. (Englund OBO 160/1 [1998], p.215).

Appearing about 15 years later, Lecompte and Verderame's edition of ED I-II fragments from Ur observed that there are key features of the writing system that depart from the earlier PC practices, and by analysis of both personal names and the contexts of the texts that they are written in Sumerian language:

We decided to follow in the transliteration the system that is commonly accepted for Sumerian, thus in small type and in accordance with the values of the signs available on the e-PSD website or in abZL. We did not adopt the codes applied to the archaic texts from Uruk and Jemdet Nasr, although the transliteration available for lexical tablets in ATU 3 follows such a system for the ED I-II period. This choice is justified by the fact that the signs in the texts from Ur do not seem to present the same variants as their archaic forerunners: for example, the different shapes of E<sub>2</sub> cannot be classified into E<sub>2</sub>-a, E<sub>2</sub>-b...; furthermore, some signs have no variant, such as DU<sub>8</sub>, which is always drawn according to a standard and well known shape. Second, as the language of these texts is undoubtedly Sumerian, it would have been unnecessary to use such values: instead of writing such cumbersome transliterations as DUB-a-LU<sub>2</sub>-NU-ŠE<sub>3</sub> or EN-a-GAN-a-GI4-a, it was accordingly more convenient to propose directly Mes-lu<sub>2</sub>-nu-še<sub>3</sub> and En-he<sub>2</sub>-gi<sub>4</sub>. (Lecompte and Verderame 2014, p.4)

Another factor which marks the ED I-II corpus as transitional between Uruk III/Jemdet Nasr and ED IIIa is the organization and structure of tablets. In a thorough survey of these "diplomatics", Lecompte, based on the work of the original editor of the ED I-II corpus from Ur, Burrows, summarizes the situation as follows:

As Burrows has already noted, archaic texts from Ur are intermediate in nature. Features common with Late Uruk/Jemdet Nasr tablets include:

- an oblong shape, half rounded sides, larger tablets having a rectangular format.
- a reverse generally left uninscribed.
- the presence of clauses and subscripts freely disposed apart from or into the columns.
- tablets from Ur displaying rows of lines inconsistent with the usual columns; this clearly comes from the horizontal lines subdivided into columns observable in a few of the Jemdet Nasr texts.

On the other hand, the ED I-II texts are forerunners to the ED III tablets in regard to the following aspects: – surface, with a rather flat obverse and convex reverse.

- a lack of subdivision of cases similar to the Late Uruk period.
- total expressed as  $gu_2\text{-}an\text{-}\check{e}_3$ .

Other features are very specific to the ED I-II period, such as the clumsy form of many tablets and the random disposition of columns. (Lecompte 2016: 142).

After discussion among the proposal authors and Robin Leroy, we have determined that it is preferable to establish the end of the Uruk III period as the cutoff for Unicode PC encoding, and to assign the ED I-II signary to Sumero-Akkadian Cuneiform.

#### 4.1.1 PC signs in ED I-II

For characters that occur only in Proto-Cuneiform and ED I-II, we do not propose to encode the character twice; instead, as with the Archaic Cuneiform Numbers, we propose to treat isolated PC signs in ED I-II texts as archaic holdovers. An assignment of `Script_Extensions=Pcun Xsux` will be proposed for these signs in future documents as they are identified.

Signs which occur only in ED I-II texts will be evaluated for encoding in SAC in the future, as will signs that first occur in ED I-II and recur in later periods.

#### 4.1.2 Pcun and Xsux Relationships Not in Unicode Scope

The development of the cuneiform script from Proto-Cuneiform to Sumero-Akkadian Cuneiform is naturally a matter of considerable interest particularly because of the hope that better understanding of this development might assist in improvements in the decipherment and interpretation of both PC and ED texts. Scholarly discussion of this development can be expected to remain active and to exhibit ongoing shifts in perspectives and understanding [Wag16; Sel25].

The proposal to encode Proto-Cuneiform does not provide a concordance of Pcun and Xsux signs for several reasons. One is that the proposal is a systematic disunification of Pcun and Xsux, which does not depend on the two writing systems mutually informing each other. Another is that assertions concerning individual relationships of PC and ED signs exhibit varying degrees of certainty or plausibility: reducing these to a standard is currently impractical and may always be so. Relatedly, a further reason is that any concordance provided here would inevitably require frequent updating of the standard. For all of these reasons, alignment of the Pcun and Xsux repertoires is left as an exercise for the scholarly community.

## 5 Materials for Encoding Proto-Cuneiform

This section of the proposal gives an overview of the Proto-Cuneiform (PC) corpus and character set. Based on existing scholarship and published resources, it also defines some principles for assessing whether a given character should be considered encodable in Unicode at the present time. Applying these principles to the complete Proto-Cuneiform character set, a proposed encodable repertoire is also provided.

The complete repertoire is called here the Proto-Cuneiform Sign List (PCSL). The encodable subset and the associated documentation are called PC25, for Proto-Cuneiform 2025.

The description and definition of PCSL and PC25 are intertwined, and we do not attempt to treat them in a separate, linear way. Rather, the PC corpus is taken as the foundation and criteria are established for the defining

the subcorpus that should be fully represented in PC25. Signs that occur *only* outside of this subcorpus are not considered encodable, but most of the texts that fall outside of this subcorpus are in fact fully covered by PC25 because the unencoded characters affect relatively few texts.

The PC corpus as hosted on the Cuneiform Digital Library Initiative website is the most important resource for encoding PC because it defines current scholarly practice in the field. PCSL and PC25 diverge from this corpus systematically only in the translation of the corpus to the Unicode notations used by Oracc, the Open Richly Annotated Cuneiform Corpus. The PCSL corpus makes only minor adjustments to the CDLI corpus to correct for some minor notational inconsistencies.

Another major resource for encoding PC is the set of published sign lists as well as the collection of signs based on the work of Bob Englund that is available on the CDLI github repository. These lists are described and were systematically treated during the creation of PCSL. The individual alignments of sign lists with PCSL are not given here but are available online. The individual sign lists are, however, integrated in the synoptic tabulation of PCSL given in Appendix C.

The principles as well as an explanatory section on Sequences provide the rationale for selecting characters that occur in the PC25 subcorpus for encoding.

In Appendices A and B are PC25 code charts and a listing of the character repertoire.

## 5.1 Texts

The PC text Corpus is defined by the CDLI corpus of Proto-Cuneiform texts of Uruk V, Uruk IV, and Uruk III date, as adapted for use by PCSL: we call this CDLI-tc; note that CDLI-tc is used here only in the PCSL version of the corpus. This version has some minor modifications to the transliteration and has been converted to use Unicode transliteration conventions rather than the CDLI ASCII ones.

There are 7224 texts in the corpus of which 105 are attributed to Uruk V; 1907 are attributed to Uruk IV and 5212 to the subsequent Uruk III period.

### 5.1.1 The Print Corpus

The principal modern publications of the Proto-Cuneiform corpus are:

**ATU2=ZATU** [GN87]: M.W. Green, Nissen, H. *Zeichenliste der Archaischen Texte aus Uruk*, ATU 2, Berlin 1987.

**ATU3=LLATU** [EN93]: R.K. Englund und Nissen, H., unter Mitarbeit von Peter Damerow, "Die Lexikalischen Listen der Archaischen Texte aus Uruk" (ATU 3), Berlin 1993.

**ATU5** [Eng94]: R.K. Englund, *Archaic Administrative Texts from Uruk: The Early Campaigns*, ATU 5, Berlin 1994.

**ATU6** [EN94]: R.K. Englund and Nissen, H., >*Archaische Verwaltungs- texte aus Uruk: Vorderasiatische Museum II*, ATU 6, Berlin 2005.

**ATU7** [EN01]: R.K. Englund and Nissen, H., *Archaische Verwaltungs- texte aus Uruk: Die Heidelberger Sammlung*, ATU 7, Berlin 2001.

**MSVO1** [EG91]: R.K. Englund and Grégoire, J.-P., *The Proto-Cuneiform Texts from Jemdet Nasr*, MSVO 1, Berlin 1991.

**MSVO3** [Dam]: R.K. Englund, *The Proto-Cuneiform Texts from the Erlenmeyer Collection*, MSVO 3, Berlin forthcoming.

**MSVO4** [EG91]: R.K. Englund, *Proto-Cuneiform Texts from Diverse Collections*, MSVO 4, Berlin 1996.

**CUSAS01** [Mon07]: S.F. Monaco, *The Cornell University Archaic Tablets (CUSAS 1)*, Bethesda, MD, 2007.

**CUSAS21** [Mon14]: S.F. Monaco, *Archaic Bullae and Tablets in the Cornell University Collections (CUSAS 21)*, Bethesda, MD, 2014.

**CUSAS31** [Mon16]: S.F. Monaco, *Archaic Cuneiform Tablets from Private Collections (CUSAS 31)*, Bethesda, MD, 2016.

### 5.1.2 The Digital Corpus

The digital corpus includes the contents of all of the above major publications:

- Uruk lexical tablets from ATU3 (Uruk IV and Uruk III)
- Uruk administrative tablets from ATU5, ATU6, ATU7 (Uruk V, Uruk IV and Uruk III); these supersede ATU1
- Jemdet Nasr (Uruk III) tablets from MSVO1; these supersede Langdon, PI
- Tablets from various locations from MSVO4; this includes non-Uruk tablets which were included in ATU1
- Tablets in private collections from various locations in CUSAS1, CUSAS21, and CUSAS31; these post-date the ATU and MSVO volumes
- Tablets from the "Erlenmeyer Collection"; these were to be published in MSVO3 which has not yet appeared; many of them have been edited by Englund and others in various publications, however

### 5.1.3 PCSL Corpus

PCSL's version of CDLI-tc has the following composition divided by provenience, period, and published versus unpublished status:

	V/pub	V/unp	V/all	IV/pub	IV/unp	IV/all	III/pub	III/unp	III/all
Uruk	69	0	69	1373	486	1859	2764	1084	3848
JN	2	0	2	0	0	0	238	31	269
Umma	0	0	0	0	0	0	93	305	398
Uqair	0	0	0	0	0	0	42	0	42
Misc	23	11	34	36	12	48	587	68	655
total	94	11	105	1409	498	1907	3724	1488	5212

### 5.1.4 PC25 Corpus

About 1/3 of the PCSL corpus is available only in transliteration or photograph and has not yet been subjected to the rigorous assessment of a scholarly edition. These texts are removed to create a subcorpus of well-studied text to serve as the basis for the initial (and largest) phase of encoding of Proto-Cuneiform.

The subsetting is based on the CDLI catalogue entries as of February 2025. It is possible that features of the CDLI data may mean that a few texts that should have been omitted are included in the PC25 corpus and vice versa. The impact of this on the final repertoire is negligible, however, because of the cross-checking between corpus and published sign lists.

PC25's subset of the PCSL corpus has the following composition divided by provenience, period, and published/unpublished status:

	V/pub	V/unp	V/all	IV/pub	IV/unp	IV/all	III/pub	III/unp	III/all
Uruk	69	0	69	1350	0	1350	2720	0	2720
JN	2	0	2	0	0	0	238	0	238
Umma	0	0	0	0	0	0	93	0	93
Uqair	0	0	0	0	0	0	42	0	42
Misc	23	0	23	36	0	36	587	1	588
total	94	11	94	1386	498	1386	3680	1488	3681

## 5.2 Signs

### 5.2.1 Grapheme Distribution

A general impression of the amount of graphemic data in the various subcorpora is given in the table below. In each case, the numbers are the count of distinct signs and the total number of instances of signs, with numerical signs and ideograms being given in separate rows.

### 5.2.2 PCSL Corpus Grapheme Distribution

	V/pub	V/unp	V/all	IV/pub	IV/unp	IV/all	III/pub	III/unp	III/all
Uruk/num	23/152	0/0	23/152	163/5390	91/1536	180/6926	214/15031	106/2481	223/17512
Uruk/idg	19/24	0/0	19/24	874/6761	422/1646	981/8407	1347/25296	622/6210	1422/31506
JN/num	3/3	0/0	3/3	0/0	0/0	0/0	138/2530	0/0	138/2530
JN/idg	0/0	0/0	0/0	0/0	0/0	0/0	451/4243	0/0	451/4243
Umma/num	0/0	0/0	0/0	0/0	0/0	0/0	121/1595	137/3855	167/5450
Umma/idg	0/0	0/0	0/0	0/0	0/0	0/0	387/2305	575/7343	683/9648
Uqair/num	0/0	0/0	0/0	0/0	0/0	0/0	50/444	0/0	50/444
Uqair/idg	0/0	0/0	0/0	0/0	0/0	0/0	241/922	0/0	241/922
Misc/num	23/45	18/30	27/75	50/155	2/7	50/162	169/5229	56/749	169/5978
Misc/idg	1/1	1/2	2/3	54/88	21/26	68/114	689/8074	330/1470	776/9544
total	33/200	18/30	34/230	169/5545	91/1543	184/7088	262/24829	163/7085	275/31914
total	19/25	1/2	20/27	883/6849	426/1672	991/8521	1589/40840	915/15023	1775/55863

## 5.3 Lists

### 5.3.1 Historic Lists

The earliest list of Proto-Cuneiform signs is Stephen Langdon's *Pictographic Inscriptions from Jemdet Nasr* [Lan28], a list accompanying the Jemdet Nasr tablets published in 1928. Less than ten years later, in 1936, Adam Falkenstein published the first list of signs from the archaic Uruk texts in ATU [Fal36]. Falkenstein referenced Langdon's list using the abbreviation Pl.

### 5.3.2 The Intended Standard List

The Berlin Uruk projected intended ATU2 [GN87], more commonly known as ZATU, to be the new standard list. Published in 1987, the work lists many different sign forms for most signs, dividing them into Uruk IV and Uruk III, and alphabetizing the entries by the mnemonic sign names used within the project. Entries in ZATU make some use of a division into alloforms labeled, e.g., a and b as in the case of AB, but use of these divisions is sporadic and the examples are subsumed under their head signs.

However, by the time the list had been prepared, the project team had already begun to doubt that the groupings of variant sign-forms were an adequate reflection of likely semantic distinctions reflected by the sign-forms, as mentioned by Bob Englund in that volume ([GN87, 327f.]).

### 5.3.3 Revisionist Lists

Between 1991 and 1996, in a series of publications appearing subsequent to ZATU, Englund provided sign lists specific to the sub-corpora edited in the volumes which essentially replace all previous lists.

The four lists and their coverage are:

**LLATU** [EN93]: Lexical lists from Uruk, but with some extraneous signs or forms from ED duplicates, replacing ZATU's coverage of lexical lists

**ATU5** [Eng94]: Administrative texts from Uruk, replacing ATU1 signlist and ZATU

**MSVO1** [EG91]: Administratative texts from Jemdet Nasr, replacing PI and ZATU

**MSVO4** [Eng96]: Administrative texs from various proveniences, replacing ZATU

The sign lists are based on exhaustive scholarly reassessments of individual portions of the PC corpus and make extensive use of the contrastive notations with subscript letters+numbers, e.g., ABa and ABb. At the same time, these lists gather non-contrastive sign variants under their respective parent signs and this is taken into account in PC25.

Englund's subsequent corpus-edition volumes ATU6 [EN94] and ATU7 [EN01], contain grapheme indices without images of the individual signs.

### 5.3.4 The Digital List

CDLI-gh is not 100% complete with respect to the PC corpus; includes some signs from ED duplicates of PC lexical texts; and includes a handful of signs which are either duplicates or are apparently place-holders from ongoing work on the Schøyen Umma texts that was never completed.

### 5.3.5 The Oracc List

The Oracc project PCSL [Tin24] provides a complete, corpus-based sign list comprising the CDLI texts from the Uruk V, Uruk IV, and Uruk III periods. PCSL was created in support of assessing previous proposals and eventually preparing the current proposal. It is based on CDLI-gh, and augments that collection with additional signs and glyphs from the the published sign lists and the text corpus. PCSL gives distribution data for signs in the corpus, an overview of which signs occur in the other sign lists, and a proposed repertoire for encoding in Unicode. A succinct presentation of PCSL is included as Appendix A of the proposal.

### 5.3.6 Sign Lists and Prior PC Proposals

Prior PC proposals were centred on CDLI-gh, treating it as the definitive assemblage of PC signs at the same time as recognizing several important considerations:

The published sign list of Uruk Lexical Texts from ATU3 (LLATU) was also utilized as a partial control on CDLI-gh. However, three additional lists in a similar format to the LLATU lists were not used in prior proposals, leading to an inadequate understanding of previously published scholarship on the PC repertoire. Together with LLATU these three previously unutilized lists provide a comprehensive new presentation of the material covered in ZATU and need to be included as part of the foundational data of the PC proposal.

The four modern sign lists are an invaluable complement to CDLI-gh because they represent the carefully considered subset of signs which were vetted for publication whereas CDLI-gh is a working collection of signs. These sign lists make it clear that the unmarked variants in CDLI-gh are non-contrastive variants as opposed to the contrastive variants marked with subscript letter+number sequences.

### 5.3.7 Sign List Cautions

Sign lists have certain characteristics that can make them unsuitable for using to define a character repertoire:

- Sign lists offer one perspective on a repertoire; they are not necessarily exhaustive catalogues of every sign in a corpus.
- Sign lists often have entries that are convenient for descriptive purposes, or for users, but which do not constitute a 1:1 correspondence with the Unicode approach to characters.
  - Entries may contain several signs under one heading–this is done in CDLI-gh when the several members given are considered non-contrastive.

- Entries may combine sequences of signs if the sequence is common or interesting.

Sometimes these sequences correspond to later cuneiform sign combinations which have known semantics in Sumero-Akkadian Cuneiform (SAC) despite the fact that there is no evidence that the PC sign shares those semantics or is even necessarily an antecedant of the SAC sign in anything but form and structure.

Signs are also sometimes grouped into sequences when there is a suspected semantic basis for the grouping, even though the grouping might be considered phrasal rather than being a concatenation of components with specific semantics: examples include the combinations of N57 signs with ideograms where the notation may indicate the age of an animal or some other multiplicative relationship of the number and a commodity. Thus,  $|1(N57).AB_2|$  may mean "a one-year-old cow" and could equally well be notated as  $1(N57) AB_2$ —in fact, the corpus instances of such sequences often occur in both forms.

- Sign forms are abstractions; two-dimensional sketches of a three-dimensional writing system which tend to offer typical forms. This means that sign lists do not normally capture the full range of glyph-variation for any individual character; simply because a sign does not have unmarked variants in CDLI-gh doesn't mean such variants don't exist.
- Although most of character readings use sign names that recall SAC signs, Englund is clear that "until the language affinity of the archaic texts is established, these readings remain entirely conventional and often serve only mnemonic purposes, whereas the meaning of many signs is now quite clear" (ATU5 p.19).
- Importantly, Englund is explicit in the introduction that the reference forms of the signs ("graphemes" in Englund's terminology) are only exemplary forms:

After each sign name a grapheme is presented which represents the general form of the sign on the tablets cited. This graphic must be understood as merely an orientation in understanding the form a particular sign could take, since in particular the texts from the earliest stage of writing exhibit, to varying degrees, a tolerance of graphemic variation. (ATU5 p.107)

## 5.4 Coverage

Although the strategically selected subset of the Uruk IV/III corpus is only two-thirds of the entire corpus in terms of manuscripts, the graphemic coverage provided by the combination of ACN and PC25 is very high. Of the 7224 texts in the entire PCSL corpus, 157 contain unencoded signs, i.e., 97.62% of texts have no unencoded graphemes.

The total number of instances of graphemes that are included in the encoded repertoire is substantial: of 98055 instances of 2040 graphemes, only 240 instances of 171 graphemes are not encoded. 99.76% of instances of graphemes in PCSL are represented in the encodings either directly or as sequences.

# 6 Principles for Encoding

Each character that occurs in the PC25 subset of the PCSL corpus has been assessed according to the following principles in order to determine its encodability. Encoded signs are given in Appendix A and B; the condensed version of the Proto-Cuneiform Sign List, PCSL, is given Appendix C and contains essential information relating to the encodability of each sign. Appendix D lists all of the manuscripts that have unencoded signs and the signs which they are missing. Appendices E to K give tables of signs excluded from PC25 under one of the reasons for which they were excluded.

In addition to the comments above on the corpus, signiary, and sign lists, some additional issues influence the Principles.

## 6.1 (Non-)Contrastive Usage

Previous proposals treated the whole of CDLI-gh as a flat sample of sign forms and assigned codepoints to each form. All of the resources, however, are highly consistent in listing and transliterating some variant sign forms as

non-contrastive and this practice is followed in PC25: the grouping of sign forms under a sign name and the practice of transliterating variant sign forms with a single transliteration are both indicators of non-contrastive glyphs.

The scholarly assessment of when sign forms are non-contrastive is based on several kinds of evidence. There is often a historical dimension where Uruk IV (earlier) and Uruk III (later) forms are presumptively of the same sign: Uruk IV forms tend to have more curves and more complex shapes. For many signs, this analysis is assisted by duplicate manuscripts of word lists ('lexical texts') that give the same text with variant sign forms. Elsewhere, commodity lists of phrasal constructs can give contextual information on the likelihood that two distinct forms actually belong to the same sign.

Transliteration practices in the CDLI corpus closely mirror the contrastive/non-contrastive distinction. For example, the SAG sign has several different glyph forms but is always transliterated SAG. Conversely, KUŠU<sub>2</sub> is a base name that has six different allographs, KUŠU<sub>2</sub>-a to KUŠU<sub>2</sub>-f: each of these allographs has instances in the corpus.

### 6.1.1 (Non-)Contrastive Usage in Complex and Compound Signs

CDLI-tc and CDLI-gh do not always differentiate compound constituents to the same extent as the independent versions of the constituents. For example, KAR<sub>2</sub> is separated as KAR<sub>2</sub>-a and KAR<sub>2</sub>-b in CDLI-tc and CDLI-gh, but in the DARA<sub>3</sub>×KAR<sub>2</sub> compounds the only notations that occur are |DARA<sub>3</sub>~c×KAR<sub>2</sub>| and |DARA<sub>3</sub>~d×KAR<sub>2</sub>|. The encoding by default follows the CDLI notations in such cases.

## 6.2 Sequences

Sequences are a class of compound signs which exhibit a low degree of integration with each other. In later cuneiform they are written as a linear sequence in which the constituents and order may vary. In PC, they are written in linear form or as a cluster because PC accounts are laid out in various combinations of cases (or boxes). The identification of a group of signs as a discrete sequence can vary from one text editor to another, and from one sign list to another. As a result, sequences are a variable and open-ended category which are not suited to encoding as characters. If a sequence such as |MUŠEN.ŠE| were encoded as a character there would be two reasonable representations of the data: the character encoding, and the encoding as the sequence of constituents. Appendix XXX details exceptional sequences which are proposed for encoding. Appendix YYY outlines implementation details for sequences in PCSL and the accompanying font.

## 6.3 Principles

The following principles were applied in the development of the PC25 proposal's repertoire:

1. Treat the PC corpus as the primary source of truth about the signary and usage. Use the corpus as a control on the lists; use the published lists and corpus as a control on CDLI-gh.
2. Align names with CDLI-tc/CDLI-gh as much as possible to ensure that the encoding is closely aligned with existing scholarly practice. Make exceptions where required to correct names or to improve consistency of the naming scheme; if in doubt, retain the CDLI names.
3. Take contrastive usage into account to the extent supported by contemporary scholarship and do not encode non-contrastive sign variants under their own codepoints. The CDLI-tc corpus is the primary guide to non-contrastive usage: different sign forms which are transliterated the same are accepted as non-contrastive.
4. Accept that allograph notations in the corpus are contrastive.
5. Do not introduce finer-grained allograph notations than CDLI-tc/CDLI-gh is using. The decisions made in the corpus about whether sign variants are contrastive or not are made not only on the basis of form but also context of various kinds; specialists in the corpus should decide if further division is needed in the future.

6. Do not require a minimum number of occurrences for encoding: the corpus consists of mostly fragmentary manuscripts over 5000 years old—if a sign clearly exists and meets the other principles for encoding, it should be encoded.
7. Do not assume that every sign list entry should be encoded as a character.
8. Do not generally encode sequences. In Proto-Cuneiform writing sequences are not necessarily linear because the manuscripts are organized in cases (or boxes), signs are routinely juxtaposed in clusters in which the components can be written above, below, or near each other as well as being beside each other in a line. The surface form of sequences can be variable in the ordering, selection, and disposition of components, all of which are treated as glyph variations and not as discrete characters.
9. Do not generally encode opaque sequences. In standard transliteration practice for Proto-Cuneiform some signs are given simple names which do not reflect their status as a sequence, e.g., LUGAL is actually a sequence of GAL<sub>2</sub> and LU<sub>2</sub>, or LU<sub>2</sub> and GAL. We call these sequences “opaque sequences” and, like regular sequences, they are not encoded.
10. Do make exceptions to the sequences rule for the following reasons:

**Reanalysis** Proto-Cuneiform signs that are originally integral units may be reanalyzed into separate constituents. Where this is demonstrably the case, the original character is encoded and the reanalyzed sequence is considered a glyph variant.

**Container Equivalency** Some signs are allowed as exceptions because the juxtaposition of elements is the equivalent of a container (TIMES) relationship.

**Unencoded Constituents** Some sequences contain constituents that are otherwise unattested; in this case the choice is either to encode a sign which may not be attested independently, or to encode the sequence. In general the option adopted is to encode the sequence as a character.

**Analogy** Some sequences are part of a group and would naturally be considered by users of the encoding to be analogous to each other. Where one or more members of a group fulfills either of the previous conditions for encoding as a character, PC25 encodes the entire group as individual characters by analogy to avoid a possibly confusing mixture of encoded and unencoded group members.

11. Consider distribution of components when encoding complex (X×Y) versus compound (X.Y or Y.X); sometimes, especially for rare signs, it is not clear whether the juxtaposition of components is part of the sign structure or the distribution of individual elements on the manuscript. In such cases it is preferable to treat the signs as a sequence rather than a complex.
12. Do not separately encode signs which occur only as components of complex signs
13. Do not encode uncertain signs, especially those from unedited texts such as the Schøyen Umma material
14. Do not encode broken signs; include them in the PUA instead.

## 6.4 Advantages of the Revised Approach

There are several advantages to the revised approach to PC encoding:

- the encoding is better aligned with transliteration practice
- additional glyph variants can be added without impacting the encoding; encoding every glyph variant would open PC to arbitrary open-ended encoding of slight differences with little basis for distinguishing when a variant should be encoded and when not: adopting the position that scholarly annotation of glyph variance as contrastive is required for encoding would set reasonable boundaries on what can be encoded and what should not be.
- new sequences can be added without impacting the encoding; this is especially important for the productive types involving N57 and time notations involving U<sub>4</sub>.

- variant forms can be managed with font features rather than needing encoding.
- the approach is generally more robust in regard to future discoveries as a result of the above points; where absolutely necessary unifications/disunifications could be considered if they are clearly demonstrable improvements to the utility of the encoding.

## 6.5 Reference Glyphs

The introduction of 1:several relationships where an encoded character has multiple variants entails the need for a principled selection of reference glyphs.

In order to have some level of consistency it would be preferable to select either Uruk IV glyphs or Uruk III glyphs as the primary choice of reference glyphs. Because the corpus is predominantly Uruk III in date it makes sense to use Uruk III reference glyphs as far as possible.

PC25 reference glyphs are aligned where possible with Uruk III sign forms occurring in published texts originating from Uruk or Jemdet Nasr. The selection of the reference glyph is not necessarily an indication that the other sign forms in EASL do not occur in the same period or place. It means simply that the reference glyph has been confirmed to occur, where possible, in Uruk III Uruk/Jemdet Nasr.

For sequences with multiple forms, the reference form is always the simplest/closest to the sequence description, as long as that form occurs in the corpus. This means that by default the sign looks the way it is described, and ligatures, reorderings, or non-linear dispositions are always accessed by CVNN.

Note that the selection of a reference glyph does not imply that the form is normative—the corpus is restricted and sign form variation is considerable which means that even the concept of a normative form is inapplicable to many signs.

## 7 Proposal Documents

The reference data for the proposal is in ‘UnicodeData.txt’, attached to this PDF.

A special purpose code-chart font ‘pc25-cc.ttf’, is also attached to the proposal. See Appendix XXX for further details.

Code charts and a character list are provided in the following pages for informational purposes only.

## 7.1 Code Charts

	1269	126A	126B	126C	126D	126E	126F
0							
1							
2							
3							
4							
5							
6							
7							
8							
9							
A							
B							
C							
D							
E							
F							

	1270	1271	1272	1273	1274	1275	1276	1277	1278	1279	127A	127B	127C	127D	127E	127F
0																
1																
2																
3																
4																
5																
6																
7																
8																
9																
A																
B																
C																
D																
E																
F																

	1280	1281	1282	1283	1284	1285	1286	1287	1288	1289	128A	128B	128C	128D	128E	128F
0																
12800																
1																
2																
3																
4																
5																
6																
7																
8																
9																
A																
B																
C																
D																
E																
F																

	1290	1291	1292	1293	1294	1295	1296	1297	1298	1299	129A	129B	129C	129D	129E	129F
0																
1																
2																
3																
4																
5																
6																
7																
8																
9																
A																
B																
C																
D																
E																
F																

	12A0	12A1	12A2	12A3	12A4	12A5	12A6	12A7	12A8	12A9	12AA	12AB	12AC	12AD	12AE	12AF
0																
1																
2																
3																
4																
5																
6																
7																
8																
9																
A																
B																
C																
D																
E																
F																

	12B0	12B1	12B2	12B3	12B4	12B5	12B6	12B7	12B8	12B9	12BA	12BB	12BC	12BD	12BE	12BF
0	12B00	12B10	12B20	12B30	12B40	12B50	12B60	12B70	12B80	12B90	12BA0	12BB0	12BC0	12BD0	12BE0	12BF0
1	12B01	12B11	12B21	12B31	12B41	12B51	12B61	12B71	12B81	12B91	12BA1	12BB1	12BC1	12BD1	12BE1	12BF1
2	12B02	12B12	12B22	12B32	12B42	12B52	12B62	12B72	12B82	12B92	12BA2	12BB2	12BC2	12BD2	12BE2	12BF2
3	12B03	12B13	12B23	12B33	12B43	12B53	12B63	12B73	12B83	12B93	12BA3	12BB3	12BC3	12BD3	12BE3	12BF3
4	12B04	12B14	12B24	12B34	12B44	12B54	12B64	12B74	12B84	12B94	12BA4	12BB4	12BC4	12BD4	12BE4	12BF4
5	12B05	12B15	12B25	12B35	12B45	12B55	12B65	12B75	12B85	12B95	12BA5	12BB5	12BC5	12BD5	12BE5	12BF5
6	12B06	12B16	12B26	12B36	12B46	12B56	12B66	12B76	12B86	12B96	12BA6	12BB6	12BC6	12BD6	12BE6	12BF6
7	12B07	12B17	12B27	12B37	12B47	12B57	12B67	12B77	12B87	12B97	12BA7	12BB7	12BC7	12BD7	12BE7	12BF7
8	12B08	12B18	12B28	12B38	12B48	12B58	12B68	12B78	12B88	12B98	12BA8	12BB8	12BC8	12BD8	12BE8	12BF8
9	12B09	12B19	12B29	12B39	12B49	12B59	12B69	12B79	12B89	12B99	12BA9	12BB9	12BC9	12BD9	12BE9	12BF9
A	12B0A	12B1A	12B2A	12B3A	12B4A	12B5A	12B6A	12B7A	12B8A	12B9A	12BA0	12BB0	12BC0	12BD0	12BE0	12FA
B	12B0B	12B1B	12B2B	12B3B	12B4B	12B5B	12B6B	12B7B	12B8B	12B9B	12BA0	12BB0	12BC0	12BD0	12BE0	12FB
C	12B0C	12B1C	12B2C	12B3C	12B4C	12B5C	12B6C	12B7C	12B8C	12B9C	12BA0	12BB0	12BC0	12BD0	12BE0	12FC
D	12B0D	12B1D	12B2D	12B3D	12B4D	12B5D	12B6D	12B7D	12B8D	12B9D	12BA0	12BB0	12BC0	12BD0	12BE0	12FD
E	12B0E	12B1E	12B2E	12B3E	12B4E	12B5E	12B6E	12B7E	12B8E	12B9E	12BA0	12BB0	12BC0	12BD0	12BE0	12FE
F	12B0F	12B1F	12B2F	12B3F	12B4F	12B5F	12B6F	12B7F	12B8F	12B9F	12BA0	12BB0	12BC0	12BD0	12BE0	12FF

## 7.2 Character List

12690		PROTO-CUNEIFORM SIGN A	126C2		PROTO-CUNEIFORM SIGN AZ
12691		PROTO-CUNEIFORM SIGN A TIMES EN-A	126C3		PROTO-CUNEIFORM SIGN AZU
12692		PROTO-CUNEIFORM SIGN A TIMES SHUBUR	126C4		PROTO-CUNEIFORM SIGN BA
12693		PROTO-CUNEIFORM SIGN A TIMES ZATU672	126C5		PROTO-CUNEIFORM SIGN BAD
12694		PROTO-CUNEIFORM SIGN A TIMES ONE N14	126C6		PROTO-CUNEIFORM SIGN BAD OVER BAD
12695		PROTO-CUNEIFORM SIGN A2	126C7		PROTO-CUNEIFORM SIGN BAD3-A
12696		PROTO-CUNEIFORM SIGN AB-A	126C8		PROTO-CUNEIFORM SIGN BAD3-B1
12697		PROTO-CUNEIFORM SIGN AB-A TIMES A TENU	126C9		PROTO-CUNEIFORM SIGN BAD3-B2
12698		PROTO-CUNEIFORM SIGN AB-A TIMES ASH2	126CA		PROTO-CUNEIFORM SIGN BAHAR2-A
12699		PROTO-CUNEIFORM SIGN AB-A TIMES SHE-A OVER SHE-A	126CB		PROTO-CUNEIFORM SIGN BAHAR2-B
1269A		PROTO-CUNEIFORM SIGN AB-A TIMES ZATU659	126CC		PROTO-CUNEIFORM SIGN BAHAR2-C
1269B		PROTO-CUNEIFORM SIGN AB-A TIMES ONE N04	126CD		PROTO-CUNEIFORM SIGN BALA-A
1269C		PROTO-CUNEIFORM SIGN AB-A GUNU	126CE		PROTO-CUNEIFORM SIGN BALA-B
1269D		PROTO-CUNEIFORM SIGN AB-B	126CF		PROTO-CUNEIFORM SIGN BALAG
1269E		PROTO-CUNEIFORM SIGN AB2	126D0		PROTO-CUNEIFORM SIGN BAN-A
1269F		PROTO-CUNEIFORM SIGN AB2 TIMES TWO N14	126D1		PROTO-CUNEIFORM SIGN BAN-B
126A0		PROTO-CUNEIFORM SIGN ABZU	126D2		PROTO-CUNEIFORM SIGN BANSHUR-A
126A1		PROTO-CUNEIFORM SIGN AD-A	126D3		PROTO-CUNEIFORM SIGN BANSHUR-A TENU
126A2		PROTO-CUNEIFORM SIGN AD-B	126D4		PROTO-CUNEIFORM SIGN BANSHUR-B1
126A3		PROTO-CUNEIFORM SIGN AD-C	126D5		PROTO-CUNEIFORM SIGN BANSHUR-B2
126A4		PROTO-CUNEIFORM SIGN ADAB	126D6		PROTO-CUNEIFORM SIGN BANSHUR-C
126A5		PROTO-CUNEIFORM SIGN ADDA	126D7		PROTO-CUNEIFORM SIGN BAPPIR-A
126A6		PROTO-CUNEIFORM SIGN AGAR2	126D8		PROTO-CUNEIFORM SIGN BAPPIR-B
126A7		PROTO-CUNEIFORM SIGN AK-A	126D9		PROTO-CUNEIFORM SIGN BAPPIR-C
126A8		PROTO-CUNEIFORM SIGN AK-B	126DA		PROTO-CUNEIFORM SIGN BAPPIR-D
126A9		PROTO-CUNEIFORM SIGN AL	126DB		PROTO-CUNEIFORM SIGN BAPPIR-E
126AA		PROTO-CUNEIFORM SIGN ALAN-A	126DC		PROTO-CUNEIFORM SIGN BAPPIR-F
126AB		PROTO-CUNEIFORM SIGN ALAN-B	126DD		PROTO-CUNEIFORM SIGN BAR
126AC		PROTO-CUNEIFORM SIGN ALAN-C	126DE		PROTO-CUNEIFORM SIGN BARA2-A
126AD		PROTO-CUNEIFORM SIGN ALAN-E	126DF		PROTO-CUNEIFORM SIGN BARA2-B
126AE		PROTO-CUNEIFORM SIGN ALIM	126E0		PROTO-CUNEIFORM SIGN BARA3
126AF		PROTO-CUNEIFORM SIGN AM-A	126E1		PROTO-CUNEIFORM SIGN BIR-A
126B0		PROTO-CUNEIFORM SIGN AM-B	126E2		PROTO-CUNEIFORM SIGN BIR-B
126B1		PROTO-CUNEIFORM SIGN AMA-A	126E3		PROTO-CUNEIFORM SIGN BIR-C
126B2		PROTO-CUNEIFORM SIGN AMA-A TIMES E2-A	126E4		PROTO-CUNEIFORM SIGN BIR3-A
126B3		PROTO-CUNEIFORM SIGN AMA-B	126E5		PROTO-CUNEIFORM SIGN BIR3-B
126B4		PROTO-CUNEIFORM SIGN AMAR	126E6		PROTO-CUNEIFORM SIGN BIR3-C
126B5		PROTO-CUNEIFORM SIGN AMAR TIMES TAR-C	126E7		PROTO-CUNEIFORM SIGN BU-A
126B6		PROTO-CUNEIFORM SIGN AMAR OVER AMAR	126E8		PROTO-CUNEIFORM SIGN BU-A JOINING DU6-A
126B7		PROTO-CUNEIFORM SIGN AN	126E9		PROTO-CUNEIFORM SIGN BU-A JOINING KI
126B8		PROTO-CUNEIFORM SIGN ANSHE-A	126EA		PROTO-CUNEIFORM SIGN BU-A TIMES A
126B9		PROTO-CUNEIFORM SIGN ANSHE-B	126EB		PROTO-CUNEIFORM SIGN BU-A OVER BU-A NA2-A
126BA		PROTO-CUNEIFORM SIGN ANSHE-C	126EC		PROTO-CUNEIFORM SIGN BU-A CROSSING BU-A NA2-A NUTILLU
126BB		PROTO-CUNEIFORM SIGN ANSHE-E	126ED		PROTO-CUNEIFORM SIGN BU-B
126BC		PROTO-CUNEIFORM SIGN ANSHE-F	126EE		PROTO-CUNEIFORM SIGN BU3
126BD		PROTO-CUNEIFORM SIGN APIN-A	126EF		PROTO-CUNEIFORM SIGN BULUG
126BE		PROTO-CUNEIFORM SIGN APIN-B	126F0		PROTO-CUNEIFORM SIGN BULUG3
126BF		PROTO-CUNEIFORM SIGN APIN-C	126F1		PROTO-CUNEIFORM SIGN BUR-A
126C0		PROTO-CUNEIFORM SIGN ARARMA2-A	126F2		PROTO-CUNEIFORM SIGN BUR-B
126C1		PROTO-CUNEIFORM SIGN ASAR	126F3		PROTO-CUNEIFORM SIGN BUR-C
			126F4		PROTO-CUNEIFORM SIGN BUR-D
			126F5		PROTO-CUNEIFORM SIGN BUR2

126F6		PROTO-CUNEIFORM SIGN DA-A	12726		PROTO-CUNEIFORM SIGN DU8-A
126F7		PROTO-CUNEIFORM SIGN DA-B	12727		PROTO-CUNEIFORM SIGN DU8-B
126F8		PROTO-CUNEIFORM SIGN DA-C	12728		PROTO-CUNEIFORM SIGN DU8-C
126F9		PROTO-CUNEIFORM SIGN DA-D	12729		PROTO-CUNEIFORM SIGN DU8-C TIMES AB2
126FA		PROTO-CUNEIFORM SIGN DAH	1272A		PROTO-CUNEIFORM SIGN DU8-C TIMES AMAR
126FB		PROTO-CUNEIFORM SIGN DAM	1272B		PROTO-CUNEIFORM SIGN DU8-C TIMES HI
126FC		PROTO-CUNEIFORM SIGN DANNA	1272C		PROTO-CUNEIFORM SIGN DU8-C TIMES UDU-A
126FD		PROTO-CUNEIFORM SIGN DAR-A	1272D		PROTO-CUNEIFORM SIGN DU8-C GUNU
126FE		PROTO-CUNEIFORM SIGN DAR-A TIMES A	1272E		PROTO-CUNEIFORM SIGN DUB-A
126FF		PROTO-CUNEIFORM SIGN DAR-B	1272F		PROTO-CUNEIFORM SIGN DUB-B
12700		PROTO-CUNEIFORM SIGN DAR-C	12730		PROTO-CUNEIFORM SIGN DUB-C
12701		PROTO-CUNEIFORM SIGN DARA3-A	12731		PROTO-CUNEIFORM SIGN DUB-D
12702		PROTO-CUNEIFORM SIGN DARA3-B	12732		PROTO-CUNEIFORM SIGN DUB-E
12703		PROTO-CUNEIFORM SIGN DARA3-C	12733		PROTO-CUNEIFORM SIGN DUB-F
12704		PROTO-CUNEIFORM SIGN DARA3-C TIMES KAR2	12734		PROTO-CUNEIFORM SIGN DUB-H
12705		PROTO-CUNEIFORM SIGN DARA3-C TIMES KAR2 PLUS SHE-A	12735		PROTO-CUNEIFORM SIGN DUB NUTILLU-A TIMES ONE N58 FORM A
12706		PROTO-CUNEIFORM SIGN DARA3-D	12736		PROTO-CUNEIFORM SIGN DUB NUTILLU-A TIMES ONE N58 FORM B
12707		PROTO-CUNEIFORM SIGN DARA3-D TIMES KAR2 PLUS SHE-A	12737		PROTO-CUNEIFORM SIGN DUB NUTILLU-B TIMES ONE N58-A
12708		PROTO-CUNEIFORM SIGN DARA3-D TIMES KAR2-B	12738		PROTO-CUNEIFORM SIGN DUB2
12709		PROTO-CUNEIFORM SIGN DARA4-A1	1273A		PROTO-CUNEIFORM SIGN DUG-A TIMES KU6-A
1270A		PROTO-CUNEIFORM SIGN DARA4-A2	1273B		PROTO-CUNEIFORM SIGN DUG-A TIMES NAGA-A
1270B		PROTO-CUNEIFORM SIGN DARA4-A3	1273C		PROTO-CUNEIFORM SIGN DUG-A TIMES U2-A
1270C		PROTO-CUNEIFORM SIGN DARA4-B	1273D		PROTO-CUNEIFORM SIGN DUG-A TIMES U2-B
1270D		PROTO-CUNEIFORM SIGN DARA4-C	1273E		PROTO-CUNEIFORM SIGN DUG-A TIMES ONE N57
1270E		PROTO-CUNEIFORM SIGN DARA4-C1	1273F		PROTO-CUNEIFORM SIGN DUG-B
1270F		PROTO-CUNEIFORM SIGN DARA4-C2	12740		PROTO-CUNEIFORM SIGN DUG-B TIMES AB2
12710		PROTO-CUNEIFORM SIGN DARA4-C3	12741		PROTO-CUNEIFORM SIGN DUG-B TIMES ANSHE-B
12711		PROTO-CUNEIFORM SIGN DARA4-C4	12742		PROTO-CUNEIFORM SIGN DUG-B TIMES ANSHE-D
12712		PROTO-CUNEIFORM SIGN DARA4-C5	12743		PROTO-CUNEIFORM SIGN DUG-B TIMES BALA-A
12713		PROTO-CUNEIFORM SIGN DARA4-D	12744		PROTO-CUNEIFORM SIGN DUG-B TIMES BIR3-C
12714		PROTO-CUNEIFORM SIGN DI	12745		PROTO-CUNEIFORM SIGN DUG-B TIMES DIN
12715		PROTO-CUNEIFORM SIGN DI TENU	12746		PROTO-CUNEIFORM SIGN DUG-B TIMES DIN REVERSED
12716		PROTO-CUNEIFORM SIGN DIB	12747		PROTO-CUNEIFORM SIGN DUG-B TIMES GA-A
12717		PROTO-CUNEIFORM SIGN DILMUN	12748		PROTO-CUNEIFORM SIGN DUG-B TIMES GA-B
12718		PROTO-CUNEIFORM SIGN DIM-A	12749		PROTO-CUNEIFORM SIGN DUG-B TIMES GESHTU-A
12719		PROTO-CUNEIFORM SIGN DIM-B	1274A		PROTO-CUNEIFORM SIGN DUG-B TIMES GESHTU-B
1271A		PROTO-CUNEIFORM SIGN DIM-C	1274B		PROTO-CUNEIFORM SIGN DUG-B TIMES GI6
1271B		PROTO-CUNEIFORM SIGN DIN	1274C		PROTO-CUNEIFORM SIGN DUG-B TIMES GISH
1271C		PROTO-CUNEIFORM SIGN DIN TIMES ONE N58	1274D		PROTO-CUNEIFORM SIGN DUG-B TIMES HI
1271D		PROTO-CUNEIFORM SIGN DIN TENU	1274E		PROTO-CUNEIFORM SIGN DUG-B TIMES HI GUNU-A
1271E		PROTO-CUNEIFORM SIGN DU	1274F		PROTO-CUNEIFORM SIGN DUG-B TIMES KASKAL
1271F		PROTO-CUNEIFORM SIGN DU TIMES ONE N58 TENU	12750		PROTO-CUNEIFORM SIGN DUG-B TIMES KU6-A
12720		PROTO-CUNEIFORM SIGN DU GUNU	12751		PROTO-CUNEIFORM SIGN DUG-B TIMES KUR-A
12721		PROTO-CUNEIFORM SIGN DU6-A	12752		PROTO-CUNEIFORM SIGN DUG-B TIMES KUR-B
12722		PROTO-CUNEIFORM SIGN DU6-A TIMES ONE N58	12753		PROTO-CUNEIFORM SIGN DUG-B TIMES KUR GUNU-A
12723		PROTO-CUNEIFORM SIGN DU6-B			
12724		PROTO-CUNEIFORM SIGN DU6-C			
12725		PROTO-CUNEIFORM SIGN DU7			

12754		PROTO-CUNEIFORM SIGN DUG-B TIMES LAM-A	12780		PROTO-CUNEIFORM SIGN E2-A TIMES ONE N58
12755		PROTO-CUNEIFORM SIGN DUG-B TIMES MASH	12781		TENU
12756		PROTO-CUNEIFORM SIGN DUG-B TIMES NAGA-A	12782		PROTO-CUNEIFORM SIGN E2-B
12757		PROTO-CUNEIFORM SIGN DUG-B TIMES NAM2	12783		PROTO-CUNEIFORM SIGN E2-B TIMES ONE N58
12758		PROTO-CUNEIFORM SIGN DUG-B TIMES SA-A	12784		TENU
12759		PROTO-CUNEIFORM SIGN DUG-B TIMES SA-A PLUS GI	12785		PROTO-CUNEIFORM SIGN E2-C
1275A		PROTO-CUNEIFORM SIGN DUG-B TIMES SI4-A	12786		PROTO-CUNEIFORM SIGN E2-D
1275B		PROTO-CUNEIFORM SIGN DUG-B TIMES SIG2-A1	12787		PROTO-CUNEIFORM SIGN E3-B
1275C		PROTO-CUNEIFORM SIGN DUG-B TIMES SIG2-A2	12788		PROTO-CUNEIFORM SIGN EDIN
1275D		PROTO-CUNEIFORM SIGN DUG-B TIMES SIG7	12789		PROTO-CUNEIFORM SIGN EN-A
1275E		PROTO-CUNEIFORM SIGN DUG-B TIMES SUHUR	1278A		PROTO-CUNEIFORM SIGN EN-B
1275F		PROTO-CUNEIFORM SIGN DUG-B TIMES SHAH2-A	1278B		PROTO-CUNEIFORM SIGN EN-C
12760		PROTO-CUNEIFORM SIGN DUG-B TIMES SHE-A	1278C		PROTO-CUNEIFORM SIGN EN GUNU-A
12761		PROTO-CUNEIFORM SIGN DUG-B TIMES SHE-A PLUS NAM2	1278D		PROTO-CUNEIFORM SIGN EN GUNU-B
12762		PROTO-CUNEIFORM SIGN DUG-B TIMES TAK4-A	1278E		PROTO-CUNEIFORM SIGN EN2
12763		PROTO-CUNEIFORM SIGN DUG-B TIMES TAK4-A PLUS SA-A	1278F		PROTO-CUNEIFORM SIGN ERIM-A
12764		PROTO-CUNEIFORM SIGN DUG-B TIMES TAK4-A PLUS SAL	12790		PROTO-CUNEIFORM SIGN ERIM-B1
12765		PROTO-CUNEIFORM SIGN DUG-B TIMES TI	12791		PROTO-CUNEIFORM SIGN ERIM-B2
12766		PROTO-CUNEIFORM SIGN DUG-B TIMES U2-A	12792		PROTO-CUNEIFORM SIGN ERIN
12767		PROTO-CUNEIFORM SIGN DUG-B TIMES U2-B	12793		PROTO-CUNEIFORM SIGN ESHDA
12768		PROTO-CUNEIFORM SIGN DUG-B TIMES UDU-A TIMES TAR-B	12794		PROTO-CUNEIFORM SIGN ESHDA TIMES TAR-A
12769		PROTO-CUNEIFORM SIGN DUG-B TIMES UH3-A	12795		PROTO-CUNEIFORM SIGN ESHGAR
1276A		PROTO-CUNEIFORM SIGN DUG-B TIMES UH3-A TENU	12796		PROTO-CUNEIFORM SIGN EZEN-A
1276B		PROTO-CUNEIFORM SIGN DUG-B TIMES ZATU764	12797		PROTO-CUNEIFORM SIGN EZEN-A
1276C		PROTO-CUNEIFORM SIGN DUG-B TIMES ZATU779	12798		TI TIMES ONE N57 PLUS AN
1276D		PROTO-CUNEIFORM SIGN DUG-B TIMES ZATU780	12799		PROTO-CUNEIFORM SIGN KAB
1276E		PROTO-CUNEIFORM SIGN DUG-B TIMES ZATU781	1279A		PROTO-CUNEIFORM SIGN EZEN-A
1276F		PROTO-CUNEIFORM SIGN DUG-B TIMES ZATU789 PLUS SA-A	1279B		TI TIMES EZEN-A
12770		PROTO-CUNEIFORM SIGN DUG-B TIMES ONE N57	1279C		NIM-B2
12771		PROTO-CUNEIFORM SIGN DUG-B TIMES ONE N57 PLUS KU3-A	1279D		PROTO-CUNEIFORM SIGN EZEN-A
12772		PROTO-CUNEIFORM SIGN DUG-B TIMES ONE N58	1279E		TI TIMES RAD-A
12773		PROTO-CUNEIFORM SIGN DUG-B OVER DUG-B TIMES ONE N58	1279F		TI TIMES SU-A
12774		PROTO-CUNEIFORM SIGN DUG-C	127A0		TI TIMES EZEN-A
12775		PROTO-CUNEIFORM SIGN DUG-C TIMES ONE N57	127A1		TI TIMES U4
12776		PROTO-CUNEIFORM SIGN DUG-C TENU	127A2		EZEN-B
12777		PROTO-CUNEIFORM SIGN DUG-D	127A3		EZEN-B TIMES SHE-A
12778		PROTO-CUNEIFORM SIGN DUGUD	127A4		TENU
12779		PROTO-CUNEIFORM SIGN DUR-A	127A5		EZEN-B
1277A		PROTO-CUNEIFORM SIGN DUR-B	127A6		EZINU-A
1277B		PROTO-CUNEIFORM SIGN DUR2	127A7		EZINU-B
1277C		PROTO-CUNEIFORM SIGN E-A	127A8		EZINU-C
1277D		PROTO-CUNEIFORM SIGN E-B	127A9		GA-A
1277E		PROTO-CUNEIFORM SIGN E-C	127AA		GA-B
1277F		PROTO-CUNEIFORM SIGN E2-A	127AB		GA-C
			127AC		KASKAL
			127AD		GA-C

127AE		PROTO-CUNEIFORM SIGN GA2-A1	127DD		PROTO-CUNEIFORM SIGN GADA-B GUNU
127AF		PROTO-CUNEIFORM SIGN GA2-A1 TIMES A	127DE		PROTO-CUNEIFORM SIGN GAL-A
127B0		PROTO-CUNEIFORM SIGN GA2-A1 TIMES E2-A	127DF		PROTO-CUNEIFORM SIGN GAL-B
127B1		PROTO-CUNEIFORM SIGN GA2-A1 TIMES EN-B	127E0		PROTO-CUNEIFORM SIGN GALGA-A
127B2		PROTO-CUNEIFORM SIGN GA2-A1 TIMES GESHTU-A	127E1		PROTO-CUNEIFORM SIGN GAN-A
127B3		PROTO-CUNEIFORM SIGN GA2-A1 TIMES GESHTU-C3	127E2		PROTO-CUNEIFORM SIGN GAN-B
127B4		PROTO-CUNEIFORM SIGN GA2-A1 TIMES GESHTU-C5	127E3		PROTO-CUNEIFORM SIGN GAN-C
127B5		PROTO-CUNEIFORM SIGN GA2-A1 TIMES GIR-A	127E4		PROTO-CUNEIFORM SIGN GAN-C TIMES DIN
127B6		PROTO-CUNEIFORM SIGN GA2-A1 TIMES GIR-A PLUS KU6-A	127E5		PROTO-CUNEIFORM SIGN GAN-C TIMES HI
127B7		PROTO-CUNEIFORM SIGN GA2-A1 TIMES GISH	127E6		PROTO-CUNEIFORM SIGN GAN-C TIMES HI PLUS DIN
127B8		TENU	127E7		PROTO-CUNEIFORM SIGN GAN-C TIMES KASH-C
127B9		PROTO-CUNEIFORM SIGN GA2-A1 TIMES HI	127E8		PROTO-CUNEIFORM SIGN GAN-C TIMES KUR-A
127BA		PLUS KU6-A	127E9		PLUS A
127BB		PROTO-CUNEIFORM SIGN GA2-A1 TIMES KU6-A JOINING KU6-A	127EA		PROTO-CUNEIFORM SIGN GAN-C TIMES LAGAB-B
127BC		PROTO-CUNEIFORM SIGN GA2-A1 TIMES KU6-A	127EB		PROTO-CUNEIFORM SIGN GAN-C TIMES SIG7
127BD		PROTO-CUNEIFORM SIGN GA2-A1 TIMES LAGAB-B	127EC		PROTO-CUNEIFORM SIGN GAN-C TIMES ZATU777
127BE		PROTO-CUNEIFORM SIGN GA2-A1 TIMES MASH	127ED		PROTO-CUNEIFORM SIGN GAN-C TIMES FOUR N57 PLUS GAR
127BF		PROTO-CUNEIFORM SIGN GA2-A1 TIMES PAD-B	127EE		PROTO-CUNEIFORM SIGN GAN-D TIMES GESHTU-A
127C0		PROTO-CUNEIFORM SIGN GA2-A1 TIMES PAP-A	127EF		PROTO-CUNEIFORM SIGN GAN2
127C1		PROTO-CUNEIFORM SIGN GA2-A1 TIMES SU-A	127F0		PROTO-CUNEIFORM SIGN GAR
127C2		PROTO-CUNEIFORM SIGN GA2-A1 TIMES SUHUR	127F1		PROTO-CUNEIFORM SIGN GUNU-A
127C3		PROTO-CUNEIFORM SIGN GA2-A1 TIMES SUKUD	127F2		PROTO-CUNEIFORM SIGN GAR GUNU-B
127C4		PROTO-CUNEIFORM SIGN GA2-A1 TIMES SUMASH	127F3		PROTO-CUNEIFORM SIGN GAR GUNU-C
127C5		PROTO-CUNEIFORM SIGN GA2-A1 TIMES SHA	127F4		PROTO-CUNEIFORM SIGN GAR3
127C6		PROTO-CUNEIFORM SIGN GA2-A1 TIMES TI	127F5		PROTO-CUNEIFORM SIGN GARA2-A
127C7		PROTO-CUNEIFORM SIGN GA2-A1 TIMES U4	127F6		PROTO-CUNEIFORM SIGN GAZI
127C8		PROTO-CUNEIFORM SIGN GA2-A1 TIMES ONE N14	127F7		PROTO-CUNEIFORM SIGN GESHTIN-A
127C9		PROTO-CUNEIFORM SIGN GA2-A1 TIMES ONE N57	127F8		PROTO-CUNEIFORM SIGN GESHTIN-D
127CA		PROTO-CUNEIFORM SIGN GA2-A2	127F9		PROTO-CUNEIFORM SIGN GESHTIN-E
127CB		PROTO-CUNEIFORM SIGN GA2-A2 TIMES GU4	127FA		PROTO-CUNEIFORM SIGN GESHTU-A TIMES SHE-A TENU
127CC		PROTO-CUNEIFORM SIGN GA2-A2 TIMES NI-A	127FB		PROTO-CUNEIFORM SIGN GESHTU-B
127CD		PROTO-CUNEIFORM SIGN GA2-A2 TIMES SUHUR	127FC		PROTO-CUNEIFORM SIGN GESHTU-C3
127CE		PROTO-CUNEIFORM SIGN GA2-A2 TIMES SHE3	127FD		PROTO-CUNEIFORM SIGN GESHTU-C5
127CF		PROTO-CUNEIFORM SIGN GA2-A2 TIMES SHE3 PLUS GU4	127FE		PROTO-CUNEIFORM SIGN GI
127D0		PROTO-CUNEIFORM SIGN GA2-A3	127FF		PROTO-CUNEIFORM SIGN GI
127D1		PROTO-CUNEIFORM SIGN GA2-A4	12800		PROTO-CUNEIFORM SIGN GI TIMES A
127D2		PROTO-CUNEIFORM SIGN GA2-B	12801		PROTO-CUNEIFORM SIGN GI TIMES GISH TENU
127D3		PROTO-CUNEIFORM SIGN GA2-B TIMES DUB-A	12802		PROTO-CUNEIFORM SIGN GI TIMES KU-B1
127D4		PROTO-CUNEIFORM SIGN GA2-B TIMES DUB-B	12803		PROTO-CUNEIFORM SIGN GI TIMES LAGAB-A
127D5		PROTO-CUNEIFORM SIGN GA2-B TIMES KU6-A	12804		PROTO-CUNEIFORM SIGN GI TIMES NAM2
127D6		PROTO-CUNEIFORM SIGN GA2-B TIMES ZATU659	12805		PROTO-CUNEIFORM SIGN GI TIMES SIG2-D1
127D7		PROTO-CUNEIFORM SIGN GA2-C	12806		PROTO-CUNEIFORM SIGN GI TIMES SHE3
127D8		PROTO-CUNEIFORM SIGN GAAR-A1	12807		PROTO-CUNEIFORM SIGN GI TIMES ONE N14
127D9		PROTO-CUNEIFORM SIGN GAAR-A2	12808		PROTO-CUNEIFORM SIGN GI TIMES ONE N58 TENU
127DA		PROTO-CUNEIFORM SIGN GAAR-B1	12809		PROTO-CUNEIFORM SIGN GI OVER GI
127DB		PROTO-CUNEIFORM SIGN GAAR-B2	1280A		PROTO-CUNEIFORM SIGN GI OVER GI TIMES GISH TENU
127DC		PROTO-CUNEIFORM SIGN GADA-A	1280B		PROTO-CUNEIFORM SIGN GI OVER GI OVER GI

1280C		PROTO-CUNEIFORM SIGN GI4-A	1283A		PROTO-CUNEIFORM SIGN GUG2
1280D		PROTO-CUNEIFORM SIGN GI4-A TIMES A	1283B		PROTO-CUNEIFORM SIGN GUG2 TIMES SILA3-A
1280E		PROTO-CUNEIFORM SIGN GI4-B	1283C		PROTO-CUNEIFORM SIGN GUG2 TIMES TUR
1280F		PROTO-CUNEIFORM SIGN GI4-B OVER GI4-B	1283D		PROTO-CUNEIFORM SIGN GUUKKAL-A
12810		PROTO-CUNEIFORM SIGN GI6	1283E		PROTO-CUNEIFORM SIGN GUUKKAL-B
12811		PROTO-CUNEIFORM SIGN GIBIL	1283F		PROTO-CUNEIFORM SIGN GUUKKAL-C
12812		PROTO-CUNEIFORM SIGN GIR-A	12840		PROTO-CUNEIFORM SIGN GUUKKAL-D
12813		PROTO-CUNEIFORM SIGN GIR-B	12841		PROTO-CUNEIFORM SIGN GUL
12814		PROTO-CUNEIFORM SIGN GIR-C	12842		PROTO-CUNEIFORM SIGN GUM-A
12815		PROTO-CUNEIFORM SIGN GIR2-A	12843		PROTO-CUNEIFORM SIGN GUM-B
12816		PROTO-CUNEIFORM SIGN GIR3-A	12844		PROTO-CUNEIFORM SIGN GUM-B NUTILLU
12817		PROTO-CUNEIFORM SIGN GIR3-A TIMES SHE-B	12845		PROTO-CUNEIFORM SIGN GUN3-A
12818		PROTO-CUNEIFORM SIGN GIR3-B	12846		PROTO-CUNEIFORM SIGN GUN3-B
12819		PROTO-CUNEIFORM SIGN GIR3-C	12847		PROTO-CUNEIFORM SIGN GUR
1281A		PROTO-CUNEIFORM SIGN GIR3-C TIMES SHE3	12849		PROTO-CUNEIFORM SIGN GURUSH-A TIMES TWO N14
1281B		PROTO-CUNEIFORM SIGN GIR3 GUNU-A	1284A		PROTO-CUNEIFORM SIGN GURUSH-B
1281C		PROTO-CUNEIFORM SIGN GIR3 GUNU-B	1284B		PROTO-CUNEIFORM SIGN GURUSH-B TIMES TWO N14
1281D		PROTO-CUNEIFORM SIGN GIR3 GUNU-C	1284C		PROTO-CUNEIFORM SIGN GURUSH-C TIMES TWO N14
1281E		PROTO-CUNEIFORM SIGN GISAL-A	1284D		PROTO-CUNEIFORM SIGN GURUSHDA
1281F		PROTO-CUNEIFORM SIGN GISAL-B	1284E		PROTO-CUNEIFORM SIGN HAL
12820		PROTO-CUNEIFORM SIGN GISH	1284F		PROTO-CUNEIFORM SIGN HALUB
12821		PROTO-CUNEIFORM SIGN GISH TIMES DIN PLUS DIN FORM A	12850		PROTO-CUNEIFORM SIGN HASHHUR
12822		PROTO-CUNEIFORM SIGN GISH TIMES DIN PLUS DIN FORM B	12851		PROTO-CUNEIFORM SIGN HASHHUR TIMES MA
12823		PROTO-CUNEIFORM SIGN GISH TIMES DIN PLUS DIN FORM C	12852		PROTO-CUNEIFORM SIGN HI
12824		PROTO-CUNEIFORM SIGN GISH TIMES SHU2	12853		PROTO-CUNEIFORM SIGN HI TIMES ONE N57
12825		FORM A	12854		PROTO-CUNEIFORM SIGN HI TIMES ONE N57
12826		PROTO-CUNEIFORM SIGN GISH TENU	12855		PROTO-CUNEIFORM SIGN HI GUNU-A
12827		PROTO-CUNEIFORM SIGN GISH3-A	12856		PROTO-CUNEIFORM SIGN HI GUNU-B
12828		PROTO-CUNEIFORM SIGN GISH3-A OVER GISH3-A	12857		PROTO-CUNEIFORM SIGN HI GUNU-C
12829		PROTO-CUNEIFORM SIGN GISH3-B	12858		PROTO-CUNEIFORM SIGN I
1282A		PROTO-CUNEIFORM SIGN GISHGAL	12859		PROTO-CUNEIFORM SIGN IB-A
1282B		PROTO-CUNEIFORM SIGN GISHIMMAR-A1	1285A		PROTO-CUNEIFORM SIGN IB-A NUTILLU
1282C		PROTO-CUNEIFORM SIGN GISHIMMAR-A2	1285B		PROTO-CUNEIFORM SIGN IB-B
1282D		PROTO-CUNEIFORM SIGN GISHIMMAR-A3	1285C		PROTO-CUNEIFORM SIGN IB-C
1282E		PROTO-CUNEIFORM SIGN GISHIMMAR-B1	1285D		PROTO-CUNEIFORM SIGN IDIGNA
1282F		PROTO-CUNEIFORM SIGN GISHIMMAR-B2	1285E		PROTO-CUNEIFORM SIGN IG-A
12830		PROTO-CUNEIFORM SIGN GISHIMMAR-B3	1285F		PROTO-CUNEIFORM SIGN IG-B
12831		PROTO-CUNEIFORM SIGN GU	12860		PROTO-CUNEIFORM SIGN IL
12832		PROTO-CUNEIFORM SIGN GU2	12861		PROTO-CUNEIFORM SIGN IM-A
12833		PROTO-CUNEIFORM SIGN GU4	12862		PROTO-CUNEIFORM SIGN IM-B
12834		PROTO-CUNEIFORM SIGN GU4 GUNU	12863		PROTO-CUNEIFORM SIGN IN-B
12835		PROTO-CUNEIFORM SIGN GU7	12864		PROTO-CUNEIFORM SIGN IN-D
12836		PROTO-CUNEIFORM SIGN GUB3-A	12865		PROTO-CUNEIFORM SIGN IR-A
12837		PROTO-CUNEIFORM SIGN GUB3-B	12866		PROTO-CUNEIFORM SIGN IR-B
12838		PROTO-CUNEIFORM SIGN GUB3-C	12867		PROTO-CUNEIFORM SIGN IR-C
12839		PROTO-CUNEIFORM SIGN GUB3-D	12868		PROTO-CUNEIFORM SIGN IR-D
			12869		PROTO-CUNEIFORM SIGN ISH-A

1286A		PROTO-CUNEIFORM SIGN ISH-B	1289C		PROTO-CUNEIFORM SIGN KISAL-B2
1286B		PROTO-CUNEIFORM SIGN ISH-C	1289D		PROTO-CUNEIFORM SIGN KISAL-B2 TENU
1286C		PROTO-CUNEIFORM SIGN KA-A	1289E		PROTO-CUNEIFORM SIGN KISAL-B3
1286D		PROTO-CUNEIFORM SIGN KA-A TIMES SAR-A	1289F		PROTO-CUNEIFORM SIGN KISIM-A
1286E		PROTO-CUNEIFORM SIGN KA2-A	128A0		PROTO-CUNEIFORM SIGN KISIM-B
1286F		PROTO-CUNEIFORM SIGN KA2-B	128A1		PROTO-CUNEIFORM SIGN KISIM-C
12870		PROTO-CUNEIFORM SIGN KA2-D TIMES LAM-B	128A2		PROTO-CUNEIFORM SIGN KISH
12871		PROTO-CUNEIFORM SIGN KAB	128A3		PROTO-CUNEIFORM SIGN KISHIK-A
12872		PROTO-CUNEIFORM SIGN KAD4-A	128A4		PROTO-CUNEIFORM SIGN KISHIK-B
12873		PROTO-CUNEIFORM SIGN KAD4-B	128A5		PROTO-CUNEIFORM SIGN KITI
12874		PROTO-CUNEIFORM SIGN KAK-A	128A6		PROTO-CUNEIFORM SIGN KU-A
12875		PROTO-CUNEIFORM SIGN KAK-B	128A7		PROTO-CUNEIFORM SIGN KU-B1
12876		PROTO-CUNEIFORM SIGN KAL-A	128A8		PROTO-CUNEIFORM SIGN KU-B2
12877		PROTO-CUNEIFORM SIGN KAL-B1	128A9		PROTO-CUNEIFORM SIGN KU3-A
12878		PROTO-CUNEIFORM SIGN KAL-B2	128AA		PROTO-CUNEIFORM SIGN KU3-C
12879		PROTO-CUNEIFORM SIGN KALAM-A	128AB		PROTO-CUNEIFORM SIGN KU6-A
1287A		PROTO-CUNEIFORM SIGN KALAM-B	128AC		PROTO-CUNEIFORM SIGN KU6-A JOINING KU6-A
1287B		PROTO-CUNEIFORM SIGN KALAM-C	128AD		PROTO-CUNEIFORM SIGN KU6-C
1287C		PROTO-CUNEIFORM SIGN KALAM-D	128AE		PROTO-CUNEIFORM SIGN KU6-D
1287D		PROTO-CUNEIFORM SIGN KALAM-E	128AF		PROTO-CUNEIFORM SIGN KUR-A
1287E		PROTO-CUNEIFORM SIGN KALAM-F	128B0		PROTO-CUNEIFORM SIGN KUR-B
1287F		PROTO-CUNEIFORM SIGN KALAM-G	128B1		PROTO-CUNEIFORM SIGN KUR-C
12880		PROTO-CUNEIFORM SIGN KALAM-H	128B2		PROTO-CUNEIFORM SIGN KUR GUNU-A
12881		PROTO-CUNEIFORM SIGN KALAM-H2	128B3		PROTO-CUNEIFORM SIGN KUR GUNU-B
12882		PROTO-CUNEIFORM SIGN KAR2-A	128B4		PROTO-CUNEIFORM SIGN KUSHU2-A
12883		PROTO-CUNEIFORM SIGN KAR2-B	128B5		PROTO-CUNEIFORM SIGN KUSHU2-B
12884		PROTO-CUNEIFORM SIGN KASKAL	128B6		PROTO-CUNEIFORM SIGN KUSHU2-C
12885		PROTO-CUNEIFORM SIGN KASH-A	128B7		PROTO-CUNEIFORM SIGN KUSHU2-D
12886		PROTO-CUNEIFORM SIGN KASH-B	128B8		PROTO-CUNEIFORM SIGN KUSHU2-E
12887		PROTO-CUNEIFORM SIGN KASH-B TIMES SHE-A	128B9		PROTO-CUNEIFORM SIGN KUSHU2-F
	TENU		128BA		PROTO-CUNEIFORM SIGN LA-B
12888		PROTO-CUNEIFORM SIGN KASH-C	128BB		PROTO-CUNEIFORM SIGN LA-D
12889		PROTO-CUNEIFORM SIGN KASH-D	128BC		PROTO-CUNEIFORM SIGN LA2
1288A		PROTO-CUNEIFORM SIGN KI	128BD		PROTO-CUNEIFORM SIGN LAGAB-A
1288B		PROTO-CUNEIFORM SIGN KI NUTILLU	128BE		PROTO-CUNEIFORM SIGN LAGAB-A TIMES DU6-A
1288C		PROTO-CUNEIFORM SIGN KI NUTILLU TIMES DUB-A	128BF		PROTO-CUNEIFORM SIGN LAGAB-A TIMES KU6-A
1288D		PROTO-CUNEIFORM SIGN KIB	128C0		PROTO-CUNEIFORM SIGN LAGAB-A TIMES KU6-A JOINING KU6-A
1288E		PROTO-CUNEIFORM SIGN KIB GUNU	128C1		PROTO-CUNEIFORM SIGN LAGAB-A TIMES KUSHU2-A TENU
1288F		PROTO-CUNEIFORM SIGN KID-A	128C2		PROTO-CUNEIFORM SIGN LAGAB-A TIMES ME-A
12890		PROTO-CUNEIFORM SIGN KID-B	128C3		PROTO-CUNEIFORM SIGN LAGAB-A TIMES NUN-B
12891		PROTO-CUNEIFORM SIGN KID-C	128C4		PROTO-CUNEIFORM SIGN LAGAB-A TIMES PA-A
12892		PROTO-CUNEIFORM SIGN KID-D	128C5		PROTO-CUNEIFORM SIGN LAGAB-A TIMES SIG7
12893		PROTO-CUNEIFORM SIGN KID-E	128C6		PROTO-CUNEIFORM SIGN LAGAB-A TIMES SU-A
12894		PROTO-CUNEIFORM SIGN KIN	128C7		PROTO-CUNEIFORM SIGN LAGAB-A TIMES SHA
12895		PROTO-CUNEIFORM SIGN KIN2-A	128C8		PROTO-CUNEIFORM SIGN LAGAB-A TIMES SHITA-A1
12896		PROTO-CUNEIFORM SIGN KIN2-B	128C9		PROTO-CUNEIFORM SIGN LAGAB-A TIMES TI
12897		PROTO-CUNEIFORM SIGN KIN2-C	128CA		PROTO-CUNEIFORM SIGN LAGAB-A TIMES U4
12898		PROTO-CUNEIFORM SIGN KIN2-D			
12899		PROTO-CUNEIFORM SIGN KIN2-E			
1289A		PROTO-CUNEIFORM SIGN KISAL-A1			
1289B		PROTO-CUNEIFORM SIGN KISAL-B1			

