DIGITAL ACCESS TO SCHOLARSHIP AT HARVARD
DASH.HARVARD.EDU

HARVARD LIBRARY
Office for Scholarly Communication

Statistical analysis of iron geochemical data suggests limited late Proterozoic oxygenation

Citation
Sperling, Erik A., Charles J. Wolock, Alex S. Morgan, Benjamin C. Gill, Marcus Kunzmann, Galen P. Halverson, Francis A. Macdonald, Andrew H. Knoll, and David T. Johnston. 2015. "Statistical Analysis of Iron Geochemical Data Suggests Limited Late Proterozoic Oxygenation." Nature 523 (7561) (July 22): 451–454. doi:10.1038/nature14589.

Published Version
doi:10.1038/nature14589

Permanent link
http://nrs.harvard.edu/urn-3:HUL.InstRepos:27716502

Terms of Use
This article was downloaded from Harvard University's DASH repository, and is made available under the terms and conditions applicable to Other Posted Material, as set forth at http://nrs.harvard.edu/urn-3:HUL.InstRepos:dash.current.terms-of-use#LAA

Share Your Story

The Harvard community has made this article openly available.
Please share how this access benefits you. Submit a story .

Accessibility

Nature Letter

Statistical analysis of iron geochemical data suggests limited Late Proterozoic oxygenation

Erik A. Sperling[1*+], Charles J. Wolock[2], Alex S. Morgan[1], Benjamin C. Gill[3], Marcus Kunzmann[4], Galen P. Halverson[4], Francis A. Macdonald[1], Andrew H. Knoll[1,2], David T. Johnston[1*]

Affiliations:

[1] Department of Earth and Planetary Sciences, Harvard University, Cambridge, MA 02138, USA

[2] Department of Organismic and Evolutionary Biology, Harvard University, Cambridge, MA 02138, USA

[3] Department of Geosciences, Virginia Polytechnic Institute and State University, Blacksburg, VA 24061, USA

[4] Department of Earth and Planetary Sciences/GEOTOP, McGill University, Montreal, Quebec, H3A 0E8 Canada

[+] Present address: Integrative Oceanography Division, Scripps Institution of Oceanography, La Jolla, CA 90089, USA

*Correspondence to: sperling@fas.harvard.edu; johnston@eps.harvard.edu

Sedimentary rocks deposited across the Proterozoic-Phanerozoic transition record extreme climate fluctuations, a potential rise in atmospheric oxygen or re-organization of the seafloor redox landscape, and the initial diversification of animals[1,2]. It is widely assumed that the inferred redox change facilitated the observed trends in biodiversity. Establishing this paleoenvironmental context, however, requires that changes in marine redox structure be tracked by means of geochemical proxies and translated into estimates of atmospheric oxygen. Iron-based proxies are among the most effective tools for tracking the redox chemistry of ancient oceans[3,4]. These proxies are inherently local, but gain global significance when analysed collectively and statistically. Here we analyse ~4700 iron speciation measurements from 2300-360 Ma shales. Our statistical analyses suggest that subsurface water masses in mid-Proterozoic oceans were predominantly anoxic and ferruginous, but with a tendency towards euxinia not observed in the Neoproterozoic Era. Analyses further indicate that early animals did not experience appreciable benthic sulfide stress. Finally, unlike proxies based on redox sensitive trace metal abundances[1,5,6], iron geochemical data do not show a statistically significant change in oxygen content through the Ediacaran and Cambrian periods, sharply constraining the magnitude of the end-Proterozoic oxygen increase. Re-analysis of trace metal data is in fact consistent with oxygenation continuing well into the Paleozoic Era. Thus, if changing redox conditions facilitated animal diversification, it did so through a limited rise in oxygen past critical functional and ecological thresholds, as seen in modern Oxygen Minimum Zone benthos[7-9].

Proxies such as Fe-speciation chemistry record the redox state of local water masses immediately above accumulating sediments. Decades of work on the behavior of iron in marine sediments underpin the observation that enrichments in total (FeT) and highly reactive (FeHR) Fe phases track water column redox conditions (FeHR refers to iron in pyrite plus iron that is reactive to sulfide on early diagenetic timescales)[3,4]. This robust calibration permits the differentiation between oxic and anoxic water columns, as well as whether anoxic waters were iron- or sulfide-bearing [based on the proportion of highly-reactive iron that has been converted to pyrite (FeP)].

Early studies of Fe-speciation in Proterozoic shales supported the prediction[10] of euxinia in subsurface waters of Mesoproterozoic oceans and further suggested deep ocean oxygenation late in the Neoproterozoic Era[11,12]. However, and perhaps not surprisingly, a more complex and heterogeneous pattern of Earth surface evolution emerged as additional studies increased temporal and spatial coverage. For example, marine strata deposited *ca.* 1500 million years ago (Ma) from different localities show evidence of euxinic, ferruginous and oxic basins[11,13-14]. Similarly, Ediacaran deep-water sediments in Newfoundland indicate oxygenation at 580 Ma[12], yet coeval deep-water deposits in the Canadian Cordillera show an increasing prevalence of anoxia[15], or no change at all[16]. Such regional heterogeneity is expected given local controls on water-column redox, and highlights the fact that Fe-speciation analyses of a single section or basin cannot be extrapolated to the global ocean.

Paleontologists have long contended with an analogous problem: how to infer global diversity through time from fossil assemblages in local stratigraphic sections. The solution was to treat tabulated data within a global statistical framework[17]. Following this template, we have

developed a dataset of ~4700 new and published iron speciation measurements from fine-grained clastic rocks to test hypotheses of global redox change in Proterozoic/Paleozoic oceans and its potential links to animal evolution. Importantly, local proxy data in a global framework can track both the mean and variance of paleoenvironmental conditions through time. In addition to compiling data spanning the Great Oxidation Event (GOE, ~2300 Ma) through the end-Devonian, we provide 842 new analyses from Russia, northwestern Canada, Mongolia, Namibia, Svalbard, East Greenland and the western United States (Table S2), focusing on Neoproterozoic and Cambrian strata. Time-binned analysis of the entire dataset begins with the most basic distinctions: geographic region and depositional environment (inner shelf, outer shelf, and basinal; following refs. 121 15). Note that the 'basinal' environment does not represent true deep ocean depths in a modern oceanographic sense, but rather the deepest environments represented by sediments deposited during maximum flooding -- a recognizable and consistent sub-wave base environment that has been used to track deeper-water redox conditions through time (see *SI*). To test for significant differences, data were compared using ANOVA and Kruskal-Wallis (K-W) tests depending on normality of the data. Post hoc Tukey-Kramer tests ($\alpha = 0.05$), pairwise Wilcoxon tests and Steel-Dwass tests were applied to explore significant differences between time bins (See *SI* for binning rationale and sensitivity analyses).

We first investigated the proportion of anoxic water columns through time. It has been hypothesized that a major oxygenation event occurred around the Proterozoic-Phanerozoic transition, oxygenating the world's deep oceans and facilitating Cambrian animal diversification. This idea has been bolstered by redox-sensitive trace metal abundance data, which show evidence of increasing oxygen levels[1,5,6], although the timing and magnitude remain poorly resolved[1,2]. Aggregated iron-speciation data provide an informative complement to global trace

metal data. Since the redox state of basinal water masses has traditionally been used as a proxy for the overall ocean-atmosphere system, and shallow-water samples are rare and heterogeneously distributed through time (Table S1), this analysis only includes samples from outer shelf and basinal environments. The proportion of samples likely deposited beneath an anoxic water column (FeHR/FeT > 0.38)[1] was calculated for each region, and the mean and standard error were determined for each time bin. In contrast to trace metal data, analysis of Fe-speciation data does not show significant change in the proportion of anoxic water columns from the Proterozoic into the early Paleozoic (ANOVA: $F_{4,\ 52} = 0.78$, $p = 0.54$; K-W: Chi-Square = 3.30 $p = 0.51$) (Fig. 1A and Table S4), consistent with qualitative observations in a previous compilation[15]. Iron speciation more robustly identifies anoxia as opposed to oxic conditions, as FeHR enrichments can be muted during rapid deposition or in pervasively anoxic oceans where mass-balance requirements may not result in modern-style iron enrichment. Nonetheless, the proportion of oxic samples (using a conservative threshold of FeHR/FeT < 0.22)[1] was tested, and again no significant differences were found (Table S4). This result raises a number of questions that we discuss below, ranging from diagnosing the nature of basinal anoxia to reconciling the seemingly divergent results between trace metal geochemistry and our database analysis.

To assess the nature of anoxic waters through time we focused on samples from deeper-water environments with FeHR/FeT > 0.38. The average proportion of ferruginous samples between 2300 – 1000 Ma is 0.59 (the balance being euxinic), consistent with recent arguments that basinal waters through the middle Proterozoic were predominantly ferruginous[3,13] (the effect of subdividing the Proterozoic using a shorter 1600-1000 Ma bin was also tested; Table S4). In fact, anoxic waters throughout the Proterozoic and Paleozoic are more likely to be ferruginous than euxinic. However, real differences exist between time bins (K-W: Chi Square = 13.9, p =

0.008). Specifically, the late Paleoproterozoic/Mesoproterozoic bin is more likely to capture euxinic conditions than the early Neoproterozoic, Ediacaran and Cambrian intervals, where the proportion of ferruginous samples approaches unity. The Ordovician-Devonian then marks a return to limited euxinia that is statistically distinct from the Neoproterozoic bins (Fig. 1B). Our analyses thus demonstrate that while a globally euxinic deep ocean[10] did not exist, Mesoproterozoic oceans were statistically more prone to euxinia than those of the Neoproterozoic.

We further estimated sedimentary sulfide generation through Earth history. This property cannot be measured directly, but can be evaluated indirectly, as sulfide generated within sediments will bond with reactive iron to form pyrite. Hence, reactive iron acts as an effective sulfide sink, meaning that sulfide accumulation in pore waters and advective fluxes into marine waters—the free sulfide that would influence local animal ecology—will only occur in settings where most, if not all, highly reactive iron has been pyritized[18]. Thus, for shale deposited in oxic environments, pyrite contents broadly serve as a metric for total sulfide generation, and only environments with FeP/FeHR >0.70 could have contained high levels of pore water sulfide.

Analyses of the weight percent iron in pyrite from oxic sediments (Fig. 1C) show the inverse pattern from Fig. 1B, with higher pyrite contents in the late Paleoproterozoic/Mesoproterozoic bin, very low contents in the Neoproterozoic and Cambrian, and higher contents again in the Ordovician-Devonian (K-W: Chi Square = 25.44, $p < 0.0001$; Table S4), with the Neoproterozoic capturing a minimum in pyrite preservation at ~5X less than in modern oxic samples[19]. Similar results are seen for the proportion of oxic samples with inferred high levels of porewater sulfide (Table S4). It is worth emphasizing that the outlier is the

Neoproterozoic—whether in the water column or the sediments, far more sulfide was generated in Mesoproterozoic and Paleozoic basins.

These results have important implications for the physiology and oxygen tolerance of early animals, which likely began to diverge ~800 Ma[20]. Based on observations from modern oxygen minimum zones (OMZs)[21] and experiments on sponges[22], it has been suggested that early animals would have tolerated the low-oxygen conditions believed to characterize the Neoproterozoic Era. With O_2 partially removed as a handbrake on animal evolution, other inhibitors such as ambient sulfide[23] should be considered. Sulfide is a synergistic stressor in low-O_2 conditions as it binds to cytochrome oxidase and consequently inhibits aerobic respiration, lowering survival times under hypoxia[24]. But in contrast to some modern OMZs where sulfide often reaches the sediment-water interface, Neoproterozoic animals would have experienced little, if any, benthic sulfide flux. In fact, out of 1,243 oxic Neoproterozoic samples analyzed, only 14 (~1.1%) show possible evidence of pore water sulfide. This bolsters suggestions that while earlier Neoproterozoic oceans may have prohibited large, metabolically active and carnivorous animals with higher oxygen demand, they could have accommodated early animals with small and thin body plans[21-22]. Continued research on other pO_2 proxies will, in parallel, help place more precise constraints on early animal ecosystems[25].

These results raise the question of whether observed trends reflect biases in the dataset, as there are known caveats when interpreting iron speciation data, most prominently including the effects of weathering and diagenesis[3,4,15] (SI). However, as long as the data are sufficiently numerous and geological and analytical biases are randomly distributed with respect to time, these processes will not affect our results (e.g. ref. 26 regarding analogous errors in paleobiological data). The impact of random and systematic error can be tested with resampling

and sensitivity analyses. Sensitivity analyses excluding possibly inappropriate samples and low data coverage regions, and a further analysis only using Mesoproterozoic (1600-1000 Ma) samples for time bin 1, are consistent with results on the entire dataset (Table S4). Further, in synthetically re-sampled datasets, the Cambrian distribution of anoxic samples is indistinguishable from the Ediacaran (Fig. S2). To test whether inappropriate binning may contribute to the invariance in Fig. 1A, data from each region from the 800-360 Ma interval were plotted individually with respect to time (Fig. 2). While there is clear spatial heterogeneity (as in the modern ocean), there are no apparent oxygenation 'events,' and a linear regression is not significant ($p = 0.45$; see also loess regression of geographically unbinned data, Fig. S1).

It has been argued that trace metals in anoxic shales capture the spatial contraction of basinal anoxia across the Ediacaran-Cambrian transition[1,5,6], likely driven by increasing atmospheric pO_2. To evaluate the consistency between iron speciation and trace metal results, we reanalyzed a well-vetted sedimentary uranium dataset[6] using statistical methods similar to those employed in the Fe analyses, although lower data density precludes a basin-normalized approach. Maximum metal/total organic carbon (TOC) ratios are often taken as a guide to the metal inventory in ancient seawater; however, without a priori knowledge of basin restriction and secondary mineralization/local redistribution for each sample[1,27], statistical approaches based on the entire population of data are appropriate.

When anoxic, organic-rich shales (TOC > 0.4%) are binned into Neoproterozoic, Cambrian-Silurian and Devonian-Permian domains, U/TOC significantly increases with younger age (K-W: Chi Square = 75.53, $p < 0.0001$, all pairwise Wilcoxon tests $p < 0.0001$; Table S5). The Devonian-Permian time bin contains a much higher number of enriched outlier values relative to the Cambrian-Silurian bin (Fig. S3). Thus, while the U/TOC record does show a

punctuated increase at the Ediacaran-Cambrian boundary, it is also consistent with iron geochemical data (Fig. 1A) in suggesting full oxygenation of the oceans did not occur until later.

The question then becomes the magnitude of oxygenation implied by the Fe and trace metal datasets. Recent models indicate that relatively subtle changes in seafloor anoxia and the proportion of that seafloor that was ferruginous versus euxinic will lead to dramatic changes in seawater trace metal inventories, and by inference, trace metal enrichments in shales[1,5,6,28]. Trace metal enrichments, then, respond to the total size of anoxic sinks, whereas the binned iron data are tracking the percentage of sediments sampled in the stratigraphic record bathed by anoxic waters. As large changes in anoxic sink size can manifest as small shifts in the percentage of anoxic seafloor, we propose that trace metal abundances and the binned Fe-speciation records are complementary but with different thresholds; binned iron data require a larger change in global oxygen to record a significant signal.

Although absolute values of pO_2 in the geological record are notoriously difficult to track, the Fe-speciation database results constrain the magnitude of the latest Proterozoic pO_2 increase indicated by trace metal compilations. Canfield[10] earlier posited that at atmospheric pO_2 < 30-40% PAL (Present Atmospheric Levels), deeper water masses tend towards anoxia, albeit dependent upon phosphorous fluxes. While this was intended to constrain oxygen levels prior to Ediacaran oxygenation, it also provides an upper bound on Cambrian pO_2 given the lack of statistical change through time. The distribution of animals in modern oceans[8,29] suggest Cambrian metazoans recorded by fossils required oxygen levels above ~10% PAL, but not much more than that, as equally large, mobile and skeletonized animals live at and even below this level in the modern ocean[8,29]. The combined constraints from Fe-speciation and paleontological data are therefore consistent with Mo isotope data[28], global sedimentary sulfate reduction rates[30],

U/TOC[6] (Table S5) and some models of atmospheric O_2 through time[31]. All offer evidence that oxygenation of the ocean/atmosphere system to essentially modern levels and a persistently oxygenated deep ocean is in large part a post-Cambrian phenomenon, as separately hypothesized on black shale distribution[32]. Overall, these analyses imply only a modest increase in O_2 during the Ediacaran and Cambrian (Fig. 3).

This evolving picture of Earth's redox state would seemingly mute the impact of oxygen as a causal factor in Cambrian animal radiation. Observations from modern OMZs, however, suggest that a small increase in pO_2 could still be a critical environmental trigger due to non-linear threshold effects at very low oxygen levels. Many important ecological responses for macrofaunal organisms, including feeding efficiency[9], species-level diversity[8], and carnivore abundance and species richness[7] exhibit threshold changes in the range of 5-20 μM O_2, or ~2-7% of modern surface ocean oxygen concentrations – strikingly similar to the changes accommodated by this analysis. Thus, a relatively small increase in pO_2 could have reasonably moved animals past critical ecological thresholds, especially with respect to carnivory[7], which might have driven Cambrian diversification. It remains possible though that sufficient oxygen for large, muscular carnivores existed prior to the Cambrian (Fig. 3). The critical question going forward is the availability of oxygen before the Ediacaran-Cambrian transition: were pO_2 levels prior to the mid-Ediacaran in the ~1-5% PAL range where modern animal ecology is severely limited, or higher?

Coupled with other geochemical data, our global database of Fe-speciation measurements provides an increasingly resolved and quantitative picture of redox evolution in Proterozoic and Paleozoic oceans. These data point to proportionally higher basinal euxinia in Mesoproterozoic and younger Paleozoic basins, with sediment and water-column sulfide generation reaching a

minimum in the Neoproterozoic oceans. Ediacaran oxygenation was relatively modest, but may have been sufficient to remove environmental barriers to Cambrian animal evolution. Future sedimentary geochemical sampling of both iron and redox sensitive trace metal data will increase temporal resolution and the power of inference tests, with statistical analysis in a basin-normalized context providing more robust hypotheses of deep-time global change.

References

1. Lyons, T. W., Reinhard, C. T. & Planavsky, N. J. The rise of oxygen in Earth's early ocean and atmosphere. Nature **506**, 307-315 (2014).

2. Lenton, T. M., Boyle, R. A., Poulton, S. W., Shields-Zhou, G. A. & Butterfield, N. J. Co-evolution of eukaryotes and ocean oxygenation in the Neoproterozoic era. Nat. Geosci. **7**, 257-265 (2014).

3. Poulton, S. W. & Canfield, D. E. Ferruginous conditions: A dominant feature of the ocean through Earth's history. Elements **7**, 107-112 (2011).

4. Lyons, T. W. & Severmann, S. A critical look at iron paleoredox proxies: new insights from modern euxinic marine basins. Geo. Cosm. Acta **70**, 5698-5722 (2006).

5. Reinhard, C. T. *et al.* Proterozoic ocean redox and biogeochemical stasis. Proc. Nat. Acad. Sci. USA **110**, 5357-5362 (2013).

6. Partin, C. A. *et al.* Large-scale fluctuations in Precambrian atmospheric and oceanic oxygen levels from the record of U in shales. Earth Plan. Sci. Lett. **369-370**, 284-293 (2013).

7. Sperling, E. A. *et al.* Oxygen, ecology, and the Cambrian radiation of animals. Proc. Nat. Acad. Sci. USA **110**, 13446-13451 (2013).

8. Levin, L. A. Oxygen Minimum Zone benthos: adaptation and community response to hypoxia. Oceanogr. Mar. Biol.: Ann. Rev. **41**, 1-45 (2003).

9. Woulds, C. *et al.* Oxygen as a control on seafloor biological communities and their roles in sedimentary carbon cycling. Limn. Oceanogr. **52**, 1698-1709 (2007).

10. Canfield, D. E. A new model for Proterozoic ocean chemistry. Nature **396**, 450-453 (1998).

11. Shen, Y., Knoll, A. H. & Walter, M. R. Evidence for low sulphate and anoxia in a mid-Proterozoic marine basin. Nature **423**, 632-635 (2003).

12. Canfield, D. E., Poulton, S. W. & Narbonne, G. M. Late-Neoproterozoic deep-ocean oxygenation and the rise of animal life. Science **315**, 92-95 (2007).

13. Planavsky, N. J. *et al.* Widespread iron-rich conditions in the mid-Proterozoic ocean. Nature **477**, 448-451 (2011).

14. Sperling, E. A. *et al.* Redox heterogeneity of subsurface waters in the Mesoproterozoic ocean. Geobiology **12**, 373-386 (2014).

15. Canfield, D. E. *et al.* Ferruginous conditions dominated later Neoproterozoic deep-water chemistry. Science **321**, 949-952 (2008).

16. Johnston, D. T. *et al.* Searching for an oxygenation event in the fossiliferous Ediacaran of northwestern Canada. Chem. Geol. **362**, 273-286 (2013).

17. Alroy, J. *et al.* Phanerozoic trends in the global diversity of marine invertebrates. Science **321**, 97-100 (2008).

18. Canfield, D. E. Reactive iron in marine sediments. Geo. Cosm. Acta **53**, 619-632 (1989).

19. Raiswell, R. & Canfield, D. E. Sources of iron for pyrite formation in marine sediments. Am. Jour. Sci. **298**, 219-245 (1998).

20. Erwin, D. H. *et al.* The Cambrian conundrum: Early divergence and later ecological success in the early history of animals. Science **334**, 1091-1097 (2011).

21. Sperling, E. A., Halverson, G. P., Knoll, A. H., Macdonald, F. A. & Johnston, D. T. A basin redox transect at the dawn of animal life. Earth Plan. Sci. Lett. **371**, 143-155 (2013).

22. Mills, D. B. *et al.* Oxygen requirements of the earliest animals. Proc. Nat. Acad. Sci. USA **111**, 4168-4172 (2014).

23. Martin, W. *et al.* Early cell evolution, eukaryotes, anoxia, sulfide, oxygen, fungi first(?), and a tree of genomes revisited. IUBMB Life **55**, 193-204 (2003).

24. Vaquer-Sunyer, R. & Duarte, C. M. Sulfide exposure accelerates hypoxia-driven mortality. Limn. Oceanogr. **55**, 1075-1082 (2010).

25. Planavsky, N. J. *et al.* Low Mid-Proterozoic atmospheric oxygen levels and the delayed rise of animals. Science **346,** 635-638 (2014).

26. Sepkoski Jr, J. J. Ten years in the library: new data confirm paleontological patterns. Paleobiology **19**, 43-51 (1993).

27. Algeo, T. J. & Rowe, H. Paleoceanographic applications of trace-metal concentration data. Chem. Geol. **324-325**, 6-18 (2011).

28. Dahl, T. W. *et al.* Devonian rise in atmospheric oxygen correlated to the radiation of terrestrial plants and large predatory fish. Proc. Nat. Acad. Sci. USA **107**, 17911-17915 (2010).

29. Rhoads, D. C. & Morse, J. W. Evolutionary and ecologic significance of oxygen-deficient marine basins. Lethaia **4**, 413-428 (1971).

30. Leavitt, W. D., Halevy, I., Bradley, A. S. & Johnston, D. T. Influence of sulfate reduction rates on the Phanerozoic sulfur isotope record. Proc. Nat. Acad. Sci. USA **110**, 11244-11249 (2013).

31. Bergman, N. M., Lenton, T. M. & Watson, A. J. COPSE: a new model of biogeochemical cycling over Phanerozoic time. Am. Jour. Sci. **304**, 397-437 (2004).

32. Berry, W. B. & Wilde, P. Progressive ventilation of the oceans; an explanation for the distribution of the lower Paleozoic black shales. Am. Jour. Sci. **278**, 257-275 (1978).

33. Belcher, C. M. & McElwain, J. C. Limits for combustion in low O_2 redefine paleoatmospheric predictions for the Mesozoic. Science **321**, 1197-1200 (2008).

Supplementary Information is linked to the online version of the paper at www.nature.com/nature.

Acknowledgements- We thank D. Cole, A. Masterson, E. Beirne, G. Resendiz, A. Miller and W. Mai for lab assistance, E. Smith, T. Petach, M. Laflamme, S. Darroch, P. Myrow, J. Strauss, C. Carbone and G. Narbonne for field assistance, L. Levin, P. Girguis, C. Frieder, L. Duncan, C. Partin, S. Darroch and U. Farrell for helpful discussion, and E. Hammarlund, C. Scott, R. Raiswell, G. Gilleaudeau, S. Sahoo, Y. Shen, J. Creveling, T. Dahl, C. Partin and D. Stolper for providing raw data from published studies. E.A.S. is funded by Agouron Geobiology and NAI Postdoctoral Fellowships. This work is supported by NSF-EAR 1324095 to DTJ and the NASA Astrobiology Institute (AHK and FAM).

Author Contributions- E.A.S. and D.T.J. conceived the project, E.A.S., A.S.M., B.C.G., G.P.H., F.A.M. and D.T.J. collected samples, E.A.S., A.S.M., B.C.G. and M.K. completed

geochemical measurements, E.A.S. and C.J.W. compiled data and analyzed the global dataset, and E.A.S. wrote the paper with input from all coauthors.

Reprints and permissions information is available at www.nature.com/reprints

The authors declare no competing financial interests.

Correspondence and requests for materials should be addressed to sperling@fas.harvard.edu

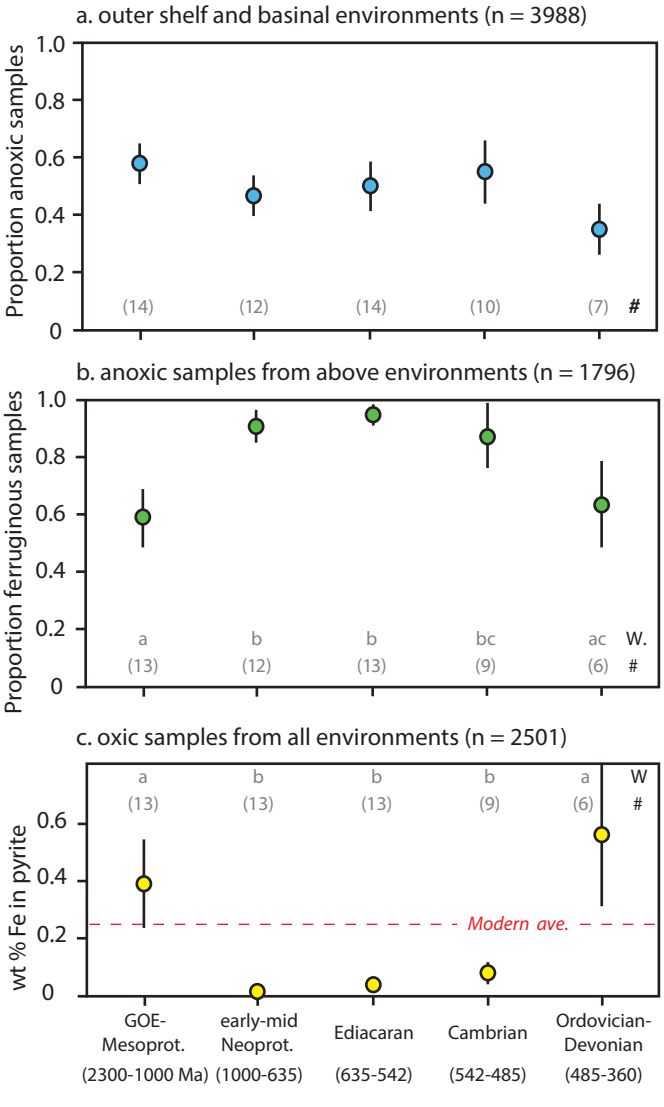
Figures:

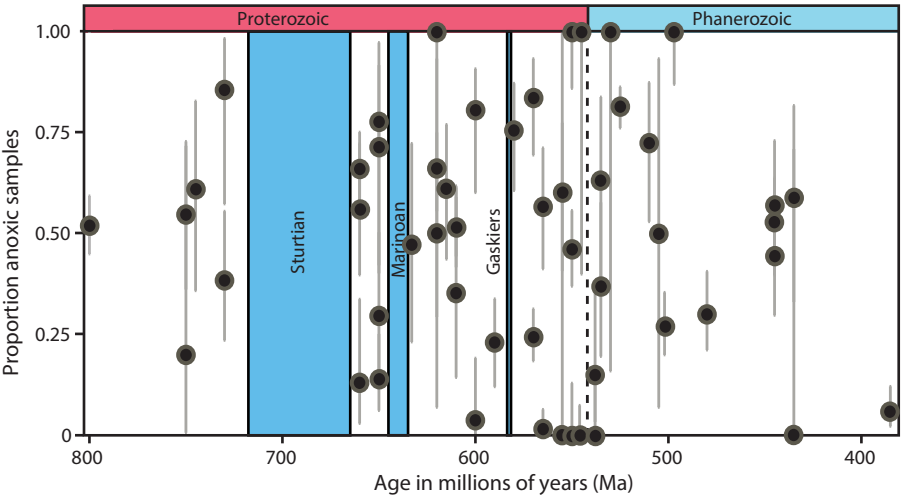
Fig. 1- Iron geochemical data compared among five time bins (2300-1000 Ma, 1000-635 Ma, 635-542 Ma, 542-485 Ma, 485-360 Ma). Number of regions included in each bin shown in light grey across from (#). In B) and C), light grey letters opposite W. represent results of pairwise Wilcoxon tests. Bins joined by the same lower-case letter are not statistically significant ($p > 0.05$). A) Proportion of samples deposited beneath anoxic water columns (FeHR/FeT > 0.38; refs. 3,19) from outer shelf and deep basin depositional environments. Circle represents average of regional proportions and whiskers represent standard error. No bins are statistically different, and the proportion of oxic samples using a conservative threshold of FeHR/FeT < 0.22 is also not significant (Table S4). B) Proportion of samples deposited beneath ferruginous conditions from anoxic water columns (FeHR/FeT > 0.38; FeP/FeHR < 0.70; ref. 3) from outer shelf and deep basin depositional environments. Circle represents average of regional proportions and whiskers represent standard error. C) Weight percent iron in pyrite from samples deposited under oxic water columns from all depositional environments. Circle represents average of regional medians and whiskers represent standard error. Dashed line represents modern oxic average from ref. 19. GOE = Great Oxidation Event. Mesoprot. = Mesoproterozoic. Neoprot. =

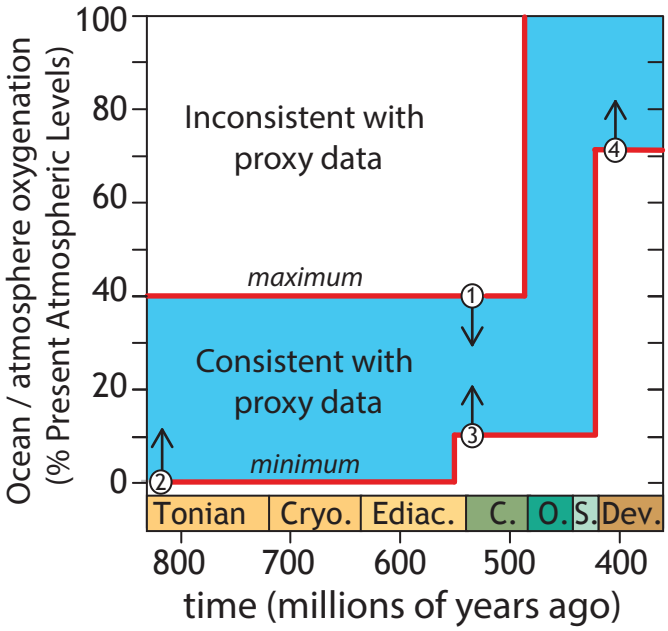
Neoproterozoic.

Fig. 2- Unbinned analysis of the proportion of anoxic samples from each region for the time period of 800-360 Ma. Ages for different regions based on best geological estimates; Neoproterozoic samples from the same region were separated based on the global Sturtian and Marinoan glaciations, the Gaskiers glaciation or mid-Ediacaran Shuram carbon isotope excursion and its equivalents, and the Ediacaran-Cambrian boundary. Grey bars represent 95% binomial confidence intervals.

Fig. 3- Ocean/atmosphere oxygenation through the Proterozoic-Phanerozoic transition based on the combined absence of a statistically significant oxygenation event in iron speciation data and the presence of an oxygenation event in redox-sensitive trace metal inventories. Oxygen constraints include: 1) persistently anoxic subsurface waters requiring <40% PAL[10] (iron speciation data for the Ordovician-Devonian is not statistically different than previous time bins, but data are sparse and may be subject to sampling biases—see SI), 2) minimal O_2 of ~0.5-1% PAL required for appearance of mass-dependent sulfur isotope fractionation, red beds, and the earliest animals[1,21]; O_2 levels prior to ~810 Ma may have been lower[25], 3) O_2 requirements of the Cambrian biota of >10% PAL[8,29], and 4) O_2 levels >70% PAL in the latest Silurian based on the presence of fires[33]. Between these constraints, oxygenation could have followed many different paths, but full oxygenation of the ocean/atmosphere system is a Paleozoic phenomenon. Abbreviations: Ediac = Ediacaran, Cryo = Cryogenian, Cam = Cambrian, Ord = Ordovician, S = Silurian, Dev = Devonian.


a. outer shelf and basinal environments (n = 3988)
Proportion anoxic samples
1.0
0.8
0.6
0.4
0.2
0
(14)
(12)
(14)
(10)
(7)
#
b. anoxic samples from above environments (n = 1796)
Proportion ferruginous samples
1.0
0.8
0.6
0.4
0.2
0
a
(13)
b
(12)
b
(13)
bc
(9)
ac
(6)
W.
#
c. oxic samples from all environments (n = 2501)
wt % Fe in pyrite
a
(13)
b
(13)
b
(13)
b
(9)
a
(6)
W
#
0.6
0.4
0.2
0
Modern ave.
GOE-
Mesoprot.
(2300-1000 Ma)
early-mid
Neoprot.
(1000-635)
Ediacaran
(635-542)
Cambrian
(542-485)
Ordovician-
Devonian
(485-360)


Proterozoic
Phanerozoic
Sturtian
Marinoan
Gaskiers
1.00
0.75
0.50
0.25
0
800
700
600
500
400
Proportion anoxic samples
Age in millions of years (Ma)


Ocean / atmosphere oxygenation
(% Present Atmospheric Levels)
100
80
60
40
20
0
Inconsistent with
proxy data
maximum
Consistent with
proxy data
minimum
1
2
3
4
Tonian
Cryo.
Ediac.
C.
O.
S.
Dev.
800
700
600
500
400
time (millions of years ago)

Supplementary Information

Statistical analysis of iron geochemical data suggests limited Late Proterozoic oxygenation

Erik A. Sperling[1*+], Charles J. Wolock[2], Alex S. Morgan[1], Benjamin C. Gill[3], Marcus Kunzmann[4], Galen P. Halverson[4], Francis A. Macdonald[1], Andrew H. Knoll[1,2], David T. Johnston[1*]

Affiliations:

[1] Department of Earth and Planetary Sciences, Harvard University, Cambridge, MA 02138, USA

[2] Department of Organismic and Evolutionary Biology, Harvard University, Cambridge, MA 02138, USA

[3] Department of Geosciences, Virginia Polytechnic Institute and State University, Blacksburg, VA 24061, USA

[4] Department of Earth and Planetary Sciences/GEOTOP, McGill University, Montreal, Quebec, H3A 2A7 Canada

[+] Present address: Integrative Oceanography Division, Scripps Institution of Oceanography, La Jolla, CA 90089, USA

*Correspondence to: sperling@fas.harvard.edu; johnston@eps.harvard.edu

1. Dataset compilation

The complete dataset was assembled starting with the new analyses from this study and then compiling all published iron speciation analyses available at the time of submission. Data was available for 35 studies spanning the Proterozoic through Lower Paleozoic[11,12-16,21,28,34-60], as well as modern sediments[19], and essentially all available measurements were included (Dataset S1 and Table S2). The only excluded samples at this stage were pure carbonates and Banded Iron Formations. This yielded a total of 4,706 samples, essentially all of which are fine-grained clastics (shale). All quantified iron pools and ratios were standardized to three decimal places, and published iron pools listed as <0.01 weight percent were converted to zero. Samples with quantification of some iron pools, but without the full set needed to calculate the FeHR/FeT ratio (n = 103) were then excluded, as were samples with FeHR/FeT ratios > 1.05 (n = 68, cutoff slightly greater than 1 chosen to allow for aggregate measurement errors—see Figure S4). This left a total of 4,535 samples (Dataset S1, total samples calculated including modern sediments[19]). While the vast majority of these samples are shales, there are some samples (marls, rather than true carbonates) with appreciable carbonate contents. Recently, Clarkson et al. (ref. 61) calibrated the iron speciation proxy in carbonate rocks and found it robustly recorded water-column redox conditions in samples with FeT > 0.5 weight percent. In our dataset there are 96 samples (primarily from the Callison Lake Dolostone in the Ogilvie Mountains and Datangpo, Doushantou and Niutitang formations in South China) with less than < 0.5% total iron. As this represents a very low percentage of the total dataset (2.1%) and the South China samples span the Cryogenian – Cambrian, the samples were included in the analyses.

Each sample was then coded for its age and depositional environment. Two ages were estimated for each sample. First, the sample was binned into five relatively long-duration age bins, specifically 2300 – 1000 Ma, 1000 – 635 Ma, 635 – 542 Ma, 542 - 485 Ma, and 485 – 360 Ma. In general, our binning strategy was based on attempting to include roughly equal levels of data in each bin, while also trying to use the geological time-scale when data density allowed (e.g. Ediacaran, Cambrian). The first time bin is notably long, and to test the influence of such a long bin we have conducted a sensitivity analysis only using samples from the Mesoproterozoic (Table S4). Unfortunately, such long time bins for the middle part of Earth history are generally the norm in deep-time sedimentary geochemical studies (e.g. ref. 6), and will remain so until there is a significant sampling effort in this interval. These ages were used in the binned analyses in Figure 1 of the main text. Second, a more precise age was estimated for each sample. These were based on age constraints within each individual section/basin, and in some cases the stratigraphic distance to age-constrained horizons and consideration of likely sedimentation rates. Thus, these estimates should be treated qualitatively, although the errors are likely not large with respect to the long time span of interest here. These estimates were used for the unbinned analysis in Fig. 2 of the main text and Figure S1. Coding of depositional environment followed the strategy of refs. (11) and (15), with samples coded as 1) inner shelf, 2) outer shelf, 3) basinal. It is acknowledged that the vast majority of sedimentary basins preserved in the geological record are not continental margins with a typical ‘shelf.’ Additionally, some samples (e.g. ref. 43) are from lacustrine settings. Thus, while many basins may not show a classic shelf-to-basin

transition, the environmental distinctions can be more broadly considered as:

1) Environment 1/Inner Shelf: Shale interbedded with abundant shallow-water indicators. This includes clastic beds with wave-generated sedimentary structures as well as shallow-water carbonates such as stromatolites, oolites, and rip-up conglomerates. Evidence of exposure—i.e. mudcracks, karsting, teepee structures—are often in relatively close stratigraphic proximity on the meters to 10s of meters scale.

2) Environment 2/Outer Shelf: Shale from sequences that generally show little wave activity, but with occasional evidence for storm and/or wave activity, such as hummocky cross-stratified sands encased in shales. Evidence for exposure is not in close stratigraphic proximity.

3) Environment 3/Basinal: Shale from successions with no evidence for any storm and/or wave activity for an appreciable (i.e. >50 m) stratigraphic distance. Generally located considerably basin-ward of shallower-water facies.

	Bin 1 2300-1000 Ma	Bin 2 1000-635 Ma	Bin 3 635-542 Ma	Bin 4 542-485 Ma	Bin 5 485-350 Ma
Inner shelf	76	339	97	35	0
Outer shelf	246	244	316	127	144
Deep basin	704	340	985	405	243
Total	1026	923	1398	567	387

Table S1: Distribution of samples by environment through time (modern samples[19] were not coded by depth).

It is recognized that the absolute water depth of samples deposited beneath storm wave base is notoriously difficult to distinguish (see discussion in ref. 14). There are certainly differences in water depth between basinal samples in this study, but the differences are difficult to quantify. Nonetheless, the basinal environment represents an identifiable and continuous environment in the geological record. As long as the water depth of samples is not unevenly distributed with respect to time, these differences should not affect the overall statistical analyses. As more data becomes available, tests between different environments (for instance between distal basinal shales and turbidite basins) can be usefully compared.

Age Bin	**Age (Ma)**	**Basin/Geographic Region**	**Publication**	**Core/Outcrop**	**#samples**	**Notes**
2300-1000	1800	Animikie Basin	Poulton et al., 2010, Nature Geoscience (34)	Core	269	1, 2
2300-	1460	Belt Basin	Planavsky et al., 2011, Nature (13)	Core	14	

1000						
2300-1000	1200	Borden Basin	Planavsky et al., 2011, Nature (13)	Outcrop	6	
2300-1000	2150	Botswana	Scott et al., 2014, Earth and Planetary Science Letters (37)	Core	15	
2300-1000	1100	Brasília Fold Belt	Geboy et al., 2013, Precambrian Research (42)	Core	40	
2300-1000	2000	Fennoscandia	Reuschel et al., 2012, Precambrian Research (35)	Core	36	1
2300-1000	2100	Francevillian Basin	Canfield et al., 2013, PNAS (38)	Both	139	
2300-1000	2100	Francevillian Basin	El Albani et al., 2010, Nature (39)	Both	24	
2300-1000	1100	Mauritania	Gilleaudeau and Kah, 2013, Chemical Geology (41)	Core	128	
2300-1000	1650	McArthur Basin	Shen et al., 2002, American Journal of Science (40)	Core	24	7
2300-1000	1650	McArthur Basin	Planavsky et al., 2011, Nature (13)	Core	50	
2300-1000	1080	Midcontinent Rift	Cumming et al., 2013, Geology (43)	Both	62	3
2300-1000	1680	North China	Planavsky et al., 2011, Nature (13)	Outcrop	31	
2300-1000	2000	Onega Basin	Scott et al., 2014, Earth and Planetary Science Letters (37)	Core	51	
2300-1000	2000	Onega Basin	Asael et al., 2013, Chemical Geology (36)	Core	22	1
2300-1000	1400	Roper Basin	Shen et al., 2003, Nature (11)	Core	117	7
2300-1000	1440	Southern Urals	Sperling et al., 2014, Geobiology (14)	Core	43	
2300-1000	1440	Southern Urals	This study	Core	7	
1000-635	660 and 805	Centralian Superbasin	Canfield et al., 2008, Science (15)	Core	110	5
1000-635	750	Death Valley	This study	Outcrop	104	4
1000-635	660	East Greenland	This study	Outcrop	7	
1000-635	660 and 800-750	East Greenland	Canfield et al., 2008, Science (15)	Outcrop	44	
1000-635	800	Eastern European Platform	Johnston et al., 2012, Earth and Planetary Science Letters (44)	Core	19	
1000-635	750	Grand Canyon	Canfield et al., 2008, Science (15)	Outcrop	16	4
1000-635	750	Grand Canyon	Johnston et al., 2010, Earth and Planetary Science Letters (45)	Outcrop	105	4
1000-635	650	Mackenzie Mountains	This study	Outcrop	41	
1000-635	660	Mackenzie Mountains	Canfield et al., 2008, Science (15)	Outcrop	19	
1000-635	800	Ogilvie Mountains	Sperling et al., 2013, Earth and Planetary Science Letters (21)	Outcrop	234	
1000-635	660	South China	Feng et al., 2010, Gondwana Research (47)	Outcrop	16	7

1000-635	660	South China	Li et al., 2012, Earth and Planetary Science Letters (48)	Outcrop	27	
1000-635	660	Spitsbergen	Canfield et al., 2008, Science (15)	Outcrop	9	
1000-635	650 and 835-740	Svalbard	This study	Outcrop	40	
1000-635	750	Uinta Mountains	Hayes, 2013 (46)	Outcrop	73	4
1000-635	650	Wernecke Mountains	This study	Outcrop	5	
1000-635	650	Wernecke Mountains	This study	Outcrop	27	
635-542	590-560	Avalon (Newfoundland)	Canfield et al., 2007, Science (12)	Outcrop	200	5
635-542	610	East Greenland	Canfield et al., 2008, Science (15)	Outcrop	23	3
635-542	600-550	Eastern European Platform	Johnston et al., 2012, Earth and Planetary Science Letters (44)	Core	84	
635-542	620	Mackenzie Mountains	Shen et al., 2008, PNAS (50)	Outcrop	59	7
635-542	570-542	Mackenzie Mountains	This study	Outcrop	183	
635-542	620 and 570	Mackenzie Mountains	Canfield et al., 2008, Science (15)	Outcrop	27	
635-542	544	Mongolia	This study	Outcrop	4	
635-542	548-544	Namibia	This study	Outcrop	49	
635-542	555	Nico Perez Terrane	Frei et al., 2013, Gondwana Research (52)	Outcrop	30	
635-542	620-550	Ogilvie Mountains	This study	Outcrop	37	
635-542	545	Siberia	Canfield et al., 2008, Science (15)	Outcrop	3	
635-542	550	South China	Wang et al., 2012, Chemical Geology (53)	Outcrop	26	
635-542	580	South China	Li et al., 2010, Science (51)	Outcrop	112	
635-542	620	South China	Shen et al., 2008, PNAS (50)	Outcrop	34	7
635-542	630	South China	Sahoo et al., 2012, Nature (49)	Outcrop	67	
635-542	550 and 600	South China	Canfield et al., 2008, Science (15)	Outcrop	15	
635-542	620-565	Southern Canadian Cordillera	Canfield et al., 2008, Science (15)	Outcrop	191	
635-542	620	Spitsbergen	Canfield et al., 2008, Science (15)	Outcrop	3	
635-542	625-590	Stuart Shelf, South Australia	Canfield et al., 2008, Science (15)	Core	46	
635-542	630-635	Svalbard	This study	Outcrop	17	
635-542	570-545	Wernecke Mountains	This study	Outcrop	68	
635-	630-	Wernecke	Johnston et al., 2013, Chemical	Outcrop	179	

542	550	Mountains	Geology (16)			
542-485	530	East Greenland	Canfield et al., 2008, Science (15)	Outcrop	5	
542-485	510	Georgina Basin	Creveling et al., 2014, GSA Bulletin (56)	Core	34	6
542-485	505	House Embayment	This study	Outcrop	138	
542-485	535	Mackenzie Mountains	This study	Outcrop	51	
542-485	538	Mongolia	This study	Outcrop	20	
542-485	538	Namibia	This study	Outcrop	25	
542-485	535	Ogilvie Mountains	This study	Outcrop	2	
542-485	540	Siberia	Canfield et al., 2008, Science (15)	Outcrop	6	
542-485	520	South China	Dahl et al., 2010, PNAS (28)	Core	6	
542-485	525	South China	Canfield et al., 2008, Science (15)	Outcrop	40	
542-485	525	South China	Feng et al., 2014, Precambrian Research (54)	Outcrop	30	
542-485	525	South China	Och et al., 2013, Precambrian Research (55)	Outcrop	142	
542-485	525	South China	Wang et al., 2012, Chemical Geology (53)	Outcrop	35	
542-485	505	Southern Canadian Cordillera	Dahl et al., 2010, PNAS (28)	Outcrop	4	
542-485	497	Sweden	Gill et al., 2011, Nature (57)	Core	30	
542-485	535	Wernecke Mountains	This study	Outcrop	19	
485-359	365 and 367	Acadian	Dahl et al., 2010, PNAS (28)	Outcrop	4	
485-359	382 and 387	Acadian	Boyer et al., 2011, Palaeogeog., Palaeoclim., Palaeoecol. (58)	Outcrop	101	
485-359	445	Carnic Alps	Hammarlund et al., 2012, Earth and Planetary Science Letters (60)	Outcrop	39	
485-359	443	Denmark	Dahl et al., 2010, PNAS (10)	Core	10	
485-359	445	Denmark	Hammarlund et al., 2012, Earth and Planetary Science Letters (60)	Core	77	
485-359	445	Scotland	Hammarlund et al., 2012, Earth and Planetary Science Letters (60)	Outcrop	46	
485-359	435	South Africa	Dahl et al., 2010, PNAS (28)	Core	3	
485-359	435-485	Sweden	Dahl et al., 2010, PNAS (28)	Core	18	
485-359	480	Taconic	Farrell et al., 2013, American Journal of Science (59)	Outcrop	93	
Modern	0	Many sites	Raiswell and Canfield, 1998, American Journal of Science (19)	Sediment	233	

Table S2: Datasets used in this study. Number of samples from each study that were incorporated into this database may be slightly less than the published number if there were

problems obtaining the data or converting it from published files. Reference numbers listed in parentheses following author names. Notes: 1- Some samples contain appreciable Fe-AVS (Acid Volatile Sulfides), 2- Only samples from the clastic Rove and Virginia Formations were included, 3- Lacustrine, 4- Some samples may represent nonmarine to marginal marine environments, 5- Coarse-grained rocks present in tillite units, 6- Only samples with >40% insoluble residue were included, 7- Samples analyzed under non-sequential, dithionite-only iron extraction protocol for phases other than pyrite.

2. Time-binned geographic analyses

Proportion of anoxic samples through time: 547 samples from inner shelf environments were removed, resulting in 3,988 samples from outer shelf and basinal environments (including modern samples[19], as for all counts below). The proportion of anoxic samples was then calculated based on an anoxic threshold of FeHR/FeT ratio > 0.38 (refs. 3 and 19).

Proportion of oxic samples through time: 547 samples from inner shelf environments were removed, resulting in 3,988 samples from outer shelf and basinal environments. The proportion of oxic samples was then calculated based on an oxic threshold of FeHR/FeT ratio < 0.22 (refs. 3 and 62).

Proportion of ferruginous samples through time: From the 3,988 samples from outer shelf and basinal environments, 2,192 samples with FeHR/FeT $\leq$ 0.38 were removed. This resulted in 1,796 samples from more distal environments that were likely deposited beneath anoxic water columns. Two thresholds (0.7 and 0.8) currently exist for distinguishing between euxinic and ferruginous water columns[3]. Due to the high proportion of samples from outcrop in the database, which may have experienced minor to major oxidative weathering (converting FeP to other highly-reactive phases, specifically iron oxides[15]) the lower 0.7 threshold was used.

FeP contents of oxic sediments: From the 4,535 total samples, 2,034 samples from all three depositional environments were removed that had FeHR/FeT > 0.38. This resulted in 2,501 samples likely deposited under an oxygenated water column.

Proportion of oxic sediments with high porewater sulfide levels: The same set of 2,501 samples likely deposited under an oxygenated water column as in the analyses of FeP contents was used. Samples with FeP/FeHR > 0.7 were considered to be ancient sediments that potentially carried high levels of porewater sulfide beneath an oxygenated water column.

For ratios in all analyses, the proportion for each region was calculated, and the global average, standard deviation and standard error calculated for each time bin. For FeP contents, the median value was calculated for each region, and the global average, standard deviation and standard error calculated for each time bin based on the medians. The results of these calculations are shown in Table S3.

A. Proportion of anoxic samples (FeHR/FeT > 0.38) from outer shelf and deep basin environments

Time bin 1 (2300 - 1000 Ma)	Proportion anoxic
Fennoscandia	0.94
North China	0.42
Belt Basin	0.79
Borden Basin	0.67
Mauritania	0.63
Francevillian Basin	0.40
Southern Urals	0.00
Roper Basin	0.26
McArthur Basin	0.84
Animikie Basin	0.37
Brasília Fold Belt	0.62
Onega Basin	0.76
Midcontinent Rift	0.45
Botswana	0.93

14 regions	n = 952
Average	0.58
Standard dev.	0.27
Standard error	0.07

Time bin 2 (1000 - 635 Ma)	Proportion anoxic
South China	0.56
Wernecke Mountains	0.30
Death Valley	0.38
Grand Canyon	0.55
Centralian Superbasin	0.64
Spitsbergen	0.78
East Greenland	0.13
Ogilvie Mountains	0.53
Mackenzie Mountains	0.14
Uinta Mountains	0.20
Svalbard	0.62
Callison Lake	0.86

12 regions	n = 584
Average	0.47
Standard dev.	0.24
Standard error	0.07

Time bin 3 (635 - 542 Ma)	Proportion anoxic
South China	0.73
Wernecke Mountains	0.49
Eastern European Platform	0.02
Southern Canadian Cordillera	0.24

14 regions	n = 1301
Average	0.50
Standard dev.	0.33
Standard error	0.09

Avalon	0.09
Spitsbergen	1.00
East Greenland	0.35
Stuart Shelf	0.81
Ogilvie Mountains	0.59
Mackenzie Mountains	0.55
Nico Perez Terrane (Uruguay)	0.60
Mongolia	1.00
Svalbard	0.47
Namibia	0.00

Time bin 4 (542 - 485 Ma)	**Proportion anoxic**
South China	0.81
Wernecke Mountains	0.63
House Embayment	0.27
Sweden	1.00
Southern Canadian Cordillera	0.50
Ogilvie Mountains	1.00
Mackenzie Mountains	0.37
Georgina Basin	0.72
Namibia	0.00
Mongolia	0.15

10 regions	n = 532
Average	0.55
Standard dev.	0.35
Standard error	0.11

Time bin 5 (485 - 350 Ma)	**Proportion anoxic**
Acadian	0.06
Taconic	0.30
Scotland	0.40
Denmark	0.53
South Africa	0.00
Sweden	0.59
Carnic Alps	0.57

7 regions	n = 387
Average	0.35
Standard dev.	0.24
Standard error	0.09

B. Proportion of oxic samples (FeHR/FeT < 0.22) from outer shelf and deep basin environments

Time bin 1 (2300 - 1000 Ma)	**Proportion oxic**
Fennoscandia	0.03
North China	0.29
Belt Basin	0.00
Borden Basin	0.17
Mauritania	0.21

14 regions	n = 952
Average	0.22
Standard dev.	0.27
Standard error	0.07

Francevillian Basin	0.35
Southern Urals	0.95
Roper Basin	0.64
McArthur Basin	0.08
Animikie Basin	0.18
Brasília Fold Belt	0.13
Onega Basin	0.07
Midcontinent Rift	0.00
Botswana	0.00

Time bin 2 (1000 - 635 Ma)	**Proportion oxic**
South China	0.38
Wernecke Mountains	0.22
Death Valley	0.36
Grand Canyon	0.29
Centralian Superbasin	0.04
Spitsbergen	0.00
East Greenland	0.26
Ogilvie Mountains	0.19
Mackenzie Mountains	0.41
Uinta Mountains	0.00
Svalbard	0.14
Callison Lake	0.00

12 regions	n = 584
Average	0.19
Standard dev.	0.15
Standard error	0.04

Time bin 3 (635 - 542 Ma)	**Proportion oxic**
South China	0.16
Wernecke Mountains	0.09
Eastern European Platform	0.19
Southern Canadian Cordillera	0.52
Avalon	0.33
Spitsbergen	0.00
East Greenland	0.18
Stuart Shelf	0.00
Ogilvie Mountains	0.05
Mackenzie Mountains	0.26
Nico Perez Terrane (Uruguay)	0.20
Mongolia	0.00
Svalbard	0.17
Namibia	0.98

14 regions	n = 1301
Average	0.22
Standard dev.	0.26
Standard error	0.07

Time bin 4 (542 - 485 Ma)	**Proportion oxic**

South China	0.03
Wernecke Mountains	0.00
House Embayment	0.36
Sweden	0.00
Southern Canadian Cordillera	0.00
Ogilvie Mountains	0.00
Mackenzie Mountains	0.00
Georgina Basin	0.00
Namibia	0.96
Mongolia	0.75

10 regions	n = 532
Average	0.21
Standard dev.	0.36
Standard error	0.11

Time bin 5 (485 - 350 Ma)	**Proportion oxic**
Acadian	0.74
Taconic	0.14
Scotland	0.22
Denmark	0.22
South Africa	0.00
Sweden	0.06
Carnic Alps	0.03

7 regions	n = 387
Average	0.20
Standard dev.	0.25
Standard error	0.10

C. Proportion of ferruginous samples (FeHR/FeT > 0.38; FeP/FeHR < 0.7) from outer shelf and deep basin environments

Time bin 1 (2300 - 1000 Ma)	**Proportion ferruginous**
Fennoscandia	0.93
North China	1.00
Belt Basin	0.73
Borden Basin	1.00
Mauritania	0.05
Francevillian Basin	0.69
Roper Basin	0.00
McArthur Basin	0.66
Animikie Basin	0.34
Brasília Fold Belt	0.71
Onega Basin	0.29
Midcontinent Rift	1.00
Botswana	0.29

13 regions	n = 468
Average	0.59
Standard dev.	0.36
Standard error	0.10

Time bin 2 (1000 - 635 Ma)	**Proportion ferruginous**
South China	0.27

12 regions	n =

Wernecke Mountains	1.00
Death Valley	1.00
Grand Canyon	0.65
Centralian Superbasin	1.00
Spitsbergen	1.00
East Greenland	1.00
Ogilvie Mountains	0.98
Mackenzie Mountains	1.00
Uinta Mountains	1.00
Svalbard	1.00
Callison Lake	1.00

	286
Average	0.91
Standard dev.	0.22
Standard error	0.06

Time bin 3 (635 - 542 Ma)	**Proportion ferruginous**
South China	0.68
Wernecke Mountains	0.98
Eastern European Platform	1.00
Southern Canadian Cordillera	0.96
Avalon	1.00
Spitsbergen	1.00
East Greenland	1.00
Stuart Shelf	0.76
Ogilvie Mountains	1.00
Mackenzie Mountains	0.99
Mongolia	1.00
Svalbard	1.00
Nico Perez Terrane (Uruguay)	1.00

13 regions	n = 491
Average	0.95
Standard dev.	0.10
Standard error	0.03

Time bin 4 (542 - 485 Ma)	**Proportion ferruginous**
South China	0.86
Wernecke Mountains	1.00
House Embayment	1.00
Sweden	0.04
Southern Canadian Cordillera	1.00
Ogilvie Mountains	1.00
Mackenzie Mountains	1.00
Georgina Basin	0.95
Mongolia	1.00

9 regions	n = 309
Average	0.87
Standard dev.	0.32
Standard error	0.11

Time bin 5 (485 - 350 Ma)	**Proportion ferruginous**

Acadian	0.17
Taconic	0.96
Scotland	0.94
Denmark	0.33
Sweden	0.40
Carnic Alps	1.00

	n =
6 regions	129
Average	0.63
Standard dev.	0.37
Standard error	0.15

D. Iron in pyrite (FeP) from oxic sediments (FeHR/FeT < 0.38) from all environments. Regional values are median of data from that region.

Time bin 1 (2300 - 1000 Ma)	**FeP**
Fennoscandia	2.15
North China	0.27
Belt Basin	0.17
Borden Basin	0.42
Francevillian Basin	0.09
Southern Urals	0.06
Roper Basin	0.06
McArthur Basin	0.27
Animikie Basin	0.26
Brasília Fold Belt	0.42
Onega Basin	0.32
Midcontinent Rift	0.05
Botswana	0.56

13 regions	n =450
Average	0.392
Standard dev.	0.552
Standard error	0.153

Time bin 2 (1000 - 635 Ma)	**FeP**
South China	0.01
Wernecke Mountains	0.00
Death Valley	0.00
Grand Canyon	0.00
Eastern European Platform	0.01
Centralian Superbasin	0.08
Spitsbergen	0.03
East Greenland	0.14
Ogilvie Mountains	0.00
Mackenzie Mountains	0.01
Uinta Mountains	0.00
Svalbard	0.01
Callison Lake	0.00

	n =
13 regions	488
Average	0.0200
Standard dev.	0.041
Standard error	0.011

Time bin 3 (635 - 542 Ma)	FeP
South China	0.03
Wernecke Mountains	0.05
Eastern European Platform	0.02
Southern Canadian Cordillera	0.09
Avalon	0.01
East Greenland	0.04
Stuart Shelf	0.09
Siberia	0.07
Ogilvie Mountains	0.00
Mackenzie Mountains	0.01
Nico Perez Terrane (Uruguay)	0.00
Svalbard	0.06
Namibia	0.00

13 regions	n = 754
Average	0.040
Standard dev.	0.033
Standard error	0.009

Time bin 4 (542 - 485 Ma)	FeP
South China	0.15
Wernecke Mountains	0.21
House Embayment	0.01
East Greenland	0.03
Siberia	0.01
Mackenzie Mountains	0.00
Georgina Basin	0.29
Mongolia	0.00
Namibia	0.00

9 regions	n = 245
Average	0.078
Standard dev.	0.110
Standard error	0.037

Time bin 5 (485 - 350 Ma)	FeP
Acadian	0.64
Taconic	0.75
Scotland	0.04
Denmark	0.25
Sweden	1.66
Carnic Alps	0.02

6 regions	n = 227
Average	0.560
Standard dev.	0.618
Standard error	0.252

E. Proportion of sediments deposited under oxic water columns with high levels of porewater sulfide (FeHR/FeT < 0.38; FeP/FeHR > 0.7) from all environments

Time bin 1 (2300 - 1000 Ma)	Proportion with high porewater sulfide
Fennoscandia	0.00

14 regions	n =

North China	0.00
Belt Basin	0.33
Borden Basin	0.50
Mauritania	0.51
Francevillian Basin	0.01
Southern Urals	0.00
Roper Basin	0.09
McArthur Basin	0.17
Animikie Basin	0.04
Brasília Fold Belt	0.50
Onega Basin	0.20
Midcontinent Rift	0.00
Botswana	0.00

	534
Average	0.17
Standard dev.	0.21
Standard error	0.06

Time bin 2 (1000 - 635 Ma)	**Proportion with high porewater sulfide**
South China	0.11
Wernecke Mountains	0.00
Death Valley	0.00
Grand Canyon	0.02
Eastern European Platform	0.00
Centralian Superbasin	0.00
Spitsbergen	0.00
East Greenland	0.00
Ogilvie Mountains	0.02
Mackenzie Mountains	0.00
Uinta Mountains	0.00
Svalbard	0.00
Callison Lake	0.00

13 regions	n = 490
Average	0.01
Standard dev.	0.03
Standard error	0.01

Time bin 3 (635 - 542 Ma)	**Proportion with high porewater sulfide**
South China	0.09
Wernecke Mountains	0.00
Eastern European Platform	0.00
Southern Canadian Cordillera	0.03
Avalon	0.01
East Greenland	0.00
Stuart Shelf	0.00
Siberia	0.00
Ogilvie Mountains	0.00

13 regions	n = 753
Average	0.01
Standard dev.	0.03
Standard error	0.01

Mackenzie Mountains	0.00
Nico Perez Terrane (Uruguay)	0.00
Svalbard	0.00
Namibia	0.00

Time bin 4 (542 - 485 Ma)	**Proportion with high porewater sulfide**
South China	0.16
Wernecke Mountains	0.00
House Embayment	0.00
Southern Canadian Cordillera	0.00
East Greenland	0.00
Siberia	0.00
Mackenzie Mountains	0.00
Georgina Basin	0.00
Mongolia	0.00
Namibia	0.00

10 regions	n = 247
Average	0.02
Standard dev.	0.05
Standard error	0.02

Time bin 5 (485 - 350 Ma)	**Proportion with high porewater sulfide**
Acadian	0.82
Taconic	0.08
Scotland	0.07
Denmark	0.15
Sweden	0.29
South Africa	0.00
Carnic Alps	0.00

7 regions	n = 255
Average	0.20
Standard dev.	0.29
Standard error	0.11

Table S3: Results from each region from different time bins for A) proportion of anoxic samples (FeHR/FeT > 0.38) from outer shelf and basinal depositional environments, B) proportion of oxic samples based on a conservative value of FeHR/FeT < 0.22 from outer shelf and basinal depositional environments, C) proportion of ferruginous samples from anoxic water columns (FeHR/FeT > 0.38; FeP/FeHR < 0.7) from outer shelf and basinal depositional environments, D) Iron in pyrite (FeP) contents of sediments deposited beneath oxic water columns (FeHR/FeT < 0.38) from all environments, E) proportion of sediments with high levels of porewater sulfide from sediments deposited beneath oxic water columns from all environments (FeHR/FeT < 0.38; FeP/FeHR > 0.7). N = number of samples in that time bin.

3. Statistical analyses of iron geochemical data

The normality of the data in each time bin was first checked with the Shapiro-Wilk W test. Bins with low p-values (< 0.05) can be considered to have a skewed or non-

normal distribution. Due to the high number of regions in the early Neoproterozoic (bin 2) and Ediacaran (bin 3) with essentially no sulfide, all analyses related to sulfide contents had strongly skewed data. This skew remained after various transformations were applied, and so non-parametric tests were used. For the full dataset, data from the five time bins were compared using Analysis of Variance (ANOVA) and Kruskal-Wallis tests. Post hoc Tukey-Kramer HSD tests ($\alpha = 0.05$), pairwise Wilcoxon tests and Steel-Dwass tests were used to further explore significant differences between bins. Although all tests were applied to the full dataset in all instances, the results of the Kruskal-Wallis, Wilcoxon, and Steel-Dwass tests should be considered more reliable for significantly skewed data (essentially all analyses except the proportion of anoxic and oxic samples through time) as these non-parametric tests do not require the assumption of normality.

This analytical approach therefore begins with an omnibus test (ANOVA and Kruskal-Wallis) designed to test whether the data from different groups originate from the same underlying distribution. The omnibus tests do not indicate which groups are significantly different, which requires post-hoc pairwise testing. Conducting these multiple comparisons invites the possibility of Type I error, or incorrectly rejecting the null hypothesis. The multiple comparison problem can be illustrated using the following example—the probability of flipping any given coin as "heads" 9 times out of 10 is very low; however, if 1000 coins are each flipped 10 times, the probability that one coin will be "heads" 9 times of 10 becomes high. It would be incorrect to conclude that specific coin is different from the rest. This issue is not relevant for the consideration of anoxic/oxic water columns through time (Fig. 1A) as none of the omnibus test statistics are significant (Table S4), but is important for analyses of ferruginous water columns through time and pyrite contents in oxic sediments (Fig. 1B and C). The multiple comparison problem can be addressed by applying corrections that account for the increased family-wise error rate (such as the Bonferroni correction, which for the ten comparisons conducted here would be $p < 0.005$ using an overall $\alpha = 0.05$) and tests that directly account for multiple comparisons, such as Tukey's HSD or Steel-Dwass tests. The issue with such corrections is that they can be very conservative, and potentially result in Type II error—incorrectly accepting the null hypothesis. This is especially true considering some *a priori* hypotheses do exist, for instance that Neoproterozoic oceans were more ferruginous[15], and thus a Bonferroni correction based on all pairwise comparisons is overly stringent. As this is the first statistical analysis of iron geochemical data, and the number of sampled regions is still relatively small in a statistical sense, we do not wish to incorrectly remove hypotheses from future consideration. Thus, we present and interpret nonparametric pairwise comparisons using uncorrected p-values from Wilcoxon tests, Bonferroni-corrected p-values, and analyses that account for multiple comparisons (Steel-Dwass). Significant results from these latter two categories should be considered most robust, and significant results from uncorrected p-values should be considered as possible but requiring more data for full resolution.

Four sensitivity analyses were then conducted. In these analyses, only the most appropriate tests were applied based on the normality of the data. In the first analysis, inappropriate or altered samples or those from sedimentary facies in which the iron speciation proxy is not calibrated were removed. This included lacustrine rocks (the Nonesuch Shale as studied by ref. (43) and Spiral Creek Formation as studied by ref. (15), very coarse-grained diamictites (the Sturtian Tillite as studied by ref. (15) and the

Gaskiers Formation as studied by ref. (12)), and a mineralized Nickel-Molybdenum-Sulfide layer in the Lower Cambrian Niutitang Formation of South China as studied by ref. 55. Studies analyzed using an older dithionite-only extraction methodology rather than the modern sequential extraction methodology[11,40,47,50] were also removed (see ref. 59 for further discussion of these methodological differences). Finally, three studies that identified very high abundances of acid-volatile sulfur (FeAVS) were removed[34-36], as this indicates alteration of the original iron-sulfur systematics. When the removed samples represented a subset of the samples from a region, the value for that region was re-calculated from the remaining samples, whereas if they represent all samples the entire region was removed from the analysis. In the second sensitivity analysis, regions with low sample coverage—specifically five or fewer samples—were excluded from the analysis. This exclusion did not particularly affect the analysis of the proportion of anoxic or oxic samples through time as most studies have good sampling coverage. More regions were removed from the other analyses that required either oxic or anoxic conditions, as these consequently represent only a subset of available data. In the third sensitivity analyses, only samples from the Mesoproterozoic (1600-1000 Ma) were included in time bin 1. For the fourth sensitivity analysis, iron in pyrite from oxic sediments was analyzed on samples from outer shelf and deep basin environments (rather than all environments) for direct comparison with other analyses. The results of all analyses are contained in Table S4.

Full dataset

Proportion anoxic (FeHR/FeT > 0.38) from outer shelf and deep basin environments

Shapiro-Wilk W test. Small p-values reject normal distribution

	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5
Age:	2300-1000	1000-635	635-542	542-485	485-350
p-value:	0.63	0.53	0.56	0.73	0.22

ANOVA

Source	DF	SS	MS	F-ratio	**P**	
Model	4	0.27	0.07	0.7844	0.5405	post-hoc Tukey HSD:
Error	52	4.46	0.09			Not significant
Total	56	4.73				

Kruskal-Wallis test			**Pairwise Wilcoxon method**	**P**	**Steel-Dwass P**
Chi Square	DF	**P**	No comparisons were significant		None significant
3.3	4	0.5094			

Proportion oxic (FeHR/FeT < 0.22) from outer shelf and deep basin environments

Shapiro-Wilk W test. Small p-values reject normal distribution

	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5
Age:	2300-1000	1000-635	635-542	542-485	485-350

p-value:	0.0003	0.18	0.002	0.0003	0.0169

ANOVA

Source	DF	SS	MS	F-ratio	**P**	
Model	4	0.01	0.002	0.0328	0.9979	post-hoc Tukey HSD:
Error	52	3.67	0.07			Not significant
Total	56	3.68				

Kruskal-Wallis test			**Pairwise Wilcoxon method**	**P**	**Steel-Dwass P**
Chi Square	DF	**P**	No comparisons were significant		None significant
1.93	4	0.7483			

Proportion ferruginous (FeP/FeHR < 0.7) of anoxic samples from outer shelf and deep basin environments

Shapiro-Wilk W test. Small p-values reject normal distribution

	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5
Age:	2300-1000	1000-635	635-542	542-485	485-350
P	0.11	<0.0001	<0.0001	<0.0001	0.1

ANOVA

Source	DF	SS	MS	F-ratio	**P**	
Model	4	1.22	0.3	3.9149	0.0079	post-hoc Tukey HSD:
Error	48	3.73	0.08			a, b, b, ab, ab
Total	52	4.95				bins 1, 2, 3, 4, 5

Kruskal-Wallis test			**Pairwise Wilcoxon method**	**P**	**Steel-Dwass P**
Chi Square	DF	**P**	bin 1 and 3	0.0055	0.044
13.91	4	0.0076	bin 1 and 2	0.0154	0.1094
			bin 1 and 4	0.0379	0.2307
			bin 3 and 5	0.0204	0.1387
			bin 2 and 5	0.0237	0.1573
			All other comparisons not significant		

Iron in pyrite (FeP) from oxic sediments (FeHR/FeT < 0.38) in all environments

Shapiro-Wilk W test. Small p-values reject normal distribution

	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5
Age:	2300-1000	1000-635	635-542	542-485	485-350
P	<0.0001	0.0002	0.11	0.006	0.22

ANOVA

Source	DF	SS	MS	F-ratio	**P**	
Model	4	2.13	0.53	4.5868	0.0032	post-hoc Tukey HSD:

Error	49	5.69	0.12		ab, b, b, ab, a bins 1, 2, 3, 4, 5
Total	53	7.82			

Kruskal-Wallis test			**Pairwise Wilcoxon method**	**P**	**Steel-Dwass P**
Chi Square	DF	**P**	bin 1 and 2	<0.0001*	0.0007
25.44	4	<0.0001	bin 1 and 3	0.0002*	0.0022
			bin 1 and 4	0.0061	0.0478
			bin 5 and 2	0.0037*	0.0305
			bin 5 and 3	0.0248	0.1635
			bin 5 and 4	0.0285	0.1834
			All other comparisons not significant		

Iron in pyrite (FeP) from oxic sediments (FeHR/FeT < 0.38) from outer shelf and deep-basin environments (sensitivity test)

Shapiro-Wilk W test. Small p-values reject normal distribution

	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5
Age:	2300-1000	1000-635	635-542	542-485	485-350
P	<0.0001	<0.0001	0.033	0.037	0.22

ANOVA

Source	DF	SS	MS	F-ratio	**P**	
Model	4	2	0.5	3.9442	0.0079	post-hoc Tukey HSD:
Error	45	5.71	0.13			ab, b, b, ab, a
Total	49	7.71				bins 1, 2, 3, 4, 5

Kruskal-Wallis test			**Pairwise Wilcoxon method**	**P**	**Steel-Dwass P**
Chi Square	DF	**P**	bin 1 and 2	0.0001*	0.0014
23.35	4	0.0001	bin 1 and 3	0.0003*	0.0023
			bin 1 and 4	0.0261	0.1705
			bin 5 and 2	0.0044*	0.0358
			bin 5 and 3	0.0209	0.1419
			All other comparisons not significant		

Proportion of sediments deposited under oxic water columns with high levels of porewater sulfide from all environments

Shapiro-Wilk W test. Small p-values reject normal distribution

	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5
Age:	2300-1000	1000-635	635-542	542-485	485-350
P	0.0023	<0.0001	<0.0001	<0.0001	0.0089

ANOVA

Source	DF	SS	MS	F-ratio	**P**	
Model	4	0.37	0.09	4.4209	0.0038	post-hoc Tukey HSD:

Error	52	1.1	0.02		Not significant
Total	56	1.48			

Kruskal-Wallis test			**Pairwise Wilcoxon method**	**P**	**Steel-Dwass P**
Chi Square	DF	**P**	bin 1 and 2	0.0153	0.1084
16.16	4	0.0028	bin 1 and 3	0.0132	0.0952
			bin 1 and 4	0.0108	0.0799
			bin 5 and 2	0.0157	0.111
			bin 5 and 3	0.0157	0.1113
			bin 5 and 4	0.0192	0.1321
			All other comparisons not significant		

Sensitivity analyses- with removal of 1) lacustrine samples, 2) coarse-grained samples, 3) Samples from Lower Cambrian Ni-Mo layer, South China, 4) studies with high percentages of FeAVS, and 5) studies analyzed under the older non-sequential extraction methodology

Proportion anoxic (FeHR/FeT > 0.38) from outer shelf and deep basin environments

Shapiro-Wilk W test. Small p-values reject normal distribution

	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5
Age:	2300-1000	1000-635	635-542	542-485	485-350
p-value:	0.22	0.55	0.4	0.74	0.22

ANOVA

Source	DF	SS	MS	F-ratio	**P**	
Model	4	0.29	0.07	0.8491	0.5012	post-hoc Tukey HSD:
Error	48	4.16	0.09			Not significant
Total	52	4.54				

Proportion oxic (FeHR/FeT < 0.22) from outer shelf and deep basin environments

Shapiro-Wilk W test. Small p-values reject normal distribution

	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5
Age:	2300-1000	1000-635	635-542	542-485	485-350
p-value:	0.0029	0.3	0.0016	0.0003	0.0169

Kruskal-Wallis test			**Pairwise Wilcoxon method**	**P**	**Steel-Dwass P**
Chi Square	DF	**P**	No comparisons were significant		None significant
1.94	4	0.7458			

Proportion ferruginous (FeP/FeHR < 0.7) of anoxic samples from outer shelf and deep basin environments

Shapiro-Wilk W test. Small p-values reject normal distribution

Bin 1	Bin 2	Bin 3	Bin 4	Bin 5

Age:	2300-1000	1000-635	635-542	542-485	485-350
P	0.18	<0.0001	<0.0001	<0.0001	0.1

Kruskal-Wallis test			**Pairwise Wilcoxon method**	**P**	**Steel-Dwass P**
Chi Square	DF	**P**	bin 1 and 3	0.0141	0.1011
11.51	4	0.0214	bin 3 and 5	0.0204	0.1387
			bin 1 and 2	0.0347	0.2149
			bin 2 and 5	0.0308	0.1954
			All other comparisons not significant		

Iron in pyrite (FeP) from oxic sediments in all environments

Shapiro-Wilk W test. Small p-values reject normal distribution

	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5
Age:	2300-1000	1000-635	635-542	542-485	485-350
P	0.85	<0.0001	0.1	0.0056	0.22

ANOVA

Source	DF	SS	MS	F-ratio	**P**	
Model	4	1.6	0.4	7.9596	<0.0001	post-hoc Tukey HSD:
Error	45	2.26	0.05			ab, b, b, b, a
Total	49	3.86				bins 1, 2, 3, 4, 5

Kruskal-Wallis test			**Pairwise Wilcoxon method**	**P**	**Steel-Dwass P**
Chi Square	DF	**P**	bin 1 and 2	0.0002*	0.002
23.71	4	<0.0001	bin 1 and 3	0.0003*	0.0031
			bin 1 and 4	0.0079	0.0605
			bin 5 and 2	0.0025*	0.0214
			bin 5 and 3	0.0278	0.1795
			bin 5 and 4	0.0285	0.1834
			All other comparisons not significant		

Proportion of sediments deposited under oxic water columns with high levels of porewater sulfide from all environments

Shapiro-Wilk W test. Small p-values reject normal distribution

	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5
Age:	2300-1000	1000-635	635-542	542-485	485-350
P	0.0013	<0.0001	<0.0001	<0.0001	0.0089

Kruskal-Wallis test			**Pairwise Wilcoxon method**	**P**	**Steel-Dwass P**
Chi Square	DF	**P**	bin 1 and 3	0.0296	0.1891
13.61	4	0.0087	bin 1 and 4	0.0359	0.2207
			bin 5 and 2	0.0177	0.1229
			bin 5 and 3	0.0092	0.0697

bin 5 and 4	0.0192	0.1321
All other comparisons not significant		

Sensitivity analyses- with removal of regions with five or less samples

Proportion anoxic (FeHR/FeT > 0.38) from outer shelf and deep basin environments

Shapiro-Wilk W test. Small p-values reject normal distribution

	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5
Age:	2300-1000	1000-635	635-542	542-485	485-350
p-value:	0.57	0.6	0.47	0.86	0.29

ANOVA

Source	DF	SS	MS	F-ratio	P	
Model	4	0.23	0.06	0.7664	0.5526	post-hoc Tukey HSD:
Error	46	3.42	0.07			Not significant
Total	50	3.65				

Proportion oxic (FeHR/FeT < 0.22) from outer shelf and deep basin environments

Shapiro-Wilk W test. Small p-values reject normal distribution

	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5
Age:	2300-1000	1000-635	635-542	542-485	485-350
p-value:	0.003	0.37	0.0045	0.0053	0.029

Kruskal-Wallis test			**Pairwise Wilcoxon method**	**P**	**Steel-Dwass P**
Chi Square	DF	**P**	No comparisons were significant		None significant
1.52	4	0.8233			

Proportion ferruginous of anoxic samples from outer shelf and deep basin environments

Shapiro-Wilk W test. Small p-values reject normal distribution

	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5
Age:	2300-1000	1000-635	635-542	542-485	485-350
P	0.23	<0.0001	<0.0001	0.0005	0.0984

Kruskal-Wallis test			**Pairwise Wilcoxon method**	**P**	**Steel-Dwass P**
Chi Square	DF	**P**	bin 1 and 3	0.0062	0.0487
12.48	4	0.0141	bin 1 and 2	0.0134	0.0968
			bin 2 and 5	0.0338	0.2106
			bin 3 and 5	0.0414	0.247
			All other comparisons not significant		

Iron in pyrite (FeP) from oxic sediments in all environments

Shapiro-Wilk W test. Small p-values reject normal distribution

	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5
Age:	2300-1000	1000-635	635-542	542-485	485-350
P	0.12	<0.0001	0.07	0.0373	0.22

ANOVA

Source	DF	SS	MS	F-ratio	**P**	
Model	4	1.39	0.35	6.3726	0.0005	post-hoc Tukey HSD:
Error	40	2.18	0.05			a, a, a, a, b
Total	44	3.57				bins 1, 2, 3, 4, 5

Kruskal-Wallis test			**Pairwise Wilcoxon method**	**P**	**Steel-Dwass P**
Chi Square	DF	**P**	bin 1 and 2	0.0012*	0.0145
18.7	4	0.0009	bin 1 and 3	0.0017*	0.0109
			bin 5 and 2	0.0035*	0.029
			bin 5 and 3	0.0212	0.1434
			All other comparisons not significant		

Proportion of sediments deposited under oxic water columns with high levels of porewater sulfide from all environments

Shapiro-Wilk W test. Small p-values reject normal distribution

	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5
Age:	2300-1000	1000-635	635-542	542-485	485-350
P	0.0048	<0.0001	<0.0001	<0.0001	0.0323

Kruskal-Wallis test			**Pairwise Wilcoxon method**	**P**	**Steel-Dwass P**
Chi Square	DF	**P**	bin 1 and 2	0.0301	0.1917
14.88	4	0.005	bin 1 and 3	0.0174	0.1213
			bin 1 and 4	0.0393	0.2374
			bin 5 and 2	0.0105	0.0781
			bin 5 and 3	0.0075	0.058
			bin 5 and 4	0.036	0.2214
			All other comparisons not significant		

Sensitivity analyses- Bin 1 only containing Mesoproterozoic (1600-1000 Ma) samples

Proportion anoxic (FeHR/FeT > 0.38) from outer shelf and deep basin environments

Shapiro-Wilk W test. Small p-values reject normal distribution

	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5
Age:	2300-1000	1000-635	635-542	542-485	485-350
p-value:	0.39	0.53	0.56	0.73	0.22

ANOVA

Source	DF	SS	MS	F-ratio	P	
Model	4	0.16	0.04	0.4699	0.7575	post-hoc Tukey HSD:
Error	45	3.95	0.09			Not significant
Total	49	4.11				

Proportion oxic (FeHR/FeT < 0.22) from outer shelf and deep basin environments

Shapiro-Wilk W test. Small p-values reject normal distribution

	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5
Age:	2300-1000	1000-635	635-542	542-485	485-350
p-value:	0.07	0.18	0.002	0.003	0.0169

Kruskal-Wallis test			**Pairwise Wilcoxon method**	**P**	**Steel-Dwass P**
Chi Square	DF	P	No comparisons were significant		None significant
1.81	4	0.7706			

Proportion ferruginous of anoxic samples from outer shelf and deep basin environments

Shapiro-Wilk W test. Small p-values reject normal distribution

	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5
Age:	2300-1000	1000-635	635-542	542-485	485-350
P	0.09	<0.0001	<0.0001	<0.0001	0.0984

Kruskal-Wallis test			**Pairwise Wilcoxon method**	**P**	**Steel-Dwass P**
Chi Square	DF	**P**	bin 5 and 3	0.0204	0.2416
9.3	4	0.054	bin 5 and 2	0.0237	0.1573
			All other comparisons not significant		

Note: Bin 1 (Mesoproterozoic) is only left with 6 regions, although the percentage of ferruginous samples in bin 1 remains essentially unchanged (now 58% versus 59%). The drop in sampling intensity affects the power of the inference tests, and bin 1 is no longer statistically different from the Neoproterozoic at the $p < 0.05$ level. Nonetheless, the p-values of the pairwise Wilcoxon tests between bin 1 and bins 2, 3 and 4 remain relatively low ($p = 0.079$, 0.079 and 0.14 respectively). More Mesoproterozoic sampling will help the statistical power of this Mesoproterozoic-Neoproterozoic comparison and reveal whether the change in significance is real (i.e. the signal in the full dataset is driven by Paleoproterozoic samples) or due to simple low sampling levels.

Iron in pyrite (FeP) from oxic sediments in all environments

Shapiro-Wilk W test. Small p-values reject normal distribution

	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5
Age:	2300-1000	1000-635	635-542	542-485	485-350
P	0.0266	<0.0001	0.11	0.0056	0.22

Kruskal-Wallis test			**Pairwise Wilcoxon method**	**P**	**Steel-Dwass P**
Chi Square	DF	**P**	bin 1 and 2	0.0036*	0.0296
16.73	4	0.0022	bin 1 and 3	0.0173	0.1482
			bin 5 and 2	0.0027*	0.0228
			bin 5 and 3	0.0248	0.1635
			bin 5 and 4	0.0285	0.1834
			All other comparisons not significant		

Proportion of sediments deposited under oxic water columns with high levels of porewater sulfide from all environments

Shapiro-Wilk W test. Small p-values reject normal distribution

	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5
Age:	2300-1000	1000-635	635-542	542-485	485-350
P	0.0465	<0.0001	<0.0001	<0.0001	0.0089

Kruskal-Wallis test			**Pairwise Wilcoxon method**	**P**	**Steel-Dwass P**
Chi Square	DF	**P**	bin 1 and 2	0.0122	0.0891
16.35	4	0.0027	bin 1 and 3	0.0107	0.0796
			bin 1 and 4	0.0101	0.0757
			bin 5 and 2	0.0157	0.111
			bin 5 and 3	0.0157	0.1113
			bin 5 and 4	0.0192	0.1321
			All other comparisons not significant		

Table S4: Results of statistical analyses. Results for ANOVA, Kruskal-Wallis, Wilcoxon and Steel-Dwass tests that are significant at the $p < 0.05$ level are colored in yellow, and results significant at the $p < 0.01$ level are colored red. Both ANOVA and Kruskal-Wallis tests were performed for all analyses for the full dataset. The more reliable test should be considered based on normality of the data as assessed with the Shapiro-Wilk W test. For nonparametric analyses, significant differences between bins were analyzed using tests that only considered the bins in question (pairwise Wilcoxon tests) and using tests that correct for multiple comparisons (Steel-Dwass). Results of Steel-Dwass tests are shown to the right of each comparison found significant in Wilcoxon tests, and Wilcoxon tests significant after Bonferroni correction ($p < 0.005$) are indicated by an asterisk(*). Three sensitivity analyses were also performed. In the first, samples from lithologies/facies not calibrated for the iron speciation proxy, samples analyzed under an older dithionite-only extraction protocol, samples from a Lower Cambrian mineralized horizon in South China, and samples with high abundances of Acid Volatile Sulfide were removed. In the second, regions with low data coverage (5 or fewer samples) were removed. In the third, time bin 1 only contained data from the Mesoproterozoic (1600-1000 Ma). For the sensitivity analyses, only the most appropriate test was performed based on the normality of the data.

Loess regression-

To further explore changes in iron geochemical data through time, all data points were plotted without binning for time or geographic region and analyzed using a loess regression (Figure S1). Data are plotted in binary fashion as 1 (anoxic) and 0 (oxic) as

FeHR/FeT ratios do not have meaning without reference to baseline values[19]. In other words, a ratio of 0.8 is not 'more anoxic' than a value of 0.6, as anoxic implies zero oxygen. With respect to the oxic region of iron speciation space, the FeHR/FeT ratios of modern dysoxic samples covers the entire spectrum of FeHR/FeT ratios of fully oxygenated samples[19] and therefore a sample cannot be interpreted as 'more oxic' based on a lower FeHR/FeT ratio.

The results of this analysis are instructive in demonstrating that completely unbinned data do not support an Ediacaran-Cambrian oxygenation event. However, such an approach also illustrates the difficulties of using unbinned data—specifically that a large number of data points from one region can unduly influence the signal. Most obviously, the large number of oxic samples in the Devonian of upstate New York are responsible for the impressive downturn in the loess regression for the proportion of anoxic samples at the youngest end of the graph (Fig. S1A and B versus C). Nonetheless, the loess regression is consistent with the geographically binned analysis and indicates that analysis of all data unbinned for time or geography does not reveal an obvious Ediacaran or Cambrian oxygenation event.

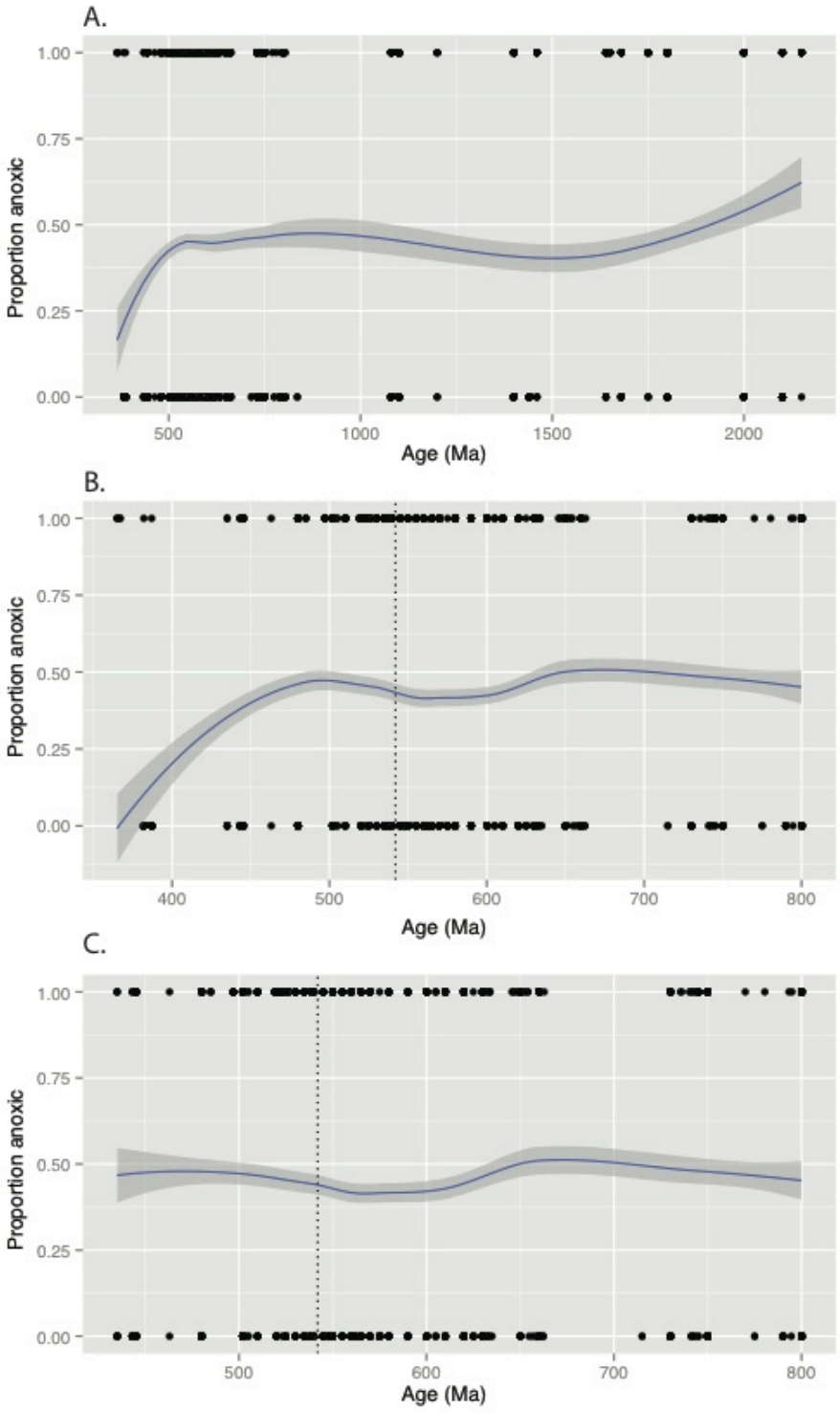


Figure S1: All data plotted without binning for time or geography and analyzed using a loess regression. 1= anoxic (FeHR/FeT > 0.38), 0 = oxic (FeHR/FeT < 0.38). A) All data plotted. B) All data from 800 – 365 Ma plotted. C) All data from 800 Ma to end-Silurian plotted. This removes Devonian data points from Boyer et al., 2011 (ref. 58) and Dahl et al., 2010 (ref. 28; note only four samples), demonstrating that the dramatic decrease in the proportion of anoxic samples

in A) and B) in the loess regression at the younger end of the plot is driven mainly by the large number of oxic samples in the single study by Boyer et al. 2011 (ref. 58). Vertical line in B) and C) represents Ediacaran – Cambrian boundary at 542 Ma.

Resampling analyses-

Finally, we probed the absence of significant change in Ediacaran-Cambrian Fe-speciation data by creating 1000 synthetic replicates each containing ten randomly selected samples from each region in these bins (Fig. S2). From these synthetic datasets we observe that the distribution of anoxic samples in the Cambrian dataset is indistinguishable from the Ediacaran (Wilcoxon: Chi Square = 0.48, $p = 0.49$), consistent with the results in Fig. 1A in the main text.

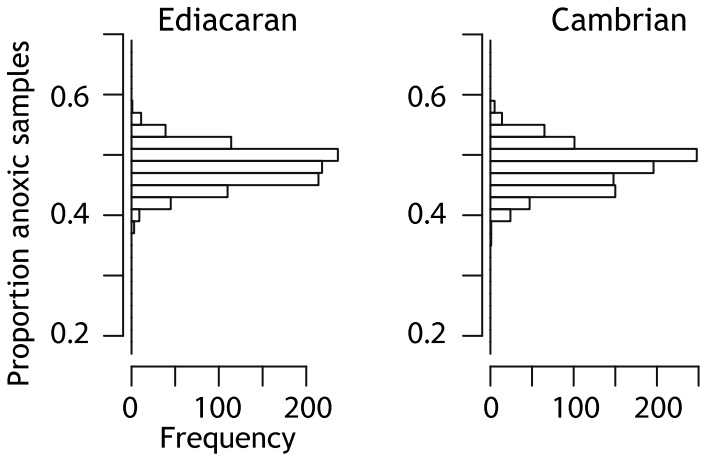


Figure S2: Histograms of sub-sampling analyses of the proportion of anoxic samples from the Ediacaran and Cambrian time bins. 1000 replicates from each bin contain ten randomly-selected samples from each region.

Some final thoughts on iron geochemical sampling through time-

One possible systematic effect that may affect these data is sampling differences between the Phanerozoic and Proterozoic. Without any body- or trace-fossil evidence constraining redox state, Proterozoic samples are generally collected at regular intervals through a stratigraphic succession. Phanerozoic sampling tends to focus on black shales, or intervals where the biota signals dysoxic or anoxic conditions; indeed, most of the data in the Ordovician-Devonian bin is of this nature (Table S2 and Database S1). It is possible that the lack of statistical change in the proportion of anoxic and oxic samples between the Ordovician-Devonian bin and the other bins is due to this systematic bias. Consequently, the <40% PAL constraint in Figure 3 in the main text was not extended across the Ordovician. Much of the Cambrian data, however, specifically data from Namibia, Mongolia, northwest Canada, south China and the western United States, was collected in an analogous fashion to the Proterozoic, and where well-sampled regions can be compared across the Ediacaran-Cambrian transition they do not change in geochemical character[16]. Ultimately more data, and data collected to test specific biases,

will be required to fully understand the influence of random and systematic error, but given current sampling, the absence of iron speciation evidence for Ediacaran or Cambrian oxygenation cannot be ascribed to any known bias.

4. Statistical analysis of Uranium/TOC data

To investigate the signal in Uranium/Total Organic Carbon (TOC) ratios as compared to iron speciation for the Neoproterozoic-Paleozoic interval, we analyzed the well-vetted sedimentary U dataset of Partin et al.[6]. This dataset has been filtered to only contain shales that were likely deposited under anoxic condition (using Fe/Al ratios and other independent proxy information) and hence can give insight into authigenic uranium enrichments through time. As these enrichments scale with uranium concentrations in seawater, which is itself controlled by the total size of the seafloor covered by reducing sinks, U/TOC ratios can track the global seafloor redox landscape.

The original study[6] investigated how U/TOC ratios changed over ~3.5 billion years of Earth history, and hence the analyses used extremely long-duration age bins. The questions regarding oxygenation posed in this paper are focused on the Neoproterozoic-Paleozoic, and so our re-analyses used Neoproterozoic, Cambrian-Silurian and Devonian-Permian bins. Using finer bins increases age resolution but reduces the sample number and geographic representation of samples. While finer temporal binning is of course possible, even the binning scheme adopted here results in some time bins being dominated by particular geographic areas. For instance, in both the Neoproterozoic and Cambrian-Silurian bins, ~56% of samples come from the Neoproterozoic Doushantuo Formation in South China and the Upper Cambrian Alum Shale in Sweden. As there are clear basin-level influences of trace metal enrichments[27], fine-scale temporal binning where each bin is dominated by one region leaves open the possibility of tracking local rather than global values. We note that these analyses were undertaken in order to test the possibility that there may some signal of continuing oxygenation throughout the Paleozoic, rather than a full interrogation of trace metal datasets, and view these bins as sufficient to address this question.

As in the original study[6], we filtered samples based on independent evidence of anoxia and TOC > 0.4 weight percent, which reduces the number of anomalously high U/TOC ratios in TOC-lean rocks. The U/TOC ratios in each bin were tested for normality, and appropriate statistical tests applied based on normality. Specifically, all bins were found to significantly reject normality ($p < 0.0001$) and so Kruskal-Wallis tests were used to test for significance and pairwise Wilcoxon tests were used to compare significant differences between bins. These analyses demonstrate statistically significant increases in U/TOC ratios between these time bins, and these differences remain significant after Bonferroni correction. The mean values for bins 2 and 3 are not dramatically different, indicating that the difference between bins is due to changes in the distribution rather than a simple increase to all values in the distribution (this can also be seen by the much larger standard deviation for bin 3). Standard boxplot analyses (Fig. S3) indicates this is due to a number of high U/TOC ratios in bin 3. Although inference tests incorporating sampling density are preferred for identifying differences between bins (see

main text), qualitative observations such as Fig. S3 do indicate a higher number of enriched outlier values in bin 3 compared to bin 2.

It is worth noting that some analytical choices made during analyses of the U/TOC dataset can affect these results. Most notable is the effect of removing the TOC > 0.4 weight percent filter (keeping the requirement for evidence of anoxia). In this case, the Neoproterozoic has significantly higher ratios than the Cambrian-Silurian (Wilcoxon test, $p = 0.0025$). The cause of this is immediately clear when investigating the data table of Partin et al. (ref. 6)—many of the Neoproterozoic rocks have very low TOC contents, often <0.05 weight percent. Error on such small measurements will be high, and when dividing an ~crustal value by a potentially erroneous very small TOC value, the result is a likely erroneous and rather meaningless U/TOC ratio. For instance a sample from the 720 Ma Gongdong Fm. has 1.31 ppm U, 0.01 weight percent TOC, and a resulting U/TOC ratio of 131—higher than essentially any Phanerozoic value. Thus, a TOC filter is reasonable, but given the relatively low TOC contents of Neoproterozoic shales in that database, a lower value may be more appropriate. Likewise, the Fe/Al cut-off of 0.5 used for detecting anoxia is well within the Phanerozoic 'normal' oxic shale value of 0.53 ± 0.11 (ref. 63). We bring up these points not to disagree with the well-justified conclusions of Partin et al. regarding sedimentary U contents of anoxic shales through time, but rather to highlight that there is considerable texture in these records that should be considered as the field moves towards addressing finer-scale questions. Continued generation of both trace metal and iron speciation data and continued interrogation of these records in a statistical framework will lead to an increasingly sophisticated view of ancient redox landscapes as informed through the lens of different proxy records.

U/TOC ratios of anoxic shales with TOC > 0.4%

Bin	**Age (Ma)**	Samples in bin	Mean	Standard Dev.
1	1000-543	97	3.68	4.39
2	542-419	140	9.15	9.73
3	418-252	443	9.86	17.81

Shapiro-Wilk W test. Small p-values reject normal distribution

	Bin 1	Bin 2	Bin 3
Age:	1000-543	542-419	418-252
Samples in bin	97	140	443
P	<0.0001	<0.0001	<0.0001

Kruskal-Wallis test

Chi Square	DF	P
75.53	2	<0.0001

Pairwise Wilcoxon method	P
bin 1 and 2	<0.0001*
bin 1 and 3	<0.0001*
bin 2 and 3	<0.0001*

Table S5: Analysis of U/TOC dataset of Partin et al.[6] binned into Neoproterozoic (1000-543 Ma), early Paleozoic (542-419 Ma) and late Paleozoic (418-252 Ma) bins. P-values in red for Kruskal-Wallis and Wilcoxon tests indicate values <0.01. Asterisks indicate significance after Bonferroni correction.

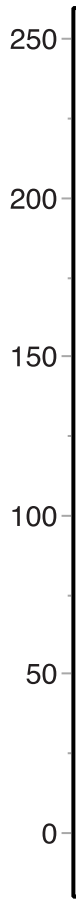


Figure S3: Standard box plot analyses of U/TOC dataset of Partin et al.[6] binned into Neoproterozoic (1000-543 Ma), early Paleozoic (542-419 Ma) and late Paleozoic (418-252 Ma) bins. Red central line = median; box = interquartile range from first to third quartiles; whiskers = 1.5 x interquartile range; jittered points = outliers above 1.5 x interquartile range. Bin 3 has more enriched outlier values and higher overall values than bin 2. Note that bin 3 has ~three times more samples than bin 2, though, and increased sampling density will result in more sampling of enriched values. Consequently, quantitative inference tests are preferable to qualitative plots, although in this case each returns similar results (Table S5).

5. New analyses

In this study, a total of 842 samples were analyzed for their iron speciation values. The location, age, and depositional environment of each sample set are described below. References to locality maps and sedimentological/stratigraphic information are given for sections that have been published in the literature. For new sections, the GPS coordinates

for the base of the section and the meter height of a formational boundary or other reference point are given.

