








Rationale for changes to N2664R

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1) Non-existent or uncertain signs removed

	U+12149 CUNEIFORM SIGN KA TIMES A PLUS LAL	:: occurs once, original collated, contents of KA uncertain
	U+12180 CUNEIFORM SIGN KA TIMES ZI3	:: doublet of KA TIMES ESH2





2) Extant signs to be added

	CUNEIFORM SIGN AN THREE TIMES	:: to be treated as three ANs not AN-OVER-AN followed by AN
	CUNEIFORM SIGN KWU318	:: omitted by error from N2664R
	CUNEIFORM SIGN LAHSHU	:: omitted by error from N2664R
	CUNEIFORM SIGN UN GUNU	:: omitted by error from N2664R
	CUNEIFORM SIGN ZI3	:: omitted by error from N2664R

3) Sign names changed

	U+120F3 CUNEIFORM SIGN GI GUNU	=> CUNEIFORM SIGN GI4	:: GI GUNU also a description of ZI in Early Dynastic script
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triggers following changes:

	U+120C1 CUNEIFORM SIGN GA2 TIMES GI GUNU	=> CUNEIFORM SIGN GA2 TIMES GI4	:: see U+120F3
	U+120C1 CUNEIFORM SIGN GA2 TIMES GI GUNU PLUS A	=> CUNEIFORM SIGN GA2 TIMES GI4 PLUS A	:: see U+120F3
	U+120F4 CUNEIFORM SIGN GI GUNU CROSSING GI GUNU	=> CUNEIFORM SIGN GI4 CROSSING GI4	:: see U+120F3
	U+120F5 CUNEIFORM SIGN GI GUNU OVER GI GUNU	=> CUNEIFORM SIGN GI4 OVER GI4	:: see U+120F3








4) Compound signs of syllabic function added as characters

Throughout the history of the ICE meetings and the development of N2664R concerns were raised by cuneiformists that the decision not to assign code points to compound signs would result in a repertoire that would be counterintuitive to specialists owing to the lack of certain basic signs.

Native Mesopotamian traditions also bear on this issue, for the pedagogical texts covering the sign list begin with a simple syllabary, a subset of about 80 signs, of which seven were not assigned code points in N2664R. These seven simple syllabic signs are here assigned code points without canonical equivalency to the sequence of characters of which they are compounded. The names of these signs are derived from their elements.

Other suggested candidates for this treatment are not assigned code points as there is no rationale which would provide a cut-off point and it runs counter to the general encoding model for cuneiform agreed upon at ICE1 and subsequently that compound signs should normally be encoded as the sequence of their elements joined by the COMBINING GRAPHEME JOINER.

Added signs:

	CUNEIFORM SIGN IGI RI	:: basic syllable AR
	CUNEIFORM SIGN U U U	:: basic syllable ESH
	CUNEIFORM SIGN I A	:: basic syllable IA
	CUNEIFORM SIGN IGI DIB	:: basic syllable U3
	CUNEIFORM SIGN UD KUSHU2	:: basic syllable UH2
	CUNEIFORM SIGN U GUD	:: basic syllable UL
	CUNEIFORM SIGN SHE HU	:: basic syllable UZ

5) Removal of sign elements which do not occur independently and addition of impacted compound signs as characters.







Following the initial distribution of the name list reservations were expressed about the encoding as characters of elements of compound signs when those elements never occur independently of their compound(s). Two considerations warranted revising the proposal to remove such elements and instead add as characters the compound(s) in which the elements occur.

The first is that cuneiformists do not want an encoding containing fictive elements.

The second is that some of these elements appear in the writing of compounds only because an earlier historical unity was reanalyzed by later scribes; the later writing is an approximation of the earlier one, expressed using familiar elements. It is not presently possible to define all such cases of later reanalysis because of the ongoing nature of the study of the development of the cuneiform script. If otherwise non-existent elements were to be assigned code-points now and the characters of which those elements are part were subsequently assigned code-points in the future, the specification would end up containing orphan characters which serve no function and which would permit incorrect 'spellings' of the character based on the glyphic form of the later reanalysis. The present repertoire therefore removes 69 characters and adds as characters 71 signs of which the 69 removed elements form part.

