

# GIS-BASED MULTI-CRITERIA ANALYSIS FOR OPTIMAL SITES SELECTION FOR A SEWAGE TREATMENT PLANT - A CASE STUDY AT ELAMKULAM, KOCHI, KERALA

REPORT

3D PERSPECTIVE VIEW - SUITABLE SITES FOR STP



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KERALA WATER AUTHORITY  
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<https://kwa.kerala.gov.in/gis/>

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## **1. Introduction**

The effluents generated from the domestic households within the urban areas pose a critical challenge to the surroundings, thus appropriate treatment is a must before discharging them. With the boom in urbanization this problem of sewage has additionally turned into a nightmare for the planners and choice-makers. Environmental issues are caused by human activities, meanwhile the situation of the environment gets worse that leads to detrimental influences against human beings' survival and development. Environmental issues include damages of the natural environment and environmental pollutions. Setting up of a sewerage treatment plant is one of the solutions to tackle this issue. However, discharge from the sewage treatment plant also poses a threat to the ecosystem making it very crucial for the planners and decision makers to take suitable decisions on the location for the sewage treatment plant so that its footprint on the ecosystem can be minimized. A geographic information system (GIS) is a system designed to capture, store, manipulate, analyze, manage, and present all types of geographical data. The key word to this technology is Geography – this means that some portion of the data is spatial. In other words, data that is in some way referenced to locations on the earth. GIS-based spatial analysis for site suitability evaluation followed by multi-criteria analysis for optimal evaluation of alternatives form a very powerful tool that supports complex decision-making processes. Sewage treatment plant site suitability analysis is one such problem that can have the leverage of these tools to achieve a great result for the stakeholders.

Environment protection has become the most important aspect in the present era of Sustainable development. With uncontrolled urbanisation, contamination of drinking water sources by sewage and septage has become a major threat to public health and safety. Direct discharge of sewage to the water courses for unsewered areas and discharges of septic tank effluents to the stream and canals polluted the entire water resource.. Safe water supply and hygienic sanitation facilities are the two basic essential amenities the community needs on a top priority for healthy living. In the developing world, sewerage treatment has always been more unfortunate than its twin

brother water supply. The water supply will have a measurable impact on health only if it is linked with sanitation facilities.

Of the 2,552 million litres of sewage generated everyday in the state of Kerala, only 152.97 million litres per day are treated resulting in bulk (94%) of the refuse being dumped in open fields and waterbodies. Though the state government, through the Kerala Suchitwa Mission, has devised a comprehensive scheme for setting up Sewage Treatment Plants (STPs) in all districts in the state to scientifically dispose of the sewage from government hospitals and other public utilities, nothing concrete has taken shape in the past one year (New Indian Express,2020). Studies by the Kerala State Pollution Control Board (KSPCB) have found high presence of faecal coliform in a few rivers in the state.

As per Order of National Green Tribunal, All States/UTs through their concerned departments such as Urban/Rural Development, Irrigation & Public Health, Local Bodies, Environment, etc. may ensure formulation and execution of plans for sewage treatment and utilization of treated sewage effluent with respect to each city, town and village, adhering to the timeline as directed by Hon'ble Supreme Court. The local authorities entrusted with environmental protection has little infrastructure to tackle this situation. Kerala Water Authority being a statewide establishment with qualified and experienced personnel in Public Health Engineering, has taken up the responsibility of waste water management. The other ongoing schemes of KWA in Sewerage Vertical are sewer facility to Guruvayoor Municipality with 3 MLD STP which is in commissioning stage; providing sewerage facility to Kozhikode with 27.5 MLD STP and Kollam with 12 MLD STP. Also a 5 MLD STP is under construction in Government Medical College Trivandrum under AMRUT.

An attempt has been made to utilize the geospatial technology to find out the optimal site for setting up a sewage treatment plant at Elamkulam area in Kochi. Open source technologies and open source data has been utilized for this purpose.

## **2. Study Area**

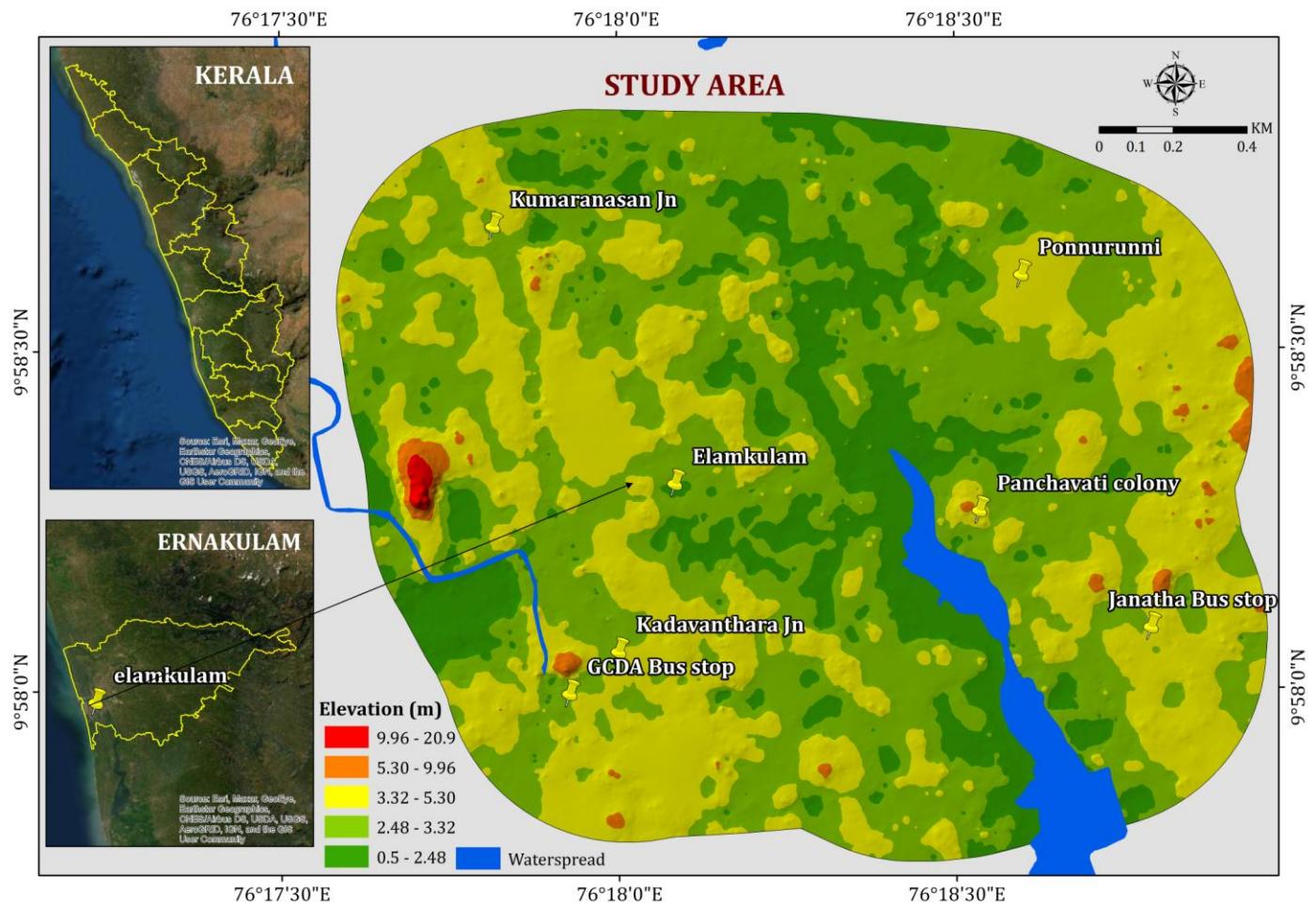
The area of interest chosen for the study is Elamkulam, Kochi. Elamkulam is an area in Kadavanhra region in the city of Kochi, state of Kerala, India. There is a sewerage treatment plant at Elamkulam, operated by the Kerala Water Authority (KWA), has a capacity of 4.5 mld . A total of 1,184 connections is connected to the KWA sewerage network. Fig 1 depicts the study area location map.

## **3. Aim and Objectives**

The aim of this study is to find the most optimal sites for sewage treatment plant by using the GIS-based Multi-criteria Analysis in Elamkulam locality, Kochi, India.

The objectives include-

- I. Determine of factors to be considered for selecting an optimal site for sewerage treatment plant
- II. Pull out high resolution satellite data (0.2 m – 0.5 m resolution) of the study area
- III. Mapping of road network and water spread
- IV. Extraction of levels from roads at 10 m intervals
- V. Building footprints extraction from satellite imagery
- VI. Take out the levels from building footprints and other area using geospatial technologies
- VII. Creation of digital elevation model
- VIII. Mapping of slope and aspect of the study area
- IX. Mapping of population density of the study area
- X. Derivation of terrain variables such as Normalized Differential Vegetation Index (NDVI), Normalized Differential Water Index(NDWI) and Normalized Differential Buildup Index(NDBI)
- XI. Optimal Sites Selection for a Sewage Treatment Plant in the study area
- XII. Creation of 3D perspective view of the terrain with optimal STP sites



**Fig 1. Study Area Map**

#### **4. Data source and methodology**

For mapping out the optimal sites for the Sewerage Treatment plant in Elamkulam area of Kochi Corporation, ten individual parameters were taken into consideration. Table 1 shows the detail specification of different data sets and their characteristics. All the ten parameters layers (Table 2) have been constructed and combined in the GIS environment.

Weighted Overlay is deployed in deriving the optimal site for sewerage treatment plant. The GIS software used the following process for Weighted Overlay analysis

- Each raster layer is assigned a weight in the suitability analysis.
- Values in the rasters are reclassified to a common suitability scale.
- Raster layers are overlaid, multiplying each raster cell's suitability value by its layer weight and totaling the values to derive a suitability value.
- These values are written to new cells in an output layer.
- The symbology in the output layer is based on these values.
- Assigning a weight to each raster in the overlay process allows you to control the influence of different criteria in the suitability model
- Weighted suitability values are totaled for each overlapping cell and then written to an output layer.

**Table 1. Data source and data type used in the work**

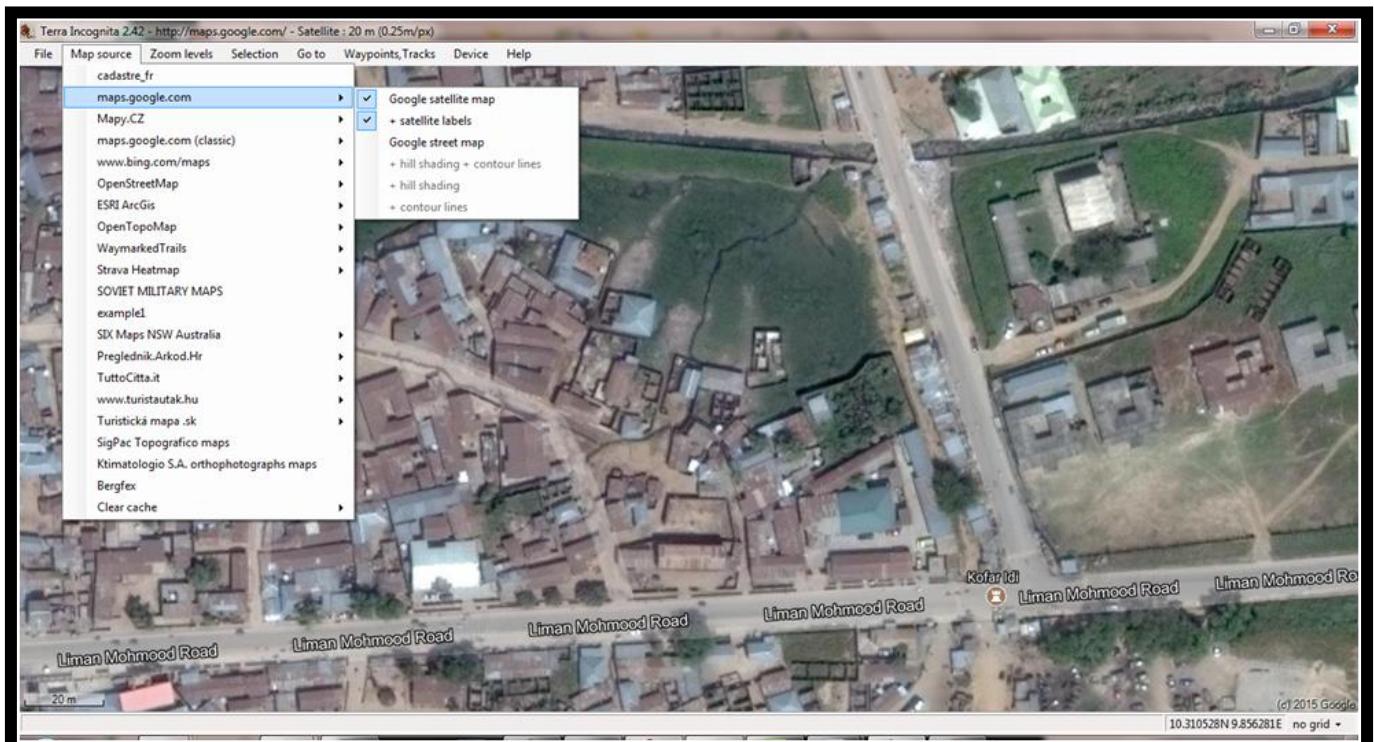
Sl. No	Data Description	Data type	Year	Source
1	Google Satellite Imageries	Satellite	2021	Terra Incognita
2	Levels	kml	2021	Google earth, OSM, Ground Survey and GPS Essentials
3	Digital Elevation Model	Raster	2021	Interpolation of levels
3	Population	Satellite	2020	WorldPop, 2017; Christopher et al. 2019
4	Base Map	Satellite	2021	ESRI World imagery

**Table 2 List of Parameters and methods used for deriving the thematic layers**

Sl. No	Parameters	Data derived from	Method
1	Water Spread	Satellite Imagery	Extraction
2	Roads	Satellite Imagery, Google earth	Extraction, Digitisation
3	Population	WORLDPOP	Interpolation
5	NDVI	LANDSAT 8	Raster Calculator
6	NDWI	LANDSAT 8	Raster Calculator
7	NDBI	LANDSAT 8	Raster Calculator
8	Slope	Digital Elevation Model	Surface Analysis
9	Distance from building footprints	Satellite Imagery	Euclidean distance
10	Distance from Roads	Satellite Imagery, Google earth	Euclidean distance

#### **4.1 Extraction of high resolution satellite data (0.2 m – 0.5 m resolution) of the study area**

Terra Incognita is a GPS mapping and management software used for downloading high resolution satellite Images. The main feature of Terra Incognita is its easy access to online mapping services, allowing you to zoom up to as close as 75 yards and as far as 5000 miles, depending on the source you're viewing. Google Maps can be viewed in different formats such as hybrid, satellite, street or terrain. Fig 2 shows the screenshot of how from the menu, we have to go to "map source" menu and select the source of the background map. In this study "Google Satellite Map" has been taken as the map source.



