



## Extensional events anchoring tectonic evolution of accretionary orogeny in Paleozoic Central-South Tianshan, Central Asia.

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4     1 **From early Paleozoic subduction-accretion to latest Carboniferous migmatization and**  
5     2 **post-orogenic collapse: New constraints on the CAOB evolution in Central and South**  
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7     3 **Tianshan (NW China)**

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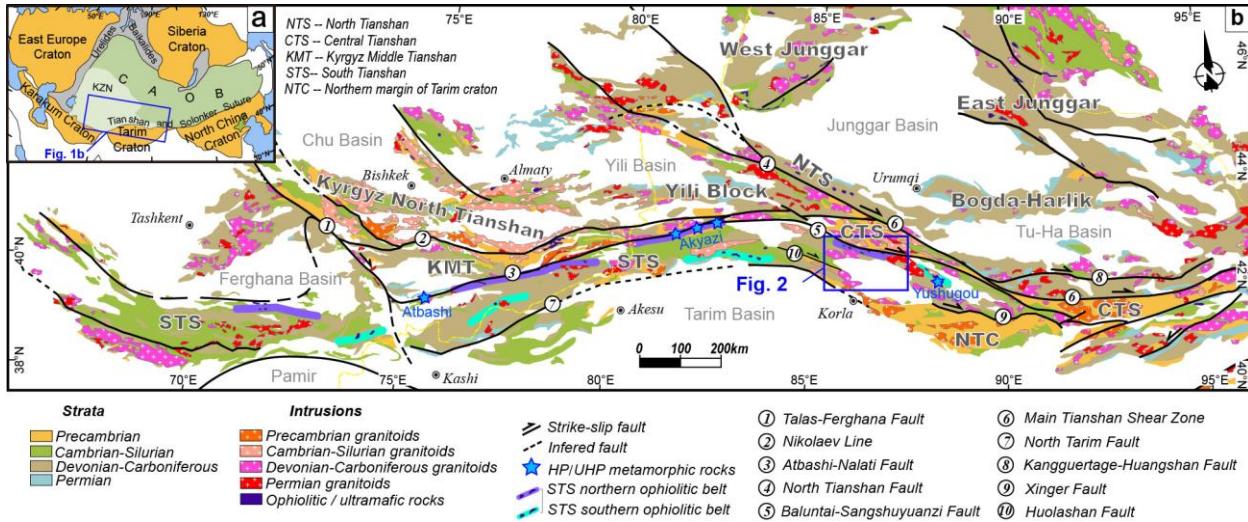
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4    20 **Abstract**  
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7    21 Recognition of extensional events of orogenic belts is critical for reconstructing convergent  
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9    22 orogenesis and its geodynamic evolution, but is also challenging due to multi-stage tectonic  
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11    23 superimposition. The South Tianshan is the southern margin of the Paleozoic Central Asian  
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13    24 Orogenic Belt (CAOB) and the key for understanding the geodynamic evolution of the CAOB.  
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15    25 Here we present new comprehensive structural, geochronological and geochemical data for the  
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17    26 Paleozoic sedimentary, igneous and metamorphic rocks in the Central and South Tianshan (NW  
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19    27 China). Based on our new results and published data, we suggest that a neritic to terrestrial back-  
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21    28 arc basin existed to the south of the Central Tianshan magmatic arc during the Early-Middle  
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23    29 Devonian. We document a crustal anatetic event (~304 Ma migmatization) associated with  
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25    30 peraluminous granitic magmatism (~305-295 Ma) in the South Tianshan. Multi-stage ductile  
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27    31 deformation events witnessed the Paleozoic evolution from subduction-accretion to post-orogenic  
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29    32 collapse of the Tianshan Orogen: (1) Late Devonian-Carboniferous regional top-to-the-north  
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31    33 ductile shearing is related to the southward subduction of the South Tianshan back-arc basin; (2)  
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33    34 late Carboniferous south-verging folds and brittle-ductile axial-plane cleavages correspond to  
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35    35 back-thrusting resulted from the collision between Central Tianshan and Tarim; (3) E-W-trending  
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37    36 ductile normal faults developed in migmatites are linked with syn-anatetic exhumation of the  
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39    37 middle crust during the latest Carboniferous post-collisional extension; and (4) regional dextral  
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41    38 strike-slip faulting attributed to Permian lateral extrusion. Therein, two stages of crustal extension  
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43    39 are key puzzle pieces to reconstruct the accretionary orogenic processes of the Paleozoic Tianshan.  
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54    40 **Keywords:** accretionary orogeny; migmatization; orogenic collapse; back-arc spreading;  
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57    41 extensional tectonics  
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4     42 **1. Introduction**  
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7     43       Extensional deformation is usually formed in settings such as horizontal tension, vertical  
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9     44       magma upwelling, diapir/doming, and crustal thickening of orogens (Buck, 1991; Ruppel, 1995;  
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11     45       Zhang & Huang, 2019). Traditionally, the study of orogenic belts has been led by convergence  
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13     46       and compressional deformation, with relatively less consideration of orogenic evolution from an  
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15     47       extensional perspective. In vast accretionary orogenic systems, passive margins and subduction-  
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17     48       related back-arc spreading basins are the most typical and common large-scale extensional  
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19     49       tectonics, opening avenues for understanding continental breakup, continent-ocean transition  
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21     50       structures, and subduction switching (Faccenna et al., 2001; Heuret & Lallemand, 2005; Karner et  
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23     51       al., 2007; Zhang & Huang, 2019). In addition, gravity-driven extension of thickened crust  
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25     52       involving crustal melting and flow also plays a pivotal role in the evolution of orogens (Dewey,  
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27     53       1988; Rey et al., 2001). Crustal melting and flow is a key factor in the redistribution of component  
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29     54       and heat within orogenic systems, the thickened and partial-melted (anatexic) crust in collisional  
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31     55       orogens (e.g., Himalaya-Tibet Orogen) has attracted much attention (Beaumont et al., 2001; Block  
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33     56       & Royden, 1990; Grujic et al., 1996; Jamieson et al., 2011), while little is known about crustal  
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35     57       melting and flow in accretionary orogens (e.g., Lehmann et al., 2017). Unlike observable  
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37     58       extensional tectonics in active subduction-accretion systems (e.g., the Circum-Pacific Belt), its  
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39     59       identification in fossil orogens is challenging and requires tracing various geological clues,  
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41     60       including deformation, metamorphism, magmatism and sedimentation. This study is on purpose  
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43     61       to investigate how extensional tectonics anchor the geodynamic reconstruction of accretionary  
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45     62       orogens through a case study of the Paleozoic Tianshan Orogen.  
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**Fig. 1** (a) Tectonic position of the Central Asian Orogenic Belt (CAOB) (modified after Sengör et al., 1993). Abbreviation: KZN-Kazakhstan microcontinent. (b) Geological map of the Tianshan Orogen and adjacent regions (modified after XBGMR, 1993; Alexeiev et al., 2015).

The Tianshan Orogen is the southernmost part of the well-known Central Asian Orogenic

Belt (Fig. 1a) (CAOB; or the Altaïds; Sengör et al., 1993; Windley et al., 2007), it was built by the subduction of the Paleo-Tianshan Ocean (PTO, also called Turkestan Ocean in Kyrgyz Tianshan; Safonova et al., 2016). Consumption of oceanic basins resulted in the amalgamation of the Kazakhstan microcontinent in the northwest with the Karakum-Tarim cratons in the south (e.g., Alexeiev et al., 2015; Charvet et al., 2011; Gao et al., 1998, 2009; Han et al., 2010, 2011; Han & Zhao, 2018; Liu et al., 2022; B. Wang et al., 2011b, 2018; X. S. Wang et al., 2022; Xiao et al., 2008, 2013; Zhong et al., 2019). So far, the dispute over the tectonic framework and geodynamic evolution of the Tianshan Orogen has focused on several scientific issues, including: (1) The nature of the PTO, it was considered as either a single broad oceanic basin (e.g., Gao et al., 1995b, 1995c, 1998, 2009; Long et al., 2011; Xiao et al., 2013); or alternatively, a SW Pacific-like archipelago arc-basin system (e.g., Charvet et al., 2007, 2011; Dong et al., 2005; Guo & Li, 1993; Loury et al., 2015; Shu et al., 2002; B. Wang et al., 2008, 2011b, 2018); (2) The timing of the final oceanic

closure, which was variably dated as Carboniferous-early Permian (e.g., Bazhenov et al., 2003; Chen et al., 1999; Klemd et al., 2005; Li et al., 2020; B. Wang et al., 2018); Permian to Triassic (e.g., Xiao et al., 2008, 2013; Zhang et al., 2007), or perhaps diachronous from east to west (Chen et al., 1999; Loury et al., 2016); (3) Various subduction polarities and kinematics were proposed as well, e.g., north-directed (N-dipping) (Chen et al., 1999; Gao et al., 1995b, 1995c, 1998, 2009; Xiao et al., 2008, 2013), south-directed (Charvet et al., 2007, 2011; Lei et al., 2011; Lin et al., 2009; Loury et al., 2015; Shu et al., 2002; B. Wang et al., 2010, 2011b) or bidirectional (Gao et al., 2009; Ge et al., 2012, 2014; Jiang et al., 2014). Incomplete and limited records of Paleozoic extensional tectonics in the Tianshan Orogen (Liu et al., 2022) partly raised above controversies and obstructed our understanding of its tectonic evolution.

In this study, we present new structural data, zircon U-Pb ages and geochemical results of Paleozoic magmatic and (meta-) sedimentary rocks in the Central-South Tianshan. Our data and the newly recognized anatexis in the South Tianshan reveal two stages of tectonic extension within different geodynamic backgrounds, and provide new constraints on the nature, timing of final closure and subduction switching of the PTO. Integrating the previously published data, we develop an evolutionary model for the PTO and Tianshan Orogen addressing the tectonic transition from subduction-accretion, collision to post-orogenic collapse. Furthermore, our model provides new insights into the crustal melting and flow of accretionary orogens in deep time of the earth.

## 2. Geological setting

The Tianshan Orogen extends over 2500 km from east to west across northwest China, Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan (Fig. 1b). In this study, we focus on the western part of the Chinese segment of the Tianshan Orogen, which is tectonically divided into

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4 104 the North Tianshan (NTS), Yili block (YB), Central Tianshan (CTS), and South Tianshan (STS)  
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6 105 (Fig. 1b). These tectonic units are separated by several suture zones, most of which have been  
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8 106 reworked by later strike-slip faults (Fig. 1b) (B. Wang et al., 2008, 2010).

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10 107 The YB is separated from the NTS by the North Tianshan Fault to the north (Gao et al.,  
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12 108 1998; B. Wang et al., 2006, 2008), and from the CTS by the dextral strike-slip Nalati Fault to the  
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14 109 south (Fig. 1b) (Cao et al., 2017; Charvet et al., 2007, 2011; B. Wang et al., 2008, 2010). The  
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16 110 Meso- to Neoproterozoic metamorphic/crystalline basement of the YB is overlain by late  
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18 111 Neoproterozoic non-metamorphic limestones, tillites and siltstones, early-middle Paleozoic  
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20 112 carbonate, clastic rocks, and mid-late Paleozoic volcano-sedimentary sequences and arc-related  
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22 113 magmatic rocks related to the southward subduction of the Junggar - North Tianshan Ocean (Gao  
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24 114 et al., 1998; Han et al., 2010; Huang et al., 2016; Liu et al., 2014; Sun et al., 2021; B. Wang et al.,  
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26 115 2008, 2011a, 2014; Y. J. Wang et al., 2022; X. Y. Zhu et al., 2019, 2020).

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33 116 The CTS is a continental block rifted away from the Tarim craton during the  
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35 117 Neoproterozoic (X. S. Wang et al., 2014, 2018) or early Paleozoic (Charvet et al., 2007, 2011; Guo  
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37 118 & Li, 1993; Shu et al., 2004, 2013; B. Wang et al., 2008, 2011b). It is composed of Proterozoic  
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39 119 gneiss, amphibolites and marbles basement rock assemblages, Silurian-Early Devonian  
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41 120 subduction-related granite-gneisses, and Ordovician-Silurian interlayered greenschist-facies meta-  
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43 121 sandstones and meta-volcanoclastic rocks (Alexeiev et al., 2015; Lei et al., 2011; Ma, Shu, Jahn,  
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45 122 et al., 2012; Ma, Shu, Santosh, et al., 2012; Shu et al., 2002, 2013; Shu, Deng, et al., 2011; B.  
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47 123 Wang et al., 2011b, 2018; X. S. Wang et al., 2017, 2020; Zhong et al., 2015). The early-middle  
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49 124 Paleozoic magmatic rocks developed in a continental arc, which was likely generated by the  
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51 125 subduction of the PTO (Charvet et al., 2007, 2011; Lei et al., 2011; Loury et al., 2015; Ma et al.,  
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53 126 2014; B. Wang et al., 2008; Zhong et al., 2015, 2019). Undeformed Late Devonian-Carboniferous

intrusions crosscut the early-middle Paleozoic arc-related rocks and their Precambrian basement, and display syn-/post-collisional geochemical features (Ma et al., 2014; Shi et al., 2007; Xu et al., 2014). Lower Carboniferous formations rest in angular unconformity upon deformed and metamorphosed lower Paleozoic rocks (Charvet et al., 2011; Gao et al., 1998; Shu et al., 2002; B. Wang et al., 2008, 2011b, 2018; XBGMR, 1993).

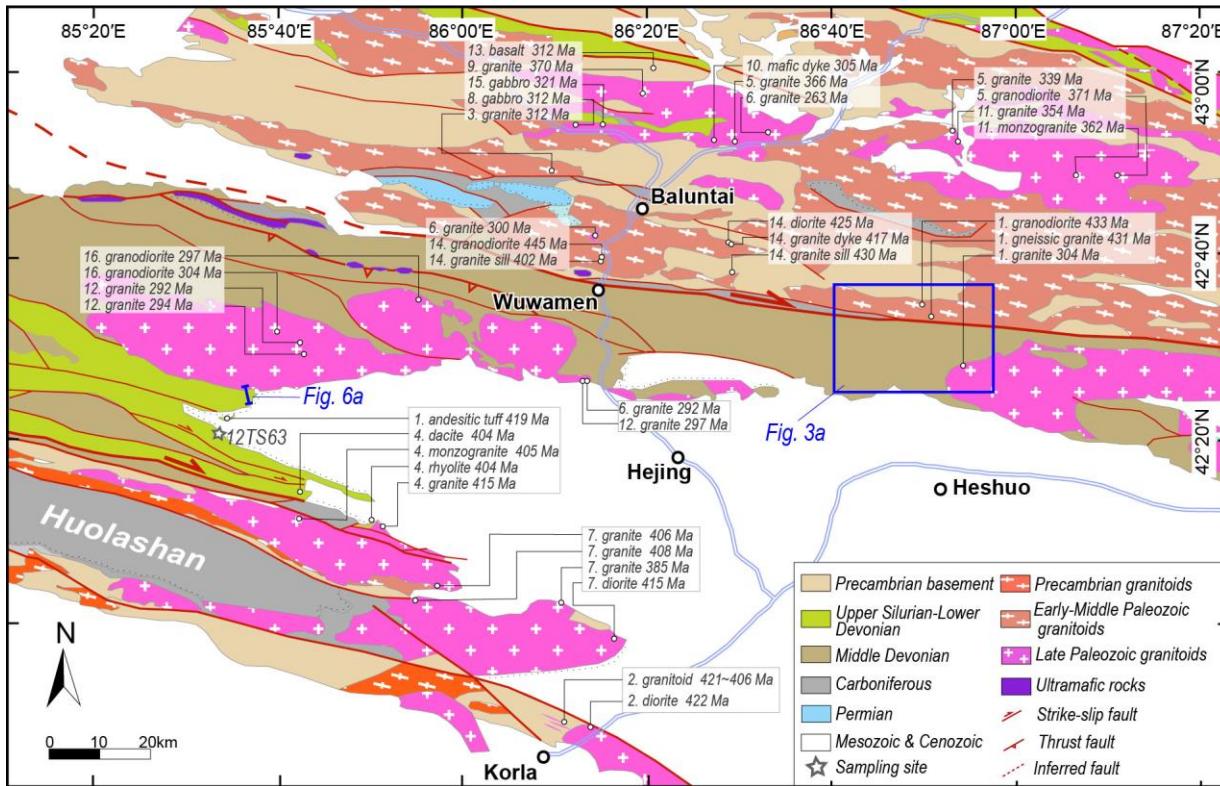
The STS is traditionally regarded as the area located between the Atbashi-Nalati-Baluntai Fault and North Tarim-Xinger Fault (Charvet et al., 2011; Gao et al., 1998, 2009, 2011; Ge et al., 2014; Han et al., 2011; Shu et al., 2002). The STS consists of Proterozoic basement beneath the Ordovician-Devonian continental arc (Alexeiev et al., 2015; Lin et al., 2013; Zhong et al., 2019), Cambrian-early Carboniferous marine sedimentary rocks (Alexeiev et al., 2015; Han et al., 2011; Shu et al., 2002; Xiao et al., 2013), and a series of ophiolitic mélange associated with high- and ultrahigh-pressure (HP/UHP) metamorphic rocks (Gao et al., 1998; Gao and Klemd, 2003; Han et al., 2011; Jian et al., 2013; Jiang et al., 2014; 2015; Long et al., 2006; B. Wang et al., 2011b, 2018). There are two remarkable ophiolite mélange exposed in the STS. The northern ophiolitic mélange belt is defined by the North Ferghana, Karaterek, Sartale, Kan, North Nuratau, Teskuduk, Bukantau and Atbashi mélange developed in Uzbek and Kyrgyz Tianshan, and the Changawuzi, Dalubayi, Guluogou, and Wuwamen ophiolitic mélange in Chinese Tianshan (Fig. 1b). Zircon U-Pb ages (448-332 Ma) of gabbros/basalts from the ophiolites and radiolarians/conodont fossils in siliceous formations constrain these ophiolites as Ordovician to Carboniferous (Alexeiev et al., 2015, 2016; Dolgopolova et al., 2017; Jiang et al., 2014; Mirkamalov et al., 2012; X. S. Wang et al., 2018). The ophiolitic mafic rocks belong to MORB (mid-ocean-ridge basalt) and OIB (ocean-island basalt), except the Guluogou-Wuwamen ophiolites showing SSZ-type (supra-subduction zone) characteristics (Dong et al., 2005; Gao et al., 1995b, 1995c; Jiang et al., 2014; Long et al.,

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4 150 2006; B. Wang et al., 2011b, 2018). In addition, a HP/UHP metamorphic complex is exposed in  
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6 151 the Akyazi-Kekesu areas, to the south of the Nalati fault (Gao et al., 1995a; 2000; Gao and Klemd,  
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8 152 2003; Klemd et al., 2015; Lin et al., 2009; B. Wang et al., 2010; Wei et al., 2003; Zhang et al.,  
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10 153 2007), and extends westward into the Atbashi area in Kyrgyzstan (Hegner et al., 2010; Loury et  
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12 154 al., 2015, 2016). The peak metamorphism occurred during ca. 345-320 Ma, and then experienced  
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14 155 retrogression during ca. 330-305 Ma (Gao & Klemd, 2003; Hegner et al., 2010; Klemd et al., 2005,  
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16 156 2011; Li et al., 2011; B. Wang et al., 2010; L. J. Zhang et al., 2018).

21 157 The southern ophiolitic belt consists of Jigen, Qiqijianake, Heiyinshan, Misibulake,  
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23 158 Aertengkesi, Madaleke, Kulehu, Serikeyayilake, Yushugou and Tonghuashan ophiolitic mélanges  
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25 159 from west to east (Fig. 1b). These ophiolites have been dated at 440 Ma to 392 Ma by zircon U-  
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27 160 Pb ages or microfossils (Charvet et al., 2007, 2011; Han et al., 2011; Long et al., 2006; B. Wang  
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29 161 et al., 2010, 2011b, 2018). Geochemical and structural studies indicate that these ophiolitic  
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31 162 mélanges were formed in a back-arc setting and were tectonically emplaced from the south to the  
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33 163 north (Charvet et al., 2007; Dong et al., 2005; Gao et al., 1998; Long et al., 2006; Shu et al., 2004;  
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35 164 B. Wang et al., 2011b). Additionally, Jian et al. (2013) considered the Yushugou ophiolitic  
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37 165 mélange and associated high-pressure granulites as a result of mantle diapirism in a continental  
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39 166 back-arc (i.e., extensional) setting.

45 167 The northern margin of the Tarim craton is composed of Archean to Neoproterozoic  
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47 168 basement rocks developed mainly in the Kuluketag (Hu et al., 2000; Long et al., 2011; Shu et al.,  
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49 169 2013; Shu, Deng, et al., 2011; XBGMR, 1993; Zhu et al., 2011) and Akesu areas (Wu et al., 2022),  
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51 170 gently folded late Cambrian-Early Ordovician limestone, marls and phosphate rocks, which  
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53 171 suggest a passive margin setting (Chen et al., 2009; Han et al., 2015; XBGMR, 1993), and late

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4 172 Silurian-Devonian arc-related magmatic rocks (Ge et al., 2012, 2014; Lin et al., 2013; Zhong et  
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6 173 al., 2019).



36 174 **Fig.2** Geological map of Central Tianshan and South Tianshan around the Baluntai area (compiled from  
37 geological maps at a scale of 1:200,000). Geochronological data are cited from 1. this study; 2. Ge et al.  
38 175 (2014); 3. Jin et al. (2014); 4. Lin et al. (2013); 5. Ma et al. (2014); 6. Ma et al. (2015); 7. Qin et al. (2016);  
39 176 8. Tang et al. (2012); 9. Wang and Wang (2010); 10. Yin et al. (2015); 11. Yin et al. (2017); 12. Yu et al.  
40 177 (2020); 13. Zhao et al. (2006); 14. Zhong et al. (2015); 15. Zhu et al. (2006); 16. Zhu, Li, Dong, Zhang et  
41 178 al. (2008).

### 42 182 3. Field geology and structural features

43 183 In this study, we present field and microscopic structural data mainly from two  
44 184 representative sections: the Kerguty section located to the north of Heshuo City (Fig. 2 and 3), and  
45 185 the Chahan-Wusu section situated to the middle reaches of the Kaidu River (Fig. 2 and 6a). In both  
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4 187 well preserved, but few data were previously reported. The structural patterns and phases of  
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6 188 different deformation events are highly variable depending on lithology and age. Hereafter we use  
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8 189 index symbols such as  $D_{Kn-i}$  and  $D_{Chn-i}$  to represent the different phases of deformation, where  
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10 190 capitalized subscripts K and Ch correspond to the Kergutu and Chahan-Wusu sections,  
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12 191 respectively; italic subscript  $n$  (=1 to 3) stands for the litho-tectonic unit, and lowercase i (=1 to 3)  
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14 192 denotes the phases of deformation (Table 1).

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19 193 **3.1 Kergutu Section**  
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21 194 This section can be divided into three units based on lithological, metamorphic and  
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23 195 deformation features (Fig. 3b). From south to north, Unit 1 is represented by sedimentary  
24 sequences with brittle-ductile deformation, Unit 2 consists of migmatitic metasedimentary rocks,  
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26 196 and Unit 3 is mainly composed of deformed granitoids (Fig. 3b and Table 1).

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31 198 The Unit 1 is characterized by Devonian deformed alternating limestone and sandstone  
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33 199 (Fig. 3b). The dominant deformation structures are a series of south-verging tight folds with  
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35 200 steeply NNW-dipping axial slaty cleavage or schistosity (Fig. 3b, 4a and 4b). From the south to  
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37 201 the north, the primary beddings were gradually transposed into foliations (Fig. 3b), indicating  
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39 202 increasing deformation intensity. The asymmetric folds and axial-parallel cleavage/schistosity  
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41 203 indicate a top-to-the-south thrusting, which is labeled as  $D_{K1-2}$ . Notably, B-type sub-horizontal  
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43 204 penetrative stretching lineation occurred in the core of the folds, which is likely due to the  
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45 205 interlayer slip related to the NW-SE shortening (Fig. 3b). In contrast, in limestone only, the  
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47 206 mylonitic foliation is refolded by “Z-type” asymmetric micro-folds on both limbs of the  $D_{K1-2}$  folds  
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49 207 (Fig. 3b and 4a), and consistently indicate a top-to-the-north shearing (Fig. 4a). As this structure  
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51 208 was developed in more ductilely deformed rocks and overprinted by the  $D_{K1-2}$  south-verging  
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53 209 folding, it most likely represents an earlier deformation event (i.e.,  $D_{K1-1}$ ). In the northern part of

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4 210 Unit 1, sedimentary rocks were all ductilely deformed, and the deformed limestones contain  
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6 211 lensoid granite dykes and quartz veins. These lenses are enveloped by the foliations (Fig. 3b and  
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8 212 Fig. 4b), thus suggesting that the dykes intruded before D<sub>KI-1</sub>. Some sigmoid quartz veins (Fig. 4b)  
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10 213 show a top-to-the-north shearing sense, which should represent the D<sub>KI-1</sub> kinematics. In the  
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12 214 northernmost part of Unit 1, an undeformed porphyritic coarse-grained biotite K-feldspar granite  
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14 215 with dark enclaves intruded in the deformed metasediments (Fig. 3b and 4c). Finally, numerous  
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16 216 north-dipping reverse faults crosscut the D<sub>KI-1</sub> folds and separate the ductile and brittle deformation  
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18 217 domains; due to their structural level and pattern and top-to-the-south kinematics, these faults may  
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20 218 be related to D<sub>KI-2</sub> (Fig. 3b).

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22 The Unit 2 is separated from the Unit 1 by a north-dipping reverse fault (Fig. 3b), and its

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24 219 northern boundary is the Baluntai fault (Fig. 3). This unit is composed of biotite gneiss, migmatite,  
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26 220 amphibolite, mica schist, and garnet-bearing leucogranite dykes that often crosscut the foliations  
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28 221 in metamorphic rocks (Fig. 3b and 4d-h). We distinguished two stages of ductile deformation in  
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30 222 this unit. The first deformation (D<sub>K2-1</sub>) is characterized by penetrative foliation and associated dip-  
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32 223 slip to oblique stretching lineation, marked by elongated mica aggregates and stretched quartz and  
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34 224 feldspar ribbons (Fig. 3b and 4g). Migmatite-gneisses crop out mostly in the northern part of this  
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36 225 unit (Fig. 3b and 4e) with asymmetrically folded quartzo-feldspathic veins, suggesting a top-to-  
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38 226 the-north or to the NW syn-migmatitic shearing (Fig. 4f). On thin sections cut perpendicular to  
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40 227 foliation and parallel to lineation, oblique relationship between the gneissic foliation and quartz  
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42 228 grain boundaries formed by subgrain rotation recrystallization (SGR) suggest a top-to-the-NW  
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44 229 normal shearing (Fig. 4h). In the middle part of the migmatite unit, foliations and folds are usually  
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46 230 irregular but mostly become gentle and nearly flat (Fig. 3b). In the southern part, a series of  
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48 231 asymmetric folds with sub-horizontal hinges suggest southward normal shearing (Fig. 4i). Such  
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4 233 overall deformation fabrics and kinematics indicate a dome-like structure of the migmatitic unit  
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6 234 ([Fig. 3a](#)), although the eastern and western sides of the inferred dome could not be investigated  
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8 235 due to their inaccessibility. These structures are considered to represent a single deformation event  
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10 236 marked as  $D_{K2-1}$ . The second deformation ( $D_{K2-2}$ ) is characterized by sub-vertical ~NW-SE-  
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12 237 striking mylonitic foliation developed close to the Baluntai Fault, accompanied by well-developed  
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14 238 sub-horizontal stretching lineation and A-type folds ([Fig. 4j](#)). Outcrop-scale S-C fabrics indicate a  
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16 239 dextral sense of shearing ([Fig. 4k](#)). The superimposition of  $D_{K2-2}$  on the earlier  $D_{K2-1}$  event can  
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18 240 only be locally recognized, and the overprint effect decreases with distance away from the Baluntai  
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20 241 Fault. Furthermore, the brittle reverse faults ( $D_{K2-3}$ ) also develop in this unit and crosscut both the  
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22 242  $D_{K2-1}$  and  $D_{K2-2}$  structures ([Fig. 3b](#)).  
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28 243 The Unit 3 develops to the north of the Baluntai Fault ([Fig. 3](#)) and is dominated by ductilely  
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30 244 deformed early Paleozoic granodiorites ([Fig. 3b](#) and [5a](#)) which extend to the Baluntai area and  
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32 245 occupy a large surface of southern Central Tianshan block ([Fig. 2](#)). In the granodiorites relatively  
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34 246 far away from the Baluntai Fault, the gneissic foliation gently dips to the SSW ([Fig. 5b](#)) with  
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36 247 moderately developed down-dip stretching lineation ( $D_{K3-1}$ ), and asymmetric fabrics indicate a  
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38 248 top-to-the-north shearing ([Fig. 3b](#)). Close to the Baluntai Fault, dioritic/granitic rocks show E-W-  
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40 249 striking sub-vertical mylonitic foliations bearing sub-horizontal stretching lineation, mostly  
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42 250 formed during the Permian dextral strike-slip motion of the Baluntai Fault ( $D_{K3-2}$ ) ([Fig. 3b](#) and [5d](#))  
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46 251 ([B. Wang et al., 2009; Yin et al., 1998; Zhong et al., 2015](#)). On some outcrops, paragneiss,  
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48 252 micaschist and meta-sandstone are in fault contact with the granodiorite. The foliations in these  
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50 253 meta-sedimentary rocks are inconsistent with those of the granodiorite, probably due to localized  
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52 254 rotation along the faults. A series of undeformed E-W-striking K-feldspar granite dykes crosscut  
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54 255 both the granodiorite and meta-sedimentary rocks ([Fig. 3b](#), [5a](#) and [5c](#)).  
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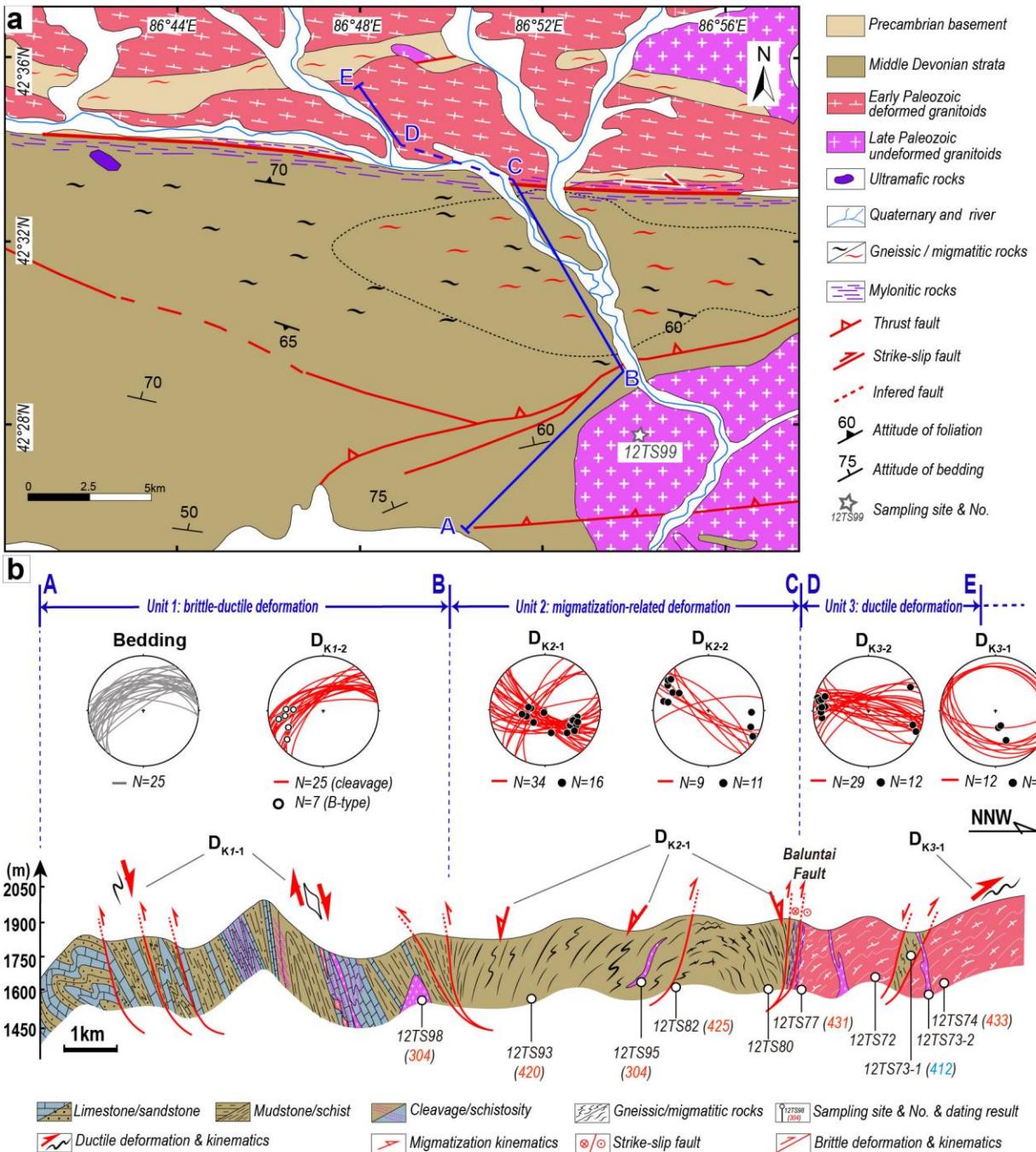
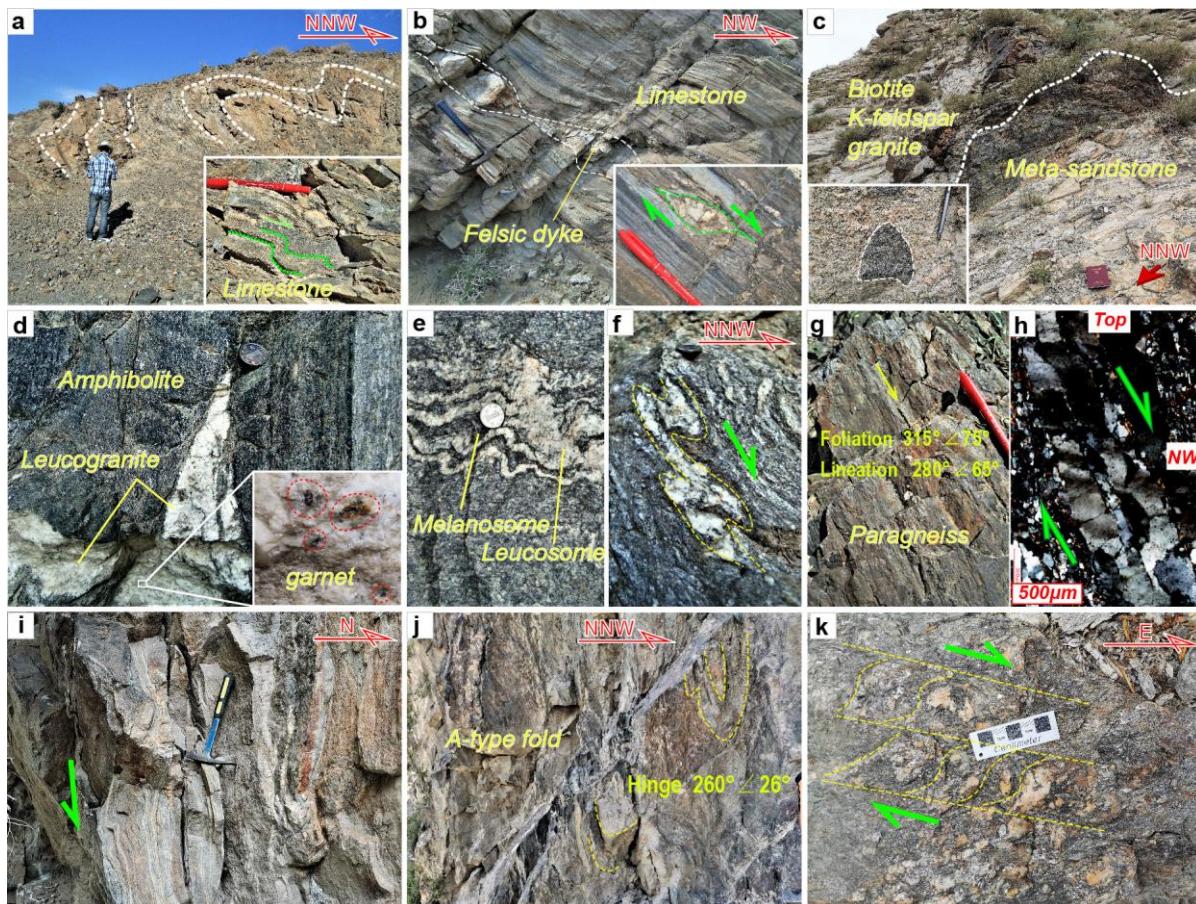
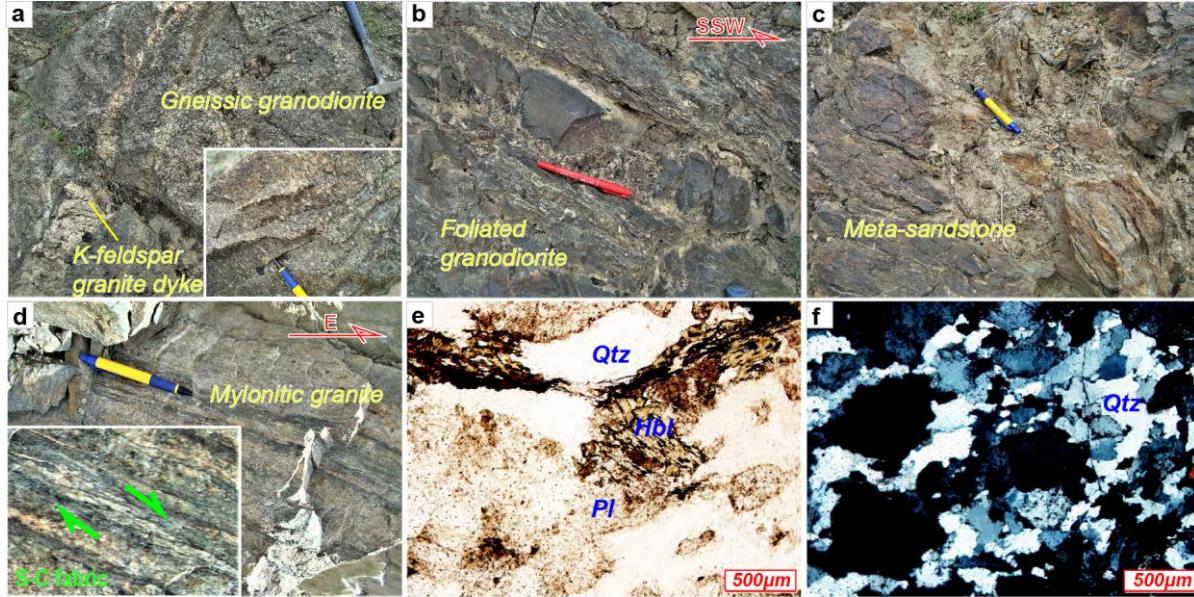


Fig. 3 (a) Geological map of the Kergutu section (compiled from geological maps at a scale of 1:200,000).  
 (b) Kergutu geological cross section and lower-hemisphere Schmidt plots of planar (red and grey arcs) and linear (solid and hollow circles) fabrics measured in the field.



**Fig. 4** Metamorphic and deformation characteristics of the southern segment of the Kergut section. (a) Asymmetric folds suggesting southward thrusting, and Z-type intrafolial folds indicating an earlier top-to-the-north shearing. (b) Boudinages of felsic dykes in the deformed limestone, and  $\sigma$ -type fabrics of quartz veins indicating top-to-the-north shearing. (c) Undeformed granites with dark granodiorite xenoliths intrude into the meta-sandstone. (d) Sharp and crosscutting contact between garnet-bearing leucogranite dykes and surrounding amphibolites. (e, f) Felsic veins in ptygmatic migmatite showing asymmetric folds with top-to-the-north sense of shearing. (g) NW-dipping foliation and dip-slip stretching lineation in the paragneiss. (h) Oblique foliation defined by parallel quartz subgrain boundaries formed by subgrain rotation recrystallization suggesting top-to-the-NW shearing on the XZ plane. (i) Asymmetric folds of migmatitic paragneiss indicating southward normal shearing. (j) A-type fold with lineation-parallel hinges in meta-sandstone. (k) S-C fabrics in the mylonitic paragneiss indicating a dextral sense of shearing.



**Fig. 5** Field photographs and photomicrographs of the northern segment of the Kerguty section. (a) Undeformed K-feldspar granite dykes intruded into the ductilely deformed granodiorites. (b) Deformed granodiorite with south-dipping foliation. (c) Meta-sandstone with interrupted foliations. (d) Mylonitic granites with S-C fabrics showing dextral shearing near the Baluntai Fault. (e) Quartz, plagioclase and hornblende in the deformed granodiorite (monopolarizer). (f) Subgrain rotation and grain boundary migration recrystallization of quartz (crossed polarizer). Abbreviations: Hbl-Hornblende; Pl- Plagioclase; Qtz-Quartz.

### 3.2 Chahan-Wusu Section

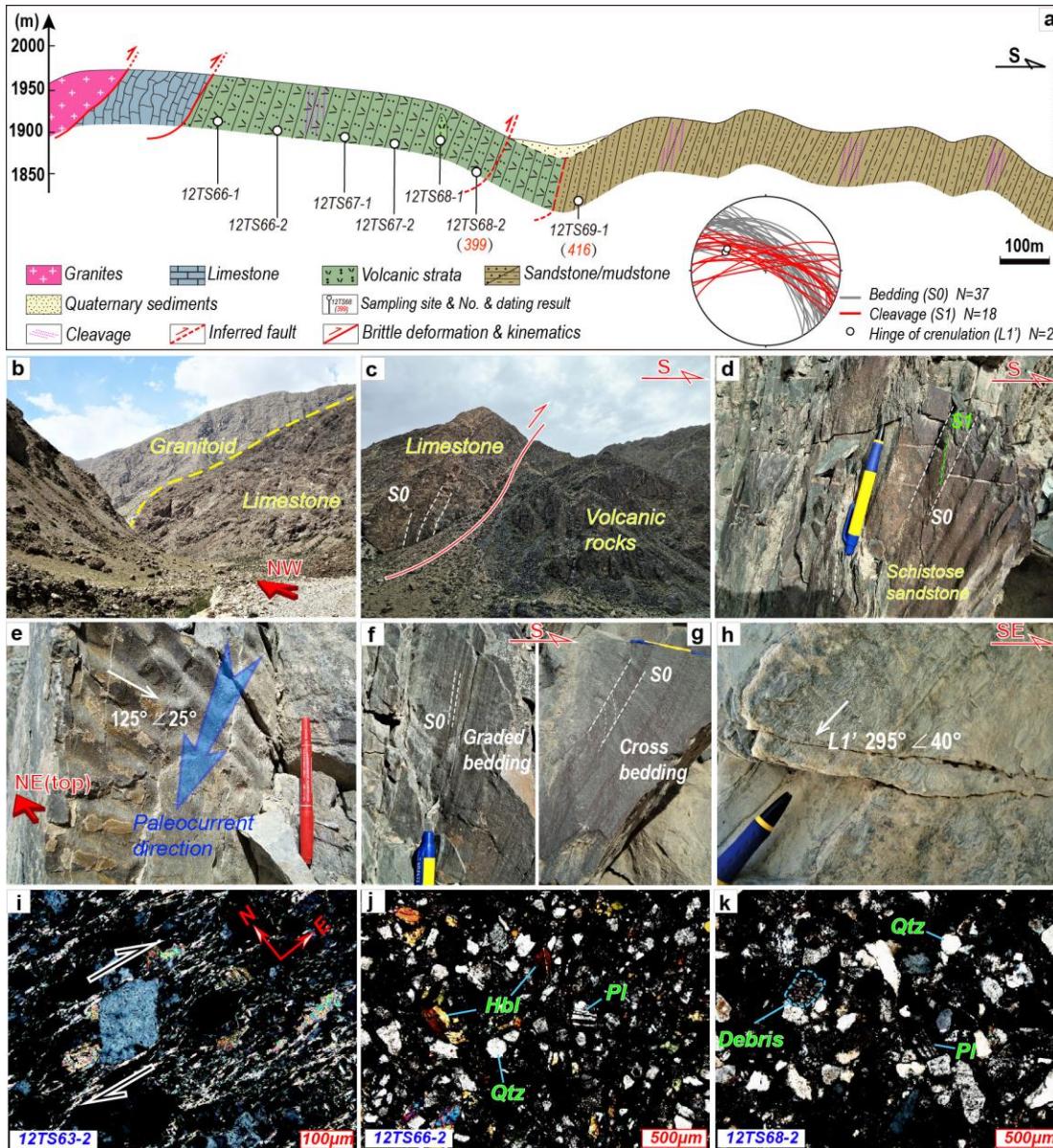
The Chahan-Wusu section is ~2 km long and located ~100 km to the west of the Hejing County (Fig. 2 and 6a). The northern part of this section consists of Carboniferous undeformed granites (Fig. 2, 6a and 6b) that thrust southward upon the Carboniferous massive limestone of >200m thick (Fig. 6b and c). The limestone is in fault contact with the Middle Devonian volcanoclastic sequences of the Sa'erming Group, which consists of andesitic tuff, tuffite, tuffaceous greywacke, mudstone, and siltstone (Fig. 6a). The southern part of the Sa'erming Group is mainly composed of alternating gray-green sandstone and purple mudstone showing ripple marks and cross-beddings (Fig. 6a and d-f), indicating a shallow-water deposition environment. In

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4 292 the Devonian sequences, cleavage and/or schistosity are well developed; the relationship between  
5 cleavage and bedding, as well as cross-bedding, graded-bedding and asymmetric ripples in the  
6 clastic rocks, all suggest a normal stratigraphic sequence and an overall paleocurrent direction  
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8 294 from the south to the north ([Fig. 6a](#) and [d-g](#)).  
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14 296 Three stages of deformation can be recognized in the Chahan-Wusu section and its vicinity.  
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16 297 The dominant deformation structure (denoted as  $D_{Ch-1}$ ) is characterized by a series of cleavage or  
17 schistosity ( $S_1$ ) ([Fig. 6a](#)) that are oblique to the sedimentary bedding ( $S_0$ ) and steeply dipping to  
18 NNE without obvious stretching lineation. The intensity of the deformation is highly depending  
19 on lithology, and mostly concentrated in the weak siltstone and mudstone layers. Geometric  
20 relationship between the bedding and schistosity/cleavage implies south-verging asymmetric  
21 folding. The second stage of deformation ( $D_{Ch-2}$ ) can be recognized only in the southwest extension  
22 of the section and represented by a series of dextral strike-slip faults ([Fig. 2](#)). In the deformed  
23 greenish tuffaceous siltstone, crenulation (B-type lineation) occurs on sub-vertical schistosity  
24 surfaces and shows oblique-slip patterns plunging towards the west ([Fig. 6h](#)). At the microscopic  
25 scale, occasionally visible  $\sigma$ -type quartz lenses indicate dextral kinematics on the XZ plane  
26 perpendicular to both the schistosity and the crenulation hinge ([Fig. 6i](#)). Thus, this deformation  
27 was likely caused by dextral strike-slip shearing along the northern Huolashan Fault zone ([Fig. 2](#))  
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30 301 ([Lin et al., 2013](#)).  
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310 It is noteworthy that the above-mentioned south-verging thrust faults bordering and cutting  
311 into different lithological units may have formed synchronously with the  $D_{Ch-1}$  asymmetric folds  
312 as suggested by their similar stress field; however, these faults were apparently reactivated during  
313 the Cenozoic episodic uplift recorded by the development of multiple perched terraces along the  
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314 Chahan-Wusu River (supplementary Fig. S1). Thus, this brittle south-verging thrusting ( $D_{Ch-3}$ ) can  
 315 also be related to the Cenozoic N-S shortening and tectonic reactivation (Jolivet et al., 2010).



50 **Fig. 6** (a) Geological cross section of the Chahan-Wusu section and lower-hemisphere Schmidt plots of  
 51 planar and linear fabrics measured in the field. (b) Granitoids thrusting southward upon the limestone. (c)  
 52 Fault contact between limestone and volcanoclastic sequences. (d) Relationship between the cleavage and  
 53 bedding in the clastic rocks. (e) Asymmetric ripple marks in tuffaceous sandstone. (f, g) Graded bedding  
 54 and cross bedding of sandstones. (h) NW-SE-striking sub-vertical schistosity bearing crenulation. (i)  
 55 Photomicrographs of deformed tuff: σ-type quartz indicating dextral shearing on the XZ plane. (j, k)  
 56 Photomicrographs of the volcanoclastic rocks.

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**Table 1.** Summary of Muti-stage Deformation in the Central and South Tiannshan.

Section	Tectonic unit	Muti-stage deformation			
		Late Devonian-Carboniferous	Latest Carboniferous	Permian	Cenozoic
		top-to-the-N ductile shearing	south-verging thrust folds and faults	N-S normal faulting	dextral shearing brittle thrust faults
<i>Kergutu</i>	Ductile deformation (Unit 3)	D <sub>K3-1</sub>			D <sub>K3-2</sub>
	Migmatization-related deformation (Unit 2)			D <sub>K2-1</sub>	D <sub>K2-2</sub> D <sub>K2-3</sub>
	Brittle-ductile deformation (Unit 1 )	D <sub>K1-1</sub>	D <sub>K1-2</sub>		
<i>Chahan-Wusu</i>			D <sub>Ch-1</sub>		D <sub>Ch-2</sub> D <sub>Ch-3</sub>

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4 327 **4. Sampling and analytical results**  
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7 328       **4.1 Sampling**  
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9 329       In order to constrain the ages of deposition, ductile deformation and migmatization of the  
10  
11 330 meta-sedimentary and meta-igneous rocks in the Kerguty section, we collected four granitoids  
12  
13 331 (12TS74, 12TS73-2, 12TS77-2 and 12TS98), three clastic rocks (12TS73-1, 12TS82-1 and  
14  
15 332 12TS93-1) and three migmatite samples (12TS95, 12TS82-3 and 12TS80-2) for laser-ablation  
16  
17 333 inductively coupled plasma mass spectrometry (LA-ICP-MS) zircon U-Pb dating ([Fig. 3a](#) and [3b](#)).  
18  
19 334 Sample 12TS74 is a deformed granodiorite from the north of the Baluntai Fault, sample 12TS73-  
20  
21 335 2 is a foliated K-feldspar granite dyke intruded into granodiorite ([Fig. 3b](#) and [5a](#)), and sample  
22  
23 336 12TS77-2 was taken from a mylonitic granite close to the Baluntai Fault ([Fig. 3b](#) and [5d](#)). In the  
24  
25 337 granodiorite, minor hornblende co-exists with quartz ([Fig. 5e](#)). These deformed granitoids show  
26  
27 338 subgrain rotation (SGR) and grain boundary migration (GBM) recrystallization of quartz ([Fig. 5f](#)),  
28  
29 339 indicating middle- to high-temperature deformation. Sample 12TS98 was collected from the  
30  
31 338 undeformed biotite K-feldspar granite intruding the schistose metasedimentary rocks ([Fig. 3b](#) and  
32  
33 340 [4c](#)). Sample 12TS73-1 was taken from the meta-sandstone in fault contact with the foliated  
34  
35 341 granodiorites ([Fig. 3b](#) and [5c](#)). Samples 12TS93-1 and 12TS82-1 are paragneiss (metatexites) from  
36  
37 342 the migmatite unit ([Fig. 3b](#)). Leucogranite (12TS95), leucosome (12TS82-3) and diatexite  
38  
39 343 (12TS80-2) were sampled to constrain the time of the migmatization ([Fig. 3b](#) and [4d-f](#)).  
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41 344 Furthermore, one sample of leucosome (12TS82-3), two deformed granodiorite samples (12TS72-  
42  
43 345 1, 12TS72-2) and two undeformed granite samples (12TS98, 12TS99) were selected for whole-  
44  
45 346 rock geochemical analysis ([Fig. 3a](#) and [b](#)).  
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47  
48 348       From the Chahan-Wusu section and its adjacent areas, one andesitic tuff (12TS62-3) and  
49  
50 349 three clastic samples (12TS68-2, 12TS69-1, 12TS62-1) were collected for LA-ICP-MS zircon U-  
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4 350 Pb dating. These volcanoclastic rocks display tuffaceous texture, consisting of subhedral-anhedral  
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6 plagioclase, quartz, minor hornblende crystal fragments, in a volcanic dust matrix ([Fig. 6j](#) and [k](#)).  
7  
8 351 In addition, five andesitic tuff samples (12TS62-2, 12TS62-3, 12TS66-1, 12TS66-2 and 12TS68-  
9  
10 352 1) and two tuffaceous greywacke samples (12TS67-1, 12TS67-2) were chosen for whole-rock  
11  
12 353 geochemical analysis. The specific locations of the samples are shown in [Fig. 2](#), [6a](#) and in  
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14 354 supplementary [Table S1](#), [S2](#).  
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## 18 356 4.2 Zircon U-Pb Ages

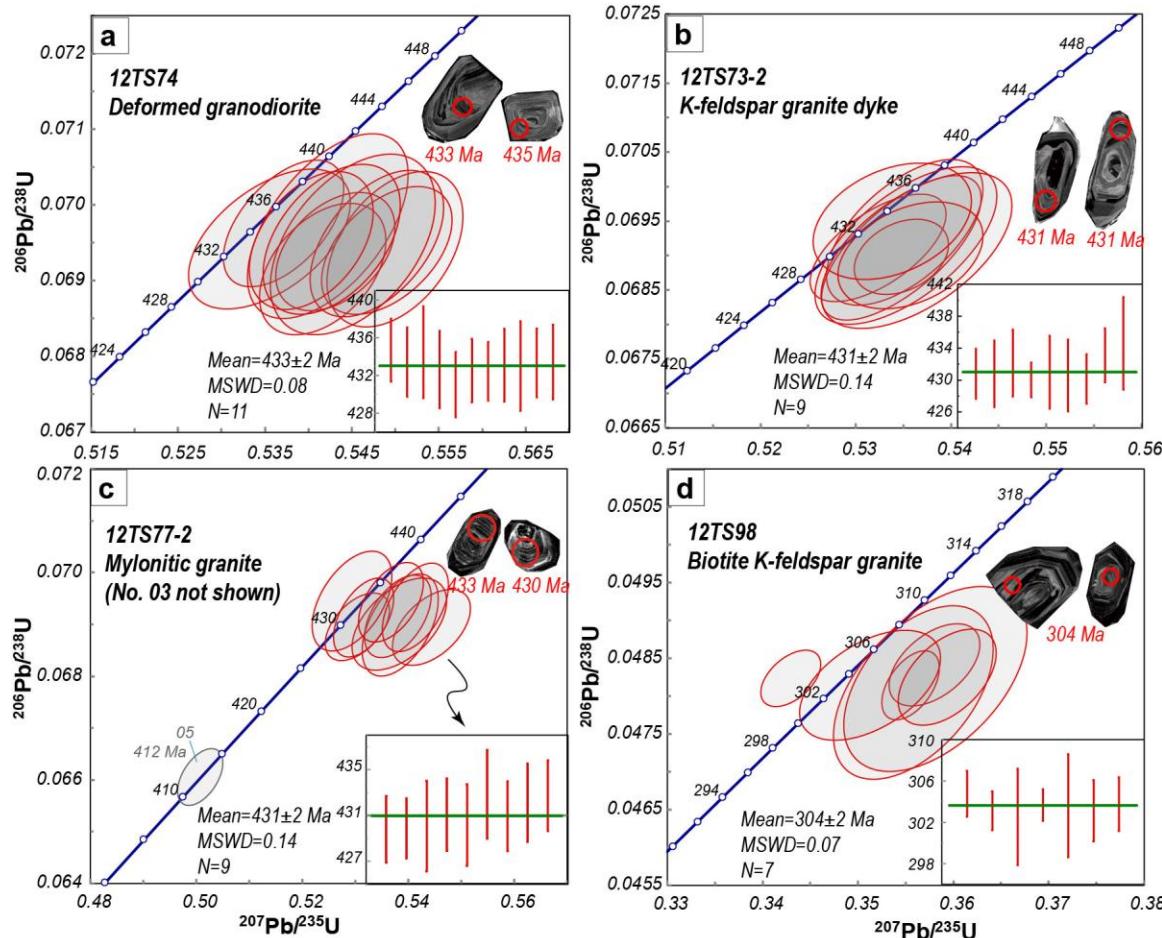
19 357 The results of LA-ICP-MS zircon U-Pb dating are presented in the supplementary [Table](#)  
20  
21 358 [S1](#) and [S2](#). The analytical procedures and cathodoluminescence (CL) images ([Fig. S2-S5](#)) of all  
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23 359 analyzed zircons are shown in the supporting information file.  
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### 28 360 4.2.1 Granitoids of the Kergutu section

29 361 Zircons from the foliated granodiorite sample 12TS74 are euhedral with length/width ratios  
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31 362 of 1 to 4, and display bright and dense concentric oscillatory zoning in the CL images ([Fig. S2](#)),  
32  
33 363 indicative of magmatic origin. A few of zircons exhibit irregular zoning and narrow bright rims  
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35 364 (No. 11 in [Fig. S2](#)), which may be caused by later fluid alteration. After eliminating six discordant  
36  
37 365 ages, eleven grains with consistent  $^{206}\text{Pb}/^{238}\text{U}$  apparent ages around 430 Ma define a weighted  
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39 366 mean age of  $433 \pm 2$  Ma (MSWD=0.08, Th/U=0.42-0.82) ([Fig. 7a](#) and [Table S1](#)), which is  
40  
41 367 interpreted as the crystallization age of the granodiorite.  
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48 368 The texture and crystal morphology of zircons in the foliated K-feldspar granite sample  
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50 369 12TS73-2 are similar to those of the host granodiorite sample 12TS74 ([Fig. S2](#)), but showing more  
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52 370 developed overgrown rims, which are, however, not wide enough to date. A weighted mean age  
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54 371 of  $431 \pm 2$  Ma (MSWD=0.14, Th/U=0.46-0.78) ([Fig. 7b](#) and [Table S1](#)) is calculated from nine  
55  
56 372 concordant analyses; this age is consistent with the age of the host granodiorite 12TS74 within  
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4 373 errors. These zircons were likely derived from the host granodiorites. Additional six grains yielded  
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6 374 discordant results likely from Pb loss during subsequent events.  
7



40 375  
41 376 **Fig. 7** Zircon U-Pb Concordia diagrams and representative zircons CL images for granitoids of the Kergutu  
42 377 section. The CL images of all dated zircons are shown in supplementary Fig. S2.  
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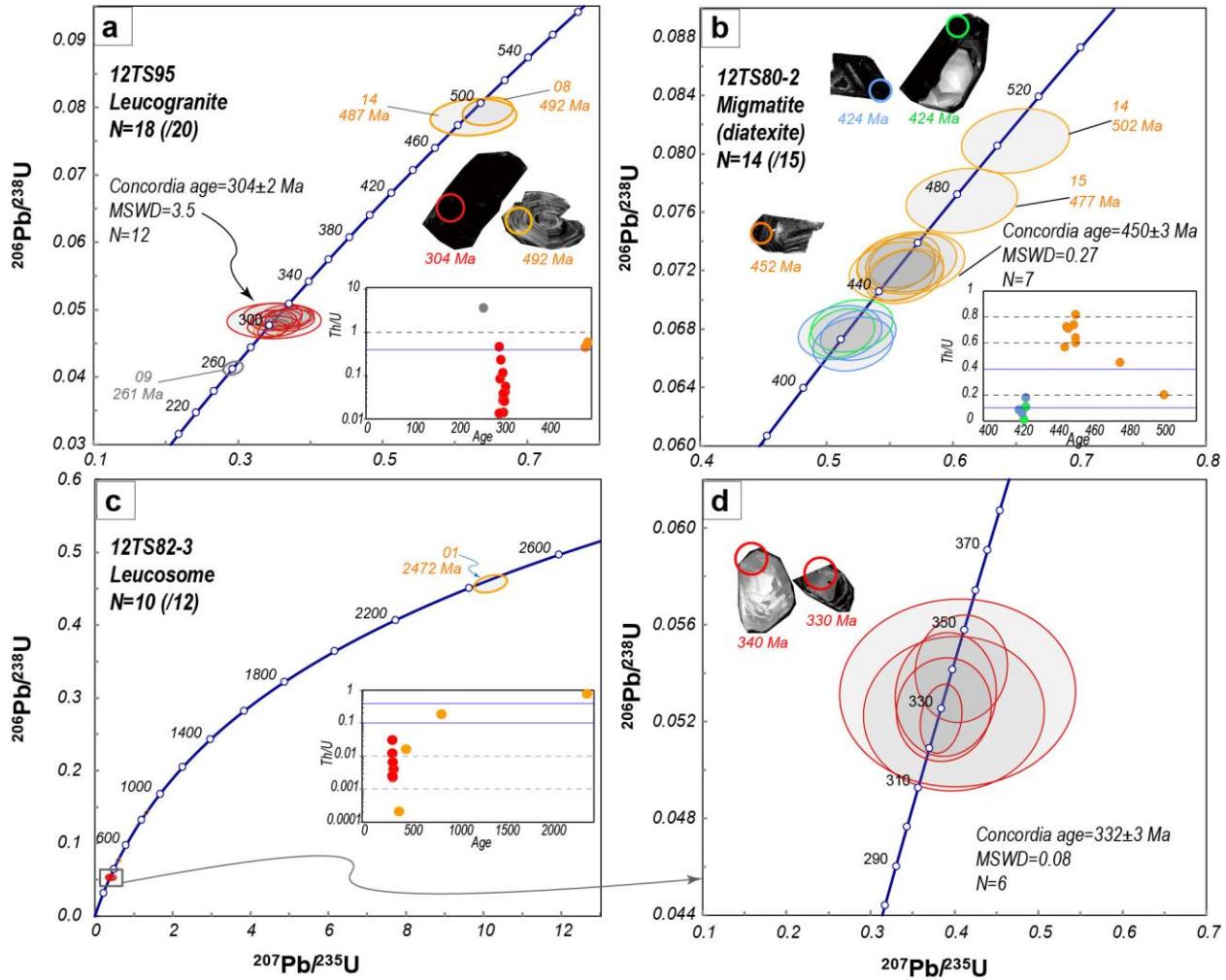
47 379 From the mylonitic granite sample 12TS77-2 close to the Baluntai fault, euhedral-  
48  
49 subhedral zircons show grey concentric oscillatory zoning (Fig. S2). A few of grains show small  
50 380 inherited cores (No. 12 and 21) and inclusions (No. 14 and 20), which may have affected the  
51  
52 381 analytical results yielding discordant ages (Fig. S2). One zircon grain No. 03 shows grey and  
53  
54 382 diffuse zoned core and yielded a Proterozoic age that is interpreted as inheritance of older basement  
55  
56 383 diffused zoned core and yielded a Proterozoic age that is interpreted as inheritance of older basement  
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58 384 (Fig. S2 and Table S1). Nine concordant analyses yielded apparent  $^{206}\text{Pb}/^{238}\text{U}$  ages clustering  
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4 385 around 430 Ma and the weighted mean age of  $431 \pm 2$  Ma (MSWD=0.14, Th/U=0.17-0.70) (Fig.  
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6 386 7c and Table S1) is interpreted as the crystallization age of the mylonitic granite. Additionally,  
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8 387 zircon No. 05 with a younger age of 412 Ma and low Th/U ratio of 0.26 (Fig. 7c and Table S1),  
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10 388 may imply influence of later deformation-induced reworking. The rest 10 zircon grains are  
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12 389 discordant (Fig. S2 and Table S1).  
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16 390 Zircons from the undeformed biotite K-feldspar granite (12TS98) are large (100-300  $\mu\text{m}$ )  
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18 391 and euhedral with length/width ratios ranging from 1.5 to 3, they show dense and bright oscillatory  
19  
20 392 zoning, similar to typical felsic magmatic zircons (Fig. S2 and Table S1). Seven out of all eleven  
21  
22 393 analyses yielded concordant ages around 300 Ma, and a weighted mean age of  $304 \pm 2$  Ma  
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24 394 (MSWD=0.07, Th/U=0.08-1.71) (Fig. 7d and Table S1) is considered as the crystallization age of  
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26 395 the biotite K-feldspar granite.  
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#### 31 396 4.2.2 Migmatites of the Kergutu section 32

33 397 Twenty zircons were dated for the leucogranitic dyke sample 12TS95, most zircons are  
34  
35 398 euhedral to subhedral and show dark CL images with weak or no oscillatory zoning, except two  
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37 399 grains with bright CL images (No. 08 and 14) (Fig. S3 and Table S1). Thirteen analyses yielded  
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39 400 concordant  $^{206}\text{Pb}/^{238}\text{U}$  apparent ages clustering around 300 Ma with a Concordia age of  $304 \pm 2$  Ma  
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41 401 (MSWD=3.5, Th/U=0.01-0.23) (Fig. 8a and Table S1). Two older ages of  $\sim 490$  Ma for the bright  
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43 402 zircon grains are interpreted as inheritance. Only one zircon grain No. 09 has a young apparent  
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45 403 age of  $\sim 261$  Ma and a high Th/U ratio of 3.70 (Fig. 8a and Table S1), its origin and significance  
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47 404 are unclear. The rest of four dark zircons yielded discordant results and were excluded from further  
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49 405 discussion.  
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**Fig. 8** Zircon U-Pb Concordia diagrams, representative zircons CL images, and Th/U ratios vs. U-Pb age plots (insets) for migmatites of the Kergut section. The CL images of all dated zircons are shown in supplementary Fig. S3.

From the migmatite (diatexite) sample 12TS80-2, most zircons are euhedral-subhedral, they show dark CL images and grey concentric oscillatory zoning, suggesting a magmatic origin; while a few of grains show unclear oscillatory zoning or have complex internal textures (Fig. S3), indicative of hydrothermal or metamorphic overprints. Five zircons show relatively black CL images, two analyses on overgrown rims and three on dark oscillatory zoning (Fig. S3) have low Th/U ratios ranging from 0.01 to 0.18 (Fig. 8b and S3), and the meaning of their younger ages

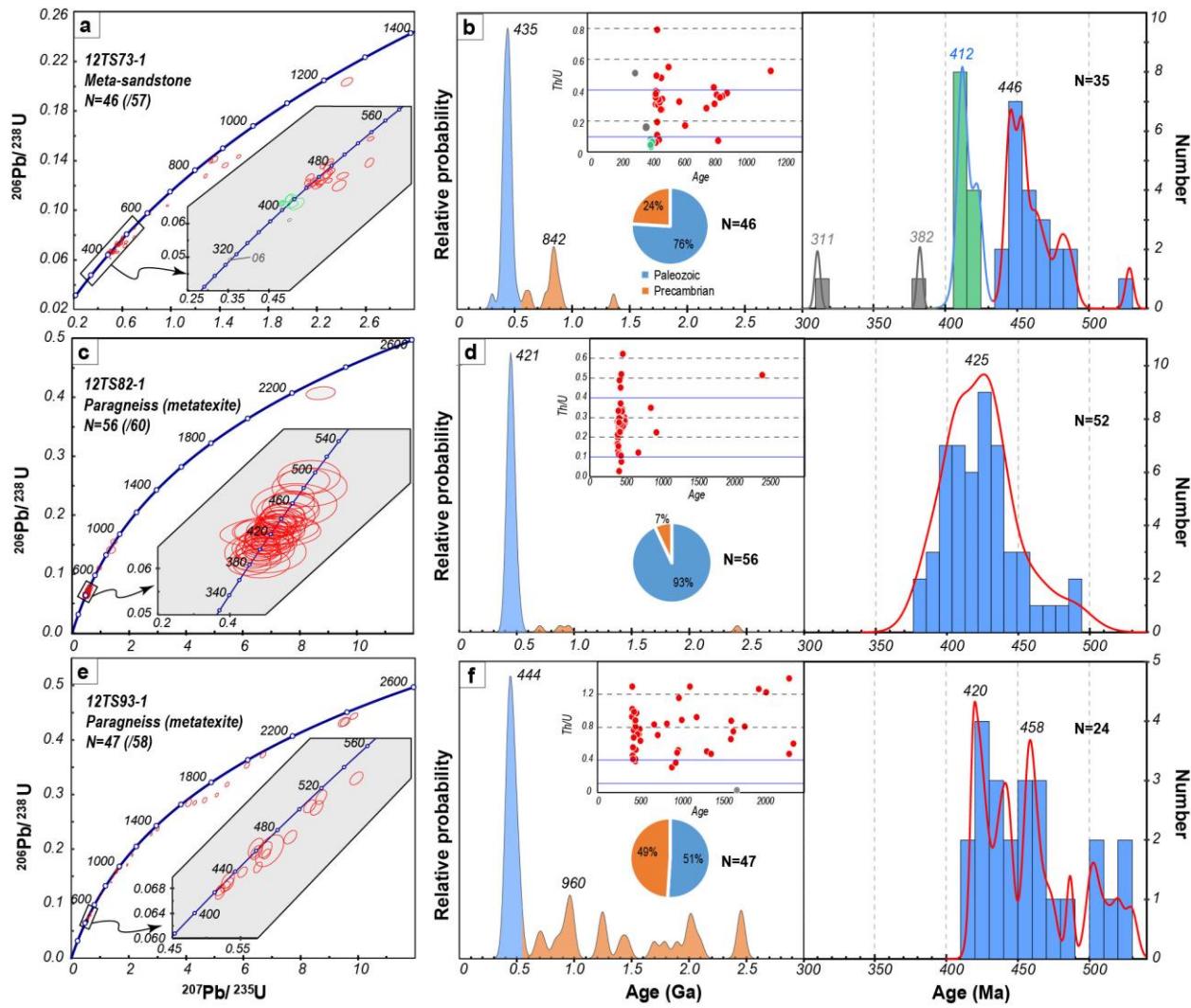
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4 417 (~420 Ma) will be further discussed in the next chapter. The rest of nine concordant analyses  
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6 418 yielded older  $^{206}\text{Pb}/^{238}\text{U}$  apparent ages ranging from 502 to 446 Ma, seven of them cluster around  
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8 419 450 Ma with a Concordia age of  $450\pm3$  Ma (MSWD = 0.27). These older ages are interpreted as  
9  
10 420 inherited zircons ([Fig. 8b](#) and [Table S1](#)).  
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14 421 Zircons from the leucosome sample 12TS82-3 are variable in size, most of them have  
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16 422 anhedral shapes and bright CL images with unclear or irregular zoning (except a dark grain No.  
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18 423 03). They develop thin and dark overgrown rims ([Fig. S3](#)) indicating later metamorphic or thermal-  
19  
20 424 fluid assisted growth, but these rims are too narrow to date. Six analyses on the bright zircon cores  
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22 425 yielded concordant  $^{206}\text{Pb}/^{238}\text{U}$  apparent ages clustering around 330 Ma, and their Concordia age is  
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24 426 calculated as  $332\pm3$  Ma (MSWD=0.08) ([Fig. 8c](#) and [Table S1](#)). The remaining four concordant  
25  
26 427 analyses provide older apparent ages ranging from 2427 to 399 Ma ([Fig. 8c-d](#) and [Table S1](#)), which  
27  
28 428 are interpreted as inheritance from the melted parent clastic rocks containing Precambrian and  
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30 429 Paleozoic detritus.  
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#### 36 430 4.2.3 Meta-sedimentary rocks in the Kergutu section 37

38 431 From the meta-sandstone sample (12TS73-1) and paragneiss samples (12TS82-1, 12TS93-  
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40 432 1), most zircons are euhedral or subhedral, and display clear oscillatory zoning, indicative of  
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42 433 magmatic origin. A few of zircons from each sample show irregular shapes and complex internal  
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44 434 textures with sector and homogeneous zoning and inherited cores ([Fig. S4](#)). These detrital zircons  
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46 435 generally show high Th/U ratios with few exceptions lower than 0.1 ([Table S2](#)), which might have  
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48 436 been changed by later metamorphic or fluid overprints. After eliminating discordant analyses (15%  
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50 437 of dated grains), majority detrital zircon ages (85% of analyses) for each of three meta-sedimentary  
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52 438 rocks define similar zircon populations showing a single major age peak at 435 Ma for sample  
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54 12TS73-1, 421 Ma for 12TS82-1 and 444 Ma for 12TS93-1 ([Fig. 9](#)). Only one zircon (No. 06)  
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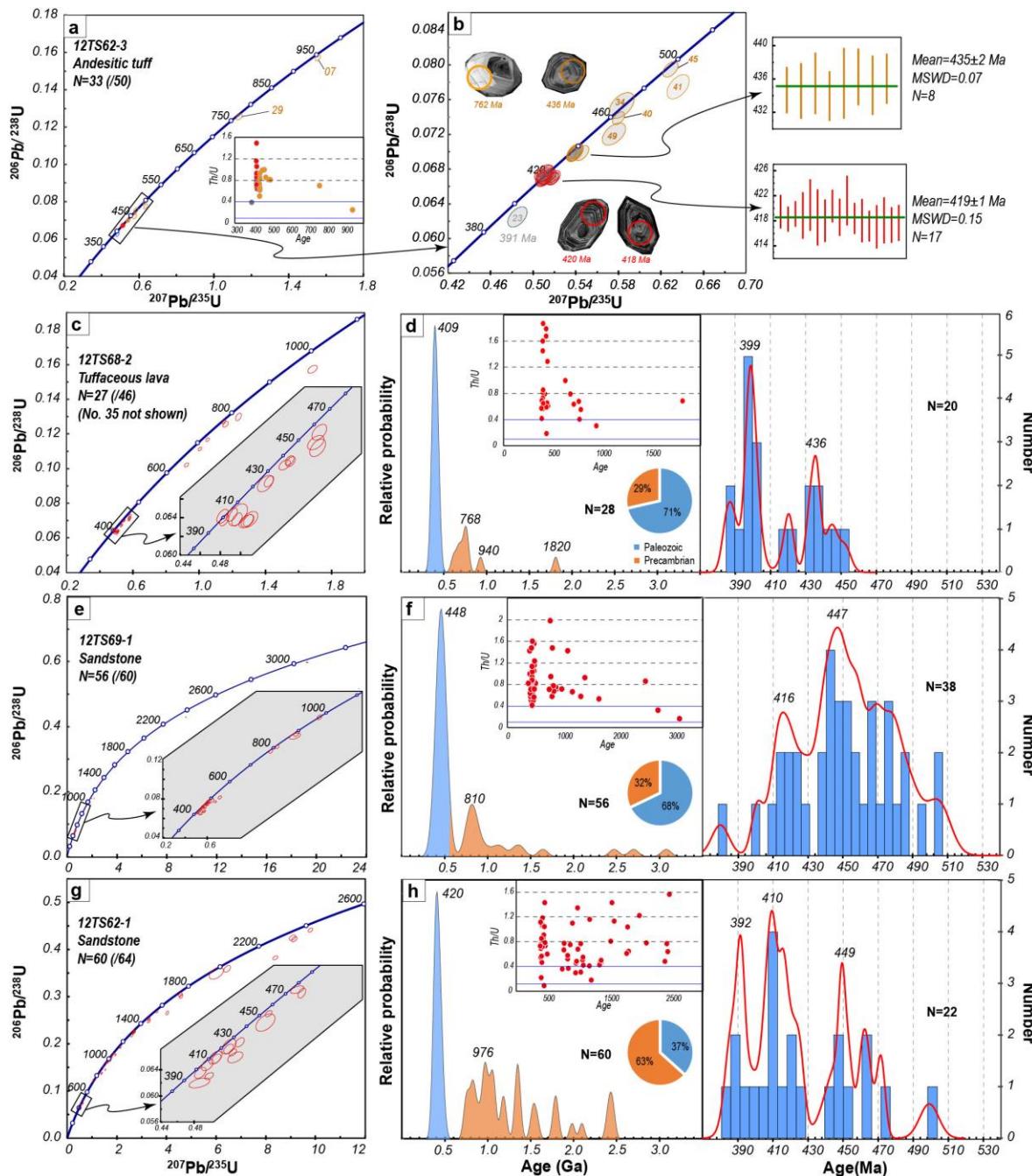
4 from sample 12TS73-1 yielded a younger age at ~311 Ma (Fig. 9a and b), which probably resulted  
 5 from metamorphism but its geological meaning remains unclear on such a single exception. From  
 6 these three samples, about 7% to 49% of dated concordant zircons yielded Precambrian ages,  
 7 distributing in ranges of 650-750 Ma, 800-1000 Ma, 1200-1500 Ma, 1700-2000 Ma and 2400-  
 8 2500 Ma (Fig. 9).  
 9



51  
 52 **Fig. 9** Zircon U-Pb Concordia diagrams (a, c and e), relative density curves and histograms (b, d and f),  
 53 and Th/U ratios vs. U-Pb age plots (insets of b, d and f) for clastic rocks of the Kergut section. The CL  
 54 images of all dated zircons are shown in supplementary Fig. S4.  
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4 450        4.2.4 Volcanoclastic rocks from the Chahan-Wusu section  
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6 451        Zircons from the andesitic tuff sample 12TS62-3 are mostly euhedral-subhedral with  
7  
8 452        length/width ratios of 1-2, and display clear oscillatory zoning with high Th/U ratios (0.24-1.49)  
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10 453        ([Fig. 10a](#) and [b](#)), suggesting a magmatic origin. Thirty-three concordant analyses yielded apparent  
11  
12 454         $^{206}\text{Pb}/^{238}\text{U}$  ages from 940 to 391 Ma ([Fig. 10a](#) and [Table S1](#)), therein, two Proterozoic ages obtained  
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14 455        from a dark core and a bright mantle (zircons No. 07 and 29) ([Fig. S5](#) and [Table S1](#)) are interpreted  
15  
16 456        as inheritance of Precambrian basement; seventeen zircons have  $^{206}\text{Pb}/^{238}\text{U}$  apparent ages of ~420  
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18 457        Ma and define a mean age of  $419 \pm 1$  Ma (MSWD=0.15) ([Fig. 10b](#)) that is considered as the eruption  
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20 458        age of the andesitic tuff. Thirteen grains yielded ages ranging from 493 to 434 Ma, and eight of  
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22 459        them cluster at ~435 Ma with a weighted mean age of  $435 \pm 2$  Ma (MSWD=0.14) ([Fig. 10b](#)), all of  
23  
24 460        them are interpreted as detrital zircons derived from earlier magmatism. One zircon (No. 23) with  
25  
26 461        an exceptional younger age (391 Ma, Th/U=0.39) was excluded for interpretation as its geological  
27  
28 462        meaning is unclear. The other 17 zircons yielded discordant ages ([Fig. 10b](#) and [Table S1](#)).  
29  
30  
31 463        Zircons from one weakly deformed tuffaceous lava (12TS68-2) and two schistose  
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33 464        tuffaceous sandstones (12TS69-1 and 12TS62-1) ([Fig. 6](#)) show prismatic shapes and variable sizes,  
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35 465        most of them demonstrate concentric or banded oscillatory zoning in their CL images ([Fig. S5](#)),  
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37 466        which implies magmatic origin. After eliminating discordant zircons, the remaining grains have  
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39 467        Th/U ratios mostly higher than 0.4 with a few in the range of ~0.1-0.4 ([Fig. 10d, f, h](#) and [Table](#)  
40  
41 468        [S2](#)). Age spectrum of tuffaceous lava sample 12TS68-2 is characterized by a predominant peak at  
42  
43 469        409 Ma defined by 71% of the total analyses ([Fig. 10c](#) and [d](#)). This sample also contains a few of  
44  
45 470        Precambrian grains with ages of ~768 Ma, ~940 Ma and ~1820 Ma ([Fig. 10d](#)). Zircon age spectra  
46  
47 471        of tuffaceous sandstones (12TS69-1 and 12TS62-1) similarly show major Paleozoic age peaks at  
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49 472        ~448 Ma and ~420 Ma, respectively ([Fig. 10f](#) and [h](#)). The proportions of Precambrian zircons in  
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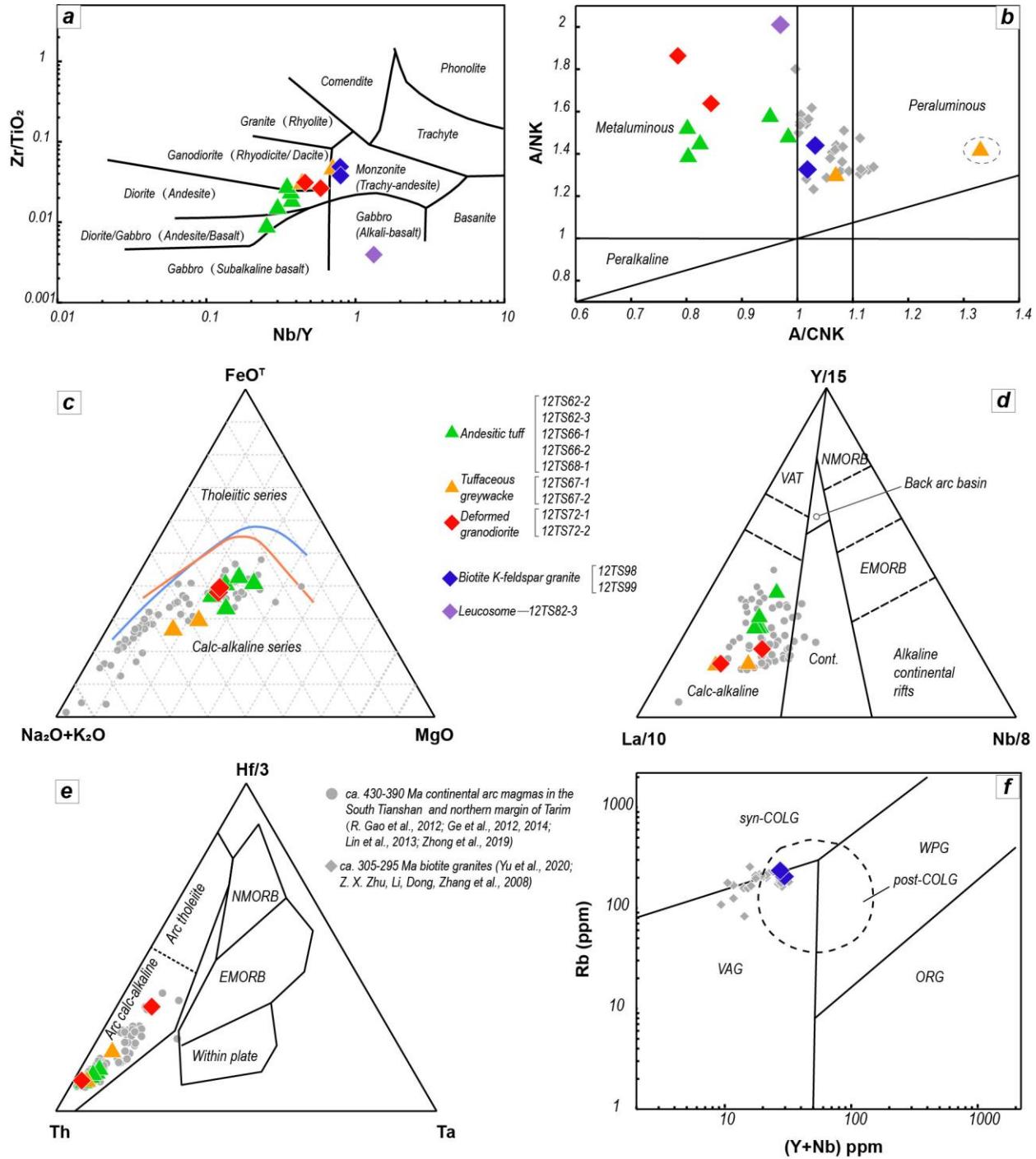
these two tuffaceous sandstones increase up to 32-63%, and show wide age ranges spanning in 750-1000 Ma, 1100-1200 Ma, 1300-1500 Ma and 2400-2700 Ma intervals (Fig. 10e-h).



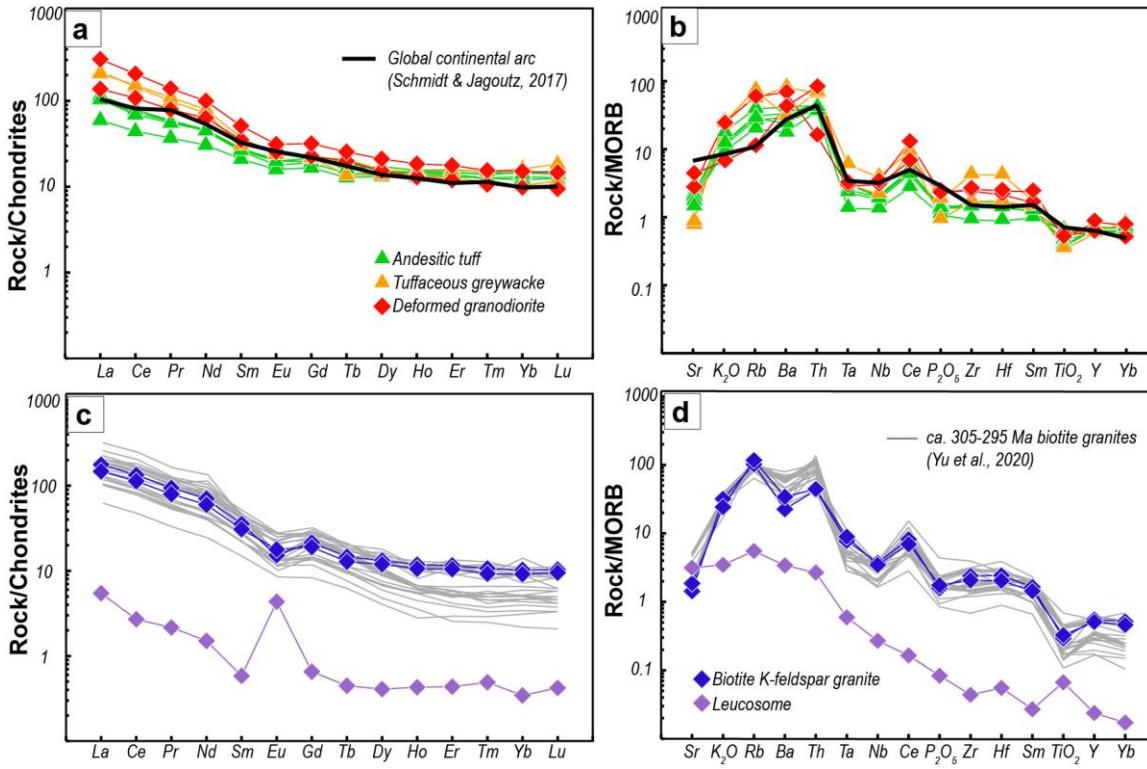
**Fig. 10** Zircon U-Pb Concordia diagrams (a-c, e and g), relative density curves and histograms (d, f and h), and Th/U ratios vs. U-Pb age plots (insets of d, f and h) for volcanoclastic rocks of the Chahan-Wusu section. The CL images of all dated zircons are shown in supplementary Fig. S5.

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4 479       **4.3 Whole-rock Geochemical Compositions**  
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7 480       The analytical methods for whole-rock major and trace element determination are  
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9 481       presented in the supporting information. The bulk geochemical compositions of the Silurian-Early  
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11 482       Devonian deformed magmatic rocks (ca. 433-419 Ma) and late Carboniferous undeformed granites  
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14 483       and migmatites (ca. 304 Ma) are listed in supplementary [Table S3](#).  
15

16 484       The Silurian-Early Devonian andesitic tuffs from Chahan-Wusu section and granodiorites  
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19 485       in the Kerguty section have a moderate loss on ignition (LOI) of 1.96-3.42 wt.%, which implies  
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21 486       slight alteration or weathering ([Table S3](#)). These magmatic rocks belong to intermediate to felsic  
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23 487       rocks ( $\text{SiO}_2=53.08\text{-}68.75$  wt.%) and have  $\text{Al}_2\text{O}_3$  contents of 12.81-18.31 wt.% ([Table S3](#)). In the  
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25 488        $\text{Zr}/\text{TiO}_2$  vs.  $\text{Nb}/\text{Y}$  classification diagram, they plot in the andesite/granodiorite field ([Fig. 11a](#)).  
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28 489       They show relatively high  $\text{TiO}_2$  (0.51-0.95 wt.%),  $\text{FeO}^T$  (3.50-9.14 wt.%) and total alkalis ( $\text{Na}_2\text{O}$   
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30 490       +  $\text{K}_2\text{O}$ ; 6.15-8.25 wt.%), and variable  $\text{MgO}$  contents (2.32-7.15 wt.%) and moderate  $\text{Mg}^\#$  values  
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32 491       (51-60) ([Table S3](#)). In the  $\text{A/NK}$  vs.  $\text{A/CNK}$  and  $\text{Na}_2\text{O}+\text{K}_2\text{O}$  -  $\text{FeO}^T$  -  $\text{MgO}$  diagrams, these  
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34 492       samples plot in the metaluminous and calc-alkaline series domains ([Fig. 11b](#) and [c](#)). Their total  
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36 493       rare earth element (REE) contents range from 76.2 to 289.6 ppm ([Table S3](#)), and the Chondrite-  
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38 494       normalized REE patterns ([Fig. 12a](#)) are characterized by slightly negative Eu anomalies ( $\delta\text{Eu}=0.8\text{-}1.0$ ) ([Fig. 12a](#) and [Table S3](#)), enrichment of light rare earth elements (LREEs;  $(\text{La}/\text{Yb})_{\text{CN}}=4.9\text{-}21.3$ ,  
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40 495        $(\text{La}/\text{Sm})_{\text{CN}}=3.8\text{-}7.2$ ) with flat heavy rare earth element patterns (HREE;  $(\text{Gd}/\text{Lu})_{\text{CN}}=1.2\text{-}2.4$ )  
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43 496       ([Table S3](#)). In the mid-ocean-ridge basalt (MORB)-normalized trace element diagram ([Fig. 12b](#)),  
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46 497       these magmatic rocks are relatively enriched in large ion lithophile elements (LILE; K, Rb, Ba and  
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48 498       Th), and depleted in Nb, Ta, P and Ti.  
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**Fig. 11** Classification and tectonic determination diagrams for the magmatic rocks. (a) Zr/TiO<sub>2</sub> vs. Nb/Y diagram (after Winchester & Floyd, 1977). (b) A/NK vs. A/CNK diagram. (c) ALK-FeO<sup>T</sup>-MgO diagram (after Irvine & Baragar, 1971; Kuno, 1968). (d) La/10-Y/15-Nb/8 diagram (after Cabanis & Lecolle, 1989). (e) Th-Hf/3-Ta diagram (after Wood, 1980). (f) Rb vs. Y+Nb diagram (after Pearce et al., 1984).



**Fig. 12** Chondrite-normalized REE diagrams (a, c) and MORB-normalized trace elemental spider diagrams (b, d) of the Silurian-Early Devonian deformed magmatic rocks and Late Carboniferous undeformed granites and leucosome from the Chahan-Wusu and Kerguty sections. The normalization values for Chondrites are from Sun and McDonough (1989). The normalization values for MORB are from Pearce (1983). Abbreviations: REE-rare earth element; MORB-mid ocean ridge basalt.

The late Carboniferous biotite K-feldspar granites and leucosome show low LOI (0.82-1.00 wt.%) (Table S3). The undeformed biotite K-feldspar granites have moderately high SiO<sub>2</sub> (68.38-72.10 wt.%), Al<sub>2</sub>O<sub>3</sub> (13.48-15.90 wt.%) and total alkalis (Na<sub>2</sub>O + K<sub>2</sub>O; 6.93-8.92 wt.%) contents, but relatively low MgO (1.04-1.24 wt.%), FeO<sup>T</sup> (2.15-2.56 wt.%) and TiO<sub>2</sub> (0.44-0.49 wt.%) contents (Table S3). Their high A/NCK (1.02-1.03) and A/NK (1.33-1.44) values suggest that they are peraluminous rocks (Fig. 11b and Table S3). These granites display LREE-enriched chondrite-normalized REE patterns (Fig. 12c) with (La/Yb)<sub>CN</sub>=16.0-17.0, (La/Sm)<sub>CN</sub>=4.8-5.0, (Gd/Lu)<sub>CN</sub>=2.0-2.1, and negative Eu anomalies ( $\delta\text{Eu}=0.5-0.7$ ) (Fig. 12c and Table S3). In the

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4 521 MORB-normalized trace element diagram, these granites show enrichment of LILEs and depletion  
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6 522 of Ba, Ta, P and Ti ([Fig. 12d](#)).  
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9 523 The leucosome sample has relatively high Al<sub>2</sub>O<sub>3</sub> (21.31 wt.%), CaO (6.25 wt.%) and Na<sub>2</sub>O  
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11 524 (6.10 wt.%) contents, moderate SiO<sub>2</sub> (63.88 wt.%) abundance, and very low contents of other  
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13 525 oxides ([Table S3](#)). It is extremely depleted in REEs with total REE of 4.6 ppm, and shows highly  
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15 526 positive Eu anomaly ( $\delta\text{Eu}=7.0$ ) ([Fig. 12c](#) and [Table S3](#)). The leucosome is relatively enriched in  
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17 527 LILEs, but highly depleted in high field strength elements (HFSEs) ([Fig. 12d](#)). All these features  
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19 528 are consistent with anatexis of a pelitic protolith.  
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26 530 **5. Discussion**  
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29 531 **5.1 Early-Middle Paleozoic Continental Arc and Back-arc Extension**  
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31 532 5.1.1 Tectonic setting of magmatic rocks in the Central and South Tianshan  
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33 533 It is well accepted that early-middle Paleozoic magmatic rocks in the Central Tianshan  
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36 534 (CTS) were generated in a continental arc setting, whereas the tectonic setting of the South  
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38 535 Tianshan (STS) remains contentious. Some researchers considered the STS as a wide accretionary  
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40 536 complex ([Xiao et al., 2013](#)), or an intra-oceanic terrane set accreted to the passive northern margin  
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42 537 of the Tarim craton ([Gao et al., 1998; Han et al., 2011](#)), while others advocated that part of the  
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44 538 STS represented a continental arc comparable to the CTS ([Gao et al., 2012; Ge et al., 2012, 2014;](#)  
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46 539 [Lin et al., 2013; Zhong et al., 2019; Zhu, Li, Dong, Wang, et al., 2008](#)). The focus of debate is  
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48 539 whether the magmatic rocks in the STS and northern Tarim formed in subduction-related settings,  
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50 540 and whether the STS overlies a continental basement.  
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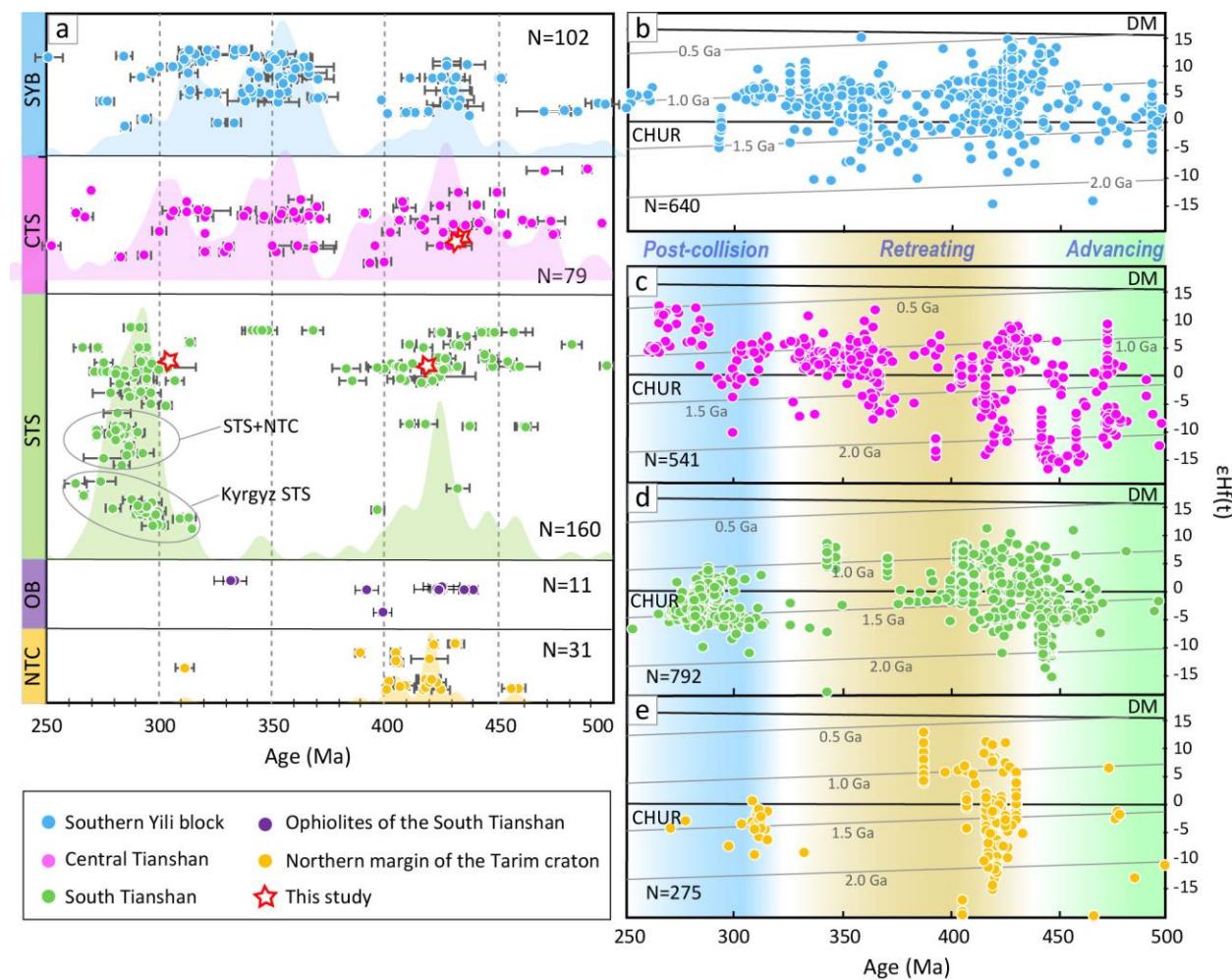
55 542 Our new data indicate that the Silurian-Early Devonian metaluminous, high-potassium and  
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57 543 calc-alkaline intermediate volcanic rocks from the STS and granodiorites from the Baluntai area  
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of the CTS show common geochemical characteristics (Fig. 11 and 12). Their enrichment in LILE and LREE, and depletion in HFSE probably resulted from partial melting of the fluid-metasomatized mantle wedge above the subducted slab and/or contamination by the continental crust (e.g., Pearce & Peate, 1995). Our magmatic samples are highly consistent with the typical continental arc-type calc-alkaline basalts (Schmidt & Jagoutz, 2017) in terms of Chondrite-normalized REE and MORB-normalized trace element patterns (Fig. 12a and b). In the La/10-Y/15-Nb/8 and Th-Hf/3-Ta discrimination diagrams, all our samples plot in the field of calc-alkaline series in continent-based magmatic arcs (Fig. 11d and e). In agreement with several previous studies on the magmatic rocks of neighboring areas (i.e., Huolashan and Erbinshan) (Gao et al., 2012; Ge et al., 2012, 2014; Lin et al., 2013; Zhong et al., 2019; Zhu, Li, Dong, Wang, et al., 2008), it is confirmed that early Paleozoic subduction-related magmatism occurred in the STS and northern margin of Tarim, and is comparable with that in the CTS.

Our new zircon U-Pb ages suggest that the volcanic rocks in the Chahan-Wusu section

erupted at ~420 Ma. The occurrence of inherited early Neoproterozoic and early Paleozoic magmatic zircons (Fig. 10a and b) indicates that the Neoproterozoic-early Paleozoic crustal rocks were involved in magma generation or assimilated during magma ascension. In addition, Archean to Mesoproterozoic xenocrystic zircons also commonly occur in the early Paleozoic arc-type magmatic rocks from the STS (e.g., Alexeiev et al., 2015; Zhong et al., 2019). According to the available age and Lu-Hf isotopic data, the early-middle Paleozoic arc-type magmatic rocks (470-390 Ma) in the STS are characterized by negative to slightly positive  $\epsilon_{\text{Hf}}(t)$  values and Neo- to Paleoproterozoic (0.7-2.0 Ga) two-stage Hf model ages (Fig. 13 and Table S4, S5). These data suggest significant contributions of the persistently recycled continental crust to the magma sources of the arc magmatism. Interestingly, the zircon  $\epsilon_{\text{Hf}}(t)$  values of many single samples of

early-middle Paleozoic magmatic rocks in the STS are highly variable (Zhong et al., 2019), such obvious Hf isotopic heterogeneity and evolution trend could be probably attributed to magma mixing (and/or assimilation) instead of magma differentiation (Griffin et al., 2002; Kemp et al., 2005, 2007), and the ancient continental crust was likely the predominant end member for the magma mixing, and the depleted mantle wedge contributed juvenile components.



**Fig. 13** (a) Sketch illustration and relative density curves of compiled radiometric ages of 500-250 Ma magmatic rocks and ophiolites in southern Yili block (SYB), Central Tianshan (CTS), South Tianshan (STS) and northern margin of the Tarim craton (NTC; see data sources in Table S4). (b-e) Compiled zircon Hf isotopic compositions from Paleozoic magmatic rocks in SYB, CTS, STS and NTC (see data sources in Table S5).

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4 579 Thus, the early-middle Paleozoic magmatism in the STS formed in an active continental  
5 margin, coeval to the magmatic arc activitiy in the CTS. In addition, moderate  $(\text{La}/\text{Yb})_{\text{CN}}$  (4.9-  
6 580 21.3),  $\text{Sr}/\text{Y}$  (5.2-13.3), and slightly negative Eu anomalies (0.8-1.0) ([Table S3](#)) of the arc-type  
7 581 magmatic rocks suggest that plagioclase was negligible in the residue, indicating partial melting  
8 582 of a normal to slightly thickened continental crust (20-45 km). The thickening of the arc crust  
9 583 might have resulted from advancing subduction of the Paleo-Tianshan Ocean during the early  
10 584 Paleozoic ([Liu et al., 2022](#); [X. S. Wang et al., 2020](#)).  
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#### 5.1.2 Deposition ages, provenances, and paleo-geographic environment of the (meta-) sedimentary rocks

The (meta-) sedimentary rocks from the Kergutu and Chahan-Wusu sections were both  
ascribed to the Devonian Sa'erming Group by [XBGMR \(1993\)](#), in spite of poorly constrained age.  
These (meta-) sedimentary rocks show unimodal distribution of detrital zircon ages ([Fig. 9](#) and  
[10](#)), according to [Dickinson and Gehrels \(2009\)](#), the major and/or the youngest peak age of the  
zircon populations can be used to constrain the (maximum) depositional ages of the (meta-)  
sediments, while youngest single zircon ages if any, could represent post-depositional  
metamorphic overprints.

In the meta-sandstone sample 12TS73-1 from the Kergutu section, the detrital zircons show  
a unimodal age of ~435 Ma, but they contain a youngest zircon population (~412 Ma) ([Fig. 3, 9a](#)  
and [9b](#)) showing homogeneously black CL images and low Th/U ratios (<0.1) ([Fig. S4](#)), these  
youngest zircons were most likely affected or produced by post-depositional metamorphism or  
hydrothermal fluid activity; the second Paleozoic zircon population has a peak at ~446 Ma ([Fig.](#)  
[9b](#)) and is mainly composed of detrital zircons of magmatic origin ([Fig. S4](#)). Thus, the meta-  
sandstone was likely deposited during the ~435-412 Ma interval. The paragneiss samples 12TS82-

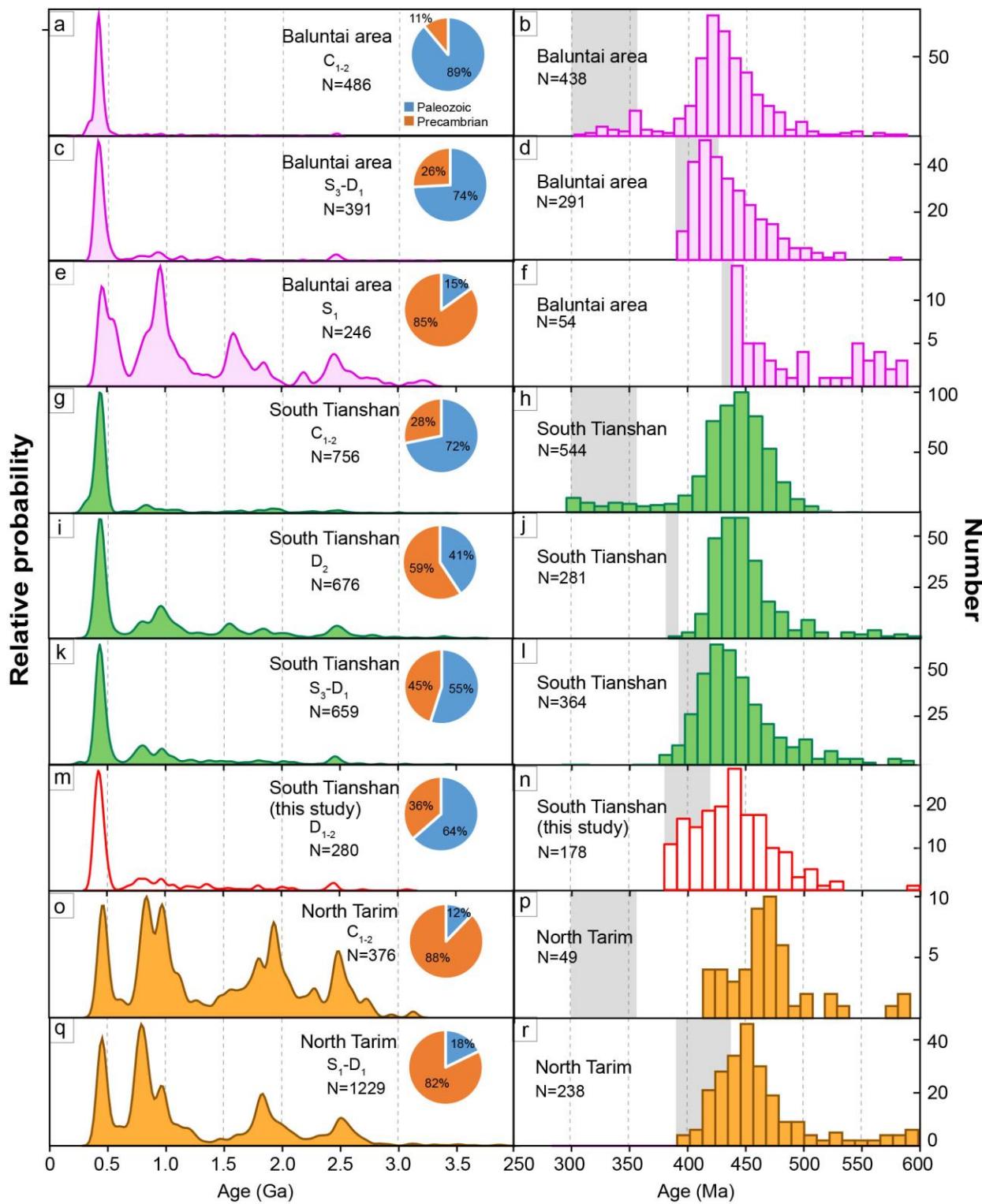
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4 602 1 and 12TS93-1 show unimodal ages of ~421 Ma and ~444 Ma, and their youngest detrital zircon  
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6 603 age peaks are ~425 Ma and ~420 Ma, respectively ([Fig. 9d](#) and [f](#)), the maximum depositional age  
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8 604 of their protolith is therefore constrained at 421-420 Ma.  
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11 605 Similarly, the tuffaceous clastic samples 12TS68-2, 12TS69-1 and 12TS62-1 from the  
12 Chahan-Wusu section, display unimodal ages at ~409 Ma, ~448 Ma and ~420 Ma, but in detailed  
13 spectra of Paleozoic ages, their youngest age peaks are ~399 Ma, ~416 Ma and ~392 Ma,  
14 606 respectively ([Fig. 10d](#), [f](#) and [h](#)). Considering that most detrital zircons in these (meta-) sedimentary  
15 rocks are euhedral-subhedral ([Fig. S5](#)), their depositional ages are therefore constrained at 416-  
16 607 392 Ma.  
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19 608 Excluding the zircon grains disturbed by post-depositional metamorphism and those with  
20 unclear or meaningless ages (e.g., samples 12TS73-1 and 12TS69-1), the (meta-) sedimentary  
21 609 rocks contains 64% of Paleozoic (178 out of total 280) and 36% of Precambrian (102 out of 280)  
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23 610 detrital zircons ([Fig. 14](#) and [Table S2](#)). The Paleozoic zircons (ca. 500-380 Ma) show angular or  
24 611 sub-angular shapes and form a unimodal age peak for each sample, they were most likely derived  
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26 612 from nearby and identical magmatic provenances. As discussed above, early-middle Paleozoic arc  
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28 613 magmatic rocks are well developed both in the CTS and STS, and previous studies also  
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30 614 documented Paleozoic continental arc rocks on the northern margin of the Tarim craton (e.g., [Ge](#)  
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32 615 [et al., 2012, 2014; Huang et al., 2013; Lin et al., 2013; Zhao et al., 2015](#)); thus, the arc-type  
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34 616 magmatic rocks in the CTS, STS and northern Tarim are possible sources for the Paleozoic detrital  
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36 617 component of the studied Silurian-Devonian (meta-) sedimentary rocks of the STS. The north-  
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38 618 directed (present coordinates) paleocurrent documented by the sedimentary structures of the  
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40 619 tuffaceous clastic rocks of the Chahan-Wusu section ([Fig. 2, 6a](#) and [6e-g](#)), favors a southern  
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42 620 provenance, i.e., from the northern Tarim. For the same reason, the Precambrian detritus in the  
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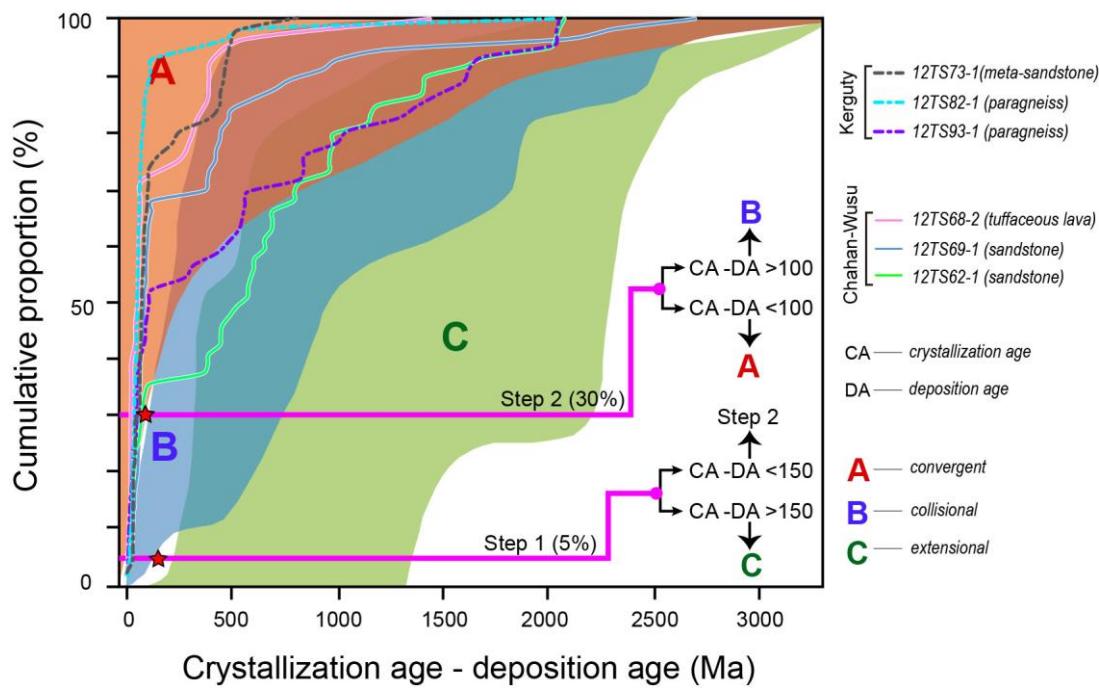
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4 625 studied (meta-) sedimentary rocks may also have derived from Tarim. It is noteworthy that the  
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6 paleocurrent direction of meta-sedimentary rocks in the Kerguty section could not be determined  
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8 due to intense metamorphism and deformation. However, the comparison of Precambrian zircon  
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10 age spectra between the late Silurian-Devonian sedimentary rocks in the STS-CTS and the coeval  
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12 sedimentary rocks of northern Tarim suggests that the Tarim craton was the source region for the  
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14 early Paleozoic sediments of CTS and STS (Fig. 14) (Ma, Shu, Santosh, et al., 2012; B. Wang et  
15  
16 al., 2018).  
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19 632 In the cumulative proportion vs. crystallization age-deposition age diagram (Fig. 15)  
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21 (Cawood et al., 2012), the curves generated by our (meta-) sedimentary rocks mostly show that  
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23 the ages of more than 50% of detrital zircons are close to the depositional ages, indicating a  
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25 sedimentary basin close to the active magmatic arc and thus formed in the supra-subduction zone  
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27 (convergent margin in Cawood et al., 2012). There is a neat southward increase of the proportion  
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29 of Precambrian zircons sourced in the Tarim along the Chahan Wusu section (samples 12TS68-2  
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31 (29%), 12TS69-1 (32%) and 12TS62-1 (63%)) (Fig. 10 and 15). As these rocks accumulated in a  
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33 sedimentary basin located between the CTS arc and the active margin of northern Tarim, such  
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35 southward increase is consistent with sedimentary records in a back-arc basin (Cawood et al., 2012)  
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37 that was located on the southern flank of the Central-South Tianshan continental arc. The same  
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39 feature appears in the samples of the Kerguty section (Fig. 9 and 15).  
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**Fig. 14** Relative density curves (4.0-0 Ga) and histograms (600-250 Ma) for compiled detrital zircon U-Pb ages of (meta-)sedimentary rocks with different depositional ages (indicated by grey bars) from the Baluntai area of the Central Tianshan, South Tianshan and North Tarim (see data sources in Table S6).

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 4 649 Sedimentary sequences of Upper Silurian calcareous flysch and Lower Devonian  
 5 limestones, cherty limestones and cherts (from bottom to top) in the STS record a deepening of  
 6 the depositional environment from neritic to abyssal facies during the middle Paleozoic (Charvet  
 7 et al., 2007, 2011; B. Wang et al., 2008). Besides, such a back-arc spreading setting is in agreement  
 8 with the occurrence of Silurian to Early Devonian SSZ-type ophiolitic mélange in the STS, i.e.,  
 9 the Kulehu-Serikeyayilake-Aertengkesi-Mandaleke, Yushugou-Tonghuashan, and Wuwamen-  
 10 Guluogou ophiolite belts (Gao et al., 1998; Han et al., 2011; Jiang et al., 2014; Long et al., 2006;  
 11 Ma et al., 2007; B. Wang et al., 2011b, 2018; Yang et al., 2011), indicating the development of a  
 12 series of back-arc basins in the STS (B. Wang et al., 2018; Zhong et al., 2019). Therefore, a  
 13 continental arc-back-arc extension is suggested to have existed during the early-middle Paleozoic  
 14 in the Central and South Tianshan.  
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 661 **Fig. 15** Cumulative proportion vs. crystallization age minus deposition age diagram for clastic rocks in the  
 662 South Tianshan (after Cawood et al., 2012).

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4 664       **5.2 Post-collisional Extension with Crustal Anatexis in the South Tianshan**  
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7 665       It is generally accepted that migmatite is formed by partial melting (i.e., anatexis) of  
8 continental crust rocks and migmatization is known to be a mode forming leucogranites  
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10 666       (Yakymchuk, 2021). Based on our field observations in the migmatitic unit of the Kergutu section,  
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12 667       the rootless lensoid or ptygmatic structure of leucosome, material exchange and inter-diffusion  
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14 668       between the leucogranite and surrounding paragneiss and amphibolite, both transitional and sharp  
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16 669       contact between the leucosome and mesosome or melanosome occur simultaneously, suggesting  
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18 670       the co-existence of in-situ partial melting, aggregation and migration of melts (Fig. 4d-f) (Berger  
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20 671       & Kalt, 1999; Sawyer, 1996, 1999). On the Kergutu section, there is a progressive evolution from  
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22 672       the Devonian metasediments (schist, paragneiss, limestone) into the migmatites (Fig. 3b).  
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24 673       Furthermore, according to the biotite-enriched melanosome and mineral assemblage of muscovite  
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26 674       + plagioclase + quartz in the leucosome (Fig. 3 and 4), it is therefore likely that parts of protolith  
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28 675       of the migmatites in the STS are the Devonian meta-sedimentary rocks (meta-sandstones/pelites).  
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30 676       Geochemical features of the leucosome sample (12TS82-3) is characterized by significantly high  
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32 677       Al<sub>2</sub>O<sub>3</sub>, Na<sub>2</sub>O, CaO and Sr contents, as well as extremely low REE concentrations and positive Eu  
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34 678       anomaly (Fig. 12c and Table S3), indicating a plagioclase-rich cumulate melt rather than the initial  
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36 679       anatetic melt (Sawyer, 2008).  
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38 680       Our zircon U-Pb dating on three migmatites and associated meta-sedimentary rocks yielded  
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40 681       complex results. The diatexite sample 12TS80-2 contains a dominant age population of 450±3 Ma  
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42 682       and three ages around ~420 Ma (No. 7, 10 and 11), which are consistent with main age populations  
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44 683       of the paragneiss (metatexite) samples 12TS82-1 and 12TS93-1 (Fig. 8b, 9 and S2). Considering  
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46 684       the rock assemblages and field geometric relationships (Fig. 3 and 4), the diatexite and surrounding  
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48 685       metatexite or paragneiss could represent the products of higher and lower degrees of partial melting  
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50 686       

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52 687       Our zircon U-Pb dating on three migmatites and associated meta-sedimentary rocks yielded  
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54 688       complex results. The diatexite sample 12TS80-2 contains a dominant age population of 450±3 Ma  
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56 689       and three ages around ~420 Ma (No. 7, 10 and 11), which are consistent with main age populations  
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58 690       of the paragneiss (metatexite) samples 12TS82-1 and 12TS93-1 (Fig. 8b, 9 and S2). Considering  
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60 691       the rock assemblages and field geometric relationships (Fig. 3 and 4), the diatexite and surrounding  
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62 692       metatexite or paragneiss could represent the products of higher and lower degrees of partial melting  
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4 687 of similar protoliths, respectively. Thus, the aforementioned ages of ~450 Ma and ~420 Ma of  
5 sample 12TS80-1 most likely represent the detrital zircon ages in their protoliths. Another two  
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7 688 ages of ~420 Ma on the overgrown rims (No. 2 and 6) are most likely be the mixing age of the  
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9 689 inherited cores and metamorphic rims, similar to the zircon ages (~412 Ma) in sample 12TS73-1  
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11 690 (Fig. 8b, 9b and S3). The leucogranite sample 12TS95 yielded a dominant age at  $304 \pm 3$  Ma (Fig.  
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13 691 8a). The corresponding zircons have regular shapes, no or weakly zoned internal texture with low  
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15 692 CL intensity, and their Th/U ratios are mostly lower than 0.1 (Fig. S3), similar to the metamorphic  
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17 693 zircons in amphibolite-facies rocks (Wu & Zheng, 2004). The age of  $332 \pm 3$  Ma on the bright cores  
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19 694 of six zircons from the leucosome (12TS82-3) appears to reveal an early high-grade metamorphism  
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21 695 overprinted by the later migmatization (Fig. 8c, 8d and S3). Alternatively, it could be due to a  
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23 696 protracted crust melting from 332 to 304 Ma in an evolving tectonic setting (e.g., syn to late or  
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25 697 post-collision). Anyway, the latest Carboniferous (~304 Ma) anatetic event in the STS can be  
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27 698 confirmed at least.

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36 700 In general, it is difficult to reach the P-T conditions for partial melting of the supracrustal

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38 701 rocks to generate felsic magma under the normal geothermal gradient. In the study area, previous  
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40 702 studies on the latest Carboniferous (ca. 305-295 Ma) magmatic rocks indicate a negligible  
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42 703 involvement of mantle components (Yu et al., 2020; Zhu, Li, Dong, Zhang et al., 2008). Instead,  
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44 704 high Sr/Y and (La/Yb)<sub>CN</sub> of the ~300 Ma granitoids in the STS suggest the existence of thickened  
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46 705 crust (Han et al., 2019; Yu et al., 2020; Zhu, Li, Dong, Zhang et al., 2008 and this study). Although  
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48 706 nature of the garnet from the studied leucogranite is unknown, contemporaneous garnet-bearing  
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50 707 granites/rhyolites (ca. 310-300 Ma) exposed in the STS-Tarim border region indicate a high  
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52 708 pressure source region ( $P > 7$  kbar) (Cheng et al., 2017; Qin et al., 2021). In fact, significant crustal  
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54 709 thickening commonly occurs at convergent margins where supracrustal sedimentary rocks can be

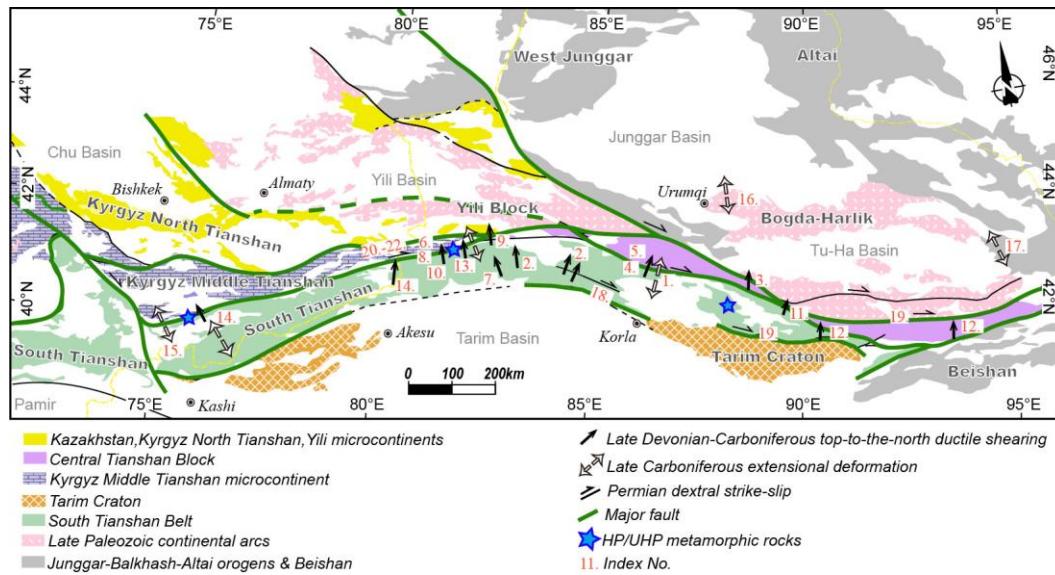
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4     710 buried into middle-lower crustal depth, and decompressional partial melting during late or post-  
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6 orogenic collapse of orogens resulted in the anatexis of the middle-lower crust, favoring the  
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8 generation of leucogranites, as observed in the collisional Himalaya Orogen (e.g., [Brown, 1994](#);  
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10     711 [Harris & Massey, 1994](#); [Nabelek & Liu, 2004](#)). Considering the latest Carboniferous high-  
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12     712 potassium and peraluminous granites with post-collisional features in the study area ([Fig. 11b](#) and  
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14     713 [f](#)) ([Yu et al., 2020](#); [Zhu, Li, Dong, Zhang et al., 2008](#)), we speculate that the latest Carboniferous  
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16     714 magmatism and migmatization may both result from crustal melting in response to a collisional  
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18     715 orogeny in the STS.  
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26     718 Although controversies remain, most researchers agree that the Paleozoic South Tianshan  
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28     719 was formed by the collision of the Kazakhstan microcontinent (here represented by the Yili and  
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30     720 Central Tianshan blocks) with the Tarim craton (e.g., [Alexeiev et al., 2015](#); [Charvet et al., 2011](#);  
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32     721 [Gao et al., 1998, 2009](#); [Han et al., 2010, 2011](#); [Han & Zhao, 2018](#); [Liu et al., 2022](#); [Xiao et al.,](#)  
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34     722 [2008, 2013](#); [B. Wang et al., 2011b, 2018](#); [X. S. Wang et al., 2022](#); [Zhong et al., 2019](#)). According  
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36     723 to the ages of undeformed granite dykes crosscutting the Wuwamen ophiolitic mélange and  
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38     724 HP/UHP metamorphic belts in the STS, the final amalgamation of these blocks would not be later  
39  
40     725 than 300 Ma ([Gao et al., 2009](#); [B. Wang, Shu, et al., 2007, 2018](#); [X. S. Wang et al., 2022](#)). Besides,  
41  
42     726 from Carboniferous to Permian, the continuous evolution of magmatism from calc-alkaline to  
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44     727 alkaline series in the Yili-Central Tianshan domain, displays the typical characteristics of post-  
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46     728 collisional magmatism ([Seltmann et al., 2011](#); [B. Wang et al., 2009](#)), while coeval post-collisional  
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48     729 magmatic rocks are widespread in the STS and northern Tarim ([Konopelko et al., 2007](#); [Ma et al.,](#)  
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50     730 [2015](#)). In addition, our new structural analyses on the Central and South Tianshan support the  
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52     731 transition from the collisional compression to post-collisional extension during the late  
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54     732 Carboniferous (see section 5.3). Therefore, the latest Carboniferous migmatization and

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 4 733 peraluminous magmatism reasonably reflect the onset of post-collisional extension, which is  
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 6 734 consistent with the rising temperature of the magma source from 300 to 280Ma (Cheng et al.,  
 7  
 8 2017). Meanwhile, the buoyant ascending of the anatexic crustal materials could further accelerate  
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 10 735 the regional extension and orogenic gravitational collapse (Rey et al., 2001; Vanderhaeghe, 2009).  
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### 14 737       5.3 Multi-stage Deformation and Tectonic setting

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 16 738       Based on our new field observations combined with the available structural data in the  
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 18 739       Central and South Tianshan, we summarize and discuss the geodynamic significance of multiphase  
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 20 740       ductile to brittle-ductile deformation structures and their tectonic implications (Fig. 16 and Table  
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 22 741 1, S7).  
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 47 743 **Fig. 16** Tectonic sketch map of the southern CAOB (modified after Alexeiev et al., 2015), and distribution  
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 49 744 of ductile deformation kinematics in the Central and South Tianshan (see supplementary Table S7 for data  
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 51 745 sources).  
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#### 56 747       5.3.1 Late Devonian-Carboniferous compressional deformation

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 58 748       Our new structural observations and dating results on the deformed meta-sedimentary  
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 60 749 rocks and undeformed granites (Fig. 3b and 6a) indicate that the D<sub>K1-1</sub>, D<sub>K1-2</sub>, D<sub>K3-1</sub> and D<sub>Ch-1</sub>  
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4 750 deformation structures were generated during the Devonian-late Carboniferous. The south-verging  
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6 751 brittle-ductile thrust faults and folds in the STS ( $D_{K1-2}$  and  $D_{Ch-1}$ ) and north-verging reverse faults  
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8 752 in the CTS (Fig. 3b, 6a and Table 1) (Li et al., 2020; Zhong et al., 2015) show an overall positive  
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10 753 flower structural pattern. Such thrusting of the Paleozoic (meta-) sedimentary rocks and folding of  
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12 754 the earlier foliation/original bedding in the STS ( $D_{K1-2}$  and  $D_{Ch-1}$ ) likely represent the deformation  
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14 755 structures related to the CTS-Tarim collision after the final closure of the STS back-arc basin  
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16 756 during the latest Carboniferous (ca. 310-304 Ma) (B. Wang et al., 2018 and this study). Notably,  
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18 757 the brittle reverse faults ( $D_{K2-3}$ ) crosscutting the migmatites and post-orogenic structures might  
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20 758 also be formed during the Cenozoic deformation induced by the India-Asia collision (Jolivet et al.,  
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22 759 2010). It should be emphasized that the widespread south-verging fold-and-thrust in the STS could  
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24 760 be related to Paleozoic orogenic deformation and partly to Cenozoic reactivation (Loury et al.,  
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26 761 2015; B. Wang et al., 2011b; Zhong et al., 2019), such as the reactivation structure  $D_{Ch-3}$  (brittle  
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28 762 south-verging thrusting) of the  $D_{Ch-1}$  (brittle-ductile deformation) in the Chahan-Wusu section  
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30 763 (Fig. 6a and Table 1).

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32 764 According to previous data and our new results, the top-to-the-north ductile shear  
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34 765 kinematics ( $D_{K1-1}$  and  $D_{K3-1}$ ) (Fig. 3b and Table 1) correspond to the oldest and most extensively  
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36 766 preserved structures in the Central and South Tianshan units (Fig. 16 and Table S7). In the adjacent  
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38 767 Wuwamen-Guluogou ophiolitic mélange and Baluntai area, macro to microscale asymmetric  
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40 768 fabrics with top-to-the-north shearing kinematics are well developed in the ductilely deformed  
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42 769 Paleozoic rocks (Fig. 16) (B. Wang et al., 2018; Zhong et al., 2015), which are consistent with the  
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44 770  $D_{K1-1}$  and  $D_{K3-1}$  structures in the Kerguty section (Fig. 3b). In addition, in contrast to the ductile  
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46 771 deformation of the gneiss in the CTS, the brittle-ductile structures of lower greenschist facies  
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48 772 metasediments in the STS are geometrically consistent with that of the hanging wall of a south-

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4 773 dipping subduction zone (Fig. 2, 3b and 6a). Therefore, the earliest top-to-the-north shearing  
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6 774 throughout the Kerguty section might be linked with the southward subduction of the Wuwamen-  
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8 775 Guluogou back-arc basin during the late Carboniferous (B. Wang et al., 2018). Besides, similar  
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10 776 north-verging thrusting has also been widely recognized in the southern ophiolite belt and  
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12 777 Kuikewusu-Kaidu magmatic arc of the STS (Fig. 16) (Alexeiev et al., 2015; B. Wang et al., 2011b;  
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14 778 Zhong et al., 2019), corresponding to the Late Devonian-early Carboniferous southward  
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16 779 subduction of other back-arc basins in the South Tianshan (until ca. 359-356 Ma) (B. Wang et al.,  
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18 2011b; Zhong et al., 2019).

23 781 5.3.2 Latest Carboniferous extension and gneiss doming

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25 782 The latest Carboniferous tectono-metamorphic events ( $D_{K2-1}$ ) (Fig. 3b, 16 and Table 1) in  
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27 783 the STS suggest the occurrence of a migmatite-cored gneissic dome resulting in the exhumation  
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29 784 of the anatetic middle crust and reflecting the gravitational collapse of the orogen. In the orogenic  
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31 785 cycle, gravitational collapse can occur during syn- and post-orogenic processes, and result in  
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33 786 transition from crustal thickening to crustal thinning (Jamieson et al., 2011; Rey et al., 2001;  
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35 787 Vanderhaeghe, 2009; Vanderhaeghe & Teyssier, 2001). During syn-orogenic collapse, the melt-  
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37 788 weakened middle crust is transported laterally by extrusion and thrusting; this was characterized  
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39 789 in the Himalaya-Tibet Orogen (Beaumont et al., 2001; Block & Royden, 1990; Grujic et al., 1996;  
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41 790 Jamieson et al., 2011). Accordingly, the proposed channel flow is bounded by ductile thrust faults  
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43 791 at the bottom and ductile normal faults at the top (Beaumont et al., 2001; Block & Royden, 1990;  
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45 792 Grujic et al., 1996; Jamieson et al., 2011; Vanderhaeghe & Teyssier, 2001). However, this model  
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47 793 is obviously inconsistent with the field and microscopic structural features of the extensional  
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49 794 doming recognized in the STS ( $D_{K2-1}$ ) (Fig. 3b and 16). By contrast, the post-orogenic collapse is  
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51 795 usually characterized by detachment at the upper crust level and extensional ductile deformation

at the middle crust (He et al., 2016; Rey et al., 2001). The  $D_{K2-1}$  deformation observed in the Kergutu section likely formed during the post-orogenic collapse, although no upper normal fault is preserved probably due to extensive denudation (Rey et al., 2001). Nevertheless, it is difficult for an exhumed ancient orogen to determine whether crustal melting was the consequence or the trigger of extensional collapse, because of positive feedbacks between the two processes (England & Molnar, 1993; Hodges, 1998).

In addition, the south-directed ductile shearing documented in the Akyazi and Atbashi HP/UHP metamorphic belts (Fig. 16) overprinted the earlier top-to-the-north ductile thrusting. This was either interpreted as ductile normal faulting induced by post-collisional extension and exhumation of the HP/UHP metamorphic rocks (e.g., Loury et al., 2015; B. Wang et al., 2010), or back-thrusting induced by the Yili-CTS collision (Lin et al., 2009). Muscovite  $^{40}\text{Ar}/^{39}\text{Ar}$  ages of 335-310 Ma constrain the timing of exhumation of the Akyazi HP/UHP metamorphic rocks (Klemd et al., 2005; B. Wang et al., 2010), and the unconformably overlying conglomerates provided a minimum exhumation age of the Atbashi HP units at 303-295 Ma (Baslakunov et al., 2007).

Late Carboniferous orogen-perpendicular extensional structures also have been recorded in the Bogda-Harlik areas (Fig. 16) (Ni et al., 2021; Shu, Wang, et al., 2011; Song et al., 2022) and southern Yili block (Liu et al., 2022). In addition, co-occurrence of widespread ~300 Ma N-S-striking felsic/mafic dykes (e.g., Liu et al., 2022; Yang et al., 2011) and top-to-the-ESE (orogen-parallel) shearing (Li et al., 2020) in the YB-CTS units argue for contemporaneous extensional deformation and magmatism. These latest Carboniferous orogen-perpendicular/parallel extensional structures, exhumation of high-grade metamorphic rocks, bimodal magmatism, and early Permian crustal thinning (ca. 290-280 Ma) (Han et al., 2019) of the CTS and STS altogether

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4 819 recorded the post-collisional extension and gravitational collapse in the Tianshan Orogen. Thus,  
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6 820 the South Tianshan collisional orogeny was terminated in the latest Carboniferous.  
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9 821 5.3.3 Permian transcurrent tectonics  
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11 822 Dextral strike-slip shearing was mainly localized at the E-W trending margins of the major  
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13 823 tectonic units in the Tianshan Orogen; i.e., along the Akyazi-Nalati Fault (Lin et al., 2009; Yin et  
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15 824 al., 1998; Yin & Nie, 1996), Baluntai-Sangshuyuanzi Fault (Li et al., 2020; B. Wang et al., 2018;  
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17 825 Yang et al., 2007; Zhong et al, 2015) and the Main Tianshan Shear Zone (Laurent-Charvet et al.,  
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19 826 2002, 2003; Shu et al., 2002). Our field observations show that pre-Permian rocks and structures  
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21 827 in the Kerguty ( $D_{K2-2}$  and  $D_{K3-2}$ ) and Chahan-Wusu ( $D_{Ch-2}$ ) (Fig. 2, 3b, 6 and Table 1) sections  
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23 828 were overprinted by dextral-shearing deformation. The  $D_{K2-2}$  and  $D_{K3-2}$  events resulted from the  
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25 829 activity of the Baluntai Fault, and the  $D_{Ch-2}$  deformation corresponds to the Huolashan Fault (Lin  
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31 830 et al., 2013). Previous zircon U-Pb and mica  $^{40}\text{Ar}/^{39}\text{Ar}$  dating in the mylonites constrained the  
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33 831 timing of this regional dextral strike-slip shearing in the Tianshan Orogen at 305-244 Ma (de Jong  
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35 832 et al., 2009; He et al., 2021; Laurent-Charvet et al., 2002; Li et al., 2020; Shu et al., 2002; B. Wang,  
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37 833 Chen, et al., 2007; Zhou et al., 2001). Large Permian NW-SE and ENE-WSW dextral fault zones  
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39 834 in the Tianshan domain are regarded as an effect of lateral extrusion that occurred after the  
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41 835 Carboniferous final convergence between Tarim and Tianshan (de Jong et al., 2009; Konopelko et  
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43 836 al., 2013; Rolland et al., 2013; B. Wang, Chen, et al., 2007). Incidentally, the Permian transcurrent  
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45 837 tectonics reactivated several Paleozoic sutures that acted as zones of weakness (Fig. 16).  
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48 838 5.4 Tectonic Evolution and Updated Geodynamic Model  
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51 839 For a long time, due to the disagreement on three key scientific issues concerning the  
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53 840 tectonic evolution of the STS and its adjacent units, various geodynamic models have been  
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55 841 proposed. They can be divided into two categories: (1) the large accretionary wedge model of  
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#### 5.4 Tectonic Evolution and Updated Geodynamic Model

For a long time, due to the disagreement on three key scientific issues concerning the tectonic evolution of the STS and its adjacent units, various geodynamic models have been proposed. They can be divided into two categories: (1) the large accretionary wedge model of

continuous northward subduction (Gao et al., 1998; Gao & Klemd, 2003; Han et al., 2011; Xiao et al., 2013); (2) two-stage subductions with opposed vergence (Gao et al., 2011; Ge et al., 2014; Han et al., 2015; Jiang et al., 2014) or southward subduction (Charvet et al., 2007, 2011; Loury et al., 2015, 2016; Shu et al., 2002; B. Wang et al., 2008, 2011b, 2018) based on trench-arc-basin system. The former regards the STS as an accretionary complex with southward thrusting in which the southern ophiolite mélange zones are klippe transported from the northern Akyazi belt (Gao et al., 1998; Xiao et al., 2013). However, this model cannot account for many geological facts, such as the existence of a Paleozoic active continental margin of the northern Tarim craton (Ge et al., 2012, 2014; Lin et al., 2013; Zhu, Li, Dong, Wang, et al., 2008), the top-to-the-north kinematics in these mélange zones (Charvet et al., 2007, 2011; Lin et al., 2009; Shu et al., 2002; B. Wang et al., 2010, 2011b, 2018). The two-stage subduction model was proposed based on the spatio-temporal distribution of arc magmatism and detrital zircon provenance analyses; i.e., bidirectional or southward subduction of the South Tianshan Ocean during the early Paleozoic switched into northward subduction during the late Paleozoic (Gao et al., 2011; Ge et al., 2014; Han et al., 2015; Jiang et al., 2014). Our new research data covers multiple aspects such as arc magmatism, detrital zircon provenances, regional structures and migmatization. These results consistently support the Paleozoic southward subduction of the PTO and opening of the South Tianshan back-arc basin. Combined with previous results, the Paleozoic tectonic evolution of the Central and South Tianshan can be integrated as follows:

(a) Early-middle Paleozoic subduction of the PTO and back-arc extension

The subduction of PTO beneath the CTS-Tarim during the Ordovician to Early Devonian

(ca. 480-390 Ma) generated continental arc magmatism in the CTS (Baluntai area), STS (Kaidu-Kuikewusu and Huolashan areas) and northern Tarim (Gao et al., 2012; Ge et al., 2014; Lin et al.,

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4 865 2013; Shi et al., 2007; Zhong et al., 2015, 2019). Similarly, the ca. 500-410 Ma calc-alkaline  
5 magmatism that occurred along the southern margin of the Yili block, is interpreted to result from  
6 northward subduction of the PTO based on regional structural analysis (Han et al., 2011; Xu et al.,  
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8 867 2013); thus, a divergent bidirectional subduction of the PTO is suggested (Alexeiev et al., 2015;  
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10 868 Cao et al., 2017; Gao et al., 2009; Han et al., 2015; Zhong et al., 2017). The tectonic transition  
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12 869 from advancing to retreating subduction happened during ca. 440-390 Ma and induced the opening  
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14 870 of the South Tianshan back-arc basin (Table S4 and references therein) and progressive decrease  
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16 871 of arc-related magmatism in the STS (Fig. 13a and 17a) (Charvet et al., 2011; Han et al., 2016;  
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18 872 Liu et al., 2022).

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26 874 Several lines of evidence support this tectonic transition and suggest that it likely lasted

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28 875 until the Carboniferous: (1) ca. 409-407 angular unconformity and ca. 370-320 Ma subduction-  
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30 876 related magmatism in extensional setting in the Baluntai area of the CTS (Fig. 2 and 13) (Dong et  
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32 877 al., 2011; Jin et al., 2014; Ma et al., 2014; X. S. Wang et al., 2021; Yin et al., 2017; Zhong et al.,  
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34 878 2015); (2) Devonian-Carboniferous massive carbonate and turbidite deposition in the STS and  
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36 879 northern Tarim (Allen et al., 1993; Gao et al., 1998; XBGMR, 1993); (3) late Silurian-Devonian  
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38 880 extensional structures in northern Tarim (Li et al., 2015); (4) early Carboniferous (ca. 341-332 Ma)  
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40 881 granulite-facies metamorphism and coeval E-MORB and OIB-like dolerite dykes in the Yushugou  
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42 882 area, linked with asthenosphere upwelling (Jian et al., 2013); (5) supra-subduction zone setting of  
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44 883 all the ophiolitic rocks in the southern mélange belt of the STS (Dong et al., 2005; Jiang et al.,  
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46 884 2014; Long et al., 2006; B. Wang et al., 2011b, 2018; C. Wang et al., 2009); and (6) opening of  
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48 885 the Wuwamen-Guluogou back-arc basin at ca. 334 Ma (Dong et al., 2005; Jiang et al., 2014). In  
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50 886 addition, because the STS ophiolites cover a large age span of ~100 Ma, are discontinuously  
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52 887 distributed and separated by several carbonate platforms, they were deemed to represent multiple

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4 888 back-arc basins, which opened and closed separately and diachronously (B. Wang et al., 2018;  
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6 889 Zhong et al., 2019), analogous to the present West Pacific.  
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9 890 (b) Closure of oceanic basins and amalgamation of Yili-CTS-Tarim (ca. 380-310 Ma)  
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11 891 After the closure of the PTO (ca. 345-320 Ma), continental collision took place between  
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13 892 the Yili and CTS blocks from the Late Devonian to early Carboniferous. It resulted in HP/UHP  
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15 893 metamorphism and was accompanied by top-to-the-north ductile thrusting in the Atbashi-Akyazi-  
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17 894 Mishigou-Gangou belt (Gao & Klemd, 2003; Lin et al., 2009; Loury et al., 2015; B. Wang et al.,  
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19 895 2010). Meanwhile in the South Tianshan, the diachronous closure of back-arc basins represented  
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21 896 by ophiolitic mélange in the Kulehu-Misibulake (ca. 359-356 Ma), Yushugou-Tonghuashan  
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23 897 (before ca. 325 Ma) and Wuwamen-Guluogou (before ca. 304 Ma) areas (B. Wang et al., 2011b;  
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25 898 L. Zhang et al., 2018 and this study) resulted in re-welding/collision of the CTS and Tarim (Shu  
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27 899 et al., 1997; B. Wang et al., 2011b; Zhong et al., 2015, 2019 and this study), giving rise to the top-  
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29 900 to-the-north thrusting preserved in both CTS and STS and south-directed back-thrusting in the STS  
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31 901 (Fig. 17b).  
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38 902 The absence of ca. 370-320 Ma arc magmatism and detrital zircons in Carboniferous strata  
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40 903 of the STS and northern Tarim is usually considered as the argument against the southward  
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42 904 subduction model (e.g., X. S. Wang et al., 2018). However, the absence of subduction-related  
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44 905 magmatism may be due to the narrowness of back-arc basins whose slabs are not large enough to  
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46 906 reach the depth of dehydration melting, similarly to the Western Alps in the Oligocene (Handy et  
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48 907 al., 2010).

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53 908 (c) Post-orogenic extension with crustal anatexis (ca. 305-295 Ma)

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55 909 During the late Carboniferous, post-collisional extension induced the top-to-the-south

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57 910 detachment in the Atbashi-Akyazi areas associated with the exhumation of HP/UHP metamorphic  
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4 911 complex (Jourdon et al., 2017; Loury et al., 2015; B. Wang et al., 2010), which represents the  
5 continental-derived units previously underthrust beneath the CTS-Tarim. In the latest  
6 Carboniferous, the supracrustal rocks buried at middle-lower crustal level due to the collision  
7 between the CTS and Tarim underwent migmatization, and then were exhumed via regional  
8 tectonic extension in the STS, such process is linked to late or post-orogenic collapse of the  
9 previously thickened crust (Fig. 3 and 17c). Meanwhile, previous studies indicated that post-  
10 collisional magmatism largely contaminated by the Meso-Neoproterozoic continental crust widely  
11 developed in the Tianshan, and then to the Permian, a remarkable input of mantle material  
12 contributed significantly to the formation of juvenile crust, in possible connection with the slab  
13 breakoff following the collision (Fig. 13) (Konopelko et al., 2007; Ma et al., 2015; Ni et al., 2021;  
14 Seltmann et al., 2011; B. Wang et al., 2009; Yu et al., 2020). A note of caution is due here that  
15 upper extensional structures are usually reworked by later tectonism or not preserved due to  
16 denudation.  
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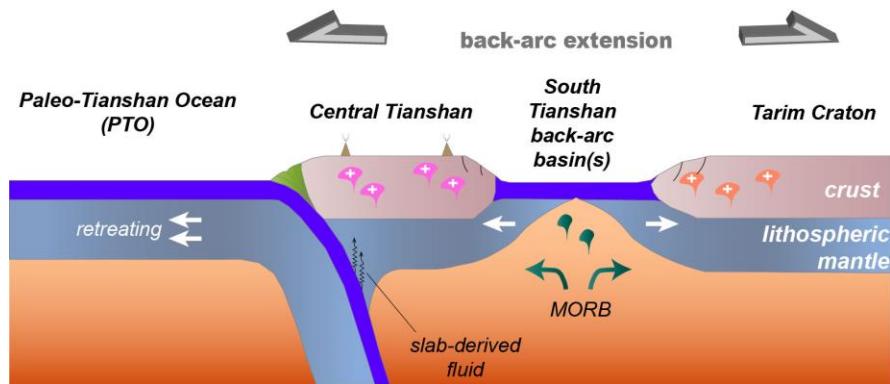
19 924 (d) Latest Carboniferous to Permian transcurrent tectonics  
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22 925 Oblique convergence between the major tectonic units induced strike-slip ductile shearing  
23 along their boundaries after their primary amalgamation. The latest Carboniferous to Permian  
24 dextral faulting marked the conversion from subduction-accretion into intracontinental  
25 transcurrent tectonics (He et al., 2021; Laurent-Charvet et al., 2002; Li et al., 2020; Shu et al.,  
26 1999; B. Wang et al., 2007). These dextral strike-slip shear zones intensively overprinted the  
27 earlier structures in accretionary wedges, ophiolitic mélange zones and magmatic arcs, as it can be  
28 observed along the Baluntai Fault (Fig. 3). Paleomagnetic evidence show that orogen-parallel  
29 dextral motion occurred along the boundaries of major tectonic units such as the Yili block, Tu-  
30 Ha basin and Tarim craton (B. Wang, Chen, et al., 2007; X. Zhu et al., 2018, 2019). In addition,  
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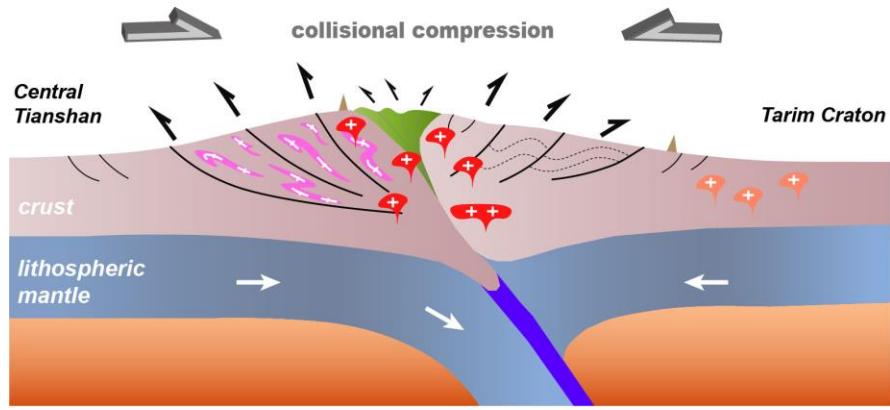
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4 934 early Permian post-orogenic alkaline magmatism was well developed within or near the regional  
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6 935 ductile shear zones, in likely connection with local transtension ([B. Wang et al., 2009, 2014](#)).  
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9 936 Overall, two stages of extensional tectonics, i.e., back-arc spreading triggered by the early-  
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11 937 middle Paleozoic retreating subduction ([Fig. 17a](#)) and latest Carboniferous gravitational collapse  
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14 938 with crustal anatexis ([Fig. 17c](#)), complement crucial scenes and details to replay the tectonic  
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16 939 evolution of the Paleozoic Tianshan Orogen. In addition, our results and the new model may have  
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18 940 implications for knowledge of the flow of anatectic crust in the accretionary orogens, and provide  
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21 941 a geological instance of how accretionary orogens evolve from a western Pacific-type subduction  
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24 942 system to post-orogenic thinning and partial-melting of the thickened crust.  
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Overall, two stages of extensional tectonics, i.e., back-arc spreading triggered by the early-middle Paleozoic retreating subduction ([Fig. 17a](#)) and latest Carboniferous gravitational collapse with crustal anatexis ([Fig. 17c](#)), complement crucial scenes and details to replay the tectonic evolution of the Paleozoic Tianshan Orogen. In addition, our results and the new model may have implications for knowledge of the flow of anatectic crust in the accretionary orogens, and provide a geological instance of how accretionary orogens evolve from a western Pacific-type subduction system to post-orogenic thinning and partial-melting of the thickened crust.

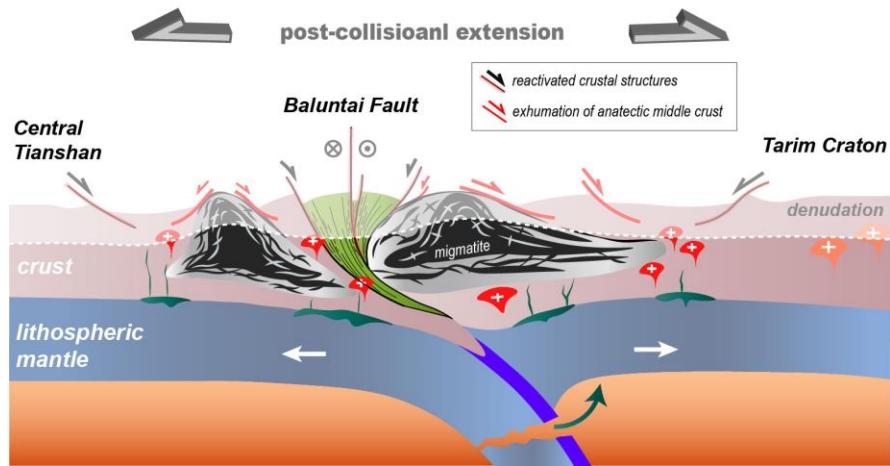
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5 (a) Back-arc extension resulted from subduction of the PTO  
6 (snapshot at ca. 420 Ma)



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19 (b) Closure of oceanic basins and re-amalgamation of CTS-Tarim  
20 (snapshot at ca. 310 Ma)



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36 (c) Post-orogenic extension with crustal anatexis (snapshot at ca. 300 Ma)



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55 Fig. 17 Simplified geodynamic model showing the Paleozoic tectonic and magmatic evolution of the  
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65 944 Central and South Tianshan (modified from [Zhong et al., 2019](#)). (a) Silurian-Early Devonian retreating  
945 subduction of the Paleo-Tianshan Ocean resulted in the opening of the South Tianshan back-arc basin, and  
946 separation of the Central Tianshan from the Tarim craton, associated with extensional magmatism. (b) From  
947 separation of the Central Tianshan from the Tarim craton, associated with extensional magmatism. (b) From

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4 948 Late Devonian to Carboniferous, continental collision occurred after the subduction and closure of the  
5 oceanic basins; subduction and collision triggered thrusting, folding, crustal thickening and HP/UHP  
6 metamorphism. Please see [B. Wang et al. \(2018\)](#) for detailed evolution of the South Tianshan back-arc  
7 basin. (c) During the latest Carboniferous-early Permian, the thickened crust underwent anatexis to and  
8 exhumation under an extensional setting that triggered the orogenic collapse (CTS anatexis of [Zhong et al.,](#)  
9 [2015](#)), meanwhile, partial melting of the ancient crust generated high-potassium peraluminous granites with  
10 post-collisional characteristics (see seismic profiles in [He et al., 2016](#)).  
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18 956 **6. Conclusions**  
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21 957 (1) Field observations and structural analysis reveal that top-to-the-north ductile shearing  
22 structures preserved both in the CTS arc-type meta-igneous rocks and STS meta-sedimentary rocks,  
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24 958 most likely correspond to the Late Devonian to Carboniferous southward subduction of the South  
25 Tianshan back-arc basins. These tectonic structures were overprinted by north- and south-verging  
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27 959 brittle-ductile thrust faults and folds in the CTS and STS, respectively; forming a positive flower-  
28 structure interpreted to result from the late Carboniferous CTS-Tarim collision following the  
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30 960 closure of back-arc basins.  
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40 964 (2) The sedimentary and volcaniclastic rocks in the Kerguty and Chahan-Wusu sections  
41 were deposited in the STS back-arc basins and then deformed and variously metamorphosed  
42 during the closure of the back-arc basins. Our new detrital zircon dating results constrain the  
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44 965 depositional ages of these meta-sedimentary and volcaniclastic rocks between 421 Ma and 392  
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46 966 Ma. Paleozoic and Precambrian detrital zircons were diagnostically derived from the CTS and  
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48 967 northern Tarim magmatic arcs.  
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53 970 (3) The ductilely deformed granitoids and metavolcanic rocks from the Kerguty and  
54 Chahan-Wusu sections belong to the metaluminous and calc-alkaline series, and were formed in  
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56 971 the continental arc of the Central and South Tianshan during the Silurian-Early Devonian. Based  
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58 972 on our new results and previously published data, the opening of the STS back-arc basins between  
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4 974 the CTS continental arc and northern Tarim resulted from the southward retreating subduction of  
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7 975 the Paleo-Tianshan Ocean.  
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9 976 (4) Late Carboniferous migmatites in the STS are studied for the first time. Our new zircon  
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11 977 U-Pb age of the leucogranite dykes indicate that anatexis occurred at ca. 304 Ma, which may  
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13 978 represent the later period of a protracted crust melting. Ductile deformation structures in the  
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15 979 migmatites suggest that N-S extension dominated the STS during the latest Carboniferous, which  
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17 980 triggered the exhumation of anatectic mid-lower crust. Such extension and associated  
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19 981 migmatization may represent the post-orogenic gravitational collapse of the STS. Our new results  
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21 982 combined with the literature data suggest that undeformed high-potassium peraluminous granites  
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23 983 (ca. 305-295 Ma) could be genetically associated with the migmatites. Thus, termination of the  
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25 984 South Tianshan orogeny is constrained at the Carboniferous-Permian boundary.  
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31 985 (5) Pre-Permian rocks and structures were overprinted by dextral strike-slip ductile  
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33 986 shearing along the STS-CTS boundary (i.e., the Baluntai Fault), and also by Cenozoic south-  
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35 987 verging brittle thrust faults in the STS-Tarim transition zone.  
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4 997 **Data and supplementary information**  
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7 998 Data associated with this study are available in the supplementary information ([Table S1-S7](#)).  
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9 999 Analytical methods and [Fig. S1-S5](#) are provided in the *Supporting Information File* as  
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11 1000 supplementary materials.  
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**Declaration of interests**

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

The authors declare the following financial interests/personal relationships which may be considered as potential competing interests:

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**Visualization:** Fang Song, Xinghua Ni

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*Gondwana Research*

Supporting Information for

**From early Paleozoic subduction-accretion to latest Carboniferous migmatization and post-orogenic collapse: New constraints on the CAOB evolution in Central and South Tianshan (NW China)**

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## **Introduction**

The supporting information includes the analytical methods, five figures and seven tables. The analytical methods consist of detailed procedures for zircon U-Pb dating and whole-rock major and trace element test. Figure S1 is a supplementary field photo for the studied Chahan-Wusu section. Figures S2 to S5 show cathodoluminescence images of the zircons from the studied samples. Table S1 to S3 present original data of the tested samples in this paper. Table S4 to S6 compile published radiometric ages and zircon Hf isotopic data for Paleozoic magmatic rocks, as well as detrital zircon U-Pb ages from Silurian-Carboniferous clastic rocks of the South Tianshan and adjacent areas. Table S7

present statistics of available structural data of ductile deformation in the Central and South Tianshan.

## Analytical methods

### *LA-ICP-MS zircon U-Pb dating*

The rock samples were processed as follows to obtain zircon grains: rock sample crushing, powder sorting, heavy liquid separation, and electric and magnetic separation, followed by handpicking euhedral, colorless zircons without fractures under a binocular microscope. Thereafter, the zircon grains were mounted in epoxy resin and polished and carbon-coated for subsequent cathodoluminescence (CL) imaging and U-Pb analyses. The CL imaging of zircons was conducted using the Gatan MonoCL 3+ Fluorescence Spectrometer at the State Key Laboratory of Continental Dynamics, Department of Geology, Northwest University, Xi'an, China.

Zircon dating was conducted at different laboratories. Zircons from four samples of the Chahanwusu section (12TS62-3, 12TS68-2, 12TS69-1 and 12TS62-1) and six samples (12TS73-1, 12TS73-2, 12TS74, 12TS77-2, 12TS93-1 and 12TS98) of the Kergutu section were analyzed on a VG PQ quadrupole Multi-Collector Inductively Coupled Plasma Mass Spectrometry (MC-ICP-MS) (Nu Instruments, Wrexham, UK) that was equipped with a New Wave Research ultraviolet (UV) 193 nm laser-ablation system at the Department of Earth Sciences, University of Hong Kong, Hong Kong, China. Three analyses on the 91500 external standard zircon ([Wiedenbeck et al., 1995](#)), two analyses on the GJ internal standard zircon ( $608.5 \pm 1.5$  Ma; [Jackson et al., 2004](#)), and one analysis on a monitor NIST SRM 610 standard were performed before and after the experiment for each individual rock sample, and the 91500 external standard zircon and GJ internal standard zircon were analyzed twice every 10 analyses throughout the experiments. The off-line selection and integration of background and analytical signals and the time drift correction and quantitative calibration of U-Pb dating were performed with ICPMSDataCal ([Liu et al., 2008](#)).

Samples from the migmatitization domain of the Kergutu section (12TS95, 12TS82-1, 12TS82-3 and 12TS80-2) were dated on an Qtegra ICPMS that was attached to a New Wave 193 nm laser-ablation system with an in-house sample cell at the State Key Laboratory for Mineral Deposits Research (Nanjing University, Nanjing, China). Each batch of 15 zircon samples was analyzed together with four GJ internal standard zircons ( $608.5 \pm 1.5$  Ma; Jackson et al., 2004) and one Mud Tank external standard zircon ( $732 \pm 5$  Ma; Black & Gulson, 1978) to control the instrument stability and analytical accuracy. The U-Pb ages were calculated using the online software package GLITTER (ver. 4.4; <http://www.mq.edu.au/GEMOC>). Common-Pb correction was performed using the Microsoft Excel embedded program ComPbCorr#3 15G (Andersen, 2002).

### ***Whole-rock major and trace element***

The major elements were determined using X-ray fluorescence (XRF) at the Modern Analysis Center, Nanjing University, Nanjing, China. The details of the analytical procedures are similar to those described by Couture et al. (1993). Trace elements, including rare earth elements (REEs), were analyzed at the State Key Laboratory for Mineral Deposits Research at Nanjing University by using an HR-ICPMS (Finnigan Element II). The analytical procedures and equipment were reported by Gao et al. (2003). The analytical errors were 0.5%-3% for major elements and 0.7%-5% for trace elements.

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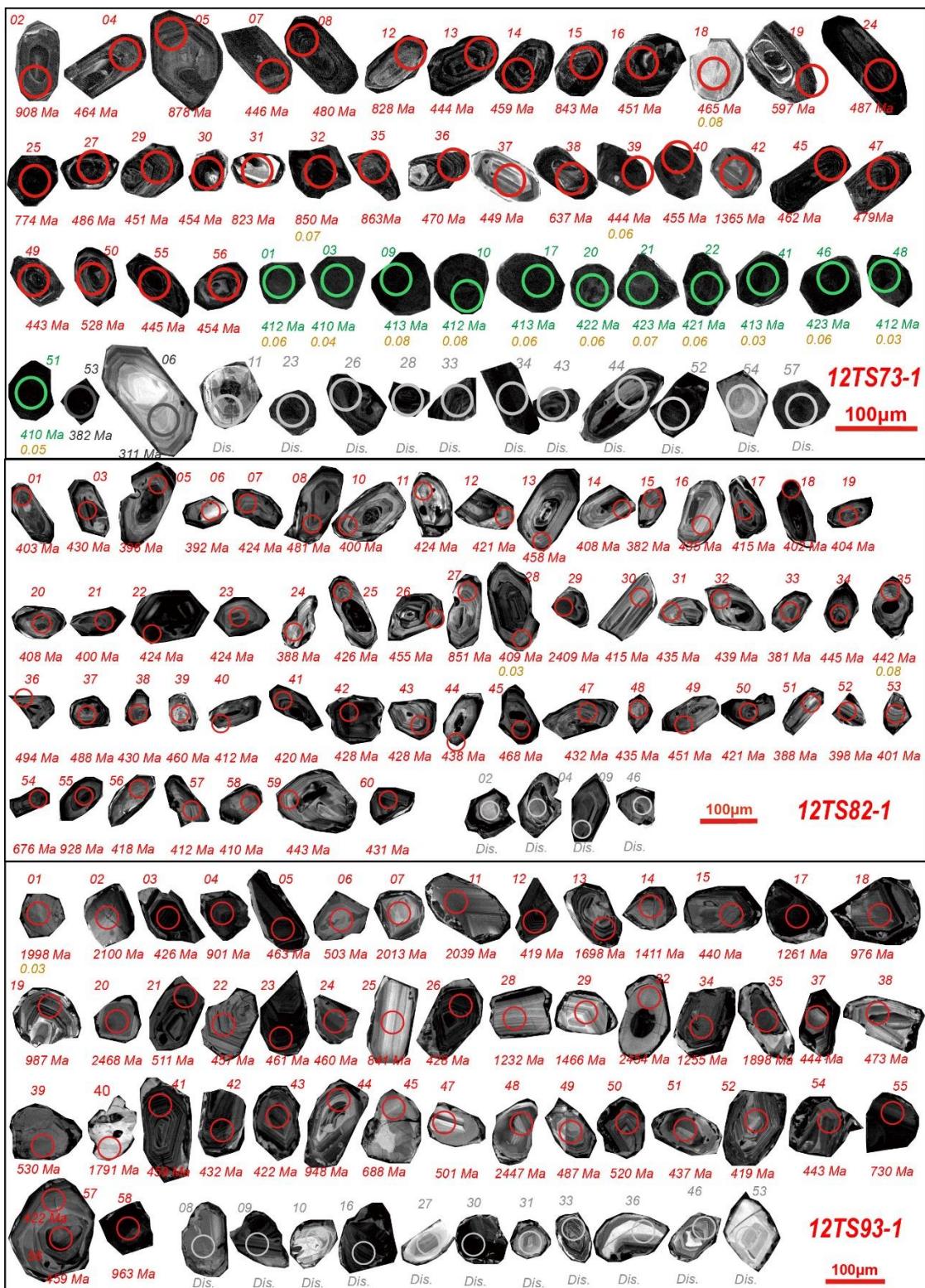
**Fig. S1.** Field photograph of the Cenozoic terraces and associated conglomerate along the Chahan-Wusu section.



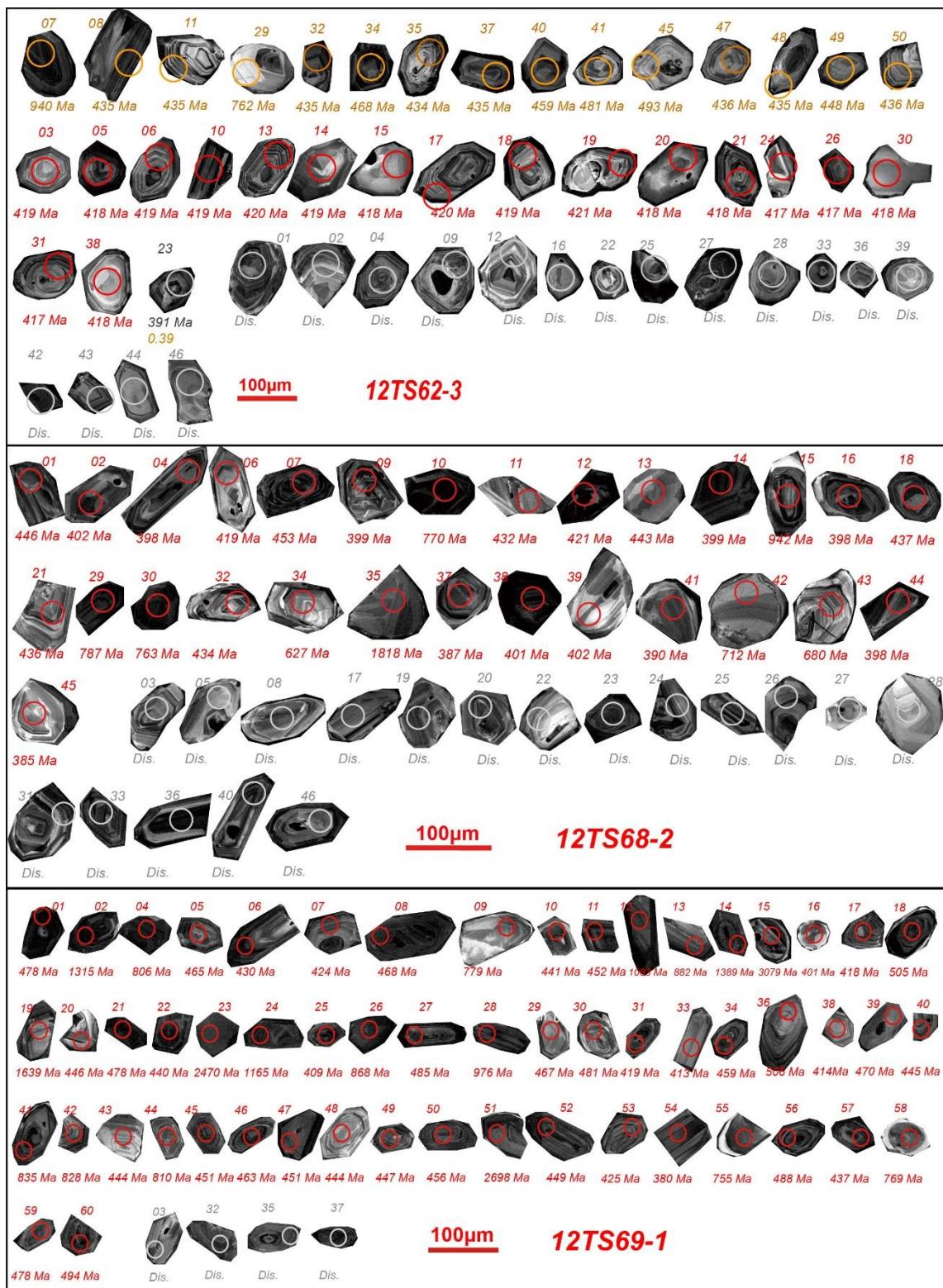
**Fig. S2.** Cathodoluminescence images of the zircons from the granitoids of the Kergutty section.



**Fig. S3.** Cathodoluminescence images of the zircons from the migmatites of the Kergutu section.



**Fig. S4.** Cathodoluminescence images of the zircons from the meta-sedimentary rocks in the Kerguty section.



**Fig. S5.** Cathodoluminescence images of the zircons from the volcanoclastic rocks from the Chahan-Wusu Section.



**Fig. S5 (continue).** Cathodoluminescence images of the zircons from the volcanoclastic rocks of Chahan-Wusu Section.

**Table S1** LA-ICP-MS zircon U-Pb dating results for magmatic rocks and migmatites in the Central and South Tianshan.

**Table S2** LA-ICP-MS zircon U-Pb dating results for clastic rocks in the Central and South Tianshan

**Table S3** Whole-rock major and trace elements content of the magmatic rocks and leucosome in the Central and South Tianshan.

**Table S4** Compilation of radiometric ages for Paleozoic magmatic rocks of the South Tianshan and adjacent areas.

**Table S5** Compilation of zircon Hf isotopic data for Paleozoic magmatic rocks of the South Tianshan and adjacent areas.

**Table S6** Compilation of detrital zircon U-Pb ages from Silurian-Carboniferous clastic rocks of the South Tianshan and adjacent areas.

