

Pamphlet to accompany:

NCGS Open File Report 2026-02

Compiled bedrock geologic map of the Gastonia 30' x 60' Quadrangle (Gastonia 100K), North Carolina (version 3/31/2026)

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2026

Reference:

Cattanach, B.L., Trantham, B.T., Douglas, T.J., Lynn, A.S., Bast, S.C., and Hill, J.S., Curry, A. C., Quick, J.D., Compiled bedrock geologic map of the north half of the Gastonia 30' x 60' Quadrangle (Gastonia 100K), North Carolina, North Carolina Geological Survey Open-File Report 2026-02, scale 1:100,000, in color, with accompanying pamphlet.

BACKGROUND

This compiled geologic map, partially supported by the U.S. Geological Survey (USGS), National Cooperative Geologic Mapping Program under STATEMAP completes a project to compile the bedrock portion of the Gastonia 30'x 60' Quadrangle (Gastonia 100K) in support of the USGS US Geoframework Initiative's (USGI) vision for a nation-wide, seamless geologic map.

The goal of this compilation effort was to produce a new 1:100,000-scale digital geologic map of the study area using the USGS Geologic Mapping Schema (GeMS). The compilation effort compiled legacy data at scales ranging from 1:250,000 to 1:24,000. From July 2024 to September 2025, NCGS staff conducted targeted foot and vehicle traverses to validate contacts from the legacy sources and to collect new field data, especially joint/fracture data to help characterize groundwater resources. Close attention was paid to rectifying edge-match issues between legacy data and recent 24K-scale mapping to allow accurate transitions of map units from areas with detailed data to areas of data collected at smaller scales (e.g. 1:48,000). More detailed and closer spaced traverses targeted areas of structural or stratigraphic complexity. Less detailed and wider spaced traverses were used in areas of less complex structure or rock types (e.g. areas underlain by homogenous plutons received less attention). LiDAR data displayed as hillshade digital elevation models

were used to help identify resistant lithologies, lineaments, and possible faults and dikes that may be groundwater sources or preferred pathways for groundwater contaminants.

Nine samples were analyzed to determine zircon crystallization ages to clarify the timing of igneous activity. Five detrital zircon samples were analyzed to determine timing of deposition and tectonic provenance. Nineteen samples were characterized by whole rock geochemistry and thin section analysis.

Future adjustments to the map and geologic units will occur as mapping on adjacent quadrangles and geochronology data is made available and refinement of the stratigraphy occurs. When available, USGS Earth Mapping Resources Initiative aeroradioactivity and aeromagnetic geophysical data currently being processed (as of March 2026) will be used to refine contacts.

PAST WORKERS

Specific data sources are listed in the DataSources table in the geodatabase. Major data sources are provided in the references section at the end of this document.

GEOLOGIC SETTING

The Gastonia 100K is underlain by four major geologic elements. From west to east, they are the Tugaloo terrane, Cat Square terrane, Kings Mountain terrane, and Charlotte terrane. Alluvium deposits are present along major drainages and floodplains. The map is a compiled bedrock map and surficial sediments are not displayed.

TUGALOO TERRANE

On the Gastonia 100K, the Neoproterozoic to Ordovician Tugaloo terrane consists of several elements including: 1) Neoproterozoic to early Cambrian Tallulah Falls Formation, a thick sequence of complexly deformed metaclastic rocks originally deposited in marine basins. Interspersed with these metaclastics are lesser amounts of amphibolite (metamorphosed basaltic flows or dikes) and retrogressed to unmetamorphosed ultramafic bodies (possible ophiolitic crust) (Hatcher, 2002). The Tallulah Falls Formation is highly migmatitic and commonly contains sillimanite. 2) Ordovician Poor Mountain Formation, a sequence of metasandstones, schists, and amphibolites structurally atop the Tallulah Falls Formation. The Poor Mountain Formation is complexly deformed and has been metamorphosed to sillimanite grade. 3) Granodioritic to tonalitic plutons ranging in age from Middle Ordovician to Early Mississippian intrude the Tugaloo terrane. The eastern

boundary of Tugaloo terrane is Brindle Creek fault, that separates it from the Cat Square terrane.

CAT SQUARE TERRANE

The Cat Square terrane represents the remnants of a Siluro-Devonian sedimentary basin with sources from both Laurentian and peri-Gondwanan terranes (Hatcher, 2002). It is composed primarily of pelitic schists, metasandstones, and lesser amounts of mafic and ultramafic rocks. It is interpreted that Cat Square terrane sediments were deposited on oceanic crust. These rocks have been multiply deformed and metamorphosed under upper amphibolite facies conditions. There is currently no recognized stratigraphy in the Cat Square terrane. Several Devonian to Mississippian peraluminous granitoids intruded Cat Square terrane metamorphic rocks (Merschhat and Hatcher, 2007). These include the Toluca Granite, Walker Top Granite, Sandymush Granite, and Cherryville Granite. The Cat Square terrane was emplaced structurally on top of the Tugaloo terrane by oblique thrusting along the Brindle Creek fault. Folding and erosion have exposed the underlying Tugaloo terrane within the Newton Window (Byars, 2010; Gilliam, 2010). To the east, the Cat Square terrane is separated from the Kings Mountain terrane by the steeply-dipping mylonitic Kings Mountain Shear Zone.

KINGS MOUNTAIN TERRANE

The Kings Mountain terrane consists of the Battleground and Blacksburg Formations, moderate to steeply dipping Neoproterozoic to Cambrian metavolcanic and metaclastic rocks with minor carbonates. Geochronologic U-Pb zircon data presented in this report tentatively support the existence of an unconformity within the Battleground formation as suggested by Moye (2026). Further detailed mapping and research is needed to verify this interpretation and delineate the contact between an upper and lower Battleground Formation. These rocks underwent low- to medium-grade metamorphism during the Paleozoic. Neoproterozoic to Early Paleozoic mafic rocks and Pennsylvanian granitic plutons intrude the Kings Mountain terrane (Horton, 2008). The western Kings Mountain terrane and adjoining eastern Cat Square terrane rocks host economically important lithium-bearing pegmatites.

CHARLOTTE TERRANE

The Charlotte terrane consists mainly of Neoproterozoic to Silurian-aged metagneous rocks (metagranite, metadiorite, metagabbro and metamorphosed volcanic rocks). These were intruded during the Devonian-Silurian by granitic and granodioritic rocks of the Salisbury Plutonic Suite and mafic rocks of the Concord Plutonic Suite (NCGS, 1985). Although the current study retains terrane designations for Charlotte and Kings Mountain terranes, we agree with previous workers (Goldsmith and others, 1988) that volcanic and

epiclastic rocks previously assigned to the Charlotte terrane are likely correlative with similar rocks of the Battleground Formation. These rocks, previously assigned to the Charlotte terrane, are here included in Battleground Formation units (€bvf, €bvm).

NEW GASTONIA 100K GEOCHRONOLOGY

Samples

Zircons were analyzed from the following igneous and meta-igneous samples to determine crystallization ages: TD-GAS-250326a (Cherryville pegmatite), BC250428B (meta-trondhjemite in Battleground Formation), BT250428A (High Shoals Granite), TD-GAS-250423 (Sandymush Granite), TD-GAS-250227 (Toluca Granite), BC25-GAS-MAR13 (meta-quartz diorite in the Charlotte Terrane), BC250423A (granitoid intruding Cat Square metasediments), and BC250227A (granitoid intruding Cat Square metasediments).

Zircons were analyzed from the following meta-sedimentary samples to determine maximum depositional ages: BT-GAS-103 (sillimanite schist), BT-GAS-250415A (Blacksburg Formation quartzite), BC-250428A (Battleground Formation volcanoclastic), BC25-GAS-MAR3-1 (sandy wacke/biotite gneiss), and BC25-GAS-MAR3-2 (sandy wacke/biotite gneiss). Note: sample BC250505A (tourmaline muscovite schist), was sent for analysis, but no zircons were found.

Methodology

Analyses of zircon for U-Pb geochronology were conducted using laser ablation inductively-coupled plasma mass spectrometry (LA-ICP-MS) at the Arizona LaserChron Center according to methods described in several publications (Gehrels and others, 2008; Gehrels and Pecha, 2014; Horstwood and others, 2016; Pullen and others, 2018; Sundell and others, 2021). Zircon U-Pb isotope data were reduced using IsoplotR to calculate a weighted mean age, assess degree of concordance, and estimate maximum depositional age (Vermeesch, 2018, 2021a, 2021b). We used the concordia distance filter (d_c) of Vermeesch (2021a) to filter data for degree of concordance, discarding values outside of the range $-2 < d_c < 4.6$, in addition to visual assessment of concordance, discarding any analyses not touching concordia. Zircon U-Pb analyses were also excluded in cases where Pb loss was apparent (too young ages) or U/Th ratios were anomalous. Igneous crystallization ages reported here are zircon $^{238}\text{U}/^{206}\text{Pb}$ weighted mean ages, with errors reported at a 95% confidence interval. Outliers were not included in the weighted mean ages, using Chauvenet's Criterion in IsoplotR. Detrital zircon analysis typically uses the $^{238}\text{U}/^{206}\text{Pb}$ for grains younger than 900 Ma and the $^{206}\text{Pb}/^{207}\text{Pb}$ age for grains older than 900 Ma. Estimations of maximum depositional ages for detrital zircon ages are based on the Maximum Likelihood Age (MLA) developed by Galbraith and Laslett (1993) for fission track thermochronology and extended to zircon U-Pb detrital zircon geochronology by

Vermeesch (2021b). Detrital zircon samples from Cat Square and Kings Mountain terranes contain zircons affected by metamorphic processes. Th/U ratios are useful in distinguishing igneous zircons from metamorphic zircons. Large zircon data compilations (e.g., Rubatto, 2017; Yakymchuk and others, 2018) demonstrate that igneous zircons rarely have Th/U ratios >0.1 , while the Th/U ratios for metamorphic zircons can range from >0.1 to ~ 10 . Therefore, coherent age suites of Paleozoic zircons with predominantly low (>0.1) Th/U were excluded from calculation of maximum depositional age, and from provenance interpretation.

Results-Igneous

Five samples were collected from igneous intrusive rocks in the Cat Square terrane, two samples were collected in the Kings Mountain terrane, and one in the Charlotte terrane (Figure 1).

Zircons from the Toluca Granite (TD-GAS-250227) in the Cat Square terrane are bimodal in terms of age and chemistry. The older population has Th/U values > 0.1 , and the younger population has Th/U values < 0.1 . These different chemistries are interpreted as representing igneous zircon (Th/U > 0.1) and metamorphic zircon (Th/U < 0.1) (Rubatto, 2017). Thus, this zircon population seems to show an older igneous population of zircon ages followed by a metamorphic population of zircon ages. The weighted mean age of the older, igneous population of zircon ages ($n=6$) from sample TD-GAS-250227 is 410 ± 4 Ma with an MSWD of 1.5. The weighted mean age of the younger, metamorphic population of zircon ages ($n=9$) is 313.1 ± 2.4 with an MSWD of 1.3.

A pegmatite from the Cat Square terrane (TD-GAS-250326a) gives a central age of 395.9 ± 4.8 Ma ($n=24$), with a mean standard of the weighted deviates (MSWD) of 7.8. Note, this MSWD is high and reflects dispersion in the dataset, which can be complicated for an igneous sample like a pegmatite. Radial plot analysis has been applied to complex, multimodal geochronology data including fission track, complex volcanic zircon, and detrital zircon maximum depositional ages (Galbraith and Lasset, 1993; Vermeesch, 2021b). The maximum likelihood minimum age for this sample, as determined by radial plot analysis is 380.1 ± 5.5 Ma. This age is interpreted as the preferred crystallization age of the pegmatite sample. Zircons older than that likely represent xenocrystic or antecrystic zircons and demonstrate the complex zircon systematics associated with pegmatites.

A sample of the Sandymush Granite (TD-GAS-250423) in the Cat Square terrane yields a weighted mean zircon age ($n=38$) of 363.0 ± 1.3 Ma, with an MSWD of 2.6. This sample also contained three young outlier ages: 326.2 ± 7.2 Ma, 329.3 ± 6 Ma, and 334.9 ± 6.5 Ma.

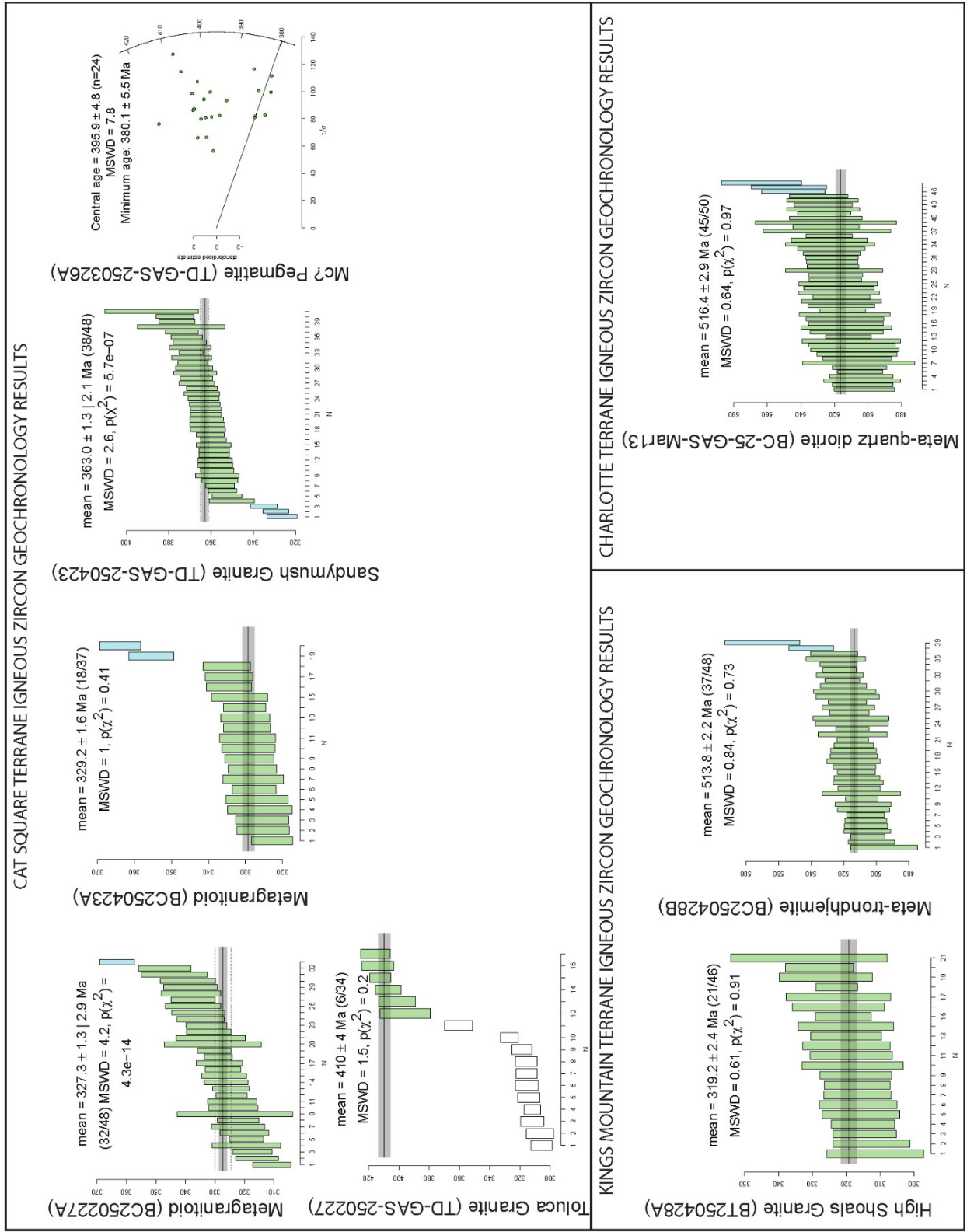


Figure 1: Weighted mean ages of samples. Error ranges are shown for individual zircon analyses in each sample.

A granitoid intruding Cat Square metasediments (BC250423A) yields a weighted mean zircon age (n=18), of 329.2 ± 1.6 Ma, with an MSWD of 1. This sample has two older outlying ages of 355.4 ± 6.2 Ma and 363.9 ± 5.8 Ma. A similar granitoid intruding Cat Square metasediments (BC250227A) yields a weighted mean zircon age (n=32) of 327.3 ± 1.3 Ma, with an MSWD of 4.2. This higher MSWD represents some dispersion, and analyses could be removed to decrease the MSWD. However, the age reported here will not change drastically with a lower MSWD. Sample BC250227A has two older outlying ages: 363.2 ± 6 Ma and 1472.2 ± 52.1 Ma.

A meta-trondhjemite from the Kings Mountain terrane (BC250428B) yields a weighted mean zircon age (n=37) of 513.8 ± 2.2 Ma, with an MSWD of 0.84, with two older outlying ages of 539.8 ± 13.9 Ma and 570 ± 23.7 Ma that likely represent xenocrystic or antecrystic zircon.

A sample from the High Shoals Granite (sample BT250428A) in the Kings Mountain terrane yields a weighted mean age for sample (n=21) is 319.2 ± 2.1 Ma, with an MSWD of 0.61 and no outliers.

A meta-quartz diorite in the Charlotte terrane (BC25-GAS-MAR13) yields a zircon age (n=45) of 516.4 ± 2.9 Ma, with an MSWD of 0.64. Sample BC25-GAS-MAR13 has three older outlier ages: 544.6 ± 19.2 Ma, 547.1 ± 23 Ma, and 563.4 ± 24.2 Ma.

Detrital

Three samples from the Cat Square terrane (BT-GAS-103, BC25-GAS-Mar3-1, BC25-GASMar3-2) consistently show prominent Grenville age peaks (~900-1200 Ma) with subordinate ~540-620 Ma and 1300-1600 Ma age peaks, sparse ~1800 Ma-2500 Ma zircons, and a young age peak (~450-460 Ma) varying significantly in prominence between samples (Figures 2,3). This array of detrital ages has been interpreted as derived from a mix of Laurentian and Gondwanan provenance during formation and closure of the Rheic ocean basin between Laurentia to the west and the peri-Gondwanan terranes to the east (Mersch and Hatcher, 2007). Maximum depositional ages are:

The maximum depositional age for sample BT-GAS-103 is 436.4 ± 4.4 Ma

The maximum depositional age for sample BC25-GAS-MAR3-1 is 498 ± 41 Ma

The maximum depositional age for sample BC25-GAS-MAR3-2 is 434.2 ± 4.9 Ma

Two samples from the Kings Mountain terrane were collected: one from the Blacksburg Quartzite (BT-GAS-250428A), and one from a meta-volcaniclastic outcrop in the underlying Battleground Formation (BC-250428A) (Figures 2,3). In the meta-volcaniclastic sample

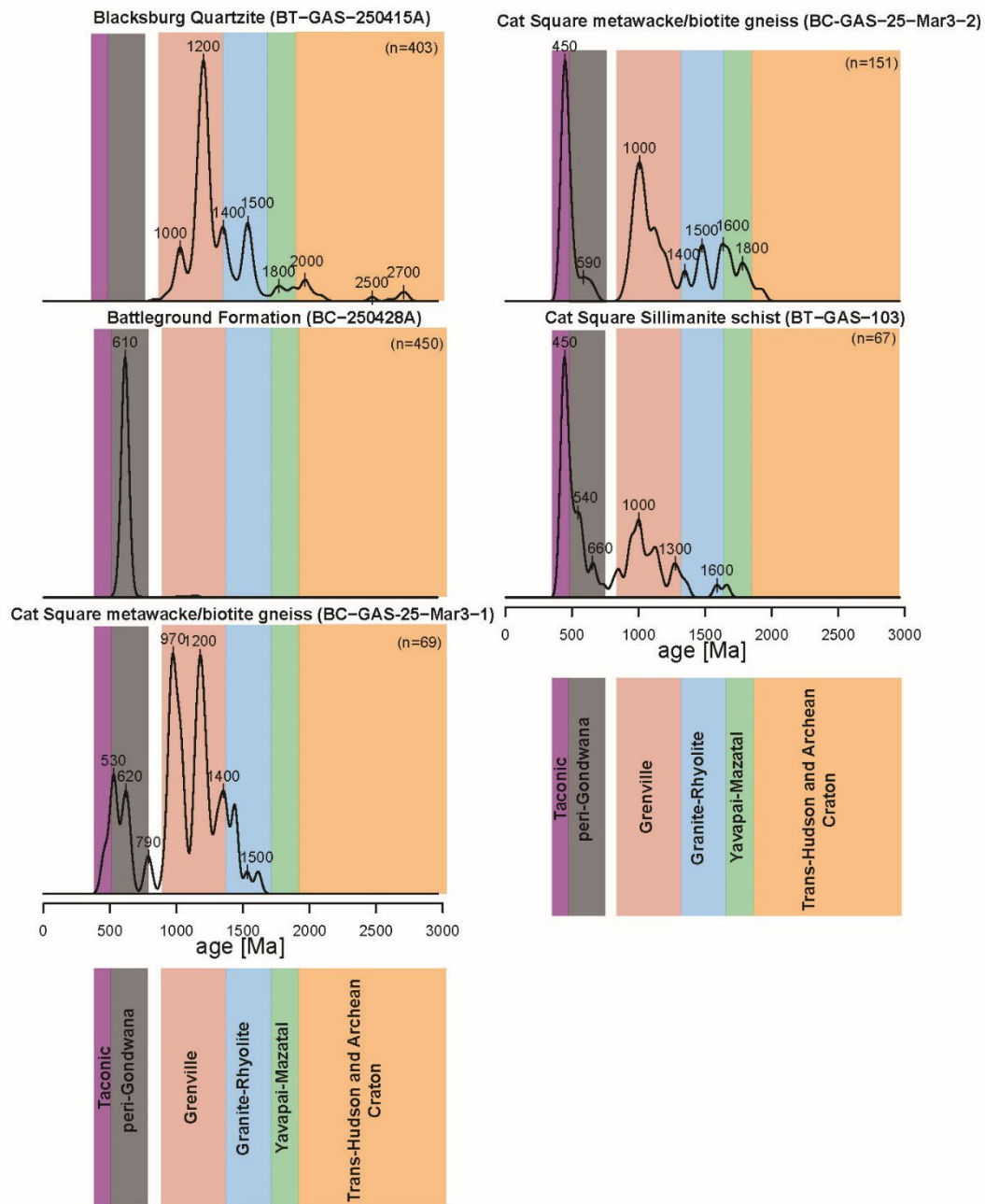


Figure 2: Kernel density estimates for detrital zircon analyses. Color bins based on North American crustal provinces (e.g., Gehrels and Pecha, 2014).

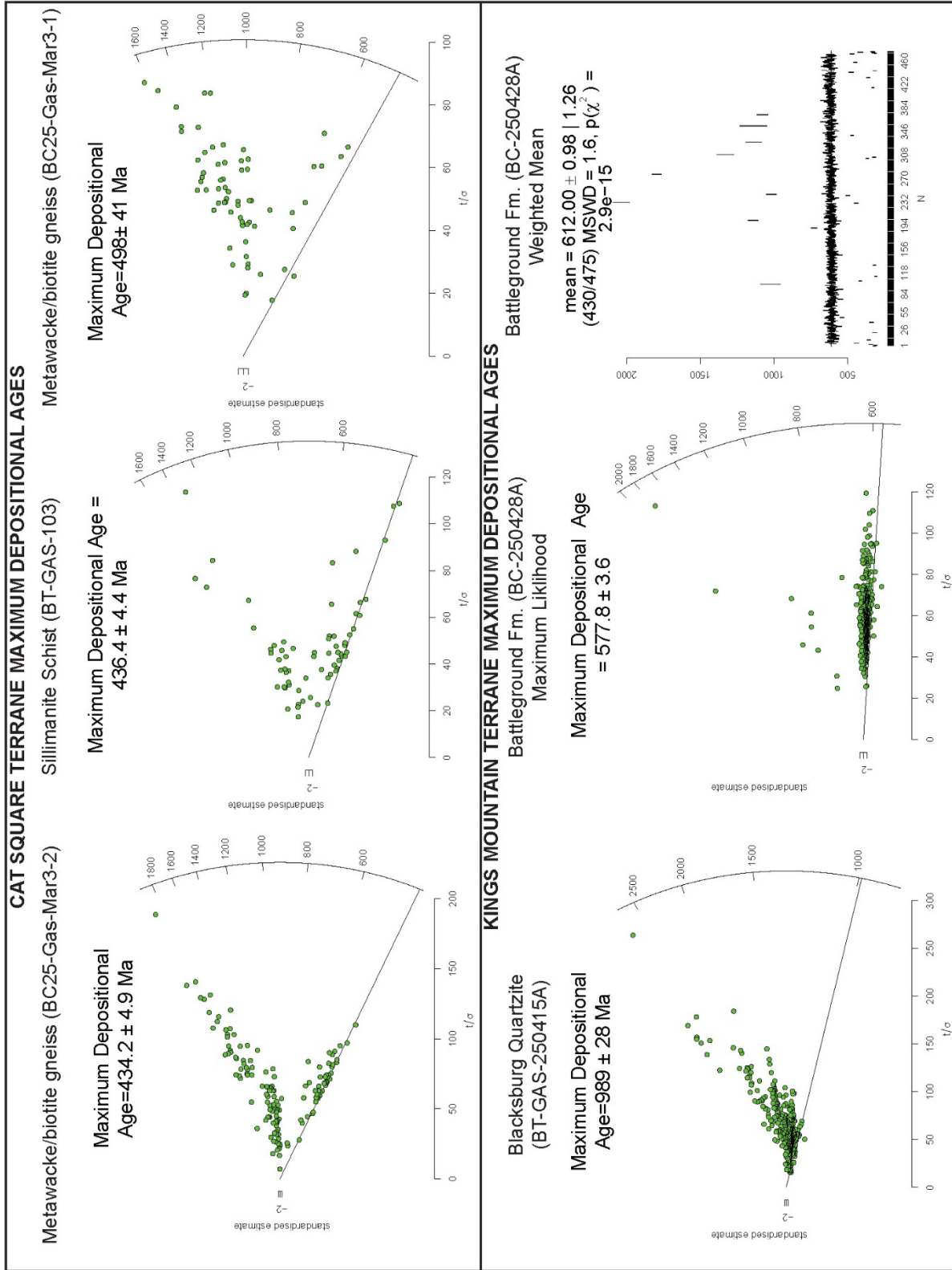


Figure 3: Maximum depositional ages for samples defined by U-Pb zircon analyses.

from the Battleground Formation, ~5% of zircons are younger than ~460-500 Ma, ~4% of zircons are older than ~620 Ma, with the remaining ~91% (n=430/475) defining a peak at 612.00 ± 0.98 Ma (MSWD=1.6). Zircons in this sample are angular to subrounded. A meta-trondhjemite intrudes the Blacksburg Quartzite and the Battleground Formation (sample BC-250428B, this study) and is dated by U-Pb zircon analysis to 513.8 ± 2.2 Ma. Th/U ratios for Battleground Formation zircons younger than 513 Ma range from 0.07 to 1.8 (average 0.84), within the overlapping Th/U range for metamorphic and igneous zircon. The maximum likelihood algorithm MDA for concordant zircons older than 513 Ma is 577.8 ± 3.6 Ma. However, given the tight distribution of zircon around the central age, the field interpretation of the sample as volcanoclastic, the large number of analyses, and the angular zircon morphology, it is probably most appropriate to interpret the age of the volcanoclastic as the peak age of 612.00 ± 0.98 Ma.

Detrital age spectra in the Blacksburg Quartzite sample (BT-GAS-250415A) define prominent age peaks at ca. 1000 Ma, 1200 Ma, 1300 Ma and 1500 Ma, with minor ca. 1800-2000 Ma and 2500-2700 Ma zircon. No concordant zircons younger than Neoproterozoic were recovered from our sample of the Blacksburg Quartzite. However, the depositional age of the Blacksburg Quartzite is bracketed by age of the intruding meta-trondhjemite (513.8 Ma) and the underlying Battleground Formation meta-volcanoclastic (612 Ma). This is broadly consistent with a youngest concordant detrital zircon ID-TIMS date of 522.43 ± 3.0 Ma from a sample collected from the upper Blacksburg Quartzite reported by Dennis (2014).

GEOCHEMISTRY

Whole-rock geochemical analyses were carried out on 19 samples to characterize key unit lithologies. Results are presented in Table 1:

DESCRIPTION OF MAP UNITS

Rock descriptions compiled from previous mapping and this report. Superscript numeral at end of each description denotes reference. Some descriptions have been edited to include multiple sources. If available, new U-Pb zircon age dates from this report are noted below unit labels.

1 Goldsmith and others, 1988

2 Horton, 2007

3 NCGS, 2025 (this report)

4 Byars, 2010

5 Giorgis and others, 2002

INTRUSIVE AND ALTERED ROCKS

sb	Silicified breccia	Tabular, steeply dipping bodies of cohesive silicified fault breccia, composed mostly of fine-grained quartz. Broader zones in the Charlotte terrane are commonly pyritic.³
Jd	Diabase	Dark-gray, fine- to medium-grained diabase forming dikes a few centimeters to several tens of meters thick.³

TUGALOO TERRANE

Oro	Reepsville orthogneiss	Light to dark gray, fine- to -medium-grained, gneissic, consists of quartz, plagioclase feldspar, alkali feldspar, biotite, and garnet. Felsic layers range from 1 to 50 millimeters. U-Pb SHRIMP age of 426 Ma.⁴
Opc	Potts Creek mylonite	Light- to dark-gray, fine- to medium-grained, consists primarily of quartz, plagioclase feldspar, alkali feldspar, biotite, and garnet. U-Pb SHRIMP age of 447 Ma.⁴

Poor Mountain Formation

Opm	undivided	Heterogeneous unit of metawacke, schist, amphibolite, quartzite, meta-arkose, quartzofeldspathic gneiss, and calc-silicate. Metawacke — medium- to light gray to medium-dark-gray; medium- to coarse grained; foliated; locally mylonitic; equigranular to inequigranular;
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		granoblastic to lepidoblastic; migmatitic; Consists of quartz, plagioclase feldspar, biotite, muscovite, potassium feldspar, garnet, and accessory minerals. ³
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Dysartsville Complex - complexly interlayered felsic gneiss and biotite gneiss with minor interlayers of amphibolite, schist, metawacke, and metasandstone of the Tallulah Falls Formation, and hornblende quartzofeldspathic gneiss of uncertain affinity.