**Fig 2 Data source option in Terra Incognita**

#### **4.2 Extraction of levels from roads at 10 m intervals**

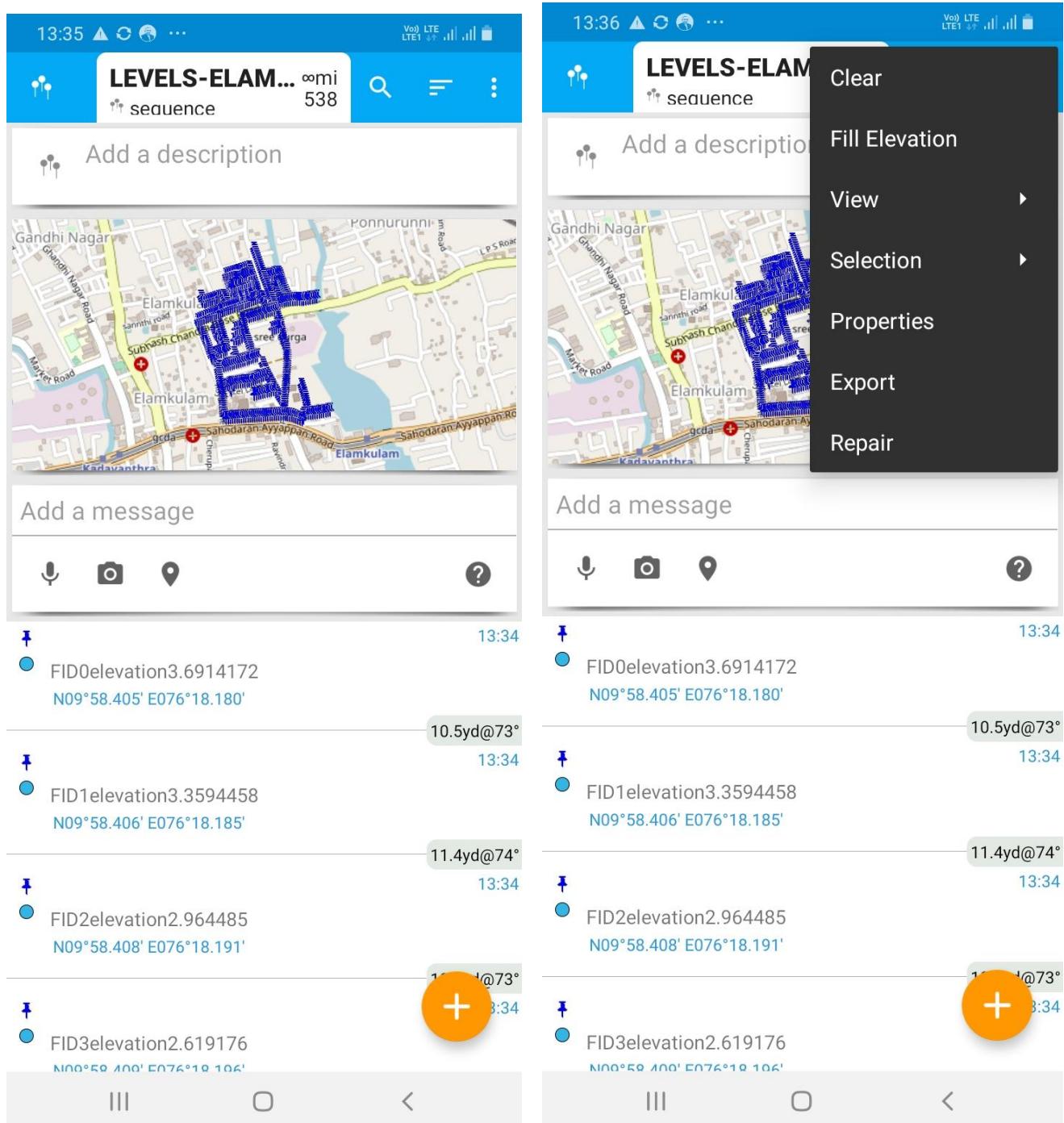
The road network is taken mapped from actual ground survey of the study area by KWA and additional roads have been taken from goggle earth data. In the QGIS software, the road data is loaded and subjected to data processing. Processing of *Create points along the lines* is being done. The distance given here is 10m. Fig 3 shows the screen shot of the toolset used for the data processing. After processing point files along each 10m is created. After that each 500 points is covered into kmz files. These kmz files are opened in GPS Essentials - the most complete GPS tool for Android: Navigate, manage waypoints, tracks, routes etc. Fig 3 shows the GPS Essentials screen after loading the kmz file. After that Fill elevation option is clicked and the resultant data is saved as .gpx file. By using “Batch GPS Importer” Plugin in QGIS (Fig 4) the set of .gpx files (500 points in each file) will be converted to the shapefile. The elevation values of each points will be included in the attribute.

#### **4.3 Building footprints extraction from satellite imagery**

The plugins QuickOSM and Quickmap services in QGIS software is used for the building footprint extractions. With the QuickOSM plugin, the Overpass API acts as a database over the web: the client sends a query to the API and gets back the data set that corresponds to the query (Fig 5).

#### **4.4 Creation of digital elevation model and slope**

The levels generated as per the methodology explained in Section 4.2 is used for the generation of digital elevation model. A surface is created by using the interpolation technique. Inverse distance weighting (IDW) interpolation procedure is applied here. A digital elevation model with 1 m resolution is created. Surface analysis is applied to the DEM data to produce the slope data of the region.



**Fig 3 GPS Essentials screen after loading the kmz file and Fill Elevation option**

#### **4.5 Derivation of terrain variables – NDVI, NDWI and NDBI**

Landsat 8 imagery (dated 03.02.2021) is used for the deriving Normalized Differential Vegetation Index (NDVI), Normalized Differential Water Index(NDWI) and Normalized Differential Buildup Index(NDBI).

##### **Normalized Difference Vegetation Index (NDVI)** - The Normalized Difference

Vegetation Index (NDVI) is the most commonly used vegetation index for observe greenery globally. In general, Healthy vegetation is good absorber of electromagnetic spectrum in visible reason. Chlorophyll contains in a greenies highly absorbs Blue (0.4 - 0.5 μm) and Red (0.6 - 0.7 μm) spectrum and reflects Green (0.5 – 0.6 μm) spectrum. Healthy plants having high reflectance in Near Infrared (NIR) between 0.7 to 1.3 μm. This is primarily due to internal structure of plant leaves. High reflectance in NIR and high absorption in Red spectrum, these two bands are used to calculate NDVI. The, following formula gives Normalized Difference Vegetation Index (NDVI).

$$\text{NDVI} = (\text{NIR} - \text{Red}) / (\text{NIR} + \text{Red})$$

For Landsat 8 data,  $\text{NDVI} = (\text{Band 5} - \text{Band 4}) / (\text{Band 5} + \text{Band 4})$

Normalize Difference Water Index (NDWI) - is use for the water bodies analysis. The index uses Green and Near infra-red bands of remote sensing images. The NDWI can enhance water information efficiently in most cases. It is sensitive to build-up land and result in over-estimated water bodies. NDWI is developed by Gao(1996) to enhance the water related features of the landscapes. This index uses the near infrared (NIR) and the Short-Wave infrared (SWIR) bands. NDWI can be calculated by following formula:

$$\text{NDWI} = (\text{NIR} - \text{SWIR}) / (\text{NIR} + \text{SWIR})$$

For Landsat 8 data,  $\text{NDWI} = (\text{Band 5} - \text{Band 6}) / (\text{Band 5} + \text{Band 6})$

Normalized Difference Built-up Index (NDBI) - Build-up Index is the index for analysis of urban pattern using NDBI and NDVI. Built-up index is the binary image with only higher positive value indicates built-up and barren thus, allows

BU to map the built-up area automatically. NDBI can be calculated by following formula.

$$\text{NDBI} = (\text{SWIR} - \text{NIR}) / (\text{SWIR} + \text{NIR})$$

For Landsat 8 data,  $\text{NDBI} = (\text{Band 6} - \text{Band 5}) / (\text{Band 6} + \text{Band 5})$

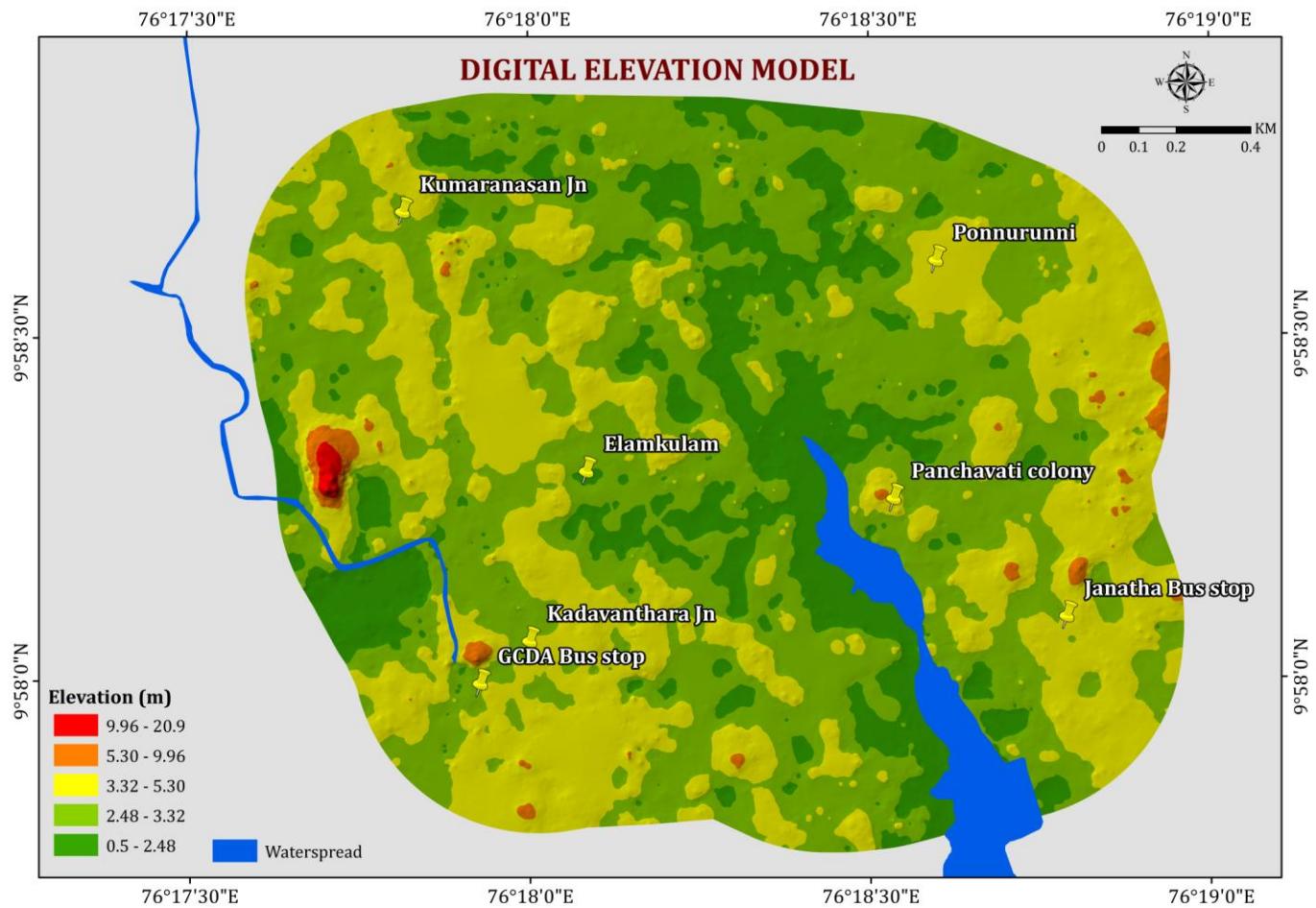
#### **4.6 Population density**

The source of data for population density mapping is from Global High resolution Population Denominators project funded by The Bill and Melinda Gates foundation. The resolution of data is 3 arc seconds (90m). The projection is Geographic Coordinate System, WGS84. The units are number of people per unit km. The mapping approach is Random Forest-based dasymetric redistribution (WorldPop, 2018, Christopher et al 2019).

## 5. Results and Discussion

### 5.1 Digital Elevation Model

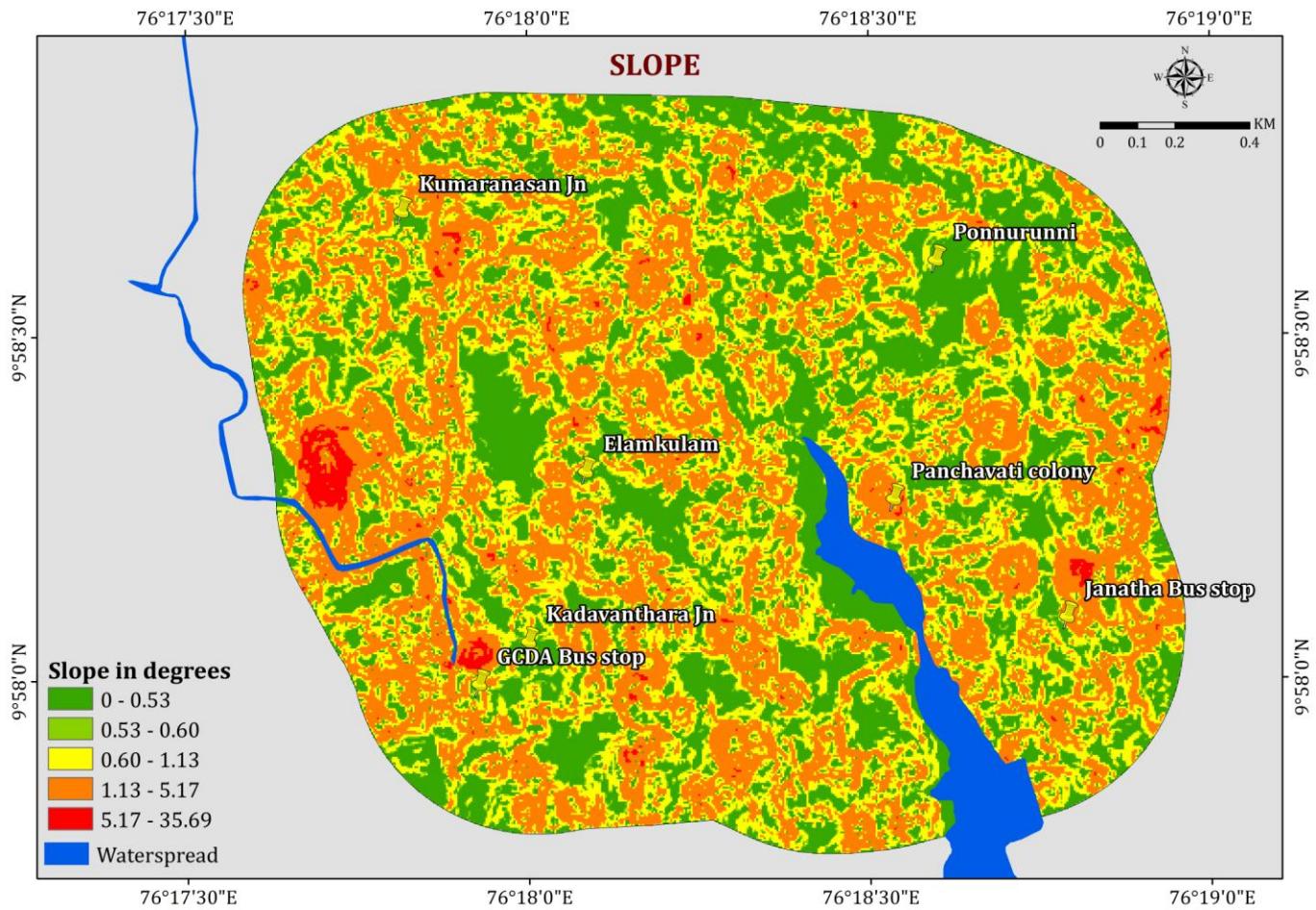
Fig 4 illustrates the digital elevation model of the study area. The elevation ranges from 0.5 m to 2.48 m. One metre resolution Dem has been processed.



**Fig 4. Digital Elevation Model**

## 5.2 Slope

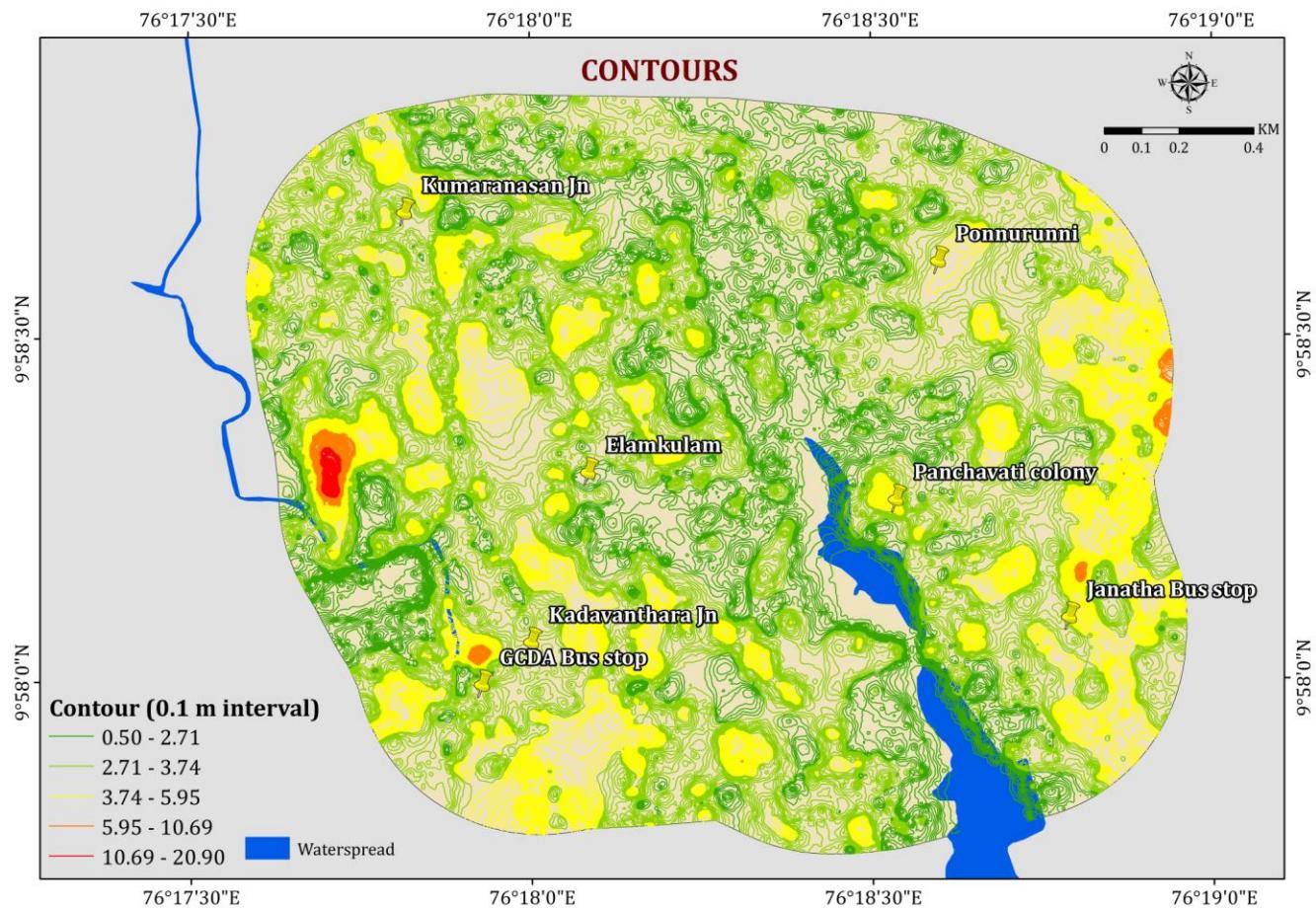
Fig 5 shows the slope of the region. The slope has been computed from the digital elevation model. The unit of slope is degrees.