**Table S7** Statistics of descriptions of ductile deformation kinematics in the Central and South Tianshan.

**Table S1 LA-ICP-MS zircon U-Pb dating results for magmatic rocks and migmatites in the Central and**

Spots	Th (ppm)	U (ppm)	Th/U	$^{207}\text{Pb}/^{206}\text{Pb}$	$\pm 1\sigma$	$^{207}\text{Pb}/^{235}\text{U}$	$\pm 1\sigma$	$^{206}\text{Pb}/^{238}\text{U}$
<b>Sample 12TS62-3, andesitic tuff, Chahanwusu section, GPS: 42°21' 37.3" N, 85°35' 1.4" E</b>								
12TS62-3-01	604	601	1.01	0.05751	0.00025	0.46658	0.00468	0.05868
12TS62-3-02	300	338	0.89	0.05985	0.00038	0.48920	0.00503	0.05910
<i>12TS62-3-03</i>	<i>160</i>	<i>205</i>	<i>0.78</i>	<i>0.05516</i>	<i>0.00016</i>	<i>0.51161</i>	<i>0.00342</i>	<i>0.06723</i>
12TS62-3-04	322	388	0.83	0.06390	0.00043	0.52228	0.00524	0.05913
<i>12TS62-3-05</i>	<i>330</i>	<i>352</i>	<i>0.94</i>	<i>0.05530</i>	<i>0.00019</i>	<i>0.51162</i>	<i>0.00290</i>	<i>0.06704</i>
<i>12TS62-3-06</i>	<i>283</i>	<i>390</i>	<i>0.72</i>	<i>0.05541</i>	<i>0.00016</i>	<i>0.51369</i>	<i>0.00253</i>	<i>0.06717</i>
12TS62-3-07	178	730	0.24	0.07177	0.00017	1.55561	0.01025	0.15707
<i>12TS62-3-08</i>	<i>175</i>	<i>345</i>	<i>0.51</i>	<i>0.05570</i>	<i>0.00018</i>	<i>0.53607</i>	<i>0.00322</i>	<i>0.06975</i>
12TS62-3-09	154	222	0.69	0.06150	0.00027	0.57621	0.00392	0.06799
<i>12TS62-3-10</i>	<i>468</i>	<i>624</i>	<i>0.75</i>	<i>0.05522</i>	<i>0.00023</i>	<i>0.51285</i>	<i>0.00575</i>	<i>0.06713</i>
<i>12TS62-3-11</i>	<i>208</i>	<i>238</i>	<i>0.87</i>	<i>0.05588</i>	<i>0.00027</i>	<i>0.53835</i>	<i>0.00476</i>	<i>0.06974</i>
12TS62-3-12	358	382	0.94	0.09228	0.00248	0.85599	0.02977	0.06567
<i>12TS62-3-13</i>	<i>188</i>	<i>280</i>	<i>0.67</i>	<i>0.05501</i>	<i>0.00023</i>	<i>0.51198</i>	<i>0.00496</i>	<i>0.06740</i>
<i>12TS62-3-14</i>	<i>369</i>	<i>408</i>	<i>0.90</i>	<i>0.05510</i>	<i>0.00023</i>	<i>0.51029</i>	<i>0.00530</i>	<i>0.06708</i>
<i>12TS62-3-15</i>	<i>238</i>	<i>222</i>	<i>1.07</i>	<i>0.05610</i>	<i>0.00026</i>	<i>0.51901</i>	<i>0.00413</i>	<i>0.06699</i>
12TS62-3-16	478	305	1.57	0.05971	0.00063	0.51171	0.00745	0.06183
<i>12TS62-3-17</i>	<i>234</i>	<i>363</i>	<i>0.65</i>	<i>0.05440</i>	<i>0.00020</i>	<i>0.50624</i>	<i>0.00323</i>	<i>0.06738</i>
<i>12TS62-3-18</i>	<i>103</i>	<i>150</i>	<i>0.69</i>	<i>0.05486</i>	<i>0.00024</i>	<i>0.50788</i>	<i>0.00360</i>	<i>0.06708</i>
<i>12TS62-3-19</i>	<i>245</i>	<i>299</i>	<i>0.82</i>	<i>0.05475</i>	<i>0.00018</i>	<i>0.51032</i>	<i>0.00477</i>	<i>0.06752</i>
<i>12TS62-3-20</i>	<i>265</i>	<i>250</i>	<i>1.06</i>	<i>0.05602</i>	<i>0.00027</i>	<i>0.51860</i>	<i>0.00367</i>	<i>0.06705</i>
<i>12TS62-3-21</i>	<i>257</i>	<i>307</i>	<i>0.84</i>	<i>0.05544</i>	<i>0.00017</i>	<i>0.51269</i>	<i>0.00436</i>	<i>0.06699</i>
12TS62-3-22	98	177	0.55	0.05884	0.00035	0.52968	0.00532	0.06518
12TS62-3-23	644	1643	0.39	0.05628	0.00014	0.48518	0.00594	0.06247
<i>12TS62-3-24</i>	<i>171</i>	<i>198</i>	<i>0.86</i>	<i>0.05539</i>	<i>0.00018</i>	<i>0.51088</i>	<i>0.00313</i>	<i>0.06685</i>
12TS62-3-25	1049	1886	0.56	0.06186	0.00016	0.42557	0.00348	0.04993
<i>12TS62-3-26</i>	<i>323</i>	<i>279</i>	<i>1.16</i>	<i>0.05533</i>	<i>0.00017</i>	<i>0.51063</i>	<i>0.00496</i>	<i>0.06683</i>
12TS62-3-27	235	505	0.47	0.07527	0.00027	1.16675	0.01478	0.11214
12TS62-3-28	372	417	0.89	0.05872	0.00028	0.51286	0.00361	0.06334
12TS62-3-29	54	78	0.70	0.06566	0.00022	1.13564	0.01051	0.12544
<i>12TS62-3-30</i>	<i>713</i>	<i>477</i>	<i>1.49</i>	<i>0.05525</i>	<i>0.00012</i>	<i>0.51042</i>	<i>0.00445</i>	<i>0.06700</i>
<i>12TS62-3-31</i>	<i>292</i>	<i>314</i>	<i>0.93</i>	<i>0.05618</i>	<i>0.00019</i>	<i>0.51819</i>	<i>0.00387</i>	<i>0.06688</i>
<i>12TS62-3-32</i>	<i>282</i>	<i>302</i>	<i>0.94</i>	<i>0.05599</i>	<i>0.00013</i>	<i>0.53954</i>	<i>0.00468</i>	<i>0.06989</i>
12TS62-3-33	602	581	1.04	0.06589	0.00071	0.53799	0.00897	0.05908
12TS62-3-34	201	235	0.86	0.05614	0.00017	0.58312	0.00779	0.07531
<i>12TS62-3-35</i>	<i>181</i>	<i>246</i>	<i>0.74</i>	<i>0.05598</i>	<i>0.00014</i>	<i>0.53758</i>	<i>0.00387</i>	<i>0.06963</i>
12TS62-3-36	167	218	0.76	0.08478	0.00090	0.74536	0.01413	0.06342
<i>12TS62-3-37</i>	<i>161</i>	<i>259</i>	<i>0.62</i>	<i>0.05598</i>	<i>0.00014</i>	<i>0.53930</i>	<i>0.00516</i>	<i>0.06989</i>
<i>12TS62-3-38</i>	<i>174</i>	<i>242</i>	<i>0.72</i>	<i>0.05596</i>	<i>0.00015</i>	<i>0.51638</i>	<i>0.00343</i>	<i>0.06694</i>
12TS62-3-39	176	762	0.23	0.07085	0.00114	0.64816	0.01516	0.06568
12TS62-3-40	226	226	1.00	0.05703	0.00020	0.58036	0.00368	0.07385
12TS62-3-41	154	188	0.82	0.05965	0.00026	0.63616	0.00701	0.07749
12TS62-3-42	742	691	1.07	0.05912	0.00022	0.55160	0.01229	0.06729
12TS62-3-43	338	366	0.92	0.05755	0.00027	0.50631	0.00562	0.06372
12TS62-3-44	99	117	0.84	0.06235	0.00083	0.58636	0.01288	0.06755
<i>12TS62-3-45</i>	<i>139</i>	<i>170</i>	<i>0.81</i>	<i>0.05738</i>	<i>0.00020</i>	<i>0.62891</i>	<i>0.00473</i>	<i>0.07947</i>
12TS62-3-46	222	195	1.14	0.05786	0.00032	0.54639	0.00797	0.06815

<i>12TS62-3-47</i>	222	266	0.84	0.05585	0.00018	0.53976	0.00483	0.07002
<i>12TS62-3-48</i>	108	163	0.66	0.05662	0.00018	0.54541	0.00453	0.06985
12TS62-3-49	403	408	0.99	0.05788	0.00015	0.57599	0.00728	0.07205
<i>12TS62-3-50</i>	253	405	0.62	0.05601	0.00013	0.54028	0.00334	0.06998
Sample 12TS73-2, K-feldspar granite dyke, Kergut section, GPS: 42°35' 9.1" N, 86°47' 51.7" E								
<i>12TS73-2-01</i>	108	234	0.46	0.05584	0.00022	0.53233	0.00471	0.06911
<i>12TS73-2-02</i>	125	256	0.49	0.05613	0.00015	0.53476	0.00553	0.06911
<i>12TS73-2-03</i>	499	753	0.66	0.05600	0.00014	0.53514	0.00543	0.06933
<i>12TS73-2-04</i>	205	301	0.68	0.05624	0.00017	0.53480	0.00328	0.06898
<i>12TS73-2-05</i>	400	519	0.77	0.05615	0.00017	0.53526	0.00629	0.06914
12TS73-2-06	167	267	0.63	0.05777	0.00021	0.50308	0.00319	0.06322
<i>12TS73-2-07</i>	290	397	0.73	0.05630	0.00020	0.53636	0.00663	0.06907
12TS73-2-08	229	472	0.49	0.05782	0.00041	0.53958	0.00858	0.06742
<i>12TS73-2-09</i>	99	191	0.52	0.05633	0.00024	0.53576	0.00503	0.06900
12TS73-2-10	249	343	0.73	0.06138	0.00035	0.56748	0.00624	0.06719
12TS73-2-11	129	293	0.44	0.06038	0.00056	0.54337	0.00682	0.06522
12TS73-2-12	230	305	0.75	0.07495	0.00107	0.71814	0.00885	0.06985
<i>12TS73-2-13</i>	98	196	0.50	0.05578	0.00029	0.53382	0.00549	0.06950
12TS73-2-14	181	349	0.52	0.06357	0.00059	0.54400	0.00561	0.06235
<i>12TS73-2-15</i>	449	573	0.78	0.05577	0.00032	0.53563	0.00836	0.06974
Sample 12TS74, foliated granodiorite, Kergut section, GPS: 42°35' 10.4" N, 86°47' 47.7" E								
<i>12TS74-01</i>	135	253	0.53	0.05584	0.00023	0.53712	0.00457	0.06975
<i>12TS74-02</i>	120	267	0.45	0.05577	0.00029	0.53551	0.00613	0.06955
12TS74-03	97	202	0.48	0.06766	0.00150	0.65439	0.01281	0.07058
12TS74-04	95	230	0.41	0.05917	0.00020	0.54967	0.00363	0.06741
12TS74-05	108	222	0.49	0.06000	0.00042	0.54010	0.00719	0.06509
<i>12TS74-06</i>	281	344	0.82	0.05642	0.00013	0.54224	0.00611	0.06972
<i>12TS74-07</i>	107	211	0.51	0.05750	0.00020	0.54995	0.00514	0.06941
<i>12TS74-08</i>	180	281	0.64	0.05677	0.00013	0.54162	0.00480	0.06915
12TS74-09	125	250	0.50	0.05961	0.00026	0.55483	0.00523	0.06751
<i>12TS74-10</i>	127	226	0.56	0.05733	0.00017	0.54902	0.00496	0.06940
<i>12TS74-11</i>	96	205	0.47	0.05673	0.00016	0.54311	0.00451	0.06938
12TS74-12	120	256	0.47	0.06782	0.00055	0.78181	0.00813	0.08373
12TS74-13	111	215	0.52	0.05963	0.00036	0.56323	0.00658	0.06845
<i>12TS74-14</i>	108	187	0.58	0.05723	0.00029	0.54787	0.00507	0.06949
<i>12TS74-15</i>	68	162	0.42	0.05691	0.00020	0.54511	0.00628	0.06948
<i>12TS74-16</i>	81	155	0.52	0.05638	0.00020	0.54035	0.00471	0.06953
<i>12TS74-17</i>	97	219	0.45	0.05659	0.00015	0.54266	0.00521	0.06955
Sample 12TS77-2, gneissic granite, Kergut section, GPS: 42°33' 19.7" N, 86°51' 50.9" E								
12TS77-2-01	1066	1333	0.80	0.06784	0.00043	0.58910	0.00520	0.06315
<i>12TS77-2-02</i>	633	899	0.70	0.05723	0.00033	0.54439	0.00486	0.06894
12TS77-2-03	334	809	0.41	0.07354	0.00017	1.78254	0.01217	0.17571
<i>12TS77-2-04</i>	229	1369	0.17	0.05574	0.00017	0.53038	0.00400	0.06896
12TS77-2-05	346	1319	0.26	0.05495	0.00018	0.50073	0.00284	0.06606
<i>12TS77-2-06</i>	730	1260	0.58	0.05661	0.00023	0.53851	0.00473	0.06899
<i>12TS77-2-07</i>	317	540	0.59	0.05641	0.00019	0.53805	0.00415	0.06915
<i>12TS77-2-08</i>	473	1173	0.40	0.05653	0.00023	0.53839	0.00590	0.06901
12TS77-2-09	961	666	1.44	0.06003	0.00044	0.55583	0.00539	0.06722
<i>12TS77-2-10</i>	603	1118	0.54	0.05526	0.00019	0.52939	0.00497	0.06945
12TS77-2-11	414	850	0.49	0.05922	0.00027	0.55700	0.00742	0.06810

12TS77-2-12	314	764	0.41	0.09118	0.00410	0.86536	0.04030	0.06860
12TS77-2-13	1303	1315	0.99	0.06443	0.00043	0.58116	0.00446	0.06540
12TS77-2-14	368	676	0.54	0.06606	0.00030	0.64806	0.00385	0.07116
12TS77-2-15	346	736	0.47	0.06563	0.00134	0.60900	0.01503	0.06712
12TS77-2-16	573	1336	0.43	0.06322	0.00104	0.63935	0.00850	0.07357
<i>12TS77-2-17</i>	<b>555</b>	<b>1114</b>	<b>0.50</b>	<b>0.05575</b>	<b>0.00016</b>	<b>0.53157</b>	<b>0.00375</b>	<b>0.06913</b>
<i>12TS77-2-18</i>	<b>160</b>	<b>252</b>	<b>0.63</b>	<b>0.05666</b>	<b>0.00036</b>	<b>0.54136</b>	<b>0.00411</b>	<b>0.06933</b>
<i>12TS77-2-19</i>	<b>223</b>	<b>472</b>	<b>0.47</b>	<b>0.05606</b>	<b>0.00022</b>	<b>0.53678</b>	<b>0.00402</b>	<b>0.06943</b>
12TS77-2-20	326	670	0.49	0.07462	0.00396	0.77030	0.05305	0.07325
12TS77-2-21	390	1171	0.33	0.06179	0.00033	0.59708	0.00821	0.06999

<b>Sample 12TS98, granite, Kergut section, GPS: 42°28' 41.2" N, 86°54' 17.5" E</b>								
<i>12TS98-01</i>	<b>107</b>	<b>551</b>	<b>0.19</b>	<b>0.05364</b>	<b>0.00030</b>	<b>0.35804</b>	<b>0.00314</b>	<b>0.04841</b>
<i>12TS98-02</i>	<b>333</b>	<b>4343</b>	<b>0.08</b>	<b>0.05357</b>	<b>0.00013</b>	<b>0.35549</b>	<b>0.00199</b>	<b>0.04815</b>
12TS98-03	268	1976	0.14	0.06108	0.00019	0.37579	0.00664	0.04457
12TS98-04	1338	2428	0.55	0.06485	0.00028	0.38683	0.00168	0.04327
<i>12TS98-05</i>	<b>432</b>	<b>1065</b>	<b>0.41</b>	<b>0.05378</b>	<b>0.00031</b>	<b>0.35579</b>	<b>0.00554</b>	<b>0.04805</b>
<i>12TS98-06</i>	<b>102</b>	<b>374</b>	<b>0.27</b>	<b>0.05156</b>	<b>0.00016</b>	<b>0.34297</b>	<b>0.00207</b>	<b>0.04824</b>
<i>12TS98-07</i>	<b>1266</b>	<b>742</b>	<b>1.71</b>	<b>0.05380</b>	<b>0.00018</b>	<b>0.35813</b>	<b>0.00635</b>	<b>0.04823</b>
<i>12TS98-08</i>	<b>247</b>	<b>673</b>	<b>0.37</b>	<b>0.05286</b>	<b>0.00041</b>	<b>0.35126</b>	<b>0.00488</b>	<b>0.04815</b>
12TS98-09	182	655	0.28	0.05898	0.00029	0.33436	0.00753	0.04109
12TS98-10	520	1182	0.44	0.05870	0.00013	0.40626	0.00441	0.05016
<i>12TS98-11</i>	<b>285</b>	<b>938</b>	<b>0.30</b>	<b>0.05398</b>	<b>0.00012</b>	<b>0.35936</b>	<b>0.00341</b>	<b>0.04825</b>

<b>Sample 12TS95, leuco-granite dyke, migmatitization domain of Kergut section, GPS: 42°31' 23.5" N, 86°52' 51.9" E</b>								
12TS95-01	57341120	1390938	33.33	0.05814	0.00162	0.33255	0.00940	0.04146
<i>12TS95-02</i>	<b>27471</b>	<b>1029338</b>	<b>0.03</b>	<b>0.05373</b>	<b>0.00176</b>	<b>0.35760</b>	<b>0.01175</b>	<b>0.04825</b>
<i>12TS95-03</i>	<b>11949</b>	<b>280123</b>	<b>0.04</b>	<b>0.05402</b>	<b>0.00353</b>	<b>0.36573</b>	<b>0.02343</b>	<b>0.04907</b>
<i>12TS95-04</i>	<b>25019</b>	<b>754613</b>	<b>0.03</b>	<b>0.05494</b>	<b>0.00313</b>	<b>0.36820</b>	<b>0.02054</b>	<b>0.04862</b>
12TS95-05	43143180	2356675	9.09	0.05810	0.00515	0.30812	0.02631	0.03860
<i>12TS95-06</i>	<b>116519</b>	<b>1390591</b>	<b>0.08</b>	<b>0.05415</b>	<b>0.00168</b>	<b>0.35356</b>	<b>0.01101</b>	<b>0.04734</b>
12TS95-07	197775	426754	0.46	0.05245	0.00189	0.33959	0.01220	0.04695
<i>12TS95-08</i>	<b>140823</b>	<b>240112</b>	<b>0.58</b>	<b>0.05896</b>	<b>0.00213</b>	<b>0.64544</b>	<b>0.02318</b>	<b>0.07938</b>
12TS95-09	31582908	8562076	3.70	0.05140	0.00156	0.29286	0.00899	0.04132
<i>12TS95-10</i>	<b>19062</b>	<b>752565</b>	<b>0.03</b>	<b>0.05565</b>	<b>0.00287</b>	<b>0.37618</b>	<b>0.01905</b>	<b>0.04901</b>
<i>12TS95-11</i>	<b>9827</b>	<b>698745</b>	<b>0.01</b>	<b>0.05371</b>	<b>0.00279</b>	<b>0.35984</b>	<b>0.01839</b>	<b>0.04859</b>
12TS95-12	154647	2048645	0.08	0.05786	0.00819	0.37670	0.05291	0.04902
12TS95-13	56099	2051364	0.03	0.05603	0.00278	0.34956	0.01699	0.04524
12TS95-14	141016	310082	0.45	0.05779	0.00371	0.62546	0.03935	0.07855
<i>12TS95-15</i>	<b>17611</b>	<b>1263316</b>	<b>0.01</b>	<b>0.05562</b>	<b>0.00341</b>	<b>0.37136</b>	<b>0.02237</b>	<b>0.04844</b>
<i>12TS95-16</i>	<b>32546</b>	<b>276242</b>	<b>0.12</b>	<b>0.05245</b>	<b>0.00667</b>	<b>0.34940</b>	<b>0.04310</b>	<b>0.04832</b>
<i>12TS95-17</i>	<b>19597</b>	<b>347349</b>	<b>0.06</b>	<b>0.05129</b>	<b>0.00405</b>	<b>0.34784</b>	<b>0.02688</b>	<b>0.04922</b>
<i>12TS95-18</i>	<b>21731</b>	<b>568007</b>	<b>0.04</b>	<b>0.05232</b>	<b>0.00324</b>	<b>0.34901</b>	<b>0.02128</b>	<b>0.04838</b>
<i>12TS95-19</i>	<b>149334</b>	<b>641638</b>	<b>0.23</b>	<b>0.05321</b>	<b>0.00374</b>	<b>0.34891</b>	<b>0.02415</b>	<b>0.04756</b>
<i>12TS95-20</i>	<b>20709</b>	<b>1545350</b>	<b>0.01</b>	<b>0.05350</b>	<b>0.00199</b>	<b>0.34718</b>	<b>0.01296</b>	<b>0.04706</b>

<b>Sample 12TS82-3, leucosome, migmatitization domain of Kergut section, GPS: 42°31' 28" N, 86°52' 51.1" E</b>								
12TS82-3-01	15541	19980	0.78	0.16158	0.00433	10.17816	0.27924	0.45721
12TS82-3-02	486	29617	0.02	0.05826	0.00509	0.61469	0.05217	0.07655
12TS82-3-03	72956	393969	0.19	0.06776	0.00182	1.32667	0.03668	0.14204
<i>12TS82-3-04</i>	<b>433</b>	<b>13951</b>	<b>0.03</b>	<b>0.05535</b>	<b>0.01003</b>	<b>0.39906</b>	<b>0.07099</b>	<b>0.05232</b>
12TS82-3-05	9	43295	0.00	0.05783	0.00655	0.50863	0.05645	0.06380
<i>12TS82-3-06</i>	<b>315</b>	<b>77381</b>	<b>0.00</b>	<b>0.05461</b>	<b>0.00498</b>	<b>0.40790</b>	<b>0.03627</b>	<b>0.05419</b>

<i>12TS82-3-07</i>	<b>28</b>	<i>12312</i>	<b>0.00</b>	<b>0.05503</b>	<b>0.01292</b>	<b>0.40351</b>	<b>0.09268</b>	<b>0.05319</b>
12TS82-3-08	141	2498	0.06	0.13594	0.06345	1.03579	0.44913	0.05534
<i>12TS82-3-09</i>	<b>262</b>	<i>39422</i>	<b>0.01</b>	<b>0.05321</b>	<b>0.00561</b>	<b>0.38972</b>	<b>0.03983</b>	<b>0.05311</b>
<i>12TS82-3-10</i>	<b>1132</b>	<i>449059</i>	<b>0.00</b>	<b>0.05343</b>	<b>0.00230</b>	<b>0.38376</b>	<b>0.01634</b>	<b>0.05211</b>
12TS82-3-11	5	4012	0.00	0.07515	0.04153	0.79465	0.42909	0.07671
<i>12TS82-3-12</i>	<b>2154</b>	<i>174561</i>	<b>0.01</b>	<b>0.05354</b>	<b>0.00528</b>	<b>0.38732</b>	<b>0.03736</b>	<b>0.05249</b>
Sample 12TS80-2, migmatite, migmatitization domain of Kergutu section, GPS: 42°32' 35.1" N, 86°51' 43.8" E								
<i>12TS80-2-01</i>	<b>530484</b>	<i>644634</i>	<b>0.82</b>	<b>0.05616</b>	<b>0.00184</b>	<b>0.56238</b>	<b>0.01858</b>	<b>0.07271</b>
<i>12TS80-2-02</i>	<b>7509</b>	<i>569379</i>	<b>0.01</b>	<b>0.05495</b>	<b>0.00182</b>	<b>0.51299</b>	<b>0.01705</b>	<b>0.06775</b>
<i>12TS80-2-03</i>	<b>383673</b>	<i>516309</i>	<b>0.74</b>	<b>0.05566</b>	<b>0.00206</b>	<b>0.55576</b>	<b>0.02049</b>	<b>0.07251</b>
<i>12TS80-2-04</i>	<b>476746</b>	<i>656513</i>	<b>0.72</b>	<b>0.05670</b>	<b>0.00175</b>	<b>0.56053</b>	<b>0.01754</b>	<b>0.07174</b>
<i>12TS80-2-05</i>	<b>443703</b>	<i>691446</i>	<b>0.64</b>	<b>0.05676</b>	<b>0.00240</b>	<b>0.56764</b>	<b>0.02385</b>	<b>0.07262</b>
<i>12TS80-2-06</i>	<b>31295</b>	<i>282326</i>	<b>0.11</b>	<b>0.05589</b>	<b>0.00230</b>	<b>0.52285</b>	<b>0.02137</b>	<b>0.06792</b>
<i>12TS80-2-07</i>	<b>126402</b>	<i>697715</i>	<b>0.18</b>	<b>0.05616</b>	<b>0.00210</b>	<b>0.52590</b>	<b>0.01966</b>	<b>0.06800</b>
<i>12TS80-2-08</i>	<b>319378</b>	<i>447312</i>	<b>0.71</b>	<b>0.05605</b>	<b>0.00251</b>	<b>0.55601</b>	<b>0.02476</b>	<b>0.07204</b>
<i>12TS80-2-09</i>	<b>467200</b>	<i>819358</i>	<b>0.57</b>	<b>0.05696</b>	<b>0.00208</b>	<b>0.56238</b>	<b>0.02058</b>	<b>0.07169</b>
<i>12TS80-2-10</i>	<b>72707</b>	<i>835733</i>	<b>0.09</b>	<b>0.05608</b>	<b>0.00227</b>	<b>0.51968</b>	<b>0.02092</b>	<b>0.06738</b>
<i>12TS80-2-11</i>	<b>25709</b>	<i>404304</i>	<b>0.06</b>	<b>0.05581</b>	<b>0.00239</b>	<b>0.51961</b>	<b>0.02192</b>	<b>0.06763</b>
<i>12TS80-2-12</i>	<b>516122</b>	<i>850472</i>	<b>0.61</b>	<b>0.05684</b>	<b>0.00287</b>	<b>0.56776</b>	<b>0.02824</b>	<b>0.07259</b>
12TS80-2-13	510506	542952	0.94	0.05909	0.00211	0.55082	0.01967	0.06767
12TS80-2-14	173440	857411	0.20	0.05842	0.00286	0.65064	0.03141	0.08098
12TS80-2-15	360155	797062	0.45	0.05759	0.00314	0.60786	0.03248	0.07685

Notes:

a. Concordance = 1 - abs(( $^{207}\text{Pb} / ^{235}\text{U}$ ) - ( $^{206}\text{Pb} / ^{238}\text{U}$ )) / ( $^{206}\text{Pb} / ^{238}\text{U}$ )

b. Discordant results: concordance  $\leqslant$  95% and error ratios  $>$  5%.

c. Analyses in bold italics are used for calculation.

d.  $^{207}\text{Pb} / ^{206}\text{Pb}$  and  $^{206}\text{Pb} / ^{238}\text{U}$  ages were adopted during calculation and illustration of analyses with apparent ages above and below 1000 M

### South Tianshan.

$\pm 1\sigma$	$^{207}\text{Pb}/^{206}\text{Pb}$ (Ma)	$\pm 1\sigma$	$^{207}\text{Pb}/^{235}\text{U}$ (Ma)	$\pm 1\sigma$	$^{206}\text{Pb}/^{238}\text{U}$ (Ma)	$\pm 1\sigma$	conj %	$^{207}\text{Pb}/^{206}\text{Pb}$ (error ratio)	$^{206}\text{Pb}/^{238}\text{U}$ (error ratio)
0.00040	509	9	389	3	368	2	94%	0.0182	0.0066
0.00033	598	15	404	3	370	2	91%	0.0248	0.0055
<b>0.00042</b>	<b>417</b>	<b>10</b>	<b>420</b>	<b>2</b>	<b>419</b>	<b>3</b>	<b>99%</b>	<b>0.0244</b>	<b>0.0061</b>
0.00035	739	15	427	4	370	2	85%	0.0201	0.0057
<b>0.00031</b>	<b>433</b>	<b>7</b>	<b>420</b>	<b>2</b>	<b>418</b>	<b>2</b>	<b>99%</b>	<b>0.0171</b>	<b>0.0045</b>
<b>0.00031</b>	<b>428</b>	<b>1</b>	<b>421</b>	<b>2</b>	<b>419</b>	<b>2</b>	<b>99%</b>	<b>0.0022</b>	<b>0.0046</b>
0.00106	989	4	953	4	940	6	98%	0.0037	0.0063
<b>0.00044</b>	<b>439</b>	<b>12</b>	<b>436</b>	<b>2</b>	<b>435</b>	<b>3</b>	<b>99%</b>	<b>0.0274</b>	<b>0.0062</b>
0.00055	657	5	462	3	424	3	91%	0.0070	0.0078
<b>0.00059</b>	<b>420</b>	<b>9</b>	<b>420</b>	<b>4</b>	<b>419</b>	<b>4</b>	<b>99%</b>	<b>0.0220</b>	<b>0.0086</b>
<b>0.00054</b>	<b>456</b>	<b>11</b>	<b>437</b>	<b>3</b>	<b>435</b>	<b>3</b>	<b>99%</b>	<b>0.0244</b>	<b>0.0075</b>
0.00061	1473	51	628	16	410	4	58%	0.0349	0.0090
<b>0.00066</b>	<b>413</b>	-23	<b>420</b>	<b>3</b>	<b>420</b>	<b>4</b>	<b>99%</b>	<b>-0.0560</b>	<b>0.0095</b>
<b>0.00072</b>	<b>417</b>	<b>14</b>	<b>419</b>	<b>4</b>	<b>419</b>	<b>4</b>	<b>99%</b>	<b>0.0333</b>	<b>0.0104</b>
<b>0.00054</b>	<b>457</b>	<b>5</b>	<b>424</b>	<b>3</b>	<b>418</b>	<b>3</b>	<b>98%</b>	<b>0.0101</b>	<b>0.0079</b>
0.00042	594	24	420	5	387	3	91%	0.0405	0.0066
<b>0.00041</b>	<b>387</b>	<b>3</b>	<b>416</b>	<b>2</b>	<b>420</b>	<b>2</b>	<b>98%</b>	<b>0.0072</b>	<b>0.0059</b>
<b>0.00047</b>	<b>406</b>	<b>9</b>	<b>417</b>	<b>2</b>	<b>419</b>	<b>3</b>	<b>99%</b>	<b>0.0228</b>	<b>0.0068</b>
<b>0.00064</b>	<b>467</b>	<b>7</b>	<b>419</b>	<b>3</b>	<b>421</b>	<b>4</b>	<b>99%</b>	<b>0.0159</b>	<b>0.0091</b>
<b>0.00039</b>	<b>454</b>	<b>11</b>	<b>424</b>	<b>2</b>	<b>418</b>	<b>2</b>	<b>98%</b>	<b>0.0245</b>	<b>0.0056</b>
<b>0.00055</b>	<b>432</b>	<b>1</b>	<b>420</b>	<b>3</b>	<b>418</b>	<b>3</b>	<b>99%</b>	<b>0.0021</b>	<b>0.0080</b>
0.00046	561	13	432	4	407	3	94%	0.0231	0.0069
0.00077	465	10	402	4	391	5	97%	0.0219	0.0119
<b>0.00038</b>	<b>428</b>	<b>7</b>	<b>419</b>	<b>2</b>	<b>417</b>	<b>2</b>	<b>99%</b>	<b>0.0173</b>	<b>0.0056</b>
0.00046	733	6	360	2	314	3	86%	0.0076	0.0091
<b>0.00055</b>	<b>433</b>	<b>6</b>	<b>419</b>	<b>3</b>	<b>417</b>	<b>3</b>	<b>99%</b>	<b>0.0128</b>	<b>0.0080</b>
0.00125	1076	-25	785	7	685	7	86%	-0.0232	0.0106
0.00035	567	11	420	2	396	2	94%	0.0196	0.0054
0.00111	794	206	770	5	762	6	98%	0.2589	0.0084
<b>0.00059</b>	<b>433</b>	<b>6</b>	<b>419</b>	<b>3</b>	<b>418</b>	<b>4</b>	<b>99%</b>	<b>0.0128</b>	<b>0.0085</b>
<b>0.00045</b>	<b>461</b>	<b>12</b>	<b>424</b>	<b>3</b>	<b>417</b>	<b>3</b>	<b>98%</b>	<b>0.0261</b>	<b>0.0065</b>
<b>0.00060</b>	<b>454</b>	<b>1</b>	<b>438</b>	<b>3</b>	<b>435</b>	<b>4</b>	<b>99%</b>	<b>0.0020</b>	<b>0.0083</b>
0.00068	1200	22	437	6	370	4	83%	0.0185	0.0112
0.00099	457	7	466	5	468	6	99%	0.0162	0.0127
<b>0.00048</b>	<b>450</b>	<b>1</b>	<b>437</b>	<b>3</b>	<b>434</b>	<b>3</b>	<b>99%</b>	<b>0.0021</b>	<b>0.0067</b>
0.00062	1311	16	566	8	396	4	64%	0.0120	0.0095
<b>0.00069</b>	<b>450</b>	<b>1</b>	<b>438</b>	<b>3</b>	<b>435</b>	<b>4</b>	<b>99%</b>	<b>0.0021</b>	<b>0.0095</b>
<b>0.00045</b>	<b>450</b>	<b>1</b>	<b>423</b>	<b>2</b>	<b>418</b>	<b>3</b>	<b>98%</b>	<b>0.0021</b>	<b>0.0066</b>
0.00061	954	33	507	9	410	4	78%	0.0350	0.0090
0.00050	500	9	465	2	459	3	98%	0.0185	0.0066
0.00094	591	11	500	4	481	6	96%	0.0188	0.0117
0.00129	572	12	446	8	420	8	93%	0.0210	0.0186
0.00058	522	11	416	4	398	4	95%	0.0213	0.0089
0.00070	687	32	469	8	421	4	89%	0.0472	0.0100
<b>0.00058</b>	<b>506</b>	<b>12</b>	<b>495</b>	<b>3</b>	<b>493</b>	<b>3</b>	<b>99%</b>	<b>0.0238</b>	<b>0.0071</b>
0.00071	524	39	443	5	425	4	95%	0.0742	0.0101

<b>0.00055</b>	<b>456</b>	7	438	3	436	3	99%	<b>0.0163</b>	<b>0.0076</b>
<b>0.00058</b>	<b>476</b>	3	442	3	435	3	98%	<b>0.0058</b>	<b>0.0080</b>
0.00084	524	6	462	5	448	5	97%	0.0106	0.0112
<b>0.00048</b>	<b>454</b>	1	439	2	436	3	99%	<b>0.0020</b>	<b>0.0067</b>

<b>0.00052</b>	<b>456</b>	7	433	3	431	3	99%	<b>0.0163</b>	<b>0.0072</b>
<b>0.00069</b>	<b>457</b>	7	435	4	431	4	99%	<b>0.0162</b>	<b>0.0097</b>
<b>0.00070</b>	<b>454</b>	1	435	4	432	4	99%	<b>0.0020</b>	<b>0.0097</b>
<b>0.00036</b>	<b>461</b>	12	435	2	430	2	98%	<b>0.0261</b>	<b>0.0051</b>
<b>0.00075</b>	<b>457</b>	7	435	4	431	5	99%	<b>0.0162</b>	<b>0.0106</b>
0.00036	520	3	414	2	395	2	95%	0.0053	0.0056
<b>0.00074</b>	<b>465</b>	7	436	4	431	4	98%	<b>0.0159</b>	<b>0.0104</b>
0.00058	524	17	438	6	421	3	95%	0.0318	0.0083
<b>0.00051</b>	<b>465</b>	9	436	3	430	3	98%	<b>0.0199</b>	<b>0.0072</b>
0.00067	654	13	456	4	419	4	91%	0.0198	0.0097
0.00033	617	20	441	4	407	2	92%	0.0330	0.0050
0.00041	1133	28	550	5	435	2	76%	0.0249	0.0057
<b>0.00056</b>	<b>443</b>	11	434	4	433	3	99%	<b>0.0251</b>	<b>0.0078</b>
0.00051	728	19	441	4	390	3	87%	0.0254	0.0079
<b>0.00096</b>	<b>443</b>	13	436	6	435	6	99%	<b>0.0293</b>	<b>0.0133</b>

<b>0.00055</b>	<b>456</b>	9	437	3	435	3	99%	<b>0.0203</b>	<b>0.0077</b>
<b>0.00061</b>	<b>443</b>	11	435	4	433	4	99%	<b>0.0251</b>	<b>0.0085</b>
0.00038	857	45	511	8	440	2	84%	0.0527	0.0052
0.00047	572	12	445	2	421	3	94%	0.0210	0.0068
0.00054	603	17	438	5	406	3	92%	0.0276	0.0081
<b>0.00081</b>	<b>478</b>	4	440	4	434	5	98%	<b>0.0077</b>	<b>0.0112</b>
<b>0.00068</b>	<b>509</b>	7	445	3	433	4	97%	<b>0.0145</b>	<b>0.0095</b>
<b>0.00057</b>	<b>483</b>	6	439	3	431	3	98%	<b>0.0115</b>	<b>0.0080</b>
0.00060	591	5	448	3	421	4	93%	0.0078	0.0087
<b>0.00056</b>	<b>506</b>	6	444	3	433	3	97%	<b>0.0110</b>	<b>0.0078</b>
<b>0.00052</b>	<b>480</b>	6	440	3	432	3	98%	<b>0.0116</b>	<b>0.0072</b>
0.00072	865	12	587	5	518	4	87%	0.0139	0.0083
0.00062	591	18	454	4	427	4	93%	0.0298	0.0088
<b>0.00064</b>	<b>502</b>	11	444	3	433	4	97%	<b>0.0221</b>	<b>0.0089</b>
<b>0.00079</b>	<b>487</b>	7	442	4	433	5	97%	<b>0.0152</b>	<b>0.0110</b>
<b>0.00060</b>	<b>478</b>	7	439	3	433	4	98%	<b>0.0155</b>	<b>0.0084</b>
<b>0.00066</b>	<b>476</b>	1	440	3	433	4	98%	<b>0.0019</b>	<b>0.0091</b>

0.00085	865	13	470	3	395	5	82%	0.0150	0.0131
<b>0.00048</b>	<b>502</b>	18	441	3	430	3	97%	<b>0.0350</b>	<b>0.0068</b>
<b>0.00123</b>	<b>1029</b>	1	1039	4	1044	7	99%	0.0009	0.0065
<b>0.00043</b>	<b>443</b>	7	432	3	430	3	99%	<b>0.0167</b>	<b>0.0061</b>
0.00036	409	-25	412	2	412	2	99%	-0.0611	0.0053
<b>0.00065</b>	<b>476</b>	5	437	3	430	4	98%	<b>0.0097</b>	<b>0.0092</b>
<b>0.00052</b>	<b>478</b>	7	437	3	431	3	98%	<b>0.0155</b>	<b>0.0073</b>
<b>0.00059</b>	<b>472</b>	9	437	4	430	4	98%	<b>0.0196</b>	<b>0.0083</b>
0.00073	606	17	449	4	419	4	93%	0.0275	0.0105
<b>0.00064</b>	<b>433</b>	7	431	3	433	4	99%	<b>0.0171</b>	<b>0.0089</b>
0.00072	576	9	450	5	425	4	94%	0.0161	0.0102

0.00048	1450	91	633	22	428	3	61%	0.0629	0.0067
0.00034	767	13	465	3	408	2	86%	0.0169	0.0051
0.00047	809	9	507	2	443	3	86%	0.0114	0.0065
0.00041	794	43	483	9	419	2	85%	0.0546	0.0060
0.00064	717	35	502	5	458	4	90%	0.0491	0.0084
<b>0.00050</b>	<b>443</b>	<b>7</b>	<b>433</b>	<b>3</b>	<b>431</b>	<b>3</b>	<b>99%</b>	<b>0.0167</b>	<b>0.0070</b>
<b>0.00057</b>	<b>480</b>	<b>18</b>	<b>439</b>	<b>3</b>	<b>432</b>	<b>3</b>	<b>98%</b>	<b>0.0367</b>	<b>0.0079</b>
<b>0.00051</b>	<b>454</b>	<b>5</b>	<b>436</b>	<b>3</b>	<b>433</b>	<b>3</b>	<b>99%</b>	<b>0.0102</b>	<b>0.0071</b>
0.00080	1058	107	580	30	456	5	76%	0.1011	0.0105
0.00075	733	13	475	5	436	5	91%	0.0177	0.0104

<b>0.00036</b>	<b>367</b>	<b>13</b>	<b>311</b>	<b>2</b>	<b>305</b>	<b>2</b>	<b>98%</b>	<b>0.0353</b>	<b>0.0073</b>
<b>0.00030</b>	<b>354</b>	<b>10</b>	<b>309</b>	<b>2</b>	<b>303</b>	<b>2</b>	<b>98%</b>	<b>0.0288</b>	<b>0.0061</b>
0.00074	643	7	324	5	281	5	85%	0.0115	0.0162
0.00014	769	14	332	1	273	1	80%	0.0181	0.0031
<b>0.00076</b>	<b>361</b>	<b>13</b>	<b>309</b>	<b>4</b>	<b>303</b>	<b>5</b>	<b>97%</b>	<b>0.0359</b>	<b>0.0154</b>
<b>0.00025</b>	<b>265</b>	<b>7</b>	<b>299</b>	<b>2</b>	<b>304</b>	<b>2</b>	<b>98%</b>	<b>0.0280</b>	<b>0.0050</b>
<b>0.00081</b>	<b>361</b>	<b>7</b>	<b>311</b>	<b>5</b>	<b>304</b>	<b>5</b>	<b>97%</b>	<b>0.0205</b>	<b>0.0164</b>
<b>0.00048</b>	<b>324</b>	<b>17</b>	<b>306</b>	<b>4</b>	<b>303</b>	<b>3</b>	<b>99%</b>	<b>0.0514</b>	<b>0.0098</b>
0.00087	565	5	293	6	260	5	87%	0.0082	0.0207
0.00050	567	6	346	3	315	3	90%	0.0098	0.0097
<b>0.00042</b>	<b>369</b>	<b>6</b>	<b>312</b>	<b>3</b>	<b>304</b>	<b>3</b>	<b>97%</b>	<b>0.0151</b>	<b>0.0085</b>

0.00065	535	62	292	7	262	4	89%	0.1159	0.0153
<b>0.00080</b>	<b>360</b>	<b>76</b>	<b>310</b>	<b>9</b>	<b>304</b>	<b>5</b>	<b>98%</b>	<b>0.2111</b>	<b>0.0164</b>
<b>0.00106</b>	<b>372</b>	<b>151</b>	<b>316</b>	<b>17</b>	<b>309</b>	<b>7</b>	<b>98%</b>	<b>0.4059</b>	<b>0.0227</b>
<b>0.00103</b>	<b>410</b>	<b>131</b>	<b>318</b>	<b>15</b>	<b>306</b>	<b>6</b>	<b>96%</b>	<b>0.3195</b>	<b>0.0196</b>
0.00107	534	201	273	20	244	7	88%	0.3764	0.0287
<b>0.00076</b>	<b>377</b>	<b>71</b>	<b>307</b>	<b>8</b>	<b>298</b>	<b>5</b>	<b>97%</b>	<b>0.1883</b>	<b>0.0168</b>
0.00080	305	84	297	9	296	5	100%	0.2754	0.0169
<b>0.00135</b>	<b>566</b>	<b>81</b>	<b>506</b>	<b>14</b>	<b>492</b>	<b>8</b>	<b>97%</b>	<b>0.1431</b>	<b>0.0163</b>
0.00066	259	71	261	7	261	4	100%	0.2741	0.0153
<b>0.00099</b>	<b>438</b>	<b>118</b>	<b>324</b>	<b>14</b>	<b>308</b>	<b>6</b>	<b>95%</b>	<b>0.2694</b>	<b>0.0195</b>
<b>0.00095</b>	<b>359</b>	<b>120</b>	<b>312</b>	<b>14</b>	<b>306</b>	<b>6</b>	<b>98%</b>	<b>0.3343</b>	<b>0.0196</b>
0.00261	524	322	325	39	309	16	95%	0.6145	0.0518
0.00091	454	113	304	13	285	6	93%	0.2489	0.0211
<b>0.00182</b>	<b>522</b>	<b>145</b>	<b>493</b>	<b>25</b>	<b>487</b>	<b>11</b>	<b>99%</b>	<b>0.2778</b>	<b>0.0226</b>
<b>0.00109</b>	<b>437</b>	<b>140</b>	<b>321</b>	<b>17</b>	<b>305</b>	<b>7</b>	<b>95%</b>	<b>0.3204</b>	<b>0.0230</b>
<b>0.00175</b>	<b>305</b>	<b>288</b>	<b>304</b>	<b>32</b>	<b>304</b>	<b>11</b>	<b>100%</b>	<b>0.9443</b>	<b>0.0362</b>
<b>0.00116</b>	<b>254</b>	<b>181</b>	<b>303</b>	<b>20</b>	<b>310</b>	<b>7</b>	<b>98%</b>	<b>0.7126</b>	<b>0.0226</b>
<b>0.00099</b>	<b>299</b>	<b>144</b>	<b>304</b>	<b>16</b>	<b>305</b>	<b>6</b>	<b>100%</b>	<b>0.4816</b>	<b>0.0197</b>
<b>0.00102</b>	<b>338</b>	<b>162</b>	<b>304</b>	<b>18</b>	<b>300</b>	<b>6</b>	<b>99%</b>	<b>0.4793</b>	<b>0.0200</b>
<b>0.00079</b>	<b>350</b>	<b>86</b>	<b>303</b>	<b>10</b>	<b>296</b>	<b>5</b>	<b>98%</b>	<b>0.2457</b>	<b>0.0169</b>

0.00801	2472	46	2451	25	2427	35	99%	0.0186	0.0144
0.00220	540	198	487	33	475	13	97%	0.3667	0.0274
0.00225	861	57	857	16	856	13	100%	0.0662	0.0152
<b>0.00211</b>	<b>426</b>	<b>378</b>	<b>341</b>	<b>52</b>	<b>329</b>	<b>13</b>	<b>96%</b>	<b>0.8873</b>	<b>0.0395</b>
0.00190	523	257	418	38	399	12	95%	0.4914	0.0301
<b>0.00147</b>	<b>396</b>	<b>209</b>	<b>347</b>	<b>26</b>	<b>340</b>	<b>9</b>	<b>98%</b>	<b>0.5278</b>	<b>0.0265</b>

<b>0.00285</b>	<b>413</b>	<b>450</b>	<b>344</b>	<b>67</b>	<b>334</b>	<b>16</b>	<b>97%</b>	<b>1.0896</b>	<b>0.0479</b>
0.01008	2176	1166	722	224	347	62	-8%	0.5358	0.1787
<b>0.00169</b>	<b>338</b>	<b>241</b>	<b>334</b>	<b>29</b>	<b>334</b>	<b>10</b>	<b>100%</b>	<b>0.7130</b>	<b>0.0299</b>
<b>0.00094</b>	<b>347</b>	<b>100</b>	<b>330</b>	<b>12</b>	<b>327</b>	<b>6</b>	<b>99%</b>	<b>0.2882</b>	<b>0.0183</b>
0.00978	1073	1110	594	243	476	59	75%	1.0345	0.1239
<b>0.00142</b>	<b>352</b>	<b>225</b>	<b>332</b>	<b>27</b>	<b>330</b>	<b>9</b>	<b>99%</b>	<b>0.6392</b>	<b>0.0273</b>
<b>0.00120</b>	<b>459</b>	<b>74</b>	<b>453</b>	<b>12</b>	<b>452</b>	<b>7</b>	<b>100%</b>	<b>0.1612</b>	<b>0.0155</b>
<b>0.00111</b>	<b>410</b>	<b>76</b>	<b>420</b>	<b>11</b>	<b>423</b>	<b>7</b>	<b>99%</b>	<b>0.1854</b>	<b>0.0165</b>
<b>0.00122</b>	<b>439</b>	<b>84</b>	<b>449</b>	<b>13</b>	<b>451</b>	<b>7</b>	<b>100%</b>	<b>0.1913</b>	<b>0.0155</b>
<b>0.00116</b>	<b>480</b>	<b>70</b>	<b>452</b>	<b>11</b>	<b>447</b>	<b>7</b>	<b>99%</b>	<b>0.1458</b>	<b>0.0157</b>
<b>0.00135</b>	<b>482</b>	<b>96</b>	<b>456</b>	<b>15</b>	<b>452</b>	<b>8</b>	<b>99%</b>	<b>0.1992</b>	<b>0.0177</b>
<b>0.00118</b>	<b>448</b>	<b>94</b>	<b>427</b>	<b>14</b>	<b>424</b>	<b>7</b>	<b>99%</b>	<b>0.2098</b>	<b>0.0165</b>
<b>0.00114</b>	<b>459</b>	<b>85</b>	<b>429</b>	<b>13</b>	<b>424</b>	<b>7</b>	<b>99%</b>	<b>0.1852</b>	<b>0.0165</b>
<b>0.00133</b>	<b>454</b>	<b>102</b>	<b>449</b>	<b>16</b>	<b>448</b>	<b>8</b>	<b>100%</b>	<b>0.2247</b>	<b>0.0179</b>
<b>0.00124</b>	<b>490</b>	<b>83</b>	<b>453</b>	<b>13</b>	<b>446</b>	<b>7</b>	<b>98%</b>	<b>0.1694</b>	<b>0.0157</b>
<b>0.00122</b>	<b>456</b>	<b>92</b>	<b>425</b>	<b>14</b>	<b>420</b>	<b>7</b>	<b>99%</b>	<b>0.2018</b>	<b>0.0167</b>
<b>0.00123</b>	<b>445</b>	<b>98</b>	<b>425</b>	<b>15</b>	<b>422</b>	<b>7</b>	<b>99%</b>	<b>0.2202</b>	<b>0.0166</b>
<b>0.00141</b>	<b>485</b>	<b>114</b>	<b>457</b>	<b>18</b>	<b>452</b>	<b>8</b>	<b>99%</b>	<b>0.2351</b>	<b>0.0177</b>
0.00116	570	80	446	13	422	7	94%	0.1404	0.0166
0.00162	546	110	509	19	502	10	99%	0.2015	0.0199
0.00163	514	123	482	21	477	10	99%	0.2393	0.0210

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**Table S2 LA-ICP-MS zircon U-Pb dating results for clastic rocks in the Central and South Tianshan.**

Spots	Th (ppm )	U (ppm )	Th/U	$^{207}\text{Pb}/^{206}\text{Pb}$	$\pm 1\sigma$	$^{207}\text{Pb}/^{235}\text{U}$	$\pm 1\sigma$	$^{206}\text{Pb}/^{238}\text{U}$	$\pm 1\sigma$	$^{207}\text{Pb}/^{206}\text{Pb}$ (Ma)	$\pm 1\sigma$	$^{207}\text{Pb}/^{235}\text{U}$ (Ma)	$\pm 1\sigma$	$^{206}\text{Pb}/^{238}\text{U}$ (Ma)	$\pm 1\sigma$	conj %	$^{207}\text{Pb}/^{206}\text{Pb}$ (error ratio)	$^{206}\text{Pb}/^{238}\text{U}$ (error ratio)
<b>Sample 12TS62-1, sandstone, Chahan Wusu section, GPS: 42°21' 37.3" N, 85°35' 1.4" E</b>																		
12TS62-1-01	133	93	1.43	0.09573	0.00022	3.28220	0.03896	0.24848	0.00289	1543	4	1477	9	1431	15	96%	0.0025	0.0104
12TS62-1-02	241	518	0.47	0.05561	0.00013	0.50526	0.00516	0.06587	0.00066	435	6	415	3	411	4	99%	0.0128	0.0097
12TS62-1-03	113	177	0.64	0.15859	0.00030	8.38155	0.06437	0.38305	0.00282	2440	3	2273	7	2090	13	91%	0.0011	0.0063
12TS62-1-04	307	443	0.69	0.05559	0.00015	0.48713	0.00454	0.06353	0.00056	435	6	403	3	397	3	98%	0.0128	0.0086
12TS62-1-05	268	532	0.51	0.07516	0.00013	1.80682	0.01544	0.17431	0.00149	1072	-29	1048	6	1036	8	98%	-0.0268	0.0079
12TS62-1-06	167	543	0.31	0.07384	0.00012	1.71635	0.01474	0.16856	0.00146	1039	3	1015	6	1004	8	98%	0.0025	0.0080
12TS62-1-07	216	204	1.06	0.05723	0.00020	0.52587	0.00300	0.06666	0.00036	502	5	429	2	416	2	96%	0.0092	0.0053
12TS62-1-08	158	288	0.55	0.07522	0.00013	1.85720	0.01316	0.17899	0.00123	1076	4	1066	5	1061	7	99%	0.0034	0.0064
12TS62-1-09	327	794	0.41	0.07918	0.00012	2.11018	0.01248	0.19325	0.00116	1177	8	1152	4	1139	6	98%	0.0064	0.0055
12TS62-1-10	30	328	0.09	0.05743	0.00014	0.57190	0.00274	0.07221	0.00031	509	10	459	2	449	2	97%	0.0200	0.0041
12TS62-1-11	114	628	0.18	0.08046	0.00012	2.13922	0.01742	0.19283	0.00159	1209	4	1162	6	1137	9	97%	0.0031	0.0076
12TS62-1-12	160	182	0.88	0.05810	0.00017	0.56801	0.00756	0.07085	0.00088	600	6	457	5	441	5	96%	0.0093	0.0120
12TS62-1-13	43	97	0.45	0.08684	0.00017	2.70833	0.02163	0.22613	0.00175	1367	4	1331	6	1314	9	98%	0.0027	0.0070
12TS62-1-14	1177	876	1.34	0.07573	0.00013	1.72959	0.02087	0.16562	0.00197	1088	4	1020	8	988	11	96%	0.0034	0.0111
12TS62-1-15	463	631	0.73	0.05862	0.00033	0.61419	0.00542	0.07594	0.00040	554	11	486	3	472	2	97%	0.0201	0.0050
12TS62-1-16	32	50	0.65	0.11058	0.00030	4.58822	0.04314	0.30089	0.00275	1809	4	1747	8	1696	14	97%	0.0023	0.0081
12TS62-1-17	590	600	0.98	0.07717	0.00050	0.81017	0.00568	0.07668	0.00092	1126	8	603	3	476	5	76%	0.0074	0.0115
12TS62-1-18	99	95	1.04	0.10976	0.00020	4.02790	0.04100	0.26599	0.00263	1795	3	1640	8	1520	13	92%	0.0017	0.0088
12TS62-1-19	126	167	0.75	0.07683	0.00021	1.53455	0.01052	0.14486	0.00101	1117	0	944	4	872	6	92%	-0.0001	0.0066
12TS62-1-20	240	211	1.14	0.09767	0.00015	3.61397	0.02415	0.26819	0.00171	1580	3	1553	5	1532	9	98%	0.0021	0.0057
12TS62-1-21	606	425	1.43	0.06181	0.00043	0.63139	0.00306	0.07429	0.00051	733	15	497	2	462	3	92%	0.0202	0.0066
12TS62-1-22	296	411	0.72	0.05681	0.00013	0.53420	0.00364	0.06819	0.00047	483	10	435	2	425	3	97%	0.0211	0.0067
12TS62-1-23	146	314	0.47	0.08638	0.00031	2.60652	0.03196	0.21808	0.00229	1347	7	1302	9	1272	12	97%	0.0052	0.0095
12TS62-1-24	204	371	0.55	0.05840	0.00022	0.50540	0.00345	0.06272	0.00035	546	-23	415	2	392	2	94%	-0.0424	0.0054
12TS62-1-25	244	535	0.46	0.07216	0.00019	1.60340	0.01824	0.16069	0.00158	991	4	972	7	961	9	98%	0.0045	0.0092
12TS62-1-26	45	73	0.61	0.10850	0.00024	4.56023	0.04884	0.30446	0.00315	1776	9	1742	9	1713	16	98%	0.0053	0.0091
12TS62-1-27	294	608	0.48	0.07383	0.00017	1.66120	0.02059	0.16289	0.00189	1037	6	994	8	973	10	97%	0.0054	0.0108
12TS62-1-28	118	210	0.56	0.05922	0.00032	0.53440	0.00606	0.06528	0.00054	576	11	435	4	408	3	93%	0.0193	0.0081

12TS62-1-29	383	355	1.08	0.05615	0.00015	0.52089	0.00389	0.06722	0.00048	457	6	426	3	419	3	98%	0.0121	0.0070	
12TS62-1-30	379	457	0.83	0.05585	0.00016	0.50621	0.00376	0.06569	0.00047	456	7	416	3	410	3	98%	0.0163	0.0070	
12TS62-1-31	525	443	1.19	0.05593	0.00016	0.52114	0.00560	0.06757	0.00075	450	7	426	4	422	5	98%	0.0165	0.0107	
12TS62-1-32	105	478	0.22	0.05550	0.00015	0.49586	0.00463	0.06477	0.00061	432	6	409	3	405	4	98%	0.0129	0.0091	
12TS62-1-33	110	148	0.74	0.05793	0.00060	0.49390	0.00816	0.06167	0.00050	528	22	408	6	386	3	94%	0.0421	0.0080	
12TS62-1-34	122	275	0.44	0.08644	0.00019	2.68226	0.02853	0.22498	0.00242	1350	5	1324	8	1308	13	98%	0.0035	0.0097	
12TS62-1-35	123	78	1.57	0.16077	0.00035	9.79389	0.06257	0.44156	0.00273	2465	8	2416	6	2358	12	97%	0.0034	0.0052	
12TS62-1-36	90	300	0.30	0.07149	0.00016	1.57745	0.01018	0.15999	0.00102	972	4	961	4	957	6	99%	0.0038	0.0059	
12TS62-1-37	209	498	0.42	0.07541	0.00031	1.77736	0.02038	0.17053	0.00171	1080	7	1037	7	1015	9	97%	0.0069	0.0093	
12TS62-1-38	375	374	1.00	0.10263	0.00300	1.04932	0.03950	0.07135	0.00068	1672	54	729	20	444	4	51%	0.0323	0.0092	discordant
12TS62-1-39	391	430	0.91	0.05666	0.00017	0.55954	0.00461	0.07177	0.00067	480	6	451	3	447	4	99%	0.0116	0.0091	
12TS62-1-40	188	312	0.60	0.05882	0.00022	0.65079	0.00627	0.08056	0.00091	561	7	509	4	499	5	98%	0.0132	0.0109	
12TS62-1-41	105	158	0.67	0.06593	0.00017	1.15213	0.00989	0.12674	0.00105	806	6	778	5	769	6	98%	0.0069	0.0078	
12TS62-1-42	472	424	1.11	0.05704	0.00017	0.49192	0.00417	0.06247	0.00043	494	6	406	3	391	3	96%	0.0112	0.0067	
12TS62-1-43	99	128	0.77	0.06592	0.00019	1.15787	0.01059	0.12743	0.00113	806	6	781	5	773	6	99%	0.0069	0.0083	
12TS62-1-44	56	72	0.78	0.12992	0.00035	6.43795	0.09051	0.35940	0.00492	2098	5	2037	12	1979	23	97%	0.0022	0.0118	
12TS62-1-45	341	442	0.77	0.07388	0.00019	1.72202	0.01666	0.16913	0.00160	1039	5	1017	6	1007	9	99%	0.0046	0.0088	
12TS62-1-46	750	1027	0.73	0.05865	0.00029	0.50245	0.00872	0.06191	0.00083	554	11	413	6	387	5	93%	0.0201	0.0130	
12TS62-1-47	73	202	0.36	0.06257	0.00020	1.05481	0.02049	0.12207	0.00226	694	7	731	10	742	13	98%	0.0107	0.0175	
12TS62-1-48	391	356	1.10	0.07047	0.00021	1.46477	0.01362	0.15101	0.00147	943	-26	916	6	907	8	98%	-0.0277	0.0091	
12TS62-1-49	247	202	1.22	0.12191	0.00085	6.00982	0.18798	0.35011	0.00848	1984	13	1977	27	1935	40	97%	0.0066	0.0209	
12TS62-1-50	72	138	0.52	0.07311	0.00042	1.37541	0.01214	0.13684	0.00132	1017	12	878	5	827	8	93%	0.0114	0.0091	
12TS62-1-51	150	129	1.16	0.07936	0.00037	1.93509	0.02045	0.17673	0.00149	1181	9	1093	7	1049	8	95%	0.0078	0.0078	
12TS62-1-52	77	99	0.78	0.06206	0.00049	0.63966	0.00947	0.07457	0.00060	676	17	502	6	464	4	92%	0.0247	0.0078	
12TS62-1-53	319	394	0.81	0.09466	0.00019	3.29357	0.02906	0.25247	0.00226	1521	4	1480	7	1451	12	98%	0.0024	0.0080	
12TS62-1-54	57	135	0.43	0.08608	0.00018	2.66808	0.03213	0.22476	0.00267	1340	4	1320	9	1307	14	99%	0.0030	0.0108	
12TS62-1-55	30	59	0.50	0.08683	0.00021	2.70838	0.02763	0.22620	0.00225	1367	4	1331	8	1315	12	98%	0.0027	0.0090	
12TS62-1-56	107	186	0.58	0.06580	0.00014	1.24792	0.01426	0.13750	0.00154	1200	6	822	6	831	9	99%	0.0046	0.0106	
12TS62-1-57	297	348	0.85	0.05645	0.00016	0.51219	0.00463	0.06580	0.00058	478	6	420	3	411	4	97%	0.0116	0.0085	
12TS62-1-58	98	264	0.37	0.07309	0.00027	1.40052	0.01095	0.13872	0.00074	1017	12	889	5	837	4	94%	0.0118	0.0050	
12TS62-1-59	54	79	0.68	0.07359	0.00017	1.68726	0.01260	0.16630	0.00124	1031	5	1004	5	992	7	98%	0.0046	0.0069	
12TS62-1-60	285	370	0.77	0.15706	0.00028	9.14175	0.07184	0.42239	0.00356	2424	3	2352	7	2271	16	96%	0.0013	0.0071	
12TS62-1-61	254	244	1.04	0.06189	0.00035	0.62130	0.00471	0.07281	0.00042	670	13	491	3	453	3	92%	0.0193	0.0055	

12TS62-1-62	1010	1466	0.69	0.07823	0.00053	0.75374	0.01012	0.06947	0.00060	1154	13	570	6	433	4	72%	0.0116	0.0084	discordant
12TS62-1-63	88	183	0.48	0.15437	0.00021	9.06895	0.08549	0.42583	0.00397	2395	2	2345	9	2287	18	97%	0.0008	0.0079	
12TS62-1-64	57	68	0.83	0.08592	0.00057	1.25678	0.01191	0.10639	0.00097	1336	13	826	5	652	6	76%	0.0097	0.0087	discordant
<b>Sample 12TS68-2, tuffite, Chahan Wusu section, GPS: 42°24' 13.4" N, 85°36' 36.6" E</b>																			
12TS68-2-01	292	226	1.29	0.05862	0.00024	0.57934	0.00543	0.07162	0.00050	554	9	464	4	446	3	96%	0.0167	0.0068	
12TS68-2-02	1245	667	1.87	0.05607	0.00013	0.49743	0.00620	0.06432	0.00077	454	6	410	4	402	5	98%	0.0122	0.0117	
12TS68-2-03	326	285	1.14	0.14665	0.00336	2.87187	0.10680	0.13777	0.00212	2307	6	1375	28	832	12	50%	0.0027	0.0144	discordant
12TS68-2-04	257	453	0.57	0.05505	0.00014	0.48366	0.00298	0.06373	0.00039	413	6	401	2	398	2	99%	0.0135	0.0060	
12TS68-2-05	243	144	1.68	0.19261	0.00780	1.94784	0.11784	0.07171	0.00086	2765	66	1098	41	446	5	15%	0.0237	0.0116	discordant
12TS68-2-06	167	267	0.63	0.05709	0.00020	0.52941	0.00520	0.06724	0.00059	494	7	431	3	419	4	97%	0.0150	0.0085	
12TS68-2-07	420	689	0.61	0.05810	0.00022	0.58283	0.00491	0.07274	0.00056	600	9	466	3	453	3	97%	0.0154	0.0074	
12TS68-2-08	528	351	1.50	0.15782	0.00058	7.66710	0.06677	0.35247	0.00306	2432	5	2193	8	1946	15	88%	0.0022	0.0075	discordant
12TS68-2-09	775	534	1.45	0.05645	0.00015	0.49637	0.00337	0.06381	0.00047	478	6	409	2	399	3	97%	0.0116	0.0071	
12TS68-2-10	454	1117	0.41	0.06573	0.00011	1.15000	0.00751	0.12691	0.00088	798	203	777	4	770	5	99%	0.2541	0.0066	
12TS68-2-11	341	191	1.79	0.06155	0.00038	0.58785	0.00401	0.06929	0.00039	657	8	469	3	432	2	91%	0.0127	0.0054	
12TS68-2-12	712	896	0.79	0.05728	0.00014	0.53289	0.00309	0.06747	0.00040	502	6	434	2	421	2	97%	0.0111	0.0057	
12TS68-2-13	130	198	0.66	0.05932	0.00021	0.58128	0.00520	0.07107	0.00062	589	7	465	3	443	4	95%	0.0126	0.0084	
12TS68-2-14	704	865	0.81	0.05778	0.00023	0.50886	0.00546	0.06382	0.00056	520	5	418	4	399	3	95%	0.0089	0.0086	
12TS68-2-15	226	743	0.30	0.07750	0.00026	1.68461	0.01925	0.15734	0.00147	1144	7	1003	7	942	8	93%	0.0065	0.0087	
12TS68-2-16	260	356	0.73	0.05762	0.00028	0.50601	0.00486	0.06363	0.00046	517	11	416	3	398	3	95%	0.0215	0.0070	
12TS68-2-17	187	184	1.01	0.08062	0.00206	1.43866	0.06263	0.12781	0.00182	1213	50	905	26	775	10	84%	0.0413	0.0134	discordant
12TS68-2-18	100	542	0.19	0.05671	0.00016	0.54860	0.00300	0.07015	0.00033	480	7	444	2	437	2	98%	0.0154	0.0046	
12TS68-2-19	440	524	0.84	0.06876	0.00069	0.56066	0.00864	0.05893	0.00040	900	25	452	6	369	2	79%	0.0278	0.0066	discordant
12TS68-2-20	302	226	1.34	0.19556	0.00126	2.04374	0.03318	0.07557	0.00087	2791	44	1130	11	470	5	17%	0.0158	0.0111	discordant
12TS68-2-21	137	231	0.59	0.05700	0.00025	0.54976	0.00296	0.07001	0.00036	500	9	445	2	436	2	98%	0.0185	0.0049	
12TS68-2-22	186	318	0.58	0.10437	0.00167	0.85606	0.01243	0.05958	0.00028	1703	29	628	7	373	2	49%	0.0172	0.0046	discordant
12TS68-2-23	281	875	0.32	0.07120	0.00023	0.98250	0.00728	0.10000	0.00054	965	1	695	4	614	3	87%	0.0014	0.0052	discordant
12TS68-2-24	273	238	1.15	0.33242	0.01838	4.62368	0.31141	0.08833	0.00259	3628	84	1754	56	546	15	-6%	0.0231	0.0282	discordant
12TS68-2-25	810	517	1.56	0.12292	0.00224	1.13091	0.02675	0.06608	0.00053	1999	33	768	13	412	3	39%	0.0163	0.0078	discordant
12TS68-2-26	132	231	0.57	0.21970	0.00641	2.40896	0.11305	0.07623	0.00123	2989	47	1245	34	474	7	10%	0.0158	0.0156	discordant
12TS68-2-27	326	105	3.10	0.35209	0.01510	8.13680	0.96300	0.14344	0.01065	3716	65	2246	107	864	60	11%	0.0176	0.0695	discordant
12TS68-2-28	29	75	0.38	0.18674	0.00084	9.80536	0.05674	0.38123	0.00213	2714	7	2417	6	2082	10	85%	0.0027	0.0048	discordant
12TS68-2-29	274	494	0.56	0.06931	0.00027	1.23721	0.01207	0.12982	0.00146	909	8	818	6	787	8	96%	0.0093	0.0106	

12TS68-2-30	175	257	0.68	0.06693	0.00025	1.15944	0.01109	0.12568	0.00113	835	7	782	5	763	6	97%	0.0089	0.0085
12TS68-2-31	414	309	1.34	0.07590	0.00229	0.66760	0.02718	0.06236	0.00065	1092	60	519	17	390	4	71%	0.0550	0.0101
12TS68-2-32	324	193	1.67	0.05661	0.00024	0.54370	0.00377	0.06966	0.00036	476	5	441	2	434	2	98%	0.0097	0.0050
12TS68-2-33	430	420	1.02	0.08378	0.00033	0.69842	0.00514	0.06045	0.00034	1287	8	538	3	378	2	65%	0.0061	0.0056
12TS68-2-34	245	246	1.00	0.06565	0.00024	0.92464	0.00858	0.10208	0.00077	794	206	665	5	627	5	94%	0.2599	0.0072
12TS68-2-35	89	129	0.69	0.11115	0.00031	4.69846	0.04078	0.30644	0.00235	1818	10	1767	7	1723	12	97%	0.0055	0.0068
12TS68-2-36	86	102	0.84	0.16936	0.00434	1.60601	0.05225	0.06767	0.00061	2552	42	973	20	422	4	21%	0.0165	0.0088
<b>I2TS68-2-37</b>	<b>416</b>	<b>603</b>	<b>0.69</b>	<b>0.05907</b>	<b>0.00033</b>	<b>0.50466</b>	<b>0.00616</b>	<b>0.06184</b>	<b>0.00049</b>	<b>569</b>	<b>8</b>	<b>415</b>	<b>4</b>	<b>387</b>	<b>3</b>	<b>93%</b>	<b>0.0147</b>	<b>0.0078</b>
12TS68-2-38	668	1032	0.65	0.05452	0.00012	0.48231	0.00375	0.06415	0.00049	391	6	400	3	401	3	99%	0.0142	0.0074
12TS68-2-39	174	203	0.85	0.05540	0.00018	0.49144	0.00365	0.06433	0.00047	428	7	406	2	402	3	99%	0.0173	0.0071
12TS68-2-40	629	469	1.34	0.06827	0.00124	0.53260	0.01270	0.05598	0.00037	876	42	434	8	351	2	78%	0.0476	0.0065
<b>I2TS68-2-41</b>	<b>102</b>	<b>243</b>	<b>0.42</b>	<b>0.06075</b>	<b>0.00030</b>	<b>0.52176</b>	<b>0.00284</b>	<b>0.06238</b>	<b>0.00045</b>	<b>632</b>	<b>11</b>	<b>426</b>	<b>2</b>	<b>390</b>	<b>3</b>	<b>91%</b>	<b>0.0176</b>	<b>0.0070</b>
12TS68-2-42	57	90	0.64	0.06523	0.00022	1.05124	0.00723	0.11683	0.00072	783	6	729	4	712	4	97%	0.0081	0.0059
12TS68-2-43	313	397	0.79	0.06545	0.00015	1.00493	0.00692	0.11128	0.00074	791	6	706	4	680	4	96%	0.0070	0.0063
12TS68-2-44	449	281	1.60	0.05777	0.00019	0.50775	0.00333	0.06372	0.00042	520	3	417	2	398	3	95%	0.0053	0.0064
<b>I2TS68-2-45</b>	<b>310</b>	<b>540</b>	<b>0.57</b>	<b>0.06072</b>	<b>0.00021</b>	<b>0.51587</b>	<b>0.00433</b>	<b>0.06157</b>	<b>0.00046</b>	<b>628</b>	<b>7</b>	<b>422</b>	<b>3</b>	<b>385</b>	<b>3</b>	<b>90%</b>	<b>0.0118</b>	<b>0.0073</b>
12TS68-2-46	457	319	1.43	0.08019	0.00033	0.60485	0.00457	0.05464	0.00033	1267	7	480	3	343	2	66%	0.0058	0.0059
<b>Sample 12TS69-1, sandstone, Chahan Wusu section, GPS: 42°24' 10.5" N, 85°36' 39.5" E</b>																		

12TS69-1-01	1478	951	1.55	0.06354	0.00037	0.67444	0.00596	0.07698	0.00069	728	8	523	4	478	4	90%	0.0114	0.0087
12TS69-1-02	301	528	0.57	0.08494	0.00024	2.56705	0.03395	0.21906	0.00290	1315	6	1291	10	1277	15	98%	0.0042	0.0120
12TS69-1-03	108	141	0.76	0.30332	0.01382	4.33774	0.29315	0.09971	0.00257	3487	70	1701	56	613	15	5%	0.0200	0.0246
12TS69-1-04	270	474	0.57	0.06709	0.00023	1.23268	0.01118	0.13320	0.00122	840	6	816	5	806	7	98%	0.0075	0.0086
12TS69-1-05	278	384	0.73	0.05858	0.00029	0.60415	0.00951	0.07487	0.00133	550	9	480	6	465	8	96%	0.0168	0.0171
12TS69-1-06	108	218	0.50	0.05652	0.00030	0.53744	0.00504	0.06895	0.00065	472	11	437	3	430	4	98%	0.0235	0.0092
12TS69-1-07	146	170	0.86	0.05733	0.00035	0.53807	0.00651	0.06804	0.00076	506	8	437	4	424	5	97%	0.0165	0.0108
12TS69-1-08	161	325	0.50	0.05710	0.00028	0.59289	0.00785	0.07531	0.00104	494	11	473	5	468	6	99%	0.0225	0.0133
12TS69-1-09	127	136	0.94	0.06637	0.00035	1.17545	0.01211	0.12838	0.00119	818	10	789	6	779	7	98%	0.0126	0.0087
12TS69-1-10	156	188	0.83	0.05732	0.00033	0.56023	0.00657	0.07088	0.00083	506	8	452	4	441	5	97%	0.0165	0.0113
12TS69-1-11	416	259	1.60	0.05682	0.00031	0.56995	0.00794	0.07271	0.00093	483	13	458	5	452	6	98%	0.0268	0.0124
12TS69-1-12	135	95	1.42	0.07558	0.00048	1.77641	0.02537	0.17047	0.00243	1083	13	1037	9	1015	13	97%	0.0120	0.0132
12TS69-1-13	61	86	0.71	0.06969	0.00052	1.40694	0.01549	0.14656	0.00179	920	47	892	7	882	10	98%	0.0513	0.0114
12TS69-1-14	169	183	0.92	0.08779	0.00127	2.16402	0.03647	0.17881	0.00204	1389	28	1170	12	1060	11	90%	0.0200	0.0105
12TS69-1-15	31	201	0.16	0.23385	0.00109	19.26759	0.27028	0.59751	0.00847	3079	7	3055	14	3020	34	98%	0.0024	0.0113

12TS69-1-16	338	237	1.42	0.06094	0.00078	0.53987	0.00947	0.06418	0.00054	639	28	438	6	401	3	91%	0.0435	0.0082
12TS69-1-17	164	287	0.57	0.06152	0.00088	0.56778	0.00985	0.06699	0.00080	657	30	457	6	418	5	91%	0.0451	0.0116
12TS69-1-18	284	351	0.81	0.06361	0.00029	0.71437	0.00984	0.08145	0.00112	728	9	547	6	505	7	91%	0.0127	0.0133
12TS69-1-19	225	431	0.52	0.10070	0.00039	3.80388	0.10250	0.27368	0.00713	1639	6	1594	22	1559	36	97%	0.0039	0.0232
12TS69-1-20	82	199	0.41	0.05651	0.00042	0.55704	0.00830	0.07158	0.00114	472	15	450	5	446	7	99%	0.0314	0.0154
12TS69-1-21	474	454	1.04	0.05725	0.00026	0.60720	0.00972	0.07696	0.00129	502	11	482	6	478	8	99%	0.0221	0.0162
12TS69-1-22	104	170	0.61	0.05979	0.00032	0.58144	0.00625	0.07056	0.00077	594	13	465	4	440	5	94%	0.0218	0.0106
12TS69-1-23	97	113	0.85	0.16135	0.00077	9.53171	0.10523	0.42844	0.00460	2470	9	2391	10	2299	21	96%	0.0036	0.0090
12TS69-1-24	171	260	0.66	0.07867	0.00045	1.94942	0.01879	0.17968	0.00146	1165	11	1098	7	1065	8	96%	0.0095	0.0075
12TS69-1-25	397	401	0.99	0.05710	0.00039	0.51629	0.00768	0.06552	0.00075	494	15	423	5	409	5	96%	0.0300	0.0112
12TS69-1-26	116	157	0.74	0.06977	0.00087	1.39260	0.03404	0.14419	0.00201	922	25	886	14	868	11	98%	0.0273	0.0130
12TS69-1-27	499	433	1.15	0.05869	0.00050	0.63406	0.01791	0.07813	0.00179	567	-12	499	11	485	11	97%	-0.0212	0.0221
12TS69-1-28	149	209	0.71	0.07166	0.00029	1.61481	0.01575	0.16344	0.00164	976	8	976	6	976	9	99%	0.0081	0.0093
12TS69-1-29	86	128	0.67	0.05687	0.00038	0.58905	0.00671	0.07515	0.00084	487	15	470	4	467	5	99%	0.0304	0.0107
12TS69-1-30	139	162	0.86	0.05776	0.00048	0.61755	0.01010	0.07749	0.00098	520	19	488	6	481	6	98%	0.0356	0.0122
12TS69-1-31	266	315	0.84	0.06147	0.00084	0.57012	0.01048	0.06718	0.00059	657	29	458	7	419	4	91%	0.0434	0.0085
12TS69-1-32	131	131	1.00	0.16817	0.00287	1.91557	0.08207	0.08160	0.00244	2540	28	1087	29	506	15	27%	0.0112	0.0287
12TS69-1-33	222	280	0.79	0.05635	0.00032	0.51430	0.00608	0.06617	0.00073	465	13	421	4	413	4	98%	0.0279	0.0108
12TS69-1-34	230	344	0.67	0.05888	0.00042	0.59859	0.00485	0.07375	0.00060	561	21	476	3	459	4	96%	0.0379	0.0079
12TS69-1-35	245	212	1.16	0.15684	0.00319	1.69849	0.05943	0.07770	0.00130	2422	35	1008	22	482	8	29%	0.0146	0.0161
12TS69-1-36	84	103	0.81	0.05891	0.00047	0.66187	0.00679	0.08161	0.00106	565	21	516	4	506	6	98%	0.0377	0.0125
12TS69-1-37	317	615	0.51	0.09995	0.00400	1.22841	0.04952	0.08923	0.00095	1633	75	814	23	551	6	61%	0.0457	0.0102
12TS69-1-38	113	180	0.63	0.05627	0.00037	0.51486	0.00598	0.06629	0.00056	461	10	422	4	414	3	98%	0.0221	0.0082
12TS69-1-39	77	107	0.71	0.05749	0.00047	0.59905	0.00542	0.07561	0.00072	509	14	477	3	470	4	98%	0.0273	0.0092
12TS69-1-40	149	159	0.94	0.05646	0.00041	0.55591	0.00840	0.07146	0.00116	478	17	449	5	445	7	99%	0.0349	0.0156
12TS69-1-41	271	404	0.67	0.06751	0.00024	1.28782	0.01892	0.13825	0.00203	854	3	840	8	835	11	99%	0.0033	0.0138
12TS69-1-42	250	325	0.77	0.06610	0.00025	1.24900	0.01405	0.13701	0.00169	809	-192	823	6	828	10	99%	-0.2368	0.0116
12TS69-1-43	104	122	0.85	0.05529	0.00040	0.54414	0.00696	0.07136	0.00088	433	15	441	5	444	5	99%	0.0342	0.0119
12TS69-1-44	291	197	1.48	0.06598	0.00024	1.21826	0.01589	0.13386	0.00187	806	7	809	7	810	11	99%	0.0092	0.0131
12TS69-1-45	198	227	0.87	0.05596	0.00027	0.55918	0.00890	0.07247	0.00123	450	11	451	6	451	7	99%	0.0247	0.0164
12TS69-1-46	197	273	0.72	0.05569	0.00028	0.57215	0.00650	0.07449	0.00092	439	11	459	4	463	6	99%	0.0253	0.0119
12TS69-1-47	421	409	1.03	0.06240	0.00062	0.62243	0.00776	0.07238	0.00099	687	22	491	5	451	6	91%	0.0323	0.0133
12TS69-1-48	174	154	1.13	0.05626	0.00033	0.55395	0.01259	0.07129	0.00147	461	13	448	8	444	9	99%	0.0281	0.0200

12TS69-1-49	571	385	1.48	0.05563	0.00025	0.55099	0.00816	0.07183	0.00113	439	14	446	5	447	7	99%	0.0316	0.0152
12TS69-1-50	197	274	0.72	0.05698	0.00072	0.57714	0.01060	0.07334	0.00071	500	28	463	7	456	4	98%	0.0555	0.0094
12TS69-1-51	68	217	0.31	0.18498	0.00062	13.25059	0.19925	0.51882	0.00698	2698	6	2698	14	2694	30	99%	0.0021	0.0110
12TS69-1-52	392	449	0.87	0.05746	0.00031	0.57140	0.00659	0.07206	0.00067	509	11	459	4	449	4	97%	0.0218	0.0090
12TS69-1-53	165	234	0.70	0.05508	0.00038	0.51718	0.00625	0.06813	0.00085	417	17	423	4	425	5	99%	0.0400	0.0121
12TS69-1-54	77	95	0.81	0.06048	0.00094	0.50616	0.00913	0.06075	0.00081	620	33	416	6	380	5	91%	0.0537	0.0130
12TS69-1-55	120	171	0.70	0.06363	0.00032	1.08986	0.01248	0.12423	0.00143	729	9	748	6	755	8	99%	0.0127	0.0109
12TS69-1-56	173	243	0.71	0.05645	0.00030	0.61171	0.00759	0.07859	0.00094	478	13	485	5	488	6	99%	0.0271	0.0115
12TS69-1-57	688	466	1.48	0.05537	0.00025	0.53534	0.00593	0.07011	0.00075	428	11	435	4	437	5	99%	0.0260	0.0104
12TS69-1-58	134	68	1.99	0.06509	0.00054	1.13644	0.01767	0.12663	0.00173	777	17	771	8	769	10	99%	0.0214	0.0129
12TS69-1-59	140	253	0.56	0.05842	0.00037	0.61859	0.00694	0.07691	0.00105	546	18	489	4	478	6	97%	0.0322	0.0131
12TS69-1-60	421	342	1.23	0.05784	0.00032	0.63440	0.00965	0.07959	0.00123	524	39	499	6	494	7	98%	0.0742	0.0149

**Sample 12TS73-1, meta-sandstone, Kergutu section, GPS: 42°35' 9.1" N, 86°47' 51.7" E**

12TS73-1-01	68	1057	0.06	0.05672	0.00040	0.51857	0.01210	0.06596	0.00115	480	17	424	8	412	7	97%	0.0347	0.0169	hydrothermal?
12TS73-1-02	394	1031	0.38	0.07128	0.00014	1.48787	0.00852	0.15129	0.00091	965	4	925	4	908	5	98%	0.0038	0.0056	
12TS73-1-03	60	1692	0.04	0.05583	0.00062	0.50758	0.00961	0.06571	0.00068	456	29	417	6	410	4	98%	0.0630	0.0100	hydrothermal?
12TS73-1-04	463	1458	0.32	0.05760	0.00040	0.59257	0.00590	0.07461	0.00070	522	17	473	4	464	4	98%	0.0319	0.0091	
12TS73-1-05	229	639	0.36	0.07067	0.00016	1.42262	0.01159	0.14586	0.00119	948	6	898	5	878	7	97%	0.0059	0.0076	
12TS73-1-06	77	150	0.51	0.05212	0.00045	0.35530	0.00374	0.04940	0.00032	300	-12	309	3	311	2	99%	-0.0401	0.0063	unknown
12TS73-1-07	740	1872	0.40	0.05648	0.00021	0.55829	0.00402	0.07160	0.00040	472	7	450	3	446	2	98%	0.0157	0.0055	
12TS73-1-08	1136	2364	0.48	0.05459	0.00012	0.58264	0.00490	0.07732	0.00060	394	38	466	3	480	4	97%	0.0962	0.0075	
12TS73-1-09	85	1125	0.08	0.05259	0.00014	0.48000	0.00460	0.06614	0.00061	322	6	398	3	413	4	96%	0.0172	0.0090	hydrothermal?
12TS73-1-10	120	1518	0.08	0.05284	0.00014	0.48097	0.00386	0.06597	0.00051	320	6	399	3	412	3	96%	0.0173	0.0076	hydrothermal?
12TS73-1-11	55	323	0.17	0.06889	0.00106	0.81500	0.02283	0.08516	0.00134	894	31	605	13	527	8	86%	0.0352	0.0151	discordant
12TS73-1-12	145	465	0.31	0.07769	0.00130	1.45295	0.01758	0.13700	0.00224	1139	33	911	7	828	13	90%	0.0293	0.0154	
12TS73-1-13	801	2591	0.31	0.05581	0.00038	0.54864	0.00513	0.07134	0.00063	456	17	444	3	444	4	99%	0.0366	0.0085	
12TS73-1-14	437	1432	0.30	0.05408	0.00020	0.55103	0.00666	0.07384	0.00074	376	9	446	4	459	4	97%	0.0246	0.0097	
12TS73-1-15	437	1179	0.37	0.06916	0.00032	1.33029	0.01089	0.13966	0.00123	903	14	859	5	843	7	98%	0.0154	0.0083	
12TS73-1-16	694	1809	0.38	0.05466	0.00019	0.54531	0.00509	0.07240	0.00069	398	7	442	3	451	4	98%	0.0186	0.0092	
12TS73-1-17	95	1508	0.06	0.05319	0.00016	0.48482	0.00392	0.06611	0.00050	345	6	401	3	413	3	97%	0.0161	0.0074	hydrothermal?
12TS73-1-18	27	342	0.08	0.05753	0.00028	0.59361	0.00814	0.07482	0.00091	522	11	473	5	465	5	98%	0.0213	0.0118	
12TS73-1-19	321	988	0.32	0.06180	0.00025	0.82654	0.00492	0.09699	0.00048	733	9	612	3	597	3	97%	0.0126	0.0047	
12TS73-1-20	92	1542	0.06	0.05362	0.00016	0.50097	0.00676	0.06770	0.00081	354	6	412	5	422	5	97%	0.0157	0.0116	hydrothermal?

12TS73-1-21	105	1603	0.07	0.05487	0.00015	0.51314	0.00487	0.06777	0.00054	406	-27	421	3	423	3	99%	-0.0662	0.0078	hydrothermal?
12TS73-1-22	116	1869	0.06	0.05344	0.00015	0.49801	0.00573	0.06755	0.00073	346	6	410	4	421	4	97%	0.0160	0.0104	hydrothermal?
12TS73-1-23	36	154	0.24	0.11488	0.00367	0.98326	0.03570	0.06223	0.00132	1880	62	695	18	389	8	43%	0.0330	0.0207	discordant
12TS73-1-24	390	1145	0.34	0.05551	0.00014	0.60063	0.00563	0.07844	0.00069	432	6	478	4	487	4	98%	0.0129	0.0085	
12TS73-1-25	380	1334	0.28	0.07311	0.00030	1.28526	0.00909	0.12758	0.00111	1017	8	839	4	774	6	91%	0.0080	0.0082	
12TS73-1-26	31	130	0.24	0.08171	0.00165	0.73646	0.02026	0.06538	0.00129	1239	41	560	12	408	8	68%	0.0329	0.0191	discordant
12TS73-1-27	449	1627	0.28	0.06458	0.00028	0.69696	0.00716	0.07828	0.00091	761	8	537	4	486	5	90%	0.0111	0.0112	
12TS73-1-28	145	449	0.32	0.12728	0.00261	1.41206	0.09019	0.07788	0.00387	2061	37	894	38	483	23	40%	0.0179	0.0479	discordant
12TS73-1-29	533	1379	0.39	0.05776	0.00047	0.57733	0.00790	0.07242	0.00052	520	19	463	5	451	3	97%	0.0356	0.0069	
12TS73-1-30	179	1612	0.11	0.05682	0.00015	0.57123	0.00461	0.07291	0.00061	483	5	459	3	454	4	98%	0.0096	0.0081	
12TS73-1-31	492	1178	0.42	0.07688	0.00034	1.44498	0.01731	0.13623	0.00138	1118	9	908	7	823	8	90%	0.0083	0.0095	
12TS73-1-32	79	1064	0.07	0.06977	0.00019	1.35743	0.01825	0.14100	0.00172	922	6	871	8	850	10	97%	0.0060	0.0114	
12TS73-1-33	106	278	0.38	0.12732	0.00240	1.49812	0.03165	0.08577	0.00136	2061	33	930	13	530	8	45%	0.0162	0.0152	discordant
12TS73-1-34	413	1039	0.40	0.07505	0.00296	0.69120	0.02643	0.06702	0.00050	1070	79	534	16	418	3	75%	0.0741	0.0072	discordant
12TS73-1-35	353	997	0.35	0.07893	0.00067	1.55693	0.01206	0.14328	0.00101	1172	17	953	5	863	6	90%	0.0142	0.0066	
12TS73-1-36	551	1702	0.32	0.05775	0.00023	0.60300	0.00625	0.07569	0.00063	520	3	479	4	470	4	98%	0.0053	0.0080	
12TS73-1-37	153	310	0.49	0.05799	0.00034	0.57620	0.00619	0.07207	0.00062	528	13	462	4	449	4	97%	0.0246	0.0083	
12TS73-1-38	244	1426	0.17	0.06778	0.00031	0.97015	0.00670	0.10381	0.00047	861	9	689	3	637	3	92%	0.0108	0.0044	
12TS73-1-39	108	1728	0.06	0.05603	0.00031	0.55083	0.00559	0.07127	0.00049	454	11	446	4	444	3	99%	0.0245	0.0067	
12TS73-1-40	256	1320	0.19	0.05599	0.00030	0.56431	0.00468	0.07311	0.00045	454	13	454	3	455	3	99%	0.0286	0.0060	
12TS73-1-41	56	1651	0.03	0.06142	0.00065	0.56119	0.00828	0.06625	0.00051	654	22	452	5	413	3	91%	0.0340	0.0075	hydrothermal?
12TS73-1-42	209	398	0.52	0.08718	0.00053	2.44715	0.03184	0.20358	0.00223	1365	11	1257	9	1195	12	94%	0.0081	0.0100	
12TS73-1-43	663	1061	0.62	0.07933	0.00133	0.80033	0.02062	0.07289	0.00096	1189	33	597	12	454	6	72%	0.0280	0.0127	discordant
12TS73-1-44	1348	1137	1.19	0.06309	0.00082	0.55895	0.00899	0.06426	0.00057	722	28	451	6	401	3	88%	0.0385	0.0086	discordant
12TS73-1-45	670	1968	0.34	0.06145	0.00057	0.63073	0.00959	0.07436	0.00066	654	20	497	6	462	4	92%	0.0312	0.0086	
12TS73-1-46	123	1899	0.06	0.05824	0.00043	0.54482	0.00736	0.06776	0.00058	539	15	442	5	423	3	95%	0.0275	0.0083	hydrothermal?
12TS73-1-47	441	1609	0.27	0.05612	0.00033	0.59640	0.00794	0.07709	0.00092	457	18	475	5	479	6	99%	0.0385	0.0115	
12TS73-1-48	66	1955	0.03	0.05862	0.00034	0.53382	0.00742	0.06604	0.00081	554	13	434	5	412	5	94%	0.0234	0.0118	hydrothermal?
12TS73-1-49	451	1276	0.35	0.05785	0.00053	0.56823	0.00793	0.07121	0.00052	524	19	457	5	443	3	97%	0.0353	0.0070	
12TS73-1-50	233	425	0.55	0.05945	0.00038	0.69980	0.00546	0.08540	0.00046	583	15	539	3	528	3	98%	0.0254	0.0052	
12TS73-1-51	114	2478	0.05	0.05739	0.00024	0.52031	0.00433	0.06574	0.00039	506	9	425	3	410	2	96%	0.0183	0.0058	hydrothermal?
12TS73-1-52	357	1021	0.35	0.07626	0.00051	1.01771	0.02445	0.09671	0.00218	1102	14	713	12	595	13	82%	0.0127	0.0215	discordant
12TS73-1-53	396	2486	0.16	0.05940	0.00024	0.50034	0.00308	0.06110	0.00030	583	9	412	2	382	2	92%	0.0159	0.0048	unknown

12TS73-1-54	22	63	0.34	0.16550	0.00539	1.94209	0.08324	0.08537	0.00257	2513	55	1096	29	528	15	30%	0.0217	0.0289	discordant
12TS73-1-55	373	991	0.38	0.06311	0.00031	0.62242	0.01106	0.07142	0.00109	722	11	491	7	445	7	90%	0.0154	0.0147	
12TS73-1-56	595	752	0.79	0.05941	0.00025	0.59733	0.00533	0.07288	0.00047	583	9	476	3	454	3	95%	0.0159	0.0062	
12TS73-1-57	93	1210	0.08	0.07127	0.00068	0.68067	0.00912	0.06919	0.00049	965	19	527	6	431	3	79%	0.0197	0.0069	discordant
<b>Sample 12TS82-1, paragneiss, Kergutu section, GPS: 42°35' 9.1" N, 86°47' 51.7" E</b>																			
12TS82-1-1	4776	35750	0.13	0.05457	0.00386	0.48497	0.03322	0.06447	0.00149	395	163	401	23	403	9	100%	0.4127	0.0223	
12TS82-1-2	917	3161	0.29	0.05529	0.01401	0.46509	0.11375	0.06103	0.00442	424	486	388	79	382	27	98%	1.1462	0.0707	discordant
12TS82-1-3	7301	24204	0.30	0.05551	0.00402	0.52729	0.03722	0.06891	0.00154	433	166	430	25	430	9	100%	0.3834	0.0209	
12TS82-1-4	675	3356	0.20	0.08897	0.00853	2.22704	0.20483	0.18160	0.00657	1404	191	1190	64	1076	36	89%	0.1360	0.0335	discordant
12TS82-1-5	850	6520	0.13	0.05699	0.00889	0.49797	0.07494	0.06340	0.00292	491	349	410	51	396	18	96%	0.7108	0.0455	
12TS82-1-6	4383	22360	0.20	0.05541	0.00499	0.47916	0.04214	0.06275	0.00157	429	206	397	29	392	10	99%	0.4802	0.0255	
12TS82-1-7	2314	9629	0.24	0.05649	0.00883	0.52879	0.08135	0.06792	0.00219	472	350	431	54	424	13	98%	0.7415	0.0307	
12TS82-1-8	4585	15205	0.30	0.05809	0.00666	0.62035	0.06867	0.07749	0.00272	533	260	490	43	481	16	98%	0.4878	0.0333	
12TS82-1-9	5903	16573	0.36	0.08584	0.00445	2.88885	0.14559	0.24419	0.00507	1335	103	1379	38	1408	26	98%	0.0772	0.0185	discordant
12TS82-1-10	2276	10195	0.22	0.05643	0.00624	0.49726	0.05318	0.06394	0.00213	469	252	410	36	400	13	98%	0.5373	0.0325	
12TS82-1-11	2852	13280	0.21	0.05707	0.00527	0.53531	0.04783	0.06806	0.00196	494	211	435	32	424	12	97%	0.4271	0.0283	
12TS82-1-12	8083	24756	0.33	0.05796	0.00431	0.53888	0.03879	0.06747	0.00163	528	168	438	26	421	10	96%	0.3182	0.0238	
12TS82-1-13	5980	17592	0.34	0.05699	0.00799	0.57789	0.07832	0.07359	0.00306	491	315	463	50	458	18	99%	0.6415	0.0393	
12TS82-1-14	7367	26445	0.28	0.05795	0.00482	0.52118	0.04232	0.06527	0.00156	528	189	426	28	408	9	96%	0.3580	0.0221	
12TS82-1-15	6895	24962	0.28	0.05794	0.00644	0.48707	0.05234	0.06101	0.00205	527	252	403	36	382	12	95%	0.4782	0.0314	
12TS82-1-16	5959	24897	0.24	0.05701	0.00456	0.54913	0.04251	0.06986	0.00181	492	182	444	28	435	11	98%	0.3699	0.0253	
12TS82-1-17	6043	23450	0.26	0.05553	0.00489	0.50896	0.04342	0.06648	0.00184	434	201	418	29	415	11	99%	0.4631	0.0265	
12TS82-1-18	5105	20423	0.25	0.05479	0.00623	0.48605	0.05340	0.06434	0.00220	404	260	402	36	402	13	100%	0.6436	0.0323	
12TS82-1-19	9283	82314	0.11	0.05530	0.00279	0.49312	0.02427	0.06468	0.00120	424	116	407	17	404	7	99%	0.2736	0.0173	
12TS82-1-20	7945	27532	0.29	0.05422	0.00371	0.48838	0.03248	0.06533	0.00148	380	158	404	22	408	9	99%	0.4158	0.0221	
12TS82-1-21	6215	22796	0.27	0.05370	0.00457	0.47373	0.03943	0.06399	0.00154	358	195	394	27	400	9	99%	0.5447	0.0225	
12TS82-1-22	4703	21137	0.22	0.05423	0.00982	0.50874	0.09073	0.06804	0.00213	380	370	418	61	424	13	99%	0.9737	0.0307	
12TS82-1-23	9445	29425	0.32	0.04988	0.00399	0.46763	0.03659	0.06800	0.00157	189	182	390	25	424	9	92%	0.9630	0.0212	
12TS82-1-24	4221	19629	0.22	0.05497	0.00564	0.47064	0.04711	0.06210	0.00175	411	235	392	33	388	11	99%	0.5718	0.0284	
12TS82-1-25	5664	25005	0.23	0.05341	0.00416	0.50274	0.03805	0.06827	0.00171	346	179	414	26	426	10	97%	0.5173	0.0235	
12TS82-1-26	4430	17805	0.25	0.05619	0.00529	0.56688	0.05163	0.07318	0.00218	460	215	456	33	455	13	100%	0.4674	0.0286	
12TS82-1-27	5235	14963	0.35	0.07001	0.00547	1.36160	0.10279	0.14108	0.00396	929	166	873	44	851	22	97%	0.1787	0.0259	
12TS82-1-28	3296	111857	0.03	0.05477	0.00264	0.49427	0.02336	0.06546	0.00120	403	111	408	16	409	7	100%	0.2754	0.0171	

12TS82-1-29	18214	35417	0.52	0.15567	0.00612	8.73550	0.33852	0.40707	0.00730	2409	68	2311	35	2202	33	95%	0.0282	0.0150	
12TS82-1-30	15893	32624	0.49	0.05355	0.00367	0.49132	0.03273	0.06656	0.00154	352	159	406	22	415	9	98%	0.4517	0.0217	
12TS82-1-31	7122	23735	0.30	0.05449	0.00392	0.52476	0.03665	0.06986	0.00166	391	166	428	24	435	10	98%	0.4246	0.0230	
12TS82-1-32	4836	17707	0.27	0.05540	0.00433	0.53857	0.04077	0.07052	0.00179	428	180	437	27	439	11	100%	0.4206	0.0251	
12TS82-1-33	4816	28457	0.17	0.05408	0.00484	0.45385	0.03956	0.06088	0.00158	374	205	380	28	381	10	100%	0.5481	0.0262	
12TS82-1-34	9309	31621	0.29	0.05542	0.00410	0.54609	0.03920	0.07148	0.00174	429	170	442	26	445	10	99%	0.3963	0.0225	
12TS82-1-35	1990	25864	0.08	0.05718	0.00530	0.55960	0.05015	0.07100	0.00210	498	211	451	33	442	13	98%	0.4237	0.0294	
12TS82-1-36	5634	20441	0.28	0.05636	0.00542	0.61873	0.05758	0.07964	0.00241	467	219	489	36	494	14	99%	0.4690	0.0283	
12TS82-1-37	6044	21308	0.28	0.05587	0.00441	0.60633	0.04671	0.07872	0.00185	447	181	481	30	488	11	99%	0.4049	0.0225	
12TS82-1-38	9427	31401	0.30	0.05733	0.00466	0.54474	0.04286	0.06893	0.00182	504	185	442	28	430	11	97%	0.3671	0.0256	
12TS82-1-39	16246	26233	0.62	0.05607	0.00422	0.57125	0.04165	0.07391	0.00183	455	172	459	27	460	11	100%	0.3780	0.0239	
12TS82-1-40	14064	54454	0.26	0.05664	0.00358	0.51496	0.03157	0.06595	0.00144	478	144	422	21	412	9	98%	0.3013	0.0218	
12TS82-1-41	11268	41359	0.27	0.05491	0.00363	0.50989	0.03278	0.06736	0.00150	409	152	418	22	420	9	100%	0.3716	0.0214	
12TS82-1-42	13633	36688	0.37	0.05455	0.00319	0.51562	0.02935	0.06857	0.00140	394	135	422	20	428	8	99%	0.3426	0.0187	
12TS82-1-43	6676	26164	0.26	0.05454	0.00378	0.51624	0.03474	0.06866	0.00158	393	160	423	23	428	10	99%	0.4071	0.0234	
12TS82-1-44	5934	55109	0.11	0.05521	0.00336	0.53539	0.03164	0.07034	0.00148	421	140	435	21	438	9	99%	0.3325	0.0205	
12TS82-1-45	8803	34068	0.26	0.05558	0.00364	0.57741	0.03676	0.07536	0.00168	436	150	463	24	468	10	99%	0.3440	0.0214	
12TS82-1-46	7588	28689	0.26	0.06800	0.00447	0.61671	0.03918	0.06579	0.00155	869	140	488	25	411	9	81%	0.1611	0.0219	discordant
12TS82-1-47	7322	27421	0.27	0.05586	0.00367	0.53363	0.03409	0.06930	0.00154	447	150	434	23	432	9	100%	0.3356	0.0208	
12TS82-1-48	5680	21367	0.27	0.05565	0.00467	0.53492	0.04348	0.06973	0.00186	438	193	435	29	435	11	100%	0.4406	0.0253	
12TS82-1-49	8272	24949	0.33	0.05618	0.00597	0.56091	0.05765	0.07242	0.00237	459	242	452	38	451	14	100%	0.5272	0.0310	
12TS82-1-50	13643	59845	0.23	0.05559	0.00428	0.51693	0.03860	0.06746	0.00168	436	177	423	26	421	10	100%	0.4060	0.0238	
12TS82-1-51	6943	41895	0.17	0.05457	0.00355	0.46687	0.02952	0.06206	0.00136	395	150	389	20	388	8	100%	0.3797	0.0206	
12TS82-1-52	21983	65626	0.33	0.05580	0.00377	0.48992	0.03213	0.06368	0.00144	444	155	405	22	398	9	98%	0.3491	0.0226	
12TS82-1-53	4353	27915	0.16	0.05502	0.00420	0.48653	0.03598	0.06414	0.00158	413	176	403	25	401	10	100%	0.4262	0.0249	
12TS82-1-54	6451	52993	0.12	0.06224	0.00395	0.94927	0.05848	0.11062	0.00246	682	139	678	30	676	14	100%	0.2038	0.0207	
12TS82-1-55	14695	65056	0.23	0.06873	0.00352	1.46665	0.07298	0.15478	0.00306	891	109	917	30	928	17	99%	0.1223	0.0183	
12TS82-1-56	9585	32159	0.30	0.05597	0.00560	0.51631	0.04991	0.06691	0.00207	451	228	423	33	418	13	99%	0.5055	0.0311	
12TS82-1-57	6930	23364	0.30	0.05560	0.00517	0.50616	0.04546	0.06603	0.00191	436	212	416	31	412	12	99%	0.4862	0.0291	
12TS82-1-58	6525	23743	0.27	0.05531	0.00577	0.50067	0.05042	0.06566	0.00208	425	238	412	34	410	13	100%	0.5600	0.0317	
12TS82-1-59	23566	45445	0.52	0.05573	0.00437	0.54606	0.04140	0.07108	0.00180	442	180	442	27	443	11	100%	0.4072	0.0248	
12TS82-1-60	15724	34753	0.45	0.05561	0.00419	0.53007	0.03854	0.06914	0.00170	437	173	432	26	431	10	100%	0.3959	0.0232	

Sample 12TS93-1, paragneiss, Kergutu section, GPS: 42°30' 46" N, 86°53' 17.2" E

12TS93-1-01	3	85	0.03	0.12286	0.00023	5.07205	0.03614	0.29943	0.00218	1998	3	1831	6	1688	11	91%	0.0017	0.0064
12TS93-1-02	190	155	1.23	0.13012	0.00021	6.68701	0.06562	0.37278	0.00371	2100	2	2071	9	2042	17	98%	0.0011	0.0086
12TS93-1-03	258	567	0.46	0.05610	0.00011	0.52792	0.00445	0.06826	0.00058	457	4	430	3	426	3	98%	0.0081	0.0082
12TS93-1-04	129	417	0.31	0.07035	0.00013	1.45429	0.01661	0.15001	0.00176	939	-29	912	7	901	10	98%	-0.0306	0.0110
12TS93-1-05	352	673	0.52	0.05582	0.00012	0.57242	0.00745	0.07449	0.00102	456	6	460	5	463	6	99%	0.0122	0.0132
12TS93-1-06	69	97	0.71	0.05826	0.00021	0.65140	0.00579	0.08111	0.00068	539	7	509	4	503	4	98%	0.0137	0.0081
12TS93-1-07	124	153	0.81	0.12382	0.00037	5.43017	0.04387	0.31850	0.00279	2013	6	1890	7	1782	14	94%	0.0028	0.0077
12TS93-1-08	285	188	1.52	0.13039	0.00048	5.00126	0.04287	0.27892	0.00281	2103	6	1820	7	1586	14	86%	0.0027	0.0090
12TS93-1-09	175	232	0.75	0.10567	0.00049	2.18538	0.03626	0.15032	0.00255	1728	41	1176	12	903	14	73%	0.0238	0.0159
12TS93-1-10	74	132	0.56	0.11000	0.00027	3.70139	0.03611	0.24398	0.00221	1800	5	1572	8	1407	11	88%	0.0030	0.0082
12TS93-1-11	361	285	1.26	0.12565	0.00025	6.12098	0.06082	0.35352	0.00356	2039	4	1993	9	1951	17	97%	0.0018	0.0087
12TS93-1-12	776	835	0.93	0.05619	0.00015	0.52000	0.00455	0.06718	0.00061	461	6	425	3	419	4	98%	0.0120	0.0089
12TS93-1-13	180	276	0.65	0.10403	0.00042	4.08752	0.07072	0.28470	0.00469	1698	3	1652	14	1615	24	97%	0.0016	0.0146
12TS93-1-14	181	361	0.50	0.08887	0.00021	2.79026	0.02484	0.22779	0.00200	1411	4	1353	7	1323	11	97%	0.0026	0.0080
12TS93-1-15	348	456	0.76	0.05684	0.00018	0.55299	0.00456	0.07059	0.00057	487	10	447	3	440	3	98%	0.0209	0.0079
12TS93-1-16	467	685	0.68	0.06458	0.00046	0.59435	0.00542	0.06714	0.00078	761	15	474	3	419	5	87%	0.0195	0.0112
12TS93-1-17	441	477	0.92	0.08261	0.00017	2.33213	0.02482	0.20475	0.00217	1261	4	1222	8	1201	12	98%	0.0029	0.0097
12TS93-1-18	135	259	0.52	0.07304	0.00017	1.64586	0.01599	0.16341	0.00155	1017	5	988	6	976	9	98%	0.0050	0.0088
12TS93-1-19	502	433	1.16	0.07525	0.00015	1.71623	0.01442	0.16539	0.00138	1076	4	1015	5	987	8	97%	0.0034	0.0077
12TS93-1-20	126	210	0.60	0.16119	0.00028	9.86697	0.08950	0.44403	0.00414	2468	4	2422	9	2369	19	97%	0.0014	0.0078
12TS93-1-21	199	256	0.78	0.05877	0.00023	0.66790	0.00539	0.08257	0.00076	567	9	519	3	511	5	98%	0.0163	0.0088
12TS93-1-22	183	212	0.86	0.05798	0.00019	0.58753	0.00420	0.07351	0.00052	528	40	469	3	457	3	97%	0.0754	0.0069
12TS93-1-23	251	652	0.39	0.05735	0.00012	0.58632	0.00658	0.07416	0.00085	506	4	469	4	461	5	98%	0.0073	0.0110
12TS93-1-24	308	380	0.81	0.05801	0.00020	0.59253	0.01377	0.07399	0.00169	532	7	472	9	460	10	97%	0.0139	0.0220
12TS93-1-25	212	251	0.84	0.07232	0.00014	1.38987	0.00747	0.13933	0.00074	994	4	885	3	841	4	94%	0.0037	0.0050
12TS93-1-26	759	1364	0.56	0.05617	0.00009	0.53180	0.00519	0.06866	0.00069	457	4	433	3	428	4	98%	0.0081	0.0097
12TS93-1-27	172	471	0.37	0.17368	0.00031	7.66766	0.14449	0.31999	0.00607	2594	4	2193	17	1790	30	79%	0.0015	0.0166
12TS93-1-28	88	68	1.29	0.08146	0.00027	2.12257	0.01931	0.18927	0.00197	1232	6	1156	6	1117	11	96%	0.0045	0.0096
12TS93-1-29	72	152	0.48	0.09195	0.00016	3.01201	0.03751	0.23766	0.00310	1466	3	1411	10	1375	16	97%	0.0023	0.0118
12TS93-1-30	420	1024	0.41	0.07467	0.00102	0.75889	0.00785	0.07426	0.00060	1061	28	573	5	462	4	78%	0.0262	0.0078
12TS93-1-31	303	182	1.66	0.11104	0.00219	1.62555	0.02651	0.10759	0.00114	1816	37	980	10	659	7	60%	0.0203	0.0101
12TS93-1-32	64	135	0.47	0.15986	0.00021	9.55339	0.11374	0.43342	0.00533	2454	2	2393	11	2321	24	96%	0.0008	0.0103
12TS93-1-33	493	527	0.94	0.06565	0.00052	0.59590	0.00480	0.06597	0.00045	794	12	475	3	412	3	85%	0.0151	0.0066

12TS93-1-34	276	312	0.89	0.08238	0.00045	1.94110	0.01513	0.17120	0.00147	1255	10	1095	5	1019	8	92%	0.0084	0.0079
12TS93-1-35	165	220	0.75	0.11616	0.00018	4.64932	0.05197	0.29024	0.00331	1898	3	1758	9	1643	17	93%	0.0017	0.0101
12TS93-1-36	90	122	0.74	0.14745	0.00033	6.72487	0.03304	0.33078	0.00180	2316	4	2076	5	1842	9	88%	0.0016	0.0048
12TS93-1-37	338	337	1.00	0.05854	0.00025	0.57532	0.00419	0.07135	0.00057	550	9	461	3	444	3	96%	0.0168	0.0078
12TS93-1-38	193	199	0.97	0.05930	0.00025	0.62302	0.00629	0.07619	0.00072	589	9	492	4	473	4	96%	0.0157	0.0092
12TS93-1-39	409	125	3.28	0.06095	0.00024	0.71968	0.00627	0.08561	0.00069	639	14	550	4	530	4	96%	0.0217	0.0077
12TS93-1-40	39	45	0.88	0.10943	0.00022	4.30375	0.04393	0.28504	0.00283	1791	4	1694	8	1617	14	95%	0.0021	0.0088
12TS93-1-41	265	644	0.41	0.05640	0.00010	0.57340	0.00564	0.07374	0.00075	478	4	460	4	459	4	99%	0.0077	0.0098
12TS93-1-42	231	567	0.41	0.05561	0.00010	0.53142	0.00637	0.06928	0.00083	435	4	433	4	432	5	99%	0.0085	0.0116
12TS93-1-43	369	361	1.02	0.05571	0.00012	0.52015	0.00453	0.06771	0.00060	439	10	425	3	422	4	99%	0.0232	0.0086
12TS93-1-44	122	333	0.37	0.07200	0.00012	1.57397	0.01803	0.15848	0.00183	987	4	960	7	948	10	98%	0.0038	0.0107
12TS93-1-45	94	112	0.83	0.06409	0.00018	0.99581	0.00768	0.11264	0.00083	746	6	702	4	688	5	98%	0.0074	0.0070
12TS93-1-46	142	281	0.50	0.06246	0.00045	0.47987	0.00544	0.05564	0.00043	700	15	398	4	349	3	86%	0.0212	0.0076
12TS93-1-47	925	173	5.35	0.05932	0.00016	0.66145	0.00625	0.08087	0.00077	589	6	516	4	501	5	97%	0.0094	0.0092
12TS93-1-48	401	287	1.40	0.15914	0.00024	9.49662	0.12002	0.43298	0.00569	2447	3	2387	12	2319	26	97%	0.0012	0.0111
12TS93-1-49	90	127	0.71	0.06283	0.00040	0.67950	0.00562	0.07840	0.00040	702	8	526	3	487	2	92%	0.0119	0.0050
12TS93-1-50	214	337	0.63	0.05916	0.00015	0.68515	0.00485	0.08404	0.00066	572	10	530	3	520	4	98%	0.0178	0.0076
12TS93-1-51	241	358	0.67	0.05685	0.00014	0.54929	0.00443	0.07007	0.00056	487	10	445	3	437	3	98%	0.0209	0.0077
12TS93-1-52	1097	334	3.28	0.05777	0.00020	0.53470	0.00330	0.06709	0.00033	520	3	435	2	419	2	96%	0.0053	0.0048
12TS93-1-53	99	123	0.81	0.12792	0.00066	2.97498	0.04619	0.16765	0.00190	2069	9	1401	12	999	10	66%	0.0045	0.0105
12TS93-1-54	191	193	0.99	0.05711	0.00017	0.55979	0.00419	0.07112	0.00055	494	1	451	3	443	3	98%	0.0019	0.0075
12TS93-1-55	443	631	0.70	0.06495	0.00012	1.07316	0.00982	0.11985	0.00113	772	4	740	5	730	6	98%	0.0048	0.0089
12TS93-1-56	174	196	0.88	0.05691	0.00016	0.57991	0.00678	0.07387	0.00083	487	6	464	4	459	5	98%	0.0114	0.0109
12TS93-1-57	987	760	1.30	0.05603	0.00012	0.52224	0.00370	0.06759	0.00048	454	4	427	2	422	3	98%	0.0082	0.0068
12TS93-1-58	172	353	0.49	0.07093	0.00015	1.57734	0.02296	0.16121	0.00231	955	5	961	9	963	13	99%	0.0053	0.0133

Notes:

a. Concordance =  $1 - \text{abs}((^{207}\text{Pb}/^{235}\text{U}) - (^{206}\text{Pb}/^{238}\text{U})) / (^{206}\text{Pb}/^{238}\text{U})$

b. Discordant results: concordance < 90% and error ratios > 5%.

c.  $^{207}\text{Pb}/^{206}\text{Pb}$  and  $^{206}\text{Pb}/^{238}\text{U}$  ages were adopted during calculation and illustration of analyses with apparent ages above and below 1000 Ma, respectively.

**Table S3 Whole-rock major and trace elements content of the magmatic rocks and leucosome in the Central and South Tianshan**

Section	Chahan Wusu Section										K
Sample No.	12TS62-2	12TS62-3	12TS66-1	12TS66-2	12TS67-1	12TS67-2	12TS68-1	12TS72-1	12TS72-2		
Lithology	andesitic tuff	andesitic tuff	andesitic tuff	andesitic tuff	tuffaceous greywacke	tuffaceous greywacke	andesitic tuff	granodiorite	granodiorite		
<b>Major elements (wt.%)</b>											
SiO <sub>2</sub>	57.87	59.51	60.24	55.86	68.57	62.60	54.96	54.43	53.08		
TiO <sub>2</sub>	0.68	0.59	0.56	0.95	0.51	0.83	0.86	0.82	0.75		
Al <sub>2</sub> O <sub>3</sub>	14.94	15.08	14.98	14.28	12.81	16.32	14.32	16.66	18.31		
Fe <sub>2</sub> O <sub>3</sub>	8.38	7.32	6.71	10.08	3.89	5.66	10.15	8.21	7.47		
MnO	0.14	0.12	0.12	0.17	0.05	0.06	0.18	0.13	0.12		
MgO	4.59	4.07	5.18	5.76	2.32	3.98	7.15	4.63	4.00		
CaO	4.81	4.31	2.78	4.07	1.13	0.39	3.26	5.23	7.40		
Na <sub>2</sub> O	4.87	5.41	4.43	5.09	3.44	4.62	4.33	3.81	5.32		
K <sub>2</sub> O	1.69	1.84	2.63	1.39	3.91	3.63	1.82	3.60	0.99		
P <sub>2</sub> O <sub>5</sub>	0.18	0.17	0.15	0.13	0.11	0.22	0.16	0.29	0.27		
LOI	2.19	1.96	2.69	2.63	2.33	2.86	3.42	2.48	2.56		
Sum	100.60	100.50	100.60	100.50	99.30	101.30	100.70	100.40	100.40		
ALK	6.56	7.25	7.06	6.48	7.35	8.25	6.15	7.41	6.31		
A/NCK	0.80	0.80	0.99	0.83	1.07	1.33	0.95	0.85	0.79		
A/NK	1.52	1.38	1.48	1.45	1.29	1.41	1.57	1.64	1.86		
FeO <sup>T</sup>	7.54	6.59	6.04	9.07	3.50	5.09	9.14	7.39	6.72		
Mg <sup>#</sup>	52.03	52.41	60.46	53.09	54.15	58.21	58.25	52.76	51.47		
Na <sub>2</sub> O/K <sub>2</sub> O	2.88	2.94	1.68	3.66	0.88	1.27	2.38	1.06	5.37		
CaO+MgO	9.40	8.38	7.96	9.83	3.45	4.37	10.41	9.86	11.40		
<b>Trace elements (ppm)</b>											
Li		125.2	122.2			74.2		84.2	57.0		
Sc	26.0	23.1	23.2	32.7	12.0	15.5	37.6	22.4	20.1		
V	257.1	217.9	190.1	342.3	82.5	154.0	337.0	209.2	161.3		
Cr	74.1	61.8	72.0	97.6	45.9	89.1	141.8	85.4	84.0		
Co	21.2	20.8	20.8	22.7	10.0	17.2	30.6	24.8	19.2		
Ni	20.1	19.2	23.8	20.5	16.3	37.7	30.3	26.6	23.8		
Cu	21.7	26.3	39.8	26.1	5.1	7.2	18.9	15.3	3.3		
Zn	109.3	68.3	64.8	80.1	125.4	89.7	129.3	79.2	64.4		
Rb	52.7	61.6	78.3	40.0	111.3	149.4	57.3	118.5	22.2		
Sr	225.7	262.8	240.4	202.3	89.9	101.8	169.5	322.1	515.7		
Y	18.5	19.7	20.1	18.2	17.4	19.2	21.4	18.0	25.4		
Zr	123.1	135.4	150.2	82.1	154.5	379.8	126.9	217.0	233.7		
Nb	6.9	7.3	7.0	4.6	7.6	13.6	6.4	10.5	11.7		
Cs	1.3	1.7	2.2	1.4	3.5	6.0	1.6	0.8	0.5		
Ba	596.8	667.7	829.8	349.1	1635.2	615.8	477.2	1366.4	844.3		
La	24.4	26.5	27.5	14.2	52.4	49.7	24.7	32.7	72.6		
Ce	45.3	48.3	49.1	27.1	89.5	93.4	42.3	66.3	127.0		
Pr	5.5	5.6	5.4	3.5	9.5	10.5	5.3	7.6	13.3		
Nd	20.9	21.6	21.0	14.3	33.5	37.3	21.1	29.6	46.8		
Sm	4.0	4.3	4.3	3.2	4.7	5.7	4.1	5.4	7.8		
Eu	1.0	1.2	1.2	0.9	1.5	1.4	1.2	1.5	1.8		
Gd	3.9	4.0	4.0	3.4	4.5	4.5	4.4	4.7	6.6		
Tb	0.5	0.8	0.7	0.5	0.5	0.8	0.6	0.7	1.0		
Dy	3.6	3.8	3.9	3.4	3.5	3.9	4.4	3.9	5.4		
Ho	0.8	0.8	0.8	0.8	0.7	0.9	0.9	0.7	1.0		
Er	2.3	2.4	2.4	2.2	2.2	2.6	2.6	2.0	2.9		
Tm	0.3	0.4	0.4	0.3	0.3	0.4	0.4	0.3	0.4		
Yb	2.2	2.5	2.5	2.1	1.8	2.7	2.4	1.7	2.6		
Lu	0.3	0.4	0.4	0.3	0.3	0.5	0.4	0.2	0.4		
Hf	3.4	3.8	4.1	2.1	4.1	10.0	3.3	5.1	5.8		
Ta	0.5	0.5	0.5	0.2	0.6	1.1	0.4	0.5	0.6		
Pb	14.1	14.5	33.2	66.3	32.8	16.7	24.3	3.6	10.6		
Th	9.4	9.2	8.8	7.3	13.3	14.1	8.3	3.2	16.6		
U	1.9	2.4	2.1	0.9	1.9	2.9	1.5	1.0	0.6		
Ga	16.9	16.9	16.2	15.2	15.8	23.5	19.1	22.8	22.0		

Bi	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.0
Ti	4192.6	4002.6	3821.5	5957.7	3079.6	5583.4	5883.5	5404.8	4942.4
Mn	1163.0	989.0	1065.8	1361.8	391.1	497.4	1664.6	1145.4	1027.1
Mo	0.4	0.3	0.5	0.4	0.1	0.3	0.6	0.4	0.2
Cd	0.2	0.2	3.9	2.8	0.1	0.1	0.3	0.1	0.1
Sn	1.2	1.4	1.6	0.8	1.3	2.3	1.3	2.3	3.3
W	0.7	0.8	1.2	0.6	2.7	2.0	0.6	0.8	0.3
$\Sigma$ REE	115.1	122.6	123.7	76.2	205.0	214.2	114.7	157.3	289.6
(La/Yb) <sub>CN</sub>	7.9	7.7	7.9	4.9	21.3	13.0	7.41	14.0	20.2
(La/Sm) <sub>CN</sub>	4.0	4.0	4.2	2.8	7.2	5.6	3.9	3.9	6.0
(Gd/Lu) <sub>CN</sub>	1.5	1.4	1.3	1.3	1.9	1.2	1.4	2.4	2.2
$\delta$ Eu	0.8	0.8	0.9	0.8	1.0	0.8	0.8	0.9	0.8
(La/Nb) <sub>PM</sub>	3.7	3.8	4.1	3.2	7.2	3.8	4.0	3.2	6.5
(Nb/Th) <sub>PM</sub>	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.1
(Ba/Th) <sub>PM</sub>	0.8	0.9	1.1	0.6	1.5	0.5	0.7	5.2	0.6
Sr/Y	12.2	13.3	12.0	11.1	5.2	5.3	7.9	17.9	20.3
Nb/Yb	0.4	0.4	0.3	0.3	0.4	0.7	0.3	0.6	0.5
Th/Yb	4.3	3.7	3.5	3.5	7.5	5.2	3.5	1.9	6.4
Th/Ta	20.6	16.8	16.1	30.0	23.9	13.1	20.2	6.1	29.3

Notes:

a. ALK= K<sub>2</sub>O+Na<sub>2</sub>O (wt%).

b. A/NCK=molar(Al<sub>2</sub>O<sub>3</sub>/(CaO+Na<sub>2</sub>O+K<sub>2</sub>O)); A/NK=molar(Al<sub>2</sub>O<sub>3</sub>/(Na<sub>2</sub>O+K<sub>2</sub>O))

c. FeO<sup>T</sup>=Total Fe value in ferrous oxide

d. Mg<sup>#</sup>=molar(MgO/(MgO+FeO))\*100

e. CN: Normalized to chondrites (Sun and McDonough, 1989)

f. PM: Normalized to primitive mantle (Sun and McDonough, 1989)

**n.**

Lhergut Section

12TS82-3 leucosome	12TS98 biotite K- feldspar granite	12TS99 biotite K- feldspar granite
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63.88	68.38	72.10
0.10	0.44	0.49
21.31	15.90	13.48
0.64	2.39	2.84
0.01	0.04	0.05
0.65	1.04	1.24
6.25	1.99	2.03
6.10	4.13	3.29
0.52	4.79	3.64
0.01	0.19	0.21
1.00	0.88	0.82
100.60	100.30	100.30
6.62	8.92	6.93
0.97	1.02	1.03
2.01	1.33	1.44
0.58	2.15	2.56
66.79	46.29	46.37
11.73	0.86	0.90
6.90	3.03	3.27

0.6	7.1	5.7
10.8	52.6	44.2
30.1	16.0	13.4
2.9	6.0	4.7
19.6	10.3	7.3
2.0	6.0	5.2
15.9	64.7	70.0
11.1	204.6	235.0
377.8	171.7	223.2
0.7	16.5	15.3
3.9	215.1	185.7
0.9	13.1	12.1
2.0	11.3	22.0
68.2	450.8	684.5
1.3	41.8	34.9
1.6	81.8	69.3
0.2	9.0	7.6
0.7	32.9	28.0
0.1	5.4	4.7
0.3	0.9	1.0
0.1	4.4	3.9
0.0	0.6	0.5
0.1	3.4	3.1
0.0	0.7	0.6
0.1	1.9	1.7
0.0	0.3	0.2
0.1	1.8	1.6
0.0	0.3	0.2
0.1	5.8	4.9
0.1	1.4	1.6
29.4	24.0	33.3
0.5	8.6	8.9
0.0	2.9	1.9
10.3	19.3	21.1

0.0	0.2	0.7
515.3	3024.3	2677.3
72.2	366.5	336.3
0.1	0.1	0.0
0.1	0.1	0.1
0.0	6.5	5.5
0.1	0.6	0.6
4.6	185.0	157.5
15.8	17.0	16.0
9.4	5.0	4.8
1.6	2.1	2.0
7.0	0.5	0.7
1.4	3.3	3.0
0.2	0.2	0.2
1.5	0.6	0.9
530.1	10.4	14.6
1.3	0.8	0.8
9.2	4.9	5.7
5.0	6.1	5.5

**Table S4 Compilation of radiometric ages for Paleozoic magmatic rocks of the South Tianshan and ad**

Sample No.	Rock type	Mineral	Method	Age	Error	Location
K1-1305	monzogranite	Zircon	SHRIMP	436	8	Xinyuan Forest Farm (E)
08ZS1	biotite granodiorite	Zircon	LA-ICP-MS	494	6	Akeyazi
08ZS2	diorite	Zircon	LA-ICP-MS	429	5	Akeyazi
10QK01	monzogranite	Zircon	LA-ICP-MS	427	10	Qiongkushitai
08XY1	biotite monzogranite	Zircon	LA-ICP-MS	427	6	Qiakebu
DV49-5	diorite	Zircon	SHRIMP	470	12	Xiate
BK7	granite	Zircon	LA-ICP-MS	479	2	Bikai
BK13	granite	Zircon	LA-ICP-MS	401	1	Bikai
BK14	granite	Zircon	LA-ICP-MS	413	1	Bikai
BK15	granodiorite	Zircon	LA-ICP-MS	419	2	Bikai
KKS3	granite	Zircon	SHRIMP	433	6	Kekesu
QK7	alkali feldspar granite	Zircon	SHRIMP	430	8	Qiongkushitai
XT17	hornblende granodiorite	Zircon	LA-ICP-MS	437	1	Muzaerte
AK8	diorite	Zircon	LA-ICP-MS	409	2	Akeyazi
13st15B	monzogranite	Zircon	LA-ICP-MS	411	4	Haernuer
13st15C	diorite	Zircon	LA-ICP-MS	421	4	Haernuer
08XY1-1	muscovite granite	Zircon	LA-ICP-MS	427	6	Qiakebu
08ZS1-1	biotite monzonitic granite	Zircon	LA-ICP-MS	497	6	Senmtas
ZS1-1	granodiorite	Zircon	LA-ICP-MS	485	15	Senmtas
ZS2-3	quartz diorite	Zircon	LA-ICP-MS	427	9	Senmtas
KK1-1	biotite monzogranite	Zircon	LA-ICP-MS	432	11	Kekesu River
XY1-1	granodiorite	Zircon	LA-ICP-MS	430	7	Nalati-Xinyuan
	granodiorite	Zircon	LA-ICP-MS	450	1	Qiaohuote copper deposit
	K-feldspar granite	Zircon	LA-ICP-MS	431	4	Qiaohuote copper deposit
GL1	granodiorite	Zircon	LA-ICP-MS	451	2	Qiaohuote copper deposit
NESL2	K-feldspar granite	Zircon	LA-ICP-MS	425	1	Nuersala
KKS10	biotite granite	Zircon	SHRIMP	352	5	Kekesu River
KKS12	biotite granite	Zircon	SHRIMP	349	6	Kekesu River
YZ04	gabbro	Zircon	SIMS	311	2	North of Zhaosu
XJ604	granite	Zircon	LA-ICP-MS	341	6	Kekesu River
TS02	trachy-andesite	Zircon	SHRIMP	313	4	Laerdundaban
KK4-1	monzogranite	Zircon	LA-ICP-MS	352	9	Kekesu River
KKS1	syenite	Zircon	LA-ICP-MS	275	3	Kekesu River
KKS5	monzodiorite	Zircon	SHRIMP	398	1	Kekesu River
QK1	monzodiorite	Zircon	SHRIMP	325	5	Qiongkushitai River
QK5	biotite granite	Zircon	SHRIMP	322	5	Qiongkushitai River
TGLS8	leucogranite	Zircon	SIMS	285	2	Zhaosu area
KKS5	K-granite	Zircon	LA-ICP-MS	277	3	Kekesu River
W8037	tonalite	Zircon	SHRIMP	333	3	Changawuzi pluton
W8028	granodiorite	Zircon	SHRIMP	326	3	Changawuzi pluton
W8027	granodiorite	Zircon	LA-ICP-MS	293	3	Alashan pluton
W8026	quartz monzonite	Zircon	LA-ICP-MS	294	2	Alashan pluton
XJ676	K-granite	Zircon	LA-ICP-MS	338	8	Kekesu River
XJ620	biotite granodiorite	Zircon	LA-ICP-MS	313	4	Qiongkushitai River
K1-9-17	diorite	Zircon	SHRIMP	370	7	Quelutedaban
K1-14-17	granite	Zircon	SHRIMP	366	8	Quelutedaban
07TS54	dacite	Zircon	SHRIMP	368	2	Kesangrongdong area
07TS88	rhyolite	Zircon	SHRIMP	356	2	Kesangrongdong area
10QKS1-3	monzogranite	Zircon	LA-ICP-MS	337	1	Qiongkushitai River
10QKS2-1	granodiorite	Zircon	LA-ICP-MS	314	3	Qiongkushitai River
08TL1-4	biotite granite	Zircon	LA-ICP-MS	372	7	Talmjirgal River
08TL2-1	quartz diorite	Zircon	LA-ICP-MS	345	3	Talmjirgal River
10QLT2-1	muscovite granite	Zircon	LA-ICP-MS	357	8	Quelutedaban
10NLT1-1	alkali granite	Zircon	LA-ICP-MS	297	2	Nalati area
10NLT2-1	gabbro	Zircon	LA-ICP-MS	340	1	Nalati area
nlt01-1	diorite	Zircon	LA-ICP-MS	355	9	Bayinbuluke area
13ts14A	granodiorite	Zircon	LA-ICP-MS	344	3	Bayinbuluke area
13ts14B	granite	Zircon	LA-ICP-MS	292	5	Bayinbuluke area
13ts14I	diorite	Zircon	LA-ICP-MS	353	5	Bayinbuluke area
TKS1155	gabbro	Zircon	SIMS	300	1	Haladala mafic complex

TKS13015	gabbro	Zircon	SIMS	300	1	Haladala mafic complex
07TS30	olivine gabbro	Zircon	SHRIMP	308	2	Haladala mafic complex
XTT830	troctolite	Zircon	SIMS	306	3	Haladala mafic complex
XTT845	granodiorite	Zircon	SIMS	343	2	Northern Tekesi
03T-96	granodiorite	Zircon	TIMS	348	1	Zhaosu area
TS08	basaltic andesite	Zircon	SHRIMP	363	4	Tekesidaban
TS069	basaltic andesite	Zircon	SHRIMP	355	2	Southern Xinyuan
TS01	basalt	Zircon	SHRIMP	352	3	Southern Xinyuan
YX8-1	quartz diorite	Zircon	SIMS	311	2	Yuximolegai area
YXQ	quartz syenite	Zircon	LA-ICP-MS	284	4	Yuximolegai area
13WL	hornblende gabbro	Zircon	LA-ICP-MS	313	3	Wuling iron deposit
08XY2-1	gabbro	Zircon	LA-ICP-MS	319	3	Qiakebu River
TL1-2	monzogranite	Zircon	LA-ICP-MS	366	11	Nalati area
TL2-7	granodiorite	Zircon	LA-ICP-MS	349	7	Nalati area
10TK05-2	andesite	Zircon	LA-ICP-MS	354	7	Wusunshan area
10TK08-2	andesite	Zircon	LA-ICP-MS	356	4	Wusunshan area
KKS02-1TW	basaltic andesite	Zircon	LA-ICP-MS	359	2	Kekesu River
TS23-6	rhyolite	Zircon	LA-ICP-MS	364	3	Tekesi area
TS21-2	andesite	Zircon	LA-ICP-MS	333	9	Tekesi area
TS17-1	dacite	Zircon	LA-ICP-MS	360	5	Xinyuan area
TS13-2	monzogranite	Zircon	LA-ICP-MS	322	3	Xinyuan area
04XJ-263	syenite	Zircon	SHRIMP	312	3	Southern Awulale
ZS21	monzogranite	Zircon	LA-ICP-MS	362	1	Wusunshan Mountain
ZS26	monzogranite	Zircon	LA-ICP-MS	362	1	Wusunshan Mountain
ZS34	K-feldspar granite	Zircon	LA-ICP-MS	360	2	Wusunshan Mountain
15T56A	rhyolite	Zircon	LA-ICP-MS	316	3	Wusunshan Mountain
15T94	rhyolite	Zircon	LA-ICP-MS	334	3	Wusunshan Mountain
C13ZS01	dacite porphyry	Zircon	SIMS	350	3	Dahalajunshan
C15WS01	rhyolite	Zircon	SIMS	338	3	Wusun Mountain
C15WS20	rhyolite	Zircon	SIMS	337	3	Wusun Mountain
C15WS36	rhyolite	Zircon	SIMS	323	3	Wusun Mountain
C15WS63	dacite porphyry	Zircon	SIMS	322	4	Wusun Mountain
C15WS57	dacite	Zircon	SIMS	313	5	Wusun Mountain
TKSD14-01	granodiorite-granite	Zircon	LA-ICP-MS	341	2	
TKSC14-08	monzodiorite	Zircon	LA-ICP-MS	353	2	
TKSB14-01	granodiorite	Zircon	LA-ICP-MS	370	4	
XYF14-06	granodiorite	Zircon	LA-ICP-MS	311	3	
TKSG14-06	granite porphyry	Zircon	LA-ICP-MS	251	6	
C15ZS07	rhyolite	Zircon	LA-ICP-MS	355	3	Wusun Mountain
C13TKS02	rhyolite	Zircon	LA-ICP-MS	351	5	Wusun Mountain
C13TKS18	rhyolite	Zircon	LA-ICP-MS	325	8	Wusun Mountain
	rhyolite	Zircon	LA-ICP-MS	340	4	Atengtao
G0-33	biotite monzogranite	Zircon	LA-ICP-MS	449	3	Gulungou
M-20	granodiorite-porphyry	Zircon	LA-ICP-MS	489	2	Gulungou
G-91	granodiorite-porphyry	Zircon	LA-ICP-MS	470	8	Gulungou
D02054	granitic gneiss	Zircon	SHRIMP	408	5	Baluntai (N)
D02062	veined granite	Zircon	SHRIMP	417	6	Baluntai (N)
02TB-24	biotite plagiogranite	Zircon	TIMS	424	1	Toksun (S)-Kumishi (N)
10CK24	gneissic granodiorite	Zircon	LA-ICP-MS	440	3	Baluntai (S)
10CK25	gneissic diorite	Zircon	LA-ICP-MS	424	4	Baluntai (S)
JT17	granodiorite	Zircon	LA-ICP-MS	442	1	Haernuer (E)
12ts57-3	mylonitic granodiorite	Zircon	LA-ICP-MS	445	1	Baluntai
12ts30-2	foliated diorite	Zircon	LA-ICP-MS	425	1	Baluntai
12ts30-1	mylonitic K-granite dyke	Zircon	LA-ICP-MS	417	1	Baluntai
12ts33-9	two-mica-granite sill	Zircon	LA-ICP-MS	430	2	Baluntai
12ts57-2	granite sill	Zircon	LA-ICP-MS	402	4	Baluntai
638	granodiorite	Zircon	LA-ICP-MS	475	2	Baluntai
686	hornblende diorite	Zircon	LA-ICP-MS	474	2	Baluntai
782	granodiorite	Zircon	LA-ICP-MS	451	3	Baluntai
784	K-feldspar granite	Zircon	LA-ICP-MS	434	4	Baluntai
XGG1	augen granite	Zircon	SHRIMP	428	10	Gangou
BLT01	gabbro	Zircon	SHRIMP	442	7	Baluntai area
BLT02	granodiorite	Zircon	SHRIMP	473	6	Baluntai area

19W39	gneissic diorite	Zircon	LA-ICP-MS	453	1	Wuwamen Complex
WT1614	mylonitic granite	Zircon	LA-ICP-MS	430	2	Baluntai
12TS74	granodiorite	Zircon	LA-ICP-MS	433	2	Kerguty
12TS77-2	gneissic granite	Zircon	LA-ICP-MS	431	2	Kerguty
KMS-47	alkali granite	Zircon	LA-ICP-MS	293	3	Kumishi area
766	K-feldspar granite	Zircon	LA-ICP-MS	399	3	Kumishi area
798-2	diorite	Zircon	LA-ICP-MS	371	4	Baluntai area
791	K-feldspar granite	Zircon	LA-ICP-MS	366	4	Baluntai area
798	granodiorite	Zircon	LA-ICP-MS	352	3	Baluntai area
761	granodiorite	Zircon	LA-ICP-MS	352	3	Kumishi area
797-1	granite	Zircon	LA-ICP-MS	346	3	Baluntai area
794	K-feldspar granite	Zircon	LA-ICP-MS	339	3	Baluntai area
763	K-feldspar granite	Zircon	LA-ICP-MS	337	3	Baluntai area
755	K-feldspar granite	Zircon	LA-ICP-MS	283	2	Baluntai-Kumishi area
762	K-feldspar granite	Zircon	LA-ICP-MS	267	4	Baluntai-Kumishi area
788	K-feldspar granite	Zircon	LA-ICP-MS	300	3	Baluntai-Kumishi area
792	K-feldspar granite	Zircon	LA-ICP-MS	263	2	Baluntai-Kumishi area
XXX01	gneissic granite	Zircon	SHRIMP	393	3	Sangshuyuanzi area
KMX13	K-granite	Zircon	LA-ICP-MS	252	4	Gangou area
AR-1	granite	Zircon	LA-ICP-MS	320	3	Baluntai area
03T-127	alkali granite	Zircon	TIMS	395	1	South of Tuokesun
03T-137	quartz diorite	Zircon	TIMS	328	2	South of Tuokesun
03T-129	granodiorite	Zircon	TIMS	350	0	South of Tuokesun
TS210	gabbro		WR Rb-Sr	321	10	Baluntai area
WXT789	gabbro		Pl. Ar-Ar	312	1	Baluntai area
	Nb-enriched basalt		Pl. Ar-Ar	312	1	Baluntai area
WXT789	Nb-enriched basalt		Pl. Ar-Ar	312	1	Baluntai area
99-25	alkali granite	Zircon	LA-ICP-MS	270	1	Bindaban area
BL2	K-feldspar granite	Zircon	LA-ICP-MS	370	3	Baluntai area
XGG2	granite	Zircon	SHRIMP	368	10	Gangou area
XGG3	granite	Zircon	SHRIMP	361	11	Gangou area
XGG8	granite	Zircon	SHRIMP	368	9	Gangou area
TS11-27-1	granodiorite	Zircon	LA-ICP-MS	330	2	Kumishi area
TS11-29-1	monzodiorite	Zircon	LA-ICP-MS	320	2	Kumishi area
12YX24-2	gabbro	Zircon	LA-ICP-MS	317	2	Bayinbuluke area
TS1340	mafic dyke	Zircon	LA-ICP-MS	305	2	East of Baluntai
TS1342	monzogranite	Zircon	LA-ICP-MS	362	2	East of Baluntai
TS1343	granodiorite	Zircon	LA-ICP-MS	354	2	East of Baluntai
TS1344	granodiorite	Zircon	LA-ICP-MS	354	2	East of Baluntai
19W36	diorite dyke	Zircon	LA-ICP-MS	320	1	Wuwamen Complex
JT59-1	gneissic granite	Zircon	LA-ICPMS	407	3	Baluntai
19W43	gneissic granodiorite	Zircon	LA-ICPMS	460	2	Baluntai
W2-3	augen granitic gneiss	Zircon	LA-ICPMS	441	2	Baluntai
W3-1	ioltite-two feldspar gneis	Zircon	LA-ICPMS	495	1	Baluntai
W4-3	gneissic granodiorite	Zircon	LA-ICPMS	464	2	Baluntai
JT47-1	gneissic granite	Zircon	LA-ICPMS	415	2	Baluntai
12W26-1	rhyoliic tuff	Zircon	LA-ICPMS	406	2	Baluntai
12W28	meta-andeiste	Zircon	LA-ICPMS	532	4	Baluntai
12W30-2	granodiorite	Zircon	LA-ICPMS	360	2	Baluntai
087-2	diorite	Zircon	LA-ICPMS	366	2	Baluntai
12W36	andesite	Zircon	LA-ICPMS	391	2	Baluntai
BLT-10	Qz diorite	Zircon	LA-ICP-MS	435	5	Baluntai
BDB-12	gneissic granodiorite	Zircon	LA-ICP-MS	432	4	Baluntai
MTSL-1	Qz diorite	Zircon	LA-ICP-MS	346	2	Baluntai
TKST-11	biotite granite	Zircon	LA-ICP-MS	362	5	Baluntai
WLSTIII-6	K-feldspar granite	Zircon	LA-ICP-MS	312	4	Baluntai
BLTIV-9	granodiorite	Zircon	LA-ICP-MS	306	5	Baluntai
WLSTII-3	granite	Zircon	LA-ICP-MS	359	4	Baluntai
P5TW1	deformed granitoid	Zircon	LA-ICP-MS	456	2	Baoertu
07Y-962	dacite	Zircon	SHRIMP	422	3	Yushugou
07Y-1011	granodiorite	Zircon	LA-ICP-MS	423	2	Yushugou
HLG5	plagiogranite	Zircon	SIMS	416	4	Guluogou area
KMS-15	muscovite granite	Zircon	LA-ICP-MS	425	3	Kumishi area

KMS-22	biotite monzogranite	Zircon	LA-ICP-MS	402	3	Kumishi area
KMS-25	biotite granite	Zircon	LA-ICP-MS	411	5	Kumishi area
XSS1	biotite-granite	Zircon	SHRIMP	458	9	Sangshuyuanzi area
XSS2	gneissic granite	Zircon	SHRIMP	404	13	Sangshuyuanzi area
XSS3	gneissic granite	Zircon	SHRIMP	405	14	Sangshuyuanzi area
XSS4	amphibolite	Zircon	SHRIMP	410	11	Sangshuyuanzi area
LKMS-13	biotite monzogranite	Zircon	LA-ICP-MS	446	2	Kumishi area
LKMS-27	K-feldspar granite	Zircon	LA-ICP-MS	431	3	Kumishi area
LKMS-33	two-mica granite	Zircon	LA-ICP-MS	407	3	Kumishi area
OB1-169	diorite	Zircon	SHRIMP	431	6	Xiate area
AI-73	granodiorite	Zircon	LA-ICP-MS	410	4	North of Atbashi Range
AI-71	granodiorite	Zircon	LA-ICP-MS	417	5	North of Atbashi Range
D1011	quartz monzonite	Zircon	LA-ICP-MS	446	2	Dongdeguli River
D1021	quartz monzonite	Zircon	LA-ICP-MS	443	3	Dongdeguli River
W8034	monzodiorite	Zircon	SHRIMP	453	4	Muzerte River
07TS71	granite	Zircon	SHRIMP	481	4	Kesangrongdong area
BXX-2	basaltic andesite	Zircon	LA-ICP-MS	456	8	Bayinbuluke area
XXP-1	dacite	Zircon	LA-ICP-MS	445	2	Bayinbuluke area
QX-7	rhyolite	Zircon	LA-ICP-MS	424	2	Bayinbuluke area
XXP-5	syenite	Zircon	LA-ICP-MS	441	2	Bayinbuluke area
BXX-1	granodiorite	Zircon	LA-ICP-MS	455	5	Bayinbuluke area
H833	rhyolite	Zircon	SHRIMP	425	3	Akeyazi River
H817	rhyolite	Zircon	SHRIMP	425	3	Akeyazi River
K816	rhyolite	Zircon	SHRIMP	423	2	Akeyazi River
K824	rhyolite	Zircon	SHRIMP	423	3	Akeyazi River
TS11-32-1	granodiorite	Zircon	LA-ICP-MS	496	3	Kumishi area
TS11-23-1	gneissic granite	Zircon	LA-ICP-MS	426	5	Kumishi area
DK12-56	andesite	Zircon	LA-ICP-MS	423	5	Bayinbuluke area
TS11-70	monzonite	Zircon	LA-ICP-MS	424	3	Bayinbuluke area
A13002	rhyolite	Zircon	SHRIMP	460	3	Atbashi Range
A13003	felsic tuff	Zircon	SHRIMP	461	5	Atbashi Range
KG28	granodiorite	Zircon	SHRIMP	436	3	Atbashi Range
BY8	granite	Zircon	LA-ICP-MS	435	4	Bayinbuluke
05KC148	monzogranite	Zircon	LA-ICP-MS	421	3	Oxidaban
02TB-19	biotite plagiogranite	Zircon	TIMS	425	2	Kuergan (S)
02TB-18	hornblende plagiogranite	Zircon	TIMS	426	2	Kuergan (S)
03T-64	quartz diorite	Zircon	TIMS	447	1	Bayinbuluke Formation
HJS-03	tonalite	Zircon	TIMS	423	16	Huangjianshan
KEN-06	quartz diorite	Zircon	LA-ICP-MS	424	9	Oxidaban
KEN-19	monzogranite	Zircon	LA-ICP-MS	425	9	Oxidaban
TLK-2	monzonite	Zircon	LA-ICP-MS	420	2	Tie'reke
K1105	quartz diorite	Zircon	LA-ICP-MS	418	2	Oxidaban
TKD23-01	biotite quartz diorite	Zircon	LA-ICP-MS	418	3	Bositeng Lake (S)
JT167	plagiogranite stock	Zircon	LA-ICP-MS	443	2	Wuwamen ophiolite mélange
13ts19A	andesite	Zircon	LA-ICP-MS	410	3	Kuikewusu
13ts19D	rhyolite	Zircon	LA-ICP-MS	430	2	Kuikewusu
14ts02H	rhyolite	Zircon	LA-ICP-MS	432	2	Kuikewusu
TSY-26	coarse-grained gabbro	Zircon	LA-ICP-MS	431	5	Tajik South Tianshan
CWH-9	biotite granodiorite	Zircon	LA-ICP-MS	297	4	Erbin Range
ST7-5	biotite granite	Zircon	LA-ICP-MS	294	3	Erbin Range
MQS2-1	two-mica granite	Zircon	LA-ICP-MS	292	2	Erbin Range
12TS62-3	andesitic tuff	Zircon	LA-ICP-MS	419	1	Chahan Wusu
12TS98	biotite K-feldspar granite	Zircon	LA-ICP-MS	304	2	Kerguty
776	Biotite K-feldspar granite	Zircon	LA-ICP-MS	272	2	Kumishi area
776-1	Syenite	Zircon	LA-ICP-MS	277	3	Kumishi area
777	Biotite K-feldspar granite	Zircon	LA-ICP-MS	275	2	Kumishi area
777-2	K-feldspar granite	Zircon	LA-ICP-MS	277	2	Kumishi area
787	Biotite K-feldspar granite	Zircon	LA-ICP-MS	292	2	Mangqisu
YSG12	gneissic granite	Zircon	SHRIMP	399	2	Kumishi area
X-107	mylonitized granite	Zircon	SHRIMP	396	4	East of Kumishi
X02	porphyritic granite	Zircon	LA-ICP-MS	294	1	Kekesu River
TK111	porphyritic granite	Zircon	LA-ICP-MS	295	1	Kekesu River
TK118	porphyritic granite	Zircon	LA-ICP-MS	291	2	Kekesu River

TK233	leucogranite	Zircon	LA-ICP-MS	274	2	Kekesu River
TK235	leucogranite	Zircon	LA-ICP-MS	267	4	Kekesu River
TS1375	monzogranite	Zircon	LA-ICP-MS	314	2	Qiongkushitai River
416801	leucogranite	Zircon	SHRIMP	295	4	Inylchek complex
416803	leucogranite	Zircon	SHRIMP	289	6	Inylchek complex
209202	Rapakivi granite	Zircon	SHRIMP	297	4	Kokshaal area
280701	granite	Zircon	SHRIMP	279	3	Kokshaal area
280001	granite	Zircon	SHRIMP	281	2	Kokshaal area
206801	granite	Zircon	SHRIMP	279	8	Kokshaal area
XT18	granodiorite	Zircon	LA-ICP-MS	247	1	North Muzaerte River
HYS73	biotite granite	Zircon	SHRIMP	285	4	Heiyingshan area
769	diorite	Zircon	LA-ICP-MS	293	3	Baluntai-Kumishi area
773	biotite granite	Zircon	LA-ICP-MS	295	4	Baluntai-Kumishi area
XKT-01	basalt	Zircon	LA-ICP-MS	287	5	Boziguuer region
TLK-01	felsic rock	Zircon	LA-ICP-MS	285	2	Boziguuer region
-	rhyolite	Zircon	LA-ICP-MS	289	6	North of Wensu
NJ11-004	quartz porphyry	Zircon	LA-ICP-MS	295	3	Kapushaliang Section
AI-16	granodiorite	Zircon	LA-ICP-MS	307	4	Inylchek area
AI-60	tonalite	Zircon	LA-ICP-MS	282	6	North of Atbashi Range
AI-75	granodiorite	Zircon	LA-ICP-MS	286	4	North of Atbashi Range
AI-77	gabbro-diorite	Zircon	LA-ICP-MS	285	8	North of Atbashi Range
AI-74	granite	Zircon	LA-ICP-MS	288	3	North of Atbashi Range
AI-79	granite	Zircon	LA-ICP-MS	283	4	North of Atbashi Range
AI-82	Granite	Zircon	LA-ICP-MS	286	4	North of Atbashi Range
DYCWL-4	biotite diorite	Zircon	LA-ICP-MS	287	4	Chuanwulu complex
DYCWL-3	biotite monzonite	Zircon	LA-ICP-MS	286	3	Chuanwulu complex
BZGE-1-14	albite granites	Zircon	LA-ICP-MS	290	1	Bozigu'er region
11CL901	alkali granite	Zircon	LA-ICP-MS	288	3	Bozigu'er region
11CL902	alkali granite	Zircon	LA-ICP-MS	281	3	Bozigu'er region
11CL903	alkali granite	Zircon	LA-ICP-MS	281	2	Bozigu'er region
11CL904	alkali granite	Zircon	LA-ICP-MS	292	3	Bozigu'er region
012-2	alkaline gabbro	Zircon	SHRIMP	284	1	Kokshaal Range
217001	granite	Zircon	SHRIMP	303	3	Kokshaal Range
251701	granite	Zircon	SHRIMP	292	3	Kokshaal Range
ST04	granodiorite	Zircon	SHRIMP	297	5	Erbin Range
ST06	granodiorite	Zircon	SHRIMP	304	11	Erbin Range
05QQ97	granite	Zircon	LA-ICP-MS	273	2	Kokshal Range
209202	hornblende granite	Zircon	SIMS	297	4	Kumtor gold deposit
KLH4	granodiorite	Zircon	SHRIMP	382	6	Serikeyailake area
ULR	rhyolite	Zircon	LA-ICP-MS	282	1	Heiyingshan region
LLR	rhyolite	Zircon	LA-ICP-MS	300	2	Heiyingshan region
YT-HH-7	Kezi'ertuo granite	Zircon	LA-ICP-MS	273	1	Halajun Region
AI-37	granite	Zircon	LA-ICP-MS	284	4	Alai Range
AI-40	granite	Zircon	LA-ICP-MS	274	7	Alai Range
AI-42	granite	Zircon	LA-ICP-MS	264	5	Alai Range
400900	granite	Zircon	SHRIMP	281	2	Kyzylkum area
3	granite	Zircon	SHRIMP	276	4	Kyzylkum area
MT45	granite	Zircon	SHRIMP	288	1	Kyzylkum area
400800	granite	Zircon	SHRIMP	293	5	Kyzylkum area
400300	granodiorite	Zircon	SHRIMP	287	2	Northern Nurata Range
400500	two-mica granite	Zircon	SHRIMP	281	1	Northern Nurata Range
401700	granite	Zircon	SHRIMP	286	2	Northern Nurata Range
414600	granite	Zircon	SHRIMP	276	9	Northern Nurata Range
15	paragneiss	Zircon	SHRIMP	290	2	Garm Block
16	mafic dyke	Zircon	SHRIMP	396	3	Garm Block
18	leucosome	Zircon	SHRIMP	293	2	Garm Block
19	migmatite	Zircon	SHRIMP	300	4	Garm Block
20	leucosome	Zircon	SHRIMP	290	2	Garm Block
21	granite	Zircon	SHRIMP	292	2	Garm Block
10	plagiogranite	Zircon	SHRIMP	315	1	Gissar segment
3	granite	Zircon	SHRIMP	312	1	Gissar segment
2	gabbro	Zircon	SHRIMP	297	1	Gissar segment
GX-4	granodiorite	Zircon	SHRIMP	288	4	Gissar segment

GX-12	syenite	Zircon	SHRIMP	267	2	Gissar segment
12TS06	granite	Zircon	LA-ICP-MS	301	3	Gissar segment
12TS08	biotite granite	Zircon	LA-ICP-MS	300	3	Gissar segment
12TS09	quartz diorite	Zircon	LA-ICP-MS	309	3	Gissar segment
12TS12	biotite granite	Zircon	LA-ICP-MS	313	3	Gissar segment
12TS23A	granodiorite	Zircon	LA-ICP-MS	292	3	Gissar segment
12TS30	granodiorite	Zircon	LA-ICP-MS	294	3	Gissar segment
12TS58	monzonite	Zircon	LA-ICP-MS	299	3	Gissar segment
12TS91	syenite	Zircon	LA-ICP-MS	297	5	Gissar segment
12TS96	syenite	Zircon	LA-ICP-MS	280	3	Gissar segment
12TS102	granite	Zircon	LA-ICP-MS	295	3	Gissar segment
12TS111	monzonite	Zircon	LA-ICP-MS	292	3	Gissar segment
12TS114	granite	Zircon	LA-ICP-MS	295	3	Gissar segment
12TS121	granite	Zircon	LA-ICP-MS	291	3	Gissar segment
14TS02	granite	Zircon	LA-ICP-MS	298	5	Gissar segment
13KT-1	syenogranite	Zircon	LA-ICP-MS	368	5	Katebasu
14KT-5	granodiorite	Zircon	LA-ICP-MS	341	3	Katebasu
14KT-16	gabbro diorite	Zircon	LA-ICP-MS	343	7	Katebasu
KT-64	gabbro diorite porphyry	Zircon	LA-ICP-MS	348	4	Katebasu
KT-01	monzogranite	Zircon	LA-ICP-MS	346	3	Katebasu
Yk16203-3	granite	Zircon	LA-ICP-MS	282	3	Baleigong
Yk16204-1	granite	Zircon	LA-ICP-MS	282	2	Baleigong
Yk16204-3	granite	Zircon	LA-ICP-MS	281	2	Baleigong
HDHLS-11	diorite	Zircon	LA-ICP-MS	415	2	Haduhulashan
YQ-1	granite	Zircon	LA-ICP-MS	408	5	Yanqi
HLS-11	granite	Zircon	LA-ICP-MS	406	6	Hulashan
KEC I -11	Grt-granite	Zircon	LA-ICP-MS	283	4	Kurchu
QGX-7	biotite monzogranite	Zircon	LA-ICP-MS	385	6	Qigexing
BLG13-01	biotite monzonite	Zircon	LA-ICP-MS	291	3	Baleigong
	gabbro	Zircon	TIMS	425	5	Mandaleke
HYS46	gabbro	Zircon	SHRIMP	423	4	Aertengkesi
GLG17-1	gabbro	Zircon	LA-ICPMS	334	5	Guluogou
GLG17-2	gabbro	Zircon	LA-ICPMS	332	7	Guluogou
LT18	gabbro	Zircon	SHRIMP	423	10	Serikeyayilake
DK36	gabbro	Zircon	SHRIMP	425	8	Kulehu
499-11	gabbro	Zircon	LA-ICPMS	392	5	Misibulake
QQ10-RL-1	basalt	Zircon	SHRIMP	399	4	Kokshal
07Y-881	plagiogranite	Zircon	SHRIMP	439	2	Yushugou
07Y-759	anothosite	Zircon	SHRIMP	435	3	Yushugou
HG	gabbro	Zircon	LA-ICPMS	424	2	Misibulake
WSTGL-1	hornblende gabbro	Zircon	LA-ICP-MS	424	4	Wusitenggaole
WSTGL-2	hornblende gabbro	Zircon	LA-ICP-MS	416	4	Wusitenggaole
KEC II -11	biotite granite	Zircon	LA-ICP-MS	311	4	Kurchu
XJ045-2	rhyolite	Zircon	LA-ICP-MS	404	2	Liushugou
XJ048-3	monzogranite	Zircon	LA-ICP-MS	405	2	Liushugou
XJ050	dacite	Zircon	LA-ICP-MS	404	2	Liushugou
BCD-1	diorite	Zircon	LA-ICP-MS	431	3	Baicheng
BCD-2	diorite	Zircon	LA-ICP-MS	430	3	Baicheng
11K59	granodiorite	Zircon	LA-ICP-MS	418	4	Western Kuruktag
11K71	granodiorite	Zircon	LA-ICP-MS	421	4	Western Kuruktag
11K75	granodiorite	Zircon	LA-ICP-MS	420	4	Western Kuruktag
11K78	granodiorite	Zircon	LA-ICP-MS	420	4	Western Kuruktag
11K81	granodiorite	Zircon	LA-ICP-MS	418	4	Western Kuruktag
11K63	monzogranite	Zircon	LA-ICP-MS	420	4	Western Kuruktag
11K68	monzogranite	Zircon	LA-ICP-MS	417	4	Western Kuruktag
11K83	monzogranite	Zircon	LA-ICP-MS	420	3	Western Kuruktag
12K01	monzogranite	Zircon	LA-ICP-MS	408	5	Western Kuruktag
12K16	monzogranite	Zircon	LA-ICP-MS	406	4	Western Kuruktag
12K09	diorite	Zircon	LA-ICP-MS	417	5	Western Kuruktag
12K33	diorite	Zircon	LA-ICP-MS	422	4	Western Kuruktag
TKD23-02	biotite monzogranite	Zircon	LA-ICP-MS	458	3	Wusitenggaole (E)
XVII-04	monzogranite	Zircon	LA-ICP-MS	455	4	Wusitenggaole (W)
HX-T1	monzogranite	Zircon	LA-ICP-MS	401	2	Kuruktag

TKD21-01	porphyritic granodiorite	Zircon	LA-ICP-MS	419	3	Kuruktag (W)
09T11	porphyritic granodiorite	Zircon	LA-ICP-MS	421	2	Korla
10T19	porphyritic granodiorite	Zircon	LA-ICP-MS	422	3	Korla
10T25	porphyritic granodiorite	Zircon	LA-ICP-MS	420	3	Korla
DK12-61	quartz diorite	Zircon	LA-ICP-MS	421	2	Oxidaban area
KRC01	potassic alkaline granitoid	Zircon	LA-ICP-MS	419	8	Kurchu
HX-T3	monzogranite	Zircon	LA-ICP-MS	400	2	Quruqtagh area
XJ046-1	alkali grantie	Zircon	LA-ICP-MS	388	2	Huolashan area

**Adjacent areas.**

GPS position		References	Tectonic Unit
E	N		
83.50138889	43.28111111	Zhu ZX et al., 2006, Acta Petrologica Sinica;	SYB
81.50555556	42.74166667	Li P, 2011, M.D.	SYB
81.05555556	42.75555556	Li P, 2011, M.D.	SYB
83.23472222	42.91805556	Li P, 2011, M.D.	SYB
83.33472222	43.325	Li P, 2011, M.D.	SYB
80.59166667	42.61111111	Qian Q et al., 2008, International Journal of	SYB
81.35888889	42.63888889	Gao J et al., 2009, International Journal of E	SYB
81.30138889	42.59444444	Gao J et al., 2009, International Journal of E	SYB
81.30833333	42.60416667	Gao J et al., 2009, International Journal of E	SYB
81.31388889	42.61111111	Gao J et al., 2009, International Journal of E	SYB
81.90277778	42.78472222	Gao J et al., 2009, International Journal of E	SYB
82.19722222	42.90972222	Long LL et al., 2011, Lithos	SYB
80.70138889	42.5625	Long LL et al., 2011, Lithos	SYB
81.11111111	42.60416667	Long LL et al., 2011, Lithos	SYB
83.97302778	43.10058333	Zhong LL et al., 2017, Gondwana Research	SYB
83.97302778	43.10058333	Zhong LL et al., 2017, Gondwana Research	SYB
83.59444444	43.27333333	Xu XY et al., 2013, Journal of Asian Earth	SYB
81.74583333	42.71805556	Xu XY et al., 2013, Journal of Asian Earth	SYB
81.25277778	42.61111111	Xu XY et al., 2010, Acta Petrologica Et Mi	SYB
81.275	42.71111111	Xu XY et al., 2010, Acta Petrologica Et Mi	SYB
81.8125	42.68888889	Xu XY et al., 2010, Acta Petrologica Et Mi	SYB
82.65638889	43.06805556	Xu XY et al., 2010, Acta Petrologica Et Mi	SYB
84.55833333	43.09583333	Zhang X et al., 2011, Acta Petrologica Sinic	SYB
84.57722222	43.10416667	Zhang X et al., 2011, Acta Petrologica Sinic	SYB
84.40166667	43.09138889	Wang XS et al., 2018, Ore Geology Review	SYB
83.995	43.10583333	Wang XS et al., 2018, Ore Geology Review	SYB
81.9	42.83333333	Gao J et al., 2009, International Journal of E	SYB
81.9	42.86666667	Gao J et al., 2009, International Journal of E	SYB
81.01388889	43.29722222	Lin L et al., 2015, Acta Petrologica Sinica	SYB
81.91666667	42.81666667	Wang B et al., 2007, Acta Petrologica Sinic	SYB
84.35	43.16388889	Zhu YF et al., 2005, Chinese Science Bullet	SYB
81.91666667	42.75	Xu XY et al., 2010, Acta Petrologica et Mir	SYB
81.93333333	42.76666667	Gao J et al., 2009, International Journal of E	SYB
81.9	42.78333333	Gao J et al., 2009, International Journal of E	SYB
82.21666667	42.88333333	Long LL et al., 2011, Lithos	SYB
82.21666667	42.88333333	Long LL et al., 2011, Lithos	SYB
80.775	42.40833333	Gao J et al., 2011, Tectonophysics	SYB
81.924	42.76633333	Wang B et al., 2009, International Journal o	SYB
80.85	42.45833333	Gou LL et al., 2012, Lithos	SYB
80.85	42.45833333	Gou LL et al., 2012, Lithos	SYB
80.79166667	42.50833333	Gou LL et al., 2012, Lithos	SYB
80.76666667	42.51666667	Gou LL et al., 2012, Lithos	SYB
81.91666667	42.76666667	Wang B et al., 2007, Acta Petrologica Sinic	SYB
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83.66666667	43.16666667	Zhu ZX et al., 2006, Acta Petrologica Sinic:	SYB
81.71666667	42.81666667	Zhu YF et al., 2010, Acta Petrologica Sinic:	SYB
81.78333333	42.9	Zhu YF et al., 2010, Acta Petrologica Sinic:	SYB
83.23333333	42.88333333	Xu XY et al., 2013, Journal of Asian Earth	SYB
83.23333333	42.91666667	Xu XY et al., 2013, Journal of Asian Earth	SYB
82.5	42.83333333	Xu XY et al., 2013, Journal of Asian Earth	SYB
82.5	42.88333333	Xu XY et al., 2013, Journal of Asian Earth	SYB
83.43333333	43.11666667	Xu XY et al., 2013, Journal of Asian Earth	SYB
84	43.18333333	Xu XY et al., 2013, Journal of Asian Earth	SYB
84	43.18333333	Xu XY et al., 2013, Journal of Asian Earth	SYB
84.0233	43.12436667	Zhu T et al., 2012, Geological Bulletin of C	SYB
83.97011111	43.10291667	Zhong LL et al., 2017, Gondwana Research	SYB
83.97011111	43.10291667	Zhong LL et al., 2017, Gondwana Research	SYB
83.97011111	43.10291667	Zhong LL et al., 2017, Gondwana Research	SYB
81.98583333	43.25388889	He PL et al., 2016, Journal of Geophysical I	SYB

81.98583333	43.25388889	He PL et al., 2016, Journal of Geophysical I	SYB
81.91666667	43.25	Xue YX and Zhu YF, 2009, Acta Petrologic	SYB
81.91666667	43.25	Zhu ZM et al., 2010, Acta Petrologica et M	SYB
81.82991667	43.40233333	Zhu ZM et al., 2012, Acta Petrologica Sinic	SYB
81.10593333	43.2388	Xu XY et al., 2006, Northwestern Geology	SYB
81.875	43.39166667	Zhu YF et al., 2009, Journal of Geological S	SYB
83.24722222	43.325	Zhu YF et al., 2009, Journal of Geological S	SYB
83.24722222	43.325	Zhu YF et al., 2009, Journal of Geological S	SYB
84.5	43.41666667	Niu HC et al., 2010, Acta Petrologica Sinic	SYB
84.39111111	43.40833333	Yang WB et al., 2012, Gondwana Research	SYB
84.76805556	43.36388889	Yan S et al., 2015, Journal of Asian Earth S	SYB
83.53333333	43.33333333	Xu XY et al., 2013, Journal of Asian Earth	SYB
83.41666667	43.25	Xu XY et al., 2010, Acta Petrologica et Mir	SYB
83.75	43.41666667	Xu XY et al., 2010, Acta Petrologica et Mir	SYB
81.90196667	43.43095	Ru YJ et al., 2012, Geological Bulletin of C	SYB
81.05281667	43.07056667	Ru YJ et al., 2012, Geological Bulletin of C	SYB
81.88556667	43.09763333	Li T et al., 2012, Geological Bulletin of Chi	SYB
81.91583333	43.38694444	Yu XQ et al., 2015, International Journal of	SYB
81.87333333	43.41805556	Yu XQ et al., 2015, International Journal of	SYB
83.43416667	43.30666667	Yu XQ et al., 2015, International Journal of	SYB
83.42916667	43.40416667	Yu XQ et al., 2015, International Journal of	SYB
84.35633333	43.33411667	Sun LH et al., 2008, Gondwana Research	SYB
81.10875	43.23583333	Bao ZH et al., 2018, Journal of Asian Earth	SYB
81.10875	43.23583333	Bao ZH et al., 2018, Journal of Asian Earth	SYB
81.12361111	43.22183333	Bao ZH et al., 2018, Journal of Asian Earth	SYB
81.91027778	43.44055556	Cao YC et al., 2017, Lithos	SYB
81.11694444	43.50083333	Cao YC et al., 2017, Lithos	SYB
81.08333333	43.38888889	Su WB et al., 2022, International Journal of	SYB
81.09166667	43.5	Su WB et al., 2022, International Journal of	SYB
81.09027778	43.49722222	Su WB et al., 2022, International Journal of	SYB
81.08888889	43.49444444	Su WB et al., 2022, International Journal of	SYB
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81.08888889	43.49444444	Su WB et al., 2022, International Journal of	SYB
81.90030556	42.89552778	Huang H et al., 2020, Earth-Science Review	SYB
81.89705556	42.87025	Huang H et al., 2020, Earth-Science Review	SYB
81.89416667	42.8085	Huang H et al., 2020, Earth-Science Review	SYB
83.25027778	43.35555556	Huang H et al., 2020, Earth-Science Review	SYB
81.86697222	43.38608333	Huang H et al., 2020, Earth-Science Review	SYB
81.30388889	43.01527778	Su WB et al., 2018, Lithos	SYB
81.88055556	43.35527778	Su WB et al., 2018, Lithos	SYB
81.93416667	43.42888889	Su WB et al., 2018, Lithos	SYB
81.22222222	42.94277778	Wang ZP et al., 2018, Geological Journal	SYB
85.64166667	43.11111111	Dang FP, 2012, M.D.	CTS
85.84444444	43.36388889	Wang JL et al., 2013, Acta Geoscientica Sir	CTS
85.86111111	43.34722222	Wang JL et al., 2013, Acta Geoscientica Sir	CTS
86.68222222	42.93805556	Yang TN et al., 2006, Acta Petrologica Sini	CTS
86.38388889	42.8125	Yang TN et al., 2006, Acta Petrologica Sini	CTS
88.52636667	42.52233333	Xu XY et al., 2006, Northwestern Geology	CTS
86.375	42.96805556	Li P, 2011, M.D.	CTS
86.35833333	42.95555556	Li P, 2011, M.D.	CTS
85.85	42.78833333	Wang XS et al., 2018, Ore Geology Review	CTS
87.54166667	42.68888889	Zhong LL et al., 2015, Journal of Asian Ear	CTS
86.275	42.66944444	Zhong LL et al., 2015, Journal of Asian Ear	CTS
87.54166667	42.68888889	Zhong LL et al., 2015, Journal of Asian Ear	CTS
86.48611111	42.63888889	Zhong LL et al., 2015, Journal of Asian Ear	CTS
86.275	42.66944444	Zhong LL et al., 2015, Journal of Asian Ear	CTS
86.30138889	42.65277778	Ma XX et al., 2013, International Geology F	CTS
86.25138889	42.64861111	Ma XX et al., 2013, International Geology F	CTS
86.34913333	42.87376667	Ma XX et al., 2014, Gondwana Research	CTS
86.30575	42.74313333	Ma XX et al., 2014, Gondwana Research	CTS
88.52616667	42.52236111	Shi YR et al., 2007, Chinese Science Bulleti	CTS
86.26231667	42.64025	Shi YR et al., 2014, International Geology F	CTS
86.33691667	42.7973	Shi YR et al., 2014, International Geology F	CTS

86.17594444	42.64922222	Wang XS et al., 2020, Precambrian Research	CTS
86.30666667	42.75638899	Tao ZL et al., 2019, Acta Geologica Sinica	CTS
86.79658333	42.58622222	this study	CTS
86.86413889	42.55547222	this study	CTS
88.52166667	42.42194444	Dong YP et al., 2011, Gondwana Research	CTS
88.44853333	42.34861667	Ma XX et al., 2014, Gondwana Research	CTS
87.18251667	42.81625	Ma XX et al., 2014, Gondwana Research	CTS
86.50758333	42.87815	Ma XX et al., 2014, Gondwana Research	CTS
87.18251667	42.81625	Ma XX et al., 2014, Gondwana Research	CTS
88.66365	42.45183333	Ma XX et al., 2014, Gondwana Research	CTS
87.11263333	42.81263333	Ma XX et al., 2014, Gondwana Research	CTS
86.90065	42.906	Ma XX et al., 2014, Gondwana Research	CTS
87.45908333	42.85145	Ma XX et al., 2014, Gondwana Research	CTS
88.53103333	42.40321667	Ma XX et al., 2015, Gondwana Research	CTS
87.64815	42.84258333	Ma XX et al., 2015, Gondwana Research	CTS
86.27226667	42.68116667	Ma XX et al., 2015, Gondwana Research	CTS
86.56273333	42.88321667	Ma XX et al., 2015, Gondwana Research	CTS
88.52313333	42.32875	Shi YR et al., 2014, International Geology Review	CTS
88.518	42.52033333	Wang B et al., 2009, International Journal of Earth Sciences	CTS
86.16666667	42.83333333	Jin ZL et al., 2014, International Geology Review	CTS
88.52966667	42.52481667	Xu XY et al., 2006, Northwestern Geology	CTS
88.537	42.45286667	Xu XY et al., 2006, Northwestern Geology	CTS
88.53	42.52486667	Xu XY et al., 2006, Northwestern Geology	CTS
86.25	42.9	Zhu YF et al., 2006, Acta Petrologica Sinica	CTS
86.2	42.91666667	Tang GJ et al., 2012, Lithos	CTS
86.35416667	43.00166667	Zhao ZH et al., 2006, Acta Petrologica Sinica	CTS
86.35416667	43.00166667	Wang Q et al., 2006, Acta Petrologica Sinica	CTS
86.75	43.13333333	Wang JL et al., 2009, Acta Petrologica Sinica	CTS
86.34527778	42.95444444	Wang SJ and Wang JL, 2010, Journal of Natural Resources	CTS
88.52611111	42.52616667	Shi YR et al., 2007, Chinese Science Bulletin	CTS
88.52611111	42.52616667	Shi YR et al., 2007, Chinese Science Bulletin	CTS
88.52861111	42.48927778	Shi YR et al., 2007, Chinese Science Bulletin	CTS
88.51861111	42.51416667	Wang M et al., 2015, Journal of Asian Earth Sciences	CTS
88.53777778	42.45722222	Wang M et al., 2015, Journal of Asian Earth Sciences	CTS
85.41666667	42.91666667	Tian YZ, et al., 2014, Acta Petrologica Sinica	CTS
86.48333333	42.85	Yin JY et al., 2015, Geological Bulletin of China	CTS
87.12194444	42.80972222	Yin JY et al., 2017, Gondwana Research	CTS
86.90055556	42.90611111	Yin JY et al., 2017, Gondwana Research	CTS
86.90611111	42.86916667	Yin JY et al., 2017, Gondwana Research	CTS
86.10502778	42.65813889	Wang XS et al., 2020, Precambrian Research	CTS
86.10361111	43.00333333	Wang XS et al., 2021, GSA Bulletin	CTS
86.34305556	42.79833333	Wang XS et al., 2021, GSA Bulletin	CTS
86.27388889	42.77388889	Wang XS et al., 2021, GSA Bulletin	CTS
86.27416667	42.77	Wang XS et al., 2021, GSA Bulletin	CTS
86.28	42.76861111	Wang XS et al., 2021, GSA Bulletin	CTS
86.31416667	42.74888889	Wang XS et al., 2021, GSA Bulletin	CTS
86.11972222	42.80277778	Wang XS et al., 2021, GSA Bulletin	CTS
86.12666667	42.80861111	Wang XS et al., 2021, GSA Bulletin	CTS
86.12888889	42.82861111	Wang XS et al., 2021, GSA Bulletin	CTS
86.11361111	42.85305556	Wang XS et al., 2021, GSA Bulletin	CTS
86.12694444	42.88083333	Wang XS et al., 2021, GSA Bulletin	CTS
86.30630556	42.74366667	Huang H et al., 2015, Acta Geologica Sinica	CTS
86.8415	43.10991667	Huang H et al., 2015, Acta Geologica Sinica	CTS
86.12125	42.84747222	Huang H et al., 2015, Acta Geologica Sinica	CTS
86.06230556	43.03202778	Huang H et al., 2015, Acta Geologica Sinica	CTS
86.63586111	42.89916667	Huang H et al., 2015, Acta Geologica Sinica	CTS
86.11605556	42.9085	Huang H et al., 2015, Acta Geologica Sinica	CTS
86.56	42.89916667	Huang H et al., 2015, Acta Geologica Sinica	CTS
87.40833333	42.34166667	Wang XJ et al., 2011, Acta Petrologica Sinica	STS
88.20833333	42.125	Yang JS et al., 2011, Acta Petrologica Sinica	STS
88.125	42.125	Yang JS et al., 2011, Acta Petrologica Sinica	STS
85.51055556	42.7675	Jiang T et al., 2015, Journal of Asian Earth Sciences	STS
88.61916667	42.39527778	Dong YP et al., 2011, Gondwana Research	STS

88.64944444	42.40944444	Dong YP et al., 2011, Gondwana Research	STS
88.65694444	42.41638889	Dong YP et al., 2011, Gondwana Research	STS
88.44722222	42.35341667	Shi YR et al., 2014, International Geology F	STS
88.44597222	42.34783333	Shi YR et al., 2014, International Geology F	STS
88.44597222	42.34783333	Shi YR et al., 2014, International Geology F	STS
88.43847222	42.33922222	Shi YR et al., 2014, International Geology F	STS
88.44666667	42.35388889	Chen B et al., 2015, Journal of Asian Earth	STS
88.44527778	42.35388889	Chen B et al., 2015, Journal of Asian Earth	STS
88.40305556	42.31388889	Chen B et al., 2015, Journal of Asian Earth	STS
82.33333333	42.83333333	Yang SH and Zhou MF, 2009, Lithos	STS
75.65147222	41.05722222	Glorie et al., 2011, Tectonics	STS
75.65277778	41.0535	Glorie et al., 2011, Tectonics	STS
80.66666667	42.52083333	Gou LL and Zhang LF, 2016, Journal of Asi	STS
80.66666667	42.52083333	Gou LL and Zhang LF, 2016, Journal of Asi	STS
80.83333333	42.45694444	Gou LL and Zhang LF, 2016, Journal of Asi	STS
81.7	42.83333333	Zhu YF, 2012, Acta Petrologica Sinica	STS
84.55833333	43.11666667	Xing H et al., 2016, Acta Petrologica Sinic	STS
84.55833333	43.11666667	Xing H et al., 2016, Acta Petrologica Sinic	STS
84.55833333	43.11666667	Xing H et al., 2016, Acta Petrologica Sinic	STS
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81.33888889	42.55333333	Pu XF et al., 2011, Acta Petrologica Sinica	STS
81.33888889	42.55333333	Pu XF et al., 2011, Acta Petrologica Sinica	STS
81.18194444	42.54166667	Pu XF et al., 2011, Acta Petrologica Sinica	STS
81.18194444	42.54166667	Pu XF et al., 2011, Acta Petrologica Sinica	STS
88.44944444	42.35694444	Wang M et al., 2015, Journal of Asian Earth	STS
88.52972222	42.525	Wang M et al., 2015, Journal of Asian Earth	STS
84.33333333	43.10694444	Wang M et al., 2016, Journal of Asian Earth	STS
84.18055556	43.10555556	Wang M et al., 2016, Journal of Asian Earth	STS
75.54583333	41.00472222	Alexeiev et al., 2016, Gondwana Research	STS
75.46805556	40.98861111	Alexeiev et al., 2016, Gondwana Research	STS
75.54694444	41.00277778	Alexeiev et al., 2016, Gondwana Research	STS
84.12472222	43.03222222	Wang XS et al., 2018, Ore Geology Review	STS
83.26805556	42.28694444	Wang C et al., 2009, Acta Geologica Sinica	STS
83.26523333	42.29833333	Xu XY et al., 2006, Northwestern Geology	STS
83.2617	42.30018333	Xu XY et al., 2006, Northwestern Geology	STS
84.34231667	43.11255	Xu XY et al., 2006, Northwestern Geology	STS
88.075	42.12305556	Zhang CL et al., 2007, Acta Petrologica Sin	STS
83.2375	42.27222222	Kong WL et al., 2019, Lithos	STS
83.225	42.26805556	Kong WL et al., 2019, Lithos	STS
81.19166667	42.025	Huang H et al., 2013, Journal of Geology	STS
83.25833333	42.33472222	Zhang B et al., 2014, Acta Petrologica Sinic	STS
87.26388889	42.25416667	Guo RQ et al., 2013, Geological Bulletin of	STS
86.27222222	42.62666667	Wang XS et al., 2018, Journal of Geophysic	STS
82.9725	42.85222222	Zhong LL et al., 2019, Tectonophysics	STS
82.9725	42.85222222	Zhong LL et al., 2019, Tectonophysics	STS
82.95722222	42.815	Zhong LL et al., 2019, Tectonophysics	STS
68.65	39.60833333	Yang H et al., 2020, Lithosphere	STS
86.224575	42.449008	Yu XH et al., 2020, Acta Geologica Sinica	STS
85.714419	42.469947	Yu XH et al., 2020, Acta Geologica Sinica	STS
85.710612	42.498501	Yu XH et al., 2020, Acta Geologica Sinica	STS
85.58372222	42.36036111	this study	STS
86.90486111	42.47811111	this study	STS
87.89381667	42.23246667	Ma XX et al., 2015, Gondwana Research	STS
87.89381667	42.23246667	Ma XX et al., 2015, Gondwana Research	STS
87.86575	42.22598333	Ma XX et al., 2015, Gondwana Research	STS
87.86575	42.22583333	Ma XX et al., 2015, Gondwana Research	STS
86.21805	42.45461667	Ma XX et al., 2015, Gondwana Research	STS
88.48093333	42.29788333	Shi YR et al., 2014, International Geology F	STS
88.40277778	42.31361111	Yang TN and Wang XP, 2006, Acta Petrolc	STS
80.84283333	42.46966667	Xia B et al., 2016, Journal of Asian Earth S	STS
81.93516667	42.7655	Xia B et al., 2016, Journal of Asian Earth S	STS
81.93516667	42.7655	Xia B et al., 2016, Journal of Asian Earth S	STS

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81.93516667	42.7655	Xia B et al., 2016, Journal of Asian Earth Sc	STS
82.20833333	42.89583333	Yin JY et al., 2016, Journal of Asian Earth S	STS
79.13333333	42.03333333	Konopelko et al., 2009, Ore Geology Review	STS
79.28016667	42.09848333	Konopelko et al., 2009, Ore Geology Review	STS
78.75	41.5	Konopelko et al., 2007, Lithos	STS
75.75	40.83333333	Konopelko et al., 2007, Lithos	STS
76.66666667	41	Konopelko et al., 2007, Lithos	STS
78.66666667	41.75	Konopelko et al., 2007, Lithos	STS
80.79166667	42.52083333	Long LL et al., 2011, Lithos	STS
82.15	42.25	Long LL et al., 2008, Acta Geological Sinic	STS
88.38531667	42.278	Ma XX et al., 2015, Gondwana Research	STS
88.32423333	42.27426667	Ma XX et al., 2015, Gondwana Research	STS
81.81666667	42.13333333	Huang H et al., 2015, Lithos	STS
81.81666667	42.13333333	Huang H et al., 2015, Lithos	STS
79.69108333	41.69791667	Luo JH et al., 2008, Acta Petrologica Sinica	STS
81.5	42.06666667	Liu DD et al., 2014, International Journal of	STS
79.14036111	42.01977778	Glorie et al., 2011, Tectonics	STS
76.73708333	41.30111111	Glorie et al., 2011, Tectonics	STS
75.55638889	40.8275	Glorie et al., 2011, Tectonics	STS
75.55652778	40.82727778	Glorie et al., 2011, Tectonics	STS
75.29372222	40.38827778	Glorie et al., 2011, Tectonics	STS
76.26283333	40.80883333	Glorie et al., 2011, Tectonics	STS
76.60522222	40.98569444	Glorie et al., 2011, Tectonics	STS
78.86666667	41.76666667	Huang H et al., 2012b, Lithos	STS
78.86666667	41.76666667	Huang H et al., 2012b, Lithos	STS
81.90277778	42.20361111	Huang H et al., 2014, Ore Geology Reviews	STS
81.90083333	43.22	Liu CH et al., 2014, Acta Petrologica Sinica	STS
81.90305556	42.21972222	Liu CH et al., 2014, Acta Petrologica Sinica	STS
81.90555556	42.21944444	Liu CH et al., 2014, Acta Petrologica Sinica	STS
81.90916667	43.22	Liu CH et al., 2014, Acta Petrologica Sinica	STS
76.0669	40.9967	Seltmann et al., 2011, Journal of Asian Eart	STS
77.4411	41.4647	Seltmann et al., 2011, Journal of Asian Eart	STS
78.9297	41.7756	Seltmann et al., 2011, Journal of Asian Eart	STS
85.79166667	42.41666667	Zhu ZX et al., 2008b, Acta Petrologica Sini	STS
85.625	42.33333333	Zhu ZX et al., 2008b, Acta Petrologica Sini	STS
77.21944444	40.91527778	Wang C et al., 2007, Acta Petrologica Sinic	STS
78.66666667	41.75	Mao JW et al., 2004, Economic Geology	STS
82.95833333	42.3	Zhu ZX et al., 2008a, Acta Petrologica Sini	STS
82.56527778	42.28611111	Cheng ZG et al., 2017, Lithos	STS
82.56527778	42.28611111	Cheng ZG et al., 2017, Lithos	STS
77	40.8	Huang H et al., 2012a, Lithos	STS
73.52361111	40.12972222	De Grave et al., 2012, Journal of Asian Eart	STS
72.58138889	39.76388889	De Grave et al., 2012, Journal of Asian Eart	STS
72.66555556	39.71416667	De Grave et al., 2012, Journal of Asian Eart	STS
63.6989	42.1836	Seltmann et al., 2011, Journal of Asian Eart	STS
63.5967	42.4281	Seltmann et al., 2011, Journal of Asian Eart	STS
64.2794	41.672	Seltmann et al., 2011, Journal of Asian Eart	STS
65.2761	40.4042	Seltmann et al., 2011, Journal of Asian Eart	STS
66.5369	40.5597	Seltmann et al., 2011, Journal of Asian Eart	STS
66.2869	40.6942	Seltmann et al., 2011, Journal of Asian Eart	STS
66.7728	40.3597	Seltmann et al., 2011, Journal of Asian Eart	STS
66.4725	40.2828	Seltmann et al., 2011, Journal of Asian Eart	STS
70.785	39.12138889	Konopelko et al., 2015, Journal of Asian Ea	STS
70.785	39.12138889	Konopelko et al., 2015, Journal of Asian Ea	STS
70.60888889	39.08222222	Konopelko et al., 2015, Journal of Asian Ea	STS
70.60888889	39.08222222	Konopelko et al., 2015, Journal of Asian Ea	STS
70.36833333	39.0175	Konopelko et al., 2015, Journal of Asian Ea	STS
70.31694444	39.00611111	Konopelko et al., 2015, Journal of Asian Ea	STS
68.87894444	38.69780556	Konopelko et al., 2017, Gondwana Researcl	STS
68.80305556	38.93127778	Konopelko et al., 2017, Gondwana Researcl	STS
68.80394444	38.93744444	Konopelko et al., 2017, Gondwana Researcl	STS
67.72108333	39.35086111	Konopelko et al., 2017, Gondwana Researcl	STS

70.72336111	39.44919444	Konopelko et al., 2017, Gondwana Research	STS
68.81825	38.7631	Worthington et al., 2017, Tectonics	STS
68.82535	38.79043056	Worthington et al., 2017, Tectonics	STS
68.81835	38.9147	Worthington et al., 2017, Tectonics	STS
68.79976944	38.94645	Worthington et al., 2017, Tectonics	STS
70.10305	39.10133056	Worthington et al., 2017, Tectonics	STS
70.10673056	39.05866944	Worthington et al., 2017, Tectonics	STS
70.31005	39.00558056	Worthington et al., 2017, Tectonics	STS
70.69146944	39.2906	Worthington et al., 2017, Tectonics	STS
70.70563056	39.1525	Worthington et al., 2017, Tectonics	STS
70.64621944	39.1639	Worthington et al., 2017, Tectonics	STS
70.98645	39.15575	Worthington et al., 2017, Tectonics	STS
71.1093	39.19403056	Worthington et al., 2017, Tectonics	STS
71.33341944	39.22633056	Worthington et al., 2017, Tectonics	STS
69.28601944	38.75891111	Worthington et al., 2017, Tectonics	STS
83.38888889	43.15138889	Xing H et al., 2021, International Journal of	STS
83.39027778	43.15416667	Xing H et al., 2021, International Journal of	STS
83.38944444	43.15222222	Xing H et al., 2021, International Journal of	STS
83.38944444	43.15222222	Xing H et al., 2021, International Journal of	STS
83.38944444	43.15222222	Feng B et al., 2014, Earth Science Frontiers	STS
77.3	40.91666667	Huo H et al., 2019, Acta Geologica Sinica -	STS
77.3	40.91666667	Huo H et al., 2019, Acta Geologica Sinica -	STS
77.3	40.91666667	Huo H et al., 2019, Acta Geologica Sinica -	STS
86.26756944	41.97061111	Qin Q. 2017, Ph.D	STS
85.90086944	42.03628889	Qin Q. 2017, Ph.D	STS
85.96806944	42.063275	Qin Q. 2017, Ph.D	STS
85.59458333	41.96702778	Qin Q. 2017, Ph.D	STS
86.20791944	42.01818056	Qin Q. 2017, Ph.D	STS
77.24388889	40.8675	Huang H et al., 2015, Acta Petrologica et M	STS
82.865	42.29	Han BF et al., 2011, Earth-Science Reviews	STS Ophiolites
82.706	42.361	Jiang T et al., 2014, Tectonophysics	STS Ophiolites
85.54	42.76	Jiang T et al., 2014, Tectonophysics	STS Ophiolites
85.545	42.76	Jiang T et al., 2014, Tectonophysics	STS Ophiolites
83.676	42.299	Jiang T et al., 2014, Tectonophysics	STS Ophiolites
83.257	42.44	Long LL et al., 2006, Acta Petrologica Sinic	STS Ophiolites
82.22283	42.22233	Wang B et al., 2011, Tectonophysics	STS Ophiolites
77.18444	40.94028	Wang Y et al., 2012, Acta Petrologica Sinic	STS Ophiolites
87.935	42.241	Yang JS et al., 2011, Acta Petrologica Sinic	STS Ophiolites
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82.125	42.2375	Zhao ZY et al., 2015, Gondwana Research	STS Ophiolites
86.67506944	41.66058889	Qin Q. 2017, Ph.D	NTC
86.66884444	41.66538889	Qin Q. 2017, Ph.D	NTC
85.57052778	41.96469444	Qin Q. 2017, Ph.D	NTC
85.34541667	42.17603333	Lin W et al., 2013, Lithosphere	NTC
85.90086944	42.03628889	Lin W et al., 2013, Lithosphere	NTC
85.96806944	42.063275	Lin W et al., 2013, Lithosphere	NTC
82.96944444	42.29861111	Zhao ZY et al., 2015, Gondwana Research	NTC
82.96944444	42.29861111	Zhao ZY et al., 2015, Gondwana Research	NTC
86.25186111	41.81322222	Ge RF et al., 2014, Tectonics	NTC
86.24219444	41.80786111	Ge RF et al., 2014, Tectonics	NTC
86.23844444	41.80572222	Ge RF et al., 2014, Tectonics	NTC
86.23480556	41.80344444	Ge RF et al., 2014, Tectonics	NTC
86.23263889	41.80313889	Ge RF et al., 2014, Tectonics	NTC
86.18908333	41.81658333	Ge RF et al., 2014, Tectonics	NTC
86.24686111	41.81111111	Ge RF et al., 2014, Tectonics	NTC
86.23733333	41.81338889	Ge RF et al., 2014, Tectonics	NTC
86.90030556	41.72136111	Ge RF et al., 2014, Tectonics	NTC
86.51313889	41.71030556	Ge RF et al., 2014, Tectonics	NTC
86.72261111	41.69808333	Ge RF et al., 2014, Tectonics	NTC
86.31294444	41.76230556	Ge RF et al., 2014, Tectonics	NTC
86.71861111	41.68194444	Guo RQ et al., 2013, Earth Science Frontier	NTC
86.58472222	41.67916667	Guo RQ et al., 2013, Earth Science Frontier	NTC
86.31472222	41.78363889	Jia XL et al., 2013, Geological Bulletin of C	NTC

86.31252778	41.76015833	Guo RQ et al., 2013, Geological Bulletin of 86°14'24.6"	41°48'22.8"	Ge RF et al., 2012, Lithos	NTC
86°14'25.7"	41°48'23.3"	Ge RF et al., 2012, Lithos			NTC
86.23930556	41.80591667	Ge RF et al., 2012, Lithos			NTC
83.26388889	42.29166667	Wang M et al., 2016, Journal of Asian Earth Sciences			NTC
85.33333333	42.08333333	Chen GW et al., 2020, Geological Journal			NTC
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**Table S5 Compilation of zircon Hf isotopic data for Paleozoic magmatic rocks of the South Tianshan and adjacent areas.**

References	Rock type	Spot No.	Age (Ma)
Zhong LL et al., 2017, Gondwana Research	undeformed granite stock	13ts14B-15	292
Zhong LL et al., 2017, Gondwana Research	undeformed granite stock	13ts14B-17	292
Zhong LL et al., 2017, Gondwana Research	undeformed granite stock	13ts14B-18	294
Zhong LL et al., 2017, Gondwana Research	undeformed granite stock	13ts14B-19	292
Zhong LL et al., 2017, Gondwana Research	undeformed granite stock	13ts14B-24	293
Zhong LL et al., 2017, Gondwana Research	diorite	13ts14I-1	345
Zhong LL et al., 2017, Gondwana Research	diorite	13ts14I-2	356
Zhong LL et al., 2017, Gondwana Research	diorite	13ts14I-3	352
Zhong LL et al., 2017, Gondwana Research	diorite	13ts14I-4	352
Zhong LL et al., 2017, Gondwana Research	diorite	13ts14I-5	356
Zhong LL et al., 2017, Gondwana Research	diorite	13ts14I-6	361
Zhong LL et al., 2017, Gondwana Research	diorite	13ts14I-7	357
Zhong LL et al., 2017, Gondwana Research	diorite	13ts14I-8	357
Zhong LL et al., 2017, Gondwana Research	diorite	13ts14I-9	353
Zhong LL et al., 2017, Gondwana Research	diorite	13ts14I-10	351
Zhong LL et al., 2017, Gondwana Research	diorite	13ts14I-11	354
Zhong LL et al., 2017, Gondwana Research	deformed monzogranite	13ts15B-1	420
Zhong LL et al., 2017, Gondwana Research	deformed monzogranite	13ts15B-3	419
Zhong LL et al., 2017, Gondwana Research	deformed monzogranite	13ts15B-4	412
Zhong LL et al., 2017, Gondwana Research	deformed monzogranite	13ts15B-5	406
Zhong LL et al., 2017, Gondwana Research	deformed monzogranite	13ts15B-6	402
Zhong LL et al., 2017, Gondwana Research	deformed monzogranite	13ts15B-7	402
Zhong LL et al., 2017, Gondwana Research	deformed monzogranite	13ts15B-8	405
Zhong LL et al., 2017, Gondwana Research	deformed monzogranite	13ts15B-10	410
Zhong LL et al., 2017, Gondwana Research	deformed monzogranite	13ts15B-12	410
Zhong LL et al., 2017, Gondwana Research	deformed monzogranite	13ts15B-13	421
Zhong LL et al., 2017, Gondwana Research	deformed monzogranite	13ts15B-14	418
Zhong LL et al., 2017, Gondwana Research	foliated diorite	13ts15C-1	421
Zhong LL et al., 2017, Gondwana Research	foliated diorite	13ts15C-2	419
Zhong LL et al., 2017, Gondwana Research	foliated diorite	13ts15C-3	427
Zhong LL et al., 2017, Gondwana Research	foliated diorite	13ts15C-6	419
Zhong LL et al., 2017, Gondwana Research	foliated diorite	13ts15C-7	422
Zhong LL et al., 2017, Gondwana Research	foliated diorite	13ts15C-8	409
Zhong LL et al., 2017, Gondwana Research	foliated diorite	13ts15C-9	423
Zhong LL et al., 2017, Gondwana Research	foliated diorite	13ts15C-10	413
Zhong LL et al., 2017, Gondwana Research	foliated diorite	13ts15C-11	413
Zhong LL et al., 2017, Gondwana Research	foliated diorite	13ts15C-12	434
Zhong LL et al., 2017, Gondwana Research	foliated diorite	13ts15C-13	432
Zhong LL et al., 2017, Gondwana Research	foliated diorite	13ts15C-14	421
Zhong LL et al., 2017, Gondwana Research	foliated diorite	13ts15C-15	408
Zhong LL et al., 2017, Gondwana Research	foliated diorite	13ts15C-16	425
Zhong LL et al., 2017, Gondwana Research	foliated diorite	13ts15C-18	432
Zhong LL et al., 2017, Gondwana Research	foliated diorite	13ts15C-19	421
Xu XY et al., 2013, Journal of Asian Earth Sciences	granodiorite	ZS1-1-001	483
Xu XY et al., 2013, Journal of Asian Earth Sciences	granodiorite	ZS1-1-002	451
Xu XY et al., 2013, Journal of Asian Earth Sciences	granodiorite	ZS1-1-003	495
Xu XY et al., 2013, Journal of Asian Earth Sciences	granodiorite	ZS1-1-004	497
Xu XY et al., 2013, Journal of Asian Earth Sciences	granodiorite	ZS1-1-007	498
Xu XY et al., 2013, Journal of Asian Earth Sciences	granodiorite	ZS1-1-012	516
Xu XY et al., 2013, Journal of Asian Earth Sciences	granodiorite	ZS1-1-013	502
Xu XY et al., 2013, Journal of Asian Earth Sciences	granodiorite	ZS1-1-014	454
Xu XY et al., 2013, Journal of Asian Earth Sciences	granodiorite	ZS1-1-016	483
Xu XY et al., 2013, Journal of Asian Earth Sciences	granodiorite	ZS1-1-020	499
Xu XY et al., 2013, Journal of Asian Earth Sciences	granodiorite	ZS1-1-021	469
Xu XY et al., 2013, Journal of Asian Earth Sciences	granodiorite	ZS1-1-022	490













Huang H et al., 2020, Earth-Science Reviews	granodiorite	TKSB14-1-28	371.1
Huang H et al., 2020, Earth-Science Reviews	granodiorite	TKSB14-1-29	370.3
Huang H et al., 2020, Earth-Science Reviews	granodiorite	TKSB14-1-30	350.3
Huang H et al., 2020, Earth-Science Reviews	granodiorite	XYF14-6-02	309.2
Huang H et al., 2020, Earth-Science Reviews	granodiorite	XYF14-6-03	309.9
Huang H et al., 2020, Earth-Science Reviews	granodiorite	XYF14-6-04	311.2
Huang H et al., 2020, Earth-Science Reviews	granodiorite	XYF14-6-05	1376
Huang H et al., 2020, Earth-Science Reviews	granodiorite	XYF14-6-06	312.4
Huang H et al., 2020, Earth-Science Reviews	granodiorite	XYF14-6-07	304.7
Huang H et al., 2020, Earth-Science Reviews	granodiorite	XYF14-6-08	314.7
Huang H et al., 2020, Earth-Science Reviews	granodiorite	XYF14-6-09	315.2
Huang H et al., 2020, Earth-Science Reviews	granodiorite	XYF14-6-10	315.3
Huang H et al., 2020, Earth-Science Reviews	granodiorite	XYF14-6-12	315.6
Huang H et al., 2020, Earth-Science Reviews	granodiorite	XYF14-6-13	305.7
Huang H et al., 2020, Earth-Science Reviews	granodiorite	XYF14-6-14	309.9
Huang H et al., 2020, Earth-Science Reviews	granodiorite	XYF14-6-15	316.4
Huang H et al., 2020, Earth-Science Reviews	granodiorite	XYF14-6-16	1380.7
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Chen B et al., 2015, Journal of Asian Earth Sciences	two-mica granite	LKMS-33-05	407
Chen B et al., 2015, Journal of Asian Earth Sciences	two-mica granite	LKMS-33-06	407
Chen B et al., 2015, Journal of Asian Earth Sciences	two-mica granite	LKMS-33-07	440
Chen B et al., 2015, Journal of Asian Earth Sciences	two-mica granite	LKMS-33-08	407
Chen B et al., 2015, Journal of Asian Earth Sciences	two-mica granite	LKMS-33-09	407
Chen B et al., 2015, Journal of Asian Earth Sciences	two-mica granite	LKMS-33-10	407
Chen B et al., 2015, Journal of Asian Earth Sciences	two-mica granite	LKMS-33-11	407
Chen B et al., 2015, Journal of Asian Earth Sciences	two-mica granite	LKMS-33-12	407
Chen B et al., 2015, Journal of Asian Earth Sciences	two-mica granite	LKMS-33-13	407
Chen B et al., 2015, Journal of Asian Earth Sciences	two-mica granite	LKMS-33-14	407
Chen B et al., 2015, Journal of Asian Earth Sciences	two-mica granite	LKMS-33-15	407
Chen B et al., 2015, Journal of Asian Earth Sciences	two-mica granite	LKMS-33-16	407
Chen B et al., 2015, Journal of Asian Earth Sciences	two-mica granite	LKMS-33-17	407
Chen B et al., 2015, Journal of Asian Earth Sciences	two-mica granite	LKMS-33-18	407
Chen B et al., 2015, Journal of Asian Earth Sciences	two-mica granite	LKMS-33-19	972
Chen B et al., 2015, Journal of Asian Earth Sciences	two-mica granite	LKMS-33-20	407
Chen B et al., 2015, Journal of Asian Earth Sciences	two-mica granite	LKMS-33-21	407
Chen B et al., 2015, Journal of Asian Earth Sciences	two-mica granite	LKMS-33-22	407
Chen B et al., 2015, Journal of Asian Earth Sciences	two-mica granite	LKMS-33-23	407
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Qin Q, 2017, Ph.D.	diorite	HDHLS-1-1	420
Qin Q, 2017, Ph.D.	diorite	HDHLS-1-2	417
Qin Q, 2017, Ph.D.	diorite	HDHLS-1-3	422
Qin Q, 2017, Ph.D.	diorite	HDHLS-1-4	412

Qin Q, 2017, Ph.D.	diorite	HDHLS-1-5	415
Qin Q, 2017, Ph.D.	diorite	HDHLS-1-6	403
Qin Q, 2017, Ph.D.	diorite	HDHLS-1-7	426
Qin Q, 2017, Ph.D.	diorite	HDHLS-1-9	408
Qin Q, 2017, Ph.D.	diorite	HDHLS-1-10	407
Qin Q, 2017, Ph.D.	diorite	HDHLS-1-11	415
Qin Q, 2017, Ph.D.	diorite	HDHLS-1-12	406
Qin Q, 2017, Ph.D.	diorite	HDHLS-1-13	415
Qin Q, 2017, Ph.D.	diorite	HDHLS-1-14	420
Qin Q, 2017, Ph.D.	diorite	HDHLS-1-15	416
Qin Q, 2017, Ph.D.	diorite	HDHLS-1-16	420
Qin Q, 2017, Ph.D.	diorite	HDHLS-1-17	420
Qin Q, 2017, Ph.D.	diorite	HDHLS-1-18	414
Qin Q, 2017, Ph.D.	diorite	HDHLS-1-19	414
Qin Q, 2017, Ph.D.	granite	YQ-1-1	409
Qin Q, 2017, Ph.D.	granite	YQ-1-2	402
Qin Q, 2017, Ph.D.	granite	YQ-1-3	410
Qin Q, 2017, Ph.D.	granite	YQ-1-4	406
Qin Q, 2017, Ph.D.	granite	YQ-1-5	402
Qin Q, 2017, Ph.D.	granite	YQ-1-6	411
Qin Q, 2017, Ph.D.	granite	YQ-1-7	405
Qin Q, 2017, Ph.D.	granite	YQ-1-9	408
Qin Q, 2017, Ph.D.	granite	YQ-1-10	409
Qin Q, 2017, Ph.D.	granite	YQ-1-12	424
Qin Q, 2017, Ph.D.	granite	YQ-1-13	406
Qin Q, 2017, Ph.D.	granite	YQ-1-14	412
Qin Q, 2017, Ph.D.	granite	YQ-1-15	408
Qin Q, 2017, Ph.D.	granite	YQ-1-16	421
Qin Q, 2017, Ph.D.	granite	YQ-1-17	438
Qin Q, 2017, Ph.D.	granite	YQ-1-19	400
Qin Q, 2017, Ph.D.	granite	YQ-1-20	402
Qin Q, 2017, Ph.D.	granite	YQ-1-21	403
Qin Q, 2017, Ph.D.	granite	YQ-1-22	481
Qin Q, 2017, Ph.D.	granite	HLS-11-1	390
Qin Q, 2017, Ph.D.	granite	HLS-11-2	401
Qin Q, 2017, Ph.D.	granite	HLS-11-4	444
Qin Q, 2017, Ph.D.	granite	HLS-11-5	419
Qin Q, 2017, Ph.D.	granite	HLS-11-9	457
Qin Q, 2017, Ph.D.	granite	HLS-11-11	404
Qin Q, 2017, Ph.D.	granite	HLS-11-12	411
Qin Q, 2017, Ph.D.	granite	HLS-11-13	407
Qin Q, 2017, Ph.D.	granite	HLS-11-14	395
Qin Q, 2017, Ph.D.	granite	HLS-11-15	420
Qin Q, 2017, Ph.D.	granite	HLS-11-16	402
Huang H et al., 2013, Journal of Geology	monzonite	TLK-2-1	614
Huang H et al., 2013, Journal of Geology	monzonite	TLK-2-2	427
Huang H et al., 2013, Journal of Geology	monzonite	TLK-2-3	424
Huang H et al., 2013, Journal of Geology	monzonite	TLK-2-4	521
Huang H et al., 2013, Journal of Geology	monzonite	TLK-2-5	419
Huang H et al., 2013, Journal of Geology	monzonite	TLK-2-6	413
Huang H et al., 2013, Journal of Geology	monzonite	TLK-2-7	420
Huang H et al., 2013, Journal of Geology	monzonite	TLK-2-8	415
Huang H et al., 2013, Journal of Geology	monzonite	TLK-2-9	420
Huang H et al., 2013, Journal of Geology	monzonite	TLK-2-10	424
Huang H et al., 2013, Journal of Geology	monzonite	TLK-2-11	423
Huang H et al., 2013, Journal of Geology	monzonite	TLK-2-12	410
Huang H et al., 2013, Journal of Geology	monzonite	TLK-2-14	422
Huang H et al., 2013, Journal of Geology	monzonite	TLK-2-16	426
Huang H et al., 2013, Journal of Geology	monzonite	TLK-2-17	414
Huang H et al., 2013, Journal of Geology	monzonite	TLK-2-18	424
Huang H et al., 2013, Journal of Geology	monzonite	TLK-2-19	427
Huang H et al., 2013, Journal of Geology	monzonite	TLK-2-23	413
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Huang H et al., 2015, Lithos	felsic flow	TLK-01-9	289
Huang H et al., 2015, Lithos	felsic flow	TLK-01-10	287
Huang H et al., 2015, Lithos	felsic flow	TLK-01-14	279
Huang H et al., 2015, Lithos	felsic flow	TLK-01-15	298
Huang H et al., 2015, Lithos	felsic flow	TLK-01-17	288
Huang H et al., 2015, Lithos	felsic flow	TLK-01-18	730
Huang H et al., 2015, Lithos	felsic flow	TLK-01-19	287
Huang H et al., 2015, Lithos	felsic flow	TLK-01-20	281
Huang H et al., 2015, Lithos	felsic flow	TLK-01-22	288
Huang H et al., 2015, Lithos	felsic flow	TLK-01-23	283
Huang H et al., 2015, Lithos	felsic flow	TLK-01-25	285
Huang H et al., 2015, Lithos	felsic flow	TLK-01-26	282
Huang H et al., 2015, Lithos	felsic flow	TLK-01-28	288
Huang H et al., 2015, Lithos	felsic flow	TLK-01-29	284
Huang H et al., 2015, Lithos	felsic flow	TLK-01-30	609
Huang H et al., 2015, Lithos	felsic flow	TLK-01-31	281
Huang H et al., 2015, Lithos	felsic flow	TLK-01-33	287
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Ma XX et al., 2015, Gondwana Research	K-feldspar granite	776-08	269
Ma XX et al., 2015, Gondwana Research	K-feldspar granite	776-09	275
Ma XX et al., 2015, Gondwana Research	K-feldspar granite	776-10	270
Ma XX et al., 2015, Gondwana Research	K-feldspar granite	776-11	272
Ma XX et al., 2015, Gondwana Research	K-feldspar granite	776-12	273
Ma XX et al., 2015, Gondwana Research	K-feldspar granite	776-13	272
Ma XX et al., 2015, Gondwana Research	K-feldspar granite	776-14	270
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Ma XX et al., 2015, Gondwana Research	syenite	776-1-01	275
Ma XX et al., 2015, Gondwana Research	syenite	776-1-02	264
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Ma XX et al., 2015, Gondwana Research	syenite	776-1-05	277
Ma XX et al., 2015, Gondwana Research	syenite	776-1-06	281
Ma XX et al., 2015, Gondwana Research	syenite	776-1-07	274
Ma XX et al., 2015, Gondwana Research	syenite	776-1-08	276
Ma XX et al., 2015, Gondwana Research	syenite	776-1-09	278
Ma XX et al., 2015, Gondwana Research	syenite	776-1-10	283
Ma XX et al., 2015, Gondwana Research	biotite K-feldspar granite	777-01	277
Ma XX et al., 2015, Gondwana Research	biotite K-feldspar granite	777-02	273
Ma XX et al., 2015, Gondwana Research	biotite K-feldspar granite	777-03	275
Ma XX et al., 2015, Gondwana Research	biotite K-feldspar granite	777-04	272
Ma XX et al., 2015, Gondwana Research	biotite K-feldspar granite	777-05	272
Ma XX et al., 2015, Gondwana Research	biotite K-feldspar granite	777-06	270
Ma XX et al., 2015, Gondwana Research	biotite K-feldspar granite	777-07	271
Ma XX et al., 2015, Gondwana Research	biotite K-feldspar granite	777-08	274
Ma XX et al., 2015, Gondwana Research	biotite K-feldspar granite	777-09	274
Ma XX et al., 2015, Gondwana Research	biotite K-feldspar granite	777-10	285
Ma XX et al., 2015, Gondwana Research	biotite K-feldspar granite	777-11	285
Ma XX et al., 2015, Gondwana Research	biotite K-feldspar granite	777-12	273
Ma XX et al., 2015, Gondwana Research	biotite K-feldspar granite	777-13	282
Ma XX et al., 2015, Gondwana Research	biotite K-feldspar granite	777-14	278
Ma XX et al., 2015, Gondwana Research	biotite K-feldspar granite	777-15	276
Ma XX et al., 2015, Gondwana Research	K-feldspar granite	777-2-01	275
Ma XX et al., 2015, Gondwana Research	K-feldspar granite	777-2-02	272

Ma XX et al., 2015, Gondwana Research	K-feldspar granite	777-2-03	283
Ma XX et al., 2015, Gondwana Research	K-feldspar granite	777-2-04	277
Ma XX et al., 2015, Gondwana Research	K-feldspar granite	777-2-05	276
Ma XX et al., 2015, Gondwana Research	K-feldspar granite	777-2-06	272
Ma XX et al., 2015, Gondwana Research	K-feldspar granite	777-2-07	276
Ma XX et al., 2015, Gondwana Research	K-feldspar granite	777-2-08	275
Ma XX et al., 2015, Gondwana Research	K-feldspar granite	777-2-09	274
Ma XX et al., 2015, Gondwana Research	K-feldspar granite	777-2-10	277
Ma XX et al., 2015, Gondwana Research	K-feldspar granite	777-2-11	280
Ma XX et al., 2015, Gondwana Research	biotite K-feldspar granite	787-01	292
Ma XX et al., 2015, Gondwana Research	biotite K-feldspar granite	787-02	286
Ma XX et al., 2015, Gondwana Research	biotite K-feldspar granite	787-03	295
Ma XX et al., 2015, Gondwana Research	biotite K-feldspar granite	787-04	297
Ma XX et al., 2015, Gondwana Research	biotite K-feldspar granite	787-05	292
Ma XX et al., 2015, Gondwana Research	biotite K-feldspar granite	787-06	293
Ma XX et al., 2015, Gondwana Research	biotite K-feldspar granite	787-07	288
Ma XX et al., 2015, Gondwana Research	biotite K-feldspar granite	787-08	284
Ma XX et al., 2015, Gondwana Research	biotite K-feldspar granite	787-09	292
Ma XX et al., 2015, Gondwana Research	biotite K-feldspar granite	787-10	296
Ma XX et al., 2015, Gondwana Research	biotite K-feldspar granite	787-11	298
Ma XX et al., 2015, Gondwana Research	biotite K-feldspar granite	787-12	294
Huang H et al., 2012b, Lithos	biotite monzonite	DYCM3-01	282.4
Huang H et al., 2012b, Lithos	biotite monzonite	DYCM3-03	283.6
Huang H et al., 2012b, Lithos	biotite monzonite	DYCM3-04	285
Huang H et al., 2012b, Lithos	biotite monzonite	DYCM3-05	287
Huang H et al., 2012b, Lithos	biotite monzonite	DYCM3-06	296.2
Huang H et al., 2012b, Lithos	biotite monzonite	DYCM3-07	292
Huang H et al., 2012b, Lithos	biotite monzonite	DYCM3-09	286
Huang H et al., 2012b, Lithos	biotite monzonite	DYCM3-10	286.4
Huang H et al., 2012b, Lithos	biotite monzonite	DYCM3-12	289
Huang H et al., 2012b, Lithos	biotite monzonite	DYCM3-14	282.6
Huang H et al., 2012b, Lithos	biotite monzonite	DYCM3-16	289.5
Huang H et al., 2012b, Lithos	biotite monzonite	DYCM3-17	287.3
Huang H et al., 2012b, Lithos	biotite monzonite	DYCM3-22	285.3
Huang H et al., 2012b, Lithos	biotite monzonite	DYCM3-23	299
Huang H et al., 2012b, Lithos	biotite monzonite	DYCM3-24	291.4
Huang H et al., 2012b, Lithos	biotite monzonite	DYCM3-25	286.4
Huang H et al., 2012b, Lithos	biotite monzonite	DYCM3-26	284.4
Huang H et al., 2012b, Lithos	biotite monzonite	DYCM3-27	287.3
Huang H et al., 2012b, Lithos	biotite monzonite	DYCM3-29	284.9
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Huang H et al., 2012b, Lithos	biotite diorite	DYCM4-02	297.2
Huang H et al., 2012b, Lithos	biotite diorite	DYCM4-03	287
Huang H et al., 2012b, Lithos	biotite diorite	DYCM4-04	272.1
Huang H et al., 2012b, Lithos	biotite diorite	DYCM4-05	281.1
Huang H et al., 2012b, Lithos	biotite diorite	DYCM4-06	274.7
Huang H et al., 2012b, Lithos	biotite diorite	DYCM4-07	294
Huang H et al., 2012b, Lithos	biotite diorite	DYCM4-08	311.4
Huang H et al., 2012b, Lithos	biotite diorite	DYCM4-09	287
Huang H et al., 2012b, Lithos	biotite diorite	DYCM4-10	287
Huang H et al., 2012b, Lithos	biotite diorite	DYCM4-11	287
Huang H et al., 2012b, Lithos	biotite diorite	DYCM4-12	287
Huang H et al., 2012b, Lithos	biotite diorite	DYCM4-13	290.8
Huang H et al., 2012b, Lithos	biotite diorite	DYCM4-14	287
Huang H et al., 2012b, Lithos	biotite diorite	DYCM4-15	284.3
Huang H et al., 2012b, Lithos	biotite diorite	DYCM4-16	287
Huang H et al., 2012b, Lithos	biotite diorite	DYCM4-17	303.8
Huang H et al., 2012b, Lithos	biotite diorite	DYCM4-18	287
Huang H et al., 2012b, Lithos	biotite diorite	DYCM4-19	287
Huang H et al., 2012b, Lithos	biotite diorite	DYCM4-20	287
Huang H et al., 2012b, Lithos	biotite diorite	DYCM4-21	280.9
Huang H et al., 2012b, Lithos	biotite diorite	DYCM4-22	297.2
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Cheng ZG et al., 2017, Lithos	rhyolite	LLR-21	297.222035
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Zhong LL et al., 2019, Tectonophysics	andesite	13ts19A-07	399
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Zhong LL et al., 2019, Tectonophysics	andesite	13ts19A-09	411
Zhong LL et al., 2019, Tectonophysics	andesite	13ts19A-10	409
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Zhong LL et al., 2019, Tectonophysics	andesite	13ts19A-17	963
Zhong LL et al., 2019, Tectonophysics	andesite	13ts19A-18	409
Zhong LL et al., 2019, Tectonophysics	andesite	13ts19A-19	430
Zhong LL et al., 2019, Tectonophysics	andesite	13ts19A-20	410
Zhong LL et al., 2019, Tectonophysics	rhyolite	13ts19D-01	428
Zhong LL et al., 2019, Tectonophysics	rhyolite	13ts19D-02	433
Zhong LL et al., 2019, Tectonophysics	rhyolite	13ts19D-03	430
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Zhong LL et al., 2019, Tectonophysics	rhyolite	13ts19D-06	456
Zhong LL et al., 2019, Tectonophysics	rhyolite	13ts19D-07	453
Zhong LL et al., 2019, Tectonophysics	rhyolite	13ts19D-08	429
Zhong LL et al., 2019, Tectonophysics	rhyolite	13ts19D-09	426
Zhong LL et al., 2019, Tectonophysics	rhyolite	13ts19D-10	438
Zhong LL et al., 2019, Tectonophysics	rhyolite	13ts19D-11	427
Zhong LL et al., 2019, Tectonophysics	rhyolite	14ts02H-01	432
Zhong LL et al., 2019, Tectonophysics	rhyolite	14ts02H-02	463
Zhong LL et al., 2019, Tectonophysics	rhyolite	14ts02H-03	410
Zhong LL et al., 2019, Tectonophysics	rhyolite	14ts02H-04	469
Zhong LL et al., 2019, Tectonophysics	rhyolite	14ts02H-06	436
Zhong LL et al., 2019, Tectonophysics	rhyolite	14ts02H-07	465
Zhong LL et al., 2019, Tectonophysics	rhyolite	14ts02H-08	464
Zhong LL et al., 2019, Tectonophysics	rhyolite	14ts02H-10	432
Zhong LL et al., 2019, Tectonophysics	rhyolite	14ts02H-11	433
Zhong LL et al., 2019, Tectonophysics	rhyolite	14ts02H-12	496
Zhong LL et al., 2019, Tectonophysics	rhyolite	14ts02H-13	494
Zhong LL et al., 2019, Tectonophysics	rhyolite	14ts02H-14	434
Zhong LL et al., 2019, Tectonophysics	rhyolite	14ts02H-15	501
Zhong LL et al., 2019, Tectonophysics	rhyolite	14ts02H-16	466
Zhong LL et al., 2019, Tectonophysics	rhyolite	14ts02H-17	426
Zhong LL et al., 2019, Tectonophysics	rhyolite	14ts02H-18	464
Qin Q, 2017, Ph.D.	granite	QGX-7-1	384
Qin Q, 2017, Ph.D.	granite	QGX-7-2	375
Qin Q, 2017, Ph.D.	granite	QGX-7-3	376
Qin Q, 2017, Ph.D.	granite	QGX-7-4	380
Qin Q, 2017, Ph.D.	granite	QGX-7-5	388
Qin Q, 2017, Ph.D.	granite	QGX-7-6	385
Qin Q, 2017, Ph.D.	granite	QGX-7-7	424
Qin Q, 2017, Ph.D.	granite	QGX-7-8	391
Qin Q, 2017, Ph.D.	granite	QGX-7-15	600
Qin Q, 2017, Ph.D.	granite	QGX-7-18	397
Qin Q, 2017, Ph.D.	granite	QGX-7-20	393
Xing H et al., 2021, International Journal of Earth Sciences	monzogranite	KT-01-1	346
Xing H et al., 2021, International Journal of Earth Sciences	monzogranite	KT-01-2	346
Xing H et al., 2021, International Journal of Earth Sciences	monzogranite	KT-01-3	346
Xing H et al., 2021, International Journal of Earth Sciences	monzogranite	KT-01-4	346
Xing H et al., 2021, International Journal of Earth Sciences	monzogranite	KT-01-5	346
Xing H et al., 2021, International Journal of Earth Sciences	monzogranite	KT-01-6	346
Xing H et al., 2021, International Journal of Earth Sciences	monzogranite	KT-01-7	346
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Xing H et al., 2021, International Journal of Earth Sciences	monzogranite	KT-01-9	346
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Xing H et al., 2021, International Journal of Earth Sciences	monzogranite	KT-01-14	346
Xing H et al., 2021, International Journal of Earth Sciences	monzogranite	KT-01-15	346
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Shi YR et al., 2014, International Geology Review	amphibolite	XSS4-4	410
Shi YR et al., 2014, International Geology Review	amphibolite	XSS4-5	410
Shi YR et al., 2014, International Geology Review	amphibolite	XSS4-6	410
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Shi YR et al., 2014, International Geology Review	amphibolite	XSS4-8	410
Shi YR et al., 2014, International Geology Review	amphibolite	XSS4-9	410
Shi YR et al., 2014, International Geology Review	amphibolite	XSS4-10 (core)	440
Shi YR et al., 2014, International Geology Review	amphibolite	XSS4-11	410
Shi YR et al., 2014, International Geology Review	amphibolite	XSS4-12	410
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Qin Q, 2017, Ph.D.	hornblende gabbro	WSTGL-2-1	408
Qin Q, 2017, Ph.D.	hornblende gabbro	WSTGL-2-2	417
Qin Q, 2017, Ph.D.	hornblende gabbro	WSTGL-2-4	426
Qin Q, 2017, Ph.D.	hornblende gabbro	WSTGL-2-5	425
Qin Q, 2017, Ph.D.	hornblende gabbro	WSTGL-2-6	420
Qin Q, 2017, Ph.D.	hornblende gabbro	WSTGL-2-7	412
Qin Q, 2017, Ph.D.	hornblende gabbro	WSTGL-2-8	426
Qin Q, 2017, Ph.D.	hornblende gabbro	WSTGL-2-9	421
Qin Q, 2017, Ph.D.	hornblende gabbro	WSTGL-2-10	420
Qin Q, 2017, Ph.D.	hornblende gabbro	WSTGL-2-11	411
Qin Q, 2017, Ph.D.	hornblende gabbro	WSTGL-2-12	404
Qin Q, 2017, Ph.D.	hornblende gabbro	WSTGL-2-13	407
Qin Q, 2017, Ph.D.	hornblende gabbro	WSTGL-2-14	398
Qin Q, 2017, Ph.D.	hornblende gabbro	WSTGL-2-16	428
Qin Q, 2017, Ph.D.	hornblende gabbro	WSTGL-2-17	419
Qin Q, 2017, Ph.D.	hornblende gabbro	WSTGL-2-18	416
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Zhao ZY et al., 2015, Gondwana Research	diorite	BCD 1-1	431
Zhao ZY et al., 2015, Gondwana Research	diorite	BCD 1-2	431
Zhao ZY et al., 2015, Gondwana Research	diorite	BCD 1-3	431
Zhao ZY et al., 2015, Gondwana Research	diorite	BCD 1-4	431
Zhao ZY et al., 2015, Gondwana Research	diorite	BCD 1-5	431
Zhao ZY et al., 2015, Gondwana Research	diorite	BCD 1-6	431
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Zhao ZY et al., 2015, Gondwana Research	diorite	BCD 1-8	431
Zhao ZY et al., 2015, Gondwana Research	diorite	BCD 1-9	431
Zhao ZY et al., 2015, Gondwana Research	diorite	BCD 1-10	431
Zhao ZY et al., 2015, Gondwana Research	diorite	BCD 1-11	431
Zhao ZY et al., 2015, Gondwana Research	diorite	BCD 1-12	431
Zhao ZY et al., 2015, Gondwana Research	diorite	BCD 1-13	431
Zhao ZY et al., 2015, Gondwana Research	diorite	BCD 1-14	431
Zhao ZY et al., 2015, Gondwana Research	diorite	BCD 1-15	431
Zhao ZY et al., 2015, Gondwana Research	diorite	BCD 1-16	431
Zhao ZY et al., 2015, Gondwana Research	diorite	BCD 1-17	431
Zhao ZY et al., 2015, Gondwana Research	diorite	BCD 1-18	431
Zhao ZY et al., 2015, Gondwana Research	diorite	BCD 1-19	431
Zhao ZY et al., 2015, Gondwana Research	diorite	BCD 1-20	431
Zhao ZY et al., 2015, Gondwana Research	diorite	BCD 1-21	431
Zhao ZY et al., 2015, Gondwana Research	diorite	BCD 1-22	431
Zhao ZY et al., 2015, Gondwana Research	diorite	BCD 1-23	431
Zhao ZY et al., 2015, Gondwana Research	diorite	BCD 1-24	431
Zhao ZY et al., 2015, Gondwana Research	diorite	BCD 1-25	431
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Zhao ZY et al., 2015, Gondwana Research	diorite	BCD 2-1	431
Zhao ZY et al., 2015, Gondwana Research	diorite	BCD 2-2	431
Zhao ZY et al., 2015, Gondwana Research	diorite	BCD 2-3	431
Zhao ZY et al., 2015, Gondwana Research	diorite	BCD 2-4	431
Zhao ZY et al., 2015, Gondwana Research	diorite	BCD 2-5	431
Zhao ZY et al., 2015, Gondwana Research	diorite	BCD 2-6	431
Zhao ZY et al., 2015, Gondwana Research	diorite	BCD 2-7	431
Zhao ZY et al., 2015, Gondwana Research	diorite	BCD 2-8	431
Zhao ZY et al., 2015, Gondwana Research	diorite	BCD 2-9	431
Zhao ZY et al., 2015, Gondwana Research	diorite	BCD 2-10	431







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Ge RF et al., 2014, Tectonics	diorite	12K33-09	422
Ge RF et al., 2014, Tectonics	diorite	12K33-10	422
Ge RF et al., 2014, Tectonics	diorite	12K33-11	422
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Ge RF et al., 2014, Tectonics	diorite	12K33-05	809
Ge RF et al., 2012, Lithos	porphyritic granodiorite	09T11-01	559
Ge RF et al., 2012, Lithos	porphyritic granodiorite	09T11-02	568
Ge RF et al., 2012, Lithos	porphyritic granodiorite	09T11-04	418
Ge RF et al., 2012, Lithos	porphyritic granodiorite	09T11-05	641
Ge RF et al., 2012, Lithos	porphyritic granodiorite	09T11-06	427
Ge RF et al., 2012, Lithos	porphyritic granodiorite	09T11-07	424
Ge RF et al., 2012, Lithos	porphyritic granodiorite	09T11-10	546
Ge RF et al., 2012, Lithos	porphyritic granodiorite	09T11-13	500
Ge RF et al., 2012, Lithos	porphyritic granodiorite	09T11-15	467
Ge RF et al., 2012, Lithos	porphyritic granodiorite	09T11-17	486
Ge RF et al., 2012, Lithos	porphyritic granodiorite	09T11-18	421
Ge RF et al., 2012, Lithos	porphyritic granodiorite	09T11-19	1843
Ge RF et al., 2012, Lithos	porphyritic granodiorite	09T11-21	420
Ge RF et al., 2012, Lithos	porphyritic granodiorite	09T11-22	2247
Ge RF et al., 2012, Lithos	porphyritic granodiorite	09T11-23	524
Ge RF et al., 2012, Lithos	porphyritic granodiorite	09T11-28	511
Ge RF et al., 2012, Lithos	porphyritic granodiorite	10T19-1	478
Ge RF et al., 2012, Lithos	porphyritic granodiorite	10T19-2	420
Ge RF et al., 2012, Lithos	porphyritic granodiorite	10T19-3	426
Ge RF et al., 2012, Lithos	porphyritic granodiorite	10T19-4	427
Ge RF et al., 2012, Lithos	porphyritic granodiorite	10T19-5	434
Ge RF et al., 2012, Lithos	porphyritic granodiorite	10T19-6	474
Ge RF et al., 2012, Lithos	porphyritic granodiorite	10T19-7	425
Ge RF et al., 2012, Lithos	porphyritic granodiorite	10T19-8	477
Ge RF et al., 2012, Lithos	porphyritic granodiorite	10T19-9	418
Ge RF et al., 2012, Lithos	porphyritic granodiorite	10T19-10	427
Ge RF et al., 2012, Lithos	porphyritic granodiorite	10T19-11	426
Ge RF et al., 2012, Lithos	porphyritic granodiorite	10T19-14	423
Ge RF et al., 2012, Lithos	porphyritic granodiorite	10T19-15	688
Ge RF et al., 2012, Lithos	porphyritic granodiorite	10T19-18	421
Ge RF et al., 2012, Lithos	porphyritic granodiorite	10T19-19	417
Ge RF et al., 2012, Lithos	porphyritic granodiorite	10T19-20	418
Ge RF et al., 2012, Lithos	porphyritic granodiorite	10T19-21	421
Ge RF et al., 2012, Lithos	porphyritic granodiorite	10T25-1	693
Ge RF et al., 2012, Lithos	porphyritic granodiorite	10T25-2	419
Ge RF et al., 2012, Lithos	porphyritic granodiorite	10T25-3	623
Ge RF et al., 2012, Lithos	porphyritic granodiorite	10T25-4	676
Ge RF et al., 2012, Lithos	porphyritic granodiorite	10T25-6	510
Ge RF et al., 2012, Lithos	porphyritic granodiorite	10T25-7	429
Ge RF et al., 2012, Lithos	porphyritic granodiorite	10T25-8	426
Ge RF et al., 2012, Lithos	porphyritic granodiorite	10T25-9	479
Ge RF et al., 2012, Lithos	porphyritic granodiorite	10T25-11	416
Ge RF et al., 2012, Lithos	porphyritic granodiorite	10T25-14	420
Ge RF et al., 2012, Lithos	porphyritic granodiorite	10T25-16	426
Lin W et al., 2013, Lithosphere	alkali-granite	XJ046-1 01	388
Lin W et al., 2013, Lithosphere	alkali-granite	XJ046-1 02	388
Lin W et al., 2013, Lithosphere	alkali-granite	XJ046-1 04	388
Lin W et al., 2013, Lithosphere	alkali-granite	XJ046-1 05	388
Lin W et al., 2013, Lithosphere	alkali-granite	XJ046-1 06	388
Lin W et al., 2013, Lithosphere	alkali-granite	XJ046-1 07	388
Lin W et al., 2013, Lithosphere	alkali-granite	XJ046-1 08	388
Lin W et al., 2013, Lithosphere	alkali-granite	XJ046-1 09	388
Lin W et al., 2013, Lithosphere	alkali-granite	XJ046-1 10	388
Lin W et al., 2013, Lithosphere	alkali-granite	XJ046-1 11	388
Lin W et al., 2013, Lithosphere	alkali-granite	XJ046-1 12	388
Lin W et al., 2013, Lithosphere	alkali-granite	XJ046-1 13	388
Lin W et al., 2013, Lithosphere	alkali-granite	XJ046-1 14	388

Lin W et al., 2013, Lithosphere	alkali-granite	XJ046-1 15	388
Lin W et al., 2013, Lithosphere	alkali-granite	XJ046-1 16	388
Lin W et al., 2013, Lithosphere	alkali-granite	XJ046-1 17	388
Lin W et al., 2013, Lithosphere	alkali-granite	XJ046-1 19	388
Lin W et al., 2013, Lithosphere	alkali-granite	XJ046-1 20	388
Lin W et al., 2013, Lithosphere	alkali-granite	XJ046-1 21	388
Qin Q, 2017, Ph.D.	biotite granite	KECII-11-01	311
Qin Q, 2017, Ph.D.	biotite granite	KECII-11-02	316
Qin Q, 2017, Ph.D.	biotite granite	KECII-11-03	311
Qin Q, 2017, Ph.D.	biotite granite	KECII-11-04	278
Qin Q, 2017, Ph.D.	biotite granite	KECII-11-06	271
Qin Q, 2017, Ph.D.	biotite granite	KECII-11-07	298
Qin Q, 2017, Ph.D.	biotite granite	KECII-11-08	309
Qin Q, 2017, Ph.D.	biotite granite	KECII-11-09	314
Qin Q, 2017, Ph.D.	biotite granite	KECII-11-10	229
Qin Q, 2017, Ph.D.	biotite granite	KECII-11-11	312
Qin Q, 2017, Ph.D.	biotite granite	KECII-11-12	312
Qin Q, 2017, Ph.D.	biotite granite	KECII-11-13	315
Qin Q, 2017, Ph.D.	biotite granite	KECII-11-14	310
Qin Q, 2017, Ph.D.	biotite granite	KECII-11-15	310
Qin Q, 2017, Ph.D.	biotite granite	KECII-11-16	316
Qin Q, 2017, Ph.D.	biotite granite	KECII-11-17	309
Qin Q, 2017, Ph.D.	biotite granite	KECII-11-18	313
Qin Q, 2017, Ph.D.	biotite granite	KECII-11-19	304
Qin Q, 2017, Ph.D.	biotite granite	KECII-11-20	312
Qin Q, 2017, Ph.D.	biotite granite	KECII-11-21	313
Qin Q, 2017, Ph.D.	biotite granite	KECII-11-22	313
Qin Q, 2017, Ph.D.	biotite granite	KECII-11-24	333
Qin Q, 2017, Ph.D.	biotite granite	KECII-11-28	310

Note:

a. References are consistent with that in the Table S4.

b. The calculation formulas are as follow:

$$e_{\text{Hf}}(0) = ((^{176}\text{Hf}/^{177}\text{Hf})_S / (^{176}\text{Hf}/^{177}\text{Hf})_{\text{CHUR},0} - 1) \times 10000,$$

$$f_{\text{Lu/Hf}} = (^{176}\text{Lu}/^{177}\text{Hf})_S / (^{176}\text{Lu}/^{177}\text{Hf})_{\text{CHUR}} - 1$$

$$e_{\text{Hf}}(t) = ((^{176}\text{Hf}/^{177}\text{Hf})_S - (^{176}\text{Lu}/^{177}\text{Hf})_S \times (e^{\lambda t} - 1)) / ((^{176}\text{Hf}/^{177}\text{Hf})_{\text{CHUR},0} - (^{176}\text{Lu}/^{177}\text{Hf})_{\text{CHUR}} \times (e^{\lambda t} - 1)) - 1) \times 10000$$

$$T_{\text{DM1}}(\text{Hf}) = 1/\lambda \times \ln(1 + ((^{176}\text{Hf}/^{177}\text{Hf})_S - (^{176}\text{Hf}/^{177}\text{Hf})_{\text{DM}}) / ((^{176}\text{Lu}/^{177}\text{Hf})_S - (^{176}\text{Lu}/^{177}\text{Hf})_{\text{DM}}))$$

$$T_{\text{DM2}}(\text{Hf}) = T_{\text{DM1}}(\text{Hf}) - (T_{\text{DM1}}(\text{Hf}) - t) \times (f_{\text{CC}} - f_S) / (f_{\text{CC}} - f_{\text{DM}})$$

where,  $(^{176}\text{Lu}/^{177}\text{Hf})_S$  and  $(^{176}\text{Hf}/^{177}\text{Hf})_S$  are the measured values of samples;  $(^{176}\text{Lu}/^{177}\text{Hf})_{\text{CHUR}} = 0.0336$  and  $(^{176}\text{Hf}/^{177}\text{Hf})_{\text{CHUR},0} = 0.282785$  (Bouvier et al., 2008);  $(^{176}\text{Lu}/^{177}\text{Hf})_{\text{DM}} = 0.0384$  and  $(^{176}\text{Hf}/^{177}\text{Hf})_{\text{DM}} = 0.28325$  (Griffin et al., 2000);  $f_{\text{CC}} = -0.548$  (average continental crust),  $f_{\text{DM}} = 0.16$ ,  $t = \text{crystallization time of zircon, } \lambda = 1.867 \times 10^{-11} \text{ yr}^{-1}$  (Scherer et al., 2001) are used in calculation.