Odfb	Felsic gneiss and biotite gneiss	<p>Felsic gneiss — light-tan to light-gray; fine- to coarse-grained; semi-massive to foliated; consists of quartz, plagioclase, potassium feldspar, biotite, white mica, epidote group minerals, hornblende, minor chlorite, and trace opaque minerals.³</p> <p>Biotite gneiss — typically gray to grayish-black; medium- to coarse-grained; well foliated; compositionally layered; locally protomylonitic; inequigranular; locally porphyroblastic to lepidoblastic; migmatitic; consists of plagioclase, quartz, biotite, potassium feldspar, muscovite, garnet, epidote group minerals, chlorite, and opaque minerals.³</p>
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Tallulah Falls Formation

€Ztf	undivided	<p>The Tallulah Falls Formation is a thick, heterogeneous sequence of metamorphosed sedimentary and volcanic rocks. Sequences of metagraywacke, schistose metagraywacke, mica schist, and amphibolite are interlayered at all scales.</p> <p>Metagraywacke — medium-light-gray to medium-dark-gray; medium- to coarse-grained; foliated (ranges from massive to gneissic); equigranular to inequigranular; granoblastic to lepidoblastic; migmatitic; consists of quartz, plagioclase, biotite, muscovite, potassium feldspar, sillimanite, and minor garnet, opaques, epidote, and apatite; thickness of layering ranges from decimeters to meters. Interlayered at all scales</p>
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		<p>with mica schist, schistose metagraywacke, amphibolite, and minor calc-silicate.</p> <p>Schistose metagraywacke — medium-gray to dark-gray; fine- to medium-grained; foliated; equigranular to inequigranular; lepidoblastic to weakly granoblastic to porphyroblastic; migmatitic; consists of quartz, plagioclase, muscovite, biotite, potassium feldspar, sillimanite, epidote group minerals, chlorite, garnet, and trace opaque minerals; thickness of layering ranges from several millimeters to meters; commonly interlayered with metagraywacke, mica schist, conglomeratic metagraywacke, amphibolite, and minor calc-silicate.</p> <p>Mica schist — silvery-gray to medium-dark-gray; fine- to medium-grained; equigranular; lepidoblastic to porphyroblastic; migmatitic; consists of muscovite, biotite, garnet, quartz, feldspar, and trace epidote group minerals, chlorite, and opaque minerals; interlayered with metagraywacke, schistose metagraywacke, amphibolite, and rare calc-silicate.³</p>
€Ztfb	porphyroclastic biotite gneiss	<p>Heterogeneous unit consisting of interlayered porphyroclastic biotite gneiss, with lesser amounts of metagraywacke, schist, and hornblende-biotite gneiss. Biotite gneiss is typically gray to grayish-black; medium- to coarse-grained; well foliated; compositionally layered; locally protomylonitic; inequigranular; porphyroclastic to lepidoblastic; migmatitic; consists of plagioclase, quartz, biotite, potassium feldspar, muscovite, garnet, epidote group minerals, chlorite, opaques, and little to no hornblende.³</p>
€Ztfa	amphibolite	<p>Amphibolite is typically mottled white to dark-green to black; fine- to coarse-grained; foliated; equigranular to nematoblastic; consists of hornblende, plagioclase, biotite, epidote group minerals, quartz, and minor garnet, chlorite,</p>

		pyroxene, titanite, and opaque minerals. Commonly interlayered with other TFF lithologies. ³
€Ztfg	gondite	Tannish-pink, weathers medium- to dark-brown or black; fine- to medium-grained; equigranular; composed of quartz with pale-pink garnets. Occurs as 0.15 to .6 meter layers within €Ztf. ⁴
€Ztfu	Altered ultramafic rocks	Dark-green to silvery-grayish-green; weakly foliated to strongly foliated; fine- to medium-grained; equigranular to inequigranular; granoblastic to lepidoblastic; variably altered. Consists of serpentine, amphibole, talc, chlorite, scapolite, pyroxene, olivine, magnetite, and other opaque minerals in different proportions and combinations. ¹

CAT SQUARE TERRANE intrusive rocks

Mc	Cherryville Granite	Very-light-gray, medium- to coarse-grained, and weakly foliated granite. Consists of microcline, oligoclase, quartz, biotite, and muscovite. Accessories include magnetite-ilmenite, apatite, zircon, chlorite, epidote, and rarely beryl. Contacts are mostly concordant but locally discordant to country-rock foliation. ²
Mcp	Cherryville coarse-grained granite and pegmatite	Very-light gray, coarse-grained biotite-muscovite granite grading into pegmatite and crosscut by pegmatite dikes; granite composed mainly of micro cline, oligoclase, quartz, muscovite, and biotite; includes graphic granite; weakly foliated. ²
Msp	Spodumene pegmatite	White, medium-to coarse-grained, and generally unzoned pegmatite. Composed of spodumene, microcline, quartz, albite, and muscovite. Trace amounts of beryl, manganapatite, ferrocolumbite, cassiterite, and zircon are present. Secondary minerals such as vivianite, fluorapatite, and siderite occur in fractures and vugs. Only spodumene and microcline commonly exceed 2 cm in size, which defines a pegmatite; these crystals are rarely longer than

		<p>30 cm. Spodumene and microcline are commonly fractured and the fractures are filled with a sugary matrix of albite and quartz. Yellowish-white muscovite crystals, commonly twisted, are typically less than 2 cm long. Whole-rock Rb-Sr age is 340 ± 10 Ma (2σ) (Kish and Fullagar, 1996). Pegmatites occur as dikes and sills in a narrow belt in and just west of the Kings Mountain shear zone, and are most abundant in and near bodies of amphibolite. Pegmatites range from nonfoliated to strongly foliated, and locally crosscut foliation in the Kings Mountain shear zone. Locally, particularly near wall-rock contacts, blastomylonitic or augen-gneiss texture is developed.²</p>
Dwt	Walker Top Granite	<p>Light-gray; coarse-grained; foliated; potassium feldspar megacrysts ranging from 1-8 cm; consists of plagioclase feldspar, potassium feldspar, quartz, biotite, and muscovite with minor myrmekite, garnet, opaque minerals, and trace amounts of sphene, zircon, and apatite.⁵</p>
Dsm LA-ICP-MS U/Pb zircon age of 363 ± 1.3 Ma ³	Sandymush Granite	<p>Light-gray; inequigranular; gneissic biotite monzogranite containing conspicuous microcline megacrysts up to 2cm long. Probably cogenetic with Toluca Granite (Dtg). Garnet is common accessory mineral.¹</p>
Dtg LA-ICP-MS U/Pb zircon age of 410 ± 4 Ma ³	Toluca Granite	<p>Light-gray; medium-grained; weakly to well-foliated; biotite monzogranite and subordinate granodiorite. Garnet, monazite, and muscovite are common accessory minerals. Forms masses generally conformable with regional foliation.¹</p>
SDu	Altered ultramafic rocks	<p>Dark-green to silvery-grayish-green; weakly foliated to strongly foliated; fine- to medium-grained; equigranular to inequigranular; granoblastic to lepidoblastic; variably altered. Consists of serpentine, amphibole, talc, chlorite, scapolite, pyroxene, olivine, magnetite, and other opaque minerals in different proportions and combinations.¹</p>

CAT SQUARE TERRANE metamorphosed sedimentary/volcanic rocks

SDmgw	Metawacke/biotite gneiss	Gray- to dark-gray, thin- to thick-layered biotite quartz feldspar gneiss, in part garnetiferous, locally inequigranular and porphyroblastic. Inter layered with calc-silicate rock, sillimanite mica schist, mica schist, and amphibolite. Locally contains small masses of granite. Gradational into and interlayered with white mica schist (SDms) and sillimanite schist (SDss).¹
SDss	Sillimanite schist	Thin-to thick bedded sillimanite-mica schist and gneiss, variably garnetiferous, locally pyritic. Sillimanite is commonly altered to sericite. Subordinate layers and lenses of biotite gneiss (metawacke) and subordinate quartz schist, micaceous quartzite, and calc-silicate rock. Unit is heterogeneous in texture and proportions of minerals. Weathers white, pale purple, yellow and reddish orange. In part equivalent to white mica schist (SDms) but at higher metamorphic grade.¹
SDmgs	Interlayered biotite gneiss and sillimanite schist	Biotite gneiss (SDBG) and sillimanite-mica schist (SDss), undivided.¹
SDms	White mica schist	Yellowish-gray to bluish-gray, medium- to coarse-grained schist composed of white mica, quartz, minor biotite and oligoclase. Garnet, secondary chlorite, and tourmaline are common; staurolite and kyanite are sporadic. Typically coarse-grained and quartz-rich near Cherryville Granite (Mc). Weathered schist is grayish pink to pale red. On western side of Inner Piedmont, contains subordinate layers of fine-grained biotite gneiss, quartz-mica schist, gray micaceous quartzite, and rarely amphibolite. In part equivalent to sillimanite schist (SDss) but at lower metamorphic grade.¹
SDmd	metadiorite	Dark-gray, gneissic hornblende-biotite quartz diorite and diorite, locally garnetiferous.¹
SDam	amphibolite	Dark-gray, fine- to medium-grained, thin- to thick-layered amphibolite composed mostly of plagioclase and hornblende with minor diopside, epidote, and quartz. Biotite and chlorite present adjacent to mica schist layers. Bodies are

		generally concordant. Some contain thin layers and pods of calc-silicate rock and some rare marble. Unit includes small nonlayered masses of metadiorite and metagabbro. ¹
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KINGS MOUNTAIN TERRANE intrusive rocks

PIPc	Churchland megacrystic granite	Biotite monzogranite, typically porphyritic, but with fine-grained phases. Includes minor quartz monzonite and hornblende-bearing phases. Weak flow foliation locally recognizable.^{1,2}
Phs LA-ICP-MS U/Pb zircon age of 319.2±2Ma ³	High Shoals Granite/biotite granitic gneiss	Very-light gray, coarse-grained, porphyritic, gneissic biotite granite or granitic augen gneiss. Consists of oligoclase and albite (35 percent), microcline (25 percent), quartz (22 percent), brown biotite (13 percent), myrmekite (3 percent), sphene (1 percent), magnetite-ilmenite and pyrite (1 percent), and trace amounts of epidote, allanite, zircon and apatite (Horton and Butler, 1977, p. 137). White, euhedral to subhedral microperthitic (5 percent albite) microcline phenocrysts average about 1.5 centimeters (cm) in length. Carlsbad twinning is common. Phenocrysts are subparallel to foliation as defined by biotite. Oligoclase occurs as zoned, euhedral to subhedral crystals which are 1 to 5 millimeters (mm) long. Sodic oligoclase or albite occurs as small grains, some of which are myrmekitic, and as rims around larger oligoclase crystals. Myrmekite also occurs as embayments in microcline where oligoclase is in contact. Lenticular inclusions (screens) of country rock characterize the High Shoals Granite in the Gastonia 100K quadrangle.^{2,3}
€to	metatonalite	Verylight-gray to medium-gray, medium- to coarse-grained metatonalite composed of oligoclase and quartz with minor albite, biotite, muscovite, and locally hornblende. Common accessory minerals include epidote, sphene, chlorite, magnetite, pyrite, zircon, and apatite. Microcline and orthoclase are present in some places. Unit is predominantly biotite tonalite but

		contains minor amounts of hornblende tonalite, trondhjemite, and granodiorite. Textures range from weakly foliated to schistose. Angular xenoliths and granitic textures indicate an intrusive origin. May have originated as shallow intrusions associated with volcanogenic deposits of the Battleground Formation. Unit equivalent, in part, to “metatonalite and volcaniclastic rocks” of Howard (2004). ²
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KINGS MOUNTAIN TERRANE metamorphosed sedimentary/volcanic rocks

Blacksburg Formation

€b1s	Sericite schist and phyllitic metasilstone	Light-gray to dark-gray, fine-grained, variably phyllitic metasilstone, composed mainly of quartz and white mica, and smaller amounts of biotite; local accessory minerals include garnet, chloritoid, chlorite, calcite, graphite, and opaque minerals. Quartz grains average about 0.1 mm in diameter. Generally well foliated but locally blocky and quartz-rich. Contacts with other members of the Blacksburg Formation are gradational and interfingering. Generally, quartz-rich metasilstone is near quartzite and micaceous phyllite is near marble and amphibolite. Locally shows composite planar fabrics and “mica fish” texture. ²
€b1q	Quartzite	White to yellowish-gray, fine- to medium-grained, equigranular, laminated micaceous quartzite with phyllite (schist) layers. Composed of anhedral quartz and disseminated white mica with variable amounts of accessory biotite and magnetite. Laminated appearance is caused partly by foliation banding and partly by rhythmic layering with phyllite (schist). Individual quartzite and phyllite layers typically have a thickness of a few meters or less. Crops out as discontinuous beds. ²
€b1a	Amphibolite	Dark-gray, fine- to coarse-grained, essentially equigranular hornblende gneiss and amphibolite.

		Composed of hornblende, plagioclase, quartz, epidote, opaque minerals, and in some places augite. Occurs sporadically as discontinuous, foliation-parallel lenticular sheets. ²
Cblm	Marble member at Dixon Branch	Very-light-gray to medium-bluish-gray, fine- to coarse-grained calcite marble and dolomitic marble. Composed of calcite or dolomite (80–90 percent), phlogopite, and locally tremolite. Graphite is a common accessory. Compositional banding is well defined by layers of pale-olive calc-silicate rock composed of tremolite, quartz, and phlogopite with smaller amounts of calcite or dolomite, epidote, and pyrite. Layers of schistose marble contain white mica and chlorite as major constituents. Layers of dark-gray, fine-grained amphibolite composed of hornblende and quartz with minor epidote, calcite, and biotite are also present. Contacts between amphibolite layers and marble are sharp. Maximum thickness 200 m. Unit is well exposed in open-pit quarries. ²

Battleground Formation

€bdt LA-ICP-MS U/Pb zircon age of metatrandhjemite is 513±2.2Ma ³	Metadacite and Metatrandhjemite	Very-light-gray to yellowish-gray, fine- to medium-grained, felsic muscovite-biotite-quartz-plagioclase gneiss interpreted as metadacite and metatrandhjemite (undivided). Consists of plagioclase, blue quartz, and minor biotite; common accessories include sericitic white mica and chlorite. Locally mylonitic. Metadacite of this unit is intruded by silicified metatrandhjemite. Relicts of primary structures in drill core from the Kings Mountain gold mine area suggest that dacite of this uppermost unit within the Battleground Formation is stratigraphically overlain by the Blacksburg Formation (LaPoint, 1992), although contacts are highly sheared. Unit includes rocks previously mapped as Bessemer Granite (Keith and Sterrett, 1931); felsic gneiss (Horton, 1977);
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		metatrandhemite (Goldsmith and others, 1988); and metadacite (LaPoint, 1992). ²
€bs	Quartz-sericite phyllite and schist	Very-light-gray to light-bluish-gray, light-brown, or yellowish-gray; very-fine- to medium-grained phyllite and schist, composed mainly of quartz and sericitic white mica (muscovite and (or) paragonite). Local accessory and trace minerals include plagioclase (oligoclase or albite), biotite, garnet, chloritoid or staurolite, kyanite, andalusite, chlorite, graphite, tourmaline, zircon, pyrite, and hematite, depending in part on metamorphic grade. Chloritoid porphyroblasts, 0.1 to 10 mm long, are common but not in association with biotite. Unit is locally quartzose; high-alumina minerals are most abundant near aluminous quartzite. Disseminated hematite is responsible for the bluish-gray color in parts of the unit. Contacts with interlayered metavolcanic facies are gradational and interfingering. Unit generally equivalent to “quartz schist, metasiltstone, and phyllite” of Howard (2004) and “metasedimentary rocks” (“msd”) of Murphy and Butler (1981); includes “chloritoid schists” (“csu” and “csl”) of Espenshade and Potter (1960, pl. 7) and informal “Lake Montonia sequence” of LaPoint (1992).²
€bmc	Quartz-pebble metaconglomerate	Very light-gray to yellowish-gray, coarse-grained, schistose quartz-pebble metaconglomerate. Quartz pebbles average about 1 cm in diameter and are moderately well sorted, generally sub-rounded, and flattened in the plane of schistosity. The matrix is composed of quartz, white mica, chlorite, and accessory magnetite and pyrite. Ranges from clast-supported metaconglomerate, to matrix-supported pebbly metasandstone with fewer clasts, to flaggy micaceous metasandstone. Maximum thickness about 15 m.²

<p>€bj</p>	<p>Jumping Branch Manganiferous Member</p>	<p>Light-gray to light-brown, fine-grained, equigranular garnet (50–70 percent)-quartz rock (coticule or gondite) closely interlayered with light-gray to light-brown, fine-grained, quartz-sericite phyllite and schist. Accessories include biotite, hematite, and locally hornblende and white mica. The garnet is spessartine-almandine; grains are rounded, average 0.1 mm in diameter, and although widely disseminated, are concentrated in rhythmic bands less than 1 cm thick. Quartz grains are polygonal and average 0.15 mm in diameter. Unlike the relatively massive coticule or gondite, the quartz-sericite phyllite and schist interlayered with it is strongly foliated. It is composed of quartz, white mica, biotite, and variable amounts of spessartine-almandine. Unweathered rock (rarely exposed) resembles the adjacent quartz-sericite phyllite and schist (€bs). Weathered rock, saprolite, and soil are readily distinguished by the characteristic dusky-brown stain of manganese oxides such as pyrolusite and psilomelane.²</p>
<p>€bq</p>	<p>Quartzite</p>	<p>White to yellowish-gray, fine- to medium-grained, equigranular quartzite. Ranges from pure and massive to micaceous and well foliated.¹</p>
<p>€baq</p>	<p>Aluminous quartzite</p>	<p>Includes kyanite quartzite and sillimanite quartzite depending on metamorphic rank. The kyanite quartzite is light gray to medium gray and composed of aggregates or blades of kyanite up to 1 cm long in a matrix of fine-grained quartz. Common accessory minerals include andalusite, biotite, white mica, magnetite, and pyrite. Kyanite is typically poikiloblastic with quartz inclusions; it occurs as mats of crystals parallel to foliation or as radial clusters crossing foliation. Where present, andalusite has alteration rims of clay minerals and is cut by unaltered kyanite. Kyanite quartzite crops out as long discontinuous beds and lenses, most</p>

		of which are stratigraphically equivalent to the Dixon Gap Metaconglomerate Member. Two thin beds of sillimanite quartzite crop out near McGill Branch within 500 m of the High Shoals Granite. The medium-gray rock is composed of sillimanite (up to 40 percent) and fine-grained equigranular quartz. Minor constituents include kyanite, andalusite, biotite, white mica, magnetite, and pyrite. Sillimanite occurs as tabular blades up to 4 mm long as well as radial and matted aggregates of fibrolite. Kyanite and andalusite, where present, are rimmed by fibrolitic sillimanite. ²
€bvf	Felsic metavolcanics, felsic schist, metamelsite	Fine- to medium- grained, locally coarse grained or agglomeratic rhyolitic and rhyodacitic metatuffs. May include some hypabyssal intrusives. Contains minor intermediate and mafic metavolcanic rocks.¹
€bvm	Intermediate to mafic metavolcanics and hornblende gneiss	Fine- to medium- grained, locally coarse grained or agglomeratic rocks of basaltic, andesitic, and dacitic composition. Mostly tuffs but includes flows and perhaps hypabyssal intrusives. Metamorphosed to epidote-amphibolite grade in map area. Contains minor felsic metavolcanic rocks.¹

CHARLOTTE TERRANE

DOgl	Biotite monzogranite and leucogranite	Very-light to light- to yellowish-gray, medium- to coarse-grained, massive- to very weakly foliated biotite monzogranite and leucogranite southwest of Mt. Holly, N.C. Plagioclase variably saussuritized; grains fractured and strained. May be related to Salisbury Plutonic Suite.¹
DObg	Biotite metagranodiorite	Very light-gray, medium-to coarse-grained, foliated to massive, metamorphosed biotite metagranodiorite and leucogranite at Denver, NC.¹

DOgm	Metagranite and metagranitoids	Very-light gray to pinkish-gray, medium- to coarse-grained, foliated, metamorphosed biotite granite, biotite granodiorite, and hornblende-biotite granite at Mountain Island, N.C. Coarse-grained phase is characterized by euhedral, zoned plagioclase crystals and mosaics of highly sutured quartz grains.¹
€mgd	Metagranodiorite and related metagranitoids	Very light-gray to yellowish-gray, fine- to coarse-grained, inequigranular, massive to distinctly foliated, metamorphosed plutonic rocks ranging from monzogranite to leucodiorite. Composed mostly of plagioclase, quartz, potassium feldspar, biotite, and smaller amounts of epidote, sericite, and opaque minerals.¹
€mqd LA-ICP-MS U/Pb zircon age of 516.4±3Ma ⁰³	Meta-quartz diorite	Dark-gray, gneissic hornblende-biotite quartz diorite and diorite, locally garnetiferous.¹
€mgb	Metagabbro	Dark, coarse-grained, with abundant amphibole replacing olivine and pyroxene; although relicts of these minerals occur, epidote is common, biotite and spinel may be present; plagioclase is less abundant than the mafic minerals; Quartz is rare or absent.¹

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APPENDIX 1
Geochronology Data

Appendix 1. LA-ICP-MS U-Pb zircon data for the Gastonia 100 k (crystallization ages)

ID	Composition		Isotopic Ratios							error correlation	concordia distance (d _r) ¹	Ages (Ma)					
	U (ppm)	U/Th	²⁰⁶ Pb/ ²⁰⁴ Pb	²⁰⁶ Pb/ ²⁰⁷ Pb	Error (%)	²⁰⁷ Pb/ ²³⁵ U	Error (%)	²⁰⁶ Pb/ ²³⁸ U	Error (%)			²⁰⁶ Pb/ ²³⁸ U	Error (Ma)	²⁰⁷ Pb/ ²³⁵ U	Error (Ma)	²⁰⁶ Pb/ ²⁰⁷ Pb	Error (Ma)
<i>Gastonia 100k</i>																	
<i>Sample TD-GAS-250326a</i>																	
2	7056	689.3	189081	18.0716	1.4	0.49389	2.5	0.064761	2.1	0.821	0.6	404.5	8.2	407.6	8.5	424.8	32.3
5	4761	562.1	157346	18.1052	1.7	0.49719	2.3	0.065316	1.6	0.69	0.42	407.9	6.4	409.8	7.9	420.6	37.7
7	5095	561.73	738786	18.3835	1.4	0.47761	2.9	0.063708	2.5	0.877	-0.34	398.1	9.8	396.4	9.5	386.5	31.3
10*	3405	564.56	114296	17.9618	2.7	0.52004	3.9	0.067776	2.7	0.702	0.52	422.7	11.1	425.2	13.4	438.4	61.2
16	3149	784.89	64695	18.1897	2.3	0.48572	3.1	0.064107	2.2	0.695	0.32	400.6	8.5	402	10.4	410.2	50.5
17	3084	781.43	142073	17.9351	1.6	0.50059	2.4	0.065145	1.8	0.743	1.1	406.8	7.1	412.1	8.3	441.7	36.3
18	4263	1117.22	231116	18.2574	1.7	0.47383	2.8	0.06277	2.2	0.792	0.3	392.4	8.4	393.8	9	401.9	37.9
19	4411	1353	123348	18.1596	2	0.48336	4.2	0.06369	3.7	0.874	0.46	398	14.1	400.4	13.8	413.9	45.5
24	4452	1309.47	108208	18.1927	2	0.47848	3.2	0.063162	2.5	0.784	0.47	394.8	9.6	397	10.5	409.9	44.5
25	4888	734.61	73798	18.0653	1.7	0.49179	3.1	0.064464	2.6	0.833	0.68	402.7	10.1	406.1	10.4	425.6	38.3
29	4490	557.66	69881	17.8315	2.4	0.49249	3.1	0.063721	2.1	0.659	1.9	398.2	8	406.6	10.6	454.6	52.6
31	3588	791.26	228417	17.9938	2.2	0.49181	3.8	0.064212	3.1	0.81	1	401.2	12.1	406.1	12.8	434.4	50
32	4793	566.9	97161	18.4931	1.3	0.47776	2.9	0.064109	2.6	0.889	-0.8	400.6	9.9	396.5	9.4	373.1	29.6
33	3323	768.17	63611	18.0607	1.7	0.46267	2.5	0.060632	1.8	0.737	1.6	379.5	6.8	386.1	8	426.1	37.6
34	2973	1463.87	459199	18.2326	1.6	0.46144	2.6	0.061046	2	0.779	0.74	382	7.6	385.3	8.4	405	36.8
36	2706	818.49	45663	18.1813	2.3	0.45748	3.1	0.060352	2.1	0.674	1.1	377.8	7.6	382.5	9.8	411.3	50.6
37	4809	616.37	128791	18.6149	1.3	0.44546	2.8	0.060167	2.5	0.879	-0.53	376.6	9.1	374.1	8.8	358.3	30.4
38	2326	811.21	69752	18.2977	1.9	0.48884	3	0.064902	2.4	0.788	-0.26	405.4	9.4	404.1	10.1	397	42
39	1267	538.31	46235	18.1603	1.8	0.4919	3	0.064817	2.4	0.791	0.28	404.9	9.3	406.2	10	413.8	40.9
41	5827	516.84	765496	18.3614	1.7	0.48319	2.6	0.064375	1.9	0.749	-0.42	402.2	7.5	400.3	8.5	389.2	38.1
42	3131	1361.29	204540	18.356	1.5	0.45627	3	0.060771	2.6	0.858	0.28	380.3	9.4	381.7	9.5	389.8	34.3
43	4564	583.93	60561	17.8447	3.2	0.50195	4.5	0.064993	3.1	0.704	1.6	405.9	12.3	413	15.1	452.9	70.3
45	3259	1275.09	228757	18.3052	2.1	0.45744	3.3	0.060758	2.5	0.763	0.51	380.2	9.3	382.5	10.6	396.1	48
46	3009	1428.29	141557	18.1503	1.3	0.46753	2.2	0.061573	1.8	0.811	0.92	385.2	6.6	389.5	7	415.1	28.4
<i>Sample BC250428B</i>																	
4	665	1.46	40616	17.4133	2.5	0.66858	3.3	0.084474	2.1	0.641	-0.53	522.8	10.6	519.8	13.4	507	55.8
6	673	1.53	80048	17.2691	2.5	0.65444	4.4	0.082004	3.6	0.814	0.51	508.1	17.4	511.2	17.6	525.3	55.8
7	164	1.15	16969	17.7713	3.7	0.64443	5.8	0.083098	4.4	0.767	-1.6	514.6	21.8	505	22.9	462.1	81.8
8	491	1.63	14433	17.6848	3.6	0.64456	4.3	0.08271	2.4	0.55	-1.3	512.3	11.6	505.1	17.1	472.9	79.5
9*	871	2.26	156959	17.3181	2.6	0.6951	3.8	0.087346	2.7	0.714	-0.66	539.8	13.9	535.9	15.7	519	57.9
10	252	1.27	22388	17.472	3.4	0.66189	5.2	0.083912	3.9	0.753	-0.61	519.4	19.6	515.8	21.1	499.6	75.6
11	509	1.9	92267	17.5438	2.3	0.64933	3.7	0.082658	2.9	0.779	-0.64	512	14.3	508.1	14.9	490.5	51.5
12	343	1.95	145149	17.2517	3.4	0.66451	5.7	0.083182	4.6	0.803	0.37	515.1	22.6	517.4	23.1	527.5	74.3
13	716	3.06	61076	17.3475	2.9	0.6707	4.1	0.084423	2.9	0.718	-0.23	522.5	14.8	521.1	16.7	515.3	62.7
15	331	1.91	68626	17.5098	3.1	0.65328	4	0.082999	2.5	0.635	-0.64	514	12.6	510.5	16.1	494.8	68.3
16	910	1.33	35486	17.2886	2.3	0.65139	3.6	0.081714	2.8	0.779	0.5	506.3	13.7	509.3	14.5	522.8	49.7
17	281	1.35	8782	17.8393	5.5	0.64345	7.3	0.083289	4.8	0.653	-2	515.7	23.6	504.4	29	453.6	122.9
18	394	0.64	182698	17.1619	3.7	0.66015	6.2	0.082206	5	0.802	0.89	509.3	24.3	514.7	25	538.9	81
19	371	1.69	64413	17.1901	2	0.66535	3.6	0.08299	2.9	0.823	0.64	513.9	14.5	517.9	14.4	535.3	44.2
21	1236	1.32	69449	17.3351	1.8	0.66101	2.7	0.083143	2.1	0.76	0.62	514.9	10.3	515.2	11.1	516.9	39.1
23	813	1	67521	17.3352	2	0.65975	3.6	0.082985	3	0.829	0.086	513.9	14.8	514.5	14.6	516.9	44.4
24	425	0.59	30331	17.5682	3.1	0.65175	3.7	0.083081	2	0.546	-0.94	514.5	10.1	509.6	14.9	487.5	68.8
25	831	1.04	319225	17.1514	2.5	0.6602	3.3	0.082162	2.1	0.643	1.1	509	10.4	514.7	13.4	540.2	55.4
27	378	1.25	16264	17.3964	3.9	0.64301	4.9	0.081165	3	0.614	0.21	503.1	14.5	504.2	19.4	509.1	84.7
29	478	1.66	957155	17.0957	2.9	0.659	4	0.081746	2.7	0.682	1.4	506.5	13.3	514	16.2	547.4	64.1
30*	167	0.94	79633	17.1477	3.4	0.74295	5.5	0.09244	4.3	0.791	-0.86	570	23.7	564.1	23.8	540.7	73.6
31	1482	1.97	402933	16.9599	2.5	0.67938	3.5	0.083605	2.4	0.685	1.6	517.6	11.8	526.4	14.2	564.7	55
32	872	1	51536	17.1093	2	0.6573	3.6	0.0816	3	0.834	1.2	505.7	14.7	513	14.6	545.6	43.6
33	216	1.1	6959	16.6759	8.7	0.6599	9.8	0.079847	4.4	0.45	3.9	495.2	21	514.6	39.5	601.4	189.3
34	385	1.03	23737	17.7374	3.4	0.6489	4.7	0.083515	3.3	0.695	-1.6	517.1	16.3	507.8	18.9	466.3	75.3
35	677	1.16	34707	17.2252	2.9	0.6765	3.7	0.084552	2.3	0.624	0.26	523.2	11.7	524.7	15.3	530.9	64
37	840	1.2	48810	17.4326	2.6	0.6514	3.8	0.082396	2.7	0.72	-0.19	510.4	13.4	509.3	15.1	504.6	57.7
38	540	1.51	12293	17.7478	3.9	0.63505	4.6	0.081779	2.4	0.516	-1.4	506.7	11.5	499.2	18	465	86.8
39	1734	0.77	81133	17.3958	1.9	0.66661	2.9	0.084141	2.2	0.777	-0.36	520.8	11.2	518.6	11.8	509.2	40.7
40	1398	-2.1	1267399	17.2801	2.2	0.65382	3.9	0.081978	3.3	0.834	0.46	507.9	15.9	510.8	15.7	523.8	47.3
41	715	0.74	218949	17.5163	3	0.6416	3.7	0.081545	2.2	0.597	-0.39	505.3	10.9	503.3	14.9	494	66.2
42	463	1.11	216064	17.2757	2.8	0.6767	4.6	0.084826	3.7	0.799	-0.014	524.9	18.6	524.8	19	524.4	61.1
44	301	1.77	20243	17.4879	3.4	0.65392	4.8	0.082977	3.4	0.7	-0.52	513.9	16.5	510.9	19.2	497.6	75.4
45	688	1.61	74467	17.307	2	0.66457	3.2	0.083455	2.5	0.781	0.11	516.7	12.4	517.4	13	520.4	44
46	354	1.88	14279	17.7517	3.8	0.6493	5.5	0.083634	4	0.727	-1.7	517.8	20	508.1	22.1	464.5	84.1
47	710	0.95	31252	17.2624	2.1	0.66197	3.4	0.082916	2.7	0.794	0.38	513.5	13.4	515.8	13.8	526.1	45.6
48	488	1.56	366746	17.3507	2.5	0.66742	3.9	0.084025	2.9	0.756	-0.16	520.1	14.6	519.1	15.7	514.9	55.6
49	601	1.74	50894	17.4954	2.1	0.66977	3.6	0.085024	2.9	0.819	-0.86	526	14.8	520.6	14.6	496.6	45.4
50	343	1.57	30120	17.3987	2.9	0.65355	4.3	0.082507	3.2	0.741	-0.07	511.1	15.6	510.7	17.2	508.8	63.5
<i>Sample BT250428A</i>																	
1	148	1.54	90950	19.2246	4	0.37189	5.9	0.051876	4.4	0.735	-1.3	326	13.9	321.1	16.3	285.1	92.2
2	138	1.14	40167	18.9342	6.3	0.36827	7.9	0.050594	4.9	0.612	0.057	318.2	15.1	318.4	21.7	319.8	142.8
3	303	0.67	29710	19.2104	4.9	0.36509	6.5	0.05089	4.2	0.652	-1.1	320	13.2	316	17.6	286.8	112.4
6	902	1.31	11658	18.9635	4.6	0.37263	6.4	0.051274	4.4	0.689	-0.2	322.3	13.8	321.6	17.6	316.3	105.1
8	458	0.66	20549	19.281	3.9	0.3648	4.8	0.051036	2.7	0.562	-1.5	320.9	8.4	315.8	12.9		

65	1377	283.63	37666	18.5904	2	0.42922	2.9	0.057898	2.1	0.737	-0.05	362.8	7.6	362.6	8.9	361.3	44.4
67	1307	318.22	50742	18.4404	2	0.44139	3.4	0.05906	2.8	0.811	0.29	369.9	9.9	371.2	10.6	379.5	44.8
68*	1125	34.78	84517	19.0592	2.2	0.37892	2.9	0.052402	1.9	0.656	-0.82	329.3	6	326.2	8	304.8	49.4
69	1276	308.06	63596	18.2566	2.6	0.42987	3.4	0.056944	2.3	0.661	1.5	357	7.8	363.1	10.4	402	57.2
70	1433	328.3	126463	18.5846	1.9	0.43115	2.8	0.05814	2.1	0.741	-0.073	364.3	7.5	364	8.7	362	43.1
71	1177	338.86	79589	18.7373	2	0.43346	3.3	0.058932	2.7	0.8	-0.77	369.1	9.6	365.6	10.3	343.5	45.3
72	1385	314.67	41758	18.2261	2.4	0.44604	2.9	0.058988	1.6	0.564	1.3	369.5	5.8	374.5	9	405.8	52.9
73	1149	309.25	78361	18.5264	1.9	0.43759	2.8	0.058823	2	0.717	0.021	368.5	7.1	368.5	8.5	369.1	43.2
75	1244	341.23	53771	18.7473	2	0.42466	3.1	0.057766	2.3	0.754	-0.64	362	8.3	359.4	9.4	342.3	46.2
76	1318	297.41	54722	18.4684	1.9	0.43073	3	0.05772	2.4	0.781	0.45	361.7	8.3	363.7	9.3	376.1	42.6
77	1366	299.66	38204	18.8911	2.1	0.414	3.3	0.056748	2.5	0.759	-0.98	355.8	8.6	351.8	9.7	325	48.2
78	1432	340.93	79403	18.4831	1.8	0.43109	2.8	0.057815	2.1	0.752	0.39	362.3	7.4	364	8.5	374.3	41.2
79	1254	341.27	45370	18.636	2.1	0.4229	3	0.057185	2.1	0.696	-0.089	358.5	7.2	358.1	8.9	355.8	47.9
80*	1545	248.23	26372	18.4478	2.3	0.39842	3.1	0.053331	2	0.651	1.5	334.9	6.5	340.5	8.8	378.6	52.1
81	1348	296.98	96679	18.6007	2.2	0.43929	3	0.05929	2.1	0.685	-0.37	371.3	7.5	369.8	9.4	360	49.9
82	1282	291.7	80292	18.6014	1.9	0.42978	2.8	0.058008	2.1	0.754	-0.11	363.5	7.6	363	8.7	359.9	42
84	1331	304.05	76073	18.6157	1.8	0.42258	3	0.057079	2.4	0.8	0.013	357.8	8.4	357.9	9.1	358.2	41.1
87	1220	308.3	68544	18.5999	2.3	0.44213	3.2	0.059669	2.2	0.679	-0.44	373.6	7.8	371.8	9.9	360.1	52.5
88	1036	346.98	61601	18.6423	2.5	0.42504	3.1	0.057493	1.9	0.605	-0.18	360.4	6.6	359.6	9.4	355	55.9
89	1347	281.67	83206	18.4964	2.1	0.42975	3.2	0.057676	2.4	0.748	0.36	361.5	8.3	363	9.7	372.7	47.3
90	1349	312.77	220632	18.4933	2.3	0.42261	3.1	0.056708	2	0.664	0.6	355.6	7.1	357.9	9.3	373.1	51.9
92	996	282.35	142657	18.5794	2.3	0.44665	3.4	0.060213	2.5	0.728	-0.46	376.9	9	374.9	10.6	362.6	52.4
93	1275	347.2	72071	18.6568	1.9	0.43638	2.9	0.059074	2.2	0.765	-0.53	370	8	367.7	9	353.3	42.5
94*	868	32.88	32694	18.9459	2.6	0.37757	3.5	0.051904	2.3	0.653	-0.26	326.2	7.2	325.2	9.7	318.4	59.7
95	1155	280.16	34256	18.5283	2.3	0.42481	3.3	0.057111	2.4	0.721	0.35	358	8.2	359.5	9.9	368.8	50.9
96	1137	340.45	61943	18.6792	1.8	0.42213	3	0.057213	2.4	0.8	-0.25	358.7	8.3	357.6	9	350.5	40.4
97	1371	352.87	43008	18.5414	1.8	0.4251	2.7	0.05719	2.1	0.762	0.28	358.5	7.3	359.7	8.3	367.2	39.9
98	954	332.69	113998	18.7137	1.4	0.42142	2.3	0.057222	1.8	0.784	-0.39	358.7	6.2	357.1	6.8	346.4	31.7
99	1000	313.15	198322	18.5062	2.4	0.43052	3.2	0.057811	2.1	0.665	0.31	362.3	7.5	363.5	9.8	371.5	53.7
100	1218	285.61	279387	18.2687	2	0.44318	3.2	0.058746	2.5	0.784	1	368	9	372.5	10	400.5	44.6