**Fig 5. Slope of the region**

### 5.3 Contour

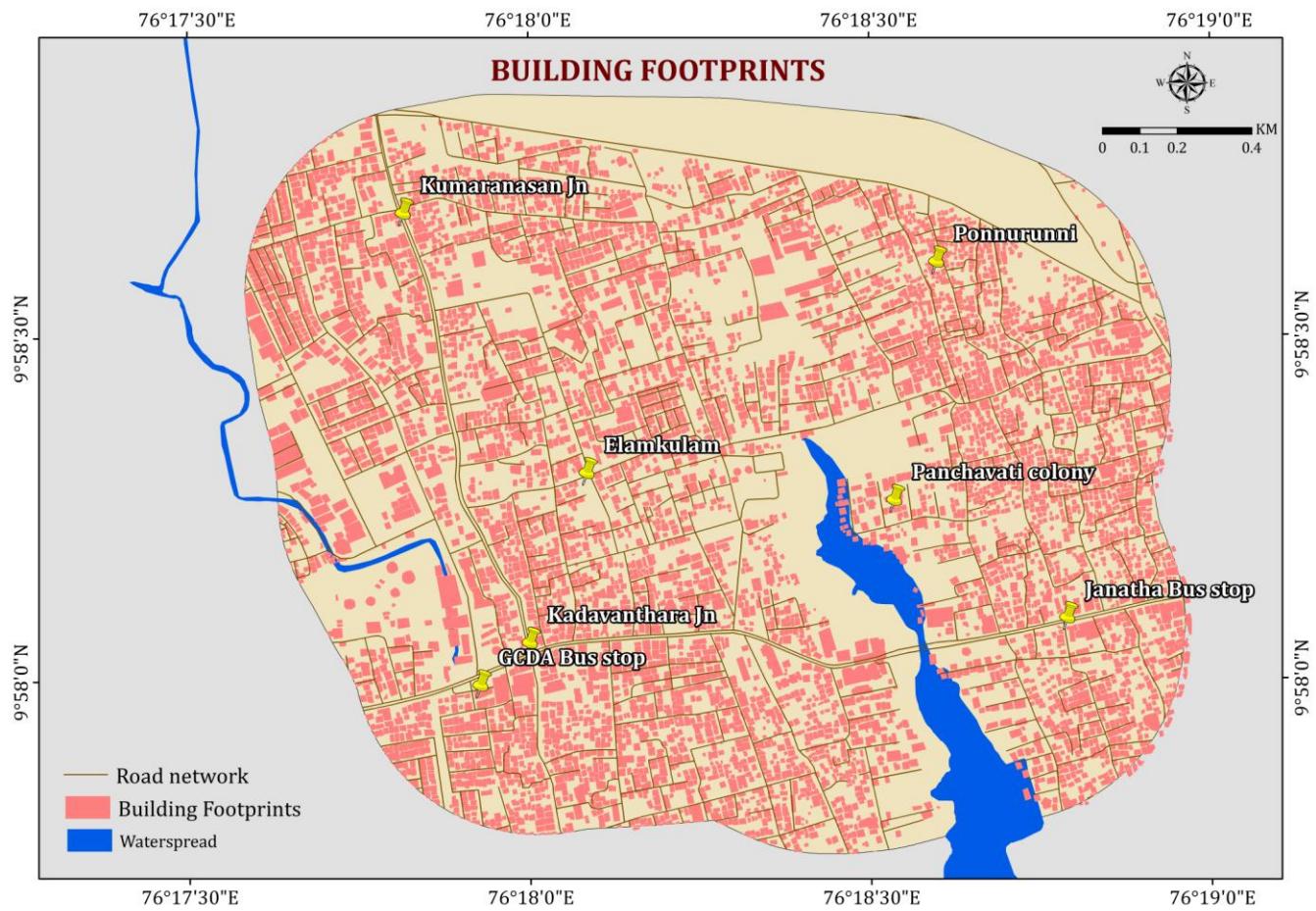
Contour map has been generation in 0.1 metre interval. Fig 6 depicts the contour map of the study area.



**Fig 6. Contour map**

#### **5.4 Building Footprints**

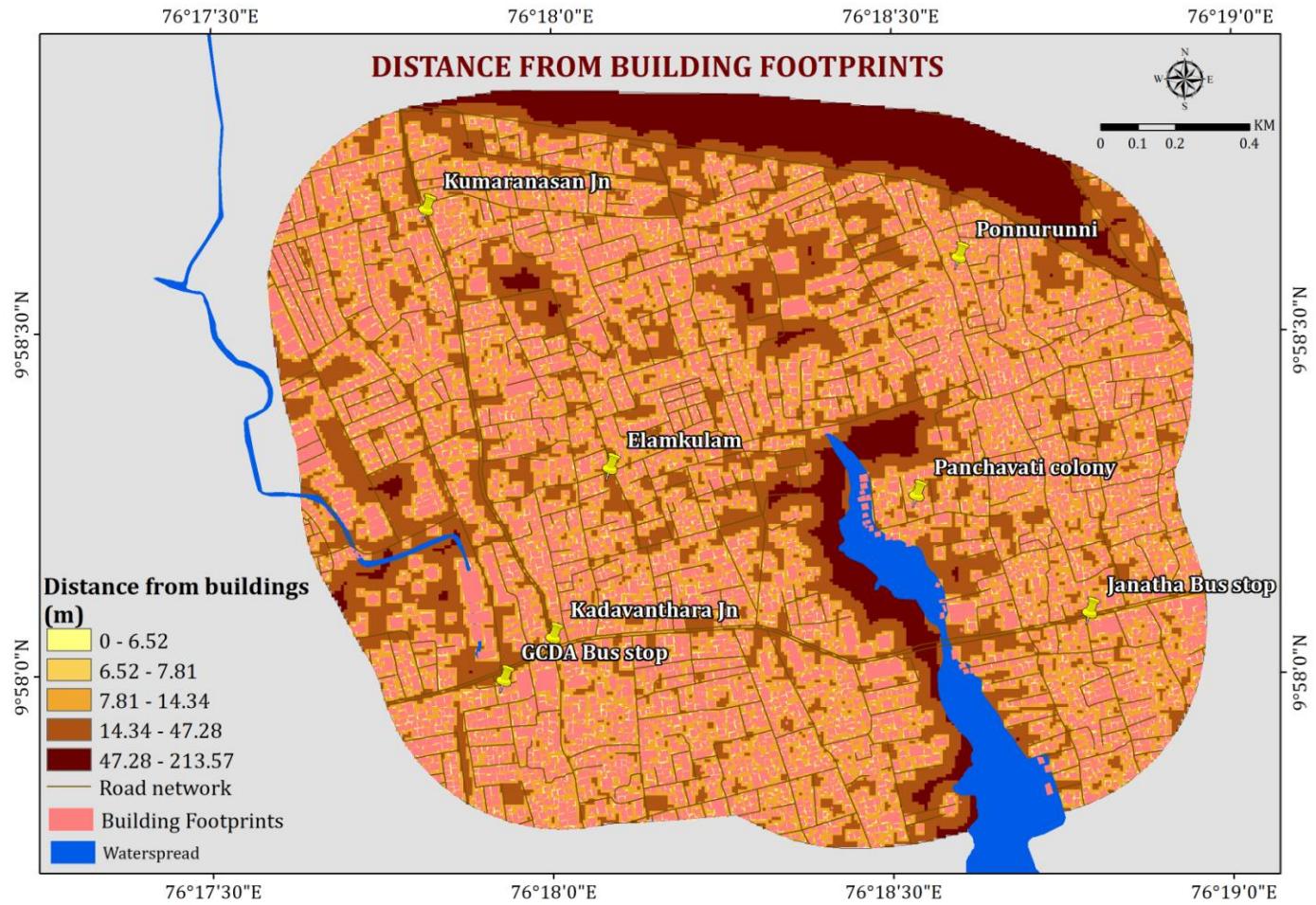
A total of 7336 buildings were extracted using geospatial technologies from the region. Fig 7 shows the building footprints of the region.



**Fig 7. Building footprints**

## 5.6 Distance from building footprints

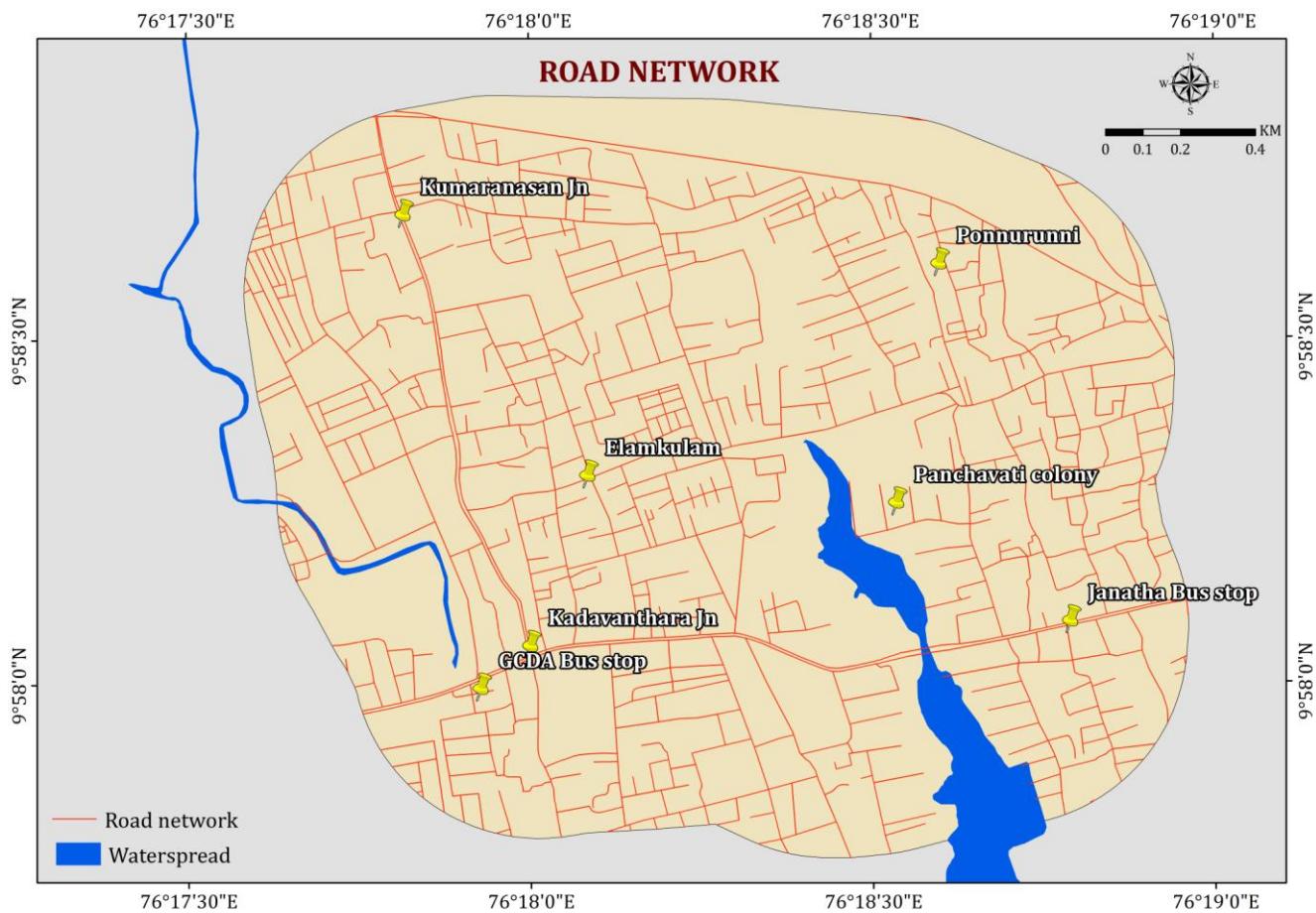
Distance from the building footprints within the study area ranges from 6.52 m to 213.57 m Fig 8 point up the distance from building footprints.



**Fig 8. Distance from building footprints**

## 5.6 Road network

Road length having a total length 79.45 km were mapped in the region. Fig 9 illustrates the road map of the study area.

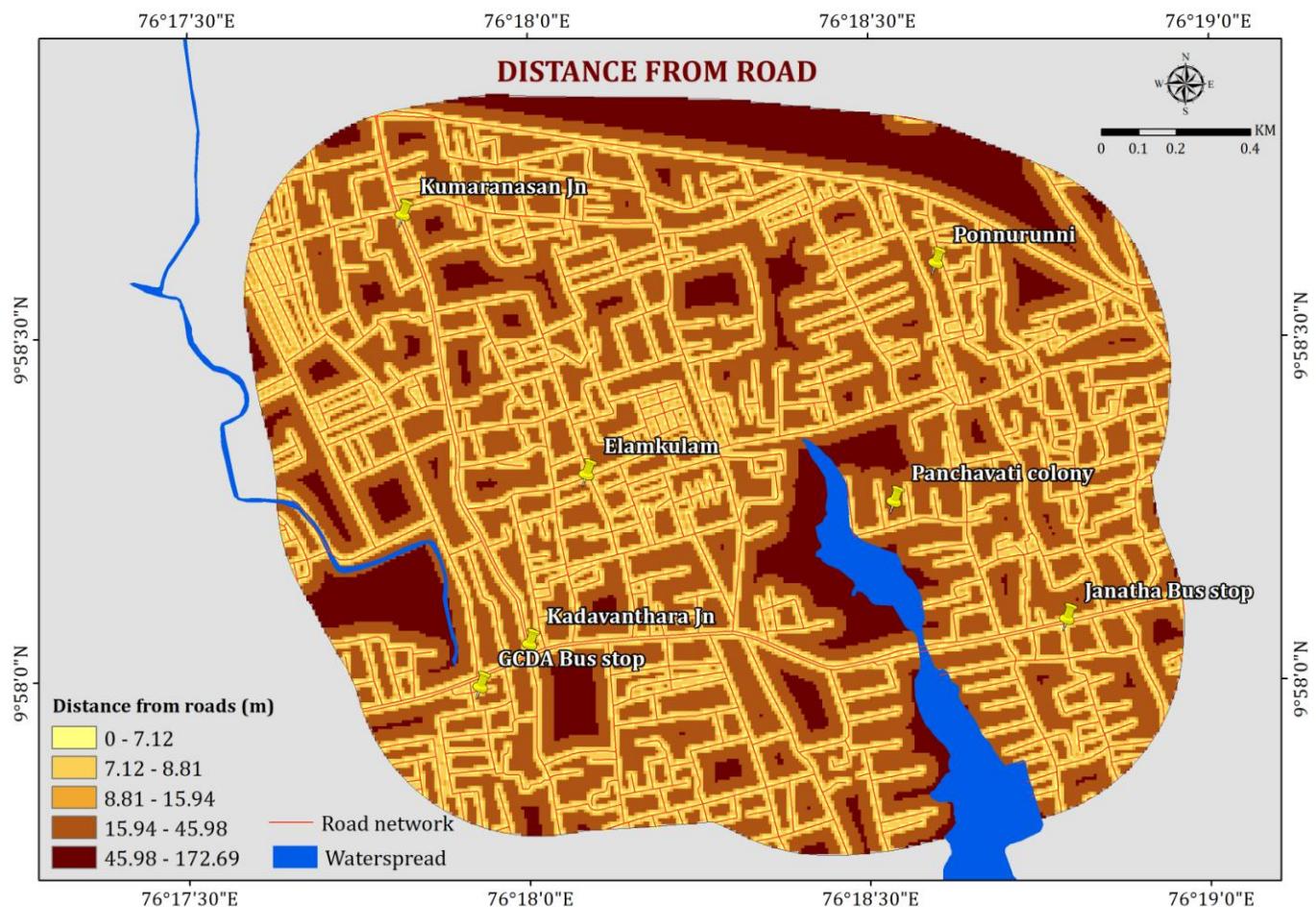


**Fig 9. Road network**

## 5.7 Distance from roads

Distance from roads within the study area ranges from 7.12 m to 172.69 m

Fig 10 point up the distance from road map.