$^{176}\text{Yb}/^{177}\text{Hf}$	$^{176}\text{Lu}/^{177}\text{Hf}$	$^{176}\text{Hf}/^{177}\text{Hf}$	$I_{\text{Hf}}$	$e_{\text{Hf}}(0)$	$e_{\text{Hf}}(t)$	$T_{\text{DMI}}(\text{Hf})$	$T_{\text{DM2}}(\text{Hf})$	$f_{\text{Lu/Hf}}$	Tectonic Unit
0.008959	0.000384	0.282772	0.28277	-0.5	6.0	669	904	-0.99	SYB
0.011581	0.000430	0.282700	0.28270	-3.0	3.4	770	1067	-0.99	SYB
0.020106	0.000823	0.282719	0.28271	-2.3	4.0	752	1029	-0.98	SYB
0.007106	0.000309	0.282756	0.28275	-1.0	5.4	690	938	-0.99	SYB
0.018604	0.000735	0.282719	0.28271	-2.3	4.0	750	1028	-0.98	SYB
0.044937	0.001585	0.282747	0.28274	-1.4	6.0	727	946	-0.95	SYB
0.029465	0.000908	0.282748	0.28274	-1.3	6.4	712	926	-0.97	SYB
0.042249	0.001483	0.282783	0.28277	-0.1	7.4	673	858	-0.96	SYB
0.019972	0.000645	0.282730	0.28273	-1.9	5.7	733	965	-0.98	SYB
0.034204	0.001026	0.282776	0.28277	-0.3	7.4	675	865	-0.97	SYB
0.017385	0.000548	0.282775	0.28277	-0.4	7.5	668	858	-0.98	SYB
0.022852	0.000739	0.282733	0.28273	-1.8	5.9	730	957	-0.98	SYB
0.025433	0.000860	0.282771	0.28277	-0.5	7.2	679	874	-0.97	SYB
0.021350	0.000686	0.282756	0.28275	-1.0	6.7	697	906	-0.98	SYB
0.017810	0.000568	0.282733	0.28273	-1.8	5.8	727	958	-0.98	SYB
0.033416	0.001004	0.282760	0.28275	-0.9	6.8	697	902	-0.97	SYB
0.041516	0.001570	0.282517	0.28250	-9.5	-0.6	1055	1419	-0.95	SYB
0.038708	0.001446	0.282413	0.28240	-13.1	-4.2	1199	1650	-0.96	SYB
0.041210	0.001528	0.282532	0.28252	-8.9	-0.2	1032	1388	-0.95	SYB
0.021117	0.000822	0.282549	0.28254	-8.3	0.5	990	1343	-0.98	SYB
0.033265	0.001251	0.282560	0.28255	-8.0	0.7	986	1328	-0.96	SYB
0.030424	0.001159	0.282557	0.28255	-8.1	0.6	987	1332	-0.97	SYB
0.043522	0.001588	0.282516	0.28250	-9.5	-0.9	1057	1429	-0.95	SYB
0.046294	0.001713	0.282492	0.28248	-10.4	-1.7	1095	1483	-0.95	SYB
0.033968	0.001303	0.282339	0.28233	-15.8	-7.0	1299	1817	-0.96	SYB
0.021001	0.000803	0.282502	0.28250	-10.0	-0.9	1056	1440	-0.98	SYB
0.036309	0.001346	0.282489	0.28248	-10.5	-1.5	1089	1479	-0.96	SYB
0.033296	0.001379	0.282587	0.28258	-7.0	2.0	951	1259	-0.96	SYB
0.069636	0.002206	0.282697	0.28268	-3.1	5.6	812	1027	-0.93	SYB
0.048070	0.001936	0.282708	0.28269	-2.7	6.2	790	993	-0.94	SYB
0.018780	0.000784	0.282657	0.28265	-4.5	4.6	837	1091	-0.98	SYB
0.088208	0.002768	0.282713	0.28269	-2.5	6.1	801	999	-0.92	SYB
0.047262	0.001600	0.282684	0.28267	-3.6	5.1	818	1052	-0.95	SYB
0.044683	0.001699	0.282674	0.28266	-3.9	5.0	835	1068	-0.95	SYB
0.027786	0.001057	0.282645	0.28264	-5.0	4.0	861	1127	-0.97	SYB
0.043218	0.001434	0.282674	0.28266	-3.9	4.9	828	1069	-0.96	SYB
0.023112	0.000946	0.282691	0.28268	-3.3	6.1	793	1008	-0.97	SYB
0.041932	0.001509	0.282721	0.28271	-2.3	6.9	763	953	-0.96	SYB
0.061386	0.002316	0.282728	0.28271	-2.0	6.7	769	958	-0.93	SYB
0.049186	0.001773	0.282665	0.28265	-4.2	4.4	849	1097	-0.95	SYB
0.030458	0.001204	0.282677	0.28267	-3.8	5.3	819	1051	-0.96	SYB
0.052053	0.001879	0.282684	0.28267	-3.6	5.5	824	1043	-0.94	SYB
0.027119	0.001075	0.282659	0.28265	-4.5	4.6	841	1091	-0.97	SYB
0.040552	0.001680	0.282445	0.28243	-12.0	-1.8	1162	1547	-0.95	SYB
0.023353	0.000983	0.282599	0.28259	-6.6	3.2	924	1206	-0.97	SYB
0.037034	0.001570	0.282383	0.28237	-14.2	-3.7	1246	1676	-0.95	SYB
0.030820	0.001291	0.282464	0.28245	-11.4	-0.7	1123	1488	-0.96	SYB
0.026475	0.001102	0.282514	0.28250	-9.6	1.2	1047	1371	-0.97	SYB
0.021594	0.000850	0.282667	0.28266	-4.2	7.0	825	1012	-0.97	SYB
0.038891	0.001639	0.282491	0.28248	-10.4	0.2	1095	1432	-0.95	SYB
0.025714	0.001076	0.282482	0.28247	-10.7	-0.9	1091	1469	-0.97	SYB
0.039589	0.001522	0.282376	0.28236	-14.5	-4.2	1255	1698	-0.95	SYB
0.035042	0.001447	0.282545	0.28253	-8.5	2.2	1012	1309	-0.96	SYB
0.021628	0.000879	0.282575	0.28257	-7.4	2.8	955	1247	-0.97	SYB
0.031131	0.001296	0.282538	0.28253	-8.7	1.8	1018	1326	-0.96	SYB

0.032076	0.001329	0.282462	0.28245	-11.4	-1.2	1127	1503	-0.96	SYB
0.025407	0.001052	0.282466	0.28246	-11.3	-0.4	1113	1474	-0.97	SYB
0.031222	0.001222	0.282504	0.28249	-9.9	0.9	1064	1393	-0.96	SYB
0.024664	0.001037	0.282571	0.28256	-7.6	3.1	965	1245	-0.97	SYB
0.028356	0.001177	0.282508	0.28250	-9.8	0.7	1057	1393	-0.96	SYB
0.025080	0.001041	0.282434	0.28242	-12.4	-1.6	1157	1546	-0.97	SYB
0.028489	0.001182	0.282399	0.28239	-13.6	-3.6	1211	1647	-0.96	SYB
0.016194	0.000707	0.282608	0.28260	-6.3	4.3	905	1162	-0.98	SYB
0.023491	0.000984	0.282600	0.28259	-6.5	3.4	922	1199	-0.97	SYB
0.030167	0.001266	0.282503	0.28249	-10.0	0.2	1067	1412	-0.96	SYB
0.007970	0.000329	0.282802	0.28280	0.6	10.3	627	743	-0.99	SYB
0.028015	0.001090	0.282889	0.28288	3.7	13.4	516	555	-0.97	SYB
0.020297	0.000792	0.282814	0.28281	1.0	10.6	617	724	-0.98	SYB
0.027315	0.001058	0.282706	0.28270	-2.8	6.7	775	974	-0.97	SYB
0.030761	0.001194	0.282733	0.28272	-1.8	7.4	739	920	-0.96	SYB
0.032666	0.001261	0.282898	0.28289	4.0	13.5	505	542	-0.96	SYB
0.017757	0.000690	0.282708	0.28270	-2.7	6.9	764	962	-0.98	SYB
0.021317	0.000831	0.282855	0.28285	2.5	11.8	560	641	-0.98	SYB
0.023868	0.000921	0.282764	0.28276	-0.7	8.7	690	844	-0.97	SYB
0.024399	0.000932	0.282859	0.28285	2.6	12.3	556	621	-0.97	SYB
0.023712	0.000910	0.282817	0.28281	1.1	10.9	615	715	-0.97	SYB
0.015929	0.000622	0.282711	0.28271	-2.6	6.7	759	962	-0.98	SYB
0.025982	0.000992	0.282829	0.28282	1.6	10.8	599	704	-0.97	SYB
0.023452	0.000891	0.282811	0.28280	0.9	10.2	623	741	-0.97	SYB
0.016145	0.000636	0.282731	0.28273	-1.9	7.6	731	911	-0.98	SYB
0.028686	0.001109	0.282770	0.28276	-0.5	8.6	685	841	-0.97	SYB
0.013917	0.000541	0.282351	0.28235	-15.3	-6.2	1257	1772	-0.98	SYB
0.025456	0.000965	0.282839	0.28283	1.9	11.5	585	670	-0.97	SYB
0.025647	0.000983	0.282735	0.28273	-1.8	7.4	732	916	-0.97	SYB
0.028372	0.001101	0.282870	0.28286	3.0	12.4	543	607	-0.97	SYB
0.024415	0.000918	0.282752	0.28275	-1.2	7.5	707	890	-0.97	SYB
0.013358	0.000527	0.282743	0.28274	-1.5	7.8	712	890	-0.98	SYB
0.017603	0.000695	0.282745	0.28274	-1.4	7.5	713	898	-0.98	SYB
0.023826	0.000905	0.282759	0.28275	-0.9	8.0	697	868	-0.97	SYB
0.015680	0.000623	0.282756	0.28275	-1.0	8.3	696	862	-0.98	SYB
0.016957	0.000673	0.282699	0.28269	-3.0	6.0	777	997	-0.98	SYB
0.026510	0.001007	0.282739	0.28273	-1.6	7.3	727	914	-0.97	SYB
0.014123	0.000567	0.282650	0.28265	-4.8	4.5	843	1100	-0.98	SYB
0.011308	0.000458	0.282490	0.28249	-10.4	-1.8	1062	1477	-0.99	SYB
0.026142	0.000997	0.282890	0.28288	3.7	12.6	513	575	-0.97	SYB
0.016171	0.000637	0.282827	0.28282	1.5	10.5	597	710	-0.98	SYB
0.035431	0.001467	0.282481	0.28247	-10.8	-1.3	1104	1483	-0.96	SYB
0.032286	0.001340	0.282567	0.28256	-7.7	1.2	978	1305	-0.96	SYB
0.035318	0.001460	0.282629	0.28262	-5.5	3.2	893	1171	-0.96	SYB
0.025103	0.001037	0.282414	0.28241	-13.1	-3.2	1185	1617	-0.97	SYB
0.029655	0.001230	0.282494	0.28248	-10.3	-1.2	1078	1461	-0.96	SYB
0.035075	0.001433	0.282497	0.28249	-10.2	-0.7	1080	1448	-0.96	SYB
0.025805	0.001086	0.282399	0.28239	-13.6	-4.3	1208	1666	-0.97	SYB
0.042518	0.001744	0.282681	0.28267	-3.7	4.9	825	1061	-0.95	SYB
0.038835	0.001624	0.282576	0.28256	-7.4	2.3	973	1267	-0.95	SYB
0.038946	0.001560	0.282657	0.28264	-4.5	4.5	855	1101	-0.95	SYB
0.023945	0.001000	0.282475	0.28247	-11.0	-1.8	1099	1501	-0.97	SYB
0.031566	0.001285	0.282414	0.28240	-13.1	-3.7	1193	1633	-0.96	SYB
0.032301	0.001305	0.282681	0.28267	-3.7	5.7	815	1034	-0.96	SYB
0.024579	0.001111	0.282297	0.28229	-17.3	-7.8	1352	1891	-0.97	SYB
0.022772	0.000937	0.282621	0.28261	-5.8	3.5	892	1168	-0.97	SYB
0.022148	0.000907	0.282738	0.28273	-1.7	7.7	726	904	-0.97	SYB
0.021284	0.000879	0.282401	0.28239	-13.6	-4.7	1198	1673	-0.97	SYB
0.023421	0.000996	0.282444	0.28244	-12.1	-1.8	1142	1541	-0.97	SYB
0.018210	0.000756	0.282566	0.28256	-7.7	1.7	964	1288	-0.98	SYB
0.029463	0.001268	0.282516	0.28251	-9.5	-0.3	1048	1409	-0.96	SYB
0.029147	0.001228	0.282580	0.28257	-7.2	1.6	957	1277	-0.96	SYB
0.030569	0.001281	0.282489	0.28248	-10.5	-1.5	1087	1476	-0.96	SYB

0.040288	0.001639	0.282624	0.28261	-5.7	3.5	904	1173	-0.95	SYB
0.035309	0.001473	0.282312	0.28230	-16.7	-7.5	1344	1868	-0.96	SYB
0.031603	0.001284	0.282595	0.28259	-6.7	1.6	937	1258	-0.96	SYB
0.027640	0.001186	0.282569	0.28256	-7.6	2.2	971	1275	-0.96	SYB
0.017865	0.000750	0.282579	0.28257	-7.3	2.4	946	1250	-0.98	SYB
0.016602	0.000671	0.282489	0.28248	-10.5	-0.2	1070	1435	-0.98	SYB
0.036356	0.001566	0.282675	0.28266	-3.9	6.2	830	1033	-0.95	SYB
0.039871	0.001706	0.281759	0.28174	-36.3	-26.6	2133	3083	-0.95	SYB
0.039871	0.001706	0.281759	0.28175	-36.3	-27.3	2133	3100	-0.95	SYB
0.028598	0.001165	0.282581	0.28257	-7.2	1.6	954	1275	-0.97	SYB
0.035190	0.001492	0.282523	0.28251	-9.3	0.2	1045	1391	-0.96	SYB
0.038438	0.001636	0.282699	0.28268	-3.0	6.7	797	989	-0.95	SYB
0.039657	0.001707	0.282531	0.28252	-9.0	0.4	1039	1377	-0.95	SYB
0.031096	0.001306	0.282420	0.28241	-12.9	-3.5	1185	1620	-0.96	SYB
0.012205	0.000500	0.282714	0.28271	-2.5	6.8	752	956	-0.99	SYB
0.014300	0.000586	0.282729	0.28272	-2.0	6.8	733	938	-0.98	SYB
0.017733	0.000713	0.282727	0.28272	-2.1	7.1	738	933	-0.98	SYB
0.014733	0.000590	0.282777	0.28277	-0.3	9.1	666	811	-0.98	SYB
0.032572	0.001257	0.282693	0.28268	-3.3	5.8	797	1017	-0.96	SYB
0.022472	0.000880	0.282605	0.28260	-6.4	2.6	913	1214	-0.97	SYB
0.014300	0.000579	0.282609	0.28260	-6.2	2.9	900	1197	-0.98	SYB
0.017487	0.000707	0.282681	0.28268	-3.7	4.8	803	1054	-0.98	SYB
0.039386	0.001569	0.282774	0.28276	-0.4	8.5	688	843	-0.95	SYB
0.038978	0.001536	0.282592	0.28258	-6.8	2.1	948	1250	-0.95	SYB
0.062039	0.002389	0.282502	0.28248	-10.0	-1.9	1101	1483	-0.93	SYB
0.010404	0.000428	0.282688	0.28268	-3.4	4.9	787	1039	-0.99	SYB
0.010040	0.000419	0.282484	0.28248	-10.6	-1.2	1069	1466	-0.99	SYB
0.012850	0.000527	0.282732	0.28273	-1.9	7.2	728	922	-0.98	SYB
0.051291	0.001977	0.282655	0.28264	-4.6	4.3	868	1114	-0.94	SYB
0.014894	0.000609	0.282683	0.28268	-3.6	5.2	798	1040	-0.98	SYB
0.019809	0.000783	0.282504	0.28250	-9.9	-1.3	1052	1449	-0.98	SYB
0.013504	0.000549	0.282708	0.28270	-2.7	6.0	762	986	-0.98	SYB
0.021926	0.000885	0.282657	0.28265	-4.5	4.1	840	1105	-0.97	SYB
0.014810	0.000614	0.282664	0.28266	-4.3	4.6	824	1081	-0.98	SYB
0.014005	0.000591	0.282084	0.28208	-24.8	-14.6	1627	2339	-0.98	SYB
0.079958	0.003133	0.282936	0.28291	5.3	14.0	475	497	-0.91	SYB
0.047736	0.001924	0.282868	0.28285	2.9	12.3	558	622	-0.94	SYB
0.030148	0.001200	0.282866	0.28286	2.9	12.4	550	614	-0.96	SYB
0.013134	0.000444	0.282537	0.28253	-8.8	0.5	997	1352	-0.99	SYB
0.015018	0.000689	0.281781	0.28177	-35.5	-20.9	2047	2887	-0.98	SYB
0.030660	0.001187	0.282686	0.28268	-3.5	5.0	806	1047	-0.96	SYB
0.048842	0.001825	0.282746	0.28273	-1.4	7.3	733	913	-0.95	SYB
0.025529	0.000978	0.282522	0.28251	-9.3	-0.3	1032	1400	-0.97	SYB
0.026664	0.001043	0.282713	0.28270	-2.5	6.6	764	967	-0.97	SYB
0.021110	0.000851	0.282298	0.28228	-17.2	1.5	1341	1631	-0.97	SYB
0.060321	0.002264	0.282926	0.28291	5.0	13.2	478	522	-0.93	SYB
0.032060	0.001279	0.282669	0.28266	-4.1	5.7	832	1052	-0.96	SYB
0.033412	0.001316	0.282298	0.28228	-17.2	0.0	1358	1681	-0.96	SYB
0.035490	0.001355	0.282760	0.28275	-0.9	8.5	704	858	-0.96	SYB
0.025557	0.001047	0.282510	0.28249	-9.7	10.0	1051	1134	-0.97	SYB
0.022906	0.000984	0.282446	0.28244	-12.0	-2.6	1139	1560	-0.97	SYB
0.043689	0.001723	0.282577	0.28256	-7.4	1.4	974	1292	-0.95	SYB
0.031023	0.001205	0.282662	0.28265	-4.3	5.5	840	1065	-0.96	SYB
0.026007	0.001035	0.282524	0.28252	-9.2	0.0	1031	1390	-0.97	SYB
0.022333	0.000877	0.282666	0.28266	-4.2	5.4	827	1059	-0.97	SYB
0.038317	0.001293	0.282721	0.28271	-2.3	7.2	758	942	-0.96	SYB
0.028863	0.001173	0.282589	0.28258	-6.9	2.3	943	1245	-0.97	SYB
0.017768	0.000684	0.282545	0.28254	-8.5	1.8	992	1308	-0.98	SYB
0.024969	0.001040	0.282623	0.28261	-5.7	3.6	891	1163	-0.97	SYB
0.040600	0.001624	0.282847	0.28283	2.2	11.4	584	670	-0.95	SYB
0.051648	0.001954	0.282944	0.28293	5.6	14.8	448	453	-0.94	SYB
0.033203	0.001294	0.282627	0.28262	-5.6	3.7	892	1159	-0.96	SYB
0.031010	0.001210	0.282790	0.28278	0.2	9.3	658	797	-0.96	SYB

0.027397	0.001109	0.282511	0.28250	-9.7	-0.1	1051	1410	-0.97	SYB
0.023659	0.000956	0.282631	0.28262	-5.4	5.5	878	1100	-0.97	SYB
0.026416	0.001073	0.282731	0.28272	-1.9	7.0	740	932	-0.97	SYB
0.031984	0.001208	0.282686	0.28268	-3.5	6.3	806	1012	-0.96	SYB
0.023888	0.000958	0.282705	0.28270	-2.8	6.5	774	978	-0.97	SYB
0.019062	0.000763	0.282247	0.28223	-19.0	0.0	1409	1735	-0.98	SYB
0.040601	0.001614	0.282777	0.28276	-0.3	9.1	684	821	-0.95	SYB
0.012205	0.000500	0.282726	0.28272	-2.1	7.1	736	931	-0.99	SYB
0.014300	0.005860	0.282741	0.28269	-1.6	6.2	832	994	-0.83	SYB
0.017733	0.000713	0.282739	0.28273	-1.6	7.5	722	906	-0.98	SYB
0.014733	0.000590	0.282789	0.28278	0.1	9.3	650	791	-0.98	SYB
0.032572	0.001257	0.282705	0.28269	-2.8	6.2	781	992	-0.96	SYB
0.022472	0.000880	0.282617	0.28261	-6.0	3.2	897	1183	-0.97	SYB
0.014300	0.000579	0.282621	0.28262	-5.8	3.4	884	1169	-0.98	SYB
0.017487	0.000707	0.282693	0.28269	-3.3	5.9	786	1009	-0.98	SYB
0.039386	0.001569	0.282786	0.28277	0.0	8.9	671	815	-0.95	SYB
0.038978	0.001536	0.282604	0.28259	-6.4	2.5	931	1224	-0.95	SYB
0.062039	0.002389	0.282514	0.28249	-9.6	-0.9	1084	1442	-0.93	SYB
0.010404	0.000428	0.282700	0.28270	-3.0	6.2	771	989	-0.99	SYB
0.010040	0.004190	0.282496	0.28246	-10.2	-2.0	1168	1514	-0.88	SYB
0.012850	0.000527	0.282744	0.28274	-1.5	7.8	712	891	-0.98	SYB
0.051291	0.001977	0.282667	0.28265	-4.2	4.6	851	1091	-0.94	SYB
0.014894	0.000609	0.282695	0.28269	-3.2	6.0	782	1003	-0.98	SYB
0.019809	0.000783	0.282516	0.28251	-9.5	-0.4	1036	1408	-0.98	SYB
0.013504	0.000549	0.282720	0.28272	-2.3	6.9	745	946	-0.98	SYB
0.021926	0.000885	0.282669	0.28266	-4.1	5.0	824	1067	-0.97	SYB
0.014810	0.000614	0.282676	0.28267	-3.9	5.3	808	1046	-0.98	SYB
0.014005	0.000591	0.282096	0.28209	-24.4	-15.2	1611	2342	-0.98	SYB
0.047736	0.001924	0.282880	0.28286	3.3	12.3	541	605	-0.94	SYB
0.030148	0.001200	0.282878	0.28287	3.3	12.5	534	596	-0.96	SYB
0.013134	0.004444	0.282549	0.28251	-8.4	-0.1	1095	1397	-0.87	SYB
0.030660	0.001187	0.282698	0.28269	-3.1	6.1	789	1003	-0.96	SYB
0.048842	0.001825	0.282758	0.28274	-1.0	8.0	716	879	-0.95	SYB
0.025529	0.000978	0.282534	0.28253	-8.9	0.3	1016	1367	-0.97	SYB
0.026640	0.001043	0.282725	0.28272	-2.1	7.1	748	939	-0.97	SYB
0.032060	0.001279	0.282681	0.28267	-3.7	5.5	815	1043	-0.96	SYB
0.035490	0.001355	0.282772	0.28276	-0.5	8.7	687	839	-0.96	SYB
0.025557	0.001047	0.282522	0.28251	-9.3	-0.1	1035	1396	-0.97	SYB
0.022906	0.000984	0.282458	0.28245	-11.6	-2.3	1123	1538	-0.97	SYB
0.043689	0.001723	0.282589	0.28257	-6.9	2.1	957	1258	-0.95	SYB
0.031023	0.001205	0.282674	0.28266	-3.9	5.2	824	1057	-0.96	SYB
0.026007	0.001035	0.282536	0.28253	-8.8	0.4	1015	1364	-0.97	SYB
0.022333	0.000877	0.282678	0.28267	-3.8	5.5	811	1042	-0.97	SYB
0.038317	0.001293	0.282733	0.28272	-1.9	7.3	742	926	-0.96	SYB
0.028863	0.001173	0.282601	0.28259	-6.5	2.7	926	1221	-0.97	SYB
0.017768	0.000684	0.282557	0.28255	-8.1	1.2	976	1310	-0.98	SYB
0.024969	0.001040	0.282635	0.28263	-5.3	3.9	875	1142	-0.97	SYB
0.040600	0.001624	0.282859	0.28285	2.6	11.7	567	647	-0.95	SYB
0.051648	0.001954	0.282956	0.28294	6.0	15.0	431	433	-0.94	SYB
0.033203	0.001294	0.282639	0.28263	-5.2	4.0	875	1137	-0.96	SYB
0.031010	0.001210	0.282802	0.28279	0.6	9.8	642	768	-0.96	SYB
0.027397	0.001109	0.282523	0.28251	-9.3	-0.1	1035	1394	-0.97	SYB
0.023659	0.009560	0.282643	0.28257	-5.0	1.8	1117	1280	-0.72	SYB
0.026416	0.001073	0.282743	0.28273	-1.5	7.7	723	899	-0.97	SYB
0.031984	0.001208	0.282698	0.28269	-3.1	6.1	790	1003	-0.96	SYB
0.023880	0.000958	0.282717	0.28271	-2.4	6.8	758	956	-0.97	SYB
0.019062	0.000763	0.282259	0.28225	-18.6	-9.3	1393	1978	-0.98	SYB
0.040601	0.001614	0.282789	0.28278	0.1	9.2	668	805	-0.95	SYB
0.040552	0.001680	0.282457	0.28244	-11.6	-1.2	1145	1515	-0.95	SYB
0.023353	0.000983	0.282611	0.28260	-6.2	4.5	908	1155	-0.97	SYB
0.037034	0.001570	0.282395	0.28238	-13.8	-3.3	1230	1651	-0.95	SYB
0.030820	0.001291	0.282476	0.28246	-10.9	-0.4	1106	1464	-0.96	SYB
0.031824	0.001317	0.282475	0.28246	-11.0	-0.4	1109	1467	-0.96	SYB

0.029131	0.001214	0.282526	0.28251	-9.2	1.4	1034	1350	-0.96	SYB
0.026475	0.001102	0.282526	0.28252	-9.2	1.5	1030	1348	-0.97	SYB
0.037740	0.001534	0.282390	0.28238	-14.0	-3.5	1236	1661	-0.95	SYB
0.033253	0.001389	0.282518	0.28250	-9.5	1.1	1050	1372	-0.96	SYB
0.049934	0.002036	0.282367	0.28235	-14.8	-4.5	1286	1723	-0.94	SYB
0.028278	0.001156	0.282486	0.28247	-10.6	0.0	1088	1439	-0.97	SYB
0.021594	0.000850	0.282679	0.28267	-3.8	7.0	809	999	-0.97	SYB
0.038891	0.001639	0.282503	0.28249	-10.0	0.5	1078	1411	-0.95	SYB
0.025714	0.001076	0.282494	0.28248	-10.3	0.4	1075	1419	-0.97	SYB
0.025805	0.001077	0.282451	0.28244	-11.8	-1.2	1135	1515	-0.97	SYB
0.039589	0.001522	0.282388	0.28237	-14.1	-3.5	1238	1666	-0.95	SYB
0.030670	0.001243	0.282373	0.28236	-14.6	-4.0	1250	1693	-0.96	SYB
0.033352	0.001379	0.282479	0.28247	-10.8	-0.3	1105	1459	-0.96	SYB
0.024122	0.000990	0.282544	0.28253	-8.5	2.2	1002	1305	-0.97	SYB
0.035042	0.001447	0.282557	0.28254	-8.1	2.5	996	1286	-0.96	SYB
0.021628	0.000879	0.282587	0.28258	-7.0	3.7	939	1206	-0.97	SYB
0.031131	0.001296	0.282550	0.28254	-8.3	2.3	1002	1298	-0.96	SYB
0.032076	0.001329	0.282474	0.28246	-11.0	-0.4	1110	1469	-0.96	SYB
0.025407	0.001052	0.282478	0.28247	-10.9	-0.2	1097	1454	-0.97	SYB
0.032523	0.001336	0.282505	0.28249	-9.9	0.7	1067	1400	-0.96	SYB
0.031222	0.001222	0.282516	0.28250	-9.5	1.1	1048	1373	-0.96	SYB
0.035616	0.001495	0.282506	0.28249	-9.9	0.6	1070	1401	-0.96	SYB
0.024664	0.001037	0.282583	0.28257	-7.2	3.5	948	1219	-0.97	SYB
0.028356	0.001177	0.282520	0.28251	-9.4	1.2	1041	1363	-0.96	SYB
0.025080	0.001041	0.282446	0.28244	-12.0	-1.3	1141	1526	-0.97	SYB
0.028489	0.001182	0.282411	0.28240	-13.2	-2.6	1195	1607	-0.96	SYB
0.029206	0.001215	0.282340	0.28233	-15.8	-5.1	1296	1766	-0.96	SYB
0.016194	0.000707	0.282620	0.28261	-5.9	4.9	889	1129	-0.98	SYB
0.023491	0.000984	0.282612	0.28260	-6.1	4.6	906	1152	-0.97	SYB
0.031022	0.001286	0.282407	0.28239	-13.4	-2.8	1204	1618	-0.96	SYB
0.030167	0.001266	0.282515	0.28250	-9.6	1.0	1051	1376	-0.96	SYB
0.038974	0.001616	0.282372	0.28236	-14.6	-4.1	1264	1703	-0.95	SYB
0.007970	0.000329	0.282814	0.28281	1.0	10.5	611	724	-0.99	SYB
0.028015	0.001090	0.282901	0.28289	4.1	13.3	499	541	-0.97	SYB
0.020297	0.000792	0.282826	0.28282	1.4	10.8	601	705	-0.98	SYB
0.027315	0.001058	0.282718	0.28271	-2.4	6.9	758	954	-0.97	SYB
0.030761	0.001194	0.282745	0.28273	-1.4	7.8	723	896	-0.96	SYB
0.032666	0.001261	0.282910	0.28290	4.4	13.6	489	524	-0.96	SYB
0.017757	0.000690	0.282720	0.28271	-2.3	7.1	748	943	-0.98	SYB
0.021317	0.000831	0.282867	0.28286	2.9	12.2	544	613	-0.98	SYB
0.023868	0.000921	0.282776	0.28277	-0.3	9.0	674	821	-0.97	SYB
0.024399	0.000932	0.282871	0.28286	3.0	12.3	540	606	-0.97	SYB
0.023712	0.000910	0.282829	0.28282	1.5	10.8	599	701	-0.97	SYB
0.015929	0.000622	0.282723	0.28272	-2.2	7.2	743	935	-0.98	SYB
0.025982	0.000992	0.282841	0.28283	2.0	11.3	583	675	-0.97	SYB
0.023452	0.000891	0.282823	0.28282	1.3	10.6	607	714	-0.97	SYB
0.016145	0.000636	0.282743	0.28274	-1.5	7.9	715	890	-0.98	SYB
0.028686	0.001109	0.282782	0.28277	-0.1	9.1	669	810	-0.97	SYB
0.013917	0.000541	0.282363	0.28236	-14.9	-5.5	1241	1741	-0.98	SYB
0.025456	0.000965	0.282851	0.28284	2.3	11.6	569	652	-0.97	SYB
0.025647	0.000983	0.282747	0.28274	-1.4	7.9	716	887	-0.97	SYB
0.028372	0.001101	0.282882	0.28287	3.4	12.7	527	584	-0.97	SYB
0.024415	0.000918	0.282764	0.28276	-0.8	8.5	691	848	-0.97	SYB
0.013358	0.000527	0.282755	0.28275	-1.1	8.3	696	861	-0.98	SYB
0.017603	0.000695	0.282757	0.28275	-1.0	8.4	696	859	-0.98	SYB
0.023826	0.000905	0.282771	0.28276	-0.5	8.8	681	832	-0.97	SYB
0.015680	0.000623	0.282768	0.28276	-0.6	8.8	680	833	-0.98	SYB
0.016957	0.000673	0.282711	0.28271	-2.6	6.7	761	963	-0.98	SYB
0.026510	0.001007	0.282751	0.28274	-1.2	8.1	711	879	-0.97	SYB
0.014123	0.000567	0.282662	0.28266	-4.4	5.0	827	1071	-0.98	SYB
0.011308	0.000458	0.282502	0.28250	-10.0	-0.6	1046	1428	-0.99	SYB
0.026142	0.000997	0.282902	0.28289	4.1	13.4	497	537	-0.97	SYB
0.016171	0.000637	0.282839	0.28283	1.9	11.3	581	673	-0.98	SYB

0.029382	0.001387	0.282756	0.28275	-1.0	6.1	710	929	-0.96	SYB
0.056494	0.002641	0.282874	0.28286	3.1	10.0	560	680	-0.92	SYB
0.028455	0.001428	0.282897	0.28289	4.0	11.1	509	611	-0.96	SYB
0.056890	0.002638	0.282869	0.28285	3.0	9.8	568	691	-0.92	SYB
0.033751	0.001557	0.282858	0.28285	2.6	9.7	567	701	-0.95	SYB
0.038818	0.001819	0.282883	0.28287	3.5	10.5	535	648	-0.95	SYB
0.028189	0.001341	0.282838	0.28283	1.9	9.0	592	743	-0.96	SYB
0.031054	0.001452	0.282778	0.28277	-0.2	6.8	680	880	-0.96	SYB
0.030819	0.001402	0.282820	0.28281	1.2	8.3	619	785	-0.96	SYB
0.044732	0.002040	0.282806	0.28279	0.7	7.7	650	825	-0.94	SYB
0.030409	0.001426	0.282805	0.28280	0.7	7.8	641	819	-0.96	SYB
0.039354	0.001746	0.282764	0.28275	-0.7	6.3	706	916	-0.95	SYB
0.036297	0.001611	0.282808	0.28280	0.8	7.9	640	815	-0.95	SYB
0.041621	0.001891	0.282875	0.28286	3.2	10.2	547	667	-0.94	SYB
0.011991	0.000590	0.282873	0.28287	3.1	10.4	531	653	-0.98	SYB
0.041351	0.001887	0.282892	0.28288	3.8	10.8	523	629	-0.94	SYB
0.036442	0.001616	0.282791	0.28278	0.2	7.3	664	853	-0.95	SYB
0.015610	0.000766	0.282839	0.28283	1.9	9.2	582	733	-0.98	SYB
0.041439	0.001829	0.282824	0.28281	1.4	8.4	620	782	-0.95	SYB
0.039981	0.001717	0.282778	0.28277	-0.2	6.8	685	884	-0.95	SYB
0.045132	0.001975	0.282775	0.28276	-0.4	6.6	694	894	-0.94	SYB
0.039316	0.001741	0.282800	0.28279	0.5	7.6	653	835	-0.95	SYB
0.042411	0.001902	0.282801	0.28279	0.6	7.6	655	835	-0.94	SYB
0.037879	0.001691	0.282858	0.28285	2.6	9.6	569	703	-0.95	SYB
0.032134	0.001457	0.282831	0.28282	1.6	8.7	604	761	-0.96	SYB
0.034534	0.001630	0.282748	0.28274	-1.3	5.6	726	954	-0.95	SYB
0.031169	0.001480	0.282845	0.28284	2.1	9.1	584	733	-0.96	SYB
0.028717	0.001341	0.282786	0.28278	0.0	7.0	666	865	-0.96	SYB
0.030854	0.001423	0.282780	0.28277	-0.2	6.8	677	879	-0.96	SYB
0.017864	0.000843	0.282764	0.28276	-0.7	6.3	689	907	-0.97	SYB
0.033975	0.001519	0.282763	0.28275	-0.8	6.2	703	919	-0.95	SYB
0.031294	0.001433	0.282761	0.28275	-0.8	6.1	704	922	-0.96	SYB
0.049130	0.002290	0.282844	0.28283	2.1	8.9	599	747	-0.93	SYB
0.029257	0.001396	0.282863	0.28285	2.8	9.7	557	691	-0.96	SYB
0.011397	0.000474	0.282474	0.28247	-11.0	-3.8	1085	1554	-0.99	SYB
0.033871	0.001547	0.282851	0.28284	2.3	9.3	577	721	-0.95	SYB
0.035533	0.001578	0.282706	0.28270	-2.8	4.1	786	1048	-0.95	SYB
0.039057	0.001829	0.282826	0.28281	1.4	8.3	617	781	-0.95	SYB
0.019501	0.000768	0.282654	0.28265	-4.6	2.5	842	1154	-0.98	SYB
0.036991	0.001705	0.282815	0.28280	1.1	8.0	631	804	-0.95	SYB
0.020809	0.000988	0.282865	0.28286	2.8	9.9	548	681	-0.97	SYB
0.033984	0.001552	0.282813	0.28280	1.0	7.9	631	807	-0.95	SYB
0.039078	0.001658	0.282649	0.28264	-4.8	2.1	869	1178	-0.95	SYB
0.032753	0.001561	0.282824	0.28281	1.4	8.3	616	782	-0.95	SYB
0.027210	0.001268	0.282810	0.28280	0.9	7.9	631	809	-0.96	SYB
0.033741	0.001524	0.282738	0.28273	-1.7	5.3	739	976	-0.95	SYB
0.023033	0.001080	0.282788	0.28278	0.1	7.1	659	856	-0.97	SYB
0.034264	0.001588	0.282796	0.28279	0.4	7.3	657	845	-0.95	SYB
0.048062	0.002164	0.282849	0.28284	2.3	9.1	589	734	-0.94	SYB
0.049508	0.002297	0.282842	0.28283	2.0	8.8	602	751	-0.93	SYB
0.033556	0.001312	0.282751	0.28274	-1.2	6.3	715	928	-0.96	SYB
0.034750	0.001282	0.282710	0.28270	-2.7	4.6	774	1028	-0.96	SYB
0.032969	0.001221	0.282731	0.28272	-1.9	5.3	742	981	-0.96	SYB
0.034289	0.001351	0.282702	0.28269	-2.9	4.3	786	1047	-0.96	SYB
0.068501	0.002459	0.282725	0.28271	-2.1	4.8	777	1012	-0.93	SYB
0.044571	0.001590	0.282723	0.28271	-2.2	5.7	762	984	-0.95	SYB
0.036733	0.001376	0.282704	0.28270	-2.8	4.7	783	1034	-0.96	SYB
0.046832	0.001754	0.282691	0.28268	-3.3	3.8	811	1078	-0.95	SYB
0.045111	0.001624	0.282747	0.28274	-1.4	5.9	728	949	-0.95	SYB
0.093520	0.003256	0.282715	0.28269	-2.5	4.4	809	1044	-0.90	SYB
0.024034	0.000888	0.282699	0.28269	-3.0	4.3	781	1046	-0.97	SYB
0.039151	0.001443	0.282683	0.28267	-3.6	3.7	816	1089	-0.96	SYB
0.069851	0.002560	0.282682	0.28267	-3.6	3.4	842	1108	-0.92	SYB

0.048043	0.001785	0.282743	0.28273	-1.5	5.8	737	957	-0.95	SYB
0.038878	0.001380	0.282708	0.28270	-2.7	4.6	778	1031	-0.96	SYB
0.030053	0.001140	0.282683	0.28268	-3.6	3.6	809	1089	-0.97	SYB
0.058985	0.002113	0.282756	0.28274	-1.0	6.2	724	932	-0.94	SYB
0.086331	0.003027	0.282733	0.28271	-1.8	5.0	777	1000	-0.91	SYB
0.040672	0.001491	0.282705	0.28270	-2.8	4.4	786	1042	-0.96	SYB
0.102829	0.003532	0.282709	0.28269	-2.7	4.1	824	1062	-0.89	SYB
0.050372	0.001869	0.282727	0.28272	-2.0	5.1	761	997	-0.94	SYB
0.035933	0.001326	0.282700	0.28269	-3.0	4.3	788	1050	-0.96	SYB
0.062683	0.002316	0.282736	0.28272	-1.7	5.3	757	983	-0.93	SYB
0.029299	0.001087	0.282686	0.28268	-3.5	3.8	803	1077	-0.97	SYB
0.067267	0.002396	0.282754	0.28274	-1.1	6.0	732	943	-0.93	SYB
0.032255	0.001182	0.282715	0.28271	-2.5	4.8	765	1014	-0.96	SYB
0.062126	0.002276	0.282736	0.28272	-1.7	5.6	757	978	-0.93	SYB
0.023011	0.000882	0.282725	0.28272	-2.1	5.5	745	981	-0.97	SYB
0.036645	0.001408	0.282716	0.28271	-2.4	5.1	768	1006	-0.96	SYB
0.036813	0.001406	0.282741	0.28273	-1.5	6.0	731	951	-0.96	SYB
0.025522	0.001050	0.282718	0.28271	-2.4	5.2	758	998	-0.97	SYB
0.038036	0.001462	0.282732	0.28272	-1.9	5.6	746	974	-0.96	SYB
0.029118	0.001117	0.282744	0.28274	-1.5	6.1	722	941	-0.97	SYB
0.033845	0.001423	0.282751	0.28274	-1.2	6.4	718	928	-0.96	SYB
0.029351	0.001135	0.282788	0.28278	0.1	7.7	659	841	-0.97	SYB
0.035439	0.001347	0.282757	0.28275	-1.0	5.8	709	936	-0.96	SYB
0.040324	0.001562	0.282731	0.28272	-1.9	5.5	749	978	-0.95	SYB
0.057097	0.002143	0.282768	0.28275	-0.6	6.7	708	904	-0.94	SYB
0.042427	0.001644	0.282744	0.28273	-1.4	6.0	732	948	-0.95	SYB
0.034311	0.001285	0.282757	0.28275	-1.0	6.5	707	916	-0.96	SYB
0.038460	0.001472	0.282749	0.28274	-1.3	6.2	722	936	-0.96	SYB
0.024784	0.000971	0.282784	0.28278	0.0	7.6	663	849	-0.97	SYB
0.025382	0.000996	0.282711	0.28270	-2.6	5.0	766	1013	-0.97	SYB
0.022202	0.000876	0.282720	0.28271	-2.3	5.3	751	992	-0.97	SYB
0.034658	0.001315	0.282720	0.28271	-2.3	5.2	760	998	-0.96	SYB
0.024968	0.001053	0.282730	0.28272	-1.9	5.7	740	971	-0.97	SYB
0.051208	0.002068	0.282774	0.28276	-0.4	7.0	697	885	-0.94	SYB
0.031205	0.001241	0.282736	0.28273	-1.7	5.9	736	960	-0.96	SYB
0.034236	0.001305	0.282715	0.28271	-2.5	5.1	768	1008	-0.96	SYB
0.026243	0.001015	0.282747	0.28274	-1.3	6.4	715	928	-0.97	SYB
0.038185	0.001454	0.282741	0.28273	-1.5	6.1	732	948	-0.96	SYB
0.031236	0.001232	0.282741	0.28273	-1.6	6.0	729	951	-0.96	SYB
0.031156	0.001189	0.282752	0.28274	-1.2	6.4	712	925	-0.96	SYB
0.055823	0.002106	0.282774	0.28276	-0.4	7.0	697	886	-0.94	SYB
0.038844	0.001489	0.282714	0.28270	-2.5	5.0	772	1015	-0.96	SYB
0.032215	0.001185	0.282676	0.28267	-3.9	4.1	820	1084	-0.96	SYB
0.017114	0.000627	0.282710	0.28271	-2.7	5.4	761	1001	-0.98	SYB
0.027029	0.000958	0.282701	0.28269	-3.0	4.9	780	1028	-0.97	SYB
0.033611	0.001262	0.282748	0.28274	-1.3	6.6	720	924	-0.96	SYB
0.045974	0.001671	0.282735	0.28272	-1.8	6.1	746	958	-0.95	SYB
0.035741	0.001307	0.282713	0.28270	-2.5	5.4	769	1003	-0.96	SYB
0.036523	0.001362	0.282732	0.28272	-1.9	6.0	744	961	-0.96	SYB
0.065366	0.002226	0.282756	0.28275	-1.0	4.1	727	990	-0.93	SYB
0.032778	0.001186	0.282711	0.28270	-2.6	5.3	770	1006	-0.96	SYB
0.042464	0.001517	0.282738	0.28273	-1.7	5.6	738	966	-0.95	SYB
0.028784	0.001051	0.282712	0.28270	-2.6	5.4	766	1001	-0.97	SYB
0.030822	0.001100	0.282726	0.28272	-2.1	5.9	747	970	-0.97	SYB
0.031514	0.001149	0.282729	0.28272	-2.0	6.0	744	964	-0.97	SYB
0.035085	0.001311	0.282729	0.28272	-2.0	6.0	747	965	-0.96	SYB
0.032672	0.001170	0.282701	0.28269	-3.0	4.9	784	1029	-0.97	SYB
0.036068	0.001318	0.282703	0.28269	-2.9	5.1	784	1024	-0.96	SYB
0.052408	0.001816	0.282750	0.28274	-1.2	6.6	727	926	-0.95	SYB
0.035141	0.001275	0.282724	0.28272	-2.2	5.8	754	978	-0.96	SYB
0.041052	0.001414	0.282743	0.28273	-1.5	6.4	730	938	-0.96	SYB
0.023358	0.000849	0.282707	0.28270	-2.8	5.3	769	1008	-0.97	SYB
0.035565	0.001218	0.282668	0.28266	-4.1	3.8	832	1102	-0.96	SYB

0.033595	0.001243	0.282696	0.28269	-3.2	4.8	793	1040	-0.96	SYB
0.029592	0.001073	0.282714	0.28271	-2.5	5.5	763	997	-0.97	SYB
0.050467	0.001719	0.282739	0.28273	-1.6	5.8	741	963	-0.95	SYB
0.037652	0.001444	0.282776	0.28277	-0.3	6.3	682	898	-0.96	SYB
0.033000	0.001233	0.282698	0.28269	-3.1	3.6	789	1071	-0.96	SYB
0.087307	0.003112	0.282765	0.28275	-0.7	5.6	732	945	-0.91	SYB
0.044574	0.001591	0.282032	0.28199	-26.6	2.8	1743	1953	-0.95	SYB
0.087023	0.003410	0.282778	0.28276	-0.3	6.0	718	919	-0.90	SYB
0.043011	0.001631	0.282752	0.28274	-1.2	5.3	721	958	-0.95	SYB
0.086593	0.003394	0.282803	0.28278	0.7	7.0	679	859	-0.90	SYB
0.034844	0.001319	0.282725	0.28272	-2.1	4.6	753	1009	-0.96	SYB
0.036285	0.001362	0.282714	0.28271	-2.5	4.2	770	1034	-0.96	SYB
0.067656	0.002593	0.282760	0.28274	-0.9	5.6	728	946	-0.92	SYB
0.044284	0.001641	0.282715	0.28271	-2.5	4.0	773	1040	-0.95	SYB
0.040545	0.001535	0.282725	0.28272	-2.1	4.5	757	1014	-0.95	SYB
0.031848	0.001213	0.282741	0.28273	-1.6	5.2	728	970	-0.96	SYB
0.030875	0.001121	0.282036	0.28201	-26.5	3.5	1716	1915	-0.97	SYB
0.035167	0.001315	0.282747	0.28274	-1.3	5.3	721	960	-0.96	SYB
0.041546	0.001557	0.282717	0.28271	-2.4	4.3	769	1029	-0.95	SYB
0.038640	0.001448	0.282713	0.28270	-2.6	4.2	773	1036	-0.96	SYB
0.087710	0.003521	0.282878	0.28286	3.3	9.5	569	695	-0.90	SYB
0.036492	0.001369	0.282719	0.28271	-2.3	4.3	762	1024	-0.96	SYB
0.040025	0.001487	0.282727	0.28272	-2.1	4.6	754	1008	-0.96	SYB
0.052759	0.001934	0.282767	0.28276	-0.6	5.8	705	926	-0.94	SYB
0.032833	0.001244	0.282728	0.28272	-2.0	4.4	747	1008	-0.96	SYB
0.053455	0.002140	0.282770	0.28276	-0.5	6.0	705	920	-0.94	SYB
0.030313	0.001125	0.282057	0.28203	-25.7	5.2	1687	1843	-0.97	SYB
0.089416	0.003544	0.282781	0.28276	-0.1	6.2	716	912	-0.89	SYB
0.040208	0.001523	0.282768	0.28276	-0.6	6.0	696	918	-0.95	SYB
0.081909	0.002668	0.282763	0.28275	-0.8	4.4	724	972	-0.92	SYB
0.258520	0.007212	0.283043	0.28299	9.1	15.4	355	354	-0.79	SYB
0.065566	0.002289	0.282731	0.28272	-1.9	3.3	764	1042	-0.93	SYB
0.096057	0.003264	0.282760	0.28274	-0.9	7.3	741	910	-0.90	SYB
0.115012	0.003763	0.282814	0.28280	1.0	6.2	670	865	-0.89	SYB
0.143517	0.004200	0.282871	0.28284	3.0	10.2	590	693	-0.88	SYB
0.064957	0.002181	0.282746	0.28273	-1.4	6.2	740	946	-0.94	SYB
0.092020	0.003014	0.282744	0.28273	-1.5	3.8	761	1017	-0.91	SYB
0.097374	0.003386	0.282775	0.28276	-0.3	4.8	721	952	-0.90	SYB
0.103445	0.003316	0.282774	0.28276	-0.4	4.8	722	952	-0.90	SYB
0.068116	0.002428	0.282782	0.28277	-0.1	5.1	693	930	-0.93	SYB
0.090127	0.003120	0.282713	0.28270	-2.6	2.5	810	1094	-0.91	SYB
0.073066	0.002698	0.282736	0.28272	-1.7	5.6	766	980	-0.92	SYB
0.108033	0.003452	0.282732	0.28271	-1.9	5.4	789	999	-0.90	SYB
0.013615	0.000590	0.282550	0.28255	-8.3	-1.9	983	1406	-0.98	SYB
0.021140	0.000855	0.282517	0.28251	-9.5	-3.1	1036	1483	-0.97	SYB
0.020357	0.000798	0.282517	0.28251	-9.5	-3.1	1034	1482	-0.98	SYB
0.016429	0.000671	0.282496	0.28249	-10.2	-3.8	1060	1528	-0.98	SYB
0.022114	0.000870	0.282533	0.28253	-8.9	-2.6	1014	1447	-0.97	SYB
0.026837	0.001064	0.282544	0.28254	-8.5	-2.2	1003	1425	-0.97	SYB
0.014142	0.000584	0.282538	0.28253	-8.7	-2.3	999	1433	-0.98	SYB
0.025820	0.001022	0.282565	0.28256	-7.8	-1.5	973	1377	-0.97	SYB
0.013889	0.000600	0.282556	0.28255	-8.1	-1.7	974	1392	-0.98	SYB
0.015611	0.000633	0.282530	0.28253	-9.0	-2.6	1012	1451	-0.98	SYB
0.015312	0.000633	0.282512	0.28251	-9.7	-3.3	1037	1491	-0.98	SYB
0.018520	0.000731	0.282540	0.28254	-8.7	-2.3	1000	1430	-0.98	SYB
0.014069	0.000592	0.282465	0.28246	-11.3	-4.9	1101	1596	-0.98	SYB
0.015150	0.000639	0.282518	0.28251	-9.4	-3.1	1028	1478	-0.98	SYB
0.020230	0.000828	0.282518	0.28251	-9.4	-3.1	1033	1480	-0.98	SYB
0.034534	0.001263	0.282505	0.28250	-9.9	-3.6	1064	1515	-0.96	SYB
0.025357	0.000978	0.282519	0.28251	-9.4	-3.1	1036	1480	-0.97	SYB
0.018576	0.000769	0.282494	0.28249	-10.3	-3.9	1065	1534	-0.98	SYB
0.022360	0.000899	0.282504	0.28250	-9.9	-3.6	1055	1513	-0.97	SYB
0.010266	0.000462	0.282546	0.28254	-8.5	-2.0	985	1413	-0.99	SYB

0.007957	0.000386	0.282547	0.28254	-8.4	-2.0	981	1410	-0.99	SYB
0.022066	0.000862	0.282467	0.28246	-11.2	-4.9	1106	1595	-0.97	SYB
0.021416	0.000828	0.282539	0.28253	-8.7	-2.3	1004	1433	-0.98	SYB
0.019016	0.000735	0.282502	0.28250	-10.0	-3.6	1053	1515	-0.98	SYB
0.014848	0.000626	0.282521	0.28252	-9.3	-2.9	1024	1471	-0.98	SYB
0.023572	0.000866	0.282553	0.28255	-8.2	-1.8	986	1402	-0.97	SYB
0.032694	0.001190	0.282594	0.28259	-6.8	-0.4	936	1314	-0.96	SYB
0.023936	0.000882	0.282582	0.28258	-7.2	-0.8	945	1337	-0.97	SYB
0.019492	0.000718	0.282623	0.28262	-5.7	0.7	884	1243	-0.98	SYB
0.023335	0.000855	0.282600	0.28260	-6.5	-0.2	919	1296	-0.97	SYB
0.021888	0.000797	0.282595	0.28259	-6.7	-0.3	925	1307	-0.98	SYB
0.025289	0.000908	0.282611	0.28261	-6.2	0.2	905	1272	-0.97	SYB
0.038183	0.001362	0.282599	0.28259	-6.6	-0.3	933	1305	-0.96	SYB
0.017214	0.000615	0.282557	0.28255	-8.1	-1.6	973	1390	-0.98	SYB
0.022613	0.000815	0.282620	0.28262	-5.8	0.5	890	1251	-0.98	SYB
0.021033	0.000751	0.282606	0.28260	-6.3	0.1	908	1281	-0.98	SYB
0.022200	0.000796	0.282583	0.28258	-7.1	-0.8	942	1334	-0.98	SYB
0.021856	0.000771	0.282591	0.28259	-6.9	-0.5	930	1315	-0.98	SYB
0.031364	0.001087	0.282617	0.28261	-5.9	0.4	901	1261	-0.97	SYB
0.023320	0.000813	0.282592	0.28259	-6.8	-0.4	930	1314	-0.98	SYB
0.021880	0.000771	0.282574	0.28257	-7.5	-1.1	954	1353	-0.98	SYB
0.042894	0.001452	0.282622	0.28261	-5.8	0.5	903	1254	-0.96	SYB
0.020000	0.000700	0.282590	0.28259	-6.9	-0.5	930	1317	-0.98	SYB
0.024107	0.000842	0.282591	0.28259	-6.9	-0.5	932	1316	-0.97	SYB
0.026180	0.000914	0.282621	0.28262	-5.8	0.6	891	1250	-0.97	SYB
0.024775	0.000867	0.282610	0.28261	-6.2	0.2	906	1274	-0.97	SYB
0.029888	0.001037	0.282593	0.28259	-6.8	-0.5	934	1314	-0.97	SYB
0.020004	0.000695	0.282597	0.28259	-6.6	-0.2	920	1301	-0.98	SYB
0.043546	0.001486	0.282676	0.28267	-3.9	2.4	826	1133	-0.96	SYB
0.025252	0.000906	0.282574	0.28257	-7.5	-1.1	957	1355	-0.97	SYB
0.023085	0.001032	0.282618	0.28261	-5.9	4.0	898	1160	-0.97	SYB
0.061729	0.002462	0.282611	0.28259	-6.2	1.5	944	1252	-0.93	SYB
0.035139	0.001493	0.282256	0.28225	-18.7	-10.5	1423	2021	-0.96	SYB
0.012994	0.000580	0.282556	0.28255	-8.1	0.2	974	1338	-0.98	SYB
0.078374	0.003290	0.282827	0.28280	1.5	8.9	641	779	-0.90	SYB
0.043763	0.001877	0.282425	0.28241	-12.7	-5.2	1196	1665	-0.94	SYB
0.029937	0.001150	0.282491	0.28248	-10.4	-1.4	1080	1472	-0.97	SYB
0.035018	0.001567	0.282656	0.28265	-4.6	3.0	857	1143	-0.95	SYB
0.037925	0.001577	0.282631	0.28262	-5.4	2.1	893	1200	-0.95	SYB
0.020745	0.000889	0.282676	0.28267	-3.9	3.6	813	1096	-0.97	SYB
0.035913	0.001534	0.282533	0.28252	-8.9	-1.8	1032	1432	-0.95	SYB
0.047428	0.001961	0.282686	0.28267	-3.5	3.6	823	1091	-0.94	SYB
0.032251	0.001395	0.282590	0.28258	-6.9	2.1	947	1251	-0.96	SYB
0.027619	0.001116	0.282480	0.28247	-10.8	-0.1	1095	1449	-0.97	SYB
0.028247	0.001302	0.282564	0.28256	-7.8	-0.2	981	1346	-0.96	SYB
0.028801	0.001219	0.282564	0.28256	-7.8	0.3	979	1332	-0.96	SYB
0.054190	0.002363	0.282537	0.28252	-8.8	-0.9	1049	1411	-0.93	SYB
0.030521	0.001334	0.282610	0.28260	-6.2	1.4	917	1245	-0.96	SYB
0.035278	0.001460	0.282539	0.28253	-8.7	-1.0	1021	1402	-0.96	SYB
0.026326	0.001214	0.282700	0.28269	-3.0	6.5	786	988	-0.96	SYB
0.031012	0.001307	0.282578	0.28257	-7.3	0.3	962	1316	-0.96	SYB
0.038062	0.001495	0.282526	0.28252	-9.2	-0.9	1041	1415	-0.96	SYB
0.015124	0.000699	0.282539	0.28253	-8.7	-1.6	1001	1410	-0.98	SYB
0.034938	0.001467	0.282485	0.28247	-10.6	-2.0	1098	1499	-0.96	SYB
0.028118	0.001278	0.282668	0.28266	-4.1	3.5	833	1112	-0.96	SYB
0.028271	0.001196	0.282603	0.28260	-6.4	1.0	923	1263	-0.96	SYB
0.069847	0.003244	0.282536	0.28251	-8.8	-1.4	1077	1432	-0.90	SYB
0.034094	0.001443	0.282654	0.28264	-4.6	2.8	857	1151	-0.96	SYB
0.027561	0.001154	0.282569	0.28256	-7.6	-0.1	970	1337	-0.97	SYB
0.043961	0.001857	0.282473	0.28246	-11.0	-3.2	1127	1549	-0.94	SYB
0.025980	0.001029	0.282283	0.28227	-17.8	-6.9	1368	1885	-0.97	SYB
0.025035	0.001050	0.282625	0.28262	-5.7	2.9	889	1181	-0.97	SYB
0.028992	0.001180	0.282417	0.28241	-13.0	-4.8	1186	1658	-0.96	SYB

0.025499	0.001077	0.282600	0.28259	-6.5	2.8	925	1216	-0.97	SYB
0.036153	0.001501	0.282482	0.28247	-10.7	-2.7	1103	1522	-0.96	SYB
0.035903	0.001529	0.282632	0.28262	-5.4	2.8	890	1180	-0.95	SYB
0.037118	0.001505	0.281922	0.28191	-30.5	-22.1	1894	2756	-0.96	SYB
0.017652	0.000727	0.282359	0.28235	-15.1	-7.4	1252	1799	-0.98	SYB
0.026520	0.001103	0.282362	0.28235	-15.0	-7.3	1260	1797	-0.97	SYB
0.036354	0.001436	0.282280	0.28227	-17.9	-10.7	1387	1995	-0.96	SYB
0.081437	0.003206	0.282339	0.28232	-15.8	-8.6	1369	1877	-0.90	SYB
0.045764	0.001633	0.282164	0.28214	-22.0	-7.2	1559	2051	-0.95	SYB
0.015687	0.000621	0.282583	0.28258	-7.1	2.0	937	1255	-0.98	SYB
0.027248	0.001094	0.282267	0.28226	-18.3	-10.9	1393	2014	-0.97	SYB
0.028784	0.001290	0.282523	0.28251	-9.3	-1.9	1039	1444	-0.96	SYB
0.018584	0.000788	0.281460	0.28145	-46.9	-35.4	2490	3679	-0.98	SYB
0.019256	0.000784	0.282488	0.28248	-10.5	-2.2	1074	1492	-0.98	SYB
0.046176	0.001836	0.282339	0.28231	-15.8	-0.3	1318	1645	-0.95	SYB
0.037647	0.001521	0.282443	0.28243	-12.1	-4.0	1159	1607	-0.95	SYB
0.034678	0.001520	0.282429	0.28242	-12.6	-4.8	1179	1645	-0.95	SYB
0.045725	0.001910	0.282461	0.28245	-11.5	-3.9	1146	1584	-0.94	SYB
0.033070	0.001385	0.282490	0.28248	-10.4	-2.5	1089	1505	-0.96	SYB
0.028471	0.001214	0.282548	0.28254	-8.4	-0.7	1002	1380	-0.96	SYB
0.044971	0.001900	0.282457	0.28244	-11.6	-3.8	1151	1586	-0.94	SYB
0.038965	0.001680	0.282547	0.28253	-8.4	-0.3	1016	1375	-0.95	SYB
0.029757	0.001298	0.282397	0.28239	-13.7	-5.7	1217	1709	-0.96	SYB
0.050435	0.001082	0.282608	0.28260	-6.3	1.4	914	1245	-0.97	SYB
0.086609	0.001943	0.282630	0.28262	-5.5	2.0	903	1207	-0.94	SYB
0.098367	0.002211	0.282650	0.28264	-4.8	2.6	880	1167	-0.93	SYB
0.050331	0.001092	0.282579	0.28257	-7.3	0.4	955	1311	-0.97	SYB
0.084360	0.001764	0.282598	0.28259	-6.6	0.9	945	1278	-0.95	SYB
0.080969	0.001722	0.282575	0.28256	-7.4	0.1	976	1328	-0.95	SYB
0.082583	0.001735	0.282606	0.28259	-6.3	1.2	933	1260	-0.95	SYB
0.075014	0.001626	0.282648	0.28264	-4.8	2.7	870	1163	-0.95	SYB
0.057104	0.001263	0.282596	0.28259	-6.7	0.9	935	1274	-0.96	SYB
0.075730	0.001606	0.282683	0.28267	-3.6	3.9	819	1084	-0.95	SYB
0.056871	0.001215	0.282659	0.28265	-4.5	3.2	844	1132	-0.96	SYB
0.057320	0.001219	0.282709	0.28270	-2.7	4.9	773	1019	-0.96	SYB
0.062984	0.001313	0.282704	0.28269	-2.9	4.7	783	1033	-0.96	SYB
0.080546	0.001803	0.282725	0.28271	-2.1	5.4	762	992	-0.95	SYB
0.090007	0.002882	0.282628	0.28261	-5.6	1.2	930	1238	-0.91	SYB
0.044676	0.001459	0.282641	0.28263	-5.1	2.0	876	1188	-0.96	SYB
0.081447	0.002617	0.282655	0.28264	-4.6	2.5	883	1168	-0.92	SYB
0.065962	0.002115	0.282647	0.28263	-4.9	2.2	883	1182	-0.94	SYB
0.073304	0.002333	0.282675	0.28266	-3.9	2.8	847	1130	-0.93	SYB
0.048082	0.001556	0.282670	0.28266	-4.1	3.0	837	1124	-0.95	SYB
0.067810	0.002176	0.282636	0.28262	-5.3	2.3	900	1195	-0.94	SYB
0.080451	0.002545	0.282630	0.28261	-5.5	1.6	918	1223	-0.92	SYB
0.057141	0.001808	0.282686	0.28267	-3.5	3.4	819	1094	-0.95	SYB
0.076456	0.002446	0.282619	0.28260	-5.9	1.1	932	1250	-0.93	SYB
0.084785	0.002470	0.282683	0.28267	-3.6	3.8	839	1095	-0.93	SYB
0.054954	0.001761	0.282641	0.28263	-5.1	2.4	883	1181	-0.95	SYB
0.065241	0.001937	0.282706	0.28269	-2.8	4.2	793	1048	-0.94	SYB
0.096631	0.002852	0.282698	0.28268	-3.1	3.8	825	1078	-0.92	SYB
0.089348	0.002606	0.282714	0.28270	-2.5	4.5	796	1037	-0.92	SYB
0.080694	0.002415	0.282711	0.28270	-2.6	4.6	796	1036	-0.93	SYB
0.062009	0.001857	0.282708	0.28270	-2.7	4.6	789	1034	-0.94	SYB
0.102011	0.002990	0.282669	0.28265	-4.1	2.9	872	1143	-0.91	SYB
0.098241	0.002888	0.282644	0.28262	-5.0	2.3	906	1189	-0.91	SYB
0.078430	0.002299	0.282704	0.28269	-2.9	4.3	804	1053	-0.93	SYB
0.090538	0.002683	0.282667	0.28265	-4.2	2.6	867	1150	-0.92	SYB
0.057304	0.001492	0.282579	0.28257	-7.3	0.4	965	1312	-0.96	SYB
0.129847	0.003601	0.282581	0.28256	-7.2	0.0	1020	1340	-0.89	SYB
0.066444	0.001696	0.282517	0.28251	-9.5	-1.8	1059	1454	-0.95	SYB
0.050685	0.001327	0.282514	0.28251	-9.6	-1.8	1053	1455	-0.96	SYB
0.052788	0.001479	0.282518	0.28251	-9.4	-1.7	1052	1449	-0.96	SYB

0.103269	0.002830	0.282642	0.28262	-5.1	2.3	908	1191	-0.92	SYB
0.074884	0.001924	0.282565	0.28255	-7.8	-0.2	997	1350	-0.94	SYB
0.060832	0.001587	0.282552	0.28254	-8.2	-0.6	1006	1374	-0.95	SYB
0.033976	0.000914	0.282534	0.28253	-8.9	-1.0	1013	1404	-0.97	SYB
0.051827	0.001387	0.282465	0.28246	-11.3	-3.6	1124	1566	-0.96	SYB
0.036901	0.000974	0.282591	0.28258	-6.9	1.0	935	1277	-0.97	SYB
0.039184	0.001065	0.282511	0.28250	-9.7	-1.9	1050	1458	-0.97	SYB
0.092215	0.002406	0.282496	0.28248	-10.2	-2.7	1110	1513	-0.93	SYB
0.050142	0.001290	0.282531	0.28252	-9.0	-1.2	1028	1417	-0.96	SYB
0.041623	0.001105	0.282527	0.28252	-9.1	-1.3	1028	1423	-0.97	SYB
0.188463	0.004239	0.282529	0.28250	-9.1	-2.0	1119	1467	-0.87	SYB
0.064984	0.001663	0.282537	0.28253	-8.8	-1.1	1030	1409	-0.95	SYB
0.066009	0.001745	0.282486	0.28247	-10.6	-2.9	1105	1525	-0.95	SYB
0.036275	0.000962	0.282563	0.28256	-7.9	0.0	974	1340	-0.97	SYB
0.186633	0.004422	0.282529	0.28250	-9.1	-2.1	1125	1470	-0.87	SYB
0.081538	0.002092	0.282461	0.28245	-11.5	-3.9	1151	1586	-0.94	SYB
0.072890	0.002016	0.282541	0.28253	-8.6	-1.1	1034	1406	-0.94	SYB
0.056743	0.001476	0.282537	0.28253	-8.8	-1.1	1024	1406	-0.96	SYB
0.075934	0.001973	0.282638	0.28262	-5.2	2.4	892	1187	-0.94	SYB
0.055927	0.001445	0.282502	0.28249	-10.0	-2.3	1073	1484	-0.96	SYB
0.050820	0.001273	0.282528	0.28252	-9.1	-1.3	1032	1423	-0.96	SYB
0.073569	0.001967	0.282507	0.28249	-9.8	-2.2	1081	1481	-0.94	SYB
0.057395	0.001513	0.282496	0.28249	-10.2	-2.5	1084	1499	-0.95	SYB
0.097160	0.002484	0.282568	0.28255	-7.7	-0.2	1008	1352	-0.93	SYB
0.066798	0.001797	0.282536	0.28252	-8.8	-1.2	1035	1413	-0.95	SYB
0.095343	0.002289	0.282571	0.28256	-7.6	-0.1	998	1344	-0.93	SYB
0.088407	0.002173	0.282559	0.28254	-8.0	-0.5	1012	1369	-0.94	SYB
0.107080	0.002719	0.282648	0.28263	-4.8	2.5	896	1177	-0.92	SYB
0.071793	0.001803	0.282529	0.28252	-9.1	-1.5	1045	1430	-0.95	SYB
0.079438	0.001977	0.282540	0.28253	-8.7	-1.1	1034	1408	-0.94	SYB
0.086791	0.002230	0.282591	0.28258	-6.9	0.6	967	1298	-0.93	SYB
0.060808	0.001670	0.282552	0.28254	-8.2	-0.6	1008	1377	-0.95	SYB
0.127542	0.003072	0.282597	0.28258	-6.6	0.6	981	1297	-0.91	SYB
0.058111	0.001583	0.282466	0.28246	-11.3	-3.6	1129	1568	-0.95	SYB
0.083318	0.002138	0.282519	0.28250	-9.4	-1.9	1069	1458	-0.94	SYB
0.070672	0.001732	0.282551	0.28254	-8.3	-0.7	1011	1380	-0.95	SYB
0.063240	0.001659	0.282521	0.28251	-9.3	-1.7	1052	1446	-0.95	SYB
0.057149	0.001513	0.282555	0.28254	-8.1	-0.5	1000	1368	-0.95	SYB
0.056869	0.001474	0.282543	0.28253	-8.6	-0.9	1016	1394	-0.96	SYB
0.058648	0.001521	0.282536	0.28253	-8.8	-1.2	1027	1410	-0.95	SYB
0.026463	0.001272	0.282557	0.28255	-8.1	1.6	991	1306	-0.96	CTS
0.062354	0.002455	0.282422	0.28240	-12.8	-3.2	1220	1622	-0.93	CTS
0.025 103	0.001020	0.282506	0.28250	-9.9	0.4	1056	1401	-0.97	CTS
0.033955	0.001248	0.282429	0.28242	-12.6	-2.9	1171	1592	-0.96	CTS
0.020587	0.000817	0.282494	0.28249	-10.3	-0.5	1067	1438	-0.98	CTS
0.023340	0.000891	0.282561	0.28255	-7.9	1.8	975	1292	-0.97	CTS
0.024570	0.000935	0.282502	0.28249	-10.0	-0.3	1059	1425	-0.97	CTS
0.023062	0.000985	0.282530	0.28252	-9.0	1.2	1021	1349	-0.97	CTS
0.029511	0.001116	0.282491	0.28248	-10.4	-0.3	1079	1439	-0.97	CTS
0.029932	0.001195	0.282506	0.28250	-9.9	-0.2	1061	1421	-0.96	CTS
0.029048	0.001282	0.282403	0.28239	-13.5	-3.8	1208	1651	-0.96	CTS
0.016219	0.000723	0.282677	0.28267	-3.8	6.0	808	1027	-0.98	CTS
0.032463	0.001237	0.282533	0.28252	-8.9	1.4	1024	1342	-0.96	CTS
0.025377	0.000974	0.282474	0.28247	-11.0	-1.3	1099	1489	-0.97	CTS
0.032471	0.001325	0.282520	0.28251	-9.4	0.2	1044	1394	-0.96	CTS
0.037207	0.001445	0.282464	0.28245	-11.4	-1.8	1127	1520	-0.96	CTS
0.040237	0.001454	0.282492	0.28248	-10.4	-0.7	1088	1455	-0.96	CTS
0.022375	0.000990	0.282549	0.28254	-8.3	2.0	994	1304	-0.97	CTS
0.034440	0.001150	0.282410	0.28240	-13.3	-4.2	1194	1651	-0.97	CTS
0.019810	0.000610	0.282370	0.28236	-14.7	-3.9	1233	1688	-0.98	CTS
0.013000	0.000420	0.282370	0.28237	-14.7	-5.4	1227	1727	-0.99	CTS
0.027560	0.000860	0.282380	0.28237	-14.3	-5.3	1227	1715	-0.97	CTS

0.029770	0.000970	0.282410	0.28240	-13.3	-4.2	1189	1649	-0.97	CTS
0.028500	0.001010	0.282410	0.28240	-13.3	-4.2	1190	1649	-0.97	CTS
0.031930	0.001070	0.282410	0.28240	-13.3	-4.2	1192	1650	-0.97	CTS
0.028890	0.000990	0.282400	0.28239	-13.6	-4.6	1203	1673	-0.97	CTS
0.028120	0.000890	0.282370	0.28236	-14.7	-5.6	1242	1736	-0.97	CTS
0.015440	0.000490	0.282430	0.28243	-12.6	-2.2	1146	1563	-0.99	CTS
0.034120	0.001060	0.282340	0.28233	-15.7	-6.7	1290	1807	-0.97	CTS
0.011880	0.000470	0.282110	0.28211	-23.9	-14.7	1586	2310	-0.99	CTS
0.018280	0.000740	0.282110	0.28210	-23.9	-13.1	1597	2266	-0.98	CTS
0.021370	0.000860	0.282140	0.28213	-22.8	-13.3	1561	2235	-0.97	CTS
0.016540	0.000690	0.282090	0.28208	-24.6	-14.9	1623	2342	-0.98	CTS
0.017380	0.000620	0.282090	0.28208	-24.6	-14.9	1620	2341	-0.98	CTS
0.024450	0.001010	0.282170	0.28216	-21.7	-12.2	1525	2170	-0.97	CTS
0.009570	0.000370	0.282080	0.28208	-24.9	-15.2	1623	2357	-0.99	CTS
0.020480	0.000850	0.282070	0.28206	-25.3	-15.7	1657	2389	-0.97	CTS
0.010350	0.000400	0.282070	0.28207	-25.3	-13.1	1638	2312	-0.99	CTS
0.025870	0.001030	0.282110	0.28210	-23.9	-12.2	1610	2245	-0.97	CTS
0.013500	0.000560	0.282120	0.28212	-23.5	-13.8	1576	2272	-0.98	CTS
0.018550	0.000790	0.282170	0.28216	-21.7	-12.1	1516	2164	-0.98	CTS
0.015070	0.000630	0.282180	0.28217	-21.4	-10.4	1496	2105	-0.98	CTS
0.017560	0.000640	0.282090	0.28208	-24.6	-14.8	1621	2339	-0.98	CTS
0.014610	0.000640	0.282140	0.28213	-22.8	-13.7	1552	2245	-0.98	CTS
0.018250	0.000650	0.282070	0.28206	-25.3	-15.6	1649	2384	-0.98	CTS
0.018690	0.000740	0.282270	0.28226	-18.2	-9.0	1376	1955	-0.98	CTS
0.015200	0.000610	0.282170	0.28217	-21.7	-12.6	1509	2177	-0.98	CTS
0.014970	0.000570	0.282210	0.28221	-20.3	-11.1	1453	2087	-0.98	CTS
0.023810	0.000830	0.282680	0.28267	-3.7	5.5	807	1038	-0.98	CTS
0.027390	0.000660	0.282390	0.28238	-14.0	-4.7	1207	1684	-0.98	CTS
0.014680	0.000540	0.282230	0.28223	-19.6	-10.3	1424	2039	-0.98	CTS
0.014710	0.000550	0.282260	0.28226	-18.6	-9.3	1383	1974	-0.98	CTS
0.029490	0.001190	0.282250	0.28224	-18.9	-9.8	1420	2006	-0.96	CTS
0.026060	0.000990	0.282220	0.28221	-20.0	-10.8	1455	2068	-0.97	CTS
0.022000	0.000810	0.282210	0.28220	-20.3	-11.1	1462	2088	-0.98	CTS
0.020470	0.000820	0.282240	0.28223	-19.3	-10.0	1421	2022	-0.98	CTS
0.017810	0.000640	0.282170	0.28216	-21.7	-12.5	1510	2174	-0.98	CTS
0.024060	0.000830	0.282250	0.28224	-18.9	-9.8	1407	2001	-0.98	CTS
0.034690	0.001080	0.282330	0.28232	-16.1	-7.2	1304	1832	-0.97	CTS
0.043210	0.001580	0.282390	0.28238	-14.0	-6.2	1237	1735	-0.95	CTS
0.033800	0.001210	0.282360	0.28235	-15.0	-7.0	1267	1792	-0.96	CTS
0.041200	0.001320	0.282360	0.28235	-15.0	-6.2	1270	1769	-0.96	CTS
0.029040	0.000960	0.282360	0.28235	-15.0	-6.1	1258	1763	-0.97	CTS
0.031010	0.001040	0.282360	0.28235	-15.0	-5.1	1261	1736	-0.97	CTS
0.033390	0.001060	0.282390	0.28238	-14.0	-5.1	1220	1699	-0.97	CTS
0.040840	0.001480	0.282420	0.28241	-12.9	-4.1	1191	1638	-0.96	CTS
0.042000	0.001320	0.282340	0.28233	-15.7	-6.8	1299	1813	-0.96	CTS
0.041250	0.001550	0.282410	0.28240	-13.3	-5.4	1207	1686	-0.95	CTS
0.032030	0.001060	0.282390	0.28238	-14.0	-5.0	1220	1697	-0.97	CTS
0.043280	0.001530	0.282360	0.28235	-15.0	-7.1	1278	1797	-0.95	CTS
0.037780	0.001150	0.282340	0.28233	-15.7	-5.8	1293	1782	-0.97	CTS

0.042690	0.001460	0.282370	0.28236	-14.7	-5.8	1261	1749	-0.96	CTS
<u>0.040820</u>	<u>0.001500</u>	<u>0.282370</u>	<u>0.28236</u>	<u>-14.7</u>	<u>-6.9</u>	<u>1262</u>	<u>1778</u>	<u>-0.96</u>	<u>CTS</u>
0.027980	0.000920	0.282360	0.28235	-15.0	-6.0	1257	1760	-0.97	CTS
0.068830	0.002410	0.282410	0.28239	-13.3	-5.7	1236	1704	-0.93	CTS
0.037960	0.001360	0.282320	0.28231	-16.4	-7.5	1328	1857	-0.96	CTS
0.042880	0.001540	0.282430	0.28242	-12.6	-4.6	1178	1640	-0.95	CTS
0.019570	0.000750	0.282400	0.28239	-13.6	-5.3	1196	1689	-0.98	CTS
<u>0.039790</u>	<u>0.001390</u>	<u>0.282460</u>	<u>0.28245</u>	<u>-11.5</u>	<u>-1.0</u>	<u>1131</u>	<u>1503</u>	<u>-0.96</u>	<u>CTS</u>
0.030070	0.001020	0.282430	0.28242	-12.6	-4.8	1162	1639	-0.97	CTS
0.032950	0.001120	0.282380	0.28237	-14.3	-5.4	1236	1721	-0.97	CTS
0.020740	0.000750	0.282370	0.28237	-14.7	-7.3	1238	1784	-0.98	CTS
0.038850	0.001230	0.282310	0.28230	-16.8	-7.9	1338	1880	-0.96	CTS
0.037100	0.001130	0.282410	0.28240	-13.3	-4.3	1194	1654	-0.97	CTS
0.021430	0.000830	0.282400	0.28239	-13.6	-5.8	1198	1703	-0.98	CTS
0.017089	0.000654	0.282256	0.28225	-18.7	-8.4	1392	1953	-0.98	CTS
0.013048	0.000496	0.282221	0.28222	-19.9	-9.5	1435	2028	-0.99	CTS
0.017202	0.000625	0.282262	0.28226	-18.5	-8.1	1383	1939	-0.98	CTS
0.023262	0.000870	0.282238	0.28223	-19.3	-9.1	1425	1998	-0.97	CTS
0.038983	0.001499	0.282284	0.28227	-17.7	-7.7	1384	1908	-0.96	CTS
0.018269	0.000676	0.282300	0.28229	-17.2	-6.0	1332	1834	-0.98	CTS
0.030720	0.001201	0.282319	0.28231	-16.5	-6.3	1324	1824	-0.96	CTS
0.020886	0.000735	0.282306	0.28230	-16.9	-6.7	1326	1845	-0.98	CTS
0.023304	0.000882	0.282275	0.28227	-18.0	-7.7	1374	1914	-0.97	CTS
0.012104	0.000454	0.282223	0.28222	-19.9	-9.4	1430	2021	-0.99	CTS
0.023064	0.000845	0.282239	0.28223	-19.3	-9.0	1423	1994	-0.97	CTS
0.020387	0.000768	0.282219	0.28221	-20.0	-9.7	1448	2038	-0.98	CTS
0.018486	0.000699	0.282267	0.28226	-18.3	-8.0	1379	1929	-0.98	CTS
0.019406	0.000696	0.282215	0.28221	-20.2	-9.8	1450	2045	-0.98	CTS
0.012738	0.000507	0.282173	0.28217	-21.6	-11.2	1501	2133	-0.98	CTS
0.033736	0.001237	0.282327	0.28232	-16.2	-6.0	1314	1805	-0.96	CTS
0.015423	0.000589	0.282199	0.28219	-20.7	-10.3	1468	2078	-0.98	CTS
0.019566	0.000709	0.282224	0.28222	-19.8	-9.5	1439	2025	-0.98	CTS
0.016223	0.000601	0.282237	0.28223	-19.4	-9.0	1417	1994	-0.98	CTS
0.018306	0.000679	0.282278	0.28227	-17.9	-7.5	1363	1903	-0.98	CTS
0.010972	0.000444	0.282243	0.28224	-19.2	-8.6	1403	1973	-0.99	CTS
0.014252	0.000578	0.282129	0.28212	-23.2	-12.9	1564	2235	-0.98	CTS
0.010170	0.000379	0.282244	0.28224	-19.1	-8.7	1399	1973	-0.99	CTS
0.019901	0.000778	0.282226	0.28222	-19.8	-9.5	1438	2024	-0.98	CTS
0.023587	0.000890	0.282241	0.28223	-19.2	-9.0	1422	1993	-0.97	CTS
0.011322	0.000428	0.282212	0.28221	-20.3	-9.9	1445	2047	-0.99	CTS
0.015623	0.000586	0.282271	0.28227	-18.2	-7.4	1369	1906	-0.98	CTS
0.012200	0.000464	0.282222	0.28222	-19.9	-9.0	1432	2010	-0.99	CTS
0.012917	0.000488	0.282282	0.28228	-17.8	-7.4	1350	1893	-0.99	CTS
0.019402	0.000770	0.282324	0.28232	-16.3	-6.0	1302	1805	-0.98	CTS
0.021301	0.000804	0.282247	0.28224	-19.0	-7.0	1410	1927	-0.98	CTS
0.014762	0.000558	0.282238	0.28223	-19.3	-8.9	1414	1988	-0.98	CTS
0.013196	0.000493	0.282240	0.28224	-19.3	-8.9	1408	1986	-0.99	CTS
0.018284	0.000685	0.282286	0.28228	-17.6	-7.3	1352	1887	-0.98	CTS
0.022445	0.000817	0.282238	0.28223	-19.3	-9.1	1423	1997	-0.98	CTS

0.016517	0.000624	0.282163	0.28216	-22.0	-11.7	1519	2161	-0.98	CTS
0.011724	0.000439	0.282252	0.28225	-18.8	-8.3	1390	1955	-0.99	CTS
0.014391	0.000534	0.282266	0.28226	-18.4	-8.0	1374	1929	-0.98	CTS
0.015865	0.000586	0.282251	0.28225	-18.9	-8.5	1397	1963	-0.98	CTS
0.015512	0.000575	0.282283	0.28228	-17.8	-7.3	1352	1890	-0.98	CTS
0.112767	0.002274	0.282744	0.28273	-1.4	7.5	745	915	-0.93	CTS
0.083436	0.001416	0.282665	0.28265	-4.2	4.8	841	1081	-0.96	CTS
0.134026	0.002536	0.282788	0.28277	0.1	8.9	686	823	-0.92	CTS
0.085992	0.001579	0.282703	0.28269	-2.9	6.1	790	999	-0.95	CTS
0.074664	0.001332	0.282713	0.28270	-2.5	6.5	770	972	-0.96	CTS
0.141048	0.002879	0.282712	0.28269	-2.6	6.2	805	999	-0.91	CTS
0.083135	0.001812	0.282737	0.28272	-1.7	7.3	746	925	-0.95	CTS
0.099888	0.001987	0.282640	0.28262	-5.1	3.8	890	1147	-0.94	CTS
0.023774	0.000526	0.282658	0.28265	-4.5	4.9	831	1080	-0.98	CTS
0.095930	0.001869	0.282668	0.28265	-4.1	4.9	847	1080	-0.94	CTS
0.046607	0.000878	0.282638	0.28263	-5.2	4.2	867	1129	-0.97	CTS
0.040632	0.000816	0.282666	0.28266	-4.2	5.1	826	1065	-0.98	CTS
0.082052	0.001494	0.282718	0.28271	-2.4	6.7	767	963	-0.96	CTS
0.061242	0.001198	0.282689	0.28268	-3.4	5.9	802	1018	-0.96	CTS
0.074229	0.001410	0.282674	0.28266	-3.9	5.1	828	1061	-0.96	CTS
0.065877	0.001152	0.282658	0.28265	-4.5	4.8	845	1089	-0.97	CTS
0.063953	0.001240	0.282613	0.28260	-6.1	3.1	910	1193	-0.96	CTS
0.120678	0.002285	0.282651	0.28263	-4.7	4.1	881	1129	-0.93	CTS
0.089950	0.001620	0.282716	0.28270	-2.4	6.6	772	970	-0.95	CTS
0.080915	0.001455	0.282654	0.28264	-4.6	4.4	857	1107	-0.96	CTS
0.074282	0.001255	0.282652	0.28264	-4.7	4.4	855	1108	-0.96	CTS
0.056723	0.001102	0.282639	0.28263	-5.2	4.2	870	1129	-0.97	CTS
0.079504	0.001434	0.282644	0.28263	-5.0	4.1	871	1128	-0.96	CTS
0.066898	0.001158	0.282617	0.28261	-5.9	3.2	903	1185	-0.97	CTS
0.080981	0.001335	0.282631	0.28262	-5.4	3.7	887	1154	-0.96	CTS
0.073245	0.001288	0.282676	0.28267	-3.9	5.3	822	1052	-0.96	CTS
0.062269	0.001158	0.282635	0.28263	-5.3	3.9	877	1143	-0.97	CTS
0.132392	0.002240	0.282743	0.28273	-1.5	7.3	746	921	-0.93	CTS
0.054041	0.000936	0.282658	0.28265	-4.5	4.8	840	1085	-0.97	CTS
0.067496	0.001208	0.282617	0.28261	-5.9	3.3	904	1184	-0.96	CTS
0.055497	0.001006	0.282719	0.28271	-2.3	7.0	755	949	-0.97	CTS
0.111000	0.001995	0.282697	0.28268	-3.1	5.9	807	1016	-0.94	CTS
0.142329	0.002822	0.282644	0.28262	-5.0	3.6	905	1155	-0.92	CTS
0.099468	0.001847	0.282704	0.28269	-2.9	6.0	794	1002	-0.95	CTS
0.080251	0.001574	0.282714	0.28270	-2.5	6.6	774	971	-0.95	CTS
0.072096	0.001454	0.282712	0.28270	-2.6	6.6	774	972	-0.96	CTS
0.048338	0.000983	0.282665	0.28266	-4.2	4.9	831	1074	-0.97	CTS
0.086652	0.001550	0.282774	0.28276	-0.4	8.8	687	834	-0.95	CTS
0.094504	0.001792	0.282658	0.28264	-4.5	4.5	859	1104	-0.95	CTS
0.028370	0.000537	0.282648	0.28264	-4.8	4.6	845	1100	-0.98	CTS
0.063233	0.002445	0.282641	0.28262	-5.1	3.9	899	1149	-0.93	CTS
0.051842	0.002035	0.282689	0.28267	-3.4	5.7	820	1032	-0.94	CTS
0.061389	0.002406	0.282625	0.28261	-5.6	3.3	922	1185	-0.93	CTS
0.055070	0.002120	0.282668	0.28265	-4.1	4.9	853	1083	-0.94	CTS
0.067781	0.002586	0.282628	0.28261	-5.6	3.3	922	1183	-0.92	CTS
0.047988	0.001844	0.282696	0.28268	-3.1	5.9	805	1015	-0.95	CTS
0.036660	0.001441	0.282646	0.28263	-4.9	4.4	868	1118	-0.96	CTS
0.069297	0.002656	0.282624	0.28260	-5.7	3.2	931	1192	-0.92	CTS
0.053933	0.002147	0.282599	0.28258	-6.6	2.6	953	1236	-0.94	CTS
0.062819	0.002435	0.282690	0.28267	-3.4	5.4	828	1043	-0.93	CTS
0.069530	0.002690	0.282654	0.28263	-4.6	4.2	887	1126	-0.92	CTS
0.065197	0.002519	0.282710	0.28269	-2.7	6.4	800	994	-0.93	CTS
0.067201	0.002593	0.282704	0.28268	-2.9	6.1	811	1010	-0.92	CTS
0.064224	0.002531	0.282650	0.28263	-4.8	4.2	888	1130	-0.92	CTS
0.012760	0.000573	0.282066	0.28206	-25.4	-15.6	1651	2389	-0.98	CTS
0.014942	0.000657	0.282083	0.28208	-24.8	-15.1	1631	2356	-0.98	CTS
0.007244	0.000326	0.282091	0.28209	-24.5	-14.7	1605	2331	-0.99	CTS
0.012186	0.000552	0.282061	0.28206	-25.6	-15.9	1657	2404	-0.98	CTS

0.009678	0.000444	0.282048	0.28204	-26.1	-16.3	1670	2429	-0.99	CTS
0.011062	0.000498	0.282073	0.28207	-25.2	-15.1	1639	2367	-0.99	CTS
0.012163	0.000519	0.282057	0.28205	-25.7	-15.9	1661	2407	-0.98	CTS
0.011637	0.000533	0.282012	0.28201	-27.3	-17.4	1723	2506	-0.98	CTS
0.012192	0.000541	0.282073	0.28207	-25.2	-15.1	1640	2365	-0.98	CTS
0.019191	0.000843	0.282050	0.28204	-26.0	-16.0	1684	2423	-0.97	CTS
0.019718	0.000797	0.282021	0.28201	-27.0	-17.3	1722	2495	-0.98	CTS
0.015602	0.000688	0.282072	0.28207	-25.2	-15.5	1647	2379	-0.98	CTS
0.018357	0.000794	0.282084	0.28208	-24.8	-14.9	1636	2351	-0.98	CTS
0.019252	0.000807	0.282053	0.28205	-25.9	-16.1	1679	2422	-0.98	CTS
0.013683	0.000602	0.282086	0.28208	-24.7	-14.7	1624	2338	-0.98	CTS
0.054292	0.001471	0.282692	0.28268	-3.3	6.8	803	994	-0.96	CTS
0.032765	0.000897	0.282649	0.28264	-4.8	5.5	852	1079	-0.97	CTS
0.033188	0.000849	0.282691	0.28268	-3.3	7.0	791	983	-0.97	CTS
0.032354	0.000869	0.282730	0.28272	-1.9	8.3	737	896	-0.97	CTS
0.035751	0.001030	0.282731	0.28272	-1.9	8.3	739	897	-0.97	CTS
0.047420	0.001321	0.282658	0.28265	-4.5	5.6	848	1067	-0.96	CTS
0.040818	0.001165	0.282753	0.28274	-1.1	9.1	710	850	-0.97	CTS
0.052566	0.001086	0.282756	0.28275	-1.0	9.2	704	842	-0.97	CTS
0.042506	0.001194	0.282675	0.28266	-3.9	6.3	821	1026	-0.96	CTS
0.036522	0.000998	0.282584	0.28258	-7.1	3.1	945	1227	-0.97	CTS
0.053135	0.001508	0.282542	0.28253	-8.6	1.5	1018	1332	-0.96	CTS
0.112635	0.002484	0.282508	0.28249	-9.8	0.0	1095	1428	-0.93	CTS
0.048687	0.001200	0.282595	0.28258	-6.7	3.4	935	1206	-0.96	CTS
0.038759	0.000792	0.282570	0.28256	-7.6	2.7	960	1254	-0.98	CTS
0.024384	0.000505	0.282166	0.28216	-21.9	-12.2	1511	2170	-0.98	CTS
0.025958	0.000532	0.282218	0.28221	-20.1	-10.4	1440	2055	-0.98	CTS
0.023913	0.000495	0.282193	0.28219	-20.9	-11.2	1473	2110	-0.99	CTS
0.036546	0.000733	0.282219	0.28221	-20.0	-10.4	1446	2057	-0.98	CTS
0.026134	0.000519	0.282228	0.28222	-19.7	-10.0	1426	2033	-0.98	CTS
0.023639	0.000478	0.282195	0.28219	-20.9	-11.2	1470	2105	-0.99	CTS
0.044757	0.000858	0.282266	0.28226	-18.4	-8.8	1386	1954	-0.97	CTS
0.022134	0.000447	0.282226	0.28222	-19.8	-10.1	1426	2036	-0.99	CTS
0.027761	0.000558	0.282183	0.28218	-21.3	-11.6	1489	2133	-0.98	CTS
0.044414	0.000873	0.282293	0.28229	-17.4	-7.8	1349	1894	-0.97	CTS
0.031386	0.000621	0.282250	0.28224	-18.9	-9.3	1399	1986	-0.98	CTS
0.024905	0.000501	0.282323	0.28232	-16.3	-6.6	1294	1821	-0.99	CTS
0.029510	0.000970	0.282655	0.28265	-4.6	4.6	845	1097	-0.97	CTS
0.058410	0.001240	0.282607	0.28260	-6.3	2.7	919	1213	-0.96	CTS
0.058320	0.001780	0.282545	0.28253	-8.5	0.6	1021	1355	-0.95	CTS
0.039940	0.000930	0.282564	0.28256	-7.8	1.4	972	1299	-0.97	CTS
0.036160	0.001090	0.282560	0.28255	-8.0	1.0	982	1316	-0.97	CTS
0.055970	0.001980	0.282649	0.28263	-4.8	4.0	877	1131	-0.94	CTS
0.058880	0.001270	0.282683	0.28267	-3.6	5.3	812	1043	-0.96	CTS
0.048250	0.001430	0.282648	0.28264	-4.8	4.2	865	1119	-0.96	CTS
0.048820	0.001150	0.282691	0.28268	-3.3	5.8	798	1018	-0.97	CTS
0.030810	0.000930	0.282695	0.28269	-3.2	6.0	788	1005	-0.97	CTS
0.061990	0.001980	0.282705	0.28269	-2.8	6.2	796	998	-0.94	CTS
0.034510	0.000990	0.282650	0.28264	-4.8	4.3	852	1110	-0.97	CTS
0.037660	0.001070	0.282626	0.28262	-5.6	3.4	888	1166	-0.97	CTS
0.035700	0.000960	0.282710	0.28270	-2.7	6.7	767	969	-0.97	CTS
0.052940	0.001460	0.282448	0.28244	-11.9	-2.8	1150	1567	-0.96	CTS
0.050620	0.001360	0.282761	0.28275	-0.8	8.3	702	862	-0.96	CTS
0.057670	0.001520	0.282666	0.28265	-4.2	4.8	842	1081	-0.95	CTS
0.027240	0.000710	0.282624	0.28262	-5.7	3.6	882	1160	-0.98	CTS
0.044290	0.001100	0.282706	0.28270	-2.8	6.3	776	985	-0.97	CTS
0.052162	0.002039	0.282693	0.28268	-3.3	3.9	815	1076	-0.94	CTS
0.023238	0.000903	0.282649	0.28264	-4.8	2.5	852	1162	-0.97	CTS
0.019602	0.000800	0.282704	0.28268	-2.9	29.1	772	361	-0.98	CTS
0.057660	0.002277	0.282703	0.28269	-2.9	4.2	805	1055	-0.93	CTS
0.030480	0.001226	0.282668	0.28266	-4.2	3.0	833	1126	-0.96	CTS
0.021076	0.000805	0.282672	0.28267	-4.0	3.5	818	1104	-0.98	CTS
0.027732	0.001134	0.282697	0.28269	-3.1	4.1	789	1056	-0.97	CTS

0.055533	0.002132	0.282752	0.28274	-1.2	5.8	731	948	-0.94	CTS
0.017902	0.000750	0.282680	0.28267	-3.7	3.7	805	1088	-0.98	CTS
0.106355	0.003923	0.282767	0.28274	-0.7	5.9	746	941	-0.88	CTS
0.035984	0.001412	0.282719	0.28271	-2.3	4.7	764	1015	-0.96	CTS
0.030853	0.001209	0.282691	0.28268	-3.3	3.9	799	1070	-0.96	CTS
0.021929	0.000886	0.282687	0.28268	-3.5	3.9	797	1073	-0.97	CTS
0.035960	0.001458	0.282683	0.28267	-3.6	3.5	817	1094	-0.96	CTS
0.019558	0.000801	0.282686	0.28268	-3.5	3.9	798	1073	-0.98	CTS
0.055972	0.002261	0.282637	0.28262	-5.3	2.4	902	1191	-0.93	CTS
0.027177	0.001142	0.282518	0.28251	-9.4	0.1	1042	1395	-0.97	CTS
0.007384	0.000327	0.281391	0.28139	-49.3	-41.4	2553	3923	-0.99	CTS
0.056678	0.002309	0.282542	0.28253	-8.6	-1.0	1040	1405	-0.93	CTS
0.035722	0.001440	0.282560	0.28255	-7.9	-0.1	990	1350	-0.96	CTS
0.018876	0.000760	0.282491	0.28249	-10.4	-2.4	1069	1495	-0.98	CTS
0.033297	0.001397	0.282586	0.28258	-7.0	0.7	952	1294	-0.96	CTS
0.024432	0.000913	0.282894	0.28289	3.8	11.8	507	592	-0.97	CTS
0.013005	0.000526	0.282515	0.28251	-9.6	-1.5	1030	1439	-0.98	CTS
0.013536	0.000604	0.282660	0.28266	-4.4	2.9	830	1134	-0.98	CTS
0.075680	0.002993	0.282678	0.28266	-3.8	3.1	859	1126	-0.91	CTS
0.028949	0.001234	0.282679	0.28267	-3.8	3.5	817	1098	-0.96	CTS
0.036208	0.001552	0.282660	0.28265	-4.4	2.9	850	1141	-0.95	CTS
0.037993	0.001640	0.282666	0.28266	-4.2	2.8	845	1137	-0.95	CTS
0.047118	0.001981	0.282675	0.28266	-3.9	3.0	840	1124	-0.94	CTS
0.038203	0.001701	0.282605	0.28259	-6.4	0.7	933	1272	-0.95	CTS
0.024907	0.001082	0.282672	0.28267	-4.0	3.4	823	1108	-0.97	CTS
0.038482	0.001658	0.282639	0.28263	-5.2	1.9	884	1196	-0.95	CTS
0.027271	0.001185	0.282645	0.28264	-4.9	2.5	863	1167	-0.96	CTS
0.019369	0.000858	0.282637	0.28263	-5.2	2.2	867	1182	-0.97	CTS
0.037152	0.001550	0.282634	0.28262	-5.3	1.8	888	1203	-0.95	CTS
0.021271	0.000984	0.282653	0.28265	-4.7	2.8	848	1149	-0.97	CTS
0.031556	0.001387	0.282630	0.28262	-5.5	1.9	890	1204	-0.96	CTS
0.023456	0.000985	0.282712	0.28271	-2.6	4.9	765	1014	-0.97	CTS
0.030641	0.001311	0.282699	0.28269	-3.0	4.5	790	1046	-0.96	CTS
0.112061	0.004469	0.282813	0.28278	1.0	7.6	686	842	-0.87	CTS
0.037132	0.001590	0.282683	0.28267	-3.6	3.6	818	1091	-0.95	CTS
0.076336	0.003104	0.282710	0.28269	-2.7	4.2	814	1055	-0.91	CTS
0.039243	0.001678	0.282691	0.28268	-3.3	4.1	809	1071	-0.95	CTS
0.031253	0.001402	0.282607	0.28260	-6.3	1.2	923	1255	-0.96	CTS
0.027894	0.001191	0.282654	0.28265	-4.6	2.8	851	1149	-0.96	CTS
0.071779	0.002976	0.282637	0.28262	-5.2	1.7	919	1215	-0.91	CTS
0.052988	0.002320	0.282667	0.28265	-4.2	2.9	859	1139	-0.93	CTS
0.049616	0.002065	0.282627	0.28261	-5.6	1.7	910	1221	-0.94	CTS
0.073483	0.002953	0.282655	0.28264	-4.6	2.6	892	1169	-0.91	CTS
0.116729	0.004691	0.282700	0.28267	-3.0	3.6	866	1097	-0.86	CTS
0.041455	0.001820	0.282668	0.28266	-4.1	3.1	846	1127	-0.95	CTS
0.058093	0.002349	0.282681	0.28267	-3.7	3.7	838	1099	-0.93	CTS
0.019694	0.000834	0.282690	0.28268	-3.4	4.0	792	1065	-0.98	CTS
0.031202	0.001328	0.282624	0.28262	-5.7	1.6	896	1219	-0.96	CTS
0.027463	0.001139	0.282693	0.28269	-3.3	4.3	795	1057	-0.97	CTS
0.028404	0.001233	0.282654	0.28265	-4.6	2.9	852	1146	-0.96	CTS
0.058917	0.002367	0.282709	0.28269	-2.7	4.9	797	1031	-0.93	CTS
0.027175	0.001200	0.282660	0.28265	-4.4	3.2	843	1129	-0.96	CTS
0.057876	0.002341	0.282628	0.28261	-5.6	1.6	916	1224	-0.93	CTS
0.020585	0.000886	0.282648	0.28264	-4.8	2.7	852	1156	-0.97	CTS
0.030408	0.001288	0.282675	0.28267	-3.9	3.4	824	1105	-0.96	CTS
0.039021	0.001621	0.282673	0.28266	-4.0	3.6	834	1107	-0.95	CTS
0.029665	0.001275	0.282660	0.28265	-4.4	3.2	845	1130	-0.96	CTS
0.012532	0.000556	0.282648	0.28264	-4.8	2.8	845	1149	-0.98	CTS
0.024143	0.001032	0.282682	0.28267	-3.6	4.0	808	1079	-0.97	CTS
0.026207	0.001144	0.282667	0.28266	-4.2	3.5	832	1112	-0.97	CTS
0.192772	0.007804	0.282718	0.28267	-2.4	3.6	924	1103	-0.77	CTS
0.054739	0.002129	0.282617	0.28260	-5.9	1.6	926	1236	-0.94	CTS
0.019149	0.000672	0.282715	0.28271	-2.5	4.8	754	1012	-0.98	CTS

0.019338	0.000689	0.282687	0.28268	-3.5	4.1	794	1066	-0.98	CTS
0.026913	0.000931	0.282596	0.28259	-6.7	0.8	927	1276	-0.97	CTS
0.022153	0.000761	0.282632	0.28263	-5.4	2.0	872	1195	-0.98	CTS
0.024967	0.000892	0.282650	0.28264	-4.8	2.7	850	1154	-0.97	CTS
0.019331	0.000662	0.282649	0.28264	-4.8	2.7	846	1154	-0.98	CTS
0.045734	0.001504	0.282708	0.28270	-2.7	4.8	781	1027	-0.96	CTS
0.022728	0.000773	0.282667	0.28266	-4.2	3.4	824	1111	-0.98	CTS
0.019813	0.000709	0.282651	0.28265	-4.7	2.7	845	1150	-0.98	CTS
0.025043	0.000883	0.282679	0.28267	-3.7	3.8	809	1086	-0.97	CTS
0.016485	0.000591	0.282660	0.28266	-4.4	3.3	829	1122	-0.98	CTS
0.072423	0.002352	0.282675	0.28266	-3.9	3.3	848	1118	-0.93	CTS
0.053432	0.001899	0.282574	0.28256	-7.5	-0.3	983	1340	-0.94	CTS
0.017982	0.000648	0.282670	0.28267	-4.1	3.5	817	1105	-0.98	CTS
0.031182	0.001044	0.282666	0.28266	-4.2	3.2	831	1120	-0.97	CTS
0.015178	0.000527	0.282667	0.28266	-4.2	3.4	818	1110	-0.98	CTS
0.021594	0.000742	0.282676	0.28267	-3.9	3.7	810	1093	-0.98	CTS
0.023100	0.000797	0.282667	0.28266	-4.2	3.5	824	1110	-0.98	CTS
0.014935	0.000520	0.282653	0.28265	-4.7	2.8	838	1142	-0.98	CTS
0.017904	0.000629	0.282630	0.28263	-5.5	2.0	872	1196	-0.98	CTS
0.021253	0.000740	0.282669	0.28266	-4.1	3.9	820	1094	-0.98	CTS
0.021412	0.000766	0.282675	0.28267	-3.9	4.0	812	1085	-0.98	CTS
0.016725	0.000623	0.282664	0.28266	-4.3	4.2	824	1092	-0.98	CTS
0.012666	0.000468	0.282637	0.28263	-5.2	3.4	859	1147	-0.99	CTS
0.015814	0.000592	0.282671	0.28267	-4.0	3.8	814	1093	-0.98	CTS
0.015929	0.000578	0.282663	0.28266	-4.3	3.5	825	1112	-0.98	CTS
0.024183	0.000834	0.282653	0.28265	-4.7	3.4	845	1130	-0.98	CTS
0.031578	0.001136	0.282649	0.28264	-4.8	3.4	857	1137	-0.97	CTS
0.017246	0.000612	0.282676	0.28267	-3.9	4.8	807	1060	-0.98	CTS
0.026974	0.000966	0.282585	0.28258	-7.1	-0.8	943	1332	-0.97	CTS
0.043014	0.001514	0.282371	0.28236	-14.6	-7.6	1261	1797	-0.95	CTS
0.043526	0.001604	0.282304	0.28228	-17.0	-1.9	1360	1731	-0.95	CTS
0.031787	0.001145	0.282586	0.28258	-7.0	-0.6	946	1329	-0.97	CTS
0.035498	0.001238	0.282521	0.28251	-9.3	-1.8	1041	1444	-0.96	CTS
0.045224	0.001549	0.282485	0.28248	-10.6	-4.3	1101	1560	-0.95	CTS
0.035987	0.001304	0.282547	0.28254	-8.4	-2.0	1006	1417	-0.96	CTS
0.028238	0.001016	0.282474	0.28245	-11.0	11.0	1100	1154	-0.97	CTS
0.047253	0.001623	0.282447	0.28244	-12.0	-5.0	1157	1630	-0.95	CTS
0.026315	0.000908	0.282518	0.28251	-9.4	-1.5	1036	1438	-0.97	CTS
0.039137	0.001330	0.282459	0.28245	-11.5	-3.7	1131	1577	-0.96	CTS
0.032633	0.001127	0.282582	0.28257	-7.2	0.7	951	1299	-0.97	CTS
0.042832	0.001476	0.282471	0.28246	-11.1	-3.4	1118	1554	-0.96	CTS
0.051483	0.001830	0.282443	0.28243	-12.1	-4.4	1169	1621	-0.95	CTS
0.028201	0.000997	0.282570	0.28256	-7.6	0.2	965	1325	-0.97	CTS
0.072276	0.002359	0.282553	0.28254	-8.2	-0.7	1026	1383	-0.93	CTS
0.044108	0.001514	0.282456	0.28245	-11.6	-4.0	1141	1590	-0.95	CTS
0.041867	0.001414	0.282562	0.28255	-7.9	-0.2	987	1350	-0.96	CTS
0.032751	0.001107	0.282573	0.28257	-7.5	0.3	964	1319	-0.97	CTS
0.024561	0.000865	0.282804	0.28280	0.7	8.6	633	794	-0.97	CTS
0.025352	0.000846	0.282570	0.28256	-7.6	0.3	961	1320	-0.97	CTS
0.041839	0.001479	0.282333	0.28232	-16.0	-8.2	1314	1862	-0.96	CTS
0.041450	0.001390	0.282582	0.28257	-7.2	1.2	958	1285	-0.96	CTS
0.032595	0.001175	0.282283	0.28227	-17.8	-2.2	1374	1757	-0.97	CTS
0.025879	0.000914	0.282288	0.28228	-17.6	-8.4	1357	1917	-0.97	CTS
0.043157	0.001457	0.282535	0.28252	-8.8	0.3	1027	1373	-0.96	CTS
0.032149	0.001494	0.282638	0.28263	-5.2	2.5	880	1178	-0.96	CTS
0.041441	0.001866	0.282697	0.28268	-3.1	4.5	805	1052	-0.94	CTS
0.021301	0.001047	0.282613	0.28261	-6.1	1.7	906	1229	-0.97	CTS
0.046821	0.001978	0.282679	0.28267	-3.7	3.9	833	1094	-0.94	CTS
0.026528	0.001187	0.282651	0.28264	-4.7	3.0	855	1146	-0.96	CTS
0.041618	0.001870	0.282708	0.28269	-2.7	4.9	789	1029	-0.94	CTS
0.025511	0.001172	0.282643	0.28264	-5.0	2.8	866	1163	-0.97	CTS
0.030990	0.001387	0.282666	0.28266	-4.2	3.5	839	1115	-0.96	CTS
0.027375	0.001261	0.282676	0.28267	-3.9	3.9	821	1090	-0.96	CTS

0.021261	0.001010	0.282670	0.28266	-4.1	3.7	825	1101	-0.97	CTS
0.040668	0.001813	0.282721	0.28271	-2.3	5.4	769	998	-0.95	CTS
0.078942	0.003270	0.282741	0.28272	-1.6	5.7	771	976	-0.90	CTS
0.023831	0.001112	0.282663	0.28266	-4.3	3.5	837	1117	-0.97	CTS
0.066813	0.002964	0.282760	0.28274	-0.9	6.3	735	931	-0.91	CTS
0.027900	0.001280	0.282674	0.28267	-3.9	3.7	824	1099	-0.96	CTS
0.024815	0.001087	0.282702	0.28269	-3.0	4.7	782	1035	-0.97	CTS
0.042600	0.001842	0.282573	0.28256	-7.5	-0.1	983	1336	-0.95	CTS
0.034397	0.001556	0.282677	0.28267	-3.8	3.7	827	1098	-0.95	CTS
0.016965	0.000828	0.282623	0.28262	-5.7	2.0	886	1207	-0.98	CTS
0.042080	0.001889	0.282687	0.28267	-3.5	4.0	820	1080	-0.94	CTS
0.032781	0.001500	0.282649	0.28264	-4.8	2.7	866	1160	-0.96	CTS
0.037283	0.001721	0.282692	0.28268	-3.3	4.2	809	1067	-0.95	CTS
0.051532	0.002200	0.282728	0.28271	-2.0	5.3	767	993	-0.93	CTS
0.040454	0.001758	0.282641	0.28263	-5.1	2.4	882	1181	-0.95	CTS
0.031447	0.001386	0.282665	0.28266	-4.2	3.3	839	1121	-0.96	CTS
0.038333	0.001702	0.282749	0.28274	-1.3	6.2	726	937	-0.95	CTS
0.042391	0.001758	0.282694	0.28268	-3.2	4.2	807	1062	-0.95	CTS
0.031377	0.001327	0.282643	0.28263	-5.0	2.5	870	1172	-0.96	CTS
0.044506	0.001937	0.282705	0.28269	-2.8	4.6	794	1039	-0.94	CTS
0.045240	0.001907	0.282716	0.28270	-2.4	5.0	778	1015	-0.94	CTS
0.029867	0.001289	0.282765	0.28276	-0.7	6.9	696	895	-0.96	CTS
0.042906	0.001878	0.282684	0.28267	-3.6	3.9	824	1087	-0.94	CTS
0.042359	0.001841	0.282737	0.28273	-1.7	5.8	746	966	-0.95	CTS
0.053518	0.002205	0.282686	0.28267	-3.5	3.9	828	1086	-0.93	CTS
0.025809	0.001172	0.282715	0.28271	-2.5	5.1	764	1007	-0.97	CTS
0.043802	0.001979	0.282720	0.28271	-2.3	5.1	774	1007	-0.94	CTS
0.025576	0.001121	0.282751	0.28274	-1.2	6.4	712	924	-0.97	CTS
0.040416	0.001212	0.282722	0.28271	-2.2	4.5	755	1015	-0.96	CTS
0.026096	0.000816	0.282725	0.28272	-2.1	4.7	743	1003	-0.98	CTS
0.025948	0.000786	0.282730	0.28273	-1.9	4.9	735	991	-0.98	CTS
0.025409	0.000796	0.282722	0.28272	-2.2	4.4	747	1015	-0.98	CTS
0.032345	0.000995	0.282731	0.28272	-1.9	5.3	738	980	-0.97	CTS
0.052814	0.001613	0.282767	0.28276	-0.6	6.0	699	918	-0.95	CTS
0.039298	0.001265	0.282704	0.28270	-2.9	3.9	782	1056	-0.96	CTS
0.040496	0.001292	0.282689	0.28268	-3.4	3.3	804	1091	-0.96	CTS
0.035091	0.001080	0.282741	0.28273	-1.6	5.1	726	971	-0.97	CTS
0.033315	0.001042	0.282754	0.28275	-1.1	5.7	706	939	-0.97	CTS
0.028779	0.000955	0.282733	0.28273	-1.8	4.9	734	988	-0.97	CTS
0.026538	0.000849	0.282764	0.28276	-0.7	6.0	689	915	-0.97	CTS
0.032718	0.001008	0.282790	0.28278	0.2	7.0	655	858	-0.97	CTS
0.038688	0.001190	0.282740	0.28273	-1.6	5.2	729	972	-0.96	CTS
0.025129	0.000777	0.282702	0.28270	-2.9	3.9	775	1054	-0.98	CTS
0.029860	0.001006	0.282688	0.28268	-3.4	3.3	799	1090	-0.97	CTS
0.053330	0.001699	0.282752	0.28274	-1.2	7.2	722	907	-0.95	CTS
0.028889	0.000910	0.282708	0.28270	-2.7	4.0	769	1043	-0.97	CTS
0.028019	0.000885	0.282766	0.28276	-0.7	6.5	687	900	-0.97	CTS
0.051240	0.001573	0.282888	0.28288	3.6	10.7	524	633	-0.95	CTS
0.030280	0.000952	0.282675	0.28267	-3.9	3.2	816	1107	-0.97	CTS
0.038734	0.001311	0.282754	0.28275	-1.1	5.9	712	935	-0.96	CTS
0.036095	0.001168	0.282677	0.28267	-3.8	2.9	818	1117	-0.97	CTS
0.027499	0.000854	0.282741	0.28274	-1.6	5.5	721	961	-0.97	CTS
0.053219	0.001765	0.282662	0.28265	-4.3	1.6	853	1174	-0.95	CTS
0.062046	0.002000	0.282703	0.28269	-2.9	4.0	799	1059	-0.94	CTS
0.019192	0.000658	0.282716	0.28271	-2.4	4.3	753	1024	-0.98	CTS
0.032105	0.001092	0.282700	0.28269	-3.0	3.6	784	1068	-0.97	CTS
0.042602	0.001397	0.282558	0.28255	-8.0	-1.4	992	1389	-0.96	CTS
0.023114	0.000812	0.282725	0.28272	-2.1	4.5	743	1009	-0.98	CTS
0.027254	0.000913	0.282752	0.28275	-1.2	5.5	707	946	-0.97	CTS
0.027708	0.000958	0.282727	0.28272	-2.1	4.5	743	1007	-0.97	CTS
0.016818	0.000590	0.282709	0.28271	-2.7	4.0	761	1039	-0.98	CTS
0.022857	0.000803	0.282717	0.28271	-2.4	4.2	754	1027	-0.98	CTS
0.036366	0.001238	0.282613	0.28261	-6.1	1.0	910	1249	-0.96	CTS

0.049751	0.001663	0.282621	0.28261	-5.8	0.8	909	1249	-0.95	CTS
0.035030	0.001220	0.282759	0.28275	-0.9	6.1	703	924	-0.96	CTS
0.037810	0.001339	0.282721	0.28271	-2.3	5.2	759	999	-0.96	CTS
0.026055	0.000920	0.282708	0.28270	-2.7	4.0	769	1045	-0.97	CTS
0.029916	0.001037	0.282647	0.28264	-4.9	2.4	858	1167	-0.97	CTS
0.027115	0.000973	0.282731	0.28273	-1.9	4.9	738	990	-0.97	CTS
0.041372	0.001405	0.282753	0.28275	-1.1	5.3	715	953	-0.96	CTS
0.027489	0.000957	0.282686	0.28268	-3.5	4.0	801	1073	-0.97	CTS
0.061305	0.002190	0.282765	0.28275	-0.7	5.2	713	947	-0.93	CTS
0.098714	0.003735	0.282907	0.28289	4.3	9.9	527	644	-0.89	CTS
0.061769	0.002321	0.282860	0.28285	2.6	8.5	576	734	-0.93	CTS
0.060674	0.002297	0.282859	0.28285	2.6	8.5	577	736	-0.93	CTS
0.077664	0.002863	0.282773	0.28276	-0.4	5.4	714	936	-0.91	CTS
0.054983	0.002111	0.282941	0.28293	5.5	11.2	455	554	-0.94	CTS
0.049970	0.001868	0.282830	0.28282	1.6	7.6	613	794	-0.94	CTS
0.063513	0.002466	0.282964	0.28295	6.3	12.1	425	502	-0.93	CTS
0.047984	0.001811	0.282885	0.28288	3.5	9.3	532	678	-0.95	CTS
0.068442	0.002483	0.282791	0.28278	0.2	5.9	680	895	-0.93	CTS
0.051269	0.001894	0.282857	0.28285	2.6	8.6	573	732	-0.94	CTS
0.066108	0.002472	0.282794	0.28278	0.3	6.1	675	887	-0.93	CTS
0.048097	0.001804	0.282845	0.28284	2.1	8.1	590	763	-0.95	CTS
0.077430	0.002973	0.282986	0.28297	7.1	12.5	398	467	-0.91	CTS
0.057494	0.002271	0.282962	0.28295	6.3	11.9	425	507	-0.93	CTS
0.044125	0.001724	0.282922	0.28291	4.9	10.5	476	595	-0.95	CTS
0.091109	0.003370	0.282952	0.28294	5.9	11.3	454	546	-0.90	CTS
0.044609	0.001700	0.282939	0.28293	5.4	11.0	452	558	-0.95	CTS
0.026016	0.001069	0.282934	0.28293	5.3	11.0	451	562	-0.97	CTS
0.074747	0.002908	0.282899	0.28288	4.0	9.4	527	662	-0.91	CTS
0.112169	0.004261	0.282945	0.28292	5.7	10.9	476	572	-0.87	CTS
0.027750	0.001098	0.282863	0.28286	2.8	8.6	553	721	-0.97	CTS
0.021319	0.000855	0.282671	0.28267	-4.0	2.5	820	1132	-0.97	CTS
0.020411	0.000845	0.282298	0.28229	-17.2	-10.7	1340	1968	-0.97	CTS
0.022213	0.000904	0.282579	0.28257	-7.3	-0.7	951	1339	-0.97	CTS
0.015075	0.000613	0.282604	0.28260	-6.4	0.2	908	1280	-0.98	CTS
0.034096	0.001270	0.282632	0.28263	-5.4	1.0	884	1226	-0.96	CTS
0.023101	0.000958	0.282549	0.28254	-8.3	-2.0	993	1412	-0.97	CTS
0.015221	0.000607	0.282586	0.28258	-7.0	-0.5	933	1320	-0.98	CTS
0.016229	0.000654	0.282572	0.28257	-7.5	-0.9	953	1351	-0.98	CTS
0.021959	0.000918	0.282621	0.28262	-5.8	2.3	891	1201	-0.97	CTS
0.051180	0.001911	0.282760	0.28275	-0.9	4.6	715	968	-0.94	CTS
0.083074	0.002948	0.282769	0.28275	-0.6	4.7	721	958	-0.91	CTS
0.123385	0.004337	0.282753	0.28273	-1.1	4.0	775	1010	-0.87	CTS
0.113689	0.004163	0.282780	0.28276	-0.2	5.0	730	947	-0.88	CTS
0.068274	0.002454	0.282757	0.28275	-1.0	4.5	729	978	-0.93	CTS
0.091461	0.003292	0.282774	0.28276	-0.4	5.0	721	946	-0.90	CTS
0.073202	0.002577	0.282763	0.28275	-0.8	4.6	723	968	-0.92	CTS
0.147547	0.005113	0.282768	0.28274	-0.6	4.3	769	985	-0.85	CTS
0.100158	0.003522	0.282750	0.28273	-1.2	4.1	762	1005	-0.90	CTS
0.094057	0.003321	0.282803	0.28279	0.6	6.0	679	883	-0.90	CTS
0.061852	0.002738	0.282780	0.28277	-0.2	5.1	702	932	-0.92	CTS
0.093961	0.003320	0.282769	0.28275	-0.6	4.7	730	963	-0.90	CTS
0.073350	0.002584	0.282774	0.28276	-0.4	5.0	707	942	-0.92	CTS
0.073305	0.002584	0.282742	0.28273	-1.5	3.9	754	1013	-0.92	CTS
0.108860	0.003791	0.282771	0.28275	-0.5	4.7	736	963	-0.89	CTS
0.027935	0.000999	0.282628	0.28262	-5.6	2.2	883	1196	-0.97	CTS
0.019929	0.000692	0.282651	0.28265	-4.7	3.1	844	1140	-0.98	CTS
0.023610	0.000851	0.282638	0.28263	-5.2	2.6	866	1170	-0.97	CTS
0.023990	0.000836	0.282669	0.28266	-4.1	3.7	822	1100	-0.98	CTS
0.031148	0.001124	0.282609	0.28260	-6.2	1.5	913	1241	-0.97	CTS
0.016268	0.000586	0.282601	0.28260	-6.5	1.2	911	1254	-0.98	CTS
0.038136	0.001353	0.282560	0.28255	-8.0	-0.3	988	1355	-0.96	CTS
0.035816	0.001144	0.282635	0.28263	-5.3	2.4	877	1182	-0.97	CTS
0.055923	0.001750	0.282776	0.28276	-0.3	7.3	688	874	-0.95	CTS

0.024612	0.000854	0.282741	0.28274	-1.6	6.3	721	939	-0.97	CTS
0.030883	0.001094	0.282661	0.28265	-4.4	3.4	839	1122	-0.97	CTS
0.035636	0.001190	0.282615	0.28261	-6.0	1.6	906	1231	-0.96	CTS
0.029854	0.001071	0.282629	0.28262	-5.5	1.8	884	1207	-0.97	CTS
0.027902	0.000991	0.282636	0.28263	-5.3	2.7	872	1173	-0.97	CTS
0.038932	0.001223	0.282843	0.28283	2.1	9.8	583	714	-0.96	CTS
0.019321	0.000673	0.282703	0.28270	-2.9	5.6	771	1003	-0.98	CTS
0.024642	0.000882	0.282623	0.28262	-5.7	1.5	888	1221	-0.97	CTS
0.020770	0.000727	0.282733	0.28273	-1.8	5.9	730	957	-0.98	CTS
0.031721	0.001165	0.282610	0.28260	-6.2	1.5	913	1239	-0.97	CTS
0.024012	0.000797	0.282689	0.28268	-3.4	4.5	793	1053	-0.98	CTS
0.033846	0.001095	0.282470	0.28246	-11.1	-2.5	1108	1528	-0.97	CTS
0.023418	0.000798	0.282665	0.28266	-4.2	3.5	827	1112	-0.98	CTS
0.027658	0.000837	0.282635	0.28263	-5.3	2.4	870	1179	-0.98	CTS
0.032645	0.001257	0.282455	0.28244	-11.7	5.6	1134	1328	-0.96	CTS
0.029502	0.001075	0.282588	0.28258	-7.0	0.8	942	1287	-0.97	CTS
0.021445	0.000754	0.282678	0.28267	-3.8	4.0	808	1081	-0.98	CTS
0.027964	0.001070	0.282623	0.28262	-5.7	2.1	892	1207	-0.97	CTS
0.004484	0.000174	0.282737	0.28274	-1.7	6.3	714	937	-0.99	CTS
0.032282	0.001217	0.282664	0.28266	-4.3	3.4	838	1119	-0.96	CTS
0.042663	0.001493	0.282650	0.28264	-4.8	2.8	864	1157	-0.96	CTS
0.022475	0.000503	0.282180	0.28218	-21.4	-12.8	1491	2169	-0.99	CTS
0.029146	0.000655	0.282184	0.28218	-21.3	-12.7	1492	2163	-0.98	CTS
0.026744	0.000599	0.282202	0.28220	-20.6	-12.0	1465	2122	-0.98	CTS
0.036800	0.000800	0.282151	0.28215	-22.4	-13.9	1543	2239	-0.98	CTS
0.028748	0.000617	0.282164	0.28216	-22.0	-13.4	1518	2207	-0.98	CTS
0.026792	0.000562	0.282150	0.28215	-22.5	-13.9	1535	2237	-0.98	CTS
0.046338	0.000949	0.282209	0.28220	-20.4	-11.9	1469	2112	-0.97	CTS
0.030879	0.000661	0.282152	0.28215	-22.4	-13.8	1536	2234	-0.98	CTS
0.048031	0.001025	0.282192	0.28218	-21.0	-12.5	1495	2151	-0.97	CTS
0.033769	0.000743	0.282203	0.28220	-20.6	-12.0	1469	2122	-0.98	CTS
0.035557	0.000792	0.282216	0.28221	-20.1	-11.6	1453	2094	-0.98	CTS
0.058357	0.001298	0.282221	0.28221	-19.9	-11.5	1465	2091	-0.96	CTS
0.029199	0.000670	0.282197	0.28219	-20.8	-12.2	1474	2134	-0.98	CTS
0.046704	0.001082	0.282160	0.28215	-22.1	-13.6	1542	2223	-0.97	CTS
0.028961	0.000671	0.282146	0.28214	-22.6	-14.0	1545	2248	-0.98	CTS
0.025980	0.000606	0.282158	0.28215	-22.2	-13.6	1526	2220	-0.98	CTS
0.025555	0.000593	0.282130	0.28213	-23.2	-14.6	1564	2282	-0.98	CTS
0.044173	0.001044	0.282116	0.28211	-23.7	-15.2	1602	2320	-0.97	CTS
0.020126	0.000467	0.282196	0.28219	-20.8	-12.2	1468	2133	-0.99	CTS
0.030785	0.000707	0.282152	0.28215	-22.4	-13.8	1538	2235	-0.98	CTS
0.052588	0.001115	0.282213	0.28220	-20.2	-11.8	1469	2106	-0.97	CTS
0.024790	0.000586	0.282145	0.28214	-22.6	-14.0	1543	2248	-0.98	CTS
0.037655	0.001367	0.282428	0.28242	-12.6	-3.7	1176	1617	-0.96	STS
0.037972	0.001314	0.282482	0.28247	-10.7	-1.8	1098	1496	-0.96	STS
0.043549	0.001438	0.282445	0.28243	-12.0	-3.2	1154	1581	-0.96	STS
0.050534	0.001653	0.282509	0.28250	-9.8	-1.0	1069	1441	-0.95	STS
0.052318	0.001755	0.282509	0.28250	-9.8	-1.0	1072	1443	-0.95	STS
0.047635	0.001610	0.282492	0.28248	-10.4	-1.5	1092	1478	-0.95	STS
0.059260	0.001964	0.282528	0.28251	-9.1	-0.4	1051	1404	-0.94	STS
0.042452	0.001438	0.282510	0.28250	-9.7	-0.9	1062	1435	-0.96	STS
0.024255	0.000854	0.282542	0.28254	-8.6	0.4	1001	1353	-0.97	STS
0.038300	0.001260	0.282559	0.28255	-8.0	0.9	987	1322	-0.96	STS
0.046370	0.001614	0.282551	0.28254	-8.3	0.5	1008	1346	-0.95	STS
0.030267	0.001065	0.282577	0.28257	-7.4	1.6	957	1278	-0.97	STS
0.036897	0.001307	0.282522	0.28251	-9.3	-0.4	1041	1406	-0.96	STS
0.058122	0.001922	0.282357	0.28234	-15.1	-6.4	1295	1786	-0.94	STS
0.037471	0.001265	0.282502	0.28249	-10.0	-1.1	1068	1450	-0.96	STS
0.043979	0.001499	0.282511	0.28250	-9.7	-0.8	1062	1434	-0.96	STS
0.068604	0.002303	0.282517	0.28250	-9.5	-0.8	1077	1435	-0.93	STS
0.077083	0.002525	0.282602	0.28258	-6.5	2.1	959	1248	-0.92	STS
0.050452	0.001657	0.282475	0.28246	-11.0	-2.2	1118	1517	-0.95	STS

0.025349	0.001002	0.282375	0.28237	-14.5	-5.5	1239	1729	-0.97	STS
0.014159	0.000711	0.282268	0.28226	-18.3	-8.6	1378	1945	-0.98	STS
0.012818	0.000643	0.282239	0.28223	-19.3	-9.6	1415	2008	-0.98	STS
0.017336	0.000878	0.282179	0.28217	-21.4	-11.8	1507	2146	-0.97	STS
0.022789	0.001065	0.282203	0.28219	-20.6	-11.0	1481	2096	-0.97	STS
0.011128	0.000560	0.282171	0.28217	-21.7	-12.0	1506	2158	-0.98	STS
0.013971	0.000578	0.282234	0.28223	-19.5	-9.7	1420	2018	-0.98	STS
0.021939	0.001016	0.282195	0.28219	-20.9	-11.2	1491	2113	-0.97	STS
0.010455	0.000512	0.282238	0.28223	-19.3	-9.6	1412	2008	-0.98	STS
0.016900	0.000784	0.282186	0.28218	-21.2	-11.5	1494	2129	-0.98	STS
0.012153	0.000604	0.282231	0.28223	-19.6	-9.8	1425	2025	-0.98	STS
0.034827	0.001534	0.282227	0.28221	-19.7	-10.3	1466	2051	-0.95	STS
0.017070	0.000833	0.282212	0.28221	-20.3	-10.6	1460	2072	-0.98	STS
0.008265	0.000412	0.282192	0.28219	-21.0	-11.2	1471	2108	-0.99	STS
0.017827	0.000812	0.282247	0.28224	-19.0	-9.3	1411	1993	-0.98	STS
0.021358	0.000989	0.282063	0.28205	-25.5	-15.9	1673	2405	-0.97	STS
0.013845	0.000656	0.282276	0.28227	-18.0	-8.3	1365	1926	-0.98	STS
0.019512	0.000929	0.282215	0.28221	-20.2	-10.5	1459	2067	-0.97	STS
0.022773	0.001063	0.282207	0.28220	-20.4	-10.8	1476	2087	-0.97	STS
0.009961	0.000491	0.282268	0.28226	-18.3	-8.5	1370	1941	-0.99	STS
0.011157	0.000570	0.282199	0.28219	-20.7	-11.0	1468	2096	-0.98	STS
0.018489	0.000897	0.282218	0.28221	-20.1	-10.4	1454	2060	-0.97	STS
0.014336	0.000704	0.282218	0.28221	-20.1	-10.3	1447	2056	-0.98	STS
0.029492	0.001335	0.282214	0.28220	-20.2	-10.7	1477	2077	-0.96	STS
0.010733	0.000564	0.282231	0.28223	-19.6	-9.8	1423	2024	-0.98	STS
0.017305	0.000842	0.282217	0.28221	-20.1	-10.4	1453	2061	-0.97	STS
0.007229	0.000367	0.282222	0.28222	-19.9	-10.1	1429	2041	-0.99	STS
0.029136	0.001160	0.282639	0.28263	-5.2	4.1	872	1132	-0.97	STS
0.027037	0.001104	0.282640	0.28263	-5.1	4.2	869	1128	-0.97	STS
0.012360	0.000519	0.282616	0.28261	-6.0	3.5	889	1171	-0.98	STS
0.030650	0.001221	0.282615	0.28261	-6.0	3.2	907	1187	-0.96	STS
0.029845	0.001188	0.282666	0.28266	-4.2	5.1	834	1071	-0.96	STS
0.030104	0.001197	0.282616	0.28261	-6.0	3.3	905	1184	-0.96	STS
0.027942	0.001118	0.282626	0.28262	-5.6	3.7	889	1160	-0.97	STS
0.021736	0.000879	0.282595	0.28259	-6.7	2.6	927	1225	-0.97	STS
0.015092	0.000646	0.282590	0.28258	-6.9	2.5	928	1232	-0.98	STS
0.015281	0.000639	0.282576	0.28257	-7.4	2.0	948	1264	-0.98	STS
0.016091	0.000664	0.282604	0.28260	-6.4	3.0	909	1201	-0.98	STS
0.025013	0.001000	0.282629	0.28262	-5.5	3.8	882	1151	-0.97	STS
0.018089	0.000739	0.282626	0.28262	-5.6	3.8	880	1153	-0.98	STS
0.032333	0.001286	0.282615	0.28260	-6.0	3.2	909	1188	-0.96	STS
0.016212	0.000691	0.282544	0.28254	-8.5	0.9	994	1336	-0.98	STS
0.031692	0.001261	0.282568	0.28256	-7.7	1.6	975	1293	-0.96	STS
0.021230	0.000849	0.282576	0.28257	-7.4	2.0	953	1267	-0.97	STS
0.029692	0.001170	0.282555	0.28255	-8.1	1.1	991	1320	-0.97	STS

0.013014	0.000555	0.282542	0.28254	-8.6	0.8	993	1338	-0.98	STS
0.027820	0.001112	0.282532	0.28252	-8.9	0.3	1022	1371	-0.97	STS
0.036445	0.001437	0.282566	0.28255	-7.7	1.4	982	1301	-0.96	STS
0.016510	0.000696	0.282557	0.28255	-8.1	1.3	976	1307	-0.98	STS
0.023189	0.000916	0.282572	0.28256	-7.5	1.8	960	1278	-0.97	STS
0.020085	0.000809	0.282576	0.28257	-7.4	2.0	952	1267	-0.98	STS
0.034288	0.001362	0.282602	0.28259	-6.5	2.7	929	1218	-0.96	STS
0.043065	0.001786	0.282527	0.28251	-9.1	-0.5	1047	1408	-0.95	STS
0.041887	0.001713	0.282530	0.28252	-9.0	-0.4	1041	1400	-0.95	STS
0.039797	0.001605	0.282572	0.28256	-7.5	1.9	978	1283	-0.95	STS
0.035708	0.001473	0.282588	0.28258	-7.0	1.7	952	1266	-0.96	STS
0.053197	0.002124	0.282564	0.28255	-7.8	0.7	1003	1331	-0.94	STS
0.040175	0.001622	0.282541	0.28253	-8.6	0.0	1023	1374	-0.95	STS
0.036379	0.001513	0.282492	0.28248	-10.4	-1.0	1089	1463	-0.95	STS
0.045902	0.001889	0.282529	0.28251	-9.1	-0.5	1047	1405	-0.94	STS
0.036564	0.001501	0.282554	0.28254	-8.2	0.5	1001	1343	-0.96	STS
0.048386	0.001992	0.282545	0.28253	-8.5	0.0	1027	1371	-0.94	STS
0.038401	0.001561	0.282567	0.28256	-7.7	0.9	984	1314	-0.95	STS
0.041234	0.001713	0.282594	0.28258	-6.8	1.8	949	1256	-0.95	STS
0.033996	0.001392	0.282589	0.28258	-6.9	1.8	948	1262	-0.96	STS
0.022982	0.000959	0.282575	0.28257	-7.4	1.4	957	1286	-0.97	STS
0.027868	0.001199	0.282552	0.28254	-8.2	0.5	996	1342	-0.96	STS
0.033794	0.001395	0.282561	0.28255	-7.9	0.8	988	1325	-0.96	STS
0.023913	0.000995	0.282560	0.28255	-8.0	0.8	979	1320	-0.97	STS
0.044575	0.001799	0.282565	0.28255	-7.8	0.8	993	1323	-0.95	STS
0.008649	0.000370	0.282299	0.28229	-17.2	4.3	1323	1542	-0.99	STS
0.045471	0.001800	0.282618	0.28260	-5.9	2.7	917	1204	-0.95	STS
0.038908	0.001589	0.282591	0.28258	-6.9	1.8	950	1261	-0.95	STS
0.040956	0.001664	0.282619	0.28261	-5.9	2.7	912	1199	-0.95	STS
0.047000	0.001919	0.282595	0.28258	-6.7	1.8	953	1258	-0.94	STS
0.019471	0.000532	0.282716	0.28271	-2.4	6.8	750	952	-0.98	STS
0.075207	0.001965	0.282749	0.28273	-1.3	7.5	732	907	-0.94	STS
0.058181	0.001555	0.282733	0.28272	-1.8	7.1	747	933	-0.95	STS
0.068387	0.001795	0.282720	0.28271	-2.3	6.4	770	971	-0.95	STS

0.055715	0.001528	0.282752	0.28274	-1.2	7.7	718	892	-0.95	STS
0.081178	0.002097	0.282773	0.28276	-0.4	8.0	700	863	-0.94	STS
0.034520	0.000874	0.282780	0.28277	-0.2	9.1	666	811	-0.97	STS
0.097927	0.002191	0.282620	0.28260	-5.8	2.7	924	1206	-0.93	STS
0.070922	0.001739	0.282770	0.28276	-0.5	8.1	697	860	-0.95	STS
0.085807	0.002006	0.282785	0.28277	0.0	8.7	680	826	-0.94	STS
0.042993	0.000919	0.282734	0.28273	-1.8	7.0	732	927	-0.97	STS
0.021083	0.000510	0.282662	0.28266	-4.4	4.7	825	1078	-0.98	STS
0.062611	0.001600	0.282708	0.28270	-2.7	6.2	783	991	-0.95	STS
0.049464	0.001339	0.282674	0.28266	-3.9	5.0	826	1065	-0.96	STS
0.035864	0.000954	0.282721	0.28271	-2.3	6.8	752	950	-0.97	STS
0.055813	0.001404	0.282744	0.28273	-1.4	7.5	727	906	-0.96	STS
0.048892	0.001343	0.282706	0.28270	-2.8	6.1	781	995	-0.96	STS
0.021563	0.000593	0.282723	0.28272	-2.2	6.9	741	942	-0.98	STS
0.050718	0.001760	0.282708	0.28269	-2.7	5.9	786	1000	-0.95	STS
0.082451	0.002708	0.282711	0.28269	-2.6	5.6	802	1012	-0.92	STS
0.042207	0.001487	0.282721	0.28271	-2.2	6.5	761	964	-0.96	STS
0.071072	0.002477	0.282672	0.28265	-4.0	4.4	855	1095	-0.93	STS
0.113338	0.003731	0.282734	0.28271	-1.8	6.2	791	979	-0.89	STS
0.055290	0.001803	0.282642	0.28263	-5.0	3.6	882	1147	-0.95	STS
0.054878	0.002036	0.282703	0.28269	-2.9	5.6	800	1018	-0.94	STS
0.048476	0.001780	0.282681	0.28267	-3.7	4.9	825	1061	-0.95	STS
0.044476	0.001602	0.282647	0.28263	-4.9	3.8	871	1134	-0.95	STS
0.037402	0.001360	0.282733	0.28272	-1.9	7.2	743	928	-0.96	STS
0.142937	0.004085	0.282599	0.28257	-6.6	1.4	1006	1286	-0.88	STS
0.043767	0.001746	0.282724	0.28271	-2.2	6.5	763	962	-0.95	STS
0.041640	0.001579	0.282665	0.28265	-4.2	4.4	844	1094	-0.95	STS
0.110283	0.003417	0.282670	0.28264	-4.1	4.4	881	1108	-0.90	STS
0.037676	0.001382	0.282760	0.28275	-0.9	8.5	704	859	-0.96	STS
0.045912	0.001725	0.282566	0.28255	-7.8	0.7	990	1324	-0.95	STS
0.048523	0.001813	0.282787	0.28277	0.1	8.5	674	827	-0.95	STS
0.055860	0.001909	0.282609	0.28259	-6.2	2.2	932	1228	-0.94	STS
0.049059	0.001844	0.282706	0.28269	-2.8	7.3	791	965	-0.95	STS
0.059839	0.002016	0.282647	0.28263	-4.9	3.3	880	1152	-0.94	STS
0.076967	0.002508	0.282635	0.28262	-5.3	2.9	911	1182	-0.93	STS
0.022391	0.000787	0.282676	0.28267	-3.9	5.8	811	1034	-0.98	STS
0.033178	0.001144	0.282652	0.28264	-4.7	4.3	852	1108	-0.97	STS
0.035095	0.001282	0.282697	0.28269	-3.1	6.7	792	987	-0.96	STS
0.045344	0.001526	0.282634	0.28262	-5.3	3.2	888	1165	-0.95	STS
0.042476	0.001450	0.282537	0.28253	-8.8	0.0	1024	1377	-0.96	STS
0.058877	0.001952	0.282720	0.28270	-2.3	6.2	774	978	-0.94	STS
0.037853	0.001304	0.282532	0.28252	-9.0	-0.5	1027	1396	-0.96	STS
0.033753	0.001282	0.282741	0.28273	-1.6	7.4	730	912	-0.96	STS
0.033106	0.001111	0.282748	0.28274	-1.3	7.3	717	903	-0.97	STS
0.157640	0.003480	0.282350	0.28231	-15.4	-3.1	1363	1732	-0.90	STS
0.091310	0.001860	0.282410	0.28240	-13.3	-4.3	1217	1660	-0.94	STS
0.066910	0.001350	0.282360	0.28235	-15.0	-6.0	1271	1764	-0.96	STS
0.083960	0.001490	0.282350	0.28234	-15.4	-4.3	1290	1733	-0.96	STS
0.069640	0.001440	0.282320	0.28231	-16.4	-7.5	1331	1858	-0.96	STS
0.095460	0.002050	0.282400	0.28238	-13.6	-5.0	1238	1694	-0.94	STS
0.080030	0.001510	0.282380	0.28237	-14.3	-5.4	1249	1725	-0.96	STS
0.066430	0.001380	0.282360	0.28235	-15.0	-6.2	1272	1770	-0.96	STS
0.122030	0.002870	0.282440	0.28242	-12.2	-3.6	1207	1615	-0.91	STS
0.119900	0.002710	0.282320	0.28230	-16.4	-7.8	1378	1878	-0.92	STS
0.142300	0.003340	0.282220	0.28219	-20.0	-11.5	1551	2113	-0.90	STS
0.092420	0.002170	0.282350	0.28233	-15.4	-6.8	1314	1809	-0.94	STS
0.115520	0.001840	0.282330	0.28232	-16.1	-7.2	1331	1841	-0.95	STS
0.069530	0.001180	0.282340	0.28233	-15.7	-6.6	1294	1805	-0.96	STS
0.112730	0.002340	0.282390	0.28237	-14.0	-5.4	1262	1721	-0.93	STS
0.085990	0.001960	0.282300	0.28228	-17.2	-8.3	1378	1909	-0.94	STS
0.129070	0.003220	0.282420	0.28239	-12.9	-4.3	1249	1663	-0.90	STS
0.103670	0.002210	0.282390	0.28237	-14.0	-5.4	1258	1719	-0.93	STS
0.111340	0.002610	0.282390	0.28237	-14.0	-5.2	1272	1720	-0.92	STS

0.092670	0.001830	0.282400	0.28239	-13.6	-4.9	1231	1688	-0.95	STS
0.112300	0.001800	0.282390	0.28238	-14.0	-5.0	1244	1705	-0.95	STS
0.089870	0.001470	0.282410	0.28240	-13.3	-4.1	1205	1651	-0.96	STS
0.099530	0.002010	0.282390	0.28237	-14.0	-5.3	1251	1715	-0.94	STS
0.111940	0.002540	0.282390	0.28237	-14.0	-5.5	1269	1725	-0.92	STS
0.143920	0.002200	0.282450	0.28242	-11.8	1.9	1171	1449	-0.93	STS
0.062740	0.001100	0.282380	0.28237	-14.3	-5.4	1235	1722	-0.97	STS
0.237320	0.004660	0.282510	0.28247	-9.7	-1.6	1162	1489	-0.86	STS
0.073050	0.001640	0.282400	0.28239	-13.6	-4.6	1224	1680	-0.95	STS
0.065280	0.001260	0.282390	0.28238	-14.0	-5.0	1226	1698	-0.96	STS
0.069740	0.001420	0.282400	0.28239	-13.6	-4.7	1217	1680	-0.96	STS
0.020374	0.000787	0.282631	0.28262	-5.4	4.2	874	1136	-0.98	STS
0.020837	0.000938	0.282448	0.28244	-11.9	-2.3	1134	1548	-0.97	STS
0.028842	0.001132	0.282396	0.28239	-13.8	-4.2	1214	1669	-0.97	STS
0.029536	0.001253	0.282431	0.28242	-12.5	-3.0	1168	1593	-0.96	STS
0.019428	0.000831	0.282191	0.28218	-21.0	-11.4	1489	2120	-0.98	STS
0.024680	0.000929	0.282268	0.28226	-18.3	-8.7	1386	1951	-0.97	STS
0.017907	0.000727	0.282301	0.28230	-17.1	-7.5	1332	1872	-0.98	STS
0.035913	0.001681	0.282206	0.28219	-20.5	-11.1	1502	2103	-0.95	STS
0.024623	0.001006	0.282138	0.28213	-22.9	-13.3	1570	2242	-0.97	STS
0.021085	0.000915	0.282747	0.28274	-1.4	8.3	714	877	-0.97	STS
0.017439	0.000677	0.282113	0.28211	-23.8	-14.1	1590	2290	-0.98	STS
0.035574	0.001360	0.282280	0.28227	-17.9	-8.4	1385	1932	-0.96	STS
0.034006	0.001345	0.282373	0.28236	-14.6	-5.1	1253	1725	-0.96	STS
0.017759	0.000706	0.282110	0.28210	-23.9	-14.2	1596	2297	-0.98	STS
0.030218	0.001129	0.282193	0.28218	-21.0	-11.4	1499	2122	-0.97	STS
0.026841	0.001037	0.282496	0.28249	-10.2	-0.7	1070	1444	-0.97	STS
0.018521	0.000778	0.282271	0.28226	-18.2	-8.6	1376	1942	-0.98	STS
0.039830	0.000950	0.282477	0.28247	-10.9	-1.8	1094	1497	-0.97	STS
0.037680	0.000920	0.282598	0.28259	-6.6	2.5	924	1225	-0.97	STS
0.046260	0.001120	0.282471	0.28246	-11.1	-2.0	1108	1514	-0.97	STS
0.032730	0.000800	0.282503	0.28250	-10.0	-0.9	1054	1438	-0.98	STS
0.043480	0.001040	0.282550	0.28254	-8.3	0.8	994	1335	-0.97	STS
0.041870	0.000980	0.282564	0.28256	-7.8	1.3	973	1303	-0.97	STS
0.034440	0.000790	0.282525	0.28252	-9.2	0.0	1023	1387	-0.98	STS
0.031530	0.000830	0.282606	0.28260	-6.3	2.8	910	1206	-0.98	STS
0.041490	0.000970	0.282576	0.28257	-7.4	1.7	956	1276	-0.97	STS
0.052560	0.001160	0.282607	0.28260	-6.3	2.7	917	1211	-0.97	STS
0.046110	0.001030	0.282542	0.28253	-8.6	0.5	1005	1354	-0.97	STS
0.036970	0.000820	0.282554	0.28255	-8.2	1.0	983	1321	-0.98	STS
0.030600	0.000720	0.282576	0.28257	-7.4	1.8	950	1270	-0.98	STS
0.028020	0.000680	0.282558	0.28255	-8.0	1.2	974	1311	-0.98	STS
0.035050	0.000860	0.282531	0.28252	-9.0	0.2	1016	1374	-0.97	STS
0.030630	0.000790	0.282631	0.28262	-5.4	3.7	874	1148	-0.98	STS
0.027800	0.000690	0.282606	0.28260	-6.3	2.9	907	1203	-0.98	STS
0.033630	0.000860	0.282557	0.28255	-8.1	1.1	980	1316	-0.97	STS
0.036540	0.000910	0.282562	0.28255	-7.9	1.3	974	1305	-0.97	STS
0.034830	0.000860	0.282530	0.28252	-9.0	0.1	1018	1379	-0.97	STS
0.023910	0.000680	0.282556	0.28255	-8.1	1.1	977	1315	-0.98	STS
0.022990	0.000630	0.282513	0.28251	-9.6	-0.4	1035	1411	-0.98	STS
0.039640	0.001020	0.282474	0.28247	-11.0	-1.9	1101	1505	-0.97	STS
0.114404	0.002231	0.282604	0.28259	-6.4	1.9	948	1247	-0.93	STS
0.114346	0.002228	0.282497	0.28248	-10.2	-1.9	1104	1487	-0.93	STS
0.109164	0.002071	0.282521	0.28251	-9.3	-1.0	1064	1431	-0.94	STS
0.132432	0.002588	0.282544	0.28252	-8.5	-0.3	1046	1388	-0.92	STS
0.060428	0.001156	0.282556	0.28255	-8.1	0.5	989	1337	-0.97	STS
0.137108	0.002604	0.282586	0.28257	-7.0	1.2	984	1294	-0.92	STS
0.188754	0.003568	0.282568	0.28254	-7.7	0.3	1039	1351	-0.89	STS
0.197814	0.003780	0.282613	0.28258	-6.1	1.8	977	1254	-0.89	STS
0.127181	0.002456	0.282394	0.28238	-13.8	-5.6	1261	1722	-0.93	STS
0.173454	0.003267	0.282617	0.28259	-5.9	2.1	956	1236	-0.90	STS
0.134226	0.002507	0.282577	0.28256	-7.4	0.9	995	1313	-0.93	STS
0.115130	0.002259	0.282497	0.28248	-10.2	-1.9	1104	1488	-0.93	STS

0.113484	0.002284	0.282574	0.28256	-7.5	0.8	993	1316	-0.93	STS
0.130868	0.002617	0.282542	0.28252	-8.6	-0.4	1049	1393	-0.92	STS
0.055222	0.000919	0.282499	0.28249	-10.1	-3.7	1063	1522	-0.97	STS
0.046548	0.000761	0.282472	0.28247	-11.1	-4.5	1096	1578	-0.98	STS
0.067187	0.001084	0.282512	0.28251	-9.7	-3.4	1049	1499	-0.97	STS
0.111682	0.002269	0.282580	0.28257	-7.2	-1.3	984	1363	-0.93	STS
0.088201	0.001715	0.282491	0.28248	-10.4	-4.5	1097	1560	-0.95	STS
0.040316	0.000675	0.282352	0.28235	-15.3	-8.8	1260	1847	-0.98	STS
0.046211	0.000755	0.282483	0.28248	-10.7	-4.4	1080	1561	-0.98	STS
0.085190	0.001895	0.281864	0.28184	-32.6	-17.2	1996	2703	-0.94	STS
0.075594	0.001299	0.282539	0.28253	-8.7	-2.6	1017	1443	-0.96	STS
0.068198	0.001261	0.282414	0.28241	-13.1	-7.1	1192	1726	-0.96	STS
0.040123	0.000666	0.282491	0.28249	-10.4	-4.1	1067	1542	-0.98	STS
0.060946	0.001008	0.282508	0.28250	-9.8	-3.7	1052	1511	-0.97	STS
0.090905	0.001501	0.282504	0.28250	-9.9	-3.9	1072	1525	-0.96	STS
0.044249	0.000729	0.282515	0.28251	-9.5	-3.4	1035	1493	-0.98	STS
0.075891	0.001359	0.282592	0.28258	-6.8	-0.7	943	1324	-0.96	STS
0.042359	0.000813	0.282512	0.28251	-9.7	-3.5	1041	1499	-0.98	STS
0.076138	0.001373	0.282352	0.28234	-15.3	-2.3	1284	1675	-0.96	STS
0.040559	0.000734	0.282440	0.28244	-12.2	-6.1	1140	1661	-0.98	STS
0.040735	0.000744	0.282499	0.28250	-10.1	-3.9	1058	1526	-0.98	STS
0.020924	0.000857	0.282515	0.28251	-9.6	-3.6	1039	1499	-0.97	STS
0.030049	0.001233	0.282544	0.28254	-8.5	-2.7	1008	1440	-0.96	STS
0.028521	0.001152	0.282545	0.28254	-8.5	-2.6	1004	1436	-0.97	STS
0.009408	0.000411	0.282456	0.28245	-11.6	-5.7	1107	1628	-0.99	STS
0.018707	0.000758	0.282513	0.28251	-9.6	-3.7	1039	1505	-0.98	STS
0.050557	0.002031	0.282516	0.28251	-9.5	-3.8	1070	1510	-0.94	STS
0.024071	0.000969	0.282465	0.28246	-11.3	-5.4	1112	1614	-0.97	STS
0.023488	0.000935	0.282494	0.28249	-10.3	-4.5	1070	1550	-0.97	STS
0.036491	0.001432	0.282525	0.28252	-9.2	-3.3	1040	1483	-0.96	STS
0.035080	0.001397	0.282533	0.28253	-8.9	-3.2	1029	1468	-0.96	STS
0.055464	0.002231	0.282526	0.28251	-9.2	-3.5	1062	1492	-0.93	STS
0.026130	0.001042	0.282492	0.28249	-10.4	-4.5	1076	1553	-0.97	STS
0.008580	0.000389	0.282498	0.28250	-10.2	-4.2	1050	1534	-0.99	STS
0.027916	0.001148	0.282503	0.28250	-10.0	-4.2	1063	1531	-0.97	STS
0.016074	0.000702	0.282509	0.28250	-9.8	-3.8	1043	1510	-0.98	STS
0.037582	0.001450	0.282517	0.28251	-9.5	-3.6	1052	1500	-0.96	STS
0.017135	0.000753	0.282504	0.28250	-9.9	-4.2	1051	1529	-0.98	STS
0.045736	0.001800	0.282540	0.28253	-8.7	-2.9	1029	1454	-0.95	STS
0.028391	0.001133	0.282471	0.28246	-11.1	-5.2	1108	1600	-0.97	STS
0.015809	0.000645	0.282490	0.28249	-10.4	-4.4	1068	1551	-0.98	STS
0.025035	0.001004	0.282525	0.28252	-9.2	-3.1	1029	1475	-0.97	STS
0.070941	0.002739	0.282517	0.28250	-9.5	-3.9	1090	1517	-0.92	STS
0.022905	0.000939	0.282511	0.28251	-9.7	-3.7	1047	1508	-0.97	STS
0.036049	0.001441	0.282547	0.28254	-8.4	-2.5	1010	1432	-0.96	STS
0.022914	0.000928	0.282527	0.28252	-9.1	-3.0	1023	1466	-0.97	STS
0.017952	0.000740	0.282508	0.28250	-9.8	-3.8	1045	1512	-0.98	STS
0.024634	0.001007	0.282504	0.28250	-9.9	-4.0	1058	1525	-0.97	STS
0.039214	0.001581	0.282505	0.28250	-9.9	-4.1	1074	1530	-0.95	STS
0.035325	0.001410	0.282505	0.28250	-9.9	-4.1	1069	1530	-0.96	STS
0.046483	0.001828	0.282523	0.28251	-9.3	-3.6	1055	1495	-0.95	STS
0.016605	0.000690	0.282509	0.28251	-9.8	-3.9	1042	1512	-0.98	STS
0.051433	0.002120	0.282513	0.28250	-9.6	-4.0	1078	1521	-0.94	STS
0.028198	0.001273	0.282505	0.28250	-9.9	-4.0	1064	1526	-0.96	STS
0.032309	0.001314	0.282495	0.28249	-10.3	-4.4	1079	1549	-0.96	STS
0.029989	0.001224	0.282514	0.28251	-9.6	-3.5	1049	1498	-0.96	STS
0.036843	0.001528	0.282546	0.28254	-8.4	-2.4	1013	1431	-0.95	STS
0.021047	0.000898	0.282490	0.28249	-10.4	-4.5	1074	1556	-0.97	STS
0.024149	0.001007	0.282524	0.28252	-9.2	-3.1	1030	1475	-0.97	STS
0.024134	0.000981	0.282432	0.28243	-12.5	-6.5	1158	1684	-0.97	STS
0.030197	0.001189	0.282508	0.28250	-9.8	-3.9	1058	1518	-0.96	STS
0.018832	0.000783	0.282505	0.28250	-9.9	-3.9	1050	1519	-0.98	STS
0.031413	0.001296	0.282497	0.28249	-10.2	-4.4	1076	1546	-0.96	STS

0.019723	0.000818	0.282513	0.28251	-9.6	-3.5	1041	1499	-0.98	STS
0.034092	0.001354	0.282470	0.28246	-11.1	-5.2	1116	1604	-0.96	STS
0.037407	0.001477	0.282524	0.28252	-9.2	-3.4	1043	1486	-0.96	STS
0.049478	0.002030	0.282527	0.28252	-9.1	-3.4	1054	1486	-0.94	STS
0.030352	0.001320	0.282559	0.28255	-8.0	-2.1	989	1405	-0.96	STS
0.027121	0.001124	0.282510	0.28250	-9.7	-3.8	1054	1514	-0.97	STS
0.017318	0.000740	0.282507	0.28250	-9.8	-3.9	1047	1516	-0.98	STS
0.031412	0.001295	0.282524	0.28252	-9.2	-3.3	1038	1482	-0.96	STS
0.031041	0.001275	0.282495	0.28249	-10.2	-4.2	1078	1544	-0.96	STS
0.037588	0.001415	0.282436	0.28243	-12.3	-6.1	1166	1672	-0.96	STS
0.019619	0.000815	0.282455	0.28245	-11.7	-5.5	1121	1626	-0.98	STS
0.017980	0.000721	0.282460	0.28246	-11.5	-5.1	1111	1607	-0.98	STS
0.014462	0.000591	0.282447	0.28244	-11.9	-5.5	1125	1633	-0.98	STS
0.016503	0.000671	0.282434	0.28243	-12.4	-6.0	1146	1667	-0.98	STS
0.016935	0.000696	0.282431	0.28243	-12.5	-6.1	1150	1673	-0.98	STS
0.021305	0.000853	0.282434	0.28243	-12.4	-6.2	1152	1673	-0.97	STS
0.026410	0.001076	0.282489	0.28248	-10.5	-4.4	1081	1554	-0.97	STS
0.044802	0.001841	0.282538	0.28253	-8.7	-2.6	1033	1449	-0.95	STS
0.016177	0.000648	0.282450	0.28245	-11.8	-5.4	1123	1629	-0.98	STS
0.028061	0.001116	0.282419	0.28241	-12.9	-6.5	1181	1703	-0.97	STS
0.037700	0.001674	0.282423	0.28241	-12.8	-6.6	1193	1704	-0.95	STS
0.062309	0.000372	0.282627	0.28263	-5.6	0.6	870	1237	-0.99	STS
0.040584	0.001138	0.282620	0.28261	-5.8	0.3	898	1261	-0.97	STS
0.051939	0.001192	0.282644	0.28264	-5.0	1.1	865	1207	-0.96	STS
0.036058	0.000841	0.282658	0.28265	-4.5	1.7	838	1170	-0.97	STS
0.031943	0.001815	0.282657	0.28265	-4.5	1.7	861	1179	-0.95	STS
0.022010	0.000589	0.282665	0.28266	-4.2	2.1	822	1148	-0.98	STS
0.049531	0.000527	0.282602	0.28260	-6.5	-0.2	909	1292	-0.98	STS
0.019071	0.001190	0.282671	0.28266	-4.0	2.1	827	1145	-0.96	STS
0.050995	0.001262	0.282663	0.28266	-4.3	1.9	840	1162	-0.96	STS
0.035866	0.000785	0.282659	0.28265	-4.5	1.7	835	1169	-0.98	STS
0.042779	0.000859	0.282645	0.28264	-5.0	1.3	856	1198	-0.97	STS
0.017544	0.001499	0.282665	0.28266	-4.2	1.9	842	1162	-0.96	STS
0.059560	0.001302	0.282657	0.28265	-4.5	1.6	849	1179	-0.96	STS
0.023432	0.002622	0.282611	0.28260	-6.2	0.0	948	1291	-0.92	STS
0.032489	0.001939	0.282672	0.28266	-4.0	2.1	842	1149	-0.94	STS
0.045522	0.001230	0.282649	0.28264	-4.8	1.3	859	1195	-0.96	STS
0.015446	0.000892	0.282648	0.28264	-4.8	1.3	853	1194	-0.97	STS
0.068861	0.000627	0.282638	0.28263	-5.2	1.1	861	1212	-0.98	STS
0.053175	0.001972	0.282668	0.28266	-4.1	1.8	849	1162	-0.94	STS
0.094053	0.001343	0.282698	0.28269	-3.1	3.0	792	1088	-0.96	STS
0.028542	0.000835	0.282646	0.28264	-4.9	1.5	854	1191	-0.98	STS
0.043992	0.000937	0.282737	0.28273	-1.7	4.5	728	993	-0.97	STS
0.024922	0.001151	0.282667	0.28266	-4.2	1.7	832	1162	-0.97	STS
0.049672	0.000846	0.282677	0.28267	-3.8	2.3	811	1131	-0.97	STS
0.026390	0.000704	0.282613	0.28261	-6.1	-0.1	898	1277	-0.98	STS
0.058624	0.000517	0.282675	0.28267	-3.9	2.6	807	1123	-0.98	STS
0.030756	0.000488	0.282674	0.28267	-3.9	2.9	808	1114	-0.99	STS
0.037414	0.001113	0.282657	0.28265	-4.5	1.6	845	1175	-0.97	STS
0.117368	0.000454	0.282620	0.28262	-5.8	0.5	882	1250	-0.99	STS
0.042145	0.000504	0.282600	0.28260	-6.5	-0.3	911	1296	-0.99	STS
0.071520	0.001130	0.282646	0.28264	-4.9	1.3	861	1200	-0.97	STS
0.054272	0.000730	0.282674	0.28267	-3.9	2.4	813	1130	-0.98	STS
0.050088	0.000794	0.282651	0.28265	-4.7	1.5	846	1185	-0.98	STS
0.063372	0.004535	0.282576	0.28255	-7.4	-1.9	1056	1401	-0.87	STS
0.028582	0.000866	0.282620	0.28262	-5.8	0.4	892	1256	-0.97	STS
0.063087	0.000391	0.282659	0.28266	-4.5	2.2	826	1151	-0.99	STS
0.119735	0.001015	0.282689	0.28268	-3.4	2.8	798	1102	-0.97	STS
0.091350	0.000606	0.282689	0.28269	-3.4	2.9	789	1097	-0.98	STS
0.055483	0.000947	0.282649	0.28264	-4.8	1.4	853	1191	-0.97	STS
0.040260	0.000470	0.282634	0.28263	-5.3	0.8	863	1223	-0.99	STS
0.029946	0.001312	0.282710	0.28270	-2.7	3.7	774	1052	-0.96	STS
0.055401	0.000547	0.282660	0.28266	-4.4	2.0	828	1157	-0.98	STS

0.088320	0.000726	0.282651	0.28265	-4.7	1.6	845	1181	-0.98	STS
0.061859	0.001054	0.282652	0.28265	-4.7	1.7	851	1179	-0.97	STS
0.044718	0.001327	0.282552	0.28254	-8.2	-2.0	999	1412	-0.96	STS
0.034963	0.001061	0.282567	0.28256	-7.7	-1.5	971	1375	-0.97	STS
0.014971	0.000470	0.282573	0.28257	-7.5	-1.1	948	1354	-0.99	STS
0.028522	0.000846	0.282578	0.28257	-7.3	-1.0	950	1347	-0.97	STS
0.035633	0.001127	0.282529	0.28252	-9.0	-2.8	1026	1461	-0.97	STS
0.022236	0.000700	0.282562	0.28256	-7.9	-1.6	969	1382	-0.98	STS
0.025408	0.000798	0.282569	0.28256	-7.6	-1.3	961	1367	-0.98	STS
0.027901	0.000944	0.282577	0.28257	-7.3	-1.1	953	1350	-0.97	STS
0.022874	0.000704	0.282604	0.28260	-6.4	-0.1	911	1288	-0.98	STS
0.021485	0.000687	0.282598	0.28259	-6.6	-0.2	918	1299	-0.98	STS
0.039530	0.001217	0.282558	0.28255	-8.0	-1.8	987	1396	-0.96	STS
0.052269	0.001711	0.282553	0.28254	-8.2	-2.1	1008	1415	-0.95	STS
0.024594	0.000812	0.282573	0.28257	-7.5	-1.2	956	1359	-0.98	STS
0.026442	0.000913	0.282557	0.28255	-8.1	-1.8	981	1395	-0.97	STS
0.035090	0.001113	0.282646	0.28264	-4.9	1.4	861	1198	-0.97	STS
0.030410	0.000955	0.282589	0.28258	-6.9	-0.6	937	1322	-0.97	STS
0.033281	0.001045	0.282551	0.28255	-8.3	-2.0	993	1411	-0.97	STS
0.022925	0.000780	0.282588	0.28258	-7.0	-0.7	934	1324	-0.98	STS
0.017515	0.000581	0.282561	0.28256	-7.9	-1.6	967	1382	-0.98	STS
0.031919	0.001001	0.282582	0.28258	-7.2	-0.9	948	1340	-0.97	STS
0.024918	0.000760	0.282616	0.28261	-6.0	0.3	895	1262	-0.98	STS
0.022774	0.000761	0.282583	0.28258	-7.1	-0.8	941	1335	-0.98	STS
0.030722	0.001021	0.282625	0.28262	-5.7	0.4	889	1251	-0.97	STS
0.036064	0.001165	0.282546	0.28254	-8.4	-2.4	1003	1428	-0.97	STS
0.034484	0.001118	0.282610	0.28260	-6.2	-0.2	912	1285	-0.97	STS
0.019940	0.000656	0.282550	0.28255	-8.3	-2.1	984	1412	-0.98	STS
0.021528	0.000719	0.282549	0.28254	-8.4	-2.2	988	1416	-0.98	STS
0.024754	0.000831	0.282597	0.28259	-6.6	-0.6	923	1311	-0.98	STS
0.025681	0.000904	0.282635	0.28263	-5.3	0.8	872	1225	-0.97	STS
0.050726	0.001620	0.282528	0.28252	-9.1	-3.1	1041	1474	-0.95	STS
0.016334	0.000562	0.282598	0.28259	-6.6	-0.4	915	1304	-0.98	STS
0.023874	0.000815	0.282566	0.28256	-7.7	-1.6	966	1377	-0.98	STS
0.042266	0.001366	0.282577	0.28257	-7.4	-1.4	965	1362	-0.96	STS
0.014561	0.000500	0.282563	0.28256	-7.8	-1.7	962	1383	-0.99	STS
0.022731	0.000751	0.282593	0.28259	-6.8	-0.6	927	1317	-0.98	STS
0.023464	0.000784	0.282588	0.28258	-7.0	-0.8	934	1329	-0.98	STS
0.023140	0.000777	0.282611	0.28261	-6.1	0.0	902	1278	-0.98	STS
0.029742	0.001001	0.282619	0.28261	-5.9	0.2	896	1262	-0.97	STS
0.050794	0.001657	0.282478	0.28247	-10.8	-4.7	1113	1582	-0.95	STS
0.032706	0.001178	0.282642	0.28264	-5.0	1.0	867	1212	-0.96	STS
0.040557	0.001307	0.282592	0.28258	-6.8	-0.9	942	1329	-0.96	STS
0.029834	0.001058	0.282532	0.28253	-9.0	-2.9	1020	1458	-0.97	STS
0.067231	0.002236	0.282545	0.28253	-8.5	-2.7	1034	1444	-0.93	STS
0.035721	0.001180	0.282577	0.28257	-7.4	-1.3	960	1360	-0.96	STS
0.017823	0.000608	0.282564	0.28256	-7.8	-1.6	963	1379	-0.98	STS
0.040255	0.001414	0.282627	0.28262	-5.6	0.5	894	1248	-0.96	STS
0.028584	0.000939	0.282522	0.28252	-9.3	-3.3	1032	1482	-0.97	STS
0.040433	0.001321	0.282570	0.28256	-7.6	-1.6	973	1377	-0.96	STS
0.019061	0.000635	0.282538	0.28253	-8.7	-2.6	1001	1440	-0.98	STS
0.065899	0.002023	0.282462	0.28245	-11.4	-5.2	1147	1617	-0.94	STS
0.052222	0.001716	0.282585	0.28258	-7.1	-1.1	963	1347	-0.95	STS
0.056279	0.001763	0.282579	0.28257	-7.3	-1.5	972	1366	-0.95	STS
0.059163	0.001842	0.282631	0.28262	-5.4	0.7	899	1241	-0.95	STS
0.035398	0.001151	0.282516	0.28251	-9.5	-3.4	1045	1494	-0.97	STS
0.031097	0.000984	0.282502	0.28250	-10.0	-3.9	1060	1525	-0.97	STS
0.055184	0.001845	0.282723	0.28271	-2.2	3.8	767	1037	-0.95	STS
0.063531	0.002038	0.282469	0.28246	-11.2	-5.1	1139	1607	-0.94	STS
0.061410	0.001869	0.282428	0.28242	-12.6	-6.4	1192	1692	-0.94	STS
0.041318	0.001355	0.282500	0.28249	-10.1	-2.6	1073	1495	-0.96	STS
0.065159	0.002065	0.282438	0.28243	-12.3	-7.0	1184	1698	-0.94	STS
0.031481	0.001022	0.282414	0.28241	-13.1	-6.6	1185	1712	-0.97	STS

0.047711	0.001534	0.282441	0.28243	-12.2	-6.1	1162	1665	-0.95	STS
0.050220	0.001614	0.282439	0.28243	-12.2	-5.9	1168	1663	-0.95	STS
0.033044	0.001099	0.282543	0.28254	-8.6	-2.2	1006	1426	-0.97	STS
0.020620	0.000696	0.282272	0.28227	-18.1	-11.5	1371	2020	-0.98	STS
0.028178	0.000932	0.282497	0.28249	-10.2	-0.1	1066	1426	-0.97	STS
0.024118	0.000800	0.282495	0.28249	-10.3	-3.7	1065	1527	-0.98	STS
0.027250	0.000903	0.282457	0.28245	-11.6	-4.9	1121	1609	-0.97	STS
0.022163	0.000547	0.282504	0.28250	-9.9	-3.8	1045	1515	-0.98	STS
0.031196	0.000742	0.282498	0.28249	-10.2	-4.0	1059	1530	-0.98	STS
0.024952	0.000611	0.282428	0.28243	-12.6	-6.4	1152	1684	-0.98	STS
0.054003	0.001273	0.282514	0.28251	-9.6	-3.6	1051	1502	-0.96	STS
0.022820	0.000556	0.282317	0.28231	-16.6	-10.4	1305	1933	-0.98	STS
0.040823	0.000975	0.282529	0.28252	-9.1	-3.0	1022	1465	-0.97	STS
0.034253	0.000825	0.282522	0.28252	-9.3	-2.2	1027	1451	-0.98	STS
0.028593	0.000695	0.282415	0.28241	-13.1	-7.0	1173	1717	-0.98	STS
0.029824	0.000732	0.282516	0.28251	-9.5	-3.4	1034	1491	-0.98	STS
0.025822	0.000626	0.282488	0.28248	-10.5	-4.4	1069	1553	-0.98	STS
0.019692	0.000481	0.282454	0.28245	-11.7	-5.6	1113	1628	-0.99	STS
0.060149	0.001360	0.282466	0.28246	-11.3	-5.2	1122	1609	-0.96	STS
0.023769	0.000571	0.282481	0.28248	-10.8	-4.6	1078	1568	-0.98	STS
0.022097	0.000518	0.282458	0.28246	-11.6	-5.4	1108	1617	-0.98	STS
0.045140	0.001020	0.282445	0.28244	-12.0	-5.9	1141	1653	-0.97	STS
0.023589	0.000552	0.282419	0.28242	-12.9	-6.8	1163	1705	-0.98	STS
0.043592	0.000969	0.282493	0.28249	-10.3	-4.3	1073	1547	-0.97	STS
0.028907	0.000652	0.282520	0.28252	-9.4	-3.3	1026	1481	-0.98	STS
0.034332	0.000761	0.282566	0.28256	-7.7	-1.7	965	1380	-0.98	STS
0.025201	0.000567	0.282475	0.28247	-10.9	-4.8	1085	1581	-0.98	STS
0.026362	0.000575	0.282513	0.28251	-9.6	-3.5	1033	1495	-0.98	STS
0.022727	0.000513	0.282482	0.28248	-10.7	-4.6	1075	1564	-0.98	STS
0.068032	0.001596	0.282523	0.28251	-9.3	-3.0	1048	1477	-0.95	STS
0.028217	0.000708	0.282496	0.28249	-10.2	-3.8	1061	1527	-0.98	STS
0.011257	0.000247	0.282402	0.28240	-13.5	-6.8	1177	1725	-0.99	STS
0.015413	0.000375	0.282422	0.28242	-12.8	-5.9	1153	1676	-0.99	STS
0.020686	0.000550	0.282482	0.28248	-10.7	-4.1	1076	1553	-0.98	STS
0.019108	0.000516	0.282453	0.28245	-11.7	-5.1	1115	1616	-0.98	STS
0.021773	0.000534	0.282485	0.28248	-10.6	-4.0	1071	1545	-0.98	STS
0.033915	0.000819	0.282504	0.28250	-9.9	-3.2	1052	1500	-0.98	STS
0.023583	0.000623	0.282469	0.28247	-11.2	-4.6	1096	1584	-0.98	STS
0.034394	0.000846	0.282509	0.28250	-9.8	-3.3	1047	1498	-0.97	STS
0.012640	0.000250	0.282435	0.28243	-12.4	-5.6	1133	1652	-0.99	STS
0.023025	0.000567	0.282404	0.28240	-13.5	-6.8	1184	1724	-0.98	STS
0.038673	0.000901	0.282512	0.28251	-9.7	-3.3	1044	1494	-0.97	STS
0.027268	0.000655	0.282459	0.28246	-11.5	-5.1	1111	1609	-0.98	STS
0.023084	0.000449	0.282385	0.28238	-14.1	-6.8	1207	1747	-0.99	STS
0.028507	0.000666	0.282453	0.28245	-11.7	-5.2	1120	1621	-0.98	STS
0.029870	0.000703	0.282497	0.28249	-10.2	-3.8	1059	1525	-0.98	STS
0.019837	0.000415	0.282415	0.28241	-13.1	-6.2	1165	1695	-0.99	STS
0.033439	0.000761	0.282472	0.28247	-11.1	-4.6	1096	1581	-0.98	STS
0.030032	0.000675	0.282511	0.28251	-9.7	-3.1	1040	1490	-0.98	STS
0.024871	0.000566	0.282470	0.28247	-11.1	-4.7	1092	1583	-0.98	STS
0.100902	0.002075	0.282416	0.28240	-13.1	-6.3	1217	1708	-0.94	STS
0.125042	0.002943	0.282388	0.28237	-14.0	-7.9	1286	1794	-0.91	STS
0.027441	0.000864	0.282606	0.28260	-6.3	2.5	912	1214	-0.97	STS
0.028163	0.000942	0.281584	0.28156	-42.5	-7.5	2331	2768	-0.97	STS
0.033123	0.001067	0.281107	0.28105	-59.3	1.2	2989	3133	-0.97	STS
0.041439	0.001246	0.282562	0.28255	-7.9	1.0	983	1317	-0.96	STS
0.030218	0.001246	0.282438	0.28243	-12.3	-2.7	1158	1573	-0.96	STS
0.026040	0.001004	0.282539	0.28253	-8.7	0.2	1009	1366	-0.97	STS
0.034281	0.001251	0.282602	0.28259	-6.5	2.1	926	1235	-0.96	STS
0.020597	0.000663	0.282340	0.28233	-15.7	-6.1	1276	1786	-0.98	STS
0.038375	0.001400	0.282523	0.28251	-9.3	-0.5	1043	1409	-0.96	STS
0.038663	0.001359	0.282474	0.28246	-11.0	-2.3	1110	1518	-0.96	STS
0.042206	0.001568	0.282532	0.28252	-8.9	0.6	1033	1368	-0.95	STS

0.036627	0.001394	0.282665	0.28265	-4.2	5.3	839	1066	-0.96	STS
0.025389	0.000919	0.281888	0.28187	-31.7	-13.8	1912	2563	-0.97	STS
0.034511	0.001133	0.282488	0.28248	-10.5	-1.5	1085	1478	-0.97	STS
0.031484	0.001282	0.282262	0.28224	-18.5	3.0	1407	1647	-0.96	STS
0.027182	0.000878	0.282398	0.28239	-13.7	-4.4	1202	1668	-0.97	STS
0.058085	0.002123	0.282496	0.28246	-10.2	10.0	1101	1177	-0.94	STS
0.050949	0.001684	0.282563	0.28255	-7.8	0.8	993	1324	-0.95	STS
0.024136	0.000990	0.282768	0.28276	-0.6	8.7	686	838	-0.97	STS
0.037906	0.001529	0.282734	0.28272	-1.8	6.9	744	936	-0.95	STS
0.036564	0.001261	0.282566	0.28256	-7.8	1.4	978	1300	-0.96	STS
0.086778	0.002740	0.282586	0.28256	-7.0	1.8	988	1279	-0.92	STS
0.056285	0.001906	0.282611	0.28260	-6.2	2.9	930	1209	-0.94	STS
0.041922	0.001367	0.282512	0.28250	-9.6	-0.4	1056	1420	-0.96	STS
0.025898	0.000877	0.282560	0.28255	-7.9	1.9	976	1289	-0.97	STS
0.060057	0.002250	0.282834	0.28281	1.7	11.2	613	698	-0.93	STS
0.053412	0.001725	0.282582	0.28257	-7.2	2.4	967	1257	-0.95	STS
0.055993	0.002042	0.282552	0.28254	-8.2	0.8	1018	1343	-0.94	STS
0.041979	0.001346	0.282514	0.28250	-9.6	-0.5	1053	1418	-0.96	STS
0.055197	0.001753	0.282581	0.28257	-7.2	2.0	969	1269	-0.95	STS
0.060470	0.001995	0.282519	0.28250	-9.4	-0.4	1064	1418	-0.94	STS
0.072606	0.002649	0.282407	0.28239	-13.4	-4.5	1248	1679	-0.92	STS
0.058718	0.002143	0.282378	0.28236	-14.4	-4.7	1273	1717	-0.94	STS
0.090329	0.003321	0.282442	0.28242	-12.1	-3.9	1220	1624	-0.90	STS
0.039529	0.001462	0.282281	0.28227	-17.8	-7.8	1386	1916	-0.96	STS
0.062303	0.002247	0.282504	0.28249	-10.0	-0.9	1095	1453	-0.93	STS
0.056001	0.002036	0.282435	0.28242	-12.4	-2.6	1187	1586	-0.94	STS
0.081508	0.003009	0.282496	0.28247	-10.2	-0.8	1129	1470	-0.91	STS
0.069015	0.002546	0.282353	0.28233	-15.3	-6.4	1323	1797	-0.92	STS
0.052010	0.001981	0.282400	0.28238	-13.6	-4.5	1236	1681	-0.94	STS
0.055045	0.002020	0.282438	0.28242	-12.3	-1.9	1183	1563	-0.94	STS
0.057357	0.002039	0.282390	0.28237	-14.0	-3.6	1253	1672	-0.94	STS
0.062472	0.002323	0.282404	0.28239	-13.5	-4.5	1241	1678	-0.93	STS
0.068589	0.002511	0.282359	0.28233	-15.1	-4.8	1314	1747	-0.93	STS
0.056440	0.002173	0.282419	0.28240	-13.0	-3.2	1215	1625	-0.94	STS
0.123313	0.004480	0.282591	0.28256	-6.9	1.4	1030	1302	-0.87	STS
0.068941	0.002580	0.282564	0.28254	-7.8	1.7	1016	1308	-0.92	STS
0.045173	0.001187	0.282497	0.28249	-10.2	-1.9	1073	1479	-0.96	STS
0.042092	0.001093	0.282486	0.28248	-10.6	-2.5	1086	1507	-0.97	STS
0.096288	0.002464	0.282569	0.28255	-7.7	0.1	1006	1343	-0.93	STS
0.047810	0.001255	0.282502	0.28249	-10.0	-1.9	1067	1470	-0.96	STS
0.043678	0.001169	0.282499	0.28249	-10.1	-1.8	1070	1472	-0.97	STS
0.097291	0.002783	0.282557	0.28254	-8.0	-0.2	1032	1369	-0.92	STS
0.052503	0.001463	0.282435	0.28242	-12.4	-3.4	1169	1599	-0.96	STS
0.069847	0.001960	0.282605	0.28259	-6.3	1.8	939	1244	-0.94	STS
0.057818	0.001568	0.282578	0.28256	-7.3	5.4	969	1180	-0.95	STS
0.050074	0.001340	0.282511	0.28250	-9.7	-1.2	1058	1443	-0.96	STS
0.061861	0.001679	0.282501	0.28249	-10.0	-1.7	1082	1473	-0.95	STS
0.025103	0.001113	0.282739	0.28273	-1.6	5.8	729	956	-0.97	STS
0.023242	0.000997	0.282735	0.28273	-1.8	5.7	732	963	-0.97	STS
0.025612	0.001132	0.282746	0.28274	-1.4	6.1	719	940	-0.97	STS
0.021709	0.000977	0.282779	0.28277	-0.2	7.3	670	863	-0.97	STS
0.025418	0.001170	0.282788	0.28278	0.1	7.5	661	846	-0.97	STS
0.026827	0.001154	0.282739	0.28273	-1.6	5.8	730	956	-0.97	STS
0.026249	0.001145	0.282746	0.28274	-1.4	6.1	720	940	-0.97	STS
0.027457	0.001244	0.282766	0.28276	-0.7	6.7	693	897	-0.96	STS
0.034441	0.001532	0.282767	0.28276	-0.6	6.7	697	899	-0.95	STS
0.052769	0.002120	0.282755	0.28274	-1.1	6.2	726	935	-0.94	STS
0.020556	0.000875	0.282707	0.28270	-2.8	4.7	770	1024	-0.97	STS
0.039876	0.001615	0.282809	0.28280	0.8	8.2	638	805	-0.95	STS
0.035445	0.001418	0.282725	0.28272	-2.1	5.3	755	992	-0.96	STS
0.027017	0.001238	0.282753	0.28274	-1.1	6.3	712	926	-0.96	STS
0.019361	0.000821	0.282687	0.28268	-3.5	4.0	796	1069	-0.98	STS
0.062907	0.001782	0.282706	0.28269	-2.8	5.0	790	1027	-0.95	STS