Wernecke Mountains, northwestern Canada

F851 and W8 sections

Locality Information- Dark grey to green shale and siltstone were sampled from the Mt. Profeit Dolostone and interfingering 'grit' units below the Goz A section in the Wernecke Mountains (see locality maps[64-66]). The W8 section consists of two thrust slices with meters 408 to 842 stratigraphically below and thrust over meters 0 to 408. The F851 section is a parallel section to meters 408 to 842 of W8. Environment- Shale and silt were deposited in graded beds as turbidite flows on a northeast facing paleoslope (present coordinates) adjacent to the Mt. Profeit Dolostone, which formed on a paleo-high to the southwest. Paleoslope derived from slump folds was to the northeast, but paleocurrent flow derived from solemarks of turbidites was to the southeast[66]. These features suggest deposition in a southeasterly deepening basinal trough that was parallel to the Snake River Fault. Age- The Mt. Profeit Dolostone and grit rest unconformably on fanglomerate and diamicite of the Raptian Group. Stratigraphy equivalent with the 662.4±3.9 Ma basal Twitya cap carbonate[68] is not present. The Mt. Profeit Dolostone and grit are unconformably overlain by the Ravensthroat basal Ediacaran cap dolostone, which has been dated globally at ca. 635 Ma[69-71]. Thus, we infer that the Mt. Profeit Dolostone and grit are broadly correlative with the upper Twitya Formation and the Keele Formation in the Mackenzie Mountains and were deposited between 662 and 635 Ma.

W-11 section

Locality Information- Black to maroon colored shale were sampled from the Sheepbed Formation and June beds at the Goz B section in the Wernecke Mountains (see locality maps[64-66]). The base of the section starts with the Ravensthroat cap carbonate and 0 to ~200 m are in the Sheepbed Formation, and 200 to ~600 m are in the June beds. Environment- Section is plotted and described in ref. 45. These strata were deposited below wave base, predominantly as fissile black shale, but also including minor carbonate debrites and coarse siliciclastic grain flows. Age- The Sheepbed Formation was deposited during the earliest Ediacaran in the ca. 635 Ma[69-71] post-Marinoan glacio-eustatic sea-level rise. The Sheepbed Formation is unconformably overlain by the June beds and it is unclear how much time is missing. Macdonald et al. (ref. 66) suggested that the unconformity could be related to the Gaskiers glaciation or late Ediacaran extension on the western margin of North America and that the June beds were deposited between ca. 580 and 560 Ma.

W-15 section

Locality Information- Dark grey to black shale and siltstone were sampled from the Blueflower Formation at the Goz B section (see locality maps[65,66]). Environment- Section is plotted and described in ref. 66. The Blueflower Formation in the Wernecke Mountains formed near storm wave base in two broad transgressive sequences sandwiched by high-stand and low-stand systems tracts. Hummocky cross-stratification is present in the

uppermost Blueflower Formation, and *Planolites* trace fossils are present in the lower and middle Blueflower Formation. Age- The Blueflower Formation contains Ediacaran fossils *Aspidella* and *Beltanelliformis*[64] and was deposited above a carbon isotope anomaly in the Gametrail Formation that has been correlated with the Shuram carbon isotope excursion[66]. These correlations suggest that the Blueflower Formation was deposited during the late Ediacaran between ca. 551 and 542 Ma.

J1218 section

Locality Information- Shales were sampled from the earliest Cambrian succession at the Goz D section (see locality maps[64-66]). The section begins in the upper Risky Formation, with the unconformable Risky-Ingta contact at 19.5 meters. The base of the section is located at N64° 33' 35.3", W132° 58' 55.1". Environment- Sampling was focused on the ~40 meter thick black shale above the Ingta phosphatic carbonates; these shales were deposited beneath storm wave-base. Age- The basal Ingta Formation at this locality includes a phosphatic horizon with earliest Cambrian small shelly fossils including *Protohertzina* and *Anabarites*[65,72]. In previous publications[64-65,72] the black shale above the phosphatic horizon has been referred to the Vampire Formation. However, as the Vampire Formation is regarded as correlative with the Upper Member of the Backbone Ranges Formation[73], and the dark shale at Goz D sits stratigraphically beneath a thick shallow-water sandstone-dominated unit reminiscent of the Backbone Ranges Formation elsewhere, this designation may not be correct. Regardless, sandstone beds at the top of this shale package include early Cambrian trace fossils such as *Treptichnus*, *Rusophycus* and *Cruziana*[64-65,72], which along with the small shelly fossils establish it as Early Cambrian in age.

S1203, S1206 and S1208

Locality Information- Spot collections of shales were made from the Blueflower Formation at the Goz D locality (see locality maps[64,65]) where unfortunately exposure was too scarce for continuous sampling. A stratigraphic column for the Goz D section can be found in ref. 66. Section S1203 (2 samples) begins at the Gametrail-Blueflower contact, as does Section 1206 (3 samples), so both sample sets are from the basal Blueflower. Section S1208 (4 samples) was collected from the uppermost Blueflower ('Disc Member' of ref. 64) and is floating with respect to stratigraphic marker horizons as there is cover above and below. Environment- S1203 and S2106 are from the Yuletide member of the Blueflower as defined by ref. 64. These sections show abundant evidence for rip-ups and mud-cracks indicating very shallow water deposition. S1203 samples from the very base of the Blueflower do not show these indicators (although exposure is spotty) and so are classified as outer shelf, while S1206 is inner shelf. S1208 is located in the 'Disc member' and consists of dark shale and silt interbedded with rare, lenticular sands, and represents an outer shelf environment. Age- Based on carbon isotope stratigraphy[66] and the presence of Ediacaran body fossils in the Disc member[64] these samples likely span the mid-Ediacaran (~570 Ma, S1203) to the late Ediacaran (~550 Ma, S1208).

Mackenzie Mountains, northwestern Canada

F1161, F1162, F1163, F1164, F1165, J1128 sections

Locality Information- These sections are located at Sekwi Brook in the central Mackenzie Mountains. Locality maps and detailed information on the sedimentology and stratigraphy of these sections can be found in ref. 66. Environment- All sections record deep-water deposition beneath storm wave-base. Age- Section F1165 covers black shales and siltstones beneath an unconformity that has been tentatively correlated with the ~580 Ma Gaskiers glaciation (see discussion in ref. 66). Sections F1161 and F1162 cover the informally-named June beds, which sit above the unconformity surface and have yielded Ediacaran macroscopic fossils[74]. Sections F1163 and F1164 cover the transition from the Gametrail Formation into the overlying Blueflower Formation, which includes simple bilaterian traces[75]. Section J1128 includes the upper Blueflower Formation, which shows an increasing diversity and size of bilaterian traces[75]. Although direct age constraints are not present, based on stratigraphic position and body and trace fossil assemblages, the June beds are likely mid-Ediacaran and the Blueflower Formation is likely late Ediacaran in age.

F1159 section

Locality Information- This section is located at June Lake in the central Mackenzie Mountains. The section begins in the middle of the Blueflower Formation and ends at the apparent base of the Risky Formation (although the contact is gradational and conformable) at 946 meters. The top of the section is at N63° 28' 14.23", W128° 41' 08.40". A locality map (as section A) can be found in ref. 76 and a stratigraphic column for this section can be found in ref. 66. Although this section is nearly one kilometer thick, samples analyzed in this study come from the upper 200 meters below the Risky Formation. Environment- The Blueflower Formation gradually shoals from deep-water turbidite deposits to beds with indicators of wave-activity, such as hummocky cross-stratified sands. Such wave indicators increase towards the base of the Risky but are relatively rare. The samples from this section are considered outer shelf. Age- Ediacaran body fossils are found in the Blueflower Formation elsewhere in the central Mackenzie Mountains[74] and in conjunction with carbon isotope stratigraphy[66] and the stratigraphic position close to the Risky Formation the analyzed samples are likely late Ediacaran in age.

J1125 section

Locality Information- This section is located at June Lake in the central Mackenzie Mountains. A locality map (as section A) and general stratigraphic column can be found in ref. 76. The J1125 section begins in the very uppermost Blueflower Formation, with the base of the section at N63° 28' 42.9", W128° 31' 08.5". The contact with the Risky Formation is conformable and gradational, and the unconformable Risky-Ingta contact is at 83.1 meters. The ^{13}C isotope excursion recorded by ref. 77 is in intraformational conglomerates from 116.3 to 124.0 meters. Environment- The Ingta Formation at this locality is mainly dominated by shale and siltstones, with occasional beds of hummocky cross-stratified sandstone beds, suggesting deposition in an outer shelf environment. Age- Based on carbon isotope stratigraphy and trace fossil assemblages, the Precambrian-Cambrian boundary on the June Lake panel has been suggested to lie low in the Ingta

Formation, likely around parasequence 2 (refs. 75, 77). Thus this section spans the latest Ediacaran and earliest Cambrian.

S1305, S1306 and N13-6 sections

Locality Information- These sections are located at Ingta Ridge in the central Mackenzie Mountains, approximately 20 kilometers south of June Lake. This is the type section of the Ingta Formation[78]. Published stratigraphic sections for this area can be found in refs. 76 and 78. Because beds are overturned, all sections were measured stratigraphically downward. The base of S1306 is at the top of the Backbone Ranges carbonate at N63°20'38.1", W128°38'09.2". Section S1306 measured down-section through the lower Backbone Ranges Formation, and into the Ingta Formation, with the unconformity at the top of the Ingta Limestone at 67.1 meters. The top of Simple Sequence 1 of ref. 76, which is also the top of S1306, is at 268.7 meters. This is also the base of section S1305, which measures downward through Simple Sequence 1 of the Ingta Formation to the unconformable contact with the Risky Formation at 61.8 meters. Note that stratigraphic heights for the Ingta and Backbone Ranges are much thinner than in ref. 76 but correspond well to those in ref. 78. Section N13-6 measures downward from the base of the Risky Formation through the upper Blueflower Formation. Environment- The upper Ingta Formation (Simple Sequences 2-5 of ref. 76) shows abundant current-rippled sandstones and silts and other indicators of a shallow, inner shelf environment. These are lacking in Simple Sequence 1, which also contains rare slump folds[78], suggesting a more distal, outer shelf environment for S1305. Similar to section F1159 at the June Lake section to the north, the uppermost Blueflower here is a shoaling sequence representing the transition from a basinal turbidite system to an outer shelf environment. Age- As at June Lake, the uppermost Blueflower is late Ediacaran in age, the Precambrian-Cambrian boundary likely lies near the Simple Sequence 1-Simple Sequence 2 boundary in the Ingta Formation[75], and the remainder of the Ingta Formation is earliest Cambrian in age.

BFTW section

Locality Information- Cryogenian (inter-glacial) shales of the Twitya and Ice Brook formations were sampled at the BFTW section near Bluefish Creek. The base of the section is at N64°01'44.2", W128°48'45.9". 25.4 meters in section corresponds to the contact between the Rapitan Group (Sturtian-age glacial deposits) and the Twitya Formation. The top of the section is at the base of the Stelfox Member of the Icebrook Formation (Marinoan-age glacial deposits). The macroscopic 'Twitya disc' fossils[79] occur near the top of the section in what has been mapped as the lower members of the Ice Brook Formation[80]. Environment- The base of the section consists ~100 m of dark, fissile shale. The section then transitions to interbedded turbiditic shale, siltstone and fine sandstone for ~400 m. At 587 m, the lithology becomes increasingly more coarse-grained with common load structures and convoluted bedding, and large grit channels are present, likely marking the base of the Ice Brook Formation. The grits dominate for ~100 m. The top ~300 m of section consists of sandy turbidite beds with well-defined bases. There are no storm-wave indicators, and combined with the paleogeographic position towards the Selwyn Basin, all samples are interpreted as basinal. Age- The base of the Twitya Formation has been dated elsewhere in the Mackenzie Mountains using Re-Os dating at

662.4 ± 3.9 Ma[68]. The top of the section must be <635 Ma based on the presence of the presumed Marinoan-age Ravensthroat cap carbonate above the Icebrook diamictite. Additional notes- Some small faults with an estimated ~5-10 meters of offset cut the upper part of the succession but are difficult to trace due to a lack of marker beds. Additionally, although the finest-grained lithologies available were sampled, the seven samples above the base of the grit channels at ~590 m are coarser-grained (silt to fine sand) than those generally sampled for iron speciation studies.

Ogilvie Mountains, northwestern Canada

F836, F1011, J1018 sections

Locality information- Shales were sampled from the Callison Lake Dolostone at three sections. Locality maps for F836 and F1011 are found in ref. 81. The base of section J1018 is at N64° 39' 47.5", W139° 23' 50.7". Environment- Despite a formational name indicating a dominantly carbonate composition, two shale intervals, approximately 10-30 meters thick, are present at the top and bottom of the Formation. The shales in the Callison Lake Dolostone are generally from relatively shallow-water environments, with the F1011 and most of F836 sections representing inner-shelf type environments, and J1018 and F836- 895 m and 898m samples representing outer shelf. Age- The age of the Callison Lake Dolostone is constrained by a Re-Os age of 739.9 ± 6.1 Ma in the upper shale horizon and the presence of Vase-Shaped Microfossils[82]. Additional notes- As the Callison Lake Dolostone sits with angular unconformity on older units[81], it represents a different basin-forming event, and is therefore considered separately from iron speciation data in older stratigraphy in the Ogilvie Mountains in the Fifteenmile Group (e.g. ref. 23).

F838 and F842 sections

Locality information- Locality maps and stratigraphic columns for the F838 and F842 sections can be found in ref. (81). Environment- The black shale in F838 shows no evidence for wave or current activity and was deposited beneath storm wave base. The F842 section has 3 samples at 135 m, 227 m and 229 m. Sample 135 is a black shale interbedded with nodular limestone that was deposited below storm wavebase. Samples 227 and 229 were deposited in a sequence that includes cross-bedded sandstone that formed above wave base. Age- The F838 section begins above a white dolostone presumed to be a ca. 635 Ma Marinoan-aged cap carbonate and has been correlated with the Sheepbed Formation. The sampled black shale is unconformably overlain by a brecciated dolostone and a hummocky-cross stratified pink dolomite that records a large-magnitude negative carbon isotope excursion correlated with the mid-Ediacaran Shuram anomaly[66]. Thus, the sampled black shales are early Ediacaran in age. The base of section F842 is the brecciated dolomite, which lies above the black shale that is correlated with the Sheepbed Formation. The sample at 135 m is from the shale directly above the Shuram anomaly and is tentatively correlated with the uppermost Gametrail Formation or the Blueflower Formation[66], and is thus late Ediacaran in age. Samples 227 and 229 are from unit PH5, which contains Early Cambrian trace fossils[83] and has been correlated with the Backbone Range Formation in the Mackenzie Mountains[66].

Svalbard and East Greenland

G155 section

Locality Information- The base of this section is at N79º58.0', E18º37.7', on the Krystalfjellet Peninsula in eastern Murchisonfjord, Nordaustlandet. This section is within an east-dipping panel of the Svanbergfjellet Formation and the collected samples are from the maximum flooding interval within a 13 m-thick shoaling upward sequence that marks the carbon isotope recovery from the Bitter Spring anomaly at the base of the informally defined lower limestone member (Svanberfjellet member 2). Here, 0.4-thick m of black shale grade upwards into green, then tan and green shale, which is then overlain by 6.8 m of *Conophyton* stromatolites. This sequence overlies a succession of dominantly ribbon-bedded carbonates with minor grainstone. Environment- The black shales were deposited at or just below storm-wave base on a carbonate ramp during a transgression that followed subaerial exposure. Age- Based on correlation of the Bitter Springs anomaly in Svalbard with what is inferred to be the same anomaly in the Fifteenmile Group, Ogilvie Mountains, Yukon and an age model developed for that succession[81], these samples are estimated to be ca. 802 Ma.

G306 section

Locality Information- The base of this section is at N79º05.0', E18º26.6', on the Dracoisen nunatak in Ny Friesland. It corresponds to section 4 in ref. 84. The section begins on a north-facing slope at the base of the Dracoisen Formation. All samples analyzed here are from the Member 2 of the Dracoisen Formation, which comprises a shoaling-upward shale–silt sequence above the basal Dracoisen cap dolostone and is capped by an exposure surface. Environment- Analyzed samples are from an interval of black to dark grey shales deposited below storm-weather wave base on what is interpreted to be a broad, thermally subsiding continental platform. Age- Assuming the Dracoisen Formation includes the basal Ediacaran cap carbonate, then the base of the Dracoisen is approximately 635 Ma. Dracoisen member 2 is interpreted to be between 635–630 Ma.

G406 section

Locality Information- The base of this section is at N79º56.2', E18º19.7', east of Sveanor on the south coast of Murchisonfjord in Nordaustlandet. This section is from the the Russøya member, which comprises the basal Elbobreen Formation of the Polarisbreen Group, corresponding to measured section 7 in ref. 84 and MS7 in ref. 85. The collected black shale samples are from an 85 m-thick interval of black limestone ribbonites with molar tooth structure and interbedded rhythmite and black shale within the middle of a 145 m-thick shoaling upward sequence. Sample heights are in m's above the 79 m level. This sequence occurs beneath the Sturtian-equivalent Petrovbreen Member glacial deposits. Environment- The black shale in this sequence was deposited at or just above storm wave base on a carbonate ramp. Age- These rocks are inferred to be ~740 Ma based on a thermal subsidence model calibrated with correlated ages.

G407 section

Locality Information- The base of this section is at N79º53.5', E18º29.3', southeast of Backaberget on the south side of Murchisonfjord in Nordaustlandet. It lies within a nearly complete west-dipping panel of Akademikerbreen–Polarisbreen strata. The samples are from the middle–lower Macdonaldryggen Formation, whose base is at 188 m in the section. Samples are black shale samples within an overall dark grey muddy siltstone. Environment- The shales were deposited at or below storm wave base on a broad mud-dominated platform. Age- Based on correlations of glacial successions, the age of the Cryogenian interglacial Macdonaldryggen Member is estimated to be ca. 660 to 645 Ma. These samples are estimated to be about 655 Ma.

G411 section

Locality Information- The base of this section is at N79º53.5', E18º29.3', aprroximately 0.5 km to the northwest of section G407, southeast of Backaberget on the south side of Murchisonfjord in Nordaustlandet. The samples are from the lower Dracoisen Formation, whose base is 0 m in the section. The Dracoisen Formation includes the cap carbonate sequence, which overlies the Marinoan Wilsonbreen Formation. The Dracoisen cap dolostone in this section is 6 m-thick. Samples are black shale from Member 2 of the Dracoisen Formation. Environment- These shale samples were deposited at or below storm wave base on a broad mud-dominated platform, following the post-glacial transgression and maximum flooding. Age- Assuming the Dracoisen Formation includes the basal Ediacaran cap carbonate, then the base of the Dracoisen is approximately 635 Ma. Dracoisen member 2 is interpreted to be between 635–630 Ma.

G419 section

Locality Information- The base of this section is at N79º56.46', E18º17.73' near the south Murchisonfjord coastline at Sveanor. Samples are from the uppermost Macdonaldryggen Member, with the 0 m datum marking the base of the overlying Slangen Member and the section measured downward from that datum. This section is mixed black silty shale and grey siltstone. It grades upwards into muddy limestone ribbons. Environment- The upper Macdonaldryggen Member in this location was deposited above storm wave base on a thermally subsiding platform during a transition from a dominantly siliciclastic to carbonate environment. Age- the samples are estimated to be ca. 645 Ma based on the fact that they occur just below the Slangen Member, which lies beneath the Marinoan Wilsonbreen Formation, but is presumably separated by a disconformity.

G426 Section

Locality Information- These samples were collected from an exposure of the Raudstupet-Sälodden Formation of the upper Veteranen Group to the southeast of Eltonbreen glacier on the north coast of Wahlenbergfjorden, Nordaustlandet at N79º48.2', E18º34.6'. The samples are from a black pencil shale located 25 m below a quartzite in the upper Veternanen (exact stratigraphic height unknown). Environment- This shale is inferred to have been deposited below storm wave base on a siliciclastic margin near the time of the rift-drift transition. Age- The Veteranen Group is constrainted to be younger than about 940 Ma and older than 811 Ma (based on correlation of the

Bitter Springs anomaly in the overlying Grusdievebreen Formation) with the Fifteenmile Group in the Yukon Territory, Canada[81]. Thermal subsidence modeling suggests an age ca. 835 Ma for the upper Veteranen Group.

G435 section

Locality Information- The top of this section is at N79º48.8', E18º36.2', 1.5 km south of the Forsiusbreen glacier near Gimleoden in western Nordaustlandet. It lies on the east side of a syncline cored by the Dracoisen Formation. Samples are from the middle–upper Macdonaldryggen Member, with the 0 m datum marking the base of the overlying Slangen Member and the section measured downward from that datum. This section is mixed black silty shale and grey siltstone. Environment- The middle–upper Macdonaldryggen Member in this location was deposited below storm wave base on a thermally subsiding siliciclastic platform. Age- the samples are estimated to be ca. 650–645 Ma based on the fact that they occur just below the Slangen Member, which lies beneath the Marinoan Wilsonbreen Formation, but is presumably separated by a disconformity.

G436 section

Locality Information- The base of this section is at N79º48.6', E18º34.6', 1.5 km south of the Forsiusbreen glacier near Gimleoden in western Nordaustlandet and 1 km west of section G435. Samples are from the lower Dracoisen member 2, with the 0 m datum marking the base Dracoisen Formation. The samples are from an interval of black shale grading up to silty black shale. Environment- The middle–upper Macdonaldryggen Member in this location was deposited below storm wave base on a thermally subsiding siliciclastic platform. Age- Assuming the Dracoisen Formation includes the basal Ediacaran cap carbonate, then the base of the Dracoisen is approximately 635 Ma. Dracoisen member 2 is interpreted to be between 635–630 Ma.

G471 section

Locality Information- The base of this section is at N80º09.1', E18º20.1' on the northern Storstein peninsula in northeastern Nordaustlandet. The section spans the sequence boundary that marks the end of the Bitter Springs negative carbon isotope anomaly, as in section G155. The black shale samples are from the lowermost part of a shoaling upward sequence that is 19.6 m thick and overlies an exposure surface. The black shales sit above 3.3 m of silty green shale and mark the maximum flooding interval of the sequence. Environment- The black shales were deposited at or just below storm-wave base on a carbonate ramp during a transgression following subaerial exposure. Age- Based on correlation of the Bitter Springs carbon isotope excursion in Svalbard with what is inferred to be the same anomaly in the Fifteenmile Group, Ogilvie Mountains, Yukon[81] and an age model developed for that succession, these samples are estimated to be ca. 802 Ma.

G512 section

Locality Information- The base of this section is on a steep slope of shallowly dipping Svanberfjellet Formation on the western edge of Klofjellet nunatak in Olav V Land, Spitsbergen, at N78º50'44.5", E18º06'24.2". This section is entirely within

Svanbergjellet member 3 (Upper Algal dolomite) and the base of the section is at the top of a prominent stromatolite biostrome. The black shales grade vertically into limestone rhythmites and dolomite ribbonites. Environment- Here the black shale occurs within the lower parts of poorly developed shale-to-carbonate parasequences, the lower part of which appears to have been deposited below storm wave base during a rare muddy interval in the otherwise carbonate-dominated Akademikerbreen Group. Age- Based on an age model developed for Svalbard, the upper Svanbergfjellet member 3 is ca. 795 Ma.

G521 section

Locality Information- This section was measured on the southwestern edge of the Backlundtoppen nunatak in Olav V Land, Spitsbergen at N78º42'48.3", E18º12'43.7". The section is of the lower–middle Russøya Member, where it overlies a karstified surface of the underlying 'Dartboard Dolomite,' which forms the top of the Akademikerbreen Group. The lowermost Russøya member here a thick-bedded grey limestone, which transitions upward to marly dolomitic shale, then black shale. The datum of the section is the top of the limestone. The black shale transitions upward into brown dolomitic silty shales. Environment- The lower-middle Russøya black shales occurs within the maximum flooding interval within a single, ≤150 m-thick parasequence that marks the transition from the Akademikerbreen to Polarisbreen groups. The shale is inferred to have been deposited on a mixed carbonate-siliciclastic ramp below storm wave base. Age- Based on an age model developed for the Polarisbreen and Akademikerbeen using correlated ages, this part of the Russøya member is estimated to be ca. 743–740 Ma.

East Greenland

Section GR12

Locality Information- This section was measured on the northern part of Ella Island in the East Greenland Fjordland, at N72º52'46", W25º07'56". The section is of the interglacial Arena Formation, which is equivalent to the Macdonaldryggen Formation in East Greenland. Here, the Arena Formation is mostly covered, but exposed section includes fine sandstone, siltstone, and grey to black shale. The base of the section (0 m) is the base of the Arena Formation. The analyzed black shale samples are from the lower part of the formation, which contains minor calcite cement and grades upward into fine, green sand with mud chips. Environment- The lower Arena Formation was deposited below storm wave base on a broad, thermally subsiding platform. The uppermost analyzed sample (GR12-64.5) comes from an interval with interbedded ripple cross-laminated silts, suggesting deposition near or above storm wave base. Age- Similar to the Macdonaldryggen Member in Svalbard, the lower Arena Formation is estimated at ca. 660–655 Ma.

House embayment, USA

DM1, DM3, MP, SQ, UDQ sections

Locality information- Shales from the Wheeler Shale Formation were sampled from three stratigraphic sections in the Drum Mountains (DM1 and DM3) and House Range

(MP, SQ, UDQ1 and UDQ2) of western Utah. DM1: base of section N39° 30'48"/ W112° 59'22". DM3: base of section N39° 30'43"/ W112° 59'57". MP: base of section N39° 14'40"/ W113° 22'26". SQ: base of section N39° 19'7"/ W113° 17'7". UDQ: base of section N39° 21'15"/ W113° 16'43". Environment – The Wheeler Shale represents initial deposition in an embayment that developed on the carbonate platform during late Stage 5 to Drumian Stages Cambrian[86]. The sections in the Drum Mountains represent distal carbonate ramp and deeper shale facies[86-88]. The House Range sections contain predominantly deeper water shale facies. Broadly the shale facies show little evidence for wave action and commonly contain wavy or parallel laminar fabrics[89,90]. Age – Drumian Stage of the Cambrian (504.5 to 500.5 Ma). The DM1 section contains the GSSP for the base of the Drumian Stage[91].

Death Valley, USA

E1101 and E1102 sections

Locality Information- Shales were sampled from the E1101 and E1102 sections at Saratoga Spring in the southern Death Valley region. Detailed information on the geology of the region and these sections can be found in ref. (92) and references therein. A locality map of the E1101 section and a description of the stratigraphy can be found in ref. 92. E1102 is located ~1 km to the south of E1101 (base of section N35°40'54.2", W116°24'51.9") and covers the transition from the Beck Spring Formation into the Kingston Peak Formation, with the Formation boundary at 59.3 m. Environment- These sections span the Horse Thief Spring Formation, the Beck Spring Formation, and the Kingston Peak 1 (KP1) member. At Saratoga Spring, siliciclastic sediments in the Horse Thief Spring and Beck Spring formations represent very shallow water deposition and are interbedded with microbial carbonates including teepee structures and minor karsting. The top of the Beck Springs Formation is a gradual transition across a flooding surface to thin turbiditic sandstone with rare dolomite lenses of KP1. These are interpreted as deposited in a prodelta setting beneath storm wave base. Age- The Horse Thief Spring Formation contains ~770 Ma detrital zircons[93], which provide a minimum age for the unit, and the Kingston Peak 1 member sits uncomformably beneath glaciogenic rocks correlated with the ~720 Ma Sturtian glaciation[94]. Additional notes- Although the finest-grained lithologies were always sampled, many of the samples in the E1101 section represent coarser-grained lithologies (silt to fine sand) than are generally analyzed in iron speciation studies.

Urals Region, Russia

Vostok Askinsky-1 core (VA)

Locality Information- This core was sampled at the core repository in Ufa, Russia. Detailed information on this core is found in ref. 95. Environment- The sediments sampled are relatively thin (<5 meters stratigraphic thickness) black shales that are interbedded with shallow-water grainstones and intraclast conglomerates, and were likely deposited in very shallow lagoonal environments. Age- The sampled sediments are from an equivalent of the Satka Formation in the southern Urals outcrop belt, and the Kaltasy Formation in the Volgo-Ural region. These equivalent formations are bracketed by 1750

Ma and 1380 Ma volcanic rocks in the Bashkirian megantclinorium in the southern Urals, and the Kaltasy Formation has been dated by Re-Os geochronology at 1414 ± 40 and 1427 ± 43 Ma (ref. 14, and references therein).

Mongolia

E1216 section

Locality Information- This section is in the upper Zuune Arts Formation in the Zavkhan Basin of Mongolia. The base of the section is located near N46° 41.863' / E96° 51.765'. Environment- The shales and carbonates in this succession are indicative of an outer shelf environment. Age- The location of these shales close beneath a large negative carbon isotope excursion interpreted to be the Precambrian-Cambrian boundary excursion suggest an age very late in the Ediacaran (E. Smith, pers. comm.).

T1201 section

Locality Information- This section is in the lower Bayan Gol Formation in the Zavkhan Basin of Mongolia. The base of the section is located near N46° 54.230' / E95° 15.208'. Environment- The shales and sandstones in this succession are indicative of an outer shelf environment. Age- The presence of small shelly fossils and carbon isotope chemostratigraphy suggest an age of ~538 Ma (E. Smith, pers. comm.).

Nama Basin, Namibia

ZUB section

Locality Information- Samples were collected from a roadcut of the Mara Member at Zuurburg Farm. The base of the section is located at S26° 15' 40.6" / E16° 59' 17.2". The top of the section, at 11.2 meters, is a plateau that at other sections on Zuurburg Farm shows a karstic erosional surface. This is the sequence boundary at the top of the Mara Member[96]. Environment- The collected shales were from the base of the section, which consists of interbedded micrite and shale. There is also a dark carbonate bed with a swaley/scoured appearance, indicating these sediments were within the reach of bottom currents. Thus these sediments are analogous to the "outer shelf" environmental category, albeit likely deposited on a carbonate ramp. The succession then shallows into carbonate grainstone and ultimately the sequence boundary. *Age-* The Mara Member in the southern Nama basin has not been dated directly, but the Kuibis Subgroup (to which the Mara Member belongs) has been directly dated in the northern Nama Basin at 548.1 ± 1 Ma[97].

ZBH section

Locality Information- Three samples were taken from the Urikos Member in the Kuibis Subgroup at the Zebra River Farm. The samples were not collected from a measured stratigraphic column. Sample ZBH-1 was collected at S24°31.696', E16°18.627'; the other samples were stratigraphically below ZBH-1 within an ~10 m interval. Environment- These samples are from green shale interbedded with grainstone and rare rippled sandstone that were deposited in an outer-shelf environment. Age- The Hoogland Member, which sits stratigraphically beneath the Urikos Member, has been dated in the northern Nama Basin at 548.1±1 Ma[97].

SWP section

Locality Information- Samples were collected from a measured section of the upper Spitskopf Member, Urusis Formation, at Farm Swartpunt. A locality map of the section can be found in ref. 98. The base of the section is at S27° 28.511' / E16° 41.587'. The zero mark of this stratigraphic section corresponds to 67.7 meters on the stratigraphic column in Narbonne et al. (ref. 98; their Figure 3). Environment- The clastic package measured here was described as a "mega-slump"[77]. While we recognize some slumping, overall the stratigraphy appears relatively coherent. Rather, we suggest that the broad, low-amplitude folding apparent in thick carbonate units resulted in folding and faulting within the clastic units that give the appearance of a mega-slump. The SWP section records a general coarsening upsection from shale to sandstone, with small scale Hummocky Cross-Stratification (HCS), parallel laminations, current ripple cross laminations, and combined flow ripples being frequent in the sandstones. The primary *Pteridinium* fossil bed is at 20 m[98]. Above this horizon is ~15 meters of green shale and cover, followed by partially- to wholly-dolomitized thrombolitic mounds and finely-laminated dolostone. The overall environment is regarded as outer shelf. Age- These samples are ~70 meters above an ash bed dated at 543.1 ± 1 Ma, and Cambrian-aspect trace fossils appear above the thrombolitic carbonates at the top of the section[97,98]. Thus the samples are very latest Ediacaran in age.

FSH section

Locality Information- This section's base was located at S 27°16'22.0" / E 17°37'59.4" on Sonntagsbrunn Farm. The section essentially corresponds to measured section 8 of ref. 99; see that publication for locality map and stratigraphic column. The section begins in the river valley and measures through the Feldschuhhorn Member of the Spitskopf Formation to the unconformably-overlying Lower Nomtsas Formation at 24.6m. Environment- Two ~5 meter thick relatively shaley intervals were sandwiched between more sandstone-dominated intervals, although silty and sandier units were present throughout the section. The unit had massive grey sandstone beds near the bottom with ripples, erosive bases, Hummocky Cross Stratification, and channelized flow, and is regarded as outer shelf. Age- Elsewhere in the Nama Basin the Feldschuhhorn Member is bracketed by radiometric ages of 548.8 ± 1 Ma and 545.1 ± 1 Ma[97] and is stratigraphically closer to the younger age.

VF1 section

Locality Information- The base of this measured section was at S27 16' 46.9", E17 38' 04.8" on Sonntagsbrunn Farm. This section corresponds essentially to measured section 3 and Figure 4 of ref. 99; see that publication for locality map and stratigraphic column. There are slight, meter-scale differences with respect to the stratigraphic column in that paper due to different starting points with respect to the irregular underlying unconformity surface. The section begins at the unconformity between the Feldschuhhorn Member of the Spitskopf Formation and Valley Fill 1 of the Nomtsas Formation, and extends to the erosive surface of the Upper Nomtsas Formation at 73.6 m. Environment- The sediments consist of shale, and rare beds of fine-grained sandstone. No evidence for wave or current activity is present and these are considered basinal. Age- These strata are above an unconformity surface that elsewhere contains rocks dated to 539.4 ± 1 Ma and

are considered younger than this age[97,99]. The overlying Valley Fill 2 sequence contains the earliest Cambrian trace fossil *Treptichnus pedum*, suggesting a likely age very close to the radiometric constraint.

6. Analytical Methods

Although all analyses in this study followed the same overall protocols, some minor differences between sample sets exist. These are detailed below and in Table S6.

Crushing-

Samples were crushed in either a hardened steel or tungsten carbide shatterbox puck/mill assembly. Tests of the same sample crushed in both assemblies revealed only a very minor iron contamination (0.015 weight percent) by the hardened steel shatterbox (see Supplemental Table 3 of ref. 21). This level is essentially at analytical error and negligible compared to an average shale iron weight percent of 4.72 (ref. 100). The grinding dish used in each sample set is detailed in Table S6.

Total iron analyses-

Total iron was analyzed via three separate methodologies. The bulk of the samples were digested by a standard four-acid (hydrofluoric, perchloric, hydrochloric and nitric) protocol and measured via ICP-AES at SGS Geochemical Services, Canada. The second highest quantity of samples were subjected to a three-acid digestion (hydroflouric, hydrochloric, nitric) and measured via ICP-OES at McGill University, Canada. One sample set (W8) was subjected to a three-acid digestion (hydrofluoric, hydrochloric and nitric) and analyzed via flame Atomic Absorption Spectroscopy (AAS) at Newcastle University. Each method has been used extensively and been demonstrated to carry sufficient precision for iron speciation applications.

Location	Section	Grinding dish	Total iron
Southern Urals	VA-1 core	Tungsten carbide	4 acid/ICP-AES (SGS)
Death Valley	E1101	Hardened steel	4 acid/ICP-AES (SGS)
Death Valley	E1102	Hardened steel	4 acid/ICP-AES (SGS)
Mackenzie Mountains	F1159	Tungsten carbide	4 acid/ICP-AES (SGS)
Mackenzie Mountains	F1161	Tungsten carbide	4 acid/ICP-AES (SGS)
Mackenzie Mountains	F1162	Tungsten carbide	4 acid/ICP-AES (SGS)
Mackenzie Mountains	F1163	Tungsten carbide	4 acid/ICP-AES (SGS)
Mackenzie Mountains	F1164	Tungsten carbide	4 acid/ICP-AES (SGS)
Mackenzie Mountains	F1165	Tungsten carbide	4 acid/ICP-AES (SGS)
Mackenzie Mountains	J1128	Tungsten carbide	4 acid/ICP-AES (SGS)
Mackenzie Mountains	J1125	Tungsten carbide	4 acid/ICP-AES (SGS)
Mackenzie Mountains	BFTW	Tungsten carbide	4 acid/ICP-AES (SGS)
Mackenzie Mountains	S1305	Tungsten carbide	4 acid/ICP-AES (SGS)
Mackenzie Mountains	S1306	Tungsten carbide	4 acid/ICP-AES (SGS)
Mackenzie Mountains	N13	Tungsten carbide	4 acid/ICP-AES (SGS)

Wernecke Mountains	S1203	Tungsten carbide	4 acid/ICP-AES (SGS)
Wernecke Mountains	S1206	Tungsten carbide	4 acid/ICP-AES (SGS)
Wernecke Mountains	S1208	Tungsten carbide	4 acid/ICP-AES (SGS)
Wernecke Mountains	W8	Hardened steel	3 acid/Flame AA (Newcastle)
Wernecke Mountains	W11	Hardened steel	3 acid/ICP-OES (McGill)
Wernecke Mountains	W15	Hardened steel	3 acid/ICP-OES (McGill)
Wernecke Mountains	F851	Hardened steel	4 acid/ICP-AES (SGS)
Wernecke Mountains	J1218	Tungsten carbide	4 acid/ICP-AES (SGS)
Ogilvie Mountains	F838	Hardened steel	3 acid/ICP-OES (McGill)
Ogilvie Mountains	F842	Hardened steel	4 acid/ICP-AES (SGS)
Namibia	ZUB	Tungsten carbide	4 acid/ICP-AES (SGS)
Namibia	ZBH	Tungsten carbide	4 acid/ICP-AES (SGS)
Namibia	SWP	Tungsten carbide	4 acid/ICP-AES (SGS)
Namibia	FSH	Tungsten carbide	4 acid/ICP-AES (SGS)
Namibia	VF1	Tungsten carbide	4 acid/ICP-AES (SGS)
House Embayment	DM1	Hardened steel	4 acid/ICP-AES (SGS)
House Embayment	DM3	Hardened steel	4 acid/ICP-AES (SGS)
House Embayment	MP	Hardened steel	4 acid/ICP-AES (SGS)
House Embayment	SQ	Hardened steel	4 acid/ICP-AES (SGS)
House Embayment	UDQ	Hardened steel	4 acid/ICP-AES (SGS)
Mongolia	T1201	Hardened steel	3 acid/ICP-OES (McGill)
Mongolia	E1216	Tungsten carbide	4 acid/ICP-AES (SGS)
Svalbard	G155	Hardened steel	3 acid/ICP-OES (McGill)
Svalbard	G306	Hardened steel	3 acid/ICP-OES (McGill)
Svalbard	G406	Hardened steel	3 acid/ICP-OES (McGill)
Svalbard	G407	Hardened steel	3 acid/ICP-OES (McGill)
Svalbard	G411	Hardened steel	3 acid/ICP-OES (McGill)
Svalbard	G419	Hardened steel	3 acid/ICP-OES (McGill)
Svalbard	G426	Hardened steel	3 acid/ICP-OES (McGill)
Svalbard	G435	Hardened steel	3 acid/ICP-OES (McGill)
Svalbard	G436	Hardened steel	3 acid/ICP-OES (McGill)
Svalbard	G471	Hardened steel	3 acid/ICP-OES (McGill)
Svalbard	G512	Hardened steel	3 acid/ICP-OES (McGill)
Svalbard	G521	Hardened steel	3 acid/ICP-OES (McGill)
East Greenland	GR12	Hardened steel	3 acid/ICP-OES (McGill)

Table S6: Summary of analytical differences (grinding dish and total iron measurement) between sample sets for new iron speciation measurements.

Sequential extractions

Samples in this study were analyzed under the general protocols for iron sequential extraction[101]. Extended lab-specific practices as implemented in the

Laboratory for Earth History and Isotope Geobiology at Harvard University can be found in the Supplementary Information of ref. 21. Samples from East Greenland and Svalbard were analyzed at McGill University under the same protocols.

As in ref. 21, extractions were run in batches of 48 samples including at least four internal replicates (of a set of six) to estimate precision. These replicate samples are distributed through the Neoproterozoic-Paleozoic time period of interest: (F1018- 54.5 = Reefal Assemblage, Fifteenmile Group, Yukon, Canada, ~820 Ma; F849- 112 = Sheepbed Formation, Yukon, Canada, ~620 Ma; F849- 225 = Sheepbed Formation, Yukon, Canada, ~610 Ma; GO130- 286 = Chandindu Formation, Yukon, Canada, ~840 Ma; MP- 67.5, Wheeler Formation, United States, ~505 Ma; MP- 69.5, Wheeler Formation, United States, ~505 Ma). Reagent blanks were also measured from each reaction solution and in all cases found to contain no measureable iron.

Replicate	Extraction	# of Analyses	Average weight %	Stan. Dev.	% Stan. Dev.	% Standard Error
F849- 112	Acetate	17	0.775	0.029	3.68	0.89
F849- 112	Dithionite	17	0.719	0.062	8.64	2.10
F849-112	Oxalate	16	0.035	0.008	23.78	5.94
F849- 225	Acetate	9	0.126	0.019	14.95	4.98
F849- 225	Dithionite	9	1.156	0.086	7.41	2.47
F849- 225	Oxalate	8	0.122	0.069	56.96	20.14
GO130 -286	Acetate	17	0.065	0.008	11.62	2.82
GO130 -286	Dithionite	17	1.491	0.096	6.46	1.57
GO130- 286	Oxalate	16	0.025	0.009	36.52	9.13
F1018-54.5	Acetate	18	0.047	0.009	18.80	4.43
F1018-54.5	Dithionite	18	0.458	0.070	15.35	3.62
F1018-54.5	Oxalate	16	0.080	0.024	30.00	7.50
MP- 67.5	Acetate	10	0.440	0.011	2.48	0.79
MP- 67.5	Dithionite	10	0.146	0.027	18.38	5.81
MP- 67.5	Oxalate	9	0.008	0.003	31.26	10.42
MP- 69.5	Acetate	17	0.715	0.023	3.21	0.78
MP- 69.5	Dithionite	17	0.144	0.022	15.42	3.74
MP-69.5	Oxalate	16	0.010	0.003	32.24	8.06

Table S7: Summed results of internal replicates run alongside samples to estimate error in sequential reactions. One batch of oxalate replicates was lost during measurement and thus oxalate analyses have one fewer than acetate and dithionite. Samples from East Greenland and Svalbard were analyzed at McGill University alongside the same internal replicates and found to be consistent.

As found in ref. (21) for these internal replicates, precision is related to the weight percent iron in the extraction (Figure S4 and Table S7). Specifically, all extractions with greater than 0.3 weight percent iron had percent standard errors of <5%. Samples with

low extractable iron for a specific pool are less precise, but given the low iron quantities involved, the low precision will not affect the overall iron speciation results.

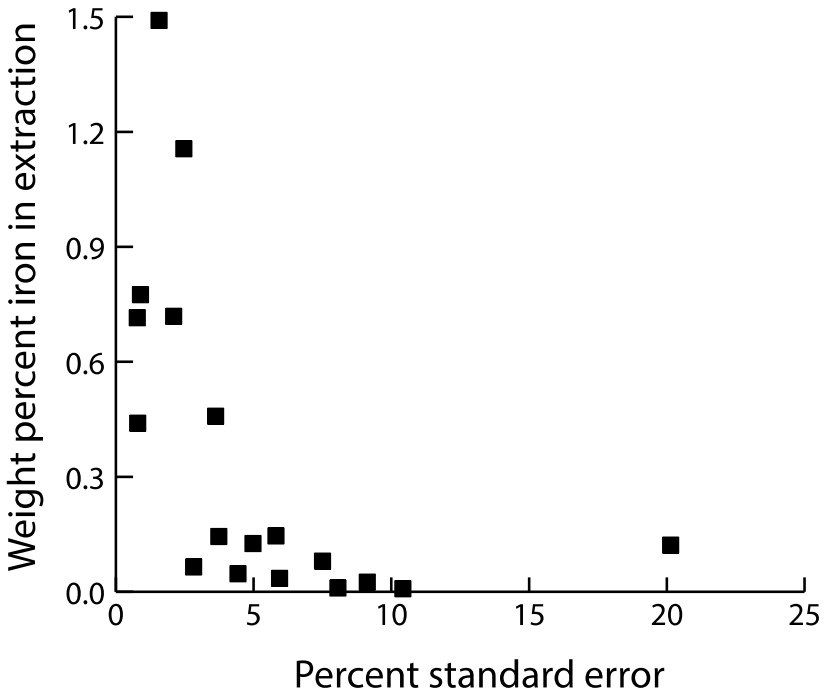


Figure S4: Average weight percent iron versus percent standard error on the three extractions (acetate, dithionite and oxalate) on six internal replicates used in this study.

Iron pyrite analyses

The amount of iron present in pyrite was quantified using the chromium-reducible sulfur (CRS) method[102]. The reaction vessels were purged of ambient atmosphere with pure nitrogen gas, and 20 mL of 1 M chromous chloride, acidified to 0.5N HCl, was added to the reaction vessels after 20 mL of 6 N HCl. The vessels were heated to near-boiling and the extraction allowed to proceed for at least two hours. Sulfur in pyrite (and other sulfur phases extracted by this solution—see ref. 102) is reduced to hydrogen sulfide, and the sulfide gas trapped in a 0.3M zinc acetate trapping solution. An appropriate amount of sediment was estimated for each sample set, and samples were re-run if more sulfide was present than the empirically determined maximum threshold for the volume of zinc acetate capture solution used. Zinc sulfide was then converted to silver sulfide by the addition of 0.3 M $AgNO_3$. The resulting silver sulfide was vacuum-filtered onto a pre-weighed 0.2 μm filter attached to a 15 mL chimney, washed with at least three volume-equivalents of DI water, one volume-equivalent of 1 M ammonium hydroxide, and a final volume-equivalent of water. The filters were then air-dried overnight and re-weighed to obtain the mass of Ag_2S. Weight percent iron in pyrite (FeP) was calculated stoichiometrically, assuming that all CRS-extractable sulfur was in the form of pyrite (FeS_2). Some samples may contain Acid Volatile Sulfide (AVS) including iron monosulfides such as pyrrhotite, which if present would result in an erroneous stoichiometric calculation. AVS is present in some studies in the overall database[34-36], but

is unlikely to form a significant component of the extractable iron pool in the new samples reported here. First, AVS is relatively rare in unmetamorphosed sedimentary rocks of any age. Second, and more important, the Neoproterozoic-Cambrian rocks that were the focus of new sampling are particularly pyrite-lean (Fig. 1B and 1C and Database S1), and the CRS extraction reduces sulfur in both pyrite and AVS. The iron in pyrite (FeP) estimated from the CRS extraction in the new samples average 0.034 weight percent; even under the extremely unrealistic assumption that this is entirely AVS with no pyrite present, such amounts would represent a relatively small percentage of the total highly reactive iron pool. CRS analyses in this study were conducted over a number of years, and not enough rock powder of internal replicates was available for the same replicate to be continually analyzed alongside all samples. Samples analyzed from 2010-2012 were run alongside replicate F845-184, which had a long-term standard deviation of 6.2% and standard error of 1.7% (ref. 21) whereas samples analyzed from 2012-2014 were analyzed alongside replicate B203-4450, which had a long-term standard deviation of 7.8% and standard error of 2.8% (ref. 14).

References

34. Poulton, S. W., Fralick, P. W. & Canfield, D. E. Spatial variability in oceanic redox structure 1.8 billion years ago. Nat. Geosci. **3**, 486-490 (2010).
35. Reuschel, M., Melezhik, V. A. & Strauss, H. Sulfur isotopic trends and iron speciation from the c. 2.0 Ga Pilgujarvi Sedimentary Formation, NW Russia. Precambrian Research **196**, 193-203 (2012).
36. Asael, D. *et al.* Coupled molybdenum, iron and uranium stable isotopes as oceanic paleoredox proxies during the Paleoproterozoic Shunga Event. Chemical Geology **362**, 193-210 (2013).
37. Scott, C. *et al.* Pyrite multiple-sulfur isotope evidence for rapid expansion and contraction of the early Paleoproterozoic seawater sulfate reservoir. Earth and Planetary Science Letters **389**, 95-104 (2014).
38. Canfield, D. E. *et al.* Oxygen dynamics in the aftermath of the Great Oxidation of Earth's atmosphere. Proceedings of the National Academy of Sciences **110**, 16736-16741 (2013).
39. El Albani, A. *et al.* Large colonial organisms with coordinated growth in oxygenated environments 2.1 Gyr ago. Nature **466**, 100-104 (2010).
40. Shen, Y., Canfield, D. E. & Knoll, A. H. Middle Proterozoic ocean chemistry: evidence from the McArthur Basin, northern Australia. American Journal of Science **302**, 81-109 (2002).
41. Gilleaudeau, G. J. & Kah, L. C. Oceanic molybdenum drawdown by epeiric sea expansion in the Mesoproterozoic. Chemical Geology **356**, 21-37 (2013).
42. Geboy, N. J. *et al.* Re-Os age constraints and new observations of glacial deposits in the Mesoproterozoic Vazante Group, Brazil. Precambrian Research **238,** 199-213 (2013).
43. Cumming, V. M., Poulton, S. W., Rooney, A. D. & Selby, D. Anoxia in the terrestrial environment during the late Mesoproterozoic. Geology **41**, 583-586 (2013).
44. Johnston, D. *et al.* Late Ediacaran redox stability and metazoan evolution. Earth and Planetary Science Letters **335**, 25-35 (2012).

45. Johnston, D. T. *et al.* An emerging picture of Neoproterozoic ocean chemistry: Insights from the Chuar Group, Grand Canyon, USA. Earth and Planetary Science Letters **290**, 64-73 (2010).
46. Hayes, D. S. Two scenes from Utah's stratigraphic record: Neoproterozoic Snowball Earth, before and after. Ph.D. thesis. Utah State University (2013).
47. Feng, L.-J., Chu, X.-L., Huang, J., Zhang, Q.-R. & Chang, H.-J. Reconstruction of paleo-redox conditions and early sulfur cycling during deposition of the Cryogenian Datangpo Formation in South China. Gondwana Research **18**, 632-637 (2010).
48. Li, C. *et al.* Evidence for a redox stratified Cryogenian marine basin, Datangpo Formation, South China. Earth and Planetary Science Letters **331**, 246-256 (2012).
49. Sahoo, S. K. *et al.* Ocean oxygenation in the wake of the Marinoan glaciation. Nature **489**, 546-549 (2012).
50. Shen, Y., Zhang, T. & Hoffman, P. F. On the coevolution of Ediacaran oceans and animals. Proceedings of the National Academy of Sciences, U.S.A. **105**, 7376-7381 (2008).
51. Li, C. *et al.* A stratified redox model for the Ediacaran ocean. Science **328**, 80-83 (2010).
52. Frei, R., Gaucher, C., Stolper, D. & Canfield, D. E. Fluctuations in late Neoproterozoic atmospheric oxidation – Cr isotope chemostratigraphy and iron speciation of the late Ediacaran lower Arroyo del Soldado Group (Uruguay). Gondwana Research **23,** 797-811 (2013).
53. Wang, J., Chen, D., Yan, D., Wei, H. & Xiang, L. Evolution from an anoxic to oxic deep ocean during the Ediacaran-Cambrian transition and implications for bioradiation. Chemical Geology **306**, 129-138 (2012).
54. Feng, L., Li, C., Huang, J., Chang, H. & Chu, X. A sulfate control on marine mid-depth euxinia on the early Cambrian (ca. 529–521 Ma) Yangtze platform, South China Precambrian Research **246,** 123-133 (2014).
55. Och, L. M. *et al.* Redox changes in Early Cambrian black shales at Xiaotan section, Yunnan Province, South China. Precambrian Research **225**, 166-189 (2013).
56. Creveling, J. R., *et al.*, Phosphorus sources for phosphatic Cambrian carbonates. Geological Society of America Bulletin **126,** 145-163 (2014).
57. Gill, B. C. *et al.* Geochemical evidence for widespread euxinia in the later Cambrian ocean. Nature **469**, 80-83 (2011).
58. Boyer, D. L., Owens, J. D., Lyons, T. W. & Droser, M. L. Joining forces: Combined biological and geochemical proxies reveal a complex but refined high-resolution palaeo-oxygen history in Devonian epeiric Seas. Palaeogeography, Palaeoclimatology, Palaeoecology **306**, 134-146 (2011).
59. Farrell, U. C., Briggs, D. E. G., Hammarlund, E. U., Sperling, E. A. & Gaines, R. R. Paleoredox and pyritization of soft-bodied fossils in the Ordovician Frankfort Shale of New York. American Journal of Science **313**, 452-489 (2013).
60. Hammarlund, E. U. *et al.* A sulfidic driver for the end-Ordovician mass extinction. Earth and Planetary Science Letters **331**, 128-139 (2012).
61. Clarkson M. O., Poulton S.W., Guilbaud R. & Wood, R.A. Assessing the utility of Fe/Al and Fe-speciation to record water column redox conditions in carbonate-rich sediments. Chemical Geology, **382**,111-122. (2014)

62. Poulton, S. W. & Raiswell, R.. The low-temperature geochemical cycle of iron: from continental fluxes to marine sediment deposition. American Journal of Science, **302**, 774-805 (2002).
63. Raiswell, R., *et al.* Turbidite depositional influences on the diagenesis of Beecher's Trilobite Bed and the Hunsruck Slate; sites of soft tissue pyritization. American Journal of Science, **308**,105-129 (2008).
64. Pyle, L. J., Narbonne, G. M., James, N. P., Dalrymple, R. W. & Kaufman, A. J. Integrated Ediacaran chronostratigraphy, Wernecke Mountains, northwestern Canada. Precambrian Research **132**, 1-27 (2004).
65. Pyle, L. J., Narbonne, G. M., Nowlan, G. S., Xiao, S. & James, N. P. Early Cambrian metazoan eggs, embryos, and phosphatic microfossils from northwestern Canada. Journal of Paleontology **80**, 811-825 (2006).
66. Macdonald, F. A., *et al.* The stratigraphic relationship between the Shuram carbon isotope excursion, the oxygenation of Neoproterozoic oceans, and the first appearance of the Ediacara biota and bilaterian trace fossils in northwestern Canada. Chemical Geology, **362**, 250-272 (2013).
67. Eisbacher, G. H. Sedimentary tectonics and glacial record in the Windermere Supergroup, Mackenzie Mountains, northwestern Canada. Geological Survey of Canada Paper **80-27**, 1-40 (1981).
68. Rooney, A. D., *et al.* Re-Os geochronology and coupled Os-Sr isotope constraints on the Sturtian snowball Earth. Proceedings of the National Academy of Sciences USA **111**, 51-56 (2014).
69. Calver, C. R. *et al.* Globally synchronous Marinoan deglaciation indicated by U-Pb geochronology of the Cottons Breccia, Tasmania, Australia. Geology **41**, 1127-1130 (2013).
70. Condon, D. J. *et al.* U-Pb ages from the Neoproterozoic Doushantuo Formation, China. Science **308**, 95-98 (2005).
71. Hoffmann, K.-H., Condon, D. J., Bowring, S. A. & Crowley, J. L. U-Pb zircon date from the Neoproterozoic Ghaub Formation, Namibia: Constraints on Marinoan glaciation. Geology **32**, 817-820 (2004).
72. Nowlan, G. S., Narbonne, G. M. & Fritz, W. H. Small shelly fossils and trace fossils near the Precambrian-Cambrian boundary in the Yukon Territory, Canada. Lethaia **18**, 233-256 (1985).
73. Fritz, W. H. Vampire Formation, a new upper Precambrian (?)/Lower Cambrian formation, Mackenzie Mountains, Yukon and Northwest Territories. Current Research, Part B; Geological Survey of Canada **Paper 82-1B**, 83-92 (1982).
74. Narbonne, G. M., Laflamme, M., Trusler, P. W., Dalrymple, R. W. & Greentree, C. Deep-water Ediacaran fossils from northwestern Canada: Taphonomy, ecology, and evolution. Journal of Paleontology **88**, 207-223 (2014).
75. Carbone, C. & Narbonne, G. M. When life got smart: the evolution of behavioral complexity through the Ediacaran and early Cambrian of NW Canada. Journal of Paleontology **88**, 309-330 (2014).
76. MacNaughton, R. B., Dalrymple, R. W. & Narbonne, G. M. Multiple orders of relative sea-level change in an earliest Cambrian passive-margin succession, Mackenzie Mountains, Northwestern Canada. Journal of Sedimentary Research **67**, 622-637 (1997).

77. Kaufman, A. J., Knoll, A. H. & Narbonne, G. M. Isotopes, ice ages, and terminal Proterozoic earth history. Proceedings of the National Academy of Sciences USA **94**, 6600-6605 (1997).
78. Aitken, J. D. Uppermost Proterozoic formations in central Mackenzie Mountains, Northwest Territories. Geological Survey of Canada Bulletin **368**, 1-26 (1989).
79. Hofmann, H. J., Narbonne, G. M. & Aitken, J. D. Ediacaran remains from intertillite beds in northwestern Canada. Geology **18,** 1199-1202 (1990).
80. Martel, E., Turner, E. C. & Fischer, B. J. Geology of the central Mackenzie Mountains of the northern Canadian Cordillera, Sewki Mountain (105P), Mount Eduni (106A), and northwestern Wrigley Lake (95 M) map-areas, Northwest Territories. NWT Special Volume 1. NWT Geoscience Office, Yellowknife, CA.
81. Macdonald, F. A. *et al.* Early Neoproterozoic Basin Formation in Yukon, Canada: Implications for the make-up and break-up of Rodinia. Geoscience Canada **39,** 77-99 (2012).
82. Strauss, J. V., Rooney, A. D., Macdonald, F. A., Brandon, A. D. & Knoll, A. H. 740 Ma vase-shaped microfossils from Yukon, Canada: implications for Neoproterozoic chronology and biostratigraphy. Geology **42**, 659-662 (2014).
83. Mustard, P. S., Donaldson, J. A. & Thompson, R. I. Trace fossils and stratigraphy of the Precambrian-Cambrian boundary sequence, upper Harper group, Ogilvie Mountains, Yukon. Current Research, Part E: Geological Survey of Canada Paper **88-1E**, 197-203 (1988).
84. Halverson, G. P., Maloof, A. C. & Hoffman, P. F. The Marinoan glaciation (Neoproterozoic) in northeast Svalbard. Basin Research **16**, 297-324 (2004).
85. Hoffman, P. F., *et al.* Cryogenian glaciation on the southern tropical paleomargin of Laurentia (NE Svalbard and East Greenland), and a primary origin for the upper Russøya (Islay) carbon isotope excursion. Precambrian Resarch **206,** 137-158.
86. Rees, M. N. A fault-controlled trough through a carbonate platform: The Middle Cambrian House Range embayment. Geological Society of America Bulletin **97**, 1054-1069 (1986).
87. Elrick, M. & Snider, A. C. Deep-water stratigraphic cyclicity and carbonate mud mound development in the Middle Cambrian Marjum Formation, House Range, Utah, USA. Sedimentology **49**, 1021-1047 (2002).
88. Langenburg, L. The Middle Cambrian Wheeler Formation: Sequence stratigraphy and geochemistry across a ramp-to-basin transition. M.S. Thesis. Utah State University (2003).
89. Gaines, R. R., Kennedy, M. J. & Droser, M. L. A new hypothesis for organic preservation of Burgess Shale taxa in the Middle Cambrian Wheeler Formation, House Range, Utah. Palaeogeography, Palaeoclimatology, Palaeoecology **220**, 193-205 (2005).
90. Brett, C. E., Allison, P. A., DeSantis, M. K., Liddell, W. D. & Kramer, A. Sequence stratigraphy, cyclic facies, and lagerstätten in the Middle Cambrian Wheeler and Marjum Formations, Great Basin, Utah. Palaeogeography, Palaeoclimatology, Palaeoecology **277,** 9-33 (2009).
91. Babcock, L. E., Robison, R. A., Rees, M. N., Peng, S. C., & Saltzman, M.R. The global boundary stratotype section and point (GSSP) of the Drumian stage (Cambrian) in the Drum mountains, Utah, USA. Episodes **30**, 85-95 (2007).

92. Smith, E. F., Macdonald, F. A., Crowley, J. L., Hodgin, E. G. & Schrag, D. P. Tectonostratigraphic evolution of the c. 780-730 Ma Beck Spring Dolomite: Basin formation in the core of Rodinia, *In* Li, Z. X., Evans, D. A. D. & Murphy, J. B. (eds) Supercontinent cycles through Earth history. Geological Society, London, Special Publications **424** (in press).
93. Mahon, R. C., Dehler, C. M., Karlstrom, K. E., Link, P. K. & Gehrels, G. E. Geochronologic and stratigraphic constraints on the Mesoproterozoic and Neoproterozoic Pahrump Group, Death Valley, California: A record of the assembly, stability, and breakup of Rodinia. Geological Society of America Bulletin **126,** 652-664 (2014).
94. Macdonald, F. A. *et al.* The Laurentian record of Neoproterozoic glaciation, tectonism, and eukaryotic evolution in Death Valley, California. Geological Society of America Bulletin **125**, 1203-1223 (2013).
95. Kozlov, V. I. *et al.* Riphean-Vendian deposits of the Kama-Belsky aulacogen penetrated by the well 1 East Askinsky. St. Petersburg: St. Petersburg Department of Printing "Nedra" [in Russian] (2007).
96. Saylor, B. Z., Grotzinger, J. P. & Germs, G. J. B. Sequence stratigraphy and sedimentology of the Neoproterozoic Kuibis and Schwarzrand Subgroups (Nama Group), southwestern Namibia. Precambrian Research **73**, 153-171 (1995).
97. Grotzinger, J. P., Bowring, S. A., Saylor, B. Z. & Kaufman, A. J. Biostratigraphic and geochronologic constraints on early animal evolution. Science **270**, 598-604 (1995).
98. Narbonne, G. M., Saylor, B. Z. & Grotzinger, J. P. The youngest Ediacaran fossils from southern Africa. Journal of Paleontology **71**, 953-967 (1997).
99. Wilson, J. P. *et al.* Deep-water incised valley deposits at the Ediacaran-Cambrian boundary in Southern Namibia contain abundant Treptichnus pedum. PALAIOS **27,** 252-273 (2012).
100. Turekian, K. K. & Wedepohl, K. H. Distribution of the elements in some major units of the earth's crust. Geological Society of America Bulletin **72**, 175-192 (1961).
101. Poulton, S. W. & Canfield, D. E. Development of a sequential extraction procedure for iron: implications for iron partitioning in continentally derived particulates. Chemical Geology **214**, 209-221 (2005).
102. Canfield, D. E., Raiswell, R., Westrich, J. T., Reaves, C. M. & Berner, R. A. The use of chromium reduction in the analysis of reduced inorganic sulfur in sediments and shale. Chemical Geology **54**, 149-155 (1986).

Age bin (Ma)	Age bin	Age	Geographic Area/Basin	Basin Number
2300-1000	1	2000	Fennoscandia	2
2300-1000	1	2000	Fennoscandia	2
2300-1000	1	2000	Fennoscandia	2
2300-1000	1	2000	Fennoscandia	2
2300-1000	1	2000	Fennoscandia	2
2300-1000	1	2000	Fennoscandia	2
2300-1000	1	2000	Fennoscandia	2
2300-1000	1	2000	Fennoscandia	2
2300-1000	1	2000	Fennoscandia	2
2300-1000	1	2000	Fennoscandia	2
2300-1000	1	2000	Fennoscandia	2
2300-1000	1	2000	Fennoscandia	2
2300-1000	1	2000	Fennoscandia	2
2300-1000	1	2000	Fennoscandia	2
2300-1000	1	2000	Fennoscandia	2
2300-1000	1	2000	Fennoscandia	2
2300-1000	1	2000	Fennoscandia	2
2300-1000	1	2000	Fennoscandia	2
2300-1000	1	2000	Fennoscandia	2
2300-1000	1	2000	Fennoscandia	2
2300-1000	1	2000	Fennoscandia	2
2300-1000	1	2000	Fennoscandia	2
2300-1000	1	2000	Fennoscandia	2
2300-1000	1	2000	Fennoscandia	2
2300-1000	1	2000	Fennoscandia	2
2300-1000	1	2000	Fennoscandia	2
2300-1000	1	2000	Fennoscandia	2
2300-1000	1	2000	Fennoscandia	2
2300-1000	1	2000	Fennoscandia	2
2300-1000	1	2000	Fennoscandia	2
2300-1000	1	2000	Fennoscandia	2
2300-1000	1	2000	Fennoscandia	2
2300-1000	1	2000	Fennoscandia	2
2300-1000	1	2000	Fennoscandia	2
2300-1000	1	1680	North China	6
2300-1000	1	1680	North China	6
2300-1000	1	1680	North China	6
2300-1000	1	1680	North China	6
2300-1000	1	1680	North China	6
2300-1000	1	1680	North China	6
2300-1000	1	1680	North China	6
2300-1000	1	1680	North China	6

2300-1000	1	1680	North China	6
2300-1000	1	1680	North China	6
2300-1000	1	1680	North China	6
2300-1000	1	1680	North China	6
2300-1000	1	1680	North China	6
2300-1000	1	1680	North China	6
2300-1000	1	1680	North China	6
2300-1000	1	1680	North China	6
2300-1000	1	1680	North China	6
2300-1000	1	1680	North China	6
2300-1000	1	1680	North China	6
2300-1000	1	1680	North China	6
2300-1000	1	1680	North China	6
2300-1000	1	1680	North China	6
2300-1000	1	1680	North China	6
2300-1000	1	1680	North China	6
2300-1000	1	1680	North China	6
2300-1000	1	1680	North China	6
2300-1000	1	1680	North China	6
2300-1000	1	1680	North China	6
2300-1000	1	1680	North China	6
2300-1000	1	1460	Belt basin	7
2300-1000	1	1460	Belt basin	7
2300-1000	1	1460	Belt basin	7
2300-1000	1	1460	Belt basin	7
2300-1000	1	1460	Belt basin	7
2300-1000	1	1460	Belt basin	7
2300-1000	1	1460	Belt basin	7
2300-1000	1	1460	Belt basin	7
2300-1000	1	1460	Belt basin	7
2300-1000	1	1460	Belt basin	7
2300-1000	1	1460	Belt basin	7
2300-1000	1	1460	Belt basin	7
2300-1000	1	1460	Belt basin	7
2000-1200	1	1200	Borden Basin	8
2000-1200	1	1200	Borden Basin	8
2000-1200	1	1200	Borden Basin	8
2000-1200	1	1200	Borden Basin	8

2000-1200	1	1200	Borden Basin	8
2000-1200	1	1200	Borden Basin	8
2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25

2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25

2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25

2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25
2300-1000	1	1100	Mauritania	25
2300-1000	1	2100	Francevillian Basin	33

2300-1000	1	2100	Francevillian Basin	33

2300-1000	1	2100	Francevillian Basin	33

2300-1000	1	2100	Francevillian Basin	33
2300-1000	1	2100	Francevillian Basin	33
2300-1000	1	2100	Francevillian Basin	33
2300-1000	1	2100	Francevillian Basin	33
2300-1000	1	2100	Francevillian Basin	33
2300-1000	1	2100	Francevillian Basin	33
2300-1000	1	2100	Francevillian Basin	33
2300-1000	1	2100	Francevillian Basin	33
2300-1000	1	2100	Francevillian Basin	33
2300-1000	1	1440	Southern Urals	34

2300-1000	1	1440	Southern Urals	34
2300-1000	1	1440	Southern Urals	34
2300-1000	1	1440	Southern Urals	34
2300-1000	1	1440	Southern Urals	34
2300-1000	1	1440	Southern Urals	34
2300-1000	1	1440	Southern Urals	34
2300-1000	1	1440	Southern Urals	34
2300-1000	1	1440	Southern Urals	34
2300-1000	1	1440	Southern Urals	34
2300-1000	1	1440	Southern Urals	34
2300-1000	1	1440	Southern Urals	34
2300-1000	1	1440	Southern Urals	34
2300-1000	1	1440	Southern Urals	34
2300-1000	1	1440	Southern Urals	34
2300-1000	1	1440	Southern Urals	34
2300-1000	1	1400	Roper Basin	35
2300-1000	1	1400	Roper Basin	35
2300-1000	1	1400	Roper Basin	35
2300-1000	1	1400	Roper Basin	35
2300-1000	1	1400	Roper Basin	35
2300-1000	1	1400	Roper Basin	35
2300-1000	1	1400	Roper Basin	35
2300-1000	1	1400	Roper Basin	35
2300-1000	1	1400	Roper Basin	35
2300-1000	1	1400	Roper Basin	35
2300-1000	1	1400	Roper Basin	35
2300-1000	1	1400	Roper Basin	35
2300-1000	1	1400	Roper Basin	35
2300-1000	1	1400	Roper Basin	35
2300-1000	1	1400	Roper Basin	35
2300-1000	1	1400	Roper Basin	35
2300-1000	1	1400	Roper Basin	35
2300-1000	1	1400	Roper Basin	35
2300-1000	1	1400	Roper Basin	35
2300-1000	1	1400	Roper Basin	35
2300-1000	1	1400	Roper Basin	35
2300-1000	1	1400	Roper Basin	35
2300-1000	1	1400	Roper Basin	35
2300-1000	1	1400	Roper Basin	35

2300-1000	1	1400	Roper Basin	35

2300-1000	1	1400	Roper Basin	35

2300-1000	1	1400	Roper Basin	35

2300-1000	1	1640	McArthur Basin	38
2300-1000	1	1640	McArthur Basin	38
2300-1000	1	1640	McArthur Basin	38
2300-1000	1	1640	McArthur Basin	38
2300-1000	1	1640	McArthur Basin	38
2300-1000	1	1640	McArthur Basin	38
2300-1000	1	1640	McArthur Basin	38
2300-1000	1	1640	McArthur Basin	38
2300-1000	1	1640	McArthur Basin	38
2300-1000	1	1640	McArthur Basin	38
2300-1000	1	1640	McArthur Basin	38
2300-1000	1	1640	McArthur Basin	38
2300-1000	1	1640	McArthur Basin	38
2300-1000	1	1640	McArthur Basin	38
2300-1000	1	1640	McArthur Basin	38
2300-1000	1	1640	McArthur Basin	38
2300-1000	1	1640	McArthur Basin	38
2300-1000	1	1640	McArthur Basin	38
2300-1000	1	1640	McArthur Basin	38
2300-1000	1	1640	McArthur Basin	38
2300-1000	1	1650	McArthur Basin	38
2300-1000	1	1650	McArthur Basin	38
2300-1000	1	1650	McArthur Basin	38
2300-1000	1	1650	McArthur Basin	38
2300-1000	1	1650	McArthur Basin	38
2300-1000	1	1650	McArthur Basin	38
2300-1000	1	1650	McArthur Basin	38
2300-1000	1	1650	McArthur Basin	38
2300-1000	1	1650	McArthur Basin	38
2300-1000	1	1650	McArthur Basin	38
2300-1000	1	1650	McArthur Basin	38
2300-1000	1	1750	McArthur Basin	38
2300-1000	1	1750	McArthur Basin	38
2300-1000	1	1750	McArthur Basin	38
2300-1000	1	1750	McArthur Basin	38
2300-1000	1	1750	McArthur Basin	38
2300-1000	1	1750	McArthur Basin	38
2300-1000	1	1750	McArthur Basin	38
2300-1000	1	1750	McArthur Basin	38
2300-1000	1	1750	McArthur Basin	38
2300-1000	1	1750	McArthur Basin	38
2300-1000	1	1750	McArthur Basin	38
2300-1000	1	1750	McArthur Basin	38

2300-1000	1	1750	McArthur Basin	38
2300-1000	1	1750	McArthur Basin	38
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39

2300-1000	1	1800	Animikie Basin	39

2300-1000	1	1800	Animikie Basin	39

2300-1000	1	1800	Animikie Basin	39

2300-1000	1	1800	Animikie Basin	39

2300-1000	1	1800	Animikie Basin	39

2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1100	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1800	Animikie Basin	39
2300-1000	1	1100	Brasília Fold Belt	43
2300-1000	1	1100	Brasília Fold Belt	43
2300-1000	1	1100	Brasília Fold Belt	43
2300-1000	1	1100	Brasília Fold Belt	43
2300-1000	1	1100	Brasília Fold Belt	43
2300-1000	1	1100	Brasília Fold Belt	43
2300-1000	1	1100	Brasília Fold Belt	43
2300-1000	1	1100	Brasília Fold Belt	43
2300-1000	1	1100	Brasília Fold Belt	43
2300-1000	1	1100	Brasília Fold Belt	43
2300-1000	1	1100	Brasília Fold Belt	43
2300-1000	1	1100	Brasília Fold Belt	43
2300-1000	1	1100	Brasília Fold Belt	43
2300-1000	1	1100	Brasília Fold Belt	43
2300-1000	1	1100	Brasília Fold Belt	43
2300-1000	1	1100	Brasília Fold Belt	43
2300-1000	1	1100	Brasília Fold Belt	43
2300-1000	1	1100	Brasília Fold Belt	43
2300-1000	1	1100	Brasília Fold Belt	43

2300-1000	1	1100	Brasília Fold Belt	43
2300-1000	1	1100	Brasília Fold Belt	43
2300-1000	1	1100	Brasília Fold Belt	43
2300-1000	1	1100	Brasília Fold Belt	43
2300-1000	1	1100	Brasília Fold Belt	43
2300-1000	1	1100	Brasília Fold Belt	43
2300-1000	1	1100	Brasília Fold Belt	43
2300-1000	1	1100	Brasília Fold Belt	43
2300-1000	1	1100	Brasília Fold Belt	43
2300-1000	1	1100	Brasília Fold Belt	43
2300-1000	1	1100	Brasília Fold Belt	43
2300-1000	1	1100	Brasília Fold Belt	43
2300-1000	1	1100	Brasília Fold Belt	43
2300-1000	1	1100	Brasília Fold Belt	43
2300-1000	1	1100	Brasília Fold Belt	43
2300-1000	1	1100	Brasília Fold Belt	43
2300-1000	1	1100	Brasília Fold Belt	43
2300-1000	1	1100	Brasília Fold Belt	43
2300-1000	1	1100	Brasília Fold Belt	43
2300-1000	1	1100	Brasília Fold Belt	43
2300-1000	1	1100	Brasília Fold Belt	43
2300-1000	1	1100	Brasília Fold Belt	43
2200-1000	1	2000	Onega Basin, Russia	46
2200-1000	1	2000	Onega Basin, Russia	46
2200-1000	1	2000	Onega Basin, Russia	46
2200-1000	1	2000	Onega Basin, Russia	46
2200-1000	1	2000	Onega Basin, Russia	46
2200-1000	1	2000	Onega Basin, Russia	46
2200-1000	1	2000	Onega Basin, Russia	46
2200-1000	1	2000	Onega Basin, Russia	46
2200-1000	1	2000	Onega Basin, Russia	46
2200-1000	1	2000	Onega Basin, Russia	46
2200-1000	1	2000	Onega Basin, Russia	46
2200-1000	1	2000	Onega Basin, Russia	46
2200-1000	1	2000	Onega Basin, Russia	46
2200-1000	1	2000	Onega Basin, Russia	46
2200-1000	1	2000	Onega Basin, Russia	46
2200-1000	1	2000	Onega Basin, Russia	46
2300-1000	1	2000	Onega Basin, Russia	46
2300-1000	1	2000	Onega Basin, Russia	46

2300-1000	1	2000	Onega Basin, Russia	46

2300-1000	1	2000	Onega Basin, Russia	46
2300-1000	1	2000	Onega Basin, Russia	46
2300-1000	1	2000	Onega Basin, Russia	46
2300-1000	1	2000	Onega Basin, Russia	46
2300-1000	1	2000	Onega Basin, Russia	46
2300-1000	1	2000	Onega Basin, Russia	46
2300-1000	1	2000	Onega Basin, Russia	46
2300-1000	1	1080	Midcontinent Rift	47

2300-1000	1	1080	Midcontinent Rift	47
2300-1000	1	1080	Midcontinent Rift	47
2300-1000	1	1080	Midcontinent Rift	47
2300-1000	1	1080	Midcontinent Rift	47
2300-1000	1	1080	Midcontinent Rift	47
2300-1000	1	1080	Midcontinent Rift	47
2300-1000	1	1080	Midcontinent Rift	47
2300-1000	1	1080	Midcontinent Rift	47
2300-1000	1	1080	Midcontinent Rift	47
2300-1000	1	1080	Midcontinent Rift	47
2300-1000	1	1080	Midcontinent Rift	47
2300-1000	1	1080	Midcontinent Rift	47
2300-1000	1	1080	Midcontinent Rift	47
2300-1000	1	1080	Midcontinent Rift	47
2300-1000	1	1080	Midcontinent Rift	47
2300-1000	1	1080	Midcontinent Rift	47
2300-1000	1	1080	Midcontinent Rift	47
2300-1000	1	1080	Midcontinent Rift	47
2300-1000	1	1080	Midcontinent Rift	47
2300-1000	1	1080	Midcontinent Rift	47
2300-1000	1	1080	Midcontinent Rift	47
2300-1000	1	1080	Midcontinent Rift	47
2300-1000	1	1080	Midcontinent Rift	47
2300-1000	1	1080	Midcontinent Rift	47
2300-1000	1	1080	Midcontinent Rift	47
2300-1000	1	1080	Midcontinent Rift	47
2300-1000	1	1080	Midcontinent Rift	47
2300-1000	1	1080	Midcontinent Rift	47
2300-1000	1	1080	Midcontinent Rift	47
2300-1000	1	2150	Botswana	49
2300-1000	1	2150	Botswana	49
2300-1000	1	2150	Botswana	49
2300-1000	1	2150	Botswana	49
2300-1000	1	2150	Botswana	49
2300-1000	1	2150	Botswana	49
2300-1000	1	2150	Botswana	49
2300-1000	1	2150	Botswana	49
2300-1000	1	2150	Botswana	49
2300-1000	1	2150	Botswana	49
2300-1000	1	2150	Botswana	49
2300-1000	1	2150	Botswana	49
2300-1000	1	2150	Botswana	49

2300-1000	1	2150	Botswana	49
2300-1000	1	2150	Botswana	49
1000-635	2	660	South China	1
1000-635	2	660	South China	1
1000-635	2	660	South China	1

1000-635	2	660	South China	1
1000-635	2	660	South China	1
1000-635	2	660	South China	1
1000-635	2	660	South China	1
1000-635	2	650	Wernecke Mountains	4
1000-635	2	650	Wernecke Mountains	4
1000-635	2	650	Wernecke Mountains	4
1000-635	2	650	Wernecke Mountains	4
1000-635	2	650	Wernecke Mountains	4
1000-635	2	650	Wernecke Mountains	4
1000-635	2	650	Wernecke Mountains	4
1000-635	2	650	Wernecke Mountains	4
1000-635	2	650	Wernecke Mountains	4
1000-635	2	650	Wernecke Mountains	4
1000-635	2	650	Wernecke Mountains	4
1000-635	2	650	Wernecke Mountains	4
1000-635	2	650	Wernecke Mountains	4
1000-635	2	650	Wernecke Mountains	4
1000-635	2	650	Wernecke Mountains	4
1000-635	2	650	Wernecke Mountains	4
1000-635	2	650	Wernecke Mountains	4
1000-635	2	650	Wernecke Mountains	4
1000-635	2	650	Wernecke Mountains	4
1000-635	2	650	Wernecke Mountains	4
1000-635	2	650	Wernecke Mountains	4
1000-635	2	650	Wernecke Mountains	4
1000-635	2	650	Wernecke Mountains	4
1000-635	2	650	Wernecke Mountains	4
1000-635	2	650	Wernecke Mountains	4
1000-635	2	650	Wernecke Mountains	4
1000-635	2	650	Wernecke Mountains	4
1000-635	2	650	Wernecke Mountains	4
1000-635	2	650	Wernecke Mountains	4
1000-635	2	650	Wernecke Mountains	4
1000-635	2	650	Wernecke Mountains	4
1000-635	2	650	Wernecke Mountains	4
1000-635	2	650	Wernecke Mountains	4
1000-635	2	650	Wernecke Mountains	4
1000-635	2	650	Wernecke Mountains	4
1000-635	2	750	Death Valley	11
1000-635	2	750	Death Valley	11
1000-635	2	750	Death Valley	11
1000-635	2	750	Death Valley	11
1000-635	2	750	Death Valley	11
1000-635	2	750	Death Valley	11
1000-635	2	750	Death Valley	11
1000-635	2	750	Death Valley	11
1000-635	2	750	Death Valley	11
1000-635	2	750	Death Valley	11

1000-635	2	750	Death Valley	11
1000-635	2	750	Death Valley	11
1000-635	2	750	Death Valley	11
1000-635	2	750	Death Valley	11
1000-635	2	750	Death Valley	11
1000-635	2	750	Death Valley	11
1000-635	2	750	Death Valley	11
1000-635	2	750	Death Valley	11
1000-635	2	750	Death Valley	11
1000-635	2	750	Death Valley	11
1000-635	2	750	Death Valley	11
1000-635	2	750	Death Valley	11
1000-635	2	750	Death Valley	11
1000-635	2	750	Death Valley	11
1000-635	2	750	Death Valley	11
1000-635	2	750	Death Valley	11
1000-635	2	750	Death Valley	11
1000-635	2	750	Death Valley	11
1000-635	2	750	Death Valley	11
1000-635	2	750	Death Valley	11
1000-635	2	750	Death Valley	11
1000-635	2	750	Death Valley	11
1000-635	2	750	Death Valley	11
1000-635	2	750	Death Valley	11
1000-635	2	750	Death Valley	11
1000-635	2	750	Death Valley	11
1000-635	2	750	Death Valley	11
1000-635	2	750	Death Valley	11
1000-635	2	750	Death Valley	11
1000-635	2	750	Death Valley	11
1000-635	2	750	Death Valley	11
1000-635	2	750	Death Valley	11
1000-635	2	750	Death Valley	11
1000-635	2	750	Death Valley	11
1000-635	2	750	Death Valley	11
1000-635	2	750	Death Valley	11
1000-635	2	730	Death Valley	11
1000-635	2	730	Death Valley	11
1000-635	2	730	Death Valley	11
1000-635	2	730	Death Valley	11
1000-635	2	730	Death Valley	11
1000-635	2	730	Death Valley	11

1000-635	2	730	Death Valley	11
1000-635	2	730	Death Valley	11
1000-635	2	730	Death Valley	11

1000-635	2	750	Death Valley	11
1000-635	2	750	Death Valley	11
1000-635	2	750	Death Valley	11
1000-635	2	730	Death Valley	11
1000-635	2	730	Death Valley	11
1000-635	2	730	Death Valley	11
1000-635	2	730	Death Valley	11
1000-635	2	730	Death Valley	11
1000-635	2	750	Grand Canyon	12
1000-635	2	750	Grand Canyon	12
1000-635	2	750	Grand Canyon	12
1000-635	2	750	Grand Canyon	12
1000-635	2	750	Grand Canyon	12
1000-635	2	750	Grand Canyon	12
1000-635	2	750	Grand Canyon	12
1000-635	2	750	Grand Canyon	12
1000-635	2	750	Grand Canyon	12
1000-635	2	750	Grand Canyon	12
1000-635	2	750	Grand Canyon	12
1000-635	2	750	Grand Canyon	12
1000-635	2	750	Grand Canyon	12
1000-635	2	750	Grand Canyon	12
1000-635	2	750	Grand Canyon	12
1000-635	2	750	Grand Canyon	12
1000-635	2	750	Grand Canyon	12
1000-635	2	750	Grand Canyon	12
1000-635	2	750	Grand Canyon	12
1000-635	2	750	Grand Canyon	12
1000-635	2	750	Grand Canyon	12
1000-635	2	750	Grand Canyon	12
1000-635	2	750	Grand Canyon	12
1000-635	2	750	Grand Canyon	12
1000-635	2	750	Grand Canyon	12
1000-635	2	750	Grand Canyon	12
1000-635	2	750	Grand Canyon	12
1000-635	2	750	Grand Canyon	12
1000-635	2	750	Grand Canyon	12
1000-635	2	750	Grand Canyon	12
1000-635	2	750	Grand Canyon	12
1000-635	2	750	Grand Canyon	12
1000-635	2	750	Grand Canyon	12

1000-635	2	750	Grand Canyon	12
1000-635	2	750	Grand Canyon	12
1000-635	2	750	Grand Canyon	12

1000-635	2	750	Grand Canyon	12
1000-635	2	750	Grand Canyon	12
1000-635	2	750	Grand Canyon	12

1000-635	2	750	Grand Canyon	12
1000-635	2	750	Grand Canyon	12
1000-635	2	750	Grand Canyon	12
1000-635	2	750	Grand Canyon	12
1000-635	2	750	Grand Canyon	12
1000-635	2	750	Grand Canyon	12
1000-635	2	800	Eastern European Platforr	14
1000-635	2	800	Eastern European Platforr	14
1000-635	2	800	Eastern European Platforr	14
1000-635	2	800	Eastern European Platforr	14
1000-635	2	800	Eastern European Platforr	14
1000-635	2	800	Eastern European Platforr	14
1000-635	2	800	Eastern European Platforr	14
1000-635	2	800	Eastern European Platforr	14
1000-635	2	800	Eastern European Platforr	14
1000-635	2	800	Eastern European Platforr	14
1000-635	2	800	Eastern European Platforr	14
1000-635	2	800	Eastern European Platforr	14
1000-635	2	800	Eastern European Platforr	14
1000-635	2	800	Eastern European Platforr	14
1000-635	2	800	Eastern European Platforr	14
1000-635	2	800	Eastern European Platforr	14
1000-635	2	805	Centralian Superbasin	27
1000-635	2	805	Centralian Superbasin	27
1000-635	2	805	Centralian Superbasin	27
1000-635	2	660	Centralian Superbasin	27
1000-635	2	660	Centralian Superbasin	27
1000-635	2	660	Centralian Superbasin	27
1000-635	2	660	Centralian Superbasin	27
1000-635	2	660	Centralian Superbasin	27
1000-635	2	660	Centralian Superbasin	27
1000-635	2	660	Centralian Superbasin	27
1000-635	2	660	Centralian Superbasin	27
1000-635	2	660	Centralian Superbasin	27
1000-635	2	660	Centralian Superbasin	27
1000-635	2	660	Centralian Superbasin	27
1000-635	2	660	Centralian Superbasin	27
1000-635	2	660	Centralian Superbasin	27
1000-635	2	660	Centralian Superbasin	27
1000-635	2	660	Centralian Superbasin	27

1000-635	2	660	Centralian Superbasin	27

1000-635	2	660	Centralian Superbasin	27

1000-635	2	660	Centralian Superbasin	27
1000-635	2	660	Centralian Superbasin	27
1000-635	2	660	Centralian Superbasin	27
1000-635	2	660	Centralian Superbasin	27
1000-635	2	660	Centralian Superbasin	27
1000-635	2	660	Centralian Superbasin	27
1000-635	2	660	Centralian Superbasin	27
1000-635	2	660	Centralian Superbasin	27
1000-635	2	660	Centralian Superbasin	27
1000-635	2	650	Spitsbergen	29
1000-635	2	650	Spitsbergen	29
1000-635	2	650	Spitsbergen	29
1000-635	2	650	Spitsbergen	29
1000-635	2	650	Spitsbergen	29
1000-635	2	650	Spitsbergen	29
1000-635	2	650	Spitsbergen	29
1000-635	2	650	Spitsbergen	29
1000-635	2	650	Spitsbergen	29
1000-635	2	750	East Greenland	30
1000-635	2	750	East Greenland	30
1000-635	2	750	East Greenland	30
1000-635	2	750	East Greenland	30
1000-635	2	750	East Greenland	30
1000-635	2	750	East Greenland	30
1000-635	2	750	East Greenland	30
1000-635	2	750	East Greenland	30
1000-635	2	750	East Greenland	30
1000-635	2	750	East Greenland	30
1000-635	2	750	East Greenland	30
1000-635	2	750	East Greenland	30
1000-635	2	750	East Greenland	30
1000-635	2	750	East Greenland	30
1000-635	2	775	East Greenland	30
1000-635	2	775	East Greenland	30
1000-635	2	770	East Greenland	30
1000-635	2	790	East Greenland	30
1000-635	2	790	East Greenland	30
1000-635	2	790	East Greenland	30
1000-635	2	790	East Greenland	30
1000-635	2	790	East Greenland	30

1000-635	2	790	East Greenland	30
1000-635	2	790	East Greenland	30
1000-635	2	790	East Greenland	30
1000-635	2	790	East Greenland	30
1000-635	2	790	East Greenland	30
1000-635	2	790	East Greenland	30
1000-635	2	660	East Greenland	30
1000-635	2	660	East Greenland	30
1000-635	2	660	East Greenland	30
1000-635	2	660	East Greenland	30
1000-635	2	660	East Greenland	30
1000-635	2	660	East Greenland	30
1000-635	2	660	East Greenland	30
1000-635	2	660	East Greenland	30
1000-635	2	660	East Greenland	30
1000-635	2	660	East Greenland	30
1000-635	2	660	East Greenland	30
1000-635	2	660	East Greenland	30
1000-635	2	660	East Greenland	30
1000-635	2	660	East Greenland	30
1000-635	2	660	East Greenland	30
1000-635	2	659.36	East Greenland	30
1000-635	2	659.39	East Greenland	30
1000-635	2	659.89	East Greenland	30
1000-635	2	661.86	East Greenland	30
1000-635	2	662.24	East Greenland	30
1000-635	2	662.39	East Greenland	30
1000-635	2	662.77	East Greenland	30
1000-635	2	800	Ogilvie Mountains	36
1000-635	2	800	Ogilvie Mountains	36
1000-635	2	800	Ogilvie Mountains	36
1000-635	2	800	Ogilvie Mountains	36
1000-635	2	800	Ogilvie Mountains	36
1000-635	2	800	Ogilvie Mountains	36
1000-635	2	800	Ogilvie Mountains	36
1000-635	2	800	Ogilvie Mountains	36
1000-635	2	800	Ogilvie Mountains	36
1000-635	2	800	Ogilvie Mountains	36
1000-635	2	800	Ogilvie Mountains	36
1000-635	2	800	Ogilvie Mountains	36
1000-635	2	800	Ogilvie Mountains	36

1000-635	2	800	Ogilvie Mountains	36

1000-635	2	800	Ogilvie Mountains	36

1000-635	2	800	Ogilvie Mountains	36

1000-635	2	800	Ogilvie Mountains	36

1000-635	2	800	Ogilvie Mountains	36

1000-635	2	800	Ogilvie Mountains	36
1000-635	2	800	Ogilvie Mountains	36
1000-635	2	800	Ogilvie Mountains	36
1000-635	2	800	Ogilvie Mountains	36
1000-635	2	800	Ogilvie Mountains	36
1000-635	2	800	Ogilvie Mountains	36
1000-635	2	800	Ogilvie Mountains	36
1000-635	2	800	Ogilvie Mountains	36
1000-635	2	800	Ogilvie Mountains	36
1000-635	2	800	Ogilvie Mountains	36
1000-635	2	800	Ogilvie Mountains	36
1000-635	2	800	Ogilvie Mountains	36
1000-635	2	800	Ogilvie Mountains	36
1000-635	2	800	Ogilvie Mountains	36
1000-635	2	800	Ogilvie Mountains	36
1000-635	2	660	Mackenzie Mountains	37
1000-635	2	660	Mackenzie Mountains	37
1000-635	2	660	Mackenzie Mountains	37
1000-635	2	660	Mackenzie Mountains	37
1000-635	2	660	Mackenzie Mountains	37
1000-635	2	660	Mackenzie Mountains	37
1000-635	2	660	Mackenzie Mountains	37
1000-635	2	660	Mackenzie Mountains	37
1000-635	2	660	Mackenzie Mountains	37
1000-635	2	660	Mackenzie Mountains	37
1000-635	2	660	Mackenzie Mountains	37
1000-635	2	660	Mackenzie Mountains	37
1000-635	2	660	Mackenzie Mountains	37
1000-635	2	660	Mackenzie Mountains	37
1000-635	2	660	Mackenzie Mountains	37
1000-635	2	660	Mackenzie Mountains	37
1000-635	2	660	Mackenzie Mountains	37
1000-635	2	660	Mackenzie Mountains	37
1000-635	2	650	Mackenzie Mountains	37
1000-635	2	650	Mackenzie Mountains	37
1000-635	2	650	Mackenzie Mountains	37
1000-635	2	650	Mackenzie Mountains	37
1000-635	2	650	Mackenzie Mountains	37
1000-635	2	650	Mackenzie Mountains	37

1000-635	2	650	Mackenzie Mountains	37
1000-635	2	650	Mackenzie Mountains	37
1000-635	2	650	Mackenzie Mountains	37
1000-635	2	650	Mackenzie Mountains	37
1000-635	2	650	Mackenzie Mountains	37
1000-635	2	650	Mackenzie Mountains	37
1000-635	2	650	Mackenzie Mountains	37
1000-635	2	650	Mackenzie Mountains	37
1000-635	2	650	Mackenzie Mountains	37
1000-635	2	650	Mackenzie Mountains	37
1000-635	2	650	Mackenzie Mountains	37
1000-635	2	650	Mackenzie Mountains	37
1000-635	2	650	Mackenzie Mountains	37
1000-635	2	650	Mackenzie Mountains	37
1000-635	2	650	Mackenzie Mountains	37
1000-635	2	650	Mackenzie Mountains	37
1000-635	2	650	Mackenzie Mountains	37
1000-635	2	650	Mackenzie Mountains	37
1000-635	2	650	Mackenzie Mountains	37
1000-635	2	650	Mackenzie Mountains	37
1000-635	2	650	Mackenzie Mountains	37
1000-635	2	650	Mackenzie Mountains	37
1000-635	2	650	Mackenzie Mountains	37
1000-635	2	650	Mackenzie Mountains	37
1000-635	2	650	Mackenzie Mountains	37
1000-635	2	650	Mackenzie Mountains	37
1000-635	2	650	Mackenzie Mountains	37
1000-635	2	650	Mackenzie Mountains	37
1000-635	2	650	Mackenzie Mountains	37
1000-635	2	650	Mackenzie Mountains	37
1000-635	2	650	Mackenzie Mountains	37
1000-635	2	650	Mackenzie Mountains	37
1000-635	2	650	Mackenzie Mountains	37
1000-635	2	650	Mackenzie Mountains	37
1000-635	2	750	Uinta Mountains	40
1000-635	2	750	Uinta Mountains	40
1000-635	2	750	Uinta Mountains	40
1000-635	2	750	Uinta Mountains	40
1000-635	2	750	Uinta Mountains	40
1000-635	2	750	Uinta Mountains	40
1000-635	2	750	Uinta Mountains	40

1000-635	2	750	Uinta Mountains	40

1000-635	2	750	Uinta Mountains	40
1000-635	2	750	Uinta Mountains	40
1000-635	2	750	Uinta Mountains	40
1000-635	2	750	Uinta Mountains	40
1000-635	2	750	Uinta Mountains	40
1000-635	2	750	Uinta Mountains	40
1000-635	2	750	Uinta Mountains	40
1000-635	2	750	Uinta Mountains	40
1000-635	2	750	Uinta Mountains	40
1000-635	2	750	Uinta Mountains	40
1000-635	2	750	Uinta Mountains	40
1000-635	2	750	Uinta Mountains	40
1000-635	2	750	Uinta Mountains	40
1000-635	2	750	Uinta Mountains	40
1000-635	2	750	Uinta Mountains	40
1000-635	2	750	Uinta Mountains	40
1000-635	2	750	Uinta Mountains	40
1000-635	2	750	Uinta Mountains	40
1000-635	2	750	Uinta Mountains	40
1000-635	2	750	Uinta Mountains	40
1000-635	2	750	Uinta Mountains	40
1000-635	2	750	Uinta Mountains	40
1000-635	2	750	Uinta Mountains	40
1000-635	2	750	Uinta Mountains	40
1000-635	2	745	Callison Lake Basin	45
1000-635	2	745	Callison Lake Basin	45
1000-635	2	745	Callison Lake Basin	45
1000-635	2	745	Callison Lake Basin	45
1000-635	2	745	Callison Lake Basin	45
1000-635	2	745	Callison Lake Basin	45
1000-635	2	745	Callison Lake Basin	45
1000-635	2	745	Callison Lake Basin	45
1000-635	2	745	Callison Lake Basin	45
1000-635	2	745	Callison Lake Basin	45
1000-635	2	745	Callison Lake Basin	45
1000-635	2	745	Callison Lake Basin	45
1000-635	2	745	Callison Lake Basin	45
1000-635	2	745	Callison Lake Basin	45
1000-635	2	745	Callison Lake Basin	45
1000-635	2	745	Callison Lake Basin	45
1000-635	2	745	Callison Lake Basin	45

1000-635	2	745	Callison Lake Basin	45
1000-635	2	745	Callison Lake Basin	45
1000-635	2	745	Callison Lake Basin	45
1000-635	2	745	Callison Lake Basin	45
1000-635	2	745	Callison Lake Basin	45
1000-635	2	745	Callison Lake Basin	45
1000-635	2	745	Callison Lake Basin	45
1000-635	2	745	Callison Lake Basin	45
1000-635	2	745	Callison Lake Basin	45
1000-635	2	745	Callison Lake Basin	45
1000-635	2	745	Callison Lake Basin	45
1000-635	2	730	Callison Lake Basin	45
1000-635	2	730	Callison Lake Basin	45
1000-635	2	730	Callison Lake Basin	45
1000-635	2	730	Callison Lake Basin	45
1000-635	2	730	Callison Lake Basin	45
1000-635	2	730	Callison Lake Basin	45
1000-635	2	730	Callison Lake Basin	45
1000-635	2	730	Callison Lake Basin	45
1000-635	2	730	Callison Lake Basin	45
1000-635	2	730	Callison Lake Basin	45
1000-635	2	730	Callison Lake Basin	45
1000-635	2	730	Callison Lake Basin	45
1000-635	2	730	Callison Lake Basin	45
1000-635	2	730	Callison Lake Basin	45
1000-635	2	645.59	Svalbard	51
1000-635	2	646.05	Svalbard	51
1000-635	2	646.68	Svalbard	51
1000-635	2	648.11	Svalbard	51
1000-635	2	649.24	Svalbard	51
1000-635	2	650.37	Svalbard	51
1000-635	2	651.6	Svalbard	51
1000-635	2	652.73	Svalbard	51
1000-635	2	653.86	Svalbard	51
1000-635	2	654.25	Svalbard	51
1000-635	2	654.74	Svalbard	51
1000-635	2	656.66	Svalbard	51
1000-635	2	658.46	Svalbard	51
1000-635	2	659.81	Svalbard	51
1000-635	2	715	Svalbard	51
1000-635	2	715	Svalbard	51

1000-635	2	735.41	Svalbard	51
1000-635	2	736.13	Svalbard	51
1000-635	2	740.39	Svalbard	51
1000-635	2	740.55	Svalbard	51
1000-635	2	740.94	Svalbard	51
1000-635	2	741.39	Svalbard	51
1000-635	2	741.69	Svalbard	51
1000-635	2	741.99	Svalbard	51
1000-635	2	742.35	Svalbard	51
1000-635	2	742.65	Svalbard	51
1000-635	2	743.02	Svalbard	51
1000-635	2	743.66	Svalbard	51
1000-635	2	744.36	Svalbard	51
1000-635	2	780.4	Svalbard	51
1000-635	2	793.3	Svalbard	51
1000-635	2	794.54	Svalbard	51
1000-635	2	794.9	Svalbard	51
1000-635	2	802.15	Svalbard	51
1000-635	2	802.2	Svalbard	51
1000-635	2	802.23	Svalbard	51
1000-635	2	803.77	Svalbard	51
1000-635	2	835	Svalbard	51
1000-635	2	835	Svalbard	51
635-542	3	600	South China	1
635-542	3	600	South China	1
635-542	3	600	South China	1
635-542	3	600	South China	1
635-542	3	550	South China	1
635-542	3	550	South China	1
635-542	3	550	South China	1
635-542	3	550	South China	1
635-542	3	550	South China	1
635-542	3	550	South China	1
635-542	3	550	South China	1
635-542	3	550	South China	1
635-542	3	550	South China	1
635-542	3	550	South China	1
635-542	3	550	South China	1
635-542	3	550	South China	1
635-542	3	580	South China	1
635-542	3	580	South China	1
635-542	3	580	South China	1

635-542	3	580	South China	1
635-542	3	580	South China	1
635-542	3	580	South China	1

635-542	3	580	South China	1
635-542	3	580	South China	1
635-542	3	580	South China	1

635-542	3	630	South China	1
635-542	3	630	South China	1
635-542	3	630	South China	1

635-542	3	630	South China	1
635-542	3	630	South China	1
635-542	3	630	South China	1
635-542	3	630	South China	1
635-542	3	630	South China	1
635-542	3	630	South China	1
635-542	3	630	South China	1
635-542	3	630	South China	1
635-542	3	630	South China	1
635-542	3	630	South China	1
635-542	3	630	South China	1
635-542	3	630	South China	1
635-542	3	630	South China	1
635-542	3	630	South China	1
635-542	3	630	South China	1
635-542	3	630	South China	1
635-542	3	630	South China	1
635-542	3	630	South China	1
635-542	3	620	South China	1
635-542	3	620	South China	1
635-542	3	620

635-542	3	620	South China	1
635-542	3	620	South China	1
635-542	3	620	South China	1
635-542	3	620	South China	1
635-542	3	620	South China	1
635-542	3	620	South China	1
635-542	3	620	South China	1
635-542	3	620	South China	1
635-542	3	620	South China	1
635-542	3	620	South China	1
635-542	3	620	South China	1
635-542	3	550	South China	1
635-542	3	550	South China	1
635-542	3	550	South China	1
635-542	3	550	South China	1
635-542	3	550	South China	1
635-542	3	550	South China	1
635-542	3	550	South China	1
635-542	3	550	South China	1
635-542	3	550	South China	1
635-542	3	550	South China	1
635-542	3	550	South China	1
635-542	3	550	South China	1
635-542	3	600	Wernecke Mountains	4
635-542	3	600	Wernecke Mountains	4
635-542	3	600	Wernecke Mountains	4
635-542	3	600	Wernecke Mountains	4
635-542	3	600	Wernecke Mountains	4
635-542	3	600	Wernecke Mountains	4
635-542	3	600	Wernecke Mountains	4
635-542	3	600	Wernecke Mountains	4
635-542	3	600	Wernecke Mountains	4
635-542	3	600	Wernecke Mountains	4
635-542	3	600	Wernecke Mountains	4
635-542	3	600	Wernecke Mountains	4
635-542	3	600	Wernecke Mountains	4
635-542	3	600	Wernecke Mountains	4
635-542	3	600	Wernecke Mountains	4
635-542	3	600	Wernecke Mountains	4
635-542	3	600	Wernecke Mountains	4
635-542	3	600	Wernecke Mountains	4
635-542	3	600	Wernecke Mountains	4
635-542	3	600	Wernecke Mountains	4