**Fig 10. Distance from road**

## 5.8 Levels - (10 m interval of roads)

As per the methodology discussed in section 4.3, levels along 10 m intervals of roads in the region were extracted. Fig. 11 shows the levels along 10m interval of roads map and Table 3 depicts the details of levels.

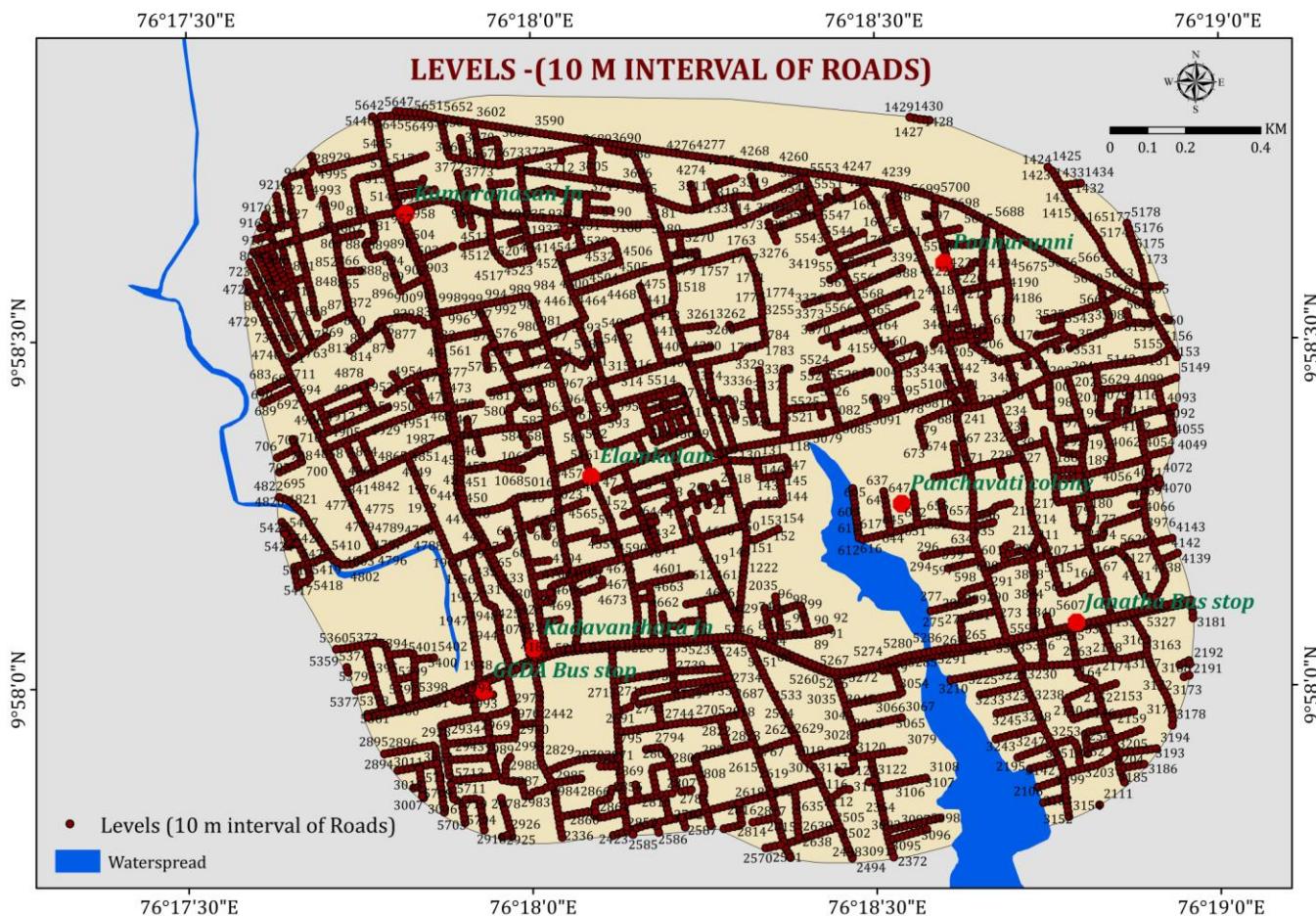


Fig 11. Levels (10 m interval of roads) map.

**Table 3. Levels along 10 m interval of Roads**

FID	Elevation	Longitude	Latitude	FID	Elevation	Longitude	Latitude
0	2.353	76.30360	9.97051	49	3.025	76.30170	9.97110
1	2.342	76.30360	9.97062	50	2.777	76.30170	9.97099
2	2.428	76.30360	9.97074	51	2.480	76.30180	9.97088
3	2.570	76.30350	9.97085	52	2.434	76.30180	9.97077
4	2.498	76.30350	9.97097	53	3.557	76.30000	9.97062
5	2.355	76.30340	9.97108	54	3.454	76.30010	9.97065
6	2.374	76.30340	9.97119	55	3.471	76.30020	9.97068
7	2.778	76.30340	9.97131	56	3.888	76.30030	9.97071
8	3.034	76.30330	9.97142	57	4.082	76.30050	9.97074
9	2.310	76.30330	9.97154	58	3.769	76.30060	9.97078
10	2.720	76.30330	9.97165	59	3.774	76.29990	9.97046
11	4.754	76.30340	9.97226	60	3.703	76.29990	9.97057
12	5.159	76.30340	9.97215	61	2.943	76.30030	9.97030
13	4.626	76.30350	9.97204	62	3.115	76.30030	9.97042
14	3.674	76.30350	9.97192	63	3.354	76.30030	9.97053
15	2.842	76.30350	9.97181	64	3.573	76.30030	9.97063
16	2.471	76.30460	9.97135	65	2.815	76.29900	9.96997
17	2.521	76.30470	9.97138	66	2.921	76.29920	9.97001
18	2.312	76.30480	9.97140	67	3.164	76.29930	9.97005
19	2.654	76.30380	9.97130	68	3.394	76.29940	9.97009
20	2.557	76.30390	9.97119	69	3.468	76.29940	9.97017
21	2.443	76.30420	9.97104	70	3.455	76.29940	9.97028
22	2.409	76.30420	9.97115	71	3.399	76.29940	9.97040
23	2.778	76.30440	9.97154	72	2.594	76.30560	9.96855
24	2.403	76.30440	9.97143	73	2.631	76.30560	9.96844
25	2.589	76.30260	9.97116	74	2.731	76.30560	9.96832
26	2.602	76.30270	9.97119	75	2.421	76.30570	9.96820
27	2.604	76.30280	9.97123	76	2.290	76.30570	9.96809
28	2.583	76.30290	9.97126	77	2.118	76.30570	9.96797
29	2.534	76.30300	9.97130	78	2.233	76.30570	9.96785
30	2.525	76.30310	9.97133	79	2.554	76.30580	9.96774
31	2.420	76.30330	9.97136	80	2.937	76.30580	9.96762
32	2.323	76.30320	9.97094	81	2.355	76.30590	9.96787
33	2.275	76.30330	9.97101	82	2.752	76.30600	9.96788
34	2.292	76.30340	9.97107	83	3.210	76.30610	9.96789
35	2.442	76.30280	9.97075	84	3.506	76.30620	9.96790

36	2.467	76.30280	9.97064	85	3.491	76.30630	9.96791
37	2.541	76.30290	9.97053	86	3.208	76.30650	9.96792
38	2.612	76.30290	9.97041	87	2.954	76.30660	9.96793
39	2.423	76.30290	9.97030	88	2.749	76.30670	9.96794
40	2.307	76.30300	9.97019	89	2.511	76.30680	9.96797
41	2.278	76.30300	9.97007	90	2.345	76.30690	9.96799
42	2.450	76.30290	9.97075	91	2.300	76.30700	9.96802
43	2.490	76.30300	9.97065	92	2.151	76.30720	9.96805
44	2.479	76.30280	9.97062	93	2.267	76.30600	9.96851
45	2.252	76.30150	9.97154	94	2.408	76.30610	9.96855
46	2.271	76.30150	9.97143	95	2.574	76.30620	9.96858
47	2.726	76.30160	9.97132	96	2.728	76.30640	9.96862
48	3.179	76.30160	9.97121	97	2.733	76.30650	9.96860
98	2.686	76.30650	9.96849	147	1.762	76.30600	9.97172
99	2.751	76.30650	9.96838	148	2.549	76.30530	9.97020
100	2.882	76.30660	9.96826	149	2.412	76.30540	9.97020
101	2.868	76.30660	9.96815	150	2.397	76.30550	9.97025
102	2.830	76.30660	9.96803	151	2.513	76.30560	9.97030
103	2.866	76.30600	9.96800	152	2.674	76.30570	9.97035
104	2.899	76.30600	9.96812	153	2.473	76.30580	9.97039
105	2.701	76.30590	9.96824	154	2.311	76.30590	9.97044
106	2.367	76.30590	9.96836	155	2.935	76.31400	9.96842
107	3.263	76.30480	9.97210	156	2.947	76.31390	9.96853
108	3.352	76.30490	9.97210	157	2.714	76.31390	9.96865
109	3.304	76.30500	9.97209	158	2.268	76.31390	9.96877
110	3.106	76.30510	9.97209	159	2.603	76.31390	9.96888
111	2.765	76.30520	9.97208	160	2.846	76.31380	9.96900
112	2.193	76.30540	9.97208	161	2.600	76.31380	9.96912
113	1.883	76.30550	9.97209	162	2.597	76.31380	9.96923
114	1.798	76.30560	9.97211	163	3.506	76.31370	9.96934
115	1.670	76.30570	9.97212	164	4.829	76.31370	9.96945
116	1.426	76.30580	9.97214	165	5.240	76.31360	9.96955
117	1.840	76.30600	9.97215	166	4.761	76.31360	9.96966
118	2.039	76.30610	9.97217	167	4.405	76.31350	9.96978
119	2.065	76.30610	9.97209	168	4.277	76.31350	9.96989
120	2.223	76.30620	9.97197	169	4.217	76.31340	9.97001
121	2.521	76.30620	9.97185	170	4.255	76.31340	9.97012
122	1.999	76.30620	9.97176	171	4.201	76.31340	9.97024
123	1.942	76.30600	9.97174	172	4.095	76.31340	9.97036
124	1.636	76.30590	9.97173	173	3.790	76.31340	9.97047

125	1.797	76.30580	9.97171	174	4.001	76.31350	9.97058
126	2.012	76.30570	9.97170	175	4.085	76.31350	9.97069
127	2.474	76.30560	9.97168	176	4.770	76.31350	9.97081
128	2.406	76.30550	9.97172	177	4.307	76.31350	9.97092
129	2.339	76.30550	9.97184	178	4.867	76.31340	9.97104
130	1.994	76.30540	9.97196	179	4.584	76.31340	9.97116
131	2.009	76.30540	9.97208	180	4.036	76.31340	9.97128
132	2.840	76.30510	9.97066	181	2.987	76.31340	9.97139
133	2.234	76.30520	9.97078	182	3.036	76.31340	9.97151
134	2.329	76.30520	9.97089	183	3.030	76.31330	9.97163
135	2.484	76.30520	9.97100	184	2.859	76.31330	9.97175
136	2.327	76.30540	9.97103	185	2.914	76.31330	9.97187
137	2.246	76.30550	9.97104	186	2.976	76.31330	9.97198
138	2.128	76.30560	9.97105	187	3.050	76.31330	9.97210
139	2.385	76.30570	9.97105	188	2.920	76.31330	9.97222
140	2.752	76.30580	9.97106	189	2.556	76.31330	9.97234
141	2.900	76.30590	9.97106	190	2.381	76.31330	9.97246
142	3.022	76.30600	9.97112	191	2.418	76.31330	9.97257
143	3.196	76.30600	9.97124	192	2.611	76.31330	9.97269
144	3.076	76.30600	9.97136	193	2.912	76.31330	9.97281
145	2.707	76.30600	9.97148	194	2.896	76.31330	9.97293
146	2.129	76.30600	9.97160	195	2.780	76.31330	9.97304
196	2.718	76.31320	9.97315	245	3.051	76.31040	9.97234
197	2.752	76.31320	9.97327	246	2.910	76.31040	9.97223
198	2.574	76.31320	9.97338	247	2.806	76.31050	9.97212
199	2.918	76.31310	9.97350	248	2.782	76.31050	9.97201
200	3.097	76.31310	9.97361	249	2.804	76.31060	9.97189
201	3.411	76.31310	9.97373	250	2.926	76.31060	9.97177
202	3.671	76.31300	9.97384	251	3.046	76.31060	9.97165
203	3.883	76.31300	9.97395	252	3.133	76.31060	9.97154
204	3.934	76.31300	9.97407	253	3.151	76.31060	9.97142
205	3.198	76.31240	9.96993	254	3.292	76.31060	9.97130
206	3.235	76.31240	9.97004	255	3.319	76.31060	9.97118
207	3.271	76.31230	9.97015	256	3.507	76.31070	9.97106
208	3.296	76.31220	9.97025	257	3.119	76.31070	9.97094
209	3.293	76.31220	9.97035	258	2.868	76.31070	9.97082
210	3.358	76.31210	9.97046	259	2.887	76.31070	9.97070
211	3.453	76.31210	9.97057	260	2.896	76.31070	9.97058
212	3.274	76.31210	9.97069	261	4.191	76.31040	9.96771
213	3.116	76.31200	9.97081	262	3.658	76.31040	9.96783

214	3.109	76.31200	9.97093	263	3.698	76.31040	9.96795
215	3.077	76.31200	9.97104	264	3.646	76.31030	9.96807
216	2.916	76.31200	9.97116	265	3.550	76.31030	9.96818
217	2.673	76.31200	9.97128	266	3.654	76.31040	9.96828
218	2.473	76.31200	9.97140	267	3.427	76.31050	9.96831
219	2.343	76.31200	9.97152	268	3.084	76.31060	9.96833
220	2.303	76.31200	9.97164	269	2.827	76.31070	9.96836
221	2.340	76.31200	9.97176	270	2.920	76.31080	9.96838
222	2.472	76.31200	9.97187	271	3.335	76.31090	9.96841
223	2.695	76.31190	9.97198	272	3.580	76.31110	9.96843
224	3.008	76.31180	9.97208	273	3.760	76.31120	9.96846
225	3.394	76.31180	9.97219	274	3.456	76.30960	9.96847
226	3.875	76.31170	9.97229	275	4.153	76.30970	9.96850
227	4.375	76.31170	9.97239	276	3.823	76.30990	9.96852
228	4.906	76.31160	9.97250	277	2.781	76.31000	9.96855
229	5.298	76.31160	9.97260	278	2.905	76.31010	9.96858
230	5.437	76.31150	9.97271	279	3.161	76.31020	9.96860
231	5.420	76.31150	9.97282	280	3.070	76.31030	9.96863
232	5.178	76.31140	9.97293	281	3.056	76.31040	9.96866
233	4.844	76.31140	9.97304	282	3.139	76.31050	9.96869
234	4.442	76.31130	9.97315	283	3.532	76.31070	9.96873
235	3.800	76.31130	9.97327	284	2.733	76.31040	9.96875
236	3.406	76.31120	9.97338	285	2.917	76.31030	9.96886
237	2.696	76.31030	9.97327	286	3.839	76.31040	9.96895
238	2.835	76.31030	9.97316	287	3.929	76.31050	9.96898
239	2.342	76.31030	9.97304	288	3.964	76.31060	9.96901
240	2.338	76.31030	9.97293	289	3.924	76.31080	9.96904
241	2.586	76.31030	9.97281	290	4.047	76.31090	9.96907
242	2.934	76.31030	9.97269	291	4.111	76.31100	9.96910
243	3.349	76.31040	9.97258	292	3.197	76.30940	9.96978
244	3.501	76.31040	9.97246	293	2.773	76.30960	9.96981
245	3.051	76.31040	9.97234	294	2.509	76.30970	9.96983
246	2.910	76.31040	9.97223	295	2.347	76.30980	9.96985
247	2.806	76.31050	9.97212	296	2.296	76.30990	9.96988
248	2.782	76.31050	9.97201	297	2.426	76.31000	9.96990
249	2.804	76.31060	9.97189	298	2.557	76.31010	9.96991
250	2.926	76.31060	9.97177	299	2.491	76.31030	9.96992
251	3.046	76.31060	9.97165	300	2.332	76.31040	9.96993
252	3.133	76.31060	9.97154	301	2.418	76.31050	9.96994
253	3.151	76.31060	9.97142	302	2.680	76.31060	9.96995