Sample TD-GAS-250227

106	2011	51.39	176274	18.591	1.3	0.38563	2.3	0.05202	1.9	0.825	1.1	326.9	6.1	331.2	6.6	361.2	29.7
107	1436	19.08	60392	18.4482	1.5	0.42969	3.1	0.057518	2.7	0.873	0.53	360.5	9.5	363	9.5	378.6	34.1
112	7792	40.52	86322	18.7896	2.2	0.35758	3.8	0.04875	3.1	0.814	0.96	306.8	9.3	310.4	10.2	337.2	49.9
117	6005	40.58	101749	18.7174	2.1	0.35781	3.2	0.048595	2.4	0.747	1.3	305.9	7.1	310.6	8.5	345.9	47.7
118	4110	59.7	61074	18.6325	1.9	0.37104	3.1	0.050163	2.5	0.793	1.3	315.5	7.6	320.4	8.6	356.2	43
120	6524	48.48	141265	18.8233	1.7	0.36556	3	0.049929	2.5	0.837	0.59	314.1	7.7	316.4	8.2	333.2	37.4
121	4364	49.58	110801	18.7081	3.7	0.36518	4.2	0.049572	1.8	0.435	1.2	311.9	5.5	316.1	11.3	347.1	84.7
129	4446	47.94	73127	18.6042	1.9	0.37178	3	0.050187	2.3	0.76	1.4	315.7	7	321	8.2	359.6	43.8
133	7216	48.23	170235	18.6547	1.9	0.37087	3	0.050199	2.4	0.789	1.2	315.7	7.4	320.3	8.3	353.5	42
148	2952	61.69	63914	18.7266	2	0.37289	2.9	0.050668	2.2	0.731	0.84	318.6	6.7	321.8	8.1	344.8	45.4
150	6497	49.06	77670	18.5321	2.7	0.36862	3.7	0.049568	2.6	0.685	1.9	311.9	7.8	318.6	10.2	368.4	61.4
110	3140	13.2	266643	17.9766	2.6	0.4857	5.1	0.063353	4.4	0.862	1.2	396	16.8	402	16.8	436.5	57.1
119	460	3.72	39878	17.9663	2.5	0.4925	4.1	0.064204	3.2	0.795	1.2	401.1	12.6	406.6	13.6	437.8	55
125	833	4.24	46351	18.1233	2.8	0.49565	3.5	0.065178	2.2	0.613	0.39	407	8.5	408.8	11.9	418.4	62.4
127	291	3.75	40264	18.2467	2.9	0.50102	4	0.066334	2.7	0.681	-0.36	414	10.8	412.4	13.4	403.2	64.9
137	1341	8.28	971845	17.9207	2.5	0.51185	3.5	0.066557	2.5	0.713	0.92	415.4	10.2	419.7	12.2	443.5	55.3
142	1105	7.36	50314	18.1324	1.9	0.50194	2.6	0.066039	1.8	0.692	0.17	412.3	7.3	413	8.9	417.3	42.4

Sample BC25-GAS-MAR-13

1	108	1.35	72871	17.1645	3.4	0.65628	5.5	0.081736	4.3	0.782	0.99	506.5	20.8	512.3	21.9	538.5	74.4
2	222	1.47	35178	17.3054	2.1	0.65789	3.5	0.08261	2.8	0.793	0.27	511.7	13.5	513.3	14	520.6	46.4
3	46	1.17	44641	17.1528	5.8	0.66653	7.6	0.082957	4.8	0.636	0.89	513.7	23.8	518.6	30.8	540.1	127.9
4 C	72	0.8	72376	17.1069	4.7	0.6601	7.2	0.081936	5.5	0.765	1.2	507.7	27.1	514.7	29.3	545.9	102
4 R	119	1.81	42736	17.387	4.1	0.67	6.2	0.084526	4.6	0.742	-0.4	523.1	23	520.7	25.1	510.3	90.8
5	222	1.93	86615	17.0349	2.4	0.68892	4.3	0.085153	3.5	0.819	0.84	526.8	17.7	532.2	17.7	555.1	53.4
6	68	1.37	19018	17.4393	5.6	0.6643	8.1	0.08406	5.9	0.721	-0.52	520.3	29.3	517.2	32.9	503.7	123.9
7 C	70	0.89	4527	17.7381	9.2	0.64473	10.8	0.082981	5.6	0.519	-1.7	513.9	27.7	505.2	43.1	466.2	204.9
7 R	85	1.39	12445	17.3679	4.6	0.6735	6.4	0.084875	4.4	0.691	-0.4	525.2	22.2	522.8	26	512.7	101.3
9	279	1.57	24267	17.2871	3	0.67094	4.3	0.084159	3.1	0.717	0.066	520.9	15.5	521.3	17.7	523	66.4
10	84	1.25	8980	17.5734	5.5	0.66146	6.8	0.084344	4.1	0.595	-1.2	522	20.4	515.5	27.6	486.8	121.4
11	117	1.48	85905	17.0984	2.8	0.67139	5	0.083296	4.1	0.825	0.92	515.8	20.5	521.6	20.5	547	62
12	86	1.46	8480	17.7219	5.6	0.6318	7.3	0.081243	4.8	0.652	-1.2	503.5	23.1	497.2	28.8	468.2	123
13	155	1.76	16217	17.3908	4.2	0.64328	5.6	0.081174	3.8	0.675	0.22	503.1	18.4	504.3	22.4	509.8	91.5
14	69	1.16	36564	17.2518	5.8	0.65748	8.5	0.082302	6.1	0.724	0.57	509.8	30.1	513.1	34.1	527.5	128.2
15	83	1.59	44152	17.2073	3.7	0.66382	5.9	0.082881	4.6	0.785	0.61	513.3	22.9	516.9	24	533.1	80.3
16 C	45	1.22	6946	17.4658	6.5	0.66863	10.1	0.084736	7.7	0.765	-0.73	524.3	38.9	519.9	41	500.4	143
16 R	107	1.56	14342	17.3597	3.7	0.66884	4.9	0.084248	3.1	0.638	-0.26	521.4	15.5	520	19.8	513.7	82.2
17*	114	1.01	10511	17.2095	4.4	0.73139	6.3	0.091329	4.5	0.714	-0.96	563.4	24.2	557.4	26.9	532.8	96.1
18	100	1.61	86622	17.1036	4.1	0.67131	5.4	0.083312	3.5	0.65	1	515.9	17.4	521.5	22	546.3	89.4
19	45	1.51	58447	16.7798	6.3	0.68012	8.4	0.082808	5.6	0.667	2.5	512.9	27.7	526.8	34.7	587.9	136.4
20	152	1.62	93971	17.3539	2.9	0.67129	4.1	0.084528	2.8	0.701	-0.28	523.1	14.3	521.5	16.5	514.5	63.5
21	125	1.56	39216	17.2506	3.9	0.6703	5	0.083901	3.2	0.635	0.28	519.4	15.9	520.9</			

15*	3007	499.09	1745857	18.2575	1.5	0.43836	2.2	0.058072	1.6	0.742	1.3	363.9	5.8	369.1	6.9	401.9	33.3
19 R	5674	137.23	105434	18.6494	1.5	0.3854	2.4	0.052153	1.9	0.796	0.84	327.7	6.2	331	6.9	354.1	33.5
21	3703	230.65	38505	18.8319	1.3	0.38628	2.7	0.052783	2.4	0.875	0.015	331.6	7.6	331.7	7.6	332.1	29.6
22	4123	238.65	35187	18.4203	2.1	0.38918	3.4	0.052017	2.7	0.796	1.8	326.9	8.6	333.8	9.6	382	46.1
24	4472	177.95	61933	18.8471	1.2	0.38948	2.3	0.053263	2	0.85	-0.12	334.5	6.4	334	6.6	330.3	27.8
27	4869	125.71	34531	18.4116	2.4	0.39219	3.3	0.052394	2.3	0.681	1.8	329.2	7.2	336	9.5	383	54.5
30	4755	30.6	36291	18.4111	1.9	0.39321	2.9	0.052529	2.1	0.747	1.8	330	6.9	336.7	8.2	383.1	42.7
31	4943	152.65	363946	18.6444	1.3	0.3943	2.4	0.053342	2	0.826	0.6	335	6.4	337.5	6.9	354.7	30.4
33	3579	218.81	346001	18.7531	2.1	0.38128	3.5	0.051882	2.8	0.803	0.49	326.1	8.9	328	9.8	341.6	47.2
37	3274	225.54	32846	18.5481	1.9	0.38803	2.8	0.052223	2.1	0.748	1.3	328.2	6.7	332.9	7.9	366.4	41.7
39*	3522	219.92	395211	18.5138	1.3	0.42196	2.2	0.056684	1.8	0.813	0.47	355.4	6.2	357.5	6.6	370.6	28.7
41	3555	224.21	239377	18.7438	1.6	0.38553	2.8	0.052434	2.4	0.836	0.4	329.4	7.6	331.1	8	342.7	35.2
42	3821	239.59	356896	18.6052	1.5	0.3886	2.5	0.05246	2	0.803	0.95	329.6	6.5	333.3	7.2	359.5	33.9
45	3997	76.47	48150	18.3004	2.4	0.39583	3	0.052561	1.8	0.595	2.3	330.2	5.7	338.6	8.6	396.6	53.7
<i>Sample BC250227A</i>																	
1	240	26.11	11501	18.9307	4.2	0.38926	5.1	0.053469	2.8	0.561	-0.54	335.8	9.3	333.8	14.4	320.3	95.6
5	352	5.33	16385	19.2523	3.7	0.37933	4.3	0.052991	2.2	0.508	-1.8	332.9	7.1	326.5	12	281.8	84.5
7 R	790	5.48	14476	19.243	3.4	0.36374	3.9	0.050788	1.9	0.498	-1.3	319.4	6	315	10.6	282.9	77.3
8 C	168	11.94	42894	19.0067	3.3	0.39045	4.6	0.053848	3.1	0.684	-0.9	338.1	10.3	334.7	13.1	311.1	76.2
8 R	806	12.52	132255	18.5997	2.1	0.38167	3.4	0.05151	2.7	0.787	1.2	323.8	8.5	328.3	9.6	360.2	47.7
9	623	15.89	46549	18.7804	1.8	0.39144	3.1	0.053341	2.5	0.807	0.1	335	8.2	335.4	8.9	338.3	41.6
10	340	4.14	35573	18.6477	2.8	0.3864	3.7	0.052282	2.5	0.673	0.87	328.5	8.1	331.7	10.6	354.4	62.5
11	605	4.94	101107	18.9477	2.3	0.36518	3.3	0.050206	2.4	0.722	0.079	315.8	7.4	316.1	9	318.2	52.3
12	898	1.64	44207	18.6189	2.2	0.39061	4.3	0.052771	3.7	0.861	0.79	331.5	11.9	334.8	12.2	357.8	49.1
14 C*	161	3.17	50045	10.7049	1.5	3.30287	4.2	0.256548	4	0.938	1	1472.2	52.1	1481.7	32.9	1495.4	27.8
14 R	430	2.66	70734	18.7951	2.7	0.37705	6.8	0.051421	6.3	0.922	0.39	323.2	19.9	324.9	19	336.5	60.1
16	550	7.28	17303	18.5754	3.4	0.38598	4.1	0.052023	2.4	0.573	1.2	326.9	7.5	331.4	11.7	363.1	76.3
17	286	10.12	8501	19.075	5.5	0.38829	6.2	0.053742	2.9	0.469	-1.2	337.5	9.6	333.1	17.7	303	125.7
20	852	2.76	288561	18.5348	1.8	0.38407	2.7	0.051653	2	0.743	1.4	324.7	6.3	330	7.6	368	40.6
21	626	6.75	49107	18.9653	2	0.37238	3.5	0.051243	2.9	0.822	-0.18	322.2	9	321.4	9.6	316.1	45
22 C*	584	29.79	18250	18.7505	3.1	0.42606	3.6	0.057966	1.7	0.477	-0.75	363.2	6	360.4	10.8	341.9	70.7
22 R	369	2.96	16841	19.0342	3.9	0.38918	4.5	0.05375	2.3	0.509	-1	337.5	7.6	333.8	12.8	307.8	88.4
23	342	2.44	34017	18.7161	2.6	0.40345	4.3	0.054789	3.4	0.795	0.071	343.9	11.4	344.1	12.5	346.1	58.7
24 C	267	4.37	23962	19.0665	3.3	0.38953	4.4	0.053889	2.8	0.646	-1.2	338.4	9.3	334	12.5	303.9	76.2
26	153	1.48	8794	19.2517	5.3	0.37685	7.4	0.052642	5.2	0.698	-1.6	330.7	16.8	324.7	20.7	281.9	121.8
28	798	17.65	132225	19.1371	2.2	0.38899	3.6	0.054015	2.9	0.792	-1.3	339.1	9.5	333.6	10.4	295.5	50.9
29	706	6.33	15713	18.7311	2.8	0.36336	3.5	0.049385	2.2	0.617	1.1	310.7	6.6	314.7	9.5	344.3	62.8
31	860	4.39	13734	18.5136	2.2	0.37551	3.1	0.050444	2.2	0.704	1.8	317.2	6.7	323.7	8.5	370.6	48.9
32	1060	143.03	62272	18.8704	2.2	0.37171	3.5	0.050896	2.7	0.786	0.24	320	8.6	320.9	9.6	327.5	49
34	1144	75.73	185344	18.5322	2	0.38356	3.4	0.051577	2.7	0.799	1.4	324.2	8.6	329.7	9.6	368.3	46.1
36	1059	57.98	639390	18.7072	2.1	0.3856	2.6	0.052341	1.5	0.596	0.64	328.9	4.9	331.2	7.2	347.1	46.4
37	1407	56.94	37020	18.9672	1.6	0.37235	2.8	0.051245	2.3	0.822	-0.19	322.2	7.3	321.4	7.8	315.8	36.6
38	611	8.21	32708	19.0285	2.2	0.38077	2.9	0.052573	1.8	0.631	-0.74	330.3	5.9	327.6	8.1	308.5	51
39	160	0.92	32810	19.2626	4.8	0.36328	6.1	0.050775	3.8	0.618	-1.3	319.3	11.8	314.7	16.6	280.6	110.4
40	1260	68.49	90167	18.8222	1.9	0.37789	2.5	0.05161	1.7	0.667	0.3	324.4	5.3	325.5	7	333.3	42.7
41	5222	62.34	138540	18.6345	1.7	0.38398	3	0.051919	2.4	0.814	0.95	326.3	7.7	330	8.4	355.9	38.9
42	304	8.03	12660	19.1607	4.3	0.39776	5	0.0553	2.7	0.526	-1.9	347	9	340	14.6	292.7	98
43	3652	127.77	154552	18.6375	2	0.39094	3.1	0.052868	2.4	0.779	0.76	332.1	7.9	335.1	8.9	355.6	44.3
44	617	12.31	164161	19.0172	1.8	0.37743	2.7	0.052081	1.9	0.728	-0.58	327.3	6.2	325.1	7.4	309.9	41.7

Notes:

*Concordia distance (d_c) was calculated using IsoplotR (Vermeesch, 2018), and we discarded analyses outside of the range $-2 < d_c < 4.6$ (Vermeesch, 2021).

*Analyses with an asterisk were considered outliers according to Chauvenet's Criterion in IsoplotR (Vermeesch, 2018). They were not included in the weighted mean.

Appendix 2. LA-ICP-MS U-Pb zircon data for the Gostonia 100 k (detrital ages)

ID	Composition		Isotopic Ratios						error correlation	concordia distance (d_c) ^b	Ages (Ma)						
	U (ppm)	U/Th	²⁰⁶ Pb/ ²⁰⁴ Pb ^a	²⁰⁶ Pb/ ²⁰⁷ Pb	Error (%)	²⁰⁷ Pb/ ²³⁵ U	Error (%)	²⁰⁶ Pb/ ²³⁸ U			Error (%)	²⁰⁶ Pb/ ²³⁸ U Error (Ma)	²⁰⁷ Pb/ ²³⁵ U Error (Ma)	²⁰⁶ Pb/ ²⁰⁷ Pb Error (Ma)			
<i>Gostonia 100k</i>																	
<i>Sample BT-GAS-103</i>																	
2	742	28.45	29647	18.8919	3.1	0.41407	3.5	0.05676	1.6	0.466	-1.1	355.9	5.7	351.8	10.5	324.9	71
7	497	28.33	16927	18.7957	4.4	0.40363	5.3	0.055048	2.9	0.555	-0.31	345.4	9.8	344.3	15.4	336.5	99.2
8	313	1.78	7990	17.5227	5.5	0.66981	6.8	0.085162	4	0.59	-1.1	526.9	20.3	520.6	27.7	493.2	121.1
19	582	36.62	393724	18.3334	2.8	0.43281	3.9	0.057575	2.8	0.702	1	360.9	9.7	365.2	12.1	392.6	62.8
20	468	72	115078	18.0541	3.2	0.48405	4.9	0.06341	3.7	0.756	0.99	396.3	14.4	400.8	16.4	426.9	72.1
25	798	53.13	37049	18.5946	2.9	0.39776	3.8	0.053666	2.4	0.638	0.82	337	8	340	11.1	360.8	66.4
27	524	38.74	46253	18.5355	3.3	0.40297	4.4	0.054196	2.9	0.659	0.94	340.2	9.5	343.8	12.7	368	74
31	621	14.18	16106	18.384	4.1	0.51177	5.5	0.068266	3.6	0.659	-1.3	425.7	14.9	419.6	18.9	386.4	92.8
40	214	1.57	78010	13.8742	2.1	1.54555	6.6	0.155592	6.2	0.946	2.8	932.2	53.8	948.7	40.4	987.2	43.1
41	692	105.48	796672	18.5228	2.8	0.42782	4	0.057498	2.8	0.714	0.31	360.4	9.9	361.6	12.1	369.5	62.5
43	354	212.3	65624	18.4042	3.2	0.44758	4.7	0.059769	3.3	0.72	0.33	374.2	12.2	375.6	14.6	383.9	72.6
44	458	3.26	19245	18.504	3.8	0.5073	5.4	0.068112	3.8	0.703	-1.7	424.8	15.6	416.6	18.5	371.8	86.6
45	725	35.79	19367	18.8501	3.3	0.40549	4.3	0.05546	2.7	0.64	-0.61	348	9.2	345.6	12.5	329.9	74.3
49	988	75.49	1328800	18.546	1.5	0.42846	2.4	0.057658	1.9	0.785	0.17	361.4	6.6	362.1	7.3	366.7	33.5
51	487	206.82	105440	18.5556	3	0.4342	4.3	0.05846	3	0.712	-0.024	366.3	10.8	366.2	13.1	365.5	67.6
58	1110	36.14	67550	18.7488	2.2	0.41704	3.1	0.056734	2.2	0.718	-0.45	355.7	7.8	353.9	9.4	342.1	49.3
59	365	107.31	225102	18.2713	3.5	0.43691	4.2	0.057923	2.3	0.549	1.3	363	8.2	368.1	13	400.2	78.9
61	855	3.42	26663	17.6637	2.9	0.5375	3.4	0.06889	1.9	0.554	1.6	429.5	7.9	436.8	12.2	475.5	63.4
62	140	2.21	64407	9.7866	2.3	4.1298	4.8	0.293261	4.1	0.871	0.18	1657.8	60.7	1660.2	39	1663.3	43.4
65	572	4.47	57981	18.0279	3	0.47303	3.7	0.061877	2.2	0.585	1.5	387	8.2	393.3	12.2	430.2	67.4
68	847	18.24	24664	17.9521	3.6	0.52935	4.4	0.068952	2.5	0.582	0.34	429.8	10.6	431.4	15.3	439.6	79
69	342	66.51	28802	18.4382	3.3	0.47508	4.5	0.063559	3	0.667	-0.58	397.2	11.5	394.7	14.7	379.8	75.1
76	183	7.66	141142	13.7028	3.1	1.62582	6.7	0.16165	5.9	0.885	1.5	965.9	52.8	980.2	41.8	1012.4	62.9
77	306	1.48	320393	17.5794	3.5	0.63169	5.6	0.080575	4.4	0.784	-0.41	499.6	21	497.1	21.9	486.1	76.5
82	546	3.91	34151	14.3071	2.6	1.35771	5.3	0.140946	4.6	0.87	2.2	850	36.4	870.9	30.7	924.3	53.2
84	2139	5.63	222151	16.536	1.7	0.80171	3	0.096192	2.5	0.833	0.79	592.1	14.2	597.8	13.7	619.6	36.1
87	510	32.05	61944	18.5966	2.8	0.42488	3.8	0.057331	2.5	0.666	0.041	359.4	8.9	359.5	11.5	360.5	64
90	226	3.54	51339	13.7151	3.2	1.61125	8.1	0.160346	7.4	0.918	2.1	958.7	66.3	974.6	50.8	1010.6	65
93	515	13.93	24405	18.3379	2.8	0.44939	5.8	0.059795	5.1	0.875	0.51	374.4	18.4	376.9	18.2	392.1	62.8
96	670	1.17	41489	18.2069	3	0.51283	5.5	0.067748	4.6	0.836	-0.42	422.6	18.7	420.3	18.8	408.1	67.1
97	932	37.18	11386	18.8565	2.5	0.41266	4	0.056461	3.1	0.776	-0.78	354.1	10.6	350.8	11.8	329.1	56.8
98	680	7.52	75237	18.3045	3.1	0.47316	3.7	0.062843	2.1	0.573	0.11	392.9	8.2	393.4	12.2	396.1	68.9
101	439	89.54	16833	18.5172	4	0.46896	5.2	0.063009	3.4	0.651	-0.79	393.9	13	390.5	16.9	370.2	89.3
114	474	20.8	14645	18.4076	4.2	0.40849	5.2	0.054559	3	0.572	1.4	342.5	9.8	347.8	15.2	383.5	95.1
115	922	2.89	128276	17.0369	2.3	0.70363	5.2	0.086982	4.7	0.895	0.52	537.7	24.1	541	21.9	554.9	50.6
116	563	136.6	62677	18.3456	3	0.49435	4.1	0.065805	2.7	0.67	-0.66	410.8	10.9	407.9	13.7	391.1	68
118	396	65.17	14448	18.7587	4.9	0.43673	6	0.059444	3.5	0.576	-1.1	372.2	12.5	367.9	18.5	341	111
119	819	4.48	48576	18.1711	2.7	0.48845	4.3	0.064402	3.4	0.786	0.32	402.3	13.2	403.9	14.4	412.5	59.6
122	441	47.97	16152	18.7222	4.7	0.47071	5.9	0.063945	3.7	0.619	-1.8	399.6	14.2	391.7	19.3	345.4	105.3
125	457	31.69	76549	18.7458	3.7	0.41409	5	0.056324	3.4	0.679	-0.36	353.2	11.7	351.8	14.9	342.5	83.3
126	1150	2.05	28949	17.8525	3.8	0.55593	6.1	0.072013	4.8	0.78	0.11	448.3	20.6	448.9	22.1	451.9	84.7
130	820	9.77	159366	14.1172	2.2	1.46023	8.7	0.149577	8.4	0.969	3.5	898.6	70.4	914.1	52.2	951.8	44.1
136	969	134.27	37658	18.6401	2.9	0.40977	4.3	0.054522	3.2	0.74	0.24	347.7	10.7	348.7	12.6	355.3	64.7
137	1281	58.01	102715	18.2667	2.5	0.46878	3.7	0.062133	2.7	0.743	0.4	388.6	10.3	390.3	11.9	400.8	55.2
147	1162	13.82	39907	17.938	2.3	0.48461	5	0.063076	4.5	0.894	1.4	394.3	17.2	401.2	16.7	441.3	50.2
149	390	20.41	22856	18.3504	3.1	0.43316	5.3	0.057675	4.3	0.809	0.91	361.5	14.9	365.4	16.1	390.5	69.4
150	649	4.29	63967	18.2791	2.8	0.49034	4.6	0.065035	3.7	0.799	-0.21	406.2	14.4	405.1	15.3	399.2	61.7
155	352	16.44	23124	17.5899	5.7	0.53077	7	0.067743	4.1	0.586	2.2	422.5	16.7	432.3	24.6	484.8	125
159	473	4.35	18834	18.0012	3.2	0.51488	8.2	0.067251	7.5	0.92	0.42	419.6	30.6	421.7	28.3	433.5	71.6
164	813	144.76	108335	18.5447	2.6	0.43452	3.2	0.058469	2	0.615	0.018	366.3	7.1	366.4	10	366.8	57.7
168	606	46.03	44574	18.6593	3.6	0.41616	4.4	0.056345	2.5	0.561	-0.015	353.4	8.5	353.3	13.1	352.9	82
172	504	28.22	18840	18.3503	4.2	0.47321	4.6	0.063008	4.3	0.72	-0.11	393.9	16.4	393.4	19.5	390.5	93.2
177	626	53.48	36057	18.5894	3.2	0.43554	4.3	0.058748	2.8	0.657	-0.22	368	10.1	367.1	13.2	361.4	72.8
180	389	139.31	19395	18.7094	3.4	0.427	4.5	0.057967	2.9	0.656	-0.55	363.3	10.4	361	13.6	346.9	76.2
183	425	45.44	14702	18.8219	4	0.41362	5.5	0.056488	3.7	0.675	-0.7	354.2	12.7	351.5	16.2	333.3	91.4
191	1497	4.05	119996	18.0769	2.3	0.45107	4.6	0.059165	4	0.864	1.6	370.5	14.3	378	14.5	424.1	51.5
192	544	4.7	21528	18.2231	3.2	0.46645	4.7	0.061677	3.4	0.729	0.67	385.8	12.9	388.7	15.2	406.1	72.2
195	661	2.93	75227	17.4697	2.4	0.5636	4	0.071441	3.1	0.788	1.8	444.8	13.4	453.9	14.5	499.9	53.7
199	445	45.2	46564	17.8534	4.6	0.45121	5.5	0.058452	3	0.548	3	366.2	10.8	378.1	17.4	451.8	102.5
202	416	111.79	31697	18.144	3.3	0.429	4	0.056478	2.2	0.564	2.2	354.2	7.7	362.5	12.1	415.9	73.2
205	487	23.33	711000	17.8036	3	0.49546	4.3	0.064004	3.1	0.72	1.9	399.9	11.9	408.6	14.3	458	65.5
206	356																

311	354	49.76	46109	18.6258	2.6	0.42483	4.3	0.057414	3.4	0.793	-0.089	359.9	11.8	359.5	12.9	357	58.5
315	701	96.64	78830	18.5235	2.7	0.40279	3.8	0.054137	2.7	0.699	0.98	339.9	8.9	343.7	11.2	369.4	61.7
318	436	60.61	16200	18.5067	3.2	0.42683	5.5	0.057316	4.4	0.814	0.38	359.3	15.5	360.9	16.6	371.5	71.3
322	311	25.72	32371	18.2663	3.5	0.45924	4.7	0.060867	3.1	0.658	0.67	380.9	11.4	383.7	14.9	400.8	78.7
324	448	1.4	123193	18.1051	2.6	0.55547	5	0.072972	4.2	0.849	-0.96	454	18.5	448.6	18	420.6	58.2
327	140	1.3	132912	12.1473	2.3	2.35825	6.7	0.207856	6.3	0.939	1.6	1217.4	69.8	1230.1	47.8	1252.3	45.2
329	113	3.02	58183	12.9153	2.5	2.03466	5.1	0.190674	4.4	0.874	0.2	1125	45.7	1127.2	34.5	1131.3	48.9
331	351	64.63	78697	18.4784	3.3	0.43205	4.3	0.057928	2.7	0.632	0.41	363	9.6	364.6	13.1	374.9	74.8
333	57	2.58	5260	13.7804	5.7	1.58979	10.6	0.158964	8.9	0.844	1.4	951	78.8	966.2	65.8	1000.9	115.2
335	584	23.33	36645	18.9468	3.4	0.41631	4.5	0.057233	2.9	0.648	-1.4	358.8	10.2	353.4	13.4	318.3	77.9
336	525	1.68	60508	17.9184	2.7	0.52894	4.3	0.068771	3.4	0.787	0.46	428.7	14.1	431.1	15.1	443.7	59.1
338	483	3.68	29245	18.3638	2.8	0.4676	4.3	0.062307	3.3	0.761	-0.024	389.6	12.5	389.5	14.1	388.9	63.3
341	274	10.71	18164	18.6497	4.3	0.4403	5.3	0.059582	3.1	0.584	-0.65	373.1	11.3	370.5	16.5	354.1	97.7
345	162	1.87	11162	15.0922	5.3	1.00801	9.8	0.110385	8.2	0.842	4	675	52.7	707.9	49.8	813.7	110.1
346	1187	3.2	411693	11.742	1.2	2.5442	3.4	0.216763	3.2	0.937	2.5	1264.8	36.9	1284.8	25	1318.4	23.2
355	220	5.51	5280	16.0157	9.4	0.7731	13.2	0.089841	9.2	0.702	4.5	554.6	49.1	581.5	58.3	688.2	200.3
357	315	47.32	12569	18.7245	4.6	0.41807	5.1	0.056801	2.3	0.448	-0.39	356.1	7.9	354.7	15.3	345.1	103.1
358	1763	2.85	67408	17.2585	4.2	0.52837	5.4	0.066166	3.3	0.619	4	413	13.3	430.7	18.9	526.6	92.7
365	533	193.81	173693	18.3014	3.8	0.44675	5.8	0.059325	4.3	0.754	0.82	371.5	15.7	375	18	396.5	84.8
367	682	1.37	39828	17.0063	4	0.59799	6.2	0.07379	4.7	0.756	3.3	459	20.7	476	23.5	558.8	88.1
369	506	259.3	133375	18.5049	2.9	0.44341	3.7	0.059537	2.4	0.64	-0.038	372.8	8.7	372.7	11.6	371.7	64.5
374	354	74.86	28822	18.634	2.9	0.46077	4	0.0623	2.7	0.683	-1.1	389.6	10.4	384.8	12.8	356	66.1
375	444	5.75	115959	14.1914	1.9	1.48923	3	0.153349	2.3	0.78	0.59	919.7	19.8	926	18	941	38
384	554	11.29	22430	17.4785	3.6	0.62215	6.8	0.078902	5.8	0.852	0.27	489.6	27.5	491.2	26.6	498.8	78.8
387	420	9.53	63736	18.1877	3.8	0.37532	5	0.049531	3.2	0.639	3.4	311.6	9.7	323.6	13.8	410.5	85.9
388	398	32.03	24373	17.4709	3.6	0.52151	6	0.06611	4.7	0.791	2.8	412.7	18.8	426.2	20.7	499.7	80.3
389	223	2.5	36012	13.3793	2.5	1.82253	5.8	0.17693	5.2	0.9	0.38	1050.2	50.5	1053.6	38	1060.7	50.7
391	940	4.39	26966	17.8769	3.3	0.54627	3.8	0.070858	1.9	0.506	0.27	441.3	8.2	442.5	13.6	448.9	72.9
394	715	97.73	215523	18.4384	2.4	0.44081	3.2	0.058976	2.1	0.651	0.35	369.4	7.5	370.8	9.9	379.8	54.6
398	1274	1.73	82253	18.2302	7.6	0.4674	11.2	0.061827	8.2	0.735	0.6	386.7	30.8	389.4	36.1	405.2	169.3
399	1583	2.89	84758	17.9634	2	0.53249	3	0.069406	2.2	0.737	0.18	432.6	9.3	433.5	10.7	438.2	45.6
402	152	1.99	7409	17.8197	7.1	0.56701	9	0.073315	5.6	0.62	-0.0039	456.1	24.6	456.1	33.1	456	156.7
403	512	4.94	773284	18.0449	3.5	0.49756	5.1	0.065147	3.7	0.733	0.7	406.9	14.7	410	17.1	428.1	77
406	377	46.43	26892	18.5773	4.7	0.43105	5.8	0.058104	3.4	0.583	-0.041	364.1	11.9	363.9	17.6	362.9	105.4
410	153	2.68	293749	12.8188	2.6	2.02064	4.4	0.187945	3.5	0.808	0.96	1110.2	36.2	1122.5	29.8	1146.3	51.3
411	806	193.14	1072182	18.383	2.6	0.42234	3.6	0.056334	2.5	0.7	1.1	353.3	8.7	357.7	10.9	386.5	58.1
414	641	2.33	37597	18.0809	2.5	0.50337	5.1	0.066039	4.5	0.874	0.33	412.2	17.8	414	17.4	423.6	55.5
418	474	18.64	186684	18.2847	3.9	0.47661	5.3	0.063233	3.6	0.682	0.11	395.3	13.9	395.7	17.4	398.6	87.3
422	595	36.86	18041	18.8331	3.5	0.41411	4.8	0.056588	3.3	0.679	-0.75	354.8	11.3	351.8	14.4	332	80.5
423	423	115.92	66371	18.3239	3.4	0.41983	4.3	0.055819	2.6	0.609	1.5	350.1	8.9	355.9	12.9	393.8	76.5
424	400	72.91	76934	18.7723	3.1	0.42672	4.6	0.058124	3.4	0.746	-0.8	364.2	12.2	360.8	14	339.3	69.4
426	97	10.38	10858	14.3527	3.9	1.44813	9.1	0.150811	8.3	0.903	0.45	905.5	69.8	909.1	54.9	917.8	80.9
429	942	4.42	267984	12.6005	1.8	2.11961	3	0.193793	2.5	0.811	1	1141.9	25.8	1155.2	20.9	1180.3	35.1
431	694	189.83	24254	18.5623	2.8	0.42099	3.4	0.056701	1.9	0.558	0.32	355.5	6.5	356.8	10.1	364.7	62.8
433	295	13.1	26642	18.2999	3.7	0.44384	5.3	0.058934	3.9	0.727	0.9	369.1	13.8	373	16.6	396.7	81.8
436	216	3.19	25130	13.7186	2.6	1.76521	4.8	0.175711	4	0.835	-0.94	1043.5	38.5	1032.8	31	1010.1	53.4
437	695	128.46	66786	18.6747	2.9	0.42324	4.6	0.057351	3.5	0.775	-0.27	359.5	12.4	358.4	13.8	351.1	65.3
438	848	7.53	71181	14.0657	2.5	1.46792	6.6	0.149815	6.1	0.925	2.5	899.9	51.6	917.3	40.1	959.2	51.7
439	136	2.5	39571	13.7508	2.7	1.67313	4.2	0.166937	3.2	0.758	0.28	995.2	29.2	998.4	26.5	1005.3	55.2
440	476	7.56	69352	18.215	2.8	0.45394	5	0.059995	4.1	0.828	0.98	375.6	15	380	15.7	407.1	62.1
441	939	137.82	61604	18.7239	2	0.41976	3.5	0.057028	2.9	0.815	-0.37	357.5	9.9	355.9	10.5	345.1	45.8
445	619	14.67	37521	18.7456	3	0.41598	4.5	0.05658	3.3	0.739	-0.4	354.8	11.5	353.2	13.4	342.5	68.4
446	349	1.89	589816	16.9347	2.7	0.75371	4.2	0.092615	3.2	0.764	-0.092	571	17.4	570.4	18.2	568	58.6
451	614	60.04	45070	18.9201	2.9	0.40273	3.9	0.055288	2.7	0.672	-0.83	346.9	9	343.6	11.5	321.5	66.4
452	520	10.44	735274	18.2536	2.9	0.45718	4.6	0.060553	3.5	0.78	0.76	379	13.1	382.3	14.5	402.4	63.8
456	313	38.16	66810	18.1276	3.3	0.44622	5.1	0.058692	3.9	0.76	1.6	367.7	14	374.6	16.1	417.9	74.6
459	212	52.68	177911	17.5231	5.1	0.47375	7.1	0.060236	4.9	0.698	4	377.1	18	398.8	23	493.2	111.5
468	298	2.37	249393	14.528	3	1.35053	8	0.142365	7.5	0.929	1.5	858	59.9	867.8	46.8	892.8	61.3
469	625	3.79	116912	17.7479	2.2	0.52647	4.9	0.067798	4.4	0.895	1.2	422.9	17.9	429.5	17.1	465	48.4
471	415	21.34	54869	18.8715	3.5	0.42217	5.2	0.057808	3.8	0.733	-1.1	362.3	13.4	357.6	15.6	327.4	80
472	603	7.8	50042	16.1311	2.5	0.91163	5.5	0.106703	4.9	0.888	0.58	653.6	30.2	657.9	26.5	672.9	53.8
473	464	53.48	17434	18.5846	3.9	0.42077	5.2	0.05674	3.4	0.657	0.21	355.8	11.9	356.6	15.7	362	88.6
477	339	165.11	8926	18.6833	3.5	0.45107	4.6	0.061149	3	0.647	-1.1	382.6	11.1	378	14.6	350.1	79.6
479	765	25.53	53543	18.6155	3.4	0.42673	4.2	0.05764	2.5	0.595	-0.1	361.3	8.8	360.9	12.8	358.2	76.5
481	524	33.48	69823	17.7471	3.3	0.49534	4.4	0.063786	2.9	0.652	2.3	398.6	11	408.5	14.7	465.1	73.4
482	963	2.08	686464	17.673	2.6	0.52608	3.8	0.067462	2.8	0.726	1.7	420.8	11.3	429.2	13.4	474.3	58.4
484	318	2.01	44902	18.1668	3.6	0.48558	5	0.064008	3.4	0.684	0.44	400	13.2	401.9	16.5	413	81.2
485	327	34.85	65620	18.4434	3.9	0.43385	5.1	0.05806	3.2	0.64	0.53	363.8	11.4	365.9	15.5	379.2	87.2
487	604	12.55	30753	16.8587	4.3	0.60089	6.6	0.073505	5	0.759	4	457.2	22	477.8	25	577.7	92.8
488	426	64.09	40302	18.1099	2.8	0.44277	3.7	0.058182	2.5	0.664	1.9	364.6	8.8	372.2	11.6	420.1	62.4
489	426	27.15	40400	18.5274	3.3	0.47805	4.7										