635-542	3	600	Wernecke Mountains	4

635-542	3	600	Wernecke Mountains	4

635-542	3	600	Wernecke Mountains	4

635-542	3	600	Wernecke Mountains	4

635-542	3	560	Wernecke Mountains	4
635-542	3	560	Wernecke Mountains	4
635-542	3	550	Wernecke Mountains	4
635-542	3	550	Wernecke Mountains	4
635-542	3	550	Wernecke Mountains	4
635-542	3	550	Wernecke Mountains	4
635-542	3	620	Wernecke Mountains	4
635-542	3	620	Wernecke Mountains	4
635-542	3	620	Wernecke Mountains	4
635-542	3	620	Wernecke Mountains	4
635-542	3	620	Wernecke Mountains	4
635-542	3	620	Wernecke Mountains	4
635-542	3	620	Wernecke Mountains	4
635-542	3	620	Wernecke Mountains	4
635-542	3	620	Wernecke Mountains	4
635-542	3	620	Wernecke Mountains	4
635-542	3	620	Wernecke Mountains	4
635-542	3	620	Wernecke Mountains	4
635-542	3	620	Wernecke Mountains	4
635-542	3	620	Wernecke Mountains	4
635-542	3	620	Wernecke Mountains	4
635-542	3	620	Wernecke Mountains	4
635-542	3	620	Wernecke Mountains	4
635-542	3	620	Wernecke Mountains	4
635-542	3	620	Wernecke Mountains	4
635-542	3	620	Wernecke Mountains	4
635-542	3	620	Wernecke Mountains	4
635-542	3	620	Wernecke Mountains	4
635-542	3	620	Wernecke Mountains	4
635-542	3	620	Wernecke Mountains	4
635-542	3	620	Wernecke Mountains	4
635-542	3	620	Wernecke Mountains	4
635-542	3	620	Wernecke Mountains	4
635-542	3	620	Wernecke Mountains	4
635-542	3	620	Wernecke Mountains	4
635-542	3	620	Wernecke Mountains	4
635-542	3	620	Wernecke Mountains	4
635-542	3	620	Wernecke Mountains	4
635-542	3	570	Wernecke Mountains	4
635-542	3	570	Wernecke Mountains	4
635-542	3	570	Wernecke Mountains	4

635-542	3	570	Wernecke Mountains	4
635-542	3	570	Wernecke Mountains	4
635-542	3	570	Wernecke Mountains	4
635-542	3	570	Wernecke Mountains	4
635-542	3	570	Wernecke Mountains	4
635-542	3	570	Wernecke Mountains	4
635-542	3	570	Wernecke Mountains	4
635-542	3	570	Wernecke Mountains	4
635-542	3	570	Wernecke Mountains	4
635-542	3	570	Wernecke Mountains	4
635-542	3	570	Wernecke Mountains	4
635-542	3	550	Wernecke Mountains	4
635-542	3	550	Wernecke Mountains	4
635-542	3	550	Wernecke Mountains	4
635-542	3	550	Wernecke Mountains	4
635-542	3	550	Wernecke Mountains	4
635-542	3	550	Wernecke Mountains	4
635-542	3	550	Wernecke Mountains	4
635-542	3	550	Wernecke Mountains	4
635-542	3	550	Wernecke Mountains	4
635-542	3	550	Wernecke Mountains	4
635-542	3	550	Wernecke Mountains	4
635-542	3	550	Wernecke Mountains	4
635-542	3	550	Eastern European Platforr	14
635-542	3	550	Eastern European Platforr	14
635-542	3	550	Eastern European Platforr	14
635-542	3	550	Eastern European Platforr	14
635-542	3	550	Eastern European Platforr	14
635-542	3	550	Eastern European Platforr	14
635-542	3	550	Eastern European Platforr	14
635-542	3	550	Eastern European Platforr	14
635-542	3	550	Eastern European Platforr	14
635-542	3	550	Eastern European Platforr	14
635-542	3	550	Eastern European Platforr	14
635-542	3	550	Eastern European Platforr	14
635-542	3	550	Eastern European Platforr	14
635-542	3	550	Eastern European Platforr	14
635-542	3	550	Eastern European Platforr	14
635-542	3	550	Eastern European Platforr	14
635-542	3	550	Eastern European Platforr	14
635-542	3	550	Eastern European Platforr	14
635-542	3	550	Eastern European Platforr	14
635-542	3	550	Eastern European Platforr	14
635-542	3	550	Eastern European Platforr	14

635-542	3	550	Eastern European Platforr	14
635-542	3	550	Eastern European Platforr	14
635-542	3	550	Eastern European Platforr	14
635-542	3	550	Eastern European Platforr	14
635-542	3	550	Eastern European Platforr	14
635-542	3	550	Eastern European Platforr	14
635-542	3	550	Eastern European Platforr	14
635-542	3	550	Eastern European Platforr	14
635-542	3	550	Eastern European Platforr	14
635-542	3	550	Eastern European Platforr	14
635-542	3	550	Eastern European Platforr	14
635-542	3	550	Eastern European Platforr	14
635-542	3	550	Eastern European Platforr	14
635-542	3	550	Eastern European Platforr	14
635-542	3	550	Eastern European Platforr	14
635-542	3	550	Eastern European Platforr	14
635-542	3	550	Eastern European Platforr	14
635-542	3	550	Eastern European Platforr	14
635-542	3	550	Eastern European Platforr	14
635-542	3	550	Eastern European Platforr	14
635-542	3	550	Eastern European Platforr	14
635-542	3	550	Eastern European Platforr	14
635-542	3	550	Eastern European Platforr	14
635-542	3	550	Eastern European Platforr	14
635-542	3	550	Eastern European Platforr	14
635-542	3	550	Eastern European Platforr	14
635-542	3	550	Eastern European Platforr	14
635-542	3	600	Eastern European Platforr	14
635-542	3	600	Eastern European Platforr	14
635-542	3	600	Eastern European Platforr	14
635-542	3	600	Eastern European Platforr	14
635-542	3	600	Eastern European Platforr	14
635-542	3	600	Eastern European Platforr	14
635-542	3	600	Eastern European Platforr	14
635-542	3	600	Eastern European Platforr	14
635-542	3	600	Eastern European Platforr	14
635-542	3	600	Eastern European Platforr	14
635-542	3	600	Eastern European Platforr	14
635-542	3	600	Eastern European Platforr	14
635-542	3	600	Eastern European Platforr	14
635-542	3	600	Eastern European Platforr	14
635-542	3	600	Eastern European Platforr	14

635-542	3	600	Eastern European Platforr	14
635-542	3	600	Eastern European Platforr	14
635-542	3	600	Eastern European Platforr	14
635-542	3	600	Eastern European Platforr	14
635-542	3	600	Eastern European Platforr	14
635-542	3	600	Eastern European Platforr	14
635-542	3	600	Eastern European Platforr	14
635-542	3	600	Eastern European Platforr	14
635-542	3	600	Eastern European Platforr	14
635-542	3	600	Eastern European Platforr	14
635-542	3	600	Eastern European Platforr	14
635-542	3	600	Eastern European Platforr	14
635-542	3	600	Eastern European Platforr	14
635-542	3	600	Eastern European Platforr	14
635-542	3	600	Eastern European Platforr	14
635-542	3	600	Eastern European Platforr	14
635-542	3	600	Eastern European Platforr	14
635-542	3	600	Eastern European Platforr	14
635-542	3	600	Eastern European Platforr	14
635-542	3	600	Eastern European Platforr	14
635-542	3	600	Eastern European Platforr	14
635-542	3	600	Eastern European Platforr	14
635-542	3	600	Eastern European Platforr	14
635-542	3	600	Eastern European Platforr	14
635-542	3	600	Eastern European Platforr	14
635-542	3	600	Eastern European Platforr	14
635-542	3	565	Southern Canadian Cordil	26
635-542	3	565	Southern Canadian Cordil	26
635-542	3	565	Southern Canadian Cordil	26
635-542	3	565	Southern Canadian Cordil	26
635-542	3	565	Southern Canadian Cordil	26
635-542	3	565	Southern Canadian Cordil	26
635-542	3	565	Southern Canadian Cordil	26
635-542	3	565	Southern Canadian Cordil	26
635-542	3	565	Southern Canadian Cordil	26
635-542	3	565	Southern Canadian Cordil	26
635-542	3	565	Southern Canadian Cordil	26
635-542	3	565	Southern Canadian Cordil	26
635-542	3	565	Southern Canadian Cordil	26
635-542	3	565	Southern Canadian Cordil	26
635-542	3	565	Southern Canadian Cordil	26
635-542	3	565	Southern Canadian Cordil	26
635-542	3	565	Southern Canadian Cordil	26
635-542	3	565	Southern Canadian Cordil	26

635-542	3	565	Southern Canadian Cordil	26

635-542	3	565	Southern Canadian Cordil	26

635-542	3	565	Southern Canadian Cordil	26

635-542	3	580	Southern Canadian Cordil	26

635-542	3	580	Southern Canadian Cordil	26
635-542	3	580	Southern Canadian Cordil	26
635-542	3	580	Southern Canadian Cordil	26
635-542	3	580	Southern Canadian Cordil	26
635-542	3	580	Southern Canadian Cordil	26
635-542	3	580	Southern Canadian Cordil	26
635-542	3	580	Southern Canadian Cordil	26
635-542	3	580	Southern Canadian Cordil	26
635-542	3	580	Southern Canadian Cordil	26
635-542	3	575	Avalon (Newfoundland)	28
635-542	3	560	Avalon (Newfoundland)	28
635-542	3	560	Avalon (Newfoundland)	28
635-542	3	560	Avalon (Newfoundland)	28
635-542	3	560	Avalon (Newfoundland)	28
635-542	3	560	Avalon (Newfoundland)	28
635-542	3	560	Avalon (Newfoundland)	28
635-542	3	560	Avalon (Newfoundland)	28
635-542	3	560	Avalon (Newfoundland)	28
635-542	3	560	Avalon (Newfoundland)	28
635-542	3	560	Avalon (Newfoundland)	28
635-542	3	560	Avalon (Newfoundland)	28
635-542	3	560	Avalon (Newfoundland)	28
635-542	3	560	Avalon (Newfoundland)	28
635-542	3	580	Avalon (Newfoundland)	28
635-542	3	580	Avalon (Newfoundland)	28
635-542	3	580	Avalon (Newfoundland)	28
635-542	3	580	Avalon (Newfoundland)	28
635-542	3	580	Avalon (Newfoundland)	28
635-542	3	580	Avalon (Newfoundland)	28
635-542	3	580	Avalon (Newfoundland)	28
635-542	3	565	Avalon (Newfoundland)	28
635-542	3	565	Avalon (Newfoundland)	28
635-542	3	565	Avalon (Newfoundland)	28
635-542	3	565	Avalon (Newfoundland)	28
635-542	3	565	Avalon (Newfoundland)	28
635-542	3	565	Avalon (Newfoundland)	28
635-542	3	565	Avalon (Newfoundland)	28
635-542	3	565	Avalon (Newfoundland)	28
635-542	3	565	Avalon (Newfoundland)	28
635-542	3	575	Avalon (Newfoundland)	28
635-542	3	575	Avalon (Newfoundland)	28
635-542	3	575	Avalon (Newfoundland)	28

635-542	3	575	Avalon (Newfoundland)	28
635-542	3	575	Avalon (Newfoundland)	28
635-542	3	575	Avalon (Newfoundland)	28
635-542	3	575	Avalon (Newfoundland)	28
635-542	3	575	Avalon (Newfoundland)	28
635-542	3	575	Avalon (Newfoundland)	28
635-542	3	575	Avalon (Newfoundland)	28
635-542	3	575	Avalon (Newfoundland)	28
635-542	3	570	Avalon (Newfoundland)	28
635-542	3	570	Avalon (Newfoundland)	28
635-542	3	570	Avalon (Newfoundland)	28
635-542	3	570	Avalon (Newfoundland)	28
635-542	3	570	Avalon (Newfoundland)	28
635-542	3	570	Avalon (Newfoundland)	28
635-542	3	570	Avalon (Newfoundland)	28
635-542	3	570	Avalon (Newfoundland)	28
635-542	3	570	Avalon (Newfoundland)	28
635-542	3	570	Avalon (Newfoundland)	28
635-542	3	570	Avalon (Newfoundland)	28
635-542	3	570	Avalon (Newfoundland)	28
635-542	3	570	Avalon (Newfoundland)	28
635-542	3	570	Avalon (Newfoundland)	28
635-542	3	570	Avalon (Newfoundland)	28
635-542	3	575	Avalon (Newfoundland)	28
635-542	3	575	Avalon (Newfoundland)	28
635-542	3	575	Avalon (Newfoundland)	28
635-542	3	575	Avalon (Newfoundland)	28
635-542	3	575	Avalon (Newfoundland)	28
635-542	3	575	Avalon (Newfoundland)	28
635-542	3	575	Avalon (Newfoundland)	28
635-542	3	575	Avalon (Newfoundland)	28
635-542	3	575	Avalon (Newfoundland)	28
635-542	3	575	Avalon (Newfoundland)	28
635-542	3	575	Avalon (Newfoundland)	28
635-542	3	580	Avalon (Newfoundland)	28
635-542	3	580	Avalon (Newfoundland)	28
635-542	3	580	Avalon (Newfoundland)	28
635-542	3	580	Avalon (Newfoundland)	28
635-542	3	580	Avalon (Newfoundland)	28
635-542	3	565	Avalon (Newfoundland)	28
635-542	3	565	Avalon (Newfoundland)	28
635-542	3	565	Avalon (Newfoundland)	28

635-542	3	565	Avalon (Newfoundland)	28
635-542	3	565	Avalon (Newfoundland)	28
635-542	3	565	Avalon (Newfoundland)	28
635-542	3	565	Avalon (Newfoundland)	28
635-542	3	565	Avalon (Newfoundland)	28
635-542	3	565	Avalon (Newfoundland)	28
635-542	3	565	Avalon (Newfoundland)	28
635-542	3	565	Avalon (Newfoundland)	28
635-542	3	565	Avalon (Newfoundland)	28
635-542	3	565	Avalon (Newfoundland)	28
635-542	3	565	Avalon (Newfoundland)	28
635-542	3	565	Avalon (Newfoundland)	28
635-542	3	560	Avalon (Newfoundland)	28
635-542	3	560	Avalon (Newfoundland)	28
635-542	3	560	Avalon (Newfoundland)	28
635-542	3	560	Avalon (Newfoundland)	28
635-542	3	560	Avalon (Newfoundland)	28
635-542	3	560	Avalon (Newfoundland)	28
635-542	3	560	Avalon (Newfoundland)	28
635-542	3	560	Avalon (Newfoundland)	28
635-542	3	560	Avalon (Newfoundland)	28
635-542	3	560	Avalon (Newfoundland)	28
635-542	3	560	Avalon (Newfoundland)	28
635-542	3	560	Avalon (Newfoundland)	28
635-542	3	560	Avalon (Newfoundland)	28
635-542	3	560	Avalon (Newfoundland)	28
635-542	3	560	Avalon (Newfoundland)	28
635-542	3	560	Avalon (Newfoundland)	28
635-542	3	560	Avalon (Newfoundland)	28
635-542	3	560	Avalon (Newfoundland)	28
635-542	3	560	Avalon (Newfoundland)	28
635-542	3	560	Avalon (Newfoundland)	28
635-542	3	562	Avalon (Newfoundland)	28
635-542	3	562	Avalon (Newfoundland)	28
635-542	3	562	Avalon (Newfoundland)	28
635-542	3	562	Avalon (Newfoundland)	28
635-542	3	562	Avalon (Newfoundland)	28
635-542	3	562	Avalon (Newfoundland)	28
635-542	3	562	Avalon (Newfoundland)	28
635-542	3	562	Avalon (Newfoundland)	28
635-542	3	562	Avalon (Newfoundland)	28
635-542	3	562	Avalon (Newfoundland)	28
635-542	3	562	Avalon (Newfoundland)	28

635-542	3	562	Avalon (Newfoundland)	28
635-542	3	562	Avalon (Newfoundland)	28
635-542	3	562	Avalon (Newfoundland)	28
635-542	3	562	Avalon (Newfoundland)	28
635-542	3	562	Avalon (Newfoundland)	28
635-542	3	562	Avalon (Newfoundland)	28
635-542	3	590

635-542	3	575	Avalon (Newfoundland)	28
635-542	3	575	Avalon (Newfoundland)	28
635-542	3	575	Avalon (Newfoundland)	28
635-542	3	575	Avalon (Newfoundland)	28
635-542	3	575	Avalon (Newfoundland)	28
635-542	3	575	Avalon (Newfoundland)	28
635-542	3	575	Avalon (Newfoundland)	28
635-542	3	575	Avalon (Newfoundland)	28
635-542	3	575	Avalon (Newfoundland)	28
635-542	3	575	Avalon (Newfoundland)	28
635-542	3	575	Avalon (Newfoundland)	28
635-542	3	575	Avalon (Newfoundland)	28
635-542	3	575	Avalon (Newfoundland)	28
635-542	3	560	Avalon (Newfoundland)	28
635-542	3	560	Avalon (Newfoundland)	28
635-542	3	560	Avalon (Newfoundland)	28
635-542	3	560	Avalon (Newfoundland)	28
635-542	3	560	Avalon (Newfoundland)	28
635-542	3	560	Avalon (Newfoundland)	28
635-542	3	580	Avalon (Newfoundland)	28
635-542	3	580	Avalon (Newfoundland)	28
635-542	3	580	Avalon (Newfoundland)	28
635-542	3	580	Avalon (Newfoundland)	28
635-542	3	580	Avalon (Newfoundland)	28
635-542	3	580	Avalon (Newfoundland)	28
635-542	3	580	Avalon (Newfoundland)	28
635-542	3	580	Avalon (Newfoundland)	28
635-542	3	580	Avalon (Newfoundland)	28
635-542	3	580	Avalon (Newfoundland)	28
635-542	3	580	Avalon (Newfoundland)	28
635-542	3	580	Avalon (Newfoundland)	28
635-542	3	580	Avalon (Newfoundland)	28
635-542	3	580	Avalon (Newfoundland)	28
635-542	3	580	Avalon (Newfoundland)	28
635-542	3	580	Avalon (Newfoundland)	28
635-542	3	580	Avalon (Newfoundland)	28
635-542	3	580	Avalon (Newfoundland)	28
635-542	3	580	Avalon (Newfoundland)	28
635-542	3	580	Avalon (Newfoundland)	28
635-542	3	580	Avalon (Newfoundland)	28
635-542	3	580	Avalon (Newfoundland)	28
635-542	3	565	Avalon (Newfoundland)	28
635-542	3	565	Avalon (Newfoundland)	28
635-542	3	565	Avalon (Newfoundland)	28

635-542	3	560	Avalon (Newfoundland)	28
635-542	3	620	Spitsbergen	29
635-542	3	620	Spitsbergen	29
635-542	3	620	Spitsbergen	29
635-542	3	610	East Greenland	30
635-542	3	610	East Greenland	30
635-542	3	610	East Greenland	30
635-542	3	610	East Greenland	30
635-542	3	610	East Greenland	30
635-542	3	610	East Greenland	30
635-542	3	610	East Greenland	30
635-542	3	610	East Greenland	30
635-542	3	610	East Greenland	30
635-542	3	610	East Greenland	30
635-542	3	610	East Greenland	30
635-542	3	610	East Greenland	30
635-542	3	610	East Greenland	30
635-542	3	610	East Greenland	30
635-542	3	610	East Greenland	30
635-542	3	610	East Greenland	30
635-542	3	610	East Greenland	30
635-542	3	605	East Greenland	30
635-542	3	605	East Greenland	30
635-542	3	605	East Greenland	30
635-542	3	605	East Greenland	30
635-542	3	605	East Greenland	30
635-542	3	605	East Greenland	30
635-542	3	620	Stuart Shelf, South Austra	31
635-542	3	620	Stuart Shelf, South Austra	31
635-542	3	620	Stuart Shelf, South Austra	31
635-542	3	620	Stuart Shelf, South Austra	31
635-542	3	620	Stuart Shelf, South Austra	31
635-542	3	620	Stuart Shelf, South Austra	31
635-542	3	620	Stuart Shelf, South Austra	31
635-542	3	610	Stuart Shelf, South Austra	31
635-542	3	610	Stuart Shelf, South Austra	31
635-542	3	610	Stuart Shelf, South Austra	31
635-542	3	610	Stuart Shelf, South Austra	31
635-542	3	610	Stuart Shelf, South Austra	31
635-542	3	610	Stuart Shelf, South Austra	31
635-542	3	610	Stuart Shelf, South Austra	31

635-542	3	610	Stuart Shelf, South Austra	31
635-542	3	610	Stuart Shelf, South Austra	31
635-542	3	610	Stuart Shelf, South Austra	31
635-542	3	610	Stuart Shelf, South Austra	31
635-542	3	610	Stuart Shelf, South Austra	31
635-542	3	610	Stuart Shelf, South Austra	31
635-542	3	610	Stuart Shelf, South Austra	31
635-542	3	610	Stuart Shelf, South Austra	31
635-542	3	610	Stuart Shelf, South Austra	31
635-542	3	610	Stuart Shelf, South Austra	31
635-542	3	610	Stuart Shelf, South Austra	31
635-542	3	610	Stuart Shelf, South Austra	31
635-542	3	610	Stuart Shelf, South Austra	31
635-542	3	610	Stuart Shelf, South Austra	31
635-542	3	590	Stuart Shelf, South Austra	31
635-542	3	590	Stuart Shelf, South Austra	31
635-542	3	590	Stuart Shelf, South Austra	31
635-542	3	590	Stuart Shelf, South Austra	31
635-542	3	590	Stuart Shelf, South Austra	31
635-542	3	590	Stuart Shelf, South Austra	31
635-542	3	590	Stuart Shelf, South Austra	31
635-542	3	590	Stuart Shelf, South Austra	31
635-542	3	590	Stuart Shelf, South Austra	31
635-542	3	590	Stuart Shelf, South Austra	31
635-542	3	625	Stuart Shelf, South Austra	31
635-542	3	625	Stuart Shelf, South Austra	31
635-542	3	625	Stuart Shelf, South Austra	31
635-542	3	625	Stuart Shelf, South Austra	31
635-542	3	625	Stuart Shelf, South Austra	31
635-542	3	625	Stuart Shelf, South Austra	31
635-542	3	625	Stuart Shelf, South Austra	31
635-542	3	625	Stuart Shelf, South Austra	31
635-542	3	545	Siberia	32
635-542	3	545	Siberia	32
635-542	3	545	Siberia	32
635-542	3	620	Ogilvie Mountains	36
635-542	3	620	Ogilvie Mountains	36
635-542	3	620	Ogilvie Mountains	36
635-542	3	620	Ogilvie Mountains	36
635-542	3	620	Ogilvie Mountains	36
635-542	3	620	Ogilvie Mountains	36

635-542	3	620	Ogilvie Mountains	36
635-542	3	620	Ogilvie Mountains	36
635-542	3	620	Ogilvie Mountains	36
635-542	3	620	Ogilvie Mountains	36
635-542	3	620	Ogilvie Mountains	36
635-542	3	620	Ogilvie Mountains	36
635-542	3	620	Ogilvie Mountains	36
635-542	3	620	Ogilvie Mountains	36
635-542	3	620	Ogilvie Mountains	36
635-542	3	620	Ogilvie Mountains	36
635-542	3	620	Ogilvie Mountains	36
635-542	3	620	Ogilvie Mountains	36
635-542	3	620	Ogilvie Mountains	36
635-542	3	620	Ogilvie Mountains	36
635-542	3	620	Ogilvie Mountains	36
635-542	3	620	Ogilvie Mountains	36
635-542	3	620	Ogilvie Mountains	36
635-542	3	620	Ogilvie Mountains	36
635-542	3	620	Ogilvie Mountains	36
635-542	3	620	Ogilvie Mountains	36
635-542	3	620	Ogilvie Mountains	36
635-542	3	620	Ogilvie Mountains	36
635-542	3	620	Ogilvie Mountains	36
635-542	3	620	Ogilvie Mountains	36
635-542	3	620	Ogilvie Mountains	36
635-542	3	620	Ogilvie Mountains	36
635-542	3	620	Ogilvie Mountains	36
635-542	3	620	Ogilvie Mountains	36
635-542	3	620	Ogilvie Mountains	36
635-542	3	620	Ogilvie Mountains	36
635-542	3	620	Ogilvie Mountains	36
635-542	3	620	Ogilvie Mountains	36
635-542	3	620	Ogilvie Mountains	36
635-542	3	555	Ogilvie Mountains	36
635-542	3	570	Mackenzie Mountains	37
635-542	3	570	Mackenzie Mountains	37
635-542	3	570	Mackenzie Mountains	37
635-542	3	570	Mackenzie Mountains	37
635-542	3	570	Mackenzie Mountains	37
635-542	3	620	Mackenzie Mountains	37
635-542	3	620	Mackenzie Mountains	37
635-542	3	620	Mackenzie Mountains	37
635-542	3	620	Mackenzie Mountains	37
635-542	3	620	Mackenzie Mountains	37

635-542	3	620	Mackenzie Mountains	37

635-542	3	620	Mackenzie Mountains	37

635-542	3	550	Mackenzie Mountains	37
635-542	3	550	Mackenzie Mountains	37
635-542	3	550	Mackenzie Mountains	37
635-542	3	550	Mackenzie Mountains	37
635-542	3	550	Mackenzie Mountains	37
635-542	3	550	Mackenzie Mountains	37
635-542	3	550	Mackenzie Mountains	37
635-542	3	550	Mackenzie Mountains	37
635-542	3	550	Mackenzie Mountains	37
635-542	3	570

635-542	3	570	Mackenzie Mountains	37
635-542	3	570	Mackenzie Mountains	37
635-542	3	570	Mackenzie Mountains	37
635-542	3	570	Mackenzie Mountains	37
635-542	3	570	Mackenzie Mountains	37
635-542	3	570	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	565	Mackenzie Mountains	37
635-542	3	590	Mackenzie Mountains	37
635-542	3	590	Mackenzie Mountains	37
635-542	3	590	Mackenzie Mountains	37
635-542	3	590	Mackenzie Mountains	37
635-542	3	590	Mackenzie Mountains	37

635-542	3	590	Mackenzie Mountains	37
635-542	3	590	Mackenzie Mountains	37
635-542	3	590	Mackenzie Mountains	37
635-542	3	590	Mackenzie Mountains	37
635-542	3	590	Mackenzie Mountains	37
635-542	3	590	Mackenzie Mountains	37
635-542	3	590	Mackenzie Mountains	37
635-542	3	590	Mackenzie Mountains	37
635-542	3	590	Mackenzie Mountains	37
635-542	3	590	Mackenzie Mountains	37
635-542	3	590	Mackenzie Mountains	37
635-542	3	590	Mackenzie Mountains	37
635-542	3	590	Mackenzie Mountains	37
635-542	3	590	Mackenzie Mountains	37
635-542	3	590	Mackenzie Mountains	37
635-542	3	590	Mackenzie Mountains	37
635-542	3	590	Mackenzie Mountains	37
635-542	3	590	Mackenzie Mountains	37
635-542	3	590	Mackenzie Mountains	37
635-542	3	590	Mackenzie Mountains	37
635-542	3	590	Mackenzie Mountains	37
635-542	3	590	Mackenzie Mountains	37
635-542	3	590	Mackenzie Mountains	37
635-542	3	550	Mackenzie Mountains	37
635-542	3	550	Mackenzie Mountains	37
635-542	3	545	Mackenzie Mountains	37
635-542	3	545	Mackenzie Mountains	37
635-542	3	545	Mackenzie Mountains	37
635-542	3	545	Mackenzie Mountains	37
635-542	3	545	Mackenzie Mountains	37
635-542	3	545	Mackenzie Mountains	37
635-542	3	545	Mackenzie Mountains	37
635-542	3	550	Mackenzie Mountains	37
635-542	3	560	Mackenzie Mountains	37
635-542	3	550	Mackenzie Mountains	37
635-542	3	560	Mackenzie Mountains	37
635-542	3	560	Mackenzie Mountains	37
635-542	3	560	Mackenzie Mountains	37
635-542	3	560	Mackenzie Mountains	37
635-542	3	560	Mackenzie Mountains	37
635-542	3	560	Mackenzie Mountains	37
635-542	3	560	Mackenzie Mountains	37
635-542	3	560	Mackenzie Mountains	37
635-542	3	560	Mackenzie Mountains	37
635-542	3	560	Mackenzie Mountains	37

635-542	3	560	Mackenzie Mountains	37
635-542	3	560	Mackenzie Mountains	37
635-542	3	560	Mackenzie Mountains	37
635-542	3	560	Mackenzie Mountains	37
635-542	3	560	Mackenzie Mountains	37
635-542	3	560	Mackenzie Mountains	37
635-542	3	560	Mackenzie Mountains	37
635-542	3	560	Mackenzie Mountains	37
635-542	3	560	Mackenzie Mountains	37
635-542	3	560	Mackenzie Mountains	37
635-542	3	560	Mackenzie Mountains	37
635-542	3	560	Mackenzie Mountains	37
635-542	3	560	Mackenzie Mountains	37
635-542	3	560	Mackenzie Mountains	37
635-542	3	560	Mackenzie Mountains	37
635-542	3	560	Mackenzie Mountains	37
635-542	3	560	Mackenzie Mountains	37
635-542	3	560	Mackenzie Mountains	37
635-542	3	560	Mackenzie Mountains	37
635-542	3	560	Mackenzie Mountains	37
635-542	3	560	Mackenzie Mountains	37
635-542	3	560	Mackenzie Mountains	37
635-542	3	550	Mackenzie Mountains	37
635-542	3	550	Mackenzie Mountains	37
635-542	3	550	Mackenzie Mountains	37
635-542	3	550	Mackenzie Mountains	37
635-542	3	550	Mackenzie Mountains	37
635-542	3	550	Mackenzie Mountains	37
635-542	3	550	Mackenzie Mountains	37
635-542	3	550	Mackenzie Mountains	37
635-542	3	550	Mackenzie Mountains	37
635-542	3	550	Mackenzie Mountains	37
635-542	3	550	Mackenzie Mountains	37
635-542	3	550	Mackenzie Mountains	37
635-542	3	550	Mackenzie Mountains	37
635-542	3	550	Mackenzie Mountains	37
635-542	3	550	Mackenzie Mountains	37
635-542	3	550	Mackenzie Mountains	37
635-542	3	550	Mackenzie Mountains	37
635-542	3	550	Mackenzie Mountains	37
635-542	3	550	Mackenzie Mountains	37
635-542	3	550	Mackenzie Mountains	37
635-542	3	550	Mackenzie Mountains	37
635-542	3	550	Mackenzie Mountains	37
635-542	3	550	Mackenzie Mountains	37
635-542	3	545	Mackenzie Mountains	37
635-542	3	545	Mackenzie Mountains	37
635-542	3	545	Mackenzie Mountains	37

635-542	3	545	Mackenzie Mountains	37
635-542	3	545	Mackenzie Mountains	37
635-542	3	545	Mackenzie Mountains	37
635-542	3	545	Mackenzie Mountains	37
635-542	3	545	Mackenzie Mountains	37
635-542	3	545	Mackenzie Mountains	37
635-542	3	545	Mackenzie Mountains	37
635-542	3	545	Mackenzie Mountains	37
635-542	3	545	Mackenzie Mountains	37
635-542	3	545	Mackenzie Mountains	37
635-542	3	555	Nico Perez Terrane (Urugu	42
635-542	3	555	Nico Perez Terrane (Urugu	42
635-542	3	555	Nico Perez Terrane (Urugu	42
635-542	3	555	Nico Perez Terrane (Urugu	42
635-542	3	555	Nico Perez Terrane (Urugu	42
635-542	3	555	Nico Perez Terrane (Urugu	42
635-542	3	555	Nico Perez Terrane (Urugu	42
635-542	3	555	Nico Perez Terrane (Urugu	42
635-542	3	555	Nico Perez Terrane (Urugu	42
635-542	3	555	Nico Perez Terrane (Urugu	42
635-542	3	555	Nico Perez Terrane (Urugu	42
635-542	3	555	Nico Perez Terrane (Urugu	42
635-542	3	555	Nico Perez Terrane (Urugu	42
635-542	3	555	Nico Perez Terrane (Urugu	42
635-542	3	555	Nico Perez Terrane (Urugu	42
635-542	3	555	Nico Perez Terrane (Urugu	42
635-542	3	555	Nico Perez Terrane (Urugu	42
635-542	3	555	Nico Perez Terrane (Urugu	42
635-542	3	555	Nico Perez Terrane (Urugu	42
635-542	3	555	Nico Perez Terrane (Urugu	42
635-542	3	555	Nico Perez Terrane (Urugu	42
635-542	3	555	Nico Perez Terrane (Urugu	42
635-542	3	555	Nico Perez Terrane (Urugu	42
635-542	3	555	Nico Perez Terrane (Urugu	42
635-542	3	555	Nico Perez Terrane (Urugu	42
635-542	3	555	Nico Perez Terrane (Urugu	42
635-542	3	555	Nico Perez Terrane (Urugu	42
635-542	3	555	Nico Perez Terrane (Urugu	42
635-542	3	555	Nico Perez Terrane (Urugu	42
635-542	3	555	Nico Perez Terrane (Urugu	42
635-542	3	555	Nico Perez Terrane (Urugu	42
635-542	3	548	Namibia	44

635-542	3	548	Namibia	44
635-542	3	548	Namibia	44
635-542	3	548	Namibia	44
635-542	3	548	Namibia	44
635-542	3	548	Namibia	44
635-542	3	548	Namibia	44
635-542	3	548	Namibia	44
635-542	3	548	Namibia	44
635-542	3	548	Namibia	44
635-542	3	548	Namibia	44
635-542	3	548	Namibia	44
635-542	3	548	Namibia	44
635-542	3	548	Namibia	44
635-542	3	545	Namibia	44
635-542	3	545	Namibia	44
635-542	3	545	Namibia	44
635-542	3	545	Namibia	44
635-542	3	545	Namibia	44
635-542	3	545	Namibia	44
635-542	3	545	Namibia	44
635-542	3	545	Namibia	44
635-542	3	545	Namibia	44
635-542	3	545	Namibia	44
635-542	3	545	Namibia	44
635-542	3	545	Namibia	44
635-542	3	545	Namibia	44
635-542	3	545	Namibia	44
635-542	3	545	Namibia	44
635-542	3	545	Namibia	44
635-542	3	545	Namibia	44
635-542	3	545	Namibia	44
635-542	3	545	Namibia	44
635-542	3	545	Namibia	44
635-542	3	545	Namibia	44
635-542	3	545	Namibia	44
635-542	3	545	Namibia	44
635-542	3	545	Namibia	44
635-542	3	545	Namibia	44
635-542	3	545	Namibia	44
635-542	3	545	Namibia	44
635-542	3	545	Namibia	44
635-542	3	545	Namibia	44
635-542	3	545	Namibia	44
635-542	3	548	Namibia	44
635-542	3	548	Namibia	44

635-542	3	548	Namibia	44
635-542	3	548	Namibia	44
635-542	3	548	Namibia	44
635-542	3	548	Namibia	44
635-542	3	548	Namibia	44
635-542	3	548	Namibia	44
635-542	3	548	Namibia	44
635-542	3	545	Mongolia	48
635-542	3	545	Mongolia	48
635-542	3	545	Mongolia	48
635-542	3	545	Mongolia	48
635-542	3	630.31	Svalbard	51
635-542	3	630.77	Svalbard	51
635-542	3	630.82	Svalbard	51
635-542	3	630.99	Svalbard	51
635-542	3	631.4	Svalbard	51
635-542	3	631.83	Svalbard	51
635-542	3	631.95	Svalbard	51
635-542	3	632.14	Svalbard	51
635-542	3	632.38	Svalbard	51
635-542	3	632.96	Svalbard	51
635-542	3	633.12	Svalbard	51
635-542	3	633.16	Svalbard	51
635-542	3	633.83	Svalbard	51
635-542	3	633.87	Svalbard	51
635-542	3	633.96	Svalbard	51
635-542	3	634.09	Svalbard	51
635-542	3	635	Svalbard	51
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1

542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	519	South China	1
542-490	4	519	South China	1
542-490	4	519	South China	1
542-490	4	519	South China	1
542-490	4	519	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1

542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	525	South China	1
542-490	4	526	South China	1
542-490	4	526	South China	1
542-490	4	526	South China	1
542-490	4	526	South China	1
542-490	4	526	South China	1
542-490	4	526	South China	1
542-490	4	526	South China	1
542-490	4	526	South China	1
542-490	4	526	South China	1
542-490	4	526	South China	1
542-490	4	526	South China	1
542-490	4	526	South China	1
542-490	4	526	South China	1
542-490	4	526	South China	1

542-490	4	526	South China	1
542-490	4	526	South China	1
542-490	4	526	South China	1
542-490	4	526	South China	1
542-490	4	526	South China	1
542-490	4	526	South China	1
542-490	4	526	South China	1
542-490	4	526	South China	1
542-490	4	526	South China	1
542-490	4	526	South China	1
542-490	4	526	South China	1
542-490	4	526	South China	1
542-490	4	526	South China	1
542-490	4	526	South China	1
542-490	4	526	South China	1
542-490	4	526	South China	1
542-490	4	526	South China	1
542-490	4	526	South China	1
542-490	4	526	South China	1
542-490	4	526	South China	1
542-490	4	526	South China	1
542-490	4	526	South China	1
542-490	4	526	South China	1
542-490	4	526	South China	1
542-490	4	526	South China	1
542-490	4	526	South China	1
542-490	4	526	South China	1
542-490	4	526	South China	1
542-490	4	526	South China	1
542-490	4	526	South China	1
542-490	4	526	South China	1
542-490	4	526	South China	1
542-490	4	526	South China	1
542-490	4	526	South China	1
542-490	4	523	South China	1
542-490	4	523	South China	1
542-490	4	523	South China	1
542-490	4	523	South China	1
542-490	4	523	South China	1
542-490	4	523	South China	1
542-490	4	523	South China	1
542-490	4	523	South China	1
542-490	4	523	South China	1
542-490	4	523	South China	1
542-490	4	523	South China	1

542-490	4	523	South China	1
542-490	4	523	South China	1
542-490	4	523	South China	1

542-490	4	520	South China	1
542-490	4	520	South China	1
542-490	4	520	South China	1
542-490	4	520	South China	1
542-490	4	520	South China	1
542-490	4	523	South China	1
542-490	4	520	South China	1
542-490	4	520	South China	1
542-490	4	520	South China	1
542-490	4	520	South China	1
542-490	4	520	South China	1
542-490	4	520	South China	1
542-490	4	520	South China	1
542-490	4	520	South China	1
542-490	4	520	South China	1
542-490	4	520	South China	1
542-490	4	523	South China	1
542-490	4	520	South China	1
542-490	4	520	South China	1
542-490	4	523	South China	1
542-490	4	523	South China	1
542-490	4	523	South China	1
542-490	4	520	South China	1
542-490	4	520	South China	1
542-490	4	520	South China	1
542-490	4	520	South China	1
542-490	4	520	South China	1
542-490	4	520	South China	1
542-490	4	520	South China	1
542-490	4	520	South China	1
542-490	4	520	South China	1
542-490	4	520	South China	1
542-490	4	520	South China	1
542-490	4	520	South China	1
542-490	4	520	South China	1
542-490	4	520	South China	1
542-490	4	520	South China	1
542-490	4	520	South China	1
542-490	4	530	South China	1
542-490	4	530	South China	1
542-490	4	530	South China	1

542-490	4	530	South China	1
542-490	4	540	South China	1
635-542	4	540	South China	1
635-542	4	540	South China	1
635-542	4	540	South China	1
635-542	4	540	South China	1
542-490	4	530	South China	1
542-490	4	530	South China	1
542-490	4	530	South China	1
542-490	4	530	South China	1
542-490	4	530	South China	1
542-490	4	530	South China	1
542-490	4	530	South China	1
542-490	4	530	South China	1
542-490	4	530	South China	1
542-490	4	530	South China	1
542-490	4	530	South China	1
542-490	4	530	South China	1
542-490	4	530	South China	1
542-490	4	530	South China	1
542-490	4	530	South China	1
542-490	4	530	South China	1
542-490	4	530	South China	1
542-490	4	530	South China	1
542-490	4	530	South China	1
542-490	4	535	Wernecke Mountains	4
542-490	4	535	Wernecke Mountains	4
542-490	4	535	Wernecke Mountains	4
542-490	4	535	Wernecke Mountains	4
542-490	4	535	Wernecke Mountains	4
542-490	4	535	Wernecke Mountains	4
542-490	4	535	Wernecke Mountains	4
542-490	4	535	Wernecke Mountains	4
542-490	4	535	Wernecke Mountains	4
542-490	4	535	Wernecke Mountains	4
542-490	4	535	Wernecke Mountains	4
542-490	4	535	Wernecke Mountains	4
542-490	4	535	Wernecke Mountains	4
542-490	4	535	Wernecke Mountains	4
542-490	4	535	Wernecke Mountains	4
542-490	4	535	Wernecke Mountains	4
542-490	4	535	Wernecke Mountains	4
542-490	4	535	Wernecke Mountains	4

542-490	4	535	Wernecke Mountains	4
542-490	4	535	Wernecke Mountains	4
542-490	4	535	Wernecke Mountains	4
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18

542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18

542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18

542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	502	House Embayment	18
542-490	4	497	Sweden	20
542-490	4	497	Sweden	20
542-490	4	497	Sweden	20

542-490	4	497	Sweden	20
542-490	4	497	Sweden	20
542-490	4	505	Southern Canadian Cordil	26
542-490	4	505	Southern Canadian Cordil	26
542-490	4	505	Southern Canadian Cordil	26
542-490	4	505	Southern Canadian Cordil	26
542-490	4	530	East Greenland	30
542-490	4	530	East Greenland	30
542-490	4	530	East Greenland	30
542-490	4	530	East Greenland	30
542-490	4	530	East Greenland	30
542-490	4	540	Siberia	32
542-490	4	540	Siberia	32
542-490	4	540	Siberia	32
542-490	4	540	Siberia	32
542-490	4	540	Siberia	32
542-490	4	540	Siberia	32
542-490	4	530	Ogilvie Mountains	36
542-490	4	530	Ogilvie Mountains	36
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37

542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	535	Mackenzie Mountains	37
542-490	4	510	Georgina Basin	41
542-490	4	510	Georgina Basin	41
542-490	4	510	Georgina Basin	41
542-490	4	510	Georgina Basin	41
542-490	4	510	Georgina Basin	41
542-490	4	510	Georgina Basin	41
542-490	4	510	Georgina Basin	41
542-490	4	510	Georgina Basin	41
542-490	4	510	Georgina Basin	41
542-490	4	510	Georgina Basin	41
542-490	4	510	Georgina Basin	41
542-490	4	510	Georgina Basin	41

542-490	4	510	Georgina Basin	41
542-490	4	510	Georgina Basin	41
542-490	4	510	Georgina Basin	41
542-490	4	510	Georgina Basin	41
542-490	4	510	Georgina Basin	41
542-490	4	510	Georgina Basin	41
542-490	4	510	Georgina Basin	41
542-490	4	510	Georgina Basin	41
542-490	4	510	Georgina Basin	41
542-490	4	510	Georgina Basin	41
542-490	4	510	Georgina Basin	41
542-490	4	510	Georgina Basin	41
542-490	4	510	Georgina Basin	41
542-490	4	510	Georgina Basin	41
542-490	4	510	Georgina Basin	41
542-490	4	510	Georgina Basin	41
542-490	4	538	Namibia	44
542-490	4	538	Namibia	44
542-490	4	538	Namibia	44
542-490	4	538	Namibia	44
542-490	4	538	Namibia	44
542-490	4	538	Namibia	44
542-490	4	538	Namibia	44
542-490	4	538	Namibia	44
542-490	4	538	Namibia	44
542-490	4	538	Namibia	44
542-490	4	538	Namibia	44
542-490	4	538	Namibia	44
542-490	4	538	Namibia	44
542-490	4	538	Namibia	44
542-490	4	538	Namibia	44
542-490	4	538	Namibia	44
542-490	4	538	Namibia	44
542-490	4	538	Namibia	44
542-490	4	538	Namibia	44
542-490	4	538	Namibia	44
542-490	4	538	Namibia	44
542-490	4	538	Namibia	44
542-490	4	538	Namibia	44

542-490	4	538	Namibia	44
542-490	4	538	Mongolia	48
542-490	4	538	Mongolia	48
542-490	4	538	Mongolia	48
542-490	4	538	Mongolia	48
542-490	4	538	Mongolia	48
542-490	4	538	Mongolia	48
542-490	4	538	Mongolia	48
542-490	4	538	Mongolia	48
542-490	4	538	Mongolia	48
542-490	4	538	Mongolia	48
542-490	4	538	Mongolia	48
542-490	4	538	Mongolia	48
542-490	4	538	Mongolia	48
542-490	4	538	Mongolia	48
542-490	4	538	Mongolia	48
542-490	4	538	Mongolia	48
542-490	4	538	Mongolia	48
542-490	4	538	Mongolia	48
542-490	4	538	Mongolia	48
490-250	5	382	Acadian	3
490-250	5	382	Acadian	3
490-250	5	382	Acadian	3
490-250	5	382	Acadian	3
490-250	5	382	Acadian	3
490-250	5	382	Acadian	3
490-250	5	382	Acadian	3
490-250	5	382	Acadian	3
490-250	5	382	Acadian	3
490-250	5	382	Acadian	3
490-250	5	382	Acadian	3
490-250	5	382	Acadian	3
490-250	5	382	Acadian	3
490-250	5	382	Acadian	3
490-250	5	382	Acadian	3
490-250	5	382	Acadian	3
490-250	5	382	Acadian	3
490-250	5	382	Acadian	3
490-250	5	382	Acadian	3
490-250	5	382	Acadian	3

490-250	5	382	Acadian	3
490-250	5	382	Acadian	3
490-250	5	382	Acadian	3
490-250	5	382	Acadian	3
490-250	5	382	Acadian	3
490-250	5	382	Acadian	3
490-250	5	382	Acadian	3
490-250	5	382	Acadian	3
490-250	5	382	Acadian	3
490-250	5	382	Acadian	3
490-250	5	382	Acadian	3
490-250	5	382	Acadian	3
490-250	5	387	Acadian	3
490-250	5	387	Acadian	3
490-250	5	387

490-250	5	387	Acadian	3
490-250	5	387	Acadian	3
490-250	5	387	Acadian	3

490-365	5	367	Acadian	13
490-365	5	365	Acadian	13
490-365	5	365	Acadian	13
490-250	5	480	Taconic	13
490-250	5	480	Taconic	13
490-250	5	480	Taconic

490-250	5	480	Taconic	13
490-250	5	480	Taconic	13
490-250	5	480	Taconic	13

490-250	5	480	Taconic	13
490-250	5	480	Taconic	13
490-250	5	480	Taconic	13
490-250	5	480	Taconic	13
490-250	5	480	Taconic	13
490-250	5	480	Taconic	13
490-250	5	480	Taconic	13
490-250	5	480	Taconic	13
490-250	5	480	Taconic	13
490-250	5	480	Taconic	13
490-250	5	480	Taconic	13
490-250	5	480	Taconic	13
490-250	5	480	Taconic	13
490-250	5	480	Taconic	13
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15

490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-250	5	445	Scotland	15
490-365	5	443	Denmark	16
490-365	5	443	Denmark	16
490-365	5	443	Denmark	16
490-365	5	443	Denmark	16
490-365	5	443	Denmark	16
490-365	5	443	Denmark	16
490-365	5	443	Denmark	16
490-365	5	443	Denmark	16
490-365	5	443	Denmark	16
490-365	5	443	Denmark	16
490-250	5	445	Denmark	16
490-250	5	445	Denmark	16
490-250	5	445	Denmark	16
490-250	5	445	Denmark	16
490-250	5	445	Denmark	16
490-250	5	445	Denmark	16
490-250	5	445	Denmark	16
490-250	5	445	Denmark	16
490-250	5	445	Denmark	16
490-250	5	445	Denmark	16
490-250	5	445	Denmark	16
490-250	5	445	Denmark	16
490-250	5	445	Denmark	16

490-250	5	445	Denmark	16
490-250	5	445	Denmark	16
490-250	5	445	Denmark	16

490-250	5	445	Denmark	16
490-250	5	445	Denmark	16
490-250	5	445	Denmark	16
490-250	5	445	Denmark	16
490-250	5	445	Denmark	16
490-250	5	445	Denmark	16
490-250	5	445	Denmark	16
490-250	5	445	Denmark	16
490-250	5	445	Denmark	16
490-250	5	445	Denmark	16
490-250	5	445	Denmark	16
490-250	5	445	Denmark	16
490-250	5	445	Denmark	16
490-250	5	445	Denmark	16
490-250	5	445	Denmark	16
490-250	5	445	Denmark	16
490-250	5	445	Denmark	16
490-250	5	445	Denmark	16
490-250	5	445	Denmark	16
490-250	5	445	Denmark	16
490-250	5	445	Denmark	16
490-250	5	445	Denmark	16
490-250	5	445	Carnic Alps	17
490-250	5	445	Carnic Alps	17
490-250	5	445	Carnic Alps	17
490-250	5	445	Carnic Alps	17
490-250	5	445	Carnic Alps	17
490-250	5	445	Carnic Alps	17
490-250	5	445	Carnic Alps	17
490-250	5	445	Carnic Alps	17
490-250	5	445	Carnic Alps	17
490-250	5	445	Carnic Alps	17
490-250	5	445	Carnic Alps	17
490-250	5	445	Carnic Alps	17
490-250	5	445	Carnic Alps	17
490-250	5	445	Carnic Alps	17
490-250	5	445	Carnic Alps	17
490-250	5	445	Carnic Alps	17
490-250	5	445	Carnic Alps	17
490-250	5	445	Carnic Alps	17
490-250	5	445	Carnic Alps	17
490-250	5	445	Carnic Alps	17

490-250	5	445	Carnic Alps	17
490-250	5	445	Carnic Alps	17
490-250	5	445	Carnic Alps	17
490-250	5	445	Carnic Alps	17
490-250	5	445	Carnic Alps	17
490-250	5	445	Carnic Alps	17
490-250	5	445	Carnic Alps	17
490-250	5	445	Carnic Alps	17
490-250	5	445	Carnic Alps	17
490-250	5	445	Carnic Alps	17
490-250	5	445	Carnic Alps	17
490-250	5	445	Carnic Alps	17
490-250	5	445	Carnic Alps	17
490-250	5	445	Carnic Alps	17
490-250	5	445	Carnic Alps	17
490-250	5	445	Carnic Alps	17
490-250	5	445	Carnic Alps	17
490-250	5	445	Carnic Alps	17
490-365	5	463	Sweden	20
490-365	5	463	Sweden	20
490-365	5	480	Sweden	20
490-365	5	480	Sweden	20
490-365	5	480	Sweden	20
490-365	5	485	Sweden	20
490-365	5	485	Sweden	20
490-365	5	485	Sweden	20
490-365	5	435	Sweden	20
490-365	5	435	Sweden	20
490-365	5	435	Sweden	20
490-365	5	435	Sweden	20
490-365	5	435	Sweden	20
490-365	5	435	Sweden	20
490-365	5	435	Sweden	20
490-365	5	435	Sweden	20
490-365	5	435	Sweden	20
490-365	5	435	South Africa	50
490-365	5	435	South Africa	50
490-365	5	435	South Africa	50
0	7	0	Modern continental marg	21
0	7	0	Modern continental marg	21

0	7	0	Modern continental marg	21
0	7	0	Modern continental marg	21
0	7	0	Modern continental marg	21

0	7	0	Modern continental marg	21
0	7	0	Modern continental marg	21
0	7	0	Modern continental marg	21
0	7	0	Modern continental marg	21
0	7	0	Modern continental marg	21
0	7	0	Modern continental marg	21
0	7	0	Modern continental marg	21
0	7	0	Modern continental marg	21
0	7	0	Modern continental marg	21
0	7	0	Modern continental marg	21
0	7	0	Modern continental marg	21
0	7	0	Modern continental marg	21
0	7	0	Modern continental marg	21
0	7	0	Modern continental marg	21
0	7	0	Modern continental marg	21
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22

0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern deep sea	22
0	7	0	Modern dysaerobic	23
0	7	0	Modern dysaerobic	23
0	7	0	Modern dysaerobic	23
0	7	0	Modern dysaerobic	23
0	7	0	Modern dysaerobic	23
0	7	0	Modern dysaerobic	23
0	7	0	Modern dysaerobic	23
0	7	0	Modern dysaerobic	23

0	7	0	Modern dysaerobic	23
0	7	0	Modern dysaerobic	23
0	7	0	Modern dysaerobic	23
0	7	0	Modern dysaerobic	23
0	7	0	Modern dysaerobic	23
0	7	0	Modern dysaerobic	23
0	7	0	Modern dysaerobic	23
0	7	0	Modern dysaerobic	23
0	7	0	Modern dysaerobic	23
0	7	0	Modern dysaerobic	23
0	7	0	Modern dysaerobic	23
0	7	0	Modern dysaerobic	23
0	7	0	Modern dysaerobic	23
0	7	0	Modern dysaerobic	23
0	7	0	Modern dysaerobic	23
0	7	0	Modern dysaerobic	23
0	7	0	Modern dysaerobic	23
0	7	0	Modern dysaerobic	23
0	7	0	Modern dysaerobic	23
0	7	0	Modern dysaerobic	23
0	7	0	Modern dysaerobic	23
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24

0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24

0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24
0	7	0	Modern anaerobic	24

Publication	Core/Outcrop	itional Enviro	Notes
Reuschel et al., 2012, Precambrian Research	Core	3	For these rocks, F
Reuschel et al., 2012, Precambrian Research	Core	3	For these rocks, F
Reuschel et al., 2012, Precambrian Research	Core	3	For these rocks, F
Reuschel et al., 2012, Precambrian Research	Core	3	For these rocks, F
Reuschel et al., 2012, Precambrian Research	Core	3	For these rocks, F
Reuschel et al., 2012, Precambrian Research	Core	3	For these rocks, F
Reuschel et al., 2012, Precambrian Research	Core	3	For these rocks, F
Reuschel et al., 2012, Precambrian Research	Core	3	For these rocks, F
Reuschel et al., 2012, Precambrian Research	Core	3	For these rocks, F
Reuschel et al., 2012, Precambrian Research	Core	3	For these rocks, F
Reuschel et al., 2012, Precambrian Research	Core	3	For these rocks, F
Reuschel et al., 2012, Precambrian Research	Core	3	For these rocks, F
Reuschel et al., 2012, Precambrian Research	Core	3	For these rocks, F
Reuschel et al., 2012, Precambrian Research	Core	3	For these rocks, F
Reuschel et al., 2012, Precambrian Research	Core	3	For these rocks, F
Reuschel et al., 2012, Precambrian Research	Core	3	For these rocks, F
Reuschel et al., 2012, Precambrian Research	Core	3	For these rocks, F
Reuschel et al., 2012, Precambrian Research	Core	3	For these rocks, F
Reuschel et al., 2012, Precambrian Research	Core	3	For these rocks, F
Reuschel et al., 2012, Precambrian Research	Core	3	For these rocks, F
Reuschel et al., 2012, Precambrian Research	Core	3	For these rocks, F
Reuschel et al., 2012, Precambrian Research	Core	3	For these rocks, F
Reuschel et al., 2012, Precambrian Research	Core	3	For these rocks, F
Reuschel et al., 2012, Precambrian Research	Core	3	For these rocks, F
Reuschel et al., 2012, Precambrian Research	Core	3	For these rocks, F
Reuschel et al., 2012, Precambrian Research	Core	3	For these rocks, F
Reuschel et al., 2012, Precambrian Research	Core	3	For these rocks, F
Reuschel et al., 2012, Precambrian Research	Core	3	For these rocks, F
Reuschel et al., 2012, Precambrian Research	Core	3	For these rocks, F
Reuschel et al., 2012, Precambrian Research	Core	3	For these rocks, F
Planavsky et al., 2011, Nature	Outcrop	3	
Planavsky et al., 2011, Nature	Outcrop	3	
Planavsky et al., 2011, Nature	Outcrop	3	
Planavsky et al., 2011, Nature	Outcrop	3	
Planavsky et al., 2011, Nature	Outcrop	3	
Planavsky et al., 2011, Nature	Outcrop	3	
Planavsky et al., 2011, Nature	Outcrop	2	
Planavsky et al., 2011, Nature	Outcrop	2	

Planavsky et al., 2011, Nature	Outcrop	2	
Planavsky et al., 2011, Nature	Outcrop	2	
Planavsky et al., 2011, Nature	Outcrop	2	
Planavsky et al., 2011, Nature	Outcrop	2	
Planavsky et al., 2011, Nature	Outcrop	2	
Planavsky et al., 2011, Nature	Outcrop	2	
Planavsky et al., 2011, Nature	Outcrop	2	
Planavsky et al., 2011, Nature	Outcrop	2	
Planavsky et al., 2011, Nature	Outcrop	2	
Planavsky et al., 2011, Nature	Outcrop	3	
Planavsky et al., 2011, Nature	Outcrop	3	
Planavsky et al., 2011, Nature	Outcrop	3	
Planavsky et al., 2011, Nature	Outcrop	3	
Planavsky et al., 2011, Nature	Outcrop	3	
Planavsky et al., 2011, Nature	Outcrop	3	
Planavsky et al., 2011, Nature	Outcrop	3	
Planavsky et al., 2011, Nature	Outcrop	3	
Planavsky et al., 2011, Nature	Outcrop	3	
Planavsky et al., 2011, Nature	Outcrop	3	
Planavsky et al., 2011, Nature	Outcrop	3	
Planavsky et al., 2011, Nature	Outcrop	3	
Planavsky et al., 2011, Nature	Outcrop	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Outcrop	2	Sample informatic
Planavsky et al., 2011, Nature	Outcrop	2	Sample informatic
Planavsky et al., 2011, Nature	Outcrop	2	Sample informatic
Planavsky et al., 2011, Nature	Outcrop	2	Sample informatic

Planavsky et al., 2011, Nature	Outcrop	2	Sample informatic
Planavsky et al., 2011, Nature	Outcrop	2	Sample informatic
Gilleaudeau and Kah, 2013, Chemical Geology	Core	2

Gilleaudeau and Kah, 2013, Chemical Geology	Core	2

Gilleaudeau and Kah, 2013, Chemical Geology	Core	2

Gilleaudeau and Kah, 2013, Chemical Geology	Core	1
Gilleaudeau and Kah, 2013, Chemical Geology	Core	1
Gilleaudeau and Kah, 2013, Chemical Geology	Core	1
Gilleaudeau and Kah, 2013, Chemical Geology	Core	1
Gilleaudeau and Kah, 2013, Chemical Geology	Core	1
Gilleaudeau and Kah, 2013, Chemical Geology	Core	1
Canfield et al., 2013 PNAS	Both	3
Canfield et al., 2013 PNAS	Both	3
Canfield et al., 2013 PNAS	Both	3
Canfield et al., 2013 PNAS	Both	3
Canfield et al., 2013 PNAS	Both	3
Canfield et al., 2013 PNAS	Both	3
Canfield et al., 2013 PNAS	Both	3
Canfield et al., 2013 PNAS	Both	3
Canfield et al., 2013 PNAS	Both	3
Canfield et al., 2013 PNAS	Both	3
Canfield et al., 2013 PNAS	Both	3
Canfield et al., 2013 PNAS	Both	3
Canfield et al., 2013 PNAS	Both	3
Canfield et al., 2013 PNAS	Both	3
Canfield et al., 2013 PNAS	Both	3
Canfield et al., 2013 PNAS	Both	3
Canfield et al., 2013 PNAS	Both	3
Canfield et al., 2013 PNAS	Both	3
Canfield et al., 2013 PNAS	Both	3
Canfield et al., 2013 PNAS	Both	3
Canfield et al., 2013 PNAS	Both	3
Canfield et al., 2013 PNAS	Both	3
Canfield et al., 2013 PNAS	Both	3
Canfield et al., 2013 PNAS	Both	3
Canfield et al., 2013 PNAS	Both	3
Canfield et al., 2013 PNAS	Both	3
Canfield et al., 2013 PNAS	Both	3
Canfield et al., 2013 PNAS	Both	3
Canfield et al., 2013 PNAS	Both	3
Canfield et al., 2013 PNAS	Both	3
Canfield et al., 2013 PNAS	Both	3
Canfield et al., 2013 PNAS	Both	3
Canfield et al., 2013 PNAS	Both	3
Canfield et al., 2013 PNAS	Both	3
Canfield et al., 2013 PNAS	Both	3
Canfield et al., 2013 PNAS	Both	3
Canfield et al., 2013 PNAS	Both	3
Canfield et al., 2013 PNAS	Both	3
Canfield et al., 2013 PNAS	Both	3

Canfield et al., 2013 PNAS	Both	3
Canfield et al., 2013 PNAS	Both	3
Canfield et al., 2013 PNAS	Both	3

Canfield et al., 2013 PNAS	Both	3
Canfield et al., 2013 PNAS	Both	3
Canfield et al., 2013 PNAS	Both	3

El Albani et al., 2010, Nature	Outcrop	2
El Albani et al., 2010, Nature	Outcrop	2
El Albani et al., 2010, Nature	Outcrop	2
El Albani et al., 2010, Nature	Outcrop	2
El Albani et al., 2010, Nature	Outcrop	2
El Albani et al., 2010, Nature	Outcrop	2
El Albani et al., 2010, Nature	Outcrop	2
El Albani et al., 2010, Nature	Outcrop	2
El Albani et al., 2010, Nature	Outcrop	2
Sperling et al., 2014, Geobiology	Core	3
Sperling et al., 2014, Geobiology	Core	3
Sperling et al., 2014, Geobiology	Core	3

Sperling et al., 2014, Geobiology	Core	3	
Sperling et al., 2014, Geobiology	Core	3	
Sperling et al., 2014, Geobiology	Core	3	
Sperling et al., 2014, Geobiology	Core	3	
Sperling et al., 2014, Geobiology	Core	3	
Sperling et al., 2014, Geobiology	Core	3	
Sperling et al., 2014, Geobiology	Core	3	
Sperling et al., 2014, Geobiology	Core	3	
Sperling et al., 2014, Geobiology	Core	3	
This Study	Core	1	
This Study	Core	1	
This Study	Core	1	
This Study	Core	1	
This Study	Core	1	
This Study	Core	1	
This Study	Core	1	
Shen et al., 2003, Nature	Core	1	Uses old extractio
Shen et al., 2003, Nature	Core	1	Uses old extractio
Shen et al., 2003, Nature	Core	1	Uses old extractio
Shen et al., 2003, Nature	Core	1	Uses old extractio
Shen et al., 2003, Nature	Core	1	Uses old extractio
Shen et al., 2003, Nature	Core	1	Uses old extractio
Shen et al., 2003, Nature	Core	1	Uses old extractio
Shen et al., 2003, Nature	Core	1	Uses old extractio
Shen et al., 2003, Nature	Core	1	Uses old extractio
Shen et al., 2003, Nature	Core	1	Uses old extractio
Shen et al., 2003, Nature	Core	1	Uses old extractio
Shen et al., 2003, Nature	Core	1	Uses old extractio
Shen et al., 2003, Nature	Core	1	Uses old extractio
Shen et al., 2003, Nature	Core	1	Uses old extractio
Shen et al., 2003, Nature	Core	1	Uses old extractio
Shen et al., 2003, Nature	Core	1	Uses old extractio
Shen et al., 2003, Nature	Core	1	Uses old extractio
Shen et al., 2003, Nature	Core	1	Uses old extractio
Shen et al., 2003, Nature	Core	1	Uses old extractio
Shen et al., 2003, Nature	Core	1	Uses old extractio
Shen et al., 2003, Nature	Core	3	Uses old extractio
Shen et al., 2003, Nature	Core	3	Uses old extractio
Shen et al., 2003, Nature	Core	3	Uses old extractio
Shen et al., 2003, Nature	Core	3	Uses old extractio
Shen et al., 2003, Nature	Core	2	Uses old extractio
Shen et al., 2003, Nature	Core	2	Uses old extractio

Shen et al., 2003, Nature	Core	2	Uses old extractio
Shen et al., 2003, Nature	Core	2	Uses old extractio
Shen et al., 2003, Nature	Core	2	Uses old extractio
Shen et al., 2003, Nature	Core	2	Uses old extractio
Shen et al., 2003, Nature	Core	2	Uses old extractio
Shen et al., 2003, Nature	Core	2	Uses old extractio
Shen et al., 2003, Nature	Core	3	Uses old extractio
Shen et al., 2003, Nature	Core	2	Uses old extractio
Shen et al., 2003, Nature	Core	2	Uses old extractio
Shen et al., 2003, Nature	Core	2	Uses old extractio
Shen et al., 2003, Nature	Core	3	Uses old extractio
Shen et al., 2003, Nature	Core	2	Uses old extractio
Shen et al., 2003, Nature	Core	3

Shen et al., 2003, Nature	Core	2	Uses old extractio
Shen et al., 2003, Nature	Core	2	Uses old extractio
Shen et al., 2003, Nature	Core	2	Uses old extractio
Shen et al., 2003, Nature	Core	2	Uses old extractio
Shen et al., 2003, Nature	Core	2	Uses old extractio
Shen et al., 2003, Nature	Core	2	Uses old extractio
Shen et al., 2003, Nature	Core	2	Uses old extractio
Shen et al., 2003, Nature	Core	2	Uses old extractio
Shen et al., 2003, Nature	Core	3	Uses old extractio
Shen et al., 2003, Nature	Core	3	Uses old extractio
Shen et al., 2003, Nature	Core	1	Uses old extractio
Shen et al., 2003, Nature	Core	1	Uses old extractio
Shen et al., 2003, Nature	Core	1	Uses old extractio
Shen et al., 2003, Nature	Core	1	Uses old extractio
Shen et al., 2003, Nature	Core	1	Uses old extractio
Shen et al., 2003, Nature	Core	1	Uses old extractio
Shen et al., 2003, Nature	Core	1	Uses old extractio
Shen et al., 2003, Nature	Core	1	Uses old extractio
Shen et al., 2003, Nature	Core	1	Uses old extractio
Shen et al., 2003, Nature	Core	1	Uses old extractio
Shen et al., 2003, Nature	Core	1	Uses old extractio
Shen et al., 2003, Nature	Core	1	Uses old extractio
Shen et al., 2003, Nature	Core	1	Uses old extractio
Shen et al., 2003, Nature	Core	1	Uses old extractio
Shen et al., 2003, Nature	Core	2	Uses old extractio
Shen et al., 2003, Nature	Core	2	Uses old extractio
Shen et al., 2003, Nature	Core	2	Uses old extractio
Shen et al., 2003, Nature	Core	2	Uses old extractio
Shen et al., 2003, Nature	Core	2	Uses old extractio
Shen et al., 2003, Nature	Core	2	Uses old extractio
Shen et al., 2003, Nature	Core	2	Uses old extractio
Shen et al., 2003, Nature	Core	2	Uses old extractio
Shen et al., 2003, Nature	Core	2	Uses old extractio
Shen et al., 2003, Nature	Core	2	Uses old extractio
Shen et al., 2003, Nature	Core	2	Uses old extractio
Shen et al., 2003, Nature	Core	2	Uses old extractio
Shen et al., 2003, Nature	Core	3	Uses old extractio
Shen et al., 2003, Nature	Core	3	Uses old extractio
Shen et al., 2003, Nature	Core	3	Uses old extractio
Shen et al., 2003, Nature	Core	2	Uses old extractio
Shen et al., 2003, Nature	Core	2	Uses old extractio

Shen et al., 2003, Nature	Core	2	Uses old extractio
Shen et al., 2003, Nature	Core	3	Uses old extractio
Shen et al., 2003, Nature	Core	3	Uses old extractio
Shen et al., 2003, Nature	Core	3	Uses old extractio
Shen et al., 2003, Nature	Core	3	Uses old extractio
Shen et al., 2003, Nature	Core	3	Uses old extractio
Shen et al., 2003, Nature	Core	3	Uses old extractio
Shen et al., 2003, Nature	Core	3	Uses old extractio
Shen et al., 2003, Nature	Core	3	Uses old extractio
Shen et al., 2003, Nature	Core	3	Uses old extractio
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	

Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Planavsky et al., 2011, Nature	Core	3	
Shen et al., 2002, AJS	Core	3	Uses old extractic
Shen et al., 2002, AJS	Core	3	Uses old extractic
Shen et al., 2002, AJS	Core	3	Uses old extractic
Shen et al., 2002, AJS	Core	3	Uses old extractic
Shen et al., 2002, AJS	Core	3	Uses old extractic
Shen et al., 2002, AJS	Core	3	Uses old extractic
Shen et al., 2002, AJS	Core	3	Uses old extractic
Shen et al., 2002, AJS	Core	3	Uses old extractic
Shen et al., 2002, AJS	Core	3	Uses old extractic
Shen et al., 2002, AJS	Core	3	Uses old extractic
Shen et al., 2002, AJS	Core	3	Uses old extractic
Shen et al., 2002, AJS	Core	3	Uses old extractic
Shen et al., 2002, AJS	Core	3	Uses old extractic
Shen et al., 2002, AJS	Core	3	Uses old extractic
Shen et al., 2002, AJS	Core	3	Uses old extractic
Shen et al., 2002, AJS	Core	3	Uses old extractic
Shen et al., 2002, AJS	Core	3	Uses old extractic
Shen et al., 2002, AJS	Core	3	Uses old extractic
Shen et al., 2002, AJS	Core	3	Uses old extractic
Shen et al., 2002, AJS	Core	3	Uses old extractic
Shen et al., 2002, AJS	Core	3	Uses old extractic

Shen et al., 2002, AJS	Core	3	Uses old extractic
Shen et al., 2002, AJS	Core	3	Uses old extractic
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F

Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	2	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F

Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F

Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F

Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F

Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F

Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Poulton et al., 2010, Nature Geoscience	Core	3	For these rocks, F
Geboy et al., 2013, Precambrian Research	Core	3	
Geboy et al., 2013, Precambrian Research	Core	3	rock contains sma
Geboy et al., 2013, Precambrian Research	Core	3	
Geboy et al., 2013, Precambrian Research	Core	3	rock contains sma
Geboy et al., 2013, Precambrian Research	Core	3	
Geboy et al., 2013, Precambrian Research	Core	3	
Geboy et al., 2013, Precambrian Research	Core	3	
Geboy et al., 2013, Precambrian Research	Core	3	rock contains sma
Geboy et al., 2013, Precambrian Research	Core	3	
Geboy et al., 2013, Precambrian Research	Core	3	
Geboy et al., 2013, Precambrian Research	Core	3	
Geboy et al., 2013, Precambrian Research	Core	3	
Geboy et al., 2013, Precambrian Research	Core	3	
Geboy et al., 2013, Precambrian Research	Core	3	
Geboy et al., 2013, Precambrian Research	Core	3	
Geboy et al., 2013, Precambrian Research	Core	3	
Geboy et al., 2013, Precambrian Research	Core	3	

Geboy et al., 2013, Precambrian Research	Core	3	
Geboy et al., 2013, Precambrian Research	Core	3	
Geboy et al., 2013, Precambrian Research	Core	3	
Geboy et al., 2013, Precambrian Research	Core	3	rock contains sma
Geboy et al., 2013, Precambrian Research	Core	3	
Geboy et al., 2013, Precambrian Research	Core	3	
Geboy et al., 2013, Precambrian Research	Core	3	
Geboy et al., 2013, Precambrian Research	Core	3	
Geboy et al., 2013, Precambrian Research	Core	3	
Geboy et al., 2013, Precambrian Research	Core	3	
Geboy et al., 2013, Precambrian Research	Core	3	
Geboy et al., 2013, Precambrian Research	Core	3	
Geboy et al., 2013, Precambrian Research	Core	3	
Geboy et al., 2013, Precambrian Research	Core	3	
Geboy et al., 2013, Precambrian Research	Core	3	rock contains sma
Geboy et al., 2013, Precambrian Research	Core	3	
Geboy et al., 2013, Precambrian Research	Core	3	
Geboy et al., 2013, Precambrian Research	Core	3	rock contains sma
Geboy et al., 2013, Precambrian Research	Core	3	
Geboy et al., 2013, Precambrian Research	Core	3	
Geboy et al., 2013, Precambrian Research	Core	3	
Geboy et al., 2013, Precambrian Research	Core	3	
Asael et al., 2013, Chemical Geology	Core	3	Many of these sa
Asael et al., 2013, Chemical Geology	Core	3	Many of these sa
Asael et al., 2013, Chemical Geology	Core	3	Many of these sa
Asael et al., 2013, Chemical Geology	Core	3	Many of these sa
Asael et al., 2013, Chemical Geology	Core	3	Many of these sa
Asael et al., 2013, Chemical Geology	Core	3	Many of these sa
Asael et al., 2013, Chemical Geology	Core	3	Many of these sa
Asael et al., 2013, Chemical Geology	Core	3	Many of these sa
Asael et al., 2013, Chemical Geology	Core	3	Many of these sa
Asael et al., 2013, Chemical Geology	Core	3	Many of these sa
Asael et al., 2013, Chemical Geology	Core	3	Many of these sa
Asael et al., 2013, Chemical Geology	Core	3	Many of these sa
Asael et al., 2013, Chemical Geology	Core	3	Many of these sa
Asael et al., 2013, Chemical Geology	Core	3	Many of these sa
Asael et al., 2013, Chemical Geology	Core	3	Many of these sa
Asael et al., 2013, Chemical Geology	Core	3	Many of these sa
Scott et al., 2014, Earth and Planetary Science L	Core	3	
Scott et al., 2014, Earth and Planetary Science L	Core	3	

Scott et al., 2014, Earth and Planetary Science L	Core	3

Scott et al., 2014, Earth and Planetary Science L	Core	3	
Scott et al., 2014, Earth and Planetary Science L	Core	3	
Scott et al., 2014, Earth and Planetary Science L	Core	3	
Scott et al., 2014, Earth and Planetary Science L	Core	3	
Scott et al., 2014, Earth and Planetary Science L	Core	3	
Scott et al., 2014, Earth and Planetary Science L	Core	3	
Scott et al., 2014, Earth and Planetary Science L	Core	3	
Cumming et al., 2013, Geology	Core	3	Lacustrine
Cumming et al., 2013, Geology	Outcrop	3	Lacustrine
Cumming et al., 2013, Geology	Outcrop	3	Lacustrine
Cumming et al., 2013, Geology	Outcrop	3	Lacustrine
Cumming et al., 2013, Geology	Outcrop	3	Lacustrine
Cumming et al., 2013, Geology	Outcrop	3	Lacustrine
Cumming et al., 2013, Geology	Outcrop	3	Lacustrine
Cumming et al., 2013, Geology	Outcrop	3	Lacustrine
Cumming et al., 2013, Geology	Outcrop	3	Lacustrine
Cumming et al., 2013, Geology	Outcrop	3	Lacustrine
Cumming et al., 2013, Geology	Outcrop	3	Lacustrine
Cumming et al., 2013, Geology	Outcrop	3	Lacustrine
Cumming et al., 2013, Geology	Outcrop	3	Lacustrine
Cumming et al., 2013, Geology	Core	3	Lacustrine
Cumming et al., 2013, Geology	Core	3	Lacustrine
Cumming et al., 2013, Geology	Core	3	Lacustrine
Cumming et al., 2013, Geology	Core	3	Lacustrine
Cumming et al., 2013, Geology	Core	3	Lacustrine
Cumming et al., 2013, Geology	Core	3	Lacustrine
Cumming et al., 2013, Geology	Core	3	Lacustrine
Cumming et al., 2013, Geology	Core	3	Lacustrine
Cumming et al., 2013, Geology	Core	3	Lacustrine
Cumming et al., 2013, Geology	Core	3	Lacustrine
Cumming et al., 2013, Geology	Outcrop	3	Lacustrine
Cumming et al., 2013, Geology	Outcrop	3	Lacustrine
Cumming et al., 2013, Geology	Outcrop	3	Lacustrine
Cumming et al., 2013, Geology	Core	3	Lacustrine
Cumming et al., 2013, Geology	Core	3	Lacustrine
Cumming et al., 2013, Geology	Core	3	Lacustrine
Cumming et al., 2013, Geology	Core	3	Lacustrine
Cumming et al., 2013, Geology	Core	3	Lacustrine
Cumming et al., 2013, Geology	Core	3	Lacustrine

Cumming et al., 2013, Geology	Core	3	Lacustrine
Cumming et al., 2013, Geology	Core	3	Lacustrine
Cumming et al., 2013, Geology	Core	3	Lacustrine
Cumming et al., 2013, Geology	Core	3	Lacustrine
Cumming et al., 2013, Geology	Core	3	Lacustrine
Cumming et al., 2013, Geology	Core	3	Lacustrine
Cumming et al., 2013, Geology	Core	3	Lacustrine
Cumming et al., 2013, Geology	Outcrop	3	Lacustrine
Cumming et al., 2013, Geology	Outcrop	3	Lacustrine
Cumming et al., 2013, Geology	Core	3	Lacustrine
Cumming et al., 2013, Geology	Core	3	Lacustrine
Cumming et al., 2013, Geology	Core	3	Lacustrine
Cumming et al., 2013, Geology	Core	3	Lacustrine
Cumming et al., 2013, Geology	Core	3	Lacustrine
Cumming et al., 2013, Geology	Core	3	Lacustrine
Cumming et al., 2013, Geology	Core	3	Lacustrine
Cumming et al., 2013, Geology	Core	3	Lacustrine
Cumming et al., 2013, Geology	Core	3	Lacustrine
Cumming et al., 2013, Geology	Core	3	Lacustrine
Cumming et al., 2013, Geology	Core	3	Lacustrine
Cumming et al., 2013, Geology	Core	3	Lacustrine
Cumming et al., 2013, Geology	Core	3	Lacustrine
Cumming et al., 2013, Geology	Core	3	Lacustrine
Cumming et al., 2013, Geology	Core	3	Lacustrine
Cumming et al., 2013, Geology	Core	3	Lacustrine
Cumming et al., 2013, Geology	Core	3	Lacustrine
Cumming et al., 2013, Geology	Core	3	Lacustrine
Scott et al., 2014, Earth and Planetary Science L	Core	3	
Scott et al., 2014, Earth and Planetary Science L	Core	3	
Scott et al., 2014, Earth and Planetary Science L	Core	3	
Scott et al., 2014, Earth and Planetary Science L	Core	3	
Scott et al., 2014, Earth and Planetary Science L	Core	3	
Scott et al., 2014, Earth and Planetary Science L	Core	3	
Scott et al., 2014, Earth and Planetary Science L	Core	3	
Scott et al., 2014, Earth and Planetary Science L	Core	3	
Scott et al., 2014, Earth and Planetary Science L	Core	3	
Scott et al., 2014, Earth and Planetary Science L	Core	3	
Scott et al., 2014, Earth and Planetary Science L	Core	3	
Scott et al., 2014, Earth and Planetary Science L	Core	3	
Scott et al., 2014, Earth and Planetary Science L	Core	3	

Scott et al., 2014, Earth and Planetary Science L	Core	3	
Scott et al., 2014, Earth and Planetary Science L	Core	3	
Feng et al., 2010, Gondwana Research	Outcrop	3	Uses old extractic

Li et al., 2012; Earth and Planetary Science Lette	Outcrop	1
Li et al., 2012; Earth and Planetary Science Lette	Outcrop	1
Li et al., 2012; Earth and Planetary Science Lette	Outcrop	1
Li et al., 2012; Earth and Planetary Science Lette	Outcrop	1
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1

This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3

This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	1	
This study	Outcrop	1	
This study	Outcrop	1	
This study	Outcrop	1	Sample E1102-12
This study	Outcrop	1	
This study	Outcrop	1	
This study	Outcrop	1	
This study	Outcrop	1	
This study	Outcrop	1	
This study	Outcrop	1	
This study	Outcrop	1	
This study	Outcrop	1	
This study	Outcrop	1	

This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
Canfield et al., 2008, Science	Outcrop	2
Canfield et al., 2008, Science	Outcrop	1
Canfield et al., 2008, Science	Outcrop	1
Canfield et al., 2008, Science	Outcrop	1
Canfield et al., 2008, Science	Outcrop	1
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Johnston et al., 2010, Earth and Planetary Scien	Outcrop	1
Johnston et al., 2010, Earth and Planetary Scien	Outcrop	1
Johnston et al., 2010, Earth and Planetary Scien	Outcrop	1
Johnston et al., 2010, Earth and Planetary Scien	Outcrop	1
Johnston et al., 2010, Earth and Planetary Scien	Outcrop	1
Johnston et al., 2010, Earth and Planetary Scien	Outcrop	1
Johnston et al., 2010, Earth and Planetary Scien	Outcrop	1
Johnston et al., 2010, Earth and Planetary Scien	Outcrop	1
Johnston et al., 2010, Earth and Planetary Scien	Outcrop	1
Johnston et al., 2010, Earth and Planetary Scien	Outcrop	1
Johnston et al., 2010, Earth and Planetary Scien	Outcrop	1
Johnston et al., 2010, Earth and Planetary Scien	Outcrop	1
Johnston et al., 2010, Earth and Planetary Scien	Outcrop	1
Johnston et al., 2010, Earth and Planetary Scien	Outcrop	1
Johnston et al., 2010, Earth and Planetary Scien	Outcrop	1
Johnston et al., 2010, Earth and Planetary Scien	Outcrop	1

Johnston et al., 2010, Earth and Planetary Scien	Outcrop	1
Johnston et al., 2010, Earth and Planetary Scien	Outcrop	2

Johnston et al., 2010, Earth and Planetary Scien	Outcrop	1

Johnston et al., 2010, Earth and Planetary Scien	Outcrop	3
Johnston et al., 2010, Earth and Planetary Scien	Outcrop	3
Johnston et al., 2010, Earth and Planetary Scien	Outcrop	3
Johnston et al., 2010, Earth and Planetary Scien	Outcrop	3
Johnston et al., 2010, Earth and Planetary Scien	Outcrop	3
Johnston et al., 2010, Earth and Planetary Scien	Outcrop	3
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Canfield et al., 2008 Science	Outcrop	1
Canfield et al., 2008 Science	Outcrop	1
Canfield et al., 2008 Science	Outcrop	1
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2

Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2

Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2

Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Outcrop	2
Canfield et al., 2008, Science	Outcrop	2
Canfield et al., 2008, Science	Outcrop	2
Canfield et al., 2008, Science	Outcrop	2
Canfield et al., 2008, Science	Outcrop	2
Canfield et al., 2008, Science	Outcrop	2
Canfield et al., 2008, Science	Outcrop	2
Canfield et al., 2008, Science	Outcrop	2
Canfield et al., 2008, Science	Outcrop	2
Canfield et al., 2008 Science	Outcrop	1
Canfield et al., 2008 Science	Outcrop	1
Canfield et al., 2008 Science	Outcrop	1
Canfield et al., 2008 Science	Outcrop	1
Canfield et al., 2008 Science	Outcrop	1
Canfield et al., 2008 Science	Outcrop	1
Canfield et al., 2008 Science	Outcrop	1
Canfield et al., 2008 Science	Outcrop	1
Canfield et al., 2008 Science	Outcrop	1
Canfield et al., 2008 Science	Outcrop	1
Canfield et al., 2008 Science	Outcrop	1
Canfield et al., 2008 Science	Outcrop	1
Canfield et al., 2008 Science	Outcrop	1
Canfield et al., 2008 Science	Outcrop	1
Canfield et al., 2008 Science	Outcrop	1
Canfield et al., 2008 Science	Outcrop	1
Canfield et al., 2008 Science	Outcrop	1
Canfield et al., 2008 Science	Outcrop	1
Canfield et al., 2008 Science	Outcrop	1
Canfield et al., 2008 Science	Outcrop	1
Canfield et al., 2008 Science	Outcrop	1
Canfield et al., 2008 Science	Outcrop	1
Canfield et al., 2008 Science	Outcrop	1

Canfield et al., 2008 Science	Outcrop	1
Canfield et al., 2008 Science	Outcrop	1
Canfield et al., 2008 Science	Outcrop	1
Canfield et al., 2008 Science	Outcrop	1
Canfield et al., 2008 Science	Outcrop	1
Canfield et al., 2008 Science	Outcrop	1
Canfield et al., 2008, Science	Outcrop	2
Canfield et al., 2008, Science	Outcrop	2
Canfield et al., 2008, Science	Outcrop	2
Canfield et al., 2008, Science	Outcrop	2
Canfield et al., 2008, Science	Outcrop	2
Canfield et al., 2008, Science	Outcrop	2
Canfield et al., 2008, Science	Outcrop	2
Canfield et al., 2008, Science	Outcrop	2
Canfield et al., 2008, Science	Outcrop	2
Canfield et al., 2008, Science	Outcrop	2
Canfield et al., 2008, Science	Outcrop	2
Canfield et al., 2008, Science	Outcrop	2
Canfield et al., 2008, Science	Outcrop	2
Canfield et al., 2008, Science	Outcrop	2
Canfield et al., 2008, Science	Outcrop	2
Canfield et al., 2008, Science	Outcrop	2
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	1
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	1
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	1
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	1
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	1
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	1
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	1
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	1
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	1
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	1
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	1
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	1

Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	1

Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	1	
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	1	
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	1	
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	1	
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2	
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2	
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2	
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2	
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2	
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2	
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2	
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2	
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2	
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2	
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2	
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2	
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2	
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2	
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2	
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2	
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2	
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2	
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2	
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2	
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2	
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2	
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2	
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2	
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2	
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2	
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2	
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2	
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2	
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2	
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2	
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2	
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2	
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2	FeHR does not inc
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2	FeHR does not inc
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2	FeHR does not inc
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3	
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3	
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3	
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3	
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3	
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3	
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3	
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3	

Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3

Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	1
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	1
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	1
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	1
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	1
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	1
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	1
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	1
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3

Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	2
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3

Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Sperling et al., 2013, Earth and Planetary Scienc	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3

This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
Hayes, 2013	Outcrop	2
Hayes, 2013	Outcrop	2
Hayes, 2013	Outcrop	2
Hayes, 2013	Outcrop	2
Hayes, 2013	Outcrop	2
Hayes, 2013	Outcrop	1
Hayes, 2013	Outcrop	1

Hayes, 2013	Outcrop	1
Hayes, 2013	Outcrop	1
Hayes, 2013	Outcrop	1

Hayes, 2013	Outcrop	1
Hayes, 2013	Outcrop	1
Hayes, 2013	Outcrop	1
Hayes, 2013	Outcrop	1
Hayes, 2013	Outcrop	1
Hayes, 2013	Outcrop	1
Hayes, 2013	Outcrop	1
Hayes, 2013	Outcrop	1
Hayes, 2013	Outcrop	1
Hayes, 2013	Outcrop	1
Hayes, 2013	Outcrop	1
Hayes, 2013	Outcrop	1
Hayes, 2013	Outcrop	1
Hayes, 2013	Outcrop	1
Hayes, 2013	Outcrop	1
Hayes, 2013	Outcrop	1
Hayes, 2013	Outcrop	1
Hayes, 2013	Outcrop	1
Hayes, 2013	Outcrop	1
Hayes, 2013	Outcrop	1
Hayes, 2013	Outcrop	1
Hayes, 2013	Outcrop	1
Hayes, 2013	Outcrop	1
Hayes, 2013	Outcrop	1
Hayes, 2013	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1

This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3

This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	1
This study	Outcrop	3
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	3
This study	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Li et al., 2010, Science	Outcrop	1
Li et al., 2010, Science	Outcrop	1
Li et al., 2010, Science	Outcrop	1

Li et al., 2010, Science	Outcrop	1
Li et al., 2010, Science	Outcrop	1
Li et al., 2010, Science	Outcrop	1
Li et al., 2010, Science	Outcrop	1
Li et al., 2010, Science	Outcrop	1
Li et al., 2010, Science	Outcrop	1
Li et al., 2010, Science	Outcrop	1
Li et al., 2010, Science	Outcrop	1
Li et al., 2010, Science	Outcrop	1
Li et al., 2010, Science	Outcrop	1
Li et al., 2010, Science	Outcrop	1
Li et al., 2010, Science	Outcrop	1
Li et al., 2010, Science	Outcrop	1
Li et al., 2010, Science	Outcrop	1
Li et al., 2010, Science	Outcrop	1
Li et al., 2010, Science	Outcrop	1
Li et al., 2010, Science	Outcrop	1
Li et al., 2010, Science	Outcrop	1
Li et al., 2010, Science	Outcrop	1
Li et al., 2010, Science	Outcrop	1
Li et al., 2010, Science	Outcrop	1
Li et al., 2010, Science	Outcrop	1
Li et al., 2010, Science	Outcrop	1
Li et al., 2010, Science	Outcrop	1
Li et al., 2010, Science	Outcrop	1
Li et al., 2010, Science	Outcrop	1
Li et al., 2010, Science	Outcrop	1
Li et al., 2010, Science	Outcrop	1
Li et al., 2010, Science	Outcrop	1
Li et al., 2010, Science	Outcrop	1
Li et al., 2010, Science	Outcrop	1
Li et al., 2010, Science	Outcrop	1
Li et al., 2010, Science	Outcrop	1
Li et al., 2010, Science	Outcrop	1
Li et al., 2010, Science	Outcrop	1
Li et al., 2010, Science	Outcrop	1
Li et al., 2010, Science	Outcrop	1
Li et al., 2010, Science	Outcrop	1
Li et al., 2010, Science	Outcrop	3
Li et al., 2010, Science	Outcrop	3
Li et al., 2010, Science	Outcrop	3
Li et al., 2010, Science	Outcrop	3
Li et al., 2010, Science	Outcrop	3
Li et al., 2010, Science	Outcrop	3
Li et al., 2010, Science	Outcrop	3
Li et al., 2010, Science	Outcrop	2
Li et al., 2010, Science	Outcrop	2
Li et al., 2010, Science	Outcrop	2

Li et al., 2010, Science	Outcrop	2
Li et al., 2010, Science	Outcrop	2
Li et al., 2010, Science	Outcrop	2
Li et al., 2010, Science	Outcrop	2
Li et al., 2010, Science	Outcrop	2
Li et al., 2010, Science	Outcrop	2
Li et al., 2010, Science	Outcrop	2
Li et al., 2010, Science	Outcrop	2
Li et al., 2010, Science	Outcrop	2
Li et al., 2010, Science	Outcrop	2
Li et al., 2010, Science	Outcrop	2
Li et al., 2010, Science	Outcrop	2
Li et al., 2010, Science	Outcrop	2
Li et al., 2010, Science	Outcrop	2
Li et al., 2010, Science	Outcrop	2
Li et al., 2010, Science	Outcrop	2
Li et al., 2010, Science	Outcrop	2
Li et al., 2010, Science	Outcrop	2
Li et al., 2010, Science	Outcrop	2
Li et al., 2010, Science	Outcrop	2
Li et al., 2010, Science	Outcrop	2
Li et al., 2010, Science	Outcrop	2
Li et al., 2010, Science	Outcrop	2
Li et al., 2010, Science	Outcrop	2
Li et al., 2010, Science	Outcrop	2
Li et al., 2010, Science	Outcrop	2
Li et al., 2010, Science	Outcrop	2
Li et al., 2010, Science	Outcrop	2
Li et al., 2010, Science	Outcrop	2
Li et al., 2010, Science	Outcrop	2
Li et al., 2010, Science	Outcrop	2
Li et al., 2010, Science	Outcrop	2
Li et al., 2010, Science	Outcrop	2
Li et al., 2010, Science	Outcrop	2
Li et al., 2010, Science	Outcrop	2
Li et al., 2010, Science	Outcrop	2
Li et al., 2010, Science	Outcrop	2
Li et al., 2010, Science	Outcrop	2
Sahoo et al., 2012, Nature	Outcrop	3
Sahoo et al., 2012, Nature	Outcrop	3
Sahoo et al., 2012, Nature	Outcrop	3
Sahoo et al., 2012, Nature	Outcrop	3
Sahoo et al., 2012, Nature	Outcrop	3
Sahoo et al., 2012, Nature	Outcrop	3

Sahoo et al., 2012, Nature	Outcrop	3
Sahoo et al., 2012, Nature	Outcrop	3
Sahoo et al., 2012, Nature	Outcrop	3

Sahoo et al., 2012, Nature	Outcrop	3	
Sahoo et al., 2012, Nature	Outcrop	3	
Sahoo et al., 2012, Nature	Outcrop	3	
Sahoo et al., 2012, Nature	Outcrop	3	
Sahoo et al., 2012, Nature	Outcrop	3	
Sahoo et al., 2012, Nature	Outcrop	3	
Sahoo et al., 2012, Nature	Outcrop	3	
Sahoo et al., 2012, Nature	Outcrop	3	
Sahoo et al., 2012, Nature	Outcrop	3	
Sahoo et al., 2012, Nature	Outcrop	3	
Sahoo et al., 2012, Nature	Outcrop	3	
Sahoo et al., 2012, Nature	Outcrop	3	
Sahoo et al., 2012, Nature	Outcrop	3	
Sahoo et al., 2012, Nature	Outcrop	3	
Sahoo et al., 2012, Nature	Outcrop	3	
Sahoo et al., 2012, Nature	Outcrop	3	
Sahoo et al., 2012, Nature	Outcrop	3	
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic

Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Wang et al., 2012, Chemical Geology	Outcrop	3	
Wang et al., 2012, Chemical Geology	Outcrop	3	
Wang et al., 2012, Chemical Geology	Outcrop	3	
Wang et al., 2012, Chemical Geology	Outcrop	3	
Wang et al., 2012, Chemical Geology	Outcrop	3	
Wang et al., 2012, Chemical Geology	Outcrop	3	
Wang et al., 2012, Chemical Geology	Outcrop	3	
Wang et al., 2012, Chemical Geology	Outcrop	3	
Wang et al., 2012, Chemical Geology	Outcrop	3	
Wang et al., 2012, Chemical Geology	Outcrop	3	
Wang et al., 2012, Chemical Geology	Outcrop	3	
Wang et al., 2012, Chemical Geology	Outcrop	3	
Wang et al., 2012, Chemical Geology	Outcrop	3	
Johnston et al., 2013 Chemical Geology	Outcrop	3	
Johnston et al., 2013 Chemical Geology	Outcrop	3	
Johnston et al., 2013 Chemical Geology	Outcrop	3	
Johnston et al., 2013 Chemical Geology	Outcrop	3	
Johnston et al., 2013 Chemical Geology	Outcrop	3	
Johnston et al., 2013 Chemical Geology	Outcrop	3	
Johnston et al., 2013 Chemical Geology	Outcrop	3	
Johnston et al., 2013 Chemical Geology	Outcrop	3	
Johnston et al., 2013 Chemical Geology	Outcrop	3	
Johnston et al., 2013 Chemical Geology	Outcrop	3	
Johnston et al., 2013 Chemical Geology	Outcrop	3	
Johnston et al., 2013 Chemical Geology	Outcrop	3	
Johnston et al., 2013 Chemical Geology	Outcrop	3	
Johnston et al., 2013 Chemical Geology	Outcrop	3	
Johnston et al., 2013 Chemical Geology	Outcrop	3	
Johnston et al., 2013 Chemical Geology	Outcrop	3	
Johnston et al., 2013 Chemical Geology	Outcrop	3	

Johnston et al., 2013 Chemical Geology	Outcrop	3

Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3

Johnston et al., 2013 Chemical Geology	Outcrop	3

Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	3
Johnston et al., 2013 Chemical Geology	Outcrop	1
Johnston et al., 2013 Chemical Geology	Outcrop	1
Johnston et al., 2013 Chemical Geology	Outcrop	1
Johnston et al., 2013 Chemical Geology	Outcrop	1
Johnston et al., 2013 Chemical Geology	Outcrop	1
Johnston et al., 2013 Chemical Geology	Outcrop	1
Johnston et al., 2013 Chemical Geology	Outcrop	2
Johnston et al., 2013 Chemical Geology	Outcrop	2
Johnston et al., 2013 Chemical Geology	Outcrop	2
Johnston et al., 2013 Chemical Geology	Outcrop	2
Johnston et al., 2013 Chemical Geology	Outcrop	2
Johnston et al., 2013 Chemical Geology	Outcrop	2
Johnston et al., 2013 Chemical Geology	Outcrop	2
Johnston et al., 2013 Chemical Geology	Outcrop	2
Johnston et al., 2013 Chemical Geology	Outcrop	2
Johnston et al., 2013 Chemical Geology	Outcrop	2
Johnston et al., 2013 Chemical Geology	Outcrop	2
Johnston et al., 2013 Chemical Geology	Outcrop	2
Johnston et al., 2013 Chemical Geology	Outcrop	2
Johnston et al., 2013 Chemical Geology	Outcrop	2
Johnston et al., 2013 Chemical Geology	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	1

This study	Outcrop	1
This study	Outcrop	1
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3

This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2

Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2

Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	2
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Johnston et al., 2012, Earth and Planetary Scien	Core	1
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3

Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3

Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3

Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3

Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3

Canfield et al., 2008, Science	Outcrop	3	
Canfield et al., 2008, Science	Outcrop	3	
Canfield et al., 2008, Science	Outcrop	3	
Canfield et al., 2008, Science	Outcrop	3	
Canfield et al., 2008, Science	Outcrop	3	
Canfield et al., 2008, Science	Outcrop	3	
Canfield et al., 2008, Science	Outcrop	3	
Canfield et al., 2008, Science	Outcrop	3	
Canfield et al., 2008, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	Diamictite-not a g
Canfield et al., 2007, Science	Outcrop	3	Diamictite-not a g
Canfield et al., 2007, Science	Outcrop	3	Diamictite-not a g
Canfield et al., 2007, Science	Outcrop	3	Diamictite-not a g
Canfield et al., 2007, Science	Outcrop	3	Diamictite-not a g
Canfield et al., 2007, Science	Outcrop	3	Diamictite-not a g
Canfield et al., 2007, Science	Outcrop	3	Diamictite-not a g
Canfield et al., 2007, Science	Outcrop	3	Diamictite-not a g
Canfield et al., 2007, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	

Canfield et al., 2007, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	

Canfield et al., 2007, Science	Outcrop	3
Canfield et al., 2007, Science	Outcrop	3
Canfield et al., 2007, Science	Outcrop	3

Canfield et al., 2007, Science	Outcrop	3
Canfield et al., 2007, Science	Outcrop	3
Canfield et al., 2007, Science	Outcrop	3

Canfield et al., 2007, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	Diamictite-not a g
Canfield et al., 2007, Science	Outcrop	3	Diamictite-not a g
Canfield et al., 2007, Science	Outcrop	3	Diamictite-not a g
Canfield et al., 2007, Science	Outcrop	3	Diamictite-not a g
Canfield et al., 2007, Science	Outcrop	3	Diamictite-not a g
Canfield et al., 2007, Science	Outcrop	3	Diamictite-not a g
Canfield et al., 2007, Science	Outcrop	3	Diamictite-not a g
Canfield et al., 2007, Science	Outcrop	3	Diamictite-not a g
Canfield et al., 2007, Science	Outcrop	3	Diamictite-not a g
Canfield et al., 2007, Science	Outcrop	3	Diamictite-not a g
Canfield et al., 2007, Science	Outcrop	3	Diamictite-not a g
Canfield et al., 2007, Science	Outcrop	3	Diamictite-not a g
Canfield et al., 2007, Science	Outcrop	3	Diamictite-not a g
Canfield et al., 2007, Science	Outcrop	3	Diamictite-not a g
Canfield et al., 2007, Science	Outcrop	3	Diamictite-not a g
Canfield et al., 2007, Science	Outcrop	3	Diamictite-not a g
Canfield et al., 2007, Science	Outcrop	3	Diamictite-not a g
Canfield et al., 2007, Science	Outcrop	3	Diamictite-not a g
Canfield et al., 2007, Science	Outcrop	3	Diamictite-not a g
Canfield et al., 2007, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	
Canfield et al., 2007, Science	Outcrop	3	

Canfield et al., 2008, Science	Outcrop	3	
Canfield et al., 2008, Science	Outcrop	2	
Canfield et al., 2008, Science	Outcrop	2	
Canfield et al., 2008, Science	Outcrop	2	
Canfield et al., 2008, Science	Outcrop	2	
Canfield et al., 2008, Science	Outcrop	2	
Canfield et al., 2008, Science	Outcrop	2	
Canfield et al., 2008, Science	Outcrop	2	
Canfield et al., 2008, Science	Outcrop	2	
Canfield et al., 2008, Science	Outcrop	2	
Canfield et al., 2008, Science	Outcrop	2	
Canfield et al., 2008, Science	Outcrop	2	
Canfield et al., 2008, Science	Outcrop	2	
Canfield et al., 2008, Science	Outcrop	2	
Canfield et al., 2008, Science	Outcrop	2	
Canfield et al., 2008, Science	Outcrop	2	
Canfield et al., 2008, Science	Outcrop	2	
Canfield et al., 2008, Science	Outcrop	2	
Canfield et al., 2008, Science	Outcrop	2	
Canfield et al., 2008, Science	Outcrop	2	
Canfield et al., 2008, Science	Outcrop	2	
Canfield et al., 2008, Science	Outcrop	1	Probable fresh wa
Canfield et al., 2008, Science	Outcrop	1	Probable fresh wa
Canfield et al., 2008, Science	Outcrop	1	Probable fresh wa
Canfield et al., 2008, Science	Outcrop	1	Probable fresh wa
Canfield et al., 2008, Science	Outcrop	1	Probable fresh wa
Canfield et al., 2008, Science	Outcrop	1	Probable fresh wa
Canfield et al., 2008, Science	Core	1	
Canfield et al., 2008, Science	Core	1	
Canfield et al., 2008, Science	Core	1	
Canfield et al., 2008, Science	Core	1	
Canfield et al., 2008, Science	Core	1	
Canfield et al., 2008, Science	Core	1	
Canfield et al., 2008, Science	Core	1	
Canfield et al., 2008, Science	Core	2	
Canfield et al., 2008, Science	Core	2	
Canfield et al., 2008, Science	Core	2	
Canfield et al., 2008, Science	Core	2	
Canfield et al., 2008, Science	Core	2	
Canfield et al., 2008, Science	Core	2	
Canfield et al., 2008, Science	Core	2	

Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	2
Canfield et al., 2008, Science	Core	1
Canfield et al., 2008, Science	Core	1
Canfield et al., 2008, Science	Core	1
Canfield et al., 2008, Science	Core	1
Canfield et al., 2008, Science	Core	1
Canfield et al., 2008, Science	Core	1
Canfield et al., 2008, Science	Core	1
Canfield et al., 2008, Science	Core	1
Canfield et al., 2008, Science	Outcrop	1
Canfield et al., 2008, Science	Outcrop	1
Canfield et al., 2008, Science	Outcrop	1
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3

This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3

Canfield et al., 2008, Science	Outcrop	3	
Canfield et al., 2008, Science	Outcrop	3	
Canfield et al., 2008, Science	Outcrop	3	
Canfield et al., 2008, Science	Outcrop	3	
Canfield et al., 2008, Science	Outcrop	3	
Canfield et al., 2008, Science	Outcrop	3	
Canfield et al., 2008, Science	Outcrop	3	
Canfield et al., 2008, Science	Outcrop	3	
Canfield et al., 2008, Science	Outcrop	3	
Canfield et al., 2008, Science	Outcrop	3	
Canfield et al., 2008, Science	Outcrop	3	
Canfield et al., 2008, Science	Outcrop	3	
Canfield et al., 2008, Science	Outcrop	3	
Canfield et al., 2008, Science	Outcrop	3	
Canfield et al., 2008, Science	Outcrop	3	
Canfield et al., 2008, Science	Outcrop	3	
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic

Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
Shen et al., 2008, PNAS	Outcrop	3	Uses old extractic
This study	Outcrop	2	
This study	Outcrop	2	
This study	Outcrop	2	
This study	Outcrop	2	
This study	Outcrop	2	
This study	Outcrop	2	

This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3

This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	

This study	Outcrop	3	The exact stratigr
This study	Outcrop	3	The exact stratigr
This study	Outcrop	3	The exact stratigr
This study	Outcrop	3	The exact stratigr
This study	Outcrop	3	The exact stratigr
This study	Outcrop	3	The exact stratigr
This study	Outcrop	3	The exact stratigr
This study	Outcrop	3	The exact stratigr
This study	Outcrop	3	The exact stratigr
This study	Outcrop	3	The exact stratigr
This study	Outcrop	3	The exact stratigr
This study	Outcrop	3	The exact stratigr
This study	Outcrop	3	The exact stratigr
This study	Outcrop	3	The exact stratigr
This study	Outcrop	3	The exact stratigr
This study	Outcrop	3	The exact stratigr
This study	Outcrop	3	The exact stratigr
This study	Outcrop	3	The exact stratigr
This study	Outcrop	3	The exact stratigr
This study	Outcrop	2	
This study	Outcrop	2	
This study	Outcrop	2	
This study	Outcrop	2	
This study	Outcrop	2	
This study	Outcrop	2	
This study	Outcrop	2	
This study	Outcrop	2	
This study	Outcrop	2	
This study	Outcrop	2	
This study	Outcrop	3	
This study	Outcrop	2	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	

This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2

This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
Frei et al., 2013	Outcrop	2
Frei et al., 2013	Outcrop	2
Frei et al., 2013

This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2

This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3

Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Canfield et al., 2008, Science	Outcrop	3
Dahl et al., 2010, PNAS	Core	3
Dahl et al., 2010, PNAS	Core	3
Dahl et al., 2010, PNAS	Core	3
Dahl et al., 2010, PNAS	Core	3
Dahl et al., 2010, PNAS	Core	3
Feng et al., 2014, Precambrian Research	Outcrop	2
Feng et al., 2014, Precambrian Research	Outcrop	2
Feng et al., 2014, Precambrian Research	Outcrop	2
Feng et al., 2014, Precambrian Research	Outcrop	2
Feng et al., 2014, Precambrian Research	Outcrop	2
Feng et al., 2014, Precambrian Research	Outcrop	2
Feng et al., 2014, Precambrian Research	Outcrop	2
Feng et al., 2014, Precambrian Research	Outcrop	2
Feng et al., 2014, Precambrian Research	Outcrop	2

Feng et al., 2014, Precambrian Research	Outcrop	2
Feng et al., 2014, Precambrian Research	Outcrop	2
Feng et al., 2014, Precambrian Research	Outcrop	2
Feng et al., 2014, Precambrian Research	Outcrop	2
Feng et al., 2014, Precambrian Research	Outcrop	2
Feng et al., 2014, Precambrian Research	Outcrop	2
Feng et al., 2014, Precambrian Research	Outcrop	2
Feng et al., 2014, Precambrian Research	Outcrop	2
Feng et al., 2014, Precambrian Research	Outcrop	2
Feng et al., 2014, Precambrian Research	Outcrop	2
Feng et al., 2014, Precambrian Research	Outcrop	2
Feng et al., 2014, Precambrian Research	Outcrop	2
Feng et al., 2014, Precambrian Research	Outcrop	2
Feng et al., 2014, Precambrian Research	Outcrop	2
Feng et al., 2014, Precambrian Research	Outcrop	2
Feng et al., 2014, Precambrian Research	Outcrop	2
Feng et al., 2014, Precambrian Research	Outcrop	2
Feng et al., 2014, Precambrian Research	Outcrop	2
Feng et al., 2014, Precambrian Research	Outcrop	2
Feng et al., 2014, Precambrian Research	Outcrop	2
Feng et al., 2014, Precambrian Research	Outcrop	2
Feng et al., 2014, Precambrian Research	Outcrop	2
Och et al., 2013, Precambrian Research	Outcrop	3
Och et al., 2013, Precambrian Research	Outcrop	3
Och et al., 2013, Precambrian Research	Outcrop	3
Och et al., 2013, Precambrian Research	Outcrop	3
Och et al., 2013, Precambrian Research	Outcrop	3
Och et al., 2013, Precambrian Research	Outcrop	3
Och et al., 2013, Precambrian Research	Outcrop	3
Och et al., 2013, Precambrian Research	Outcrop	3
Och et al., 2013, Precambrian Research	Outcrop	3
Och et al., 2013, Precambrian Research	Outcrop	3
Och et al., 2013, Precambrian Research	Outcrop	3
Och et al., 2013, Precambrian Research	Outcrop	3
Och et al., 2013, Precambrian Research	Outcrop	3
Och et al., 2013, Precambrian Research	Outcrop	3
Och et al., 2013, Precambrian Research	Outcrop	3
Och et al., 2013, Precambrian Research	Outcrop	3
Och et al., 2013, Precambrian Research	Outcrop	3
Och et al., 2013, Precambrian Research	Outcrop	3
Och et al., 2013, Precambrian Research	Outcrop	3
Och et al., 2013, Precambrian Research	Outcrop	3
Och et al., 2013, Precambrian Research	Outcrop	3

Och et al., 2013, Precambrian Research	Outcrop	3
Och et al., 2013, Precambrian Research	Outcrop	3
Och et al., 2013, Precambrian Research	Outcrop	3

Och et al., 2013, Precambrian Research	Outcrop	3
Och et al., 2013, Precambrian Research	Outcrop	3
Och et al., 2013, Precambrian Research	Outcrop	3

Och et al., 2013, Precambrian Research	Outcrop	3	
Och et al., 2013, Precambrian Research	Outcrop	3	
Och et al., 2013, Precambrian Research	Outcrop	3	
Och et al., 2013, Precambrian Research	Outcrop	3	
Och et al., 2013, Precambrian Research	Outcrop	3	
Och et al., 2013, Precambrian Research	Outcrop	3	
Och et al., 2013, Precambrian Research	Outcrop	3	
Och et al., 2013, Precambrian Research	Outcrop	3	
Och et al., 2013, Precambrian Research	Outcrop	3	
Och et al., 2013, Precambrian Research	Outcrop	3	
Och et al., 2013, Precambrian Research	Outcrop	3	
Och et al., 2013, Precambrian Research	Outcrop	3	
Och et al., 2013, Precambrian Research	Outcrop	3	
Och et al., 2013, Precambrian Research	Outcrop	3	
Och et al., 2013, Precambrian Research	Outcrop	3	
Och et al., 2013, Precambrian Research	Outcrop	3	
Och et al., 2013, Precambrian Research	Outcrop	3	
Och et al., 2013, Precambrian Research	Outcrop	3	
Och et al., 2013, Precambrian Research	Outcrop	3	
Och et al., 2013, Precambrian Research	Outcrop	3	
Och et al., 2013, Precambrian Research	Outcrop	3	
Och et al., 2013, Precambrian Research	Outcrop	3	
Och et al., 2013, Precambrian Research	Outcrop	3	This is the very "n
Och et al., 2013, Precambrian Research	Outcrop	3	This is the very "n
Och et al., 2013, Precambrian Research	Outcrop	3	This is the very "n
Och et al., 2013, Precambrian Research	Outcrop	3	This is the very "n
Och et al., 2013, Precambrian Research	Outcrop	3	This is the very "n
Och et al., 2013, Precambrian Research	Outcrop	3	This is the very "n
Och et al., 2013, Precambrian Research	Outcrop	3	This is the very "n
Och et al., 2013, Precambrian Research	Outcrop	3	This is the very "n
Och et al., 2013, Precambrian Research	Outcrop	3	This is the very "n
Och et al., 2013, Precambrian Research	Outcrop	3	This is the very "n
Och et al., 2013, Precambrian Research	Outcrop	3	This is the very "n
Och et al., 2013, Precambrian Research	Outcrop	3	This is the very "n
Och et al., 2013, Precambrian Research	Outcrop	3	This is the very "n
Och et al., 2013, Precambrian Research	Outcrop	3	This is the very "n
Och et al., 2013, Precambrian Research	Outcrop	3	This is the very "n
Wang et al., 2012, Chemical Geology	Outcrop	3	
Wang et al., 2012, Chemical Geology	Outcrop	3	
Wang et al., 2012, Chemical Geology	Outcrop	3	

Wang et al., 2012, Chemical Geology	Outcrop	3
Wang et al., 2012, Chemical Geology	Outcrop	3
Wang et al., 2012, Chemical Geology	Outcrop	3
Wang et al., 2012, Chemical Geology	Outcrop	3
Wang et al., 2012, Chemical Geology	Outcrop	3
Wang et al., 2012, Chemical Geology	Outcrop	3
Wang et al., 2012, Chemical Geology	Outcrop	3
Wang et al., 2012, Chemical Geology	Outcrop	3
Wang et al., 2012, Chemical Geology	Outcrop	3
Wang et al., 2012, Chemical Geology	Outcrop	3
Wang et al., 2012, Chemical Geology	Outcrop	3
Wang et al., 2012, Chemical Geology	Outcrop	3
Wang et al., 2012, Chemical Geology	Outcrop	3
Wang et al., 2012, Chemical Geology	Outcrop	3
Wang et al., 2012, Chemical Geology	Outcrop	3
Wang et al., 2012, Chemical Geology	Outcrop	3
Wang et al., 2012, Chemical Geology	Outcrop	3
Wang et al., 2012, Chemical Geology	Outcrop	3
Wang et al., 2012, Chemical Geology	Outcrop	3
Wang et al., 2012, Chemical Geology	Outcrop	3
Wang et al., 2012, Chemical Geology	Outcrop	3
Wang et al., 2012, Chemical Geology	Outcrop	3
Wang et al., 2012, Chemical Geology	Outcrop	3
Wang et al., 2012, Chemical Geology	Outcrop	3
Wang et al., 2012, Chemical Geology	Outcrop	3
Wang et al., 2012, Chemical Geology	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3

This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3

This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3

This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3

This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
This study	Outcrop	3
Gill et al., 2011, Nature	Core	3
Gill et al., 2011, Nature	Core	3
Gill et al., 2011, Nature	Core	3
Gill et al., 2011, Nature	Core	3
Gill et al., 2011, Nature	Core	3
Gill et al., 2011, Nature	Core	3
Gill et al., 2011, Nature	Core	3
Gill et al., 2011, Nature	Core	3
Gill et al., 2011, Nature	Core	3
Gill et al., 2011, Nature	Core	3
Gill et al., 2011, Nature	Core	3
Gill et al., 2011, Nature	Core	3
Gill et al., 2011, Nature	Core	3
Gill et al., 2011, Nature	Core	3
Gill et al., 2011, Nature	Core	3
Gill et al., 2011, Nature	Core	3
Gill et al., 2011, Nature	Core	3
Gill et al., 2011, Nature	Core	3
Gill et al., 2011, Nature	Core	3
Gill et al., 2011, Nature	Core	3
Gill et al., 2011, Nature	Core	3
Gill et al., 2011, Nature	Core	3
Gill et al., 2011, Nature	Core	3
Gill et al., 2011, Nature	Core	3

Gill et al., 2011, Nature	Core	3
Gill et al., 2011, Nature	Core	3
Dahl et al., 2010, PNAS	Outcrop	3
Dahl et al., 2010, PNAS	Outcrop	3
Dahl et al., 2010, PNAS	Outcrop	3
Dahl et al., 2010, PNAS	Outcrop	3
Canfield et al., 2008, Science	Outcrop	1
Canfield et al., 2008, Science	Outcrop	1
Canfield et al., 2008, Science	Outcrop	1
Canfield et al., 2008, Science	Outcrop	1
Canfield et al., 2008, Science	Outcrop	1
Canfield et al., 2008, Science	Outcrop	1
Canfield et al., 2008, Science	Outcrop	1
Canfield et al., 2008, Science	Outcrop	1
Canfield et al., 2008, Science	Outcrop	1
Canfield et al., 2008, Science	Outcrop	1
Canfield et al., 2008, Science	Outcrop	1
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2

This study	Outcrop	2	
This study	Outcrop	2	
This study	Outcrop	2	
This study	Outcrop	2	
This study	Outcrop	2	
This study	Outcrop	1	
This study	Outcrop	1	
This study	Outcrop	1	
This study	Outcrop	1	
This study	Outcrop	1	
This study	Outcrop	1	
This study	Outcrop	1	
This study	Outcrop	1	
This study	Outcrop	1	
This study	Outcrop	1	
This study	Outcrop	1	
This study	Outcrop	1	
This study	Outcrop	1	
This study	Outcrop	1	
This study	Outcrop	1	
This study	Outcrop	1	
This study	Outcrop	1	
This study	Outcrop	1	
This study	Outcrop	1	
This study	Outcrop	1	
This study	Outcrop	1	
This study	Outcrop	1	
This study	Outcrop	1	
This study	Outcrop	1	
This study	Outcrop	1	
Creveling et al., 2014, GSA Bulletin	Core	2	Only used sample
Creveling et al., 2014, GSA Bulletin	Core	2	Only used sample
Creveling et al., 2014, GSA Bulletin	Core	2	Only used sample
Creveling et al., 2014, GSA Bulletin	Core	2	Only used sample
Creveling et al., 2014, GSA Bulletin	Core	2	Only used sample
Creveling et al., 2014, GSA Bulletin	Core	2	Only used sample
Creveling et al., 2014, GSA Bulletin	Core	2	Only used sample
Creveling et al., 2014, GSA Bulletin	Core	2	Only used sample
Creveling et al., 2014, GSA Bulletin	Core	2	Only used sample
Creveling et al., 2014, GSA Bulletin	Core	2	Only used sample
Creveling et al., 2014, GSA Bulletin	Core	2	Only used sample

Creveling et al., 2014, GSA Bulletin	Core	2	Only used sample
Creveling et al., 2014, GSA Bulletin	Core	2	Only used sample
Creveling et al., 2014, GSA Bulletin	Core	2	Only used sample
Creveling et al., 2014, GSA Bulletin	Core	2	Only used sample
Creveling et al., 2014, GSA Bulletin	Core	2	Only used sample
Creveling et al., 2014, GSA Bulletin	Core	2	Only used sample
Creveling et al., 2014, GSA Bulletin	Core	2	Only used sample
Creveling et al., 2014, GSA Bulletin	Core	2	Only used sample
Creveling et al., 2014, GSA Bulletin	Core	2	Only used sample
Creveling et al., 2014, GSA Bulletin	Core	2	Only used sample
Creveling et al., 2014, GSA Bulletin	Core	2	Only used sample
Creveling et al., 2014, GSA Bulletin	Core	2	Only used sample
Creveling et al., 2014, GSA Bulletin	Core	2	Only used sample
Creveling et al., 2014, GSA Bulletin	Core	2	Only used sample
Creveling et al., 2014, GSA Bulletin	Core	2	Only used sample
Creveling et al., 2014, GSA Bulletin	Core	2	Only used sample
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	
This study	Outcrop	3	

This study	Outcrop	3
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
This study	Outcrop	2
Boyer et al., 2011, Palaeogeography, Palaeoclim	Outcrop	3
Boyer et al., 2011, Palaeogeography, Palaeoclim	Outcrop	3
Boyer et al., 2011, Palaeogeography, Palaeoclim	Outcrop	3
Boyer et al., 2011, Palaeogeography, Palaeoclim	Outcrop	3
Boyer et al., 2011, Palaeogeography, Palaeoclim	Outcrop	3
Boyer et al., 2011, Palaeogeography, Palaeoclim	Outcrop	3
Boyer et al., 2011, Palaeogeography, Palaeoclim	Outcrop	3
Boyer et al., 2011, Palaeogeography, Palaeoclim	Outcrop	3
Boyer et al., 2011, Palaeogeography, Palaeoclim	Outcrop	3
Boyer et al., 2011, Palaeogeography, Palaeoclim	Outcrop	3
Boyer et al., 2011, Palaeogeography, Palaeoclim	Outcrop	3
Boyer et al., 2011, Palaeogeography, Palaeoclim	Outcrop	3
Boyer et al., 2011, Palaeogeography, Palaeoclim	Outcrop	3
Boyer et al., 2011, Palaeogeography, Palaeoclim	Outcrop	3
Boyer et al., 2011, Palaeogeography, Palaeoclim	Outcrop	3
Boyer et al., 2011, Palaeogeography, Palaeoclim	Outcrop	3
Boyer et al., 2011, Palaeogeography, Palaeoclim	Outcrop	3
Boyer et al., 2011, Palaeogeography, Palaeoclim	Outcrop	3
Boyer et al., 2011, Palaeogeography, Palaeoclim	Outcrop	3
Boyer et al., 2011, Palaeogeography, Palaeoclim	Outcrop	3
Boyer et al., 2011, Palaeogeography, Palaeoclim	Outcrop	3
Boyer et al., 2011, Palaeogeography, Palaeoclim	Outcrop	3
Boyer et al., 2011, Palaeogeography, Palaeoclim	Outcrop	3
Boyer et al., 2011, Palaeogeography, Palaeoclim	Outcrop	3
Boyer et al., 2011, Palaeogeography, Palaeoclim	Outcrop	3

Boyer et al., 2011, Palaeogeography, Palaeoclim	Outcrop	3

Boyer et al., 2011, Palaeogeography, Palaeoclim	Outcrop	3

Dahl et al., 2010, PNAS	Outcrop	3
Dahl et al., 2010, PNAS	Outcrop	3
Dahl et al., 2010, PNAS	Outcrop	3
Farrell et al., 2013, American Journal of Science

Farrell et al., 2013, American Journal of Science	Outcrop	3

Farrell et al., 2013, American Journal of Science	Outcrop	3

Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	3
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	3
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	3
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	3
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	3
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	3
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	3
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	3
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	3
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	3
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	3
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	3
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	3
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	3
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	3
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	3
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	3
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	3
Dahl et al., 2010, PNAS	Core	2
Dahl et al., 2010, PNAS	Core	2
Dahl et al., 2010, PNAS	Core	2
Dahl et al., 2010, PNAS	Core	2
Dahl et al., 2010, PNAS	Core	2
Dahl et al., 2010, PNAS	Core	2
Dahl et al., 2010, PNAS	Core	2
Dahl et al., 2010, PNAS	Core	2
Dahl et al., 2010, PNAS	Core	2
Dahl et al., 2010, PNAS	Core	2
Hammarlund et al., 2012, Earth and Planetary Sc	Core	2
Hammarlund et al., 2012, Earth and Planetary Sc	Core	2
Hammarlund et al., 2012, Earth and Planetary Sc	Core	2
Hammarlund et al., 2012, Earth and Planetary Sc	Core	2
Hammarlund et al., 2012, Earth and Planetary Sc	Core	2
Hammarlund et al., 2012, Earth and Planetary Sc	Core	2
Hammarlund et al., 2012, Earth and Planetary Sc	Core	2
Hammarlund et al., 2012, Earth and Planetary Sc	Core	2
Hammarlund et al., 2012, Earth and Planetary Sc	Core	2
Hammarlund et al., 2012, Earth and Planetary Sc	Core	2
Hammarlund et al., 2012, Earth and Planetary Sc	Core	2
Hammarlund et al., 2012, Earth and Planetary Sc	Core	2
Hammarlund et al., 2012, Earth and Planetary Sc	Core	2
Hammarlund et al., 2012, Earth and Planetary Sc	Core	2

Hammarlund et al., 2012, Earth and Planetary Sc	Core	2

Hammarlund et al., 2012, Earth and Planetary Sc	Core	2
Hammarlund et al., 2012, Earth and Planetary Sc	Core	2
Hammarlund et al., 2012, Earth and Planetary Sc	Core	2
Hammarlund et al., 2012, Earth and Planetary Sc	Core	2
Hammarlund et al., 2012, Earth and Planetary Sc	Core	2
Hammarlund et al., 2012, Earth and Planetary Sc	Core	2
Hammarlund et al., 2012, Earth and Planetary Sc	Core	2
Hammarlund et al., 2012, Earth and Planetary Sc	Core	2
Hammarlund et al., 2012, Earth and Planetary Sc	Core	2
Hammarlund et al., 2012, Earth and Planetary Sc	Core	2
Hammarlund et al., 2012, Earth and Planetary Sc	Core	2
Hammarlund et al., 2012, Earth and Planetary Sc	Core	2
Hammarlund et al., 2012, Earth and Planetary Sc	Core	2
Hammarlund et al., 2012, Earth and Planetary Sc	Core	2
Hammarlund et al., 2012, Earth and Planetary Sc	Core	2
Hammarlund et al., 2012, Earth and Planetary Sc	Core	2
Hammarlund et al., 2012, Earth and Planetary Sc	Core	2
Hammarlund et al., 2012, Earth and Planetary Sc	Core	2
Hammarlund et al., 2012, Earth and Planetary Sc	Core	2
Hammarlund et al., 2012, Earth and Planetary Sc	Core	2
Hammarlund et al., 2012, Earth and Planetary Sc	Core	2
Hammarlund et al., 2012, Earth and Planetary Sc	Core	2
Hammarlund et al., 2012, Earth and Planetary Sc	Core	2
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	2
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	2
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	2
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	2
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	2
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	2
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	2
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	2
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	2
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	2
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	2
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	2
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	2
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	2
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	2
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	2
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	2
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	2
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	2
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	2
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	2

Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	2	
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	2	
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	2	
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	2	
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	2	
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	2	
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	2	
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	2	
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	2	
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	2	
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	2	
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	2	
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	2	
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	2	
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	2	
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	2	
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	2	
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	2	
Hammarlund et al., 2012, Earth and Planetary Sc	Outcrop	2	
Dahl et al., 2010, PNAS	Core	2	
Dahl et al., 2010, PNAS	Core	2	
Dahl et al., 2010, PNAS	Core	2	
Dahl et al., 2010, PNAS	Core	2	
Dahl et al., 2010, PNAS	Core	2	
Dahl et al., 2010, PNAS	Core	2	
Dahl et al., 2010, PNAS	Core	2	
Dahl et al., 2010, PNAS	Core	2	
Dahl et al., 2010, PNAS	Core	2	
Dahl et al., 2010, PNAS	Core	2	
Dahl et al., 2010, PNAS	Core	2	
Dahl et al., 2010, PNAS	Core	2	
Dahl et al., 2010, PNAS	Core	2	
Dahl et al., 2010, PNAS	Core	2	
Dahl et al., 2010, PNAS	Core	2	
Dahl et al., 2010, PNAS	Core	2	
Dahl et al., 2010, PNAS	Core	2	
Dahl et al., 2010, PNAS	Core	2	
Dahl et al., 2010, PNAS	Core	2	Storm waves may
Dahl et al., 2010, PNAS	Core	2	Storm waves may
Dahl et al., 2010, PNAS	Core	2	Storm waves may
Raiswell and Canfield, 1998, American Journal o	Modern sediment		
Raiswell and Canfield, 1998, American Journal o	Modern sediment		

Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment

Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sedime 3
Raiswell and Canfield, 1998, American Journal o Modern sedime 3
Raiswell and Canfield, 1998, American Journal o Modern sedime 3

Raiswell and Canfield, 1998, American Journal o Modern sedime 3
Raiswell and Canfield, 1998, American Journal o Modern sedime 3
Raiswell and Canfield, 1998, American Journal o Modern sedime 3
Raiswell and Canfield, 1998, American Journal o Modern sedime 3
Raiswell and Canfield, 1998, American Journal o Modern sedime 3
Raiswell and Canfield, 1998, American Journal o Modern sedime 3
Raiswell and Canfield, 1998, American Journal o Modern sedime 3
Raiswell and Canfield, 1998, American Journal o Modern sedime 3
Raiswell and Canfield, 1998, American Journal o Modern sedime 3
Raiswell and Canfield, 1998, American Journal o Modern sedime 3
Raiswell and Canfield, 1998, American Journal o Modern sedime 3
Raiswell and Canfield, 1998, American Journal o Modern sedime 3
Raiswell and Canfield, 1998, American Journal o Modern sedime 3
Raiswell and Canfield, 1998, American Journal o Modern sedime 3
Raiswell and Canfield, 1998, American Journal o Modern sedime 3
Raiswell and Canfield, 1998, American Journal o Modern sedime 3
Raiswell and Canfield, 1998, American Journal o Modern sedime 3
Raiswell and Canfield, 1998, American Journal o Modern sedime 3
Raiswell and Canfield, 1998, American Journal o Modern sedime 3
Raiswell and Canfield, 1998, American Journal o Modern sedime 3
Raiswell and Canfield, 1998, American Journal o Modern sedime 3
Raiswell and Canfield, 1998, American Journal o Modern sedime 3
Raiswell and Canfield, 1998, American Journal o Modern sedime 3
Raiswell and Canfield, 1998, American Journal o Modern sedime 3
Raiswell and Canfield, 1998, American Journal o Modern sedime 3
Raiswell and Canfield, 1998, American Journal o Modern sedime 3
Raiswell and Canfield, 1998, American Journal o Modern sedime 3
Raiswell and Canfield, 1998, American Journal o Modern sedime 3
Raiswell and Canfield, 1998, American Journal o Modern sedime 3
Raiswell and Canfield, 1998, American Journal o Modern sedime 3
Raiswell and Canfield, 1998, American Journal o Modern sedime 3
Raiswell and Canfield, 1998, American Journal o Modern sedime 3
Raiswell and Canfield, 1998, American Journal o Modern sedime 3
Raiswell and Canfield, 1998, American Journal o Modern sedime 3
Raiswell and Canfield, 1998, American Journal o Modern sedime 3
Raiswell and Canfield, 1998, American Journal o Modern sedime 3
Raiswell and Canfield, 1998, American Journal o Modern sedime 3
Raiswell and Canfield, 1998, American Journal o Modern sedime 3
Raiswell and Canfield, 1998, American Journal o Modern sedime 3
Raiswell and Canfield, 1998, American Journal o Modern sedime 3
Raiswell and Canfield, 1998, American Journal o Modern sedime 3
Raiswell and Canfield, 1998, American Journal o Modern sedime 3
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment

Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment

Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment

Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment
Raiswell and Canfield, 1998, American Journal o Modern sediment

Group/Formation	Section	Sample	FeP	FeHR	FeT
Pilgujärvi	Drillhole 2900	448	1.000	6.700	6.300
Pilgujärvi	Drillhole 2900	453	1.400	9.100	25.700
Pilgujärvi	Drillhole 2900	467	3.200	7.900	31.900
Pilgujärvi	Drillhole 2900	490	1.700	10.100	28.100
Pilgujärvi	Drillhole 2900	508.5	1.100	6.300	19.200
Pilgujärvi	Drillhole 2900	517	1.900	12.700	13.100
Pilgujärvi	Drillhole 2900	524	1.700	10.600	11.500
Pilgujärvi	Drillhole 2900	536	0.800	11.100	12.200
Pilgujärvi	Drillhole 2900	549	0.600	5.900	6.600
Pilgujärvi	Drillhole 2900	561.8	0.400	6.500	11.800
Pilgujärvi	Drillhole 2900	562.9	0.400	13.400	13.400
Pilgujärvi	Drillhole 2900	578.2	0.400	7.900	13.200
Pilgujärvi	Drillhole 2900	590	0.600	13.600	11.500
Pilgujärvi	Drillhole 2900	656	1.000	15.800	14.100
Pilgujärvi	Drillhole 2900	666	1.400	8.300	11.600
Pilgujärvi	Drillhole 2900	677	0.800	9.900	12.800
Pilgujärvi	Drillhole 2900	687	1.300	9.200	12.700
Pilgujärvi	Drillhole 2900	705	1.200	10.600	12.400
Pilgujärvi	Drillhole 2900	743	0.400	6.700	12.900
Pilgujärvi	Drillhole 2900	763	0.300	6.500	7.400
Pilgujärvi	Drillhole 2900	788	12.500	20.900	20.200
Pilgujärvi	Drillhole 2900	815	2.100	8.300	9.400
Pilgujärvi	Drillhole 2900	822	4.800	11.400	11.600
Pilgujärvi	Drillhole 2900	833	3.400	8.300	10.600
Pilgujärvi	Drillhole 2900	849	1.600	6.800	8.400
Pilgujärvi	Drillhole 2900	894	2.400	7.200	8.000
Pilgujärvi	Drillhole 2900	933	1.700	9.200	7.500
Pilgujärvi	Drillhole 2900	940	1.600	10.400	9.800
Pilgujärvi	Drillhole 2900	956	0.400	6.800	10.800
Pilgujärvi	Drillhole 2900	996	2.200		8.300
Pilgujärvi	Drillhole 2900	1011	2.500	4.500	4.900
Pilgujärvi	Drillhole 2900	1057	1.900	6.600	8.800
Chuanlinggou	CLG1-02	1.4	1.170	2.900	5.260
Chuanlinggou	CLG1-03	3.2	0.340	1.480	5.270
Chuanlinggou	CLG1-07	5.8	0.260	4.360	5.520
Chuanlinggou	CLG1-10	8.9	0.020	2.750	3.840
Chuanlinggou	CLG1-11	10.2	0.040	3.350	4.350
Chuanlinggou	CLG1-13	12.5	b.d.	2.720	3.800
Chuanlinggou	CLG2-01	0	0.350	0.690	3.450
Chuanlinggou	CLG2-02	0.7	0.410	1.630	5.250

Chuanlinggou	CLG2-03	1.3	0.350	0.650	3.630
Chuanlinggou	CLG2-04A	1.8	0.370	1.380	5.260
Chuanlinggou	CLG2-04B	1.6	0.170	0.510	4.240
Chuanlinggou	CLG2-05	2.7	0.230	0.780	4.230
Chuanlinggou	CLG2-06	3.2	0.200	0.630	4.250
Chuanlinggou	CLG2-08	3.8	0.240	1.150	4.810
Chuanlinggou	CLG2-09	40.5	0.260	0.510	3.450
Chuanlinggou	CLG2-10	41.1	0.090	0.550	3.610
Chuanlinggou	CLG2-12	42.4	0.360	0.730	2.990
Chuanlinggou	CLG4-03		0.080	0.790	4.660
Chuanlinggou	CLG4-05		0.060	3.080	14.610
Chuanlinggou	CLG5-31	41.2	0.450	1.350	2.400
Chuanlinggou	CLG5-32	40.1	0.150	1.670	2.390
Chuanlinggou	CLG5-35	36.7	0.230	1.390	2.460
Chuanlinggou	CLG5-37	33.3	0.560	3.440	4.520
Chuanlinggou	CLG5-43	23.9	0.410	1.580	2.790
Chuanlinggou	CLG5-44	23.2	0.390	1.730	2.860
Chuanlinggou	CLG5-45	20	0.510	1.530	3.280
Chuanlinggou	CLG5-53	10	0.440	1.160	2.170
Chuanlinggou	CLG7-01		0.490	1.890	5.090
Chuanlinggou	CLG7-02		0.130	2.180	6.750
Chuanlinggou	CLG7-03		0.360	1.580	4.750
Chuanlinggou	CLG7-04		0.270	1.420	4.570
Newland	M16	204.8	0.700	1.170	2.390
Newland	M16	204.85	0.720	1.380	2.640
Newland	M16	232.8	0.540	1.250	3.210
Newland	M16	313.6	0.990	1.590	2.940
Newland	M16	420.9	0.670	0.880	1.540
Newland	M16	495	0.760	1.850	2.450
Newland	M16	495.05	0.800	1.560	2.420
Newland	SC93	503.7	0.930	1.120	2.600
Newland	SC93	503.75	0.790	0.960	2.480
Newland	SC93	507.8	0.760	1.000	2.800
Newland	SC93	517.8	0.130	0.580	2.220
Newland	SC93	521.2	0.170	0.760	2.200
Newland	SC93	526.8	0.130	0.690	1.750
Newland	SC93	527	0.170	0.740	1.560
ɔn not given in this	JD-77-70 E		0.510	0.980	2.520
ɔn not given in this	JD-79 112 C-1		0.590	1.310	2.450
ɔn not given in this	JD-79-113-B		0.510	0.870	1.300
ɔn not given in this	JD-79-138D		0.420	0.530	2.770

ɔn not given in this	JD-79-186K		0.420	0.790	2.520
ɔn not given in this	JD-79-I 112 C-2		1.260	2.220	2.840
Atar	Atar	R2-1			
Atar	Atar	R2-12			
Atar	Atar	R2-13			
Atar	Atar	R2-14			
Atar	Atar	R2-15A			
Atar	Atar	R2-15B			
Atar	Atar	R2-16			
Atar	Atar	R2-17A			
Atar	Atar	R2-17B			
Atar	Atar	R2-18			
Atar	Atar	R2-19			
Atar	Atar	R2-2			
Atar	Atar	R2-24			
Atar	Atar	R2-25A			
Atar	Atar	R2-25B			
Atar	Atar	R2-27			
Atar	Atar	R2-28			
Atar	Atar	R2-29A			
Atar	Atar	R2-3			
Atar	Atar	R2-30			
Atar	Atar	R2-31			
Atar	Atar	R2-32			
Atar	Atar	R2-33			
Atar	Atar	R2-34			
Atar	Atar	R2-35			
Atar	Atar	R2-4			
Atar	Atar	R2-40			
Atar	Atar	R2-41			
Atar	Atar	R2-42			
Atar	Atar	R2-43A			
Atar	Atar	R2-43B			
Atar	Atar	R2-44			
Atar	Atar	R2-45			
Atar	Atar	R2-46			
Atar	Atar	R2-47			
Atar	Atar	R2-48			
Atar	Atar	R2-6			
Atar	Atar	R2-7			
Atar	Atar	R2-8			

Atar	Atar	R4-12
Atar	Atar	R4-16
Atar	Atar	R4-17
Atar	Atar	R4-18
Atar	Atar	R4-25
Atar	Atar	R4-26
Atar	Atar	R4-28
Atar	Atar	R4-31
Atar	Atar	R4-32
Atar	Atar	R4-33
Atar	Atar	R4-34
Atar	Atar	R4-35
Atar	Atar	R4-37
Atar	Atar	R4-38
Atar	Atar	R4-40
Atar	Atar	R4-43
Atar	Atar	R4-44
Atar	Atar	R4-45
Atar	Atar	R4-46
Atar	Atar	R4-47
Atar	Atar	R4-48
Atar	Atar	R4-49
Atar	Atar	R4-50
Atar	Atar	R4-53
Atar	Atar	R4-55
Atar	Atar	R4-56
Atar	Atar	R4-59
Atar	Atar	R4-6
Atar	Atar	R4-60
Atar	Atar	R4-61
Atar	Atar	R4-64
Atar	Atar	R4-65
Atar	Atar	R4-67
Atar	Atar	R4-69
Atar	Atar	R4-70
Atar	Atar	R4-73
Atar	Atar	R4-76
Atar	Atar	R4-79
Atar	Atar	R4-8
Atar	Atar	R4-80
Atar	Atar	R4-81

Atar	Atar	R4-82
Atar	Atar	R4-83
Atar	Atar	R4-84
Atar	Atar	R4-85
Atar	Atar	R4-86
Atar	Atar	R4-88
Atar	Atar	R4-89
Atar	Atar	R4-9
Atar	Atar	R4-90
Atar	Atar	R4-91
Atar	Atar	R4-92
Atar	Atar	R4-93
Atar	Atar	R4-94
Atar	Atar	R4-95
Atar	Atar	R4-97
El Mreiti	El Mreiti	F4-11
El Mreiti	El Mreiti	F4-12
El Mreiti	El Mreiti	F4-14
El Mreiti	El Mreiti	F4-24
El Mreiti	El Mreiti	F4-25
El Mreiti	El Mreiti	F4-27
El Mreiti	El Mreiti	F4-28
El Mreiti	El Mreiti	F4-29
El Mreiti	El Mreiti	F4-30
El Mreiti	El Mreiti	F4-31
El Mreiti	El Mreiti	F4-32
El Mreiti	El Mreiti	F4-34
El Mreiti	El Mreiti	F4-35
El Mreiti	El Mreiti	F4-36
El Mreiti	El Mreiti	F4-37
El Mreiti	El Mreiti	F4-44
El Mreiti	El Mreiti	F4-45
El Mreiti	El Mreiti	F4-46
El Mreiti	El Mreiti	F4-47
El Mreiti	El Mreiti	F4-51
El Mreiti	El Mreiti	F4-52
El Mreiti	El Mreiti	F4-55
El Mreiti	El Mreiti	F4-57
El Mreiti	El Mreiti	F4-59
El Mreiti	El Mreiti	F4-60
El Mreiti	El Mreiti	F4-61

El Mreiti	El Mreiti	F4-65			
El Mreiti	El Mreiti	F4-71			
El Mreiti	El Mreiti	F4-73			
El Mreiti	El Mreiti	F4-77			
El Mreiti	El Mreiti	F4-82			
El Mreiti	El Mreiti	F4-94			
FB1a	FB1a		0.362	0.647	4.310
FB1b	FB1b		0.004	0.066	2.190
FB1b	FB1b				
FB1b	FB1b				
FB1b	FB1b				
FB1b	FB1b				
FB1b	FB1b				
FB1b	FB1b				
FB1b	FB1b				
FB1b	FB1b				
FB1b	FB1b				
FB1b	FB1b				
FB1b	FB1b				
FB1b	FB1b				
FB1b	FB1b		0.025	0.253	1.810
FB1b	FB1b				
FB1b	FB1b				
FB1b	FB1b		0.120	1.090	6.410
FB1b	FB1b				
FB1b	FB1b				
FB1b	FB1b		0.090	0.500	2.500
FB1b	FB1b				
FB1b	FB1b		0.049	0.290	1.320
FB1b	FB1b				
FB1b	FB1b				
FB1b	FB1b				
FB1b	FB1b		0.093	0.931	2.820
FB1b	FB1b				
FB1b	FB1b				
FB1b	FB1b		2.207	11.035	22.990
FB1b	FB1b		2.164	2.924	4.430
FB1c	FB1c		0.010	0.170	2.430
FB1c	FB1c				
FB1c	FB1c		0.078	0.652	5.430
FB1c	FB1c				
FB1c	FB1c		0.194	0.498	3.110

FB1c	FB1c			
FB1c	FB1c	0.053	0.529	3.110
FB1c	FB1c	0.189	0.525	3.09
FB1c	FB1c	0.295	0.374	1.780
FB1c	FB1c			
FB1c	FB1c			
FB1c	FB1c			
FB1c	FB1c			
FB1c	FB1c			
FB1c	FB1c	0.314	1.123	3.120
FB1c	FB1c	0.131	0.385	1.070
FB1c	FB1c			
FB1c	FB1c			
FB1c	FB1c			
FB1c	FB1c	0.366	0.988	2.470
FB1c	FB1c			
FB1c	FB1c	0.392	0.933	2.170
FB1c	FB1c			
FB1c	FB1c			
FB1c	FB1c	1.265	1.976	3.800
FB1c	FB1c			
FB1c	FB1c			
FB1c	FB1c	0.049	4.902	8.600
FB1c	FB1c	1.469	4.320	6.750
FB1c	FB1c	0.988	2.059	3.120
FB1c	FB1c			
FB1c	FB1c			
FB1c	FB1c			
FB1c	FB1c			
FB1c	FB1c			
FB1c	FB1c			
FB1c	FB1c	1.202	1.647	1.790
FB1c	FB1c	1.331	2.421	2.470
FB1c	FB1c	2.818	3.131	3.070
FB1c	FB1c	1.704	1.893	1.820
FB2b	FB2b	0.235	0.636	4.540
FB2b	FB2b			
FB2b	FB2b			
FB2b	FB2b			
FB2b	FB2b	0.110	0.844	2.410
FB2b	FB2b			

FB2b	FB2b		1.332	2.184	2.800
FB2b	FB2b		0.475	1.696	2.120
FB2b	FB2b		1.062	1.831	2.180
FB2b	FB2b		0.702	1.404	1.560
FB2b	FB2b				
FB2b	FB2b		0.250	0.455	0.500
FB2b	FB2b		0.574	1.739	1.870
FC	FC		0.072	0.266	3.330
FC	FC		0.116	0.228	1.340
FC	FC		0.013	0.050	0.280
FC	FC		0.172	0.593	2.280
FC	FC		0.020	0.076	0.280
FC	FC		0.782	1.203	1.850
FD	FD		0.935	1.764	4.010
FD	FD		0.542	0.888	1.930
FD	FD		1.661	2.102	4.290
FD	FD		2.330	2.912	4.480
FD	FD		3.464	3.981	5.770
FD	FD		3.854	4.283	5.710
FD	FD		3.625	4.028	5.300
FD	FD		2.441	4.001	4.940
FD	FD		3.309	4.795	5.920
FD	FD		3.197	4.441	5.350
FD	FD		5.019	5.769	6.410
FD	FD				
FD	FD		1.978	2.223	2.39
	Bangombe	.30B-04 (-193	0.061	0.218	1.652
	Bangombe	.30B-07 (-233	0.148	0.337	2.633
	Bangombe	A.37-02 (-76m	0.033	0.330	2.668
	Comilog	A.37-01 (-40m	0.455	0.992	2.236
	Comilog	12-B4-06 (-30r	0.077	0.688	1.077
	Comilog	Q4-B7-18 (-61	0.015	0.462	1.288
	Comilog	Q7-B2-15 (-34	0.042	0.363	1.522
	Comilog	Q1-B3-09 (-57	0.007	0.607	3.549
	La Gare	omato. (base	0.998	1.886	5.298
	La Gare	FBGM-04	0.429	1.318	6.914
	La Gare	FBGM-06	1.119	1.764	3.151
	La Gare	FBGM-10 (top	0.224	0.737	1.863
	La Ville	FB1-03 (base)	0.040	0.288	0.980
	La Ville	FB1-04 (top)	1.125	1.810	8.340
	Socoba	7	0.200	0.940	2.220

	Socoba	8	0.830	1.030	2.570
	Socoba	10	0.110	0.290	1.530
	Socoba	12	0.110	0.430	2.410
	Socoba	13	1.235	1.428	3.280
	Socoba	14	0.317	0.741	2.584
	Socoba	15	0.114	0.398	2.230
	Socoba	18	0.024	0.676	2.063
	Socoba	rom fossil sur	0.069	0.508	1.913
	Socoba	rom fossil sur	0.093	0.740	2.142
Kaltasy	B203	3052	0.036	0.305	1.240
Kaltasy	B203	3263.2	0.196	0.612	3.550
Kaltasy	B203	3452	0.047	0.354	2.980
Kaltasy	B203	3505	0.045	0.396	3.253
Kaltasy	B203	3506.5	0.025	0.487	3.540
Kaltasy	B203	3559.5	0.127	0.454	2.930
Kaltasy	B203	3565	0.047	0.421	2.860
Kaltasy	B203	3653	0.010	0.540	2.550
Kaltasy	B203	3756.1	0.005	0.740	2.650
Kaltasy	B203	3853.3	0.009	0.264	2.220
Kaltasy	B203	3944.5	0.006	0.294	3.350
Kaltasy	B203	3949	0.012	0.501	3.240
Kaltasy	B203	4040	0.039	0.407	3.040
Kaltasy	B203	4050.7	0.011	0.390	2.670
Kaltasy	B203	4079.7	0.058	0.459	2.890
Kaltasy	B203	4081	0.042	0.368	2.810
Kaltasy	B203	4099	0.092	0.444	2.500
Kaltasy	B203	4101.9	0.013	0.452	3.950
Kaltasy	B203	4158.15	0.016	0.347	3.650
Kaltasy	B203	4169.7	0.035	0.454	3.730
Kaltasy	B203	4170.7	0.224	0.539	3.830
Kaltasy	B203	4195.5	0.078	0.552	3.790
Kaltasy	B203	4198.5	0.138	0.377	3.660
Kaltasy	B203	4201.5	0.056	0.397	4.260
Kaltasy	B203	4206	0.017	0.262	3.730
Kaltasy	B203	4207.3	0.189	0.513	3.630
Kaltasy	B203	4260.4	0.031	0.300	3.630
Kaltasy	B203	4264	0.019	0.531	4.220
Kaltasy	B203	4267	0.034	0.311	3.570
Kaltasy	B203	4270.4	0.127	0.561	3.700
Kaltasy	B203	4274.4	0.092	0.355	3.450
Kaltasy	B203	4284.5	0.340	0.602	3.960

Kaltasy	B203	4288.5	0.437	0.645	3.800
Kaltasy	B203	4349	0.208	0.503	3.460
Kaltasy	B203	4351	0.137	0.475	3.740
Kaltasy	B203	4353	0.127	0.483	3.740
Kaltasy	B203	4386.4	0.244	0.455	3.230
Kaltasy	B203	4391	0.270	0.516	3.170
Kaltasy	B203	4415	0.223	0.410	2.340
Kaltasy	B203	4450	0.192	0.465	2.410
Kaltasy	B203	4760.55	0.141	0.411	3.170
Satka equivalent	Vostok Askinsky-1	4111.1	0.034	0.329	2.570
Satka equivalent	Vostok Askinsky-1	4112	0.083	0.315	2.120
Satka equivalent	Vostok Askinsky-1	4113.5	0.050	0.685	2.790
Satka equivalent	Vostok Askinsky-1	4113.9	0.116	1.025	2.840
Satka equivalent	Vostok Askinsky-1	4114.7	0.033	0.189	2.280
Satka equivalent	Vostok Askinsky-1	4114.93	0.076	0.628	2.650
Satka equivalent	Vostok Askinsky-1	3824.8coaly	0.011	0.131	1.170
n method	Amoc 82/3	2-3-166.95	0.040	0.200	2.840
n method	Amoc 82/3	2-3-328.35	0.100	0.190	3.210
n method	Amoc 82/3	32-3-331.8	0.080	0.230	6.050
n method	Amoc 82/3	2-3-345.8	0.060	0.140	4.490
n method	Amoc 82/3	2-3-367.0	0.070	0.160	2.640
n method	Amoc 82/3	2-3-379.1	0.100	0.210	6.160
n method	Amoc 82/3	82-3-391.0	0.130	0.270	2.950
n method	Amoc 82/3	2-3-407.65	0.050	0.180	3.850
n method	Amoc 82/3	2-3-439.9	0.080	0.190	4.810
n method	Amoc 82/3	2-3-460.25	0.040	0.160	4.330
n method	Amoc 82/3	2-3-465.5	0.070	0.150	3.180
n method	Amoc 82/3	32-3-479.2	0.240	0.690	4.010
n method	Amoc 82/3	32-3-521.45	0.060	0.210	4.390
n method	Amoc 82/3	2-3-530.5	0.080	0.270	4.380
n method	Amoc 82/3	2-3-544.1	0.090	0.260	5.090
n method	Amoc 82/3	82-3-548.5	0.040	0.340	4.330
n method	Amoc 82/3	2-3-549.25	0.060	0.260	4.480
n method	Amoc 82/3	2-3-561.05	0.030	0.320	4.670
n method	Amoc 82/3	2-3-587.05	0.030	0.530	3.570
n method	Golden Grove 1	G1-107.9	0.570	0.770	3.410
n method	Golden Grove 1	1-130.25	0.030	0.180	4.850
n method	Golden Grove 1	G1-131.1	0.050	0.150	3.570
n method	Golden Grove 1	G1-171.5	0.180	0.520	4.310
n method	Golden Grove 1	1-206.75	0.070	0.530	3.940
n method	Golden Grove 1	G1-229.5	0.040	0.130	4.130

n method	Golden Grove 1	G1-231.1	0.060	0.210	3.740
n method	Golden Grove 1	G1-266.2	0.050	0.180	4.590
n method	Golden Grove 1	G1-274.8	0.050	0.110	2.780
n method	Golden Grove 1	G1-293.1	0.100	0.300	4.300
n method	Golden Grove 1	G1-299.1	0.040	0.120	6.590
n method	Golden Grove 1	G1-304.9	0.000	0.080	2.970
n method	Golden Grove 1	iG1-31.5	0.040	0.140	3.360
n method	Golden Grove 1	G1-316.5	0.000	0.150	5.780
n method	Golden Grove 1	G1-326.2	0.030	0.120	3.350
n method	Golden Grove 1	G1-340.2	0.050	0.140	3.380
n method	Golden Grove 1	iG1-37.6	0.040	0.170	4.070
n method	Golden Grove 1	G1-370.7	0.040	0.080	2.150
n method	Golden Grove 1	G1-48.75	0.040	0.140	3.110
n method	Golden Grove 1	G1-53.2	0.030	0.130	3.460
n method	Urapung-4	U4-110.6	1.270	1.500	3.440
n method	Urapung-4	U4-117.0	1.590	1.730	3.100
n method	Urapung-4	U4-124.0	1.430	1.580	2.730
n method	Urapung-4	U4-135	1.770	1.960	6.670
n method	Urapung-4	U4-140.1	1.050	1.280	4.450
n method	Urapung-4	U4-156.1	1.230	1.270	2.460
n method	Urapung-4	U4-164.7	1.480	1.620	5.180
n method	Urapung-4	U4-173	0.890	0.940	1.850
n method	Urapung-4	U4-183	1.240	1.330	2.130
n method	Urapung-4	U4-189.7	1.850	1.930	2.650
n method	Urapung-4	U4-196.0	1.550	1.650	2.430
n method	Urapung-4	U4-204.1	2.590	2.670	3.370
n method	Urapung-4	U4-214.1	2.660	2.960	5.490
n method	Urapung-4	U4-225.6	0.020	0.120	2.000
n method	Urapung-4	U4-24.7	0.000	0.370	9.290
n method	Urapung-4	U4-249.5	0.010	0.180	4.530
n method	Urapung-4	U4-26.4	0.240	0.600	7.660
n method	Urapung-4	U4-29.0	0.490	0.990	9.880
n method	Urapung-4	U4-315.0	0.540	0.740	4.470
n method	Urapung-4	U4-33.2	0.180	1.430	16.210
n method	Urapung-4	U4-330.1	0.260	0.380	3.320
n method	Urapung-4	U4-335.2	0.250	0.400	4.300
n method	Urapung-4	U4-343.6	0.030	0.190	4.530
n method	Urapung-4	U4-355.4	1.690	1.790	4.160
n method	Urapung-4	U4-363.0	2.030	2.170	4.380
n method	Urapung-4	U4-417.2	0.140	0.240	3.240
n method	Urapung-4	U4-420.0	0.270	0.440	4.290

n method	Urapung-4	U4-421.5	0.150	0.260	3.490
n method	Urapung-4	U4-424.5	0.110	0.290	5.160
n method	Urapung-4	U4-430.1	0.200	0.330	3.110
n method	Urapung-4	U4-431.0	0.720	0.890	4.040
n method	Urapung-4	U4-432.1	0.670	0.920	4.190
n method	Urapung-4	U4-432.25	0.590	0.820	3.850
n method	Urapung-4	U4-440.95	0.150	0.260	2.890
n method	Urapung-4	U4-446.85	0.300	0.430	3.360
n method	Urapung-4	U4-89.6	1.380	1.500	3.190
n method	Urapung-4	U4-98.5	1.670	1.840	4.500
n method	Urapung-5	U5-113.9	0.050	0.130	0.690
n method	Urapung-5	U5-120.2	0.210	0.330	3.120
n method	Urapung-5	U5-125.1	0.040	0.140	3.400
n method	Urapung-5	U5-130.5	0.070	0.220	1.220
n method	Urapung-5	U5-140.25	0.050	0.110	1.460
n method	Urapung-5	U5-140.7	0.000	0.070	1.390
n method	Urapung-5	U5-151.3	0.040	0.140	1.810
n method	Urapung-5	U5-325.1	0.050	0.160	2.730
n method	Urapung-5	U5-326.2	0.070	0.240	4.550
n method	Urapung-5	U5-334.3	0.120	0.260	5.590
n method	Urapung-5	U5-355.1	0.080	0.190	3.710
n method	Urapung-5	U5-366.6	0.080	0.200	5.090
n method	Urapung-5	U5-383.7	0.290	0.600	5.320
n method	Urapung-5	U5-398.95	0.030	0.260	5.120
n method	Urapung-5	U5-414.7	0.020	0.130	4.330
n method	Urapung-5	U5-424.0	0.090	0.250	4.950
n method	Urapung-5	U5-425.1	0.040	0.310	4.270
n method	Urapung-5	U5-436.7	0.040	0.260	5.510
n method	Urapung-5	U5-437.1	0.010	0.220	4.030
n method	Urapung-5	U5-440.0	0.010	0.290	4.380
n method	Urapung-5	U5-448.5	0.070	0.250	4.530
n method	Urapung-5	U5-450.0	0.030	0.290	4.310
n method	Urapung-5	U5-459.6	0.110	0.340	4.950
n method	Urapung-5	U5-465.1	0.040	0.310	4.890
n method	Urapung-5	U5-470.25	0.070	0.420	4.470
n method	Urapung-5	U5-479.6	0.050	0.310	5.360
n method	Urapung-5	U5-505.1	0.060	0.500	5.200
n method	Urapung-5	U5-508.6	0.050	0.440	7.520
n method	Urapung-5	U5-510.1	0.010	0.310	4.640
n method	Urapung-5	U5-518.9	0.060	0.330	4.630
n method	Urapung-5	U5-526.2	0.050	0.350	5.400

n method	Urapung-5	U5-536.6	0.160	0.350	4.810
n method	Urapung-5	U5-547.75	2.310	2.480	4.460
n method	Urapung-5	U5-561.4	1.330	1.410	3.380
n method	Urapung-5	U5-569.1	1.570	1.720	4.580
n method	Urapung-5	U5-570.1	1.650	1.750	3.250
n method	Urapung-5	U5-580.1	2.270	2.400	4.290
n method	Urapung-5	U5-581.9	1.580	1.770	4.330
n method	Urapung-5	U5-592.0	1.350	1.460	3.430
n method	Urapung-5	U5-593.1	1.580	1.810	4.890
n method	Urapung-5	U5-603.9	0.630	0.810	1.230
	A83-4	223.9	0.210	1.470	2.270
	A83-4	236	0.600	1.220	2.920
	A83-4	247.3	0.050	0.390	2.620
	A83-4	271.1	0.030	0.350	2.850
	A83-4	289.95	1.110	1.590	2.070
Lady Loretta	LA64	116.8	0.750	1.420	2.920
Lady Loretta	LA64	133.6	0.510	1.240	2.840
Lady Loretta	LA64	146.5	0.560	1.170	2.870
Lady Loretta	LA64	162.5	0.540	1.760	3.300
Lady Loretta	LA64	210	0.210	1.440	2.130
Lady Loretta	LA64	221	0.190	1.650	1.870
Lady Loretta	LA64	261.8	0.280	0.870	2.700
Lady Loretta	LA64	282.5	0.620	1.640	3.570
Lady Loretta	LA64	289.8	0.400	1.350	3.970
Lady Loretta	LA64	301.8	0.750	1.530	3.410
Lady Loretta	LA64	334.5	0.550	1.310	3.180
Lady Loretta	LA64	361.5	0.370	0.780	3.500
Lady Loretta	LA64	429.2	0.260	1.040	3.920
Lady Loretta	LA64	451.5	0.510	1.750	3.750
Lady Loretta	LA64	471.4	0.590	1.030	2.460
Lady Loretta	LA64	485.8	0.390	2.240	4.180
Lady Loretta	LA64	543	0.280	2.540	2.780
Lady Loretta	LA64	564	0.480	1.770	2.450
Lady Loretta	LA64	585.5	0.160	2.540	2.540
Lady Loretta	LA64	600.5	1.030	1.530	2.540
Barney Creek	MY3	96.7	1.000	1.530	1.830
Barney Creek	MY3	100.6	0.490	0.960	1.770
Barney Creek	MY3	105.7	0.350	1.080	1.140
Barney Creek	MY3	125.2	0.550	0.960	1.020
Barney Creek	MY3	135	0.990	1.760	1.820
Barney Creek	MY3	145	2.180	2.680	2.750

Barney Creek	MY3	155	0.690	1.420	1.690
Barney Creek	MY3	175	0.400	0.850	0.910
Barney Creek	MY3	188	0.950	1.950	2.100
Barney Creek	MY3	198	1.100	1.770	2.030
Barney Creek	MY3	208	1.040	1.730	1.940
Barney Creek	MY3	218.2	1.100	1.950	2.260
Barney Creek	MY3	228.3	1.920	2.660	2.710
Barney Creek	MY3	233.8	0.380	0.660	0.770
Teena	MY3	249.5	0.140	0.350	0.590
	MY4	37	0.500	1.140	1.240
	MY4	51	b.d.	1.200	2.300
	MY4	61.5	0.880	1.430	2.500
	MY4	88.5	0.250	0.540	0.830
Mt. Les	WFDD84	70	0.160	0.830	5.340
Mt. Les	WFDD84	97.8	0.320	2.310	25.210
Mt. Les	WFDD84	103.5	0.550	1.420	2.600
Mt. Les	WFDD84	115.2	0.510	1.480	2.290
Mt. Les	WFDD84	132	0.050	0.330	3.010
Mt. Les	WFDD84	158.5	0.860	1.260	1.850
Reward	BMR McArthur Rive	1	0.750	0.950	1.610
Reward	BMR McArthur Rive	2	1.830	2.000	2.620
Reward	BMR McArthur Rive	3	1.210	1.440	3.270
Reward	BMR McArthur Rive	4	2.420	2.570	3.100
Reward	BMR McArthur Rive	5	0.930	1.120	1.370
Reward	BMR McArthur Rive	6	0.950	1.050	1.890
Reward	BMR McArthur Rive	7	0.840	0.980	1.870
Reward	BMR McArthur Rive	8	0.830	1.040	2.090
Reward	BMR McArthur Rive	9	3.450	3.600	4.440
Reward	BMR McArthur Rive	10	3.450	3.600	4.510
Wollogorang	BMR Mount Young	1	1.350	1.550	4.570
Wollogorang	BMR Mount Young	2	0.120	0.450	1.890
Wollogorang	BMR Mount Young	3	0.840	1.050	1.870
Wollogorang	BMR Mount Young	4	1.630	1.770	2.580
Wollogorang	BMR Mount Young	5	2.390	2.760	3.660
Wollogorang	BMR Mount Young	6	1.060	1.350	6.500
Wollogorang	BMR Mount Young	7	1.180	1.380	2.240
Wollogorang	BMR Mount Young	8	3.470	3.850	4.810
Wollogorang	BMR Mount Young	9	1.220	1.300	1.700
Wollogorang	BMR Mount Young	10	0.930	1.500	1.980
Wollogorang	BMR Mount Young	11	1.660	1.760	2.770
Wollogorang	BMR Mount Young	12	2.070	2.360	3.570

Wollogorang	BMR Mount Young	9710828-0	1.480	1.590	2.050
Wollogorang	BMR Mount Young	9710828-1	1.250	1.880	2.560
Rove	89-MC-1	05-50	0.626	1.419	5.490
Rove	89-MC-1	05-51	0.147	1.761	5.360
Rove	89-MC-1	05-52	0.675	2.472	6.880
Rove	89-MC-1	05-53	0.450	2.409	5.690
Rove	89-MC-1	05-54	2.773	3.930	6.640
Rove	89-MC-1	05-55	0.640	6.280	10.810
Rove	89-MC-1	05-56	0.663	10.359	10.380
Rove	89-MC-1	05-57	0.649	7.786	8.880
Rove	89-MC-1	05-58	0.026	0.729	5.150
Rove	89-MC-1	05-59	1.721	12.710	13.890
Rove	89-MC-1	05-60	0.901	3.700	7.760
Rove	89-MC-1	05-61	1.252	4.636	7.640
Rove	89-MC-1	05-62	2.654	3.423	5.930
Rove	89-MC-1	05-63	2.254	2.921	6.730
Rove	89-MC-1	05-64	2.970	3.809	6.770
Rove	89-MC-1	05-65	0.781	1.587	5.900
Rove	89-MC-1	05-66	0.188	1.353	6.000
Rove	89-MC-1	R10	0.897	1.441	3.870
Rove	89-MC-1	R11	2.871	3.443	5.490
Rove	89-MC-1	R12	0.444	0.875	3.140
Rove	89-MC-1	R13	0.635	1.007	3.030
Rove	89-MC-1	R14	1.966	2.535	4.850
Rove	89-MC-1	R15A	0.674	1.594	3.820
Rove	89-MC-1	R15B	1.225	1.859	4.340
Rove	89-MC-1	R16	0.661	2.164	3.550
Rove	89-MC-1	R17	0.861	2.479	3.620
Rove	89-MC-1	R18	0.391	1.399	3.640
Rove	89-MC-1	R19	0.492	1.653	3.460
Rove	89-MC-1	R20	0.637	1.920	3.750
Rove	89-MC-1	R21	1.226	3.353	4.560
Rove	89-MC-1	R22	0.841	2.409	3.560
Rove	89-MC-1	R23	0.186	0.622	2.660
Rove	89-MC-1	R24	0.506	1.468	3.040
Rove	89-MC-1	R25	2.067	4.441	5.530
Rove	89-MC-1	R26A	1.621	2.486	4.210
Rove	89-MC-1	R26B	0.122	0.501	3.040
Rove	89-MC-1	R26C	2.855	3.785	5.800
Rove	89-MC-1	R26D	7.506	8.543	10.380
Rove	89-MC-1	R26F	0.875	2.546	3.980

Rove	89-MC-1	R26G	0.967	3.193	4.840
Rove	89-MC-1	R26H	1.027	3.181	4.740
Rove	89-MC-1	R26I	0.913	1.900	3.460
Rove	89-MC-1	R26J	2.524	3.038	4.540
Rove	89-MC-1	R26K	5.807	6.465	8.000
Rove	89-MC-1	R26L	5.073	5.914	7.910
Rove	89-MC-1	R26M	6.505	7.473	9.860
Rove	89-MC-1	R26N	0.933	1.729	4.620
Rove	89-MC-1	R26O	1.665	3.357	4.980
Rove	89-MC-1	R26P	1.921	4.059	5.140
Rove	89-MC-1	R27	2.349	4.056	5.400
Rove	89-MC-1	R28	0.671	1.354	2.840
Rove	89-MC-1	R29	1.767	2.067	4.230
Rove	89-MC-1	R30	2.501	2.825	5.210
Rove	89-MC-1	R31	2.857	3.294	6.270
Rove	89-MC-1	R32	3.796	4.245	7.830
Rove	89-MC-1	R33	5.530	6.072	9.470
Rove	89-MC-1	R34	3.339	3.930	7.760
Rove	89-MC-1	R35	4.181	4.767	8.630
Rove	89-MC-1	R36	2.386	2.918	6.260
Rove	89-MC-1	R37	2.541	3.142	6.240
Rove	89-MC-1	R38	16.380	17.268	19.590
Rove	89-MC-1	R39	2.986	3.557	7.130
Rove	89-MC-1	R40	6.264	6.949	11.110
Rove	89-MC-1	R6	0.351	0.843	2.730
Rove	89-MC-1	R7	0.133	0.774	3.310
Rove	89-MC-1	R8	0.602	1.183	3.600
Rove	89-MC-1	R9	0.567	1.138	3.300
Rove	89-MC-1	T29	1.552	1.914	2.580
Rove	89-MC-1	T31	0.217	0.525	1.010
Rove	89-MC-1	T32	0.093	0.622	2.250
Rove	89-MC-1	T33	0.519	1.093	3.110
Rove	89-MC-1	T34	0.682	1.211	3.010
Rove	89-MC-1	T35	0.450	1.102	3.400
Rove	98-1	5_1	0.291	1.070	1.740
Rove	98-1	5_10	1.920	2.427	4.950
Rove	98-1	5_11	2.930	3.315	5.430
Rove	98-1	5_12	2.071	2.579	4.920
Rove	98-1	5_13	1.906	3.072	6.460
Rove	98-1	5_14	0.072	4.361	6.660
Rove	98-1	5_15	0.027	0.621	4.780

Rove	98-1	5_16	0.043	1.082	5.290
Rove	98-1	5_17	0.937	3.593	5.960
Rove	98-1	5_18	0.137	1.080	5.300
Rove	98-1	5_19	0.038	1.152	5.220
Rove	98-1	5_2	0.229	1.022	3.270
Rove	98-1	5_20	0.016	0.800	4.930
Rove	98-1	5_21	0.044	0.662	5.120
Rove	98-1	5_22	1.479	1.979	5.080
Rove	98-1	5_23	1.283	2.092	5.230
Rove	98-1	5_24	2.679	8.071	9.770
Rove	98-1	5_25	0.086	0.508	5.240
Rove	98-1	5_26	0.068	0.579	4.780
Rove	98-1	5_27	0.236	2.173	5.740
Rove	98-1	5_28	1.326	4.496	6.020
Rove	98-1	5_29	0.035	0.646	5.270
Rove	98-1	5_3	0.237	1.026	2.940
Rove	98-1	5_30	1.123	2.458	5.440
Rove	98-1	5_31	0.236	2.497	5.810
Rove	98-1	5_32	0.065	0.543	5.220
Rove	98-1	5_33	1.275	4.063	5.470
Rove	98-1	5_34	0.022	0.517	5.110
Rove	98-1	5_35	0.267	1.478	5.410
Rove	98-1	5_36	0.015	0.582	4.710
Rove	98-1	5_4	0.587	1.457	2.640
Rove	98-1	5_5	0.109	0.462	1.450
Rove	98-1	5_6	0.023	0.297	1.320
Rove	98-1	5_7	0.018	0.534	3.750
Rove	98-1	5_8	0.613	2.350	3.550
Rove	98-1	5_9	0.658	1.019	2.770
Rove	GF-3	GF3-01	1.296	1.694	4.040
Rove	GF-3	GF3-02	0.072	1.614	3.710
Rove	GF-3	GF3-03	0.080	1.628	4.400
Rove	GF-3	GF3-04	0.111	1.390	4.170
Rove	GF-3	GF3-05	0.091	1.246	3.630
Rove	GF-3	GF3-06	0.023	0.540	2.250
Rove	GF-3	GF3-07	0.062	1.073	3.520
Rove	GF-3	GF3-08	0.007	0.583	5.470
Rove	GF-3	GF3-09	0.028	0.842	5.360
Rove	GF-3	GF3-10	0.061	1.172	3.910
Rove	GF-3	GF3-11	0.122	1.946	4.270
Rove	GF-3	GF3-12	0.052	1.395	4.180

Rove	GF-3	GF3-13	1.235	1.876	4.160
Rove	GF-3	GF3-14	1.100	2.102	5.020
Rove	GF-3	GF3-15	0.083	1.577	4.220
Rove	GF-3	GF3-16	0.298	1.422	3.710
Rove	GF-3	GF3-17	0.035	0.750	3.970
Rove	GF-3	GF3-18	0.044	1.541	4.320
Rove	GF-3	GF3-19	0.057	2.311	5.360
Rove	GF-3	GF3-20	0.075	2.117	5.340
Rove	GF-3	GF3-21	0.173	2.272	4.900
Rove	GF-3	GF3-22	0.158	2.004	5.110
Rove	GF-3	GF3-23	0.113	2.303	5.270
Rove	GF-3	GF3-24	0.087	1.937	4.090
Rove	GF-3	GF3-25	0.219	2.210	2.460
Rove	GF-3	GF3-26	2.131	2.825	4.860
Rove	GF-3	GF3-27	0.089	1.409	11.210
Rove	GF-3	GF3-28	0.088	1.785	4.560
Rove	GF-3	GF3-29	0.067	1.061	4.040
Rove	GF-3	GF3-30	0.039	0.938	4.050
Rove	GF-3	GF3-31	0.035	0.502	3.310
Rove	GF-3	GF3-32	0.469	1.819	3.740
Rove	GF-3	GF3-33	2.247	3.078	5.320
Rove	GF-3	GF3-34	4.439	6.284	7.210
Virginia	MGS-2	BW01	0.055	1.343	5.310
Virginia	MGS-2	BW02	0.254	1.307	5.180
Virginia	MGS-2	BW03	0.196	1.496	5.300
Virginia	MGS-2	BW04	0.143	1.526	5.470
Virginia	MGS-2	BW05	0.388	1.611	4.970
Virginia	MGS-2	BW06	0.051	1.384	5.390
Virginia	MGS-2	BW07a	0.797	1.791	4.690
Virginia	MGS-2	BW07b	0.358	1.499	4.860
Virginia	MGS-2	BW07c	0.464	1.717	5.240
Virginia	MGS-2	BW08	0.080	1.268	5.130
Virginia	MGS-2	BW09	0.483	1.669	5.150
Virginia	MGS-2	BW10a	0.609	1.583	4.480
Virginia	MGS-2	BW10b	0.215	1.457	5.270
Virginia	MGS-2	BW11	0.326	1.517	5.320
Virginia	MGS-2	BW12	0.136	1.202	4.730
Virginia	MGS-2	BW13	0.319	1.398	4.520
Virginia	MGS-2	BW14	0.265	1.533	5.400
Virginia	MGS-2	BW15a	0.051	1.351	4.990
Virginia	MGS-2	BW15b	0.177	1.319	4.820

Virginia	MGS-2	BW15c	0.090	1.295	4.680
Virginia	MGS-2	BW16	0.076	1.318	5.100
Virginia	MGS-2	BW17	0.496	1.496	4.560
Virginia	MGS-2	BW18	0.792	1.908	5.850
Virginia	MGS-2	BW19	0.151	1.391	4.730
Virginia	MGS-2	MGS2-1	0.741	1.684	5.190
Virginia	MGS-2	MGS2-10	1.427	2.308	6.100
Virginia	MGS-2	MGS2-11	2.469	2.842	5.290
Virginia	MGS-2	MGS2-12	2.124	2.708	5.940
Virginia	MGS-2	MGS2-13	0.169	0.936	6.040
Virginia	MGS-2	MGS2-14	0.886	1.416	4.550
Virginia	MGS-2	MGS2-15	0.396	0.976	4.780
Virginia	MGS-2	MGS2-16	0.199	0.751	4.560
Virginia	MGS-2	MGS2-17	1.100	1.551	4.770
Virginia	MGS-2	MGS2-18	0.107	0.687	5.570
Virginia	MGS-2	MGS2-19	0.854	1.394	5.210
Virginia	MGS-2	MGS2-2	0.155	0.859	4.620
Virginia	MGS-2	MGS2-20	0.930	1.391	5.040
Virginia	MGS-2	MGS2-21	1.746	2.386	4.960
Virginia	MGS-2	MGS2-22	2.895	3.483	5.610
Virginia	MGS-2	MGS2-23	1.224	1.800	4.780
Virginia	MGS-2	MGS2-24	0.828	1.574	5.990
Virginia	MGS-2	MGS2-25	0.608	1.371	5.580
Virginia	MGS-2	MGS2-26	0.395	1.015	5.290
Virginia	MGS-2	MGS2-27	0.306	0.967	5.790
Virginia	MGS-2	MGS2-28	0.199	0.795	5.220
Virginia	MGS-2	MGS2-29	0.980	1.616	4.750
Virginia	MGS-2	MGS2-3	0.570	0.986	4.170
Virginia	MGS-2	MGS2-30	0.240	0.970	6.230
Virginia	MGS-2	MGS2-31	0.135	0.798	6.000
Virginia	MGS-2	MGS2-32	0.252	0.972	6.010
Virginia	MGS-2	MGS2-33	0.752	1.341	5.600
Virginia	MGS-2	MGS2-34	0.855	1.439	5.470
Virginia	MGS-2	MGS2-4	1.795	2.183	5.010
Virginia	MGS-2	MGS2-5	0.191	0.785	2.760
Virginia	MGS-2	MGS2-6	3.302	4.031	6.120
Virginia	MGS-2	MGS2-7	3.282	4.173	6.870
Virginia	MGS-2	MGS2-8	2.015	2.696	5.870
Virginia	MGS-2	MGS2-9	1.383	2.172	5.740
Virginia	MGS-2	V10	0.145	1.580	5.740
Virginia	MGS-2	V11	0.222	0.451	2.220

Virginia	MGS-2	V12	0.379	1.379	5.210
Virginia	MGS-2	V13	0.600	1.588	5.330
Virginia	MGS-2	V14	0.506	1.362	4.450
Virginia	MGS-2	V15	0.597	1.735	5.240
Virginia	MGS-2	V16a	1.022	1.681	4.050
Virginia	MGS-2	V16b	0.185	0.784	2.950
Virginia	MGS-2	V17a	1.002	2.011	4.560
Virginia	MGS-2	V17b	0.355	1.156	4.010
Virginia	MGS-2	V18	0.064	1.307	5.570
Virginia	MGS-2	V1a	0.031	1.029	4.920
Virginia	MGS-2	V1b	0.036	1.267	5.250
Virginia	MGS-2	V2a	0.070	1.050	4.780
Virginia	MGS-2	V2b	0.065	1.449	5.280
Virginia	MGS-2	V3	0.269	1.335	5.160
Virginia	MGS-2	V4a	0.014	1.367	4.870
Virginia	MGS-2	V4b	0.016	1.044	4.820
Virginia	MGS-2	V5	0.116	1.193	5.260
Virginia	MGS-2	V6	0.186	1.485	5.500
Virginia	MGS-2	V7	0.159	1.406	5.270
Virginia	MGS-2	V8	0.075	1.683	6.400
Virginia	MGS-2	V9	0.069	1.417	5.830
Virginia	MGS-7	KV31	0.007	0.841	4.790
Virginia	MGS-7	KV32	0.374	1.613	5.580
Virginia	MGS-7	KV33	0.201	1.095	4.950
Virginia	MGS-7	KV34	0.436	1.273	5.020
Virginia	MGS-7	KV35	0.011	0.906	5.100
Virginia	MGS-7	KV36	0.014	1.035	4.810
Virginia	MGS-7	KV37	0.039	1.144	5.340
Virginia	MGS-7	KV38	0.016	1.068	5.490
Virginia	MGS-7	KV39	0.008	1.776	6.920
Virginia	MGS-7	KV40	0.349	1.406	5.000
Virginia	MGS-7	KV41	0.051	1.265	5.560
Virginia	MGS-7	KV42	0.049	1.142	4.340
Virginia	MGS-7	KV43	0.182	4.463	8.780
Virginia	MGS-7	KV44	0.126	0.958	3.640
Virginia	MGS-7	V19	0.145	1.874	6.020
Virginia	MGS-7	V20	0.198	1.398	4.940
Virginia	MGS-8	CV1	0.102	0.540	2.460
Virginia	MGS-8	CV10	0.024	1.619	5.990
Virginia	MGS-8	CV11	0.462	2.321	6.910
Virginia	MGS-8	CV12	0.027	1.596	7.450

Virginia	MGS-8	CV13	0.219	1.061	4.530
Virginia	MGS-8	CV14	0.278	1.143	4.840
Virginia	MGS-8	CV15	0.059	1.044	5.120
Virginia	MGS-8	CV16	0.295	1.232	4.520
Virginia	MGS-8	CV17	0.211	1.133	4.840
Virginia	MGS-8	CV18	0.181	1.216	4.840
Virginia	MGS-8	CV19	0.184	1.095	4.800
Virginia	MGS-8	CV2	0.008	1.535	6.250
Virginia	MGS-8	CV20	0.160	1.177	5.130
Virginia	MGS-8	CV21	0.037	1.078	5.540
Virginia	MGS-8	CV22	0.017	0.877	4.800
Virginia	MGS-8	CV23	0.072	0.953	5.090
Virginia	MGS-8	CV25	0.262	0.823	3.810
Virginia	MGS-8	CV26a	0.426	0.871	3.220
Virginia	MGS-8	CV26b	0.246	0.723	3.060
Virginia	MGS-8	CV26c	0.054	0.651	3.910
Virginia	MGS-8	CV26d	0.250	0.738	2.930
Virginia	MGS-8	CV3	0.044	1.227	4.460
Virginia	MGS-8	CV4	0.011	1.374	5.600
Virginia	MGS-8	CV5	0.050	2.207	7.110
Virginia	MGS-8	CV6	0.072	1.328	5.240
Virginia	MGS-8	CV7	0.024	2.045	6.740
Virginia	MGS-8	CV8	0.006	3.286	8.910
Virginia	MGS-8	CV9	0.033	1.445	5.490
Morro do Calcário	42-88	752.35	0.601	1.904	2.369
Morro do Calcário	42-88	756.2	0.155	2.365	3.116
Morro do Calcário	42-88	759.55	0.072	0.521	2.235
Morro do Calcário	42-88	764.47	0.075	0.542	2.132
Morro do Calcário	42-88	769.75	0.094	1.129	2.243
Morro do Calcário	42-88	774.2	0.031	0.213	2.221
Morro do Calcário	42-88	779.1	0.005	0.143	2.015
Morro do Calcário	42-88	783.1	0.137	0.902	0.944
Morro do Calcário	42-88	788.15	1.499	2.393	3.169
Morro do Calcário	42-88	793.7	0.001	0.467	0.502
Morro do Calcário	42-88	799.1	0.384	1.943	2.301
Morro do Calcário	42-88	799.25	2.077	2.131	3.564
Morro do Calcário	42-88	799.39	1.344	1.388	2.442
Morro do Calcário	42-88	799.97	0.064	1.107	1.717
Morro do Calcário	42-88	800.12	0.526	0.994	1.199
Morro do Calcário	42-88	800.6	1.069	1.106	4.938
Morro do Calcário	42-88	801.34	0.517	0.548	1.542

Morro do Calcário	42-88	802.67	0.899	0.939	2.133
Morro do Calcário	42-88	803.82	0.996	1.198	3.392
Morro do Calcário	42-88	804.43	0.908	0.959	2.521
Morro do Calcário	42-88	804.63	0.193	1.903	3.416
Morro do Calcário	42-88	806.02	0.824	0.954	2.174
Morro do Calcário	42-88	807.75	0.561	1.188	3.483
Morro do Calcário	42-88	808.32	0.653	0.901	2.961
Morro do Calcário	42-88	809.12	0.793	1.115	3.319
Morro do Calcário	42-88	810.15	0.443	0.755	1.739
Morro do Calcário	42-88	810.55	1.674	2.066	4.605
Morro do Calcário	42-88	811.75	0.668	0.854	1.802
Morro do Calcário	42-88	813.05	0.168	0.543	3.071
Morro do Calcário	42-88	814.17	0.814	1.058	2.329
Morro do Calcário	42-88	814.53	0.314	0.400	1.858
Morro do Calcário	42-88	815.08	0.693	2.342	3.138
Morro do Calcário	42-88	816.95	0.064	0.106	2.082
Morro do Calcário	42-88	818	0.439	1.299	2.353
Morro do Calcário	42-88	818.23	0.290	0.722	0.836
Morro do Calcário	42-88	820.2	1.878	2.245	6.482
Morro do Calcário	42-88	825.25	0.085	0.630	0.700
Morro do Calcário	42-88	830	1.056	2.302	2.768
Morro do Calcário	42-88	835.4	0.208	0.781	0.850
Zaonega	Core A-13	129.91			0.520
Zaonega	Core A-13	131.4	0.020		0.930
Zaonega	Core A-13	133.98	1.110		3.370
Zaonega	Core A-13	134.23	1.010		2.710
Zaonega	Core A-13	134.97	0.860		1.860
Zaonega	Core A-13	135.2	0.600		1.760
Zaonega	Core A-13	135.56	0.680		1.440
Zaonega	Core A-13	136.06	1.280		1.740
Zaonega	Core A-13	137.01	1.170		1.900
Zaonega	Core A-13	137.33	0.770		2.130
Zaonega	Core A-13	137.77	0.410		2.800
Zaonega	Core A-13	137.97	0.770		2.750
Zaonega	Core A-13	138.12	0.640		2.320
Zaonega	Core A-13	138.71	0.460		2.520
Zaonega	Core A-13	140.29	1.980		2.530
Zaonega	Core A-13	142.65	2.580		3.330
Zaonega	Core A-13	145.53			2.010
Zaonega	C-175	16.6	1.600	1.930	3.350
Zaonega	C-175	30.2	1.490	1.760	3.530

Zaonega	C-175	33.7	4.170	4.510	5.000
Zaonega	C-175	36.5	2.320	2.480	2.580
Zaonega	C-175	36.9	2.950	3.320	3.180
Zaonega	C-175	38.4	5.970	6.060	5.830
Zaonega	C-175	54.9	7.490	7.730	7.940
Zaonega	C-175	57.3	6.440	6.610	6.440
Zaonega	C-175	70.6	0.510	0.690	2.580
Zaonega	C-175	72.6	1.590	1.610	1.550
Zaonega	C-175	75.2	0.920	0.940	1.050
Zaonega	C-175	80.3	0.830	0.840	0.870
Zaonega	C-175	81.8	0.580	0.600	0.730
Zaonega	C-175	84.5	0.730	0.750	1.690
Zaonega	C-175	86.9	0.780	0.930	1.380
Zaonega	C-175	95.3	0.880	0.980	1.070
Zaonega	C-175	96.9	1.560	1.620	1.570
Zaonega	C-175	97	2.120	2.160	2.470
Zaonega	C-175	98.8	1.220	1.320	1.270
Zaonega	C-175	101.5	1.130	1.200	1.350
Zaonega	C-175	175.2	1.610	2.380	4.630
Zaonega	C-175	176	1.590	2.300	3.390
Zaonega	C-175	179.4	1.910	2.800	3.990
Zaonega	C-175	180.7	2.360	3.330	5.030
Zaonega	C-175	194.8	1.660	2.030	3.250
Zaonega	C-175	204.3	1.710	1.790	2.980
Zaonega	C-175	206.1	0.950	1.050	1.860
Zaonega	C-175	217.2	1.510	1.590	3.740
Zaonega	C-175	218.6	0.950	1.140	1.090
Zaonega	C-5190	16	0.090	0.340	2.040
Zaonega	C-5190	83	1.310	2.550	3.620
Zaonega	C-5190	86.9	0.800	1.410	1.380
Zaonega	C-5190	92.5	0.090	0.680	1.340
Zaonega	C-5190	96	0.480	1.190	3.490
Zaonega	C-5190	100	0.460	1.000	2.320
Zaonega	C-5190	136.5	0.090	1.300	5.920
Zaonega	C-5190	146.6	0.360	0.660	1.720
Zaonega	C-5190	156	0.720	1.070	3.030
Zaonega	C-5190	184	0.120	0.290	1.190
Zaonega	C-5190	199	0.190	0.330	0.560
Zaonega	C-5190	204	0.680	0.740	2.350
Zaonega	C-5190	230	0.320	0.880	1.830
Zaonega	C-5190	234.5	0.230	0.690	2.780

Zaonega	C-5190	238.5	0.090	1.180	9.550
Zaonega	C-5190	245	0.720	1.500	3.720
Zaonega	C-5190	248	0.190	1.050	7.980
Zaonega	C-5190	287.5	0.780	1.790	9.280
Zaonega	C-5190	292.5	0.380	1.300	4.420
Zaonega	C-5190	293.2	0.240	0.430	0.660
Zaonega	C-5190	295.6	0.260	1.910	9.700
Noneshuch Formation		NS1	0.009	3.240	7.840
Noneshuch Formation		NS1-11	0.249	2.090	5.570
Noneshuch Formation		NS1-1A	0.809	1.330	2.880
Noneshuch Formation		NS1-2A	0.776	1.320	2.920
Noneshuch Formation		NS1-2B	0.765	1.360	3.430
Noneshuch Formation		NS1-3B	0.783	1.380	2.910
Noneshuch Formation		NS1-4A	0.648	1.13	2.29
Noneshuch Formation		NS1-5B	0.883	1.390	2.580
Noneshuch Formation		NS1-6A	0.747	1.220	2.820
Noneshuch Formation		NS1-7A	0.953	1.630	3.800
Noneshuch Formation		NS1-7C	0.947	1.680	3.810
Noneshuch Formation		NS1-8A	0.902	1.460	3.000
Noneshuch Formation		NS1-8B	0.727	1.260	2.990
Noneshuch Formation		NS1-9A	0.864	1.380	2.790
Noneshuch Formation		NS10	0.016	1.680	5.970
Noneshuch Formation		NS11	0.024	1.600	6.050
Noneshuch Formation		NS12	0.082	1.930	5.480
Noneshuch Formation		NS13	0.006	2.100	6.010
Noneshuch Formation		NS14	0.012	1.830	5.270
Noneshuch Formation		NS15	0.038	1.720	6.490
Noneshuch Formation		NS16	0.011	2.000	6.750
Noneshuch Formation		NS17	0.442	1.260	4.320
Noneshuch Formation		NS18	0.401	1.620	4.450
Noneshuch Formation		NS19	0.761	1.750	4.940
Noneshuch Formation		NS2	0.038	2.720	7.760
Noneshuch Formation		NS2-5A	1.115	1.910	3.470
Noneshuch Formation		NS2-9A	1.255	2.210	5.910
Noneshuch Formation		NS2-9B	1.329	2.110	5.980
Noneshuch Formation		NS20	0.249	2.090	5.570
Noneshuch Formation		NS21	1.210	2.160	4.460
Noneshuch Formation		NS22	0.029	1.640	6.700
Noneshuch Formation		NS23	1.369	2.410	5.740
Noneshuch Formation		NS24	1.139	2.320	5.590
Noneshuch Formation		NS25	1.307	2.050	4.650

Noneshuch Formation	NS26	1.238	2.400	5.820
Noneshuch Formation	NS27	1.136	1.840	4.840
Noneshuch Formation	NS28	0.103	1.440	4.950
Noneshuch Formation	NS29	1.146	2.310	4.660
Noneshuch Formation	NS3	0.022	1.920	7.070
Noneshuch Formation	NS30	1.383	2.580	5.330
Noneshuch Formation	NS31	0.084	2.000	7.990
Noneshuch Formation	NS31 D	0.030	3.289	9.180
Noneshuch Formation	NS31 L	0.020	2.521	5.280
Noneshuch Formation	NS32	0.058	1.810	6.550
Noneshuch Formation	NS33	0.042	1.910	7.360
Noneshuch Formation	NS34	0.319	1.560	5.190
Noneshuch Formation	NS35	0.942	1.830	4.020
Noneshuch Formation	NS36	0.684	1.980	5.220
Noneshuch Formation	NS37	0.094	1.180	5.240
Noneshuch Formation	NS38	0.016	2.500	6.660
Noneshuch Formation	NS39	0.044	1.990	7.560
Noneshuch Formation	NS4	0.022	2.480	6.000
Noneshuch Formation	NS40	0.109	1.640	5.740
Noneshuch Formation	NS41	0.110	1.300	5.150
Noneshuch Formation	NS42	0.001	2.310	7.350
Noneshuch Formation	NS43	0.001	3.940	7.370
Noneshuch Formation	NS44	0.001	3.700	7.570
Noneshuch Formation	NS5	0.015	2.950	7.290
Noneshuch Formation	NS6	0.020	1.780	5.790
Noneshuch Formation	NS7	0.019	2.530	7.850
Noneshuch Formation	NS8	0.190	0.980	3.950
Noneshuch Formation	NS9	0.038	1.940	6.700
Sengoma Argillite Strat 2	142.8	0.500	1.450	3.350
Sengoma Argillite Strat 2	146.2	0.370	0.800	1.910
Sengoma Argillite Strat 2	171.5	2.010	2.410	2.680
Sengoma Argillite Strat 2	173.67	2.500	2.870	3.080
Sengoma Argillite Strat 2	177.7	1.900	2.280	2.660
Sengoma Argillite Strat 2	181.25	3.020	3.270	3.600
Sengoma Argillite Strat 2	184.5	2.440	3.450	3.720
Sengoma Argillite Strat 2	200.7	2.820	3.040	3.490
Sengoma Argillite Strat 2	202.5	2.730	2.970	3.240
Sengoma Argillite Strat 2	209	2.010	2.330	3.040
Sengoma Argillite Strat 2	212.7	2.100	2.470	2.710
Sengoma Argillite Strat 2	216.8	1.820	2.400	2.300
Sengoma Argillite Strat 2	219.1	1.120	1.850	2.460

Sengoma Argillite	Strat 2	224.87	0.910	1.310	1.730
Sengoma Argillite	Strat 2	286.6	0.560	0.890	3.430
Datangpo	Minle	ML56	0.010		0.390
Datangpo	Minle	ML57	0.000		0.360
Datangpo	Minle	ML60	0.300		0.780
Datangpo	Minle	ML62	1.120		3.050
Datangpo	Minle	ML64	0.010		0.360
Datangpo	Minle	ML66	0.010		0.390
Datangpo	Minle	ML68	1.910		4.480
Datangpo	Minle	ML70	1.070		2.320
Datangpo	Minle	ML72	0.680		3.680
Datangpo	Minle	ML74	1.940		4.390
Datangpo	Minle	ML77	2.110		5.240
Datangpo	Minle	ML79	1.920		4.160
Datangpo	Minle	ML80	0.010		0.380
Datangpo	Minle	ML81	0.700		1.830
Datangpo	Minle	ML82	1.640		2.560
Datangpo	Minle	ML83	0.380		0.600
Datangpo	Minle	ML-01	3.700	4.200	4.400
Datangpo	Minle	ML-02	1.900	2.300	2.600
Datangpo	Minle	ML-03	2.000	2.100	1.700
Datangpo	Minle	ML-04	2.300	2.400	2.400
Datangpo	Minle	ML-05	0.200	0.200	1.900
Datangpo	Minle	ML-06	0.200	0.200	0.400
Datangpo	Minle	ML-07	0.200	0.200	0.400
Datangpo	Minle	ML-08	0.200	0.200	0.300
Datangpo	Minle	ML-09	0.200	0.200	0.400
Datangpo	Minle	ML-10	0.200	0.200	0.300
Datangpo	Minle	ML-11	0.000	0.100	0.600
Datangpo	Minle	ML-12	0.000	0.000	0.400
Datangpo	Minle	ML-13	0.000	0.000	0.400
Datangpo	Minle	ML-14	1.200	1.600	2.700
Datangpo	Minle	ML-15	1.900	2.100	4.500
Datangpo	Minle	ML-16	1.800	2.000	4.200
Datangpo	Minle	ML-17	0.400	0.500	3.000
Datangpo	Minle	ML-24	0.100	0.400	3.800
Datangpo	Minle	ML-25	0.100	0.500	4.600
Datangpo	Minle	ML-26	0.000	0.700	4.400
Datangpo	Minle	ML-27	0.000	0.300	5.200
Datangpo	Minle	ML-28	0.000	0.800	4.500
Datangpo	Minle	ML-29	0.000	0.300	4.800

Datangpo	Yangjiaping	SH-03	1.100	1.500	4.100
Datangpo	Yangjiaping	SH-04	1.100	1.500	4.300
Datangpo	Yangjiaping	SH-06	1.000	1.300	5.300
Datangpo	Yangjiaping	SH-07	0.000	0.200	4.200
Mt. Profeit Dolost	F851	27	0.005	1.767	4.550
Mt. Profeit Dolost	F851	39.5	0.004	1.818	3.820
Mt. Profeit Dolost	F851	55	0.004	0.941	3.170
Mt. Profeit Dolost	F851	67	0.007	1.140	4.710
Mt. Profeit Dolost	F851	82	0.007	1.893	6.680
Mt. Profeit Dolost	W8	-1.4	0.114	1.529	3.524
Mt. Profeit Dolost	W8	44	0.003	2.318	6.920
Mt. Profeit Dolost	W8	104	0.378	2.872	9.100
Mt. Profeit Dolost	W8	122	0.110	1.893	6.831
Mt. Profeit Dolost	W8	140	0.037	1.642	6.389
Mt. Profeit Dolost	W8	218	0.008	2.060	7.372
Mt. Profeit Dolost	W8	242	0.009	1.817	6.485
Mt. Profeit Dolost	W8	333	0.002	1.612	4.871
Mt. Profeit Dolost	W8	380	0.005	0.904	4.408
Mt. Profeit Dolost	W8	561.4	0.006	2.121	3.754
Mt. Profeit Dolost	W8	573	0.037	2.484	4.890
Mt. Profeit Dolost	W8	582	0.011	2.318	4.890
Mt. Profeit Dolost	W8	627	0.005	2.491	4.890
Mt. Profeit Dolost	W8	643	0.002	2.311	8.866
Mt. Profeit Dolost	W8	684.5	0.002	1.797	3.865
Mt. Profeit Dolost	W8	689	0.001	1.425	4.134
Mt. Profeit Dolost	W8	692	0.004	1.291	7.055
Mt. Profeit Dolost	W8	695.5	0.001	1.279	7.745
Mt. Profeit Dolost	W8	698	0.000	1.164	6.544
Mt. Profeit Dolost	W8	700	0.001	1.085	5.682
Mt. Profeit Dolost	W8	705	0.004	1.139	5.186
Mt. Profeit Dolost	W8	738	0.035	1.399	5.978
Beck Springs	E1101	45.7	0.000	0.221	1.400
Beck Springs	E1101	48.3	0.000	0.719	2.040
Beck Springs	E1101	51.7	0.000	0.132	1.100
Beck Springs	E1101	57	0.000	0.185	2.960
Beck Springs	E1101	60.9	0.000	0.258	2.850
Beck Springs	E1101	65	0.000	0.057	0.920
Beck Springs	E1101	67.45	0.000	0.395	1.320
Beck Springs	E1101	72.5	0.000	0.400	1.770
Beck Springs	E1101	76.4	0.000	1.088	3.060
Beck Springs	E1101	81.5	0.005	0.200	0.800

Beck Springs	E1101	85.6	0.002	2.969	4.260
Beck Springs	E1101	90.6	0.003	0.218	0.890
Beck Springs	E1101	101.7	0.003	0.099	0.840
Beck Springs	E1101	102.3	0.003	1.959	3.590
Beck Springs	E1101	106	0.003	0.182	0.910
Beck Springs	E1101	111.9	0.002	0.562	2.290
Beck Springs	E1101	134.8	0.001	0.493	2.550
Beck Springs	E1101	136.6	0.006	0.439	1.060
Beck Springs	E1101	142.7	0.002	0.132	1.240
Beck Springs	E1101	148.2	0.002	0.657	1.780
Beck Springs	E1101	153	0.008	0.418	0.570
Beck Springs	E1101	156.2	0.002	0.368	3.530
Beck Springs	E1101	164.6	0.002	0.642	1.940
Beck Springs	E1101	170.5	0.002	0.545	3.680
Beck Springs	E1101	175.4	0.002	0.264	2.770
Beck Springs	E1101	182.5	0.003	1.296	3.340
Beck Springs	E1101	205.4	0.002	0.465	3.710
Beck Springs	E1101	210.9	0.004	0.351	3.190
Beck Springs	E1101	216.2	0.002	0.111	3.130
Beck Springs	E1101	224.3	0.004	1.215	2.730
Beck Springs	E1101	226.3	0.000	0.104	2.180
Beck Springs	E1101	232	0.001	0.487	4.110
Beck Springs	E1101	235.3	0.001	0.580	2.150
Beck Springs	E1101	239.5	0.000	0.096	3.250
Beck Springs	E1101	248.1	0.001	0.095	1.640
Beck Springs	E1101	249.45	0.002	0.265	2.500
Beck Springs	E1101	263.9	0.001	2.006	3.140
Beck Springs	E1101	292.05	0.002	0.750	2.380
Beck Springs	E1101	292.4	0.002	0.549	2.950
Beck Springs	E1101	293.8	0.008	0.677	2.640
Beck Springs	E1101	297.3	0.001	1.118	2.580
Beck Springs	E1101	300.6	0.000	0.977	3.030
Beck Springs	E1101	302.9	0.002	0.710	2.680
Beck Springs	E1101	311.5	0.003	2.802	3.080
Beck Springs	E1101	316.5	0.002	1.869	2.880
Kingston Peak 1	E1101	324.5	0.004	1.275	1.810
Kingston Peak 1	E1101	329.5	0.003	0.980	2.460
Kingston Peak 1	E1101	333.7	0.002	0.299	1.650
Kingston Peak 1	E1101	337.6	0.002	0.885	2.660
Kingston Peak 1	E1101	366.4	0.001	7.296	13.400
Kingston Peak 1	E1101	369.6	0.002	0.385	0.650

Kingston Peak 1	E1101	371.3	0.001	3.457	4.520
Kingston Peak 1	E1101	375.9	0.002	1.306	3.110
Kingston Peak 1	E1101	378	0.001	0.456	2.450
Kingston Peak 1	E1101	390	0.000	0.685	4.260
Kingston Peak 1	E1101	393	0.000	1.067	3.490
Kingston Peak 1	E1101	396	0.000	2.327	4.790
Kingston Peak 1	E1101	399	0.000	0.839	3.810
Kingston Peak 1	E1101	402	0.000	0.582	4.140
Kingston Peak 1	E1101	405	0.001	1.902	5.220
Kingston Peak 1	E1101	415	0.002	1.256	4.030
Kingston Peak 1	E1101	425	0.002	0.437	4.630
Kingston Peak 1	E1101	435	0.002	0.268	4.160
Kingston Peak 1	E1101	445	0.002	0.508	4.340
Kingston Peak 1	E1101	455	0.002	0.374	3.870
Kingston Peak 1	E1101	465	0.002	1.003	4.380
Kingston Peak 1	E1101	475	0.002	0.941	4.030
Kingston Peak 1	E1101	485	0.002	1.252	3.780
Kingston Peak 1	E1101	495	0.002	0.305	3.650
Kingston Peak 1	E1101	505	0.000	1.125	4.270
Kingston Peak 1	E1101	515	0.000	0.705	3.620
Kingston Peak 1	E1101	525	0.000	1.285	2.920
Kingston Peak 1	E1101	535	0.000	0.600	3.950
Kingston Peak 1	E1101	544	0.000	2.599	3.920
Kingston Peak 1	E1101	555	0.000	0.887	3.310
Kingston Peak 1	E1101	565	0.001	3.217	4.500
Kingston Peak 1	E1101	575	0.001	3.983	5.580
Kingston Peak 1	E1101	585	0.000	0.193	2.350
Kingston Peak 1	E1101	591.7	0.001	1.619	2.170
Beck Springs	E1102	6.5	0.003	2.075	2.510
Beck Springs	E1102	6.75	0.002	0.841	1.580
Beck Springs	E1102	7.65	0.005	1.195	1.240
Beck Springs	E1102	12.4	0.001	7.067	16.000
Beck Springs	E1102	14.9	0.001	2.767	3.010
Beck Springs	E1102	19.2	0.001	1.548	2.090
Beck Springs	E1102	19.8	0.001	2.488	2.830
Beck Springs	E1102	21.85	0.003	2.702	3.290
Beck Springs	E1102	23.2	0.004	2.835	3.590
Beck Springs	E1102	29.7	0.002	2.063	2.490
Beck Springs	E1102	30.9	0.000	2.655	6.990
Beck Springs	E1102	32	0.000	2.054	3.190
Beck Springs	E1102	47.7	0.007	1.957	2.660

Beck Springs	E1102	52.9	0.001	0.158	0.420
Beck Springs	E1102	55.8	0.000	2.190	3.140
Beck Springs	E1102	56.3	0.000	2.198	3.660
Kingston Peak 1	E1102	61	0.000	1.636	3.660
Kingston Peak 1	E1102	65	0.000	1.398	2.200
Kingston Peak 1	E1102	71	0.000	0.657	3.590
Kingston Peak 1	E1102	78		0.924	4.220
Kingston Peak 1	E1102	80		1.735	3.780
Kwagunt	Awatubi member	below Walcot	0.000	0.130	1.370
Kwagunt	Kwagunt Formation	s below base	0.020	1.100	1.340
Kwagunt	Kwagunt Formation	5 meters belo	1.000	1.650	2.000
Kwagunt	Kwagunt Formation	7 meters belo	0.040	2.290	2.830
Kwagunt	Kwagunt Formation	0 meters belo	0.060	0.440	1.540
Kwagunt	Walcott Member	9	2.490	3.210	3.450
Kwagunt	Walcott Member	145	1.800	2.310	2.790
Kwagunt	Walcott Member	157	1.850	2.230	2.680
Kwagunt	Walcott Member	175	0.240	0.760	0.740
Kwagunt	Walcott Member	190	0.180	0.820	0.920
Kwagunt	Walcott Member	200.2	2.350	2.670	3.080
Kwagunt	Walcott Member	210	0.720	1.150	1.600
Kwagunt	Walcott Member	215	3.180	3.790	4.720
Kwagunt	Walcott Member	219.5	0.020	0.240	0.360
Kwagunt	Walcott Member	230.5	2.380	2.770	3.470
Kwagunt	Walcott Member	s above Walc	0.020	0.670	0.810
Kwagunt	Awatubi	1151.5	0.001	1.120	2.737
Kwagunt	Awatubi	1154.5	0.001	0.967	3.752
Kwagunt	Awatubi	1157.5	0.003	1.393	2.457
Kwagunt	Awatubi	1162	0.001	0.600	1.339
Kwagunt	Awatubi	1167	0.001	0.361	1.006
Kwagunt	Awatubi	1207	0.001	0.676	1.392
Kwagunt	Awatubi	1226	0.001	0.075	0.817
Kwagunt	Awatubi	1240.5	0.000	0.854	1.760
Kwagunt	Awatubi	1259.5	0.001	0.633	1.491
Kwagunt	Awatubi	1268.5	0.001	1.362	2.144
Kwagunt	Awatubi	1271.5	0.024	0.249	1.199
Kwagunt	Awatubi	1273	0.003	0.120	1.196
Kwagunt	Awatubi	1273	0.001	0.349	1.233
Kwagunt	Awatubi	1277.5	0.214	1.109	1.823
Kwagunt	Awatubi	1280	0.105	0.965	1.912
Kwagunt	Awatubi	1286.5	0.285	1.021	1.565
Kwagunt	Awatubi	1295.5	0.002	1.552	2.355