128CB		PROTO-CUNEIFORM SIGN LAGAB-A TIMES UB	128F9		PROTO-CUNEIFORM SIGN MAH-A TIMES UTUA-A
128CC		PROTO-CUNEIFORM SIGN LAGAB-A TIMES ZATU753	128FA		PROTO-CUNEIFORM SIGN MAH-A TIMES ZATU659
128CD		PROTO-CUNEIFORM SIGN LAGAB-A TIMES TWO N14	128FB		PROTO-CUNEIFORM SIGN MAH-B
128CE		PROTO-CUNEIFORM SIGN LAGAB-A TIMES ONE N58	128FC		PROTO-CUNEIFORM SIGN MAH-B TIMES NA-A
128CF		PROTO-CUNEIFORM SIGN LAGAB-B	128FD		PROTO-CUNEIFORM SIGN MAH-B TIMES SAL
128D0		PROTO-CUNEIFORM SIGN LAGAB-B TIMES HI	128FE		PROTO-CUNEIFORM SIGN MAR-A
128D1		PROTO-CUNEIFORM SIGN LAGAB-B TIMES KUR-E	128FF		PROTO-CUNEIFORM SIGN MAR-A GUNU
128D2		PROTO-CUNEIFORM SIGN LAGAB-B TIMES PA-A	12900		PROTO-CUNEIFORM SIGN MAR-A TENU
128D3		PROTO-CUNEIFORM SIGN LAGAB-B TIMES U4	12901		PROTO-CUNEIFORM SIGN MAR-B
128D4		PROTO-CUNEIFORM SIGN LAGAB-B OVER LAGAB-B	12902		PROTO-CUNEIFORM SIGN MAR-B TIMES GAR
128D5		PROTO-CUNEIFORM SIGN LAGAR-A	12903		PROTO-CUNEIFORM SIGN MAR-B TIMES LAGAB-B
128D6		PROTO-CUNEIFORM SIGN LAGAR-A REVERSED	12904		PLUS SHE3
128D7		PROTO-CUNEIFORM SIGN LAGAR-B1	12905		PROTO-CUNEIFORM SIGN MAR-B TIMES SHE-A
128D8		PROTO-CUNEIFORM SIGN LAGAR-B2	12906		PROTO-CUNEIFORM SIGN MASH
128D9		PROTO-CUNEIFORM SIGN LAGAR-C	12907		PROTO-CUNEIFORM SIGN MASH2
128DA		PROTO-CUNEIFORM SIGN LAL2-A	12908		PROTO-CUNEIFORM SIGN ME-A
128DB		PROTO-CUNEIFORM SIGN LAL2-A TIMES NAGA-A	12909		PROTO-CUNEIFORM SIGN ME-B
128DC		PROTO-CUNEIFORM SIGN LAL2-A TIMES NIM-B2	1290A		PROTO-CUNEIFORM SIGN ME3
128DD		PROTO-CUNEIFORM SIGN LAL2-B	1290B		PROTO-CUNEIFORM SIGN MEN-A
128DE		PROTO-CUNEIFORM SIGN LAL3-A	1290C		PROTO-CUNEIFORM SIGN MEN-B
128DF		PROTO-CUNEIFORM SIGN LAL3-B	1290D		PROTO-CUNEIFORM SIGN MES
128E0		PROTO-CUNEIFORM SIGN LAM-A	1290E		PROTO-CUNEIFORM SIGN MIR-A
128E1		PROTO-CUNEIFORM SIGN LAM-B	1290F		PROTO-CUNEIFORM SIGN MIR-B
128E2		PROTO-CUNEIFORM SIGN LAM-B REVERSED	12910		PROTO-CUNEIFORM SIGN MU
128E3		PROTO-CUNEIFORM SIGN LAM-B TENU	12911		PROTO-CUNEIFORM SIGN MUD
128E4		PROTO-CUNEIFORM SIGN LISH	12912		PROTO-CUNEIFORM SIGN MUD3-A
128E5		PROTO-CUNEIFORM SIGN LU2	12913		PROTO-CUNEIFORM SIGN MUD3-A GUNU
128E6		PROTO-CUNEIFORM SIGN LUM	12914		PROTO-CUNEIFORM SIGN MUD3-B
128E7		PROTO-CUNEIFORM SIGN MA	12915		PROTO-CUNEIFORM SIGN MUD3-C
128E8		PROTO-CUNEIFORM SIGN MA TIMES A	12916		PROTO-CUNEIFORM SIGN MUD3-D
128E9		PROTO-CUNEIFORM SIGN MA TIMES MA	12917		PROTO-CUNEIFORM SIGN MUL
128EA		PROTO-CUNEIFORM SIGN MA TIMES ONE N58	12918		PROTO-CUNEIFORM SIGN MUN-A1
128EB		PROTO-CUNEIFORM SIGN MA2	12919		PROTO-CUNEIFORM SIGN MUN-A2
128EC		PROTO-CUNEIFORM SIGN MAGUR-A	1291A		PROTO-CUNEIFORM SIGN MUN-A3
128ED		PROTO-CUNEIFORM SIGN MAH-A	1291B		PROTO-CUNEIFORM SIGN MUN-A4
128EE		PROTO-CUNEIFORM SIGN MAH-A TIMES AB2	1291C		PROTO-CUNEIFORM SIGN MUN-B
128EF		PROTO-CUNEIFORM SIGN MAH-A TIMES GUKKAL-A	1291D		PROTO-CUNEIFORM SIGN MUNSHUB-A
128F0		PROTO-CUNEIFORM SIGN MAH-A TIMES KU6-A	1291E		PROTO-CUNEIFORM SIGN MUNSHUB-B
128F1		PROTO-CUNEIFORM SIGN MAH-A TIMES MASH	1291F		PROTO-CUNEIFORM SIGN MUNU3
128F2		PROTO-CUNEIFORM SIGN MAH-A TIMES NA-A	12920		PROTO-CUNEIFORM SIGN MUSH
128F3		PROTO-CUNEIFORM SIGN MAH-A TIMES SILA3-A TIMES UMBIN-A	12921		PROTO-CUNEIFORM SIGN MUSH3-A
128F4		PROTO-CUNEIFORM SIGN MAH-A TIMES TUG2-A	12922		PROTO-CUNEIFORM SIGN MUSH3-A GUNU
128F5		PROTO-CUNEIFORM SIGN MAH-A TIMES TUN3-C	12923		PROTO-CUNEIFORM SIGN MUSH3-B
128F6		PROTO-CUNEIFORM SIGN MAH-A TIMES UD5-A	12924		PROTO-CUNEIFORM SIGN MUSHEN
128F7		PROTO-CUNEIFORM SIGN MAH-A TIMES UDU-A	12925		PROTO-CUNEIFORM SIGN ONE N58 BAD
128F8		PROTO-CUNEIFORM SIGN MAH-A TIMES UR-A	12926		PROTO-CUNEIFORM SIGN ONE N58 PLUS BAD FORM B
			12927		PROTO-CUNEIFORM SIGN THREE N58 UR3-B1
			12928		PROTO-CUNEIFORM SIGN NA-A
			12929		PROTO-CUNEIFORM SIGN NA-B
			1292A		PROTO-CUNEIFORM SIGN NA-C
			1292B		PROTO-CUNEIFORM SIGN NA2-A

1292C		PROTO-CUNEIFORM SIGN NA2-B1	1295C		PROTO-CUNEIFORM SIGN NINDA2 TIMES HI PLUS AN PLUS ME-A
1292D		PROTO-CUNEIFORM SIGN NA2-B2	1295D		PROTO-CUNEIFORM SIGN NINDA2 TIMES ME-A
1292E		PROTO-CUNEIFORM SIGN NA2-C	1295E		PROTO-CUNEIFORM SIGN NINDA2 TIMES KASH-B
1292F		PROTO-CUNEIFORM SIGN NAB	1295F		PROTO-CUNEIFORM SIGN NINDA2 TIMES MAR-A
12930		PROTO-CUNEIFORM SIGN NAGA-A	12960		PROTO-CUNEIFORM SIGN NINDA2 TIMES MAR-B
12931		PROTO-CUNEIFORM SIGN NAGA-A TIMES TAK4-A	12961		PROTO-CUNEIFORM SIGN NINDA2 TIMES NUN-A
12932		PROTO-CUNEIFORM SIGN NAGA-B	12962		PROTO-CUNEIFORM SIGN NINDA2 TIMES U4
12933		PROTO-CUNEIFORM SIGN NAGAR-A	12963		PROTO-CUNEIFORM SIGN NINDA2 TIMES ZATU659 TIMES ONE N01
12934		PROTO-CUNEIFORM SIGN NAGAR-B	12964		PROTO-CUNEIFORM SIGN NINDA2 TIMES ZATU710
12935		PROTO-CUNEIFORM SIGN NAM-A	12965		PROTO-CUNEIFORM SIGN NINDA2 TIMES ONE N01
12936		PROTO-CUNEIFORM SIGN NAM-B	12966		PROTO-CUNEIFORM SIGN NINDA2 TIMES TWO N01
12937		PROTO-CUNEIFORM SIGN NAM-C	12967		PROTO-CUNEIFORM SIGN NINDA2 TIMES ONE N06 PLUS HI GUNU-A
12938		PROTO-CUNEIFORM SIGN NAM-D	12968		PROTO-CUNEIFORM SIGN NINDA2 TIMES ONE N08
12939		PROTO-CUNEIFORM SIGN NAM2	12969		PROTO-CUNEIFORM SIGN NIR-A
1293A		PROTO-CUNEIFORM SIGN NAM2 TIMES ONE N01	1296A		PROTO-CUNEIFORM SIGN NIR-A TIMES AN
1293B		PROTO-CUNEIFORM SIGN NAM2 GUNU	1296B		PROTO-CUNEIFORM SIGN NIR-B
1293C		PROTO-CUNEIFORM SIGN NAM2 TENU	1296C		PROTO-CUNEIFORM SIGN NU
1293D		PROTO-CUNEIFORM SIGN NANSHE-A	1296D		PROTO-CUNEIFORM SIGN NU GUNU
1293E		PROTO-CUNEIFORM SIGN NANSHE-B	1296E		PROTO-CUNEIFORM SIGN NU11
1293F		PROTO-CUNEIFORM SIGN NAR	1296F		PROTO-CUNEIFORM SIGN NU11 OVER NU11
12940		PROTO-CUNEIFORM SIGN NE-A	12970		PROTO-CUNEIFORM SIGN NU11 TENU
12941		PROTO-CUNEIFORM SIGN NE-B	12971		PROTO-CUNEIFORM SIGN NUMUN
12942		PROTO-CUNEIFORM SIGN NE-C	12972		PROTO-CUNEIFORM SIGN NUN-A
12943		PROTO-CUNEIFORM SIGN NE-D	12973		PROTO-CUNEIFORM SIGN NUN-A JOINING A
12944		PROTO-CUNEIFORM SIGN NESAG2-A	12974		PROTO-CUNEIFORM SIGN NUN-A JOINING EN-A
12945		PROTO-CUNEIFORM SIGN NESAG2-B	12975		PROTO-CUNEIFORM SIGN NUN-A JOINING EN-B
12946		PROTO-CUNEIFORM SIGN NI-A	12976		PROTO-CUNEIFORM SIGN NUN-A JOINING EN-D
12947		PROTO-CUNEIFORM SIGN NI-A GUNU	12977		PROTO-CUNEIFORM SIGN NUN-A JOINING NAM2
12948		PROTO-CUNEIFORM SIGN NI-B	12978		PROTO-CUNEIFORM SIGN NUN-B
12949		PROTO-CUNEIFORM SIGN NI-B TIMES FOUR N57	12979		PROTO-CUNEIFORM SIGN NUN-B JOINING EN-A
1294A		PROTO-CUNEIFORM SIGN NI-B TIMES EIGHT N57	1297A		PROTO-CUNEIFORM SIGN NUN-C
1294B		PROTO-CUNEIFORM SIGN NI2	1297B		PROTO-CUNEIFORM SIGN NUN-D
1294C		PROTO-CUNEIFORM SIGN NIGIN	1297C		PROTO-CUNEIFORM SIGN NUNUZ-A0
1294D		PROTO-CUNEIFORM SIGN NIM-A	1297D		PROTO-CUNEIFORM SIGN NUNUZ-A1
1294E		PROTO-CUNEIFORM SIGN NIM-B1	1297E		PROTO-CUNEIFORM SIGN NUNUZ-A2
1294F		PROTO-CUNEIFORM SIGN NIM-B2	1297F		PROTO-CUNEIFORM SIGN NUNUZ-B1
12950		PROTO-CUNEIFORM SIGN NIM-B3	12980		PROTO-CUNEIFORM SIGN NUNUZ-C
12951		PROTO-CUNEIFORM SIGN NIMGIR	12981		PROTO-CUNEIFORM SIGN PA-A
12952		PROTO-CUNEIFORM SIGN NINDA2	12982		PROTO-CUNEIFORM SIGN PA-B
12953		PROTO-CUNEIFORM SIGN NINDA2 TIMES AN	12983		PROTO-CUNEIFORM SIGN PAD-A
12954		PROTO-CUNEIFORM SIGN NINDA2 TIMES AN PLUS HI	12984		PROTO-CUNEIFORM SIGN PAD-B
12955		PROTO-CUNEIFORM SIGN NINDA2 TIMES AN PLUS ME-A	12985		PROTO-CUNEIFORM SIGN PAP-A
12956		PROTO-CUNEIFORM SIGN NINDA2 TIMES EZEN-B	12986		PROTO-CUNEIFORM SIGN PAP-A TENU
12957		PROTO-CUNEIFORM SIGN NINDA2 TIMES GAAR-A1	12987		PROTO-CUNEIFORM SIGN PAP-B
12958		PROTO-CUNEIFORM SIGN NINDA2 TIMES GAR	12988		PROTO-CUNEIFORM SIGN PIRIG-A1
12959		PROTO-CUNEIFORM SIGN NINDA2 TIMES GISH	12989		PROTO-CUNEIFORM SIGN PIRIG-A2
1295A		PROTO-CUNEIFORM SIGN NINDA2 TIMES GU4			
1295B		PROTO-CUNEIFORM SIGN NINDA2 TIMES HI			

1298A		PROTO-CUNEIFORM SIGN PIRIG-A3	129BA		PROTO-CUNEIFORM SIGN SIG
1298B		PROTO-CUNEIFORM SIGN PIRIG-B1	129BB		PROTO-CUNEIFORM SIGN SIG2-A1
1298C		PROTO-CUNEIFORM SIGN PIRIG-B1 JOINING DIN	129BC		PROTO-CUNEIFORM SIGN SIG2-A2
1298D		PROTO-CUNEIFORM SIGN PIRIG-B2	129BD		PROTO-CUNEIFORM SIGN SIG2-A3
1298E		PROTO-CUNEIFORM SIGN PU2	129BE		PROTO-CUNEIFORM SIGN SIG2-A4
1298F		PROTO-CUNEIFORM SIGN RA	129BF		PROTO-CUNEIFORM SIGN SIG2-B
12990		PROTO-CUNEIFORM SIGN RAD-A	129C0		PROTO-CUNEIFORM SIGN SIG2-B OVER SIG2-B
12991		PROTO-CUNEIFORM SIGN RAD-A GUNU	129C1		PROTO-CUNEIFORM SIGN SIG2-C1
12992		PROTO-CUNEIFORM SIGN RAD-B	129C2		PROTO-CUNEIFORM SIGN SIG2-C2
12993		PROTO-CUNEIFORM SIGN RI8-A	129C3		PROTO-CUNEIFORM SIGN SIG2-D1
12994		PROTO-CUNEIFORM SIGN RI8-B	129C4		PROTO-CUNEIFORM SIGN SIG2-D2
12995		PROTO-CUNEIFORM SIGN RU	129C5		PROTO-CUNEIFORM SIGN SIG2-D3
12996		PROTO-CUNEIFORM SIGN SA-A	129C6		PROTO-CUNEIFORM SIGN SIG2-D4
12997		PROTO-CUNEIFORM SIGN SA-C	129C7		PROTO-CUNEIFORM SIGN SIG2-E
12998		PROTO-CUNEIFORM SIGN SAG	129C8		PROTO-CUNEIFORM SIGN SIG4
12999		PROTO-CUNEIFORM SIGN SAG JOINING UKKIN-B	129CA		PROTO-CUNEIFORM SIGN SILA3-A
	TIMES ONE N57		129CB		PROTO-CUNEIFORM SIGN SILA3-A TIMES A
1299A		PROTO-CUNEIFORM SIGN SAG TIMES GESHTU-A	129CC		PROTO-CUNEIFORM SIGN SILA3-A TIMES AMAR
1299B		PROTO-CUNEIFORM SIGN SAG TIMES GESHTU-B	129CD		PROTO-CUNEIFORM SIGN SILA3-A TIMES DUG-A
1299C		PROTO-CUNEIFORM SIGN SAG TIMES MA	129CE		PROTO-CUNEIFORM SIGN SILA3-A TIMES GA-A
1299D		PROTO-CUNEIFORM SIGN SAG TIMES NAM2	129CF		PROTO-CUNEIFORM SIGN SILA3-A TIMES
1299E		PROTO-CUNEIFORM SIGN SAG GUNU	129D0		GARA2-A
1299F		PROTO-CUNEIFORM SIGN SAG NUTILU	129D1		PROTO-CUNEIFORM SIGN SILA3-A TIMES GESHTU-C3
129A0		PROTO-CUNEIFORM SIGN SAGSHU	129D2		PROTO-CUNEIFORM SIGN SILA3-A TIMES HASHHUR
129A1		PROTO-CUNEIFORM SIGN SAL	129D3		PROTO-CUNEIFORM SIGN SILA3-A TIMES HI
129A2		PROTO-CUNEIFORM SIGN SAL TIMES ONE N58	129D4		PROTO-CUNEIFORM SIGN SILA3-A TIMES IB-A
129A3		PROTO-CUNEIFORM SIGN SANGA-A	129D5		PROTO-CUNEIFORM SIGN SILA3-A TIMES KASH-A
129A4		PROTO-CUNEIFORM SIGN SANGA-B	129D6		PROTO-CUNEIFORM SIGN SILA3-A TIMES KASH-C
129A5		PROTO-CUNEIFORM SIGN SANGA-C	129D7		PROTO-CUNEIFORM SIGN SILA3-A TIMES KASH-D
129A6		PROTO-CUNEIFORM SIGN SANGA-E	129D8		PROTO-CUNEIFORM SIGN SILA3-A TIMES KU6-A
129A7		PROTO-CUNEIFORM SIGN SAR-A	129D9		PROTO-CUNEIFORM SIGN SILA3-A TIMES KUR-A
129A8		PROTO-CUNEIFORM SIGN SAR-A TIMES SHE-A	129DA		PROTO-CUNEIFORM SIGN SILA3-A TIMES MA
129A9		PROTO-CUNEIFORM SIGN SAR-B	129DB		PROTO-CUNEIFORM SIGN SILA3-A TIMES MASH
129AA		PROTO-CUNEIFORM SIGN SAR-C	129DC		PROTO-CUNEIFORM SIGN SILA3-A TIMES MUD3-B
129AB		PROTO-CUNEIFORM SIGN SAR-D	129DD		PROTO-CUNEIFORM SIGN SILA3-A TIMES NAGA-A
129AC		PROTO-CUNEIFORM SIGN SI	129DE		PROTO-CUNEIFORM SIGN SILA3-A TIMES NI-A
129AD		PROTO-CUNEIFORM SIGN SI JOINING AN	129DF		PROTO-CUNEIFORM SIGN SILA3-A TIMES NUN-B
129AE		PROTO-CUNEIFORM SIGN SI TIMES EN-A	129E0		PROTO-CUNEIFORM SIGN SILA3-A TIMES SUHUR
129AF		PROTO-CUNEIFORM SIGN SI TIMES GU4	129E1		PROTO-CUNEIFORM SIGN SILA3-A TIMES SUM-A
129B0		PROTO-CUNEIFORM SIGN SI TIMES KU-B1	129E2		PROTO-CUNEIFORM SIGN SILA3-A TIMES SUM-B
129B1		PROTO-CUNEIFORM SIGN SI TIMES SAL	129E3		PROTO-CUNEIFORM SIGN SILA3-A TIMES SHE-A
129B2		PROTO-CUNEIFORM SIGN SI TIMES SHE3	129E4		PROTO-CUNEIFORM SIGN SILA3-A TIMES SHE-A TENU
129B3		PROTO-CUNEIFORM SIGN SI TIMES TUN3-A	129E5		PROTO-CUNEIFORM SIGN SILA3-A TIMES SHU
129B4		PROTO-CUNEIFORM SIGN SI TIMES ONE N58	129E6		PROTO-CUNEIFORM SIGN SILA3-A TIMES SHU2
129B5		PROTO-CUNEIFORM SIGN SI4-A	129E7		PROTO-CUNEIFORM SIGN SILA3-A TIMES ZATU629
129B6		PROTO-CUNEIFORM SIGN SI4-B	129E8		PROTO-CUNEIFORM SIGN SILA3-A TIMES ZATU646
129B7		PROTO-CUNEIFORM SIGN SI4-C			
129B8		PROTO-CUNEIFORM SIGN SI4-D			
129B9		PROTO-CUNEIFORM SIGN SI4-F			

129E9	PROTO-CUNEIFORM SIGN SILA3-A TIMES ZATU659 PLUS TU-C	12A17	PROTO-CUNEIFORM SIGN SHA3-C
129EA	PROTO-CUNEIFORM SIGN SILA3-A TIMES ONE N57	12A18	PROTO-CUNEIFORM SIGN SHA3-D
129EB	PROTO-CUNEIFORM SIGN SILA3-B	12A19	PROTO-CUNEIFORM SIGN SHAGAN
129EC	PROTO-CUNEIFORM SIGN SILA3-B TIMES GUG2	12A1A	PROTO-CUNEIFORM SIGN SHAGINA
129ED	PROTO-CUNEIFORM SIGN SILA3-B TIMES NAGA-B	12A1B	PROTO-CUNEIFORM SIGN SHAH2-A
129EE	PROTO-CUNEIFORM SIGN SILA3-B TIMES NI-A	12A1C	PROTO-CUNEIFORM SIGN SHAH2-B
129EF	PROTO-CUNEIFORM SIGN SILA3-B TIMES NI-B	12A1D	PROTO-CUNEIFORM SIGN SHAH2-C
129F0	PROTO-CUNEIFORM SIGN SILA3-C TIMES ZATU687	12A1E	PROTO-CUNEIFORM SIGN SHAKIR-A
129F1	PROTO-CUNEIFORM SIGN SILA4-A	12A1F	PROTO-CUNEIFORM SIGN SHAKIR-B
129F2	PROTO-CUNEIFORM SIGN SILA4-B	12A20	PROTO-CUNEIFORM SIGN SHAKIR-C
129F3	PROTO-CUNEIFORM SIGN SILA4-C	12A21	PROTO-CUNEIFORM SIGN SHAM2
129F4	PROTO-CUNEIFORM SIGN SILA4-D	12A22	PROTO-CUNEIFORM SIGN SHE-A
129F5	PROTO-CUNEIFORM SIGN SILANITA	12A23	PROTO-CUNEIFORM SIGN SHE-A OVER SHE-A
129F6	PROTO-CUNEIFORM SIGN SIMUG	12A24	PROTO-CUNEIFORM SIGN SHE-A TENU
129F7	PROTO-CUNEIFORM SIGN SU-A	12A25	PROTO-CUNEIFORM SIGN SHE-B
129F8	PROTO-CUNEIFORM SIGN SU-A TIMES ONE N58	12A26	PROTO-CUNEIFORM SIGN SHE-C
129F9	PROTO-CUNEIFORM SIGN SU-B	12A27	PROTO-CUNEIFORM SIGN SHE3
129FA	PROTO-CUNEIFORM SIGN SU-C	12A28	PROTO-CUNEIFORM SIGN SHE3 TENU
129FB	PROTO-CUNEIFORM SIGN SU3	12A29	PROTO-CUNEIFORM SIGN SHEG9
129FC	PROTO-CUNEIFORM SIGN SUG	12A2A	PROTO-CUNEIFORM SIGN SHEN-A
129FD	PROTO-CUNEIFORM SIGN SUG5	12A2B	PROTO-CUNEIFORM SIGN SHEN-B
129FE	PROTO-CUNEIFORM SIGN SUH3	12A2C	PROTO-CUNEIFORM SIGN SHEN-C
129FF	PROTO-CUNEIFORM SIGN SUHUR	12A2D	PROTO-CUNEIFORM SIGN SHEN-C TENU
12A00	PROTO-CUNEIFORM SIGN SUHUR GUNU	12A2E	PROTO-CUNEIFORM SIGN SHEN-D TIMES A
12A01	PROTO-CUNEIFORM SIGN SUHUR NUTILLU	12A2F	PROTO-CUNEIFORM SIGN SHEN-E
12A02	PROTO-CUNEIFORM SIGN SUHUR TENU	12A30	PROTO-CUNEIFORM SIGN SHENNUR-A
12A03	PROTO-CUNEIFORM SIGN SUKKAL	12A31	PROTO-CUNEIFORM SIGN SHENNUR-B
12A04	PROTO-CUNEIFORM SIGN SUKUD	12A32	PROTO-CUNEIFORM SIGN SHESH-A
12A05	PROTO-CUNEIFORM SIGN SUKUD JOINING SUKUD FORM A	12A33	PROTO-CUNEIFORM SIGN SHESH-B
12A06	PROTO-CUNEIFORM SIGN SUKUD JOINING SUKUD FORM B	12A34	PROTO-CUNEIFORM SIGN SHIDIM
12A07	PROTO-CUNEIFORM SIGN SUKUD GUNU-A	12A35	PROTO-CUNEIFORM SIGN SHIM-A
12A08	PROTO-CUNEIFORM SIGN SUKUD GUNU-B	12A36	PROTO-CUNEIFORM SIGN SHIM-B
12A09	PROTO-CUNEIFORM SIGN SUKUD GUNU-C	12A37	PROTO-CUNEIFORM SIGN SHIR-A
12A0A	PROTO-CUNEIFORM SIGN SUKUD GUNU-D	12A38	PROTO-CUNEIFORM SIGN SHIR-B
12A0B	PROTO-CUNEIFORM SIGN SUM-A	12A39	PROTO-CUNEIFORM SIGN SHITA-A1
12A0C	PROTO-CUNEIFORM SIGN SUM-B	12A3A	PROTO-CUNEIFORM SIGN SHITA-A1 TIMES KAK-A
12A0D	PROTO-CUNEIFORM SIGN SUMASH	12A3B	PROTO-CUNEIFORM SIGN SHITA-A1 TIMES SHU
12A0E	PROTO-CUNEIFORM SIGN SUR	12A3C	PROTO-CUNEIFORM SIGN SHITA-A2
12A0F	PROTO-CUNEIFORM SIGN SHA	12A3D	PROTO-CUNEIFORM SIGN SHITA-A3
12A10	PROTO-CUNEIFORM SIGN SHA TIMES HI GUNU-A FORM A	12A3E	PROTO-CUNEIFORM SIGN SHITA-B1
12A11	PROTO-CUNEIFORM SIGN SHA TIMES HI GUNU-A FORM B	12A3F	PROTO-CUNEIFORM SIGN SHITA-B2
12A12	PROTO-CUNEIFORM SIGN SHA GUNU	12A40	PROTO-CUNEIFORM SIGN SHITA-B2 GUNU TIMES HI GUNU-A
12A13	PROTO-CUNEIFORM SIGN SHA3-A1	12A41	PROTO-CUNEIFORM SIGN SHITA-B3
12A14	PROTO-CUNEIFORM SIGN SHA3-A2	12A42	PROTO-CUNEIFORM SIGN SHITA-B3 TIMES NAM2
12A15	PROTO-CUNEIFORM SIGN SHA3-A2 GUNU	12A43	PROTO-CUNEIFORM SIGN SHITA GUNU-A
12A16	PROTO-CUNEIFORM SIGN SHA3-B	12A44	PROTO-CUNEIFORM SIGN SHITA GUNU-A TIMES ONE N06
		12A45	PROTO-CUNEIFORM SIGN SHITA GUNU-B
		12A46	PROTO-CUNEIFORM SIGN SHU
		12A47	PROTO-CUNEIFORM SIGN SHU TIMES ONE N58
		12A48	PROTO-CUNEIFORM SIGN SHU OVER SHU

12A49		PROTO-CUNEIFORM SIGN SHU GUNU	12A7C		PROTO-CUNEIFORM SIGN U2-A
12A4A		PROTO-CUNEIFORM SIGN SHU2	12A7D		PROTO-CUNEIFORM SIGN U2-B
12A4B		PROTO-CUNEIFORM SIGN SHU12	12A7E		PROTO-CUNEIFORM SIGN U2-C
12A4C		PROTO-CUNEIFORM SIGN SHUBUR	12A7F		PROTO-CUNEIFORM SIGN U4
12A4D		PROTO-CUNEIFORM SIGN SHUM	12A80		PROTO-CUNEIFORM SIGN U4 TIMES ONE N58
12A4E		PROTO-CUNEIFORM SIGN SHUR2 TIMES ONE N58	12A81		PROTO-CUNEIFORM SIGN U4 TIMES ONE N01
12A4F		PROTO-CUNEIFORM SIGN SHUR2-A	12A82		PLUS ONE N24
12A50		PROTO-CUNEIFORM SIGN SHUR2-B	12A83		PROTO-CUNEIFORM SIGN U4 TIMES THREE N01
12A51		PROTO-CUNEIFORM SIGN TA-A	12A84		PROTO-CUNEIFORM SIGN U4 TIMES FOUR N01
12A52		PROTO-CUNEIFORM SIGN TA-B	12A85		PROTO-CUNEIFORM SIGN U4 TIMES FIVE N01
12A53		PROTO-CUNEIFORM SIGN TA-C	12A86		PROTO-CUNEIFORM SIGN U4 TIMES SIX N01
12A54		PROTO-CUNEIFORM SIGN TA-D	12A87		PROTO-CUNEIFORM SIGN U4 TIMES EIGHT N01
12A55		PROTO-CUNEIFORM SIGN TA-E	12A88		PROTO-CUNEIFORM SIGN U4 TIMES ONE N14
12A56		PROTO-CUNEIFORM SIGN TAG-A1	12A89		PLUS ONE N01
12A57		PROTO-CUNEIFORM SIGN TAG-A1 TENU	12A8A		PROTO-CUNEIFORM SIGN U4 TIMES ONE N14
12A58		PROTO-CUNEIFORM SIGN TAG-A2	12A8B		PLUS TWO N01
12A59		PROTO-CUNEIFORM SIGN TAG-A3	12A8C		PROTO-CUNEIFORM SIGN U4 TIMES ONE N14
12A5A		PROTO-CUNEIFORM SIGN TAG-A4	12A8D		PLUS FOUR N01
12A5B		PROTO-CUNEIFORM SIGN TAG-B	12A8E		PROTO-CUNEIFORM SIGN U4 TIMES ONE N14
12A5C		PROTO-CUNEIFORM SIGN TAG-C	12A8F		PLUS SEVEN N01
12A5D		PROTO-CUNEIFORM SIGN TAG-D	12A8G		PROTO-CUNEIFORM SIGN U4 TIMES ONE N57
12A5E		PROTO-CUNEIFORM SIGN TAK4-A	12A8H		PLUS FOUR N01
12A5F		PROTO-CUNEIFORM SIGN TAK4-A NUTILLU	12A8I		PROTO-CUNEIFORM SIGN U4 TIMES THREE N01
12A60		PROTO-CUNEIFORM SIGN TAK4-C	12A8J		PLUS TWO N01
12A61		PROTO-CUNEIFORM SIGN TAR-A	12A8K		PROTO-CUNEIFORM SIGN U4 TIMES THREE N14
12A62		PROTO-CUNEIFORM SIGN TE	12A8L		PLUS FOUR N01
12A63		PROTO-CUNEIFORM SIGN TI	12A8M		PROTO-CUNEIFORM SIGN U4 TIMES THREE N14
12A64		PROTO-CUNEIFORM SIGN TI GUNU	12A8N		PLUS SEVEN N01
12A65		PROTO-CUNEIFORM SIGN TI REVERSED	12A8O		PROTO-CUNEIFORM SIGN U4 TIMES ONE N57
12A66		PROTO-CUNEIFORM SIGN TI TENU	12A8P		PLUS TWO N01
12A67		PROTO-CUNEIFORM SIGN TILLA2	12A8Q		PROTO-CUNEIFORM SIGN U4 TIMES TWO N57
12A68		PROTO-CUNEIFORM SIGN TU-A	12A8R		PROTO-CUNEIFORM SIGN U4 TIMES FOUR N57
12A69		PROTO-CUNEIFORM SIGN TU-B	12A8S		PROTO-CUNEIFORM SIGN U4 TIMES FIVE N57
12A6A		PROTO-CUNEIFORM SIGN TU-C	12A8T		PROTO-CUNEIFORM SIGN U4 TIMES SIX N57
12A6B		PROTO-CUNEIFORM SIGN TUG2-A	12A8U		PROTO-CUNEIFORM SIGN U4 TIMES SEVEN N57
12A6C		PROTO-CUNEIFORM SIGN TUG2-A GUNU	12A8V		PROTO-CUNEIFORM SIGN U4 TIMES EIGHT N57
12A6D		PROTO-CUNEIFORM SIGN TUG2-B	12A8W		PROTO-CUNEIFORM SIGN U4 TIMES ONE N57
12A6E		PROTO-CUNEIFORM SIGN TUG2-C	12A8X		PROTO-CUNEIFORM SIGN U4 TIMES ONE N58
12A6F		PROTO-CUNEIFORM SIGN TUM-A	12A8Y		TENU
12A70		PROTO-CUNEIFORM SIGN TUM-A GUNU	12A8Z		PROTO-CUNEIFORM SIGN U4 TENU
12A71		PROTO-CUNEIFORM SIGN TUM-B	12A9A		PROTO-CUNEIFORM SIGN U8
12A72		PROTO-CUNEIFORM SIGN TUM-C	12A9B		PROTO-CUNEIFORM SIGN U8 TIMES TAR-B
12A73		PROTO-CUNEIFORM SIGN TUM-D	12A9C		PROTO-CUNEIFORM SIGN UB
12A74		PROTO-CUNEIFORM SIGN TUN3-A	12A9D		PROTO-CUNEIFORM SIGN UBI-A
12A75		PROTO-CUNEIFORM SIGN TUN3-B	12A9E		PROTO-CUNEIFORM SIGN UBI-C
12A76		PROTO-CUNEIFORM SIGN TUN3-C	12A9F		PROTO-CUNEIFORM SIGN UBI-D
12A77		PROTO-CUNEIFORM SIGN TUR	12AA0		PROTO-CUNEIFORM SIGN UD5-A
12A78		PROTO-CUNEIFORM SIGN TUR GUNU	12AA1		PROTO-CUNEIFORM SIGN UD5-A GUNU
12A79		PROTO-CUNEIFORM SIGN TUR3-A	12AA2		PROTO-CUNEIFORM SIGN UD5-B
12A7A		PROTO-CUNEIFORM SIGN TUR3-B	12AA3		PROTO-CUNEIFORM SIGN UD5-C
12A7B		PROTO-CUNEIFORM SIGN TUR3-C	12AA4		PROTO-CUNEIFORM SIGN UDU-A

12AA5		PROTO-CUNEIFORM SIGN UDU-A TIMES TAR-A	12AD3		PROTO-CUNEIFORM SIGN URI
12AA6		PROTO-CUNEIFORM SIGN UDU-A TIMES TAR-B	12AD4		PROTO-CUNEIFORM SIGN URI3-A
12AA7		PROTO-CUNEIFORM SIGN UDU-C	12AD5		PROTO-CUNEIFORM SIGN URIS
12AA8		PROTO-CUNEIFORM SIGN UDUNITA-A	12AD6		PROTO-CUNEIFORM SIGN URU-A1
12AA9		PROTO-CUNEIFORM SIGN UDUNITA-B	12AD7		PROTO-CUNEIFORM SIGN URU-A1 TIMES AMAR
12AAA		PROTO-CUNEIFORM SIGN UDUNITA-C	12AD8		PROTO-CUNEIFORM SIGN URU-A1 TIMES HI GUNU-A
12AAB		PROTO-CUNEIFORM SIGN UH3-A	12AD9		PROTO-CUNEIFORM SIGN URU-A1 TIMES KI
12AAC		PROTO-CUNEIFORM SIGN UH3-A TENU	12ADA		PROTO-CUNEIFORM SIGN URU-A1 TIMES NIMGIR
12AAD		PROTO-CUNEIFORM SIGN UH3-B	12ADB		PROTO-CUNEIFORM SIGN URU-A1 TIMES U4
12AAE		PROTO-CUNEIFORM SIGN UKKIN-A	12ADC		PROTO-CUNEIFORM SIGN URU-A1 TIMES THREE N57
12AAF		PROTO-CUNEIFORM SIGN UKKIN-B	12ADD		PROTO-CUNEIFORM SIGN URU-A2
12AB0		PROTO-CUNEIFORM SIGN UKKIN-B TIMES DIN	12ADE		PROTO-CUNEIFORM SIGN URU-A2 TIMES ONE N58
12AB1		PROTO-CUNEIFORM SIGN UKKIN-B TIMES DIN PLUS ONE N01	12ADF		PROTO-CUNEIFORM SIGN URU-A3 TIMES KALAM-A
12AB2		PROTO-CUNEIFORM SIGN UKKIN-B TIMES HI GUNU-A	12AE0		PROTO-CUNEIFORM SIGN URU-B1
12AB3		PROTO-CUNEIFORM SIGN UKKIN-B TIMES NI-A	12AE1		PROTO-CUNEIFORM SIGN URU-B2
12AB4		PROTO-CUNEIFORM SIGN UKKIN-B TIMES TWO N01	12AE2		PROTO-CUNEIFORM SIGN URU-C
12AB5		PROTO-CUNEIFORM SIGN UKKIN-B TIMES THREE N01	12AE3		PROTO-CUNEIFORM SIGN URUDU-A
12AB6		PROTO-CUNEIFORM SIGN UKKIN-B TIMES FIVE N01	12AE4		PROTO-CUNEIFORM SIGN URUDU-C
12AB7		PROTO-CUNEIFORM SIGN UKKIN-C	12AE5		PROTO-CUNEIFORM SIGN URUDU-D
12AB8		PROTO-CUNEIFORM SIGN UMBIN-A	12AE6		PROTO-CUNEIFORM SIGN URUDU GUNU-A
12AB9		PROTO-CUNEIFORM SIGN UMBIN-B1	12AE7		PROTO-CUNEIFORM SIGN URUDU GUNU-C
12ABA		PROTO-CUNEIFORM SIGN UMBIN-B2	12AE8		PROTO-CUNEIFORM SIGN URUDU GUNU-D
12ABB		PROTO-CUNEIFORM SIGN UMBIN-C	12AE9		PROTO-CUNEIFORM SIGN USH-A
12ABC		PROTO-CUNEIFORM SIGN UMUN2	12AEA		PROTO-CUNEIFORM SIGN USH-A OVER USH-A
12ABD		PROTO-CUNEIFORM SIGN UNUG-A	12AEB		PROTO-CUNEIFORM SIGN USH-B
12ABE		PROTO-CUNEIFORM SIGN UNUG-A TIMES A TENU	12AEC		PROTO-CUNEIFORM SIGN USH-B TIMES TAR-C
12ABF		PROTO-CUNEIFORM SIGN UNUG-A SHESHIG	12AED		PROTO-CUNEIFORM SIGN USH-B OVER USH-B
12AC0		PROTO-CUNEIFORM SIGN UNUG-B	12AEE		PROTO-CUNEIFORM SIGN USHUR3-B1
12AC1		PROTO-CUNEIFORM SIGN UNUG-C	12AEF		PROTO-CUNEIFORM SIGN USHUR3-B2
12AC2		PROTO-CUNEIFORM SIGN UR-A	12AF0		PROTO-CUNEIFORM SIGN UTUA-A
12AC3		PROTO-CUNEIFORM SIGN UR-A GUNU	12AF1		PROTO-CUNEIFORM SIGN UTUA-A TENU
12AC4		PROTO-CUNEIFORM SIGN UR-B	12AF2		PROTO-CUNEIFORM SIGN UTUA-B
12AC5		PROTO-CUNEIFORM SIGN UR-C	12AF3		PROTO-CUNEIFORM SIGN UTUL-A
12AC6		PROTO-CUNEIFORM SIGN UR2	12AF4		PROTO-CUNEIFORM SIGN UTUL-B
12AC7		PROTO-CUNEIFORM SIGN UR2 TIMES TAR-C	12AF5		PROTO-CUNEIFORM SIGN UTUL-C
12AC8		PROTO-CUNEIFORM SIGN UR2 TIMES ONE N57	12AF6		PROTO-CUNEIFORM SIGN UTUL-D
12AC9		PROTO-CUNEIFORM SIGN UR3-A1	12AF7		PROTO-CUNEIFORM SIGN UZU
12ACA		PROTO-CUNEIFORM SIGN UR3-A2	12AF8		PROTO-CUNEIFORM SIGN ZA-V
12ACB		PROTO-CUNEIFORM SIGN UR3-A3	12AF9		PROTO-CUNEIFORM SIGN ZAG-A
12ACC		PROTO-CUNEIFORM SIGN UR3-B1	12AFA		PROTO-CUNEIFORM SIGN ZAG-B
12ACD		PROTO-CUNEIFORM SIGN UR3-B2	12AFB		PROTO-CUNEIFORM SIGN ZAG-C
12ACE		PROTO-CUNEIFORM SIGN UR4-A	12 AFC		PROTO-CUNEIFORM SIGN ZAR-A
12ACF		PROTO-CUNEIFORM SIGN UR4-B	12AFD		PROTO-CUNEIFORM SIGN ZAR-B1
12AD0		PROTO-CUNEIFORM SIGN UR4-C	12AFE		PROTO-CUNEIFORM SIGN ZAR-B2
12AD1		PROTO-CUNEIFORM SIGN UR5-A	12AFF		PROTO-CUNEIFORM SIGN ZAR-C
12AD2		PROTO-CUNEIFORM SIGN UR5-B	12B00		PROTO-CUNEIFORM SIGN ZI-A
			12B01		PROTO-CUNEIFORM SIGN ZI-B
			12B02		PROTO-CUNEIFORM SIGN ZI-D

12B03		PROTO-CUNEIFORM SIGN ZUBI-A	12B33		PROTO-CUNEIFORM SIGN ZATU662
12B04		PROTO-CUNEIFORM SIGN ZATU620	12B34		PROTO-CUNEIFORM SIGN ZATU662 TIMES ONE N14
12B05		PROTO-CUNEIFORM SIGN ZATU621-A	12B35		PROTO-CUNEIFORM SIGN ZATU664
12B06		PROTO-CUNEIFORM SIGN ZATU621-B	12B36		PROTO-CUNEIFORM SIGN ZATU665
12B07		PROTO-CUNEIFORM SIGN ZATU621-C	12B37		PROTO-CUNEIFORM SIGN ZATU666
12B08		PROTO-CUNEIFORM SIGN ZATU621-D	12B38		PROTO-CUNEIFORM SIGN ZATU667
12B09		PROTO-CUNEIFORM SIGN ZATU622	12B39		PROTO-CUNEIFORM SIGN ZATU668
12B0A		PROTO-CUNEIFORM SIGN ZATU623	12B3A		PROTO-CUNEIFORM SIGN ZATU669
12B0B		PROTO-CUNEIFORM SIGN ZATU624-A	12B3B		PROTO-CUNEIFORM SIGN ZATU672
12B0C		PROTO-CUNEIFORM SIGN ZATU624-B	12B3C		PROTO-CUNEIFORM SIGN ZATU674
12B0D		PROTO-CUNEIFORM SIGN ZATU625	12B3D		PROTO-CUNEIFORM SIGN ZATU675-A
12B0E		PROTO-CUNEIFORM SIGN ZATU626-A	12B3E		PROTO-CUNEIFORM SIGN ZATU675-B
12B0F		PROTO-CUNEIFORM SIGN ZATU626-B	12B3F		PROTO-CUNEIFORM SIGN ZATU675-C
12B10		PROTO-CUNEIFORM SIGN ZATU626-C	12B40		PROTO-CUNEIFORM SIGN ZATU675-D
12B11		PROTO-CUNEIFORM SIGN ZATU628-A	12B41		PROTO-CUNEIFORM SIGN ZATU676-A
12B12		PROTO-CUNEIFORM SIGN ZATU628-B	12B42		PROTO-CUNEIFORM SIGN ZATU676-B
12B13		PROTO-CUNEIFORM SIGN ZATU629	12B43		PROTO-CUNEIFORM SIGN ZATU677-A
12B14		PROTO-CUNEIFORM SIGN ZATU630	12B44		PROTO-CUNEIFORM SIGN ZATU677-B
12B15		PROTO-CUNEIFORM SIGN ZATU631	12B45		PROTO-CUNEIFORM SIGN ZATU678
12B16		PROTO-CUNEIFORM SIGN ZATU632-A	12B46		PROTO-CUNEIFORM SIGN ZATU679
12B17		PROTO-CUNEIFORM SIGN ZATU632-B	12B47		PROTO-CUNEIFORM SIGN ZATU680-A1
12B18		PROTO-CUNEIFORM SIGN ZATU633-A	12B48		PROTO-CUNEIFORM SIGN ZATU680-A2
12B19		PROTO-CUNEIFORM SIGN ZATU633-B	12B49		PROTO-CUNEIFORM SIGN ZATU680-B
12B1A		PROTO-CUNEIFORM SIGN ZATU635	12B4A		PROTO-CUNEIFORM SIGN ZATU680-D
12B1B		PROTO-CUNEIFORM SIGN ZATU636	12B4B		PROTO-CUNEIFORM SIGN ZATU680-E
12B1C		PROTO-CUNEIFORM SIGN ZATU637	12B4C		PROTO-CUNEIFORM SIGN ZATU681
12B1D		PROTO-CUNEIFORM SIGN ZATU639	12B4D		PROTO-CUNEIFORM SIGN ZATU682
12B1E		PROTO-CUNEIFORM SIGN ZATU641	12B4E		PROTO-CUNEIFORM SIGN ZATU683-A
12B1F		PROTO-CUNEIFORM SIGN ZATU642	12B4F		PROTO-CUNEIFORM SIGN ZATU683-B
12B20		PROTO-CUNEIFORM SIGN ZATU643	12B50		PROTO-CUNEIFORM SIGN ZATU684
12B21		PROTO-CUNEIFORM SIGN ZATU644-A	12B51		PROTO-CUNEIFORM SIGN ZATU685
12B22		PROTO-CUNEIFORM SIGN ZATU644-B	12B52		PROTO-CUNEIFORM SIGN ZATU686-A
12B23		PROTO-CUNEIFORM SIGN ZATU646	12B53		PROTO-CUNEIFORM SIGN ZATU686-B
12B24		PROTO-CUNEIFORM SIGN ZATU647	12B54		PROTO-CUNEIFORM SIGN ZATU686-C
12B25		PROTO-CUNEIFORM SIGN ZATU648	12B55		PROTO-CUNEIFORM SIGN ZATU687
12B26		PROTO-CUNEIFORM SIGN ZATU649	12B56		PROTO-CUNEIFORM SIGN ZATU688-A
12B27		PROTO-CUNEIFORM SIGN ZATU651	12B57		PROTO-CUNEIFORM SIGN ZATU688-B
12B28		PROTO-CUNEIFORM SIGN ZATU651 TIMES AN	12B58		PROTO-CUNEIFORM SIGN ZATU689
12B29		PROTO-CUNEIFORM SIGN ZATU651 TIMES EN-A	12B59		PROTO-CUNEIFORM SIGN ZATU690
12B2A		PROTO-CUNEIFORM SIGN ZATU651 TIMES GAR	12B5A		PROTO-CUNEIFORM SIGN ZATU691
12B2B		PROTO-CUNEIFORM SIGN ZATU651 TIMES MA	12B5B		PROTO-CUNEIFORM SIGN ZATU692
12B2C		PROTO-CUNEIFORM SIGN ZATU651 TIMES NUN-A	12B5C		PROTO-CUNEIFORM SIGN ZATU693
12B2D		PROTO-CUNEIFORM SIGN ZATU651 TIMES ZAR-C	12B5D		PROTO-CUNEIFORM SIGN ZATU693 TENU
12B2E		PROTO-CUNEIFORM SIGN ZATU651 GUNU	12B5E		PROTO-CUNEIFORM SIGN ZATU694-A
12B2F		PROTO-CUNEIFORM SIGN ZATU659	12B5F		PROTO-CUNEIFORM SIGN ZATU694-B
12B30		PROTO-CUNEIFORM SIGN ZATU659 TIMES ONE N01	12B60		PROTO-CUNEIFORM SIGN ZATU694-C
12B31		PROTO-CUNEIFORM SIGN ZATU659 TIMES ONE N14	12B61		PROTO-CUNEIFORM SIGN ZATU694-D
12B32		PROTO-CUNEIFORM SIGN ZATU659 TIMES ONE N58 TENU	12B62		PROTO-CUNEIFORM SIGN ZATU694-D TENU
12B33		PROTO-CUNEIFORM SIGN ZATU659 TIMES ONE N14	12B63		PROTO-CUNEIFORM SIGN ZATU695
12B34		PROTO-CUNEIFORM SIGN ZATU659 TIMES ONE N58 TENU	12B64		PROTO-CUNEIFORM SIGN ZATU696
12B35		PROTO-CUNEIFORM SIGN ZATU659 TIMES ONE N58 TENU	12B65		PROTO-CUNEIFORM SIGN ZATU697-A

12B66		PROTO-CUNEIFORM SIGN ZATU697-B	12B97		PROTO-CUNEIFORM SIGN ZATU737 TIMES NIMGIR
12B67		PROTO-CUNEIFORM SIGN ZATU699-B	12B98		PROTO-CUNEIFORM SIGN ZATU737 TIMES SAL
12B68		PROTO-CUNEIFORM SIGN ZATU700	12B99		PROTO-CUNEIFORM SIGN ZATU737 TIMES SU-A
12B69		PROTO-CUNEIFORM SIGN ZATU701	12B9A		PROTO-CUNEIFORM SIGN ZATU737 TIMES SHE-A
12B6A		PROTO-CUNEIFORM SIGN ZATU702	12B9B		PROTO-CUNEIFORM SIGN ZATU737 TIMES SHITA-A1
12B6B		PROTO-CUNEIFORM SIGN ZATU703	12B9C		PROTO-CUNEIFORM SIGN ZATU737 TIMES U4
12B6C		PROTO-CUNEIFORM SIGN ZATU705	12B9D		PROTO-CUNEIFORM SIGN ZATU737 TIMES UNUG-A
12B6D		PROTO-CUNEIFORM SIGN ZATU706	12B9E		PROTO-CUNEIFORM SIGN ZATU749-A
12B6E		PROTO-CUNEIFORM SIGN ZATU707-A	12B9F		PROTO-CUNEIFORM SIGN ZATU749-B
12B6F		PROTO-CUNEIFORM SIGN ZATU707-B	12BA0		PROTO-CUNEIFORM SIGN ZATU749-C
12B70		PROTO-CUNEIFORM SIGN ZATU708	12BA1		PROTO-CUNEIFORM SIGN ZATU750
12B71		PROTO-CUNEIFORM SIGN ZATU709	12BA2		PROTO-CUNEIFORM SIGN ZATU751-A
12B72		PROTO-CUNEIFORM SIGN ZATU710	12BA3		PROTO-CUNEIFORM SIGN ZATU751-B
12B73		PROTO-CUNEIFORM SIGN ZATU711	12BA4		PROTO-CUNEIFORM SIGN ZATU751-C
12B74		PROTO-CUNEIFORM SIGN ZATU711 TIMES HI GUNU-A	12BA5		PROTO-CUNEIFORM SIGN ZATU752
12B75		PROTO-CUNEIFORM SIGN ZATU713	12BA6		PROTO-CUNEIFORM SIGN ZATU753
12B76		PROTO-CUNEIFORM SIGN ZATU714	12BA7		PROTO-CUNEIFORM SIGN ZATU754
12B77		PROTO-CUNEIFORM SIGN ZATU714 TIMES HI GUNU-A	12BA8		PROTO-CUNEIFORM SIGN ZATU755-A
12B78		PROTO-CUNEIFORM SIGN ZATU717	12BA9		PROTO-CUNEIFORM SIGN ZATU755-B
12B79		PROTO-CUNEIFORM SIGN ZATU718	12BAA		PROTO-CUNEIFORM SIGN ZATU756
12B7A		PROTO-CUNEIFORM SIGN ZATU719	12BAB		PROTO-CUNEIFORM SIGN ZATU757
12B7B		PROTO-CUNEIFORM SIGN ZATU720	12BAC		PROTO-CUNEIFORM SIGN ZATU758
12B7C		PROTO-CUNEIFORM SIGN ZATU721	12BAD		PROTO-CUNEIFORM SIGN ZATU759
12B7D		PROTO-CUNEIFORM SIGN ZATU722	12BAE		PROTO-CUNEIFORM SIGN ZATU759 TIMES KU6-A
12B7E		PROTO-CUNEIFORM SIGN ZATU723	12BAF		PROTO-CUNEIFORM SIGN ZATU759 TIMES KU6-A JOINING
12B7F		PROTO-CUNEIFORM SIGN ZATU725	12BB0		PROTO-CUNEIFORM SIGN ZATU762-A
12B80		PROTO-CUNEIFORM SIGN ZATU726-A	12BB1		PROTO-CUNEIFORM SIGN ZATU762-A TIMES NIM-A
12B81		PROTO-CUNEIFORM SIGN ZATU726-C	12BB2		PROTO-CUNEIFORM SIGN ZATU762-B
12B82		PROTO-CUNEIFORM SIGN ZATU726-D	12BB3		PROTO-CUNEIFORM SIGN ZATU762-B TIMES AB-A
12B83		PROTO-CUNEIFORM SIGN ZATU727	12BB4		PROTO-CUNEIFORM SIGN ZATU764
12B84		PROTO-CUNEIFORM SIGN ZATU728	12BB5		PROTO-CUNEIFORM SIGN ZATU765
12B85		PROTO-CUNEIFORM SIGN ZATU729	12BB6		PROTO-CUNEIFORM SIGN ZATU766
12B86		PROTO-CUNEIFORM SIGN ZATU730	12BB7		PROTO-CUNEIFORM SIGN ZATU767
12B87		PROTO-CUNEIFORM SIGN ZATU732	12BB8		PROTO-CUNEIFORM SIGN ZATU772
12B88		PROTO-CUNEIFORM SIGN ZATU734	12BB9		PROTO-CUNEIFORM SIGN ZATU773-A
12B89		PROTO-CUNEIFORM SIGN ZATU735-A	12BBA		PROTO-CUNEIFORM SIGN ZATU773-B
12B8A		PROTO-CUNEIFORM SIGN ZATU735-B	12BBB		PROTO-CUNEIFORM SIGN ZATU774
12B8B		PROTO-CUNEIFORM SIGN ZATU735-C	12BBC		PROTO-CUNEIFORM SIGN ZATU775
12B8C		PROTO-CUNEIFORM SIGN ZATU736-A	12BBD		PROTO-CUNEIFORM SIGN ZATU776
12B8D		PROTO-CUNEIFORM SIGN ZATU736-B	12BBE		PROTO-CUNEIFORM SIGN ZATU777
12B8E		PROTO-CUNEIFORM SIGN ZATU737	12BBF		PROTO-CUNEIFORM SIGN ZATU778
12B8F		PROTO-CUNEIFORM SIGN ZATU737 TIMES AB-A	12BC0		PROTO-CUNEIFORM SIGN ZATU780
12B90		PROTO-CUNEIFORM SIGN ZATU737 TIMES BU-A	12BC1		PROTO-CUNEIFORM SIGN ZATU781
12B91		PROTO-CUNEIFORM SIGN ZATU737 TIMES BUR-A	12BC2		PROTO-CUNEIFORM SIGN ZATU782
12B92		PROTO-CUNEIFORM SIGN ZATU737 TIMES DI	12BC3		PROTO-CUNEIFORM SIGN ZATU783
12B93		PROTO-CUNEIFORM SIGN ZATU737 TIMES EN-A	12BC4		PROTO-CUNEIFORM SIGN ZATU784
12B94		PROTO-CUNEIFORM SIGN ZATU737 TIMES EN-B			
12B95		PROTO-CUNEIFORM SIGN ZATU737 TIMES GAR			
12B96		PROTO-CUNEIFORM SIGN ZATU737 TIMES NI-A GUNU			

12BC5		PROTO-CUNEIFORM SIGN ZATU786	12BE3		PROTO-CUNEIFORM SIGN ZATU850
12BC6		PROTO-CUNEIFORM SIGN ZATU787	12BE4		PROTO-CUNEIFORM SIGN ZATU851
12BC7		PROTO-CUNEIFORM SIGN ZATU788	12BE5		PROTO-CUNEIFORM SIGN ZATU854
12BC8		PROTO-CUNEIFORM SIGN ZATU791	12BE6		PROTO-CUNEIFORM SIGN ZATU858
12BC9		PROTO-CUNEIFORM SIGN ZATU792	12BE7		PROTO-CUNEIFORM SIGN ZATU859
12BCA		PROTO-CUNEIFORM SIGN ZATU795	12BE8		PROTO-CUNEIFORM NUMERIC SIGN TWO
12BCB		PROTO-CUNEIFORM SIGN ZATU797	12BE9		LAGAB-A
12BCC		PROTO-CUNEIFORM SIGN ZATU798	12BEA		PROTO-CUNEIFORM NUMERIC SIGN THREE
12BCD		PROTO-CUNEIFORM SIGN ZATU799	12BEB		LAGAB-A
12BCE		PROTO-CUNEIFORM SIGN ZATU800	12BEC		PROTO-CUNEIFORM NUMERIC SIGN FOUR
12BCF		PROTO-CUNEIFORM SIGN ZATU801	12BED		LAGAB-A
12BD0		PROTO-CUNEIFORM SIGN ZATU802	12BEE		PROTO-CUNEIFORM NUMERIC SIGN SIX LAGAB-A
12BD1		PROTO-CUNEIFORM SIGN ZATU802-B	12BEF		PROTO-CUNEIFORM NUMERIC SIGN ONE N57
12BD2		PROTO-CUNEIFORM SIGN ZATU803	12BF0		PROTO-CUNEIFORM NUMERIC SIGN TWO N57
12BD3		PROTO-CUNEIFORM SIGN ZATU804	12BF1		PROTO-CUNEIFORM NUMERIC SIGN THREE N57
12BD4		PROTO-CUNEIFORM SIGN ZATU806	12BF2		PROTO-CUNEIFORM NUMERIC SIGN FOUR N57
12BD5		PROTO-CUNEIFORM SIGN ZATU807	12BF3		PROTO-CUNEIFORM NUMERIC SIGN FIVE N57
12BD6		PROTO-CUNEIFORM SIGN ZATU808	12BF4		PROTO-CUNEIFORM NUMERIC SIGN SIX N57
12BD7		PROTO-CUNEIFORM SIGN ZATU809	12BF5		PROTO-CUNEIFORM NUMERIC SIGN ONE N57
12BD8		PROTO-CUNEIFORM SIGN ZATU810	12BF6		PROTO-CUNEIFORM NUMERIC SIGN TWO N58
12BD9		PROTO-CUNEIFORM SIGN ZATU811	12BF7		PROTO-CUNEIFORM NUMERIC SIGN THREE N58
12BDA		PROTO-CUNEIFORM SIGN ZATU812	12BF8		PROTO-CUNEIFORM NUMERIC SIGN FOUR N58
12BDB		PROTO-CUNEIFORM SIGN ZATU813	12BF9		PROTO-CUNEIFORM NUMERIC SIGN FIVE N58
12BDC		PROTO-CUNEIFORM SIGN ZATU819	12BFA		PROTO-CUNEIFORM NUMERIC SIGN EIGHT N58
12BDD		PROTO-CUNEIFORM SIGN ZATU832	12BFB		PROTO-CUNEIFORM NUMERIC SIGN NINE N58
12BDE		PROTO-CUNEIFORM SIGN ZATU833	12BFC		PROTO-CUNEIFORM NUMERIC SIGN ONE N58
12BDF		PROTO-CUNEIFORM SIGN ZATU834	12BFD		PROTO-CUNEIFORM NUMERIC SIGN ONE N58
12BE0		PROTO-CUNEIFORM SIGN ZATU835	12BFE		PROTO-CUNEIFORM NUMERIC SIGN ONE N58
12BE1		PROTO-CUNEIFORM SIGN ZATU836	12BFF		PROTO-CUNEIFORM NUMERIC SIGN ONE N58
12BE2		PROTO-CUNEIFORM SIGN ZATU847			TENU

## References

- [Alg05] G. Algaze. *The Uruk World System. The Dynamics of Expansion of Early Mesopotamian Civilization*. 2nd, revised. Chicago: University of Chicago Press, 2005.
- [Alg13] G. Algaze. "The End of Prehistory and the Uruk Period". In: ed. by H. Crawford. London and New York: Routledge, 2013, pp. 68–94.
- [Alg93] G. Algaze. *The Uruk World System. The Dynamics of Expansion of Early Mesopotamian Civilization*. Chicago: University of Chicago Press, 1993.
- [Ben15] G. Benati. "Re-modeling Political Economy in Early 3rd Millennium BC Mesopotamia: Patterns of Socio-Economic Organization in Archaic Ur (Tell al-Muqayyar, Iraq)". In: *CDLJ* 2015:2 (2015), pp. 1–37.
- [Bur35] E. Burrows. "Archaic Texts". In: *Ur Excavations Texts* 2 (1935).
- [CDLI] É. Pagé-Perron, J. L. Dahl, B. Lafont, J. Renn, R. K. Englund, and P. Damerow, eds. *Cuneiform Digital Library Initiative*. 2000–. <https://cdli.earth>.
- [Dam] P. Damerow. *The Proto-Cuneiform Texts from the Erlenmeyer Collection*. MSVO 3. forthcoming. Berlin.
- [DE93] P. Damerow and R. Englund. "8. The Administrative Activities of Kushim". In: *Archaic Bookkeeping: Early Writing and Techniques of Economic Administration in the Ancient Near East*. Ed. by H. Nissen. Chicago, 1993, pp. 36–46.
- [Dei22] A. Deimel. *Liste der archaischen Keilschriftzeichen von Fara*. Wissenschaftliche Veröffentlichungen der Deutschen Orient-Gesellschaft 40. J. C. Hinrichs'sche Buchhandlung, 1922.
- [EG91] R. Englund and J.-P. Grégoire. *The Proto-Cuneiform Texts from Jemdet Nasr*. MSVO 1. Berlin, 1991.
- [EN01] R. Englund and H. Nissen. *Archaische Verwaltungs-texte aus Uruk: Die Heidelberger Sammlung*. ATU 7. Berlin, 2001.
- [EN93] R. Englund and H. Nissen. *Die lexikalischen Listen der archaischen Texte aus Uruk*. ATU 3. Berlin, 1993.
- [EN94] R. Englund and H. Nissen. *Archaische Verwaltungs-texte aus Uruk: Vorderasiatisches Museum II*. ATU 6. Berlin, 1994.
- [Eng01] R. Englund. "Grain Accounting Practices in Archaic Mesopotamia". In: *Changing Views on Ancient Near Eastern Mathematics*. Ed. by J. Høyrup and P. Damerow. Berlin, 2001.
- [Eng09] R. K. Englund. "The smell of the cage". In: *CDLJ* 2009:4 (2009), pp. 1–27.
- [Eng88] R. Englund. "Administrative Timekeeping in Ancient Mesopotamia". In: *JESHO* 31 (1988), pp. 121–185.
- [Eng91] R. Englund. "Archaic Dairy Metrology". In: *Iraq* 53 (1991), pp. 101–104.
- [Eng94] R. Englund. *Archaic Administrative Texts from Uruk: The Early Campaigns*. ATU 5. Berlin, 1994.
- [Eng95a] R. Englund. "Late Uruk Period Cattle and Dairy Products: Evidence from Proto-Cuneiform Sources". In: *BSA* 8/2 (1995), pp. 33–48.
- [Eng95b] R. Englund. "Late Uruk Pigs and Other Herded Animals". In: *Beiträge zur Kulturgeschichte Vorderasiens*, Fs. Ed. by U. Finkbeiner, R. Dittmann, and H. Hauptmann. Mainz: Boehmer, 1995, pp. 121–133.
- [Eng96] R. Englund. *Proto-Cuneiform Texts from Diverse Collections*. MSVO 4. Berlin, 1996.
- [Eng98] R. K. Englund. "Texts from the Late Uruk Period". In: *Mesopotamien. Späturuk-Zeit und Frühdynastische Zeit*. Orbis Biblicus et Orientalis 160/1. 1998, pp. 13–233. ISBN: 3-7278-1166-8.
- [Fal36] A. Falkenstein. *Archaische Texte aus Uruk*. ATU 1. Berlin, 1936.
- [GN87] M. Green and H. Nissen. *Zeichenliste der Archaischen Texte aus Uruk*. ATU 2. Berlin, 1987.
- [Gre80] M. Green. "Animal Husbandry at Uruk in the Archaic Period". In: *JNES* 39 (1980), pp. 1–35.