599	397	57.87	16729	18.6091	4.3	0.42068	5.8	0.056802	3.9	0.673	0.098	356.2	13.6	356.5	17.6	359	97.6
603	521	25.15	63177	18.6496	3	0.41389	4.1	0.056007	2.8	0.677	0.095	351.3	9.4	351.7	12.1	354.1	67.7
608	70	1.32	5749	12.0581	6.3	2.32087	13.5	0.20306	1.2	0.887	2.6	1191.7	130.6	1218.7	96.1	1266.7	122.1
609	392	45.16	43976	18.2906	3	0.43545	4.8	0.057791	3.7	0.779	1.2	362.2	13.2	367	14.8	397.8	67.6
610	2028	3.17	70938	17.7313	2	0.55392	4.4	0.071266	3.9	0.894	0.67	443.8	16.9	447.6	16	467	43.8
613	633	22.26	64540	18.5795	2.4	0.41676	3.9	0.056184	3.1	0.795	0.32	352.4	10.6	353.7	11.6	362.6	53.1
615	959	2.07	34910	17.7396	2.9	0.51748	4.3	0.066609	3.2	0.745	1.6	415.7	12.9	423.5	14.9	466	63.7
618	121	1.62	20789	17.7948	5.7	0.50375	7.7	0.065043	5.1	0.669	1.8	406.2	20.2	414.2	26.1	459.1	126.6
619	939	19.47	189466	18.7188	2.2	0.40638	3.1	0.055195	2.1	0.683	-0.019	346.3	7	346.3	9	345.7	50.4
620	474	48.25	33014	18.7447	3.6	0.40681	5.7	0.055331	4.5	0.776	-0.14	347.2	15	346.6	16.9	342.6	82
621	625	16.39	18379	18.5198	3.2	0.43742	5.1	0.05878	3.9	0.772	0.054	368.2	14.1	368.4	15.7	369.9	72.8
627	565	28.63	28076	18.4655	3.8	0.41767	4.8	0.055962	2.9	0.615	0.88	351	10.1	354.4	14.3	376.5	84.9
628	724	24.06	37304	18.5716	2.8	0.42363	4.1	0.057086	2.9	0.715	0.19	357.9	10.2	358.6	12.3	363.6	64.2
631	951	2.9	56558	17.5831	3.4	0.53133	4.6	0.067788	3.1	0.67	2.1	422.8	12.6	432.7	16.1	485.6	75.1
636	528	15.24	26374	18.6808	4.5	0.4303	6.5	0.058326	4.7	0.721	-0.49	365.4	16.6	363.4	19.8	350.3	101.6
640	525	5.5	30997	17.9602	2.5	0.53617	9.2	0.069873	8.9	0.962	0.17	435.4	37.4	435.9	32.7	438.6	56.4
642	359	11.69	37421	18.6322	3	0.41855	5.3	0.056585	4.4	0.826	0.043	354.8	15.2	355	16	356.2	67.8

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1	411	4.85	48454	12.5127	2.5	2.17403	3.8	0.197383	2.8	0.738	0.89	1161.2	29.5	1172.8	26.2	1194.1	50.2
3	215	2.57	13928	11.551	3.4	2.74346	4.9	0.229938	3.5	0.724	0.42	1334.2	42.3	1340.3	36.1	1350.1	64.7
4	124	2.74	39831	12.5429	2.9	2.16123	5.6	0.196694	4.8	0.859	0.96	1157.5	51.1	1168.7	38.9	1189.3	56.7
5	817	3.33	42331	12.7753	1.7	2.09157	3.5	0.193882	3.1	0.881	0.35	1142.4	32.7	1146	24.4	1153	33.4
6	495	3.1	70022	8.031	2	6.07599	3.9	0.354062	3.4	0.862	2.1	1954	57.1	1986.8	34.3	2021.1	35.3
7	1026	3.51	75900	13.5784	1.9	1.7048	2.8	0.167965	2.1	0.741	0.83	1000.9	19.1	1010.3	17.8	1030.9	37.8
8	349	2.18	16678	12.8913	2.3	2.0074	3.8	0.187768	3.1	0.793	0.69	1109.3	31.1	1118	26.1	1135.1	46.6
10	865	2.89	420947	10.2657	1.7	3.57563	3.3	0.266339	2.8	0.85	1.6	1522.2	37.6	1544.1	25.8	1574.3	32.1
11	583	2.58	79553	12.3596	2.3	2.18177	4.4	0.195663	3.8	0.85	2	1152	39.7	1175.2	30.8	1218.4	45.8
13	116	0.79	22577	5.295	2	13.56043	4.9	0.520997	4.5	0.916	0.88	2703.4	98.8	2719.5	46.2	2731.5	32.3
16	226	2.14	95149	10.2323	1.8	3.7488	4.6	0.278331	4.3	0.922	-0.1	1583	59.9	1581.9	37.1	1580.4	33.5
17	485	2.54	210333	8.3707	1.8	5.75594	3.4	0.3496	2.9	0.853	0.44	1932.7	48	1939.8	29.2	1947.4	31.5
18	458	2.9	146047	12.4796	2	2.33377	3.4	0.211327	2.8	0.819	-1	1235.9	31.5	1222.6	24.4	1199.3	38.8
19	525	4.42	74899	11.811	1.9	2.43029	6.3	0.208275	6	0.952	4.5	1219.6	66.9	1251.6	45.5	1307	37.7
21	1403	2.8	608686	11.6738	1.4	2.61009	3.1	0.221086	2.8	0.888	1.5	1287.6	32.1	1303.5	22.8	1329.7	27.6
22	412	2.24	55435	12.363	2.2	2.29259	3.7	0.205657	3	0.807	0.3	1205.6	32.8	1210	26.1	1217.8	42.9
23	546	2.56	19523	12.5035	2.5	2.10766	4.5	0.191216	3.8	0.836	1.9	1128	38.9	1151.3	31	1195.6	48.7
25	1495	10.11	4908086	10.5382	1.9	3.37635	3.9	0.258171	3.4	0.87	1.4	1480.5	44.3	1498.9	30.2	1525.1	35.8
26	185	3.84	22870	11.0996	2.7	2.96585	5.2	0.238863	4.4	0.856	1.4	1380.8	55	1398.9	39.3	1426.6	51
27	143	2.49	15585	12.8296	2.8	2.12349	6.2	0.197678	5.6	0.897	-0.66	1162.8	59.4	1156.5	43	1144.6	54.7
28	302	1.66	85342	12.5657	2.3	2.23192	4.6	0.203498	4	0.868	-0.26	1194.1	43.3	1191.1	32.1	1185.8	44.8
30	217	2.21	7034	14.1178	2.9	1.63549	4.8	0.167536	3.8	0.798	-1.3	998.5	35.5	984	30.3	951.7	59.2
31	607	2.89	410674	10.5133	1.8	3.56039	3.9	0.2716	3.5	0.892	-0.68	1548.9	48.5	1540.8	31.3	1529.5	33.5
34	1038	24.62	73471	11.6462	1.6	2.64093	2.9	0.22317	2.5	0.843	1	1298.6	29.1	1312.1	21.6	1334.2	30.5
36	336	1.9	72612	11.9372	1.9	2.4286	3.8	0.210354	3.3	0.861	1.7	1230.7	36.7	1251.1	27.4	1286.4	37.6
37	663	1.32	61267	10.5563	2.1	3.53723	4.3	0.270937	3.8	0.881	-0.8	1545.6	52.6	1535.6	34.4	1521.9	38.7
38	466	2.39	130904	12.1618	1.8	2.40523	3.9	0.212251	3.4	0.884	0.31	1240.8	38.7	1244.2	27.8	1250	35.4
39	526	11.64	47285	10.5299	1.6	3.5755	4.1	0.273184	3.8	0.924	-1.2	1556.9	52.1	1544.1	32.3	1526.6	29.3
43	47	0.64	12695	5.4071	2.4	13.17437	8.3	0.516876	7.9	0.959	0.38	2685.9	174.2	2692.2	78.1	2696.9	38.9
44	302	5.54	41724	10.3977	2	3.56543	4.5	0.268994	4.1	0.895	0.53	1535.7	55.4	1541.9	35.9	1550.3	37.9
45	410	2.49	91496	10.4133	1.6	3.57737	4	0.270301	3.7	0.915	0.2	1542.3	50.7	1544.5	32.1	1547.5	30.7
47	119	2.59	15032	12.3765	3.6	2.36084	5.4	0.212011	4	0.745	-0.63	1239.5	45.5	1230.8	38.6	1215.7	71
48	79	1.54	30164	12.0322	3.3	2.59838	6.2	0.226851	5.2	0.849	-1.4	1318	62.5	1300.2	45.3	1270.9	63.6
50	640	2.75	195686	12.8687	2.2	2.02038	3.5	0.188652	2.8	0.786	0.65	1114.1	28.2	1122.4	23.9	1138.5	43.1
51	324	4.97	68989	12.3963	2.4	2.34013	4.1	0.210488	3.4	0.821	-0.52	1231.4	38.1	1224.6	29.4	1212.5	46.4
52	582	2.71	82665	10.5162	1.7	3.47575	2.9	0.265217	2.3	0.807	0.33	1516.5	31.4	1521.7	22.7	1529	32
56	48	1.79	5065	11.4207	5.9	2.96285	8	0.245525	5.4	0.672	-1.2	1415.4	68.6	1398.1	60.9	1372	114.3
57	253	1	274254	13.5265	2.7	1.71481	4.7	0.168305	3.8	0.816	0.97	1002.8	35.7	1014.1	30.2	1038.6	55.1
60	551	3.86	24462	12.6464	2.3	2.14488	4.5	0.196818	3.8	0.858	0.44	1158.2	40.8	1163.4	31.1	1173.1	45.7
61	833	25.11	41728	13.0639	2	1.9297	4.3	0.182191	3.8	0.883	0.85	1082.9	37.5	1091.4	28.5	1108.5	40
62	323	3.07	13272	12.6939	2.7	2.09992	4.9	0.193416	4.1	0.839	0.73	1139.9	42.9	1148.8	33.7	1165.7	52.8
63	262	1.35	24276	11.4462	2.4	2.80485	3.9	0.232952	3.1	0.797	0.47	1350	37.8	1356.8	29.1	1367.7	45.3
65	335	1.52	566449	5.426	2.1	12.87213	3.9	0.506784	3.2	0.842	1.3	2642.9	70.4	2670.3	36.3	2691.2	34.3
66	256	2.91	32651	12.4002	2.5	2.32846	3.9	0.209504	3.1	0.779	-0.38	1226.2	34.2	1221	27.9	1211.9	48.5
67	211	1.76	59158	11.7683	2.4	2.65398	5.1	0.226624	4.6	0.885	-0.094	1316.8	54.2	1315.8	37.9	1314.1	46.5
69	261	2.38	20052	12.6875	2.5	2.18071	4.2	0.200756	3.4	0.814	-0.34	1179.4	37.1	1174.9	29.5	1166.7	48.7
70	306	1.09	397723	9.3121	2.4	4.71256	4	0.318419	3.3	0.809	-0.73	1782	50.7	1769.5	33.7	1754.7	43.3
71	324	3.69	27672	10.6153	2.1	3.55855	4.1	0.273887	3.5	0.857	-1.5	1560.5	48.6	1539.7	32.5	1511.3	39.9
72	209	2.36	24504	12.4767	3.2	2.24083	5.4	0.202863	4.4	0.803	0.24	1190.7	47.3	1193.9	38.1	1199.8	63.8
74	197	5.99	47536	12.1337	4.3	2.30977	5.1	0.203355	2.7	0.536	2.1	1193.3	29.5	1215.3	35.8	1254.5	83.5
75	203	1.82	68508	12.469	1.8	2.2934	3.8	0.207494	3.3	0.876	-0.47	1215.5	36.5	1210.3	26.6	1201	35.8
76	270	3.72	69389	11.1897	2.3	2.98836	4.4	0.242631	3.7	0.846	0.32	1400.4	46.4	1404.7	33.1	1411.2	44.4
77	154	1.76	10229	12.6023	3.6	2.26468	6.4	0.207085									

126	135	2.63	432928	13.1268	2.3	1.98484	6	0.189051	5.5	0.924	-0.74	1116.2	56.4	1110.4	40.2	1098.9	45.6
127	161	3.58	9184	12.7006	3.9	2.17946	5.8	0.200848	4.3	0.743	-0.41	1179.9	46.9	1174.5	40.7	1164.6	77.6
128	298	1.7	41360	12.6459	2.4	2.1311	4.5	0.195545	3.8	0.847	0.63	1151.3	40.5	1158.9	31.3	1173.2	47.8
129	265	3.34	30271	13.6938	2.5	1.7618	5.1	0.175054	4.5	0.877	-0.85	1039.9	43.2	1031.5	33.2	1013.7	49.8
130	212	1.6	17796	12.6476	2.4	2.13067	5.2	0.195531	4.6	0.892	0.75	1151.3	48.8	1158.8	35.9	1172.9	46.6
131	223	3.46	13074	12.3877	3	2.28579	5	0.205456	4	0.804	0.25	1204.6	44.5	1207.9	35.6	1213.9	59
132	719	4.79	62617	13.5984	2.1	1.64108	3.7	0.161924	3.1	0.832	1.7	967.5	27.9	986.1	23.5	1027.9	41.9
134	367	4.08	54605	12.5306	2	2.18101	3.3	0.1983	2.7	0.798	0.67	1166.2	28.3	1175	23.2	1191.3	39.6
135	897	3.6	60423	12.1958	2.4	2.34847	3.7	0.20782	2.9	0.767	0.72	1217.2	31.9	1227.1	26.7	1244.5	47.1
136	156	1.68	46236	13.4839	2.8	1.72519	6.4	0.16879	5.7	0.895	1.4	1005.4	53.1	1018	41	1045	57.4
137	329	1.21	33833	9.3813	2	4.52604	3.9	0.30809	3.4	0.859	0.3	1731.3	51.1	1735.8	32.6	1741.1	36.8
138	82	1.87	19707	8.6395	3.4	5.58183	5.8	0.349914	4.7	0.803	-1.1	1934.2	77.7	1913.3	49.9	1890.7	62
139	276	0.6	15138	14.2993	3.5	1.46885	5.1	0.152401	3.7	0.732	0.32	914.4	31.8	917.7	30.8	925.5	71.5
140	38	2.32	19865	13.7336	6.3	1.73124	11.9	0.172519	10.2	0.851	-0.53	1026	96.4	1020.2	76.9	1007.9	127
141	285	1.91	25263	11.5599	2	2.63057	3.8	0.220646	3.2	0.846	1.8	1285.3	37.6	1309.2	28.1	1348.6	39.3
142	128	1.5	14351	12.1149	3.5	2.42504	5.8	0.213174	4.6	0.798	0.31	1245.7	52.5	1250.1	41.7	1257.5	68.4
143	550	12.01	368596	12.883	2.5	2.03658	4.2	0.190377	3.3	0.802	0.34	1123.4	34.5	1127.8	28.4	1136.3	49.7
144	436	3.57	83426	10.3928	1.2	3.61328	2.6	0.272476	2.2	0.876	-0.069	1553.4	31	1552.5	20.4	1551.2	23.2
145	108	0.95	35057	6.2235	1.9	10.2802	5.1	0.464227	4.7	0.928	0.13	2458.2	96.4	2460.3	47.1	2462.1	32.1
147	467	3.51	41525	12.2774	2.1	2.27903	3.3	0.203024	2.6	0.789	1.1	1191.5	28.7	1205.8	23.6	1231.5	40.3
148	341	0.97	183263	11.3686	2.5	2.75133	3.7	0.226957	2.7	0.731	1.6	1318.5	32.4	1342.4	27.7	1380.8	47.7
149	99	2.11	38827	12.5404	3.5	2.22029	6.9	0.20203	6	0.864	0.11	1186.2	64.9	1187.5	48.6	1189.7	69.1
150	255	2.21	120029	12.4847	2.8	2.09091	4.5	0.189412	3.5	0.781	2.1	1118.2	35.7	1145.8	30.6	1198.5	54.9
152	153	1.37	19765	11.5694	2.9	2.7842	5.6	0.233725	4.9	0.861	-0.22	1354	59.3	1351.3	42.1	1347	55.4
153	271	1.6	52402	12.3675	2.2	2.29836	3.8	0.206249	4.2	0.881	0.28	1208.8	46.2	1211.8	33.7	1217.1	44.2
154	516	2.82	37858	12.6137	1.6	2.14553	4.7	0.196369	3.4	0.908	0.87	1155.8	36	1163.6	25.9	1178.2	31
155	170	0.87	317553	7.7704	1.6	6.82025	4	0.384555	3.6	0.913	-0.64	2097.4	64.7	2088.4	35.1	2079.4	28.5
157	326	3.05	75045	12.5633	1.7	2.1739	3.5	0.19817	3	0.872	0.65	1165.5	32.2	1172.7	24.1	1186.1	33.4
158	134	1.26	10664	12.7885	3.3	2.13135	5.2	0.197774	4	0.771	-0.33	1163.4	43	1159	36.2	1150.9	66.1
159	197	1	103995	8.3452	1.7	5.89832	4	0.357159	3.6	0.899	-0.54	1968.7	60.9	1961	34.7	1952.9	31.2
160	205	1.13	29180	13.9563	2.7	1.63469	4.7	0.165538	3.8	0.815	-0.33	987.5	35.2	983.7	29.7	975.2	55.8
161	415	1.37	184949	12.3362	2.2	2.26974	4	0.203165	3.4	0.839	0.85	1192.3	36.9	1202.9	28.5	1222.1	43.2
162	216	2.92	117851	11.6159	2.3	2.7608	3.9	0.232693	3.1	0.812	-0.25	1348.6	38.2	1345	28.9	1339.3	43.7
164	544	3.31	37829	12.318	1.9	2.30352	3.4	0.205885	2.9	0.831	0.52	1206.9	31.4	1213.4	24.3	1225	37.6
166	213	3.23	468589	11.6084	2.4	2.73299	4.3	0.230199	3.5	0.821	0.14	1335.5	42.2	1337.5	31.7	1340.5	47
167	607	3.22	46002	12.5144	2.6	2.18135	4.4	0.198075	3.5	0.805	0.77	1165	37.7	1175.1	30.6	1193.8	51.4
169	60	3.71	17570	11.989	3.6	2.48734	9.1	0.216377	8.4	0.919	0.63	1262.7	96.3	1268.4	66.2	1277.9	70
170	196	1.22	54336	10.3114	1.7	3.59813	4.5	0.262908	4.2	0.93	1.2	1536.8	57.8	1549.1	36.1	1566	31.3
171	865	5.13	140878	10.3317	2	3.55656	3.6	0.266621	3	0.829	1.1	1523.6	40.4	1539.9	28.4	1562.3	37.6
172	109	2.29	8915	12.8978	4.7	2.15267	7.5	0.20146	5.8	0.775	-1.3	1183.2	62.7	1165.9	51.9	1134	94.2
173	564	3.16	79106	10.4245	1.4	3.51746	2.9	0.26606	2.6	0.881	0.84	1520.8	34.7	1531.1	23	1545.5	25.8
174	1152	5.63	60683	12.2662	1.4	2.29668	2.4	0.204411	2	0.82	0.94	1199	21.9	1211.3	17.3	1233.3	27.5
176	140	2.75	13939	12.4835	3.9	2.00514	6.9	0.181625	5.7	0.824	3.3	1075.8	56.4	1117.2	46.8	1198.7	77.2
177	499	2.78	66420	12.2846	1.8	2.31274	3.8	0.206149	3.4	0.884	0.75	1208.3	37.3	1216.2	27.2	1230.3	35.1
178	167	2.49	19750	12.689	2.8	2.26732	4.7	0.208755	3.8	0.802	-1.5	1222.2	42.2	1202.2	33.3	1166.4	56
179	663	3.48	105097	12.658	1.6	2.10994	3.5	0.19379	3.2	0.894	1.1	1141.9	33.1	1152.1	24.4	1171.3	31.5
183	249	4.39	73041	12.3619	2.6	2.34153	4	0.210028	3	0.763	-0.29	1229	33.7	1225	28.1	1218	50.2
185	241	2.61	35629	12.0361	2.4	2.36156	4.3	0.206242	3.6	0.833	1.7	1208.8	39.7	1231.1	30.8	1270.3	46.6
186	347	1.7	57942	13.6379	2.3	1.7378	4.1	0.171966	3.4	0.827	-0.025	1022.9	32	1022.6	26.4	1022	46.6
188	81	2.87	5028	12.7167	6.1	2.24407	9.2	0.207064	6.8	0.742	-1.3	1213.2	75.1	1194.9	64.3	1162.1	121.7
189	139	2.59	42183	12.2581	2.4	2.31929	4.8	0.206287	4.2	0.869	0.81	1209	46.3	1218.2	34.3	1234.6	46.9
191	448	2.6	20441	12.3375	1.8	2.26323	3.5	0.202605	3	0.861	0.99	1189.3	33	1200.9	24.8	1221.8	35.2
192	457	2.81	63442	12.4055	2.1	2.32471	4.4	0.209256	3.9	0.88	-0.46	1224.9	43.5	1219.9	31.5	1211.1	41.4
194	103	1.18	18177	11.9105	3.7	2.60947	7.4	0.225515	6.4	0.867	-0.64	1311	76.4	1303.3	54.5	1290.7	71.9
195	197	3.54	126926	12.6495	2.5	2.16945	4.6	0.19912	3.9	0.842	0.059	1170.6	41.5	1171.3	32	1172.6	49.1
196	302	2.84	150823	10.7245	1.8	3.31143	3.6	0.257683	3.2	0.868	0.45	1478	41.7	1483.7	28.4	1492	34.2
199	334	1.52	65737	12.3102	2.2	2.36192	3.9	0.210973	3.2	0.815	-0.21	1234	35.4	1231.2	27.6	1226.2	44.1
200	664	4.02	672252	12.1847	2.1	2.27799	3.9	0.201401	3.3	0.845	1.8	1182.8	35.7	1205.5	27.6	1246.3	41.1
201	350	3.12	71438	12.7994	1.9	2.15102	3.6	0.199769	3.1	0.844	-0.73	1174.1	32.8	1165.4	25.1	1149.2	38.7
202	103	1.66	21037	11.7388	3.1	2.68534	6.1	0.228726	5.2	0.86	-0.27	1327.8	62.6	1324.4	44.9	1318.9	60.1
203	512	3.11	34480	10.5197	1.6	3.34563	3.7	0.255373	3.4	0.906	2.4	1466.1	44.3	1491.8	29.1	1528.4	29.7
204	89	2.24	20621	12.6803	3.4	2.16152	6.6	0.198876	5.7	0.861	-0.045	1169.3	61	1168.8	46	1167.8	66.7
205	285	3.06	30474	12.1363	3.4	2.34641	5.2	0.206626	3.9	0.757	1.1	1210.8	43.2	1226.5	36.8	1254.1	66.1
206	1064	5.72	605901	8.3445	1.8	5.66514	3.1	0.34301	2.6	0.824	1.4	1901.1	42.3	1926.1	26.9	1953	31.6
207	493	4.63	162694	12.3065	1.2	2.34307	2.6	0.209225	2.3	0.878	0.07	1224.7	25.4	1225.5	18.5	1226.8	24.4
208	155	2.52	71455	12.1671	2.4	2.36106	5.1	0.208443	4.5	0.881	0.96	1220.5	49.6	1230.9	36.2	1249.2	47
209	247	3.44	8760	12.5084	1.9	2.33017	3	0.211488	2.3	0.777	-1.1	1236.7	26.2	1221.5	21.3	1194.8	37.2
210	701	4.39	91915	10.3918	1.3	3.57342	3.1	0.269444	2.8	0.908	0.51	1538	38.2	1543.6	24.4	1551.4	24.1
211	369	4.69	31997	10.4921	2.2	3.47536	4.3	0.264578	3.7	0.86	0.62	1513.2	49.8	1521.6	33.9	1533.3	41.2
212	349	5.82	807144	11.8667	3.1	2.52358	4.1	0.217291	2.6	0.648							