Kwagunt	Awatubi	1299.5	0.333	0.513	1.298
Kwagunt	Awatubi	1301.5	0.001	0.459	1.657
Kwagunt	Awatubi	1308	0.085	0.234	1.316
Kwagunt	Awatubi	1311	0.130	0.232	1.052
Kwagunt	Awatubi	1313.5	0.143	0.842	1.719
Kwagunt	Awatubi	1318	0.014	2.253	3.009
Kwagunt	Awatubi	1319.5	0.155	0.530	1.184
Kwagunt	Awatubi	1323	0.022	0.203	1.267
Kwagunt	Awatubi	1328	0.199	0.529	1.538
Kwagunt	Awatubi	1331	0.004	0.873	1.801
Kwagunt	Awatubi	1333	0.379	0.495	1.337
Galeros	Carbon Canyon	451	0.000	0.359	1.347
Galeros	Carbon Canyon	453	0.001	0.709	1.326
Galeros	Carbon Canyon	453	0.001	3.146	3.932
Galeros	Carbon Canyon	457.5	0.002	0.458	1.089
Galeros	Carbon Canyon	469.5	0.009	8.633	11.200
Galeros	Carbon Canyon	485.5	0.001	0.602	3.044
Galeros	Carbon Canyon	495.5	0.002	0.339	1.554
Galeros	Carbon Canyon	642	0.009	0.151	1.261
Galeros	Carbon Canyon	672.5	0.005	0.637	1.166
Galeros	Carbon Canyon	756	0.000	0.234	1.413
Galeros	Carbon Canyon	801	0.004	0.211	1.600
Galeros	Carbon Canyon	816	0.001	1.396	4.380
Galeros	Carbon Canyon	816	0.000	0.428	1.186
Galeros	Carbon Canyon	831	0.017	0.461	2.316
Galeros	Carbon Canyon	842	0.027	0.573	1.999
Galeros	Carbon Canyon	846.5	0.003	0.235	1.489
Galeros	Carbon Canyon	860	0.001	0.241	1.986
Galeros	Carbon Canyon	861	0.321	0.874	2.410
Galeros	Carbon Canyon	866	0.006	1.843	3.176
Galeros	Carbon Canyon	870	0.002	1.135	3.275
Galeros	Carbon Canyon	871.5	0.000	0.519	3.173
Galeros	Carbon Canyon	875.5	0.013	0.304	2.632
Galeros	Carbon Canyon	893	0.006	0.193	1.506
Galeros	Carbon Canyon	897	0.000	0.385	1.879
Galeros	Duppa	951	0.001	1.317	3.099
Galeros	Duppa	961	0.000	0.499	3.396
Galeros	Duppa	962.5	0.000	1.944	4.084
Galeros	Duppa	991.5	0.000	0.879	3.352
Galeros	Duppa	997	0.004	0.637	1.508
Galeros	Duppa	1012	0.001	0.586	1.884

Galeros	Jupiter	204.5	0.001	0.998	3.260
Galeros	Jupiter	230	0.000	0.783	1.997
Galeros	Jupiter	248	0.001	0.347	1.217
Galeros	Jupiter	315	0.000	2.088	3.928
Galeros	Jupiter	370	0.000	1.208	2.115
Galeros	Jupiter	408	0.000	0.203	1.755
Galeros	Jupiter	412	0.000	0.123	1.665
Galeros	Tanner	9	0.013	0.806	1.409
Galeros	Tanner	12	0.071	1.190	2.013
Galeros	Tanner	13.5	0.000	0.360	1.355
Galeros	Tanner	16	0.051	2.273	4.117
Galeros	Tanner	17.5	0.000	2.111	4.028
Galeros	Tanner	20	0.000	1.702	7.111
Galeros	Tanner	26	0.000	0.872	2.900
Galeros	Tanner	31.5	0.022	1.071	2.936
Galeros	Tanner	36	0.001	1.152	2.303
Galeros	Tanner	38	0.000	0.348	1.925
Galeros	Tanner	46	0.001	2.863	3.855
Galeros	Tanner	48	0.001	0.736	1.918
Galeros	Tanner	54	0.000	0.241	1.433
Galeros	Tanner	55.5	0.001	0.201	0.968
Galeros	Tanner	56	0.010	0.744	1.578
Galeros	Tanner	57	0.027	0.245	1.092
Galeros	Tanner	61.5	0.001	0.439	1.812
Galeros	Tanner	63	0.001	0.720	1.854
Galeros	Tanner	71	0.000	0.499	1.549
Galeros	Tanner	76	0.004	0.369	1.234
Galeros	Tanner	94	0.001	0.486	1.172
Galeros	Tanner	100.5	0.001	0.171	0.805
Galeros	Tanner	105	0.000	1.009	1.731
Galeros	Tanner	111.5	0.004	0.269	1.108
Galeros	Tanner	116	0.001	0.697	1.762
Galeros	Tanner	120	0.000	0.681	1.372
Galeros	Tanner	124.5	0.000	0.413	1.318
Galeros	Tanner	129	0.004	0.549	1.297
Galeros	Tanner	138.5	0.000	0.376	0.989
Galeros	Tanner	153	0.017	0.957	1.887
Galeros	Tanner	167	0.006	0.214	1.129
Kwagunt	Walcott	1347.5	0.000	0.246	1.419
Kwagunt	Walcott	1350	0.025	0.314	1.106
Kwagunt	Walcott	1361	0.002	0.350	1.630

Kwagunt	Walcott	1368	0.000	0.215	1.211
Kwagunt	Walcott	1368.5	0.014	0.091	0.802
Kwagunt	Walcott	1372.5	0.022	0.099	0.805
Kwagunt	Walcott	1374.5	0.029	0.190	0.935
Kwagunt	Walcott	1606.5	0.000	0.897	1.187
Kwagunt	Walcott	1609	0.004	1.266	1.616
Valpol	Kel'tminskaya-1	2961	0.030	0.490	1.110
Valpol	Kel'tminskaya-1	3262	0.000	0.160	3.710
Valpol	Kel'tminskaya-1	3540	0.010	0.070	1.970
Valpol	Kel'tminskaya-1	3680	0.010	0.520	0.540
Yskemess	Kel'tminskaya-1	3946	0.160	0.800	1.380
Yskemess	Kel'tminskaya-1	3951.3	0.010	0.420	0.500
Yskemess	Kel'tminskaya-1	3994.5	0.180	0.700	1.330
Yskemess	Kel'tminskaya-1	4107	0.120	0.390	0.590
Yskemess	Kel'tminskaya-1	4307	0.100	1.200	1.770
Yskemess	Kel'tminskaya-1	4386	0.020	1.250	1.820
Yskemess	Kel'tminskaya-1	4387	0.000	0.200	2.490
Yskemess	Kel'tminskaya-1	4462	0.040	0.260	0.600
Yskemess	Kel'tminskaya-1	4502	0.010	0.220	0.770
Yskemess	Kel'tminskaya-1	4553.5	0.040	0.280	0.750
Yskemess	Kel'tminskaya-1	4640	0.040	0.270	0.440
Yskemess	Kel'tminskaya-1	4640.5	0.000	0.490	2.570
Yskemess	Kel'tminskaya-1	4852.5	0.010	0.490	1.090
Yskemess	Kel'tminskaya-1	4901	0.010	0.370	0.990
Bitter Springs	Bitter Springs		0.010	0.980	5.860
Bitter Springs	Bitter Springs		0.025	0.978	5.400
Bitter Springs	Bitter Springs		0.040	1.150	5.870
Brighton L.S./Why	Brighton L.S./Whya	1150.2	0.000	0.430	2.170
Brighton L.S./Why	Brighton L.S./Whya	1160.3	0.000	0.660	1.940
Brighton L.S./Why	Brighton L.S./Whya	1170	0.030	1.060	1.830
Brighton L.S./Why	Brighton L.S./Whya	1180	0.050	1.310	1.840
Sturt tillite	Sturt tillite	690.2	0.010	3.190	3.670
Sturt tillite	Sturt tillite	700.1	0.010	0.300	0.630
Sturt tillite	Sturt tillite	710.7	0.050	2.070	2.380
Sturt tillite	Sturt tillite	720.1	0.010	2.830	3.190
Sturt tillite	Sturt tillite	730.3	0.020	1.120	1.630
Sturt tillite	Sturt tillite	739.3	0.060	0.240	1.430
Sturt tillite	Sturt tillite	752.2	0.010	1.260	1.910
Sturt tillite	Sturt tillite	770.2	0.010	0.740	1.030
Sturt tillite	Sturt tillite	779.7	0.000	0.030	0.620
Sturt tillite	Sturt tillite	790	0.010	0.660	1.000

Sturt tillite	Sturt tillite	800.6	0.270	0.690	1.480
Sturt tillite	Sturt tillite	810	0.000	0.950	1.200
Sturt tillite	Sturt tillite	820.2	0.000	1.040	1.230
Sturt tillite	Sturt tillite	830	0.010	1.450	1.820
Sturt tillite	Sturt tillite	840	0.000	0.900	1.160
Sturt tillite	Sturt tillite	849.8	0.050	2.100	2.450
Sturt tillite	Sturt tillite	860.2	0.000	2.740	3.130
Sturt tillite	Sturt tillite	870.5	0.000	2.880	3.010
Sturt tillite	Sturt tillite	880.1	0.070	1.010	1.400
Sturt Tillite	Sturt Tillite	1380.2	0.130	0.800	1.950
Sturt Tillite	Sturt Tillite	1380.2	0.190	0.940	1.810
Sturt Tillite	Sturt Tillite	1389.9	0.100	0.890	1.650
Sturt Tillite	Sturt Tillite	1400.3	0.030	0.750	0.950
Sturt Tillite	Sturt Tillite	1410	0.100	0.940	1.890
Sturt Tillite	Sturt Tillite	1420	0.070	0.880	2.050
Sturt Tillite	Sturt Tillite	1430.2	0.100	1.070	2.200
Sturt Tillite	Sturt Tillite	1440.2	0.010	0.750	2.200
Sturt Tillite	Sturt Tillite	1450	0.020	0.630	1.810
Tapley Hill	Tapley Hill	495	0.010	0.690	3.210
Tapley Hill	Tapley Hill	500	0.130	1.090	3.060
Tapley Hill	Tapley Hill	505	0.090	1.320	3.050
Tapley Hill	Tapley Hill	510	0.090	0.500	0.990
Tapley Hill	Tapley Hill	515.2	0.100	0.960	3.160
Tapley Hill	Tapley Hill	520.7	0.160	1.580	3.880
Tapley Hill	Tapley Hill	525.1	0.730	1.320	3.030
Tapley Hill	Tapley Hill	530.6	0.200	2.140	3.730
Tapley Hill	Tapley Hill	535.2	0.070	1.010	3.370
Tapley Hill	Tapley Hill	539.9	0.210	1.250	3.540
Tapley Hill	Tapley Hill	545.6	0.380	1.250	3.780
Tapley Hill	Tapley Hill	550	0.330	1.720	4.310
Tapley Hill	Tapley Hill	555.1	0.410	1.140	3.000
Tapley Hill	Tapley Hill	560.8	0.480	2.730	4.060
Tapley Hill	Tapley Hill	565.3	0.280	1.440	3.210
Tapley Hill	Tapley Hill	570.5	0.220	2.070	2.330
Tapley Hill	Tapley Hill	575	0.110	1.040	2.660
Tapley Hill	Tapley Hill	581	0.240	2.920	3.950
Tapley Hill	Tapley Hill	585.2	0.020	1.000	3.480
Tapley Hill	Tapley Hill	589.5	0.620	1.980	4.270
Tapley Hill	Tapley Hill	595.2	0.010	0.920	3.680
Tapley Hill	Tapley Hill	600.8	0.900	1.690	3.070
Tapley Hill	Tapley Hill	604.9	0.070	1.210	4.120

Tapley Hill	Tapley Hill	610.2	0.720	2.160	2.290
Tapley Hill	Tapley Hill	615	0.070	0.580	1.120
Tapley Hill	Tapley Hill	625.4	0.010	1.080	4.210
Tapley Hill	Tapley Hill	635.2	0.150	1.190	2.440
Tapley Hill	Tapley Hill	645.8	0.140	1.170	3.620
Tapley Hill	Tapley Hill	655.1	0.100	1.020	3.650
Tapley Hill	Tapley Hill	666	0.010	1.230	1.640
Tapley Hill	Tapley Hill	675	0.080	1.290	3.610
Tapley Hill	Tapley Hill	685.2	0.080	1.210	3.930
Tapley Hill	Tapley Hill	695.3	0.060	1.310	3.880
Tapley Hill	Tapley Hill	705.7	0.080	1.340	3.980
Tapley Hill	Tapley Hill	715.2	0.050	1.370	4.340
Tapley Hill	Tapley Hill	725.4	0.060	1.290	3.980
Tapley Hill	Tapley Hill	735.3	0.200	1.440	4.220
Tapley Hill	Tapley Hill	744.9	0.040	1.110	3.650
Tapley Hill	Tapley Hill	755.6	0.170	1.210	3.830
Tapley Hill	Tapley Hill	765.6	0.430	1.880	4.070
Tapley Hill	Tapley Hill	775.6	0.080	1.350	4.050
Tapley Hill	Tapley Hill	785.7	0.120	1.810	3.810
Tapley Hill	Tapley Hill	796.5	0.700	1.920	4.200
Tapley Hill	Tapley Hill	805.4	0.730	1.900	4.130
Tapley Hill	Tapley Hill	815.3	0.770	1.760	3.530
Tapley Hill	Tapley Hill	825.3	1.350	2.260	4.190
Tapley Hill	Tapley Hill	837	1.390	2.230	4.250
Tapley Hill	Tapley Hill	845.6	1.070	2.250	4.650
Tapley Hill	Tapley Hill	855.7	1.380	2.130	4.270
Tapley Hill	Tapley Hill	865.5	1.120	1.950	3.900
Tapley Hill	Tapley Hill	874.9	1.060	2.420	3.930
Tapley Hill	Tapley Hill	885	0.880	2.440	3.700
Tapley Hill	Tapley Hill	895.4	1.710	2.720	4.700
Tapley Hill	Tapley Hill	905.5	1.140	3.030	3.820
Tapley Hill	Tapley Hill	915.4	0.660	1.680	4.030
Tapley Hill	Tapley Hill	1190	0.300	1.000	3.180
Tapley Hill	Tapley Hill	1200	0.310	1.300	2.940
Tapley Hill	Tapley Hill	1210	0.640	2.060	4.040
Tapley Hill	Tapley Hill	1220.2	0.200	1.380	3.760
Tapley Hill	Tapley Hill	1230.4	0.320	1.400	4.320
Tapley Hill	Tapley Hill	1240	0.540	1.480	4.480
Tapley Hill	Tapley Hill	1250	0.180	1.470	4.120
Tapley Hill	Tapley Hill	1260	0.760	1.980	4.280
Tapley Hill	Tapley Hill	1270	0.350	1.470	4.310

Tapley Hill	Tapley Hill	1280.3	0.670	1.690	4.600
Tapley Hill	Tapley Hill	1290.3	0.410	1.560	4.110
Tapley Hill	Tapley Hill	1300	0.740	2.010	3.920
Tapley Hill	Tapley Hill	1310.2	0.710	1.760	4.360
Tapley Hill	Tapley Hill	1320.2	0.640	1.500	4.210
Tapley Hill	Tapley Hill	1330	0.940	1.650	3.050
Tapley Hill	Tapley Hill	1340	1.310	2.010	4.060
Tapley Hill	Tapley Hill	1350	1.650	2.470	4.580
Tapley Hill	Tapley Hill	1360	1.120	3.080	3.890
Tapley Hill	Tapley Hill	1369.9	1.080	2.380	3.160
Elbobreen Fm, Spi	Elbobreen Fm, Spitsbergen		0.007	1.162	5.065
Elbobreen Fm, Spi	Elbobreen Fm, Spitsbergen		0.062	1.140	3.599
Elbobreen Fm, Spi	Elbobreen Fm, Spitsbergen		0.454	1.538	3.688
Elbobreen Fm, Spi	Elbobreen Fm, Spitsbergen		0.058	1.975	4.650
Elbobreen Fm, Spi	Elbobreen Fm, Spitsbergen		0.107	1.489	3.258
Elbobreen Fm, Spi	Elbobreen Fm, Spitsbergen		0.002	1.877	3.901
Elbobreen Fm, Spi	Elbobreen Fm, Spitsbergen		0.032	2.351	4.066
Elbobreen Fm, Spi	Elbobreen Fm, Spitsbergen		0.011	2.217	3.724
Elbobreen Fm, Spi	Elbobreen Fm, Spitsbergen		0.707	2.231	3.387
Dolomite Series	Dolomite Series	3700	0.510	0.700	0.950
Dolomite Series	Dolomite Series	3800	0.330	0.580	0.800
Dolomite Series	Dolomite Series	4000	0.140	1.650	11.300
Dolomite Series	Dolomite Series	4000	0.100	1.420	4.580
Dolomite Series	Dolomite Series	4050	0.430	3.190	10.100
Dolomite Series	Dolomite Series	4050	0.030	2.740	8.030
Dolomite Series	Dolomite Series	4060	0.020	1.580	5.140
Dolomite Series	Dolomite Series	4070	0.280	3.370	9.220
Dolomite Series	Dolomite Series	4080	0.170	1.780	6.400
Dolomite Series	Dolomite Series	4080	0.490	3.110	9.780
Dolomite Series	Dolomite Series	4090	0.240	1.950	7.560
Dolomite Series	Dolomite Series	4090	0.190	1.860	6.840
Dolomite Series	Dolomite Series	4100	0.190	2.440	8.000
Dolomite Series	Dolomite Series	4100	0.140	2.160	7.020
Multicolor Series	Multicolor Series	2550	0.000	0.480	4.200
Multicolor Series	Multicolor Series	2600	0.000	0.120	1.870
Multicolor Series	Multicolor Series	2900	0.010	1.020	1.230
Quartzite Series	Quartzite Series	1000	0.000	0.630	4.410
Quartzite Series	Quartzite Series	1150	0.000	0.490	3.170
Quartzite Series	Quartzite Series	1250	0.110	0.900	4.280
Quartzite Series	Quartzite Series	1300	0.010	0.560	2.340
Quartzite Series	Quartzite Series	1400	0.010	0.420	2.880

Quartzite Series	Quartzite Series	1400	0.000	0.600	3.300
Quartzite Series	Quartzite Series	1500	0.010	0.730	2.090
Quartzite Series	Quartzite Series	1600	0.000	0.720	5.250
Quartzite Series	Quartzite Series	1600	0.040	0.410	2.180
Quartzite Series	Quartzite Series	1700	0.000	0.630	3.200
Quartzite Series	Quartzite Series	2000	0.000	0.590	3.360
Tillite Group East (	Tillite Group East Greenland		0.009	0.168	2.746
Tillite Group East (	Tillite Group East Greenland		0.005	0.196	1.932
Tillite Group East (	Tillite Group East Greenland		0.041	1.397	8.167
Tillite Group East (	Tillite Group East Greenland		0.078	1.670	8.072
Tillite Group East (	Tillite Group East Greenland		0.331	1.805	8.233
Tillite Group East (	Tillite Group East Greenland		0.057	2.115	8.528
Tillite Group East (	Tillite Group East Greenland		1.016	2.041	7.653
Tillite Group East (	Tillite Group East Greenland		0.295	2.471	9.189
Tillite Group East (	Tillite Group East Greenland		0.515	2.174	7.653
Tillite Group East (	Tillite Group East Greenland		0.033	2.468	8.305
Tillite Group East (	Tillite Group East Greenland		0.180	2.516	8.433
Tillite Group East (	Tillite Group East Greenland		0.682	2.968	9.469
Tillite Group East (	Tillite Group East Greenland		1.360	2.617	7.118
Tillite Group East (	Tillite Group East Greenland		0.224	3.014	8.186
Tillite Group East (	Tillite Group East Greenland		1.381	3.383	6.431
Tillite Group East (	Tillite Group East Greenland		0.114	3.578	6.783
Arena	GR12	64.5	0.610	1.830	8.168
Arena	GR12	78	0.145	1.126	7.146
Arena	GR12	71	0.725	1.926	7.260
Arena	GR12	15.9	0.826	2.111	7.704
Arena	GR12	10.5	1.098	2.059	7.337
Arena	GR12	8.5	1.566	2.418	6.685
Arena	GR12	3.3	0.428	2.581	3.392
Reefal Assemblage	E1002	44	0.002	3.481	5.080
Reefal Assemblage	E1002	69.5	0.002	0.864	3.260
Reefal Assemblage	E1002	470.4	0.005	2.414	2.970
Reefal Assemblage	E1002	472.8	0.003	1.011	2.780
Reefal Assemblage	F1016	110.4	0.030	0.549	1.500
Reefal Assemblage	F1016	128.5	0.004	0.676	2.450
Reefal Assemblage	F1016	133	0.005	0.823	3.210
Reefal Assemblage	F1016	133.5	0.010	0.716	3.170
Reefal Assemblage	F1016	140.5	0.027	0.566	3.270
Reefal Assemblage	F1016	141	0.010	0.639	3.290
Reefal Assemblage	F1016	142	0.009	0.739	3.420
Reefal Assemblage	F1016	143	0.008	0.631	3.390

Reefal Assemblage	F1016	144.5	0.021	0.523	3.290
Reefal Assemblage	F1016	150	0.004	0.479	2.870
Reefal Assemblage	F1016	157	0.005	1.035	3.790
Reefal Assemblage	F1016	164	0.035	0.461	3.390
Reefal Assemblage	F1016	170	0.001	0.520	3.260
Reefal Assemblage	F1016	251.8	0.060	0.846	1.660
Reefal Assemblage	F1016	254.5	0.009	0.606	0.690
Reefal Assemblage	F1016	290.8	0.002	0.126	1.100
Reefal Assemblage	F1016	292.3	0.008	0.179	1.200
Reefal Assemblage	F1016	293.8	0.000	0.101	1.590
Reefal Assemblage	F1018	40.5	0.000	0.253	1.670
Reefal Assemblage	F1018	50	0.009	0.513	3.170
Reefal Assemblage	F1018	54.5	0.000	0.349	2.500
Reefal Assemblage	F1018	64	0.000	0.954	4.200
Reefal Assemblage	F1018	70	0.000	0.981	3.780
Reefal Assemblage	F1018	72	0.000	0.863	3.650
Reefal Assemblage	F1018	81	0.000	1.816	4.430
Reefal Assemblage	F1018	87	0.000	0.617	2.730
Reefal Assemblage	F1018	106.5	0.000	1.006	3.600
Reefal Assemblage	F1018	115	0.002	0.671	1.570
Reefal Assemblage	F1018	127	0.000	0.694	3.030
Reefal Assemblage	F1018	141	0.000	1.288	6.020
Reefal Assemblage	F1018	147	0.000	1.262	4.130
Reefal Assemblage	F1018	162	0.001	1.570	3.230
Reefal Assemblage	F1018	170	0.000	0.774	3.320
Reefal Assemblage	F1018	178	0.000	0.847	2.340
Reefal Assemblage	F1018	185	0.000	0.753	3.290
Reefal Assemblage	F1018	195	0.000	0.801	3.820
Reefal Assemblage	F1018	205	0.000	0.405	2.470
Reefal Assemblage	F1018	215	0.000	3.213	6.820
Reefal Assemblage	F1018	225	0.000	0.489	2.720
Reefal Assemblage	F1018	235	0.000	0.452	1.550
Reefal Assemblage	F1018	282	0.124	3.286	4.710
Reefal Assemblage	F1018	289	0.010	0.315	1.790
Reefal Assemblage	F1018	294	0.002	1.622	2.940
Reefal Assemblage	F1018	454	0.000	4.820	6.280
Reefal Assemblage	F1018	550.2	0.589	1.065	1.440
Reefal Assemblage	F1018	602	0.005	0.537	1.320
Chandindu	F1022	4.3	0.002	0.685	2.960
Chandindu	F1022	21.5	0.003	0.592	2.420
Chandindu	F1022	31	0.005	0.578	2.800

Chandindu	F1022	90	0.003	0.789	4.030
Chandindu	F1022	262.5	0.002	0.565	4.830
Chandindu	F1022	290	0.002	1.166	5.150
Chandindu	F1022	302	0.000	0.309	1.890
Reefal Assemblage	F1157	20.5	0.002	0.264	2.160
Reefal Assemblage	F1157	29	0.002	0.770	2.920
Reefal Assemblage	F1157	41	0.001	0.917	2.900
Reefal Assemblage	F1157	46.8	0.004	0.638	2.710
Reefal Assemblage	F1157	54.2	0.067	1.080	2.940
Reefal Assemblage	F1157	64	0.010	0.770	2.480
Reefal Assemblage	F1157	72.5	0.002	0.365	2.590
Reefal Assemblage	F1157	89.5	0.006	0.709	1.520
Reefal Assemblage	F1157	96	0.004	0.627	1.890
Reefal Assemblage	F1157	108	0.003	0.500	2.230
Reefal Assemblage	F1157	118	0.010	0.558	2.240
Reefal Assemblage	F1157	130.5	0.002	1.700	2.240
Reefal Assemblage	F1157	136	0.000	0.658	1.830
Reefal Assemblage	F1157	150.4	0.027	0.267	0.550
Reefal Assemblage	F1157	160.3	0.007	0.707	0.790
Reefal Assemblage	F1157	172	0.001	0.566	1.560
Reefal Assemblage	F1157	202	0.002	0.591	2.230
Reefal Assemblage	F1157	207	0.001	0.327	1.790
Reefal Assemblage	F1157	213.5	0.000	2.040	4.000
Reefal Assemblage	F1157	223.3	0.001	0.504	2.420
Reefal Assemblage	F1157	226.2	0.000	0.467	2.520
Reefal Assemblage	F1157	245	0.001	0.646	2.220
Reefal Assemblage	F1157	252	0.001	1.881	2.930
Reefal Assemblage	F1157	260	0.000	1.622	2.510
Reefal Assemblage	F1157	266	0.000	0.457	2.190
Reefal Assemblage	F1157	272	0.000	0.317	1.240
Reefal Assemblage	F1157	280	N.D.	0.220	0.740
Reefal Assemblage	F1157	300	N.D.	0.576	1.300
Reefal Assemblage	F1157	326	N.D.	0.512	3.820
Reefal Assemblage	F833	0	0.004	0.781	2.330
Reefal Assemblage	F833	67	0.025	0.905	1.120
Reefal Assemblage	F833	69	0.015	0.344	1.080
Reefal Assemblage	F833	70.6	0.001	0.400	0.900
Reefal Assemblage	F833	74.5	0.014	1.123	1.660
Reefal Assemblage	F833	91	0.022	1.161	1.440
Reefal Assemblage	F833	93.1	0.015	1.133	1.650
Reefal Assemblage	F833	246	0.011	0.099	0.130

Reefal Assemblage	F833	249.5	0.007	0.596	0.860
Reefal Assemblage	F833	255	0.006	0.842	1.040
Reefal Assemblage	F833	325	0.016	0.255	0.310
Reefal Assemblage	F833	389.5	0.019	0.396	0.500
Reefal Assemblage	F833	391	0.003	1.084	1.770
Reefal Assemblage	F833	396	0.016	0.875	1.180
Reefal Assemblage	F835	6.5	0.020	1.167	4.088
Reefal Assemblage	F835	10.5	0.001	1.365	3.129
Reefal Assemblage	F835	16.5	0.005	1.019	4.169
Reefal Assemblage	F835	25	0.003	1.301	3.194
Reefal Assemblage	F835	30.3	0.009	1.490	3.722
Reefal Assemblage	F835	36.8	0.026	0.884	2.882
Reefal Assemblage	F835	39	0.003	1.336	3.405
Reefal Assemblage	F835	41	0.008	1.238	2.968
Reefal Assemblage	F835	43	0.002	1.410	3.424
Reefal Assemblage	F835	45.8	0.004	1.681	3.464
Reefal Assemblage	F835	48	0.028	1.645	3.232
Reefal Assemblage	F835	52	0.026	1.006	1.674
Reefal Assemblage	F835	54	0.037	0.901	3.392
Reefal Assemblage	F835	56	0.075	1.012	3.278
Reefal Assemblage	F835	58.5	0.000	1.084	2.955
Reefal Assemblage	F835	61	0.006	1.227	2.454
Reefal Assemblage	F835	64	0.012	1.629	3.688
Reefal Assemblage	F835	66	0.001	1.555	3.164
Reefal Assemblage	F835	68	0.000	1.537	3.141
Reefal Assemblage	F835	70	0.018	0.856	2.246
Reefal Assemblage	F835	71	0.005	0.958	2.369
Reefal Assemblage	F835	72.8	0.001	0.680	1.738
Reefal Assemblage	F845	3	0.270	2.966	3.910
Reefal Assemblage	F845	7.1	0.063	2.178	3.130
Reefal Assemblage	F845	12	0.133	0.655	1.340
Reefal Assemblage	F845	16.5	0.210	0.504	1.010
Reefal Assemblage	F845	21	0.097	0.287	1.020
Reefal Assemblage	F845	26	1.185	1.624	2.210
Reefal Assemblage	F845	31	0.290	0.558	0.560
Reefal Assemblage	F845	36	0.064	0.341	1.060
Reefal Assemblage	F845	42	0.132	1.888	2.710
Reefal Assemblage	F845	51	0.051	1.218	2.460
Reefal Assemblage	F845	56	0.503	0.772	1.420
Reefal Assemblage	F845	59.5	0.162	0.743	1.390
Reefal Assemblage	F845	64	0.013	1.032	1.800

Reefal Assemblage	F845	85	0.060	1.254	2.570
Reefal Assemblage	F845	94	0.080	0.759	2.250
Reefal Assemblage	F845	98	0.080	0.400	2.000
Reefal Assemblage	F845	106	0.019	0.686	1.520
Reefal Assemblage	F845	111	0.080	0.704	1.520
Reefal Assemblage	F845	117	0.010	1.030	1.710
Reefal Assemblage	F845	139	0.020	1.880	2.280
Reefal Assemblage	F845	142	0.019	0.818	1.110
Reefal Assemblage	F845	171	0.023	0.264	0.540
Reefal Assemblage	F845	184	0.157	0.429	0.790
Reefal Assemblage	F845	205.2	0.440	1.326	1.880
Reefal Assemblage	F845	281.5	0.025	0.481	0.610
Reefal Assemblage	F845	284.5	0.026	0.251	0.410
Reefal Assemblage	F845	327.5	0.010	3.240	3.920
Reefal Assemblage	F845	330	0.011	2.242	2.900
Reefal Assemblage	F845	331	0.002	3.617	4.520
Reefal Assemblage	F845	332	0.008	1.949	2.740
Reefal Assemblage	F845	334	0.023	2.087	2.660
Reefal Assemblage	F845	335	0.015	1.625	2.240
Reefal Assemblage	F845	336	0.004	1.725	2.090
Reefal Assemblage	F845	361	0.047	0.456	1.680
Chandindu	GO130	242.7	0.000	1.102	5.000
Chandindu	GO130	260	0.000	1.024	4.190
Chandindu	GO130	267.5	0.000	1.180	4.170
Chandindu	GO130	275.4	0.000	1.595	3.940
Chandindu	GO130	277.8	0.000	0.979	3.370
Chandindu	GO130	286	0.000	1.507	2.710
Chandindu	GO130	330.3	0.000	0.881	3.960
Chandindu	GO130	333	0.000	1.465	6.680
Reefal Assemblage	GO134	0	0.041	0.185	0.880
Reefal Assemblage	GO134	5.6	0.075	0.186	0.850
Reefal Assemblage	GO134	10.6	0.030	0.357	1.160
Reefal Assemblage	GO134	15.6	0.053	0.150	0.780
Reefal Assemblage	GO134	22	0.046	0.181	0.850
Reefal Assemblage	GO134	30	0.045	0.220	0.970
Reefal Assemblage	GO134	35	0.093	0.478	1.220
Reefal Assemblage	GO134	40	0.041	0.172	0.850
Reefal Assemblage	GO134	45.5	0.235	0.384	0.890
Reefal Assemblage	GO134	50	0.229	0.478	0.910
Reefal Assemblage	GO134	57.8	0.008	0.123	0.890
Reefal Assemblage	GO134	102	0.001	0.644	4.550

Reefal Assemblage	GO134	118	0.023	0.225	1.170
Reefal Assemblage	GO134	123	0.004	0.447	2.670
Reefal Assemblage	GO134	136.2	0.224	0.370	1.010
Reefal Assemblage	GO134	148	0.002	0.247	1.110
Reefal Assemblage	GO134	156	0.061	0.166	0.740
Reefal Assemblage	GO21	28.7	0.010	0.361	0.480
Reefal Assemblage	GO21	45.9	0.033	0.694	0.790
Reefal Assemblage	GO21	46.4	0.016	0.384	0.600
Reefal Assemblage	GO21	49.5	0.018	0.869	1.460
Reefal Assemblage	GO21	52	0.009	0.491	0.760
Reefal Assemblage	GO21	52.6	0.010	0.483	0.650
Reefal Assemblage	GO21	72.9	0.002	0.918	5.200
Reefal Assemblage	GO21	75.3	0.000	0.820	4.530
Reefal Assemblage	GO21	80.5	0.002	1.441	4.940
Reefal Assemblage	GO21	84.8	0.001	0.932	4.750
Reefal Assemblage	GO21	213.2	0.000	0.346	1.410
Reefal Assemblage	GO21	215.2	0.002	0.801	2.210
Reefal Assemblage	GO21	264.4	0.001	1.155	2.990
Reefal Assemblage	GO22	133	0.001	0.516	3.810
Reefal Assemblage	GO22	163	0.002	0.327	1.400
Reefal Assemblage	GO22	225.5	0.003	0.994	4.960
Reefal Assemblage	GO22	241	0.001	0.579	3.230
Reefal Assemblage	GO22	290	0.001	1.458	3.110
Reefal Assemblage	GO22	300.7	0.001	0.380	2.560
Reefal Assemblage	GO22	329.5	0.003	0.434	4.040
Reefal Assemblage	GO22	432.7	0.004	1.050	4.040
Reefal Assemblage	GO22	475.7	0.001	0.469	2.240
Reefal Assemblage	GO22	551.7	0.009	0.520	2.610
Reefal Assemblage	GO22	577.2	0.003	1.279	3.480
Reefal Assemblage	GO22	646	0.001	1.255	4.250
Reefal Assemblage	GO22	767	0.004	0.500	1.800
Reefal Assemblage	S1103	0	0.003	3.616	5.050
Reefal Assemblage	S1103	11	0.002	0.281	1.150
Reefal Assemblage	S1103	23.5	0.001	0.443	1.810
Reefal Assemblage	S1103	28	0.001	0.488	2.670
Reefal Assemblage	S1103	32	0.003	0.871	2.450
Reefal Assemblage	S1103	46.4	0.025	0.149	0.620
Reefal Assemblage	S1103	62.3	0.015	0.405	1.460
Reefal Assemblage	S1103	67	0.093	0.327	0.850
Reefal Assemblage	S1103	93.4	0.010	0.922	1.610
Reefal Assemblage	S1103	101	0.255	0.754	1.110

Reefal Assemblage	S1103	111	0.111	0.273	0.820
Reefal Assemblage	S1103	130	0.148	0.470	1.020
Reefal Assemblage	S1103	137.5	0.067	0.548	1.250
Reefal Assemblage	S1103	143	0.004	1.189	2.630
Reefal Assemblage	S1103	154	0.122	0.686	1.290
Reefal Assemblage	S1103	164	0.159	0.457	1.100
Reefal Assemblage	S1103	186	0.296	0.585	0.860
Reefal Assemblage	S1103	197.5	0.020	3.129	3.530
Reefal Assemblage	S1103	209	0.027	2.826	3.650
Reefal Assemblage	S1103	219	0.046	2.525	4.270
Reefal Assemblage	S1103	250.5	0.087	2.507	6.020
Reefal Assemblage	S1107	0	0.000	0.364	1.760
Reefal Assemblage	S1107	1	0.000	0.626	2.720
Reefal Assemblage	S1107	2	0.000	4.291	5.690
Reefal Assemblage	S1107	2.6	0.000	1.532	3.450
Reefal Assemblage	S1107	4	0.000	1.647	4.170
Twitya	Stoneknife Creek	0	0.520	1.830	2.550
Twitya	Stoneknife Creek	60	1.810	3.910	8.090
Twitya	Stoneknife Creek	130	0.020	2.660	10.690
Twitya	Stoneknife Creek	180	0.070	2.250	7.540
Twitya	Stoneknife Creek	200	0.020	2.440	8.540
Twitya	Stoneknife Creek	240	0.000	2.220	8.430
Twitya	Stoneknife Creek	280	0.070	2.430	7.910
Twitya	Stoneknife Creek	330	0.040	2.300	7.650
Twitya	Stoneknife Creek	370	0.080	2.990	11.120
Twitya	Stoneknife Creek	400	0.040	2.660	9.630
Twitya	Stoneknife Creek	460	0.030	2.960	9.690
Twitya	Stoneknife Creek	490	0.000	1.010	3.890
Twitya	Stoneknife Creek	520	0.000	2.190	8.890
Twitya	Stoneknife Creek	550	0.050	2.630	8.260
Twitya	Stoneknife Creek	580	0.070	2.480	6.850
Twitya	Stoneknife Creek	610	0.020	2.480	6.990
Twitya	Stoneknife Creek	670	0.100	3.210	9.010
Twitya	Stoneknife Creek	700	0.170	3.840	10.270
Twitya	Stoneknife Creek	720	0.110	3.040	8.240
Twitya	BFTW	34.9	0.162	1.002	1.270
Twitya	BFTW	35.6	0.050	0.930	1.880
Twitya	BFTW	43.9	0.038	0.092	1.220
Twitya	BFTW	48.4	0.001	1.760	2.280
Twitya	BFTW	55.5	0.002	1.438	3.420
Twitya	BFTW	60.9	0.003	0.643	1.630

Twitya	BFTW	71.9	0.025	1.432	2.600
Twitya	BFTW	82.7	0.004	1.186	4.520
Twitya	BFTW	92.9	0.007	0.736	4.970
Twitya	BFTW	116.6	0.012	0.916	6.690
Twitya	BFTW	136.3	0.061	0.473	6.610
Twitya	BFTW	157.5	0.005	0.791	4.590
Twitya	BFTW	179.1	0.004	0.588	5.950
Twitya	BFTW	201	0.007	0.763	2.590
Twitya	BFTW	222.5	0.004	0.416	4.650
Twitya	BFTW	240.3	0.004	0.491	2.360
Twitya	BFTW	261.8	0.002	0.318	2.060
Twitya	BFTW	287.5	0.002	1.203	6.250
Twitya	BFTW	299.3	0.001	0.193	2.390
Twitya	BFTW	320.7	0.003	0.496	1.640
Twitya	BFTW	340.2	0.001	0.948	3.170
Twitya	BFTW	352.2	0.003	0.935	4.040
Twitya	BFTW	369.2	0.003	0.477	3.520
Twitya	BFTW	389.6	0.001	1.052	5.530
Twitya	BFTW	411.8	0.002	0.205	3.850
Twitya	BFTW	432.4	0.000	1.438	5.180
Twitya	BFTW	449.3	0.009	0.916	6.650
Twitya	BFTW	488.2	0.026	1.420	4.350
Twitya	BFTW	508.7	0.014	0.776	5.270
Twitya	BFTW	521.9	0.035	1.362	5.210
Twitya	BFTW	536.8	0.046	0.892	5.690
Twitya	BFTW	542.8	0.002	0.560	5.140
Twitya	BFTW	565.9	0.007	0.363	6.790
Twitya	BFTW	594	0.048	1.190	3.930
Twitya	BFTW	617.3	0.066	0.669	3.990
Twitya	BFTW	671.7	0.001	0.124	1.100
Twitya	BFTW	724.4	0.009	0.460	3.970
Twitya	BFTW	732.3	0.021	0.680	4.560
Twitya	BFTW	746.7	0.001	0.915	4.280
Twitya	BFTW	876.4	0.002	0.537	1.750
Red Pine Shale	Box Canyon	DHBCB1	0.000	1.012	4.370
Red Pine Shale	Box Canyon	DHBCC14	0.001	0.884	3.340
Red Pine Shale	Box Canyon	DHBCC21	0.001	0.691	2.610
Red Pine Shale	Box Canyon	DHBCC3	0.027	0.775	3.150
Red Pine Shale	Box Canyon	DHBCC6	0.000	1.864	3.360
Red Pine Shale	Fish Lake	101DH12	0.001	0.870	2.550
Red Pine Shale	Fish Lake	102DH12	0.001	0.908	2.660

Red Pine Shale	Fish Lake	104DH12	0.012	0.770	2.420
Red Pine Shale	Fish Lake	105DH12	0.000	0.811	2.100
Red Pine Shale	Fish Lake	107DH12	0.000	1.061	2.270
Red Pine Shale	Fish Lake	109DH12	0.001	0.881	2.020
Red Pine Shale	Fish Lake	92DH12	0.000	1.710	4.490
Red Pine Shale	Fish Lake	94DH12	0.004	0.878	3.320
Red Pine Shale	Fish Lake	95DH12	0.004	1.363	3.090
Red Pine Shale	Fish Lake	99DH12	0.001	1.668	3.300
Red Pine Shale	Leidy	DHLPA1	0.000	1.792	3.360
Red Pine Shale	Leidy	DHLPA13	0.001	1.250	3.950
Red Pine Shale	Leidy	DHLPA16	0.002	0.836	2.710
Red Pine Shale	Leidy	DHLPA4	0.000	0.891	2.900
Red Pine Shale	Leidy	DHLPA8	0.000	2.866	4.580
Red Pine Shale	Marsh Ridge 1	29DH11	0.001	0.129	2.130
Red Pine Shale	Marsh Ridge 1	31DH11	0.006	0.349	2.150
Red Pine Shale	Marsh Ridge 1	35DH11a	0.001	0.504	1.750
Red Pine Shale	Marsh Ridge 1	38DH11	0.001	0.294	2.380
Red Pine Shale	Marsh Ridge 1	41DH11	0.000	0.253	1.820
Red Pine Shale	Marsh Ridge 1	42DH11	0.000	0.332	2.340
Red Pine Shale	Marsh Ridge 1	44DH11	0.000	0.233	2.120
Red Pine Shale	Marsh Ridge 1	46DH11	0.001	0.348	1.970
Red Pine Shale	Marsh Ridge 1	47DH11	0.004	1.137	4.040
Red Pine Shale	Marsh Ridge 1	48DH11	0.001	0.131	1.490
Red Pine Shale	Marsh Ridge 1	50DH11	0.000	0.049	1.250
Red Pine Shale	Marsh Ridge 1	51DH11	0.000	0.488	2.020
Red Pine Shale	Marsh Ridge 1	52DH11	0.001	2.389	4.470
Red Pine Shale	Marsh Ridge 1	55DH11	0.001	1.700	2.930
Red Pine Shale	Marsh Ridge 1	55DH12	0.001	0.708	2.540
Red Pine Shale	Marsh Ridge 1	56DH12	0.001	2.242	4.440
Red Pine Shale	Marsh Ridge 1	57DH12	0.001	2.746	5.030
Red Pine Shale	Marsh Ridge 1	58DH11	0.003	2.029	4.070
Red Pine Shale	Marsh Ridge 1	59DH12	0.000	2.014	4.660
Red Pine Shale	Marsh Ridge 1	60DH11	0.001	1.910	4.530
Red Pine Shale	Marsh Ridge 1	61DH11	0.001	2.257	5.100
Red Pine Shale	Marsh Ridge 1	61DH12a	0.001	1.002	3.220
Red Pine Shale	Marsh Ridge 1	63DH11	0.001	1.103	3.080
Red Pine Shale	Marsh Ridge 1	63DH12	0.000	1.806	4.610
Red Pine Shale	Marsh Ridge 1	64DH11	0.002	1.752	5.770
Red Pine Shale	Marsh Ridge 1	64DH12	0.000	2.084	4.920
Red Pine Shale	Marsh Ridge 1	65DH11	0.010	0.766	3.400
Red Pine Shale	Marsh Ridge 1	65DH12	0.000	1.759	4.530

Red Pine Shale	Marsh Ridge 1	66DH11	0.000	0.866	3.210
Red Pine Shale	Marsh Ridge 1	66DH12	0.000	1.678	4.680
Red Pine Shale	Marsh Ridge 1	67DH11	0.000	1.066	3.100
Red Pine Shale	Marsh Ridge 1	67DH12	0.001	1.421	4.480
Red Pine Shale	Marsh Ridge 1	69DH12	0.001	2.931	5.950
Red Pine Shale	Marsh Ridge 1	70DH11	0.001	1.398	4.350
Red Pine Shale	Marsh Ridge 1	71DH12	0.000	1.948	5.280
Red Pine Shale	Marsh Ridge 1	72DH11	0.002	1.337	4.920
Red Pine Shale	Marsh Ridge 1	74DH11	0.001	1.049	4.870
Red Pine Shale	Marsh Ridge 1	74DH12	0.001	1.959	4.730
Red Pine Shale	Marsh Ridge 1	76DH11	0.000	0.696	1.950
Red Pine Shale	Marsh Ridge 2	77DH12	0.001	1.387	4.920
Red Pine Shale	Marsh Ridge 2	78DH11	0.000	1.263	3.330
Red Pine Shale	Marsh Ridge 2	79DH11	0.001	1.785	2.620
Red Pine Shale	Marsh Ridge 2	79DH12	0.000	0.898	4.460
Red Pine Shale	Marsh Ridge 2	81DH11	0.001	1.429	3.030
Red Pine Shale	Marsh Ridge 2	81DH12	0.000	1.438	4.470
Red Pine Shale	Marsh Ridge 2	82DH11	0.001	0.878	2.770
Red Pine Shale	Marsh Ridge 2	83DH11	0.002	0.929	2.500
Red Pine Shale	Marsh Ridge 2	85DH11	0.001	0.882	2.640
Red Pine Shale	Marsh Ridge 2	86DH11	0.000	1.024	3.000
Red Pine Shale	Marsh Ridge 2	87DH11	0.001	1.253	3.100
Red Pine Shale	Marsh Ridge 2	88DH11	0.001	1.993	4.260
Red Pine Shale	Marsh Ridge 2	90DH11	0.000	0.574	2.340
Red Pine Shale	Marsh Ridge 2	92DH11	0.001	0.690	4.580
Callison Lake Dolo	F1011	4	0.000	2.561	4.730
Callison Lake Dolo	F1011	5	0.001	4.184	8.650
Callison Lake Dolo	F1011	6	0.000	0.958	3.390
Callison Lake Dolo	F1011	7	0.000	8.394	13.300
Callison Lake Dolo	F1011	7.7	0.000	1.886	3.570
Callison Lake Dolo	F1011	14.3	0.005	0.758	1.370
Callison Lake Dolo	F1011	15.2	0.026	0.669	1.120
Callison Lake Dolo	F1011	18.8	0.001	0.864	1.500
Callison Lake Dolo	F1011	20.2	0.003	0.997	1.470
Callison Lake Dolo	F1011	24.8	0.010	0.343	0.620
Callison Lake Dolo	F1011	28.5	0.018	0.312	0.390
Callison Lake Dolo	F1011	29.5	0.011	0.064	0.120
Callison Lake Dolo	F1011	30	0.002	0.036	0.090
Callison Lake Dolo	F1011	30.4	0.009	0.023	0.060
Callison Lake Dolo	F1011	33.5	0.006	0.032	0.070
Callison Lake Dolo	F1011	34.5	0.003	0.093	0.180

Callison Lake Dolo	F1011	36.2	0.004	0.060	0.120
Callison Lake Dolo	F1011	62.7	0.027	0.093	0.220
Callison Lake Dolo	F1011	63	0.011	0.106	0.220
Callison Lake Dolo	F1011	63.5	0.011	0.093	0.170
Callison Lake Dolo	F1011	64.1	0.010	0.086	0.170
Callison Lake Dolo	F1011	64.7	0.017	0.086	0.150
Callison Lake Dolo	F1011	68.2	0.000	0.029	0.070
Callison Lake Dolo	F836	292.5	0.003	1.688	3.860
Callison Lake Dolo	F836	412	0.080	2.121	2.920
Callison Lake Dolo	F836	413	0.112	0.594	0.880
Callison Lake Dolo	F836	417	0.033	1.663	2.990
Callison Lake Dolo	F836	895	0.005	0.657	2.270
Callison Lake Dolo	F836	898		0.798	2.300
Callison Lake Dolo	J1018	20.9	0.008	0.096	0.190
Callison Lake Dolo	J1018	21.3	0.003	0.332	0.820
Callison Lake Dolo	J1018	21.6	0.003	0.054	0.090
Callison Lake Dolo	J1018	22.3	0.016	0.274	0.370
Callison Lake Dolo	J1018	22.6	0.007	0.359	0.500
Callison Lake Dolo	J1018	25.4	0.008	0.763	0.980
Callison Lake Dolo	J1018	25.9	0.014	0.884	1.040
Callison Lake Dolo	J1018	26.5	0.005	0.641	0.800
Callison Lake Dolo	J1018	27.2	0.007	0.348	0.600
Callison Lake Dolo	J1018	27.8	0.005	0.603	0.800
Callison Lake Dolo	J1018	30.5	0.017	0.433	0.670
Callison Lake Dolo	J1018	34.2	0.032	0.433	0.750
Macdonaldryggen	G419	2.6	0.472	1.266	1.628
Macdonaldryggen	G419	6.7	0.723	1.649	2.233
Macdonaldryggen	G419	12.3	0.683	1.314	2.413
Macdonaldryggen	G435	25	0.289	1.358	2.483
Macdonaldryggen	G435	35	0.570	1.567	3.368
Macdonaldryggen	G435	45	0.653	1.775	4.178
Macdonaldryggen	G435	56	0.943	1.754	4.445
Macdonaldryggen	G435	66	1.050	2.228	4.325
Macdonaldryggen	G435a	76	0.827	1.780	4.240
Macdonaldryggen	G435	79.5	0.727	1.670	4.219
Macdonaldryggen	G407	278	0.020	1.047	4.410
Macdonaldryggen	G407	261	0.011	1.287	4.598
Macdonaldryggen	G407	245	0.033	1.324	4.560
Macdonaldryggen	G407	233	0.015	1.245	4.399
Russoya	G519	a	0.001	1.483	4.197
Russoya	G519	b	0.009	0.505	2.841

Russoya	G406	42	0.070	0.613	0.665
Russoya	G406	35	0.098	1.495	1.921
Russoya	G521	46	0.011	1.131	2.953
Russoya	G521	44.4	0.016	2.413	4.400
Russoya	G521	40.5	0.015	1.575	7.416
Russoya	G521	36	0.293	1.053	4.162
Russoya	G521	33	0.016	2.161	8.396
Russoya	G521	30	0.004	0.916	1.925
Russoya	G521	26.4	0.006	2.859	5.892
Russoya	G521	23.4	0.002	0.891	5.017
Russoya	G521	19.6	0.012	0.984	3.048
Russoya	G521	13.2	0.001	0.635	1.539
Russoya	G521	6.2	0.001	0.974	2.088
Backlundtoppen	G517		0.024	0.313	0.715
Svanbergfjellet	G512	55	0.030	1.478	2.241
Svanbergfjellet	G512	40.6	0.000	1.265	3.356
Svanbergfjellet	G512	35.2	0.034	0.645	0.613
Svanbergfjellet	G155	149.3	0.012	0.891	3.670
Svanbergfjellet	G155	149.1	0.129	0.926	1.013
Svanbergfjellet	G471	6.1	0.002	0.813	3.161
Svanbergfjellet	G155	83.6	0.042	0.184	0.191
Veteranen	G426	a	0.012	1.101	8.737
Veteranen	G426	b	0.004	0.928	5.573
Doushantuo	Doushantuo	15	0.320	0.690	0.820
Doushantuo	Doushantuo	22.2	0.300	0.930	0.970
Doushantuo	Doushantuo	24.1	0.560	1.280	1.430
Doushantuo (Deng	Doushantuo (Deng	25.1	0.100	0.590	0.620
Doushantuo (Deng	Doushantuo (Deng	26.2	0.430	0.770	1.020
Liuchapo	Liuchapo	37.05	0.180	0.880	0.970
Liuchapo	Liuchapo	38.25	0.070	0.200	0.210
Liuchapo	Liuchapo	38.6	0.090	0.170	0.270
Liuchapo	Liuchapo	40.05	0.150	0.980	1.170
Liuchapo	Liuchapo	41.65	0.070	0.600	0.730
Liuchapo	Liuchapo	42.65	0.060	0.300	0.310
Liuchapo	Liuchapo	45.1	0.100	0.210	0.260
Liuchapo	Liuchapo	45.57	0.030	0.250	0.250
Liuchapo	Liuchapo	45.65	0.020	0.050	0.060
Liuchapo	Liuchapo	46.12	0.030	0.160	0.160
Doushantuo	Jiulongwan	HN-01	0.000	0.200	0.200
Doushantuo	Jiulongwan	HN-02	0.000	0.300	0.400
Doushantuo	Jiulongwan	HN-04	0.500	1.100	1.500

Doushantuo	Jiulongwan	HN-05	0.300	0.500	0.600
Doushantuo	Jiulongwan	HN-06	0.300	0.600	0.800
Doushantuo	Jiulongwan	HN-07	0.200	0.600	0.800
Doushantuo	Jiulongwan	HN-08	0.300	0.400	0.500
Doushantuo	Jiulongwan	HN-09	1.900	2.200	2.800
Doushantuo	Jiulongwan	HN-10	0.400	0.500	0.700
Doushantuo	Jiulongwan	HN-11	2.100	2.200	3.200
Doushantuo	Jiulongwan	HN-12	2.100	2.300	3.100
Doushantuo	Jiulongwan	HN-13	1.000	1.100	2.900
Doushantuo	Jiulongwan	HN-15	1.400	1.500	2.700
Doushantuo	Jiulongwan	HN-18	1.000	1.100	2.300
Doushantuo	Jiulongwan	HN-21	1.000	1.100	2.700
Doushantuo	Jiulongwan	HN-23	1.900	2.300	3.300
Doushantuo	Jiulongwan	JS-17	1.500	1.800	2.300
Doushantuo	Jiulongwan	JS-18	1.200	1.500	2.400
Doushantuo	Jiulongwan	JS-21	0.900	1.100	1.900
Doushantuo	Jiulongwan	JS-24	1.100	1.300	2.500
Doushantuo	Jiulongwan	JS-26	0.200	0.600	1.200
Doushantuo	Jiulongwan	JS-29	0.000	1.100	1.900
Doushantuo	Jiulongwan	JS-34	0.000	0.200	0.200
Doushantuo	Jiulongwan	JS-37	0.000	1.000	1.600
Doushantuo	Jiulongwan	JS-40	0.000	1.400	2.500
Doushantuo	Jiulongwan	JS-42	0.800	1.200	2.300
Doushantuo	Jiulongwan	JS-45	0.400	0.700	1.100
Doushantuo	Jiulongwan	JS-48	0.500	0.800	1.700
Doushantuo	Jiulongwan	JS-51	0.500	0.800	1.400
Doushantuo	Jiulongwan	JS-56	1.000	1.200	2.400
Doushantuo	Jiulongwan	JS-60	0.700	0.900	1.800
Doushantuo	Jiulongwan	JS-64	0.500	0.800	1.500
Doushantuo	Jiulongwan	JS-68I	0.600	0.800	1.600
Doushantuo	Jiulongwan	JS-68O	0.700	0.900	1.700
Doushantuo	Longe	ZH07-23	0.000	0.000	0.300
Doushantuo	Longe	ZH07-26	0.000	0.100	0.400
Doushantuo	Longe	ZH07-28	0.000	0.100	0.300
Doushantuo	Longe	ZH07-30	0.000	0.100	0.200
Doushantuo	Minle	ML-19	0.000	0.700	3.000
Doushantuo	Minle	ML-20	0.100	1.400	4.200
Doushantuo	Minle	ML-21	0.000	0.500	2.500
Doushantuo	Zhongling	SH-13	1.700	2.300	2.600
Doushantuo	Zhongling	SH-15	0.200	1.600	2.400
Doushantuo	Zhongling	SH-16	0.000	0.600	1.700

Doushantuo	Zhongling	SH-18	2.900	3.300	3.900
Doushantuo	Zhongling	SH-20	1.900	3.100	4.100
Doushantuo	Zhongling	SH-23	2.000	2.700	3.700
Doushantuo	Zhongling	SH-24	2.500	3.400	4.100
Doushantuo	Zhongling	SH-26	1.300	1.900	2.800
Doushantuo	Zhongling	SH-28	0.000	0.400	1.100
Doushantuo	Zhongling	SH-31	0.000	1.000	5.100
Doushantuo	Zhongling	SH-34	0.100	2.400	4.300
Doushantuo	Zhongling	SH-35	0.000	0.800	5.200
Doushantuo	Zhongling	SH-37	0.000	0.500	7.700
Doushantuo	Zhongling	SH-38	0.000	0.700	6.700
Doushantuo	Zhongling	SH-40	0.100	0.200	0.200
Doushantuo	Zhongling	SH-42	0.800	0.800	0.900
Doushantuo	Zhongling	SH-44	0.100	0.100	0.100
Doushantuo	Zhongling	SH-47	0.100	1.100	1.400
Doushantuo	Zhongling	SH-48	0.100	1.900	2.500
Doushantuo	Zhongling	SH-50	0.000	0.100	0.100
Doushantuo	Zhongling	SH-51	0.000	0.400	0.400
Doushantuo	Zhongling	SH-53	0.000	0.200	0.200
Doushantuo	Zhongling	SH-55	0.100	0.500	0.500
Doushantuo	Zhongling	SH-56	0.000	0.400	0.400
Doushantuo	Zhongling	SH-57	0.000	0.300	0.400
Doushantuo	Zhongling	SH-59	0.100	0.300	0.300
Doushantuo	Zhongling	SH-61	0.100	0.300	0.300
Doushantuo	Zhongling	SH-62	0.100	0.500	0.600
Doushantuo	Zhongling	SH-63	0.000	0.700	0.900
Doushantuo	Zhongling	SH-65	0.100	0.400	0.500
Doushantuo	Zhongling	SH-67	0.000	0.400	0.400
Doushantuo	Zhongling	SH-69	0.000	0.900	1.200
Doushantuo	Zhongling	SH-71	0.000	0.900	1.100
Doushantuo	Zhongling	SH-72	0.100	0.200	0.100
Doushantuo	Zhongling	SH-73	0.100	0.200	0.100
Doushantuo	Zhongling	SH-76	0.000	0.600	0.900
Doushantuo	Zhongling	SH-78	0.100	0.400	0.500
Doushantuo	Zhongling	SH-79	0.100	0.200	0.200
Doushantuo	Taoying	TY09-10	0.016	0.071	0.581
Doushantuo	Taoying	TY09-10.2	0.117	0.117	0.701
Doushantuo	Taoying	TY09-10.4	0.078	0.196	0.630
Doushantuo	Taoying	TY09-10.7	0.041	0.100	0.652
Doushantuo	Taoying	TY09-11	0.451	0.451	0.415
Doushantuo	Taoying	TY09-11.3	0.086	0.171	0.576

Doushantuo	Taoying	TY09-11.5	0.096	0.146	0.453
Doushantuo	Taoying	TY09-11.8	0.048	0.104	0.481
Doushantuo	Taoying	TY09-12	0.015	0.066	0.532
Doushantuo	Taoying	TY09-13.3	0.673	0.787	1.483
Doushantuo	Taoying	TY09-13.8	0.480	0.480	0.816
Doushantuo	Taoying	TY09-14	0.144	0.212	0.731
Doushantuo	Taoying	TY09-15.1	0.376	0.404	1.292
Doushantuo	Taoying	TY09-15.5	0.412	0.463	0.647
Doushantuo	Taoying	TY09-16.5	1.428	1.494	2.124
Doushantuo	Taoying	TY09-17.5	0.393	0.831	1.478
Doushantuo	Taoying	TY09-18.8	0.400	0.572	0.832
Doushantuo	Taoying	TY09-19.7	0.420	0.546	0.925
Doushantuo	Taoying	TY09-21.3	0.912	0.974	0.624
Doushantuo	Taoying	TY09-22.3	1.473	1.473	0.970
Doushantuo	Taoying	TY09-7.6	0.028	0.228	0.843
Doushantuo	Taoying	TY09-7.9	0.159	0.223	0.744
Doushantuo	Taoying	TY09-8	0.038	0.173	0.743
Doushantuo	Taoying	TY09-8.3	0.006	0.086	0.639
Doushantuo	Taoying	TY09-8.6	0.018	0.080	0.722
Doushantuo	Taoying	TY09-8.8	0.078	0.164	0.639
Doushantuo	Taoying	TY09-9	0.038	0.090	0.582
Doushantuo	Taoying	TY09-9.4	0.031	0.074	0.591
Doushantuo	Taoying	TY09-9.8	0.028	0.148	0.770
Doushantuo	Wuhe	WH09-11.6	1.896	1.987	2.981
Doushantuo	Wuhe	WH09-13.7	1.557	2.239	2.469
Doushantuo	Wuhe	WH09-2.4	0.153	0.372	2.186
Doushantuo	Wuhe	WH09-2.7	0.147	0.501	1.733
Doushantuo	Wuhe	WH09-3	0.552	0.757	1.926
Doushantuo	Wuhe	WH09-3.2	1.224	1.261	2.566
Doushantuo	Wuhe	WH09-3.5	0.185	0.821	2.060
Doushantuo	Wuhe	WH09-3.7	1.724	1.990	3.157
Doushantuo	Wuhe	WH09-4	0.746	0.875	2.282
Doushantuo	Wuhe	WH09-4.3	1.914	2.110	3.902
Doushantuo	Wuhe	WH09-4.6	1.120	1.965	3.180
Doushantuo	Wuhe	WH09-4.8	0.570	0.795	2.642
Doushantuo	Wuhe	WH09-5	1.269	3.691	5.267
Doushantuo	Wuhe	WH09-5.4	1.581	2.009	3.144
Doushantuo	Wuhe	WH09-5.6	1.441	2.477	3.959
Doushantuo	Wuhe	WH09-5.8	1.539	2.396	3.493
Doushantuo	Wuhe	WH09-6.0	2.589	2.599	3.791
Doushantuo	Wuhe	WH09-6.3	2.658	2.693	3.842

Doushantuo	Wuhe	WH09-6.5	0.033	0.722	2.461
Doushantuo	Wuhe	WH09-6.8	1.347	1.389	2.879
Doushantuo	Wuhe	WH09-7.0	1.948	2.129	3.429
Doushantuo	Wuhe	WH09-7.3	1.507	1.808	2.920
Doushantuo	Wuhe	WH09-8.6	2.182	2.509	3.759
Doushantuo	Wuhe	WH09-9.4	2.008	2.329	3.449
Doushantuo	Wuhe	WH09-9.7	1.909	2.107	2.975
Doushantuo	Wuhe	WHH-5.6	0.391	0.440	0.680
Doushantuo	Wuhe	WHH-5.7	1.635	1.744	2.437
Doushantuo	Wuhe	WHH-6.3	1.700	1.931	2.678
Doushantuo	Wuhe	WHH-6.4	2.124	2.285	3.145
Doushantuo	Wuhe	WHH-6.8	2.256	2.459	2.928
Doushantuo	Wuhe	WHH-6.9	2.777	2.909	4.208
Doushantuo	Wuhe	WHH-7.2	3.523	3.653	4.238
Doushantuo	Wuhe	WHH-7.4	3.544	3.668	4.528
Doushantuo	Wuhe	WHH-7.6	0.110	0.166	0.649
Doushantuo	Wuhe	WHH-9.1	0.013	0.066	0.609
Doushantuo	Wuhe	WHH-9.5	0.046	0.108	0.657
Lantian	Anhui- Lantian Fm.	0			
Lantian	Anhui- Lantian Fm.	5.4			
Lantian	Anhui- Lantian Fm.	10			
Lantian	Anhui- Lantian Fm.	12.6			
Lantian	Anhui- Lantian Fm.	17			
Lantian	Anhui- Lantian Fm.	20			
Lantian	Anhui- Lantian Fm.	25			
Lantian	Anhui- Lantian Fm.	40.9			
Lantian	Anhui- Lantian Fm.	45.7			
Lantian	Anhui- Lantian Fm.	50			
Lantian	Anhui- Lantian Fm.	53.5			
Lantian	Anhui- Lantian Fm.	58.5			
Lantian	Anhui- Lantian Fm.	63.5			
Lantian	Anhui- Lantian Fm.	66.7			
Lantian	Anhui- Lantian Fm.	70			
Lantian	Anhui- Lantian Fm.	73.3			
Lantian	Anhui- Lantian Fm.	77.3			
Lantian	Anhui- Lantian Fm.	81			
Lantian	Anhui- Lantian Fm.	85.3			
Lantian	Anhui- Lantian Fm.	87.8			
Lantian	Anhui- Lantian Fm.	90			
Lantian	Anhui- Lantian Fm.	92			
Lantian	Anhui- Lantian Fm.	95			

Lantian	Anhui- Lantian Fm.	98			
Lantian	Anhui- Lantian Fm.	105			
Lantian	Anhui- Lantian Fm.	108			
Lantian	Anhui- Lantian Fm.	112			
Lantian	Anhui- Lantian Fm.	114			
Lantian	Anhui- Lantian Fm.	118			
Lantian	Anhui- Lantian Fm.	121			
Lantian	Anhui- Lantian Fm.	124.5			
Lantian	Anhui- Lantian Fm.	127.4			
Lantian	Anhui- Lantian Fm.	133.8			
Lantian	Anhui- Lantian Fm.	136.2			
Liuchapo	Longbizui	LBZ-16	0.020	0.350	0.340
Liuchapo	Longbizui	LBZ-17	0.030	0.240	0.290
Liuchapo	Longbizui	LBZ-19	0.310	0.460	0.820
Liuchapo	Longbizui	LBZ-21	0.230	0.440	0.840
Liuchapo	Longbizui	LBZ-22	0.180	0.460	0.640
Liuchapo	Longbizui	LBZ-25	0.300	0.950	1.370
Liuchapo	Longbizui	LBZ-27	0.070	0.530	0.570
Liuchapo	Longbizui	LBZ-28	0.120	0.580	0.550
Liuchapo	Longbizui	LBZ-31	0.030	0.300	0.310
Liuchapo	Longbizui	LBZ-32	0.410	1.100	1.060
Liuchapo	Longbizui	LBZ-33	0.010	0.310	0.320
Liuchapo	Longbizui	LBZ-35	0.060	0.470	0.540
Liuchapo	Longbizui	LBZ-36	0.120	0.520	0.550
Sheepbed	F849	16	0.010	2.110	2.980
Sheepbed	F849	18	0.010	2.430	3.390
Sheepbed	F849	20	0.060	1.340	4.590
Sheepbed	F849	20	0.050	2.400	3.080
Sheepbed	F849	22	0.100	2.390	3.110
Sheepbed	F849	24	0.030	2.470	3.260
Sheepbed	F849	26	0.260	3.000	4.060
Sheepbed	F849	28	0.140	2.350	4.020
Sheepbed	F849	29.3	0.200	2.300	3.510
Sheepbed	F849	30.2	0.030	1.430	2.730
Sheepbed	F849	32	0.150	1.650	4.190
Sheepbed	F849	34	0.230	2.430	3.370
Sheepbed	F849	36	0.050	1.100	3.250
Sheepbed	F849	40	0.240	1.650	4.670
Sheepbed	F849	40	0.200	2.230	4.080
Sheepbed	F849	43.8	0.050	1.090	3.430
Sheepbed	F849	46	0.190	1.650	3.790

Sheepbed	F849	48.2	0.150	2.050	4.450
Sheepbed	F849	50	0.130	1.860	3.640
Sheepbed	F849	54	0.110	2.150	4.720
Sheepbed	F849	56	0.310	1.470	4.250
Sheepbed	F849	58	0.140	1.740	5.000
Sheepbed	F849	60	0.100	1.710	2.970
Sheepbed	F849	62.5	0.220	1.690	4.810
Sheepbed	F849	64	0.090	1.670	4.860
Sheepbed	F849	66	0.030	1.250	3.310
Sheepbed	F849	68	0.200	1.800	5.330
Sheepbed	F849	70	0.360	1.470	4.790
Sheepbed	F849	72	0.360	2.510	5.340
Sheepbed	F849	75	0.050	1.170	4.750
Sheepbed	F849	77	0.150	1.220	4.830
Sheepbed	F849	79	0.080	1.070	4.630
Sheepbed	F849	82	0.170	1.510	4.820
Sheepbed	F849	85	0.210	1.840	4.250
Sheepbed	F849	87	0.060	1.570	3.200
Sheepbed	F849	90	0.190	1.520	4.510
Sheepbed	F849	91	0.130	1.520	4.460
Sheepbed	F849	93	0.100	1.140	2.890
Sheepbed	F849	95	0.170	1.550	4.380
Sheepbed	F849	97	0.100	1.930	4.510
Sheepbed	F849	99	0.260	1.740	2.600
Sheepbed	F849	101	0.150	2.060	3.690
Sheepbed	F849	103	0.160	1.830	4.510
Sheepbed	F849	105	0.100	1.890	4.230
Sheepbed	F849	107	0.150	2.470	5.080
Sheepbed	F849	109	0.240	3.060	6.020
Sheepbed	F849	112	0.180	2.330	4.200
Sheepbed	F849	113	0.160	2.300	6.060
Sheepbed	F849	119	0.130	1.250	3.830
Sheepbed	F849	121	0.180	1.330	4.340
Sheepbed	F849	123	0.140	1.410	4.400
Sheepbed	F849	125	0.340	2.430	4.950
Sheepbed	F849	127	0.220	1.680	4.840
Sheepbed	F849	129	0.180	1.070	4.480
Sheepbed	F849	131	0.190	2.200	5.020
Sheepbed	F849	135	0.140	2.420	5.350
Sheepbed	F849	139	0.180	1.840	5.450
Sheepbed	F849	141	0.070	1.600	4.710

Sheepbed	F849	143	0.150	1.890	4.670
Sheepbed	F849	145	0.160	1.930	5.030
Sheepbed	F849	147	0.060	2.540	5.530
Sheepbed	F849	149	0.040	1.650	4.730
Sheepbed	F849	151	0.100	1.470	4.520
Sheepbed	F849	153	0.100	1.050	3.800
Sheepbed	F849	155	0.290	2.000	4.250
Sheepbed	F849	157	0.110	2.440	5.160
Sheepbed	F849	159	0.060	1.760	4.590
Sheepbed	F849	161	0.010	2.040	4.100
Sheepbed	F849	163	0.120	1.630	5.020
Sheepbed	F849	165	0.140	2.520	4.760
Sheepbed	F849	167	0.120	1.970	5.480
Sheepbed	F849	168	0.020	1.460	4.410
Sheepbed	F849	176	0.030	2.490	3.990
Sheepbed	F849	182	0.160	2.050	4.270
Sheepbed	F849	184	0.170	1.870	4.020
Sheepbed	F849	187	0.110	2.010	4.270
Sheepbed	F849	188.5	0.150	2.380	4.950
Sheepbed	F849	191	0.110	2.180	5.350
Sheepbed	F849	193.5	0.050	1.590	4.330
Sheepbed	F849	195	0.110	2.050	2.800
Sheepbed	F849	197	0.050	2.390	5.370
Sheepbed	F849	199	0.010	2.250	5.800
Sheepbed	F849	201	0.050	2.070	4.990
Sheepbed	F849	203	0.130	2.930	5.530
Sheepbed	F849	205.2	0.120	1.140	5.460
Sheepbed	F849	207	0.030	1.470	4.640
Sheepbed	F849	208.5	0.050	1.960	5.100
Sheepbed	F849	213	0.010	1.440	4.600
Sheepbed	F849	215	0.030	1.550	4.310
Sheepbed	F849	219	0.050	1.840	5.140
Sheepbed	F849	221	0.270	2.550	6.000
Sheepbed	F849	223	0.040	2.380	5.560
Sheepbed	F849	225	0.020	0.760	0.840
Sheepbed	F849	227	0.080	2.360	5.710
Sheepbed	F849	229	0.060	1.570	4.120
Sheepbed	F849	234	0.120	1.750	4.400
Sheepbed	F849	236	0.040	2.100	4.800
Sheepbed	F849	238	0.060	1.310	4.260
Sheepbed	F849	240	0.020	2.330	4.240

Sheepbed	F849	242	0.020	2.230	5.400
Sheepbed	F849	244	0.020	1.750	5.180
Sheepbed	F849	248	0.000	0.990	3.870
Sheepbed	F849	252	0.120	2.090	5.070
Sheepbed	F849	253	0.100	2.550	5.260
Sheepbed	F849	254	0.040	2.040	5.150
Sheepbed	F849	256	0.030	1.360	4.860
Sheepbed	F849	258	0.020	0.790	1.570
Sheepbed	F849	260	0.040	1.270	4.970
Sheepbed	F849	262	0.050	2.030	6.370
Sheepbed	F849	264	0.020	1.350	5.160
Sheepbed	F849	264	0.020	1.880	4.430
Sheepbed	F849	266	0.030	1.390	2.200
Sheepbed	F849	268	0.020	2.380	5.240
Sheepbed	F849	270	0.020	2.230	5.020
Sheepbed	F849	272	0.020	2.150	5.640
Sheepbed	F849	274	0.030	1.940	4.280
Sheepbed	F849	276	0.000	2.270	5.610
Sheepbed	F849	278	0.030	2.100	6.300
Sheepbed	F849	280	0.030	1.400	3.880
Sheepbed	F849	282	0.040	2.240	5.230
Sheepbed	F849	284	0.060	1.250	5.780
Sheepbed	F849	284	0.050	1.500	6.020
Sheepbed	F849	286	0.020	0.970	5.270
Sheepbed	F849	288	0.190	2.980	7.140
Sheepbed	F849	290	0.140	1.080	5.040
Sheepbed	F849	292	0.080	1.140	5.230
Sheepbed	F849	294	0.050	1.540	5.210
Sheepbed	F849	298	0.010	1.400	5.930
Sheepbed	F849	300	0.010	1.630	5.110
Sheepbed	F849	302	0.010	2.010	4.140
Sheepbed	F849	304	0.040	0.760	4.260
Sheepbed	F849	306	0.120	1.720	5.710
Sheepbed	F849	316	0.010	1.390	3.730
Sheepbed	F849	318	0.010	1.730	5.030
Sheepbed	F849	320	0.000	2.500	5.500
Sheepbed	F849	324	0.010	1.030	3.530
Sheepbed	F849	326	0.020	1.470	5.290
Sheepbed	F849	328	0.010	1.670	6.450
Sheepbed	F849	331	0.200	1.570	6.090
Sheepbed	F849	332	0.030	1.400	4.840

Sheepbed	F849	334	0.010	1.150	5.670
Sheepbed	F849	336	0.000	0.620	5.580
Sheepbed	F849	338	0.090	1.150	5.820
Sheepbed	F849	340	0.140	1.510	6.880
Sheepbed	F849	342	0.000	1.710	5.830
Sheepbed	F849	344	0.120	1.630	6.120
Sheepbed	F849	346	0.050	1.560	4.220
Sheepbed	F849	348.5	0.120	1.000	4.420
Sheepbed	F849	352	0.040	0.700	4.840
Sheepbed	F849	354	0.030	1.130	5.350
Sheepbed	F849	356	0.210	1.420	4.530
Sheepbed	F849	358	0.260	1.260	3.860
Sheepbed	F849	360	0.050	1.560	4.480
Sheepbed	F849	360	0.010	1.520	3.160
Sheepbed	F849	362	0.020	1.910	4.150
Sheepbed	F849	364	0.170	2.300	5.050
Sheepbed	F849	366	0.370	3.630	4.690
Sheepbed	F849	368	0.210	2.520	3.940
Blueflower	F850	262	0.000	0.640	1.410
Blueflower	F850	263.5	0.000	0.440	1.250
Blueflower	F850	266	0.000	2.800	6.300
Blueflower	F850	272.5	0.300	2.630	5.020
Blueflower	F850	273	0.190	2.840	5.090
Blueflower	F850	276	0.060	2.330	5.610
Blueflower	F850	282	0.220	4.430	6.040
Blueflower	F850	287	0.000	0.400	1.210
Blueflower	F850	298	0.160	1.540	5.930
Blueflower	F850	309.5	0.060	1.120	4.220
Blueflower	F850	311	0.190	2.520	4.640
Blueflower	F850	312	0.110	4.440	7.400
Blueflower	F850	332.5	0.000	0.530	1.450
Blueflower	F850	335	0.120	5.640	6.550
Blueflower	F850	337	0.140	2.110	2.960
Blueflower	F850	344.8	0.000	1.650	4.320
Blueflower	F850	388	0.030	1.580	4.050
Blueflower	F850	391	0.190	2.800	4.680
Blueflower	F850	393.5	0.010	2.590	4.320
Blueflower	F850	395	0.080	3.560	6.000
Blueflower Format	S1203	0.7	0.425	0.557	0.860
Blueflower Format	S1203	1	0.280	0.424	0.810
Blueflower Format	S1206	36.8	0.047	0.408	3.460

Blueflower Format	S1206	71.2	0.014	0.163	1.030
Blueflower Format	S1206	72	0.011	0.335	1.260
Blueflower Format	S1208	0	1.083	1.359	2.820
Blueflower Format	S1208	8.5	0.000	0.380	2.340
Blueflower Format	S1208	12.8	0.748	1.813	3.990
Blueflower Format	S1208	20.8	0.529	2.505	3.710
Sheepbed	W11	1	0.042	1.594	4.410
Sheepbed	W11	28	0.057	1.095	3.279
Sheepbed	W11	32	0.033	1.045	2.843
Sheepbed	W11	37.5	0.083	1.266	3.335
Sheepbed	W11	43	0.043	1.060	3.030
Sheepbed	W11	47.5	0.145	1.455	3.825
Sheepbed	W11	49.5	0.103	1.737	3.699
Sheepbed	W11	55	0.083	1.173	3.939
Sheepbed	W11	60	0.109	1.562	3.439
Sheepbed	W11	65	0.113	1.335	4.175
Sheepbed	W11	70	0.081	1.870	5.074
Sheepbed	W11	75	0.046	1.746	2.809
Sheepbed	W11	80	0.153	1.731	6.232
Sheepbed	W11	86	0.059	1.524	3.514
Sheepbed	W11	90	0.082	1.195	2.915
Sheepbed	W11	95	0.030	1.521	3.469
Sheepbed	W11	100	0.028	1.479	4.793
Sheepbed	W11	105	0.110	1.221	2.762
Sheepbed	W11	110	0.078	1.318	2.796
Sheepbed	W11	115	0.071	0.987	3.482
Sheepbed	W11	120	0.069	1.301	2.874
Sheepbed	W11	125	0.108	1.523	2.183
Sheepbed	W11	131	0.063	1.022	3.231
Sheepbed	W11	135	0.112	1.502	3.797
Sheepbed	W11	140	0.009	0.766	2.427
Sheepbed	W11	145	0.127	1.130	2.794
Sheepbed	W11	150	0.040	1.601	3.500
Sheepbed	W11	154	0.006	0.737	3.281
Sheepbed	W11	160	0.043	1.010	3.787
Sheepbed	W11	165	0.010	0.424	5.589
Sheepbed	W11	170	0.007	0.410	5.088
Sheepbed	W11	175	0.015	1.361	3.377
June beds	W11	234	0.127	2.107	3.679
June beds	W11	236	0.072	0.756	1.437
June beds	W11	295	0.025	0.823	1.379

June beds	W11	398	0.000	0.979	3.551
June beds	W11	412	0.009	0.458	2.853
June beds	W11	432	0.114	0.486	3.327
June beds	W11	442	0.002	1.286	4.684
June beds	W11	458	0.000	0.991	4.921
June beds	W11	473	0.001	0.412	4.456
June beds	W11	501	0.001	2.158	4.247
June beds	W11	514	0.002	1.344	4.441
June beds	W11	528	0.001	0.435	3.644
June beds	W11	542	0.002	0.297	2.758
June beds	W11	570	0.005	0.651	3.743
Blueflower	W15	12.1	0.079	1.662	1.589
Blueflower	W15	90	0.084	3.579	6.033
Blueflower	W15	96	0.003	0.642	2.949
Blueflower	W15	100	0.204	1.296	3.796
Blueflower	W15	104	0.037	2.074	3.414
Blueflower	W15	105.4	0.073	3.214	4.726
Blueflower	W15	110	0.083	2.304	4.957
Blueflower	W15	117	0.574	1.981	5.775
Blueflower	W15	125.5	0.092	4.156	5.698
Blueflower	W15	129	0.003	0.585	3.476
Blueflower	W15	171	0.010	1.892	3.226
Blueflower	W15	197	0.024	0.314	0.997
Kotlin	Kel'tminskaya-1	1372	0.010	1.430	5.390
Kotlin	Kel'tminskaya-1	1374	0.000	1.330	4.980
Kotlin	Kel'tminskaya-1	1376	0.000	1.590	6.770
Kotlin	Kel'tminskaya-1	1412	0.000	1.080	5.360
Kotlin	Kel'tminskaya-1	1415.8	0.010	1.070	4.790
Kotlin	Kel'tminskaya-1	1417	0.010	1.860	6.520
Kotlin	Kel'tminskaya-1	1454.6	0.090	1.810	5.610
Kotlin	Kel'tminskaya-1	1457.3	0.010	1.450	6.020
Kotlin	Kel'tminskaya-1	1461.2	0.000	1.790	5.670
Kotlin	Kel'tminskaya-1	1497.3	0.000	1.240	5.690
Kotlin	Kel'tminskaya-1	1503.3	0.010	0.910	4.610
Kotlin	Kel'tminskaya-1	1542	0.000	1.240	5.190
Kotlin	Kel'tminskaya-1	1545.7	0.010	1.200	5.170
Kotlin	Kel'tminskaya-1	1581.3	0.010	0.780	4.640
Kotlin	Kel'tminskaya-1	1584	0.010	1.150	5.390
Kotlin	Kel'tminskaya-1	1587.3	0.000	1.300	5.030
Kotlin	Kel'tminskaya-1	1623.7	0.000	1.160	4.580
Kotlin	Kel'tminskaya-1	1629.2	0.000	1.380	4.450

Kotlin	Kel'tminskaya-1	1666.5	0.000	1.230	4.210
Kotlin	Kel'tminskaya-1	1670.7	0.000	1.190	4.000
Kotlin	Kel'tminskaya-1	1711	0.030	1.480	5.570
Kotlin	Kel'tminskaya-1	1751	0.040	1.460	4.920
Kotlin	Kel'tminskaya-1	1754.3	0.040	1.840	6.620
Kotlin	Kel'tminskaya-1	1783.7	0.040	1.620	5.460
Kotlin	Kel'tminskaya-1	1786.7	0.020	1.760	6.180
Kotlin	Kel'tminskaya-1	1829	0.010	1.770	6.490
Kotlin	Kel'tminskaya-1	1870	0.010	1.620	5.970
Redkino	Kel'tminskaya-1	1899	0.010	1.680	6.360
Redkino	Kel'tminskaya-1	1902.4	0.050	1.420	5.480
Redkino	Kel'tminskaya-1	1906	0.040	1.410	5.520
Redkino	Kel'tminskaya-1	1956.2	0.050	1.770	5.860
Redkino	Kel'tminskaya-1	1997	0.030	1.820	5.610
Redkino	Kel'tminskaya-1	2034	0.050	1.470	5.370
Redkino	Kel'tminskaya-1	2042	0.090	1.720	6.020
Redkino	Kel'tminskaya-1	2081	0.120	1.660	5.840
Redkino	Kel'tminskaya-1	2123	0.010	1.570	5.300
Redkino	Kel'tminskaya-1	2162	0.180	1.160	4.570
Redkino	Kel'tminskaya-1	2204	0.020	1.000	4.520
Redkino	Kel'tminskaya-1	2205	0.040	0.980	4.420
Redkino	Kel'tminskaya-1	2209	0.010	0.720	3.490
Redkino	Kel'tminskaya-1	2251	0.010	0.780	3.700
Redkino	Kel'tminskaya-1	2291	0.010	1.160	5.050
Redkino	Kel'tminskaya-1	2299	0.020	0.680	3.690
Redkino	Kel'tminskaya-1	2302.5	0.010	0.890	4.810
Vychegda	Kel'tminskaya-1	2348	0.010	0.890	3.950
Vychegda	Kel'tminskaya-1	2349	0.090	1.000	4.080
Vychegda	Kel'tminskaya-1	2350	0.070	1.100	4.200
Vychegda	Kel'tminskaya-1	2351	0.010	1.090	4.590
Vychegda	Kel'tminskaya-1	2351	0.020	1.640	4.930
Vychegda	Kel'tminskaya-1	2352	0.010	1.030	4.300
Vychegda	Kel'tminskaya-1	2394	0.030	1.110	8.510
Vychegda	Kel'tminskaya-1	2400	0.040	1.070	5.490
Vychegda	Kel'tminskaya-1	2445	0.050	0.470	2.210
Vychegda	Kel'tminskaya-1	2449	0.010	1.260	5.380
Vychegda	Kel'tminskaya-1	2450	0.050	1.280	1.540
Vychegda	Kel'tminskaya-1	2502	0.310	0.910	3.400
Vychegda	Kel'tminskaya-1	2504	0.120	0.600	2.170
Vychegda	Kel'tminskaya-1	2506	0.210	0.960	3.540
Vychegda	Kel'tminskaya-1	2508	0.320	0.950	2.990

Vychegda	Kel'tminskaya-1	2559	0.020	2.040	6.310
Vychegda	Kel'tminskaya-1	2563	0.140	1.870	6.230
Vychegda	Kel'tminskaya-1	2600	0.070	0.940	3.820
Vychegda	Kel'tminskaya-1	2601	0.100	0.590	3.410
Vychegda	Kel'tminskaya-1	2602	0.230	1.730	5.490
Vychegda	Kel'tminskaya-1	2603	0.070	0.550	4.410
Vychegda	Kel'tminskaya-1	2606	0.050	0.970	3.350
Vychegda	Kel'tminskaya-1	2688	0.000	1.560	4.890
Vychegda	Kel'tminskaya-1	2690	0.010	1.890	5.240
Vychegda	Kel'tminskaya-1	2691	0.010	1.420	5.780
Vychegda	Kel'tminskaya-1	2692	0.000	1.730	5.310
Vychegda	Kel'tminskaya-1	2728	0.020	0.340	2.380
Vychegda	Kel'tminskaya-1	2772	0.050	0.540	2.540
Vychegda	Kel'tminskaya-1	2772.5	0.010	0.480	1.230
Vychegda	Kel'tminskaya-1	2773.5	0.300	0.820	2.930
Vychegda	Kel'tminskaya-1	2774	0.040	0.570	3.160
Vychegda	Kel'tminskaya-1	2776	0.280	0.860	2.980
Vychegda	Kel'tminskaya-1	2777	0.060	0.580	2.870
Vychegda	Kel'tminskaya-1	2778	0.240	0.640	2.870
Vychegda	Kel'tminskaya-1	2779	0.010	0.410	4.350
Vychegda	Kel'tminskaya-1	2794	0.000	0.890	4.740
Vychegda	Kel'tminskaya-1	2797	0.010	1.840	8.030
Vychegda	Kel'tminskaya-1	2821	0.090	1.120	6.100
Vychegda	Kel'tminskaya-1	2858	0.060	0.760	5.720
Vychegda	Kel'tminskaya-1	2901	0.010	0.890	5.230
Isaac	Isaac	790	0.100	0.360	6.000
Isaac	Isaac	797.83	0.270	0.620	6.010
Isaac	Isaac	805.66	0.300	0.850	5.120
Isaac	Isaac	813.49	0.010	0.370	8.920
Isaac	Isaac	821.32	0.260	0.610	7.230
Isaac	Isaac	829.15	0.110	0.670	5.500
Isaac	Isaac	836.98	0.000	0.260	5.260
Isaac	Isaac	844.81	0.020	0.360	6.240
Isaac	Isaac	852.64	0.160	0.760	7.920
Isaac	Isaac	860.47	0.460	1.840	4.040
Isaac	Isaac	868.3	0.040	0.570	1.400
Isaac	Isaac	876.13	0.300	1.110	7.210
Isaac	Isaac	883.96	0.240	0.970	8.180
Isaac	Isaac	891.79	0.050	0.370	6.000
Isaac	Isaac	899.62	0.010	0.470	6.880
Isaac	Isaac	915.28	0.230	2.700	4.030

Isaac	Isaac	923.11	0.170	0.610	6.030
Isaac	Isaac	930.94	0.080	0.440	6.640
Isaac	Isaac	938.77	0.070	0.470	5.840
Isaac	Isaac	946.6	0.030	0.430	6.400
Isaac	Isaac	946.6	0.090	5.810	6.450
Isaac	Isaac	954.43	0.130	0.490	5.820
Isaac	Isaac	962.2	0.030	0.530	5.540
Isaac	Isaac	970	0.100	1.900	2.160
Isaac	Isaac	980	0.080	1.100	1.960
Isaac	Isaac	990	0.540	1.200	2.260
Isaac	Isaac	1000	0.460	2.390	4.700
Isaac	Isaac	1010	0.120	0.990	3.320
Isaac	Isaac	1020	0.010	1.130	2.290
Isaac	Isaac	1030	0.120	0.340	4.970
Isaac	Isaac	1040	0.560	1.330	4.450
Isaac	Isaac	1050	0.070	0.640	6.120
Isaac	Isaac	1060	0.010	0.310	6.680
Isaac	Isaac	1070	0.030	0.480	5.520
Isaac	Isaac	1080	0.480	1.140	2.770
Isaac	Isaac	1090	0.010	0.190	3.410
Isaac	Isaac	1102.1	0.040	0.750	1.440
Isaac	Isaac	1114.2	0.000	0.290	0.670
Isaac	Isaac	1126.3	0.350	0.800	4.350
Isaac	Isaac	1138.4	0.010	0.910	3.710
Isaac	Isaac	1150.5	0.070	0.660	6.270
Isaac	Isaac	1162.6	0.010	1.090	1.810
Isaac	Isaac	1175	0.310	0.620	4.770
Isaac	Isaac	1186.67	0.050	0.470	7.000
Isaac	Isaac	1198.34	0.010	0.280	5.980
Isaac	Isaac	1198.34	0.010	0.290	5.900
Isaac	Isaac	1210.01	0.010	0.460	5.630
Isaac	Isaac	1221.68	0.010	0.320	5.800
Isaac	Isaac	1233.35	0.030	0.350	5.310
Isaac	Isaac	1245.02	0.470	0.870	7.270
Isaac	Isaac	1252.22	0.120	0.880	1.320
Isaac	Isaac	1259.42	0.210	0.570	4.510
Isaac	Isaac	1266.62	0.140	0.470	1.150
Isaac	Isaac	1273.82	0.610	1.280	5.940
Isaac	Isaac	1281.02	0.020	1.190	3.270
Isaac	Isaac	1288.22	0.010	0.680	0.890
Isaac	Isaac	1295.42	0.010	0.730	1.000

Isaac	Isaac	1310	0.010	0.270	6.000
Isaac	Isaac	1310	0.000	0.250	4.530
Isaac	Isaac	1323.1	0.290	0.770	6.670
Isaac	Isaac	1336.2	0.120	0.410	5.740
Isaac	Isaac	1336.2	1.040	1.300	4.590
Isaac	Isaac	1349.3	0.170	0.520	2.230
Isaac	Isaac	1362.4	0.020	0.320	5.080
Isaac	Isaac	1375.5	0.440	0.740	3.120
Isaac	Isaac	1388.6	0.450	0.850	3.620
Isaac	Isaac	1401.7	0.190	1.120	3.760
Isaac	Isaac	1414.8	1.050	1.430	4.040
Isaac	Isaac	1427.9	0.600	1.280	3.840
Isaac	Isaac	1440	0.290	0.540	3.830
Isaac	Isaac	1450.77	0.210	0.600	4.400
Isaac	Isaac	1461.54	1.410	2.280	2.590
Isaac	Isaac	1472.31	0.200	1.030	4.220
Isaac	Isaac	1472.31	0.830	1.270	2.590
Isaac	Isaac	1483.08	0.570	1.000	4.720
Isaac	Isaac	1483.08	0.130	1.100	4.600
Isaac	Isaac	1493.85	0.220	0.850	3.590
Isaac	Isaac	1504.62	0.150	1.740	4.950
Isaac	Isaac	1515.39	1.170	1.670	2.430
Isaac	Isaac	1526.16	0.080	0.680	2.400
Isaac	Isaac	1547.7	0.120	0.890	2.000
Isaac	Isaac	1558.47	0.340	1.440	4.320
Isaac	Isaac	1569.24	0.520	1.750	3.050
Isaac	Isaac	1580.01	0.030	0.430	1.830
Isaac	Isaac	1590	0.040	0.950	1.760
Isaac	Isaac	1600	0.230	0.820	4.280
Isaac	Isaac	1612	0.520	1.350	4.500
Isaac	Isaac	1624	0.320	1.080	2.200
Isaac	Isaac	1636	0.290	2.410	2.660
Isaac	Isaac	1648	0.190	0.940	2.830
Isaac	Isaac	1660	0.880	1.670	3.950
Isaac	Isaac	1670	0.870	1.150	2.420
Isaac	Isaac	1680	0.750	2.430	4.890
Isaac	Isaac	1690	0.470	3.140	3.100
Isaac	Isaac	1700	0.540	2.100	4.410
Isaac	Isaac	1710	0.060	0.500	3.220
Isaac	Isaac	1720	0.430	0.860	4.370
Isaac	Isaac	1730	0.420	1.190	4.940

Isaac	Isaac	1740	0.130	0.610	3.490
Isaac	Isaac	1750	0.080	0.840	4.360
Isaac	Isaac	1760	0.070	1.010	5.170
Isaac	Isaac	1770	0.110	0.570	6.470
Isaac	Isaac	1780	0.070	0.590	2.600
Isaac	Isaac	1792.5	0.260	1.280	4.750
Isaac	Isaac	1805	1.470	1.880	5.190
Isaac	Isaac	1817.5	0.010	0.370	3.530
Isaac	Isaac	1825	0.560	1.110	3.760
Isaac	Isaac	1832.5	0.010	0.510	1.670
Isaac	Isaac	1840	0.070	0.480	1.740
Isaac	Isaac	1847.5	0.120	1.010	2.850
Isaac	Isaac	1855	0.090	0.470	4.550
Isaac	Isaac	1868.8	0.160	0.640	5.380
Isaac	Isaac	1882.6	0.830	1.400	5.170
Isaac	Isaac	1896.4	0.450	7.280	5.860
Isaac	Isaac	1910.2	0.660	4.100	3.830
Isaac	Isaac	1924	0.090	3.160	2.680
Isaac	Isaac	1937.8	0.260	0.840	3.530
Isaac	Isaac	1951.6	0.060	3.280	3.030
Isaac	Isaac	1965.4	0.630	1.770	4.960
Isaac	Isaac	1979.2	0.150	0.730	4.690
Isaac	Isaac	1993	0.180	0.830	4.390
Isaac	Isaac	2006.8	0.480	1.050	1.220
Isaac	Isaac	2020.6	0.410	1.340	2.100
Isaac	Isaac	2034.4	2.270	4.170	7.040
Isaac	Isaac	2062	0.790	2.570	3.790
Isaac	Isaac	2075.8	0.810	3.010	3.020
Isaac	Isaac	2089.6	0.500	1.450	3.430
Isaac	Isaac	2103.4	0.450	1.400	3.780
Isaac	Isaac	2117.2	0.610	1.280	3.420
Isaac	Isaac	2131	0.670	1.820	3.680
Old Fort Point	Old Fort Point		0.000	1.180	3.440
Old Fort Point	Old Fort Point		0.380	0.690	1.930
Old Fort Point	Old Fort Point		0.050	0.690	1.470
Old Fort Point	Old Fort Point		1.480	2.270	3.750
Upper Kaza	Upper Kaza	380	0.000	0.280	4.230
Upper Kaza	Upper Kaza	390	0.210	1.200	5.350
Upper Kaza	Upper Kaza	400	0.030	0.250	4.620
Upper Kaza	Upper Kaza	410	0.010	0.560	3.830
Upper Kaza	Upper Kaza	420	0.000	0.550	3.440

Upper Kaza	Upper Kaza	430	0.050	0.560	3.140
Upper Kaza	Upper Kaza	440	0.180	0.470	5.020
Upper Kaza	Upper Kaza	450	0.460	1.530	5.870
Upper Kaza	Upper Kaza	460	0.090	0.650	3.860
Upper Kaza	Upper Kaza	470	0.000	0.250	3.630
Upper Kaza	Upper Kaza	480	0.000	0.570	3.930
Upper Kaza	Upper Kaza	490	0.010	0.550	3.180
Upper Kaza	Upper Kaza	500	0.030	0.660	3.980
Upper Kaza	Upper Kaza	510	0.000	0.490	2.080
Upper Kaza	Upper Kaza	520	0.000	0.320	6.590
Upper Kaza	Upper Kaza	530	0.010	0.510	3.550
Upper Kaza	Upper Kaza	540	0.000	0.550	4.920
Upper Kaza	Upper Kaza	540	0.000	0.250	1.930
Upper Kaza	Upper Kaza	550	0.280	0.890	4.920
Upper Kaza	Upper Kaza	558.33	0.000	0.460	3.730
Upper Kaza	Upper Kaza	566.66	0.120	0.570	4.470
Upper Kaza	Upper Kaza	574.99	0.160	0.690	5.000
Upper Kaza	Upper Kaza	583.32	0.290	0.740	5.560
Upper Kaza	Upper Kaza	591.65	0.270	0.570	4.480
Upper Kaza	Upper Kaza	599.98	0.000	0.590	3.950
Upper Kaza	Upper Kaza	608.31	0.020	1.190	4.340
Upper Kaza	Upper Kaza	616.64	0.030	0.580	8.530
Upper Kaza	Upper Kaza	624.97	0.020	0.560	2.810
Upper Kaza	Upper Kaza	633.3	0.010	0.910	4.000
Upper Kaza	Upper Kaza	641.63	0.000	0.190	5.360
Upper Kaza	Upper Kaza	649.96	0.180	0.520	5.670
Upper Kaza	Upper Kaza	655.83	0.050	0.440	7.520
Upper Kaza	Upper Kaza	655.83	0.100	0.500	5.040
Upper Kaza	Upper Kaza	661.66	0.130	0.510	4.090
Upper Kaza	Upper Kaza	667.49	0.000	0.320	2.910
Upper Kaza	Upper Kaza	673.32	0.010	0.330	6.210
Upper Kaza	Upper Kaza	679.15	0.000	0.430	2.300
Upper Kaza	Upper Kaza	684.98	0.030	0.440	1.970
Upper Kaza	Upper Kaza	690.81	0.030	0.580	7.920
Upper Kaza	Upper Kaza	696.64	0.010	0.640	5.260
Upper Kaza	Upper Kaza	702.47	0.000	0.460	4.530
Upper Kaza	Upper Kaza	708.3	0.020	0.380	4.760
Upper Kaza	Upper Kaza	714.13	0.010	0.450	7.140
Upper Kaza	Upper Kaza	719.96	0.020	0.420	3.840
Upper Kaza	Upper Kaza	725.79	0.170	0.630	11.610
Upper Kaza	Upper Kaza	731.62	0.090	0.390	6.440

Upper Kaza	Upper Kaza	737.45	0.020	0.380	1.620
Upper Kaza	Upper Kaza	743.28	0.040	0.640	2.850
Upper Kaza	Upper Kaza	749.11	0.460	0.640	2.980
Upper Kaza	Upper Kaza	754.94	0.050	0.260	4.250
Upper Kaza	Upper Kaza	760.77	0.460	0.930	6.150
Upper Kaza	Upper Kaza	766.6	0.010	0.400	3.710
Upper Kaza	Upper Kaza	772.43	0.010	0.790	1.970
Upper Kaza	Upper Kaza	778.26	0.010	0.950	2.140
Upper Kaza	Upper Kaza	784.09	0.020	0.520	0.970
Lower Drook @ Ha	Lower Drook @ Har	wermost Droo	0.000	1.080	4.300
Lower Fermeuse	Lower Fermeuse	2	0.090	0.730	4.710
Lower Fermeuse	Lower Fermeuse	5	0.210	0.840	4.720
Lower Fermeuse	Lower Fermeuse	8	0.120	0.780	4.760
Lower Fermeuse	Lower Fermeuse	13	0.090	0.780	4.960
Lower Fermeuse	Lower Fermeuse	18	0.010	0.780	4.460
Lower Fermeuse	Lower Fermeuse	23	0.050	0.590	4.440
Lower Fermeuse	Lower Fermeuse	28	0.170	0.920	4.270
Lower Fermeuse	Lower Fermeuse	33	0.230	0.890	4.130
Lower Fermeuse	Lower Fermeuse	38	0.020	0.610	3.150
Lower Fermeuse	Lower Fermeuse	47	0.020	0.710	4.400
Lower Fermeuse	Lower Fermeuse	nning of sequ	0.050	0.730	4.550
lower Gaskiers	lower Gaskiers	0.5	0.080	1.520	3.510
lower Gaskiers	lower Gaskiers	6.5	0.010	1.540	4.730
lower Gaskiers	lower Gaskiers	7.5	0.010	1.000	3.020
lower Gaskiers	lower Gaskiers	9.5	0.000	1.160	3.730
lower Gaskiers	lower Gaskiers	11.5	0.010	1.100	4.070
lower Gaskiers	lower Gaskiers	13.5	0.000	1.600	4.610
lower Gaskiers	lower Gaskiers	16.5	0.010	1.540	4.450
lower Gaskiers	lower Gaskiers	vermost Gaski	0.020	1.160	2.930
Lower Mistaken Pc	Lower Mistaken Poi	2	0.080	1.070	4.280
Lower Mistaken Pc	Lower Mistaken Poi	5	0.000	0.760	3.770
Lower Mistaken Pc	Lower Mistaken Poi	8	0.000	0.540	3.760
Lower Mistaken Pc	Lower Mistaken Poi	8.3	0.000	0.880	4.320
Lower Mistaken Pc	Lower Mistaken Poi	13.3	0.010	0.420	2.520
Lower Mistaken Pc	Lower Mistaken Poi	16.3	0.000	0.430	3.600
Lower Mistaken Pc	Lower Mistaken Poi	19.3	0.000	0.370	1.870
Lower Mistaken Pc	Lower Mistaken Poi	19.8	0.010	0.380	3.820
Lower Mistaken Pc	Lower Mistaken Poi	nning of sequ	0.000	0.750	4.040
Lowermost Drook	Lowermost Drook a	2	0.010	0.410	2.180
Lowermost Drook	Lowermost Drook a	2	0.000	0.810	3.330
Lowermost Drook	Lowermost Drook a	2	0.000	0.640	2.650