In naming the characters so introduced we have retained the practice of deriving the Unicode name from the names of the characters' compounded elements but this does not necessarily imply that there is no historical unity underlying the selected representation of any member of this group of signs.

Characters removed:

	U+12017 CUNEIFORM SIGN AB2 TIMES ASHGAB
	U+12019 CUNEIFORM SIGN AB2 TIMES BI
	U+1201A CUNEIFORM SIGN AB2 TIMES DUG
	U+1201C CUNEIFORM SIGN AB2 TIMES GUD
	U+1201D CUNEIFORM SIGN AB2 TIMES KAD3
	U+1201E CUNEIFORM SIGN AB2 TIMES LA

	U+12020	CUNEIFORM SIGN AB2 TIMES NE
	U+12022	CUNEIFORM SIGN AB2 TIMES SIG7
	U+12023	CUNEIFORM SIGN AB2 TIMES SILA3
	U+12025	CUNEIFORM SIGN AB2 TIMES U2
	U+12059	CUNEIFORM SIGN BU OVER BU
	U+1205D	CUNEIFORM SIGN BUR OVER BUR
	U+122B8	CUNEIFORM SIGN SHE OVER SHE
	U+122D0	CUNEIFORM SIGN SHIR OVER SHIR
	U+122CF	CUNEIFORM SIGN SHIR GUNU
	U+122CE	CUNEIFORM SIGN SHIR TENU
	U+1206C	CUNEIFORM SIGN DISH OVER DISH
	U+120E2	CUNEIFORM SIGN GAD OVER GAD
	U+120EC	CUNEIFORM SIGN GAR OVER GAR
	U+12110	CUNEIFORM SIGN GUD OVER GUD
	U+12133	CUNEIFORM SIGN IDIM OVER IDIM
	U+12138	CUNEIFORM SIGN IGI OVER IGI
	U+12137	CUNEIFORM SIGN IGI GUNU
	U+12139	CUNEIFORM SIGN IGI GUNU OVER IGI GUNU
	U+1219D	CUNEIFORM SIGN KISIM5 TIMES A PLUS MASH
	U+1219E	CUNEIFORM SIGN KISIM5 TIMES AMAR
	U+1219F	CUNEIFORM SIGN KISIM5 TIMES BALAG
	U+121A0	CUNEIFORM SIGN KISIM5 TIMES BI
	U+121A1	CUNEIFORM SIGN KISIM5 TIMES GA
	U+121A2	CUNEIFORM SIGN KISIM5 TIMES GA PLUS MASH
	U+121A3	CUNEIFORM SIGN KISIM5 TIMES GI
	U+121A4	CUNEIFORM SIGN KISIM5 TIMES GIR2
	U+121A5	CUNEIFORM SIGN KISIM5 TIMES GUD
	U+121A6	CUNEIFORM SIGN KISIM5 TIMES HA
	U+121A8	CUNEIFORM SIGN KISIM5 TIMES IR PLUS LU
	U+121A9	CUNEIFORM SIGN KISIM5 TIMES KAK
	U+121AA	CUNEIFORM SIGN KISIM5 TIMES LA
	U+121AB	CUNEIFORM SIGN KISIM5 TIMES LU
	U+121AC	CUNEIFORM SIGN KISIM5 TIMES LU PLUS MASH2
	U+121AD	CUNEIFORM SIGN KISIM5 TIMES LUM
	U+121AE	CUNEIFORM SIGN KISIM5 TIMES NE
	U+121AF	CUNEIFORM SIGN KISIM5 TIMES PAP PLUS PAP
	U+121B0	CUNEIFORM SIGN KISIM5 TIMES SI
	U+121B1	CUNEIFORM SIGN KISIM5 TIMES TAK4
	U+121B2	CUNEIFORM SIGN KISIM5 TIMES U2 PLUS GIR2
	U+121B3	CUNEIFORM SIGN KISIM5 TIMES USH
	U+121B5	CUNEIFORM SIGN KU OVER HI TIMES ASH2
	U+121CA	CUNEIFORM SIGN LAGAB TIMES ASH2
	U+121EF	CUNEIFORM SIGN LAGAB TIMES TE PLUS A
	U+121F8	CUNEIFORM SIGN LAGAR TIMES GAR