0.061227	0.001936	0.282712	0.28270	-2.6	5.2	784	1015	-0.94	STS
0.035683	0.001249	0.282732	0.28272	-1.9	6.0	742	960	-0.96	STS
0.046284	0.001592	0.282729	0.28272	-2.0	5.9	753	971	-0.95	STS
0.025146	0.000853	0.282675	0.28267	-3.9	4.1	815	1082	-0.97	STS
0.050665	0.001707	0.282714	0.28270	-2.5	5.3	777	1008	-0.95	STS
0.043436	0.001469	0.282692	0.28268	-3.3	4.6	804	1054	-0.96	STS
0.038242	0.001308	0.282713	0.28270	-2.6	5.4	771	1004	-0.96	STS
0.038113	0.001420	0.282642	0.28263	-5.1	2.8	874	1165	-0.96	STS
0.027607	0.001014	0.282738	0.28273	-1.7	6.3	729	943	-0.97	STS
0.027719	0.000992	0.282717	0.28271	-2.4	5.6	758	990	-0.97	STS
0.035439	0.001298	0.282668	0.28266	-4.1	3.8	834	1104	-0.96	STS
0.046909	0.001570	0.282710	0.28270	-2.7	5.2	780	1015	-0.95	STS
0.035235	0.001237	0.282703	0.28269	-2.9	5.0	783	1024	-0.96	STS
0.042505	0.001707	0.282738	0.28273	-1.7	6.2	742	953	-0.95	STS
0.030134	0.001384	0.282757	0.28275	-1.0	6.3	709	921	-0.96	STS
0.024207	0.001056	0.282702	0.28270	-2.9	4.4	780	1041	-0.97	STS
0.016192	0.000621	0.281466	0.28146	-46.6	-39.2	2471	3775	-0.98	STS
0.026082	0.001094	0.282785	0.28278	0.0	7.4	663	854	-0.97	STS
0.059475	0.002324	0.282787	0.28277	0.1	7.2	683	867	-0.93	STS
0.054684	0.002069	0.282820	0.28281	1.2	8.4	630	789	-0.94	STS
0.026235	0.001115	0.282783	0.28278	-0.1	7.3	667	859	-0.97	STS
0.032134	0.001368	0.282829	0.28282	1.6	8.9	605	759	-0.96	STS
0.021219	0.000926	0.282713	0.28271	-2.5	4.9	762	1014	-0.97	STS
0.036286	0.001509	0.282799	0.28279	0.5	7.8	651	828	-0.96	STS
0.000430	0.000013	0.282738	0.28274	-1.7	6.0	710	944	-1.00	STS
0.006135	0.000254	0.282043	0.28204	-26.2	-18.7	1669	2501	-0.99	STS
0.007110	0.000285	0.282359	0.28236	-15.1	-7.5	1238	1799	-0.99	STS
0.023156	0.001024	0.282773	0.28277	-0.4	7.0	679	880	-0.97	STS
0.024271	0.001075	0.282780	0.28277	-0.2	7.2	670	865	-0.97	STS
0.123632	0.002193	0.282430	0.28241	-12.6	-3.3	1200	1612	-0.93	STS
0.069322	0.001318	0.282363	0.28235	-14.9	-5.3	1266	1743	-0.96	STS
0.107412	0.001838	0.282450	0.28243	-11.8	-2.4	1159	1558	-0.95	STS
0.122499	0.002463	0.282487	0.28247	-10.5	-1.3	1125	1488	-0.93	STS
0.107750	0.002254	0.282427	0.28241	-12.7	-3.4	1206	1619	-0.93	STS
0.127590	0.002668	0.282523	0.28250	-9.3	-0.2	1079	1413	-0.92	STS
0.134559	0.002182	0.282450	0.28243	-11.8	-2.6	1170	1567	-0.94	STS
0.177654	0.003554	0.282498	0.28247	-10.1	-1.3	1144	1485	-0.89	STS
0.145146	0.002448	0.282500	0.28248	-10.1	-0.8	1106	1459	-0.93	STS
0.070589	0.001229	0.282351	0.28234	-15.3	-5.5	1280	1762	-0.96	STS
0.110663	0.001932	0.282453	0.28244	-11.7	-2.4	1158	1555	-0.94	STS
0.130980	0.002134	0.282462	0.28244	-11.4	-2.1	1151	1538	-0.94	STS
0.064294	0.001113	0.282396	0.28239	-13.8	-4.1	1213	1665	-0.97	STS
0.112119	0.001824	0.282450	0.28243	-11.8	-2.5	1159	1560	-0.95	STS
0.160665	0.002858	0.282492	0.28247	-10.4	-1.4	1130	1489	-0.91	STS
0.108382	0.001775	0.282404	0.28239	-13.5	-4.1	1223	1662	-0.95	STS
0.135331	0.002678	0.282454	0.28243	-11.7	-2.5	1180	1566	-0.92	STS
0.160879	0.003408	0.282462	0.28243	-11.4	-2.7	1193	1567	-0.90	STS
0.124476	0.002042	0.282443	0.28243	-12.1	-2.8	1176	1579	-0.94	STS
0.083414	0.001419	0.282403	0.28239	-13.5	-4.1	1213	1659	-0.96	STS
0.123174	0.002546	0.282399	0.28238	-13.6	-4.6	1256	1690	-0.92	STS
0.150817	0.003158	0.282426	0.28240	-12.7	-3.6	1238	1636	-0.91	STS
0.169944	0.003426	0.282417	0.28239	-13.0	-4.1	1261	1663	-0.90	STS
0.166372	0.003399	0.282488	0.28246	-10.5	-1.5	1154	1502	-0.90	STS
0.127104	0.002342	0.282444	0.28242	-12.1	-2.9	1184	1586	-0.93	STS
0.155107	0.003052	0.282397	0.28237	-13.7	-4.7	1277	1702	-0.91	STS
0.074495	0.001401	0.282410	0.28240	-13.3	-3.8	1202	1643	-0.96	STS
0.075173	0.001408	0.282407	0.28240	-13.4	-3.9	1207	1650	-0.96	STS
0.115707	0.002245	0.282453	0.28243	-11.7	-2.6	1168	1565	-0.93	STS
0.085232	0.001571	0.282410	0.28240	-13.3	-3.8	1208	1644	-0.95	STS
0.097953	0.001723	0.282438	0.28242	-12.3	-2.9	1173	1586	-0.95	STS
0.088664	0.001570	0.282496	0.28248	-10.2	-0.8	1085	1453	-0.95	STS
0.081243	0.001511	0.282474	0.28246	-11.0	-1.6	1115	1503	-0.96	STS
0.068624	0.001309	0.282438	0.28243	-12.3	-2.5	1160	1570	-0.96	STS

0.085382	0.001557	0.282416	0.28240	-13.0	-3.6	1199	1631	-0.95	STS
0.060966	0.001154	0.282458	0.28245	-11.6	-2.0	1127	1529	-0.97	STS
0.077421	0.001438	0.282451	0.28244	-11.8	-2.4	1145	1552	-0.96	STS
0.072680	0.001328	0.282523	0.28251	-9.3	0.1	1040	1390	-0.96	STS
0.098275	0.001910	0.282438	0.28242	-12.3	-3.0	1179	1591	-0.94	STS
0.089845	0.001556	0.282477	0.28246	-10.9	-1.5	1112	1497	-0.95	STS
0.105692	0.001929	0.282453	0.28244	-11.7	-2.4	1158	1556	-0.94	STS
0.101643	0.002315	0.282484	0.28247	-10.6	-1.6	1125	1498	-0.93	STS
0.064734	0.001265	0.282448	0.28244	-11.9	-2.6	1144	1558	-0.96	STS
0.117205	0.002136	0.282410	0.28239	-13.3	-4.1	1227	1658	-0.94	STS
0.084181	0.001821	0.282437	0.28242	-12.3	-2.9	1177	1588	-0.95	STS
0.071231	0.001367	0.282424	0.28241	-12.8	-3.2	1182	1608	-0.96	STS
0.119780	0.002312	0.282512	0.28249	-9.7	-0.5	1084	1434	-0.93	STS
0.079745	0.001473	0.282450	0.28244	-11.8	-2.3	1148	1551	-0.96	STS
0.120965	0.002948	0.282437	0.28241	-12.3	-3.3	1214	1612	-0.91	STS
0.110047	0.002286	0.282423	0.28240	-12.8	-3.6	1213	1629	-0.93	STS
0.077517	0.001374	0.282405	0.28239	-13.4	-4.0	1209	1653	-0.96	STS
0.289678	0.004458	0.282696	0.28266	-3.1	5.2	867	1063	-0.87	STS
0.458304	0.008559	0.282812	0.28274	1.0	8.0	780	880	-0.75	STS
0.335083	0.006000	0.282561	0.28251	-7.9	0.1	1127	1394	-0.82	STS
0.288154	0.004460	0.282718	0.28268	-2.4	5.7	833	1021	-0.87	STS
0.190622	0.003127	0.282576	0.28255	-7.4	1.6	1014	1301	-0.91	STS
0.457552	0.007505	0.282711	0.28265	-2.6	4.9	926	1085	-0.78	STS
0.339546	0.006289	0.282610	0.28256	-6.2	1.5	1057	1294	-0.81	STS
0.123579	0.002226	0.282460	0.28244	-11.5	-2.0	1157	1538	-0.93	STS
0.223162	0.003667	0.282704	0.28267	-2.9	6.0	835	1025	-0.89	STS
0.412168	0.006603	0.282727	0.28267	-2.1	5.8	874	1032	-0.80	STS
0.345040	0.005051	0.282772	0.28273	-0.5	7.8	762	901	-0.85	STS
0.142753	0.002485	0.282473	0.28245	-11.0	-2.2	1146	1531	-0.93	STS
0.212677	0.003477	0.282629	0.28260	-5.5	3.3	944	1193	-0.90	STS
0.234730	0.003715	0.282628	0.28260	-5.6	3.1	952	1200	-0.89	STS
0.222990	0.003225	0.282597	0.28257	-6.6	2.3	985	1257	-0.90	STS
0.501084	0.008881	0.282893	0.28282	3.8	10.8	644	701	-0.74	STS
0.445169	0.006776	0.282903	0.28285	4.2	11.6	585	644	-0.80	STS
0.224258	0.003936	0.282538	0.28251	-8.7	-0.2	1095	1407	-0.88	STS
0.248725	0.003909	0.282722	0.28269	-2.2	6.3	814	995	-0.88	STS
0.209185	0.003755	0.282622	0.28259	-5.8	2.8	962	1217	-0.89	STS
0.237576	0.004174	0.282705	0.28267	-2.8	5.8	846	1032	-0.88	STS
0.139601	0.002765	0.282453	0.28243	-11.7	-2.1	1185	1558	-0.92	STS
0.439808	0.007240	0.282727	0.28267	-2.1	5.4	892	1046	-0.78	STS
0.313046	0.004897	0.282672	0.28263	-4.0	4.3	916	1124	-0.85	STS
0.205099	0.003124	0.282565	0.28254	-7.8	1.1	1030	1331	-0.91	STS
0.191128	0.003733	0.282386	0.28235	-14.1	-4.9	1319	1730	-0.89	STS
0.342574	0.006885	0.282608	0.28255	-6.3	1.5	1080	1304	-0.80	STS
0.213869	0.004954	0.282279	0.28224	-17.9	-9.5	1533	2003	-0.85	STS
0.110574	0.002051	0.281449	0.28137	-47.2	-3.0	2590	2870	-0.94	STS
0.210678	0.004269	0.282418	0.28238	-13.0	-4.4	1290	1680	-0.87	STS
0.083978	0.002052	0.281956	0.28189	-29.3	5.4	1874	2002	-0.94	STS
0.393033	0.007752	0.282621	0.28256	-5.8	1.7	1088	1291	-0.77	STS
0.460890	0.008615	0.282762	0.28269	-0.8	6.2	870	994	-0.74	STS
0.156148	0.003111	0.282431	0.28240	-12.5	-3.4	1229	1625	-0.91	STS
0.295950	0.005876	0.282569	0.28252	-7.6	0.8	1110	1365	-0.83	STS
0.204183	0.004309	0.282368	0.28233	-14.7	-6.1	1368	1791	-0.87	STS
0.188380	0.003986	0.282399	0.28237	-13.6	-4.9	1308	1714	-0.88	STS
0.166013	0.003387	0.282449	0.28242	-11.9	-3.2	1212	1596	-0.90	STS
0.154221	0.003157	0.282408	0.28238	-13.3	-4.5	1265	1682	-0.91	STS
0.122033	0.002619	0.282357	0.28234	-15.1	-5.9	1320	1781	-0.92	STS
0.139926	0.003085	0.282421	0.28239	-12.9	-3.5	1243	1640	-0.91	STS
0.301699	0.006452	0.282326	0.28227	-16.2	-8.3	1527	1926	-0.81	STS
0.020696	0.000777	0.282370	0.28236	-14.7	-4.7	1238	1710	-0.98	STS
0.022394	0.000886	0.282377	0.28237	-14.4	-4.7	1232	1703	-0.97	STS
0.021358	0.000785	0.282373	0.28237	-14.6	-5.0	1234	1715	-0.98	STS
0.020955	0.000791	0.282410	0.28240	-13.3	-3.5	1183	1627	-0.98	STS

0.020724	0.000796	0.282402	0.28240	-13.5	-3.7	1194	1643	-0.98	STS
0.021242	0.000773	0.282389	0.28238	-14.0	-4.1	1212	1669	-0.98	STS
0.026219	0.000992	0.282381	0.28237	-14.3	-4.5	1230	1694	-0.97	STS
0.032892	0.001219	0.282370	0.28236	-14.7	-4.9	1253	1721	-0.96	STS
0.024627	0.000881	0.282364	0.28236	-14.9	-5.1	1250	1731	-0.97	STS
0.019617	0.000710	0.282408	0.28240	-13.3	-3.4	1183	1625	-0.98	STS
0.025599	0.000976	0.282394	0.28239	-13.8	-3.9	1211	1660	-0.97	STS
0.022352	0.000802	0.282380	0.28237	-14.3	-4.5	1225	1693	-0.98	STS
0.021336	0.000758	0.282380	0.28237	-14.3	-4.4	1224	1690	-0.98	STS
0.027724	0.000984	0.282410	0.28240	-13.3	-3.5	1189	1630	-0.97	STS
0.021766	0.000783	0.282364	0.28236	-14.9	-5.2	1247	1731	-0.98	STS
0.025486	0.000923	0.282354	0.28235	-15.2	-5.2	1265	1747	-0.97	STS
0.020563	0.000762	0.282378	0.28237	-14.4	-4.5	1227	1696	-0.98	STS
0.018857	0.000666	0.282358	0.28235	-15.1	-5.2	1251	1739	-0.98	STS
0.027513	0.000960	0.282361	0.28235	-15.0	-5.2	1257	1738	-0.97	STS
0.023983	0.000851	0.282385	0.28238	-14.1	-4.3	1220	1682	-0.97	STS
0.031589	0.001098	0.282381	0.28237	-14.3	-4.5	1233	1696	-0.97	STS
0.021234	0.000752	0.282364	0.28236	-14.9	-5.0	1246	1727	-0.98	STS
0.022535	0.000793	0.282381	0.28237	-14.3	-4.4	1224	1690	-0.98	STS
0.029827	0.001028	0.282355	0.28235	-15.2	-5.4	1268	1752	-0.97	STS
0.027882	0.001017	0.282365	0.28236	-14.9	-5.1	1253	1730	-0.97	STS
0.033261	0.000749	0.282181	0.28217	-21.4	-11.4	1500	2132	-0.98	STS
0.015221	0.000366	0.282272	0.28227	-18.1	-8.1	1360	1922	-0.99	STS
0.023308	0.000549	0.282156	0.28215	-22.2	-12.2	1526	2183	-0.98	STS
0.038224	0.000855	0.282124	0.28212	-23.4	-13.4	1583	2260	-0.97	STS
0.017414	0.000422	0.282167	0.28216	-21.9	-11.8	1506	2157	-0.99	STS
0.041311	0.000945	0.282279	0.28227	-17.9	-8.0	1371	1917	-0.97	STS
0.023166	0.000526	0.282138	0.28213	-22.9	-12.8	1550	2223	-0.98	STS
0.019952	0.000463	0.282201	0.28220	-20.7	-10.6	1461	2082	-0.99	STS
0.021470	0.000494	0.282281	0.28228	-17.8	-7.8	1352	1904	-0.99	STS
0.018861	0.000436	0.282213	0.28221	-20.2	-10.2	1443	2054	-0.99	STS
0.027287	0.000592	0.282122	0.28212	-23.4	-13.4	1575	2260	-0.98	STS
0.028149	0.000627	0.282279	0.28227	-17.9	-7.9	1359	1911	-0.98	STS
0.017439	0.000400	0.282173	0.28217	-21.6	-11.6	1497	2143	-0.99	STS
0.017669	0.000400	0.282200	0.28220	-20.7	-10.6	1460	2083	-0.99	STS
0.038833	0.000848	0.282300	0.28229	-17.2	-7.2	1338	1869	-0.97	STS
0.066825	0.001224	0.282619	0.28261	-5.9	2.8	901	1194	-0.96	STS
0.112700	0.002016	0.282555	0.28254	-8.1	0.9	1013	1335	-0.94	STS
0.035069	0.000736	0.282566	0.28256	-7.7	1.1	964	1304	-0.98	STS
0.038127	0.000771	0.282572	0.28257	-7.5	1.3	956	1291	-0.98	STS
0.030541	0.000635	0.282510	0.28251	-9.7	-0.9	1039	1428	-0.98	STS
0.060072	0.001142	0.282522	0.28251	-9.3	-0.6	1036	1410	-0.97	STS
0.159580	0.002880	0.282780	0.28274	-0.2	13.9	704	712	-0.91	STS
0.040535	0.000790	0.282506	0.28250	-9.9	-1.1	1049	1440	-0.98	STS
0.043461	0.000842	0.282527	0.28252	-9.1	-0.4	1021	1394	-0.97	STS
0.031692	0.000624	0.282549	0.28254	-8.3	0.5	985	1340	-0.98	STS
0.039976	0.000779	0.282557	0.28255	-8.1	0.7	978	1325	-0.98	STS
0.041275	0.000762	0.282488	0.28248	-10.5	-1.7	1074	1480	-0.98	STS
0.030983	0.000605	0.282504	0.28250	-9.9	0.3	1047	1402	-0.98	STS
0.035355	0.000704	0.282485	0.28248	-10.6	-1.8	1076	1485	-0.98	STS
0.044015	0.000841	0.282510	0.28250	-9.7	-0.9	1045	1431	-0.97	STS
0.073041	0.001427	0.282590	0.28258	-6.9	1.7	948	1262	-0.96	STS
0.106905	0.002194	0.282536	0.28252	-8.8	-0.4	1046	1396	-0.93	STS
0.070830	0.001537	0.282532	0.28252	-8.9	-0.3	1033	1394	-0.95	STS
0.184645	0.003637	0.282612	0.28258	-6.1	1.9	974	1250	-0.89	STS
0.046464	0.001031	0.282592	0.28258	-6.8	1.9	935	1250	-0.97	STS
0.063235	0.001245	0.282586	0.28258	-7.0	1.6	949	1267	-0.96	STS
0.008010	0.000181	0.282563	0.28256	-7.9	1.2	954	1298	-0.99	STS
0.009473	0.000220	0.282548	0.28255	-8.4	0.7	976	1332	-0.99	STS
0.013265	0.000295	0.282562	0.28256	-7.9	1.2	958	1302	-0.99	STS

0.010401	0.000236	0.282565	0.28256	-7.8	1.3	953	1294	-0.99	STS
0.011026	0.000248	0.282609	0.28261	-6.2	2.8	892	1195	-0.99	STS
0.014710	0.000318	0.282581	0.28258	-7.2	1.8	933	1260	-0.99	STS
0.007534	0.000188	0.282605	0.28260	-6.4	2.7	897	1203	-0.99	STS
0.034705	0.000673	0.282622	0.28262	-5.8	3.2	884	1174	-0.98	STS
0.010338	0.000233	0.282551	0.28255	-8.3	0.8	972	1325	-0.99	STS
0.069273	0.001364	0.282704	0.28269	-2.9	6.5	784	984	-0.96	STS
0.020665	0.000441	0.282513	0.28251	-9.6	-0.6	1030	1414	-0.99	STS
0.016629	0.000367	0.282560	0.28256	-8.0	1.1	963	1308	-0.99	STS
0.011212	0.000260	0.282557	0.28256	-8.1	1.0	964	1312	-0.99	STS
0.099578	0.002234	0.282710	0.28269	-2.7	5.8	794	1004	-0.93	NTC
0.170389	0.003704	0.282865	0.28284	2.8	11.1	592	676	-0.89	NTC
0.303339	0.006843	0.282881	0.28283	3.4	11.0	623	691	-0.80	NTC
0.147906	0.003586	0.282707	0.28268	-2.8	5.7	829	1026	-0.89	NTC
0.141373	0.003382	0.282843	0.28282	2.0	10.5	619	718	-0.90	NTC
0.049423	0.001472	0.282639	0.28263	-5.2	3.6	879	1148	-0.96	NTC
0.061301	0.001510	0.282738	0.28273	-1.6	7.4	738	917	-0.96	NTC
0.106300	0.003358	0.282782	0.28276	-0.1	8.3	711	856	-0.90	NTC
0.061233	0.001777	0.282755	0.28274	-1.0	7.8	718	887	-0.95	NTC
0.047032	0.001393	0.282689	0.28268	-3.4	5.4	806	1034	-0.96	NTC
0.058747	0.001398	0.282711	0.28270	-2.6	6.0	774	989	-0.96	NTC
0.080766	0.001938	0.282733	0.28272	-1.8	6.7	754	947	-0.94	NTC
0.135085	0.003063	0.282717	0.28269	-2.4	5.7	802	1008	-0.91	NTC
0.058955	0.001428	0.282714	0.28270	-2.5	6.6	771	969	-0.96	NTC
0.087814	0.002366	0.282773	0.28275	-0.4	8.2	705	859	-0.93	NTC
0.192714	0.004149	0.282812	0.28278	0.9	9.1	681	804	-0.88	NTC
0.025540	0.000480	0.282500	0.28250	-10.1	-0.6	1049	1431	-0.99	NTC
0.037040	0.000640	0.282510	0.28250	-9.7	-0.3	1040	1412	-0.98	NTC
0.054190	0.000980	0.282560	0.28255	-8.0	1.4	979	1306	-0.97	NTC
0.065620	0.001300	0.282560	0.28255	-8.0	1.3	987	1312	-0.96	NTC
0.065450	0.001250	0.282610	0.28260	-6.2	3.1	915	1198	-0.96	NTC
0.036890	0.000620	0.282470	0.28246	-11.1	-1.7	1095	1501	-0.98	NTC
0.065170	0.001240	0.282550	0.28254	-8.3	0.9	1000	1333	-0.96	NTC
0.032560	0.000580	0.282510	0.28251	-9.7	-0.3	1038	1411	-0.98	NTC
0.039060	0.000700	0.282550	0.28254	-8.3	1.1	985	1323	-0.98	NTC
0.031440	0.000570	0.282490	0.28249	-10.4	-1.0	1065	1455	-0.98	NTC
0.042460	0.000780	0.282500	0.28249	-10.1	-0.7	1057	1437	-0.98	NTC
0.071520	0.001520	0.282650	0.28264	-4.8	4.4	864	1113	-0.95	NTC
0.041220	0.000790	0.282520	0.28251	-9.4	0.0	1030	1392	-0.98	NTC
0.044110	0.000960	0.282540	0.28253	-8.7	0.7	1006	1350	-0.97	NTC
0.024200	0.000510	0.282530	0.28253	-9.0	0.4	1008	1364	-0.98	NTC
0.032900	0.000680	0.282520	0.28251	-9.4	0.0	1027	1390	-0.98	NTC
0.028530	0.000570	0.282510	0.28251	-9.7	-0.3	1038	1410	-0.98	NTC
0.066330	0.001430	0.282490	0.28248	-10.4	-1.2	1090	1471	-0.96	NTC
0.050340	0.001030	0.282530	0.28252	-9.0	0.3	1022	1374	-0.97	NTC
0.043440	0.000770	0.282520	0.28251	-9.4	0.0	1029	1392	-0.98	NTC
0.071110	0.001410	0.282600	0.28259	-6.5	2.7	933	1224	-0.96	NTC
0.027610	0.000510	0.282520	0.28252	-9.4	0.1	1022	1387	-0.98	NTC
0.084640	0.001690	0.282550	0.28254	-8.3	0.8	1012	1341	-0.95	NTC
0.061160	0.001280	0.282470	0.28246	-11.1	-1.9	1114	1513	-0.96	NTC
0.078050	0.001620	0.282450	0.28244	-11.8	-2.7	1153	1564	-0.95	NTC
0.032040	0.000650	0.282560	0.28255	-8.0	1.5	970	1300	-0.98	NTC
0.028740	0.000550	0.282580	0.28258	-7.2	2.2	940	1253	-0.98	NTC
0.020260	0.000460	0.282600	0.28260	-6.5	2.9	910	1206	-0.99	NTC
0.043580	0.000810	0.282540	0.28253	-8.7	0.7	1002	1347	-0.98	NTC
0.037280	0.000730	0.282630	0.28262	-5.5	3.9	874	1144	-0.98	NTC
0.029490	0.000530	0.282570	0.28257	-7.6	1.8	953	1275	-0.98	NTC
0.038830	0.000710	0.282650	0.28264	-4.8	4.6	846	1098	-0.98	NTC
0.031050	0.000570	0.282570	0.28257	-7.6	1.8	954	1276	-0.98	NTC
0.033710	0.000620	0.282600	0.28259	-6.5	2.9	914	1209	-0.98	NTC
0.048380	0.000830	0.282580	0.28257	-7.2	2.1	947	1258	-0.98	NTC

0.028770	0.000510	0.282580	0.28258	-7.2	2.2	939	1252	-0.98	NTC
0.032430	0.000640	0.282550	0.28254	-8.3	1.1	984	1322	-0.98	NTC
0.028680	0.000610	0.282550	0.28255	-8.3	1.1	983	1321	-0.98	NTC
0.034840	0.000730	0.282520	0.28251	-9.4	0.0	1028	1391	-0.98	NTC
0.040240	0.000840	0.282560	0.28255	-8.0	1.4	975	1303	-0.98	NTC
0.027530	0.000590	0.282620	0.28262	-5.8	3.6	885	1164	-0.98	NTC
0.025010	0.000570	0.282600	0.28260	-6.5	2.9	912	1208	-0.98	NTC
0.025510	0.000520	0.282570	0.28257	-7.6	1.8	953	1275	-0.98	NTC
0.039410	0.000780	0.282680	0.28267	-3.7	5.7	805	1032	-0.98	NTC
0.033060	0.000650	0.282630	0.28262	-5.5	3.9	873	1142	-0.98	NTC
0.027690	0.000550	0.282570	0.28257	-7.6	1.8	954	1275	-0.98	NTC
0.048200	0.000890	0.282560	0.28255	-8.0	1.4	976	1304	-0.97	NTC
0.044770	0.000830	0.282590	0.28258	-6.9	2.5	933	1236	-0.98	NTC
0.044940	0.000830	0.282630	0.28262	-5.5	3.9	877	1146	-0.98	NTC
0.030830	0.000580	0.282560	0.28256	-8.0	1.5	968	1298	-0.98	NTC
0.030510	0.000550	0.282520	0.28252	-9.4	-0.1	1023	1392	-0.98	NTC
0.071700	0.001430	0.282550	0.28254	-8.3	0.7	1005	1340	-0.96	NTC
0.035780	0.000690	0.282510	0.28250	-9.7	-0.5	1041	1417	-0.98	NTC
0.037160	0.000720	0.282490	0.28248	-10.4	-1.2	1070	1462	-0.98	NTC
0.032830	0.000840	0.282500	0.28249	-10.1	-0.9	1059	1442	-0.98	NTC
0.051780	0.001420	0.282540	0.28253	-8.7	0.4	1019	1363	-0.96	NTC
0.047360	0.000840	0.282550	0.28254	-8.3	0.9	989	1330	-0.98	NTC
0.092160	0.001860	0.282550	0.28254	-8.3	0.6	1016	1348	-0.94	NTC
0.021930	0.000500	0.282520	0.28252	-9.4	-0.1	1022	1391	-0.99	NTC
0.050970	0.001560	0.282510	0.28250	-9.7	-0.7	1065	1433	-0.95	NTC
0.023470	0.000470	0.282560	0.28256	-8.0	1.4	966	1301	-0.99	NTC
0.062770	0.002010	0.282550	0.28253	-8.3	0.6	1021	1351	-0.94	NTC
0.015855	0.000485	0.282726	0.28272	-2.1	6.8	735	940	-0.99	NTC
0.047322	0.001348	0.282700	0.28269	-3.0	5.6	789	1013	-0.96	NTC
0.040996	0.001189	0.282744	0.28273	-1.4	7.2	723	911	-0.96	NTC
0.049924	0.001465	0.282686	0.28267	-3.5	5.1	812	1047	-0.96	NTC
0.121220	0.003310	0.282702	0.28268	-2.9	5.2	830	1043	-0.90	NTC
0.069841	0.001908	0.282744	0.28273	-1.4	7.0	738	924	-0.94	NTC
0.075656	0.002136	0.282763	0.28275	-0.8	7.7	715	885	-0.94	NTC
0.056098	0.001628	0.282684	0.28267	-3.6	5.0	818	1054	-0.95	NTC
0.056157	0.001651	0.282732	0.28272	-1.9	6.7	750	946	-0.95	NTC
0.040711	0.001199	0.282689	0.28268	-3.4	5.3	802	1036	-0.96	NTC
0.041264	0.001220	0.282668	0.28266	-4.1	4.5	832	1083	-0.96	NTC
0.042564	0.001199	0.282701	0.28269	-3.0	5.7	785	1009	-0.96	NTC
0.042939	0.001273	0.282678	0.28267	-3.8	4.9	819	1062	-0.96	NTC
0.051069	0.001465	0.282697	0.28269	-3.1	5.5	796	1022	-0.96	NTC
0.049896	0.001441	0.282717	0.28271	-2.4	6.2	767	977	-0.96	NTC
0.061202	0.001664	0.282699	0.28269	-3.0	5.5	797	1021	-0.95	NTC
0.035749	0.001001	0.282711	0.28270	-2.6	6.1	766	983	-0.97	NTC
0.031847	0.000936	0.282703	0.28270	-2.9	5.9	776	999	-0.97	NTC
0.042262	0.001203	0.282727	0.28272	-2.1	6.7	748	949	-0.96	NTC
0.041189	0.001113	0.282681	0.28267	-3.7	5.0	811	1051	-0.97	NTC
0.102094	0.002736	0.282801	0.28278	0.6	8.9	670	809	-0.92	NTC
0.045544	0.001253	0.282678	0.28267	-3.8	4.9	818	1061	-0.96	NTC
0.069209	0.001974	0.282758	0.28274	-1.0	7.5	719	893	-0.94	NTC
0.086777	0.002349	0.282737	0.28272	-1.7	6.7	757	947	-0.93	NTC
0.075399	0.002060	0.282759	0.28274	-0.9	7.6	719	892	-0.94	NTC
0.233987	0.006173	0.282824	0.28278	1.4	8.7	703	816	-0.82	NTC
0.105105	0.002854	0.282756	0.28273	-1.0	7.2	739	913	-0.92	NTC
0.182528	0.005358	0.282735	0.28269	-1.8	5.8	828	1003	-0.84	NTC
0.073467	0.001940	0.282722	0.28271	-2.2	6.3	770	973	-0.94	NTC
0.065696	0.001885	0.282766	0.28275	-0.7	7.8	705	873	-0.94	NTC
0.054133	0.001474	0.282723	0.28271	-2.2	6.4	759	963	-0.96	NTC
0.073124	0.001975	0.282714	0.28270	-2.5	6.0	782	992	-0.94	NTC
0.053509	0.001478	0.282712	0.28270	-2.6	6.0	775	988	-0.96	NTC
0.040232	0.001176	0.282690	0.28268	-3.4	5.3	800	1032	-0.97	NTC
0.042024	0.001156	0.282719	0.28271	-2.3	6.4	758	967	-0.97	NTC
0.062181	0.001883	0.282682	0.28267	-3.6	4.9	827	1063	-0.94	NTC

0.057638	0.001646	0.282751	0.28274	-1.2	7.4	722	903	-0.95	NTC
0.065179	0.001797	0.282752	0.28274	-1.2	7.4	724	903	-0.95	NTC
0.138360	0.003591	0.282633	0.28261	-5.4	2.7	941	1203	-0.89	NTC
0.054847	0.001491	0.282543	0.28253	-8.6	0.0	1016	1369	-0.96	NTC
0.053898	0.001512	0.282512	0.28250	-9.7	-1.1	1061	1439	-0.96	NTC
0.048338	0.001353	0.282525	0.28251	-9.2	-0.6	1038	1407	-0.96	NTC
0.051427	0.001416	0.282537	0.28253	-8.8	-0.2	1023	1381	-0.96	NTC
0.029621	0.000847	0.282469	0.28246	-11.2	-2.4	1103	1524	-0.97	NTC
0.066306	0.001821	0.282579	0.28257	-7.3	1.2	974	1294	-0.95	NTC
0.059536	0.001657	0.282529	0.28252	-9.1	-0.5	1041	1403	-0.95	NTC
0.073921	0.002061	0.282524	0.28251	-9.2	-0.8	1060	1421	-0.94	NTC
0.049929	0.001420	0.282552	0.28254	-8.2	0.4	1002	1347	-0.96	NTC
0.088038	0.002414	0.282562	0.28254	-7.9	0.5	1014	1342	-0.93	NTC
0.091791	0.002515	0.282564	0.28254	-7.8	0.5	1014	1339	-0.93	NTC
0.070701	0.001950	0.282520	0.28251	-9.4	-0.9	1062	1428	-0.94	NTC
0.045361	0.001300	0.282523	0.28251	-9.3	-0.6	1039	1410	-0.96	NTC
0.055293	0.001543	0.282573	0.28256	-7.5	1.1	975	1302	-0.95	NTC
0.066055	0.001824	0.282529	0.28252	-9.1	-0.5	1046	1406	-0.95	NTC
0.048606	0.001451	0.282553	0.28254	-8.2	0.4	1001	1346	-0.96	NTC
0.037421	0.001068	0.282601	0.28259	-6.5	2.2	923	1231	-0.97	NTC
0.079010	0.002251	0.282615	0.28260	-6.0	2.4	933	1220	-0.93	NTC
0.034107	0.001384	0.282335	0.28232	-15.9	-7.0	1308	1824	-0.96	NTC
0.056107	0.002238	0.282441	0.28242	-12.2	-3.5	1185	1603	-0.93	NTC
0.035253	0.001428	0.282402	0.28239	-13.5	-4.6	1215	1675	-0.96	NTC
0.024499	0.000960	0.282401	0.28239	-13.6	-4.5	1201	1669	-0.97	NTC
0.019755	0.000826	0.282303	0.28230	-17.0	-8.0	1333	1886	-0.98	NTC
0.034797	0.001403	0.282380	0.28237	-14.3	-5.4	1245	1724	-0.96	NTC
0.048279	0.001916	0.282411	0.28240	-13.2	-4.5	1218	1664	-0.94	NTC
0.054236	0.002056	0.282396	0.28238	-13.8	-5.0	1244	1700	-0.94	NTC
0.021203	0.000861	0.282401	0.28239	-13.6	-4.5	1198	1668	-0.97	NTC
0.045042	0.001576	0.282442	0.28243	-12.1	-3.2	1163	1587	-0.95	NTC
0.069057	0.002338	0.282173	0.28215	-21.6	-12.9	1576	2200	-0.93	NTC
0.028730	0.001070	0.282200	0.28219	-20.7	-11.6	1486	2118	-0.97	NTC
0.040544	0.001449	0.282449	0.28244	-11.9	-2.9	1149	1569	-0.96	NTC
0.046030	0.001654	0.282409	0.28240	-13.3	-4.4	1212	1662	-0.95	NTC
0.098030	0.003250	0.282407	0.28238	-13.4	-4.9	1269	1695	-0.90	NTC
0.026082	0.000929	0.282377	0.28237	-14.4	-5.3	1234	1721	-0.97	NTC
0.048251	0.001657	0.282396	0.28238	-13.8	-4.9	1231	1692	-0.95	NTC
0.023761	0.000905	0.282397	0.28239	-13.7	-4.6	1205	1676	-0.97	NTC
0.053498	0.001771	0.282268	0.28225	-18.3	-9.4	1417	1979	-0.95	NTC
0.027385	0.000997	0.282427	0.28242	-12.7	-3.6	1166	1611	-0.97	NTC
0.036061	0.001281	0.282404	0.28239	-13.5	-4.5	1207	1667	-0.96	NTC
0.024566	0.000811	0.281209	0.28117	-55.7	-6.4	2832	3195	-0.98	NTC
0.045296	0.001766	0.282542	0.28253	-8.6	0.3	1025	1367	-0.95	NTC
0.079217	0.002913	0.282512	0.28249	-9.7	-1.1	1102	1455	-0.91	NTC
0.079217	0.002913	0.282512	0.28249	-9.7	-1.1	1102	1455	-0.91	NTC
0.033135	0.001393	0.282495	0.28248	-10.3	-1.3	1082	1465	-0.96	NTC
0.053861	0.002192	0.282402	0.28238	-13.5	-4.8	1240	1688	-0.93	NTC
0.069081	0.002693	0.282563	0.28254	-7.9	0.8	1021	1336	-0.92	NTC
0.034957	0.001358	0.282393	0.28238	-13.9	-4.9	1225	1693	-0.96	NTC
0.029559	0.001210	0.282109	0.28210	-23.9	-14.9	1619	2323	-0.96	NTC
0.037550	0.001499	0.282426	0.28241	-12.7	-3.8	1183	1622	-0.96	NTC
0.036723	0.001493	0.282288	0.28228	-17.6	-8.6	1378	1930	-0.96	NTC
0.014307	0.000553	0.281130	0.28110	-58.5	6.2	2919	2940	-0.98	NTC
0.009045	0.000381	0.281246	0.28123	-54.4	-3.0	2751	3035	-0.99	NTC
0.007113	0.000260	0.281595	0.28159	-42.1	-1.6	2275	2568	-0.99	NTC
0.021704	0.000835	0.281273	0.28124	-53.5	-4.9	2747	3076	-0.98	NTC
0.016461	0.000731	0.281716	0.28169	-37.8	4.4	2138	2278	-0.98	NTC
0.014349	0.000681	0.282021	0.28200	-27.0	15.2	1717	1602	-0.98	NTC
0.018146	0.000754	0.281356	0.28132	-50.5	5.0	2629	2706	-0.98	NTC
0.063775	0.002143	0.282391	0.28237	-13.9	-5.2	1254	1713	-0.94	NTC
0.055833	0.001953	0.282300	0.28228	-17.2	-8.4	1378	1912	-0.94	NTC
0.031585	0.001112	0.282477	0.28247	-10.9	-1.9	1099	1502	-0.97	NTC

0.020485	0.000883	0.282410	0.28240	-13.3	-4.2	1186	1647	-0.97	NTC
0.043285	0.001780	0.282365	0.28235	-14.9	-6.0	1279	1763	-0.95	NTC
0.029728	0.001186	0.282412	0.28240	-13.2	-4.2	1193	1648	-0.96	NTC
0.032028	0.001270	0.282387	0.28238	-14.1	-5.1	1231	1705	-0.96	NTC
0.095380	0.003913	0.282553	0.28252	-8.2	0.1	1072	1381	-0.88	NTC
0.013441	0.000590	0.282442	0.28244	-12.1	-2.9	1133	1570	-0.98	NTC
0.027651	0.001079	0.282470	0.28246	-11.1	-2.1	1108	1516	-0.97	NTC
0.015238	0.000633	0.281237	0.28121	-54.7	-4.5	2781	3101	-0.98	NTC
0.022058	0.000896	0.281653	0.28161	-40.0	11.7	2234	2168	-0.97	NTC
0.049156	0.002016	0.282503	0.28249	-10.0	-1.2	1089	1460	-0.94	NTC
0.057663	0.002192	0.282483	0.28247	-10.7	-2.0	1123	1508	-0.93	NTC
0.044619	0.001788	0.282420	0.28241	-12.9	-4.1	1201	1642	-0.95	NTC
0.060044	0.002299	0.282418	0.28240	-13.0	-4.3	1220	1656	-0.93	NTC
0.037183	0.001391	0.282457	0.28245	-11.6	-2.7	1136	1552	-0.96	NTC
0.042374	0.001601	0.282469	0.28246	-11.2	-2.3	1125	1529	-0.95	NTC
0.038819	0.001624	0.282428	0.28242	-12.6	-3.8	1184	1621	-0.95	NTC
0.030383	0.001286	0.282392	0.28238	-13.9	-5.0	1224	1696	-0.96	NTC
0.013486	0.000511	0.281055	0.28103	-61.2	-1.2	3016	3226	-0.98	NTC
0.054575	0.002119	0.282465	0.28245	-11.3	-2.6	1147	1546	-0.94	NTC
0.024447	0.000986	0.282379	0.28237	-14.4	-5.3	1233	1718	-0.97	NTC
0.078965	0.002900	0.282400	0.28238	-13.6	-5.1	1267	1705	-0.91	NTC
0.062634	0.002425	0.282346	0.28233	-15.5	-6.9	1329	1817	-0.93	NTC
0.046209	0.001827	0.282402	0.28239	-13.5	-4.7	1228	1681	-0.95	NTC
0.035035	0.001378	0.282419	0.28241	-12.9	-4.0	1189	1635	-0.96	NTC
0.039612	0.001528	0.282393	0.28238	-13.9	-4.9	1231	1696	-0.95	NTC
0.080994	0.002894	0.282758	0.28274	-1.0	7.6	737	901	-0.91	NTC
0.042771	0.001512	0.282388	0.28238	-14.0	-5.1	1237	1707	-0.96	NTC
0.058566	0.002321	0.282493	0.28247	-10.3	-1.6	1112	1487	-0.93	NTC
0.013226	0.000934	0.282542	0.28253	-8.6	0.2	1003	1359	-0.97	NTC
0.013226	0.000862	0.282573	0.28257	-7.5	1.4	957	1288	-0.97	NTC
0.013226	0.001312	0.282518	0.28251	-9.4	-0.7	1047	1419	-0.96	NTC
0.013226	0.000719	0.282536	0.28253	-8.8	0.1	1005	1369	-0.98	NTC
0.013226	0.000866	0.282528	0.28252	-9.1	-0.2	1021	1389	-0.97	NTC
0.013226	0.001145	0.282562	0.28255	-7.9	0.9	980	1318	-0.97	NTC
0.013226	0.000821	0.282416	0.28241	-13.0	-4.2	1176	1639	-0.98	NTC
0.013226	0.001717	0.282009	0.28200	-27.4	-18.9	1782	2561	-0.95	NTC
0.013226	0.000726	0.281946	0.28194	-29.7	-20.8	1823	2684	-0.98	NTC
0.013226	0.001034	0.281890	0.28188	-31.6	-22.9	1915	2813	-0.97	NTC
0.013226	0.001023	0.281984	0.28198	-28.3	-19.6	1784	2605	-0.97	NTC
0.013226	0.000983	0.282062	0.28205	-25.6	-16.8	1674	2431	-0.97	NTC
0.013226	0.000995	0.281867	0.28186	-32.5	-23.7	1945	2863	-0.97	NTC
0.013226	0.001588	0.282006	0.28199	-27.5	-19.0	1780	2566	-0.95	NTC
0.013226	0.000899	0.281988	0.28198	-28.2	-19.4	1773	2594	-0.97	NTC
0.013226	0.001180	0.281911	0.28189	-30.9	-15.4	1893	2582	-0.96	NTC
0.013226	0.000653	0.281665	0.28165	-39.6	-9.8	2203	2721	-0.98	NTC
0.013226	0.001537	0.282545	0.28253	-8.5	0.4	1015	1358	-0.95	NTC
0.013226	0.002018	0.282461	0.28245	-11.5	-2.7	1149	1554	-0.94	NTC
0.013226	0.000702	0.282496	0.28249	-10.2	-1.1	1061	1453	-0.98	NTC
0.013226	0.002467	0.282523	0.28250	-9.3	-0.7	1073	1424	-0.93	NTC
0.013226	0.002393	0.282539	0.28252	-8.7	-0.1	1047	1386	-0.93	NTC
0.013226	0.002736	0.282486	0.28246	-10.6	-2.0	1135	1511	-0.92	NTC
0.013226	0.001575	0.282595	0.28258	-6.7	2.1	944	1246	-0.95	NTC
0.013226	0.001573	0.282513	0.28250	-9.6	-0.8	1061	1430	-0.95	NTC
0.029941	0.001074	0.282585	0.28258	-7.1	1.9	946	1260	-0.97	NTC
0.013226	0.001969	0.282548	0.28253	-8.4	0.4	1022	1359	-0.94	NTC
0.013226	0.000882	0.282562	0.28256	-7.9	1.2	973	1308	-0.97	NTC
0.013226	0.002616	0.282434	0.28241	-12.4	-3.9	1208	1626	-0.92	NTC
0.013226	0.001498	0.282272	0.28226	-18.1	-9.2	1401	1964	-0.96	NTC
0.013226	0.003145	0.282229	0.28220	-19.7	-11.2	1529	2090	-0.91	NTC
0.013226	0.006554	0.282276	0.28222	-18.0	-10.4	1614	2046	-0.80	NTC
0.013226	0.004258	0.282243	0.28221	-19.2	-11.0	1557	2078	-0.87	NTC
0.013226	0.001011	0.282350	0.28234	-15.4	-6.3	1274	1782	-0.97	NTC
0.013226	0.001793	0.282228	0.28221	-19.7	-10.8	1475	2068	-0.95	NTC

0.013226	0.004177	0.282214	0.28218	-20.2	-12.0	1597	2141	-0.88	NTC
0.013226	0.003258	0.282217	0.28219	-20.1	-11.6	1552	2118	-0.90	NTC
0.013226	0.001243	0.282437	0.28243	-12.3	-3.3	1159	1591	-0.96	NTC
0.013226	0.002590	0.282331	0.28231	-16.1	-7.4	1357	1852	-0.92	NTC
0.013226	0.002316	0.282198	0.28218	-20.8	-12.0	1539	2144	-0.93	NTC
0.013226	0.000732	0.281972	0.28196	-28.7	-11.1	1787	2381	-0.98	NTC
0.047313	0.001562	0.282216	0.28220	-20.1	-8.2	1483	2012	-0.95	NTC
0.056438	0.001667	0.282314	0.28230	-16.7	-4.6	1348	1791	-0.95	NTC
0.040300	0.001472	0.282275	0.28226	-18.0	-9.1	1396	1960	-0.96	NTC
0.046105	0.001612	0.282279	0.28226	-17.9	-4.3	1395	1826	-0.95	NTC
0.077371	0.002192	0.282322	0.28230	-16.4	-7.5	1355	1863	-0.93	NTC
0.026144	0.000848	0.282321	0.28231	-16.4	-7.2	1309	1842	-0.97	NTC
0.045668	0.001583	0.282249	0.28223	-19.0	-7.4	1437	1946	-0.95	NTC
0.053244	0.001993	0.282184	0.28217	-21.3	-10.8	1546	2126	-0.94	NTC
0.176247	0.004907	0.281979	0.28194	-28.5	-19.6	1995	2655	-0.85	NTC
0.101794	0.002643	0.282135	0.28211	-23.0	-13.0	1645	2256	-0.92	NTC
0.075491	0.002081	0.282213	0.28220	-20.2	-11.4	1508	2107	-0.94	NTC
0.005941	0.000143	0.281215	0.28121	-55.5	-14.2	2776	3366	-1.00	NTC
0.065335	0.001980	0.282135	0.28212	-23.0	-14.2	1615	2279	-0.94	NTC
0.016494	0.000431	0.281006	0.28099	-62.9	-12.7	3076	3589	-0.99	NTC
0.093575	0.002678	0.281930	0.28190	-30.2	-19.5	1944	2690	-0.92	NTC
0.070789	0.001910	0.282135	0.28212	-23.0	-12.3	1612	2227	-0.94	NTC
0.131832	0.002301	0.282469	0.28245	-11.2	-1.3	1146	1509	-0.93	NTC
0.120855	0.002102	0.282487	0.28247	-10.5	-1.8	1114	1496	-0.94	NTC
0.094747	0.001697	0.282415	0.28240	-13.1	-4.1	1205	1647	-0.95	NTC
0.119140	0.001908	0.282396	0.28238	-13.8	-4.8	1239	1692	-0.94	NTC
0.091989	0.001588	0.282381	0.28237	-14.3	-5.1	1250	1716	-0.95	NTC
0.106976	0.001836	0.282682	0.28267	-3.6	6.3	826	1023	-0.95	NTC
0.082842	0.001429	0.282320	0.28231	-16.4	-7.4	1331	1854	-0.96	NTC
0.133849	0.002313	0.282435	0.28241	-12.4	-2.5	1196	1585	-0.93	NTC
0.168709	0.003069	0.282352	0.28233	-15.3	-6.9	1344	1816	-0.91	NTC
0.074021	0.001368	0.282261	0.28225	-18.5	-9.4	1412	1984	-0.96	NTC
0.086587	0.001512	0.282475	0.28246	-11.0	-1.9	1114	1509	-0.96	NTC
0.147564	0.003004	0.282542	0.28252	-8.6	0.0	1061	1387	-0.91	NTC
0.139268	0.002616	0.282380	0.28235	-14.3	-0.2	1287	1603	-0.92	NTC
0.204567	0.004178	0.282521	0.28249	-9.3	-1.1	1129	1457	-0.88	NTC
0.110876	0.002184	0.282409	0.28239	-13.3	-4.6	1230	1674	-0.94	NTC
0.125276	0.002228	0.282224	0.28221	-19.8	-11.2	1498	2087	-0.93	NTC
0.190418	0.003198	0.282513	0.28249	-9.6	-1.1	1110	1457	-0.90	NTC
0.103701	0.001900	0.282443	0.28242	-12.1	2.5	1171	1438	-0.94	NTC
0.085894	0.001479	0.282389	0.28238	-14.0	-5.1	1235	1705	-0.96	NTC
0.109022	0.001872	0.282515	0.28249	-9.5	3.6	1067	1316	-0.94	NTC
0.227105	0.003782	0.282428	0.28238	-12.6	0.8	1257	1535	-0.89	NTC
0.192097	0.003348	0.282768	0.28274	-0.6	9.6	732	842	-0.90	NTC
0.193011	0.003527	0.282443	0.28241	-12.1	-3.5	1225	1616	-0.90	NTC
0.126857	0.002218	0.282429	0.28241	-12.6	-3.7	1202	1625	-0.93	NTC
0.312437	0.005519	0.282484	0.28243	-10.6	-1.7	1233	1540	-0.84	NTC
0.124683	0.002125	0.282261	0.28224	-18.5	-9.9	1441	2003	-0.94	NTC
0.129943	0.002495	0.282507	0.28249	-9.8	-1.2	1097	1458	-0.93	NTC
0.172434	0.003061	0.282463	0.28244	-11.4	-2.8	1180	1564	-0.91	NTC
0.043026	0.001316	0.282753	0.28274	-1.1	7.2	713	903	-0.96	NTC
0.081485	0.002286	0.282821	0.28280	1.3	9.3	633	765	-0.93	NTC
0.069828	0.001916	0.282761	0.28275	-0.8	7.3	713	895	-0.94	NTC
0.094953	0.002730	0.282820	0.28280	1.2	9.2	642	775	-0.92	NTC
0.037404	0.001073	0.282719	0.28271	-2.3	6.0	757	975	-0.97	NTC
0.056495	0.001577	0.282711	0.28270	-2.6	5.6	778	1002	-0.95	NTC
0.079388	0.002155	0.282663	0.28265	-4.3	3.8	861	1119	-0.94	NTC
0.032893	0.000947	0.282698	0.28269	-3.1	5.3	784	1021	-0.97	NTC
0.075556	0.002160	0.282674	0.28266	-3.9	4.2	845	1095	-0.94	NTC
0.202786	0.005366	0.282942	0.28290	5.6	12.8	497	542	-0.84	NTC
0.053595	0.001642	0.282698	0.28269	-3.1	5.1	798	1032	-0.95	NTC
0.092358	0.002560	0.282785	0.28277	0.0	8.0	690	851	-0.92	NTC
0.225179	0.006236	0.282893	0.28285	3.8	10.9	591	668	-0.81	NTC

0.087273	0.002354	0.282732	0.28271	-1.9	6.2	764	967	-0.93	NTC
0.082146	0.002292	0.282696	0.28268	-3.1	4.9	816	1047	-0.93	NTC
0.077529	0.002152	0.282705	0.28269	-2.8	5.3	799	1025	-0.94	NTC
0.071646	0.002040	0.282703	0.28269	-2.9	5.2	800	1027	-0.94	NTC
0.079775	0.002184	0.282677	0.28266	-3.8	4.3	841	1088	-0.94	NTC
0.147276	0.003897	0.282927	0.28290	5.0	12.7	499	552	-0.88	NTC
0.027140	0.000744	0.282548	0.28254	-8.4	-1.6	989	1401	-0.98	NTC
0.055157	0.001415	0.282562	0.28255	-7.9	-1.1	987	1376	-0.96	NTC
0.044776	0.001124	0.282536	0.28253	-8.8	-2.1	1017	1434	-0.97	NTC
0.072948	0.001738	0.282536	0.28253	-8.8	-2.9	1033	1460	-0.95	NTC
0.070497	0.001943	0.282505	0.28250	-9.9	-4.2	1083	1535	-0.94	NTC
0.063220	0.001671	0.282401	0.28239	-13.6	-7.3	1223	1749	-0.95	NTC
0.041184	0.001008	0.282510	0.28250	-9.7	-3.0	1049	1490	-0.97	NTC
0.056453	0.001435	0.282440	0.28243	-12.2	-5.5	1162	1652	-0.96	NTC
0.055885	0.001416	0.282417	0.28241	-13.0	-8.1	1193	1750	-0.96	NTC
0.036098	0.001001	0.282434	0.28243	-12.4	-5.7	1157	1660	-0.97	NTC
0.032970	0.000844	0.282570	0.28257	-7.6	-0.8	961	1353	-0.97	NTC
0.040131	0.001004	0.282467	0.28246	-11.2	-4.4	1109	1583	-0.97	NTC
0.045057	0.001215	0.282347	0.28234	-15.5	-8.9	1285	1858	-0.96	NTC
0.052497	0.001296	0.282491	0.28248	-10.4	-3.8	1085	1537	-0.96	NTC
0.047989	0.001200	0.282419	0.28241	-13.0	-6.2	1184	1694	-0.96	NTC
0.033315	0.000835	0.282614	0.28261	-6.0	0.7	899	1255	-0.98	NTC
0.067594	0.001679	0.282496	0.28249	-10.2	-3.6	1088	1528	-0.95	NTC
0.069055	0.001876	0.282507	0.28250	-9.8	-3.5	1079	1513	-0.94	NTC
0.037718	0.000933	0.282522	0.28252	-9.3	-2.5	1031	1461	-0.97	NTC
0.037837	0.000906	0.282478	0.28247	-10.9	-4.1	1092	1560	-0.97	NTC
0.056712	0.001367	0.282534	0.28253	-8.9	-2.2	1025	1439	-0.96	NTC
0.026002	0.000832	0.282343	0.28234	-15.6	-8.4	1278	1848	-0.98	NTC
0.020128	0.000682	0.282468	0.28246	-11.2	-4.5	1099	1580	-0.98	NTC

Table S6 Compilation of detrital zircon U-Pb ages from Silurian-Ca

Sample	Spot No.	Th	U	Th/U	Isotopic ratios			
		ppm	ppm		$^{207}\text{Pb}/^{206}\text{Pb}$	1 $\sigma$	$^{207}\text{Pb}/^{235}\text{U}$	1 $\sigma$
<b>Sample JT86, biotite-quartz schist, Late Carboniferous matrix of the Wuwamen ophiolitic melange, (Wang XS et al., 2018, Jour</b>								
1	68	263	0.26	0.0557	0.0018	0.5507	0.0178	0.0717
2	328	446	0.74	0.0598	0.0015	0.5942	0.0151	0.0720
3	105	477	0.22	0.0569	0.0015	0.4308	0.0116	0.0549
4	60	453	0.13	0.0791	0.0023	0.9864	0.0254	0.0905
5	83	440	0.19	0.0564	0.0015	0.4522	0.0120	0.0582
6	147	131	1.12	0.0561	0.0030	0.4085	0.0217	0.0528
7	198	318	0.62	0.0610	0.0016	0.6520	0.0172	0.0775
8	92	435	0.21	0.0550	0.0016	0.4790	0.0138	0.0632
9	187	363	0.52	0.0553	0.0015	0.5085	0.0142	0.0667
10	208	343	0.61	0.0558	0.0016	0.5334	0.0152	0.0694
11	212	313	0.68	0.0547	0.0017	0.4996	0.0154	0.0662
12	277	460	0.60	0.0593	0.0015	0.5464	0.0144	0.0669
13	844	620	1.36	0.0672	0.0015	0.9774	0.0228	0.1054
14	172	517	0.33	0.0561	0.0017	0.4870	0.0147	0.0630
15	128	369	0.35	0.0557	0.0016	0.5348	0.0155	0.0697
16	254	276	0.92	0.1101	0.0043	4.481	0.1611	0.2953
17	259	622	0.42	0.0587	0.0015	0.5623	0.0142	0.0695
18	157	511	0.31	0.0557	0.0014	0.5329	0.0138	0.0694
19	84	193	0.43	0.0534	0.0022	0.3857	0.0156	0.0524
20	126	335	0.38	0.0705	0.0018	0.9561	0.0244	0.0984
21	146	419	0.35	0.0556	0.0015	0.5168	0.0142	0.0674
22	219	476	0.46	0.0711	0.0017	1.367	0.0332	0.1395
23	360	675	0.53	0.0572	0.0014	0.5570	0.0141	0.0707
24	35	122	0.29	0.0599	0.0028	0.4978	0.0235	0.0603
25	136	218	0.62	0.0566	0.0018	0.5647	0.0176	0.0723
26	194	530	0.37	0.0771	0.0018	1.975	0.0477	0.1857
27	352	778	0.45	0.0570	0.0015	0.5322	0.0142	0.0677
28	157	480	0.33	0.0586	0.0016	0.5279	0.0147	0.0654
29	70	257	0.27	0.0565	0.0020	0.5672	0.0197	0.0728
30	125	260	0.48	0.0562	0.0020	0.5498	0.0192	0.0710
31	143	378	0.38	0.0580	0.0017	0.5387	0.0163	0.0674
32	164	419	0.39	0.0568	0.0017	0.5959	0.0179	0.0762
33	98	152	0.64	0.0535	0.0029	0.3929	0.0209	0.0532
34	142	371	0.38	0.0555	0.0018	0.4893	0.0157	0.0639
35	22	235	0.09	0.0530	0.0019	0.3746	0.0135	0.0513
36	71	234	0.30	0.0547	0.0019	0.4808	0.0169	0.0637
37	241	726	0.33	0.0562	0.0016	0.5432	0.0153	0.0701
38	155	316	0.49	0.0738	0.0020	1.450	0.0399	0.1426
39	226	335	0.67	0.0568	0.0019	0.5992	0.0198	0.0765
40	128	166	0.77	0.0636	0.0021	1.025	0.0338	0.1170
41	77	554	0.14	0.0549	0.0017	0.4354	0.0135	0.0575
42	221	315	0.70	0.0587	0.0018	0.5951	0.0184	0.0735
43	226	792	0.29	0.0557	0.0016	0.5098	0.0145	0.0664
44	344	623	0.55	0.0561	0.0017	0.5744	0.0170	0.0742
45	175	572	0.31	0.0556	0.0016	0.5637	0.0164	0.0735
46	135	236	0.57	0.0600	0.0024	0.4212	0.0165	0.0510
47	144	366	0.39	0.1431	0.0050	5.276	0.1702	0.2674
48	64	131	0.49	0.0552	0.0022	0.5794	0.0228	0.0762
49	203	367	0.55	0.0565	0.0019	0.5874	0.0190	0.0754
50	93	460	0.20	0.0551	0.0018	0.4901	0.0162	0.0646
51	167	445	0.37	0.0542	0.0017	0.5577	0.0175	0.0746
52	97	552	0.18	0.0654	0.0020	1.003	0.0299	0.1113
53	68	412	0.17	0.0613	0.0020	0.6271	0.0201	0.0741
54	693	615	1.13	0.0564	0.0018	0.5702	0.0177	0.0734
55	124	631	0.20	0.0551	0.0017	0.4930	0.0154	0.0649
56	28	76	0.37	0.2511	0.0087	12.898	0.4088	0.3726
57	119	455	0.26	0.0542	0.0019	0.4478	0.0152	0.0599
58	155	547	0.28	0.0558	0.0018	0.5444	0.0174	0.0708
59	182	318	0.57	0.0596	0.0023	0.5415	0.0203	0.0659

60	145	167	0.87	0.0595	0.0021	0.7520	0.0266	0.0916
61	93	416	0.22	0.0851	0.0027	2.027	0.0635	0.1729
62	186	351	0.53	0.0564	0.0021	0.5650	0.0204	0.0726
63	160	310	0.52	0.0549	0.0020	0.5510	0.0198	0.0727
64	102	1130	0.09	0.0527	0.0017	0.3727	0.0121	0.0513
65	80	371	0.22	0.0571	0.0021	0.4934	0.0177	0.0627
66	103	267	0.39	0.0611	0.0022	0.7130	0.0252	0.0846
67	3	394	0.01	0.0531	0.0020	0.3712	0.0140	0.0507
68	117	137	0.85	0.0955	0.0033	2.935	0.0995	0.2228
69	118	220	0.54	0.0561	0.0021	0.5632	0.0209	0.0729
70	255	377	0.68	0.0581	0.0022	0.5185	0.0189	0.0647
71	84	448	0.19	0.0552	0.0021	0.4759	0.0174	0.0626
72	682	707	0.96	0.0556	0.0020	0.5627	0.0194	0.0734
73	160	282	0.57	0.0539	0.0021	0.4425	0.0170	0.0596
74	247	520	0.47	0.0570	0.0021	0.6020	0.0213	0.0766

**Sample 12TS47-2, meta-sandstone, Late Carboniferous matrix of the Wuwamen ophiolitic melange, (Wang B et al., 2018, GSA I**

1		0.73	0.0558	0.0001	0.5287	0.0085	0.0687
2		0.82	0.0541	0.0005	0.4326	0.0045	0.0580
3		0.55	0.0553	0.0002	0.5020	0.0026	0.0658
4		1.11	0.0556	0.0001	0.5232	0.0041	0.0682
5		0.42	0.0559	0.0001	0.5277	0.0048	0.0685
6		0.40	0.0561	0.0001	0.5484	0.0077	0.0709
7		0.54	0.0550	0.0002	0.4746	0.0022	0.0626
8		0.62	0.0563	0.0002	0.5564	0.0044	0.0717
9		0.66	0.0563	0.0001	0.5556	0.0036	0.0715
10		0.47	0.0540	0.0002	0.4186	0.0036	0.0562
11		0.55	0.0542	0.0002	0.4251	0.0028	0.0568
12		0.57	0.0807	0.0001	2.096	0.0206	0.1884
13		0.72	0.0569	0.0002	0.5937	0.0066	0.0756
14		0.31	0.0552	0.0001	0.4992	0.0050	0.0656
15		1.44	0.0537	0.0001	0.4200	0.0040	0.0567
16		0.65	0.0557	0.0001	0.5211	0.0035	0.0679
17		1.16	0.0563	0.0001	0.5572	0.0039	0.0717
18		0.96	0.0538	0.0001	0.4184	0.0023	0.0564
19		0.49	0.0560	0.0001	0.5310	0.0037	0.0687
20		0.57	0.0575	0.0003	0.6352	0.0048	0.0801
21		0.64	0.0557	0.0001	0.5286	0.0054	0.0688
22		0.70	0.0555	0.0001	0.5264	0.0041	0.0688
23		0.50	0.0539	0.0002	0.4200	0.0057	0.0565
24		0.67	0.0561	0.0002	0.5321	0.0044	0.0687
25		0.62	0.0539	0.0001	0.4225	0.0053	0.0569
26		0.64	0.0557	0.0001	0.5267	0.0065	0.0685
27		0.29	0.0556	0.0001	0.5267	0.0061	0.0687
28		0.61	0.0547	0.0001	0.4964	0.0071	0.0657
29		0.50	0.0608	0.0003	0.6667	0.0053	0.0796
30		0.44	0.0563	0.0002	0.5557	0.0042	0.0715
31		0.53	0.0856	0.0011	0.6108	0.0092	0.0517
32		0.42	0.0555	0.0001	0.5224	0.0067	0.0684
33		0.68	0.0547	0.0001	0.4797	0.0054	0.0636
34		0.83	0.0565	0.0002	0.5662	0.0044	0.0728
35		1.05	0.0549	0.0001	0.5194	0.0029	0.0686
36		0.65	0.0559	0.0001	0.5264	0.0047	0.0683
37		0.52	0.0545	0.0001	0.4957	0.0032	0.0659
38		0.61	0.0548	0.0001	0.4961	0.0042	0.0656
39		0.28	0.0545	0.0001	0.2567	0.0031	0.0342
40		0.52	0.0543	0.0001	0.5150	0.0038	0.0688
41		0.50	0.0545	0.0001	0.5176	0.0041	0.0689
42		1.05	0.0522	0.0002	0.4055	0.0020	0.0564
43		0.56	0.0525	0.0001	0.4079	0.0019	0.0564
44		0.57	0.0552	0.0001	0.5227	0.0049	0.0687
45		0.82	0.0521	0.0001	0.4046	0.0027	0.0564
46		0.67	0.0585	0.0001	0.7687	0.0071	0.0952
47		1.15	0.0539	0.0001	0.4920	0.0036	0.0662

48	0.76	0.0521	0.0001	0.4053	0.0029	0.0564
49	0.74	0.0548	0.0002	0.4712	0.0040	0.0624
50	0.37	0.0526	0.0001	0.4796	0.0029	0.0661
51	0.41	0.0527	0.0001	0.4807	0.0047	0.0661
52	0.38	0.0518	0.0001	0.4045	0.0051	0.0566
53	0.42	0.0551	0.0002	0.5215	0.0039	0.0686
54	1.18	0.0538	0.0001	0.4903	0.0075	0.0661
55	0.39	0.0541	0.0002	0.4913	0.0051	0.0658
56	1.01	0.0551	0.0001	0.5489	0.0067	0.0721
57	0.60	0.0543	0.0001	0.5148	0.0047	0.0687
58	0.45	0.0543	0.0002	0.4967	0.0063	0.0663
59	0.59	0.0547	0.0001	0.5206	0.0058	0.0689
60	0.62	0.0549	0.0003	0.5459	0.0046	0.0721
61	0.41	0.0551	0.0002	0.5247	0.0067	0.0689
62	0.82	0.0550	0.0001	0.5451	0.0054	0.0719
63	0.50	0.0546	0.0001	0.5209	0.0045	0.0691
64	0.54	0.0547	0.0001	0.5218	0.0055	0.0691
65	0.62	0.0551	0.0002	0.4995	0.0037	0.0656

**Sample 12TS47-4, meta-sandstone, Late Carboniferous matrix of the Wuwamen ophiolitic melange, (Wang B et al., 2018, GSA I**

1	0.60	0.0554	0.0002	0.5174	0.0070	0.0677
2	0.65	0.0560	0.0001	0.5503	0.0124	0.0713
3	0.84	0.0560	0.0003	0.4219	0.0028	0.0546
4	0.68	0.0561	0.0001	0.3853	0.0020	0.0498
5	0.64	0.0556	0.0001	0.5250	0.0048	0.0684
6	0.51	0.0884	0.0001	2.875	0.0130	0.2356
7	0.27	0.0547	0.0001	0.4753	0.0084	0.0629
8	0.56	0.0557	0.0001	0.5214	0.0042	0.0679
9	1.05	0.0555	0.0002	0.5198	0.0033	0.0678
10	0.60	0.0557	0.0001	0.5233	0.0031	0.0681
11	0.86	0.0554	0.0001	0.5182	0.0040	0.0678
12	1.20	0.0606	0.0001	0.4317	0.0028	0.0516
13	0.45	0.0554	0.0001	0.5109	0.0046	0.0668
14	0.56	0.0555	0.0001	0.5135	0.0044	0.0671
15	0.50	0.0555	0.0001	0.5176	0.0058	0.0676
16	0.63	0.0568	0.0002	0.6050	0.0042	0.0772
17	0.68	0.0596	0.0002	0.6590	0.0065	0.0801
18	0.67	0.0559	0.0002	0.5485	0.0040	0.0711
19	1.99	0.0554	0.0001	0.5165	0.0049	0.0675
20	0.72	0.0556	0.0002	0.5211	0.0058	0.0679
21	0.60	0.0556	0.0002	0.5372	0.0071	0.0700
22	0.82	0.0555	0.0002	0.5181	0.0059	0.0676
23	0.88	0.0532	0.0003	0.3826	0.0037	0.0520
24	0.57	0.0553	0.0002	0.5143	0.0056	0.0674
25	0.70	0.0560	0.0001	0.5614	0.0052	0.0726
26	0.52	0.0549	0.0002	0.5111	0.0055	0.0673
27	0.85	0.0554	0.0002	0.5189	0.0047	0.0678
28	0.40	0.0545	0.0002	0.4718	0.0044	0.0626
29	0.69	0.0532	0.0002	0.3963	0.0047	0.0539
30	0.82	0.0540	0.0002	0.4614	0.0039	0.0617
31	0.83	0.0546	0.0002	0.4842	0.0045	0.0641
32	1.24	0.0547	0.0002	0.4826	0.0045	0.0639
33	0.67	0.0552	0.0002	0.5125	0.0054	0.0672
34	0.61	0.0551	0.0002	0.5126	0.0041	0.0673
35	0.67	0.0549	0.0001	0.4955	0.0052	0.0653
36	0.78	0.0550	0.0002	0.4951	0.0055	0.0652
37	0.76	0.0551	0.0002	0.5082	0.0057	0.0668
38	0.45	0.0553	0.0001	0.5174	0.0043	0.0678
39	0.51	0.0549	0.0001	0.4864	0.0029	0.0642
40	0.65	0.0554	0.0002	0.5185	0.0067	0.0678
41	0.53	0.0559	0.0002	0.5516	0.0037	0.0715
42	0.21	0.0566	0.0002	0.4480	0.0028	0.0573
43	0.67	0.0553	0.0004	0.5114	0.0055	0.0670
44	0.44	0.0563	0.0003	0.5594	0.0055	0.0720

45		0.59	0.0559	0.0001	0.5509	0.0068	0.0714
46		0.56	0.0548	0.0001	0.4835	0.0046	0.0639
47		0.57	0.0560	0.0001	0.5513	0.0051	0.0714
48		0.43	0.0562	0.0001	0.5606	0.0068	0.0724
49		0.57	0.0602	0.0002	0.6688	0.0057	0.0806
50		0.57	0.0559	0.0002	0.5518	0.0054	0.0715
51		0.50	0.0564	0.0002	0.5760	0.0035	0.0740
52		0.40	0.0574	0.0002	0.5295	0.0044	0.0668
53		0.63	0.0561	0.0001	0.5508	0.0066	0.0712
54		0.53	0.0557	0.0002	0.5275	0.0034	0.0686
55		0.63	0.0556	0.0006	0.3746	0.0066	0.0488
56		0.63	0.0560	0.0002	0.5485	0.0045	0.0710
57		0.68	0.0554	0.0001	0.5169	0.0049	0.0676
58		1.15	0.0556	0.0001	0.5195	0.0068	0.0677
59		0.77	0.0535	0.0001	0.3845	0.0020	0.0521
60		0.53	0.0566	0.0002	0.5907	0.0043	0.0756
61		0.71	0.0533	0.0003	0.3813	0.0032	0.0519

**Sample 12TS38-2, paragneiss, Late Carboniferous matrix of the Wuwamen ophiolitic melange, (Wang B et al., 2018, GSA Bulletin)**

1		0.42	0.0571	0.0002	0.6077	0.0044	0.0772
2		0.67	0.0565	0.0003	0.5279	0.0046	0.0678
3		0.74	0.0802	0.0005	0.5901	0.0034	0.0533
4		0.95	0.0567	0.0002	0.5882	0.0033	0.0752
5		0.49	0.0623	0.0001	0.5914	0.0045	0.0687
6		0.55	0.0613	0.0003	0.6277	0.0033	0.0743
7		0.52	0.0557	0.0002	0.5267	0.0037	0.0685
8		0.97	0.0729	0.0002	1.410	0.0143	0.1401
9		0.79	0.0561	0.0002	0.5532	0.0033	0.0715
10		0.80	0.0565	0.0001	0.5277	0.0030	0.0677
11		0.62	0.0558	0.0001	0.5261	0.0059	0.0684
12		0.56	0.0560	0.0002	0.5517	0.0041	0.0714
13		0.82	0.0567	0.0002	0.5865	0.0054	0.0750
14		0.50	0.0557	0.0001	0.5235	0.0039	0.0682
15		1.23	0.0569	0.0003	0.6083	0.0068	0.0774
16		0.62	0.0578	0.0001	0.5528	0.0059	0.0693
17		0.49	0.0566	0.0002	0.5876	0.0047	0.0752
18		0.61	0.0562	0.0001	0.5524	0.0057	0.0714
19		0.83	0.0566	0.0002	0.5823	0.0033	0.0747
20		1.43	0.0580	0.0004	0.4554	0.0069	0.0569
21		0.76	0.0561	0.0002	0.5492	0.0036	0.0710
22		0.33	0.0551	0.0002	0.4068	0.0026	0.0535
23		0.61	0.0562	0.0002	0.5500	0.0059	0.0710
24		0.73	0.0573	0.0002	0.5906	0.0038	0.0748
25		0.66	0.0556	0.0002	0.5241	0.0059	0.0684
26		0.60	0.0573	0.0004	0.6301	0.0077	0.0798
27		0.53	0.0557	0.0002	0.5186	0.0047	0.0675
28		0.38	0.0637	0.0003	0.6511	0.0048	0.0741
29		0.42	0.0572	0.0004	0.6102	0.0094	0.0774
30		0.60	0.0560	0.0002	0.4674	0.0050	0.0606
31		0.44	0.0554	0.0002	0.4251	0.0030	0.0557
32		0.57	0.0569	0.0002	0.5133	0.0033	0.0654
33		0.68	0.0539	0.0002	0.4178	0.0043	0.0562
34		0.64	0.0565	0.0002	0.5842	0.0063	0.0750
35		0.72	0.0567	0.0003	0.5537	0.0044	0.0708
36		0.69	0.0558	0.0002	0.5299	0.0068	0.0689
37		0.70	0.0573	0.0002	0.5894	0.0048	0.0748
38		0.60	0.0567	0.0002	0.5868	0.0072	0.0749
39		0.65	0.0555	0.0001	0.5216	0.0038	0.0681
40		0.82	0.0563	0.0002	0.5573	0.0033	0.0717

**Sample JT136, sandstone, Early Carboniferous matrix of the Wuwamen ophiolitic melange, (Wang XS et al., 2022, Tectonics)**

JT136-01	334	656	0.51	0.0558	0.0015	0.5624	0.0149	0.0728
JT136-02	172	280	0.61	0.0562	0.0021	0.5753	0.0204	0.0743
JT136-03	26.4	84.6	0.31	0.0576	0.0033	0.5270	0.0273	0.0671

JT136-04	56.6	112	0.50	0.0558	0.0032	0.4838	0.0258	0.0638
JT136-05	71.7	182	0.40	0.0551	0.0025	0.4862	0.0212	0.0640
JT136-06	383	615	0.62	0.0566	0.0016	0.5566	0.0153	0.0711
JT136-07	80.2	115	0.69	0.0563	0.0026	0.5099	0.0227	0.0658
JT136-08	272	623	0.44	0.0572	0.0017	0.5505	0.0162	0.0693
JT136-09	22.9	69.3	0.33	0.0569	0.0032	0.5916	0.0307	0.0761
JT136-10	113	161	0.70	0.0545	0.0024	0.4279	0.0184	0.0570
JT136-11	169	154	1.09	0.0674	0.0022	1.0590	0.0380	0.1132
JT136-12	325	573	0.57	0.0557	0.0015	0.5323	0.0138	0.0690
JT136-13	54.4	102	0.54	0.0569	0.0030	0.5977	0.0301	0.0765
JT136-14	344	619	0.56	0.0543	0.0016	0.5088	0.0151	0.0675
JT136-15	235	387	0.61	0.0562	0.0020	0.4482	0.0162	0.0576
JT136-16	280	192	1.46	0.0959	0.0024	3.7087	0.0919	0.2785
JT136-17	316	717	0.44	0.0562	0.0016	0.4910	0.0136	0.0628
JT136-18	461	490	0.94	0.0539	0.0017	0.5177	0.0161	0.0691
JT136-19	396	410	0.96	0.0534	0.0020	0.4231	0.0152	0.0570
JT136-20	385	584	0.66	0.0558	0.0015	0.5536	0.0148	0.0712
JT136-21	267	527	0.51	0.0585	0.0018	0.5670	0.0168	0.0695
JT136-22	116	158	0.73	0.0565	0.0024	0.5833	0.0248	0.0744
JT136-23	204	265	0.77	0.0593	0.0021	0.5805	0.0204	0.0704
JT136-24	398	419	0.95	0.0558	0.0017	0.5345	0.0163	0.0688
JT136-25	51.6	96.8	0.53	0.0618	0.0030	0.6280	0.0300	0.0739
JT136-26	97.8	120	0.81	0.0593	0.0028	0.6299	0.0300	0.0766
JT136-27	150	244	0.61	0.0565	0.0021	0.5623	0.0206	0.0722
JT136-28	126	275	0.46	0.0566	0.0022	0.5250	0.0207	0.0668
JT136-29	171	637	0.27	0.0554	0.0018	0.5408	0.0175	0.0702
JT136-30	121	196	0.62	0.0607	0.0026	0.5524	0.0220	0.0661
JT136-31	65.1	147	0.44	0.0616	0.0031	0.5760	0.0230	0.0679
JT136-32	274	798	0.34	0.0584	0.0017	0.5977	0.0168	0.0738
JT136-33	273	617	0.44	0.0569	0.0018	0.5872	0.0187	0.0742
JT136-34	117	224	0.52	0.0615	0.0024	0.5884	0.0229	0.0690
JT136-35	141	313	0.45	0.0550	0.0022	0.5366	0.0211	0.0701
JT136-36	534	749	0.71	0.0598	0.0022	0.6021	0.0215	0.0724
JT136-37	96.3	134	0.72	0.0663	0.0050	0.4997	0.0338	0.0548
JT136-38	193	391	0.49	0.0589	0.0021	0.5764	0.0201	0.0706
JT136-39	47.6	110	0.43	0.0565	0.0031	0.5673	0.0308	0.0726
JT136-40	98.5	187	0.53	0.0558	0.0021	0.5572	0.0203	0.0722
JT136-41	236	349	0.68	0.0557	0.0019	0.5396	0.0183	0.0700
JT136-42	167	192	0.87	0.0587	0.0025	0.5759	0.0242	0.0707
JT136-43	197	260	0.76	0.0554	0.0021	0.5057	0.0179	0.0663
JT136-44	320	576	0.55	0.0569	0.0014	0.5648	0.0142	0.0715
JT136-45	288	573	0.50	0.0577	0.0015	0.5793	0.0149	0.0726
JT136-46	262	503	0.52	0.0564	0.0015	0.5500	0.0152	0.0704
JT136-47	238	311	0.77	0.0593	0.0019	0.5754	0.0174	0.0706
JT136-48	105	120	0.87	0.0554	0.0029	0.5188	0.0274	0.0679
JT136-49	395	574	0.69	0.0548	0.0016	0.5300	0.0162	0.0699
JT136-50	189	417	0.45	0.0559	0.0018	0.5365	0.0172	0.0696
JT136-51	382	786	0.49	0.0558	0.0015	0.5503	0.0153	0.0714
JT136-52	423	1198	0.35	0.0551	0.0014	0.5354	0.0141	0.0703
JT136-53	39.2	100	0.39	0.0568	0.0026	0.5485	0.0243	0.0705
JT136-54	165	240	0.69	0.0557	0.0022	0.5405	0.0219	0.0705
JT136-55	486	499	0.97	0.0548	0.0015	0.5542	0.0157	0.0731
JT136-56	319	462	0.69	0.0561	0.0017	0.5555	0.0164	0.0719
JT136-57	226	391	0.58	0.0549	0.0017	0.5208	0.0157	0.0689
JT136-58	250	439	0.57	0.0551	0.0017	0.5314	0.0163	0.0696
JT136-59	362	746	0.49	0.0533	0.0013	0.5169	0.0129	0.0699
JT136-60	292	524	0.56	0.0542	0.0015	0.5129	0.0137	0.0684
JT136-61	172	237	0.73	0.0628	0.0017	1.1294	0.0302	0.1294
JT136-62	571	882	0.65	0.0554	0.0014	0.5347	0.0130	0.0696
JT136-63	232	367	0.63	0.0557	0.0018	0.5950	0.0191	0.0773
JT136-64	372	798	0.47	0.0548	0.0015	0.5314	0.0148	0.0698
JT136-65	27.4	74.3	0.37	0.0589	0.0042	0.6007	0.0371	0.0754

Sample 19W41, conglomerate, Early Carboniferous, Baluntai, CTS, (Wang XS et al., 2021, GSA Bulletin)

1	179	311	0.58	0.0561	0.0019	0.5656	0.0191	0.0729
2	62.9	126	0.50	0.0910	0.0024	3.1100	0.0823	0.2466
3	105	143	0.73	0.0557	0.0026	0.5366	0.0243	0.0699
4	190	268	0.71	0.0654	0.0016	1.1649	0.0296	0.1285
5	219	325	0.67	0.0549	0.0018	0.4909	0.0149	0.0650
6	166	240	0.69	0.1068	0.0020	4.5065	0.0860	0.3045
7	97.0	93.6	1.04	0.0893	0.0019	3.0388	0.0659	0.2461
8	140	288	0.49	0.0558	0.0016	0.5667	0.0164	0.0733
9	360	468	0.77	0.0549	0.0014	0.4951	0.0121	0.0653
10	229	440	0.52	0.0549	0.0014	0.4949	0.0128	0.0653
11	240	297	0.81	0.0785	0.0015	2.1308	0.0442	0.1959
12	154	221	0.69	0.0559	0.0018	0.5383	0.0176	0.0698
13	223	244	0.91	0.0910	0.0017	3.2140	0.0652	0.2555
14	150	221	0.68	0.0562	0.0019	0.5648	0.0193	0.0730
15	132	178	0.74	0.0561	0.0022	0.5700	0.0229	0.0734
16	132	321	0.41	0.0674	0.0016	1.2927	0.0303	0.1390
17	349	178	1.97	0.0646	0.0017	1.1042	0.0294	0.1240
18	127	466	0.27	0.0702	0.0013	1.5334	0.0299	0.1579
19	159	300	0.53	0.0762	0.0014	2.0219	0.0385	0.1917
20	223	233	0.96	0.0544	0.0016	0.5009	0.0153	0.0664
21	52.4	145	0.36	0.0691	0.0020	1.4274	0.0405	0.1496
22	107	96.3	1.11	0.0562	0.0028	0.5381	0.0252	0.0702
23	76.9	536	0.14	0.0778	0.0016	2.0045	0.0443	0.1852
24	180	372	0.48	0.0557	0.0016	0.5775	0.0163	0.0748
25	139	272	0.51	0.0551	0.0019	0.5131	0.0177	0.0673
26	93.5	146	0.64	0.0706	0.0020	1.5751	0.0447	0.1607
27	59.0	352	0.17	0.0902	0.0018	3.1294	0.0894	0.2484
28	74.7	921	0.08	0.0689	0.0013	1.4645	0.0279	0.1531
29	333	330	1.01	0.0556	0.0016	0.5381	0.0157	0.0697
30	47.9	125	0.38	0.1358	0.0028	7.4506	0.1572	0.3954
31	257	504	0.51	0.0550	0.0015	0.5594	0.0155	0.0734
32	118	192	0.62	0.0551	0.0023	0.5439	0.0214	0.0717
33	153	166	0.92	0.0546	0.0023	0.5101	0.0218	0.0678
34	57.9	705	0.08	0.0701	0.0015	1.5526	0.0341	0.1595
35	55.4	923	0.06	0.0724	0.0015	1.5406	0.0348	0.1529
36	26.0	959	0.03	0.0577	0.0012	0.7510	0.0164	0.0938
37	113	161	0.70	0.1598	0.0029	9.7701	0.1817	0.4411
38	111	150	0.74	0.0467	0.0027	0.3763	0.0224	0.0582
39	112	685	0.16	0.0564	0.0013	0.6901	0.0158	0.0883
40	52.2	58.2	0.90	0.0709	0.0027	1.5923	0.0578	0.1642
41	80.6	154	0.52	0.0548	0.0019	0.5051	0.0180	0.0665
42	154	225	0.69	0.0555	0.0018	0.5305	0.0172	0.0695
43	126	127	0.99	0.0549	0.0022	0.4956	0.0201	0.0652
44	75.3	88.1	0.85	0.1631	0.0028	10.4339	0.1791	0.4624
45	110	253	0.44	0.0561	0.0015	0.5916	0.0163	0.0762
46	183	217	0.84	0.1602	0.0026	9.9337	0.1627	0.4471
47	74.5	152	0.49	0.0578	0.0022	0.6377	0.0229	0.0800
48	248	319	0.78	0.1631	0.0032	9.7308	0.1867	0.4298
49	409	371	1.10	0.0555	0.0017	0.5470	0.0178	0.0710
50	84.9	178	0.48	0.1639	0.0031	9.5598	0.1784	0.4199
51	133	186	0.72	0.0549	0.0019	0.4949	0.0165	0.0652
52	154	347	0.44	0.0557	0.0015	0.5424	0.0141	0.0704
53	104	204	0.51	0.0548	0.0019	0.5064	0.0179	0.0666
54	147	244	0.60	0.0556	0.0017	0.5456	0.0175	0.0703
55	181	254	0.71	0.0567	0.0016	0.5839	0.0160	0.0744
56	59.0	135	0.44	0.1095	0.0024	4.8329	0.1034	0.3178
57	362	558	0.65	0.0565	0.0013	0.6042	0.0143	0.0770
58	123	216	0.57	0.0561	0.0019	0.5788	0.0201	0.0742
59	57.4	132	0.43	0.0547	0.0029	0.5151	0.0240	0.0678
60	159	141	1.12	0.0552	0.0025	0.5305	0.0231	0.0696
61	36.9	133	0.28	0.0556	0.0022	0.5613	0.0222	0.0730
62	150	238	0.63	0.0557	0.0017	0.5629	0.0163	0.0731
63	208	285	0.73	0.0553	0.0016	0.5599	0.0165	0.0729

64	238	252	0.95	0.0778	0.0018	2.0939	0.0469	0.1936
65	136	239	0.57	0.0541	0.0017	0.5396	0.0166	0.0723
66	283	363	0.78	0.0557	0.0014	0.5391	0.0134	0.0699
67	121	264	0.46	0.1586	0.0026	10.1797	0.1758	0.4622
68	144	402	0.36	0.0730	0.0013	1.8580	0.0353	0.1834
69	210	397	0.53	0.0539	0.0013	0.5489	0.0141	0.0734
70	94.1	136	0.69	0.0880	0.0021	2.9383	0.0684	0.2412

**Sample 19W44, sandstone, Early Carboniferous, Baluntai, CTS, (Wang XS et al., 2021, GSA Bulletin)**

1	133	148	0.90	0.0554	0.0024	0.5293	0.0230	0.0693
2	80.3	174	0.46	0.0559	0.0018	0.5662	0.0187	0.0733
3	96.2	211	0.46	0.0554	0.0018	0.5232	0.0177	0.0683
4	116	188	0.62	0.0551	0.0019	0.5020	0.0163	0.0663
5	93.8	173	0.54	0.0554	0.0019	0.5289	0.0176	0.0693
6	161	366	0.44	0.0552	0.0016	0.5272	0.0147	0.0693
7	71.5	161	0.44	0.0589	0.0023	0.5622	0.0217	0.0694
8	150	155	0.97	0.0629	0.0054	0.4880	0.0397	0.0564
9	249	330	0.76	0.0550	0.0018	0.5067	0.0163	0.0668
10	83.2	153	0.55	0.0550	0.0024	0.4909	0.0205	0.0652
11	129	349	0.37	0.0557	0.0015	0.5114	0.0136	0.0665
12	109	281	0.39	0.0553	0.0019	0.5103	0.0176	0.0670
13	43.1	72.0	0.60	0.0560	0.0034	0.5015	0.0269	0.0661
14	117	270	0.43	0.0555	0.0017	0.5147	0.0155	0.0672
15	77.5	138	0.56	0.1015	0.0037	1.0359	0.0377	0.0740
16	64.2	132	0.49	0.0553	0.0024	0.5269	0.0221	0.0694
17	71.4	179	0.40	0.0546	0.0019	0.4891	0.0166	0.0651
18	173	172	1.00	0.0546	0.0021	0.4921	0.0181	0.0653
19	111	180	0.62	0.0548	0.0025	0.4939	0.0231	0.0652
20	69.9	147	0.47	0.0694	0.0041	0.8155	0.0520	0.0855
21	217	380	0.57	0.0544	0.0015	0.4995	0.0136	0.0664
22	56.5	204	0.28	0.0555	0.0020	0.5139	0.0192	0.0669
23	227	547	0.41	0.1629	0.0028	10.6322	0.1923	0.4709
24	140	306	0.46	0.0552	0.0020	0.5140	0.0174	0.0676
25	132	396	0.33	0.0549	0.0014	0.5084	0.0131	0.0669
26	74.9	80.6	0.93	0.0562	0.0029	0.5284	0.0275	0.0685
27	64.8	243	0.27	0.0546	0.0018	0.4973	0.0160	0.0659
28	204	284	0.72	0.0546	0.0019	0.5153	0.0176	0.0682
29	52.5	129	0.41	0.0554	0.0025	0.5080	0.0223	0.0667
30	17.9	61.3	0.29	0.0648	0.0072	0.5203	0.0572	0.0579
31	84.2	135	0.63	0.0542	0.0024	0.4929	0.0220	0.0658
32	78.9	172	0.46	0.0555	0.0023	0.5260	0.0221	0.0684
33	275	280	0.98	0.0548	0.0024	0.4902	0.0204	0.0649
34	64.5	177	0.36	0.0530	0.0021	0.4865	0.0178	0.0672
35	127	181	0.70	0.0552	0.0022	0.5043	0.0186	0.0668
36	165	371	0.44	0.0560	0.0018	0.5716	0.0183	0.0739
37	54.9	125	0.44	0.0552	0.0024	0.5258	0.0224	0.0694
38	54.3	388	0.14	0.0550	0.0015	0.5081	0.0138	0.0667
39	754	1156	0.65	0.0542	0.0012	0.5071	0.0111	0.0675
40	245	217	1.13	0.0632	0.0029	0.5431	0.0230	0.0624
41	51.3	141	0.37	0.0552	0.0024	0.5097	0.0213	0.0670
42	70.2	149	0.47	0.0547	0.0025	0.5034	0.0241	0.0663
43	115	232	0.49	0.0547	0.0018	0.5108	0.0161	0.0677
44	92.2	129	0.72	0.0552	0.0026	0.5110	0.0225	0.0673
45	160	212	0.75	0.0548	0.0021	0.5134	0.0155	0.0678
46	99.0	236	0.42	0.0549	0.0019	0.5154	0.0173	0.0678
47	64.2	132	0.49	0.0560	0.0023	0.5607	0.0227	0.0729
48	97.2	110	0.88	0.0563	0.0026	0.5753	0.0257	0.0745
49	47.8	105	0.46	0.0555	0.0027	0.5355	0.0261	0.0697
50	65.3	171	0.38	0.0557	0.0022	0.5320	0.0213	0.0690
51	101	198	0.51	0.0542	0.0021	0.4979	0.0189	0.0664
52	137	284	0.48	0.0557	0.0016	0.5649	0.0160	0.0732
53	78.3	124	0.63	0.0552	0.0024	0.5266	0.0220	0.0691
54	91.2	234	0.39	0.0545	0.0018	0.5147	0.0167	0.0679
55	393	309	1.27	0.0551	0.0017	0.5131	0.0153	0.0673

56	68.7	283	0.24	0.0549	0.0016	0.4990	0.0143	0.0655
57	161	186	0.87	0.0552	0.0022	0.5056	0.0192	0.0664
58	120	280	0.43	0.0547	0.0016	0.5047	0.0145	0.0664
59	89.3	183	0.49	0.0548	0.0020	0.5131	0.0183	0.0675
60	46.7	90.8	0.51	0.0548	0.0029	0.4930	0.0258	0.0654
61	267	444	0.60	0.1617	0.0027	10.2922	0.1650	0.4578
62	157	224	0.70	0.0566	0.0023	0.5421	0.0211	0.0694
63	83.6	348	0.24	0.0554	0.0019	0.5227	0.0167	0.0681
64	117	186	0.63	0.0553	0.0022	0.5124	0.0189	0.0672
65	129	266	0.48	0.0549	0.0018	0.4999	0.0162	0.0659
66	128	402	0.32	0.0546	0.0014	0.5107	0.0131	0.0677
67	103	228	0.45	0.0552	0.0018	0.5084	0.0161	0.0667
68	163	256	0.64	0.0550	0.0016	0.5137	0.0147	0.0678
69	71.5	136	0.52	0.0553	0.0023	0.5209	0.0214	0.0678
70	178	365	0.49	0.0551	0.0015	0.5240	0.0140	0.0688

**Sample JT57-9, sandstone, Early Carboniferous, Baluntai, CTS, (Wang XS et al., 2021, GSA Bulletin)**

1	180	336	0.54	0.0563	0.0011	0.5613	0.0098	0.0723
2	124	244	0.51	0.0550	0.0015	0.4831	0.0122	0.0637
3	81.1	144	0.57	0.1278	0.0020	3.5648	0.0492	0.2022
4	86.4	121	0.71	0.0557	0.0031	0.5323	0.0271	0.0693
5	159	325	0.49	0.0565	0.0026	0.5413	0.0231	0.0695
6	198	258	0.77	0.0564	0.0018	0.5539	0.0159	0.0713
7	74.3	232	0.32	0.0554	0.0023	0.5354	0.0206	0.0701
8	101	475	0.21	0.0557	0.0020	0.5272	0.0171	0.0686
9	386	366	1.05	0.0548	0.0023	0.5056	0.0196	0.0669
10	194	363	0.53	0.0575	0.0014	0.6279	0.0143	0.0791
11	46.0	100	0.46	0.0547	0.0028	0.5165	0.0245	0.0685
12	50.8	125	0.41	0.0555	0.0028	0.5363	0.0252	0.0701
13	141	251	0.56	0.0561	0.0015	0.5857	0.0143	0.0757
14	139	306	0.46	0.0548	0.0016	0.5493	0.0144	0.0728
15	75.3	162	0.46	0.0713	0.0015	1.5877	0.0296	0.1616
16	41.8	147	0.28	0.0557	0.0026	0.5131	0.0225	0.0668
17	273	371	0.74	0.0576	0.0038	0.6269	0.0380	0.0790
18	87.5	133	0.66	0.0547	0.0030	0.4801	0.0248	0.0637
19	275	485	0.57	0.0576	0.0011	0.6014	0.0105	0.0757
20	241	653	0.37	0.0714	0.0009	1.6302	0.0191	0.1656
21	53.2	93.4	0.57	0.0556	0.0040	0.5368	0.0360	0.0700
22	69.2	178	0.39	0.0555	0.0022	0.5223	0.0187	0.0682
23	79.5	109	0.73	0.0553	0.0031	0.5470	0.0283	0.0717
24	117	132	0.89	0.0559	0.0026	0.5252	0.0229	0.0681
25	29.9	74.2	0.40	0.0552	0.0034	0.5231	0.0298	0.0687
26	263	334	0.79	0.0564	0.0015	0.6177	0.0154	0.0794
27	140	115	1.22	0.0551	0.0049	0.5210	0.0430	0.0686
28	65.0	170	0.38	0.0558	0.0026	0.5311	0.0227	0.0690
29	197	260	0.76	0.0563	0.0016	0.5967	0.0152	0.0768
30	143	140	1.02	0.0544	0.0026	0.4991	0.0224	0.0665
31	123	352	0.35	0.0545	0.0024	0.4672	0.0187	0.0622
32	30.4	43.3	0.70	0.0552	0.0062	0.5337	0.0569	0.0702
33	140	287	0.49	0.0562	0.0016	0.5510	0.0144	0.0711
34	94.8	182	0.52	0.0568	0.0022	0.5510	0.0195	0.0703
35	182	354	0.51	0.0567	0.0016	0.5959	0.0156	0.0762
36	46.3	68.6	0.68	0.0550	0.0050	0.5061	0.0438	0.0667
37	105	160	0.66	0.0567	0.0027	0.6024	0.0266	0.0771
38	226	299	0.76	0.0549	0.0031	0.5421	0.0281	0.0717
39	52.0	104	0.50	0.0554	0.0046	0.4983	0.0386	0.0653
40	194	194	1.00	0.0553	0.0032	0.5455	0.0291	0.0716
41	141	182	0.78	0.0571	0.0023	0.6271	0.0235	0.0796
42	217	216	1.00	0.0568	0.0056	0.6049	0.0547	0.0773
43	182	310	0.59	0.0576	0.0045	0.6483	0.0461	0.0817
44	38.8	87.6	0.44	0.0560	0.0071	0.5182	0.0605	0.0671
45	88.2	130	0.68	0.0589	0.0041	0.7011	0.0454	0.0863
46	22.9	88.0	0.26	0.0567	0.0087	0.5992	0.0852	0.0766
47	143	417	0.34	0.0574	0.0027	0.6597	0.0287	0.0833

48	130	295	0.44	0.0584	0.0044	0.7088	0.0493	0.0881
49	442	415	1.06	0.0545	0.0045	0.5888	0.0442	0.0784
50	64.8	163	0.40	0.0565	0.0045	0.6235	0.0459	0.0800
51	107	153	0.70	0.0559	0.0037	0.6236	0.0379	0.0809
52	195	267	0.73	0.0572	0.0027	0.6470	0.0280	0.0821
53	122	189	0.65	0.0556	0.0057	0.5317	0.0502	0.0693
54	90.9	76.2	1.19	0.0644	0.0049	1.2050	0.0864	0.1358
55	75.0	118	0.63	0.0601	0.0060	0.7563	0.0693	0.0912
56	50.8	114	0.45	0.0584	0.0052	0.7062	0.0582	0.0877
57	32.9	94.6	0.35	0.0556	0.0065	0.5500	0.0600	0.0717
58	51.5	105	0.49	0.0552	0.0067	0.5087	0.0578	0.0669
59	39.2	61.7	0.64	0.0583	0.0077	0.6979	0.0857	0.0868
60	111	162	0.68	0.0582	0.0048	0.6616	0.0504	0.0825
61	15.1	47.4	0.32	0.0565	0.0085	0.5619	0.0785	0.0722

**Sample JT156, sanstone, Early Devonian matrix of the Wuwamen ophiolitic melange, (Wang XS et al., 2022, Tectonics)**

JT156-01	504	477	1.06	0.0434	0.0038	0.4350	0.0274	0.0715
JT156-02	106	127	0.84	0.0562	0.0029	0.5104	0.0261	0.0662
JT156-03	308	736	0.42	0.0773	0.0018	1.8387	0.0476	0.1713
JT156-04	255	1356	0.19	0.0551	0.0013	0.5074	0.0120	0.0665
JT156-05	97.1	196	0.49	0.0591	0.0027	0.5451	0.0251	0.0668
JT156-06	122	132	0.92	0.0542	0.0028	0.4839	0.0252	0.0646
JT156-07	50.5	106	0.48	0.0562	0.0028	0.5428	0.0250	0.0704
JT156-08	161	153	1.05	0.0580	0.0030	0.5201	0.0277	0.0649
JT156-09	183	103	1.78	0.0742	0.0022	1.5732	0.0467	0.1536
JT156-10	119	138	0.86	0.0559	0.0026	0.5139	0.0240	0.0667
JT156-11	58.3	102	0.57	0.0575	0.0028	0.5310	0.0266	0.0668
JT156-12	124	133	0.94	0.0562	0.0030	0.4969	0.0253	0.0640
JT156-13	148	836	0.18	0.0572	0.0015	0.5057	0.0129	0.0640
JT156-14	66.9	142	0.47	0.0650	0.0023	1.1610	0.0425	0.1293
JT156-15	131	113	1.16	0.1600	0.0036	10.1368	0.2285	0.4577
JT156-16	96.2	159	0.61	0.0542	0.0027	0.5038	0.0253	0.0673
JT156-17	112	134	0.84	0.0553	0.0024	0.4945	0.0208	0.0650
JT156-18	166	269	0.62	0.0557	0.0022	0.5609	0.0218	0.0725
JT156-19	74.0	98.3	0.75	0.0539	0.0029	0.4770	0.0240	0.0643
JT156-20	123	127	0.97	0.0554	0.0027	0.4988	0.0234	0.0655
JT156-21	38.5	519	0.07	0.0511	0.0017	0.4577	0.0148	0.0644
JT156-22	174	257	0.68	0.0553	0.0022	0.5208	0.0205	0.0678
JT156-23	9.09	500	0.02	0.0542	0.0020	0.4736	0.0159	0.0631
JT156-24	223	265	0.84	0.0542	0.0019	0.5143	0.0180	0.0683
JT156-25	135	143	0.94	0.0553	0.0026	0.4980	0.0228	0.0650
JT156-26	157	196	0.80	0.0523	0.0020	0.4918	0.0179	0.0679
JT156-27	149	138	1.08	0.0552	0.0028	0.4920	0.0236	0.0649
JT156-28	94.0	129	0.73	0.0550	0.0027	0.4924	0.0238	0.0648
JT156-29	34.5	251	0.14	0.0543	0.0022	0.4714	0.0195	0.0627
JT156-30	138	227	0.61	0.0546	0.0024	0.4957	0.0206	0.0658
JT156-31	113	193	0.59	0.0531	0.0024	0.5071	0.0238	0.0687
JT156-32	160	209	0.77	0.0558	0.0023	0.4924	0.0192	0.0636
JT156-33	198	329	0.60	0.0523	0.0020	0.4526	0.0171	0.0626
JT156-34	51.2	98.3	0.52	0.0591	0.0037	0.5482	0.0307	0.0677
JT156-35	291	771	0.38	0.0529	0.0016	0.4793	0.0147	0.0652
JT156-36	170	137	1.24	0.0553	0.0024	0.5096	0.0217	0.0669
JT156-37	77.9	156	0.50	0.0533	0.0028	0.4839	0.0245	0.0665
JT156-38	74.3	122	0.61	0.0544	0.0026	0.5083	0.0231	0.0682
JT156-39	192	393	0.49	0.0552	0.0019	0.5212	0.0177	0.0683
JT156-40	150	215	0.70	0.0551	0.0020	0.5635	0.0200	0.0744
JT156-41	97.4	111	0.88	0.0523	0.0029	0.4768	0.0253	0.0663
JT156-42	118	461	0.26	0.0561	0.0017	0.6435	0.0203	0.0830
JT156-43	109	145	0.75	0.0553	0.0026	0.4985	0.0237	0.0658
JT156-44	48.4	667	0.07	0.0549	0.0015	0.5089	0.0147	0.0671
JT156-45	145	326	0.44	0.0664	0.0018	1.1492	0.0323	0.1250
JT156-46	197	191	1.03	0.0564	0.0026	0.5386	0.0242	0.0693
JT156-47	271	269	1.01	0.0554	0.0020	0.5283	0.0185	0.0694
JT156-48	120	122	0.98	0.0555	0.0030	0.4938	0.0254	0.0651

JT156-49	91.6	109	0.84	0.0587	0.0032	0.5387	0.0270	0.0675
JT156-50	158	181	0.87	0.0566	0.0024	0.5139	0.0215	0.0658
JT156-51	76.6	108	0.71	0.0548	0.0032	0.4784	0.0258	0.0638
JT156-52	120	213	0.57	0.0561	0.0021	0.5277	0.0196	0.0680
JT156-53	251	222	1.13	0.0535	0.0021	0.4964	0.0199	0.0668
JT156-54	98.5	118	0.84	0.0480	0.0026	0.4307	0.0218	0.0650
JT156-55	129	315	0.41	0.0551	0.0021	0.5232	0.0194	0.0688
JT156-56	70.9	132	0.54	0.0552	0.0029	0.5172	0.0274	0.0678
JT156-57	219	736	0.30	0.0544	0.0015	0.5111	0.0135	0.0679
JT156-58	127	181	0.70	0.0552	0.0022	0.5046	0.0193	0.0665
JT156-59	51.4	735	0.07	0.0540	0.0013	0.4759	0.0121	0.0634

Sample 19W29, biotite-quartz schist, Early Devonian matrix of the Wuwamen ophiolitic melange, (Wang XS et al., 2022, Tecton

19W29-01	176	293	0.60	0.0566	0.0017	0.5266	0.0155	0.0672
19W29-02	203	281	0.72	0.0557	0.0017	0.5010	0.0149	0.0652
19W29-03	74.2	179	0.41	0.0824	0.0017	2.2159	0.0448	0.1948
19W29-04	91.6	179	0.51	0.0549	0.0021	0.5065	0.0203	0.0666
19W29-05	104	197	0.53	0.0572	0.0020	0.5577	0.0199	0.0705
19W29-06	140	138	1.02	0.0569	0.0024	0.5127	0.0206	0.0658
19W29-07	288	364	0.79	0.0555	0.0015	0.5200	0.0141	0.0677
19W29-08	284	380	0.75	0.0562	0.0014	0.5323	0.0130	0.0686
19W29-09	159	383	0.42	0.1098	0.0016	4.8556	0.0825	0.3197
19W29-10	272	259	1.05	0.0554	0.0016	0.5076	0.0148	0.0664
19W29-11	411	453	0.91	0.0644	0.0012	1.1415	0.0230	0.1280
19W29-12	254	387	0.66	0.0550	0.0015	0.5053	0.0136	0.0666
19W29-13	277	334	0.83	0.0549	0.0016	0.5031	0.0145	0.0664
19W29-14	241	470	0.51	0.0550	0.0013	0.5098	0.0120	0.0671
19W29-15	263	326	0.81	0.0549	0.0015	0.5064	0.0143	0.0667
19W29-16	241	572	0.42	0.0545	0.0012	0.4931	0.0107	0.0654
19W29-17	378	434	0.87	0.0565	0.0014	0.6022	0.0148	0.0771
19W29-18	428	478	0.90	0.0550	0.0014	0.5227	0.0147	0.0687
19W29-19	104	82.3	1.27	0.0631	0.0025	1.0115	0.0381	0.1165
19W29-20	223	264	0.85	0.0553	0.0018	0.5094	0.0165	0.0668
19W29-21	563	623	0.90	0.0564	0.0012	0.5114	0.0108	0.0656
19W29-22	199	199	1.00	0.0546	0.0017	0.4901	0.0155	0.0649
19W29-23	177	261	0.68	0.0551	0.0018	0.5169	0.0172	0.0679
19W29-24	650	683	0.95	0.0563	0.0014	0.4948	0.0121	0.0635
19W29-25	258	512	0.50	0.0555	0.0019	0.5239	0.0127	0.0684
19W29-26	172	174	0.99	0.0580	0.0027	0.5211	0.0195	0.0654
19W29-27	104	351	0.30	0.1633	0.0043	8.2406	0.1436	0.3639
19W29-28	45.4	79.1	0.57	0.0556	0.0031	0.4897	0.0247	0.0650
19W29-29	272	385	0.71	0.0586	0.0015	0.5485	0.0146	0.0677
19W29-30	326	404	0.81	0.0549	0.0014	0.4951	0.0128	0.0652
19W29-31	464	453	1.02	0.0534	0.0013	0.4799	0.0114	0.0648
19W29-32	278	371	0.75	0.0563	0.0014	0.5152	0.0124	0.0663
19W29-33	192	294	0.65	0.0543	0.0014	0.5021	0.0128	0.0669
19W29-34	333	442	0.75	0.0557	0.0012	0.5259	0.0112	0.0683
19W29-35	136	83.2	1.64	0.0633	0.0024	1.1271	0.0415	0.1294
19W29-36	194	337	0.58	0.0576	0.0015	0.5623	0.0149	0.0706
19W29-37	295	356	0.83	0.0572	0.0013	0.6184	0.0134	0.0782
19W29-38	411	483	0.85	0.0567	0.0014	0.5092	0.0120	0.0650
19W29-39	422	235	1.80	0.0722	0.0014	1.5585	0.0307	0.1562
19W29-40	157	193	0.81	0.0550	0.0020	0.4829	0.0171	0.0636
19W29-41	253	271	0.94	0.0549	0.0018	0.4938	0.0157	0.0653
19W29-42	382	323	1.18	0.0559	0.0016	0.5191	0.0153	0.0671
19W29-43	610	478	1.27	0.0557	0.0014	0.5351	0.0127	0.0696
19W29-44	180	313	0.58	0.0534	0.0015	0.4897	0.0138	0.0664
19W29-45	265	515	0.51	0.0544	0.0012	0.4857	0.0112	0.0645
19W29-46	374	529	0.71	0.0555	0.0012	0.5262	0.0117	0.0688
19W29-47	404	349	1.16	0.0562	0.0015	0.5264	0.0138	0.0679
19W29-48	373	399	0.94	0.0550	0.0014	0.4997	0.0127	0.0658
19W29-49	181	272	0.67	0.0571	0.0014	0.5440	0.0133	0.0692
19W29-50	217	252	0.86	0.1394	0.0020	8.0816	0.1184	0.4198
19W29-51	76.1	176	0.43	0.0554	0.0018	0.5276	0.0176	0.0689

19W29-52	273	802	0.34	0.0570	0.0010	0.6499	0.0118	0.0824
19W29-53	235	274	0.86	0.0548	0.0017	0.4807	0.0152	0.0635
19W29-54	191	318	0.60	0.0550	0.0016	0.4875	0.0136	0.0643
19W29-55	211	289	0.73	0.0572	0.0015	0.5248	0.0145	0.0662
19W29-56	232	281	0.83	0.0563	0.0017	0.5312	0.0171	0.0681
19W29-57	395	594	0.66	0.0704	0.0011	1.6300	0.0298	0.1673
19W29-58	267	312	0.86	0.0567	0.0015	0.5022	0.0135	0.0642
19W29-59	334	399	0.84	0.0560	0.0015	0.5122	0.0134	0.0661
19W29-60	215	513	0.42	0.0555	0.0014	0.5213	0.0128	0.0681
19W29-61	226	273	0.83	0.0551	0.0016	0.5025	0.0140	0.0662
19W29-62	187	309	0.61	0.0555	0.0016	0.5121	0.0148	0.0667
19W29-63	190	317	0.60	0.0556	0.0015	0.5051	0.0132	0.0661
19W29-64	145	346	0.42	0.0555	0.0015	0.5041	0.0137	0.0660
19W29-65	416	447	0.93	0.0547	0.0013	0.5137	0.0124	0.0680
19W29-66	123	163	0.76	0.1612	0.0026	10.3092	0.1636	0.4631
19W29-67	251	307	0.82	0.0548	0.0015	0.5182	0.0141	0.0686
19W29-68	276	291	0.95	0.0538	0.0016	0.4874	0.0147	0.0656
19W29-69	273	411	0.66	0.0545	0.0013	0.5026	0.0124	0.0666
19W29-70	256	294	0.87	0.0545	0.0016	0.5201	0.0148	0.0690

**Sample JT133, biotite-quartz schist, Late Silurian-Early Devonian matrix of the Wuwamen ophiolitic melange, (Wang XS et al.,**

JT133 01	873	1155	0.76	0.0581	0.0012	0.5542	0.0111	0.0692
JT133 02	143	460	0.31	0.0998	0.0021	3.0032	0.0535	0.2182
JT133 03	175	302	0.58	0.0571	0.0020	0.6193	0.0212	0.0788
JT133 04	224	584	0.38	0.0568	0.0017	0.5869	0.0168	0.0750
JT133 05	275	400	0.69	0.0554	0.0019	0.5186	0.0168	0.0680
JT133 06	489	582	0.84	0.0562	0.0026	0.5553	0.0250	0.0717
JT133 07	300	490	0.61	0.0568	0.0022	0.5878	0.0216	0.0750
JT133 08	228	864	0.26	0.0567	0.0014	0.5423	0.0131	0.0694
JT133 09	823	1448	0.57	0.0565	0.0021	0.5207	0.0189	0.0668
JT133 10	294	578	0.51	0.0574	0.0022	0.5882	0.0217	0.0744
JT133 11	252	457	0.55	0.0555	0.0019	0.5395	0.0181	0.0705
JT133 12	156	278	0.56	0.0566	0.0025	0.6046	0.0259	0.0775
JT133 13	360	621	0.58	0.0564	0.0017	0.5636	0.0157	0.0725
JT133 14	99.9	407	0.25	0.0563	0.0034	0.5474	0.0313	0.0706
JT133 15	67.2	221	0.30	0.0563	0.0028	0.5662	0.0268	0.0729
JT133 16	376	385	0.98	0.0557	0.0022	0.5481	0.0208	0.0714
JT133 17	111	174	0.64	0.0562	0.0030	0.5490	0.0286	0.0709
JT133 18	244	418	0.58	0.0575	0.0019	0.5875	0.0187	0.0742
JT133 19	70.2	391	0.18	0.0627	0.0021	0.9647	0.0294	0.1117
JT133 20	193	363	0.53	0.0562	0.0024	0.5621	0.0226	0.0725
JT133 21	382	542	0.71	0.0572	0.0020	0.5730	0.0187	0.0726
JT133 22	83.3	190	0.44	0.0609	0.0045	0.5808	0.0416	0.0692
JT133 23	149	274	0.54	0.0572	0.0031	0.5932	0.0308	0.0753
JT133 24	49.5	424	0.12	0.0616	0.0022	0.7897	0.0269	0.0931
JT133 25	191	113	1.69	0.0714	0.0038	1.1354	0.0579	0.1154
JT133 26	128	256	0.50	0.0563	0.0028	0.5583	0.0267	0.0720
JT133 27	78.5	82.2	0.96	0.0694	0.0050	1.1504	0.0793	0.1202
JT133 28	14.7	647	0.02	0.0563	0.0029	0.5378	0.0267	0.0693
JT133 29	972	676	1.44	0.0554	0.0016	0.5310	0.0148	0.0695
JT133 30	590	732	0.81	0.0566	0.0019	0.5852	0.0191	0.0750
JT133 31	413	493	0.84	0.0558	0.0021	0.5341	0.0192	0.0695
JT133 32	595	1468	0.41	0.0571	0.0015	0.5692	0.0143	0.0723
JT133 33	184	370	0.50	0.0563	0.0030	0.5816	0.0297	0.0750
JT133 34	439	663	0.66	0.0559	0.0021	0.5365	0.0196	0.0696
JT133 35	33.1	54.6	0.61	0.0676	0.0109	0.6392	0.1004	0.0686
JT133 36	264	653	0.40	0.0556	0.0018	0.5194	0.0163	0.0678
JT133 37	168	358	0.47	0.0558	0.0025	0.5267	0.0223	0.0685
JT133 38	437	615	0.71	0.0689	0.0021	0.6426	0.0188	0.0676
JT133 39	86.9	240	0.36	0.0556	0.0031	0.5463	0.0294	0.0712
JT133 40	616	666	0.93	0.0561	0.0019	0.5329	0.0173	0.0689
JT133 41	133	234	0.57	0.0555	0.0041	0.5152	0.0369	0.0674
JT133 42	691	838	0.82	0.0565	0.0017	0.5704	0.0166	0.0733
JT133 43	179	429	0.42	0.0564	0.0024	0.5612	0.0230	0.0721

JT133 44	80.4	187	0.43	0.0593	0.0055	0.5533	0.0496	0.0677
JT133 45	502	1101	0.46	0.0580	0.0023	0.5576	0.0206	0.0697
JT133 46	258	678	0.38	0.0567	0.0025	0.5487	0.0231	0.0703
JT133 47	102	308	0.33	0.0562	0.0042	0.5462	0.0392	0.0705
JT133 48	187	385	0.49	0.0572	0.0030	0.6126	0.0303	0.0777
JT133 49	121	209	0.58	0.0565	0.0045	0.5603	0.0430	0.0719
JT133 50	228	474	0.48	0.0558	0.0025	0.5485	0.0237	0.0713
JT133 51	152	274	0.56	0.0557	0.0032	0.5364	0.0296	0.0698
JT133 52	171	271	0.63	0.0578	0.0032	0.5731	0.0304	0.0719
JT133 53	56.4	94.4	0.60	0.0575	0.0061	0.6403	0.0661	0.0807
JT133 54	121	248	0.49	0.0569	0.0033	0.6176	0.0339	0.0787
JT133 55	134	308	0.43	0.0559	0.0030	0.5588	0.0286	0.0725
JT133 56	948	658	1.44	0.0562	0.0019	0.5770	0.0185	0.0744
JT133 57	78.8	209	0.38	0.0571	0.0038	0.5876	0.0380	0.0746
JT133 58	246	436	0.56	0.0570	0.0031	0.5500	0.0286	0.0700
JT133 59	156	325	0.48	0.0571	0.0026	0.6341	0.0278	0.0806
JT133 60	28.6	94.9	0.30	0.0759	0.0036	1.1219	0.0504	0.1072
JT133 61	77.1	239	0.32	0.0561	0.0040	0.5469	0.0375	0.0707
JT133 62	132	161	0.82	0.0671	0.0033	1.2670	0.0602	0.1369
JT133 63	203	708	0.29	0.0578	0.0020	0.6177	0.0203	0.0775
JT133 64	471	433	1.09	0.0557	0.0020	0.5619	0.0193	0.0732
JT133 65	160	322	0.50	0.0576	0.0036	0.6074	0.0359	0.0765
JT133 66	56.9	52.9	1.08	0.0639	0.0075	1.0774	0.1214	0.1224
JT133 67	525	782	0.67	0.0566	0.0016	0.5893	0.0155	0.0755
JT133 68	366	611	0.60	0.0562	0.0017	0.5715	0.0163	0.0738
JT133 69	38.2	97.5	0.39	0.0734	0.0032	1.7348	0.0737	0.1713
JT133 70	266	648	0.41	0.0550	0.0016	0.5607	0.0156	0.0739
JT133 71	272	419	0.65	0.0577	0.0023	0.5750	0.0218	0.0722
JT133 72	231	485	0.48	0.0609	0.0018	0.8233	0.0238	0.0981
JT133 73	150	215	0.70	0.0567	0.0033	0.5686	0.0314	0.0727
JT133 74	414	809	0.51	0.0544	0.0018	0.5414	0.0168	0.0721
JT133 75	632	1084	0.58	0.0554	0.0013	0.5355	0.0122	0.0701
JT133 76	194	711	0.27	0.0575	0.0018	0.5728	0.0176	0.0722
JT133 77	395	611	0.65	0.0572	0.0018	0.5977	0.0184	0.0759
JT133 78	351	564	0.62	0.0552	0.0017	0.5511	0.0160	0.0725
JT133 79	207	227	0.91	0.0550	0.0030	0.5305	0.0275	0.0699
JT133 80	99.3	161	0.62	0.0629	0.0033	1.0465	0.0535	0.1206

**Sample 19W22, biotite-quartz schist, Late Silurian-Early Devonian matrix of the Wuwamen ophiolitic melange, (Wang XS et al.**

19W22-01	626	702	0.89	0.0552	0.0021	0.5920	0.0224	0.0767
19W22-02	439	388	1.13	0.0549	0.0023	0.5531	0.0232	0.0721
19W22-03	335	222	1.51	0.0513	0.0026	0.4987	0.0246	0.0698
19W22-04	443	588	0.75	0.0550	0.0019	0.5479	0.0186	0.0711
19W22-05	57.7	104	0.56	0.0567	0.0040	0.5887	0.0382	0.0764
19W22-06	211	350	0.60	0.0553	0.0023	0.5511	0.0230	0.0713
19W22-07	452	832	0.54	0.0557	0.0018	0.5715	0.0186	0.0731
19W22-08	316	403	0.78	0.0551	0.0023	0.5429	0.0227	0.0705
19W22-09	287	505	0.57	0.0552	0.0022	0.5715	0.0219	0.0739
19W22-10	361	695	0.52	0.0550	0.0019	0.6093	0.0214	0.0790
19W22-11	60.7	131	0.46	0.0920	0.0032	3.5664	0.1288	0.2773
19W22-12	38.0	771	0.05	0.0981	0.0025	3.6493	0.0954	0.2659
19W22-13	55.3	182	0.30	0.1293	0.0036	6.5449	0.1805	0.3629
19W22-14	81.2	146	0.56	0.0539	0.0029	0.5974	0.0326	0.0797
19W22-15	57.2	70.6	0.81	0.0581	0.0042	0.5357	0.0387	0.0670
19W22-16	66.4	152	0.44	0.3184	0.0094	33.0086	0.9559	0.7458
19W22-17	437	371	1.18	0.0532	0.0023	0.4950	0.0217	0.0673
19W22-18	41.6	415	0.10	0.0936	0.0025	3.5026	0.0959	0.2692
19W22-19	227	334	0.68	0.0554	0.0022	0.5463	0.0216	0.0709
19W22-20	97.8	251	0.39	0.0640	0.0024	1.1424	0.0566	0.1276
19W22-21	128	193	0.66	0.0533	0.0025	0.5215	0.0240	0.0705
19W22-22	34.8	1700	0.02	0.0648	0.0017	1.1738	0.0300	0.1302
19W22-23	222	878	0.25	0.0697	0.0020	1.5130	0.0429	0.1560
19W22-24	387	505	0.77	0.0531	0.0021	0.5023	0.0187	0.0685
19W22-25	336	428	0.78	0.0712	0.0024	1.6660	0.0558	0.1682

19W22-26	608	422	1.44	0.0548	0.0024	0.5951	0.0251	0.0764
19W22-27	90.9	826	0.11	0.1720	0.0049	12.1254	0.4041	0.5027
19W22-28	516	550	0.94	0.1846	0.0049	13.1247	0.3387	0.5106
19W22-29	138	149	0.92	0.0725	0.0025	1.8272	0.0597	0.1826
19W22-30	225	164	1.37	0.0558	0.0025	0.5516	0.0239	0.0715
19W22-31	220	297	0.74	0.0554	0.0022	0.5342	0.0207	0.0696
19W22-32	130	329	0.40	0.1132	0.0028	5.3158	0.1315	0.3378
19W22-33	826	975	0.85	0.1072	0.0026	4.6435	0.1159	0.3111
19W22-34	736	676	1.09	0.0942	0.0024	3.5060	0.0907	0.2673
19W22-35	30.7	181	0.17	0.1038	0.0029	5.2120	0.1598	0.3596
19W22-36	406	560	0.73	0.0565	0.0018	0.5360	0.0175	0.0682
19W22-37	76.3	129	0.59	0.0598	0.0038	0.6435	0.0442	0.0772
19W22-38	44.9	313	0.14	0.1037	0.0031	4.3303	0.1359	0.2997
19W22-39	734	1013	0.72	0.0575	0.0019	0.6423	0.0209	0.0803
19W22-40	89.2	153	0.58	0.0811	0.0030	2.3937	0.0912	0.2123
19W22-41	37.4	64.6	0.58	0.1196	0.0041	5.8335	0.1959	0.3519
19W22-42	51.3	63.2	0.81	0.0588	0.0039	0.6723	0.0437	0.0822
19W22-43	72.1	69.4	1.04	0.0727	0.0035	1.6717	0.0750	0.1670
19W22-44	75.6	98.9	0.76	0.0609	0.0034	0.6832	0.0374	0.0813
19W22-45	38.7	127	0.30	0.0927	0.0030	2.8994	0.0919	0.2240
19W22-46	60.8	79.7	0.76	0.0753	0.0036	1.7191	0.0796	0.1646
19W22-47	244	116	2.10	0.0683	0.0033	1.0902	0.0530	0.1149
19W22-48	146	103	1.41	0.0561	0.0034	0.5686	0.0301	0.0725
19W22-49	617	744	0.83	0.0608	0.0022	0.6039	0.0209	0.0711
19W22-50	170	204	0.83	0.0787	0.0030	1.8076	0.0654	0.1648
19W22-51	143	302	0.47	0.0789	0.0025	1.8654	0.0597	0.1694
19W22-52	563	416	1.35	0.1723	0.0046	9.5818	0.2641	0.3985

Sample JT56, muscovite-plagioclase gneiss, Late Silurian, Baluntai, CTS, (Wang XS et al., 2021, GSA Bulletin)

1	41.8	1937	0.02	0.0558	0.0015	0.5578	0.0150	0.0723
2	11.4	1137	0.01	0.0555	0.0015	0.5338	0.0148	0.0696
3	488	247	1.98	0.0686	0.0019	1.1930	0.0330	0.1259
4	47.8	600	0.08	0.0612	0.0016	0.6494	0.0204	0.0765
5	131	242	0.54	0.0567	0.0026	0.5684	0.0245	0.0731
6	5.60	637	0.01	0.0549	0.0018	0.4955	0.0164	0.0655
7	114	185	0.62	0.0568	0.0026	0.5990	0.0272	0.0768
8	187	414	0.45	0.0575	0.0019	0.6667	0.0228	0.0839
9	8.75	651	0.01	0.0542	0.0015	0.4914	0.0143	0.0653
10	18.8	564	0.03	0.0899	0.0022	1.4639	0.0509	0.1166
11	10.6	749	0.01	0.0546	0.0016	0.4952	0.0146	0.0656
12	433	632	0.69	0.0834	0.0020	2.3409	0.0562	0.2028
13	187	512	0.36	0.0562	0.0017	0.5910	0.0182	0.0760
14	159	669	0.24	0.1570	0.0031	9.3340	0.1894	0.4290
15	196	307	0.64	0.0560	0.0020	0.5698	0.0198	0.0736
16	146	734	0.20	0.0549	0.0016	0.5234	0.0166	0.0688
17	193	1214	0.16	0.0770	0.0019	1.3583	0.0367	0.1269
18	98.2	251	0.39	0.0652	0.0022	1.3623	0.0447	0.1510
19	15.2	380	0.04	0.0559	0.0022	0.6030	0.0261	0.0770
20	181	265	0.69	0.0551	0.0021	0.5121	0.0197	0.0673
21	318	1721	0.18	0.0580	0.0015	0.5633	0.0171	0.0697
22	28.4	1105	0.03	0.0538	0.0015	0.4904	0.0132	0.0656
23	286	334	0.85	0.0549	0.0022	0.5106	0.0197	0.0672
24	6.28	621	0.01	0.0517	0.0018	0.4708	0.0162	0.0656
25	4.78	549	0.01	0.0545	0.0016	0.4950	0.0140	0.0655
26	90.5	687	0.13	0.0638	0.0018	1.1159	0.0491	0.1226
27	5.86	1074	0.01	0.0552	0.0019	0.5534	0.0188	0.0720
28	24.1	1294	0.02	0.0547	0.0015	0.5269	0.0151	0.0691
29	71.8	175	0.41	0.0548	0.0029	0.5116	0.0266	0.0671
30	10.4	676	0.02	0.0561	0.0025	0.5835	0.0257	0.0746
31	240	402	0.60	0.0750	0.0021	1.9795	0.0550	0.1894
32	7.57	737	0.01	0.0545	0.0016	0.4978	0.0148	0.0656
33	9.48	996	0.01	0.0537	0.0016	0.4905	0.0141	0.0657
34	72.4	521	0.14	0.0635	0.0032	1.0005	0.0500	0.1132
35	5.93	644	0.01	0.0526	0.0016	0.4908	0.0149	0.0672

36	590	619	0.95	0.0912	0.0014	3.0618	0.0519	0.2434
37	184	555	0.33	0.1553	0.0038	5.6625	0.1147	0.2644
38	58.1	293	0.20	0.0615	0.0011	0.9170	0.0174	0.1081
39	95.1	385	0.25	0.0709	0.0012	1.5907	0.0289	0.1628
40	72.8	899	0.08	0.0591	0.0010	0.7000	0.0126	0.0859
41	52.2	697	0.07	0.0667	0.0015	1.2042	0.0275	0.1310
42	43.2	410	0.11	0.0695	0.0011	1.4998	0.0268	0.1565
43	116	237	0.49	0.0574	0.0013	0.6366	0.0155	0.0805
44	245	430	0.57	0.0567	0.0010	0.5901	0.0115	0.0754
45	83.5	144	0.58	0.0775	0.0030	2.0781	0.0732	0.1945
46	107	204	0.52	0.0669	0.0013	1.2629	0.0267	0.1370
47	185	328	0.56	0.0562	0.0013	0.5566	0.0134	0.0718
48	184	233	0.79	0.0557	0.0012	0.5672	0.0125	0.0738
49	137	325	0.42	0.0722	0.0012	1.6820	0.0312	0.1690
50	153	444	0.35	0.0704	0.0012	1.4783	0.0268	0.1522
51	149	514	0.29	0.0833	0.0013	2.3614	0.0423	0.2057
52	131	249	0.53	0.0700	0.0013	1.4839	0.0299	0.1538
53	157	653	0.24	0.1689	0.0039	9.8234	0.1833	0.4219
54	655	445	1.47	0.0569	0.0011	0.5922	0.0118	0.0755
55	198	262	0.75	0.0662	0.0012	1.2338	0.0241	0.1352
56	141	227	0.62	0.0656	0.0014	1.1713	0.0258	0.1294
57	182	211	0.87	0.0980	0.0017	3.5645	0.0661	0.2638
58	74.4	252	0.29	0.0778	0.0022	2.0651	0.0519	0.1925
59	205	364	0.56	0.0694	0.0012	1.4901	0.0281	0.1557
60	91.2	147	0.62	0.0606	0.0055	0.7176	0.0636	0.0860
61	489	557	0.88	0.0976	0.0017	3.3680	0.0629	0.2501
62	141	268	0.53	0.1618	0.0042	9.6204	0.2113	0.4314
63	126	347	0.36	0.1635	0.0027	10.6697	0.1951	0.4733
64	146	524	0.28	0.0628	0.0012	0.9499	0.0190	0.1098
65	93.3	306	0.31	0.0721	0.0023	1.5450	0.0501	0.1554
66	175	631	0.28	0.0714	0.0013	1.5751	0.0304	0.1599
67	22.1	918	0.02	0.0567	0.0010	0.5770	0.0115	0.0738

**Sample W5-1, biotite-two feldspar gneiss, Late Silurian, Baluntai, CTS, (Wang XS et al., 2021, GSA Bulletin)**

1	101	158	0.64	0.1935	0.0043	14.4123	0.3270	0.5381
2	35.5	1097	0.03	0.0550	0.0014	0.4966	0.0127	0.0652
3	606	334	1.81	0.0553	0.0020	0.5267	0.0186	0.0689
4	126	905	0.14	0.0561	0.0013	0.5942	0.0137	0.0765
5	69.1	1546	0.04	0.0560	0.0012	0.5313	0.0122	0.0685
6	72.3	258	0.28	0.0911	0.0019	3.1741	0.0668	0.2521
7	310	187	1.66	0.0559	0.0029	0.5142	0.0265	0.0672
8	8.14	794	0.01	0.0549	0.0013	0.4972	0.0126	0.0654
9	25.7	765	0.03	0.0564	0.0015	0.6003	0.0163	0.0770
10	371	673	0.55	0.0754	0.0018	1.9018	0.0454	0.1821
11	119	289	0.41	0.1105	0.0027	4.2933	0.1077	0.2807
12	34.5	827	0.04	0.0544	0.0015	0.5115	0.0139	0.0679
13	149	324	0.46	0.1773	0.0034	12.0736	0.2535	0.4912
14	92.8	134	0.69	0.1570	0.0033	8.6128	0.1812	0.3961
15	98.4	126	0.78	0.0681	0.0033	0.6444	0.0298	0.0689
16	107	269	0.40	0.1374	0.0025	7.3318	0.1352	0.3842
17	440	230	1.92	0.0558	0.0023	0.5171	0.0202	0.0671
18	33.4	992	0.03	0.0542	0.0013	0.4960	0.0124	0.0658
19	72.8	204	0.36	0.2373	0.0052	15.3918	0.6130	0.4598
20	86.6	214	0.40	0.0687	0.0022	1.4305	0.0461	0.1501
21	310	261	1.19	0.0735	0.0021	1.7331	0.0493	0.1697
22	91.1	416	0.22	0.0678	0.0019	1.2154	0.0353	0.1286
23	95.3	187	0.51	0.1055	0.0024	4.2684	0.1044	0.2907
24	209	326	0.64	0.0553	0.0019	0.5321	0.0186	0.0692
25	889	672	1.32	0.0630	0.0016	0.6309	0.0155	0.0721
26	374	653	0.57	0.0546	0.0014	0.5407	0.0138	0.0713
27	961	920	1.05	0.0786	0.0031	0.7582	0.0309	0.0689
28	148	2159	0.07	0.0525	0.0011	0.4790	0.0100	0.0656
29	649	832	0.78	0.0570	0.0015	0.5882	0.0146	0.0743
30	141	2428	0.06	0.0542	0.0013	0.4950	0.0117	0.0656

31	285	186	1.53	0.0553	0.0025	0.5174	0.0240	0.0672
32	37.1	1076	0.03	0.0514	0.0013	0.4682	0.0123	0.0655
33	322	561	0.57	0.0546	0.0015	0.5290	0.0146	0.0698
34	105	338	0.31	0.0671	0.0019	1.3043	0.0378	0.1401
35	42.4	1170	0.04	0.0550	0.0013	0.5019	0.0117	0.0657
36	11.1	687	0.02	0.0537	0.0014	0.5092	0.0132	0.0684
37	79.3	103	0.77	0.0550	0.0031	0.5083	0.0293	0.0669
38	830	460	1.81	0.0554	0.0017	0.5333	0.0164	0.0694
39	828	718	1.15	0.0557	0.0014	0.5461	0.0141	0.0706
40	77.3	686	0.11	0.1668	0.0028	11.0690	0.1924	0.4769
41	106	249	0.43	0.0547	0.0021	0.5834	0.0233	0.0767
42	177	205	0.86	0.0553	0.0021	0.5481	0.0208	0.0714
43	547	270	2.03	0.0508	0.0021	0.4972	0.0193	0.0709
44	117	1062	0.11	0.0582	0.0014	0.5543	0.0137	0.0688
45	113	379	0.30	0.0550	0.0019	0.5527	0.0197	0.0728
46	94.9	104	0.92	0.0565	0.0032	0.5482	0.0320	0.0710
47	151	282	0.54	0.1591	0.0035	8.5744	0.1977	0.3880
48	110	153	0.72	0.0556	0.0027	0.5455	0.0278	0.0705
49	92.4	145	0.64	0.0557	0.0027	0.5442	0.0286	0.0702
50	60.1	89.6	0.67	0.0745	0.0042	0.9019	0.0511	0.0862
51	249	573	0.44	0.0540	0.0015	0.5397	0.0161	0.0720
52	303	381	0.80	0.0540	0.0018	0.5729	0.0196	0.0765
53	326	263	1.24	0.0551	0.0022	0.5097	0.0202	0.0668
54	9.52	661	0.01	0.0536	0.0014	0.4896	0.0128	0.0657
55	311	664	0.47	0.0543	0.0016	0.5088	0.0149	0.0675
56	308	551	0.56	0.0556	0.0017	0.5407	0.0159	0.0700
57	23.4	848	0.03	0.0536	0.0015	0.5026	0.0136	0.0672
58	623	1915	0.33	0.0564	0.0014	0.6030	0.0138	0.0768
59	408	337	1.21	0.0864	0.0021	2.7855	0.0683	0.2315
60	404	511	0.79	0.0538	0.0016	0.5937	0.0172	0.0795
61	225	283	0.80	0.0680	0.0030	0.6746	0.0289	0.0717
62	96.3	820	0.12	0.0660	0.0017	1.2930	0.0348	0.1409
63	22.6	736	0.03	0.0553	0.0020	0.5451	0.0211	0.0709
64	186	371	0.50	0.0590	0.0021	0.8261	0.0309	0.1009
65	306	531	0.58	0.0696	0.0025	1.5917	0.0592	0.1648
66	36.6	995	0.04	0.0548	0.0021	0.4977	0.0200	0.0655
67	22.4	435	0.05	0.0668	0.0028	1.3319	0.0582	0.1439
68	70.4	236	0.30	0.2385	0.0093	18.9567	0.7516	0.5736
69	401	405	0.99	0.1061	0.0036	4.3149	0.1522	0.2934
70	1521	1127	1.35	0.0685	0.0021	1.1535	0.0370	0.1214
71	117	526	0.22	0.2279	0.0064	19.3009	0.6217	0.6060
72	92.9	239	0.39	0.0583	0.0022	0.6842	0.0261	0.0851
73	489	764	0.64	0.0936	0.0023	3.1423	0.0888	0.2417
74	377	719	0.52	0.0556	0.0015	0.5545	0.0158	0.0719
75	288	309	0.93	0.0564	0.0020	0.5347	0.0195	0.0684
76	381	1053	0.36	0.0560	0.0017	0.5695	0.0167	0.0733
77	285	385	0.74	0.0544	0.0019	0.5089	0.0178	0.0675
78	131	149	0.88	0.0558	0.0032	0.5681	0.0329	0.0734
79	86.5	389	0.22	0.0923	0.0023	2.7641	0.0672	0.2155
80	141	147	0.96	0.0555	0.0031	0.5138	0.0278	0.0679
81	773	1550	0.50	0.0624	0.0013	0.5994	0.0139	0.0689
82	374	576	0.65	0.2660	0.0047	24.4720	0.4395	0.6620
83	55.2	1151	0.05	0.0695	0.0017	0.8847	0.0357	0.0883
84	226	263	0.86	0.0561	0.0018	0.6032	0.0194	0.0776
85	216	499	0.43	0.0559	0.0017	0.5481	0.0170	0.0706
86	141	193	0.73	0.1559	0.0033	7.2099	0.1484	0.3334
87	169	207	0.82	0.0783	0.0020	2.0779	0.0538	0.1913

**Sample 639, meta-sandstone, Early Silurian, Baluntai, CTS, (Ma X et al., 2012a, Precambrian Research)**

639-01	449	267	1.68	0.0569	0.0011	0.5513	0.0100	0.0703
639-02	574	611	0.94	0.0836	0.0028	2.564	0.0864	0.2216
639-03	16	22	0.75	0.1378	0.0102	7.584	0.5262	0.4006
639-04	112	108	1.04	0.0815	0.0038	2.372	0.1028	0.2113
639-05	40	78	0.51	0.0615	0.0031	0.7537	0.0362	0.0890

639-06	237	225	1.06	0.0743	0.0022	1.899	0.0530	0.1855
639-07	356	280	1.27	0.0553	0.0030	0.5613	0.0293	0.0737
639-08	550	560	0.98	0.0783	0.0018	2.102	0.0474	0.1949
639-09	129	117	1.10	0.1741	0.0021	11.880	0.1411	0.4948
639-10	137	238	0.58	0.0700	0.0009	1.506	0.0202	0.1561
639-11	154	492	0.31	0.0697	0.0012	1.401	0.0225	0.1458
639-12	213	287	0.74	0.1023	0.0016	4.173	0.0637	0.2959
639-13	227	344	0.66	0.0571	0.0015	0.5950	0.0155	0.0756
639-14	579	242	2.40	0.0627	0.0010	0.7710	0.0121	0.0892
639-15	327	543	0.60	0.0697	0.0010	1.507	0.0202	0.1569
639-16	143	101	1.41	0.0947	0.0025	3.401	0.0862	0.2606
639-17	209	251	0.83	0.1852	0.0045	9.584	0.2223	0.3754
639-18	293	1273	0.23	0.0757	0.0023	1.468	0.0432	0.1406
639-19	213	292	0.73	0.1746	0.0017	11.082	0.1080	0.4604
639-20	307	437	0.70	0.1372	0.0013	6.895	0.0676	0.3645
639-21	225	257	0.87	0.1534	0.0018	7.277	0.0873	0.3440
639-22	466	467	1.00	0.0755	0.0012	1.927	0.0290	0.1851
639-23	279	266	1.05	0.1501	0.0024	6.295	0.1003	0.3043
639-24	168	355	0.47	0.0705	0.0008	1.543	0.0186	0.1587
639-25	931	244	3.82	0.0976	0.0016	3.698	0.0578	0.2749
639-26	134	98	1.37	0.1095	0.0023	4.777	0.0949	0.3165
639-27	56	80	0.70	0.0976	0.0017	3.739	0.0725	0.2780
639-28	99	52	1.93	0.0980	0.0024	3.771	0.0950	0.2791
639-29	197	283	0.70	0.1175	0.0024	5.628	0.1239	0.3473
639-30	180	831	0.22	0.0619	0.0012	0.7872	0.0147	0.0922
639-31	48	90	0.53	0.2130	0.0024	17.046	0.1971	0.5806
639-32	166	209	0.79	0.0691	0.0011	1.527	0.0239	0.1603
639-33	57	147	0.39	0.1009	0.0019	3.958	0.0763	0.2846
639-34	21	21	1.02	0.1577	0.0038	9.284	0.2194	0.4266
639-35	40	78	0.51	0.0657	0.0029	1.232	0.0518	0.1361
639-36	66	261	0.25	0.0657	0.0076	0.9183	0.0959	0.1014
639-37	432	317	1.36	0.1618	0.0031	10.236	0.2030	0.4586
639-38	443	801	0.55	0.0570	0.0011	0.5626	0.0108	0.0716
639-39	84	224	0.38	0.0789	0.0022	2.147	0.0582	0.1971
639-40	297	380	0.78	0.0569	0.0014	0.6142	0.0151	0.0784
639-41	697	625	1.12	0.0677	0.0012	1.248	0.0225	0.1339
639-42	83	408	0.20	0.0845	0.0020	1.851	0.0374	0.1589
639-43	141	281	0.50	0.0704	0.0016	1.546	0.0354	0.1592
639-44	232	294	0.79	0.0968	0.0015	3.780	0.0622	0.2834
639-45	230	508	0.45	0.1114	0.0019	5.025	0.0896	0.3273
639-46	194	292	0.66	0.0785	0.0019	1.768	0.0413	0.1633
639-47	478	576	0.83	0.0963	0.0024	3.389	0.0860	0.2554
639-48	486	492	0.99	0.0566	0.0010	0.6042	0.0113	0.0775
639-49	136	59	2.31	0.1028	0.0021	3.845	0.0792	0.2714
639-50	1321	1038	1.27	0.0754	0.0011	1.902	0.0305	0.1831
639-51	61	1091	0.06	0.0785	0.0059	1.758	0.1289	0.1621
639-52	129	115	1.13	0.1053	0.0016	4.188	0.0701	0.2886
639-53	681	539	1.26	0.0566	0.0010	0.5862	0.0111	0.0752
639-54	238	308	0.77	0.0746	0.0011	1.719	0.0280	0.1671
639-55	171	123	1.39	0.0567	0.0016	0.5603	0.0158	0.0717
639-56	181	299	0.61	0.0697	0.0012	1.430	0.0250	0.1488
639-57	77	282	0.27	0.1129	0.0018	5.114	0.0806	0.3285
639-58	38	582	0.07	0.0638	0.0009	1.075	0.0157	0.1222
639-59	72	64	1.13	0.1642	0.0030	10.223	0.1845	0.4515
639-60	193	477	0.41	0.0968	0.0023	3.316	0.0781	0.2484
639-61	152	222	0.68	0.2551	0.0073	22.244	0.6204	0.6326
639-62	1107	2251	0.49	0.0719	0.0005	1.662	0.0124	0.1670
639-63	734	583	1.26	0.0788	0.0008	2.230	0.0256	0.2040
639-64	1551	2148	0.72	0.0563	0.0013	0.5549	0.0123	0.0713

**Sample 640, meta-sandstone, Early Silurian, Baluntai, CTS, (Ma X et al., 2012a, Precambrian Research)**

640-01	1091	909	1.20	0.0586	0.0009	0.6796	0.0102	0.0842
640-02	167	135	1.23	0.0810	0.0023	2.329	0.0650	0.2086
640-03	145	195	0.74	0.0872	0.0022	2.801	0.0682	0.2328

640-04	2916	2043	1.43	0.0668	0.0010	1.286	0.0194	0.1398
640-05	239	594	0.40	0.0664	0.0013	1.127	0.0222	0.1232
640-06	368	756	0.49	0.0609	0.0018	0.8724	0.0253	0.1039
640-07	357	359	1.00	0.1471	0.0076	8.780	0.4267	0.4329
640-08	170	110	1.54	0.0625	0.0023	0.6170	0.0217	0.0717
640-09	73	68	1.08	0.0634	0.0027	0.7043	0.0296	0.0806
640-10	218	294	0.74	0.0708	0.0015	1.488	0.0312	0.1525
640-11	49	63	0.78	0.0749	0.0017	1.895	0.0418	0.1837
640-12	89	95	0.93	0.1887	0.0026	13.472	0.1802	0.5178
640-13	198	675	0.29	0.1474	0.0016	5.806	0.0632	0.2857
640-14	462	526	0.88	0.0703	0.0014	1.518	0.0293	0.1566
640-15	158	209	0.76	0.0673	0.0014	1.340	0.0269	0.1445
640-16	167	165	1.01	0.1093	0.0017	4.743	0.0728	0.3147
640-17	145	173	0.84	0.0685	0.0010	1.339	0.0192	0.1419
640-18	106	116	0.91	0.1387	0.0015	5.923	0.0654	0.3098
640-19	181	335	0.54	0.1143	0.0039	3.650	0.1147	0.2316
640-20	295	260	1.14	0.0621	0.0014	0.7797	0.0173	0.0912
640-21	211	363	0.58	0.0722	0.0011	1.602	0.0229	0.1609
640-22	310	566	0.55	0.0946	0.0019	3.468	0.0719	0.2658
640-23	169	175	0.97	0.0592	0.0018	0.7679	0.0226	0.0941
640-24	138	508	0.27	0.2483	0.0060	21.655	0.5016	0.6321
640-25	326	230	1.42	0.0589	0.0011	0.7290	0.0127	0.0898
640-26	136	149	0.92	0.0744	0.0011	1.778	0.0261	0.1735
640-27	25	1076	0.02	0.0754	0.0015	1.648	0.0315	0.1586
640-28	4	89	0.05	0.1685	0.0097	11.294	0.6121	0.4870
640-29	18	24	0.75	0.1568	0.0113	9.943	0.6701	0.4594
640-30	114	391	0.29	0.0724	0.0013	1.588	0.0279	0.1592
640-31	16	14	1.12	0.1059	0.0047	4.317	0.1812	0.2956
640-32	3	8	0.41	0.1580	0.0061	9.212	0.3361	0.4231
640-33	46	30	1.55	0.0709	0.0034	1.623	0.0758	0.1659
640-34	187	149	1.26	0.1035	0.0023	4.078	0.0894	0.2857
640-35	499	318	1.57	0.0553	0.0010	0.5497	0.0103	0.0722
640-36	305	401	0.76	0.0578	0.0020	0.5644	0.0184	0.0709
640-37	204	291	0.70	0.0761	0.0014	1.909	0.0384	0.1822
640-38	64	175	0.36	0.1134	0.0016	5.195	0.0750	0.3324
640-39	196	293	0.67	0.0558	0.0009	0.5563	0.0097	0.0723
640-40	172	1993	0.09	0.0696	0.0020	1.612	0.0488	0.1675
640-41	109	130	0.83	0.1005	0.0048	3.883	0.1748	0.2810
640-42	578	1337	0.43	0.0819	0.0010	1.811	0.0238	0.1605
640-43	108	71	1.52	0.1637	0.0039	10.657	0.2591	0.4721
640-44	100	1144	0.09	0.0726	0.0012	1.449	0.0254	0.1447
640-45	1980	1094	1.81	0.0741	0.0017	1.651	0.0381	0.1620
640-46	210	598	0.35	0.0737	0.0018	1.671	0.0407	0.1645
640-47	99	125	0.79	0.1003	0.0064	3.900	0.2382	0.2831
640-48	121	236	0.51	0.0766	0.0071	1.499	0.1324	0.1422
640-49	270	539	0.50	0.0734	0.0026	1.590	0.0558	0.1571
640-50	302	262	1.15	0.0784	0.0035	2.083	0.0883	0.1927
640-51	274	164	1.68	0.0581	0.0018	0.5709	0.0169	0.0713
640-52	98	132	0.74	0.1627	0.0035	10.359	0.2285	0.4619
640-53	386	425	0.91	0.0579	0.0012	0.5805	0.0122	0.0727
640-54	632	684	0.92	0.1617	0.0065	9.268	0.3680	0.4158
640-55	414	719	0.58	0.1018	0.0017	4.022	0.0708	0.2867
640-56	510	450	1.13	0.0719	0.0011	1.542	0.0245	0.1557
640-57	135	745	0.18	0.0696	0.0012	1.181	0.0209	0.1231
640-58	60	76	0.79	0.2006	0.0077	14.951	0.5422	0.5405
640-59	88	101	0.87	0.0970	0.0034	3.393	0.1142	0.2540
640-60	246	224	1.10	0.0721	0.0014	1.725	0.0341	0.1736
640-61	714	455	1.57	0.0564	0.0022	0.5770	0.0217	0.0742
640-62	317	446	0.71	0.1139	0.0028	5.136	0.1290	0.3272
640-63	224	137	1.64	0.0977	0.0022	3.703	0.0801	0.2748
640-64	1966	4508	0.44	0.0662	0.0004	1.226	0.0219	0.1330
640-65	149	403	0.37	0.1006	0.0025	3.693	0.0824	0.2663
640-66	796	1371	0.58	0.0603	0.0024	0.7527	0.0303	0.0901

**Sample 641, meta-sandstone, Early Silurian, Baluntai, CTS, (Ma X et al., 2012a, Precambrian Research)**

641-01	326	446	0.73	0.0748	0.0013	1.837	0.0312	0.1781
641-02	595	538	1.11	0.0578	0.0011	0.5937	0.0109	0.0745
641-03	185	291	0.64	0.1869	0.0023	13.487	0.1682	0.5233
641-04	127	131	0.97	0.0753	0.0018	1.630	0.0377	0.1569
641-05	197	332	0.59	0.0711	0.0018	1.570	0.0389	0.1601
641-06	3167	1936	1.64	0.0915	0.0017	3.216	0.0595	0.2551
641-07	203	777	0.26	0.1507	0.0028	7.934	0.1380	0.3817
641-08	94	108	0.87	0.2634	0.0049	23.987	0.4253	0.6601
641-09	344	685	0.50	0.0711	0.0011	1.504	0.0219	0.1534
641-10	311	194	1.61	0.0768	0.0013	2.099	0.0338	0.1982
641-11	1132	760	1.49	0.0626	0.0007	0.7884	0.0093	0.0914
641-12	215	170	1.26	0.0716	0.0012	1.597	0.0254	0.1619
641-13	264	218	1.21	0.0596	0.0012	0.5898	0.0116	0.0718
641-14	244	282	0.87	0.0619	0.0017	0.6934	0.0181	0.0812
641-15	94	1128	0.08	0.1326	0.0020	6.198	0.0928	0.3389
641-16	400	440	0.91	0.0710	0.0008	1.521	0.0166	0.1554
641-17	75	156	0.48	0.1046	0.0025	4.376	0.0960	0.3034
641-18	1435	326	4.40	0.0666	0.0011	1.243	0.0196	0.1355
641-19	37	41	0.91	0.1805	0.0088	12.056	0.5499	0.4851
641-20	161	803	0.20	0.1737	0.0026	10.175	0.1494	0.4249
641-21	69	121	0.57	0.0840	0.0024	2.428	0.0657	0.2095
641-22	114	452	0.25	0.0799	0.0010	2.243	0.0272	0.2036
641-23	279	481	0.58	0.0747	0.0034	1.816	0.0786	0.1764
641-24	84	89	0.94	0.0561	0.0021	0.5700	0.0207	0.0736
641-25	104	806	0.13	0.0990	0.0021	3.851	0.0851	0.2823
641-26	44	56	0.80	0.0733	0.0017	1.658	0.0378	0.1642
641-27	920	1066	0.86	0.0599	0.0007	0.8551	0.0099	0.1035
641-28	183	256	0.71	0.0697	0.0040	1.540	0.0834	0.1603
641-29	184	284	0.65	0.0605	0.0013	0.7540	0.0156	0.0904
641-30	234	202	1.16	0.1000	0.0014	3.914	0.0596	0.2838
641-31	133	216	0.62	0.0570	0.0011	0.6308	0.0122	0.0803
641-32	141	174	0.81	0.0588	0.0016	0.5771	0.0154	0.0712
641-33	171	287	0.59	0.0871	0.0017	2.774	0.0557	0.2311
641-34	252	421	0.60	0.0744	0.0012	1.804	0.0304	0.1759
641-35	76	238	0.32	0.0721	0.0014	1.522	0.0297	0.1532
641-36	958	543	1.76	0.0898	0.0031	3.133	0.1054	0.2510
641-37	501	376	1.33	0.0677	0.0013	1.180	0.0227	0.1264
641-38	604	823	0.73	0.0731	0.0011	1.674	0.0263	0.1661
641-39	248	195	1.27	0.0579	0.0019	0.5696	0.0181	0.0714
641-40	317	1503	0.21	0.0993	0.0027	3.674	0.0946	0.2683
641-41	118	512	0.23	0.0740	0.0011	1.618	0.0255	0.1586
641-42	195	102	1.91	0.1338	0.0080	6.812	0.3931	0.3705
641-43	291	605	0.48	0.0610	0.0010	0.7912	0.0144	0.0941
641-44	1483	1632	0.91	0.0781	0.0017	2.102	0.0493	0.1951
641-45	137	147	0.93	0.0729	0.0012	1.592	0.0269	0.1584
641-46	279	274	1.02	0.0734	0.0013	1.690	0.0313	0.1670
641-47	21	385	0.06	0.1382	0.0022	7.722	0.1288	0.4054
641-48	697	939	0.74	0.0964	0.0016	3.504	0.0604	0.2637
641-49	564	1515	0.37	0.1591	0.0034	9.449	0.2029	0.4311
641-50	799	598	1.34	0.1641	0.0035	9.890	0.2095	0.4374
641-51	340	721	0.47	0.0688	0.0010	1.321	0.0211	0.1394
641-52	532	578	0.92	0.0565	0.0020	0.5611	0.0192	0.0720
641-53	67	908	0.07	0.0691	0.0015	1.259	0.0273	0.1323
641-54	641	629	1.02	0.0683	0.0011	1.353	0.0233	0.1438
641-55	169	379	0.45	0.1720	0.0021	11.668	0.1604	0.4920
641-56	498	472	1.06	0.0665	0.0014	0.7808	0.0158	0.0851
641-57	166	352	0.47	0.1130	0.0023	5.101	0.1034	0.3275
641-58	2083	3340	0.62	0.1596	0.0005	10.254	0.0672	0.4635
641-59	821	2938	0.28	0.0644	0.0003	1.192	0.0065	0.1337
641-60	515	975	0.53	0.0572	0.0065	0.6947	0.0768	0.0881
641-61	129	3363	0.04	0.0977	0.0008	3.777	0.1025	0.2786
641-62	265	403	0.66	0.1542	0.0010	8.715	0.0927	0.4087

641-63	216	334	0.65	0.0757	0.0014	1.876	0.0332	0.1805
641-64	454	734	0.62	0.0767	0.0009	2.028	0.0199	0.1907
641-65	424	520	0.82	0.0626	0.0053	0.7337	0.0529	0.0863

**Sample 642, meta-sandstone, Early Silurian, Baluntai, CTS, (Ma X et al., 2012a, Precambrian Research)**

642-01	1134	857	1.32	0.0582	0.0014	0.6407	0.0145	0.0799
642-02	253	382	0.66	0.0589	0.0013	0.5731	0.0122	0.0706
642-03	587	1659	0.35	0.0613	0.0010	0.9560	0.0147	0.1133
642-04	404	427	0.95	0.0599	0.0016	0.7717	0.0196	0.0935
642-05	634	631	1.00	0.0567	0.0017	0.5617	0.0160	0.0719
642-06	292	237	1.23	0.0640	0.0016	0.9041	0.0217	0.1025
642-07	281	356	0.79	0.0621	0.0014	0.6316	0.0135	0.0738
642-08	48	106	0.46	0.0591	0.0018	0.6889	0.0202	0.0846
642-09	958	994	0.96	0.1579	0.0017	7.843	0.0887	0.3603
642-10	121	931	0.13	0.0786	0.0018	2.192	0.0498	0.2020
642-11	142	186	0.77	0.1045	0.0015	4.412	0.0604	0.3064
642-12	357	438	0.81	0.1700	0.0020	11.356	0.1352	0.4847
642-13	504	404	1.25	0.0837	0.0013	2.249	0.0338	0.1949
642-14	130	767	0.17	0.1793	0.0070	11.048	0.4157	0.4476
642-15	243	208	1.16	0.0597	0.0010	0.7300	0.0121	0.0887
642-16	274	728	0.38	0.0705	0.0009	1.414	0.0171	0.1456
642-17	258	127	2.02	0.0838	0.0013	2.401	0.0371	0.2078
642-18	127	162	0.78	0.1364	0.0036	7.414	0.1890	0.3944
642-19	138	43	3.23	0.0717	0.0033	1.601	0.0700	0.1620
642-20	236	388	0.61	0.0739	0.0009	1.778	0.0210	0.1745
642-21	76	86	0.88	0.1141	0.0020	5.253	0.0907	0.3340
642-22	78	118	0.66	0.0733	0.0013	1.730	0.0292	0.1712
642-23	285	280	1.01	0.1619	0.0040	9.808	0.2304	0.4396
642-24	96	146	0.66	0.1511	0.0055	9.086	0.3145	0.4360
642-25	160	159	1.01	0.0993	0.0016	3.880	0.0716	0.2834
642-26	162	265	0.61	0.0954	0.0014	3.621	0.0612	0.2753
642-27	114	125	0.91	0.0602	0.0017	0.8236	0.0228	0.0993
642-28	243	1058	0.23	0.0684	0.0007	1.462	0.0164	0.1552
642-29	136	161	0.85	0.0688	0.0018	1.366	0.0354	0.1440
642-30	205	453	0.45	0.2359	0.0045	20.067	0.3834	0.6171
642-31	941	1027	0.92	0.0652	0.0009	1.244	0.0181	0.1385
642-32	418	204	2.05	0.0593	0.0011	0.7443	0.0136	0.0910
642-33	60	62	0.96	0.0694	0.0022	1.297	0.0409	0.1357
642-34	545	526	1.04	0.0710	0.0010	1.584	0.0246	0.1618
642-35	197	133	1.49	0.0870	0.0016	2.798	0.0525	0.2332
642-36	1142	553	2.06	0.0597	0.0010	0.7839	0.0141	0.0952
642-37	68	63	1.08	0.0923	0.0015	3.152	0.0522	0.2476
642-38	565	595	0.95	0.0749	0.0011	1.827	0.0289	0.1769
642-39	118	357	0.33	0.0585	0.0011	0.5746	0.0112	0.0713
642-40	235	208	1.13	0.1193	0.0021	5.695	0.1031	0.3463
642-41	358	448	0.80	0.0979	0.0049	3.527	0.1796	0.2612
642-42	469	256	1.83	0.1090	0.0088	4.691	0.3689	0.3119
642-43	184	480	0.38	0.0688	0.0018	1.522	0.0408	0.1606
642-44	392	253	1.55	0.0666	0.0017	1.181	0.0300	0.1286
642-45	149	41	3.60	0.0564	0.0038	0.7207	0.0471	0.0927
642-46	1009	658	1.53	0.0593	0.0017	0.6194	0.0174	0.0758
642-47	52	83	0.63	0.0711	0.0024	1.246	0.0415	0.1273
642-48	282	148	1.90	0.1929	0.0063	13.815	0.4363	0.5216
642-49	366	868	0.42	0.0742	0.0013	1.670	0.0320	0.1634
642-50	615	1032	0.60	0.0730	0.0013	1.602	0.0303	0.1593
642-51	564	531	1.06	0.0598	0.0024	0.7292	0.0280	0.0886
642-52	98	80	1.23	0.0688	0.0023	1.497	0.0491	0.1579
642-53	193	237	0.81	0.0719	0.0015	1.528	0.0317	0.1543
642-54	150	3044	0.05	0.0689	0.0010	1.502	0.0247	0.1583
642-55	455	426	1.07	0.1576	0.0045	9.355	0.2591	0.4305
642-56	93	106	0.88	0.0972	0.0051	3.721	0.1869	0.2775
642-57	268	222	1.21	0.0561	0.0023	0.5500	0.0216	0.0711
642-58	708	316	2.24	0.1226	0.0023	5.892	0.1079	0.3486
642-59	200	177	1.13	0.0558	0.0036	0.5521	0.0344	0.0718

642-60	272	198	1.37	0.1136	0.0017	5.152	0.0853	0.3288
642-61	184	146	1.26	0.1567	0.0027	9.827	0.1843	0.4548
642-62	501	2048	0.24	0.1533	0.0013	9.372	0.1551	0.4409
642-63	108	159	0.68	0.1989	0.0058	14.455	0.3685	0.5322
642-64	1484	2376	0.62	0.0560	0.0007	0.6007	0.0069	0.0774
642-65	258	369	0.70	0.1052	0.0012	4.496	0.0558	0.3093
642-66	284	451	0.63	0.1784	0.0019	12.826	0.2285	0.5112

arboniferous clastic rocks of the South Tianshan and adjacent areas.

	Age (Ma)						Disc. (%)*	Preferred age (Ma) <sup>#</sup>	
	1σ	$^{207}\text{Pb}/^{206}\text{Pb}$	1σ	$^{207}\text{Pb}/^{235}\text{U}$	1σ	$^{206}\text{Pb}/^{238}\text{U}$		Age	1σ
<b>Institute of Geophysical Research: Solid Earth)</b>									
0.0010	442	48	445	12	446	6	99.8	446	6
0.0010	597	33	474	10	448	6	105.8	448	6
0.0007	489	37	364	8	344	4	105.8	344	4
0.0012	1174	58	697	13	558	7	124.9	Discordant	
0.0008	468	36	379	8	364	5	104.1	364	5
0.0008	457	92	348	16	332	5	104.8	332	5
0.0010	641	34	510	11	481	6	106.0	481	6
0.0008	412	41	397	9	395	5	100.5	395	5
0.0009	424	39	417	10	416	5	100.2	416	5
0.0009	443	40	434	10	432	6	100.5	432	6
0.0009	400	45	411	10	413	5	99.5	413	5
0.0009	576	35	443	9	417	5	106.2	417	5
0.0014	845	28	692	12	646	8	107.1	646	8
0.0008	456	43	403	10	394	5	102.3	394	5
0.0009	439	41	435	10	434	6	100.2	434	6
0.0042	1800	72	1728	30	1668	21	107.9	1800	72
0.0009	556	33	453	9	433	5	104.6	433	5
0.0009	441	35	434	9	432	5	100.5	432	5
0.0007	347	66	331	11	329	5	100.6	329	5
0.0013	943	31	681	13	605	8	112.6	Discordant	
0.0009	438	38	423	9	420	5	100.7	420	5
0.0018	960	29	875	14	842	10	103.9	842	10
0.0009	497	33	450	9	440	6	102.3	440	6
0.0009	599	77	410	16	377	5	108.8	377	5
0.0010	477	45	455	11	450	6	101.1	450	6
0.0024	1125	28	1107	16	1098	13	102.5	1125	28
0.0009	492	36	433	9	422	5	102.6	422	5
0.0009	551	38	430	10	408	5	105.4	408	5
0.0010	471	53	456	13	453	6	100.7	453	6
0.0010	460	53	445	13	442	6	100.7	442	6
0.0009	530	43	438	11	420	5	104.3	420	5
0.0010	482	43	475	11	473	6	100.4	473	6
0.0008	351	93	336	15	334	5	100.6	334	5
0.0009	433	47	404	11	399	5	101.3	399	5
0.0007	329	56	323	10	322	4	100.3	322	4
0.0009	400	53	399	12	398	5	100.3	398	5
0.0009	461	39	441	10	437	6	100.9	437	6
0.0019	1035	34	910	17	859	11	105.9	859	11
0.0010	483	49	477	13	475	6	100.4	475	6
0.0016	727	46	717	17	713	9	100.6	713	9
0.0008	409	45	367	10	360	5	101.9	360	5
0.0010	557	44	474	12	457	6	103.7	457	6
0.0009	438	40	418	10	415	5	100.7	415	5
0.0010	458	42	461	11	461	6	100.0	461	6
0.0010	437	41	454	11	457	6	99.3	457	6
0.0007	602	60	357	12	320	4	111.6	Discordant	
0.0038	2265	62	1865	28	1528	19	148.2	Discordant	
0.0011	418	61	464	15	473	7	98.1	473	7
0.0010	472	47	469	12	469	6	100.0	469	6
0.0009	414	49	405	11	403	5	100.5	403	5
0.0010	379	46	450	11	464	6	97.0	464	6
0.0015	787	40	705	15	680	9	103.7	680	9
0.0010	651	45	494	13	461	6	107.2	461	6
0.0010	467	45	458	11	456	6	100.4	456	6
0.0009	417	45	407	10	405	5	100.5	405	5
0.0053	3192	56	2672	30	2042	25	156.3	Discordant	
0.0008	380	51	376	11	375	5	100.3	375	5
0.0010	444	47	441	11	441	6	100.0	441	6
0.0009	589	56	439	13	411	6	106.8	411	6

0.0013	587	52	569	15	565	8	100.7	565	8
0.0024	1317	40	1125	21	1028	13	128.1	Discordant	
0.0010	469	55	455	13	452	6	100.7	452	6
0.0010	410	55	446	13	453	6	98.5	453	6
0.0007	315	49	322	9	322	4	100.0	322	4
0.0009	493	54	407	12	392	5	103.8	392	5
0.0012	644	51	547	15	523	7	104.6	523	7
0.0007	331	59	321	10	319	4	100.6	319	4
0.0032	1538	42	1391	26	1296	17	118.7	Discordant	
0.0011	455	56	454	14	453	6	100.2	453	6
0.0009	533	55	424	13	404	6	105.0	404	6
0.0009	418	56	395	12	391	5	101.0	391	5
0.0010	435	52	453	13	457	6	99.1	457	6
0.0009	365	60	372	12	373	5	99.7	373	5
0.0011	491	53	478	13	476	7	100.4	476	7
<b>Bulletin)</b>									
0.0011	456	6	431	6	428	7	100.7	428	7
0.0003	376	20	365	3	363	2	100.6	363	2
0.0003	433	9	413	2	411	2	100.5	411	2
0.0005	439	6	427	3	425	3	100.5	425	3
0.0007	456	3	430	3	427	4	100.7	427	4
0.0010	457	4	444	5	441	6	100.7	441	6
0.0003	413	6	394	2	392	2	100.5	392	2
0.0005	465	10	449	3	446	3	100.7	446	3
0.0004	465	8	449	2	445	3	100.9	445	3
0.0005	369	14	355	3	353	3	100.6	353	3
0.0003	389	9	360	2	356	2	101.1	356	2
0.0019	1213	3	1147	7	1113	10	109.0	1213	3
0.0008	500	7	473	4	470	5	100.6	470	5
0.0007	420	8	411	3	410	4	100.2	410	4
0.0005	367	4	356	3	356	3	100.0	356	3
0.0005	439	4	426	2	423	3	100.7	423	3
0.0005	465	6	450	3	447	3	100.7	447	3
0.0003	365	1	355	2	353	2	100.6	353	2
0.0005	454	6	433	2	428	3	101.2	428	3
0.0004	509	11	499	3	497	3	100.4	497	3
0.0007	439	4	431	4	429	4	100.5	429	4
0.0005	432	4	429	3	429	3	100.0	429	3
0.0008	369	7	356	4	354	5	100.6	354	5
0.0005	457	7	433	3	428	3	101.2	428	3
0.0007	369	6	358	4	356	4	100.6	356	4
0.0008	443	8	430	4	427	5	100.7	427	5
0.0008	435	6	430	4	428	5	100.5	428	5
0.0009	467	7	409	5	410	5	99.8	410	5
0.0005	632	11	519	3	494	3	105.1	494	3
0.0006	465	7	449	3	445	3	100.9	445	3
0.0004	1331	24	484	6	325	2	148.9	Discordant	
0.0009	432	1	427	4	426	5	100.2	426	5
0.0007	467	4	398	4	397	4	100.3	397	4
0.0006	472	7	456	3	453	4	100.7	453	4
0.0004	406	27	425	2	428	2	99.3	428	2
0.0006	456	4	429	3	426	4	100.7	426	4
0.0004	394	6	409	2	412	2	99.3	412	2
0.0005	406	6	409	3	410	3	99.8	410	3
0.0004	391	4	232	2	217	3	106.9	217	3
0.0005	383	1	422	3	429	3	98.4	429	3
0.0006	391	4	424	3	430	3	98.6	430	3
0.0002	295	11	346	1	353	1	98.0	353	1
0.0003	306	4	347	1	354	2	98.0	354	2
0.0007	420	6	427	3	428	4	99.8	428	4
0.0004	287	8	345	2	354	2	97.5	354	2
0.0009	550	4	579	4	586	5	98.8	586	5
0.0005	365	4	406	2	413	3	98.3	413	3

0.0004	300	6	346	2	354	3	97.7	354	3
0.0004	467	11	392	3	390	3	100.5	390	3
0.0005	309	8	398	2	413	3	96.4	413	3
0.0007	317	6	399	3	413	4	96.6	413	4
0.0007	276	25	345	4	355	4	97.2	355	4
0.0004	417	14	426	3	427	3	99.8	427	3
0.0010	361	7	405	5	413	6	98.1	413	6
0.0007	376	10	406	3	411	4	98.8	411	4
0.0009	417	10	444	4	449	5	98.9	449	5
0.0007	383	1	422	3	428	4	98.6	428	4
0.0009	383	7	409	4	414	5	98.8	414	5
0.0008	467	6	426	4	430	5	99.1	430	5
0.0006	409	11	442	3	449	3	98.4	449	3
0.0008	417	12	428	4	430	5	99.5	430	5
0.0007	409	6	442	4	447	4	98.9	447	4
0.0006	398	36	426	3	431	4	98.8	431	4
0.0007	467	6	426	4	431	4	98.8	431	4
0.0004	417	9	411	2	410	2	100.2	410	2
<b>Bulletin)</b>									
0.0009	428	1	423	5	422	5	100.2	422	5
0.0016	454	1	445	8	444	10	100.2	444	10
0.0003	454	11	357	2	343	2	104.1	343	2
0.0003	457	4	331	1	313	2	105.8	313	2
0.0006	435	4	429	3	427	4	100.5	427	4
0.0010	1392	3	1375	3	1364	5	102.1	1392	3
0.0011	467	34	395	6	393	7	100.5	393	7
0.0005	439	4	426	3	423	3	100.7	423	3
0.0004	435	5	425	2	423	2	100.5	423	2
0.0004	439	10	427	2	425	2	100.5	425	2
0.0005	428	(1)	424	3	423	3	100.2	423	3
0.0003	633	4	364	2	324	2	112.3	<b>Discordant</b>	
0.0006	428	(1)	419	3	417	4	100.5	417	4
0.0006	432	1	421	3	419	3	100.5	419	3
0.0008	432	4	424	4	422	5	100.5	422	5
0.0005	483	12	480	3	480	3	100.0	480	3
0.0008	591	6	514	4	497	5	103.4	497	5
0.0005	456	6	444	3	443	3	100.2	443	3
0.0006	432	1	423	3	421	4	100.5	421	4
0.0008	435	7	426	4	424	5	100.5	424	5
0.0009	439	6	437	5	436	6	100.2	436	6
0.0007	432	3	424	4	421	5	100.7	421	5
0.0004	339	13	329	3	327	2	100.6	327	2
0.0007	433	9	421	4	420	4	100.2	420	4
0.0007	450	1	452	3	452	4	100.0	452	4
0.0007	409	(25)	419	4	420	4	99.8	420	4
0.0007	428	7	424	3	423	4	100.2	423	4
0.0006	391	7	392	3	392	4	100.0	392	4
0.0007	339	11	339	3	338	4	100.3	338	4
0.0005	372	12	385	3	386	3	99.7	386	3
0.0006	398	7	401	3	400	4	100.3	400	4
0.0006	398	7	400	3	399	4	100.3	399	4
0.0007	420	9	420	4	419	4	100.2	419	4
0.0005	413	7	420	3	420	3	100.0	420	3
0.0007	409	(27)	409	4	408	4	100.2	408	4
0.0007	409	(25)	408	4	407	4	100.2	407	4
0.0007	413	6	417	4	417	4	100.0	417	4
0.0006	433	6	423	3	423	3	100.0	423	3
0.0004	406	(27)	402	2	401	2	100.2	401	2
0.0009	428	7	424	4	423	5	100.2	423	5
0.0004	456	9	446	2	445	3	100.2	445	3
0.0003	476	5	376	2	359	2	104.7	359	2
0.0005	433	19	419	4	418	3	100.2	418	3
0.0007	465	11	451	4	448	4	100.7	448	4

0.0009	456	6	446	4	445	5	100.2	445	5
0.0006	406	(29)	400	3	399	4	100.3	399	4
0.0007	454	1	446	3	445	4	100.2	445	4
0.0009	457	6	452	4	450	5	100.4	450	5
0.0007	609	3	520	3	500	4	104.0	500	4
0.0006	450	7	446	4	445	4	100.2	445	4
0.0004	478	9	462	2	460	2	100.4	460	2
0.0005	509	7	432	3	417	3	103.6	417	3
0.0009	454	4	446	4	444	5	100.5	444	5
0.0004	443	7	430	2	428	3	100.5	428	3
0.0007	435	24	323	5	307	4	105.2	307	4
0.0006	450	1	444	3	442	3	100.5	442	3
0.0006	428	(1)	423	3	422	4	100.2	422	4
0.0009	439	4	425	5	422	5	100.7	422	5
0.0003	350	10	330	1	327	2	100.9	327	2
0.0006	476	6	471	3	470	3	100.2	470	3
0.0004	343	11	328	2	326	2	100.6	326	2

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0.0005	494	7	482	3	479	3	100.6	479	3
0.0004	472	13	430	3	423	2	101.7	423	2
0.0003	1203	13	471	2	335	2	140.6	Discordant	
0.0004	480	7	470	2	467	2	100.6	467	2
0.0005	687	9	472	3	429	3	110.0	Discordant	
0.0004	650	9	495	2	462	3	107.1	462	3
0.0004	443	9	430	2	427	2	100.7	427	2
0.0013	1011	6	893	6	845	7	105.7	845	7
0.0004	457	7	447	2	445	2	100.4	445	2
0.0003	472	1	430	2	422	2	101.9	422	2
0.0008	456	6	429	4	426	5	100.7	426	5
0.0005	454	3	446	3	445	3	100.2	445	3
0.0007	480	7	469	3	466	4	100.6	466	4
0.0005	439	4	428	3	425	3	100.7	425	3
0.0007	500	11	483	4	481	4	100.4	481	4
0.0007	524	6	447	4	432	4	103.5	432	4
0.0006	480	6	469	3	468	4	100.2	468	4
0.0008	461	6	447	4	444	5	100.7	444	5
0.0004	476	3	466	2	464	3	100.4	464	3
0.0007	532	15	381	5	357	4	106.7	357	4
0.0004	457	6	445	2	442	2	100.7	442	2
0.0003	417	12	347	2	336	2	103.3	336	2
0.0007	457	7	445	4	442	4	100.7	442	4
0.0005	502	7	471	2	465	3	101.3	465	3
0.0007	439	6	428	4	426	5	100.5	426	5
0.0008	502	17	496	5	495	5	100.2	495	5
0.0006	439	12	424	3	421	3	100.7	421	3
0.0005	733	9	509	3	461	3	110.4	Discordant	
0.0011	502	18	484	6	480	7	100.8	480	7
0.0006	450	9	389	3	379	4	102.6	379	4
0.0003	428	7	360	2	349	2	103.2	349	2
0.0003	487	7	421	2	409	2	102.9	409	2
0.0006	369	7	355	3	352	3	100.9	352	3
0.0008	472	1	467	4	466	5	100.2	466	5
0.0005	480	11	447	3	441	3	101.4	441	3
0.0009	443	6	432	4	430	5	100.5	430	5
0.0007	502	5	470	3	465	4	101.1	465	4
0.0008	483	6	469	5	465	5	100.9	465	5
0.0005	435	6	426	3	425	3	100.2	425	3
0.0004	465	7	450	2	447	2	100.7	447	2
0.0006	443	59	453	10	453	4	100.1	453	4
0.0008	461	75	461	13	462	5	99.9	462	5
0.0009	522	123	430	18	419	6	102.7	419	6

0.0009	456	123	401	18	399	5	100.5	399	5
0.0007	417	97	402	15	400	5	100.6	400	5
0.0007	476	95	449	10	442	4	101.5	442	4
0.0009	465	102	418	15	411	6	101.8	411	6
0.0006	502	67	445	11	432	4	103.1	432	4
0.0010	487	121	472	20	473	6	99.8	473	6
0.0008	391	94	362	13	357	5	101.3	357	5
0.0021	850	68	733	19	691	12	106.1	691	12
0.0005	439	55	433	9	430	3	100.7	430	3
0.0011	487	115	476	19	475	6	100.2	475	6
0.0007	383	67	418	10	421	4	99.1	421	4
0.0007	461	75	376	11	361	4	104.2	361	4
0.0025	1546	47	1573	20	1584	13	97.6	1546	47
0.0005	461	61	406	9	393	3	103.2	393	3
0.0007	369	69	424	11	431	4	98.4	431	4
0.0006	346	86	358	11	357	4	100.2	357	4
0.0007	456	61	447	10	443	4	100.9	443	4
0.0006	550	69	456	11	433	4	105.3	433	4
0.0010	472	94	467	16	462	6	100.9	462	6
0.0007	576	80	465	13	439	4	105.9	439	4
0.0007	456	73	435	11	429	4	101.4	429	4
0.0010	733	104	495	19	460	6	107.7	460	6
0.0011	589	102	496	19	476	7	104.3	476	7
0.0008	472	83	453	13	449	5	100.9	449	5
0.0007	476	87	428	14	417	4	102.8	417	4
0.0007	432	68	439	12	437	4	100.4	437	4
0.0008	632	59	447	14	412	5	108.3	412	5
0.0009	661	107	462	15	423	5	109.1	423	5
0.0006	546	64	476	11	459	4	103.7	459	4
0.0008	500	75	469	12	462	5	101.6	462	5
0.0009	654	85	470	15	430	5	109.3	430	5
0.0009	413	87	436	14	437	5	99.9	437	5
0.0010	594	78	479	14	451	6	106.2	451	6
0.0011	815	157	411	23	344	7	119.6	Discordant	
0.0007	565	79	462	13	440	5	105.1	440	5
0.0010	472	122	456	20	452	6	100.9	452	6
0.0008	443	79	450	13	449	5	100.1	449	5
0.0007	443	78	438	12	436	5	100.5	436	5
0.0008	554	91	462	16	441	5	104.8	441	5
0.0008	432	90	416	12	414	5	100.4	414	5
0.0007	500	56	455	9	445	4	102.1	445	4
0.0007	520	59	464	10	452	4	102.7	452	4
0.0007	478	59	445	10	439	4	101.5	439	4
0.0007	576	75	462	11	440	4	105.0	440	4
0.0009	428	117	424	18	424	6	100.2	424	6
0.0007	467	67	432	11	436	4	99.1	436	4
0.0008	450	72	436	11	434	5	100.5	434	5
0.0007	443	58	445	10	445	4	100.1	445	4
0.0008	417	53	435	9	438	5	99.4	438	5
0.0010	483	106	444	16	439	6	101.1	439	6
0.0008	439	89	439	14	439	5	99.9	439	5
0.0008	467	61	448	10	455	5	98.5	455	5
0.0008	454	67	449	11	448	5	100.2	448	5
0.0007	409	66	426	10	430	4	99.1	430	4
0.0006	417	70	433	11	434	4	99.8	434	4
0.0007	343	56	423	9	436	4	97.1	436	4
0.0007	389	63	420	9	426	4	98.6	426	4
0.0011	702	56	767	14	784	7	97.9	784	7
0.0006	428	56	435	9	434	4	100.2	434	4
0.0008	439	79	474	12	480	5	98.7	480	5
0.0006	406	68	433	10	435	4	99.5	435	4
0.0012	561	162	478	24	469	7	102.0	469	7

0.0008	457	69	455	12	454	5	100	454	5
0.0024	1456	50	1435	20	1421	12	101	1456	50
0.0009	439	97	436	16	435	5	100	435	5
0.0012	787	45	784	14	779	7	101	779	7
0.0006	409	68	406	10	406	4	100	406	4
0.0028	1746	33	1732	16	1713	14	101	1746	33
0.0024	1413	42	1417	17	1418	13	100	1413	42
0.0007	456	58	456	11	456	4	100	456	4
0.0006	409	56	408	8	408	3	100	408	3
0.0006	409	64	408	9	408	4	100	408	4
0.0018	1161	38	1159	14	1153	10	101	1161	38
0.0008	450	72	437	12	435	5	101	435	5
0.0027	1456	37	1461	16	1467	14	100	1456	37
0.0008	461	108	455	13	454	5	100	454	5
0.0009	457	87	458	15	457	5	100	457	5
0.0016	850	-151	843	13	839	9	100	839	9
0.0016	761	56	755	14	754	9	100	754	9
0.0016	1000	39	944	12	945	9	100	945	9
0.0016	1099	38	1123	13	1130	9	99	1099	38
0.0007	387	65	412	10	414	4	99	414	4
0.0015	902	59	900	17	899	8	100	899	8
0.0008	461	111	437	17	437	5	100	437	5
0.0018	1143	41	1117	15	1095	10	102	1143	41
0.0008	443	65	463	11	465	5	100	465	5
0.0008	413	78	421	12	420	5	100	420	5
0.0015	946	58	960	18	961	8	100	961	8
0.0045	1431	71	1440	22	1430	23	101	1431	71
0.0014	894	37	916	11	918	8	100	918	8
0.0006	435	65	437	10	435	4	101	435	4
0.0038	2176	36	2167	19	2148	18	101	2176	36
0.0009	413	59	451	10	456	5	99	456	5
0.0008	417	93	441	14	447	5	99	447	5
0.0009	394	96	419	15	423	5	99	423	5
0.0013	931	44	952	14	954	7	100	954	7
0.0015	998	36	947	14	917	9	103	917	9
0.0008	517	44	569	10	578	5	98	578	5
0.0037	2453	25	2413	17	2355	17	102	2453	25
0.0007	35	133	324	17	365	4	89	Discordant	
0.0007	478	50	533	10	545	4	98	545	4
0.0018	955	78	967	23	980	10	99	980	10
0.0007	406	80	415	12	415	4	100	415	4
0.0007	432	68	432	11	433	4	100	433	4
0.0007	409	87	409	14	407	4	100	407	4
0.0038	2487	29	2474	16	2450	17	101	2487	29
0.0008	457	61	472	10	473	5	100	473	5
0.0034	2458	28	2429	15	2382	15	102	2458	28
0.0008	520	86	501	14	496	5	101	496	5
0.0036	2488	33	2410	18	2305	16	105	2488	33
0.0007	432	70	443	12	442	4	100	442	4
0.0032	2498	32	2393	17	2260	15	106	2498	32
0.0007	409	76	408	11	407	4	100	407	4
0.0007	439	61	440	9	439	4	100	439	4
0.0007	467	78	416	12	416	5	100	416	5
0.0008	439	65	442	11	438	5	101	438	5
0.0007	480	65	467	10	463	4	101	463	4
0.0027	1792	40	1791	18	1779	13	101	1792	40
0.0007	472	50	480	9	478	4	100	478	4
0.0008	457	71	464	13	461	5	100	461	5
0.0008	398	123	422	16	423	5	100	423	5
0.0007	420	100	432	15	434	4	100	434	4
0.0008	439	89	452	14	454	5	100	454	5
0.0007	443	69	453	11	455	4	100	455	4
0.0007	433	60	451	11	454	5	99	454	5

0.0017	1143	44	1147	15	1141	9	101	1143	44
0.0008	376	77	438	11	450	5	97	450	5
0.0006	439	53	438	9	436	4	101	436	4
0.0041	2443	27	2451	16	2449	18	100	2443	27
0.0016	1015	37	1066	13	1085	9	98	1015	37
0.0008	369	56	444	9	457	5	97	457	5
0.0021	1383	46	1392	18	1393	11	100	1383	46
0.0008	428	96	431	15	432	5	100	432	5
0.0007	456	70	456	12	456	4	100	456	4
0.0007	432	74	427	12	426	4	100	426	4
0.0006	417	78	413	11	414	4	100	414	4
0.0007	428	76	431	12	432	4	100	432	4
0.0006	420	58	430	10	432	4	100	432	4
0.0007	565	90	453	14	433	4	105	433	4
0.0012	706	185	404	27	354	8	114	Discordant	
0.0006	413	69	416	11	417	3	100	417	3
0.0007	413	94	406	14	407	4	100	407	4
0.0006	443	56	419	9	415	4	101	415	4
0.0006	433	78	419	12	418	4	100	418	4
0.0010	450	133	413	18	413	6	100	413	6
0.0006	435	69	422	10	419	4	101	419	4
0.0008	1654	69	722	19	460	5	157	Discordant	
0.0009	433	96	430	15	433	5	99	433	5
0.0006	398	80	404	11	407	4	99	407	4
0.0006	394	83	406	12	408	4	100	408	4
0.0007	467	104	408	16	407	4	100	407	4
0.0023	909	122	606	29	529	14	114	Discordant	
0.0007	387	64	411	9	415	4	99	415	4
0.0007	432	81	421	13	418	4	101	418	4
0.0041	2487	29	2492	17	2487	18	100	2487	29
0.0007	420	80	421	12	422	4	100	422	4
0.0005	406	59	417	9	417	3	100	417	3
0.0009	461	117	431	18	427	6	101	427	6
0.0006	398	79	410	11	411	4	100	411	4
0.0006	398	78	422	12	425	4	99	425	4
0.0008	428	100	417	15	416	5	100	416	5
0.0017	769	231	425	38	363	10	117	Discordant	
0.0008	389	100	407	15	411	5	99	411	5
0.0008	432	88	429	15	426	5	101	426	5
0.0007	467	98	405	14	405	4	100	405	4
0.0007	328	89	403	12	419	4	96	419	4
0.0008	420	89	415	13	417	5	99	417	5
0.0009	454	66	459	12	460	5	100	460	5
0.0008	420	100	429	15	433	5	99	433	5
0.0005	413	61	417	9	416	3	100	416	3
0.0004	389	50	416	7	421	3	99	421	3
0.0011	717	100	440	15	390	6	113	Discordant	
0.0008	420	96	418	14	418	5	100	418	5
0.0007	467	104	414	16	414	4	100	414	4
0.0006	467	74	419	11	422	4	99	422	4
0.0007	420	99	419	15	420	4	100	420	4
0.0006	467	82	421	10	423	4	100	423	4
0.0006	409	78	422	12	423	4	100	423	4
0.0009	454	88	452	15	453	5	100	453	5
0.0009	465	99	461	17	463	6	100	463	6
0.0009	432	111	435	17	435	5	100	435	5
0.0008	443	89	433	14	430	5	101	430	5
0.0008	389	82	410	13	415	5	99	415	5
0.0008	443	65	455	10	456	5	100	456	5
0.0007	420	101	430	15	431	5	100	431	5
0.0006	394	72	422	11	423	4	100	423	4
0.0006	417	70	421	10	420	4	100	420	4

0.0006	409	65	411	10	409	4	100	409	4
0.0007	420	89	416	13	414	4	100	414	4
0.0005	467	60	415	10	414	3	100	414	3
0.0006	406	83	421	12	421	4	100	421	4
0.0009	406	119	407	18	408	6	100	408	6
0.0030	2473	29	2461	15	2430	13	101	2473	29
0.0008	476	87	440	14	432	5	102	432	5
0.0006	428	76	427	11	425	4	100	425	4
0.0006	433	89	420	13	419	4	100	419	4
0.0007	409	76	412	11	412	4	100	412	4
0.0007	394	53	419	9	422	4	99	422	4
0.0006	420	77	417	11	416	4	100	416	4
0.0006	413	67	421	10	423	4	100	423	4
0.0008	433	95	426	14	423	5	101	423	5
0.0005	417	55	428	9	429	3	100	429	3
0.0008	465	20	452	6	450	5	100.4	450	5
0.0009	413	32	400	8	398	6	100.5	398	6
0.0026	2068	11	1542	11	1187	14	174.2	Discordant	
0.0017	441	71	433	18	432	10	100.2	432	10
0.0015	473	56	439	15	433	9	101.4	433	9
0.0011	466	37	448	10	444	7	100.9	444	7
0.0014	429	52	435	14	437	8	99.5	437	8
0.0012	442	41	430	11	428	7	100.5	428	7
0.0013	405	52	415	13	417	8	99.5	417	8
0.0011	512	27	495	9	491	7	100.8	491	7
0.0015	401	67	423	16	427	9	99.1	427	9
0.0017	432	63	436	17	437	10	99.8	437	10
0.0011	456	30	468	9	471	6	99.4	471	6
0.0011	402	33	445	9	453	6	98.2	453	6
0.0021	965	19	965	12	966	12	99.9	966	12
0.0014	440	60	421	15	417	9	101.0	417	9
0.0025	514	79	494	24	490	15	100.8	490	15
0.0015	399	73	398	17	398	9	100.0	398	9
0.0009	515	19	478	7	470	5	101.7	470	5
0.0017	968	11	982	7	988	10	99.4	988	10
0.0023	436	92	436	24	436	14	100.0	436	14
0.0013	433	46	427	12	425	8	100.5	425	8
0.0018	424	72	443	19	446	11	99.3	446	11
0.0015	448	59	429	15	425	9	100.9	425	9
0.0018	422	80	427	20	428	11	99.8	428	11
0.0012	469	30	488	10	492	7	99.2	492	7
0.0026	414	117	426	29	428	16	99.5	428	16
0.0015	446	58	433	15	430	9	100.7	430	9
0.0011	464	32	475	10	477	7	99.6	477	7
0.0014	389	62	411	15	415	9	99.0	415	9
0.0013	392	53	389	13	389	8	100.0	389	8
0.0030	418	162	434	38	437	18	99.3	437	18
0.0011	461	32	446	9	443	6	100.7	443	6
0.0013	485	46	446	13	438	8	101.8	438	8
0.0012	480	32	475	10	473	7	100.4	473	7
0.0022	413	135	416	30	416	13	100.0	416	13
0.0017	479	58	479	17	479	10	100.0	479	10
0.0019	407	69	440	18	446	11	98.7	446	11
0.0022	427	114	411	26	408	13	100.7	408	13
0.0019	422	72	442	19	446	12	99.1	446	12
0.0015	496	49	494	15	494	9	100.0	494	9
0.0035	482	122	480	35	480	21	100.0	480	21
0.0030	513	93	507	28	506	18	100.2	506	18
0.0038	452	161	424	40	419	23	101.2	419	23
0.0028	563	85	539	27	534	17	100.9	534	17
0.0052	481	197	477	54	476	31	100.2	476	31
0.0020	508	55	514	18	516	12	99.6	516	12

0.0032	544	90	544	29	544	19	100.0	544	19
0.0030	391	101	470	28	486	18	96.7	486	18
0.0030	472	97	492	29	496	18	99.2	496	18
0.0025	448	81	492	24	502	15	98.0	502	15
0.0018	498	57	507	17	509	11	99.6	509	11
0.0033	437	128	433	33	432	20	100.2	432	20
0.0047	754	93	803	40	821	27	97.8	821	27
0.0043	608	118	572	40	563	26	101.6	563	26
0.0036	545	109	543	35	542	22	100.2	542	22
0.0037	437	153	445	39	447	22	99.6	447	22
0.0033	419	166	418	39	417	20	100.2	417	20
0.0051	543	167	538	51	536	30	100.4	536	30
0.0032	536	100	516	31	511	19	101.0	511	19
0.0046	471	198	453	51	449	28	100.9	449	28
0.0027	n.d.	n.d.	367	19	445	16	82	Discordant	
0.0009	457	114	419	18	413	5	101	413	5
0.0021	1129	46	1059	17	1019	12	111	Discordant	
0.0006	417	56	417	8	415	4	100	415	4
0.0008	572	128	442	17	417	5	106	417	5
0.0008	389	119	401	17	404	5	99	404	5
0.0010	457	109	440	16	439	6	100	439	6
0.0009	532	113	425	18	406	5	105	406	5
0.0017	1056	59	960	18	921	9	104	921	9
0.0008	450	104	421	16	416	5	101	416	5
0.0011	522	75	432	18	417	7	104	417	7
0.0008	457	114	410	17	400	5	102	400	5
0.0006	498	57	416	9	400	4	104	400	4
0.0019	774	79	782	20	784	11	100	784	11
0.0043	2457	39	2447	21	2429	19	101	2457	39
0.0008	389	118	414	17	420	5	99	420	5
0.0008	433	96	408	14	406	5	101	406	5
0.0008	443	87	452	14	451	5	100	451	5
0.0009	369	122	396	16	402	5	99	402	5
0.0010	428	139	411	16	409	6	100	409	6
0.0007	243	78	383	10	402	4	95	402	4
0.0009	433	89	426	14	423	6	101	423	6
0.0006	389	81	394	11	395	4	100	395	4
0.0007	376	78	421	12	426	4	99	426	4
0.0008	433	103	410	15	406	5	101	406	5
0.0008	298	87	406	12	423	5	96	423	5
0.0009	420	113	406	16	406	6	100	406	6
0.0010	409	109	407	16	405	6	100	405	6
0.0008	387	88	392	13	392	5	100	392	5
0.0008	398	101	409	14	411	5	100	411	5
0.0008	345	104	416	16	429	5	97	429	5
0.0007	456	125	407	13	398	4	102	398	4
0.0006	298	89	379	12	391	4	97	391	4
0.0011	572	138	444	20	423	7	105	423	7
0.0006	324	70	398	10	407	4	98	407	4
0.0010	433	96	418	15	417	6	100	417	6
0.0011	343	117	401	17	415	7	97	415	7
0.0009	387	110	417	16	425	5	98	425	5
0.0007	420	76	426	12	426	4	100	426	4
0.0008	417	81	454	13	462	5	98	462	5
0.0009	298	126	396	17	414	5	96	414	5
0.0010	457	69	504	13	514	6	98	514	6
0.0009	433	103	411	16	411	5	100	411	5
0.0007	406	61	418	10	418	4	100	418	4
0.0013	820	56	777	15	759	7	102	759	7
0.0008	478	100	438	16	432	5	101	432	5
0.0007	428	83	431	12	433	4	100	433	4
0.0008	432	122	407	17	407	5	100	407	5