254	3.292	76.31060	9.97130	303	2.989	76.31000	9.96949
255	3.319	76.31060	9.97118	304	3.422	76.30200	9.97320
256	3.507	76.31070	9.97106	305	3.168	76.30200	9.97331
257	3.119	76.31070	9.97094	306	3.312	76.30190	9.97342
258	2.868	76.31070	9.97082	307	3.453	76.30190	9.97352
259	2.887	76.31070	9.97070	308	3.553	76.30180	9.97363
260	2.896	76.31070	9.97058	309	3.371	76.30180	9.97375
261	4.191	76.31040	9.96771	310	3.391	76.30170	9.97386
262	3.658	76.31040	9.96783	311	3.673	76.30170	9.97397
263	3.698	76.31040	9.96795	312	3.748	76.30180	9.97401
264	3.646	76.31030	9.96807	313	3.239	76.30190	9.97405
265	3.550	76.31030	9.96818	314	2.772	76.30200	9.97408
266	3.654	76.31040	9.96828	315	2.538	76.30210	9.97412
267	3.427	76.31050	9.96831	316	2.429	76.30230	9.97415
268	3.084	76.31060	9.96833	317	2.931	76.29670	9.97820
269	2.827	76.31070	9.96836	318	3.092	76.29680	9.97809
270	2.920	76.31080	9.96838	319	3.233	76.29680	9.97798
271	3.335	76.31090	9.96841	320	3.257	76.29680	9.97787
272	3.580	76.31110	9.96843	321	3.283	76.29690	9.97776
273	3.760	76.31120	9.96846	322	3.319	76.29690	9.97765
274	3.456	76.30960	9.96847	323	3.003	76.29700	9.97754
275	4.153	76.30970	9.96850	324	2.921	76.29700	9.97742
276	3.823	76.30990	9.96852	325	2.889	76.29710	9.97731
277	2.781	76.31000	9.96855	326	2.535	76.29710	9.97720
278	2.905	76.31010	9.96858	327	3.051	76.29710	9.97709
279	3.161	76.31020	9.96860	328	2.777	76.29720	9.97698
280	3.070	76.31030	9.96863	329	2.731	76.29720	9.97687
281	3.056	76.31040	9.96866	330	2.825	76.29730	9.97676
282	3.139	76.31050	9.96869	331	2.931	76.29730	9.97664
283	3.532	76.31070	9.96873	332	3.040	76.29740	9.97653
284	2.733	76.31040	9.96875	333	2.962	76.29740	9.97642
285	2.917	76.31030	9.96886	334	3.145	76.29740	9.97631
286	3.839	76.31040	9.96895	335	3.243	76.29750	9.97619
287	3.929	76.31050	9.96898	336	2.882	76.29750	9.97607
288	3.964	76.31060	9.96901	337	2.804	76.29750	9.97596
289	3.924	76.31080	9.96904	338	3.152	76.29750	9.97584
290	4.047	76.31090	9.96907	339	2.831	76.29760	9.97572
291	4.111	76.31100	9.96910	340	3.048	76.29760	9.97561
292	3.197	76.30940	9.96978	341	4.042	76.29760	9.97549
293	2.773	76.30960	9.96981	342	3.533	76.29760	9.97537

343	3.244	76.29760	9.97525	392	4.129	76.29900	9.96964
344	3.137	76.29770	9.97513	393	3.654	76.29900	9.96953
345	3.221	76.29770	9.97501	394	3.043	76.29910	9.96943
346	3.116	76.29770	9.97490	395	2.991	76.29920	9.96932
347	3.006	76.29770	9.97478	396	2.755	76.29920	9.96922
348	2.775	76.29770	9.97466	397	2.705	76.29930	9.96911
349	3.120	76.29770	9.97454	398	2.438	76.29930	9.96902
350	3.558	76.29780	9.97442	399	2.608	76.29940	9.96893
351	3.111	76.29780	9.97430	400	2.467	76.29950	9.96883
352	2.856	76.29780	9.97419	401	2.451	76.29960	9.96874
353	2.718	76.29780	9.97407	402	2.454	76.29960	9.96864
354	3.001	76.29780	9.97395	403	2.813	76.29970	9.96852
355	2.688	76.29790	9.97383	404	3.570	76.29970	9.96840
356	3.176	76.29790	9.97371	405	2.675	76.29970	9.96829
357	3.969	76.29790	9.97360	406	2.912	76.29970	9.96817
358	3.277	76.29790	9.97348	407	2.860	76.29980	9.96805
359	2.978	76.29790	9.97336	408	2.669	76.29980	9.96794
360	3.546	76.29800	9.97324	409	2.893	76.29980	9.96782
361	3.709	76.29800	9.97313	410	3.007	76.29980	9.96770
362	3.388	76.29800	9.97301	411	3.151	76.29990	9.96759
363	2.898	76.29800	9.97289	412	3.322	76.29990	9.96747
364	3.130	76.29810	9.97278	413	3.065	76.29990	9.96736
365	2.861	76.29810	9.97266	414	3.531	76.30000	9.96747
366	2.573	76.29810	9.97254	415	3.368	76.29990	9.96759
367	2.705	76.29810	9.97243	416	3.073	76.29990	9.96770
368	3.052	76.29810	9.97231	417	2.894	76.29990	9.96782
369	3.023	76.29820	9.97219	418	2.779	76.29990	9.96794
370	3.086	76.29820	9.97207	419	2.623	76.29980	9.96805
371	3.041	76.29820	9.97195	420	2.585	76.29980	9.96817
372	3.116	76.29820	9.97183	421	2.804	76.29980	9.96829
373	3.113	76.29810	9.97171	422	3.213	76.29980	9.96841
374	2.768	76.29810	9.97159	423	2.528	76.29970	9.96852
375	2.984	76.29820	9.97147	424	2.456	76.29970	9.96864
376	3.217	76.29820	9.97136	425	2.491	76.29970	9.96874
377	2.745	76.29820	9.97124	426	2.570	76.29960	9.96883
378	2.523	76.29820	9.97112	427	2.627	76.29950	9.96893
379	2.292	76.29830	9.97101	428	2.324	76.29940	9.96902
380	2.389	76.29830	9.97090	429	2.358	76.29940	9.96912
381	2.957	76.29840	9.97079	430	2.612	76.29930	9.96922
382	2.746	76.29840	9.97069	431	2.907	76.29920	9.96932

383	2.413	76.29850	9.97059	432	2.816	76.29920	9.96943
384	2.703	76.29860	9.97049	433	3.196	76.29910	9.96953
385	2.817	76.29860	9.97039	434	5.335	76.29910	9.96964
386	2.709	76.29870	9.97029	435	3.077	76.29900	9.96975
387	2.529	76.29870	9.97018	436	2.322	76.29900	9.96985
388	2.594	76.29880	9.97007	437	2.538	76.29890	9.96996
389	2.557	76.29880	9.96997	438	2.623	76.29890	9.97007
390	2.320	76.29890	9.96986	439	2.242	76.29880	9.97018
391	2.519	76.29890	9.96975	440	2.584	76.29880	9.97029
441	2.688	76.29870	9.97039	490	2.436	76.29760	9.97608
442	2.550	76.29860	9.97050	491	3.084	76.29750	9.97619
443	2.775	76.29860	9.97060	492	3.149	76.29750	9.97631
444	2.602	76.29850	9.97070	493	2.847	76.29750	9.97642
445	2.627	76.29850	9.97080	494	3.087	76.29740	9.97654
446	2.302	76.29840	9.97091	495	2.848	76.29740	9.97665
447	2.281	76.29840	9.97101	496	2.741	76.29740	9.97676
448	2.336	76.29830	9.97113	497	2.678	76.29730	9.97687
449	2.746	76.29830	9.97124	498	2.491	76.29730	9.97698
450	3.155	76.29830	9.97136	499	2.862	76.29720	9.97709
451	2.941	76.29820	9.97148	500	2.794	76.29720	9.97721
452	2.747	76.29820	9.97160	501	2.869	76.29710	9.97732
453	2.887	76.29820	9.97172	502	2.905	76.29710	9.97743
454	2.880	76.29820	9.97184	503	2.934	76.29710	9.97754
455	2.821	76.29820	9.97196	504	3.209	76.29700	9.97765
456	2.981	76.29820	9.97208	505	3.265	76.29700	9.97776
457	2.855	76.29820	9.97220	506	3.251	76.29690	9.97787
458	2.621	76.29820	9.97232	507	3.239	76.29690	9.97798
459	2.317	76.29820	9.97243	508	3.224	76.29680	9.97809
460	2.391	76.29820	9.97255	509	2.934	76.29680	9.97820
461	2.870	76.29820	9.97267	510	3.070	76.29670	9.97832
462	3.007	76.29810	9.97278	511	3.251	76.29670	9.97843
463	2.925	76.29810	9.97290	512	3.358	76.29670	9.97854
464	2.901	76.29810	9.97302	513	3.533	76.29660	9.97866
465	3.421	76.29810	9.97313	514	3.898	76.29660	9.97877
466	3.690	76.29800	9.97325	515	4.580	76.29660	9.97889
467	3.061	76.29800	9.97337	516	5.197	76.29650	9.97900
468	2.951	76.29800	9.97348	517	5.541	76.29650	9.97912
469	3.717	76.29800	9.97360	518	3.965	76.30020	9.97363
470	3.239	76.29800	9.97372	519	3.341	76.30020	9.97375
471	2.663	76.29790	9.97383	520	2.377	76.30010	9.97386

472	2.789	76.29790	9.97395	521	2.396	76.30010	9.97398
473	2.826	76.29790	9.97407	522	4.141	76.29950	9.97401
474	2.786	76.29790	9.97419	523	4.005	76.29950	9.97412
475	3.042	76.29790	9.97431	524	3.878	76.29940	9.97423
476	3.239	76.29780	9.97443	525	3.782	76.29940	9.97434
477	3.051	76.29780	9.97454	526	3.720	76.29930	9.97444
478	2.869	76.29780	9.97466	527	3.641	76.29920	9.97455
479	2.913	76.29780	9.97478	528	3.518	76.29920	9.97466
480	2.730	76.29780	9.97490	529	3.364	76.29910	9.97477
481	2.602	76.29780	9.97502	530	3.147	76.29910	9.97487
482	2.824	76.29770	9.97514	531	3.104	76.29900	9.97498
483	2.708	76.29770	9.97525	532	3.407	76.29900	9.97509
484	2.955	76.29770	9.97537	533	3.376	76.29900	9.97520
485	3.641	76.29770	9.97549	534	3.477	76.29890	9.97531
486	2.881	76.29770	9.97561	535	3.507	76.29890	9.97542
487	2.698	76.29760	9.97573	536	3.461	76.29880	9.97553
488	3.129	76.29760	9.97584	537	3.455	76.29880	9.97565
489	2.755	76.29760	9.97596	538	3.064	76.29870	9.97575
539	3.803	76.29950	9.97433	588	5.510	76.30110	9.97293
540	3.649	76.29960	9.97437	589	4.669	76.30120	9.97296
541	3.421	76.29970	9.97440	590	4.354	76.30140	9.97299
542	3.226	76.29980	9.97443	591	2.885	76.30150	9.97302
543	3.539	76.29990	9.97447	592	2.685	76.30160	9.97305
544	3.887	76.30010	9.97450	593	2.843	76.30170	9.97308
545	3.796	76.30020	9.97454	594	2.912	76.30180	9.97311
546	3.592	76.30030	9.97457	595	3.291	76.30190	9.97314
547	3.232	76.30040	9.97460	596	2.993	76.31020	9.96952
548	3.215	76.29920	9.97484	597	2.904	76.31030	9.96955
549	3.204	76.29940	9.97486	598	3.325	76.31040	9.96958
550	3.332	76.29950	9.97488	599	3.649	76.31050	9.96960
551	3.601	76.29960	9.97491	600	3.640	76.31060	9.96963
552	3.657	76.29970	9.97491	601	3.986	76.31070	9.96966
553	3.611	76.29980	9.97480	602	2.524	76.30770	9.97142
554	3.472	76.29980	9.97469	603	3.052	76.30770	9.97130
555	3.311	76.29990	9.97458	604	2.660	76.30780	9.97118
556	3.344	76.29990	9.97447	605	2.851	76.30780	9.97106
557	3.497	76.29990	9.97487	606	3.060	76.30780	9.97094
558	3.353	76.30000	9.97491	607	3.229	76.30780	9.97082
559	3.074	76.30010	9.97494	608	3.246	76.30780	9.97070
560	2.853	76.30020	9.97498	609	3.112	76.30780	9.97058

561	2.758	76.29790	9.97504	610	3.111	76.30780	9.97047
562	3.115	76.29800	9.97507	611	3.238	76.30790	9.97035
563	3.470	76.29810	9.97509	612	3.278	76.30790	9.97023
564	3.900	76.29820	9.97512	613	3.054	76.30800	9.97019
565	4.249	76.29830	9.97514	614	2.608	76.30810	9.97022
566	4.237	76.29850	9.97517	615	2.313	76.30820	9.97025
567	4.314	76.29860	9.97519	616	1.879	76.30830	9.97027
568	4.263	76.29870	9.97521	617	2.506	76.30840	9.97030
569	3.882	76.29880	9.97524	618	2.457	76.30860	9.97032
570	3.767	76.29890	9.97432	619	2.421	76.30870	9.97035
571	3.765	76.29890	9.97444	620	2.588	76.30880	9.97038
572	3.778	76.29890	9.97456	621	2.745	76.30890	9.97041
573	3.846	76.29880	9.97468	622	2.739	76.30900	9.97045
574	3.876	76.29890	9.97478	623	2.730	76.30910	9.97048
575	3.581	76.29900	9.97484	624	3.298	76.30920	9.97051
576	3.065	76.29910	9.97491	625	3.463	76.30940	9.97054
577	3.771	76.29940	9.97303	626	3.789	76.30950	9.97057
578	3.826	76.29940	9.97314	627	3.616	76.30960	9.97060
579	3.885	76.29940	9.97326	628	3.691	76.30970	9.97060
580	3.933	76.29940	9.97337	629	3.756	76.30980	9.97059
581	3.926	76.29950	9.97342	630	3.270	76.31000	9.97057
582	3.940	76.29960	9.97349	631	3.139	76.31010	9.97055
583	3.990	76.29960	9.97359	632	3.054	76.31020	9.97052
584	3.504	76.29990	9.97249	633	3.203	76.31030	9.97050
585	3.516	76.29980	9.97261	634	3.051	76.31040	9.97049
586	3.550	76.29980	9.97270	635	2.975	76.31050	9.97049
587	3.571	76.29970	9.97281	636	2.870	76.31070	9.97050
637	4.405	76.30850	9.97134	686	2.488	76.29410	9.97410
638	5.276	76.30850	9.97122	687	2.700	76.29350	9.97353
639	6.127	76.30850	9.97110	688	2.666	76.29360	9.97358
640	5.334	76.30850	9.97099	689	2.752	76.29370	9.97363
641	4.285	76.30860	9.97087	690	2.874	76.29380	9.97368
642	3.716	76.30860	9.97075	691	2.910	76.29390	9.97373
643	3.062	76.30860	9.97063	692	2.917	76.29400	9.97378
644	2.622	76.30860	9.97052	693	2.878	76.29410	9.97384
645	2.379	76.30860	9.97040	694	3.108	76.29420	9.97389
646	2.850	76.30920	9.97128	695	2.215	76.29380	9.97186
647	2.710	76.30920	9.97116	696	2.254	76.29400	9.97191
648	2.916	76.30920	9.97104	697	2.312	76.29410	9.97196
649	2.795	76.30920	9.97092	698	2.417	76.29420	9.97201