- [Gre81] M. Green. "The Construction and Implementation of the Cuneiform Writing System". In: *Visible Language* 15 (1981), pp. 345–372.
- [Gre82] M. Green. "Miscellaneous Early Texts from Uruk". In: ZA 72 (1982), pp. 163–177.
- [ISO15924] ISO 15924/RA. "ISO 15924 Code Lists". In: *Codes for the representation of names of scripts – Codes pour la représentation des noms d'écritures*. ISO 15924. <https://www.unicode.org/iso15924/codelists.html>.
- [Joh16] J. C. Johnson. "Deciphering the Late Uruk butchering texts". In: *Material and Textual Perspectives on Alimentary Practice in Early Mesopotamia (Origini. Rivista de Preistoria e Protostoria della Civiltà Antiche 37)*. Ed. by M. B. D'Anna, C. Jauß, and J. C. Johnson. Roma: Gangemi Editore, 2016, pp. 46–55.
- [Joh19] J. C. Johnson. "Meat distribution in Late Uruk diacritical feasts. Second-order bookkeeping techniques and their institutional context in late fourth millennium BCE Mesopotamia". In: *Culture and Cognition. Essays in Honor of Peter Damerow (Max Planck Research Library for the History and Development of Knowledge, Proceedings 11)*. Ed. by J. Renn and M. Schemmel. Berlin: Max-Planck-Gesellschaft zur Förderung der Wissenschaften, 2019, pp. 69–80.
- [Kee20] J. Keetman. "Sumerisch auf Tafeln der Schriftstufe Uruk III". In: *The Third Millennium: Studies in Early Mesopotamia and Syria in Honor of Walter Sommerfeld and Manfred Krebernik*. Leiden/. Ed. by I. Arkhipov, L. Kogan, and N. Koslova. Boston: Brill, 2020, pp. 341–376.
- [Kre14] M. Krebernik. "Prä-Fāra-zeitliche Texte aus Fāra". In: N. Koslova, E. Vizirova, and G. Zólyomi. *Studies in Sumerian Language and Literature: Festschrift für Joachim Krecher*. Winona Lake, IN, 2014, pp. 327–382.
- [Kre98] M. Krebernik. "Die Texte aus Fāra und Tell Abū Salābīkh". In: *Mesopotamien. Späturuk-Zeit und Frühdynastische Zeit*. Orbis Biblicus et Orientalis 160/1. 1998, pp. 237–427. ISBN: 3-7278-1166-8.
- [L2/00-398] D. Snyder. *Cuneiform: From Clay Tablet to Computer*. Nov. 7, 2000.  
UTC: L2/00-398.
- [L2/03-162] M. Everson and K. Feuerherm. *Basic principles for the encoding of Sumero-Akkadian Cuneiform*. May 25, 2003.  
UTC: L2/03-162.  
ISO/IEC JTC 1/SC 2/WG 2: N2585.
- [L2/12-208] M. Everson, C. Jay Crisostomo, and S. Tinney. *Proposal for Early Dynastic Cuneiform*. June 13, 2012.  
UTC: L2/12-208.  
ISO/IEC JTC 1/SC 2/WG 2: N4278.
- [L2/16-267] M. Everson and L. F. Hawkins. *Preliminary proposal to encode Proto-Cuneiform in the SMP*. Sept. 26, 2016.  
UTC: L2/16-267.
- [L2/17-157] M. Everson and L. F. Hawkins. *Proposal to encode Proto-Cuneiform in the SMP of the UCS*. May 9, 2017.  
UTC: L2/17-157.
- [L2/19-284] L. F. Hawkins. *Proposal to encode Proto-Cuneiform in the SMP of the UCS*. July 18, 2019.  
UTC: L2/19-284.
- [L2/20-193] A. Pandey. *Preliminary proposal to encode Proto-Cuneiform in Unicode*. Sept. 21, 2020.  
UTC: L2/20-193.
- [L2/22-239] A. Pandey. *Preliminary proposal to encode Proto-Cuneiform in Unicode*. Oct. 17, 2022.  
UTC: L2/22-239.
- [L2/23-190] A. Pandey. *Revised proposal to encode Proto-Cuneiform in Unicode*. July 11, 2023.  
UTC: L2/23-190.
- [L2/24-210] R. Leroy, A. Pandey, and S. Tinney. *Archaic cuneiform numerals*. Sept. 30, 2024.  
UTC: L2/24-210.
- [L2/24-211] S. Tinney. *Comments on L2/23-190 Revised proposal to encode Proto-Cuneiform in Unicode*. Sept. 23, 2024.  
UTC: L2/24-211.

- [Lan28] S. Langdon. *The Herbert Weld Collection in the Ashmolean Museum: Pictographic Inscriptions from Jemdet Nasr*. OECT 7. Oxford, 1928.
- [Lec09] C. Lecompte. “Listes Lexicales et Representations Spatiales des époques archaïques à la période paléo-babylonienne”. PhD thesis. Université de Versailles St. Quentin-en-Yvelines / l’Université de Genève, 2009.
- [LL95] R. Labat and F. M. Labat. *Manuel D'épigraphie Akkadienne Signes Syllabaire Idéogrammes*. 5th. Paris, 1995.
- [LV13] C. Lecompte and L. Verderame. *Archaic Tablets and Fragments from Ur (ATFU) from L. Woolley's Excavations at the Royal Cemetery*. Nisaba 25. Messina: Arbor Sapientiae, 2013.
- [Mon07] S. Monaco. *The Cornell University Archaic Tablets*. CUSAS 1. Bethesda, MD, 2007.
- [Mon14] S. Monaco. *Archaic Bullae and Tablets in the Cornell University Collections*. CUSAS 21. Bethesda, MD, 2014.
- [Mon16] S. Monaco. *Archaic Cuneiform Tablets from Private Collections*. CUSAS 31. Bethesda, MD, 2016.
- [Nis86] H. Nissen. “Archaic Texts from Uruk”. In: *World Archaeology* 17 (1986), pp. 317–334.
- [P222640] AO 17551. Paris, France: Musée du Louvre.  
CDLI: P222640.
- [Sel25] G.J. Selz. “How meaning evolves. Proto-cuneiform signs: considerations on their origins at the intersection of visual and oral communication”. In: *Mortals, Deities and Divine Symbols: Rethinking Ancient Imagery from the Levant to Mesopotamia; Studies offered to Tallay Ornan*. 2025, pp. 147–164.
- [Tay11] J. Taylor. “Tablets as Artefacts, Scribes as Artisans”. In: *The Oxford Handbook of Cuneiform Culture*. Oxford University Press, 2011, pp. 5–31.  
ISBN: 978-0-19-955730-1.
- [Tin24] S. Tinney, ed. PCSL: *The Proto-Cuneiform Sign List*. 2024–.  
<https://build-oracc.museum.upenn.edu/pcsl>.
- [Vel14] N. Veldhuis. *History of the Cuneiform Lexical Tradition. Guides to the Mesopotamian Textual Record* 7. Ugarit-Verlag, 2014.
- [Wag16] K. Wagensonner. “Die frühen lexikalischen Texte und ihr Aufbau: Zu den archaischen und früh-dynastischen Wortlisten, der Anordnung ihrer Einträge und den Klassifikationssystemen in den frühen Phasen der Keilschrift”. PhD thesis. Universität Wien, 2016.

## Appendices

Here we provide supporting documentation which exposes as much as possible of the decision-making processes and outcomes that are associated with the proposal.

**PCSL** Appendix A gives the Proto-Cuneiform Sign List (<http://oracc.org/pcsl>) is condensed into a table which gives information on the entire PC signiary. The corpus instances are represented by distributional summaries; alignment with ZATU is provided in the main character box, and the published per-volume sign lists are represented in their own columns.

**Deferred Characters** Appendix B lists all of the characters that are not encoded because they occur only in unpublished texts.

**Excluded Characters** Appendices C to I give tables of characters according to the rationale for their exclusion.

**Sequences** Various relevant data about sequences are in Appendix J to L.

**Fonts** A brief description of the fonts provided with the proposal is given in Appendix M.

## A PCSL Table

The PCSL Table condenses the Proto-Cuneiform Sign List into a convenient overview of the entire Proto-Cuneiform repertoire and its various data sources. The contents of the columns are as follows:

**PCSL** The core PCSL data: the sign name and category tag are at the top of the case; the distribution, Oracc ID (OID) and ZATU number, if any, are at the bottom of the case. If the sign is proposed for encoding in PC25, the hex codepoint and reference glyph are given in the middle of the case.

**CDLI** names either from print sources or in the CDLI-gh name list that have been adapted to PCSL conventions appear in this block with the prefix CDLI-.

**CDLI** names used in the transliterated corpus which are handled using aliases in the validation data appear in this block with the prefix AKA-.

**FONT** The glyphs as given in PCSL.ttf, with their codepoints. Glyphs coloured blue are not included in the CDLI-gh collection. Subscript numbers before glyphs indicate the CVNN code for the variant, i.e.,  $\text{cv}01$

**CDLI** The original CDLI-gh image, scaled from a 600dpi image set downloaded from the CDLI website in 2016.

**ATU3, ATU5, MSVO1, MSCO4, CUSAS** Glyphs as given in the sign lists of the relevant text editions, but drawn from the PCSL font. Glyphs in red differ in naming from CDLI-gh; (o) means that the instance has no variant code; (a), (b), etc., means that the instance has the given variant code.

PCSL	FONT	CDLI	ATU3	ATU5	MSVO1	MSVO4	CUSAS
A 12690  584x IV: 34p/17u; III: 370p/183u	 PC25	 12690 1 F207A		 12690	 12690	 12690	 12690
AxAB <sub>2</sub>    3x III: 3u	UNP	( )  F2400	( )				
AxAN   o0980002	EDI	{ * } F24F2	{ * }				
AxEN~a  12691  1x IV: 1p; III: 1p	PC25	{ ... } 12691	{ ... }		{ ... } 12691		
AxŠUBUR  12692  1x IV: 1p; III: 1p	PC25	{ ( ) } 12692	{ ( ) }		{ ( ) } 12692		
AxZATU672  12693  1x IV: 1p; III: 1p	PC25	{ ( ) } 12693	{ ( ) }		{ ( ) } 12693		
Ax1(N14)  12694  1x IV: 1p	PC25	{ ( ) } 12694	{ ( ) }				
A@g  o0980007	EDI	 F24CC					
A@t  1x III: 1u	UNP	~~~~ F2401	~~~~				
A <sub>2</sub> 12695  2x IV: 1p; III: 2p	PC25	 12695	 12695	 12695	 12695		



<b>AB<sub>2</sub></b> 1269E		PC25	 1  2 	 1 	 1 	 1 	
350× IV: 83p/7u; III: 254p/51u	o0980025 ZATU012						
<b> AB<sub>2</sub>×2(N14) </b> 1269F		PC25	 1  2 	 1  2 	 1 	 1 	
2× IV: 2p; III: 2p	o0980026 ZATU013						
<b>AB<sub>2</sub>@g</b>		UNP					
1×	o0980027						
<b>ABGAL</b>		PC25-sq		 1 	 1 	 1 	 1 
51× III: 42p/9u	o0980028 ZATU015						
<b>ABRIG</b>		PC25-sq		 1 	 1 	 1 	
2× III: 2p	o0980029 ZATU016						
<b>ABZU</b> 126A0		PC25	 1  2 	 1  2 	 1  2 		 1  2 
5× III: 5p	o0980030 ZATU017						
<b>AD~a</b> 126A1		PC25					
51× III: 37p/14u	o0980031 ZATU018						
<b>AD~b</b> 126A2		PC25					
3× IV: 1p; III: 2p	o0980032 ZATU018						
<b>AD~c</b> 126A3		PC25					
9× IV: 1p; III: 6p/2u	o0980033 ZATU018						
<b>ADAB</b> 126A4		PC25	 1 	 1 	 1 	 1 	 1 
44× IV: 15p/4u; III: 22p/9u	o0980034 ZATU019						
<b>ADDA</b> 126A5		PC25					
1× III: 1p	o0980035 ZATU020						
<b>ADDA@t</b>		ZERO					
	o0980036						
<b>AGAR<sub>2</sub></b> 126A6		PC25					
18× III: 16p/2u	o0980037 ZATU022						

<b>AK~a</b> 126A7		PC25 o0980038 ZATU023							
56x IV: 8p/1u; III: 39p/12u				126A7	126A7	126A7	126A7	126A7	126A7
<b>AK~b</b> 126A8		PC25 o0980039 ZATU023							
2x IV: 2p				126A8					
<b>AL</b> 126A9		PC25 o0980040 ZATU024							
132x IV: 11p/3u; III: 87p/39u				126A9	126A9	126A9	126A9	126A9	126A9
<b>ALAN~a</b> 126AA		PC25 o0980041 ZATU025							
8x IV: 2u; III: 7p/1u				126AA					
<b>ALAN~b</b> 126AB		PC25 o0980042 ZATU025							
7x III: 4p/3u				126AB	126AB				
<b>ALAN~c</b> 126AC		PC25 o0980043 ZATU025							
8x IV: 1u; III: 5p/2u				126AC					
<b>ALAN~d</b>		UNP o0980044 ZATU025							
1x IV: 1u				F240A					
<b>ALAN~e</b> 126AD		PC25 o0980045 ZATU025							
2x III: 2p				126AD					
<b>ALAN~f</b>		EDI o0980046							
				F24CD					
<b>ALIM</b> 126AE		PC25 o0980047 ZATU026							
12x III: 10p/2u				126AE		126AE (a)			
<b>AM~a</b> 126AF		PC25 o0980048 ZATU027							
2x III: 2p				126AF					
<b>AM~b</b> 126B0		PC25 o0980049 ZATU027							
2x III: 2p				126B0	126B0				
<b>AMA~a</b> 126B1		PC25 o0980050 ZATU028							
105x IV: 19p/1u; III: 71p/20u				126B1	126B1	126B1	F2087	126B1	F2087
				1 F2087					
<b> AMA~axE~a </b> 126B2		PC25 o0980051							
4x III: 3p/1u				126B2				126B2	
<b>AMA~b</b> 126B3		PC25 o0980052 ZATU028							
6x IV: 1p/1u; III: 4p				126B3					
<b>AMAR</b> 126B4		PC25 o0980053 ZATU029							
164x IV: 23p/8u; III: 105p/29u				1 F2088	126B4	126B4	F2088	126B4	126B4
				2 F2089					

AMAR.1(N02)		PC25-sq							
2x III: 2p	o0980054						F222B		
AMAR×TAR~c		PC25							
126B5									
AKA:  AMAR×TAR									
CDLI:  AMAR×TAR									
1x IV: 1p; III: 1p	o0980055	ZATU030							
AMAR&AMAR		PC25							
126B6									
1x IV: 1p	o0980056								
AMAR@g		PC25-bk							
CDLI:  AMAR@g									
1x IV: 1p	o0980057								
AN		PC25							
126B7									
992x									
IV: 106p/20u;									
III: 630p/274u	o0980058	ZATU031							
ANŠE~a		PC25							
126B8									
9x IV: 3p/2u;									
III: 4p/1u	o0980059	ZATU032							
ANŠE~b		PC25							
126B9									
32x IV: 1p/1u;									
III: 21p/9u	o0980060	ZATU032							
ANŠE~c		PC25							
126BA									
4x IV: 1p; III: 3p/1u	o0980061	ZATU032							
ANŠE~e		PC25							
126BB									
9x IV: 3p; III: 4p/2u	o0980062	ZATU032							
ANŠE~f		PC25							
126BC									
5x III: 5p	o0980063	ZATU032							
ANZU <sub>2</sub>		EDI							
	o0980064								
APIN~a		PC25							
126BD									
AKA: APIN									
230x									
IV: 20p/5u;									
III: 154p/65u	o0980065	ZATU033							
APIN~a.APIN~a		PC25-sq							
	o0980066								
1x IV: 1p									
APIN~b		PC25							
126BE									
13x III: 9p/3u	o0980067	ZATU033							

<b>APIN~c</b> 126BF		PC25						
2× IV: 1p; III: 1p o0980068 ZATU033		126BF						
<b>ARARMA<sub>2</sub>~a</b> 126C0		PC25						
12× III: 7p/5u o0980069 ZATU034		126C0						
<b>ARARMA<sub>2</sub>~b</b>		PC25-sq				F2274		
2× IV: 1p; III: 1p o0980070 ZATU034							F2274	
<b>ARATTA</b>		PC25-sq						
1× III: 1p o0980071 ZATU035						F22A1		
<b>ASAL<sub>2</sub></b>		EDI						
		o0980072				F24CE		
<b>ASAR</b> 126C1		PC25				126C1	126C1	
19× III: 17p/2u o0980073 ZATU036								
<b>AS<sub>2</sub></b>		UNP						
1× III: 1u o0980074						F240C		
<b>AZ</b> 126C2		PC25				126C2		
21× III: 20p/1u o0980075 ZATU038								
<b>AZU</b> 126C3		PC25				126C3	126C3	
2× IV: 2p; III: 1p o0980076 ZATU039								
<b>BA</b> 126C4		PC25				126C4	126C4	126C4
779× IV: 112p/17u; III: 516p/202u o0980077 ZATU040							126C4	126C4
<b>BAD</b> 126C5		PC25				126C5	126C5	
104× IV: 19p/3u; III: 74p/23u o0980078 ZATU041							126C5	
<b> BAD&amp;BAD </b> 126C6		PC25				126C6	126C6	
42× IV: 1p/2u; III: 30p/10u o0980079 ZATU042								
<b>BAD<sub>3</sub>~a</b> 126C7		PC25				126C7	126C7	
2× III: 2p o0980080 ZATU044								
<b>BAD<sub>3</sub>~b1</b> 126C8		PC25				126C8		
4× III: 1p/3u o0980081 ZATU044								
<b>BAD<sub>3</sub>~b2</b> 126C9		PC25				126C9		
AKA:  EZEM~b~AN  4× III: 3p/1u o0980082 ZATU044								
<b>BAHAR<sub>2</sub>~a</b> 126CA		PC25				126CA		
22× IV: 1p/2u; III: 11p/6u o0980083 ZATU045						1 F208D	F208D	



BAPPIR-d 126DA		PC25						
6x III: 6p	00980099	ZATU050	126DA		126DA			126DA
BAPPIR-e 126DB		PC25						
1x III: 1p	00980100	ZATU050	126DB					
BAPPIR-f 126DC		PC25						
1x III: 1p	00980101	ZATU050	126DC					
BAR 126DD		PC25						
426x IV: 27p/13u; III: 288p/113u	00980102	ZATU051	126DD		126DD	126DD	126DD	126DD
BARxURL~a		NOT						
		00980103	F252C					
BARxUŠ~a		NOT						
		00980104	F253D					
BARA <sub>2</sub> ~a 126DE		PC25						
75x IV: 14p/5u; III: 45p/13u	00980105	ZATU052	126DE	126DE	126DE	126DE	126DE	F2093
BARA <sub>2</sub> ~b 126DF		PC25						
4x IV: 4p; III: 1p	00980106	ZATU052	126DF	126DF	126DF	126DF		1 F2094
BARA <sub>3</sub> 126E0		PC25						
18x III: 15p/3u	00980107	ZATU053	126E0	126E0	126E0		126E0	
BAU405 CDLI:  UET <sub>2</sub> ,405		EDI						
		00980108	F24EF					
BIR~a 126E1		PC25						
6x IV: 3p; III: 3p/1u	00980109	ZATU054	126E1	126E1	126E1	126E1		
BIR~b 126E2		PC25						
1x IV: 1p; III: 1p	00980110	ZATU054	126E2	126E2		126E2		
BIR~c 126E3		PC25						
1x IV: 1p; III: 1p	00980111	ZATU054	126E3	126E3	126E3			
BIR <sub>3</sub> ~a 126E4		PC25						
18x IV: 1p; III: 15p/3u	00980112	ZATU055	126E4	126E4	126E4		F2095	126E4
BIR <sub>3</sub> ~b 126E5		PC25						
7x IV: 3p; III: 4p/3u	00980113	ZATU055	126E5	126E5	126E5		F2096	
BIR <sub>3</sub> ~c 126E6		PC25						
4x III: 4p	00980114	ZATU055	126E6	126E6	126E6			F2097

BU-a 126E7		PC25	1 F2098 				
568x IV: 48p/6u; III: 390p/153u	o0980115	ZATU056					
((BU~a.DU <sub>6</sub> ~a)&(BU~a.DU <sub>6</sub> ~a))xDU~a  o0980116	ZERO						
BU~a+DU <sub>6</sub> ~a  126E8		PC25	126E8 				
AKA:  BU~a.DU <sub>6</sub> ~a  61x IV: 3p/1u; III: 47p/10u	o0980117	ZATU059					
BU~a+KI  126E9		PC25					
1x III: 1p	o0980118						
BU~a+TU~b  o0980119	ZERO						
BU~axA  126EA		PC25	126EA 				
2x IV: 1p; III: 2p	o0980120	ZATU057					
BU~axGIŠ@t  1x III: 1u	o0980121	UNP					
BU~ax1(N58)  1x III: 1u	o0980122	UNP					
(BU~a&BU~a).NA <sub>2</sub> ~a  126EB		PC25	 				
8x IV: 1p; III: 8p	o0980123	ZATU058					
(BU~a&BU~a).NA <sub>2</sub> ~b  o0982241	ZATU058	DEL					
(BU~a&BU~a).X  1x IV: 1p	o0980124	PC25-bk					
(BU~a%BU~a).NA <sub>2</sub> ~a@n  126EC		PC25	  				
AKA:  (BU~a&BU~a).NA <sub>2</sub> ~a@n  CDLI:  (BU~a&BU~a).NA <sub>2</sub> ~a@n  2x IV: 2p; III: 1p	o0980125						
BU-b 126ED		PC25					
14x IV: 2p; III: 12p/1u	o0980126	ZATU056					
BU~b.NA <sub>2</sub> ~a  1x III: 1u	o0980127	UNP					
BU <sub>3</sub> 126EE		PC25					
AKA: BU <sub>3</sub> ~a 30x III: 24p/6u	o0980128	ZATU060					

<b>BULUG</b> 126EF		PC25						
4× IV: 2p/1u; III: 2p o0980129	ZATU061		126EF			126EF		
<b>BULUG<sub>3</sub></b> 126F0		PC25				126F0		
35× III: 30p/5u o0980130	ZATU062		126F0		126F0			
<b>BULUG<sub>3</sub>,DU<sub>6~a</sub></b>		ZERO						
	o0980131		F222F					F222F
<b>BUR~a</b> 126F1		PC25				126F1		
37× IV: 1u; III: 27p/9u o0980132	ZATU063		126F1		126F1			126F1
<b>BUR~b</b> 126F2		PC25				126F2		
8× IV: 1p; III: 7p o0980133	ZATU063		126F2			126F2		
<b>BUR~c</b> 126F3		PC25						
1× IV: 1p; III: 1p o0980134	ZATU063		126F3					
<b>BUR~d</b> 126F4		PC25						
1× III: 1p o0980135	ZATU063		126F4					
<b>BUR<sub>2</sub></b> 126F5		PC25				126F5		
52× IV: 2p/2u; III: 37p/13u o0980136	ZATU064		126F5		126F5			
<b>DA~a</b> 126F6		PC25				126F6		126F6
243× IV: 23p/5u; III: 151p/74u o0980137	ZATU065		126F6		126F6	126F6	126F6	126F6
<b>DA~a.LIŠ</b>		UNP						
1× III: 1u o0980138			F2230					
<b>DA~b</b> 126F7		PC25				126F7		126F7
6× IV: 5p; III: 2p o0980139	ZATU065		126F7		126F7	126F7		
<b>DA~c</b> 126F8		PC25				126F8		
2× IV: 2p; III: 2p o0980140	ZATU065		126F8			126F8		
<b>DA~d</b> 126F9		PC25				126F9		
1× IV: 1p; III: 1p o0980141	ZATU065		126F9			126F9		
<b>DAG</b>		EDI						
	o0980142		F24CF					
<b>DAH</b> 126FA		PC25				126FA		126FA
26× IV: 1p; III: 22p/4u o0980143	ZATU066		126FA			126FA	126FA	126FA
<b>DAM</b> 126FB		PC25				126FB		
14× III: 14p o0980144	ZATU067		126FB		126FB			
<b>DANNA</b> 126FC		PC25				126FC		
9× IV: 1p; III: 3p/5u o0980145	ZATU068		126FC					

DAR~a 126FD		PC25							
25x III: 14p/11u	o0980146	ZATU069		126FD					126FD
DAR~a×A  126FE		PC25							
1x III: 1p	o0980147			126FE					
DAR~b 126FF		PC25							
27x III: 12p/15u	o0980148	ZATU069		126FF				126FF	
DAR~c 12700		PC25							
6x III: 4p/2u	o0980149	ZATU069		12700		12700			
DAR~d		UNP							
1x III: 1u	o0980150	ZATU069		F2410					
DARA <sub>3</sub> ~a 12701		PC25							
4x IV: 3p; III: 3p/1u	o0980151	ZATU070		12701		12701			
DARA <sub>3</sub> ~b 12702		PC25							
1x IV: 1p; III: 1p	o0980152	ZATU070		12702		12702			
DARA <sub>3</sub> ~c 12703		PC25							
7x IV: 1p; III: 5p/2u	o0980153	ZATU070		12703		12703			
1				F209D					
DARA <sub>3</sub> ~c×KAR <sub>2</sub>   12704		PC25							
3x III: 2p/1u	o0980154	ZATU071		12704					F209E
1				F209E					
DARA <sub>3</sub> ~c×(KAR <sub>2</sub> .ŠE~a)  12705		PC25							
1x IV: 1p; III: 1p	o0980155	ZATU072		12705		12705			
DARA <sub>3</sub> ~d 12706		PC25							
1x III: 1p	o0980156	ZATU070		12706		12706			
DARA <sub>3</sub> ~d×(KAR <sub>2</sub> .ŠE~a)  12707		PC25							
1x III: 1p	o0980157	ZATU072		12707					
DARA <sub>3</sub> ~d×KAR <sub>2</sub> ~b  12708		PC25							
AKA:  DARA <sub>3</sub> ~d×KAR <sub>2</sub>    DARA <sub>3</sub> ~d×KAR <sub>2</sub>				12708		12708			F209F
CDLI:  DARA <sub>3</sub> ~d×KAR <sub>2</sub>				2					F209F
8x IV: 2p; III: 5p/3u	o0980158	ZATU071		F20A0					

DARA <sub>4</sub> ~a1 12709		PC25							
31× IV: 2p; III: 23p/4u	00980159	ZATU073							
DARA <sub>4</sub> ~a2 1270A		PC25							
3× IV: 3p; III: 2p	00980160	ZATU073							
DARA <sub>4</sub> ~a3 1270B		PC25							
2× IV: 1p/1u	00980161	ZATU073							
DARA <sub>4</sub> ~b 1270C		PC25							
6× IV: 3p/1u; III: 2p/1u	00980162	ZATU073							
DARA <sub>4</sub> ~c 1270D		PC25							
1× III: 1p	00980163	ZATU073							
DARA <sub>4</sub> ~c1 1270E		PC25							
19× IV: 1p; III: 9p/9u	00980164	ZATU073							
DARA <sub>4</sub> ~c2 1270F		PC25							
27× IV: 3p; III: 17p/7u	00980165	ZATU073							
DARA <sub>4</sub> ~c3 12710		PC25							
5× III: 4p/1u	00980166	ZATU073							
DARA <sub>4</sub> ~c4 12711		PC25							
11× III: 7p/4u	00980167	ZATU073							
DARA <sub>4</sub> ~c5 12712		PC25							
1× III: 1p	00980168	ZATU073							
DARA <sub>4</sub> ~d 12713		PC25							
1× III: 1p	00980169	ZATU073							
DI 12714		PC25							
128× IV: 16p/3u; III: 86p/35u	00980170	ZATU075							
DI@t 12715		PC25							
3× IV: 1p; III: 2p/1u	00980171								
DIB 12716		PC25							
5× IV: 2p; III: 4p	00980172	ZATU076							
			<sup>1</sup> F20A1						
			<sup>2</sup> F20A2						

DILMUN 12717		PC25	1 F20A3 12717 2 F20A4					
34x IV: 1p; III: 26p/8u	o0980173	ZATU077						
DIM~a 12718		PC25	12718 1 F20A5					
56x IV: 5p; III: 33p/22u	o0980174	ZATU078	1					
DIM~a×GU  o0980175		EDI	F24F3					
DIM~a×X  o0980176		EDI	F24F4					
DIM~b 12719		PC25	12719					
4x IV: 2p; III: 4p	o0980177	ZATU078						
DIM~c 1271A		PC25	1271A					
21x IV: 2p; III: 17p/2u	o0980178	ZATU078						
DIN 1271B		PC25	1271B					
97x IV: 32p/13u; III: 47p/20u	o0980179	ZATU079						
DIN×1(N58)  1271C		PC25	1271C					
AKA:  DIN+1(N57)  1x III: 1p	o0980180							
DIN@t 1271D		PC25	1271D					
3x IV: 1p/1u; III: 1p/1u	o0980181	ZATU080						
DU 1271E		PC25	1271E					
481x IV: 20p/10u; III: 304p/153u	o0980182	ZATU082						
DU×1(N58@t)  1271F		PC25	1271F					
AKA:  DU×DIŠ  CDL:  DU×DIŠ  3x III: 3p	o0980183							
DU@g 12720		PC25	12720					
4x III: 1p/3u	o0980184							

<b>DU<sub>6</sub>~a</b> 12721		PC25	 <sup>1</sup> F20A6 12721 <sup>2</sup> F20A7 <sup>3</sup> F20A8						
15× IV: 1p; III: 14p/1u	o0980185	ZATU083			F20A7				F20A8
<b> DU<sub>6</sub>~a×1(N58) </b> 12722		PC25							
AKA:  DU <sub>6</sub> ~a×Diš  CDL:  DU <sub>6</sub> ~a×Diš  1× III: 1p	o0980186		12722						
<b>DU<sub>6</sub>~a@n</b>		ZERO							
		o0980187		F2539					
<b>DU<sub>6</sub>~b</b> 12723		PC25							
31× IV: 1p; III: 27p/3u	o0980188	ZATU083	12723		12723	12723			
<b>DU<sub>6</sub>~c</b> 12724		PC25							
1× IV: 1p; III: 1p	o0980189	ZATU083	12724		12724				
<b>DU<sub>7</sub></b> 12725		PC25							
7× III: 4p/3u	o0980190	ZATU084	12725		12725				
<b>DU<sub>8</sub>~a</b> 12726		PC25							
1× IV: 1p	o0980191	ZATU085	12726						
<b>DU<sub>8</sub>~b</b> 12727		PC25							
2× IV: 2p; III: 1p	o0980192	ZATU085	12727		12727		12727		
			<sup>1</sup> F20A9						
<b>DU<sub>8</sub>~c</b> 12728		PC25							
40× IV: 6p; III: 34p/5u	o0980193	ZATU085	12728				12728	12728	
<b> DU<sub>8</sub>~c×AB<sub>2</sub> </b> 12729		PC25							
1× III: 1p	o0980194		12729						12729
<b> DU<sub>8</sub>~c×AMAR </b> 1272A		PC25							
8× III: 8p	o0980195		1272A						1272A
<b> DU<sub>8</sub>~c×HI </b> 1272B		PC25							
3× IV: 1p; III: 1p	o0980196		1272B				1272B		
<b> DU<sub>8</sub>~c×UDU~a </b> 1272C		PC25							
8× III: 4p/4u	o0980197		1272C				1272C		
<b> DU<sub>8</sub>~c×X </b>		ZERO							
		o0980198		F2411					

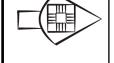
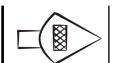
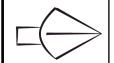
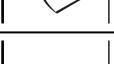
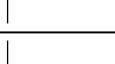
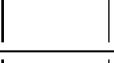
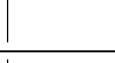
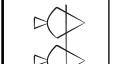
DU <sub>g</sub> ~c@g 1272D		PC25	 1272D  F20AA	 1272D					
AKA: DU <sub>g</sub> @g~c 21x IV: 1u; III: 16p/4u	o0980199	ZATU698							
DUB~a 1272E		PC25							
155x IV: 5p/2u; III: 104p/45u	o0980200	ZATU086							
DUB~b 1272F		PC25	 1 F20AB  2 F20AC  3 F20AD  4 F20AE	 1 F20AB  2 F20AC  3 F20AD  4 F20AE	 F20AB  F20AC	 F20AB  F20AC	 F20AD	 1272F	
69x IV: 36p/4u; III: 48p/8u	o0980201	ZATU086							
DUB~b@r		UNP							
1x IV: 1u	o0980202								
DUB~c 12730		PC25							
1x IV: 1p	o0980203	ZATU086							
DUB~d 12731		PC25							
4x IV: 1p/1u; III: 2p	o0980204	ZATU086							
DUB~e 12732		PC25							
1x III: 1p	o0980205	ZATU086							
DUB~f 12733		PC25							
4x III: 4p	o0980206	ZATU086							
DUB~h 12734		PC25							
1x III: 1p	o0980207	ZATU086							
(DUB@n~a×1(N58))~a  12735		PC25							
AKA:  (DUB×DIŠ)~a  CDLI:  (DUB×DIŠ)~a  5x IV: 5p; III: 5p	o0980208	ZATU087							
(DUB@n~a×1(N58))~b  12736		PC25							
AKA:  (DUB×DIŠ)~c  CDLI:  (DUB×DIŠ)~c  1x III: 1p	o0980209	ZATU087							
DUB@n~b×1(N58))~a  12737		PC25							
AKA:  (DUB×DIŠ)~b  CDLI:  (DUB×DIŠ)~b  1x IV: 1p; III: 1p	o0980210	ZATU087							

DUB <sub>2</sub> 12738 2x III: 2p		PC25 o0980211	 12738	 12738				
DUG~a 12739 252x IV: 30p/10u; III: 193p/30u		PC25 o0980212 ZATU088	 1 F20AF  2 F20BO  12739	 12739	 F20AF  F20BO  12739	 12739	 12739	
DUG~a×HI  o0980213		EDI						
DUG~a×KASKAL  1x III: 1u		UNP o0980214 ZATU103						
DUG~a×KU <sub>6</sub> ~a  1273A 1x III: 1p		PC25 o0980215 ZATU104	 1273A					
DUG~a×LAM~b  1x III: 1u		UNP o0980216 ZATU106						
DUG~a×NAGA~a  1273B 1x III: 1p		PC25 o0980217 ZATU109	 1273B	 1273B				
DUG~a×U <sub>2</sub> ~a  1273C 1x III: 1p		PC25 o0980218 ZATU122	 1273C	 1273C				
DUG~a×U <sub>2</sub> ~b  1273D 2x IV: 1p; III: 1p/1u		PC25 o0980219 ZATU122	 1273D	 1273D				
DUG~a×X  o0980220		EDI						
DUG~a×1(N57)  1273E 9x IV: 1u; III: 8p		PC25 o0980221 ZATU091	 1273E	 1273E				
DUG~b 1273F 130x IV: 37p/12u; III: 79p/23u		PC25 o0980222 ZATU088	 1 F20B1  1273F	 1273F	 F20B1  1273F	 1273F	 1273F	
DUG~b×AB <sub>2</sub>   12740 2x IV: 1p; III: 2p		PC25 o0980223 ZATU089	 12740	 12740	 12740	 12740		
DUG~b×ANŠE~b  12741 5x III: 5p		PC25 o0980224 ZATU090	 12741	 12741				
DUG~b×ANŠE~d  12742 2x III: 2p		PC25 o0980225 ZATU090	 12742	 12742				
DUG~b×BALA~a  12743 10x III: 10p		PC25 o0980227 ZATU094	 12743	 12743				

DUG~b×BIR <sub>3</sub> ~c  12744 2× III: 1p/1u		PC25 o0980228 ZATU095						
DUG~b×DIN  12745 18× IV: 1p/4u; III: 12p/1u		PC25 o0980229 ZATU096						
(DUG~b×DIN)@r  12746 AKA:  DUG~b@r×DIN  1× IV: 1p		PC25 o0980230						
DUG~b×E~a  1× III: 1u		UNP o0980231						
DUG~b×GA~a  12747 2× III: 1p/1u		PC25 o0980232 ZATU097						
DUG~b×GA~b  12748 2× III: 2p		PC25 o0980233 ZATU097						
DUG~b×GEŠTU~a  12749 6× III: 5p/1u		PC25 o0980234 ZATU098						
DUG~b×GEŠTU~b  1274A 1× III: 1p		PC25 o0980235 ZATU098						
DUG~b×GI <sub>6</sub>   1274B 3× III: 3p		PC25 o0980236 ZATU099						
DUG~b×GIŠ  1274C 7× III: 6p/1u		PC25 o0980237 ZATU100						
DUG~b×HI  1274D 9× IV: 2p/1u; III: 7p		PC25 o0980238 ZATU101						
DUG~b×HI@g~a  1274E 7× IV: 7p; III: 7p		PC25 o0980239 ZATU102						
DUG~b×KASKAL  1274F 10× III: 10p		PC25 o0980240 ZATU103						
DUG~b×KU <sub>6</sub> ~a  12750 2× III: 2p		PC25 o0980241 ZATU104						
DUG~b×KUR~a  12751 3× III: 3p		PC25 o0980242 ZATU105						

DUG~b×(KUR~a.X)	PC25-bk						
1× III: 1p	o0980243						
DUG~b×KUR~b	PC25						
12752							
2× III: 1p/1u	o0980244	ZATU105					
DUG~b×KUR@g~a	PC25						
12753							
4× III: 4p	o0980245	ZATU107					
DUG~b×LAM~a	PC25						
12754							
4× III: 3p/1u	o0980246	ZATU106					
DUG~b×MAŠ	PC25						
12755							
16× IV: 2p/2u; III: 13p/1u	o0980247	ZATU108					
DUG~b×NAGA~a	PC25						
12756							
9× III: 6p/3u	o0980248	ZATU109					
DUG~b×NAM <sub>2</sub>	PC25						
12757							
1× III: 1p	o0980249						
DUG~b×(NI~a@g.ZATU779)	UNP						
1× III: 1u	o0980250						
DUG~b×SA~a	PC25						
12758							
6× III: 5p/1u	o0980251	ZATU110					
DUG~b×(SA~a.GI)	PC25						
12759							
CDL: *DUG~b+SA~a+GI 4× III: 4p	o0980252	ZATU111					
DUG~b×SI <sub>4</sub> ~a	PC25						
1275A							
6× III: 6p	o0980253	ZATU112					
DUG~b×(SI <sub>4</sub> ~a.X)	PC25-bk						
1× III: 1p	o0980254						
DUG~b×SIG <sub>2</sub> ~a1	PC25						
1275B							
3× III: 3p	o0980255	ZATU113					
DUG~b×SIG <sub>2</sub> ~a2	PC25						
1275C							
2× III: 2p	o0980256	ZATU113					
DUG~b×SIG <sub>7</sub>	PC25						
1275D							
20× III: 19p/1u	o0980257	ZATU114					
DUG~b×SUHUR	PC25						
1275E							
1× III: 1p	o0980258	ZATU115					
DUG~b×SUKUD~d	UNP						
1× III: 1u	o0980259	ZATU116					

DUG~b×ŠAH₂~a  1275F 4x III: 4p	o0980260 ZATU117	PC25	1275F	1275F				
DUG~b×ŠE~a  12760 18x IV: 5p; III: 16p		PC25	1 F20B6 2 F20B7 12760 12760	12760 12760				
DUG~b×(ŠE~a.NAM₂)  12761 7x III: 7p		PC25	12761	12761				
DUG~b×TAK₄~a  12762 5x III: 4p/1u		PC25	12762	12762				
DUG~b×(TAK₄~a.SA~a)  12763 2x III: 1p/1u		PC25	12763	12763				
DUG~b×(TAK₄~a.SAL)  12764 1x III: 1p		PC25	12764	12764				
DUG~b×TI  12765 7x III: 7p		PC25	12765	12765				
DUG~b×U₂~a  12766 2x III: 1p/1u		PC25	12766	12766				
DUG~b×U₂~b  12767 2x III: 1p/1u		PC25	1 F20B8 2 F20B9 12767 3 F20BA	F20BA				
DUG~b×(UDU~a×TAR~b)  12768 2x III: 2p		PC25	12768					12768
DUG~b×UH₃~a  12769 3x III: 3p		PC25	12769	12769				
DUG~b×UH₃~a@t  1276A 1x III: 1p		PC25	1276A	1276A				
DUG~b×X  128x IV: 3p/3u; III: 110p/14u		PC25-bk	1 F20BC F20BB	F20BB	F20BB			

DUG~b×ZATU707~a  1x III: 1u o0980273	UNP PC25	 F2418					
DUG~b×ZATU764  1276B 2x III: 2p o0980274 ZATU124	PC25	 1276B	 1276B				
DUG~b×ZATU779  1276C 4x III: 2p/2u o0980275	PC25	 1276C	 1276C				
DUG~b×ZATU780  1276D 2x III: 2p o0980276	PC25	 1276D	 1276D				
DUG~b×ZATU781  1276E 3x III: 3p o0980277	PC25	 1276E	 1276E				
DUG~b×(ZATU789.SA~a)  1276F 1x III: 1p o0980278	PC25	 1276F	 1276F				
DUG~b×1(N57)  12770 10x IV: 5p/1u; III: 6p/1u o0980279 ZATU091	PC25	 1 F20BD	 12770	 F20BD			
DUG~b×(1(N57).KU <sub>3</sub> ~a)  12771 3x III: 3p o0980280 ZATU092	PC25	 12771	 12771				
DUG~b×3(N57)  1x III: 1u o0980281	UNP	 F2419					
DUG~b×1(N58)  12772 1x III: 1p o0980282	PC25	 12772					 12772
(DUG~b&DUG~b)×1(N58)  12773 AKA:  DUG~b&(DUG~b×1(N58))  1x IV: 1p o0980283	PC25	 12773	 12773				
DUG~c 12774 224x IV: 42p/20u; III: 138p/32u o0980284 ZATU088	PC25	 1 F20BE	 12774	 F20BE 12774	 12774	 12774	
DUG~c×1(N57)  12775 69x IV: 18p/7u; III: 42p/6u o0980285 ZATU091	PC25	 1 F20BF	 12775	 2 F20CO	 12775		
DUG~c@t 12776 1x IV: 1p o0980286	PC25	 12776					

DUG~d 12777		PC25	 12777 1 F20C1					
4x III: 4p	o0980287	ZATU088						
DUGUD 12778		PC25	 12778					
1x III: 1p	o0980288	ZATU125						
DUR~a 12779		PC25	 12779			 12779		
24x IV: 20p/1u; III: 11p/1u	o0980289	ZATU126						
DUR~b 1277A		PC25	 1277A 1 F20C2			 1277A		
49x IV: 1p; III: 30p/15u	o0980290	ZATU126						
DUR <sub>2</sub> 1277B		PC25	 1277B		 1277B	 1277B		
75x IV: 4p; III: 55p/17u	o0980291	ZATU127						
E~a 1277C		PC25	 1277C					
86x IV: 1p; III: 79p/6u	o0980292	ZATU128						
E~b 1277D		PC25	 1277D					
24x IV: 1u; III: 19p/4u	o0980293	ZATU128						
E~c 1277E		PC25	 1277E			 1277E		
1x IV: 1p; III: 1p	o0980294	ZATU128						
E~d		UNP	 F241A					
1x IV: 1u	o0980295	ZATU128						
E~e		EDI	 F24D0					
		o0980296						
E <sub>2</sub> ~a 1277F		PC25	 1277F		 1277F	 1277F	 1277F	
AKA: E <sub>2</sub> 608x								
IV: 14p/11u; III: 449p/141u	o0980297	ZATU129						
E <sub>2</sub> ~a.LiŠ		UNP	 F2232					
1x III: 1u	o0980298							
E <sub>2</sub> ~a×3(N58)		UNP	 F241B					
1x III: 1u	o0980299							
E <sub>2</sub> ~a×1(N58@t)  12780		PC25	 12780				 12780	
AKA:  E <sub>2</sub> ~a×1(N57)@t  CDLI:  E <sub>2</sub> ~a×1(N57)@t								
38x III: 38p	o0980300	ZATU131						
E <sub>2</sub> ~b 12781		PC25	 12781		 12781	 12781	 12781	
201x								
IV: 5p/1u; III: 105p/88u	o0980301	ZATU129						

E <sub>2</sub> ~b.LIŠ  1x III: 1u	o0980302	UNP						
E <sub>2</sub> ~b×1(N58@t)  12782 AKA:  E <sub>2</sub> ~b×1(N57)@t  CDLI:  E <sub>2</sub> ~b×1(N57)@t  6x III: 5p/1u	o0980303	PC25				12782		
E <sub>2</sub> ~c 12783 1x III: 1p	o0980304	ZATU129	PC25			12783		
E <sub>2</sub> ~d 12784 2x III: 2p	o0980305	ZATU129	PC25			12784		
E <sub>3</sub> ~a 2x IV: 1u; III: 1p/1u	o0980306	ZATU132	UNP			F2231		
E <sub>3</sub> ~b 12785 1x III: 1p	o0980307	ZATU132	PC25			12785		
EDIN 12786 5x III: 5p	o0980308	ZATU133	PC25			12786		
EN~a 12787 AKA: EN 1784x IV: 120p/47u; III: 1171p/487u	o0980309	ZATU134	PC25			1 F20C3		
						2 F20C4		
						3 F20C5		
EN~b 12788 79x IV: 63p/11u; III: 40p/4u	o0980310	ZATU134	PC25			12788		
						1 F20C6		
EN~b@t 12789 1x IV: 1p; III: 1p	o0980311		PC25			12789		
EN~c 1278A 15x III: 15p	o0980312	ZATU134	PC25			1278A		
						1 F20C7		
EN~c&EN~c  1x IV: 1u	o0980313		UNP			F241C		
EN~e 1x	o0980314	ZATU134	UNP			F241D		
EN@g~a 1278B 2x IV: 2p; III: 1p	o0980315	ZATU137	PC25			1278B		

EN@g~b 1278C	o0980316	PC25 ZATU137	1278C	1278C			
11× IV: 9p/2u; III: 4p							
EN <sub>2</sub> 1278D	o0980317	PC25 ZATU138	1278D	1278D	1278D	1278D	
44× IV: 3p/1u; III: 22p/20u							
EN <sub>2</sub> ,E <sub>2</sub> ~a  4× III: 1p/3u	o0980318	PC25-sq	F2237	F2237			
EN <sub>2</sub> ,E <sub>2</sub> ~b  AKA:  EN <sub>2</sub> xE <sub>2</sub> ~b  21× III: 7p/14u	o0980319	PC25-sq	F2238	F2238		F2238	
ENDIB 6× III: 6p	o0980320	PC25-sq ZATU139	F2236	F2236	F2236		
ENGIZ		PC25-sq	F20C8	F20C8	F20C8	F20C8	F20C8
21× III: 20p/1u	o0980321	ZATU140	1 F20C9	2 F20CA			
ENKUM 13× III: 9p/4u	o0980322	PC25-sq ZATU141	F20CB	F20CB	F20CB		
1 F20CC							
ENLIL o0980323	ZERO ZATU142		F2235	F2235			
ENSI o0980324		EDI	F224E	F224E			
ENSI <sub>2</sub> o0980325		EDI	F2257	F2257			
ERIM~a 1278E 218× IV: 45p/24u; III: 115p/59u	o0980326	PC25 ZATU143	1278E	1278E	1278E	1278E	1278E
ERIM~b1 1278F 1× IV: 1p	o0980327	PC25 ZATU143	1278F	1278F		1278F	
ERIM~b2 12790 2× IV: 1p; III: 1p	o0980328	PC25 ZATU143	12790	12790	12790 (b)	12790	
ERIM <sub>2</sub> 22× III: 18p/4u	o0980329	PC25-sq ZATU144	F2255	F2255	F2255		F2255
ERIN 12791 148× IV: 29p/4u; III: 113p/18u	o0980330	PC25 ZATU145	12791	12791	12791	12791	12791

EŠDA 12792		PC25						
126x IV: 24p/1u; III: 92p/27u	o0980331	ZATU147						
EŠDA×TAR-a  12793		PC25						
AKA:  EŠDA×TAR  CDL:  EŠDA×TAR  1x III: 1p	o0980332	ZATU148				12793 (o)		
EŠGAR 12794		PC25						
22x IV: 6p; III: 19p/3u	o0980333	ZATU149				12794		
EZEN~a 12795		PC25	 1 F20CD					
22x IV: 9p/3u; III: 12p/4u	o0980334	ZATU150		12795	12795	12795		
EZEN~a×EN~a  1x IV: 1u	o0980335	ZATU151	UNP					
EZEN~a×EN~b  12796		PC25						
2x IV: 1p; III: 2p	o0980336	ZATU151		12796		12796		
EZEN~a×(HI×1(N57).AN)  12797		PC25						
AKA:  EZEN~a×(HI.1(N57).AN)  CDL:  EZEN~a×(HI.1(N57).AN)  1x III: 1p	o0980337			12797				12797
EZEN~a×KAB  12798		PC25						
1x IV: 1p; III: 1p	o0980338	ZATU152		12798		12798		
EZEN~a×KAŠ~b  12799		PC25						
2x III: 2p	o0980339			12799				12799
EZEN~a×KI  1279A		PC25						
AKA:  EZEN~a+KI  1x III: 1p	o0980340			1279A				
EZEN~a×LA~e		EDI						
			1 F20CF					
	o0980341							
EZEN~a×NIM~b2  1279B		PC25						
1x IV: 1p	o0980342	ZATU153		1279B				
EZEN~a×NIMGIR  1279C		PC25						
2x IV: 1p; III: 1p/1u	o0980343	ZATU154		1279C		1279C		

EZEN~a×RAD~a  1279D 1× IV: 1p; III: 1p o0980344 ZATU155		PC25						
EZEN~a×SAG  1× III: 1u o0980345		UNP						
EZEN~a×SU~a  1279E 8× III: 5p/3u o0980346 ZATU156		PC25						
EZEN~a×(U <sub>2</sub> ~b.A)  1279F 5× IV: 1u; III: 1p/3u o0980347 ZATU157		PC25						
EZEN~a×U <sub>4</sub>   127A0 1× IV: 1p o0980348		PC25						
EZEN~a×X  2× IV: 1p; III: 1u o0980349		PC25-bk						
EZEN~b 127A1 87× IV: 1p; III: 68p/18u o0980350 ZATU150		PC25						
EZEN~b×šE~a@t  127A2 23× III: 19p/4u o0980351		PC25						
EZEN~b×6(N57)  127A3 1× III: 1p o0980352 ZATU411		PC25	1 					
EZEN~b@t 127A4 AKA: EZEM~c EZEN~c CDL:  EZEN~b@t  9× IV: 3p; III: 4p/3u o0980353 ZATU150		PC25						
EZEN~c DEL o0982242 ZATU150								
EZINU~a 127A5 12× IV: 1u; III: 5p/6u o0980354 ZATU158		PC25						
EZINU~b 127A6 1× III: 1p o0980355 ZATU158		PC25						
EZINU~c 127A7 6× IV: 2u; III: 4p o0980356 ZATU158		PC25						
EZINU~d 127A8 10× IV: 4p/1u; III: 8p/1u o0980357 ZATU158		PC25						

GA~a 127A9		PC25	 1  2  3  4 	 F20D6		 F20D3  F20D4  F20D5  127A9  F20D6		
339× IV: 38p/15u; III: 216p/93u	o0980358	ZATU159						
GA~a.ZATU753		PC25-sq	 F20D1  1 F20D2	 F20D1				 F20D2
85× IV: 1u; III: 63p/21u	o0980359	ZATU161						
GA~a×X		ZERO	 o0980360	 F24F7	 F24F7			
GA~b 127AA		PC25	 127AA	 127AA				
25× III: 25p	o0980361	ZATU159						
GA~c 127AB		PC25	 127AB	 127AB	 127AB			
4× III: 4p	o0980362	ZATU159						
GA~c×KASKAL		PC25	 127AC	 127AC				
2× III: 2p	o0980363							
GA~c×1(N14)		PC25	 127AD	 127AD	 127AD			
1× III: 1p	o0980364	ZATU160						
GA <sub>2</sub> ~a1 127AE		PC25	 127AE	 127AE	 127AE	 127AE	 127AE	
111× IV: 11p/2u; III: 80p/18u	o0980365	ZATU162						
GA <sub>2</sub> ~a1×A		PC25	 127AF	 127AF	 127AF			
3× IV: 1p; III: 2p	o0980366							
GA <sub>2</sub> ~a1×E <sub>2</sub> ~a		PC25	 127B0					 127B0
AKA:  GA <sub>2</sub> ~a1×E <sub>2</sub> ~a  1× III: 1p	o0980367							
GA <sub>2</sub> ~a1×EN~a		UNP	 F2527	 F2527				
4× III: 3u	o0980368							
GA <sub>2</sub> ~a1×EN~b		PC25	 127B1	 127B1	 127B1	 127B1		
1× IV: 1p; III: 1p	o0980369							
GA <sub>2</sub> ~a1×GEŠTU~a		PC25	 127B2					 127B2
1× III: 1p	o0980370							
GA <sub>2</sub> ~a1×GEŠTU~c3		PC25	 127B3	 127B3	 127B3	 127B3		
1× III: 1p	o0980371							

GA <sub>2</sub> ~a1×GEŠTU~c5  127B4 10× III: 10p	o0980372	PC25	127B4	127B4				127B4	
GA <sub>2</sub> ~a1×GIR~a  127B5 5× III: 5p	o0980373	PC25 ZATU167	127B5	127B5					
GA <sub>2</sub> ~a1×(GIR~a.KU <sub>6</sub> ~a)  127B6 1× III: 1p	o0980374	PC25	127B6	127B6					
GA <sub>2</sub> ~a1×GIŠ@t  127B7 1× IV: 1p; III: 1p	o0980375	PC25 ZATU168	127B7	127B7					
GA <sub>2</sub> ~a1×GU <sub>4</sub>   o0980376		EDI	F24F8	F24F8					
GA <sub>2</sub> ~a1×HAL  127B8 1× IV: 1p; III: 1p	o0980377	PC25	127B8	127B8	127B8				
GA <sub>2</sub> ~a1×HI  127B9 5× IV: 1p/2u; III: 3p	o0980378	PC25 ZATU170	127B9	127B9	127B9	127B9			
GA <sub>2</sub> ~a1×(HI.SUHUR)  1× IV: 1u	o0980379	UNP ZATU171	F2421	F2421					
GA <sub>2</sub> ~a1×KU <sub>3</sub> ~a  127BA 1× III: 1p	o0980380	PC25 ZATU172	127BA	127BA	127BA				
GA <sub>2</sub> ~a1×KU <sub>6</sub> ~a  127BB 13× IV: 3p/1u; III: 10p/1u	o0980381	PC25 ZATU173	127BB	127BB	127BB	127BB			
GA <sub>2</sub> ~a1×(KU <sub>6</sub> ~a+KU <sub>6</sub> ~a)  127BC CDLI:  GA <sub>2</sub> ~a1×(KU <sub>6</sub> ~a.KU <sub>6</sub> ~a)  1× III: 1p	o0980382	PC25 ZATU174	127BC	127BC				127BC	
GA <sub>2</sub> ~a1×LAGAB~b  127BD 1× IV: 1p	o0980383	PC25	127BD	127BD					
GA <sub>2</sub> ~a1×MAŠ  127BE 1× III: 1p	o0980384	PC25 ZATU176	127BE	127BE	127BE				
GA <sub>2</sub> ~a1×NAGA~a  1× III: 1u	o0980385	UNP ZATU177	F2422	F2422					
GA <sub>2</sub> ~a1×NIM~b1  AKA:  GA <sub>2</sub> ~a2×NIM~b1  CDLI:  GA <sub>2</sub> ~a2×NIM~b1  1× III: 1u	o0980386	UNP	F2423	F2423					
GA <sub>2</sub> ~a1×NUN~a  o0980387		EDI	F24F9	F24F9					
GA <sub>2</sub> ~a1×PAD~b  127BF 1× III: 1p	o0980388	PC25	127BF	127BF					

GA <sub>2</sub> ~a1×PAP~a  127C0 1× III: 1p		PC25 o0980389	 127C0	 127C0				
GA <sub>2</sub> ~a1×SU~a  127C1 1× III: 1p		PC25 o0980390	 127C1	 127C1			 127C1	
GA <sub>2</sub> ~a1×SUHURI  127C2 5× IV: 4p; III: 4p		PC25 o0980391 ZATU179	 127C2	 127C2	 127C2			
GA <sub>2</sub> ~a1×SUKUD  127C3 9× IV: 5p/2u; III: 5p/2u		PC25 o0980392 ZATU180	 127C3	 127C3		 127C3		
GA <sub>2</sub> ~a1×((SUKUD+SUKUD)~a)  AKA:  GA <sub>2</sub> ~a1×(SUKUD&SUKUD)~a  CDLI:  GA <sub>2</sub> ~a1×((SUKUD&SUKUD)~a)  1× IV: 1u		UNP o0980393	 F2424	 F2424				
GA <sub>2</sub> ~a1×((SUKUD+SUKUD)-b)  AKA:  GA <sub>2</sub> ~a1×(SUKUD&SUKUD)-b  CDLI:  GA <sub>2</sub> ~a1×((SUKUD&SUKUD)-b)  1× III: 1u		UNP o0980394	 F2425	 F2425				
GA <sub>2</sub> ~a1×SUMAŠ  127C4 1× IV: 1p; III: 1p		PC25 o0980395 ZATU181	 127C4	 127C4	 127C4			
GA <sub>2</sub> ~a1×ŠA  127C5 1× III: 1p		PC25 o0980396	 127C5	 127C5			 127C5	
GA <sub>2</sub> ~a1×TI  127C6 3× III: 3p		PC25 o0980397	 127C6	 127C6	 127C6			
GA <sub>2</sub> ~a1×U <sub>4</sub>   127C7 13× III: 9p/4u		PC25 o0980398 ZATU183	 127C7	 127C7	 127C7			
GA <sub>2</sub> ~a1×X  14× IV: 4p; III: 12p/1u		PC25-bk o0980399	 F20D7  F20D8	 F20D7	 F20D7	 F20D7	 F20D7	 F20D8
GA <sub>2</sub> ~a1×(N14)  127C8 3× IV: 2p; III: 3p		PC25 o0980400 ZATU182	 127C8	 127C8	 127C8			
GA <sub>2</sub> ~a1×(N57)  127C9 3× IV: 3p; III: 1p		PC25 o0980401 ZATU164	 127C9	 127C9	 127C9			
GA <sub>2</sub> ~a2 127CA 37× III: 13p/24u		PC25 o0980403 ZATU162	 127CA	 127CA				
GA <sub>2</sub> ~a2×GU <sub>4</sub>   127CB 4× III: 3p/1u		PC25 o0980404	 127CB	 127CB				
GA <sub>2</sub> ~a2×NI~a  127CC 1× IV: 1p		PC25 o0980405 ZATU178	 127CC	 127CC				

GA <sub>2</sub> ~a2×NI~b		UNP	F2427					
1× III: 1u	o0980406	ZATU178						
GA <sub>2</sub> ~a2×SUHUR		PC25	127CD	127CD				
127CD								
1× IV: 1p	o0980407	ZATU179						
GA <sub>2</sub> ~a2×ŠE <sub>3</sub>		PC25	127CE	127CE			127CE	
127CE								
3× III: 3p	o0980408							
GA <sub>2</sub> ~a2×(ŠE <sub>3</sub> ,GU <sub>4</sub> )		PC25	127CF	127CF				
127CF								
AKA:  GA <sub>2</sub> ~a2×(GU <sub>4</sub> ,ŠE <sub>3</sub> )								
CDLI:  GA <sub>2</sub> ~a2×(GU <sub>4</sub> ,ŠE <sub>3</sub> )								
10× III: 9p/1u	o0980409	ZATU169						
GA <sub>2</sub> ~a2×X		PC25-bk	F2428					
1× III: 1p	o0980410							
GA <sub>2</sub> ~a2×3(N57)		UNP	F2542					
1× III: 1u	o0980411							
GA <sub>2</sub> ~a3		PC25	127D0	127D0	127D0	127D0		
127D0								
1× III: 1p	o0980412	ZATU162						
GA <sub>2</sub> ~a3×X		PC25-bk	F2429					
1× IV: 1p; III: 1p	o0980413							
GA <sub>2</sub> ~a4		PC25	127D1	127D1		127D1		
127D1								
1× IV: 1p; III: 1p	o0980414	ZATU162						
GA <sub>2</sub> ~b		PC25	127D2	127D2	127D2	127D2		
127D2								
18× IV: 9p/1u; III: 15p	o0980415	ZATU162						
GA <sub>2</sub> ~b×DUB~a		PC25	127D3	127D3	F20D9	127D3		
127D3								
11× IV: 1p/2u; III: 6p/3u	o0980416	ZATU166	1 F20D9					
GA <sub>2</sub> ~b×DUB~b		PC25	127D4	127D4		127D4		
127D4								
1× IV: 1p; III: 1p	o0980417	ZATU166						
GA <sub>2</sub> ~b×KU <sub>3</sub> ~a		UNP	F242A					
1× III: 1u	o0980418	ZATU172						
GA <sub>2</sub> ~b×KU <sub>6</sub> ~a		PC25	127D5	127D5				127D5
127D5								
1× III: 1p	o0980419	ZATU173						
GA <sub>2</sub> ~b×NUN~b		UNP	F252E					
1×	o0980420							
GA <sub>2</sub> ~b×ZATU659		PC25	127D6	127D6				
127D6								
1× III: 1p	o0980421							
GA <sub>2</sub> ~c		PC25	127D7	127D7				
127D7								
1× III: 1p	o0980422	ZATU162						

GA'AR~a1 127D8		PC25 o0980423 ZATU184							
44x IV: 1u; III: 42p/1u				127D8					
GA'AR~a2 127D9		PC25 o0980424 ZATU184							
17x IV: 1p/1u; III: 11p/4u			127D9						
GA'AR~b1 127DA		PC25 o0980425 ZATU184							
2x IV: 1p; III: 2p			127DA						
GA'AR~b2 127DB		PC25 o0980426 ZATU184							
3x IV: 2p; III: 1p			127DB						
GADA~a 127DC		PC25 o0980427 ZATU186							
122x IV: 12p/11u; III: 70p/30u			127DC		127DC	127DC	127DC		127DC
GADA~b		UNP o0980428 ZATU186							
1x IV: 1u; III: 1p			F242B						
GADA~b@g 127DD		PC25 o0980429 ZATU187							
8x IV: 2p/4u; III: 3p/1u			127DD						
GAL~a 127DE		PC25 o0980430 ZATU188							
1236x IV: 54p/12u; III: 930p/261u			127DE		127DE	127DE	127DE	127DE	127DE
GAL~b 127DF		PC25 o0980431 ZATU188							
11x IV: 3p/2u; III: 6p			127DF		127DF				
GALGA~a 127E0		PC25 o0980432 ZATU189							
12x III: 12p			127E0		127E0				
GALGA~b		UNP o0980433 ZATU189							
3x III: 3u			F242C						
GAN~a 127E1		PC25 o0980434 ZATU190							
50x IV: 3p; III: 39p/9u			127E1		127E1				127E1
GAN~b 127E2		PC25 o0980435 ZATU190							
40x IV: 6p/1u; III: 28p/8u			127E2		127E2				

GAN~c 127E3		PC25	127E3 F20DE	127E3				127E3
40× III: 24p/16u	o0980436	ZATU190						
GAN~cxDIN  127E4		PC25	127E4	127E4 (b)				
1× III: 1p	o0980437							
GAN~cxHI  127E5		PC25	127E5	127E5				
1× IV: 1p	o0980438							
GAN~cx(HL.DIN)  127E6		PC25	127E6	127E6				
2× IV: 2p	o0980439	ZATU191						
GAN~cxKAŠ~c  127E7		PC25	127E7	127E7				
2× III: 2p	o0980440							
GAN~cx(KUR~a.A)  127E8		PC25	127E8	127E8				
1× III: 1p	o0980441							
GAN~cxLAGAB~b  127E9		PC25	127E9	127E9				
2× IV: 1p; III: 2p	o0980442	ZATU192						
GAN~cxNE~a		UNP	F242D	F242D				
3× III: 3u	o0980443	ZATU193						
GAN~cxSIG <sub>7</sub>   127EA		PC25	127EA	127EA				
1× III: 1p	o0980444							
GAN~cxŠE~a		UNP	F242F	F242F				
4× III: 4u	o0980445	ZATU194						
GAN~cxŠE <sub>3</sub> @t		UNP	F2430	F2430				
1× III: 1u	o0980446							
GAN~cxX		PC25-bk	F242E	F242E				
3× IV: 1p; III: 2p/1u	o0980447							
GAN~cxZATU777  127EB		PC25	127EB	127EB				
1× III: 1p	o0980448							
GAN~cx(4(N57).GAR)  127EC		PC25	127EC	127EC				127EC
1× III: 1p	o0980449							
GAN~d		EDI	F24D2	F24D2				
o0980450								
GAN~dxGEŠTU~a  127ED		PC25	127ED	127ED				
1× III: 1p	o0980451							
GAN~dxHI		EDI	F24FA	F24FA				
o0980452								
GAN <sub>2</sub> 127EE		PC25	127EE	127EE	127EE	127EE	127EE	
270× IV: 10p/2u; III: 190p/65u	o0980453	ZATU195						

<b>GAR</b> 127EF		PC25 o0980454 ZATU196						
373x IV: 44p/28u; III: 241p/73u			127EF		127EF	127EF	127EF	127EF
<b>GAR@g~a</b> 127F0		PC25 o0980455 ZATU197						
4x IV: 4p; III: 4p			127F0			127F0		
<b>GAR@g~b</b> 127F1		PC25 o0980456 ZATU197						
3x III: 2p/1u			127F1		127F1			
<b>GAR@g~c</b> 127F2		PC25 o0980457 ZATU197						
3x III: 2p/1u			127F2		127F2			
<b>GAR<sub>3</sub></b> 127F3		PC25 o0980458 ZATU198						
29x IV: 29p; III: 10p			127F3		127F3			
<b>GARA<sub>2</sub>~a</b> 127F4		PC25 o0980459 ZATU199						
55x IV: 2u; III: 37p/16u			127F4		127F4			127F4
<b>GARA<sub>2</sub>~b</b>		UNP o0980460 ZATU199						
2x III: 2u			F2431					
<b>GAZI</b> 127F5		PC25 o0980461 ZATU200						
15x III: 14p/1u			127F5		127F5			
<b>GEŠTIN~a</b> 127F6		PC25 o0980462 ZATU202						
8x III: 6p/2u			127F6		127F6			
<b>GEŠTIN~c</b>		EDI o0980463						
<b> GEŠTIN~c×X </b>		EDI o0980464						
<b>GEŠTIN~d</b> 127F7		PC25 o0980465 ZATU202						
1x III: 1p			127F7					127F7
<b>GEŠTIN~e</b> 127F8		PC25 o0980466 ZATU202						
1x III: 1p			127F8					127F8
<b>GEŠTU~a</b> 127F9		PC25 o0980467 ZATU203						
26x IV: 9p/2u; III: 13p/6u			127F9	<sup>1</sup> F20DF	<sup>2</sup> F20E0			
<b> GEŠTU~a×ŠE~a@t </b> 127FA		PC25 o0980468						
1x III: 1p			127FA					
<b>GEŠTU~b</b> 127FB		PC25 o0980469 ZATU203						
85x IV: 27p/7u; III: 44p/24u			127FB		127FB	127FB	127FB	127FB



<b> (GI&amp;GI)×SE<sub>3</sub> </b>		UNP						
CDL:  (GI+&GI)×SE <sub>3</sub>								
2× III: 2u	o0980485	ZATU206						
<b> (GI&amp;GI)×X </b>		ZERO						
	o0980486							
<b> GI&amp;GI&amp;GI </b>		PC25						
1280A								
2× IV: 1p; III: 2p	o0980487							
<b>GI@t</b>		PC25						
1280B								
1× IV: 1p; III: 1p	o0980488							
<b>GL<sub>4</sub>~a</b>		PC25						
1280C								
31× IV: 1p; III: 21p/10u	o0980489	ZATU212						
<b> GI<sub>4</sub>~a×A </b>		PC25						
1280D								
1× III: 1p	o0980490							
<b> GI<sub>4</sub>~a&amp;GI<sub>4</sub>~a </b>		UNP						
	o0980491							
<b>GI<sub>4</sub>~b</b>		PC25						
1280E								
8× IV: 6p/1u; III: 8p	o0980492	ZATU212						
<b> GI<sub>4</sub>~b&amp;GI<sub>4</sub>~b </b>		PC25						
1280F								
1× IV: 1p	o0980493							
<b>GI<sub>6</sub></b>		PC25						
12810								
AKA: GI <sub>6</sub> ~a								
129× IV: 15p/1u; III: 86p/38u	o0980494	ZATU213						
<b>GIBIL</b>		PC25						
12811								
98× IV: 2p; III: 81p/17u	o0980495	ZATU214						
<b>GIBIL@t</b>		UNP						
	o0980496							
<b>GIBIL<sub>6</sub></b>		PC25-sq						
2× III: 2p	o0980497	ZATU215						
<b>GIG</b>		EDI						
	o0980498							
<b>GIL</b>		EDI						
	o0980499							

GIR~a 12812		PC25						
22× IV: 1p; III: 14p/6u	o0980500	ZATU216	12812		12812			
GIR~a.KU <sub>6</sub> ~a		PC25-sq						
1× III: 1p	o0980501		F223E					
GIR~b 12813		PC25						
16× IV: 2p; III: 12p/4u	o0980502	ZATU216	12813		F20E6	F20E6		
GIR~b.GIR~b		PC25-sq						
4× III: 4p	o0980503		F223F		F223F			
GIR~c 12814		PC25						
3× III: 3p	o0980504	ZATU216	12814		12814			
GIR~d		UNP						
1× IV: 1u	o0980505	ZATU216	F2437					
GIR <sub>2</sub> ~a 12815		PC25						
71× IV: 5p/2u; III: 59p/6u	o0980506	ZATU218	12815		12815			
GIR <sub>2</sub> ~b		ZERO						
	o0980507	ZATU218	F2438					
GIR <sub>3</sub> ~a 12816		PC25						
23× IV: 15p/1u; III: 17p/2u	o0980508	ZATU219	12816		12816	12816		
GIR <sub>3</sub> ~a×ŠE~b  12817		PC25						
1× IV: 1p	o0980509	ZATU220	12817					
GIR <sub>3</sub> ~b 12818		PC25						
1× IV: 1p	o0980510	ZATU219	12818					
GIR <sub>3</sub> ~c 12819		PC25						
112× IV: 5p/1u; III: 59p/47u	o0980511	ZATU219	12819		12819		12819	12819
GIR <sub>3</sub> ~c×KAR <sub>2</sub> ~b		UNP						
AKA:  GIR <sub>3</sub> ~c×KAR <sub>2</sub> ~b  CDLI:  GIR <sub>3</sub> ~c×KAR <sub>2</sub> ~b			F2439					
3× III: 3u	o0980512							
GIR <sub>3</sub> ~c×ŠE <sub>3</sub>   1281A		PC25						
2× III: 2p	o0980513		1281A		1281A			
GIR <sub>3</sub> @g~a 1281B		PC25						
4× IV: 3p; III: 2p	o0980514	ZATU221	1281B		1281B			