258	737	2.17	294133	10.0526	2.4	3.8439	3.8	0.280379	3	0.783	0.52	1593.3	42.2	1602	30.8	1613.5	44.2
259	163	3.06	55599	12.3043	2.3	2.26519	4.8	0.202235	4.2	0.881	1.3	1187.3	45.6	1201.5	33.6	1227.2	44.3
260	213	1.46	42906	10.8713	2.1	3.18491	4.4	0.251229	3.8	0.873	0.69	1444.8	49.6	1453.5	33.9	1466.2	40.7
261	171	3.58	18775	12.4614	2.8	2.33095	5.1	0.210764	4.2	0.829	-0.85	1232.9	47.3	1221.8	36.2	1202.2	56
262	65	0.55	24880	12.7029	4.2	2.02839	8.2	0.18696	7.1	0.862	1.8	1104.9	71.8	1125.1	55.8	1164.2	82.5
263	234	1.82	38227	12.7159	2.9	2.09754	4.4	0.193551	3.1	0.742	0.59	1140.5	34.1	1148	30.2	1162.2	58.4
264	832	4	212016	13.1675	2.1	1.95136	3.9	0.186438	3.4	0.854	-0.28	1102.1	34.2	1098.9	26.5	1092.7	41.2
266	348	2.81	28954	12.7	2.6	2.1799	3.6	0.200878	2.5	0.704	-0.43	1180	27.3	1174.6	25	1164.7	50.6
267	800	3.6	60405	12.5005	1.7	2.23345	3.4	0.202581	2.9	0.86	0.21	1189.2	31.3	1191.6	23.5	1196	33.8
268	91	1.14	82754	9.001	2.4	5.00157	5.8	0.326657	5.2	0.905	-0.2	1822.2	82.7	1819.6	48.7	1816.6	44.4
272	118	2.47	10350	12.8228	3.7	2.1804	6.5	0.202868	5.4	0.827	-1.3	1190.7	58.8	1174.8	45.5	1145.6	73
273	1127	5.06	72964	12.2983	1.5	2.26673	2.6	0.202272	2.1	0.806	1.1	1187.5	22.7	1202	18.3	1228.1	30.2
275	662	6.77	68405	12.379	1.3	2.26114	3.7	0.203099	3.5	0.94	1.1	1191.9	38	1200.3	26.1	1215.3	24.9
276	1270	142.44	357743	13.903	1.8	1.53328	3.2	0.154676	2.7	0.839	1.6	927.1	23.6	943.8	20	983	36
278	685	3.42	82763	12.4521	1.5	2.21427	3.3	0.200063	3	0.893	1	1175.7	31.8	1185.6	23.2	1203.7	29.4
279	174	4.16	26328	12.541	3	2.32054	6	0.211162	5.1	0.862	-1.4	1235	57.9	1218.6	42.4	1189.6	59.8
280	333	3.53	92245	11.0645	2	3.06243	4.1	0.245862	3.6	0.871	0.51	1417.1	45.3	1423.3	31.3	1432.7	38.4
283	836	3.58	225297	12.3473	2.4	2.18844	3.5	0.196065	2.6	0.733	1.8	1154.1	27.2	1177.4	24.5	1220.3	47
284	224	3.87	23114	12.3864	2.8	2.22091	5	0.199605	4.1	0.825	1.1	1173.2	44.3	1187.7	35.1	1214.1	55.7
285	108	1.42	16056	5.492	2.1	12.82552	4	0.51109	3.4	0.848	0.27	2661.3	74.7	2666.9	38.1	2671.2	35.4
286	591	5.86	88716	12.2827	1.5	2.35713	3.2	0.210074	2.8	0.876	0.045	1229.2	31	1229.7	22.5	1230.6	29.9
287	91	1.21	25132	7.7753	2.4	6.75121	4.4	0.380885	3.7	0.839	-0.06	2080.4	65.1	2079.4	38.6	2078.3	41.8
288	244	1.48	67185	11.6859	2.5	2.73859	4.9	0.23221	4.2	0.858	-0.56	1346.1	50.9	1339	36.3	1327.7	48.4
289	326	4.69	69737	10.4361	1.5	3.61024	3.9	0.27338	3.6	0.919	-0.58	1557.9	49.2	1551.8	30.8	1543.4	28.7
291	115	2.5	73899	11.4795	2.7	2.93009	5.3	0.244062	4.6	0.859	-1.4	1407.8	58.1	1389.7	40.5	1362.1	52.8
292	290	1.67	100257	7.624	1.9	7.06381	3.2	0.390766	2.6	0.796	-0.35	2126.4	46.3	2119.5	28.6	2112.8	34
293	698	3.48	283096	12.3223	1.8	2.29017	3.3	0.204764	2.8	0.846	0.68	1200.9	31	1209.3	23.7	1224.3	35
294	269	5.7	30553	12.5809	2.8	2.23774	4.7	0.204276	3.7	0.802	-0.39	1198.2	40.8	1192.9	32.7	1183.4	55
295	387	2.23	314462	12.3321	2.4	2.35123	3.8	0.21039	3	0.831	-0.21	1230.9	33.3	1227.9	27.1	1222.7	46.6
296	250	2.37	48936	12.2584	2.5	2.37799	4.6	0.211514	3.9	0.836	-0.069	1236.9	43.4	1236	33	1234.5	49.7
297	109	1.03	21382	10.7027	3	3.43916	6.2	0.267079	5.4	0.879	-1	1526	74	1513.4	48.7	1495.8	55.8
298	244	2.92	75860	11.0399	1.8	2.96345	4.2	0.237387	3.7	0.898	2.3	1373.1	46.2	1398.3	31.6	1436.9	35
300	433	1.92	67955	12.2168	2.7	2.26811	4.6	0.201056	3.8	0.814	1.6	1181	40.7	1202.4	32.6	1241.2	52.7
301	343	3.46	253782	12.4479	1.5	2.32381	3.1	0.20989	3.1	0.895	-0.87	1228.2	34.3	1219.6	24.3	1204.4	30.1
302	563	4.3	63032	12.5267	1.7	2.21045	3.1	0.200915	2.6	0.839	0.33	1180.2	28	1184.4	21.6	1191.9	33.2
303	119	1.08	80787	8.4816	2.4	5.49635	5.2	0.338257	4.6	0.887	1.5	1878.3	74.7	1900	44.4	1923.8	42.8
304	237	2.06	126816	13.4206	3	1.75207	4.6	0.170616	3.5	0.758	1.1	1015.5	32.7	1027.9	29.7	1054.5	60.4
305	110	2.7	10496	13.624	4.4	1.79921	5.9	0.177861	3.9	0.662	-0.93	1055.3	38.1	1045.2	38.6	1024.1	89.8
306	179	2.17	21014	12.7486	2.7	2.1709	4.7	0.200815	3.9	0.828	-0.63	1179.7	42.3	1171.8	32.9	1157.1	52.7
307	122	1.73	16776	8.2185	2.5	6.02193	5.1	0.359105	4.4	0.872	0.07	1977.9	75.7	1979	44.4	1980.1	44.4
308	90	2.8	7753	11.5328	4.1	2.79697	6.5	0.234055	5.1	0.778	-0.066	1355.7	62.1	1354.7	48.8	1353.1	79
309	628	3.23	139276	11.5847	1.8	2.67611	4.6	0.224949	4.2	0.915	1.5	1308	49.5	1321.9	33.8	1344.5	35.6
310	1450	223.74	77440	13.799	1.4	1.65435	2.4	0.165642	1.9	0.806	0.27	988.1	17.8	991.2	15.2	994.2	28.9
311	414	3.05	77936	10.6463	1.4	3.35509	2.7	0.259177	2.3	0.853	0.61	1485.6	31.1	1494	21.5	1505.8	27.1
312	412	3.62	73531	13.1427	2	1.96193	4.7	0.187095	4.3	0.908	-0.35	1105.6	43.7	1102.5	31.9	1096.5	39.8
317	99	2.45	15764	11.8829	3.6	2.37222	6.7	0.204537	5.6	0.842	2.7	1199.6	61.6	1234.3	47.7	1295.2	70.1
319	410	1.9	21069	13.1279	2.4	2.02582	3.4	0.19297	2.4	0.703	-1.1	1137.4	25.2	1124.2	23.4	1098.7	48.9
320	186	2.76	123433	10.3488	2.2	3.64361	4.5	0.273599	3.9	0.866	0.0051	1559	54	1559.1	35.9	1559.2	42.2
321	679	2.25	40325	12.4714	2	2.25664	3	0.204208	2.2	0.733	0.073	1197.9	23.7	1198.9	20.8	1200.6	39.6
322	138	2.14	11146	10.7282	3.6	3.34839	5.8	0.260648	4.5	0.778	-0.046	1493.2	60.1	1492.4	45.3	1491.3	36.9
323	228	2.59	43397	12.6072	2.5	2.17113	5.3	0.198609	4.7	0.88	0.38	1167.8	49.9	1171.8	36.9	1179.3	49.9
324	121	1.08	718546	9.1402	2.7	4.7864	5.5	0.317437	4.8	0.871	0.37	1777.2	73.9	1782.5	45.9	1788.7	48.8
325	39	1.23	8101	9.2793	3.9	4.77921	8.1	0.321785	7.1	0.877	-1.2	1798.4	111.3	1781.3	67.9	1761.2	71
327	149	1.75	409156	11.4049	2.1	2.77081	4.4	0.229293	3.9	0.881	1.5	1330.8	46.8	1347.7	32.9	1374.6	40.2
328	140	3.61	18135	10.6581	2.6	3.56501	5	0.2757	4.3	0.849	-2	1569.7	59.3	1541.8	39.7	1503.7	50
329	510	4.05	66625	10.6029	2.1	3.47344	4.1	0.267226	3.5	0.858	-0.4	1526.7	47.4	1521.2	32	1513.5	39.3
330	504	3.4	36770	9.1594	1.8	4.83932	3.7	0.321623	3.3	0.882	-0.42	1797.7	51.8	1791.8	31.5	1784.9	32.1
331	276	1.04	51339	12.37	2	2.29808	4.3	0.206267	3.7	0.878	0.25	1208.9	41.3	1211.7	30.2	1216.7	40.2
334	91	1.01	10169	10.7993	3.1	3.31161	5.1	0.259495	4.1	0.799	-0.22	1487.3	54.1	1483.8	39.8	1478.8	58.1
335	378	5.83	303893	11.4799	2.2	2.73656	3.8	0.227948	3.1	0.81	1	1323.7	36.6	1338.4	28.1	1362	42.7
337	116	19.02	7550	13.6608	5	1.71271	6.2	0.169767	3.8	0.609	0.25	1010.8	35.6	1013.3	40	1018.6	100.4
338	144	1.58	22568	14.812	3	1.29319	5.2	0.138986	4.3	0.821	0.38	838.9	33.4	842.7	29.7	852.7	61.4
339	262	2.62	30321	11.5184	2.2	2.74933	4.6	0.22978	4.1	0.882	0.76	1333.3	49.3	1341.9	34.5	1355.6	42.2
342	285	2.05	40947	8.1187	1.9	6.19665	3.6	0.365038	3	0.853	-0.12	2006	52.3	2004	31.1	2001.9	32.9
343	438	4.99	58352	12.494	1.2	2.29191	2.7	0.207774	2.4	0.889	-0.69	1216.9	26.7	1209.8	19.2	1197.1	24.4
344	383	3.77	79446	12.4794	2.1	2.24198	3.5	0.20301	2.8	0.795	0.21	1191.5	30.5	1194.3	24.8	1199.3	32.3
346	541	2.33	2171896	12.1142	1.6	2.40927	3.6	0.211775	3.2	0.897	0.7	1238.3	36.4	1245.4	25.8	1257.6	31
347	567	2.71	47580	11.0181	1.6	3.03746	3.1	0.242834	2.7	0.862	1.2	1401.4	36.6	1417.1	23.7	1440.7	29.9
350	175	2.5	63413	12.549	3	2.17764	4.5	0.198285	3.3	0.742	0.6	1166.1	35.5	1173.9	31.2	1188.4	59.4
351	218	4.15	859356	12.3272	3	2.3455	5.2	0.209795	4.2	0.81	-0.11	1227.7	47	1226.2	36.9	1223.5	59.7
352	149	1.95															

397	100	2.18	9887	14.4098	5.7	1.44919	7.5	0.151523	4.9	0.65	0.0042	909.5	41.3	909.5	45	909.6	117.1
398	175	3.43	63379	12.6144	2.7	2.21831	4.8	0.203041	3.9	0.821	-0.37	1191.6	42.5	1186.8	33.3	1178.1	53.8
399	275	-2.75	36839	11.6158	2	2.69514	4	0.227156	3.5	0.869	0.63	1319.6	41.9	1327.1	29.9	1339.3	38.7
400	268	-2.49	35176	12.3121	2.4	2.29863	5.5	0.205351	5	0.901	0.82	1204	54.9	1211.9	39.3	1225.9	47.2
401	131	1.39	13886	12.1661	2.9	2.45655	5.1	0.216856	5.4	0.881	-0.54	1265.2	61.5	1259.3	43.9	1249.3	56.3
402	548	3.77	113369	11.5948	1.3	2.65961	3.4	0.223756	3.2	0.921	1.7	1301.7	37.2	1317.3	25.3	1342.8	25.8
405	258	3.55	28267	12.5873	2.7	2.24213	4.7	0.20478	3.8	0.814	-0.5	1200.9	42	1194.3	33.1	1182.4	54.1
406	489	1.73	52628	13.557	1.8	1.71132	3.9	0.16834	3.5	0.89	1.1	1003	32.3	1012.8	25	1034.1	35.9
407	79	1.41	20005	11.2458	3.2	2.97971	6.8	0.24314	6.1	0.885	-0.047	1403	76.4	1402.5	52	1401.6	61
408	314	3.08	23223	12.7671	2.4	2.13608	4.6	0.197881	4	0.858	-0.3	1163.9	42.1	1160.6	31.9	1154.3	47
409	302	2.45	70534	10.6302	2.3	3.41032	4.3	0.263044	3.7	0.847	0.099	1505.4	49.4	1506.8	34.1	1508.7	43.5
410	36	-2.73	17262	14.2335	5.3	1.59092	10.7	0.164307	9.3	0.871	-1.4	980.7	84.7	966.7	66.7	935	107.8
412	532	2.83	228016	11.8713	2.3	2.51586	3.6	0.216709	2.8	0.778	0.85	1264.5	32	1276.6	26.1	1297.1	43.8
413	55	1	210582	12.6385	4.5	2.19909	8.6	0.201666	7.3	0.852	-0.29	1184.3	79.1	1180.8	59.9	1174.4	88.9
414	115	0.9	122032	11.7359	3.3	2.68479	5.4	0.228623	4.4	0.802	-0.21	1327.3	52.4	1324.3	40.3	1319.4	63.1
416	365	2.96	42525	12.1166	2	2.34209	4	0.205911	3.4	0.863	1.5	1207	37.6	1225.2	28.1	1257.3	39
424	243	3.58	63778	12.5419	2.3	2.20836	3.9	0.200968	3.1	0.809	0.24	1180.5	33.8	1183.7	27.1	1189.5	45
425	411	3.09	673017	12.3671	2	2.21374	3.4	0.198651	2.7	0.809	1.3	1168.1	29.2	1185.4	23.6	1217.1	39
426	329	3.18	30761	10.8797	2.4	3.18742	4.6	0.251623	3.9	0.849	0.53	1446.8	50.4	1454.1	35.4	1464.7	46
427	519	11.86	89756	12.3605	2.2	2.19035	3.1	0.196447	3.1	0.816	1.7	1156.2	32.8	1178	26.5	1218.2	43.2
429	110	2.11	32290	9.3383	3	4.54551	6.1	0.307996	5.3	0.873	0.6	1730.8	80.3	1739.3	50.5	1749.6	54.1
431	487	2.42	1521736	10.3049	1.9	3.50012	4	0.261711	3.6	0.887	2.4	1498.6	47.8	1527.2	31.8	1567.1	34.9
432	98	-2.68	12473	12.6394	3.3	2.25497	6.5	0.206805	5.7	0.867	-1.2	1211.8	62.6	1198.3	46	1174.2	64.4
434	267	2.86	12934	13.617	3	1.65514	4.8	0.163535	3.7	0.777	1.3	976.4	33.9	991.5	30.5	1025.1	61.4
437	494	3.1	94600	12.3139	2.1	2.28176	3.9	0.203873	3.3	0.846	0.86	1196.1	35.9	1206.7	27.5	1225.6	40.7
438	569	3.29	234310	12.2634	1.7	2.25007	3.3	0.200217	2.8	0.863	1.7	1176.5	30.6	1196.8	23.2	1233.7	32.7
439	141	3.62	15380	12.3675	3.6	2.22277	6.4	0.199467	5.3	0.827	1.2	1172.5	56.5	1188.2	44.6	1217.1	70.3
441	661	7.1	67412	11.7434	2.7	2.49081	5.8	0.212241	5.1	0.881	2.6	1240.7	57.2	1269.4	41.7	1318.2	52.8
444	110	3.19	16239	12.6073	3.9	2.20576	5.5	0.201779	3.9	0.712	-0.16	1184.9	42.4	1182.9	38.5	1179.2	76.5
447	88	1.88	20084	9.6373	2.7	4.15945	4.4	0.290862	3.5	0.792	1.2	1645.8	50.6	1666.1	36	1691.7	49.5
449	328	5.92	19038	12.5757	2.6	2.22316	3.9	0.20286	2.9	0.749	-0.17	1190.7	31.5	1188.4	27.1	1184.2	50.7
451	29	-2.22	9315	11.6043	5.7	2.58698	10.5	0.217824	8.9	0.841	2	1270.4	102.2	1297	77.2	1341.2	110
452	349	1.71	70270	11.5634	2.1	2.6309	4.3	0.220742	3.7	0.876	2	1285.8	43.5	1309.3	31.4	1348	39.7
455	334	3.27	51968	11.4178	1.7	2.79714	4	0.231734	3.6	0.908	1.1	1343.6	43.8	1354.8	29.8	1372.5	32.1
456	1130	6.6	146721	13.119	1.8	1.94928	3.2	0.185554	2.6	0.823	0.077	1097.2	26.5	1098.2	21.4	1100.1	36.3
457	426	2.52	86119	12.2014	2.3	2.27053	3.7	0.201017	2.9	0.787	1.7	1180.8	31.2	1203.2	25.9	1243.6	44.4
458	749	8.21	498474	10.3934	1.8	3.50936	3.3	0.264655	2.7	0.836	1.1	1513.6	36.8	1529.3	25.8	1551.1	33.6
459	74	3.27	40664	10.6266	2.7	3.29708	7.4	0.254224	6.9	0.931	2.1	1460.2	90.1	1480.4	57.7	1509.3	51.1
460	281	1.88	172733	11.3242	2.5	2.78696	4.2	0.228998	3.3	0.8	1.5	1329.2	40.2	1352	31.3	1388.3	48.1
461	137	1.32	27705	12.4556	2.6	2.2168	4.4	0.200347	3.5	0.805	0.69	1177.2	38.1	1186.4	30.8	1203.1	51.4
462	864	6.43	125712	13.5205	1.8	1.73243	3.7	0.169958	3.2	0.869	0.84	1011.9	30.1	1020.7	23.8	1039.5	37
463	316	1.77	40530	12.6477	1.9	2.10379	4.3	0.193067	3.9	0.895	1.3	1138	40.5	1150	29.9	1172.9	38.4
464	532	-2.77	76621	13.4654	2	1.72379	3.8	0.168421	3.2	0.842	1.2	1003.4	-29.7	1017.4	24.3	1047.8	41.2
467	67	2.96	12751	12.7166	4.1	2.16703	7.7	0.199954	6.5	0.846	-0.38	1175.1	70.1	1170.5	53.6	1162.1	81.5
469	747	10.94	89833	13.4716	1.9	1.72221	3.4	0.168345	2.8	0.836	1.2	1003	26.4	1016.8	21.9	1046.8	37.7
470	482	2.71	45742	12.6025	2.3	2.18403	4.1	0.199714	3.4	0.825	0.17	1173.8	36	1176	28.3	1180	45.5
471	767	3.55	63709	12.7332	2.2	2.04734	3.2	0.189156	2.4	0.742	1.2	1116.8	24.5	1131.4	22	1159.5	42.8
474	1583	3.13	601747	10.5299	1.8	3.43441	3.7	0.262405	2	0.747	0.62	1502.1	27.1	1512.3	21.3	1526.6	34
476	53	2.79	9691	8.0343	3.5	6.28712	6.8	0.366517	5.8	0.859	0.22	2013	100.4	2016.7	59.2	2020.4	61.3
477	260	5.98	33793	12.7613	2.2	2.08867	4.1	0.193401	3.5	0.851	0.45	1139.8	36.8	1145.1	28.4	1155.2	43.1
482	740	4.6	77269	12.3733	2.1	2.19422	3.2	0.196997	2.3	0.742	1.6	1159.2	24.9	1179.2	22.1	1216.2	41.7
483	204	2.9	42644	13.0259	2.1	1.94764	4.1	0.184081	3.6	0.867	0.78	1089.2	36	1097.6	27.8	1114.3	41.2
484	309	9.07	1068912	12.5142	2.6	2.19274	4.6	0.199107	3.8	0.832	0.65	1170.5	41.2	1178.7	32.3	1193.8	50.6
485	752	33.13	203971	11.4805	2.2	2.77243	3.1	0.230948	2.2	0.709	0.6	1339.5	26.5	1348.1	23	1361.9	41.9
489	149	2.46	16422	12.5569	3	2.2531	5	0.205284	4	0.804	-0.44	1203.6	44.3	1197.8	35.3	1187.2	58.9
491	125	2.92	70014	10.4478	2	3.5183	5	0.266717	4.6	0.919	0.69	1524.1	62.6	1531.3	39.7	1541.3	37.2
492	736	3.19	63640	13.7781	1.5	1.64197	2.7	0.164153	2.2	0.828	0.59	979.8	20.2	986.5	16.9	1001.3	30.5
493	132	1.75	512041	12.4714	3.5	2.22863	6.1	0.201672	5	0.817	0.44	1184.3	54	1190.1	42.8	1200.6	69.4
495	158	0.78	235918	9.0185	2.4	4.63287	5.8	0.303165	5.2	0.907	3.9	1707	78.3	1755.2	48	1813.1	43.9
496	772	2.27	62206	11.3641	2	2.76093	3.4	0.227659	2.7	0.802	1.6	1322.2	32.7	1345	25.4	1381.5	39.1
497	117	2.04	12134	12.516	3.8	2.23795	6.2	0.20324	5.5	0.797	0.023	1192.7	54.1	1193	43.7	1193.6	74.3
498	91	2	9383	11.6756	4.2	2.75122	8.2	0.233077	7	0.855	-0.64	1350.6	85.2	1342.4	60.9	1329.4	82
502	113	2.25	17481	12.7661	3.7	2.08703	6.1	0.193322	4.8	0.795	0.4	1139.3	50.6	1144.6	41.9	1154.4	73.4
503	54	-2.76	54297	12.8202	3.7	1.90191	7	0.17692	6	0.85	2.8	1050.1	58.1	1081.8	46.9	1146	73.7
504	147	1.92	14999	9.2213	2.6	4.85559	5	0.300126	4.3	0.862	2.5	1691.9	64.7	1728.3	41.9	1772.6	46.6
507	933	3.89	65113	13.8556	1.8	1.58968	2.5	0.159819	1.7	0.682	1	955.8	15.2	966.2	15.6	989.9	37.2
508	286	6.44	60432	11.0892	2.1	3.00583	4	0.241858	3.4	0.857	0.97	1396.3	43.2	1409.1	30.6	1428.4	39.5
509	188	1.1	60328	13.9072	2.6	1.55227	5.9	0.156639	5.3	0.898	1.5	938.1	46.1	951.4	36.3	982.3	52.7
510	234	1.35	126759	11.5608	1.9	2.64404	3.4	0.221794	2.8	0.822	1.6	1291.3	32.8	1313	25.1	1348.5	37.4
513	164	1.28	396710	12.1471	3.1	2.34958	5.1	0.207088	4	0.792	1	1213.3	44.8				

575	439	3.09	81989	11.5204	2.2	2.68839	3.9	0.224726	3.2	0.828	1.3	1306.8	37.9	1325.3	28.6	1355.2	41.9
576	123	1.65	48849	9.1024	2.1	4.64294	3.9	0.306651	3.2	0.836	2	1724.2	48.8	1757	32.2	1796.3	38.5
577	292	3.08	417319	10.4414	2.4	3.5552	4.2	0.269351	3.5	0.817	0.14	1537.5	47.3	1539.6	33.5	1542.4	45.8
581	425	2.55	68114	12.1021	2	2.38837	3.4	0.209728	2.7	0.799	0.85	1227.4	30.2	1239.1	24.2	1259.6	39.7
582	69	3.47	6684	13.7092	5.9	1.78806	9.1	0.177863	6.9	0.763	-1.2	1055.3	67.3	1041.1	59	1011.5	118.7
583	540	1.96	42703	10.5055	2.2	3.38123	3.3	0.257742	2.5	0.756	1.3	1478.3	33.1	1500.1	26	1530.9	40.9
589	282	2.08	216031	13.6296	2.3	1.69891	3.9	0.168014	3.2	0.812	0.6	1001.2	29.7	1008.1	25.2	1023.3	46.7
590	45	2.66	61098	13.4703	4.3	1.69808	3.5	0.165969	8.5	0.892	1.9	989.9	77.8	1007.8	60.7	1047	86.4
600	906	1.43	242738	12.4721	2.1	2.1566	3.5	0.195166	2.8	0.795	1.4	1149.3	29.6	1167.2	24.5	1200.5	42.3

Sample BC-2504284

1	247	1.61	79634	16.0603	3.2	0.88459	4.7	0.103083	3.5	0.744	1.5	632.5	21.2	643.5	22.5	682.3	67.4
2	362	14.34	7265	18.4605	6.3	0.49665	7.6	0.066526	4.3	0.568	-1.3	415.2	17.4	409.4	25.6	377.1	140.7
3	226	1.47	148849	16.2942	3.5	0.83987	5.2	0.099298	3.9	0.75	1.3	610.3	22.8	619.1	24.3	651.3	74.3
4	179	1.82	14369	16.6723	4	0.83686	5.9	0.101238	4.3	0.732	-0.61	621.7	25.4	617.4	27.1	601.8	86.5
5	650	1.14	32576	16.6989	2.8	0.80672	3.5	0.097747	2.1	0.597	-0.094	601.2	12.2	600.6	16.1	598.4	61.6
6	136	1.93	10083	16.546	5.4	0.81865	6.4	0.098285	3.5	0.543	0.49	604.3	20.2	607.3	29.5	618.3	116.9
7	212	1.81	18768	16.6021	3.5	0.85679	4.9	0.103212	3.4	0.689	-0.7	633.2	20.3	628.4	22.9	611	76.4
8	318	0.84	36076	16.4369	2.3	0.90288	3.7	0.107682	2.8	0.774	-0.79	659.3	17.8	653.3	17.7	632.6	50.1
9	213	1.63	37765	16.1532	3	0.86999	4.3	0.101969	3.1	0.712	1.4	625.9	18.4	635.6	20.5	669.9	65.2
10	393	1.02	22961	16.6905	2.8	0.84857	5.3	0.102766	4.5	0.849	-0.88	630.6	27.2	623.9	24.9	599.5	61
11	613	0.86	44758	16.5252	2.4	0.81436	4.2	0.097647	3.4	0.818	0.59	600.6	19.8	604.9	19.2	621	52.3
12	155	1.64	8912	16.2331	4.7	0.84298	6.1	0.099292	4	0.646	1.6	610.3	23.1	620.8	28.5	659.3	100.6
13	347	1.28	37542	16.4247	3.8	0.83718	5.9	0.099772	4.6	0.769	0.63	613.1	26.7	617.6	27.5	634.2	81.7
14	220	2.04	14036	16.4981	4.3	0.82059	5.6	0.098232	3.6	0.646	0.68	604	20.8	608.4	25.6	624.5	92.1
16	611	0.63	10526	18.927	5	0.38008	5.7	0.052198	2.7	0.476	-0.26	328	8.7	327.1	16	320.7	114.2
17	1016	0.97	38880	16.6549	2	0.79655	3	0.09626	2.2	0.745	0.37	592.5	12.5	594.9	13.3	604.1	42.8
18	203	2.17	31420	16.7564	3.8	0.73275	5.5	0.089091	3.3	0.646	1.4	550.2	17.1	558.2	21.6	591	83.3
19	372	1.47	21451	16.3541	3.5	0.86142	5.4	0.10222	4.1	0.76	0.48	627.4	24.7	630.9	25.5	643.5	75.8
20	271	1.18	29376	16.215	2.6	0.85896	4.5	0.101061	3.7	0.824	1.2	620.6	22	629.6	21.2	661.7	54.9
21	336	2.09	86825	16.476	2.6	0.84906	4.6	0.101504	3.8	0.826	0.12	623.2	22.5	624.1	21.4	627.4	55.8
22	375	1.3	21336	16.3693	3	0.84464	4.5	0.100322	3.3	0.745	0.78	616.3	19.5	621.7	20.7	641.5	63.9
23	287	1.49	10765	16.411	4.4	0.80835	5.9	0.096256	4	0.673	1.4	592.4	22.5	601.5	26.9	636	94.3
24	272	1.68	50320	16.2891	3.2	0.85551	4.7	0.101114	3.5	0.732	0.96	620.9	20.5	627.7	22.1	652	69.2
26	487	1.29	59281	16.4875	1.7	0.86584	4.3	0.103583	4	0.916	-0.34	635.4	24.1	633.3	20.5	625.9	37.7
27	200	1.37	8606	16.5911	5.7	0.82554	7.3	0.099382	4.5	0.621	0.055	610.8	26.4	611.1	33.4	612.4	123.3
28	218	1.54	15134	16.5238	3.8	0.83634	5.6	0.100273	4.2	0.746	0.16	616	24.7	617.1	26.1	621.2	81.2
29	189	1.64	6227	16.7467	7	0.82566	8.2	0.100329	4.3	0.522	-0.84	616.3	25	611.2	37.4	592.2	150.8
30	838	1.35	72463	16.3016	1.9	0.82413	3	0.097481	2.3	0.78	1.6	599.6	13.4	610.4	13.7	650.3	40.1
31	346	1.14	38660	16.2129	2.5	0.86378	3.7	0.101615	2.7	0.734	1.2	623.9	16	632.2	17.2	662	53.1
32	290	1.15	71184	16.5835	3.5	0.81059	5.2	0.097538	3.8	0.735	0.42	600	21.9	602.8	23.7	613.4	76.3
34	318	1.54	157403	16.5372	2.7	0.83945	3.5	0.100728	2.2	0.64	0.026	618.7	13.1	618.8	16.1	619.4	57.5
35	317	1.62	13647	16.7231	3.7	0.80807	5.1	0.098052	3.6	0.698	-0.24	603	20.6	601.4	23.3	595.3	79.7
40	324	1.13	304916	16.31	2.4	0.82827	4.1	0.098021	3.3	0.817	1.4	602.8	19.2	612.7	18.8	649.2	50.6
42	254	0.9	5422	17.9769	8.1	0.58111	8.8	0.075799	3.3	0.382	-1.2	471	15.2	465.2	32.7	436.5	180.5
43	348	1.27	9052	16.4918	4.6	0.87622	5.4	0.104851	2.8	0.528	-0.61	642.8	17.4	638.9	25.5	625.4	98.5
44	98	2.17	8080	16.3609	4.8	0.86822	7	0.10307	5.1	0.729	0.31	632.4	30.9	634.6	33.3	642.6	103.8
45	1252	0.78	55162	16.4419	2.3	0.84938	3.7	0.101332	2.9	0.787	0.29	622.2	17.5	624.3	17.5	631.9	49.8
47	518	1.27	100165	16.3977	2	0.8462	3.9	0.100682	3.4	0.859	0.55	618.4	19.8	622.6	18.2	637.7	43.1
48	105	2.04	11892	16.4	4.5	0.86058	6.6	0.102407	4.8	0.731	0.28	628.5	28.9	630.4	31	637.4	97
49	176	1.6	33581	16.3853	3.2	0.83811	5.1	0.099643	4	0.788	0.8	612.3	23.6	618.1	23.7	639.4	67.9
50	265	1.27	143937	16.0724	3.2	0.84818	5.5	0.098916	4.5	0.816	2.1	608.1	25.9	623.7	25.5	680.6	67.5
51	194	1.73	108426	15.9144	3.6	0.86744	5.1	0.100167	3.6	0.702	2.8	615.4	21	634.2	24.1	710.8	77.4
52	377	1.2	37153	16.3572	2.9	0.821	4.2	0.097441	3.1	0.722	1.4	599.4	17.5	608.6	19.4	643	63.1
53	249	1.07	16215	16.2808	3	0.87067	4.9	0.102854	3.9	0.793	0.64	631.1	23.2	635.9	23	653.1	63.7
54	254	1.5	12512	16.4951	4.5	0.8448	5.7	0.101111	3.6	0.626	0.13	620.9	21.3	621.8	26.7	624.9	96.5
55	192	1.6	28618	16.4026	3.2	0.84792	5.4	0.100916	4.3	0.802	0.5	619.8	25.4	623.5	25	637.1	68.9
57	268	1.57	19000	16.2158	4.4	0.84821	5.7	0.099801	3.6	0.637	1.6	613.2	21.1	623.7	26.4	661.6	93.5
58	292	1.39	27134	16.3405	2.8	0.83943	4.8	0.099528	3.9	0.805	0.97	611.6	22.5	618.8	22.2	645.2	61.2
60	112	2.17	20845	16.4868	4.8	0.85439	6.7	0.102208	4.6	0.694	-0.041	627.3	27.7	627.1	31.2	626	103.5
61	226	1.9	19456	16.4934	2.6	0.8318	4.6	0.099546	3.7	0.822	0.39	611.7	21.9	614.6	21	625.2	56
62	212	1.86	7145	16.588	6	0.82122	6.9	0.098843	3.3	0.484	0.19	607.6	19.3	608.7	31.6	612.8	130.3
66	235	1.47	62601	18.2009	5.1	0.41268	6.4	0.054501	3.9	0.606	2.3	342.1	12.9	350.8	19	408.9	113.6
66	311	1.43	7417	16.843	3.9	0.80817	5.7	0.098768	4.1	0.719	-0.85	607.2	23.6	601.4	25.7	579.8	85.5
67	444	1.38	30540	16.4532	2.9	0.83063	4.9	0.099164	4	0.805	0.6	609.5	23.2	614	22.8	630.4	63.2
68	193	1.37	8069	16.765	5.7	0.8062	7.6	0.098072	5	0.66	-0.43	603.1	29	600.3	34.6	589.9	124.3
69	195	1.43	90732	16.0997	3.2	0.86014	5.3	0.10048	4.3	0.799	1.7	617.2	25.1	630.2	25.1	677	68.7
70	195	2.15	15820	16.3063	4.1	0.86403	5.6	0.102231	3.8	0.674	0.72	627.5	22.6	632.3	26.3	649.7	88.8
71	391	1.17	25601	16.3656	2.5	0.83706	4	0.099399	3.1	0.778	0.93	610.9	18.3	617.5	18.7	641.9	54.6
72	203	1.92	26120	16.0578	3.8	0.85308	5.1	0.099397	3.4	0.66	2.4	610.9	19.7	626.3	23.9	682.6	81.9
73	1494	0.56	80101	16.4565	1.9	0.8362	3.2	0.099849	2.6	0.816	0.47	613.5	15.4	617	14.9	630	40.1
74	2161	0.69	732586	16.3838	2.1	0.83766	3.3	0.099581	2.6	0.784	0.82	612	15.2	617.9	15.3	639.6	44.2
75	315	1.46	46652	16.3222	3.5	0.84883	4.6										