650	2.667	76.30930	9.97080	699	2.696	76.29430	9.97206
651	3.223	76.30930	9.97069	700	3.502	76.29440	9.97211
652	3.491	76.30930	9.97057	701	3.819	76.29440	9.97221
653	2.980	76.30990	9.97108	702	3.724	76.29430	9.97232
654	3.255	76.30990	9.97096	703	3.482	76.29430	9.97243
655	3.215	76.30990	9.97084	704	3.152	76.29420	9.97254
656	3.327	76.30990	9.97073	705	2.926	76.29420	9.97265
657	3.256	76.31000	9.97061	706	2.274	76.29380	9.97221
658	2.535	76.30970	9.97168	707	2.350	76.29390	9.97226
659	2.652	76.30980	9.97171	708	2.522	76.29400	9.97231
660	2.753	76.30990	9.97173	709	2.842	76.29410	9.97237
661	2.702	76.31010	9.97175	710	3.310	76.29420	9.97242
662	2.701	76.31020	9.97178	711	2.413	76.29410	9.97451
663	2.714	76.31030	9.97180	712	2.494	76.29420	9.97457
664	2.766	76.31040	9.97182	713	2.685	76.29430	9.97464
665	2.784	76.31050	9.97187	714	2.644	76.29440	9.97470
666	2.654	76.31020	9.97247	715	2.460	76.29450	9.97477
667	2.465	76.31020	9.97235	716	2.618	76.29460	9.97484
668	3.033	76.31020	9.97223	717	2.833	76.29470	9.97491
669	2.463	76.31020	9.97211	718	2.912	76.29480	9.97497
670	2.540	76.31030	9.97200	719	2.934	76.29490	9.97504
671	2.671	76.31030	9.97188	720	3.001	76.29500	9.97511
672	2.462	76.30950	9.97244	721	4.182	76.29320	9.97690
673	2.615	76.30940	9.97255	722	4.307	76.29320	9.97679
674	2.476	76.30940	9.97267	723	4.405	76.29330	9.97668
675	2.287	76.30940	9.97278	724	4.803	76.29330	9.97657
676	2.421	76.30930	9.97290	725	4.887	76.29340	9.97646
677	2.535	76.30940	9.97301	726	5.032	76.29340	9.97636
678	2.712	76.30950	9.97306	727	4.405	76.29350	9.97625
679	2.929	76.30960	9.97310	728	4.052	76.29350	9.97614
680	3.052	76.30970	9.97314	729	3.486	76.29360	9.97603
681	3.126	76.30980	9.97319	730	3.332	76.29360	9.97592
682	2.971	76.30990	9.97323	731	3.574	76.29370	9.97582
683	2.185	76.29370	9.97394	732	3.908	76.29370	9.97571
684	2.459	76.29380	9.97399	733	3.607	76.29380	9.97560
685	2.555	76.29400	9.97404	734	3.186	76.29380	9.97549
735	2.869	76.29390	9.97538	784	3.317	76.29390	9.97603
736	2.659	76.29390	9.97528	785	3.385	76.29410	9.97605
737	2.566	76.29400	9.97517	786	3.339	76.29420	9.97608
738	2.676	76.29400	9.97506	787	3.496	76.29410	9.97618

739	2.770	76.29410	9.97495	788	3.281	76.29400	9.97629
740	2.681	76.29410	9.97484	789	3.335	76.29400	9.97641
741	3.105	76.29330	9.97705	790	3.994	76.29400	9.97652
742	3.486	76.29340	9.97694	791	3.393	76.29390	9.97663
743	3.667	76.29340	9.97684	792	2.868	76.29390	9.97673
744	3.888	76.29350	9.97673	793	2.841	76.29380	9.97684
745	4.069	76.29350	9.97662	794	3.074	76.29380	9.97695
746	3.934	76.29360	9.97651	795	3.002	76.29370	9.97707
747	3.700	76.29360	9.97640	796	2.852	76.29370	9.97717
748	3.377	76.29370	9.97629	797	3.481	76.29380	9.97631
749	3.311	76.29370	9.97619	798	3.256	76.29390	9.97633
750	3.269	76.29380	9.97608	799	3.674	76.29380	9.97643
751	3.312	76.29380	9.97597	800	3.696	76.29380	9.97654
752	3.283	76.29390	9.97586	801	3.491	76.29370	9.97665
753	3.142	76.29390	9.97575	802	3.382	76.29370	9.97675
754	3.008	76.29400	9.97565	803	3.228	76.29360	9.97686
755	2.761	76.29400	9.97554	804	3.078	76.29360	9.97697
756	2.562	76.29410	9.97543	805	2.786	76.29350	9.97708
757	2.394	76.29410	9.97532	806	2.394	76.29350	9.97719
758	2.352	76.29420	9.97521	807	4.725	76.29330	9.97615
759	2.704	76.29430	9.97511	808	4.272	76.29340	9.97618
760	3.042	76.29430	9.97500	809	3.163	76.29430	9.97647
761	2.748	76.29430	9.97489	810	3.054	76.29440	9.97651
762	2.383	76.29440	9.97478	811	3.050	76.29450	9.97654
763	2.995	76.29460	9.97501	812	3.009	76.29560	9.97478
764	3.035	76.29460	9.97512	813	3.196	76.29570	9.97485
765	3.228	76.29460	9.97523	814	3.212	76.29580	9.97493
766	3.093	76.29450	9.97534	815	2.997	76.29590	9.97500
767	2.877	76.29450	9.97545	816	3.056	76.29590	9.97507
768	2.801	76.29440	9.97556	817	3.104	76.29600	9.97515
769	2.912	76.29440	9.97568	818	2.985	76.29610	9.97522
770	3.201	76.29430	9.97579	819	2.830	76.29620	9.97530
771	3.042	76.29430	9.97591	820	2.675	76.29620	9.97541
772	3.142	76.29430	9.97602	821	2.628	76.29630	9.97548
773	3.222	76.29430	9.97614	822	3.130	76.29640	9.97550
774	3.232	76.29420	9.97625	823	3.551	76.29660	9.97552
775	3.243	76.29420	9.97637	824	3.660	76.29670	9.97554
776	3.377	76.29420	9.97648	825	3.898	76.29680	9.97556
777	3.479	76.29410	9.97660	826	3.955	76.29690	9.97558
778	2.922	76.29410	9.97671	827	3.923	76.29700	9.97556

779	2.456	76.29410	9.97683	828	4.272	76.29710	9.97550
780	2.460	76.29400	9.97694	829	4.005	76.29720	9.97553
781	2.584	76.29400	9.97706	830	4.201	76.29730	9.97548
782	2.503	76.29400	9.97717	831	4.084	76.29740	9.97538
783	2.873	76.29390	9.97729	832	3.786	76.29750	9.97540
833	3.816	76.29760	9.97543	882	2.740	76.29610	9.97741
834	3.556	76.29590	9.97515	883	3.016	76.29600	9.97738
835	3.630	76.29580	9.97526	884	3.625	76.29600	9.97728
836	3.452	76.29570	9.97536	885	4.155	76.29600	9.97717
837	3.307	76.29570	9.97547	886	4.416	76.29600	9.97705
838	3.222	76.29560	9.97557	887	4.196	76.29610	9.97697
839	3.171	76.29560	9.97568	888	3.856	76.29620	9.97699
840	3.147	76.29550	9.97579	889	3.719	76.29630	9.97704
841	2.890	76.29550	9.97591	890	3.722	76.29640	9.97707
842	3.318	76.29550	9.97603	891	4.006	76.29650	9.97699
843	3.806	76.29550	9.97614	892	4.010	76.29660	9.97688
844	3.730	76.29540	9.97626	893	4.057	76.29660	9.97677
845	3.465	76.29540	9.97638	894	4.174	76.29660	9.97666
846	3.167	76.29540	9.97649	895	4.113	76.29670	9.97654
847	2.885	76.29540	9.97661	896	3.527	76.29670	9.97643
848	2.854	76.29530	9.97673	897	3.327	76.29680	9.97632
849	3.895	76.29530	9.97685	898	3.425	76.29680	9.97620
850	3.944	76.29530	9.97696	899	3.443	76.29690	9.97628
851	3.644	76.29530	9.97708	900	3.488	76.29700	9.97633
852	3.399	76.29530	9.97720	901	3.370	76.29710	9.97638
853	3.076	76.29530	9.97732	902	3.218	76.29720	9.97643
854	2.814	76.29520	9.97744	903	3.078	76.29730	9.97649
855	2.906	76.29520	9.97756	904	5.157	76.29310	9.97620
856	3.185	76.29520	9.97768	905	3.670	76.29350	9.97805
857	3.325	76.29580	9.97758	906	3.614	76.29360	9.97793
858	3.313	76.29570	9.97755	907	3.316	76.29360	9.97781
859	3.294	76.29560	9.97753	908	2.983	76.29360	9.97770
860	3.196	76.29550	9.97750	909	3.083	76.29370	9.97758
861	3.029	76.29540	9.97748	910	2.879	76.29370	9.97747
862	2.889	76.29530	9.97745	911	2.935	76.29370	9.97735
863	2.521	76.29580	9.97669	912	3.381	76.29330	9.97746
864	2.808	76.29570	9.97668	913	3.521	76.29340	9.97750
865	2.980	76.29560	9.97668	914	3.329	76.29360	9.97753
866	2.914	76.29550	9.97667	915	4.395	76.29340	9.97773
867	3.856	76.29500	9.97541	916	3.533	76.29350	9.97776

868	3.864	76.29510	9.97546	917	3.651	76.29350	9.97796
869	3.809	76.29520	9.97551	918	3.409	76.29400	9.97879
870	3.591	76.29530	9.97556	919	2.950	76.29370	9.97771
871	3.372	76.29540	9.97561	920	3.125	76.29390	9.97774
872	3.230	76.29550	9.97566	921	3.216	76.29380	9.97850
873	3.010	76.29640	9.97532	922	3.209	76.29380	9.97838
874	3.311	76.29640	9.97523	923	3.326	76.29380	9.97826
875	3.606	76.29650	9.97512	924	3.425	76.29390	9.97814
876	3.643	76.29650	9.97501	925	3.456	76.29390	9.97803
877	3.687	76.29650	9.97490	926	3.338	76.29390	9.97791
878	3.291	76.29610	9.97785	927	3.200	76.29390	9.97779
879	3.356	76.29620	9.97774	928	2.977	76.29490	9.97912
880	3.309	76.29620	9.97762	929	2.867	76.29500	9.97915
881	2.858	76.29620	9.97750	930	3.572	76.30030	9.97794
931	3.348	76.30020	9.97795	980	2.481	76.30010	9.97564
932	3.128	76.30000	9.97795	981	2.558	76.30010	9.97575
933	2.944	76.29990	9.97796	982	2.343	76.30000	9.97586
934	2.817	76.29980	9.97797	983	2.320	76.30000	9.97598
935	2.769	76.29970	9.97798	984	2.338	76.29990	9.97606
936	2.708	76.29960	9.97799	985	2.440	76.29980	9.97606
937	2.496	76.29940	9.97800	986	2.561	76.29970	9.97603
938	2.313	76.29930	9.97801	987	2.988	76.29960	9.97601
939	2.555	76.29920	9.97802	988	3.387	76.29940	9.97599
940	2.447	76.29910	9.97803	989	3.385	76.29930	9.97597
941	2.486	76.29900	9.97805	990	3.000	76.29920	9.97594
942	2.559	76.29890	9.97806	991	2.910	76.29910	9.97592
943	2.649	76.29870	9.97809	992	3.329	76.29900	9.97590
944	2.678	76.29860	9.97813	993	3.553	76.29890	9.97588
945	2.660	76.29850	9.97816	994	2.834	76.29870	9.97585
946	2.676	76.29840	9.97820	995	2.460	76.29860	9.97583
947	2.738	76.29830	9.97824	996	2.764	76.29850	9.97581
948	2.515	76.29820	9.97827	997	2.879	76.29840	9.97579
949	2.395	76.29810	9.97831	998	3.489	76.29830	9.97577
950	2.263	76.29790	9.97834	999	3.686	76.29820	9.97574
951	2.508	76.29780	9.97837	1000	3.686	76.29800	9.97572
952	4.271	76.29770	9.97838	1001	3.461	76.29790	9.97570
953	4.740	76.29760	9.97835	1002	2.981	76.29780	9.97568
954	3.894	76.29750	9.97832	1003	2.633	76.29770	9.97566
955	4.150	76.29740	9.97829	1004	2.975	76.29830	9.97272
956	4.001	76.29720	9.97826	1005	3.305	76.29840	9.97274

957	3.515	76.29710	9.97823	1006	3.553	76.29850	9.97277
958	3.221	76.29700	9.97819	1007	3.650	76.29860	9.97278
959	3.198	76.29690	9.97816	1008	3.713	76.29880	9.97280
960	2.941	76.30090	9.97337	1009	3.758	76.29890	9.97282
961	3.030	76.30080	9.97348	1010	3.783	76.29900	9.97284
962	2.813	76.30080	9.97359	1011	3.789	76.29910	9.97286
963	2.789	76.30070	9.97371	1012	3.782	76.29920	9.97288
964	2.762	76.30070	9.97382	1013	3.758	76.29940	9.97290
965	2.741	76.30070	9.97393	1014	3.717	76.29950	9.97291
966	2.722	76.30060	9.97405	1015	3.665	76.29960	9.97292
967	2.809	76.30060	9.97416	1016	3.607	76.29970	9.97293
968	2.984	76.30060	9.97427	1017	3.545	76.29980	9.97293
969	3.015	76.30050	9.97439	1018	3.491	76.29990	9.97293
970	2.933	76.30050	9.97450	1019	3.454	76.30010	9.97295
971	3.612	76.30040	9.97462	1020	3.420	76.30020	9.97299
972	3.311	76.30040	9.97473	1021	3.389	76.30030	9.97303
973	3.261	76.30040	9.97484	1022	3.349	76.30040	9.97307
974	2.833	76.30030	9.97495	1023	3.320	76.30050	9.97311
975	2.614	76.30030	9.97507	1024	3.265	76.30060	9.97315
976	2.565	76.30030	9.97518	1025	3.098	76.30070	9.97319
977	2.432	76.30020	9.97530	1026	2.987	76.30080	9.97324
978	2.350	76.30020	9.97541	1027	3.283	76.30050	9.97147
979	2.422	76.30010	9.97552	1028	3.731	76.30050	9.97159
1029	4.600	76.30050	9.97171	1078	4.469	76.29810	9.97338
1030	3.796	76.30050	9.97182	1079	4.871	76.29830	9.97340
1031	3.008	76.30050	9.97194	1080	4.519	76.29840	9.97342
1032	3.060	76.30040	9.97206	1081	4.264	76.29850	9.97345
1033	3.087	76.30040	9.97218	1082	4.119	76.29860	9.97347
1034	3.171	76.30040	9.97229	1083	4.020	76.29870	9.97349
1035	3.319	76.30040	9.97241	1084	4.357	76.29970	9.97394
1036	3.441	76.30040	9.97253	1085	4.192	76.29980	9.97396
1037	3.512	76.30030	9.97265	1086	3.359	76.29990	9.97399
1038	3.510	76.30030	9.97277	1087	2.705	76.30000	9.97402
1039	3.463	76.30030	9.97288	1088	2.495	76.30010	9.97405
1040	3.405	76.30030	9.97300	1089	2.459	76.30030	9.97408
1041	2.998	76.29840	9.97189	1090	2.509	76.30040	9.97411
1042	3.166	76.29850	9.97191	1091	2.644	76.30050	9.97414
1043	3.450	76.29860	9.97193	1092	3.299	76.30030	9.97317
1044	3.593	76.29870	9.97194	1093	3.283	76.30030	9.97328
1045	3.402	76.29880	9.97196	1094	3.374	76.30030	9.97340