GIR <sub>3</sub> @g~b 1281C 76x IV: 1p; III: 68p/7u		PC25 o0980515 ZATU221						
GIR <sub>3</sub> @g~c 1281D AKA: GIR <sub>3</sub> ~c@g 11x IV: 1p; III: 4p/6u o0980516 ZATU221		PC25 o0980516 ZATU221						
GIR <sub>4</sub> o0980517 EDI								
GISAL~a 1281E 1x IV: 1p; III: 1p o0980518 ZATU222		PC25 o0980518 ZATU222						
GISAL~b 1281F 2x IV: 2p; III: 2p o0980519 ZATU222		PC25 o0980519 ZATU222						
GIŠ 12820 405x IV: 8p/4u; III: 362p/36u o0980520 ZATU223		PC25 o0980520 ZATU223						
GIŠ.TE  27x III: 24p/3u o0980521 ZATU226		PC25-sq o0980521 ZATU226						
(GIŠ×(DIN.DIN))~a  12821 4x III: 4p o0980522 ZATU224		PC25 o0980522 ZATU224						
(GIŠ×(DIN.DIN))~b  12822 1x IV: 1p o0980523 ZATU224		PC25 o0980523 ZATU224						
(GIŠ×(DIN.DIN))~c  12823 1x III: 1p o0980524 ZATU224		PC25 o0980524 ZATU224						
(GIŠ×ŠU <sub>2</sub> )~a  12824 AKA:  GIŠ×ŠU <sub>2</sub> ~a  CDLI:  GIŠ×ŠU <sub>2</sub> ~a  42x IV: 1p; III: 29p/12u o0980525 ZATU225		PC25 o0980525 ZATU225						
(GIŠ×ŠU <sub>2</sub> )~b  12825 AKA:  GIŠ×ŠU <sub>2</sub> ~b  CDLI:  GIŠ×ŠU <sub>2</sub> ~b  16x III: 16p o0980526 ZATU225		PC25 o0980526 ZATU225						
GIŠ~v CDLI: GIŠ~x o0980527		EDI o0980527						
GIŠ@t 12826 37x IV: 8p/1u; III: 30p/2u o0980528 ZATU227		PC25 o0980528 ZATU227						
GIŠ@t.E <sub>2</sub> ~a  o0980529		EDI o0980529						

GIŠ <sub>3</sub> -a 12827		PC25 o0980530 ZATU228						
14× III: 11p/2u			12827					
GIŠ <sub>3</sub> -a&GIŠ <sub>3</sub> -a  12828		PC25 o0980531						
3× III: 2p/1u			12828		12828			
GIŠ <sub>3</sub> -b 12829		PC25 o0980532 ZATU228				12829		12829
54× III: 18p/35u			12829		12829		12829	12829
GIŠGAL 1282A		PC25 o0980533 ZATU229		1 F20E7		1282A		
10× III: 9p/1u			1282A		1282A			
GIŠIMMAR-a1 1282B		PC25 o0980534 ZATU230				1282B		1282B
6× IV: 3p/1u; III: 4p			1282B		1282B			
GIŠIMMAR-a2 1282C		PC25 o0980535 ZATU230				1282C		
9× IV: 1p; III: 5p/1u			1282C					
GIŠIMMAR-a3 1282D		PC25 o0980536 ZATU230		1 F20E8		1282D		
2× III: 1p/1u			1282D				F20E8	
GIŠIMMAR-b1 1282E		PC25 o0980537 ZATU230		1 F20E9		1282E		F20E9
45× IV: 3p; III: 37p/4u			1282E	2 F20EA		1282E	F20E9	F20E9
GIŠIMMAR-b2 1282F		PC25 o0980538 ZATU230				1282F		
1× IV: 1p			1282F					
GIŠIMMAR-b3 12830		PC25 o0980539 ZATU230				12830		12830
2× IV: 1p; III: 1p			12830					
GIZZAL-v		UNP						
CDLI: GIZZAL-x 1× III: 1u		o0980540 ZATU231						
GU 12831		PC25 o0980541 ZATU232				12831		12831
AKA: GU-a 101×			12831		12831		12831 (a)	12831 (a)
IV: 2p/2u; III: 56p/43u								
GU <sub>2</sub> 12832		PC25 o0980542 ZATU233				12832		
2× III: 2p			12832		12832			
GU <sub>4</sub> 12833		PC25 o0980543 ZATU234		1 F20EB		12833		12833
201×			12833		12833		F20EB	12833
IV: 52p/4u; III: 151p/37u			12833		12833			12833

GU <sub>4</sub> .ZATU755~b	PC25-sq						
AKA:  GU <sub>4</sub> .ZATU755~a							
CDLI:  GU <sub>4</sub> .ZATU755~a							
1x IV: 1p; III: 1p	o0980544						
GU <sub>4</sub> ×1(N58)	ZERO						
CDLI: *GU <sub>4</sub> +1N58							
	o0982249						
GU <sub>4@g</sub>	PC25						
12834							
5x III: 3p/2u	o0980546			<sup>1</sup>			
GU <sub>7</sub>	PC25						
12835							
314x IV: 6p/4u;				<sup>1</sup>			
III: 250p/58u	o0980547	ZATU235					
GUB <sub>3</sub> ~a	PC25						
12836							
11x IV: 1p/4u;							
III: 4p/3u	o0980548	ZATU236					
GUB <sub>3</sub> ~b	PC25						
12837							
2x III: 1p/1u	o0980549	ZATU236					
GUB <sub>3</sub> ~c	PC25						
12838							
3x IV: 1p; III: 2p	o0980550	ZATU236					
GUB <sub>3</sub> ~d	PC25						
12839							
1x IV: 1p; III: 1p	o0980551	ZATU236			<sup>1</sup>		
GUG <sub>2</sub>	PC25						
1283A							
AKA: GUG <sub>2</sub> ~a							
190x IV: 36p/5u;							
III: 116p/36u	o0980552	ZATU237			<sup>2</sup>		
GUG <sub>2</sub> ×SILA <sub>3</sub> ~a	PC25						
1283B							
1x IV: 1p	o0980553	ZATU238					
GUG <sub>2</sub> ×ŠITA~a1	UNP						
1x III: 1u	o0980554						
GUG <sub>2</sub> ×TUR	PC25						
1283C							
1x IV: 1p	o0980555	ZATU239					
GUG <sub>2@t</sub>	ZERO						
	o0980556						
GU <sub>KKAL</sub> ~a	PC25						
1283D							
28x IV: 27p; III: 27p	o0980557	ZATU240					
GU <sub>KKAL</sub> ~a.HI@g~a	PC25-sq						
2x IV: 2p; III: 2p	o0980558	ZATU241					



GURUŠ~c×2(N14)  1284C 1x III: 1p o0980573	PC25 ZATU248 	 1284C					 1284C	
GURUŠDA 1284D AKA: GURUŠDA~a 80x IV: 35p/3u; III: 60p/8u o0980574	PC25 ZATU249 	 1284D		 1284D (a)	 1284D (a)	 1284D (a)	 1284D	
HAL 1284E 90x IV: 2p/2u; III: 68p/18u o0980575	PC25 ZATU250 	 1284E		 1284E			 1284E	
HALUB 1284F 11x III: 11p o0980576	PC25 ZATU251 	 1284F		 1284F				
HAŠHUR 12850 112x IV: 42p/9u; III: 64p/14u o0980577	PC25 ZATU252 	 12850		 12850	 12850	 12850	 12850	
HAŠHUR×MA  12851 3x IV: 2p; III: 1p o0980578	PC25 ZATU253 	 12851		 12851				
HI 12852 AKA: HI~a 349x IV: 13p/4u; III: 230p/105u o0980579	PC25 ZATU254 	 12852		 12852	 12852	 12852	 12852	
HI.SUHUR  7x IV: 2u; III: 2p/3u o0980580	PC25-sq ZATU256 	 1 F20F6  2 F20F7  F20F5		 F20F5				
HI×LAGAB~a  3x III: 3p o0980581	PC25-sq ZATU257 	 F2246		 F2246			 F2246	
HI×ŠE <sub>3</sub> @t  o0980582	EDI	 F24FE		 F24FE				
HI×ZATU707~a  1x IV: 1u o0980583	UNP ZATU258 	 F243B		 F243B				
HI×1(N01@f)  CDLI:  HI×1(N01)F  o0980584	EDI	 F24FD		 F24FD				
HI×1(N57)  12853 12x IV: 1p; III: 10p/2u o0980585	PC25 ZATU259 	 12853		 12853 (b)			 12853	
(HI×1(N57)).(HI×1(N57))  1x III: 1p o0980586	PC25-sq ZATU260 	 F20F8  1 F20F9						

HI×1(N57@t)  12854		PC25 o0980587 ZATU255	 12854	 12854				
AKA:  HI×1(N57)@t  CDLI:  HI×1(N57)@t  2× III: 2p								
HI×1(N58)  1× IV: 1u	UNP o0980588		 F243C	 F243C				
HI~b 1×	UNP o0980589 ZATU254		 F252F	 F252F				
HI@g~a 12855	 176× IV: 9p; III: 140p/33u	PC25 o0980590 ZATU258	 12855	 12855	 12855	 12855	 12855	
HI@g~b 12856	12× IV: 2p; III: 8p/2u	PC25 o0980591 ZATU258	 12856	 12856	 12856	 12856	 12856	
HI@g~c 12857	1× III: 1p	PC25 o0980592 ZATU258	 12857	 12857				
HUB <sub>2</sub>		EDI o0980593	 F24D7	 F24D7				
I 12858	 43× IV: 1p; III: 24p/19u	PC25 o0980594 ZATU259	 12858	 12858	 12858	 12858	 12858	
IB~a 12859	 393× IV: 45p/9u; III: 248p/110u	PC25 o0980595 ZATU260	 12859	 12859	 12859	 12859	 12859	
IB~a@n 1285A	 CDLI:  IB~a@n  1× III: 1p	PC25 o0980596	 1285A	 1285A				
IB~b 1285B	9× IV: 7p; III: 5p	PC25 o0980597 ZATU260	 1285B	 1285B	 1285B	 1285B		
IB~c 1285C	5× III: 5p	PC25 o0980598 ZATU260	 1285C					 1285C
IDIGNA 1285D	 57× IV: 10p; III: 42p/11u	PC25 o0980599 ZATU261	 1285D	 1285D	 1285D	 1285D		
IG~a 1285E	2× III: 2p	PC25 o0980600	 1285E	 1285E			 1285E	





<b>[KA<sub>2</sub>~d×LAM~b]</b> 12870  AKA: [KA <sub>2</sub> ×LAM] CDL: [KA <sub>2</sub> ×LAM] 20× IV: 2p; III: 18p/1u	00980628	ZATU276	PC25               
<b>KAB</b> 12871  AKA: TUKU 146× IV: 36p/9u; III: 90p/30u	00980629	ZATU277	PC25                  
<b>[KAB×1(N58)]</b>  AKA: [TUKU+DIŠ] 3× IV: 1u; III: 2u	00980630	ZATU278	UNP               
<b>KAD<sub>4</sub>~a</b> 12872  9× III: 9p	00980631	ZATU279	PC25               
<b>KAD<sub>4</sub>~b</b> 12873  2× III: 2p	00980632	ZATU279	PC25               
<b>KAD<sub>4</sub>~c1</b>  1× IV: 1u	00980633	ZATU279	UNP            
<b>KAD<sub>4</sub>~c2</b>  1× IV: 1u	00980634	ZATU279	UNP            
<b>KAK~a</b> 12874  51× IV: 4p; III: 37p/11u	00980635	ZATU280	PC25               
<b>[KAK~a.GA<sub>2</sub>~a1]</b>  3× III: 3p	00980636		PC25-sq            
<b>KAK~b</b> 12875  1× IV: 1p; III: 1p	00980637	ZATU280	PC25               
<b>KAL~a</b> 12876  5× III: 5p	00980638	ZATU281	PC25               
<b>KAL~b1</b> 12877  2× III: 2p	00980639	ZATU281	PC25               
<b>KAL~b2</b> 12878  15× III: 8p/7u	00980640	ZATU281	PC25               
<b>KALAM~a</b> 12879  29× IV: 2p/1u; III: 18p/9u	00980641	ZATU282	PC25               
<b>KALAM~b</b> 1287A  54× IV: 3u; III: 31p/20u	00980642	ZATU282	PC25               

KALAM~c 1287B		PC25 o0980643 ZATU282						
1× III: 1p								
KALAM~d 1287C		PC25 o0980644 ZATU282						
1× III: 1p								
KALAM~e 1287D		PC25 o0980645 ZATU282						
1× III: 1p								
KALAM~f 1287E		PC25 o0980646 ZATU282						
1× III: 1p								
KALAM~g 1287F		PC25 o0980647 ZATU282						
6× III: 6p								
KALAM~h 12880		PC25 o0980648 ZATU282						
3× III: 2p								
KALAM~h2 12881		PC25 o0980649 ZATU282						
1× III: 1p								
KAR		PC25-sq o0980650 ZATU283						
7× IV: 2u; III: 5p/1u								
KAR <sub>2</sub> ~a 12882		PC25 o0980651 ZATU284						
63× IV: 1p/1u; III: 51p/10u								
KAR <sub>2</sub> ~b 12883		PC25 o0980652 ZATU284						
11× IV: 1p; III: 8p/2u								
KASKAL 12884		PC25 o0980653 ZATU285						
58× IV: 6p/1u; III: 31p/22u								
KASKAL@g CDLI:  KASKAL@g  1× III: 1u		UNP o0980654						
KAŠ~a 12885		PC25 o0980655 ZATU286						
122× IV: 15p/4u; III: 97p/9u								
KAŠ~b 12886		PC25 o0980656 ZATU286						
126× IV: 32p/7u; III: 90p/21u								
KAŠ~b×ŠE~a@t  12887		PC25 o0980657 ZATU288						
AKA:  KAŠ~b×ŠE~a  CDLI:  KAŠ~b×ŠE~a  2× IV: 2p								
KAŠ~b@t CDLI:  KAŠ~b@t		ZERO o0980658						

KAŠ~c 12888		PC25 o0980659 ZATU287						
150× IV: 25p/11u; III: 47p/67u								
KAŠ~d 12889		PC25 o0980660 ZATU286						
19× III: 19p								
KEŠ <sub>2</sub>		EDI o0980661						
KI 1288A		PC25 o0980662 ZATU289						
AKA: KI~a 553× IV: 7p/5u; III: 327p/214u								
KI@n 1288B		PC25 4× III: 2p/2u o0980663						
KI@nxDUB~a  1288C		PC25 1× III: 1p o0980664 ZATU567						
KIB 1288D		PC25 11× IV: 1p/1u; III: 7p/2u o0980665 ZATU290						
KIB@g 1288E		PC25 1× III: 1p o0980666						
KID~a 1288F		PC25 18× III: 15p/3u o0980667 ZATU291						
KID~b 12890		PC25 73× IV: 1p; III: 55p/17u o0980668 ZATU291						
KID~c 12891		PC25 5× IV: 1p; III: 4p o0980669 ZATU291						
KID~d 12892		PC25 1× IV: 1p; III: 1p o0980670 ZATU291						
KID~e 12893		PC25 3× III: 3p o0980671 ZATU291						
KIN 12894		PC25 3× III: 3p o0980672 ZATU292						
KIN <sub>2</sub> ~a 12895		PC25 1× IV: 1p; III: 1p o0980673 ZATU293						

<b>KIN<sub>2</sub>-b</b> 12896		PC25									12896
1× III: 1p	o0980674	ZATU293									
<b>KIN<sub>2</sub>-c</b> 12897		PC25									
13× III: 13p	o0980675	ZATU293	12897	12897	12897						
<b>KIN<sub>2</sub>-d</b> 12898		PC25									
3× III: 3p	o0980676	ZATU293	12898	12898	12898						
<b>KIN<sub>2</sub>-e</b> 12899		PC25									
1× IV: 1p; III: 1p	o0980677	ZATU293	12899	1 F210F			F210F				
<b>KINGAL</b>		PC25-sq									
44× IV: 3p; III: 33p/10u	o0980678	ZATU294	1 F2111				F2110		F2111		F2110
<b>KIR<sub>11</sub></b>		PC25-sq									
22× III: 7p/15u	o0980679		F225E								
<b>KISAL~a1</b> 1289A		PC25									
15× IV: 13p; III: 6p/1u	o0980680	ZATU295	1289A	1289A	1289A	1289A	1289A				
<b>KISAL~a2</b>		UNP									
1× IV: 1u	o0980681	ZATU295	F2444								
<b>KISAL~b1</b> 1289B		PC25									1289B
222× IV: 30p/2u; III: 171p/39u	o0980682	ZATU295	1289B	1289B	1289B	1289B	1289B	1289B	1289B	1289B	1289B
<b>KISAL~b2</b> 1289C		PC25									
7× III: 7p	o0980683	ZATU295	1289C	1289C	1289C						
<b>KISAL~b2@t</b> 1289D		PC25									
CDLI:  KISAL~b2@t  2× III: 1p/1u	o0980684		1289D								
<b>KISAL~b3</b> 1289E		PC25									
2× III: 2p	o0980685	ZATU295	1289E	1289E	1289E						
<b>KISIM-a</b> 1289F		PC25									
62× IV: 1p; III: 56p/5u	o0980686	ZATU296	1289F	1289F	1289F						
<b>KISIM-b</b> 128A0		PC25									
23× III: 23p	o0980687	ZATU296	128A0	1 F2112	2 F2113	3 F2114					

KISIM~c 128A1		PC25						
1× IV: 1p; III: 1p	o0980688	ZATU296	128A1			128A1		
KIŠ 128A2		PC25	1 F2115 128A2 2 F2116			128A2	128A2	128A2 F2116
174× IV: 3p; III: 96p/36u	o0980689	ZATU297						
KIŠIK~a 128A3		PC25				128A3	128A3	128A3
29× III: 19p/10u	o0980690	ZATU298						
KIŠIK~b 128A4		PC25						
3× III: 3p	o0980691	ZATU298	128A4					
KITI 128A5		PC25	1 F2117 128A5 2 F2118			F2118		
26× III: 12p/14u	o0980692	ZATU299						
KU~a 128A6		PC25				128A6		
4× III: 4p	o0980693	ZATU300						
KU~a@t		EDI						
		o0980694	F24DC					
KU~b1 128A7		PC25					128A7	128A7
75× IV: 1u; III: 35p/39u	o0980695	ZATU300	128A7					
KU~b2 128A8		PC25				128A8		
27× III: 26p/1u	o0980696	ZATU300	128A8					
KU <sub>3</sub> ~a 128A9		PC25				128A9	128A9 (b) F2119	128A9
262× IV: 40p/1u; III: 179p/49u	o0980697	ZATU301	1 F2119					
KU <sub>3</sub> ~c 128AA		PC25				128AA		
2× III: 1p/1u	o0980698	ZATU301	128AA					
KU <sub>6</sub> ~a 128AB		PC25				128AB	128AB	128AB
385× IV: 40p/15u; III: 273p/84u	o0980699	ZATU302	128AB			128AB	128AB	128AB
KU <sub>6</sub> ~a.1(N02)		PC25-sq						
3× III: 3p	o0980700		F224A					

[KU <sub>6</sub> ~a+GIŠ]	ZERO							
00980701								
[KU <sub>6</sub> ~a+KU <sub>6</sub> ~a] 128AC	PC25							
10× IV: 1p/1u; III: 5p/3u	00980702	ZATU303						
KU <sub>6</sub> ~a@s	UNP							
1× III: 1u	00980703	ZATU446						
[KU <sub>6</sub> ~c 128AD	PC25							
1× III: 1p	00980704	ZATU302						
[KU <sub>6</sub> ~d 128AE	PC25							
2× IV: 1u; III: 2p	00980705	ZATU217						
KUN	EDI							
00980706								
[KUR~a 128AF	PC25							
361× IV: 40p/7u; III: 231p/97u	00980707	ZATU304						
[KUR~a.E <sub>2</sub> ~a	PC25-sq							
13× III: 11p/2u	00980708	ZATU130						
[KUR~a.NUNUZ~a1	ZERO							
00980709								
[KUR~b 128B0	PC25							
6× IV: 3p/2u; III: 4p	00980710	ZATU304						
[KUR~b.E <sub>2</sub> ~a	UNP							
1× IV: 1u; III: 1p	00980711	ZATU130						
[KUR~c 128B1	PC25							
1× III: 1p	00980712	ZATU304						
KUR~d	UNP							
1× IV: 1u	00980713	ZATU304						
KUR@g~a 128B2	PC25							
CDL: [KUR@g~a] 9× IV: 3p/2u; III: 6p	00980714	ZATU329						
KUR@g~b 128B3	PC25							
CDL: [KUR@g~b] 1× IV: 1p; III: 1p	00980715	ZATU329						
KUŠU <sub>2</sub> ~a 128B4	PC25							
4× IV: 4p; III: 2p	00980716	ZATU305						

KUŠU <sub>2</sub> ~b 128B5 7× IV: 3p/2u; III: 2p/1u		PC25 o0980717 ZATU305	 128B5					
KUŠU <sub>2</sub> ~c 128B6 3× III: 2p/1u		PC25 o0980718 ZATU305	 128B6					
KUŠU <sub>2</sub> ~d 128B7 1× III: 1p		PC25 o0980719 ZATU305	 128B7					
KUŠU <sub>2</sub> ~e 128B8 1× IV: 1p		PC25 o0980720 ZATU305	 128B8					
KUŠU <sub>2</sub> ~f 128B9 1× III: 1p		PC25 o0980721 ZATU305	 128B9					
LA~b 128BA AKA: LA 3× IV: 1p; III: 3p		PC25 o0980722 ZATU306	 128BA					
LA~c 1× III: 1u		UNP o0980723 ZATU306						
LA~d 128BB 1× IV: 1p; III: 1p		PC25 o0980724 ZATU306	 128BB					
LA~e o0980725		EDI						
LA <sub>2</sub> 128BC 91× IV: 2p; III: 53p/36u		PC25 o0980726 ZATU307	 128BC				 (a)	
LAGAB~a 128BD 52× IV: 9p/1u; III: 20p/24u		PC25 o0980727 ZATU308	 128BD		 F211B	 1		
LAGAB~a×BA  1× III: 1u		UNP o0980728						
LAGAB~a×BIR <sub>3</sub> ~b  2× III: 2u		UNP o0980729						
LAGAB~a×DU <sub>6</sub> ~a  128BE AKA:  LAGAB~a×DU <sub>6</sub> ~b  CDL:  LAGAB~a×DU <sub>6</sub> ~b  1× IV: 1p		PC25 o0980730 ZATU310	 128BE					
LAGAB~a×KAK~a  1× III: 1u		UNP o0980731						
LAGAB~a×KU <sub>6</sub> ~a  128BF 1× III: 1p		PC25 o0980732 ZATU313	 128BF					

LAGAB~a×(KU <sub>6</sub> ~a+KU <sub>6</sub> ~a)  128C0 	PC25 1× III: 1p o0980733	 128C0						 128C0	
LAGAB~a×KUŠU <sub>2</sub> ~a@t  128C1 	PC25 AKA:  LAGAB~a×KUŠU <sub>2</sub> ~b  CDLI:  LAGAB~a×KUŠU <sub>2</sub> ~b  3× IV: 2p/1u; III: 2p o0980734 ZATU314	 128C1							
LAGAB~a×LA <sub>2</sub> ~a  1× o0980735	UNP	 F2521							
LAGAB~a×LAGAB~a  1× III: 1u o0980736	UNP	 F244B							
LAGAB~a×ME~a  128C2 	PC25 2× IV: 2p; III: 1p o0980737 ZATU315	 128C2  1 F211C							
LAGAB~a×NI~a  1× III: 1u o0980738	UNP	 F2520							
LAGAB~a×NUN~b  128C3 	PC25 2× IV: 1p/1u; III: 1p o0980739 ZATU316	 128C3  128C3			 128C3				
LAGAB~a×PA~a  128C4 	PC25 5× IV: 2p; III: 3p/1u o0980740 ZATU317	 128C4  128C4			 128C4				
LAGAB~a×SI  3× III: 3u o0980741	UNP	 F244C		 128C5					
LAGAB~a×SIG <sub>7</sub>   128C5 	PC25 1× III: 1p o0980742	 128C5  128C5							
LAGAB~a×SU~a  128C6 	PC25 1× III: 1p o0980743	 128C6  128C6		 128C6					
LAGAB~a×ŠA  128C7 	PC25 10× III: 10p o0980744 ZATU318	 128C7  128C7  1 F211D  2 F211E		 F211D	 F211E				
LAGAB~a×ŠITA~a1  128C8 	PC25 20× III: 19p/1u o0980745 ZATU319	 128C8  1 F211F	 128C8  1 F211F	 128C8	 128C8				
LAGAB~a×TI  128C9 	PC25 1× III: 1p o0980746	 128C9  1 F2120	 128C9  1 F2120						

LAGAB~a×U <sub>4</sub>   128CA 1× III: 1p o0980747	PC25	128CA	128CA					128CA
LAGAB~a×UB  128CB 1× IV: 1p o0980748	PC25	128CB	128CB					
LAGAB~a×X  3× IV: 1p; III: 2p o0980749	PC25-bk	F2121 1 F2122	F2122	F2122				
LAGAB~a×ZATU753  128CC 2× IV: 1p; III: 1p o0980750 ZATU321	PC25	128CC 1 F2123	128CC	F2123				
LAGAB~a×2(N14)  128CD 1× IV: 1p; III: 1p o0980751 ZATU320	PC25	128CD	128CD	128CD				
LAGAB~a×1(N58)  128CE 1× III: 1p o0980752	PC25	128CE	128CE					128CE
LAGAB~b 128CF 149× IV: 5p/2u; III: 107p/33u o0980753 ZATU308	PC25	128CF	128CF	128CF	128CF	128CF	128CF	128CF
LAGAB~b.TE  10× IV: 1p; III: 9p o0980754	PC25-sq	128CF						
LAGAB~b×BANSUR~a  1× IV: 1u o0980755 ZATU309	UNP	F244D	F244D					
LAGAB~b×GA'AR~a1  1× IV: 1u o0980756 ZATU311	UNP	F244E	F244E					
LAGAB~b×HI  128D0 1× IV: 1p; III: 1p o0980757 ZATU312	PC25	128D0	128D0					
LAGAB~b×(HI×1(N04))  AKA:  LAGAB~b×(HI×N04)  1× o0980758	UNP	F251F	F251F					
LAGAB~b×KUR~e  128D1 1× IV: 1p o0980759 ZATU175	PC25	128D1	128D1					
LAGAB~b×PA~a  128D2 1× III: 1p o0980760 ZATU317	PC25	128D2	128D2					
LAGAB~b×SI  o0980761	EDI	F2501	F2501					
LAGAB~b×SUH <sub>3</sub>   1× III: 1u o0980762	UNP	F244F	F244F					
LAGAB~b×ŠITA~c  o0980763	EDI	F2500	F2500					

LAGAB~b×U <sub>4</sub>   128D3 2× III: 2p	o0980764	PC25	128D3					
LAGAB~b×X  1×	o0980765	EDI	F2502					
LAGAB~b×1(N01)  o0980766		EDI	F24FF					
LAGAB~b&LAGAB~b  128D4 AKA:  LAGAB~b+LAGAB~b   LAGAB~b×LAGAB~b  CDLI:  LAGAB~b×LAGAB~b  4× III: 3p/1u	o0980767	PC25	128D4	128D4	128D4			
LAGAR~a 128D5 61× IV: 16p/4u; III: 42p/9u	o0980768 ZATU323	PC25	128D5	128D5	128D5	128D5		
LAGAR~a@r 128D6 1× III: 1p	o0980769	PC25	128D6					
LAGAR~b1 128D7 5× IV: 4p; III: 5p	o0980770 ZATU323	PC25	128D7	128D7				
LAGAR~b2 128D8 3× IV: 3p	o0980771 ZATU323	PC25	128D8	128D8	128D8			
LAGAR~c 128D9 4× IV: 3p; III: 3p	o0980772 ZATU323	PC25	128D9	128D9	128D9	128D9		
LAHTAN <sub>2</sub> 9× III: 7p/2u	o0980773 ZATU324	PC25-sq	F2266	F2266	F2266			
LAK025 o0980774		EDI	F24DF					
LAK050 o0980775		EDI	F24E0					
LAK172 o0980776		EDI	F24E1					
LAK251 o0980777		EDI	F24E2					
LAK350 o0980778		EDI	F24E3					
LAK777 o0980779		EDI	F24E4					
LAL <sub>2</sub> ~a 128DA 39× IV: 14p; III: 31p/6u	o0980780 ZATU325	PC25	128DA	128DA	128DA	128DA	128DA	
LAL <sub>2</sub> ~a×EZEN~a  1× IV: 1u	o0980781 ZATU326	UNP	F2450					



<b>LU<sub>2</sub></b> 128E5		PC25	 1 F2128	 128E5	 128E5	 F2128	 128E5	 128E5
58x IV: 1p/1u; III: 31p/24u	o0980796	ZATU332	2 F2129					
<b> LU<sub>2</sub>×GEŠTU~c3 </b>		UNP	 F2452	 F2452				
1x III: 1u	o0980797	ZATU333						
<b>LU<sub>2</sub>@t</b>		EDI	 F24E7	 F24E7				
	o0980798							
<b>LUGAL</b>		PC25-sq	 1 F212B	 F212A	 F212A			
13x IV: 1u; III: 8p/4u	o0980799	ZATU334						
<b>LUM</b> 128E6		PC25	 128E6	 128E6	 128E6			
14x IV: 1p; III: 9p/4u	o0980800	ZATU335						
<b>MA</b> 128E7		PC25	 128E7	 1 F212C	 F212C	 128E7	 F212C	 F212C
195x IV: 38p/20u; III: 100p/51u	o0980801	ZATU336						
<b> MA×A </b> 128E8		PC25	 128E8					
2x IV: 2p	o0980802	ZATU337						
<b> MA×MA </b> 128E9		PC25	 128E9			 128E9		
9x IV: 8p; III: 4p	o0980803	ZATU338						
<b> MA×X </b>		EDI	 F2504	 F2504				
	o0980804							
<b> MA×2(N57) </b>		EDI	 F2503	 F2503				
	o0980805							
<b> MA×1(N58) </b> 128EA		PC25	 128EA	 128EA				
1x III: 1p	o0980806							
<b>MA<sub>2</sub></b> 128EB		PC25	 128EB	 128EB		 128EB		
9x IV: 5p/2u; III: 4p/1u	o0980807	ZATU339						
<b>MAGUR~a</b> 128EC		PC25	 128EC	 128EC	 128EC	 128EC		
4x IV: 4p; III: 4p	o0980808	ZATU340						
<b>MAGUR~b</b>		UNP	 F2453	 F2453				
1x IV: 1u	o0980809	ZATU340						
<b>MAH~a</b> 128ED		PC25	 128ED	 128ED	 128ED	 128ED		
13x IV: 2p; III: 9p/4u	o0980810	ZATU341						
<b> MAH~a×AB<sub>2</sub> </b> 128EE		PC25	 128EE	 128EE				
1x IV: 1p	o0980811							

MAH~a×GUUKKAL~a  128EF 1× IV: 1p; III: 1p o0980812	PC25  ZATU342	 128EF			 128EF			
MAH~a×KU <sub>6</sub> ~a  128F0 2× IV: 1u; III: 1p o0980813	PC25  ZATU343	 128F0						
MAH~a×MAŠ  128F1 11× IV: 4p; III: 7p/2u o0980814	PC25  ZATU344	 128F1			 128F1			
MAH~a×NA~a  128F2 3× III: 3p o0980815	PC25  ZATU345	 128F2				 128F2	 128F2	
MAH~a×(SILA <sub>3</sub> ~a×UMBIN~a)  128F3 1× IV: 1p; III: 1p o0980816	PC25  ZATU346	 128F3			 128F3			
MAH~a×TUG <sub>2</sub> ~a  128F4 1× IV: 1p; III: 1p o0980817	PC25  ZATU347	 128F4			 128F4			
MAH~a×TUN <sub>3</sub> ~c  128F5 1× III: 1p o0980818	PC25  ZATU348	 128F5						 128F5
MAH~a×UD <sub>5</sub> ~a  128F6 2× IV: 2p; III: 2p o0980819	PC25  ZATU349	 128F6			 128F6			
MAH~a×UDU~a  128F7 1× IV: 1p; III: 1p o0980820	PC25  ZATU350	 128F7			 128F7			
MAH~a×UR~a  128F8 2× IV: 2p; III: 2p o0980821	PC25  ZATU351	 128F8						
MAH~a×UTUA~a  128F9 1× IV: 1p; III: 1p o0980822	PC25  ZATU352	 128F9			 128F9			
MAH~a×X  128FB 7× IV: 5p; III: 6p/1u o0980823	PC25-bk  F2454	 F2454			 F2454			
MAH~a×ZATU659  128FA 1× IV: 1p; III: 1p o0980824	PC25  ZATU353	 128FA			 128FA			
MAH~b 128FB 2× IV: 1p; III: 1p/1u o0980825	PC25  ZATU354	 128FB			 128FB			
MAH~b×KU <sub>6</sub> ~a  1× IV: 1u o0980826	UNP  ZATU355	 F2455						
MAH~b×MAŠ  1× III: 1u o0980827	UNP  ZATU356	 F2456						
MAH~b×NA~a  128FC 1× III: 1p o0980828	PC25  ZATU357	 128FC						

MAH~b~SAL  128FD 1x IV: 1p; III: 1p		PC25 o0980829 ZATU345					
MAR~a 128FE 164x IV: 16p/1u; III: 101p/47u		PC25 o0980830 ZATU352					
MAR~a@g 128FF AKA: MAR@g~a 2x III: 2p		PC25 o0980831					
MAR~a@t 12900 1x IV: 1p; III: 1p		PC25 o0980832					
MAR~b 12901 22x IV: 10p; III: 12p/1u		PC25 o0980833 ZATU352					
MAR~b~GAR  12902 1x III: 1p		PC25 o0980834					
MAR~b~(LAGAB~b.ŠE <sub>3</sub> )  12903 1x IV: 1p		PC25 o0980835 ZATU353					
MAR~b~ŠE~a  12904 1x IV: 1p; III: 1p		PC25 o0980836 ZATU354					
MAR~b~X  2x III: 2p		PC25-bk o0980837					
MAŠ 12905 220x IV: 50p/1u; III: 141p/65u		PC25 o0980838 ZATU355					
MAŠ <sub>2</sub> 12906 AKA: MAŠNITA 164x IV: 2p; III: 84p/75u		PC25 o0980839 ZATU357					
MAŠ@g 12907 1x III: 1p		PC25 o0980840					
ME~a 12908 511x IV: 24p/13u; III: 381p/98u		PC25 o0980841 ZATU358					
ME~b 12909 4x IV: 2p; III: 4p		PC25 o0980842 ZATU358					

<b>ME<sub>3</sub></b> 1290A		PC25						
5× III: 4p/1u	o0980843	ZATU359						
<b>MEN~a</b> 1290B		PC25	1 F212F 1290B 2 F2130			1290B	F2130	1290B F212F
48× IV: 2p/2u; III: 28p/16u	o0980844	ZATU360						
<b>MEN~b</b> 1290C		PC25						
4× IV: 2p; III: 2p	o0980845	ZATU360						
<b>MES</b> 1290D		PC25	1 F2131 1290D			1290D (a)		F2131 (a)
41× III: 35p/6u	o0980846	ZATU361						
<b>MIR~a</b> 1290E		PC25				1290E		
23× III: 21p/2u	o0980847	ZATU362				1290E		
<b>MIR~b</b> 1290F		PC25				1290F		
16× III: 10p/6u	o0980848	ZATU362				1290F		
<b>MU</b> 12910		PC25				12910		12910
140× IV: 13p/1u; III: 111p/20u	o0980849	ZATU363				12910	12910	12910
<b>MUD</b> 12911		PC25				12911		12911
115× IV: 2u; III: 81p/32u	o0980850	ZATU364	1 F2132			12911		12911
<b>MUD<sub>3</sub>~a</b> 12912		PC25				12912		12912
35× IV: 3p; III: 25p/7u	o0980851	ZATU365				12912		
<b>MUD<sub>3</sub>~a@g</b> 12913		PC25	1 F2133			12913 (o)		F2133
AKA: MUD <sub>3</sub> @g 6× III: 4p/2u	o0980852	ZATU366				12913 (o)		
MUD <sub>3</sub> ~a@gxGU		EDI						
		o0980853				F2505		
<b>MUD<sub>3</sub>~b</b> 12914		PC25				12914		12914
2× IV: 1p; III: 1p/1u	o0980854	ZATU365				12914		
<b>MUD<sub>3</sub>~c</b> 12915		PC25				12915		12915
4× III: 4p	o0980855	ZATU365				12915		
<b>MUD<sub>3</sub>~d</b> 12916		PC25				12916		
5× III: 5p	o0980856	ZATU365				12916		

<b>MUL</b> 12917		PC25						
3x III: 2p/1u	o0980857	ZATU367	12917					
<b>MUN~a1</b> 12918		PC25						
59x IV: 5p/2u; III: 33p/18u	o0980858	ZATU368	12918			12918		F2134
<b>MUN~a2</b> 12919		PC25						
4x III: 2p/2u	o0980859	ZATU368	12919			F2135		
<b>MUN~a3</b> 1291A		PC25						
2x IV: 1p; III: 1u	o0980860	ZATU368	1291A					
<b>MUN~a4</b> 1291B		PC25						
1x III: 1p	o0980861	ZATU368	1291B	1291B	1291B			
<b>MUN~b</b> 1291C		PC25						
2x III: 2p	o0980862	ZATU368	1291C	1291C	1291C			
<b>MUNŠUB~a</b> 1291D		PC25						
2x IV: 2p	o0980863	ZATU369	1291D	1291D				
<b>MUNŠUB~b</b> 1291E		PC25						
18x III: 1p/17u	o0980864	ZATU369	1291E	1291E	1291E			
<b>MUNU<sub>3</sub></b> 1291F		PC25						
16x III: 15p/1u	o0980865	ZATU370	1291F	1291F	1291F			
<b>MURUB<sub>2</sub></b>		PC25-sq						
5x III: 3p/2u	o0980866	ZATU371	F2259					
<b>MUŠ</b> 12920		PC25						
3x III: 3p	o0980867	ZATU373	12920	12920	12920			
<b>MUŠ<sub>3</sub>~a</b> 12921		PC25						
339x IV: 59p/7u; III: 251p/66u	o0980868	ZATU374	12921		12921		12921	12921
<b>MUŠ<sub>3</sub>~a@g</b> 12922		PC25						
6x IV: 2p/4u	o0980869	ZATU375	12922					
<b>MUŠ<sub>3</sub>~b</b> 12923		PC25						
4x IV: 1p; III: 3p	o0980870	ZATU374	12923	12923		12923		
<b>MUŠEN</b> 12924		PC25						
321x IV: 24p/4u; III: 220p/80u	o0980871	ZATU376	12924		12924	12924	12924	12924

MUŠEN.UR <sub>3</sub> -b2		PC25-sq						
2x IV: 1p/1u	o0980872	ZATU377	1 F213A F213B					
MUŠEN.3(N58)		UNP						
1x III: 1u	o0980873		12924					
MUŠEN×PAP~a		UNP						
1x III: 1u	o0980874		F2506					
MUŠEN×X		ZERO						
	o0980875		F2458				F2458	
1(N02).RU		PC25-sq						
1x III: 1p	o0980876		125BE					
1(N58).BAD	12925	PC25						
AKA:  1(N58).BAD-a   1(N58).BAD~a   BAD+DIŠ~a   BAD+DIŠ~a			12925		12925 (a)	12925 (a)	12925 (a)	12925 (a)
CDLI:  1(N58).BAD-a								
85x IV: 18p/3u; III: 60p/18u	o0980877	ZATU043						
(1(N58).BAD)-b	12926	PC25						
AKA:  1(N58).BAD-b  CDLI:  1(N58).BAD-b			12926	12926	12926	12926		
6x IV: 4p/2u; III: 3p	o0980878	ZATU043	1 F2223		F2223			
3(N58).UR <sub>3</sub> -b1	12927	PC25						
1x III: 1p	o0980879		12927		12927			
NA~a	12928	PC25						
AKA: NA 169x IV: 4p/2u; III: 95p/70u	o0980880	ZATU378	12928		12928		12928	12928
NA~b	12929	PC25						
8x IV: 5p; III: 2p/2u	o0980881	ZATU378	12929		12929		12929	
NA~c	1292A	PC25						
4x IV: 4p; III: 1p	o0980882	ZATU378	1292A		1292A		1292A	
NA~d		UNP						
1x III: 1u	o0980883	ZATU378	F2459					
NA <sub>2</sub> ~a	1292B	PC25						
84x IV: 4p/4u; III: 53p/25u	o0980884	ZATU379	1 F213C 1292B		1292B	F213C	1292B	1292B
NA <sub>2</sub> ~b1	1292C	PC25						
6x IV: 1p; III: 6p	o0980885	ZATU379	1292C				1292C	

NA <sub>2</sub> ~b2 1292D		PC25						
7x III: 6p/1u	o0980886	ZATU379	1292D					
NA <sub>2</sub> ~c 1292E		PC25						
1x III: 1p	o0980887	ZATU379	1292E					
NAB 1292F		PC25						
20x III: 15p/4u	o0980888	ZATU380	<sup>1</sup> F213D <sup>2</sup> F213E					
NAGA~a 12930		PC25						
AKA: NAGA 163x			12930		12930	12930	12930	12930
IV: 16p/6u; III: 107p/37u	o0980889	ZATU381						
NAGA~a×TAK <sub>4</sub> ~a  12931		PC25						
1x III: 1p	o0980890		12931					
NAGA~b 12932		PC25						
7x IV: 6p/1u; III: 2p	o0980891	ZATU381	12932		12932	12932		
NAGAR~a 12933		PC25						
100x IV: 40p; III: 52p/10u	o0980892	ZATU382	<sup>1</sup> F213F <sup>2</sup> F2140 <sup>3</sup> F2141 12933					
NAGAR~b 12934		PC25						
95x IV: 1p/1u; III: 90p/5u	o0980893	ZATU382	<sup>1</sup> F2142			12934	12934	12934
NAM~a 12935		PC25						
11x IV: 5p; III: 4p/3u	o0980894	ZATU383	12935			12935		
NAM~b 12936		PC25						
3x IV: 3p; III: 3p	o0980895	ZATU383	12936			12936		
NAM~c 12937		PC25						
4x IV: 1u; III: 3p	o0980896	ZATU383	12937					
NAM~d 12938		PC25						
5x IV: 1u; III: 2p/2u	o0980897	ZATU383	12938			12938		

NAM <sub>2</sub> 12939		PC25	 12939 F2143					
829x IV: 66p/12u; III: 580p/219u	o0980898	ZATU384						
NAM <sub>2</sub> ×1(N01)  1293A		PC25	 1293A					
1x III: 1p	o0980899	ZATU385						
NAM <sub>2</sub> @g 1293B		PC25	 1293B	 1293B				
1x III: 1p	o0980900	ZATU386						
NAM <sub>2</sub> @t 1293C		PC25	 1293C	 1293C				
9x IV: 1p; III: 1p/8u	o0980901							
NAMEŠDA		PC25-sq	 F2145  F2144	 F2145	 F2145	 F2145	 F2145	 F2145
87x IV: 2p/1u; III: 69p/18u	o0980902	ZATU387						
NANNA~a		PC25-sq	 F2146  F2147  F2148	 F2148 (o)				
11x III: 6p/5u	o0980903	ZATU388						
NANNA~b		PC25-sq	 F2265					
2x III: 2p	o0980904	ZATU388						
NANŠE~a 1293D		PC25	 1293D					
6x IV: 2p; III: 4p/1u	o0980905	ZATU389						
NANŠE~b 1293E		PC25	 1293E	 1293E				
7x III: 7p	o0980906	ZATU389						
NAR 1293F		PC25	 1293F F2149	 F2149	 1293F	 F2149	 1293F	
127x IV: 5p; III: 64p/56u	o0980907	ZATU390						
NE~a 12940		PC25	 12940 F214A F214B F214C	 F214A	 12940 F214A	 F214C	 F214A F214B	
345x IV: 50p/17u; III: 192p/89u	o0980908	ZATU391						
NE~b 12941		PC25	 12941					
1x IV: 1p	o0980909	ZATU391						
NE~c 12942		PC25	 12942 F214D	 F214D				
3x IV: 1p; III: 3p	o0980910	ZATU391						

NE~d 12943		PC25						
2× IV: 2p	o0980911	ZATU391						
NERGAL~v CDLI: NERGAL~x 1× III: 1p	o0980912	ZATU392	PC25-sq F2240			F2240		
NESAG <sub>2</sub> ~a 12944		PC25				F214E		
73× IV: 37p/2u; III: 58p/8u	o0980913	ZATU416 ZATU570						
NESAG <sub>2</sub> ~a2 AKA: NISAG~a3 1× III: 1u	o0980914	ZATU416	UNP F2530					
NESAG <sub>2</sub> ~b 12945		PC25					F214F	
24× IV: 9p/3u; III: 14p/1u	o0980915	ZATU416						
NESAG <sub>2</sub> ~b@t 1× III: 1u	o0980916		UNP F245A					
NI~a 12946		PC25				12946		
356× IV: 13p/6u; III: 200p/145u	o0980917	ZATU393						
NI~a.RU		PC25-sq						
78× III: 78p	o0980918							
NI~a×1(N57)		ZERO						
	o0980919							
NI~a@g 12947		PC25				12947		
1× IV: 1p	o0980920	ZATU394						
NI~b 12948		PC25				12948		
91× IV: 8p; III: 79p/10u	o0980921	ZATU393						
NI~b×X		PC25-bk				F245C		
1× IV: 1p; III: 1p	o0980922							
NI~b×4(N57)		PC25				12949		
12949								
1× III: 1p	o0980923							
NI~b×8(N57)  1294A		PC25				1294A		
CDLI:  8(N57).NI~b  1× III: 1p	o0980924							
NI <sub>2</sub> 1294B		PC25				1294B		
32× III: 27p/5u	o0980925	ZATU396						
NIGIN 1294C		PC25				1294C		
9× III: 7p/2u	o0980926	ZATU397						

NIM~a 1294D		PC25						
88x IV: 22p/6u; III: 64p/15u	o0980927	ZATU398	1294D	1294D	1294D	1294D	1294D	1294D
NIM~b1 1294E		PC25						
68x IV: 2p; III: 42p/25u	o0980928	ZATU398	1294E	1294E	1294E	1294E	1294E	1294E
NIM~b2 1294F		PC25						
22x IV: 3p; III: 12p/9u	o0980929	ZATU398	1294F	1294F	1294F	1294F	1294F	1294F
NIM~b3 12950		PC25						
1x III: 1p	o0980930	ZATU398	12950				12950	
NIM~d		UNP						
1x	o0980931	ZATU398	F2531					
NIMGIR 12951		PC25						
84x IV: 23p/1u; III: 59p/15u	o0980932	ZATU399	1 F2151	12951	12951	12951	12951	12951
NIN		PC25-sq						
107x IV: 1p/1u; III: 68p/37u	o0980933	ZATU400	F225B	F225B	F225B	F225B	F225B	F225B
NINDA <sub>2</sub> 12952		PC25						
23x IV: 9p/3u; III: 15p/2u	o0980934	ZATU401	1 F2152	12952	12952	12952	12952	
NINDA <sub>2</sub> ×AN  12953		PC25						
2x III: 1p/1u	o0980935		12953					
NINDA <sub>2</sub> ×(AN.HI)  12954		PC25						
2x III: 2p	o0980936		12954					
NINDA <sub>2</sub> ×(AN.ME~a)  12955		PC25						
1x III: 1p	o0980937	ZATU406	12955					
NINDA <sub>2</sub> ×(AN.X)		PC25-bk						
1x III: 1p	o0980938		F245D	F245D	F245D			
NINDA <sub>2</sub> ×BA		UNP						
1x III: 1u	o0980939	ZATU402	F245E					
NINDA <sub>2</sub> ×EZEN~b  12956		PC25						
2x III: 2p	o0980940	ZATU403	12956					
NINDA <sub>2</sub> ×GA'AR~a1  12957		PC25						
1x III: 1p	o0980941		12957					
NINDA <sub>2</sub> ×GAR  12958		PC25						
3x IV: 1p/1u; III: 1p	o0980942	ZATU404	12958					

NINDA <sub>2</sub> ×GIŠ  12959 3x IV: 1p; III: 3p	o0980943	PC25 ZATU405	12959	12959			
NINDA <sub>2</sub> ×(GIŠ.DAR~a)  o0980944		EDI	F2508				
NINDA <sub>2</sub> ×GU <sub>4</sub>   1295A 1x III: 1p	o0980945	PC25	1295A				
NINDA <sub>2</sub> ×GUDU <sub>4</sub>   o0982243		DEL	1 F2156 2 F2155 1 F2154 3 F2153				
NINDA <sub>2</sub> ×HI  1295B 5x III: 3p/2u	o0980946	PC25 ZATU407	1295B				
NINDA <sub>2</sub> ×(HI.AN.ME~a)  1295C 5x III: 3p/2u	o0980947	PC25 ZATU406	1295C 1 F2154 2 F2155				
NINDA <sub>2</sub> ×(HI.ME~a)  1295D AKA:  NINDA <sub>2</sub> ×(HI+ME~a)  4x III: 1p/3u	o0980948	PC25 ZATU406	1295D 1 F2156				
NINDA <sub>2</sub> ×(HI.X)  1x III: 1p	o0980949	PC25-bk	F245F				
NINDA <sub>2</sub> ×KAŠ~b  1295E 3x III: 2p/1u	o0980950	PC25	1295E			1295E	
NINDA <sub>2</sub> ×MAR~a  1295F 1x	o0980951	PC25 ZATU408	1295F			1295F	
NINDA <sub>2</sub> ×MAR~b  12960 1x III: 1p	o0980952	PC25 ZATU408	12960				
NINDA <sub>2</sub> ×NE~a  o0980953		EDI	F2509				
NINDA <sub>2</sub> ×NUN~a  12961 3x III: 3p	o0980954	PC25	12961			12961	
NINDA <sub>2</sub> ×ŠIM~a  o0980955		EDI	F250A				

$ NINDA_2 \times U_4 $ 12962 3x III: 1p/2u		PC25 o0980956 ZATU409						
$ NINDA_2 \times (U_4 \cdot X) $ 1x III: 1u		UNP o0980957						
$ NINDA_2 \times (UDU \sim a \times TAR \sim a) $ AKA: $ NINDA_2 \times ((UDU \sim a \times TAR) \sim a) $ CDL: $ NINDA_2 \times ((UDU \sim a \times TAR) \sim a) $ 1x III: 1u		UNP o0980958 ZATU410						
$ NINDA_2 \times (UDU \sim a \times TAR \sim b) $ AKA: $ NINDA_2 \times ((UDU \sim a + TAR) \sim b) $ 1x III: 1u		UNP o0980959 ZATU410						
$ NINDA_2 \times X $ 12x IV: 2p/1u; III: 4p/5u		PC25-bk o0980960						
$ NINDA_2 \times (X \cdot MA\check{S}) $		EDI o0980961						
$ NINDA_2 \times (ZATU659 \times 1(N01)) $ 12963 2x III: 2p		PC25 o0980962						
$ NINDA_2 \times ZATU710 $ 12964 3x III: 3p		PC25 o0980963						
$ NINDA_2 \times 1(N01) $ 12965 7x IV: 3p/1u; III: 3p/1u		PC25 o0980964 ZATU411						
$ NINDA_2 \times 2(N01) $ 12966 1x III: 1p		PC25 o0980965 ZATU411						
$ NINDA_2 \times 1(N06) $		EDI o0980966						
$ NINDA_2 \times (1(N06).HI @ g-a) $ 12967 AKA: $ NINDA_2 \times (HI @ g-a.1(N06)) $ CDL: $ NINDA_2 \times (HI @ g-a.1(N06)) $ 2x III: 1p/1u		PC25 o0980967 ZATU021						
$ NINDA_2 \times 1(N08) $ 12968 1x IV: 1p; III: 1p		PC25 o0980968 ZATU411						
NINKUM 10x III: 10p		PC25-sq o0980969 ZATU412						
NINLIL 4x III: 4p		PC25-sq o0980970 ZATU413						
NIR~a 12969 32x IV: 1u; III: 23p/7u		PC25 o0980971 ZATU414						

<b> NIR~a×AN </b>							
1296A		PC25					
14× III: 5p/9u	o0980972	ZATU415	1296A			1296A	
<b>NIR~b</b>							
1296B		PC25					
15× IV: 11p; III: 11p	o0980973	ZATU414	1296B	1296B	1296B	1296B	
<b>NU</b>							
1296C		PC25					
63× IV: 4p/4u; III: 39p/18u	o0980974	ZATU417	1296C	1296C	1296C	1296C	1296C
<b>NU@g</b>							
1296D		PC25					
21× IV: 5p/7u; III: 12p	o0980975	ZATU418	1296D	1296D	1296D	1296D	F2157
<b>NU<sub>11</sub></b>							
1296E		PC25					
45× IV: 2p; III: 37p/6u	o0980976	ZATU419	1296E	1296E	1296E	1296E	1296E
<b> NU<sub>11</sub>&amp;NU<sub>11</sub> </b>							
1296F		PC25					
1× III: 1p	o0980977		1296F	1296F			
<b>NU<sub>11</sub>@t</b>							
12970		PC25					
CDLI:  NU <sub>11</sub> @t			12970				
4× III: 2p/2u	o0980978						
<b>NUMUN</b>							
12971		PC25					
15× IV: 1p; III: 12p/2u	o0980979		12971	12971	12971	12971	12971
<b>NUMUN<sub>2</sub></b>							
2× III: 2u	o0980980	ZATU420					
CDLI:  NUMUN <sub>2</sub>			F2464				
<b>NUN~a</b>							
12972		PC25					
726× IV: 103p/13u; III: 522p/155u	o0980981	ZATU421	12972	12972	12972	12972	12972
<b> NUN~a+A </b>							
12973		PC25					
3× IV: 2p; III: 3p	o0980982	ZATU422	12973		12973		
<b> NUN~a+EN~a </b>							
12974		PC25					
AKA:  EN~a×NUN~a			12974	12974	12974	12974	12974
39× IV: 12p/5u; III: 21p/5u	o0980983	ZATU135					
<b> NUN~a+EN~b </b>							
12975		PC25					
5× IV: 2p/3u; III: 1p	o0980984	ZATU135	12975			(b)	
<b> NUN~a+EN~d </b>							
12976		PC25					
1× IV: 1p	o0980985	ZATU135	12976				
<b> NUN~a+NAM<sub>2</sub> </b>							
12977		PC25					
13× III: 13p	o0980986		12977			12977	

NUN~b 12978		PC25																		
117x IV: 36p/3u; III: 49p/61u	o0980987	ZATU421	12978	12978	12978	12978														
NUN~b.U <sub>4</sub>		PC25-sq																		
1x III: 1p	o0980988		12978																	
NUN~b+EN~a  12979		PC25																		
AKA:  EN~a+NUN~b  9x III: 8p	o0980989	ZATU135	12979																	
NUN~c 1297A		PC25																		
18x IV: 15p/2u; III: 8p	o0980990	ZATU421	1297A	1	F2158	1297A	2	F2159	1297A	F2159	F215A									
NUN~d 1297B		PC25																		
4x IV: 3p; III: 1p	o0980991	ZATU421	1297B																	
NNUZ~a0 1297C		PC25																		
AKA: NNUZ~a1@n 13x III: 3p/10u	o0980992	ZATU423	1297C																	
NNUZ~a1 1297D		PC25																		
184x IV: 3p/2u; III: 113p/67u	o0980993	ZATU423	1297D																	
NNUZ~a1@t CDLI:  NNUZ~a1@t  2x III: 2u	o0980994	UNP																		
NNUZ~a2 1297E		PC25																		
14x IV: 6p; III: 5p/5u	o0980995	ZATU423	1297E																	
NNUZ~b1 1297F		PC25																		
5x IV: 2p; III: 5p	o0980996	ZATU423	1297F																	
NNUZ~b2 1x III: 1u	o0980997	UNP																		
NNUZ~c 12980		PC25																		
27x IV: 1p; III: 15p/11u	o0980998	ZATU423	12980	1	F215B	12980	2	F215C	12980	(c1)	12980	F215C	12980							

PA~a 12981		PC25	 1 F215E 12981 2 F215F 3 F2160					
514x IV: 43p/8u; III: 370p/116u	o0980999	ZATU425						
PA~b 12982		PC25	 12982					
2x IV: 2p; III: 1p	o0981000	ZATU425						
PA <sub>3</sub>		EDI	 o0981001					
PAD~a 12983		PC25	 12983					
30x IV: 3p; III: 19p/9u	o0981002	ZATU426						
PAD~b 12984		PC25	 12984					
1x III: 1p	o0981003	ZATU426						
PAP~a 12985		PC25	 12985					
855x IV: 55p/11u; III: 553p/246u	o0981004	ZATU427						
PAP~a@t 12986		PC25	 12986					
AKA: PAP@t 21x III: 21p	o0981005		 1 F2161				 F2161	 F2161 (o)
PAP~b 12987		PC25	 12987					
4x IV: 2p/1u; III: 2p	o0981006	ZATU427	 1 F2162					
PIRIG~a1 12988		PC25	 12988					
19x IV: 17p/1u; III: 13p	o0981007	ZATU428						
PIRIG~a2 12989		PC25	 12989					
1x IV: 1p; III: 1p	o0981008	ZATU428						
PIRIG~a3 1298A		PC25	 1298A					
2x IV: 1p; III: 1p	o0981009	ZATU428						
PIRIG~b1 1298B		PC25	 1298B					
174x IV: 7p/3u; III: 112p/54u	o0981010	ZATU428						
PIRIG~b1+DIN  1298C		PC25	 1298C					 1298C
2x III: 2p	o0981011							

PIRIG~b1×UR <sub>2</sub>	UNP							
2× III: 2u	o0981012	F2467						
PIRIG~b1×1(N58@t)	ZERO							
	o0981013	F2528						F2528
PIRIG~b2 1298D	PC25							
2× IV: 1p; III: 1p	o0981014 ZATU428	1298D						
PU <sub>2</sub> 1298E	PC25							
40× IV: 1p; III: 35p/4u	o0981015 ZATU430	1 F2163		F2163			F2163	
RA 1298F	PC25							
4× IV: 1p; III: 3p	o0981016 ZATU431	1298F						1298F
RAD~a 12990	PC25							
238× IV: 5p/2u; III: 116p/11u	o0981017 ZATU432	12990		12990	12990	12990	12990	12990
RAD-a@g 12991	PC25							
15× IV: 5p/1u; III: 7p/6u	o0981018 ZATU433	12991		12991 (o)	12991 (o)			
RAD-a@t CDLI:  RAD-a@t  2× III: 2u	UNP							
12992	PC25							
16× IV: 14p; III: 15p	o0981020 ZATU432	12992		12992	12992			
RI	EDI							
	o0981021	F24E9						
RI~x	DEL							
	o0982244	F24EA						
RI <sub>g</sub> ~a 12993	PC25							
8× IV: 1p; III: 4p/3u	o0981022 ZATU434	12993		12993				
RI <sub>g</sub> ~b 12994	PC25							
1× III: 1p	o0981023 ZATU434	1 F2164		12994	12994			
RU 12995	PC25							
AKA: RU~a 345×	IV: 17p/6u; III: 248p/82u	o0981024 ZATU435	1 F2165	12995	12995	12995	12995	12995
RU@t CDLI:  RU@t	ZERO							
	o0981025	F2469						



SAGŠU 129A0		PC25						
31x III: 17p/14u	o0981040	ZATU442		129A0		129A0		
SAL 129A1		PC25						
985x IV: 57p/19u; III: 627p/310u	o0981041	ZATU443		129A1		129A1		129A1
SAL.KUR~a		PC25-sq						
50x IV: 3p/1u; III: 35p/12u	o0981042	ZATU201		F2258		F2258		F2258
SAL.LAM~b		UNP						
2x III: 2u	o0981043			F225A				
SAL.ME~a		PC25-sq						
AKA: LUKUR 1x III: 1p	o0981044			129A1				
SAL.ŠU <sub>2</sub>		PC25-sq						
2x III: 2p	o0981045			F225F				F225F
SAL.ZATU751~a		PC25-sq						
CDLI: *SAL.ZATU751~a 1x III: 1p	o0981046			F2260				F2260
SAL.ZATU751~b		ZERO						
CDLI: *SAL+ZATU751~b	o0981047			F2261				F2261
SAL.ZATU751~c		PC25-sq						
CDLI: *SAL+ZATU751~c 1x III: 1p	o0981048			F2262				F2262
SAL×1(N58)		PC25						
129A2				129A2				
2x III: 1p/1u	o0981049							
SANGA~a 129A3		PC25						
716x IV: 75p/28u; III: 488p/155u	o0981050	ZATU444		1 F216A 2 F216B 129A3				
SANGA~b 129A4		PC25						
16x IV: 15p; III: 6p	o0981051	ZATU444		129A4				
SANGA~c 129A5		PC25						
2x IV: 1p/1u	o0981052	ZATU444		129A5				
SANGA~e 129A6		PC25						
1x III: 1p	o0981053	ZATU444		129A6 1 F222A				F222A
SAR~a 129A7		PC25						
78x IV: 2p/2u; III: 49p/26u	o0981054	ZATU445		129A7		129A7		129A7
SAR~a×ŠE~a  129A8		PC25						
27x IV: 4p/1u; III: 20p/4u	o0981055	ZATU514		129A8		129A8		129A8

SAR~b 129A9		PC25 o0981056 ZATU445						
5x III: 5p			129A9		129A9			
SAR~c 129AA		PC25 o0981057 ZATU445						
4x III: 2p/2u			129AA		129AA			
SAR~d 129AB		PC25 o0981058 ZATU445						
1x III: 1p			129AB					129AB
SI 129AC		PC25 o0981059 ZATU447		<sup>1</sup> F216D 129AC				
389x IV: 24p/9u; III: 227p/129u					F216D	F216D	F216D	F216D
SI+AN  129AD		PC25 o0981060						
1x III: 1p			129AD					129AD
SI+EN-a  129AE		PC25 o0981061						
1x III: 1p			129AE					129AE
SI+GU  129AF		PC25 o0981062 ZATU448						
1x III: 1p			129AF					
SI+KU-b1  129B0		PC25 o0981063						
17x III: 17p			129B0					129B0
SI+SAL  129B1		PC25 o0981064						
1x III: 1p			129B1					129B1
SI+ŠE <sub>3</sub>   129B2		PC25 o0981065 ZATU449						
4x III: 3p/1u			129B2		129B2			
SI+TUN <sub>3</sub> -a  129B3		PC25 o0981066						
1x III: 1p			129B3					129B3
SI+1(N58)  129B4		PC25 o0981067						
1x III: 1p			129B4					129B4
SI <sub>4</sub> -a 129B5		PC25 o0981068 ZATU450						
75x IV: 20p/5u; III: 45p/11u			129B5		129B5	129B5		
SI <sub>4</sub> -b 129B6		PC25 o0981069 ZATU450						
1x IV: 1p; III: 1p			129B6			129B6		
SI <sub>4</sub> -c 129B7		PC25 o0981070 ZATU450						
1x IV: 1p; III: 1p			129B7			129B7		

<b>SI<sub>4</sub>-d</b> 129B8		PC25						
4x IV: 1p; III: 4p	o0981071	ZATU450						
<b>SI<sub>4</sub>-f</b> 129B9		PC25						
73x III: 57p/16u	o0981072	ZATU450						
<b>SIG</b> 129BA		PC25						
92x IV: 7p; III: 56p/31u	o0981073	ZATU451						
<b>SIG-b</b>		UNP						
2x	o0981074	ZATU451						
<b>SIG@g</b>		UNP						
1x III: 1u	o0981075							
<b>SIG<sub>2</sub>-a1</b> 129BB		PC25						
AKA: SIG <sub>2</sub> -a 26x IV: 1u; III: 14p/10u	o0981076	ZATU452						
<b>SIG<sub>2</sub>-a2</b> 129BC		PC25						
23x IV: 3p/3u; III: 17p/2u	o0981077	ZATU452						
<b>SIG<sub>2</sub>-a3</b> 129BD		PC25						
21x IV: 6p/1u; III: 16p/3u	o0981078	ZATU452						
<b>SIG<sub>2</sub>-a4</b> 129BE		PC25						
2x IV: 1p; III: 1p	o0981079	ZATU452						
<b>SIG<sub>2</sub>-b</b> 129BF		PC25						
158x IV: 17p/16u; III: 80p/51u	o0981080	ZATU452						
<b> SIG<sub>2</sub>-b×1(N14) </b>		UNP						
3x IV: 3u	o0981081	ZATU453						
<b> SIG<sub>2</sub>-b&amp;SIG<sub>2</sub>-b </b> 129C0		PC25						
AKA:  SIG <sub>2</sub> -b, SIG <sub>2</sub> -b  CDLI:  SIG <sub>2</sub> -b, SIG <sub>2</sub> -b  2x III: 2p	o0981082							
<b>SIG<sub>2</sub>-c1</b> 129C1		PC25						
2x IV: 1p; III: 1p	o0981083	ZATU452						

<b>SIG<sub>2</sub>-c2</b> 129C2		PC25 00981084 ZATU452	 129C2	 129C2				
<b>SIG<sub>2</sub>-d1</b> 129C3		PC25 00981085 ZATU452	 129C3	 129C3				
<b>SIG<sub>2</sub>-d2</b> 129C4		PC25 00981086 ZATU452	 129C4	 129C4				
4x IV: 2p; III: 1p		00981086 ZATU452		 F2173				
<b>SIG<sub>2</sub>-d3</b> 129C5		PC25 00981087 ZATU452	 129C5	 129C5			 129C5	
2x IV: 2p		00981087 ZATU452						
<b>SIG<sub>2</sub>-d4</b> 129C6		PC25 00981088 ZATU452	 129C6	 129C6			 129C6	
4x IV: 4p; III: 2p		00981088 ZATU452						
<b>SIG<sub>2</sub>-e</b> 129C7		PC25 00981089 ZATU452	 129C7	 129C7			 129C7	
10x IV: 4p/2u; III: 3p/2u		00981089 ZATU452						
<b>SIG<sub>4</sub></b> 129C8		PC25 00981090 ZATU454	 129C8	 129C8				
1x IV: 1p		00981090 ZATU454						
<b>SIG<sub>7</sub></b> 129C9		PC25 00981091 ZATU455	 129C9	 129C9			 129C9	
102x IV: 14p/1u; III: 68p/23u		00981091 ZATU455		 F2174			 F2174	
<b>SIKIL</b>	EDI		 F225D	 F225D				
		00981092						
<b>SILA<sub>3</sub>-a</b> 129CA		PC25 00981093 ZATU456	 129CA	 129CA			 129CA	
52x IV: 5p/3u; III: 21p/24u		00981093 ZATU456						
<b> SILA<sub>3</sub>-a×A </b> 129CB		PC25 00981094 ZATU457	 129CB	 129CB				
1x III: 1p		00981094 ZATU457						
<b> SILA<sub>3</sub>-a×AMAR </b> 129CC		PC25 00981095	 129CC	 129CC				
1x IV: 1p		00981095						
<b> SILA<sub>3</sub>-a×DUG-a </b> 129CD		PC25 00981096 ZATU458	 129CD	 129CD				
8x III: 4p/4u		00981096 ZATU458		 F2175				
<b> SILA<sub>3</sub>-a×DUG-b </b>	EDI		 F250E	 F250E				
		00981097						
<b> SILA<sub>3</sub>-a×GA-a </b> 129CE		PC25 00981098 ZATU459	 129CE	 129CE				
8x III: 5p/3u		00981098 ZATU459						

SILA <sub>3</sub> ~a×GARA <sub>2</sub> ~a  129CF		PC25		129CF		129CF			
AKA:  SILA <sub>3</sub> ~a+GARA <sub>2</sub> ~a  18x III: 14p/4u o0981099 ZATU461				129CF		129CF			
SILA <sub>3</sub> ~a×GEŠTU~a  129D0		PC25		129D0		129D0			
1x III: 1p o0981100 ZATU462				129D0		129D0			
SILA <sub>3</sub> ~a×GEŠTU~c3  129D1		PC25		129D1					
7x IV: 5p/2u; III: 1p o0981101 ZATU462				129D1					
SILA <sub>3</sub> ~a×GEŠTU~c5		UNP		F246E					
1x III: 1u o0981102 ZATU462 ZATU469				F246E					
SILA <sub>3</sub> ~a×HAŠHUR  129D2		PC25		129D2					
5x IV: 1p; III: 3p/1u o0981103 ZATU463				129D2					
SILA <sub>3</sub> ~a×HI  129D3		PC25		129D3		129D3			
7x IV: 1p; III: 6p/1u o0981104 ZATU464				129D3		129D3			
SILA <sub>3</sub> ~a×HI@g~a		UNP		F246F					
2x IV: 2u o0981105 ZATU465				F246F					
SILA <sub>3</sub> ~a×IB~a  129D4		PC25		129D4					
1x IV: 1p; III: 1p o0981106 ZATU466				129D4					
SILA <sub>3</sub> ~a×KAŠ~a  129D5		PC25		129D5					
AKA:  SILA <sub>3</sub> ~a+KAŠ~a  5x IV: 1u; III: 4p o0981107 ZATU467				129D5					
SILA <sub>3</sub> ~a×KAŠ~c  129D6		PC25		129D6					
2x III: 2p o0981108 ZATU467				129D6					
SILA <sub>3</sub> ~a×KAŠ~d  129D7		PC25		129D7					
2x III: 1p/1u o0981109 ZATU467				129D7					
SILA <sub>3</sub> ~a×KU <sub>6</sub> ~a  129D8		PC25		129D8					
9x III: 6p/3u o0981110				129D8					
SILA <sub>3</sub> ~a×KUR~a  129D9		PC25		129D9					
4x IV: 1p/2u; III: 1p/1u o0981111 ZATU468				129D9					
SILA <sub>3</sub> ~a×MA  129DA		PC25		129DA					
4x III: 3p/1u o0981112 ZATU473				129DA					
SILA <sub>3</sub> ~a×MAŠ  129DB		PC25		129DB					
3x IV: 3p; III: 3p o0981113 ZATU470				129DB					
SILA <sub>3</sub> ~a×MUD <sub>3</sub> ~b  129DC		PC25		129DC					
AKA:  SILA <sub>3</sub> ~a+MUD <sub>3</sub> ~b  1x III: 1p o0981114				129DC					