121	258	1.44	16320	16.4617	3.3	0.83947	5	0.100271	3.7	0.741	0.41	616	21.6	618.9	23	629.3	71.8
123	522	1.17	86774	16.3223	2.7	0.82846	4.8	0.098117	3.9	0.829	1.3	603.4	22.7	612.8	21.9	647.6	57.2
124	364	1.55	21737	16.5068	3.8	0.81626	5.6	0.097765	4.1	0.738	0.69	601.3	23.6	606	25.4	623.4	81
126	135	1.88	9529	16.0498	5.4	0.87309	7.7	0.101677	5.6	0.72	1.9	624.2	33.1	637.2	36.6	683.7	114.7
127	867	0.83	145600	16.5538	2.3	0.79102	3.4	0.095012	2.4	0.726	1	585.1	13.6	591.7	15.1	617.3	49.9
128	180	0.9	6758	16.7059	6.2	0.80492	7.5	0.09757	4.2	0.559	-0.091	600.2	23.9	599.6	33.8	597.5	133.9
129	299	1.86	14758	16.377	4.3	0.86078	5.3	0.102287	3.1	0.592	0.43	627.8	18.8	630.5	24.9	640.4	91.7
132	352	1.27	15088	16.4868	3.5	0.83728	5.5	0.100162	4.2	0.772	0.32	615.4	24.9	617.6	25.4	626	75.4
133	180	1.75	29845	16.5851	3.3	0.86176	4.6	0.103704	3.2	0.688	-0.72	636.1	19.2	631.1	21.6	613.2	72
134	2364	0.52	119106	16.7656	1.9	0.71871	3.4	0.087431	2.8	0.831	1.5	540.3	14.6	549.9	14.4	589.8	40.9
135	341	1.42	69016	16.1587	2.4	0.85039	3.8	0.099706	2.9	0.767	1.7	612.7	17	624.9	17.7	669.2	52
136	237	1.51	6099	16.6254	6.1	0.83335	7.8	0.10053	4.9	0.629	-0.32	617.5	29	615.5	36.2	607.9	131.9
138	199	1.78	53221	16.5087	3	0.82514	5.2	0.09884	4.3	0.816	0.44	607.6	24.7	610.9	24	623.2	65.1
139	638	0.94	31039	16.565	2	0.80549	3.7	0.096816	3.2	0.85	0.57	595.7	18.1	599.9	17	615.8	42.6
140	208	1.87	22430	16.0204	5.1	0.86959	6.2	0.101084	3.5	0.564	2.3	620.8	20.8	635.3	29.5	687.6	109.9
141	179	2.02	20150	16.6004	3.6	0.83955	4.8	0.101125	3.2	0.659	-0.32	621	18.9	618.9	22.4	611.2	78.7
142	291	1.66	29842	16.4235	3.2	0.83319	4.5	0.09929	3.2	0.708	0.76	610.2	18.4	615.4	20.6	634.3	68
143	1513	0.84	1555586	16.2973	2.2	0.82185	4.4	0.097186	3.8	0.868	1.5	597.9	21.7	609.1	20.1	650.9	46.7
144	314	1.29	11330	16.2959	4.5	0.83142	5.5	0.098309	3.2	0.575	1.6	604.5	18.2	614.4	25.3	651.1	96.4
145	475	1.28	48618	16.4598	2.5	0.89331	3.3	0.106689	2.8	0.746	-0.72	653.5	17.6	648.1	18.2	629.6	54.7
146	159	1.77	16321	16.2897	4.7	0.84529	6.3	0.099911	4.2	0.668	1.3	613.9	24.8	622.1	29.5	651.9	101.2
147	383	1.31	16372	16.2581	3	0.7965	4.2	0.093961	3	0.708	2.5	578.9	16.5	594.9	18.9	656.1	63.5
148	321	1.1	6933	16.9249	3.3	0.79629	5.5	0.097789	4.5	0.807	-0.92	601.4	25.6	594.7	24.8	569.3	70.9
149	438	1.58	49091	16.0608	2.8	0.87889	4.5	0.102423	3.5	0.781	1.6	628.6	21.1	640.4	21.4	682.2	60
151	296	1.74	30754	16.0794	2.9	0.85773	5	0.100073	4	0.817	1.9	614.8	23.7	628.9	23.2	679.7	61.1
152	330	1.56	14689	16.5063	4.1	0.83617	5.3	0.100147	3.3	0.628	0.28	615.3	19.4	617	24.3	623.5	88.3
153	299	1.41	31952	16.1535	2.9	0.84066	4.7	0.098533	3.7	0.793	1.9	605.8	21.6	619.5	21.9	669.9	61.5
155	206	1.8	10474	16.7421	5.1	0.83844	6.4	0.101854	3.8	0.596	-1.1	625.3	22.6	618.3	29.4	592.8	110.7
157	642	0.83	22771	16.5806	2.3	0.8221	3.7	0.098906	2.9	0.78	0.17	608	16.6	609.2	16.8	613.8	49.4
158	313	1.46	41197	16.3986	2.5	0.85123	3.8	0.101286	2.8	0.742	0.48	621.9	16.7	625.3	17.7	637.6	54.6
159	546	1.16	240539	16.434	2.3	0.81995	3.8	0.097774	3.1	0.804	0.91	601.4	17.6	608	17.4	633	48.6
161	230	1.63	82289	16.3067	3.5	0.86418	7.1	0.10225	6.1	0.872	0.62	627.6	36.8	632.4	33.2	649.7	74.2
162	499	1.35	74072	16.6864	2.4	0.82639	3.5	0.100056	3.8	0.841	-0.41	614.7	22.1	611.6	20.6	600	52.6
163	672	1.04	12015	16.5022	2.2	0.79728	4.5	0.095466	2.7	0.784	1.1	587.8	15.3	595.3	15.7	624	46.7
164	212	1.76	23332	16.3263	4.3	0.85187	6.4	0.100914	4.7	0.735	0.85	619.8	27.7	625.7	29.8	647.1	92.9
166	78	2.97	54206	16.0446	6.2	0.88325	7.9	0.102827	4.8	0.613	1.8	631	29.1	642.7	37.6	684.4	133.2
168	182	1.41	38587	15.6576	5.2	0.89155	7.3	0.10129	5.2	0.708	3.7	622	30.7	647.2	35	736.2	109.4
169	197	1.31	22769	16.3876	3.8	0.83377	5.3	0.099141	3.7	0.689	0.95	609.4	21.3	615.7	24.5	639.1	82.7
170	362	1.16	23196	16.5808	2.9	0.80604	4.5	0.096974	3.4	0.765	0.52	596.6	19.6	600.2	20.4	613.8	62.7
171	453	1.02	29882	16.5474	2.8	0.82651	4.7	0.099236	3.8	0.805	0.24	609.9	22.2	611.7	21.8	618.1	60.8
172	366	1.47	582993	16.3674	3	0.88717	4.9	0.105362	3.8	0.782	-0.12	645.8	23.4	644.8	23.3	641.7	65.4
173	819	0.76	19140	16.8184	1.6	0.8061	3.4	0.098371	3	0.877	-0.64	604.9	17.3	600.3	15.5	582.9	35.5
175	222	1.79	111863	16.0281	2.6	0.87271	4.4	0.101496	3.6	0.816	1.8	623.2	21.5	637	21	686.5	54.7
176	111	2.03	11418	16.3324	5.8	0.85543	8.7	0.101374	6.5	0.744	0.73	622.5	38.6	627.6	40.9	646.3	125.4
177	233	1.88	16725	16.4303	3.7	0.86403	5.2	0.103007	3.7	0.708	0.045	632	22.3	632.3	24.6	633.5	79.6
178	217	1.6	45570	16.8102	3.3	0.80905	5.8	0.098683	4.8	0.82	-0.64	606.7	27.5	601.9	26.3	584	72.1
179	607	1.01	80125	16.3929	2.1	0.855	3.8	0.101699	3.2	0.835	0.39	624.4	18.7	627.4	17.7	638.4	44.6
180	178	1.74	10488	16.3598	4.4	0.85298	5.4	0.101253	3.1	0.585	0.73	621.8	18.6	626.3	25.1	642.7	93.6
181	90	5.41	9136	12.8609	4.6	0.27644	7	0.193769	5.3	0.752	-0.054	1141.8	55.2	1141.1	48	1139.7	91.8
182	239	1.75	379329	16.2499	3.3	0.84611	5.2	0.099764	4	0.774	1.3	613	23.6	622.5	24.2	657.1	70.8
183	245	1.17	11832	19.2418	5.1	0.37612	6.6	0.052512	4.1	0.624	-1.6	329.9	13.2	324.2	18.3	283.1	117.8
186	475	0.7	13011	18.1522	3.7	0.38489	4.8	0.050695	3.1	0.638	3.3	318.8	9.6	330.6	13.7	414.8	83.3
187	448	1.29	12327	16.6821	3.6	0.77591	6.3	0.093919	3.8	0.727	0.7	578.7	21.2	583.1	23.4	600.6	78.4
188	197	2.07	9387	16.7119	5.3	0.80963	5.5	0.098176	3.6	0.563	-0.24	603.7	21	602.2	29.4	596.7	115.7
189	498	1.17	66335	16.1495	2.4	0.84935	3.7	0.099526	2.9	0.774	1.8	611.6	16.9	624.3	17.4	670.4	50.6
190	467	0.96	36063	16.2617	2.9	0.82103	3.6	0.096876	2.2	0.612	2	596.1	12.6	608.6	16.6	655.6	61.6
191	228	1.63	42939	16.3874	3	0.84997	4.3	0.101067	3	0.702	0.59	620.7	17.7	624.6	19.8	639.1	65.2
193	435	1.15	66215	16.3931	3.2	0.8356	5.2	0.099392	4.1	0.789	0.81	610.8	23.9	616.7	24	638.3	68.8
195	334	1.66	26524	16.5595	2.8	0.83366	4.7	0.100167	3.8	0.803	0.034	615.4	22.3	615.6	21.8	616.5	60.8
198	339	1.54	45408	16.4747	2.4	0.90521	4	0.108209	3.2	0.797	-0.99	662.3	20.3	654.5	19.5	627.6	52.8
199	449	1.95	31838	17.3657	3	0.6396	4	0.080592	2.7	0.675	0.44	499.7	13	502.1	15.9	513	65.2
200	269	1.66	20367	16.4224	3.8	0.84453	5.4	0.100634	3.9	0.713	0.51	618.1	22.7	621.6	25.1	634.5	81.5
201	346	1.33	16718	16.7195	3.2	0.82698	5.5	0.100326	3.8	0.768	-0.61	616.3	22.5	611.9	23	595.7	69.3
202	573	1.1	51812	16.5617	2.1	0.83282	4.9	0.10008	4.4	0.902	0.044	614.9	25.7	615.2	22.4	616.2	45.3
203	311	1.23	18994	16.526	3.6	0.84344	5.8	0.101138	4.5	0.78	-0.0044	621.1	26.8	621	26.9	620.9	78.3
204	128	1.96	7198	16.6479	5.9	0.82859	6.9	0.10009	3.5	0.51	-0.35	614.9	20.5	612.8	31.6	605	127.9
205	187	1.6	36787	16.325	3.8	0.83528	5.5	0.098941	3.9	0.715	1.3	608.2	22.7	616.5	25.3	647.3	82.2
206	326	1.18	7720	18.5089	6.3	0.43622	7.7	0.058585	3.1	0.437	0.15	367	10.9	367.6	21.6	371.2	141.8
207	305	1.44	25944	16.6825	3.2	0.82333	5.2	0.099661	4	0.779	-0.35	612.4	23.6	609.9	23.8	600.5	70.3
225	192	1.92	348577	16.4083	3.2	0.83327	4.6	0.099207	3.3	0.721	0.84	609.8	19.4	615.4	21.3	636.3	68.9
209	466	1.19	26349	16.59	2.6	0.81764	4.5	0.098425	3.6	0.81							

250	336	1.32	19691	16.6185	3.1	0.8068	4.6	0.097286	3.5	0.749	0.31	598.5	19.8	600.7	21	608.8	66.2
251	221	1.69	53603	16.2422	2.4	0.87493	4.7	0.103113	4	0.86	0.72	632.6	24.1	638.2	22	658.2	51
252	2536	1.03	71247	16.4742	1.3	0.84415	2.7	0.100906	2.4	0.888	0.24	619.7	14.4	621.4	12.7	627.7	27.1
253	329	1.81	19648	16.5583	2.8	0.85835	4.2	0.103127	3.1	0.748	-0.49	632.7	18.8	629.2	19.6	616.7	59.8
254	380	1.23	38494	16.2578	2.5	0.817	4.1	0.096378	3.3	0.8	1.9	593.1	18.7	606.4	18.8	656.1	53.1
255	334	1.59	22078	16.4552	2.7	0.80966	4.2	0.096672	3.2	0.768	1.1	594.9	18.2	602.3	19	630.2	57.6
256	272	1.64	12077	16.4829	4.2	0.83923	5.5	0.100372	3.5	0.641	0.33	616.6	20.6	618.7	25.3	626.5	90.4
257	406	1.39	17247	16.4129	3.3	0.80843	4.1	0.096276	2.4	0.584	1.5	592.5	13.5	601.6	18.5	635.7	71.3
258	248	1.99	22205	16.421	2.3	0.85769	3.7	0.102194	2.9	0.787	0.22	627.3	17.4	628.9	17.3	634.7	49.1
259	401	1.35	266191	16.4681	3.2	0.84155	6.5	0.100558	5.7	0.874	0.31	617.7	33.5	620	30.2	628.5	68.2
260	341	1.36	13496	16.6941	3.7	0.8229	5.5	0.099679	4	0.727	-0.42	612.5	23.2	609.7	25	599	81.1
261	301	1.44	21903	16.4073	3.5	0.85934	4.8	0.102305	3.3	0.692	0.27	627.9	20	629.8	22.7	636.5	75.1
268	187	1.63	37679	16.0351	3.1	0.84457	5.3	0.098266	4.3	0.81	2.4	604.2	24.6	621.7	24.4	685.6	65.9
269	244	1.52	51304	16.5713	3.1	0.87665	4.7	0.105409	3.6	0.76	-0.91	646	22	639.2	22.3	615	66
270	136	1.96	48207	16.4469	3.5	0.85541	5.5	0.102082	4.2	0.772	0.14	626.6	25.2	627.6	25.6	631.3	74.8
271	575	0.97	46576	16.6274	3.6	0.827	4.6	0.099775	2.9	0.626	-0.18	613.1	16.8	611.9	21.1	607.7	77.5
272	113	2.04	80182	16.0075	5.2	0.87786	7.2	0.101962	4.9	0.689	2.1	625.9	29.4	639.8	34	689.3	110.7
274	413	1.08	17876	16.5254	2.9	0.84121	4.3	0.100868	3.1	0.727	0.046	619.5	18.3	619.8	19.7	621	63
276	123	2.41	20422	11.6662	3	2.66686	5.8	0.225748	5	0.857	0.57	1312.2	59.1	1319.3	42.9	1330.9	58
279	405	1.47	48293	16.2547	2.3	0.84443	4.2	0.099595	3.6	0.838	1.3	612	20.8	621.6	19.8	656.5	49.7
280	424	1.2	39348	16.3703	2.4	0.83664	4.2	0.099377	3.4	0.818	0.89	610.8	20.1	617.3	19.5	641.3	52.2
281	162	1.82	35855	16.4745	3.7	0.85126	4.8	0.101758	3	0.625	0.098	624.7	17.8	625.3	22.4	627.6	80.7
282	320	1.97	31711	16.3359	3.2	0.84504	4.6	0.100165	3.3	0.719	0.96	615.4	19.5	621.9	21.4	645.8	68.8
283	370	1.15	154445	16.5251	2.7	0.82245	4.9	0.098616	4	0.833	0.42	606.3	23.4	609.4	22.3	621	57.9
284	190	1.52	39858	16.3498	2.9	0.87105	4.2	0.103335	3.1	0.73	0.31	633.9	18.4	636.1	19.8	644	61.5
286	368	1.3	13772	16.7183	3.6	0.83558	4.3	0.101362	2.4	0.546	-0.9	622.4	14	616.7	20	595.9	78.5
287	345	1.45	11698	16.6563	4.1	0.84036	5.2	0.101564	3.2	0.621	-0.66	623.6	19.3	619.3	24.3	603.9	88.7
288	220	1.49	45014	16.3714	2.3	0.84626	4	0.100528	3.3	0.819	0.68	617.5	19.2	622.6	18.5	641.2	49.1
289	306	1.56	65953	16.5886	2.9	0.82626	7	0.099454	6.4	0.909	0.051	611.2	37.3	611.5	32.4	612.7	63.3
291	237	1.03	9963	16.6594	4.3	0.84505	5.6	0.10215	3.6	0.649	-0.77	627	21.8	621.9	26.1	603.5	92.4
292	538	1.22	35153	18.522	3.9	0.40199	5.6	0.054025	4	0.715	1	339.2	13.3	343.1	16.4	369.6	88.9
297	299	1.74	365631	16.0806	2.8	0.85426	4.4	0.099675	3.4	0.775	2	612.5	19.8	627	20.5	679.6	59.2
298	109	1.88	11129	16.4354	4.8	0.8728	6.4	0.104086	4.2	0.658	-0.18	638.3	25.5	637.1	30.2	632.8	103.4
299	283	1.66	9638	16.6319	4.7	0.83452	5.6	0.100711	3	0.539	-0.4	618.6	17.8	616.1	25.9	607.1	102.1
300	291	1.76	13640	16.5028	4	0.85175	5.4	0.101992	3.7	0.677	-0.068	626.1	22	625.6	25.5	623.9	86.5
301	63	2.36	4505	16.5669	8.6	0.87502	10.6	0.105185	6.1	0.578	-0.99	644.7	37.4	638.3	50.1	615.6	186.2
302	126	2.16	32061	16.7416	4.2	0.83635	6.9	0.101596	5.5	0.792	-0.89	623.8	32.5	617.1	31.9	592.9	91.2
303	240	1.7	50455	16.1763	3.6	0.86367	5.4	0.101372	4	0.75	1.4	622.4	24	632.1	25.4	666.9	76.4
305	310	1.45	36037	16.4237	3.1	0.83397	4.6	0.099384	3.4	0.743	0.73	610.8	19.8	615.8	21.1	634.3	65.7
306	286	2.06	129940	16.326	2.6	0.8545	4.3	0.101224	3.5	0.806	0.74	621.6	20.7	627.1	20.3	647.2	55.1
307	375	1.36	27916	16.5961	2.4	0.85574	4.9	0.103409	4.3	0.867	-0.59	632.3	25.7	627.8	23	611.8	52.9
309	238	1.26	19388	16.4986	4.7	0.82101	7.2	0.098285	5.5	0.762	0.61	604.4	31.7	608.6	33	624.5	100.6
310	230	1.62	25659	16.477	2.9	0.82917	4.7	0.099132	3.7	0.788	0.53	609.3	21.4	613.2	21.5	627.3	61.9
311	314	1.23	24338	16.2329	4.2	0.80998	6	0.095403	4.3	0.716	2.3	587.4	23.9	602.4	27.1	659.4	89.2
312	618	1.07	29116	16.5611	2.4	0.81418	4.7	0.097837	4.1	0.864	0.42	601.7	23.5	604.8	21.6	616.3	51.5
314	204	1.37	9010	16.7023	5.9	0.82982	7.3	0.100567	4.2	0.581	-0.68	617.7	25	613.5	33.7	598	128.9
315	353	1.2	44945	16.5201	2.7	0.81473	4.6	0.097661	3.8	0.815	0.6	600.7	21.7	605.1	21.2	621.7	58.2
317	282	1.6	93812	16.4616	2.2	0.83387	4.1	0.099601	3.4	0.843	0.49	612.1	20.1	615.8	18.9	629.4	47.4
318	474	1.29	28873	16.5695	2.7	0.85873	4.5	0.103243	3.6	0.801	-0.52	633.4	21.7	629.4	21	615.2	58
319	244	1.76	67893	16.3119	3.2	0.84024	4.5	0.099449	3.2	0.712	1.2	611.2	18.9	619.3	21.1	649	68.6
321	341	1.3	8008	16.567	5.6	0.83045	6.3	0.099828	3	0.477	0.077	613.4	17.7	613.9	29.2	615.6	120.1
322	193	1.64	14741	16.6772	4.3	0.81854	6.2	0.099051	4.5	0.719	-0.24	608.8	25.9	607.2	28.3	601.2	93.3
323	188	1.59	7764	16.4509	5.7	0.80597	6.6	0.096206	3.4	0.52	1.4	592.1	19.5	600.2	30.1	630.8	122
325	334	1.26	51531	16.3651	3	0.82975	4.3	0.098527	3.1	0.71	1.1	605.8	17.7	613.5	19.9	642	65.3
326	153	1.47	35986	16.3172	3.4	0.8659	5.2	0.10252	3.9	0.747	0.58	629.2	23.2	633.3	24.4	648.3	74
327	155	2.06	4852	16.7318	7.7	0.81361	9.9	0.098776	4.7	0.519	-0.46	607.2	27.1	604.5	41.1	594.2	167
328	201	2.01	19976	16.4208	3.3	0.82644	4.9	0.098468	3.6	0.74	0.92	605.4	20.8	611.6	22.4	634.7	70.5
329	55	0.06	8632	7.9591	3.2	6.09754	7.1	0.352137	6.4	0.893	3.1	1944.8	106.9	1989.9	62.2	2037.1	56.7
330	159	1.34	15645	16.5425	4	0.83922	5.2	0.100733	3.2	0.626	0.0021	618.7	19.1	618.7	24	618.7	87.1
331	258	1.41	47696	16.2073	3.7	0.86752	4.4	0.102019	2.4	0.548	1.3	626.2	14.4	634.2	20.7	662.8	78.8
332	283	1.4	11622	16.3981	4.3	0.88328	5.7	0.105095	3.8	0.661	-0.21	644.2	23.1	642.8	27.1	637.7	92
333	358	1.54	559347	16.3966	3	0.8378	5	0.099676	4	0.801	0.74	612.5	23.4	617.9	23.1	637.9	64.3
334	161	1.62	9001	16.5055	5	0.82528	6.5	0.098838	4.2	0.643	0.53	607.6	24.3	611	29.9	623.6	107.4
335	260	1.5	29756	16.276	3.2	0.85279	5.2	0.100713	4.1	0.787	1	618.6	24.2	626.2	24.4	653.7	69
336	185	1.35	17632	16.4523	3.7	0.83955	6.3	0.100222	5	0.807	0.43	615.7	29.6	618.9	29	630.6	79.6
337	206	1.65	16793	16.4185	2.9	0.84416	4.2	0.100566	3.1	0.722	0.53	617.7	18	621.4	19.6	635	62.9
338	171	1.71	78489	16.4367	3.2	0.85619	5.4	0.102112	4.3	0.803	0.17	626.8	25.8	628	25.2	632.6	69
339	480	0.91	360393	16.4089	2.2	0.82567	3.2	0.098306	2.3	0.724	1	604.5	13.3	611.2	14.7	636.3	47.4
341	304	1.39	9914	16.7612	4.9	0.80817	6.1	0.098288	3.6	0.595	-0.48	604.4	20.9	601.4	27.6	590.4	106.1
342	302	1.59	7375	16.6654	5.9	0.82491	8.1	0.099751	5.5	0.681	-0.33	613	32.2	610.8	37.1	602.7	128.3
343	175	1.89	46576	16.2896	3	0.84724	4.8	0.100141	3.8	0.789	1.1	615.2	22.4	6			

385	1078	1.07	131320	16.4531	1.9	0.80635	2.7	0.096264	1.9	0.697	1.2	592.5	10.7	600.4	12.3	630.5	42
386	365	1.41	31244	16.4835	3.6	0.83306	5	0.099637	3.5	0.696	0.45	612.3	20.3	615.3	23.1	626.5	77.4
387	319	1.07	6052	19.0471	8	0.36532	9	0.050488	3.9	0.439	-0.39	317.5	12.2	316.2	24.3	306.3	183.2
388	175	1.87	10248	16.66	4.2	0.83093	5.6	0.100446	3.7	0.659	-0.44	617	21.9	614.1	26	603.5	91.9
389	994	1.25	24201	19.1847	2.7	0.35719	3.6	0.049722	2.4	0.665	-0.77	312.8	7.4	310.1	9.7	289.9	62
390	243	0.86	16222	16.4343	3.7	0.82252	5.3	0.098083	3.7	0.708	0.96	603.2	21.6	609.5	24.2	632.9	80.5
391	440	1.15	60935	16.5369	2.9	0.82754	4.8	0.099297	3.8	0.799	0.27	610.3	22.3	612.2	22	619.5	62.2
392	635	0.83	16312	16.5664	3.8	0.85313	5.1	0.10255	3.4	0.672	-0.44	629.3	20.5	626.4	23.8	615.6	81.5
394	318	1.43	42730	16.6928	3.5	0.82524	5.9	0.099955	4.5	0.809	-0.43	614.1	28	611	27.1	599.2	75.2
395	2546	4.36	204720	13.6595	1.6	1.67115	3	0.165632	2.8	0.835	0.85	988	22.9	997.6	19	1018.8	33.3
396	391	3.11	525663	9.0944	1.7	4.72323	3.2	0.31168	2.6	0.832	1.4	1749	40.2	1771.4	26.4	1797.9	31.8
397	844	0.67	19326	16.7571	2.1	0.76688	3	0.093244	2.2	0.724	0.51	574.7	12.1	578	13.4	590.9	45.3
398	338	1.26	18939	16.5507	3.8	0.82129	4.6	0.09863	2.7	0.577	0.39	606.4	15.4	608.8	21.2	617.7	81.5
400	519	1.2	44508	16.4494	2	0.83429	3.1	0.099578	2.4	0.775	0.57	611.9	14	616	14.3	631	42.2
401	205	1.24	28324	16.1016	3.1	0.8491	5.5	0.099203	4.5	0.821	2	609.7	26.2	624.2	25.6	676.8	67
402	231	1.76	7665	16.8795	5.5	0.78727	6.2	0.096423	2.8	0.455	-0.66	593.4	15.9	589.6	27.5	575.1	119.2
403	150	1.58	11230	16.389	4.6	0.87114	6.3	0.103594	4.3	0.681	0.11	635.4	26	636.2	29.9	638.9	99.6
404	349	1.49	21633	16.4413	3	0.82281	5.1	0.098159	4.1	0.808	0.83	603.6	23.6	609.6	23.2	632	64.3
406	241	1.64	21151	16.487	3.2	0.82535	5.2	0.098736	4.1	0.789	0.56	607	23.7	611	23.8	626	68.6
407	126	2.15	3769	16.7307	10.2	0.79827	11.5	0.096907	5.2	0.45	-0.07	596.3	29.4	595.9	51.7	594.3	221.8
408	181	1.89	230925	16.3719	3.5	0.82628	6	0.098157	4.8	0.806	1.1	603.6	27.8	611.5	27.5	641.1	76.2
409	163	1.81	11905	16.2953	4.5	0.84502	5.8	0.099913	3.5	0.615	1.3	613.9	20.8	621.9	26.8	651.2	97.7
410	211	1.66	20235	16.5687	3.2	0.82611	4.1	0.099316	2.6	0.629	0.16	610.4	14.9	611.5	18.7	615.3	68.3
411	115	2.38	70040	16.0344	4	0.85957	5.7	0.100007	4.1	0.717	2.3	614.4	24	629.9	26.8	685.7	84.9
412	168	1.95	11105	16.4982	4.3	0.8185	6.2	0.097983	4.4	0.711	0.7	602.6	25.1	607.2	28.1	624.5	93.3
413	131	0.55	11027	17.8221	5.6	0.55021	6.6	0.071152	3.4	0.511	14.4	443.1	14.4	445.1	23.7	455.7	125.3
414	309	1.48	29844	16.4467	2.7	0.82273	4	0.098182	3	0.751	0.85	603.7	17.4	609.6	18.5	631.3	57.3
415	200	13.54	6331	17.7912	7.1	0.59511	8	0.076823	3.8	0.471	-0.62	477.1	17.3	474.1	30.3	459.6	156.7
416	170	2.13	6710	16.8839	6.5	0.80374	8.3	0.098464	5.1	0.618	-1	605.4	29.7	598.9	37.6	574.5	142.3
418	3461	0.63	114731	16.5969	1.3	0.83184	2.4	0.100175	2.1	0.84	-0.11	615.4	12.1	614.6	11.3	611.7	28.6
419	427	1.27	54388	16.4315	2.7	0.83163	4.8	0.099153	4	0.834	0.68	609.4	23.4	614.5	22.2	633.3	57.3
420	314	1.31	9049	16.2777	4.2	0.85546	5.2	0.101039	3.1	0.591	1.1	620.5	18.1	627.6	24.3	653.5	89.8
422	378	1.6	12179	15.9915	3.5	0.89346	5.8	0.103671	4.7	0.804	1.6	635.9	28.5	648.2	28	691.4	74.2
423	174	2.06	47651	16.4265	3.4	0.82915	5.4	0.098827	4.1	0.769	0.81	607.5	24	613.1	24.8	633.9	74.3
424	376	1.39	19671	16.4563	3.4	0.81333	5.4	0.097117	4.2	0.779	0.98	597.5	24	604.3	24.6	630	72.8
425	214	1.48	21783	16.5388	3.8	0.84708	5.8	0.101654	4.4	0.754	-0.15	624.1	26.1	623	27.1	619.2	82.3
426	226	1.45	226072	16.3605	3.2	0.84085	5	0.099818	3.9	0.772	0.87	613.3	22.7	619.6	23.3	642.6	68.5
427	174	1.4	11374	16.6971	4.5	0.81714	5.2	0.098998	2.6	0.496	-0.35	608.5	15	606.4	23.7	598.6	97.8
428	270	1.33	23043	16.6135	3.7	0.81942	4.8	0.098779	3.1	0.65	0.074	607.2	18.1	607.7	22	609.5	78.9
429	247	1.68	32948	16.3112	3.3	0.84581	5.6	0.100104	4.6	0.817	0.98	615	27	622.3	26.3	649.1	70
430	189	1.41	249344	16.27	3	0.86536	4.3	0.10216	3.1	0.718	0.86	627.1	18.3	633	20.1	654.5	63.9
431	169	2.16	16375	16.417	4	0.82426	5.4	0.098186	3.5	0.666	1.1	603.8	20.4	610.4	24.6	635.2	86.7
432	396	1.36	15221	16.6203	2.9	0.82321	4	0.099276	2.7	0.672	-0.05	610.2	15.5	609.8	18.1	608.6	63.3
433	240	1.63	7876	16.6132	5.2	0.84225	7	0.101529	4.6	0.661	-0.45	623.4	27.4	620.4	32.4	609.5	113.2
434	227	1.43	9097	16.7754	5.5	0.82931	6.9	0.100945	4.3	0.617	-1	619.9	25.3	613.2	31.9	588.5	118.3
435	352	1.84	53361	16.3903	2.9	0.83885	4.1	0.099762	2.9	0.703	0.82	613	16.9	618.5	19.1	638.7	63.1
436	213	1.08	53147	16.4313	3.6	0.85455	5.7	0.101884	4.4	0.767	0.23	625.4	26	627.1	26.6	633.3	78.4
437	316	1.06	28232	16.4185	3.4	0.82575	7.7	0.098373	6.9	0.896	0.91	604.9	39.6	611.2	35.2	635	73.1
439	536	1.06	31385	16.4775	2.7	0.83928	6.3	0.100344	4.6	0.86	0.31	616.4	26.8	618.7	24.6	627.2	58.4
442	249	1.47	8144	16.9558	5.3	0.77843	5.6	0.095771	3.9	0.588	-0.82	589.6	21.8	584.6	29.2	565.3	115.7
443	508	0.97	18992	16.4142	3.1	0.80441	4.3	0.095805	2.9	0.682	1.5	589.8	16.4	599.3	19.4	635.6	67.4
445	142	1.54	9459	16.6678	5	0.81799	6.1	0.098928	3.5	0.571	-0.19	608.1	20.1	606.9	27.6	602.4	107.5
446	178	1.43	16303	16.2672	2.5	0.83253	5.7	0.098267	5.1	0.896	1.5	604.2	29.4	615	26.2	654.9	84.2
448	201	1.56	75646	16.2374	3.9	0.85955	5.4	0.101271	3.8	0.703	1.2	621.9	22.7	629.9	25.5	658.8	83
449	349	1.26	11535	15.8535	6.4	0.87992	6.8	0.10122	2.5	0.362	3.3	621.6	14.6	640.9	32.5	709.9	135.5
450	383	1.22	27932	16.5411	2.8	0.82071	3.8	0.098503	2.5	0.654	0.44	605.6	14.2	608.4	17.2	618.9	61.3
451	270	1.53	9988	16.4447	4.1	0.83345	5.9	0.099448	4.3	0.723	0.64	611.2	24.9	615.5	27.2	631.6	87.9
452	360	1.18	224563	16.3284	3	0.88512	4.7	0.104866	3.7	0.775	0.12	642.9	22.4	643.7	22.5	646.8	64.2
454	103	2.06	10056	16.6856	6.4	0.37205	7.9	0.050444	4.8	0.599	1.1	317.2	14.7	321.2	21.9	349.8	143.7
455	466	1.32	220333	16.3348	2.6	0.83729	4.5	0.09924	3.7	0.821	1	610	21.5	617.6	20.9	646	55.4
457	329	1.34	27316	16.233	2.4	0.85884	4.1	0.10116	3.3	0.806	1.1	621.2	19.7	629.5	19.4	659.4	52.5
458	329	1.65	25128	16.6941	2.5	0.81818	4.5	0.099108	3.7	0.823	-0.29	609.2	21.5	607	20.5	599	55.1
459	162	1.65	6367	16.3843	6.7	0.81651	8.3	0.09707	4.8	0.585	1.5	597.2	27.6	606.1	37.8	639.5	144.5
460	107	2.2	5023	16.76	8.3	0.73811	9.2	0.089761	4.2	0.449	1.3	554.1	22.1	561.3	39.9	590.5	179.1
461	396	1.15	45557	16.6124	3.8	0.83326	5.5	0.10044	3.9	0.723	-0.23	617	23.2	615.4	25.2	609.6	81.5
464	328	1.31	14144	16.5241	3.1	0.81106	5.4	0.097244	4.4	0.818	0.66	598.2	25.4	603	24.7	621.1	67.3
466	252	1.87	131045	16.3556	3.7	0.83615	5.5	0.099231	4	0.736	1.1	609.9	23.4	617	25.2	643.3	79.3
467	184	1.8	33402	16.3231	3.7	0.84351	5.2	0.099904	3.6	0.698	1.1	613.8	21	621.1	23.9	647.5	79.3
469	394	1.3	619550	16.4347	2.3	0.85192	3.5	0.101592	2.7	0.764	0.27	623.7	15.9	625.7	16.4	632.9	48.7
470	467	1.05	28597	16.608	2.4	0.78174	8.4	0.094205	8	0.958	1.6	580.4	44.6	586.5	37.4	610.2	51.8
474	462	1.31	38189	16.5258	2.8	0.83515	3.7	0.100144	2.4	0.65	0.19	615.3	14.3</				