	U+121F9	CUNEIFORM SIGN LAGAR TIMES MASH
	U+121FA	CUNEIFORM SIGN LAGAR TIMES NUN
	U+121FB	CUNEIFORM SIGN LAGAR TIMES SAL
	U+121FE	CUNEIFORM SIGN LAGAR TIMES USH
	U+121F7	CUNEIFORM SIGN LAGAR GUNU OVER LAGAR GUNU
	U+1225B	CUNEIFORM SIGN NI OVER NI
	U+1226A	CUNEIFORM SIGN NINDA2 TIMES SHE PLUS A
	U+12277	CUNEIFORM SIGN PA OVER PA
	U+122DA	CUNEIFORM SIGN SIG4 OVER SIG4
	U+122DE	CUNEIFORM SIGN SU OVER SU
	U+122E5	CUNEIFORM SIGN SUR OVER SUR
	U+122ED	CUNEIFORM SIGN TAB OVER TAB
	U+12302	CUNEIFORM SIGN TUG2 OVER TUG2
	U+12306	CUNEIFORM SIGN TUR OVER TUR
	U+12309	CUNEIFORM SIGN U OVER U
	U+1230A	CUNEIFORM SIGN U REVERSED OVER U REVERSED
	U+12308	CUNEIFORM SIGN U GUNU
	U+1230F	CUNEIFORM SIGN UD OVER UD
	U+12356	CUNEIFORM SIGN ZA OVER ZA

Characters added:

	CUNEIFORM SIGN ASH OVER ASH TUG2 OVER TUG2 TUG2 OVER TUG2 PAP
	CUNEIFORM SIGN BU OVER BU AB
	CUNEIFORM SIGN BU OVER BU UN
	CUNEIFORM SIGN DAG KISIM5 TIMES A PLUS MASH
	CUNEIFORM SIGN DAG KISIM5 TIMES AMAR
	CUNEIFORM SIGN DAG KISIM5 TIMES BALAG
	CUNEIFORM SIGN DAG KISIM5 TIMES BI
	CUNEIFORM SIGN DAG KISIM5 TIMES GA
	CUNEIFORM SIGN DAG KISIM5 TIMES GA PLUS MASH
	CUNEIFORM SIGN DAG KISIM5 TIMES GI
	CUNEIFORM SIGN DAG KISIM5 TIMES GIR2
	CUNEIFORM SIGN DAG KISIM5 TIMES GUD
	CUNEIFORM SIGN DAG KISIM5 TIMES HA
	CUNEIFORM SIGN DAG KISIM5 TIMES IR
	CUNEIFORM SIGN DAG KISIM5 TIMES IR PLUS LU
	CUNEIFORM SIGN DAG KISIM5 TIMES KAK
	CUNEIFORM SIGN DAG KISIM5 TIMES LA
	CUNEIFORM SIGN DAG KISIM5 TIMES LU
	CUNEIFORM SIGN DAG KISIM5 TIMES LU PLUS MASH2
	CUNEIFORM SIGN DAG KISIM5 TIMES LUM
	CUNEIFORM SIGN DAG KISIM5 TIMES NE