0.0010	567	120	438	18	421	6	104	421	6
0.0007	476	90	421	14	411	4	102	411	4
0.0009	406	99	397	18	399	6	100	399	6
0.0008	454	116	430	13	424	5	101	424	5
0.0008	350	87	409	13	417	5	98	417	5
0.0009	98	122	364	16	406	6	90	Discordant	
0.0007	417	85	427	13	429	5	100	429	5
0.0009	417	119	423	18	423	5	100	423	5
0.0008	387	64	419	9	423	5	99	423	5
0.0009	420	89	415	13	415	5	100	415	5
0.0006	369	56	395	8	396	4	100	396	4
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0.0006	476	67	430	10	419	4	102.5	419	4
0.0007	439	69	412	10	407	4	101.3	407	4
0.0017	1254	41	1186	14	1147	9	109.3	1254	41
0.0008	409	87	416	14	415	5	100.2	415	5
0.0006	498	76	450	13	439	4	102.5	439	4
0.0007	487	93	420	14	411	4	102.3	411	4
0.0006	435	62	425	9	423	3	100.6	423	3
0.0005	457	28	433	9	428	3	101.2	428	3
0.0033	1795	26	1795	14	1788	16	100.4	1795	26
0.0006	428	67	417	10	414	3	100.6	414	3
0.0011	767	42	773	11	777	6	99.6	777	6
0.0006	413	61	415	9	415	4	99.9	415	4
0.0006	409	65	414	10	414	4	99.9	414	4
0.0005	413	56	418	8	419	3	99.9	419	3
0.0007	409	66	416	10	416	4	100.0	416	4
0.0004	394	50	407	7	408	2	99.7	408	2
0.0007	472	54	479	9	479	4	100.0	479	4
0.0008	413	62	427	10	428	5	99.7	428	5
0.0012	711	81	710	19	710	7	99.9	710	7
0.0006	433	74	418	11	417	4	100.3	417	4
0.0004	465	53	419	7	410	3	102.4	410	3
0.0006	394	70	405	11	405	4	99.9	405	4
0.0008	417	72	423	11	423	5	99.9	423	5
0.0005	465	54	408	8	397	3	102.9	397	3
0.0006	432	76	428	8	427	3	100.2	427	3
0.0008	532	97	426	13	408	5	104.3	408	5
0.0023	2490	40	2258	16	2000	11	124.5	Discordant	
0.0010	435	124	405	17	406	6	99.7	406	6
0.0005	550	53	444	10	422	3	105.2	422	3
0.0004	409	57	408	9	407	3	100.3	407	3
0.0005	346	83	398	8	405	3	98.3	405	3
0.0005	465	56	422	8	414	3	102.0	414	3
0.0006	383	57	413	9	418	3	98.9	418	3
0.0006	439	46	429	7	426	4	100.8	426	4
0.0013	720	80	766	20	784	8	97.7	784	8
0.0006	517	57	453	10	440	4	103.1	440	4
0.0006	498	48	489	8	485	3	100.7	485	3
0.0005	480	83	418	8	406	3	102.9	406	3
0.0012	991	41	954	12	936	7	102.0	936	7
0.0006	413	84	400	12	397	4	100.7	397	4
0.0007	409	68	408	11	408	4	99.9	408	4
0.0006	456	67	425	10	419	3	101.4	419	3
0.0005	439	58	435	8	434	3	100.3	434	3
0.0005	346	63	405	9	414	3	97.7	414	3
0.0005	391	50	402	8	403	3	99.7	403	3
0.0005	432	45	429	8	429	3	100.1	429	3
0.0005	461	25	429	9	424	3	101.4	424	3
0.0005	413	62	411	9	411	3	100.1	411	3
0.0006	498	54	441	9	431	4	102.3	431	4
0.0032	2220	25	2240	13	2260	15	98.3	2220	25
0.0007	432	68	430	12	430	4	100.1	430	4

0.0006	494	39	508	7	510	4	99.6	510	4
0.0006	467	70	399	10	397	3	100.4	397	3
0.0006	413	65	403	9	402	4	100.4	402	4
0.0006	502	62	428	10	413	4	103.7	413	4
0.0006	465	69	433	11	424	3	101.9	424	3
0.0016	939	33	982	12	997	9	98.5	997	9
0.0005	480	59	413	9	401	3	103.1	401	3
0.0005	454	57	420	9	413	3	101.7	413	3
0.0006	432	54	426	9	425	4	100.3	425	4
0.0005	417	63	413	9	413	3	100.0	413	3
0.0005	435	63	420	10	416	3	100.8	416	3
0.0006	435	61	415	9	412	3	100.6	412	3
0.0005	432	66	414	9	412	3	100.6	412	3
0.0006	467	54	421	8	424	4	99.2	424	4
0.0032	2468	27	2463	15	2453	14	100.6	2468	27
0.0006	467	63	424	9	428	4	99.1	428	4
0.0006	365	66	403	10	410	4	98.4	410	4
0.0005	394	56	413	8	415	3	99.5	415	3
0.0008	391	65	425	10	430	5	98.8	430	5
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0.0007	534	26	448	7	431	4	103.9	431	4
0.0023	1621	39	1408	14	1272	12	127.4	Discordant	
0.0011	493	51	489	13	489	6	100.0	489	6
0.0009	482	41	469	11	466	6	100.6	466	6
0.0009	426	49	424	11	424	5	100.0	424	5
0.0012	460	69	448	16	446	7	100.4	446	7
0.0011	485	55	469	14	466	7	100.6	466	7
0.0008	479	33	440	9	433	5	101.6	433	5
0.0007	473	86	426	13	417	4	102.2	417	4
0.0011	505	55	470	14	463	7	101.5	463	7
0.0010	433	51	438	12	439	6	99.8	439	6
0.0012	477	67	480	16	481	7	99.8	481	7
0.0009	469	40	454	10	451	5	100.7	451	5
0.0014	462	91	443	21	440	9	100.7	440	9
0.0012	465	75	456	17	454	7	100.4	454	7
0.0011	440	58	444	14	445	6	99.8	445	6
0.0012	460	85	444	19	441	7	100.7	441	7
0.0010	510	46	469	12	461	6	101.7	461	6
0.0013	697	71	686	15	682	8	100.6	682	8
0.0011	461	62	453	15	451	7	100.4	451	7
0.0010	501	48	460	12	452	6	101.8	452	6
0.0013	636	165	465	27	431	8	107.9	431	8
0.0014	498	82	473	20	468	8	101.1	468	8
0.0012	659	80	591	15	574	7	103.0	574	7
0.0023	968	71	770	28	704	13	109.4	704	13
0.0012	462	75	450	17	448	7	100.4	448	7
0.0030	911	101	777	37	732	17	106.1	732	17
0.0013	466	77	437	18	432	8	101.2	432	8
0.0008	430	40	432	10	433	5	99.8	433	5
0.0010	477	48	468	12	466	6	100.4	466	6
0.0010	444	55	435	13	433	6	100.5	433	6
0.0009	496	35	457	9	450	5	101.6	450	5
0.0013	464	81	466	19	466	8	100.0	466	8
0.0010	448	55	436	13	434	6	100.5	434	6
0.0029	857	264	502	62	428	17	117.3	Discordant	
0.0009	436	47	425	11	423	5	100.5	423	5
0.0011	443	66	430	15	427	6	100.7	427	6
0.0009	897	39	504	12	422	5	119.4	Discordant	
0.0013	437	86	443	19	444	8	99.8	444	8
0.0009	457	48	434	11	429	6	101.2	429	6
0.0016	431	117	422	25	420	10	100.5	420	10
0.0009	471	42	458	11	456	5	100.4	456	5
0.0011	470	63	452	15	449	7	100.7	449	7

0.0015	577	208	447	32	422	9	105.9	422	9
0.0008	529	87	450	13	435	5	103.4	435	5
0.0011	478	64	444	15	438	7	101.4	438	7
0.0018	459	115	442	26	439	11	100.7	439	11
0.0014	498	76	485	19	483	9	100.4	483	9
0.0018	473	126	452	28	448	11	100.9	448	11
0.0011	446	68	444	16	444	7	100.0	444	7
0.0013	441	90	436	20	435	8	100.2	435	8
0.0014	521	83	460	20	448	8	102.7	448	8
0.0025	512	174	502	41	500	15	100.4	500	15
0.0015	489	87	488	21	488	9	100.0	488	9
0.0013	449	82	451	19	451	8	100.0	451	8
0.0010	461	48	463	12	463	6	100.0	463	6
0.0017	496	103	469	24	464	10	101.1	464	10
0.0013	491	81	445	19	436	8	102.1	436	8
0.0013	493	68	499	17	500	8	99.8	500	8
0.0020	1092	60	764	24	657	12	116.3	Discordant	
0.0013	456	162	443	25	440	8	100.7	440	8
0.0026	842	68	831	27	827	15	100.5	827	15
0.0011	523	48	488	13	481	6	101.5	481	6
0.0010	441	52	453	13	455	6	99.6	455	6
0.0016	515	92	482	23	475	10	101.5	475	10
0.0047	737	176	742	59	744	27	99.7	744	27
0.0009	478	37	470	10	469	5	100.2	469	5
0.0009	460	41	459	11	459	5	100.0	459	5
0.0031	1026	57	1022	27	1019	17	100.7	1026	57
0.0009	414	41	452	10	459	5	98.5	459	5
0.0011	520	56	461	14	450	7	102.4	450	7
0.0013	635	40	610	13	603	7	101.2	603	7
0.0014	481	88	457	20	452	8	101.1	452	8
0.0009	389	46	439	11	449	6	97.8	449	6
0.0008	428	32	435	8	437	5	99.5	437	5
0.0009	512	45	460	11	450	6	102.2	450	6
0.0010	497	45	476	12	471	6	101.1	471	6
0.0009	418	43	446	11	451	5	98.9	451	5
0.0013	413	84	432	18	436	8	99.1	436	8
0.0024	705	75	727	27	734	14	99.0	734	14
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0.0010	420	87	472	14	476	6	99	476	6
0.0009	409	96	447	15	449	5	100	449	5
0.0010	257	82	411	17	435	6	94	435	6
0.0008	413	69	444	12	443	5	100	443	5
0.0014	483	157	470	24	474	9	99	474	9
0.0008	433	97	446	15	444	5	100	444	5
0.0008	439	72	459	12	455	5	101	455	5
0.0011	417	94	440	15	439	6	100	439	6
0.0009	420	87	459	14	460	6	100	460	6
0.0010	413	84	483	14	490	6	99	490	6
0.0042	1533	66	1542	29	1578	21	97	1533	66
0.0031	1588	48	1560	21	1520	16	104	1588	48
0.0040	2089	50	2052	24	1996	19	105	2089	50
0.0011	369	124	476	21	494	7	96	494	7
0.0012	532	159	436	26	418	7	104	418	7
0.0083	3562	46	3581	29	3592	31	99	3562	46
0.0009	345	98	408	15	420	5	97	420	5
0.0032	1502	50	1528	22	1537	16	98	1502	50
0.0008	428	92	443	14	441	5	100	441	5
0.0038	743	78	774	27	774	22	100	774	22
0.0008	343	104	426	16	439	5	97	439	5
0.0011	769	49	788	14	789	7	100	789	7
0.0014	920	64	936	17	934	8	100	934	8
0.0008	345	91	413	13	427	5	97	427	5
0.0019	963	66	996	21	1002	10	96	963	66

0.0009	406	98	474	16	474	5	100	474	5
0.0078	2577	48	2614	31	2625	34	98	2577	48
0.0044	2695	44	2689	24	2659	19	101	2695	44
0.0027	1011	101	1055	21	1081	15	93	1011	101
0.0010	456	98	446	16	445	6	100	445	6
0.0008	432	89	435	14	434	5	100	434	5
0.0035	1851	45	1871	21	1876	17	99	1851	45
0.0034	1752	44	1757	21	1746	17	100	1752	44
0.0028	1522	48	1529	20	1527	14	100	1522	48
0.0052	1694	51	1855	26	1980	25	86	Discordant	
0.0008	472	72	436	12	425	5	102	425	5
0.0012	594	139	504	27	479	7	105	479	7
0.0037	1692	55	1699	26	1690	19	100	1692	55
0.0008	522	74	504	13	498	5	101	498	5
0.0030	1233	73	1241	27	1241	16	99	1233	73
0.0045	1950	61	1951	29	1943	21	100	1950	61
0.0016	567	146	522	27	509	10	102	509	10
0.0023	1006	98	998	29	996	13	100	996	13
0.0012	635	122	529	23	504	7	105	504	7
0.0024	1483	61	1382	24	1303	13	114	Discordant	
0.0023	1077	92	1016	30	982	12	103	982	12
0.0016	880	102	749	26	701	9	107	701	9
0.0013	457	133	457	20	451	8	101	451	8
0.0009	632	78	480	13	443	5	108	443	5
0.0018	1165	76	1048	24	983	10	107	983	10
0.0019	1169	64	1069	21	1009	11	116	Discordant	
0.0046	2581	45	2395	25	2162	21	119	Discordant	
0.0008	456	61	450	10	450	5	100.0	450	5
0.0006	432	66	434	10	434	4	100.1	434	4
0.0013	887	57	797	15	764	8	104.3	764	8
0.0012	656	57	508	13	475	7	107.0	475	7
0.0009	480	94	457	16	455	5	100.5	455	5
0.0006	406	74	409	11	409	4	99.9	409	4
0.0010	483	100	477	17	477	6	100.0	477	6
0.0011	509	77	519	14	519	6	99.9	519	6
0.0006	389	63	406	10	408	4	99.5	408	4
0.0024	1433	79	916	21	711	14	128.8	Discordant	
0.0006	398	67	408	10	410	4	99.7	410	4
0.0017	1280	46	1225	17	1190	9	102.9	1280	46
0.0010	461	65	472	12	472	6	99.9	472	6
0.0037	2424	34	2371	19	2301	17	103.0	2424	34
0.0007	454	80	458	13	458	4	100.0	458	4
0.0009	409	67	427	11	429	5	99.7	429	5
0.0015	1120	48	871	16	770	8	113.1	Discordant	
0.0017	789	70	873	19	907	9	96.3	907	9
0.0014	450	85	479	17	478	9	100.2	478	9
0.0009	417	87	420	13	420	5	100.0	420	5
0.0009	528	53	454	11	434	5	104.5	434	5
0.0006	365	66	405	9	410	4	98.9	410	4
0.0007	409	89	419	13	419	4	99.9	419	4
0.0007	272	80	392	11	409	4	95.7	409	4
0.0007	391	67	408	9	409	4	99.8	409	4
0.0032	744	59	761	24	746	18	102.1	746	18
0.0008	420	80	447	12	448	5	99.8	448	5
0.0008	398	56	430	10	431	5	99.7	431	5
0.0009	406	120	420	18	419	6	100.2	419	6
0.0010	457	94	467	16	464	6	100.7	464	6
0.0022	1133	54	1109	19	1118	12	99.2	1133	54
0.0007	391	67	410	10	410	4	100.2	410	4
0.0007	367	67	405	10	410	4	98.7	410	4
0.0023	726	106	704	25	691	13	101.9	691	13
0.0007	322	75	405	10	419	4	96.7	419	4

0.0032	1451	15	1423	13	1404	17	101.4	1451	15
0.0036	2406	42	1926	17	1512	18	127.4	Discordant	
0.0014	658	20	661	9	661	8	100.0	661	8
0.0022	953	18	967	11	972	12	99.5	972	12
0.0011	572	19	539	8	531	7	101.5	531	7
0.0018	827	26	803	13	794	10	101.1	794	10
0.0021	914	17	930	11	937	12	99.3	937	12
0.0011	506	31	500	10	499	6	100.2	499	6
0.0010	481	21	471	7	469	6	100.4	469	6
0.0028	1134	78	1142	24	1146	15	99.7	1134	78
0.0018	833	23	829	12	827	10	100.2	827	10
0.0010	462	30	449	9	447	6	100.4	447	6
0.0010	440	26	456	8	459	6	99.3	459	6
0.0022	990	18	1002	12	1007	12	99.5	990	18
0.0020	941	18	922	11	913	11	101.0	913	11
0.0027	1275	17	1231	13	1206	15	102.1	1275	17
0.0021	928	21	924	12	922	12	100.2	922	12
0.0056	2546	39	2418	17	2269	25	106.6	2546	39
0.0010	488	22	472	8	469	6	100.6	469	6
0.0018	812	20	816	11	817	10	99.9	817	10
0.0017	795	25	787	12	785	10	100.3	785	10
0.0035	1586	17	1542	15	1509	18	102.2	1586	17
0.0026	1142	58	1137	17	1135	14	100.2	1142	58
0.0021	911	19	926	11	933	12	99.2	933	12
0.0017	624	203	549	38	532	10	103.2	532	10
0.0033	1580	17	1497	15	1439	17	104.0	1580	17
0.0060	2474	45	2399	20	2312	27	103.8	2474	45
0.0063	2492	15	2495	17	2498	27	99.9	2492	15
0.0015	700	22	678	10	671	8	101.0	671	8
0.0023	988	42	948	20	931	13	101.8	931	13
0.0021	969	20	960	12	956	12	100.4	956	12
0.0010	479	22	463	7	459	6	100.9	459	6
0.0056	2773	37	2777	22	2775	23	100.1	2773	37
0.0006	413	56	409	9	407	4	100.6	407	4
0.0007	433	81	430	12	430	4	100.0	430	4
0.0006	457	50	474	9	475	4	99.6	475	4
0.0007	454	48	433	8	427	4	101.3	427	4
0.0023	1450	40	1451	16	1449	12	100.1	1450	40
0.0008	456	119	421	18	419	5	100.4	419	5
0.0006	406	56	410	9	408	4	100.4	408	4
0.0007	478	59	477	10	478	4	99.8	478	4
0.0017	1080	48	1082	16	1078	9	100.3	1080	48
0.0033	1809	43	1692	21	1595	17	106.1	1809	43
0.0006	387	66	419	9	423	4	99.1	423	4
0.0055	2627	32	2610	20	2576	24	101.3	2627	32
0.0038	2433	35	2298	19	2151	18	106.8	2433	35
0.0008	872	100	505	18	429	5	117.7	Discordant	
0.0030	2195	33	2153	17	2096	14	102.7	2195	33
0.0008	456	89	423	14	419	5	101.1	419	5
0.0006	389	54	409	8	411	4	99.5	411	4
0.0146	3102	1	2840	38	2439	65	116.4	Discordant	
0.0016	900	67	902	19	902	9	100.0	902	9
0.0021	1029	56	1021	18	1011	12	101.0	1029	56
0.0015	863	56	808	16	780	9	103.6	780	9
0.0034	1724	42	1687	20	1645	17	102.6	1724	42
0.0007	433	76	433	12	431	4	100.5	431	4
0.0007	709	53	497	10	449	4	110.6	Discordant	
0.0007	394	53	439	9	444	4	98.9	444	4
0.0006	1162	78	573	18	429	4	133.4	Discordant	
0.0006	306	46	397	7	409	4	97.1	409	4
0.0006	500	57	470	9	462	4	101.6	462	4
0.0005	389	54	408	8	409	3	99.7	409	3

0.0009	433	100	423	16	419	5	101.0	419	5
0.0006	257	64	390	9	409	4	95.3	409	4
0.0008	398	56	431	10	435	5	99.1	435	5
0.0014	840	55	848	17	845	8	100.3	845	8
0.0005	413	49	413	8	410	3	100.7	410	3
0.0007	367	59	418	9	426	4	98.0	426	4
0.0010	413	158	417	20	418	6	99.9	418	6
0.0007	428	66	434	11	433	4	100.3	433	4
0.0006	443	57	442	9	440	4	100.6	440	4
0.0037	2528	28	2529	16	2514	16	100.6	2528	28
0.0009	467	81	467	15	476	6	98.0	476	6
0.0010	433	81	444	14	445	6	99.8	445	6
0.0008	232	62	410	13	442	5	92.8	442	5
0.0007	600	56	448	9	429	4	104.4	429	4
0.0010	413	78	447	13	453	6	98.6	453	6
0.0013	472	124	444	21	442	8	100.3	442	8
0.0037	2446	37	2294	21	2114	17	108.5	2446	37
0.0010	435	111	442	18	439	6	100.7	439	6
0.0011	439	109	441	19	437	7	100.9	437	7
0.0016	1057	113	653	27	533	10	122.5	Discordant	
0.0009	369	63	438	11	448	5	97.7	448	5
0.0009	372	81	460	13	475	5	96.8	475	5
0.0008	417	87	418	14	417	5	100.4	417	5
0.0006	367	61	405	9	410	4	98.7	410	4
0.0007	389	67	418	10	421	4	99.2	421	4
0.0006	439	69	439	10	436	4	100.7	436	4
0.0006	354	58	413	9	419	4	98.6	419	4
0.0007	478	54	479	9	477	4	100.4	477	4
0.0022	1347	48	1352	18	1343	12	100.7	1347	48
0.0008	365	65	473	11	493	5	96.0	493	5
0.0008	878	95	523	18	446	5	117.3	Discordant	
0.0015	807	54	843	15	850	8	99.2	850	8
0.0008	433	81	442	14	441	5	100.1	441	5
0.0012	565	78	611	17	620	7	98.6	620	7
0.0017	917	75	967	23	983	9	98.3	983	9
0.0009	467	85	410	14	409	5	100.3	409	5
0.0018	831	88	860	25	867	10	99.2	867	10
0.0070	3110	62	3040	38	2922	29	104.0	3110	62
0.0031	1733	63	1696	29	1658	15	102.3	1733	63
0.0012	885	63	779	17	739	7	105.5	739	7
0.0075	3039	46	3057	31	3054	30	100.1	3039	46
0.0010	539	90	529	16	527	6	100.5	527	6
0.0034	1499	46	1443	22	1395	18	103.4	1499	46
0.0007	435	63	448	10	448	4	100.1	448	4
0.0008	478	80	435	13	427	5	101.9	427	5
0.0006	454	69	458	11	456	4	100.3	456	4
0.0007	387	80	418	12	421	4	99.1	421	4
0.0011	443	128	457	21	457	7	100.0	457	7
0.0019	1474	46	1346	18	1258	10	107.0	1474	46
0.0009	432	126	421	19	424	5	99.4	424	5
0.0007	700	51	477	9	430	4	111.0	Discordant	
0.0053	3282	28	3287	18	3275	21	100.4	3282	28
0.0021	922	48	644	19	546	13	117.9	Discordant	
0.0008	454	70	479	12	482	5	99.5	482	5
0.0007	456	67	444	11	440	4	100.9	440	4
0.0030	2413	35	2138	18	1855	14	115.3	Discordant	
0.0020	1155	52	1142	18	1128	11	101.2	1155	52
0.0010	487	19	446	7	438	6	101.8	438	6
0.0039	1284	39	1290	25	1290	21	99.5	1284	39
0.0145	2200	71	2183	62	2172	67	101.3	2200	71
0.0040	1234	55	1234	31	1236	21	99.8	1234	55
0.0017	655	71	570	21	549	10	103.8	549	10

0.0028	1050	32	1081	19	1097	15	95.7	1050	32
0.0016	426	77	452	19	459	10	98.5	459	10
0.0032	1153	22	1150	16	1148	17	100.4	1153	22
0.0061	2598	9	2595	11	2592	26	100.2	2598	9
0.0020	927	12	933	8	935	11	99.8	935	11
0.0019	920	15	890	10	877	11	101.5	877	11
0.0039	1666	13	1669	12	1671	19	99.7	1666	13
0.0012	495	31	474	10	470	7	100.9	470	7
0.0012	698	15	580	7	551	7	105.3	551	7
0.0021	920	12	933	8	939	11	99.4	939	11
0.0040	1522	26	1505	20	1493	20	101.9	1522	26
0.0055	2700	20	2396	21	2055	26	131.4	Discordant	
0.0022	1088	35	917	18	848	12	108.1	848	12
0.0057	2602	9	2530	9	2441	25	106.6	2602	9
0.0046	2192	10	2098	9	2004	22	109.4	2192	10
0.0045	2385	10	2146	11	1906	21	125.1	Discordant	
0.0024	1082	14	1091	10	1095	13	98.8	1082	14
0.0040	2346	12	2018	14	1712	20	137.0	Discordant	
0.0021	944	12	948	7	950	12	99.8	950	12
0.0036	1578	13	1571	12	1566	18	100.8	1578	13
0.0050	1790	17	1781	17	1773	25	101.0	1790	17
0.0042	1578	34	1580	16	1581	21	99.8	1578	34
0.0047	1587	47	1587	20	1587	24	100.0	1587	47
0.0055	1919	38	1920	19	1922	26	99.8	1919	38
0.0013	670	19	590	8	569	7	103.7	569	7
0.0077	2929	10	2937	11	2951	32	99.3	2929	10
0.0022	901	14	941	10	959	12	98.1	959	12
0.0040	1640	17	1626	16	1614	20	101.6	1640	17
0.0069	2431	20	2366	22	2290	31	106.2	2431	20
0.0026	796	57	815	24	822	15	99.1	822	15
0.0039	797	155	661	51	622	23	106.3	622	23
0.0064	2474	16	2456	18	2433	28	101.7	2474	16
0.0009	493	22	453	7	445	5	101.8	445	5
0.0032	1171	29	1164	19	1160	17	100.9	1171	29
0.0011	486	30	486	9	486	7	100.0	486	7
0.0017	858	18	823	10	810	10	101.6	810	10
0.0020	1305	47	1064	13	950	11	112.0	Discordant	
0.0023	941	24	949	14	952	13	99.7	952	13
0.0037	1563	14	1588	13	1608	19	97.2	1563	14
0.0043	1822	15	1823	15	1825	21	99.8	1822	15
0.0023	1160	25	1034	15	975	13	106.1	975	13
0.0040	1553	25	1502	20	1466	20	105.9	1553	25
0.0010	474	20	480	7	481	6	99.8	481	6
0.0040	1675	18	1602	17	1548	20	108.2	1675	18
0.0023	1078	15	1082	11	1084	13	99.4	1078	15
0.0047	1159	100	1030	47	968	26	106.4	968	26
0.0038	1719	14	1672	14	1635	19	105.1	1719	14
0.0010	475	20	468	7	467	6	100.2	467	6
0.0022	1059	15	1016	10	996	12	102.0	996	12
0.0010	479	37	452	10	446	6	101.3	446	6
0.0019	920	17	902	10	894	11	100.9	894	11
0.0039	1847	13	1838	13	1831	19	100.9	1847	13
0.0015	736	14	741	8	743	9	99.7	743	9
0.0058	2500	15	2455	17	2402	26	104.1	2500	15
0.0034	1563	25	1485	18	1430	17	109.3	1563	25
0.0094	3217	26	3194	27	3160	37	101.8	3217	26
0.0007	983	14	994	5	995	4	99.9	995	4
0.0009	1168	21	1190	8	1197	5	97.6	1168	21
0.0007	464	52	448	8	444	4	100.9	444	4
0.0011	550	15	527	6	521	7	101.2	521	7
0.0036	1222	29	1221	20	1221	19	100.1	1222	29
0.0036	1366	25	1356	18	1349	19	101.3	1366	25

0.0020	830	14	839	9	843	11	99.5	843	11
0.0019	818	19	766	11	749	11	102.3	749	11
0.0017	636	36	637	14	637	10	100.0	637	10
0.0104	2312	51	2315	44	2319	47	99.7	2312	51
0.0011	690	48	488	14	446	7	109.4	446	7
0.0014	720	59	541	18	500	8	108.2	500	8
0.0021	951	22	926	13	915	12	101.2	915	12
0.0027	1065	22	1080	15	1087	15	98.0	1065	22
0.0071	2731	10	2713	13	2690	30	101.5	2731	10
0.0036	2316	10	1947	9	1620	18	143.0	Discordant	
0.0023	938	19	938	12	938	13	100.0	938	13
0.0020	846	21	863	12	870	11	99.2	870	11
0.0041	1788	13	1775	13	1764	20	101.4	1788	13
0.0019	883	13	863	8	855	11	100.9	855	11
0.0040	2211	10	1965	10	1740	19	127.1	Discordant	
0.0030	1869	63	1561	25	1343	16	139.2	Discordant	
0.0013	676	25	585	10	562	7	104.1	562	7
0.0021	992	13	971	9	962	12	100.9	962	12
0.0037	1521	39	1520	16	1519	19	100.1	1521	39
0.0015	573	66	579	13	580	9	99.8	580	9
0.0092	3174	19	3168	22	3158	36	100.5	3174	19
0.0012	564	18	556	7	554	7	100.4	554	7
0.0023	1051	13	1037	10	1031	13	101.9	1051	13
0.0021	1079	19	989	12	949	12	104.2	949	12
0.0120	2543	58	2548	51	2558	52	99.4	2543	58
0.0175	2421	64	2429	62	2437	77	99.3	2421	64
0.0020	996	17	966	11	952	11	101.5	952	11
0.0063	1730	46	1697	35	1669	32	103.7	1730	46
0.0093	2434	33	2359	33	2275	42	107.0	2434	33
0.0034	955	62	979	29	990	19	98.9	990	19
0.0039	1688	22	1650	18	1620	19	104.2	1688	22
0.0010	424	20	445	7	449	6	99.1	449	6
0.0011	523	45	454	12	441	7	102.9	441	7
0.0026	1096	20	1084	13	1079	14	101.6	1096	20
0.0040	1854	12	1852	12	1850	19	100.2	1854	12
0.0010	446	18	449	6	450	6	99.8	450	6
0.0029	916	35	975	19	998	16	97.7	998	16
0.0059	1632	52	1610	36	1596	30	102.3	1632	52
0.0019	1242	11	1050	9	959	11	109.5	959	11
0.0078	2494	20	2494	23	2493	34	100.0	2494	20
0.0019	1004	17	909	11	871	11	104.4	871	11
0.0023	1043	25	990	15	968	13	102.3	968	13
0.0024	1033	27	997	15	982	13	101.5	982	13
0.0078	1629	73	1614	49	1607	39	101.4	1629	73
0.0050	1109	121	930	54	857	28	108.5	857	28
0.0028	1026	43	966	22	941	15	102.7	941	15
0.0038	1157	53	1143	29	1136	20	101.8	1157	53
0.0011	533	39	459	11	444	6	103.4	444	6
0.0068	2484	19	2467	20	2448	30	101.5	2484	19
0.0010	527	24	465	8	452	6	102.9	452	6
0.0087	2473	39	2365	36	2241	40	110.4	Discordant	
0.0037	1656	15	1639	14	1625	19	101.9	1656	15
0.0020	983	15	947	10	933	11	101.5	933	11
0.0015	915	18	792	10	749	9	105.7	749	9
0.0106	2831	34	2812	35	2786	44	101.6	2831	34
0.0045	1568	37	1503	26	1459	23	107.5	1568	37
0.0023	989	20	1018	13	1032	13	95.8	989	20
0.0015	467	49	462	14	461	9	100.2	461	9
0.0049	1863	25	1842	21	1825	24	102.1	1863	25
0.0037	1581	22	1572	17	1565	19	101.0	1581	22
0.0019	812	13	813	10	805	11	101.0	805	11
0.0032	1635	48	1570	18	1522	16	107.4	1635	48
0.0012	615	87	570	18	556	7	102.5	556	7

0.0026	1064	15	1059	11	1057	14	100.7	1064	15
0.0011	523	18	473	7	463	6	102.2	463	6
0.0070	2715	10	2714	12	2713	30	100.1	2715	10
0.0023	1078	24	982	15	939	13	104.6	939	13
0.0023	961	28	958	15	957	13	100.1	957	13
0.0037	1456	16	1461	14	1465	19	99.4	1456	16
0.0051	2354	14	2224	16	2084	24	113.0	Discordant	
0.0088	3267	13	3268	17	3268	34	100.0	3267	13
0.0019	961	13	932	9	920	11	101.3	920	11
0.0027	1117	14	1148	11	1166	15	95.8	1117	14
0.0012	694	12	590	5	564	7	104.6	564	7
0.0022	973	15	969	10	967	12	100.2	967	12
0.0010	588	21	471	7	447	6	105.4	447	6
0.0013	671	30	535	11	504	8	106.2	504	8
0.0048	2133	12	2004	13	1882	23	113.3	Discordant	
0.0020	958	12	939	7	931	11	100.9	931	11
0.0045	1707	20	1708	18	1708	22	99.9	1707	20
0.0018	825	15	820	9	819	10	100.1	819	10
0.0120	2658	44	2609	43	2550	52	104.2	2658	44
0.0052	2593	11	2451	14	2283	23	113.6	Discordant	
0.0032	1293	30	1251	19	1226	17	105.5	1293	30
0.0028	1195	12	1195	9	1195	15	100.0	1195	12
0.0039	1059	52	1051	28	1047	22	101.1	1059	52
0.0013	457	84	458	13	458	8	100.0	458	8
0.0043	1605	40	1603	18	1603	22	100.1	1605	40
0.0025	1021	24	993	14	980	14	101.3	980	14
0.0014	601	13	627	5	635	8	98.7	635	8
0.0037	919	73	946	33	959	21	98.6	959	21
0.0012	622	24	571	9	558	7	102.3	558	7
0.0035	1624	13	1617	12	1611	18	100.8	1624	13
0.0010	490	21	497	8	498	6	99.8	498	6
0.0010	560	33	463	10	443	6	104.5	443	6
0.0032	1362	19	1348	15	1340	17	101.6	1362	19
0.0023	1053	16	1047	11	1044	13	100.9	1053	16
0.0019	989	21	939	12	919	11	102.2	919	11
0.0045	1421	37	1441	26	1444	23	98.4	1421	37
0.0016	860	20	791	11	767	9	103.1	767	9
0.0021	1017	15	999	10	991	11	100.8	991	11
0.0011	524	43	458	12	444	6	103.2	444	6
0.0039	1611	27	1566	21	1532	20	105.2	1611	27
0.0020	1042	15	977	10	949	11	103.0	949	11
0.0097	2149	64	2087	51	2032	46	105.8	2149	64
0.0013	639	18	592	8	580	8	102.1	580	8
0.0031	1150	23	1149	16	1149	17	100.1	1150	23
0.0020	1012	16	967	11	948	11	102.0	948	11
0.0023	1025	18	1005	12	996	12	100.9	996	12
0.0051	2205	14	2199	15	2194	23	100.5	2205	14
0.0034	1556	15	1528	14	1509	18	103.1	1556	15
0.0059	2447	19	2383	20	2311	26	105.9	2447	19
0.0059	2498	19	2425	20	2339	27	106.8	2498	19
0.0018	892	15	855	9	841	10	101.7	841	10
0.0012	473	48	452	12	448	7	100.9	448	7
0.0018	902	23	828	12	801	10	103.4	801	10
0.0019	878	17	869	10	866	11	100.3	866	11
0.0061	2578	10	2578	13	2579	26	100.0	2578	10
0.0011	823	22	586	9	527	6	111.2	Discordant	
0.0042	1848	19	1836	17	1826	20	101.2	1848	19
0.0030	2452	6	2458	6	2455	13	99.9	2452	6
0.0004	753	10	797	3	809	2	98.5	809	2
0.0020	498	257	536	46	544	12	98.5	544	12
0.0059	1581	17	1588	22	1584	30	99.8	1581	17
0.0048	2393	11	2309	10	2209	22	108.3	2393	11

0.0027	1086	37	1073	12	1070	14	101.5	1086	37
0.0015	1114	23	1125	7	1125	8	99.0	1114	23
0.0029	695	186	559	31	534	17	104.7	534	17
0.0012	538	25	503	9	495	7	101.6	495	7
0.0011	564	23	460	8	440	6	104.5	440	6
0.0016	648	15	681	8	692	9	98.4	692	9
0.0015	599	29	581	11	576	9	100.9	576	9
0.0012	478	35	453	10	448	7	101.1	448	7
0.0016	741	26	654	12	629	9	104.0	629	9
0.0010	677	24	497	8	459	6	108.3	459	6
0.0012	570	39	532	12	523	7	101.7	523	7
0.0047	2433	10	2213	10	1984	22	122.6	Discordant	
0.0031	1163	22	1178	16	1186	17	98.1	1163	22
0.0041	1705	11	1715	11	1723	20	99.0	1705	11
0.0068	2557	10	2553	11	2548	29	100.4	2557	10
0.0025	1285	13	1196	11	1148	13	111.9	Discordant	
0.0092	2646	36	2527	35	2385	41	110.9	Discordant	
0.0012	593	17	557	7	548	7	101.6	548	7
0.0018	941	12	895	7	876	10	102.2	876	10
0.0026	1287	14	1243	11	1217	14	105.8	1287	14
0.0059	2181	24	2163	23	2143	27	101.8	2181	24
0.0032	978	57	970	27	968	18	100.2	968	18
0.0023	1038	12	1037	8	1037	13	100.1	1038	12
0.0052	1865	14	1861	15	1858	25	100.4	1865	14
0.0024	1022	15	1020	11	1019	13	100.3	1022	15
0.0066	2476	21	2417	22	2349	30	105.4	2476	21
0.0083	2358	34	2347	32	2333	37	101.1	2358	34
0.0042	1611	31	1610	15	1609	21	100.1	1611	31
0.0038	1536	29	1554	13	1568	19	98.0	1536	29
0.0015	610	62	610	13	610	9	100.0	610	9
0.0021	879	12	915	7	930	12	98.4	930	12
0.0021	893	31	874	15	867	12	100.8	867	12
0.0078	3092	16	3095	18	3098	31	99.8	3092	16
0.0017	780	14	821	8	836	10	98.2	836	10
0.0012	578	19	565	8	562	7	100.5	562	7
0.0023	909	38	845	18	820	13	103.0	820	13
0.0021	958	14	964	10	967	12	99.7	967	12
0.0031	1361	18	1355	14	1351	16	100.7	1361	18
0.0013	593	18	588	8	586	8	100.3	586	8
0.0032	1474	15	1446	13	1426	16	103.4	1474	15
0.0022	1066	15	1055	10	1050	12	101.5	1066	15
0.0009	548	22	461	7	444	5	103.8	444	5
0.0045	1946	16	1931	16	1917	22	101.5	1946	16
0.0057	1585	63	1533	40	1496	29	105.9	1585	63
0.0104	1783	95	1766	66	1750	51	101.9	1783	95
0.0026	892	30	939	16	960	14	97.8	960	14
0.0020	825	28	792	14	780	12	101.5	780	12
0.0022	469	103	551	28	572	13	96.3	572	13
0.0012	576	35	489	11	471	7	103.8	471	7
0.0021	961	41	822	19	772	12	106.5	772	12
0.0093	2767	29	2737	30	2706	39	102.3	2767	29
0.0023	1046	18	997	12	976	13	102.2	976	13
0.0022	1014	18	971	12	953	12	101.9	953	12
0.0015	595	53	556	16	547	9	101.6	547	9
0.0026	892	41	929	20	945	14	98.3	945	14
0.0020	982	22	942	13	925	11	101.8	925	11
0.0021	895	16	931	10	947	12	98.3	947	12
0.0064	2430	27	2373	25	2308	29	105.3	2430	27
0.0065	1572	59	1576	40	1579	33	99.6	1572	59
0.0013	456	54	445	14	443	8	100.5	443	8
0.0043	1994	16	1960	16	1928	21	103.4	1994	16
0.0017	445	97	446	22	447	10	99.8	447	10

0.0046	1858	13	1845	14	1832	22	101.4	1858	13
0.0064	2420	15	2419	17	2416	28	100.2	2420	15
0.0057	2383	14	2375	15	2355	26	101.2	2383	14
0.0231	2817	49	2780	24	2751	97	102.4	2817	49
0.0003	454	28	478	4	480	2	99.6	480	2
0.0023	1717	21	1730	10	1737	11	98.8	1717	21
0.0073	2638	18	2667	17	2662	31	99.1	2638	18

Table S6 Compilation of detrital zircon U-Pb ages from Silurian-Ca

Sample	Spot No.	Th	U	Th/U	Isotopic ratios			
		ppm	ppm		$^{207}\text{Pb}/^{206}\text{Pb}$	1 $\sigma$	$^{207}\text{Pb}/^{235}\text{U}$	1 $\sigma$
<b>Sample MT62A, quartz arenite, Late Carboniferous, north to Kule, STS, (Han Y et al., 2016, Lithos)</b>								
MT62A-01	211	263	0.80	0.0572	0.0015	0.5650	0.0140	0.0717
MT62A-02	2	93	0.02	0.2253	0.0032	17.717	0.2320	0.5702
MT62A-03	93	84	1.10	0.0872	0.0023	2.602	0.0670	0.2165
MT62A-04	104	152	0.68	0.0549	0.0016	0.4880	0.0140	0.0644
MT62A-05	232	304	0.76	0.0575	0.0016	0.5330	0.0140	0.0672
MT62A-06	501	559	0.90	0.1620	0.0022	10.205	0.1330	0.4568
MT62A-07	61	72	0.85	0.1196	0.0020	5.651	0.0930	0.3426
MT62A-08	153	297	0.52	0.0574	0.0017	0.5770	0.0200	0.0729
MT62A-09	235	479	0.49	0.0967	0.0014	3.553	0.0480	0.2665
MT62A-10	286	595	0.48	0.0572	0.0010	0.5710	0.0100	0.0725
MT62A-11	180	368	0.49	0.0567	0.0014	0.5550	0.0160	0.0710
MT62A-12	65	108	0.60	0.0773	0.0015	2.049	0.0390	0.1923
MT62A-13	277	256	1.08	0.0565	0.0014	0.5620	0.0140	0.0721
MT62A-14	182	338	0.54	0.0596	0.0018	0.6330	0.0220	0.0771
MT62A-15	157	365	0.43	0.0675	0.0011	1.259	0.0200	0.1353
MT62A-16	131	170	0.77	0.0563	0.0015	0.5430	0.0140	0.0700
MT62A-17	96	205	0.47	0.0554	0.0014	0.5260	0.0130	0.0690
MT62A-18	24	63	0.38	0.0542	0.0037	0.4800	0.0340	0.0642
MT62A-19	135	247	0.55	0.0583	0.0018	0.5450	0.0160	0.0678
MT62A-20	184	218	0.84	0.0582	0.0018	0.5270	0.0160	0.0656
MT62A-21	88	335	0.26	0.0868	0.0013	2.505	0.0430	0.2093
MT62A-22	120	255	0.47	0.0566	0.0018	0.4990	0.0190	0.0640
MT62A-23	140	208	0.67	0.0548	0.0014	0.5190	0.0130	0.0687
MT62A-24	183	301	0.61	0.0548	0.0012	0.5020	0.0110	0.0664
MT62A-25	72	110	0.65	0.0541	0.0019	0.5610	0.0200	0.0753
MT62A-26	22	63	0.34	0.0566	0.0025	0.6130	0.0270	0.0785
MT62A-27	67	321	0.21	0.1732	0.0024	11.150	0.1510	0.4670
MT62A-28	93	183	0.51	0.1221	0.0018	5.940	0.0860	0.3528
MT62A-29	156	255	0.61	0.1166	0.0017	5.595	0.0800	0.3478
MT62A-30	95	107	0.89	0.0698	0.0021	1.252	0.0370	0.1300
MT62A-31	107	134	0.79	0.0622	0.0019	0.6670	0.0200	0.0778
MT62A-32	229	496	0.46	0.0558	0.0011	0.5230	0.0100	0.0679
MT62A-33	59	51	1.18	0.0670	0.0023	1.228	0.0400	0.1330
MT62A-34	2	390	0.01	0.0563	0.0011	0.6330	0.0120	0.0814
MT62A-35	27	89	0.30	0.1023	0.0024	3.983	0.0890	0.2823
MT62A-36	214	355	0.60	0.0568	0.0012	0.5520	0.0110	0.0705
MT62A-37	52	108	0.48	0.0558	0.0020	0.5090	0.0180	0.0661
MT62A-38	106	332	0.32	0.2025	0.0029	15.485	0.2140	0.5545
MT62A-39	59	132	0.45	0.1218	0.0020	6.188	0.0960	0.3684
MT62A-40	187	340	0.55	0.0559	0.0012	0.5730	0.0120	0.0743
MT62A-41	300	623	0.48	0.0715	0.0012	1.561	0.0240	0.1584
MT62A-42	257	587	0.44	0.0571	0.0011	0.5680	0.0110	0.0722
MT62A-43	324	583	0.55	0.0808	0.0012	2.354	0.0350	0.2112
MT62A-44	211	498	0.42	0.0547	0.0011	0.5150	0.0100	0.0683
MT62A-45	121	186	0.65	0.1783	0.0027	12.322	0.1820	0.5011
MT62A-46	306	583	0.53	0.0559	0.0013	0.5270	0.0160	0.0684
MT62A-47	58	134	0.43	0.1249	0.0021	6.370	0.1040	0.3700
MT62A-48	202	446	0.45	0.0558	0.0011	0.5710	0.0110	0.0742
MT62A-49	78	217	0.36	0.0569	0.0017	0.5500	0.0160	0.0702
MT62A-50	121	150	0.81	0.0551	0.0017	0.5100	0.0150	0.0671
MT62A-51	76	473	0.16	0.0626	0.0011	0.9370	0.0160	0.1085
MT62A-52	47	76	0.61	0.1081	0.0020	4.849	0.0890	0.3253
MT62A-53	531	378	1.40	0.1183	0.0019	5.622	0.0880	0.3446
MT62A-54	160	217	0.74	0.0569	0.0020	0.5180	0.0220	0.0659
MT62A-55	253	425	0.60	0.0571	0.0012	0.5510	0.0110	0.0700
MT62A-56	14	59	0.23	0.0756	0.0020	1.986	0.0510	0.1906
MT62A-57	266	465	0.57	0.0572	0.0012	0.5500	0.0110	0.0697
MT62A-58	313	365	0.86	0.0771	0.0014	2.047	0.0360	0.1926
MT62A-59	72	222	0.32	0.0531	0.0021	0.4140	0.0160	0.0565

MT62A-60	150	253	0.59	0.0535	0.0013	0.5170	0.0130	0.0701
MT62A-61	148	208	0.71	0.0758	0.0018	1.514	0.0350	0.1448
MT62A-62	622	800	0.78	0.0568	0.0011	0.5890	0.0120	0.0753
MT62A-63	137	142	0.96	0.0537	0.0020	0.3940	0.0140	0.0533
MT62A-64	339	271	1.25	0.1177	0.0019	5.793	0.0910	0.3571
MT62A-65	158	418	0.38	0.1176	0.0019	6.033	0.0940	0.3721
MT62A-66	79	164	0.48	0.0750	0.0015	1.896	0.0360	0.1834
MT62A-67	214	424	0.50	0.0564	0.0014	0.5330	0.0130	0.0687
MT62A-68	478	413	1.16	0.0581	0.0014	0.5370	0.0130	0.0671
MT62A-69	126	246	0.51	0.0561	0.0014	0.6080	0.0140	0.0785
MT62A-70	230	370	0.62	0.1324	0.0021	7.365	0.1160	0.4035
MT62A-71	82	144	0.57	0.0573	0.0017	0.5730	0.0170	0.0725
MT62A-72	349	1145	0.30	0.0576	0.0010	0.5490	0.0100	0.0692
MT62A-73	122	255	0.48	0.0547	0.0014	0.5270	0.0130	0.0698
MT62A-74	87	220	0.39	0.1224	0.0021	5.728	0.1110	0.3394
MT62A-75	136	366	0.37	0.0559	0.0013	0.5230	0.0120	0.0678
MT62A-76	130	221	0.59	0.0561	0.0015	0.5460	0.0140	0.0706
MT62A-77	159	220	0.72	0.0567	0.0015	0.5480	0.0140	0.0701
MT62A-78	74	178	0.42	0.0596	0.0022	0.5690	0.0200	0.0691
MT62A-79	237	425	0.56	0.0561	0.0012	0.5640	0.0120	0.0729
MT62A-80	100	149	0.67	0.0523	0.0016	0.5230	0.0150	0.0726
MT62A-81	235	170	1.38	0.0565	0.0015	0.5760	0.0150	0.0739
MT62A-82	176	132	1.34	0.1624	0.0028	10.764	0.1830	0.4805
MT62A-83	25	158	0.16	0.0695	0.0016	1.317	0.0300	0.1374

**Sample LT08A, quartz arenite, Late Carboniferous Ayilihe Formation along the Kule-Bayinbuluke highway of STS, (Han Y et al., 2010)**

LT08A-001	249	584	0.43	0.0928	0.0016	3.153	0.0580	0.2465
LT08A-002	138	384	0.36	0.1584	0.0027	9.185	0.1640	0.4206
LT08A-003	13	26	0.51	0.0571	0.0049	0.4270	0.0360	0.0542
LT08A-004	94	218	0.43	0.0551	0.0016	0.5740	0.0160	0.0756
LT08A-005	80	109	0.73	0.1662	0.0030	10.879	0.2060	0.4747
LT08A-006	119	337	0.35	0.0570	0.0014	0.5780	0.0140	0.0736
LT08A-007	96	157	0.61	0.0568	0.0018	0.5710	0.0180	0.0729
LT08A-008	185	369	0.50	0.0550	0.0018	0.5220	0.0210	0.0689
LT08A-009	282	636	0.44	0.0574	0.0013	0.5970	0.0140	0.0755
LT08A-010	185	422	0.44	0.0539	0.0013	0.5040	0.0120	0.0678
LT08A-011	84	177	0.48	0.0553	0.0018	0.5090	0.0160	0.0669
LT08A-012	110	254	0.43	0.0572	0.0015	0.5890	0.0160	0.0747
LT08A-013	72	82	0.88	0.0590	0.0032	0.4580	0.0250	0.0563
LT08A-014	189	348	0.54	0.0572	0.0015	0.5610	0.0140	0.0711
LT08A-015	137	223	0.62	0.0511	0.0017	0.3480	0.0120	0.0495
LT08A-016	59	129	0.46	0.0538	0.0023	0.6140	0.0260	0.0828
LT08A-017	157	268	0.58	0.0573	0.0016	0.5080	0.0140	0.0643
LT08A-018	158	269	0.59	0.0681	0.0018	0.6750	0.0180	0.0719
LT08A-019	92	172	0.54	0.0591	0.0019	0.5690	0.0180	0.0699
LT08A-020	99	200	0.49	0.0542	0.0022	0.3650	0.0170	0.0488
LT08A-021	109	208	0.52	0.0554	0.0021	0.4250	0.0190	0.0556
LT08A-022	110	195	0.57	0.0638	0.0033	0.4390	0.0220	0.0499
LT08A-023	129	134	0.97	0.0532	0.0023	0.3540	0.0150	0.0482
LT08A-024	53	191	0.28	0.0745	0.0017	1.678	0.0380	0.1634
LT08A-025	113	283	0.40	0.0938	0.0018	2.862	0.0580	0.2213
LT08A-026	321	613	0.52	0.0667	0.0014	1.275	0.0270	0.1385
LT08A-027	311	387	0.80	0.0564	0.0014	0.5660	0.0140	0.0727
LT08A-028	192	355	0.54	0.0544	0.0014	0.5350	0.0140	0.0713
LT08A-029	264	496	0.53	0.0592	0.0018	0.5720	0.0210	0.0700
LT08A-030	43	333	0.13	0.0712	0.0015	1.557	0.0340	0.1585
LT08A-031	438	455	0.96	0.0576	0.0017	0.3790	0.0110	0.0478
LT08A-032	52	214	0.24	0.1220	0.0023	5.784	0.1150	0.3439
LT08A-033	30	72	0.41	0.0561	0.0026	0.5260	0.0240	0.0681
LT08A-034	67	126	0.53	0.0546	0.0020	0.5120	0.0180	0.0680
LT08A-035	119	161	0.74	0.0548	0.0021	0.3560	0.0140	0.0471
LT08A-036	141	196	0.72	0.0523	0.0018	0.4200	0.0140	0.0582
LT08A-037	154	200	0.77	0.0574	0.0018	0.5640	0.0170	0.0712
LT08A-038	202	289	0.70	0.0556	0.0015	0.5540	0.0150	0.0722

LT08A-039	230	325	0.71	0.0521	0.0016	0.3450	0.0110	0.0480
LT08A-040	190	346	0.55	0.0566	0.0015	0.5580	0.0150	0.0715
LT08A-041	147	118	1.24	0.0562	0.0021	0.5540	0.0210	0.0715
LT08A-042	100	129	0.77	0.0584	0.0022	0.5280	0.0190	0.0655
LT08A-043	136	352	0.39	0.0538	0.0016	0.3880	0.0110	0.0523
LT08A-044	50	94	0.53	0.0492	0.0025	0.3600	0.0180	0.0531
LT08A-045	105	272	0.38	0.0735	0.0017	1.734	0.0400	0.1710
LT08A-046	118	119	0.99	0.1449	0.0030	7.745	0.1670	0.3877
LT08A-047	56	50	1.12	0.0499	0.0030	0.4540	0.0260	0.0659
LT08A-048	76	350	0.22	0.0573	0.0016	0.5490	0.0150	0.0695
LT08A-049	74	231	0.32	0.0561	0.0017	0.5780	0.0170	0.0747
LT08A-050	175	292	0.60	0.0570	0.0016	0.5780	0.0160	0.0735
LT08A-051	83	156	0.54	0.0595	0.0023	0.6000	0.0280	0.0732
LT08A-052	118	217	0.54	0.0552	0.0019	0.5510	0.0190	0.0723
LT08A-053	171	220	0.78	0.0554	0.0019	0.5280	0.0180	0.0691
LT08A-054	286	301	0.95	0.0551	0.0018	0.5180	0.0170	0.0681
LT08A-055	411	320	1.29	0.0561	0.0016	0.5360	0.0160	0.0693
LT08A-056	129	302	0.43	0.0606	0.0018	0.5320	0.0150	0.0638
LT08A-057	48	72	0.66	0.2912	0.0063	26.969	0.6010	0.6716
LT08A-058	214	501	0.43	0.0564	0.0015	0.5490	0.0140	0.0706
LT08A-059	117	234	0.50	0.0569	0.0019	0.4920	0.0160	0.0627
LT08A-060	59	87	0.68	0.0555	0.0026	0.4560	0.0210	0.0596
LT08A-061	153	106	1.44	0.1101	0.0027	4.812	0.1180	0.3169
LT08A-062	124	157	0.79	0.0577	0.0020	0.6310	0.0210	0.0792
LT08A-063	73	60	1.21	0.1027	0.0028	4.007	0.1100	0.2831
LT08A-064	68	115	0.59	0.0745	0.0021	1.886	0.0530	0.1835
LT08A-065	222	409	0.54	0.0561	0.0015	0.6000	0.0160	0.0775
LT08A-066	201	383	0.52	0.0540	0.0015	0.5050	0.0140	0.0678
LT08A-067	170	215	0.79	0.0709	0.0018	1.618	0.0420	0.1654
LT08A-068	369	574	0.64	0.0569	0.0015	0.5820	0.0150	0.0741
LT08A-069	19	12	1.52	0.1025	0.0047	4.037	0.1830	0.2855
LT08A-070	70	135	0.52	0.0584	0.0022	0.5750	0.0220	0.0714
LT08A-071	73	193	0.38	0.1549	0.0037	8.883	0.2140	0.4158
LT08A-072	200	155	1.29	0.0780	0.0026	1.537	0.0510	0.1429
LT08A-073	350	412	0.85	0.0583	0.0017	0.5910	0.0170	0.0735
LT08A-074	116	175	0.66	0.0525	0.0021	0.3570	0.0140	0.0492
LT08A-075	145	552	0.26	0.0559	0.0015	0.5250	0.0150	0.0681
LT08A-076	105	172	0.61	0.0594	0.0025	0.6130	0.0300	0.0749
LT08A-077	111	250	0.44	0.0516	0.0019	0.3390	0.0120	0.0476
LT08A-078	144	500	0.29	0.0553	0.0016	0.5520	0.0160	0.0725
LT08A-079	113	223	0.50	0.0683	0.0019	1.312	0.0370	0.1393
LT08A-080	350	87	4.02	0.0686	0.0023	1.421	0.0470	0.1502
LT08A-081	43	68	0.63	0.0592	0.0033	0.3950	0.0220	0.0485
LT08A-082	141	262	0.54	0.0537	0.0018	0.5410	0.0180	0.0730
LT08A-083	31	52	0.60	0.0525	0.0033	0.4190	0.0260	0.0579
LT08A-084	88	136	0.65	0.0518	0.0022	0.4110	0.0180	0.0576
LT08A-085	102	164	0.62	0.1188	0.0031	5.730	0.1510	0.3499
LT08A-086	261	456	0.57	0.0514	0.0017	0.3420	0.0110	0.0482
LT08A-087	190	432	0.44	0.0568	0.0019	0.5390	0.0170	0.0689
LT08A-088	71	179	0.40	0.0537	0.0020	0.4670	0.0180	0.0631
LT08A-089	114	166	0.69	0.0734	0.0022	1.768	0.0520	0.1746
LT08A-090	31	59	0.53	0.0524	0.0034	0.3500	0.0220	0.0485
LT08A-091	420	301	1.39	0.0602	0.0058	0.3490	0.0390	0.0420
LT08A-092	36	45	0.79	0.1168	0.0036	5.648	0.1730	0.3507
LT08A-093	336	451	0.74	0.0577	0.0017	0.5840	0.0180	0.0734
LT08A-094	237	324	0.73	0.0556	0.0018	0.5610	0.0180	0.0732

Sample LT09A, quartz wacke, Late Carboniferous, Kule-Bayinbuluke, STS, (Han Y et al., 2016, Geology)

LT09A-001	116	102	1.13	0.0631	0.0021	1.071	0.0360	0.1232
LT09A-002	112	178	0.63	0.0571	0.0018	0.5920	0.0180	0.0752
LT09A-003	45	101	0.44	0.0690	0.0022	1.251	0.0390	0.1314
LT09A-004	155	267	0.58	0.0558	0.0015	0.5170	0.0140	0.0672
LT09A-005	69	106	0.65	0.0638	0.0018	1.258	0.0350	0.1429
LT09A-006	251	326	0.77	0.0556	0.0014	0.5340	0.0140	0.0697

LT09A-007	152	248	0.61	0.0573	0.0016	0.5370	0.0150	0.0680
LT09A-008	91	233	0.39	0.1569	0.0027	9.946	0.1800	0.4597
LT09A-009	51	42	1.20	0.1654	0.0034	11.623	0.2470	0.5096
LT09A-010	296	335	0.88	0.0569	0.0014	0.5450	0.0140	0.0695
LT09A-011	35	49	0.71	0.1095	0.0026	5.032	0.1200	0.3332
LT09A-012	254	544	0.47	0.0691	0.0016	0.6710	0.0160	0.0704
LT09A-013	36	237	0.15	0.1212	0.0023	4.723	0.1000	0.2827
LT09A-014	154	261	0.59	0.0568	0.0015	0.6370	0.0170	0.0812
LT09A-015	261	285	0.91	0.0557	0.0015	0.5780	0.0150	0.0751
LT09A-016	216	405	0.53	0.0566	0.0014	0.5350	0.0130	0.0685
LT09A-017	192	368	0.52	0.0543	0.0014	0.5370	0.0140	0.0717
LT09A-018	80	132	0.60	0.0905	0.0019	3.178	0.0700	0.2547
LT09A-019	192	673	0.29	0.0556	0.0015	0.5750	0.0180	0.0750
LT09A-020	80	139	0.58	0.0689	0.0018	1.365	0.0350	0.1436
LT09A-021	74	164	0.45	0.0630	0.0020	0.6410	0.0200	0.0738
LT09A-022	128	184	0.69	0.0570	0.0018	0.5630	0.0180	0.0717
LT09A-023	123	219	0.56	0.1636	0.0029	10.366	0.1950	0.4595
LT09A-024	67	233	0.29	0.0739	0.0017	1.622	0.0390	0.1592
LT09A-025	147	218	0.67	0.0592	0.0017	0.5990	0.0180	0.0734
LT09A-026	132	124	1.07	0.0604	0.0026	0.6370	0.0270	0.0764
LT09A-027	177	327	0.54	0.0561	0.0015	0.5240	0.0140	0.0677
LT09A-028	276	536	0.52	0.1533	0.0027	8.598	0.1610	0.4067
LT09A-029	62	137	0.45	0.0770	0.0018	2.143	0.0520	0.2018
LT09A-030	135	425	0.32	0.0702	0.0014	1.561	0.0330	0.1613
LT09A-031	79	73	1.08	0.1677	0.0034	10.778	0.2270	0.4662
LT09A-032	148	223	0.66	0.0576	0.0017	0.5970	0.0180	0.0751
LT09A-033	50	143	0.35	0.0567	0.0020	0.5570	0.0200	0.0712
LT09A-034	98	189	0.51	0.0579	0.0018	0.5900	0.0190	0.0738
LT09A-035	149	272	0.55	0.0561	0.0020	0.5040	0.0220	0.0652
LT09A-036	118	210	0.56	0.0577	0.0022	0.5550	0.0260	0.0698
LT09A-037	108	252	0.43	0.0579	0.0022	0.5180	0.0230	0.0649
LT09A-038	190	335	0.57	0.0564	0.0015	0.5590	0.0150	0.0720
LT09A-039	131	160	0.81	0.0641	0.0021	0.6580	0.0210	0.0744
LT09A-040	287	358	0.80	0.0578	0.0015	0.5930	0.0160	0.0745
LT09A-041	197	270	0.73	0.0533	0.0016	0.4770	0.0140	0.0650
LT09A-042	160	245	0.65	0.0566	0.0017	0.5480	0.0170	0.0702
LT09A-043	109	231	0.47	0.0539	0.0022	0.3610	0.0170	0.0485
LT09A-044	54	80	0.67	0.0565	0.0026	0.5200	0.0240	0.0667
LT09A-045	42	67	0.63	0.1628	0.0036	10.868	0.2470	0.4842
LT09A-046	242	263	0.92	0.0670	0.0016	1.290	0.0320	0.1396
LT09A-047	257	321	0.80	0.0668	0.0016	1.246	0.0300	0.1353
LT09A-048	100	199	0.50	0.0566	0.0018	0.5570	0.0180	0.0715
LT09A-049	59	68	0.86	0.0515	0.0031	0.4020	0.0240	0.0567
LT09A-050	137	117	1.17	0.1628	0.0035	10.823	0.2410	0.4822
LT09A-051	44	1388	0.03	0.0561	0.0013	0.5070	0.0120	0.0656
LT09A-052	46	83	0.56	0.0638	0.0034	0.6160	0.0320	0.0701
LT09A-053	228	265	0.86	0.0549	0.0020	0.4000	0.0140	0.0528
LT09A-054	479	381	1.25	0.0621	0.0017	0.6120	0.0170	0.0715
LT09A-055	148	305	0.49	0.1380	0.0030	7.823	0.1730	0.4112
LT09A-056	52	123	0.42	0.0657	0.0020	1.255	0.0380	0.1386
LT09A-057	231	337	0.69	0.0539	0.0016	0.5050	0.0150	0.0680
LT09A-058	227	490	0.46	0.2237	0.0048	17.834	0.3960	0.5782
LT09A-059	138	250	0.55	0.0560	0.0018	0.5230	0.0170	0.0677
LT09A-060	66	244	0.27	0.0739	0.0019	1.745	0.0450	0.1714
LT09A-061	101	224	0.45	0.1212	0.0030	5.754	0.1420	0.3444
LT09A-062	288	615	0.47	0.0568	0.0018	0.5570	0.0210	0.0711
LT09A-063	152	220	0.69	0.0562	0.0019	0.5300	0.0180	0.0684
LT09A-064	56	147	0.38	0.1216	0.0029	6.214	0.1530	0.3706
LT09A-065	175	369	0.47	0.0553	0.0016	0.5620	0.0160	0.0737
LT09A-066	131	137	0.96	0.0679	0.0021	1.325	0.0400	0.1416
LT09A-067	64	95	0.67	0.0550	0.0025	0.5290	0.0240	0.0698
LT09A-068	258	227	1.13	0.0538	0.0021	0.5130	0.0200	0.0691
LT09A-069	61	186	0.33	0.0550	0.0022	0.4680	0.0190	0.0618

LT09A-070	256	598	0.43	0.0568	0.0016	0.5350	0.0150	0.0684
LT09A-071	261	529	0.49	0.0580	0.0016	0.5900	0.0170	0.0738
LT09A-072	81	129	0.62	0.0798	0.0023	2.228	0.0650	0.2025
LT09A-073	133	217	0.62	0.0545	0.0019	0.5180	0.0180	0.0689
LT09A-074	60	157	0.38	0.0608	0.0025	0.6140	0.0240	0.0733
LT09A-075	138	239	0.58	0.0570	0.0020	0.5290	0.0180	0.0673
LT09A-076	72	159	0.46	0.0586	0.0022	0.5510	0.0210	0.0683
LT09A-077	107	226	0.47	0.0590	0.0032	0.4920	0.0290	0.0604
LT09A-078	80	381	0.21	0.0683	0.0019	1.308	0.0360	0.1389
LT09A-079	94	180	0.52	0.0558	0.0022	0.5580	0.0210	0.0725
LT09A-080	174	221	0.79	0.0677	0.0020	1.318	0.0390	0.1411
LT09A-081	19	57	0.34	0.0491	0.0028	0.5050	0.0280	0.0746
LT09A-082	262	208	1.26	0.1915	0.0050	14.315	0.3770	0.5424
LT09A-083	308	219	1.41	0.0732	0.0021	1.676	0.0490	0.1661
LT09A-084	91	103	0.88	0.1124	0.0032	4.852	0.1390	0.3132
LT09A-085	136	195	0.70	0.1685	0.0046	10.210	0.2780	0.4397
LT09A-086	44	71	0.62	0.1250	0.0037	5.994	0.1790	0.3481
LT09A-087	138	241	0.57	0.0541	0.0020	0.5020	0.0180	0.0674
LT09A-088	155	220	0.70	0.1318	0.0037	6.953	0.1930	0.3829
LT09A-089	269	250	1.07	0.0590	0.0021	0.5830	0.0200	0.0716
LT09A-090	107	263	0.41	0.0565	0.0020	0.5650	0.0200	0.0727
LT09A-091	26	27	0.95	0.1156	0.0043	5.404	0.1980	0.3391
LT09A-092	162	295	0.55	0.0562	0.0020	0.5230	0.0180	0.0675
LT09A-093	42	51	0.81	0.1572	0.0049	9.587	0.2980	0.4425
LT09A-094	136	233	0.58	0.0553	0.0021	0.5100	0.0190	0.0669
LT09A-095	115	241	0.48	0.0571	0.0022	0.5590	0.0210	0.0712
LT09A-096	140	261	0.53	0.0604	0.0023	0.5950	0.0220	0.0715
LT09A-097	100	235	0.42	0.0576	0.0021	0.5460	0.0200	0.0688
LT09A-098	101	184	0.55	0.1730	0.0051	11.356	0.3330	0.4764
LT09A-099	280	418	0.67	0.0556	0.0019	0.5190	0.0180	0.0678
LT09A-100	79	142	0.56	0.0680	0.0024	1.250	0.0440	0.1334
LT09A-101	80	95	0.83	0.0628	0.0061	0.4560	0.0480	0.0528
LT09A-102	81	153	0.53	0.0536	0.0024	0.3750	0.0190	0.0507
LT09A-103	66	74	0.90	0.0572	0.0026	0.5410	0.0240	0.0686
LT09A-104	131	235	0.56	0.0581	0.0017	0.5480	0.0160	0.0685
LT09A-105	87	188	0.46	0.0571	0.0017	0.5930	0.0170	0.0754
LT09A-106	149	231	0.64	0.0571	0.0023	0.5630	0.0260	0.0715
LT09A-107	197	314	0.63	0.0572	0.0015	0.5570	0.0140	0.0707
LT09A-108	135	237	0.57	0.0584	0.0017	0.5500	0.0150	0.0684
LT09A-109	130	461	0.28	0.0978	0.0020	3.771	0.0750	0.2797
LT09A-110	215	453	0.47	0.0578	0.0018	0.5520	0.0170	0.0693
LT09A-111	300	537	0.56	0.0564	0.0014	0.5730	0.0140	0.0736
LT09A-112	91	114	0.80	0.0575	0.0023	0.5420	0.0210	0.0684
LT09A-113	108	152	0.71	0.0574	0.0021	0.5300	0.0190	0.0671
LT09A-114	155	193	0.80	0.0576	0.0018	0.5600	0.0170	0.0705
LT09A-115	64	52	1.22	0.0714	0.0026	1.339	0.0480	0.1360

**Sample MT64A, quartz arenite, Late Carboniferous, Kule-Bayinbuluke, STS, (Han Y et al., 2016, Geology)**

MT64A-01	188	157	1.20	0.1168	0.0021	5.955	0.1040	0.3697
MT64A-02	338	455	0.74	0.0562	0.0012	0.6020	0.0120	0.0776
MT64A-03	128	159	0.81	0.0564	0.0016	0.5800	0.0160	0.0745
MT64A-04	237	573	0.41	0.0560	0.0013	0.5770	0.0160	0.0748
MT64A-05	51	99	0.52	0.0585	0.0020	0.5850	0.0200	0.0725
MT64A-06	28	75	0.38	0.1354	0.0026	7.860	0.1470	0.4211
MT64A-07	15	31	0.49	0.0548	0.0039	0.5410	0.0380	0.0716
MT64A-08	58	75	0.77	0.1169	0.0023	5.825	0.1150	0.3613
MT64A-09	128	350	0.37	0.0565	0.0013	0.6020	0.0130	0.0773
MT64A-10	246	499	0.49	0.0582	0.0013	0.5630	0.0120	0.0701
MT64A-11	88	304	0.29	0.1204	0.0022	6.049	0.1060	0.3643
MT64A-12	142	294	0.48	0.1833	0.0032	13.044	0.2250	0.5160
MT64A-13	51	138	0.37	0.0650	0.0021	0.6770	0.0240	0.0754
MT64A-14	84	351	0.24	0.0558	0.0013	0.5760	0.0130	0.0748
MT64A-15	152	303	0.50	0.0576	0.0014	0.5890	0.0140	0.0741
MT64A-16	59	90	0.66	0.0588	0.0021	0.5910	0.0210	0.0729

MT64A-17	132	226	0.58	0.0566	0.0015	0.5960	0.0150	0.0764
MT64A-18	171	310	0.55	0.0666	0.0014	1.310	0.0260	0.1427
MT64A-19	72	392	0.18	0.0772	0.0016	1.846	0.0380	0.1735
MT64A-20	113	112	1.01	0.0774	0.0018	2.228	0.0520	0.2087
MT64A-21	65	94	0.69	0.0586	0.0029	0.4430	0.0250	0.0549
MT64A-22	147	428	0.34	0.0563	0.0012	0.6280	0.0140	0.0809
MT64A-23	89	193	0.46	0.0555	0.0019	0.5590	0.0220	0.0731
MT64A-24	58	80	0.72	0.0575	0.0022	0.5740	0.0220	0.0725
MT64A-25	173	325	0.53	0.0575	0.0014	0.5970	0.0140	0.0754
MT64A-26	162	324	0.50	0.0564	0.0014	0.5650	0.0130	0.0726
MT64A-27	191	263	0.73	0.0564	0.0014	0.5510	0.0140	0.0709
MT64A-28	312	547	0.57	0.0561	0.0012	0.5810	0.0130	0.0751
MT64A-29	243	494	0.49	0.0568	0.0013	0.5750	0.0130	0.0735
MT64A-30	39	81	0.48	0.0576	0.0023	0.5570	0.0220	0.0701
MT64A-31	153	264	0.58	0.0564	0.0014	0.5940	0.0150	0.0763
MT64A-32	75	315	0.24	0.0555	0.0014	0.5460	0.0130	0.0713
MT64A-33	72	115	0.63	0.1413	0.0029	8.259	0.1650	0.4240
MT64A-34	19	60	0.32	0.0570	0.0027	0.6350	0.0290	0.0807
MT64A-35	93	151	0.61	0.0559	0.0018	0.5270	0.0160	0.0683
MT64A-36	119	351	0.34	0.0573	0.0015	0.5950	0.0180	0.0753
MT64A-37	23	51	0.45	0.0564	0.0028	0.5650	0.0270	0.0727
MT64A-38	74	151	0.49	0.0534	0.0018	0.4410	0.0150	0.0599
MT64A-39	29	41	0.71	0.0533	0.0031	0.5050	0.0290	0.0687
MT64A-40	197	298	0.66	0.0665	0.0018	0.4950	0.0130	0.0540
MT64A-41	26	69	0.37	0.0575	0.0023	0.6300	0.0250	0.0795
MT64A-42	205	279	0.74	0.0526	0.0015	0.3780	0.0110	0.0520
MT64A-43	70	145	0.48	0.0553	0.0016	0.5690	0.0160	0.0747
MT64A-44	130	246	0.53	0.0580	0.0013	0.6120	0.0140	0.0765
MT64A-45	365	669	0.55	0.0552	0.0010	0.5540	0.0100	0.0728
MT64A-46	53	418	0.13	0.0557	0.0011	0.5640	0.0110	0.0734
MT64A-47	133	241	0.55	0.0553	0.0013	0.5950	0.0130	0.0780
MT64A-48	72	106	0.68	0.0580	0.0016	0.8010	0.0220	0.1001
MT64A-49	180	321	0.56	0.0671	0.0012	1.360	0.0230	0.1470
MT64A-50	337	406	0.83	0.0569	0.0011	0.5870	0.0110	0.0749
MT64A-51	78	184	0.42	0.0550	0.0016	0.4200	0.0120	0.0554
MT64A-52	58	63	0.92	0.0549	0.0025	0.5430	0.0240	0.0717
MT64A-53	69	122	0.56	0.0532	0.0019	0.4200	0.0140	0.0572
MT64A-54	272	321	0.85	0.0678	0.0012	1.380	0.0230	0.1476
MT64A-55	155	301	0.51	0.0552	0.0012	0.5960	0.0120	0.0784
MT64A-56	97	189	0.51	0.0554	0.0014	0.5700	0.0140	0.0746
MT64A-57	86	193	0.45	0.0585	0.0015	0.5800	0.0140	0.0719
MT64A-58	34	68	0.50	0.0590	0.0023	0.6240	0.0240	0.0767
MT64A-59	105	263	0.40	0.0566	0.0014	0.5490	0.0160	0.0703
MT64A-60	127	355	0.36	0.0566	0.0012	0.5780	0.0120	0.0740
MT64A-61	196	825	0.24	0.0548	0.0010	0.5310	0.0090	0.0703
MT64A-62	135	430	0.32	0.1234	0.0018	6.301	0.0910	0.3701
MT64A-63	144	246	0.59	0.0550	0.0015	0.4220	0.0110	0.0557
MT64A-64	433	674	0.64	0.0659	0.0011	1.200	0.0190	0.1320
MT64A-65	111	225	0.50	0.0532	0.0015	0.3960	0.0110	0.0539
MT64A-66	60	104	0.57	0.0578	0.0020	0.5430	0.0190	0.0682
MT64A-67	55	77	0.71	0.1634	0.0027	10.587	0.1700	0.4697
MT64A-68	79	152	0.52	0.0603	0.0019	0.6010	0.0180	0.0724
MT64A-69	62	109	0.57	0.0592	0.0021	0.6140	0.0220	0.0752
MT64A-70	19	37	0.51	0.0643	0.0034	0.6570	0.0340	0.0741
MT64A-71	163	362	0.45	0.0565	0.0012	0.5790	0.0120	0.0743
MT64A-72	45	72	0.63	0.0575	0.0031	0.5480	0.0290	0.0691
MT64A-73	143	284	0.50	0.0539	0.0013	0.5490	0.0130	0.0739
MT64A-74	85	132	0.64	0.0564	0.0018	0.6000	0.0180	0.0771
MT64A-75	209	576	0.36	0.0745	0.0012	1.959	0.0310	0.1907
MT64A-76	123	267	0.46	0.0590	0.0016	0.5680	0.0150	0.0698
MT64A-77	108	224	0.48	0.0565	0.0015	0.5540	0.0140	0.0712
MT64A-78	42	98	0.43	0.1381	0.0024	8.158	0.1360	0.4285
MT64A-79	165	371	0.45	0.0568	0.0012	0.5810	0.0120	0.0742

MT64A-80	33	94	0.36	0.0588	0.0023	0.6420	0.0250	0.0792
MT64A-81	174	686	0.25	0.0570	0.0011	0.5320	0.0100	0.0676

**Sample T004, sandstone, Late Carboniferous, Cedaya section, STS, (Li SY et al., 2014, Acta Geologica Sinica)**

T004-01	266	674	0.40
T004-02	889	948	0.94
T004-03	91	181	0.50
T004-04	28	34	0.82
T004-05	378	515	0.73
T004-06	157	244	0.64
T004-07	222	296	0.75
T004-08	147	281	0.52
T004-09	251	383	0.65
T004-10	197	288	0.68
T004-11	93	236	0.40
T004-12	135	148	0.91
T004-13	122	75	1.63
T004-14	89	99	0.90
T004-15	266	611	0.44
T004-16	421	662	0.64
T004-17	203	288	0.71
T004-18	63	80	0.79
T004-19	71	277	0.26
T004-20	224	306	0.73
T004-21	369	393	0.94
T004-22	64	135	0.47
T004-23	374	538	0.69
T004-24	638	575	1.11
T004-25	123	185	0.67
T004-26	129	135	0.96
T004-27	73	111	0.66
T004-28	16	24	0.69
T004-29	137	149	0.92
T004-30	55	84	0.66
T004-31	65	130	0.49
T004-32	156	236	0.66
T004-33	219	173	1.26
T004-34	101	417	0.24
T004-35	356	509	0.70
T004-36	164	406	0.40
T004-37	200	263	0.76
T004-38	13	42	0.32
T004-39	271	362	0.75
T004-40	85	186	0.45
T004-41	1232	1252	0.98
T004-42	234	289	0.81
T004-43	407	761	0.53
T004-44	166	454	0.36
T004-45	58	145	0.40
T004-46	50	343	0.14
T004-47	251	399	0.63
T004-48	160	199	0.80
T004-49	41	1098	0.04
T004-50	76	180	0.42
T004-51	293	561	0.52
T004-52	633	968	0.65
T004-53	237	315	0.75
T004-54	206	672	0.31
T004-55	155	188	0.83
T004-56	21	32	0.68
T004-57	226	244	0.93
T004-58	84	129	0.65
T004-59	481	793	0.61
T004-60	48	75	0.64

T004-61	2	51	0.03
T004-62	47	126	0.37
T004-63	57	110	0.52
T004-64	145	617	0.23
T004-65	217	284	0.77
T004-66	321	1358	0.24
T004-67	20	35	0.56
T004-68	87	121	0.71
T004-69	39	61	0.64
T004-70	28	32	0.89
T004-71	359	373	0.96
T004-72	503	539	0.93
T004-73	32	49	0.64
T004-74	114	135	0.85
T004-75	219	398	0.55
T004-76	368	394	0.93
T004-77	169	274	0.62
T004-78	156	361	0.43
T004-79	332	571	0.58
T004-80	25	120	0.21

**Sample LT37A, submature quartz wacke, Late Carboniferous, Heiyingshan, STS, (Han Y et al., 2016, Geology)**

LT37A-01	99	195	0.51	0.0546	0.0014	0.5570	0.0140	0.0740
LT37A-02	137	193	0.71	0.0711	0.0014	1.305	0.0250	0.1332
LT37A-03	116	194	0.60	0.0555	0.0015	0.5520	0.0140	0.0721
LT37A-04	64	571	0.11	0.1869	0.0026	11.719	0.1580	0.4547
LT37A-05	88	534	0.16	0.1184	0.0018	4.452	0.0650	0.2726
LT37A-06	152	251	0.61	0.0585	0.0020	0.5870	0.0190	0.0728
LT37A-07	128	265	0.48	0.0559	0.0013	0.5560	0.0130	0.0722
LT37A-08	96	157	0.61	0.0594	0.0017	0.5670	0.0160	0.0692
LT37A-09	186	414	0.45	0.1138	0.0017	5.286	0.0750	0.3369
LT37A-10	45	286	0.16	0.0558	0.0013	0.5480	0.0120	0.0712
LT37A-11	93	164	0.56	0.0583	0.0017	0.5540	0.0160	0.0690
LT37A-12	82	144	0.57	0.0562	0.0017	0.5550	0.0160	0.0716
LT37A-13	74	140	0.53	0.0603	0.0017	0.5990	0.0170	0.0720
LT37A-14	84	445	0.19	0.2232	0.0032	18.111	0.2490	0.5883
LT37A-15	315	541	0.58	0.0593	0.0014	0.5910	0.0140	0.0724
LT37A-16	272	367	0.74	0.0703	0.0012	1.405	0.0230	0.1450
LT37A-17	148	191	0.77	0.0585	0.0016	0.5710	0.0150	0.0708
LT37A-18	81	107	0.76	0.0562	0.0019	0.5560	0.0190	0.0717
LT37A-19	51	82	0.63	0.1110	0.0020	5.181	0.0910	0.3386
LT37A-20	176	334	0.53	0.0562	0.0013	0.5480	0.0120	0.0708
LT37A-21	18	50	0.36	0.0538	0.0034	0.5710	0.0360	0.0770
LT37A-22	157	270	0.58	0.0574	0.0014	0.5730	0.0130	0.0724
LT37A-23	39	166	0.23	0.0557	0.0018	0.5370	0.0170	0.0700
LT37A-24	75	137	0.55	0.0574	0.0018	0.5570	0.0170	0.0704
LT37A-25	34	126	0.27	0.0559	0.0018	0.5580	0.0170	0.0724
LT37A-26	122	144	0.85	0.0551	0.0017	0.5260	0.0160	0.0692
LT37A-27	150	195	0.77	0.0542	0.0015	0.5320	0.0140	0.0712
LT37A-28	162	280	0.58	0.0541	0.0013	0.5270	0.0120	0.0707
LT37A-29	254	378	0.67	0.0711	0.0013	1.418	0.0250	0.1446
LT37A-30	101	191	0.53	0.0557	0.0016	0.5460	0.0150	0.0711
LT37A-31	94	89	1.06	0.0689	0.0019	1.256	0.0330	0.1322
LT37A-32	114	86	1.33	0.0518	0.0022	0.5380	0.0220	0.0754
LT37A-33	95	161	0.59	0.0550	0.0016	0.5580	0.0160	0.0737
LT37A-34	108	170	0.64	0.0678	0.0014	1.407	0.0290	0.1506
LT37A-35	369	257	1.43	0.0964	0.0031	3.078	0.1270	0.2316
LT37A-36	118	202	0.58	0.0551	0.0015	0.5440	0.0140	0.0716
LT37A-37	227	459	0.49	0.0617	0.0059	0.6320	0.0640	0.0742
LT37A-38	282	268	1.05	0.0667	0.0013	1.162	0.0230	0.1263
LT37A-39	50	205	0.24	0.0588	0.0018	0.6020	0.0170	0.0742
LT37A-40	127	195	0.65	0.0547	0.0015	0.5620	0.0150	0.0745
LT37A-41	159	194	0.82	0.0559	0.0016	0.5580	0.0150	0.0724
LT37A-42	131	202	0.65	0.0553	0.0015	0.5530	0.0150	0.0725

LT37A-43	21	32	0.66	0.1180	0.0028	5.580	0.1310	0.3429
LT37A-44	240	430	0.56	0.1575	0.0025	9.828	0.1520	0.4524
LT37A-45	228	354	0.64	0.0575	0.0013	0.5910	0.0130	0.0745
LT37A-46	137	478	0.29	0.1205	0.0020	6.208	0.0970	0.3736
LT37A-47	268	477	0.56	0.0613	0.0013	0.6190	0.0120	0.0732
LT37A-48	88	202	0.43	0.0569	0.0017	0.5640	0.0190	0.0719
LT37A-49	54	114	0.47	0.0576	0.0019	0.5830	0.0190	0.0734
LT37A-50	157	332	0.47	0.0601	0.0016	0.5770	0.0180	0.0696
LT37A-51	213	382	0.56	0.0544	0.0012	0.5400	0.0120	0.0720
LT37A-52	133	157	0.85	0.0618	0.0016	0.9080	0.0230	0.1065
LT37A-53	207	432	0.48	0.0573	0.0013	0.5700	0.0120	0.0721
LT37A-54	128	173	0.74	0.0557	0.0017	0.5320	0.0150	0.0693
LT37A-55	210	309	0.68	0.0580	0.0014	0.5710	0.0130	0.0713
LT37A-56	296	610	0.48	0.0667	0.0012	1.264	0.0220	0.1375
LT37A-57	284	404	0.70	0.0560	0.0013	0.5420	0.0120	0.0701
LT37A-58	86	104	0.83	0.1118	0.0022	5.256	0.0990	0.3408
LT37A-59	139	258	0.54	0.0566	0.0014	0.5680	0.0140	0.0727
LT37A-60	137	244	0.56	0.0589	0.0015	0.5910	0.0150	0.0728
LT37A-61	336	1146	0.29	0.1200	0.0048	3.311	0.1460	0.2000
LT37A-62	142	202	0.70	0.0681	0.0015	1.420	0.0300	0.1512
LT37A-63	67	127	0.52	0.1714	0.0032	11.685	0.2130	0.4944
LT37A-64	328	448	0.73	0.0561	0.0013	0.5420	0.0120	0.0700
LT37A-65	73	185	0.39	0.0572	0.0016	0.5760	0.0160	0.0732
LT37A-66	75	105	0.72	0.0592	0.0021	0.5680	0.0200	0.0696
LT37A-67	54	83	0.65	0.0582	0.0027	0.5640	0.0250	0.0704
LT37A-68	116	203	0.57	0.0549	0.0015	0.5390	0.0150	0.0713
LT37A-69	153	294	0.52	0.0567	0.0014	0.5580	0.0140	0.0714
LT37A-70	153	382	0.40	0.1165	0.0021	5.686	0.1010	0.3540
LT37A-71	95	136	0.70	0.0678	0.0017	1.373	0.0330	0.1468
LT37A-72	241	310	0.78	0.0571	0.0018	0.5890	0.0180	0.0748
LT37A-73	98	185	0.53	0.0559	0.0016	0.5680	0.0160	0.0738
LT37A-74	149	243	0.61	0.0545	0.0015	0.5300	0.0140	0.0706
LT37A-75	66	371	0.18	0.0565	0.0013	0.5940	0.0140	0.0762
LT37A-76	65	175	0.37	0.0545	0.0017	0.5460	0.0160	0.0726
LT37A-77	44	333	0.13	0.0613	0.0014	0.9080	0.0200	0.1073
LT37A-78	109	202	0.54	0.0574	0.0016	0.5940	0.0160	0.0751
LT37A-79	85	177	0.48	0.0565	0.0017	0.5580	0.0160	0.0716
LT37A-80	246	421	0.58	0.0549	0.0013	0.5550	0.0130	0.0734
LT37A-81	149	290	0.52	0.0549	0.0014	0.5570	0.0140	0.0735
LT37A-82	130	299	0.44	0.0551	0.0014	0.5540	0.0140	0.0729
LT37A-83	81	106	0.76	0.0670	0.0018	1.286	0.0340	0.1392
LT37A-84	115	196	0.59	0.0543	0.0016	0.5380	0.0160	0.0720
LT37A-85	132	263	0.50	0.0548	0.0015	0.5490	0.0150	0.0726
LT37A-86	90	123	0.73	0.0576	0.0020	0.5710	0.0200	0.0718
LT37A-87	133	238	0.56	0.0552	0.0015	0.5450	0.0150	0.0715
LT37A-88	54	133	0.41	0.0600	0.0017	0.9500	0.0260	0.1148

Sample 19ST61, sandstone, Late Carboniferous, Yangbulak area, (Abuduxun et al., 2021, Tectonics)

18ST61-01	192	249	0.77	0.05690	0.00130	0.55500	0.0130	0.07080
18ST61-02	192	314	0.61	0.05680	0.00097	0.54500	0.0110	0.06970
18ST61-03	366	768	0.48	0.06723	0.00093	0.96900	0.0200	0.10490
18ST61-04	66	132	0.50	0.05760	0.00170	0.53000	0.0160	0.06690
18ST61-05	686	1161	0.59	0.05768	0.00071	0.53630	0.0078	0.06710
18ST61-06	156	336	0.47	0.05576	0.00095	0.53800	0.0110	0.06990
18ST61-07	190	359	0.53	0.05671	0.00096	0.52700	0.0120	0.06690
18ST61-08	232	363	0.64	0.05680	0.00100	0.55100	0.0100	0.07060
18ST61-09	68	187	0.37	0.08551	0.00247	2.72961	0.0762	0.22966
18ST61-10	37	424	0.09	0.07126	0.00080	1.55700	0.0290	0.15820
18ST61-11	300	419	0.72	0.05950	0.00120	0.65500	0.0170	0.07920
18ST61-12	287	507	0.57	0.05500	0.00110	0.49000	0.0110	0.06460
18ST61-13	131	193	0.68	0.05610	0.00140	0.53600	0.0130	0.06950
18ST61-14	112	175	0.64	0.05540	0.00140	0.51600	0.0140	0.06780
18ST61-15	398	622	0.64	0.05699	0.00077	0.55900	0.0100	0.07130
18ST61-16	452	327	1.38	0.05220	0.00110	0.35010	0.0078	0.04890

18ST61-17	196	374	0.53	0.05687	0.00092	0.57000	0.0120	0.07290
18ST61-18	125	265	0.47	0.05780	0.00170	0.41600	0.0130	0.05209
18ST61-19	103	130	0.80	0.05500	0.00160	0.42800	0.0120	0.05702
18ST61-20	101	289	0.35	0.06430	0.00180	0.42700	0.0120	0.04903
18ST61-21	172	255	0.68	0.05580	0.00110	0.52800	0.0120	0.06920
18ST61-22	203	418	0.49	0.05663	0.00088	0.55100	0.0100	0.07100
18ST61-23	102	638	0.16	0.09410	0.00120	3.07900	0.0590	0.23720
18ST61-24	341	647	0.53	0.05617	0.00086	0.51460	0.0094	0.06690
18ST61-25	194	176	1.11	0.07210	0.00110	1.59900	0.0310	0.16210
18ST61-26	771	542	1.42	0.05624	0.00094	0.56000	0.0110	0.07260
18ST61-27	109	235	0.46	0.05760	0.00120	0.58800	0.0160	0.07420
18ST61-28	150	298	0.50	0.05620	0.00120	0.52500	0.0100	0.06840
18ST61-29	245	322	0.76	0.06240	0.00110	0.93700	0.0200	0.10930
18ST61-30	257	276	0.93	0.05539	0.00099	0.51700	0.0110	0.06780
18ST61-31	299	359	0.83	0.07560	0.00100	1.77000	0.0290	0.17090
18ST61-32	286	506	0.57	0.08813	0.00074	2.76000	0.0550	0.22830
18ST61-33	508	1666	0.30	0.05735	0.00064	0.60700	0.0180	0.07690
18ST61-34	227	369	0.62	0.05720	0.00120	0.55100	0.0130	0.07000
18ST61-35	300	1101	0.27	0.14770	0.00130	8.92000	0.1400	0.43820
18ST61-36	424	589	0.72	0.05751	0.00077	0.58000	0.0110	0.07340
18ST61-37	147	527	0.28	0.05576	0.00087	0.52460	0.0097	0.06840
18ST61-38	169	368	0.46	0.07780	0.00110	1.71200	0.0320	0.16030
18ST61-39	208	205	1.01	0.06480	0.00110	1.04800	0.0200	0.11760
18ST61-40	549	733	0.75	0.05783	0.00076	0.55890	0.0094	0.07016
18ST61-41	164	530	0.31	0.06506	0.00093	1.06100	0.0200	0.11790
18ST61-42	192	448	0.43	0.05707	0.00093	0.55400	0.0110	0.07010
18ST61-43	239	409	0.58	0.11019	0.00096	4.42700	0.0770	0.29110
18ST61-44	87	164	0.53	0.05820	0.00120	0.58500	0.0140	0.07370
18ST61-45	243	249	0.98	0.05570	0.00150	0.40700	0.0110	0.05301
18ST61-46	335	637	0.53	0.05420	0.00081	0.48440	0.0086	0.06520
18ST61-47	142	207	0.68	0.05530	0.00140	0.38000	0.0100	0.04979
18ST61-48	91	62	1.46	0.10120	0.00313	4.27791	0.1271	0.30634
18ST61-49	49	142	0.34	0.05610	0.00140	0.52300	0.0150	0.06750
18ST61-50	191	276	0.69	0.05710	0.00110	0.52700	0.0120	0.06720
18ST61-51	134	177	0.75	0.07260	0.00110	1.73500	0.0360	0.17320
18ST61-52	109	160	0.68	0.05270	0.00170	0.34500	0.0110	0.04764
18ST61-53	60	85	0.70	0.05740	0.00220	0.52500	0.0200	0.06660
18ST61-54	238	250	0.95	0.05700	0.00180	0.54200	0.0180	0.06900
18ST61-55	294	514	0.57	0.10336	0.00238	4.36371	0.1048	0.30416
18ST61-56	186	341	0.54	0.05310	0.00120	0.43500	0.0110	0.05910
18ST61-57	271	172	1.58	0.05560	0.00140	0.53700	0.0140	0.06990
18ST61-58	116	269	0.43	0.05570	0.00140	0.53600	0.0140	0.06910
18ST61-59	159	197	0.81	0.05620	0.00160	0.51100	0.0140	0.06586
18ST61-60	146	343	0.43	0.10085	0.00196	4.21793	0.0787	0.30052
18ST61-61	301	245	1.23	0.05480	0.00150	0.42300	0.0130	0.05570
18ST61-62	242	344	0.70	0.05510	0.00140	0.51300	0.0130	0.06690
18ST61-63	266	340	0.78	0.05570	0.00140	0.48100	0.0120	0.06220
18ST61-64	154	251	0.62	0.05600	0.00150	0.55100	0.0150	0.07100
18ST61-65	149	194	0.77	0.05630	0.00150	0.53700	0.0160	0.06870
18ST61-66	912	763	1.19	0.07391	0.00181	2.04487	0.0484	0.19917
18ST61-67	581	651	0.89	0.05478	0.00098	0.49400	0.0120	0.06500
18ST61-68	220	273	0.81	0.16480	0.00180	10.62000	0.2000	0.46370
18ST61-69	206	326	0.63	0.05570	0.00130	0.53000	0.0140	0.06890
18ST61-70	775	632	1.23	0.05670	0.00130	0.51500	0.0140	0.06570
18ST61-71	335	767	0.44	0.05544	0.00153	0.61052	0.0170	0.07934
18ST61-72	2375	1845	1.29	0.07112	0.00160	0.92158	0.0274	0.09290
18ST61-73	64	936	0.07	0.09259	0.00173	3.20857	0.0607	0.24938
18ST61-74	195	270	0.72	0.05493	0.00216	0.57896	0.0228	0.07619
18ST61-75	101	246	0.41	0.05700	0.00246	0.59266	0.0248	0.07572
18ST61-76	390	534	0.73	0.05593	0.00192	0.57422	0.0191	0.07426
18ST61-77	354	761	0.47	0.05561	0.00151	0.60586	0.0161	0.07874
18ST61-78	2	109	0.01	0.08805	0.00272	2.49366	0.0762	0.20524
18ST61-79	185	339	0.55	0.05786	0.00190	0.59422	0.0196	0.07398

18ST61-80	500	626	0.80	0.05561	0.00167	0.55973	0.0166	0.07242
18ST61-81	197	273	0.72	0.05751	0.00218	0.60797	0.0235	0.07597
18ST61-82	234	673	0.35	0.07564	0.00172	1.99212	0.0440	0.18920
18ST61-83	211	946	0.22	0.05500	0.00139	0.57268	0.0149	0.07465
18ST61-84	870	1054	0.83	0.05545	0.00148	0.58789	0.0156	0.07632
18ST61-85	274	522	0.52	0.08574	0.00211	2.74806	0.0688	0.22930

**Sample 19ST59, siltstone, Late Carboniferous, Yangbulak area, (Abuduxun et al., 2021, Tectonics)**

18ST59-01	319	394	0.81	0.05390	0.00209	0.37059	0.0138	0.04977
18ST59-02	181	244	0.74	0.05610	0.00271	0.53329	0.0251	0.06912
18ST59-03	127	203	0.62	0.05439	0.00257	0.58263	0.0266	0.07770
18ST59-04	399	865	0.46	0.05171	0.00154	0.51636	0.0148	0.07185
18ST59-05	201	238	0.84	0.05404	0.00270	0.49480	0.0250	0.06567
18ST59-06	109	155	0.70	0.10261	0.00296	4.62904	0.1328	0.32296
18ST59-07	124	357	0.35	0.07413	0.00226	1.95598	0.0587	0.18832
18ST59-08	271	252	1.08	0.07138	0.00321	0.68919	0.0311	0.06905
18ST59-09	173	274	0.63	0.05396	0.00242	0.54981	0.0232	0.07380
18ST59-10	417	817	0.51	0.05355	0.00166	0.52242	0.0166	0.06978
18ST59-11	151	388	0.39	0.05443	0.00196	0.53128	0.0187	0.07001
18ST59-12	360	302	1.19	0.05243	0.00218	0.50011	0.0202	0.06878
18ST59-13	251	341	0.74	0.07083	0.00307	0.74118	0.0328	0.07476
18ST59-14	188	337	0.56	0.05558	0.00209	0.51941	0.0194	0.06705
18ST59-15	161	331	0.49	0.06205	0.00273	0.58502	0.0274	0.06692
18ST59-16	237	415	0.57	0.05978	0.00225	0.51553	0.0196	0.06138
18ST59-17	175	394	0.44	0.08814	0.00280	2.83771	0.0860	0.22964
18ST59-18	78	462	0.17	0.07723	0.00234	2.00435	0.0591	0.18512
18ST59-19	285	417	0.68	0.05707	0.00220	0.59909	0.0229	0.07512
18ST59-20	340	401	0.85	0.07464	0.00216	1.84614	0.0540	0.17626
18ST59-21	287	607	0.47	0.09665	0.00246	3.68274	0.0933	0.27195
18ST59-22	248	474	0.52	0.10091	0.00275	3.88273	0.1052	0.27410
18ST59-23	562	396	1.42	0.05752	0.00226	0.56147	0.0214	0.07000
18ST59-24	432	519	0.83	0.05592	0.00184	0.56237	0.0178	0.07207
18ST59-25	350	513	0.68	0.05651	0.00192	0.52912	0.0181	0.06691
18ST59-26	469	570	0.82	0.06953	0.00283	0.73331	0.0290	0.07614
18ST59-27	225	229	0.99	0.05447	0.00236	0.49621	0.0217	0.06523
18ST59-28	147	276	0.53	0.07767	0.00251	1.87944	0.0579	0.17378
18ST59-29	503	672	0.75	0.05920	0.00192	0.61641	0.0198	0.07491
18ST59-30	395	532	0.74	0.05598	0.00182	0.52493	0.0168	0.06751
18ST59-31	151	219	0.69	0.05833	0.00266	0.56031	0.0252	0.06925
18ST59-32	430	278	1.55	0.08359	0.00252	2.46495	0.0756	0.21277
18ST59-33	261	407	0.64	0.08041	0.00307	0.75698	0.0288	0.06858
18ST59-34	608	616	0.99	0.05683	0.00223	0.53455	0.0212	0.06871
18ST59-35	994	1202	0.83	0.05610	0.00205	0.37785	0.0141	0.04895
18ST59-36	906	892	1.02	0.07684	0.00224	1.93633	0.0590	0.18255
18ST59-37	74	97	0.76	0.06089	0.00442	0.41721	0.0288	0.05117
18ST59-38	315	495	0.64	0.05549	0.00193	0.54853	0.0196	0.07145
18ST59-39	135	605	0.22	0.07623	0.00277	1.72312	0.0586	0.16589
18ST59-40	256	676	0.38	0.06031	0.00252	0.58939	0.0234	0.07110
18ST59-41	244	280	0.87	0.09541	0.00314	3.76953	0.1213	0.28494
18ST59-42	124	384	0.32	0.05472	0.00268	0.54717	0.0264	0.07287
18ST59-43	55	133	0.41	0.06680	0.00150	1.24200	0.0280	0.13340
18ST59-44	441	304	1.45	0.06610	0.00110	1.17700	0.0200	0.12830
18ST59-45	422	320	1.32	0.05590	0.00120	0.52000	0.0110	0.06697
18ST59-46	450	706	0.64	0.05680	0.00080	0.53120	0.0081	0.06736
18ST59-47	151	196	0.77	0.05370	0.00180	0.36900	0.0110	0.04985
18ST59-48	539	138	3.92	0.05460	0.00180	0.50000	0.0170	0.06610
18ST59-49	176	178	0.99	0.05370	0.00160	0.49100	0.0140	0.06612
18ST59-50	685	558	1.23	0.05630	0.00091	0.56350	0.0092	0.07197
18ST59-51	398	289	1.38	0.05610	0.00130	0.51900	0.0110	0.06691
18ST59-52	128	202	0.64	0.05334	0.00292	0.53070	0.0271	0.07264
18ST59-53	77	292	0.27	0.07054	0.00264	1.45259	0.0569	0.15039
18ST59-54	226	424	0.53	0.09565	0.00241	3.78709	0.1027	0.28726
18ST59-55	148	224	0.66	0.05918	0.00269	0.54346	0.0248	0.06798
18ST59-56	643	972	0.66	0.05509	0.00208	0.45083	0.0172	0.05887

18ST59-57	161	313	0.52	0.05207	0.00302	0.53710	0.0313	0.07342
18ST59-58	139	251	0.55	0.08673	0.00307	3.31904	0.1206	0.27546
18ST59-59	109	269	0.40	0.05783	0.00299	0.46427	0.0237	0.05940
18ST59-60	113	242	0.47	0.05598	0.00320	0.56431	0.0313	0.07556
18ST59-61	80	252	0.32	0.08412	0.00299	2.88742	0.1006	0.25060
18ST59-62	231	278	0.83	0.05583	0.00303	0.56312	0.0281	0.07323
18ST59-63	52	114	0.45	0.05800	0.00411	0.62863	0.0429	0.07847
18ST59-64	389	724	0.54	0.19329	0.00716	14.86820	0.4417	0.53391
18ST59-65	81	177	0.46	0.05767	0.00399	0.43093	0.0249	0.05473
18ST59-66	79	163	0.48	0.05476	0.00440	0.41228	0.0271	0.05297
18ST59-67	184	243	0.76	0.05781	0.00454	1.17545	0.0521	0.13229
18ST59-68	297	1044	0.28	0.12315	0.00536	7.03223	0.2160	0.38103
18ST59-69	43	161	0.27	0.05175	0.00377	0.56893	0.0337	0.07849
18ST59-70	504	302	1.67	0.05450	0.00283	0.60236	0.0275	0.07710
18ST59-71	46	179	0.26	0.10928	0.00382	5.61828	0.2004	0.35855
18ST59-72	228	320	0.71	0.07072	0.00275	1.75768	0.0688	0.17671
18ST59-73	47	73	0.65	0.26805	0.00838	25.76032	0.9166	0.68555
18ST59-74	142	195	0.73	0.05463	0.00277	0.54259	0.0293	0.07148
18ST59-75	139	449	0.31	0.10016	0.00277	4.25588	0.1323	0.30258
18ST59-76	185	342	0.54	0.05524	0.00295	0.54549	0.0286	0.07116
18ST59-77	341	493	0.69	0.10019	0.00315	4.42326	0.1495	0.31088
18ST59-78	188	185	1.02	0.05126	0.00317	0.50338	0.0263	0.07040
18ST59-79	802	1641	0.49	0.05094	0.00211	0.36215	0.0145	0.04974
18ST59-80	75	160	0.47	0.06193	0.00492	0.64759	0.0422	0.07694
18ST59-81	539	535	1.01	0.05328	0.00301	0.47837	0.0232	0.06403
18ST59-82	324	1186	0.27	0.07710	0.00350	2.06483	0.0763	0.18822
18ST59-83	48	81	0.59	0.09460	0.00582	3.25151	0.1681	0.24644
18ST59-84	4221	2050	2.06	0.04713	0.00225	0.34611	0.0161	0.05060
18ST59-85	265	475	0.56	0.07061	0.00341	1.95360	0.0777	0.18990

**Sample LT07A, feldspathic wacke, Early Carboniferous, Kule-Bayinbuluke highway, STS, (Han Y et al., 2016, Geology)**

LT07A-01	62	169	0.36	0.0553	0.0017	0.4990	0.0150	0.0655
LT07A-02	93	205	0.45	0.0559	0.0015	0.5020	0.0130	0.0651
LT07A-03	78	105	0.74	0.0575	0.0021	0.5130	0.0180	0.0647
LT07A-04	57	120	0.48	0.0591	0.0019	0.5760	0.0180	0.0708
LT07A-05	248	562	0.44	0.0578	0.0011	0.5340	0.0100	0.0671
LT07A-06	308	280	1.10	0.0559	0.0013	0.5180	0.0120	0.0673
LT07A-07	45	76	0.59	0.0589	0.0023	0.5590	0.0220	0.0687
LT07A-08	35	283	0.12	0.0693	0.0013	1.361	0.0250	0.1425
LT07A-09	39	69	0.57	0.0621	0.0029	0.5540	0.0250	0.0646
LT07A-10	139	287	0.49	0.0549	0.0014	0.4710	0.0110	0.0623
LT07A-11	50	116	0.43	0.0593	0.0019	0.5960	0.0190	0.0730
LT07A-12	61	130	0.46	0.0555	0.0019	0.5040	0.0170	0.0658
LT07A-13	93	172	0.54	0.0535	0.0016	0.4750	0.0140	0.0644
LT07A-14	185	194	0.95	0.0666	0.0019	1.175	0.0330	0.1280
LT07A-15	114	197	0.58	0.0565	0.0015	0.5400	0.0140	0.0694
LT07A-16	106	110	0.97	0.0987	0.0019	3.508	0.0660	0.2578
LT07A-17	290	708	0.41	0.0578	0.0011	0.5420	0.0100	0.0681
LT07A-18	343	489	0.70	0.0562	0.0012	0.5450	0.0110	0.0704
LT07A-19	51	101	0.51	0.0548	0.0021	0.5090	0.0190	0.0674
LT07A-20	159	409	0.39	0.0556	0.0012	0.5200	0.0110	0.0678
LT07A-21	82	162	0.50	0.0574	0.0016	0.5630	0.0160	0.0712
LT07A-22	273	273	1.00	0.0555	0.0013	0.5440	0.0130	0.0711
LT07A-23	188	211	0.89	0.0547	0.0015	0.5170	0.0140	0.0685
LT07A-24	52	119	0.43	0.0562	0.0023	0.4920	0.0200	0.0635
LT07A-25	276	365	0.76	0.0575	0.0013	0.5510	0.0120	0.0696
LT07A-26	136	272	0.50	0.0563	0.0014	0.4980	0.0120	0.0641
LT07A-27	88	148	0.59	0.0582	0.0017	0.5650	0.0160	0.0703
LT07A-28	27	51	0.53	0.0566	0.0030	0.5160	0.0270	0.0661
LT07A-29	129	174	0.74	0.0573	0.0020	0.5690	0.0240	0.0721
LT07A-30	142	189	0.75	0.0543	0.0016	0.5190	0.0150	0.0694
LT07A-31	60	110	0.55	0.0565	0.0021	0.5790	0.0210	0.0743
LT07A-32	83	144	0.58	0.0581	0.0019	0.5390	0.0170	0.0673
LT07A-33	167	190	0.88	0.0557	0.0017	0.4800	0.0140	0.0625

LT07A-34	31	60	0.51	0.0585	0.0038	0.3380	0.0210	0.0419
LT07A-35	73	139	0.53	0.0592	0.0020	0.5300	0.0180	0.0650
LT07A-36	95	242	0.39	0.0568	0.0015	0.5840	0.0140	0.0746
LT07A-37	131	252	0.52	0.0588	0.0015	0.5550	0.0140	0.0685
LT07A-38	109	252	0.43	0.0585	0.0015	0.5060	0.0130	0.0628
LT07A-39	167	584	0.29	0.0561	0.0012	0.5270	0.0110	0.0681
LT07A-40	117	176	0.66	0.0553	0.0016	0.5390	0.0150	0.0707
LT07A-41	67	164	0.41	0.1237	0.0024	5.781	0.1080	0.3391
LT07A-42	350	463	0.76	0.0586	0.0013	0.5730	0.0120	0.0709
LT07A-43	147	178	0.82	0.0565	0.0017	0.5140	0.0150	0.0661
LT07A-44	95	197	0.48	0.0578	0.0017	0.5160	0.0150	0.0646
LT07A-45	250	319	0.78	0.0571	0.0014	0.5530	0.0130	0.0703
LT07A-46	475	493	0.96	0.0566	0.0013	0.5470	0.0120	0.0702
LT07A-47	70	199	0.35	0.0565	0.0017	0.5240	0.0180	0.0672
LT07A-48	107	220	0.49	0.0587	0.0016	0.5360	0.0140	0.0662
LT07A-49	212	303	0.70	0.0555	0.0015	0.5200	0.0140	0.0679
LT07A-50	91	229	0.40	0.0688	0.0015	1.348	0.0290	0.1421
LT07A-51	222	287	0.77	0.0764	0.0016	1.645	0.0340	0.1561
LT07A-52	64	106	0.61	0.0590	0.0024	0.5690	0.0220	0.0699
LT07A-53	118	248	0.47	0.0544	0.0015	0.4920	0.0140	0.0657
LT07A-54	42	87	0.48	0.0554	0.0021	0.5740	0.0210	0.0752
LT07A-55	72	180	0.40	0.0566	0.0017	0.5040	0.0150	0.0646
LT07A-56	189	300	0.63	0.0548	0.0014	0.5470	0.0140	0.0724
LT07A-57	140	312	0.45	0.0562	0.0014	0.5380	0.0130	0.0694
LT07A-58	218	241	0.91	0.0551	0.0015	0.5200	0.0140	0.0685
LT07A-59	145	202	0.72	0.0566	0.0016	0.5420	0.0150	0.0694
LT07A-60	274	402	0.68	0.0559	0.0014	0.5600	0.0130	0.0728
LT07A-61	88	137	0.64	0.0528	0.0022	0.5130	0.0210	0.0704
LT07A-62	191	394	0.48	0.0578	0.0015	0.5770	0.0140	0.0724
LT07A-63	40	118	0.34	0.1066	0.0024	4.430	0.0990	0.3015
LT07A-64	211	313	0.67	0.0577	0.0015	0.5560	0.0140	0.0700
LT07A-65	334	440	0.76	0.0544	0.0013	0.5430	0.0130	0.0723
LT07A-66	26	44	0.60	0.0594	0.0033	0.5540	0.0300	0.0675
LT07A-67	109	197	0.55	0.0586	0.0017	0.6410	0.0180	0.0794
LT07A-68	151	607	0.25	0.0570	0.0014	0.5470	0.0130	0.0696
LT07A-69	165	187	0.88	0.0580	0.0017	0.5800	0.0170	0.0725
LT07A-70	65	169	0.38	0.0557	0.0019	0.5460	0.0180	0.0710
LT07A-71	86	193	0.44	0.0547	0.0017	0.4970	0.0150	0.0658
LT07A-72	129	247	0.52	0.0557	0.0016	0.5230	0.0150	0.0682
LT07A-73	140	217	0.65	0.0592	0.0017	0.6100	0.0170	0.0748
LT07A-74	195	349	0.56	0.0570	0.0015	0.5420	0.0140	0.0690
LT07A-75	114	178	0.64	0.0662	0.0017	1.233	0.0320	0.1352
LT07A-76	69	168	0.41	0.0565	0.0021	0.5600	0.0200	0.0719
LT07A-77	102	235	0.44	0.0582	0.0017	0.5390	0.0160	0.0672
LT07A-78	62	140	0.44	0.0600	0.0019	0.6300	0.0200	0.0762
LT07A-79	119	316	0.38	0.0578	0.0015	0.6070	0.0160	0.0761
LT07A-80	72	136	0.53	0.0552	0.0019	0.5620	0.0190	0.0739
LT07A-81	132	362	0.37	0.0547	0.0014	0.5610	0.0150	0.0744
LT07A-82	136	231	0.59	0.0550	0.0016	0.5740	0.0160	0.0758
LT07A-83	271	350	0.77	0.0553	0.0015	0.5560	0.0150	0.0729

**Sample 681, greywacke sandstone, Middle Devonian, Wuwamen area, STS, (Ma X et al., 2012b, Precambrian Research)**

681-01	110	90	1.22	0.1931	0.0033	14.072	0.2675	0.5285
681-02	659	413	1.60	0.0579	0.0014	0.6940	0.0173	0.0869
681-03	140	252	0.56	0.0712	0.0019	1.631	0.0460	0.1659
681-04	217	243	0.89	0.0745	0.0022	1.904	0.0564	0.1852
681-05	396	465	0.85	0.0625	0.0015	1.115	0.0284	0.1294
681-06	202	112	1.81	0.0773	0.0026	2.064	0.0690	0.1939
681-07	258	209	1.24	0.1666	0.0056	10.858	0.3648	0.4734
681-08	2465	841	2.93	0.0736	0.0020	1.739	0.0474	0.1718
681-09	663	461	1.44	0.0977	0.0060	3.774	0.2237	0.2800
681-10	390	476	0.82	0.1300	0.0027	6.927	0.1495	0.3876
681-11	170	491	0.35	0.0740	0.0018	1.793	0.0461	0.1769
681-12	230	119	1.94	0.0715	0.0039	1.212	0.0654	0.1232

681-13	194	1388	0.14	0.0809	0.0048	2.305	0.1350	0.2077
681-14	135	205	0.66	0.1023	0.0054	4.177	0.2181	0.2968
681-15	58	74	0.79	0.0743	0.0063	1.789	0.1469	0.1747
681-16	1158	2098	0.55	0.1275	0.0045	6.523	0.2329	0.3718
681-17	704	3613	0.19	0.0824	0.0021	2.454	0.0674	0.2161
681-18	284	339	0.84	0.1027	0.0049	4.163	0.1968	0.2941
681-19	434	420	1.04	0.0614	0.0045	0.8042	0.0579	0.0951
681-20	468	586	0.80	0.0742	0.0023	1.810	0.0572	0.1772
681-21	295	506	0.58	0.0662	0.0085	1.020	0.1253	0.1120
681-22	305	176	1.74	0.1117	0.0032	4.780	0.1401	0.3114
681-23	403	581	0.69	0.0586	0.0015	0.7011	0.0189	0.0870
681-24	176	270	0.65	0.0677	0.0009	1.319	0.0218	0.1414
681-25	168	523	0.32	0.0561	0.0012	0.5483	0.0114	0.0709
681-26	154	133	1.16	0.1019	0.0022	4.115	0.0886	0.2931
681-27	176	990	0.18	0.0706	0.0009	1.542	0.0229	0.1584
681-28	169	304	0.56	0.0694	0.0010	1.450	0.0224	0.1515
681-29	250	374	0.67	0.0554	0.0014	0.5320	0.0130	0.0696
681-30	253	426	0.59	0.0561	0.0010	0.5669	0.0105	0.0734
681-31	341	539	0.63	0.0763	0.0016	1.972	0.0442	0.1874
681-32	152	118	1.29	0.2404	0.0060	20.719	0.5439	0.6238
681-33	40	25	1.62	0.0605	0.0102	0.8572	0.1380	0.1030
681-34	42	33	1.28	0.2218	0.0140	18.181	1.125	0.5930
681-35	577	718	0.80	0.0747	0.0011	1.643	0.0281	0.1596
681-36	403	505	0.80	0.0559	0.0010	0.5530	0.0102	0.0717
681-37	875	583	1.50	0.0563	0.0010	0.5682	0.0107	0.0732
681-38	241	1286	0.19	0.1146	0.0039	4.482	0.1512	0.2830
681-39	167	151	1.10	0.0928	0.0058	3.227	0.1922	0.2520
681-40	185	420	0.44	0.1105	0.0006	4.984	0.0682	0.3255
681-41	755	1031	0.73	0.0641	0.0009	1.093	0.0174	0.1238
681-42	194	271	0.72	0.0708	0.0015	1.551	0.0333	0.1588
681-43	388	561	0.69	0.0559	0.0009	0.5467	0.0094	0.0710
681-44	399	337	1.18	0.0971	0.0013	3.691	0.0584	0.2758
681-45	124	97	1.28	0.0942	0.0015	3.433	0.0590	0.2642
681-46	43	47	0.91	0.0569	0.0027	0.6033	0.0281	0.0770
681-47	74	1358	0.05	0.0813	0.0027	2.343	0.0810	0.2090
681-48	257	205	1.26	0.0726	0.0016	1.682	0.0389	0.1679
681-49	172	606	0.28	0.0958	0.0016	3.566	0.0695	0.2701
681-50	568	1030	0.55	0.0575	0.0015	0.6450	0.0177	0.0814
681-51	587	616	0.95	0.1523	0.0041	6.667	0.1870	0.3177
681-52	82	52	1.58	0.1135	0.0017	5.216	0.0865	0.3334
681-53	110	222	0.49	0.0707	0.0010	1.520	0.0249	0.1559
681-54	372	238	1.57	0.0573	0.0010	0.6272	0.0115	0.0795
681-55	21	166	0.13	0.0945	0.0025	3.284	0.0869	0.2518
681-56	26	1074	0.02	0.0712	0.0011	1.707	0.0289	0.1738
681-57	516	1468	0.35	0.0666	0.0023	1.168	0.0790	0.1284
681-58	69	69	1.01	0.1685	0.0048	11.789	0.3323	0.5065
681-59	153	202	0.76	0.1623	0.0013	10.537	0.1468	0.4695
681-60	199	75	2.64	0.0648	0.0019	1.122	0.0332	0.1257
681-61	11	464	0.02	0.2028	0.0068	15.487	0.5223	0.5540
681-62	171	208	0.82	0.0570	0.0012	0.6045	0.0129	0.0769
681-63	90	120	0.75	0.1143	0.0018	5.176	0.0865	0.3285
681-64	188	207	0.91	0.1654	0.0028	10.761	0.1939	0.4720
681-65	270	170	1.59	0.0658	0.0013	1.194	0.0254	0.1316
681-66	210	175	1.20	0.0784	0.0018	2.113	0.0504	0.1957
681-67	188	360	0.52	0.0714	0.0009	1.569	0.0233	0.1594
681-68	46	107	0.43	0.0829	0.0024	2.467	0.0730	0.2165
681-69	142	635	0.22	0.0953	0.0012	3.503	0.0505	0.2665
681-70	612	590	1.04	0.0561	0.0008	0.5575	0.0088	0.0721
681-71	190	271	0.70	0.0717	0.0010	1.617	0.0254	0.1635
681-72	167	261	0.64	0.1786	0.0056	10.077	0.3109	0.4129
681-73	165	80	2.06	0.0558	0.0017	0.5504	0.0165	0.0716
681-74	238	200	1.19	0.0711	0.0012	1.570	0.0291	0.1602
681-75	359	1086	0.33	0.0849	0.0024	2.583	0.0732	0.2227

681-76	76	186	0.41	0.1642	0.0023	10.694	0.1699	0.4724
681-77	230	400	0.57	0.0726	0.0010	1.686	0.0276	0.1686
<b>Sample 682, greywacke sandstone, Middle Devonian, Wuwamen area, STS, (Ma X et al., 2012b, Precambrian Research)</b>								
682-01	187	154	1.21	0.0982	0.0019	3.634	0.0768	0.2684
682-02	380	124	3.07	0.1969	0.0036	14.628	0.3027	0.5386
682-03	94	330	0.29	0.0752	0.0017	1.921	0.0466	0.1854
682-04	268	236	1.14	0.1706	0.0039	11.185	0.2718	0.4753
682-05	183	197	0.93	0.1574	0.0055	9.673	0.3363	0.4467
682-06	496	487	1.02	0.1759	0.0036	12.101	0.2670	0.4993
682-07	534	866	0.62	0.0961	0.0042	3.549	0.1524	0.2683
682-08	650	503	1.29	0.0763	0.0020	1.980	0.0540	0.1886
682-09	509	1119	0.45	0.0693	0.0013	1.548	0.0321	0.1624
682-10	228	269	0.85	0.1566	0.0051	9.332	0.3033	0.4331
682-11	189	111	1.71	0.0642	0.0029	1.147	0.0509	0.1299
682-12	288	371	0.78	0.0769	0.0019	2.140	0.0552	0.2028
682-13	632	932	0.68	0.0650	0.0016	1.207	0.0316	0.1356
682-14	372	378	0.98	0.0705	0.0020	1.565	0.0459	0.1614
682-15	346	485	0.71	0.0711	0.0021	1.589	0.0482	0.1623
682-16	179	367	0.49	0.1609	0.0070	10.312	0.4554	0.4653
682-17	118	171	0.69	0.1681	0.0090	11.259	0.5931	0.4858
682-18	724	1129	0.64	0.3401	0.0133	35.841	1.411	0.7646
682-19	257	1046	0.25	0.0764	0.0023	1.980	0.0610	0.1882
682-20	410	598	0.69	0.0684	0.0026	1.348	0.0504	0.1434
682-21	135	103	1.32	0.0669	0.0076	1.242	0.1377	0.1348
682-22	165	175	0.95	0.0758	0.0051	1.905	0.1217	0.1820
682-23	282	261	1.08	0.0954	0.0056	3.521	0.1981	0.2676
682-24	707	777	0.91	0.0679	0.0020	1.444	0.0428	0.1548
682-25	593	154	3.86	0.0625	0.0036	1.162	0.0647	0.1358
682-26	490	325	1.51	0.0561	0.0044	0.5927	0.0444	0.0767
682-27	51	71	0.72	0.1365	0.0018	7.577	0.1172	0.4027
682-28	485	724	0.67	0.1147	0.0018	5.374	0.0938	0.3402
682-29	45	172	0.26	0.1190	0.0025	5.096	0.1090	0.3110
682-30	191	230	0.83	0.0690	0.0015	1.415	0.0328	0.1488
682-31	75	112	0.67	0.1114	0.0065	4.742	0.2658	0.3096
682-32	1576	1081	1.46	0.0541	0.0049	0.4390	0.0381	0.0590
682-33	790	1060	0.74	0.0547	0.0020	0.4731	0.0169	0.0628
682-34	89	69	1.30	0.0678	0.0015	1.415	0.0322	0.1514
682-35	141	128	1.10	0.1097	0.0033	4.858	0.1441	0.3214
682-36	201	225	0.89	0.0731	0.0013	1.723	0.0339	0.1709
682-37	346	241	1.44	0.0991	0.0015	3.853	0.0671	0.2820
682-38	298	399	0.75	0.0795	0.0013	2.256	0.0407	0.2059
682-39	457	432	1.06	0.0564	0.0010	0.5653	0.0110	0.0727
682-40	146	172	0.85	0.0562	0.0018	0.5808	0.0184	0.0749
682-41	143	165	0.87	0.0686	0.0012	1.388	0.0254	0.1467
682-42	271	640	0.42	0.0551	0.0040	0.4862	0.0339	0.0641
682-43	284	237	1.20	0.0590	0.0021	0.7427	0.0262	0.0914
682-44	384	483	0.80	0.0729	0.0011	1.695	0.0283	0.1687
682-45	50	42	1.18	0.1134	0.0021	5.192	0.1004	0.3320
682-46	693	697	1.00	0.0704	0.0031	1.517	0.0648	0.1562
682-47	113	94	1.20	0.1453	0.0098	8.254	0.5292	0.4153
682-48	414	288	1.44	0.1734	0.0033	11.425	0.2233	0.4774
682-49	161	85	1.90	0.0710	0.0017	1.565	0.0385	0.1597
682-50	391	111	3.51	0.1010	0.0019	3.936	0.0781	0.2825
682-51	296	438	0.67	0.0562	0.0017	0.5675	0.0169	0.0733
682-52	161	377	0.43	0.0708	0.0011	1.506	0.0252	0.1542
682-53	193	675	0.29	0.0718	0.0011	1.577	0.0273	0.1591
682-54	45	33	1.35	0.1179	0.0041	5.530	0.1880	0.3403
682-55	410	924	0.44	0.1607	0.0025	10.293	0.1775	0.4647
682-56	36	20	1.76	0.1245	0.0062	6.169	0.2919	0.3599
682-57	257	310	0.83	0.0836	0.0017	2.539	0.0543	0.2203
682-58	133	181	0.74	0.0745	0.0014	1.876	0.0384	0.1828
682-59	738	594	1.24	0.0562	0.0014	0.5696	0.0140	0.0734
682-60	76	73	1.04	0.0576	0.0021	0.6541	0.0239	0.0824

682-61	85	75	1.13	0.1611	0.0024	10.143	0.1801	0.4567
682-62	222	125	1.77	0.0728	0.0011	1.758	0.0314	0.1753
682-63	422	612	0.69	0.0562	0.0008	0.5679	0.0096	0.0733
682-64	438	188	2.33	0.0713	0.0011	1.525	0.0274	0.1553
682-65	85	68	1.26	0.2692	0.0039	24.802	0.4177	0.6684
682-66	861	307	2.80	0.0971	0.0014	3.751	0.0620	0.2803
682-67	163	354	0.46	0.0938	0.0045	3.356	0.1580	0.2631
682-68	105	68	1.55	0.0591	0.0015	0.7361	0.0186	0.0904
682-69	278	91	3.04	0.0594	0.0015	0.7460	0.0186	0.0911
682-70	156	118	1.32	0.1570	0.0022	9.194	0.1502	0.4248
682-71	110	100	1.09	0.0744	0.0013	1.766	0.0331	0.1722
682-72	122	520	0.23	0.0664	0.0049	1.193	0.0813	0.1302
682-73	137	112	1.22	0.0556	0.0013	0.5487	0.0138	0.0716
682-74	341	208	1.64	0.0566	0.0011	0.6093	0.0122	0.0782
682-75	48	75	0.64	0.0954	0.0017	3.340	0.0804	0.2539

**Sample 683, greywacke sandstone, Middle Devonian, Wuwamen area, STS, (Ma X et al., 2012b, Precambrian Research)**

683-01	40	67	0.60	0.1199	0.0026	5.963	0.1362	0.3605
683-02	95	81	1.17	0.1207	0.0216	5.847	0.9933	0.3540
683-03	157	183	0.86	0.2859	0.0129	27.341	1.189	0.6940
683-04	471	1402	0.34	0.1718	0.0078	11.594	0.5165	0.4912
683-05	306	639	0.48	0.1250	0.0038	6.367	0.1959	0.3706
683-06	409	444	0.92	0.0680	0.0065	1.446	0.1320	0.1546
683-07	2042	725	2.82	0.0674	0.0019	1.347	0.0398	0.1452
683-08	198	197	1.01	0.0566	0.0024	0.5653	0.0233	0.0726
683-09	145	152	0.95	0.0715	0.0010	1.554	0.0235	0.1576
683-10	58	70	0.82	0.0784	0.0012	2.098	0.0358	0.1940
683-11	72	35	2.04	0.1652	0.0051	10.578	0.3162	0.4657
683-12	159	193	0.82	0.0674	0.0009	1.282	0.0197	0.1380
683-13	9	561	0.02	0.0567	0.0014	0.6026	0.0149	0.0772
683-14	87	67	1.30	0.0571	0.0014	0.6071	0.0148	0.0771
683-15	115	200	0.57	0.1635	0.0027	10.382	0.1876	0.4605
683-16	328	336	0.97	0.1511	0.0025	9.187	0.1743	0.4408
683-17	78	267	0.29	0.0840	0.0016	2.529	0.0543	0.2182
683-18	211	222	0.95	0.1684	0.0022	11.143	0.1652	0.4800
683-19	76	690	0.11	0.0761	0.0012	1.296	0.0217	0.1236
683-20	150	266	0.56	0.1292	0.0018	6.797	0.1057	0.3816
683-21	308	854	0.36	0.0765	0.0010	1.945	0.0315	0.1844
683-22	355	287	1.24	0.1209	0.0036	5.916	0.1714	0.3546
683-23	102	664	0.15	0.0693	0.0009	1.382	0.0202	0.1447
683-24	271	149	1.81	0.0664	0.0013	1.145	0.0240	0.1252
683-25	364	238	1.53	0.0776	0.0011	2.039	0.0317	0.1907
683-26	85	125	0.68	0.0834	0.0015	2.403	0.0467	0.2091
683-27	359	297	1.21	0.0748	0.0010	1.762	0.0273	0.1709
683-28	124	116	1.06	0.0694	0.0012	1.353	0.0255	0.1414
683-29	413	539	0.77	0.1597	0.0022	10.188	0.1696	0.4629
683-30	132	92	1.43	0.0716	0.0018	1.585	0.0415	0.1605
683-31	150	248	0.60	0.0734	0.0010	1.647	0.0259	0.1627
683-32	667	281	2.37	0.0719	0.0011	1.636	0.0272	0.1650
683-33	7	85	0.08	0.0707	0.0011	1.495	0.0256	0.1534
683-34	121	181	0.67	0.0761	0.0010	1.943	0.0290	0.1851
683-35	919	395	2.33	0.0653	0.0009	1.160	0.0178	0.1288
683-36	288	223	1.29	0.0555	0.0012	0.5288	0.0123	0.0692
683-37	18	222	0.08	0.0694	0.0023	1.458	0.0485	0.1525
683-38	164	191	0.86	0.0669	0.0011	1.204	0.0212	0.1307
683-39	300	300	1.00	0.1255	0.0016	6.427	0.0950	0.3716
683-40	143	266	0.54	0.0666	0.0011	1.223	0.0210	0.1332
683-41	210	135	1.55	0.0651	0.0013	1.085	0.0218	0.1209
683-42	145	177	0.82	0.1292	0.0034	6.811	0.1782	0.3825
683-43	81	44	1.83	0.1501	0.0055	8.930	0.3339	0.4311
683-44	162	166	0.98	0.1229	0.0019	5.949	0.1049	0.3515
683-45	202	193	1.04	0.1586	0.0025	10.106	0.1846	0.4625
683-46	118	135	0.88	0.1006	0.0012	3.947	0.0577	0.2848
683-47	691	275	2.51	0.0812	0.0031	2.315	0.0868	0.2070

683-48	195	326	0.60	0.0707	0.0009	1.526	0.0221	0.1565
683-49	434	720	0.60	0.1660	0.0029	10.976	0.2129	0.4800
683-50	283	263	1.08	0.0710	0.0013	1.544	0.0289	0.1578
683-51	306	237	1.29	0.0684	0.0009	1.157	0.0179	0.1226
683-52	163	179	0.91	0.0779	0.0011	2.079	0.0323	0.1937
683-53	650	397	1.64	0.0571	0.0011	0.5542	0.0108	0.0704
683-54	89	75	1.19	0.0856	0.0013	2.687	0.0438	0.2276
683-55	583	298	1.96	0.0706	0.0033	1.485	0.0661	0.1526
683-56	444	256	1.73	0.0721	0.0012	1.617	0.0281	0.1626
683-57	303	270	1.12	0.0655	0.0010	1.146	0.0184	0.1269
683-58	45	74	0.60	0.0840	0.0016	2.482	0.0481	0.2145
683-59	77	127	0.61	0.0583	0.0012	0.6618	0.0136	0.0824
683-60	54	50	1.09	0.1092	0.0031	4.821	0.1363	0.3203
683-61	8	227	0.03	0.0748	0.0019	1.857	0.0470	0.1801
683-62	138	161	0.85	0.0788	0.0015	2.124	0.0429	0.1955
683-63	45	28	1.63	0.0661	0.0024	1.192	0.0421	0.1309
683-64	187	209	0.90	0.0711	0.0011	1.610	0.0275	0.1643
683-65	100	99	1.00	0.1203	0.0029	5.859	0.1398	0.3532
683-66	367	600	0.61	0.0713	0.0010	1.571	0.0263	0.1599
683-67	177	216	0.82	0.0561	0.0020	0.5499	0.0187	0.0712
683-68	108	176	0.62	0.0598	0.0018	0.8162	0.0245	0.0990
683-69	1312	967	1.36	0.0554	0.0007	0.6026	0.0087	0.0789
683-70	223	162	1.38	0.1812	0.0023	12.823	0.1878	0.5135
683-71	101	571	0.18	0.0738	0.0010	1.742	0.0287	0.1712
683-72	206	201	1.02	0.0774	0.0011	2.055	0.0331	0.1927
683-73	119	122	0.97	0.1909	0.0024	13.983	0.2099	0.5313
683-74	159	607	0.26	0.1674	0.0020	11.128	0.1606	0.4824
683-75	303	295	1.03	0.0559	0.0010	0.5132	0.0094	0.0666
683-76	193	180	1.07	0.0569	0.0011	0.6403	0.0125	0.0816
683-77	94	106	0.88	0.0878	0.0013	2.877	0.0467	0.2379
683-78	515	197	2.62	0.0714	0.0010	1.630	0.0261	0.1656
683-79	239	140	1.70	0.0649	0.0012	1.155	0.0222	0.1290
683-80	136	142	0.96	0.1571	0.0022	9.893	0.1553	0.4570
683-81	197	125	1.58	0.0769	0.0011	2.009	0.0333	0.1894
683-82	520	448	1.16	0.0559	0.0010	0.5280	0.0100	0.0686
683-83	393	217	1.82	0.0595	0.0013	0.7525	0.0165	0.0918
683-84	37	65	0.57	0.1729	0.0065	11.514	0.4211	0.4848
683-85	557	412	1.35	0.0563	0.0012	0.5603	0.0126	0.0722
683-86	1374	848	1.62	0.0566	0.0008	0.5735	0.0093	0.0735
683-87	277	158	1.76	0.0712	0.0011	1.599	0.0279	0.1629
683-88	232	315	0.74	0.0757	0.0027	1.925	0.0689	0.1845
683-89	234	160	1.47	0.0824	0.0012	2.440	0.0420	0.2149

**Sample 684, greywacke sandstone, Middle Devonian, Wuwamen area, STS, (Ma X et al., 2012b, Precambrian Research)**

684-01	365	483	0.76	0.1822	0.0055	13.020	0.3985	0.5186
684-02	425	495	0.86	0.0730	0.0020	1.730	0.0490	0.1720
684-03	737	581	1.27	0.0735	0.0046	1.748	0.1071	0.1733
684-04	259	299	0.87	0.2132	0.0084	16.805	0.6658	0.5721
684-05	282	307	0.92	0.2160	0.0144	17.127	1.107	0.5756
684-06	213	149	1.43	0.2825	0.0110	26.676	1.047	0.6862
684-07	75	57	1.32	0.1026	0.0018	4.201	0.0773	0.2969
684-08	63	58	1.09	0.0740	0.0018	1.606	0.0393	0.1575
684-09	515	1200	0.43	0.0673	0.0008	1.441	0.0214	0.1553
684-10	415	433	0.96	0.0822	0.0013	2.430	0.0440	0.2144
684-11	679	245	2.77	0.0683	0.0010	1.432	0.0231	0.1521
684-12	80	74	1.09	0.0566	0.0014	0.6180	0.0152	0.0792
684-13	70	74	0.95	0.1261	0.0016	6.266	0.0932	0.3604
684-14	151	58	2.62	0.0641	0.0012	1.076	0.0216	0.1217
684-15	152	192	0.79	0.1676	0.0033	11.036	0.2227	0.4780
684-16	214	225	0.95	0.0779	0.0013	2.018	0.0358	0.1879
684-17	18	15	1.18	0.0729	0.0078	1.703	0.1721	0.1696
684-18	46	54	0.86	0.0584	0.0019	0.5723	0.0183	0.0711
684-19	121	123	0.98	0.0734	0.0013	1.639	0.0305	0.1620
684-20	123	147	0.83	0.0728	0.0010	1.695	0.0275	0.1689
684-21	89	378	0.24	0.0949	0.0012	3.487	0.0529	0.2666

684-22	196	234	0.84	0.0685	0.0011	1.396	0.0247	0.1479
684-23	56	39	1.46	0.1665	0.0098	11.206	0.6189	0.4870
684-24	96	85	1.13	0.0914	0.0017	3.181	0.0602	0.2524
684-25	37	44	0.83	0.1081	0.0024	4.703	0.1038	0.3154
684-26	181	129	1.40	0.0723	0.0028	1.541	0.0570	0.1542
684-27	238	36	6.64	0.1621	0.0029	10.389	0.1926	0.4648
684-28	57	74	0.77	0.0749	0.0015	1.856	0.0378	0.1798
684-29	724	415	1.75	0.0560	0.0009	0.5265	0.0091	0.0683
684-30	955	267	3.58	0.0761	0.0011	1.881	0.0314	0.1793
684-31	196	101	1.93	0.0580	0.0013	0.6422	0.0146	0.0803
684-32	267	315	0.85	0.0671	0.0009	1.248	0.0197	0.1349
684-33	91	181	0.50	0.0852	0.0014	2.640	0.0475	0.2248
684-34	96	22	4.43	0.0781	0.0038	2.110	0.0977	0.1959
684-35	258	478	0.54	0.0717	0.0013	1.548	0.0295	0.1565
684-36	98	67	1.46	0.0992	0.0016	3.880	0.0694	0.2836
684-37	51	53	0.95	0.2005	0.0072	14.681	0.5202	0.5312
684-38	368	70	5.26	0.1476	0.0020	8.777	0.1378	0.4313
684-39	137	92	1.50	0.0703	0.0012	1.543	0.0296	0.1591
684-40	292	301	0.97	0.0560	0.0012	0.5518	0.0121	0.0714
684-41	37	28	1.33	0.1143	0.0020	5.267	0.0981	0.3344
684-42	191	282	0.68	0.0872	0.0013	2.870	0.0476	0.2386
684-43	519	268	1.94	0.0765	0.0011	2.080	0.0354	0.1972
684-44	287	159	1.80	0.1811	0.0027	12.655	0.2087	0.5069
684-45	48	38	1.26	0.1980	0.0031	14.721	0.2532	0.5392
684-46	361	528	0.68	0.0714	0.0009	1.626	0.0246	0.1653
684-47	91	848	0.11	0.0678	0.0009	1.359	0.0217	0.1454
684-48	77	99	0.78	0.1153	0.0016	5.510	0.0890	0.3467
684-49	251	234	1.07	0.1127	0.0019	5.039	0.0907	0.3242
684-50	117	70	1.67	0.0690	0.0015	1.361	0.0307	0.1431
684-51	160	468	0.34	0.1091	0.0017	4.716	0.0803	0.3138
684-52	177	158	1.12	0.1131	0.0023	5.164	0.1093	0.3310
684-53	80	294	0.27	0.0618	0.0009	0.9488	0.0159	0.1113
684-54	181	225	0.80	0.1616	0.0028	10.223	0.1899	0.4588
684-55	205	114	1.79	0.1463	0.0048	8.605	0.2744	0.4269
684-56	255	130	1.96	0.0572	0.0014	0.5996	0.0147	0.0760
684-57	133	353	0.38	0.0994	0.0025	3.800	0.0986	0.2780
684-58	93	64	1.45	0.1370	0.0025	7.536	0.1444	0.3993
684-59	71	303	0.23	0.1072	0.0061	4.530	0.2486	0.3070
684-60	448	315	1.42	0.0731	0.0011	1.756	0.0303	0.1743
684-61	237	311	0.76	0.0733	0.0021	1.746	0.0490	0.1726
684-62	102	228	0.45	0.0585	0.0026	0.7004	0.0306	0.0869
684-63	49	52	0.93	0.0666	0.0027	1.243	0.0482	0.1355
684-64	154	166	0.93	0.1067	0.0023	4.571	0.1081	0.3110
684-65	43	51	0.85	0.0723	0.0020	1.602	0.0446	0.1607
684-66	8	146	0.06	0.1092	0.0014	4.765	0.0758	0.3165
684-67	44	23	1.92	0.1111	0.0051	4.986	0.2170	0.3257
684-68	133	174	0.77	0.0706	0.0010	1.598	0.0272	0.1643
684-69	629	424	1.48	0.0557	0.0009	0.5573	0.0101	0.0726
684-70	219	224	0.98	0.0643	0.0010	1.082	0.0188	0.1221
684-71	348	315	1.11	0.1223	0.0038	5.971	0.1794	0.3541
684-72	59	45	1.31	0.1606	0.0022	10.384	0.1686	0.4692
684-73	112	285	0.39	0.1527	0.0051	9.279	0.3058	0.4411
684-74	187	177	1.06	0.0957	0.0013	3.644	0.0588	0.2761
684-75	388	132	2.94	0.0979	0.0013	3.812	0.0606	0.2824
684-76	264	208	1.27	0.0548	0.0013	0.5740	0.0143	0.0761
684-77	291	145	2.01	0.0638	0.0012	1.091	0.0214	0.1240
684-78	695	954	0.73	0.0641	0.0010	1.150	0.0198	0.1302
684-79	221	721	0.31	0.1355	0.0062	7.466	0.3359	0.3996
684-80	179	350	0.51	0.1918	0.0052	13.996	0.3929	0.5304
684-81	9	181	0.05	0.0785	0.0017	2.253	0.0505	0.2082
684-82	282	506	0.56	0.0583	0.0015	0.6444	0.0164	0.0803
685-01	170	152	1.12	0.1108	0.0022	4.844	0.1039	0.3170
685-02	266	196	1.36	0.1109	0.0023	4.935	0.1092	0.3227
685-03	244	261	0.93	0.1143	0.0034	5.333	0.1654	0.3383

685-04	165	445	0.37	0.1597	0.0039	9.973	0.2555	0.4529
685-05	286	258	1.11	0.1569	0.0069	9.600	0.4182	0.4441
685-06	141	163	0.87	0.2859	0.0129	27.341	1.189	0.6940
685-07	251	186	1.35	0.1143	0.0042	5.404	0.1942	0.3438
685-08	412	255	1.62	0.0982	0.0039	3.894	0.1538	0.2877
685-09	206	226	0.91	0.0970	0.0047	3.886	0.1850	0.2915
685-10	55	1581	0.03	0.1777	0.0074	12.319	0.5258	0.5033
685-11	474	382	1.24	0.1131	0.0043	4.662	0.1793	0.2993
685-12	96	82	1.17	0.0965	0.0039	3.804	0.1525	0.2860
685-13	306	173	1.77	0.1617	0.0043	10.112	0.2759	0.4553
685-14	81	670	0.12	0.0966	0.0032	3.432	0.1123	0.2589
685-15	366	331	1.11	0.0563	0.0010	0.5973	0.0114	0.0770
685-16	146	145	1.01	0.0565	0.0013	0.5882	0.0141	0.0755
685-17	67	110	0.61	0.1137	0.0015	5.267	0.0805	0.3361
685-18	82	142	0.58	0.0744	0.0018	1.828	0.0439	0.1783
685-19	64	112	0.58	0.1611	0.0045	10.243	0.2831	0.4613
685-20	255	166	1.54	0.0952	0.0014	3.526	0.0570	0.2686
685-21	287	109	2.64	0.0716	0.0013	1.651	0.0324	0.1672
685-22	75	104	0.72	0.0670	0.0012	1.247	0.0243	0.1350
685-23	94	424	0.22	0.0670	0.0009	1.293	0.0204	0.1400
685-24	575	323	1.78	0.0561	0.0008	0.5846	0.0099	0.0757
685-25	128	540	0.24	0.0693	0.0009	1.297	0.0194	0.1359
685-26	25	27	0.91	0.0631	0.0023	0.9578	0.0342	0.1102
685-27	185	251	0.74	0.0554	0.0009	0.5605	0.0100	0.0734
685-28	119	279	0.43	0.0742	0.0010	1.806	0.0279	0.1765
685-29	90	337	0.27	0.0701	0.0012	1.618	0.0289	0.1674
685-30	35	258	0.13	0.0718	0.0010	1.584	0.0254	0.1602
685-31	882	323	2.73	0.0597	0.0012	0.7859	0.0160	0.0955
685-32	27	84	0.32	0.0713	0.0012	1.534	0.0286	0.1562
685-33	231	1443	0.16	0.0607	0.0011	0.9213	0.0196	0.1102
685-34	728	745	0.98	0.0600	0.0008	0.8505	0.0131	0.1029
685-35	182	197	0.93	0.0564	0.0010	0.5677	0.0109	0.0731
685-36	118	78	1.52	0.1946	0.0024	14.419	0.2186	0.5375
685-37	204	99	2.07	0.1628	0.0023	10.193	0.1633	0.4542
685-38	332	222	1.49	0.0894	0.0014	2.977	0.0502	0.2415
685-39	237	157	1.51	0.1599	0.0026	10.112	0.1773	0.4586
685-40	156	193	0.81	0.0546	0.0012	0.5590	0.0125	0.0743
685-41	222	219	1.01	0.0561	0.0011	0.5860	0.0118	0.0757
685-42	111	64	1.75	0.0903	0.0023	3.078	0.0776	0.2472
685-43	101	133	0.76	0.0716	0.0012	1.635	0.0301	0.1657
685-44	94	34	2.79	0.0645	0.0024	0.9515	0.0353	0.1070
685-45	748	268	2.79	0.0726	0.0011	1.686	0.0290	0.1685
685-46	161	193	0.84	0.0574	0.0014	0.5883	0.0145	0.0743
685-47	309	376	0.82	0.0959	0.0012	3.557	0.0536	0.2691
685-48	178	214	0.83	0.0559	0.0012	0.5180	0.0116	0.0672
685-49	232	150	1.55	0.0559	0.0015	0.5227	0.0137	0.0678
685-50	0	1305		0.1223	0.0031	1.808	0.0610	0.1068
685-51	162	204	0.79	0.0994	0.0019	3.821	0.0707	0.2812
685-52	104	184	0.56	0.0705	0.0011	1.551	0.0228	0.1596
685-53	109	69	1.59	0.0661	0.0032	1.229	0.0654	0.1339
685-54	69	407	0.17	0.1029	0.0009	4.428	0.1125	0.3093
685-55	557	534	1.04	0.0713	0.0007	1.534	0.0316	0.1555
685-56	20	101	0.19	0.2251	0.0053	20.196	0.8615	0.6181
685-57	75	112	0.67	0.0726	0.0010	1.669	0.0226	0.1665
685-58	119	68	1.75	0.0573	0.0014	0.6939	0.0166	0.0883
685-59	158	304	0.52	0.0555	0.0017	0.5273	0.0165	0.0688
685-60	102	114	0.89	0.1277	0.0009	7.176	0.0584	0.4068
685-61	55	76	0.72	0.1086	0.0011	4.806	0.0564	0.3209
685-62	92	183	0.50	0.0728	0.0013	1.704	0.0269	0.1699
685-63	196	119	1.65	0.1203	0.0009	5.951	0.0837	0.3569
685-64	97	618	0.16	0.0745	0.0010	1.858	0.0359	0.1802
685-65	112	113	1.00	0.0643	0.0015	1.035	0.0247	0.1163
685-66	243	402	0.60	0.0569	0.0009	0.6220	0.0086	0.0790

685-67	65	254	0.26	0.0727	0.0012	1.731	0.0329	0.1716
685-68	191	307	0.62	0.0563	0.0014	0.6371	0.0114	0.0809
685-69	225	237	0.95	0.0922	0.0013	3.253	0.0625	0.2544
685-70	46	317	0.15	0.0752	0.0013	1.908	0.0354	0.1830
685-71	119	153	0.78	0.0751	0.0013	1.986	0.0380	0.1929
685-72	61	181	0.34	0.0879	0.0014	2.875	0.0517	0.2376
685-73	139	141	0.99	0.1526	0.0011	9.481	0.1353	0.4475
685-74	336	393	0.86	0.0661	0.0013	1.222	0.0246	0.1335
685-75	75	437	0.17	0.1447	0.0006	8.291	0.0560	0.4131
685-76	274	379	0.72	0.0676	0.0008	1.384	0.0160	0.1480
685-77	323	490	0.66	0.0572	0.0012	0.6409	0.0148	0.0809

**Sample 19ST59, sandstone, Middle Devonian, Wuwamen section, (Abuduxun et al., 2021, Tectonics)**

18ST14-01	163	266	0.61	0.05375	0.00259	0.54363	0.0259	0.07244
18ST14-02	300	838	0.36	0.05532	0.00183	0.56557	0.0184	0.07300
18ST14-03	385	1157	0.33	0.05974	0.00197	0.54290	0.0176	0.06470
18ST14-04	479	932	0.51	0.05290	0.00169	0.53089	0.0165	0.07129
18ST14-05	168	395	0.42	0.05314	0.00222	0.52780	0.0212	0.07072
18ST14-06	53	289	0.18	0.10291	0.00328	4.62856	0.1416	0.31777
18ST14-07	215	553	0.39	0.05131	0.00220	0.53058	0.0215	0.07324
18ST14-08	138	1169	0.12	0.09346	0.00353	3.13413	0.1123	0.23576
18ST14-09	219	370	0.59	0.05360	0.00280	0.52871	0.0273	0.06943
18ST14-10	136	614	0.22	0.05678	0.00213	0.77174	0.0277	0.09609
18ST14-11	472	722	0.65	0.06802	0.00255	0.71880	0.0260	0.07493
18ST14-12	80	193	0.41	0.06910	0.00377	0.70204	0.0352	0.07346
18ST14-13	410	850	0.48	0.05496	0.00175	0.56302	0.0172	0.07310
18ST14-14	202	244	0.83	0.05251	0.00259	0.51466	0.0252	0.07030
18ST14-15	247	493	0.50	0.05263	0.00191	0.51469	0.0180	0.07026
18ST14-16	657	956	0.69	0.05446	0.00173	0.53181	0.0165	0.07013
18ST14-17	493	888	0.56	0.05519	0.00167	0.54088	0.0161	0.07052
18ST14-18	190	312	0.61	0.05307	0.00257	0.50957	0.0236	0.06988
18ST14-19	307	750	0.41	0.06009	0.00203	0.59373	0.0195	0.07135
18ST14-20	288	477	0.60	0.05509	0.00185	0.54240	0.0183	0.07086
18ST14-21	223	379	0.59	0.05471	0.00198	0.58209	0.0211	0.07657
18ST14-22	144	279	0.51	0.05387	0.00265	0.53212	0.0258	0.07154
18ST14-23	164	204	0.80	0.05636	0.00255	0.56365	0.0253	0.07247
18ST14-24	128	126	1.01	0.05983	0.00413	0.54775	0.0356	0.06695
18ST14-25	220	582	0.38	0.05434	0.00201	0.56436	0.0210	0.07467
18ST14-26	77	155	0.49	0.06078	0.00335	0.55931	0.0298	0.06659
18ST14-27	176	320	0.55	0.05478	0.00241	0.52662	0.0222	0.06979
18ST14-28	276	615	0.45	0.06127	0.00196	0.59147	0.0187	0.06943
18ST14-29	101	126	0.80	0.06254	0.00406	0.59363	0.0356	0.07061
18ST14-30	189	315	0.60	0.05367	0.00201	0.51818	0.0192	0.06937
18ST14-31	262	571	0.46	0.05575	0.00215	0.53062	0.0198	0.06854
18ST14-32	156	405	0.38	0.05920	0.00237	0.59741	0.0225	0.07310
18ST14-33	218	458	0.48	0.07171	0.00212	1.55445	0.0468	0.15502
18ST14-34	185	386	0.48	0.06567	0.00301	0.55683	0.0250	0.06133
18ST14-35	300	412	0.73	0.05732	0.00216	0.54251	0.0201	0.06833
18ST14-36	641	846	0.76	0.05477	0.00171	0.54636	0.0168	0.07195
18ST14-37	144	287	0.50	0.05863	0.00235	0.60705	0.0232	0.07532
18ST14-38	293	670	0.44	0.05929	0.00195	0.59725	0.0199	0.07255
18ST14-39	122	254	0.48	0.05863	0.00275	0.57206	0.0256	0.07123
18ST14-40	92	169	0.55	0.06326	0.00326	0.62709	0.0314	0.07229
18ST14-41	690	1018	0.68	0.05922	0.00182	0.59427	0.0183	0.07219
18ST14-42	332	740	0.45	0.05657	0.00195	0.59190	0.0203	0.07549
18ST14-43	84	215	0.39	0.07943	0.00365	0.81202	0.0374	0.07413
18ST14-44	166	314	0.53	0.05620	0.00202	0.55314	0.0193	0.07080
18ST14-45	519	873	0.59	0.05423	0.00156	0.54190	0.0157	0.07167
18ST14-46	74	382	0.19	0.06912	0.00221	1.49815	0.0449	0.15627
18ST14-47	267	868	0.31	0.05429	0.00180	0.54419	0.0170	0.07195
18ST14-48	140	598	0.23	0.05371	0.00182	0.52268	0.0171	0.06977
18ST14-49	271	261	1.04	0.05622	0.00246	0.54312	0.0232	0.06942
18ST14-50	401	1070	0.37	0.05585	0.00168	0.54712	0.0160	0.07003
18ST14-51	202	314	0.64	0.05601	0.00238	0.56174	0.0236	0.07188
18ST14-52	223	361	0.62	0.06518	0.00295	0.66393	0.0307	0.07237

18ST14-53	121	229	0.53	0.05502	0.00278	0.43463	0.0221	0.05659
18ST14-54	157	305	0.51	0.05429	0.00251	0.50351	0.0223	0.06669
18ST14-55	206	446	0.46	0.05739	0.00240	0.59275	0.0237	0.07407
18ST14-56	183	423	0.43	0.06901	0.00258	0.65824	0.0232	0.06832
18ST14-57	245	815	0.30	0.05354	0.00199	0.49887	0.0176	0.06686
18ST14-58	145	278	0.52	0.05364	0.00250	0.50104	0.0226	0.06727
18ST14-59	180	317	0.57	0.05494	0.00197	0.52253	0.0183	0.06818
18ST14-60	250	492	0.51	0.07113	0.00243	0.77536	0.0274	0.07803
18ST14-61	283	629	0.45	0.05632	0.00179	0.53010	0.0162	0.06770
18ST14-62	99	249	0.40	0.06992	0.00247	1.62845	0.0560	0.16712
18ST14-63	315	477	0.66	0.05148	0.00226	0.39614	0.0165	0.05568
18ST14-64	124	258	0.48	0.05501	0.00252	0.54070	0.0242	0.07126
18ST14-65	377	601	0.63	0.05589	0.00183	0.43274	0.0143	0.05575
18ST14-66	191	389	0.49	0.05502	0.00210	0.54292	0.0212	0.07096
18ST14-67	123	291	0.42	0.06398	0.00277	0.65357	0.0269	0.07445
18ST14-68	214	394	0.54	0.05522	0.00222	0.55245	0.0217	0.07266
18ST14-69	133	377	0.35	0.05493	0.00229	0.54954	0.0231	0.07204
18ST14-70	143	325	0.44	0.05539	0.00219	0.55294	0.0221	0.07211
18ST14-71	145	271	0.54	0.05585	0.00289	0.53405	0.0261	0.06972

**Sample 18ST20, tuffaceous sandstone, Middle Devonian, north to the Liushugou, (Abuduxun et al., 2021, Tectonics)**

18ST20-01	185	240	0.77	0.05576	0.00213	0.57338	0.0215	0.07416
18ST20-02	240	498	0.48	0.05508	0.00184	0.53831	0.0176	0.07028
18ST20-03	79	139	0.57	0.05604	0.00287	0.53976	0.0259	0.07055
18ST20-04	79	116	0.68	0.05753	0.00330	0.55919	0.0301	0.07128
18ST20-05	115	169	0.68	0.06150	0.00265	0.59491	0.0264	0.07008
18ST20-06	204	187	1.09	0.18995	0.00415	13.81593	0.3116	0.52384
18ST20-07	182	284	0.64	0.05493	0.00210	0.51854	0.0192	0.06850
18ST20-08	218	348	0.63	0.06960	0.00211	1.32831	0.0407	0.13786
18ST20-09	125	149	0.84	0.05474	0.00236	0.54656	0.0240	0.07216
18ST20-10	198	1894	0.10	0.07462	0.00165	1.93421	0.0449	0.18677
18ST20-11	226	213	1.06	0.05443	0.00233	0.50279	0.0215	0.06707
18ST20-12	92	133	0.69	0.06050	0.00312	0.55531	0.0298	0.06582
18ST20-13	472	799	0.59	0.05575	0.00145	0.54864	0.0144	0.07090
18ST20-14	151	593	0.25	0.07886	0.00199	2.08631	0.0520	0.19039
18ST20-15	174	198	0.88	0.05554	0.00259	0.55932	0.0255	0.07316
18ST20-16	79	291	0.27	0.11591	0.00295	5.54394	0.1419	0.34359
18ST20-17	239	221	1.08	0.05923	0.00235	0.56821	0.0228	0.06941
18ST20-18	87	107	0.81	0.05800	0.00313	0.56401	0.0302	0.07046
18ST20-19	196	274	0.72	0.05845	0.00231	0.56419	0.0222	0.06977
18ST20-20	69	105	0.66	0.06237	0.00385	0.55733	0.0316	0.06546
18ST20-21	770	648	1.19	0.05628	0.00182	0.56610	0.0193	0.07241
18ST20-22	57	86	0.67	0.06997	0.00287	1.47717	0.0604	0.15278
18ST20-23	333	340	0.98	0.05787	0.00210	0.57964	0.0213	0.07245
18ST20-24	205	294	0.70	0.05620	0.00221	0.52765	0.0210	0.06783
18ST20-25	162	186	0.87	0.05532	0.00228	0.52596	0.0213	0.06933
18ST20-26	181	309	0.59	0.05353	0.00180	0.50142	0.0170	0.06791
18ST20-27	172	289	0.60	0.05404	0.00208	0.51172	0.0195	0.06898
18ST20-28	101	166	0.61	0.05971	0.00308	0.54986	0.0277	0.06737
18ST20-29	303	566	0.53	0.05267	0.00167	0.48540	0.0153	0.06698
18ST20-30	88	101	0.87	0.05502	0.00304	0.51984	0.0292	0.06931
18ST20-31	275	442	0.62	0.15613	0.00358	9.83522	0.2375	0.45567
18ST20-32	211	223	0.94	0.05427	0.00233	0.50312	0.0212	0.06743
18ST20-33	166	186	0.89	0.05592	0.00247	0.52080	0.0232	0.06780
18ST20-34	124	185	0.67	0.06527	0.00222	1.17096	0.0385	0.12996
18ST20-35	183	297	0.62	0.05697	0.00205	0.53553	0.0197	0.06780
18ST20-36	159	267	0.60	0.05698	0.00249	0.55218	0.0247	0.06968
18ST20-37	285	702	0.41	0.08491	0.00203	2.53789	0.0607	0.21481
18ST20-38	89	105	0.85	0.07304	0.00433	0.69225	0.0391	0.06940
18ST20-39	136	138	0.99	0.05911	0.00312	0.57213	0.0299	0.07005
18ST20-40	103	143	0.72	0.06176	0.00323	0.58293	0.0312	0.06807
18ST20-41	185	280	0.66	0.05610	0.00223	0.52077	0.0207	0.06707
18ST20-42	1066	571	1.86	0.05938	0.00189	0.63209	0.0205	0.07678
18ST20-43	50	63	0.80	0.24799	0.00674	20.48162	0.5648	0.59564
18ST20-44	262	280	0.94	0.06072	0.00264	0.55426	0.0238	0.06625

18ST20-45	148	204	0.73	0.06250	0.00308	0.56325	0.0267	0.06569
18ST20-46	173	291	0.59	0.06193	0.00283	0.57106	0.0264	0.06663
18ST20-47	133	200	0.67	0.06196	0.00346	0.61497	0.0345	0.07169
18ST20-48	166	178	0.93	0.06049	0.00301	0.53715	0.0263	0.06422
18ST20-49	181	282	0.64	0.06005	0.00235	0.54298	0.0208	0.06551
18ST20-50	294	310	0.95	0.05699	0.00198	0.54050	0.0193	0.06836
18ST20-51	78	102	0.77	0.06307	0.00394	0.56844	0.0350	0.06666
18ST20-52	301	492	0.61	0.06215	0.00212	0.62518	0.0214	0.07264
18ST20-53	74	136	0.55	0.06201	0.00321	0.56675	0.0286	0.06690
18ST20-54	129	184	0.70	0.05550	0.00285	0.53324	0.0256	0.07030
18ST20-55	342	396	0.86	0.05663	0.00225	0.55785	0.0225	0.07092
18ST20-56	225	214	1.05	0.05269	0.00239	0.49070	0.0221	0.06704
18ST20-57	46	72	0.63	0.06286	0.00368	0.58140	0.0331	0.06782
18ST20-58	82	102	0.81	0.05654	0.00322	0.53576	0.0317	0.06810
18ST20-59	166	272	0.61	0.05310	0.00195	0.49634	0.0177	0.06735
18ST20-60	88	119	0.74	0.05632	0.00302	0.53939	0.0293	0.06886
18ST20-61	377	406	0.93	0.05643	0.00205	0.53872	0.0193	0.06861
18ST20-62	115	152	0.76	0.05651	0.00295	0.54811	0.0286	0.06991
18ST20-63	230	255	0.90	0.05739	0.00246	0.54782	0.0229	0.06882
18ST20-64	101	307	0.33	0.05469	0.00217	0.51454	0.0200	0.06779
18ST20-65	145	215	0.67	0.05429	0.00270	0.51515	0.0248	0.06853
18ST20-66	154	237	0.65	0.05771	0.00237	0.55038	0.0219	0.06905
18ST20-67	104	191	0.54	0.06157	0.00284	0.57301	0.0258	0.06722
18ST20-68	155	222	0.70	0.05473	0.00250	0.51801	0.0229	0.06863
18ST20-69	283	419	0.68	0.05414	0.00178	0.51627	0.0164	0.06865
18ST20-70	281	304	0.92	0.05603	0.00202	0.54624	0.0195	0.07039
18ST20-71	187	389	0.48	0.05387	0.00180	0.53048	0.0173	0.07117

**Sample 19ST19, meta-sandstone, Middle Devonian, Wumamen area, (Abuduxun et al., 2021, Tectonics)**

18ST19-01	564	607	0.93	0.05696	0.00163	0.56090	0.0184	0.07177
18ST19-02	188	210	0.90	0.05813	0.00227	0.55080	0.0227	0.06940
18ST19-03	123	224	0.55	0.05886	0.00188	0.56526	0.0208	0.06954
18ST19-04	145	245	0.59	0.05792	0.00218	0.54135	0.0216	0.06853
18ST19-05	81	442	0.18	0.07157	0.00167	1.57760	0.0411	0.16085
18ST19-06	90	154	0.58	0.06208	0.00271	0.57441	0.0247	0.06872
18ST19-07	230	429	0.54	0.05949	0.00193	0.61988	0.0219	0.07580
18ST19-08	76	112	0.68	0.05839	0.00296	0.54649	0.0290	0.06784
18ST19-09	156	256	0.61	0.05810	0.00219	0.58948	0.0227	0.07462
18ST19-10	317	417	0.76	0.05673	0.00188	0.56328	0.0195	0.07238
18ST19-11	97	223	0.43	0.05861	0.00232	0.56266	0.0219	0.07126
18ST19-12	329	722	0.46	0.05692	0.00148	0.62996	0.0181	0.08081
18ST19-13	107	167	0.64	0.05681	0.00278	0.55646	0.0290	0.07270
18ST19-14	868	1592	0.55	0.05615	0.00122	0.62271	0.0163	0.08081
18ST19-15	107	203	0.53	0.05541	0.00246	0.54190	0.0228	0.07375
18ST19-16	71	914	0.08	0.15646	0.00301	7.23327	0.1811	0.33672
18ST19-17	42	98	0.43	0.16304	0.00346	11.04092	0.3012	0.49366
18ST19-18	516	880	0.59	0.05536	0.00165	0.53526	0.0157	0.07116
18ST19-19	76	124	0.61	0.08107	0.00303	1.79359	0.0717	0.16263
18ST19-20	64	109	0.58	0.06143	0.00388	0.61811	0.0408	0.07230
18ST19-21	100	197	0.51	0.05177	0.00221	0.50227	0.0233	0.07170
18ST19-22	258	412	0.63	0.05496	0.00183	0.56275	0.0197	0.07546
18ST19-23	52	108	0.48	0.13104	0.00307	7.57176	0.2100	0.42308
18ST19-24	124	189	0.65	0.05507	0.00274	0.53044	0.0278	0.07049
18ST19-25	139	183	0.76	0.05519	0.00252	0.52894	0.0245	0.07105
18ST19-26	125	173	0.72	0.05293	0.00225	0.51067	0.0216	0.07194
18ST19-27	160	263	0.61	0.05972	0.00218	0.59752	0.0218	0.07374
18ST19-28	461	748	0.62	0.06490	0.00134	1.17476	0.0296	0.13172
18ST19-29	47	169	0.28	0.12266	0.00271	6.30746	0.1616	0.37775
18ST19-30	257	512	0.50	0.05778	0.00177	0.60130	0.0215	0.07570
18ST19-31	299	335	0.89	0.05785	0.00193	0.56954	0.0199	0.07244
18ST19-32	143	196	0.73	0.05797	0.00255	0.56045	0.0254	0.07144
18ST19-33	31	66	0.46	0.07207	0.00380	0.67723	0.0349	0.07026
18ST19-34	107	320	0.33	0.28812	0.00534	25.79036	0.7155	0.64398
18ST19-35	77	152	0.51	0.05846	0.00268	0.56871	0.0255	0.07218
18ST19-36	86	217	0.39	0.16384	0.00311	10.94144	0.2578	0.48729

18ST19-37	106	230	0.46	0.05672	0.00215	0.56592	0.0227	0.07319
18ST19-38	341	402	0.85	0.05718	0.00165	0.54521	0.0166	0.06982
18ST19-39	71	153	0.46	0.06171	0.00238	0.73756	0.0298	0.08838
18ST19-40	164	367	0.45	0.05541	0.00175	0.52332	0.0183	0.06893
18ST19-41	109	237	0.46	0.05298	0.00248	0.51530	0.0251	0.07097
18ST19-42	157	290	0.54	0.05344	0.00201	0.50733	0.0204	0.06971
18ST19-43	65	181	0.36	0.05901	0.00220	0.58590	0.0230	0.07278
18ST19-44	149	297	0.50	0.05505	0.00185	0.51766	0.0176	0.06949
18ST19-45	184	370	0.50	0.09284	0.00214	3.25546	0.0860	0.25545
18ST19-46	138	218	0.63	0.05670	0.00245	0.53086	0.0250	0.06813
18ST19-47	99	890	0.11	0.10322	0.00173	4.21448	0.0865	0.29770
18ST19-48	270	388	0.70	0.05451	0.00187	0.51351	0.0186	0.06905
18ST19-49	211	338	0.62	0.05655	0.00202	0.54324	0.0199	0.07048
18ST19-50	69	141	0.49	0.05543	0.00278	0.53976	0.0283	0.07084
18ST19-51	228	320	0.71	0.06280	0.00240	0.60058	0.0243	0.06949
18ST19-52	47	312	0.15	0.07454	0.00190	1.64312	0.0441	0.16163
18ST19-53	134	201	0.67	0.05609	0.00250	0.52582	0.0245	0.06820
18ST19-54	265	378	0.70	0.07073	0.00329	0.71554	0.0367	0.07326
18ST19-55	73	144	0.50	0.06165	0.00328	0.55725	0.0303	0.06659
18ST19-56	117	203	0.57	0.05940	0.00243	0.54811	0.0225	0.06827
18ST19-57	264	431	0.61	0.05938	0.00190	0.58010	0.0196	0.07157
18ST19-58	125	234	0.53	0.16637	0.00271	10.96068	0.2209	0.47934
18ST19-59	174	290	0.60	0.05729	0.00222	0.58471	0.0230	0.07452
18ST19-60	192	324	0.59	0.05568	0.00220	0.52025	0.0220	0.06807
18ST19-61	80	173	0.46	0.05855	0.00345	0.55140	0.0290	0.07072
18ST19-62	83	139	0.60	0.06114	0.00329	0.59032	0.0299	0.07279
18ST19-63	87	163	0.53	0.06040	0.00295	0.57140	0.0265	0.06990
18ST19-64	49	556	0.09	0.06919	0.00139	1.43380	0.0332	0.15081
18ST19-65	137	175	0.79	0.05736	0.00252	0.53722	0.0249	0.06891
18ST19-66	102	212	0.48	0.05594	0.00246	0.54728	0.0238	0.07235
18ST19-67	48	107	0.45	0.06427	0.00389	0.64389	0.0396	0.07386
18ST19-68	177	243	0.73	0.05776	0.00260	0.53754	0.0244	0.06820
18ST19-69	95	164	0.58	0.05805	0.00272	0.57247	0.0274	0.07268
18ST19-70	190	272	0.70	0.05369	0.00223	0.51742	0.0228	0.07011
18ST19-71	294	429	0.68	0.05197	0.00197	0.51232	0.0203	0.07219

Sample 18ST01, schist, Middle Devonian, south to the Wumamen, (Abuduxun et al., 2021, Tectonics)

18ST01-01	705	773	0.91	0.05713	0.00171	0.58875	0.0174	0.07397
18ST01-02	189	250	0.76	0.06690	0.00215	1.26970	0.0408	0.13614
18ST01-03	85	141	0.61	0.07222	0.00251	1.68025	0.0563	0.16735
18ST01-04	240	510	0.47	0.05488	0.00204	0.54299	0.0197	0.07131
18ST01-05	199	512	0.39	0.11307	0.00259	5.40911	0.1250	0.34193
18ST01-06	119	321	0.37	0.14283	0.00350	7.21128	0.1747	0.36091
18ST01-07	436	1013	0.43	0.05481	0.00173	0.53626	0.0168	0.06990
18ST01-08	112	592	0.19	0.07041	0.00219	1.63957	0.0505	0.16633
18ST01-09	228	313	0.73	0.05530	0.00241	0.54286	0.0226	0.07097
18ST01-10	86	278	0.31	0.07044	0.00212	1.71474	0.0519	0.17410
18ST01-11	123	499	0.25	0.05822	0.00190	0.75570	0.0242	0.09314
18ST01-12	1148	1512	0.76	0.06453	0.00155	1.27349	0.0317	0.14117
18ST01-13	324	430	0.75	0.06497	0.00225	0.69928	0.0242	0.07745
18ST01-14	251	298	0.84	0.05152	0.00211	0.49459	0.0200	0.06928
18ST01-15	316	486	0.65	0.06774	0.00200	1.36066	0.0393	0.14432
18ST01-16	44	696	0.06	0.07154	0.00190	1.52552	0.0400	0.15305
18ST01-17	435	549	0.79	0.05695	0.00183	0.63231	0.0198	0.08034
18ST01-18	177	238	0.74	0.05714	0.00238	0.55237	0.0227	0.06996
18ST01-19	66	152	0.44	0.12521	0.00305	6.53639	0.1546	0.37598
18ST01-20	195	105	1.86	0.06516	0.00269	1.10734	0.0442	0.12381
18ST01-21	444	830	0.54	0.05659	0.00153	0.55997	0.0154	0.07113
18ST01-22	203	354	0.57	0.09849	0.00231	3.75977	0.0882	0.27472
18ST01-23	158	942	0.17	0.09704	0.00228	3.79675	0.0912	0.28131
18ST01-24	120	194	0.62	0.11596	0.00297	5.64422	0.1440	0.35081
18ST01-25	56	324	0.17	0.09566	0.00221	3.61034	0.0814	0.27180
18ST01-26	179	234	0.76	0.05478	0.00239	0.52871	0.0231	0.06984
18ST01-27	99	226	0.44	0.09723	0.00233	3.88014	0.0946	0.28724
18ST01-28	341	590	0.58	0.05927	0.00169	0.63722	0.0188	0.07713

18ST01-29	78	136	0.58	0.07906	0.00258	2.19806	0.0749	0.19917
18ST01-30	122	337	0.36	0.07281	0.00214	1.65640	0.0488	0.16335
18ST01-31	837	1243	0.67	0.06688	0.00166	1.37932	0.0351	0.14787
18ST01-32	462	503	0.92	0.15851	0.00342	9.19550	0.1924	0.41627
18ST01-33	98	180	0.55	0.09991	0.00265	3.93618	0.0992	0.28373
18ST01-34	218	203	1.07	0.05352	0.00246	0.54233	0.0256	0.07255
18ST01-35	546	1053	0.52	0.06092	0.00166	0.66207	0.0175	0.07813
18ST01-37	1021	599	1.70	0.05659	0.00159	0.56695	0.0151	0.07198
18ST01-36	86	518	0.17	0.30143	0.00604	31.07221	0.6822	0.73688
18ST01-39	175	292	0.60	0.05854	0.00212	0.61408	0.0210	0.07574
18ST01-38	96	126	0.76	0.09610	0.00266	3.83617	0.1049	0.28709
18ST01-40	498	584	0.85	0.05332	0.00171	0.54343	0.0165	0.07335
18ST01-41	499	288	1.73	0.07125	0.00222	1.82720	0.0543	0.18438
18ST01-42	140	471	0.30	0.09442	0.00256	3.35072	0.0893	0.25364
18ST01-43	267	550	0.49	0.04966	0.00181	0.47323	0.0169	0.06834
18ST01-44	200	266	0.75	0.05948	0.00242	0.60215	0.0244	0.07259
18ST01-46	388	473	0.82	0.05733	0.00200	0.57119	0.0195	0.07152
18ST01-45	411	968	0.42	0.07606	0.00191	2.09698	0.0514	0.19769
18ST01-47	117	148	0.79	0.05287	0.00258	0.49699	0.0243	0.06776
18ST01-48	649	664	0.98	0.05566	0.00171	0.56182	0.0171	0.07272
18ST01-49	173	226	0.77	0.05196	0.00232	0.48320	0.0212	0.06723
18ST01-50	474	387	1.22	0.05654	0.00193	0.55932	0.0185	0.07112
18ST01-51	309	424	0.73	0.06108	0.00176	1.15067	0.0328	0.13538
18ST01-52	177	246	0.72	0.09464	0.00238	3.54913	0.0861	0.26972
18ST01-53	279	337	0.83	0.06835	0.00203	1.64263	0.0469	0.17284
18ST01-54	132	256	0.52	0.15621	0.00411	10.24100	0.2624	0.47073
18ST01-55	339	835	0.41	0.05273	0.00155	0.50115	0.0144	0.06824
18ST01-56	142	145	0.98	0.08983	0.00269	3.41741	0.0975	0.27419
18ST01-57	147	127	1.16	0.10653	0.00276	4.72966	0.1234	0.31857
18ST01-58	73	585	0.12	0.09013	0.00203	3.41980	0.0749	0.27236
18ST01-59	128	233	0.55	0.09754	0.00243	3.85413	0.0943	0.28373
18ST01-60	115	337	0.34	0.10358	0.00259	4.57354	0.1136	0.31656
18ST01-61	167	151	1.10	0.05989	0.00322	0.56043	0.0293	0.06768
18ST01-62	110	125	0.88	0.09546	0.00303	3.76765	0.1165	0.28364
18ST01-63	237	421	0.56	0.07186	0.00216	1.81435	0.0533	0.18120
18ST01-64	732	893	0.82	0.05305	0.00155	0.56688	0.0168	0.07654
18ST01-65	457	300	1.52	0.06862	0.00194	1.64433	0.0451	0.17251
18ST01-66	172	399	0.43	0.05614	0.00196	0.58745	0.0205	0.07540
18ST01-67	143	791	0.18	0.06923	0.00155	1.82980	0.0407	0.19012
18ST01-68	751	1566	0.48	0.05732	0.00144	0.65950	0.0164	0.08279
18ST01-69	401	469	0.86	0.07280	0.00174	1.93594	0.0460	0.19135
18ST01-70	92	210	0.44	0.04709	0.00196	0.44457	0.0179	0.06859
18ST01-71	59	87	0.68	0.05478	0.00342	0.54175	0.0327	0.07370
18ST01-72	148	281	0.53	0.05283	0.00212	0.50377	0.0196	0.06917
18ST01-73	143	153	0.93	0.06866	0.00433	0.63817	0.0372	0.06840
18ST01-74	500	351	1.42	0.05469	0.00171	0.52023	0.0160	0.06860
18ST01-75	384	873	0.44	0.05423	0.00147	0.51678	0.0139	0.06859
18ST01-76	185	293	0.63	0.05510	0.00235	0.51523	0.0216	0.06749
18ST01-77	134	196	0.68	0.05675	0.00261	0.54332	0.0241	0.06950
18ST01-78	224	266	0.85	0.06371	0.00220	1.17631	0.0394	0.13332
18ST01-79	99	494	0.20	0.07161	0.00205	1.61366	0.0462	0.16170
18ST01-80	333	272	1.23	0.08601	0.00221	2.77953	0.0722	0.23208
18ST01-81	619	753	0.82	0.05279	0.00138	0.56493	0.0150	0.07697
18ST01-82	167	146	1.15	0.05572	0.00259	0.57764	0.0270	0.07495
18ST01-83	385	641	0.60	0.05586	0.00186	0.54465	0.0184	0.07014
18ST01-84	64	243	0.26	0.09731	0.00247	3.71585	0.0912	0.27356
18ST01-85	763	988	0.77	0.05654	0.00158	0.60300	0.0163	0.07607
18ST01-86	142	164	0.87	0.05674	0.00318	0.53404	0.0290	0.06803
18ST01-87	242	342	0.71	0.05577	0.00309	0.54143	0.0292	0.06985
18ST01-88	277	275	1.01	0.05510	0.00277	0.52837	0.0257	0.06926
18ST01-89	567	694	0.82	0.05592	0.00205	0.58867	0.0211	0.07562
18ST01-90	154	279	0.55	0.09436	0.00239	3.70308	0.0947	0.28275

Sample LT42C, quartz wacke, Late Silurian-Early Devonian, Kuche-Kule highway, STS, (Han Y et al., 2016, Geology)

LT42C-001	291	459	0.63	0.0548	0.0014	0.5420	0.0140	0.0717
LT42C-002	123	178	0.69	0.0543	0.0017	0.5320	0.0170	0.0711
LT42C-003	55	83	0.67	0.0548	0.0024	0.4860	0.0210	0.0643
LT42C-004	86	188	0.46	0.0558	0.0017	0.5100	0.0160	0.0663
LT42C-005	94	216	0.43	0.0688	0.0015	1.462	0.0330	0.1541
LT42C-006	105	183	0.57	0.0718	0.0016	1.623	0.0370	0.1639
LT42C-007	66	104	0.64	0.0527	0.0022	0.4830	0.0200	0.0665
LT42C-008	131	236	0.55	0.0557	0.0016	0.5090	0.0150	0.0662
LT42C-009	159	238	0.67	0.0568	0.0017	0.5080	0.0150	0.0649
LT42C-010	58	97	0.60	0.0549	0.0029	0.5010	0.0260	0.0663
LT42C-011	176	520	0.34	0.0720	0.0013	1.633	0.0320	0.1643
LT42C-012	639	477	1.34	0.0581	0.0014	0.5450	0.0130	0.0681
LT42C-013	97	125	0.77	0.0586	0.0021	0.5480	0.0200	0.0679
LT42C-014	107	232	0.46	0.0555	0.0016	0.5040	0.0150	0.0659
LT42C-015	181	185	0.98	0.0568	0.0025	0.5170	0.0230	0.0659
LT42C-016	90	117	0.76	0.0631	0.0027	0.6120	0.0260	0.0704
LT42C-017	246	312	0.79	0.0554	0.0015	0.5130	0.0140	0.0672
LT42C-018	110	127	0.87	0.0576	0.0021	0.5300	0.0190	0.0667
LT42C-019	50	96	0.52	0.0559	0.0023	0.5300	0.0220	0.0687
LT42C-020	337	391	0.86	0.0559	0.0014	0.5150	0.0130	0.0668
LT42C-021	71	122	0.58	0.0541	0.0021	0.5170	0.0200	0.0694
LT42C-022	150	266	0.56	0.0560	0.0016	0.5200	0.0150	0.0673
LT42C-023	114	186	0.61	0.0562	0.0018	0.5380	0.0170	0.0694
LT42C-024	117	168	0.70	0.0553	0.0019	0.5170	0.0170	0.0678
LT42C-025	314	449	0.70	0.0573	0.0014	0.5390	0.0140	0.0682
LT42C-026	94	169	0.55	0.0564	0.0018	0.5510	0.0180	0.0709
LT42C-027	134	206	0.65	0.0557	0.0017	0.5320	0.0160	0.0693
LT42C-028	142	284	0.50	0.0669	0.0016	1.236	0.0290	0.1340
LT42C-029	47	176	0.27	0.0562	0.0018	0.5470	0.0180	0.0705
LT42C-030	104	179	0.58	0.0557	0.0018	0.5350	0.0170	0.0697
LT42C-031	105	175	0.60	0.0672	0.0017	1.224	0.0320	0.1322
LT42C-032	65	963	0.07	0.0960	0.0018	3.234	0.0650	0.2442
LT42C-033	166	245	0.67	0.0607	0.0017	0.6320	0.0180	0.0755
LT42C-034	93	111	0.83	0.0970	0.0022	3.701	0.0850	0.2768
LT42C-035	159	234	0.68	0.0561	0.0017	0.5150	0.0160	0.0665
LT42C-036	154	270	0.57	0.0573	0.0017	0.5400	0.0160	0.0684
LT42C-037	181	153	1.18	0.0722	0.0018	1.598	0.0410	0.1604
LT42C-038	239	668	0.36	0.0577	0.0013	0.6080	0.0140	0.0765
LT42C-039	76	147	0.52	0.0596	0.0022	0.5450	0.0200	0.0663
LT42C-040	254	348	0.73	0.0817	0.0017	2.086	0.0450	0.1850
LT42C-041	151	240	0.63	0.0543	0.0017	0.5120	0.0160	0.0683
LT42C-042	56	525	0.11	0.0669	0.0014	1.287	0.0280	0.1395
LT42C-043	57	100	0.57	0.0638	0.0020	1.182	0.0380	0.1344
LT42C-044	156	266	0.58	0.0592	0.0018	0.5610	0.0170	0.0687
LT42C-045	158	225	0.70	0.0578	0.0018	0.5660	0.0180	0.0710
LT42C-046	177	263	0.67	0.0541	0.0017	0.4950	0.0150	0.0664
LT42C-047	152	285	0.53	0.0573	0.0017	0.5210	0.0160	0.0660
LT42C-048	369	222	1.66	0.1644	0.0034	10.677	0.2270	0.4709
LT42C-049	97	144	0.67	0.0575	0.0021	0.5700	0.0210	0.0719
LT42C-050	72	150	0.48	0.0571	0.0021	0.5390	0.0200	0.0685
LT42C-051	373	775	0.48	0.0571	0.0014	0.5770	0.0140	0.0733
LT42C-052	55	89	0.62	0.0533	0.0024	0.5080	0.0230	0.0691
LT42C-053	125	181	0.69	0.0560	0.0020	0.5160	0.0180	0.0669
LT42C-054	82	171	0.48	0.0530	0.0018	0.5620	0.0190	0.0770
LT42C-055	167	204	0.82	0.1327	0.0029	7.308	0.1640	0.3992
LT42C-056	83	154	0.54	0.0565	0.0021	0.5180	0.0190	0.0664
LT42C-057	142	200	0.71	0.0558	0.0019	0.5190	0.0180	0.0674
LT42C-058	21	59	0.36	0.0735	0.0027	1.577	0.0570	0.1556
LT42C-059	117	150	0.78	0.1675	0.0038	10.811	0.2500	0.4681
LT42C-060	209	287	0.73	0.0592	0.0018	0.5400	0.0170	0.0661
LT42C-061	86	68	1.27	0.1672	0.0041	10.758	0.2670	0.4666
LT42C-062	168	252	0.67	0.0553	0.0018	0.5340	0.0170	0.0701
LT42C-063	184	329	0.56	0.0564	0.0017	0.5140	0.0160	0.0661

LT42C-064	42	54	0.77	0.0538	0.0032	0.5570	0.0320	0.0751
LT42C-065	85	119	0.71	0.0524	0.0022	0.4860	0.0210	0.0672
LT42C-066	84	167	0.50	0.0553	0.0020	0.5210	0.0190	0.0684
LT42C-067	169	179	0.95	0.0550	0.0020	0.5030	0.0180	0.0663
LT42C-068	83	115	0.72	0.0606	0.0043	0.5390	0.0430	0.0645
LT42C-069	218	185	1.18	0.1136	0.0028	5.256	0.1320	0.3354
LT42C-070	198	315	0.63	0.0549	0.0017	0.5050	0.0160	0.0666
LT42C-071	83	102	0.81	0.0977	0.0027	3.619	0.1010	0.2686
LT42C-072	190	442	0.43	0.0548	0.0016	0.5150	0.0150	0.0682
LT42C-073	119	162	0.73	0.0534	0.0021	0.4980	0.0200	0.0677
LT42C-074	103	178	0.58	0.0573	0.0021	0.5480	0.0200	0.0694
LT42C-075	209	353	0.59	0.0570	0.0018	0.5420	0.0170	0.0690
LT42C-076	132	213	0.62	0.0595	0.0021	0.5670	0.0200	0.0691
LT42C-077	350	456	0.77	0.1597	0.0039	9.351	0.2360	0.4245
LT42C-078	109	232	0.47	0.0552	0.0019	0.5380	0.0190	0.0708
LT42C-079	37	57	0.65	0.0565	0.0038	0.5380	0.0410	0.0691
LT42C-080	79	112	0.70	0.0571	0.0025	0.5380	0.0240	0.0684
LT42C-081	115	384	0.30	0.0564	0.0018	0.5190	0.0160	0.0667
LT42C-082	195	316	0.62	0.0564	0.0019	0.5560	0.0180	0.0715
LT42C-083	20	61	0.33	0.1103	0.0034	4.638	0.1430	0.3048
LT42C-084	93	165	0.56	0.0567	0.0023	0.5480	0.0220	0.0702
LT42C-085	255	579	0.44	0.0569	0.0017	0.5460	0.0170	0.0695
LT42C-086	75	124	0.61	0.0700	0.0024	1.355	0.0460	0.1403
LT42C-087	344	242	1.42	0.1569	0.0042	9.200	0.2520	0.4251
LT42C-088	179	306	0.58	0.0558	0.0019	0.5430	0.0190	0.0706
LT42C-089	102	214	0.48	0.0561	0.0021	0.5480	0.0200	0.0708
LT42C-090	114	220	0.52	0.0561	0.0021	0.5240	0.0190	0.0678
LT42C-091	292	422	0.69	0.0572	0.0019	0.5430	0.0180	0.0688
LT42C-092	165	274	0.60	0.0537	0.0020	0.5580	0.0210	0.0754
LT42C-093	98	183	0.54	0.0567	0.0023	0.5130	0.0210	0.0656
LT42C-094	114	243	0.47	0.0585	0.0023	0.5270	0.0210	0.0653
LT42C-095	181	222	0.81	0.0548	0.0021	0.5160	0.0200	0.0682
LT42C-096	58	130	0.44	0.0554	0.0029	0.5360	0.0310	0.0703
LT42C-097	115	409	0.28	0.0629	0.0020	0.7100	0.0230	0.0819
LT42C-098	114	206	0.56	0.0571	0.0022	0.5680	0.0220	0.0720
LT42C-099	106	188	0.56	0.2289	0.0066	19.400	0.5660	0.6144
LT42C-100	84	114	0.74	0.0559	0.0025	0.5750	0.0260	0.0747
LT42C-101	240	273	0.88	0.0602	0.0022	0.6360	0.0230	0.0766
LT42C-102	296	404	0.73	0.0566	0.0019	0.5380	0.0190	0.0689

**Sample 13ts01, tuffaceous sandstone, Late Silurian-Early Devonian, Kaidu section, STS, (Zhong L et al., 2019, Tectonophysics)**

13ts01-01		1.64	0.1172	0.0013	4.9444	0.0631	0.3059
13ts01-02		0.48	0.0680	0.0010	1.4171	0.0214	0.1511
13ts01-03		0.62	0.0736	0.0013	1.6814	0.0315	0.1657
13ts01-04		0.44	0.0808	0.0009	2.3320	0.0299	0.2093
13ts01-05		0.69	0.0565	0.0017	0.5622	0.0166	0.0722
13ts01-06		0.47	0.0667	0.0011	1.2348	0.0206	0.1343
13ts01-07		0.70	0.0566	0.0009	0.5593	0.0091	0.0717
13ts01-08		0.79	0.0567	0.0010	0.5471	0.0099	0.0700
13ts01-09		0.52	0.0715	0.0009	1.6295	0.0218	0.1654
13ts01-10		0.83	0.0654	0.0011	1.1329	0.0202	0.1257
13ts01-11		0.79	0.0575	0.0014	0.5305	0.0126	0.0669
13ts01-12		0.40	0.0561	0.0009	0.5501	0.0088	0.0711
13ts01-13		0.81	0.0972	0.0012	3.6953	0.0499	0.2756
13ts01-14		0.55	0.0667	0.0010	1.2785	0.0206	0.1391
13ts01-15		0.35	0.0591	0.0008	0.7163	0.0101	0.0879
13ts01-16		0.42	0.1789	0.0021	12.6913	0.1634	0.5148
13ts01-17		0.66	0.1172	0.0017	5.5258	0.0827	0.3419
13ts01-18		0.48	0.0765	0.0009	2.0238	0.0255	0.1920
13ts01-19		1.82	0.0564	0.0015	0.5664	0.0150	0.0728
13ts01-20		0.59	0.1047	0.0012	4.2556	0.0522	0.2947
13ts01-21		0.72	0.1249	0.0031	6.2490	0.1329	0.3627
13ts01-22		1.08	0.1603	0.0019	10.0678	0.1308	0.4555
13ts01-23		0.10	0.0660	0.0008	1.1622	0.0154	0.1278

13ts01-24	0.62	0.0564	0.0008	0.5434	0.0080	0.0699
13ts01-25	2.22	0.1624	0.0017	10.3692	0.1268	0.4632
13ts01-26	0.33	0.1294	0.0014	5.7375	0.0698	0.3217
13ts01-27	0.97	0.1696	0.0019	11.2710	0.1399	0.4819
13ts01-28	1.06	0.0575	0.0007	0.5493	0.0075	0.0693
13ts01-29	0.91	0.1029	0.0012	4.0946	0.0524	0.2885
13ts01-30	1.15	0.1093	0.0012	4.7799	0.0598	0.3171
13ts01-31	0.95	0.1625	0.0018	9.6412	0.1221	0.4303
13ts01-32	0.88	0.1484	0.0041	7.8698	0.1867	0.3846
13ts01-33	0.32	0.0559	0.0008	0.5406	0.0084	0.0702
13ts01-34	0.42	0.0562	0.0016	0.5262	0.0149	0.0680
13ts01-35	0.96	0.0570	0.0007	0.5475	0.0077	0.0697
13ts01-36	0.71	0.0557	0.0009	0.5233	0.0086	0.0682
13ts01-37	0.78	0.0654	0.0009	1.1940	0.0169	0.1325
13ts01-38	0.56	0.0668	0.0008	1.1977	0.0157	0.1301
13ts01-39	0.51	0.0717	0.0008	1.5710	0.0201	0.1589
13ts01-40	0.65	0.1577	0.0017	9.9467	0.1236	0.4575
13ts01-41	0.49	0.0559	0.0008	0.5375	0.0079	0.0698
13ts01-42	0.59	0.0563	0.0008	0.5326	0.0082	0.0687
13ts01-43	0.52	0.0820	0.0009	2.4406	0.0319	0.2160
13ts01-44	0.96	0.0562	0.0007	0.5698	0.0079	0.0736
13ts01-45	1.19	0.0570	0.0008	0.5426	0.0082	0.0690
13ts01-46	0.46	0.1067	0.0014	4.4755	0.0559	0.3042
13ts01-47	0.56	0.0768	0.0005	1.9273	0.0130	0.1821
13ts01-48	0.32	0.0576	0.0004	0.5734	0.0045	0.0722
13ts01-49	0.31	0.0677	0.0004	1.2442	0.0085	0.1333
13ts01-50	0.48	0.0561	0.0006	0.5280	0.0055	0.0683
13ts01-51	0.56	0.0569	0.0005	0.5525	0.0047	0.0705
13ts01-52	0.55	0.0660	0.0007	1.1080	0.0113	0.1218
13ts01-53	0.55	0.0673	0.0009	1.2442	0.0163	0.1341
13ts01-54	0.46	0.0560	0.0004	0.5799	0.0042	0.0751
13ts01-55	1.22	0.1247	0.0007	6.3642	0.0418	0.3700
13ts01-56	0.31	0.0578	0.0005	0.5673	0.0048	0.0712
13ts01-57	0.35	0.0652	0.0007	1.0176	0.0108	0.1133
13ts01-58	0.48	0.0558	0.0005	0.5551	0.0046	0.0722
13ts01-59	0.07	0.1293	0.0007	6.8131	0.0405	0.3823
13ts01-60	0.23	0.0815	0.0011	2.2039	0.0278	0.1962
13ts01-61	0.76	0.0667	0.0007	1.2077	0.0121	0.1315
13ts01-62	0.83	0.0655	0.0008	1.1583	0.0134	0.1286
13ts01-63	1.67	0.0561	0.0006	0.5506	0.0061	0.0713
13ts01-64	1.35	0.1669	0.0007	10.8868	0.0566	0.4721
13ts01-65	1.25	0.0561	0.0007	0.5275	0.0059	0.0683
13ts01-66	1.25	0.0668	0.0010	1.2003	0.0180	0.1311
13ts01-67	0.88	0.0618	0.0018	0.5908	0.0183	0.0692
13ts01-68	1.59	0.0740	0.0009	1.5713	0.0189	0.1540
13ts01-69	1.02	0.0652	0.0010	1.1117	0.0171	0.1237
13ts01-70	0.85	0.1001	0.0005	3.8850	0.0244	0.2812
13ts01-71	1.43	0.0795	0.0008	2.1436	0.0206	0.1958
13ts01-72	0.95	0.0554	0.0006	0.5517	0.0059	0.0723
13ts01-73	1.27	0.0738	0.0007	1.7434	0.0173	0.1713
13ts01-74	0.57	0.0726	0.0005	1.7152	0.0113	0.1713
13ts01-75	1.18	0.0747	0.0006	1.7702	0.0148	0.1718
13ts01-76	0.58	0.1543	0.0010	9.6123	0.0677	0.4509
13ts01-77	0.78	0.0672	0.0006	1.2252	0.0113	0.1321
13ts01-78	1.23	0.0569	0.0007	0.5387	0.0063	0.0690
13ts01-79	1.41	0.0723	0.0009	1.5932	0.0191	0.1605
13ts01-80	0.88	0.0707	0.0005	1.5876	0.0117	0.1629
13ts01-81	1.67	0.0574	0.0018	0.5967	0.0181	0.0757
13ts01-82	0.92	0.0570	0.0007	0.5880	0.0073	0.0750
13ts01-83	0.76	0.0705	0.0005	1.5263	0.0117	0.1570
13ts01-84	2.86	0.0794	0.0009	2.1838	0.0248	0.1996
13ts01-85	0.65	0.08683	0.00273	1.80591	0.05352	0.15084

Sample 13ts03, tuffaceous sandstone, Late Silurian-Early Devonian, Kaidu section, STS, (Zhong L et al., 2019, Tectonophysics)

13ts03-01	0.69	0.0648	0.0009	1.0536	0.0168	0.1180
13ts03-02	0.79	0.0553	0.0023	0.5159	0.0207	0.0677
13ts03-03	0.65	0.0650	0.0010	1.0210	0.0166	0.1139
13ts03-04	0.84	0.0743	0.0009	0.7306	0.0102	0.0714
13ts03-05	0.54	0.0588	0.0008	0.5674	0.0088	0.0700
13ts03-06	0.46	0.1017	0.0018	3.8653	0.0704	0.2756
13ts03-07	0.68	0.0622	0.0009	0.5819	0.0093	0.0679
13ts03-08	0.08	0.0927	0.0011	3.3221	0.0474	0.2600
13ts03-09	0.54	0.1073	0.0011	3.7414	0.0490	0.2529
13ts03-10	0.79	0.0746	0.0016	1.6729	0.0374	0.1626
13ts03-11	0.55	0.0574	0.0011	0.6390	0.0124	0.0808
13ts03-12	0.71	0.0559	0.0016	0.5247	0.0148	0.0680
13ts03-13	0.58	0.0651	0.0011	1.1253	0.0200	0.1254
13ts03-14	0.19	0.1344	0.0014	4.9105	0.0635	0.2651
13ts03-15	0.40	0.0832	0.0013	2.2754	0.0386	0.1983
13ts03-16	0.74	0.0746	0.0010	1.8573	0.0287	0.1806
13ts03-17	0.56	0.0613	0.0007	0.8467	0.0119	0.1002
13ts03-18	0.97	0.1466	0.0016	8.9140	0.1165	0.4411
13ts03-19	0.45	0.0553	0.0011	0.5102	0.0103	0.0670
13ts03-20	0.37	0.0554	0.0013	0.5321	0.0127	0.0697
13ts03-21	1.79	0.1831	0.0019	12.5332	0.1619	0.4966
13ts03-22	0.97	0.0597	0.0015	0.7929	0.0203	0.0964
13ts03-23	0.74	0.2975	0.0308	4.1224	0.3861	0.1005
13ts03-24	0.50	0.0733	0.0014	1.7479	0.0354	0.1730
13ts03-25	0.38	0.0937	0.0014	3.5097	0.0559	0.2718
13ts03-26	0.55	0.0551	0.0010	0.5291	0.0097	0.0697
13ts03-27	0.81	0.0733	0.0011	1.7625	0.0291	0.1746
13ts03-28	0.30	0.0917	0.0013	3.0298	0.0472	0.2397
13ts03-29	0.38	0.0566	0.0010	0.5781	0.0103	0.0741
13ts03-30	0.82	0.1363	0.0014	5.8115	0.0736	0.3095
13ts03-31	0.43	0.1118	0.0017	5.1964	0.0834	0.3368
13ts03-32	0.34	0.0670	0.0010	1.3131	0.0211	0.1420
13ts03-33	1.89	0.0651	0.0013	1.0588	0.0217	0.1179
13ts03-34	1.75	0.0664	0.0012	1.1736	0.0225	0.1281
13ts03-35	1.06	0.0586	0.0012	0.5858	0.0118	0.0724
13ts03-36	0.63	0.0577	0.0019	0.5346	0.0169	0.0672
13ts03-37	1.20	0.1610	0.0017	10.5494	0.1295	0.4749
13ts03-38	0.13	0.1402	0.0017	8.2328	0.1115	0.4256
13ts03-39	0.43	0.0549	0.0010	0.5238	0.0099	0.0691
13ts03-40	1.32	0.0565	0.0014	0.5323	0.0133	0.0683
13ts03-42	0.58	0.0555	0.0014	0.4978	0.0126	0.0650
13ts03-43	0.72	0.0562	0.0012	0.5385	0.0115	0.0694
13ts03-44	0.55	0.0701	0.0014	1.4367	0.0288	0.1485
13ts03-45	0.50	0.0558	0.0008	0.5175	0.0076	0.0672
13ts03-46	0.39	0.0567	0.0008	0.6215	0.0097	0.0796
13ts03-47	0.34	0.0658	0.0010	1.1996	0.0199	0.1323
13ts03-48	0.92	0.0672	0.0011	0.6373	0.0114	0.0688
13ts03-49	1.09	0.0713	0.0009	1.5717	0.0220	0.1599
13ts03-50	0.45	0.0711	0.0008	1.6207	0.0221	0.1654
13ts03-51	2.17	0.1252	0.0021	6.4890	0.1163	0.3760
13ts03-52	1.56	0.4127	0.0397	3.5785	0.3036	0.0629
13ts03-53	0.67	0.0565	0.0007	0.6011	0.0086	0.0772
13ts03-54	0.96	0.0653	0.0014	1.2001	0.0254	0.1333
13ts03-55	0.39	0.0576	0.0011	0.6725	0.0131	0.0847
13ts03-56	0.53	0.1143	0.0012	5.3917	0.0698	0.3422
13ts03-57	1.16	0.0677	0.0014	1.3158	0.0270	0.1410
13ts03-59	0.39	0.0559	0.0014	0.5181	0.0130	0.0673
13ts03-60	0.49	0.0555	0.0008	0.5388	0.0087	0.0705
13ts03-61	2.22	0.0565	0.0012	0.5571	0.0118	0.0715
13ts03-62	1.25	0.0574	0.0032	0.6300	0.0364	0.0796
13ts03-63	0.58	0.0691	0.0007	1.2833	0.0139	0.1346
13ts03-64	1.52	0.0561	0.0007	0.5419	0.0069	0.0701
13ts03-65	1.89	0.0708	0.0008	1.5071	0.0180	0.1542

13ts03-66	1.39	0.0569	0.0013	0.5781	0.0123	0.0739
13ts03-67	1.96	0.0751	0.0011	1.7748	0.0257	0.1712
13ts03-68	1.20	0.0558	0.0019	0.5498	0.0169	0.0718
13ts03-69	1.45	0.1586	0.0029	9.1797	0.1398	0.4212
13ts03-70	1.67	0.0567	0.0012	0.5848	0.0126	0.0747
13ts03-71	1.37	0.0586	0.0021	0.5541	0.0175	0.0690
13ts03-72	2.78	0.0587	0.0010	0.5878	0.0106	0.0725
13ts03-73	1.05	0.0913	0.0033	3.1206	0.1039	0.2491
13ts03-74	1.69	0.0578	0.0014	0.5668	0.0123	0.0714
13ts03-75	2.50	0.0569	0.0016	0.5838	0.0159	0.0744
13ts03-76	0.05	0.0753	0.0009	1.7919	0.0204	0.1722
13ts03-77	0.81	0.0578	0.0014	0.5800	0.0141	0.0727
13ts03-78	1.47	0.0567	0.0020	0.5709	0.0192	0.0736
13ts03-79	1.69	0.0564	0.0012	0.5480	0.0103	0.0706
13ts03-80	0.37	0.0564	0.0009	0.5576	0.0091	0.0717
13ts03-81	1.23	0.0603	0.0048	0.6122	0.0383	0.0746
13ts03-82	0.85	0.0567	0.0013	0.5624	0.0117	0.0721
13ts03-83	1.47	0.0565	0.0021	0.5319	0.0189	0.0686
13ts03-84	1.52	0.0559	0.0008	0.5254	0.0075	0.0682
13ts03-85	1.28	0.0571	0.0019	0.5967	0.0181	0.0764
<b>Sample 14ts02C, cleaved tuffaceous sandstone, Late Silurian-Early Devonian, Kuikepusu section, STS, (Zhong L et al., 2019,</b>						
14ts02C-01	0.70	0.0714	0.0006	1.2066	0.0113	0.1226
14ts02C-02	0.35	0.0715	0.0006	1.2067	0.0110	0.1224
14ts02C-03	0.68	0.0661	0.0024	1.1208	0.0370	0.1231
14ts02C-04	0.34	0.0717	0.0005	1.5999	0.0130	0.1619
14ts02C-05	0.27	0.0549	0.0020	0.5249	0.0166	0.0693
14ts02C-06	0.31	0.0609	0.0007	0.5784	0.0063	0.0689
14ts02C-07	0.34	0.0598	0.0004	0.7956	0.0064	0.0965
14ts02C-08	0.51	0.0570	0.0004	0.6387	0.0054	0.0813
14ts02C-09	0.62	0.0727	0.0006	1.4483	0.0125	0.1445
14ts02C-10	0.58	0.0806	0.0008	2.3163	0.0233	0.2084
14ts02C-11	0.34	0.0568	0.0004	0.6362	0.0052	0.0813
14ts02C-12	0.35	0.0573	0.0005	0.6327	0.0055	0.0801
14ts02C-13	0.43	0.0529	0.0004	0.3471	0.0031	0.0477
14ts02C-14	0.72	0.0695	0.0007	1.4152	0.0144	0.1478
14ts02C-15	0.35	0.0574	0.0008	0.5578	0.0076	0.0705
14ts02C-16	0.26	0.1179	0.0010	3.6166	0.0298	0.2225
14ts02C-17	0.41	0.0778	0.0005	2.0618	0.0141	0.1923
14ts02C-18	0.38	0.0584	0.0022	0.6042	0.0208	0.0751
14ts02C-19	0.60	0.0691	0.0004	1.3966	0.0094	0.1467
14ts02C-20	0.35	0.0564	0.0004	0.5417	0.0043	0.0697
14ts02C-21	0.31	0.0722	0.0014	1.5382	0.0219	0.1545
14ts02C-22	0.47	0.0582	0.0005	0.7059	0.0058	0.0879
14ts02C-23	0.39	0.0565	0.0014	0.5320	0.0111	0.0683
14ts02C-24	0.23	0.1359	0.0008	7.4722	0.0504	0.3989
14ts02C-25	0.65	0.0566	0.0008	0.5451	0.0071	0.0698
14ts02C-26	0.68	0.0614	0.0012	0.4074	0.0074	0.0482
14ts02C-28	1.54	0.0698	0.0010	1.0127	0.0135	0.1053
14ts02C-29	0.43	0.0577	0.0004	0.6513	0.0049	0.0819
14ts02C-30	0.51	0.0526	0.0004	0.3538	0.0030	0.0488
14ts02C-31	0.34	0.0663	0.0004	1.1595	0.0077	0.1269
14ts02C-32	0.79	0.0647	0.0005	1.1028	0.0090	0.1238
14ts02C-33	0.43	0.0588	0.0004	0.7339	0.0049	0.0906
14ts02C-34	1.18	0.0588	0.0004	0.6845	0.0053	0.0846
14ts02C-35	0.29	0.0582	0.0005	0.5187	0.0042	0.0648
14ts02C-36	0.52	0.0567	0.0004	0.6630	0.0053	0.0849
14ts02C-37	0.31	0.0662	0.0013	0.8493	0.0135	0.0931
14ts02C-38	0.38	0.1320	0.0007	7.0493	0.0439	0.3878
14ts02C-39	1.56	0.0586	0.0046	0.7617	0.0585	0.0943
14ts02C-40	0.51	0.0574	0.0004	0.6708	0.0048	0.0848
14ts02C-41	0.17	0.0618	0.0020	0.5198	0.0146	0.0610
14ts02C-42	0.47	0.0518	0.0005	0.2891	0.0030	0.0405
14ts02C-43	0.33	0.0663	0.0014	0.6411	0.0107	0.0702

14ts02C-44	0.57	0.0594	0.0004	0.7183	0.0052	0.0878
14ts02C-45	0.53	0.0670	0.0005	1.2716	0.0100	0.1379
14ts02C-46	7.69	0.1170	0.0009	5.0009	0.0399	0.3101
14ts02C-47	0.35	0.1597	0.0011	9.4157	0.0728	0.4277
14ts02C-49	0.47	0.0701	0.0014	1.1494	0.0214	0.1190
14ts02C-50 f	0.28	0.0773	0.0035	2.2161	0.0893	0.2079
14ts02C-51	0.37	0.0485	0.0145	0.4701	0.1377	0.0703
14ts02C-52	0.22	0.0583	0.0038	0.5796	0.0346	0.0721
14ts02C-53	0.28	0.0660	0.0009	0.7209	0.0093	0.0792
14ts02C-54	0.78	0.0663	0.0056	1.1218	0.0865	0.1227
14ts02C-55	0.42	0.0554	0.0012	0.5219	0.0110	0.0684
14ts02C-56	0.07	0.0717	0.0010	1.5715	0.0214	0.1592
14ts02C-57	0.32	0.0535	0.0015	0.3023	0.0079	0.0410
14ts02C-58	0.19	0.0673	0.0009	1.2542	0.0159	0.1351
14ts02C-59	0.33	0.0564	0.0006	0.5796	0.0065	0.0746
14ts02C-60	0.07	0.1136	0.0008	5.1236	0.0405	0.3274
14ts02C-61	0.26	0.0775	0.0015	1.7623	0.0259	0.1649
14ts02C-62	0.68	0.0639	0.0007	1.0140	0.0103	0.1154
14ts02C-63	0.45	0.1219	0.0010	6.6724	0.0561	0.3979
14ts02C-64	0.10	0.0652	0.0013	1.2101	0.0229	0.1349
14ts02C-65	0.34	0.0536	0.0011	0.5220	0.0101	0.0708
14ts02C-66	0.19	0.0545	0.0022	0.5804	0.0219	0.0774
14ts02C-67	0.24	0.0743	0.0005	1.8346	0.0127	0.1793
14ts02C-68	0.32	0.0830	0.0006	1.0565	0.0080	0.0925
14ts02C-69	0.26	0.0559	0.0006	0.5687	0.0058	0.0740
14ts02C-70	0.27	0.0566	0.0006	0.5471	0.0061	0.0702
14ts02C-71	0.26	0.0464	0.0032	0.4929	0.0319	0.0773
14ts02C-72	0.30	0.0920	0.0007	3.0928	0.0251	0.2442
14ts02C-73	0.56	0.0657	0.0005	1.2897	0.0109	0.1427
14ts02C-74	0.32	0.0583	0.0006	0.5481	0.0059	0.0683
14ts02C-75	1.23	0.0588	0.0013	0.6512	0.0140	0.0807
14ts02C-76	1.49	0.0666	0.0011	1.2350	0.0192	0.1341
14ts02C-77	1.11	0.0965	0.0026	3.6410	0.0927	0.2735
14ts02C-78	0.86	0.1634	0.0014	10.8760	0.0981	0.4800
14ts02C-79	1.12	0.0563	0.0007	0.5778	0.0069	0.0741
14ts02C-80	1.79	0.0555	0.0009	0.5655	0.0088	0.0735
14ts02C-81	3.23	0.0707	0.0013	1.5676	0.0279	0.1610
14ts02C-82	1.69	0.0841	0.0019	2.5449	0.0567	0.2200
14ts02C-83	1.61	0.0515	0.0016	0.2895	0.0088	0.0406
14ts02C-84	1.67	0.0554	0.0012	0.5147	0.0112	0.0671
14ts02C-85	0.63	0.0532	0.0020	0.2949	0.0104	0.0403
14ts02C-86	1.09	0.0579	0.0020	0.6672	0.0212	0.0837
14ts02C-87	0.74	0.1211	0.0064	4.1373	0.2144	0.2524
14ts02C-88	0.89	0.0872	0.0013	2.5937	0.0406	0.2146
14ts02C-89	1.25	0.0598	0.0039	0.6904	0.0407	0.0845
14ts02C-90	0.91	0.1100	0.0013	4.9674	0.0609	0.3270
14ts02C-91	0.69	0.0556	0.0007	0.5756	0.0078	0.0747
14ts02C-92	4.76	0.1607	0.0013	10.5844	0.0876	0.4752
14ts02C-93	0.32	0.0715	0.0006	1.6859	0.0164	0.1700
14ts02C-94	0.68	0.0522	0.0014	0.2941	0.0075	0.0412

**Sample 14ts02D, cleaved tuffaceous sandstone, Late Silurian-Early Devonian, Kuikebusu section, STS, (Zhong L et al., 2019,**

14TS02D-01	0.49	0.0715	0.0008	1.1754	0.0121	0.1193
14TS02D-02	0.65	0.0713	0.0009	0.6421	0.0072	0.0653
14TS02D-03	0.66	0.0718	0.0008	0.6446	0.0070	0.0652
14TS02D-04	0.74	0.0755	0.0006	0.7080	0.0059	0.0680
14TS02D-05	0.16	0.0674	0.0005	1.2992	0.0100	0.1398
14TS02D-06	0.64	0.1066	0.0007	4.4653	0.0318	0.3039
14TS02D-07	0.83	0.0687	0.0005	0.7376	0.0052	0.0779
14TS02D-08	0.18	0.0664	0.0004	1.2164	0.0082	0.1329
14TS02D-09	0.55	0.0833	0.0005	1.3278	0.0090	0.1156
14TS02D-10	0.54	0.0639	0.0006	0.6091	0.0053	0.0692
14TS02D-11	0.56	0.0566	0.0010	0.5701	0.0091	0.0730
14TS02D-12	0.40	0.0651	0.0005	1.1494	0.0086	0.1281

14TS02D-13	0.29	0.0720	0.0004	1.6253	0.0108	0.1638
14TS02D-14	0.26	0.0729	0.0005	1.4714	0.0102	0.1463
14TS02D-15	0.33	0.0736	0.0015	1.7561	0.0326	0.1730
14TS02D-16	0.65	0.0590	0.0004	0.6977	0.0051	0.0858
14TS02D-17	0.69	0.1340	0.0008	4.7076	0.0305	0.2549
14TS02D-18	0.40	0.0596	0.0005	0.6973	0.0055	0.0849
14TS02D-19	0.61	0.0664	0.0005	1.1925	0.0087	0.1303
14TS02D-20	0.28	0.0575	0.0006	0.5859	0.0062	0.0739
14TS02D-21	0.13	0.0749	0.0006	1.8225	0.0149	0.1766
14TS02D-22	0.37	0.0613	0.0010	0.5920	0.0087	0.0701
14TS02D-23	0.12	0.0748	0.0004	1.8183	0.0115	0.1764
14TS02D-24	0.65	0.0567	0.0006	0.5829	0.0058	0.0747
14TS02D-25	0.45	0.0624	0.0016	0.5583	0.0127	0.0649
14TS02D-26	0.50	0.0566	0.0005	0.5259	0.0043	0.0674
14TS02D-27	0.56	0.0600	0.0006	0.6491	0.0064	0.0785
14TS02D-28	0.31	0.0721	0.0005	1.6476	0.0113	0.1659
14TS02D-29	0.44	0.0883	0.0010	2.7413	0.0304	0.2252
14TS02D-30	0.36	0.0693	0.0005	1.2365	0.0095	0.1295
14TS02D-31	0.30	0.0661	0.0005	1.2606	0.0094	0.1383
14TS02D-32	0.68	0.0565	0.0007	0.5682	0.0064	0.0730
14TS02D-33	0.63	0.0573	0.0006	0.6299	0.0061	0.0798
14TS02D-34	0.38	0.0667	0.0006	1.2381	0.0113	0.1346
14TS02D-35	0.61	0.0613	0.0018	0.5742	0.0150	0.0679
14TS02D-36	0.33	0.0766	0.0007	1.9484	0.0179	0.1844
14TS02D-37	0.32	0.0575	0.0005	0.5739	0.0053	0.0724
14TS02D-38	0.53	0.0657	0.0005	0.6186	0.0046	0.0683
14TS02D-39	0.32	0.1620	0.0009	10.3973	0.0669	0.4656
14TS02D-40	0.81	0.0738	0.0010	0.5983	0.0075	0.0588
14TS02D-41	0.33	0.2012	0.0011	13.1093	0.0822	0.4726
14TS02D-42	0.60	0.0773	0.0008	1.2908	0.0122	0.1211
14TS02D-43	0.71	0.0597	0.0005	0.7688	0.0067	0.0935
14TS02D-44	0.35	0.0727	0.0008	1.6662	0.0175	0.1662
14TS02D-45	0.69	0.0589	0.0005	0.5791	0.0050	0.0713
14TS02D-46	1.41	0.0560	0.0012	0.5391	0.0105	0.0701
14TS02D-47	1.33	0.1142	0.0048	5.2146	0.2295	0.3324
14TS02D-48	0.89	0.1230	0.0013	6.0508	0.0796	0.3572
14TS02D-49	0.95	0.0667	0.0008	1.2917	0.0152	0.1404
14TS02D-50	1.41	0.2039	0.0016	15.7253	0.1457	0.5580
14TS02D-51	0.52	0.1031	0.0010	4.1602	0.0424	0.2920
14TS02D-52	1.82	0.0567	0.0013	0.5672	0.0117	0.0731
14TS02D-53	1.79	0.0664	0.0039	0.9973	0.0556	0.1099
14TS02D-54	1.82	0.0730	0.0011	1.6981	0.0272	0.1688
14TS02D-55	1.82	0.0880	0.0021	2.8192	0.0638	0.2338
14TS02D-56	0.84	0.0710	0.0007	1.5656	0.0185	0.1596
14TS02D-57	1.03	0.0556	0.0007	0.5696	0.0076	0.0743
14TS02D-58	1.20	0.0567	0.0014	0.5695	0.0133	0.0732
14TS02D-59	1.41	0.0808	0.0009	2.1747	0.0223	0.1956
14TS02D-60	1.52	0.0574	0.0010	0.6877	0.0124	0.0868
14TS02D-61	0.13	0.0730	0.0021	1.5465	0.0772	0.1582
14TS02D-62	1.18	0.0581	0.0027	0.6146	0.0483	0.0806
14TS02D-63	1.01	0.0603	0.0036	0.6047	0.0611	0.0779
14TS02D-64	1.75	0.1777	0.0112	10.6889	1.3508	0.4738
14TS02D-65	0.88	0.0630	0.0050	0.6259	0.0970	0.0802
14TS02D-66	0.28	0.2932	0.0254	21.9804	3.9791	0.6117
14TS02D-67	1.84	0.1651	0.0163	5.5570	1.1653	0.2804
14TS02D-68	1.41	0.1657	0.0181	8.1488	1.9474	0.4159
14TS02D-69	2.33	0.0867	0.0160	1.1935	0.5581	0.1325
14TS02D-70	0.93	0.0744	0.0090	1.0009	0.2694	0.1158
14TS02D-71	1.37	0.1039	0.0137	2.6591	0.7976	0.2245
14TS02D-72	0.75	0.0910	0.0131	1.9762	0.6555	0.1892
14TS02D-73	1.11	0.1195	0.0183	3.4471	1.2547	0.2634
14TS02D-74	0.09	0.1364	0.0223	2.7070	1.0760	0.1840
14TS02D-75	1.52	0.0731	0.0128	0.5553	0.2400	0.0722

14TS02D-76	1.01	0.0701	0.0006	1.5758	0.0146	0.1623
14TS02D-77	2.00	0.0891	0.0007	2.9619	0.0277	0.2398
14TS02D-78	1.30	0.0585	0.0009	0.6200	0.0098	0.0766
14TS02D-79	0.02	0.0637	0.0014	1.0486	0.0222	0.1194
14TS02D-80	1.43	0.1621	0.0011	10.4651	0.0787	0.4656
14TS02D-81	1.52	0.0737	0.0006	1.7419	0.0151	0.1707
14TS02D-82	1.10	0.0721	0.0037	1.5299	0.0747	0.1564
14TS02D-83	1.47	0.0934	0.0014	3.0652	0.0458	0.2367
14TS02D-84	0.54	0.0817	0.0006	2.3816	0.0185	0.2100
14TS02D-85	0.96	0.0898	0.0008	3.0519	0.0321	0.2453
14TS02D-86	1.72	0.0694	0.0010	1.3427	0.0179	0.1399
14TS02D-87	0.74	0.0749	0.0008	1.7550	0.0199	0.1688
14TS02D-88	0.45	0.1553	0.0013	9.7670	0.1058	0.4535
14TS02D-89	0.63	0.0928	0.0009	3.3469	0.0339	0.2603
14TS02D-90	7.14	0.0659	0.0018	1.1447	0.0298	0.1258
14TS02D-91	0.49	0.0779	0.0005	2.0620	0.0138	0.1920

Carboniferous clastic rocks of the South Tianshan and adjacent areas.