513	291	1.41	25273	16.4689	2.8	0.8568	4.1	0.102386	2.9	0.712	-0.00029	628.4	17.3	628.4	19	628.4	61.3
514	140	2.01	34382	16.0642	4.5	0.85669	6.2	0.09974	4.3	0.693	2.3	612.9	25.1	627.8	29	681.7	95.2
515	119	1.87	10736	16.2641	4.5	0.84542	7	0.09977	5.4	0.77	1.3	613.1	31.6	622.1	32.7	655.3	96.3
518	2519	0.62	83745	16.5148	1.7	0.85242	3.2	0.102146	2.7	0.844	-0.13	627	16	626	14.8	622.4	36.6
519	177	1.26	25045	15.6927	5	0.85681	6.4	0.097561	4	0.627	4.6	600.1	23.1	628.4	30.1	731.5	106.1
521	2684	0.59	161755	16.3814	1.5	0.8409	2.3	0.099952	1.8	0.758	0.76	614.1	10.3	619.6	10.8	639.9	32.7
522	205	1.92	28757	16.4868	3	0.86246	5	0.103174	4	0.802	-0.2	633	24.2	631.5	23.5	626	64.5
523	372	1.29	19535	16.5876	3.2	0.82186	4.9	0.098918	3.8	0.767	0.14	608.1	21.9	609.1	22.5	612.9	68.2
524	791	2.1	66595	17.9582	1.7	0.50993	3.3	0.066445	2.8	0.85	0.71	414.7	11.3	418.4	11.4	438.8	38.8
525	208	1.79	4127	16.8394	3.9	0.80892	5	0.098839	3.1	0.617	-0.91	607.6	17.8	601.9	22.6	580.2	85.1
526	844	0.96	58461	16.6824	1.6	0.81671	3.4	0.09886	3	0.885	-0.21	607.7	17.7	606.2	15.7	600.5	34.7
527	506	1.36	28168	16.5373	2.6	0.84389	3.8	0.101261	2.9	0.746	-0.07	628.8	17	621.3	17.9	619.4	55.3
528	211	2.2	49263	16.0659	3	0.87074	5.2	0.101505	4.3	0.819	1.7	623.2	25.3	636	24.6	681.5	63.8
529	157	2.14	17514	16.6318	4	0.81787	7.3	0.0987	6	0.833	0.01	606.8	35	606.9	33.1	607.1	86.8
530	241	1.48	17621	16.2289	4	0.83036	6.9	0.097779	5.6	0.817	1.7	601.4	32.3	613.8	31.7	659.9	85.3
531	253	1.22	67654	16.1922	3.1	0.84424	4.4	0.09919	3.2	0.722	1.7	609.7	18.6	621.5	20.6	664.8	65.7
532	303	1.41	21876	16.4418	3.7	0.86001	5	0.102599	3.4	0.674	0.075	629.6	20.2	630.1	23.4	631.9	79.5
533	165	0.69	6846	19.1339	6.4	0.37191	7.7	0.051633	4.2	0.544	-0.98	324.5	13.2	321.1	21.1	295.9	146.9
534	145	2.41	13954	16.5711	5.3	0.85741	7.7	0.103093	4.6	0.652	-0.57	632.5	27.6	628.7	32.9	615	115.1
535	854	1.3	53463	16.5549	2.4	0.77845	3.6	0.093509	2.7	0.749	1.3	576.3	14.9	584.6	16	617.1	51.7
536	184	1.76	21974	16.5631	3.4	0.82334	5.2	0.09895	4	0.767	0.23	608.3	23.3	609.9	24	616.1	72.5
537	575	0.73	13398	18.8123	4.1	0.37083	5	0.050618	2.9	0.579	0.56	318.3	9	320.3	13.7	334.5	92
539	145	1.93	11781	16.377	4.4	0.84526	5.9	0.100443	4	0.679	0.76	617	23.7	622	27.6	640.4	93.6
540	878	3.27	21104	18.893	3.2	0.35702	4.1	0.048943	2.6	0.629	0.57	308	7.8	310	11.1	324.8	73.1
541	328	1.11	41686	16.6952	3.7	0.81603	6.7	0.098854	2.9	0.61	-0.29	607.7	16.6	605.8	21.5	598.9	80.7
542	171	1.89	10002	16.5826	4	0.83929	6.1	0.100985	4.6	0.754	-0.2	620.2	27.2	618.8	28.3	613.5	86.6
543	193	1.58	7029	16.5018	6.4	0.82944	7.4	0.099314	3.6	0.491	0.49	610.4	21	613.3	33.9	624	138.3
544	298	1.58	25282	16.4721	2.5	0.85902	4.3	0.10267	3.5	0.813	-0.059	630	20.8	629.6	20	627.9	53.7
545	219	1.55	10930	16.8363	4.8	0.81453	6.3	0.099506	4.1	0.65	-1	611.5	24	605	28.9	580.7	104.5
546	692	0.96	227697	16.4471	2.1	0.85183	3.2	0.101657	2.4	0.761	0.22	624.1	14.6	625.7	15	631.3	44.9
547	115	2.7	9865	16.5191	4.6	0.8144	6.6	0.097616	4.7	0.712	0.68	600.4	26.9	604.9	30	621.8	97.7
549	304	1.73	37780	16.3445	2.7	0.83791	4.9	0.099372	4.1	0.836	0.97	610.7	23.8	618	22.6	644.7	59.6
550	231	1.67	366103	16.1466	2.4	0.86108	5.3	0.100883	4.7	0.893	1.5	619.6	27.9	630.7	24.9	670.8	51
551	370	0.88	57516	16.2417	2.9	0.80121	4.5	0.094421	3.4	0.761	2.4	581.6	18.9	597.5	20.2	658.3	62.3
552	277	1.58	46967	16.3489	2.4	0.83507	4	0.099061	3.2	0.801	1	608.9	18.5	616.4	18.4	644.1	51.3
553	449	1.26	58706	16.259	2.2	0.82845	3.3	0.097736	2.5	0.746	1.7	601.1	14.3	612.8	15.4	656	47.7
554	248	1.46	23038	16.5335	3.8	0.84696	4.7	0.101606	2.9	0.603	-0.13	623.8	17	623	22	619.9	81.4
555	265	1.74	22628	16.2743	3.9	0.82626	6.7	0.09757	5.4	0.811	1.6	600.2	31.2	611.5	30.8	653.9	84.3
556	189	2.04	44946	16.5931	2.9	0.84929	5.2	0.102253	4.3	0.827	-0.44	627.6	25.6	624.3	24.2	612.2	62.9
557	262	1.79	11838	16.3638	4.6	0.83188	5	0.098773	2.1	0.423	1.3	607.2	12.4	614.7	23.3	642.2	98.3
558	386	2.37	36962	18.2743	3.1	0.42857	4.5	0.056827	3.3	0.721	1.4	356.3	11.3	362.2	13.8	399.8	70.3
559	358	1.35	206465	16.3637	2.7	0.82704	4.1	0.098197	3	0.744	1.2	603.8	17.5	612	18.7	642.2	58.5
560	311	1.56	29208	16.8354	3.8	0.81832	6.4	0.099964	5.1	0.796	-0.96	614.2	29.6	607.1	29	580.7	83.5
561	298	2.13	11456	16.5264	4.3	0.7595	5.6	0.091075	3.6	0.644	2	561.9	19.4	573.7	24.5	620.8	92.3
563	212	1.3	22398	16.1787	4.3	0.84317	5.8	0.098981	3.8	0.664	2	608.4	22.2	620.9	26.8	666.5	92.4
564	481	0.97	46169	16.5012	3	0.81267	4.5	0.097303	3.3	0.733	0.8	598.6	18.7	604	20.3	624.1	65.4
565	208	1.61	6603	16.6719	5.7	0.84893	7.8	0.102695	5.4	0.689	-0.89	630.2	32.3	624.1	36.5	601.9	122.7
566	120	1.91	17895	16.5915	4.1	0.84073	5.8	0.101213	4.1	0.709	-0.29	621.5	24.2	619.6	26.7	612.4	87.7
568	198	1.28	34792	16.5288	4.1	0.84201	5.6	0.100984	3.9	0.683	0.011	620.2	22.8	620.3	26.2	620.5	88.9
569	247	1.34	54064	16.6221	3.2	0.84805	5.1	0.102283	4	0.784	-0.56	627.8	24.1	623.6	24	608.4	69.1
570	305	2.18	48211	13.6215	3.3	1.61403	5.1	0.159255	2.9	0.761	2	954.1	34.3	975.7	31.9	1024.5	66.7
571	306	1.04	47518	16.2623	3	0.82846	4	0.097758	2.7	0.669	1.8	601.3	15.5	612.8	18.5	655.5	64.2
572	159	1.78	10096	16.8098	4.2	0.82498	6.1	0.100623	4.4	0.717	-1	618.1	25.7	610.8	27.9	584.1	92.2
574	501	1.08	220252	16.1905	2.9	0.88707	4.5	0.104211	3.4	0.76	0.79	639	20.6	644.8	21.3	665	62.2
575	364	1.36	375635	16.3601	3	0.8243	5.2	0.097852	4.2	0.812	1.2	601.8	24.1	610.4	23.7	642.7	64.7
576	227	2.16	57481	16.6065	3.5	0.83963	5.4	0.101172	4.1	0.763	-0.32	621.3	24.4	618.9	25	610.4	75.5
577	175	2.56	19951	16.2547	2.9	0.84069	5.6	0.099153	4.8	0.855	1.3	609.4	27.8	619.5	26	656.5	62.4
578	367	14.75	21192	18.683	2.8	0.42543	4.4	0.057673	3.4	0.765	-0.36	361.5	11.8	359.9	13.3	350.1	63.9
579	209	1.3	19722	16.5737	4	0.83046	6	0.09987	4.5	0.743	0.03	613.6	26.3	613.9	27.9	614.7	87.5
580	146	2.1	12388	16.0204	3.4	0.84956	5.8	0.098756	4.7	0.808	2.4	607.1	27.3	624.4	27.2	687.6	73.1
581	295	1.27	28667	16.5997	3.5	0.82182	4.7	0.098985	3.1	0.663	0.094	608.5	18	609.1	21.4	611.3	75.7
583	208	1.71	19648	16.4307	3.6	0.85278	5.2	0.101668	3.8	0.724	0.28	624.2	22.5	626.2	24.4	633.4	77.5
584	142	1.82	8989	16.6534	5.5	0.85561	7	0.103389	4.3	0.621	-1	634.2	26.1	627.7	32.6	604.3	118.3
585	511	1.31	54883	16.2394	2.5	0.8754	4.2	0.10315	3.3	0.792	0.76	632.8	19.9	638.5	19.8	658.5	54.7
587	346	1.25	9851	16.8555	4.7	0.81172	6	0.099275	3.7	0.61	-1.1	610.2	21.3	603.4	27.3	578.2	103.2
588	264	1.62	14638	16.5645	3.6	0.82534	4.9	0.099198	3.4	0.685	0.2	609.7	19.6	611	22.6	615.9	77.3
589	206	1.75	12524	16.4178	4.1	0.84338	6.4	0.100469	4.9	0.767	0.54	617.2	28.7	621	29.6	635.1	87.8
590	191	1.97	15488	16.3065	3.6	0.8551	6.4	0.101174	5.3	0.826	0.81	621.3	31.2	627.4	29.9	649.7	77.3
592	156	1.65	14690	16.2129	4.3	0.83969	7	0.105134	5.6	0.792	0.51	644.4	34.1	648.3	33.7	662	92
593	136	2.19	12092	16.3859	5	0.83226	7.1	0.098952	5.1	0.71	0.98	608.3	29.4	614.9	32.9	639.3	108.1
595	170	1.58	10187	16.3587	4.7	0.85941	6	0.10201	3.8	0.624	0.55	626.2	22.4	629.8	28.3	642.9	101.1

53	171	47.51	13607	18.7804	4.3	0.40092	5.8	0.054634	3.9	0.665	-0.15	342.9	12.9	342.3	16.9	338.3	98.2
55	81	2.31	91670	13.9438	2.3	1.60605	4.3	0.162493	3.6	0.845	0.18	970.6	32.5	972.6	26.7	977	46.6
56	268	100.83	27073	18.7566	3.5	0.42402	4.3	0.057708	2.6	0.603	-0.7	361.7	9.2	358.9	13.1	341.2	78.3
57	186	2.26	64502	13.6182	2.4	1.73329	5.8	0.171271	5.3	0.913	0.23	1019.1	50.1	1021	37.4	1024.9	47.9
59	472	17.99	70455	16.5981	5.6	0.68618	12.6	0.08264	11.2	0.894	2.9	511.9	55.2	530.5	51.9	611.5	121.8
61	111	5.13	610186	15.7375	4.8	0.86066	6.4	0.098279	4.3	0.668	4.1	604.3	24.7	630.5	30.1	725.5	101.2
62	158	70.43	129835	18.9593	4.1	0.4049	6	0.055701	4.3	0.724	-1.1	349.4	14.7	345.2	17.5	316.8	93.6
64	368	4.81	148137	11.7718	2.9	2.50736	5.3	0.214168	4.4	0.833	1.7	1251	49.9	1274.2	38.2	1313.5	56.5
66	517	50.73	188538	18.1341	3.1	0.44929	9.7	0.059117	9.2	0.947	1.6	370.3	33.1	376.8	30.6	417.1	69.6
67	233	16.93	54888	17.7254	3.7	0.48328	4.6	0.062157	2.7	0.588	2.8	388.7	10.3	400.3	15.3	467.8	82.8
68	265	65.63	33957	18.6987	3.5	0.42003	5.7	0.056989	4.5	0.789	-0.28	357.3	15.8	356.1	17.3	348.2	79.8
71	257	31.31	1344822	18.7376	2.9	0.42864	4.2	0.058278	3	0.714	-0.71	365.1	10.7	362.2	12.8	343.5	66.6
73	394	158.38	34397	18.8617	3.4	0.39461	4.3	0.054006	2.7	0.629	-0.36	339.1	9	337.7	12.5	328.5	76.7
74	265	206.23	81876	18.3558	3	0.41408	3.8	0.055151	2.4	0.621	1.5	346.1	7.9	351.8	11.2	389.9	66.5
76	336	13.45	198253	18.934	2.9	0.38155	4.2	0.052419	3.1	0.722	-0.31	329.4	9.8	328.2	11.8	319.9	66.4
77	276	2.26	158895	12.3218	1.5	2.29241	3.4	0.204956	3.1	0.9	0.83	1201.9	33.5	1210	24	1224.3	29.2
80	178	114.56	154320	18.6112	3.9	0.43073	5.3	0.058166	3.6	0.676	-0.19	364.5	12.6	363.7	16.1	358.8	87.7
81	300	147.12	39581	18.4354	2.6	0.4057	6.2	0.054268	3.4	0.799	1.2	340.7	11.3	345.8	12.4	380.1	57.4
83	263	211.56	45622	18.9988	4.3	0.4365	4.5	0.060173	4.9	0.752	-2	376.7	17.9	367.8	20.1	312.1	97.7
87	439	142.8	171674	18.2445	2.9	0.44839	3.6	0.059359	2.2	0.616	1.1	371.7	8.1	376.2	11.4	403.5	64.1
90	127	65.48	27112	18.5884	6	0.40869	7.9	0.055123	5.1	0.647	0.53	345.9	17.1	347.9	23.2	361.5	135.3
92	363	65.5	71489	17.7119	3.6	0.47418	4.5	0.060939	2.7	0.591	3.1	381.3	9.9	394.1	14.8	469.5	80.7
93	197	92.63	19771	19.0563	4.9	0.40388	6	0.055844	3.5	0.587	-1.5	350.3	12.1	344.5	17.6	305.2	111.2
96	273	50.86	47789	17.7434	4.7	0.48979	5.6	0.063059	3	0.538	2.5	394.2	11.5	404.8	18.7	465.6	104.7
98	632	69.13	42720	18.247	2.1	0.45452	2.9	0.060178	2.1	0.706	0.86	376.7	7.6	380.4	9.3	403.2	46.7
100	268	13.26	42793	18.9629	3.2	0.38659	3.8	0.053192	2.1	0.546	-0.61	334.1	6.8	331.9	10.8	316.3	72.5
101	130	3.17	588477	12.3117	2.3	2.28838	4.3	0.204428	3.6	0.839	0.76	1199.1	39.5	1208.7	30.4	1226	46
102	212	3.06	195977	12.696	2.2	2.13158	4.5	0.196364	3.9	0.875	0.31	1155.8	41.7	1159.1	31.2	1165.3	43.4
104	381	36.15	126715	17.8747	3.4	0.46464	5.5	0.062063	4.3	0.786	2.3	377.2	15.8	387.5	17.6	449.2	75.1
105	168	69.98	55604	18.267	4.1	0.43302	4.9	0.057394	2.7	0.555	1.4	359.8	9.6	365.3	15.2	400.7	92.1
110	249	62.02	115676	18.2995	2.8	0.42317	4	0.056189	2.9	0.725	1.5	352.4	10	358.3	12.1	396.8	61.9
111	81	2.84	21180	17.5578	6.2	0.56623	10.2	0.072137	8.1	0.797	1.2	449	35.3	455.6	37.5	488.8	136.1
115	589	13.8	127518	19.1078	3	0.37783	4.2	0.052385	3	0.704	-0.98	329.1	9.5	325.4	11.7	299	68
116	945	4.77	1313657	13.607	1.6	1.57393	3.2	0.155397	2.8	0.864	2.8	931.1	24.3	960	20.2	1026.6	33
119	319	33.47	76856	18.9409	2.5	0.3806	4	0.052307	3.1	0.773	-0.31	328.7	9.9	327.5	11.2	319	57.8
123	154	2.43	105979	13.9479	3	1.59373	4.9	0.161294	3.8	0.783	0.34	964	34.1	967.8	30.3	976.4	61.6
126	522	210.42	510895	18.6654	1.5	0.414	2.6	0.056071	2.1	0.818	0.015	351.7	7.3	351.8	7.8	352.2	34.1
130	463	37.11	172485	19.0586	2.9	0.37866	4	0.052364	2.7	0.687	-0.81	329	8.8	326.1	11.1	304.9	65.8
131	27	2.53	158849	12.5436	3.5	2.285	7.6	0.207971	6.7	0.887	-0.99	1218	74.8	1207.7	53.6	1189.2	69.1
134	207	60.8	175974	18.2914	3.2	0.44513	5	0.059079	3.9	0.773	0.88	370	13.9	373.9	15.6	397.7	71
137	267	35.54	27428	17.4273	5.3	0.49864	9.5	0.063054	7.8	0.828	3.6	394.2	29.9	410.8	32	505.2	116.8
138	414	172.18	150946	18.3389	2.7	0.43702	3.9	0.058152	2.8	0.721	0.91	364.4	10.1	368.1	12.2	391.9	61.2
139	339	137.34	132769	19.033	2.7	0.38248	3.6	0.052821	2.4	0.667	-0.79	331.8	7.7	328.9	10	308	60.4
142	337	112.57	368416	18.6453	2.7	0.3931	3.6	0.053182	2.3	0.654	0.71	334	7.6	336.6	10.3	354.6	61.2
146	715	155.49	128590	18.6132	2.4	0.4267	2.9	0.057629	1.7	0.572	-0.091	361.2	5.9	360.8	9	358.5	54.6
148	127	1.63	42437	12.1733	2.6	2.32437	4.3	0.205309	3.4	0.794	1.2	1203.8	37.4	1219.8	30.5	1248.2	51.2
150	313	221.94	77854	18.647	3.8	0.42161	4.6	0.057045	2.6	0.563	-0.11	357.6	9	357.2	13.9	354.5	86.1
151	255	46.45	165440	18.7365	3.8	0.39323	4.9	0.05346	3.1	0.629	0.27	335.7	10.1	337.7	14.1	343.6	86.3
154	269	2.5	137797	12.3221	1.9	2.29362	3	0.205609	2.3	0.776	0.57	1202.5	25.3	1210.3	21	1224.3	36.8
157	240	25.85	50723	18.757	3.7	0.39304	4.8	0.053492	3	0.628	0.18	335.9	9.8	336.6	13.7	341.2	84.3
158	274	36.24	30449	17.4622	6.6	0.50065	8.9	0.063434	6	0.672	3.6	396.5	22.9	412.1	30.1	500.8	144.9
159	349	42.54	60292	18.7445	3	0.38167	4.4	0.05191	3.2	0.721	0.54	326.2	10.1	328.3	12.3	342.7	68.6
161	252	123.59	128896	18.5458	3.4	0.39565	5.2	0.053242	3.9	0.753	1.1	334.4	12.8	338.5	15	366.7	77.1
162	277	55.64	74823	18.02	5	0.45984	9.7	0.060125	8.3	0.855	1.6	376.4	30.2	384.1	30.9	431.2	111.6
164	348	79.84	53545	18.2339	2.8	0.44574	3.6	0.058974	2.2	0.608	1.2	369.4	7.8	374.3	11.1	404.8	63.3
165	173	1.55	37369	11.3437	2.6	2.78048	4	0.228859	3	0.758	1.5	1328.5	36.1	1330.3	29.7	1385	49.8
166	235	98.36	58913	18.9598	3.5	0.395	4.5	0.054341	2.9	0.64	-0.82	341.1	9.6	338	13	316.7	79.2
167	220	125.83	79043	18.4115	4.8	0.39487	5.4	0.052752	2.5	0.458	1.8	331.4	7.9	337.9	15.4	363.1	107
171	180	61.43	73612	18.5252	3.7	0.40477	6.7	0.054408	5.5	0.833	0.87	341.5	18.5	345.1	19.5	360.2	83
173	324	3.2	179636	16.0337	3.3	0.83315	4.8	0.096929	3.5	0.721	2.9	596.4	19.7	615.4	22.2	685.8	71.2
175	288	38.97	44571	19.0139	3.3	0.39583	4.1	0.054611	2.4	0.595	-1.1	342.8	8.1	338.6	11.8	310.3	74.9
176	287	121.44	63050	18.2665	3.9	0.44982	4.6	0.059619	2.4	0.527	0.97	373.3	8.8	377.2	14.5	400.8	87.4
177	171	98.34	65505	18.7512	3.3	0.41373	4.8	0.056291	3.5	0.732	-0.36	353	12.1	351.6	14.3	341.8	74.1
180	170	81.71	15842	18.6694	4.2	0.41682	5.2	0.056464	3	0.576	-0.081	354.1	10.3	353.8	15.5	351.7	96
183	295	124.43	86603	18.4598	3.7	0.40494	4.9	0.054239	3.2	0.651	1.3	340.5	10.5	345.2	14.3	377.2	83.4
185	251	129.18	71779	18.5054	2.7	0.40569	4	0.054473	3	0.734	0.96	341.9	9.9	345.8	11.8	371.6	61.7
187	209	86.17	19817	18.588	3.6	0.41184	4.7	0.055546	2.9	0.627	0.45	348.5	10	350.2	13.9	361.6	82.2
188	224	90.13	155762	18.6231	3.5	0.41316	4.7	0.055829	3.1	0.665	0.24	350.2	10.6	351.1	13.9	357.3	78.7
189	265	111.21	41769	18.8626	3.5	0.38586	5.1	0.052811	3.6	0.72	-0.11	331.8	11.8	331.3	14.3	328.4	79.7
191	338	27.37	197032	18.045	3.9	0.44389	5.1	0.05812	3.3	0.652	2.2	364.2	11.8	373	16	428.1	86.8
203	145	9.77	23242	17.2894	7.1	0.52882	14.7	0.066341	12.9	0.877	3.2	414.1	5				

259	302	4.76	60730	14.1402	1.9	1.43615	5.5	0.147349	5.2	0.941	3	886.1	43.1	904.1	33.1	948.4	38.3
261	681	94.25	59513	18.5238	2.2	0.41416	2.7	0.055666	1.6	0.602	0.7	349.2	5.6	351.9	8.1	369.4	48.8
263	222	76.7	108817	19.0531	2.6	0.39489	4.7	0.054593	3.9	0.832	-1.1	342.7	12.9	337.9	13.4	305.5	5.9
264	230	112.58	109048	19.0513	4	0.41357	5.5	0.057169	3.8	0.688	-1.7	358.4	13.1	351.4	16.2	305.8	90.2
268	480	37.71	32551	18.9211	2.1	0.38303	3.1	0.052586	2.3	0.732	-0.29	330.4	7.3	329.3	8.7	321.4	47.6
269	239	9.74	225213	18.8188	2.9	0.37811	3.9	0.05163	2.6	0.66	0.31	324.5	8.2	325.6	10.9	333.7	66.4
270	229	42.97	12927	18.9721	3.8	0.39424	5.1	0.054272	3.3	0.657	-0.86	340.7	11	337.5	14.6	315.2	87
272	283	126.1	114944	19.0307	2.6	0.39182	3.6	0.054105	2.5	0.702	-1	339.7	8.4	335.7	10.3	308.3	58.3
273	250	35.84	50510	17.4101	5.6	0.48574	6.6	0.061362	3.4	0.518	4.4	383.9	12.7	402	21.8	507.4	123.3
275	278	72.03	38895	18.484	2.9	0.40527	4.1	0.054355	2.8	0.696	1.1	341.2	9.4	345.5	11.9	374.2	65.6
277	240	90.05	67648	18.6676	3.3	0.43805	4.1	0.059335	2.5	0.603	-0.67	371.6	8.9	368.9	12.7	351.9	74
282	319	13.29	60008	17.0325	5.7	0.61086	6.8	0.075494	3.8	0.56	3.1	469.2	17.3	484.1	26.3	555.5	123.6
284	247	126.81	737647	18.6494	3.7	0.40003	5.1	0.054131	3.5	0.683	0.48	339.8	11.5	341.7	14.8	354.1	84
285	366	2.82	125761	13.3868	2.2	1.72918	3.5	0.167962	2.7	0.779	1.6	1000.9	25.2	1019.4	22.5	1059.6	44.1
286	230	124.23	161689	18.7137	3.2	0.41566	4.3	0.056441	2.8	0.651	-0.26	353.9	9.6	352.9	12.7	346.4	73.3
287	161	108.88	17639	18.5364	5.3	0.39975	6.4	0.053766	3.5	0.544	1.1	337.6	11.4	341.5	18.5	367.8	120.4
288	285	136.35	20263	18.7808	3.3	0.40788	4.2	0.055583	2.6	0.622	-0.36	348.7	8.8	347.3	12.2	338.2	73.7
292	548	13.43	494050	13.6985	1.5	1.66786	3.4	0.165779	3.1	0.897	0.87	988.8	28.4	996.4	21.9	1013	30.8
293	283	97.3	595674	18.8344	2.8	0.40159	3.8	0.054881	2.6	0.677	-0.42	344.4	8.6	342.8	11	331.8	63.1
295	140	75.82	23514	18.4213	5.1	0.43749	6.4	0.058476	3.8	0.594	0.54	366.4	13.4	368.5	19.6	381.9	114.9
298	236	14.17	40177	17.3584	4.7	0.53001	8.1	0.066755	6.5	0.811	3.1	416.6	26.4	431.8	28.4	513.9	103.9
299	425	97.69	2988139	16.1675	7.3	0.71071	15.6	0.083374	13.8	0.885	4.4	516.2	68.4	545.2	65.8	668.1	155.5
300	126	46.71	225966	18.1637	4.6	0.43938	6	0.057909	3.9	0.651	1.7	362.9	13.9	368.8	18.7	413.4	102.6
302	66	1.65	25893	13.9341	4.9	1.46897	8.1	0.148521	6.4	0.79	2.4	892.7	53.1	917.7	48.7	978.4	100.6
308	207	61.83	88971	18.5734	3.1	0.45146	4.5	0.060843	3.2	0.717	-0.57	380.7	11.9	378.3	14.2	363.3	70.6
309	432	11.99	2528261	17.4781	5.8	0.49922	7.1	0.063311	4	0.572	3.7	395.7	15.5	411.2	23.8	498.8	127.4
310	494	124.73	180775	18.6672	2.5	0.40314	3.3	0.054605	2.3	0.677	0.3	342.7	7.6	343.9	9.8	352	55.7
313	242	74.78	42068	18.748	3.1	0.40097	4.1	0.054546	2.6	0.635	-0.0052	342.4	8.6	342.4	11.8	342.3	71.2
314	323	104.13	1330466	18.6434	3.2	0.40065	4.7	0.054199	3.5	0.738	0.47	340.2	11.5	342.1	13.6	354.9	71.4
315	245	89.18	188947	19.0103	4	0.39405	5	0.054354	2.9	0.582	-1	341.2	9.6	337.3	14.3	310.7	92.1
316	148	2.35	42004	12.6137	4.1	2.0635	7.1	0.18886	5.8	0.816	1.7	1115.2	59.2	1136.8	48.5	1178.2	81.1
318	165	1.59	195477	11.0061	2.1	3.13543	4.8	0.250394	4.3	0.898	0.083	1440.5	55.8	1441.4	37.1	1442.8	40.3
326	275	105.49	30464	18.7834	2.8	0.43914	3.8	0.05985	2.6	0.677	-1.2	374.7	9.4	369.6	11.9	337.9	63.8
330	217	116.15	169798	18.4057	3.1	0.42729	4	0.057065	2.6	0.642	0.88	357.8	9	361.3	12.3	383.8	69.5
331	245	136.17	54447	18.3124	4.2	0.41793	5.1	0.055532	2.9	0.568	1.6	348.4	9.9	354.6	15.3	395.2	94.3
333	357	147.58	169648	18.3635	3.2	0.43506	3.8	0.057969	2.1	0.552	0.9	363.3	7.5	366.8	11.8	388.9	71.9
334	98	2.16	86792	14.9758	3.3	1.21967	5.6	0.132533	4.6	0.812	0.76	802.3	34.5	809.6	31.4	829.8	68.6
336	125	4.73	78594	13.8683	2.7	1.65659	3.7	0.166608	2.5	0.687	-0.16	993.4	23.3	991.7	23.3	988.1	54.3
338	216	21	170201	18.1763	2.6	0.45379	3.5	0.059849	2.3	0.66	1.3	374.7	8.4	379.9	11.1	411.9	58.9
339	207	129.56	101388	18.7927	3.3	0.41898	4.3	0.057132	2.7	0.639	-0.72	358.2	9.5	355.3	12.8	336.9	74.4
340	224	48.75	47593	18.173	3.1	0.47067	4.1	0.062064	2.7	0.663	0.82	388.2	10.2	391.7	13.3	412.3	68.6
341	168	57.52	119905	18.7713	3.2	0.4202	5.7	0.057232	4.7	0.829	-0.58	358.8	16.4	356.2	17	339.4	71.8
344	287	89.92	42447	18.7395	2.9	0.44043	3.8	0.059887	2.5	0.658	-1.1	374.9	9.1	370.6	11.8	343.2	64.8
347	347	4.88	5834944	12.8294	1.7	1.92865	2.6	0.179537	2	0.754	2.2	1064.4	19.3	1091.1	17.4	1144.6	34
350	153	66.19	33242	18.3952	3.7	0.45525	4.9	0.060764	3.2	0.656	0.16	380.3	11.8	380.9	15.5	385	82.6
351	226	132.34	1062827	18.2891	3.2	0.43388	4.1	0.057578	2.6	0.64	1.3	360.9	9.2	365.9	12.6	398	70.8
352	915	4.56	177397	17.8985	5.6	0.45553	9.9	0.059116	8.2	0.824	2.4	370.5	29.4	381.1	31.5	446.2	125
353	234	103.64	431763	18.8089	2.7	0.40308	4.8	0.055011	4	0.827	-0.31	345.2	13.4	343.9	14.1	334.9	61.3
354	335	116	74982	18.0443	3.3	0.4505	5.5	0.058984	4.3	0.797	1.9	369.4	15.6	377.6	17.2	428.1	73.5
356	115	2.34	60827	11.0578	2.1	2.93719	6.1	0.235665	5.7	0.942	3.3	1364.1	70.7	1391.5	46.2	1433.8	39.2
357	99	1.56	169618	14.1289	3.3	1.53363	5.1	0.157225	3.9	0.765	0.24	941.3	34.4	944	31.5	950.1	67.6
358	275	80.22	65767	18.8732	2.3	0.4337	3.6	0.059392	2.8	0.774	-1.4	371.9	10	365.8	11	327.1	51.2
364	121	2.5	177361	12.7146	2.3	2.12074	3.9	0.195651	3.2	0.804	0.28	1151.9	33.4	1155.6	27.2	1162.4	46.4
365	254	0.6	30835	14.0766	2.2	1.50641	3.5	0.153864	2.8	0.781	0.96	922.6	23.6	933	21.5	957.6	44.9
366	708	116.17	171181	18.3566	2.5	0.42663	4.2	0.056824	3.4	0.803	1	356.3	11.6	360.8	12.7	389.8	55.8
371	240	74.85	53266	18.5339	2.8	0.43695	3.8	0.058762	2.6	0.676	0.0019	368.1	9.1	368.1	11.7	368.1	62.6
372	74	1.66	20429	14.6697	4	1.42171	6.6	0.15133	5.2	0.791	-0.97	908.4	43.9	898.1	39.1	872.7	83.1
375	150	23.13	14544	19.1729	5.7	0.39871	7.7	0.054568	4	0.575	-1.9	348	13.7	340.7	20.3	291.3	131.2
378	331	82.75	1011492	18.9644	2.1	0.41272	4.3	0.056793	3.8	0.873	-1.1	356.1	13	350.8	12.8	316.2	47.9
379	462	82.75	217573	18.5822	2.5	0.41196	3.7	0.055545	2.7	0.74	0.46	348.5	9.2	350.3	10.9	362.3	55.8
382	439	37.8	104410	18.0816	2.8	0.47153	3.8	0.061865	2.7	0.693	1.2	387	10	392.2	12.5	423.5	61.6
383	325	128.88	49645	18.6401	2.6	0.41214	3.9	0.055742	2.9	0.747	0.18	349.7	9.9	350.4	11.5	355.3	58.5
385	262	82.47	52261	18.2777	3	0.43968	4.8	0.058311	3.7	0.778	1.1	365.3	13.2	370	14.8	399.4	67.1
386	226	81.94	97871	19.0396	2.7	0.41534	3.6	0.057379	2.5	0.674	-1.7	359.7	8.6	352.7	10.9	307.2	61.4
389	249	77.33	299150	18.6947	2.8	0.40939	5.2	0.055533	4.3	0.836	0.0076	348.4	14.6	348.4	15.2	348.7	64.2
390	142	94.41	132206	18.4274	3.6	0.43575	5.1	0.058263	3.5	0.696	0.54	365.1	12.5	367.2	15.6	381.1	81.6
391	326	129.79	62041	18.8491	2.7	0.39346	4.9	0.053812	2.9	0.738	-0.25	337.9	9.6	336.9	11.3	330	60.3
393	278	63.38	28324	18.5853	3.7	0.39864	3.9	0.053758	3.1	0.646	0.84	337.6	10.3	340.7	14.1	361.9	83.7
394	208	78.22	135279	18.486	3.9	0.42139	4.8	0.056523	2.9	0.593	0.67	354.4	9.9	357	14.5	374	87.5
395	243	99.39	53419	18.8665	4.1	0.41862	5.4	0.057306	3.5	0.653	-1	359.2	12.3	355.1	16.1	328	92.4
396	224	154.93	18454	18.792	3.8	0.4073											