SILA <sub>3</sub> ~a×NAGA~a  129DD 2× III: 2p	o0981115	PC25 ZATU471	129DD	129DD			
SILA <sub>3</sub> ~a×NI~a  129DE 10× IV: 2u; III: 7p/1u	o0981116	PC25 ZATU460 ZATU472	129DE	129DE			129DE
SILA <sub>3</sub> ~a×NUN~b  129DF 2× IV: 1p; III: 1p	o0981117	PC25 ZATU614	129DF	129DF			
SILA <sub>3</sub> ~a×SUHUR  129E0 2× IV: 2p; III: 2p	o0981118	PC25	129E0	129E0			129E0
SILA <sub>3</sub> ~a×SUM~a  129E1 3× IV: 3p; III: 1p	o0981119	PC25 ZATU474	129E1	129E1			
SILA <sub>3</sub> ~a×SUM~b  129E2 1× III: 1p	o0981120	PC25 ZATU474	129E2	129E2			129E2
SILA <sub>3</sub> ~a×ŠE~a  129E3 1× IV: 1p	o0981121	PC25 ZATU475	129E3	129E3			
SILA <sub>3</sub> ~a×ŠE~a@t  129E4 18× IV: 5p; III: 8p/7u	o0981122	PC25	129E4	129E4		129E4	
SILA <sub>3</sub> ~a×ŠU  129E5 17× IV: 2p/1u; III: 4p/10u	o0981123	PC25 ZATU476	129E5	129E5	129E5		
SILA <sub>3</sub> ~a×ŠU <sub>2</sub>   129E6 11× III: 8p/3u	o0981124	PC25 ZATU477	129E6	129E6		129E6	129E6
SILA <sub>3</sub> ~a×X  17× IV: 7p/5u; III: 10p/2u	o0981125	PC25-bk F2470	F2470	F2470	F2470		
SILA <sub>3</sub> ~a×ZATU629  129E7 1× III: 1p	o0981126	PC25	129E7	129E7	129E7		
SILA <sub>3</sub> ~a×ZATU646  129E8 1× III: 1p	o0981127	PC25	129E8	129E8	129E8		
SILA <sub>3</sub> ~a×(ZATU659.TU-c)  129E9 1× IV: 1p; III: 1p	o0981128	PC25 ZATU478	129E9	129E9		129E9	
SILA <sub>3</sub> ~a×1(N57)  129EA 2× III: 2p	o0981129	PC25 ZATU481	129EA	129EA	129EA		
SILA <sub>3</sub> ~a×1(N58)  1× IV: 1u	o0981130	UNP F2471 ZATU481	F2471	F2471			

SILA <sub>3</sub> ~b 129EB		PC25 o0981131 ZATU456						
5x III: 5p			129EB		129EB			129EB
SILA <sub>3</sub> ~b×DUG~a		EDI o0981132						
129EC		PC25 o0981133						
1x III: 1p			129EC					
SILA <sub>3</sub> ~b×NAGA~b  129ED		PC25 o0981134 ZATU471						129ED
1x IV: 1p; III: 1p			129ED			129ED		
SILA <sub>3</sub> ~b×NI~a  129EE		PC25 o0981135 ZATU460						
1x III: 1p			129EE					
SILA <sub>3</sub> ~b×NI~b  129EF		PC25 o0981136 ZATU460						
1x III: 1p			129EF		129EF			
SILA <sub>3</sub> ~c		UNP o0981137 ZATU456						
1x III: 1u			F2472					
SILA <sub>3</sub> ~c×šU		UNP o0981138 ZATU476						
1x IV: 1u			F2473					
SILA <sub>3</sub> ~c×ZATU687  129F0		PC25 o0981139 ZATU480						
1x III: 1p			129F0		129F0			
SILA <sub>3</sub> ~d×NI~a		UNP o0981140 ZATU460						
2x III: 2u			F2474					
SILA <sub>4</sub> ~a 129F1		PC25 o0981141 ZATU482						
17x III: 10p/7u			129F1		129F1			
SILA <sub>4</sub> ~b 129F2		PC25 o0981142 ZATU482						
31x IV: 6p/1u; III: 20p/8u			129F2		129F2	129F2		
SILA <sub>4</sub> ~c 129F3		PC25 o0981143 ZATU482						
83x IV: 8p/1u; III: 45p/35u			129F3	<sup>1</sup> F2176		129F3		
SILA <sub>4</sub> ~d 129F4		PC25 o0981144 ZATU482						
1x III: 1p			129F4		129F4			
SILANITA 129F5		PC25 o0981145 ZATU483						
AKA: SILANITA~a 26x III: 20p/6u			129F5					
SIMUG 129F6		PC25 o0981146 ZATU484						
13x IV: 1p; III: 10p/3u			129F6	<sup>1</sup> F2177	F2177	129F6	<sup>1</sup> F2177	

SIPA		PC25-sq	F2178 F2179	F2179	F2179			
6x III: 6p	o0981147		<sup>1</sup> F2179					
SU~a 129F7		PC25	F217A 129F7	F217A	F217A	F217A 129F7	F217A	F217A
278x IV: 20p/5u; III: 168p/97u	o0981148	ZATU485						
SU~a×1(N58)  129F8		PC25	129F8	129F8	129F8			
2x III: 2p	o0981149	ZATU486						
SU~b 129F9		PC25	129F9	129F9		129F9		
3x IV: 3p; III: 3p	o0981150	ZATU485						
SU~c 129FA		PC25	129FA					129FA
1x III: 1p	o0981151	ZATU485						
SU <sub>3</sub> 129FB		PC25	129FB	129FB	129FB			
6x III: 5p/1u	o0981152	ZATU487						
SUG 129FC		PC25	129FC	129FC	129FC			
11x IV: 3p; III: 6p/3u	o0981153	ZATU488						
SUG <sub>5</sub> 129FD		PC25	129FD	129FD	129FD	129FD	129FD	129FD
AKA: SUG <sub>5</sub> ~a 89x IV: 2p/1u; III: 63p/22u	o0981154	ZATU489						
SUH <sub>3</sub> 129FE		PC25	129FE	129FE	129FE			
4x III: 3p/1u	o0981155	ZATU490						
SUHUR 129FF		PC25	129FF <sup>1</sup> F217B <sup>2</sup> F217C <sup>3</sup> F217D	129FF	129FF	129FF	129FF	F217D
AKA: SUHUR~a 310x IV: 37p/11u; III: 234p/52u	o0981156	ZATU491						
SUHUR@g 12A00		PC25	12A00	12A00	12A00			
4x III: 3p/1u	o0981157							
SUHUR@n 12A01		PC25	12A01	12A01				
CDLI:  SUHUR@n  5x III: 1p/4u	o0981158							
SUHUR@t 12A02		PC25	12A02					12A02
6x III: 6p	o0981159							



SUR 12A0E		PC25		12A0E		12A0E			12A0E	
9x IV: 1p; III: 6p/2u 00981175	ZATU498									
SUSA	PC25-sq			F2250		F2250				
1x III: 1p 00981176	ZATU499									
ŠA 12A0F		PC25		1 F2183		2 F2184		12A0F		12A0F
139x IV: 6p/2u; III: 103p/33u 00981177	ZATU500			3 F2185					F2183	12A0F
(ŠA×HI@g-a)-a  12A10		PC25		12A10		12A10		12A10	12A10	12A10
15x IV: 1p; III: 7p/8u 00981178	ZATU501									
(ŠA×HI@g-a)-b  12A11		PC25		12A11					(b) 12A11	
4x IV: 1p; III: 4p 00981179	ZATU501									
ŠA@g 12A12		PC25		12A12		12A12				12A12
20x IV: 1p; III: 14p/5u 00981180	ZATU502									
ŠA <sub>3</sub> -a1 12A13		PC25		12A13				F2186	12A13	
112x IV: 5p; III: 58p/49u 00981181	ZATU503			1 F2186					F2186	12A13
ŠA <sub>3</sub> -a2 12A14		PC25		12A14				F2187		12A14
AKA: ŠA <sub>3</sub> -b1 32x IV: 1p/1u; III: 21p/5u 00981182	ZATU503			1 F2187					F2187	12A14
ŠA <sub>3</sub> -a2@g 12A15		PC25		12A15						
1x III: 1p 00981183										
ŠA <sub>3</sub> -b 12A16		PC25		12A16					(b1) 12A16	
3x IV: 2p; III: 2p 00981184	ZATU503									
ŠA <sub>3</sub> -c 12A17		PC25		12A17					12A17	
9x IV: 6p/1u; III: 7p 00981185	ZATU503									
ŠA <sub>3</sub> -d 12A18		PC25		12A18						
1x IV: 1p 00981186	ZATU503									
ŠAB-a	PC25-sq			1 F2189		2 F2188		F218A		F2189
79x IV: 5p/1u; III: 66p/10u 00981187	ZATU504			2 F218A					F218A	F218A

<b>ŠAB~b</b>		PC25-sq		 1 F218C					
9x III: 9p	o0981188	ZATU504		 F218B					
<b>ŠAGAN</b> 12A19		PC25		 1 F218D		 12A19	 F218D	 12A19	 12A19
73x IV: 5p/1u; III: 60p/10u	o0981189	ZATU506		 12A19					
<b>ŠAGINA</b> 12A1A		PC25		 12A1A		 12A1A			
1x IV: 1p	o0981190	ZATU507							
<b>ŠAH<sub>2</sub>~a</b> 12A1B		PC25		 12A1B		 12A1B	 12A1B	 12A1B	
27x IV: 4p; III: 23p/3u	o0981191	ZATU508							
<b>ŠAH<sub>2</sub>~b</b> 12A1C		PC25		 12A1C					
1x III: 1p	o0981192	ZATU508							
<b>ŠAH<sub>2</sub>~c</b> 12A1D		PC25		 12A1D			 12A1D		
1x IV: 1p	o0981193	ZATU508							
<b>ŠAKIR~a</b> 12A1E		PC25		 12A1E		 12A1E			 12A1E
3x III: 3p	o0981194	ZATU509							
<b>ŠAKIR~b</b> 12A1F		PC25		 12A1F		 12A1F			
8x III: 7p/1u	o0981195	ZATU509							
<b>ŠAKIR~c</b> 12A20		PC25		 12A20		 F218E			 12A20
47x III: 32p/15u	o0981196	ZATU509		1 F218E					
<b>ŠAM<sub>2</sub></b> 12A21		PC25		 12A21		 F218F	 12A21	 F218F	 12A21
66x IV: 3p/2u; III: 57p/8u	o0981197	ZATU510		1 F218F					
<b>ŠANDANA~a</b>		PC25-sq		 F223B					
2x III: 2p	o0981198								
<b>ŠANDANA~b</b>		UNP		 F223A					
1x III: 1u	o0981199								
<b>ŠE~a</b> 12A22		PC25		 12A22		 12A22	 12A22	 12A22	 12A22
1204x IV: 87p/6u; III: 889p/232u	o0981200	ZATU511							
<b> ŠE~a.GAR </b>		PC25-sq		 F2228					 F2229
2x III: 2p	o0981201			1 F2229					

ŠE~a.KIN <sub>2~c</sub>		PC25-sq							
5x III: 5p	o0981202	ZATU512		1 F2191					
ŠE~a.NAM <sub>2</sub>		PC25-sq							
AKA:  ŠE~a×NAM <sub>2</sub>    ŠE~a×NAM <sub>2</sub>									
109x IV: 10p; III: 64p/39u	o0981203	ZATU513		1 F2193					
ŠE~a&ŠE~a		PC25							
12A23									
29x IV: 1p; III: 24p/4u	o0981204	ZATU515		12A23		12A23		12A23	12A23
ŠE~a@t		PC25							
12A24				12A24		12A24	12A24		
14x IV: 2p; III: 9p/5u	o0981205			1 F2194					
ŠE~b		PC25							
12A25				12A25		12A25	12A25		
6x IV: 1p; III: 5p	o0981206	ZATU511							
ŠE~c		PC25							
12A26				12A26					
2x IV: 1p/1u	o0981207	ZATU511							
ŠE <sub>3</sub>		PC25							
12A27				1 F2195		F2195	F2195	12A27	F2195
175x IV: 13p/10u; III: 112p/48u	o0981208	ZATU516		12A27					
ŠE <sub>3</sub> @t		PC25							
12A28				12A28		F2196	F2197		
11x IV: 1p/1u; III: 8p/2u	o0981209	ZATU518		2 F2197					
ŠEG,		PC25							
12A29				12A29		F2198	12A29		
31x IV: 8p; III: 27p/3u	o0981210	ZATU519		1 F2198					
ŠELU		PC25-sq							
32x IV: 25p; III: 6p/1u	o0981211	ZATU520		F2264		F2264			
ŠEN~a		PC25							
12A2A				1 F2199		F2199			
19x IV: 1u; III: 14p/4u	o0981212	ZATU521		12A2A					
ŠEN~b		PC25							
12A2B				12A2B		12A2B			
52x IV: 1p; III: 49p/2u	o0981213	ZATU521		1 F219A					

ŠEN~c 12A2C		PC25	 1 					
2x III: 1p	o0981214	ZATU521						
ŠEN~c@t 12A2D		PC25						
28x III: 28p	o0981215							
ŠEN~d		ZERO	 1  2  	  				
ŠEN~dxA 12A2E		PC25						
1x III: 1p	o0981217							
ŠEN~e 12A2F		PC25						
6x III: 6p	o0981218	ZATU521						
ŠENNUR~a 12A30		PC25						
10x III: 9p/1u	o0981219	ZATU522						
ŠENNUR~b 12A31		PC25						
2x III: 1p/1u	o0981220	ZATU522						
ŠEŠ~a 12A32		PC25	 1 		 1 	 1 		
25x IV: 11p/3u; III: 10p/4u	o0981221	ZATU523						
ŠEŠ~b 12A33		PC25						
1x IV: 1p; III: 1p	o0981222	ZATU523						
ŠIDIM 12A34		PC25						
36x IV: 6p/3u; III: 23p/5u	o0981223	ZATU524						
ŠIDIM@t		UNP						
1x IV: 1u	o0981224							
ŠIM~a 12A35		PC25	 1  2 	 1  2 	 1  2 	 1 		
56x IV: 2p/2u; III: 50p/3u	o0981225	ZATU525						
ŠIM~b 12A36		PC25						
3x IV: 1p/1u; III: 1p/1u	o0981226	ZATU525						
ŠIR~a 12A37		PC25	 1  2 	 1 	 1 	 1 	 1 	
16x IV: 2p/4u; III: 11p/1u	o0981227	ZATU526						



ŠITA@g~a 12A43		PC25	 12A43 <sup>1</sup> F21A5						
24x IV: 6p/1u; III: 16p/4u	o0981243	ZATU530							
ŠITA@g~a×1(N04)		UNP	 F247B						
1x III: 1u	o0981244	ZATU531							
ŠITA@g~a×1(N06)		PC25	 12A44						
4x III: 3p/1u	o0981245								
ŠITA@g~b 12A45		PC25	 12A45						
4x III: 3p/1u	o0981246	ZATU530							
ŠU 12A46		PC25	 12A46						
610x IV: 46p/8u; III: 378p/169u	o0981247	ZATU532							
ŠU×1(N58)		PC25	 12A47						
1x III: 1p	o0981248								
ŠU&ŠU		PC25	 12A48						
22x IV: 1p; III: 20p/2u	o0981249								
ŠU@g 12A49		PC25	 12A49						
4x III: 4p	o0981250	ZATU533							
ŠU@s		EDI	 F24EC						
o0981251									
ŠU <sub>2</sub> 12A4A		PC25	 <sup>1</sup> F21A9 <sup>2</sup> 12A4A <sup>3</sup> F21AA <sup>4</sup> F21AB <sup>5</sup> F21AC <sup>5</sup> F21AD			 F21AD			
385x IV: 65p/40u; III: 253p/46u	o0981252	ZATU534							
ŠU <sub>2</sub> .AN		UNP	 AKA:  ŠU <sub>2</sub> +AN   ŠU <sub>2</sub> .AN   ŠU <sub>2</sub> ×AN  4x III: 2u o0981253						
ŠU <sub>2</sub> .E <sub>2</sub> ~a		PC25-sq	 F2267						
9x III: 8p/1u	o0981254	ZATU535							
ŠU <sub>2</sub> .E <sub>2</sub> ~b		PC25-sq	 F2268						
13x III: 10p/3u	o0981255	ZATU535							

ŠU₂.EN~a	PC25-sq	1 F21A7 2 F21A6 2 F21A8	F21A8	F21A6	F21A6	F21A6
40x IV: 9p/3u; III: 27p/4u	o0981256 ZATU536					
ŠU₂.EN~b	UNP	F2269	F2269			
2x IV: 2u	o0981257 ZATU536					
ŠU₂.GIŠ	ZERO	F226A	F226A			
	o0981258					
ŠU₂.(HI×1(N57))&(HI×1(N57))	PC25-sq	F226B				
AKA:  ŠU₂.((HI+1(N57))+((HI+1(N57))))						
CDLI:  ŠU₂.((HI+1(N57))+((HI+1(N57))))						
1x III: 1p	o0981259					
ŠU₂.PAP~a	PC25-sq	12A4A				
1x III: 1p	o0981260					
ŠU₂.URI₃~a	PC25-sq	F226E	F226E	F226E		
1x III: 1p	o0981261					
ŠU₂.1(N02)	UNP	F226F	F226F			
2x IV: 1u; III: 1p/1u	o0981262					
ŠU₂.1(N24)	PC25-sq	F2270	F2270			
AKA:  ŠU₂×1(N24)						
1x III: 1p	o0981263					
ŠU₂.2(N57)	EDI	F2271	F2271			
	o0981264					
ŠU₂×3(N57)	UNP	F251D	F251D			
AKA:  ŠU₂×3(N57)						
1x	o0981265					
ŠU₁₂ 12A4B	PC25	12A4B	12A4B	12A4B		
1x III: 1p	o0981266 ZATU538					
ŠUBUR 12A4C	PC25	12A4C	12A4C	12A4C	12A4C	12A4C
345x IV: 41p/7u; III: 223p/98u	o0981267 ZATU539	1 F21AE	12A4C	12A4C	12A4C	12A4C
ŠUM 12A4D	PC25	12A4D	12A4D	12A4D	12A4D	12A4D
35x IV: 14p; III: 23p/4u	o0981268 ZATU541					
ŠUR₂×1(N58)  12A4E	PC25	12A4E				12A4E
4x III: 4p	o0981269					
ŠUR₂~a 12A4F	PC25	12A4F	12A4F		12A4F	
14x III: 8p/6u	o0981270 ZATU543					

<b>ŠUR<sub>2</sub>-b</b> 12A50 13x III: 7p/6u		PC25 o0981271 ZATU543	 12A50						 12A50
<b>ŠUR<sub>2</sub>-c</b> 2x		UNP o0981272 ZATU543	 F2533						
<b>ŠURUPPAK~a</b> 48x IV: 3u; III: 37p/10u		PC25-sq o0981273 ZATU544	 F21B0	 F21AF	 F21AF				
<b>ŠURUPPAK~b</b> 10x IV: 1u; III: 8p/2u		PC25-sq o0981274 ZATU544	 F21B2	 F21B1					
<b>ŠURUPPAK~c</b> 1x		EDI o0981275	 F2263						
<b>TA~a</b> 12A51 5x IV: 1u; III: 4p		PC25 o0981276 ZATU545	 12A51						
<b>TA~b</b> 12A52 1x III: 1p		PC25 o0981277 ZATU545	 12A52						
<b>TA~c</b> 12A53 23x IV: 2p/2u; III: 16p/3u		PC25 o0981278 ZATU545	 12A53	 12A53	 12A53	 12A53	 12A53		
<b>TA~d</b> 12A54 2x III: 1p/1u		PC25 o0981279 ZATU545	 12A54						
TA~d×MAŠ  1x III: 1u		UNP o0981280	 F247C						
<b>TA~e</b> 12A55 1x III: 1p		PC25 o0981281 ZATU545	 12A55						
<b>TA~f</b> 1x		EDI o0981282	 F24ED						
<b>TAG~a1</b> 12A56 25x IV: 16p; III: 8p/2u		PC25 o0981283 ZATU547	 12A56	 12A56	 12A56			 12A56	
<b>TAG~a1@t</b> 12A57 1x IV: 1p		PC25 o0981284	 12A57						
<b>TAG~a2</b> 12A58 9x III: 7p/2u		PC25 o0981285 ZATU547	 12A58	 12A58	 12A58	 12A58 (a1)			
<b>TAG~a3</b> 12A59 2x III: 2p		PC25 o0981286 ZATU547	 12A59						

TAG~a4 12A5A		PC25							
2x IV: 1p; III: 2p	o0981287	ZATU547		12A5A	12A5A				
TAG~b 12A5B		PC25							
14x IV: 2p/1u; III: 13p	o0981288	ZATU547	1 F21B3	12A5B	F21B3	F21B3			
TAG~c 12A5C		PC25							
1x III: 1p	o0981289	ZATU547		12A5C					
TAG~d 12A5D		PC25							
3x III: 2p/1u	o0981290	ZATU547		12A5D			12A5D		
TAK <sub>4</sub> ~a 12A5E		PC25							
188x IV: 6p/3u; III: 123p/58u	o0981291	ZATU548	1 2 F21B4	12A5E	12A5E		12A5E	12A5E	
TAK <sub>4</sub> ~a@n 12A5F		PC25							
1x III: 1p	o0981292			12A5F			12A5F		
TAK <sub>4</sub> ~c 12A60		PC25							
3x III: 2p/1u	o0981293	ZATU548		12A60					
TAR~a 12A61		PC25							
100x IV: 5p; III: 80p/16u	o0981294	ZATU549		12A61	12A61		12A61	12A61	
TAR~d		EDI							
		o0981295							
TE 12A62		PC25							
AKA: TE~a 350x IV: 63p/5u; III: 239p/86u	o0981296	ZATU550		12A62	12A62	12A62	12A62	12A62	
TI 12A63		PC25							
AKA: TI~a 103x IV: 9p/8u; III: 62p/34u	o0981297	ZATU551	1 F21B5	12A63	12A63	12A63 (a)	12A63 (a)	F21B5	12A63 (a)
TI@g 12A64		PC25					12A64 (a)		
1x III: 1p	o0981298						12A64 (a)		
TI@r 12A65		PC25							
2x III: 2p	o0981299			12A65					
TI@t 12A66		PC25							
17x IV: 1p; III: 13p/4u	o0981300			12A66			12A66 (b)	12A66 (b)	
TIDNUM		PC25-sq							
1x III: 1p	o0981301	ZATU552		F2241	F2241	F2241	F2241		

TILLA, 12A67		PC25						
6× IV: 1p; III: 5p/1u o0981302	ZATU553							
TU~a 12A68		PC25						
27× IV: 4p; III: 16p/7u o0981303	ZATU554							
TU~b 12A69		PC25						
29× IV: 1u; III: 26p/2u o0981304	ZATU554							
TU~c 12A6A		PC25						
1× IV: 1p o0981305	ZATU554							
TUG <sub>2</sub> ~a 12A6B		PC25						
365× IV: 31p/26u; III: 194p/124u o0981306	ZATU555							
TUG <sub>2</sub> ~a.BAD&BAD		PC25-sq						
CDL:  TUG <sub>2</sub> ~a.(BAD&BAD)								
35× IV: 1p/2u; III: 23p/10u o0981307	ZATU556	ZATU558						
TUG <sub>2</sub> ~a@g 12A6C		PC25						
19× IV: 2u; III: 17p o0981308	ZATU557							
TUG <sub>2</sub> ~b 12A6D		PC25						
2× IV: 1p; III: 2p o0981309	ZATU555							
TUG <sub>2</sub> ~c 12A6E		PC25						
1× III: 1p o0981310	ZATU555							
TUG <sub>2</sub> ~d		UNP						
1× IV: 1u o0981311	ZATU555							
TUM~a 12A6F		PC25						
34× IV: 9p/2u; III: 17p/10u o0981312	ZATU560							
TUM~a@g 12A70		PC25						
2× IV: 1p; III: 1u o0981313								
TUM~b 12A71		PC25						
6× IV: 2p; III: 4p/2u o0981314	ZATU560							
TUM~c 12A72		PC25						
13× IV: 1p; III: 12p o0981315	ZATU560							



<b>U<sub>2</sub>~b</b> 12A7D		PC25						
170x IV: 15p/2u; III: 102p/59u	o0981330	ZATU565						
<b>U<sub>2</sub>~c</b> 12A7E		PC25						
1x IV: 1p	o0981331	ZATU565						
<b>U<sub>4</sub></b> 12A7F		PC25						
602x IV: 77p/13u; III: 435p/112u	o0981332	ZATU566						
<b> U<sub>4</sub>.ŠU<sub>2</sub> </b>		PC25-sq						
11x IV: 2p; III: 9p/2u	o0981333	ZATU568						
<b> U<sub>4</sub>.1(N08) </b>		PC25-sq						
48x III: 32p/16u	o0981334							
<b> U<sub>4</sub>.2(N08) </b>		PC25-sq						
12x IV: 1p; III: 11p	o0981335							
<b> U<sub>4</sub>.3(N08) </b>		PC25-sq						
10x III: 8p/2u	o0981336							
<b> U<sub>4</sub>.4(N08) </b>		PC25-sq						
2x III: 2p	o0981337							
<b> U<sub>4</sub>.5(N08) </b>		PC25-sq						
6x III: 5p/1u	o0981338							
<b> U<sub>4</sub>.6(N08) </b>		PC25-sq						
4x III: 4p	o0981339							
<b> U<sub>4</sub>.7(N08) </b>		PC25-sq						
2x III: 1p/1u	o0981340							
<b> U<sub>4</sub>.8(N08) </b>		PC25-sq						
1x III: 1p	o0981341							
<b> U<sub>4</sub>.1(N14) </b>		PC25-sq						
1x III: 1p	o0981342							
<b> U<sub>4</sub>.1(N14).1(N08) </b>		PC25-sq						
AKA:  (U <sub>4</sub> .1(N14)).1(N08)								
1x III: 1p	o0981343							
<b> U<sub>4</sub>.1(N14).3(N08) </b>		PC25-sq						
CDLI:  U <sub>4</sub> .(1(N14).3(N08))								
2x III: 2p	o0981344							
<b> U<sub>4</sub>.1(N14).4(N08) </b>		PC25-sq						
CDLI:  U <sub>4</sub> .(1(N14).4(N08))								
1x III: 1p	o0981345							
<b> U<sub>4</sub>.1(N14).5(N08) </b>		PC25-sq						
CDLI:  U <sub>4</sub> .(1(N14).5(N08))								
4x III: 2p/2u	o0981346							
<b> U<sub>4</sub>.1(N14).8(N08) </b>		PC25-sq						
CDLI:  U <sub>4</sub> .(1(N14).8(N08))								
1x III: 1p	o0981347							



$ U_4 \times 8(N01) $	12A86		PC25								
2x III: 2p		o0981366			12A86					12A86	
$ U_4 \times 8(N01).X $			PC25-sq								
1x III: 1p		o0981367		F2483							
$ U_4 \times N(N01) $			UNP								
CDLI: $ U_4 \times (X(N01)) $				F2484							
1x III: 1u		o0981368									
$ U_4 \times 1(N01@f) $			EDI								
CDLI: $ U_4 \times 1(N01)F $				F2513							
o0981369											
$ U_4 \times 1(N14) $	12A87		PC25								
5x III: 1p/4u		o0981370			12A87						
$ U_4 \times (1(N14).1(N01)) $	12A88		PC25								
1x III: 1p		o0981371			12A88						
$ U_4 \times (1(N14).2(N01)) $	12A89		PC25								
10x III: 10p		o0981372			12A89						
$ U_4 \times (1(N14).3(N01)) $			UNP								
1x III: 1u		o0981373		F253C							
$ U_4 \times (1(N14).3(N01).1(N14).4(N08)) $			UNP								
AKA: $ U_4 \times (1(N14).3(N01).(1(N14).4(N08))) $				1x III: 1u	o0981374						
$ U_4 \times (1(N14).4(N01)) $	12A8A		PC25								
1x III: 1p		o0981375			12A8A						
$ U_4 \times (1(N14).8(N01)) $	12A8B		PC25								
2x III: 2p		o0981376			12A8B						
$ U_4 \times 2(N14) $			ZERO								
					F2485						
$ U_4 \times (2(N14).4(N01)) $	12A8C		PC25								
1x III: 1p		o0981378			12A8C						
$ U_4 \times (3(N14).2(N01)) $	12A8D		PC25								
1x III: 1p		o0981379			12A8D						
$ U_4 \times (3(N14).7(N01)) $	12A8E		PC25								
1x III: 1p		o0981380			12A8E						
$ U_4 \times 1(N57) $	12A8F		PC25								
159x III: 132p/23u		o0981381			12A8F					12A8F	12A8F
$ U_4 \times 2(N57) $	12A90		PC25								
57x IV: 1p; III: 43p/9u		o0981382			12A90					12A90	12A90

<b> U<sub>4</sub>×3(N57) </b> 12A91 43× IV: 1u; III: 30p/10u	o0981383	PC25	12A91			12A91	12A91	12A91
<b> U<sub>4</sub>×4(N57) </b> 12A92 9× III: 7p/1u	o0981384	PC25	12A92			12A92	12A92	
<b> U<sub>4</sub>×5(N57) </b> 12A93 5× III: 5p	o0981385	PC25	12A93			12A93	12A93	
<b> U<sub>4</sub>×6(N57) </b> 12A94 9× III: 8p/1u	o0981386	PC25	12A94			12A94	12A94	
<b> U<sub>4</sub>×7(N57) </b> 12A95 3× III: 3p	o0981387	PC25	12A95				12A95	
<b> U<sub>4</sub>×8(N57) </b> 12A96 3× III: 3p	o0981388	PC25	12A96				12A96	
<b> U<sub>4</sub>×10(N57) </b> 12A97 2× III: 2p	o0981389	PC25	12A97					
<b> U<sub>4</sub>×1(N58@t) </b> 12A98 AKA:  U <sub>4</sub> ×1(N58)@t  CDLI:  U <sub>4</sub> ×1(N58)@t  2× III: 2p	o0981390	PC25	12A98					
<b>U<sub>4</sub>@t</b> 12A99 1× III: 1p	o0981391	PC25	12A99					
<b>U<sub>8</sub></b> 12A9A 186× IV: 32p; III: 118p/62u	o0981392 ZATU571	PC25	12A9A <sup>1</sup> F21C2 12A9A <sup>2</sup> F21C3 12A9A <sup>3</sup> F21C4	12A9A <sup>1</sup> F21C2 12A9A <sup>2</sup> F21C3 12A9A <sup>3</sup> F21C4	F21C3	F21C3 <sup>1</sup> F21C2 12A9A <sup>2</sup> F21C3 12A9A <sup>3</sup> F21C4	F21C3 <sup>1</sup> F21C2 12A9A <sup>2</sup> F21C3 12A9A <sup>3</sup> F21C4	12A9A
<b> U<sub>8</sub>×TAR~b </b> 12A9B CDLI:  (U <sub>8</sub> ×TAR)~b  2× III: 1p/1u	o0981393	PC25	12A9B					
<b>UB</b> 12A9C 186× IV: 21p/5u; III: 152p/19u	o0981394 ZATU572	PC25	12A9C		12A9C	12A9C	12A9C	12A9C
<b>UBI~a</b> 12A9D 2× IV: 2p; III: 2p	o0981395 ZATU573	PC25	12A9D			12A9D		

UBI~c 12A9E		PC25							
8× III: 8p	o0981396	ZATU573		1 F21C5					
UBI~d 12A9F		PC25							
2× III: 2p	o0981397	ZATU573							
UD <sub>5</sub> ~a 12AA0		PC25							
224× IV: 46p/2u; III: 132p/83u	o0981398	ZATU574		2 F21C7					
UD <sub>5</sub> ~a@g 12AA1		PC25							
1× III: 1p	o0981399								
UD <sub>5</sub> ~b 12AA2		PC25							
2× IV: 2p; III: 2p	o0981400	ZATU574							
UD <sub>5</sub> ~c 12AA3		PC25							
2× IV: 2p; III: 2p	o0981401	ZATU574							
UDU~a 12AA4		PC25							
AKA: UDU 586× IV: 77p/17u; III: 379p/148u	o0981402	ZATU575							
UDU~a×TAR~a  12AA5		PC25							
CDLI:  (UDU~a×TAR)~a  8× IV: 2p; III: 2p/4u	o0981403	ZATU576							
UDU~a×TAR~b  12AA6		PC25							
CDLI:  (UDU~a×TAR)~b  19× III: 10p/9u	o0981404	ZATU576							
UDU~b		UNP							
1× IV: 1u	o0981405	ZATU575							
UDU~c 12AA7		PC25							
6× IV: 1u; III: 4p/1u	o0981406	ZATU575							
UDUNITA~a 12AA8		PC25							
198× IV: 33p; III: 122p/73u	o0981407	ZATU578							
UDUNITA~b 12AA9		PC25							
1× IV: 1p; III: 1p	o0981408	ZATU578							
UDUNITA~c 12AAA		PC25							
14× IV: 7p; III: 13p	o0981409	ZATU578							

UH		UNP						
1x III: 1u	o0981410		F2487					
UH <sub>3~a</sub> 12AAB		PC25						
13x IV: 2p; III: 9p/4u	o0981411	ZATU579						
UH <sub>3~a@t</sub> 12AAC		PC25						
2x IV: 1p; III: 1p	o0981412							
UH <sub>3~b</sub> 12AAD		PC25						
4x IV: 1p; III: 4p	o0981413	ZATU579						
UKKIN~a 12AAE		PC25						
155x IV: 34p/9u; III: 112p/23u	o0981414	ZATU580						
UKKIN~b 12AAF		PC25						
13x III: 11p/2u	o0981415	ZATU580						
UKKIN~b×DIN  12AB0		PC25						
6x III: 5p/1u	o0981416							
UKKIN~b×(DIN.1(N01))  12AB1		PC25						
1x III: 1p	o0981417							
UKKIN~b×DUG~a		EDI						
	o0981418							
UKKIN~b×HI@g~a  12AB2		PC25						
1x III: 1p	o0981419							
UKKIN~b×NI~a  12AB3		PC25						
2x III: 2p	o0981420							
UKKIN~b×X		PC25-bk						
1x III: 1p	o0981421							
UKKIN~b×2(N01)  12AB4		PC25						
1x III: 1p	o0981422							
UKKIN~b×3(N01)  12AB5		PC25						
1x III: 1p	o0981423							
UKKIN~b×5(N01)  12AB6		PC25						
1x III: 1p	o0981424							



<b>UR~b</b> 12AC4	8x IV: 1u; III: 7p	o0981440	PC25 ZATU586	12AC4					
<b>UR~c</b> 12AC5	3x IV: 1p/1u; III: 1p	o0981441	PC25 ZATU586	12AC5					12AC5
<b>UR<sub>2</sub></b> 12AC6	107x IV: 13p/2u; III: 77p/24u	o0981442	PC25 ZATU588	12AC6	12AC6	12AC6	12AC6	12AC6	
<b> UR<sub>2</sub>~TAR~c </b> 12AC7	AKA:  UR2~TAR  CDLI:  UR2~TAR  4x IV: 2p; III: 2p	o0981443	PC25 ZATU590	12AC7	12AC7	12AC7 (o)			
<b> UR<sub>2</sub>*1(N57) </b> 12AC8	15x IV: 6p/1u; III: 11p/2u	o0981444	PC25 ZATU589	12AC8	12AC8				
<b>UR<sub>3</sub>~a1</b> 12AC9	4x IV: 4p; III: 2p	o0981445	PC25 ZATU591	12AC9 1 F21CD	12AC9		12AC9		
<b>UR<sub>3</sub>~a2</b> 12ACA	6x III: 6p	o0981446	PC25 ZATU591	12ACA	12ACA				
<b>UR<sub>3</sub>~a3</b> 12ACB	8x III: 7p/1u	o0981447	PC25 ZATU591	12ACB					
<b>UR<sub>3</sub>~b1</b> 12ACC	12x IV: 5p/2u; III: 4p	o0981448	PC25 ZATU591	12ACC		12ACC			
<b> UR<sub>3</sub>~b1~MAŠ </b>	1x IV: 1u	o0981449	UNP	F248A	F248A				
<b>UR<sub>3</sub>~b2</b> 12ACD	11x IV: 2p/1u; III: 5p/3u	o0981450	PC25 ZATU591	12ACD 1 F21CE	12ACD		12ACD		
<b>UR<sub>3</sub>~d2</b>	1x	o0981451	UNP ZATU591	F2535	F2535				
<b>UR<sub>4</sub>~a</b> 12ACE	13x IV: 1p; III: 9p/3u	o0981452	PC25 ZATU592	12ACE	12ACE	12ACE			
<b>UR<sub>4</sub>~b</b> 12ACF	18x III: 15p/3u	o0981453	PC25 ZATU592	12ACF	12ACF	12ACF		12ACF	
<b>UR<sub>4</sub>~c</b> 12AD0	3x IV: 2p; III: 1p	o0981454	PC25 ZATU592	12AD0	12AD0				

<b>UR<sub>5</sub>~a</b> 12AD1		PC25							
74× IV: 1p/1u; III: 57p/16u	00981455	ZATU593							
<b>UR<sub>5</sub>~b</b> 12AD2		PC25							
4× III: 4p	00981456	ZATU593							
<b>URI</b> 12AD3		PC25							
29× IV: 1p/1u; III: 20p/7u	00981457	ZATU594							
<b>URI<sub>2</sub></b>		EDI							
	00981458								
<b>URI<sub>3</sub>~a</b> 12AD4		PC25							
110× IV: 7p; III: 58p/45u	00981459	ZATU595							
<b> URI<sub>3</sub>~a+IB~a </b>		EDI							
	00981460								
<b>URI<sub>3</sub>~b</b>		PC25-sq							
1× IV: 1p	00981461	ZATU595							
<b>URI<sub>5</sub></b> 12AD5		PC25							
8× III: 4p/4u	00981462	ZATU596							
<b>URU~a1</b> 12AD6		PC25							
169× IV: 9p/3u; III: 112p/46u	00981463	ZATU597							
<b> URU~a1×A1 </b>		EDI							
	00981464								
<b> URU~a1×AMAR </b> 12AD7		PC25							
2× IV: 2p; III: 2p	00981465	ZATU598							
<b> URU~a1×GU<sub>4</sub> </b>		UNP							
1× III: 1u	00981466								
<b> URU~a1×HI@g~a </b> 12AD8		PC25							
1× III: 1p	00981467								
<b> URU~a1×KI </b> 12AD9		PC25							
2× III: 2p	00981468								
<b> URU~a1×NIMGIR </b> 12ADA		PC25							
1× IV: 1p; III: 1p	00981469	ZATU600							
<b> URU~a1×U<sub>4</sub> </b> 12ADB		PC25							
1× III: 1p	00981470								
<b> URU~a1×X </b>		PC25-bk							
2× IV: 1p; III: 2p	00981471								

URU~a1×1(N57)		PC25-sq							
1× IV: 1p	o0981472	ZATU601							
URU~a1×2(N57)		UNP							
1× IV: 1u	o0981473	ZATU601							
URU~a1×3(N57)	12ADC 	PC25							
5× III: 5p	o0981474								
URU~a1@n		UNP							
CDLI:  URU~a1@n									
1× III: 1u	o0981475								
URU~a2	12ADD 	PC25							
3× IV: 3p; III: 2p	o0981476	ZATU597							
URU~a2×1(N58)	12ADE 	PC25							
AKA:  URU~a1+1(N58)									
3× IV: 2p; III: 3p	o0981477	ZATU601							
URU~a3×KALAM~a	12ADF 	PC25							
1× IV: 1p	o0981478	ZATU599							
URU~b1	12AE0 	PC25							
2× IV: 2p; III: 2p	o0981479	ZATU597							
URU~b2	12AE1 	PC25							
4× IV: 4p; III: 3p	o0981480	ZATU597							
URU~c	12AE2 	PC25							
2× IV: 2p; III: 2p	o0981481	ZATU597							
URUDU~a	12AE3 	PC25		 1 F21D0	 2 F21D1		 F21D0	 F21D1	
40× IV: 8p/1u; III: 24p/11u	o0981482	ZATU602							
URUDU~c	12AE4 	PC25							
3× IV: 1p; III: 2p/1u	o0981483	ZATU602							
URUDU~d	12AE5 	PC25							
1× IV: 1p; III: 1p	o0981484	ZATU602							
URUDU@g~a	12AE6 	PC25							
5× IV: 3p/2u; III: 2p	o0981485	ZATU603							
URUDU@g~b		UNP							
1× IV: 1u	o0981486	ZATU603							
URUDU@g~c	12AE7 	PC25							
3× III: 3p	o0981487	ZATU603							

URUDU@g~d 12AE8		PC25						
5x III: 2p/3u	o0981488	ZATU603						
UŠ~a 12AE9		PC25						
87x IV: 33p/3u; III: 61p/17u	o0981489	ZATU604	1 F21D2					
UŠ~a&UŠ~a  12AEA		PC25						
9x IV: 9p; III: 9p	o0981490							
UŠ~b 12AEB		PC25						
9x IV: 1p/1u; III: 4p/4u	o0981491	ZATU604	1 F21D3					
UŠ~b×TAR~c  12AEC		PC25	1 F21D4					
2x IV: 2p; III: 1p	o0981492	ZATU605						
UŠ~b×TAR~d		EDI						
o0981493			F2516					
UŠ~b&UŠ~b  12AED		PC25						
2x IV: 2p; III: 2p	o0981494							
UŠUMGAL		PC25-sq						
5x III: 3p/2u	o0981495	ZATU607	F2239					
UŠUR <sub>3</sub> ~a		EDI						
o0981496			F24F0					
UŠUR <sub>3</sub> ~b1 12AEE		PC25						
1x III: 1p	o0981497	ZATU608						
UŠUR <sub>3</sub> ~b2 12AEF		PC25						
1x III: 1p	o0981498	ZATU608						
UTUA~a 12AF0		PC25						
123x IV: 40p/3u; III: 70p/46u	o0981499	ZATU609						
UTUA~a@t 12AF1		PC25						
1x IV: 1p; III: 1p	o0981500							
UTUA~b 12AF2		PC25	1 F21D5					
14x IV: 4p; III: 12p/2u	o0981501	ZATU609						
UTUL~a 12AF3		PC25						
38x IV: 3p/1u; III: 30p/7u	o0981502	ZATU610						

<b>UTUL~b</b> 12AF4		PC25						
1× IV: 1p; III: 1p	o0981503	ZATU610		12AF4				
<b>UTUL~c</b> 12AF5		PC25						
1× IV: 1p; III: 1p	o0981504	ZATU610		12AF5				
<b>UTUL~d</b> 12AF6		PC25						
1× IV: 1p; III: 1p	o0981505	ZATU610		12AF6				
<b>UZ~a</b>		PC25-sq						
6× III: 1p/2u	o0981506	ZATU611		12AF6	1	F21D6	F21D7	
<b>UZU</b> 12AF7		PC25						
2× III: 1p/1u	o0981507			12AF7				12AF7
<b>X₂</b>		PC25-sq						
AKA:  2(N57).DU₆~a@n				12BED				
1× III: 1p	o0981508							
<b>ZA~v</b> 12AF8		PC25						
CDLI: ZA~x 9× III: 9p	o0981509	ZATU612		12AF8				12AF8
<b>ZABALAM~a</b>		PC25-sq						
AKA: ZABALA~a 48× III: 31p/17u	o0981510	ZATU613		F224F				
<b>ZABALAM~b</b>		UNP						
1× III: 1u	o0981511	ZATU613		F2251				
<b>ZADIM</b>		EDI						
	o0981512			F24F1				
<b>ZAG~a</b> 12AF9		PC25						
75× IV: 2p/1u; III: 58p/15u	o0981513	ZATU615		12AF9		F21D8	F21D8	F21D8
<b>ZAG~b</b> 12AFA		PC25						
2× IV: 2p; III: 2p	o0981514	ZATU615		12AFA				
<b>ZAG~c</b> 12AFB		PC25						
7× IV: 4p; III: 4p	o0981515	ZATU615		12AFB				
<b>ZAR~a</b> 12AFC		PC25						
2× III: 2p	o0981516	ZATU616		12AFC				
<b>ZAR~b1</b> 12AFD		PC25						
2× IV: 2p; III: 1p	o0981517	ZATU616		12AFD				
<b>ZAR~b2</b> 12AFE		PC25						
3× IV: 3p	o0981518	ZATU616		12AFE				

ZAR~c 12AFF		PC25						
8x IV: 6p/1u; III: 6p o0981519 ZATU616			12AFF			12AFF		
ZI~a 12B00		PC25			1 F221C		12B00	
125x IV: 3p/1u; III: 91p/31u o0981520 ZATU617			12B00			12B00		
ZI~b 12B01		PC25					12B01	
2x IV: 2p; III: 2p o0981521 ZATU617			12B01			12B01		
ZI~d 12B02		PC25						
2x III: 2p o0981522 ZATU617			12B02					
(ZU&ZU).SAR~a		EDI						
			F2518					
ZUBI~a 12B03		PC25						
1x III: 1p o0981524 ZATU619			12B03					
ZUBI~b		UNP						
1x III: 1u o0981525 ZATU619			F221D					
			1 F221E					
				(a) F221E				
ZATU620 12B04		PC25					12B04	
1x IV: 1p; III: 1p o0981526 ZATU620			12B04			12B04		
ZATU621~a 12B05		PC25					12B05	
5x IV: 4p; III: 4p o0981527 ZATU621			12B05			12B05		
ZATU621~b 12B06		PC25					12B06	
3x IV: 3p; III: 2p o0981528 ZATU621			12B06			12B06		
ZATU621~c 12B07		PC25					12B07	
2x IV: 2p; III: 1p o0981529 ZATU621			12B07			12B07		
ZATU621~d 12B08		PC25						
1x IV: 1p o0981530 ZATU621			12B08					
ZATU622 12B09		PC25					12B09	
1x IV: 1p; III: 1p o0981531 ZATU622			12B09			12B09		
ZATU623 12B0A		PC25			1 F21D9		12B0A	
					2 F21DA			
11x IV: 3p/1u; III: 6p/2u o0981532 ZATU623			12B0A			12B0A		
ZATU624~a 12B0B		PC25						
6x III: 3p/3u o0981533 ZATU624			12B0B			12B0B		

ZATU624~b 12B0C	5x III: 1p/4u	o0981534	PC25	12B0C	12B0C					
ZATU624~c 1x III: 1u			UNP		F248F					
ZATU625 12B0D	17x IV: 3p/1u; III: 13p/3u	o0981536	PC25	12B0D	12B0D					
ZATU625 12B0D		o0981536	ZATU625	12B0D	12B0D					
ZATU626~a 12B0E	1x IV: 1p; III: 1p	o0981537	PC25	12B0E	12B0E					
ZATU626~b 12B0F	1x IV: 1p	o0981538	PC25	12B0F	12B0F					
ZATU626~c 12B10	1x IV: 1p; III: 1p	o0981539	PC25	12B10	12B10					
ZATU627 1x IV: 1u		o0981540	UNP		F2490					
ZATU628~a 12B11	30x III: 15p/15u	o0981541	PC25	12B11	12B11					
ZATU628~b 12B12	8x III: 1p/7u	o0981542	PC25	12B12	12B12					
ZATU629 12B13	22x IV: 6p; III: 9p/10u	o0981543	PC25	12B13	12B13					
ZATU630 12B14	8x IV: 5p/1u; III: 5p	o0981544	PC25	12B14	12B14	12B14	12B14			
ZATU631 12B15	6x IV: 4p; III: 4p/2u	o0981545	PC25	12B15	12B15					
ZATU632~a 12B16	4x IV: 1p/1u; III: 2u	o0981546	PC25	12B16	12B16	12B16				
ZATU632~b 12B17	1x IV: 1p; III: 1p	o0981547	PC25	12B17	12B17					
ZATU632~c 1x IV: 1u		o0981548	UNP		F2491					
ZATU633~a 12B18	4x III: 3p/1u	o0981549	PC25	12B18	12B18					

ZATU633~b 12B19 4x III: 4p		PC25 o0981550 ZATU633							
ZATU634 1x IV: 1u		UNP o0981551 ZATU634							
ZATU635 12B1A 3x IV: 3p; III: 3p		PC25 o0981552 ZATU635							
ZATU636 12B1B 5x IV: 3p; III: 3p/2u		PC25 o0981553 ZATU636							
ZATU637 12B1C 2x IV: 1p; III: 2p		PC25 o0981554 ZATU637							
ZATU639 12B1D 7x IV: 4p/1u; III: 6p		PC25 o0981555 ZATU639							
ZATU640 1x IV: 1p; III: 1p		PC25-bk o0981556 ZATU640							
ZATU641 12B1E 1x IV: 1p; III: 1p		PC25 o0981557 ZATU641							
ZATU642 12B1F 2x IV: 2p; III: 2p		PC25 o0981558 ZATU642							
ZATU643 12B20 2x IV: 1p/1u		PC25 o0981559 ZATU643							
ZATU644~a 12B21 57x IV: 8p/3u; III: 48p/2u		PC25 o0981560 ZATU644							
ZATU644~a x 1(N14)		UNP o0981561 ZATU645							
ZATU644~b 12B22 10x IV: 3p/4u; III: 6p/1u		PC25 o0981562 ZATU644							
ZATU646 12B23 10x IV: 2p; III: 2p/6u		PC25 o0981563 ZATU646							
ZATU647 12B24 73x IV: 3p; III: 54p/14u		PC25 o0981564 ZATU647							
ZATU648 12B25 53x IV: 2u; III: 39p/12u		PC25 o0981565 ZATU648							



ZATU659×1(N58@t) 12B32		PC25						
AKA:  ZATU659×1(N58)@t  CDLI:  ZATU659×1(N58)@t  1x III: 1p o0981581 ZATU660								
ZATU659@t		UNP						
1x o0981582			F2541					
ZATU662 12B33		PC25	 <sup>1</sup> F21E4 <sup>2</sup> F21E5 12B33 <sup>3</sup> F21E6	 <sup>1</sup> F21E4 <sup>2</sup> F21E5 12B33	 <sup>1</sup> F21E4 <sup>2</sup> F21E5 12B33	 <sup>1</sup> F21E4 <sup>2</sup> F21E5 12B33	 <sup>1</sup> F21E4 <sup>2</sup> F21E5 12B33	
27x IV: 4p/6u; III: 19p/1u o0981583 ZATU662								
ZATU662×1(N14) 12B34		PC25	 12B34	 <sup>1</sup> F21E7 <sup>2</sup> F21E8	 <sup>1</sup> F21E7 <sup>2</sup> F21E8	 F21E8	 F21E7	
11x IV: 4p/1u; III: 9p o0981584 ZATU663								
ZATU664 12B35		PC25						
2x IV: 1p; III: 1p o0981585 ZATU664			12B35			12B35		
ZATU665 12B36		PC25						
1x IV: 1p; III: 1p o0981586 ZATU665			12B36			12B36		
ZATU666 12B37		PC25						
1x IV: 1p o0981587 ZATU666			12B37					
ZATU667 12B38		PC25						
1x IV: 1p; III: 1p o0981588 ZATU667			12B38			12B38		
ZATU668 12B39		PC25						
1x IV: 1p o0981589 ZATU668			12B39			12B39		
ZATU669 12B3A		PC25						
6x III: 3p/3u o0981590 ZATU669			12B3A					
ZATU670		PC25-bk						
1x IV: 1p; III: 1p o0981591 ZATU670			F2498			F2498		
ZATU672 12B3B		PC25						
3x IV: 3p; III: 2p o0981592 ZATU672			12B3B			12B3B		
ZATU674 12B3C		PC25						
1x IV: 1p o0981593 ZATU674			12B3C					
ZATU675-a 12B3D		PC25						
1x IV: 1p; III: 1p o0981594 ZATU675			12B3D			12B3D		

ZATU675~b 12B3E	PC25	1 F21E9 12B3E	12B3E			
4× IV: 2p; III: 4p o0981595	ZATU675					
ZATU675~c 12B3F	PC25	12B3F	12B3F			
2× IV: 2p; III: 1p o0981596	ZATU675					
ZATU675~d 12B40	PC25	12B40	12B40			
2× III: 2p o0981597	ZATU675					
ZATU676~a 12B41	PC25	12B41	12B41			
8× III: 6p/2u o0981598	ZATU676					
ZATU676~b 12B42	PC25	12B42	12B42			
7× III: 7p o0981599	ZATU676					
ZATU677~a 12B43	PC25	12B43	12B43			
1× IV: 1p; III: 1p o0981600	ZATU677					
ZATU677~b 12B44	PC25	12B44	12B44			
1× IV: 1p; III: 1p o0981601	ZATU677					
ZATU678 12B45	PC25	12B45	12B45			
5× IV: 4p o0981602	ZATU678					
ZATU679 12B46	PC25	12B46	12B46	12B46		
8× IV: 4p/2u; III: 4p o0981603	ZATU679					
ZATU680~a1 12B47	PC25	12B47	12B47			
1× IV: 1p o0981604	ZATU680					
ZATU680~a2 12B48	PC25	12B48	12B48			
1× IV: 1p o0981605	ZATU680					
ZATU680~b 12B49	PC25	1 F21EA 12B49	12B49	12B49		
6× IV: 4p; III: 5p o0981606	ZATU680					
ZATU680~d 12B4A	PC25	12B4A	12B4A			
1× IV: 1p o0981607	ZATU680					
ZATU680~e 12B4B	PC25	12B4B	12B4B			
1× IV: 1p o0981608	ZATU680					
ZATU681 12B4C	PC25	12B4C	12B4C	12B4C	12B4C	
10× IV: 1p; III: 9p o0981609	ZATU681					
ZATU682 12B4D	PC25	12B4D	12B4D			
7× III: 4p/3u o0981610	ZATU682					
ZATU683~a 12B4E	PC25	12B4E	12B4E			
1× IV: 1p o0981611	ZATU683					
ZATU683~b 12B4F	PC25	12B4F	12B4F			
2× IV: 2p o0981612	ZATU683					

ZATU683@t CDL:  ZATU683@t  1x III: 1u	UNP o0981613						
ZATU684 12B50 2x III: 1p/1u	PC25 o0981614 ZATU684						
ZATU685 12B51 1x IV: 1p	PC25 o0981615 ZATU685						
ZATU686~a 12B52 40x IV: 1p/1u; III: 25p/14u	PC25 o0981616 ZATU686						
ZATU686~b 12B53 14x III: 9p/5u	PC25 o0981617 ZATU686						
ZATU686~c 12B54 2x III: 2p	PC25 o0981618 ZATU686						
ZATU687 12B55 15x IV: 3p; III: 4p/9u	PC25 o0981619 ZATU687						
ZATU688~a 12B56 4x IV: 4p	PC25 o0981620 ZATU688						
ZATU688~b 12B57 1x IV: 1p; III: 1p	PC25 o0981621 ZATU688						
ZATU689 12B58 3x IV: 3p; III: 3p	PC25 o0981622 ZATU689						
ZATU690 12B59 2x IV: 1p/1u; III: 1p	PC25 o0981623 ZATU690						
ZATU691 12B5A 1x IV: 1p	PC25 o0981624 ZATU691						
ZATU692 12B5B 1x IV: 1p; III: 1p	PC25 o0981625 ZATU692						
ZATU693 12B5C 31x IV: 29p/1u; III: 25p	PC25 o0981626 ZATU693						
ZATU693@t 12B5D 1x IV: 1p; III: 1p	PC25 o0981627						
		<sup>1</sup> 					

ZATU694~a 12B5E		PC25							
3x IV: 3p; III: 1p	o0981628	ZATU694	12B5E			12B5E			
ZATU694~b 12B5F		PC25							
10x IV: 9p; III: 3p	o0981629	ZATU694	12B5F			12B5F			
ZATU694~c 12B60		PC25							
74x IV: 2p; III: 19p/53u	o0981630	ZATU694	12B60		12B60		12B60		
ZATU694~d 12B61		PC25							
16x IV: 14p; III: 5p	o0981631	ZATU694	12B61			12B61			
ZATU694~d@t 12B62		PC25							
2x IV: 2p	o0981632		12B62			12B62			
ZATU694~e		ZERO							
	o0981633	ZATU694	F2529						
ZATU695 12B63		PC25							
5x IV: 4p; III: 1u	o0981634	ZATU695	12B63						
ZATU696 12B64		PC25							
5x IV: 1p; III: 5p	o0981635	ZATU696	12B64			12B64			
ZATU697~a 12B65		PC25							
34x IV: 9p; III: 20p/12u	o0981636	ZATU697	12B65						
ZATU697~b 12B66		PC25							
7x IV: 3p/2u; III: 2p/1u	o0981637	ZATU697	12B66			12B66			
ZATU697~c		UNP							
2x III: 2u	o0981638	ZATU697	F249A						
ZATU699~a		UNP							
1x IV: 1u	o0981639	ZATU699	F249B						
ZATU699~b 12B67		PC25							
1x IV: 1p	o0981640	ZATU699	12B67						
ZATU700 12B68		PC25							
2x IV: 1p; III: 1p	o0981641	ZATU700	12B68			12B68			
ZATU701 12B69		PC25							
1x IV: 1p	o0981642	ZATU701	12B69			12B69			

ZATU702 12B6A		PC25						
3× IV: 1p; III: 3p	o0981643	ZATU702	12B6A			12B6A		
ZATU703 12B6B		PC25						
21× IV: 3p; III: 18p/3u	o0981644	ZATU703	12B6B			12B6B		
ZATU704		PC25-bk						
3× IV: 2p; III: 1p	o0981645	ZATU704	F249C			F249C		
ZATU705 12B6C		PC25						
1× IV: 1p; III: 1p	o0981646	ZATU705	12B6C			12B6C		
ZATU706 12B6D		PC25						
2× IV: 2p	o0981647	ZATU706	12B6D					
ZATU707~a 12B6E		PC25						
11× IV: 1u; III: 9p/1u	o0981648	ZATU707	12B6E		12B6E			
ZATU707~b 12B6F		PC25						
2× IV: 2p	o0981649	ZATU707	12B6F					
ZATU708 12B70		PC25						
2× IV: 1p; III: 2p	o0981650	ZATU708	12B70			12B70		
ZATU709 12B71		PC25						
1× IV: 1p; III: 1p	o0981651	ZATU709	12B71			12B71		
ZATU710 12B72		PC25						
52× III: 46p/5u	o0981652	ZATU710	12B72					
ZATU711 12B73		PC25						
6× IV: 3p; III: 2p/1u	o0981653	ZATU711	12B73			F21F5		
ZATU711~HI@g~a  12B74		PC25						
2× IV: 2p; III: 2p	o0981654	ZATU712	12B74			12B74		
ZATU711~X		PC25-bk						
1× IV: 1p; III: 1p	o0981655		F249D			F249D		
ZATU713 12B75		PC25						
7× IV: 7p	o0981656	ZATU713	12B75			12B75		
ZATU714 12B76		PC25						
40× IV: 2p/1u; III: 29p/10u	o0981657	ZATU714	12B76		12B76	12B76	12B76	

ZATU714.RU		PC25-sq	F228F	F228F				
1x IV: 1p; III: 1p	o0981658	ZATU716						
ZATU714~HI@g~a		PC25	12B77	12B77		12B77	12B77	
39x IV: 3p; III: 35p/3u	o0981659	ZATU715						
ZATU714~X		PC25-bk	F249E	F249E				
2x IV: 1p; III: 1u	o0981660	ZATU716						
ZATU717		PC25	12B78	12B78	12B78		12B78	
2x IV: 1p; III: 2p	o0981661	ZATU717						
ZATU718		PC25	12B79	12B79	12B79	12B79	12B79	
16x IV: 1p; III: 10p/5u	o0981662	ZATU718						
ZATU719		PC25	12B7A	12B7A				
4x III: 1p/3u	o0981663	ZATU719						
ZATU720		PC25	12B7B	12B7B	12B7B		12B7B	
20x IV: 19p/1u; III: 16p	o0981664	ZATU720						
ZATU721		PC25	12B7C	12B7C	12B7C		12B7C	
2x IV: 2p; III: 2p	o0981665	ZATU721						
ZATU722		PC25	12B7D	12B7D	12B7D	12B7D	12B7D	
3x IV: 2p; III: 1p	o0981666	ZATU722						
ZATU723		PC25	12B7E	12B7E	12B7E	12B7E	12B7E	
3x IV: 1p; III: 2p	o0981667	ZATU723						
ZATU724		PC25-bk	F249F	F249F	F249F	F249F	F249F	
3x IV: 1p; III: 3p	o0981668	ZATU724						
ZATU725		PC25	12B7F	12B7F	12B7F	12B7F		
18x IV: 1p; III: 16p/1u	o0981669	ZATU725						
ZATU726~a		PC25	12B80	12B80	12B80	12B80	12B80 (b)	
1x IV: 1p	o0981670	ZATU726		1 F21F7		1 F21F7		
ZATU726~c		PC25	12B81	12B81	12B81	12B81		
4x IV: 1p; III: 4p	o0981671	ZATU726						
ZATU726~d		PC25	12B82	12B82	12B82	12B82	12B82	
23x IV: 6p/1u; III: 18p/2u	o0981672	ZATU726						
ZATU727		PC25	12B83	12B83	12B83	12B83	12B83	
1x III: 1p	o0981673	ZATU727						

ZATU728 12B84		PC25						
9x III: 5p/4u	o0981674	ZATU728						
ZATU729 12B85		PC25						
7x IV: 6p; III: 6p	o0981675	ZATU729						
ZATU730 12B86		PC25						
1x III: 1p	o0981676	ZATU730						
ZATU732 12B87		PC25						
8x III: 8p	o0981677	ZATU732						
ZATU733		UNP						
1x III: 1u	o0981678	ZATU733						
ZATU734 12B88		PC25						
1x IV: 1p	o0981679	ZATU734						
ZATU735~a 12B89		PC25						
8x III: 5p/3u	o0981680	ZATU735						
ZATU735~b 12B8A		PC25						
20x IV: 3p; III: 17p/3u	o0981681	ZATU735						
ZATU735~c 12B8B		PC25						
1x III: 1p	o0981682	ZATU735						
ZATU736~a 12B8C		PC25						
2x IV: 1p; III: 1p	o0981683	ZATU736						
ZATU736~b 12B8D		PC25						
1x IV: 1p; III: 1p	o0981684	ZATU736						
ZATU737 12B8E		PC25						
4x IV: 1p; III: 3p/1u	o0981685	ZATU737						
ZATU737~AB~a  12B8F		PC25						
1x III: 1p	o0981686	ZATU738						
ZATU737~BU~a  12B90		PC25						
1x III: 1p	o0981687							

ZATU737xBUR~a  12B91		PC25	 1 F21FE					
AKA: GABURRA 15x IV: 1p; III: 14p	o0981688	ZATU185						
ZATU737xDI  12B92		PC25	 1 F2202					
26x IV: 1p; III: 23p/1u	o0981689	ZATU739						
ZATU737xE~a		UNP						
1x III: 1u	o0981690							
ZATU737xEN~a  12B93		PC25	 1 F24A1					
1x IV: 1p	o0981691	ZATU740						
ZATU737xEN~b  12B94		PC25	 1 F24A1					
1x IV: 1p	o0981692	ZATU740						
ZATU737xGAR  12B95		PC25	 1 F21FF		 2 F2200			
AKA: ZATU741 5x IV: 2u; III: 3p	o0981693	ZATU741						
ZATU737xI		UNP						
1x III: 1u	o0981694							
ZATU737xNI~a@g  12B96		PC25	 1 F2201					
1x III: 1p	o0981695							
ZATU737xNIMGIR  12B97		PC25	 1 F2201					
2x IV: 1p; III: 1p	o0981696	ZATU742						
ZATU737xSAL  12B98		PC25	 1 F2201					
33x IV: 1p/1u; III: 18p/13u	o0981697	ZATU743						
ZATU737xSU~a  12B99		PC25	 1 F2201					
2x IV: 1p; III: 1p	o0981698	ZATU744						
ZATU737xŠE~a  12B9A		PC25	 1 F2201					
1x IV: 1p; III: 1p	o0981699	ZATU745						
ZATU737xŠITA~a1  12B9B		PC25	 1 F2201					
1x IV: 1p	o0981700							
ZATU737xŠITA~b1@g  CDLI: ZATU737xŠITA@g~a	o0981701	ZATU746	EDI					
ZATU737xU <sub>4</sub>   12B9C		PC25	 1 F2517					
11x III: 9p/2u	o0981702	ZATU747						

ZATU737xUNUG~a 12B9D		PC25		12B9D				12B9D		
1× IV: 1p; III: 1p	o0981703	ZATU748								
ZATU737xX  14× III: 12p/2u	o0981704	PC25-bk		F24A2		F24A2				
ZATU737@t×PAP~a  1×	o0981705	UNP		F251A						
ZATU749~a 12B9E		PC25		12B9E						
				1 F2203						
				2 F2204						
13× IV: 1p; III: 7p/5u	o0981706	ZATU749								
ZATU749~b 12B9F		PC25		12B9F					12B9F	
19× IV: 1p/1u; III: 10p/9u	o0981707	ZATU749								
ZATU749~c 12BA0		PC25		12BA0						
13× IV: 1p; III: 11p/1u	o0981708	ZATU749								
ZATU750 12BA1		PC25		1 F2205				F2208	F2205	F2208
				2 F2206						
				12BA1						
				3 F2207						
				4 F2208						
				5 F2209						
15× IV: 4p/2u; III: 8p/2u	o0981709	ZATU750								
ZATU751~a 12BA2		PC25		12BA2		12BA2		12BA2	12BA2	
41× IV: 1p; III: 35p/6u	o0981710	ZATU751		1 F220A						
ZATU751~b 12BA3		PC25		12BA3						12BA3
5× III: 5p	o0981711	ZATU751		1 F220B						
ZATU751~c 12BA4		PC25		12BA4						
1× III: 1p	o0981712									
ZATU752 12BA5		PC25		1 F220C		12BA5		F220C	12BA5	12BA5
129× IV: 14p/1u; III: 90p/30u	o0981713	ZATU752		12BA5						

ZATU753 12BA6		PC25						
231x IV: 22p/16u; III: 168p/37u	o0981714	ZATU753						
ZATU754 12BA7		PC25						
3x IV: 3p; III: 1p	o0981715	ZATU754						
ZATU755~a 12BA8		PC25						
2x IV: 2p; III: 2p	o0981716	ZATU755						
ZATU755~b 12BA9		PC25						
3x IV: 1p; III: 3p	o0981717	ZATU755						
ZATU756 12BAA		PC25						
19x IV: 1u; III: 11p/7u	o0981718	ZATU756						
ZATU757 12BAB		PC25						
5x IV: 1u; III: 3p/2u	o0981719	ZATU757						
<sup>1</sup> F220E 12BAB								
<sup>2</sup> F220F								
ZATU758 12BAC		PC25						
26x IV: 18p/1u; III: 16p/1u	o0981720	ZATU758						
ZATU759 12BAD		PC25						
47x IV: 8p/2u; III: 31p/8u	o0981721	ZATU759						
ZATU759×KU <sub>6</sub> ~a  12BAE		PC25						
32x IV: 9p/1u; III: 22p/6u	o0981722	ZATU760						
ZATU759×(KU <sub>6</sub> ~a+KU <sub>6</sub> ~a)  12BAF		PC25						
1x III: 1p	o0981723							
ZATU759×KU <sub>6</sub> ~d		UNP						
1x IV: 1u; III: 1p	o0981724	ZATU760						
ZATU759×X		PC25-bk						
2x IV: 1p; III: 2p	o0981725							
ZATU759@t×X		PC25-bk						
1x III: 1p	o0981726							
ZATU761		UNP						
1x III: 1u	o0981727	ZATU761						

ZATU762~a 12BB0		PC25	 1 F2211  2 F2212 						
7x IV: 2p/2u; III: 5p o0981728 ZATU762		12BB0							
ZATU762~a×NIM~a  12BB1		PC25	 12BB1				 12BB1		
2x IV: 1p/1u; III: 1p o0981729 ZATU763		12BB1					12BB1		
ZATU762~b 12BB2		PC25	 12BB2				 12BB2		
5x IV: 3p/1u; III: 3p o0981730 ZATU762		12BB2					12BB2		
ZATU762~b×AB~a  12BB3		PC25	 12BB3				 12BB3		
1x III: 1p o0981731 ZATU163		12BB3					12BB3		
ZATU764 12BB4		PC25	 12BB4				 12BB4		
21x IV: 4p/2u; III: 13p/3u o0981732 ZATU764		12BB4					12BB4		
ZATU765 12BB5		PC25	 12BB5				 12BB5		
1x IV: 1p o0981733 ZATU765		12BB5					12BB5		
ZATU766 12BB6		PC25	 12BB6		 12BB6				
1x IV: 1p; III: 1p o0981734 ZATU766		12BB6		12BB6					
ZATU767 12BB7		PC25	 12BB7				 12BB7		
1x IV: 1p; III: 1p o0981735 ZATU767		12BB7					12BB7		
ZATU768		PC25-bk							
1x IV: 1p o0981736 ZATU768		F24A7		F24A7			F24A7		
ZATU769		PC25-bk							
1x III: 1p o0981737 ZATU769		F24A8		F24A8			F24A8		
ZATU771		PC25-bk							
1x IV: 1p o0981738 ZATU771		F24A9		F24A9			F24A9		
ZATU772 12BB8		PC25							
1x III: 1p o0981739 ZATU772		12BB8							
ZATU773~a 12BB9		PC25	 12BB9				 12BB9	 12BB9	
50x IV: 1u; III: 39p/10u o0981740 ZATU773		1 F2213					12BB9	12BB9	
ZATU773~b 12BBA		PC25	 12BBA						 F2214
8x IV: 1p; III: 2p/3u o0981741 ZATU773		1 F2214							F2214
ZATU774 12BBB		PC25	 12BBB						
1x III: 1p o0981742 ZATU774		12BBB							
ZATU775 12BBC		PC25	 12BBC						
1x III: 1p o0981743 ZATU775		12BBC							