1σ	Age (Ma)			Disc. (%)*		Preferred age (Ma) <sup>#</sup>			
	$^{207}\text{Pb}/^{206}\text{Pb}$	1σ	$^{207}\text{Pb}/^{235}\text{U}$	1σ	$^{206}\text{Pb}/^{238}\text{U}$	1σ	Age	1σ	
0.0008	498	54	455	9	446	5	102	446	5
0.0058	3019	22	2975	13	2909	24	104	3019	22
0.0027	1364	49	1301	19	1263	14	108	1364	49
0.0007	408	63	403	10	402	4	100	402	4
0.0008	510	57	434	9	420	5	103	420	5
0.0045	2477	22	2453	12	2425	20	102	2477	22
0.0037	1951	29	1924	14	1899	18	103	1951	29
0.0009	508	62	462	13	453	5	102	453	5
0.0026	1561	25	1539	11	1523	13	102	1561	25
0.0007	497	37	459	6	451	4	102	451	4
0.0008	478	52	448	10	442	5	101	442	5
0.0021	1128	38	1132	13	1134	11	99	1128	38
0.0008	472	53	453	9	449	5	101	449	5
0.0009	588	64	498	14	479	6	104	479	6
0.0014	852	33	827	9	818	8	101	818	8
0.0008	463	57	440	9	436	5	101	436	5
0.0008	426	54	429	9	430	5	100	430	5
0.0011	379	148	398	23	401	7	99	401	7
0.0008	539	63	442	10	423	5	104	423	5
0.0008	538	64	430	10	410	5	105	410	5
0.0022	1357	27	1274	13	1225	12	111	Discordant	
0.0008	474	69	411	13	400	5	103	400	5
0.0008	404	55	425	9	429	5	99	429	5
0.0007	404	49	413	7	414	4	100	414	4
0.0009	375	77	452	13	468	5	97	468	5
0.0011	476	95	485	17	487	6	100	487	6
0.0047	2588	22	2536	13	2470	20	105	2588	22
0.0036	1987	26	1967	13	1948	17	102	1987	26
0.0035	1905	25	1915	12	1924	17	99	1905	25
0.0016	923	60	824	17	788	9	105	788	9
0.0009	680	63	519	12	483	6	107	483	6
0.0007	445	41	427	7	424	4	101	424	4
0.0017	837	67	813	18	805	10	101	805	10
0.0009	465	42	498	8	505	5	99	505	5
0.0034	1666	41	1631	18	1603	17	104	1666	41
0.0007	485	44	447	7	439	4	102	439	4
0.0008	444	75	418	12	413	5	101	413	5
0.0056	2846	22	2846	13	2844	23	100	2846	22
0.0038	1983	27	2003	14	2022	18	98	1983	27
0.0008	450	46	460	8	462	5	100	462	5
0.0016	971	31	955	10	948	9	101	948	9
0.0008	496	42	457	7	449	5	102	449	5
0.0021	1217	29	1229	11	1235	11	99	1217	29
0.0007	400	42	422	7	426	4	99	426	4
0.0052	2637	24	2629	14	2619	22	101	2637	24
0.0008	449	51	430	10	426	5	101	426	5
0.0039	2027	29	2028	14	2029	19	100	2027	29
0.0008	444	43	459	7	461	5	100	461	5
0.0008	487	64	445	11	437	5	102	437	5
0.0008	416	65	418	10	418	5	100	418	5
0.0011	694	36	671	8	664	7	101	664	7
0.0036	1767	33	1793	15	1816	17	97	1767	33
0.0036	1931	28	1920	14	1909	17	101	1931	28
0.0009	489	74	424	15	412	5	103	412	5
0.0007	494	44	446	7	436	4	102	436	4
0.0023	1084	50	1111	17	1124	12	96	1084	50
0.0007	499	44	445	7	435	4	102	435	4
0.0020	1123	35	1131	12	1135	11	99	1123	35
0.0007	333	85	351	11	354	4	99	354	4

0.0008	348	54	423	8	437	5	97	437	5
0.0017	1091	45	936	14	872	9	107	872	9
0.0008	483	44	470	7	468	5	100	468	5
0.0007	358	82	338	10	335	4	101	335	4
0.0037	1921	29	1945	14	1968	18	98	1921	29
0.0038	1920	28	1981	14	2039	18	94	1920	28
0.0020	1067	39	1080	13	1085	11	98	1067	39
0.0008	466	54	434	9	428	5	101	428	5
0.0007	534	53	437	8	418	4	105	418	4
0.0009	458	53	482	9	487	5	99	487	5
0.0042	2130	28	2157	14	2185	19	97	2130	28
0.0009	502	64	460	11	451	5	102	451	5
0.0007	513	39	444	6	431	4	103	431	4
0.0008	401	55	430	9	435	5	99	435	5
0.0037	1992	29	1936	17	1884	18	106	1992	29
0.0007	449	50	427	8	423	4	101	423	4
0.0008	455	58	442	9	440	5	100	440	5
0.0008	479	57	444	9	437	5	102	437	5
0.0009	591	78	457	13	431	5	106	431	5
0.0008	458	48	454	8	454	5	100	454	5
0.0009	296	67	427	10	452	5	94	452	5
0.0009	473	59	462	10	459	5	101	459	5
0.0052	2481	29	2503	16	2530	22	98	2481	29
0.0016	914	48	853	13	830	9	103	830	9
<b>sl., 2016, Geology)</b>									
0.0032	1483	31	1446	14	1420	16	104	1483	31
0.0054	2438	27	2357	16	2263	24	108	2438	27
0.0012	497	181	361	25	340	8	106	340	8
0.0010	417	60	461	11	470	6	98	470	6
0.0063	2520	29	2513	18	2504	27	101	2520	29
0.0010	490	52	463	9	458	6	101	458	6
0.0010	485	67	459	12	454	6	101	454	6
0.0010	411	70	426	14	429	6	99	429	6
0.0010	506	47	475	9	469	6	101	469	6
0.0009	367	52	415	8	423	5	98	423	5
0.0010	423	68	418	11	417	6	100	417	6
0.0010	497	56	470	10	464	6	101	464	6
0.0010	567	114	383	17	353	6	108	353	6
0.0010	500	53	452	9	443	6	102	443	6
0.0007	244	74	304	9	311	4	98	311	4
0.0013	362	90	486	16	513	8	95	513	8
0.0009	503	58	417	10	402	5	104	402	5
0.0010	871	52	524	11	448	6	117	Discordant	
0.0010	570	68	457	12	435	6	105	435	6
0.0007	379	88	316	13	307	4	103	307	4
0.0008	430	82	360	13	349	5	103	349	5
0.0009	736	106	369	15	314	5	118	Discordant	
0.0007	338	95	308	11	304	5	101	304	5
0.0022	1055	44	1000	15	976	12	102	976	12
0.0029	1504	36	1372	15	1289	15	117	Discordant	
0.0018	830	41	834	12	836	10	100	836	10
0.0010	469	53	455	9	452	6	101	452	6
0.0010	388	55	435	9	444	6	98	444	6
0.0010	576	63	459	14	436	6	105	436	6
0.0021	964	42	953	13	948	12	101	948	12
0.0007	513	62	327	8	301	4	109	301	4
0.0045	1985	33	1944	17	1905	22	104	1985	33
0.0011	455	100	429	16	425	7	101	425	7
0.0010	396	79	420	12	424	6	99	424	6
0.0007	404	86	309	10	296	4	104	296	4
0.0008	298	76	356	10	365	5	98	365	5
0.0010	506	66	454	11	444	6	102	444	6
0.0010	436	60	447	10	450	6	99	450	6

0.0007	288	69	301	8	302	4	100	302	4
0.0010	477	57	450	10	445	6	101	445	6
0.0011	461	82	448	14	445	6	101	445	6
0.0010	545	80	430	13	409	6	105	409	6
0.0007	362	65	333	8	329	4	101	329	4
0.0009	157	114	312	14	333	5	94	333	5
0.0023	1028	45	1021	15	1018	13	101	1028	45
0.0052	2286	35	2202	19	2112	24	108	2286	35
0.0012	192	132	380	18	412	7	92	412	7
0.0010	502	60	444	10	433	6	103	433	6
0.0011	457	65	463	11	464	6	100	464	6
0.0010	490	61	463	10	457	6	101	457	6
0.0012	584	84	477	18	455	7	105	455	7
0.0011	422	74	445	12	450	6	99	450	6
0.0010	427	77	430	12	431	6	100	431	6
0.0010	418	71	424	11	425	6	100	425	6
0.0010	456	63	436	10	432	6	101	432	6
0.0009	623	61	433	10	398	5	109	398	5
0.0093	3424	33	3382	22	3312	36	103	3424	33
0.0010	467	55	444	9	440	6	101	440	6
0.0009	486	71	406	11	392	6	104	392	6
0.0010	433	101	382	15	373	6	102	373	6
0.0044	1801	43	1787	21	1774	22	102	1801	43
0.0012	520	73	496	13	491	7	101	491	7
0.0042	1673	49	1636	22	1607	21	104	1673	49
0.0026	1056	55	1076	19	1086	14	97	1056	55
0.0011	458	59	477	10	481	6	99	481	6
0.0010	370	63	415	10	423	6	98	423	6
0.0023	956	52	977	16	987	13	99	987	13
0.0010	488	56	465	10	461	6	101	461	6
0.0057	1670	83	1642	37	1619	29	103	1670	83
0.0011	546	82	461	14	445	7	104	445	7
0.0058	2401	39	2326	22	2241	26	107	2401	39
0.0022	1146	65	945	21	861	12	110	861	12
0.0010	542	62	471	11	457	6	103	457	6
0.0008	309	90	310	11	310	5	100	310	5
0.0010	448	60	428	10	425	6	101	425	6
0.0012	582	90	485	19	465	7	104	465	7
0.0007	266	81	296	9	300	4	99	300	4
0.0010	423	62	447	10	451	6	99	451	6
0.0020	878	57	851	16	841	11	101	841	11
0.0023	887	67	898	20	902	13	100	902	13
0.0009	573	120	338	16	305	5	111	Discordant	
0.0011	358	72	439	12	454	6	97	454	6
0.0011	308	138	356	18	363	7	98	363	7
0.0009	275	97	350	13	361	6	97	361	6
0.0050	1938	46	1936	23	1934	24	100	1938	46
0.0007	258	73	299	8	304	4	98	304	4
0.0010	483	71	438	12	429	6	102	429	6
0.0010	358	84	389	12	394	6	99	394	6
0.0025	1025	59	1034	19	1038	14	99	1025	59
0.0009	302	146	305	17	305	6	100	305	6
0.0010	610	210	304	30	265	6	115	Discordant	
0.0054	1908	54	1923	26	1938	26	98	1908	54
0.0011	517	65	467	11	457	6	102	457	6
0.0011	436	71	452	12	455	6	99	455	6
0.0018	711	70	739	17	749	11	99	749	11
0.0011	494	67	472	12	468	6	101	468	6
0.0019	899	64	824	18	796	11	104	796	11
0.0009	442	59	423	9	420	6	101	420	6
0.0020	736	58	827	16	861	11	96	861	11
0.0010	437	56	435	9	434	6	100	434	6

0.0009	501	60	436	10	424	6	103	424	6
0.0060	2422	28	2430	17	2438	26	99	2422	28
0.0073	2511	34	2575	20	2655	31	95	2511	34
0.0009	488	54	442	9	433	6	102	433	6
0.0048	1791	42	1825	20	1854	23	97	1791	42
0.0010	903	47	522	10	439	6	119	Discordant	
0.0038	1974	32	1771	18	1605	19	123	Discordant	
0.0011	485	56	500	11	503	7	99	503	7
0.0010	442	56	463	10	467	6	99	467	6
0.0009	476	52	435	9	427	6	102	427	6
0.0010	383	54	436	9	446	6	98	446	6
0.0035	1435	39	1452	17	1463	18	98	1435	39
0.0010	436	56	461	12	466	6	99	466	6
0.0020	896	51	874	15	865	11	101	865	11
0.0011	708	64	503	12	459	6	110	459	6
0.0010	492	66	454	11	446	6	102	446	6
0.0060	2493	29	2468	17	2437	27	102	2493	29
0.0022	1039	45	979	15	952	12	103	952	12
0.0010	573	61	477	11	457	6	104	457	6
0.0012	619	87	501	16	475	7	105	475	7
0.0009	457	57	428	9	422	6	101	422	6
0.0053	2383	29	2296	17	2200	24	108	2383	29
0.0028	1121	45	1163	17	1185	15	95	1121	45
0.0021	933	40	955	13	964	12	99	964	12
0.0065	2534	33	2504	20	2467	28	103	2534	33
0.0011	515	62	475	11	467	6	102	467	6
0.0011	481	75	449	13	443	6	101	443	6
0.0011	527	66	471	12	459	6	103	459	6
0.0010	456	77	414	15	407	6	102	407	6
0.0011	517	83	448	17	435	6	103	435	6
0.0010	528	82	424	15	405	6	105	405	6
0.0010	467	58	451	10	448	6	101	448	6
0.0011	745	66	513	13	463	7	111	Discordant	
0.0010	520	56	473	10	463	6	102	463	6
0.0009	341	65	396	10	406	6	98	406	6
0.0010	477	65	444	11	437	6	102	437	6
0.0008	367	88	313	13	305	5	103	305	5
0.0011	473	101	425	16	416	7	102	416	7
0.0068	2485	36	2512	21	2546	30	98	2485	36
0.0019	838	49	841	14	842	11	100	842	11
0.0018	831	48	822	14	818	10	100	818	10
0.0010	474	69	450	12	445	6	101	445	6
0.0011	262	135	343	17	355	6	97	355	6
0.0066	2485	35	2508	21	2537	29	98	2485	35
0.0009	454	49	416	8	409	5	102	409	5
0.0013	734	109	488	20	437	8	112	Discordant	
0.0008	407	77	341	10	332	5	103	332	5
0.0010	676	57	485	11	445	6	109	445	6
0.0055	2202	36	2211	20	2220	25	99	2202	36
0.0020	797	62	826	17	837	11	99	837	11
0.0010	366	65	415	10	424	6	98	424	6
0.0078	3008	34	2981	21	2942	32	102	3008	34
0.0010	454	71	427	11	422	6	101	422	6
0.0024	1038	50	1025	17	1020	13	102	1038	50
0.0049	1974	42	1940	21	1908	23	103	1974	42
0.0010	484	67	449	13	443	6	101	443	6
0.0010	460	72	432	12	427	6	101	427	6
0.0052	1980	42	2006	21	2032	24	97	1980	42
0.0011	426	63	453	11	459	6	99	459	6
0.0021	864	61	857	18	854	12	100	854	12
0.0011	410	101	431	16	435	7	99	435	7
0.0011	362	87	420	13	431	6	97	431	6
0.0010	413	88	390	13	386	6	101	386	6

0.0010	483	60	435	10	427	6	102	427	6
0.0011	528	60	471	11	459	6	103	459	6
0.0030	1192	56	1190	20	1189	16	100	1192	56
0.0010	392	78	424	12	429	6	99	429	6
0.0012	631	85	486	15	456	7	107	456	7
0.0010	492	74	431	12	420	6	103	420	6
0.0011	550	81	446	14	426	6	105	426	6
0.0010	568	117	406	20	378	6	107	378	6
0.0020	878	56	849	16	839	11	101	839	11
0.0011	446	84	450	14	451	7	100	451	7
0.0021	860	61	853	17	851	12	100	851	12
0.0013	152	124	415	19	464	8	89	Discordant	
0.0077	2755	42	2771	25	2794	32	99	2755	42
0.0024	1020	57	1000	19	991	13	101	991	13
0.0046	1839	50	1794	24	1756	23	105	1839	50
0.0063	2542	44	2454	25	2349	28	108	2542	44
0.0053	2028	51	1975	26	1925	25	105	2028	51
0.0010	374	80	413	12	420	6	98	420	6
0.0055	2121	47	2105	25	2090	26	101	2121	47
0.0011	568	74	466	13	446	6	104	446	6
0.0011	471	76	455	13	452	7	101	452	7
0.0059	1890	64	1886	31	1882	28	100	1890	64
0.0010	461	76	427	12	421	6	101	421	6
0.0070	2426	51	2396	29	2362	31	103	2426	51
0.0010	426	81	419	13	418	6	100	418	6
0.0011	494	82	451	14	443	7	102	443	7
0.0011	618	80	474	14	445	7	107	445	7
0.0011	515	78	443	13	429	6	103	429	6
0.0070	2586	48	2553	27	2512	31	103	2586	48
0.0010	434	74	424	12	423	6	100	423	6
0.0021	868	72	823	20	807	12	102	807	12
0.0011	700	200	382	33	331	6	115	Discordant	
0.0007	355	98	323	14	319	4	101	319	4
0.0010	499	97	439	16	428	6	103	428	6
0.0008	533	62	444	10	427	5	104	427	5
0.0009	494	62	473	11	468	5	101	468	5
0.0009	497	86	453	17	445	6	102	445	6
0.0008	499	55	450	9	440	5	102	440	5
0.0008	543	60	445	10	426	5	104	426	5
0.0031	1582	37	1587	16	1590	15	99	1582	37
0.0008	522	65	446	11	432	5	103	432	5
0.0008	469	54	460	9	458	5	100	458	5
0.0009	510	85	440	14	426	6	103	426	6
0.0009	505	76	432	12	418	5	103	418	5
0.0009	513	67	451	11	439	5	103	439	5
0.0019	969	71	863	21	822	11	105	822	11
0.0040	1908	32	1969	15	2028	19	94	1908	32
0.0008	461	46	478	8	482	5	99	482	5
0.0009	469	62	464	10	463	5	100	463	5
0.0008	451	50	463	10	465	5	100	465	5
0.0009	550	74	468	13	451	5	104	451	5
0.0047	2169	33	2215	17	2265	21	96	2169	33
0.0012	404	158	439	25	446	7	98	446	7
0.0041	1910	35	1950	17	1988	19	96	1910	35
0.0009	472	49	479	8	480	5	100	480	5
0.0008	538	46	453	8	437	5	104	437	5
0.0039	1962	31	1983	15	2002	18	98	1962	31
0.0055	2683	29	2683	16	2682	23	100	2683	29
0.0009	776	65	525	14	469	6	112	Discordant	
0.0008	445	50	462	8	465	5	99	465	5
0.0008	515	51	470	9	461	5	102	461	5
0.0009	559	76	471	13	454	6	104	454	6

0.0009	476	56	475	10	475	5	100	475	5
0.0016	825	42	850	12	860	9	99	860	9
0.0019	1126	42	1062	14	1031	11	109	1126	42
0.0024	1132	46	1190	16	1222	13	93	1132	46
0.0008	550	107	372	17	344	5	108	344	5
0.0009	464	48	495	8	502	5	99	502	5
0.0009	431	76	451	14	455	6	99	455	6
0.0010	510	83	461	14	451	6	102	451	6
0.0009	509	52	476	9	469	5	101	469	5
0.0008	468	51	455	9	452	5	101	452	5
0.0008	469	54	446	9	441	5	101	441	5
0.0008	457	47	465	8	467	5	100	467	5
0.0008	483	47	461	8	457	5	101	457	5
0.0009	515	83	449	14	437	6	103	437	6
0.0009	469	53	473	9	474	5	100	474	5
0.0008	434	53	442	9	444	5	100	444	5
0.0048	2243	34	2260	18	2278	22	98	2243	34
0.0012	492	99	499	18	500	7	100	500	7
0.0008	449	67	430	11	426	5	101	426	5
0.0009	504	55	474	11	468	5	101	468	5
0.0011	467	104	455	18	452	6	101	452	6
0.0007	348	74	371	10	375	5	99	375	5
0.0011	343	127	415	20	428	6	97	428	6
0.0006	821	53	408	9	339	4	120	Discordant	
0.0011	511	85	496	16	493	6	101	493	6
0.0006	313	63	325	8	327	4	99	327	4
0.0009	424	61	458	10	464	5	99	464	5
0.0008	529	48	485	9	475	5	102	475	5
0.0007	419	38	448	6	453	4	99	453	4
0.0008	439	43	454	7	457	5	99	457	5
0.0008	424	49	474	8	484	5	98	484	5
0.0012	531	59	598	12	615	7	97	615	7
0.0015	842	35	872	10	884	8	99	884	8
0.0008	487	42	469	7	465	5	101	465	5
0.0006	412	63	356	9	348	4	102	348	4
0.0010	410	98	441	16	447	6	99	447	6
0.0007	339	76	356	10	358	4	99	358	4
0.0015	862	34	880	10	887	9	99	887	9
0.0008	419	45	475	8	486	5	98	486	5
0.0008	427	54	458	9	464	5	99	464	5
0.0008	550	53	465	9	447	5	104	447	5
0.0010	568	82	492	15	476	6	103	476	6
0.0008	477	52	444	10	438	5	101	438	5
0.0008	474	43	463	7	460	5	101	460	5
0.0007	403	39	433	6	438	4	99	438	4
0.0037	2007	25	2019	13	2030	18	99	2007	25
0.0006	411	57	357	8	349	4	102	349	4
0.0013	804	33	801	9	799	8	100	799	8
0.0006	338	62	339	8	339	4	100	339	4
0.0008	521	74	440	12	425	5	104	425	5
0.0051	2491	27	2488	15	2482	22	100	2491	27
0.0009	613	64	478	12	450	5	106	450	5
0.0010	573	76	486	14	467	6	104	467	6
0.0012	753	108	513	21	461	7	111	Discordant	
0.0008	472	45	464	8	462	5	100	462	5
0.0011	510	114	444	19	431	7	103	431	7
0.0008	366	51	444	8	460	5	97	460	5
0.0009	468	67	477	12	479	6	100	479	6
0.0020	1055	32	1102	11	1125	11	94	1055	32
0.0008	567	56	457	9	435	5	105	435	5
0.0008	471	55	448	9	443	5	101	443	5
0.0046	2203	29	2249	15	2299	21	96	2203	29
0.0008	483	46	465	8	461	5	101	461	5

0.0011	560	83	504	15	491	6	103	491	6
0.0007	492	41	433	7	422	4	103	422	4
	405	13	462	5	473	6	98	473	6
	734	13	522	5	475	6	110	475	6
	489	82	477	13	475	6	100	475	6
	1787	61	1803	24	1818	23	98	1787	61
	546	84	483	13	470	6	103	470	6
	921	13	544	6	459	6	119	Discordant	
	492	13	479	5	476	6	101	476	6
	859	65	497	11	422	6	118	Discordant	
	352	14	459	5	481	6	95	481	6
	2284	10	2300	12	2317	25	99	2284	10
	621	13	501	6	476	6	105	476	6
	472	15	460	5	457	6	101	457	6
	1907	11	1947	11	1984	22	96	1907	11
	1961	10	1987	11	2011	22	98	1961	10
	561	13	490	5	475	6	103	475	6
	515	13	488	5	482	6	101	482	6
	597	15	466	6	440	6	106	440	6
	677	15	492	6	453	6	109	453	6
	434	13	466	5	472	6	99	472	6
	541	13	519	5	514	6	101	514	6
	503	13	504	5	504	6	100	504	6
	1833	11	1857	11	1879	21	98	1833	11
	619	13	515	5	491	6	105	491	6
	464	13	474	5	476	6	100	476	6
	388	14	468	5	485	6	96	485	6
	510	14	461	5	451	6	102	451	6
	656	80	457	12	418	5	109	418	5
	1868	11	1885	12	1900	21	98	1868	11
	2089	10	2087	11	2085	22	100	2089	10
	652	13	525	5	497	6	106	497	6
	505	14	471	5	464	6	102	464	6
	637	13	502	5	473	6	106	473	6
	564	115	449	18	426	6	105	426	6
	835	12	840	7	843	10	100	843	10
	529	13	493	5	486	6	101	486	6
	463	62	482	9	486	6	99	486	6
	2258	10	2279	11	2302	24	98	2258	10
	2408	10	2407	12	2406	25	100	2408	10
	652	84	501	14	468	6	107	468	6
	555	13	468	5	450	5	104	450	5
	700	12	635	6	616	7	103	616	7
	685	83	521	15	485	6	107	485	6
	714	66	482	11	434	5	111	Discordant	
	2285	10	2024	11	1778	19	129	Discordant	
	2343	10	2330	11	2316	24	101	2343	10
	499	13	468	5	462	5	101	462	5
	546	13	478	5	464	5	103	464	5
	538	13	489	5	478	6	102	478	6
	2207	10	2192	11	2175	23	101	2207	10
	637	59	532	10	508	6	105	508	6
	668	12	504	5	469	6	107	469	6
	534	12	463	5	449	5	103	449	5
	503	13	465	5	457	5	102	457	5
	827	12	767	7	746	9	103	746	9
	615	13	497	5	472	6	105	472	6
	1869	11	1921	12	1969	21	95	1869	11
	564	96	476	16	458	6	104	458	6
	439	14	450	5	452	5	100	452	5
	569	12	485	5	467	5	104	467	5
	1797	10	1832	11	1864	20	96	1797	10

2307	30	2244	11	2176	22	106	2307	30	
731	13	497	5	448	5	111	Discordant		
521	84	453	13	439	6	103	439	6	
493	13	482	5	479	6	101	479	6	
1910	10	1923	11	1935	20	99	1910	10	
459	12	530	5	546	6	97	546	6	
968	21	521	8	425	5	123	Discordant		
2267	10	2295	11	2325	23	98	2267	10	
544	15	470	6	455	5	103	455	5	
1817	11	1766	12	1722	19	106	1817	11	
846	12	478	5	404	5	118	Discordant		
375	13	440	5	452	5	97	452	5	
619	15	471	6	440	5	107	440	5	
576	13	505	5	490	6	103	490	6	
2264	10	2286	11	2310	23	98	2264	10	
439	97	453	15	456	6	99	456	6	
511	13	481	5	475	5	101	475	5	
433	64	446	9	449	5	99	449	5	
656	74	454	11	415	5	109	415	5	
2436	10	2462	12	2492	25	98	2436	10	
0.0008	398	58	450	9	460	5	98	460	5
0.0014	959	40	848	11	806	8	105	806	8
0.0008	431	58	446	9	449	5	99	449	5
0.0044	2715	22	2582	13	2416	19	112	Discordant	
0.0027	1933	27	1722	12	1554	14	124	Discordant	
0.0009	549	73	469	12	453	5	104	453	5
0.0008	447	52	449	8	450	5	100	450	5
0.0008	583	61	456	10	432	5	106	432	5
0.0033	1861	26	1867	12	1871	16	99	1861	26
0.0008	443	50	444	8	444	5	100	444	5
0.0008	539	64	448	10	430	5	104	430	5
0.0008	461	65	448	11	445	5	101	445	5
0.0008	615	61	477	11	448	5	106	448	5
0.0058	3004	23	2996	13	2983	24	101	3004	23
0.0008	577	51	472	9	450	5	105	450	5
0.0015	936	35	891	10	873	8	102	873	8
0.0008	548	59	459	10	441	5	104	441	5
0.0009	460	75	449	12	446	5	101	446	5
0.0037	1815	33	1849	15	1880	18	97	1815	33
0.0008	459	49	444	8	441	5	101	441	5
0.0013	364	141	459	23	478	8	96	478	8
0.0008	507	51	460	9	451	5	102	451	5
0.0008	439	70	437	11	436	5	100	436	5
0.0008	507	67	450	11	438	5	103	438	5
0.0009	446	70	450	11	451	5	100	451	5
0.0008	417	69	429	11	431	5	100	431	5
0.0008	379	62	433	10	443	5	98	443	5
0.0008	373	54	430	8	440	5	98	440	5
0.0015	960	36	896	10	871	8	103	871	8
0.0008	441	61	442	10	443	5	100	443	5
0.0016	897	56	826	15	800	9	103	800	9
0.0010	275	93	437	14	469	6	93	469	6
0.0009	411	65	450	11	458	5	98	458	5
0.0016	861	43	892	12	904	9	99	904	9
0.0032	1555	59	1427	32	1343	17	116	Discordant	
0.0008	415	59	441	9	446	5	99	446	5
0.0011	664	203	497	40	462	6	108	462	6
0.0013	830	41	783	11	767	8	102	767	8
0.0009	561	64	479	11	462	5	104	462	5
0.0008	400	61	453	10	463	5	98	463	5
0.0008	449	61	450	10	451	5	100	451	5
0.0008	424	59	447	10	451	5	99	451	5

0.0043	1926	42	1913	20	1900	21	101	1926	42
0.0046	2429	27	2419	14	2406	20	101	2429	27
0.0008	510	48	471	8	463	5	102	463	5
0.0038	1964	28	2006	14	2046	18	96	1964	28
0.0008	650	43	489	8	456	5	107	456	5
0.0009	487	62	454	12	448	5	101	448	5
0.0009	515	69	466	12	456	5	102	456	5
0.0008	608	54	462	12	434	5	106	434	5
0.0008	388	48	439	8	448	5	98	448	5
0.0012	668	51	656	12	652	7	101	652	7
0.0008	505	45	458	8	449	5	102	449	5
0.0008	439	63	433	10	432	5	100	432	5
0.0008	531	49	458	9	444	5	103	444	5
0.0014	828	36	830	10	831	8	100	831	8
0.0008	453	47	439	8	437	5	100	437	5
0.0037	1830	33	1862	16	1890	18	97	1830	33
0.0008	476	53	456	9	453	5	101	453	5
0.0008	564	53	472	9	453	5	104	453	5
0.0025	1957	68	1484	34	1175	13	167	Discordant	
0.0017	871	43	897	13	908	9	99	908	9
0.0055	2571	30	2580	17	2590	24	99	2571	30
0.0008	458	47	440	8	436	5	101	436	5
0.0009	497	59	462	10	455	5	102	455	5
0.0009	574	74	457	13	434	5	105	434	5
0.0010	536	95	454	16	438	6	104	438	6
0.0008	407	59	438	10	444	5	99	444	5
0.0008	480	52	450	9	445	5	101	445	5
0.0037	1903	31	1929	15	1954	18	97	1903	31
0.0017	864	48	878	14	883	9	99	883	9
0.0009	495	64	470	11	465	5	101	465	5
0.0009	447	61	457	10	459	5	100	459	5
0.0008	391	58	432	9	440	5	98	440	5
0.0009	474	50	474	9	473	5	100	473	5
0.0009	391	64	442	11	452	5	98	452	5
0.0012	650	46	656	11	657	7	100	657	7
0.0009	509	58	474	10	467	5	101	467	5
0.0009	471	63	450	11	446	5	101	446	5
0.0008	407	50	448	8	457	5	98	457	5
0.0008	407	55	449	9	457	5	98	457	5
0.0008	417	54	447	9	453	5	99	453	5
0.0017	838	53	839	15	840	9	100	840	9
0.0009	382	63	437	10	448	5	98	448	5
0.0008	404	58	444	10	452	5	98	452	5
0.0009	516	72	459	13	447	5	103	447	5
0.0008	420	59	441	10	445	5	99	445	5
0.0014	604	58	678	14	701	8	97	701	8
0.001000	464	49	447	8.4	441	6.1	101	441	6.1
0.001100	468	38	441	7.2	435	6.3	101	435	6.3
0.002300	838	29	687	10.0	643	13.0	107	643	13.0
0.001000	474	62	430	11.0	417	6.0	103	417	6.0
0.001100	515	28	436	5.2	419	6.4	104	419	6.4
0.001100	427	37	436	7.0	436	6.5	100	436	6.5
0.001100	465	38	429	8.0	418	6.4	103	418	6.4
0.001100	467	38	445	6.6	440	6.4	101	440	6.4
0.002447	1328	56.6	1337	20.8	1333	12.8	100	1328	56.6
0.002700	959	23	951	12.0	946	15.0	101	946	15.0
0.001300	573	45	510	10.0	491	7.7	104	491	7.7
0.001000	393	43	404	7.3	404	6.1	100	404	6.1
0.001100	442	54	434	8.7	433	6.6	100	433	6.6
0.001100	400	56	421	9.4	423	6.5	100	423	6.5
0.001000	480	30	450	6.5	444	6.2	101	444	6.2
0.000700	274	45	304	5.8	308	4.3	99	308	4.3

0.001200	472	36	457	7.6	453	6.9	101	453	6.9
0.000880	492	63	352	9.5	327	5.4	108	327	5.4
0.000930	387	66	360	8.8	357	5.7	101	357	5.7
0.000750	712	59	361	9.0	309	4.6	117	Discordant	
0.001000	424	43	429	7.9	431	6.2	100	431	6.2
0.001100	463	35	445	6.7	442	6.6	101	442	6.6
0.004200	1505	24	1426	14.0	1372	22.0	110	1505	24.0
0.001000	445	35	421	6.3	418	6.1	101	418	6.1
0.002300	978	30	967	12.0	970	12.0	100	970	12.0
0.001200	451	39	450	7.4	452	6.9	100	452	6.9
0.001500	508	44	468	10.0	461	9.2	101	461	9.2
0.001200	440	45	428	7.0	427	7.1	100	427	7.1
0.002000	675	38	670	10.0	668	12.0	100	668	12.0
0.001000	421	42	422	7.7	423	6.2	100	423	6.2
0.002600	1076	27	1033	11.0	1017	14.0	106	1076	27.0
0.004500	1381	16	1343	15.0	1324	23.0	104	1381	16.0
0.002200	498	25	479	12.0	477	13.0	100	477	13.0
0.001000	479	48	445	8.4	436	6.1	102	436	6.1
0.007500	2318	15	2328	14.0	2348	32.0	99	2318	15.0
0.001200	501	30	464	6.8	456	7.2	102	456	7.2
0.001100	433	36	428	6.4	427	6.5	100	427	6.5
0.002700	1132	27	1010	12.0	958	15.0	105	958	15.0
0.001800	759	33	726	9.8	717	10.0	101	717	10.0
0.000990	517	28	450	6.1	437	6.0	103	437	6.0
0.001900	767	30	733	9.8	718	11.0	102	718	11.0
0.001100	484	36	447	7.0	437	6.7	102	437	6.7
0.004500	1799	16	1714	15.0	1645	23.0	109	1799	16.0
0.001200	523	44	469	9.2	458	7.3	102	458	7.3
0.000950	413	58	345	8.2	334	6.0	104	334	6.0
0.001100	366	33	401	5.9	407	6.8	98	407	6.8
0.000980	402	55	326	7.4	313	6.0	104	313	6.0
0.003924	1647	57.4	1689	24.5	1723	19.4	96	1647	57.4
0.001100	433	55	427	9.7	421	6.7	101	421	6.7
0.001200	474	44	429	8.0	419	7.0	102	419	7.0
0.002900	990	31	1019	13.0	1029	16.0	96	990	31.0
0.000940	280	68	300	8.1	300	5.8	100	300	5.8
0.001500	444	82	426	13.0	415	8.8	103	415	8.8
0.001400	461	70	438	12.0	430	8.7	102	430	8.7
0.002934	1687	42.6	1705	19.9	1712	14.5	99	1687	42.6
0.001000	311	51	366	7.8	370	6.4	99	370	6.4
0.001300	410	56	437	9.6	436	8.1	100	436	8.1
0.001200	425	53	435	9.2	431	7.4	101	431	7.4
0.000960	424	62	419	9.6	411	5.8	102	411	5.8
0.002830	1640	36.3	1678	15.3	1694	14.1	97	1640	36.3
0.001100	373	60	357	8.9	350	6.6	102	350	6.6
0.001400	392	55	420	8.9	417	8.6	101	417	8.6
0.001100	422	55	398	8.5	389	6.4	102	389	6.4
0.001400	419	58	444	9.8	442	8.4	101	442	8.4
0.001500	443	59	434	11.0	428	8.9	101	428	8.9
0.002122	1039	49.2	1131	16.2	1171	11.4	89	1039	49.2
0.001400	386	40	406	8.0	406	8.2	100	406	8.2
0.009500	2500	19	2487	17.0	2457	43.0	102	2500	19.0
0.001500	421	49	430	9.5	429	9.0	100	429	9.0
0.001700	456	53	420	9.5	410	11.0	103	410	11.0
0.000756	432	65.7	484	10.7	492	4.5	98	492	4.5
0.001681	961	45.5	663	14.5	573	9.9	116	Discordant	
0.001999	1480	35.5	1459	14.7	1435	10.3	103	1480	35.5
0.000842	409	87.0	464	14.7	473	5.1	98	473	5.1
0.001076	500	94.4	473	15.8	471	6.5	100	471	6.5
0.000797	450	75.9	461	12.3	462	4.8	100	462	4.8
0.000758	435	59.3	481	10.2	489	4.5	98	489	4.5
0.002423	1383	59.3	1270	22.2	1203	13.0	115	Discordant	
0.000933	524	72.2	474	12.5	460	5.6	103	460	5.6

0.000662	435	66.7	451	10.8	451	4.0	100	451	4.0
0.000933	509	78.7	482	14.9	472	5.6	102	472	5.6
0.001560	1087	46.3	1113	15.0	1117	8.5	97	1087	46.3
0.000622	413	62.0	460	9.6	464	3.7	99	464	3.7
0.000857	432	59.3	470	10.0	474	5.1	99	474	5.1
0.002298	1332	52.6	1342	18.7	1331	12.1	100	1332	52.6
0.000591	369	88.9	320	10.3	313	3.6	102	313	3.6
0.000875	457	107	434	16.6	431	5.3	101	431	5.3
0.001045	387	112	466	17.0	482	6.3	97	482	6.3
0.000675	272	63.9	423	9.9	447	4.1	95	447	4.1
0.000794	372	111	408	17.0	410	4.8	100	410	4.8
0.003896	1672	53.4	1755	24.0	1804	19.0	93	1672	53.4
0.002265	1056	61.1	1101	20.2	1112	12.3	95	1056	61.1
0.000865	969	91.8	532	18.7	430	5.2	124	Discordant	
0.001058	369	106.5	445	15.2	459	6.4	97	459	6.4
0.000795	354	70.4	427	11.1	435	4.8	98	435	4.8
0.000806	387	86.1	433	12.4	436	4.9	99	436	4.9
0.000870	306	96.3	412	13.7	429	5.3	96	429	5.3
0.000884	954	88.9	563	19.1	465	5.3	121	Discordant	
0.000821	435	83.3	425	12.9	418	5.0	102	418	5.0
0.000888	676	89.8	468	17.5	418	5.4	112	Discordant	
0.000761	594	76.8	422	13.2	384	4.6	110	384	4.6
0.002483	1387	65.7	1366	22.8	1333	13.0	104	1387	65.7
0.002087	1128	60.6	1117	20.0	1095	11.4	103	1128	60.6
0.000972	494	85.2	477	14.5	467	5.8	102	467	5.8
0.002033	1059	58.5	1062	19.3	1046	11.2	101	1059	58.5
0.003053	1561	43.5	1568	20.3	1551	15.5	101	1561	43.5
0.002746	1643	54.6	1610	21.9	1562	13.9	105	1643	54.6
0.000804	522	80.5	452	13.9	436	4.8	104	436	4.8
0.000714	450	72.2	453	11.6	449	4.3	101	449	4.3
0.000716	472	75.9	431	12.0	418	4.3	103	418	4.3
0.000864	915	84.1	558	17.0	473	5.2	118	Discordant	
0.000940	391	91.7	409	14.7	407	5.7	100	407	5.7
0.001896	1139	97.2	1074	20.4	1033	10.4	110	1139	97.2
0.000803	576	70.4	488	12.4	466	4.8	105	466	4.8
0.000681	450	74.1	428	11.2	421	4.1	102	421	4.1
0.000857	543	100.0	452	16.4	432	5.2	105	432	5.2
0.002146	1283	53.6	1262	22.2	1244	11.4	103	1283	53.6
0.000905	1207	74.5	572	16.6	428	5.5	134	Discordant	
0.000909	483	87.0	435	14.0	428	5.5	102	428	5.5
0.000577	457	114	325	10.4	308	3.6	106	308	3.6
0.001917	1117	59.3	1094	20.4	1081	10.5	103	1117	59.3
0.001042	635	156	354	20.6	322	6.4	110	322	6.4
0.000790	432	77.8	444	12.9	445	4.8	100	445	4.8
0.002951	1102	72.2	1017	21.8	989	16.3	103	989	16.3
0.001208	613	90.7	470	15.0	443	7.3	106	443	7.3
0.004473	1536	63	1586	25.8	1616	22.5	95	1536	62.5
0.001283	467	109	443	17.3	453	7.7	98	453	7.7
0.001800	812	49	817	13.0	807	10.0	101	807	10.0
0.001400	801	33	789	9.2	778	7.9	101	778	7.9
0.000930	430	47	425	7.5	418	5.6	102	418	5.6
0.000660	472	31	433	5.5	420	4.0	103	420	4.0
0.000750	316	74	318	8.2	314	4.6	101	314	4.6
0.001100	350	71	410	11.0	413	6.6	99	413	6.6
0.000940	322	64	404	9.2	413	5.7	98	413	5.7
0.000830	450	35	453	5.9	448	5.0	101	448	5.0
0.000880	430	51	423	7.6	417	5.3	101	417	5.3
0.001329	343	124	432	18.0	452	8.0	96	452	8.0
0.002810	944	77.8	911	23.6	903	15.8	101	903	15.8
0.004358	1543	46.5	1590	21.8	1628	21.8	95	1543	46.5
0.001374	572	131	441	16.3	424	8.3	104	424	8.3
0.001268	417	85.2	378	12.0	369	7.7	102	369	7.7

0.001708	287	133	437	20.7	457	10.3	96	457	10.3
0.006559	1355	68.2	1486	28.4	1568	33.2	86	Discordant	
0.001546	524	113	387	16.4	372	9.4	104	372	9.4
0.002055	450	126	454	20.3	470	12.3	97	470	12.3
0.005096	1295	69.1	1379	26.3	1442	26.3	90	1295	69.1
0.001529	456	120	454	18.3	456	9.2	100	456	9.2
0.002174	532	157	495	26.8	487	13.0	102	487	13.0
0.010536	2772	61.1	2807	28.3	2758	44.3	101	2772	61.1
0.001572	517	147	364	17.7	344	9.6	106	344	9.6
0.001303	467	180	351	19.5	333	8.0	105	333	8.0
0.003037	524	174	789	24.3	801	17.3	99	801	17.3
0.007931	2002	76.7	2116	27.3	2081	37.0	96	2002	76.7
0.002144	276	167	457	21.8	487	12.8	94	487	12.8
0.001812	391	86.1	479	17.4	479	10.8	100	479	10.8
0.008918	1787	63.9	1919	30.8	1975	42.3	90	1787	63.9
0.004137	950	75.0	1030	25.3	1049	22.7	91	950	75.0
0.018369	3295	43.7	3337	34.9	3366	70.3	98	3295	43.7
0.001670	398	113	440	19.3	445	10.0	99	445	10.0
0.005769	1628	50.8	1685	25.6	1704	28.6	96	1628	50.8
0.001504	420	120	442	18.8	443	9.1	100	443	9.1
0.007314	1628	58.2	1717	28.0	1745	36.0	93	1628	58.2
0.001615	254	141	414	17.8	439	9.7	94	439	9.7
0.001165	239	96.3	314	10.8	313	7.2	100	313	7.2
0.002095	672	166	507	26.0	478	12.5	106	478	12.5
0.001398	343	128	397	16.0	400	8.5	99	400	8.5
0.004512	1124	90.7	1137	25.3	1112	24.5	101	1124	90.7
0.007730	1520	116	1470	40.1	1420	40.0	107	1520	116.1
0.001666	57.5	107	302	12.1	318	10.2	95	318	10.2
0.004741	946	99.2	1100	26.7	1121	25.7	84	Discordant	
0.0008	423	66	411	10	409	5	100	409	5
0.0007	450	59	413	9	407	4	101	407	4
0.0008	509	79	420	12	404	5	104	404	5
0.0008	569	69	462	12	441	5	105	441	5
0.0007	521	42	435	7	418	4	104	418	4
0.0007	447	52	424	8	420	4	101	420	4
0.0009	565	85	451	14	429	5	105	429	5
0.0015	907	38	872	11	859	8	102	859	8
0.0009	678	97	447	16	404	5	111	Discordant	
0.0007	407	55	392	8	389	4	101	389	4
0.0009	576	68	475	12	454	5	105	454	5
0.0008	432	74	414	11	411	5	101	411	5
0.0007	351	66	395	9	402	4	98	402	4
0.0015	825	59	789	15	776	9	102	776	9
0.0008	471	59	438	9	432	5	101	432	5
0.0028	1600	36	1529	15	1479	14	108	1600	36
0.0007	521	42	440	7	425	4	104	425	4
0.0007	459	45	442	7	439	4	101	439	4
0.0008	402	84	418	13	421	5	99	421	5
0.0007	438	48	425	7	423	4	100	423	4
0.0008	506	62	453	10	443	5	102	443	5
0.0008	432	53	441	8	442	5	100	442	5
0.0008	402	60	423	9	427	5	99	427	5
0.0008	460	89	406	13	397	5	102	397	5
0.0008	509	49	446	8	434	5	103	434	5
0.0007	464	55	410	8	401	4	102	401	4
0.0008	539	64	455	11	438	5	104	438	5
0.0010	475	115	422	18	413	6	102	413	6
0.0009	502	76	457	15	448	6	102	448	6
0.0008	382	64	425	10	433	5	98	433	5
0.0010	473	83	464	14	462	6	100	462	6
0.0008	535	69	438	11	420	5	104	420	5
0.0007	439	67	398	10	391	4	102	391	4

							112	Discordant	
0.0007	548	139	296	16	265	4	106	406	5
0.0008	573	72	432	12	406	5	101	464	5
0.0008	483	55	467	9	464	5	105	427	5
0.0008	558	55	448	9	427	5	106	392	4
0.0007	547	56	416	9	392	4	101	425	4
0.0007	458	45	430	7	425	4	100	440	5
0.0008	423	63	438	10	440	5	107	2010	33
0.0037	2010	33	1944	16	1882	18	104	442	5
0.0008	553	47	460	8	442	5	102	413	5
0.0008	470	64	421	10	413	5	104	404	5
0.0008	524	62	422	10	404	5	102	419	5
0.0008	495	53	447	9	438	5	101	437	5
0.0008	474	48	443	8	437	5	106	413	5
0.0008	473	66	428	12	419	5	100	424	5
0.0008	555	58	436	10	413	5	101	856	9
0.0008	434	58	425	9	424	5	106	935	10
0.0016	894	45	867	13	856	9	105	436	6
0.0017	1106	41	988	13	935	10	99	410	5
0.0009	567	85	457	14	436	6	99	467	6
0.0008	387	62	406	9	410	5	102	404	5
0.0010	428	82	461	14	467	6	100	453	5
0.0008	474	65	414	10	404	5	98	450	5
0.0008	405	55	443	9	450	5	101	433	5
0.0008	460	55	437	9	433	5	100	427	5
0.0008	417	59	425	9	427	5	101	433	5
0.0008	476	62	439	10	433	5	102	434	5
0.0008	446	52	452	9	453	5	103	1742	40
0.0010	321	92	420	14	439	6	96	439	6
0.0008	523	54	463	9	451	5	103	451	5
0.0035	1742	40	1718	18	1699	17	100	442	5
0.0008	517	55	449	9	436	5	98	450	5
0.0008	389	53	440	9	450	5	102	421	6
0.0010	583	117	447	20	421	6	102	492	6
0.0010	551	61	503	11	492	6	102	434	5
0.0008	491	51	443	8	434	5	103	451	5
0.0009	530	64	464	11	451	5	100	442	5
0.0009	442	72	442	12	442	5	100	411	5
0.0008	400	66	409	10	411	5	100	425	5
0.0008	440	62	427	10	425	5	104	465	5
0.0009	576	61	484	11	465	5	102	430	5
0.0008	490	57	439	9	430	5	101	448	6
0.0016	811	53	816	14	818	9	100	818	9
0.0010	472	79	452	13	448	6	105	419	5
0.0008	538	63	438	10	419	5	105	473	6
0.0010	602	67	496	12	473	6	102	473	5
0.0009	523	56	481	10	473	5	98	460	6
0.0009	421	72	453	12	460	6	98	463	5
0.0009	399	57	452	9	463	5	99	471	6
0.0009	412	63	461	11	471	6	99	453	5
0.0009	426	58	449	10	453	5	101	2768	14
0.0079	2768	14	2755	18	2735	33	100	537	8
0.0013	526	29	535	10	537	8	99	990	15
0.0027	963	32	982	18	990	15	96	1056	32
0.0033	1056	32	1082	20	1095	18	97	784	12
0.0021	693	28	760	14	784	12	99	1128	39
0.0034	1128	39	1137	23	1142	18	101	2524	33
0.0084	2524	33	2511	31	2498	37	101	1032	30
0.0028	1032	30	1023	18	1022	15	99	1581	73
0.0071	1581	73	1587	48	1591	36	99	2098	19
0.0058	2098	19	2102	19	2112	27	99	1040	26
0.0031	1040	26	1043	17	1050	17	108	749	15
0.0027	972	75	806	30	749	15			

0.0049	1218	78	1214	41	1216	26	100	1218	78
0.0066	1666	64	1670	43	1676	33	99	1666	64
0.0053	1049	117	1041	53	1038	29	101	1049	117
0.0067	2064	38	2049	31	2038	31	101	2064	38
0.0037	1256	28	1258	20	1261	20	100	1256	28
0.0060	1674	57	1667	39	1662	30	101	1674	57
0.0025	654	110	599	33	586	14	102	586	14
0.0031	1046	36	1049	21	1052	17	99	1046	36
0.0044	814	193	714	63	685	26	104	685	26
0.0055	1828	29	1781	25	1747	27	105	1828	29
0.0014	552	32	539	11	538	8	100	538	8
0.0020	858	15	854	10	852	11	100	852	11
0.0010	457	24	444	7	442	6	100	442	6
0.0041	1658	20	1657	18	1657	21	100	1658	20
0.0021	947	14	947	9	948	12	100	948	12
0.0020	912	14	910	9	909	11	100	909	11
0.0010	430	30	433	9	434	6	100	434	6
0.0010	455	20	456	7	456	6	100	456	6
0.0030	1104	22	1106	15	1107	16	100	1104	22
0.0114	3123	21	3126	25	3125	45	100	3123	21
0.0058	620	255	629	75	632	34	100	632	34
0.0210	2994	56	2999	60	3002	85	100	2994	56
0.0022	1060	16	987	11	954	12	103	954	12
0.0010	449	20	447	7	446	6	100	446	6
0.0010	465	20	457	7	455	6	100	455	6
0.0058	1873	33	1728	28	1606	29	117	Discordant	
0.0071	1485	70	1464	46	1449	37	102	1485	70
0.0041	1808	11	1817	12	1817	20	100	1808	11
0.0017	745	15	750	8	752	10	100	752	10
0.0022	952	23	951	13	950	12	100	950	12
0.0010	447	18	443	6	442	6	100	442	6
0.0038	1569	13	1569	13	1570	19	100	1569	13
0.0037	1513	15	1512	14	1511	19	100	1513	15
0.0015	486	69	479	18	478	9	100	478	9
0.0042	1229	37	1226	25	1224	22	100	1229	37
0.0026	1004	24	1002	15	1001	14	100	1004	24
0.0041	1543	17	1542	15	1541	21	100	1543	17
0.0015	510	30	505	11	505	9	100	505	9
0.0057	2371	25	2068	25	1778	28	133	Discordant	
0.0046	1856	14	1855	14	1855	22	100	1856	14
0.0021	949	15	938	10	934	12	100	934	12
0.0011	501	19	494	7	493	7	100	493	7
0.0040	1518	27	1477	21	1448	21	105	1518	27
0.0024	964	16	1011	11	1033	13	93	964	16
0.0122	824	96	786	37	779	70	101	779	70
0.0088	2543	25	2588	26	2641	38	96	2543	25
0.0051	2479	11	2483	13	2481	22	100	2479	11
0.0020	767	36	764	16	763	11	100	763	11
0.0110	2848	30	2846	32	2842	45	100	2848	30
0.0011	491	24	480	8	478	6	100	478	6
0.0044	1869	14	1849	14	1831	21	102	1869	14
0.0065	2511	14	2503	17	2492	28	101	2511	14
0.0019	799	22	798	12	797	11	100	797	11
0.0032	1157	23	1153	16	1152	17	100	1157	23
0.0021	970	14	958	9	953	12	101	953	12
0.0040	1268	31	1263	21	1263	21	100	1268	31
0.0035	1535	12	1528	11	1523	18	101	1535	12
0.0010	455	16	450	6	449	6	100	449	6
0.0022	978	14	977	10	976	12	100	976	12
0.0082	2640	26	2442	28	2228	38	118	Discordant	
0.0011	443	40	445	11	446	7	100	446	7
0.0022	959	18	958	11	958	12	100	958	12
0.0039	1314	29	1296	21	1296	21	101	1314	29

0.0064	2499	12	2497	15	2494	28	100	2499	12
0.0023	1001	15	1003	10	1004	13	100	1001	15
0.0041	1590	19	1557	17	1533	21	104	1590	19
0.0085	2800	16	2791	20	2778	36	101	2800	16
0.0029	1073	25	1088	16	1096	16	98	1073	25
0.0080	2564	20	2539	23	2507	35	102	2564	20
0.0082	2427	35	2404	32	2380	36	102	2427	35
0.0078	2615	18	2612	21	2611	34	100	2615	18
0.0053	1549	51	1538	34	1532	27	101	1549	51
0.0030	1104	30	1109	18	1114	16	99	1104	30
0.0025	908	20	950	13	970	14	98	970	14
0.0076	2419	32	2371	30	2320	34	104	2419	32
0.0025	749	62	776	24	787	14	99	787	14
0.0033	1118	27	1162	18	1190	18	94	1118	27
0.0023	775	28	804	15	820	13	98	820	13
0.0027	943	34	956	18	964	15	99	964	15
0.0027	961	35	966	19	970	15	100	970	15
0.0102	2465	45	2463	41	2463	45	100	2465	45
0.0107	2539	59	2545	49	2552	46	99	2539	59
0.0137	3663	38	3662	39	3661	50	100	3663	38
0.0032	1105	35	1109	21	1111	17	99	1105	35
0.0027	879	46	867	22	864	15	100	864	15
0.0046	836	175	820	62	815	26	101	815	26
0.0047	1090	87	1083	43	1078	25	101	1090	87
0.0071	1536	66	1532	44	1529	36	100	1536	66
0.0027	866	34	907	18	928	15	98	928	15
0.0032	690	78	783	30	821	18	95	821	18
0.0022	456	116	473	28	476	13	99	476	13
0.0056	2184	12	2182	14	2181	26	100	2184	12
0.0046	1875	15	1881	15	1888	22	99	1875	15
0.0045	1941	19	1835	18	1745	22	111	Discordant	
0.0023	898	24	895	14	894	13	100	894	13
0.0079	1822	65	1775	47	1739	39	105	1822	65
0.0019	374	137	370	27	369	12	100	369	12
0.0011	399	50	393	12	393	7	100	393	7
0.0023	863	24	895	14	909	13	98	909	13
0.0053	1795	31	1795	25	1797	26	100	1795	31
0.0025	1018	19	1017	13	1017	14	100	1018	19
0.0040	1607	15	1604	14	1602	20	100	1607	15
0.0029	1184	16	1199	13	1207	16	98	1184	16
0.0010	469	21	455	7	452	6	101	452	6
0.0012	461	42	465	12	466	7	100	466	7
0.0020	886	18	884	11	883	11	100	883	11
0.0020	418	101	402	23	400	12	101	400	12
0.0016	565	47	564	15	564	9	100	564	9
v0.00235	1010	15	1006	11	1005	13	100	1010	15
0.0048	1854	17	1851	16	1848	23	100	1854	17
0.0031	941	56	937	26	936	17	100	936	17
0.0133	2291	67	2259	58	2239	61	102	2291	67
0.0066	2591	16	2558	18	2516	29	103	2591	16
0.0024	958	27	956	15	955	14	100	955	14
0.0040	1642	18	1621	16	1604	20	102	1642	18
0.0012	459	38	456	11	456	7	100	456	7
0.0021	953	16	933	10	924	12	101	924	12
0.0022	981	16	961	11	952	12	101	952	12
0.0068	1925	34	1905	29	1888	33	102	1925	34
0.0064	2463	13	2462	16	2460	28	100	2463	13
0.0093	2022	48	2000	41	1982	44	102	2022	48
0.0032	1282	21	1283	16	1284	17	100	1282	21
0.0026	1054	20	1073	14	1082	14	97	1054	20
0.0011	462	29	458	9	457	6	100	457	6
0.0014	514	50	511	15	510	8	100	510	8

0.0068	2467	14	2448	16	2425	30	102	2467	14
0.0026	1007	16	1030	12	1041	14	97	1007	16
0.0011	459	17	457	6	456	6	100	456	6
0.0023	966	17	941	11	930	13	101	930	13
0.0097	3301	12	3300	16	3300	38	100	3301	12
0.0040	1568	14	1582	13	1593	20	98	1568	14
0.0063	1503	53	1494	37	1506	32	100	1503	53
0.0014	570	30	560	11	558	8	100	558	8
0.0014	583	29	566	11	562	8	101	562	8
0.0061	2423	12	2357	15	2282	27	106	2423	12
0.0025	1051	18	1033	12	1024	14	103	1051	18
0.0036	820	96	797	38	789	21	101	789	21
0.0011	436	30	444	9	446	7	100	446	7
0.0011	474	22	483	8	485	6	100	485	6
0.0053	1536	20	1490	19	1459	27	105	1536	20
0.0058	1955	20	1970	20	1985	27	98	1955	20
0.0258	1966	203	1953	147	1953	123	101	1966	203
0.0150	3395	41	3396	43	3398	57	100	3395	41
0.0099	2575	48	2572	42	2576	43	100	2575	48
0.0065	2029	30	2028	27	2032	31	100	2029	30
0.0051	867	135	908	55	927	29	98	927	29
0.0025	851	34	866	17	874	14	99	874	14
0.0013	476	60	455	15	452	8	101	452	8
0.0021	973	14	952	9	943	11	101	943	11
0.0026	1158	16	1148	12	1143	14	101	1158	16
0.0084	2510	27	2487	28	2465	37	102	2510	27
0.0018	849	14	838	9	834	10	100	834	10
0.0011	478	30	479	9	479	7	100	479	7
0.0011	495	29	482	9	479	7	101	479	7
0.0065	2492	14	2469	17	2442	29	102	2492	14
0.0070	2359	15	2357	17	2354	31	100	2359	15
0.0034	1293	20	1280	16	1272	18	102	1293	20
0.0063	2542	11	2535	14	2527	27	101	2542	11
0.0016	1097	15	844	10	751	9	112	Discordant	
0.0051	2087	12	2085	14	2084	24	100	2087	12
0.0027	1108	14	1097	11	1091	14	102	1108	14
0.0057	1969	29	1964	25	1957	27	101	1969	29
0.0019	907	13	881	9	871	11	101	871	11
0.0018	818	22	775	11	760	10	102	760	10
0.0025	1136	14	1129	11	1125	14	101	1136	14
0.0032	1278	18	1243	14	1224	17	104	1278	18
0.0023	1062	14	1032	10	1017	13	104	1062	14
0.0020	912	18	869	11	852	11	102	852	11
0.0067	2452	13	2452	15	2452	29	100	2452	13
0.0027	975	28	964	16	959	15	101	959	15
0.0022	1025	14	988	10	972	12	102	972	12
0.0022	984	15	984	10	984	12	100	984	12
0.0020	948	16	929	10	920	11	101	920	11
0.0024	1099	13	1096	10	1095	13	100	1099	13
0.0016	785	15	782	8	781	9	100	781	9
0.0011	431	26	431	8	431	6	100	431	6
0.0029	909	38	913	20	915	16	100	915	16
0.0017	833	17	803	10	792	10	101	792	10
0.0050	2036	12	2036	13	2037	24	100	2036	12
0.0017	824	17	811	10	806	10	101	806	10
0.0016	777	21	746	11	736	9	101	736	9
0.0061	2087	25	2087	23	2088	28	100	2087	25
0.0085	2347	38	2331	34	2310	38	102	2347	38
0.0051	1998	14	1968	15	1942	24	103	1998	14
0.0069	2441	14	2444	17	2451	30	100	2441	14
0.0038	1635	12	1623	12	1615	19	101	1635	12
0.0044	1227	42	1217	27	1213	23	101	1227	42

0.0021	949	13	941	9	938	12	100	938	12
0.0072	2518	15	2521	18	2527	31	100	2518	15
0.0021	957	19	948	12	944	12	100	944	12
0.0016	882	14	781	8	746	9	105	746	9
0.0025	1144	14	1142	11	1141	14	100	1144	14
0.0010	496	21	448	7	438	6	102	438	6
0.0030	1330	14	1325	12	1322	16	101	1330	14
0.0037	945	53	924	27	915	20	101	915	20
0.0021	990	17	977	11	971	12	101	971	12
0.0016	790	15	775	9	770	9	101	770	9
0.0029	1292	18	1267	14	1253	16	103	1292	18
0.0011	540	23	516	8	510	7	101	510	7
0.0056	1786	27	1789	24	1791	27	100	1786	27
0.0026	1063	28	1066	17	1068	14	100	1063	28
0.0028	1166	19	1156	14	1151	15	101	1166	19
0.0022	809	46	797	19	793	13	101	793	13
0.0022	961	16	974	11	980	12	99	980	12
0.0052	1961	23	1955	21	1950	25	101	1961	23
0.0023	965	15	959	10	956	13	100	956	13
0.0012	454	47	445	12	443	7	100	443	7
0.0016	596	37	606	14	609	10	100	609	10
0.0011	430	14	479	6	489	6	98	489	6
0.0067	2664	11	2667	14	2671	28	100	2664	11
0.0025	1035	15	1024	11	1019	14	102	1035	15
0.0025	1131	15	1134	11	1136	14	100	1131	15
0.0073	2750	11	2749	14	2747	31	100	2750	11
0.0065	2532	11	2534	13	2537	28	100	2532	11
0.0009	448	19	421	6	416	5	101	416	5
0.0011	488	21	502	8	506	7	99	506	7
0.0033	1377	14	1376	12	1376	17	100	1377	14
0.0023	968	15	982	10	988	13	99	988	13
0.0018	771	19	780	10	782	10	100	782	10
0.0061	2425	12	2425	14	2426	27	100	2425	12
0.0027	1119	15	1118	11	1118	14	100	1119	15
0.0009	448	20	430	7	427	6	101	427	6
0.0013	584	24	570	10	566	8	101	566	8
0.0097	2586	35	2566	34	2548	42	101	2586	35
0.0011	462	25	452	8	449	7	101	449	7
0.0010	476	16	460	6	457	6	101	457	6
0.0023	964	16	970	11	973	13	100	973	13
0.0032	1088	44	1090	24	1091	17	100	1088	44
0.0031	1254	15	1254	12	1255	16	100	1254	15
0.0087	2673	29	2681	29	2693	37	99	2673	29
0.0031	1014	30	1020	18	1023	17	99	1014	30
0.0044	1027	83	1026	40	1030	24	100	1027	83
0.0106	2930	40	2924	38	2916	43	100	2930	40
0.0139	2951	73	2942	62	2931	57	101	2951	73
0.0126	3377	38	3372	38	3368	48	100	3377	38
0.0041	1672	16	1674	15	1676	20	100	1672	16
0.0024	1040	26	973	15	943	13	103	943	13
0.0021	846	14	906	9	931	12	97	931	12
0.0031	1251	16	1251	13	1252	16	100	1251	16
0.0021	876	15	902	10	913	12	99	913	12
0.0012	478	29	489	10	491	7	100	491	7
0.0048	2044	12	2014	13	1984	23	103	2044	12
0.0017	746	21	741	11	740	10	100	740	10
0.0067	2534	17	2526	19	2519	29	101	2534	17
0.0025	1144	17	1122	12	1110	14	103	1144	17
0.0070	1011	139	1010	65	1010	38	100	1011	139
0.0011	544	42	459	12	443	7	104	443	7
0.0023	1025	18	985	12	968	13	102	968	13
0.0024	1008	15	1007	10	1006	13	100	1008	15
0.0036	1525	13	1524	12	1523	18	100	1525	13

0.0020	883	17	887	10	889	11	100	889	11
0.0132	2523	57	2540	51	2558	57	99	2523	57
0.0035	1455	17	1453	15	1451	18	100	1455	17
0.0047	1768	20	1768	18	1767	23	100	1768	20
0.0027	996	47	947	23	925	15	102	925	15
0.0065	2478	15	2470	17	2461	29	101	2478	15
0.0025	1065	20	1065	13	1066	14	100	1065	20
0.0009	451	18	430	6	426	5	101	426	5
0.0025	1097	15	1074	11	1063	13	103	1097	15
0.0011	531	26	504	9	498	7	101	498	7
0.0018	841	15	822	9	815	10	101	815	10
0.0031	1319	16	1312	13	1307	16	101	1319	16
0.0044	1150	57	1152	32	1153	24	100	1150	57
0.0022	979	19	950	12	937	12	101	937	12
0.0040	1610	15	1609	14	1609	20	100	1610	15
0.0102	2830	33	2795	34	2747	43	103	2830	33
0.0060	2318	12	2315	14	2311	27	100	2318	12
0.0023	938	18	948	12	952	13	100	952	13
0.0010	453	25	446	8	445	6	100	445	6
0.0049	1868	15	1864	16	1860	24	100	1868	15
0.0034	1366	14	1374	12	1379	18	99	1366	14
0.0029	1109	15	1142	12	1160	16	96	1109	15
0.0069	2663	12	2654	16	2643	30	101	2663	12
0.0077	2810	13	2797	16	2780	32	101	2810	13
0.0022	967	14	980	10	986	12	99	986	12
0.0020	862	15	871	9	875	11	100	875	11
0.0048	1884	13	1902	14	1919	23	98	1884	13
0.0045	1844	15	1826	15	1810	22	102	1844	15
0.0021	897	24	872	13	862	12	101	862	12
0.0043	1784	14	1770	14	1759	21	101	1784	14
0.0051	1849	18	1847	18	1843	24	100	1849	18
0.0016	668	16	677	8	680	9	100	680	9
0.0065	2473	15	2455	17	2434	29	102	2473	15
0.0077	2303	31	2297	29	2292	35	100	2303	31
0.0011	500	29	477	9	472	7	101	472	7
0.0044	1613	26	1593	21	1581	22	102	1613	26
0.0058	2189	16	2177	17	2166	27	101	2189	16
0.0073	1753	66	1737	46	1726	36	102	1753	66
0.0025	1016	16	1029	11	1036	14	98	1016	16
0.0027	1023	32	1026	18	1027	15	100	1023	32
0.0017	548	61	539	18	537	10	100	537	10
0.0026	824	50	820	22	819	15	100	819	15
0.0055	1743	20	1744	20	1746	27	100	1743	20
0.0027	995	31	971	17	961	15	101	961	15
0.0046	1787	13	1779	13	1772	22	101	1787	13
0.0080	1817	45	1817	37	1817	39	100	1817	45
0.0024	945	16	970	11	981	13	99	981	13
0.0011	440	19	450	7	452	6	100	452	6
0.0017	751	17	744	9	742	10	100	742	10
0.0060	1989	30	1972	26	1954	29	102	1989	30
0.0069	2462	12	2470	15	2480	30	99	2462	12
0.0079	2376	32	2366	30	2356	35	101	2376	32
0.0039	1543	14	1559	13	1572	20	98	1543	14
0.0040	1585	13	1595	13	1603	20	99	1585	13
0.0012	402	29	461	9	473	7	97	473	7
0.0018	735	20	749	10	753	10	99	753	10
0.0019	743	16	777	9	789	11	98	789	11
0.0094	2171	46	2169	40	2167	43	100	2171	46
0.0090	2757	25	2749	27	2743	38	101	2757	25
0.0032	1160	22	1198	16	1219	17	95	1160	22
0.0012	541	30	505	10	498	7	101	498	7
0.0049	1812	19	1793	18	1775	24	102	1812	19
0.0050	1814	20	1808	19	1803	24	101	1814	20
0.0058	1869	32	1874	27	1879	28	99	1869	32

0.0072	2453	23	2432	24	2408	32	102	2453	23
0.0091	2423	46	2397	40	2369	41	102	2423	46
0.0150	3390	28	3391	33	3395	47	100	3390	28
0.0064	1869	39	1885	31	1905	30	98	1869	39
0.0055	1591	46	1612	32	1630	27	98	1591	46
0.0068	1568	55	1611	38	1649	34	95	1568	55
0.0099	2631	45	2629	40	2628	42	100	2631	45
0.0057	1850	42	1760	32	1688	28	110	1850	42
0.0056	1558	46	1594	32	1621	28	96	1558	46
0.0077	2474	24	2445	25	2419	34	102	2474	24
0.0044	1558	36	1512	26	1484	23	105	1558	36
0.0011	463	20	476	7	478	7	100	478	7
0.0011	473	28	470	9	469	7	100	469	7
0.0046	1859	12	1864	13	1868	22	100	1859	12
0.0028	1053	25	1055	16	1058	15	100	1053	25
0.0075	2468	26	2457	26	2445	33	101	2468	26
0.0037	1532	14	1533	13	1534	19	100	1532	14
0.0024	974	19	990	12	997	13	99	997	13
0.0019	837	20	822	11	816	11	101	816	11
0.0019	837	15	843	9	845	11	100	845	11
0.0010	456	17	467	6	470	6	99	470	6
0.0018	906	14	844	9	821	10	103	821	10
0.0019	710	47	682	18	674	11	101	674	11
0.0010	427	19	452	7	457	6	99	457	6
0.0023	1048	14	1048	10	1048	13	100	1048	14
0.0023	931	17	977	11	998	12	98	998	12
0.0022	979	15	964	10	958	12	101	958	12
0.0014	592	22	589	9	588	8	100	588	8
0.0022	965	18	944	11	936	12	101	936	12
0.0018	628	22	663	10	674	10	98	674	10
0.0015	602	15	625	7	631	9	99	631	9
0.0010	466	20	457	7	455	6	100	455	6
0.0077	2782	11	2778	14	2773	32	100	2782	11
0.0062	2484	12	2452	15	2414	27	103	2484	12
0.0034	1413	15	1402	13	1395	17	101	1413	15
0.0064	2455	14	2445	16	2433	28	101	2455	14
0.0011	396	25	451	8	462	7	98	462	7
0.0011	458	22	468	8	470	7	100	470	7
0.0039	1432	25	1427	19	1424	20	101	1432	25
0.0024	974	17	984	12	988	13	100	988	13
0.0019	759	48	679	18	655	11	104	655	11
0.0023	1003	16	1003	11	1004	13	100	1003	16
0.0011	508	29	470	9	462	7	102	462	7
0.0038	1546	13	1540	12	1536	19	101	1546	13
0.0009	448	26	424	8	419	6	101	419	6
0.0010	449	33	427	9	423	6	101	423	6
0.0016	1990	39	1049	22	654	9	160	Discordant	
0.0036	1613	17	1597	15	1597	18	101	1613	17
0.0014	943	16	951	9	954	8	100	954	8
0.0018	809	89	814	30	810	10	100	810	10
0.0064	1677	21	1718	21	1737	32	97	1677	21
0.0026	966	19	944	13	932	15	101	932	15
0.0157	3017	37	3101	41	3102	63	97	3017	37
0.0008	1003	20	997	9	993	4	100	993	4
0.0007	502	39	535	10	545	4	98	545	4
0.0005	430	57	430	11	429	3	100	429	3
0.0025	2066	7	2133	7	2200	11	94	2066	7
0.0028	1777	10	1786	10	1794	13	99	1777	10
0.0014	1007	19	1010	10	1011	7	100	1007	19
0.0040	1961	11	1969	12	1968	19	100	1961	11
0.0034	1056	18	1066	13	1068	19	99	1056	18
0.0009	752	37	721	12	709	5	102	709	5
0.0005	486	20	491	5	490	3	100	490	3

0.0029	1004	17	1020	12	1021	16	98	1004	17
0.0005	462	28	501	7	502	3	100	502	3
0.0038	1471	17	1470	15	1461	20	101	1471	17
0.0018	1075	22	1084	12	1083	10	99	1075	22
0.0027	1071	19	1111	13	1137	14	94	1071	19
0.0039	1380	15	1375	14	1374	20	100	1380	15
0.0050	2376	11	2386	13	2384	22	100	2376	11
0.0013	810	26	810	11	808	8	100	808	8
0.0018	2285	6	2263	6	2229	8	103	2285	6
0.0009	855	14	882	7	890	5	99	890	5
0.0007	498	35	503	9	501	4	100	501	4
0.001100	361	105	441	17.1	451	6.6	98	451	6.6
0.000804	433	74.1	455	11.9	454	4.8	100	454	4.8
0.000685	594	72.2	440	11.6	404	4.2	109	404	4.2
0.000746	324	72.2	432	11.0	444	4.5	97	444	4.5
0.000846	345	94.4	430	14.1	440	5.1	98	440	5.1
0.003536	1677	91.5	1754	25.6	1779	17.3	94	1677	91.5
0.000894	254	98.1	432	14.3	456	5.4	95	456	5.4
0.003032	1498	67.6	1441	27.6	1365	15.8	110	1498	67.6
0.000966	354	123	431	18.1	433	5.8	100	433	5.8
0.001193	483	83.3	581	15.9	591	7.0	98	591	7.0
0.000905	878	77.8	550	15.4	457	6.5	120	Discordant	
0.001080	902	113	540	21.0	466	5.4	116	Discordant	
0.000749	409	70.4	453	11.2	455	4.5	100	455	4.5
0.000946	309	113	422	16.9	438	5.7	96	438	5.7
0.000802	322	83.3	422	12.0	438	4.8	96	438	4.8
0.000758	391	72.2	433	11.0	437	4.6	99	437	4.6
0.000681	420	68.5	439	10.6	439	4.1	100	439	4.1
0.000978	332	111	418	15.9	435	5.9	96	435	5.9
0.000761	606	74.1	473	12.4	444	4.6	107	444	4.6
0.000760	417	80.5	440	12.0	441	4.6	100	441	4.6
0.000863	467	81.5	466	13.6	476	5.2	98	476	5.2
0.000984	365	111	433	17.1	445	5.9	97	445	5.9
0.001024	465	102	454	16.5	451	6.2	101	451	6.2
0.001121	598	151	444	23.4	418	6.8	106	418	6.8
0.000876	383	83.3	454	13.6	464	5.3	98	464	5.3
0.001103	632	119	451	19.4	416	6.7	109	416	6.7
0.000838	467	98.1	430	14.8	435	5.1	99	435	5.1
0.000709	650	63.9	472	12.0	433	4.3	109	433	4.3
0.001291	694	140	473	22.7	440	7.8	108	440	7.8
0.000920	367	52.8	424	12.8	432	5.5	98	432	5.5
0.000820	443	87.0	432	13.2	427	5.0	101	427	5.0
0.000878	576	87.8	476	14.3	455	5.3	105	455	5.3
0.001384	977	60.0	952	18.6	929	7.7	103	929	7.7
0.000819	796	101	449	16.3	384	5.0	117	Discordant	
0.000717	506	81.5	440	13.2	426	4.3	103	426	4.3
0.000755	467	70.4	443	11.0	448	4.5	99	448	4.5
0.000899	554	87.0	482	14.6	468	5.4	103	468	5.4
0.000767	589	75.0	475	12.6	452	4.6	105	452	4.6
0.000877	554	99.1	459	16.6	444	5.3	104	444	5.3
0.001079	717	111	494	19.6	450	6.5	110	450	6.5
0.000732	576	68.5	474	11.7	449	4.4	105	449	4.4
0.000967	476	75.9	472	13.0	469	5.8	101	469	5.8
0.000972	1183	86.1	604	20.9	461	5.8	131	Discordant	
0.000929	461	75.0	447	12.6	441	5.6	101	441	5.6
0.000885	389	60.2	440	10.3	446	5.3	99	446	5.3
0.002121	902	66.7	930	18.3	936	11.8	99	936	11.8
0.000896	383	75.9	441	11.2	448	5.4	99	448	5.4
0.000958	367	77.8	427	11.4	435	5.8	98	435	5.8
0.000958	461	96.3	440	15.3	433	5.8	102	433	5.8
0.000767	456	66.7	443	10.5	436	4.6	102	436	4.6
0.000998	454	94.4	453	15.3	447	6.0	101	447	6.0
0.000973	789	94.4	517	18.7	450	5.9	115	Discordant	

0.000874	413	113	366	15.6	355	5.3	103	355	5.3
0.001000	383	104	414	15.0	416	6.0	99	416	6.0
0.001175	506	90.7	473	15.1	461	7.1	103	461	7.1
0.000922	898	77.8	514	14.2	426	5.6	121	Discordant	
0.000877	350	85.2	411	11.9	417	5.3	99	417	5.3
0.000991	367	101	412	15.3	420	6.0	98	420	6.0
0.000967	409	79.6	427	12.2	425	5.8	100	425	5.8
0.001132	961	64.7	583	15.7	484	6.8	120	Discordant	
0.000882	465	103	432	10.8	422	5.3	102	422	5.3
0.002056	928	73.3	981	21.6	996	11.4	98	996	11.4
0.000801	261	100.0	339	12.0	349	4.9	97	349	4.9
0.001145	413	108	439	16.0	444	6.9	99	444	6.9
0.000796	456	74.1	365	10.1	350	4.9	104	350	4.9
0.001037	413	85.2	440	13.9	442	6.2	100	442	6.2
0.001122	743	88.0	511	16.5	463	6.7	110	463	6.7
0.001005	420	90.7	447	14.2	452	6.0	99	452	6.0
0.000995	409	89.8	445	15.1	448	6.0	99	448	6.0
0.000996	428	88.9	447	14.4	449	6.0	100	449	6.0
0.001082	456	119	434	17.2	434	6.5	100	434	6.5
0.000904	443	78.7	460	13.9	461	5.4	100	461	5.4
0.000682	417	74.1	437	11.6	438	4.1	100	438	4.1
0.000983	454	110	438	17.1	439	5.9	100	439	5.9
0.000980	522	122	451	19.6	444	5.9	102	444	5.9
0.000976	657	92.6	474	16.8	437	5.9	109	437	5.9
0.004860	2742	36.1	2737	21.4	2715	20.6	101	2742	36.1
0.000840	409	89.8	424	12.8	427	5.1	99	427	5.1
0.001362	917	61.9	858	17.7	833	7.7	103	833	7.7
0.000960	467	96.3	443	15.7	449	5.8	99	449	5.8
0.001804	1057	44.4	1093	15.6	1104	9.8	96	1057	44.4
0.000778	387	91.7	414	14.5	418	4.7	99	418	4.7
0.000867	620	111	448	19.4	411	5.2	109	411	5.2
0.000729	443	57.4	444	9.4	442	4.4	101	442	4.4
0.001748	1169	50.0	1144	17.1	1123	9.5	104	1169	50.0
0.001032	435	136.1	451	16.6	455	6.2	99	455	6.2
0.003241	1894	45.7	1907	22.1	1904	15.6	100	1894	45.7
0.000891	576	87.0	457	14.8	433	5.4	106	433	5.4
0.001068	532	119	454	19.6	439	6.4	103	439	6.4
0.000753	546	87.0	454	14.4	435	4.5	104	435	4.5
0.001029	687	131	450	20.6	409	6.2	110	409	6.2
0.000792	465	70.4	455	12.5	451	4.8	101	451	4.8
0.001841	928	83.3	921	24.7	917	10.3	100	917	10.3
0.000815	524	84.2	464	13.7	451	4.9	103	451	4.9
0.000767	461	87.0	430	13.9	423	4.6	102	423	4.6
0.000859	433	95.4	429	14.2	432	5.2	99	432	5.2
0.000711	350	80.5	413	11.5	424	4.3	97	424	4.3
0.000784	372	87.0	420	13.1	430	4.7	98	430	4.7
0.000966	594	113	445	18.1	420	5.8	106	420	5.8
0.000644	322	74.1	402	10.5	418	3.9	96	418	3.9
0.001104	413	124	425	19.5	432	6.7	98	432	6.7
0.004280	2415	38.9	2419	22.3	2420	19.0	100	2415	38.9
0.000809	383	96.3	414	14.3	421	4.9	98	421	4.9
0.000871	450	98.1	426	15.5	423	5.3	101	423	5.3
0.001424	783	72.2	787	18.0	788	8.1	100	788	8.1
0.000719	500	79.6	435	13.0	423	4.3	103	423	4.3
0.000760	500	96.3	446	16.1	434	4.6	103	434	4.6
0.001889	1322	46.3	1283	17.4	1254	10.0	105	1322	46.3
0.001105	1017	116	534	23.5	433	6.7	123	Discordant	
0.001079	572	115	459	19.3	436	6.5	105	436	6.5
0.000921	665	112	466	20.0	425	5.6	110	425	5.6
0.000755	457	88.9	426	13.8	418	4.6	102	418	4.6
0.000821	589	70.4	497	12.7	477	4.9	104	477	4.9
0.006158	3172	43.2	3114	26.8	3012	24.9	105	3172	43.2
0.000820	628	94.4	448	15.6	413	5.0	108	413	5.0

							111	Discordant	
0.000773	700	105.5	454	17.4	410	4.7	110	416	4.9
0.000802	672	97.1	459	17.1	416	4.9	109	446	6.1
0.001006	672	119	487	21.7	446	6.1	109	401	5.0
0.000824	620	107	437	17.4	401	5.0	108	409	4.2
0.000698	606	85.2	440	13.7	409	4.2	103	426	4.5
0.000750	500	75.9	439	12.7	426	4.5	110	416	7.1
0.001166	709	133	457	22.7	416	7.1	109	452	4.9
0.000820	680	72.2	493	13.4	452	4.9	109	417	5.7
0.000936	676	110	456	18.5	417	5.7	99	438	5.3
0.000879	432	110	434	17.0	438	5.3	102	442	5.1
0.000850	476	87.0	450	14.6	442	5.1	97	418	4.9
0.000818	322	104	405	15.0	418	4.9	110	423	6.7
0.001103	703	131	465	21.3	423	6.7	103	425	6.3
0.001050	472	126	436	20.9	425	6.3	97	420	4.5
0.000751	332	78.7	409	12.0	420	4.5	102	429	5.8
0.000965	465	123	438	19.4	429	5.8	102	428	4.3
0.000706	478	79.6	438	12.7	428	4.3	102	436	6.0
0.000995	472	115	444	18.8	436	6.0	103	429	5.2
0.000866	506	94.4	444	15.0	429	5.2	99	428	4.9
0.000761	398	88.9	421	13.4	423	4.6	100	423	4.6
0.000984	383	83.3	422	16.6	427	5.9	99	427	5.9
0.000869	520	86.1	445	14.4	430	5.2	103	430	5.2
0.000845	659	93.5	460	16.7	419	5.1	110	419	5.1
0.000813	467	104	424	15.4	428	4.9	99	428	4.9
0.000689	376	74.1	423	11.0	428	4.2	99	428	4.2
0.000820	454	79.6	443	12.8	439	4.9	101	439	4.9
0.000879	365	75.9	432	11.5	443	5.3	97	443	5.3
0.001281	500	58.3	452	12.0	447	7.7	101	447	7.7
0.001395	600	80.5	446	14.9	433	8.4	103	433	8.4
0.001318	561	65.7	455	13.5	433	7.9	105	433	7.9
0.001321	528	81.5	439	14.2	427	8.0	103	427	8.0
0.002702	974	47.7	961	16.2	962	15.0	100	962	15.0
0.001536	676	89.8	461	15.9	428	9.3	108	428	9.3
0.001295	585	65.7	490	13.7	471	7.8	104	471	7.8
0.001454	543	111	443	19.0	423	8.8	105	423	8.8
0.001465	600	81.5	471	14.5	464	8.8	101	464	8.8
0.001012	480	74.1	454	12.7	450	6.1	101	450	6.1
0.001339	554	85.2	453	14.2	444	8.1	102	444	8.1
0.001417	487	57.4	496	11.3	501	8.5	99	501	8.5
0.001664	483	109	449	18.9	452	10.0	99	452	10.0
0.001476	457	48.1	492	10.2	501	8.8	98	501	8.8
0.001644	428	98.1	440	15.0	459	9.9	96	459	9.9
0.006444	2418	32.7	2141	22.4	1871	31.1	129	Discordant	
0.009916	2487	36.6	2527	25.5	2587	42.8	96	2487	36.6
0.001245	428	66.7	435	10.4	443	7.5	98	443	7.5
0.003274	1233	73.5	1043	26.1	971	18.2	107	971	18.2
0.001464	654	131	489	25.6	450	8.8	109	450	8.8
0.001472	276	98.1	413	15.8	446	8.9	93	446	8.9
0.001384	409	69.4	453	12.8	469	8.3	97	469	8.3
0.008442	2122	41.8	2182	24.9	2274	38.3	93	2122	41.8
0.001430	417	113	432	18.5	439	8.6	98	439	8.6
0.001512	420	99.1	431	16.3	442	9.1	97	442	9.1
0.001559	324	93.5	419	14.5	448	9.4	94	448	9.4
0.001319	594	75.0	476	13.9	459	7.9	104	459	7.9
0.002260	772	42.6	789	13.8	798	12.9	99	798	12.9
0.007522	1995	40.0	2019	22.5	2066	35.2	97	1995	40.0
0.001453	520	66.7	478	13.6	470	8.7	102	470	8.7
0.001348	524	72.2	458	12.9	451	8.1	102	451	8.1
0.001419	528	97.1	452	16.5	445	8.5	102	445	8.5
0.001729	987	108	525	21.1	438	10.4	120	Discordant	
0.012555	3409	23.6	3339	27.2	3205	49.3	106	3409	23.6
0.001548	546	100.0	457	16.5	449	9.3	102	449	9.3
0.008685	2495	31.3	2518	22.0	2559	37.7	98	2495	31.3

0.001381	480	83.3	455	14.7	455	8.3	100	455	8.3
0.001071	498	63.0	442	10.9	435	6.5	102	435	6.5
0.001721	665	78.7	561	17.4	546	10.2	103	546	10.2
0.001119	428	65.7	427	12.2	430	6.8	99	430	6.8
0.001364	328	107	422	16.8	442	8.2	95	442	8.2
0.001343	346	85.2	417	13.7	434	8.1	96	434	8.1
0.001259	569	86.1	468	14.7	453	7.6	103	453	7.6
0.001181	413	71.3	424	11.8	433	7.1	98	433	7.1
0.003792	1485	43.7	1470	20.5	1467	19.5	101	1485	43.7
0.001228	480	91.7	432	16.6	425	7.4	102	425	7.4
0.004258	1683	30.9	1677	16.9	1680	21.2	100	1683	30.9
0.001102	391	77.8	421	12.5	430	6.7	98	430	6.7
0.001048	472	77.8	441	13.1	439	6.3	100	439	6.3
0.001309	432	108	438	18.6	441	7.9	99	441	7.9
0.000995	702	86.1	478	15.4	433	6.0	110	433	6.0
0.002554	1057	50.5	987	17.0	966	14.2	102	966	14.2
0.001103	457	98.1	429	16.3	425	6.7	101	425	6.7
0.001171	950	96.3	548	21.7	456	7.0	120	Discordant	
0.001153	661	115	450	19.7	416	7.0	108	416	7.0
0.001182	583	117	444	14.8	426	7.1	104	426	7.1
0.001087	589	70.4	465	12.6	446	6.5	104	446	6.5
0.006547	2521	28.2	2520	18.8	2524	28.6	100	2521	28.2
0.001040	502	85.2	467	14.8	463	6.2	101	463	6.2
0.001002	439	87.0	425	14.7	425	6.1	100	425	6.1
0.001336	550	130	446	19.0	440	8.0	101	440	8.0
0.001409	643	121	471	19.1	453	8.5	104	453	8.5
0.001280	617	106	459	17.1	436	7.7	105	436	7.7
0.001940	906	41.8	903	13.9	905	10.9	100	905	10.9
0.001105	506	96.3	437	16.5	430	6.7	102	430	6.7
0.001068	450	98.1	443	15.6	450	6.4	98	450	6.4
0.001463	750	128.5	505	24.5	459	8.8	110	459	8.8
0.001041	520	98.1	437	16.1	425	6.3	103	425	6.3
0.001248	532	99.1	460	17.7	452	7.5	102	452	7.5
0.001103	367	94.4	423	15.3	437	6.6	97	437	6.6
0.001112	283	87.0	420	13.6	449	6.7	93	449	6.7
0.000735	498	66.7	470	11.1	460	4.4	102	460	4.4
0.001453	835	67.7	832	18.3	823	8.3	101	823	8.3
0.001861	992	70.4	1001	21.3	997	10.3	100	997	10.3
0.000751	406	83.3	440	12.9	444	4.5	99	444	4.5
0.003057	1850	46.5	1886	19.8	1896	14.7	98	1850	46.5
0.003274	2262	41.5	2138	21.7	1987	15.5	114	discordant	
0.000699	406	70.4	436	11.1	436	4.2	100	436	4.2
0.001736	940	67.6	986	19.4	992	9.6	99	992	9.6
0.000919	433	98.1	440	14.9	442	5.5	100	442	5.5
0.001819	943	65.7	1014	19.4	1035	10.0	91	943	65.7
0.000957	539	72.2	572	14.0	574	5.7	100	574	5.7
0.001546	759	50.0	834	14.2	851	8.7	98	851	8.7
0.000870	772	78.7	538	14.4	481	5.2	112	discordant	
0.000766	265	92.6	408	13.6	432	4.6	94	432	4.6
0.001473	861	61.1	872	16.9	869	8.3	100	869	8.3
0.001319	972	54.8	941	16.1	918	7.4	102	918	7.4
0.000982	500	75.0	498	12.3	498	5.9	100	498	5.9
0.000812	498	60.2	447	14.8	436	4.9	102	436	4.9
0.003302	2032	44.0	2051	20.9	2057	15.5	99	2032	44.0
0.001618	789	82.4	757	21.3	752	9.3	101	752	9.3
0.000692	476	93.5	452	10.0	443	4.2	102	443	4.2
0.002524	1596	44.1	1584	18.8	1565	12.8	102	1596	44.1
0.002806	1569	44.4	1592	19.3	1598	14.1	98	1569	44.4
0.003815	1895	46.3	1923	22.0	1938	18.2	98	1895	46.3
0.002289	1543	42.7	1552	18.0	1550	11.6	100	1543	42.7
0.000798	467	98.1	431	15.4	435	4.8	99	435	4.8
0.002994	1572	44.4	1610	19.7	1628	15.0	97	1572	44.4
0.000783	576	58.3	501	11.7	479	4.7	105	479	4.7

0.002259	1174	63.7	1180	23.8	1171	12.2	100	1174	63.7
0.001756	1009	92.8	992	18.7	975	9.7	102	975	9.7
0.001593	835	51.8	880	15.0	889	9.0	99	889	9.0
0.003492	2440	36.4	2358	19.2	2244	15.9	109	2440	36.4
0.002813	1633	50.0	1621	20.4	1610	14.2	101	1633	50.0
0.000797	350	104	440	16.8	451	4.8	97	451	4.8
0.000782	635	59.2	516	10.7	485	4.7	106	485	4.7
0.000707	476	93.5	456	9.8	448	4.3	102	448	4.3
0.007907	3477	31.2	3521	21.7	3559	29.4	98	3477	31.2
0.000850	550	75.0	486	13.2	471	5.1	103	471	5.1
0.003127	1550	250.9	1600	22.1	1627	15.7	95	1550	250.9
0.000675	343	39.8	441	10.9	456	4.1	97	456	4.1
0.001890	965	64.0	1055	19.5	1091	10.3	88	discordant	
0.002550	1517	51.8	1493	20.9	1457	13.1	104	1517	51.8
0.000681	189	80.5	393	11.7	426	4.1	92	426	4.1
0.000889	583	88.9	479	15.5	452	5.4	106	452	5.4
0.000771	506	77.8	459	12.6	445	4.6	103	445	4.6
0.001762	1098	45.4	1148	16.9	1163	9.5	94	1098	45.4
0.000919	324	111	410	16.5	423	5.6	97	423	5.6
0.000832	439	68.5	453	11.1	453	5.0	100	453	5.0
0.000727	283	97.2	400	14.5	419	4.4	95	419	4.4
0.000716	472	75.9	451	12.1	443	4.3	102	443	4.3
0.001312	643	56.5	778	15.5	818	7.5	95	818	7.5
0.002514	1521	48.0	1538	19.2	1539	12.8	99	1521	48.0
0.001529	880	61.1	987	18.0	1028	8.4	86	discordant	
0.004448	2417	44.4	2457	23.8	2487	19.5	97	2417	44.4
0.000616	317	66.7	412	9.7	426	3.7	97	426	3.7
0.002688	1422	57.4	1508	22.4	1562	13.6	91	1422	57.4
0.003159	1743	47.8	1773	21.9	1783	15.5	98	1743	47.8
0.002254	1428	43.7	1509	17.2	1553	11.4	92	1428	43.7
0.002712	1577	50.9	1604	19.8	1610	13.6	98	1577	50.9
0.002933	1700	78.7	1744	20.7	1773	14.4	96	1700	78.7
0.000914	598	121	452	19.1	422	5.5	107	422	5.5
0.003118	1539	59.9	1586	24.8	1610	15.7	96	1539	59.9
0.001808	983	61.1	1051	19.3	1074	9.9	92	983	61.1
0.000756	332	64.8	456	10.9	475	4.5	96	475	4.5
0.001709	887	58.2	987	17.3	1026	9.4	86	discordant	
0.000761	457	106	469	13.1	469	4.6	100	469	4.6
0.001681	906	46.3	1056	14.6	1122	9.1	81	discordant	
0.000709	506	55.6	514	10.0	513	4.2	100	513	4.2
0.001690	1009	48.1	1094	15.9	1129	9.2	89	discordant	
0.000857	53.8	96.3	373	12.6	428	5.2	87	discordant	
0.001231	467	141	440	21.5	458	7.4	96	458	7.4
0.000763	320	90.7	414	13.2	431	4.6	96	431	4.6
0.001594	889	130	501	23.1	427	9.6	117	discordant	
0.000716	398	75.0	425	10.7	428	4.3	99	428	4.3
0.000612	389	59.3	423	9.3	428	3.7	99	428	3.7
0.000713	417	96.3	422	14.5	421	4.3	100	421	4.3
0.000818	483	106	441	15.9	433	4.9	102	433	4.9
0.001428	731	73.0	790	18.4	807	8.1	98	807	8.1
0.001579	976	57.4	976	17.9	966	8.8	101	966	8.8
0.002235	1339	49.7	1350	19.4	1345	11.7	100	1339	49.7
0.000777	320	63.9	455	9.7	478	4.7	95	478	4.7
0.000951	443	99.1	463	17.4	466	5.7	99	466	5.7
0.000767	456	74.1	441	12.1	437	4.6	101	437	4.6
0.002776	1573	47.7	1575	19.7	1559	14.1	101	1573	47.7
0.000748	472	95.4	479	10.3	473	4.5	101	473	4.5
0.001036	480	129	434	19.2	424	6.3	102	424	6.3
0.001175	443	119	439	19.3	435	7.1	101	435	7.1
0.000949	417	111	431	17.0	432	5.7	100	432	5.7
0.000884	450	81.5	470	13.5	470	5.3	100	470	5.3
0.002824	1517	14.7	1572	20.5	1605	14.2	94	1517	14.7

0.0010	406	57	440	9	446	6	99	446	6
0.0010	383	69	433	11	443	6	98	443	6
0.0010	405	97	402	15	402	6	100	402	6
0.0009	443	66	418	11	414	6	101	414	6
0.0020	893	44	915	14	924	11	99	924	11
0.0022	979	44	979	14	979	12	100	979	12
0.0010	314	92	400	14	415	6	96	415	6
0.0009	440	63	418	10	413	6	101	413	6
0.0009	482	62	417	10	405	5	103	405	5
0.0011	406	113	413	17	414	7	100	414	7
0.0021	987	37	983	12	981	12	100	981	12
0.0009	532	51	442	9	425	5	104	425	5
0.0010	550	77	444	13	423	6	105	423	6
0.0009	430	64	414	10	411	6	101	411	6
0.0011	485	95	423	15	412	6	103	412	6
0.0011	710	87	485	16	439	7	110	Discordant	
0.0009	427	58	420	9	419	5	100	419	5
0.0010	515	78	432	13	416	6	104	416	6
0.0011	450	90	432	15	428	6	101	428	6
0.0009	450	54	422	9	417	5	101	417	5
0.0010	373	84	423	13	433	6	98	433	6
0.0009	452	62	425	10	420	6	101	420	6
0.0010	461	69	437	11	432	6	101	432	6
0.0010	424	72	423	12	423	6	100	423	6
0.0009	502	53	438	9	425	6	103	425	6
0.0010	468	70	446	12	442	6	101	442	6
0.0010	442	66	433	11	432	6	100	432	6
0.0018	834	47	817	13	811	10	101	811	10
0.0010	461	69	443	12	439	6	101	439	6
0.0010	440	71	435	12	434	6	100	434	6
0.0018	843	52	812	14	800	10	102	800	10
0.0030	1548	34	1465	16	1409	16	110	1548	34
0.0011	628	60	497	11	469	6	106	469	6
0.0038	1566	41	1572	18	1575	19	99	1566	41
0.0009	458	66	422	10	415	6	102	415	6
0.0010	502	66	439	11	427	6	103	427	6
0.0022	992	51	969	16	959	12	101	959	12
0.0010	518	49	482	9	475	6	101	475	6
0.0010	588	77	442	13	414	6	107	414	6
0.0025	1239	41	1144	15	1094	13	113	Discordant	
0.0010	384	68	420	11	426	6	99	426	6
0.0019	834	44	840	13	842	10	100	842	10
0.0020	733	66	792	17	813	11	97	813	11
0.0010	573	64	452	11	428	6	106	428	6
0.0010	522	68	455	12	442	6	103	442	6
0.0009	376	68	409	10	414	6	99	414	6
0.0009	503	65	426	10	412	6	103	412	6
0.0063	2501	34	2495	20	2488	28	101	2501	34
0.0011	512	79	458	13	448	6	102	448	6
0.0010	495	79	438	13	427	6	103	427	6
0.0010	495	53	462	9	456	6	101	456	6
0.0011	342	101	417	15	431	7	97	431	7
0.0010	452	76	423	12	417	6	101	417	6
0.0011	328	77	453	13	478	7	95	478	7
0.0054	2135	38	2150	20	2165	25	99	2135	38
0.0010	474	81	424	13	414	6	102	414	6
0.0010	445	75	424	12	420	6	101	420	6
0.0025	1027	73	961	23	932	14	103	932	14
0.0065	2533	36	2507	21	2475	28	102	2533	36
0.0010	575	63	438	11	412	6	106	412	6
0.0068	2530	39	2502	23	2469	30	102	2530	39
0.0010	422	68	434	11	436	6	100	436	6
0.0010	466	64	421	10	413	6	102	413	6

0.0014	361	127	450	21	467	8	96	467	8
0.0011	304	93	402	14	419	6	96	419	6
0.0010	423	78	426	13	427	6	100	427	6
0.0010	413	78	414	12	414	6	100	414	6
0.0012	624	148	438	28	403	7	109	403	7
0.0047	1858	42	1862	21	1865	23	100	1858	42
0.0010	409	68	415	11	416	6	100	416	6
0.0039	1580	49	1554	22	1534	20	103	1580	49
0.0010	404	63	422	10	425	6	99	425	6
0.0011	344	85	411	13	422	6	97	422	6
0.0011	502	78	444	13	433	6	103	433	6
0.0010	490	66	440	11	430	6	102	430	6
0.0011	586	72	456	13	431	6	106	431	6
0.0060	2453	40	2373	23	2281	27	108	2453	40
0.0011	419	74	437	12	441	6	99	441	6
0.0014	472	145	437	27	431	8	101	431	8
0.0011	496	94	437	16	426	7	103	426	7
0.0010	468	66	425	11	416	6	102	416	6
0.0011	468	70	449	12	445	6	101	445	6
0.0047	1805	52	1756	26	1715	23	105	1805	52
0.0011	478	85	444	15	437	7	102	437	7
0.0010	488	63	442	11	433	6	102	433	6
0.0022	930	65	870	20	846	12	103	846	12
0.0062	2423	43	2358	25	2284	28	106	2423	43
0.0011	445	71	440	12	439	6	100	439	6
0.0011	456	77	443	13	441	7	100	441	7
0.0011	454	77	428	13	423	6	101	423	6
0.0010	501	67	440	12	429	6	103	429	6
0.0012	357	79	450	13	469	7	96	469	7
0.0011	479	84	421	14	410	6	103	410	6
0.0011	547	81	430	14	408	6	105	408	6
0.0011	404	80	422	13	425	6	99	425	6
0.0012	426	111	436	21	438	7	100	438	7
0.0012	706	65	545	14	507	7	107	507	7
0.0011	497	79	456	14	448	7	102	448	7
0.0091	3044	43	3062	28	3088	36	99	3044	43
0.0013	448	95	462	17	464	8	100	464	8
0.0012	611	73	500	14	476	7	105	476	7
0.0011	475	71	437	12	430	6	102	430	6
0.0036	1914	21	1810	11	1720	18	95	1914	21
0.0019	870	30	896	9	907	11	99	907	11
0.0024	1031	35	1001	12	988	13	99	988	13
0.0025	1217	23	1222	9	1225	13	100	1217	23
0.0010	471	68	453	11	449	6	99	449	6
0.0016	827	35	817	9	813	9	100	813	9
0.0009	476	35	451	6	446	5	99	446	5
0.0009	478	39	443	7	436	5	98	436	5
0.0020	971	25	982	8	987	11	99	987	11
0.0017	786	36	769	10	764	9	99	764	9
0.0009	511	54	432	8	418	5	97	418	5
0.0009	457	35	445	6	443	5	100	443	5
0.0033	1572	24	1570	11	1569	16	100	1572	24
0.0017	827	33	836	9	840	10	100	840	10
0.0011	572	29	548	6	543	6	99	543	6
0.0060	2642	20	2657	12	2677	26	99	2642	20
0.0042	1914	26	1905	13	1896	20	100	1914	26
0.0022	1107	23	1124	9	1132	12	99	1107	23
0.0010	468	61	456	10	453	6	99	453	6
0.0034	1710	21	1685	10	1665	17	99	1710	21
0.0046	2028	45	2011	19	1995	22	99	2028	45
0.0056	2459	20	2441	12	2420	25	99	2459	20
0.0015	805	26	783	7	775	9	99	775	9

0.0009	469	31	441	5	435	5	99	435	5
0.0055	2480	18	2468	11	2454	24	99	2480	18
0.0038	2089	19	1937	11	1798	18	92	2089	19
0.0057	2554	19	2546	12	2536	25	100	2554	19
0.0008	512	28	445	5	432	5	97	432	5
0.0035	1678	21	1653	10	1634	17	99	1678	21
0.0038	1788	20	1781	10	1775	19	100	1788	20
0.0053	2482	19	2401	12	2307	24	96	2482	19
0.0053	2328	48	2216	21	2098	25	94	2328	48
0.0009	448	33	439	6	437	5	100	437	5
0.0011	458	64	429	10	424	6	99	424	6
0.0009	492	29	443	5	434	5	98	434	5
0.0009	439	35	427	6	425	5	100	425	5
0.0016	786	28	798	8	802	9	100	802	9
0.0016	832	25	800	7	788	9	98	788	9
0.0019	977	24	959	8	951	11	99	951	11
0.0055	2431	18	2430	11	2428	25	100	2431	18
0.0008	449	31	437	5	435	5	100	435	5
0.0009	463	32	434	5	428	5	99	428	5
0.0027	1244	23	1255	9	1261	14	100	1244	23
0.0009	460	29	458	5	458	5	100	458	5
0.0008	493	32	440	5	430	5	98	430	5
0.0043	1744	25	1726	10	1712	21	99	1744	25
0.0022	1116	12	1091	4	1078	12	99	1116	12
0.0009	516	16	460	3	449	5	98	449	5
0.0016	859	13	821	4	807	9	98	807	9
0.0009	455	24	430	4	426	5	99	426	5
0.0009	487	18	447	3	439	5	98	439	5
0.0015	806	23	757	5	741	9	98	741	9
0.0018	847	29	821	7	811	10	99	811	10
0.0009	452	15	464	3	467	6	99	467	6
0.0045	2025	11	2027	6	2030	21	100	2025	11
0.0009	523	18	456	3	443	5	97	443	5
0.0015	779	23	713	5	692	9	97	692	9
0.0009	444	18	448	3	449	5	100	449	5
0.0045	2088	9	2087	5	2087	21	100	2088	9
0.0028	1233	27	1182	9	1155	15	98	1233	27
0.0007	829	21	804	6	797	4	99	797	4
0.0007	792	25	781	6	780	4	100	780	4
0.0003	457	26	445	4	444	2	100	444	2
0.0017	2527	7	2514	5	2493	7	99	2527	7
0.0003	456	26	430	4	426	2	99	426	2
0.0008	831	33	801	8	794	5	99	794	5
0.0007	668	64	471	12	431	4	91	431	4
0.0011	1040	25	959	7	923	6	96	923	6
0.0007	780	34	759	8	752	4	99	752	4
0.0013	1626	10	1611	5	1597	7	99	1626	10
0.0009	1184	21	1163	7	1153	5	99	1184	21
0.0004	428	25	446	4	450	2	99	450	2
0.0008	1036	21	1025	6	1019	4	99	1036	21
0.0008	1002	14	1014	4	1019	4	100	1002	14
0.0009	1059	16	1035	5	1022	5	99	1059	16
0.0019	2394	12	2398	6	2399	9	100	2394	12
0.0007	845	19	812	5	800	4	99	800	4
0.0004	489	27	438	4	430	2	98	430	2
0.0009	995	26	968	7	960	5	99	960	5
0.0008	949	15	965	5	973	4	99	973	4
0.0007	508	70	475	12	471	4	99	471	4
0.0004	490	28	470	5	466	2	99	466	2
0.0007	941	14	941	5	940	4	100	940	4
0.0011	1183	23	1176	8	1173	6	100	1183	23
0.00156	1357	62	1048	19	906	9	84	Discordant	

0.0016	767	31	731	8	719	9	98	719	9
0.0012	424	94	422	14	422	7	100	422	7
0.0015	774	31	714	8	696	9	97	696	9
0.0009	1048	24	557	6	444	6	75	Discordant	
0.0009	560	30	456	6	436	6	95	436	6
0.0040	1656	33	1606	15	1569	20	98	1656	33
0.0009	679	31	466	6	424	5	90	Discordant	
0.0034	1482	24	1486	11	1490	18	100	1482	24
0.0033	1754	20	1580	11	1453	17	91	1754	20
0.0024	1058	45	998	14	971	13	97	971	13
0.0011	505	41	502	8	501	7	100	501	7
0.0011	450	65	428	10	424	6	99	424	6
0.0017	778	36	766	10	761	10	99	761	10
0.0034	2156	18	1804	11	1516	17	81	Discordant	
0.0027	1275	31	1205	12	1166	15	97	1275	31
0.0024	1058	28	1066	10	1070	13	100	1058	28
0.0013	650	27	623	7	616	8	99	616	8
0.0057	2307	19	2329	12	2356	25	99	2307	19
0.0009	423	45	419	7	418	6	100	418	6
0.0010	428	54	433	8	434	6	100	434	6
0.0064	2681	18	2645	12	2599	27	98	2681	18
0.0014	593	57	593	11	593	8	100	593	8
0.0045	3457	167	1659	77	617	26	-69	Discordant	
0.0025	1022	41	1026	13	1029	14	100	1022	41
0.0037	1502	28	1529	13	1550	19	99	1502	28
0.0009	416	39	431	6	434	6	99	434	6
0.0023	1021	31	1032	11	1037	13	100	1021	31
0.0032	1462	27	1415	12	1385	17	98	1462	27
0.0010	476	38	463	7	461	6	100	461	6
0.0039	2180	18	1948	11	1738	19	88	Discordant	
0.0045	1829	28	1852	14	1871	22	99	1829	28
0.0018	838	32	851	9	856	10	99	856	10
0.0016	776	44	733	11	719	9	98	719	9
0.0017	819	40	788	10	777	10	99	777	10
0.0010	553	44	468	8	451	6	96	451	6
0.0011	516	73	435	11	419	6	96	419	6
0.0058	2466	18	2484	11	2505	25	99	2466	18
0.0054	2229	22	2257	12	2286	24	99	2229	22
0.0009	408	42	428	7	431	5	99	431	5
0.0010	470	57	433	9	426	6	98	426	6
0.0009	434	58	410	9	406	6	99	406	6
0.0009	460	48	437	8	433	6	99	433	6
0.0020	932	42	904	12	893	11	99	893	11
0.0008	445	31	423	5	419	5	99	419	5
0.0010	479	32	491	6	493	6	100	493	6
0.0018	800	33	800	9	801	10	100	801	10
0.0009	843	36	501	7	429	6	83	Discordant	
0.0020	967	25	959	9	956	11	100	956	11
0.0021	960	24	978	9	987	12	99	987	12
0.0054	2032	31	2044	16	2057	25	99	2032	31
0.0029	3956	149	1545	67	393	17	-193	Discordant	
0.0010	471	28	478	5	479	6	100	479	6
0.0019	785	44	801	12	806	11	99	806	11
0.0012	516	42	522	8	524	7	100	524	7
0.0044	1869	20	1884	11	1897	21	99	1869	20
0.0020	860	42	853	12	850	11	100	850	11
0.0010	448	57	424	9	420	6	99	420	6
0.0009	431	34	438	6	439	6	100	439	6
0.0006	472	48	450	8	445	3	99	445	3
0.0017	507	124	496	23	494	10	100	494	10
0.0008	901	22	838	6	814	5	97	814	5
0.0004	457	29	440	5	437	2	99	437	2
0.0010	952	25	933	7	925	5	99	925	5

0.0006	488	50	463	8	459	3	99	459	3
0.0010	1072	31	1036	9	1019	6	98	1072	31
0.0007	444	76	445	11	447	4	100	447	4
0.0042	2440	32	2356	14	2266	19	96	2440	32
0.0006	481	49	468	8	464	4	99	464	4
0.0009	551	82	448	11	430	6	96	430	6
0.0005	555	39	469	7	451	3	96	451	3
0.0038	1453	69	1438	26	1434	20	100	1453	69
0.0005	521	52	456	8	444	3	97	444	3
0.0008	488	63	467	10	463	5	99	463	5
0.0009	1077	25	1043	7	1024	5	98	1077	25
0.0006	523	55	464	9	452	4	97	452	4
0.0008	478	78	459	12	458	5	100	458	5
0.0005	470	47	444	7	440	3	99	440	3
0.0006	468	36	450	6	446	3	99	446	3
0.0024	615	178	485	24	464	14	95	464	14
0.0006	480	51	453	8	449	4	99	449	4
0.0009	470	86	433	12	428	5	99	428	5
0.0004	449	33	429	5	425	2	99	425	2
0.0009	494	74	475	12	475	6	100	475	6
<b>Tectonophysics)</b>									
0.0017	969	19	804	5	745	10	92	745	10
0.0017	972	18	804	5	744	10	92	744	10
0.0019	808	78	763	18	748	11	98	748	11
0.0022	977	15	970	5	967	12	100	967	12
0.0011	409	82	428	11	432	7	99	432	7
0.0010	634	24	463	4	430	6	92	430	6
0.0013	596	16	594	4	594	8	100	594	8
0.0011	490	17	501	3	504	7	99	504	7
0.0020	1006	17	909	5	870	11	96	870	11
0.0029	1212	20	1217	7	1220	16	100	1212	20
0.0011	484	16	500	3	504	7	99	504	7
0.0011	502	18	498	3	497	7	100	497	7
0.0007	322	19	303	2	300	4	99	300	4
0.0021	912	21	895	6	889	12	99	889	12
0.0010	506	31	450	5	439	6	97	439	6
0.0029	1924	15	1553	7	1295	15	80	Discordant	
0.0024	1141	13	1136	5	1134	13	100	1141	13
0.0012	543	85	480	13	467	7	97	467	7
0.0018	901	13	888	4	882	10	99	882	10
0.0009	466	17	440	3	435	5	99	435	5
0.0019	991	39	946	9	926	11	98	926	11
0.0011	538	18	542	3	543	7	100	543	7
0.0009	470	56	433	7	426	5	98	426	5
0.0049	2175	11	2170	6	2164	23	100	2175	11
0.0009	478	31	442	5	435	6	98	435	6
0.0007	653	43	347	5	303	4	85	Discordant	
0.0014	922	30	710	7	645	8	90	Discordant	
0.0010	517	16	509	3	508	6	100	508	6
0.0006	310	19	308	2	307	4	100	307	4
0.0015	817	13	782	4	770	9	98	770	9
0.0015	764	17	755	4	752	9	100	752	9
0.0011	561	13	559	3	559	6	100	559	6
0.0010	559	16	529	3	523	6	99	523	6
0.0008	536	17	424	3	404	5	95	404	5
0.0010	479	18	516	3	525	6	98	525	6
0.0012	811	43	624	7	574	7	91	574	7
0.0047	2124	10	2118	6	2113	22	100	2124	10
0.0018	552	179	575	34	581	11	99	581	11
0.0010	508	15	521	3	525	6	99	525	6
0.0009	668	70	425	10	382	6	89	Discordant	
0.0005	277	24	258	2	256	3	99	256	3
0.0009	814	45	503	7	437	5	85	Discordant	

0.0011	582	15	550	3	542	6	99	542	6
0.0017	837	16	833	4	833	10	100	833	10
0.0042	1911	13	1819	7	1741	21	96	1911	13
0.0058	2453	12	2379	7	2295	26	96	2453	12
0.0019	930	42	777	10	725	11	93	725	11
0.0054	1129	91	1186	28	1218	29	97	Discordant	
0.0043	123	503	391	95	438	26	89	438	26
0.0023	540	148	464	22	449	14	97	449	14
0.0011	807	29	551	6	492	7	88	Discordant	
0.0051	816	184	764	41	746	29	98	746	29
0.0011	426	51	426	7	427	7	100	427	7
0.0024	976	29	959	8	952	13	99	952	13
0.0007	348	65	268	6	259	4	97	259	4
0.0020	848	27	825	7	817	11	99	817	11
0.0010	468	26	464	4	464	6	100	464	6
0.0044	1857	13	1840	7	1826	22	99	1857	13
0.0022	1135	40	1032	10	984	12	95	984	12
0.0015	738	22	711	5	704	9	99	704	9
0.0053	1983	15	2069	7	2159	24	96	1983	15
0.0021	780	44	805	11	816	12	99	816	12
0.0011	353	48	426	7	441	6	97	441	6
0.0017	392	94	465	14	480	10	97	480	10
0.0023	1051	12	1058	5	1063	12	100	1051	12
0.0012	1269	14	732	4	570	7	72	Discordant	
0.0010	448	23	457	4	460	6	99	460	6
0.0009	476	26	443	4	438	6	99	438	6
0.0024	16	154	407	22	480	14	85	Discordant	
0.0032	1468	15	1431	6	1408	16	98	1468	15
0.0018	797	17	841	5	860	10	98	860	10
0.0009	543	25	444	4	426	5	96	426	5
0.0006	559	50	509	9	500	4	98	500	4
0.0009	825	34	817	9	811	5	99	811	5
0.0030	1558	52	1559	20	1559	15	100	1558	52
0.0028	2492	15	2513	8	2527	12	99	2492	15
0.0004	465	27	463	4	461	3	100	461	3
0.0004	432	35	455	6	457	3	100	457	3
0.0013	950	38	957	11	962	7	99	962	7
0.0019	1295	46	1285	16	1282	10	100	1295	46
0.0004	263	71	258	7	256	3	99	256	3
0.0006	429	51	422	8	418	3	99	418	3
0.0005	336	87	262	8	255	3	97	255	3
0.0008	524	76	519	13	518	5	100	518	5
0.0055	1973	97	1662	42	1451	29	85	Discordant	
0.0019	1365	29	1299	11	1253	10	96	1365	29
0.0017	596	145	533	24	523	10	98	523	10
0.0023	1800	21	1814	10	1824	11	99	1800	21
0.0005	436	29	462	5	464	3	100	464	3
0.0024	2463	14	2487	8	2506	10	99	2463	14
0.0009	971	18	1003	6	1012	5	99	971	18
0.0004	293	63	262	6	260	2	99	260	2

#### Tectonophysics)

0.0015	971	22	789	6	727	9	91	727	9
0.0008	966	25	504	4	408	5	76	Discordant	
0.0008	979	24	505	4	407	5	76	Discordant	
0.0008	1083	17	544	4	424	5	72	Discordant	
0.0017	851	16	845	4	843	10	100	843	10
0.0037	1742	13	1725	6	1711	18	99	1742	13
0.0009	889	14	561	3	484	6	84	Discordant	
0.0016	819	13	808	4	804	9	100	804	9
0.0014	1277	13	858	4	705	8	78	Discordant	
0.0009	737	19	483	3	431	5	88	Discordant	
0.0010	478	38	458	6	454	6	99	454	6
0.0016	777	16	777	4	777	9	100	777	9

0.0020	985	13	980	4	978	11	100	978	11
0.0018	1012	13	919	4	880	10	96	880	10
0.0026	1031	42	1029	12	1029	15	100	1031	42
0.0010	567	15	537	3	531	6	99	531	6
0.0031	2151	11	1769	5	1463	16	79	Discordant	
0.0010	588	17	537	3	526	6	98	526	6
0.0016	820	15	797	4	789	9	99	789	9
0.0009	511	24	468	4	460	6	98	460	6
0.0022	1066	16	1054	5	1048	12	99	1066	16
0.0009	649	34	472	6	437	6	92	437	6
0.0021	1063.1	11.1	1052.1	4.14	1047.2	11.56	100	1063.1	11.1
0.0009	478	23	466	4	464	6	100	464	6
0.0010	689	54	450	8	405	6	89	Discordant	
0.0008	476	18	429	3	421	5	98	421	5
0.0010	603	22	508	4	487	6	96	487	6
0.0020	988	13	989	4	990	11	100	990	11
0.0030	1389	23	1340	8	1309	16	98	1389	23
0.0016	907	16	817	4	785	9	96	785	9
0.0017	810	15	828	4	835	10	99	835	10
0.0009	470	26	457	4	454	6	99	454	6
0.0010	502	22	496	4	495	6	100	495	6
0.0017	829	20	818	5	814	10	100	814	10
0.0009	651	64	461	10	423	5	91	423	5
0.0023	1112	19	1098	6	1091	13	99	1112	19
0.0009	512	20	461	3	450	5	98	450	5
0.0008	797	15	489	3	426	5	85	Discordant	
0.0056	2476	10	2471	6	2464	25	100	2476	10
0.0008	1037	28	476	5	368	5	71	Discordant	
0.0057	2836	8.97	2687.6	5.92	2495	24.96	92	2836	8.97
0.0015	1129	20	842	5	737	9	86	Discordant	
0.0012	592	19	579	4	576	7	99	576	7
0.0021	1006	23	996	7	991	12	99	991	12
0.0009	565	19	464	3	444	5	95	444	5
0.0005	453	47	438	7	437	3	100	437	3
0.0064	1868	78	1855	37	1850	31	100	1868	78
0.0035	2000	19	1983	11	1969	17	99	2000	19
0.0008	827	24	842	7	847	5	99	847	5
0.0038	2858	13	2860	9	2859	16	100	2858	13
0.0016	1681	19	1666	8	1652	8	99	1681	19
0.0006	478	50	456	8	455	4	100	455	4
0.0020	819	125	702	28	672	12	96	672	12
0.0013	1013	32	1008	10	1006	7	100	1013	32
0.0024	1383	47	1361	17	1355	12	100	1383	47
0.0012	957	21	957	7	955	6	100	955	6
0.0005	438	30	458	5	462	3	99	462	3
0.0007	481	54	458	9	456	4	100	456	4
0.0011	1217	21	1173	7	1151	6	98	1217	21
0.0006	507	39	531	7	537	4	99	537	4
0.0019	1015	58	949	31	947	11	100	Discordant	
0.0015	532	105	486	30	500	9	97	500	9
0.0018	614	133	480	39	484	10	99	484	10
0.0129	2631	108	2496	117	2500	56	100	2631	108
0.0026	709	173	494	61	497	16	99	497	16
0.0228	3435	139	3183	176	3077	91	97	3435	139
0.0120	2509.26	166.665	1909.45574	180.462294	1593.40117	60.5311565	80	Discordant	
0.0203	2515	191	2248	216	2242	93	100	Discordant	
0.0115	1354	389	798	258	802	66	100	Discordant	
0.0062	1053	257	704	137	706	36	100	Discordant	
0.0133	1695	257	1317	221	1306	70	99	Discordant	
0.0124	1447	290	1107	224	1117	67	99	Discordant	
0.0185	1948	291	1515	286	1507	94	99	Discordant	
0.0139	2182	304	1330	295	1089	76	78	Discordant	
0.0059	1016	384	448	157	449	35	100	Discordant	

0.0009	930	18	961	6	970	5	99	970	5
0.0017	1407	15	1398	7	1386	9	99	1407	15
0.0004	547	35	490	6	476	3	97	476	3
0.0008	731	48	728	11	727	5	100	727	5
0.0024	2478	12	2477	7	2464	11	99	2478	12
0.0009	1033	16	1024	6	1016	5	99	1033	16
0.0033	989	107	942	30	937	18	99	937	18
0.0017	1495	29	1424	11	1370	9	96	1495	29
0.0011	1239	13	1237	6	1229	6	99	1239	13
0.0019	1422	17	1421	8	1414	10	100	1422	17
0.0009	910	31	864	8	844	5	98	844	5
0.0011	1066	21	1029	7	1005	6	98	1066	21
0.0036	2405	15	2413	10	2411	16	100	2405	15
0.0014	1484	19	1492	8	1491	7	100	1484	19
0.0013	803	58	775	14	764	7	99	764	7
0.0023	1144	12	1136	5	1132	13	100	1144	12























































Discordant

**Table S6 Compilation of detrital zircon U-Pb ages from Silurian-Carboniferous clastic rocks of the South Tianshan and adjacent areas**

Sample	Spot No.	Th	U	Th/U	Isotopic ratios			
		ppm	ppm		$^{207}\text{Pb}/^{206}\text{Pb}$	1 $\sigma$	$^{207}\text{Pb}/^{235}\text{U}$	1 $\sigma$
<b>Sample Yg050409, muddy sandstone, Middle Permian, Dawangou section, NTC, (Zou SY et al., 2013, Acta Petrologica Sinica)</b>								
	1		0.40	0.1119	0.0002	4.984	0.0410	0.3231
	2		0.20	0.0558	0.0001	0.5320	0.0050	0.0692
	3		0.31	0.0675	0.0001	1.273	0.0190	0.1368
	4		0.53	0.0554	0.0001	0.5060	0.0050	0.0663
	5		0.28	0.0794	0.0001	1.919	0.0160	0.1754
	6		0.34	0.0523	0.0001	0.3320	0.0040	0.0460
	7		0.13	0.0754	0.0004	1.390	0.0200	0.1337
	8		0.41	0.0523	0.0003	0.2780	0.0040	0.0386
	9		0.28	0.0532	0.0002	0.3000	0.0040	0.0409
	10		0.30	0.0522	0.0001	0.3080	0.0040	0.0428
	11		0.25	0.0526	0.0003	0.3100	0.0040	0.0428
	12		0.27	0.0562	0.0001	0.5690	0.0080	0.0734
	13		0.30	0.0664	0.0001	1.038	0.0120	0.1135
	14		0.39	0.0528	0.0003	0.3020	0.0040	0.0415
	15		0.35	0.0561	0.0001	0.5610	0.0050	0.0725
	16		0.43	0.0557	0.0001	0.5580	0.0070	0.0726
	17		0.40	0.0552	0.0001	0.5150	0.0060	0.0676
	18		0.40	0.0555	0.0001	0.5320	0.0060	0.0694
	19		0.40	0.1038	0.0001	4.450	0.0350	0.3108
	20		0.35	0.0550	0.0005	0.3200	0.0050	0.0421
	21		0.31	0.0516	0.0001	0.3050	0.0040	0.0429
	22		0.34	0.0522	0.0001	0.3080	0.0040	0.0429
	23		0.36	0.0524	0.0001	0.3220	0.0050	0.0445
	24		0.17	0.1302	0.0002	6.264	0.0730	0.3489
	25		0.54	0.1058	0.0001	4.302	0.0450	0.2948
	26		0.34	0.0522	0.0002	0.3020	0.0040	0.0419
	27		0.65	0.0659	0.0001	1.255	0.0200	0.1382
	28		0.24	0.0526	0.0002	0.3380	0.0040	0.0466
	29		0.33	0.0522	0.0002	0.3360	0.0060	0.0467
	30		0.27	0.0520	0.0002	0.3540	0.0050	0.0494
	31		0.28	0.0523	0.0002	0.3100	0.0030	0.0431
	32		0.32	0.0532	0.0002	0.3220	0.0040	0.0439
	33		0.38	0.0525	0.0001	0.3030	0.0040	0.0419
	34		0.81	0.0611	0.0003	0.5130	0.0050	0.0609
	35		0.24	0.0524	0.0002	0.3000	0.0040	0.0415
	36		0.39	0.0553	0.0002	0.5890	0.0070	0.0773
	37		0.36	0.0525	0.0002	0.2910	0.0030	0.0403
	38		0.30	0.0734	0.0006	1.089	0.0140	0.1076
	39		0.75	0.0564	0.0001	0.5340	0.0080	0.0687
	40		0.63	0.0663	0.0002	1.276	0.0210	0.1396
	41		0.22	0.0528	0.0002	0.3260	0.0040	0.0448
	42		0.16	0.0674	0.0001	1.320	0.0180	0.1420
	43		0.11	0.1083	0.0001	4.898	0.0490	0.3279
	44		0.35	0.0526	0.0003	0.2900	0.0030	0.0400
	45		0.30	0.0518	0.0002	0.2890	0.0030	0.0406
	46		0.28	0.0519	0.0002	0.3060	0.0040	0.0427
	47		0.29	0.0525	0.0002	0.3240	0.0040	0.0448
	48		0.37	0.0726	0.0001	1.673	0.0180	0.1671
	49		0.81	0.0647	0.0002	0.8600	0.0080	0.0964
	50		0.45	0.0520	0.0014	0.3240	0.0090	0.0452
	51		0.60	0.0517	0.0011	0.3210	0.0070	0.0450
	52		0.81	0.0527	0.0011	0.3280	0.0070	0.0452
	53		1.05	0.0564	0.0003	0.5370	0.0060	0.0690
	54		0.60	0.0507	0.0028	0.3150	0.0180	0.0451
	55		0.54	0.0510	0.0052	0.3100	0.0320	0.0441
	56		0.76	0.0535	0.0009	0.3230	0.0060	0.0438
	57		0.58	0.0532	0.0029	0.3220	0.0180	0.0439
	58		0.78	0.0570	0.0016	0.5160	0.0160	0.0657

**Sample Yg050412, muddy sandstone, Middle Permian, Dawangou section, NTC, (Zou SY et al., 2013, Acta Petrologica Sinica)**

1	0.36	0.0526	0.0001	0.3270	0.0040	0.0451
2	0.28	0.0520	0.0002	0.2890	0.0030	0.0403
3	0.96	0.0551	0.0002	0.5180	0.0070	0.0681
4	0.24	0.0527	0.0002	0.3260	0.0040	0.0449
5	0.31	0.0527	0.0002	0.3280	0.0040	0.0452
6	0.27	0.0518	0.0003	0.3010	0.0040	0.0421
7	0.41	0.0668	0.0002	1.331	0.0210	0.1445
8	0.77	0.0575	0.0002	0.5670	0.0090	0.0715
9	0.49	0.0558	0.0001	0.5300	0.0060	0.0689
10	0.24	0.0521	0.0002	0.3460	0.0050	0.0482
11	0.35	0.1086	0.0001	4.940	0.0840	0.3298
12	0.53	0.0709	0.0001	1.563	0.0180	0.1599
13	0.46	0.0555	0.0003	0.4690	0.0060	0.0613
14	0.88	0.0550	0.0002	0.5030	0.0070	0.0662
15	1.02	0.0549	0.0002	0.5260	0.0070	0.0694
16	0.38	0.0557	0.0003	0.5580	0.0070	0.0726
17	0.39	0.0613	0.0003	0.9170	0.0140	0.1084
18	0.75	0.0554	0.0001	0.5540	0.0080	0.0725
19	1.00	0.0646	0.0002	1.096	0.0180	0.1230
20	0.40	0.0531	0.0001	0.3630	0.0050	0.0495
21	0.25	0.0664	0.0001	1.263	0.0120	0.1379
22	0.48	0.0725	0.0003	1.591	0.0170	0.1591
23	0.46	0.1207	0.0002	5.863	0.0750	0.3525
24	0.51	0.0655	0.0003	1.170	0.0120	0.1297
25	0.37	0.0651	0.0001	1.176	0.0130	0.1311
26	0.71	0.0667	0.0001	1.170	0.0220	0.1273
27	0.29	0.0523	0.0002	0.3480	0.0050	0.0483
28	0.41	0.0666	0.0002	1.263	0.0160	0.1375
29	0.86	0.0556	0.0002	0.5230	0.0060	0.0682
30	0.42	0.0553	0.0002	0.5220	0.0070	0.0684
31	0.83	0.0661	0.0001	1.165	0.0150	0.1278
32	0.69	0.1064	0.0001	4.667	0.0440	0.3181
33	0.41	0.0517	0.0003	0.3300	0.0050	0.0463
34	0.41	0.0532	0.0003	0.3210	0.0040	0.0438
35	0.26	0.0528	0.0002	0.3080	0.0040	0.0423
36	0.38	0.0521	0.0003	0.3290	0.0050	0.0458
37	0.41	0.0551	0.0002	0.5150	0.0070	0.0677
38	0.27	0.0522	0.0002	0.3260	0.0040	0.0453
39	0.38	0.0529	0.0002	0.3170	0.0030	0.0434
40	0.21	0.0665	0.0001	1.307	0.0170	0.1427
41	0.53	0.0605	0.0005	0.5760	0.0080	0.0691
42	0.40	0.0562	0.0001	0.5280	0.0060	0.0682
43	0.58	0.0679	0.0001	1.360	0.0200	0.1453
44	0.93	0.0554	0.0002	0.5310	0.0060	0.0696
45	0.37	0.0524	0.0003	0.3300	0.0040	0.0457
46	0.40	0.0583	0.0002	0.5200	0.0050	0.0647
47	0.31	0.0523	0.0001	0.3480	0.0040	0.0482
48	0.36	0.0561	0.0001	0.5650	0.0060	0.0730
49	0.91	0.0521	0.0002	0.3050	0.0040	0.0424
50	0.37	0.0525	0.0002	0.3300	0.0040	0.0455
51	0.38	0.0527	0.0002	0.3530	0.0050	0.0485
52	0.74	0.0538	0.0002	0.3830	0.0050	0.0516
53	1.25	0.0557	0.0002	0.5280	0.0070	0.0687
54	0.37	0.0529	0.0002	0.3180	0.0040	0.0436
55	0.38	0.0532	0.0001	0.3510	0.0040	0.0478
56	0.94	0.0557	0.0001	0.5500	0.0070	0.0717
57	0.45	0.0676	0.0002	1.181	0.0120	0.1267
58	0.72	0.0564	0.0002	0.5430	0.0070	0.0698
59	0.03	0.0656	0.0001	1.154	0.0120	0.1276
60	0.25	0.0521	0.0002	0.3360	0.0040	0.0468
61	0.35	0.0519	0.0001	0.3460	0.0040	0.0484
62	0.39	0.0574	0.0003	0.5290	0.0060	0.0668
63	0.40	0.0518	0.0002	0.3400	0.0050	0.0476

64	0.32	0.1601	0.0001	11.018	0.0650	0.4991
65	0.55	0.0911	0.0001	3.238	0.0290	0.2578
66	0.98	0.0552	0.0001	0.5150	0.0060	0.0677
67	0.18	0.0656	0.0001	1.215	0.0160	0.1344
68	0.67	0.0674	0.0001	1.257	0.0160	0.1352
69	0.43	0.0523	0.0001	0.3370	0.0040	0.0467
70	0.13	0.0728	0.0002	1.622	0.0170	0.1616
71	0.25	0.0566	0.0004	0.3920	0.0040	0.0502
72	0.31	0.0523	0.0002	0.3260	0.0040	0.0452
73	0.26	0.0552	0.0005	0.3230	0.0050	0.0424
74	0.34	0.0521	0.0002	0.3380	0.0040	0.0470
75	0.74	0.0645	0.0002	1.166	0.0180	0.1311
76	0.29	0.0993	0.0001	4.841	0.0450	0.3536
77	0.75	0.0646	0.0001	1.163	0.0150	0.1306
78	0.36	0.0519	0.0002	0.3290	0.0040	0.0459
79	0.38	0.0524	0.0003	0.3300	0.0040	0.0457
80	0.29	0.0545	0.0003	0.3500	0.0040	0.0465
81	0.94	0.0560	0.0002	0.5350	0.0050	0.0694
82	0.30	0.0517	0.0002	0.3330	0.0040	0.0466
83	0.37	0.0518	0.0001	0.3250	0.0040	0.0456
84	0.22	0.0744	0.0001	1.872	0.0210	0.1825
85	0.29	0.0523	0.0001	0.3380	0.0040	0.0469

**Sample Yg050413, muddy sandstone, Middle Permian, Dawangou section, NTC, (Zou SY et al., 2013, Acta Petrologica Sinica)**

1	0.41	0.0520	0.0002	0.3150	0.0030	0.0439
2	0.73	0.0669	0.0001	1.205	0.0080	0.1307
3	0.43	0.0555	0.0002	0.5780	0.0090	0.0755
4	0.63	0.0569	0.0001	0.6190	0.0060	0.0788
5	0.42	0.0522	0.0003	0.3310	0.0040	0.0459
6	0.50	0.0713	0.0003	1.542	0.0170	0.1567
7	0.36	0.0523	0.0001	0.3360	0.0040	0.0466
8	0.48	0.0660	0.0001	1.234	0.0130	0.1355
9	0.42	0.0650	0.0002	1.122	0.0140	0.1253
10	0.32	0.0548	0.0004	0.3390	0.0040	0.0449
11	0.33	0.0553	0.0001	0.5250	0.0060	0.0688
12	0.80	0.1602	0.0002	10.320	0.1300	0.4673
13	0.57	0.0571	0.0001	0.6320	0.0080	0.0803
14	0.19	0.1176	0.0001	5.983	0.0380	0.3690
15	0.29	0.0562	0.0001	0.5220	0.0080	0.0674
16	0.54	0.0667	0.0002	1.213	0.0200	0.1320
17	0.49	0.0555	0.0002	0.5140	0.0060	0.0671
18	0.81	0.0561	0.0001	0.4800	0.0070	0.0621
19	0.30	0.0558	0.0002	0.5230	0.0050	0.0681
20	1.39	0.0675	0.0001	1.282	0.0110	0.1377
21	0.54	0.0534	0.0001	0.3250	0.0030	0.0441
22	0.62	0.0531	0.0002	0.3440	0.0040	0.0470
23	0.63	0.0562	0.0001	0.5640	0.0060	0.0727
24	0.90	0.0554	0.0001	0.5420	0.0060	0.0709
25	0.90	0.0557	0.0002	0.5320	0.0050	0.0693
26	0.63	0.0529	0.0002	0.3900	0.0040	0.0536
27	0.61	0.0554	0.0002	0.5450	0.0060	0.0713
28	0.46	0.1953	0.0003	12.960	0.1900	0.4813
29	0.32	0.0528	0.0002	0.3090	0.0040	0.0424
30	1.17	0.0557	0.0001	0.5190	0.0060	0.0677
31	0.34	0.0527	0.0003	0.3060	0.0040	0.0421
32	0.53	0.0543	0.0002	0.3470	0.0050	0.0464
33	1.15	0.0655	0.0002	1.103	0.0150	0.1222
34	0.20	0.0554	0.0001	0.5330	0.0070	0.0698
35	0.40	0.0687	0.0002	1.324	0.0150	0.1397
36	0.65	0.1180	0.0002	5.267	0.0600	0.3237
37	0.35	0.0552	0.0003	0.4710	0.0060	0.0619
38	0.18	0.0714	0.0001	1.587	0.0130	0.1612
39	0.37	0.0544	0.0002	0.4690	0.0060	0.0626
40	0.41	0.0553	0.0002	0.5300	0.0070	0.0695

41		0.37	0.1361	0.0003	5.430	0.1200	0.2895
42		0.53	0.0554	0.0002	0.4970	0.0060	0.0651
43		0.43	0.0524	0.0004	0.2810	0.0040	0.0390
44		1.00	0.0624	0.0004	0.9300	0.0150	0.1081
45		0.53	0.0543	0.0006	0.4480	0.0080	0.0599
46		0.40	0.0554	0.0002	0.4620	0.0060	0.0605
47		0.43	0.0533	0.0003	0.3230	0.0050	0.0439
48		0.44	0.0551	0.0002	0.5070	0.0040	0.0667
49		0.69	0.0544	0.0002	0.4920	0.0070	0.0656
50		0.50	0.0549	0.0001	0.4840	0.0070	0.0639
51		0.94	0.1110	0.0002	5.194	0.0700	0.3393
52		0.43	0.0521	0.0002	0.3170	0.0040	0.0441
53		0.50	0.0715	0.0001	1.710	0.0220	0.1734
54		0.61	0.0543	0.0003	0.4110	0.0060	0.0550
55		0.79	0.0984	0.0001	4.030	0.0450	0.2972
56		0.25	0.0525	0.0001	0.3270	0.0050	0.0451
57		0.36	0.0556	0.0002	0.3590	0.0050	0.0469
58		0.30	0.0552	0.0001	0.5090	0.0080	0.0669
59		0.65	0.0655	0.0001	1.206	0.0170	0.1335
60		0.16	0.0563	0.0002	0.5660	0.0110	0.0729
61		0.39	0.0520	0.0003	0.3260	0.0050	0.0454
62		1.19	0.0650	0.0001	1.120	0.0160	0.1250
63		0.30	0.0519	0.0002	0.3260	0.0050	0.0455
64		0.29	0.0522	0.0002	0.3370	0.0050	0.0468
65		0.31	0.0525	0.0003	0.3340	0.0050	0.0462
66		0.37	0.0524	0.0001	0.3440	0.0050	0.0476
67		0.46	0.0554	0.0002	0.5310	0.0080	0.0696
68		0.29	0.0521	0.0002	0.3270	0.0050	0.0455
69		0.30	0.0697	0.0001	1.552	0.0220	0.1615
70		0.66	0.0647	0.0002	1.125	0.0230	0.1262
71		0.35	0.0521	0.0002	0.3570	0.0050	0.0497
72		0.48	0.0659	0.0001	1.226	0.0120	0.1349
73		0.42	0.1131	0.0002	5.268	0.0650	0.3379
74		0.30	0.0521	0.0002	0.3320	0.0050	0.0462
75		1.10	0.0645	0.0002	1.076	0.0150	0.1209
76		0.80	0.0720	0.0002	1.582	0.0220	0.1593
77		0.49	0.0524	0.0001	0.3140	0.0040	0.0435
78		0.34	0.0661	0.0001	1.285	0.0170	0.1410
79		0.34	0.0552	0.0002	0.5300	0.0080	0.0695
80		0.26	0.0522	0.0001	0.3390	0.0050	0.0471
81		0.30	0.0522	0.0001	0.3610	0.0050	0.0501
82		0.41	0.0527	0.0001	0.3740	0.0050	0.0515
83		0.32	0.0526	0.0002	0.3460	0.0050	0.0477
84		0.43	0.0801	0.0001	2.465	0.0310	0.2232
85		0.32	0.0553	0.0001	0.5130	0.0070	0.0673

**Sample LT24B, quartz wacke, Early Permian, Linkuangchang section, NTC, (Han Y et al., 2016, Lithos)**

LT24B-001	42	91	0.46	0.0512	0.0025	0.3120	0.0150	0.0442
LT24B-002	94	116	0.81	0.1186	0.0021	5.609	0.1040	0.3428
LT24B-003	238	406	0.59	0.0679	0.0013	1.297	0.0240	0.1384
LT24B-004	406	347	1.17	0.0559	0.0013	0.5540	0.0130	0.0718
LT24B-005	127	212	0.60	0.0514	0.0016	0.3380	0.0110	0.0478
LT24B-006	58	52	1.11	0.1125	0.0025	4.926	0.1090	0.3174
LT24B-007	131	194	0.67	0.0556	0.0016	0.5460	0.0150	0.0712
LT24B-008	111	278	0.40	0.0541	0.0015	0.3400	0.0100	0.0456
LT24B-009	56	135	0.42	0.0528	0.0020	0.3230	0.0120	0.0444
LT24B-010	153	245	0.62	0.1294	0.0021	6.886	0.1180	0.3860
LT24B-011	14	35	0.39	0.0629	0.0040	0.5120	0.0340	0.0590
LT24B-012	63	82	0.77	0.0592	0.0023	0.5880	0.0220	0.0720
LT24B-013	197	99	1.98	0.0668	0.0022	1.062	0.0340	0.1154
LT24B-014	120	170	0.70	0.0534	0.0019	0.3260	0.0110	0.0443
LT24B-015	109	214	0.51	0.1729	0.0028	11.733	0.2010	0.4921
LT24B-016	83	172	0.48	0.0533	0.0024	0.3640	0.0160	0.0495
LT24B-017	77	135	0.57	0.0717	0.0016	1.624	0.0370	0.1642

LT24B-018	51	137	0.37	0.0917	0.0018	3.264	0.0650	0.2582
LT24B-019	107	96	1.12	0.0735	0.0018	1.897	0.0460	0.1870
LT24B-020	116	110	1.06	0.1568	0.0027	9.827	0.1780	0.4544
LT24B-021	38	53	0.73	0.1570	0.0030	9.907	0.1950	0.4576
LT24B-022	262	192	1.36	0.0528	0.0015	0.5030	0.0150	0.0691
LT24B-023	87	194	0.45	0.0510	0.0018	0.3250	0.0110	0.0462
LT24B-024	23	39	0.60	0.0535	0.0040	0.3450	0.0250	0.0467
LT24B-025	11	393	0.03	0.0743	0.0014	1.869	0.0350	0.1825
LT24B-026	232	408	0.57	0.0511	0.0013	0.3370	0.0090	0.0479
LT24B-027	139	283	0.49	0.1194	0.0021	5.949	0.1060	0.3612
LT24B-028	170	229	0.74	0.1003	0.0018	3.835	0.0710	0.2772
LT24B-029	249	248	1.00	0.1176	0.0021	5.788	0.1050	0.3569
LT24B-030	25	40	0.62	0.0706	0.0027	1.513	0.0560	0.1554
LT24B-031	79	156	0.50	0.0557	0.0020	0.3540	0.0130	0.0461
LT24B-032	170	399	0.43	0.0711	0.0014	1.524	0.0300	0.1554
LT24B-033	166	114	1.46	0.1083	0.0021	4.747	0.0950	0.3177
LT24B-034	197	116	1.70	0.0647	0.0022	0.6240	0.0210	0.0700
LT24B-035	20	35	0.57	0.0523	0.0042	0.3470	0.0270	0.0480
LT24B-036	88	76	1.16	0.0648	0.0020	1.160	0.0350	0.1297
LT24B-037	81	255	0.32	0.0662	0.0014	1.185	0.0260	0.1298
LT24B-038	194	154	1.26	0.0568	0.0017	0.5420	0.0170	0.0692
LT24B-039	74	64	1.14	0.1072	0.0023	4.720	0.1050	0.3193
LT24B-040	120	315	0.38	0.1821	0.0032	12.433	0.2270	0.4953
LT24B-041	73	143	0.51	0.1259	0.0024	6.334	0.1240	0.3650
LT24B-042	55	71	0.78	0.1300	0.0027	7.095	0.1480	0.3957
LT24B-043	111	94	1.18	0.1201	0.0024	5.865	0.1220	0.3541
LT24B-044	160	134	1.19	0.1201	0.0024	5.803	0.1170	0.3503
LT24B-045	117	96	1.22	0.0596	0.0036	0.6010	0.0430	0.0732
LT24B-046	173	200	0.87	0.1182	0.0023	5.788	0.1140	0.3551
LT24B-047	62	66	0.95	0.0646	0.0022	1.119	0.0370	0.1256
LT24B-048	137	470	0.29	0.1181	0.0022	5.685	0.1090	0.3492
LT24B-049	54	102	0.52	0.0537	0.0024	0.3330	0.0140	0.0449
LT24B-050	25	43	0.58	0.0528	0.0037	0.3190	0.0220	0.0437
LT24B-051	100	230	0.43	0.1174	0.0023	5.540	0.1110	0.3422
LT24B-052	200	159	1.26	0.0532	0.0018	0.4820	0.0160	0.0657
LT24B-053	107	173	0.62	0.1384	0.0027	7.882	0.1590	0.4131
LT24B-054	54	128	0.42	0.0504	0.0021	0.3330	0.0130	0.0479
LT24B-055	46	124	0.37	0.0857	0.0019	2.847	0.0650	0.2411
LT24B-056	97	98	0.99	0.0575	0.0019	0.7280	0.0240	0.0917
LT24B-057	324	463	0.70	0.1576	0.0031	9.909	0.1990	0.4560
LT24B-058	98	118	0.83	0.0648	0.0017	1.233	0.0330	0.1380
LT24B-059	43	48	0.90	0.1117	0.0028	5.269	0.1320	0.3420
LT24B-060	97	162	0.60	0.0597	0.0017	0.8480	0.0240	0.1031
LT24B-061	44	42	1.05	0.1101	0.0028	4.854	0.1250	0.3199
LT24B-062	56	269	0.21	0.0869	0.0019	3.046	0.0660	0.2543
LT24B-063	89	100	0.89	0.1236	0.0027	6.269	0.1400	0.3680
LT24B-064	122	378	0.32	0.1485	0.0030	8.880	0.1860	0.4337
LT24B-065	59	115	0.51	0.0609	0.0021	0.5910	0.0200	0.0704
LT24B-066	148	158	0.94	0.0580	0.0020	0.5320	0.0180	0.0665
LT24B-067	117	332	0.35	0.1101	0.0024	4.974	0.1090	0.3277
LT24B-068	26	46	0.57	0.0547	0.0038	0.3500	0.0240	0.0464
LT24B-069	47	104	0.46	0.0517	0.0023	0.3530	0.0160	0.0496
LT24B-070	180	692	0.26	0.0590	0.0014	0.7610	0.0180	0.0936
LT24B-071	166	120	1.39	0.1148	0.0026	5.403	0.1260	0.3413
LT24B-072	68	58	1.16	0.0705	0.0025	1.367	0.0470	0.1408
LT24B-073	180	397	0.45	0.1358	0.0030	4.944	0.1110	0.2642
LT24B-074	253	396	0.64	0.0535	0.0016	0.3480	0.0100	0.0472
LT24B-075	217	321	0.67	0.0670	0.0016	1.217	0.0300	0.1316
LT24B-076	21	55	0.37	0.0693	0.0025	1.339	0.0470	0.1402
LT24B-077	78	88	0.89	0.1144	0.0028	5.214	0.1290	0.3308
LT24B-078	114	243	0.47	0.0659	0.0017	1.285	0.0330	0.1415
LT24B-079	206	278	0.74	0.1190	0.0027	5.790	0.1340	0.3530
LT24B-080	62	79	0.79	0.1141	0.0029	5.358	0.1350	0.3407

LT24B-081	141	96	1.47	0.0542	0.0022	0.5410	0.0220	0.0724
LT24B-082	107	128	0.83	0.0563	0.0020	0.5600	0.0200	0.0722
LT24B-083	130	104	1.25	0.0554	0.0022	0.5400	0.0210	0.0708
LT24B-084	212	122	1.74	0.0947	0.0024	3.720	0.0950	0.2849
LT24B-085	144	250	0.58	0.0531	0.0019	0.3300	0.0120	0.0451
LT24B-086	53	129	0.41	0.1291	0.0031	6.903	0.1710	0.3880
LT24B-087	68	93	0.73	0.1326	0.0034	6.385	0.1660	0.3494
LT24B-088	37	100	0.37	0.1670	0.0041	10.895	0.2700	0.4734
LT24B-089	44	76	0.58	0.1068	0.0029	4.488	0.1210	0.3048
LT24B-090	36	70	0.52	0.1129	0.0030	5.246	0.1420	0.3371
LT24B-091	54	129	0.42	0.0506	0.0023	0.3090	0.0140	0.0444
LT24B-092	43	50	0.87	0.1388	0.0037	8.071	0.2190	0.4219
LT24B-093	388	338	1.15	0.0560	0.0017	0.5430	0.0160	0.0703
LT24B-094	41	49	0.85	0.0693	0.0028	1.307	0.0520	0.1369
LT24B-095	128	228	0.56	0.0676	0.0019	1.291	0.0360	0.1386
LT24B-096	100	222	0.45	0.0580	0.0019	0.5800	0.0190	0.0726
LT24B-097	40	116	0.34	0.1257	0.0033	6.841	0.1800	0.3949
LT24B-098	25	45	0.55	0.0532	0.0038	0.3540	0.0250	0.0483
LT24B-099	109	108	1.01	0.0576	0.0024	0.5870	0.0240	0.0739
LT24B-100	73	329	0.22	0.0843	0.0022	2.836	0.0750	0.2439
LT24B-101	67	143	0.46	0.0550	0.0020	0.5760	0.0210	0.0760
LT24B-102	63	110	0.57	0.0498	0.0024	0.3290	0.0160	0.0480
LT24B-103	67	101	0.66	0.0671	0.0022	1.346	0.0440	0.1456
LT24B-104	170	134	1.27	0.0545	0.0043	0.5320	0.0480	0.0707
LT24B-105	56	126	0.45	0.0625	0.0029	0.3760	0.0170	0.0436
LT24B-106	276	400	0.69	0.0536	0.0017	0.3320	0.0100	0.0449
LT24B-107	113	179	0.63	0.0541	0.0022	0.3450	0.0140	0.0462
LT24B-108	69	149	0.47	0.0533	0.0023	0.3450	0.0150	0.0469
LT24B-109	30	82	0.37	0.0551	0.0033	0.3600	0.0210	0.0474
LT24B-110	23	40	0.58	0.0551	0.0055	0.3350	0.0330	0.0441
LT24B-111	291	351	0.83	0.0562	0.0018	0.5270	0.0160	0.0680
LT24B-112	43	90	0.48	0.0595	0.0041	0.3720	0.0270	0.0454
LT24B-113	46	92	0.50	0.0607	0.0057	0.3910	0.0380	0.0468
LT24B-114	66	84	0.79	0.0710	0.0026	1.352	0.0490	0.1380
LT24B-115	23	40	0.57	0.0528	0.0050	0.3700	0.0340	0.0508
LT24B-116	142	111	1.29	0.0557	0.0025	0.5540	0.0240	0.0721
LT24B-117	61	126	0.48	0.0553	0.0028	0.3620	0.0180	0.0474
LT24B-118	38	82	0.47	0.0555	0.0032	0.3570	0.0200	0.0466

Sample LT18A, quartz arenite, Early Permian, Keping-Subashi section, NTC, (Han Y et al., 2016, Lithos)

LT18A-001	234	325	0.72	0.0732	0.0014	1.681	0.0310	0.1667
LT18A-002	3	139	0.02	0.1188	0.0024	4.453	0.0920	0.2719
LT18A-003	179	241	0.74	0.1508	0.0024	8.023	0.1310	0.3860
LT18A-004	43	88	0.49	0.0634	0.0040	0.4240	0.0260	0.0485
LT18A-005	205	216	0.95	0.0645	0.0013	1.124	0.0230	0.1266
LT18A-006	174	243	0.71	0.0588	0.0016	0.5620	0.0150	0.0694
LT18A-007	32	66	0.49	0.0512	0.0041	0.3150	0.0270	0.0446
LT18A-008	80	215	0.37	0.0545	0.0018	0.3500	0.0110	0.0466
LT18A-009	225	416	0.54	0.0613	0.0012	0.8820	0.0170	0.1044
LT18A-010	426	724	0.59	0.0538	0.0012	0.3580	0.0080	0.0483
LT18A-011	406	492	0.82	0.0750	0.0017	0.5950	0.0130	0.0575
LT18A-012	108	246	0.44	0.0929	0.0017	3.074	0.0570	0.2399
LT18A-013	112	164	0.69	0.0656	0.0014	1.284	0.0280	0.1419
LT18A-014	244	695	0.35	0.0521	0.0012	0.3270	0.0080	0.0455
LT18A-015	96	182	0.53	0.0644	0.0016	1.087	0.0270	0.1225
LT18A-016	61	102	0.60	0.0551	0.0019	0.5380	0.0190	0.0708
LT18A-017	154	233	0.66	0.0996	0.0020	3.852	0.0770	0.2806
LT18A-018	171	285	0.60	0.0725	0.0019	1.695	0.0560	0.1695
LT18A-019	343	597	0.57	0.0545	0.0016	0.4670	0.0170	0.0622
LT18A-020	109	215	0.51	0.0592	0.0016	0.5970	0.0160	0.0731
LT18A-021	91	206	0.44	0.0561	0.0015	0.5380	0.0150	0.0695
LT18A-022	83	152	0.55	0.1651	0.0028	10.079	0.1780	0.4428
LT18A-023	302	205	1.47	0.0655	0.0015	1.090	0.0250	0.1207
LT18A-024	166	284	0.59	0.0698	0.0017	1.305	0.0310	0.1356

LT18A-025	82	127	0.65	0.1586	0.0027	9.480	0.1690	0.4335
LT18A-026	35	371	0.09	0.0761	0.0014	1.843	0.0340	0.1757
LT18A-027	36	19	1.87	0.0808	0.0045	1.351	0.0730	0.1212
LT18A-028	88	78	1.12	0.1370	0.0026	7.677	0.1470	0.4065
LT18A-029	49	120	0.40	0.1635	0.0028	11.119	0.2000	0.4931
LT18A-030	102	103	0.99	0.0645	0.0018	1.219	0.0350	0.1371
LT18A-031	68	172	0.40	0.0731	0.0022	0.7380	0.0220	0.0732
LT18A-032	94	144	0.65	0.0535	0.0018	0.4400	0.0150	0.0597
LT18A-033	98	201	0.49	0.0567	0.0016	0.5460	0.0150	0.0698
LT18A-034	436	401	1.09	0.1165	0.0020	5.925	0.1060	0.3689
LT18A-035	177	447	0.40	0.0732	0.0014	1.749	0.0340	0.1733
LT18A-036	225	260	0.87	0.0585	0.0015	0.5680	0.0150	0.0704
LT18A-037	60	202	0.30	0.0614	0.0022	0.6070	0.0210	0.0717
LT18A-038	148	232	0.64	0.0654	0.0014	1.206	0.0270	0.1337
LT18A-039	61	76	0.80	0.1142	0.0024	5.439	0.1140	0.3453
LT18A-040	80	112	0.71	0.0560	0.0019	0.5320	0.0180	0.0690
LT18A-041	150	327	0.46	0.0538	0.0014	0.3920	0.0110	0.0528
LT18A-042	74	144	0.51	0.0532	0.0020	0.3490	0.0130	0.0476
LT18A-043	112	257	0.43	0.0575	0.0018	0.5380	0.0170	0.0679
LT18A-044	130	140	0.93	0.0638	0.0019	1.074	0.0320	0.1220
LT18A-045	235	547	0.43	0.0526	0.0014	0.3530	0.0090	0.0487
LT18A-046	127	141	0.90	0.0701	0.0019	1.214	0.0320	0.1256
LT18A-047	579	482	1.20	0.0579	0.0013	0.5370	0.0120	0.0673
LT18A-048	212	283	0.75	0.0562	0.0014	0.5290	0.0140	0.0683
LT18A-049	140	302	0.46	0.0892	0.0017	3.091	0.0620	0.2511
LT18A-050	81	156	0.52	0.0949	0.0020	3.462	0.0750	0.2646
LT18A-051	50	209	0.24	0.0907	0.0019	2.803	0.0600	0.2240
LT18A-052	120	235	0.51	0.0669	0.0015	1.253	0.0290	0.1357
LT18A-053	395	233	1.69	0.0621	0.0017	0.8600	0.0240	0.1003
LT18A-054	415	610	0.68	0.0514	0.0013	0.3450	0.0090	0.0487
LT18A-055	39	45	0.89	0.0609	0.0032	0.8600	0.0440	0.1023
LT18A-056	271	316	0.86	0.0535	0.0015	0.4870	0.0130	0.0660
LT18A-057	105	240	0.44	0.0669	0.0015	1.277	0.0300	0.1384
LT18A-058	111	266	0.42	0.0550	0.0021	0.3460	0.0150	0.0456
LT18A-059	129	237	0.55	0.0744	0.0017	1.787	0.0420	0.1741
LT18A-060	68	112	0.61	0.0674	0.0018	1.415	0.0390	0.1522
LT18A-061	413	748	0.55	0.0555	0.0014	0.3660	0.0090	0.0478
LT18A-062	278	424	0.66	0.0539	0.0015	0.3700	0.0100	0.0497
LT18A-063	40	289	0.14	0.0661	0.0016	1.374	0.0340	0.1507
LT18A-064	180	164	1.09	0.0945	0.0021	3.466	0.0800	0.2660
LT18A-065	84	236	0.36	0.0680	0.0017	1.367	0.0340	0.1457
LT18A-066	218	187	1.17	0.0610	0.0017	0.8230	0.0230	0.0978
LT18A-067	280	179	1.56	0.0640	0.0022	0.6140	0.0210	0.0696
LT18A-068	52	88	0.59	0.1633	0.0036	10.537	0.2420	0.4678
LT18A-069	57	158	0.36	0.0830	0.0021	2.618	0.0670	0.2285
LT18A-070	82	182	0.45	0.1369	0.0030	6.516	0.1480	0.3449
LT18A-071	70	206	0.34	0.0576	0.0017	0.6210	0.0180	0.0781
LT18A-072	157	209	0.75	0.0547	0.0018	0.4030	0.0140	0.0535
LT18A-073	134	215	0.62	0.1633	0.0035	10.891	0.2460	0.4834
LT18A-074	167	198	0.84	0.0558	0.0017	0.5840	0.0180	0.0759
LT18A-075	151	218	0.69	0.0765	0.0018	2.156	0.0540	0.2044
LT18A-076	84	186	0.45	0.0739	0.0019	1.829	0.0490	0.1794
LT18A-077	110	240	0.46	0.1102	0.0025	5.460	0.1290	0.3590
LT18A-078	100	226	0.44	0.0504	0.0018	0.3340	0.0120	0.0480
LT18A-079	119	79	1.51	0.0672	0.0023	1.191	0.0400	0.1284
LT18A-080	141	159	0.89	0.0650	0.0018	1.221	0.0350	0.1361
LT18A-081	113	136	0.83	0.0912	0.0022	3.467	0.0880	0.2755
LT18A-082	59	191	0.31	0.0814	0.0020	2.871	0.0740	0.2557
LT18A-083	93	113	0.82	0.0581	0.0035	0.6160	0.0430	0.0769
LT18A-084	42	91	0.46	0.0493	0.0024	0.3240	0.0150	0.0476
LT18A-085	125	130	0.96	0.0559	0.0020	0.5970	0.0220	0.0774
LT18A-086	81	177	0.46	0.0891	0.0023	2.438	0.0650	0.1984
LT18A-087	169	365	0.46	0.0722	0.0018	1.405	0.0370	0.1411

LT18A-088	13	33	0.38	0.2180	0.0055	17.564	0.4620	0.5839
LT18A-089	63	104	0.60	0.1202	0.0030	6.204	0.1630	0.3742
LT18A-090	42	47	0.90	0.0729	0.0027	1.668	0.0620	0.1659
LT18A-091	89	177	0.50	0.0529	0.0020	0.3590	0.0140	0.0492
LT18A-092	183	214	0.86	0.0636	0.0018	1.201	0.0340	0.1368
LT18A-093	78	83	0.94	0.0682	0.0023	1.132	0.0390	0.1202
LT18A-094	147	251	0.59	0.0549	0.0017	0.5340	0.0170	0.0706
LT18A-095	51	105	0.49	0.0554	0.0021	0.5670	0.0220	0.0742
LT18A-096	38	103	0.37	0.0546	0.0025	0.3690	0.0170	0.0490
LT18A-097	104	231	0.45	0.0525	0.0018	0.3570	0.0130	0.0493
LT18A-098	95	211	0.45	0.0535	0.0018	0.5740	0.0200	0.0777
LT18A-099	122	214	0.57	0.0523	0.0019	0.3680	0.0130	0.0511
LT18A-100	169	256	0.66	0.0666	0.0019	1.337	0.0390	0.1455
LT18A-101	240	252	0.95	0.0577	0.0018	0.6080	0.0190	0.0764
LT18A-102	110	99	1.12	0.0977	0.0028	4.171	0.1230	0.3095
LT18A-103	150	288	0.52	0.0518	0.0017	0.3500	0.0120	0.0489

**Sample 91-Si-4, sandstone, Early Permian, Aksu area, NTC, (Carroll et al., 2013, International Geology Review)**

91SI-4-1	546	0.59	0.0515	0.0019	0.3335	0.0140	0.0470
91SI-4-2	436	0.71	0.0522	0.0026	0.3423	0.0171	0.0475
91SI-4-3	137	0.45	0.0540	0.0057	0.3343	0.0354	0.0449
91SI-4-4	108	0.42	0.0474	0.0074	0.2903	0.0456	0.0444
91SI-4-5	173	0.48	0.0522	0.0068	0.3253	0.0429	0.0452
91SI-4-6	90	0.56	0.0528	0.0110	0.3200	0.0669	0.0439
91SI-4-7	181	0.59	0.0486	0.0068	0.2950	0.0413	0.0440
91SI-4-8	81	0.63	0.0517	0.0102	0.3115	0.0623	0.0437
91SI-4-9	146	0.42	0.0658	0.0202	0.4124	0.1291	0.0454
91SI-4-10	208	0.56	0.0726	0.0023	1.384	0.0540	0.1382
91SI-4-11	193	0.48	0.0529	0.0030	0.3290	0.0197	0.0451
91SI-4-13	60	0.45	0.0387	0.0152	0.2318	0.0916	0.0435
91SI-4-14	122	0.63	0.0478	0.0091	0.2737	0.0567	0.0415
91SI-4-15	147	0.48	0.0612	0.0097	0.3754	0.0597	0.0445
91SI-4-16	127	0.50	0.0490	0.0077	0.3078	0.0486	0.0456
91SI-4-17	369	0.32	0.0512	0.0027	0.3214	0.0174	0.0455
91SI-4-18	261	0.50	0.0494	0.0038	0.3079	0.0246	0.0452
91SI-4-19	454	0.67	0.0528	0.0016	0.3333	0.0123	0.0458
91SI-4-20	121	0.56	0.0500	0.0084	0.3021	0.0520	0.0438
91SI-4-21	110	0.53	0.0490	0.0115	0.3042	0.0733	0.0450
91SI-4-22	124	0.42	0.0501	0.0041	0.3111	0.0271	0.0450
91SI-4-23	680	0.71	0.0522	0.0013	0.3337	0.0087	0.0463
91SI-4-24	40	0.43	0.0313	0.0261	0.1967	0.1640	0.0456
91SI-4-25	539	0.56	0.0526	0.0026	0.3342	0.0184	0.0461
91SI-4-26	160	0.67	0.0490	0.0046	0.2923	0.0281	0.0433
91SI-4-27	339	0.53	0.0524	0.0029	0.3325	0.0190	0.0460
91SI-4-28	103	0.53	0.0486	0.0079	0.2966	0.0486	0.0443
91SI-4-29	17	1.25	0.0387	0.0197	0.3582	0.1848	0.0671
91SI-4-31	110	0.45	0.0570	0.0042	0.3521	0.0275	0.0448
91SI-4-32	94	0.45	0.0502	0.0136	0.2973	0.0809	0.0430
91SI-4-33	86	0.59	0.0423	0.0148	0.2537	0.0901	0.0435
91SI-4-34	177	0.45	0.0525	0.0035	0.3328	0.0226	0.0460
91SI-4-36	592	0.71	0.0547	0.0007	0.4933	0.0094	0.0655
91SI-4-37	98	0.42	0.0491	0.0072	0.3032	0.0446	0.0448
91SI-4-38	127	0.59	0.0510	0.0050	0.3234	0.0327	0.0460
91SI-4-39	552	0.67	0.0505	0.0016	0.3112	0.0118	0.0447
91SI-4-40	29	0.45	0.0942	0.1735	0.5239	0.9655	0.0403
91SI-4-41	113	0.50	0.0545	0.0057	0.3319	0.0358	0.0442
91SI-4-42	236	0.59	0.0502	0.0037	0.3009	0.0226	0.0435
91SI-4-43	68	1.00	0.1202	0.0018	5.765	0.1038	0.3479
91SI-4-44	330	0.45	0.0509	0.0029	0.3203	0.0195	0.0456
91SI-4-45	134	0.42	0.0499	0.0042	0.3138	0.0270	0.0457
91SI-4-47	234	0.43	0.0507	0.0031	0.3350	0.0221	0.0479
91SI-4-48	104	0.45	0.0473	0.0203	0.2850	0.1226	0.0437
91SI-4-50	300	0.53	0.0516	0.0029	0.3201	0.0182	0.0450
91SI-4-51	110	0.53	0.0455	0.0057	0.2761	0.0348	0.0440

91SI-4-52	642	0.59	0.0524	0.0010	0.3336	0.0083	0.0462
91SI-4-53	251	0.53	0.0482	0.0074	0.3039	0.0468	0.0457
91SI-4-54	74	0.45	0.0455	0.0051	0.2815	0.0329	0.0449
91SI-4-55	271	0.45	0.0678	0.0015	1.186	0.0415	0.1269
91SI-4-56	95	1.11	0.1202	0.0018	5.809	0.1104	0.3504
91SI-4-58	176	0.48	0.0455	0.0057	0.2851	0.0362	0.0455
91SI-4-59	686	0.63	0.0534	0.0012	0.3423	0.0092	0.0465
91SI-4-60	135	0.50	0.0513	0.0043	0.3244	0.0276	0.0458
91SI-4-60	545	0.26	0.0594	0.0005	0.7428	0.0097	0.0907
91SI-4-61	219	0.50	0.0509	0.0048	0.3363	0.0346	0.0479
91SI-4-63	1163	0.83	0.0530	0.0007	0.3443	0.0083	0.0471
91SI-4-64	179	0.67	0.0607	0.0013	0.8130	0.0301	0.0972
91SI-4-65	369	0.63	0.0522	0.0021	0.3238	0.0142	0.0450
91SI-4-67	287	0.42	0.0558	0.0050	0.3557	0.0331	0.0462
91SI-4-68	251	0.59	0.0504	0.0060	0.3101	0.0375	0.0446
91SI-4-69	142	0.56	0.0494	0.0058	0.3066	0.0365	0.0450
91SI-4-71	182	1.00	0.0660	0.0018	1.144	0.0343	0.1257
91SI-4-72	110	0.45	0.0579	0.0086	0.3564	0.0535	0.0446
91SI-4-73	139	0.50	0.0512	0.0082	0.3190	0.0517	0.0452
91SI-4-74	272	1.67	0.0581	0.0031	0.5440	0.0310	0.0679
91SI-4-75	247	0.53	0.0521	0.0028	0.3316	0.0186	0.0461
91SI-4-76	109	0.48	0.0502	0.0082	0.3314	0.0547	0.0479
91SI-4-77	106	0.53	0.0478	0.0080	0.2900	0.0490	0.0440
91SI-4-78	75	0.63	0.0521	0.0058	0.3186	0.0360	0.0444
91SI-4-79	112	0.50	0.0471	0.0058	0.2859	0.0363	0.0440
91SI-4-80	95	0.48	0.0477	0.0126	0.2968	0.0784	0.0451
91SI-4-81	180	0.40	0.0517	0.0017	0.3299	0.0129	0.0463
91SI-4-82	161	1.43	0.0529	0.0040	0.5055	0.0389	0.0693
91SI-4-83	202	0.56	0.0531	0.0055	0.3244	0.0344	0.0443
91SI-4-84	406	0.63	0.0550	0.0038	0.3501	0.0266	0.0462
91SI-4-85	307	0.56	0.0513	0.0025	0.3188	0.0163	0.0451
91SI-4-86	109	0.53	0.0544	0.0047	0.3388	0.0339	0.0451
91SI-4-87	82	0.45	0.0501	0.0098	0.3101	0.0614	0.0449
91SI-4-88	179	0.67	0.0535	0.0059	0.3298	0.0369	0.0447
91SI-4-90	72	0.50	0.0481	0.0085	0.3045	0.0545	0.0459
91SI-4-91	152	0.50	0.0554	0.0053	0.3553	0.0338	0.0465
91SI-4-92	85	0.42	0.0436	0.0115	0.2708	0.0720	0.0451
91SI-4-93	535	0.38	0.0644	0.0009	1.168	0.0350	0.1315
91SI-4-94	532	1.11	0.0517	0.0017	0.3252	0.0130	0.0456
91SI-4-95	132	0.50	0.0472	0.0080	0.3107	0.0541	0.0477
91SI-4-96	242	0.50	0.0792	0.0011	2.216	0.0377	0.2028
91SI-4-97	160	0.37	0.1210	0.0006	6.052	0.0968	0.3627
91SI-4-98	307	0.67	0.1362	0.0011	7.359	0.0957	0.3917
91SI-4-99	72	0.50	0.0437	0.0129	0.2863	0.0847	0.0476
91SI-4-100	215	0.67	0.0549	0.0032	0.3587	0.0237	0.0474

**Sample LT11A, quartz arenite, Late Carboniferous, Wushi section of the Kepingtage area, NTC, (Han Y et al., 2015, Tectonics)**

LT11A-001	145	323	0.45	0.0706	0.0013	1.617	0.0310	0.1661
LT11A-002	135	498	0.27	0.0703	0.0012	1.554	0.0280	0.1602
LT11A-003	123	165	0.75	0.0652	0.0015	1.268	0.0300	0.1409
LT11A-004	91	134	0.68	0.1703	0.0028	11.341	0.1990	0.4825
LT11A-005	24	44	0.55	0.1051	0.0025	4.499	0.1100	0.3103
LT11A-006	392	429	0.91	0.1885	0.0029	14.371	0.2380	0.5524
LT11A-007	97	106	0.91	0.1442	0.0025	8.948	0.1620	0.4499
LT11A-008	295	359	0.82	0.1178	0.0019	5.377	0.0930	0.3308
LT11A-009	27	25	1.09	0.1153	0.0032	5.190	0.1440	0.3264
LT11A-010	54	124	0.43	0.1886	0.0031	14.504	0.2550	0.5575
LT11A-011	49	87	0.57	0.1125	0.0022	5.164	0.1060	0.3327
LT11A-012	78	43	1.83	0.0756	0.0025	1.881	0.0610	0.1803
LT11A-013	149	116	1.29	0.0535	0.0020	0.5220	0.0190	0.0708
LT11A-014	150	297	0.50	0.0544	0.0014	0.5220	0.0130	0.0695
LT11A-015	100	636	0.16	0.0696	0.0012	1.500	0.0270	0.1562
LT11A-016	73	131	0.56	0.1101	0.0020	4.898	0.0940	0.3225
LT11A-017	113	271	0.42	0.1193	0.0020	5.959	0.1060	0.3622