458	286	23.84	152381	18.6502	3.8	0.39284	5	0.053161	3.3	0.664	0.68	333.9	10.9	336.4	14.4	354	84.8
459	254	93.01	14030	19.3174	2.4	0.38585	4.1	0.054083	3.4	0.817	-1.9	339.5	11.2	331.3	11.7	274.1	54.7
463	385	119.46	159522	19.0361	2	0.36965	3	0.051058	2.2	0.734	-0.44	321	6.9	319.4	8.2	307.6	46.5
464	204	117.26	25864	18.4682	4.2	0.42636	4.9	0.057134	2.6	0.522	0.63	358.2	8.9	360.6	14.9	376.1	94.2
465	254	65.38	23740	18.2873	5.9	0.40033	6.6	0.053121	2.8	0.432	2.3	333.7	9.3	341.9	19.1	398.2	133
466	209	31.58	30459	17.6696	5.7	0.51898	6.7	0.066538	3.5	0.529	2.1	415.3	14.2	424.5	23.2	474.8	125.6
468	162	2.81	207162	12.4724	2	2.19937	4.6	0.199042	4.1	0.9	1.1	1170.2	44.1	1180.8	31.9	1200.4	39.3
469	122	4.36	20622	14.911	2.6	1.17848	8.5	0.127504	8.1	0.953	3.5	773.6	59.4	790.6	47	838.8	54
470	668	85.4	213208	18.2918	2.4	0.44579	3.2	0.059167	2.2	0.671	0.9	370.6	7.7	374.3	10	397.7	53.3
471	93	1.21	33774	16.471	3.5	0.89262	5.8	0.106679	4.6	0.793	-0.73	653.4	28.6	647.8	27.8	628.1	76.1
474	132	3.4	207845	13.3887	2.1	1.83391	5.7	0.17816	5.3	0.926	0.1	1056.9	51.2	1057.7	37.3	1059.3	43
475	412	31.43	199610	17.3018	5.4	0.5194	7.9	0.065205	5.8	0.732	3.8	407.2	22.9	424.7	27.5	521.1	118.2
479	246	85.67	46194	18.6525	2.5	0.4504	3.8	0.060958	2.9	0.752	-0.86	381.5	10.7	377.6	12.1	353.8	57.2
480	236	97.02	64789	18.7938	3.2	0.41862	4.4	0.057086	3.1	0.702	-0.69	357.9	10.8	355.1	13.3	336.7	71.6
482	290	2.5	110318	12.9072	2.5	1.97279	3.6	0.18476	2.6	0.727	1.1	1092.9	26.5	1106.3	24.4	1132.6	49.4
484	205	31.73	265623	18.5443	3.5	0.3954	4.8	0.053204	3.2	0.677	1.1	334.2	10.6	338.3	13.8	366.9	79.3
485	516	8.18	49767	19.0335	3.5	0.37854	6.5	0.052278	5.4	0.838	-0.62	328.5	17.4	326	18	307.9	80.5
486	199	8.57	128019	16.1249	7.9	0.72346	14.1	0.084646	11.7	0.83	4.6	523.8	58.9	552.7	60.1	673.7	168.3
487	101	11.38	238735	16.9392	5.2	0.57487	9.6	0.070657	8.1	0.845	3.9	440.1	34.7	461.2	35.7	567.4	112.3
490	210	74.8	98374	18.6507	2.2	0.42148	3.9	0.057038	3.3	0.832	-0.11	357.6	11.4	357.1	11.9	354	49.5
492	851	197.1	620475	18.4915	2.1	0.42407	3.6	0.056899	2.9	0.806	0.52	356.7	10	359	10.8	373.3	47.6
494	401	211.38	1880436	18.6218	1.9	0.41531	3.2	0.056116	2.6	0.817	0.17	352	9	352.7	9.6	357.5	41.8
495	317	88	21692	18.9327	2.5	0.41717	3.5	0.057309	2.5	0.72	-1.3	359.2	8.9	354	10.6	320	55.7
496	298	2.01	251477	12.8649	2.2	2.07639	3.1	0.193825	2.1	0.699	-0.085	1142.1	22.4	1141	21	1139.1	43.5
497	212	63.89	27589	18.2936	4.5	0.4263	6.8	0.056586	5.2	0.759	1.4	354.8	17.9	360.5	20.8	397.5	99.9
498	242	6.69	112619	13.912	1.5	1.57464	3.8	0.158951	3.5	0.913	1.2	950.9	30.5	960.3	23.5	981.7	31.3
499	392	143.24	936646	18.942	2.2	0.42349	3.8	0.058205	3.1	0.811	-1.4	364.7	11.1	358.5	11.6	318.9	51.1
510	168	105.99	153300	18.1962	5.3	0.44547	6.4	0.058815	3.5	0.557	1.4	368.4	12.7	374.1	19.9	409.4	118.1
511	129	22.07	89167	17.7548	4.5	0.5135	7.7	0.066153	6.2	0.808	1.6	412.9	24.9	420.8	26.6	464.1	100.8
515	246	70.1	239761	18.7109	3.2	0.41416	4.5	0.056229	3.2	0.709	-0.2	352.6	10.9	351.9	13.4	346.7	71.8
516	229	101.64	874663	18.3254	3.7	0.44206	4.6	0.05878	2.7	0.594	0.88	368.2	9.7	371.7	14.2	393.6	82.4
518	118	3.27	28072	16.7534	3.7	0.82218	6.3	0.099945	5.2	0.815	-0.64	614.1	30.2	609.3	29	591.4	79.7
521	942	192.68	171008	18.7394	2.2	0.37476	4	0.050957	2	0.675	0.78	320.4	6.4	323.2	8.4	343.3	50.4
522	232	31.71	32420	18.8382	3.7	0.43837	4.9	0.059921	3.1	0.642	-1.5	375.1	11.4	369.1	15.1	331.4	85
527	128	2.49	34653	13.6409	2.4	1.73518	4.1	0.171743	3.3	0.805	-0.0028	1021.7	31.1	1021.7	26.3	1021.6	49.1
529	152	43.33	29176	18.5765	3.5	0.45797	5.4	0.061729	4.1	0.764	-0.73	386.1	15.5	382.8	17.3	363	78.8
530	440	43.88	323131	17.6916	3.5	0.50901	4.8	0.065341	3.3	0.687	2.2	408	13	417.8	16.4	472	76.8
532	242	113.28	69866	18.9381	3	0.40895	3.9	0.056195	2.5	0.648	-1.1	352.4	8.7	348.1	11.6	319.4	68.2
534	244	135.92	160295	18.7616	3	0.40523	4.2	0.055165	2.9	0.697	-0.19	346.2	9.9	345.4	12.3	340.6	68.2
537	2951	2.24	366904	18.701	1.6	0.38916	3	0.052806	2.5	0.84	0.5	331.7	8	333.8	8.4	347.9	36.3
538	296	108.41	111165	18.3557	3.8	0.43757	5.6	0.05828	4	0.724	0.825	365.2	14.3	368.5	17.2	389.9	86.2
539	265	173.05	77817	18.7064	3.3	0.42076	5.7	0.057111	4.6	0.811	-0.33	358	16.1	356.6	17.2	347.3	75.4
541	315	91.29	36808	18.7231	2.8	0.42414	4.4	0.057621	3.4	0.771	-0.5	361.1	11.9	359	13.3	345.3	63.1
542	228	102.09	30411	18.6238	3.5	0.40973	4.8	0.055368	3.3	0.695	0.33	347.4	11.3	348.7	14.2	357.2	77.9
543	225	108.77	103147	17.9258	4.6	0.50356	8.7	0.065497	7.4	0.848	1	409	29.1	414.1	29.5	442.8	102.1
544	517	98.58	179531	18.7302	2.7	0.42523	3.9	0.057791	2.8	0.714	-0.58	362.2	9.8	359.8	11.8	344.4	61.5
548	231	73.24	114878	18.9026	4.3	0.41631	5.3	0.057099	3	0.573	-1.2	358	10.6	353.4	15.8	323.6	98.5
549	185	154.17	54164	18.6184	3.7	0.40143	4.9	0.054231	3.3	0.672	0.59	340.4	11	342.7	14.4	357.9	82.6
553	233	69.33	142591	18.6056	3	0.41387	4	0.055873	2.7	0.668	0.3	350.5	9.2	351.7	12	359.4	68
561	241	108.47	150888	18.8156	3.5	0.41222	4.4	0.056279	2.7	0.615	-0.64	353	9.3	350.5	13.1	334.1	79
562	259	48.15	112778	17.827	4	0.49772	5.6	0.064381	3.9	0.693	1.8	402.2	15	410.2	18.8	455.1	89.1
563	127	2.14	155805	15.8291	3.9	0.89105	5.2	0.102342	3.5	0.663	2.8	628.1	20.8	646.9	25.1	713.2	83.5
564	1660	7.73	425703	16.301	1.2	0.87563	3.2	0.10357	3	0.923	0.57	635.3	17.9	638.6	15.2	650.4	26.5
566	273	116.58	263840	18.3465	3.2	0.44059	3.9	0.058652	2.3	0.592	0.82	367.4	8.3	370.7	12.2	391	71.1
567	187	86.37	82929	18.7578	3.6	0.42101	4.9	0.057302	3.3	0.677	-0.6	359.2	11.5	356.8	14.7	341	81.2
570	305	41.76	54563	17.7997	4.3	0.47786	10.9	0.061717	10	0.919	2.1	386.1	37.7	396.6	35.9	458.5	95.7
572	198	87.54	17534	18.8416	4.6	0.41093	5.3	0.056179	2.6	0.486	-0.74	352.3	8.9	349.5	15.7	330.9	105.2
576	307	135.11	30995	18.8362	3	0.38509	4.4	0.052631	3.1	0.718	0.033	330.7	10.1	330.8	12.3	331.6	68.8
578	261	91.74	543874	17.5442	4.1	0.52648	5	0.06702	2.9	0.569	2.5	418.2	11.6	429.5	17.6	490.5	91.3
580	324	15.14	100254	17.5142	4.5	0.46476	6.3	0.059063	4.4	0.701	4.3	369.9	15.8	387.6	20.2	494.3	98.6
586	395	90.38	212265	18.3347	2.3	0.44872	2.8	0.059695	1.6	0.582	0.65	373.8	6	376.4	8.9	392.4	51.5
587	428	93.51	23394	18.994	2.8	0.382	4.4	0.052647	3.4	0.775	-0.57	330.7	11	328.5	12.3	312.6	63.2
588	68	2.01	38632	10.991	2.9	3.02811	5.9	0.241492	5.2	0.874	1.7	1394.5	64.8	1414.7	45.1	1445.4	54.7
589	224	111.01	77731	19.0308	3.5	0.40131	4.7	0.055415	3.1	0.66	-1.3	347.7	10.4	342.6	13.5	308.3	79.6
592	788	182.07	187129	18.6264	2.6	0.43195	4.2	0.058379	3.2	0.782	-0.28	365.8	11.6	364.6	12.7	356.9	58.6
593	398	6.81	168757	18.8071	2.4	0.38052	6	0.051927	5.5	0.914	0.26	326.3	17.5	327.4	16.8	335.1	55.1
597	222	17.86	197324	18.8874	4.9	0.40906	5.7	0.05606	3	0.522	-0.91	351.6	10.2	348.2	16.8	325.4	110.6
599	379	127.24	705306	18.8737	3	0.40175	3.8	0.055018	2.5	0.64	-0.6	345.3	8.3	342.9	11.2	327.1	67
600	172	91.15	44707	18.7723	3.4	0.41703	4.4	0.056804	2.8	0.643	-0.57	356.2	9.9	353.9	13.2	339.3	76.8
602	434	93.62	203151	18.5178	2.7	0.42955	3.7	0.057716	2.5	0.673	0.28	361.7	8.8	362.9	11.3	370.1	61.6
603	489	107.96															

56	216	4.03	35669	18.4486	3.7	0.43771	5.1	0.058593	3.5	0.692	0.38	367.1	12.6	368.6	15.8	378.5	83.2
58	66	1.02	66840	9.9133	3.2	3.76874	5	0.271086	3.8	0.764	2.3	1546.3	52.6	1586.1	40.2	1639.4	59.9
61	1047	3.12	1924774	9.7221	2	4.01639	3.6	0.283329	3	0.831	1.9	1608.1	42	1637.5	28.9	1675.5	36.6
65	201	1.12	71004	10.0301	2	3.74192	3.8	0.272329	3.2	0.847	1.9	1552.6	44.1	1580.4	30.2	1617.6	37.3
71	233	4.01	3234860	8.9396	1.9	4.85815	3.8	0.315125	3.3	0.867	2	1765.9	50.4	1795	31.7	1829.1	34
74	80	2.58	1359306	12.4967	2.8	2.12196	6.8	0.19241	6.3	0.915	2.5	1134.4	65	1156	47.2	1196.6	54.3
79	898	31.33	419597	18.9128	2.2	0.4126	2.9	0.056622	1.9	0.656	-1.1	355	6.7	350.7	8.7	322.4	50.4
80	98	2.05	79949	12.7576	2	2.11077	3.3	0.195391	2.6	0.796	0.14	1150.5	27.5	1152.3	22.6	1155.7	39.3
82	243	3.07	236323	13.7831	2.1	1.61862	4	0.161877	3.4	0.854	0.96	967.2	30.6	977.5	25	1000.6	42.1
83	150	1.2	39905	12.3531	2.8	2.25302	4.9	0.201946	4.1	0.822	0.93	1185.8	44	1197.7	34.7	1219.4	55.3
85	395	1.73	176178	10.0651	2	3.91715	3.2	0.286077	2.4	0.772	-0.27	1621.9	35	1617.2	25.6	1611.1	37.5
87	501	1.82	138932	17.7631	1.9	0.57588	4.1	0.074224	3.6	0.88	0.044	461.6	15.9	461.8	15.1	463.1	42.7
89	1115	19.4	1178735	18.6008	2.1	0.41319	2.7	0.055766	1.8	0.658	0.34	349.8	6.1	351.2	8.1	360	46.3
90	1277	4.6	256924	17.0896	1.8	0.64236	3.8	0.079653	3.3	0.874	1.6	494.1	15.7	503.8	15	548.1	40.1
91	419	0.88	667120	13.9714	1.9	1.60685	3.4	0.162895	2.9	0.828	0.0033	972.8	25.8	972.9	21.6	973	39.4
92	428	1	104365	18.013	2.9	0.55122	4.2	0.072045	3.1	0.729	-0.52	448.5	13.2	445.8	15.1	432	63.8
94	69	1.53	95146	9.581	2.5	4.27269	6.1	0.297035	5.6	0.912	0.98	1676.6	82.3	1688.1	50.3	1702.5	46.3
96	978	1.57	149861	18.1704	1.7	0.52787	3.2	0.069596	2.7	0.852	-0.61	433.7	11.5	430.4	11.3	412.6	37.6
103	573	51.88	558593	18.7344	3.4	0.40192	4.2	0.054635	2.4	0.577	0.033	342.9	8	340	12.1	343.8	76.7
109	278	2.63	271010	13.5993	1.7	1.75808	3.6	0.17348	3.2	0.877	-0.11	1031.3	30.1	1030.1	23.3	1027.8	35
110	273	3.87	138784	17.5939	2.6	0.62929	3.9	0.080336	2.9	0.741	-0.43	498.1	13.7	497.5	15.1	484.3	57.1
114	140	3.42	117694	10.7663	1.9	3.09706	6.8	0.241941	6.6	0.962	4.5	1396.8	82.3	1432	52.3	1484.6	35.1
115	237	3.2	83198	13.7441	2.2	1.73144	4	0.17267	3.4	0.85	-0.58	1026.8	31.9	1020.3	26	1006.3	45.2
116	567	5.93	1450343	17.5052	3.1	0.55127	4.5	0.07002	3.3	0.732	1.9	436.3	13.9	445.8	16.2	495.4	67.5
129	186	1.41	163429	12.2274	1.9	2.37071	4.3	0.210332	3.9	0.896	0.32	1230.6	43.3	1233.8	30.8	1239.5	37.5
131	348	6.1	114531	13.7734	1.4	1.5822	6.9	0.158124	6.7	0.98	4.1	946.3	59.2	963.2	42.7	1002	27.5
137	570	1.5	111705	18.0494	2.4	0.53847	4.2	0.070521	3.5	0.82	-0.34	439.3	14.8	437.4	15.1	427.5	54.2
138	77	1.36	195711	13.812	3.9	1.58181	6.5	0.158528	5.2	0.802	1.3	948.6	46.3	963.1	40.7	996.3	79.5
141	324	20.68	356907	18.6165	3.7	0.38018	4.7	0.051355	2.8	0.609	1.2	322.8	8.9	327.2	13	358.1	83.3
142	161	1.2	64121	9.9546	1.7	3.78397	4.9	0.273317	4.5	0.934	3.2	1557.6	62.8	1589.3	39	1631.7	32.2
143	2045	61.99	270045	16.3477	1.4	0.87995	9.1	0.104378	8.9	0.988	0.43	640	54.5	641	43	644.3	29.9
144	484	1.14	2953153	17.6738	2	0.56675	4.1	0.07268	3.6	0.875	0.63	452.3	15.5	455.9	14.9	474.3	43.5
145	78	1.61	425103	13.446	3.3	1.70415	5.9	0.166263	4.9	0.827	1.6	991.5	44.8	1010.1	37.7	1050.7	66.8
147	618	0.89	3544681	18.078	2.2	0.51643	3.2	0.067741	2.4	0.738	0.047	422.5	9.8	422.8	11.2	424	48.7
152	542	1.98	12753496	9.7291	1.9	3.99622	4.4	0.282109	4	0.901	2.6	1602	56.1	1633.4	35.7	1674.2	35.3
155	217	1.67	193575	13.5898	2.5	1.63723	9	0.161442	8.7	0.962	3.8	964.8	77.8	984.6	56.9	1029.2	50.2
159	256	2.27	147034	13.7999	2	1.6775	4.2	0.167971	3.7	0.877	-0.091	1000.9	34	1000	26.6	998.1	40.7
160	875	9.12	1850329	18.4609	2.1	0.43326	3.4	0.058036	2.6	0.775	0.43	363.7	9.3	365.5	10.4	377	48.3
163	97	2.93	51524	10.0522	1.7	3.92489	4.9	0.286273	4.6	0.939	-0.4	1622.9	66	1618.8	39.7	1613.5	31.3
164	111	1.78	63774	12.7903	2.3	2.07166	5.8	0.192261	5.3	0.913	0.68	1133.6	54.7	1139.5	39.4	1150.7	46.6
165	358	4.68	149726	10.4669	1.5	3.48447	3.2	0.264636	2.8	0.878	0.81	1513.5	37.8	1523.7	25.2	1537.9	28.7
167	68	1.65	973763	10.7076	2.1	3.29945	5.6	0.256347	5.2	0.924	0.98	1471.1	67.9	1480.9	43.5	1495	40.3
169	208	1.95	947985	18.8192	4.1	0.43688	4.8	0.059657	2.4	0.504	-1.4	373.5	8.7	368.1	14.7	333.6	93.2
173	144	1.5	153309	13.3378	2.1	1.79992	3.7	0.174193	3	0.816	0.86	1035.2	29	1045.4	24.2	1066.9	43.1
188	252	1.59	71763	13.4218	1.6	1.74596	2.3	0.170035	1.7	0.731	1.2	1012.3	15.9	1025.7	15	1054.3	31.9
192	5738	2.51	1011288	18.5336	2	0.44455	5.7	0.059783	5.3	0.939	-0.2	374.3	19.4	373.5	17.7	368.2	44.4
194	215	1.98	449632	13.4688	1.7	1.8136	3.9	0.177241	3.5	0.905	-0.17	1051.9	34	1050.4	25.3	1047.3	33.3
195	234	3.03	106651	14.0613	1.8	1.53406	3.2	0.156517	2.7	0.831	0.63	937.4	23.3	944.1	19.8	959.9	36.5
197	138	2.59	230136	13.6008	3	1.63213	7.7	0.161609	7.1	0.921	2.7	962.7	63.7	982.7	48.7	1027.5	60.9
202	99	2.28	36424	14.4544	3.3	1.41422	5	0.148324	3.7	0.75	0.34	891.6	31.1	894.9	29.6	903.3	67.7
203	280	0.92	336923	9.8563	1.5	4.05803	3.5	0.290216	3.2	0.901	0.27	1642.6	46.3	1645.9	28.9	1650.1	28.5
207	781	1.11	311671	17.7919	2	0.54663	3.6	0.070568	3	0.834	0.59	439.6	12.7	442.8	12.9	459.5	43.9
211	91	1.77	45306	13.051	3.4	1.79642	5.7	0.170115	4.5	0.799	-2.7	1012.7	42.5	1044.2	37	1110.5	68.1
213	574	1.05	79448	17.7605	2.8	0.52368	3.9	0.067486	2.8	0.702	1.4	421	11.3	427.6	13.7	463.4	62.2
215	794	8.16	427649	18.1528	1.7	0.48096	3.2	0.06335	2.7	0.839	0.56	396	10.3	398.7	10.5	414.8	38.8
217	1538	10.83	162882	18.4703	2.1	0.4497	3.2	0.060268	2.3	0.739	-0.044	377.3	8.6	377.1	10	375.9	48
223	2833	24.82	517553	18.3534	2.2	0.42874	3.6	0.057096	2.9	0.794	1	357.9	10.1	362.3	11.1	390.1	49.7
224	1122	35.67	116849	18.4553	1.7	0.42327	2.9	0.056681	2.3	0.812	0.71	355.4	8.1	358.4	8.7	377.7	37.7
226	85	0.73	86572	9.3552	2.1	4.34937	6	0.295237	5.6	0.934	3.3	1667.6	82.4	1702.8	49.5	1746.3	39.1
229	298	2.95	623741	13.1618	1.7	1.85392	3.7	0.177052	3.2	0.887	1.4	1050.9	31.4	1064.8	24.1	1093.6	33.7
232	253	0.52	184624	16.8574	2.9	0.76106	4.2	0.09309	3	0.724	0.13	573.8	16.7	574.6	18.5	577.9	63.1
244	288	1.83	1483099	12.8083	1.8	2.05852	3.7	0.191312	3.2	0.879	0.62	1128.5	33.5	1135.1	25.2	1147.9	34.8
245	76	1.12	125083	15.5697	3.8	0.97794	9.1	0.11048	8.2	0.909	2.3	675.5	52.9	692.5	45.5	748.2	79.6
247	381	1.79	140591	12.4347	1.3	2.32576	2.3	0.209843	1.9	0.822	-0.59	1228	21.5	1220.2	16.6	1206.4	26.3
248	223	5.41	90299	13.8754	2.4	1.56845	5	0.15791	5.7	0.924	1.8	945.2	49.9	957.8	38.1	987	47.9
252	69	2.42	64681	13.9547	3	1.52672	7.7	0.154588	7	0.919	1.9	926.6	60.8	941.2	47.1	975.4	61.6
264	647	10.52	537473	13.4611	2	1.78388	3.5	0.174237	2.9	0.826	0.36	1035.4	27.4	1039.6	22.6	1048.4	39.5
266	113	4.13	135019	10.9869	8.5	2.92914	17.5	0.233513	15.3	0.875	3	1352.9	186.9	1389.5	132.7	1446.1	161.7
267	1707	1.71	2008675	17.0665	1.4	0.69391	3	0.085929	2.6	0.881	0.56	531.4	13.3	535.1	12.3	551.1	30.5
270	330	0.75	156944	17.8117	2.3	0.58178	4.1	0.075189	3.4	0.837	-0.3	467.3	15.5	465.6	15.4	457	50.1
272	191																

375	90	1.42	120934	13.8192	2.4	1.63946	5.2	0.16439	4.6	0.886	0.46	981.1	42.3	985.5	33.1	995.2	49.4
377	651	1.89	153359	17.2761	2.1	0.64307	3.1	0.080612	2.3	0.745	0.78	499.8	11.1	504.2	12.3	524.3	45.2
382	1371	17.09	165428	18.0637	1.8	0.46659	2.9	0.061155	2.3	0.797	1.4	382.6	8.7	388.8	9.5	425.7	39.8
383	1560	2.46	190990	17.6074	1.5	0.55894	3.2	0.07141	2.8	0.882	1.1	444.6	12	450.8	11.5	482.6	32.9
384	1174	1.51	238548	17.6215	2.1	0.60265	3.2	0.077055	2.5	0.773	0.07	478.5	11.6	478.9	12.4	480.8	45.6
386	400	1.42	184708	17.1398	2.4	0.69053	5.5	0.085878	5	0.901	0.32	531.1	25.3	533.1	22.9	541.7	52.3
388	605	6.05	838522	11.9204	4.5	2.4953	6.1	0.215829	4.1	0.682	0.83	1259.8	47.5	1270.7	44.1	1289.1	86.7
391	105	2.59	60198	12.5585	2.2	2.20709	4.4	0.201119	3.8	0.865	0.17	1181.3	40.9	1183.3	30.6	1186.9	43.4
392	92	0.55	67030	13.7108	2.2	1.62213	3.2	0.161378	2.3	0.716	1.4	964.4	20.5	978.8	20.1	1011.2	45.2
396	1033	2.08	456125	18.2294	1.5	0.50771	3.4	0.067156	3	0.894	-0.39	419	12.2	416.9	11.5	405.3	33.8
398	291	5.81	160115	18.1549	3.9	0.40453	5.1	0.053289	3.4	0.656	2.7	334.7	11	344.9	15	414.5	86.7
405	118	1.89	72647	10.7107	2.1	3.19771	3.3	0.248514	2.6	0.774	1.6	1430.8	33	1456.6	25.7	1494.4	39.8
406	146	2.06	69675	9.0274	1.5	4.83903	3.8	0.316967	3.4	0.913	1.4	1774.9	53.5	1791.7	31.8	1811.3	28
414	13	0.8	2500	14.0834	13.7	1.61065	17.6	0.16459	11	0.624	-0.8	982.2	99.8	974.4	110.1	956.6	280.9
418	156	1.1	190248	9.2421	1.5	4.61571	3.7	0.309532	3.4	0.915	1.1	1738.4	52	1752.1	31.1	1768.5	27.6
420	152	2.49	121536	11.5394	1.8	2.73928	3.3	0.229359	2.8	0.847	0.62	1331.1	33.7	1339.2	24.6	1352	34
422	305	0.81	23995	18.1874	3.1	0.51381	4	0.067806	2.5	0.624	-0.42	422.9	10.1	421	13.6	410.5	69.1
425	539	1.9	276578	17.5671	2.8	0.60655	4.2	0.077314	3.1	0.746	0.24	480.1	14.5	481.4	16.1	487.6	61.8
435	421	7.43	185988	18.3392	2.8	0.44525	11.3	0.059249	11	0.969	1.2	371.1	39.5	373.9	35.4	391.9	62.9
443	1745	28.9	175612	18.2556	2.1	0.43225	3.4	0.057256	2.7	0.789	1.4	358.9	9.4	364.8	10.4	402.1	46.9
444	820	1.77	753538	9.5631	1.7	4.19699	4.1	0.291226	3.8	0.916	2.2	1647.7	54.8	1673.4	33.8	1705.9	30.4
447	172	3.51	159343	9.1997	1.6	4.61531	4.6	0.308084	4.3	0.935	1.9	1731.3	65.6	1752	38.6	1776.9	29.9
448	185	2.68	1167613	10.8452	1.9	3.24457	3.9	0.255322	3.4	0.867	0.16	1465.9	44.4	1467.9	30.3	1470.8	37
450	206	6.98	46136	18.6131	3.6	0.42756	4.4	0.057745	2.5	0.573	-0.12	361.9	9	361.4	13.5	358.5	82.3
453	2271	0.83	291095	17.7205	1.5	0.59944	2.8	0.077075	2.4	0.847	-0.29	478.6	10.8	476.9	10.6	468.4	32.7
458	410	1.22	239385	18.0365	2.6	0.54921	3.7	0.071877	2.6	0.704	-0.59	447.5	11.2	444.5	13.2	429.1	58.2
459	250	1.7	33894	18.3342	2.8	0.51947	4.2	0.069106	3.1	0.739	-1.2	430.8	12.9	424.8	14.6	392.5	63.4
461	110	1.03	535466	9.6971	2	4.20423	4.9	0.295817	4.5	0.911	0.37	1670.5	65.6	1674.8	40.1	1680.2	37.2
463	810	1.99	3881433	17.6911	2.3	0.57153	3.2	0.073365	2.2	0.693	0.52	456.4	9.6	459	11.7	472.1	50.4
469	45	1.59	43052	13.0254	4.2	1.85817	6.7	0.175618	5.2	0.775	1.9	1043	50	1066.3	44.3	1114.4	84.6
472	480	42.46	100689	16.2043	2.4	0.83025	4	0.097619	3.2	0.791	1.9	600.4	18.1	613.8	18.4	663.2	52.2
475	190	2.83	59508	18.1294	3.9	0.52215	8.4	0.068687	7.5	0.885	-0.31	428.2	30.9	426.6	29.4	417.6	87.7
489	609	1.75	88708	17.6636	2.8	0.58883	4.1	0.071623	3	0.728	0.96	445.9	13	450.8	15.1	475.5	62.9
490	460	6.8	47596	18.7558	2.3	0.42938	3.8	0.058435	3	0.785	-0.77	366.1	10.5	362.7	11.5	341.3	52.9
491	154	2.33	74289	13.9701	3.4	1.47817	6	0.149837	5	0.83	2	900	42	921.5	36.4	973.1	68.4
494	595	1.33	567910	10.9859	1.3	3.05943	2.7	0.243876	2.4	0.885	1.4	1406.8	30.3	1422.6	20.7	1446.3	24
495	89	2.65	231966	11.6105	3.3	2.67993	5.8	0.225771	4.8	0.823	0.77	1312.3	57.1	1322.9	43.2	1340.2	64.1
497	276	1.23	186446	10.0558	1.6	3.8572	4	0.281439	3.7	0.915	0.55	1598.6	52.2	1604.8	32.5	1612.9	30.3
499	66	2.28	80266	14.3191	3.8	1.48276	6.4	0.154058	5.1	0.801	-0.029	923.7	44.1	923.4	38.8	922.6	78.8
501	238	3.27	221110	14.2443	1.9	1.5025	4.2	0.155292	3.8	0.897	0.099	930.6	32.6	931.4	25.6	933.4	38.1
505	236	2.44	92969	11.2467	2	2.85081	3.9	0.232641	3.4	0.866	1.7	1348.3	41.6	1369	29.7	1401.5	37.8
514	156	1.1	227357	8.4038	1.6	5.74456	4.1	0.350287	3.8	0.925	0.17	1936	63.7	1938.1	35.6	1940.4	28.1
515	412	1.99	105241	18.0271	2.6	0.54274	4.5	0.070992	3.6	0.81	-0.36	442.1	15.4	440.2	15.9	430.3	58.3
516	479	2.58	193896	18.067	3	0.47403	6.1	0.062142	5.3	0.87	1.1	388.6	20.1	394	20	425.3	67.3
518	246	3.57	1007897	9.1529	1.4	4.63793	3.6	0.308019	3.3	0.92	2.1	1731	49.7	1756.1	29.7	1786.2	25.4
521	310	3.33	89208	17.3577	2.5	0.58302	4.2	0.07343	3.4	0.8	1.8	456.8	15	466.4	15.9	514	55.9
536	241	1.38	166733	17.8431	3.2	0.61921	6.1	0.080168	5.2	0.856	-1.3	497.1	25	489.4	23.7	453.1	70.2
537	505	1.56	662191	10.6538	1.5	3.33802	2.9	0.258039	2.5	0.851	0.75	1479.8	33.1	1490	23	1504.5	29.2
550	127	1.51	152514	9.64	2.6	4.23854	4.6	0.296475	3.8	0.833	0.49	1673.8	56.6	1681.5	37.9	1691.1	47.1
552	323	1.09	2031066	18.0297	2.3	0.57233	4	0.074874	3.3	0.822	-1	465.5	14.8	459.5	14.8	430	51
553	269	2.22	303566	12.5096	4.5	2.10608	5.3	0.191167	2.8	0.521	2.3	1127.7	28.5	1150.8	36.4	1194.6	89.1
556	62	1.94	30156	13.9715	4.5	1.43141	7.8	0.145111	6.4	0.821	2.7	873.5	52.5	902.1	46.8	972.9	91.1
559	188	0.68	2993595	10.9186	2	3.12299	4.3	0.247418	3.8	0.888	1.1	1425.1	48.7	1438.4	33	1458	37.5
560	126	1.47	561070	13.5912	2.5	1.82366	4.3	0.179844	3.5	0.807	-1	1066.1	33.9	1054	28.1	1029	51.2
564	2039	26.83	396760	18.3747	1.6	0.42965	3	0.057283	2.6	0.854	0.84	359.1	8.9	362.9	9.1	387.5	34.9
566	3249	1.17	4706029	17.996	1.5	0.53806	2.9	0.070259	2.4	0.854	-0.11	437.7	10.3	437.1	10.1	434.1	33.1
568	239	3.58	57827	13.9276	2.7	1.50491	5.2	0.152083	4.4	0.849	1.9	912.6	37.2	932.4	31.4	979.4	55.5
570	105	1.57	1893910	8.9641	2.3	4.95564	5.7	0.322233	5.2	0.917	0.87	1801.1	82.2	1811.8	48.2	1824.1	41.2
574	733	2.06	2625412	16.4442	2.1	0.7935	4.2	0.094678	3.6	0.867	1.4	583.1	20.2	593.2	18.8	631.6	44.8
579	1670	8.67	179381	17.4583	3.6	0.52762	8.3	0.066837	7.5	0.9	2.4	417.1	30.2	430.2	29.1	501.3	79.9
585	3084	28.82	747472	18.4214	1.9	0.4315	2.4	0.057676	1.4	0.606	0.71	361.5	5	364.2	7.3	381.9	42.4
591	404	1.84	46595	18.064	2.4	0.48646	3.7	0.063761	2.9	0.763	0.85	398.5	11	402.5	12.4	425.7	54
605	611	1.49	339818	18.0364	1.8	0.52262	2.8	0.068396	2.1	0.758	0.085	426.5	8.8	426.9	9.8	429.1	41
606	395	1.55	162132	12.618	2	2.07692	5.7	0.190154	5.4	0.938	2.6	1122.2	55.2	1141.2	39.2	1177.6	39.1
610	496	1.95	3210663	17.7827	2.8	0.57689	5.5	0.074437	4.7	0.855	-0.064	462.8	20.9	462.5	20.3	460.6	63.1
612	219	6.87	111122	18.9784	2.6	0.40874	4.2	0.056286	3.2	0.775	-1.2	353	11.1	348	12.3	314.5	59.8
624	1523	2.45	734085	18.1486	1.8	0.46306	4.3	0.060978	3.9	0.911	0.98	381.6	14.6	386.4	13.9	415.3	40

Notes:

^aThe ²⁰⁰Pb/²⁰⁴Pb ratios were not provided for data acquired in Dr. David Barbeau's lab at the University of South Carolina

^bConcordia distance (*d_c*) was calculated using IsoplotR (Vermeesch, 2018), and we discarded analyses outside of the range $-2 < d_c < 4.6$ (Vermeesch, 2021).