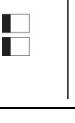
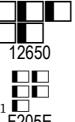
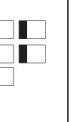
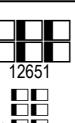
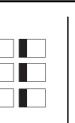
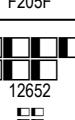
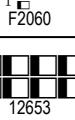
ZATU776 12BBB		PC25	 12BBB 1 F2215 2 F2216						 12BBB
20x IV: 3p; III: 13p/4u	o0981744	ZATU776							
ZATU777 12BBE		PC25	 12BBE 1 F2217 2 F2218		 F2217				 F2217
18x III: 15p/3u	o0981745	ZATU777							
ZATU778 12BBF		PC25	 12BBF						
4x III: 2p/2u	o0981746	ZATU778							
ZATU779		ZERO		 F24AA					
	o0981747	ZATU779							
ZATU780 12BC0		PC25	 12BC0						
2x IV: 2p; III: 1p	o0981748	ZATU780							
ZATU781 12BC1		PC25	 12BC1						
1x III: 1p	o0981749	ZATU781							
ZATU782 12BC2		PC25	 12BC2						
3x III: 3p	o0981750	ZATU782							
ZATU783 12BC3		PC25	 12BC3						
2x III: 1p/1u	o0981751	ZATU783							
ZATU784 12BC4		PC25	 12BC4						
1x III: 1p	o0981752	ZATU784							
ZATU785		PC25-bk		 F24AB					
1x III: 1p	o0981753	ZATU785							
ZATU786 12BC5		PC25	 12BC5		 12BC5				
9x IV: 1u; III: 5p/3u	o0981754	ZATU786							
ZATU787 12BC6		PC25	 12BC6						 12BC6
1x III: 1p	o0981755	ZATU787							
ZATU788 12BC7		PC25	 12BC7						 12BC7
27x III: 27p	o0981756	ZATU788							
ZATU789		ZERO		 F24AC					
	o0981757	ZATU789							
ZATU791 12BC8		PC25	 12BC8		 12BC8				
2x IV: 1u; III: 1p	o0981758	ZATU791							
ZATU792 12BC9		PC25	 12BC9		 12BC9				
1x III: 1p	o0981759	ZATU792							

ZATU795 12BCA		PC25						
23x III: 6p/17u	o0981760	ZATU795		12BCA				
ZATU797 12BCB		PC25					12BCB	
2x III: 1p/1u	o0981761	ZATU797		12BCB				12BCB
ZATU798 12BCC		PC25					12BCC	
1x III: 1p	o0981762	ZATU798		12BCC				12BCC
ZATU799 12BCD		PC25					12BCD	
3x III: 1p/2u	o0981763	ZATU799		12BCD				12BCD
ZATU800 12BCE		PC25					12BCE	
2x III: 2p	o0981764	ZATU800		12BCE				12BCE
ZATU801 12BCF		PC25						
4x III: 4p	o0981765	ZATU801		12BCF				
ZATU802 12BD0		PC25						
1x IV: 1p	o0981766	ZATU802		12BD0				
ZATU802-b 12BD1		PC25						
1x III: 1p	o0981767	ZATU802		12BD1				
ZATU803 12BD2		PC25						
1x IV: 1p	o0981768	ZATU803		12BD2				
ZATU804 12BD3		PC25						
1x IV: 1p; III: 1p	o0981769	ZATU804		12BD3				
ZATU805		UNP						
2x III: 2u	o0981770	ZATU805		F24AD				
ZATU806 12BD4		PC25				12BD4		
1x III: 1p	o0981771	ZATU806		12BD4		12BD4		
ZATU807 12BD5		PC25						
1x IV: 1p; III: 1p	o0981772	ZATU807		12BD5				
ZATU808 12BD6		PC25						
1x III: 1p	o0981773	ZATU808		12BD6				
ZATU809 12BD7		PC25						
7x III: 6p	o0981774	ZATU809		12BD7				
ZATU810 12BD8		PC25						
1x III: 1p	o0981775	ZATU810		12BD8				
ZATU811 12BD9		PC25						12BD9
7x IV: 1p; III: 2p/4u	o0981776	ZATU811		12BD9				
ZATU812 12BDA		PC25						12BDA
1x III: 1p	o0981777	ZATU812		12BDA				

ZATU813 12BDB		PC25							
1× III: 1p	o0981778	ZATU813							
ZATU814		UNP							
1× III: 1u	o0981779	ZATU814							
ZATU815		UNP							
1× III: 1u	o0981780	ZATU815							
ZATU817		PC25-bk							
1× IV: 1p; III: 1p	o0981781	ZATU817							
ZATU818		PC25-bk							
1× IV: 1p; III: 1p	o0981782	ZATU818							
ZATU819 12BDC		PC25							
7× III: 1p/6u	o0981783	ZATU819							
ZATU820		UNP							
1× III: 1u	o0981784	ZATU820							
ZATU821		UNP							
7× III: 7u	o0981785	ZATU821							
ZATU822		UNP							
1× III: 1u	o0981786	ZATU822							
ZATU823		UNP							
3× III: 3u	o0981787	ZATU823							
ZATU824		UNP							
2× III: 2u	o0981788	ZATU824							
ZATU825		UNP							
2× III: 2u	o0981789	ZATU825							
ZATU826		UNP							
2× III: 2u	o0981790	ZATU826							
ZATU829		UNP							
1× III: 1u	o0981791	ZATU829							
ZATU831		UNP							
2× III: 2u	o0981792	ZATU831							
ZATU831@g CDLI:  ZATU831@g		UNP							
2× III: 2u	o0981793								
ZATU832 12BDD		PC25							
3× III: 1p/2u	o0981794	ZATU832							
ZATU833 12BDE		PC25							
1× IV: 1p; III: 1p	o0981795	ZATU833							
ZATU834 12BDF		PC25							
1× IV: 1p	o0981796	ZATU834							
ZATU835 12BE0		PC25							
1× III: 1p	o0981797	ZATU835							

ZATU836 12BE1 2x III: 1p/1u		PC25 o0981798 ZATU836						
ZATU837~a 3x III: 3u		UNP o0981799 ZATU837						
ZATU837~b 1x III: 1u		UNP o0981800 ZATU837						
ZATU838 3x III: 3u		UNP o0981801 ZATU838						
ZATU839 6x III: 6u		UNP o0981802 ZATU839	 <sup>1</sup> 					
ZATU840 1x III: 1u		UNP o0981803 ZATU840						
ZATU841 2x III: 2u		UNP o0981804 ZATU841						
ZATU842 1x		UNP o0981805 ZATU842						
ZATU843 1x III: 1u		UNP o0981806 ZATU843						
ZATU844 1x IV: 1u		UNP o0981807 ZATU844						
ZATU845 1x III: 1u		UNP o0981808 ZATU845						
ZATU846 1x III: 1u		UNP o0981809 ZATU846						
ZATU847 12BE2 6x III: 2p/4u		PC25 o0981810 ZATU847						
ZATU848 1x III: 1u		UNP o0981811 ZATU848						
ZATU849 2x III: 2u		UNP o0981812 ZATU849						
ZATU850 12BE3 4x III: 4p		PC25 o0981813 ZATU850						
ZATU851 12BE4 1x III: 1p		PC25 o0981814 ZATU851						
ZATU852 1x III: 1u		UNP o0981815 ZATU852						

ZATU853		UNP						
3x III: 3u	o0981816	ZATU853						
ZATU854		PC25						
12BE5								
1x III: 1p	o0981817	ZATU854						
ZATU855		UNP						
1x III: 1u	o0981818	ZATU855						
ZATU856		UNP						
1x III: 1u	o0981819	ZATU856						
ZATU857		UNP						
1x III: 1u	o0981820	ZATU857						
ZATU858		PC25						
12BE6								
1x III: 1p	o0981821	ZATU858						
ZATU859		PC25						
12BE7								
1x III: 1p	o0981822	ZATU859						
2(LAGAB~a)		PC25						
12BE8								
4x III: 4p	o0981823							
3(LAGAB~a)		PC25						
12BE9								
1x III: 1p	o0981824							
4(LAGAB~a)		PC25						
12BEA								
2x III: 2p	o0981825							
5(LAGAB~a)		NUM						
	o0981826							
6(LAGAB~a)		PC25						
12BEB								
1x III: 1p	o0981827							
1(N01)		ACN						
12971x								
IV: 1467p/317u;								
III: 9623p/2277u	o0981828							
2(N01)		ACN						
3138x								
IV: 608p/168u;								
III: 1846p/763u	o0981829							
3(N01)		ACN						
1630x								
IV: 340p/78u;								
III: 904p/438u	o0981830							
4(N01)		ACN						
1151x								
IV: 240p/65u;								
III: 655p/269u	o0981831							
5(N01)		ACN						
1326x								
IV: 263p/66u;								
III: 815p/267u	o0981832							

6(N01)		ACN	 12555 					
597x	IV: 134p/42u; III: 328p/146u	00981833						
7(N01)		ACN	 12556 					
379x	IV: 86p/22u; III: 204p/98u	00981834						
8(N01)		ACN	 12557 					
364x	IV: 66p/29u; III: 217p/80u	00981835						
9(N01)		ACN	 12558 					
247x	IV: 57p/15u; III: 127p/62u	00981836						
10(N01)		PC25	 F00DA					
2x	III: 2p	00981837						
1(N01@f)		ACN	 1264C					
11x	IV: 1p; III: 11p	00981838						
2(N01@f)		ACN	 1264D 					
3x	III: 3p	00981839						
3(N01@f)		ACN	 1264E 					
1x		00981840						
4(N01@f)		ACN	 1264F					
1x		00981841						
5(N01@f)		ACN	 12650 					
1x	III: 1p	00981842						
6(N01@f)		ACN	 12651 					
1x	IV: 1u	00981843						
7(N01@f)		ACN	 12652 					
00981844								
8(N01@f)		ACN	 12653 					
1x		00981845						

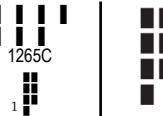
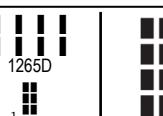
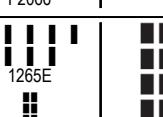
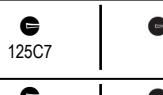
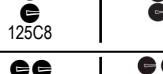
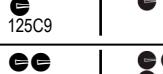
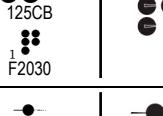
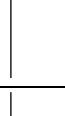
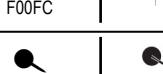
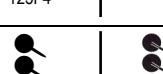
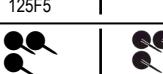
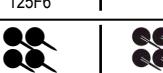
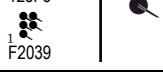
9(N01@f)	ACN	12654 1 F2062	12589					
o0981846								
1(N01@r)	ACN		12589					
CDL:  1(N01@r)  2x IV: 1p; III: 1p	o0981847							
1(N02)	ACN		125BE					
165x IV: 45p/10u; III: 99p/38u	o0981848 ZATU606							
2(N02)	ACN	125BF 1 F2029	125BF 1 F2029					
99x IV: 28p/20u; III: 49p/10u	o0981849							
3(N02)	ACN	125C0 1 F202A	125C0 1 F202A					
44x IV: 16p/1u; III: 21p/9u	o0981850							
4(N02)	ACN		125C1					
30x IV: 3p/4u; III: 22p/1u	o0981851							
5(N02)	ACN	125C2 1 F202B	125C2 1 F202B					
24x IV: 8p/1u; III: 7p/9u	o0981852							
6(N02)	ACN	125C3 1 F202C	125C3 1 F202C					
15x IV: 3p/1u; III: 12p/1u	o0981853							
7(N02)	ACN	125C4 1 F202D	125C4 1 F202D					
5x IV: 2p/1u; III: 2p	o0981854							
8(N02)	ACN	125C5 1 F202E	125C5 1 F202E					
5x IV: 3p; III: 4p	o0981855							
9(N02)	ACN	125C6 1 F202F	125C6 1 F202F					
5x IV: 2p/1u; III: 2p/1u	o0981856							
1(N03)	ACN		125EF					
68x IV: 2p/1u; III: 63p/2u	o0981857							
2(N03)	ACN		125FO 1 F2036					
40x IV: 2p; III: 36p/2u	o0981858							
3(N03)	ACN		125F1 1 F2037					
34x IV: 1p; III: 32p/1u	o0981859							

4(N03)		ACN							
19x IV: 1p; III: 17p/2u	o0981860		125F2						
5(N03)		ACN							
8x III: 8p	o0981861		125F3	1 F2038					
1(N04)		ACN							
145x IV: 2p/1u; III: 120p/22u	o0981862	ZATU618	12606						
2(N04)		ACN							
66x IV: 2p; III: 64p/1u	o0981863		12607	1 F203E					
3(N04)		ACN							
58x IV: 1p/1u; III: 52p/4u	o0981864		12608	1 F203F					
4(N04)		ACN							
36x IV: 1p; III: 32p/2u	o0981865		12609						
5(N04)		ACN							
26x IV: 1u; III: 22p/3u	o0981866		1260A	1 F2040					
1(N04@f)		ACN							
	o0981867		12676						
2(N04@f)		ACN							
	o0981868		12677	1 F2073					
3(N04@f)		ACN							
	o0981869		12678						
4(N04@f)		ACN							
	o0981870		12679						
5(N04@f)		ACN							
	o0981871		1267A	1 F2074					
1(N05)		ACN							
104x IV: 10p/1u; III: 79p/11u	o0981872		12631						
2(N05)		ACN							
62x IV: 7p/1u; III: 49p/6u	o0981873		12632	1 F2052					
3(N05)		ACN							
42x IV: 4p; III: 32p/8u	o0981874		12633	1 F2053					

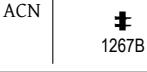
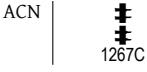
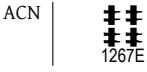
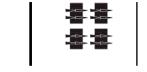
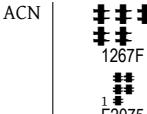
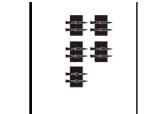
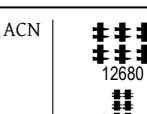
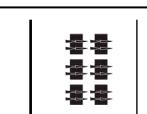
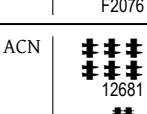
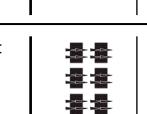
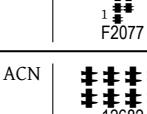
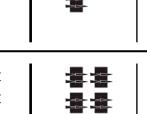
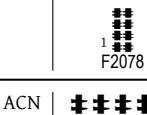
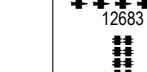
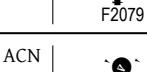
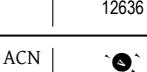
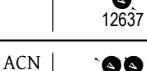
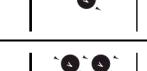
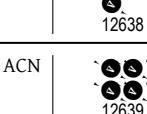
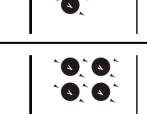
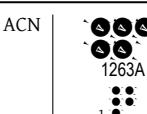
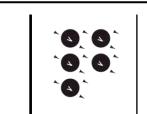
<b>4(N05)</b> 41x IV: 3p; III: 35p/5u	ACN o0981875	 12634	 12635					
<b>5(N05)</b> 29x IV: 2p; III: 22p/6u	ACN o0981876	 12635	 F2054					
<b>1(N06)</b> 10x III: 6p/4u	ACN o0981877	 125D1						
<b>2(N06)</b> o0981878	ACN	 125D2						
<b>3(N06)</b> o0981879	ACN	 125D3						
<b>4(N06)</b> o0981880	ACN	 125D4						
<b>5(N06)</b> o0981881	ACN	 125D5						
<b>6(N06)</b> o0981882	ACN	 125D6						
<b>7(N06)</b> o0981883	ACN	 125D7						
<b>8(N06)</b> o0981884	ACN	 125D8						
<b>9(N06)</b> o0981885	ACN	 125D9						
<b>1(N07A)</b> AKA: 1(N07~a) 15x IV: 15p; III: 15p	ACN o0981886	 12646	 12647					
<b>2(N07A)</b> AKA: 2(N07~a) 12x IV: 11p; III: 12p	ACN o0981887	 12647	 12648					
<b>3(N07A)</b> AKA: 3(N07~a) 9x IV: 9p; III: 8p	ACN o0981888	 12648	 12649					
<b>1(N07B)</b> AKA: 1(N07~b) 4x IV: 4p; III: 4p	ACN o0981889	 12649	 1264A					
<b>2(N07B)</b> AKA: 2(N07~b) 3x IV: 3p; III: 3p	ACN o0981890	 1264A	 1264B					
<b>3(N07B)</b> AKA: 3(N07~b) 3x IV: 2p/1u; III: 2p	ACN o0981891	 1264B	 12559					
<b>1(N08)</b> 287x IV: 51p/5u; III: 180p/74u	ACN o0981892	 12559	 1255A					
<b>2(N08)</b> 35x IV: 7p; III: 25p/6u	ACN o0981893	 1255A						

<b>3(N08)</b>		ACN							
31× IV: 2p/1u; III: 19p/11u	o0981894		1255B						
<b>4(N08)</b>		ACN							
20× IV: 3p; III: 15p/3u	o0981895		1255C F2007						
<b>5(N08)</b>		ACN							
23× IV: 3p/1u; III: 14p/6u	o0981896		1255D						
<b>6(N08)</b>		ACN							
10× IV: 1p/1u; III: 8p/1u	o0981897		1255E						
<b>7(N08)</b>		ACN							
5× III: 4p/1u	o0981898		1255F						
<b>8(N08)</b>		ACN							
7× III: 7p	o0981899		12560						
<b>9(N08)</b>		ACN							
3× IV: 1p; III: 3p	o0981900		12561						
<b>1(N08-b)</b>		NUM							
1× III: 1u	o0981901		F00F5						
<b>2(N08-b)</b>		PC25							
4× III: 1p/3u	o0981902		F00F6						
<b>3(N08-b)</b>		NUM							
1× III: 1u	o0981903		F00F7						
<b>4(N08-b)</b>		NUM							
1× III: 1u	o0981904		F00F8						
<b>4(N08-c)</b>		NUM							
1× III: 1u	o0981905		F00F9						
<b>1(N08-v)</b>		NUM							
1× III: 1u	o0982197		F00FA						
<b>1(N08@f)</b>		ACN							
	o0981907		12655						
<b> 1(N08@f)×1(N57) </b>		NUM							
	o0981908		F012C						
<b>1(N09)</b>		ACN							
18× IV: 18p; III: 18p	o0981909		12643						
<b>1(N11)</b>		ACN							
4× IV: 4p; III: 4p	o0981910		12644						
<b>1(N12)</b>		ACN							
1× IV: 1p; III: 1p	o0981911		12645						
<b>1(N14)</b>		ACN							
2594× IV: 478p/187u; III: 1617p/491u	o0981912	ZATU564	12562						
<b>2(N14)</b>		ACN							
1375× IV: 276p/91u; III: 812p/293u	o0981913		12563						

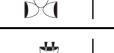
<b>3(N14)</b>		ACN							
807×	IV: 147p/50u; III: 500p/151u	o0981914							
<b>4(N14)</b>		ACN							
530×	IV: 105p/29u; III: 321p/113u	o0981915							
<b>5(N14)</b>		ACN							
386×	IV: 32p/19u; III: 243p/77u	o0981916							
<b>6(N14)</b>		ACN							
100×	IV: 12p/3u; III: 65p/21u	o0981917							
<b>7(N14)</b>		ACN							
79×	IV: 5p; III: 56p/17u	o0981918							
<b>8(N14)</b>		ACN							
72×	IV: 5p; III: 63p/4u	o0981919							
<b>9(N14)</b>		ACN							
43×	IV: 1p; III: 38p/4u	o0981920							
<b>10(N14)</b>		PC25							
2×		o0981921							
<b>11(N14)</b>		PC25							
1×		o0981922							
<b>12(N14)</b>		OOR5							
1×		o0981923							
<b>22(N14)</b>		PC25							
1×		o0981924							
<b>1(N14@f)</b>		ACN							
1×	IV: 1u	o0981925							
<b>2(N14@f)</b>		ACN							
		o0981926							
<b>3(N14@f)</b>		ACN							
2×	IV: 1u	o0981927							
<b>4(N14@f)</b>		ACN							
		o0981928							
<b>5(N14@f)</b>		ACN							
		o0981929							

<b>6(N14@f)</b>	ACN							
o0981930								
<b>7(N14@f)</b>	ACN							
o0981931								
<b>8(N14@f)</b>	ACN							
o0981932								
<b>9(N14@f)</b>	ACN							
o0981933								
<b>10(N14@f)</b>	OOR							
o0981934								
<b>1(N15)</b> 13x IV: 1p; III: 10p/2u	ACN							
o0981935								
<b>2(N15)</b>	ACN							
8x IV: 1p; III: 5p/2u	o0981936	o0981936	125C8					
<b>3(N15)</b>	ACN							
4x IV: 1p; III: 2p/1u	o0981937	o0981937	125C9					
<b>4(N15)</b>	ACN							
1x III: 1u	o0981938	o0981938	125CA					
<b>5(N15)</b>	ACN							
3x III: 3p	o0981939	o0981939	1F2030					
<b>1(N16)</b>	ACN							
9x IV: 1p; III: 8p/1u	o0981940	o0981940	F00FB					
<b>1(N17)</b>	ACN							
1x III: 1p	o0981941	o0981941	F00FC					
<b>1(N18)</b>	ACN							
19x IV: 3p/1u; III: 16p	o0981942	o0981942	125F4					
<b>2(N18)</b>	ACN							
14x III: 13p/1u	o0981943	o0981943	125F5					
<b>3(N18)</b>	ACN							
6x III: 6p	o0981944	o0981944	125F6					
<b>4(N18)</b>	ACN							
2x III: 2p	o0981945	o0981945	125F7					
<b>5(N18)</b>	ACN							
3x III: 3p	o0981946	o0981946	1F2039					

<b>6(N18)</b>	ACN	125F9 1 F203A	125FA 1 F203B					
2× IV: 1p; III: 1p	o0981947							
<b>7(N18)</b>	ACN	125FB 1 F203C	125FC 1 F203D					
1× III: 1p	o0981948							
<b>8(N18)</b>	ACN	125FB 1 F203C	125FC 1 F203D					
2× III: 2p	o0981949							
<b>9(N18)</b>	ACN	1260B	1260C					
2× III: 2p	o0981950							
<b>1(N19)</b>	ACN	1260B	1260C					
87× IV: 2p/1u; III: 78p/6u	o0981951							
<b>2(N19)</b>	ACN	1260C	1260D					
81× IV: 4p/1u; III: 70p/6u	o0981952							
<b>3(N19)</b>	ACN	1260D	1260E					
52× IV: 2p; III: 47p/3u	o0981953							
<b>4(N19)</b>	ACN	1260E	1260F					
33× III: 29p/4u	o0981954							
<b>5(N19)</b>	ACN	1260F 1 F2041	1260G					
40× III: 34p/4u	o0981955							
<b>6(N19)</b>	ACN	12610 1 F2042	12611					
20× III: 18p/2u	o0981956							
<b>7(N19)</b>	ACN	12611 1 F2043	12612					
22× IV: 2p; III: 19p/2u	o0981957							
<b>8(N19)</b>	ACN	12612 1 F2044	12613					
16× III: 14p/2u	o0981958							
<b>9(N19)</b>	ACN	12613 1 F2045 2 F2046	12614					
10× III: 9p/1u	o0981959							

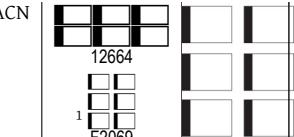
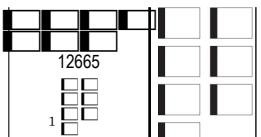
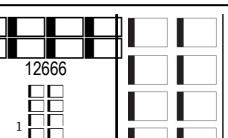
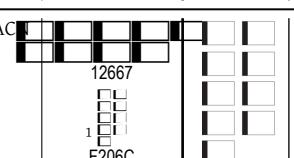
1(N19@f)	ACN o0981960	 1267B						
2(N19@f)	ACN o0981961	 1267C						
3(N19@f)	ACN o0981962	 1267D						
4(N19@f)	ACN o0981963	 1267E						
5(N19@f)	ACN o0981964	 1267F 1 F2075						
6(N19@f)	ACN o0981965	 12680 1 F2076						
7(N19@f)	ACN o0981966	 12681 1 F2077						
8(N19@f)	ACN o0981967	 12682 1 F2078						
9(N19@f)	ACN o0981968	 12683 1 F2079						
1(N20)	ACN 62x IV: 11p; III: 52p/5u o0981969	 12636						
2(N20)	ACN 50x IV: 7p/1u; III: 34p/13u o0981970	 12637						
3(N20)	ACN 24x IV: 4p; III: 18p/3u o0981971	 12638						
4(N20)	ACN 17x IV: 2p; III: 11p/4u o0981972	 12639						
5(N20)	ACN 12x IV: 1p; III: 5p/6u o0981973	 1263A 1 F2055						
6(N20)	ACN 9x III: 8p/1u o0981974	 1263B 1 F2056						

7(N20)		ACN							
4x IV: 1p; III: 4p	o0981975		1263C F2057						
8(N20)		ACN							
6x III: 4p/2u	o0981976		1263D F2058						
9(N20)		ACN							
5x IV: 1p; III: 4p	o0981977		1263E F2059						
1(N21)		ACN							
	o0981978		125DA						
2(N21)		ACN							
5x III: 5p	o0981979		125DB						
3(N21)		ACN							
9x III: 8p/1u	o0981980		125DC						
4(N21)		ACN							
4x III: 4p	o0981981		125DD						
5(N21)		ACN							
2x III: 2p	o0981982		125DE F2033						
6(N21)		PC25							
1x IV: 1p	o0981983		F00E0						
1(N22)		ACN							
89x IV: 4p; III: 45p/41u	o0981984		1258C						
2(N22)		ACN							
56x IV: 2p; III: 31p/23u	o0981985		1258D						
1(N22~v)		PC25							
1x III: 1p	o0981986		F00FD						
1(N22@f)		ACN							
	o0981987		1266A						
2(N22@f)		ACN							
	o0981988		1266B						
1(N23)		Pelm							
2x III: 1p/1u	o0981989		F00FE						
2(N23)		Pelm							
1x III: 1p	o0981990		F00FF						
3(N23)		Pelm							
1x III: 1p	o0981991		F0100						
5(N23)		Pelm							
1x IV: 1p	o0981992		F0101						

<b>7(N23)</b>	Pelm	 F0102					
1× III: 1p	o0981993						
<b>1(N24)</b>	ACN		 125AA				
AKA: 1(N24') 1(N24'')							
357× IV: 28p/11u; III: 297p/33u	o0981994						
<b>2(N24)</b>	NUM	 F0103					
	o0981995						
<b>4(N24)</b>	NUM	 F0104					
	o0981996						
<b>6(N24)</b>	NUM	 F0105					
1× IV: 1u; III: 1p	o0981997						
<b>1(N24@f)</b>	PC25	 F0106					
2× III: 2p	o0981998						
<b>1(N24A)</b>	ACN	 125EA					
AKA: 1(N24~a)							
28× III: 28p	o0981999						
<b>1(N24B)</b>	ACN	 125FE					
AKA: 1(N24~b)							
18× III: 15p/3u	o0982000						
<b>1(N25)</b>	ACN	 12623					
150× IV: 5p; III: 132p/16u	o0982001						
<b>1(N26)</b>	ACN	 125AB					
45× IV: 9p/1u; III: 32p/7u	o0982002	 F2026					
<b>1(N26B)</b>	ACN	 125FF					
AKA: 1(N26~b)							
1× III: 1p	o0982003						
<b>1(N27)</b>	ACN	 12624					
13× IV: 1p; III: 12p	o0982004	 F2051					
<b>1(N28)</b>	ACN	 125AC					
91× IV: 17p/1u; III: 79p/6u	o0982005						
<b>1(N28B)</b>	ACN	 12600					
AKA: 1(N28~b)							
2× III: 2p	o0982006						
<b>1(N28C)</b>	ACN	 12625					
AKA: 1(N28~c)							
38× IV: 1p; III: 32p/6u	o0982007						
<b>1(N29A)</b>	ACN	 125AD					
AKA: 1(N29) 1(N29~a)							
57× IV: 4p; III: 53p/2u	o0982008	 F2027					
<b>2(N29A)</b>	PC25	 F0107					
AKA: 2(N29~a)							
4× III: 4p	o0982009						

<b>1(N29AB)</b> AKA: 1(N29A~b) 1(N29A~b) 1× III: 1p	ACN o0982010	 12601						
<b>2(N29AB)</b> AKA: 2(N29A~b) 2× III: 2p	PC25 o0982011	 F010A						
<b>1(N29AC)</b> AKA: 1(N29A~c) 3× III: 2p/1u	ACN o0982012	 12626						
<b>1(N29B)</b> AKA: 1(N29~b) 6× IV: 2p; III: 5p	ACN o0982013	 125AE						
<b>1(N30A)</b> AKA: 1(N30~a) 52× IV: 3p; III: 49p	ACN o0982014	 125AF	 F2028					
<b>1(N30AC)</b> AKA: 1(N30A~c) 4× III: 4p	ACN o0982015	 12627						
<b>1(N30B)</b> AKA: 1(N30~b) 2× III: 2p	PC25 o0982016	 F010B						
<b>1(N30C)</b> AKA: 1(N30~c) 47× IV: 1p; III: 44p/3u	ACN o0982017	 125B0						
<b>1(N30CA)</b> AKA: 1(N30C~a) 1(N30C~a) 1× III: 1p	PC25 o0982018	 F2537						
<b>1(N30CB)</b> o0982019	NUM	 F010C						
<b>1(N30CC)</b> AKA: 1(N30C~c) 1× III: 1u	ACN o0982020	 12628						
<b>1(N30D)</b> AKA: 1(N30~d) 2× IV: 2p; III: 2p	ACN o0982021	 125B1						
<b>1(N30E)</b> AKA: 1(N30~e) 1× III: 1p	ACN o0982022	 125B2						
<b>1(N31)</b> 3× IV: 1p; III: 3p	ACN o0982023	 125B3						
<b>1(N32)</b> 3× IV: 2p/1u; III: 2p	ACN o0982024	 125B4						
<b>1(N33)</b> 1× IV: 1p; III: 1p	ACN o0982025	 125B5						
<b>1(N34)</b> 1020× IV: 243p/94u; III: 597p/179u	ACN o0982026	 1256B						
<b> 1(N34)×1(N58) </b> 1× III: 1p	PC25 o0982027	 F012D						



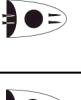
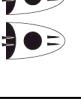
6(N34@f)	ACN					
o0982041						
7(N34@f)	ACN					
1x IV: 1p; III: 1p	o0982042					
8(N34@f)	ACN					
o0982043						
9(N34@f)	ACN					
o0982044						
1(N34@f@t)	ACN	 12675				
CDLI:  1(N34@f@t)	o0982045					
1(N35)	ACN	 125CC				
5x IV: 2p; III: 3p/1u	o0982046					
2(N35)	ACN	 125CD  1F2031				
1x III: 1p	o0982047					
3(N35)	ACN	 125CE				
o0982048						
4(N35)	ACN	 125CF				
o0982049						
5(N35)	ACN	 125D0   1F2032				
1x III: 1p	o0982050					
1(N36)	ACN	 12616				
43x IV: 4p; III: 33p/9u	o0982051					
2(N36)	ACN	 12617   1F2048				
10x IV: 4p; III: 8p/1u	o0982052					
3(N36)	ACN	 12618   1F2049				
7x IV: 1p; III: 5p/2u	o0982053					
4(N36)	ACN	 12619				
3x IV: 1p; III: 2p	o0982054					

<b>5(N36)</b>	ACN	 1261A  F204A	 1261B  F204B				
1× IV: 1p; III: 1p	o0982055						
<b>6(N36)</b>	ACN	 1261C  F204C	 1261D  F204D				
2× III: 2u	o0982056						
<b>7(N36)</b>	ACN	 1261E  F204E	 12641				
	o0982057						
<b>8(N36)</b>	ACN	 12642  F205B	 12686				
	o0982058						
<b>9(N36)</b>	ACN	 12641	 125DF				
2× III: 2p	o0982059						
<b>1(N36@f)</b>	ACN	 12686					
	o0982060						
<b>1(N37)</b>	ACN	 125B6					
6× IV: 1u; III: 4p/1u	o0982061						
<b>2(N37)</b>	ACN	 125B7	 125B8				
1× III: 1p	o0982062						
<b>1(N38)</b>	ACN	 125B7	 125B8				
30× IV: 4p/1u; III: 27p/1u	o0982063						
<b>1(N39A)</b>	ACN	 125B6					
AKA: 1(N39~a)							
211× IV: 7p/4u; III: 181p/18u	o0982064						
<b>2(N39A)</b>	ACN	 125B7	 125B8				
AKA: 2(N39~a)							
189× IV: 2p; III: 170p/17u	o0982065						
<b>3(N39A)</b>	ACN	 125B8	 125B9				
AKA: 3(N39~a)							
89× IV: 2p/1u; III: 77p/10u	o0982066						
<b>4(N39A)</b>	ACN	 125B9					
AKA: 4(N39~a)							
55× III: 53p/2u	o0982067						

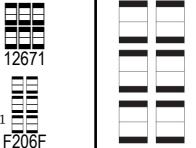
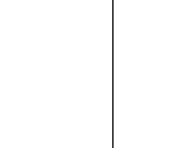
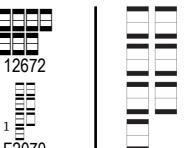
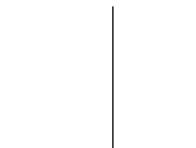
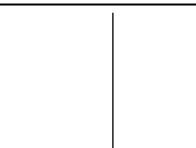
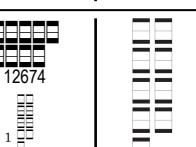
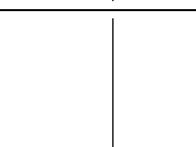
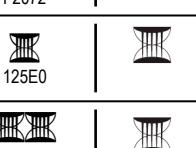
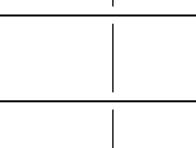
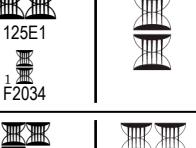
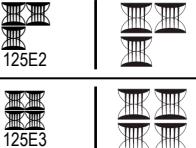
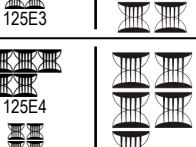
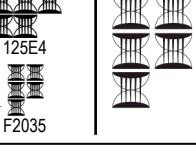
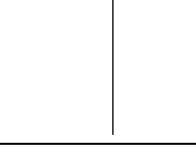
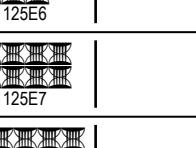
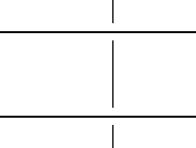
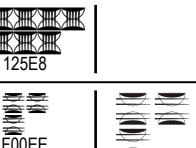
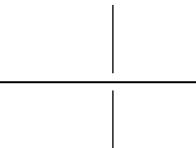
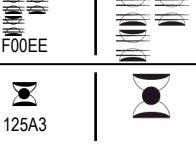
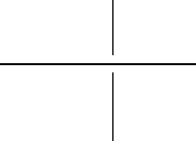
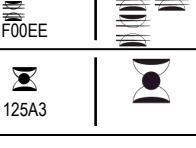
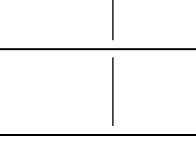
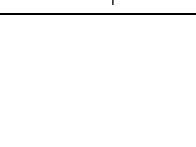
<b>1(N39B)</b>	ACN							
AKA: 1(N39~b) 14× IV: 9p/4u; III: 8p	00982068	125BA						
<b>2(N39B)</b>	ACN							
AKA: 2(N39~b) 11× IV: 5p/3u; III: 3p	00982069	125BB						
<b>3(N39B)</b>	ACN							
AKA: 3(N39~b) 5× IV: 3p/1u; III: 2p	00982070	125BC						
<b>4(N39B)</b>	ACN							
AKA: 4(N39~b) 8× IV: 4p/1u; III: 1p	00982071	125BD						
<b>1(N40)</b>	ACN							
40× III: 39p/1u	00982072	125EB						
<b>2(N40)</b>	ACN							
36× IV: 1p; III: 35p	00982073	125EC						
<b>3(N40)</b>	ACN							
27× III: 26p	00982074	125ED						
<b>4(N40)</b>	ACN							
16× III: 16p	00982075	125EE						
<b>1(N41)</b>	ACN							
24× IV: 1p; III: 24p	00982076	12602						
<b>2(N41)</b>	ACN							
27× III: 27p	00982077	12603						
<b>3(N41)</b>	ACN							
20× III: 20p	00982078	12604						
<b>4(N41)</b>	ACN							
17× III: 16p/1u	00982079	12605						
<b>1(N42A)</b>	ACN							
AKA: 1(N42~a) 130× IV: 2p/1u; III: 117p/12u	00982080	12629						
<b>2(N42A)</b>	ACN							
AKA: 2(N42~a) 89× IV: 1p; III: 78p/6u	00982081	1262A						
<b>3(N42A)</b>	ACN							
AKA: 3(N42~a) 52× IV: 1p; III: 40p/12u	00982082	1262B						
<b>4(N42A)</b>	ACN							
AKA: 4(N42~a) 25× IV: 5p; III: 21p/2u	00982083	1262C						
<b>1(N42B)</b>	ACN							
	00982084	1262D						
<b>2(N42B)</b>	ACN							
AKA: 2(N42~b) 3× IV: 3p; III: 1p	00982085	1262E						

<b>3(N42B)</b>	ACN							
	o0982086							
<b>4(N42B)</b>	ACN							
	o0982087							
<b>1(N43)</b>	PC25							
3x III: 2p/1u	o0982088							
<b>4(N43)</b>	PC25							
1x III: 1p	o0982089							
<b>1(N44)</b>	PC25							
1x IV: 1p	o0982090							
<b>1(N45)</b>	ACN							
323x IV: 25p/5u; III: 226p/60u	o0982091							
<b>2(N45)</b>	ACN							
137x IV: 8p/3u; III: 92p/32u	o0982092							
<b>3(N45)</b>	ACN							
13x IV: 2p; III: 7p/4u	o0982093							
<b>4(N45)</b>	ACN							
4x III: 4u	o0982094							
<b>5(N45)</b>	ACN							
6x III: 3p/3u	o0982095							
<b>6(N45)</b>	ACN							
4x III: 3p/1u	o0982096							
<b>7(N45)</b>	ACN							
2x III: 2u	o0982097							
<b>8(N45)</b>	ACN							
	o0982098							
<b>9(N45)</b>	ACN							
1x III: 1p	o0982099							
<b>1(N45@f)</b>	ACN							
	o0982100							
<b>2(N45@f)</b>	ACN							
	o0982101							

3(N45@f)	OOR							
	o0982102	F00E2						
4(N45@f)	OOR							
	o0982103	F00E3						
5(N45@f)	OOR							
	o0982104	F00E4						
6(N45@f)	OOR							
	o0982105	F00E5						
7(N45@f)	OOR							
	o0982106	F00E6						
8(N45@f)	OOR							
	o0982107	F00E7						
9(N45@f)	OOR							
	o0982108	F00E8						
1(N45A)	ACN							
AKA: 1(N45~a) 1x III: 1p	o0982109	125FD						
1(N46)	ACN							
99x IV: 5p; III: 76p/22u	o0982110	12614						
2(N46)	ACN							
40x IV: 2p; III: 34p/6u	o0982111	12615						
		F2047						
3(N46)	PC25							
1x III: 1p	o0982112	F00E9						
1(N46@f)	ACN							
	o0982113	12684						
2(N46@f)	ACN							
	o0982114	12685						
1(N47)	ACN							
15x IV: 4p/1u; III: 11p	o0982115	1263F						
2(N47)	ACN							
11x IV: 2p; III: 8p/1u	o0982116	12640						
		F205A						
3(N47)	OOR							
1x IV: 1u	o0982117	F00EA						
1(N48)	ACN							
105x IV: 33p/9u; III: 54p/20u	o0982118	12574						
2(N48)	ACN							
45x IV: 11p/10u; III: 23p/4u	o0982119	12575						
		F2014						

3(N48)		ACN	 12576 1 F2015					
17x IV: 3p/1u; III: 10p/5u	o0982120							
4(N48)		ACN	 12577					
13x IV: 2u; III: 7p/4u	o0982121							
5(N48)		ACN	 12578 1 F2016					
4x IV: 3u; III: 1u	o0982122							
6(N48)		OOR	 F00EB					
2x IV: 2u	o0982123							
7(N48)		OOR	 F00EC					
1x IV: 1u	o0982124							
1(N48@f)		NUM	 F010F					
	o0982125							
1(N49)		ACN	 1261F					
8x IV: 1p; III: 6p/1u	o0982126							
2(N49)		ACN	 12620 1 F204F					
3x IV: 1p; III: 2p/1u	o0982127							
3(N49)		ACN	 12621 1 F2050					
4x IV: 1p; III: 4p	o0982128							
4(N49)		ACN	 12622					
2x III: 1p/1u	o0982129							
5(N49)		OOR	 F00ED					
	o0982130							
1(N50)		ACN	 12582					
82x IV: 1u; III: 42p/36u	o0982131							
2(N50)		ACN	 12583					
35x IV: 3p/1u; III: 19p/13u	o0982132		 1 F201C					
3(N50)		ACN	 12584					
22x IV: 1p; III: 16p/6u	o0982133							
4(N50)		ACN	 12585					
23x IV: 1p; III: 15p/8u	o0982134							
5(N50)		ACN	 12586 1 F201D					
9x III: 5p/3u	o0982135							

<b>1(N51)</b>		ACN							
107× IV: 34p/14u; III: 51p/15u	o0982136								
<b>2(N51)</b>		ACN							
46× IV: 10p/7u; III: 23p/8u	o0982137								
<b>3(N51)</b>		ACN							
17× IV: 5p/2u; III: 10p/2u	o0982138								
<b>4(N51)</b>		ACN							
11× IV: 2p; III: 6p/4u	o0982139								
<b>5(N51)</b>		ACN							
18× IV: 2p/2u; III: 9p/6u	o0982140								
<b>6(N51)</b>		ACN							
6× IV: 1u; III: 2p/3u	o0982141								
<b>7(N51)</b>		ACN							
2× IV: 1p; III: 1p	o0982142								
<b>8(N51)</b>		ACN							
2× IV: 1p; III: 2p	o0982143								
<b>9(N51)</b>		ACN							
	o0982144								
<b>1(N51@f)</b>		ACN							
	o0982145								
<b>2(N51@f)</b>		ACN							
	o0982146								
<b>3(N51@f)</b>		ACN							
	o0982147								
<b>4(N51@f)</b>		ACN							
	o0982148								
<b>5(N51@f)</b>		ACN							
	o0982149								

6(N51@f)	ACN							
		o0982150	12671 F206F					
7(N51@f)	ACN							
		o0982151	12672 F2070					
8(N51@f)	ACN							
		o0982152	12673 F2071					
9(N51@f)	ACN							
		o0982153	12674 F2072					
1(N52)	ACN							
27x IV: 1p/2u; III: 20p/4u		o0982154	125E0					
2(N52)	ACN							
10x III: 10p		o0982155	125E1 F2034					
3(N52)	ACN							
4x IV: 1p; III: 2p/1u		o0982156	125E2					
4(N52)	ACN							
2x IV: 1p; III: 1p		o0982157	125E3					
5(N52)	ACN							
1x IV: 1p; III: 1p		o0982158	125E4 F2035					
6(N52)	ACN							
		o0982159	125E5					
7(N52)	ACN							
		o0982160	125E6					
8(N52)	ACN							
		o0982161	125E7					
9(N52)	ACN							
		o0982162	125E8					
3(N53)	PC25							
1x IV: 1p		o0982163	F00EE					
1(N54)	ACN							
18x IV: 7p/1u; III: 4p/7u		o0982164	125A3					

2(N54)		ACN	125A4 1 F2023						
4x IV: 3p; III: 3p	o0982165								
3(N54)		ACN	125A5						
3x IV: 1p; III: 2p	o0982166								
4(N54)		ACN	125A6						
	o0982167								
5(N54)		ACN	125A7 1 F2024						
3x III: 3p	o0982168								
1(N55)		PC25	F00EF						
1x IV: 1p	o0982169								
1(N56)		ACN	125A8						
	o0982170								
2(N56)		ACN	125A9 1 F2025						
1x III: 1p	o0982171								
1(N57) 12BEC		—	PC25	—	—				
AKA: AŠ 507x				12BEC	—				
IV: 71p/19u; III: 296p/139u	o0982172	ZATU037							
2(N57) 12BED	=	PC25	12BED 1 F2224	=	=				
161x									
IV: 15p/2u; III: 116p/35u	o0982173	ZATU546							
3(N57) 12BEE	≡	PC25	12BEE	≡	≡				
551x									
IV: 23p/9u; III: 380p/139u	o0982174	ZATU146							
4(N57) 12BEF	≡	PC25	12BEF	≡	≡				
46x	IV: 4p/1u; III: 36p/7u	o0982175							
5(N57) 12BF0	≡≡	PC25	12BF0	≡≡	≡≡				
62x	IV: 6p; III: 51p/8u	o0982176							
6(N57) 12BF1	≡≡	PC25	12BF1 1 F2225	≡≡	≡≡				
21x	IV: 2p; III: 16p/3u	o0982177							
7(N57) 12BF2	≡≡	PC25	12BF2 1 F2226	≡≡	≡≡				
9x	IV: 1p; III: 7p	o0982178							
8(N57) 12BF3	≡≡	PC25	12BF3	—	—				
5x	III: 3p/1u	o0982179							

<b>9(N57)</b> 12BF4 2x III: 2p	≡	PC25 o0982180	≡	12BF4	≡				
<b>10(N57)</b> 12BF5 1x III: 1p	≡	PC25 o0982181	≡	12BF5	≡				
<b>1(N58)</b> 12BF6 AKA: DIŠ 189x IV: 36p/16u; III: 118p/36u		PC25 o0982182 ZATU081	12BF6						
<b>2(N58)</b> 12BF7 11x IV: 4p/1u; III: 6p/2u		PC25 o0982183	12BF7						
<b>3(N58)</b> 12BF8 9x IV: 4p; III: 4p/3u		PC25 o0982184	12BF8						
<b>4(N58)</b> 12BF9 4x IV: 2u; III: 1p/1u		PC25 o0982185	12BF9						
<b>5(N58)</b> 12BFA 2x IV: 2u		PC25 o0982186	12BFA						
<b>8(N58)</b> 12BFB 1x III: 1u		PC25 o0982187	12BFB						
<b>9(N58)</b> 12BFC 1x III: 1p		PC25 o0982188	12BFC						
<b>10(N58)</b> 12BFD 2x III: 2p		PC25 o0982189	12BFD						
<b>12(N58)</b> 12BFE 1x III: 1p		PC25 o0982190	12BFE						
<b>1(N58@t)</b> 12BFF AKA: 1(N58)@t CDL:  1(N58@t)  2x IV: 1p; III: 1p	\	PC25 o0982191	12BFF	\					
<b>1(N59)</b> 1x III: 1p		PC25 o0982192	F0124						
<b>2(N59)</b> 1x III: 1p		PC25 o0982193	F0125		F0125				
<b>3(N59)</b> 18x III: 11p/7u		PC25 o0982194	F0126		F0126				
<b>4(N59)</b> 3x III: 2p/1u		PC25 o0982195	F0127		F0127				
<b>6(N59)</b> 3x III: 3p		PC25 o0982196	BBD F0128						

7(N59)		PC25						
1x III: 1p	o0981906		F2536					
1(N60)		ACN						
4x III: 4p	o0982198		125E9					
3(N61)		PC25						
1x III: 1p	o0982199		F0129					
4(N62)		PC25						
1x III: 1p	o0982200		F012A					
1(N63)		NUM						
2x III: 2u	o0982201		F012B					
1(N57).AB <sub>2</sub>		UNP						
1x III: 1u	o0982202		F2290					
2(N57).AB <sub>2</sub>		PC25-sq						
1x IV: 1p; III: 1p	o0982203	ZATU014	F2291					
3(N57).AMAR		PC25-sq						
2x III: 1p/1u	o0982204		F2292					
4(N57).AMAR		PC25-sq						
1x III: 1p	o0982205		F2293					
3(N57).AZ		PC25-sq						
3x III: 3p	o0982206		12BEE					
3(N57).BARxUŠ~a		ZERO						
	o0982207		F2294					
3(N57).BARA <sub>3</sub>		UNP						
1x III: 1u	o0982208		F2295					
2(N57).BIR <sub>3</sub> ~a		PC25-sq						
1x III: 1p	o0982209		F2296					
1(N57).BU <sub>3</sub>		PC25-sq						
1x III: 1p	o0982210		12BEC					
1(N57).E <sub>2</sub> ~a		ZERO						
	o0982211		F2297					
3(N57).E <sub>2</sub> ~b		UNP						
1x III: 1u	o0982212		1 F2222					
3(N57).EN <sub>2</sub>		PC25-sq						
6x III: 6p	o0982213		12BEE					
X(N57).GAR		PC25-sq						
AKA:  N(N57).GAR			F24CB					
CDLI:  x(N57).GAR								
1x III: 1p	o0982214							
3(N57).GAR		PC25-sq						
2x III: 2p	o0982215		F2298					
4(N57).GAR		PC25-sq						
5x III: 5p	o0982216		F2299					

5(N57).GAR		PC25-sq							
8x III: 8p	o0982217		F229A				F229A		
6(N57).GAR		PC25-sq							
4x III: 3p/1u	o0982218		F229B				F229B		
7(N57).GAR		PC25-sq							
1x o0982219			12BF2						
4(N57).KU <sub>3~a</sub>		PC25-sq							
11x III: 11p	o0982220		F229D				F229D		
5(N57).KU <sub>3~a</sub>		PC25-sq							
4x III: 4p	o0982221		F229E				F229E		
6(N57).KU <sub>3~a</sub>		PC25-sq							
2x III: 2p	o0982222		F229F				F229F		
2(N57).KU <sub>6~a</sub>		PC25-sq							
1x III: 1p	o0982223		F22A0						
1(N57).MUŠEN		PC25-sq							
AKA:  MUŠENx1(N57)  CDLI:  MUŠENx1(N57)  5x III: 5p	o0982224		F22A2	12BEC					
2(N57).MUŠEN		PC25-sq							
AKA:  MUŠENx2(N57)  CDLI:  MUŠENx2(N57)  27x IV: 1p; III: 26p/1u	o0982225		F22A3	12BED					
3(N57).MUŠEN		PC25-sq							
AKA:  MUŠENx3(N57)  CDLI:  MUŠENx3(N57)  1x III: 1p	o0982226		F22A4						
3(N57).NUNUZ~a1		PC25-sq							
23x III: 20p/3u	o0982227	ZATU424							
3(N57).NUNUZ~c		PC25-sq							
2x III: 1p/1u	o0982228	ZATU424							
3(N57).PIRIG~b1		PC25-sq							
35x IV: 3p/1u; III: 25p/8u	o0982229	ZATU429							
3(N57).SANGA~a		PC25-sq							
1x III: 1p	o0982230		12BEE						
3(N57).SI		PC25-sq							
2x III: 2p	o0982231		12BEE						
1(N57).SIG		PC25-sq							
AKA:  SIG~1(N57)  CDLI:  SIGx1(N57)  1x IV: 1p	o0982232		F22A8						
2(N57).SU~a		UNP							
1x IV: 1u	o0982233		F22A9						
1(N57).ŠAH <sub>2~a</sub>		PC25-sq							
4x III: 4p	o0982234		F22AA						

1(N57).ŠUBUR	PC25-sq	F221F	F2220	F221F	F2220		F2220
40x IV: 8p/1u; III: 27p/10u	o0982235 ZATU540	1 F2220					
2(N57).ŠUBUR	PC25-sq	F22AB	F22AB	F22AB			
2x III: 2p	o0982236						
3(N57).ŠUBUR	PC25-sq	F22AC	F22AC	F22AC			
3x III: 3p	o0982237 ZATU540						
3(N57).UDU~a	ZERO	F22AD					F22AD
o0982238 ZATU577							
2(N57).UDUNITA~a	ZERO	F22AE					F22AE
o0982239							
3(N57).UDUNITA~a	ZERO	F22AF					F22AF
o0982240							

## B ZATU-PCSL Concordance

ZATU001		ZATU025	ALAN~a;  ALAN~b;
ZATU002	A×EN~a		ALAN~c;  ALAN~d;
ZATU003	A×ŠUBUR		ALAN~e
ZATU004	A×1(N14)	ZATU026	ALIM
ZATU005	A×ZATU672	ZATU027	AM~a;  AM~b
ZATU006	A <sub>2</sub>	ZATU028	AMA~a;  AMA~b
ZATU007		ZATU029	AMAR
ZATU008		ZATU030	AMAR×TAR~c
ZATU009		ZATU031	AN
ZATU010	AB~a×ZATU659	ZATU032	ANŠE~a;  ANŠE~b;
ZATU011	@g		ANŠE~c;  ANŠE~e;
ZATU012			ANŠE~f
ZATU013	AB₂×2(N14)	ZATU033	APIN~a;  APIN~b;
ZATU014	2(N57).AB₂		APIN~c
ZATU014a	ZATU gives  2(N57)+AB <sub>2</sub>   and  3(N57)+AB <sub>2</sub>  ; Corpus has  3(N57).AB <sub>2</sub>  / 4(N57).AB <sub>2</sub>   in ATU 1, 610 = P005961 ii 5-6 read 3(N57) AB <sub>2</sub> 4(N57) AB <sub>2</sub> in CDLI.	ZATU034	ARARMA₂~a;  ARARMA₂~b
ZATU015		ZATU035	ARATTA
ZATU016		ZATU036	ASAR
ZATU017		ZATU037	1(N57)
ZATU018		ZATU038	AZ
ZATU019		ZATU039	AZU
ZATU020		ZATU040	BA
ZATU021	NINDA₂×(1(N06).HI@g~a)	ZATU041	BAD
ZATU022		ZATU042	BAD&BAD
ZATU023		ZATU043	1(N58).BAD ;
ZATU024			(1(N58).BAD)~b
		ZATU044	BAD <sub>3</sub> ~a;  BAD <sub>3</sub> ~b1;  BAD <sub>3</sub> ~b2
		ZATU045	BAHAR <sub>2</sub> ~a;  BAHAR <sub>2</sub> ~b;
			BAHAR <sub>2</sub> ~c
		ZATU046	BALA~a;  BALA~b
		ZATU047	BALAG
		ZATU048	BAN~a;  BAN~b
		ZATU049	BANSUR~a;  BANSUR~b1;  BANSUR~b2;  BANSUR~c
		ZATU050	BAPPIR~a;  BAPPIR~b;  BAPPIR~c;  BAPPIR~d;  BAPPIR~e;  BAPPIR~f
		ZATU051	BAR
		ZATU052	BARA <sub>2</sub> ~a;  BARA <sub>2</sub> ~b
		ZATU053	BARA <sub>3</sub>
		ZATU054	BIR~a;  BIR~b;  BIR~c
		ZATU055	BIR <sub>3</sub> ~a;  BIR <sub>3</sub> ~b;  BIR <sub>3</sub> ~c
		ZATU056	BU~a;  BU~b
		ZATU057	BU~a×A
		ZATU058	(BU~a&BU~a).NA <sub>2</sub> ~a ;   (BU~a&BU~a).NA <sub>2</sub> ~b
		ZATU059	BU~a+DU <sub>6</sub> ~a
		ZATU060	BU <sub>3</sub>
		ZATU061	BULUG
		ZATU062	BULUG <sub>3</sub>
		ZATU063	BUR~a;  BUR~b;  BUR~c;  BUR~d

ZATU064	BUR <sub>2</sub>	ZATU091	DUG~a×1(N57) ;  DUG~b×1(N57) ;  DUG~c×1(N57)	ZATU127	DUR <sub>2</sub>
ZATU065	DA~a;  DA~b; DA~c;  DA~d	ZATU092	DUG~b×(1(N57).KU <sub>3</sub> ~a)	ZATU128	E~a;  E~b;  E~c;  E~d
ZATU066	DAH	ZATU093		ZATU129	E <sub>2</sub> ~a;  E <sub>2</sub> ~b;  E <sub>2</sub> ~c; E <sub>2</sub> ~d
ZATU067	DAM	ZATU094	DUG~b×BALA~a	ZATU130	KUR~a.E <sub>2</sub> ~a ;  KUR~b.E <sub>2</sub> ~a
ZATU068	DANNA	ZATU095	DUG~b×BIR <sub>3</sub> ~c	ZATU131	E <sub>2</sub> ~a×1(N58@t) ;  E <sub>2</sub> ~b×1(N58@t)
ZATU069	DAR~a;  DAR~b; DAR~c;  DAR~d	ZATU096	DUG~b×DIN	ZATU132	E <sub>3</sub> ~a;  E <sub>3</sub> ~b
ZATU070	DARA <sub>3</sub> ~a;  DARA <sub>3</sub> ~b; DARA <sub>3</sub> ~c;  DARA <sub>3</sub> ~d	ZATU097	DUG~b×GA~a ;  DUG~b×GA~b	ZATU133	EDIN
ZATU071	DARA <sub>3</sub> ~c×KAR <sub>2</sub>  ;  DARA <sub>3</sub> ~d×KAR <sub>2</sub>	ZATU098	DUG~b×GEŠTU~a ;  DUG~b×GEŠTU~b	ZATU134	EN~a;  EN~b; EN~c;  EN~e
ZATU072	DARA <sub>3</sub> ~c×(KAR <sub>2</sub> .ŠE~a) ;  DARA <sub>3</sub> ~d×(KAR <sub>2</sub> .ŠE~a)	ZATU099	DUG~b×GI <sub>6</sub>	ZATU135	NUN~a+EN~a ;  NUN~a+EN~b ;  NUN~a+EN~d ;  NUN~b+EN~a
ZATU073	DARA <sub>4</sub> ~a1;  DARA <sub>4</sub> ~a2; DARA <sub>4</sub> ~a3;  DARA <sub>4</sub> ~b; DARA <sub>4</sub> ~c;  DARA <sub>4</sub> ~c1; DARA <sub>4</sub> ~c2;  DARA <sub>4</sub> ~c3; DARA <sub>4</sub> ~c4;  DARA <sub>4</sub> ~c5; DARA <sub>4</sub> ~d	ZATU100	DUG~b×GIŠ	ZATU136	ZATU EN+UDU(?) read in CDLI as X in hapax ATU 1, 342=P001563 ATU 5, pl. 104, W 9656, es i 1.
ZATU074	ZATU074 DARA <sub>4</sub> +BAD+BAD reread in ATU 3 p.154 W20421,2 = Lú Vorläufer (Tf.23) O0305 as RI <sub>8</sub> ~a? DARA <sub>4</sub> ~b.	ZATU101	DUG~b×HI	ZATU137	EN@g~a;  EN@g~b
ZATU075	DI	ZATU102	DUG~b×HI@g~a	ZATU138	EN <sub>2</sub>
ZATU076	DIB	ZATU103	DUG~a×KASKAL ;	ZATU139	ENDIB
ZATU077	DILMUN	ZATU104	DUG~b×KASKAL	ZATU140	ENGIZ
ZATU078	DIM~a;  DIM~b; DIM~c	ZATU105	DUG~b×KUR~a ;  DUG~b×KUR~b	ZATU141	ENKUM
ZATU079	DIN	ZATU106	DUG~a×LAM~b ;	ZATU142	ENLIL
ZATU080	DIN@t	ZATU107	DUG~b×LAM~a	ZATU143	ERIM~a;  ERIM~b1; ERIM~b2
ZATU081	1(N58)	ZATU108	DUG~b×MAŠ	ZATU144	ERIM <sub>2</sub>
ZATU082	DU	ZATU109	DUG~a×NAGA~a ;	ZATU145	ERIN
ZATU083	DU <sub>6</sub> ~a;  DU <sub>6</sub> ~b;  DU <sub>6</sub> ~c	ZATU110	DUG~b×NAGA~a	ZATU146	3(N57)
ZATU084	DU,	ZATU111	DUG~b×SA~a	ZATU147	ESDA
ZATU085	DU <sub>8</sub> ~a;  DU <sub>8</sub> ~b; DU <sub>8</sub> ~c	ZATU112	DUG~b×(SA~a.GI)	ZATU148	ESDA×TAR~a
ZATU086	DUB~a;  DUB~b; DUB~c;  DUB~d; DUB~e;  DUB~f; DUB~h	ZATU113	DUG~b×SIG <sub>2</sub> ~a1 ;  DUG~b×SIG <sub>2</sub> ~a2	ZATU149	ESGAR
ZATU087	(DUB@n~a×1(N58))~a ;  (DUB@n~a×1(N58))~b ;  DUB@n~b×1(N58)~a	ZATU114	DUG~b×SIG <sub>7</sub>	ZATU150	EZEN~a;  EZEN~b; EZEN~b@t;  EZEN~c
ZATU088	DUG~a;  DUG~b; DUG~c;  DUG~d	ZATU115	DUG~b×SUHUR	ZATU151	EZEN~a×EN~a ;  EZEN~a×EN~b
ZATU089	DUG~b×AB	ZATU116	DUG~b×SUKUD~d	ZATU152	EZEN~a×KAB
ZATU090	DUG~b×ANŠE~b ;  DUG~b×ANŠE~d	ZATU117	DUG~b×ŠAH <sub>2</sub> ~a	ZATU153	EZEN~a×NIM~b2
		ZATU118	DUG~b×ŠE~a	ZATU154	EZEN~a×NIMGIR
		ZATU119	DUG~b×(ŠE~a.NAM <sub>2</sub> )	ZATU155	EZEN~a×RAD~a
		ZATU120	DUG~b×TAK <sub>4</sub> ~a	ZATU156	EZEN~a×SU~a
		ZATU121	DUG~b×TI	ZATU157	EZEN~a×(U <sub>2</sub> ~b.A)
		ZATU122	DUG~a×U <sub>2</sub> ~a ;	ZATU158	EZINU~a;  EZINU~b; EZINU~c;  EZINU~d
		ZATU123	DUG~a×U <sub>2</sub> ~b ;	ZATU159	GA~a;  GA~b; GA~c
		ZATU124	DUG~b×U <sub>2</sub> ~a ;	ZATU160	GA~c×1(N14)
		ZATU125	DUG~b×UH <sub>3</sub> ~a	ZATU161	GA~a.ZATU753
		ZATU126	DUGUD	ZATU162	GA <sub>2</sub> ~a1;  GA <sub>2</sub> ~a2; GA <sub>2</sub> ~a3;  GA <sub>2</sub> ~a4; GA <sub>2</sub> ~b;  GA <sub>2</sub> ~c
				ZATU163	ZATU762~b×AB~a
				ZATU164	GA <sub>2</sub> ~a1×1(N57)

ZATU165	Only in UET II as BAU328 =  GA <sub>2</sub> ~b×DUB~a .	ZATU203	GEŠTU~a;  GEŠTU~b; GEŠTU~c3;  GEŠTU~c5	ZATU238	GUG <sub>2</sub> ×SILA <sub>3</sub> ~a
ZATU166	GA <sub>2</sub> ~b×DUB~a ;  GA <sub>2</sub> ~b×DUB~b	ZATU204	GI	ZATU239	GUG <sub>2</sub> ×TUR
ZATU167	GA <sub>2</sub> ~a1×GIR~a	ZATU205	ATU 1, 28=P001294 ATU 5, pl. 068, W 9579, av read  GI&GI   GI×SIG <sub>2</sub> ~d1 ;	ZATU240	GUKKAL~a; GUKKAL~b; GUKKAL~c; GUKKAL~d
ZATU168	GA <sub>2</sub> ~a1×GIŠ@t	ZATU206	(GI&GI)×ŠE <sub>3</sub>	ZATU241	GUKKAL~a.HI@g~a
ZATU169	GA <sub>2</sub> ~a2×(ŠE <sub>3</sub> .GU <sub>4</sub> )	ZATU207	GI×GIŠ@t	ZATU242	GUL
ZATU170	GA <sub>2</sub> ~a1×HI	ZATU208	GI×LAGAB~a	ZATU243	GUM~a;  GUM~b
ZATU171	GA <sub>2</sub> ~a1×(HI.SUHUR)	ZATU209	GI×NAM <sub>2</sub>	ZATU244	GUM~b@n
ZATU172	GA <sub>2</sub> ~a1×KU <sub>3</sub> ~a ;  GA <sub>2</sub> ~b×KU <sub>3</sub> ~a	ZATU210	GI×SIG <sub>2</sub> ~d1	ZATU245	GUN <sub>3</sub> ~a;  GUN <sub>3</sub> ~b
ZATU173	GA <sub>2</sub> ~a1×KU <sub>6</sub> ~a ;  GA <sub>2</sub> ~b×KU <sub>6</sub> ~a	ZATU211	GI×1(N14)	ZATU246	GUR
ZATU174	GA <sub>2</sub> ~a1×(KU <sub>6</sub> ~a+KU <sub>6</sub> ~a)	ZATU212	GI <sub>4</sub> ~a;  GI <sub>4</sub> ~b	ZATU247	GURUŠ~a;  GURUŠ~b
ZATU175	LAGAB~b×KUR~e	ZATU213	Gl <sub>6</sub>	ZATU248	GURUŠ~a×2(N14) ;  GURUŠ~b×2(N14) ;  GURUŠ~c×2(N14)
ZATU176	GA <sub>2</sub> ~a1×MAŠ	ZATU214	GIBIL	ZATU249	GURUŠDA
ZATU177	GA <sub>2</sub> ~a1×NAGA~a	ZATU215	GIBIL <sub>6</sub>	ZATU250	HAL
ZATU178	GA <sub>2</sub> ~a2×NI~a ;  GA <sub>2</sub> ~a2×NI~b	ZATU216	GIR~a;  GIR~b;  GIR~c; GIR~d	ZATU251	HALUB
ZATU179	GA <sub>2</sub> ~a1×SUHUR ;  GA <sub>2</sub> ~a2×SUHUR	ZATU217	KU <sub>6</sub> ~d	ZATU252	HAŠHUR
ZATU180	GA <sub>2</sub> ~a1×SUKUD	ZATU218	GIR <sub>2</sub> ~a;  GIR <sub>2</sub> ~b	ZATU253	HAŠHUR×MA
ZATU181	GA <sub>2</sub> ~a1×SUMAŠ	ZATU219	GIR <sub>3</sub> ~a;  GIR <sub>3</sub> ~b; GIR <sub>3</sub> ~c	ZATU254	HI;  HI~b
ZATU182	GA <sub>2</sub> ~a1×1(N14)	ZATU220	GIR <sub>3</sub> ~a×ŠE~b	ZATU255	HI×1(N57@t)
ZATU183	GA <sub>2</sub> ~a1×U <sub>4</sub>	ZATU221	GIR <sub>3</sub> @g~a; GIR <sub>3</sub> @g~b;  GIR <sub>3</sub> @g~c	ZATU256	HI.SUHUR
ZATU184	GA'AR~a1;  GA'AR~a2; GA'AR~b1;  GA'AR~b2	ZATU222	GISAL~a;  GISAL~b	ZATU257	HI×ZATU707~a
ZATU185	ZATU737×BUR~a	ZATU223	GIŠ	ZATU258	HI@g~a;  HI@g~b; HI@g~c
ZATU186	GADA~a;  GADA~b	ZATU224	(GIŠ×(DIN.DIN))~a ;  (GIŠ×(DIN.DIN))~b ;  (GIŠ×(DIN.DIN))~c	ZATU259	I
ZATU187	GADA~b@g	ZATU225	(GIŠ×ŠU <sub>2</sub> )~a ;  (GIŠ×ŠU <sub>2</sub> )~b	ZATU260	IB~a;  IB~b;  IB~c
ZATU188	GAL~a;  GAL~b	ZATU226	GIŠ.TE	ZATU261	IDIGNA
ZATU189	GALGA~a;  GALGA~b	ZATU227	GIŠ@t	ZATU262	IL
ZATU190	GAN~a;  GAN~b; GAN~c	ZATU228	GIŠ <sub>3</sub> ~a;  GIŠ <sub>3</sub> ~b	ZATU263	ILDUM~a;  ILDUM~b
ZATU191	GAN~c×(HI.DIN)	ZATU229	GIŠGAL	ZATU264	IM~a;  IM~b
ZATU192	GAN~c×LAGAB~b	ZATU230	GIŠIMMAR~a1; GIŠIMMAR~a2; GIŠIMMAR~a3; GIŠIMMAR~b1; GIŠIMMAR~b2; GIŠIMMAR~b3	ZATU265	IN~b
ZATU193	GAN~c×NE~a	ZATU231	GIZZAL~v	ZATU266	IN~d
ZATU194	GAN~c×ŠE~a	ZATU232	GU	ZATU267	IR~a;  IR~b;  IR~c; IR~d
ZATU195	GAN <sub>2</sub>	ZATU233	GU <sub>2</sub>	ZATU268	IR <sub>11</sub>
ZATU196	GAR	ZATU234	GU <sub>4</sub>	ZATU269	IRHAN
ZATU197	GAR@g~a;  GAR@g~b; GAR@g~c	ZATU235	GU <sub>7</sub>	ZATU270	IŠ~a;  IŠ~b;  IŠ~c
ZATU198	GAR <sub>3</sub>	ZATU236	GUB <sub>3</sub> ~a;  GUB <sub>3</sub> ~b; GUB <sub>3</sub> ~c;  GUB <sub>3</sub> ~d	ZATU271	KA~a
ZATU199	GARA <sub>2</sub> ~a;  GARA <sub>2</sub> ~b	ZATU237	GUG <sub>2</sub>	ZATU272	Read as sequence KA GI.
ZATU200	GAZI			ZATU273	KA~a×SAR~a
ZATU201	SAL.KUR~a			ZATU274	KA~a.ŠE~a
ZATU202	GEŠTIN~a;  GEŠTIN~d;			ZATU275	KA <sub>2</sub> ~a;  KA <sub>2</sub> ~b; KA <sub>2</sub> ~c
	GEŠTIN~e			ZATU276	KA <sub>2</sub> ~d×LAM~b
				ZATU277	KAB
				ZATU278	KAB×1(N58)
				ZATU279	KAD <sub>4</sub> ~a;  KAD <sub>4</sub> ~b; KAD <sub>4</sub> ~c1;  KAD <sub>4</sub> ~c2
				ZATU280	KAK~a;  KAK~b