	CUNEIFORM SIGN DAG KISIM5 TIMES PAP PLUS PAP
	CUNEIFORM SIGN DAG KISIM5 TIMES SI
	CUNEIFORM SIGN DAG KISIM5 TIMES TAK4
	CUNEIFORM SIGN DAG KISIM5 TIMES U2 PLUS GIR2
	CUNEIFORM SIGN DAG KISIM5 TIMES USH
	CUNEIFORM SIGN DIN KASKAL U GUNU DISH
	CUNEIFORM SIGN E OVER E NUN OVER NUN
	CUNEIFORM SIGN GAD OVER GAD GAR OVER GAR
	CUNEIFORM SIGN GAL GAD OVER GAD GAR OVER GAR
	CUNEIFORM SIGN GISH TUG2 PI SHIR TENU SILA3
	CUNEIFORM SIGN GUD OVER GUD LUGAL
	CUNEIFORM SIGN IDIM OVER IDIM BUR
	CUNEIFORM SIGN IGI OVER IGI SHIR OVER SHIR UD OVER UD
	CUNEIFORM SIGN KU OVER HI TIMES ASH2 KU OVER HI TIMES ASH2
	CUNEIFORM SIGN LAGAR GUNU OVER LAGAR GUNU SHE
	CUNEIFORM SIGN LUM OVER LUM GAR OVER GAR
	CUNEIFORM SIGN NINDA2 TIMES SHE PLUS A AN
	CUNEIFORM SIGN NUN LAGAR TIMES GAR
	CUNEIFORM SIGN NUN LAGAR TIMES MASH
	CUNEIFORM SIGN NUN CROSSING NUN LAGAR OVER LAGAR
	CUNEIFORM SIGN NUN LAGAR TIMES SAL
	CUNEIFORM SIGN NUN LAGAR TIMES USH
	CUNEIFORM SIGN NUN LAGAR TIMES SAL OVER NUN LAGAR TIMES SAL
	CUNEIFORM SIGN NUNUZ AB2 TIMES ASHGAB
	CUNEIFORM SIGN NUNUZ AB2 TIMES BI
	CUNEIFORM SIGN NUNUZ AB2 TIMES DUG
	CUNEIFORM SIGN NUNUZ AB2 TIMES GUD
	CUNEIFORM SIGN NUNUZ AB2 TIMES KAD3
	CUNEIFORM SIGN NUNUZ AB2 TIMES LA
	CUNEIFORM SIGN NUNUZ AB2 TIMES NE
	CUNEIFORM SIGN NUNUZ AB2 TIMES SIG7
	CUNEIFORM SIGN NUNUZ AB2 TIMES SILA3
	CUNEIFORM SIGN NUNUZ AB2 TIMES U2
	CUNEIFORM SIGN NUNUZ KISIM5 TIMES BI
	CUNEIFORM SIGN NUNUZ KISIM5 TIMES BI U
	CUNEIFORM SIGN PAP IGI GUNU
	CUNEIFORM SIGN SAL LAGAB TIMES ASH2
	CUNEIFORM SIGN SHE OVER SHE GAD OVER GAD GAR OVER GAR
	CUNEIFORM SIGN SHE OVER SHE TAB OVER TAB GAR OVER GAR
	CUNEIFORM SIGN SHIR OVER SHIR BUR OVER BUR
	CUNEIFORM SIGN SIG4 OVER SIG4 SHU2
	CUNEIFORM SIGN SU OVER SU A
	CUNEIFORM SIGN TAB OVER TAB NI OVER NI DISH OVER DISH
	CUNEIFORM SIGN TIR OVER TIR GAD OVER GAD GAR OVER GAR



CUNEIFORM SIGN TUR OVER TUR ZA OVER ZA



CUNEIFORM SIGN U OVER U PA OVER PA GAR OVER GAR



CUNEIFORM SIGN U OVER U SUR OVER SUR



CUNEIFORM SIGN U OVER U U REVERSED OVER U REVERSED



CUNEIFORM SIGN U2 NAGA AN SHIR GUNU