1046	3.414	76.29900	9.97198	1095	3.632	76.30020	9.97352
1047	3.463	76.29910	9.97200	1096	2.053	76.30450	9.97453
1048	3.507	76.29920	9.97203	1097	2.068	76.30440	9.97450
1049	3.522	76.29930	9.97205	1098	2.196	76.30430	9.97448
1050	3.522	76.29940	9.97208	1099	2.429	76.30420	9.97445
1051	3.503	76.29950	9.97210	1100	2.623	76.30410	9.97443
1052	3.484	76.29970	9.97213	1101	2.698	76.30400	9.97440
1053	3.465	76.29980	9.97217	1102	2.688	76.30380	9.97438
1054	3.452	76.29990	9.97222	1103	1.982	76.30480	9.97535
1055	3.440	76.30000	9.97228	1104	1.806	76.30480	9.97527
1056	3.422	76.30010	9.97235	1105	2.203	76.30490	9.97531
1057	3.388	76.30020	9.97237	1106	2.309	76.30510	9.97534
1058	3.321	76.30030	9.97237	1107	2.552	76.30520	9.97537
1059	3.197	76.30060	9.97192	1108	2.639	76.30530	9.97541
1060	3.023	76.30070	9.97196	1109	2.346	76.30540	9.97543
1061	2.831	76.30080	9.97201	1110	4.042	76.30060	9.97757
1062	2.766	76.30090	9.97205	1111	3.999	76.30070	9.97759
1063	2.800	76.30100	9.97209	1112	3.791	76.30080	9.97779
1064	2.884	76.30110	9.97213	1113	3.910	76.30080	9.97768
1065	3.344	76.29970	9.97191	1114	3.000	76.29920	9.97753
1066	3.397	76.29960	9.97192	1115	2.811	76.29930	9.97756
1067	3.440	76.29950	9.97193	1116	2.961	76.29940	9.97759
1068	3.467	76.29940	9.97194	1117	3.205	76.29950	9.97762
1069	3.475	76.29920	9.97196	1118	3.364	76.29970	9.97765
1070	3.432	76.29870	9.97230	1119	3.360	76.29980	9.97769
1071	3.492	76.29870	9.97242	1120	3.352	76.29950	9.97735
1072	3.528	76.29870	9.97253	1121	3.620	76.29960	9.97739
1073	3.566	76.29860	9.97265	1122	3.778	76.29970	9.97742
1074	3.617	76.29860	9.97276	1123	3.780	76.29980	9.97746
1075	3.582	76.29840	9.97287	1124	2.709	76.29740	9.97700
1076	3.729	76.29840	9.97299	1125	2.878	76.29750	9.97704
1077	4.109	76.29840	9.97311	1126	3.569	76.29760	9.97709
1127	4.466	76.29770	9.97713	1176	3.481	76.30030	9.96760
1128	5.184	76.29780	9.97718	1177	3.373	76.30030	9.96771
1129	5.390	76.29790	9.97722	1178	3.219	76.30020	9.96783
1130	5.828	76.29810	9.97727	1179	3.159	76.30020	9.96794
1131	3.623	76.29830	9.97726	1180	3.205	76.30020	9.96806
1132	2.974	76.29840	9.97728	1181	3.259	76.30020	9.96818
1133	3.681	76.29850	9.97731	1182	3.107	76.30010	9.96829
1134	4.195	76.29870	9.97733	1183	3.087	76.30010	9.96841

1135	3.855	76.29880	9.97736	1184	3.187	76.30010	9.96853
1136	4.254	76.29890	9.97738	1185	3.313	76.30010	9.96865
1137	2.265	76.29820	9.97815	1186	3.575	76.30010	9.96877
1138	1.906	76.29820	9.97803	1187	3.961	76.30000	9.96888
1139	1.777	76.29830	9.97792	1188	3.888	76.30000	9.96900
1140	2.087	76.29830	9.97780	1189	4.127	76.30000	9.96912
1141	2.408	76.29840	9.97808	1190	4.887	76.30000	9.96923
1142	2.396	76.29850	9.97797	1191	5.312	76.29990	9.96935
1143	2.693	76.29850	9.97785	1192	5.102	76.29990	9.96947
1144	3.297	76.29850	9.97774	1193	4.952	76.29990	9.96959
1145	4.486	76.30100	9.96773	1194	4.618	76.29990	9.96970
1146	4.084	76.30100	9.96785	1195	4.477	76.29980	9.96982
1147	4.241	76.30110	9.96797	1196	4.172	76.29980	9.96993
1148	4.639	76.30110	9.96809	1197	3.955	76.29980	9.97005
1149	4.177	76.30110	9.96821	1198	3.871	76.29980	9.97017
1150	3.995	76.30110	9.96833	1199	3.858	76.29970	9.97028
1151	3.990	76.30110	9.96845	1200	3.834	76.29970	9.97040
1152	3.968	76.30110	9.96856	1201	3.820	76.29970	9.97051
1153	3.916	76.30100	9.96868	1202	3.673	76.29960	9.97063
1154	3.866	76.30100	9.96880	1203	3.389	76.29960	9.97075
1155	3.835	76.30100	9.96891	1204	3.176	76.29960	9.97086
1156	3.810	76.30100	9.96903	1205	3.012	76.29960	9.97098
1157	4.008	76.30090	9.96915	1206	2.799	76.29950	9.97110
1158	4.040	76.30090	9.96926	1207	3.474	76.30490	9.96799
1159	4.058	76.30090	9.96938	1208	2.386	76.30490	9.96810
1160	4.143	76.30080	9.96949	1209	1.936	76.30500	9.96822
1161	3.858	76.30080	9.96961	1210	2.124	76.30500	9.96834
1162	3.492	76.30080	9.96973	1211	2.023	76.30500	9.96846
1163	3.148	76.30080	9.96985	1212	1.853	76.30500	9.96858
1164	2.807	76.30080	9.96996	1213	2.074	76.30500	9.96870
1165	2.668	76.30070	9.97008	1214	2.124	76.30500	9.96882
1166	2.624	76.30070	9.97020	1215	1.853	76.30500	9.96894
1167	2.622	76.30070	9.97031	1216	2.160	76.30500	9.96906
1168	2.607	76.30070	9.97043	1217	2.322	76.30500	9.96918
1169	2.981	76.30060	9.97055	1218	2.357	76.30510	9.96929
1170	3.420	76.30060	9.97067	1219	2.265	76.30510	9.96941
1171	3.648	76.30060	9.97079	1220	1.822	76.30510	9.96953
1172	4.840	76.30060	9.97091	1221	1.818	76.30510	9.96965
1173	5.020	76.30060	9.97103	1222	1.928	76.30510	9.96977
1174	4.334	76.30060	9.97114	1223	2.073	76.30510	9.96989

1175	3.271	76.30060	9.97126	1224	2.316	76.30510	9.97001
1225	2.623	76.30510	9.97013	1274	3.447	76.30290	9.97162
1226	2.636	76.30520	9.97025	1275	3.668	76.30300	9.97166
1227	2.550	76.30520	9.97036	1276	3.190	76.30310	9.97169
1228	2.073	76.30510	9.97048	1277	3.394	76.30330	9.97173
1229	2.606	76.30510	9.97059	1278	3.059	76.30340	9.97176
1230	2.703	76.30500	9.97070	1279	2.857	76.30350	9.97179
1231	3.043	76.30500	9.97082	1280	2.762	76.30360	9.97182
1232	3.561	76.30500	9.97093	1281	2.687	76.30370	9.97185
1233	2.803	76.30500	9.97105	1282	2.902	76.30380	9.97189
1234	2.410	76.30490	9.97117	1283	2.831	76.30390	9.97192
1235	2.294	76.30490	9.97128	1284	2.766	76.30410	9.97195
1236	2.351	76.30490	9.97140	1285	2.516	76.30420	9.97198
1237	2.661	76.30480	9.97152	1286	2.317	76.30430	9.97201
1238	2.981	76.30480	9.97163	1287	2.303	76.30440	9.97204
1239	3.128	76.30480	9.97175	1288	2.704	76.30450	9.97207
1240	3.182	76.30470	9.97186	1289	3.040	76.30460	9.97210
1241	3.103	76.30470	9.97197	1290	2.391	76.30370	9.97028
1242	3.052	76.30470	9.97208	1291	2.362	76.30370	9.97040
1243	3.176	76.30460	9.97219	1292	3.859	76.30530	9.96773
1244	2.395	76.30300	9.96998	1293	2.717	76.29600	9.96604
1245	2.339	76.30310	9.97001	1294	3.103	76.29610	9.96606
1246	2.371	76.30320	9.97004	1295	3.614	76.29620	9.96609
1247	2.495	76.30330	9.97007	1296	4.086	76.29630	9.96611
1248	2.603	76.30350	9.97010	1297	4.537	76.29640	9.96613
1249	2.599	76.30360	9.97013	1298	4.624	76.29650	9.96616
1250	2.479	76.30370	9.97016	1299	4.461	76.29670	9.96618
1251	2.364	76.30380	9.97019	1300	4.291	76.29680	9.96621
1252	2.119	76.30390	9.97022	1301	4.695	76.29690	9.96624
1253	2.883	76.30220	9.97182	1302	5.201	76.29700	9.96626
1254	2.576	76.30230	9.97170	1303	4.685	76.29710	9.96629
1255	2.335	76.30230	9.97159	1304	4.014	76.29720	9.96632
1256	2.409	76.30230	9.97148	1305	4.382	76.29740	9.96635
1257	2.555	76.30240	9.97137	1306	4.114	76.29750	9.96638
1258	2.580	76.30240	9.97125	1307	3.721	76.29760	9.96641
1259	2.562	76.30250	9.97114	1308	3.862	76.29770	9.96644
1260	2.534	76.30250	9.97103	1309	3.682	76.29780	9.96648
1261	2.499	76.30250	9.97092	1310	3.506	76.29790	9.96652
1262	2.465	76.30260	9.97080	1311	2.964	76.29800	9.96656
1263	2.414	76.30260	9.97069	1312	2.463	76.29820	9.96660

1264	2.374	76.30270	9.97058	1313	2.504	76.29830	9.96665
1265	2.433	76.30270	9.97047	1314	2.565	76.29840	9.96669
1266	2.550	76.30270	9.97036	1315	2.639	76.29850	9.96673
1267	2.658	76.30280	9.97024	1316	2.428	76.29860	9.96678
1268	2.488	76.30280	9.97013	1317	2.616	76.29870	9.96682
1269	2.447	76.30290	9.97002	1318	2.909	76.29880	9.96687
1270	2.568	76.30250	9.97147	1319	2.893	76.29890	9.96691
1271	2.837	76.30260	9.97151	1320	2.966	76.29900	9.96696
1272	3.075	76.30270	9.97154	1321	2.875	76.29920	9.96700
1273	3.259	76.30280	9.97158	1322	2.889	76.29930	9.96705
1323	2.941	76.29940	9.96709	1372	3.392	76.31010	9.97760
1324	3.109	76.29950	9.96714	1373	3.497	76.31020	9.97762
1325	3.312	76.29960	9.96718	1374	3.661	76.31030	9.97765
1326	3.264	76.29970	9.96723	1375	2.358	76.30950	9.97797
1327	3.158	76.29980	9.96728	1376	2.300	76.30970	9.97795
1328	3.045	76.29990	9.96733	1377	2.264	76.30730	9.97836
1329	3.575	76.31090	9.97585	1378	2.091	76.30740	9.97840
1330	3.744	76.31090	9.97574	1379	1.961	76.30750	9.97838
1331	4.057	76.31100	9.97562	1380	2.059	76.30770	9.97840
1332	4.626	76.31100	9.97550	1381	2.366	76.30780	9.97845
1333	4.851	76.31100	9.97540	1382	2.916	76.30790	9.97850
1334	4.652	76.31110	9.97528	1383	3.302	76.30800	9.97855
1335	4.712	76.31110	9.97516	1384	2.600	76.30720	9.97842
1336	4.559	76.31110	9.97505	1385	2.533	76.30720	9.97831
1337	4.151	76.31100	9.97500	1386	2.352	76.30740	9.97855
1338	3.810	76.31080	9.97498	1387	2.153	76.30740	9.97843
1339	3.472	76.31070	9.97495	1388	3.299	76.30870	9.97797
1340	3.451	76.31070	9.97515	1389	4.004	76.30870	9.97809
1341	3.786	76.31080	9.97517	1390	4.792	76.30870	9.97820
1342	4.201	76.31090	9.97508	1391	5.256	76.30860	9.97832
1343	3.442	76.31090	9.97637	1392	4.879	76.30870	9.97841
1344	3.508	76.31090	9.97649	1393	3.976	76.30880	9.97845
1345	3.564	76.31090	9.97661	1394	4.072	76.31470	9.97625
1346	3.632	76.31090	9.97673	1395	3.882	76.31460	9.97628
1347	3.718	76.31090	9.97685	1396	3.602	76.31450	9.97633
1348	3.815	76.31090	9.97697	1397	3.440	76.31440	9.97640
1349	3.926	76.31090	9.97709	1398	3.418	76.31430	9.97648
1350	4.030	76.31090	9.97720	1399	3.320	76.31420	9.97656
1351	4.208	76.31100	9.97732	1400	3.427	76.31420	9.97665
1352	4.504	76.31100	9.97744	1401	3.429	76.31410	9.97674

1353	5.027	76.31100	9.97756	1402	3.556	76.31400	9.97683
1354	4.858	76.31100	9.97768	1403	3.819	76.31390	9.97693
1355	3.524	76.31100	9.97780	1404	3.522	76.31390	9.97703
1356	3.729	76.31010	9.97729	1405	3.492	76.31380	9.97713
1357	3.825	76.31020	9.97728	1406	4.163	76.31380	9.97724
1358	3.919	76.31030	9.97727	1407	4.797	76.31370	9.97735
1359	4.003	76.31040	9.97726	1408	3.615	76.31360	9.97744
1360	4.066	76.31050	9.97726	1409	3.508	76.31360	9.97754
1361	4.126	76.31060	9.97727	1410	3.288	76.31350	9.97764
1362	4.174	76.31080	9.97729	1411	3.308	76.31340	9.97774
1363	4.211	76.31090	9.97731	1412	3.184	76.31340	9.97783
1364	3.939	76.31030	9.97660	1413	3.411	76.31330	9.97793
1365	3.917	76.31040	9.97662	1414	3.406	76.31320	9.97802
1366	3.870	76.31050	9.97664	1415	3.531	76.31310	9.97812
1367	3.851	76.31060	9.97670	1416	3.577	76.31310	9.97822
1368	3.888	76.31060	9.97681	1417	3.307	76.31300	9.97832
1369	3.836	76.31080	9.97683	1418	3.256	76.31300	9.97842
1370	3.732	76.31090	9.97682	1419	3.278	76.31290	9.97852
1371	3.322	76.31000	9.97758	1420	3.172	76.31280	9.97863
1421	3.206	76.31280	9.97873	1470	2.946	76.29860	9.96939
1422	3.232	76.31270	9.97883	1471	3.002	76.29860	9.96950
1423	3.110	76.31270	9.97894	1472	3.069	76.29850	9.96962
1424	3.058	76.31260	9.97903	1473	3.131	76.29850	9.96973
1425	2.960	76.31250	9.97911	1474	2.976	76.29850	9.96984
1426	2.605	76.30960	9.98025	1475	2.970	76.29810	9.96979
1427	2.573	76.30950	9.98026	1476	2.861	76.29820	9.96983
1428	2.625	76.30940	9.98028	1477	2.976	76.29830	9.96987
1429	2.564	76.30930	9.98030	1478	2.771	76.29840	9.96992
1430	2.531	76.30920	9.98032	1479	2.348	76.29860	9.96997
1431	3.266	76.31290	9.97868	1480	2.648	76.29870	9.97002
1432	3.724	76.31300	9.97870	1481	2.627	76.29880	9.97007
1433	4.271	76.31320	9.97871	1482	3.281	76.30450	9.97241
1434	4.256	76.31330	9.97873	1483	3.880	76.30450	9.97252
1435	4.294	76.31540	9.97543	1484	3.777	76.30440	9.97263
1436	3.840	76.31530	9.97549	1485	3.749	76.30440	9.97275
1437	4.418	76.31500	9.97623	1486	3.593	76.30440	9.97286
1438	4.458	76.31510	9.97624	1487	3.220	76.30430	9.97297
1439	4.356	76.31520	9.97626	1488	2.835	76.30430	9.97308
1440	2.579	76.29390	9.97066	1489	2.570	76.30420	9.97320
1441	2.740	76.29400	9.97058	1490	2.493	76.30420	9.97331