LT11A-018	38	250	0.15	0.1179	0.0020	5.657	0.1010	0.3480
LT11A-019	176	330	0.53	0.0666	0.0013	1.348	0.0270	0.1467
LT11A-020	55	498	0.11	0.1102	0.0018	5.124	0.0890	0.3371
LT11A-021	156	300	0.52	0.1280	0.0021	6.673	0.1170	0.3779
LT11A-022	66	33	2.02	0.1616	0.0034	11.028	0.2390	0.4946
LT11A-023	43	231	0.19	0.1214	0.0021	6.239	0.1130	0.3727
LT11A-024	11	36	0.32	0.1432	0.0032	8.383	0.1900	0.4243
LT11A-025	86	421	0.20	0.1198	0.0019	5.553	0.1000	0.3362
LT11A-026	105	163	0.64	0.1626	0.0028	9.935	0.1800	0.4430
LT11A-027	182	457	0.40	0.1177	0.0020	5.732	0.1010	0.3531
LT11A-028	36	49	0.73	0.1171	0.0026	5.886	0.1330	0.3643
LT11A-029	49	138	0.35	0.1173	0.0022	6.275	0.1200	0.3880
LT11A-030	136	179	0.76	0.1629	0.0028	10.123	0.1850	0.4504
LT11A-031	77	82	0.94	0.1198	0.0024	5.695	0.1190	0.3447
LT11A-032	36	77	0.47	0.1178	0.0024	5.648	0.1190	0.3477
LT11A-033	130	105	1.24	0.0589	0.0020	0.6860	0.0230	0.0844
LT11A-034	65	187	0.35	0.1455	0.0026	8.545	0.1580	0.4257
LT11A-035	93	86	1.08	0.0629	0.0021	0.9580	0.0310	0.1105
LT11A-036	61	252	0.24	0.1212	0.0022	5.920	0.1110	0.3542
LT11A-037	69	261	0.26	0.0707	0.0015	1.384	0.0300	0.1420
LT11A-038	72	241	0.30	0.1458	0.0026	8.772	0.1630	0.4362
LT11A-039	61	173	0.35	0.1091	0.0021	4.958	0.0980	0.3295
LT11A-040	79	138	0.57	0.0675	0.0018	1.225	0.0330	0.1316
LT11A-041	161	225	0.71	0.1175	0.0022	5.839	0.1120	0.3602
LT11A-042	71	80	0.89	0.1665	0.0034	10.246	0.2760	0.4463
LT11A-043	244	605	0.40	0.0568	0.0012	0.5840	0.0130	0.0745
LT11A-044	130	121	1.08	0.0660	0.0018	1.254	0.0340	0.1377
LT11A-045	4	602	0.01	0.1180	0.0021	5.584	0.1060	0.3430
LT11A-046	110	202	0.55	0.1181	0.0023	5.486	0.1090	0.3368
LT11A-047	65	126	0.52	0.1193	0.0024	5.927	0.1220	0.3601
LT11A-048	62	349	0.18	0.0788	0.0018	2.266	0.0570	0.2086
LT11A-049	96	139	0.69	0.0676	0.0017	1.287	0.0340	0.1379
LT11A-050	70	105	0.67	0.1730	0.0034	10.830	0.2190	0.4538
LT11A-051	72	255	0.28	0.0701	0.0015	1.544	0.0350	0.1598
LT11A-052	94	243	0.38	0.0551	0.0015	0.5790	0.0160	0.0762
LT11A-053	194	389	0.50	0.0566	0.0014	0.5880	0.0150	0.0753
LT11A-054	76	254	0.30	0.0656	0.0015	1.267	0.0300	0.1401
LT11A-055	21	49	0.43	0.0764	0.0024	2.088	0.0650	0.1983
LT11A-056	29	164	0.18	0.0717	0.0017	1.657	0.0400	0.1676
LT11A-057	63	69	0.92	0.0720	0.0023	1.418	0.0450	0.1428
LT11A-058	51	86	0.59	0.0739	0.0022	1.803	0.0530	0.1770
LT11A-059	162	182	0.89	0.1186	0.0024	6.063	0.1280	0.3708
LT11A-060	119	131	0.91	0.1184	0.0025	5.897	0.1290	0.3612
LT11A-061	59	362	0.16	0.1631	0.0032	10.825	0.2200	0.4813
LT11A-062	119	227	0.52	0.0583	0.0017	0.6060	0.0180	0.0753
LT11A-063	20	62	0.32	0.1784	0.0038	12.842	0.2840	0.5219
LT11A-064	99	129	0.77	0.1011	0.0023	4.097	0.0940	0.2940
LT11A-065	77	170	0.45	0.1615	0.0033	10.698	0.2270	0.4805
LT11A-066	69	239	0.29	0.1529	0.0031	9.443	0.1990	0.4480
LT11A-067	77	101	0.76	0.0608	0.0023	0.6710	0.0250	0.0800
LT11A-068	157	123	1.27	0.1203	0.0027	5.797	0.1310	0.3496
LT11A-069	116	326	0.36	0.0710	0.0016	1.623	0.0380	0.1659
LT11A-070	216	267	0.81	0.0580	0.0017	0.5510	0.0160	0.0688
LT11A-071	126	308	0.41	0.0749	0.0017	1.967	0.0460	0.1905
LT11A-072	36	28	1.29	0.1198	0.0035	5.632	0.1650	0.3410
LT11A-073	34	77	0.44	0.0697	0.0022	1.438	0.0460	0.1497
LT11A-074	684	1011	0.68	0.0657	0.0022	0.4930	0.0200	0.0544
LT11A-075	44	178	0.25	0.0713	0.0018	1.692	0.0440	0.1722
LT11A-076	69	132	0.53	0.1261	0.0029	6.679	0.1550	0.3842
LT11A-077	148	119	1.24	0.1184	0.0027	5.762	0.1360	0.3531
LT11A-078	56	64	0.88	0.1164	0.0029	5.664	0.1450	0.3529
LT11A-079	62	141	0.44	0.0562	0.0020	0.5240	0.0190	0.0677
LT11A-080	166	204	0.82	0.1185	0.0027	5.697	0.1330	0.3489

LT11A-081	191	209	0.91	0.1033	0.0024	4.304	0.1020	0.3021
LT11A-082	73	159	0.46	0.0567	0.0019	0.6000	0.0200	0.0768
LT11A-083	39	55	0.72	0.1882	0.0045	13.324	0.3260	0.5135
LT11A-084	189	219	0.86	0.0581	0.0018	0.5900	0.0180	0.0737
LT11A-085	32	47	0.67	0.0592	0.0028	0.8240	0.0380	0.1010
LT11A-086	86	64	1.34	0.1460	0.0042	7.328	0.2120	0.3641
LT11A-087	189	267	0.71	0.1625	0.0037	11.194	0.2630	0.4996
LT11A-088	126	285	0.44	0.0967	0.0023	3.614	0.0880	0.2711
LT11A-089	207	175	1.18	0.0951	0.0024	3.792	0.0970	0.2894
LT11A-090	353	387	0.91	0.0552	0.0016	0.5740	0.0160	0.0754
LT11A-091	76	165	0.46	0.0569	0.0019	0.5760	0.0200	0.0735
LT11A-092	124	221	0.56	0.0554	0.0018	0.5680	0.0180	0.0745
LT11A-093	62	116	0.53	0.1677	0.0041	11.448	0.2860	0.4954
LT11A-094	143	358	0.40	0.0715	0.0018	1.626	0.0420	0.1650
LT11A-095	85	182	0.47	0.0580	0.0020	0.5970	0.0200	0.0747
LT11A-096	130	260	0.50	0.1525	0.0037	9.368	0.2310	0.4457
LT11A-097	370	643	0.58	0.0551	0.0015	0.5740	0.0160	0.0756
LT11A-098	54	82	0.66	0.1345	0.0035	7.728	0.2050	0.4169
LT11A-099	100	98	1.02	0.1187	0.0031	5.724	0.1530	0.3499
LT11A-100	168	229	0.73	0.0975	0.0025	3.837	0.1000	0.2854

**Sample LT12A, quartz arenite, Late Carboniferous, Wushi section of the Kepingtage area, NTC, (Han Y et al., 2015, Tectonics)**

LT12A-001	94	261	0.36	0.0769	0.0015	2.054	0.0420	0.1936
LT12A-002	248	206	1.20	0.0977	0.0019	3.844	0.0760	0.2850
LT12A-003	497	765	0.65	0.1005	0.0017	4.011	0.0730	0.2893
LT12A-004	60	133	0.45	0.0818	0.0018	2.312	0.0520	0.2047
LT12A-005	48	77	0.62	0.1267	0.0025	6.902	0.1430	0.3947
LT12A-006	179	340	0.53	0.0575	0.0014	0.5890	0.0150	0.0742
LT12A-007	123	396	0.31	0.0631	0.0013	1.023	0.0220	0.1174
LT12A-008	179	256	0.70	0.0666	0.0015	1.232	0.0280	0.1339
LT12A-009	167	156	1.07	0.0717	0.0016	1.640	0.0380	0.1658
LT12A-010	117	163	0.72	0.0647	0.0016	1.199	0.0300	0.1343
LT12A-011	81	297	0.27	0.0705	0.0014	1.641	0.0350	0.1687
LT12A-012	75	328	0.23	0.1169	0.0021	5.888	0.1100	0.3651
LT12A-013	215	392	0.55	0.0708	0.0014	1.408	0.0290	0.1440
LT12A-014	270	256	1.06	0.1154	0.0021	5.528	0.1050	0.3472
LT12A-015	78	64	1.22	0.0764	0.0022	2.068	0.0590	0.1961
LT12A-016	161	324	0.50	0.0577	0.0015	0.6210	0.0160	0.0780
LT12A-017	96	145	0.66	0.0983	0.0020	3.733	0.0780	0.2753
LT12A-018	171	149	1.14	0.0576	0.0018	0.5760	0.0180	0.0724
LT12A-019	201	337	0.60	0.0573	0.0014	0.5590	0.0140	0.0707
LT12A-020	171	168	1.02	0.1662	0.0030	10.799	0.2050	0.4707
LT12A-021	44	255	0.17	0.1065	0.0020	4.618	0.0900	0.3144
LT12A-022	153	229	0.67	0.1177	0.0022	5.752	0.1120	0.3542
LT12A-023	113	284	0.40	0.1065	0.0020	4.567	0.0890	0.3109
LT12A-024	68	187	0.37	0.1208	0.0023	6.301	0.1240	0.3778
LT12A-025	49	422	0.12	0.1097	0.0020	3.186	0.0640	0.2107
LT12A-026	166	337	0.49	0.0589	0.0014	0.6570	0.0160	0.0809
LT12A-027	149	126	1.18	0.1625	0.0031	10.904	0.2150	0.4864
LT12A-028	131	46	2.88	0.1298	0.0031	6.737	0.1630	0.3760
LT12A-029	184	194	0.95	0.0798	0.0017	2.282	0.0500	0.2072
LT12A-030	170	324	0.52	0.0752	0.0016	1.884	0.0400	0.1814
LT12A-031	20	75	0.27	0.0575	0.0024	0.6080	0.0250	0.0767
LT12A-032	123	171	0.72	0.0710	0.0017	1.529	0.0370	0.1560
LT12A-033	68	120	0.57	0.0675	0.0018	1.328	0.0360	0.1425
LT12A-034	132	120	1.10	0.1233	0.0025	6.236	0.1310	0.3665
LT12A-035	151	404	0.37	0.0689	0.0014	1.504	0.0320	0.1583
LT12A-036	117	359	0.33	0.1769	0.0033	12.112	0.2370	0.4961
LT12A-037	136	188	0.72	0.1654	0.0032	10.624	0.2150	0.4655
LT12A-038	81	261	0.31	0.0714	0.0016	1.599	0.0360	0.1624
LT12A-039	80	170	0.47	0.0662	0.0016	1.307	0.0330	0.1432
LT12A-040	98	195	0.50	0.0578	0.0019	0.5770	0.0190	0.0724
LT12A-041	318	417	0.76	0.0656	0.0014	1.264	0.0280	0.1397
LT12A-042	154	275	0.56	0.0659	0.0015	1.297	0.0310	0.1427

LT12A-043	165	356	0.46	0.0731	0.0016	1.744	0.0390	0.1730
LT12A-044	71	105	0.68	0.1710	0.0035	12.162	0.2580	0.5154
LT12A-045	164	399	0.41	0.0668	0.0015	1.296	0.0290	0.1406
LT12A-046	81	289	0.28	0.1443	0.0029	8.883	0.1830	0.4462
LT12A-047	25	64	0.39	0.1121	0.0027	5.288	0.1290	0.3419
LT12A-048	134	259	0.52	0.0558	0.0015	0.6460	0.0180	0.0839
LT12A-049	291	414	0.70	0.0777	0.0017	2.187	0.0480	0.2040
LT12A-050	301	275	1.09	0.0671	0.0016	1.318	0.0320	0.1425
LT12A-051	55	89	0.62	0.0550	0.0023	0.5800	0.0240	0.0765
LT12A-052	38	77	0.49	0.1005	0.0025	4.054	0.1010	0.2923
LT12A-053	18	31	0.59	0.1242	0.0034	6.412	0.1760	0.3742
LT12A-054	43	61	0.70	0.0683	0.0024	1.309	0.0450	0.1389
LT12A-055	63	108	0.59	0.1957	0.0042	14.987	0.3280	0.5552
LT12A-056	124	251	0.49	0.0916	0.0020	3.237	0.0730	0.2562
LT12A-057	71	254	0.28	0.0781	0.0018	2.202	0.0520	0.2046
LT12A-058	63	100	0.62	0.0923	0.0023	3.434	0.0870	0.2698
LT12A-059	132	324	0.41	0.0719	0.0017	1.752	0.0420	0.1767
LT12A-060	140	362	0.39	0.0558	0.0015	0.5800	0.0160	0.0753
LT12A-061	106	219	0.49	0.0940	0.0022	2.859	0.0680	0.2204
LT12A-062	178	165	1.08	0.1608	0.0035	10.532	0.2370	0.4748
LT12A-063	182	2720	0.07	0.0728	0.0021	0.8070	0.0250	0.0805
LT12A-064	76	176	0.43	0.0736	0.0019	1.943	0.0500	0.1916
LT12A-065	192	171	1.13	0.1607	0.0036	10.625	0.2440	0.4794
LT12A-066	273	148	1.85	0.1126	0.0027	5.129	0.1230	0.3302
LT12A-067	142	344	0.41	0.1753	0.0039	12.142	0.2760	0.5022
LT12A-068	19	52	0.37	0.1247	0.0032	6.621	0.1750	0.3850
LT12A-069	84	144	0.59	0.0583	0.0021	0.5970	0.0220	0.0742
LT12A-070	46	59	0.77	0.1100	0.0029	5.255	0.1410	0.3464
LT12A-071	114	130	0.88	0.0634	0.0019	1.198	0.0360	0.1372
LT12A-072	46	88	0.52	0.1120	0.0029	4.847	0.1270	0.3140
LT12A-073	22	54	0.40	0.0730	0.0025	1.753	0.0610	0.1741
LT12A-074	50	117	0.43	0.1662	0.0040	11.248	0.2760	0.4907
LT12A-075	207	192	1.08	0.0711	0.0019	1.562	0.0430	0.1593
LT12A-076	143	326	0.44	0.0843	0.0021	2.795	0.0700	0.2404
LT12A-077	104	170	0.61	0.0722	0.0020	1.649	0.0460	0.1656
LT12A-078	131	134	0.98	0.0584	0.0021	0.6530	0.0230	0.0811
LT12A-079	58	108	0.53	0.1241	0.0032	6.571	0.1700	0.3840
LT12A-080	120	181	0.66	0.0587	0.0020	0.6340	0.0210	0.0784
LT12A-081	340	687	0.50	0.1733	0.0042	11.819	0.2900	0.4946
LT12A-082	145	187	0.77	0.1639	0.0041	11.412	0.2870	0.5048
LT12A-083	95	161	0.59	0.1252	0.0032	6.515	0.1680	0.3774
LT12A-084	235	406	0.58	0.1551	0.0038	8.559	0.2150	0.4002
LT12A-085	38	85	0.45	0.0671	0.0023	1.326	0.0450	0.1434
LT12A-086	45	370	0.12	0.0656	0.0018	1.221	0.0340	0.1350
LT12A-087	229	286	0.80	0.0552	0.0018	0.5440	0.0170	0.0715
LT12A-088	101	153	0.66	0.1629	0.0042	10.928	0.2850	0.4867
LT12A-089	92	136	0.68	0.1901	0.0049	14.211	0.3730	0.5422
LT12A-090	158	419	0.38	0.0867	0.0023	2.916	0.0780	0.2439
LT12A-091	162	205	0.79	0.0755	0.0022	1.729	0.0510	0.1662
LT12A-092	160	247	0.65	0.0930	0.0025	3.205	0.0880	0.2499
LT12A-093	81	67	1.20	0.1059	0.0031	4.826	0.1430	0.3306
LT12A-094	63	60	1.06	0.1107	0.0033	4.939	0.1490	0.3237
LT12A-095	214	712	0.30	0.0666	0.0018	1.239	0.0340	0.1349
LT12A-096	618	1433	0.43	0.0581	0.0016	0.6210	0.0170	0.0776
LT12A-097	119	199	0.60	0.0738	0.0022	1.839	0.0540	0.1809
LT12A-098	92	1049	0.09	0.1663	0.0044	10.668	0.2870	0.4654
LT12A-099	96	149	0.65	0.1611	0.0045	10.811	0.3060	0.4867
LT12A-100	18	568	0.03	0.0737	0.0021	1.916	0.0540	0.1886
LT12A-101	292	867	0.34	0.0573	0.0017	0.6810	0.0200	0.0862

**Sample LT13A, quartz arenite, Late Carboniferous, Wushi section of the Kepingtage area, NTC, (Han Y et al., 2015, Tectonics)**

LT13A-001	44	184	0.24	0.0665	0.0017	1.524	0.0380	0.1663
LT13A-002	66	76	0.87	0.1044	0.0022	4.427	0.0950	0.3076
LT13A-003	60	412	0.14	0.0585	0.0012	0.8180	0.0170	0.1016

LT13A-004	83	189	0.44	0.0692	0.0015	1.479	0.0320	0.1550
LT13A-005	121	119	1.02	0.0653	0.0017	1.172	0.0310	0.1302
LT13A-006	318	250	1.27	0.0765	0.0015	2.133	0.0420	0.2023
LT13A-007	141	181	0.78	0.0533	0.0016	0.5110	0.0150	0.0695
LT13A-008	125	502	0.25	0.0682	0.0012	1.463	0.0270	0.1557
LT13A-009	104	359	0.29	0.0676	0.0013	1.345	0.0270	0.1444
LT13A-010	63	58	1.10	0.1054	0.0023	4.566	0.1020	0.3142
LT13A-011	238	248	0.96	0.1600	0.0027	9.848	0.1720	0.4465
LT13A-012	68	167	0.41	0.1357	0.0025	6.939	0.1310	0.3709
LT13A-013	71	43	1.66	0.0675	0.0032	0.8700	0.0400	0.0934
LT13A-014	338	547	0.62	0.0537	0.0012	0.5210	0.0110	0.0705
LT13A-015	423	793	0.53	0.1532	0.0025	7.226	0.1240	0.3420
LT13A-016	156	139	1.13	0.0687	0.0017	1.306	0.0320	0.1380
LT13A-017	190	213	0.89	0.1592	0.0028	9.909	0.1780	0.4515
LT13A-018	8	41	0.19	0.1563	0.0032	9.186	0.2030	0.4264
LT13A-019	45	119	0.38	0.1595	0.0029	10.309	0.1910	0.4687
LT13A-020	77	68	1.14	0.0722	0.0021	1.726	0.0490	0.1735
LT13A-021	177	415	0.43	0.0725	0.0014	1.466	0.0290	0.1466
LT13A-022	69	183	0.38	0.1676	0.0029	11.846	0.2140	0.5129
LT13A-023	79	75	1.05	0.1163	0.0024	5.532	0.1160	0.3450
LT13A-024	23	74	0.31	0.1477	0.0029	8.613	0.1720	0.4231
LT13A-025	82	313	0.26	0.0730	0.0015	1.643	0.0330	0.1633
LT13A-026	115	127	0.90	0.0670	0.0017	1.487	0.0370	0.1609
LT13A-027	340	492	0.69	0.1609	0.0028	10.954	0.1960	0.4938
LT13A-028	50	86	0.58	0.0951	0.0021	3.496	0.0790	0.2666
LT13A-029	89	208	0.43	0.0549	0.0016	0.5020	0.0150	0.0664
LT13A-030	54	83	0.65	0.0638	0.0020	1.114	0.0340	0.1267
LT13A-031	178	249	0.72	0.1196	0.0023	5.889	0.1160	0.3574
LT13A-032	120	290	0.41	0.0658	0.0014	1.254	0.0280	0.1384
LT13A-033	157	230	0.68	0.0542	0.0016	0.4940	0.0140	0.0662
LT13A-034	137	140	0.98	0.1751	0.0033	11.985	0.2310	0.4965
LT13A-035	64	59	1.09	0.0660	0.0024	1.153	0.0410	0.1268
LT13A-036	333	1012	0.33	0.0996	0.0019	3.237	0.0620	0.2358
LT13A-037	139	366	0.38	0.1334	0.0025	7.184	0.1380	0.3907
LT13A-038	185	455	0.41	0.1793	0.0033	12.803	0.2420	0.5181
LT13A-039	111	93	1.20	0.0701	0.0022	1.274	0.0400	0.1319
LT13A-040	31	59	0.53	0.1392	0.0030	7.729	0.1700	0.4029
LT13A-041	50	80	0.63	0.1448	0.0030	8.369	0.1770	0.4194
LT13A-042	295	490	0.60	0.0684	0.0014	1.514	0.0320	0.1606
LT13A-043	335	493	0.68	0.0657	0.0014	1.277	0.0270	0.1410
LT13A-044	102	126	0.81	0.1570	0.0032	9.823	0.2030	0.4541
LT13A-045	223	405	0.55	0.0671	0.0015	1.222	0.0270	0.1322
LT13A-046	31	23	1.32	0.1093	0.0034	4.751	0.1470	0.3153
LT13A-047	111	206	0.54	0.0652	0.0016	1.160	0.0290	0.1290
LT13A-048	94	159	0.59	0.0766	0.0018	2.057	0.0490	0.1948
LT13A-049	109	159	0.69	0.0906	0.0021	2.848	0.0660	0.2280
LT13A-050	153	160	0.96	0.0633	0.0018	1.118	0.0320	0.1281
LT13A-051	287	530	0.54	0.0697	0.0016	1.296	0.0300	0.1350
LT13A-052	83	245	0.34	0.1692	0.0034	10.625	0.2210	0.4557
LT13A-053	105	262	0.40	0.1454	0.0030	7.162	0.1510	0.3574
LT13A-054	127	221	0.57	0.1373	0.0028	7.809	0.1650	0.4129
LT13A-055	53	57	0.93	0.0665	0.0028	1.213	0.0510	0.1324
LT13A-056	26	39	0.66	0.1248	0.0032	6.568	0.1700	0.3819
LT13A-057	79	173	0.46	0.0564	0.0019	0.6030	0.0200	0.0777
LT13A-058	111	76	1.46	0.1271	0.0030	6.090	0.1460	0.3477
LT13A-059	125	97	1.30	0.0766	0.0022	1.660	0.0480	0.1573
LT13A-060	331	253	1.31	0.0909	0.0021	3.003	0.0690	0.2398
LT13A-061	99	166	0.60	0.1833	0.0039	10.123	0.2560	0.4006
LT13A-062	145	267	0.54	0.0651	0.0020	0.6460	0.0200	0.0720
LT13A-063	103	385	0.27	0.1195	0.0026	5.524	0.1240	0.3356
LT13A-064	243	333	0.73	0.0739	0.0018	1.762	0.0430	0.1730
LT13A-065	105	455	0.23	0.0701	0.0016	1.543	0.0370	0.1597
LT13A-066	44	63	0.69	0.1699	0.0040	11.461	0.2770	0.4896

LT13A-067	130	148	0.88	0.1610	0.0037	9.526	0.2250	0.4294
LT13A-068	78	87	0.90	0.0724	0.0023	1.638	0.0520	0.1641
LT13A-069	100	262	0.38	0.0717	0.0018	1.570	0.0400	0.1590
LT13A-070	32	81	0.40	0.1412	0.0035	7.804	0.1940	0.4010
LT13A-071	134	284	0.47	0.0707	0.0018	1.601	0.0410	0.1642
LT13A-072	27	31	0.86	0.1512	0.0045	8.079	0.2390	0.3877
LT13A-073	113	291	0.39	0.1285	0.0031	6.700	0.1630	0.3785
LT13A-074	63	99	0.63	0.2401	0.0057	18.811	0.4550	0.5685
LT13A-075	153	247	0.62	0.0958	0.0024	3.505	0.0870	0.2655
LT13A-076	71	101	0.70	0.0947	0.0027	3.433	0.0970	0.2631
LT13A-077	77	184	0.42	0.0754	0.0022	1.722	0.0590	0.1657
LT13A-078	146	584	0.25	0.0736	0.0019	1.527	0.0390	0.1505
LT13A-079	9	17	0.51	0.0676	0.0041	1.439	0.0870	0.1544
LT13A-080	25	43	0.58	0.1226	0.0036	5.790	0.1690	0.3427
LT13A-081	79	193	0.41	0.0702	0.0020	1.444	0.0410	0.1494
LT13A-082	70	232	0.30	0.0706	0.0019	1.582	0.0440	0.1626
LT13A-083	59	60	0.98	0.1023	0.0031	4.097	0.1250	0.2906
LT13A-084	232	177	1.30	0.0847	0.0023	2.502	0.0690	0.2145
LT13A-085	145	168	0.87	0.0991	0.0027	3.929	0.1100	0.2878
LT13A-086	218	477	0.46	0.0772	0.0021	1.915	0.0530	0.1800
LT13A-087	52	44	1.19	0.0702	0.0029	1.496	0.0610	0.1545
LT13A-088	47	229	0.21	0.0874	0.0024	2.844	0.0780	0.2360
LT13A-089	619	476	1.30	0.1097	0.0028	4.683	0.1230	0.3097
LT13A-090	123	188	0.65	0.0667	0.0020	1.219	0.0370	0.1327
LT13A-091	29	38	0.77	0.1149	0.0036	5.118	0.1630	0.3233
LT13A-092	94	151	0.62	0.1133	0.0031	5.016	0.1390	0.3213
LT13A-093	162	346	0.47	0.0771	0.0021	1.997	0.0560	0.1880
LT13A-094	40	50	0.81	0.1163	0.0036	5.041	0.1580	0.3145
LT13A-095	46	102	0.45	0.1227	0.0035	5.978	0.1710	0.3536
LT13A-096	36	54	0.66	0.1296	0.0039	6.810	0.2050	0.3813
LT13A-097	86	189	0.45	0.1860	0.0051	13.595	0.3750	0.5304
LT13A-098	154	278	0.56	0.0762	0.0023	1.789	0.0540	0.1702
LT13A-099	44	106	0.41	0.1514	0.0043	9.526	0.2720	0.4566
LT13A-100	201	195	1.03	0.0713	0.0023	1.266	0.0400	0.1288

**Sample LT14A, conglomerate, Early Carboniferous, Wushi section of the Kepingtage area, NTC, (Han Y et al., 2015, Tectonics)**

LT14A-001	86	148	0.58	0.1099	0.0020	4.931	0.0960	0.3254
LT14A-002	86	173	0.50	0.1020	0.0020	4.295	0.0860	0.3053
LT14A-003	65	522	0.12	0.0977	0.0016	3.636	0.0630	0.2699
LT14A-004	182	175	1.04	0.0736	0.0016	1.722	0.0370	0.1695
LT14A-005	156	168	0.93	0.0636	0.0015	1.181	0.0280	0.1346
LT14A-006	280	203	1.38	0.1425	0.0033	7.031	0.2380	0.3578
LT14A-007	263	298	0.88	0.0747	0.0035	1.615	0.0900	0.1569
LT14A-008	82	86	0.95	0.0874	0.0019	3.107	0.0690	0.2578
LT14A-009	94	77	1.22	0.1067	0.0022	4.716	0.1020	0.3205
LT14A-010	161	354	0.45	0.0744	0.0014	1.998	0.0390	0.1948
LT14A-011	67	173	0.39	0.1187	0.0021	5.750	0.1090	0.3512
LT14A-012	200	528	0.38	0.1110	0.0018	5.171	0.0910	0.3379
LT14A-013	227	337	0.67	0.0719	0.0014	1.618	0.0320	0.1632
LT14A-014	224	403	0.56	0.0822	0.0014	2.525	0.0470	0.2227
LT14A-015	156	311	0.50	0.0725	0.0014	1.706	0.0340	0.1705
LT14A-016	129	289	0.45	0.0689	0.0015	1.414	0.0410	0.1489
LT14A-017	36	69	0.52	0.1223	0.0024	6.434	0.1330	0.3813
LT14A-018	525	318	1.65	0.0631	0.0014	0.8260	0.0190	0.0949
LT14A-019	171	380	0.45	0.0697	0.0013	1.602	0.0310	0.1667
LT14A-020	108	217	0.50	0.0957	0.0017	3.689	0.0700	0.2794
LT14A-021	56	56	1.01	0.1196	0.0026	5.989	0.1320	0.3630
LT14A-022	60	37	1.63	0.0647	0.0032	0.8540	0.0420	0.0957
LT14A-023	398	507	0.78	0.0572	0.0013	0.5710	0.0130	0.0724
LT14A-024	165	281	0.59	0.0907	0.0017	3.104	0.0610	0.2482
LT14A-025	50	61	0.82	0.1087	0.0024	5.183	0.1160	0.3456
LT14A-026	418	525	0.80	0.0533	0.0012	0.4900	0.0110	0.0667
LT14A-027	155	251	0.62	0.0648	0.0014	1.209	0.0270	0.1354
LT14A-028	115	112	1.02	0.0815	0.0020	2.044	0.0500	0.1818

LT14A-029	72	98	0.73	0.1105	0.0023	5.403	0.1170	0.3547
LT14A-030	16	66	0.24	0.0732	0.0022	1.951	0.0590	0.1933
LT14A-031	94	135	0.70	0.0774	0.0019	1.739	0.0420	0.1628
LT14A-032	80	255	0.31	0.0691	0.0017	1.528	0.0370	0.1603
LT14A-033	95	113	0.84	0.0790	0.0019	2.343	0.0560	0.2149
LT14A-034	187	187	1.00	0.0620	0.0015	1.146	0.0280	0.1341
LT14A-035	93	158	0.58	0.0737	0.0017	1.838	0.0430	0.1808
LT14A-036	61	160	0.38	0.0709	0.0017	1.674	0.0400	0.1713
LT14A-037	150	220	0.68	0.0596	0.0017	0.5700	0.0160	0.0693
LT14A-038	97	167	0.58	0.1457	0.0027	8.882	0.1730	0.4421
LT14A-039	133	87	1.54	0.0689	0.0025	1.174	0.0430	0.1236
LT14A-040	274	530	0.52	0.1104	0.0021	5.109	0.0990	0.3356
LT14A-041	208	269	0.77	0.0656	0.0015	1.228	0.0280	0.1357
LT14A-042	94	156	0.60	0.1028	0.0022	4.046	0.0880	0.2855
LT14A-043	107	153	0.70	0.0600	0.0026	0.6290	0.0330	0.0760
LT14A-044	54	63	0.86	0.1101	0.0026	4.890	0.1190	0.3221
LT14A-045	97	102	0.95	0.0569	0.0022	0.5980	0.0230	0.0762
LT14A-046	37	27	1.39	0.0592	0.0058	0.7610	0.0860	0.0933
LT14A-047	208	297	0.70	0.0681	0.0016	1.362	0.0320	0.1450
LT14A-048	64	56	1.14	0.1396	0.0034	7.761	0.1910	0.4031
LT14A-049	121	251	0.48	0.0740	0.0017	1.439	0.0340	0.1411
LT14A-050	33	104	0.31	0.1752	0.0036	12.892	0.2690	0.5337
LT14A-051	58	169	0.34	0.1852	0.0037	13.771	0.2820	0.5391
LT14A-052	48	102	0.47	0.1350	0.0029	7.426	0.1620	0.3989
LT14A-053	35	63	0.56	0.0675	0.0033	0.9770	0.0470	0.1050
LT14A-054	72	90	0.80	0.1634	0.0035	10.824	0.2350	0.4803
LT14A-055	125	232	0.54	0.0552	0.0017	0.5740	0.0170	0.0753
LT14A-056	41	52	0.79	0.0630	0.0034	0.9030	0.0480	0.1040
LT14A-057	146	213	0.69	0.0712	0.0017	1.826	0.0440	0.1861
LT14A-058	153	187	0.82	0.0675	0.0018	1.240	0.0320	0.1333
LT14A-059	205	154	1.33	0.0653	0.0020	1.068	0.0320	0.1187
LT14A-060	68	142	0.48	0.1054	0.0024	4.628	0.1070	0.3186
LT14A-061	132	245	0.54	0.0686	0.0018	1.370	0.0350	0.1448
LT14A-062	61	256	0.24	0.0929	0.0021	2.950	0.0770	0.2304
LT14A-063	114	163	0.70	0.0737	0.0019	1.830	0.0470	0.1801
LT14A-064	85	213	0.40	0.1293	0.0029	6.717	0.1530	0.3768
LT14A-065	71	165	0.43	0.2151	0.0047	15.944	0.3540	0.5376
LT14A-066	88	93	0.95	0.1944	0.0044	13.205	0.3030	0.4926
LT14A-067	245	607	0.40	0.0779	0.0018	2.085	0.0480	0.1941
LT14A-068	96	113	0.85	0.0677	0.0023	1.296	0.0430	0.1388
LT14A-069	70	161	0.43	0.0679	0.0019	1.310	0.0370	0.1400
LT14A-070	94	255	0.37	0.1127	0.0026	5.220	0.1210	0.3361
LT14A-071	157	210	0.75	0.0573	0.0020	0.5850	0.0200	0.0740
LT14A-072	112	225	0.50	0.1443	0.0034	8.793	0.2070	0.4420
LT14A-073	104	209	0.50	0.1006	0.0024	4.143	0.1010	0.2986
LT14A-074	125	97	1.29	0.0691	0.0022	1.330	0.0420	0.1397
LT14A-075	101	203	0.50	0.0687	0.0019	1.290	0.0360	0.1362
LT14A-076	83	53	1.57	0.0657	0.0027	1.145	0.0460	0.1264
LT14A-077	93	80	1.17	0.0668	0.0024	1.148	0.0410	0.1247
LT14A-078	68	137	0.50	0.1383	0.0035	7.748	0.1980	0.4063
LT14A-079	220	490	0.45	0.0838	0.0021	2.437	0.0610	0.2109
LT14A-080	95	172	0.55	0.1311	0.0034	6.990	0.1790	0.3867
LT14A-081	151	187	0.81	0.0578	0.0020	0.5920	0.0200	0.0743
LT14A-082	31	31	1.00	0.1093	0.0035	5.132	0.1620	0.3407
LT14A-083	65	478	0.14	0.0764	0.0019	1.969	0.0500	0.1870
LT14A-084	75	241	0.31	0.0827	0.0023	2.365	0.0640	0.2074
LT14A-085	135	177	0.76	0.0707	0.0021	1.398	0.0410	0.1436
LT14A-086	67	337	0.20	0.1177	0.0030	5.993	0.1510	0.3695
LT14A-087	115	171	0.67	0.0926	0.0025	3.234	0.0870	0.2533
LT14A-088	59	58	1.02	0.1098	0.0032	5.160	0.1490	0.3410
LT14A-089	134	331	0.40	0.1636	0.0042	10.961	0.2780	0.4860
LT14A-090	115	311	0.37	0.1267	0.0033	6.846	0.1770	0.3921
LT14A-091	55	210	0.26	0.2431	0.0063	21.004	0.5380	0.6269

LT14A-092	115	228	0.50	0.0817	0.0023	2.274	0.0630	0.2020
LT14A-093	410	635	0.65	0.1067	0.0028	4.554	0.1180	0.3097

**Sample HD14-1, sandstone, Late Devonian, Tabei uplift, NTC, (Liu J et al., 2012, Science China Earth Sciences)**

1	115	1.02	0.0669	0.0013	1.222	0.0240	0.1325
2	117	0.64	0.1115	0.0016	4.926	0.0771	0.3205
3	62	0.82	0.1695	0.0025	10.720	0.1688	0.4586
4	61	0.37	0.0696	0.0016	1.507	0.0348	0.1572
5	201	0.39	0.1238	0.0017	6.283	0.0937	0.3680
6	436	0.29	0.0675	0.0010	1.264	0.0199	0.1359
7	209	0.80	0.0582	0.0013	0.5931	0.0137	0.0739
8	342	0.09	0.1858	0.0034	12.945	0.1832	0.5054
9	61	1.51	0.0665	0.0016	1.225	0.0306	0.1336
10	171	1.16	0.0565	0.0013	0.5267	0.0123	0.0677
11	348	0.35	0.1792	0.0024	12.283	0.1792	0.4969
12	109	0.85	0.0716	0.0033	1.308	0.0578	0.1325
13	565	0.65	0.0668	0.0010	1.221	0.0190	0.1325
14	239	0.63	0.0656	0.0011	1.192	0.0207	0.1317
15	61	0.61	0.1323	0.0022	6.723	0.1145	0.3684
16	168	0.67	0.0678	0.0012	1.234	0.0233	0.1319
17	308	0.85	0.1335	0.0019	5.810	0.0897	0.3157
18	161	0.85	0.0661	0.0012	1.195	0.0226	0.1312
19	303	0.42	0.0899	0.0013	2.985	0.0462	0.2409
20	117	0.57	0.0651	0.0013	1.242	0.0260	0.1383
21	149	0.85	0.0607	0.0015	0.5936	0.0152	0.0709
22	141	0.50	0.0674	0.0013	1.257	0.0249	0.1353
23	161	0.58	0.0671	0.0013	1.252	0.0242	0.1354
24	50	0.52	0.1270	0.0022	6.512	0.1153	0.3719
25	77	0.86	0.0693	0.0016	1.519	0.0346	0.1589
26	163	0.33	0.0656	0.0012	1.212	0.0232	0.1339
27	194	1.17	0.1062	0.0016	4.357	0.0692	0.2975
28	131	1.10	0.0551	0.0015	0.5142	0.0142	0.0677
29	145	0.88	0.0701	0.0013	1.495	0.0284	0.1548
30	60	0.74	0.1296	0.0021	6.791	0.1172	0.3799
31	172	0.97	0.0550	0.0013	0.5268	0.0130	0.0695
32	245	0.52	0.1124	0.0017	4.988	0.0797	0.3217
33	119	0.93	0.0570	0.0018	0.5559	0.0177	0.0707
34	139	0.85	0.0654	0.0013	1.167	0.0239	0.1293
35	57	0.97	0.1113	0.0020	4.924	0.0929	0.3208
36	474	1.08	0.0558	0.0010	0.5148	0.0096	0.0669
37	115	0.95	0.0568	0.0016	0.5288	0.0148	0.0675
38	83	1.18	0.0647	0.0016	1.188	0.0292	0.1332
39	336	0.49	0.0692	0.0011	1.240	0.0216	0.1300
40	82	0.82	0.1114	0.0019	4.949	0.0872	0.3222
41	333	0.38	0.0675	0.0011	1.238	0.0216	0.1330
42	144	0.57	0.0657	0.0013	1.205	0.0245	0.1329
43	190	0.55	0.0664	0.0012	1.212	0.0233	0.1324
44	255	0.50	0.1596	0.0023	9.623	0.1521	0.4373
45	101	0.81	0.1597	0.0025	10.053	0.1644	0.4565
46	116	0.97	0.0567	0.0016	0.5466	0.0157	0.0699
47	61	1.67	0.0651	0.0020	1.091	0.0333	0.1215
48	88	2.15	0.1229	0.0020	6.195	0.1071	0.3655
49	240	0.60	0.1640	0.0024	10.562	0.1685	0.4670
50	177	0.49	0.0674	0.0013	1.225	0.0247	0.1318
51	207	0.32	0.1649	0.0025	10.440	0.1686	0.4590
52	173	0.77	0.1589	0.0024	9.909	0.1620	0.4522
53	83	0.65	0.1075	0.0019	4.644	0.0844	0.3132
54	71	1.21	0.1228	0.0021	6.031	0.1088	0.3561
55	82	1.13	0.1070	0.0019	4.589	0.0839	0.3109
56	56	0.76	0.1413	0.0025	7.947	0.1480	0.4078
57	332	1.06	0.0571	0.0012	0.5500	0.0115	0.0699
58	160	0.89	0.0547	0.0014	0.5000	0.0133	0.0663
59	428	0.75	0.1577	0.0024	9.491	0.1547	0.4365
60	319	0.68	0.0663	0.0012	1.198	0.0220	0.1310

61	24	0.92	0.0633	0.0031	1.078	0.0516	0.1235
62	256	0.54	0.0548	0.0012	0.5330	0.0120	0.0705
63	139	0.59	0.0653	0.0014	1.149	0.0248	0.1275
64	282	1.19	0.1634	0.0025	10.479	0.1738	0.4652
65	216	0.57	0.0662	0.0013	1.266	0.0248	0.1386
66	188	0.58	0.1483	0.0024	8.767	0.1495	0.4288
67	26	0.99	0.1102	0.0026	4.958	0.1169	0.3264
68	30	1.21	0.0636	0.0026	1.094	0.0450	0.1248
69	275	0.47	0.0795	0.0014	2.220	0.0401	0.2025
70	80	0.74	0.1340	0.0023	7.265	0.1332	0.3932
71	208	0.77	0.0762	0.0014	1.883	0.0360	0.1792
72	175	0.69	0.0563	0.0014	0.5320	0.0137	0.0686
73	207	0.25	0.1275	0.0021	6.563	0.1148	0.3732
74	167	1.06	0.0544	0.0014	0.5261	0.0137	0.0701
75	461	0.56	0.0554	0.0011	0.5348	0.0109	0.0700
76	194	0.30	0.0828	0.0015	2.415	0.0456	0.2114
77	286	0.30	0.0665	0.0012	1.240	0.0242	0.1353
78	199	1.08	0.0727	0.0014	1.604	0.0321	0.1600
79	114	0.97	0.1231	0.0022	6.147	0.1136	0.3622
80	579	0.02	0.1156	0.0024	5.226	0.0874	0.3279
81	212	0.75	0.0665	0.0013	1.202	0.0249	0.1311
82	243	0.38	0.0681	0.0013	1.267	0.0259	0.1349
83	234	0.59	0.1298	0.0023	6.601	0.1206	0.3689
84	149	0.42	0.1266	0.0023	6.310	0.1177	0.3614
85	145	0.99	0.1380	0.0025	7.148	0.1332	0.3758
86	191	1.74	0.1242	0.0022	6.113	0.1142	0.3570
87	265	0.48	0.1508	0.0026	8.843	0.1631	0.4252
88	14	0.81	0.1262	0.0034	6.657	0.1797	0.3824
89	116	0.79	0.1307	0.0024	6.663	0.1284	0.3696
90	191	0.39	0.0730	0.0015	1.626	0.0351	0.1615
91	590	0.74	0.0673	0.0012	1.242	0.0239	0.1338
92	237	0.96	0.0556	0.0013	0.5685	0.0137	0.0741
93	813	0.20	0.0703	0.0013	1.606	0.0303	0.1656
94	226	0.69	0.0730	0.0014	1.738	0.0355	0.1726
95	423	0.79	0.0564	0.0012	0.5275	0.0116	0.0678
96	156	0.57	0.0666	0.0015	1.217	0.0279	0.1325
97	626	0.47	0.3062	0.0054	26.545	0.4943	0.6287
98	45	1.02	0.1266	0.0027	6.461	0.1414	0.3700
99	36	1.67	0.1566	0.0032	9.885	0.2096	0.4579
100	105	0.92	0.1637	0.0031	10.223	0.2017	0.4529
101	116	0.86	0.0562	0.0018	0.5491	0.0172	0.0709
102	164	1.00	0.0550	0.0016	0.5068	0.0146	0.0668
103	81	0.50	0.0628	0.0018	1.049	0.0298	0.1211
104	118	0.68	0.0658	0.0016	1.235	0.0302	0.1361
105	179	0.48	0.1079	0.0021	4.637	0.0939	0.3115
106	108	1.87	0.1582	0.0031	9.615	0.1953	0.4408
107	40	1.81	0.1257	0.0029	6.340	0.1473	0.3658
108	316	1.30	0.0951	0.0019	3.276	0.0666	0.2497
109	29	0.73	0.1291	0.0030	6.741	0.1604	0.3787
110	204	0.59	0.1281	0.0025	6.430	0.1314	0.3641
111	200	0.55	0.0676	0.0015	1.234	0.0281	0.1325
112	148	1.08	0.0531	0.0017	0.4863	0.0157	0.0664
113	62	1.08	0.1735	0.0035	11.827	0.2474	0.4943
114	99	0.68	0.1495	0.0030	8.869	0.1853	0.4302
115	136	0.75	0.0666	0.0016	1.186	0.0289	0.1292
116	88	0.90	0.0560	0.0019	0.5248	0.0178	0.0680
117	287	0.57	0.0666	0.0014	1.261	0.0277	0.1373
118	183	0.55	0.0662	0.0015	1.260	0.0291	0.1381
119	82	0.77	0.1427	0.0030	8.155	0.1753	0.4144
120	287	0.63	0.1364	0.0027	7.546	0.1559	0.4011

Sample DK-68, sandstone, Early Devonian, north of Kuche, NTC, (Carroll et al., 2013, International Geology Review)

DK68-1	269	0.83	0.0552	0.0022	0.5159	0.0227	0.0677
DK68-2	385	0.53	0.0561	0.0018	0.5135	0.0205	0.0664

DK68-4	706	0.48	0.0557	0.0006	0.5795	0.0133	0.0755
DK68-5	686	0.56	0.0558	0.0007	0.5212	0.0125	0.0678
DK68-6	181	0.71	0.0656	0.0014	1.173	0.0340	0.1297
DK68-7	135	0.67	0.0588	0.0059	0.5977	0.0795	0.0737
DK68-8	258	0.22	0.0579	0.0017	0.6828	0.0662	0.0855
DK68-9	263	0.67	0.0549	0.0013	0.4871	0.0166	0.0644
DK68-10	323	0.59	0.1066	0.0004	4.502	0.0720	0.3063
DK68-11	174	0.71	0.0547	0.0039	0.4989	0.0389	0.0661
DK68-13	438	1.11	0.0562	0.0006	0.4995	0.0115	0.0645
DK68-14	1003	0.20	0.0732	0.0004	1.741	0.0453	0.1726
DK68-15	424	0.56	0.0541	0.0016	0.5090	0.0193	0.0682
DK68-16	260	0.48	0.0556	0.0028	0.5071	0.0350	0.0662
DK68-17	390	0.63	0.0562	0.0013	0.5152	0.0196	0.0665
DK68-18	339	0.56	0.0551	0.0018	0.5254	0.0252	0.0691
DK68-19	265	1.11	0.0677	0.0014	1.396	0.0851	0.1496
DK68-20	242	0.63	0.0558	0.0017	0.5244	0.0267	0.0682
DK68-22	496	0.63	0.0552	0.0009	0.5162	0.0160	0.0678
DK68-23	224	0.53	0.0551	0.0021	0.5185	0.0270	0.0682
DK68-25	596	0.59	0.0558	0.0008	0.5466	0.0164	0.0710
DK68-26	199	0.77	0.1871	0.0009	13.617	0.2587	0.5280
DK68-27	125	0.91	0.0545	0.0039	0.4925	0.0463	0.0655
DK68-28	108	0.67	0.0558	0.0032	0.5157	0.0382	0.0670
DK68-29	385	1.00	0.0567	0.0013	0.5396	0.0243	0.0690
DK68-31	285	0.59	0.0635	0.0165	0.5399	0.1442	0.0616
DK68-32	315	0.83	0.0528	0.0014	0.4897	0.0206	0.0673
DK68-33	291	0.71	0.0557	0.0016	0.5083	0.0178	0.0661
DK68-34	436	1.25	0.0549	0.0008	0.5242	0.0273	0.0692
DK68-35	391	0.83	0.0557	0.0018	0.5343	0.0240	0.0696
DK68-36	281	1.00	0.0567	0.0023	0.5591	0.0302	0.0716
DK68-37	426	0.77	0.0539	0.0010	0.5128	0.0179	0.0690
DK68-40	261	0.71	0.0566	0.0014	0.4912	0.0383	0.0630

**Sample MD1-1, sandstone, Late Silurian, Quruqtagh area, NTC, (Dong S et al., 2016, Journal of Asian Earth Sciences)**

D13-01	403	685	0.59	0.0715	0.0079	1.584	0.1605	0.1608
D13-02	1310	1404	0.93	0.0555	0.0048	0.6307	0.0511	0.0824
D13-03	720	2145	0.34	0.0677	0.0044	1.527	0.0920	0.1637
D13-04	580	2083	0.28	0.0659	0.0031	1.497	0.0649	0.1647
D13-05	260	442	0.59	0.0873	0.0031	2.624	0.0866	0.2181
D13-06	53	104	0.51	0.0707	0.0086	1.669	0.1898	0.1712
D13-07	504	1102	0.46	0.0570	0.0032	0.6093	0.0314	0.0776
D13-08	107	1687	0.06	0.1062	0.0020	4.539	0.0782	0.3100
D13-09	185	195	0.95	0.0608	0.0073	0.6243	0.0700	0.0745
D13-10	688	1355	0.51	0.0672	0.0025	0.6994	0.0237	0.0755
D13-11	667	1047	0.64	0.0769	0.0019	1.760	0.0392	0.1661
D13-12	284	505	0.56	0.0729	0.0050	0.7664	0.0476	0.0763
D13-13	42	93	0.45	0.0762	0.0077	1.930	0.1811	0.1837
D13-14	166	824	0.20	0.0778	0.0021	1.787	0.0444	0.1666
D13-16	1115	2099	0.53	0.0761	0.0023	1.796	0.0496	0.1711
D13-17	787	914	0.86	0.0721	0.0028	0.7202	0.0250	0.0725
D13-19	718	1516	0.47	0.0654	0.0043	0.7455	0.0451	0.0828
D13-20	608	1121	0.54	0.1054	0.0024	4.127	0.0883	0.2839
D13-21	795	783	1.02	0.1644	0.0046	9.978	0.2633	0.4403
D13-22	246	256	0.96	0.1706	0.0038	11.503	0.2435	0.4891
D13-23	530	443	1.20	0.0634	0.0045	0.6161	0.0402	0.0705
D13-24	528	686	0.77	0.0602	0.0029	0.8183	0.0365	0.0986
D13-25	1139	954	1.19	0.0567	0.0030	0.6011	0.0291	0.0768
D13-26	44	284	0.15	0.1701	0.0037	10.807	0.2218	0.4608
D13-27	372	464	0.80	0.0798	0.0026	2.000	0.0591	0.1817
D13-28	325	513	0.63	0.0750	0.0026	1.569	0.0502	0.1518
D13-29	546	1052	0.52	0.0616	0.0024	0.6348	0.0224	0.0747
D13-30	985	1170	0.84	0.0563	0.0033	0.5648	0.0307	0.0728
D13-31	174	562	0.31	0.0634	0.0030	0.7055	0.0305	0.0807
D13-32	204	487	0.42	0.1999	0.0033	14.098	0.2206	0.5114
D13-33	184	1082	0.17	0.0845	0.0021	2.206	0.0493	0.1894

D13-34	394	945	0.42	0.0612	0.0022	0.6066	0.0198	0.0718
D13-35	132	745	0.18	0.1322	0.0019	6.954	0.0960	0.3814
D13-36	140	1134	0.12	0.0716	0.0018	1.328	0.0302	0.1344
D13-37	308	206	1.50	0.1178	0.0060	2.201	0.0988	0.1354
D13-38	863	1056	0.82	0.0783	0.0019	1.776	0.0393	0.1646
D13-39	226	306	0.74	0.0650	0.0045	0.6746	0.0434	0.0752
D13-40	653	416	1.57	0.0620	0.0062	0.7433	0.0693	0.0869
D13-41	421	1529	0.28	0.2011	0.0027	14.580	0.1891	0.5259
D13-42	336	777	0.43	0.0573	0.0035	0.5622	0.0318	0.0712
D13-43	291	778	0.37	0.0618	0.0037	0.6501	0.0358	0.0762
D13-44	345	1558	0.22	0.1337	0.0020	6.562	0.0936	0.3558
D13-46	117	289	0.41	0.0515	0.0057	0.5350	0.0568	0.0753
D13-47	353	1458	0.24	0.0746	0.0021	1.685	0.0444	0.1639
D13-48	95	182	0.52	0.0614	0.0079	0.5869	0.0709	0.0694
D13-49	158	221	0.71	0.0592	0.0060	0.6699	0.0643	0.0821
D13-50	119	1407	0.08	0.0754	0.0020	1.484	0.0355	0.1428
D13-51	512	500	1.02	0.1702	0.0031	11.315	0.1966	0.4820
D13-52	371	885	0.42	0.0656	0.0028	0.6271	0.0243	0.0693
D13-54	231	460	0.50	0.0590	0.0045	0.5384	0.0387	0.0661
D13-55	158	511	0.31	0.0740	0.0023	1.666	0.0480	0.1632
D13-56	401	1738	0.23	0.0729	0.0017	1.546	0.0323	0.1538
D13-57	226	603	0.38	0.0760	0.0022	1.644	0.0428	0.1569
D13-58	974	1872	0.52	0.0693	0.0018	0.7076	0.0165	0.0740
D13-59	327	534	0.61	0.0622	0.0031	0.6122	0.0277	0.0714
D13-60	114	190	0.60	0.2716	0.0050	23.927	0.4397	0.6388
D13-61	616	144	4.28	0.1699	0.0045	11.408	0.2865	0.4868
D13-62	631	570	1.11	0.0623	0.0027	0.6581	0.0265	0.0766
D13-65	612	1120	0.55	0.0603	0.0022	0.6091	0.0206	0.0732
D13-66	213	507	0.42	0.0805	0.0028	2.144	0.0692	0.1931
D13-67	554	523	1.06	0.0571	0.0036	0.5660	0.0334	0.0719
D13-68	1731	1295	1.34	0.1708	0.0030	9.306	0.1531	0.3950
D13-69	594	342	1.74	0.1754	0.0039	11.646	0.2460	0.4813
D13-70	290	435	0.67	0.0638	0.0039	0.6624	0.0376	0.0753
D13-71	430	510	0.84	0.0674	0.0040	0.6997	0.0388	0.0752
D13-72	337	1537	0.22	0.0762	0.0018	1.725	0.0380	0.1640
D13-73	186	358	0.52	0.0658	0.0040	0.6593	0.0375	0.0727
D13-74	294	429	0.69	0.1102	0.0027	4.790	0.1078	0.3151
D13-75	151	132	1.14	0.1064	0.0048	4.142	0.1741	0.2821
D13-76	456	538	0.85	0.1800	0.0033	11.764	0.2069	0.4738
D13-77	531	1475	0.36	0.0624	0.0022	0.6078	0.0200	0.0706
D13-78	724	1370	0.53	0.0607	0.0024	0.6129	0.0220	0.0732
D13-79	103	172	0.60	0.0847	0.0053	2.139	0.1221	0.1830
D13-80	444	838	0.53	0.0744	0.0024	1.658	0.0499	0.1616

Sample LT19A, quartz arenite, Late Silurian-Early Devonian, Keping-Subashi section of the Kepingtage area, NTC, (Han Y et al., 2017)

LT19A-001	112	145	0.78	0.0796	0.0017	2.214	0.0490	0.2017
LT19A-002	380	478	0.79	0.0635	0.0014	0.6540	0.0150	0.0746
LT19A-003	46	77	0.60	0.1660	0.0032	10.844	0.2180	0.4737
LT19A-004	132	474	0.28	0.0580	0.0013	0.5740	0.0130	0.0718
LT19A-005	48	59	0.82	0.1611	0.0032	9.849	0.2590	0.4434
LT19A-006	52	374	0.14	0.0755	0.0014	1.884	0.0360	0.1809
LT19A-007	265	230	1.15	0.0571	0.0015	0.6000	0.0160	0.0762
LT19A-008	145	278	0.52	0.0689	0.0014	1.298	0.0280	0.1366
LT19A-009	86	299	0.29	0.1554	0.0026	7.906	0.1430	0.3689
LT19A-010	415	498	0.83	0.1609	0.0026	10.750	0.1860	0.4843
LT19A-011	133	82	1.62	0.0913	0.0021	3.311	0.0770	0.2629
LT19A-012	255	451	0.57	0.0638	0.0013	1.019	0.0210	0.1157
LT19A-013	55	92	0.60	0.0746	0.0019	1.672	0.0440	0.1626
LT19A-014	50	293	0.17	0.0688	0.0014	1.389	0.0290	0.1463
LT19A-015	38	62	0.61	0.0752	0.0022	1.851	0.0540	0.1786
LT19A-016	145	322	0.45	0.0591	0.0014	0.6390	0.0160	0.0784
LT19A-017	152	354	0.43	0.0802	0.0015	2.275	0.0440	0.2057
LT19A-018	144	248	0.58	0.0741	0.0015	1.796	0.0370	0.1756
LT19A-019	197	278	0.71	0.0737	0.0015	1.744	0.0360	0.1716

LT19A-020	34	67	0.51	0.0624	0.0022	1.006	0.0360	0.1170
LT19A-021	142	276	0.51	0.0638	0.0014	1.133	0.0250	0.1287
LT19A-022	17	22	0.76	0.1131	0.0037	4.878	0.1600	0.3127
LT19A-023	121	154	0.78	0.0626	0.0017	0.8470	0.0240	0.0982
LT19A-024	99	182	0.55	0.0752	0.0017	1.728	0.0390	0.1665
LT19A-025	216	358	0.60	0.0578	0.0014	0.5700	0.0140	0.0715
LT19A-026	79	135	0.58	0.0756	0.0018	1.723	0.0410	0.1652
LT19A-027	279	369	0.75	0.0609	0.0013	0.8650	0.0190	0.1030
LT19A-028	44	114	0.39	0.0953	0.0020	3.170	0.0690	0.2411
LT19A-029	49	34	1.41	0.1161	0.0030	4.934	0.1290	0.3082
LT19A-030	65	89	0.74	0.0634	0.0024	0.6110	0.0230	0.0699
LT19A-031	52	92	0.56	0.0733	0.0029	1.288	0.0590	0.1275
LT19A-032	72	300	0.24	0.1115	0.0020	4.640	0.0880	0.3016
LT19A-033	66	100	0.66	0.1094	0.0022	5.166	0.1090	0.3424
LT19A-034	377	297	1.27	0.0826	0.0016	2.585	0.0520	0.2268
LT19A-035	46	87	0.53	0.1843	0.0034	12.948	0.2540	0.5094
LT19A-036	135	114	1.18	0.0751	0.0019	1.697	0.0440	0.1638
LT19A-037	301	399	0.75	0.0582	0.0015	0.5450	0.0140	0.0680
LT19A-038	92	146	0.63	0.1573	0.0029	9.882	0.1920	0.4554
LT19A-039	206	262	0.79	0.0560	0.0016	0.5480	0.0160	0.0711
LT19A-040	70	154	0.46	0.0539	0.0018	0.5600	0.0190	0.0753
LT19A-041	96	327	0.29	0.0735	0.0015	1.690	0.0430	0.1669
LT19A-042	66	182	0.36	0.0647	0.0016	1.161	0.0290	0.1302
LT19A-043	11	84	0.13	0.0764	0.0022	2.010	0.0590	0.1908
LT19A-044	53	195	0.27	0.1151	0.0023	4.593	0.0940	0.2895
LT19A-045	78	429	0.18	0.1039	0.0020	2.638	0.0530	0.1841
LT19A-046	117	105	1.12	0.0665	0.0019	1.161	0.0340	0.1267
LT19A-047	136	180	0.76	0.0661	0.0017	1.008	0.0260	0.1106
LT19A-048	95	110	0.87	0.1629	0.0032	10.831	0.2200	0.4822
LT19A-049	246	392	0.63	0.0766	0.0015	1.956	0.0410	0.1852
LT19A-050	281	179	1.57	0.0702	0.0017	1.536	0.0370	0.1586
LT19A-051	92	226	0.41	0.1256	0.0024	6.691	0.1350	0.3863
LT19A-052	170	396	0.43	0.1241	0.0024	6.133	0.1220	0.3584
LT19A-053	111	128	0.87	0.0794	0.0020	1.854	0.0470	0.1694
LT19A-054	117	196	0.60	0.2065	0.0039	14.974	0.2980	0.5258
LT19A-055	119	89	1.33	0.1220	0.0026	6.016	0.1340	0.3577
LT19A-056	161	111	1.45	0.0671	0.0019	1.252	0.0360	0.1352
LT19A-057	66	261	0.25	0.0721	0.0016	1.631	0.0370	0.1641
LT19A-058	84	264	0.32	0.0573	0.0016	0.5760	0.0160	0.0728
LT19A-059	89	169	0.53	0.0628	0.0018	0.8340	0.0240	0.0963
LT19A-060	41	58	0.71	0.2852	0.0059	25.735	0.5530	0.6543
LT19A-061	37	53	0.70	0.1648	0.0037	10.352	0.2390	0.4555
LT19A-062	107	351	0.31	0.0644	0.0018	1.084	0.0300	0.1221
LT19A-063	173	249	0.69	0.0755	0.0017	2.041	0.0470	0.1959
LT19A-064	123	328	0.37	0.0580	0.0016	0.5760	0.0160	0.0720
LT19A-065	51	374	0.14	0.0685	0.0016	1.402	0.0330	0.1484
LT19A-066	72	159	0.45	0.0691	0.0018	1.328	0.0350	0.1392
LT19A-067	114	222	0.51	0.0565	0.0017	0.5770	0.0170	0.0741
LT19A-068	267	265	1.01	0.0565	0.0016	0.5500	0.0160	0.0705
LT19A-069	287	242	1.19	0.0932	0.0021	3.359	0.0760	0.2614
LT19A-070	58	79	0.74	0.0893	0.0024	2.924	0.0780	0.2375
LT19A-071	127	231	0.55	0.1627	0.0034	9.602	0.2090	0.4279
LT19A-072	163	103	1.59	0.0722	0.0021	1.501	0.0440	0.1508
LT19A-073	26	61	0.42	0.0925	0.0025	3.386	0.0930	0.2655
LT19A-074	201	228	0.88	0.0643	0.0017	1.147	0.0300	0.1293
LT19A-075	99	184	0.54	0.1872	0.0040	12.830	0.2820	0.4969
LT19A-076	73	84	0.86	0.1764	0.0040	12.435	0.2850	0.5112
LT19A-077	16	52	0.31	0.1595	0.0038	9.745	0.2390	0.4431
LT19A-078	73	159	0.46	0.1988	0.0043	14.961	0.3350	0.5459
LT19A-079	222	414	0.54	0.0573	0.0015	0.5730	0.0150	0.0725
LT19A-080	200	234	0.85	0.0585	0.0019	0.5700	0.0180	0.0706
LT19A-081	73	126	0.57	0.2363	0.0052	20.538	0.4650	0.6304
LT19A-082	117	98	1.19	0.0670	0.0022	1.001	0.0330	0.1084

LT19A-083	100	342	0.29	0.0699	0.0017	1.531	0.0380	0.1589
LT19A-084	29	59	0.49	0.0733	0.0026	1.406	0.0500	0.1392
LT19A-085	81	114	0.71	0.1572	0.0037	10.308	0.2460	0.4756
LT19A-086	63	205	0.31	0.0612	0.0019	0.6910	0.0210	0.0819
LT19A-087	44	50	0.88	0.0483	0.0026	0.5450	0.0290	0.0820
LT19A-088	68	126	0.54	0.0626	0.0021	0.9020	0.0290	0.1045
LT19A-089	123	412	0.30	0.0552	0.0016	0.5100	0.0150	0.0670
LT19A-090	219	213	1.03	0.0747	0.0024	1.573	0.0500	0.1528
LT19A-091	44	97	0.45	0.1392	0.0034	7.495	0.1880	0.3905
LT19A-092	139	297	0.47	0.0740	0.0019	1.644	0.0420	0.1612
LT19A-093	62	99	0.63	0.0675	0.0022	1.341	0.0440	0.1441
LT19A-094	83	442	0.19	0.0695	0.0017	1.533	0.0390	0.1599
LT19A-095	241	1010	0.24	0.0558	0.0014	0.5090	0.0130	0.0662
LT19A-096	169	346	0.49	0.0984	0.0024	3.816	0.0940	0.2813
LT19A-097	32	58	0.56	0.0696	0.0024	1.730	0.0600	0.1803
LT19A-098	174	186	0.94	0.0560	0.0019	0.5520	0.0190	0.0715
LT19A-099	173	203	0.85	0.0690	0.0019	1.389	0.0390	0.1460
LT19A-100	304	356	0.85	0.1103	0.0027	3.417	0.0860	0.2248
LT19A-101	26	28	0.92	0.0601	0.0035	0.8410	0.0490	0.1016
LT19A-102	147	97	1.52	0.0591	0.0022	0.7830	0.0300	0.0961
LT19A-103	91	79	1.14	0.1499	0.0047	8.087	0.3250	0.3913
LT19A-104	273	282	0.97	0.0622	0.0032	0.5760	0.0360	0.0672
LT19A-105	241	294	0.82	0.0579	0.0018	0.5340	0.0170	0.0670
LT19A-106	225	490	0.46	0.0558	0.0016	0.5330	0.0160	0.0692

Sample LT20A, quartz arenite, Late Silurian-Early Devonian, Keping-Subashi section of the Kepingtage area, NTC, (Han Y et al., 2012)

LT20A-001	149	440	0.34	0.0719	0.0013	1.619	0.0310	0.1635
LT20A-002	140	206	0.68	0.0673	0.0016	1.232	0.0290	0.1329
LT20A-003	165	171	0.96	0.0554	0.0017	0.5590	0.0170	0.0733
LT20A-004	275	373	0.74	0.1063	0.0018	4.557	0.0820	0.3111
LT20A-005	34	51	0.67	0.1299	0.0028	6.870	0.1500	0.3839
LT20A-006	252	298	0.84	0.0699	0.0014	1.533	0.0320	0.1591
LT20A-007	88	104	0.85	0.0655	0.0019	1.185	0.0340	0.1312
LT20A-008	107	377	0.28	0.0728	0.0014	1.711	0.0340	0.1705
LT20A-009	78	59	1.32	0.0635	0.0024	1.082	0.0400	0.1235
LT20A-010	84	126	0.67	0.1125	0.0022	5.088	0.1010	0.3283
LT20A-011	48	51	0.95	0.0724	0.0024	1.693	0.0560	0.1696
LT20A-012	19	46	0.41	0.0620	0.0026	1.036	0.0430	0.1212
LT20A-013	127	201	0.63	0.1619	0.0028	10.436	0.1890	0.4676
LT20A-014	26	42	0.62	0.1490	0.0032	9.205	0.2010	0.4482
LT20A-015	21	28	0.74	0.1117	0.0031	5.199	0.1450	0.3378
LT20A-016	241	244	0.99	0.1632	0.0028	10.536	0.1920	0.4684
LT20A-017	54	281	0.19	0.0774	0.0015	2.064	0.0420	0.1935
LT20A-018	41	41	0.99	0.1663	0.0035	10.730	0.2330	0.4681
LT20A-019	22	42	0.53	0.1108	0.0028	4.969	0.1260	0.3255
LT20A-020	161	249	0.65	0.0721	0.0015	1.717	0.0360	0.1729
LT20A-021	34	49	0.70	0.1204	0.0028	5.964	0.1390	0.3594
LT20A-022	34	167	0.20	0.1636	0.0029	11.091	0.2090	0.4920
LT20A-023	32	46	0.69	0.0613	0.0028	0.9040	0.0410	0.1070
LT20A-024	105	64	1.65	0.1472	0.0031	7.947	0.1710	0.3918
LT20A-025	57	79	0.73	0.1716	0.0033	11.782	0.2370	0.4982
LT20A-026	47	128	0.37	0.0968	0.0020	3.941	0.0850	0.2954
LT20A-027	199	102	1.95	0.1714	0.0032	11.810	0.2320	0.5001
LT20A-028	45	43	1.04	0.0675	0.0027	1.285	0.0510	0.1381
LT20A-029	141	161	0.88	0.0730	0.0017	1.674	0.0400	0.1666
LT20A-030	365	316	1.16	0.0796	0.0016	2.186	0.0460	0.1993
LT20A-031	134	165	0.81	0.1113	0.0022	5.112	0.1050	0.3333
LT20A-032	129	351	0.37	0.1601	0.0029	9.935	0.1910	0.4504
LT20A-033	161	126	1.28	0.1649	0.0032	10.805	0.2170	0.4755
LT20A-034	233	304	0.76	0.0574	0.0016	0.5700	0.0160	0.0721
LT20A-035	95	113	0.84	0.0567	0.0020	0.6710	0.0240	0.0858
LT20A-036	115	166	0.69	0.0688	0.0018	1.238	0.0320	0.1306
LT20A-037	13	163	0.08	0.1591	0.0031	10.252	0.2090	0.4676
LT20A-038	75	465	0.16	0.0718	0.0015	1.713	0.0360	0.1730

LT20A-039	47	61	0.77	0.0667	0.0023	1.341	0.0470	0.1459
LT20A-040	14	19	0.76	0.1104	0.0038	4.862	0.1650	0.3195
LT20A-041	137	159	0.86	0.0798	0.0019	2.302	0.0550	0.2093
LT20A-042	362	604	0.60	0.0727	0.0015	1.673	0.0360	0.1671
LT20A-043	193	239	0.81	0.0568	0.0017	0.5990	0.0180	0.0766
LT20A-044	44	62	0.70	0.1144	0.0028	5.098	0.1250	0.3234
LT20A-045	68	116	0.58	0.1132	0.0025	5.177	0.1190	0.3319
LT20A-046	103	175	0.59	0.1092	0.0024	4.853	0.1080	0.3225
LT20A-047	34	44	0.77	0.1138	0.0031	5.413	0.1490	0.3450
LT20A-048	195	320	0.61	0.0573	0.0016	0.5880	0.0160	0.0744
LT20A-049	115	127	0.91	0.1131	0.0025	5.197	0.1200	0.3335
LT20A-050	193	398	0.49	0.1915	0.0039	13.987	0.2980	0.5299
LT20A-051	44	157	0.28	0.0822	0.0020	2.346	0.0590	0.2071
LT20A-052	63	60	1.04	0.1251	0.0031	6.453	0.1620	0.3744
LT20A-053	45	130	0.34	0.1722	0.0037	11.301	0.2540	0.4762
LT20A-054	77	157	0.49	0.1704	0.0037	10.476	0.2350	0.4461
LT20A-055	10	25	0.40	0.0880	0.0041	1.653	0.0760	0.1363
LT20A-056	58	73	0.80	0.0709	0.0024	1.331	0.0460	0.1363
LT20A-057	38	49	0.79	0.0670	0.0027	1.166	0.0470	0.1262
LT20A-058	25	26	0.99	0.1108	0.0035	5.046	0.1620	0.3303
LT20A-059	50	35	1.40	0.1655	0.0042	11.370	0.2980	0.4985
LT20A-060	225	94	2.39	0.1691	0.0039	11.329	0.2710	0.4862
LT20A-061	116	37	3.15	0.1679	0.0043	10.726	0.2830	0.4634
LT20A-062	63	182	0.34	0.0590	0.0022	0.6070	0.0260	0.0747
LT20A-063	52	299	0.17	0.0592	0.0017	0.6050	0.0180	0.0741
LT20A-064	154	335	0.46	0.0698	0.0018	1.239	0.0330	0.1288
LT20A-065	92	295	0.31	0.0702	0.0018	1.526	0.0400	0.1577
LT20A-066	38	58	0.66	0.0730	0.0027	1.383	0.0520	0.1375
LT20A-067	171	388	0.44	0.0693	0.0018	1.321	0.0350	0.1383
LT20A-068	234	403	0.58	0.0682	0.0018	1.295	0.0340	0.1378
LT20A-069	48	82	0.58	0.0689	0.0023	1.447	0.0490	0.1524
LT20A-070	155	279	0.55	0.0677	0.0019	1.221	0.0350	0.1308
LT20A-071	191	52	3.66	0.0656	0.0027	1.259	0.0520	0.1393
LT20A-072	103	644	0.16	0.3020	0.0072	29.141	0.7180	0.7000
LT20A-073	32	104	0.30	0.3353	0.0082	37.250	0.9380	0.8059
LT20A-074	65	90	0.73	0.3080	0.0076	30.614	0.7790	0.7210
LT20A-075	72	137	0.52	0.0577	0.0028	0.5650	0.0320	0.0710
LT20A-076	20	35	0.56	0.1684	0.0047	11.372	0.3250	0.4899
LT20A-077	68	268	0.25	0.1775	0.0042	10.866	0.2800	0.4441
LT20A-078	119	170	0.70	0.0750	0.0022	1.812	0.0530	0.1753
LT20A-079	63	242	0.26	0.1672	0.0043	10.885	0.2860	0.4722
LT20A-080	344	231	1.48	0.0785	0.0022	1.978	0.0560	0.1828
LT20A-081	47	540	0.09	0.1008	0.0026	3.947	0.1050	0.2841
LT20A-082	83	71	1.16	0.0990	0.0030	3.885	0.1180	0.2846
LT20A-083	94	59	1.61	0.0683	0.0027	1.267	0.0510	0.1347
LT20A-084	145	198	0.73	0.1254	0.0034	6.572	0.1810	0.3803
LT20A-085	52	33	1.58	0.1204	0.0039	6.143	0.1990	0.3700
LT20A-086	97	143	0.68	0.0999	0.0029	3.971	0.1160	0.2884
LT20A-087	234	214	1.09	0.1720	0.0047	11.634	0.3240	0.4907
LT20A-088	89	95	0.94	0.0675	0.0025	1.302	0.0480	0.1399
LT20A-089	115	119	0.97	0.0671	0.0023	1.259	0.0440	0.1361
LT20A-090	60	66	0.91	0.1173	0.0035	5.950	0.1830	0.3679
LT20A-091	118	148	0.80	0.0743	0.0023	1.971	0.0630	0.1923
LT20A-092	81	135	0.60	0.0716	0.0024	1.543	0.0510	0.1563
LT20A-093	184	346	0.53	0.1786	0.0050	12.072	0.3450	0.4903
LT20A-094	402	622	0.65	0.1685	0.0047	11.355	0.3250	0.4888

**Sample 91-Sh-5, sandstone, Late Silurian, Aksu area, NTC, (Carroll et al., 2013, International Geology Review)**

91SH5-1	185	0.56	0.0646	0.0021	1.202	0.0433	0.1348
91SH5-2	137	0.22	0.1605	0.0010	10.679	0.2243	0.4826
91SH5-3	138	0.83	0.0518	0.0037	0.5265	0.0390	0.0737
91SH5-5	325	0.71	0.0694	0.0014	1.368	0.0301	0.1431
91SH5-6	172	0.53	0.0558	0.0027	0.5399	0.0292	0.0702
91SH5-7	55	1.67	0.0534	0.0097	0.5917	0.1083	0.0804

91SH5-8	111	1.11	0.0709	0.0018	1.687	0.0455	0.1725
91SH5-9	424	0.08	0.0969	0.0009	3.558	0.0640	0.2664
91SH5-10	220	0.77	0.0674	0.0008	1.322	0.0198	0.1421
91SH5-11	80	0.53	0.0599	0.0057	0.8184	0.0786	0.0990
91SH5-12	114	1.00	0.0639	0.0020	1.120	0.0381	0.1271
91SH5-13	171	0.43	0.0652	0.0018	1.203	0.0385	0.1338
91SH5-14	408	0.29	0.1066	0.0004	4.123	0.0618	0.2805
91SH5-15	64	0.59	0.0926	0.0020	3.430	0.0926	0.2687
91SH5-16	402	0.42	0.0673	0.0013	1.292	0.0271	0.1393
91SH5-17	294	0.63	0.0758	0.0010	1.983	0.0337	0.1897
91SH5-19	64	1.43	0.1092	0.0012	4.680	0.1030	0.3108
91SH5-21	176	1.25	0.0933	0.0015	2.741	0.0603	0.2131
91SH5-22	228	0.43	0.0798	0.0005	2.299	0.0575	0.2089
91SH5-23	136	1.67	0.1215	0.0030	5.898	0.1828	0.3521
91SH5-24	58	1.11	0.0607	0.0045	1.079	0.0831	0.1290
91SH5-25	242	0.59	0.1658	0.0012	9.383	0.1783	0.4104
91SH5-26	25	0.91	0.1108	0.0034	5.031	0.1710	0.3294
91SH5-27	89	0.25	0.1116	0.0011	5.130	0.1334	0.3333
91SH5-28	163	0.83	0.0657	0.0038	1.148	0.0689	0.1267
91SH5-29	48	0.12	0.1644	0.0016	10.828	0.1624	0.4777
91SH5-30	127	1.11	0.0808	0.0008	2.350	0.0564	0.2109
91SH5-31	29	1.25	0.1120	0.0045	5.085	0.2237	0.3294
91SH5-32	207	0.40	0.0657	0.0018	1.250	0.0425	0.1379
91SH5-33	96	0.63	0.1122	0.0015	5.337	0.1548	0.3449
91SH5-34	208	2.00	0.0579	0.0044	0.5371	0.0424	0.0673
91SH5-35	215	1.00	0.0580	0.0015	0.7350	0.0235	0.0919
91SH5-36	551	0.50	0.1258	0.0004	4.925	0.1280	0.2838
91SH5-37	213	0.67	0.1140	0.0006	5.397	0.1241	0.3435
91SH5-38	262	0.56	0.0700	0.0008	1.534	0.0276	0.1590
91SH5-39	198	0.77	0.0983	0.0013	3.757	0.0714	0.2771
91SH5-40	93	0.71	0.0553	0.0097	0.5447	0.0964	0.0714
91SH5-41	54	1.00	0.0768	0.0035	2.107	0.1138	0.1990
91SH5-42	78	0.91	0.0646	0.0101	0.6625	0.1034	0.0744
91SH5-43	36	0.83	0.1109	0.0022	4.274	0.0855	0.2795
91SH5-44	268	0.29	0.0575	0.0012	0.5946	0.0137	0.0750
91SH5-45	398	0.23	0.0726	0.0008	1.549	0.0387	0.1547
91SH5-46	34	1.11	0.1095	0.0049	5.149	0.2935	0.3410
91SH5-47	296	0.67	0.0665	0.0013	1.189	0.0285	0.1297
91SH5-48	273	0.23	0.0828	0.0011	2.509	0.0502	0.2198
91SH5-49	98	0.53	0.0503	0.0073	0.4991	0.0729	0.0720
91SH5-50	233	0.67	0.0583	0.0008	0.7135	0.0157	0.0888
91SH5-51	201	0.29	0.0816	0.0014	2.380	0.0619	0.2114
91SH5-52	109	0.77	0.0667	0.0022	1.168	0.0456	0.1271
91SH5-53	330	0.67	0.0794	0.0006	2.190	0.0241	0.2001
91SH5-54	304	0.91	0.0665	0.0013	1.009	0.0242	0.1101
91SH5-55	125	0.56	0.1090	0.0011	4.986	0.1695	0.3316
91SH5-56	90	0.77	0.0613	0.0026	1.043	0.0459	0.1233
91SH5-57	81	0.43	0.1761	0.0007	11.913	0.3336	0.4907
91SH5-59	109	1.25	0.1209	0.0011	6.154	0.1539	0.3692
91SH5-60	223	0.20	0.1645	0.0005	10.160	0.3962	0.4479
91SH5-61	494	0.48	0.1540	0.0009	8.327	0.1582	0.3923
91SH5-62	55	3.33	0.0719	0.0047	1.355	0.0908	0.1366
91SH5-64	84	0.42	0.0732	0.0037	1.615	0.0840	0.1600
91SH5-65	75	1.11	0.0614	0.0061	1.046	0.1067	0.1236
91SH5-66	83	0.71	0.1117	0.0017	5.439	0.1197	0.3533
91SH5-67	197	0.83	0.1118	0.0008	5.094	0.1375	0.3303
91SH5-68	65	1.00	0.1115	0.0020	5.046	0.1716	0.3281
91SH5-69	108	0.83	0.1656	0.0008	11.184	0.1566	0.4898
91SH5-70	118	0.53	0.0837	0.0024	2.564	0.0923	0.2222
91SH5-72	206	0.71	0.0553	0.0019	0.5342	0.0214	0.0700
91SH5-73	273	0.63	0.0911	0.0005	3.259	0.0554	0.2595
91SH5-74	72	1.11	0.0670	0.0055	1.179	0.0991	0.1276
91SH5-75	68	0.63	0.0655	0.0029	1.173	0.0528	0.1299

91SH5-77	159	0.67	0.0807	0.0012	2.110	0.0549	0.1896
91SH5-79	267	0.91	0.0788	0.0012	2.036	0.0591	0.1875
91SH5-80	28	1.67	0.0624	0.0108	1.099	0.1945	0.1277
91SH5-82	155	0.50	0.0567	0.0052	0.5664	0.0521	0.0725
91SH5-83	128	1.67	0.0647	0.0017	1.152	0.0311	0.1291
91SH5-84	43	0.63	0.1472	0.0025	8.860	0.2481	0.4365
91SH5-85	109	1.00	0.1463	0.0013	8.877	0.1687	0.4402
91SH5-86	307	0.29	0.0539	0.0030	0.5393	0.0318	0.0725
91SH5-87	183	0.77	0.0565	0.0035	0.5578	0.0351	0.0715
91SH5-88	188	0.56	0.0650	0.0013	1.227	0.0282	0.1369
91SH5-89	172	0.25	0.0571	0.0023	0.5792	0.0243	0.0736
91SH5-90	150	0.63	0.1796	0.0009	12.574	0.4149	0.5077
91SH5-91	318	0.67	0.0732	0.0012	1.606	0.0418	0.1591
91SH5-92	286	0.83	0.0670	0.0018	1.150	0.0368	0.1246
91SH5-94	427	0.19	0.0803	0.0004	2.299	0.0460	0.2077
91SH5-95	104	0.77	0.0544	0.0056	0.5166	0.0537	0.0688
91SH5-97	325	1.43	0.0590	0.0018	0.7749	0.0294	0.0953
91SH5-98	121	0.83	0.1140	0.0032	5.092	0.1833	0.3239
91SH5-99	55	1.43	0.1088	0.0032	4.752	0.1521	0.3166
91SH5-100	243	0.59	0.0720	0.0014	1.594	0.0383	0.1605

**Sample 91-Sh-6, sandstone, Late Silurian, Aksu area, NTC, (Carroll et al., 2013, International Geology Review)**

91SH6-1	88	1.11	0.0689	0.0030	1.341	0.0590	0.1410
91SH6-2	178	0.77	0.0672	0.0013	1.354	0.0325	0.1461
91SH6-4	145	1.43	0.1128	0.0009	5.253	0.0683	0.3376
91SH6-5	328	0.53	0.0668	0.0006	1.286	0.0167	0.1396
91SH6-6	179	0.59	0.0666	0.0011	1.272	0.0216	0.1386
91SH6-7	176	0.63	0.0538	0.0022	0.5318	0.0223	0.0717
91SH6-8	75	0.48	0.1378	0.0026	7.660	0.1455	0.4033
91SH6-9	253	0.42	0.1237	0.0036	5.525	0.1658	0.3238
91SH6-10	153	1.11	0.1547	0.0017	8.304	0.2491	0.3892
91SH6-11	156	0.67	0.1031	0.0012	4.298	0.0989	0.3023
91SH6-13	47	0.71	0.1131	0.0031	5.003	0.1351	0.3209
91SH6-14	109	0.63	0.1205	0.0014	5.985	0.0778	0.3603
91SH6-15	338	0.31	0.0799	0.0085	1.581	0.1786	0.1435
91SH6-17	403	1.25	0.0671	0.0008	1.055	0.0169	0.1140
91SH6-19	476	0.91	0.0568	0.0014	0.5875	0.0165	0.0750
91SH6-21	255	0.56	0.0918	0.0011	3.080	0.0832	0.2432
91SH6-22	237	0.56	0.1068	0.0014	3.752	0.0901	0.2549
91SH6-23	399	0.71	0.0669	0.0007	1.284	0.0347	0.1392
91SH6-24	251	0.37	0.0566	0.0023	0.5489	0.0225	0.0704
91SH6-25	350	0.29	0.0732	0.0020	1.607	0.0643	0.1593
91SH6-26	108	1.67	0.0659	0.0019	1.135	0.0386	0.1249
91SH6-27	87	0.91	0.0987	0.0011	3.793	0.0796	0.2786
91SH6-28	207	0.83	0.0861	0.0013	2.739	0.0603	0.2307
91SH6-29	194	0.59	0.0554	0.0040	0.5441	0.0403	0.0712
91SH6-30	102	1.25	0.0731	0.0027	1.758	0.0686	0.1743
91SH6-32	271	0.77	0.0783	0.0007	1.990	0.0498	0.1843
91SH6-33	68	0.71	0.0536	0.0056	0.5359	0.0568	0.0725
91SH6-34	193	1.11	0.2141	0.0015	17.049	0.3921	0.5775
91SH6-35	153	1.25	0.0547	0.0049	0.5788	0.0521	0.0767
91SH6-36	32	0.31	0.1654	0.0025	11.015	0.2644	0.4828
91SH6-37	272	0.91	0.0586	0.0018	0.5868	0.0194	0.0726
91SH6-38	70	1.25	0.0691	0.0046	1.240	0.0843	0.1301
91SH6-39	81	1.11	0.0542	0.0055	0.5121	0.0533	0.0686
91SH6-40	288	0.45	0.1287	0.0004	6.727	0.1144	0.3792
91SH6-41	211	0.67	0.0675	0.0011	1.300	0.0286	0.1396
91SH6-42	166	0.56	0.1302	0.0008	7.120	0.1709	0.3967
91SH6-44	169	1.00	0.0674	0.0016	1.291	0.0387	0.1390
91SH6-45	275	0.53	0.0673	0.0007	1.245	0.0237	0.1342
91SH6-46	146	0.83	0.0574	0.0041	0.5947	0.0434	0.0751
91SH6-47	269	0.59	0.0673	0.0009	1.320	0.0304	0.1422
91SH6-48	162	1.00	0.0679	0.0016	1.315	0.0329	0.1404
91SH6-49	222	1.00	0.1082	0.0005	4.903	0.0539	0.3287

91SH6-50	298	0.83	0.1860	0.0007	13.669	0.2460	0.5329
91SH6-51	618	1.11	0.0683	0.0021	1.005	0.0834	0.1067
91SH6-52	143	0.77	0.0671	0.0018	1.246	0.0611	0.1347
91SH6-53	441	0.36	0.0719	0.0019	1.204	0.0518	0.1215
91SH6-54	204	1.25	0.0654	0.0014	1.193	0.0263	0.1324
91SH6-55	498	0.30	0.0567	0.0016	0.5446	0.0180	0.0696
91SH6-56	304	1.00	0.0662	0.0011	1.156	0.0231	0.1267
91SH6-57	59	1.67	0.0653	0.0025	1.151	0.0461	0.1280
91SH6-58	121	0.71	0.1108	0.0017	4.707	0.0753	0.3082
91SH6-59	172	0.67	0.0657	0.0018	1.223	0.0367	0.1350
91SH6-60	263	1.00	0.0677	0.0037	1.130	0.0961	0.1210
91SH6-61	201	1.25	0.0666	0.0007	1.191	0.0167	0.1298
91SH6-62	203	0.63	0.0652	0.0009	1.135	0.0216	0.1262
91SH6-63	167	0.91	0.0679	0.0019	1.251	0.0388	0.1337
91SH6-64	117	0.42	0.1124	0.0009	5.181	0.0570	0.3343
91SH6-66	246	0.77	0.0655	0.0014	1.207	0.0266	0.1336
91SH6-67	28	0.91	0.1135	0.0034	5.142	0.1594	0.3286
91SH6-68	903	0.02	0.0722	0.0008	1.238	0.0656	0.1244
91SH6-69	176	1.67	0.0660	0.0014	1.120	0.0235	0.1230
91SH6-71	53	1.67	0.0654	0.0069	1.104	0.1170	0.1224
91SH6-72	305	1.11	0.0855	0.0007	2.513	0.0377	0.2132
91SH6-73	247	0.50	0.0668	0.0008	1.272	0.0254	0.1381
91SH6-74	248	0.71	0.0665	0.0014	1.217	0.0280	0.1327
91SH6-76	244	0.31	0.1253	0.0008	6.470	0.0906	0.3745
91SH6-78	101	0.83	0.0625	0.0056	0.8173	0.0727	0.0948
91SH6-79	1002	0.04	0.0615	0.0015	0.5661	0.0153	0.0667
91SH6-80	172	0.42	0.1122	0.0007	5.062	0.1164	0.3273
91SH6-81	521	1.25	0.1705	0.0007	8.576	0.2144	0.3647
91SH6-82	242	0.42	0.0614	0.0018	0.8087	0.0259	0.0955
91SH6-84	59	1.43	0.0654	0.0065	1.138	0.1149	0.1262
91SH6-85	184	0.83	0.0655	0.0018	1.156	0.0370	0.1279
91SH6-86	46	0.50	0.0703	0.0051	1.526	0.1114	0.1575
91SH6-87	419	0.67	0.0694	0.0038	1.196	0.0670	0.1249
91SH6-89	92	0.43	0.1861	0.0013	13.379	0.2274	0.5213
91SH6-90	80	0.63	0.1412	0.0013	7.900	0.0869	0.4059
91SH6-91	51	0.91	0.1115	0.0026	5.016	0.1204	0.3262
91SH6-92	230	0.43	0.1811	0.0005	12.701	0.3175	0.5087
91SH6-93	221	0.56	0.0798	0.0011	2.172	0.0456	0.1974
91SH6-94	620	0.40	0.0564	0.0006	0.5415	0.0097	0.0697
91SH6-95	413	0.43	0.0554	0.0012	0.5264	0.0111	0.0689
91SH6-96	296	0.48	0.0725	0.0011	1.497	0.0240	0.1498
91SH6-97	123	0.91	0.0615	0.0029	1.027	0.0503	0.1213
91SH6-98	35	0.83	0.1111	0.0034	4.910	0.1620	0.3205
91SH6-99	29	0.38	0.1311	0.0034	7.103	0.1918	0.3929
91SH6-100	19	0.77	0.0599	0.0267	0.8000	0.3568	0.0969

Sample 09SBL35, sandstone, Middle-Late Silurian, Quruqtagh area, NTC, (Zhang YL et al., 2012, Acta Geologica Sinica)

1	716	705	1.01	0.0593	0.0003	0.6186	0.0066	0.0758
2	676	874	0.77	0.0567	0.0003	0.5735	0.0060	0.0733
3	527	1000	0.53	0.0567	0.0002	0.5736	0.0049	0.0734
4	162	304	0.53	0.0573	0.0003	0.6247	0.0075	0.0791
5	195	236	0.83	0.0715	0.0004	1.639	0.0205	0.1661
6	366	418	0.88	0.0567	0.0003	0.5808	0.0067	0.0741
7	107	149	0.72	0.0561	0.0004	0.5595	0.0079	0.0724
8	715	1048	0.68	0.0597	0.0003	0.5789	0.0062	0.0704
9	112	153	0.74	0.0556	0.0003	0.5502	0.0069	0.0719
10	229	426	0.54	0.0558	0.0003	0.5390	0.0061	0.0701
11	992	796	1.25	0.0975	0.0004	0.8869	0.0082	0.0660
12	298	504	0.59	0.0897	0.0003	2.744	0.0188	0.2219
13	371	443	0.84	0.0561	0.0005	0.5639	0.0078	0.0728
14	497	514	0.97	0.0644	0.0006	0.6539	0.0096	0.0744
15	133	372	0.36	0.0717	0.0004	1.649	0.0183	0.1667
16	271	417	0.65	0.1314	0.0004	6.590	0.0463	0.3635
17	305	297	1.03	0.0568	0.0003	0.5475	0.0064	0.0698

18	315	567	0.56	0.0595	0.0003	0.5565	0.0058	0.0679
19	159	155	1.03	0.0556	0.0004	0.5900	0.0081	0.0769
20	122	81	1.52	0.0649	0.0007	1.038	0.0202	0.1159
21	87	117	0.74	0.0559	0.0004	0.5756	0.0076	0.0747
22	101	401	0.25	0.1810	0.0015	4.730	0.0662	0.1891
23	311	478	0.65	0.0562	0.0002	0.5896	0.0047	0.0760
24	392	464	0.85	0.0740	0.0003	1.743	0.0147	0.1707
25	405	618	0.66	0.0583	0.0002	0.6457	0.0050	0.0804
26	173	232	0.75	0.0555	0.0003	0.5656	0.0054	0.0739
27	40	959	0.04	0.0722	0.0003	1.551	0.0131	0.1562
28	413	496	0.83	0.0696	0.0004	0.6935	0.0092	0.0727
29	515	490	1.05	0.0560	0.0002	0.5886	0.0054	0.0762
30	655	876	0.75	0.1123	0.0017	1.640	0.0515	0.1030
31	107	151	0.71	0.0559	0.0004	0.5257	0.0071	0.0682
32	590	486	1.22	0.0561	0.0003	0.5662	0.0065	0.0731
33	111	805	0.14	0.0720	0.0003	1.595	0.0134	0.1607
34	183	212	0.86	0.0716	0.0004	1.558	0.0198	0.1580
35	202	429	0.47	0.0727	0.0002	1.663	0.0101	0.1660
36	180	312	0.58	0.1002	0.0005	3.901	0.0402	0.2818
37	407	589	0.69	0.0675	0.0002	0.6330	0.0047	0.0680
38	36	107	0.33	0.0556	0.0005	0.5663	0.0082	0.0739
39	350	787	0.44	0.0991	0.0003	3.218	0.0193	0.2355
40	529	680	0.78	0.1615	0.0012	7.482	0.1197	0.3362
41	1258	892	1.41	0.0609	0.0002	1.687	0.0113	0.1546
42	450	590	0.76	0.0729	0.0002	0.6725	0.0047	0.0672
43	443	494	0.90	0.0877	0.0017	0.9915	0.0414	0.0855
44	142	269	0.53	0.1329	0.0004	7.222	0.0448	0.3939
45	158	127	1.24	0.0686	0.0007	1.387	0.0236	0.1467
46	166	336	0.49	0.0601	0.0004	0.6548	0.0092	0.0790
47	40	119	0.34	0.0704	0.0003	1.568	0.0160	0.1614
49	136	288	0.47	0.0729	0.0004	1.681	0.0180	0.1671
50	380	572	0.67	0.0580	0.0004	0.6359	0.0086	0.0796
51	363	423	0.86	0.0622	0.0003	0.6146	0.0076	0.0716
52	74	158	0.47	0.0732	0.0005	1.649	0.0232	0.1628
53	159	198	0.80	0.1169	0.0067	1.240	0.1181	0.0731
54	439	465	0.94	0.0715	0.0005	0.6963	0.0094	0.0707
55	199	249	0.80	0.0566	0.0004	0.5708	0.0091	0.0730
56	149	210	0.71	0.0596	0.0002	0.6352	0.0055	0.0774
57	292	486	0.60	0.0558	0.0002	0.5202	0.0048	0.0676
58	127	176	0.72	0.0554	0.0003	0.5315	0.0057	0.0696
59	83	197	0.42	0.0761	0.0003	1.881	0.0167	0.1791
60	154	427	0.36	0.0561	0.0005	0.4878	0.0069	0.0631

**Sample 09SBL21, sandstone, Middle-Late Silurian, Quruqtagh area, NTC, (Zhang YL et al., 2012, Acta Geologica Sinica)**

1	79	131	0.60	0.0796	0.0008	2.151	0.0401	0.1962
2	467	1000	0.47	0.0620	0.0003	0.6386	0.0065	0.0747
3	302	328	0.92	0.0715	0.0003	1.552	0.0142	0.1573
4	134	117	1.14	0.0591	0.0004	0.7370	0.0122	0.0905
5	168	198	0.85	0.0717	0.0004	1.637	0.0194	0.1657
6	17	194	0.09	0.0704	0.0003	1.525	0.0167	0.1571
7	179	825	0.22	0.1174	0.0006	5.000	0.0510	0.3090
8	217	193	1.12	0.0604	0.0003	0.8513	0.0083	0.1023
10	356	678	0.53	0.0561	0.0002	0.5650	0.0049	0.0730
11	43	36	1.19	0.0592	0.0011	0.7039	0.0210	0.0868
12	226	331	0.68	0.0759	0.0003	1.713	0.0119	0.1636
13	285	425	0.67	0.0562	0.0002	0.6019	0.0057	0.0776
14	285	517	0.55	0.0743	0.0003	1.686	0.0132	0.1649
15	54	27	2.00	0.0713	0.0009	1.602	0.0384	0.1632
16	183	379	0.48	0.0559	0.0003	0.5864	0.0057	0.0760
17	130	298	0.44	0.0560	0.0003	0.5620	0.0069	0.0728
18	432	342	1.26	0.0966	0.0003	3.631	0.0246	0.2728
19	310	375	0.83	0.0718	0.0003	1.658	0.0151	0.1676
20	273	354	0.77	0.1039	0.0004	4.257	0.0358	0.2970
21	158	293	0.54	0.0777	0.0003	1.905	0.0172	0.1779

22	258	348	0.74	0.0708	0.0003	1.611	0.0138	0.1651
23	31	74	0.42	0.0740	0.0005	2.070	0.0320	0.2031
24	192	619	0.31	0.0712	0.0003	1.598	0.0136	0.1628
25	255	746	0.34	0.1727	0.0006	11.297	0.0853	0.4742
26	494	1085	0.46	0.0573	0.0002	0.5784	0.0038	0.0732
27	304	800	0.38	0.0757	0.0003	1.910	0.0142	0.1829
28	122	200	0.61	0.0547	0.0004	0.5479	0.0087	0.0726
29	36	591	0.06	0.0578	0.0002	0.5889	0.0051	0.0739
30	262	777	0.34	0.1787	0.0007	11.310	0.1017	0.4587
31	232	408	0.57	0.0562	0.0002	0.5595	0.0053	0.0723
32	54	111	0.48	0.2449	0.0011	20.977	0.2030	0.6211
33	61	85	0.71	0.1139	0.0005	5.236	0.0518	0.3332
34	146	326	0.45	0.0608	0.0004	0.8809	0.0108	0.1050
35	626	1030	0.61	0.0561	0.0002	0.5813	0.0043	0.0751
36	136	1252	0.11	0.0706	0.0003	1.505	0.0131	0.1544
37	1140	1297	0.88	0.0603	0.0002	0.5318	0.0042	0.0640
38	76	153	0.49	0.0705	0.0003	1.575	0.0166	0.1623
39	636	775	0.82	0.0562	0.0002	0.5651	0.0052	0.0730
40	58	85	0.68	0.0829	0.0005	2.528	0.0312	0.2214
41	53	135	0.39	0.0994	0.0004	3.953	0.0363	0.2885
42	137	197	0.70	0.0654	0.0003	1.251	0.0125	0.1387
43	216	672	0.32	0.0696	0.0003	1.466	0.0131	0.1528
44	121	506	0.24	0.0708	0.0003	1.562	0.0133	0.1600
45	413	563	0.73	0.0589	0.0003	0.5656	0.0061	0.0696
46	291	390	0.75	0.0547	0.0003	0.5836	0.0061	0.0773
47	104	135	0.77	0.1018	0.0004	4.201	0.0383	0.2989
48	47	86	0.55	0.0710	0.0004	1.631	0.0214	0.1665
50	93	939	0.10	0.0706	0.0003	1.503	0.0140	0.1544
52	67	63	1.06	0.0664	0.0006	1.235	0.0211	0.1349
53	385	509	0.76	0.0555	0.0002	0.5509	0.0054	0.0720
54	345	377	0.91	0.0651	0.0002	1.194	0.0095	0.1329
55	144	131	1.10	0.0999	0.0004	4.129	0.0386	0.2997
56	124	152	0.81	0.0648	0.0003	1.188	0.0118	0.1332
57	477	610	0.78	0.0557	0.0002	0.5630	0.0046	0.0733
58	202	176	1.15	0.0780	0.0003	2.120	0.0190	0.1972
59	30	86	0.34	0.0691	0.0005	1.553	0.0224	0.1630
60	28	54	0.51	0.0592	0.0008	0.7717	0.0185	0.0950
61	194	438	0.44	0.0673	0.0003	1.310	0.0112	0.1412
62	73	56	1.31	0.0627	0.0007	1.100	0.0216	0.1272
63	129	321	0.40	0.0555	0.0003	0.5472	0.0059	0.0715
64	461	376	1.22	0.0709	0.0003	1.556	0.0124	0.1593
65	227	291	0.78	0.0660	0.0003	1.197	0.0116	0.1316
66	464	595	0.78	0.0563	0.0002	0.5704	0.0052	0.0734
67	72	112	0.64	0.0565	0.0012	0.5690	0.0159	0.0729
68	456	604	0.75	0.0719	0.0003	1.651	0.0131	0.1665
69	284	557	0.51	0.0572	0.0003	0.5089	0.0055	0.0645
70	270	698	0.39	0.1641	0.0007	9.991	0.0892	0.4416
71	140	368	0.38	0.0554	0.0003	0.5426	0.0062	0.0711
72	512	784	0.65	0.0585	0.0003	0.5363	0.0051	0.0667
73	224	517	0.43	0.1092	0.0004	4.716	0.0373	0.3133
74	160	112	1.42	0.0703	0.0003	1.561	0.0157	0.1611
75	367	349	1.05	0.0554	0.0002	0.5767	0.0052	0.0755
76	46	113	0.40	0.0568	0.0006	0.5752	0.0104	0.0737
77	254	357	0.71	0.0556	0.0003	0.5425	0.0054	0.0707
78	158	246	0.64	0.0942	0.0004	3.422	0.0318	0.2632
79	159	148	1.07	0.0667	0.0003	1.245	0.0131	0.1353
80	123	274	0.45	0.0570	0.0004	0.6001	0.0074	0.0763
81	183	1032	0.18	0.0571	0.0002	0.6313	0.0044	0.0801
82	84	104	0.81	0.0838	0.0004	2.508	0.0275	0.2171
83	68	98	0.69	0.0709	0.0004	1.595	0.0187	0.1630
84	116	124	0.93	0.0766	0.0004	2.052	0.0206	0.1942
85	259	472	0.55	0.1681	0.0006	11.276	0.0834	0.4862
86	48	138	0.35	0.2101	0.0014	16.370	0.2432	0.5623

87	130	298	0.43	0.0610	0.0002	0.8498	0.0075	0.1010
88	377	526	0.72	0.0565	0.0002	0.5562	0.0047	0.0715
89	277	328	0.84	0.0560	0.0003	0.5747	0.0055	0.0745
90	46	79	0.58	0.0700	0.0004	1.525	0.0199	0.1581

Sample 09SBL-28, sandstone, Middle-Late Silurian, Quruqtagh area, NTC, (Zhang YL et al., 2012, Acta Geologica Sinica)

1	170	408	0.42	0.0568	0.0003	0.6447	0.0064	0.0824
2	142	156	0.91	0.0567	0.0004	0.5739	0.0077	0.0735
3	262	510	0.51	0.0555	0.0002	0.5617	0.0051	0.0734
4	34	203	0.17	0.0763	0.0003	2.008	0.0176	0.1910
5	152	310	0.49	0.0732	0.0003	1.760	0.0170	0.1746
6	131	269	0.49	0.1494	0.0004	8.964	0.0581	0.4354
7	79	202	0.39	0.0676	0.0003	1.418	0.0135	0.1521
8	301	339	0.89	0.1663	0.0005	10.545	0.0771	0.4599
9	80	213	0.38	0.1085	0.0004	4.742	0.0385	0.3171
10	184	594	0.31	0.1481	0.0007	8.883	0.0877	0.4353
11	439	497	0.88	0.0558	0.0002	0.5509	0.0048	0.0716
12	871	1710	0.51	0.0574	0.0002	0.5766	0.0044	0.0729
13	573	644	0.89	0.0807	0.0003	2.090	0.0170	0.1883
14	299	599	0.50	0.0794	0.0003	1.994	0.0154	0.1821
15	167	213	0.78	0.0640	0.0003	1.155	0.0106	0.1309
16	366	829	0.44	0.0763	0.0003	1.982	0.0174	0.1884
17	135	525	0.26	0.0621	0.0003	0.9418	0.0094	0.1100
18	135	266	0.51	0.0558	0.0003	0.5812	0.0069	0.0756
19	170	1091	0.16	0.1759	0.0006	8.790	0.0634	0.3627
20	514	852	0.60	0.0688	0.0003	1.240	0.0142	0.1308
21	230	421	0.55	0.1626	0.0007	10.692	0.1014	0.4771
22	113	635	0.18	0.0910	0.0003	3.129	0.0262	0.2494
23	294	466	0.63	0.0585	0.0002	0.6343	0.0058	0.0788
24	441	753	0.59	0.0562	0.0002	0.5778	0.0049	0.0746
25	212	383	0.55	0.0563	0.0002	0.6005	0.0050	0.0774
26	160	340	0.47	0.0738	0.0003	1.751	0.0152	0.1722
27	194	269	0.72	0.0928	0.0003	3.283	0.0266	0.2567
28	418	558	0.75	0.1005	0.0003	3.914	0.0264	0.2824
29	885	762	1.16	0.0567	0.0002	0.5675	0.0045	0.0727
30	191	443	0.43	0.0621	0.0004	0.8652	0.0116	0.1008
31	470	572	0.82	0.0570	0.0003	0.5538	0.0067	0.0705
32	49	74	0.66	0.0690	0.0004	1.213	0.0146	0.1278
33	414	379	1.09	0.0567	0.0003	0.5517	0.0050	0.0705
34	459	397	1.16	0.0559	0.0002	0.5293	0.0045	0.0687
35	1	182	0.00	0.1216	0.0004	5.921	0.0472	0.3531
36	115	118	0.97	0.1585	0.0005	9.420	0.0700	0.4311
37	226	838	0.27	0.1166	0.0004	5.178	0.0370	0.3219
38	383	305	1.26	0.0562	0.0003	0.5553	0.0056	0.0717
39	892	955	0.93	0.0879	0.0003	2.154	0.0156	0.1779
40	123	298	0.41	0.0816	0.0003	2.310	0.0214	0.2055
41	41	111	0.37	0.0611	0.0003	0.8156	0.0092	0.0969
42	181	156	1.16	0.0974	0.0003	3.625	0.0240	0.2702
43	441	258	1.71	0.1246	0.0004	5.384	0.0418	0.3133
44	56	113	0.50	0.0670	0.0003	1.162	0.0113	0.1257
45	76	114	0.67	0.1055	0.0004	4.183	0.0341	0.2875
46	25	105	0.23	0.0833	0.0008	2.264	0.0447	0.1948
47	310	322	0.96	0.0562	0.0002	0.5463	0.0050	0.0706
48	96	97	0.99	0.0601	0.0003	0.7883	0.0084	0.0951
49	1032	949	1.09	0.1331	0.0005	5.019	0.0447	0.2733
50	1275	459	2.77	0.0844	0.0004	1.795	0.0196	0.1542
51	168	181	0.93	0.0989	0.0004	3.666	0.0303	0.2687
52	65	23	2.87	0.0646	0.0006	1.061	0.0195	0.1198
53	211	89	2.38	0.1130	0.0005	5.100	0.0458	0.3273
54	412	135	3.06	0.0863	0.0003	2.549	0.0211	0.2143
55	300	248	1.21	0.0744	0.0004	1.564	0.0186	0.1528
56	275	162	1.70	0.0915	0.0004	2.688	0.0231	0.2142
57	687	348	1.98	0.0855	0.0005	2.401	0.0320	0.2038
58	161	108	1.49	0.1016	0.0004	3.911	0.0356	0.2792

59	233	108	2.15	0.0734	0.0002	1.499	0.0095	0.1482
60	187	61	3.08	0.0564	0.0003	0.5509	0.0056	0.0709

**Sample LT22A, quartz arenite, Middle Silurian, Kepingtage area, NTC, (Han Y et al., 2015, Tectonics)**

LT22A-001	100	58	1.74	0.0573	0.0029	0.5280	0.0260	0.0668
LT22A-002	63	108	0.58	0.1107	0.0021	4.950	0.1000	0.3243
LT22A-003	114	106	1.08	0.0652	0.0018	1.140	0.0320	0.1269
LT22A-004	48	136	0.35	0.0577	0.0018	0.6290	0.0200	0.0791
LT22A-005	47	48	0.98	0.0650	0.0037	1.183	0.0800	0.1320
LT22A-006	93	187	0.50	0.0658	0.0015	1.206	0.0280	0.1330
LT22A-007	91	181	0.50	0.0585	0.0018	0.5530	0.0170	0.0686
LT22A-008	71	89	0.80	0.1028	0.0022	4.160	0.0900	0.2936
LT22A-009	177	288	0.61	0.0541	0.0014	0.5240	0.0140	0.0702
LT22A-010	66	115	0.58	0.1177	0.0022	5.849	0.1150	0.3604
LT22A-011	73	132	0.55	0.0532	0.0020	0.4900	0.0180	0.0668
LT22A-012	156	170	0.92	0.1174	0.0021	5.655	0.1070	0.3492
LT22A-013	103	161	0.64	0.1220	0.0022	6.278	0.1190	0.3731
LT22A-014	107	137	0.79	0.0679	0.0017	1.225	0.0320	0.1308
LT22A-015	99	84	1.17	0.0747	0.0019	2.035	0.0530	0.1976
LT22A-016	54	55	0.99	0.1168	0.0026	5.400	0.1240	0.3354
LT22A-017	202	149	1.36	0.0717	0.0017	1.593	0.0380	0.1613
LT22A-018	65	113	0.57	0.1127	0.0022	5.133	0.1050	0.3304
LT22A-019	78	91	0.85	0.1168	0.0023	5.625	0.1170	0.3492
LT22A-020	24	36	0.67	0.1122	0.0028	5.012	0.1290	0.3239
LT22A-021	45	51	0.89	0.1530	0.0031	9.209	0.1960	0.4365
LT22A-022	45	65	0.70	0.1106	0.0024	5.090	0.1150	0.3336
LT22A-023	83	502	0.17	0.0694	0.0013	1.504	0.0300	0.1573
LT22A-024	36	42	0.86	0.0730	0.0027	1.505	0.0560	0.1496
LT22A-025	57	138	0.41	0.0567	0.0019	0.5650	0.0190	0.0724
LT22A-026	179	125	1.44	0.1269	0.0024	6.371	0.1280	0.3640
LT22A-027	101	131	0.77	0.1171	0.0023	5.768	0.1170	0.3572
LT22A-028	103	142	0.73	0.0665	0.0017	1.356	0.0350	0.1479
LT22A-029	76	76	1.00	0.0558	0.0026	0.5190	0.0240	0.0674
LT22A-030	23	93	0.25	0.0825	0.0022	2.783	0.0730	0.2447
LT22A-031	38	86	0.44	0.0581	0.0028	0.8600	0.0420	0.1075
LT22A-032	138	126	1.09	0.0579	0.0021	0.5650	0.0200	0.0708
LT22A-033	75	87	0.86	0.0662	0.0021	1.204	0.0370	0.1318
LT22A-034	129	286	0.45	0.1499	0.0028	8.528	0.1640	0.4127
LT22A-035	22	421	0.05	0.1624	0.0029	10.385	0.1970	0.4637
LT22A-036	449	555	0.81	0.0554	0.0013	0.5480	0.0130	0.0717
LT22A-037	73	92	0.79	0.1211	0.0026	5.984	0.1310	0.3582
LT22A-038	74	144	0.52	0.0560	0.0019	0.5570	0.0190	0.0721
LT22A-039	309	257	1.20	0.0658	0.0015	1.204	0.0290	0.1327
LT22A-040	80	122	0.66	0.0664	0.0019	1.186	0.0350	0.1295
LT22A-041	235	364	0.65	0.0583	0.0015	0.5590	0.0150	0.0696
LT22A-042	29	124	0.23	0.0584	0.0022	0.5770	0.0210	0.0717
LT22A-043	157	318	0.49	0.1840	0.0035	13.123	0.2630	0.5172
LT22A-044	30	28	1.08	0.0715	0.0045	0.7310	0.0450	0.0742
LT22A-045	65	79	0.82	0.1248	0.0028	6.277	0.1440	0.3648
LT22A-046	157	260	0.61	0.1192	0.0024	5.851	0.1230	0.3560
LT22A-047	190	305	0.62	0.0686	0.0016	1.332	0.0310	0.1408
LT22A-048	87	101	0.86	0.1105	0.0025	5.061	0.1180	0.3321
LT22A-049	88	201	0.44	0.0676	0.0017	1.294	0.0330	0.1389
LT22A-050	472	383	1.23	0.0558	0.0015	0.5320	0.0140	0.0691
LT22A-051	72	127	0.57	0.0565	0.0021	0.5330	0.0200	0.0684
LT22A-052	56	100	0.55	0.1097	0.0026	4.707	0.1120	0.3111
LT22A-053	45	58	0.77	0.1355	0.0032	7.730	0.1850	0.4138
LT22A-054	61	69	0.89	0.1825	0.0040	12.687	0.2870	0.5040
LT22A-055	63	100	0.63	0.0669	0.0021	1.246	0.0400	0.1350
LT22A-056	148	118	1.25	0.0802	0.0022	1.926	0.0530	0.1741
LT22A-057	60	152	0.39	0.0558	0.0022	0.5380	0.0240	0.0700
LT22A-058	30	49	0.62	0.1091	0.0029	4.809	0.1310	0.3196
LT22A-059	134	368	0.37	0.1025	0.0023	4.149	0.0940	0.2934
LT22A-060	18	46	0.38	0.1712	0.0042	10.759	0.2670	0.4556

LT22A-061	81	119	0.68	0.0690	0.0020	1.329	0.0390	0.1396
LT22A-062	234	280	0.84	0.1631	0.0036	10.405	0.2340	0.4625
LT22A-063	51	195	0.26	0.0730	0.0019	1.720	0.0450	0.1708
LT22A-064	316	422	0.75	0.0680	0.0017	1.289	0.0320	0.1375
LT22A-065	118	340	0.35	0.1206	0.0027	5.833	0.1350	0.3506
LT22A-066	36	45	0.80	0.1121	0.0031	5.070	0.1430	0.3280
LT22A-067	88	274	0.32	0.1616	0.0037	10.580	0.2460	0.4747
LT22A-068	90	169	0.53	0.0601	0.0021	0.5740	0.0200	0.0692
LT22A-069	75	72	1.05	0.1108	0.0029	5.115	0.1360	0.3347
LT22A-070	124	207	0.60	0.0556	0.0019	0.5480	0.0180	0.0715
LT22A-071	100	153	0.65	0.0641	0.0021	0.8250	0.0270	0.0932
LT22A-072	4	27	0.17	0.0836	0.0036	2.216	0.0940	0.1923
LT22A-073	192	454	0.42	0.1161	0.0028	5.393	0.1310	0.3368
LT22A-074	121	233	0.52	0.0560	0.0018	0.6000	0.0190	0.0778
LT22A-075	93	114	0.81	0.0563	0.0022	0.5760	0.0230	0.0741
LT22A-076	63	51	1.24	0.0640	0.0027	1.136	0.0480	0.1288
LT22A-077	93	167	0.56	0.1188	0.0030	5.579	0.1430	0.3404
LT22A-078	57	71	0.81	0.1218	0.0033	5.690	0.1570	0.3386
LT22A-079	134	255	0.53	0.1185	0.0030	5.624	0.1440	0.3441
LT22A-080	21	24	0.87	0.0790	0.0034	2.239	0.0960	0.2053
LT22A-081	80	146	0.55	0.0559	0.0022	0.5260	0.0200	0.0683
LT22A-082	106	373	0.28	0.0804	0.0021	2.304	0.0610	0.2078
LT22A-083	56	110	0.51	0.1468	0.0039	8.513	0.2260	0.4203
LT22A-084	400	632	0.63	0.0790	0.0021	2.080	0.0550	0.1909
LT22A-085	44	138	0.32	0.0831	0.0024	2.285	0.0670	0.1994
LT22A-086	32	34	0.94	0.0722	0.0034	1.325	0.0610	0.1330
LT22A-087	78	175	0.44	0.1804	0.0047	11.840	0.3140	0.4757
LT22A-088	257	566	0.45	0.0584	0.0017	0.6880	0.0200	0.0854
LT22A-089	35	69	0.50	0.1271	0.0037	6.524	0.1890	0.3722
LT22A-090	55	48	1.15	0.1232	0.0038	5.912	0.1810	0.3479
LT22A-091	46	71	0.64	0.1230	0.0036	5.921	0.1730	0.3490
LT22A-092	92	194	0.47	0.0676	0.0021	1.286	0.0410	0.1380

**Sample YM2-3, sandstone, Early Silurian, Tabei uplift, NTC, (Dong S et al., 2016, Journal of Asian Earth Sciences)**

D7-1	231	119	0.51	0.0683	0.0026	1.260	0.0443	0.1343
D7-2	129	79	0.61	0.0713	0.0030	1.331	0.0510	0.1360
D7-3	94	86	0.91	0.1137	0.0032	4.964	0.1298	0.3181
D7-4	78	42	0.54	0.1086	0.0034	5.051	0.1476	0.3388
D7-5	304	368	1.21	0.1658	0.0020	10.882	0.1267	0.4781
D7-6	288	230	0.80	0.1128	0.0019	5.176	0.0803	0.3341
D7-7	142	198	1.39	0.1076	0.0025	4.871	0.1048	0.3298
D7-8	483	309	0.64	0.1189	0.0017	5.384	0.0695	0.3299
D7-9	707	648	0.92	0.0586	0.0015	0.7428	0.0174	0.0923
D7-10	160	74	0.46	0.1699	0.0028	11.828	0.1864	0.5069
D7-11	86	82	0.96	0.1083	0.0034	4.840	0.1389	0.3253
D7-12	251	224	0.89	0.0784	0.0023	1.974	0.0539	0.1834
D7-13	48	53	1.11	0.1193	0.0048	5.438	0.2008	0.3319
D7-14	145	78	0.53	0.1113	0.0026	5.019	0.1093	0.3284
D7-15	194	264	1.37	0.1143	0.0027	5.410	0.1162	0.3445
D7-16	88	54	0.61	0.1138	0.0035	5.231	0.1493	0.3347
D7-17	160	207	1.29	0.1132	0.0027	4.985	0.1074	0.3207
D7-18	310	155	0.50	0.1138	0.0021	5.053	0.0837	0.3232
D7-19	281	267	0.95	0.0684	0.0025	1.282	0.0434	0.1365
D7-20	106	70	0.66	0.0677	0.0042	1.270	0.0713	0.1365
D7-21	238	233	0.98	0.1182	0.0022	5.787	0.0979	0.3564
D7-22	169	149	0.88	0.0685	0.0030	1.246	0.0492	0.1323
D7-23	215	158	0.73	0.0734	0.0028	1.365	0.0481	0.1354
D7-24	205	80	0.39	0.1250	0.0026	6.551	0.1258	0.3813
D7-25	70	51	0.73	0.0686	0.0042	1.722	0.0982	0.1827
D7-26	703	378	0.54	0.0669	0.0016	1.306	0.0290	0.1420
D7-27	158	150	0.95	0.1182	0.0031	5.259	0.1246	0.3238
D7-28	284	184	0.65	0.0640	0.0028	1.113	0.0451	0.1266
D7-29	75	41	0.54	0.0721	0.0090	1.347	0.1532	0.1359
D7-30	56	28	0.50	0.0657	0.0064	1.105	0.0994	0.1223

D7-31	86	62	0.71	0.1147	0.0035	5.266	0.1466	0.3339
D7-32	155	162	1.04	0.1158	0.0029	5.741	0.1313	0.3607
D7-33	468	411	0.88	0.0689	0.0019	1.294	0.0325	0.1366
D7-34	994	148	0.15	0.0811	0.0014	2.238	0.0364	0.2008
D7-35	469	267	0.57	0.0669	0.0018	1.341	0.0326	0.1459
D7-36	257	233	0.90	0.0623	0.0031	0.6494	0.0295	0.0758
D7-37	111	106	0.95	0.1097	0.0031	4.992	0.1321	0.3309
D7-38	198	114	0.58	0.1129	0.0024	5.174	0.1016	0.3334
D7-39	458	410	0.90	0.1647	0.0021	10.559	0.1259	0.4663
D7-40	161	125	0.77	0.0644	0.0036	1.177	0.0598	0.1329
D7-41	285	272	0.95	0.0569	0.0028	0.5470	0.0249	0.0699
D7-42	782	238	0.31	0.0686	0.0014	1.323	0.0251	0.1401
D7-43	119	102	0.86	0.1690	0.0035	11.142	0.2163	0.4793
D7-44	996	451	0.45	0.0583	0.0018	0.5814	0.0162	0.0726
D7-45	38	9	0.24	0.1759	0.0074	12.941	0.5174	0.5348
D7-46	206	83	0.40	0.1183	0.0028	5.412	0.1166	0.3326
D7-47	364	353	0.97	0.0782	0.0019	2.155	0.0471	0.2002
D7-48	252	222	0.88	0.1060	0.0023	4.583	0.0930	0.3142
D7-49	560	379	0.68	0.3148	0.0033	33.039	0.3523	0.7628
D7-50	169	293	1.73	0.0676	0.0035	1.193	0.0560	0.1282
D7-51	315	195	0.62	0.0686	0.0026	1.283	0.0439	0.1358
D7-52	189	126	0.67	0.1518	0.0034	9.814	0.2056	0.4698
D7-53	119	93	0.78	0.1242	0.0043	6.341	0.2027	0.3708
D7-54	669	396	0.59	0.0667	0.0020	1.318	0.0370	0.1436
D7-55	374	165	0.44	0.1169	0.0048	6.155	0.2339	0.3825
D7-56	161	95	0.59	0.1158	0.0051	5.527	0.2244	0.3468
D7-57	433	305	0.70	0.0614	0.0031	1.259	0.0586	0.1489
D7-58	1216	1176	0.97	0.0671	0.0022	1.370	0.0420	0.1484
D7-59	810	354	0.44	0.0594	0.0041	0.6455	0.0405	0.0790
D7-60	117	103	0.89	0.1230	0.0089	6.534	0.4369	0.3859
D7-61	870	344	0.40	0.0556	0.0037	0.5904	0.0361	0.0771
D7-62	116	91	0.78	0.1186	0.0033	5.206	0.1311	0.3187
D7-63	48	42	0.87	0.1084	0.0047	4.614	0.1851	0.3091
D7-64	372	246	0.66	0.1636	0.0022	10.540	0.1309	0.4679
D7-65	658	400	0.61	0.0662	0.0016	1.262	0.0279	0.1385
D7-66	242	164	0.68	0.1522	0.0026	8.954	0.1424	0.4271
D7-67	207	112	0.54	0.0642	0.0030	1.186	0.0511	0.1340
D7-68	298	95	0.32	0.1110	0.0019	5.025	0.0803	0.3286
D7-69	73	57	0.78	0.1143	0.0039	5.027	0.1566	0.3194
D7-70	67	64	0.96	0.1109	0.0039	5.024	0.1633	0.3290
D7-71	176	213	1.21	0.0680	0.0030	1.235	0.0493	0.1319
D7-72	104	38	0.36	0.1261	0.0034	6.483	0.1640	0.3732
D7-73	258	114	0.44	0.1155	0.0021	5.037	0.0841	0.3165
D7-74	326	197	0.60	0.1227	0.0021	6.053	0.0966	0.3581
D7-75	32	29	0.90	0.0680	0.0083	1.221	0.1378	0.1304
D7-76	249	124	0.50	0.0663	0.0025	1.155	0.0402	0.1264
D7-77	580	762	1.32	0.0687	0.0017	1.490	0.0331	0.1573
D7-78	77	56	0.73	0.1101	0.0043	5.191	0.1875	0.3422
D7-79	53	55	1.04	0.1155	0.0045	4.997	0.1762	0.3139
D7-80	41	24	0.59	0.1645	0.0062	9.182	0.3197	0.4051
D7-81	512	374	0.73	0.0681	0.0016	1.284	0.0283	0.1368
D7-82	177	182	1.03	0.1142	0.0026	4.891	0.1022	0.3107
D7-83	115	148	1.28	0.1063	0.0033	4.505	0.1282	0.3075
D7-84	437	215	0.49	0.1665	0.0019	11.100	0.1210	0.4838
D7-85	257	214	0.83	0.0644	0.0022	1.174	0.0372	0.1321
D7-86	247	163	0.66	0.1276	0.0023	6.383	0.1064	0.3629
D7-87	43	52	1.20	0.1114	0.0050	4.701	0.1920	0.3061
D7-88	90	103	1.14	0.0681	0.0041	1.177	0.0653	0.1254
D7-89	160	130	0.81	0.1129	0.0026	4.840	0.1030	0.3109
D7-90	376	337	0.90	0.0562	0.0025	0.5389	0.0217	0.0696
D7-91	330	508	1.54	0.0624	0.0020	1.063	0.0318	0.1235
D7-92	69	50	0.72	0.1106	0.0041	4.667	0.1582	0.3061
D7-93	76	52	0.68	0.1195	0.0040	5.137	0.1578	0.3116

D7-94	993	285	0.29	0.0744	0.0021	1.871	0.0459	0.1825
D7-95	38	12	0.32	0.0547	0.0058	0.8832	0.0856	0.1171
D7-96	192	151	0.79	0.1114	0.0024	4.858	0.0970	0.3162
D7-97	170	224	1.32	0.0798	0.0033	1.391	0.0521	0.1263
D7-98	214	235	1.10	0.1626	0.0028	10.249	0.1652	0.4569
D7-99	399	237	0.59	0.0697	0.0021	1.438	0.0403	0.1495
D7-100	408	368	0.90	0.0637	0.0021	1.134	0.0338	0.1289
D7-101	95	58	0.61	0.1124	0.0035	4.524	0.1281	0.2918
D7-102	183	105	0.58	0.1289	0.0025	6.708	0.1197	0.3770
D7-103	78	107	1.38	0.1088	0.0037	4.549	0.1406	0.3030
D7-104	67	68	1.01	0.1544	0.0044	8.986	0.2396	0.4217
D7-105	81	144	1.79	0.1212	0.0038	5.462	0.1570	0.3267
D7-106	56	41	0.74	0.1029	0.0044	4.308	0.1690	0.3034
D7-107	410	198	0.48	0.0682	0.0019	1.216	0.0307	0.1292
D7-108	827	277	0.33	0.0657	0.0016	1.232	0.0277	0.1358
D7-109	134	100	0.74	0.0660	0.0032	1.169	0.0527	0.1284
D7-110	82	72	0.87	0.1120	0.0037	4.855	0.1480	0.3139
D7-111	374	205	0.55	0.0652	0.0019	1.187	0.0322	0.1319
D7-112	352	178	0.51	0.1514	0.0020	8.807	0.1097	0.4214
D7-113	279	171	0.61	0.1612	0.0023	9.826	0.1332	0.4416
D7-114	116	146	1.26	0.1210	0.0032	5.557	0.1327	0.3327
D7-115	203	130	0.64	0.1450	0.0026	8.467	0.1435	0.4229
D7-116	30	33	1.10	0.0558	0.0084	1.001	0.1437	0.1299
D7-117	1562	678	0.43	0.0663	0.0022	1.149	0.0355	0.1258
D7-118	99	59	0.60	0.1126	0.0036	4.767	0.1389	0.3065
D7-119	62	32	0.51	0.1098	0.0047	4.673	0.1820	0.3082
D7-120	215	88	0.41	0.1282	0.0026	6.310	0.1182	0.3566

Sample 09MHL16, sandstone, Early Silurian, Quruqtagh, NTC, (Zhang YL et al., 2014, Acta Geologica Sinica)

1	246	120	2.04	0.0559	0.0003	0.6917	0.0072	0.0898
2	171	130	1.32	0.0646	0.0002	1.083	0.0085	0.1217
3	170	86	1.97	0.1255	0.0004	6.533	0.0521	0.3773
4	171	198	0.86	0.0674	0.0003	1.202	0.0119	0.1292
5	131	122	1.08	0.0626	0.0003	1.109	0.0115	0.1284
7	301	235	1.28	0.0647	0.0002	1.166	0.0097	0.1306
8	218	134	1.63	0.0635	0.0002	1.086	0.0096	0.1240
9	356	338	1.05	0.0704	0.0003	1.261	0.0083	0.1302
10	100	440	0.23	0.1301	0.0006	6.523	0.0603	0.3637
11	235	329	0.71	0.0695	0.0004	1.290	0.0159	0.1344
12	131	131	1.00	0.0640	0.0003	1.100	0.0100	0.1247
13	121	241	0.50	0.0787	0.0003	2.212	0.0190	0.2038
14	312	499	0.63	0.1094	0.0004	4.484	0.0355	0.2972
15	648	687	0.94	0.0743	0.0003	1.320	0.0115	0.1287
16	134	103	1.30	0.0637	0.0003	1.125	0.0128	0.1281
17	149	60	2.51	0.0620	0.0005	1.018	0.0157	0.1189
18	115	71	1.62	0.0623	0.0003	1.044	0.0119	0.1216
19	361	895	0.40	0.0742	0.0003	1.573	0.0122	0.1538
20	365	165	2.22	0.0649	0.0003	1.183	0.0141	0.1323
21	147	76	1.95	0.0632	0.0003	1.088	0.0112	0.1249
22	160	217	0.74	0.1403	0.0005	7.498	0.0628	0.3876
23	117	434	0.27	0.1279	0.0010	5.530	0.0912	0.3143
24	186	109	1.70	0.0664	0.0003	1.084	0.0123	0.1185
25	161	115	1.39	0.0649	0.0003	1.034	0.0112	0.1158
26	178	93	1.92	0.0724	0.0005	1.242	0.0163	0.1240
27	475	339	1.40	0.0668	0.0005	1.013	0.0106	0.1109
28	121	261	0.46	0.1221	0.0009	5.412	0.0863	0.3222
29	646	701	0.92	0.0730	0.0002	1.605	0.0098	0.1594
30	72	62	1.16	0.1046	0.0004	4.589	0.0382	0.3182
31	387	442	0.87	0.1397	0.0005	7.230	0.0549	0.3754
32	369	309	1.19	0.1375	0.0005	7.361	0.0625	0.3883
33	314	311	1.01	0.0679	0.0003	1.345	0.0115	0.1437
34	51	46	1.11	0.0635	0.0005	1.089	0.0165	0.1243
35	119	106	1.12	0.0675	0.0003	1.217	0.0106	0.1309
37	466	344	1.36	0.0757	0.0003	1.541	0.0115	0.1478

38	84	417	0.20	0.1304	0.0005	6.420	0.0551	0.3571
39	72	46	1.58	0.0637	0.0005	1.045	0.0149	0.1192
40	363	411	0.88	0.0659	0.0003	1.164	0.0117	0.1279
41	155	116	1.34	0.1248	0.0005	6.240	0.0539	0.3624
42	112	66	1.70	0.0722	0.0006	1.234	0.0179	0.1239
43	131	102	1.28	0.0637	0.0003	1.121	0.0113	0.1276
44	314	542	0.58	0.0654	0.0003	1.093	0.0100	0.1212
45	184	166	1.11	0.0676	0.0005	1.155	0.0182	0.1235
46	153	76	2.01	0.0633	0.0004	1.045	0.0139	0.1196
47	112	154	0.73	0.0659	0.0003	1.186	0.0121	0.1307
48	51	50	1.03	0.0636	0.0005	1.096	0.0171	0.1249
50	365	139	2.62	0.0645	0.0003	1.092	0.0105	0.1228
51	148	238	0.62	0.0635	0.0003	0.9886	0.0088	0.1128
53	258	256	1.00	0.0653	0.0003	1.144	0.0117	0.1271
54	60	67	0.89	0.1105	0.0005	5.035	0.0527	0.3305
55	103	164	0.63	0.0648	0.0003	1.063	0.0108	0.1189
57	48	136	0.35	0.1288	0.0007	6.334	0.0721	0.3566
58	153	131	1.17	0.0688	0.0004	1.176	0.0142	0.1237
60	351	220	1.59	0.0638	0.0003	1.078	0.0104	0.1226

Sample 09MHL10, sandstone, Early Silurian, Quruqtagh, NTC, (Zhang YL et al., 2014, Acta Geologica Sinica)

1	138	224	0.62	0.0647	0.0003	1.227	0.0143	0.1374
2	60	40	1.49	0.0648	0.0007	1.073	0.0210	0.1205
3	375	239	1.57	0.0668	0.0003	1.170	0.0113	0.1274
4	73	110	0.66	0.0649	0.0004	1.170	0.0144	0.1311
5	66	40	1.65	0.1248	0.0009	6.517	0.1095	0.3777
6	46	37	1.25	0.0615	0.0007	1.020	0.0242	0.1209
8	68	100	0.68	0.0639	0.0004	1.102	0.0140	0.1250
9	175	72	2.43	0.0638	0.0004	1.091	0.0151	0.1242
10	148	231	0.64	0.1194	0.0006	5.829	0.0620	0.3542
11	93	73	1.26	0.0649	0.0005	1.169	0.0175	0.1305
12	39	37	1.06	0.0639	0.0008	1.085	0.0242	0.1239
13	76	50	1.52	0.1633	0.0010	10.772	0.1477	0.4769
14	144	111	1.30	0.0644	0.0003	1.098	0.0112	0.1238
15	72	114	0.63	0.0745	0.0004	1.874	0.0192	0.1823
16	82	106	0.77	0.1622	0.0006	10.629	0.0840	0.4751
17	48	36	1.36	0.0651	0.0008	1.099	0.0231	0.1224
18	197	218	0.90	0.0653	0.0003	1.207	0.0106	0.1342
19	99	80	1.24	0.1232	0.0005	6.280	0.0530	0.3698
20	36	28	1.27	0.0675	0.0012	1.111	0.0329	0.1190
21	40	53	0.75	0.0655	0.0005	1.170	0.0177	0.1295
23	33	486	0.07	0.0715	0.0002	1.596	0.0111	0.1620
24	291	371	0.78	0.0607	0.0002	0.8674	0.0074	0.1036
26	99	474	0.21	0.0708	0.0003	1.582	0.0139	0.1621
27	89	136	0.65	0.0645	0.0003	1.124	0.0119	0.1264
28	232	456	0.51	0.1148	0.0004	5.164	0.0446	0.3263
29	26	42	0.61	0.1282	0.0007	6.677	0.0841	0.3783
30	86	54	1.60	0.0630	0.0006	1.047	0.0180	0.1204
31	39	54	0.73	0.1372	0.0006	7.781	0.0787	0.4117
32	28	67	0.41	0.0690	0.0005	1.478	0.0217	0.1553
33	211	493	0.43	0.1316	0.0004	6.933	0.0469	0.3821
34	33	46	0.72	0.0671	0.0009	1.125	0.0254	0.1218
35	41	57	0.71	0.0602	0.0005	0.8134	0.0130	0.0980
37	60	333	0.18	0.0723	0.0002	1.647	0.0123	0.1652
40	109	197	0.55	0.0656	0.0003	1.165	0.0106	0.1286
41	105	57	1.84	0.0643	0.0005	1.132	0.0169	0.1277
42	84	143	0.59	0.0640	0.0003	1.046	0.0100	0.1186
43	115	212	0.54	0.0650	0.0003	1.066	0.0127	0.1189
44	95	217	0.44	0.1294	0.0005	6.523	0.0580	0.3657
45	30	40	0.74	0.0650	0.0007	1.244	0.0252	0.1385
47	126	467	0.27	0.0753	0.0006	1.685	0.0268	0.1614
48	34	109	0.31	0.0600	0.0003	0.8043	0.0101	0.0973
49	215	430	0.50	0.0649	0.0003	1.141	0.0111	0.1275
50	38	63	0.60	0.1063	0.0005	4.464	0.0462	0.3047

51	102	128	0.80	0.0653	0.0003	1.122	0.0129	0.1245
52	53	59	0.90	0.0633	0.0007	1.072	0.0202	0.1227
53	27	317	0.08	0.0644	0.0003	1.111	0.0113	0.1252
54	37	48	0.76	0.0652	0.0006	1.141	0.0208	0.1272
55	18	39	0.48	0.1055	0.0007	3.987	0.0617	0.2743
56	31	45	0.68	0.0637	0.0006	1.049	0.0186	0.1199
57	111	155	0.72	0.0648	0.0003	1.085	0.0118	0.1215
58	113	156	0.72	0.0918	0.0003	3.169	0.0261	0.2504
59	198	197	1.01	0.0641	0.0003	1.066	0.0100	0.1207
60	107	167	0.64	0.0648	0.0003	1.094	0.0115	0.1225

**Sample DWG5, sandstone, Early Silurian, Dawangou section, NTC, (Chang J et al., 2012, Journal of Earth Sciences and Enviro**

DWG5-1	1.59	0.1118	0.0020	4.845	0.0879	0.3143
DWG5-2	1.41	0.1646	0.0030	10.375	0.1934	0.4573
DWG5-3	0.35	0.0717	0.0010	1.565	0.0237	0.1584
DWG5-4	1.23	0.1215	0.0037	5.379	0.1586	0.3211
DWG5-5	0.52	0.0668	0.0010	1.168	0.0191	0.1269
DWG5-6	0.15	0.0741	0.0019	1.457	0.0379	0.1427
DWG5-7	0.89	0.0778	0.0018	1.794	0.0399	0.1672
DWG5-8	0.75	0.0683	0.0015	1.201	0.0266	0.1276
DWG5-9	0.98	0.0648	0.0024	1.023	0.0363	0.1145
DWG5-10	0.90	0.0887	0.0025	0.9563	0.0264	0.0785
DWG5-11	0.80	0.0710	0.0018	1.133	0.0289	0.1158
DWG5-12	0.63	0.0753	0.0011	1.844	0.0294	0.1776
DWG5-13	0.65	0.0820	0.0011	2.370	0.0346	0.2098
DWG5-14	0.30	0.0814	0.0020	1.722	0.0409	0.1535
DWG5-15	1.40	0.0671	0.0021	1.215	0.0377	0.1313
DWG5-16	1.19	0.0649	0.0012	1.088	0.0209	0.1215
DWG5-17	3.44	0.0651	0.0025	1.132	0.0416	0.1261
DWG5-18	1.36	0.1098	0.0023	4.842	0.1001	0.3198
DWG5-19	1.15	0.1740	0.0021	11.732	0.1601	0.4892
DWG5-20	0.33	0.1784	0.0021	12.290	0.1663	0.4996
DWG5-21	0.92	0.0718	0.0021	1.562	0.0444	0.1579
DWG5-22	0.79	0.1555	0.0020	9.686	0.1411	0.4519
DWG5-23	1.22	0.0961	0.0015	3.622	0.0598	0.2733
DWG5-24	1.14	0.0658	0.0011	1.141	0.0205	0.1257
DWG5-25	1.45	0.0681	0.0013	1.316	0.0255	0.1401
DWG5-26	1.38	0.1102	0.0022	3.812	0.0762	0.2510
DWG5-27	0.73	0.0676	0.0011	1.163	0.0196	0.1248
DWG5-28	0.96	0.1092	0.0024	4.783	0.1073	0.3177
DWG5-29	1.93	0.0686	0.0048	0.9942	0.0659	0.1052
DWG5-30	0.66	0.1538	0.0018	9.398	0.1307	0.4433
DWG5-31	1.31	0.1503	0.0024	9.000	0.1540	0.4344
DWG5-32	1.13	0.0652	0.0014	1.163	0.0250	0.1293
DWG5-33	0.99	0.0680	0.0017	1.188	0.0297	0.1267
DWG5-34	3.26	0.1256	0.0028	6.425	0.1435	0.3711
DWG5-35	1.39	0.0754	0.0017	1.847	0.0427	0.1778
DWG5-36	1.18	0.1640	0.0032	10.467	0.2067	0.4628
DWG5-37	1.45	0.0655	0.0025	1.136	0.0422	0.1258
DWG5-38	0.64	0.0629	0.0013	0.9679	0.0211	0.1117
DWG5-39	1.51	0.0660	0.0021	1.178	0.0369	0.1296
DWG5-40	1.10	0.1130	0.0019	5.125	0.0906	0.3290
DWG5-41	0.72	0.0665	0.0012	1.183	0.0229	0.1290
DWG5-42	1.05	0.0588	0.0013	0.6867	0.0151	0.0847
DWG5-43	0.89	0.1345	0.0042	7.365	0.2202	0.3971
DWG5-44	2.42	0.1453	0.0036	8.416	0.2036	0.4201
DWG5-45	2.31	0.1510	0.0039	9.044	0.2290	0.4346
DWG5-46	0.71	0.0673	0.0013	1.265	0.0252	0.1364
DWG5-47	3.78	0.0625	0.0020	0.9120	0.0283	0.1059
DWG5-48	1.01	0.1535	0.0025	7.343	0.1250	0.3470
DWG5-49	0.74	0.1124	0.0029	4.954	0.1244	0.3196
DWG5-50	0.51	0.1167	0.0017	5.534	0.0901	0.3441
DWG5-51	1.26	0.1577	0.0030	9.896	0.1914	0.4552
DWG5-52	2.05	0.0719	0.0014	1.569	0.0319	0.1582

DWG5-53	0.51	0.0771	0.0014	1.971	0.0366	0.1854
DWG5-54	0.38	0.1410	0.0029	7.659	0.1584	0.3940
DWG5-55	0.76	0.0659	0.0014	1.177	0.0257	0.1295
DWG5-56	1.98	0.0647	0.0024	1.088	0.0401	0.1221
DWG5-57	2.64	0.0670	0.0020	1.242	0.0366	0.1345
DWG5-58	0.32	0.1774	0.0022	12.210	0.1738	0.4992
DWG5-59	0.25	0.0763	0.0010	1.954	0.0298	0.1858
DWG5-60	1.43	0.1180	0.0032	5.552	0.1479	0.3413

**Sample SHC1, siltstone, Early Silurian, Sishichang section, NTC, (Chang J et al., 2012, Journal of Earth Sciences and Environment)**

SHC1-1	1.42	0.1452	0.0032	8.433	0.1859	0.4212
SHC1-2	1.55	0.1059	0.0015	4.320	0.0679	0.2961
SHC1-3	1.24	0.0713	0.0010	1.566	0.0241	0.1593
SHC1-4	1.34	0.0670	0.0009	1.235	0.0188	0.1337
SHC1-5	2.36	0.0600	0.0009	0.5172	0.0082	0.0626
SHC1-6	3.79	0.0623	0.0016	0.7709	0.0202	0.0898
SHC1-7	2.93	0.1320	0.0019	7.151	0.1135	0.3930
SHC1-8	2.33	0.1102	0.0014	4.874	0.0723	0.3208
SHC1-9	1.07	0.0674	0.0010	1.239	0.0195	0.1335
SHC1-10	1.38	0.1207	0.0018	5.062	0.0813	0.3043
SHC1-11	1.75	0.1729	0.0022	11.671	0.1711	0.4897
SHC1-12	2.21	0.0627	0.0017	0.5191	0.0138	0.0601
SHC1-13	3.94	0.1261	0.0025	6.303	0.1266	0.3626
SHC1-14	2.47	0.0683	0.0021	1.175	0.0363	0.1247
SHC1-15	1.14	0.0722	0.0013	1.638	0.0303	0.1647
SHC1-16	1.35	0.1120	0.0014	4.985	0.0723	0.3227
SHC1-17	1.60	0.0679	0.0010	1.185	0.0185	0.1266
SHC1-18	0.89	0.0778	0.0009	2.072	0.0291	0.1932
SHC1-19	1.28	0.0673	0.0013	1.270	0.0259	0.1370
SHC1-20	3.98	0.1632	0.0021	7.791	0.1134	0.3462
SHC1-21	1.31	0.0568	0.0012	0.5887	0.0128	0.0751
SHC1-22	1.86	0.0719	0.0012	1.047	0.0182	0.1056
SHC1-23	1.90	0.0685	0.0055	1.357	0.1042	0.1437
SHC1-24	1.76	0.1125	0.0018	5.072	0.0860	0.3270
SHC1-25	2.96	0.1116	0.0023	4.988	0.1029	0.3241
SHC1-26	4.55	0.0577	0.0012	0.7919	0.0163	0.0996
SHC1-27	3.00	0.0698	0.0030	1.213	0.0509	0.1261
SHC1-28	2.32	0.0644	0.0016	1.160	0.0286	0.1307
SHC1-29	2.80	0.0602	0.0021	0.6049	0.0204	0.0728
SHC1-30	2.83	0.0694	0.0018	1.386	0.0367	0.1449
SHC1-31	14.08	0.0802	0.0015	0.8104	0.0152	0.0733
SHC1-32	10.40	0.0654	0.0018	1.207	0.0326	0.1338
SHC1-33	2.31	0.0562	0.0010	0.5651	0.0108	0.0730
SHC1-34	3.20	0.0661	0.0012	1.194	0.0222	0.1310
SHC1-35	2.19	0.0564	0.0009	0.5683	0.0097	0.0731
SHC1-36	3.08	0.0562	0.0013	0.5415	0.0127	0.0698
SHC1-37	1.72	0.0678	0.0010	1.343	0.0215	0.1437
SHC1-38	1.78	0.0657	0.0016	1.129	0.0273	0.1247
SHC1-39	1.78	0.0696	0.0019	1.141	0.0305	0.1190
SHC1-40	3.53	0.0564	0.0019	0.5033	0.0165	0.0648
SHC1-41	1.76	0.0674	0.0009	1.310	0.0191	0.1409
SHC1-42	1.36	0.0668	0.0016	1.240	0.0292	0.1346
SHC1-43	2.01	0.0563	0.0013	0.5889	0.0136	0.0759
SHC1-44	1.00	0.0665	0.0011	1.275	0.0217	0.1391
SHC1-45	1.59	0.0671	0.0010	1.259	0.0204	0.1361
SHC1-46	1.37	0.0669	0.0016	0.9230	0.0219	0.1000
SHC1-47	1.39	0.0673	0.0012	1.280	0.0244	0.1379
SHC1-48	1.69	0.0725	0.0011	1.661	0.0274	0.1662
SHC1-49	0.64	0.0681	0.0010	1.330	0.0209	0.1418
SHC1-50	1.37	0.1452	0.0032	8.433	0.1859	0.4212

**Sample TW10, sandstone, Early Silurian, Keping area, NTC, (Li LL et al., 2017, Geological Science and Technology Information)**

1	0.63	0.1118	0.0028	5.069	0.1316	0.3275
2	0.06	0.1444	0.0028	8.699	0.1699	0.4363
3	0.77	0.1226	0.0032	3.748	0.0990	0.2220

4	0.44	0.1567	0.0034	9.914	0.1999	0.4587
5	0.34	0.0704	0.0017	1.490	0.0364	0.1530
6	0.51	0.0753	0.0020	1.877	0.0492	0.1805
7	0.52	0.3941	0.0080	45.860	0.9298	0.8422
8	0.50	0.0767	0.0021	1.427	0.0380	0.1347
9	0.66	0.1110	0.0029	5.199	0.1378	0.3388
10	0.55	0.1003	0.0024	3.963	0.1034	0.2845
11	0.47	0.1547	0.0032	9.771	0.2230	0.4553
12	0.11	0.0768	0.0016	2.103	0.0458	0.1975
13	0.38	0.0666	0.0015	1.244	0.0295	0.1348
14	1.03	0.1616	0.0040	11.015	0.2767	0.4930
15	0.50	0.0821	0.0028	1.299	0.0385	0.1153
16	1.45	0.0634	0.0027	1.103	0.0467	0.1266
17	0.33	0.1066	0.0027	5.093	0.1285	0.3458
18	0.26	0.2401	0.0050	19.458	0.5018	0.5866
19	0.92	0.1555	0.0040	9.022	0.2316	0.4206
20	1.46	0.0689	0.0029	1.523	0.0654	0.1604
21	0.85	0.1347	0.0032	7.741	0.1852	0.4152
22	0.58	0.0704	0.0019	1.676	0.0439	0.1730
23	0.68	0.1162	0.0045	5.165	0.2108	0.3233
24	0.74	0.1341	0.0031	7.623	0.1800	0.4085
25	0.44	0.1641	0.0034	8.945	0.2035	0.4426
26	0.99	0.2313	0.0190	8.480	1.265	0.1883
27	0.43	0.0738	0.0027	1.606	0.0548	0.1600
28	0.32	0.1696	0.0034	10.330	0.2192	0.4396
29	0.81	0.0774	0.0027	1.339	0.0497	0.1246
30	1.06	0.0638	0.0029	0.7467	0.0353	0.0842
31	1.05	0.0785	0.0022	2.076	0.0569	0.1914
32	0.41	0.1006	0.0036	1.892	0.0621	0.1373
33	0.59	0.2476	0.0061	20.996	0.5394	0.6117
34	0.34	0.0976	0.0023	3.559	0.0889	0.2629
35	0.84	0.0888	0.0071	1.595	0.1583	0.1254
36	1.05	0.0643	0.0016	1.102	0.0276	0.1245
37	0.86	0.0685	0.0027	1.201	0.0466	0.1279
38	0.17	0.0696	0.0017	1.280	0.0310	0.1335
39	0.57	0.0668	0.0020	1.234	0.0316	0.1348
40	0.69	0.1187	0.0029	5.463	0.1575	0.3315
41	0.57	0.1893	0.0050	13.495	0.3495	0.5200
42	0.44	0.1522	0.0037	8.512	0.2246	0.4071
43	0.42	0.2673	0.0058	23.931	0.5562	0.6488
44	0.24	0.0717	0.0025	1.396	0.0522	0.1414
45	0.25	0.0772	0.0038	1.594	0.0910	0.1495
46	0.83	0.1169	0.0036	5.361	0.1683	0.3356
47	0.71	0.1165	0.0035	5.128	0.1452	0.3217
48	0.90	0.0776	0.0025	1.314	0.0427	0.1223
49	0.92	0.0986	0.0043	1.833	0.0816	0.1357
50	1.19	0.0652	0.0019	1.078	0.0322	0.1203
51	0.47	0.0741	0.0022	1.628	0.0498	0.1599
52	0.50	0.0756	0.0019	1.988	0.0565	0.1918
53	0.61	0.1117	0.0032	5.114	0.1559	0.3319
54	0.83	0.0608	0.0017	1.089	0.0322	0.1298
55	0.33	0.0993	0.0023	3.997	0.0955	0.2926
56	0.54	0.0755	0.0018	1.925	0.0485	0.1845
57	0.98	0.1132	0.0035	5.439	0.1816	0.3472
58	0.57	0.1526	0.0034	9.198	0.2084	0.4359
59	0.69	0.0936	0.0024	3.520	0.0987	0.2716
60	0.36	0.1123	0.0027	5.203	0.1297	0.3364
61	0.64	0.1167	0.0038	5.395	0.1623	0.3385
62	0.87	0.1778	0.0036	11.767	0.2567	0.4765
63	0.84	0.1084	0.0030	5.013	0.1325	0.3347
64	3.53	0.0633	0.0029	0.8051	0.0353	0.0924
65	0.49	0.0811	0.0022	2.147	0.0580	0.1909
66	1.39	0.0868	0.0026	1.432	0.0435	0.1188

67	0.48	0.1104	0.0024	4.950	0.1093	0.3225
68	1.36	0.1088	0.0029	5.022	0.1377	0.3332
69	0.40	0.0912	0.0022	1.314	0.0351	0.1038
70	0.50	0.0715	0.0022	1.570	0.0507	0.1594
71	0.61	0.0699	0.0046	0.9947	0.0692	0.1039
72	0.37	0.0762	0.0021	2.030	0.0572	0.1918
73	0.14	0.0780	0.0022	2.118	0.0595	0.1983
74	0.64	0.0644	0.0024	1.224	0.0426	0.1397
75	0.18	0.0757	0.0021	1.956	0.0570	0.1869
76	0.58	0.0579	0.0028	0.9660	0.0435	0.1242
77	0.83	0.0683	0.0023	1.150	0.0363	0.1233
78	0.48	0.1028	0.0022	4.358	0.0896	0.3063
79	0.50	0.1208	0.0034	6.440	0.1998	0.3837
80	0.40	0.0757	0.0018	1.710	0.0420	0.1627

**Sample TW32, sandstone, Early Silurian, Keping area, NTC, (Li LL et al., 2017, Geological Science and Technology Information)**

1	1.09	0.0798	0.0028	2.285	0.0823	0.2076
2	0.56	0.0812	0.0026	2.200	0.0694	0.1967
3	0.51	0.1033	0.0030	4.044	0.1244	0.2829
4	0.35	0.0704	0.0023	1.628	0.0532	0.1681
5	0.90	0.1168	0.0041	5.817	0.1924	0.3631
6	0.30	0.0795	0.0035	1.902	0.0827	0.1735
7	0.99	0.0684	0.0039	1.521	0.0828	0.1629
8	0.48	0.0665	0.0027	1.279	0.0533	0.1395
9	0.48	0.1880	0.0055	13.670	0.4106	0.5252
10	0.42	0.1708	0.0046	12.076	0.3404	0.5111
11	0.48	0.0662	0.0024	1.253	0.0432	0.1373
12	1.06	0.0657	0.0032	1.157	0.0536	0.1293
13	1.35	0.1741	0.0049	10.489	0.3010	0.4369
14	1.07	0.1778	0.0058	12.088	0.4093	0.4923
15	0.56	0.1089	0.0034	4.636	0.1443	0.3078
16	0.19	0.3817	0.0117	40.451	1.410	0.7581
17	0.70	0.1634	0.0048	10.754	0.3205	0.4804
18	0.59	0.0704	0.0044	1.247	0.0749	0.1335
19	0.91	0.1647	0.0045	10.394	0.2988	0.4594
20	0.15	0.1216	0.0034	5.492	0.1590	0.3297
21	0.71	0.1733	0.0056	11.570	0.3972	0.4881
22	0.67	0.0675	0.0025	1.202	0.0448	0.1304
23	0.40	0.0747	0.0028	1.596	0.0626	0.1567
24	0.24	0.0626	0.0022	0.7254	0.0255	0.0849
25	0.49	0.0641	0.0038	0.9653	0.0532	0.1133
26	1.08	0.1034	0.0045	4.131	0.1838	0.2919
27	0.14	0.0838	0.0024	2.144	0.0637	0.1870
28	0.52	0.1103	0.0044	5.132	0.2169	0.3375
29	0.89	0.0695	0.0036	1.332	0.0699	0.1386
30	1.13	0.0692	0.0041	1.319	0.0765	0.1391
31	1.14	0.0626	0.0031	1.128	0.0576	0.1306
32	0.36	0.1769	0.0057	10.572	0.3570	0.4363
33	0.53	0.0681	0.0032	1.123	0.0522	0.1203
34	0.64	0.1069	0.0040	5.231	0.2176	0.3536
35	0.74	0.0707	0.0030	1.328	0.0586	0.1369
36	1.08	0.0665	0.0023	1.334	0.0453	0.1455
37	0.56	0.1049	0.0044	4.915	0.1979	0.3400
38	0.10	0.0740	0.0024	1.459	0.0452	0.1427
39	0.60	0.1112	0.0032	5.687	0.1582	0.3679
40	0.62	0.0700	0.0026	1.622	0.0622	0.1667
41	0.21	0.1742	0.0047	10.702	0.3345	0.4396
42	1.15	0.0920	0.0036	3.032	0.1196	0.2389
43	0.76	0.0990	0.0041	3.335	0.1405	0.2450
44	0.48	0.0946	0.0033	3.167	0.1022	0.2433
45	2.12	0.1620	0.0051	10.411	0.2983	0.4643
46	0.58	0.0829	0.0029	1.964	0.0689	0.1708
47	0.35	0.1197	0.0039	5.303	0.1715	0.3185
48	4.14	0.0725	0.0043	0.8874	0.0483	0.0900

49	0.32	0.1704	0.0058	10.682	0.3524	0.4518
50	0.38	0.1420	0.0051	8.086	0.3040	0.4054
51	0.66	0.0797	0.0029	1.422	0.0490	0.1275
52	1.42	0.0777	0.0052	1.740	0.1072	0.1639
53	0.41	0.1620	0.0043	10.732	0.2848	0.4724
54	1.06	0.1069	0.0046	4.882	0.1923	0.3341
55	1.06	0.0603	0.0032	1.059	0.0520	0.1286
56	0.44	0.2342	0.0077	21.953	0.6797	0.6719
57	0.57	0.1323	0.0067	5.950	0.2946	0.3255
58	0.84	0.0731	0.0029	1.821	0.0669	0.1809
59	0.76	0.0633	0.0037	1.181	0.0729	0.1333
60	0.52	0.1772	0.0046	12.804	0.3434	0.5220
61	0.13	0.1122	0.0034	5.287	0.1657	0.3401
62	0.23	0.0793	0.0030	1.896	0.0796	0.1709
63	0.68	0.0637	0.0028	0.6224	0.0283	0.0698
64	0.52	0.0684	0.0028	1.553	0.0613	0.1649
65	0.61	0.0876	0.0032	3.120	0.1185	0.2578
66	0.23	0.0611	0.0022	0.8313	0.0302	0.0984
67	1.07	0.0712	0.0035	1.237	0.0626	0.1253
68	0.21	0.0727	0.0021	1.615	0.0561	0.1589
69	0.91	0.0571	0.0027	0.6617	0.0306	0.0839
70	1.00	0.0684	0.0036	0.8969	0.0473	0.0961
71	0.24	0.0713	0.0025	1.610	0.0596	0.1630
72	0.56	0.1149	0.0039	4.932	0.1745	0.3112
73	0.44	0.1577	0.0054	9.594	0.3408	0.4396
74	0.42	0.0744	0.0029	1.839	0.0722	0.1806
75	0.63	0.0692	0.0023	1.317	0.0421	0.1382
76	0.60	0.0687	0.0026	1.230	0.0459	0.1298
77	0.82	0.0639	0.0025	1.159	0.0437	0.1320
78	0.62	0.0908	0.0026	2.525	0.0758	0.1999
79	1.46	0.0684	0.0026	1.522	0.0580	0.1609
80	0.32	0.0845	0.0029	201706.000	0.0739	0.1873

**Sample TW62, sandstone, Early Silurian, Keping area, NTC, (Li LL et al., 2017, Geological Science and Technology Information)**

1	0.27	0.1119	0.0022	4.040	0.0885	0.2607
2	1.54	0.1218	0.0030	6.104	0.1394	0.3642
3	0.36	0.0703	0.0029	1.302	0.0526	0.1354
4	0.81	0.1122	0.0027	5.320	0.1321	0.3438
5	0.45	0.1058	0.0027	4.523	0.1184	0.3096
6	0.41	0.0743	0.0023	1.708	0.0505	0.1673
7	1.17	0.0694	0.0022	1.171	0.0386	0.1224
8	0.57	0.0666	0.0051	0.6217	0.0433	0.0701
9	0.51	0.0706	0.0026	1.319	0.0536	0.1346
10	0.64	0.0745	0.0022	1.255	0.0357	0.1233
11	0.65	0.0588	0.0033	0.5860	0.0309	0.0742
12	0.48	0.0708	0.0022	1.338	0.0380	0.1386
13	0.57	0.1697	0.0040	11.099	0.2643	0.4768
14	0.96	0.0847	0.0040	1.404	0.0693	0.1202
15	0.10	0.0632	0.0033	0.9294	0.0475	0.1089
16	0.62	0.0783	0.0027	1.402	0.0449	0.1309
17	1.13	0.0908	0.0018	3.004	0.0602	0.2425
18	4.69	0.0992	0.0079	2.166	0.1263	0.1758
19	0.57	0.0632	0.0020	1.200	0.0374	0.1380
20	0.70	0.0728	0.0026	1.520	0.0543	0.1514
21	1.33	0.1614	0.0040	10.425	0.2418	0.4694
22	0.04	0.1392	0.0032	7.429	0.2093	0.3840
23	0.79	0.0726	0.0025	1.732	0.0599	0.1721
24	0.66	0.0746	0.0030	1.903	0.0778	0.1851
25	0.35	0.1240	0.0032	6.713	0.1779	0.3903
26	1.31	0.1273	0.0076	5.137	0.3104	0.2944
27	0.92	0.0676	0.0032	1.253	0.0583	0.1379
28	0.56	0.0626	0.0037	0.6264	0.0359	0.0738
29	0.67	0.0759	0.0022	2.014	0.0625	0.1895
30	0.59	0.0712	0.0022	1.331	0.0405	0.1343

31	0.59	0.1096	0.0028	4.909	0.1185	0.3216
32	1.17	0.0627	0.0025	1.066	0.0410	0.1231
33	0.90	0.0732	0.0051	1.024	0.0739	0.1039
34	0.52	0.0665	0.0026	1.271	0.0491	0.1369
35	0.71	0.0635	0.0021	1.189	0.0391	0.1353
36	0.68	0.1101	0.0057	4.859	0.2564	0.3245
37	0.92	0.0647	0.0033	1.185	0.0603	0.1336
38	0.60	0.0630	0.0023	1.141	0.0411	0.1299
39	0.85	0.0766	0.0058	1.286	0.0920	0.1250
40	0.75	0.1633	0.0048	10.797	0.3289	0.4751
41	1.58	0.1093	0.0042	4.459	0.1658	0.2940
42	0.37	0.1160	0.0035	5.133	0.1573	0.3184
43	0.54	0.1706	0.0051	11.118	0.3299	0.4704
44	1.13	0.1143	0.0039	5.113	0.1794	0.3243
45	0.06	0.0716	0.0023	1.537	0.0488	0.1549
46	0.60	0.0645	0.0037	1.114	0.0602	0.1259
47	0.96	0.1719	0.0042	10.174	0.2557	0.4247
48	0.72	0.1194	0.0043	4.950	0.1860	0.3046
49	2.02	0.1034	0.0057	4.473	0.2516	0.3193
50	0.63	0.0679	0.0023	1.302	0.0453	0.1385
51	0.80	0.0854	0.0028	2.778	0.0989	0.2333
52	0.45	0.0646	0.0021	1.231	0.0393	0.1388
53	1.80	0.0659	0.0025	1.113	0.0400	0.1229
54	1.64	0.1124	0.0035	5.803	0.1737	0.3760
55	0.47	0.1161	0.0030	4.895	0.1245	0.3039
56	0.51	0.1728	0.0051	11.902	0.3560	0.4990
57	0.53	0.0754	0.0036	1.955	0.0924	0.1910
58	0.57	0.0656	0.0034	1.291	0.0686	0.1410
59	0.79	0.0652	0.0027	1.241	0.0464	0.1393
60	0.70	0.0649	0.0026	1.238	0.0496	0.1377
61	1.36	0.0703	0.0026	1.171	0.0410	0.1206
62	0.63	0.0668	0.0022	1.192	0.0406	0.1284
63	0.85	0.0854	0.0078	0.8102	0.0717	0.0709
64	1.25	0.0656	0.0034	1.132	0.0585	0.1253
65	0.52	0.0657	0.0027	1.200	0.0495	0.1318
66	0.46	0.0706	0.0022	1.627	0.0514	0.1657
67	0.27	0.0659	0.0020	1.205	0.0383	0.1317
68	0.70	0.0811	0.0034	2.151	0.0947	0.1909
69	0.61	0.1221	0.0036	5.820	0.7160	0.3458
70	0.60	0.0780	0.0026	1.333	0.0460	0.1243
71	0.58	0.0701	0.0024	1.179	0.0454	0.1217
72	0.50	0.1448	0.0050	8.448	0.3074	0.4234
73	0.40	0.0746	0.0030	1.285	0.0543	0.1254
74	0.38	0.0671	0.0027	1.221	0.0472	0.1335
75	0.68	0.0675	0.0028	1.134	0.0469	0.1215
76	0.54	0.1046	0.0033	4.098	0.1327	0.2861
77	0.28	0.1216	0.0032	5.924	0.1629	0.3527
78	0.56	0.0976	0.0033	3.493	0.1205	0.2596
79	0.54	0.1108	0.0038	4.550	0.1689	0.2947
80	65.00	0.1629	0.0053	7.444	0.2441	0.3300

t areas.

	Age (Ma)						Disc. (%)*	Preferred age (Ma) <sup>#</sup>	
	1σ	$^{207}\text{Pb}/^{206}\text{Pb}$	1σ	$^{207}\text{Pb}/^{235}\text{U}$	1σ	$^{206}\text{Pb}/^{238}\text{U}$	1σ	Age	1σ
0.0026	1830	4	1816	7	1806	13	101.3	1830	4
0.0007	443	3	433	4	431	4	100.5	431	4
0.0021	853	3	834	9	827	12	100.8	827	12
0.0007	429	3	416	3	414	4	100.5	414	4
0.0014	1181	3	1088	5	1042	8	113.3	Discordant	
0.0005	299	5	291	3	290	3	100.3	290	3
0.0017	1080	11	885	8	809	10	109.4	809	10
0.0005	299	12	249	3	244	3	102.0	244	3
0.0005	335	6	266	3	259	3	102.7	259	3
0.0005	296	6	273	3	271	3	100.7	271	3
0.0005	312	14	274	3	270	3	101.5	270	3
0.0010	461	5	457	5	457	6	100.0	457	6
0.0012	817	4	723	6	694	7	104.2	694	7
0.0005	320	11	268	3	263	3	101.9	263	3
0.0006	457	4	452	3	452	4	100.0	452	4
0.0008	441	4	450	4	452	5	99.6	452	5
0.0008	421	5	422	4	422	5	100.0	422	5
0.0008	434	4	433	4	433	5	100.0	433	5
0.0024	1694	2	1721	7	1746	12	97.0	1694	2
0.0006	413	19	282	4	266	4	106.0	266	4
0.0005	266	6	270	3	271	3	99.6	271	3
0.0005	293	6	273	3	271	3	100.7	271	3
0.0007	304	4	283	4	281	4	100.7	281	4
0.0040	2101	3	2013	10	1931	19	108.8	2101	3
0.0030	1729	2	1693	8	1667	15	103.7	1729	2
0.0005	296	7	268	3	265	3	101.1	265	3
0.0021	802	3	826	9	835	12	98.9	835	12
0.0006	311	9	295	3	294	3	100.3	294	3
0.0008	295	8	294	4	294	5	100.0	294	5
0.0006	286	7	308	4	311	4	99.0	311	4
0.0004	297	9	274	2	272	3	100.7	272	3
0.0005	336	8	283	3	277	3	102.2	277	3
0.0005	305	4	269	3	265	3	101.5	265	3
0.0005	644	9	421	3	381	3	110.5	Discordant	
0.0005	302	8	266	3	262	3	101.5	262	3
0.0010	422	6	470	5	481	6	97.7	481	6
0.0004	307	8	260	3	255	3	102.0	255	3
0.0010	1025	17	748	7	659	6	113.5	Discordant	
0.0010	467	4	434	5	429	6	101.2	429	6
0.0023	816	5	835	9	843	13	99.1	843	13
0.0005	318	6	286	3	283	3	101.1	283	3
0.0019	851	3	854	8	856	11	99.8	856	11
0.0033	1771	2	1802	8	1830	16	96.8	1771	2
0.0004	310	11	258	2	253	2	102.0	253	2
0.0004	275	9	258	2	257	3	100.4	257	3
0.0005	283	8	271	3	270	3	100.4	270	3
0.0006	306	9	285	3	283	3	100.7	283	3
0.0018	1003	3	998	7	997	10	100.1	997	10
0.0008	764	8	630	4	594	5	106.1	594	5
0.0004	284	61	285	8	285	3	100.0	285	3
0.0003	274	50	283	6	284	2	99.6	284	2
0.0004	314	48	288	6	285	2	101.1	285	2
0.0007	469	11	436	5	430	4	101.4	430	4
0.0003	228	128	278	16	284	2	97.9	284	2
0.0006	240	236	274	28	278	4	98.6	278	4
0.0003	348	38	284	5	276	2	102.9	276	2
0.0005	339	123	284	16	277	3	102.5	277	3
0.0006	493	62	423	13	410	4	103.2	410	4

0.0006	313	5	288	3	285	4	101.1	285	4
0.0004	286	8	258	3	255	3	101.2	255	3
0.0008	416	9	424	4	425	5	99.8	425	5
0.0006	318	10	287	3	283	4	101.4	283	4
0.0006	314	7	288	3	285	3	101.1	285	3
0.0005	278	12	267	3	266	3	100.4	266	3
0.0023	832	5	859	9	871	13	98.6	871	13
0.0010	510	9	456	6	446	6	102.2	446	6
0.0008	442	4	432	4	430	5	100.5	430	5
0.0007	290	8	302	4	304	4	99.3	304	4
0.0056	1777	2	1809	14	1839	27	96.6	1777	2
0.0018	953	3	955	7	957	10	99.8	957	10
0.0007	431	14	390	4	384	4	101.6	384	4
0.0008	414	8	413	5	414	5	99.8	414	5
0.0009	409	8	429	4	433	5	99.1	433	5
0.0008	441	10	450	5	452	5	99.6	452	5
0.0015	650	10	660	7	664	9	99.4	664	9
0.0010	429	5	448	5	452	6	99.1	452	6
0.0020	761	5	751	9	749	11	100.3	749	11
0.0006	332	5	314	3	312	4	100.6	312	4
0.0013	818	3	829	5	834	7	99.4	834	7
0.0017	1000	7	966	7	953	9	101.4	953	9
0.0044	1966	3	1956	11	1948	21	100.9	1966	3
0.0012	789	8	787	6	787	7	100.0	787	7
0.0015	777	4	789	6	795	8	99.2	795	8
0.0023	827	4	787	10	773	13	101.8	773	13
0.0007	300	7	303	4	304	4	99.7	304	4
0.0017	826	5	829	7	831	10	99.8	831	10
0.0008	438	7	427	4	426	5	100.2	426	5
0.0009	425	7	426	5	427	6	99.8	427	6
0.0016	809	4	784	7	776	9	101.0	776	9
0.0030	1739	2	1761	8	1782	15	97.6	1739	2
0.0007	272	13	290	4	292	4	99.3	292	4
0.0005	337	14	283	3	277	3	102.2	277	3
0.0005	319	8	273	3	267	3	102.2	267	3
0.0006	289	15	289	4	289	3	100.0	289	3
0.0009	416	8	421	5	423	5	99.5	423	5
0.0005	294	9	287	3	286	3	100.3	286	3
0.0004	326	6	279	3	274	3	101.8	274	3
0.0018	821	3	849	7	860	10	98.7	860	10
0.0008	622	18	462	5	431	5	107.2	431	5
0.0008	460	5	430	4	425	5	101.2	425	5
0.0021	865	4	872	8	875	12	99.7	875	12
0.0007	427	8	433	4	434	4	99.8	434	4
0.0005	301	11	289	3	288	3	100.3	288	3
0.0005	539	9	425	3	405	3	104.9	405	3
0.0006	298	4	303	3	304	3	99.7	304	3
0.0008	456	5	454	4	455	5	99.8	455	5
0.0005	288	9	270	3	268	3	100.7	268	3
0.0005	309	9	289	3	287	3	100.7	287	3
0.0006	315	7	307	3	306	4	100.3	306	4
0.0006	363	8	329	4	325	4	101.2	325	4
0.0009	441	7	430	5	429	5	100.2	429	5
0.0006	323	6	280	3	275	4	101.8	275	4
0.0005	338	5	305	3	301	3	101.3	301	3
0.0010	439	5	445	5	447	6	99.6	447	6
0.0012	856	7	791	5	769	7	102.9	769	7
0.0008	470	9	440	4	435	5	101.1	435	5
0.0013	793	4	779	6	775	7	100.5	775	7
0.0005	289	9	294	3	295	3	99.7	295	3
0.0005	281	6	302	3	305	3	99.0	305	3
0.0007	508	10	431	4	417	4	103.4	417	4
0.0006	278	6	297	3	300	4	99.0	300	4

0.0029	2457	1	2524	5	2612	13	94.1	2457	1
0.0023	1448	2	1466	7	1480	12	97.8	1448	2
0.0008	420	6	422	4	423	5	99.8	423	5
0.0017	792	3	807	7	814	10	99.1	814	10
0.0018	850	3	826	7	818	10	101.0	818	10
0.0006	300	4	295	3	294	4	100.3	294	4
0.0017	1009	4	979	7	966	9	101.3	966	9
0.0004	475	16	335	3	316	3	106.0	316	3
0.0005	299	9	286	3	285	3	100.4	285	3
0.0005	422	20	284	4	268	3	106.0	268	3
0.0005	289	6	295	3	297	3	99.3	297	3
0.0020	759	6	785	8	795	11	98.7	795	11
0.0033	1611	2	1792	8	1953	16	82.5	Discordant	
0.0016	761	4	783	7	792	9	98.9	792	9
0.0006	281	7	288	3	290	3	99.3	290	3
0.0005	303	14	290	3	288	3	100.7	288	3
0.0005	393	13	305	3	293	3	104.1	293	3
0.0006	451	7	435	3	433	3	100.5	433	3
0.0005	272	7	291	3	294	3	99.0	294	3
0.0006	276	6	286	3	288	4	99.3	288	4
0.0020	1052	3	1071	7	1081	11	97.3	1052	3
0.0006	299	6	296	3	296	3	100.0	296	3
0.0004	284	7	278	3	277	3	100.4	277	3
0.0009	834	4	803	4	792	5	101.4	792	5
0.0011	432	6	463	6	470	7	98.5	470	7
0.0008	489	3	489	4	489	5	100.0	489	5
0.0004	295	12	290	3	290	3	100.0	290	3
0.0016	967	7	947	7	939	9	100.9	939	9
0.0006	297	4	294	3	294	4	100.0	294	4
0.0014	807	3	816	6	820	8	99.5	820	8
0.0015	773	5	764	6	762	9	100.3	762	9
0.0004	402	15	296	3	283	3	104.6	283	3
0.0007	425	4	428	4	430	4	99.5	430	4
0.0058	2458	2	2464	12	2474	26	99.4	2458	2
0.0010	495	5	497	5	498	6	99.8	498	6
0.0023	1920	2	1973	6	2026	11	94.8	1920	2
0.0010	459	5	427	5	421	6	101.4	421	6
0.0021	828	5	807	9	800	12	100.9	800	12
0.0007	433	9	421	4	419	4	100.5	419	4
0.0009	458	3	398	5	389	5	102.3	389	5
0.0006	443	8	427	3	425	4	100.5	425	4
0.0012	854	3	837	5	832	7	100.6	832	7
0.0004	348	5	286	3	278	3	102.9	278	3
0.0005	332	7	300	3	297	3	101.0	297	3
0.0008	460	6	454	4	453	5	100.2	453	5
0.0008	430	5	440	4	442	5	99.5	442	5
0.0006	439	8	433	3	432	4	100.2	432	4
0.0006	324	8	335	3	337	4	99.4	337	4
0.0007	429	7	441	4	444	5	99.3	444	5
0.0070	2787	2	2676	14	2535	30	109.9	2787	2
0.0005	318	9	273	3	268	3	101.9	268	3
0.0007	438	6	425	4	423	4	100.5	423	4
0.0004	314	13	271	3	266	3	101.9	266	3
0.0006	384	8	303	4	293	4	103.4	293	4
0.0017	789	5	755	7	744	10	101.5	744	10
0.0009	427	5	433	5	435	6	99.5	435	6
0.0015	891	5	856	6	844	9	101.4	844	9
0.0037	1926	3	1863	10	1809	18	106.5	1926	3
0.0007	420	10	392	4	387	4	101.3	387	4
0.0013	968	3	965	5	964	7	100.1	964	7
0.0008	386	6	391	4	392	5	99.7	392	5
0.0009	425	7	432	5	434	6	99.5	434	6

								Discordant
0.0061	2179	4	1890	18	1640	30	132.9	
0.0008	428	6	410	4	407	5	100.7	407
0.0005	301	18	252	3	247	3	102.0	247
0.0016	688	15	667	8	662	9	100.8	662
0.0009	384	23	376	6	375	6	100.3	375
0.0008	429	6	386	4	379	5	101.8	379
0.0006	343	13	284	4	277	4	102.5	277
0.0005	417	8	416	3	417	3	99.8	417
0.0009	388	9	406	5	410	5	99.0	410
0.0009	409	5	401	5	400	5	100.3	400
0.0045	1816	3	1851	11	1885	22	96.3	1816
0.0006	291	7	279	3	278	3	100.4	278
0.0022	972	3	1012	8	1032	12	94.2	972
0.0008	383	11	350	4	345	5	101.4	345
0.0033	1593	2	1640	9	1679	16	94.9	1593
0.0006	308	6	287	4	285	4	100.7	285
0.0007	437	8	312	4	295	4	105.8	295
0.0010	421	3	418	5	418	6	100.0	418
0.0019	790	4	803	8	808	11	99.4	808
0.0014	464	6	455	7	454	9	100.2	454
0.0006	285	12	286	3	287	4	99.7	287
0.0018	773	5	763	8	760	10	100.4	760
0.0006	282	8	286	4	287	4	99.7	287
0.0007	293	10	295	4	295	4	100.0	295
0.0006	306	11	293	4	291	4	100.7	291
0.0007	304	5	300	4	300	4	100.0	300
0.0011	428	6	433	5	434	6	99.8	434
0.0006	291	8	287	4	287	4	100.0	287
0.0023	919	4	951	9	966	13	98.4	966
0.0025	763	5	765	11	767	14	99.7	767
0.0007	291	7	310	4	313	4	99.0	313
0.0014	804	3	812	6	816	8	99.5	816
0.0041	1849	2	1863	10	1878	20	98.5	1849
0.0007	288	7	291	4	292	4	99.7	292
0.0017	759	7	741	8	736	10	100.7	736
0.0022	986	5	963	9	954	12	100.9	954
0.0006	303	5	277	3	274	4	101.1	274
0.0018	809	3	839	7	851	10	98.6	851
0.0010	422	6	431	5	434	6	99.3	434
0.0007	294	6	296	4	297	4	99.7	297
0.0007	294	5	313	4	315	4	99.4	315
0.0007	316	6	322	4	324	4	99.4	324
0.0007	313	7	302	4	301	4	100.3	301
0.0028	1199	3	1262	9	1300	15	92.2	1199
0.0009	423	4	420	5	420	6	100.0	420
0.0007	250	108	276	12	279	4	98.9	279
0.0044	1936	31	1918	16	1900	21	101.9	1936
0.0017	867	37	844	11	836	10	101.0	836
0.0009	450	49	447	8	447	6	100.0	447
0.0007	258	70	296	8	301	4	98.3	301
0.0043	1841	38	1807	19	1777	21	103.6	1841
0.0010	437	61	442	10	443	6	99.8	443
0.0006	374	62	297	7	288	4	103.1	288
0.0007	319	85	284	9	280	4	101.4	280
0.0048	2089	28	2097	15	2104	22	99.3	2089
0.0012	705	131	420	23	370	7	113.5	
0.0011	575	80	470	14	448	6	104.9	448
0.0017	830	65	735	17	704	10	104.4	704
0.0006	346	76	287	9	279	4	102.9	279
0.0061	2586	27	2583	16	2580	26	100.2	2586
0.0008	343	97	315	12	312	5	101.0	312
0.0021	978	44	980	14	980	12	100.0	980

0.0033	1460	34	1473	15	1481	17	98.6	1460	34
0.0025	1029	45	1080	16	1105	14	93.1	1029	45
0.0058	2422	28	2419	17	2415	26	100.3	2422	28
0.0061	2424	30	2426	18	2429	27	99.8	2424	30
0.0009	318	62	414	10	431	6	96.1	431	6
0.0007	240	74	286	8	291	4	98.3	291	4
0.0009	352	157	301	19	294	6	102.4	294	6
0.0023	1048	34	1070	12	1081	12	96.9	1048	34
0.0006	245	55	295	7	301	4	98.0	301	4
0.0045	1948	29	1968	16	1988	21	98.0	1948	29
0.0035	1630	31	1600	15	1577	18	103.4	1630	31
0.0045	1920	29	1945	16	1967	21	97.6	1920	29
0.0024	947	72	936	23	931	14	100.5	931	14
0.0007	438	74	308	9	291	4	105.8	291	4
0.0020	960	36	940	12	931	11	101.0	931	11
0.0041	1772	33	1776	17	1779	20	99.6	1772	33
0.0010	764	68	492	13	436	6	112.8	Discordant	
0.0010	300	170	302	21	302	6	100.0	302	6
0.0018	769	60	782	17	786	10	99.5	786	10
0.0017	814	42	794	12	787	10	100.9	787	10
0.0010	484	63	440	11	431	6	102.1	431	6
0.0043	1752	37	1771	19	1786	21	98.1	1752	37
0.0062	2672	27	2638	17	2593	27	103.0	2672	27
0.0047	2041	31	2023	17	2006	22	101.7	2041	31
0.0053	2098	33	2123	19	2149	24	97.6	2098	33
0.0047	1958	34	1956	18	1954	22	100.2	1958	34
0.0046	1958	33	1947	17	1936	22	101.1	1958	33
0.0013	589	124	478	27	455	8	105.1	455	8
0.0046	1929	32	1945	17	1959	22	98.5	1929	32
0.0018	762	66	762	18	763	11	99.9	763	11
0.0044	1927	31	1929	17	1931	21	99.8	1927	31
0.0007	360	93	292	11	283	4	103.2	283	4
0.0009	322	150	281	17	276	5	101.8	276	5
0.0044	1917	33	1907	17	1897	21	101.1	1917	33
0.0009	339	70	399	11	410	6	97.3	410	6
0.0054	2207	32	2218	18	2229	24	99.0	2207	32
0.0007	215	88	292	10	302	4	96.7	302	4
0.0032	1330	41	1368	17	1392	17	95.5	1330	41
0.0013	512	70	555	14	566	8	98.1	566	8
0.0059	2430	31	2426	18	2422	26	100.3	2430	31
0.0019	769	53	816	15	833	11	98.0	833	11
0.0048	1828	42	1864	21	1896	23	96.4	1828	42
0.0014	591	57	623	13	632	8	98.6	632	8
0.0046	1800	44	1794	22	1789	22	100.6	1800	44
0.0033	1358	39	1419	17	1460	17	93.0	1358	39
0.0050	2008	37	2014	20	2020	23	99.4	2008	37
0.0057	2329	33	2326	19	2322	25	100.3	2329	33
0.0010	635	71	472	13	439	6	107.5	439	6
0.0010	529	70	433	12	415	6	104.3	415	6
0.0043	1801	37	1815	18	1827	21	98.6	1801	37
0.0009	399	147	304	18	292	6	104.1	292	6
0.0008	273	98	307	12	312	5	98.4	312	5
0.0012	565	47	574	10	577	7	99.5	577	7
0.0046	1877	39	1885	20	1893	22	99.2	1877	39
0.0022	942	67	875	20	849	12	103.1	849	12
0.0035	2174	36	1810	19	1511	18	143.9	Discordant	
0.0007	350	63	303	8	297	4	102.0	297	4
0.0018	839	48	808	14	797	10	101.4	797	10
0.0022	907	69	863	20	846	12	102.0	846	12
0.0046	1870	41	1855	21	1842	22	101.5	1870	41
0.0019	804	50	839	15	853	11	98.4	853	11
0.0047	1941	38	1945	20	1949	23	99.6	1941	38
0.0048	1866	43	1878	22	1890	23	98.7	1866	43

0.0011	379	86	439	14	451	7	97.3	451	7
0.0011	462	74	452	13	450	6	100.4	450	6
0.0011	426	86	439	14	441	7	99.5	441	7
0.0040	1523	47	1576	20	1616	20	94.2	1523	47
0.0007	334	78	290	9	284	4	102.1	284	4
0.0054	2085	42	2099	22	2114	25	98.6	2085	42
0.0050	2132	44	2030	23	1932	24	110.4	Discordant	
0.0066	2527	40	2514	23	2498	29	101.2	2527	40
0.0044	1746	48	1729	22	1715	22	101.8	1746	48
0.0049	1847	48	1860	23	1873	23	98.6	1847	48
0.0007	220	105	274	11	280	4	97.9	280	4
0.0062	2212	46	2239	24	2269	28	97.5	2212	46
0.0010	454	65	440	11	438	6	100.5	438	6
0.0022	906	81	849	23	827	13	102.7	827	13
0.0020	856	57	842	16	837	11	100.6	837	11
0.0011	528	70	464	12	452	6	102.7	452	6
0.0056	2038	45	2091	23	2146	26	95.0	2038	45
0.0010	335	160	308	19	304	6	101.3	304	6
0.0012	516	91	469	16	460	7	102.0	460	7
0.0034	1300	50	1365	20	1407	18	92.4	1300	50
0.0012	413	81	462	14	472	7	97.9	472	7
0.0008	185	109	289	12	302	5	95.7	302	5
0.0022	840	67	866	19	876	12	98.9	876	12
0.0013	393	169	433	32	440	8	98.4	440	8
0.0006	691	97	324	13	275	4	117.8	Discordant	
0.0006	352	71	291	8	283	3	102.8	283	3
0.0006	376	88	301	10	291	4	103.4	291	4
0.0007	343	96	301	11	295	4	102.0	295	4
0.0008	418	133	312	16	298	5	104.7	298	5
0.0010	416	218	293	25	278	6	105.4	278	6
0.0009	461	69	430	11	424	5	101.4	424	5
0.0008	584	147	321	20	286	5	112.2	Discordant	
0.0010	629	201	335	28	295	6	113.6	Discordant	
0.0019	958	75	868	21	833	11	104.2	833	11
0.0011	320	208	320	25	319	7	100.3	319	7
0.0011	441	97	447	16	448	6	99.8	448	6
0.0008	424	112	314	14	299	5	105.0	299	5
0.0008	434	128	310	15	294	5	105.4	294	5
0.0020	1018	36	1001	12	994	11	100.7	994	11
0.0035	1939	35	1722	17	1550	18	125.1	Discordant	
0.0046	2355	26	2234	15	2104	21	111.9	Discordant	
0.0009	723	129	359	19	305	6	117.7	Discordant	
0.0016	756	41	765	11	768	9	99.6	768	9
0.0009	560	55	453	10	432	5	104.9	432	5
0.0010	249	175	278	21	281	6	98.9	281	6
0.0006	393	71	305	9	294	4	103.7	294	4
0.0013	650	40	642	9	640	7	100.3	640	7
0.0006	362	47	311	6	304	4	102.3	304	4
0.0007	1068	44	474	9	361	4	131.3	Discordant	
0.0030	1487	33	1426	14	1386	15	107.3	1487	33
0.0018	794	44	839	13	856	10	98.0	856	10
0.0006	292	51	287	6	287	4	100.0	287	4
0.0016	754	50	747	13	745	9	100.3	745	9
0.0010	417	76	437	12	441	6	99.1	441	6
0.0036	1616	35	1604	16	1594	18	101.4	1616	35
0.0023	1001	52	1007	21	1010	13	99.1	1001	52
0.0008	390	63	389	12	389	5	100.0	389	5
0.0010	575	56	475	10	455	6	104.4	455	6
0.0009	458	58	437	10	433	5	100.9	433	5
0.0055	2509	28	2442	16	2363	25	106.2	2509	28
0.0015	792	45	749	12	734	9	102.0	734	9
0.0018	922	47	848	14	820	10	103.4	820	10

0.0054	2441	28	2386	16	2322	24	105.1	2441	28
0.0022	1097	34	1061	12	1043	12	105.2	1097	34
0.0024	1218	105	868	32	738	14	117.6	Discordant	
0.0052	2189	31	2194	17	2199	24	99.5	2189	31
0.0062	2492	28	2533	17	2584	27	96.4	2492	28
0.0019	757	57	809	16	828	11	97.7	828	11
0.0010	1018	58	561	13	455	6	123.3	Discordant	
0.0008	350	74	370	11	374	5	98.9	374	5
0.0009	479	59	442	10	435	6	101.6	435	6
0.0046	1903	30	1965	16	2024	21	94.0	1903	30
0.0022	1019	37	1027	13	1030	12	98.9	1019	37
0.0009	549	55	457	10	439	6	104.1	439	6
0.0011	653	73	482	13	446	6	108.1	446	6
0.0017	787	44	803	12	809	10	99.3	809	10
0.0045	1867	35	1891	18	1912	22	97.6	1867	35
0.0010	450	74	433	12	430	6	100.7	430	6
0.0007	364	57	336	8	332	4	101.2	332	4
0.0007	336	80	304	10	300	4	101.3	300	4
0.0009	510	64	437	11	424	6	103.1	424	6
0.0017	735	60	741	16	742	10	99.9	742	10
0.0007	310	57	307	7	307	4	100.0	307	4
0.0017	930	52	807	15	763	10	105.8	763	10
0.0009	524	48	437	8	420	5	104.0	420	5
0.0009	458	54	431	9	426	5	101.2	426	5
0.0032	1409	35	1430	16	1444	17	97.6	1409	35
0.0035	1525	38	1519	17	1513	18	100.8	1525	38
0.0029	1441	38	1356	16	1303	15	110.6	Discordant	
0.0018	835	44	825	13	820	10	100.6	820	10
0.0014	679	56	630	13	616	8	102.3	616	8
0.0007	259	57	301	7	307	4	98.0	307	4
0.0018	637	107	630	24	628	11	100.3	628	11
0.0009	350	59	403	9	412	5	97.8	412	5
0.0018	835	45	836	13	835	10	100.1	835	10
0.0007	413	82	302	12	287	4	105.2	287	4
0.0023	1052	44	1041	15	1035	13	101.6	1052	44
0.0021	850	54	895	16	913	12	98.0	913	12
0.0006	431	53	316	7	301	4	105.0	301	4
0.0007	368	60	319	8	313	4	101.9	313	4
0.0020	809	48	878	14	905	11	97.0	905	11
0.0036	1517	40	1520	18	1521	18	99.7	1517	40
0.0020	869	48	875	15	877	11	99.8	877	11
0.0014	639	58	610	13	602	8	101.3	602	8
0.0010	741	69	486	13	434	6	112.0	Discordant	
0.0064	2490	36	2483	21	2474	28	100.6	2490	36
0.0032	1270	48	1306	19	1327	17	95.7	1270	48
0.0047	2189	37	2048	20	1910	22	114.6	Discordant	
0.0011	515	63	490	11	485	7	101.0	485	7
0.0008	399	73	344	10	336	5	102.4	336	5
0.0065	2490	35	2514	21	2542	28	98.0	2490	35
0.0011	445	66	467	12	471	6	99.2	471	6
0.0028	1107	47	1167	17	1199	15	92.3	1107	47
0.0025	1039	51	1056	17	1064	14	97.7	1039	51
0.0049	1803	40	1894	20	1978	23	91.2	1803	40
0.0007	212	81	292	9	302	4	96.7	302	4
0.0019	845	68	797	19	779	11	102.3	779	11
0.0019	774	57	810	16	823	11	98.4	823	11
0.0039	1451	46	1520	20	1569	19	92.5	1451	46
0.0036	1231	48	1374	19	1468	18	83.9	Discordant	
0.0014	535	129	488	27	478	8	102.1	478	8
0.0008	163	106	285	12	300	5	95.0	300	5
0.0012	448	78	475	14	481	7	98.8	481	7
0.0028	1406	48	1254	19	1167	15	120.5	Discordant	
0.0020	990	50	891	16	851	11	104.7	851	11

0.0088	2966	40	2966	25	2965	36	100.0	2966	40
0.0054	1959	44	2005	23	2049	25	95.6	1959	44
0.0027	1010	71	996	24	989	15	100.7	989	15
0.0008	322	83	312	10	310	5	100.6	310	5
0.0020	729	56	801	16	827	11	96.9	827	11
0.0019	876	66	769	19	731	11	105.2	731	11
0.0010	407	64	435	11	440	6	98.9	440	6
0.0012	427	81	456	14	461	7	98.9	461	7
0.0008	397	98	319	13	308	5	103.6	308	5
0.0008	308	75	310	9	310	5	100.0	310	5
0.0012	349	71	460	13	483	7	95.2	483	7
0.0008	299	77	318	10	321	5	99.1	321	5
0.0021	825	56	862	17	876	12	98.4	876	12
0.0011	517	64	482	12	475	7	101.5	475	7
0.0047	1580	50	1668	24	1738	23	90.9	1580	50
0.0007	275	72	304	9	308	5	98.7	308	5
0.0009	262	85	292	11	296	6	98.7	296	6
0.0005	296	111	299	13	299	3	99.9	299	3
0.0007	372	236	293	27	283	4	103.5	283	4
0.0010	71	371	259	36	280	6	92.5	280	6
0.0012	292	297	286	33	285	7	100.2	285	7
0.0010	322	477	282	52	277	6	101.7	277	6
0.0007	129	328	263	32	278	5	94.6	278	5
0.0013	272	456	275	48	276	8	99.9	276	8
0.0028	802	658	351	93	286	17	122.5	Discordant	
0.0032	1004	64	882	23	835	18	105.7	835	18
0.0009	323	126	289	15	285	6	101.5	285	6
0.0012	(440)	1071	212	76	275	7	77.1	Discordant	
0.0034	90	455	246	45	262	21	93.7	262	21
0.0008	646	341	324	44	281	5	115.3	Discordant	
0.0007	148	370	273	38	287	4	94.8	287	4
0.0005	252	122	283	13	287	4	98.7	287	4
0.0010	169	178	273	19	285	6	95.7	285	6
0.0010	318	70	292	10	289	6	101.1	289	6
0.0016	193	394	268	41	277	10	96.9	277	10
0.0025	147	556	270	57	284	15	95.0	284	15
0.0014	200	189	275	21	284	9	96.9	284	9
0.0003	296	57	292	7	292	2	100.2	292	2
0.0007	(1033)	1363	182	140	288	4	63.4	Discordant	
0.0011	311	112	293	14	291	7	100.8	291	7
0.0010	147	219	260	22	273	6	95.3	273	6
0.0008	303	125	292	15	290	5	100.5	290	5
0.0011	128	383	264	38	279	7	94.4	279	7
0.0062	(435)	1414	311	139	419	38	74.3	Discordant	
0.0011	493	162	306	21	282	7	108.5	282	7
0.0014	202	638	264	64	271	9	97.4	271	9
0.0026	(207)	902	230	73	274	16	83.7	Discordant	
0.0007	306	152	292	17	290	4	100.6	290	4
0.0009	398	28	407	6	409	6	99.6	409	6
0.0006	154	345	269	35	282	4	95.3	282	4
0.0011	241	227	285	25	290	7	98.2	290	7
0.0009	218	74	275	9	282	6	97.6	282	6
0.0026	1512	431	428	759	255	16	167.8	Discordant	
0.0012	392	235	291	27	279	8	104.5	279	8
0.0004	206	172	267	18	274	2	97.4	274	2
0.0031	1959	27	1941	15	1925	15	101.8	1959	27
0.0010	239	132	282	15	287	6	98.2	287	6
0.0005	188	199	277	21	288	3	96.3	288	3
0.0012	227	142	293	17	302	7	97.2	302	7
0.0007	65	1069	255	97	276	4	92.3	276	4
0.0003	268	129	282	14	284	2	99.4	284	2
0.0007	(30)	304	248	28	278	4	89.1	Discordant	