Lowermost Drook	Lowermost Drook a	2	0.000	0.710	2.670
Lowermost Drook	Lowermost Drook a	3	0.000	1.240	4.160
Lowermost Drook	Lowermost Drook a	5	0.000	0.540	2.770
Lowermost Drook	Lowermost Drook a	9	0.010	0.610	2.830
Lowermost Drook	Lowermost Drook a	13	0.070	0.930	3.530
Lowermost Drook	Lowermost Drook a	18	0.010	0.680	3.620
Lowermost Drook	Lowermost Drook a	28	0.010	0.620	3.340
Lowermost Drook	Lowermost Drook a	wermost Droo	0.000	1.680	3.910
Middle Briscal	Middle Briscal	2	0.000	1.160	4.520
Middle Briscal	Middle Briscal	4	0.000	0.890	4.260
Middle Briscal	Middle Briscal	6	0.040	0.940	3.820
Middle Briscal	Middle Briscal	9	0.010	0.620	2.480
Middle Briscal	Middle Briscal	12	0.000	0.820	3.470
Middle Briscal	Middle Briscal	15	0.000	0.400	2.350
Middle Briscal	Middle Briscal	18	0.010	0.580	2.510
Middle Briscal	Middle Briscal	21	0.000	0.740	3.160
Middle Briscal	Middle Briscal	24	0.000	0.760	3.580
Middle Briscal	Middle Briscal	27	0.000	1.110	4.680
Middle Briscal	Middle Briscal	30	0.000	0.950	3.620
Middle Briscal	Middle Briscal	33	0.000	1.070	3.680
Middle Briscal	Middle Briscal	next contour	0.000	1.090	4.320
Middle Briscal	Middle Briscal	next contour	0.000	0.980	3.480
Middle Briscal	Middle Briscal	of sequence,	0.000	1.130	4.090
Middle Drook New	Middle Drook New	5	0.000	1.330	4.700
Middle Drook New	Middle Drook New	10	0.080	0.630	1.860
Middle Drook New	Middle Drook New	15	0.060	0.460	1.590
Middle Drook New	Middle Drook New	20	0.030	0.750	3.250
Middle Drook New	Middle Drook New	25	0.010	0.820	2.860
Middle Drook New	Middle Drook New	35	0.000	0.540	2.190
Middle Drook New	Middle Drook New	45	0.100	0.640	2.390
Middle Drook New	Middle Drook New	55	0.070	0.590	2.150
Middle Drook New	Middle Drook New	65	0.020	0.590	2.330
Middle Drook New	Middle Drook New	nning of sequ	0.130	0.820	2.670
Middle Gaskiers	Middle Gaskiers	31	0.060	1.170	3.970
Middle Gaskiers	Middle Gaskiers	51	0.080	0.850	3.690
Middle Gaskiers	Middle Gaskiers	81	0.020	1.060	3.840
Middle Gaskiers	Middle Gaskiers	above Gaskier	0.140	0.830	3.130
Middle Gaskiers	Middle Gaskiers	elow top of G	0.010	1.230	3.990
Middle Mistaken F	Middle Mistaken Pc	2	0.000	1.380	4.520
Middle Mistaken F	Middle Mistaken Pc	4	0.000	0.540	3.500
Middle Mistaken F	Middle Mistaken Pc	5.3	0.000	0.630	2.950

Middle Mistaken F	Middle Mistaken Pc	5.5	0.000	0.990	5.790
Middle Mistaken F	Middle Mistaken Pc	13	0.000	1.030	4.380
Middle Mistaken F	Middle Mistaken Pc	15	0.000	0.900	3.360
Middle Mistaken F	Middle Mistaken Pc	17	0.000	1.210	4.750
Middle Mistaken F	Middle Mistaken Pc	19	0.000	1.160	4.340
Middle Mistaken F	Middle Mistaken Pc	20	0.000	0.940	5.230
Middle Mistaken F	Middle Mistaken Pc	22	0.000	0.820	4.250
Middle Mistaken F	Middle Mistaken Pc	24	0.000	0.800	3.620
Middle Mistaken F	Middle Mistaken Pc	m below top b	0.000	1.040	4.230
Middle Mistaken F	Middle Mistaken Pc	1m above bec	0.000	0.920	4.030
Middle Mistaken F	Middle Mistaken Pc	1 m above be	0.000	1.050	4.410
Middle Mistaken F	Middle Mistaken Pc	nning of sequ	0.000	1.120	5.110
Middle to Upper F	Middle to Upper Fe	2	0.400	1.250	5.040
Middle to Upper F	Middle to Upper Fe	4	0.000	0.770	4.580
Middle to Upper F	Middle to Upper Fe	6	0.230	0.910	4.700
Middle to Upper F	Middle to Upper Fe	8	0.080	0.770	3.640
Middle to Upper F	Middle to Upper Fe	10	0.080	1.110	3.930
Middle to Upper F	Middle to Upper Fe	12	0.140	1.080	4.230
Middle to Upper F	Middle to Upper Fe	14	0.110	1.060	3.950
Middle to Upper F	Middle to Upper Fe	16	0.060	0.940	3.530
Middle to Upper F	Middle to Upper Fe	18	0.120	0.570	2.450
Middle to Upper F	Middle to Upper Fe	20	0.020	0.730	4.230
Middle to Upper F	Middle to Upper Fe	22	0.020	0.800	4.440
Middle to Upper F	Middle to Upper Fe	24	0.060	0.830	4.590
Middle to Upper F	Middle to Upper Fe	26	0.020	0.810	4.480
Middle to Upper F	Middle to Upper Fe	28	0.020	0.890	4.660
Middle to Upper F	Middle to Upper Fe	30	0.040	0.860	4.580
Middle to Upper F	Middle to Upper Fe	32	0.040	0.800	4.400
Middle to Upper F	Middle to Upper Fe	34	0.080	0.900	4.960
Middle to Upper F	Middle to Upper Fe	nning of sequ	0.060	0.780	3.450
Middle to Upper T	Middle to Upper Tr	3	0.000	0.750	4.070
Middle to Upper T	Middle to Upper Tr	8	0.020	0.910	4.790
Middle to Upper T	Middle to Upper Tr	13	0.000	0.890	4.500
Middle to Upper T	Middle to Upper Tr	13	0.720	1.800	5.390
Middle to Upper T	Middle to Upper Tr	58	0.330	1.510	5.490
Middle to Upper T	Middle to Upper Tr	68	0.010	1.010	4.150
Middle to Upper T	Middle to Upper Tr	68	0.550	1.410	4.940
Middle to Upper T	Middle to Upper Tr	108	0.210	1.300	5.610
Middle to Upper T	Middle to Upper Tr	133	0.010	0.800	4.280
Middle to Upper T	Middle to Upper Tr	148	0.020	0.930	4.390
Middle to Upper T	Middle to Upper Tr	150	0.000	1.000	4.310

Middle to Upper T	Middle to Upper Tr	170	0.140	1.020	3.770
Middle to Upper T	Middle to Upper Tr	180	0.010	0.970	3.340
Middle to Upper T	Middle to Upper Tr	200	0.000	0.820	3.300
Middle to Upper T	Middle to Upper Tr	220	0.130	1.020	4.120
Middle to Upper T	Middle to Upper Tr	, top of Trepa	0.360	1.260	5.050
Middle to Upper T	Middle to Upper Tr	nning of sequ	0.020	0.990	4.720
middle upper Mall	middle upper Mall I	10	0.180	0.980	3.200
middle upper Mall	middle upper Mall I	20	0.040	0.960	3.500
middle upper Mall	middle upper Mall I	30	0.080	1.000	3.580
middle upper Mall	middle upper Mall I	37	0.010	0.870	2.950
middle upper Mall	middle upper Mall I	44	0.050	1.230	3.680
middle upper Mall	middle upper Mall I	51	0.020	1.420	4.770
middle upper Mall	middle upper Mall I	58	0.010	0.970	3.060
middle upper Mall	middle upper Mall I	65	0.010	1.230	4.190
middle upper Mall	middle upper Mall I	72	0.000	1.010	3.590
middle upper Mall	middle upper Mall I	79	0.020	1.090	3.280
middle upper Mall	middle upper Mall I	86	0.020	1.100	3.680
middle upper Mall	middle upper Mall I	93	0.000	0.870	3.850
middle upper Mall	middle upper Mall I	95	0.000	0.780	2.840
middle upper Mall	middle upper Mall I	97	0.010	0.880	3.390
middle upper Mall	middle upper Mall I	99	0.030	1.100	3.080
middle upper Mall	middle upper Mall I	101	0.000	1.060	3.660
middle upper Mall	middle upper Mall I	103	0.000	1.440	4.180
middle upper Mall	middle upper Mall I	105	0.000	0.460	2.030
middle upper Mall	middle upper Mall I	107	0.000	0.720	2.090
middle upper Mall	middle upper Mall I	109	0.000	0.850	2.760
middle upper Mall	middle upper Mall I	111	0.000	1.130	3.390
middle upper Mall	middle upper Mall I	113	0.570	1.600	3.140
middle upper Mall	middle upper Mall I	115	0.000	1.000	3.610
middle upper Mall	middle upper Mall I	117	0.030	0.870	2.380
middle upper Mall	middle upper Mall I	119	0.040	0.850	2.130
middle upper Mall	middle upper Mall I	121	0.040	0.760	2.560
middle upper Mall	middle upper Mall I	123	0.010	0.260	1.000
middle upper Mall	middle upper Mall h	below Gaski	0.170	0.560	1.310
middle upper Mall	middle upper Mall I	nning of sequ	0.070	1.000	2.790
Upper Drook	Upper Drook	2	0.020	0.640	2.860
Upper Drook	Upper Drook	5	0.000	0.760	3.910
Upper Drook	Upper Drook	5	0.000	0.730	3.760
Upper Drook	Upper Drook	12	0.240	0.710	2.480
Upper Drook	Upper Drook	17	0.000	0.470	1.980
Upper Drook	Upper Drook	17.5	0.010	0.530	2.740

Upper Drook	Upper Drook	17.5	0.010	0.430	1.910
Upper Drook	Upper Drook	26.5	0.000	0.620	2.300
Upper Drook	Upper Drook	34.5	0.000	0.680	3.670
Upper Drook	Upper Drook	41.5	0.000	0.510	3.060
Upper Drook	Upper Drook	48.5	0.000	0.850	4.270
Upper Drook	Upper Drook	52.5	0.000	0.810	4.810
Upper Drook	Upper Drook	59.5	0.410	1.050	3.350
Upper Drook	Upper Drook	66.5	0.000	0.690	5.140
Upper Drook	Upper Drook	66.5	0.030	0.690	3.940
Upper Drook	Upper Drook	73.5	0.510	1.180	3.910
Upper Drook	Upper Drook	50 m above Br	0.020	0.800	4.710
Upper Drook	Upper Drook	elow first Ivesl	0.530	1.230	3.970
Upper Drook	Upper Drook	in distance ab	0.000	0.830	4.450
Upper Fermeuse	Upper Fermeuse	2	0.140	0.930	4.430
Upper Fermeuse	Upper Fermeuse	8	0.080	0.860	4.660
Upper Fermeuse	Upper Fermeuse	10	0.040	0.990	4.370
Upper Fermeuse	Upper Fermeuse	15	0.120	0.870	4.240
Upper Fermeuse	Upper Fermeuse	23	0.550	1.120	2.300
Upper Fermeuse	Upper Fermeuse	nning of sequ	0.130	0.830	4.260
Upper Gaskiers Ha	Upper Gaskiers Har	2	0.000	1.170	3.710
Upper Gaskiers Ha	Upper Gaskiers Har	4	0.000	1.320	3.780
Upper Gaskiers Ha	Upper Gaskiers Har	6	0.000	1.160	3.300
Upper Gaskiers Ha	Upper Gaskiers Har	8	0.000	1.520	3.290
Upper Gaskiers Ha	Upper Gaskiers Har	10	0.000	1.360	3.720
Upper Gaskiers Ha	Upper Gaskiers Har	10.1	0.000	1.560	3.760
Upper Gaskiers Ha	Upper Gaskiers Har	10.25	0.010	1.000	2.920
Upper Gaskiers Ha	Upper Gaskiers Har	10.4	0.010	0.250	0.950
Upper Gaskiers Ha	Upper Gaskiers Har	10.55	0.000	0.190	0.600
Upper Gaskiers Ha	Upper Gaskiers Har	10.7	0.010	0.200	0.670
Upper Gaskiers Ha	Upper Gaskiers Harelow cap carb		0.010	0.010	0.600
Upper Gaskiers Ha	Upper Gaskiers Harnning of sequ		0.010	1.330	3.760
Upper Gaskiers Ha	Upper Gaskiers Harbour Main		0.000	1.730	3.600
Upper Gaskiers St.	Upper Gaskiers St. I	3	0.010	1.550	3.610
Upper Gaskiers St.	Upper Gaskiers St. I	7	0.030	2.040	4.660
Upper Gaskiers St.	Upper Gaskiers St. I	10	0.010	1.570	3.650
Upper Gaskiers St.	Upper Gaskiers St. I	14	0.050	1.710	4.090
Upper Gaskiers St.	Upper Gaskiers St. Inning of sequ		0.010	1.560	3.860
Upper Gaskiers St.	Upper Gaskiers St. I top of tillite		0.000	1.410	3.590
Upper Mistaken p	Upper Mistaken po	1	0.010	0.820	4.880
Upper Mistaken p	Upper Mistaken po	2	0.010	0.910	4.730
Upper Mistaken p	Upper Mistaken ponning of sequ		0.010	1.100	5.360

uppermost Fermeı	uppermost Fermeuse	0.630	1.760	4.330
Dracoisan Formati	Dracoisan Formation	0.051	1.538	3.561
Dracoisan Formati	Dracoisan Formation	0.058	2.075	3.555
Dracoisan Formati	Dracoisan Formation	0.083	1.063	1.597
Canyon Fm East Gı	Canyon Fm East Greenland	0.008	0.724	4.099
Canyon Fm East Gı	Canyon Fm East Greenland	0.108	1.197	6.234
Canyon Fm East Gı	Canyon Fm East Greenland	0.026	0.879	3.998
Canyon Fm East Gı	Canyon Fm East Greenland	0.014	1.044	4.712
Canyon Fm East Gı	Canyon Fm East Greenland	0.307	0.750	3.382
Canyon Fm East Gı	Canyon Fm East Greenland	0.052	0.862	3.710
Canyon Fm East Gı	Canyon Fm East Greenland	0.053	1.076	4.598
Canyon Fm East Gı	Canyon Fm East Greenland	0.006	0.867	3.617
Canyon Fm East Gı	Canyon Fm East Greenland	0.140	1.035	4.235
Canyon Fm East Gı	Canyon Fm East Greenland	0.413	1.395	4.229
Canyon Fm East Gı	Canyon Fm East Greenland	0.022	1.595	4.379
Canyon Fm East Gı	Canyon Fm East Greenland	0.027	0.550	1.344
Canyon Fm East Gı	Canyon Fm East Greenland	0.162	1.406	2.895
Canyon Fm East Gı	Canyon Fm East Greenland	0.361	1.652	3.333
Canyon Fm East Gı	Canyon Fm East Greenland	0.175	0.765	1.523
Canyon Fm East Gı	Canyon Fm East Greenland	0.028	1.083	1.808
Canyon Fm East Gı	Canyon Fm East Greenland	0.359	1.441	2.215
Spiral Creek Formɛ	Spiral Creek Formation	0.005	0.555	2.013
Spiral Creek Formɛ	Spiral Creek Formation	0.248	1.113	3.513
Spiral Creek Formɛ	Spiral Creek Formation	0.009	0.819	2.364
Spiral Creek Formɛ	Spiral Creek Formation	0.046	1.034	1.882
Spiral Creek Formɛ	Spiral Creek Formation	0.129	1.331	2.005
Spiral Creek Formɛ	Spiral Creek Formation	0.078	0.571	0.785
Arcoona ABC Formr	Arcoona ABC Formation	0.098	0.517	3.406
Arcoona ABC Formr	Arcoona ABC Formation	0.043	1.172	5.517
Arcoona ABC Formr	Arcoona ABC Formation	0.036	1.736	6.319
Arcoona ABC Formr	Arcoona ABC Formation	0.072	2.162	6.283
Arcoona ABC Formr	Arcoona ABC Formation	0.217	1.713	4.697
Arcoona ABC Formr	Arcoona ABC Formation	1.273	2.200	5.223
Arcoona ABC Formr	Arcoona ABC Formation	1.265	2.743	6.140
Elyuah Formation	Elyuah Formation	0.010	1.069	4.178
Elyuah Formation	Elyuah Formation	0.022	1.061	3.712
Elyuah Formation	Elyuah Formation	0.080	1.417	4.710
Elyuah Formation	Elyuah Formation	0.434	1.054	3.424
Elyuah Formation	Elyuah Formation	0.075	1.026	2.520
Elyuah Formation	Elyuah Formation	1.355	2.413	5.675
Elyuah Formation	Elyuah Formation	1.758	2.271	5.104

Elyuah Formation	Elyuah Formation		0.664	3.217	7.082
Elyuah Formation	Elyuah Formation		1.007	2.296	4.989
Elyuah Formation	Elyuah Formation		0.944	3.566	7.699
Elyuah Formation	Elyuah Formation		0.969	2.238	4.831
Elyuah Formation	Elyuah Formation		0.875	1.385	2.841
Elyuah Formation	Elyuah Formation		1.120	2.106	4.278
Elyuah Formation	Elyuah Formation		0.837	2.225	4.435
Elyuah Formation	Elyuah Formation		1.640	2.426	4.812
Elyuah Formation	Elyuah Formation		0.114	2.167	4.142
Elyuah Formation	Elyuah Formation		1.848	2.899	5.177
Elyuah Formation	Elyuah Formation		1.398	2.550	4.472
Elyuah Formation	Elyuah Formation		1.505	2.700	4.340
Elyuah Formation	Elyuah Formation		1.869	2.615	4.095
Elyuah Formation	Elyuah Formation		2.748	3.840	5.185
Grants Bluff Forma	Grants Bluff Formation		0.183	0.666	2.536
Grants Bluff Forma	Grants Bluff Formation		0.338	1.216	4.531
Grants Bluff Forma	Grants Bluff Formation		0.766	1.308	2.947
Grants Bluff Forma	Grants Bluff Formation		0.952	1.587	3.555
Grants Bluff Forma	Grants Bluff Formation		1.375	2.356	4.350
Grants Bluff Forma	Grants Bluff Formation		1.389	2.353	4.186
Grants Bluff Forma	Grants Bluff Formation		1.762	2.522	4.134
Grants Bluff Forma	Grants Bluff Formation		1.847	2.618	4.140
Grants Bluff Forma	Grants Bluff Formation		1.855	2.666	4.194
Grants Bluff Forma	Grants Bluff Formation		1.549	2.334	3.469
Woomera Formati	Woomera Formation		0.077	1.190	5.289
Woomera Formati	Woomera Formation		0.045	0.894	3.693
Woomera Formati	Woomera Formation		0.109	1.291	4.920
Woomera Formati	Woomera Formation		0.205	1.375	4.423
Woomera Formati	Woomera Formation		0.037	1.873	5.705
Woomera Formati	Woomera Formation		0.657	1.626	4.790
Woomera Formati	Woomera Formation		1.146	2.019	5.318
Woomera Formati	Woomera Formation		1.020	1.968	4.871
Upper Staraya Fm	Upper Staraya Fm		0.002	0.699	2.291
Upper Staraya Fm	Upper Staraya Fm		0.147	1.023	2.992
Upper Staraya Fm	Upper Staraya Fm		0.124	0.746	1.849
	F838	31	0.074	0.781	1.246
	F838	54	0.003	2.283	4.912
	F838	58	0.000	2.416	4.812
	F838	62	0.000	2.214	4.802
	F838	70	0.000	1.622	4.657
	F838	74	0.001	1.848	4.798

	F838	82	0.002	1.844	5.173
	F838	90	0.000	1.586	5.252
	F838	96	0.000	2.073	4.303
	F838	98	0.000	2.008	4.880
	F838	102	0.000	1.764	4.608
	F838	110	0.002	1.950	4.952
	F838	118	0.002	2.423	5.443
	F838	126	0.002	2.246	5.881
	F838	134	0.001	2.142	7.073
	F838	142	0.027	1.980	6.842
	F838	150	0.007	2.770	6.305
	F838	158	0.003	2.230	5.381
	F838	166	0.013	1.967	5.833
	F838	174	0.002	1.880	5.229
	F838	182	0.005	1.523	5.052
	F838	190	0.015	2.077	5.412
	F838	198	0.093	1.545	5.632
	F838	206	0.020	1.567	4.571
	F838	214	0.013	1.600	5.264
	F838	222	0.002	2.001	4.778
	F838	230	0.011	1.715	7.833
	F838	238	0.008	2.157	5.109
	F838	246	0.005	1.919	5.229
	F838	254	0.002	2.291	6.191
	F838	262	0.003	2.294	5.401
	F838	270	0.002	2.143	4.875
	F838	278	0.001	2.280	5.680
	F838	286	0.008	2.580	4.303
	F838	290	0.007	2.543	5.572
	F838	298	0.000	3.289	4.706
	F842	135	0.003	0.507	3.920
June beds	Sekwi Brook		0.160	2.150	2.940
June beds	Sekwi Brook		0.160	2.460	3.190
June beds	Sekwi Brook		0.210	2.370	3.040
June beds	Sekwi Brook		0.150	1.640	2.010
June beds	Sekwi Brook		0.390	3.640	4.260
Sheepbed	Shale Lake	5	0.220	3.080	4.240
Sheepbed	Shale Lake	10	0.300	2.730	4.280
Sheepbed	Shale Lake	15	0.160	2.910	4.190
Sheepbed	Shale Lake	21.5	0.150	1.650	3.460
Sheepbed	Shale Lake	31	0.100	2.450	4.990

Sheepbed	Shale Lake	43	0.050	5.030	6.820
Sheepbed	Shale Lake	52	0.090	2.410	5.140
Sheepbed	Shale Lake	60	0.060	2.760	5.790
Sheepbed	Shale Lake	70	0.090	2.570	5.410
Sheepbed	Shale Lake	87	0.050	0.750	2.610
Sheepbed	Shale Lake	99	0.020	2.330	5.500
Sheepbed	Shale Lake	146	0.030	2.500	6.270
Sheepbed	Shale Lake	205	0.050	3.910	6.920
Sheepbed	Shale Lake	240	0.050	3.250	6.080
Sheepbed	Shale Lake	258	0.030	4.420	6.910
Sheepbed	Shale Lake	307	0.020	2.340	5.040
Sheepbed	Shale Lake	322	0.980	2.740	6.250
Sheepbed	Shale Lake	375	0.060	4.060	7.030
Sheepbed	Shale Lake	450	0.630	4.290	8.150
Sheepbed	Shale Lake	468	1.160	2.310	4.490
Sheepbed	Shale Lake	473	0.880	2.050	4.490
Sheepbed	Shale Lake	483	0.200	4.570	6.980
Sheepbed	Section 1	4			
Sheepbed	Section 1	5			
Sheepbed	Section 1	5.5			
Sheepbed	Section 1	7			
Sheepbed	Section 1	8			
Sheepbed	Section 1	10			
Sheepbed	Section 1	12			
Sheepbed	Section 1	14			
Sheepbed	Section 1	16			
Sheepbed	Section 1	18			
Sheepbed	Section 1	23			
Sheepbed	Section 1	27			
Sheepbed	Section 1	29			
Sheepbed	Section 1	33			
Sheepbed	Section 1	35.5			
Sheepbed	Section 1	37.5			
Sheepbed	Section 1	39			
Sheepbed	Section 1	43			
Sheepbed	Section 1	44.5			
Sheepbed	Section 1	47			
Sheepbed	Section 1	50			
Sheepbed	Section 1	54			
Sheepbed	Section 1	57			
Sheepbed	Section 1	60			

Sheepbed	Section 2	34			
Sheepbed	Section 2	35.5			
Sheepbed	Section 2	39			
Sheepbed	Section 2	57.5			
Sheepbed	Section 2	74			
Sheepbed	Section 2	90			
Sheepbed	Section 2	118			
Sheepbed	Section 2	138			
Sheepbed	Section 2	157			
Sheepbed	Section 2	171			
Sheepbed	Section 2	186			
Sheepbed	Section 2	192			
Sheepbed	Section 2	195			
Sheepbed	Section 2	200			
Sheepbed	Section 2	209			
Sheepbed	Section 2	226			
Sheepbed	Section 2	244			
Sheepbed	Section 2	266			
Sheepbed	Section 2	276			
Sheepbed	Section 2	292			
Sheepbed	Section 2	304			
Sheepbed	Section 2	307			
Sheepbed	Section 2	313			
Sheepbed	Section 2	322			
Sheepbed	Section 2	331			
Sheepbed	Section 2	340			
Sheepbed	Section 2	345			
Sheepbed	Section 2	362			
Sheepbed	Section 2	373			
Sheepbed	Section 2	417			
Sheepbed	Section 2	446			
Sheepbed	Section 2	456			
Sheepbed	Section 2	476			
Sheepbed	Section 2	511			
Sheepbed	Section 2	520			
Blueflower Format	F1159	732	0.003	1.951	4.260
Blueflower Format	F1159	750	0.002	2.613	5.860
Blueflower Format	F1159	766	0.003	1.085	4.970
Blueflower Format	F1159	780	0.001	1.309	5.070
Blueflower Format	F1159	796.5	0.000	0.381	4.320
Blueflower Format	F1159	810	0.001	0.798	4.520

Blueflower Format	F1159	828	0.002	0.554	3.910
Blueflower Format	F1159	851.5	0.001	0.626	4.270
Blueflower Format	F1159	852	0.000	1.679	4.370
Blueflower Format	F1159	868	0.001	0.706	3.640
Blueflower Format	F1159	883.5	0.002	3.110	5.750
Blueflower Format	F1159	901	0.001	1.187	3.050
Blueflower Format	F1159	916.5	0.001	1.174	3.960
Blueflower Format	F1159	925	0.002	1.012	3.810
Blueflower Format	F1159	936	0.003	0.833	2.070
June beds	F1161	28.5	0.528	2.137	3.720
June beds	F1161	31.2	0.211	1.981	2.960
June beds	F1161	33.75	0.090	1.324	2.820
June beds	F1161	38.6	0.182	1.304	3.480
June beds	F1161	53.3	0.176	1.728	3.970
June beds	F1161	66.5	0.117	1.517	2.610
June beds	F1161	70	0.124	1.933	3.000
June beds	F1161	76.9	0.018	1.771	3.270
June beds	F1161	86	0.109	2.220	4.030
June beds	F1161	92	0.027	1.475	4.120
June beds	F1161	103.5	0.149	1.895	2.600
June beds	F1161	116.5	0.086	1.704	2.990
June beds	F1161	126.8	0.009	0.801	1.420
June beds	F1161	141.3	0.002	0.304	3.350
June beds	F1161	159	0.059	0.541	4.230
June beds	F1161	181.9	0.019	0.460	4.330
June beds	F1161	196.2	0.060	1.510	3.170
June beds	F1161	209.2	0.037	1.889	3.880
June beds	F1161	217.5	0.088	2.104	4.140
June beds	F1161	223	0.084	2.164	3.620
June beds	F1161	232.5	0.159	1.501	2.590
June beds	F1161	253	0.049	1.823	3.130
June beds	F1161	278	0.121	2.234	3.760
June beds	F1161	289.5	0.111	2.610	4.010
June beds	F1161	303.4	0.140	2.448	3.020
June beds	F1162	51.3	0.167	2.720	3.220
June beds	F1162	56	0.159	1.107	1.750
June beds	F1162	122.5	0.075	2.591	2.890
June beds	F1162	135	0.102	1.219	1.630
June beds	F1162	145	0.169	2.258	2.730
June beds	F1162	165.2	0.086	2.083	2.480
June beds	F1162	176.5	0.077	3.179	4.100

June beds	F1162	179.5	0.154	3.406	3.830
June beds	F1162	194	0.034	1.939	2.870
June beds	F1162	203.4	0.012	0.422	1.110
June beds	F1162	212	0.107	0.297	2.700
June beds	F1162	226	0.026	0.975	1.510
June beds	F1162	250.5	0.078	1.188	1.260
Gametrail	F1162	445.7	0.043	1.689	1.880
Gametrail	F1162	496.4	0.028	1.852	2.040
Blueflower	F1162	542.3	0.004	2.109	2.690
Blueflower	F1162	542.7	0.003	0.954	1.610
Blueflower	F1162	547.8	0.003	0.438	1.140
Gametrail	F1162	419weathered	0.008	3.426	3.660
Blueflower	F1162	547.4silty	0.009	0.914	1.440
Blueflower	F1163	22.5	0.088	1.691	2.170
Blueflower	F1163	28.6	0.206	1.200	1.430
Blueflower	F1163	46.4	0.200	1.510	3.740
Blueflower	F1163	50.3	0.143	1.209	1.500
Blueflower	F1163	61.3	0.194	1.830	2.660
Blueflower	F1163	71	0.057	0.188	0.590
Blueflower	F1163	90.7	0.010	0.745	2.410
Blueflower	F1163	103.5	0.017	0.463	2.510
Blueflower	F1163	113	0.034	2.472	3.680
Blueflower	F1163	128.2	0.019	1.953	4.020
Blueflower	F1163	134.6	0.038	2.344	3.510
Blueflower	F1163	147.1	0.097	2.667	3.500
Blueflower	F1163	80silty	0.063	0.773	1.150
Blueflower	F1164	8.9	0.003	0.386	0.800
Blueflower	F1164	20.01	0.006	0.181	0.550
Blueflower	F1164	31.5	0.003	0.372	0.510
Blueflower	F1164	40.1	0.007	0.632	0.860
Blueflower	F1164	49.1	0.005	2.327	2.860
Blueflower	F1164	64	0.033	2.806	4.840
Blueflower	F1164	75.9	0.016	0.817	1.720
Blueflower	F1164	84.2	0.086	0.667	1.040
Blueflower	F1164	93.1	0.031	2.542	3.340
Blueflower	F1164	20.0neo	0.014	0.258	0.650
Sheepbed?	F1165	70	0.003	0.477	3.640
Sheepbed?	F1165	78	0.007	0.319	3.240
Sheepbed?	F1165	88	0.004	1.071	3.400
Sheepbed?	F1165	99	0.052	1.406	2.380
Sheepbed?	F1165	105	0.020	0.931	1.580

Sheepbed?	F1165	109	0.070	0.418	0.710
Sheepbed?	F1165	114	0.063	0.539	4.260
Sheepbed?	F1165	118	0.077	0.651	1.130
Sheepbed?	F1165	124.3	0.008	0.253	2.740
Sheepbed?	F1165	128	0.115	1.043	3.080
Sheepbed?	F1165	132	1.041	1.458	3.440
Sheepbed?	F1165	139	0.185	0.836	1.070
Sheepbed?	F1165	146	0.155	1.912	2.400
Sheepbed?	F1165	156	0.076	0.780	1.350
Sheepbed?	F1165	166	0.128	1.132	3.400
Sheepbed?	F1165	175	0.064	2.031	3.600
Sheepbed?	F1165	205	0.003	1.109	5.030
Sheepbed?	F1165	216	0.013	0.737	4.530
Sheepbed?	F1165	228	0.010	0.794	4.490
Sheepbed?	F1165	237	0.002	0.694	6.510
Sheepbed?	F1165	243	0.002	0.323	3.250
Sheepbed?	F1165	253	0.022	1.987	2.910
Sheepbed?	F1165	263	0.067	2.427	3.660
Sheepbed?	F1165	119crumbly	0.115	1.644	1.870
Blueflower	J1125	J1125- 0.4	0.000	0.808	2.050
Blueflower	J1125	J1125- 1.9	0.000	1.257	2.610
Ingta	J1125	J1125- 102.7	0.000	1.555	3.070
Ingta	J1125	J1125- 109.4	0.000	2.844	4.170
Ingta	J1125	J1125- 112.4	0.000	1.793	3.680
Ingta	J1125	J1125- 117.3	0.000	1.380	3.460
Ingta	J1125	J1125- 120.2	0.000	1.116	4.450
Ingta	J1125	J1125- 120.9	0.000	1.289	4.360
Ingta	J1125	J1125- 9.7	0.000	0.715	1.970
Blueflower	J1128	4.7	0.016	0.293	1.380
Blueflower	J1128	7.7	0.172	1.757	3.250
Blueflower	J1128	10.2	0.009	0.409	1.160
Blueflower	J1128	18.3	0.024	1.821	4.150
Blueflower	J1128	28.3	0.010	1.678	2.400
Blueflower	J1128	47.9	0.007	0.427	0.990
Blueflower	J1128	55.4	0.010	1.366	3.640
Blueflower	J1128	61.9	0.001	0.518	1.930
Blueflower	J1128	74.3	0.008	0.181	0.860
Blueflower	J1128	82.8	0.038	1.060	3.160
Blueflower	J1128	92	0.034	1.670	3.190
Blueflower	J1128	104	0.005	1.108	2.330
Blueflower	J1128	108	0.003	0.953	2.550

Blueflower	J1128	117.4	0.003	0.282	0.980
Blueflower	J1128	127.5	0.013	1.521	3.670
Blueflower	J1128	136.2	0.025	1.436	3.170
Blueflower	J1128	145.9	0.014	0.877	3.120
Blueflower	J1128	157.9	0.006	0.889	1.910
Blueflower	J1128	168.7	0.001	1.745	2.740
Blueflower	J1128	177.3	0.027	0.942	3.440
Blueflower	J1128	187.2	0.077	1.663	4.920
Blueflower	J1128	197.8	0.054	2.328	4.690
Blueflower	J1128	207.5	0.201	2.153	5.870
Blueflower	J1128	215.6	0.024	1.275	4.180
Blueflower	J1128	225.8	0.028	1.515	4.460
Blueflower	J1128	234	0.032	1.608	4.560
Blueflower	J1128	243.1	0.003	0.294	1.570
Blueflower	J1128	252	0.023	1.475	4.030
Blueflower	J1128	262.8	0.030	1.246	2.560
Blueflower	J1128	272.2	0.128	1.758	2.490
Blueflower	J1128	279	0.069	0.296	0.830
Blueflower	J1128	281.8	0.009	1.018	2.050
Blueflower Format	N13-6	1.65	0.016	1.020	3.370
Blueflower Format	N13-6	2.75	0.005	0.760	3.430
Blueflower Format	N13-6	5.1	0.005	0.809	3.100
Blueflower Format	N13-6	6.5	0.002	0.594	3.760
Blueflower Format	N13-6	12.7	0.000	0.236	1.910
Blueflower Format	N13-6	17.4	0.012	0.324	3.380
Blueflower Format	N13-6	18	0.002	0.708	3.970
Blueflower Format	N13-6	20.8	0.005	0.599	2.880
Blueflower Format	N13-6	31.2	0.024	0.387	3.340
Blueflower Format	N13-6	34.1	0.005	0.992	3.740
Blueflower Format	N13-6	38.4	0.023	0.758	4.220
Blueflower Format	N13-6	42.5	0.023	0.691	4.490
Blueflower Format	N13-6	54.5	0.002	0.555	3.460
Blueflower Format	N13-6	57.4	0.002	0.524	4.430
Blueflower Format	N13-6	62.5	0.036	0.989	5.020
Blueflower Format	N13-6	66	0.002	1.564	5.390
Blueflower Format	N13-6	73.1	0.004	0.543	5.780
Blueflower Format	N13-6	97	0.005	1.579	4.900
Blueflower Format	N13-6	121.5	0.002	0.617	5.570
Ingta Formation	S1305	15.8	0.001	0.614	3.170
Ingta Formation	S1305	22.8	0.000	1.402	3.410
Ingta Formation	S1305	23.6	0.000	0.710	1.770

Ingta Formation	S1305	32.5	0.000	1.294	3.860
Ingta Formation	S1305	34.15	0.000	1.584	4.780
Ingta Formation	S1305	40.7	0.001	0.437	2.770
Ingta Formation	S1305	44.8	0.000	0.285	2.120
Ingta Formation	S1305	49.4	0.000	1.424	3.830
Ingta Formation	S1305	50.2	0.000	1.850	3.650
Ingta Formation	S1305	54	0.001	1.831	3.700
Ingta Formation	S1305	61.2	0.000	0.781	2.560
Ingta Formation	S1305	61.4	0.000	0.727	2.550
Ingta Formation	S1305	61.6	0.002	0.317	2.930
Yerbal	La Salvaje Farm	1A B	0.000	1.374	4.450
Yerbal	La Salvaje Farm	1A D	0.000	2.122	5.906
Yerbal	La Salvaje Farm	1B A	0.000	1.656	4.578
Yerbal	La Salvaje Farm	1B B	0.008	3.273	7.650
Yerbal	La Salvaje Farm	2A	0.001	1.261	1.484
Yerbal	La Salvaje Farm	4A	0.002	1.370	2.693
Yerbal	La Salvaje Farm	4B	0.002	1.411	2.590
Yerbal	La Salvaje Farm	4C	0.002	1.410	2.542
Yerbal	La Salvaje Farm	4D	0.002	0.909	1.282
Yerbal	La Salvaje Farm	4E	0.006	3.142	4.855
Yerbal	La Salvaje Farm	4F	0.008	4.385	7.803
Yerbal	La Salvaje Farm	5A	0.003	3.960	6.032
Yerbal	La Salvaje Farm	5B	0.002	5.174	7.619
Yerbal	La Salvaje Farm	5C	0.002	3.726	6.860
Yerbal	La Salvaje Farm	5D	0.003	3.950	6.921
Yerbal	La Salvaje Farm	6A	0.727	4.401	6.096
Yerbal	La Salvaje Farm	6B	0.002	2.480	7.464
Yerbal	La Salvaje Farm	6C	0.015	6.673	15.186
Yerbal	La Salvaje Farm	6D	0.006	3.174	5.302
Yerbal	La Salvaje Farm	7A A	0.002	0.875	3.683
Yerbal	La Salvaje Farm	7A B	0.002	1.584	3.975
Yerbal	La Salvaje Farm	7BB A	0.001	0.153	1.632
Yerbal	La Salvaje Farm	7BB B	0.002	0.222	2.557
Yerbal	La Salvaje Farm	7BB C	0.002	0.301	3.457
Yerbal	La Salvaje Farm	7BB D	0.000	0.364	2.658
Yerbal	La Salvaje Farm	7BB E	0.001	0.419	2.542
Yerbal	La Salvaje Farm	8A	0.001	1.046	5.010
Yerbal	La Salvaje Farm	8B	0.001	4.373	9.501
Yerbal	La Salvaje Farm	9B A	0.010	10.353	27.766
Yerbal	La Salvaje Farm	9B B	0.007	14.532	36.244
Urusis (Feldschuhl	FSH-1	0.5	0.000	0.330	5.010

Urusis (Feldschuhl	FSH-1	2.1	0.000	0.216	3.920
Urusis (Feldschuhl	FSH-1	4.5	0.000	0.412	4.680
Urusis (Feldschuhl	FSH-1	5.5	0.000	0.357	4.790
Urusis (Feldschuhl	FSH-1	7.4	0.000	0.291	4.710
Urusis (Feldschuhl	FSH-1	9	0.000	0.249	4.750
Urusis (Feldschuhl	FSH-1	13.2	0.000	0.255	4.270
Urusis (Feldschuhl	FSH-1	18.4	0.000	0.275	5.280
Urusis (Feldschuhl	FSH-1	19.5	0.000	0.300	5.140
Urusis (Feldschuhl	FSH-1	20.5	0.001	0.350	5.120
Urusis (Feldschuhl	FSH-1	22.4	0.000	0.260	5.010
Urusis (Feldschuhl	FSH-1	22.9	0.000	0.242	4.880
Urusis (Feldschuhl	FSH-1	23.6	0.000	0.277	4.940
Urusis (Spitskopf M	SWP	1.7	0.000	0.278	4.770
Urusis (Spitskopf M	SWP	2.3	0.000	0.214	5.290
Urusis (Spitskopf M	SWP	3.05	0.000	0.247	5.040
Urusis (Spitskopf M	SWP	4.7	0.000	0.214	4.820
Urusis (Spitskopf M	SWP	5.6	0.000	0.217	4.390
Urusis (Spitskopf M	SWP	6.6	0.000	0.269	5.030
Urusis (Spitskopf M	SWP	8.3	0.000	0.306	4.630
Urusis (Spitskopf M	SWP	8.8	0.000	0.151	4.960
Urusis (Spitskopf M	SWP	10.2	0.000	0.198	4.540
Urusis (Spitskopf M	SWP	10.8	0.000	0.189	4.430
Urusis (Spitskopf M	SWP	11.6	0.000	0.197	4.680
Urusis (Spitskopf M	SWP	12.8	0.000	0.348	4.700
Urusis (Spitskopf M	SWP	14.3	0.000	0.358	4.790
Urusis (Spitskopf M	SWP	14.9	0.000	0.201	4.850
Urusis (Spitskopf M	SWP	16	0.000	0.182	4.850
Urusis (Spitskopf M	SWP	17	0.000	0.254	4.830
Urusis (Spitskopf M	SWP	18.8	0.000	0.163	4.680
Urusis (Spitskopf M	SWP	19.2	0.000	0.280	4.510
Urusis (Spitskopf M	SWP	21.9	0.000	0.207	4.460
Urusis (Spitskopf M	SWP	23.6	0.001	0.249	4.860
Urusis (Spitskopf M	SWP	24	0.000	0.225	4.390
Urusis (Spitskopf M	SWP	27.7	0.002	0.303	4.300
Urusis (Spitskopf M	SWP	28.65	0.003	0.417	4.440
Urusis (Spitskopf M	SWP	28.9	0.000	0.363	4.150
Urusis (Spitskopf M	SWP	36.6	0.001	0.470	3.250
Urusis (Spitskopf M	SWP	51.08	0.002	0.156	1.810
Urusis (Spitskopf M	SWP	51.18	0.000	0.152	1.600
Urikos Member (K	ZBH (Zebra River)	1	0.000	0.231	4.930
Urikos Member (K	ZBH (Zebra River)	2	0.000	0.201	5.770

Urikos Member (K	ZBH (Zebra River)	4	0.000	0.369	6.010
Mara Member (Ku	ZUB (Zuurburg Farn	2.25	0.000	0.867	4.080
Mara Member (Ku	ZUB (Zuurburg Farn	2.4	0.002	0.469	2.880
Mara Member (Ku	ZUB (Zuurburg Farn	3	0.000	0.694	3.890
Mara Member (Ku	ZUB (Zuurburg Farn	3.7	0.000	0.684	3.710
Mara Member (Ku	ZUB (Zuurburg Farn	3.95	0.000	0.614	3.680
Mara Member (Ku	ZUB (Zuurburg Farn	4.45	0.000	1.285	4.280
Tsagaan Oloom (Z	E1216	36.4	0.044	1.138	2.170
Tsagaan Oloom (Z	E1216	36.8	0.444	1.254	2.140
Tsagaan Oloom (Z	E1216	42.4	0.051	0.721	1.460
Tsagaan Oloom (Z	E1216	43.2	0.627	1.528	2.150
Dracoisen	G306	159	0.349	1.169	1.430
Dracoisen	G436	138	0.036	0.944	2.631
Dracoisen	G306a	143	0.984	2.811	3.965
Dracoisen	G306	131	0.688	1.841	3.529
Dracoisen	G436	120	0.022	0.719	4.262
Dracoisen	G436	105	0.548	1.170	5.192
Dracoisen	G436	101.5	0.716	1.318	3.313
Dracoisen	G436	95.5	0.182	0.822	3.825
Dracoisen	G436	88	0.062	0.456	3.612
Dracoisen	G411	72	0.059	1.029	3.813
Dracoisen	G411	67	0.003	0.953	4.324
Dracoisen	G436	64	0.660	1.567	3.464
Dracoisen	G411	45	0.023	2.062	3.381
Dracoisen	G436	42	0.282	1.260	3.037
Dracoisen	G411	41	0.271	2.757	4.369
Dracoisen	G411	37	0.037	1.541	4.420
Dracoisen	G436	10.5	0.480	1.110	3.706
above Niutitang	above Niutitang	117.9	1.200	2.020	2.550
above Niutitang	above Niutitang	118.6	1.420	2.830	3.320
Niutitang	Niutitang	46.7	1.580	1.870	2.710
Niutitang	Niutitang	46.85	0.050	0.080	0.110
Niutitang	Niutitang	47.5	1.950	2.430	3.220
Niutitang	Niutitang	48.5	1.380	1.690	2.400
Niutitang	Niutitang	50.25	2.070	2.730	3.160
Niutitang	Niutitang	50.45	0.300	0.470	0.480
Niutitang	Niutitang	51.4	2.040	2.960	3.070
Niutitang	Niutitang	52.15	2.340	2.600	3.640
Niutitang	Niutitang	52.4	1.950	2.880	4.270
Niutitang	Niutitang	53.3	0.630	0.750	0.760
Niutitang	Niutitang	56.2	1.680	1.850	3.440

Niutitang	Niutitang	57.7	1.760	2.920	3.010
Niutitang	Niutitang	59.3	1.210	2.210	2.260
Niutitang	Niutitang	60.3	0.240	0.590	0.620
Niutitang	Niutitang	63.82	0.240	0.340	0.340
Niutitang	Niutitang	64.92	0.010	0.080	0.230
Niutitang	Niutitang	66.12	0.010	0.050	0.130
Niutitang	Niutitang	70.12	0.820	1.320	1.440
Niutitang	Niutitang	74.12	1.650	3.040	3.300
Niutitang	Niutitang	77.62	2.730	3.640	3.720
Niutitang	Niutitang	80.62	1.180	1.420	2.420
Niutitang	Niutitang	82.92	0.030	0.260	0.390
Niutitang	Niutitang	87.52	0.000	0.120	0.340
Niutitang (Xiaosi m	Niutitang (Xiaosi me	99.55	0.620	1.410	2.770
Niutitang (Xiaosi m	Niutitang (Xiaosi me	100.55	0.340	1.880	2.760
Niutitang (Xiaosi m	Niutitang (Xiaosi me	102.85	0.520	1.540	2.380
Niutitang (Xiaosi m	Niutitang (Xiaosi me	104.45	0.530	1.370	1.810
Niutitang (Xiaosi m	Niutitang (Xiaosi me	106.75	1.360	1.840	3.090
Niutitang (Xiaosi m	Niutitang (Xiaosi me	107.75	0.260	0.790	0.920
Niutitang (Xiaosi m	Niutitang (Xiaosi me	109.25	0.430	1.230	1.500
Niutitang (Xiaosi m	Niutitang (Xiaosi me	110.45	0.630	0.910	2.500
Niutitang (Xiaosi m	Niutitang (Xiaosi me	111.95	0.010	2.040	2.520
Niutitang (Xiaosi m	Niutitang (Xiaosi me	113.05	0.030	0.150	0.150
Niutitang (Xiaosi m	Niutitang (Xiaosi me	114.25	1.160	1.580	1.920
Niutitang (Xiaosi m	Niutitang (Xiaosi me	115.25	0.080	0.330	0.330
Niutitang (Xiaosi m	Niutitang (Xiaosi me	116.25	0.120	0.450	0.540
Niutitang (Xiaosi m	Niutitang (Xiaosi me	117.15	0.110	0.740	0.740
Niutitang?	Niutitang?	46.65	0.050	0.150	0.160
Yu'anshan Shale	Ma'Feng core	Cheng438	2.104	2.473	4.994
Yu'anshan Shale	Ma'Feng core	Cheng442	2.691	3.037	5.499
Yu'anshan Shale	Ma'Feng core	Cheng456	1.493	1.795	4.363
Yu'anshan Shale	Ma'Feng core	Cheng476	1.679	1.889	4.321
Yu'anshan Shale	Ma'Feng core	Cheng485	1.932	2.264	4.455
Niutitang	Yangjiaping	12.8	0.900	1.100	1.400
Niutitang	Yangjiaping	13.8	1.100	1.100	1.500
Niutitang	Yangjiaping	14.8	0.000	1.500	1.800
Niutitang	Yangjiaping	15.3	0.200	0.200	0.400
Niutitang	Yangjiaping	16.3	0.100	0.100	0.500
Niutitang	Yangjiaping	24.3	0.900	1.100	2.000
Niutitang	Yangjiaping	26.3	0.900	1.200	2.400
Niutitang	Yangjiaping	29.3	0.000	0.200	1.400
Niutitang	Yangjiaping	31.3	0.000	0.100	1.300

Niutitang	Yangjiaping	33.3	0.000	0.200	2.000
Niutitang	Yangjiaping	35.3	0.800	1.400	3.200
Niutitang	Yangjiaping	37.3	0.600	0.900	2.500
Niutitang	Yangjiaping	39.3	0.500	0.600	2.500
Niutitang	Yangjiaping	41.3	0.400	0.800	2.500
Niutitang	Yangjiaping	43.3	0.800	1.200	2.600
Niutitang	Yangjiaping	45.3	1.000	1.500	3.200
Niutitang	Yangjiaping	47.3	0.900	1.200	3.800
Niutitang	Yangjiaping	49.3	1.100	1.300	4.100
Niutitang	Yangjiaping	51.3	0.000	1.200	3.100
Niutitang	Yangjiaping	53.3	0.200	0.700	1.500
Niutitang	Yangjiaping	55.3	0.000	0.700	1.200
Niutitang	Yangjiaping	57.3	0.100	0.300	2.400
Niutitang	Yangjiaping	59.3	1.000	1.100	2.800
Niutitang	Yangjiaping	63.3	0.600	0.800	2.600
Niutitang	Yangjiaping	65.3	1.000	1.300	4.000
Niutitang	Yangjiaping	69.3	1.000	1.300	3.900
Niutitang	Yangjiaping	70.3	0.000	0.500	1.800
Niutitang	Yangjiaping	73.3	0.000	0.700	2.200
Niutitang	Yangjiaping	77.3	0.400	0.800	2.700
Niutitang	Yangjiaping	79.3	0.000	1.500	3.200
Shiyantou	Kunyang Mine- Mei	KY2	1.350		2.280
Shiyantou	Kunyang Mine- Mei	KY3	0.710		2.170
Shiyantou	Kunyang Mine- Mei	KY4	1.150		2.710
Shiyantou	Kunyang Mine- Mei	KY5	0.840		2.750
Shiyantou	Kunyang Mine- Mei	KY6	1.320		3.290
Shiyantou	Kunyang Mine- Mei	KY7	0.780		2.680
Shiyantou	Kunyang Mine- Mei	KY8	0.610		2.360
Shiyantou	Xiaotan	0	0.010		1.580
Shiyantou	Xiaotan	0.3	0.010		3.280
Shiyantou	Xiaotan	1.3	0.000		0.940
Shiyantou	Xiaotan	2.3	0.000		1.630
Shiyantou	Xiaotan	3.6	0.000		1.640
Shiyantou	Xiaotan	5.1	0.050		1.700
Shiyantou	Xiaotan	5.9	0.000		1.280
Shiyantou	Xiaotan	6.07	0.010		1.250
Shiyantou	Xiaotan	6.1	0.000		1.640
Shiyantou	Xiaotan	6.17	0.010		1.220
Shiyantou	Xiaotan	6.28	0.000		1.410
Shiyantou	Xiaotan	6.43	0.000		1.400
Shiyantou	Xiaotan	6.53	0.000		1.730

Shiyantou	Xiaotan	6.55	0.000	2.010
Shiyantou	Xiaotan	6.56	0.000	2.690
Shiyantou	Xiaotan	6.58	0.010	1.940
Shiyantou	Xiaotan	6.6	0.000	2.610
Shiyantou	Xiaotan	6.7	0.010	1.560
Shiyantou	Xiaotan	6.79	0.000	1.460
Shiyantou	Xiaotan	6.91	0.010	0.810
Shiyantou	Xiaotan	7.09	0.010	1.490
Shiyantou	Xiaotan	7.1	0.010	1.510
Shiyantou	Xiaotan	8.1	0.010	1.560
Shiyantou	Xiaotan	9.6	0.010	1.500
Shiyantou	Xiaotan	10.6	0.010	1.640
Shiyantou	Xiaotan	12	0.010	1.190
Shiyantou	Xiaotan	13.5	0.010	1.070
Shiyantou	Xiaotan	14.5	0.010	1.230
Shiyantou	Xiaotan	15.5	0.010	1.680
Shiyantou	Xiaotan	16.5	0.010	1.540
Shiyantou	Xiaotan	18.5	0.010	2.310
Shiyantou	Xiaotan	20.3	0.010	1.420
Shiyantou	Xiaotan	21.3	0.010	1.540
Shiyantou	Xiaotan	22.6	0.010	1.720
Shiyantou	Xiaotan	24.1	0.010	1.770
Shiyantou	Xiaotan	25.1	0.010	1.990
Shiyantou	Xiaotan	26.1	0.010	1.700
Shiyantou	Xiaotan	27.9	0.010	2.290
Shiyantou	Xiaotan	29.9	0.010	1.940
Shiyantou	Xiaotan	30.9	0.010	1.630
Shiyantou	Xiaotan	31.9	0.010	1.410
Shiyantou	Xiaotan	33.9	0.010	3.500
Shiyantou	Xiaotan	36.4	0.010	2.540
Shiyantou	Xiaotan	XTY1	0.010	1.600
Shiyantou	Xiaotan	XTY10	0.010	1.480
Shiyantou	Xiaotan	XTY11	0.010	1.560
Shiyantou	Xiaotan	XTY12	0.010	2.090
Shiyantou	Xiaotan	XTY13	0.010	2.450
Shiyantou	Xiaotan	XTY14	0.110	2.290
Shiyantou	Xiaotan	XTY15	0.170	2.240
Shiyantou	Xiaotan	XTY16	0.010	1.330
Shiyantou	Xiaotan	XTY17	0.010	2.650
Shiyantou	Xiaotan	XTY17a	0.010	2.460
Shiyantou	Xiaotan	XTY17b	0.000	2.160

Shiyantou	Xiaotan	XTY17c	0.010	1.820
Shiyantou	Xiaotan	XTY17d	0.030	2.130
Shiyantou	Xiaotan	XTY17e	0.030	2.340
Shiyantou	Xiaotan	XTY17f	0.020	1.740
Shiyantou	Xiaotan	XTY18	0.100	2.210
Shiyantou	Xiaotan	XTY18a	0.000	3.140
Shiyantou	Xiaotan	XTY18b	0.020	1.750
Shiyantou	Xiaotan	XTY18c	0.010	1.750
Shiyantou	Xiaotan	XTY18d	0.000	1.610
Shiyantou	Xiaotan	XTY18e	0.000	2.240
Shiyantou	Xiaotan	XTY19	0.010	1.760
Shiyantou	Xiaotan	XTY19a	0.070	1.630
Shiyantou	Xiaotan	XTY19b	0.000	1.990
Shiyantou	Xiaotan	XTY19c	0.070	1.900
Shiyantou	Xiaotan	XTY19d	0.010	1.410
Shiyantou	Xiaotan	XTY19e	0.020	2.820
Shiyantou	Xiaotan	XTY19f	0.010	1.720
Shiyantou	Xiaotan	XTY2	0.000	2.650
Shiyantou	Xiaotan	XTY20	0.120	3.040
Shiyantou	Xiaotan	XTY21	0.000	1.790
Shiyantou	Xiaotan	XTY22	0.010	1.960
Shiyantou	Xiaotan	XTY23	0.070	3.260
Shiyantou	Xiaotan	XTY24	0.010	1.680
Shiyantou	Xiaotan	XTY25	0.010	2.440
Shiyantou	Xiaotan	XTY26	0.090	2.760
Shiyantou	Xiaotan	XTY27	0.000	4.440
Shiyantou	Xiaotan	XTY28	0.060	2.530
Shiyantou	Xiaotan	XTY29	0.000	2.950
Shiyantou	Xiaotan	XTY3	0.000	3.090
Shiyantou	Xiaotan	XTY30	0.000	4.270
Yuanshan	Xiaotan	XTY35	0.060	1.560
Yuanshan	Xiaotan	XTY36	0.010	3.100
Yuanshan	Xiaotan	XTY37	0.080	3.370
Yuanshan	Xiaotan	XTY38	0.010	3.330
Yuanshan	Xiaotan	XTY39	0.000	5.310
Shiyantou	Xiaotan	XTY4	0.010	2.640
Yuanshan	Xiaotan	XTY40	0.050	2.380
Yuanshan	Xiaotan	XTY41	0.150	4.520
Yuanshan	Xiaotan	XTY42	0.120	4.700
Yuanshan	Xiaotan	XTY43	0.090	3.830
Yuanshan	Xiaotan	XTY44	0.030	4.600

Yuanshan	Xiaotan	XTY45	0.200		4.540
Yuanshan	Xiaotan	XTY46	0.160		2.830
Yuanshan	Xiaotan	XTY47	0.080		4.320
Yuanshan	Xiaotan	XTY48	0.190		3.990
Yuanshan	Xiaotan	XTY49	0.180		4.220
Shiyantou	Xiaotan	XTY5	0.010		2.010
Yuanshan	Xiaotan	XTY50	0.170		2.700
Yuanshan	Xiaotan	XTY51	0.730		4.180
Yuanshan	Xiaotan	XTY52	0.730		4.230
Yuanshan	Xiaotan	XTY53	0.800		4.490
Yuanshan	Xiaotan	XTY54	0.590		4.770
Yuanshan	Xiaotan	XTY55	0.300		4.240
Yuanshan	Xiaotan	XTY56	0.340		4.070
Yuanshan	Xiaotan	XTY57	0.020		4.280
Yuanshan	Xiaotan	XTY58	0.330		4.420
Yuanshan	Xiaotan	XTY59	0.010		4.260
Shiyantou	Xiaotan	XTY6	0.010		2.250
Yuanshan	Xiaotan	XTY60	0.100		4.270
Yuanshan	Xiaotan	XTY61	0.020		3.290
Shiyantou	Xiaotan	XTY7	0.010		2.300
Shiyantou	Xiaotan	XTY8	0.010		1.700
Shiyantou	Xiaotan	XTY9	0.020		1.670
Niutitang	Zhongnan	ZN0A	0.010		0.720
Niutitang	Zhongnan	ZN0B	0.020		1.090
Niutitang	Zhongnan	ZN0C	0.060		1.800
Niutitang	Zhongnan	ZN1	0.020		0.380
Niutitang	Zhongnan	ZN10	0.030		0.590
Niutitang	Zhongnan	ZN11	0.020		1.030
Niutitang	Zhongnan	ZN12	0.020		0.890
Niutitang	Zhongnan	ZN13	0.010		0.590
Niutitang	Zhongnan	ZN14	0.010		0.450
Niutitang	Zhongnan	ZN2	0.010		1.920
Niutitang	Zhongnan	ZN3	0.860		1.740
Niutitang	Zhongnan	ZN4	1.960		13.010
Niutitang	Zhongnan	ZN5	8.150		9.870
Niutitang	Zhongnan	ZN7	0.020		1.080
Niutitang	Zhongnan	ZN8	0.030		1.670
Niutitang	Zhongnan	ZN9	0.010		0.430
Niutitang	Longbizui	LBZ-100	0.000	0.170	0.840
Niutitang	Longbizui	LBZ-101	0.040	0.230	0.970
Niutitang	Longbizui	LBZ-102	0.000	0.080	0.830

Niutitang	Longbizui	LBZ-103	0.850	1.570	4.660
Liuchapo	Longbizui	LBZ-37	0.070	1.040	1.700
Liuchapo	Longbizui	LBZ-38	0.060	0.310	0.310
Liuchapo	Longbizui	LBZ-39	0.050	0.400	0.400
Liuchapo	Longbizui	LBZ-40	0.100	0.510	0.600
Liuchapo	Longbizui	LBZ-41	0.080	0.670	0.670
Liuchapo	Longbizui	LBZ-42	0.080	0.420	0.470
Liuchapo	Longbizui	LBZ-43	0.090	0.410	0.460
Liuchapo	Longbizui	LBZ-44	0.130	0.380	0.440
Liuchapo	Longbizui	LBZ-45	0.070	0.350	0.370
Liuchapo	Longbizui	LBZ-46	0.080	0.320	0.340
Liuchapo	Longbizui	LBZ-54	0.030	0.260	0.270
Liuchapo	Longbizui	LBZ-57	1.850	2.400	2.930
Liuchapo	Longbizui	LBZ-59	0.070	0.280	0.290
Niutitang	Longbizui	LBZ-69	0.550	1.890	2.950
Niutitang	Longbizui	LBZ-73	0.770	1.470	1.510
Niutitang	Longbizui	LBZ-78	1.290	2.190	2.250
Niutitang	Longbizui	LBZ-80	0.420	0.670	0.730
Niutitang	Longbizui	LBZ-82	1.570	2.290	3.000
Niutitang	Longbizui	LBZ-88	0.230	0.860	0.900
Niutitang	Longbizui	LBZ-91	0.250	1.060	1.210
Niutitang	Longbizui	LBZ-94	0.580	2.740	2.730
Niutitang	Longbizui	LBZ-96	0.160	0.640	0.620
Niutitang	Longbizui	LBZ-98	0.370	1.400	1.410
Niutitang	Longbizui	LBZ-99	0.000	0.540	1.020
	J1218	41.7	0.003	0.657	1.530
	J1218	42	0.005	2.090	3.230
	J1218	42.9	0.588	2.527	3.470
	J1218	50.8	0.170	1.066	3.200
	J1218	52	0.380	1.761	3.270
	J1218	54	0.116	1.440	3.300
	J1218	56	0.671	1.511	3.720
	J1218	58	0.893	1.889	4.280
	J1218	60	0.666	1.832	3.670
	J1218	62	0.599	1.143	3.550
	J1218	63.3	0.314	0.812	3.390
	J1218	64	0.127	1.054	3.110
	J1218	66	0.374	1.003	3.090
	J1218	68	0.317	3.362	4.170
	J1218	74	0.650	1.494	2.840
	J1218	76	0.270	2.058	3.020

	J1218	78	0.006	0.773	2.180
	J1218	80	0.210	0.554	2.030
	J1218	90.3	0.087	1.371	1.840
Wheeler		DM30	0.000	1.221	2.770
Wheeler		DM310.5	0.180	0.592	4.140
Wheeler		DM313.5	0.050	0.752	3.420
Wheeler		DM315	0.040	0.751	4.010
Wheeler		DM319.5	0.070	1.039	3.610
Wheeler		DM321	0.070	1.056	4.180
Wheeler		DM322.5	0.110	1.054	4.480
Wheeler		DM324	0.010	0.649	3.680
Wheeler		DM325.5	0.130	1.210	3.270
Wheeler		DM327	0.060	0.665	3.890
Wheeler		DM328.5	0.060	0.702	3.920
Wheeler		DM330	0.070	0.662	3.230
Wheeler		DM331.5	0.020	0.942	2.820
Wheeler		DM334.5	0.010	0.655	2.830
Wheeler		DM336	0.010	0.770	2.710
Wheeler		DM337.5	0.040	0.578	2.680
Wheeler		DM339	0.040	0.895	2.530
Wheeler		DM34.5	0.060	1.648	4.950
Wheeler		DM39	0.010	0.400	5.040
Wheeler		MP10.5	0.000	0.834	2.870
Wheeler		MP100.5	0.020	0.491	3.500
Wheeler		MP102	0.040	0.845	2.420
Wheeler		MP103.5	0.000	1.384	2.360
Wheeler		MP105	0.010	0.573	3.200
Wheeler		MP106.5	0.010	1.204	2.180
Wheeler		MP108	0.000	1.050	2.590
Wheeler		MP109.5	0.010	1.465	2.240
Wheeler		MP111	0.010	1.004	3.050
Wheeler		MP112.5	0.010	0.925	2.840
Wheeler		MP114	0.010	0.880	2.150
Wheeler		MP115.5	0.010	0.981	1.830
Wheeler		MP117	0.000	0.721	1.910
Wheeler		MP118.5	0.000	0.647	2.000
Wheeler		MP12	0.010	1.135	3.090
Wheeler		MP120	0.010	0.840	2.420
Wheeler		MP121.5	0.060	0.866	2.450
Wheeler		MP123	0.040	0.741	1.970
Wheeler		MP124.5	0.020	0.832	2.140

Wheeler	MP126	0.000	0.818	2.060
Wheeler	MP128	0.020	0.779	1.630
Wheeler	MP136.25	0.000	0.746	1.500
Wheeler	MP137	0.000	0.717	2.850
Wheeler	MP15	0.000	0.738	3.810
Wheeler	MP16.5	0.010	0.654	4.310
Wheeler	MP18	0.020	0.674	4.140
Wheeler	MP19.5	0.020	0.241	0.340
Wheeler	MP2.5	0.000	0.427	0.590
Wheeler	MP25.5	0.000	0.737	1.210
Wheeler	MP30	0.000	0.619	2.510
Wheeler	MP31.5	0.010	0.565	2.740
Wheeler	MP33	0.010	0.485	3.780
Wheeler	MP34.5	0.020	0.485	3.400
Wheeler	MP36	0.030	0.415	3.050
Wheeler	MP37.5	0.010	0.380	2.540
Wheeler	MP39	0.010	0.973	3.330
Wheeler	MP42	0.000	0.529	4.790
Wheeler	MP45	0.020	0.489	4.760
Wheeler	MP46.5	0.060	0.569	4.170
Wheeler	MP50.25	0.000	0.442	3.210
Wheeler	MP51	0.010	0.702	2.260
Wheeler	MP52.5	0.000	0.810	2.070
Wheeler	MP55.5	0.000	0.829	2.680
Wheeler	MP57	0.000	0.753	2.830
Wheeler	MP58	0.000	0.552	1.790
Wheeler	MP6	0.000	0.687	4.280
Wheeler	MP62.5	0.000	0.512	2.890
Wheeler	MP64.5	0.000	0.700	2.280
Wheeler	MP65.5	0.030	0.635	1.790
Wheeler	MP67.5	0.000	0.589	1.820
Wheeler	MP69.5	0.000	0.866	2.230
Wheeler	MP71.75	0.000	0.642	2.720
Wheeler	MP76.5	0.010	1.890	3.060
Wheeler	MP78	0.000	1.190	3.060
Wheeler	MP79.5	0.010	0.782	2.240
Wheeler	MP81	0.010	0.992	2.510
Wheeler	MP82.5	0.010	0.660	2.800
Wheeler	MP84	0.010	1.446	2.100
Wheeler	MP87	0.000	0.576	3.020
Wheeler	MP88.5	0.010	1.063	2.940

Wheeler	MP90	0.010	1.226	3.220
Wheeler	MP91.5	0.010	1.213	2.330
Wheeler	MP95.25	0.000	1.237	2.530
Wheeler	MP99	0.000	0.469	2.460
Wheeler	SQ0	0.000	0.464	1.300
Wheeler	SQ0.25	0.010	0.570	1.900
Wheeler	SQ1	0.000	0.433	1.810
Wheeler	SQ1.75	0.000	0.368	1.960
Wheeler	SQ11.5	0.000	0.467	1.620
Wheeler	SQ15	0.000	0.535	2.160
Wheeler	SQ16	0.000	0.392	1.620
Wheeler	SQ25.5	0.010	0.406	1.980
Wheeler	SQ25.75	0.000	1.098	1.910
Wheeler	SQ26	0.000	0.770	1.860
Wheeler	SQ28.5	0.000	1.012	1.730
Wheeler	SQ30	0.010	1.596	1.600
Wheeler	SQ30.5	0.000	0.616	1.870
Wheeler	SQ31.75	0.000	0.486	1.670
Wheeler	SQ33.25	0.000	1.027	1.530
Wheeler	SQ35	0.000	0.812	1.660
Wheeler	SQ37.25	0.010	0.811	1.450
Wheeler	SQ39.25	0.000	0.667	1.370
Wheeler	SQ42.5	0.010	0.967	1.810
Wheeler	SQ44	0.000	0.888	1.360
Wheeler	SQ45.5	0.010	0.655	1.530
Wheeler	SQ50	0.000	0.602	1.510
Wheeler	SQ52	0.000	0.521	1.850
Wheeler	SQ6	0.000	0.524	2.160
Wheeler	SQ6.25	0.000	0.409	2.080
Wheeler	SQ7.5	0.030	0.461	1.860
Wheeler	SQ8.5	0.000	0.617	2.290
Wheeler	SQ9	0.000	0.460	1.940
Wheeler	SQ9.5	0.000	0.609	1.780
Wheeler	UDQ0	0.030	0.309	3.520
Wheeler	UDQ0	0.040	0.394	3.580
Wheeler	UDQ1	0.020	0.436	3.790
Wheeler	UDQ1.5	0.030	0.473	3.910
Wheeler	UDQ10	0.000	0.376	3.580
Wheeler	UDQ11	0.000	0.414	3.190
Wheeler	UDQ11	0.080	0.611	2.280
Wheeler	UDQ11-pyrite	0.200	0.746	1.940

Wheeler		UDQ12	0.000	0.313	3.820
Wheeler		UDQ13	0.000	0.354	3.490
Wheeler		UDQ15	0.010	0.407	4.330
Wheeler		UDQ18	0.000	0.403	3.720
Wheeler		UDQ19.5	0.000	0.437	3.150
Wheeler		UDQ2	0.000	1.329	3.340
Wheeler		UDQ22.5	0.010	0.482	2.960
Wheeler		UDQ24	0.020	0.535	2.720
Wheeler		UDQ25.5	0.040	0.363	2.280
Wheeler		UDQ28	0.010	0.495	1.760
Wheeler		UDQ3	0.010	0.400	3.360
Wheeler		UDQ4	0.020	1.172	3.450
Wheeler		UDQ5	0.010	0.383	3.040
Wheeler		UDQ6	0.010	0.315	3.720
Wheeler		UDQ6	0.000	0.391	1.180
Wheeler		UDQ7	0.000	0.374	3.690
Wheeler		UDQ8	0.000	0.415	3.180
Alum	Andrarum no. 3 Cor	52	4.310	6.477	7.260
Alum	Andrarum no. 3 Cor	53	3.660	5.112	5.750
Alum	Andrarum no. 3 Cor	54	3.920	4.821	5.310
Alum	Andrarum no. 3 Cor	56	3.390	4.574	5.430
Alum	Andrarum no. 3 Cor	57	2.840	3.416	3.380
Alum	Andrarum no. 3 Cor	58	3.340	4.257	4.830
Alum	Andrarum no. 3 Cor	61	2.800	3.822	4.920
Alum	Andrarum no. 3 Cor	62	3.770	4.728	5.210
Alum	Andrarum no. 3 Cor	63	2.210	3.142	4.860
Alum	Andrarum no. 3 Cor	64	3.920	4.716	5.750
Alum	Andrarum no. 3 Cor	65	3.000	4.002	5.120
Alum	Andrarum no. 3 Cor	66	4.440	5.813	6.080
Alum	Andrarum no. 3 Cor	67	5.380	6.714	7.470
Alum	Andrarum no. 3 Cor	68	5.370	6.673	6.900
Alum	Andrarum no. 3 Cor	70	4.160	4.784	4.840
Alum	Andrarum no. 3 Cor	71	4.240	5.039	5.370
Alum	Andrarum no. 3 Cor	72	5.940	6.880	8.680
Alum	Andrarum no. 3 Cor	73	4.420	5.114	6.010
Alum	Andrarum no. 3 Cor	74	3.270	4.174	5.260
Alum	Andrarum no. 3 Cor	75	5.700	6.559	8.790
Alum	Andrarum no. 3 Cor	76	2.630	3.020	5.580
Alum	Andrarum no. 3 Cor	77	3.890	4.754	6.090
Alum	Andrarum no. 3 Cor	78	3.500	4.701	6.080
Alum	Andrarum no. 3 Cor	79	3.110	3.869	4.710

Alum	Andrarum no. 3 Cor	80	3.460	4.400	4.930
Alum	Andrarum no. 3 Cor	81	3.260	4.200	4.090
Stephen Formation		WQ1			
Stephen Formation		WQ2			
Stephen Formation		WQ3			
Stephen Formation		WQ4			
Koftelv Formation	Koftelv Formation		0.104	0.228	2.426
Koftelv Formation	Koftelv Formation		0.003	0.199	1.864
Koftelv Formation	Koftelv Formation		0.002	0.149	1.240
Koftelv Formation	Koftelv Formation		0.058	1.060	4.306
Koftelv Formation	Koftelv Formation		0.026	1.607	3.340
Kessyusa Formatic	Kessyusa Formation		0.022	2.324	7.679
Kessyusa Formatic	Kessyusa Formation		0.005	2.351	7.061
Kessyusa Formatic	Kessyusa Formation		0.002	2.464	7.388
Kessyusa Formatic	Kessyusa Formation		0.006	4.463	12.100
Kessyusa Formatic	Kessyusa Formation		0.167	4.756	12.840
Kessyusa Formatic	Kessyusa Formation		0.013	0.756	1.417
F842	F842	227	0.011	1.589	2.230
F842	F842	229	0.006	0.535	1.020
Ingta	J1125	56-J1125-212.(	0.000	1.096	2.340
Ingta	J1125	57-J1125-216.:	0.000	1.054	3.280
Ingta	J1125	58-J1125-239.:	0.000	1.210	3.540
Ingta	J1125	59-J1125-241.!	0.000	0.909	2.710
Ingta	J1125	70-J1125-247.(	0.000	2.143	3.550
Ingta	J1125	71-J1125-252.	0.000	1.122	3.050
Ingta	J1125	72-J1125-258.(	0.000	2.253	3.560
Ingta	J1125	73-J1125-263.4	0.000	2.071	3.600
Ingta	J1125	74-J1125-268.3	0.000	0.960	3.050
Ingta	J1125	77-J1125-296.!	0.000	1.487	3.700
Ingta	J1125	78-J1125-313.!	0.000	1.071	2.980
Ingta	J1125	79-J1125-324.4	0.000	1.452	3.840
Ingta	J1125	J1125- 125.1	0.000	2.074	4.290
Ingta	J1125	J1125- 129.6	0.000	1.248	3.060
Ingta	J1125	J1125- 135.9	0.000	1.396	4.080
Ingta	J1125	J1125- 142.3	0.000	1.525	4.790
Ingta	J1125	J1125- 148.3	0.000	1.622	5.050
Ingta	J1125	J1125- 155.1	0.000	2.728	6.170
Ingta	J1125	J1125- 161.8	0.000	1.324	4.310
Ingta	J1125	J1125- 167.4	0.000	1.325	3.870
Ingta	J1125	J1125- 175.4	0.000	2.540	5.750
Ingta	J1125	J1125- 182.1	0.000	1.821	3.830

Ingta	J1125	J1125- 189.4	0.000	1.225	3.240
Ingta	J1125	J1125- 194.8	0.000	1.540	4.730
Ingta	J1125	J1125- 200	0.000	1.027	3.730
Ingta	J1125	J1125- 206.8	0.000	1.061	3.210
Ingta	J1125	J1125- 209	0.000	0.760	3.400
Ingta Formation	S1306	62.5	0.001	1.321	2.330
Ingta Formation	S1306	89.3	0.000	1.369	3.230
Ingta Formation	S1306	91.5	0.000	2.549	4.110
Ingta Formation	S1306	98.4	0.008	1.990	4.840
Ingta Formation	S1306	98.7	0.000	2.141	5.210
Ingta Formation	S1306	118	0.000	0.662	5.060
Ingta Formation	S1306	139.5	0.000	0.795	5.350
Ingta Formation	S1306	154.7	0.000	1.011	4.230
Ingta Formation	S1306	172.1	0.000	0.400	4.110
Ingta Formation	S1306	174.8	0.000	0.838	6.430
Ingta Formation	S1306	178.1	0.000	0.700	5.760
Ingta Formation	S1306	179.4	0.000	0.646	6.160
Ingta Formation	S1306	179.9	0.000	0.584	5.650
Ingta Formation	S1306	197.2	0.000	1.730	4.680
Ingta Formation	S1306	202.3	0.000	0.445	4.620
Ingta Formation	S1306	203.2	0.000	0.352	5.310
Ingta Formation	S1306	211.5	0.000	0.399	6.030
Ingta Formation	S1306	216.3	0.000	0.790	3.930
Ingta Formation	S1306	223.4	0.000	0.903	4.630
Ingta Formation	S1306	233.6	0.001	3.387	6.600
Ingta Formation	S1306	235.6	0.000	0.259	5.520
Ingta Formation	S1306	240	0.000	0.589	5.160
Ingta Formation	S1306	241.2	0.000	0.487	3.760
Ingta Formation	S1306	267.5	0.000	1.482	3.840
Arthur Creek	LACF	368.99	0.513	0.793	1.649
Arthur Creek	LACF	379.01	0.260	0.575	2.106
Arthur Creek	LACF	385	0.282	0.613	1.822
Arthur Creek	LACF	388.95	0.321	0.615	1.954
Arthur Creek	LACF	401	0.269	0.703	1.607
Arthur Creek	LACF	405.02	0.254	0.559	1.790
Arthur Creek	LACF	431	0.332	0.663	1.566
Arthur Creek	LACF	440	0.289	0.565	1.678
Arthur Creek	LACF	443	0.312	0.641	1.455
Arthur Creek	LACF	449	0.433	0.763	1.864
Arthur Creek	LACF	451.6	0.675	1.117	1.818
Arthur Creek	LACF	455.48	0.473	0.788	2.224

Arthur Creek	LACF	460	0.308	0.648	1.831
Arthur Creek	LACF	464.5	0.277	0.619	1.854
Arthur Creek	LACF	469.01	0.264	0.615	1.515
Arthur Creek	LACF	471.55	0.521	0.874	2.006
Arthur Creek	LACF	476	0.907	1.246	1.805
Arthur Creek	LACF	480.5	0.386	0.710	1.523
Arthur Creek	LACF	484	0.613	1.066	2.159
Arthur Creek	LACF	487.5	0.321	0.722	1.487
Arthur Creek	LACF	496	0.374	0.751	1.424
Arthur Creek	LACF	505.32	0.609	0.973	2.040
Arthur Creek	LACF	511.1	0.781	1.257	1.835
Arthur Creek	LACF	545.75	1.081	1.712	2.594
Arthur Creek	LACF	550.1	1.001	1.501	2.675
Arthur Creek	LACF	553	0.808	1.461	1.911
Arthur Creek	LACF	554	1.190	1.879	2.009
Thorntonia Limest	MTL	563.06	0.690	1.116	1.099
Thorntonia Limest	MTL	563.63	0.743	1.286	1.491
Nomtsas	VF1-S	1	0.001	0.200	4.540
Nomtsas	VF1-S	1.2	0.001	0.286	3.700
Nomtsas	VF1-S	3	0.000	0.447	4.850
Nomtsas	VF1-S	5.9	0.000	0.246	4.280
Nomtsas	VF1-S	9.9	0.000	0.264	5.090
Nomtsas	VF1-S	12.8	0.000	0.525	4.590
Nomtsas	VF1-S	14.4	0.000	0.337	4.540
Nomtsas	VF1-S	15.1	0.000	0.368	4.670
Nomtsas	VF1-S	18.5	0.000	0.441	4.490
Nomtsas	VF1-S	21.3	0.000	0.571	5.460
Nomtsas	VF1-S	24.5	0.000	0.428	4.700
Nomtsas	VF1-S	27.6	0.000	0.452	4.990
Nomtsas	VF1-S	31	0.000	1.150	5.030
Nomtsas	VF1-S	34	0.000	0.924	4.970
Nomtsas	VF1-S	37	0.000	0.613	4.710
Nomtsas	VF1-S	40	0.000	0.630	4.850
Nomtsas	VF1-S	43	0.000	0.690	5.140
Nomtsas	VF1-S	47.6	0.000	0.548	4.970
Nomtsas	VF1-S	49.5	0.000	0.491	5.160
Nomtsas	VF1-S	53.6	0.000	0.376	4.720
Nomtsas	VF1-S	56.7	0.000	0.534	4.880
Nomtsas	VF1-S	62.8	0.000	0.605	5.420
Nomtsas	VF1-S	69	0.000	0.538	4.930
Nomtsas	VF1-S	71.5	0.000	0.535	4.540

Nomtsas	VF1-S	73	0.000	0.483	4.840
Bayan Gol	T1201	108.4	0.006	2.115	6.648
Bayan Gol	T1201	114	0.003	0.874	11.969
Bayan Gol	T1201	117.9	0.000	2.490	6.060
Bayan Gol	T1201	121	0.000	2.366	5.134
Bayan Gol	T1201	127.1	0.000	2.444	3.903
Bayan Gol	T1201	129.1	0.000	1.121	6.008
Bayan Gol	T1201	151.7	0.000	0.267	4.580
Bayan Gol	T1201	172	0.000	0.353	3.523
Bayan Gol	T1201	197.8	0.000	0.134	4.445
Bayan Gol	T1201	204	0.000	0.941	4.118
Bayan Gol	T1201	206.7	0.002	0.611	3.243
Bayan Gol	T1201	207.9	0.000	0.372	3.698
Bayan Gol	T1201	210.7	0.003	0.804	3.714
Bayan Gol	T1201	218.5	0.000	0.178	3.453
Bayan Gol	T1201	227.1	0.002	0.290	2.968
Bayan Gol	T1201	233	0.002	0.220	4.490
Bayan Gol	T1201	235.7	0.000	0.245	4.539
Bayan Gol	T1201	237.8	0.000	0.526	4.571
Bayan Gol	T1201	242.9	0.000	0.696	4.950
Bayan Gol	T1201	248.1	0.000	0.397	5.111
Penn Yan	Menteth Creek	0	0.970	1.140	4.270
Penn Yan	Menteth Creek	1	0.710	0.870	4.240
Penn Yan	Menteth Creek	2	0.730	0.900	3.960
Penn Yan	Menteth Creek	3	1.180	1.440	4.360
Penn Yan	Menteth Creek	4	0.700	0.860	4.000
Penn Yan	Menteth Creek	5	0.510	0.700	3.020
Penn Yan	Menteth Creek	6	0.620	0.770	3.010
Penn Yan	Menteth Creek	7	0.580	0.760	3.400
Penn Yan	Menteth Creek	8	1.820	2.000	5.030
Penn Yan	Menteth Creek	9	0.780	0.940	4.370
Penn Yan	Menteth Creek	10	0.850	1.030	3.640
Penn Yan	Menteth Creek	11	1.410	1.600	4.870
Penn Yan	Menteth Creek	12	1.310	1.480	4.910
Penn Yan	Menteth Creek	13	0.680	0.830	4.280
Penn Yan	Menteth Creek	14	0.800	0.930	4.090
Penn Yan	Menteth Creek	15	0.960	1.120	4.390
Penn Yan	Menteth Creek	16	0.670	0.850	4.230
Penn Yan	Menteth Creek	17	0.590	0.750	4.260
Penn Yan	Menteth Creek	18	0.570	0.740	3.930
Penn Yan	Menteth Creek	19	0.630	0.770	3.860

Penn Yan	Menteth Creek	20	0.690	0.870	4.020
Penn Yan	Menteth Creek	21	0.640	0.820	4.210
Penn Yan	Menteth Creek	22	0.620	0.790	4.620
Penn Yan	Menteth Creek	23	0.830	1.000	4.300
Penn Yan	Menteth Creek	24	0.500	0.660	4.060
Penn Yan	Menteth Creek	25	0.600	0.790	4.110
Penn Yan	Menteth Creek	26	0.770	0.980	4.210
Penn Yan	Menteth Creek	27	0.630	0.810	4.100
Penn Yan	Menteth Creek	28	0.520	0.680	4.050
Penn Yan	Menteth Creek	29	0.700	0.900	4.180
Penn Yan	Menteth Creek	30	0.450	0.630	3.730
Ledyard	Paines Creek	5	1.010	1.180	5.780
Ledyard	Paines Creek	6	0.960	1.110	5.620
Ledyard	Paines Creek	7	0.660	0.840	5.220
Ledyard	Paines Creek	8	0.750	0.970	4.740
Ledyard	Paines Creek	9	0.800	0.980	5.330
Ledyard	Paines Creek	10	0.760	0.950	5.490
Ledyard	Paines Creek	11	0.790	0.980	5.410
Ledyard	Paines Creek	12	0.750	0.930	5.560
Ledyard	Paines Creek	13	0.680	0.830	5.210
Ledyard	Paines Creek	14	0.650	0.840	5.240
Ledyard	Paines Creek	15	0.650	0.820	5.010
Ledyard	Paines Creek	16	0.560	0.770	4.960
Ledyard	Paines Creek	17	0.680	0.830	5.360
Ledyard	Paines Creek	18	0.770	0.910	5.410
Ledyard	Paines Creek	19	0.910	1.130	5.540
Ledyard	Paines Creek	20	1.100	1.260	5.710
Ledyard	Paines Creek	21	0.620	0.890	4.670
Ledyard	Paines Creek	22	0.590	0.830	4.410
Ledyard	Paines Creek	23	0.760	0.990	5.110
Ledyard	Paines Creek	24	0.620	0.920	4.490
Ledyard	Paines Creek	25	1.760	2.070	4.300
Ledyard	Paines Creek	26	1.180	1.410	5.370
Ledyard	Paines Creek	27	1.200	1.400	5.610
Ledyard	Paines Creek	28	1.080	1.340	5.540
Ledyard	Paines Creek	29	1.600	1.840	6.250
Ledyard	Paines Creek	30	1.210	1.440	5.710
Ledyard	Paines Creek	31	0.550	0.710	4.960
Ledyard	Paines Creek	32	0.560	0.740	5.040
Ledyard	Paines Creek	33	0.490	0.660	4.830
Ledyard	Paines Creek	34	0.610	0.810	5.280

Ledyard	Paines Creek	35	0.660	0.830	5.810
Ledyard	Paines Creek	36	0.820	1.040	5.380
Ledyard	Paines Creek	37	0.680	0.900	5.800
Ledyard	Paines Creek	38	0.780	0.990	5.420
Ledyard	Paines Creek	39	0.930	1.110	5.620
Ledyard	Paines Creek	40	0.480	0.700	5.070
Ledyard	Paines Creek	41	0.480	0.660	5.230
Ledyard	Paines Creek	42	0.450	0.650	5.020
Ledyard	Paines Creek	43	0.460	0.630	4.700
Ledyard	Paines Creek	44	0.390	0.570	5.070
Ledyard	Paines Creek	45	0.350	0.520	4.970
Ledyard	Paines Creek	46	0.390	0.570	4.770
Ledyard	Paines Creek	47	0.520	0.730	4.700
Ledyard	Paines Creek	48	0.400	0.570	4.670
Ledyard	Paines Creek	49	0.340	0.500	4.600
Ledyard	Paines Creek	50	0.400	0.580	4.820
Ledyard	Paines Creek	51	0.350	0.510	4.700
Ledyard	Paines Creek	52	0.450	0.600	4.460
Ledyard	Paines Creek	53	0.490	0.660	4.850
Ledyard	Paines Creek	54	0.560	0.760	4.770
Ledyard	Paines Creek	55	0.490	0.680	4.780
Ledyard	Paines Creek	56	0.530	0.710	4.750
Ledyard	Paines Creek	57	0.580	0.760	4.810
Ledyard	Paines Creek	58	0.420	0.620	4.700
Ledyard	Paines Creek	59	0.410	0.640	4.870
Ledyard	Paines Creek	60	0.380	0.600	4.810
Ledyard	Paines Creek	61	0.490	0.730	4.770
Ledyard	Paines Creek	62	0.430	0.630	4.830
Ledyard	Paines Creek	63	0.800	0.970	5.640
Ledyard	Paines Creek	64	0.510	0.680	4.760
Ledyard	Paines Creek	65	0.430	0.610	4.970
Ledyard	Paines Creek	66	0.550	0.750	5.270
Ledyard	Paines Creek	67	0.450	0.620	5.080
Ledyard	Paines Creek	68	0.660	0.830	5.190
Ledyard	Paines Creek	69	0.950	1.090	5.390
Ledyard	Paines Creek	70	0.840	1.040	5.200
Ledyard	Paines Creek	71	0.770	1.040	5.840
Ledyard	Paines Creek	72	0.860	1.020	5.660
Ledyard	Paines Creek	73	0.560	0.760	5.120
Ledyard	Paines Creek	74	0.620	0.830	5.460
Chattanooga Shale		Chattanoga K8/7/9	5.040	6.278	8.881

Chattanooga Shale		Chattanoga K8/7/9	4.635	6.609	10.010
New Albany Shale		Clegg 873-B10+	2.367	3.645	6.394
New Albany Shale		Clegg 873-B8+2	3.416	4.357	6.379
Frankfort	Beecher	2321	1.387	2.619	5.304
Frankfort	Beecher	2322	1.439	2.261	5.310
Frankfort	Beecher	2323	1.420	1.980	5.259
Frankfort	Beecher	2324	1.712	2.221	5.610
Frankfort	Beecher	2325	0.973	1.433	5.495
Frankfort	Beecher	2326	1.247	1.863	5.488
Frankfort	Beecher	2327	1.326	1.667	5.594
Frankfort	Beecher	2328	1.478	2.033	5.830
Frankfort	Beecher	2329	0.482	1.222	5.514
Frankfort	Beecher	2330	0.410	0.752	4.684
Frankfort	Beecher	2332	0.889	1.766	4.979
Frankfort	Beecher	2333	1.261	1.794	5.419
Frankfort	Beecher	2401	1.068	1.569	5.086
Frankfort	Beecher	2402	0.506	1.082	4.891
Frankfort	Beecher	2403	0.579	1.102	4.763
Frankfort	Beecher	2409	0.871	1.570	5.143
Frankfort	Beecher	2331a	0.892	1.388	5.005
Frankfort	Beecher	2334b(i)	1.353	2.031	4.520
Frankfort	Beecher	2334b(ii)	0.299	0.776	4.713
Frankfort	Beecher	2408 base	0.587	2.015	5.342
Frankfort	Beecher	2408 top	1.829	2.747	5.550
Frankfort	Corner	1709	1.056	1.594	5.376
Frankfort	Corner	1710	1.016	2.193	4.777
Frankfort	Corner	1711	0.271	0.781	4.440
Frankfort	Corner	1801	0.183	0.673	4.648
Frankfort	Corner	1802	1.005	1.652	5.228
Frankfort	Corner	1803	0.134	0.843	4.810
Frankfort	Corner	1805	1.166	1.885	4.967
Frankfort	Corner	1806	1.105	1.704	4.848
Frankfort	Corner	1808	0.907	1.698	4.875
Frankfort	Corner	1811	1.010	1.641	5.110
Frankfort	Corner	1902	0.357	0.987	4.494
Frankfort	Corner	1903	0.835	1.511	4.971
Frankfort	Corner	1904	0.832	1.632	5.644
Frankfort	Corner	1905	0.588	1.103	5.382
Frankfort	Corner	1810a	0.885	1.530	5.351
Frankfort	Corner	1810c	0.764	1.179	4.898
Frankfort	Corner	5 (above nodu	0.890	1.693	5.180

Frankfort	Corner	1906 (1)	0.410	1.094	4.913
Frankfort	Corner	1907 (1)	1.061	1.522	5.130
Frankfort	Walcott	822	0.632	1.013	5.200
Frankfort	Walcott	906	1.010	1.010	5.270
Frankfort	Walcott	913	0.586	1.776	4.155
Frankfort	Walcott	914	1.007	2.059	5.117
Frankfort	Walcott	917	0.677	2.774	5.270
Frankfort	Walcott	918	1.194	2.045	5.196
Frankfort	Walcott	1001	0.752	1.476	4.170
Frankfort	Walcott	1002	0.896	1.708	5.247
Frankfort	Walcott	1003	1.039	2.080	4.635
Frankfort	Walcott	1004	1.128	1.950	5.089
Frankfort	Walcott	1005	1.116	1.890	4.193
Frankfort	Walcott	1006	0.684	1.393	4.417
Frankfort	Walcott	1007	0.176	0.850	4.476
Frankfort	Walcott	1008	0.639	1.460	3.905
Frankfort	Walcott	1009	0.974	1.932	4.663
Frankfort	Walcott	1010	0.616	1.358	4.718
Frankfort	Walcott	1011	0.747	1.620	4.577
Frankfort	Walcott	1012	0.722	2.381	5.061
Frankfort	Walcott	1013	1.168	2.037	5.063
Frankfort	Walcott	1101	0.923	1.786	5.038
Frankfort	Walcott	1102	1.080	1.777	4.994
Frankfort	Walcott	1103	0.634	1.368	4.899
Frankfort	Walcott	1104	0.772	2.134	4.793
Frankfort	Walcott	1105	0.865	1.715	4.491
Frankfort	Walcott	1106	0.758	2.963	5.088
Frankfort	Walcott	1107	1.040	2.075	5.196
Frankfort	Walcott	1108	0.643	1.388	4.454
Frankfort	Walcott	1203	0.984	1.622	4.937
Frankfort	Walcott	1204	0.224	0.940	4.527
Frankfort	Walcott	1205	0.238	1.041	4.615
Frankfort	Walcott	1206	0.599	1.252	4.702
Frankfort	Walcott	1208	0.495	1.656	4.908
Frankfort	Walcott	1210	0.700	1.494	4.514
Frankfort	Walcott	1211	0.313	0.984	4.865
Frankfort	Walcott	1214	0.677	1.497	5.223
Frankfort	Walcott	1004 nodules	0.869	2.595	4.777
Frankfort	Walcott	1008b	0.884	1.515	4.446
Frankfort	Walcott	1104b	0.311	2.226	4.620
Frankfort	Walcott	1107b	1.102	1.834	4.711

Frankfort	Walcott	8 (above nodu	0.164	0.708	4.417
Frankfort	Walcott	1215 base	0.592	1.707	5.035
Frankfort	Walcott	1215 c	0.350	1.134	4.605
Frankfort	Walcott	1215 middle	0.344	1.244	4.889
Frankfort	Walcott	1216 top	1.766	2.711	5.461
Frankfort	Walcott	1218 base	0.194	1.400	4.361
Frankfort	Walcott	1218 middle	0.350	1.574	4.660
Frankfort	Walcott	1218 top	1.351	2.473	5.637
Frankfort	Walcott	(around nodu	0.962	1.496	5.458
Frankfort	Walcott	15 (mixed bed	1.187	2.433	4.487
Frankfort	Walcott	916a	0.979	1.553	4.960
Frankfort	Walcott	916c	1.550	2.247	5.130
Frankfort	Walcott	916d	1.346	2.156	5.404
Frankfort	Walcott	Tril	0.977	1.669	5.074
	DB 10	5.8	0.030		
	DB1	8.4	1.140		
	DB11	5.3	0.030		
	DB12	5.2	0.100		
	DB13	5.05	0.100		
	DB14	4.95	0.020		
	DB15	4.85	0.060		
	DB16	4.7	0.040		
	DB17	4.4	0.040		
	DB18	4.25	0.870		
	DB19	4.2	0.240		
	DB2	8.2	0.020		
	DB20	4.2	0.040		
	DB21	4.15	0.020		
	DB22	4.1	0.040		
	DB23	3.85	0.020		
	DB24	3.65	0.000		
	DB25	3.25	0.020		
	DB26A	1.9	0.010		
	DB26B	0.95			
	DB28	8.9	0.700		
	DB29	9.15	0.970		
	DB3	8.05	0.020		
	DB30	9.45	0.680		
	DB31	9.7	0.490		
	DB32	0.3	1.110		
	DB33	0.1	0.040		

DB34	-1	0.030		
DB4	7.85	0.030		
DB5	7.65	0.130		
DB6	7.1	1.100		
DB7	6.85	0.060		
DB8	6.35	0.030		
DB9	6	0.060		
DL1	8.3	0.070		
DL10	17.3	0.130		
DL12	17.8	0.120		
DL2	9.3	1.630		
DL3	10.3	1.210		
DL4	11.3	1.710		
DL5	12.3	1.020		
DL6	13.3	1.330		
DL7	14.3	1.160		
DL8	15.3	1.560		
DL9	16.3	1.500		
Billegrav-1	BG-1			
Billegrav-1	BG-10			
Billegrav-1	BG-2			
Billegrav-1	BG-3			
Billegrav-1	BG-4	2.337	3.005	6.728
Billegrav-1	BG-5			
Billegrav-1	BG-6			
Billegrav-1	BG-7			
Billegrav-1	BG-8			
Billegrav-1	BG-9			
Billgrav 2	17.9	0.770		
Billgrav 2	18.9	0.110		
Billgrav 2	19.7	2.130		
Billgrav 2	20.8	1.720		
Billgrav 2	22.6	1.230		
Billgrav 2	25.25	5.000		
Billgrav 2	26.9	1.030		
Billgrav 2	27.7	1.240		
Billgrav 2	28.7	1.090		
Billgrav 2	29.7	0.880		
Billgrav 2	30.7	1.480		
Billgrav 2	31.2	1.110		
Billgrav 2	35.15	0.970		

Billgrav 2	37.05	1.010
Billgrav 2	40.9	1.130
Billgrav 2	49.6	0.590
Billgrav 2	50.6	1.490
Billgrav 2	52.1	1.160
Billgrav 2	52.9	1.130
Billgrav 2	53.8	1.230
Billgrav 2	54.9	1.170
Billgrav 2	56.001	0.680
Billgrav 2	56.002	0.650
Billgrav 2	56.54	0.260
Billgrav 2	57.44	1.070
Billgrav 2	57.9	0.820
Billgrav 2	60	
Billgrav 2	60.09	
Billgrav 2	60.18	
Billgrav 2	60.33	
Billgrav 2	60.51	
Billgrav 2	60.64	
Billgrav 2	60.75	0.990
Billgrav 2	60.93	
Billgrav 2	61.05	
Billgrav 2	61.19	
Billgrav 2	61.61	
Billgrav 2	62.05	
Billgrav 2	62.2	3.740
Billgrav 2	62.56	
Billgrav 2	62.76	
Billgrav 2	62.95	
Billgrav 2	63.2	1.590
Billgrav 2	63.5	
Billgrav 2	63.72	
Billgrav 2	63.9	
Billgrav 2	63.94	
Billgrav 2	64.05	0.250
Billgrav 2	64.19	
Billgrav 2	65.8	0.160
Billgrav 2	65.9	0.250
Billgrav 2	66.9	0.000
Billgrav 2	67.3	0.000
Billgrav 2	67.95	0.050

Billgrav 2	68.9	0.000
Billgrav 2	69.9	0.030
Billgrav 2	71.15	0.020
Billgrav 2	71.85	0.020
Billgrav 2	73.1	0.140
Billgrav 2	73.35	0.060
Billgrav 2	73.9	0.180
Billgrav 2	74.35	0.020
Billgrav 2	75.35	2.500
Billgrav 2	76.1	0.870
Billgrav 2	76.7	1.020
Billgrav 2	77	0.950
Billgrav 2	78.2	1.350
Billgrav 2	79.2	1.030
Billgrav 2	80	0.650
Billgrav 2	80.45	0.800
Billgrav 2	81.15	0.750
Billgrav 2	81.85	0.720
Billgrav 2	82.9	1.160
Billgrav 2	83.4	0.510
Billgrav 2	84.4	2.940
Billgrav 2	85.3	0.250
Billgrav 2	86.3	1.300
	1	0.060
	2	0.010
	3	0.030
	4	0.080
	5	0.030
	6	0.100
	6	0.100
	7	0.150
	8	0.430
	1-0,8	0.120
	4-1,10	0.010
	4-1,85	0.090
	4+0,2	0.010
	4+0,55	0.000
	4+0,8	0.010
	4+1,10	0.100
	4+1,35	0.160
	4+1.00	0.010

		4+1.02	0.010		
		4+1.03	0.010		
		4+1.05	0.040		
		4+1.07	0.050		
		4+1.09	0.040		
		4+1.16	0.070		
		4+1.17	0.080		
		4+1.18	0.030		
		4+1.22	0.030		
		6+0,25	0.100		
		6+0,6	0.330		
		6+0,9	0.230		
		6+1,1	0.500		
		7-0,2	0.600		
		7-0,5	0.240		
		7+0,3	0.640		
		7+0,8	0.260		
		7+1,0	0.240		
		7+1,7	0.940		
	Albjära-1	Alb79013	1.665	2.293	6.339
	Albjära-1	Alb79016	4.277	6.057	6.729
	Albjära-1.	Alb97158	1.368	1.972	2.988
	Albjära-1.	Alb97160	2.707	3.720	4.014
	Albjära-1.	Alb97161			
	Gislövhammar-2	Gis89931	1.091	1.562	2.871
	Gislövhammar-2	Gis89933	1.479	2.011	3.664
	Gislövhammar-2	Gis89934	0.946	1.339	3.020
	Lönstorp-1	Lön79001			
	Lönstorp-1	Lön79002	1.781	2.485	5.967
	Lönstorp-1	Lön79003			
	Lönstorp-1	Lön79004			
	Lönstorp-1	Lön79005			
	Lönstorp-1	Lön79006			
	Lönstorp-1	Lön79007			
	Lönstorp-1	Lön79008			
	Lönstorp-1	Lön97154	2.619	3.544	6.859
Soom Shale		K2.6			
Soom Shale		K2.6A			
Soom Shale		K2.7			
	Modern Continenta	250-260	0.630	0.700	2.910
	Modern Continenta	90-100	0.370	0.460	2.130