ZATU281	KAL~a;  KAL~b1; KAL~b2	ZATU314	LAGAB~a x KUŠU~a@t	ZATU354	MAR~b x ŠE~a
ZATU282	KALAM~a;  KALAM~b; KALAM~c;  KALAM~d; KALAM~e;  KALAM~f; KALAM~g; KALAM~h; KALAM~h2	ZATU315	LAGAB~a x ME~a	ZATU355	MAŠ
ZATU283	KAR	ZATU316	LAGAB~a x NUN~b	ZATU356	ZATU  MAŠ+GAN <sub>2</sub>   read as MAŠ GAN <sub>2</sub> in CDLI-tc
ZATU284	KAR~a;  KAR~b	ZATU317	LAGAB~a x PA~a ;  LAGAB~b x PA~a	ZATU357	MAŠ <sub>2</sub>
ZATU285	KASKAL	ZATU318	LAGAB~a x ŠA	ZATU358	ME~a;  ME~b
ZATU286	KAŠ~a;  KAŠ~b; KAŠ~d	ZATU319	LAGAB~a x ŠITA~a1	ZATU359	ME <sub>3</sub>
ZATU287	KAŠ~c	ZATU320	LAGAB~a x 2(N14)	ZATU360	MEN~a;  MEN~b
ZATU288	KAŠ~b x ŠE~a@t	ZATU321	LAGAB~a x ZATU753	ZATU361	MES
ZATU289	KI	ZATU322	LAGAB x ZATU766 ; collation on P004228 o i 4b suggests not all of LAGAB is present; read X in CDLI-tc	ZATU362	MIR~a;  MIR~b
ZATU290	KIB	ZATU323	LAGAR~a; LAGAR~b1; LAGAR~b2;  LAGAR~c	ZATU363	MU
ZATU291	KID~a;  KID~b; KID~c;  KID~d; KID~e	ZATU324	LAHTAN <sub>2</sub>	ZATU364	MUD
ZATU292	KIN	ZATU325	LAL <sub>2</sub> ~a;  LAL <sub>2</sub> ~b	ZATU365	MUD <sub>3</sub> ~a;  MUD <sub>3</sub> ~b; MUD <sub>3</sub> ~c;  MUD <sub>3</sub> ~d
ZATU293	KIN <sub>2</sub> ~a;  KIN <sub>2</sub> ~b;  KIN <sub>2</sub> ~c; KIN <sub>2</sub> ~d;  KIN <sub>2</sub> ~e	ZATU326	LAL <sub>2</sub> ~a x EZEN~a	ZATU366	MUD <sub>3</sub> ~a@g
ZATU294	KINGAL	ZATU327	LAL <sub>3</sub> ~a;  LAL <sub>3</sub> ~b	ZATU367	MUL
ZATU295	KISAL~a1;  KISAL~a2; KISAL~b1;  KISAL~b2; KISAL~b3	ZATU328	LAM~a;  LAM~b	ZATU368	MUN~a1;  MUN~a2; MUN~a3;  MUN~a4; MUN~b
ZATU296	KISIM~a;  KISIM~b; KISIM~c	ZATU329	KUR@g~a;  KUR@g~b; LAM~b@s	ZATU369	MUNSUB~a; MUNSUB~b
ZATU297	KIŠ	ZATU330	LI	ZATU370	MUNU <sub>3</sub>
ZATU298	KIŠIK~a;  KIŠIK~b	ZATU331	LI	ZATU371	MURUB <sub>2</sub>
ZATU299	KITI	ZATU332	LU <sub>2</sub>	ZATU372	ZATU MURUB <sub>3</sub> read ME~a EN~b LAGAR~b1 in hapax P000849=ATU 1, 480=ATU 5 pl. 17, W 6855, i 1, i.e.,  ŠITA~b2@g x HI@g~a
ZATU300	KU~a;  KU~b1;  KU~b2	ZATU333	LU <sub>2</sub> x GEŠTU~c3	ZATU373	MUŠ
ZATU301	KU <sub>3</sub> ~a;  KU <sub>3</sub> ~c	ZATU334	LUGAL	ZATU374	MUŠ <sub>3</sub> ~a;  MUŠ <sub>3</sub> ~b
ZATU302	KU <sub>6</sub> ~a;  KU <sub>6</sub> ~c	ZATU335	LUM	ZATU375	MUŠ <sub>3</sub> ~a@g
ZATU303	KU <sub>6</sub> ~a+KU <sub>6</sub> ~a	ZATU336	MA	ZATU376	MUŠEN
ZATU304	KUR~a;  KUR~b; KUR~c;  KUR~d	ZATU337	MA x A	ZATU377	MUŠEN.UR <sub>3</sub> ~b2
ZATU305	KUŠU <sub>2</sub> ~a;  KUŠU <sub>2</sub> ~b; KUŠU <sub>2</sub> ~c;  KUŠU <sub>2</sub> ~d; KUŠU <sub>2</sub> ~e;  KUŠU <sub>2</sub> ~f	ZATU338	MA x MA	ZATU378	NA~a;  NA~b;  NA~c; NA~d
ZATU306	LA~b;  LA~c;  LA~d	ZATU339	MA <sub>2</sub>	ZATU379	NA <sub>2</sub> ~a;  NA <sub>2</sub> ~b1; NA <sub>2</sub> ~b2;  NA <sub>2</sub> ~c
ZATU307	LA <sub>2</sub>	ZATU340	MAGUR~a;  MAGUR~b	ZATU380	NAB
ZATU308	LAGAB~a;  LAGAB~b	ZATU341	MAH~a;  MAH~b	ZATU381	NAGA~a;  NAGA~b
ZATU309	LAGAB~a x BANŠUR~a1	ZATU342	MAH~a x GUKKAL~a	ZATU382	NAGAR~a;  NAGAR~b
ZATU310	LAGAB~a x DU~a1	ZATU343	MAH~a x KU~a1 ;  MAH~b x KU~a1	ZATU383	NAM~a;  NAM~b; NAM~c;  NAM~d
ZATU311	LAGAB~a x GA'AR~a1	ZATU344	MAH~a x MAŠ ;  MAH~b x MAŠ	ZATU384	NAM <sub>2</sub>
ZATU312	LAGAB~a x HI1	ZATU345	MAH~b x SAL	ZATU385	NAM <sub>2</sub> x 1(N01)
ZATU313	LAGAB~a x KU~a1	ZATU346	MAH~a x (SILA <sub>3</sub> ~a x UMBIN~a)	ZATU386	NAM <sub>2</sub> @g
		ZATU347	MAH~a x TUG <sub>2</sub> ~a	ZATU387	NAMEŠDA
		ZATU348	MAH~a x UD <sub>5</sub> ~a	ZATU388	NANNA~a;  NANNA~b
		ZATU349	MAH~a x UDU~a	ZATU389	AB~a x KU~a1; NANŠE~a;  NANŠE~b
		ZATU350	MAH~a x UR~a	ZATU390	NAR
		ZATU351	MAH~a x UTUA~a	ZATU391	NE~a;  NE~b; NE~c;  NE~d
		ZATU352	MAR~a;  MAR~b	ZATU392	NERGAL~v
		ZATU353	MAR~b x (LAGAB~b.ŠE <sub>3</sub> )	ZATU393	NI~a;  NI~b

ZATU394	NI~a@g	ZATU426	PAD~a;  PAD~b	ZATU460, ZATU472	SILA <sub>3</sub> ~a×NI~a ;  SILA <sub>3</sub> ~b×NI~a ;  SILA <sub>3</sub> ~b×NI~b ;  SILA <sub>3</sub> ~d×NI~a
ZATU395	See new copy of ATU 1, 143 in P001212=ATU 5, pl. 054, W 9335,i.	ZATU427	PAP~a;  PAP~b	ZATU461	SILA <sub>3</sub> ~a×GARA <sub>2</sub> ~a
ZATU396	NI <sub>2</sub>	ZATU428	PIRIG~a1;  PIRIG~a2; PIRIG~a3;  PIRIG~b1; PIRIG~b2	ZATU462, ZATU469	SILA <sub>3</sub> ~a×GEŠTU~a ;  SILA <sub>3</sub> ~a×GEŠTU~c3 ;  SILA <sub>3</sub> ~a×GEŠTU~c5
ZATU397	NIGIN	ZATU429	3(N57).PIRIG~b1	ZATU463	SILA <sub>3</sub> ~a×HAŠHUR
ZATU398	NIM~a;  NIM~b1; NIM~b2;  NIM~b3; NIM~d	ZATU430	PU <sub>2</sub>	ZATU464	SILA <sub>3</sub> ~a×HI
ZATU399	NIMGIR	ZATU431	RA	ZATU465	SILA <sub>3</sub> ~a×HI@g~al
ZATU400	NIN	ZATU432	RAD~a;  RAD~b	ZATU466	SILA <sub>3</sub> ~a×IB~a
ZATU401	NINDA <sub>2</sub>	ZATU433	RAD~a@g	ZATU467	SILA <sub>3</sub> ~a×KAŠ~a ;  SILA <sub>3</sub> ~a×KAŠ~c ;  SILA <sub>3</sub> ~a×KAŠ~d
ZATU402	NINDA <sub>2</sub> ×BA	ZATU434	RI <sub>8</sub> ~a;  RI <sub>8</sub> ~b	ZATU468	SILA <sub>3</sub> ~a×KUR~a
ZATU403	NINDA <sub>2</sub> ×EZEN~b	ZATU435	RU	ZATU469	see ZATU462
ZATU404	NINDA <sub>2</sub> ×GAR	ZATU436	SA~a;  SA~c	ZATU470	SILA <sub>3</sub> ~a×MAŠ
ZATU405	NINDA <sub>2</sub> ×GIŠ	ZATU437	SAG	ZATU471	SILA <sub>3</sub> ~a×NAGA~a ;  SILA <sub>3</sub> ~b×NAGA~b
ZATU406	NINDA <sub>2</sub> ×(AN.ME~a) ;  NINDA <sub>2</sub> ×(HI.AN.ME~a) ;  NINDA <sub>2</sub> ×(HI.ME~a) ;  NINDA <sub>2</sub> ×GUDU <sub>4</sub>	ZATU438	SAG×GEŠTU~a ;  SAG×GEŠTU~b ;  SAG×GEŠTU~c	ZATU472	see ZATU460
ZATU407	NINDA <sub>2</sub> ×HI	ZATU439	SAG×MA	ZATU473	SILA <sub>3</sub> ~a×MA
ZATU408	NINDA <sub>2</sub> ×MAR~a ;  NINDA <sub>2</sub> ×MAR~b	ZATU440	SAG×1(N14)	ZATU474	SILA <sub>3</sub> ~a×SUM~a ;  SILA <sub>3</sub> ~a×SUM~b
ZATU409	NINDA <sub>2</sub> ×U <sub>4</sub>	ZATU441	SAG@n	ZATU475	SILA <sub>3</sub> ~a×ŠE~a
ZATU410	NINDA <sub>2</sub> ×(UDU~a×TAR~a) ;  NINDA <sub>2</sub> ×(UDU~a×TAR~b)	ZATU442	SAGŠU	ZATU476	SILA <sub>3</sub> ~a×ŠU ;  SILA <sub>3</sub> ~c×ŠU
ZATU411	EZEN~b×6(N57) ;  NINDA <sub>2</sub> ×1(N01) ;  NINDA <sub>2</sub> ×2(N01) ;  NINDA <sub>2</sub> ×1(N08)	ZATU443	SAL	ZATU477	SILA <sub>3</sub> ~a×ŠU <sub>2</sub>
ZATU412	NINKUM	ZATU444	SANGA~a;  SANGA~b; SANGA~c;  SANGA~e	ZATU478	SILA <sub>3</sub> ~a×(ZATU659.TU~c)
ZATU413	NINLIL	ZATU445	SAR~a;  SAR~b; SAR~c;  SAR~d	ZATU479	Delete, W 16012,b+ = P002571 now read UDU ŠITA.
ZATU414	NIR~a;  NIR~b	ZATU446	KU <sub>6</sub> ~a@s	ZATU480	SILA <sub>3</sub> ~c×ZATU687
ZATU415	NIR~a×ANI	ZATU447	SI	ZATU481	SILA <sub>3</sub> ~a×1(N57) ;  SILA <sub>3</sub> ~a×1(N58)
ZATU416, ZATU570	NESAG <sub>2</sub> ~a; NESAG <sub>2</sub> ~a2; NESAG <sub>2</sub> ~b	ZATU448	SI×GU	ZATU482	SILA <sub>4</sub> ~a;  SILA <sub>4</sub> ~b; SILA <sub>4</sub> ~c;  SILA <sub>4</sub> ~d
ZATU417	NU	ZATU449	SI×ŠE <sub>3</sub>	ZATU483	SILANITA
ZATU418	NU@g	ZATU450	SI <sub>4</sub> ~a;  SI <sub>4</sub> ~b;  SI <sub>4</sub> ~c; SI <sub>4</sub> ~d;  SI <sub>4</sub> ~f	ZATU484	SIMUG
ZATU419	NU <sub>11</sub>	ZATU451	SIG;  SIG~b	ZATU485	SU~a;  SU~b;  SU~c
ZATU420	NUMUN <sub>2</sub>	ZATU452	SIG <sub>2</sub> ~a1;  SIG <sub>2</sub> ~a2; SIG <sub>2</sub> ~a3;  SIG <sub>2</sub> ~a4; SIG <sub>2</sub> ~b;  SIG <sub>2</sub> ~c1; SIG <sub>2</sub> ~c2;  SIG <sub>2</sub> ~d1; SIG <sub>2</sub> ~d2;  SIG <sub>2</sub> ~d3; SIG <sub>2</sub> ~d4;  SIG <sub>2</sub> ~e	ZATU486	SU~a×1(N58)
ZATU421	NUN~a;  NUN~b; NUN~c;  NUN~d	ZATU453	SIG <sub>2</sub> ~b×1(N14)	ZATU487	SU <sub>3</sub>
ZATU422	NUN~a+A	ZATU454	SIG <sub>4</sub>	ZATU488	SUG
ZATU423	NUNUZ~a0;  NUNUZ~a1; NUNUZ~a2;  NUNUZ~b1; NUNUZ~b2;  NUNUZ~c	ZATU455	SIG <sub>7</sub>	ZATU489	SUG <sub>5</sub>
ZATU424	3(N57).NUNUZ~a1 ;  3(N57).NUNUZ~c	ZATU456	SILA <sub>3</sub> ~a;  SILA <sub>3</sub> ~b; SILA <sub>3</sub> ~c	ZATU490	SUH <sub>3</sub>
ZATU425	PA~a;  PA~b	ZATU457	SILA <sub>3</sub> ~a×A	ZATU491	SUHUR
		ZATU458	SILA <sub>3</sub> ~a×DUG~a	ZATU492	SUKKAL
		ZATU459	SILA <sub>3</sub> ~a×GA~a	ZATU493	SUKUD

ZATU494	(SUKUD+SUKUD)~a ;  (SUKUD+SUKUD)~b ;  (SUKUD+SUKUD)~d	ZATU528	ŠITA~a1×ŠU	ZATU562	TUR
ZATU495	SUKUD@g~a; SUKUD@g~b; SUKUD@g~c; SUKUD@g~d	ZATU529	ŠITA~a1×KAK~a	ZATU563	TUR <sub>3</sub> ~a;  TUR <sub>3</sub> ~b; TUR <sub>3</sub> ~c
ZATU496	SUM~a;  SUM~b	ZATU530	ŠITA@g~a;  ŠITA@g~b	ZATU564	• 1(N14)
ZATU497	SUMAŠ	ZATU531	ŠITA@g~a×1(N04)	ZATU565	U <sub>2</sub> ~a;  U <sub>2</sub> ~b;  U <sub>2</sub> ~c
ZATU498	SUR	ZATU532	ŠU	ZATU566	U <sub>4</sub>
ZATU499	SUSA	ZATU533	ŠU@g	ZATU567	KI@n×DUB~a
ZATU500	ŠA	ZATU534	ŠU <sub>2</sub>	ZATU568	U <sub>4</sub> .ŠU <sub>2</sub>
ZATU501	(ŠA×HI@g~a)~a ;  (ŠA×HI@g~a)~b	ZATU535	ŠU <sub>2</sub> .E <sub>2</sub> ~a ;   ŠU <sub>2</sub> .E <sub>2</sub> ~b	ZATU569	U <sub>4</sub> ×1(N01)
ZATU502	ŠA@g	ZATU536	ŠU <sub>2</sub> .EN~a ;  ŠU <sub>2</sub> .EN~b	ZATU570	see ZATU416
ZATU503	ŠA <sub>3</sub> ~a1;  ŠA <sub>3</sub> ~a2;  ŠA <sub>3</sub> ~b; ŠA <sub>3</sub> ~c;  ŠA <sub>3</sub> ~d	ZATU537	ŠU <sub>2</sub> .U <sub>4</sub>   in ATU 206 read as AB <sub>2</sub> in P001387=ATU 5 pl.80, W 9655,o.	ZATU571	U <sub>8</sub>
ZATU504	ŠAB~a;  ŠAB~b	ZATU538	ŠU <sub>12</sub>	ZATU572	UB
ZATU505	Delete, W 14777,e = P002181 now read GAL~a ŠAB~a AL.	ZATU539	ŠUBUR	ZATU573	UBI~a;  UBI~c; UBI~d
ZATU506	ŠAGAN	ZATU540	1(N57).ŠUBUR ;  3(N57).ŠUBUR	ZATU574	UD <sub>5</sub> ~a;  UD <sub>5</sub> ~b; UD <sub>5</sub> ~c
ZATU507	ŠAGINA	ZATU541	ŠUM	ZATU575	UDU~a;  UDU~b; UDU~c
ZATU508	ŠAH <sub>2</sub> ~a;  ŠAH <sub>2</sub> ~b; ŠAH <sub>2</sub> ~c	ZATU542	ŠUNIGIN taken as DA in CDLI.	ZATU576	UDU~a×TAR~a ;  UDU~a×TAR~b
ZATU509	ŠAKIR~a;  ŠAKIR~b; ŠAKIR~c	ZATU543	ŠUR <sub>2</sub> ~a;  ŠUR <sub>2</sub> ~b; ŠUR <sub>2</sub> ~c	ZATU577	3(N57).UDU~a
ZATU510	ŠAM <sub>2</sub>	ZATU544	ŠURUPPAK~a; ŠURUPPAK~b	ZATU578	UDUNITA~a; UDUNITA~b; UDUNITA~c
ZATU511	ŠE~a;  ŠE~b; ŠE~c	ZATU545	TA~a;  TA~b; TA~c;  TA~d; TA~e	ZATU579	UH <sub>3</sub> ~a;  UH <sub>3</sub> ~b
ZATU512	ŠE~a.KIN <sub>2</sub> ~c	ZATU546	= 2(N57)	ZATU580	UKKIN~a;  UKKIN~b; UKKIN~c;  UKKIN~d
ZATU513	ŠE~a.NAM <sub>2</sub>	ZATU547	TAG~a1;  TAG~a2; TAG~a3;  TAG~a4; TAG~b;  TAG~c; TAG~d	ZATU581	UMBIN~a;  UMBIN~b1; UMBIN~b2;  UMBIN~c
ZATU514	SAR~a×ŠE~a	ZATU548	TAK <sub>4</sub> ~a;  TAK <sub>4</sub> ~c	ZATU582	UMUN <sub>2</sub>
ZATU515	ŠE~a&ŠE~a	ZATU549	TAR~a	ZATU583	UNUG~a;  UNUG~b; UNUG~c
ZATU516	ŠE <sub>3</sub>	ZATU550	TE	ZATU584	UNUG~a×A@t
ZATU517	Delete, W 17586 = P002625 now read as 1(N01) KU <sub>3</sub> .	ZATU551	TI	ZATU585	UNUG~a@s
ZATU518	ŠE <sub>3</sub> @t	ZATU552	TIDNUM	ZATU586	UR~a;  UR~b;  UR~c
ZATU519	ŠEG <sub>9</sub>	ZATU553	TILLA <sub>2</sub>	ZATU587	UR~a@g
ZATU520	ŠELU	ZATU554	TU~a;  TU~b; TU~c	ZATU588	UR <sub>2</sub>
ZATU521	ŠEN~a;  ŠEN~b; ŠEN~c;  ŠEN~d; ŠEN~e	ZATU555	TUG <sub>2</sub> ~a;  TUG <sub>2</sub> ~b; TUG <sub>2</sub> ~c;  TUG <sub>2</sub> ~d	ZATU589	UR <sub>2</sub> ×1(N57)
ZATU522	ŠENNUR~a;  ŠENNUR~b	ZATU556, ZATU558	TUG <sub>2</sub> ~a.BAD&BAD	ZATU590	UR <sub>2</sub> ×TAR~c
ZATU523	ŠEŠ~a;  ŠEŠ~b	ZATU557	TUG <sub>2</sub> ~a@g	ZATU591	UR <sub>3</sub> ~a1;  UR <sub>3</sub> ~a2; UR <sub>3</sub> ~a3;  UR <sub>3</sub> ~b1; UR <sub>3</sub> ~b2;  UR <sub>3</sub> ~d2
ZATU524	ŠIDIM	ZATU558	see ZATU556	ZATU592	UR <sub>4</sub> ~a;  UR <sub>4</sub> ~b;  UR <sub>4</sub> ~c
ZATU525	ŠIM~a;  ŠIM~b	ZATU559	Damaged, identification uncertain, possibly KAB.	ZATU593	UR <sub>5</sub> ~a;  UR <sub>5</sub> ~b
ZATU526	ŠIR~a;  ŠIR~b	ZATU560	TUM~a;  TUM~b; TUM~c;  TUM~d	ZATU594	URI
ZATU527	ŠITA~a1;  ŠITA~a2; ŠITA~a3;  ŠITA~b1; ŠITA~b2;  ŠITA~b3	ZATU561	TUN <sub>3</sub> ~a;  TUN <sub>3</sub> ~b; TUN <sub>3</sub> ~c	ZATU595	URI <sub>3</sub> ~a;  URI <sub>3</sub> ~b
				ZATU596	URI <sub>5</sub>
				ZATU597	URU~a1;  URU~a2; URU~b1;  URU~b2; URU~c
				ZATU598	URU~a1×AMAR
				ZATU599	URU~a3×KALAM~a

ZATU600	URU~a1×NIMGIR	ZATU632	ZATU632~a; ZATU632~b;  ZATU632~c	ZATU676	ZATU676~a; ZATU676~b
ZATU601	URU~a1×1(N57) ;  URU~a1×2(N57) ;  URU~a2×1(N58)	ZATU633	ZATU633~a; ZATU633~b	ZATU677	ZATU677~a; ZATU677~b
ZATU602	URUDU~a;  URUDU~c; URUDU~d	ZATU634	ZATU634	ZATU678	ZATU678
ZATU603	URUDU@g~a; URUDU@g~b; URUDU@g~c; URUDU@g~d	ZATU635	ZATU635	ZATU679	ZATU679
ZATU604	UŠ~a;  UŠ~b	ZATU636	ZATU636	ZATU680	ZATU680~a1; ZATU680~a2; ZATU680~b; ZATU680~d; ZATU680~e
ZATU605	UŠ~b×TAR~c	ZATU637	ZATU637	ZATU681	ZATU681
ZATU606	1(N02)	ZATU639	ZATU639	ZATU682	ZATU682
ZATU607	UŠUMGAL	ZATU640	ZATU640	ZATU683	ZATU683~a; ZATU683~b
ZATU608	UŠUR <sub>3</sub> ~b1;  UŠUR <sub>3</sub> ~b2	ZATU641	ZATU641	ZATU684	ZATU684
ZATU609	UTUA~a;  UTUA~b	ZATU642	ZATU642	ZATU685	ZATU685
ZATU610	UTUL~a;  UTUL~b; UTUL~c;  UTUL~d	ZATU643	ZATU643	ZATU686	ZATU686~a; ZATU686~b;  ZATU686~c
ZATU611	UZ~a	ZATU644	ZATU644~a;  ZATU644~b	ZATU687	ZATU687
ZATU612	ZA~v	ZATU645	ZATU644~a×1(N14)	ZATU688	ZATU688~a; ZATU688~b
ZATU613	ZABALAM~a; ZABALAM~b	ZATU646	ZATU646	ZATU689	ZATU689
ZATU614	SILA <sub>3</sub> ~a×NUN~b	ZATU647	ZATU647	ZATU690	ZATU690
ZATU615	ZAG~a;  ZAG~b; ZAG~c	ZATU648	ZATU648	ZATU691	ZATU691
ZATU616	ZAR~a;  ZAR~b1; ZAR~b2;  ZAR~c	ZATU649	ZATU649	ZATU692	ZATU692
ZATU617	ZI~a;  ZI~b;  ZI~d	ZATU650	ZATU650	ZATU693	ZATU693
ZATU618	1(N04)	ZATU651	ZATU651	ZATU694	ZATU694~a;  ZATU694~b; ZATU694~c;  ZATU694~d; ZATU694~e
ZATU619	ZUBI~a;  ZUBI~b	ZATU652	ZATU651×AN	ZATU695	ZATU695
ZATU620	ZATU620	ZATU653	ZATU651×EN~a	ZATU696	ZATU696
ZATU621	ZATU621~a; ZATU621~b; ZATU621~c; ZATU621~d	ZATU654	ZATU651×GAR	ZATU697	ZATU697~a; ZATU697~b; ZATU697~c
ZATU622	ZATU622	ZATU655	ZATU651×MA	ZATU698	DU <sub>8</sub> ~c@g
ZATU623	ZATU623	ZATU656	ZATU651×NUN~a	ZATU699	ZATU699~a; ZATU699~b
ZATU624	ZATU624~a; ZATU624~b; ZATU624~c	ZATU657	ZATU651×ŠE~a	ZATU700	ZATU700
ZATU625	ZATU625	ZATU658	ZATU651@g	ZATU701	ZATU701
ZATU626	ZATU626~a; ZATU626~b; ZATU626~c	ZATU659	ZATU659	ZATU702	ZATU702
ZATU627	ZATU627	ZATU660	ZATU659×1(N58@t)	ZATU703	ZATU703
ZATU628	ZATU628~a; ZATU628~b	ZATU661	ZATU659×1(N14)	ZATU704	ZATU704
ZATU629	ZATU629	ZATU662	ZATU662×1(N14)	ZATU705	ZATU705
ZATU630	ZATU630	ZATU663	ZATU662×1(N14)	ZATU706	ZATU706
ZATU631	ZATU631	ZATU664	ZATU664	ZATU707	ZATU707~a; ZATU707~b
		ZATU665	ZATU665	ZATU708	ZATU708
		ZATU666	ZATU666	ZATU709	ZATU709
		ZATU667	ZATU667	ZATU710	ZATU710
		ZATU668	ZATU668	ZATU711	ZATU711
		ZATU669	ZATU669	ZATU712	ZATU711×HI@g~a
		ZATU670	ZATU670	ZATU713	ZATU713
		ZATU671	Damaged, identification uncertain.		
		ZATU672	ZATU672		
		ZATU674	ZATU674		
		ZATU675	ZATU675~a; ZATU675~b;		
		ZATU676	ZATU675~c; ZATU675~d		

ZATU714	☒ ZATU714	ZATU760	☒  ZATU759×KU <sub>6</sub> ~a ; ☒  ZATU759×KU <sub>6</sub> ~d	ZATU809	☒ ZATU809
ZATU715	☒  ZATU714×HI@g~a	ZATU761	☒ ZATU761	ZATU810	☒ ZATU810
ZATU716	☒  ZATU714.RU	ZATU762	☒ ZATU762~a; ☒ ZATU762~b	ZATU811	☒ ZATU811
ZATU717	☒ ZATU717	ZATU763	☒  ZATU762~a×NIM~a	ZATU812	☒ ZATU812
ZATU718	☒ ZATU718	ZATU764	☒ ZATU764	ZATU813	☒ ZATU813
ZATU719	☒ ZATU719	ZATU765	☒ ZATU765	ZATU814	☒ ZATU814
ZATU720	☒ ZATU720	ZATU766	☒ ZATU766	ZATU815	☒ ZATU815
ZATU721	== ZATU721	ZATU767	☒ ZATU767	ZATU816	Vacat.
ZATU722	== ZATU722	ZATU768	☒ ZATU768	ZATU817	☒ ZATU817
ZATU723	== ZATU723	ZATU769	☒ ZATU769	ZATU818	☒ ZATU818
ZATU724	== ZATU724	ZATU770	Damaged; ATU 833 = ATU 1, 442 = P001011 ATU 5, pl. 034, W 9071,h; excluded from CDLI list.	ZATU819	☒ ZATU819
ZATU725	☒ ZATU725	ZATU771	☒ ZATU771	ZATU820	☒ ZATU820
ZATU726	☒ ZATU726~a; ☒ ZATU726~c; ☒ ZATU726~d	ZATU772	☒ ZATU772	ZATU821	☒ ZATU821
ZATU727	☒ ZATU727	ZATU773	☒ ZATU773~a; ☒ ZATU773~b	ZATU822	☒ ZATU822
ZATU728	☒ ZATU728	ZATU774	☒ ZATU774	ZATU823	☒ ZATU823
ZATU729	☒ ZATU729	ZATU775	☒ ZATU775	ZATU824	☒ ZATU824
ZATU730	☒ ZATU730	ZATU776	☒ ZATU776	ZATU825	☒ ZATU825
ZATU732	☒ ZATU732	ZATU777	☒ ZATU777	ZATU826	☒ ZATU826
ZATU733	☒ ZATU733	ZATU778	☒ ZATU778	ZATU827	Vacat.
ZATU734	☒ ZATU734	ZATU779	☒ ZATU779	ZATU828	Vacat.
ZATU735	☒ ZATU735~a; ☒ ZATU735~b; ☒ ZATU735~c	ZATU780	☒ ZATU780	ZATU829	== ZATU829
ZATU736	☒ ZATU736~a; ☒ ZATU736~b	ZATU781	☒ ZATU781	ZATU830	Vacat.
ZATU737	☒ ZATU737	ZATU782	☒ ZATU782	ZATU831	☒ ZATU831
ZATU738	☒  ZATU737×AB~a	ZATU783	☒ ZATU783	ZATU832	☒ ZATU832
ZATU739	☒  ZATU737×DI	ZATU784	☒ ZATU784	ZATU833	☒ ZATU833
ZATU740	☒  ZATU737×EN~a ; ☒  ZATU737×EN~b	ZATU785	☒ ZATU785	ZATU834	☒ ZATU834
ZATU741	☒  ZATU737×GAR	ZATU786	☒ ZATU786	ZATU835	☒ ZATU835
ZATU742	☒  ZATU737×NIMGIR	ZATU787	☒ ZATU787	ZATU836	☒ ZATU836
ZATU743	☒  ZATU737×SAL	ZATU788	☒ ZATU788	ZATU837	☒ ZATU837~a; ☒ ZATU837~b
ZATU744	☒  ZATU737×SU~a	ZATU789	☒ ZATU789	ZATU838	☒ ZATU838
ZATU745	☒  ZATU737×ŠE~a	ZATU790	Vacat.	ZATU839	☒ ZATU839
ZATU746	☒  ZATU737×ŠITA~b1@g	ZATU791	☒ ZATU791	ZATU840	☒ ZATU840
ZATU747	☒  ZATU737×U <sub>4</sub>	ZATU792	☒ ZATU792	ZATU841	☒ ZATU841
ZATU748	☒  ZATU737×UNUG~a	ZATU793	Vacat.	ZATU842	☒ ZATU842
ZATU749	☒ ZATU749~a; ☒ ZATU749~b; ☒ ZATU749~c	ZATU794	Vacat.	ZATU843	☒ ZATU843
ZATU750	☒ ZATU750	ZATU795	☒ ZATU795	ZATU844	☒ ZATU844
ZATU751	☒ ZATU751~a; ☒ ZATU751~b	ZATU796	Vacat.	ZATU845	☒ ZATU845
ZATU752	☒ ZATU752	ZATU797	☒ ZATU797	ZATU846	☒ ZATU846
ZATU753	☒ ZATU753	ZATU798	☒ ZATU798	ZATU847	☒ ZATU847
ZATU754	☒ ZATU754	ZATU799	☒ ZATU799	ZATU848	☒ ZATU848
ZATU755	☒ ZATU755~a; ☒ ZATU755~b	ZATU800	☒ ZATU800	ZATU849	☒ ZATU849
ZATU756	☒ ZATU756	ZATU801	☒ ZATU801	ZATU850	☒ ZATU850
ZATU757	☒ ZATU757	ZATU802	☒ ZATU802; ☒ ZATU802~b	ZATU851	☒ ZATU851
ZATU758	☒ ZATU758	ZATU803	☒ ZATU803	ZATU852	☒ ZATU852
ZATU759	☒ ZATU759	ZATU804	☒ ZATU804	ZATU853	☒ ZATU853
		ZATU805	☒ ZATU805	ZATU854	☒ ZATU854
		ZATU806	☒ ZATU806	ZATU855	☒ ZATU855
		ZATU807	☒ ZATU807	ZATU856	☒ ZATU856
		ZATU808	☒ ZATU808	ZATU857	☒ ZATU857
				ZATU858	☒ ZATU858
				ZATU859	☒☒ ZATU859

## C Index of Alternate CDLI Sign Names

This index covers two kinds of differences between CDLI names and PCSL names (ignoring the differences that result from re-encoding the CDLI names in Unicode rather than as ASCII).

Changes made to the CDLI names are indicated with a greater-than (becomes) symbol, >. These are CDLI names either in print or in the CDLI-gh name list that have been adapted to PCSL conventions. These appear in the PCSL table in the main sign block with the prefix CDLI:.

CDLI names used in the transliterated corpus have not generally been normalized to PCSL forms. These are handled using aliases in the validation data, which appear in the PCSL table in the main block with the prefix AKA:. Aliases in this index are indicated with the equals sign, =.

×(N57).GAR	>  X(N57).GAR	EZEN~a×(HI.1(N57).AN)	=  EZEN~a×(HI×1(N57).AN)
AMAR×TAR	=  AMAR×TAR~c	EZEN~ax(HI.1(N57).AN)	>  EZEN~a×(HI×1(N57).AN)
AMAR×TAR	>  AMAR×TAR~c	EZEN~b@t	> EZEN~b@t
AMAR@g	> AMAR@g	GA <sub>2</sub> ~a×E <sub>2</sub> ~a	=  GA <sub>2</sub> ~a1×E <sub>2</sub> ~a
APIN	= APIN~a	GA <sub>2</sub> ~a1×(KU <sub>6</sub> ~a.KU <sub>6</sub> ~a)	>  GA <sub>2</sub> ~a1×(KU <sub>6</sub> ~a+KU <sub>6</sub> ~a)
AŠ	= 1(N57)	GA <sub>2</sub> ~a1×((SUKUD+SUKUD)~a)	>  GA <sub>2</sub> ~a1×((SUKUD+SUKUD)~a)
BU~a.DU <sub>6</sub> ~a	=  BU~a+DU <sub>6</sub> ~a	GA <sub>2</sub> ~a1×(SUKUD+SUKUD)~a	=  GA <sub>2</sub> ~a1×((SUKUD+SUKUD)~a)
BU~a&BU~a).NA <sub>2</sub> ~a@n	=  (BU~a%BU~a).NA <sub>2</sub> ~a@n	GA <sub>2</sub> ~a1×((SUKUD+SUKUD)~b)	>  GA <sub>2</sub> ~a1×((SUKUD+SUKUD)~b)
BU~a&BU~a).NA <sub>2</sub> ~a@n	>  (BU~a%BU~a).NA <sub>2</sub> ~a@n	GA <sub>2</sub> ~a1×(SUKUD+SUKUD)~b	=  GA <sub>2</sub> ~a1×((SUKUD+SUKUD)~b)
BU <sub>3</sub> ~a	= BU <sub>3</sub>	GA <sub>2</sub> ~a2×(GU <sub>4</sub> .ŠE <sub>3</sub> )	=  GA <sub>2</sub> ~a2×(ŠE <sub>3</sub> .GU <sub>4</sub> )
DARA <sub>3</sub> ~d×KAR <sub>2</sub>	>  DARA <sub>3</sub> ~d×KAR <sub>2</sub> ~b	GA <sub>2</sub> ~a2×(GU <sub>4</sub> .ŠE <sub>3</sub> )	>  GA <sub>2</sub> ~a2×(ŠE <sub>3</sub> .GU <sub>4</sub> )
DARA <sub>3</sub> ~d×KAR <sub>2</sub>	=  DARA <sub>3</sub> ~d×KAR <sub>2</sub> ~b	GA <sub>2</sub> ~a2×NIM~b1	=  GA <sub>2</sub> ~a1×NIM~b1
DIN+1(N57)	=  DIN×1(N58)	GA <sub>2</sub> ~a2×NIM~b1	>  GA <sub>2</sub> ~a1×NIM~b1
DIŠ	= 1(N58)	GABURRA	=  ZATU737×BUR~a
DU×DIŠ	=  DU×1(N58@t)	( GI+&GI)×ŠE <sub>3</sub>	>  ( GI+&GI)×ŠE <sub>3</sub>
DU×DIŠ	>  DU×1(N58@t)	GI+A	=  GI×A
DU <sub>6</sub> ~a×DIŠ	=  DU <sub>6</sub> ~a×1(N58)	GI×1(N58)@t	=  GI×1(N58@t)
DU <sub>6</sub> ~a×DIŠ	>  DU <sub>6</sub> ~a×1(N58)	GI×1(N58)@t	>  GI×1(N58@t)
DU <sub>6</sub> @g~c	= DU <sub>6</sub> ~c@g	Gl <sub>6</sub> ~a	= Gl <sub>6</sub>
(DUB×DIŠ)~a	=  (DUB@n~a×1(N58))~a	GIR <sub>3</sub> ~c×KAR <sub>2</sub>	=  GIR <sub>3</sub> ~c×KAR <sub>2</sub> ~b
(DUB×DIŠ)~a	>  (DUB@n~a×1(N58))~a	GIR <sub>3</sub> ~c×KAR <sub>2</sub>	>  GIR <sub>3</sub> ~c×KAR <sub>2</sub> ~b
(DUB×DIŠ)~b	=  DUB@n~b×1(N58)~a	GIR <sub>3</sub> ~c@g	= GIR <sub>3</sub> @g~c
(DUB×DIŠ)~b	>  DUB@n~b×1(N58)~a	GIŠ×ŠU <sub>2</sub> ~a	=  (GIŠ×ŠU <sub>2</sub> )~a
(DUB×DIŠ)~c	=  (DUB@n~a×1(N58))~b	GIŠ×ŠU <sub>2</sub> ~a	>  (GIŠ×ŠU <sub>2</sub> )~a
(DUB×DIŠ)~c	>  (DUB@n~a×1(N58))~b	GIŠ×ŠU <sub>2</sub> ~b	=  (GIŠ×ŠU <sub>2</sub> )~b
*DUG~b+SA~a+GI	>  DUG~b×(SA~a.GI)	GIŠ×ŠU <sub>2</sub> ~b	>  (GIŠ×ŠU <sub>2</sub> )~b
DUG~b&(DUG~b×1(N58))	=  (DUG~b&DUG~b)×1(N58)	GIŠ~x	> GIŠ~v
DUG~b@r×DIN	=  (DUG~b×DIN)@r	GIZZAL~x	> GIZZAL~v
E <sub>2</sub>	= E <sub>2</sub> ~a	GU~a	= GU
E <sub>2</sub> ~a×1(N57)@t	=  E <sub>2</sub> ~a×1(N58@t)	GU <sub>4</sub> .ZATU755~a	=  GU <sub>4</sub> .ZATU755~b
E <sub>2</sub> ~a×1(N57)@t	>  E <sub>2</sub> ~a×1(N58@t)	GU <sub>4</sub> .ZATU755~a	>  GU <sub>4</sub> .ZATU755~b
E <sub>2</sub> ~b×1(N57)@t	=  E <sub>2</sub> ~b×1(N58@t)	*GU <sub>4</sub> +1N58	>  GU <sub>4</sub> ×1(N58)
E <sub>2</sub> ~b×1(N57)@t	>  E <sub>2</sub> ~b×1(N58@t)	GUG <sub>2</sub> ~a	= GUG <sub>2</sub>
EN	= EN~a	GURUŠDA~a	= GURUŠDA
EN~a+NUN~b	=  NUN~b+EN~a	HI×1(N01)F	>  HI×1(N01@f)
EN~a×NUN~a	=  NUN~a+EN~a	HI×1(N57)@t	=  HI×1(N57@t)
EN <sub>2</sub> ×E <sub>2</sub> ~b	=  EN <sub>2</sub> .E <sub>2</sub> ~b	HI×1(N57)@t	>  HI×1(N57@t)
EŠDA×TAR	=  EŠDA×TAR~a	( HI×1(N57))&( HI+1(N57))	>  ( HI×1(N57)).( HI×1(N57))
EŠDA×TAR	>  EŠDA×TAR~a	HI~a	= HI
EZEM~b×AN	= BAD <sub>3</sub> ~b2	HI@g	= HI@g~a
EZEM~c	= EZEN~b@t	HI~a@g	= HI@g~a
EZEN~c	= EZEN~b@t	IB~a@n	> IB~a@n
EZEN~a+KI	=  EZEN~a×KI	KA <sub>2</sub> ~d×LAM	=  KA <sub>2</sub> ~d×LAM~b

KA <sub>2</sub> ×LAM	>  KA <sub>2</sub> ~d×LAM~b	SAG×(UKKIN~b×1(N57))	=  SAG+UKKIN~b×1(N57)
KASKAL@g	> KASKAL@g	*SAL.ZATU751~a	>  SAL.ZATU751~a
KAŠ~b×ŠE~a	=  KAŠ~b×ŠE~a@t	*SAL+ZATU751~b	>  SAL.ZATU751~b
KAŠ~b×ŠE~a	>  KAŠ~b×ŠE~a@t	*SAL+ZATU751~c	>  SAL.ZATU751~c
KAŠ~b@t	> KAŠ~b@t	SIG×1(N57)	=  1(N57).SIG
KI~a	= KI	SIG×1(N57)	>  1(N57).SIG
KI@n+DUB~a	=  KI@n×DUB~a	SIG <sub>2</sub> ~a	= SIG <sub>2</sub> ~a1
KISAL~b2@t	> KISAL~b2@t	SIG <sub>2</sub> ~b.SIG <sub>2</sub> ~b	=  SIG <sub>2</sub> ~b&SIG <sub>2</sub> ~b
KUR@g~a	> KUR@g~a	SIG <sub>2</sub> ~b.SIG <sub>2</sub> ~b	>  SIG <sub>2</sub> ~b&SIG <sub>2</sub> ~b
KUR@g~b	> KUR@g~b	SILA <sub>3</sub> ~a+GARA <sub>2</sub> ~a	=  SILA <sub>3</sub> ~a×GARA <sub>2</sub> ~a
LA	= LA~b	SILA <sub>3</sub> ~a+KAŠ~a	=  SILA <sub>3</sub> ~a×KAŠ~a
LAGAB~a×DU <sub>6</sub> ~b	=  LAGAB~a×DU <sub>6</sub> ~a	SILA <sub>3</sub> ~a+MUD <sub>3</sub> ~b	=  SILA <sub>3</sub> ~a×MUD <sub>3</sub> ~b
LAGAB~a×DU <sub>6</sub> ~b	>  LAGAB~a×DU <sub>6</sub> ~a	SILANITA~a	= SILANITA
LAGAB~a×KUŠU <sub>2</sub> ~b	=  LAGAB~a×KUŠU <sub>2</sub> ~a@t	SUG <sub>5</sub> ~a	= SUG <sub>5</sub>
LAGAB~a×KUŠU <sub>2</sub> ~b	>  LAGAB~a×KUŠU <sub>2</sub> ~a@t	SUHUR~a	= SUHUR
LAGAB~b+LAGAB~b	=  LAGAB~b&LAGAB~b	SUHUR@n	> SUHUR@n
LAGAB~b×LAGAB~b	=  LAGAB~b&LAGAB~b	SUKUD@g~d	> SUKUD@g~d
LAGAB~b×(HI×N04)	=  LAGAB~b×(HI×1(N04))	SUM~a@t	> SUM~a@t
LAGAB~b×LAGAB~b	>  LAGAB~b&LAGAB~b	ŠA <sub>3</sub> ~b1	= ŠA <sub>3</sub> ~a2
LAM~b@t	> LAM~b@t	ŠE~a×NAM <sub>2</sub>	=  ŠE~a.NAM <sub>2</sub>
LUKUR	=  SAL.ME~a	ŠITA~a	= ŠITA~a1
MAR@g~a	= MAR~a@g	ŠITA~b1×HI@g~a	=  ŠITA~b2@g×HI@g~a
MAŠNITA	= MAŠ <sub>2</sub>	ŠITA~b1×HI@g~a	>  ŠITA~b2@g×HI@g~a
MUD <sub>3</sub> @g	= MUD <sub>3</sub> ~a@g	ŠU <sub>2</sub> .((HI+1(N57))+(HI+1(N57)))	=  ŠU <sub>2</sub> .(HI×1(N57))&(HI×1(N57))
MUŠEN×1(N57)	=  1(N57).MUŠEN	ŠU <sub>2</sub> .((HI+1(N57))+(HI+1(N57)))	>  ŠU <sub>2</sub> .(HI×1(N57))&(HI×1(N57))
MUŠEN×1(N57)	>  1(N57).MUŠEN	ŠU <sub>2</sub> +AN	=  ŠU <sub>2</sub> .AN
MUŠEN×2(N57)	=  2(N57).MUŠEN	ŠU <sub>2</sub> .AN	=  ŠU <sub>2</sub> .AN
MUŠEN×2(N57)	>  2(N57).MUŠEN	ŠU <sub>2</sub> ×AN	=  ŠU <sub>2</sub> ×AN
MUŠEN×3(N57)	=  3(N57).MUŠEN	ŠU <sub>2</sub> ×1(N24)	=  ŠU <sub>2</sub> .1(N24)
MUŠEN×3(N57)	>  3(N57).MUŠEN	ŠU <sub>2</sub> ×3(N57)	=  ŠU <sub>2</sub> ×3(N57)
1(N58).BAD~a	>  1(N58).BAD	TE~a	= TE
1(N58).BAD~a	=  1(N58).BAD	TI~a	= TI
BAD+DIŠ~a	=  1(N58).BAD	TUG <sub>2</sub> ~a.(BAD&BAD)	>  TUG <sub>2</sub> ~a.BAD&BAD
1(N58).BAD~b	=  (1(N58).BAD)~b	TUKU	= KAB
1(N58).BAD~b	>  (1(N58).BAD)~b	TUKU+DIŠ	=  KAB×1(N58)
NA	= NA~a	TUR <sub>3</sub> ~a@n	> TUR <sub>3</sub> ~a@n
NAGA	= NAGA~a	U <sub>4</sub> .(1(N14).3(N08))	>  U <sub>4</sub> .1(N14).3(N08)
NERGAL~x	> NERGAL~v	U <sub>4</sub> .(1(N14).4(N08))	>  U <sub>4</sub> .1(N14).4(N08)
NINDA <sub>2</sub> ×(HI+ME~a)	=  NINDA <sub>2</sub> ×(HI.ME~a)	U <sub>4</sub> .(1(N14).5(N08))	>  U <sub>4</sub> .1(N14).5(N08)
NINDA <sub>2</sub> ×(HI@g~a.1(N06))	=  NINDA <sub>2</sub> ×(1(N06).HI@g~a)	U <sub>4</sub> .(1(N14).8(N08))	>  U <sub>4</sub> .1(N14).8(N08)
NINDA <sub>2</sub> ×(HI@g~a.1(N06))	>  NINDA <sub>2</sub> ×(1(N06).HI@g~a)	( U <sub>4</sub> +1(N14)).1(N08)	=  U <sub>4</sub> .1(N14).1(N08)
NINDA <sub>2</sub> ×((UDU~a+TAR)~b)	=  NINDA <sub>2</sub> ×(UDU~a×TAR~b)	U <sub>4</sub> ×(X(N01))	>  U <sub>4</sub> ×N(N01)
NINDA <sub>2</sub> ×((UDU~a×TAR)~a)	=  NINDA <sub>2</sub> ×(UDU~a×TAR~a)	U <sub>4</sub> ×1(N01)+1(N24)	=  U <sub>4</sub> ×(1(N01).1(N24))
NINDA <sub>2</sub> ×((UDU~a×TAR)~a)	>  NINDA <sub>2</sub> ×(UDU~a×TAR~a)	U <sub>4</sub> ×1(N01)F	>  U <sub>4</sub> ×1(N01@f)
NISAG~a3	= NESAG <sub>2</sub> ~a2	U <sub>4</sub> ×2(N01).(2(N14).1(N08))	>  U <sub>4</sub> ×2(N01).2(N14).1(N08)
NU <sub>11</sub> @t	> NU <sub>11</sub> @t	U <sub>4</sub> ×(1(N14).3(N01)).(1(N14).4(N08))	=  U <sub>4</sub> ×(1(N14).3(N01)).1(N14).4(N08)
NUNUZ~a1@n	= NUNUZ~a0	U <sub>4</sub> ×1(N58)@t	=  U <sub>4</sub> ×1(N58@t)
NUNUZ~a1@t	> NUNUZ~a1@t	U <sub>4</sub> ×1(N58)@t	>  U <sub>4</sub> ×1(N58@t)
PAP@t	= PAP~a@t	( U <sub>8</sub> ×TAR)~b	>  U <sub>8</sub> ×TAR~b
RAD~a@t	> RAD~a@t	UDU	= UDU~a
RU~a	= RU	( UDU~a×TAR)~a	>  UDU~a×TAR~a
RU@t	> RU@t	( UDU~a×TAR)~b	>  UDU~a×TAR~b
SAG+GEŠTU~a	=  SAG×GEŠTU~a	JUET <sub>2</sub> .405	> BAU405
SAG+NAM <sub>2</sub>	=  SAG×NAM <sub>2</sub>	UR	= UR~a

UR~a×KAR <sub>2</sub>	=  UR~a×KAR <sub>2</sub> ~b	1(N29A~b)	= 1(N29AB)
UR~a×KAR <sub>2</sub>	>  UR~a×KAR <sub>2</sub> ~b	2(N29A~b)	= 2(N29AB)
UR <sub>2</sub> ×TAR	=  UR <sub>2</sub> ×TAR~c	1(N29A~c)	= 1(N29AC)
UR <sub>2</sub> ×TAR	>  UR <sub>2</sub> ×TAR~c	1(N30~a)	= 1(N30A)
URU~a1+1(N58)	=  URU~a2×1(N58)	1(N30~b)	= 1(N30B)
URU~a1@n	> URU~a1@n	1(N30~c)	= 1(N30C)
ZA~x	> ZA~v	1(N30~d)	= 1(N30D)
ZABALA~a	= ZABALAM~a	1(N30~e)	= 1(N30E)
ZATU659×1(N58)@t	=  ZATU659×1(N58@t)	1(N30A~c)	= 1(N30AC)
ZATU659×1(N58)@t	>  ZATU659×1(N58@t)	1(N30C~a)	= 1(N30CA)
ZATU683@t	> ZATU683@t	1(N30C~c)	= 1(N30CC)
ZATU737×ŠITA@g~a	>  ZATU737×ŠITA~b1@g	1(N34@f@t)	> 1(N34@f@t)
ZATU741	=  ZATU737×GAR	1(N39~a)	= 1(N39A)
ZATU831@g	> ZATU831@g	2(N39~a)	= 2(N39A)
1(N01@r)	> 1(N01@r)	3(N39~a)	= 3(N39A)
1(N07~a)	= 1(N07A)	4(N39~a)	= 4(N39A)
2(N07~a)	= 2(N07A)	1(N39~b)	= 1(N39B)
3(N07~a)	= 3(N07A)	2(N39~b)	= 2(N39B)
1(N07~b)	= 1(N07B)	3(N39~b)	= 3(N39B)
2(N07~b)	= 2(N07B)	4(N39~b)	= 4(N39B)
3(N07~b)	= 3(N07B)	1(N42~a)	= 1(N42A)
1(N24')	= 1(N24)	2(N42~a)	= 2(N42A)
1(N24")	= 1(N24)	3(N42~a)	= 3(N42A)
1(N24~a)	= 1(N24A)	4(N42~a)	= 4(N42A)
1(N24~b)	= 1(N24B)	2(N42~b)	= 2(N42B)
1(N26~b)	= 1(N26B)	1(N45~a)	= 1(N45A)
1(N28~b)	= 1(N28B)	1(N58)@t	= 1(N58@t)
1(N28~c)	= 1(N28C)	1(N58@t)	> 1(N58@t)
1(N29)	= 1(N29A)	2(N57).DU <sub>6</sub> ~a@n	= X <sub>2</sub>
1(N29~a)	= 1(N29A)	N(N57).GAR	=  X(N57).GAR
2(N29~a)	= 2(N29A)	8(N57).NI~b	>  NI~b×8(N57)
1(N29~b)	= 1(N29B)		

## D PCSL Non-PC25

This table gives every text in the PC corpus that contains one or more unencoded signs, along with a list in the 'Missing' column of the specific signs which are not in the PC25 encoding.

CDLI	MusNo	Time	Place	Pub	Missing
P001731		VA - ?			SILA <sub>3</sub> ~c>ŠU
P002078		VA - ?			SILA <sub>3</sub> ~c
P002231		IM 023434,w			ZATU814
P002248		IM 023434,b			NINDA <sub>2</sub> ×BA
P002261		IM 023435,12			ZATU815
P002264		IM 023435,19			(GI&GI)>ŠE <sub>3</sub>
P002269		IM 023435,10			NINDA <sub>2</sub> ×(UDU~a×TAR-b)  NUMUN <sub>2</sub>
P002464		IM 023445,03			ŠITA@g~a×1(N04)
P002571		IM 023449,1			LA~c
					ŠITA~a1×UDU~a
					ŠITA~a1×1(N06)
P002624		W 17480,b			(GI&GI)>ŠE <sub>3</sub>
P002697		IM 046011 + IM 046061			NUMUN <sub>2</sub>
P002741		IM 045991			EZEN~a×SAG
P002758		IM 045978			ZATU805
P002874		IM 045912			GAN~c×NE~a
					GAN~c×ŠE~a
					GAN~c×ŠE <sub>3</sub> @t
P002882		IM 045941			NESAG <sub>2</sub> ~b@t
P002891		IM 046146			GA <sub>2</sub> ~a1×NAGA~a
					GAN~c×ŠE~a
					SILA <sub>3</sub> ~d×NI~a
P003081		W 19408,46			SIG <sub>2</sub> ~b×1(N14)
P003082		W 19408,47			≡▷  KAD <sub>4</sub> ~c1
					≡▷  KAD <sub>4</sub> ~c2
P003096		W 19408,60			ALAN~d
P003098		IM 133643			LAM~b@s

P003163	IM 133666	SILA <sub>3</sub> ~a×HI@g~a
P003251	IM 064851	GA <sub>2</sub> ~a1×(HI.SUHUR)   GA <sub>2</sub> ~a1×((SUKUD+SUKUD)~a)
P003252	IM 064852	ZATU634
P003403	IM 065104	HI×ZATU707~a
P003406	IM 065106	GIBIL@t
P003407	IM 065107	URUDU@g~b
P003433	IM 065115	MAH~b×KU <sub>6</sub> ~a
P003436	IM 065116	E~d
P003488	W 20243,1	KAB×1(N58)
P003492	history; history	IM 067375 Nissen1986WorldArchaeology17;sec1722 MAGUR~b
P003541	W 20274,043	SAG×1(N14)
P003543	W 20274,045	GA <sub>2</sub> ~a2×NI~b
P003798	W 20496,1	SILA <sub>3</sub> ~a×HI@g~a
P003809	W 20511,03	GALGA~b
P003839	IM 134421	LU <sub>2</sub> ×GEŠTU~c3
P003977	history	IM 073483 Schmandt-Besserat1992BeforeWriting SIG <sub>2</sub> ~b×1(N14)
P003997	IM 134508	LAGAB~b×BANŠUR~a   LAGAB~b×GA'AR~a1
P004010	IM 134519,1	NINDA <sub>2</sub> ×(UDU~a×TAR~a)
P004079	IM 134567	TUG <sub>2</sub> ~d UDU~b
P004128	IM 074216	DUG~a×KASKAL   DUG~a×LAM~b
P004151	IM 134623	ZATU627
P004175	IM 074278	ZATU632~c
P004199	IM 134670	SILA <sub>3</sub> ~a×1(N58)
P004204	IM 074279	GADA~b
P004222	IM 134688	ŠIDIM@t

P004228	IM 074288	 KA <sub>2</sub> ~c  LAL <sub>2</sub> ~a×EZEN~a
P004230	IM 134695	  EN~c&EN~c
P004312	IM 074296	 ZUBI~b
P004328	IM 134845	  ZATU651×ŠE~a
P004329	IM 134846	  SILA <sub>3</sub> ~a×GEŠTU~c5
P004333	IM 074311	  GA <sub>2</sub> ~b×KU <sub>3</sub> ~a
P004377	IM 134911	 KU <sub>6</sub> ~a@s
P004382	IM 074325	 KISAL~a2
P004388	IM 134923	 NUNUZ~b2 ZATU761
P004414	history	IM 074344 sec2022   EZEN~a×EN~a  ZATU699~a
P004431	history	W 21662,2 UVB24catalogue  DAR~d
P004452		IM 134954   GAN~c×NE~a
P004454		W 21736   ZATU644~a×1(N14)
P004464	history	W 21839,3 UVB25catalogue  GALGA~b  GAN~c×ŠE~a
P004474	history	IM 134960 UVB25catalogue  GIR~d
P004502		IM 134967   ZATU759×KU <sub>6</sub> ~d
P004612		IM 135007  GARA <sub>2</sub> ~b
P005007		IM 025757,04   HI×1(N58)
P006024		MS 2356   KAB×1(N58)
P006027		MS 2359   GA <sub>2</sub> ~a2×3(N57)
P006028		MS 2360   LAGAB~a×LAGAB~a  NA~d
P006029		MS 2387  ZATU821  ZATU837~a
P006034		MS 2392  ZATU825

P006035	MS 2393	 UH ZATU826
P006040	MS 2427	  PIRIG~b1xUR <sub>2</sub>   ZATU821  ZATU823
P006041	MS 2428	 ZATU855
P006042	CDLI Lexical 000002, ex. 178	 RAD~a@t
P006046	CDLI Lexical 000002, ex. 194	 RAD~a@t
P006048	MS 2431	 ZATU697~c
P006053	MS 2436	 ZATU823
P006054	MS 2437	 ZATU826
P006056	MS 2439	  AB~a~SUKKAL    GI <sub>4</sub> ~a&GI <sub>4</sub> ~a  NUNUZ~a1@t  ZATU825
P006057	MS 2440	 ZATU824  ZATU831
P006058	MS 2441	 ZATU821
P006061	MS 2444	  A~AB <sub>2</sub>    ZATU852  ZATU853
P006062	MS 2445	 ZATU820
P006065	MS 2498	  GA <sub>2</sub> ~a1~EN~a
P006067	MS 2500	  AB~b~A    SAG~GEŠTU~c    UR~a~KAR <sub>2</sub> ~b   ZATU821
P006068	MS 2501	 ZATU831@g
P006070	CDLI Lexical 000023, ex. 095	  DUG~b~E~a    DUG~b~3(N57)
P006071	CDLI Lexical 000023, ex. 096	  DUG~b~(NI~a@g.ZATU779)    DUG~b~SUKUD~d    DUG~b~ZATU707~a

P006072	MS 2504	 ZATU821
P006077	MS 2509	 NUNUZ~a1@t
P006082	MS 2514	  ZATU737×E~a
P006083	MS 2515	 ZATU822
P006098	MS 2677	 A@t
P006105	MS 2684	 URU~a1@n ZATU829
P006107	MS 2686	  MUŠEN×PAP~a
P006117	MS 2696	 ZATU821
P006120	MS 2727	  GA <sub>2</sub> ~a1×EN~a
P006136	MS 2782/16	  LAGAB~a×SI
P006140	MS 2840	 SIG@g ZATU697~c
P006155	MS 2862/08	 ZATU839
P006160	MS 2862/13	  A×AB <sub>2</sub>
P006173	MS 2863/07	  E <sub>2</sub> ~a×3(N58)
P006175	MS 2863/09	 ZATU838 ZATU839
P006190	MS 2863/24	 ZATU841
P006191	MS 2863/25	 ZATU837-a
P006196	MS 2863/30	  GA <sub>2</sub> ~a1×EN~a
P006199	MS 2869/01	 KASKAL@g
P006203	MS 2869/05	 ZATU823
P006219	MS 2900/11	  LAGAB~a×SI
P006224	MS 2900/16	 ZATU839
P006236	MS 2900/28	 ZATU839
P006243	MS 2900/35	  LAGAB~a×BA
P006250	MS 2964	 ZATU837~a  ZATU837~b
P006251	MS 2965	 ZATU840
P006254	MS 2997	 ZATU841

P006255	MS 2998	  BU~a×1(N58)
P006262	MS 3008	 EN~e TUR <sub>3</sub> ~a@n
P006263	MS 3009	 ZATU842
P006270	MS 4162	 ZATU838
P006272	MS 3880	 ZATU839
P006275	CDLI Lexical 000002, ex. 187	 NESAG <sub>2</sub> ~a2  ZATU737-I
P006278	MS 3886	 SUM~a@t ZATU838
P006282	MS 4461	 ŠITa~a1xŠU <sub>2</sub>
P006284	MS 4463	 AB~b×ŠA <sub>3</sub> ~a1
P006288	MS 4485	 UR <sub>3</sub> ~b1xMAS  ZATU844
P006289	MS 4486	 ZATU845 ZATU846
P006290	MS 4487	  (SUKUD+SUKUD)~d
P006291	MS 4488	 GA <sub>2</sub> ~a1xNIM~b1  LAGAB~b×SUH <sub>3</sub>
P006292	MS 4489	 LAGAB~a×BIR <sub>3</sub> ~b
P006293	MS 4490	 ZATU848
P006294	MS 4491	 LAGAB~a×KAK~a  ZATU856
P006296	MS 4493	 ZATU624~c
P006301	MS 4497	 URU~a1xGU <sub>4</sub>
P006307	MS 4503	 AB~b×KU <sub>6</sub> ~a
P006308	MS 4504	 ZATU857
P006316	MS 4530	 DUB~b@r KUR~d
P006317	MS 4537	 GIR <sub>3</sub> ~c×KAR <sub>2</sub> ~b
P006318	MS 4538	 ZATU683@t ZATU849

P006319	MS 4539	  BU~a×GIŠ@t
P006323	MS 4543	  TA~d×MAŠ
P006324	MS 4551	  GUG₂×ŠITA~a1    MAH~b×MAŠ
P006326	MS 4557	  GA₂~a1×((SUKUD+SUKUD)~b)
P006438	AOST 109 unpublished assigned	  AB~a×SUKKAL
P200022	MS 2900/un1	  LAGAB~a×SI
P218054	CMAA 020-C0003	 ZATU843
P252177	MS 3166	 HI~b   ŠU₂×3(N57)   UR₃~d2
P252182	MS 3171	  GA₂~b×NUN~b    LAGAB~b×(HI×1(N04))   ŠUR₂~c
P252184	citation; history	CDLI Lexical <del>10012610EXTNS12</del> ; sec46325  AŠ₂
P274471	MS 4588/1	  LAGAB~a×NI~a
P342517	MW 0188/020	 NIM~d
P342525	MW 0188/033	 ZATU659@t
P342526	MW 0188/034	 AB₂@g
P342533	MW 0188/041	  LAGAB~a×LA₂~a   SIG~b
P342536	MW 0188/045	 UKKIN~d
P342547	MW 0188/056	  ZATU737@t×PAP~a
P448702	Anonymous 448702 unpublished unassigned	 SUKUD@h
P504412	Anonymous 504412 unpublished unassigned	  SILA₃~d×NI~a
P512554	Anonymous 512554 unpublished unassigned	  KAB×1(N58)   ZATU853
P518361	Kress 301	  U₄×(1(N14).3(N01))

## E PC25 Not Encoded: Broken

This table gives signs which are not encoded because they only occur in instances which are incomplete.

PCSL	FONT	CDLI	ATU3	ATU5	MSVO1	MSVO4	CUSAS
AB~a×X  o0980016	ZERO F2404						
AMAR@g CDLI:  AMAR@g  1× IV: 1p o0980057	PC25-bk F240B						
(BU~a&BU~a).X  1× IV: 1p o0980124	PC25-bk F240F						
DU <sub>8</sub> ~c×X  o0980198	ZERO F2411						
DUG~b×(KUR~a.X)  1× III: 1p o0980243	PC25-bk F2415						
DUG~b×(SI <sub>4</sub> ~a.X)  1× III: 1p o0980254	PC25-bk F2417						
DUG~b×X  128× IV: 3p/3u; III: 110p/14u o0980272	PC25-bk 1 F20BC F20BB	 					
EZEN~a×X  2× IV: 1p; III: 1u o0980349	PC25-bk F241F						
GA~a×X  o0980360	ZERO F24F7						
GA <sub>2</sub> ~a2×X  1× III: 1p o0980410	PC25-bk F2428						
GA <sub>2</sub> ~a3×X  1× IV: 1p; III: 1p o0980413	PC25-bk F2429						
GAN~c×X  3× IV: 1p; III: 2p/1u o0980447	PC25-bk F242E						
GI×X  1× IV: 1u o0980480	UNP F2432						
(GI&GI)×X  o0980486	ZERO F2434						F2434
IRHAN 1× III: 1p o0980617 ZATU269	PC25-bk F243D						
LAGAB~a×X  3× IV: 1p; III: 2p o0980749	PC25-bk F2121 1 F2122	 					
MAH~a×X  7× IV: 5p; III: 6p/1u o0980823	PC25-bk F2454						

MAR~b×X		PC25-bk							
2× III: 2p	o0980837		F2457		F2457				
MUŠEN~X		ZERO							
	o0980875		F2458						F2458
NI~b×X		PC25-bk							
1× IV: 1p; III: 1p	o0980922		F245C		F245C				
NINDA <sub>2</sub> ×(AN.X)		PC25-bk							
1× III: 1p	o0980938		F245D		F245D				
NINDA <sub>2</sub> ×(HI.X)		PC25-bk							
1× III: 1p	o0980949		F245F						
NINDA <sub>2</sub> ×(U <sub>4</sub> .X)		UNP							
1× III: 1u	o0980957		F2460						
NINDA <sub>2</sub> ×X		PC25-bk							
12× IV: 2p/1u; III: 4p/5u	o0980960		F2463						F2463
SILA <sub>3</sub> ~a×X		PC25-bk							
17× IV: 7p/5u; III: 10p/2u	o0981125		F2470			F2470			
U <sub>4</sub> ×X		PC25-bk							
2× III: 1p/1u	o0981350		F247F						
U <sub>4</sub> ×(X+2(N01))		UNP							
1× III: 1u	o0981351		F2480						
U <sub>4</sub> ×2(N01)		PC25-bk							
14× III: 13p/1u	o0981355		F2481				F2481	F2481	
U <sub>4</sub> ×N(N01)		UNP							
CDLI:  U <sub>4</sub> ×(X(N01))									
1× III: 1u	o0981368		F2484						
UKKIN~b×X		PC25-bk							
1× III: 1p	o0981421		F2488						
URU~a1×X		PC25-bk							
2× IV: 1p; III: 2p	o0981471		F248C			F248C			
ZATU640		PC25-bk							
1× IV: 1p; III: 1p	o0981556	ZATU640	F2493			F2493			
ZATU650		PC25-bk							
1× IV: 1p	o0981567	ZATU650	F2495			F2495			
ZATU651×X		PC25-bk							
2× III: 2p	o0981575		F2496						
ZATU670		PC25-bk							
1× IV: 1p; III: 1p	o0981591	ZATU670	F2498			F2498			
ZATU704		PC25-bk							
3× IV: 2p; III: 1p	o0981645	ZATU704	F249C			F249C			
ZATU711×X		PC25-bk							
1× IV: 1p; III: 1p	o0981655		F249D			F249D			

ZATU714×X		PC25-bk							
2× IV: 1p; III: 1u	o0981660		F249E						
ZATU724		PC25-bk							
3× IV: 1p; III: 3p	o0981668	ZATU724	F249F		F249F		F249F		
ZATU733		UNP							
1× III: 1u	o0981678	ZATU733	F24A0						
ZATU737×X		PC25-bk							
14× III: 12p/2u	o0981704		F24A2		F24A2				
ZATU759×X		PC25-bk							
2× IV: 1p; III: 2p	o0981725		F24A4						
ZATU759@t×X		PC25-bk							
1× III: 1p	o0981726		F24A5						
ZATU768		PC25-bk							
1× IV: 1p	o0981736	ZATU768	F24A7			F24A7			
ZATU769		PC25-bk							
1× III: 1p	o0981737	ZATU769	F24A8		F24A8				
ZATU771		PC25-bk							
1× IV: 1p	o0981738	ZATU771	F24A9		F24A9				
ZATU785		PC25-bk							
1× III: 1p	o0981753	ZATU785	F24AB						
ZATU817		PC25-bk							
1× IV: 1p; III: 1p	o0981781	ZATU817	F24B0			F24B0			
ZATU818		PC25-bk							
1× IV: 1p; III: 1p	o0981782	ZATU818	F24B1		F24B1				

## F PC25 Not Encoded: Uruk V not in Sub-corpus

This table gives signs excluded because they only occur in Uruk V.