0.0007	302	46	292	6	291	4	100.4	291	4
0.0005	111	365	270	37	288	3	93.5	288	3
0.0013	(30)	274	252	26	283	8	88.9	Discordant	
0.0034	863	46	794	19	770	20	103.1	770	20
0.0039	1960	27	1948	16	1936	18	101.2	1960	27
0.0010	(30)	303	255	29	287	6	88.8	Discordant	
0.0007	345	49	299	7	293	5	102.0	293	5
0.0005	257	194	285	21	289	3	98.8	289	3
0.0009	582	19	564	6	560	5	100.8	560	5
0.0020	239	218	294	26	301	12	97.6	301	12
0.0009	328	29	300	6	297	6	101.2	297	6
0.0028	627	48	604	17	598	17	101.0	598	17
0.0007	293	94	285	11	284	4	100.4	284	4
0.0011	444	199	309	25	291	7	106.0	291	7
0.0008	213	277	274	29	282	5	97.4	282	5
0.0007	169	277	272	28	284	4	95.7	284	4
0.0014	807	58	775	16	763	8	101.5	763	8
0.0010	527	326	310	40	281	6	110.0	281	6
0.0012	250	369	281	40	285	7	98.7	285	7
0.0014	532	118	441	21	424	8	104.1	424	8
0.0008	292	122	291	14	291	5	100.0	291	5
0.0010	202	382	291	42	302	6	96.3	302	6
0.0010	88	400	259	39	278	6	93.1	278	6
0.0005	288	257	281	28	280	3	100.3	280	3
0.0012	53	296	255	29	278	8	91.9	278	8
0.0005	86	634	264	61	284	3	92.8	284	3
0.0009	272	75	290	10	292	6	99.3	292	6
0.0010	326	172	415	26	432	6	96.2	432	6
0.0011	331	234	285	26	280	7	102.0	280	7
0.0013	411	158	305	20	291	8	104.7	291	8
0.0007	254	112	281	13	284	4	98.9	284	4
0.0022	389	196	296	26	285	14	104.1	285	14
0.0017	201	456	274	48	283	10	96.9	283	10
0.0005	349	252	289	28	282	3	102.6	282	3
0.0014	106	421	270	43	289	8	93.3	289	8
0.0006	427	211	309	25	293	3	105.3	293	3
0.0014	(136)	664	243	58	284	9	85.6	Discordant	
0.0034	756	30	786	16	796	20	98.7	796	20
0.0010	272	75	286	10	288	6	99.4	288	6
0.0019	59	407	275	42	301	12	91.4	301	12
0.0020	1178	27	1186	12	1190	11	99.0	1178	27
0.0054	1971	10	1983	14	1995	25	98.8	1971	10
0.0043	2180	14	2156	12	2131	19	102.3	2180	14
0.0004	(130)	745	256	67	300	2	85.3	Discordant	
0.0014	406	132	311	18	299	9	104.2	299	9
0.0021	944	36	977	12	990	12	98.7	990	12
0.0020	937	34	952	11	958	11	99.4	958	11
0.0019	781	46	832	13	850	11	97.9	850	11
0.0062	2561	26	2552	16	2538	27	100.9	2561	26
0.0044	1715	42	1731	20	1742	22	98.5	1715	42
0.0069	2729	24	2775	16	2835	29	96.3	2729	24
0.0058	2278	28	2333	17	2395	26	95.1	2278	28
0.0042	1923	28	1881	15	1842	20	104.4	1923	28
0.0050	1884	48	1851	24	1821	24	103.5	1884	48
0.0072	2730	26	2783	17	2856	30	95.6	2730	26
0.0044	1840	34	1847	17	1851	21	99.4	1840	34
0.0027	1085	63	1075	22	1069	15	101.5	1085	63
0.0010	349	79	427	13	441	6	96.8	441	6
0.0009	388	54	426	9	433	6	98.4	433	6
0.0020	917	35	930	11	936	11	99.4	936	11
0.0042	1801	33	1802	16	1802	20	99.9	1801	33
0.0046	1945	29	1970	15	1993	22	97.6	1945	29

0.0044	1924	30	1925	15	1925	21	99.9	1924	30
0.0019	825	40	867	12	883	11	98.2	883	11
0.0042	1802	29	1840	15	1873	20	96.2	1802	29
0.0048	2071	29	2069	16	2066	22	100.2	2071	29
0.0071	2473	35	2525	20	2591	31	95.4	2473	35
0.0048	1976	30	2010	16	2042	22	96.8	1976	30
0.0061	2266	37	2273	21	2280	28	99.4	2266	37
0.0042	1953	27	1909	16	1869	20	104.5	1953	27
0.0057	2482	28	2429	17	2364	26	105.0	2482	28
0.0045	1921	29	1936	15	1949	21	98.6	1921	29
0.0051	1913	39	1959	20	2002	24	95.6	1913	39
0.0051	1915	32	2015	17	2113	23	90.6	1915	32
0.0058	2486	29	2446	17	2397	26	103.7	2486	29
0.0046	1953	34	1931	18	1909	22	102.3	1953	34
0.0047	1922	35	1923	18	1924	22	99.9	1922	35
0.0012	563	71	530	14	523	7	101.3	523	7
0.0055	2294	29	2291	17	2286	25	100.3	2294	29
0.0016	704	66	682	16	675	9	101.0	675	9
0.0046	1974	30	1964	16	1955	22	101.0	1974	30
0.0019	948	42	882	13	856	10	103.0	856	10
0.0056	2297	29	2315	17	2334	25	98.4	2297	29
0.0043	1784	33	1812	17	1836	21	97.2	1784	33
0.0018	853	53	812	15	797	10	101.9	797	10
0.0047	1919	31	1952	17	1983	22	96.8	1919	31
0.0067	2523	33	2457	25	2379	30	106.1	2523	33
0.0010	484	45	467	8	463	6	100.9	463	6
0.0019	808	53	825	15	831	11	99.3	831	11
0.0044	1926	31	1914	16	1901	21	101.3	1926	31
0.0044	1928	32	1898	17	1871	21	103.0	1928	32
0.0048	1946	34	1965	18	1983	23	98.1	1946	34
0.0027	1166	42	1202	18	1221	15	95.5	1166	42
0.0019	858	51	840	15	833	11	100.8	833	11
0.0061	2587	31	2509	19	2412	27	107.3	2587	31
0.0021	930	43	948	14	956	12	99.2	956	12
0.0011	416	59	464	10	473	6	98.1	473	6
0.0010	477	52	469	9	468	6	100.2	468	6
0.0019	792	46	831	13	845	11	98.3	845	11
0.0030	1105	60	1145	21	1166	16	94.8	1105	60
0.0023	978	47	992	15	999	12	99.3	999	12
0.0021	986	63	896	19	861	12	104.1	861	12
0.0026	1038	58	1046	19	1050	14	98.9	1038	58
0.0049	1935	36	1985	18	2033	23	95.2	1935	36
0.0049	1932	37	1961	19	1988	23	97.2	1932	37
0.0063	2488	32	2508	19	2533	27	98.2	2488	32
0.0011	542	61	481	11	468	6	102.8	468	6
0.0073	2638	35	2668	21	2707	31	97.5	2638	35
0.0040	1644	41	1654	19	1661	20	99.0	1644	41
0.0064	2471	34	2497	20	2529	28	97.7	2471	34
0.0059	2378	34	2382	19	2386	26	99.7	2378	34
0.0012	631	78	521	15	496	7	105.0	496	7
0.0048	1960	38	1946	20	1933	23	101.4	1960	38
0.0022	956	45	979	15	990	12	98.9	990	12
0.0010	531	62	445	10	429	6	103.7	429	6
0.0026	1066	44	1104	16	1124	14	94.8	1066	44
0.0054	1953	51	1921	25	1892	26	103.2	1953	51
0.0022	919	64	905	19	899	13	100.7	899	13
0.0008	797	68	407	14	341	5	119.4	Discordant	
0.0024	965	51	1006	16	1024	13	94.2	965	51
0.0053	2044	39	2070	21	2096	25	97.5	2044	39
0.0049	1932	40	1941	20	1949	23	99.1	1932	40
0.0051	1902	44	1926	22	1948	24	97.6	1902	44
0.0010	459	78	428	12	422	6	101.4	422	6
0.0048	1933	40	1931	20	1929	23	100.2	1933	40

0.0041	1685	42	1694	19	1702	20	99.0	1685	42
0.0011	478	73	477	13	477	7	100.0	477	7
0.0074	2727	38	2703	23	2672	31	102.1	2727	38
0.0011	534	67	471	12	458	6	102.8	458	6
0.0017	574	99	610	21	620	10	98.4	620	10
0.0057	2299	48	2152	26	2002	27	114.8	Discordant	
0.0068	2482	37	2539	22	2612	29	95.0	2482	37
0.0037	1562	43	1553	19	1546	19	101.0	1562	43
0.0041	1529	46	1591	21	1639	20	93.3	1529	46
0.0011	422	61	461	11	469	6	98.3	469	6
0.0011	486	73	462	13	457	7	101.1	457	7
0.0011	426	69	457	12	463	7	98.7	463	7
0.0070	2534	40	2560	23	2594	30	97.7	2534	40
0.0023	972	50	980	16	984	13	99.6	984	13
0.0011	531	71	475	13	464	7	102.4	464	7
0.0062	2374	40	2375	23	2376	28	99.9	2374	40
0.0011	417	58	461	10	470	6	98.1	470	6
0.0060	2157	44	2200	24	2246	27	96.0	2157	44
0.0051	1936	45	1935	23	1934	24	100.1	1936	45
0.0040	1577	46	1601	21	1619	20	97.4	1577	46
0.0025	1118	38	1134	14	1141	14	98.0	1118	38
0.0037	1581	35	1602	16	1616	19	97.8	1581	35
0.0037	1632	31	1636	15	1638	18	99.6	1632	31
0.0028	1241	42	1216	16	1201	15	103.3	1241	42
0.0053	2053	34	2099	18	2144	25	95.8	2053	34
0.0010	509	52	470	9	462	6	101.7	462	6
0.0015	713	43	715	11	715	9	100.0	715	9
0.0018	826	45	815	13	810	10	100.6	810	10
0.0022	977	45	986	15	989	12	99.7	989	12
0.0018	764	51	800	14	812	10	98.5	812	10
0.0022	944	41	986	13	1005	12	93.9	944	41
0.0047	1909	31	1959	16	2006	22	95.2	1909	31
0.0019	953	40	892	12	867	11	102.9	867	11
0.0045	1886	32	1905	16	1921	21	98.2	1886	32
0.0028	1106	55	1138	19	1154	15	95.8	1106	55
0.0011	517	54	490	10	484	6	101.2	484	6
0.0037	1592	37	1578	17	1567	18	101.6	1592	37
0.0010	515	69	462	12	451	6	102.4	451	6
0.0010	503	53	451	9	440	6	102.5	440	6
0.0061	2520	30	2506	18	2487	27	101.3	2520	30
0.0041	1739	33	1753	16	1762	20	98.7	1739	33
0.0046	1921	33	1939	17	1955	22	98.3	1921	33
0.0040	1740	33	1743	16	1745	20	99.7	1740	33
0.0050	1969	33	2019	17	2066	23	95.3	1969	33
0.0027	1794	32	1454	16	1233	14	145.5	Discordant	
0.0011	562	51	513	10	502	7	102.2	502	7
0.0064	2481	30	2515	18	2555	28	97.1	2481	30
0.0055	2096	40	2077	21	2058	26	101.8	2096	40
0.0028	1193	40	1207	16	1214	15	98.3	1193	40
0.0024	1075	39	1075	14	1075	13	100.0	1075	39
0.0012	510	87	483	16	476	7	101.5	476	7
0.0021	958	46	942	15	935	12	100.7	935	12
0.0020	854	53	858	16	859	11	99.9	859	11
0.0049	2005	34	2009	18	2013	23	99.6	2005	34
0.0021	894	41	932	13	947	12	98.4	947	12
0.0065	2624	29	2613	18	2597	28	101.0	2624	29
0.0062	2512	31	2491	19	2464	27	101.9	2512	31
0.0022	967	43	970	14	970	12	100.0	970	12
0.0020	811	49	849	14	863	11	98.4	863	11
0.0011	521	69	463	12	451	6	102.7	451	6
0.0019	792	43	830	13	843	10	98.5	843	10
0.0019	803	46	844	14	860	11	98.1	860	11

0.0023	1016	42	1025	14	1029	13	98.7	1016	42
0.0070	2568	32	2617	20	2680	30	95.8	2568	32
0.0019	832	44	844	13	848	11	99.5	848	11
0.0059	2280	32	2326	19	2378	26	95.9	2280	32
0.0048	1834	42	1867	21	1896	23	96.7	1834	42
0.0012	444	60	506	11	519	7	97.5	519	7
0.0027	1140	42	1177	15	1197	15	95.2	1140	42
0.0019	840	48	854	14	859	11	99.4	859	11
0.0012	412	90	465	15	475	7	97.9	475	7
0.0041	1634	45	1645	20	1653	21	98.9	1634	45
0.0057	2018	47	2034	24	2049	27	98.5	2018	47
0.0021	878	70	850	20	838	12	101.4	838	12
0.0076	2791	34	2814	21	2847	31	98.0	2791	34
0.0035	1459	41	1466	18	1470	18	99.3	1459	41
0.0028	1148	45	1182	16	1200	15	95.7	1148	45
0.0038	1473	46	1512	20	1540	19	95.6	1473	46
0.0024	983	46	1028	15	1049	13	93.7	983	46
0.0010	446	59	464	10	468	6	99.1	468	6
0.0030	1509	43	1371	18	1284	16	117.5	Discordant	
0.0065	2464	36	2483	21	2505	28	98.4	2464	36
0.0011	1008	57	601	14	499	6	120.4	Discordant	
0.0027	1029	50	1096	17	1130	14	91.1	1029	50
0.0066	2463	37	2491	21	2525	29	97.5	2463	37
0.0046	1842	42	1841	20	1839	22	100.2	1842	42
0.0068	2609	36	2615	21	2623	29	99.5	2609	36
0.0057	2024	45	2062	23	2100	26	96.4	2024	45
0.0011	542	78	475	14	461	7	103.0	461	7
0.0051	1800	47	1862	23	1917	24	93.9	1800	47
0.0020	720	63	800	17	829	11	96.5	829	11
0.0045	1831	46	1793	22	1760	22	104.0	1831	46
0.0027	1014	69	1028	22	1035	15	98.0	1014	69
0.0069	2520	40	2544	23	2574	30	97.9	2520	40
0.0023	960	55	955	17	953	13	100.2	953	13
0.0033	1300	47	1354	19	1389	17	93.6	1300	47
0.0024	992	55	989	18	988	13	100.1	988	13
0.0012	546	77	511	14	503	7	101.6	503	7
0.0055	2016	44	2055	23	2095	25	96.2	2016	44
0.0012	556	71	499	13	486	7	102.7	486	7
0.0068	2590	39	2590	23	2590	29	100.0	2590	39
0.0071	2497	41	2557	23	2634	30	94.8	2497	41
0.0053	2032	44	2048	23	2064	25	98.4	2032	44
0.0056	2403	41	2292	23	2170	26	110.7	Discordant	
0.0022	841	68	857	19	864	12	99.2	864	12
0.0019	793	56	810	15	816	11	99.3	816	11
0.0011	420	69	441	11	445	6	99.1	445	6
0.0069	2486	42	2517	24	2556	30	97.3	2486	42
0.0078	2743	41	2764	25	2792	32	98.2	2743	41
0.0035	1355	49	1386	20	1407	18	96.3	1355	49
0.0024	1081	57	1020	19	991	13	102.9	991	13
0.0036	1488	50	1458	21	1438	18	103.5	1488	50
0.0050	1730	52	1789	25	1841	24	94.0	1730	52
0.0049	1811	53	1809	25	1808	24	100.2	1811	53
0.0019	826	56	818	16	816	11	100.2	816	11
0.0011	533	58	491	11	482	7	101.9	482	7
0.0027	1035	57	1060	19	1072	14	96.5	1035	57
0.0066	2520	43	2495	25	2463	29	102.3	2520	43
0.0072	2468	46	2507	26	2556	31	96.6	2468	46
0.0027	1033	54	1087	19	1114	15	92.7	1033	54
0.0012	505	61	528	12	533	7	99.1	533	7
0.0023	821	52	940	15	992	12	94.8	992	12
0.0042	1703	38	1717	18	1729	20	98.5	1703	38
0.0013	547	44	607	10	623	8	97.4	623	8

0.0020	904	44	922	13	929	11	99.2	929	11
0.0018	784	54	788	14	789	10	99.9	789	10
0.0026	1107	38	1160	13	1188	14	93.2	1107	38
0.0010	342	67	419	10	433	6	96.8	433	6
0.0020	873	37	915	11	933	11	98.1	933	11
0.0018	856	40	866	12	869	10	99.7	869	10
0.0043	1721	40	1743	19	1761	21	97.7	1721	40
0.0056	2455	28	2421	16	2380	25	103.2	2455	28
0.0048	2173	32	2104	17	2033	23	106.9	2173	32
0.0016	854	98	635	22	576	10	110.2	Discordant	
0.0009	357	48	426	8	439	5	97.0	439	5
0.0043	2382	28	2140	15	1896	21	125.6	Discordant	
0.0019	888	50	848	14	834	11	101.7	834	11
0.0058	2447	29	2426	17	2402	26	101.9	2447	29
0.0060	2415	34	2357	20	2289	27	105.5	2415	34
0.0061	2451	30	2463	17	2478	27	98.9	2451	30
0.0025	991	57	1018	18	1031	14	96.1	991	57
0.0019	1001	38	916	12	882	11	103.9	882	11
0.0066	2533	29	2592	17	2669	28	94.9	2533	29
0.0046	1901	37	1906	18	1911	22	99.5	1901	37
0.0057	2319	33	2298	18	2275	26	101.9	2319	33
0.0021	1013	40	987	13	975	12	101.2	975	12
0.0022	839	51	925	15	962	12	96.2	962	12
0.0062	2465	29	2519	17	2587	27	95.3	2465	29
0.0036	1531	41	1526	18	1523	18	100.5	1531	41
0.0009	409	65	413	10	414	6	99.8	414	6
0.0018	734	64	760	16	769	10	98.8	769	10
0.0047	1950	34	1960	17	1970	22	99.0	1950	34
0.0018	799	45	825	12	835	10	98.8	835	10
0.0009	378	65	407	10	413	6	98.5	413	6
0.0065	2607	31	2603	18	2599	28	100.3	2607	31
0.0019	806	76	779	20	769	11	101.3	769	11
0.0030	1617	35	1466	15	1365	16	118.5	Discordant	
0.0050	2143	32	2135	17	2126	23	100.8	2143	32
0.0066	2646	30	2665	18	2691	28	98.3	2646	30
0.0020	930	65	834	18	799	11	104.4	799	11
0.0056	2217	37	2200	20	2182	26	101.6	2217	37
0.0057	2285	35	2272	19	2258	26	101.2	2285	35
0.0021	880	42	936	13	960	12	97.5	960	12
0.0018	797	44	835	12	850	10	98.2	850	10
0.0061	2423	34	2418	19	2414	27	100.4	2423	34
0.0017	840	46	811	12	801	10	101.2	801	10
0.0051	1788	57	1776	26	1767	25	101.2	1788	57
0.0018	782	53	782	14	782	10	100.0	782	10
0.0026	1111	47	1135	16	1147	14	96.9	1111	47
0.0031	1439	44	1368	18	1324	16	108.7	1439	44
0.0018	719	61	762	15	777	10	98.1	777	10
0.0018	919	47	844	13	816	10	103.4	816	10
0.0060	2550	34	2491	19	2420	27	105.4	2550	34
0.0047	2293	35	2132	19	1970	22	116.4	Discordant	
0.0055	2193	36	2209	19	2228	25	98.4	2193	36
0.0022	821	90	806	23	801	13	100.6	801	13
0.0056	2026	45	2055	23	2085	26	97.2	2026	45
0.0011	467	69	479	13	482	7	99.4	482	7
0.0049	2058	39	1989	21	1924	23	107.0	2058	39
0.0023	1111	54	993	18	942	13	105.4	942	13
0.0032	1444	41	1408	18	1386	17	104.2	1444	41
0.0058	2683	33	2446	23	2172	27	123.5	Discordant	
0.0010	779	60	506	12	448	6	112.9	Discordant	
0.0045	1948	37	1904	19	1865	22	104.5	1948	37
0.0024	1039	46	1032	16	1028	13	101.1	1039	46
0.0022	931	45	948	15	955	12	99.3	955	12
0.0070	2556	38	2561	23	2569	30	99.5	2556	38

0.0060	2466	37	2390	22	2303	27	107.1	2466	37
0.0024	998	61	985	20	979	14	100.6	979	14
0.0022	976	48	958	16	951	12	100.7	951	12
0.0057	2242	40	2209	22	2173	26	103.2	2242	40
0.0023	950	50	970	16	980	13	99.0	980	13
0.0062	2360	49	2240	27	2112	29	111.7	Discordant	
0.0052	2077	41	2073	21	2069	24	100.4	2077	41
0.0079	3121	37	3032	23	2902	33	107.5	3121	37
0.0037	1544	45	1528	20	1518	19	101.7	1544	45
0.0039	1522	51	1512	22	1506	20	101.1	1522	51
0.0024	1079	57	1017	22	988	13	102.9	988	13
0.0021	1031	49	941	16	904	12	104.1	904	12
0.0031	857	125	905	36	926	17	97.7	926	17
0.0052	1995	50	1945	25	1899	25	105.1	1995	50
0.0021	933	57	908	17	897	12	101.2	897	12
0.0023	946	54	963	17	971	13	99.2	971	13
0.0044	1667	54	1654	25	1644	22	101.4	1667	54
0.0031	1308	51	1273	20	1253	16	104.4	1308	51
0.0042	1607	50	1620	23	1630	21	98.6	1607	50
0.0026	1126	53	1086	18	1067	14	105.5	1126	53
0.0026	935	83	929	25	926	14	100.3	926	14
0.0034	1370	51	1367	21	1366	17	100.3	1370	51
0.0043	1795	46	1764	22	1739	21	103.2	1795	46
0.0019	827	61	809	17	803	11	100.7	803	11
0.0051	1878	55	1839	27	1806	25	104.0	1878	55
0.0046	1853	48	1822	24	1796	23	103.2	1853	48
0.0027	1123	54	1114	19	1110	15	101.2	1123	54
0.0049	1900	53	1826	27	1763	24	107.8	1900	53
0.0052	1996	47	1973	25	1952	25	102.3	1996	47
0.0058	2092	49	2087	27	2082	27	100.5	2092	49
0.0076	2707	42	2722	26	2743	32	98.7	2707	42
0.0025	1101	56	1041	20	1013	14	108.7	1101	56
0.0067	2361	45	2390	26	2425	30	97.4	2361	45
0.0019	967	61	831	18	781	11	106.4	781	11
0.0044	1797	32	1808	16	1816	21	99.0	1797	32
0.0041	1661	34	1692	16	1717	20	96.7	1661	34
0.0035	1580	29	1558	14	1540	18	102.6	1580	29
0.0023	1032	41	1017	14	1009	13	102.3	1032	41
0.0018	728	47	792	13	814	10	97.3	814	10
0.0056	2258	38	2115	30	1972	27	114.5	Discordant	
0.0025	1060	90	976	35	939	14	103.9	939	14
0.0035	1369	40	1434	17	1478	18	92.6	1369	40
0.0044	1743	37	1770	18	1792	22	97.3	1743	37
0.0026	1052	36	1115	13	1147	14	91.7	1052	36
0.0047	1936	31	1939	16	1940	22	99.8	1936	31
0.0044	1815	28	1848	15	1876	21	96.7	1815	28
0.0021	983	37	977	12	975	12	100.2	975	12
0.0029	1250	33	1279	13	1296	15	96.5	1250	33
0.0022	1001	38	1011	13	1015	12	98.6	1001	38
0.0021	895	45	895	17	895	12	100.0	895	12
0.0052	1990	34	2037	18	2082	24	95.6	1990	34
0.0013	710	47	611	11	585	7	104.4	585	7
0.0022	919	38	971	12	994	12	97.7	994	12
0.0037	1542	33	1569	15	1588	18	97.1	1542	33
0.0051	1951	37	1974	19	1996	24	97.7	1951	37
0.0017	763	102	627	23	589	10	106.5	589	10
0.0010	500	47	459	8	450	6	102.0	450	6
0.0033	1440	35	1434	15	1429	17	100.8	1440	35
0.0048	1778	39	1850	19	1914	23	92.9	1778	39
0.0009	340	49	405	8	416	5	97.4	416	5
0.0018	766	45	805	12	818	10	98.4	818	10
0.0025	1234	46	1130	17	1077	14	114.6	Discordant	

0.0049	1807	37	1885	19	1957	23	92.3	1807	37
0.0029	1018	60	1099	20	1139	16	89.4	Discordant	
0.0022	1133	46	1023	16	972	12	105.2	972	12
0.0022	902	48	942	15	958	12	98.3	958	12
0.0030	1173	44	1225	17	1255	16	93.5	1173	44
0.0018	673	49	775	13	811	10	95.6	811	10
0.0025	1032	44	1059	15	1072	13	96.3	1032	44
0.0023	953	46	999	15	1019	13	93.5	953	46
0.0010	591	59	458	11	432	6	106.0	432	6
0.0058	2296	31	2326	18	2360	26	97.3	2296	31
0.0019	895	73	789	20	751	11	105.1	751	11
0.0044	1806	32	1838	16	1866	21	96.8	1806	32
0.0018	795	45	814	13	820	10	99.3	820	10
0.0039	1675	37	1643	18	1619	19	103.5	1675	37
0.0013	604	91	495	20	472	8	104.9	472	8
0.0046	1801	42	1801	20	1800	22	100.1	1801	42
0.0012	488	81	476	14	474	7	100.4	474	7
0.0023	575	205	575	49	575	14	100.0	575	14
0.0020	872	46	873	14	873	11	100.0	873	11
0.0059	2223	40	2204	22	2183	27	101.8	2223	40
0.0019	1040	45	905	14	851	11	106.3	851	11
0.0072	2608	32	2672	20	2757	30	94.6	2608	32
0.0072	2700	31	2734	19	2780	30	97.1	2700	31
0.0054	2164	36	2164	20	2164	25	100.0	2164	36
0.0019	853	98	692	24	644	11	107.5	644	11
0.0066	2491	34	2508	20	2529	29	98.5	2491	34
0.0011	421	65	460	11	468	6	98.3	468	6
0.0019	707	110	653	26	638	11	102.4	638	11
0.0025	962	47	1055	16	1100	14	87.5	Discordant	
0.0018	852	52	819	15	807	10	101.5	807	10
0.0017	783	61	738	16	723	10	102.1	723	10
0.0044	1721	40	1754	19	1783	21	96.5	1721	40
0.0020	888	51	876	15	872	11	100.5	872	11
0.0031	1485	42	1395	20	1336	16	111.2	Discordant	
0.0025	1033	50	1056	17	1067	14	96.8	1033	50
0.0051	2088	38	2075	20	2061	24	101.3	2088	38
0.0073	2944	34	2873	21	2773	30	106.2	2944	34
0.0068	2780	36	2694	22	2582	29	107.7	2780	36
0.0026	1144	43	1144	16	1143	14	100.1	1144	43
0.0021	860	68	844	19	838	12	100.7	838	12
0.0020	864	56	850	16	844	11	100.7	844	11
0.0045	1843	40	1856	20	1868	22	98.7	1843	40
0.0011	505	72	468	13	460	7	101.7	460	7
0.0060	2279	39	2317	21	2360	27	96.6	2279	39
0.0041	1636	43	1663	20	1685	20	97.1	1636	43
0.0021	900	63	859	18	843	12	101.9	843	12
0.0019	890	55	841	16	823	11	102.2	823	11
0.0020	797	82	775	22	767	12	101.0	767	12
0.0019	831	73	776	19	758	11	102.4	758	11
0.0058	2206	43	2202	23	2198	26	100.4	2206	43
0.0029	1289	47	1253	18	1233	15	104.5	1289	47
0.0055	2113	43	2110	23	2107	25	100.3	2113	43
0.0011	522	74	472	13	462	7	102.2	462	7
0.0054	1787	56	1841	27	1890	26	94.6	1787	56
0.0026	1106	50	1105	17	1105	14	100.1	1106	50
0.0029	1263	53	1232	19	1215	16	104.0	1263	53
0.0021	947	60	888	17	865	12	102.7	865	12
0.0051	1921	45	1975	22	2027	24	94.8	1921	45
0.0036	1480	51	1465	21	1456	18	101.6	1480	51
0.0051	1796	52	1846	25	1891	24	95.0	1796	52
0.0067	2493	42	2520	24	2553	29	97.6	2493	42
0.0055	2052	45	2092	23	2133	25	96.2	2052	45
0.0087	3140	40	3139	25	3137	35	100.1	3140	40

0.0029	1239	54	1204	20	1186	15	104.5	1239	54
0.0043	1744	47	1741	22	1739	21	100.3	1744	47
0.0017	833	21	811	11	802	9	101.1	802	9
0.0039	1823	13	1807	13	1792	19	101.7	1823	13
0.0057	2553	12	2499	15	2433	25	104.9	2553	12
0.0020	915	27	933	14	941	11	99.1	941	11
0.0045	2012	12	2016	13	2020	21	99.6	2012	12
0.0016	852	15	830	9	821	9	101.1	821	9
0.0009	538	29	473	9	459	6	103.1	459	6
0.0060	2705	31	2676	13	2637	26	102.6	2705	31
0.0017	821	31	812	14	809	10	100.4	809	10
0.0009	471	30	430	8	422	5	101.9	422	5
0.0060	2646	11	2626	14	2601	26	101.7	2646	11
0.0019	974	97	849	25	802	11	105.9	802	11
0.0016	833	15	810	9	802	9	101.0	802	9
0.0016	795	18	797	10	797	9	100.0	797	9
0.0046	2129	14	2076	15	2022	22	105.3	2129	14
0.0016	863	20	816	11	799	9	102.1	799	9
0.0039	2144	12	1948	13	1769	19	121.2	Discordant	
0.0016	809	20	798	10	794	9	100.5	794	9
0.0029	1423	14	1404	12	1391	15	102.3	1423	14
0.0017	778	24	820	12	835	10	98.2	835	10
0.0009	630	33	473	10	441	6	107.3	441	6
0.0017	850	21	827	11	818	10	101.1	818	10
0.0017	840	21	824	11	818	10	100.7	818	10
0.0047	2057	15	2048	16	2038	22	100.9	2057	15
0.0021	909	26	938	14	951	11	98.6	951	11
0.0017	795	21	806	11	810	9	99.5	810	9
0.0036	1735	14	1704	13	1679	18	103.3	1735	14
0.0009	417	39	421	10	422	5	99.8	422	5
0.0019	930	20	929	12	928	11	100.1	928	11
0.0048	2093	15	2085	15	2076	22	100.8	2093	15
0.0009	412	33	430	9	433	5	99.3	433	5
0.0040	1839	13	1817	14	1798	19	102.3	1839	13
0.0010	492	46	449	12	440	6	102.0	440	6
0.0016	788	23	785	11	784	9	100.1	784	9
0.0041	1821	17	1806	16	1794	20	101.5	1821	17
0.0008	443	21	422	6	418	5	101.0	418	5
0.0009	483	39	431	10	421	5	102.4	421	5
0.0017	763	30	795	14	806	10	98.6	806	10
0.0016	904	18	819	10	788	9	103.9	788	9
0.0041	1822	15	1811	15	1801	20	101.2	1822	15
0.0016	853	18	818	10	805	9	101.6	805	9
0.0017	797	23	803	11	805	10	99.8	805	10
0.0017	818	21	806	11	801	9	100.6	801	9
0.0054	2451	12	2399	15	2339	24	104.8	2451	12
0.0057	2452	13	2440	15	2424	25	101.2	2452	13
0.0009	479	40	443	10	436	6	101.6	436	6
0.0017	779	41	749	16	739	10	101.4	739	10
0.0046	1999	15	2004	15	2008	22	99.6	1999	15
0.0057	2498	12	2485	15	2470	25	101.1	2498	12
0.0017	850	22	812	11	798	10	101.8	798	10
0.0057	2507	13	2475	15	2435	25	103.0	2507	13
0.0056	2444	13	2426	15	2405	25	101.6	2444	13
0.0040	1758	16	1757	15	1757	19	100.1	1758	16
0.0045	1998	16	1980	16	1964	21	101.7	1998	16
0.0039	1750	17	1747	15	1745	19	100.3	1750	17
0.0053	2243	16	2225	17	2205	24	101.7	2243	16
0.0009	493	25	445	8	436	5	102.1	436	5
0.0009	399	36	412	9	414	5	99.5	414	5
0.0054	2431	13	2387	15	2335	24	104.1	2431	13
0.0016	815	19	799	10	794	9	100.6	794	9

0.0019	717	76	742	25	751	11	98.8	751	11
0.0009	404	28	434	8	439	5	98.9	439	5
0.0016	785	25	777	12	774	9	100.4	774	9
0.0058	2491	13	2478	15	2463	25	101.1	2491	13
0.0018	814	21	831	11	837	10	99.3	837	10
0.0053	2326	14	2314	16	2300	24	101.1	2326	14
0.0045	1802	24	1812	20	1821	22	99.0	1802	24
0.0018	727	62	750	22	758	11	98.9	758	11
0.0025	1185	18	1188	13	1189	14	99.7	1185	18
0.0050	2151	16	2144	16	2137	23	100.7	2151	16
0.0023	1101	19	1075	13	1063	12	103.6	1101	19
0.0009	463	34	433	9	427	5	101.4	427	5
0.0047	2064	15	2054	15	2044	22	101.0	2064	15
0.0009	387	35	429	9	437	6	98.2	437	6
0.0009	430	24	435	7	436	5	99.8	436	5
0.0027	1265	19	1247	14	1236	14	102.3	1265	19
0.0017	821	21	819	11	818	10	100.1	818	10
0.0020	1006	21	972	13	957	11	101.6	957	11
0.0046	2001	16	1997	16	1993	22	100.4	2001	16
0.0040	1889	38	1857	14	1828	19	103.3	1889	38
0.0017	822	23	802	11	794	10	101.0	794	10
0.0017	871	22	831	12	816	10	101.8	816	10
0.0047	2095	16	2060	16	2024	22	103.5	2095	16
0.0046	2051	16	2020	16	1989	22	103.1	2051	16
0.0048	2202	16	2130	17	2056	22	107.1	2202	16
0.0045	2017	17	1992	16	1968	22	102.5	2017	17
0.0054	2355	16	2322	17	2284	24	103.1	2355	16
0.0056	2046	28	2067	24	2088	26	98.0	2046	28
0.0047	2108	17	2068	17	2028	22	103.9	2108	17
0.0021	1014	24	980	14	965	12	101.6	965	12
0.0017	847	20	820	11	809	10	101.4	809	10
0.0010	438	31	457	9	461	6	99.1	461	6
0.0021	937	20	972	12	988	12	98.4	988	12
0.0022	1014	22	1023	13	1027	12	98.7	1014	22
0.0009	470	27	430	8	423	5	101.7	423	5
0.0017	826	27	808	13	802	10	100.7	802	10
0.0080	3502	14	3367	18	3145	31	111.4	Discordant	
0.0050	2052	21	2041	19	2029	23	101.1	2052	21
0.0061	2419	19	2424	20	2430	27	99.5	2419	19
0.0059	2494	17	2455	18	2408	26	103.6	2494	17
0.0010	458	45	444	11	442	6	100.5	442	6
0.0009	411	40	416	10	417	5	99.8	417	5
0.0017	702	37	729	15	737	9	98.9	737	9
0.0018	801	30	817	14	822	10	99.4	822	10
0.0040	1765	19	1756	17	1748	20	101.0	1765	19
0.0057	2436	18	2399	19	2354	26	103.5	2436	18
0.0050	2038	23	2024	20	2010	24	101.4	2038	23
0.0032	1531	20	1475	16	1437	17	106.5	1531	20
0.0052	2085	23	2078	21	2070	24	100.7	2085	23
0.0047	2072	19	2036	18	2001	22	103.5	2072	19
0.0017	856	26	816	13	802	10	101.7	802	10
0.0009	334	48	402	11	414	6	97.1	414	6
0.0065	2592	18	2591	20	2589	28	100.1	2592	18
0.0056	2340	19	2325	19	2306	25	101.5	2340	19
0.0017	825	29	794	13	783	10	101.4	783	10
0.0010	450	50	428	12	424	6	100.9	424	6
0.0018	825	25	828	12	829	10	99.9	829	10
0.0018	812	27	828	13	834	10	99.3	834	10
0.0055	2260	20	2248	19	2235	25	101.1	2260	20
0.0052	2182	19	2178	19	2174	24	100.4	2182	19
0.0014	422	87	422	15	423	9	100.0	423	9
0.0016	458	70	421	14	414	10	101.6	414	10

0.0015	440	25	464	9	469	9	99.0	469	9
0.0014	443	29	426	8	423	8	100.7	423	8
0.0025	794	44	788	16	786	14	100.3	786	14
0.0065	561	218	476	51	458	39	103.8	458	39
0.0079	527	67	529	40	529	47	99.9	529	47
0.0016	407	52	403	11	402	10	100.2	402	10
0.0046	1742	7	1731	13	1723	23	101.1	1742	7
0.0019	402	162	411	26	413	12	99.6	413	12
0.0013	460	25	411	8	403	8	102.2	403	8
0.0043	1019	11	1024	17	1026	24	99.3	1019	11
0.0016	376	66	418	13	425	10	98.2	425	10
0.0030	434	114	417	24	413	18	100.8	413	18
0.0019	461	54	422	13	415	12	101.7	415	12
0.0025	417	73	429	17	431	15	99.5	431	15
0.0087	858	41	887	36	899	49	98.7	899	49
0.0028	443	69	428	18	425	17	100.7	425	17
0.0018	420	38	423	11	423	11	99.9	423	11
0.0024	418	86	424	18	425	15	99.7	425	15
0.0019	445	32	443	11	442	11	100.1	442	11
0.0095	2716	9	2723	18	2733	41	99.4	2716	9
0.0041	394	158	407	32	409	25	99.4	409	25
0.0032	445	126	422	26	418	19	101.0	418	19
0.0027	480	52	438	16	430	16	101.9	430	16
0.0036	726	561	438	95	386	22	113.7	Discordant	
0.0022	318	59	405	14	420	14	96.4	420	14
0.0013	442	64	417	12	413	8	101.1	413	8
0.0035	409	32	428	18	431	21	99.2	431	21
0.0022	440	71	435	16	434	14	100.2	434	14
0.0025	478	90	451	20	446	15	101.2	446	15
0.0021	367	41	420	12	430	12	97.7	430	12
0.0047	475	52	406	26	394	28	103.1	394	28
0.0090	971	119	964	63	961	50	100.3	961	50
0.0029	434	118	497	32	510	17	97.5	510	17
0.0055	858	71	941	37	978	31	96.2	978	31
0.0041	804	50	929	26	983	23	94.5	983	23
0.0047	1367	32	1307	24	1272	25	107.5	1367	32
0.0094	950	144	997	72	1018	52	93.3	950	144
0.0020	490	70	483	20	482	12	100.2	482	12
0.0045	1735	14	1738	14	1741	22	99.7	1735	14
0.0037	633	158	493	44	463	22	106.5	463	22
0.0015	843	40	538	14	469	9	114.7	Discordant	
0.0026	1118	22	1031	14	991	14	104.0	991	14
0.0026	656	290	501	49	467	16	107.3	467	16
0.0097	1101	106	1092	63	1087	53	101.3	1101	106
0.0028	1142	25	1041	16	993	15	104.8	993	15
0.0031	1099	28	1044	18	1018	17	108.0	1099	28
0.0014	988	39	551	15	451	9	122.2	Discordant	
0.0027	786	74	566	26	513	16	110.3	Discordant	
0.0048	1722	18	1660	17	1611	24	106.9	1722	18
0.0104	2501	20	2433	24	2352	46	106.3	2501	20
0.0095	2563	16	2565	20	2567	41	99.8	2563	16
0.0022	721	87	487	25	439	13	110.9	Discordant	
0.0022	610	58	607	20	606	13	100.2	606	13
0.0018	481	65	478	18	477	11	100.2	477	11
0.0087	2559	15	2507	19	2443	38	104.7	2559	15
0.0035	1193	30	1116	20	1076	19	110.9	Discordant	
0.0030	1068	34	958	20	911	17	105.2	911	17
0.0014	661	44	499	14	465	9	107.3	465	9
0.0019	463	75	455	20	453	11	100.4	453	11
0.0018	723	54	542	18	500	11	108.4	500	11
0.0078	2826	12	2756	15	2663	33	106.1	2826	12
0.0030	1235	64	1156	19	1114	16	110.9	Discordant	

0.0013	648	41	481	13	447	8	107.6	447	8
0.0048	2128	11	2106	12	2083	22	102.2	2128	11
0.0020	926	64	843	15	811	11	103.9	811	11
0.0042	746	429	760	101	765	28	99.3	765	28
0.0025	945	117	964	33	973	15	99.1	973	15
0.0023	775	84	524	26	468	14	112.0	Discordant	
0.0038	675	126	564	40	537	22	105.0	537	22
0.0066	2835	10	2788	12	2724	28	104.1	2835	10
0.0018	502	81	453	21	443	11	102.3	443	11
0.0020	669	74	509	22	474	12	107.4	474	12
0.0044	2093	38	2022	15	1953	21	107.2	2093	38
0.0027	265	173	435	38	468	16	92.9	468	16
0.0027	1056	28	1003	17	979	15	102.5	979	15
0.0034	652	176	469	45	432	21	108.6	432	21
0.0032	574	141	521	39	508	19	102.6	508	19
0.0022	1079	25	924	14	860	12	107.4	860	12
0.0075	2560	13	2549	16	2536	32	100.9	2560	13
0.0014	455	174	431	26	427	9	100.9	427	9
0.0021	568	102	437	26	413	13	105.8	413	13
0.0029	1041	31	996	18	975	16	102.2	975	16
0.0021	946	66	927	17	920	12	100.8	920	12
0.0026	1094	28	987	16	939	14	105.1	939	14
0.0011	909	26	543	10	460	6	118.0	Discordant	
0.0017	679	57	485	17	445	10	109.0	445	10
0.0114	3315	13	3265	18	3184	45	104.1	3315	13
0.0106	2557	19	2557	23	2557	46	100.0	2557	19
0.0016	684	51	513	16	476	10	107.8	476	10
0.0013	614	43	483	13	456	8	105.9	456	8
0.0039	1210	33	1163	22	1138	21	106.3	1210	33
0.0020	494	81	455	22	448	12	101.6	448	12
0.0055	2565	12	2369	15	2146	25	119.5	Discordant	
0.0088	2610	16	2576	20	2533	38	103.0	2610	16
0.0020	733	75	516	23	468	12	110.3	Discordant	
0.0020	851	71	539	23	467	12	115.4	Discordant	
0.0023	1101	23	1018	14	979	13	104.0	979	13
0.0020	799	75	514	23	452	12	113.7	Discordant	
0.0052	1803	20	1783	19	1766	26	102.1	1803	20
0.0083	1739	38	1663	34	1602	42	108.6	1739	38
0.0070	2653	13	2586	16	2500	31	106.1	2653	13
0.0012	689	41	482	13	440	7	109.5	440	7
0.0014	629	46	485	14	455	8	106.6	455	8
0.0063	1309	60	1161	40	1083	34	120.9	Discordant	
0.0029	1052	33	993	19	966	16	102.8	966	16
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0.0027	1186	43	1185	15	1184	14	100.2	1186	43
0.0010	726	48	511	9	464	6	110.1	Discordant	
0.0065	2517	33	2510	19	2500	29	100.7	2517	33
0.0010	531	50	461	9	447	6	103.1	447	6
0.0067	2467	34	2421	24	2366	30	104.3	2467	34
0.0023	1082	37	1075	13	1072	13	100.9	1082	37
0.0010	497	60	477	10	473	6	100.8	473	6
0.0018	895	43	845	12	826	10	102.3	826	10
0.0048	2406	28	2220	16	2024	23	118.9	Discordant	
0.0062	2465	26	2502	16	2546	27	96.8	2465	26
0.0036	1453	41	1484	18	1505	19	96.5	1453	41
0.0015	736	40	713	11	706	9	101.0	706	9
0.0023	1056	50	998	17	971	13	102.8	971	13
0.0019	893	40	884	12	880	11	100.5	880	11
0.0026	1073	56	1064	19	1059	14	101.3	1073	56
0.0011	569	50	501	10	486	6	103.1	486	6
0.0027	1201	34	1205	14	1206	14	99.6	1201	34
0.0023	1045	39	1044	14	1043	13	100.2	1045	39
0.0022	1034	38	1025	13	1021	12	101.3	1034	38

0.0018	687	72	707	18	713	10	99.2	713	10
0.0017	736	44	769	12	780	10	98.6	780	10
0.0053	1850	57	1798	28	1754	26	105.5	1850	57
0.0014	693	56	623	13	604	8	103.1	604	8
0.0022	1074	42	1019	15	993	12	102.6	993	12
0.0010	523	50	458	9	445	6	102.9	445	6
0.0023	1084	45	1017	15	986	12	103.1	986	12
0.0014	637	45	633	10	632	8	100.2	632	8
0.0033	1535	38	1450	17	1392	17	110.3	Discordant	
0.0046	1897	44	1808	22	1732	23	109.5	1897	44
0.0011	722	78	484	15	436	7	111.0	Discordant	
0.0020	1021	78	840	26	774	11	108.5	774	11
0.0039	1824	32	1756	16	1699	19	107.4	1824	32
0.0046	1789	36	1847	18	1898	22	94.3	1789	36
0.0030	1261	37	1296	15	1317	16	95.7	1261	37
0.0069	2692	30	2676	18	2654	29	101.4	2692	30
0.0023	1072	50	1008	16	978	13	103.1	978	13
0.0009	536	54	442	9	424	6	104.2	424	6
0.0060	2427	31	2424	18	2419	27	100.3	2427	31
0.0010	450	63	444	10	443	6	100.2	443	6
0.0011	367	73	451	12	468	7	96.4	468	7
0.0022	1026	40	1005	16	995	12	101.0	995	12
0.0018	763	51	782	14	789	10	99.1	789	10
0.0028	1106	57	1119	20	1125	15	98.3	1106	57
0.0038	1881	35	1748	17	1639	19	114.8	Discordant	
0.0024	1695	35	1311	15	1089	13	155.6	Discordant	
0.0018	822	60	783	16	769	10	101.8	769	10
0.0015	810	53	708	13	676	9	104.7	676	9
0.0065	2486	32	2509	19	2537	28	98.0	2486	32
0.0024	1110	39	1101	14	1095	13	101.4	1110	39
0.0022	935	48	945	15	949	12	99.6	949	12
0.0051	2037	33	2071	18	2106	24	96.7	2037	33
0.0047	2016	33	1995	17	1974	22	102.1	2016	33
0.0024	1182	48	1065	17	1009	13	117.1	Discordant	
0.0069	2878	30	2814	19	2724	29	105.7	2878	30
0.0049	1985	37	1978	19	1971	23	100.7	1985	37
0.0019	842	58	824	16	818	11	100.7	818	11
0.0022	988	44	982	14	979	12	100.3	979	12
0.0010	505	60	462	10	453	6	102.0	453	6
0.0014	702	59	616	13	592	8	104.1	592	8
0.0093	3392	31	3337	21	3245	36	104.5	3392	31
0.0065	2506	37	2467	21	2420	29	103.6	2506	37
0.0017	755	56	746	15	742	10	100.5	742	10
0.0026	1083	44	1129	16	1153	14	93.9	1083	44
0.0010	530	57	462	10	448	6	103.1	448	6
0.0020	885	47	890	14	892	11	99.8	892	11
0.0020	903	53	858	15	840	11	102.1	840	11
0.0011	472	64	463	11	461	6	100.4	461	6
0.0010	473	63	445	10	439	6	101.4	439	6
0.0035	1491	41	1495	18	1497	18	99.6	1491	41
0.0034	1410	49	1388	20	1374	18	102.6	1410	49
0.0058	2484	35	2397	20	2296	26	108.2	2484	35
0.0022	990	58	931	18	906	12	102.8	906	12
0.0039	1478	50	1501	22	1518	20	97.4	1478	50
0.0018	753	53	776	14	784	10	99.0	784	10
0.0067	2718	34	2667	21	2601	29	104.5	2718	34
0.0071	2619	37	2638	22	2662	30	98.4	2619	37
0.0064	2450	40	2411	23	2364	29	103.6	2450	40
0.0074	2816	35	2813	21	2808	31	100.3	2816	35
0.0010	504	58	460	10	451	6	102.0	451	6
0.0010	548	69	458	12	440	6	104.1	440	6
0.0086	3095	35	3117	22	3151	34	98.2	3095	35
0.0016	837	69	704	17	664	9	106.0	664	9

0.0022	925	49	943	15	951	12	99.2	951	12
0.0022	1021	72	891	21	840	12	106.1	840	12
0.0066	2426	39	2463	22	2508	29	96.7	2426	39
0.0012	645	65	533	13	507	7	105.1	507	7
0.0014	113	118	442	19	508	9	87.0	Discordant	
0.0016	694	69	653	16	641	9	101.9	641	9
0.0010	421	64	419	10	418	6	100.2	418	6
0.0023	1059	63	959	20	916	13	104.7	916	13
0.0055	2217	42	2172	22	2125	26	104.3	2217	42
0.0022	1040	51	987	16	964	12	102.4	964	12
0.0022	852	68	863	19	868	12	99.4	868	12
0.0022	914	51	944	16	956	12	98.7	956	12
0.0009	443	56	418	9	413	6	101.2	413	6
0.0039	1594	45	1596	20	1598	20	99.7	1594	45
0.0028	916	71	1020	22	1069	15	85.7	Discordant	
0.0011	451	75	446	12	445	6	100.2	445	6
0.0021	898	57	884	17	879	12	100.6	879	12
0.0031	1804	45	1508	20	1307	16	138.0	Discordant	
0.0020	605	127	620	27	624	12	99.4	624	12
0.0015	571	82	587	17	592	9	99.2	592	9
0.0068	2344	50	2241	36	2129	32	110.1	Discordant	
0.0012	680	104	462	23	419	7	110.3	Discordant	
0.0010	524	65	435	11	418	6	104.1	418	6
0.0010	445	61	434	10	431	6	100.7	431	6
<b>IL, 2015, Tectonics)</b>									
0.0021	982	37	978	12	976	11	100.2	976	11
0.0018	847	48	815	13	804	10	101.4	804	10
0.0010	428	68	451	11	456	6	98.9	456	6
0.0039	1737	31	1741	15	1746	19	99.5	1737	31
0.0053	2096	37	2095	19	2094	25	100.1	2096	37
0.0021	926	41	944	13	952	11	99.2	952	11
0.0018	791	59	794	16	795	10	99.9	795	10
0.0022	1008	38	1013	13	1015	12	99.3	1008	38
0.0019	726	78	745	19	751	11	99.2	751	11
0.0043	1839	35	1834	17	1830	21	100.5	1839	35
0.0026	998	66	1006	21	1010	14	98.8	998	66
0.0019	675	90	722	22	737	11	98.0	737	11
0.0060	2476	29	2474	17	2473	26	100.1	2476	29
0.0063	2335	36	2359	20	2387	28	97.8	2335	36
0.0052	1827	50	1852	24	1876	25	97.4	1827	50
0.0060	2489	29	2483	17	2477	26	100.5	2489	29
0.0025	1132	39	1137	14	1140	14	99.3	1132	39
0.0066	2521	35	2500	20	2475	29	101.9	2521	35
0.0047	1812	45	1814	21	1817	23	99.7	1812	45
0.0023	988	41	1015	14	1028	12	96.1	988	41
0.0051	1962	40	1971	20	1979	24	99.1	1962	40
0.0064	2493	30	2531	18	2579	28	96.7	2493	30
0.0018	648	97	654	22	655	10	99.8	655	10
0.0054	2313	35	2225	19	2131	25	108.5	2313	35
0.0067	2573	32	2587	19	2606	29	98.7	2573	32
0.0039	1563	38	1622	17	1669	20	93.6	1563	38
0.0066	2571	31	2589	18	2614	28	98.4	2571	31
0.0022	853	82	839	23	834	13	100.6	834	13
0.0022	1013	47	999	15	993	12	100.6	993	12
0.0026	1187	39	1177	15	1172	14	101.3	1187	39
0.0044	1821	35	1838	17	1854	21	98.2	1821	35
0.0058	2456	30	2429	18	2397	26	102.5	2456	30
0.0063	2506	32	2506	19	2508	28	99.9	2506	32
0.0010	506	59	458	10	449	6	102.0	449	6
0.0013	481	76	521	14	531	7	98.1	531	7
0.0018	892	52	818	15	791	10	103.4	791	10
0.0062	2446	32	2458	19	2473	27	98.9	2446	32
0.0023	981	41	1013	14	1028	12	95.4	981	41

0.0022	829	71	864	20	878	12	98.4	878	12
0.0054	1806	60	1796	29	1787	26	101.1	1806	60
0.0028	1192	45	1213	17	1225	15	97.3	1192	45
0.0022	1004	41	998	14	996	12	100.2	996	12
0.0011	483	63	477	11	476	6	100.2	476	6
0.0046	1870	43	1836	21	1806	22	103.5	1870	43
0.0045	1851	39	1849	20	1848	22	100.2	1851	39
0.0043	1786	38	1794	19	1802	21	99.1	1786	38
0.0052	1862	48	1887	24	1911	25	97.4	1862	48
0.0010	504	59	469	10	462	6	101.5	462	6
0.0046	1849	40	1852	20	1855	22	99.7	1849	40
0.0070	2755	33	2749	20	2741	30	100.5	2755	33
0.0029	1250	47	1226	18	1214	15	103.0	1250	47
0.0054	2030	42	2040	22	2050	25	99.0	2030	42
0.0065	2579	35	2548	21	2511	28	102.7	2579	35
0.0061	2561	36	2478	21	2378	27	107.7	2561	36
0.0025	1382	87	991	29	824	14	120.3	Discordant	
0.0021	953	67	859	20	824	12	104.2	824	12
0.0021	838	82	785	22	766	12	102.5	766	12
0.0053	1813	55	1827	27	1840	26	98.5	1813	55
0.0075	2513	41	2554	24	2607	32	96.4	2513	41
0.0068	2548	37	2551	22	2554	30	99.8	2548	37
0.0070	2537	41	2500	25	2455	31	103.3	2537	41
0.0012	566	77	482	16	465	7	103.7	465	7
0.0011	575	61	480	11	461	6	104.1	461	6
0.0018	922	51	818	15	781	10	104.7	781	10
0.0022	934	50	941	16	944	12	99.7	944	12
0.0022	1014	73	882	22	830	12	106.3	830	12
0.0019	909	50	855	15	835	11	102.4	835	11
0.0019	874	51	843	15	832	11	101.3	832	11
0.0023	895	66	909	20	914	13	99.5	914	13
0.0019	860	56	810	16	793	11	102.1	793	11
0.0023	793	82	827	23	841	13	98.3	841	13
0.0097	3481	35	3458	24	3421	37	101.8	3481	35
0.0115	3642	36	3700	25	3810	41	95.6	3642	36
0.0103	3511	36	3507	25	3500	39	100.3	3511	36
0.0012	517	103	454	21	442	7	102.7	442	7
0.0076	2542	45	2554	27	2570	33	98.9	2542	45
0.0064	2629	38	2512	24	2369	28	111.0	Discordant	
0.0026	1067	56	1050	19	1041	14	102.5	1067	56
0.0067	2530	41	2513	24	2493	29	101.5	2530	41
0.0026	1160	53	1108	19	1082	14	107.2	1160	53
0.0040	1639	46	1623	22	1612	20	101.7	1639	46
0.0043	1606	54	1611	25	1614	22	99.5	1606	54
0.0022	876	80	831	23	814	13	102.1	814	13
0.0055	2034	46	2056	24	2078	26	97.9	2034	46
0.0060	1963	55	1996	28	2029	28	96.7	1963	55
0.0043	1622	51	1628	24	1634	21	99.3	1622	51
0.0071	2577	44	2575	26	2574	31	100.1	2577	44
0.0022	854	74	847	21	844	13	100.4	844	13
0.0021	842	69	828	20	822	12	100.7	822	12
0.0056	1915	52	1969	27	2019	27	94.8	1915	52
0.0029	1050	61	1105	21	1134	16	92.6	1050	61
0.0024	975	65	948	21	936	13	101.3	936	13
0.0071	2640	44	2610	27	2572	31	102.6	2640	44
0.0071	2543	45	2553	27	2565	31	99.1	2543	45
0.0022	763	67	801	20	815	12	98.3	815	12
0.0097	2461	10	2496	19	2539	41	96.9	2461	10
0.0015	279	164	430	26	458	9	93.8	458	9
0.0011	910	41	875	13	862	7	101.6	862	7
0.0018	443	107	438	19	438	11	100.2	438	11
0.0010	344	415	472	69	499	6	94.6	499	6

0.0016	954	52	1003	17	1026	8	93.0	954	52
0.0040	1565	17	1540	14	1523	21	102.8	1565	17
0.0011	851	25	855	9	857	7	99.8	857	7
0.0017	601	205	607	44	609	10	99.7	609	10
0.0013	739	68	763	18	771	7	98.9	771	7
0.0020	781	59	802	18	810	11	99.1	810	11
0.0039	1742	7	1659	12	1594	20	109.3	1742	7
0.0043	1480	42	1511	21	1534	21	96.4	1480	42
0.0011	847	42	842	12	841	6	100.2	841	6
0.0019	1091	26	1110	11	1120	11	97.4	1091	26
0.0059	1786	20	1764	18	1745	29	102.4	1786	20
0.0032	1494	30	1340	16	1245	17	119.9	Discordant	
0.0050	1193	11	1212	18	1223	27	97.5	1193	11
0.0063	1978	45	1961	27	1945	30	101.7	1978	45
0.0023	627	161	743	40	782	13	95.0	782	13
0.0074	2516	12	2376	18	2217	33	113.5	Discordant	
0.0046	1812	56	1825	28	1836	22	98.7	1812	56
0.0080	1826	18	1841	22	1854	38	98.5	1826	18
0.0023	796	122	776	33	769	13	100.9	769	13
0.0053	2501	17	2509	14	2517	22	99.4	2501	17
0.0046	1217	20	1227	17	1233	24	98.7	1217	20
0.0056	1831	73	1834	37	1836	27	99.8	1831	73
0.0026	798	58	823	19	833	15	98.9	833	15
0.0090	1836	24	1875	25	1910	43	96.1	1836	24
0.0015	525	167	437	28	420	9	104.0	420	9
0.0017	530	57	560	14	567	10	98.7	567	10
0.0071	2041	6	1807	22	1611	36	126.7	Discordant	
0.0076	1863	9	1884	20	1903	37	97.9	1863	9
0.0022	928	23	944	11	951	12	99.3	951	12
0.0036	1593	24	1584	15	1577	19	101.0	1593	24
0.0015	425	394	442	63	445	9	99.3	445	9
0.0054	1116	93	1151	37	1170	29	95.4	1116	93
0.0006	761	331	516	63	463	3	111.6	Discordant	
0.0014	1814	35	1688	17	1589	7	114.2	Discordant	
0.0006	510	47	474	9	466	4	101.6	466	4
0.0034	1004	23	950	15	927	19	102.5	927	19
0.0116	1792	82	1844	48	1891	56	94.7	1792	82
0.0017	821	42	795	13	786	10	101.2	786	10
0.0035	1264	25	1275	15	1281	18	98.7	1264	25
0.0008	207	339	411	49	448	5	91.7	448	5
0.0015	541	31	547	9	548	9	99.7	548	9
0.0040	1237	33	1237	18	1237	22	100.1	1237	33
0.0027	827	68	786	21	771	15	101.9	771	15
0.0016	1182	15	1178	8	1176	9	100.5	1182	15
0.0014	822	43	708	12	673	8	105.2	673	8
0.0106	1784	18	1817	29	1846	52	96.6	1784	18
0.0016	652	91	725	23	749	9	96.8	749	9
0.0137	2616	7	2598	26	2574	59	101.7	2616	7
0.0089	1970	16	1998	22	2026	41	97.2	1970	16
0.0175	2503	5	2449	36	2386	77	104.9	2503	5
0.0071	2390	10	2267	17	2133	33	112.0	Discordant	
0.0019	984	133	870	39	825	11	105.4	825	11
0.0022	1020	102	976	33	957	12	102.0	957	12
0.0025	654	214	727	53	751	14	96.8	751	14
0.0057	1826	27	1891	19	1951	28	93.6	1826	27
0.0086	1829	12	1835	23	1840	41	99.4	1829	12
0.0095	1825	32	1827	29	1829	46	99.7	1825	32
0.0064	2514	8	2539	13	2570	28	97.8	2514	8
0.0047	1286	56	1291	26	1294	25	99.4	1286	56
0.0013	426	78	435	14	436	8	99.6	436	8
0.0042	1448	9	1471	13	1487	22	97.4	1448	9
0.0024	839	171	791	46	774	14	102.2	774	14
0.0010	791	94	788	25	787	6	100.1	787	6

0.0040	1215	30	1152	18	1119	21	108.6	1215	30
0.0045	1167	30	1128	20	1108	25	105.3	1167	30
0.0043	689	372	753	94	775	25	97.2	775	25
0.0007	480	203	456	34	451	4	101.0	451	4
0.0010	765	54	778	15	783	6	99.4	783	6
0.0096	2314	29	2324	25	2335	43	99.1	2314	29
0.0075	2303	16	2325	17	2352	33	97.9	2303	16
0.0016	368	124	438	21	451	10	97.0	451	10
0.0010	474	137	450	23	446	6	101.0	446	6
0.0016	774	42	813	13	827	10	98.3	827	10
0.0010	496	88	464	16	458	6	101.4	458	6
0.0162	2649	8	2648	31	2647	70	100.1	2649	8
0.0032	1020	35	973	16	952	18	102.2	952	18
0.0021	836	57	777	18	757	12	102.7	757	12
0.0039	1204	10	1212	14	1217	21	99.0	1204	10
0.0010	389	231	423	36	429	6	98.6	429	6
0.0022	566	67	583	17	587	13	99.3	587	13
0.0071	1864	51	1835	30	1809	35	103.1	1864	51
0.0044	1780	52	1777	27	1773	21	100.4	1780	52
0.0021	986	41	968	15	960	11	100.8	960	11
0.0004	897	90	864	26	851	3	101.5	851	3
0.0020	843	40	869	14	879	12	98.9	879	12
0.0030	1846	15	1861	11	1875	15	98.4	1846	15
0.0014	831	18	839	7	843	8	99.6	843	8
0.0010	824	33	834	10	837	6	99.6	837	6
0.0009	363	90	433	15	446	6	97.0	446	6
0.0020	2199	32	2192	17	2184	10	100.7	2199	32
0.0032	2011	51	1905	26	1808	16	111.2	Discordant	
0.0109	2399	18	2265	28	2119	51	113.2	Discordant	
0.0060	1681	22	1693	19	1703	30	98.7	1681	22
0.0013	1849	48	1820	23	1794	6	103.1	1849	48
0.0025	1964	21	1974	12	1984	11	99.0	1964	21
0.0056	1195	211	963	71	864	31	111.4	Discordant	
0.0011	841	26	731	8	696	7	105.1	696	7
0.0011	486	55	469	11	466	6	100.7	466	6
0.0061	1464	23	1428	21	1404	31	104.3	1464	23
0.0051	1745	23	1583	19	1464	26	119.2	Discordant	
0.0036	835	21	839	16	840	20	99.8	840	20
0.0006	475	90	444	15	438	4	101.3	438	4
0.0045	1019	56	973	25	953	25	102.1	953	25
0.0021	804	61	770	18	758	12	101.5	758	12
0.0050	1600	20	1591	17	1584	25	101.0	1600	20
0.0039	1341	28	1339	17	1338	20	100.2	1341	28
0.0010	430	163	441	27	443	6	99.5	443	6
0.0016	1018	76	1030	25	1036	9	98.3	1018	76
0.0042	1154	18	1112	17	1091	23	105.8	1154	18
0.0017	356	234	436	38	451	10	96.6	451	10
0.0127	2937	11	2938	22	2939	51	99.9	2937	11
0.0009	401	201	464	34	476	5	97.3	476	5
0.0092	2512	26	2524	23	2540	40	98.9	2512	26
0.0009	554	66	469	12	452	5	103.8	452	5
0.0020	902	136	819	38	788	12	103.9	788	12
0.0013	378	230	420	36	427	8	98.2	427	8
0.0064	2080	5	2076	15	2073	30	100.4	2080	5
0.0018	854	36	846	12	842	10	100.4	842	10
0.0095	2100	11	2127	22	2154	43	97.5	2100	11
0.0024	850	50	842	17	839	14	100.4	839	14
0.0021	847	22	821	11	812	12	101.1	812	12
0.0005	508	159	474	28	467	3	101.5	467	3
0.0026	848	29	855	13	857	15	99.7	857	15
0.0014	866	48	852	15	847	8	100.6	847	8
0.0033	1769	8	1803	9	1832	16	96.5	1769	8

0.0091	2707	7	2727	17	2754	39	98.3	2707	7
0.0082	879	64	707	42	654	48	108.1	654	48
0.0055	842	55	822	27	815	31	100.9	815	31
0.0040	983	54	802	24	739	23	108.6	739	23
0.0012	786	43	797	12	802	7	99.5	802	7
0.0012	480	64	441	12	434	7	101.7	434	7
0.0011	812	36	780	11	769	7	101.4	769	7
0.0013	783	82	778	22	776	7	100.2	776	7
0.0018	1812	27	1769	14	1732	9	104.7	1812	27
0.0016	798	59	811	17	816	10	99.4	816	10
0.0079	861	113	768	46	736	45	104.3	736	45
0.0012	825	23	797	8	787	6	101.3	787	6
0.0018	781	29	770	11	766	10	100.5	766	10
0.0015	864	59	824	17	809	9	101.8	809	9
0.0030	1839	14	1850	10	1859	14	98.9	1839	14
0.0007	792	45	804	12	808	4	99.5	808	4
0.0023	1856	55	1843	27	1832	12	101.3	1856	55
0.0065	991	22	818	30	756	37	108.2	756	37
0.0004	808	44	763	12	748	2	102.0	748	2
0.0020	789	221	755	57	744	11	101.5	744	11
0.0028	1327	15	1276	11	1246	15	106.5	1327	15
0.0022	833	26	833	12	834	13	100.0	834	13
0.0012	823	45	808	13	803	7	100.7	803	7
0.0049	2033	11	2042	12	2051	22	99.1	2033	11
0.0006	692	190	607	41	584	3	103.9	584	3
0.0006	658	54	456	10	417	4	109.4	417	4
0.0072	1835	11	1830	19	1825	35	100.5	1835	11
0.0091	2563	7	2294	23	2005	43	127.9	Discordant	
0.0011	654	65	602	15	588	6	102.4	588	6
0.0006	787	211	772	54	766	4	100.7	766	4
0.0018	791	60	780	17	776	10	100.5	776	10
0.0014	937	149	941	45	943	8	99.8	943	8
0.0016	912	113	799	31	759	9	105.3	759	9
0.0078	2708	12	2707	16	2705	33	100.1	2708	12
0.0024	2241	16	2220	10	2196	12	102.1	2241	16
0.0020	1825	42	1822	20	1820	10	100.2	1825	42
0.0122	2663	5	2658	23	2651	53	100.4	2663	5
0.0032	1192	28	1172	15	1161	17	102.7	1192	28
0.0010	467	24	439	7	434	6	101.2	434	6
0.0004	429	46	429	8	430	3	100.0	430	3
0.0007	1000	31	929	10	900	4	103.3	900	4
0.0008	655	104	718	25	738	5	97.3	738	5
0.0032	1818	57	1804	28	1792	16	101.4	1818	57
0.0020	2113	46	2124	24	2136	10	98.9	2113	46
0.0014	600	1013	597	204	596	8	100.1	596	8
0.0006	579	10	489	4	471	4	103.8	471	4
0.0006	480	10	460	4	456	4	100.9	456	4
0.0006	481	8	460	3	457	4	100.7	457	4
0.0007	503	12	493	5	490	4	100.6	490	4
0.0020	972	11	985	8	991	11	99.4	991	11
0.0007	481	11	465	4	461	4	100.9	461	4
0.0006	456	16	451	5	450	4	100.2	450	4
0.0007	592	10	464	4	438	4	105.9	438	4
0.0007	435	12	445	5	448	4	99.3	448	4
0.0007	442	11	438	4	437	4	100.2	437	4
0.0006	1577	7	645	4	412	3	156.6	Discordant	
0.0015	1418	6	1340	5	1292	8	109.8	1418	6
0.0005	455	17	454	5	453	3	100.2	453	3
0.0014	755	18	511	6	462	9	110.6	Discordant	
0.0018	977	10	989	7	994	10	99.5	994	10
0.0025	2117	5	2058	6	1999	12	105.9	2117	5
0.0005	485	13	443	4	435	3	101.8	435	3

0.0006	584	10	449	4	423	3	106.1	423	3
0.0007	435	14	471	5	477	4	98.7	477	4
0.0013	772	21	723	10	707	8	102.3	707	8
0.0006	448	16	462	5	464	3	99.6	464	3
0.0013	2662	13	1773	12	1117	7	238.3	Discordant	
0.0005	461	7	471	3	472	3	99.8	472	3
0.0011	1041	7	1025	5	1016	6	102.5	1041	7
0.0006	540	7	506	3	499	4	101.4	499	4
0.0005	433	10	455	4	460	3	98.9	460	3
0.0016	993	9	951	5	935	9	101.7	935	9
0.0010	916	12	535	5	452	6	118.4	Discordant	
0.0006	454	9	470	3	473	4	99.4	473	4
0.0022	1837	27	986	20	632	13	156.0	Discordant	
0.0006	449	15	429	5	425	3	100.9	425	3
0.0007	456	11	456	4	455	4	100.2	455	4
0.0013	986	7	968	5	961	7	100.7	961	7
0.0018	973	11	953	8	945	10	100.8	945	10
0.0010	1004	5	994	4	990	5	100.4	990	5
0.0023	1628	8	1614	8	1600	11	101.8	1628	8
0.0004	853	7	498	3	424	2	117.5	Discordant	
0.0005	437	18	456	5	460	3	99.1	460	3
0.0014	1608	5	1462	5	1363	7	118.0	Discordant	
0.0055	2471	12	2171	14	1868	27	132.3	Discordant	
0.0011	635	6	1004	4	927	6	108.3	927	6
0.0005	1010	6	522	3	419	3	124.6	Discordant	
0.0028	1375	32	700	21	529	17	132.3	Discordant	
0.0023	2137	4	2139	6	2141	11	99.8	2137	4
0.0012	887	19	884	10	882	7	100.2	882	7
0.0007	607	13	511	6	490	4	104.3	490	4
0.0014	941	8	957	6	964	8	99.3	964	8
0.0012	1011	9	1001	7	996	7	100.5	996	7
0.0011	530	12	500	5	494	7	101.2	494	7
0.0008	682	12	486	5	446	5	109.0	446	5
0.0017	1020	14	989	9	972	9	101.7	972	9
0.0034	1910	105	819	54	455	21	180.0	Discordant	
0.0005	972	16	537	6	440	3	122.0	Discordant	
0.0010	474	16	459	6	454	6	101.1	454	6
0.0005	587	9	499	3	481	3	103.7	481	3
0.0005	444	9	425	3	422	3	100.7	422	3
0.0005	426	12	433	4	434	3	99.8	434	3
0.0014	1098	8	1074	6	1062	8	103.4	1098	8
0.0004	455	20	403	5	394	3	102.3	394	3
0.0022	1188	18	1165	13	1155	12	102.9	1188	18
0.0008	675	10	501	4	465	5	107.7	465	5
0.0013	972	8	951	6	942	7	101.0	942	7
0.0012	571	15	561	7	559	7	100.4	559	7
0.0018	977	10	985	7	988	10	99.7	988	10
0.0016	941	9	941	7	941	9	100.0	941	9
0.0033	1917	8	1819	9	1736	16	110.4	Discordant	
0.0008	617	9	625	5	628	4	99.5	628	4
0.0006	458	8	455	3	454	3	100.2	454	3
0.0012	574	39	541	13	537	7	100.7	537	7
0.0008	1092	6	1013	4	977	5	103.7	977	5
0.0006	461	9	478	4	482	3	99.2	482	3
0.0014	1049	7	1003	5	984	8	101.9	984	8
0.0025	966	24	971	15	975	14	99.6	975	14
0.0005	450	10	469	4	472	3	99.4	472	3
0.0008	453	11	453	4	453	5	100.0	453	5
0.0018	1559	5	1556	5	1555	9	100.3	1559	5
0.0015	979	8	993	6	999	8	99.4	999	8
0.0023	1694	7	1685	7	1677	11	101.0	1694	7
0.0014	1139	8	1083	6	1055	8	108.0	1139	8

0.0013	951	8	974	5	985	7	98.9	985	7	
0.0027	1040	13	1139	11	1192	14	87.2	Discordant		
0.0013	962	7	969	5	972	7	99.7	972	7	
0.0034	2584	5	2548	7	2502	15	103.3	2584	5	
0.0004	504	6	463	2	455	3	101.8	455	3	
0.0013	1087	6	1084	5	1083	7	100.4	1087	6	
0.0008	401	16	444	6	452	5	98.2	452	5	
0.0005	522	8	470	3	459	3	102.4	459	3	
0.0040	2641	6	2549	8	2434	17	108.5	2641	6	
0.0006	458	9	451	3	450	4	100.2	450	4	
0.0059	3152	7	3138	9	3114	23	101.2	3152	7	
0.0029	1863	8	1859	8	1854	14	100.5	1863	8	
0.0009	633	12	641	6	644	5	99.5	644	5	
0.0005	457	7	465	3	467	3	99.6	467	3	
0.0013	947	8	932	5	926	7	100.6	926	7	
0.0004	612	7	433	3	400	3	108.3	400	3	
0.0015	942	9	960	7	969	8	99.1	969	8	
0.0006	459	9	455	3	454	4	100.2	454	4	
0.0024	1267	10	1280	9	1289	12	98.3	1267	10	
0.0024	1613	7	1625	7	1634	12	98.7	1613	7	
0.0011	786	9	824	6	837	6	98.4	837	6	
0.0013	916	8	916	5	917	7	99.9	917	7	
0.0012	950	7	955	5	957	7	99.8	957	7	
0.0004	563	12	455	4	434	3	104.8	434	3	
0.0007	401	10	467	4	480	4	97.3	480	4	
0.0023	1658	7	1674	7	1686	11	98.3	1658	7	
0.0018	958	12	982	8	993	10	98.9	993	10	
0.0014	946	8	932	6	925	8	100.8	925	8	
0.0014	818	19	817	10	816	8	100.1	816	8	
0.0006	431	9	446	4	448	4	99.6	448	4	
0.0009	779	7	798	4	804	5	99.3	804	5	
0.0026	1623	7	1660	8	1690	13	96.0	1623	7	
0.0011	766	9	795	5	806	6	98.6	806	6	
0.0004	439	9	453	3	456	2	99.3	456	2	
0.0016	1146	8	1155	6	1160	9	98.8	1146	8	
0.0017	903	14	952	9	973	9	97.8	973	9	
0.0012	575	30	581	11	585	7	99.3	585	7	
0.0011	847	8	850	5	851	6	99.9	851	6	
0.0014	697	22	753	10	772	8	97.5	772	8	
0.0005	431	11	443	4	445	3	99.6	445	3	
0.0012	955	7	953	5	953	7	100.0	953	7	
0.0010	807	9	799	5	797	5	100.3	797	5	
0.0006	465	9	458	3	457	3	100.2	457	3	
0.0006	471	44	457	10	453	4	100.9	453	4	
0.0012	984	7	990	5	993	7	99.7	993	7	
0.0006	499	10	418	4	403	3	103.7	403	3	
0.0040	2498	7	2434	8	2358	18	105.9	2498	7	
0.0007	429	11	440	4	443	4	99.3	443	4	
0.0007	549	10	436	3	416	4	104.8	416	4	
0.0024	1786	6	1770	7	1757	12	101.7	1786	6	
0.0013	937	9	955	6	963	7	99.2	963	7	
0.0005	428	9	462	3	469	3	98.5	469	3	
0.0007	484	22	461	7	458	4	100.7	458	4	
0.0005	438	10	440	4	440	3	100.0	440	3	
0.0022	1513	7	1510	7	1506	11	100.5	1513	7	
0.0010	828	10	821	6	818	6	100.4	818	6	
0.0006	493	13	477	5	474	4	100.6	474	4	
0.0005	497	7	497	3	497	3	100.0	497	3	
0.0019	1288	9	1274	8	1267	10	101.7	1288	9	
0.0014	956	11	968	7	973	8	99.5	973	8	
0.0015	1111	9	1133	7	1144	8	97.1	1111	9	
0.0034	2539	5	2546	7	2554	15	99.4	2539	5	
0.0063	2906	11	2899	14	2876	26	101.0	2906	11	

0.0007	639	8	625	4	620	4	100.8	620	4
0.0006	473	8	449	3	445	3	100.9	445	3
0.0005	451	10	461	4	463	3	99.6	463	3
0.0015	928	12	941	8	946	8	99.5	946	8
0.0006	483	10	505	4	510	4	99.0	510	4
0.0006	481	15	461	5	457	4	100.9	457	4
0.0005	433	9	453	3	456	3	99.3	456	3
0.0015	1102	8	1118	6	1127	8	97.8	1102	8
0.0013	1018	9	1031	6	1037	7	98.2	1018	9
0.0028	2338	5	2334	6	2330	12	100.3	2338	5
0.0012	856	9	896	6	913	7	98.1	913	7
0.0033	2521	5	2484	7	2439	15	103.4	2521	5
0.0024	1774	6	1775	7	1775	12	99.9	1774	6
0.0045	2324	8	2326	9	2329	20	99.8	2324	8
0.0005	444	9	446	3	446	3	100.0	446	3
0.0005	506	7	462	3	453	3	102.0	453	3
0.0018	1214	8	1146	6	1112	10	109.2	1214	8
0.0012	1181	7	1114	5	1079	6	109.5	1181	7
0.0010	741	8	779	5	793	6	98.2	793	6
0.0016	1102	8	1109	6	1113	8	99.0	1102	8
0.0011	678	9	674	5	673	6	100.1	673	6
0.0007	444	12	465	4	470	4	98.9	470	4
0.0027	2614	5	2316	7	1995	13	131.0	Discordant	
0.0014	894	10	819	6	792	8	103.4	792	8
0.0046	2483	7	2497	9	2515	20	98.7	2483	7
0.0019	1446	7	1440	6	1435	10	100.8	1446	7
0.0007	549	9	499	4	489	4	102.0	489	4
0.0006	461	8	463	3	464	3	99.8	464	3
0.0006	465	8	478	3	481	3	99.4	481	3
0.0014	1036	8	1027	6	1024	8	101.2	1036	8
0.0020	1483	7	1477	6	1473	10	100.7	1483	7
0.0018	1633	5	1617	5	1603	9	101.9	1633	5
0.0006	481	8	456	3	452	4	100.9	452	4
0.0010	678	13	633	6	619	6	102.3	619	6
0.0008	493	11	447	4	439	5	101.8	439	5
0.0012	900	11	807	7	775	7	104.1	775	7
0.0004	480	10	446	3	439	2	101.6	439	2
0.0005	449	8	431	3	428	3	100.7	428	3
0.0027	1979	6	1964	7	1949	13	101.5	1979	6
0.0031	2439	5	2380	7	2311	14	105.5	2439	5
0.0022	1905	6	1849	6	1799	11	105.9	1905	6
0.0006	462	10	448	4	446	4	100.4	446	4
0.0014	1380	7	1166	5	1055	8	130.8	Discordant	
0.0019	1235	8	1215	7	1205	10	102.5	1235	8
0.0008	643	11	606	5	596	5	101.7	596	5
0.0018	1574	5	1555	5	1542	9	102.1	1574	5
0.0022	2022	6	1882	7	1757	11	115.1	Discordant	
0.0009	837	9	783	5	764	5	102.5	764	5
0.0021	1723	6	1671	7	1629	11	105.8	1723	6
0.0028	1277	18	1201	14	1147	15	111.3	Discordant	
0.0006	461	9	443	3	440	4	100.7	440	4
0.0007	608	11	590	5	586	4	100.7	586	4
0.0022	2139	7	1823	8	1558	11	137.3	Discordant	
0.0014	1301	9	1044	7	924	8	113.0	Discordant	
0.0020	1604	7	1564	7	1534	10	104.6	1604	7
0.0014	760	20	735	10	729	8	100.8	729	8
0.0029	1849	7	1836	8	1825	14	101.3	1849	7
0.0017	1344	7	1286	6	1252	9	107.3	1344	7
0.0020	1052	12	956	7	917	11	104.3	917	11
0.0023	1456	9	1325	6	1251	12	116.4	Discordant	
0.0028	1328	12	1243	10	1196	15	111.0	Discordant	
0.0025	1653	8	1616	7	1587	13	104.2	1653	8

0.0008	1024	6	930	4	891	4	104.4	891	4
0.0006	468	10	446	4	442	3	100.9	442	3
0.0012	502	107	430	18	417	7	103.1	417	7
0.0043	1811	33	1811	17	1811	21	100.0	1811	33
0.0018	780	56	773	15	770	10	100.4	770	10
0.0011	517	66	495	13	491	7	100.8	491	7
0.0024	774	115	793	37	799	14	99.2	799	14
0.0018	799	46	803	13	805	10	99.8	805	10
0.0010	547	62	447	11	428	6	104.4	428	6
0.0040	1675	37	1666	18	1659	20	101.0	1675	37
0.0010	377	56	428	9	437	6	97.9	437	6
0.0048	1921	32	1954	17	1984	23	96.8	1921	32
0.0010	337	79	405	12	417	6	97.1	417	6
0.0046	1917	31	1924	16	1931	22	99.3	1917	31
0.0049	1986	30	2015	17	2044	23	97.2	1986	30
0.0018	866	50	812	14	792	10	102.5	792	10
0.0028	1061	49	1127	18	1162	15	91.3	1061	49
0.0047	1908	38	1885	20	1864	23	102.4	1908	38
0.0022	976	45	968	15	964	12	100.4	964	12
0.0044	1843	34	1842	17	1840	21	100.2	1843	34
0.0047	1908	34	1920	18	1931	23	98.8	1908	34
0.0048	1836	43	1821	22	1809	23	101.5	1836	43
0.0061	2380	33	2359	19	2335	27	101.9	2380	33
0.0047	1810	38	1834	19	1856	23	97.5	1810	38
0.0021	909	37	932	12	942	11	98.9	942	11
0.0024	1013	72	933	23	899	13	103.8	899	13
0.0011	478	70	455	12	450	6	101.1	450	6
0.0049	2056	32	2028	18	2001	23	102.7	2056	32
0.0048	1912	33	1942	18	1969	23	97.1	1912	33
0.0020	822	50	870	15	889	11	97.9	889	11
0.0011	444	97	424	16	421	7	100.7	421	7
0.0035	1256	48	1351	20	1411	18	89.0	Discordant	
0.0019	532	102	630	23	658	11	95.7	658	11
0.0011	524	77	455	13	441	6	103.2	441	6
0.0019	814	64	802	17	798	11	100.5	798	11
0.0054	2344	31	2289	17	2227	25	105.3	2344	31
0.0060	2481	30	2470	18	2456	27	101.0	2481	30
0.0010	428	51	444	8	447	6	99.3	447	6
0.0049	1973	37	1973	19	1974	23	99.9	1973	37
0.0011	452	75	450	12	449	6	100.2	449	6
0.0018	800	48	802	13	803	10	99.9	803	10
0.0019	819	60	794	16	785	11	101.1	785	11
0.0010	541	56	451	10	434	6	103.9	434	6
0.0011	544	81	463	14	446	7	103.8	446	7
0.0068	2689	31	2689	19	2687	29	100.1	2689	31
0.0015	972	127	557	26	461	9	120.8	Discordant	
0.0051	2026	39	2015	20	2005	24	101.0	2026	39
0.0047	1944	36	1954	18	1963	23	99.0	1944	36
0.0019	887	47	860	14	849	11	101.3	849	11
0.0046	1808	41	1830	20	1849	22	97.8	1808	41
0.0019	856	52	843	15	838	11	100.6	838	11
0.0010	446	59	433	9	431	6	100.5	431	6
0.0010	471	83	433	13	426	6	101.6	426	6
0.0043	1795	42	1768	20	1746	21	102.8	1795	42
0.0059	2170	40	2200	22	2232	27	97.2	2170	40
0.0071	2676	36	2657	21	2631	30	101.7	2676	36
0.0020	834	66	821	18	817	11	100.5	817	11
0.0025	1203	53	1090	18	1034	14	116.3	Discordant	
0.0011	444	87	437	16	436	6	100.2	436	6
0.0047	1784	48	1786	23	1788	23	99.8	1784	48
0.0040	1670	40	1664	18	1658	20	100.7	1670	40
0.0067	2570	40	2503	23	2420	30	106.2	2570	40

0.0020	900	59	859	17	843	11	101.9	843	11
0.0063	2488	36	2471	21	2450	28	101.6	2488	36
0.0024	1015	51	1016	17	1016	13	99.9	1015	51
0.0019	868	49	841	14	831	11	101.2	831	11
0.0048	1966	40	1951	20	1937	23	101.5	1966	40
0.0050	1833	50	1831	24	1829	24	100.2	1833	50
0.0065	2472	38	2487	22	2504	28	98.7	2472	38
0.0010	607	73	460	13	432	6	106.5	432	6
0.0049	1813	47	1839	23	1861	23	97.4	1813	47
0.0011	437	73	444	12	445	6	99.8	445	6
0.0014	746	67	611	15	574	8	106.4	574	8
0.0034	1282	82	1186	30	1134	18	113.1	Discordant	
0.0046	1897	42	1884	21	1871	22	101.4	1897	42
0.0011	450	69	477	12	483	7	98.8	483	7
0.0012	465	86	462	15	461	7	100.2	461	7
0.0021	741	89	771	23	781	12	98.7	781	12
0.0048	1938	44	1913	22	1889	23	102.6	1938	44
0.0050	1983	48	1930	24	1880	24	105.5	1983	48
0.0048	1934	44	1920	22	1906	23	101.5	1934	44
0.0036	1173	85	1193	30	1204	19	97.4	1173	85
0.0011	448	84	429	13	426	6	100.7	426	6
0.0029	1206	51	1214	19	1217	16	99.1	1206	51
0.0061	2309	44	2287	24	2262	28	102.1	2309	44
0.0027	1172	51	1142	18	1126	15	104.1	1172	51
0.0029	1271	56	1208	21	1172	16	108.4	1271	56
0.0024	992	93	857	26	805	13	106.5	805	13
0.0068	2657	43	2592	25	2509	30	105.9	2657	43
0.0012	543	62	531	12	529	7	100.4	529	7
0.0056	2058	50	2049	25	2040	26	100.9	2058	50
0.0054	2003	53	1963	27	1925	26	104.1	2003	53
0.0052	2000	51	1964	25	1930	25	103.6	2000	51
0.0021	855	64	840	18	833	12	100.8	833	12
0.0029	879	39	828	20	812	17	102.0	812	17
0.0032	966	41	859	22	822	18	104.5	822	18
0.0068	1859	21	1813	22	1781	33	104.4	1859	21
0.0078	1776	25	1828	25	1881	38	94.4	1776	25
0.0065	2515	10	2513	11	2519	28	99.8	2515	10
0.0049	1845	13	1849	13	1858	24	99.3	1845	13
0.0060	1759	18	1797	18	1837	29	95.8	1759	18
0.0044	1939	11	1882	11	1838	22	105.5	1939	11
0.0014	553	26	564	10	569	8	99.1	569	8
0.0084	2557	12	2591	15	2644	36	96.7	2557	12
0.0074	1772	24	1792	24	1816	36	97.6	1772	24
0.0035	1157	27	1107	18	1086	19	106.5	1157	27
0.0097	1946	30	1891	32	1847	47	105.4	1946	30
0.0061	1820	18	1823	18	1830	29	99.5	1820	18
0.0063	1869	17	1886	18	1908	30	98.0	1869	17
0.0077	1861	24	1858	24	1861	37	100.0	1861	24
0.0059	1851	17	1817	18	1793	29	103.2	1851	17
0.0050	1861	13	1828	14	1805	24	103.1	1861	13
0.0029	880	37	838	19	825	16	101.6	825	16
0.0044	860	65	832	32	825	25	100.8	825	25
0.0056	1929	14	1944	15	1965	27	98.2	1929	14
0.0031	884	44	821	22	801	18	102.5	801	18
0.0030	1024	37	874	21	819	17	106.7	819	17
0.0067	2029	15	2053	17	2082	31	97.5	2029	15
0.0059	885	66	1017	37	1082	32	81.8	Discordant	
0.0022	834	23	848	13	856	12	99.1	856	12
0.0065	1929	19	1862	20	1808	32	106.7	1929	19
0.0030	741	47	760	22	768	17	99.0	768	17
0.0087	990	131	866	66	821	49	105.5	821	49
0.0057	797	113	756	48	744	33	101.6	744	33

0.0076	1875	23	1863	24	1857	37	101.0	1875	23
0.0071	1892	18	1938	20	1985	33	95.3	1892	18
0.0023	895	26	843	14	826	13	102.1	826	13
0.0028	1223	14	1193	11	1180	15	103.6	1223	14
0.0024	833	25	864	14	878	14	98.4	878	14
0.0019	684	55	508	18	471	11	107.9	471	11
0.0071	1794	22	1818	22	1843	34	97.3	1794	22
0.0058	1846	16	1848	17	1855	28	99.5	1846	16
0.0064	2504	10	2485	11	2467	28	101.5	2504	10
0.0039	754	59	790	28	804	22	98.3	804	22
0.0017	487	58	443	16	436	10	101.6	436	10
0.0020	887	18	856	11	845	11	101.3	845	11
0.0093	2548	15	2535	18	2524	40	101.0	2548	15
0.0012	539	33	465	10	452	7	102.9	452	7
0.0198	2615	30	2675	38	2762	83	94.7	2615	30
0.0062	1930	17	1887	18	1851	30	104.3	1930	17
0.0033	1153	20	1167	15	1177	18	98.0	1153	20
0.0054	1732	17	1746	17	1761	27	98.4	1732	17
0.0107	3544	10	3582	11	3654	39	97.0	3544	10
0.0035	857	53	797	26	777	20	102.6	777	20
0.0029	888	37	838	20	821	16	102.1	821	16
0.0094	2366	16	2417	19	2483	41	95.3	2366	16
0.0098	2018	26	2024	28	2033	46	99.3	2018	26
0.0026	828	30	854	16	865	15	98.7	865	15
0.0116	1910	31	1998	33	2088	54	91.5	1910	31
0.0111	1892	34	1905	35	1919	53	98.6	1892	34
0.0040	655	56	827	26	895	22	92.4	895	22
0.0029	841	33	876	18	892	16	98.2	892	16
0.0026	581	81	506	25	490	15	103.3	490	15
0.0204	2000	55	2051	59	2104	95	95.1	2000	55
0.0024	438	82	471	23	479	14	98.3	479	14
0.0067	1936	20	1854	21	1783	33	108.6	1936	20
0.0093	1773	34	1752	33	1736	46	102.1	1773	34
0.0066	2493	11	2483	12	2474	29	100.8	2493	11
0.0021	811	23	829	13	836	12	99.2	836	12
0.0069	2371	13	2333	15	2293	31	103.4	2371	13
0.0033	749	51	794	24	811	19	97.9	811	19
0.0049	1817	13	1824	14	1831	24	99.2	1817	13
0.0079	1868	26	1824	26	1787	39	104.5	1868	26
0.0084	1814	27	1823	28	1833	41	99.0	1814	27
0.0031	867	46	816	22	799	17	102.1	799	17
0.0081	2045	20	2044	22	2044	38	100.0	2045	20
0.0049	1888	13	1825	14	1773	24	106.5	1888	13
0.0055	1995	13	1983	14	1973	26	101.1	1995	13
0.0072	867	144	810	63	790	41	102.5	790	41
0.0027	816	39	779	22	767	15	101.6	767	15
0.0025	890	22	926	13	942	14	98.3	942	14
0.0095	1801	31	1851	31	1897	46	94.9	1801	31
0.0087	1888	29	1819	30	1760	43	107.3	1888	29
0.0127	2502	26	2356	32	2192	58	114.1	Discordant	
0.0021	871	22	838	13	827	12	101.3	827	12
0.0056	1867	17	1801	18	1744	27	107.1	1867	17
0.0069	1736	24	1732	24	1729	34	100.4	1736	24
0.0063	2522	10	2532	10	2544	27	99.1	2522	10
0.0026	756	36	788	17	800	15	98.5	800	15
0.0058	2065	13	2030	15	1996	27	103.5	2065	13
0.0095	1822	35	1767	34	1722	47	105.8	1822	35
0.0039	871	66	790	30	762	22	103.7	762	22
0.0057	1847	17	1792	18	1745	28	105.8	1847	17
0.0015	459	52	438	14	434	9	100.9	434	9
0.0023	687	34	735	16	751	13	97.9	751	13
0.0081	1809	29	1761	28	1721	40	105.1	1809	29
0.0077	1949	25	1842	26	1749	38	111.4	Discordant	

0.0025	1052	58	1071	16	1081	14	97.3	1052	58
0.0058	399	130	643	46	714	34	90.1	714	34
0.0055	1823	16	1795	17	1771	27	102.9	1823	16
0.0031	1193	38	885	19	767	18	115.4	Discordant	
0.0076	2483	13	2457	15	2426	34	102.3	2483	13
0.0028	919	29	905	17	898	15	100.8	898	15
0.0024	733	33	769	16	782	14	98.3	782	14
0.0066	1838	23	1735	24	1650	33	111.4	Discordant	
0.0063	2084	14	2074	16	2062	30	101.1	2084	14
0.0073	1780	26	1740	26	1706	36	104.3	1780	26
0.0103	2395	20	2337	24	2268	47	105.6	2395	20
0.0077	1974	23	1895	25	1822	37	108.3	1974	23
0.0086	1677	35	1695	32	1708	43	98.2	1677	35
0.0022	873	26	808	14	784	13	103.1	784	13
0.0021	798	24	815	13	821	12	99.3	821	12
0.0033	805	53	786	25	779	19	100.9	779	19
0.0076	1833	25	1794	26	1760	37	104.1	1833	25
0.0023	780	29	794	15	799	13	99.4	799	13
0.0058	2362	10	2318	11	2267	26	104.2	2362	10
0.0065	2468	11	2419	12	2358	29	104.7	2468	11
0.0068	1971	19	1909	21	1852	33	106.4	1971	19
0.0070	2288	13	2282	15	2274	32	100.6	2288	13
0.0070	445	223	704	73	787	40	89.5	Discordant	
0.0017	816	72	777	17	764	10	101.7	764	10
0.0071	1842	24	1779	24	1724	35	106.8	1842	24
0.0091	1796	33	1762	33	1732	45	103.7	1796	33
0.0062	2073	15	2020	16	1966	29	105.4	2073	15
0.0007	447	11	534	4	554	4	96.4	554	4
0.0009	761	8	745	4	740	5	100.7	740	5
0.0028	2036	7	2050	7	2064	13	98.6	2036	7
0.0009	850	11	801	5	783	5	102.3	783	5
0.0013	695	10	757	6	779	7	97.2	779	7
0.0010	765	8	785	5	791	6	99.2	791	6
0.0010	726	9	746	5	753	6	99.1	753	6
0.0010	941	8	828	4	789	6	104.9	789	6
0.0035	2099	8	2049	8	1999	17	105.0	2099	8
0.0010	913	14	841	7	813	6	103.4	813	6
0.0011	741	9	753	5	757	6	99.5	757	6
0.0018	1165	8	1185	6	1195	10	97.5	1165	8
0.0025	1789	7	1728	7	1678	12	106.6	1789	7
0.0010	1048	8	854	5	781	6	109.3	781	6
0.0013	732	11	765	6	777	7	98.5	777	7
0.0012	674	17	713	8	724	7	98.5	724	7
0.0011	684	12	726	6	740	6	98.1	740	6
0.0012	1046	8	959	5	922	7	104.0	922	7
0.0014	770	12	793	7	801	8	99.0	801	8
0.0010	714	10	748	5	759	6	98.6	759	6
0.0034	2231	7	2173	8	2112	16	105.6	2231	7
0.0056	2070	15	1905	14	1762	27	117.5	Discordant	
0.0012	817	11	745	6	722	7	103.2	722	7
0.0013	770	11	721	6	706	7	102.1	706	7
0.0011	998	14	820	7	754	6	108.8	754	6
0.0016	831	15	710	5	678	9	104.7	678	9
0.0053	1988	14	1887	14	1800	26	110.4	Discordant	
0.0010	1014	6	972	4	953	5	102.0	953	5
0.0026	1708	7	1747	7	1781	13	95.9	1708	7
0.0029	2223	6	2140	7	2055	14	108.2	2223	6
0.0033	2195	7	2156	8	2115	15	103.8	2195	7
0.0012	865	8	866	5	866	7	100.0	866	7
0.0012	723	18	748	8	755	7	99.1	755	7
0.0009	853	9	809	5	793	5	102.0	793	5
0.0012	1087	7	947	5	889	7	106.5	889	7

0.0030	2103	7	2035	8	1968	14	106.9	2103	7
0.0011	732	16	727	7	726	7	100.1	726	7
0.0011	804	10	784	6	776	6	101.0	776	6
0.0029	2026	7	2010	8	1994	14	101.6	2026	7
0.0011	993	15	816	8	753	6	108.4	753	6
0.0011	731	9	763	5	774	6	98.6	774	6
0.0011	787	8	750	5	738	6	101.6	738	6
0.0013	855	16	780	9	751	8	103.9	751	8
0.0012	719	13	726	7	728	7	99.7	728	7
0.0013	802	9	794	6	792	7	100.3	792	7
0.0013	728	16	751	8	759	7	98.9	759	7
0.0010	758	9	750	5	747	6	100.4	747	6
0.0009	726	8	698	5	689	5	101.3	689	5
0.0011	783	9	774	6	771	6	100.4	771	6
0.0034	1807	8	1825	9	1841	16	98.2	1807	8
0.0008	767	10	735	5	724	5	101.5	724	5
0.0041	2081	9	2023	10	1966	19	105.8	2081	9
0.0010	893	12	789	7	752	6	104.9	752	6
0.0011	734	9	743	5	746	6	99.6	746	6
0.0014	764	11	813	7	830	8	98.0	830	8
0.0014	767	23	740	10	733	8	101.0	733	8
0.0012	831	9	787	5	773	7	101.8	773	7
0.0015	770	12	787	7	794	9	99.1	794	9
0.0055	2026	13	2048	15	2066	26	98.1	2026	13
0.0020	657	26	714	12	736	11	97.0	736	11
0.0012	739	13	754	7	759	7	99.3	759	7
0.0013	735	14	749	7	755	7	99.2	755	7
0.0037	1947	9	1951	9	1955	17	99.6	1947	9
0.0015	770	15	786	8	791	8	99.4	791	8
0.0016	738	26	746	12	753	9	99.1	753	9
0.0052	2490	11	2504	13	2514	23	99.0	2490	11
0.0010	753	10	752	5	752	6	100.0	752	6
0.0014	1055	10	1072	7	1080	8	97.7	1055	10
0.0035	2479	6	2491	7	2506	15	98.9	2479	6
0.0015	778	25	753	11	744	8	101.2	744	8
0.0009	782	9	804	5	811	5	99.1	811	5
0.0030	2003	7	2016	7	2028	14	98.8	2003	7
0.0018	854	37	759	16	725	11	104.7	725	11
0.0012	789	17	787	8	785	7	100.3	785	7
0.0010	970	6	969	4	968	6	100.1	968	6
0.0008	630	8	634	4	635	4	99.8	635	4
0.0014	951	8	963	5	968	8	99.5	968	8
0.0010	757	10	765	6	767	6	99.7	767	6
0.0027	1876	7	1847	7	1821	13	103.0	1876	7
0.0047	2073	10	2070	11	2068	22	100.2	2073	10
0.0013	708	19	727	9	733	8	99.2	733	8
0.0038	2192	8	2206	9	2223	17	98.6	2192	8
0.0016	900	15	921	9	931	9	98.9	931	9
0.0025	2119	5	2103	6	2086	12	101.6	2119	5
0.0014	840	29	765	12	741	8	103.2	741	8
0.0009	611	20	604	7	603	5	100.2	603	5
0.0012	995	7	988	5	986	7	100.2	986	7
0.0010	795	9	784	5	780	5	100.5	780	5
0.0014	753	15	769	8	775	8	99.2	775	8
0.0007	741	10	727	5	722	4	100.7	722	4
0.0013	774	11	737	6	724	7	101.8	724	7
0.0034	2090	7	2049	8	2009	16	104.0	2090	7
0.0018	775	22	821	11	836	10	98.2	836	10
0.0017	1077	16	1003	10	964	10	104.0	964	10
0.0009	605	13	599	6	599	5	100.0	599	5
0.0012	771	9	773	5	773	7	100.0	773	7
0.0028	1736	9	1724	9	1715	14	101.2	1736	9

0.0011	785	11	764	6	756	6	101.1	756	6
0.0013	720	23	740	10	746	7	99.2	746	7
0.0012	754	10	759	5	760	7	99.9	760	7
0.0017	779	19	773	10	772	9	100.1	772	9
0.0037	1723	13	1632	13	1562	19	110.3	Discordant	
0.0015	731	19	728	9	730	8	99.7	730	8
0.0011	768	10	746	6	739	6	100.9	739	6
0.0019	1463	6	1450	6	1440	10	101.6	1463	6
0.0009	743	8	737	5	735	5	100.3	735	5
0.0010	767	9	751	6	745	6	100.8	745	6
<b>ment)</b>									
0.0042	1829	33	1793	15	1762	21	103.8	1829	33
0.0064	2503	31	2469	17	2427	28	103.1	2503	31
0.0019	977	30	956	9	948	11	100.8	948	11
0.0054	1979	55	1882	25	1795	26	110.3	Discordant	
0.0016	830	33	786	9	770	9	102.1	770	9
0.0022	1043	54	913	16	860	12	106.2	860	12
0.0022	1142	46	1043	14	997	12	104.6	997	12
0.0017	877	47	801	12	774	10	103.5	774	10
0.0019	769	79	716	18	699	11	102.4	699	11
0.0013	1398	55	681	14	487	8	139.8	Discordant	
0.0017	958	54	769	14	706	10	108.9	706	10
0.0023	1078	31	1061	11	1054	12	102.3	1078	31
0.0027	1245	27	1234	10	1228	14	101.4	1245	27
0.0023	1231	48	1017	15	920	13	110.5	Discordant	
0.0021	841	68	807	17	795	12	101.5	795	12
0.0016	772	40	747	10	739	9	101.1	739	9
0.0022	777	81	769	20	766	12	100.4	766	12
0.0047	1796	38	1792	17	1789	23	100.4	1796	38
0.0062	2596	21	2583	13	2567	27	101.1	2596	21
0.0063	2638	20	2627	13	2612	27	101.0	2638	20
0.0025	979	60	955	18	945	14	101.1	945	14
0.0060	2407	22	2405	13	2404	27	100.1	2407	22
0.0037	1550	29	1554	13	1557	19	99.6	1550	29
0.0017	801	36	773	10	763	10	101.3	763	10
0.0019	871	39	853	11	845	11	100.9	845	11
0.0037	1802	36	1595	16	1444	19	124.8	Discordant	
0.0017	857	33	783	9	758	10	103.3	758	10
0.0050	1786	42	1782	19	1778	24	100.4	1786	42
0.0029	885	148	701	34	645	17	108.7	645	17
0.0057	2389	21	2378	13	2365	26	101.0	2389	21
0.0062	2349	28	2338	16	2325	28	101.0	2349	28
0.0018	782	45	783	12	784	11	99.9	784	11
0.0019	869	53	795	14	769	11	103.4	769	11
0.0059	2037	40	2036	20	2034	28	100.1	2037	40
0.0026	1078	47	1062	15	1055	14	102.2	1078	47
0.0073	2498	33	2477	18	2452	32	101.9	2498	33
0.0022	790	82	771	20	764	13	100.9	764	13
0.0016	704	46	687	11	682	9	100.7	682	9
0.0021	805	68	791	17	785	12	100.8	785	12
0.0046	1848	31	1840	15	1833	22	100.8	1848	31
0.0018	822	40	792	11	782	10	101.3	782	10
0.0012	559	48	531	9	524	7	101.3	524	7
0.0078	2158	55	2157	27	2156	36	100.1	2158	55
0.0073	2292	43	2277	22	2261	33	101.4	2292	43
0.0079	2357	45	2343	23	2326	35	101.3	2357	45
0.0019	846	41	830	11	824	11	100.7	824	11
0.0017	691	69	658	15	649	10	101.4	649	10
0.0049	2385	28	2154	15	1920	24	124.2	Discordant	
0.0054	1839	47	1811	21	1788	26	102.9	1839	47
0.0047	1906	27	1906	14	1906	22	100.0	1906	27
0.0070	2431	33	2425	18	2418	31	100.5	2431	33
0.0022	984	41	958	13	947	12	101.2	947	12

0.0025	1124	36	1106	13	1097	14	102.5	1124	36
0.0062	2239	36	2192	19	2141	29	104.6	2239	36
0.0018	804	46	790	12	785	10	100.6	785	10
0.0021	763	81	748	20	743	12	100.7	743	12
0.0021	838	64	820	17	813	12	100.9	813	12
0.0065	2629	21	2621	13	2610	28	100.7	2629	21
0.0024	1103	28	1100	10	1098	13	100.5	1103	28
0.0060	1926	50	1909	23	1893	29	101.7	1926	50
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0.0062	2291	39	2279	20	2266	28	101.1	2291	39
0.0039	1729	27	1697	13	1672	19	103.4	1729	27
0.0021	967	28	957	10	953	12	100.4	953	12
0.0017	837	29	816	9	809	10	100.9	809	10
0.0008	603	31	423	6	391	5	108.2	391	5
0.0013	683	57	580	12	555	8	104.5	555	8
0.0054	2125	26	2130	14	2137	25	99.4	2125	26
0.0042	1803	24	1798	12	1793	21	100.6	1803	24
0.0017	849	31	819	9	808	10	101.4	808	10
0.0039	1966	28	1830	14	1712	19	114.8	<b>Discordant</b>	
0.0066	2586	22	2578	14	2569	28	100.7	2586	22
0.0009	698	58	425	9	376	5	113.0	<b>Discordant</b>	
0.0055	2044	36	2019	18	1994	26	102.5	2044	36
0.0020	879	66	789	17	758	11	104.1	758	11
0.0023	991	37	985	12	983	12	100.2	983	12
0.0042	1833	23	1817	12	1803	21	101.7	1833	23
0.0017	865	30	794	9	769	9	103.3	769	9
0.0025	1141	25	1140	10	1139	13	100.2	1141	25
0.0019	846	42	832	12	828	11	100.5	828	11
0.0046	2489	22	2207	13	1916	22	129.9	<b>Discordant</b>	
0.0010	485	48	470	8	467	6	100.6	467	6
0.0014	983	34	727	9	647	8	112.4	<b>Discordant</b>	
0.0043	883	171	870	45	866	24	100.5	866	24
0.0045	1840	29	1831	14	1824	22	100.9	1840	29
0.0048	1826	37	1817	17	1810	24	100.9	1826	37
0.0014	518	45	592	9	612	8	96.7	612	8
0.0025	922	92	807	23	766	14	105.4	766	14
0.0019	754	53	782	13	792	11	98.7	792	11
0.0012	612	76	480	13	453	7	106.0	453	7
0.0022	911	56	883	16	872	12	101.3	872	12
0.0010	1202	36	603	9	456	6	132.2	<b>Discordant</b>	
0.0020	788	58	804	15	809	11	99.4	809	11
0.0010	459	42	455	7	454	6	100.2	454	6
0.0018	809	38	798	10	794	10	100.5	794	10
0.0010	467	36	457	6	455	6	100.4	455	6
0.0010	462	52	439	8	435	6	100.9	435	6
0.0019	862	31	864	9	865	11	99.9	865	11
0.0018	796	52	767	13	757	11	101.3	757	11
0.0018	916	57	773	14	725	11	106.6	725	11
0.0010	467	76	414	11	405	6	102.2	405	6
0.0018	851	27	850	8	850	10	100.0	850	10
0.0020	832	50	819	13	814	11	100.6	814	11
0.0011	463	52	470	9	472	6	99.6	472	6
0.0018	823	34	835	10	839	10	99.5	839	10
0.0018	841	32	827	9	823	10	100.5	823	10
0.0015	836	50	664	12	615	9	108.0	615	9
0.0019	847	39	837	11	833	11	100.5	833	11
0.0022	1001	32	994	10	991	12	100.3	991	12
0.0018	870	30	859	9	855	10	100.5	855	10
0.0062	2291	39	2279	20	2266	28	101.1	2291	39
<b>(n)</b>									
0.0057	1829	45	1831	22	1826	28	100.2	1829	45
0.0072	2281	34	2307	18	2334	32	97.7	2281	34
0.0045	1994	47	1582	21	1293	24	154.2	<b>Discordant</b>	

0.0070	2420	37	2427	19	2434	31	99.4	2420	37
0.0024	943	45	926	15	918	14	100.9	918	14
0.0032	1077	48	1073	17	1070	18	100.7	1077	48
0.0143	3887	30	3906	20	3939	50	98.7	3887	30
0.0024	1115	54	900	16	814	13	110.6	Discordant	
0.0060	1817	47	1852	23	1881	29	96.6	1817	47
0.0046	1629	45	1627	21	1614	23	100.9	1629	45
0.0080	2399	35	2413	21	2419	35	99.2	2399	35
0.0030	1117	47	1150	15	1162	16	96.1	1117	47
0.0022	826	47	821	13	815	12	100.7	815	12
0.0084	2473	41	2524	23	2583	36	95.7	2473	41
0.0019	1256	72	845	17	704	11	120.0	Discordant	
0.0027	720	91	755	23	768	15	98.3	768	15
0.0061	1743	47	1835	21	1914	29	91.1	1743	47
0.0133	3121	34	3065	25	2975	54	104.9	3121	34
0.0081	2407	42	2340	23	2263	37	106.4	2407	42
0.0033	898	89	940	26	959	18	98.0	959	18
0.0072	2161	47	2201	22	2239	33	96.5	2161	47
0.0033	940	55	999	17	1029	18	91.4	940	55
0.0076	1899	71	1847	35	1806	37	105.1	1899	71
0.0064	2154	41	2188	21	2208	29	97.6	2154	41
0.0082	2302	40	2332	21	2362	37	97.5	2302	40
0.0106	3061	131	2284	136	1112	58	275.3	Discordant	
0.0032	1035	75	973	21	957	18	101.7	957	18
0.0077	2554	33	2465	20	2349	34	108.7	2554	33
0.0021	1131	69	863	22	757	12	114.0	Discordant	
0.0015	744	96	566	21	521	9	108.6	521	9
0.0033	1161	54	1141	19	1129	18	102.8	1161	54
0.0025	1635	66	1078	22	829	14	130.0	Discordant	
0.0109	3169	39	3138	25	3077	44	103.0	3169	39
0.0043	1589	44	1540	20	1505	22	105.6	1589	44
0.0023	1411	153	968	62	762	13	127.0	Discordant	
0.0023	750	251	754	13	757	13	99.6	757	13
0.0025	883	81	801	21	776	15	103.2	776	15
0.0022	917	49	837	14	808	13	103.6	808	13
0.0022	831	62	816	14	815	13	100.1	815	13
0.0057	1937	44	1895	25	1846	28	104.9	1937	44
0.0106	2736	49	2715	24	2699	45	101.4	2736	49
0.0082	2370	42	2287	24	2202	38	107.6	2370	42
0.0119	3290	33	3266	23	3224	46	102.0	3290	33
0.0035	977	75	887	22	853	20	104.0	853	20
0.0037	1128	98	968	36	898	21	107.8	898	21
0.0075	1910	56	1879	27	1866	36	102.4	1910	56
0.0062	1903	59	1841	24	1798	30	105.8	1903	59
0.0023	1139	63	852	19	744	13	114.5	Discordant	
0.0036	1598	81	1057	29	820	21	128.9	Discordant	
0.0022	789	61	743	16	732	13	101.5	732	13
0.0029	1056	60	981	19	956	16	102.6	956	16
0.0039	1083	56	1111	19	1131	21	95.8	1083	56
0.0063	1828	51	1838	26	1848	30	98.9	1828	51
0.0022	632	64	748	16	786	13	95.2	786	13
0.0049	1611	43	1634	19	1654	25	97.4	1611	43
0.0028	1083	47	1090	17	1092	15	99.2	1083	47
0.0063	1852	56	1891	29	1921	30	96.4	1852	56
0.0062	2376	38	2358	21	2332	28	101.9	2376	38
0.0049	1502	49	1532	22	1549	25	97.0	1502	49
0.0066	1839	43	1853	21	1869	32	98.4	1839	43
0.0064	1905	55	1884	26	1880	31	101.3	1905	55
0.0078	2632	34	2586	20	2512	34	104.8	2632	34
0.0058	1773	56	1821	22	1861	28	95.3	1773	56
0.0015	717	98	600	20	570	9	105.3	570	9
0.0034	1233	54	1164	19	1126	19	109.5	1233	54
0.0020	1367	57	903	18	724	12	124.7	Discordant	

0.0047	1805	39	1811	19	1802	23	100.2	1805	39
0.0056	1789	49	1823	23	1854	27	96.5	1789	49
0.0018	1450	47	852	15	636	10	134.0	Discordant	
0.0032	972	63	959	20	954	18	100.5	954	18
0.0029	924	134	701	35	637	17	110.0	Discordant	
0.0031	1102	49	1125	19	1131	17	97.4	1102	49
0.0041	1146	50	1155	19	1166	22	98.3	1146	50
0.0029	754	80	812	19	843	16	96.3	843	16
0.0036	1088	55	1100	20	1104	20	98.6	1088	55
0.0027	524	108	686	22	755	15	90.9	755	15
0.0025	880	69	777	17	749	14	103.7	749	14
0.0044	1676	39	1704	17	1723	22	97.3	1676	39
0.0070	1969	50	2038	27	2094	32	94.0	1969	50
0.0026	1088	52	1012	16	972	14	104.1	972	14
<b>n)</b>									
0.0037	1192	70	1208	25	1216	20	98.0	1192	70
0.0038	1228	62	1181	22	1158	20	106.0	1228	62
0.0055	1684	52	1643	25	1606	28	104.9	1684	52
0.0030	939	68	981	21	1002	17	93.7	939	68
0.0073	1909	57	1949	29	1997	35	95.6	1909	57
0.0041	1185	90	1082	29	1031	22	114.9	Discordant	
0.0037	883	117	939	33	973	21	96.5	973	21
0.0032	820	79	836	24	842	18	99.3	842	18
0.0112	2725	48	2727	28	2721	47	100.1	2725	48
0.0105	2566	45	2610	26	2661	45	96.4	2566	45
0.0025	813	71	825	19	830	14	99.4	830	14
0.0025	796	98	781	25	784	14	99.6	784	14
0.0092	2598	47	2479	27	2337	41	111.2	Discordant	
0.0105	2632	55	2611	32	2581	45	102.0	2632	55
0.0055	1783	57	1756	26	1730	27	103.1	1783	57
0.0158	3839	46	3782	35	3637	58	105.6	3839	46
0.0103	2492	49	2502	28	2529	45	98.5	2492	49
0.0034	943	128	822	34	808	20	101.7	808	20
0.0082	2506	46	2471	27	2437	36	102.8	2506	46
0.0066	1979	49	1899	25	1837	32	107.7	1979	49
0.0101	2591	54	2570	32	2563	44	101.1	2591	54
0.0026	854	76	802	21	790	15	101.5	790	15
0.0030	1061	81	969	24	938	17	103.3	938	17
0.0015	698	74	554	15	525	9	105.5	525	9
0.0025	743	126	686	27	692	14	99.1	692	14
0.0063	1687	80	1660	36	1651	32	102.2	1687	80
0.0038	1288	56	1163	21	1105	20	116.6	Discordant	
0.0075	1806	72	1841	36	1875	36	96.3	1806	72
0.0027	922	92	860	30	836	15	102.9	836	15
0.0038	906	122	854	34	840	21	101.7	840	21
0.0029	694	106	767	27	791	17	97.0	791	17
0.0109	2624	53	2486	31	2334	49	112.4	Discordant	
0.0027	872	96	764	25	732	15	104.4	732	15
0.0090	1748	69	1858	35	1952	43	89.5	Discordant	
0.0034	950	87	858	26	827	19	103.7	827	19
0.0029	820	77	861	20	876	16	98.3	876	16
0.0080	1713	76	1805	34	1887	39	90.8	1713	76
0.0026	1043	65	914	19	860	15	106.3	860	15
0.0062	1820	51	1929	24	2020	29	90.1	1820	51
0.0030	928	82	979	24	994	16	98.5	994	16
0.0095	2598	44	2498	29	2349	42	110.6	Discordant	
0.0054	1533	74	1416	30	1381	28	111.0	Discordant	
0.0058	1606	78	1489	33	1412	30	113.7	Discordant	
0.0053	1520	65	1449	25	1404	27	108.3	1520	65
0.0087	2477	48	2472	27	2459	38	100.7	2477	48
0.0037	1278	101	1103	24	1016	20	125.8	Discordant	
0.0070	1952	58	1869	28	1782	34	109.5	1952	58
0.0024	999	119	645	26	556	14	116.0	Discordant	

0.0105	2562	57	2496	31	2403	46	106.6	2562	57
0.0080	2254	63	2241	34	2194	37	102.7	2254	63
0.0024	1191	71	898	21	774	13	116.0	Discordant	
0.0037	1140	133	1024	40	978	20	104.7	978	20
0.0085	2477	44	2500	25	2494	37	99.3	2477	44
0.0076	1747	79	1799	33	1858	37	94.0	1747	79
0.0029	613	115	733	26	780	16	94.0	780	16
0.0124	3081	53	3182	30	3313	48	93.0	3081	53
0.0083	2129	88	1969	43	1816	40	117.2	Discordant	
0.0038	1017	47	1053	24	1072	21	94.9	1017	47
0.0032	720	124	792	34	806	18	98.3	806	18
0.0115	2627	43	2665	25	2708	49	97.0	2627	43
0.0074	1835	56	1867	27	1887	36	97.2	1835	56
0.0036	1181	74	1080	28	1017	20	116.1	Discordant	
0.0013	731	99	491	18	435	8	112.9	Discordant	
0.0034	881	85	952	24	984	19	96.7	984	19
0.0057	1376	71	1438	29	1478	29	93.1	1376	71
0.0018	643	77	614	17	605	11	101.5	605	11
0.0027	965	100	818	28	761	15	107.5	761	15
0.0029	1006	59	976	22	951	16	102.6	951	16
0.0016	498	102	516	19	519	10	99.4	519	10
0.0023	880	107	650	25	592	13	109.8	592	13
0.0029	969	72	974	23	973	16	100.1	973	16
0.0066	1880	61	1808	30	1747	32	107.6	1880	61
0.0083	2432	58	2397	33	2349	37	103.5	2432	58
0.0038	1052	79	1059	26	1070	21	98.3	1052	79
0.0024	906	69	853	18	834	14	102.3	834	14
0.0025	900	78	814	21	786	14	103.6	786	14
0.0027	739	81	781	21	799	15	97.7	799	15
0.0036	1443	54	1279	22	1175	20	122.8	Discordant	
0.0035	883	117	939	23	962	20	97.6	962	20
0.0043	1303	27	1172	24	1107	23	117.7	Discordant	
<b>n)</b>									
0.0039	1831	36	1642	18	1493	20	122.6	Discordant	
0.0055	1983	44	1991	20	2002	26	99.1	1983	44
0.0025	1000	86	846	23	818	14	103.4	818	14
0.0055	1836	44	1872	21	1905	27	96.4	1836	44
0.0053	1727	46	1735	22	1739	26	99.3	1727	46
0.0028	1050	61	1012	19	997	16	101.5	997	16
0.0022	909	67	787	18	744	13	105.8	744	13
0.0018	826	166	491	27	437	11	112.4	Discordant	
0.0027	946	71	854	23	814	15	104.9	814	15
0.0026	1055	63	826	16	749	15	110.3	Discordant	
0.0017	561	124	468	20	462	10	101.3	462	10
0.0029	952	63	862	17	837	17	103.0	837	17
0.0095	2555	39	2532	22	2513	41	101.7	2555	39
0.0031	1309	92	890	29	731	18	121.8	Discordant	
0.0026	722	111	667	25	666	15	100.2	666	15
0.0023	1154	69	890	19	793	13	112.2	Discordant	
0.0051	1443	38	1409	15	1400	26	103.1	1443	38
0.0055	1609	148	1170	41	1044	30	154.1	Discordant	
0.0023	717	64	801	17	833	13	96.2	833	13
0.0029	1009	40	939	22	909	16	103.3	909	16
0.0083	2470	47	2473	21	2481	37	99.6	2470	47
0.0077	2217	41	2164	25	2095	36	105.8	2217	41
0.0031	1003	70	1021	22	1024	17	97.9	1003	70
0.0035	1059	80	1082	27	1095	19	96.7	1059	80
0.0073	2015	46	2074	23	2124	34	94.9	2015	46
0.0079	2061	106	1842	51	1663	39	123.9	Discordant	
0.0046	857	92	825	26	833	26	99.0	833	26
0.0017	694	126	494	22	459	10	107.6	459	10
0.0034	1092	59	1120	21	1119	18	97.6	1092	59
0.0024	965	64	859	18	812	14	105.8	812	14

0.0057	1794	46	1804	20	1798	28	99.8	1794	46
0.0024	698	90	737	20	748	14	98.5	748	14
0.0035	1020	142	716	37	637	20	112.4	Discordant	
0.0024	820	81	833	22	827	14	100.7	827	14
0.0026	724	72	795	18	818	15	97.2	818	15
0.0084	1811	93	1795	44	1812	41	99.9	1811	93
0.0027	765	108	794	28	808	15	98.3	808	15
0.0021	709	76	773	20	787	12	98.2	787	12
0.0036	1111	150	840	41	759	21	110.7	Discordant	
0.0081	2500	50	2506	28	2506	35	99.8	2500	50
0.0061	1787	70	1723	31	1661	30	107.6	1787	70
0.0067	1895	55	1842	26	1782	33	106.3	1895	55
0.0088	2565	50	2533	28	2485	39	103.2	2565	50
0.0071	1868	62	1838	30	1811	35	103.1	1868	62
0.0028	976	65	945	20	929	15	101.7	929	15
0.0028	767	122	760	29	764	16	99.5	764	16
0.0060	2576	41	2451	23	2282	27	112.9	Discordant	
0.0067	1947	65	1811	32	1714	33	113.6	Discordant	
0.0089	1687	102	1726	47	1786	43	94.5	1687	102
0.0026	866	103	847	20	836	15	101.3	836	15
0.0046	1325	63	1350	27	1352	24	98.0	1325	63
0.0029	761	67	815	18	838	16	97.3	838	16
0.0023	803	78	760	19	747	13	101.7	747	13
0.0075	1839	56	1947	26	2058	35	89.4	Discordant	
0.0049	1898	46	1801	21	1711	24	110.9	Discordant	
0.0101	2585	50	2597	28	2609	43	99.1	2585	50
0.0045	1080	92	1100	32	1127	25	95.8	1080	92
0.0028	794	107	842	30	850	16	99.1	850	16
0.0027	783	83	820	21	841	15	97.5	841	15
0.0024	772	85	818	23	832	13	98.3	832	13
0.0020	937	74	787	19	734	11	107.2	734	11
0.0025	831	69	797	19	779	15	102.3	779	15
0.0024	1326	177	603	40	442	15	136.4	Discordant	
0.0027	794	107	769	28	761	16	101.1	761	16
0.0026	798	85	800	23	798	15	100.3	798	15
0.0028	946	62	981	20	988	16	99.3	988	16
0.0023	803	63	803	18	798	13	100.6	798	13
0.0037	1233	82	1165	31	1126	20	109.5	1233	82
0.0060	1987	47	1949	26	1915	29	103.8	1987	47
0.0024	1147	67	860	20	755	14	113.9	Discordant	
0.0023	931	75	791	21	740	13	106.9	740	13
0.0067	2285	59	2280	33	2276	30	100.4	2285	59
0.0024	1059	81	839	24	761	14	110.2	Discordant	
0.0024	843	83	810	22	808	14	100.2	808	14
0.0019	854	118	769	22	739	11	104.1	739	11
0.0055	1709	59	1654	26	1622	28	105.4	1709	59
0.0058	1979	47	1965	24	1947	28	101.6	1979	47
0.0047	1589	63	1526	27	1488	24	106.8	1589	63
0.0052	1813	63	1740	31	1665	26	108.9	1813	63
0.0067	2487	55	2166	29	1838	33	135.3	Discordant	

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**Table S7 Statistics of descriptions of ductile deformation kinematics in the Central**

Index No.	Region	Foliation (strike/dip)	Lineation (trend/plunge)
1	Baluntai	ENE-WSW/steeply	
1	Kergutu	ENE-WSW/steeply N	
1	Kergutu	WNW-ESE/steeply	WNW/steeply
1	Chahan Wusu	WNW-ESE/subvertical	
2	Kuikewusu	E-W/SSE	
2	Kaidu	ENE-WSW/ steeply	NNW/ steeply
2	Kuikewusu	ENE-WSW/ subvertical	ENE-WSW/ Subhorizontal
2	Kuikewusu	ENE-WSW/ subvertical	ENE-WSW/ Subhorizontal
3	Mishigou	WNW-ESE/SSW 40°~65°	SE/moderately
3	Mishigou	WNW-ESE/subvertical	WNW-ESE/subhorizontal
4	Wuwamen ophiolite mélange	WNW-ESE/SSW 20°~70°	SW/downdip
4	Wuwamen ophiolite mélange	WNW-ESE/SSW 60°~80°	NW-SE/subhorizontal
5	Baluntai	WNW-ESE/S 30°~60°	SE/steeply
5	Baluntai	WNW-ESE/subvertical	WNW-ESE/subhorizontal
6	Akeyazi	ENE-WSW/ N	NW-SE/ moderately to steeply
7	Heiyinshan	E-W/ gently S	N-S to NW-SE
7	Kulehu	E-W/ variably	
8	Akeyazi	ENE-WSW/ N	NE/ moderately to steeply
9	Kekesu	ENE-WSW/ SE	SE to SW/ subhorizontal to moderately
9	Kekesu	ENE-WSW/ SE	SSE/ steeply
10	Akeyazi	refolded	NW-SE
10	Akeyazi	NE-SW to ENE- WSW/S	N-S

10	Akeyazi		subvertical
10	Akeyazi	NE-SW/subvertical	subhorizontal
11	Aqikudu-Weiya	E-W/S	SSW to SSE/steeplly
11	Aqikudu-Weiya	E-W/subvertical	E-W/ subhorizontal
12	northern margin	ENE-WSW/S ~52°	SE/ ~45°
12	Kumishi-Hongliuhe	E-W/S ~60°	SSE/ ~46°
12	Kumishi-Hongliuhe	E-W/steeplly S	W/subhorizontal
12	southern margin		
13	Kekesu	ENE-WSW/ SSE	NNW/ varially
14	Atbashi Range	W-E/S 40°~70°	
14	Pobeda Massif	ENE-WSW/ SSE-SSW 70°~80°	
14	Atbashi Range	W-E/S ~30°	
15	Atbashi Range	W-E/ N (detachment fault zone)	
16	Bogda Shan	ENE-WSW/ S 65°	
17	Harlik	NW-SE/NE 55°~80°	SW/downdip
18	Liushugou	vertical	WNW-ESE/subhorizontal
19	north magin of CTS	E-W/subvertical	subhorizontal
19	south margin of CTS	E-W/S	W/subhorizontal
19	Xinger	E-W/subvertical	subhorizontal
20	Kekesu	ENE-WSW/ steeply S	SSE/ steeply
21	Kekesu	ENE-WSW/ steeply SE	ENE to WSW/ Subhorizontal
22	Nalati		

Notes:

- a. Deformation events in green represent Late Devonian to Carboniferous compression, in grey represent extension.
- b. Index numbers correspond to that in the Figure 17.
- c. Abbreviations: NTS--the North Tianshan; CTS--the Central Tianshan; SYB--the southern Yili basin.

**and SouthTianshan.**

Features/indicators	Sense of deformation	Timing	Tectonic Unit
sigmoidal boudins of early felsic dyke, Z-type interlayered folds	top-to-the-north	D <sub>3</sub> -C <sub>1</sub>	CTS
asymmetric fold and axial plane foliation	southward thrusting	D <sub>3</sub> -C <sub>1</sub>	STS
north: microscale oblique foliation of quartz indicates top-to-the-north shearing; south: asymmetric folds indicate S-directed extension	N-S extension	C <sub>2</sub>	STS
crenulation of the foliation with steeply WNW-dipping hinge, close to the strike-slip zone	E-W dextral	P	STS
asymmetric tight folds with axial-planar schistosity, sigmoidal quartz boudins	top-to-the-north	D-C <sub>1</sub>	STS
σ-type K-feldspar porphyroclasts, recrystallized quartz clasts, asymmetric biotite pressure shadows	top-to-the-north	D-C <sub>1</sub>	STS
mylonitization along several localized strike-slip faults, σ-type feldspar and quartz porphyroclasts	E-W dextral	C <sub>2</sub> -P <sub>2</sub>	STS
sigmoidal recrystallized quartz porphyroclasts and asymmetrically elongated biotite	E-W sinistral	P	STS
S-C fabric, asymmetric lenses	top-to-the-north	C <sub>1</sub>	CTS
asymmetric fabrics	E-W dextral	P	CTS
asymmetric deflection of the foliation around an isolated sigmoid boudin in a mylonitic marble, rotated feldspar porphyroclasts, oblique foliation, bookshelf structure	top-to-the-north	C	STS
mylonitic foliation, σ-type pebbles and quartz porphyroclasts	dextral	P	STS
σ-type quartz and feldspar phenocrysts, asymmetric biotite pressure shadows	top-to-the-north		CTS
sigmoid K-feldspar with mica pressure shadow, oblique boundaries of quartz sub-grains with respect to the main foliation	WNW-ESE dextral	P	CTS
		C <sub>1</sub>	STS
fibrous quartz or calcite pressure shadows crystallized around sigmoid limestone clasts within the sheared matrix	top-to-the-north	D <sub>3</sub> -C <sub>1</sub>	STS
shear bands and intrafolial asymmetric folds within the melange matrix along with sigmoidal volcanic rock clasts	top-to-the-north	D <sub>3</sub> -C <sub>1</sub>	STS
		C <sub>1</sub>	STS
asymmetric plagioclase porphyroclasts, shear bands of muscovite	top-to-the-north	D <sub>3</sub> -C <sub>1</sub>	STS
sigmoidal muscovite and recrystallized quartz ribbons with an oblique grain-shaped fabric	south-directed shearing	C <sub>2</sub>	STS
sigmoidal lenses of eclogite blocks and quartz veins	top-to-the-NW	C <sub>1</sub>	STS
sigmoidal quartz veins and shear bands	northward thrusting	C <sub>1</sub>	STS

S-verging or SE-verging synforms and antiforms, sigmoidal lenses of eclogite and mafic lava	top-to-the-south	C <sub>2</sub>	STS
σ-type, δ-type porphyroblast, mica fish, etc.	dextral	P	STS
asymmetric folds and microstructures	northward thrusting	D	CTS-STS
	dextral	P <sub>2</sub>	CTS-STS
	northward thrusting	D	CTS
	northward thrusting	D	STS
	sinistral	D	STS
	southward decollement	C <sub>2</sub> -P <sub>1</sub>	CTS
A-type shearing folds	SSE to NNW thrusting	C <sub>1</sub>	STS
	top-to-the-north thrusting	C	STS
	top-to-the-north thrusting	C	STS
	top-to-the-south detachment	C <sub>2</sub>	STS
	top-to-the-south detachment	C <sub>2</sub>	STS
olistostrome formation, south-verging asymmetric folds	NNE-SSW extension	C <sub>2</sub> -P <sub>1</sub>	NTS
	NW-SE extension	C <sub>2</sub>	NTS
quartz and feldspar rotated porphyroblasts	dextral strike-slip	P	STS
quartz and feldspar rotated porphyroblasts	dextral strike-slip	P <sub>1</sub> -P <sub>2</sub>	CTS
S-C fabric, σ-shaped dikes	dextral strike-slip	P <sub>1</sub>	CTS
	dextral strike-slip	P <sub>1</sub>	STS-NTC
	dextral strike-slip	P <sub>2</sub>	SYB
drag folds and asymmetric boudins, σ- and δ-type porphyroclasts of feldspar or pyroxene, etc.	dextral strike-slip	P <sub>2</sub>	STS
	dextral strike-slip	P <sub>1</sub>	SYB

resent late Carboniferous post-collisional extension, and in blue represent Permian strike-slip shearing.

ock; STS--the South Tianshan.

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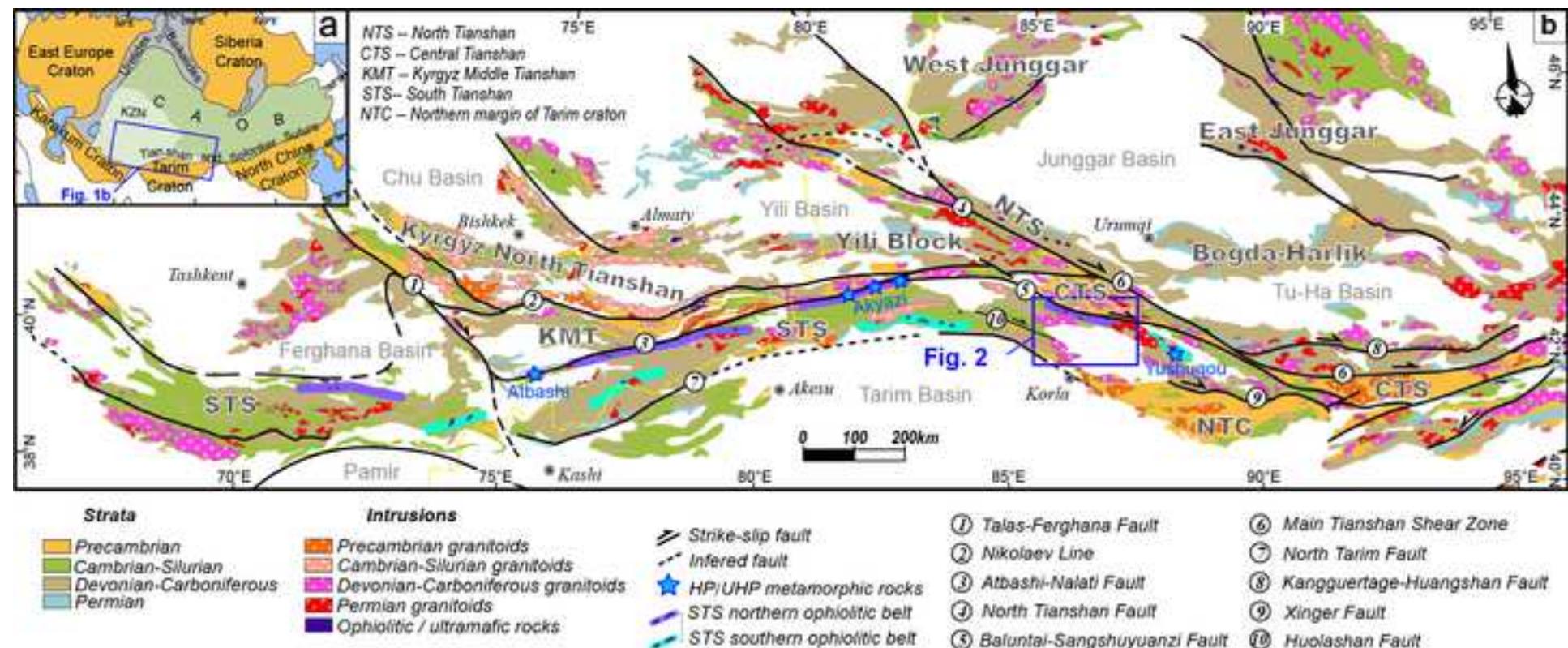
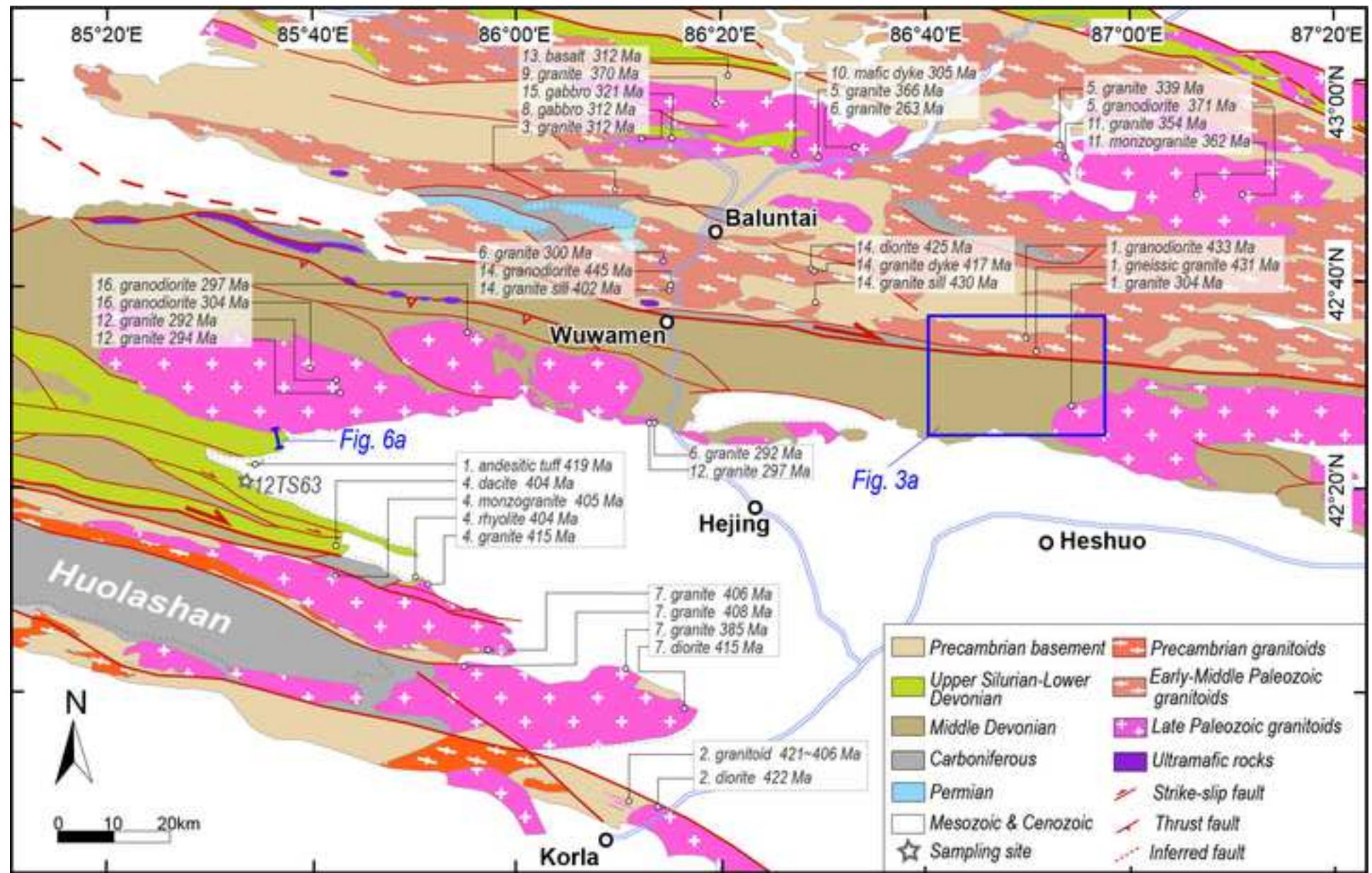


Figure 2

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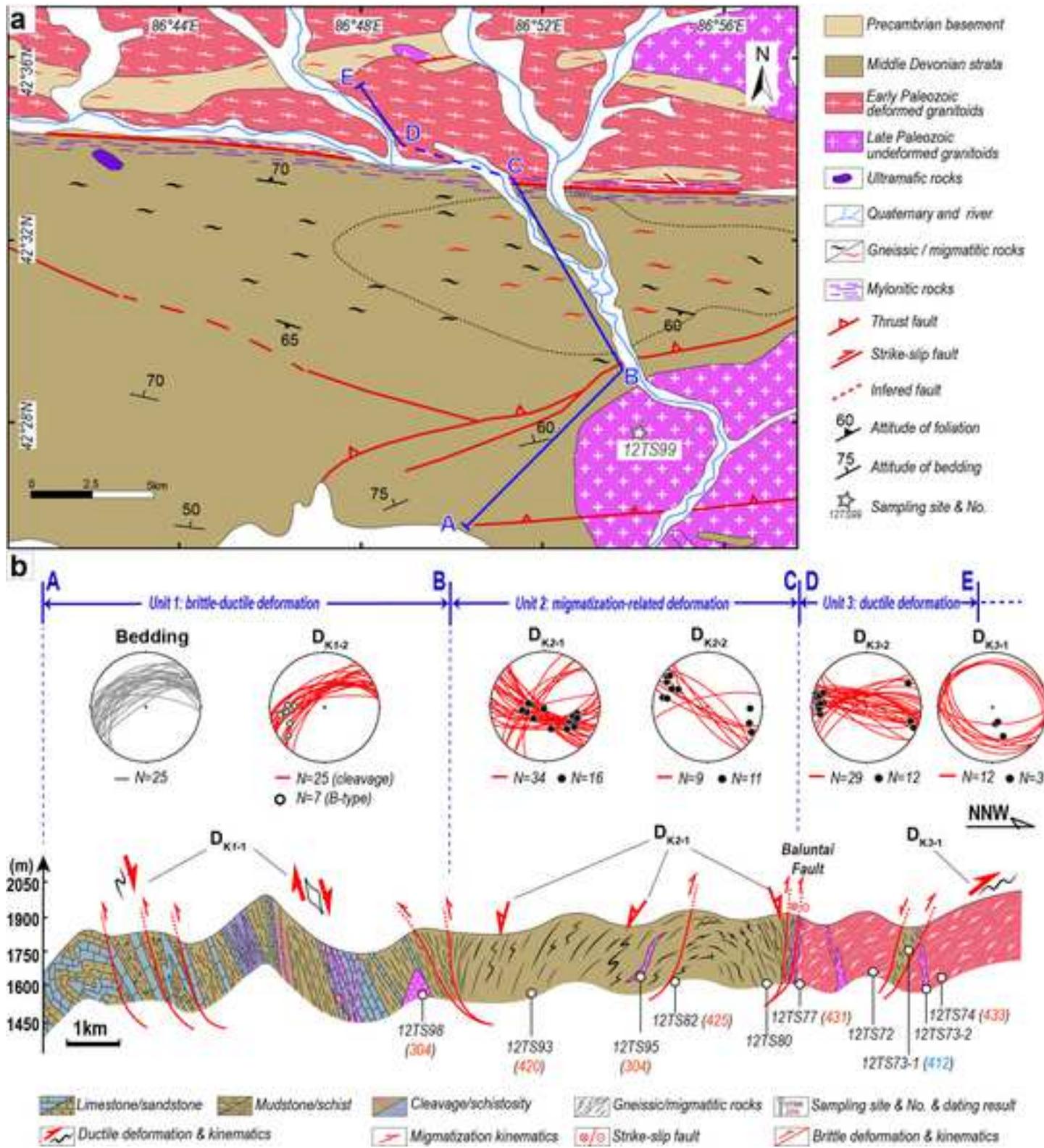


Figure 4

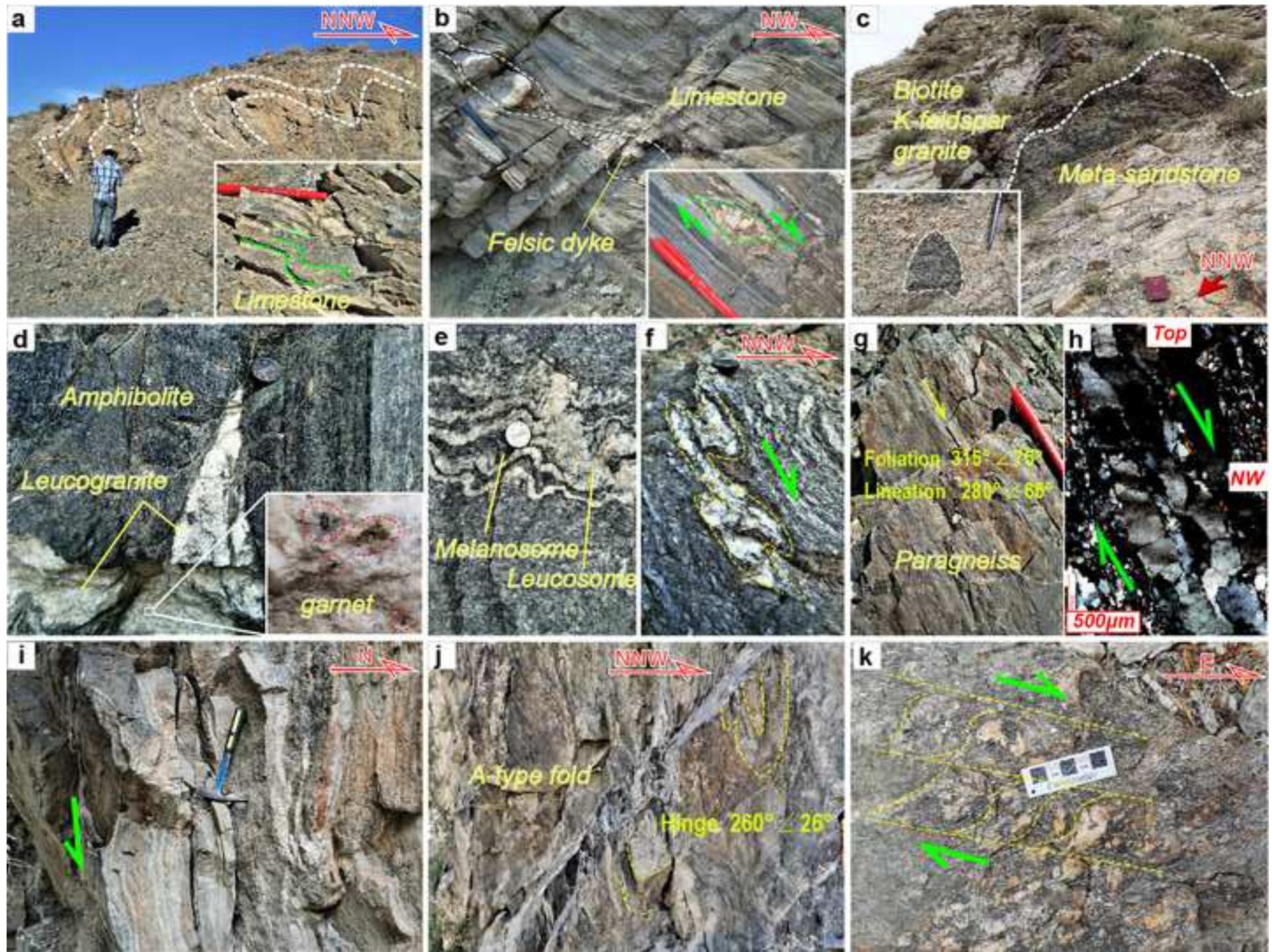
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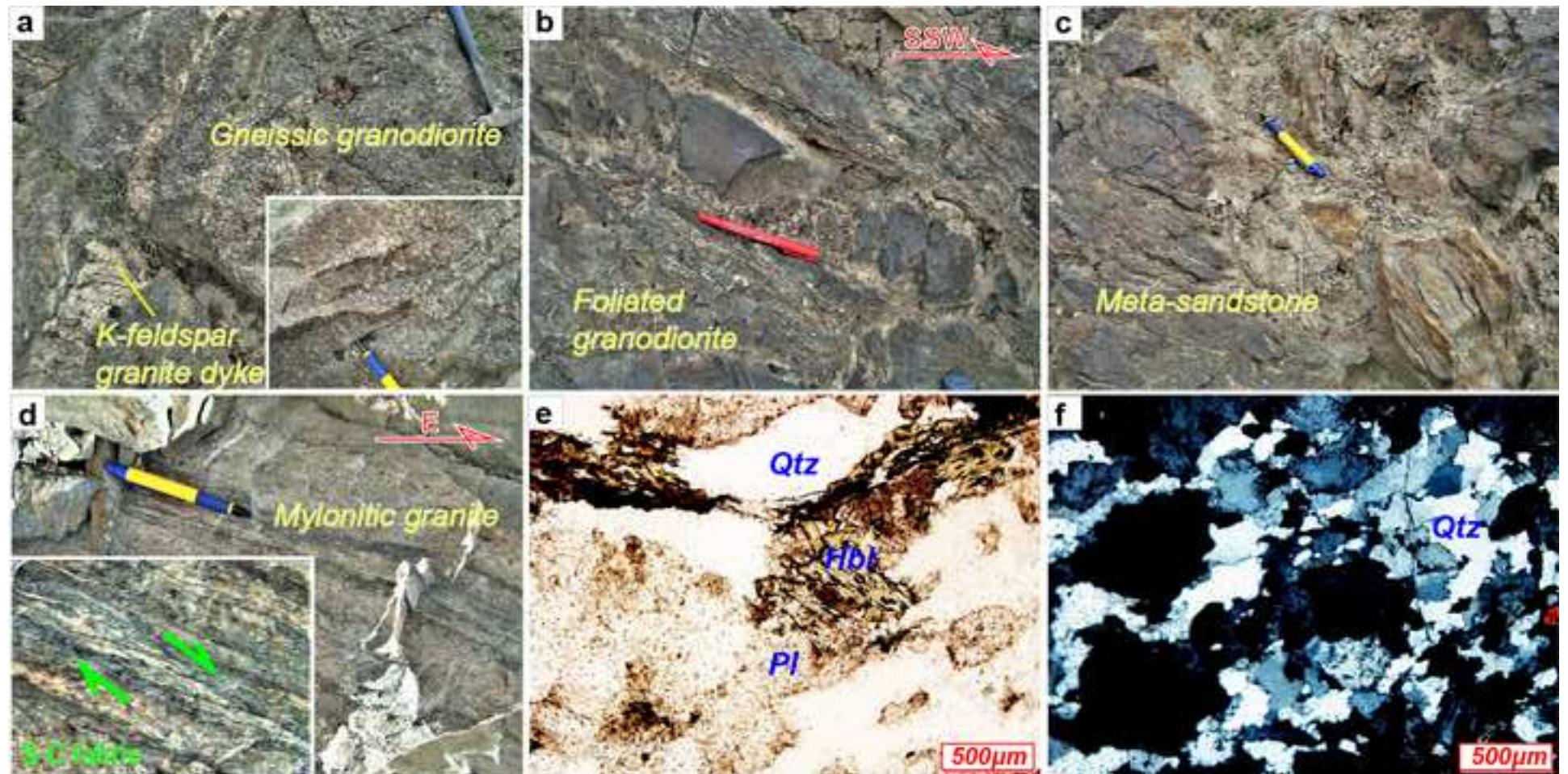
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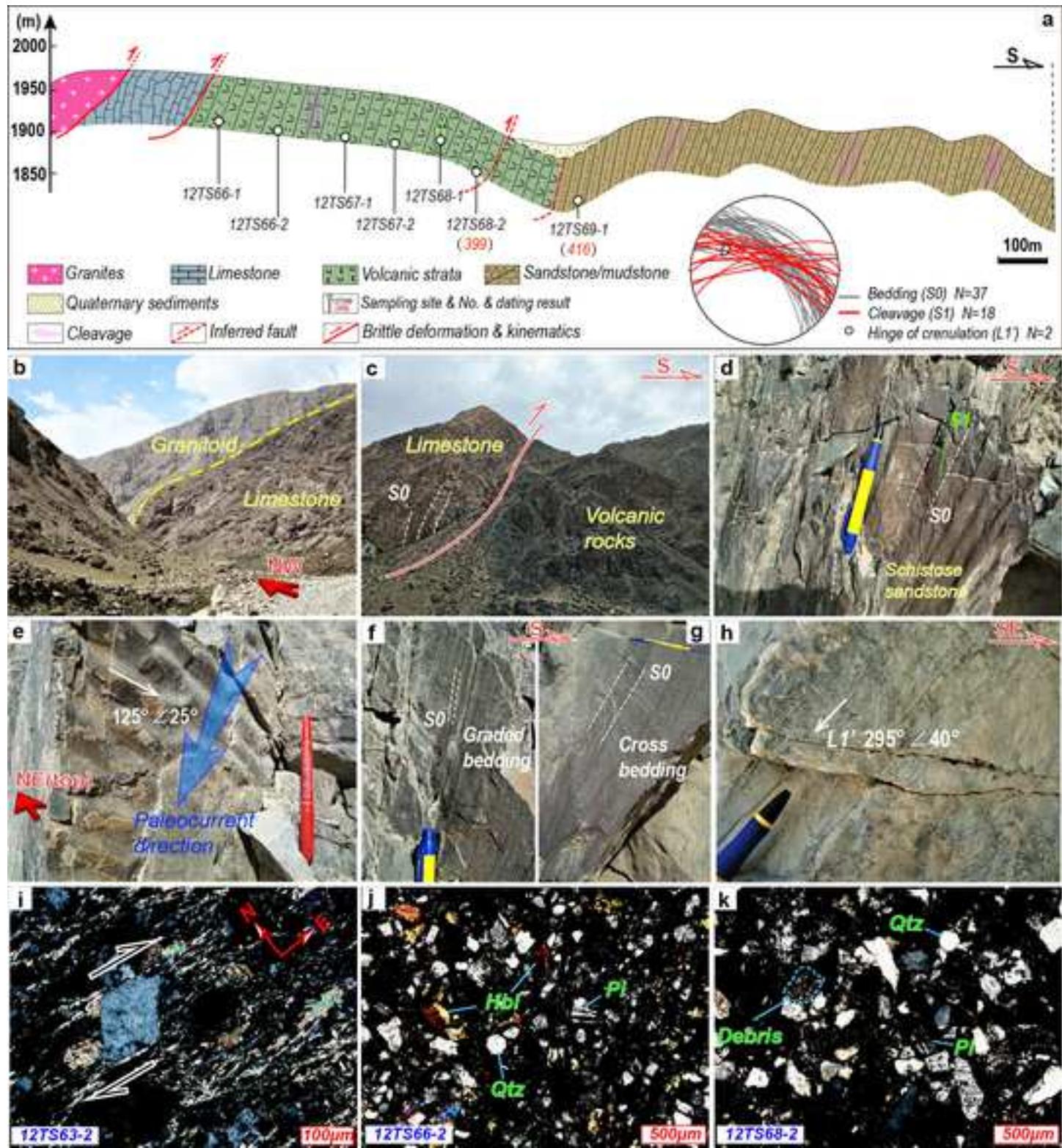


Figure 7

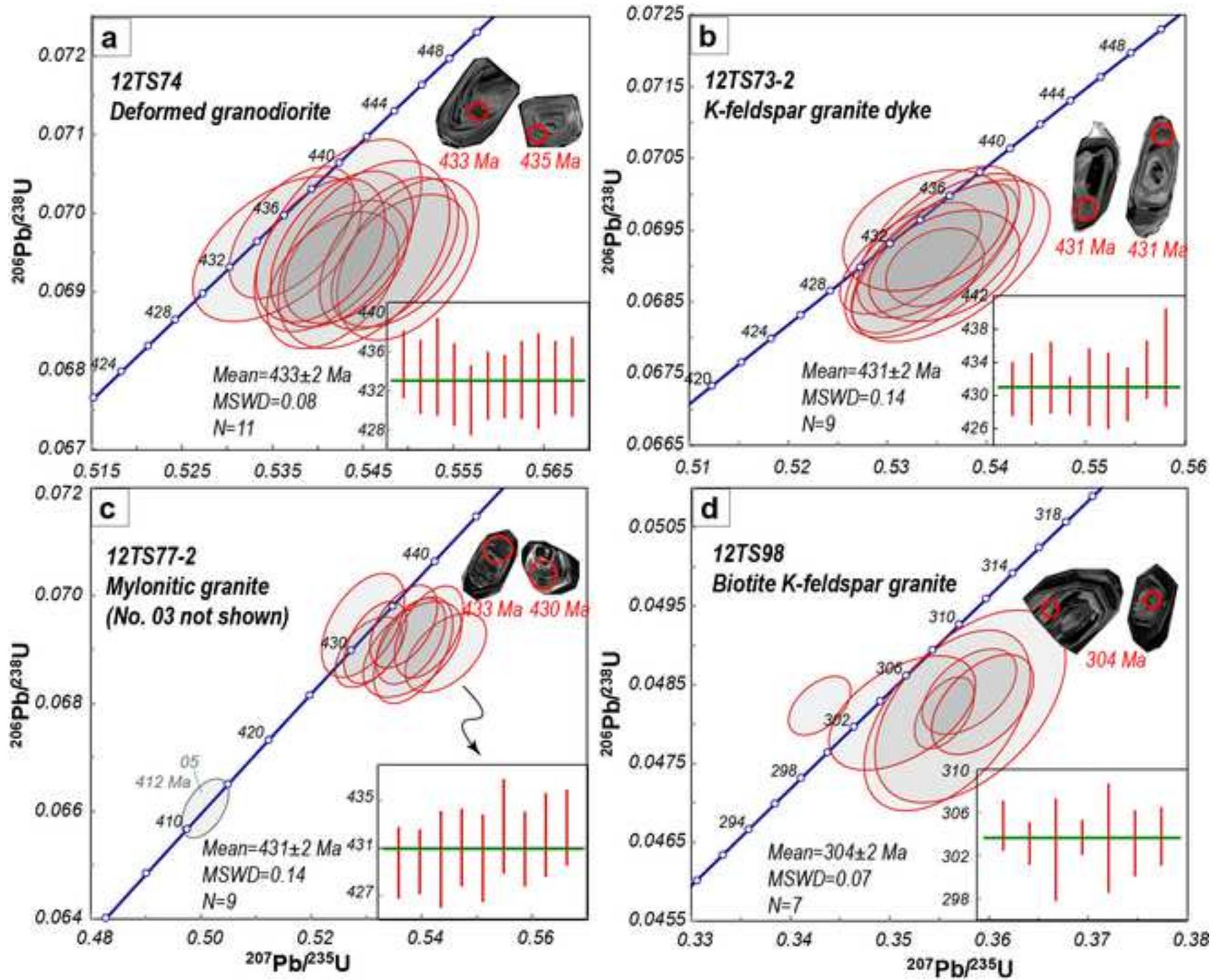
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Figure 8

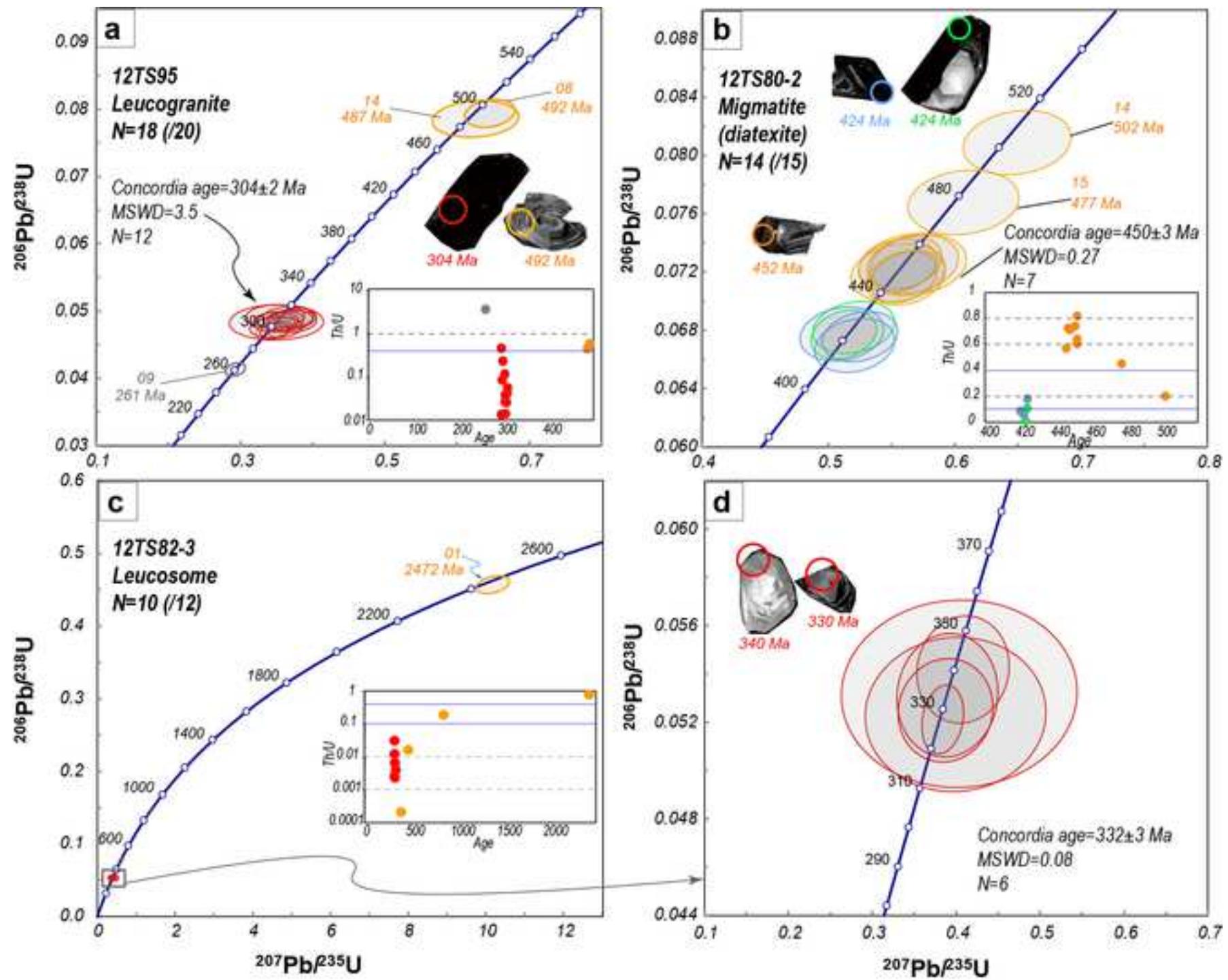
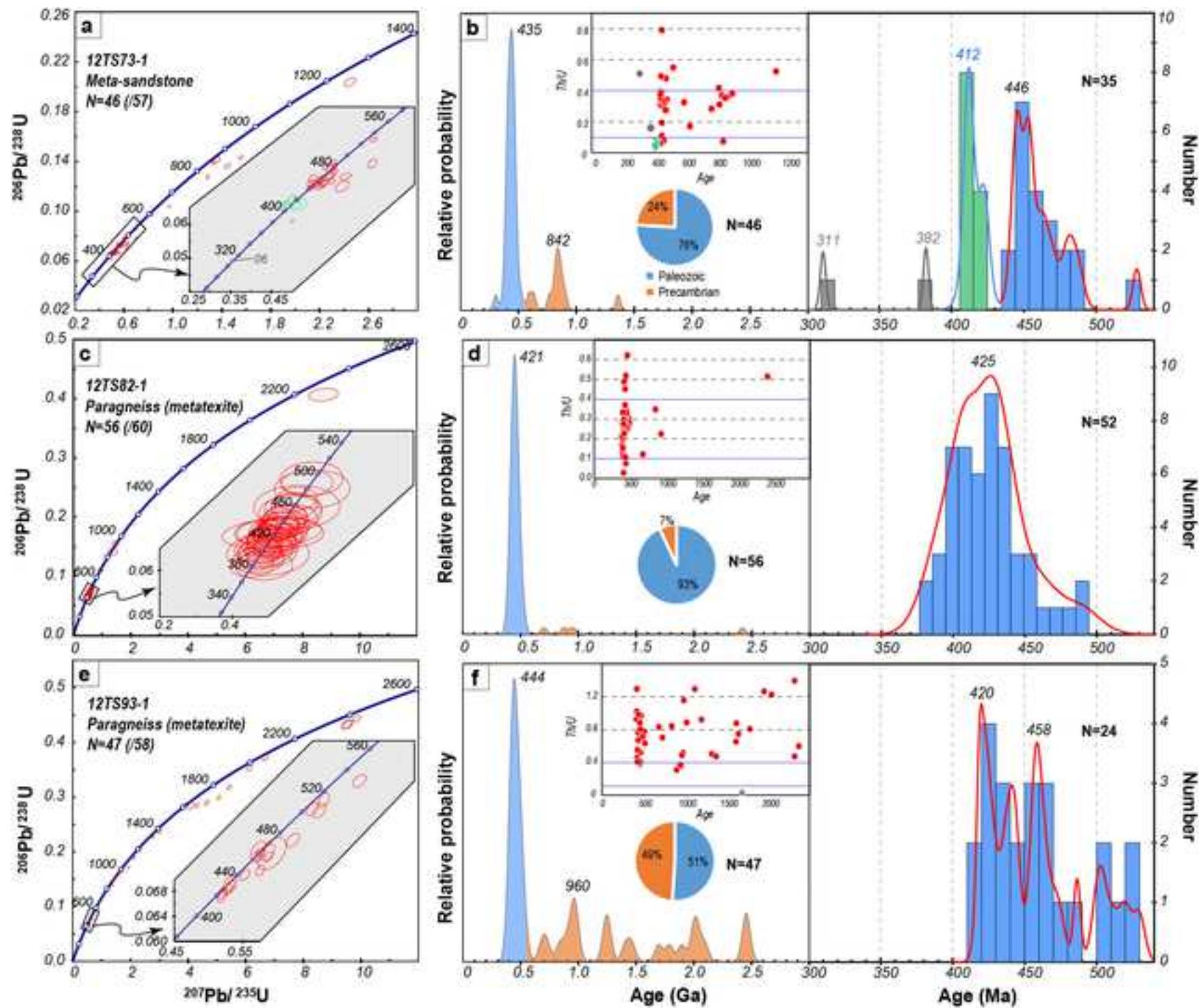
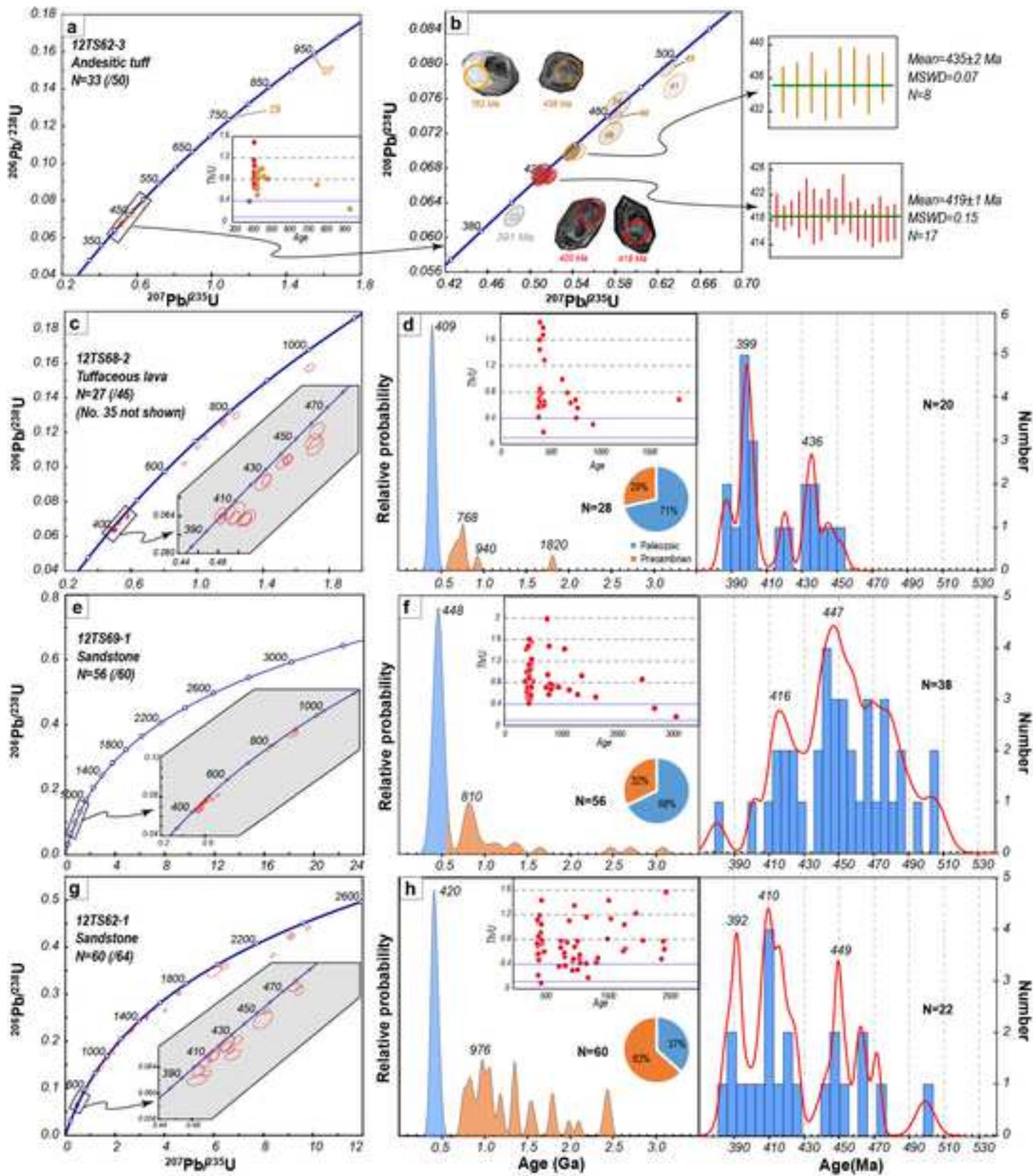
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Figure 9

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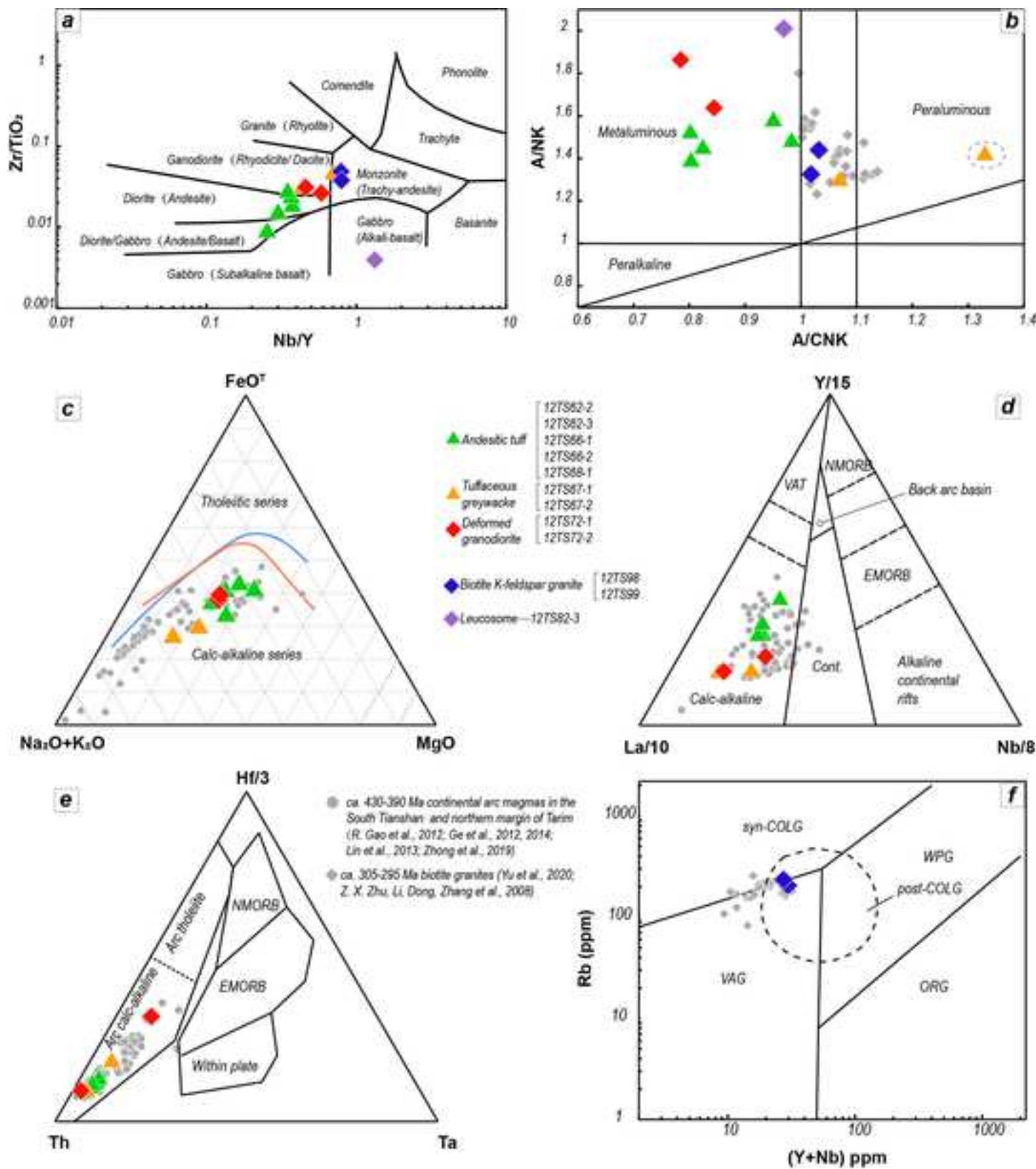


Figure 12

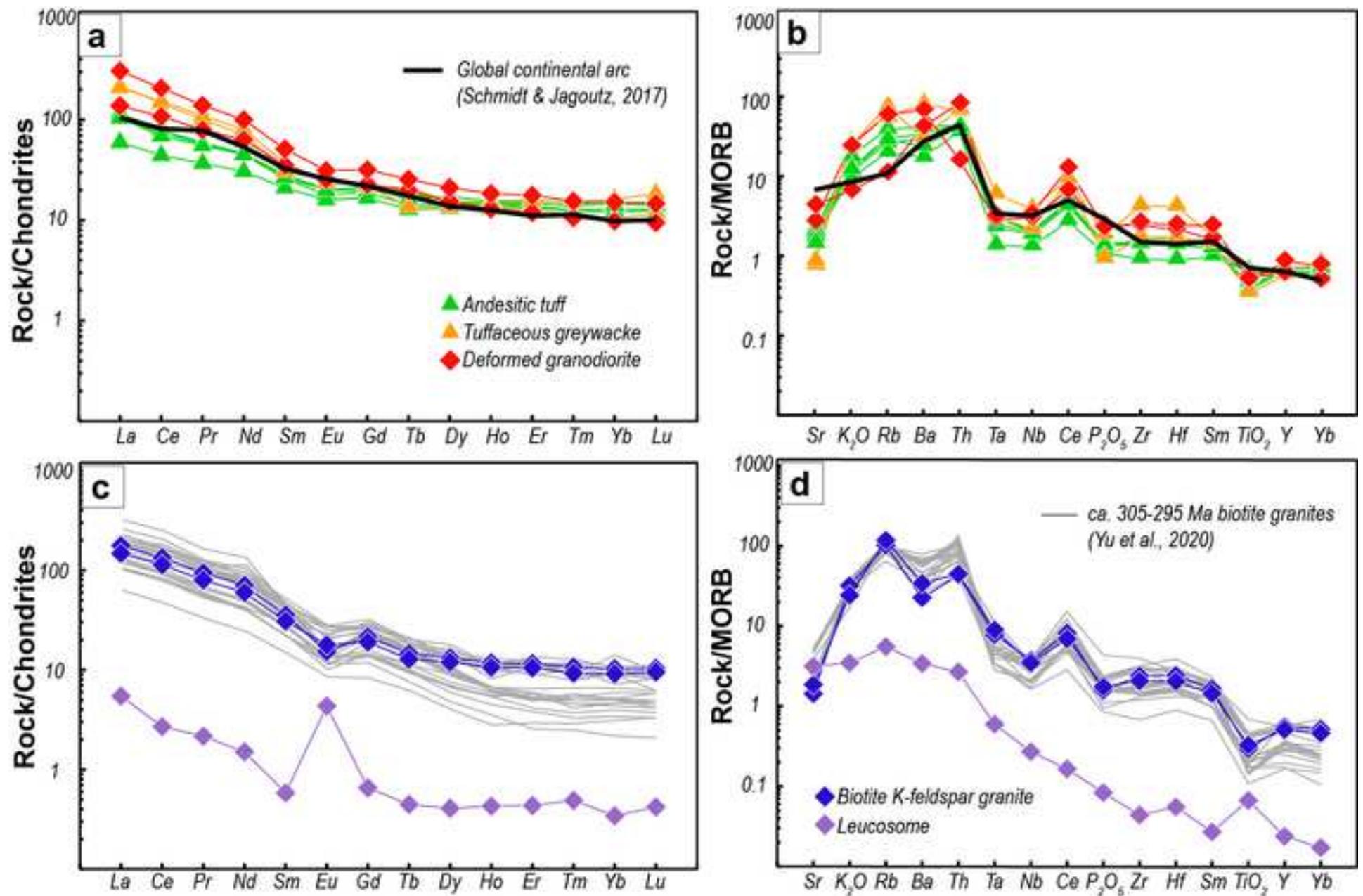
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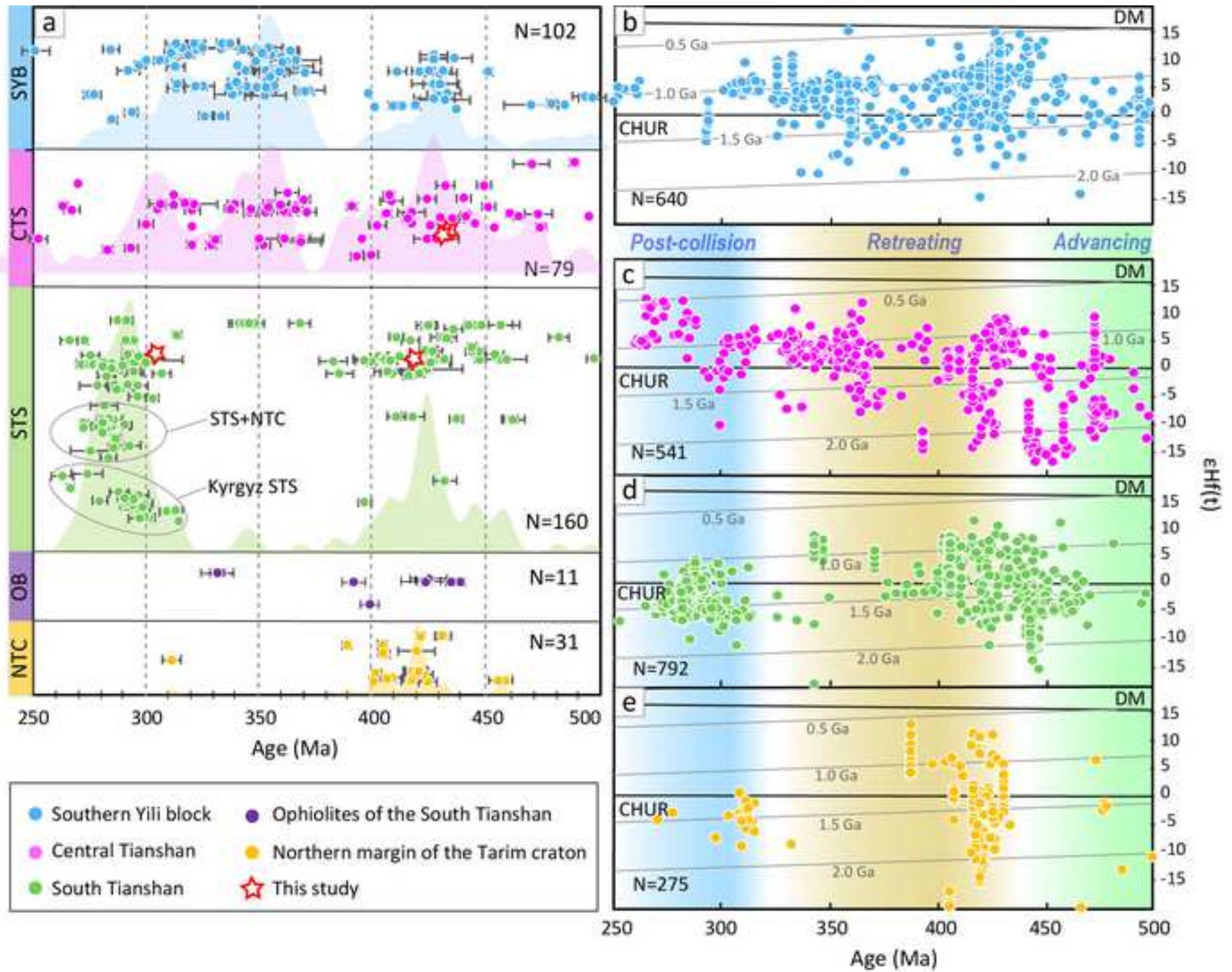
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Figure 14

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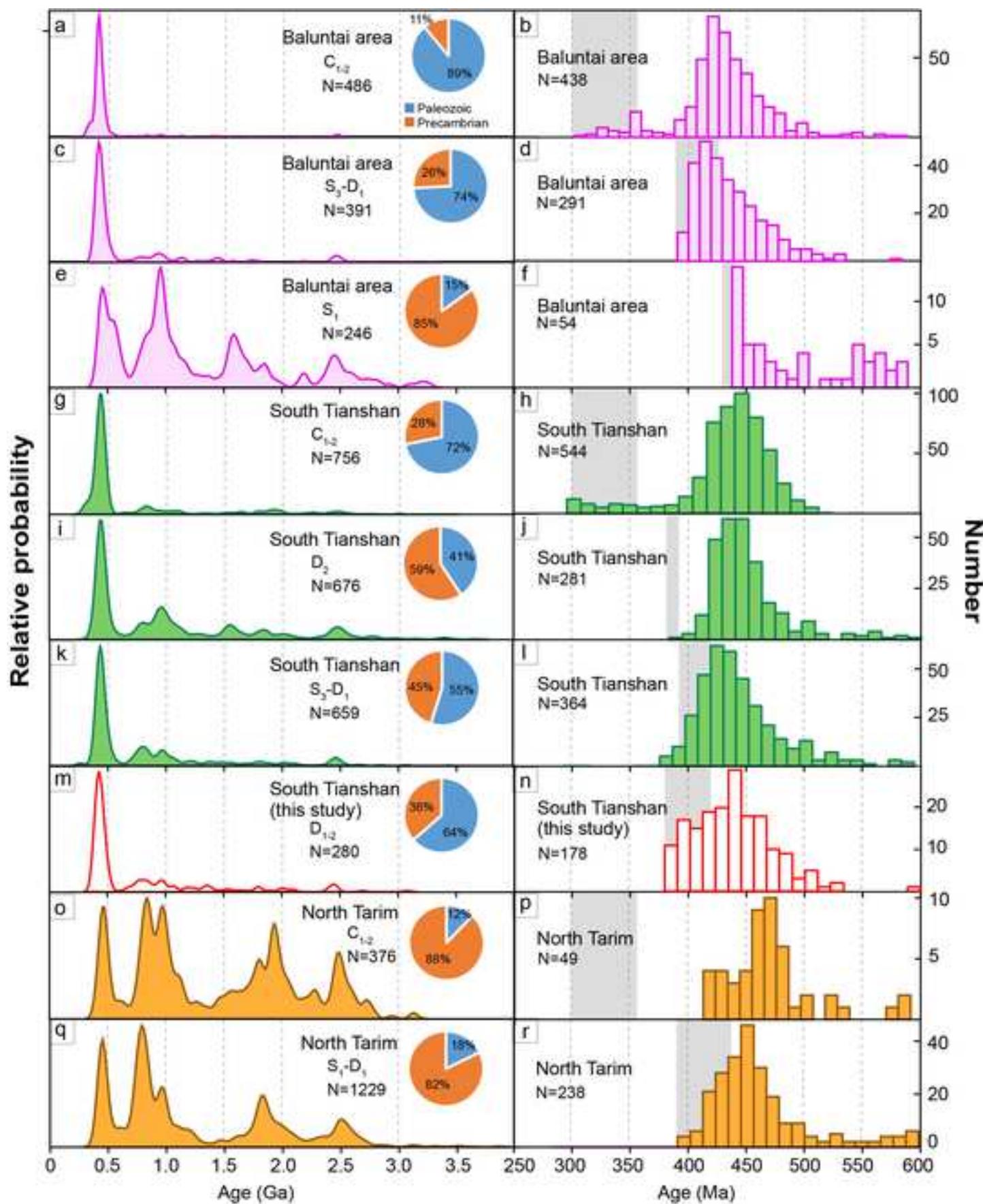
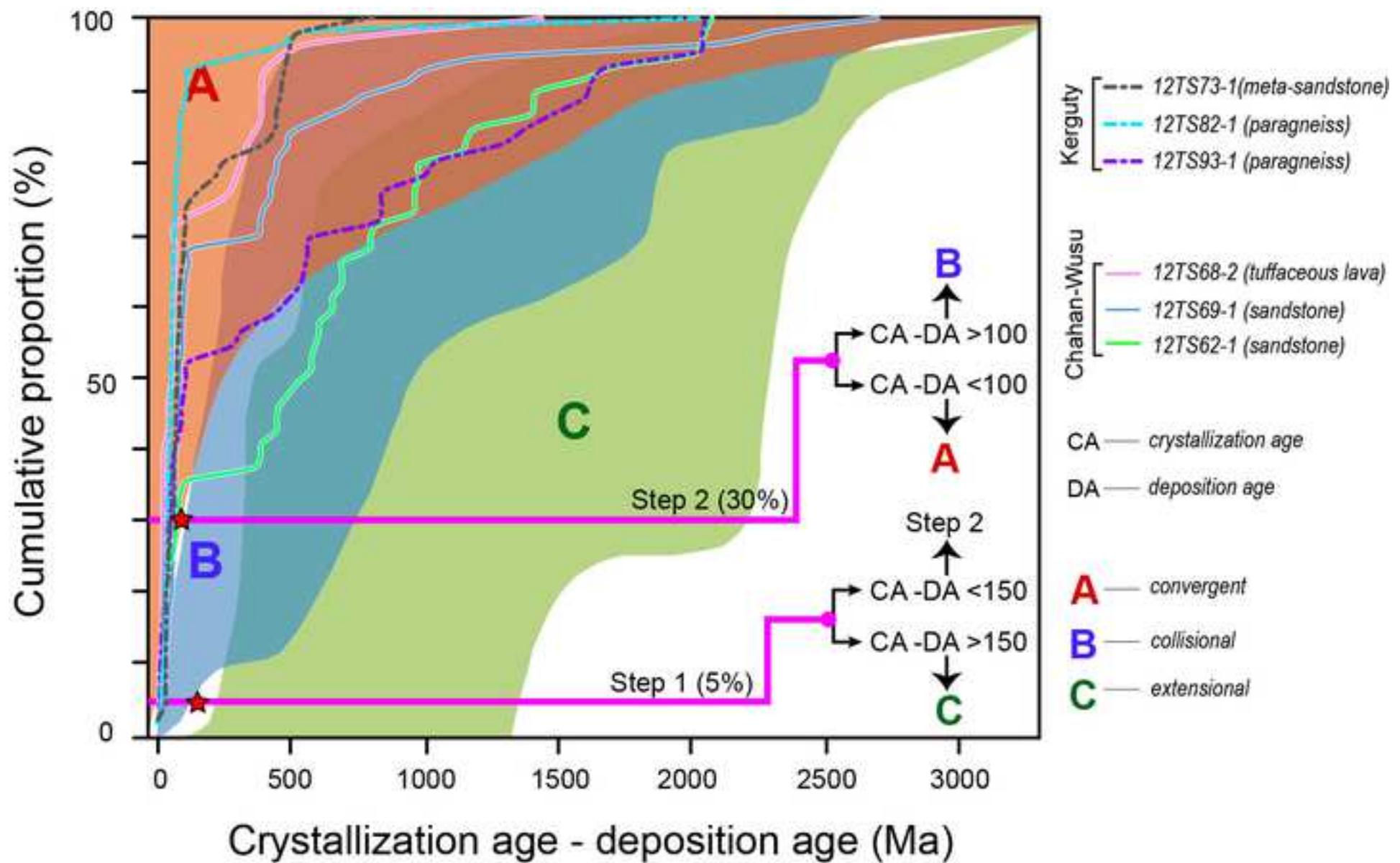
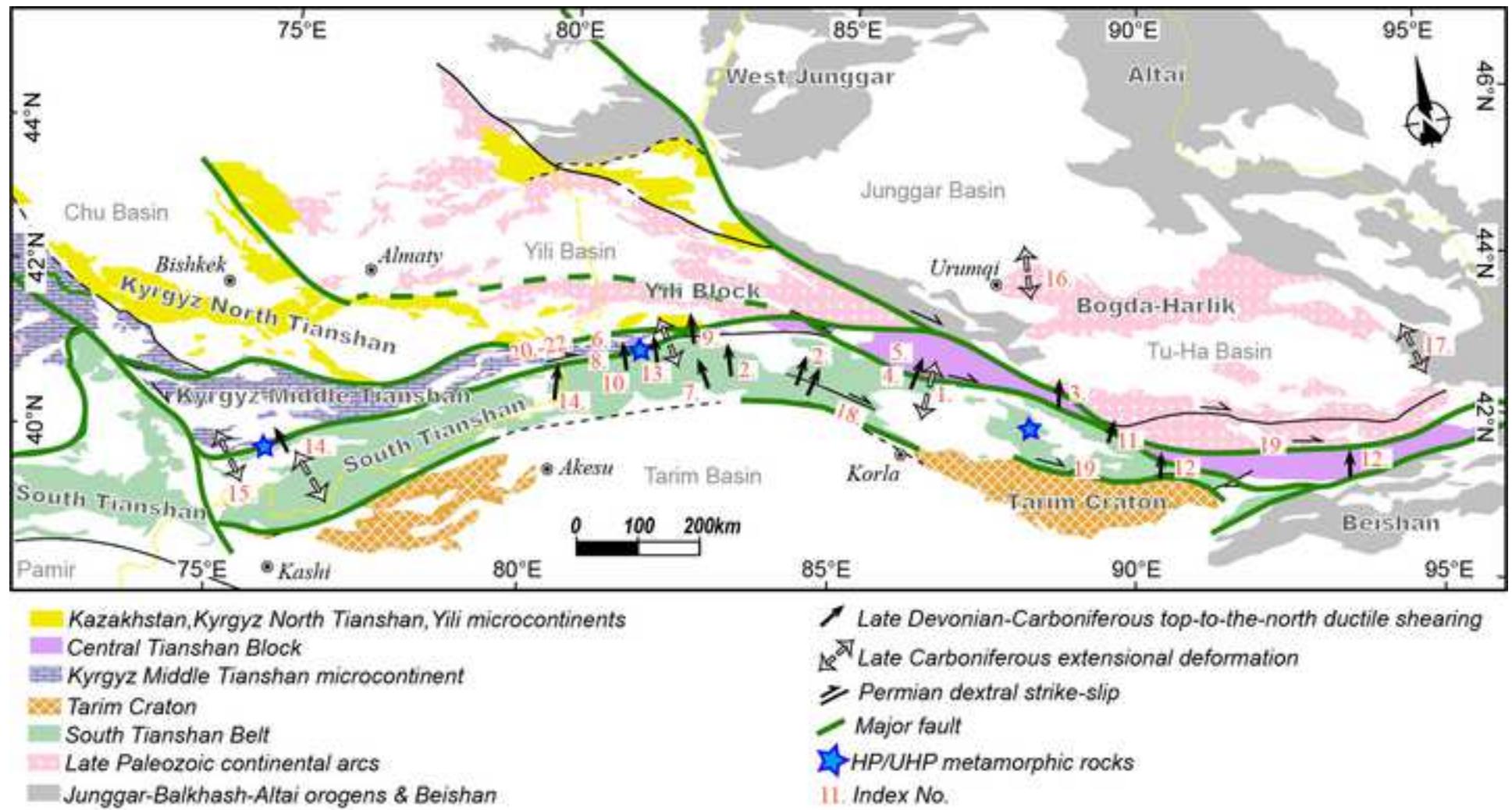
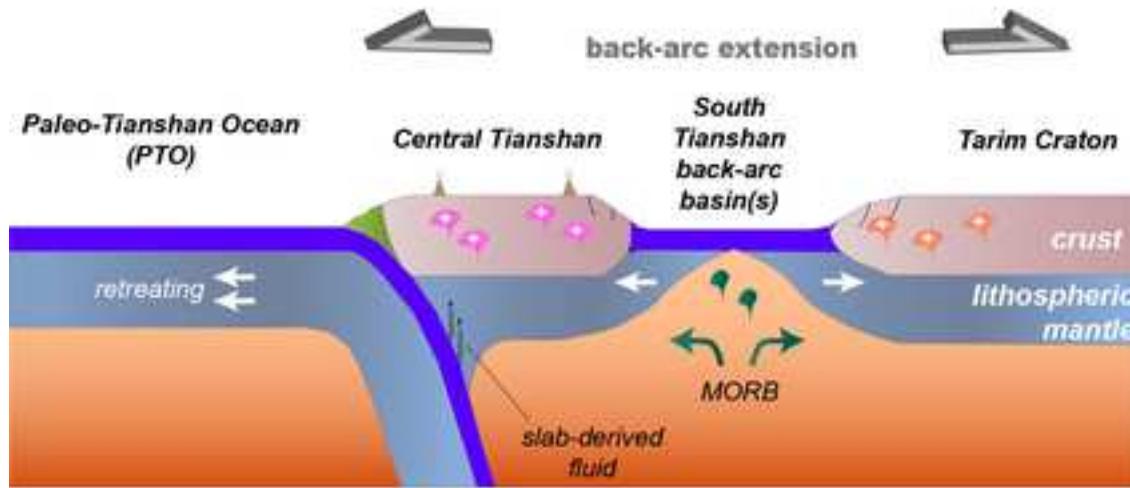


Figure 15

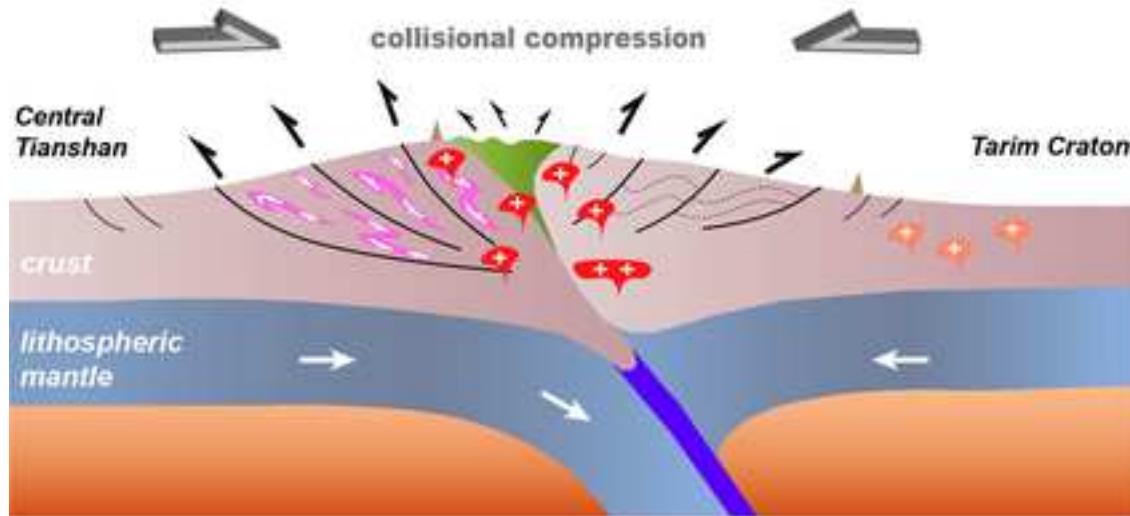
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**(a) Back-arc extension resulted from subduction of the PTO  
(snapshot at ca. 420 Ma)**



**(b) Closure of oceanic basins and re-amalgamation of CTS-Tarim  
(snapshot at ca. 310 Ma)**



**(c) Post-orogenic extension with crustal anatexis (snapshot at ca. 300 Ma)**