Modern Continenta	FOAM 0-2	0.130	0.360	2.220
Modern Continenta	FOAM 10-20	0.670	0.740	3.060
Modern Continenta	FOAM 140-15(	0.680	0.750	3.160
Modern Continenta	FOAM 2-4	0.360	0.550	2.790
Modern Continenta	FOAM 4-6	0.510	0.650	3.170
Modern Continenta	FOAM 6-9	0.440	0.510	3.180
Modern Continenta	FOAM 60-70	0.580	0.650	2.720
Modern Continenta	FOAM 9-12	0.610	0.670	3.250
Modern Continenta	FOAM 90-200	0.680	0.750	3.350
Modern Continenta	K1 20-24	0.080	0.550	2.000
Modern Continenta	K3 0-0.5	0.230	0.870	2.840
Modern Continenta	K3 24-28	0.200	0.700	2.480
Modern Continenta	attegat K1 0-0	0.080	0.530	1.870
Modern Continenta	Med Sta 1 0-1	0.030	0.940	2.780
Modern Continenta	s Delta Sta 18	0.000	1.320	4.440
Modern Continenta	NWC 0-2	0.280	0.920	3.180
Modern Continenta	NWC 30-40	0.610	0.750	3.170
Modern Continenta	NWC 60-70	0.550	0.730	3.050
Modern Continenta	NWC 9-12	0.710	1.080	3.120
Modern Continenta	S6 0-0.5	0.050	0.680	2.450
Modern Continenta	S6 24-28	0.160	0.760	3.210
Modern Continenta	S7 0-2	0.000	1.650	4.390
Modern Continenta	S7 30-35	0.230	1.060	4.080
Modern Continenta	Sachem 20-25	0.500	0.800	3.450
Modern Continenta	Sachem 6-9	0.430	1.020	3.490
Modern Continenta	agerrak S1 12-	0.000	0.310	1.020
Modern Continenta	Sta 1 10-12	0.010	0.890	2.750
Modern Continenta	sta 11 0-1	0.000	0.740	1.950
Modern Continenta	Sta 11 10-12	0.000	0.600	2.230
Modern Continenta	Sta 13 0-1	0.000	0.740	2.430
Modern Continenta	Sta 13 10-12	0.000	0.550	1.920
Modern Continenta	Sta 16 0-1	0.000	0.730	2.530
Modern Continenta	Sta 16 10-12	0.000	0.440	2.440
Modern Continenta	sta 17 0-1	0.000	1.030	3.090
Modern Continenta	Sta 17 10-12	0.000	1.030	3.220
Modern Continenta	Sta 18 30-35	0.420	1.270	3.910
Modern Continenta	Sta 19 0-3	0.000	1.480	4.260
Modern Continenta	Sta 19 20-30	0.070	1.410	4.390
Modern Continenta	sta 2 10-12	0.110	1.050	3.120
Modern Continenta	sta 20 100-11(	0.160	0.520	3.560
Modern Continenta	Sta 20 40-50	0.180	0.640	3.650

Modern Continenta	Sta 22 30-35	0.000	0.620	3.720
Modern Continenta	Sta 22 310-32(	0.010	0.330	3.440
Modern Continenta	Sta 22 90-100	0.000	0.610	3.540
Modern Continenta	Sta 4 0-1	0.000	0.940	2.880
Modern Continenta	Sta 4 10-12	0.030	0.890	3.050
Modern Continenta	Sta 5 0-1	0.030	0.730	2.460
Modern Continenta	sta 5 10-12	0.010	0.810	2.460
Modern Continenta	Sta 6 0-1	0.000	0.980	3.260
Modern Continenta	sta 6 10-12	0.000	1.050	3.450
Modern Continenta	Sta 7 0-1	0.000	0.600	1.910
Modern Continenta	sta 7 10-12	0.050	0.380	1.930
Modern Continenta	sta 8 0-1	0.000	0.990	3.220
Modern Continenta	sta 8 10-12	0.000	1.180	3.550
Modern Continenta	Sta 9 0-1	0.000	0.790	2.440
Modern Continenta	Sta 9 10-12	0.040	0.730	2.600
Deep Sea	alif Sta N 11-1	0.040	0.260	4.110
Deep Sea	akar Sta 1 0.5	0.000	0.650	2.630
Deep Sea	Domes A 6-7	0.000	0.600	4.130
Deep Sea	Domes B 9-10	0.000	0.650	4.710
Deep Sea	Domes C 11-1	0.020	0.530	4.170
Deep Sea	t Med Sta 20	0.130	0.870	1.960
Deep Sea	W Med Sta 3 (	0.000	0.910	2.710
Deep Sea	RC 13 54 35-4(	0.060	0.830	4.400
Deep Sea	RC 20 07 40-5(	0.020	0.300	2.900
Deep Sea	Sta 1 1-1.5	0.030	0.710	2.910
Deep Sea	Sta 1 2-3	0.040	0.880	3.160
Deep Sea	Sta 1 4-5	0.050	0.580	2.750
Deep Sea	Sta 10 0-1	0.000	0.970	2.890
Deep Sea	Sta 10 10-12	0.000	0.970	2.920
Deep Sea	Sta 12 0-1	0.000	0.600	2.040
Deep Sea	Sta 12 10-12	0.000	0.460	2.060
Deep Sea	Sta 14 0-1	0.000	0.500	1.500
Deep Sea	sta 14 10-12	0.000	0.290	1.380
Deep Sea	Sta 15 0-1	0.000	0.890	2.900
Deep Sea	Sta 15 10-12	0.000	0.640	2.920
Deep Sea	Sta 2 0-1	0.000	0.670	2.250
Deep Sea	Sta 2 2-3	0.000	0.660	2.400
Deep Sea	Sta 2 4-5	0.000	0.640	2.420
Deep Sea	Sta 20 8	0.130	0.990	2.440
Deep Sea	Sta 22 0.5	0.000	0.890	2.970
Deep Sea	Sta 22 5	0.080	0.910	2.770

Deep Sea	Sta 23 0.5	0.070	1.240	3.360
Deep Sea	Sta 23 5	0.150	0.980	2.550
Deep Sea	Sta 3 1-2	0.110	0.870	3.640
Deep Sea	Sta 3 10-12	0.000	0.760	2.710
Deep Sea	Sta 3 3-4	0.070	0.810	3.800
Deep Sea	Sta 3 4-5	0.040	0.870	4.170
Deep Sea	Sta G 21-22	0.320	0.730	3.670
Deep Sea	Sta G 23-24	0.340	0.690	3.990
Deep Sea	Sta G5-6	0.110	0.680	3.850
Deep Sea	Sta M 0-1	0.110	0.720	3.600
Deep Sea	Sta M 21-22	0.160	0.420	3.420
Deep Sea	Sta M 29-30	0.400	0.630	3.600
Deep Sea	Sta M 5-6	0.100	0.590	3.680
Deep Sea	Sta N 0-1	0.120	0.170	4.090
Deep Sea	Sta N 21-22	0.020	0.300	4.080
Deep Sea	Sta N 39-40	0.010	0.490	4.830
Deep Sea	Sta UH 35 0.5		0.920	2.280
Deep Sea	Sta UH 35 5.5		0.890	2.240
Deep Sea	M 26 103 54-5	0.000	0.970	3.510
Deep Sea	M 27 265 44-4	0.000	0.460	3.380
Deep Sea	M 28 207 43-4	0.000	2.030	5.960
Deep Sea	'M 28 90 33-35		0.300	2.990
Deep Sea	'M 28 98 45-4	0.000	0.270	0.980
Deep Sea	M 30 089 24-2	0.000	0.180	1.360
Deep Sea	M 30 089 51-5	0.003	0.243	1.410
Deep Sea	M 31 152 52-5	0.036	0.246	0.350
Deep Sea	M 31 157 45-4	0.000	0.270	0.830
Deep Sea	M 32 154 54-5	0.120	0.430	2.410
Deep Sea	/M 32 154 8-9	0.010	0.620	3.360
Deep Sea	M 32 173 52-5	0.020	0.130	0.890
Deep Sea	'M 32 64 42-4	0.000	0.970	4.260
Deep Sea	'M 32 71 34-3	0.000	0.900	4.940
Deep Sea	W 30 021 54-5	0.033	1.463	4.760
Dysaerobic	if Shelf Sta D	0.044	1.014	5.230
Dysaerobic	GoC L121 5-11	0.770	0.840	2.720
Dysaerobic	L105 8-14	0.320	0.720	3.780
Dysaerobic	L105 84-90	0.270	1.220	3.650
Dysaerobic	L105 95-102	0.000	0.870	3.820
Dysaerobic	L121 52-57	0.580	0.680	1.880
Dysaerobic	L139 140-149	0.690	0.910	2.510
Dysaerobic	L139 16-33	0.770	0.920	2.600

Dysaerobic	L139 247-254	0.830	0.950	2.690
Dysaerobic	L154 35-42	0.450	0.560	1.680
Dysaerobic	L154 54-61	0.450	0.530	1.560
Dysaerobic	L42 29-38	0.820	0.880	2.550
Dysaerobic	L42 45-50	0.800	0.860	2.590
Dysaerobic	L62 38-46	0.800	0.870	2.310
Dysaerobic	L62 5-10	0.280	0.460	2.850
Dysaerobic	SBB 1	0.590	0.710	3.480
Dysaerobic	SBB 3	0.670	0.790	3.170
Dysaerobic	SBB 4	0.430	0.580	3.320
Dysaerobic	Sta D 0-1	0.200	1.240	4.410
Dysaerobic	Sta D 20-21	0.340	0.710	3.810
Dysaerobic	Sta D29-30	0.180	0.490	4.560
Dysaerobic	Sta J 0-1	0.260	0.860	3.210
Dysaerobic	Sta J 15-16	0.190	0.580	3.400
Dysaerobic	Sta J 25-26	0.200	0.430	3.280
Dysaerobic	Sta J 39-40	0.260	0.450	3.540
Dysaerobic	Sta K 0-1	0.190	0.830	3.370
Dysaerobic	Sta K 11-12	0.110	0.400	3.220
Dysaerobic	Sta K 29-30	0.430	0.660	3.730
Dysaerobic	Sta K 5-6	0.130	0.720	3.220
Anaerobic	5	0.210	0.460	1.750
Anaerobic	6	0.270	0.620	2.740
Anaerobic	7	0.260	0.740	2.220
Anaerobic	8	0.230	0.670	2.840
Anaerobic	9	0.270	0.730	2.560
Anaerobic	10	0.250	0.640	2.440
Anaerobic	11	0.300	0.720	2.050
Anaerobic	12	0.280	0.690	2.570
Anaerobic	B1 125-130	1.250	1.380	2.520
Anaerobic	B1 140-145	1.230	1.330	2.660
Anaerobic	B1 35-40	1.210	1.410	2.680
Anaerobic	B1 55-60	1.200	1.330	2.570
Anaerobic	B1 65-70	1.210	1.350	2.640
Anaerobic	B2 125-130	1.400	1.580	2.990
Anaerobic	B2 140-145	1.320	1.460	3.020
Anaerobic	B2 20-25	1.430	1.550	2.780
Anaerobic	B2 65-70	1.320	1.460	2.760
Anaerobic	B3 145-150	0.860	1.000	2.190
Anaerobic	B3 20-25	1.330	1.510	3.090
Anaerobic	B3 60-65	1.350	1.500	3.000

Anaerobic	B4 20-25	0.870	0.980	1.940
Anaerobic	B4 60-65	1.020	1.150	2.130
Anaerobic	B4 80-85	1.060	1.220	2.700
Anaerobic	C&K BS Sta 9 3	1.340	1.600	2.270
Anaerobic	ariaco B1 15-2	1.110	1.320	2.700
Anaerobic	F2	1.070	3.860	4.000
Anaerobic	Framvaren F1	1.700	2.130	3.560
Anaerobic	H2	0.950	1.230	4.780
Anaerobic	11-85471 44-4	0.310	0.790	4.670
Anaerobic	K11-85475 7-8	0.350	0.770	3.800
Anaerobic	K4-85077 6-7	0.470	1.050	4.100
Anaerobic	K4-85471 3-4	0.570	1.060	4.730
Anaerobic	K9 2-4	0.590	0.940	4.260
Anaerobic	Kau K3 2-3	0.780	1.360	5.320
Anaerobic	ons BS Sta 9 6	1.610	1.760	2.440
Anaerobic	Orca 1	0.410	0.780	1.300
Anaerobic	v Deep Basin	0.890	1.040	3.910
Anaerobic	Sat 14 19	0.990	1.180	1.500
Anaerobic	Sta 14 10-12	0.680	0.820	1.230
Anaerobic	Sta 14 10-15	1.000	1.190	2.100
Anaerobic	Sta 14 11	0.920	1.070	1.260
Anaerobic	Sta 14 13	1.350	1.640	2.330
Anaerobic	Sta 14 15	1.270	1.510	2.010
Anaerobic	Sta 14 15-20	0.540	0.760	1.550
Anaerobic	Sta 14 17	1.500	1.760	2.550
Anaerobic	Sta 14 20-22	0.660	0.800	1.240
Anaerobic	14 20-25 (bott	1.040	1.460	1.540
Anaerobic	Sta 14 21	1.150	1.320	1.560
Anaerobic	Sta 14 23	1.210	1.460	2.150
Anaerobic	Sta 14 25	1.420	1.710	2.260
Anaerobic	Sta 14 27	1.360	1.700	2.530
Anaerobic	Sta 14 29	1.590	2.020	3.100
Anaerobic	sta 14 5-10	0.440	0.690	1.250
Anaerobic	Sta 14 7	1.400	1.770	2.580
Anaerobic	Sta 14 9	1.410	1.620	1.930
Anaerobic	14 surface (t	1.150	1.370	2.790
Anaerobic	Sta 214	1.130	1.130	2.700
Anaerobic	Sta 223	1.000	1.080	3.890
Anaerobic	Sta 223	0.790	0.950	3.280
Anaerobic	Sta 235	0.850	1.350	3.680
Anaerobic	Sta 243	0.860	1.010	4.580

Anaerobic	Sta 245	0.540	0.860	4.090
Anaerobic	Sta 254	0.740	0.880	1.670
Anaerobic	Sta 255	1.060	1.060	2.230
Anaerobic	Sta 256	1.020	1.020	3.650
Anaerobic	Sta 257	0.860	0.860	3.710
Anaerobic	Sta 278	1.150	1.400	3.620
Anaerobic	Sta 287	0.960	0.960	3.720
Anaerobic	Sta 288	0.810	0.810	3.630
Anaerobic	Sta 289	0.920	0.920	3.100
Anaerobic	Sta 4740	0.790	1.050	3.670
Anaerobic	Sta 4751	0.690	0.820	4.010
Anaerobic	Sta 9	1.340	1.630	4.170
Anaerobic	Sta 9 12-14	0.890	1.010	1.250
Anaerobic	Sta 9 14-16	0.610	0.710	0.820
Anaerobic	Sta 9 15	1.420	1.560	1.690
Anaerobic	Sta 9 17	1.450	1.570	1.760
Anaerobic	Sta 9 19	0.840	0.920	1.010
Anaerobic	Sta 9 20-22	1.410	1.550	1.990
Anaerobic	Sta 9 21	1.340	1.430	1.500
Anaerobic	Sta 9 22-24	0.800	0.900	1.110
Anaerobic	Sta 9 23	1.730	1.850	2.190
Anaerobic	Sta 9 24-26	0.990	1.110	1.290
Anaerobic	Sta 9 25	1.950	2.150	2.960
Anaerobic	Sta 9 5	1.810	2.110	2.540
Anaerobic	Sta 9 7	1.630	1.820	2.200
Anaerobic	Sta 9 8-10	1.420	1.570	2.070

FeHR/FeT	FeP/FeHR	Fe-oxide	Fe-carb	Fe-mag
1.000	0.448	1.500		2.2
0.400	0.440	2.600		2.5
0.200	0.456	2.300		2
0.400	0.475	2.700		2.6
0.300	0.603	1.200		1.3
1.000	0.488	3.900		2.6
0.900	0.557	2.700		2
0.900	0.468	3.100		2.8
0.900	0.373	1.800		1.9
0.600	0.292	2.200		2.4
1.000	0.097	5.000		7.1
0.600	0.443	2.200		2.2
1.000	0.353	4.500		4.3
1.000	0.468	4.800		3.6
0.700	0.386	3.200		1.9
0.800	0.444	2.800		2.7
0.700	0.359	2.800		3.1
0.900	0.387	3.000		3.5
0.500	0.313	1.700		2.9
0.900	0.369	2.200		1.9
1.000	0.718	3.400		2.5
0.900	0.590	2.100		1.3
1.000	0.632	2.400		1.8
0.800	0.614	1.900		1.3
0.800	0.456	2.000		1.7
0.900	0.472	1.800		2
1.000	0.554	2.500		1.6
1.000	0.587	2.500		1.8
0.600	0.397	1.700		2.4
0.800		2.200		2.2
0.900	0.756	0.600		0.5
0.700	0.545	1.600		1.4
0.551	0.403	0.740	0.180	0.8
0.281	0.230	0.030	0.260	0.85
0.790	0.060	0.100	3.680	0.32
0.716	0.007	0.130	2.360	0.25
0.770	0.012	0.120	3.010	0.18
0.716	0.000	0.190	2.460	0.05
0.200	0.507	0.060	0.210	0.07
0.310	0.252	0.070	0.960	0.2

0.179	0.538	0.020	0.120	0.16
0.262	0.268	0.050	0.660	0.3
0.120	0.333	0.090	0.110	0.15
0.184	0.295	0.020	0.350	0.19
0.148	0.317	0.030	0.210	0.19
0.239	0.209	0.050	0.640	0.22
0.148	0.510	0.030	0.100	0.12
0.152	0.164	0.010	0.350	0.11
0.244	0.493	0.130	0.190	0.05
0.170	0.101	0.250	0.170	0.3
0.211	0.019	0.180	1.310	1.52
0.563	0.333	0.160	0.700	0.04
0.699	0.090	0.730	0.700	0.08
0.565	0.165	0.400	0.710	0.06
0.761	0.163	0.660	1.850	0.36
0.566	0.259	0.560	0.560	0.06
0.605	0.225	0.240	1.050	0.05
0.466	0.333	0.080	0.880	0.05
0.535	0.379	0.020	0.640	0.06
0.371	0.259	0.020	0.200	1.17
0.323	0.060	0.030	0.400	1.62
0.333	0.228	0.010	0.140	1.08
0.311	0.190	0.020	0.130	1.01
0.490	0.598	0.130	0.060	0.28
0.523	0.522	0.220	0.110	0.32
0.389	0.432	0.200	0.080	0.43
0.541	0.623	0.150	0.130	0.32
0.571	0.761	0.030	0.070	0.1
0.755	0.411	0.180	0.400	0.51
0.645	0.513	0.200	0.060	0.49
0.431	0.830	0.040	0.090	0.06
0.387	0.823	0.050	0.060	0.06
0.357	0.760	0.060	0.110	0.08
0.261	0.224	0.060	0.260	0.13
0.345	0.224	0.060	0.410	0.13
0.394	0.188	0.050	0.340	0.17
0.474	0.230	0.050	0.390	0.13
0.389	0.520	0.050	0.240	0.18
0.535	0.450	0.270	0.350	0.1
0.669	0.586	0.000	0.220	0.15
0.191	0.792	0.020	0.070	0.02

0.313	0.532	0.170	0.070	0.14
0.782	0.568	0.050	0.600	0.31
0.470	0.970			
0.330	0.960			
1.000	0.520			
0.540	0.980			
0.990	0.950			
0.380	0.910			
0.970	0.940			
0.830	0.990			
0.960	0.990			
0.890	0.990			
0.970	0.970			
0.520	0.980			
0.890	0.970			
0.920	0.990			
1.000	0.990			
0.350	0.890			
0.690	0.970			
0.910	0.990			
0.690	0.980			
0.690	0.990			
1.000	0.990			
0.840	0.990			
0.650	0.990			
0.730	0.980			
0.740	0.970			
0.680	0.980			
0.820	0.990			
0.740	0.990			
0.730	0.970			
0.770	0.980			
0.730	0.980			
0.900	0.970			
0.880	0.990			
0.930	0.990			
0.670	0.980			
0.810	0.990			
0.800	0.990			
0.740	0.980			
0.600	0.980			

0.250	0.540
0.040	0.000
0.100	0.070
0.400	0.970
0.110	0.740
0.440	0.930
0.280	0.100
0.640	0.100
0.280	0.360
0.120	0.960
0.720	0.940
0.190	0.440
0.280	0.990
0.440	0.890
0.110	0.770
0.470	0.740
0.040	0.620
0.110	0.730
0.330	0.940
0.780	0.940
0.750	0.930
0.190	0.920
0.830	0.980
0.520	0.990
0.760	0.690
0.600	0.960
0.620	0.830
0.090	0.300
0.660	0.900
0.330	0.820
0.620	0.960
0.120	0.820
0.070	0.660
0.050	0.860
0.180	0.850
0.140	0.950
0.270	0.730
0.620	0.940
0.020	0.450
0.650	0.980
0.210	0.460

0.310	0.910
0.340	0.530
0.350	0.880
0.180	0.960
0.630	0.960
0.580	1.000
0.350	1.000
0.030	0.530
0.400	0.930
0.770	0.870
0.510	0.910
0.040	0.740
0.370	0.360
0.660	0.760
0.530	0.960
0.230	0.850
0.100	0.300
0.240	0.750
0.600	0.950
0.420	0.950
0.290	0.870
0.380	0.890
0.680	0.910
0.490	0.870
0.380	0.910
0.550	0.850
0.560	0.960
0.440	0.950
0.070	0.000
0.120	0.310
0.920	0.840
0.470	0.960
0.480	0.820
0.160	0.810
0.550	0.980
0.140	0.680
0.560	0.830
0.130	0.700
0.200	0.810
0.640	0.960
0.760	0.960

1.000	0.120
0.140	0.000
0.200	0.000
0.160	0.000
0.070	0.030
0.090	0.210
0.150	0.560
0.030	0.060
0.030	0.060
0.060	0.150
0.060	0.040
0.070	0.080
0.080	0.080
0.090	0.150
0.090	0.090
0.090	0.040
0.090	0.120
0.100	0.140
0.130	0.040
0.140	0.100
0.160	0.080
0.160	0.340
0.170	0.110
0.170	0.100
0.170	0.370
0.200	0.180
0.210	0.070
0.220	0.170
0.240	0.460
0.300	0.490
0.300	0.530
0.330	0.100
0.360	0.360
0.370	0.580
0.480	0.200
0.660	0.740
0.070	0.060
0.110	0.080
0.120	0.120
0.120	0.200
0.160	0.390

0.170	0.100
0.170	0.100
0.170	0.360
0.210	0.790
0.280	0.290
0.310	0.100
0.310	0.200
0.350	0.440
0.360	0.400
0.360	0.280
0.360	0.340
0.370	0.020
0.370	0.020
0.370	0.360
0.400	0.370
0.420	0.470
0.430	0.420
0.430	0.480
0.460	0.480
0.520	0.640
0.520	0.690
0.540	0.010
0.570	0.010
0.640	0.340
0.660	0.480
0.670	0.230
0.690	0.560
0.710	0.390
0.760	0.340
0.780	0.250
0.780	0.790
0.920	0.730
0.980	0.550
1.020	0.900
1.040	0.900
0.140	0.370
0.140	0.320
0.270	0.140
0.330	0.040
0.350	0.130
0.370	0.240

0.780	0.610			
0.800	0.280			
0.840	0.580			
0.900	0.500			
0.900	0.620			
0.910	0.550			
0.930	0.330			
0.080	0.270			
0.170	0.510			
0.180	0.250			
0.260	0.290			
0.270	0.270			
0.650	0.650			
0.440	0.530			
0.460	0.610			
0.490	0.790			
0.650	0.800			
0.690	0.870			
0.750	0.900			
0.760	0.900			
0.810	0.610			
0.810	0.690			
0.830	0.720			
0.900	0.870			
0.930	0.850			
0.930	0.890			
0.132	0.279	0.031	0.127	0
0.128	0.439	0.021	0.168	0
0.124	0.101	0.137	0.115	0.04497215
0.444	0.458	0.034	0.503	0
0.639	0.113	0.008	0.603	0
0.359	0.033	0.408	0.039	0
0.239	0.116	0.262	0.059	0
0.171	0.012	0.524	0.076	0
0.356	0.529	0.050	0.838	0
0.191	0.325	0.021	0.869	0
0.560	0.634	0.034	0.610	0
0.396	0.303	0.011	0.503	0
0.294	0.140	0.210	0.030	0
0.217	0.622	0.160	0.520	0
0.423	0.211	0.010	0.740	0

0.401	0.806	0.010	0.190	0
0.188	0.392	0.020	0.160	0
0.177	0.250	0.020	0.300	0
0.435	0.865	0.021	0.172	0
0.287	0.428	0.031	0.224	0.16980225
0.178	0.286	0.050	0.234	0
0.328	0.036	0.379	0.068	0.20469714
0.266	0.135	0.152	0.195	0.0926728
0.346	0.126	0.165	0.224	0.25763344
0.246	0.119	0.040	0.205	0.02404309
0.172	0.321	0.076	0.258	0.08173519
0.119	0.133	0.075	0.153	0.07894951
0.122	0.115	0.083	0.184	0.08362287
0.137	0.052	0.093	0.276	0.09217505
0.155	0.280	0.061	0.212	0.05391438
0.147	0.112	0.060	0.260	0.05349139
0.212	0.018	0.049	0.442	0.03925227
0.279	0.006	0.253	0.440	0.04307399
0.119	0.033	0.036	0.192	0.02767854
0.088	0.022	0.061	0.152	0.07453556
0.155	0.025	0.065	0.357	0.06679378
0.134	0.095	0.049	0.267	0.05177467
0.146	0.029	0.044	0.287	0.04680387
0.159	0.126	0.051	0.311	0.03935602
0.131	0.114	0.043	0.245	0.03785975
0.178	0.206	0.039	0.279	0.03502507
0.114	0.029	0.076	0.272	0.09204041
0.095	0.046	0.055	0.205	0.07112602
0.122	0.077	0.066	0.282	0.07063898
0.141	0.417	0.058	0.188	0.06762044
0.146	0.141	0.064	0.354	0.05662403
0.103	0.367	0.052	0.120	0.06659617
0.093	0.141	0.070	0.183	0.08773218
0.070	0.066	0.052	0.129	0.06411325
0.141	0.369	0.045	0.229	0.04998776
0.083	0.103	0.056	0.140	0.07238918
0.126	0.036	0.065	0.348	0.09878915
0.087	0.109	0.058	0.149	0.07071954
0.152	0.226	0.057	0.303	0.07362019
0.103	0.258	0.053	0.141	0.06828643
0.152	0.564	0.062	0.140	0.06099999

0.170	0.677	0.045	0.121	0.04268577
0.145	0.414	0.057	0.178	0.06012476
0.127	0.287	0.054	0.229	0.05559126
0.129	0.262	0.064	0.225	0.06654742
0.141	0.537	0.045	0.124	0.04184856
0.163	0.524	0.043	0.168	0.03478944
0.175	0.544	0.032	0.132	0.02319293
0.193	0.413	0.031	0.221	0.019959
0.130	0.343	0.054	0.139	0.0769307
0.128	0.104	0.054	0.214	0.02709177
0.148	0.263	0.049	0.161	0.02188654
0.246	0.073	0.050	0.555	0.03081753
0.361	0.113	0.042	0.839	0.02805144
0.083	0.174	0.049	0.084	0.02279929
0.237	0.121	0.064	0.454	0.0332274
0.112	0.082	0.026	0.079	0.01429201
0.070	0.200	0.160		
0.060	0.526	0.090		
0.040	0.348	0.150		
0.030	0.429	0.080		
0.060	0.438	0.090		
0.030	0.476	0.110		
0.090	0.481	0.140		
0.050	0.278	0.130		
0.040	0.421	0.110		
0.040	0.250	0.120		
0.050	0.467	0.080		
0.170	0.348	0.450		
0.050	0.286	0.150		
0.060	0.296	0.190		
0.050	0.346	0.170		
0.080	0.118	0.300		
0.060	0.231	0.200		
0.070	0.094	0.290		
0.150	0.057	0.500		
0.230	0.740	0.200		
0.040	0.167	0.150		
0.040	0.333	0.100		
0.120	0.346	0.340		
0.140	0.132	0.460		
0.030	0.308	0.090		

0.060	0.286	0.150
0.040	0.278	0.130
0.040	0.455	0.060
0.070	0.333	0.200
0.020	0.333	0.080
0.030	0.000	0.080
0.040	0.286	0.100
0.030	0.000	0.150
0.040	0.250	0.090
0.040	0.357	0.090
0.040	0.235	0.130
0.040	0.500	0.040
0.050	0.286	0.100
0.040	0.231	0.100
0.440	0.847	0.230
0.560	0.919	0.140
0.580	0.905	0.150
0.290	0.903	0.190
0.290	0.820	0.230
0.520	0.969	0.040
0.310	0.914	0.140
0.510	0.947	0.050
0.630	0.932	0.090
0.730	0.959	0.080
0.680	0.939	0.100
0.790	0.970	0.080
0.540	0.899	0.300
0.060	0.167	0.100
0.040	0.000	0.370
0.040	0.056	0.170
0.080	0.400	0.360
0.100	0.495	0.500
0.160	0.730	0.200
0.090	0.126	1.250
0.110	0.684	0.120
0.090	0.625	0.150
0.040	0.158	0.160
0.430	0.944	0.100
0.500	0.935	0.140
0.080	0.583	0.100
0.100	0.614	0.170

0.070	0.577	0.110
0.060	0.379	0.180
0.110	0.606	0.130
0.220	0.809	0.170
0.220	0.728	0.250
0.210	0.720	0.230
0.090	0.577	0.110
0.130	0.698	0.130
0.470	0.920	0.120
0.410	0.908	0.170
0.180	0.385	0.080
0.100	0.636	0.120
0.040	0.286	0.100
0.180	0.318	0.150
0.070	0.455	0.060
0.050	0.000	0.070
0.080	0.286	0.100
0.060	0.313	0.110
0.050	0.292	0.170
0.050	0.462	0.140
0.050	0.421	0.110
0.040	0.400	0.120
0.110	0.483	0.310
0.050	0.115	0.230
0.030	0.154	0.110
0.050	0.360	0.160
0.070	0.129	0.270
0.050	0.154	0.220
0.050	0.045	0.210
0.070	0.034	0.280
0.060	0.280	0.180
0.070	0.103	0.260
0.070	0.324	0.230
0.060	0.129	0.270
0.090	0.167	0.350
0.060	0.161	0.260
0.100	0.120	0.440
0.060	0.114	0.390
0.070	0.032	0.300
0.070	0.182	0.270
0.070	0.143	0.300

0.070	0.457	0.190		
0.560	0.931	0.170		
0.420	0.943	0.080		
0.380	0.913	0.150		
0.540	0.943	0.100		
0.560	0.946	0.130		
0.410	0.893	0.190		
0.430	0.925	0.110		
0.370	0.873	0.230		
0.660	0.778	0.180		
0.648	0.143	0.100	1.070	0.09
0.418	0.492	0.000	0.620	0
0.149	0.128	0.160	0.020	0.16
0.123	0.086	0.150	0.000	0.17
0.768	0.698	0.000	0.480	0
0.486	0.528	0.000	0.670	0
0.437	0.411	0.130	0.510	0.1
0.408	0.479	0.110	0.420	0.07
0.533	0.307	0.000	1.220	0
0.676	0.146	0.000	1.220	0
0.882	0.115	0.000	1.470	0
0.322	0.322	0.000	0.590	0
0.459	0.378	0.130	0.780	0.11
0.340	0.296	0.000	0.950	0
0.449	0.490	0.120	0.560	0.09
0.412	0.420	0.140	0.490	0.13
0.223	0.474	0.000	0.410	0
0.265	0.250	0.000	0.780	0
0.467	0.291	0.130	1.000	0.11
0.419	0.573	0.000	0.440	0
0.536	0.174	0.010	1.650	0.19
0.914	0.110	0.130	1.980	0.15
0.722	0.271	0.000	1.120	0.17
1.000	0.063	0.180	2.140	0.06
0.602	0.673	0.000	0.500	0
0.836	0.654	0.000	0.530	0
0.542	0.510	0.310	0.150	0
0.947	0.324	0.000	0.620	0.11
0.941	0.573	0.000	0.420	0
0.967	0.563	0.120	0.570	0.09
0.975	0.813	0.000	0.500	0

0.840	0.486	0.000	0.630	0.11
0.934	0.471	0.000	0.440	0
0.929	0.487	0.000	1.000	0
0.872	0.621	0.000	0.670	0
0.892	0.601	0.000	0.690	0
0.863	0.564	0.000	0.850	0
0.982	0.722	0.100	0.570	0.08
0.857	0.576	0.000	0.280	0
0.593	0.400	0.120	0.000	0.09
0.919	0.439	0.210	0.340	0.1
0.522	0.000	0.000	1.200	0
0.572	0.615	0.000	0.550	0
0.651	0.463	0.160	0.000	0.13
0.155	0.193	0.210	0.070	0.38
0.092	0.139	0.000	1.990	0
0.546	0.387	0.490	0.260	0.12
0.646	0.345	0.000	0.970	0
0.110	0.152	0.150	0.020	0.12
0.681	0.683	0.000	0.410	0
0.590	0.789	0.200		
0.763	0.915	0.170		
0.440	0.840	0.230		
0.829	0.942	0.150		
0.818	0.830	0.190		
0.556	0.905	0.100		
0.524	0.857	0.140		
0.498	0.798	0.210		
0.811	0.958	0.150		
0.798	0.958	0.150		
0.339	0.871	0.200		
0.238	0.267	0.330		
0.561	0.800	0.210		
0.686	0.921	0.140		
0.754	0.866	0.370		
0.208	0.785	0.290		
0.616	0.855	0.200		
0.800	0.901	0.380		
0.765	0.938	0.080		
0.758	0.620	0.570		
0.635	0.943	0.100		
0.661	0.877	0.290		

0.776	0.931	0.110		
0.734	0.665	0.630		
0.258	0.450	0.126	0.461	0.206
0.329	0.346	0.868	0.550	0.196
0.359	0.362	1.010	0.588	0.199
0.423	0.793	0.926	0.876	0.157
0.592	0.805	0.385	0.585	0.187
0.581	0.994	4.449	1.008	0.183
0.998	0.839	7.980	1.571	0.145
0.877	0.957	2.692	4.065	0.38
0.142	0.257	0.169	0.374	0.16
0.915	0.882	2.345	8.175	0.469
0.477	0.510	1.734	0.952	0.113
0.607	0.491	1.972	1.210	0.202
0.577	0.775	0.251	0.368	0.15
0.434	0.772	0.175	0.385	0.107
0.563	0.780	0.266	0.465	0.108
0.269	0.492	0.117	0.477	0.212
0.226	0.191	0.270	0.523	0.372
0.372	0.622	0.031	0.368	0.145
0.627	0.834	0.026	0.425	0.121
0.279	0.507	0.022	0.308	0.101
0.332	0.631	0.026	0.227	0.119
0.523	0.776	0.031	0.382	0.156
0.417	0.423	0.129	0.644	0.147
0.428	0.659	0.036	0.432	0.166
0.610	0.305	0.172	1.219	0.112
0.685	0.347	0.153	1.347	0.118
0.384	0.279	0.123	0.755	0.13
0.478	0.298	0.108	0.972	0.081
0.512	0.332	0.150	1.018	0.115
0.735	0.366	0.550	1.325	0.252
0.677	0.349	0.185	1.301	0.082
0.234	0.299	0.102	0.264	0.07
0.483	0.345	0.218	0.644	0.1
0.803	0.465	0.156	2.038	0.18
0.590	0.652	0.070	0.736	0.059
0.165	0.244	0.022	0.273	0.084
0.653	0.754	0.056	0.771	0.103
0.823	0.879	0.055	0.872	0.11
0.640	0.344	0.254	1.191	0.226

0.660	0.303	0.468	1.391	0.367
0.671	0.323	0.494	1.354	0.306
0.549	0.481	0.113	0.744	0.13
0.669	0.831	0.021	0.435	0.058
0.808	0.898	0.024	0.578	0.056
0.748	0.858	0.041	0.714	0.086
0.758	0.870	0.055	0.811	0.102
0.374	0.540	0.056	0.622	0.118
0.674	0.496	0.485	0.817	0.39
0.790	0.473	0.447	1.264	0.427
0.751	0.579	0.313	0.814	0.58
0.477	0.496	0.216	0.392	0.075
0.489	0.855	0.015	0.191	0.094
0.542	0.885	0.018	0.207	0.099
0.525	0.867	0.019	0.267	0.151
0.542	0.894	0.023	0.277	0.149
0.641	0.911	0.034	0.342	0.166
0.506	0.850	0.042	0.314	0.235
0.552	0.877	0.039	0.310	0.237
0.466	0.818	0.041	0.258	0.233
0.504	0.809	0.045	0.295	0.261
0.881	0.949	0.030	0.787	0.071
0.499	0.839	0.040	0.305	0.226
0.625	0.901	0.039	0.424	0.222
0.309	0.416	0.016	0.358	0.118
0.234	0.172	0.043	0.414	0.184
0.329	0.509	0.039	0.379	0.163
0.345	0.498	0.037	0.372	0.162
0.742	0.811	0.019	0.305	0.038
0.520	0.413	0.017	0.242	0.049
0.276	0.150	0.031	0.346	0.152
0.351	0.475	0.029	0.307	0.238
0.402	0.563	0.026	0.290	0.213
0.324	0.408	0.031	0.343	0.278
0.615	0.295	0.630	0.113	0.036
0.490	0.834	0.406	0.076	0.025
0.610	0.907	0.276	0.089	0.02
0.524	0.807	0.310	0.180	0.018
0.476	0.802	0.131	0.887	0.148
0.655	0.811	4.173	0.096	0.02
0.130	0.258	0.209	0.217	0.168

0.205	0.311	0.468	0.325	0.246
0.603	0.370	2.040	0.491	0.125
0.204	0.272	0.543	0.243	0.157
0.221	0.557	0.691	0.275	0.148
0.313	0.444	0.500	0.214	0.079
0.162	0.551	0.384	0.247	0.153
0.129	0.770	0.345	0.173	0.1
0.390	0.813	0.221	0.196	0.083
0.400	0.826	0.440	0.236	0.133
0.826	0.989	4.382	0.838	0.172
0.097	0.270	0.115	0.203	0.104
0.121	0.482	0.197	0.193	0.121
0.379	0.872	1.462	0.378	0.097
0.747	0.308	2.522	0.557	0.091
0.123	0.180	0.229	0.209	0.173
0.349	0.435	0.492	0.203	0.094
0.452	0.823	0.997	0.240	0.098
0.430	0.960	1.829	0.324	0.108
0.104	0.140	0.114	0.201	0.163
0.743	0.340	2.325	0.368	0.095
0.101	0.043	0.097	0.213	0.185
0.273	0.248	0.867	0.186	0.158
0.124	0.153	0.198	0.198	0.171
0.552	0.420	0.520	0.283	0.067
0.319	0.361	0.243	0.073	0.037
0.225	0.101	0.220	0.041	0.013
0.142	0.081	0.146	0.240	0.13
0.662	0.437	1.061	0.509	0.167
0.368	0.835	0.122	0.192	0.047
0.419	0.824	0.223	0.126	0.049
0.435	0.983	1.254	0.206	0.082
0.370	0.818	1.254	0.206	0.088
0.333	0.468	0.853	0.271	0.155
0.343	0.579	0.838	0.206	0.111
0.240	0.089	0.224	0.187	0.106
0.305	0.591	0.706	0.192	0.113
0.107	0.019	0.234	0.179	0.163
0.157	0.309	0.447	0.213	0.154
0.300	0.375	0.721	0.238	0.152
0.456	0.830	1.444	0.236	0.144
0.334	0.246	0.718	0.340	0.285

0.451	0.818	0.370	0.206	0.065
0.419	0.985	0.249	0.543	0.21
0.374	0.434	0.993	0.286	0.215
0.383	0.840	0.735	0.294	0.095
0.189	0.068	0.297	0.198	0.22
0.357	0.526	0.994	0.297	0.206
0.431	0.886	1.822	0.280	0.152
0.396	0.991	1.728	0.228	0.086
0.464	0.808	1.490	0.373	0.236
0.392	0.854	1.398	0.271	0.177
0.437	0.813	1.700	0.295	0.195
0.474	0.949	1.523	0.234	0.093
0.898	0.952	1.615	0.264	0.112
0.581	0.807	0.427	0.206	0.061
0.126	0.202	0.560	0.326	0.434
0.391	0.955	1.353	0.236	0.108
0.263	0.767	0.618	0.221	0.155
0.232	0.793	0.635	0.173	0.091
0.152	0.490	0.267	0.131	0.069
0.486	0.805	0.898	0.277	0.175
0.579	0.862	0.528	0.238	0.065
0.872	0.997	1.385	0.367	0.093
0.253	0.041	0.115	1.019	0.154
0.252	0.194	0.130	0.786	0.137
0.282	0.131	0.140	1.017	0.143
0.279	0.094	0.116	1.123	0.144
0.324	0.241	0.142	0.956	0.125
0.257	0.037	0.127	1.053	0.153
0.382	0.445	0.143	0.750	0.101
0.308	0.239	0.135	0.876	0.13
0.328	0.270	0.166	0.975	0.112
0.247	0.063	0.127	0.957	0.104
0.324	0.289	0.140	0.885	0.161
0.353	0.385	0.144	0.738	0.092
0.276	0.148	0.144	0.964	0.134
0.285	0.215	0.151	0.911	0.129
0.254	0.113	0.103	0.852	0.111
0.309	0.228	0.142	0.832	0.105
0.284	0.173	0.162	0.991	0.115
0.271	0.038	0.098	1.085	0.117
0.274	0.134	0.103	0.927	0.112

0.277	0.069	0.107	0.983	0.115
0.258	0.058	0.140	0.982	0.12
0.328	0.332	0.126	0.778	0.096
0.326	0.415	0.138	0.852	0.126
0.294	0.109	0.111	1.024	0.105
0.324	0.440	0.568	0.229	0.146
0.378	0.618	0.347	0.285	0.249
0.537	0.869	0.112	0.156	0.105
0.456	0.784	0.246	0.212	0.126
0.155	0.181	0.363	0.308	0.096
0.311	0.626	0.183	0.227	0.12
0.204	0.406	0.232	0.233	0.115
0.165	0.265	0.229	0.211	0.112
0.325	0.709	0.146	0.188	0.117
0.123	0.156	0.232	0.233	0.115
0.268	0.613	0.256	0.179	0.105
0.186	0.180	0.295	0.247	0.162
0.276	0.669	0.164	0.186	0.111
0.481	0.732	0.228	0.283	0.129
0.621	0.831	0.262	0.192	0.134
0.377	0.680	0.249	0.235	0.092
0.263	0.526	0.316	0.269	0.161
0.246	0.443	0.365	0.294	0.104
0.192	0.389	0.268	0.240	0.112
0.167	0.316	0.259	0.272	0.13
0.152	0.250	0.254	0.241	0.101
0.340	0.606	0.247	0.236	0.153
0.236	0.578	0.140	0.174	0.102
0.156	0.247	0.295	0.310	0.125
0.133	0.169	0.251	0.268	0.144
0.162	0.259	0.305	0.272	0.143
0.239	0.561	0.209	0.243	0.137
0.263	0.594	0.205	0.225	0.154
0.436	0.822	0.164	0.149	0.075
0.284	0.243	0.121	0.118	0.355
0.659	0.819	0.205	0.225	0.299
0.607	0.786	0.300	0.258	0.333
0.459	0.747	0.200	0.212	0.269
0.378	0.637	0.274	0.228	0.287
0.275	0.092	0.045	0.993	0.397
0.203	0.492	0.004	0.163	0.062

0.265	0.275	0.028	0.709	0.263
0.298	0.378	0.024	0.689	0.275
0.306	0.372	0.025	0.609	0.222
0.331	0.344	0.033	0.828	0.277
0.415	0.608	0.005	0.504	0.15
0.266	0.236	0.011	0.472	0.116
0.441	0.498	0.040	0.746	0.223
0.288	0.307	0.034	0.587	0.18
0.235	0.049	0.049	0.900	0.294
0.209	0.030	0.026	0.723	0.249
0.241	0.028	0.028	0.916	0.287
0.220	0.067	0.034	0.677	0.269
0.274	0.045	0.036	1.015	0.333
0.259	0.201	0.034	0.733	0.299
0.281	0.010	0.039	0.959	0.355
0.217	0.015	0.025	0.714	0.289
0.227	0.097	0.024	0.746	0.307
0.270	0.125	0.039	0.908	0.352
0.267	0.113	0.021	0.900	0.326
0.263	0.045	0.048	1.115	0.445
0.243	0.049	0.042	0.917	0.389
0.176	0.008	0.038	0.464	0.332
0.289	0.232	0.059	0.687	0.493
0.221	0.184	0.037	0.529	0.328
0.254	0.342	0.039	0.486	0.312
0.178	0.012	0.028	0.557	0.31
0.215	0.014	0.033	0.636	0.352
0.214	0.034	0.031	0.728	0.346
0.195	0.015	0.039	0.662	0.351
0.257	0.005	0.067	1.081	0.62
0.281	0.248	0.040	0.644	0.373
0.228	0.040	0.038	0.729	0.447
0.263	0.043	0.041	0.661	0.391
0.508	0.041	0.086	3.290	0.905
0.263	0.132	0.019	0.559	0.254
0.311	0.077	0.072	1.112	0.545
0.283	0.142	0.044	0.853	0.303
0.220	0.189	0.008	0.301	0.129
0.270	0.015	0.033	1.043	0.519
0.336	0.199	0.057	1.275	0.527
0.214	0.017	0.049	1.019	0.501

0.234	0.206	0.018	0.541	0.283
0.236	0.243	0.005	0.572	0.288
0.204	0.057	0.014	0.664	0.307
0.273	0.239	0.010	0.627	0.3
0.234	0.186	0.011	0.594	0.317
0.251	0.149	0.040	0.710	0.285
0.228	0.168	0.043	0.585	0.283
0.246	0.005	0.050	0.983	0.494
0.229	0.136	0.047	0.653	0.317
0.195	0.034	0.042	0.704	0.295
0.183	0.019	0.036	0.590	0.234
0.187	0.076	0.040	0.582	0.259
0.216	0.318	0.027	0.371	0.163
0.270	0.489	0.019	0.338	0.088
0.236	0.340	0.019	0.362	0.096
0.166	0.083	0.013	0.490	0.094
0.252	0.339	0.020	0.372	0.096
0.275	0.036	0.036	0.739	0.408
0.245	0.008	0.036	0.863	0.464
0.310	0.023	0.048	1.625	0.484
0.253	0.054	0.033	0.806	0.417
0.303	0.012	0.053	1.207	0.761
0.369	0.002	0.066	2.501	0.713
0.263	0.023	0.031	0.959	0.422
0.804	0.316	0.268	0.856	0.179
0.759	0.066	0.463	1.442	0.305
0.233	0.138	0.063	0.324	0.062
0.254	0.138	0.104	0.302	0.061
0.503	0.083	0.194	0.725	0.116
0.096	0.146	0.075	0.077	0.03
0.071	0.035	0.038	0.077	0.023
0.956	0.152	0.145	0.527	0.093
0.755	0.626	0.129	0.608	0.157
0.930	0.002	0.082	0.359	0.025
0.844	0.198	0.220	1.032	0.307
0.598	0.975	0.031	0.012	0.011
0.568	0.968	0.025	0.011	0.008
0.645	0.058	0.178	0.600	0.265
0.829	0.529	0.079	0.322	0.067
0.224	0.967	0.023	0.007	0.007
0.355	0.943	0.020	0.004	0.007

0.440	0.957	0.027	0.008	0.005
0.353	0.831	0.041	0.118	0.043
0.380	0.947	0.027	0.023	0.001
0.557	0.101	0.245	1.128	0.337
0.439	0.864	0.036	0.068	0.026
0.341	0.472	0.101	0.381	0.145
0.304	0.725	0.040	0.160	0.048
0.336	0.711	0.080	0.178	0.064
0.434	0.587	0.069	0.184	0.059
0.449	0.810	0.085	0.233	0.074
0.474	0.782	0.054	0.088	0.044
0.177	0.309	0.072	0.208	0.095
0.454	0.769	0.063	0.148	0.033
0.215	0.785	0.041	0.032	0.013
0.746	0.296	0.291	1.102	0.256
0.051	0.604	0.022	0.018	0.002
0.552	0.338	0.128	0.563	0.169
0.864	0.402	0.075	0.278	0.079
0.346	0.837	0.076	0.247	0.044
0.900	0.135	0.107	0.381	0.057
0.832	0.459	0.188	0.862	0.196
0.919	0.266	0.088	0.407	0.078
0.630	0.600			
0.670	0.310			
0.440	0.870			
0.570	0.790			
0.780	0.780			
0.680	0.820			
0.780	0.820			
0.910	0.910			
0.860	0.880			
0.550	0.880			
0.300	0.860			
0.440	0.900			
0.390	0.850			
0.390	0.770			
0.910	0.960			
0.910	0.910			
0.430	0.540			
0.580	0.830	0.120	0.100	0.11
0.500	0.850	0.180	0.040	0.05

0.900	0.920	0.240	0.050	0.06
0.960	0.930	0.110	0.030	0.02
1.040	0.590	0.240	0.090	0.04
1.040	0.980	0.010	0.050	0.05
0.970	0.970	0.030	0.170	0.04
1.030	0.980	0.010	0.140	0.01
0.270	0.740	0.010	0.160	0
1.040	0.990	0.020	0.000	0
0.890	0.980	0.010	0.000	0
0.960	0.990	0.010	0.000	0
0.830	0.960	0.010	0.010	0
0.450	0.970	0.020	0.000	0
0.670	0.840	0.120	0.020	0
0.910	0.900	0.040	0.050	0.01
1.030	0.960	0.020	0.040	0.01
0.870	0.980	0.010	0.020	0
1.040	0.920	0.070	0.010	0.02
0.890	0.940	0.020	0.030	0.02
0.510	0.680	0.240	0.520	0.01
0.680	0.690	0.270	0.430	0.01
0.700	0.680	0.330	0.540	0.01
0.660	0.710	0.410	0.540	0.02
0.630	0.820	0.030	0.300	0.05
0.600	0.950	0.020	0.030	0.03
0.570	0.900	0.030	0.040	0.04
0.420	0.950	0.020	0.060	0
1.050	0.830	0.150	0.020	0.03
0.170	0.270	0.080	0.010	0.16
0.700	0.510	0.700	0.160	0.38
1.020	0.570	0.120	0.110	0.36
0.510	0.130	0.210	0.100	0.29
0.340	0.400	0.290	0.120	0.3
0.430	0.460	0.250	0.050	0.25
0.220	0.070	0.180	0.260	0.77
0.380	0.540	0.030	0.200	0.08
0.350	0.670	0.100	0.090	0.15
0.240	0.410	0.070	0.020	0.09
0.580	0.590	0.020	0.030	0.08
0.310	0.920	0.020	0.010	0.04
0.480	0.370	0.060	0.290	0.21
0.250	0.330	0.150	0.150	0.16

0.120	0.080	0.250	0.460	0.38
0.400	0.480	0.210	0.200	0.38
0.130	0.180	0.240	0.250	0.38
0.190	0.440	0.290	0.260	0.47
0.290	0.290	0.190	0.360	0.36
0.660	0.550	0.070	0.030	0.09
0.200	0.140	0.420	0.550	0.68
0.413	0.003	0.514	1.116	1.598
0.375	0.119	0.185	0.784	0.871
0.462	0.608	0.049	0.257	0.211
0.452	0.588	0.070	0.265	0.215
0.397	0.563	0.089	0.287	0.215
0.474	0.567	0.062	0.303	0.234
0.493	0.573	0.044	0.276	0.162
0.539	0.635	0.047	0.273	0.191
0.433	0.612	0.046	0.227	0.201
0.429	0.585	0.071	0.380	0.231
0.441	0.564	0.077	0.403	0.257
0.487	0.618	0.064	0.271	0.219
0.421	0.577	0.071	0.307	0.155
0.495	0.626	0.044	0.276	0.192
0.281	0.010	0.321	0.401	0.938
0.264	0.015	0.153	0.556	0.869
0.352	0.042	0.181	0.712	0.955
0.349	0.003	0.241	0.766	1.091
0.347	0.007	0.262	0.644	0.908
0.265	0.022	0.320	0.551	0.81
0.296	0.006	0.411	0.434	1.149
0.292	0.351	0.088	0.326	0.406
0.364	0.248	0.123	0.517	0.575
0.354	0.435	0.108	0.433	0.451
0.351	0.014	0.422	0.771	1.494
0.550	0.584	0.069	0.428	0.295
0.374	0.568	0.106	0.509	0.338
0.353	0.630	0.100	0.394	0.283
0.375	0.119	0.185	0.784	0.871
0.484	0.560	0.100	0.432	0.417
0.245	0.018	0.151	0.569	0.896
0.420	0.568	0.108	0.436	0.495
0.415	0.491	0.136	0.494	0.555
0.441	0.638	0.081	0.318	0.347

0.412	0.516	0.129	0.604	0.428
0.380	0.617	0.086	0.313	0.301
0.291	0.072	0.129	0.552	0.656
0.496	0.496	0.106	0.526	0.53
0.272	0.011	0.325	0.634	0.937
0.484	0.536	0.126	0.518	0.557
0.250	0.042	0.267	0.588	1.058
0.358	0.009	0.754	1.151	1.355
0.477	0.008	0.558	1.053	0.89
0.276	0.032	0.311	0.541	0.905
0.260	0.022	0.283	0.552	1.03
0.301	0.204	0.124	0.486	0.627
0.455	0.515	0.099	0.452	0.332
0.379	0.345	0.142	0.652	0.505
0.225	0.080	0.129	0.459	0.495
0.375	0.006	0.572	0.704	1.21
0.263	0.022	0.391	0.607	0.95
0.413	0.009	0.457	0.732	1.27
0.286	0.066	0.232	0.431	0.865
0.252	0.085	0.344	0.333	0.518
0.314	0.000	1.261	0.195	0.854
0.535	0.000	3.301	0.062	0.579
0.489	0.000	2.926	0.033	0.745
0.405	0.005	0.426	0.692	1.817
0.307	0.011	0.323	0.479	0.954
0.322	0.008	0.246	0.967	1.296
0.248	0.194	0.085	0.284	0.421
0.290	0.020	0.362	0.595	0.942
0.430	0.340	0.250	0.000	0.71
0.420	0.470	0.130	0.000	0.29
0.900	0.830	0.140	0.100	0.17
0.930	0.870	0.290	6.000	0.02
0.860	0.830	0.080	0.120	0.17
0.910	0.920	0.160	0.070	0.03
0.930	0.710	0.700	0.240	0.07
0.870	0.930	0.060	0.100	0.06
0.920	0.920	0.090	0.100	0.06
0.770	0.860	0.160	0.100	0.06
0.910	0.850	0.090	0.200	0.08
1.040	0.760	0.140	0.100	0.34
0.750	0.610	0.130	0.100	0.5

0.760	0.690	0.060	0.100	0.24
0.260	0.630	0.030	0.080	0.23
0.100	0.240			
0.100	0.130			
0.490	0.790			
0.770	0.480			
0.140	0.190			
0.180	0.130			
0.640	0.670			
0.670	0.690			
0.360	0.520			
0.680	0.650			
0.660	0.610			
0.660	0.700			
0.260	0.090			
0.600	0.630			
0.800	0.800			
0.880	0.720			
1.000	0.900	0.200	0.200	0.1
0.900	0.800	0.100	0.100	0.2
1.000	0.900	0.100	0.000	0
1.000	0.900	0.100	0.000	0
0.100	0.800	0.000	0.000	0
0.400	1.000	0.000	0.000	0
0.400	0.900	0.000	0.000	0
0.500	1.000	0.000	0.000	0
0.400	1.000	0.000	0.000	0
0.700	0.900	0.000	0.000	0
0.100	0.300	0.100	0.000	0
0.000	0.500	0.000	0.000	0
0.000	0.400	0.000	0.000	0
0.600	0.700	0.100	0.200	0
0.500	0.900	0.000	0.200	0
0.500	0.900	0.000	0.200	0
0.200	0.700	0.100	0.000	0
0.100	0.300	0.100	0.100	0.1
0.100	0.300	0.000	0.300	0.1
0.200	0.000	0.500	0.000	0.2
0.100	0.000	0.200	0.000	0.1
0.200	0.000	0.200	0.400	0.2
0.100	0.000	0.100	0.100	0.1

0.400	0.700	0.200	0.100	0.1
0.400	0.700	0.200	0.200	0.1
0.200	0.800	0.100	0.100	0.1
0.100	0.000	0.100	0.100	0.1
0.388	0.003	1.164	0.208	0.3896661
0.476	0.002	1.348	0.261	0.20564847
0.297	0.004	0.732	0.091	0.11425892
0.242	0.006	0.825	0.143	0.16468875
0.283	0.004	1.072	0.545	0.26895796
0.434	0.075	0.395	0.893	0.12648336
0.335	0.001	0.635	1.171	0.50938053
0.316	0.132	0.631	0.770	1.09208054
0.277	0.058	0.429	0.567	0.78654504
0.257	0.023	0.358	0.518	0.72912705
0.279	0.004	0.350	0.842	0.85974499
0.280	0.005	0.319	0.684	0.80493671
0.331	0.001	0.226	1.061	0.32244389
0.205	0.005	0.311	0.292	0.29640553
0.565	0.003	0.175	1.485	0.45489007
0.508	0.015	0.303	1.177	0.96709402
0.474	0.005	0.276	1.205	0.82721617
0.509	0.002	0.323	1.202	0.96179183
0.261	0.001	0.272	1.204	0.83238547
0.465	0.001	0.259	0.874	0.66252822
0.345	0.001	0.294	0.682	0.4468651
0.183	0.003	0.318	0.448	0.52066574
0.165	0.000	0.316	0.440	0.52154696
0.178	0.000	0.293	0.355	0.51657397
0.191	0.001	0.288	0.285	0.51109123
0.220	0.003	0.292	0.306	0.53806328
0.234	0.025	0.408	0.408	0.54797017
0.158	0.000	0.213	0.004	0.00424104
0.353	0.000	0.687	0.005	0.02746615
0.120	0.000	0.115	0.010	0.00657417
0.062	0.000	0.088	0.059	0.03853913
0.091	0.000	0.193	0.041	0.02434639
0.062	0.000	0.043	0.006	0.00681388
0.299	0.000	0.373	0.004	0.01765384
0.226	0.000	0.366	0.006	0.02819525
0.356	0.000	0.977	0.009	0.10187202
0.249	0.023	0.180	0.010	0.00543132

0.697	0.001	2.632	0.005	0.33019471
0.245	0.013	0.203	0.007	0.00482225
0.118	0.030	0.080	0.008	0.00865563
0.546	0.001	1.794	0.052	0.10922551
0.200	0.016	0.165	0.006	0.00743425
0.246	0.004	0.486	0.030	0.04366645
0.193	0.003	0.424	0.041	0.02706419
0.414	0.014	0.374	0.041	0.01818016
0.106	0.017	0.078	0.040	0.01134718
0.369	0.003	0.568	0.048	0.03914659
0.734	0.020	0.126	0.281	0.00311704
0.104	0.005	0.294	0.024	0.04746601
0.331	0.004	0.489	0.108	0.04143268
0.148	0.003	0.453	0.042	0.04839161
0.095	0.007	0.161	0.074	0.02737327
0.388	0.002	1.136	0.085	0.07256573
0.125	0.004	0.372	0.057	0.03440962
0.110	0.011	0.293	0.027	0.02695602
0.036	0.018	0.058	0.038	0.01259478
0.445	0.003	1.069	0.134	0.00812359
0.048	0.000	0.028	0.061	0.01493258
0.118	0.001	0.391	0.065	0.0304103
0.270	0.001	0.522	0.037	0.01982783
0.030	0.005	0.032	0.045	0.01783091
0.058	0.014	0.028	0.057	0.00850706
0.106	0.007	0.195	0.050	0.01776559
0.639	0.001	1.856	0.013	0.13581004
0.315	0.002	0.669	0.047	0.03245279
0.186	0.003	0.427	0.070	0.05031677
0.256	0.011	0.489	0.158	0.02147291
0.433	0.001	0.987	0.047	0.08258699
0.322	0.000	0.884	0.044	0.04878465
0.265	0.003	0.611	0.055	0.04296273
0.910	0.001	2.653	0.120	0.02650755
0.649	0.001	1.817	0.036	0.01457712
0.704	0.003	0.975	0.285	0.01082705
0.398	0.003	0.882	0.044	0.0514519
0.181	0.007	0.220	0.046	0.03084409
0.333	0.002	0.811	0.026	0.04553234
0.544	0.000	6.981	0.025	0.28930144
0.592	0.006	0.354	0.026	0.00261376

0.765	0.000	3.408	0.017	0.03146475
0.420	0.001	1.206	0.033	0.06555644
0.186	0.002	0.360	0.059	0.03659593
0.161	0.000	0.612	0.037	0.03688686
0.306	0.000	0.948	0.083	0.03580301
0.486	0.000	2.170	0.081	0.07615137
0.220	0.000	0.733	0.064	0.04169797
0.141	0.000	0.472	0.066	0.04391909
0.364	0.001	1.745	0.081	0.07490522
0.312	0.001	1.094	0.073	0.08645567
0.094	0.005	0.298	0.086	0.04990892
0.064	0.007	0.138	0.094	0.03410917
0.117	0.004	0.343	0.102	0.06007134
0.097	0.005	0.233	0.096	0.0426011
0.229	0.002	0.845	0.093	0.06314455
0.233	0.002	0.802	0.085	0.05272843
0.331	0.001	1.054	0.091	0.10529334
0.084	0.007	0.226	0.049	0.02832642
0.264	0.000	0.961	0.111	0.05341661
0.195	0.000	0.601	0.054	0.05008104
0.440	0.000	1.204	0.062	0.01935978
0.152	0.000	0.428	0.145	0.02640843
0.663	0.000	2.501	0.079	0.01866503
0.268	0.000	0.789	0.080	0.01857988
0.715	0.000	3.171	0.030	0.0151533
0.714	0.000	3.887	0.017	0.07769112
0.082	0.002	0.118	0.054	0.02116076
0.746	0.001	1.507	0.083	0.02778207
0.827	0.002	1.564	0.488	0.01931313
0.532	0.002	0.669	0.122	0.04826522
0.964	0.005	0.342	0.845	0.00267987
0.442	0.000	6.445	0.007	0.6144484
0.919	0.000	1.876	0.885	0.00574445
0.741	0.001	1.239	0.278	0.02917976
0.879	0.001	1.851	0.626	0.01014143
0.821	0.001	2.574	0.076	0.04835509
0.790	0.001	2.734	0.068	0.03023621
0.829	0.001	1.663	0.382	0.01621975
0.380	0.000	2.457	0.011	0.18732818
0.644	0.000	1.746	0.287	0.02112968
0.736	0.004	1.892	0.035	0.02289442

0.377	0.006	0.135	0.021	0.00183378
0.698	0.000	2.110	0.007	0.07365341
0.600	0.000	2.097	0.012	0.08854419
0.447	0.000	1.528	0.045	0.06274753
0.636	0.000	1.217	0.124	0.05735044
0.183	0.000	0.529	0.091	0.03792259
0.219	0.000	0.756	0.091	0.07675744
0.459	0.000	1.518	0.060	0.15726488
0.100	0.010	0.090	0.020	0.02
0.820	0.020	1.060	0.010	0.02
0.820	0.610	0.140	0.500	0.01
0.810	0.020	1.420	0.820	0.01
0.280	0.140	0.290	0.080	0.01
0.930	0.780	0.400	0.280	0.04
0.830	0.780	0.360	0.120	0.04
0.830	0.830	0.250	0.090	0.04
1.020	0.320	0.210	0.300	0.01
0.890	0.220	0.230	0.410	0.01
0.870	0.880	0.150	0.140	0.03
0.720	0.630	0.340	0.070	0.02
0.800	0.840	0.270	0.290	0.05
0.660	0.080	0.210	0.000	0.01
0.800	0.860	0.240	0.120	0.03
0.820	0.030	0.520	0.130	0.01
0.409	0.001			
0.258	0.001			
0.567	0.002			
0.448	0.002			
0.359	0.002			
0.486	0.002			
0.092	0.015			
0.485	0.000			
0.425	0.002			
0.635	0.001			
0.208	0.098			
0.100	0.027			
0.283	0.002			
0.608	0.193			
0.505	0.109			
0.653	0.279			
0.659	0.001			

0.395	0.649
0.277	0.002
0.178	0.365
0.220	0.560
0.490	0.170
0.749	0.006
0.448	0.293
0.160	0.108
0.344	0.376
0.485	0.005
0.371	0.766
0.267	0.001
0.535	0.001
0.800	0.000
0.420	0.004
0.771	0.001
0.198	0.002
0.218	0.005
0.119	0.057
0.546	0.008
0.166	0.000
0.132	0.017
0.319	0.001
0.361	0.001
0.199	0.037
0.287	0.048
0.158	0.011
0.121	0.004
0.363	0.368
0.580	0.003
0.346	0.001
0.164	0.001
0.116	0.043
0.128	0.034
0.205	0.001
0.425	0.001
0.147	0.000
0.476	0.000
0.262	0.000
0.422	0.006
0.311	0.002

0.306	0.001
0.392	0.001
0.285	0.003
0.532	0.000
0.571	0.000
0.116	0.002
0.074	0.000
0.572	0.016
0.591	0.060
0.266	0.000
0.552	0.022
0.524	0.000
0.239	0.000
0.301	0.000
0.365	0.021
0.500	0.001
0.181	0.000
0.743	0.000
0.384	0.001
0.168	0.002
0.208	0.004
0.471	0.013
0.224	0.108
0.242	0.003
0.388	0.001
0.322	0.001
0.299	0.011
0.415	0.002
0.212	0.005
0.583	0.000
0.242	0.013
0.395	0.001
0.497	0.001
0.313	0.000
0.423	0.008
0.380	0.000
0.507	0.018
0.190	0.030
0.173	0.000
0.284	0.081
0.215	0.005

0.178	0.000			
0.113	0.154			
0.124	0.226			
0.203	0.152			
0.756	0.000			
0.783	0.003			
0.440	0.070			
0.040	0.010			
0.040	0.150			
0.950	0.020			
0.580	0.200			
0.840	0.030			
0.530	0.260			
0.660	0.310			
0.680	0.080			
0.690	0.010			
0.080	0.020			
0.440	0.140			
0.280	0.040			
0.370	0.160			
0.610	0.160			
0.190	0.010			
0.450	0.030			
0.370	0.020			
0.167	0.010	0.170	0.420	0.37
0.181	0.030	0.170	0.410	0.37
0.196	0.030	0.190	0.480	0.43
0.200	0.000	0.390	0.000	0.04
0.340	0.000	0.310	0.350	0
0.580	0.030	0.270	0.750	0.01
0.710	0.040	0.350	0.910	0
0.870	0.000	0.480	2.640	0.07
0.470	0.030	0.050	0.210	0.03
0.870	0.030	0.320	1.660	0.03
0.890	0.000	0.320	2.420	0.08
0.690	0.020	0.280	0.800	0.02
0.170	0.250	0.060	0.110	0.02
0.660	0.010	0.170	1.050	0.04
0.720	0.010	0.080	0.650	0
0.060	0.140	0.000	0.030	0
0.660	0.010	0.060	0.580	0.01

0.470	0.390	0.100	0.320	0
0.790	0.000	0.020	0.920	0
0.850	0.000	0.110	0.920	0.01
0.800	0.010	0.190	1.230	0.01
0.780	0.000	0.170	0.730	0.01
0.860	0.030	0.320	1.680	0.04
0.870	0.000	0.870	1.840	0.03
0.960	0.000	0.460	2.410	0.01
0.720	0.070	0.170	0.760	0.01
0.410	0.160	0.160	0.480	0.03
0.520	0.200	0.170	0.540	0.04
0.540	0.120	0.210	0.550	0.02
0.790	0.040	0.160	0.550	0.01
0.500	0.110	0.210	0.600	0.03
0.430	0.090	0.200	0.560	0.05
0.490	0.090	0.300	0.630	0.05
0.340	0.010	0.270	0.410	0.06
0.350	0.030	0.240	0.330	0.03
0.210	0.010	0.190	0.420	0.07
0.360	0.120	0.210	0.630	0.14
0.430	0.070	0.260	0.900	0.07
0.500	0.180	0.050	0.300	0.06
0.300	0.110	0.120	0.650	0.1
0.410	0.100	0.290	0.890	0.25
0.440	0.560	0.120	0.350	0.12
0.570	0.090	0.560	1.280	0.1
0.300	0.070	0.250	0.590	0.11
0.350	0.160	0.300	0.650	0.1
0.330	0.300	0.220	0.520	0.14
0.400	0.190	0.330	0.770	0.3
0.380	0.360	0.210	0.390	0.13
0.670	0.170	0.560	1.530	0.17
0.450	0.200	0.340	0.680	0.14
0.890	0.110	0.150	1.580	0.12
0.390	0.110	0.330	0.500	0.1
0.740	0.080	0.770	1.790	0.12
0.290	0.020	0.310	0.540	0.13
0.460	0.310	0.290	0.800	0.27
0.250	0.010	0.330	0.490	0.09
0.550	0.530	0.170	0.520	0.1
0.290	0.060	0.360	0.620	0.16

0.940	0.330	0.340	1.070	0.03
0.520	0.120	0.280	0.190	0.04
0.260	0.010	0.360	0.560	0.15
0.490	0.130	0.410	0.520	0.1
0.320	0.120	0.270	0.580	0.18
0.280	0.100	0.260	0.490	0.17
0.750	0.000	0.480	0.720	0.02
0.360	0.060	0.280	0.750	0.19
0.310	0.060	0.320	0.540	0.28
0.340	0.050	0.290	0.670	0.28
0.340	0.060	0.350	0.680	0.24
0.320	0.040	0.280	0.790	0.26
0.320	0.040	0.290	0.640	0.3
0.340	0.140	0.340	0.630	0.28
0.300	0.030	0.290	0.540	0.24
0.320	0.140	0.300	0.500	0.24
0.460	0.230	0.390	0.850	0.21
0.330	0.060	0.380	0.720	0.16
0.470	0.070	0.400	1.050	0.24
0.460	0.360	0.260	0.730	0.23
0.460	0.380	0.220	0.740	0.21
0.500	0.440	0.250	0.590	0.16
0.540	0.600	0.250	0.540	0.12
0.520	0.620	0.190	0.510	0.14
0.480	0.480	0.310	0.670	0.2
0.500	0.650	0.190	0.420	0.14
0.500	0.570	0.210	0.510	0.11
0.620	0.440	0.400	0.860	0.09
0.660	0.360	0.440	1.000	0.12
0.580	0.630	0.240	0.630	0.13
0.790	0.370	0.520	1.300	0.08
0.420	0.390	0.240	0.780	
0.310	0.300	0.180	0.450	0.06
0.440	0.240	0.300	0.660	0.04
0.510	0.310	0.410	0.930	0.08
0.370	0.150	0.380	0.720	0.08
0.320	0.230	0.330	0.560	0.18
0.330	0.360	0.290	0.510	0.15
0.360	0.120	0.360	0.760	0.17
0.460	0.390	0.320	0.750	0.15
0.340	0.240	0.300	0.600	0.23

0.370	0.400	0.270	0.520	0.24
0.380	0.260	0.310	0.630	0.21
0.510	0.370	0.300	0.830	0.13
0.400	0.400	0.310	0.570	0.17
0.360	0.430	0.240	0.440	0.18
0.540	0.570	0.200	0.400	0.11
0.500	0.650	0.200	0.390	0.11
0.540	0.670	0.150	0.560	0.11
0.790	0.360	0.410	1.460	0.09
0.750	0.450	0.280	0.970	0.05
0.229	0.010	0.856	0.299	0
0.317	0.050	0.613	0.139	0.326
0.417	0.290	0.230	0.444	0.41
0.425	0.030	0.386	1.389	0.142
0.457	0.070	0.695	0.434	0.253
0.481	0.000	1.127	0.386	0.362
0.578	0.010	1.575	0.451	0.293
0.595	0.010	0.604	0.837	0.765
0.659	0.320	0.514	0.880	0.13
0.737	0.729	0.040	0.140	0
0.725	0.569	0.100	0.130	0
0.146	0.085	0.500	0.710	0.29
0.310	0.070	0.240	0.890	0.17
0.316	0.135	0.680	0.770	1.3
0.341	0.011	0.820	0.340	1.54
0.307	0.013	0.240	0.710	0.59
0.366	0.083	0.880	0.710	1.48
0.278	0.096	0.300	0.510	0.78
0.318	0.158	1.240	0.470	0.89
0.258	0.123	0.220	0.910	0.57
0.272	0.102	0.230	0.500	0.94
0.305	0.078	0.280	1.270	0.69
0.308	0.065	0.230	1.230	0.55
0.114	0.000	0.220	0.150	0.1
0.064	0.000	0.070	0.020	0.01
0.829	0.010	0.950	0.020	0.03
0.143	0.000	0.120	0.250	0.24
0.155	0.000	0.060	0.210	0.2
0.210	0.122	0.170	0.320	0.3
0.240	0.020	0.340	0.100	0.1
0.146	0.024	0.090	0.150	0.16

0.182	0.000	0.240	0.180	0.16
0.349	0.014	0.420	0.230	0.06
0.137	0.000	0.110	0.310	0.29
0.188	0.098	0.170	0.110	0.07
0.197	0.000	0.380	0.130	0.1
0.176	0.000	0.220	0.170	0.19
0.061	0.060	-0.013	0.098	0.074
0.101	0.020	0.079	0.067	0.045
0.171	0.030	0.209	0.493	0.654
0.207	0.050	0.206	0.676	0.71
0.219	0.180	0.313	0.434	0.727
0.248	0.030	0.484	0.579	0.995
0.267	0.500	0.317	0.452	0.256
0.269	0.120	0.668	0.576	0.932
0.284	0.240	0.238	0.760	0.661
0.297	0.010	0.871	0.407	1.157
0.298	0.070	1.043		1.293
0.314	0.230	0.542	0.721	1.023
0.368	0.520	0.380	0.566	0.311
0.368	0.070	1.261	0.547	0.982
0.526	0.410	0.827	0.658	0.517
0.528	0.030	2.243	0.671	0.55
0.224	0.333	0.202	0.570	0.44773734
0.158	0.129	0.192	0.465	0.32402795
0.265	0.376	0.350	0.463	0.38782002
0.274	0.391	0.267	0.553	0.46656461
0.281	0.533	0.167	0.499	0.29513504
0.362	0.648	0.189	0.456	0.20737529
0.761	0.166	0.166	1.926	0.06017646
0.685	0.001	3.365	0.049	0.06479611
0.265	0.002	0.804	0.031	0.0269004
0.813	0.002	2.324	0.063	0.02091328
0.364	0.003	0.958	0.028	0.02277646
0.366	0.054	0.470	0.029	0.01983014
0.276	0.005	0.588	0.037	0.04732432
0.256	0.007	0.547	0.122	0.14922865
0.226	0.014	0.459	0.124	0.12253183
0.173	0.048	0.288	0.153	0.09798687
0.194	0.015	0.399	0.128	0.10201442
0.216	0.012	0.470	0.141	0.11916305
0.186	0.012	0.376	0.147	0.09987131

0.159	0.040	0.265	0.159	0.07883441
0.167	0.008	0.333	0.077	0.06453526
0.273	0.005	0.631	0.162	0.23694098
0.136	0.077	0.187	0.152	0.08628889
0.159	0.002	0.297	0.129	0.09276898
0.509	0.072	0.673	0.096	0.01651511
0.879	0.015	0.350	0.246	0.00177477
0.114	0.015	0.095	0.006	0.02269034
0.149	0.047	0.143	0.009	0.018
0.064	0.000	0.059	0.008	0.034
0.152	0.000	0.235	0.015	0.00321213
0.162	0.018	0.383	0.060	0.06139507
0.140	0.000	0.267	0.037	0.09423412
0.227	0.000	0.497	0.115	0.34205477
0.259	0.000	0.587	0.061	0.33322473
0.236	0.000	0.541	0.053	0.26869447
0.410	0.000	1.344	0.092	0.38080745
0.226	0.000	0.355	0.083	0.17945883
0.279	0.000	0.570	0.159	0.27563119
0.427	0.003	0.505	0.082	0.08175592
0.229	0.000	0.503	0.042	0.14973952
0.214	0.000	0.756	0.070	0.46207835
0.306	0.000	0.949	0.081	0.23235784
0.486	0.001	1.243	0.138	0.18683932
0.233	0.000	0.423	0.063	0.28668378
0.362	0.000	0.692	0.068	0.08691797
0.229	0.000	0.374	0.105	0.2733657
0.210	0.000	0.455	0.079	0.26657156
0.164	0.000	0.222	0.074	0.10786436
0.471	0.000	2.740	0.057	0.41587459
0.180	0.000	0.336	0.060	0.0936029
0.292	0.000	0.406	0.022	0.02340961
0.698	0.038	3.010	0.056	0.09567419
0.176	0.032	0.279	0.011	0.01535835
0.552	0.001	1.556	0.036	0.0271345
0.768	0.000	4.680	0.011	0.12935716
0.740	0.553	0.285	0.172	0.01933866
0.407	0.008	0.488	0.023	0.02153906
0.232	0.001	0.569	0.071	0.04410754
0.245	0.001	0.475	0.084	0.03012459
0.206	0.002	0.474	0.047	0.0521288

0.196	0.001	0.574	0.143	0.0706454
0.117	0.000	0.245	0.141	0.17733271
0.226	0.000	0.735	0.189	0.24101087
0.164	0.000	0.164	0.117	0.02855782
0.122	0.009	0.098	0.083	0.07998692
0.264	0.002	0.549	0.050	0.16979207
0.316	0.002	0.654	0.046	0.21586194
0.235	0.006	0.421	0.084	0.1286372
0.367	0.062	0.811	0.107	0.09467596
0.311	0.012	0.459	0.113	0.18900625
0.141	0.005	0.091	0.120	0.15169832
0.466	0.009	0.576	0.052	0.07448483
0.332	0.007	0.299	0.217	0.10605215
0.224	0.006	0.424	0.021	0.05200568
0.249	0.019	0.333	0.094	0.12021293
0.759	0.001	1.440	0.126	0.13124223
0.359	0.000	0.504	0.074	0.07990601
0.485	0.100	0.122	0.116	0.00183915
0.895	0.010	0.674	0.026	0.00105331
0.363	0.002	0.521	0.011	0.0330488
0.265	0.004	0.479	0.068	0.04160235
0.182	0.004	0.254	0.034	0.03767832
0.510	0.000	1.842	0.067	0.13081785
0.208	0.002	0.331	0.089	0.08268633
0.185	0.000	0.340	0.059	0.0683641
0.291	0.001	0.419	0.158	0.0695502
0.642	0.000	1.678	0.093	0.10980976
0.646	0.000	1.540	0.064	0.01766553
0.209	-0.003	0.292	0.104	0.06252007
0.255	0.000	0.264	0.040	0.01270792
0.298	N.D.	0.153	0.063	0.004
0.443	N.D.	0.547	0.029	0
0.134	N.D.	0.483	0.223	0
0.335	0.005	0.688	0.071	0.01790173
0.808	0.027	0.821	0.048	0.01213492
0.319	0.043	0.286	0.024	0.01848058
0.444	0.003	0.355	0.042	0.00169724
0.676	0.012	0.448	0.658	0.00257178
0.806	0.019	1.032	0.104	0.00264363
0.687	0.013	1.023	0.088	0.00740604
0.765	0.111	0.083	0.006	-0.0002779

0.693	0.013	0.564	0.021	0.00356571
0.809	0.007	0.811	0.012	0.01293441
0.822	0.062	0.219	0.020	-0.0002994
0.793	0.048	0.301	0.075	0.00110545
0.612	0.003	1.023	0.039	0.01782529
0.741	0.019	0.738	0.110	0.01000602
0.285	0.018	0.238	0.506	0.40234834
0.436	0.001	0.175	0.865	0.32338902
0.245	0.005	0.338	0.437	0.23937677
0.407	0.002	0.294	0.592	0.41182171
0.400	0.006	0.287	0.756	0.43819302
0.307	0.029	0.255	0.345	0.25738295
0.392	0.002	0.267	0.692	0.37329317
0.417	0.007	0.265	0.604	0.3609816
0.412	0.001	0.281	0.605	0.52154195
0.485	0.002	0.242	0.820	0.61470588
0.509	0.017	0.294	0.743	0.58019663
0.601	0.026	0.365	0.282	0.33308958
0.266	0.041	0.305	0.293	0.26598115
0.309	0.074	0.374	0.307	0.25575758
0.367	0.000	0.327	0.386	0.37104506
0.500	0.005	0.594	0.418	0.20969044
0.442	0.007	0.341	0.671	0.60553633
0.491	0.001	0.229	0.792	0.5326969
0.489	0.000	0.244	0.696	0.59674641
0.381	0.022	0.146	0.424	0.26767677
0.404	0.005	0.244	0.502	0.20708447
0.391	0.001	0.123	0.376	0.18105516
0.759	0.091	2.634	0.045	0.0176709
0.696	0.029	2.002	0.082	0.03203295
0.489	0.203	0.398	0.083	0.04105096
0.499	0.417	0.212	0.077	0.0045593
0.281	0.338	0.134	0.054	0.00221753
0.735	0.730	0.190	0.239	0.00908698
0.997	0.519	0.115	0.153	0.00088435
0.322	0.188	0.220	0.055	0.00223366
0.697	0.070	1.573	0.168	0.01414735
0.495	0.042	1.083	0.062	0.02178088
0.544	0.651	0.162	0.105	0.00229131
0.534	0.218	0.422	0.155	0.00391045
0.573	0.012	0.971	0.045	0.00290804

0.488	0.047	1.127	0.045	0.02199386
0.337	0.105	0.612	0.052	0.01483794
0.200	0.200	0.214	0.091	0.01520289
0.451	0.028	0.585	0.079	0.00235516
0.463	0.114	0.547	0.074	0.00258703
0.603	0.009	0.951	0.068	0.00147674
0.824	0.011	1.593	0.263	0.00286723
0.737	0.023	0.312	0.486	0.00098405
0.488	0.085	0.202	0.039	0.00052145
0.543	0.366	0.224	0.047	0.0017625
0.705	0.332	0.315	0.571	3.56E-05
0.789	0.053	0.410	0.046	0
0.613	0.102	0.212	0.012	0.00131085
0.826	0.003	3.135	0.082	0.01243074
0.773	0.005	2.027	0.090	0.11306861
0.800	0.000	3.437	0.143	0.03407913
0.711	0.004	1.579	0.172	0.19028583
0.784	0.011	1.805	0.236	0.0227028
0.725	0.009	1.482	0.094	0.0341772
0.825	0.003	1.632	0.074	0.01507142
0.271	0.102	0.300	0.075	0.03484904
0.220	0.000	0.770	0.079	0.25313966
0.244	0.000	0.732	0.086	0.20590037
0.283	0.000	0.972	0.053	0.15543488
0.405	0.000	1.050	0.156	0.38914367
0.290	0.000	0.823	0.048	0.10751303
0.556	0.000	1.390	0.077	0.04041093
0.222	0.000	0.480	0.154	0.24650035
0.219	0.000	0.814	0.155	0.49489217
0.211	0.220	0.094	0.044	0.00671336
0.219	0.401	0.083	0.022	0.00617016
0.308	0.084	0.261	0.043	0.02428988
0.192	0.357	0.066	0.026	0.00373487
0.213	0.256	0.086	0.036	0.0129853
0.227	0.203	0.138	0.033	0.00423407
0.392	0.195	0.325	0.053	0.00721445
0.202	0.238	0.095	0.026	0.0095545
0.431	0.613	0.111	0.032	0.00539782
0.525	0.479	0.202	0.038	0.00856269
0.138	0.067	0.089	0.012	0.01456959
0.142	0.001	0.366	0.151	0.12551647

0.192	0.100	0.138	0.055	0.00859256
0.168	0.010	0.249	0.160	0.03442171
0.366	0.605	0.106	0.026	0.01393281
0.222	0.009	0.204	0.037	0.00328208
0.225	0.369	0.065	0.035	0.00514808
0.752	0.027	0.243	0.088	0.02096329
0.879	0.047	0.540	0.075	0.0465305
0.640	0.086	0.239	0.083	0.02937274
0.595	0.021	0.710	0.103	0.03818482
0.647	0.019	0.412	0.058	0.01177109
0.743	0.020	0.365	0.103	0.00388878
0.177	0.003	0.449	0.120	0.34575821
0.181	0.001	0.342	0.148	0.32972611
0.292	0.001	0.786	0.303	0.35034152
0.196	0.001	0.438	0.263	0.22959783
0.245	0.000	0.311	0.017	0.01822688
0.363	0.002	0.681	0.042	0.07610279
0.386	0.001	0.847	0.071	0.23557454
0.135	0.002	0.193	0.102	0.22005236
0.234	0.006	0.210	0.038	0.07713181
0.200	0.003	0.466	0.148	0.37775451
0.179	0.002	0.370	0.074	0.13386058
0.469	0.001	1.246	0.126	0.08476112
0.148	0.003	0.242	0.071	0.06542292
0.107	0.006	0.237	0.079	0.11472586
0.260	0.004	0.679	0.082	0.28590475
0.209	0.002	0.297	0.106	0.06571926
0.199	0.017	0.372	0.062	0.07809659
0.368	0.002	1.048	0.070	0.15910262
0.295	0.001	0.909	0.090	0.25505879
0.278	0.008	0.412	0.048	0.03531957
0.716	0.001	3.406	0.173	0.03476241
0.244	0.006	0.199	0.066	0.01342698
0.245	0.003	0.295	0.104	0.04282104
0.183	0.003	0.347	0.080	0.05948453
0.355	0.004	0.713	0.111	0.04400855
0.241	0.169	0.108	0.015	0.00106918
0.278	0.036	0.311	0.047	0.03229079
0.385	0.287	0.203	0.021	0.00953212
0.573	0.011	0.860	0.031	0.02145496
0.679	0.339	0.459	0.032	0.00769959

0.333	0.405	0.088	0.069	0.00582754
0.461	0.316	0.286	0.025	0.01023092
0.438	0.122	0.431	0.034	0.01619987
0.452	0.003	0.653	0.424	0.10806035
0.532	0.177	0.527	0.031	0.00630844
0.415	0.349	0.246	0.045	0.00629869
0.680	0.506	0.260	0.026	0.00267448
0.886	0.006	3.051	0.031	0.02682745
0.774	0.009	2.264	0.048	0.48663011
0.591	0.018	2.189	0.130	0.15936132
0.416	0.035	1.847	0.119	0.48424353
0.207	0.000	0.341	0.007	0.01654711
0.230	0.000	0.498	0.046	0.08232734
0.754	0.000	4.173	0.015	0.1032057
0.444	0.000	1.480	0.027	0.02576485
0.395	0.000	1.562	0.015	0.07017769
0.710	0.280	0.280	1.030	0
0.480	0.460	0.360	1.620	0.12
0.250	0.010	0.210	2.000	0.44
0.300	0.030	0.110	1.670	0.41
0.290	0.010	0.070	1.880	0.46
0.260	0.000	0.090	1.710	0.42
0.310	0.030	0.080	1.860	0.42
0.300	0.020	0.070	1.770	0.42
0.270	0.030	0.080	2.290	0.54
0.280	0.010	0.240	1.930	0.45
0.310	0.010	0.090	2.210	0.63
0.260	0.000	0.020	0.890	0.1
0.250	0.000	0.070	1.790	0.33
0.320	0.020	0.070	2.100	0.42
0.360	0.030	0.150	1.910	0.34
0.350	0.010	0.080	1.950	0.44
0.360	0.030	0.090	2.460	0.56
0.370	0.050	0.090	2.800	0.77
0.370	0.040	0.170	2.180	0.58
0.789	0.162	0.815	0.019	0.00560541
0.495	0.054	0.839	0.019	0.02202636
0.076	0.413	0.022	0.020	0.0124425
0.772	0.001	1.740	0.006	0.0120823
0.421	0.001	1.323	0.078	0.03496138
0.394	0.004	0.499	0.050	0.09117771

0.551	0.018	1.340	0.022	0.0452888
0.262	0.003	1.035	0.084	0.06334358
0.148	0.009	0.551	0.118	0.05960178
0.137	0.013	0.732	0.109	0.06254762
0.072	0.130	0.135	0.197	0.07950784
0.172	0.007	0.625	0.079	0.08165501
0.099	0.007	0.350	0.154	0.08009402
0.295	0.009	0.673	0.026	0.05774104
0.090	0.010	0.288	0.077	0.04642994
0.208	0.008	0.384	0.064	0.03920772
0.154	0.007	0.265	0.021	0.02925627
0.192	0.001	1.003	0.135	0.06305598
0.081	0.003	0.144	0.023	0.02527092
0.302	0.005	0.392	0.073	0.02850984
0.299	0.001	0.871	0.034	0.04151911
0.231	0.003	0.790	0.114	0.02845162
0.135	0.006	0.389	0.039	0.04478603
0.190	0.001	0.952	0.065	0.03352821
0.053	0.009	0.113	0.059	0.03060199
0.278	0.000	1.313	0.062	0.0628172
0.138	0.010	0.751	0.100	0.05558835
0.326	0.019	1.179	0.181	0.03425733
0.147	0.019	0.259	0.453	0.05008354
0.261	0.026	1.158	0.131	0.03830926
0.157	0.051	0.562	0.233	0.05102368
0.109	0.003	0.430	0.091	0.03706432
0.053	0.019	0.185	0.115	0.05622804
0.303	0.041	1.015	0.080	0.04659925
0.168	0.098	0.478	0.083	0.04216075
0.113	0.012	0.109	0.007	0.0057816
0.116	0.019	0.219	0.115	0.11781844
0.149	0.030	0.487	0.108	0.06492149
0.214	0.001	0.742	0.101	0.0708137
0.307	0.003	0.500	0.019	0.01605082
0.232	0.000	0.525	0.185	0.30103448
0.265	0.002	0.563	0.083	0.23637931
0.265	0.002	0.584	0.041	0.06482759
0.246	0.035	0.535	0.047	0.16655172
0.555	0.000	1.585	0.043	0.23465517
0.341	0.001	0.609	0.094	0.16568966
0.341	0.001	0.616	0.061	0.22948276

0.318	0.016	0.536	0.057	0.16568966
0.386	0.000	0.635	0.045	0.1312069
0.467	0.000	0.807	0.029	0.22431034
0.436	0.001	0.734	0.125	0.02086207
0.381	0.000	1.199	0.082	0.42948276
0.265	0.004	0.582	0.060	0.23293103
0.441	0.003	1.071	0.114	0.17344828
0.505	0.000	1.420	0.072	0.17517241
0.533	0.000	1.664	0.024	0.10362069
0.316	0.001	0.808	0.051	0.39068966
0.309	0.003	0.696	0.029	0.1087931
0.307	0.000	0.718	0.034	0.13896552
0.626	0.000	2.295	0.052	0.51913793
0.061	0.005	0.037	0.017	0.07431034
0.163	0.016	0.227	0.023	0.0937069
0.288	0.001	0.424	0.019	0.05965517
0.124	0.003	0.197	0.021	0.07517241
0.139	0.000	0.147	0.030	0.07603448
0.142	0.000	0.249	0.019	0.06396552
0.110	0.000	0.150	0.021	0.06252874
0.176	0.003	0.273	0.022	0.05189655
0.281	0.004	0.824	0.047	0.26137931
0.088	0.004	0.081	0.021	0.02862069
0.039	0.000	0.035	0.014	0
0.241	0.000	0.378	0.004	0.10534483
0.534	0.000	1.609	0.013	0.76568966
0.580	0.000	1.268	0.017	0.41482759
0.279	0.002	0.556	0.042	0.10965517
0.505	0.000	1.544	0.074	0.62344828
0.546	0.000	2.062	0.038	0.64586207
0.498	0.001	1.189	0.026	0.81051724
0.432	0.000	1.368	0.033	0.61310345
0.422	0.001	1.162	0.019	0.72689655
0.443	0.001	1.421	0.020	0.81482759
0.311	0.001	0.763	0.077	0.16051724
0.358	0.001	0.715	0.029	0.35793103
0.392	0.000	1.114	0.034	0.65706897
0.304	0.001	1.237	0.059	0.45362069
0.423	0.000	1.390	0.046	0.64758621
0.225	0.013	0.395	0.155	0.2062069
0.388	0.000	1.254	0.033	0.47258621

0.270	0.000	0.475	0.059	0.33206897
0.359	0.000	1.033	0.032	0.61310345
0.344	0.000	0.734	0.053	0.27862069
0.317	0.001	0.793	0.023	0.60448276
0.493	0.000	2.319	0.033	0.57775862
0.321	0.001	0.786	0.043	0.56741379
0.369	0.000	1.226	0.073	0.64931034
0.272	0.002	0.874	0.099	0.36224138
0.215	0.001	0.656	0.062	0.32948276
0.414	0.000	1.256	0.042	0.65965517
0.357	0.000	0.570	0.023	0.10362069
0.282	0.001	1.073	0.061	0.25189655
0.379	0.000	0.935	0.020	0.30793103
0.681	0.000	1.614	0.038	0.13293103
0.201	0.000	0.606	0.097	0.19413793
0.472	0.001	1.003	0.031	0.395
0.322	0.000	1.153	0.084	0.20103448
0.317	0.002	0.585	0.048	0.24327586
0.372	0.002	0.641	0.062	0.22431034
0.334	0.001	0.641	0.027	0.21396552
0.341	0.000	0.621	0.030	0.37258621
0.404	0.001	0.775	0.033	0.44413793
0.468	0.000	1.361	0.088	0.54327586
0.245	0.000	0.446	0.028	0.10017241
0.151	0.001	0.368	0.062	0.2587931
0.541	0.000	1.771	0.055	0.73570559
0.484	0.000	1.912	0.166	2.10587887
0.283	0.000	0.629	0.030	0.29846164
0.631	0.000	3.936	0.177	4.28146423
0.528	0.000	1.471	0.085	0.3298473
0.553	0.000	0.630	0.101	0.02282065
0.597	0.040	0.505	0.129	0.00819226
0.576	0.001	0.840	0.021	0.00283992
0.678	0.003	0.938	0.040	0.0154311
0.554	0.029	0.214	0.110	0.00868654
0.801	0.058	0.038	0.254	0.00205008
0.534	0.172	0.043	0.003	0.00698537
0.405	0.063	0.025	0.003	0.00566209
0.378	0.387	0.009	0.004	0.00090101
0.452	0.179	0.020	0.003	0.00284744
0.515	0.032	0.074	0.004	0.01142239

0.503	0.067	0.047	0.003	0.005753
0.421	0.295	0.047	0.008	0.01019946
0.480	0.108	0.075	0.008	0.01106168
0.548	0.115	0.069	0.004	0.00905648
0.504	0.114	0.061	0.004	0.010733
0.573	0.197	0.059	0.003	0.00732698
0.414	0.017	0.022	0.003	0.0030144
0.437	0.002	1.334	0.071	0.28031184
0.726	0.038	1.949	0.078	0.01369162
0.675	0.189	0.278	0.197	0.0070954
0.556	0.020	1.276	0.212	0.14157461
0.290	0.007	0.558	0.048	0.04679071
0.347	0.000	0.553	0.206	0.04011907
0.504	0.080	0.063	0.014	0.01057225
0.405	0.008	0.265	0.026	0.0387179
0.604	0.046	0.030	0.019	0.00276735
0.741	0.059	0.157	0.092	0.00847972
0.719	0.020	0.311	0.021	0.02031714
0.779	0.010	0.525	0.218	0.01367435
0.850	0.016	0.609	0.250	0.01149887
0.801	0.007	0.440	0.190	0.00619362
0.580	0.021	0.277	0.057	0.00632617
0.754	0.008	0.464	0.123	0.01133434
0.646	0.038	0.344	0.048	0.02455292
0.577	0.075	0.330	0.059	0.01185041
0.778	0.373	0.168	0.612	0.01389606
0.738	0.438	0.172	0.723	0.03034577
0.545	0.520	0.120	0.477	0.03453057
0.547	0.213	0.470	0.549	0.04956946
0.465	0.364	0.645	0.303	0.04899927
0.425	0.368	0.488	0.498	0.13605659
0.395	0.538	0.166	0.507	0.13813612
0.515	0.471	0.327	0.681	0.1697517
0.420	0.465	0.230	0.610	0.11275095
0.396	0.436	0.122	0.657	0.16323342
0.237	0.019	0.346	0.505	0.17597709
0.280	0.008	0.468	0.564	0.24429211
0.290	0.025	0.600	0.487	0.20435775
0.283	0.012	0.559	0.469	0.20261526
0.353	0.001	1.022	0.123	0.33734448
0.178	0.018	0.174	0.232	0.08954028

0.922	0.114	0.305	0.195	0.04251068
0.778	0.066	1.167	0.178	0.05146135
0.383	0.010	0.693	0.216	0.21045559
0.548	0.007	1.966	0.178	0.25301677
0.212	0.010	1.061	0.182	0.31629191
0.253	0.279	0.352	0.227	0.18030736
0.257	0.008	1.517	0.229	0.39781787
0.476	0.004	0.510	0.204	0.19864614
0.485	0.002	2.186	0.201	0.46528141
0.178	0.003	0.392	0.274	0.22261734
0.323	0.012	0.573	0.272	0.12621168
0.413	0.002	0.472	0.122	0.03967364
0.466	0.001	0.611	0.137	0.22508166
0.438	0.077	0.184	0.064	0.04157189
0.660	0.020	0.930	0.335	0.18281519
0.377	0.000	0.873	0.106	0.28552655
1.052	0.052	0.435	0.147	0.02909466
0.243	0.014	0.491	0.229	0.15925577
0.913	0.139	0.594	0.172	0.03010419
0.257	0.003	0.569	0.084	0.15766195
0.963	0.231	0.072	0.057	0.01286407
0.126	0.011	0.334	0.266	0.48938466
0.167	0.004	0.209	0.267	0.44839255
0.840	0.460	0.020	0.350	0
0.960	0.320	0.260	0.360	0.01
0.900	0.440	0.370	0.360	0.01
0.950	0.180	0.340	0.130	0.02
0.760	0.560	0.230	0.110	0.01
0.910	0.200	0.570	0.110	0.02
0.950	0.370	0.070	0.050	0.01
0.640	0.500	0.080	0.010	0
0.830	0.150	0.680	0.130	0.02
0.830	0.110	0.460	0.060	0.02
0.960	0.190	0.110	0.140	0
0.790	0.480	0.060	0.030	0.02
0.990	0.100	0.170	0.050	0.01
0.970	0.460	0.010	0.020	0
0.980	0.180	0.090	0.050	0
1.000	0.000	0.100	0.100	0
0.900	0.000	0.200	0.100	0
0.700	0.500	0.100	0.300	0.1

0.800	0.600	0.000	0.100	0
0.700	0.500	0.000	0.200	0.1
0.700	0.400	0.000	0.200	0.1
0.700	0.700	0.000	0.100	0
0.800	0.900	0.100	0.100	0
0.800	0.700	0.000	0.100	0
0.700	0.900	0.100	0.100	0
0.800	0.900	0.100	0.100	0
0.400	0.900	0.000	0.100	0
0.500	0.900	0.000	0.100	0
0.500	0.900	0.000	0.100	0
0.400	0.900	0.000	0.100	0
0.700	0.800	0.100	0.200	0
0.800	0.800		0.100	0
0.600	0.800	0.200	0.100	0.1
0.600	0.800	0.000	0.100	0
0.500	0.800	0.100	0.100	0.1
0.500	0.400	0.200	0.100	0
0.600	0.000	0.900	0.100	0.1
0.900	0.100	0.100	0.100	0
0.600	0.000	0.800	0.100	0
0.600	0.000	1.200	0.000	0.1
0.500	0.700	0.100	0.100	0.1
0.600	0.600	0.100	0.100	0.1
0.400	0.700	0.100	0.100	0.1
0.600	0.600	0.100	0.200	0
0.500	0.800	0.100	0.100	0.1
0.500	0.800	0.100	0.100	0.1
0.600	0.600	0.200	0.100	0.1
0.500	0.700	0.100	0.100	0.1
0.500	0.700	0.100	0.100	0.1
0.000		0.000	0.000	0
0.200	0.100	0.100	0.000	0
0.200	0.100	0.100	0.000	0
0.400	0.200	0.000	0.000	0
0.200	0.000	0.100	0.400	0.1
0.300	0.000	0.900	0.300	0.1
0.200	0.000	0.400	0.000	0.1
0.900	0.700	0.100	0.400	0.1
0.700	0.100	1.300	0.000	0
0.300	0.000	0.500	0.000	0