PCSL	FONT	CDLI	ATU3	ATU5	MSVO1	MSVO4	CUSAS
------	------	------	------	------	-------	-------	-------

## G PC25 Not Encoded: Uruk IV/III not in Sub-corpus

This table gives signs which do occur in Uruk IV and III but do not occur within the restricted PC25 corpus; this set is largely the same as that in Appendix B.

PCSL		FONT	CDLI	ATU3	ATU5	MSVO1	MSVO4	CUSAS
A×AB <sub>2</sub>		UNP						
3× III: 3u	o0980001		F2400					
A@t		UNP						
1× III: 1u	o0980008		F2401					
AB~a×KU <sub>6</sub> ~a		ZERO						
	o0980013	ZATU389	F2402					
AB~a×SUKKAL		UNP						
3× III: 3u	o0980014		F2403					
AB~a×1(N01)		ZERO						
	o0980018		F2405					
AB~b×A		UNP						
1× III: 1u	o0980022	ZATU008	F2406					
AB~b×KU <sub>6</sub> ~a		UNP						
1× III: 1u	o0980023		F2407					
AB~b×ŠA <sub>3</sub> ~a1		UNP						
1× III: 1u	o0980024		F2408					
AB <sub>2</sub> @g		UNP						
1×	o0980027		F2525					
ADDA@t		ZERO						
	o0980036		F2409					
ALAN~d		UNP						
1× IV: 1u	o0980044	ZATU025	F240A					
AŠ <sub>2</sub>		UNP						
1× III: 1u	o0980074		F240C					
BAR×URI <sub>3</sub> ~a		NOT						
	o0980103		F252C					F252C
BAR×UŠ~a		NOT						
	o0980104		F253D					F253D
((BU~a.DU <sub>6</sub> ~a)&(BU~a.DU <sub>6</sub> ~a))×UDU~a		ZERO						
	o0980116		F2523					F2523
BU~a+TU~b		ZERO						
	o0980119		F2526					F2526
BU~a×GIŠ@t		UNP						
1× III: 1u	o0980121		F240D					
BU~a×1(N58)		UNP						
1× III: 1u	o0980122		F240E					

DAR~d		UNP							
1x III: 1u	00980150	ZATU069	F2410						
DU <sub>6</sub> ~a@n		ZERO							
	00980187		F2539						
DUB~b@r		UNP							
1x IV: 1u	00980202		F252A						
DUG~a×KASKAL		UNP							
1x III: 1u	00980214	ZATU103	F2412						
DUG~a×LAM~b		UNP							
1x III: 1u	00980216	ZATU106	F2413						
DUG~b×E~a		UNP							
1x III: 1u	00980231		F2414						
DUG~b×(NI~a@g.ZATU779)		UNP							
1x III: 1u	00980250		F2416						
DUG~b×SUKUD~d		UNP							
1x III: 1u	00980259	ZATU116	F252B						
DUG~b×ZATU707~a		UNP							
1x III: 1u	00980273		F2418						
DUG~b×3(N57)		UNP							
1x III: 1u	00980281		F2419						
E~d		UNP							
1x IV: 1u	00980295	ZATU128	F241A						
E <sub>2</sub> ~a×3(N58)		UNP							
1x III: 1u	00980299		F241B						
EN~c&EN~c		UNP							
1x IV: 1u	00980313		F241C						
EN~e		UNP							
1x	00980314	ZATU134	F241D						
EZEN~a×EN~a		UNP							
1x IV: 1u	00980335	ZATU151	F2420						
EZEN~a×SAG		UNP							
1x III: 1u	00980345		F241E						
GA <sub>2</sub> ~a1×EN~a		UNP							
4x III: 3u	00980368		F2527						
GA <sub>2</sub> ~a1×(HI.SUHUR)		UNP							
1x IV: 1u	00980379	ZATU171	F2421						
GA <sub>2</sub> ~a1×NAGA~a		UNP							
1x III: 1u	00980385	ZATU177	F2422						
GA <sub>2</sub> ~a1×NIM~b1		UNP							
AKA:  GA <sub>2</sub> ~a2×NIM~b1									
CDL:  GA <sub>2</sub> ~a2×NIM~b1									
1x III: 1u	00980386		F2423						

GA <sub>2</sub> ~a1*((SUKUD+SUKUD)~a)  AKA:  GA <sub>2</sub> ~a1*((SUKUD&SUKUD)~a)  CDLI:  GA <sub>2</sub> ~a1*((SUKUD&SUKUD)~a)  1x IV: 1u o0980393	UNP 1x III: 1u o0980406 ZATU178	 F2424					
GA <sub>2</sub> ~a1*((SUKUD+SUKUD)~b)  AKA:  GA <sub>2</sub> ~a1*((SUKUD&SUKUD)~b)  CDLI:  GA <sub>2</sub> ~a1*((SUKUD&SUKUD)~b)  1x III: 1u o0980394	UNP	 F2425					
GA <sub>2</sub> ~a2xNI~b  1x III: 1u o0980406 ZATU178	UNP	 F2427					
GA <sub>2</sub> ~a2x3(N57)  1x III: 1u o0980411	UNP	 F2542					
GA <sub>2</sub> ~bxBKU <sub>3</sub> ~a  1x III: 1u o0980418 ZATU172	UNP	 F242A					
GA <sub>2</sub> ~bxBNUN~b  1x o0980420	UNP	 F252E					
GADA~b 1x IV: 1u; III: 1p o0980428 ZATU186	UNP	 F242B					
GALGA~b 3x III: 3u o0980433 ZATU189	UNP	 F242C					
GAN~cxNE~a  3x III: 3u o0980443 ZATU193	UNP	 F242D					
GAN~cxŠE~a  4x III: 4u o0980445 ZATU194	UNP	 F242F					
GAN~cxŠE <sub>3</sub> @t  1x III: 1u o0980446	UNP	 F2430					
GARA <sub>2</sub> ~b 2x III: 2u o0980460 ZATU199	UNP	 F2431					
((GI&GI)xŠE <sub>3</sub> )  CDLI:  ((GI+&GI)xŠE <sub>3</sub> )  2x III: 2u o0980485 ZATU206	UNP	 F2433					
GI <sub>4</sub> ~a&GI <sub>4</sub> ~a  1x III: 1u o0980491	UNP	 F2435					
GIBIL@t 1x III: 1u o0980496	UNP	 F2436					
GIR~d 1x IV: 1u o0980505 ZATU216	UNP	 F2437					
GIR <sub>2</sub> ~b o0980507 ZATU218	ZERO	 F2438					
GIR <sub>3</sub> ~cxKAR <sub>2</sub> ~b  AKA:  GIR <sub>3</sub> ~cKAR <sub>2</sub>   CDLI:  GIR <sub>3</sub> ~cKAR <sub>2</sub>   3x III: 3u o0980512	UNP	 F2439					
GU <sub>4</sub> x1(N58)  CDLI: *GU <sub>4</sub> +1N58 o0982249	ZERO	 F2540					

GUG₂×ŠITA~a1		UNP						
1× III: 1u	o0980554		F24FC					
GUG₂@t		ZERO						
	o0980556		F243A					
HI×ZATU707~a		UNP						
1× IV: 1u	o0980583	ZATU257	F243B					
HI×1(N58)		UNP						
1× IV: 1u	o0980588		F243C					
HI~b		UNP						
1×	o0980589	ZATU254	F252F					
KA₂~c		UNP						
1× IV: 1u	o0980626	ZATU275	F243E					
KAB×1(N58)		UNP						
AKA:  TUKU+DIŠ			F243F					
3× IV: 1u; III: 2u	o0980630	ZATU278						
KAD₄~c1		UNP						
1× IV: 1u	o0980633	ZATU279	F2440					
KAD₄~c2		UNP						
1× IV: 1u	o0980634	ZATU279	F2441					
KASKAL@g		UNP						
CDLI:  KASKAL@g			F2442					
1× III: 1u	o0980654							
KAŠ~b@t		ZERO						
CDLI:  KAŠ~b@t			F2443					
o0980658								
KISAL~a2		UNP						
1× IV: 1u	o0980681	ZATU295	F2444					
KU₆~a@s		UNP						
1× III: 1u	o0980703	ZATU446	F2445					
KUR~d		UNP						
1× IV: 1u	o0980713	ZATU304	F2446					
LA~c		UNP						
1× III: 1u	o0980723	ZATU306	F2447					
LAGAB~a×BA		UNP						
1× III: 1u	o0980728		F2448					
LAGAB~a×BIR₃~b		UNP						
2× III: 2u	o0980729		F2449					
LAGAB~a×KAK~a		UNP						
1× III: 1u	o0980731		F244A					
LAGAB~a×LA₂~a		UNP						
1×	o0980735		F2521					
LAGAB~a×LAGAB~a		UNP						
1× III: 1u	o0980736		F244B					
LAGAB~a×NI~a		UNP						
1× III: 1u	o0980738		F2520					

LAGAB~a×SI		UNP						
3× III: 3u	00980741		F244C					
LAGAB~b×BANŠUR~a		UNP						
1× IV: 1u	00980755	ZATU309	F244D					
LAGAB~b×GA'AR~a1		UNP						
1× IV: 1u	00980756	ZATU311	F244E					
LAGAB~b×(HI×1(N04))		UNP						
AKA:  LAGAB~b×(HI×N04)			F251F					
1× 00980758								
LAGAB~b×SUH <sub>3</sub>		UNP						
1× III: 1u	00980762		F244F					
LAL <sub>2</sub> ~a×EZEN~a		UNP						
1× IV: 1u	00980781	ZATU326	F2450					
LAM~b@s		UNP						
1× IV: 1u	00980791	ZATU329	F2451					
LU <sub>2</sub> ×GEŠTU~c3		UNP						
1× III: 1u	00980797	ZATU333	F2452					
MAGUR~b		UNP						
1× IV: 1u	00980809	ZATU340	F2453					
MAH~b×KU <sub>6</sub> ~a		UNP						
1× IV: 1u	00980826	ZATU343	F2455					
MAH~b×MAŠ		UNP						
1× III: 1u	00980827	ZATU344	F2456					
MUŠEN×PAP~a		UNP						
1× III: 1u	00980874		F2506					
NA~d		UNP						
1× III: 1u	00980883	ZATU378	F2459					
NESAG <sub>2</sub> ~a2		UNP						
AKA: NISAG~a3								
1× III: 1u	00980914	ZATU416	F2530					
NESAG <sub>2</sub> ~b@t		UNP						
1× III: 1u	00980916		F245A					
NI~a×1(N57)		ZERO						
	00980919		F245B					
NIM~d		UNP						
1×	00980931	ZATU398	F2531					
NINDA <sub>2</sub> ×BA		UNP						
1× III: 1u	00980939	ZATU402	F245E					
NINDA <sub>2</sub> ×(UDU~a×TAR~a)		UNP						
AKA:  NINDA <sub>2</sub> ×((UDU~a×TAR)~a)			F2461					
CDLI:  NINDA <sub>2</sub> ×((UDU~a×TAR)~a)								
1× III: 1u	00980958	ZATU410						
NINDA <sub>2</sub> ×(UDU~a×TAR~b)		UNP						
AKA:  NINDA <sub>2</sub> ×((UDU~a+TAR)~b)			F2462					
1× III: 1u	00980959	ZATU410						

NUMUN <sub>2</sub>		UNP						
2× III: 2u	o0980980	ZATU420	F2464					
NUNUZ~a1@t		UNP						
CDLI:  NUNUZ~a1@t			F2465					
2× III: 2u	o0980994							
NNUUZ~b2		UNP						
1× III: 1u	o0980997	ZATU423	F2466					
PIRIG~b1×UR <sub>2</sub>		UNP						
2× III: 2u	o0981012		F2467					
PIRIG~b1×1(N58@t)		ZERO						
	o0981013		F2528					
RAD~a@t		UNP						
CDLI:  RAD~a@t			F2468					
2× III: 2u	o0981019							
RU@t		ZERO						
CDLI:  RU@t			F2469					
	o0981025							
SAG×GEŠTU~c		UNP						
1× III: 1u	o0981032	ZATU438	F246A					
SAG×1(N14)		UNP						
1× III: 1u	o0981037	ZATU440	F246B					
SIG~b		UNP						
2×	o0981074	ZATU451	F2532					
SIG@g		UNP						
1× III: 1u	o0981075		F246C					
SIG <sub>2</sub> ~b×1(N14)		UNP						
3× IV: 3u	o0981081	ZATU453	F246D					
SILA <sub>3</sub> ~a×GEŠTU~c5		UNP						
1× III: 1u	o0981102	ZATU462	F246E					
		ZATU469						
SILA <sub>3</sub> ~a×HI@g~a		UNP						
2× IV: 2u	o0981105	ZATU465	F246F					
SILA <sub>3</sub> ~a×1(N58)		UNP						
1× IV: 1u	o0981130	ZATU481	F2471					
SILA <sub>3</sub> ~c		UNP						
1× III: 1u	o0981137	ZATU456	F2472					
SILA <sub>3</sub> ~c×ŠU		UNP						
1× IV: 1u	o0981138	ZATU476	F2473					
SILA <sub>3</sub> ~d×NI~a		UNP						
2× III: 2u	o0981140	ZATU460	F2474					
(SUKUD+SUKUD)~d		UNP						
3× III: 3u	o0981165	ZATU494	F2475					
SUKUD@h		UNP						
1× III: 1u	o0981170		F251C					
SUM~a@t		UNP						
CDLI:  SUM~a@t			F2476					
1× III: 1u	o0981172							

ŠEN~d	ZERO	 F219C  F219D  F219E	 F219C  F219D  F219E				
o0981216 ZATU521							
ŠIDIM@t	UNP	 F2477	 F2477				
1× IV: 1u o0981224							
ŠITA~a1xŠU <sub>2</sub>	UNP	 F2478	 F2478				
1× III: 1u o0981232							
ŠITA~a1xUDU~a	UNP	 F2479	 F2479				
5× III: 5u o0981233							
ŠITA~a1x1(N06)	UNP	 F247A	 F247A				
3× III: 3u o0981234							
ŠITA@g~a1(N04)	UNP	 F247B	 F247B				
1× III: 1u o0981244 ZATU531							
ŠU <sub>2</sub> x3(N57)	UNP	 F251D	 F251D				
AKA:  ŠU <sub>2</sub> x3(N57)							
1× o0981265							
ŠUR <sub>2</sub> ~c	UNP	 F2533	 F2533				
2× o0981272 ZATU543							
TA~d×MAŠ	UNP	 F247C	 F247C				
1× III: 1u o0981280							
TUG <sub>2</sub> ~d	UNP	 F247D	 F247D				
1× IV: 1u o0981311 ZATU555							
TUR <sub>3</sub> ~a@n	UNP	 F247E	 F247E				
CDL:  TUR <sub>3</sub> ~a@n							
1× o0981325							
U <sub>4</sub> ×(1(N14).3(N01))	UNP	 F253C	 F253C				
1× III: 1u o0981373							
U <sub>4</sub> ×2(N14)	ZERO	 F2485	 F2485		 F2485		
o0981377							
UDU~b	UNP	 F2486	 F2486				
1× IV: 1u o0981405 ZATU575							
UH	UNP	 F2487	 F2487				
1× III: 1u o0981410							
UKKIN~d	UNP	 F2534	 F2534				
1× o0981426 ZATU580							
UR~a×KAR <sub>2</sub> ~b	UNP	 F2489	 F2489				
AKA:  UR~a×KAR <sub>2</sub>							
CDL:  UR~a×KAR <sub>2</sub>							
1× III: 1u o0981438							
UR <sub>3</sub> ~b1×MAŠ	UNP	 F248A	 F248A				
1× IV: 1u o0981449							
UR <sub>3</sub> ~d2	UNP	 F2535	 F2535				
1× o0981451 ZATU591							

URU~a1×GU <sub>4</sub>		UNP						
1× III: 1u	o0981466							
URU~a1@n		UNP						
CDLI:  URU~a1@n								
1× III: 1u	o0981475							
URUDU@g~b		UNP						
1× IV: 1u	o0981486	ZATU603						
ZUBI~b		UNP						
1× III: 1u	o0981525	ZATU619						
ZATU624~c		UNP						
1× III: 1u	o0981535	ZATU624						
ZATU627		UNP						
1× IV: 1u	o0981540	ZATU627						
ZATU632~c		UNP						
1× IV: 1u	o0981548	ZATU632						
ZATU634		UNP						
1× IV: 1u	o0981551	ZATU634						
ZATU644~a×1(N14)		UNP						
1× IV: 1u	o0981561	ZATU645						
ZATU651×ŠE~a		UNP						
1× III: 1u	o0981574	ZATU657						
ZATU659@t		UNP						
1×	o0981582							
ZATU683@t		UNP						
CDLI:  ZATU683@t								
1× III: 1u	o0981613							
ZATU694~e		ZERO						
	o0981633	ZATU694						
ZATU697~c		UNP						
2× III: 2u	o0981638	ZATU697						
ZATU699~a		UNP						
1× IV: 1u	o0981639	ZATU699						
ZATU737×E~a		UNP						
1× III: 1u	o0981690							
ZATU737×I		UNP						
1× III: 1u	o0981694							
ZATU737@t×PAP~a		UNP						
1×	o0981705							
ZATU759×KU <sub>6</sub> ~d		UNP						
1× IV: 1u; III: 1p	o0981724	ZATU760						
ZATU761		UNP						
1× III: 1u	o0981727	ZATU761						

ZATU779	ZERO								
	o0981747	ZATU779	F24AA						
ZATU789	ZERO								
	o0981757	ZATU789	F24AC						
ZATU805	UNP								
2x III: 2u	o0981770	ZATU805	F24AD						
ZATU814	UNP								
1x III: 1u	o0981779	ZATU814	F24AE						
ZATU815	UNP								
1x III: 1u	o0981780	ZATU815	F24AF						
ZATU820	UNP								
1x III: 1u	o0981784	ZATU820	F24B2						
ZATU821	UNP								
7x III: 7u	o0981785	ZATU821	F24B3						
ZATU822	UNP								
1x III: 1u	o0981786	ZATU822	F24B4						
ZATU823	UNP								
3x III: 3u	o0981787	ZATU823	F24B5						
ZATU824	UNP								
2x III: 2u	o0981788	ZATU824	F24B6						
ZATU825	UNP								
2x III: 2u	o0981789	ZATU825	F24B7						
ZATU826	UNP								
2x III: 2u	o0981790	ZATU826	F24B8						
ZATU829	UNP								
1x III: 1u	o0981791	ZATU829	F24B9						
ZATU831	UNP								
2x III: 2u	o0981792	ZATU831	F24BA						
ZATU831@g	UNP								
CDL:  ZATU831@g									
2x III: 2u	o0981793	ZATU831	F24BB						
ZATU837~a	UNP								
3x III: 3u	o0981799	ZATU837	F24BC						
ZATU837~b	UNP								
1x III: 1u	o0981800	ZATU837	F24BD						
ZATU838	UNP								
3x III: 3u	o0981801	ZATU838	F24BE						
ZATU839	UNP								
6x III: 6u	o0981802	ZATU839	F2219						
									
ZATU840	UNP								
1x III: 1u	o0981803	ZATU840	F24BF						



## H PC25 Not Encoded: ED I-II not in Sub-corpus

This table gives signs excluded because they only occur in ED I-II

PCSL	FONT	CDLI	ATU3	ATU5	MSVO1	MSVO4	CUSAS
A×AN  o0980002	EDI F24F2	{*  F24F2	{*				
A@g o0980007	EDI F24CC	 F24CC					
ALAN~f o0980046	EDI F24CD	===== F24CD	=====>				
ANZU <sub>2</sub> o0980064	EDI F222C	*○(≡ F222C	*○(≡				
ASAL <sub>2</sub> o0980072	EDI F24CE	====> F24CE	====>				
BAU405 CDLI:  UET <sub>2</sub> ,405  o0980108	EDI F24EF	鱼 F24EF	鱼				
DAG o0980142	EDI F24CF	==> F24CF	==>				
DIM~a×GU  o0980175	EDI F24F3	==> F24F3	==>				
DIM~a×X  o0980176	EDI F24F4	==> F24F4	==>				
DUG~a×HI  o0980213	EDI F24F5	==> F24F5	==>				
DUG~a×X  o0980220	EDI F24F6	==> F24F6	==>				
E~e o0980296	EDI F24D0	==== F24D0	====				
ENSI o0980324	EDI F224E	==== F224E	====>				
ENSI <sub>2</sub> o0980325	EDI F2257	==== F2257	====>				
EZEN~a×LA~e  o0980341	EDI F20CF F20CE	==== F20CF ====	====				
GA <sub>2</sub> ~a1×GU <sub>4</sub>   o0980376	EDI F24F8	====> F24F8	====>				
GA <sub>2</sub> ~a1×NUN~a  o0980387	EDI F24F9	==== F24F9	====				

GA <sub>2</sub> ~a1×X	PC25-bk 14x IV: 4p; III: 12p/1u	o0980399	EDI	PC25-bk F20D7 F20D8 1		F20D7	F20D7	F20D7	F20D7		F20D8
GAN~d		o0980450	EDI	F24D2							
GAN~d×HI		o0980452	EDI	F24FA							
GEŠTIN~c		o0980463	EDI	F24D3							
GEŠTIN~c×X		o0980464	EDI	F24FB							
GIG		o0980498	EDI	F223D							
GIL		o0980499	EDI	F24D4							
GIR <sub>4</sub>		o0980517	EDI	F24D5							
GIŠ~v		o0980527	EDI	F24D6							
CDLI: GIŠ~x											
GIŠ@t.E <sub>2</sub> ~a		o0980529	EDI	F2243							
HI×ŠE <sub>3</sub> @t		o0980582	EDI	F24FE							
HI×1(N01@f)		o0980584	EDI	F24FD							
CDLI:  HI×1(N01)F											
HUB <sub>2</sub>		o0980593	EDI	F24D7							
IGI		o0980602	EDI	F24D8							
IM~a@g		o0980607	EDI	F24D9							
KA <sub>2</sub> ~d		o0980627	EDI	F24DA							
KEŠ <sub>2</sub>		o0980661	EDI	F24DB							
KU~a@t		o0980694	EDI	F24DC							
KUN		o0980706	EDI	F24DD							
LA~e		o0980725	EDI	F24DE							

LAGAB~b×SI	EDI o0980761							
LAGAB~b×ŠITA~c	EDI o0980763							
LAGAB~b×X	EDI 1× o0980765							
LAGAB~b×1(N01)	EDI o0980766							
LAK025	EDI o0980774							
LAK050	EDI o0980775							
LAK172	EDI o0980776							
LAK251	EDI o0980777							
LAK350	EDI o0980778							
LAK777	EDI o0980779							
LAL <sub>3</sub> ~c	EDI o0980787							
LAM~c	EDI o0980793							
LU <sub>2</sub> @t	EDI o0980798							
MA×X	EDI o0980804							
MA×2(N57)	EDI o0980805							
MUD <sub>3</sub> ~a@gxGUI	EDI o0980853							
NINDA <sub>2</sub> ×(GIŠ.DAR~a)	EDI o0980944							
NINDA <sub>2</sub> ×NE~a	EDI o0980953							
NINDA <sub>2</sub> ×ŠIM~a	EDI o0980955							
NINDA <sub>2</sub> ×(X.MAŠ)	EDI o0980961							
NINDA <sub>2</sub> ×1(N06)	EDI o0980966							

PA <sub>3</sub>	EDI						
o0981001							
RI	EDI						
o0981021							
SAG×LAM~c	EDI						
o0981033							
SAG×SAR~a	EDI						
o0981036							
SIKIL	EDI						
o0981092							
SILA <sub>3</sub> ~a×DUG~b	EDI						
o0981097							
SILA <sub>3</sub> ~b×DUG~a	EDI						
o0981132							
(SUKUD+SUKUD)~c	EDI				(o)		
o0981164							
ŠITĀ~c	EDI						
o0981242							
ŠU@s	EDI						
o0981251							
ŠU <sub>2.2</sub> (N57)	EDI						
o0981264							
ŠURUPPAK~c	EDI						
o0981275							
TA~f	EDI						
o0981282							
TAR~d	EDI						
o0981295							
TUR×X	EDI						
o0981321							
TUR <sub>3</sub> ~b×TAK <sub>4</sub> ~a	EDI						
o0981327							
U <sub>4</sub> ×1(N01@f)	EDI						
CDLI:  U <sub>4</sub> ×1(N01)F							
o0981369							
UKKIN~b×DUG~a	EDI						
o0981418							
URI <sub>2</sub>	EDI						
o0981458							
URI <sub>3</sub> ~a+IB~a	EDI						
o0981460							
URU~a1×A	EDI						
o0981464							

UŠ~b×TAR~d  o0981493	EDI						
UŠUR <sub>3</sub> ~a o0981496	EDI				F24F0		
ZADIM o0981512	EDI						
(ZU&ZU).SAR~a  o0981523	EDI						
ZATU737×ŠITA~b1@g  CDLI:  ZATU737×ŠITA@g~a  o0981701 ZATU746	EDI						

## I PC25 Not Encoded: Delete

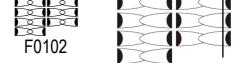
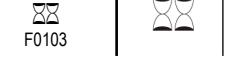
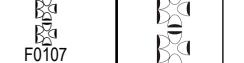
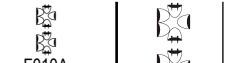
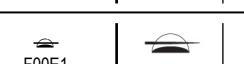
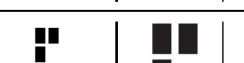
This table gives signs which occur in CDLI-gh but have been deleted from the CDLI-tc.

PCSL		FONT	CDLI	ATU3	ATU5	MSVO1	MSVO4	CUSAS
(BU~a&BU~a).NA <sub>2</sub> ~b  o0982241 ZATU058	DEL							
EZEN~c o0982242 ZATU150	DEL							
NINDA <sub>2</sub> ×GUDU <sub>4</sub>   o0982243 ZATU406	DEL	   	   					
RI~x o0982244	DEL							

## J PC25 Not Encoded: Number (non-ACN)

This table gives numbers which are neither in Archaic Cuneiform Numbers or in PC25. Some of these may be candidates for future encoding. The abbreviation ‘OOR’ indicates numbers which are Out Of Range with regard to their respective system. ‘OOR5’ indicates an Out Of Range number occurring in Uruk V texts. The tag ‘Pelm’ indicates numbers which are likely to be encoded as Proto-Elamite.

PCSL	FONT	CDLI	ATU3	ATU5	MSVO1	MSVO4	CUSAS
5(LAGAB~a) o0981826	NUM F2543	○○ ○○					
10(N01) 2× III: 2p o0981837	PC25 F00DA	BBB BBB					
1(N08~b) 1× III: 1u o0981901	NUM F00F5	# #	̄ ̄				
2(N08~b) 4× III: 1p/3u o0981902	PC25 F00F6	# #	̄ ̄				
3(N08~b) 1× III: 1u o0981903	NUM F00F7	# #	̄ ̄				
4(N08~b) 1× III: 1u o0981904	NUM F00F8	# #	̄ ̄				
4(N08~c) 1× III: 1u o0981905	NUM F00F9	# #	̄ ̄				
1(N08~v) 1× III: 1u o0982197	NUM F00FA	̄ ̄					
1(N08@f)×1(N57)  o0981908	NUM F012C	̄ ̄					
10(N14) 2× o0981921	PC25 F00DB	●●●● ●●●●	●●●● ●●●●				
11(N14) 1× o0981922	PC25 F00DC	●●●● ●●●●					
12(N14) 1× o0981923	OOR5 F00DD	●●●● ●●●●	●●●● ●●●●				
22(N14) 1× o0981924	PC25 F00DE	●●●● ●●●●					
10(N14@f) o0981934	OOR F00DF	■■■■■ ■■■■■	■■■■■ ■■■■■				
6(N21) 1× IV: 1p o0981983	PC25 F00EO	●●●● ●●●●	●●●● ●●●●				
1(N22~v) 1× III: 1p o0981986	PC25 F00FD	̄ ̄					
1(N23) 2× III: 1p/1u o0981989	Pelm F00FE	̄ ̄	̄ ̄				
2(N23) 1× III: 1p o0981990	Pelm F00FF	̄ ̄	̄ ̄				

3(N23)		Pelm						
1x III: 1p	o0981991	F0100						
5(N23)		Pelm						
1x IV: 1p	o0981992	F0101						
7(N23)		Pelm						
1x III: 1p	o0981993	F0102						
2(N24)		NUM						
	o0981995	F0103						
4(N24)		NUM						
	o0981996	F0104						
6(N24)		NUM						
1x IV: 1u; III: 1p	o0981997	F0105						
1(N24@f)		PC25						
2x III: 2p	o0981998	F0106						
2(N29A)		PC25						
AKA: 2(N29~a) 4x III: 4p	o0982009	F0107						
2(N29AB)		PC25						
AKA: 2(N29A~b) 2x III: 2p	o0982011	F010A						
1(N30B)		PC25						
AKA: 1(N30~b) 2x III: 2p	o0982016	F010B						
1(N30CA)		PC25						
AKA: 1(N30C~a) 1(N30C~a) 1x III: 1p	o0982018	F2537						
1(N30CB)		NUM						
	o0982019	F010C						
1(N34)x1(N58)		PC25						
1x III: 1p	o0982027	F012D						
1(N43)		PC25						
3x III: 2p/1u	o0982088	F010D						
4(N43)		PC25						
1x III: 1p	o0982089	F010E						
1(N44)		PC25						
1x IV: 1p	o0982090	F00E1						
3(N45@f)		OOR						
	o0982102	F00E2						
4(N45@f)		OOR						
	o0982103	F00E3						
5(N45@f)		OOR						
	o0982104	F00E4						
6(N45@f)		OOR						
	o0982105	F00E5						

7(N45@f)	OOR							
	o0982106	F00E6						
8(N45@f)	OOR							
	o0982107	F00E7						
9(N45@f)	OOR							
	o0982108	F00E8						
3(N46)	PC25							
1x III: 1p	o0982112	F00E9						
3(N47)	OOR							
1x IV: 1u	o0982117	F00EA						
6(N48)	OOR							
2x IV: 2u	o0982123	F00EB						
7(N48)	OOR							
1x IV: 1u	o0982124	F00EC						
1(N48@f)	NUM							
	o0982125	F010F						
5(N49)	OOR							
	o0982130	F00ED						
3(N53)	PC25							
1x IV: 1p	o0982163	F00EE						
1(N55)	PC25							
1x IV: 1p	o0982169	F00EF						
1(N59)	PC25							
1x III: 1p	o0982192	F0124						
2(N59)	PC25							
1x III: 1p	o0982193	F0125						
3(N59)	PC25							
18x III: 11p/7u	o0982194	F0126						
4(N59)	PC25							
3x III: 2p/1u	o0982195	F0127						
6(N59)	PC25							
3x III: 3p	o0982196	F0128						
7(N59)	PC25							
1x III: 1p	o0981906	F2536						
3(N61)	PC25							
1x III: 1p	o0982199	F0129						
4(N62)	PC25							
1x III: 1p	o0982200	F012A						
1(N63)	NUM							
2x III: 2u	o0982201	F012B						

## K PC25 Sequences Encoded as Exceptions

This table gives sequences which are encoded because they have some exceptional characteristic against the principle that sequences are not encoded.

### K.1 Reasons for Exceptions

#### K.1.1 Reanalysis

Two city-name signs, ADAB and ARARMA~a, have earlier forms which are distinct from their reanalysis to include an initial U<sub>4</sub> component. Other city names may also have earlier integral forms but without further evidence they are not proposed for encoding as characters at this point.

#### K.1.2 Container Equivalency

The signs ASAR and AZ are the equivalent of containers.

#### K.1.3 Unencoded Constituents

The following exception signs contain unencoded constituents: ME<sub>3</sub> (EŠDA-tenu), ŠAGINA (modified UŠ form with additional strokes, unclear with this is an UŠ or not), ZUBI~a (NA<sub>2</sub>-nutillu).

#### K.1.4 Analogy: BAPPIR Group

The group of signs with the base BAPPIR has one member which is a container (BAPPIR~e) and the entire group is encoded by analogy.

#### K.1.5 Analogy: Sheep Group

The groups of signs with the base SILANITA, UDUNITA and UTUA represent various types (ages, genders) of sheep and since some of them have unencoded constituents the members of all groups are encoded as characters.

#### K.1.6 Analogy: UTUL Group

The UTUL group contains one member which includes an uncoded superposed reduplicated component (UTUL~c), so the entire group is encoded as characters.

PCSL	FONT	CDLI	ATU3	ATU5	MSVO1	MSVO4	CUSAS
ADAB 126A4	PC25 o0980034	126A4 F2086		126A4	126A4		126A4
ARARMA <sub>2</sub> ~a 126C0	PC25 o0980069	F208C 126C0		126C0			
ASAR 126C1	PC25 o0980073	126C1		126C1			
AZ 126C2	PC25 o0980075	126C2					

BAPPIR~a 126D7		PC25 o0980096						
BAPPIR~b 126D8		PC25 o0980097						
BAPPIR~c 126D9		PC25 o0980098						
BAPPIR~d 126DA		PC25 o0980099						
BAPPIR~e 126DB		PC25 o0980100						
BAPPIR~f 126DC		PC25 o0980101						
KITI 128A5		PC25 o0980692	 F2117		 F2118			 F2117
ME <sub>3</sub> 1290A		PC25 o0980843						
1(N58).BAD  12925		PC25 o0980877			 (a)	 (a)	 (a)	 (a)
(1(N58).BAD)~b1  12926		PC25 o0980878	 12926		 F2223	 12926		 F2223
3(N58).UR <sub>3</sub> ~b1  12927		PC25 o0980879	 12927		 12927			
SILANITA 129F5		PC25 o0981145						
ŠAGINA 12A1A		PC25 o0981190			 12A1A			
UDUNITA~a 12AA8		PC25 o0981407			 12AA8	 12AA8	 12AA8	 12AA8
UDUNITA~b 12AA9		PC25 o0981408				 12AA9		
UDUNITA~c 12AAA		PC25 o0981409				 12AAA		

<b>UTUA~a</b> 12AF0	 o0981499	PC25	 12AF0			 12AF0	 12AF0	 12AF0
<b>UTUA~a@t</b> 12AF1	 o0981500	PC25	 12AF1			 12AF1		
<b>UTUA~b</b> 12AF2	 o0981501	PC25	 F21D5  12AF2		 F21D5  12AF2			
<b>UTUL~a</b> 12AF3	 o0981502	PC25	 12AF3		 12AF3	 12AF3	 12AF3	 12AF3
<b>UTUL~b</b> 12AF4	 o0981503	PC25	 12AF4		 12AF4			
<b>UTUL~c</b> 12AF5	 o0981504	PC25	 12AF5			 12AF5		
<b>UTUL~d</b> 12AF6	 o0981505	PC25	 12AF6		 12AF6			
<b>ZUBI~a</b> 12B03	 o0981524	PC25	 12B03					

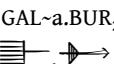
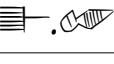
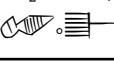
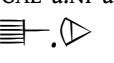
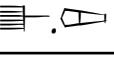
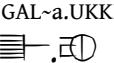
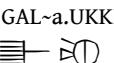
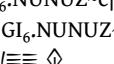
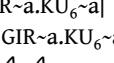
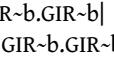
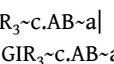
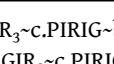
## L Sequences Data

This table summarizes the naming, composition, and ligaturing of sequences:

- In column one the character name (CHARNAME) and glyph names (GLYFNAME) are given along with the decomposition of the ligature into the base characters; in this decomposition the different joiners are used rather than mapping them all to ‘.’.
- In column two the precomposed single ligature character in the PUA is shown with its hex code; some ligatures do not have a precomposed version, in which case a ‘0’ appears in this column.
- In column three the input on the upper row is the Unicode character sequence corresponding to the ligature sequence in the lower row: if the ligature is working correctly the appearance of the upper row should match the character in column two. Font switching is used to access glyph variants.

CHARNAME/GLYFNAME/DECOMP	PUA	LIG./liga
AMAR.1(N02)   AMAR.1(N02)  ⅀.܀	F222B	⅀܀ u126B4_u125BE.liga
AN.IM~a.GI <sub>6</sub>     AN.IM~a.GI <sub>6</sub>    *.*.܀⠀.܀⠀	F222C	*܀⠀.܀⠀ u126B7_u12861_u1288E.liga
APIN~a.APIN~a    APIN~a.APIN~a   ܀⠀܀⠀	F222D	܀⠀܀⠀ u126BD_u126D2.liga
BU~b.NA <sub>2</sub> ~a    BU~b.NA <sub>2</sub> ~a   ܀⠀܀⠀	F222E	܀⠀܀⠀ u126ED_u12A10.liga
BULUG <sub>3</sub> .DU <sub>6</sub> ~a    BULUG <sub>3</sub> .DU <sub>6</sub> ~a   ܀⠀܀⠀	F222F	܀⠀܀⠀ u126F0_u12750.liga
DA~a.LIŠ    DA~a.LIŠ   ܀⠀܀⠀	F2230	܀⠀܀⠀ u126F6_u129B5.liga
DU.ME~a.NUN~a    DU.ME~a.NUN~a   ܀⠀܀⠀	F2084	܀⠀܀⠀ u1271E_u12908_u12A74.liga
DU.U <sub>4</sub> .1(N14).1(N08)    DU.U <sub>4</sub>    ܀⠀܀⠀	F2231	܀⠀܀⠀ u1271E_u12BE1.liga
E <sub>2</sub> ~a.LIŠ    E <sub>2</sub> ~a.LIŠ   ܀⠀܀⠀	F2232	܀⠀܀⠀ u1277F_u129B5.liga
E <sub>2</sub> ~a.NUN~a    E <sub>2</sub> ~a.NUN~a   ܀⠀܀⠀	F2233	܀⠀܀⠀ u1277F_u12A74.liga

E <sub>2</sub> ~b.LIŠ		
E <sub>2</sub> ~b.LIŠ	F2234	
▀ .>		u12781_u129B5.liga
EN~a.KID~a		
EN~a.KID~a	F2235	
▀ .▀		u12787_u12941.liga
EN~a.ME~a.GI		
EN~a.ME~a°GI	F20C8	
▀ . —.»»		u12787_u12908_u12878.liga
EN~a.ME~a.GI		
EN~a.ME~a°GI ~1	F20C9	
▀ . —.»»		u12787_u12908_u12878.liga.cv01
EN~a.ME~a.GI		
EN~a°ME~a.GI	F20CA	
▀ . —.»»		u12787_u12908_u12878.liga.cv02
EN~a.ME~a.MU		
EN~a.ME~a.MU	F2236	
▀ . —.»»		u12787_u12908_u129EC.liga
EN~a.ŠE~a@t.EZEN~b.NUN~a.SIG <sub>7</sub>		
EN~a.EZEN~b×ŠE~a@t°NUN~a.SIG <sub>7</sub>	F20CB	
▀ . —.»»		u12787_u127A2_u12972_u12AE3.liga
EN~a.ŠE~a@t.EZEN~b.NUN~a.SIG <sub>7</sub>		
EN~a.BAHAR <sub>2</sub> ~b°SIG <sub>7</sub> .ME~a.NUN~a	F20CC	
▀ . —.»»		u12787_u126CB_u129C9_u12908_u12A74.liga
EN <sub>2</sub> .E <sub>2</sub> ~a		
EN <sub>2</sub> .E <sub>2</sub> ~a	F2237	
▀ .▀		u1278D_u127CA.liga
EN <sub>2</sub> .E <sub>2</sub> ~b		
EN <sub>2</sub> .E <sub>2</sub> ~b	F2238	
▀ .▀		u1278D_u127CE.liga
EŠDA.NAM <sub>2</sub>		
EŠDA.NAM <sub>2</sub>	F2144	
▀ .▀		u12792_u12A23.liga
EŠDA.NAM <sub>2</sub>		
EŠDA+NAM <sub>2</sub>	F2145	
▀ =+▀		u12792_u12A23.liga.cv01
GA~a.ZATU753		
GA~a.ZATU753	F20D2	
▀ .▀		u127A9_u12D79.liga
GA~a.ZATU753		
ZATU753.GA~a	F20D1	
▀ .▀		u12BA6_u1280E.liga

GAL~a.BUR <sub>2</sub>    GAL~a.BUR <sub>2</sub>   	F2239	 →  u127DE_u1271F.liga
GAL~a.LU <sub>2</sub>    GAL~a.LU <sub>2</sub>   	F212A	 →  u127DE_u129B6.liga
GAL~a.LU <sub>2</sub>    LU <sub>2</sub> °GAL~a  	F212B	 →  u128E5_u1284E.liga
GAL~a.NI~a   GAL~a.NI~a  	F223A	 →  u127DE_u12A3A.liga
GAL~a.NIM~a   GAL~a.NIM~a  	F223B	 →  u127DE_u12A43.liga
GAL~a.UKKIN~a   GAL~a.UKKIN~a  	F2110	 →  u127DE_u12C31.liga
GAL~a.UKKIN~a   GAL~a.UKKIN~a ~1 	F2111	 →  u127DE_u12C31.liga.cv01
GEŠTU~a.NAGA~a   GEŠTU~a.NAGA~a  	F223C	 →  u127F9_u12A16.liga
GI <sub>6</sub> .NUNUZ~c   GI <sub>6</sub> .NUNUZ~c  	F223D	 →  u12810_u12A87.liga
GIR~a.KU <sub>6</sub> ~a   GIR~a.KU <sub>6</sub> ~a  	F223E	 →  u12812_u12965.liga
GIR~b.GIR~b   GIR~b.GIR~b  	F223F	 →  u12813_u12896.liga
GIR <sub>3</sub> ~c.AB~a   GIR <sub>3</sub> ~c.AB~a  	F2240	 →  u12819_u12698.liga
GIR <sub>3</sub> ~c.PIRIG~b1   GIR <sub>3</sub> ~c.PIRIG~b1  	F2241	 →  u12819_u12A98.liga

GIŠ.TE		
GIŠ.TE		
.※	F2242	u12820_u12BB9.liga
GIŠ@t.E₂~a		
GIŠ@t.E₂~a		
.※	F2243	u12826_u127CA.liga
GU₄.ZATU755~b		
GU₄.ZATU755~b		
▷.{}	F2244	u12833_u12D7C.liga
GUJKAL~a.HI@g~a		
GUJKAL~a.HI@g~a		
⊕.※	F2245	u1283D_u128F0.liga
HI.LAGAB~a		
HI.LAGAB~a		
◇.○	F2246	u12852_u12980.liga
HI.SUHUR		
HI.SUHUR		
◇.※	F20F5	u12852_u12B23.liga
HI.SUHUR		
HI.SUHUR ~1		
◇.※	F20F6	u12852_u12B23.liga.cv01
HI.SUHUR		
HI.SUHUR ~2		
◇.※	F20F7	u12852_u12B23.liga.cv02
(HI×1(N57)).(HI×1(N57))		
HI×1(N57)°HI×1(N57)		
◇.◇	F20F9	u12853_u128EC.liga
HI×1(N57).HI×1(N57)		
HI×1(N57).HI×1(N57)		
◇.◇	F20F8	u12853_u128EC.liga.cv01
IR~a.GA₂~a1		
IR~a.GA₂~a1		
⊕.□	F2247	u12865_u12815.liga
KA~a.ŠE~a		
KA~a.ŠE~a		
⊕.※	F2109	u1286C_u12B52.liga
KA~a.ŠE~a		
KA~a.ŠE~a@t		
⊕.※	F2108	u1286C_u12B57.liga
KAK~a.GA₂~a1		
KAK~a.GA₂~a1		
▷.□	F2248	u12874_u12815.liga

KU <sub>6</sub> ~a.GIŠ		
KU <sub>6</sub> ~a.GIŠ		F2249
		u128AB_u128A7.liga
KU <sub>6</sub> ~a.1(N02)		
KU <sub>6</sub> ~a.1(N02)		F224A
		u128AB_u125BE.liga
KUR~a.E <sub>2</sub> ~a		
KUR~a.E <sub>2</sub> ~a		F224B
		u128AF_u127CA.liga
KUR~a.NUNUZ~a1		
KUR~a.NUNUZ~a1		F224C
		u128AF_u12A82.liga
KUR~a.RU		
KUR~a.RU		F21B0
		u128AF_u12AA5.liga
KUR~a.RU		
KUR~a.RU ~1		F21AF
		u128AF_u12AA5.liga.cv01
KUR~b.E <sub>2</sub> ~a		
KUR~b.E <sub>2</sub> ~a		F224D
		u128B0_u127CA.liga
LAGAB~b.TE		
LAGAB~b.TE	0	
		u128CF_u12BB9.liga
ME~a.EN~a.ŠE~a.ŠA		
ME~a.EN~a.ŠE~a.ŠA		F224E
		u12908_u12787_u12A22_u12B37.liga
MUŠ <sub>3</sub> ~a.AB~a		
MUŠ <sub>3</sub> ~a.AB~a		F224F
		u12921_u12698.liga
MUŠ <sub>3</sub> ~a.ERIN		
MUŠ <sub>3</sub> ~a.ERIN		F2250
		u12921_u127EF.liga
MUŠ <sub>3</sub> ~a.UNUG~a		
MUŠ <sub>3</sub> ~a.UNUG~a		F2251
		u12921_u12C44.liga
MUŠEN.ŠE~a		
ŠE~a°MUŠEN		F21D6
		u12A22_u12A05.liga

MUŠEN.ŠE~a		
MUŠEN.ŠE~a		
MUŠEN.UR <sub>3</sub> ~b2		
MUŠEN.UR <sub>3</sub> ~b2		
MUŠEN.UR <sub>3</sub> ~b2		
MUŠEN.UR <sub>3</sub> ~b2 ~1		
1(N02).RU		
1(N02).RU		
NAGAR~a.BU~a		
NAGAR~a.BU~a		
NAGAR~a.BU~a		
NAGAR~b.BU~a		
NE~a.GI		
NE~a°GI		
NE~a.GI		
NE~c°GI		
NE~a.RU		
NE~a.RU		
NI~a.RU		
NI~a.RU		
NUN~a.ME~a		
NUN~a.ME~a		
NUN~a.ME~a		
NUN~a+ME~a		
NUN~a.ME~a.DU		
NUN~a.ME~a.DU		
NUN~b.U <sub>4</sub> .U <sub>4</sub> .1(N14).1(N08)		
NUN~b.U <sub>4</sub>	0	

PA~a.IB~a		
PA~a°IB~a		
	F2189	 u12981_u128F4.liga
PA~a.IB~a		
PA~a.IB~a		
	F2188	 u12981_u128F4.liga.cv01
PA~a.IB~a		
PA~a°IB~a ~1		
	F218A	 u12981_u128F4.liga.cv02
PA~a.TE.SI		
PA~a.TE.SI		
	F2257	 u12981_u12A62_u12AC7.liga
PA~a.UDU~a		
PA~a.UDU~a		
	F2178	 u12981_u12C25.liga
PA~a.UDU~a		
PA~a.UDU~a ~1		
	F2179	 u12981_u12C25.liga.cv01
PAP~a.IB~a		
PAP~a.IB~a		
	F218B	 u12985_u128F4.liga
PAP~a.IB~a		
IB~a°PAP~a		
	F218C	 u12859_u12A91.liga
SAL.KUR~a		
SAL.KUR~a		
	F2258	 u129A1_u1296C.liga
SAL.LAGAR~a		
SAL.LAGAR~a		
	F2259	 u129A1_u129A0.liga
SAL.LAM~b		
SAL.LAM~b		
	F225A	 u129A1_u129B1.liga
SAL.ME~a		
SAL.ME~a		
	0	 u129A1_u129E2.liga
SAL.NAM <sub>2</sub>		
SAL.NAM <sub>2</sub>		
	F225B	 u129A1_u12A23.liga
SAL.NAM <sub>2</sub> .EZEN~b×ŠE~a.NUN~a.SIG <sub>7</sub>		
SAL.NAM <sub>2</sub> .EZEN~b×ŠE~a@t°NUN~a.SIG <sub>7</sub>		
	F225C	 u129A1_u12939_u127A2_u12972_u12AE3.liga

SAL.SI		
SAL.SI		
▷. ▷	F225D	▷ ▷ u129A1_u12AC7.liga
SAL.SILA <sub>4</sub> ~c		
SAL.SILA <sub>4</sub> ~c		
▷. ⊙	F225E	▷ ⊙ u129A1_u12B15.liga
SAL.ŠU <sub>2</sub>		
SAL.ŠU <sub>2</sub>		
▷. <	F225F	◁ u129A1_u12B98.liga
SAL.ZATU751~a		
SAL.ZATU751~a		
▷. ▷	F2260	▷ ◆ u129A1_u12D75.liga
SAL.ZATU751~b		
SAL.ZATU751~b		
▷. ▷	F2261	▷ ◇ u129A1_u12D76.liga
SAL.ZATU751~c		
SAL.ZATU751~c		
▷. ◇	F2262	◇ u129A1_uF300F.liga
SU~a.KUR~a.RU		
SU~a.KUR~a.RU		
◀. ♪	F2263	◀ ♪ u129F7_u128AF_u12AA5.liga
ŠE~a.GAR		
ŠE~a.GAR		
»»—. ▷	F2228	»»▷ u12A22_u12868.liga
ŠE~a.GAR		
ŠE~a@t.GAR		
◀. ▷	F2229	◀ ▷ u12A24_u12868.liga
ŠE~a.KIN <sub>2</sub> ~c		
ŠE~a.KIN <sub>2</sub> ~c		
»»—. ♪	F2190	»»— ♪ u12A22_u12948.liga
ŠE~a@t.KIN <sub>2</sub> ~c		
ŠE~a@t.KIN <sub>2</sub> ~c		
◀. ♪	F2191	◀ ♪ u12A24_u12948.liga
ŠE~a.NAM <sub>2</sub>		
ŠE~a.NAM <sub>2</sub>		
»»—. □	F2192	»»— □ u12A22_u12A23.liga
ŠE~a.NAM <sub>2</sub>		
ŠE~a.NAM <sub>2</sub>  ~1		
»»—. □	F2193	»»— □ u12A22_u12A23.liga.cv01
ŠE~a.ŠA		
ŠE~a.ŠA		
»»—. ▶	F2126	»»— ▶ u12A22_u12B37.liga

ŠE~a.ŠA		
ŠA°ŠE~a		
ŠELU		
ŠE~a.GUG <sub>2</sub>		
ŠEŠ~a.NA~a		
ŠEŠ~a.NA~a		
ŠITA~a1.MUD <sub>3</sub> ~a		
ŠITA~a1.MUD <sub>3</sub> ~a		
ŠU <sub>2</sub> .E <sub>2</sub> ~a		
ŠU <sub>2</sub> .E <sub>2</sub> ~a		
ŠU <sub>2</sub> .E <sub>2</sub> ~b		
ŠU <sub>2</sub> .E <sub>2</sub> ~b		
ŠU <sub>2</sub> .EN~a		
ŠU <sub>2</sub> .EN~a		
ŠU <sub>2</sub> .EN~a ~1		
ŠU <sub>2</sub> .EN~a ~1		
ŠU <sub>2</sub> .EN~a ~2		
ŠU <sub>2</sub> .EN~a ~2		
ŠU <sub>2</sub> .EN~b		
ŠU <sub>2</sub> .EN~b		
ŠU <sub>2</sub> .GIŠ		
ŠU <sub>2</sub> .GIŠ		
ŠU <sub>2</sub> .(HI×1(N57).HI×1(N57))		
ŠU <sub>2</sub> .(HI×1(N57)).(HI×1(N57))		
ŠU <sub>2</sub> .PAP~a		
ŠU <sub>2</sub> .PAP~a		

ŠU <sub>2</sub> .PAP~a.AN		
ŠU <sub>2</sub> .AN	(*)	
<.*	F226D	u12A4A_u126CC.liga
ŠU <sub>2</sub> .URI <sub>3</sub> ~a		
ŠU <sub>2</sub> .URI <sub>3</sub> ~a	(	
<.*	F226E	u12A4A_u12C5F.liga
ŠU <sub>2</sub> .1(N02)		
ŠU <sub>2</sub> .1(N02)	(	
<.*	F226F	u12A4A_u125BE.liga
ŠU <sub>2</sub> .1(N24)		
ŠU <sub>2</sub> .1(N24)	(	
<.*	F2270	u12A4A_u125AA.liga
ŠU <sub>2</sub> .2(N57)		
ŠU <sub>2</sub> .2(N57)	(	
<.*	F2271	u12A4A_uF0111.liga
TE.A		
TE.A	(	
&.*	F2272	u12A62_u12690.liga
TUG <sub>2</sub> ~a.BAD&BAD		
TUG <sub>2</sub> ~a.BAD&BAD	(	
&.*	F21B8	u12A6B_u126E0.liga
TUG <sub>2</sub> ~a.BAD&BAD		
TUG <sub>2</sub> ~a@g.BAD&BAD	(	
&.*	F21B9	u12A6C_u126E0.liga
TUR <sub>3</sub> ~a.5(N57).5(N57)		
TUR <sub>3</sub> ~a.5(N57)	(	
&.*	F2273	u12A79_uF0114.liga
U <sub>4</sub> .AB~b		
U <sub>4</sub> .AB~b	(	
&.*	F2274	u12A7F_u126A3.liga
U <sub>4</sub> .ŠU <sub>2</sub>		
U <sub>4</sub> .ŠU <sub>2</sub>	(	
&.*	F2275	u12A7F_u12B98.liga
U <sub>4</sub> .1(N08)		
U <sub>4</sub> .1(N08)	(	
&.*	F2276	u12A7F_u12559.liga
U <sub>4</sub> .2(N08)		
U <sub>4</sub> .2(N08)	(	
&.*	F2277	u12A7F_u1255A.liga

U <sub>4</sub> .3(N08)		
U <sub>4</sub> .3(N08)		F2278
⋮.⋮		
U <sub>4</sub> .4(N08)		
U <sub>4</sub> .4(N08)		F2279
⋮.⋮⋮		
U <sub>4</sub> .5(N08)		
U <sub>4</sub> .5(N08)		F227A
⋮.⋮⋮		
U <sub>4</sub> .6(N08)		
U <sub>4</sub> .6(N08)		F227B
⋮.⋮⋮⋮		
U <sub>4</sub> .7(N08)		
U <sub>4</sub> .7(N08)		F227C
⋮.⋮⋮⋮		
U <sub>4</sub> .8(N08)		
U <sub>4</sub> .8(N08)		F227D
⋮.⋮⋮⋮⋮		
U <sub>4</sub> .1(N14)		
U <sub>4</sub> .1(N14)		F227E
⋮.●		
U <sub>4</sub> .1(N14).1(N08)		
U <sub>4</sub> .1(N14).1(N08)		0
⋮.●.▽		
U <sub>4</sub> .1(N14).3(N08)		
U <sub>4</sub> .1(N14).3(N08)		F227F
⋮.●.⋮		
U <sub>4</sub> .1(N14).4(N08)		
U <sub>4</sub> .1(N14).4(N08)		F2280
⋮.●.⋮⋮		
U <sub>4</sub> .1(N14).5(N08)		
U <sub>4</sub> .1(N14).5(N08)		F2281
⋮.●.⋮⋮⋮		
U <sub>4</sub> .1(N14).8(N08)		
U <sub>4</sub> .1(N14).8(N08)		F2282
⋮.●.⋮⋮⋮⋮		
U <sub>4</sub> .2(N14)		
U <sub>4</sub> .2(N14)		F2283
⋮.●		

$ U_4 \cdot 1(N24) $		
$ U_4 \cdot 1(N24) $		
$\diamond \cdot \square$		
$ U_4 \times 1(N01).5(N08) $		
$ U_4 \times 1(N01).5(N08) $		
$\diamond \cdot \square \square$		
$ U_4 \times 2(N01).2(N14) $		
$ U_4 \times 2(N01).2(N14) $		
$\diamond \cdot \bullet$		
$ U_4 \times 2(N01).2(N14).1(N08) $		
$ U_4 \times 2(N01).2(N14).1(N08) $		
$\diamond \cdot \bullet \square$		
$ U_4 \times 3(N01).3(N08) $		
$ U_4 \times 3(N01).3(N08) $		
$\diamond \cdot \square$		
$ U_4 \times 4(N01).2(N14) $		
$ U_4 \times 4(N01).2(N14) $		
$\diamond \cdot \bullet$		
$ U_4 \times 5(N01).1(N14) $		
$ U_4 \times 5(N01).1(N14) $		
$\diamond \cdot \bullet$		
$ U_4 \times (1(N14).3(N01)).1(N14).4(N08).1(N14).4(N08) $		
$ U_4 \times (1(N14).3(N01)).1(N14).4(N08) $		
$\diamond \cdot \bullet \square \square$		
$ URI_3 \sim a.AB \sim a $		
$ URI_3 \sim a.AB \sim a $		
$\triangle \cdot \square$		
$ URI_3 \sim a.IB \sim a $		
$ URI_3 \sim a.IB \sim a $		
$\triangle \cdot \square \square$		
$ URI_3 \sim a.NA \sim a $		
$ URI_3 \sim a.NA \sim a $		
$\triangle \cdot \square \square$		
$ URI_3 \sim a.NA \sim a $		
$ URI_3 \sim a.NA \sim a $		
$\triangle \cdot \square \square$		
$ URI_3 \sim a.NA \sim a  \sim$		
$ URI_3 \sim a.NA \sim a  \sim$		
$\triangle \cdot \square \square$		

URI <sub>3</sub> ~a.UNUG~a		
URI <sub>3</sub> ~a.UNUG~a		F228E
—.·.		u12AD4_u12C44.liga
UŠ~a.KUR~a		
UŠ~a.KUR~a		F20FF
—.·.		u12AE9_u1296C.liga
UŠ~a.KUR~a		
UŠ~b.KUR~a		F20FE
—.·.		u12AEB_u1296C.liga
ZATU714.RU		
ZATU714.RU		F228F
—.·.		u12B76_u12AA5.liga
1(N57).AB <sub>2</sub>		
1(N57).AB <sub>2</sub>		F2290
—.·.		u12BEC_u126A7.liga
2(N57).AB <sub>2</sub>		
2(N57).AB <sub>2</sub>		F2291
=.·.		u12BED_u126A7.liga
3(N57).AMAR		
3(N57).AMAR		F2292
≡.·.		u12BEE_u126C5.liga
4(N57).AMAR		
4(N57).AMAR		F2293
≡.·.		u12BEF_u126C5.liga
3(N57).AZ		
3(N57).AZ	0	
≡.·.		u12BEE_u126DC.liga
3(N57).BAR×UŠ~a		
3(N57).BAR×UŠ~a		F2294
≡.·.		u12BEE_uF3095.liga
3(N57).BARA <sub>3</sub>		
3(N57).BARA <sub>3</sub>		F2295
≡.·.		u12BEE_u12702.liga
2(N57).BIR <sub>3</sub> ~a		
2(N57).BIR <sub>3</sub> ~a		F2296
=.·.		u12BED_u12706.liga
1(N57).BU <sub>3</sub>		
1(N57).BU <sub>3</sub>	0	
—.·.		u12BEC_u12718.liga

2(N57).DU <sub>6</sub> ~a@n		= ◇	
2(N57).DU <sub>6</sub> ~a@n	0		u12BED_uF3089.liga
= ◇			
-----			
1(N57).E <sub>2</sub> ~a		- █	
1(N57).E <sub>2</sub> ~a			
- █	F2297		u12BEC_u127CA.liga
-----			
3(N57).E <sub>2</sub> ~b		████	
3(N57).E <sub>2</sub> ~b			
████	F2221		u12BEE_u127CE.liga
-----			
3(N57).EN <sub>2</sub>		≡ *	
3(N57).EN <sub>2</sub>	0		
≡ *			u12BEE_u127E3.liga
-----			
3(N57).GAR		≡ ▷	
3(N57).GAR			
≡ ▷	F2298		u12BEE_u12868.liga
-----			
4(N57).GAR		≡ ▷	
4(N57).GAR			
≡ ▷	F2299		u12BEF_u12868.liga
-----			
5(N57).GAR		≡ ▷	
5(N57).GAR			
≡ ▷	F229A		u12BF0_u12868.liga
-----			
6(N57).GAR		≡ ▷	
6(N57).GAR			
≡ ▷	F229B		u12BF1_u12868.liga
-----			
7(N57).GAR		≡ ▷	
7(N57).GAR			
≡ ▷	F229C		u12BF2_u12868.liga
-----			
4(N57).KU <sub>3</sub> ~a		≡ ↘	
4(N57).KU <sub>3</sub> ~a			
≡ ↘	F229D		u12BEF_u12963.liga
-----			
5(N57).KU <sub>3</sub> ~a		≡ ↘	
5(N57).KU <sub>3</sub> ~a			
≡ ↘	F229E		u12BF0_u12963.liga
-----			
6(N57).KU <sub>3</sub> ~a		≡ ↘	
6(N57).KU <sub>3</sub> ~a			
≡ ↘	F229F		u12BF1_u12963.liga
-----			
2(N57).KU <sub>6</sub> ~a		= ↗	
2(N57).KU <sub>6</sub> ~a			
= ↗	F22A0		u12BED_u12965.liga
-----			

3(N57).LAM~a.KUR~a.RU		
3(N57).LAM~a.KUR~a.RU		
=.	F22A1	 u12BEE_u128E0_u128AF_u12AA5.liga
1(N57).MUŠEN		
1(N57).MUŠEN		
-.	F22A2	 u12BEC_u12A05.liga
2(N57).MUŠEN		
2(N57).MUŠEN		
=.	F22A3	 u12BED_u12A05.liga
3(N57).MUŠEN		
3(N57).MUŠEN		
=.	F22A4	 u12BEE_u12A05.liga
3(N57).NUNUZ~a1		
3(N57).NUNUZ~a1		
=.	F22A5	 u12BEE_u12A82.liga
3(N57).NUNUZ~c		
3(N57).NUNUZ~c		
=.	F22A6	 u12BEE_u12A87.liga
3(N57).PIRIG~b1		
3(N57).PIRIG~b1		
=.	F22A7	 u12BEE_u12A98.liga
3(N57).RU		
3(N57).RU		
=.	F21B2	 u12BEE_u12AA5.liga
3(N57).RU		
3(N57).RU ~1		
=.	F21B1	 u12BEE_u12AA5.liga.cv01
3(N57).SANGA~b		
3(N57).SANGA~a		
=.	0	 u12BEE_u12ABC.liga
3(N57).SI		
3(N57).SI		
=.	0	 u12BEE_u12AC7.liga
1(N57).SIG		
1(N57).SIG		
-.	F22A8	 u12BEC_u12ACF.liga
2(N57).SU~a		
2(N57).SU~a		
=.	F22A9	 u12BED_u12B1D.liga

1(N57).ŠAH₂~a		
1(N57).ŠAH₂~a		
- .	F22AA	
		u12BEC_u12B49.liga
1(N57).ŠUBUR		
ŠUBUR×1(N57)		
.	F221F	
		u12A4C_uF0110.liga
1(N57).ŠUBUR		
1(N57).ŠUBUR		
-	F2220	
		u12BEC_u12B9E.liga
2(N57).ŠUBUR		
2(N57).ŠUBUR		
= .	F22AB	
		u12BED_u12B9E.liga
3(N57).ŠUBUR		
3(N57).ŠUBUR		
≡ .	F22AC	
		u12BEE_u12B9E.liga
3(N57).UDU~a		
3(N57).UDU~a		
≡ .	F22AD	
		u12BEE_u12C25.liga
2(N57).UDUNITA~a		
2(N57).UDUNITA~a		
= .	F22AE	
		u12BED_u12C2A.liga
3(N57).UDUNITA~a		
3(N57).UDUNITA~a		
≡ .	F22AF	
		u12BEE_u12C2A.liga
1(N57).URU~a1		
1(N57).URU~a1		
-	F22B0	
		u12BEC_u12C63.liga
2(N57).URU~a1		
2(N57).URU~a1		
= .	F22B1	
		u12BED_u12C63.liga

## M Implementation Notes on Sequences

This section provides some background on how PCSL handles sequences.

### M.1 Sequences have constant character names

In PCSL, the tag @sign is used for sign names and is dissociated from glyph names. All of the variants of a sequence are grouped under a single @sign. The sign name is composed of a conventional ordering of the sequence, with each component joined by periods ('.'). Each sign name is unique among the set of sign names. If there is an attested simple linear sequence for a sequence character, that form is selected for the character name. The mnemonically named LUGAL occurs in a simple linear sequence as |GAL~a.LU₂|, so that is used as the name of the character.

## M.2 Glyphs have unique names

PCSL uses a new tag, @glyf to clarify the separation of character names versus glyph names. Glyph names consist of a name conforming to an extended set of rules for grapheme naming and possibly a variant tag, consisting of a tilde and a sequence of one or more digits. One glyph name for LUGAL is |GAL~a.LU<sub>2</sub>~a|~1. The variant tag is stable and represents a variation on the basic glyph name (i.e., the name with all joiners mapped to '.'). Glyph names only have to be unique among @glyf entries; a @sign and @glyf may have the same name.

## M.3 How unique glyph names are constructed

Unique glyph names are constructed by varying the order and joiners of the grapheme notation in a way that reflects the variant's form. The joiners are '.' ("BESIDE"), '+' ("JOINING"), and '◦' ("TURNING"), the ring operator. This last is an addition to ATF notation to support the description of sign clustering.

Glyph names do not encode internal glyph variation, i.e., several variant forms of IB are used in the construction of ŠAB (|[PA.IB]|).

Following the corpus-building rule that input text should not be reordered, glyph names do not reorder components. Where there is a reasonable choice of how to describe the order of components an order identical or closer to the sequence character name is preferred. Thus, in the case of character |PAP~a.IB~a|, the glyph could reasonably be described as |PAP~a.IB~a| or |IB~a·PAP~a|. The former is preferred because it follows the character name.

Similarly, glyph names do not remap or normalize variant components that are considered distinct signs in PCSL. Thus, for character |UŠ~a.KUR~a| there are glyphs |UŠ~a.KUR~a| and |UŠ~b.KUR~a|; similarly, for |EN~a.EZEN~b×ŠE~a.NUN~a.SIG<sub>7</sub>| there are glyphs |EN~a.EZEN~b×ŠE~a@t·NUN~a.SIG<sub>7</sub>| and (with a distinct component) |EN~a.BAHAR<sub>2</sub>~b·SIG<sub>7</sub>.ME~a.NUN~a.|.

## M.4 How glyph names are turned into ligatures

Glyph names are turned into ligatures by taking the base component signs and joining them with the ZWJ, U+200D. Multiple glyph names may generate the same core ligature sequence, so CVnn tags are added to the second and subsequent duplicate core ligatures to disambiguate them. Thus, |ŠE~a.NAM<sub>2</sub>| has two glyph forms, named |ŠE~a.NAM<sub>2</sub>|~1 and |ŠE~a.NAM<sub>2</sub>|~2. These are mapped, schematically, to |ŠE~a\_u200D\_NAM<sub>2</sub>| and |ŠE~a\_u200D\_NAM<sub>2</sub>.cv01|. The CVnn used in the font is relative to the number of previous duplicate siblings of the glyph name; in the case of the character |GA~a.ZATU753| there are glyphs |GA~a.ZATU753|~1 and |ZATU753.GA~a|~1; neither ligature therefore requires a CVnn.

Note that in order for this approach to work it is important to specify the OpenType feature lookups in the correct order: liga must come before cv01 .. cvNN, and salt should come last. Unmarked liga should be in the liga table; liga.cvNN should be in the salt table.

In XeTeX, the features for the cvNN ligatures should be specified as "+cv01,+salt=0", "+cv02,+salt=1", "+cv03,+salt=2" (specifying +liga is unnecessary with XeTeX; note that salt index is 0-based).

# N Fonts for the Proposal

The proposal is supported by two fonts:

## N.1 PCSL.ttf

This is the font used for the PCSL table and other appendices in the proposal. The font is remapped and augmented from an earlier font which was named PC24.ttf. Both PC24.ttf and PCSL.ttf owe a huge debt to the original work of Anshuman Pandey in turning Bob Englund's CDLI glyph collection into a font, and to Robin Leroy's work on Archaic Cuneiform Numerals. PCSL.ttf has been augmented and revised extensively by Steve Tinney and currently contains the following components:

- 12550-12686 are derived from Robin Leroy's Archaic Cuneiform Numerals font
- 12690-12BF9 are the reference glyphs for characters proposed for encoding here

- F00DA-F012D are characters not proposed for encoding but listed in the OSL PUA
- F2000-F22B1 are glyph variants; these are also included under a .cvNN variant of the character of which they are a variant; in the PCSL table the .cvNN codes are indicated by subscript numbers before the glyph variants listed in the FONT column
- F2400-F2DA4 are unencoded characters and characters preserved from Anshuman Pandey's original PC font
- .ss04/.ss03 give some Uruk IV/III variant forms but this has not been done systematically; all .ss04 and .ss03 are also present as glyph variants
- .ss20 is a styleset that supports constrained width displays such as code charts; .ss20 only exists for reference glyphs that are over 1200 units wide. The font is sized to use a maximum of 1200 units in the y axis so no scaling needed for taller signs, only for wider signs.
- .liga entries to support the sequences as described in the Sequence Data appendix

## N.2 pc25-cc.ttf

This font is designed only for use with the code chart and character list. The font contains no PC characters which are not in the proposed repertoire and uses no font features. The scaled forms that are in .ss20 in PCSL.ttf are placed directly in their reference glyph code points in pc25-cc.ttf.

The font is used in the proposal for code charts and character list and is also attached to the proposal PDF.