0.800	0.900	0.200	0.200	0
0.700	0.600	0.800	0.300	0
0.700	0.800	0.200	0.400	0
0.800	0.700	0.500	0.100	0.2
0.700	0.700	0.200	0.200	0.1
0.400	0.100	0.300	0.100	0
0.200	0.000	0.900	0.000	0.1
0.600	0.000	0.500	0.900	0.9
0.200	0.000	0.500	0.300	0
0.100	0.100	0.100	0.200	0.2
0.100	0.000	0.300	0.400	0
1.000	0.300	0.000	0.100	0
0.800	1.000	0.000	0.000	0
1.000	0.700	0.000	0.000	0
0.800	0.100	1.000	0.000	0
0.800	0.100	1.800	0.000	0
1.000	0.500	0.000	0.000	0
1.000	0.100	0.200	0.100	0.1
1.000	0.200	0.100	0.000	0
0.900	0.100	0.400	0.000	0
0.900	0.100	0.300	0.000	0
0.900	0.100	0.300	0.100	0
0.900	0.300	0.200	0.100	0
1.000	0.200	0.200	0.100	0
0.900	0.100	0.300	0.100	0
0.700	0.000	0.400	0.200	0
0.800	0.200	0.200	0.100	0
0.900	0.100	0.200	0.100	0
0.800	0.000	0.600	0.200	0.1
0.800	0.000	0.700	0.100	0.1
1.000	0.400	0.100	0.000	0
1.000	0.700	0.000	0.000	0
0.700	0.100	0.500	0.100	0
0.900	0.200	0.300	0.000	0
1.000	0.800	0.000	0.000	0
0.122	0.233	0.047	0.000	0.00703207
0.167	1.000	0.000	0.000	0
0.311	0.400	0.104	0.000	0.01355223
0.154	0.412	0.044	0.004	0.01073281
1.000	1.000	0.000	0.000	0
0.297	0.505	0.074	0.000	0.01038405

0.324	0.658	0.041	0.000	0.0091709
0.216	0.462	0.047	0.000	0.00880039
0.124	0.230	0.042	0.000	0.00912455
0.531	0.855	0.082	0.016	0.01587595
0.588	1.000	0.000	0.000	0
0.291	0.678	0.051	0.009	0.00873467
0.313	0.929	0.029	0.000	0
0.715	0.891	0.036	0.006	0.00816078
0.703	0.956	0.066	0.000	0
0.562	0.473	0.430	0.000	0.00760615
0.688	0.698	0.173	0.000	0
0.591	0.768	0.127	0.000	0
1.000	0.936	0.062	0.000	0
1.000	1.000	0.000	0.000	0
0.270	0.123	0.150	0.000	0.04966725
0.300	0.712	0.064	0.000	0
0.232	0.220	0.128	-0.001	0.00757028
0.134	0.070	0.075	0.000	0.00507946
0.111	0.220	0.050	-0.003	0.01602647
0.256	0.475	0.072	0.000	0.01413139
0.154	0.425	0.041	0.000	0.00999517
0.126	0.415	0.037	0.000	0.00615081
0.192	0.192	0.097	0.000	0.02267551
0.666	0.954	0.000	0.056	0.03495652
0.907	0.696	0.008	0.673	0
0.170	0.412	0.219	0.000	0
0.289	0.293	0.257	0.035	0.0623215
0.393	0.729	0.066	0.100	0.03862951
0.491	0.971	0.000	0.024	0.01316346
0.398	0.225	0.421	0.041	0.1744984
0.630	0.866	0.097	0.087	0.08225643
0.383	0.853	0.054	0.039	0.03515298
0.541	0.907	0.042	0.113	0.04041151
0.618	0.570	0.081	0.731	0.03247307
0.301	0.717	0.056	0.130	0.03912226
0.701	0.344	0.000	2.021	0.40009756
0.639	0.787	0.018	0.410	0
0.626	0.582	0.125	0.910	0
0.686	0.642	0.072	0.785	0
0.686	0.996	0.005	0.006	0
0.701	0.987	0.008	0.027	0

0.293	0.000	0.681	0.008	0
0.482	0.970	0.042	0.000	0
0.621	0.915	0.043	0.139	0
0.619	0.833	0.000	0.275	0.02628571
0.667	0.870	0.044	0.283	0
0.675	0.862	0.053	0.238	0.02951774
0.708	0.906	0.000	0.163	0.03509472
0.647	0.888	0.035	0.000	0.01470219
0.716	0.938	0.069	0.025	0.01430385
0.721	0.880	0.069	0.153	0.00993257
0.726	0.930	0.061	0.096	0.00354968
0.840	0.917	0.037	0.164	0.00273982
0.691	0.955	0.032	0.096	0.0035842
0.862	0.965	0.041	0.083	0.00568897
0.810	0.966	0.032	0.083	0.00865081
0.255	0.666	0.051	0.000	0.00430319
0.108	0.198	0.050	0.000	0.00267186
0.165	0.425	0.057	0.000	0.00532836
0.240				
0.450				
0.380				
0.560				
0.750				
0.820				
0.640				
0.630				
0.780				
0.210				
0.420				
0.460				
0.550				
0.200				
0.780				
0.510				
0.770				
0.770				
0.510				
0.510				
0.250				
0.210				
0.560				

0.210				
0.450				
0.510				
0.700				
0.220				
0.670				
0.190				
0.270				
0.410				
0.430				
0.410				
1.050	0.070	0.300	0.000	0.02
0.840	0.130	0.190	0.000	0.02
0.560	0.690	0.130	0.000	0.01
0.520	0.540	0.190	0.000	0.02
0.730	0.390	0.250	0.010	0.03
0.690	0.310	0.610	0.000	0.05
0.930	0.140	0.420	0.000	0.04
1.050	0.200	0.420	0.000	0.03
0.960	0.110	0.250	0.000	0.02
1.040	0.370	0.640	0.000	0.05
0.970	0.040	0.290	0.000	0.01
0.880	0.120	0.380	0.000	0.04
0.940	0.220	0.370	0.000	0.03
0.710	0.000	0.800	1.310	0
0.720	0.000	0.680	1.740	0
0.290	0.050	0.810	0.360	0.12
0.780	0.020	0.240	2.100	0
0.770	0.040	0.650	1.630	0.01
0.760	0.010	1.250	1.190	0
0.740	0.090	1.070	1.660	0
0.590	0.060	1.510	0.680	0.02
0.660	0.090	1.510	0.550	0.04
0.520	0.020	1.250	0.120	0.03
0.390	0.090	0.690	0.760	0.05
0.720	0.090	0.940	1.170	0.09
0.340	0.040	0.380	0.620	0.06
0.350	0.150	0.710	0.650	0.05
0.550	0.090	0.980	0.950	0.1
0.320	0.050	0.330	0.650	0.06
0.440	0.120	0.480	0.870	0.11

0.460	0.070	0.590	1.250	0.05
0.510	0.070	0.350	1.280	0.1
0.460	0.050	1.070	0.910	0.07
0.350	0.210	0.580	0.460	0.13
0.350	0.080	0.750	0.790	0.06
0.570	0.060	0.310	1.040	0.25
0.350	0.130	0.110	1.250	0.12
0.340	0.050	1.080	0.430	0.07
0.380	0.020	0.790	0.370	0.06
0.340	0.110	0.750	0.790	0.06
0.310	0.250	0.520	0.520	0.06
0.470	0.150	0.450	1.570	0.12
0.250	0.050	0.550	0.500	0.06
0.250	0.120	0.480	0.530	0.06
0.230	0.080	0.350	0.570	0.07
0.310	0.110	0.770	0.520	0.05
0.430	0.110	0.210	1.220	0.2
0.490	0.040	0.180	1.190	0.15
0.340	0.130	0.670	0.620	0.04
0.340	0.080	1.060	0.290	0.05
0.390	0.080	0.610	0.410	0.03
0.360	0.110	0.780	0.570	0.03
0.430	0.050	1.360	0.440	0.04
0.670	0.150	0.340	0.980	0.16
0.560	0.070	1.090	0.780	0.04
0.410	0.090	0.390	1.020	0.27
0.450	0.050	1.200	0.550	0.04
0.490	0.060	1.880	0.400	0.04
0.510	0.080	1.740	1.000	0.08
0.560	0.080	0.320	1.510	0.33
0.380	0.070	1.150	0.950	0.04
0.330	0.110	0.500	0.580	0.04
0.310	0.140	0.650	0.450	0.04
0.320	0.100	0.780	0.450	0.05
0.490	0.140	0.330	1.460	0.29
0.350	0.130	0.860	0.570	0.03
0.240	0.170	0.390	0.480	0.02
0.440	0.090	1.420	0.540	0.05
0.450	0.060	0.630	1.390	0.26
0.340	0.100	0.950	0.640	0.07
0.340	0.050	1.170	0.290	0.07

0.410	0.080	0.970	0.710	0.07
0.380	0.080	1.040	0.640	0.08
0.460	0.020	0.830	1.370	0.28
0.350	0.020	1.270	0.260	0.07
0.330	0.070	1.030	0.280	0.06
0.280	0.100	0.680	0.230	0.05
0.470	0.140	0.510	0.890	0.31
0.470	0.050	0.570	1.440	0.32
0.380	0.030	1.240	0.390	0.08
0.500	0.000	1.630	0.320	0.07
0.330	0.080	0.620	0.810	0.08
0.530	0.050	0.610	1.530	0.25
0.360	0.060	1.630	0.160	0.06
0.330	0.010	1.160	0.220	0.06
0.620	0.010	0.560	1.680	0.22
0.480	0.080	1.510	0.290	0.1
0.470	0.090	1.340	0.310	0.06
0.470	0.060	1.460	0.340	0.09
0.480	0.060	1.500	0.620	0.11
0.410	0.050	1.120	0.900	0.06
0.370	0.030	1.010	0.420	0.12
0.730	0.060	0.740	1.100	0.1
0.450	0.020	1.420	0.760	0.16
0.390	0.000	1.460	0.670	0.11
0.410	0.020	1.160	0.630	0.23
0.530	0.040	1.920	0.680	0.19
0.210	0.110	0.150	0.670	0.19
0.320	0.020	0.880	0.430	0.13
0.380	0.030	1.230	0.540	0.14
0.310	0.010	0.930	0.410	0.08
0.360	0.020	1.190	0.230	0.1
0.360	0.030	1.280	0.390	0.12
0.420	0.110	1.640	0.480	0.17
0.430	0.020	1.570	0.630	0.13
0.910	0.020	0.470	0.260	0.02
0.410	0.030	1.540	0.570	0.17
0.380	0.040	1.100	0.280	0.12
0.400	0.070	0.690	0.800	0.14
0.440	0.020	1.120	0.800	0.14
0.310	0.050	0.710	0.390	0.15
0.550	0.010	0.930	1.270	0.11

0.410	0.010	1.290	0.740	0.18
0.340	0.010	0.950	0.620	0.16
0.260	0.000	0.490	0.340	0.16
0.410	0.060	1.460	0.430	0.09
0.480	0.040	1.220	1.080	0.15
0.400	0.020	1.280	0.620	0.11
0.280	0.020	0.740	0.480	0.12
0.510	0.030	0.670	0.000	0.09
0.250	0.030	0.640	0.500	0.09
0.320	0.030	0.950	0.850	0.18
0.260	0.020	0.570	0.610	0.14
0.420	0.010	0.930	0.740	0.19
0.630	0.020	0.580	0.630	0.15
0.450	0.010	1.720	0.510	0.15
0.440	0.010	1.100	1.000	0.12
0.380	0.010	1.270	0.720	0.15
0.450	0.020	0.830	0.960	0.13
0.400	0.000	1.430	0.670	0.17
0.330	0.010	1.020	0.930	0.12
0.360	0.020	0.910	0.350	0.12
0.430	0.020	1.540	0.540	0.13
0.220	0.050	0.700	0.370	0.12
0.250	0.030	0.930	0.390	0.14
0.180	0.020	0.570	0.270	0.12
0.420	0.060	0.550	2.170	0.07
0.210	0.130	0.520	0.310	0.11
0.220	0.070	0.670	0.260	0.12
0.300	0.040	0.920	0.460	0.11
0.240	0.010	0.930	0.330	0.12
0.320	0.000	0.750	0.750	0.13
0.480	0.000	0.660	1.210	0.13
0.180	0.050	0.430	0.210	0.08
0.300	0.070	1.240	0.260	0.1
0.370	0.010	1.050	0.250	0.09
0.340	0.000	0.620	0.980	0.12
0.450	0.000	1.820	0.530	0.15
0.290	0.010	0.530	0.380	0.11
0.280	0.010	1.090	0.200	0.16
0.260	0.000	1.280	0.220	0.16
0.260	0.130	0.930	0.340	0.11
0.290	0.020	1.060	0.200	0.11

0.200	0.010	0.790	0.220	0.14
0.110	0.000	0.120	0.340	0.15
0.200	0.080	0.660	0.280	0.12
0.220	0.090	0.940	0.280	0.16
0.290	0.000	1.300	0.270	0.13
0.270	0.080	0.980	0.410	0.12
0.370	0.030	0.840	0.600	0.08
0.230	0.120	0.650	0.160	0.08
0.140	0.060	0.360	0.200	0.1
0.210	0.030	0.780	0.210	0.1
0.310	0.150	0.970	0.200	0.04
0.330	0.200	0.710	0.250	0.05
0.350	0.030	0.980	0.440	0.09
0.480	0.010	0.730	0.700	0.07
0.460	0.010	1.610	0.190	0.1
0.460	0.070	1.870	0.180	0.09
0.770	0.100	1.290	1.950	0.03
0.640	0.080	1.430	0.870	0.01
0.460	0.000	0.560	0.070	0.01
0.360	0.000	0.370	0.060	0.01
0.440	0.000	1.280	1.240	0.29
0.520	0.120	0.580	1.700	0.06
0.560	0.070	0.860	1.740	0.05
0.420	0.030	1.430	0.670	0.17
0.730	0.050	0.950	3.230	0.03
0.330	0.000	0.340	0.050	0.01
0.260	0.100	0.930	0.330	0.12
0.270	0.050	0.720	0.200	0.14
0.540	0.080	1.200	1.040	0.09
0.600	0.020	3.030	1.060	0.24
0.360	0.000	0.490	0.030	0
0.860	0.020	3.020	2.450	0.04
0.710	0.070	1.040	0.910	0.02
0.380	0.000	1.050	0.560	0.04
0.390	0.020	1.200	0.250	0.1
0.600	0.070	1.920	0.630	0.06
0.600	0.010	2.370	0.160	0.04
0.590	0.020	3.290	0.110	0.09
0.648	0.763	0.119	0.009	0.00381099
0.523	0.661	0.126	0.012	0.00516212
0.118	0.115	0.198	0.067	0.09588881

0.158	0.087	0.137	0.005	0.00653011
0.266	0.034	0.290	0.025	0.00767059
0.482	0.797	0.141	0.103	0.0313547
0.162	0.000	0.273	0.064	0.04284545
0.454	0.413	0.704	0.304	0.05692151
0.675	0.211	1.611	0.337	0.02842426
0.361	0.027	1.217	0.220	0.11428334
0.334	0.052	0.762	0.215	0.06054187
0.368	0.032	0.765	0.195	0.05182996
0.380	0.066	0.820	0.294	0.06917449
0.350	0.040	0.753	0.181	0.08337715
0.380	0.100	1.027	0.194	0.0886569
0.470	0.059	1.240	0.303	0.09167658
0.298	0.071	0.888	0.156	0.04658136
0.454	0.070	1.017	0.289	0.14542628
0.320	0.084	0.877	0.283	0.06154945
0.369	0.043	1.442	0.230	0.11816207
0.622	0.027	1.318	0.263	0.11928977
0.278	0.088	1.145	0.324	0.1097269
0.434	0.039	1.171	0.163	0.13146839
0.410	0.068	0.750	0.207	0.15651054
0.438	0.020	1.021	0.302	0.16772528
0.308	0.019	1.156	0.170	0.12432003
0.442	0.090	0.646	0.338	0.12736037
0.471	0.059	0.887	0.236	0.11665717
0.284	0.072	0.522	0.235	0.1601026
0.453	0.053	0.865	0.266	0.10272025
0.698	0.071	1.013	0.306	0.09538386
0.316	0.062	0.563	0.284	0.11122722
0.396	0.075	1.054	0.220	0.11519713
0.316	0.012	0.507	0.135	0.11500906
0.404	0.112	0.572	0.277	0.15442155
0.457	0.025	1.246	0.260	0.05602382
0.225	0.008	0.577	0.101	0.05342203
0.267	0.043	0.653	0.236	0.07816838
0.076	0.024	0.305	0.062	0.04660399
0.081	0.017	0.192	0.121	0.08924221
0.403	0.011	1.239	0.067	0.04022714
0.573	0.060	1.813	0.138	0.0297192
0.526	0.095	0.619	0.047	0.01777449
0.596	0.030	0.716	0.076	0.00596134

0.276	0.000	0.808	0.102	0.06915833
0.161	0.020	0.266	0.120	0.06294911
0.146	0.234	0.207	0.091	0.07353592
0.275	0.001	1.101	0.111	0.07142619
0.201	0.000	0.789	0.103	0.09851948
0.092	0.002	0.201	0.115	0.09426204
0.508	0.001	1.951	0.138	0.06712958
0.303	0.002	1.160	0.095	0.08686099
0.119	0.003	0.257	0.101	0.07547851
0.108	0.007	0.143	0.090	0.06199606
0.174	0.007	0.493	0.094	0.05914517
1.046	0.048	0.906	0.673	0.00359777
0.593	0.024	2.608	0.825	0.06117286
0.218	0.004	0.405	0.162	0.07258208
0.341	0.157	0.446	0.469	0.17568824
0.608	0.018	1.504	0.500	0.03364261
0.680	0.023	3.060	0.048	0.03187137
0.465	0.036	2.045	0.124	0.05301145
0.343	0.290	1.051	0.311	0.04462698
0.729	0.022	2.497	1.494	0.07326601
0.168	0.005	0.374	0.103	0.10419111
0.586	0.005	1.806	0.052	0.02427949
0.315	0.076	0.246	0.042	0.00302783
0.260	0.010			
0.270	0.000			
0.230	0.000			
0.200	0.000			
0.220	0.010			
0.280	0.000			
0.320	0.050			
0.240	0.010			
0.320	0.000			
0.220	0.000			
0.200	0.010			
0.240	0.000			
0.230	0.010			
0.170	0.020			
0.210	0.010			
0.260	0.000			
0.250	0.000			
0.310	0.000			

0.290	0.000
0.300	0.000
0.260	0.020
0.300	0.020
0.280	0.020
0.300	0.020
0.280	0.010
0.270	0.010
0.270	0.010
0.260	0.010
0.260	0.040
0.250	0.030
0.300	0.030
0.320	0.010
0.270	0.030
0.290	0.050
0.290	0.070
0.300	0.000
0.250	0.160
0.220	0.020
0.220	0.040
0.210	0.010
0.210	0.010
0.230	0.010
0.180	0.030
0.180	0.010
0.230	0.010
0.240	0.090
0.260	0.060
0.240	0.010
0.330	0.010
0.240	0.010
0.130	0.030
0.200	0.040
0.210	0.100
0.230	0.010
0.830	0.040
0.270	0.340
0.280	0.200
0.270	0.220
0.320	0.340

0.320	0.010			
0.300	0.070			
0.250	0.080			
0.170	0.170			
0.320	0.130			
0.120	0.130			
0.290	0.050			
0.320	0.000			
0.360	0.000			
0.250	0.000			
0.330	0.000			
0.140	0.070			
0.210	0.100			
0.390	0.020			
0.280	0.370			
0.180	0.070			
0.290	0.320			
0.200	0.100			
0.220	0.380			
0.090	0.020			
0.190	0.000			
0.230	0.010			
0.180	0.080			
0.130	0.080			
0.170	0.010			
0.060	0.270	0.020	0.170	0.07
0.100	0.430	0.030	0.270	0.07
0.170	0.350	0.010	0.400	0.14
0.040	0.030	0.010	0.240	0.11
0.080	0.440	0.020	0.220	0.1
0.120	0.160	0.090	0.320	0.15
0.050	0.010	0.030	0.150	0.07
0.060	0.070	0.030	0.210	0.1
0.100	0.210	0.070	0.390	0.15
0.460	0.250	0.020	1.190	0.18
0.410	0.070	0.170	0.230	0.13
0.150	0.270	0.390	0.300	0.12
0.120	0.240	0.080	0.570	0.09
0.060	0.130	0.000	0.250	0.07
0.070	0.030	0.060	0.330	0.07
0.670	0.090	0.280	2.130	0.07

0.100	0.280	0.170	0.210	0.06
0.070	0.180	0.100	0.180	0.08
0.080	0.160	0.220	0.130	0.05
0.070	0.060	0.060	0.290	0.06
0.900	0.020	0.120	5.500	0.1
0.090	0.260	0.040	0.270	0.06
0.100	0.060	0.180	0.280	0.05
0.880	0.050	0.100	1.680	0.02
0.560	0.080	0.090	0.910	0.02
0.530	0.450	0.030	0.600	0.03
0.510	0.190	0.130	1.760	0.05
0.300	0.120	0.170	0.670	0.04
0.490	0.010	0.050	1.050	0.02
0.070	0.370	0.060	0.120	0.03
0.300	0.420	0.250	0.520	
0.100	0.110	0.080	0.440	0.06
0.050	0.030	0.070	0.160	0.08
0.090	0.060	0.250	0.140	0.06
0.410	0.420	0.140	0.470	0.04
0.050	0.080	0.020	0.090	0.06
0.520	0.050	0.440	0.150	0.12
0.440	0.010	0.100	0.100	0.1
0.180	0.440	0.190	0.170	0.09
0.240	0.010	0.430	0.300	0.17
0.110	0.100	0.370	0.150	0.08
0.600	0.010	0.700	0.160	0.23
0.130	0.500	0.050	0.180	0.09
0.070	0.120	0.180	0.150	0.08
0.050	0.030	0.050	0.150	0.07
0.050	0.020	0.030	0.180	0.07
0.080	0.020	0.220	0.160	0.07
0.060	0.020	0.030	0.220	0.08
0.070	0.080	0.120	0.150	0.06
0.120	0.540	0.040	0.290	0.08
0.670	0.140	0.040	0.630	0.09
0.130	0.370	0.040	0.210	0.1
0.410	0.310	0.090	0.130	0.11
0.220	0.480	0.080	0.470	0.12
0.370	0.010	0.150	0.790	0.24
0.760	0.020	0.320	0.160	0.19
0.730	0.020	0.050	0.490	0.18

0.050	0.030	0.060	0.130	0.07
0.060	0.020	0.030	0.150	0.07
0.110	0.370	0.040	0.270	0.17
0.070	0.300	0.050	0.160	0.08
0.280	0.800	0.060	0.130	0.06
0.230	0.320	0.110	0.120	0.13
0.060	0.070	0.070	0.180	0.05
0.240	0.600	0.130	0.130	0.04
0.230	0.530	0.050	0.290	0.06
0.300	0.170	0.150	0.640	0.14
0.350	0.740	0.060	0.210	0.1
0.330	0.470	0.080	0.520	0.08
0.140	0.540	0.030	0.160	0.06
0.140	0.350	0.110	0.190	0.09
0.880	0.620	0.050	0.760	0.07
0.240	0.190	0.320	0.420	0.08
0.490	0.650	0.290	0.110	0.05
0.210	0.580	0.080	0.250	0.1
0.240	0.120	0.180	0.670	0.12
0.240	0.260	0.160	0.380	0.09
0.350	0.090	0.930	0.520	0.13
0.690	0.700	0.150	0.220	0.13
0.280	0.110	0.050	0.350	0.2
0.450	0.130	0.150	0.370	0.26
0.330	0.240	0.160	0.760	0.19
0.570	0.300	0.070	1.030	0.13
0.230	0.060	0.060	0.200	0.15
0.540	0.040	0.050	0.640	0.22
0.190	0.280	0.010	0.450	0.12
0.300	0.390	0.190	0.530	0.1
0.490	0.290	0.140	0.480	0.16
0.910	0.120	0.470	1.460	0.19
0.330	0.210	0.040	0.470	0.24
0.420	0.530	0.510	0.180	0.09
0.470	0.760	0.030	0.160	0.09
0.500	0.310	0.000	1.550	0.13
1.010	0.150	0.060	2.440	0.17
0.480	0.260	0.140	1.220	0.2
0.160	0.130	0.170	0.190	0.08
0.200	0.500	0.040	0.270	0.12
0.240	0.360	0.090	0.520	0.16

0.180	0.210	0.050	0.330	0.11
0.190	0.090	0.270	0.360	0.13
0.200	0.070	0.050	0.710	0.18
0.090	0.190	0.090	0.270	0.1
0.230	0.120	0.050	0.300	0.18
0.270	0.200	0.070	0.810	0.14
0.360	0.780	0.040	0.260	0.12
0.110	0.020	0.120	0.160	0.09
0.290	0.510	0.040	0.390	0.12
0.300	0.020	0.080	0.240	0.18
0.280	0.140	0.010	0.260	0.14
0.360	0.120	0.040	0.700	0.16
0.100	0.190	0.120	0.180	0.08
0.120	0.250	0.100	0.270	0.11
0.270	0.590	0.180	0.270	0.12
1.000	0.060	0.180	6.500	0.15
1.000	0.160	0.130	3.130	0.19
1.000	0.030	0.070	2.900	0.11
0.240	0.310	0.130	0.360	0.09
1.000	0.020	0.030	3.060	0.13
0.360	0.360	0.100	0.830	0.21
0.150	0.210	0.070	0.320	0.19
0.190	0.220	0.270	0.260	0.13
0.860	0.450	0.040	0.390	0.13
0.640	0.300	0.090	0.760	0.09
0.590	0.540	0.210	1.340	0.35
0.680	0.310	0.190	1.410	0.18
1.000	0.270	0.180	1.830	0.19
0.420	0.350	0.140	0.650	0.15
0.370	0.320	0.120	0.690	0.15
0.380	0.480	0.120	0.390	0.17
0.490	0.370	0.130	0.880	0.14
0.340	0.000	0.160	0.680	0.33
0.360	0.540	0.000	0.310	0.01
0.470	0.080	0.000	0.610	0.02
0.610	0.650	0.020	0.740	0.03
0.070	0.000	0.020	0.160	0.1
0.220	0.170	0.100	0.590	0.31
0.050	0.100	0.040	0.140	0.05
0.150	0.020	0.070	0.320	0.17
0.160	0.000	0.070	0.290	0.19

0.180	0.090	0.050	0.280	0.18
0.090	0.370	0.030	0.170	0.09
0.260	0.300	0.280	0.530	0.26
0.170	0.140	0.110	0.290	0.16
0.070	0.020	0.100	0.100	0.05
0.140	0.000	0.050	0.320	0.19
0.170	0.020	0.030	0.330	0.18
0.170	0.040	0.060	0.400	0.18
0.230	0.010	0.040	0.280	0.16
0.050	0.000	0.060	0.170	0.09
0.140	0.010	0.020	0.330	0.16
0.110	0.000	0.030	0.320	0.2
0.130	0.010	0.030	0.220	0
0.180	0.320	0.080	0.270	0.25
0.120	0.000	0.040	0.280	0.14
0.130	0.210	0.060	0.250	0.15
0.140	0.240	0.270	0.210	0.05
0.130	0.400	0.040	0.300	0.1
0.130	0.480	0.010	0.200	0.09
0.150	0.000	0.080	0.350	0.16
0.270	0.010	0.040	0.950	0.19
0.070	0.040	0.000	0.380	0.18
0.200	0.040	0.020	0.340	0.18
0.230	0.010	0.030	0.700	0.18
0.030	0.010	0.000	0.130	0.05
0.090	0.360	0.030	0.230	0.08
0.060	0.110	0.030	0.240	0.11
0.100	0.210	0.020	0.240	0.14
0.120	0.270	0.040	0.220	0.11
0.110	0.000	0.210	0.080	0.03
0.050	0.040	0.100	0.170	0.05
0.180	0.000	0.060	0.230	0.14
0.220	0.060	0.000	0.250	0.16
0.070	0.050	0.010	0.350	0.19
0.120	0.010	0.020	0.410	0.21
0.100	0.000	0.040	0.300	0.12
0.080	0.050	0.160	0.140	0.05
0.060	0.020	0.030	0.290	0.13
0.110	0.050	0.010	0.250	0.15
0.050	0.270	0.000	0.320	0.14
0.060	0.240	0.070	0.170	0.06

0.230	0.050	0.020	0.170	0.17
0.220	0.060	0.010	0.420	0.17
0.210	0.720	0.000	0.110	0.07
0.060	0.190	0.080	0.100	0.04
0.150	0.500	0.020	0.300	0.14
0.110	0.010	0.000	0.230	0.16
0.400	0.020	0.010	0.670	0.1
0.450	0.010	0.550	0.230	0.17
0.540	0.030	0.060	0.360	0.09
0.250	0.000	0.360	0.380	0.34
0.160	0.120	0.200	0.240	0.21
0.180	0.250	0.230	0.210	0.2
0.160	0.150	0.210	0.220	0.23
0.160	0.120	0.230	0.220	0.23
0.180	0.010	0.320	0.230	0.21
0.130	0.080	0.160	0.210	0.18
0.220	0.180	0.280	0.260	0.21
0.220	0.250	0.200	0.250	0.21
0.190	0.030	0.210	0.200	0.18
0.160	0.030	0.250	0.230	0.21
0.160	0.070	0.260	0.220	0.2
0.430	0.050	0.440	0.410	0.58
0.320	0.010	0.410	0.490	0.62
0.330	0.010	0.240	0.440	0.3
0.310	0.000	0.450	0.380	0.33
0.270	0.010	0.600	0.170	0.32
0.350	0.000	0.780	0.290	0.52
0.350	0.010	0.710	0.310	0.51
0.400	0.020	0.360	0.440	0.33
0.250	0.080	0.560	0.220	0.21
0.200	0.000	0.350	0.240	0.16
0.140	0.000	0.160	0.180	0.2
0.200	0.000	0.430	0.240	0.21
0.170	0.010	0.160	0.150	0.11
0.120	0.010	0.050	0.230	0.15
0.200	0.010	0.290	0.060	0.02
0.100	0.020	0.090	0.150	0.13
0.190	0.000	0.210	0.300	0.24
0.190	0.020	0.130	0.160	0.11
0.240	0.000	0.400	0.180	0.22
0.240	0.010	0.270	0.170	0.19

0.270	0.000	0.340	0.160	0.21
0.300	0.000	0.820	0.040	0.37
0.200	0.010	0.200	0.180	0.16
0.220	0.010	0.210	0.210	0.18
0.260	0.070	0.310	0.280	0.27
0.190	0.010	0.200	0.250	0.23
0.190	0.010	0.170	0.240	0.21
0.430	0.000	1.160	0.170	0.35
0.260	0.000	0.500	0.340	0.32
0.210	0.000	0.350	0.280	0.26
0.250	0.040	0.330	0.300	0.27
0.250	0.020	0.170	0.250	0.18
0.240	0.000	0.180	0.390	0.25
0.170	0.000	0.130	0.160	0.11
0.230	0.010	0.160	0.240	0.17
0.230	0.000	0.320	0.200	0.23
0.210	0.000	0.290	0.240	0.23
0.240	0.000	0.410	0.350	0.36
0.260	0.000	0.370	0.290	0.3
0.290	0.000	0.500	0.280	0.29
0.250	0.000	0.470	0.320	0.29
0.280	0.000	0.470	0.260	0.24
0.280	0.000	0.470	0.360	0.3
0.280	0.000	0.300	0.600	0.42
0.340	0.130	0.160	0.250	0.14
0.290	0.130	0.130	0.180	0.09
0.230	0.040	0.220	0.290	0.21
0.290	0.020	0.190	0.270	0.36
0.250	0.000	0.150	0.230	0.17
0.270	0.150	0.160	0.220	0.17
0.280	0.110	0.140	0.220	0.16
0.250	0.040	0.150	0.240	0.17
0.310	0.160	0.200	0.270	0.21
0.300	0.050	0.410	0.280	0.43
0.230	0.090	0.160	0.290	0.33
0.280	0.020	0.240	0.310	0.48
0.270	0.160	0.170	0.250	0.28
0.310	0.000	0.420	0.270	0.53
0.310	0.000	1.000	0.150	0.23
0.150	0.000	0.190	0.170	0.18
0.210	0.000	0.450	0.070	0.11

0.170	0.000	0.420	0.320	0.25
0.240	0.000	0.610	0.200	0.23
0.270	0.000	0.470	0.180	0.24
0.260	0.000	0.750	0.190	0.27
0.270	0.000	0.680	0.180	0.29
0.180	0.000	0.360	0.280	0.3
0.190	0.000	0.420	0.170	0.22
0.220	0.000	0.460	0.160	0.19
0.250	0.000	0.720	0.140	0.18
0.230	0.000	0.490	0.210	0.22
0.240	0.000	0.580	0.220	0.24
0.220	0.000	0.780	0.160	0.17
0.250	0.320	0.250	0.370	0.22
0.170	0.000	0.270	0.290	0.21
0.190	0.250	0.230	0.270	0.18
0.210	0.100	0.260	0.280	0.15
0.280	0.080	0.450	0.330	0.24
0.250	0.130	0.390	0.310	0.23
0.270	0.110	0.390	0.320	0.24
0.270	0.060	0.280	0.360	0.24
0.230	0.210	0.130	0.190	0.12
0.170	0.030	0.220	0.270	0.23
0.180	0.030	0.250	0.310	0.22
0.180	0.070	0.230	0.310	0.24
0.180	0.020	0.250	0.300	0.25
0.190	0.020	0.340	0.290	0.24
0.190	0.040	0.300	0.290	0.24
0.180	0.050	0.240	0.290	0.23
0.180	0.090	0.260	0.280	0.27
0.230	0.070	0.250	0.330	0.15
0.190	0.000	0.260	0.270	0.23
0.190	0.020	0.260	0.360	0.28
0.200	0.000	0.340	0.290	0.27
0.330	0.400	0.360	0.420	0.29
0.270	0.220	0.380	0.460	0.34
0.240	0.010	0.450	0.270	0.28
0.280	0.390	0.280	0.320	0.27
0.230	0.160	0.220	0.490	0.38
0.190	0.010	0.280	0.280	0.23
0.210	0.020	0.300	0.320	0.3
0.230	0.000	0.320	0.350	0.33

0.270	0.140	0.320	0.310	0.25
0.290	0.010	0.350	0.310	0.3
0.250	0.000	0.270	0.290	0.25
0.250	0.130	0.320	0.260	0.31
0.250	0.290	0.280	0.320	0.29
0.210	0.020	0.390	0.290	0.3
0.300	0.180	0.210	0.300	0.29
0.280	0.040	0.250	0.340	0.34
0.280	0.080	0.260	0.320	0.35
0.290	0.010	0.250	0.300	0.31
0.330	0.040	0.310	0.450	0.42
0.300	0.010	0.340	0.540	0.52
0.320	0.010	0.320	0.320	0.31
0.290	0.010	0.260	0.500	0.46
0.280	0.000	0.280	0.320	0.41
0.330	0.020	0.320	0.390	0.36
0.300	0.010	0.310	0.400	0.37
0.230	0.000	0.300	0.310	0.26
0.270	0.010	0.260	0.310	0.2
0.260	0.010	0.240	0.390	0.24
0.360	0.020	0.360	0.390	0.33
0.290	0.000	0.350	0.320	0.38
0.340	0.000	0.400	0.490	0.55
0.230	0.000	0.170	0.140	0.15
0.350	0.000	0.210	0.310	0.21
0.310	0.000	0.270	0.310	0.26
0.340	0.000	0.410	0.260	0.46
0.510	0.360	0.370	0.390	0.27
0.280	0.000	0.340	0.290	0.37
0.370	0.030	0.230	0.390	0.22
0.400	0.040	0.270	0.220	0.33
0.300	0.050	0.250	0.210	0.27
0.260	0.030	0.090	0.090	0.07
0.420	0.300	0.140	0.130	0.13
0.360	0.070	0.220	0.390	0.32
0.220	0.030	0.180	0.260	0.19
0.190	0.000	0.330	0.250	0.18
0.200	0.000	0.200	0.340	0.2
0.290	0.340	0.140	0.240	0.09
0.240	0.010	0.120	0.260	0.09
0.200	0.010	0.120	0.290	0.12

0.230	0.010	0.100	0.240	0.08
0.270	0.000	0.180	0.290	0.15
0.190	0.000	0.170	0.330	0.18
0.160	0.000	0.100	0.280	0.12
0.200	0.000	0.240	0.290	0.32
0.170	0.000	0.250	0.280	0.28
0.310	0.390	0.180	0.260	0.2
0.130	0.010	0.180	0.320	0.19
0.170	0.050	0.200	0.240	0.21
0.300	0.440	0.170	0.330	0.17
0.170	0.020	0.220	0.320	0.24
0.310	0.430	0.220	0.270	0.21
0.190	0.000	0.210	0.360	0.27
0.210	0.150	0.240	0.330	0.22
0.190	0.090	0.280	0.290	0.21
0.230	0.040	0.440	0.330	0.18
0.210	0.140	0.270	0.300	0.19
0.490	0.490	0.180	0.340	0.06
0.190	0.150	0.210	0.290	0.21
0.320	0.000	0.400	0.350	0.42
0.350	0.000	0.570	0.340	0.4
0.350	0.000	0.830	0.160	0.17
0.460	0.000	1.260	0.080	0.18
0.370	0.000	0.910	0.180	0.28
0.420	0.000	0.940	0.320	0.31
0.340	0.010	0.460	0.320	0.21
0.270	0.030	0.090	0.110	0.04
0.320	0.020	0.060	0.100	0.02
0.290	0.040	0.060	0.110	0.02
0.010	1.000	0.000		
0.350	0.010	0.420	0.380	0.52
0.480	0.000	1.450	0.070	0.21
0.430	0.010	0.650	0.350	0.54
0.440	0.010	0.760	0.480	0.78
0.430	0.010	0.720	0.300	0.53
0.420	0.030	0.750	0.320	0.58
0.400	0.000	0.630	0.340	0.58
0.390	0.000	0.640	0.270	0.49
0.170	0.010	0.200	0.350	0.27
0.190	0.010	0.180	0.440	0.28
0.210	0.000	0.260	0.510	0.33

0.410	0.360	0.350	0.430	0.34
0.432	0.030	1.083	0.186	0.218
0.584	0.030	1.490	0.271	0.256
0.666	0.080	0.871	0.045	0.064
0.177	0.010	0.116	0.340	0.26
0.192	0.090	0.287	0.658	0.144
0.220	0.030	0.474	0.193	0.186
0.222	0.010	0.215	0.426	0.389
0.222	0.410	0.127	0.217	0.099
0.232	0.060	0.180	0.397	0.233
0.234	0.050	0.535	0.249	0.239
0.240	0.010	0.188	0.592	0.081
0.244	0.140	0.648	0.155	0.092
0.330	0.300	0.642	0.142	0.198
0.364	0.010	1.169	0.216	0.188
0.409	0.050	0.411	0.106	0.006
0.486	0.120	1.039	0.171	0.034
0.496	0.220	0.909	0.333	0.049
0.502	0.230	0.072	0.517	0.001
0.599	0.030	0.810	0.221	0.024
0.651	0.250	0.435	0.613	0.034
0.276	0.010	0.211	0.196	0.143
0.317	0.220	0.450	0.300	0.115
0.346	0.010	0.193	0.363	0.254
0.550	0.040	0.584	0.366	0.038
0.664	0.100	0.478	0.695	0.029
0.727	0.140	0.229	0.259	0.005
0.152	0.190	0.064	0.187	0.168
0.213	0.040	0.165	0.522	0.442
0.275	0.020	0.267	0.839	0.594
0.344	0.030	0.149	1.273	0.668
0.365	0.130	0.410	0.792	0.294
0.421	0.580	0.195	0.481	0.251
0.447	0.460	0.481	0.641	0.356
0.256	0.010	0.120	0.472	0.467
0.286	0.020	0.147	0.437	0.455
0.301	0.060	0.104	0.774	0.459
0.308	0.410	0.084	0.304	0.232
0.407	0.070	0.050	0.638	0.263
0.425	0.560	0.147	0.656	0.255
0.445	0.770	0.068	0.242	0.203

0.454	0.210	0.232	0.938	1.383
0.460	0.440	0.294	0.507	0.488
0.463	0.260	0.278	0.875	1.469
0.463	0.430	0.233	0.574	0.462
0.488	0.630	0.045	0.294	0.171
0.492	0.530	0.084	0.577	0.325
0.502	0.380	0.101	0.863	0.424
0.504	0.680	0.069	0.485	0.232
0.523	0.050	0.089	1.367	0.597
0.560	0.640	0.273	0.580	0.198
0.570	0.550	0.072	0.768	0.312
0.622	0.560	0.262	0.660	0.273
0.639	0.710	0.169	0.461	0.116
0.741	0.720	0.173	0.618	0.301
0.263	0.270	0.030	0.408	0.045
0.268	0.280	0.110	0.367	0.401
0.444	0.590	0.087	0.313	0.142
0.446	0.600	0.111	0.455	0.069
0.542	0.580	0.097	0.613	0.271
0.562	0.590	0.278	0.515	0.171
0.610	0.700	0.112	0.492	0.156
0.632	0.710	0.099	0.512	0.16
0.636	0.700	0.191	0.468	0.152
0.673	0.660	0.169	0.467	0.149
0.225	0.060	0.422	0.316	0.375
0.242	0.050	0.115	0.465	0.269
0.263	0.080	0.530	0.304	0.348
0.311	0.150	0.258	0.536	0.376
0.328	0.020	0.964	0.316	0.556
0.340	0.400	0.161	0.522	0.286
0.380	0.570	0.209	0.426	0.238
0.404	0.520	0.142	0.507	0.299
0.305	0.000	0.453	0.151	0.093
0.342	0.140	0.649	0.212	0.015
0.403	0.170	0.385	0.221	0.016
0.627	0.094	0.664	0.030	0.01311763
0.465	0.001	2.038	0.083	0.15898438
0.502	0.000	2.235	0.084	0.09748037
0.461	0.000	2.034	0.063	0.11703635
0.348	0.000	1.323	0.145	0.15380759
0.385	0.000	1.636	0.087	0.12426144

0.356	0.001	1.613	0.120	0.10801267
0.302	0.000	1.392	0.082	0.11257015
0.482	0.000	1.878	0.080	0.11444567
0.411	0.000	1.751	0.148	0.10841788
0.383	0.000	1.553	0.104	0.10658155
0.394	0.001	1.697	0.106	0.14403862
0.445	0.001	2.222	0.072	0.12681531
0.382	0.001	2.033	0.091	0.12031079
0.303	0.001	1.908	0.104	0.12848817
0.289	0.014	1.539	0.262	0.15307118
0.439	0.003	2.454	0.196	0.11287085
0.414	0.001	1.969	0.118	0.13914601
0.337	0.007	1.520	0.263	0.17151766
0.360	0.001	1.554	0.172	0.1515213
0.301	0.003	1.279	0.143	0.09612623
0.384	0.007	1.699	0.223	0.14035476
0.274	0.060	1.142	0.188	0.12235247
0.343	0.013	1.016	0.263	0.26808071
0.304	0.008	1.330	0.137	0.12087948
0.419	0.001	1.654	0.131	0.21296251
0.219	0.006	1.175	0.222	0.3070521
0.422	0.004	1.871	0.146	0.13190202
0.367	0.003	1.642	0.152	0.11937729
0.370	0.001	1.534	0.293	0.46135365
0.425	0.002	2.027	0.131	0.13349947
0.440	0.001	1.806	0.231	0.10437083
0.401	0.001	1.920	0.173	0.18651215
0.599	0.003	2.184	0.254	0.13334416
0.456	0.003	2.243	0.216	0.07662962
0.699	0.000	3.045	0.194	0.04970197
0.129	0.005	0.231	0.087	0.18714867
0.730	0.070	1.930	0.050	0.01
0.770	0.060	2.270	0.040	0.01
0.780	0.090	2.110	0.040	0.01
0.820	0.090	1.470	0.020	0
0.860	0.110	3.220	0.030	0
0.730	0.070	2.750	0.090	0.02
0.640	0.110	2.270	0.120	0.04
0.690	0.050	2.580	0.140	0.04
0.480	0.090	1.140	0.290	0.07
0.490	0.040	2.000	0.260	0.09

0.740	0.010	4.550	0.330	0.1
0.470	0.040	1.760	0.430	0.14
0.480	0.020	2.150	0.420	0.14
0.480	0.030	1.990	0.380	0.11
0.290	0.070	0.390	0.240	0.07
0.420	0.010	1.860	0.330	0.13
0.400	0.010	1.830	0.500	0.15
0.570	0.010	3.340	0.400	0.13
0.530	0.010	2.700	0.380	0.12
0.640	0.010	3.870	0.400	0.12
0.460	0.010	1.920	0.310	0.09
0.440	0.360	0.990	0.590	0.19
0.580	0.010	3.450	0.410	0.14
0.530	0.150	2.480	0.770	0.41
0.520	0.500	0.600	0.480	0.07
0.460	0.430	0.750	0.330	0.09
0.650	0.040	3.800	0.450	0.12
0.450				
0.400				
0.320				
0.310				
0.780				
0.540				
0.390				
0.710				
0.450				
0.370				
0.560				
0.260				
0.630				
0.640				
0.410				
0.650				
0.290				
0.380				
0.500				
0.410				
0.210				
0.600				
0.200				
0.590				

0.320
0.300
0.460
0.240
0.410
0.160
0.450
0.420
0.120
0.120
0.080
0.150
0.070
0.070
0.170
0.040
0.060
0.150
0.030
0.050
0.040
0.130
0.030
0.020
0.190
0.170
0.120
0.040
0.200
0.190
0.250
0.080
0.100
0.150
0.190

0.458	0.002	1.804	0.104	0.03953419
0.446	0.001	2.394	0.072	0.14469706
0.218	0.003	0.917	0.116	0.04806142
0.258	0.001	1.213	0.055	0.03972798
0.088	0.001	0.268	0.056	0.05619564
0.177	0.002	0.686	0.065	0.04654001

0.142	0.003	0.354	0.074	0.12370624
0.147	0.002	0.463	0.084	0.07785007
0.384	0.000	1.585	0.045	0.04910539
0.194	0.002	0.556	0.058	0.09117904
0.541	0.001	2.836	0.022	0.25014465
0.389	0.001	1.076	0.037	0.07357508
0.297	0.001	0.999	0.055	0.11842955
0.266	0.002	0.865	0.050	0.09547272
0.403	0.004	0.780	0.006	0.04408716
0.575	0.247	1.344	0.238	0.02710287
0.669	0.107	1.012	0.725	0.03326873
0.469	0.068	1.056	0.157	0.02047853
0.375	0.139	0.842	0.246	0.0336678
0.435	0.102	1.235	0.282	0.03431959
0.581	0.077	0.948	0.434	0.01760602
0.644	0.064	1.397	0.388	0.02334613
0.542	0.010	1.518	0.199	0.0359768
0.551	0.049	1.984	0.091	0.0358871
0.358	0.018	1.268	0.116	0.0643845
0.729	0.078	1.364	0.360	0.02278016
0.570	0.050	1.452	0.135	0.0303049
0.564	0.011	0.749	0.025	0.0172884
0.091	0.006	0.149	0.092	0.06127169
0.128	0.110	0.291	0.123	0.06777896
0.106	0.041	0.303	0.084	0.05390273
0.476	0.040	1.315	0.086	0.04885759
0.487	0.020	1.727	0.063	0.06209928
0.508	0.042	1.756	0.164	0.09637391
0.598	0.039	1.935	0.103	0.04212543
0.579	0.106	1.175	0.113	0.05461689
0.582	0.027	1.651	0.070	0.05287752
0.594	0.054	1.829	0.198	0.08603652
0.651	0.042	2.214	0.161	0.12404087
0.811	0.057	2.188	0.095	0.02481443
0.845	0.061	2.445	0.090	0.01826899
0.632	0.144	0.871	0.070	0.00687564
0.897	0.029	2.336	0.174	0.00659516
0.748	0.084	1.036	0.076	0.00433123
0.827	0.075	1.583	0.502	0.00387517
0.840	0.041	1.853	0.138	0.00494859
0.775	0.024	2.945	0.128	0.02895229

0.889	0.045	3.170	0.068	0.01420186
0.676	0.018	1.852	0.032	0.02135849
0.380	0.027	0.384	0.022	0.00435574
0.110	0.361	0.144	0.041	0.00478266
0.646	0.027	0.893	0.052	0.00312576
0.943	0.066	1.067	0.039	0.00431536
0.898	0.026	1.469	0.174	0.00302642
0.908	0.015	1.700	0.122	0.00224805
0.784	0.002	2.074	0.024	0.00588546
0.592	0.003	0.932	0.016	0.00299792
0.384	0.006	0.427	0.009	0
0.936	0.002	3.391	0.021	0.00648345
0.635	0.009	0.878	0.019	0.00750529
0.779	0.052	1.402	0.183	0.01725175
0.839	0.172	0.861	0.126	0.0065235
0.404	0.132	1.109	0.192	0.00949902
0.806	0.119	0.988	0.077	0.00061901
0.688	0.106	1.519	0.096	0.02070343
0.319	0.305	0.109	0.021	0.00057127
0.309	0.014	0.620	0.072	0.04143149
0.184	0.037	0.334	0.060	0.0516718
0.672	0.014	2.230	0.144	0.06387745
0.486	0.010	1.811	0.076	0.04649527
0.668	0.016	2.180	0.100	0.02590642
0.762	0.036	2.382	0.166	0.02150609
0.672	0.081	0.609	0.093	0.00745837
0.482	0.008	0.346	0.036	0.00116444
0.329	0.033	0.155	0.017	0.00208313
0.730	0.008	0.280	0.091	0
0.734	0.012	0.547	0.077	0
0.814	0.002	2.192	0.125	0.00521224
0.580	0.012	2.645	0.063	0.06588402
0.475	0.020	0.675	0.112	0.0140398
0.641	0.128	0.233	0.342	0.00608562
0.761	0.012	2.272	0.212	0.02742723
0.396	0.055	0.220	0.023	0.00060578
0.131	0.006	0.339	0.095	0.0400659
0.098	0.023	0.217	0.062	0.03267581
0.315	0.004	0.932	0.100	0.03564034
0.591	0.037	1.295	0.033	0.02600187
0.589	0.022	0.856	0.031	0.02371558

0.589	0.168	0.325	0.021	0.00217346
0.126	0.117	0.279	0.150	0.04714227
0.576	0.119	0.547	0.016	0.01017237
0.092	0.032	0.167	0.054	0.02369744
0.339	0.110	0.800	0.096	0.03208983
0.424	0.714	0.141	0.255	0.0205908
0.781	0.221	0.591	0.015	0.04589333
0.797	0.081	1.699	0.024	0.03393359
0.578	0.097	0.630	0.068	0.00738615
0.333	0.113	0.751	0.221	0.03296788
0.564	0.031	1.815	0.107	0.04494916
0.220	0.003	0.951	0.102	0.05276024
0.163	0.018	0.542	0.122	0.05949255
0.177	0.012	0.593	0.143	0.04870762
0.107	0.003	0.312	0.189	0.19066496
0.099	0.007	0.228	0.064	0.02909111
0.683	0.011	1.896	0.038	0.0314656
0.663	0.028	2.129	0.195	0.03668135
0.879	0.070	1.225	0.301	0.00277995
0.394	0.000	0.764	0.025	0.01843426
0.482	0.000	1.231	0.015	0.01041313
0.506	0.000	1.517	0.018	0.02000683
0.682	0.000	2.817	0.016	0.01115906
0.487	0.000	1.739	0.018	0.03512465
0.399	0.000	1.332	0.025	0.02217234
0.251	0.000	0.933	0.050	0.13317007
0.296	0.000	1.215	0.026	0.0474756
0.363	0.000	0.691	0.010	0.01427943
0.212	0.054	0.192	0.066	0.01801637
0.541	0.098	1.422	0.115	0.04833514
0.353	0.023	0.363	0.030	0.00723459
0.439	0.013	1.661	0.071	0.06512337
0.699	0.006	1.635	0.019	0.01521116
0.431	0.016	0.397	0.021	0.00216216
0.375	0.007	1.072	0.139	0.14538553
0.268	0.002	0.324	0.157	0.03539944
0.211	0.044	0.144	0.025	0.00382642
0.335	0.036	0.845	0.097	0.08001967
0.524	0.020	1.496	0.076	0.06345522
0.476	0.004	0.980	0.094	0.03010862
0.374	0.003	0.718	0.168	0.06491108

0.287	0.011	0.251	0.017	0.01042835
0.415	0.009	1.373	0.047	0.088116
0.453	0.017	1.280	0.057	0.07424228
0.281	0.016	0.732	0.053	0.07783024
0.466	0.006	0.768	0.089	0.02665415
0.637	0.001	1.533	0.186	0.02508162
0.274	0.028	0.766	0.075	0.0748206
0.338	0.046	1.340	0.126	0.11900233
0.496	0.023	2.089	0.092	0.09352706
0.367	0.093	1.579	0.194	0.17828547
0.305	0.019	1.028	0.098	0.12448752
0.340	0.018	1.266	0.095	0.12579529
0.353	0.020	1.301	0.121	0.15399676
0.188	0.011	0.231	0.029	0.03076796
0.366	0.016	1.198	0.112	0.14164457
0.487	0.024	1.148	0.038	0.0296215
0.706	0.073	1.578	0.043	0.00871388
0.356	0.234	0.209	0.016	0.00190757
0.497	0.008	0.943	0.033	0.03259682
0.303	0.016	0.869	0.066	0.06929395
0.222	0.007	0.605	0.085	0.06543477
0.261	0.006	0.643	0.093	0.06828396
0.158	0.003	0.440	0.094	0.05893105
0.124	0.000	0.191	0.017	0.02782127
0.096	0.038	0.177	0.073	0.06229966
0.178	0.002	0.613	0.033	0.06010495
0.208	0.008	0.486	0.046	0.06251992
0.116	0.063	0.285	0.040	0.03753956
0.265	0.005	0.870	0.063	0.05333859
0.180	0.030	0.554	0.109	0.07157926
0.154	0.034	0.539	0.063	0.06509428
0.160	0.003	0.459	0.058	0.0350185
0.118	0.003	0.391	0.073	0.05868903
0.197	0.037	0.830	0.069	0.05403094
0.290	0.002	1.408	0.097	0.05681317
0.094	0.007	0.395	0.089	0.05537825
0.322	0.003	1.444	0.079	0.05169086
0.111	0.004	0.501	0.063	0.05078718
0.194	0.001	0.530	0.031	0.05264012
0.411	0.000	1.317	0.025	0.05917397
0.401	0.000	0.682	0.010	0.0169465

0.335	0.000	1.217	0.030	0.04625244
0.331	0.000	1.484	0.036	0.06403949
0.158	0.003	0.238	0.029	0.16793474
0.134	0.002	0.236	0.026	0.02213711
0.372	0.000	1.305	0.021	0.09808017
0.507	0.000	1.774	0.032	0.04412287
0.495	0.000	1.774	0.020	0.03645804
0.305	0.000	0.688	0.063	0.02978042
0.285	0.000	0.675	0.020	0.03232905
0.108	0.005	0.275	0.015	0.02615093
0.309	0.000	1.345	0.006	0.02315789
0.359	0.000	2.065	0.019	0.03821138
0.362	0.000	1.630	0.003	0.02371795
0.428	0.003	3.218	0.010	0.03705104
0.850	0.001	0.048	1.212	0
0.509	0.001	1.285	0.043	0.03984674
0.545	0.001	1.340	0.008	0.06070039
0.555	0.001	1.334	0.014	0.06072106
0.709	0.003	0.853	0.033	0.02057613
0.647	0.002	2.990	0.053	0.09365079
0.562	0.002	4.233	0.044	0.09982548
0.656	0.001	3.488	0.027	0.44232082
0.679	0.000	4.781	0.054	0.33752535
0.543	0.001	3.438	0.031	0.25424431
0.571	0.001	3.530	0.050	0.36672566
0.722	0.165	3.546	0.052	0.07480315
0.332	0.001	2.353	0.011	0.11352254
0.439	0.002	6.515	0.007	0.13493014
0.599	0.002	3.164	0.000	0.00371747
0.237	0.003	0.835	0.032	0.0053068
0.398	0.001	1.507	0.054	0.02023346
0.094	0.004	0.142	0.011	0
0.087	0.010	0.214	0.006	0
0.087	0.008	0.274	0.024	0
0.137	0.000	0.332	0.030	0.00246407
0.165	0.001	0.401	0.018	0
0.209	0.001	1.023	0.023	0
0.460	0.000	4.086	0.027	0.25901639
0.373	0.001	10.116	0.031	0.19634888
0.401	0.000	14.017	0.052	0.45583174
0.066	0.000	0.200	0.067	0.06286517

0.055	0.000	0.107	0.059	0.04970999
0.088	0.001	0.294	0.057	0.06062286
0.074	0.000	0.207	0.081	0.06850642
0.062	0.000	0.162	0.065	0.06392091
0.052	0.000	0.116	0.074	0.05978736
0.060	0.000	0.091	0.092	0.07196429
0.052	0.000	0.146	0.075	0.0547389
0.058	0.000	0.161	0.075	0.06445044
0.068	0.002	0.133	0.126	0.09135
0.052	0.000	0.127	0.073	0.05908639
0.050	0.000	0.088	0.085	0.0690295
0.056	0.000	0.164	0.057	0.05522756
0.058	0.001	0.157	0.073	0.04774383
0.040	0.000	0.126	0.052	0.03561651
0.049	0.000	0.128	0.063	0.05597572
0.044	0.000	0.093	0.071	0.05056654
0.049	0.001	0.124	0.055	0.03782261
0.053	0.000	0.161	0.068	0.03932846
0.066	0.000	0.197	0.065	0.045039
0.030	0.000	0.071	0.050	0.02959877
0.044	0.000	0.114	0.053	0.03018487
0.043	0.000	0.115	0.043	0.03124509
0.042	0.000	0.103	0.063	0.03127048
0.074	0.000	0.247	0.059	0.04282206
0.075	0.000	0.267	0.056	0.03560959
0.041	0.000	0.102	0.057	0.0415081
0.037	0.000	0.085	0.058	0.03833753
0.053	0.000	0.140	0.068	0.04588698
0.035	0.000	0.059	0.065	0.03959237
0.062	0.000	0.181	0.062	0.03635501
0.046	0.000	0.071	0.078	0.05812738
0.051	0.003	0.088	0.093	0.06690223
0.051	0.000	0.127	0.050	0.04877474
0.071	0.006	0.201	0.059	0.04167863
0.094	0.006	0.221	0.157	0.03578816
0.087	0.001	0.254	0.058	0.05088677
0.145	0.002	0.403	0.041	0.02568381
0.086	0.010	0.103	0.039	0.0120617
0.095	0.000	0.103	0.038	0.01031467
0.047	0.000	0.095	0.085	0.05041167
0.035	0.000	0.097	0.063	0.04010323

0.061	0.000	0.211	0.076	0.08191117
0.213	0.000	0.743	0.024	0.1003883
0.163	0.005	0.362	0.047	0.05713177
0.178	0.000	0.532	0.022	0.14008994
0.184	0.000	0.535	0.024	0.12486907
0.167	0.000	0.490	0.020	0.10330778
0.300	0.000	1.033	0.020	0.23104542
0.524	0.039	0.943	0.104	0.04633279
0.586	0.354	0.521	0.208	0.08101419
0.494	0.071	0.548	0.079	0.0434849
0.711	0.411	0.422	0.376	0.10165704
0.817	0.299	0.577	0.209	0.03413077
0.359	0.038	0.120	0.729	0.05929831
0.709	0.350	0.626	1.145	0.0550012
0.522	0.374	0.851	0.236	0.06669555
0.169	0.031	0.129	0.380	0.18819447
0.225	0.468	0.129	0.367	0.12613424
0.398	0.544	0.149	0.338	0.11428258
0.215	0.221	0.135	0.310	0.19464811
0.126	0.137	0.099	0.182	0.11211033
0.270	0.057	0.530	0.251	0.19015911
0.220	0.003	0.619	0.128	0.20358032
0.452	0.421	0.240	0.556	0.11078224
0.610	0.011	0.663	1.301	0.07592765
0.415	0.224	0.638	0.228	0.11201757
0.631	0.098	0.709	1.706	0.07185328
0.349	0.024	0.770	0.542	0.19158617
0.300	0.430	0.135	0.377	0.11443017
0.790	0.590	0.140	0.660	0.02
0.850	0.500	0.800	0.520	0.09
0.690	0.850	0.060	0.220	0
0.760	0.670	0.010	0.010	0
0.750	0.800	0.200	0.130	0.16
0.710	0.810	0.010	0.300	0.01
0.860	0.760	0.010	0.650	0
0.990	0.630	0.010	0.170	0
0.960	0.690	0.030	0.890	0.01
0.710	0.900	0.050	0.080	0.13
0.670	0.680	0.030	0.890	0.01
0.990	0.840	0.000	0.120	0
0.540	0.910	0.040	0.110	0.02

0.970	0.600	0.060	1.100	0
0.980	0.550	0.060	0.920	0
0.950	0.400	0.110	0.240	0
0.990	0.700	0.040	0.060	0.01
0.360	0.070	0.050	0.020	0.01
0.360	0.230	0.020	0.020	0.01
0.910	0.620	0.040	0.460	0
0.920	0.540	0.050	1.330	0.01
0.980	0.750	0.050	0.850	0.01
0.590	0.830	0.140	0.100	0
0.660	0.120	0.160	0.060	0.01
0.340	0.010	0.090	0.020	0
0.510	0.440	0.200	0.500	0.09
0.680	0.180	0.900	0.580	0.06
0.650	0.340	0.500	0.480	0.05
0.750	0.390	0.010	0.820	0.01
0.600	0.740	0.030	0.410	0.04
0.860	0.320	0.010	0.520	0
0.820	0.350	0.350	0.440	0.02
0.370	0.690	0.010	0.260	0.02
0.810	0.010	1.750	0.220	0.06
0.990	0.230	0.010	0.100	0
0.820	0.740	0.080	0.320	0.01
1.000	0.250	0.010	0.240	0
0.850	0.260	0.040	0.300	0
1.000	0.150	0.010	0.620	0
0.930	0.370	0.050	0.040	0
0.495	0.851			
0.552	0.886			
0.411	0.832			
0.437	0.889			
0.508	0.854			
0.800	0.830	0.200	0.000	0
0.740	0.970	0.000	0.000	0
0.880	0.010	1.300	0.000	0.2
0.550	1.000	0.000	0.000	0
0.240	0.990	0.000	0.000	0
0.560	0.770	0.200	0.000	0
0.510	0.710	0.300	0.000	0.1
0.180	0.000	0.100	0.000	0.1
0.090	0.000	0.000	0.000	0.1

0.100	0.000	0.100	0.000	0.1
0.430	0.590	0.400	0.000	0.1
0.360	0.670	0.200	0.000	0.1
0.260	0.800	0.000	0.000	0.1
0.330	0.480	0.300	0.000	0.1
0.440	0.730	0.200	0.000	0.1
0.480	0.670	0.400	0.000	0.1
0.330	0.750	0.200	0.000	0.1
0.320	0.850	0.100	0.000	0.1
0.380	0.020	0.700	0.000	0.4
0.480	0.260	0.400	0.000	0.2
0.540	0.030	0.400	0.000	0.2
0.140	0.240	0.100	0.000	0.1
0.390	0.880	0.000	0.000	0.1
0.320	0.730	0.100	0.000	0.2
0.320	0.770	0.200	0.000	0.1
0.320	0.800	0.100	0.000	0.1
0.260	0.040	0.200	0.000	0.2
0.320	0.010	0.400	0.000	0.3
0.290	0.530	0.200	0.000	0.1
0.470	0.010	1.100	0.000	0.4
0.850	0.700	0.050	0.510	0.03
0.600	0.550	0.050	0.480	0.06
0.640	0.670	0.050	0.450	0.08
0.560	0.550	0.050	0.560	0.08
0.560	0.720	0.050	0.360	0.11
0.530	0.550	0.050	0.470	0.11
0.540	0.480	0.050	0.510	0.11
0.920	0.010	1.200	0.160	0.1
0.810	0.000	2.430	0.120	0.1
0.650	0.000	0.370	0.220	0.03
0.590	0.000	0.740	0.130	0.09
0.750	0.000	0.890	0.280	0.06
0.610	0.040	0.770	0.150	0.07
0.670	0.000	0.460	0.340	0.05
0.680	0.010	0.510	0.280	0.05
0.720	0.000	0.840	0.230	0.12
0.700	0.010	0.350	0.490	0.01
0.540	0.000	0.490	0.220	0.05
0.580	0.000	0.440	0.290	0.07
0.710	0.000	0.830	0.330	0.07

0.730	0.000	1.000	0.390	0.07
0.930	0.000	1.540	0.620	0.34
0.780	0.000	1.060	0.400	0.05
0.830	0.000	1.610	0.480	0.07
0.830	0.000	0.930	0.340	0.02
0.700	0.000	0.640	0.320	0.07
0.500	0.010	0.190	0.190	0.02
0.780	0.010	0.660	0.440	0.05
0.690	0.010	0.600	0.330	0.11
0.710	0.010	0.770	0.260	0.08
0.760	0.010	0.760	0.340	0.03
0.790	0.010	1.010	0.240	0.04
0.480	0.010	0.340	0.150	0.08
0.620	0.020	0.470	0.140	0.04
0.570	0.010	0.460	0.170	0.07
0.610	0.010	0.680	0.200	0.14
0.450	0.010	0.410	0.140	0.15
0.510	0.010	0.810	0.190	0.19
0.470	0.010	0.360	0.190	0.13
0.560	0.010	0.550	0.160	0.14
0.490	0.010	0.530	0.190	0.11
0.530	0.010	0.510	0.200	0.21
0.630	0.010	0.890	0.230	0.12
0.480	0.020	0.410	0.200	0.2
0.520	0.010	0.710	0.280	0.2
0.510	0.010	0.600	0.240	0.15
0.560	0.010	0.470	0.320	0.12
0.460	0.010	0.290	0.190	0.16
0.410	0.010	0.850	0.330	0.25
0.520	0.000	0.600	0.310	0.41
0.540	0.010	0.280	0.330	0.25
0.550	0.010	0.170	0.390	0.25
0.610	0.010	0.260	0.460	0.23
0.630	0.010	0.520	0.430	0.36
0.490	0.010	0.530	0.500	0.16
0.540	0.090	0.300	0.650	0.19
0.430	0.180	0.230	0.410	0.14
0.560	0.010	0.220	0.310	0.2
0.550	0.000	0.770	0.430	0.25
0.520	0.010	0.490	0.500	0.27
0.460	0.000	0.250	0.530	0.22

0.540	0.010	0.250	0.440	0.28
0.620	0.020	0.470	0.580	0.24
0.530	0.020	0.430	0.550	0.23
0.580	0.020	0.350	0.440	0.2
0.490	0.090	0.280	0.490	0.21
0.560	0.000	0.970	0.560	0.25
0.610	0.020	0.430	0.440	0.18
0.590	0.010	0.510	0.370	0.16
0.720	0.000	0.450	0.490	0.22
0.570	0.000	0.400	0.590	0.28
0.590	0.010	0.380	0.440	0.21
0.560	0.080	0.220	0.390	0.24
0.510	0.000	0.330	0.440	0.24
0.520	0.070	0.270	0.430	0.23
0.510	0.010	0.160	0.370	0.18
0.540	0.010	0.620	0.700	0.19
0.580	0.010	0.450	0.390	0.15
0.480	0.000	0.350	0.540	0.37
0.570	0.070	0.860	0.640	0.13
0.600	0.000	0.400	0.480	0.18
0.510	0.010	0.370	0.430	0.2
0.520	0.040	0.680	0.820	0.15
0.550	0.010	0.330	0.410	0.18
0.580	0.010	0.540	0.620	0.24
0.360	0.090	0.340	0.480	0.09
0.590	0.000	1.240	1.180	0.21
0.550	0.050	0.350	0.770	0.22
0.500	0.000	0.580	0.570	0.32
0.410	0.000	0.340	0.600	0.33
0.510	0.000	1.160	0.800	0.21
0.500	0.080	0.400	0.290	0.04
0.410	0.010	0.450	0.580	0.22
0.490	0.050	0.710	0.620	0.25
0.470	0.010	0.660	0.570	0.32
0.400	0.000	1.310	0.610	0.18
0.430	0.010	0.290	0.530	0.32
0.460	0.050	0.470	0.500	0.08
0.360	0.090	0.600	0.670	0.18
0.330	0.070	0.730	0.550	0.16
0.410	0.060	0.730	0.580	0.16
0.340	0.020	0.790	0.560	0.17

0.350	0.130	0.630	0.600	0.15
0.350	0.170	0.070	0.690	0.07
0.230	0.080	0.160	0.630	0.11
0.300	0.160	0.240	0.630	0.14
0.280	0.150	0.250	0.640	0.13
0.470	0.010	0.160	0.480	0.3
0.350	0.180	0.090	0.620	0.06
0.370	0.470	0.110	0.570	0.14
0.350	0.500	0.100	0.500	0.13
0.390	0.460	0.140	0.660	0.15
0.300	0.420	0.120	0.560	0.15
0.300	0.240	0.120	0.660	0.18
0.380	0.220	0.290	0.760	0.18
0.300	0.020	0.300	0.760	0.21
0.340	0.220	0.210	0.750	0.2
0.220	0.010	0.140	0.630	0.17
0.520	0.010	0.320	0.550	0.29
0.210	0.110	0.040	0.660	0.12
0.330	0.020	0.170	0.760	0.14
0.410	0.010	0.310	0.440	0.18
0.530	0.010	0.160	0.440	0.29
0.540	0.020	0.220	0.480	0.18
0.930	0.020	0.580	0.050	0.03
0.920	0.020	0.900	0.070	0.02
0.950	0.030	1.520	0.100	0.03
0.920	0.060	0.260	0.060	0.01
0.960	0.060	0.300	0.230	0
0.760	0.020	0.460	0.270	0.03
0.680	0.020	0.470	0.110	0.01
0.550	0.020	0.240	0.080	0
0.330	0.070	0.080	0.060	0
0.910	0.010	1.560	0.140	0.04
0.930	0.530	0.590	0.140	0.04
0.370	0.410	0.880	1.790	0.14
0.960	0.860	0.800	0.470	0.03
0.720	0.030	0.460	0.270	0.03
0.900	0.020	1.020	0.420	0.03
0.670	0.050	0.210	0.050	0.01
0.210	0.000	0.170	0.000	0.01
0.240	0.160	0.170	0.010	0.01
0.100	0.010	0.070	0.000	0.01

0.340	0.540	0.560	0.090	0.07
0.610	0.060	0.790	0.110	0.07
1.010	0.180	0.250	0.000	0.01
1.010	0.120	0.330	0.000	0.03
0.860	0.190	0.390	0.000	0.02
1.000	0.110	0.530	0.020	0.04
0.890	0.200	0.320	0.010	0.01
0.910	0.220	0.290	0.010	0.02
0.850	0.350	0.210	0.010	0.02
0.950	0.200	0.270	0.000	0.01
0.950	0.250	0.220	0.000	0.02
0.970	0.130	0.210	0.000	0.02
0.790	0.800	0.440	0.020	0.01
0.990	0.230	0.200	0.000	0.01
0.640	0.290	1.070	0.160	0.11
0.970	0.520	0.650	0.010	0.03
0.980	0.590	0.760	0.080	0.06
0.910	0.630	0.220	0.010	0.02
0.760	0.690	0.550	0.130	0.05
0.950	0.270	0.510	0.060	0.06
0.880	0.230	0.700	0.080	0.03
1.000	0.210	1.410	0.650	0.11
1.040	0.260	0.450	0.000	0.02
0.990	0.260	1.020	0.000	0.02
0.530	0.000	0.530	0.000	0.01
0.429	0.005	0.605	0.046	0.00227818
0.647	0.002	2.034	0.035	0.0160588
0.728	0.233	1.174	0.755	0.00948427
0.333	0.160	0.693	0.127	0.07593816
0.538	0.216	0.918	0.402	0.06016083
0.436	0.081	1.074	0.172	0.07697139
0.406	0.444	0.484	0.277	0.07891843
0.441	0.472	0.393	0.517	0.0872721
0.499	0.364	0.692	0.393	0.0807536
0.322	0.524	0.194	0.253	0.09744896
0.239	0.387	0.225	0.197	0.07564014
0.339	0.121	0.529	0.319	0.0784626
0.324	0.373	0.354	0.193	0.08097336
0.806	0.094	0.623	2.401	0.02046771
0.526	0.435	0.160	0.663	0.02083629
0.682	0.131	0.740	1.028	0.0196105

0.355	0.008	0.669	0.075	0.02389267
0.273	0.378	0.237	0.089	0.01871744
0.745	0.064	1.243	0.031	0.00948466
0.441	0.003	0.482	0.628	0.10753704
0.143	0.298	0.023	0.347	0.04652508
0.220	0.068	0.023	0.606	0.07175751
0.187	0.051	0.023	0.635	0.05427204
0.288	0.067	0.026	0.836	0.10847048
0.253	0.062	0.025	0.882	0.08392487
0.235	0.104	0.037	0.752	0.15402392
0.176	0.018	0.117	0.428	0.09177467
0.370	0.109	0.035	0.946	0.09848863
0.171	0.092	0.032	0.519	0.05199023
0.179	0.080	0.025	0.572	0.04821526
0.205	0.108	0.052	0.502	0.03587869
0.334	0.019	0.068	0.764	0.0914178
0.231	0.018	0.052	0.537	0.05383345
0.284	0.015	0.116	0.584	0.05895953
0.216	0.061	0.061	0.438	0.04390125
0.354	0.046	0.059	0.732	0.06365927
0.333	0.034	0.066	1.399	0.12649363
0.079	0.032	0.204	0.130	0.05366287
0.291	0.003	0.284	0.437	0.11014103
0.140	0.039	0.113	0.342	0.01789258
0.349	0.043	0.051	0.737	0.01966359
0.586	0.001	0.245	1.126	0.01180199
0.179	0.025	0.075	0.472	0.01191288
0.552	0.007	0.108	1.065	0.02263182
0.406	0.004	0.151	0.883	0.01246449
0.654	0.005	0.257	1.187	0.01321391
0.329	0.007	0.156	0.801	0.03947693
0.326	0.009	0.214	0.682	0.02121109
0.409	0.007	0.170	0.680	0.02422535
0.536	0.006	0.149	0.798	0.02872253
0.377	0.006	0.270	0.426	0.02064323
0.324	0.006	0.225	0.372	0.04591957
0.367	0.012	0.721	0.379	0.02131375
0.347	0.010	0.249	0.550	0.03280081
0.354	0.074	0.153	0.634	0.01476741
0.376	0.054	0.126	0.564	0.01098599
0.389	0.018	0.135	0.662	0.01968872

0.397	0.005	0.135	0.661	0.01838365
0.478	0.019	0.144	0.599	0.02001018
0.498	0.005	0.293	0.254	0.19551922
0.251	0.004	0.255	0.340	0.11872705
0.194	0.003	0.290	0.413	0.0329596
0.152	0.008	0.296	0.284	0.06904422
0.163	0.023	0.281	0.341	0.03638425
0.710	0.071	0.086	0.139	0
0.724	0.002	0.153	0.216	0.05662621
0.609	0.004	0.404	0.327	0.0031825
0.246	0.007	0.278	0.311	0.02540886
0.206	0.018	0.244	0.250	0.06098969
0.128	0.014	0.259	0.194	0.02518905
0.143	0.051	0.157	0.276	0.02667467
0.136	0.075	0.093	0.250	0.04154935
0.150	0.015	0.162	0.190	0.02265648
0.292	0.005	0.574	0.361	0.0331358
0.110	0.003	0.351	0.089	0.08757126
0.103	0.044	0.217	0.211	0.03884144
0.136	0.101	0.124	0.322	0.0653883
0.138	0.005	0.226	0.180	0.03353922
0.310	0.010	0.128	0.552	0.01523622
0.391	0.006	0.198	0.595	0.01184021
0.309	0.002	0.217	0.574	0.03662348
0.266	0.003	0.136	0.589	0.02642069
0.308	0.005	0.133	0.396	0.02054027
0.160	0.000	0.598	0.038	0.05067667
0.177	0.003	0.211	0.275	0.02452784
0.307	0.000	0.118	0.564	0.01788452
0.355	0.054	0.038	0.550	0.01338557
0.324	0.006	0.123	0.450	0.0124331
0.388	0.003	0.121	0.718	0.02445998
0.236	0.005	0.148	0.465	0.02622045
0.618	0.003	0.100	1.772	0.01258657
0.389	0.004	0.163	1.009	0.0138241
0.349	0.007	0.147	0.601	0.02804318
0.395	0.006	0.159	0.816	0.01134887
0.236	0.009	0.122	0.505	0.02742543
0.689	0.007	0.133	1.286	0.01691715
0.191	0.007	0.179	0.365	0.02742543
0.362	0.007	0.130	0.896	0.02989615

0.381	0.005	0.098	1.106	0.01506145
0.521	0.008	0.071	1.118	0.01506145
0.489	0.003	0.137	1.071	0.02480196
0.190	0.007	0.252	0.178	0.03553833
0.357	0.007	0.108	0.351	0.00197614
0.300	0.010	0.221	0.215	0.12851949
0.239	0.002	0.106	0.310	0.01592304
0.188	0.003	0.131	0.206	0.0294656
0.289	0.003	0.117	0.334	0.01499693
0.248	0.006	0.218	0.221	0.09185202
0.242	0.005	0.162	0.219	0.00890719
0.205	0.015	0.197	0.176	0.02769872
0.575	0.004	0.109	0.921	0.06419099
0.414	0.006	0.213	0.512	0.0400248
0.585	0.005	0.161	0.693	0.1526571
0.997	0.004	0.281	1.282	0.02584604
0.329	0.008	0.198	0.373	0.03962138
0.291	0.010	0.160	0.267	0.05398728
0.671	0.004	0.250	0.732	0.04128258
0.489	0.005	0.145	0.637	0.02571822
0.559	0.009	0.154	0.592	0.05753759
0.487	0.005	0.289	0.359	0.01588333
0.534	0.005	0.178	0.689	0.09492237
0.653	0.004	0.228	0.572	0.08430029
0.428	0.009	0.306	0.320	0.02244354
0.399	0.005	0.353	0.223	0.02278359
0.282	0.005	0.271	0.190	0.05765181
0.243	0.002	0.147	0.332	0.04355249
0.196	0.007	0.160	0.203	0.04199609
0.248	0.063	0.042	0.366	0.02392007
0.269	0.007	0.144	0.437	0.03096385
0.237	0.006	0.182	0.263	0.01242689
0.342	0.008	0.174	0.404	0.02601037
0.088	0.088	0.039	0.204	0.03904159
0.110	0.114	0.059	0.251	0.03947877
0.115	0.054	0.082	0.267	0.06315277
0.121	0.068	0.056	0.314	0.07031713
0.105	0.008	0.150	0.175	0.04782219
0.130	0.002	0.178	0.156	0.07901631
0.268	0.131	0.092	0.415	0.02357309
0.384	0.271	0.094	0.409	0.04095074

0.082	0.011	0.110	0.128	0.07151646
0.102	0.005	0.122	0.158	0.07271192
0.094	0.014	0.185	0.155	0.0615648
0.108	0.010	0.171	0.134	0.09414819
0.139	0.008	0.200	0.167	0.06722547
0.398	0.001	0.100	1.213	0.01509817
0.163	0.013	0.214	0.188	0.07330815
0.197	0.039	0.151	0.323	0.04018591
0.159	0.104	0.027	0.276	0.02264906
0.281	0.011	0.073	0.235	0.18048902
0.119	0.017	0.101	0.243	0.04938886
0.340	0.016	0.107	0.936	0.11020888
0.126	0.016	0.133	0.163	0.08059074
0.085	0.021	0.136	0.112	0.06003496
0.332	0.008	0.138	0.249	0.00177105
0.101	0.013	0.160	0.138	0.07124087
0.131	0.010	0.173	0.140	0.09860341
0.893	0.666			
0.889	0.716			
0.908	0.813			
0.842	0.741			
1.010	0.831			
0.881	0.784			
0.777	0.734			
0.908	0.798			
0.646	0.704			
0.820	0.831			
0.781	0.751			
0.956	0.764			
0.899	0.802			
0.967	0.804			
0.988	0.870			
0.939	0.842			
0.793	0.863			
0.850	0.864			
0.793	0.782			
0.747	0.870			
0.542	0.871			
0.780	0.819			
0.773	0.745			
0.822	0.804			

0.892	0.786			
1.026	0.776			
0.528	0.016			
0.647	0.056			
0.274	0.262			
0.246	0.492			
0.094	0.460	0.084	0.021	0.019
0.107	0.020	0.121	0.036	0.039
0.120	0.010	0.111	0.033	0.003
0.246	0.050	0.292	0.388	0.322
0.481	0.020	1.386	0.143	0.052
0.303	0.010	0.996	0.249	1.057
0.333	0.000	1.615	0.120	0.611
0.334	0.000	1.250	0.206	1.006
0.369	0.000	2.205	0.236	2.016
0.370	0.040	2.048	0.396	2.145
0.533	0.020	0.720	0.010	0.013
0.713	0.007	1.520	0.050	0.00762378
0.524	0.010	0.501	0.024	0.00330384
0.468	0.000	1.084	0.008	0.0035495
0.321	0.000	1.014	0.020	0.01987379
0.342	0.000	1.167	0.020	0.02282325
0.335	0.000	0.861	0.020	0.02814765
0.604	0.000	2.118	0.012	0.013139
0.368	0.000	1.092	0.013	0.01746865
0.633	0.000	2.230	0.012	0.01138841
0.575	0.000	2.028	0.021	0.02197871
0.315	0.000	0.932	0.012	0.01622863
0.402	0.000	1.437	0.024	0.02560577
0.359	0.000	1.018	0.036	0.0177508
0.378	0.000	1.377	0.031	0.04434149
0.483	0.000	1.996	0.033	0.0446548
0.408	0.000	1.185	0.034	0.02893688
0.342	0.000	1.289	0.040	0.06781
0.318	0.000	1.319	0.089	0.11736052
0.321	0.000	1.476	0.058	0.08730796
0.442	0.000	2.615	0.044	0.06914308
0.307	0.000	1.237	0.037	0.05000251
0.342	0.000	1.264	0.027	0.03382064
0.442	0.000	2.473	0.026	0.04033504
0.476	0.000	1.786	0.019	0.01723406

0.378	0.000	1.181	0.026	0.01914988
0.326	0.000	1.432	0.047	0.06070209
0.275	0.000	0.979	0.019	0.02951154
0.331	0.000	0.995	0.037	0.02981223
0.224	0.000	0.725	0.017	0.01809389
0.567	0.000	1.247	0.019	0.05445209
0.424	0.000	1.273	0.023	0.07310124
0.620	0.000	2.455	0.018	0.0762597
0.411	0.004	1.885	0.029	0.06853414
0.411	0.000	2.028	0.034	0.07893594
0.131	0.000	0.520	0.039	0.10255144
0.149	0.000	0.702	0.028	0.06530733
0.239	0.000	0.941	0.036	0.03410419
0.097	0.000	0.327	0.036	0.03764429
0.130	0.000	0.705	0.040	0.09306915
0.122	0.000	0.615	0.021	0.0640033
0.105	0.000	0.555	0.027	0.06411576
0.103	0.000	0.409	0.027	0.14802764
0.370	0.000	1.626	0.056	0.04790672
0.096	0.000	0.283	0.114	0.04815213
0.066	0.000	0.201	0.079	0.07205567
0.066	0.000	0.197	0.119	0.08350834
0.201	0.000	0.698	0.056	0.03657267
0.195	0.000	0.789	0.061	0.0524974
0.513	0.000	3.159	0.029	0.19846077
0.047	0.000	0.066	0.102	0.09125906
0.114	0.000	0.447	0.078	0.06415317
0.129	0.000	0.350	0.075	0.06241543
0.386	0.000	1.407	0.042	0.03334193
0.481	0.647	0.016	0.231	0.033069
0.273	0.453	0.018	0.249	0.04838
0.336	0.460	0.024	0.271	0.036066
0.315	0.522	0.025	0.224	0.0447
0.437	0.383	0.022	0.383	0.028199
0.313	0.454	0.025	0.242	0.039278
0.424	0.501	0.015	0.289	0.027361
0.336	0.511	0.019	0.223	0.034238
0.440	0.487	0.020	0.277	0.031325
0.410	0.567	0.021	0.278	0.032275
0.614	0.604	0.012	0.402	0.029024
0.354	0.600	0.029	0.248	0.038144

0.354	0.474	0.021	0.284	0.036364
0.334	0.447	0.023	0.276	0.043467
0.406	0.429	0.019	0.306	0.026498
0.436	0.596	0.022	0.294	0.03727
0.690	0.728	0.020	0.277	0.042233
0.466	0.545	0.016	0.279	0.028601
0.494	0.575	0.027	0.386	0.040097
0.486	0.444	0.016	0.355	0.030387
0.527	0.499	0.016	0.333	0.027368
0.477	0.626	0.015	0.318	0.03007
0.685	0.622	0.019	0.432	0.024498
0.660	0.631	0.022	0.572	0.036765
0.561	0.667	0.019	0.451	0.02863
0.764	0.554	0.016	0.600	0.036213
0.935	0.633	0.019	0.644	0.025619
1.015	0.618	0.037	0.376	0.01393
0.862	0.578	0.103	0.427	0.012136
0.044	0.005	0.095	0.047	0.05698943
0.077	0.002	0.157	0.065	0.06421251
0.092	0.000	0.336	0.055	0.05606762
0.057	0.000	0.086	0.094	0.0656421
0.052	0.000	0.127	0.072	0.0647386
0.114	0.000	0.325	0.114	0.08586273
0.074	0.000	0.165	0.097	0.07528009
0.079	0.000	0.223	0.076	0.06864805
0.098	0.000	0.314	0.067	0.0593811
0.105	0.000	0.445	0.067	0.05938104
0.091	0.000	0.258	0.088	0.08204149
0.091	0.000	0.328	0.065	0.05880016
0.229	0.000	1.002	0.055	0.09230483
0.186	0.000	0.781	0.054	0.08954742
0.130	0.000	0.480	0.074	0.05816956
0.130	0.000	0.513	0.056	0.06150546
0.134	0.000	0.566	0.058	0.06552151
0.110	0.000	0.387	0.087	0.0736757
0.095	0.000	0.336	0.082	0.07306936
0.080	0.000	0.229	0.081	0.06483139
0.109	0.000	0.365	0.097	0.07258279
0.112	0.000	0.472	0.061	0.07229715
0.109	0.000	0.356	0.093	0.08947984
0.118	0.000	0.366	0.086	0.0835964

0.100	0.000	0.291	0.097	0.09419582
0.318	0.003	1.910	0.135	0.06376564
0.073	0.004	0.750	0.076	0.04481173
0.411	0.000	2.401	0.050	0.03889876
0.461	0.000	2.249	0.069	0.04806552
0.626	0.000	2.382	0.032	0.0302053
0.187	0.000	1.002	0.084	0.03536752
0.058	0.000	0.205	0.050	0.01276794
0.100	0.000	0.273	0.062	0.01777845
0.030	0.000	0.055	0.060	0.01948171
0.228	0.000	0.883	0.038	0.01953169
0.189	0.003	0.537	0.056	0.0163252
0.101	0.000	0.301	0.055	0.01603143
0.217	0.003	0.730	0.057	0.01490588
0.051	0.000	0.111	0.050	0.01695268
0.098	0.008	0.208	0.063	0.01599553
0.049	0.009	0.101	0.089	0.02748051
0.054	0.000	0.126	0.087	0.03103097
0.115	0.000	0.458	0.050	0.01861168
0.141	0.000	0.624	0.050	0.02230467
0.078	0.000	0.286	0.084	0.02705137
0.270	0.840			
0.210	0.810			
0.230	0.810			
0.330	0.820			
0.210	0.820			
0.230	0.730			
0.260	0.800			
0.220	0.760			
0.400	0.910			
0.210	0.830			
0.280	0.820			
0.330	0.880			
0.300	0.880			
0.190	0.820			
0.230	0.860			
0.250	0.860			
0.200	0.790			
0.180	0.790			
0.190	0.760			
0.200	0.820			

0.220	0.800
0.190	0.790
0.170	0.780
0.230	0.820
0.160	0.760
0.190	0.770
0.230	0.790
0.200	0.780
0.170	0.760
0.220	0.780
0.170	0.710
0.200	0.850
0.200	0.870
0.160	0.790
0.200	0.780
0.180	0.820
0.170	0.810
0.180	0.820
0.170	0.810
0.160	0.820
0.160	0.770
0.160	0.790
0.160	0.730
0.160	0.810
0.170	0.840
0.200	0.800
0.220	0.870
0.190	0.700
0.190	0.700
0.190	0.770
0.210	0.680
0.480	0.850
0.260	0.840
0.250	0.850
0.240	0.810
0.290	0.870
0.250	0.850
0.140	0.780
0.150	0.760
0.140	0.750
0.150	0.750

0.140	0.800
0.190	0.790
0.160	0.760
0.180	0.790
0.200	0.840
0.140	0.690
0.130	0.730
0.130	0.690
0.130	0.740
0.110	0.690
0.100	0.680
0.120	0.680
0.160	0.710
0.120	0.690
0.110	0.670
0.120	0.690
0.110	0.690
0.130	0.750
0.140	0.740
0.160	0.730
0.140	0.710
0.150	0.750
0.160	0.770
0.130	0.680
0.130	0.630
0.130	0.640
0.150	0.670
0.130	0.690
0.170	0.830
0.140	0.750
0.120	0.690
0.140	0.730
0.120	0.710
0.160	0.790
0.200	0.870
0.200	0.810
0.180	0.740
0.180	0.850
0.150	0.730
0.150	0.740
0.707	0.803

0.660	0.701			
0.570	0.649			
0.683	0.784			
0.494	0.530	0.266	0.629	0.33662
0.426	0.636	0.149	0.525	0.14839616
0.376	0.717	0.081	0.439	0.039874
0.396	0.771	0.064	0.400	0.043946
0.261	0.679	0.056	0.310	0.094408
0.339	0.669	0.064	0.466	0.086285
0.298	0.795	0.064	0.261	0.016266
0.349	0.727	0.116	0.334	0.105278
0.222	0.394	0.286	0.242	0.212182
0.160	0.546	0.082	0.186	0.073252
0.355	0.504	0.074	0.722	0.080268
0.331	0.703	0.072	0.384	0.077653
0.309	0.681	0.044	0.350	0.106924
0.221	0.468	0.056	0.368	0.152064
0.231	0.525	0.041	0.400	0.082769
0.305	0.555	0.108	0.486	0.1050585
0.277	0.642	0.082	0.329	0.085483
0.449	0.666		0.678	
0.165	0.386	0.075	0.298	0.103113
0.377	0.291	0.112	1.233	0.083432
0.495	0.666		0.918	
0.297	0.663	0.057	0.383	0.09727925
0.459	0.463	0.052	1.065	0.059725
0.176	0.347	0.049	0.374	0.08764231
0.145	0.273	0.085	0.309	0.095516
0.316	0.609	0.126	0.420	0.10105619
0.175	0.159	0.122	0.448	0.1381632
0.380	0.618	0.088	0.506	0.1256775
0.352	0.649	0.058	0.453	0.0884512
0.348	0.534	0.079	0.606	0.10550667
0.321	0.615	0.048	0.534	0.04794138
0.220	0.362	0.054	0.458	0.11746615
0.304	0.553	0.061	0.491	0.12381574
0.289	0.510	0.094	0.474	0.232
0.205	0.533	0.040	0.401	0.0739832
0.286	0.578	0.093	0.381	0.1712336
0.241	0.648	0.032	0.346	0.03653282
0.327	0.526	0.091	0.522	0.18984936

0.223	0.375	0.067	0.429	0.18913959
0.297	0.697	0.033	0.348	0.08047862
0.195	0.624	0.066	0.249	0.065981
0.192	1.000			
0.427	0.330	0.084	0.982	0.12400885
0.402	0.489		0.812	0.24
0.526	0.244	0.063	1.825	0.209
0.393	0.584	0.064	0.575	0.21165083
0.354	0.509	0.038	0.575	0.112
0.325	0.525	0.089	0.500	0.223
0.449	0.500	0.069	0.672	0.3
0.383	0.578	0.066	0.501	0.256
0.451	0.591	0.059	0.536	0.179
0.315	0.491	0.053	0.457	0.199
0.190	0.207	0.049	0.355	0.2695
0.374	0.438	0.051	0.617	0.153
0.414	0.504	0.062	0.658	0.238
0.288	0.454	0.070	0.576	0.096
0.354	0.461	0.072	0.529	0.272
0.470	0.303	0.069	1.415	0.17552932
0.402	0.573	0.091	0.517	0.261
0.355	0.517	0.071	0.557	0.235
0.356	0.608	0.065	0.430	0.202
0.279	0.463	0.069	0.441	0.224
0.445	0.362	0.080	1.073	0.209
0.382	0.504	0.078	0.591	0.181
0.582	0.256	0.075	1.954	0.1765
0.399	0.501	0.078	0.674	0.283
0.312	0.463	0.089	0.403	0.253
0.329	0.607	0.076	0.389	0.173
0.208	0.238	0.076	0.362	0.278
0.226	0.229	0.099	0.453	0.25067814
0.266	0.478	0.076	0.366	0.211
0.337	0.299	0.069	0.941	0.14975248
0.331	0.468	0.075	0.548	0.171
0.202	0.318	0.064	0.388	0.21928394
0.287	0.452	0.063	0.581	0.17634889
0.543	0.335	0.091	1.533	0.102
0.341	0.584	0.056	0.390	0.185
0.482	0.140	0.086	1.625	0.204
0.389	0.601	0.085	0.433	0.214

0.160	0.231	0.061	0.364	0.12018682
0.339	0.347	0.087	0.829	0.19882732
0.246	0.308	0.239	0.402	0.14379786
0.254	0.277	0.083	0.569	0.24743565
0.496	0.652	0.077	0.667	0.19998164
0.321	0.139	0.296	0.538	0.37312082
0.338	0.222	0.312	0.514	0.39808174
0.439	0.546	0.245	0.560	0.3165322
0.274	0.643	0.061	0.379	0.09501563
0.542	0.488	0.063	1.027	0.1556416
0.313	0.631	0.043	0.405	0.12648738
0.438	0.690	0.095	0.503	0.099196
0.399	0.624	0.087	0.571	0.15129958
0.329	0.585	0.062	0.385	0.246
0.170	0.040			
0.930	0.390			
0.300	0.050			
0.420	0.070			
0.290	0.070			
0.160	0.030			
0.280	0.060			
0.190	0.070			
0.400	0.020			
0.830	0.290			
0.410	0.130			
0.330	0.020			
0.300	0.030			
0.460	0.020			
0.140	0.060			
0.120	0.030			
0.100	0.000			
0.100	0.030			
0.210	0.010			
0.150	0.010			
0.280	0.420			
0.540	0.490			
0.180	0.020			
0.390	0.630			
0.320	0.600			
0.340	0.740			
0.590	0.210			

0.300	0.250
0.450	0.020
0.710	0.060
0.370	0.570
0.270	0.060
0.310	0.030
0.350	0.040
0.440	0.070
0.380	0.140
0.230	0.180
0.630	0.740
0.380	0.620
0.540	0.690
0.510	0.670
0.310	0.760
0.760	0.670
0.990	0.650
0.480	0.690
0.365	0.677
0.307	0.672
0.398	0.716
0.349	0.714
0.447	0.778
0.316	0.727
0.344	0.722
0.323	0.696
0.338	0.693
0.282	0.676
0.140	0.240
0.640	0.750
0.640	0.720
0.740	0.710
0.610	0.790
0.450	0.700
0.750	0.720
0.470	0.750
0.410	0.750
0.470	0.810
0.350	0.730
0.410	0.690
0.480	0.710

0.540	0.710
0.410	0.620
0.570	0.710
0.470	0.700
0.440	0.690
0.430	0.740
0.410	0.700
0.370	0.700
0.290	0.660
0.190	0.410
0.400	0.700
0.340	0.670
0.350	0.680
0.520	0.640
0.510	0.680
0.400	0.630
0.480	0.710
0.520	0.810
0.440	0.790
0.590	0.840
0.230	0.520
0.350	0.490
0.310	0.710
0.150	0.550
0.390	0.610
0.420	0.780
0.270	0.440
0.240	0.630
0.170	0.430
0.260	0.380
0.590	0.780
0.150	0.400
0.160	0.510
0.540	0.770
0.270	0.580
0.160	0.340
0.130	0.460
0.070	0.220
0.100	0.230
0.090	0.250
0.080	0.110

0.110	0.060
0.070	0.070
0.110	0.030
0.100	0.160
0.130	0.090
0.110	0.390
0.370	0.740
0.590	0.800
0.420	0.700
0.680	0.690
0.610	0.650
0.860	0.720
0.760	0.690
0.470	0.560
0.520	0.660
0.450	0.650
0.520	0.730
0.520	0.740
0.250	0.550
0.610	0.840
0.180	0.410
0.460	0.690
0.460	0.620
0.300	0.110
0.360	0.030
0.350	0.050
0.390	0.140
0.390	0.020
0.620	0.100
0.780	0.100
0.700	0.260
0.720	0.370
0.310	0.120
0.200	0.010
0.330	0.190
0.310	0.020
0.340	0.010
0.250	0.000
0.660	0.020
0.310	0.100
0.340	0.010

0.280	0.010
0.240	0.000
0.690	0.010
0.280	0.040
0.300	0.030
0.400	0.050
0.330	0.060
0.420	0.020
0.490	0.010
0.930	0.080
0.530	0.250
0.670	0.280
0.670	0.360
0.440	0.390
0.410	0.310
0.590	0.370
0.630	0.140
0.720	0.280
0.490	0.480
0.362	0.726
0.900	0.706
0.660	0.694
0.927	0.728
0.670	0.637
0.544	0.699
0.549	0.735
0.443	0.707
0.293	0.240
0.416	0.717
0.283	0.780
0.358	0.537
0.438	0.601
0.244	0.437
0.226	0.165
0.305	0.491
0.517	0.739
0.301	0.304
0.353	0.278
0.290	0.295
0.241	0.900
0.216	0.804

0.162	0.361
0.242	0.905
0.237	0.907
0.197	0.655
0.205	0.785
0.160	0.863
0.239	0.892
0.206	0.910
0.224	0.907
0.275	0.145
0.306	0.264
0.282	0.286
0.283	0.151
0.338	0.032
0.297	0.000
0.289	0.304
0.237	0.813
0.239	0.753
0.346	0.657
0.278	0.074
0.237	0.211
0.376	0.000
0.260	0.217
0.232	0.625
0.292	0.422
0.304	0.000
0.324	0.011
0.379	0.000
0.269	0.000
0.305	0.000
0.286	0.000
0.289	0.000
0.180	0.000
0.333	0.000
0.320	0.000
0.325	0.331
0.347	0.000
0.321	0.050
0.337	0.105
0.146	0.308
0.175	0.281

0.167	0.000
0.096	0.030
0.172	0.000
0.326	0.000
0.292	0.034
0.297	0.041
0.329	0.012
0.301	0.000
0.304	0.000
0.314	0.000
0.197	0.132
0.307	0.000
0.332	0.000
0.324	0.000
0.281	0.055
0.063	0.154
0.247	0.000
0.145	0.000
0.138	0.000
0.127	0.038
0.444	0.149
0.336	0.000
0.189	0.072
0.103	0.067
0.244	0.042
0.278	0.045
0.211	0.086
0.336	0.000
0.332	0.000
0.294	0.000
0.223	0.000
0.333	0.000
0.210	0.000
0.307	0.000
0.219	0.000
0.298	0.000
0.275	0.000
0.264	0.000
0.406	0.131
0.300	0.000
0.329	0.088

0.369	0.056
0.384	0.153
0.239	0.126
0.280	0.000
0.213	0.086
0.209	0.046
0.199	0.438
0.173	0.493
0.177	0.162
0.200	0.153
0.123	0.381
0.175	0.635
0.160	0.169
0.042	0.706
0.074	0.067
0.101	0.020
0.404	0.000
0.397	0.000
0.276	0.000
0.136	0.000
0.341	0.000
0.100	0.000
0.276	0.000
0.132	0.000
0.172	0.012
0.703	0.146
0.325	0.000
0.178	0.279
0.185	0.016
0.146	0.154
0.228	0.000
0.182	0.000
0.307	0.023
0.194	0.043
0.309	0.917
0.190	0.444
0.334	0.221
0.228	0.000
0.362	0.853
0.363	0.758
0.354	0.837

0.353	0.874
0.333	0.804
0.340	0.849
0.345	0.932
0.332	0.930
0.377	0.920
0.161	0.609
0.204	0.831
0.249	0.848
0.175	0.741
0.281	0.161
0.186	0.479
0.107	0.367
0.268	0.302
0.171	0.328
0.131	0.465
0.127	0.578
0.246	0.229
0.124	0.275
0.177	0.652
0.224	0.181
0.263	0.457
0.226	0.435
0.333	0.351
0.236	0.343
0.285	0.370
0.262	0.391
0.351	0.417
0.268	0.406
0.548	0.906
0.500	0.925
0.526	0.858
0.518	0.902
0.511	0.896
0.528	0.886
0.483	0.904
0.558	0.923
0.529	0.904
0.457	0.860
0.489	0.881
0.500	0.900

0.505	0.888
0.540	0.887
0.452	0.869
0.705	0.838
0.489	0.841
0.965	0.277
0.598	0.798
0.257	0.772
0.169	0.392
0.203	0.455
0.256	0.448
0.224	0.538
0.221	0.628
0.256	0.574
0.721	0.915
0.600	0.526
0.266	0.856
0.787	0.839
0.667	0.829
0.567	0.840
0.849	0.860
0.704	0.823
0.751	0.841
0.490	0.711
0.690	0.852
0.645	0.825
0.948	0.712
0.846	0.871
0.679	0.829
0.757	0.830
0.672	0.800
0.652	0.787
0.552	0.638
0.686	0.791
0.839	0.870
0.491	0.839
0.419	1.000
0.278	0.926
0.290	0.832
0.367	0.630
0.221	0.851

0.210	0.628
0.527	0.841
0.475	1.000
0.279	1.000
0.232	1.000
0.387	0.821
0.258	1.000
0.223	1.000
0.297	1.000
0.286	0.752
0.204	0.841
0.391	0.822
0.808	0.881
0.866	0.859
0.923	0.910
0.892	0.924
0.911	0.913
0.779	0.910
0.953	0.937
0.811	0.889
0.845	0.935
0.860	0.892
0.726	0.907
0.831	0.858
0.827	0.896
0.758	0.904