1442	2.999	76.29410	9.97049	1491	2.464	76.30420	9.97342
1443	3.751	76.29410	9.97039	1492	2.906	76.30410	9.97353
1444	3.860	76.29420	9.97029	1493	3.158	76.30410	9.97365
1445	2.442	76.29430	9.97019	1494	3.187	76.30400	9.97376
1446	2.803	76.29430	9.97009	1495	2.983	76.30400	9.97387
1447	2.840	76.29440	9.96998	1496	2.765	76.30400	9.97398
1448	2.416	76.29440	9.96987	1497	2.640	76.30390	9.97410
1449	2.617	76.29450	9.96976	1498	2.615	76.30390	9.97421
1450	3.090	76.29940	9.96722	1499	2.659	76.30380	9.97432
1451	3.311	76.29940	9.96734	1500	2.704	76.30380	9.97443
1452	3.520	76.29930	9.96745	1501	2.731	76.30380	9.97455
1453	3.575	76.29930	9.96756	1502	2.731	76.30370	9.97466
1454	3.451	76.29920	9.96768	1503	2.977	76.30370	9.97477
1455	3.304	76.29920	9.96779	1504	3.232	76.30360	9.97489
1456	3.148	76.29920	9.96790	1505	3.286	76.30360	9.97500
1457	3.015	76.29920	9.96802	1506	3.320	76.30360	9.97511
1458	2.954	76.29920	9.96814	1507	3.021	76.30350	9.97522
1459	2.944	76.29910	9.96826	1508	3.245	76.30350	9.97534
1460	3.062	76.29910	9.96838	1509	3.415	76.30340	9.97545
1461	3.037	76.29910	9.96849	1510	3.870	76.30340	9.97556
1462	2.994	76.29900	9.96860	1511	4.147	76.30340	9.97568
1463	2.896	76.29890	9.96865	1512	3.217	76.30340	9.97580
1464	2.806	76.29880	9.96871	1513	2.962	76.30340	9.97591
1465	2.802	76.29880	9.96882	1514	3.050	76.30340	9.97603
1466	2.838	76.29880	9.96893	1515	2.583	76.30340	9.97615
1467	2.863	76.29870	9.96904	1516	2.517	76.30340	9.97627
1468	2.913	76.29870	9.96916	1517	3.377	76.30340	9.97639
1469	2.959	76.29860	9.96927	1518	3.583	76.30340	9.97650
1519	3.709	76.30340	9.97662	1568	2.145	76.30620	9.97333
1520	3.074	76.30330	9.97674	1569	2.062	76.30630	9.97334
1521	2.593	76.30330	9.97685	1570	2.050	76.30640	9.97335
1522	2.431	76.30330	9.97697	1571	2.053	76.30650	9.97336
1523	2.570	76.30320	9.97708	1572	2.079	76.30670	9.97338
1524	3.288	76.30320	9.97720	1573	2.107	76.30680	9.97339
1525	3.599	76.30320	9.97732	1574	2.102	76.30690	9.97340
1526	2.710	76.29840	9.97821	1575	1.999	76.30700	9.97341
1527	3.162	76.29840	9.97861	1576	2.047	76.30710	9.97342
1528	3.145	76.29850	9.97864	1577	2.530	76.30730	9.97343
1529	3.043	76.29870	9.97867	1578	2.272	76.30740	9.97298
1530	5.600	76.29660	9.97917	1579	2.335	76.30740	9.97309

1531	5.102	76.29670	9.97921	1580	2.480	76.30730	9.97321
1532	3.729	76.29680	9.97925	1581	2.542	76.30730	9.97332
1533	3.694	76.29700	9.97929	1582	2.556	76.30730	9.97344
1534	3.282	76.29710	9.97933	1583	2.669	76.30720	9.97355
1535	2.773	76.29720	9.97937	1584	2.593	76.30720	9.97367
1536	2.377	76.29730	9.97941	1585	2.439	76.30720	9.97379
1537	2.185	76.29740	9.97945	1586	1.978	76.30680	9.97423
1538	3.610	76.29670	9.97872	1587	2.237	76.30690	9.97426
1539	3.731	76.29690	9.97873	1588	2.463	76.30700	9.97429
1540	3.802	76.29700	9.97874	1589	2.593	76.30710	9.97433
1541	3.893	76.29710	9.97876	1590	2.602	76.30720	9.97437
1542	4.066	76.29720	9.97877	1591	2.749	76.30740	9.97441
1543	4.240	76.29730	9.97879	1592	3.330	76.30750	9.97445
1544	3.791	76.29740	9.97889	1593	3.603	76.30760	9.97449
1545	3.378	76.29680	9.97848	1594	3.090	76.30770	9.97453
1546	3.396	76.29690	9.97850	1595	2.294	76.30730	9.97393
1547	3.558	76.29700	9.97853	1596	2.382	76.30740	9.97397
1548	4.042	76.29720	9.97855	1597	2.836	76.30750	9.97400
1549	4.605	76.29730	9.97857	1598	2.788	76.30760	9.97404
1550	5.084	76.29740	9.97859	1599	2.779	76.30770	9.97407
1551	5.344	76.29750	9.97861	1600	2.975	76.30780	9.97411
1552	5.086	76.29760	9.97863	1601	3.216	76.30790	9.97415
1553	2.109	76.30610	9.97272	1602	3.114	76.30810	9.97418
1554	2.227	76.30610	9.97284	1603	2.849	76.30820	9.97422
1555	2.301	76.30610	9.97295	1604	2.271	76.30700	9.97316
1556	2.334	76.30610	9.97307	1605	2.222	76.30700	9.97327
1557	2.338	76.30610	9.97319	1606	2.094	76.30690	9.97339
1558	2.289	76.30610	9.97331	1607	2.831	76.30830	9.97359
1559	2.430	76.30610	9.97343	1608	3.023	76.30830	9.97347
1560	2.682	76.30610	9.97355	1609	2.738	76.30830	9.97336
1561	3.021	76.30610	9.97367	1610	2.191	76.30840	9.97324
1562	3.425	76.30610	9.97379	1611	2.476	76.31060	9.97346
1563	2.839	76.30610	9.97391	1612	2.585	76.31050	9.97357
1564	2.643	76.30600	9.97403	1613	2.564	76.31050	9.97368
1565	2.592	76.30600	9.97415	1614	2.480	76.31040	9.97379
1566	2.433	76.30610	9.97426	1615	2.497	76.31040	9.97391
1567	2.302	76.30620	9.97431	1616	2.606	76.31040	9.97402
1617	2.782	76.31030	9.97413	1666	2.650	76.30840	9.97731
1618	2.948	76.31030	9.97425	1667	3.428	76.30850	9.97735
1619	2.971	76.31020	9.97436	1668	3.266	76.30860	9.97739

1620	2.814	76.31020	9.97447	1669	2.917	76.30870	9.97743
1621	2.982	76.31020	9.97458	1670	2.505	76.30880	9.97747
1622	3.219	76.31010	9.97470	1671	2.515	76.30890	9.97751
1623	3.240	76.31010	9.97481	1672	2.656	76.30910	9.97755
1624	3.263	76.31000	9.97492	1673	2.683	76.30800	9.97870
1625	3.307	76.31000	9.97504	1674	3.415	76.30810	9.97859
1626	3.313	76.31000	9.97516	1675	4.029	76.30810	9.97848
1627	3.279	76.31000	9.97527	1676	4.088	76.30820	9.97838
1628	3.239	76.30990	9.97539	1677	4.501	76.30830	9.97828
1629	3.207	76.30990	9.97550	1678	4.283	76.30830	9.97818
1630	3.560	76.30990	9.97562	1679	3.550	76.30840	9.97807
1631	3.682	76.30990	9.97574	1680	2.684	76.30840	9.97795
1632	3.742	76.30980	9.97585	1681	2.419	76.30840	9.97784
1633	3.788	76.30980	9.97597	1682	2.851	76.30850	9.97773
1634	3.817	76.30980	9.97609	1683	3.748	76.30850	9.97762
1635	3.819	76.30970	9.97620	1684	4.181	76.30860	9.97751
1636	3.786	76.30970	9.97630	1685	3.346	76.30860	9.97740
1637	3.722	76.30960	9.97641	1686	1.811	76.30740	9.97728
1638	3.643	76.30960	9.97651	1687	1.845	76.30750	9.97733
1639	3.561	76.30950	9.97663	1688	2.092	76.30760	9.97737
1640	3.468	76.30950	9.97674	1689	2.611	76.30770	9.97742
1641	3.406	76.30940	9.97685	1690	3.616	76.30780	9.97746
1642	3.366	76.30940	9.97696	1691	2.885	76.30790	9.97751
1643	3.346	76.30940	9.97707	1692	2.232	76.30800	9.97755
1644	3.372	76.30930	9.97719	1693	2.192	76.30770	9.97739
1645	3.393	76.30930	9.97730	1694	2.113	76.30760	9.97675
1646	3.368	76.30920	9.97741	1695	1.871	76.30770	9.97679
1647	3.170	76.30920	9.97751	1696	1.881	76.30780	9.97683
1648	2.655	76.30910	9.97761	1697	1.888	76.30790	9.97687
1649	2.619	76.30900	9.97771	1698	1.806	76.30800	9.97691
1650	3.103	76.30900	9.97782	1699	1.770	76.30820	9.97695
1651	3.229	76.30900	9.97793	1700	1.735	76.30830	9.97699
1652	3.448	76.30890	9.97805	1701	1.783	76.30840	9.97703
1653	3.807	76.30890	9.97816	1702	1.925	76.30850	9.97707
1654	3.900	76.30890	9.97827	1703	2.509	76.30860	9.97711
1655	3.584	76.30880	9.97839	1704	3.576	76.30330	9.97753
1656	3.708	76.30880	9.97850	1705	3.675	76.30340	9.97754
1657	2.953	76.30880	9.97862	1706	3.793	76.30350	9.97754
1658	2.075	76.30750	9.97700	1707	3.557	76.30360	9.97755
1659	2.471	76.30760	9.97704	1708	3.251	76.30370	9.97756

1660	2.662	76.30770	9.97707	1709	2.739	76.30390	9.97757
1661	2.572	76.30780	9.97711	1710	2.348	76.30400	9.97758
1662	2.436	76.30790	9.97715	1711	2.204	76.30410	9.97760
1663	1.936	76.30800	9.97719	1712	2.495	76.30420	9.97763
1664	1.895	76.30820	9.97723	1713	2.657	76.30430	9.97766
1665	2.075	76.30830	9.97727	1714	2.653	76.30440	9.97769
1715	2.571	76.30460	9.97772	1764	2.682	76.30520	9.97701
1716	2.554	76.30470	9.97775	1765	3.125	76.30530	9.97690
1717	2.645	76.30480	9.97778	1766	2.535	76.30530	9.97679
1718	2.752	76.30490	9.97781	1767	2.286	76.30540	9.97668
1719	2.665	76.30500	9.97784	1768	2.474	76.30540	9.97657
1720	2.555	76.30510	9.97789	1769	2.346	76.30540	9.97645
1721	2.409	76.30520	9.97793	1770	2.052	76.30550	9.97634
1722	2.122	76.30530	9.97798	1771	2.014	76.30550	9.97622
1723	2.141	76.30550	9.97803	1772	1.992	76.30550	9.97610
1724	2.981	76.30560	9.97808	1773	2.270	76.30550	9.97598
1725	3.091	76.30570	9.97812	1774	2.508	76.30550	9.97587
1726	2.878	76.30580	9.97817	1775	3.504	76.30550	9.97575
1727	2.844	76.30590	9.97822	1776	3.522	76.30550	9.97563
1728	2.914	76.30600	9.97826	1777	3.089	76.30550	9.97551
1729	2.980	76.30610	9.97831	1778	2.406	76.30560	9.97539
1730	3.004	76.30620	9.97836	1779	2.422	76.30560	9.97527
1731	2.947	76.30630	9.97841	1780	2.368	76.30560	9.97515
1732	2.863	76.30640	9.97845	1781	2.649	76.30560	9.97504
1733	2.770	76.30660	9.97850	1782	2.550	76.30560	9.97492
1734	2.699	76.30670	9.97855	1783	2.214	76.30550	9.97488
1735	2.651	76.30490	9.97830	1784	2.303	76.30540	9.97484
1736	2.573	76.30490	9.97819	1785	2.290	76.30530	9.97481
1737	2.730	76.30490	9.97808	1786	1.981	76.30520	9.97478
1738	2.827	76.30500	9.97796	1787	1.915	76.30510	9.97472
1739	2.709	76.30500	9.97785	1788	2.380	76.30500	9.97463
1740	2.885	76.30340	9.97702	1789	2.419	76.30490	9.97461
1741	3.251	76.30350	9.97704	1790	2.305	76.30480	9.97458
1742	3.365	76.30360	9.97706	1791	2.096	76.30470	9.97456
1743	3.154	76.30370	9.97708	1792	2.739	76.29840	9.96661
1744	2.688	76.30380	9.97709	1793	2.448	76.29830	9.96657
1745	2.302	76.30400	9.97711	1794	2.501	76.29810	9.96653
1746	2.492	76.30400	9.97699	1795	3.181	76.29960	9.96585
1747	2.749	76.30400	9.97688	1796	3.085	76.29950	9.96597
1748	3.416	76.30350	9.97667	1797	3.235	76.29950	9.96609

1749	3.395	76.30360	9.97671	1798	3.222	76.29970	9.96578
1750	3.551	76.30370	9.97675	1799	3.494	76.29980	9.96579
1751	3.726	76.30380	9.97678	1800	3.792	76.29990	9.96580
1752	3.673	76.30390	9.97682	1801	4.094	76.30000	9.96581
1753	2.677	76.30400	9.97685	1802	3.181	76.29990	9.96724
1754	2.137	76.30420	9.97686	1803	3.319	76.29980	9.96719
1755	2.551	76.30430	9.97687	1804	3.408	76.29970	9.96715
1756	2.607	76.30440	9.97691	1805	3.344	76.29960	9.96710
1757	2.570	76.30450	9.97694	1806	3.027	76.29940	9.96705
1758	2.585	76.30460	9.97698	1807	2.889	76.29930	9.96700
1759	2.602	76.30470	9.97701	1808	2.872	76.29920	9.96696
1760	2.536	76.30480	9.97704	1809	2.749	76.29910	9.96691
1761	2.296	76.30500	9.97708	1810	2.536	76.29900	9.96687
1762	2.239	76.30510	9.97711	1811	2.564	76.29890	9.96682
1763	2.251	76.30520	9.97712	1812	2.765	76.29880	9.96678
1813	2.730	76.29870	9.96673	1862	4.289	76.30270	9.96768
1814	3.066	76.29860	9.96669	1863	4.136	76.30260	9.96767
1815	4.156	76.30180	9.96761	1864	3.537	76.30250	9.96766
1816	4.832	76.30160	9.96760	1865	3.267	76.30240	9.96765
1817	5.203	76.30150	9.96759	1866	3.261	76.30220	9.96764
1818	5.299	76.30140	9.96758	1867	3.097	76.30210	9.96764
1819	5.069	76.30130	9.96757	1868	3.158	76.30200	9.96763
1820	4.812	76.30120	9.96756	1869	3.322	76.30420	9.96777
1821	4.450	76.30100	9.96755	1870	3.214	76.30410	9.96776
1822	4.182	76.30090	9.96754	1871	3.309	76.30400	9.96775
1823	3.831	76.30080	9.96752	1872	3.559	76.30390	9.96774
1824	3.477	76.30070	9.96751	1873	3.692	76.30380	9.96773
1825	3.418	76.30060	9.96748	1874	3.410	76.30360	9.96772
1826	3.515	76.30050	9.96745	1875	3.069	76.30350	9.96772
1827	3.537	76.30030	9.96742	1876	3.088	76.30340	9.96771
1828	3.519	76.30020	9.96737	1877	3.608	76.30510	9.96777
1829	3.369	76.30010	9.96733	1878	3.752	76.30500	9.96780
1830	3.152	76.30000	9.96729	1879	4.489	76.30480	9.96780
1831	3.965	76.30210	9.96611	1880	4.794	76.30470	9.96779
1832	3.077	76.30220	9.96615	1881	4.594	76.30460	9.96779
1833	3.016	76.30230	9.96620	1882	4.126	76.30450	9.96779
1834	2.903	76.30350	9.96705	1883	3.378	76.31300	9.96790
1835	2.806	76.30360	9.96705	1884	3.421	76.31300	9.96778
1836	2.787	76.30370	9.96706	1885	3.394	76.31310	9.96767
1837	2.786	76.30380	9.96706	1886	3.366	76.31310	9.96755

1838	2.786	76.30390	9.96707	1887	3.427	76.31310	9.96743
1839	2.783	76.30410	9.96708	1888	3.613	76.31310	9.96731
1840	2.746	76.30420	9.96708	1889	3.938	76.31310	9.96719
1841	2.643	76.30430	9.96709	1890	4.106	76.31320	9.96708
1842	2.535	76.30440	9.96710	1891	4.033	76.31320	9.96696
1843	2.446	76.30450	9.96710	1892	4.142	76.31320	9.96686
1844	2.862	76.30340	9.96692	1893	3.916	76.31340	9.96683
1845	2.615	76.30340	9.96680	1894	3.502	76.31350	9.96680
1846	1.963	76.30240	9.96636	1895	3.170	76.31360	9.96674
1847	2.015	76.30240	9.96647	1896	2.936	76.31360	9.96662
1848	2.015	76.30250	9.96654	1897	2.932	76.31360	9.96651
1849	2.034	76.30270	9.96657	1898	2.993	76.31370	9.96639
1850	2.525	76.30280	9.96660	1899	3.089	76.31370	9.96628
1851	3.269	76.30290	9.96662	1900	3.355	76.31370	9.96616
1852	3.419	76.30300	9.96664	1901	3.662	76.31380	9.96605
1853	3.180	76.30310	9.96666	1902	3.876	76.31380	9.96593
1854	2.772	76.30320	9.96668	1903	3.894	76.31380	9.96582
1855	2.459	76.30340	9.96670	1904	4.188	76.31390	9.96571
1856	2.331	76.30340	9.96658	1905	4.809	76.31390	9.96559
1857	2.345	76.30340	9.96646	1906	4.662	76.31400	9.96548
1858	3.605	76.30320	9.96770	1907	4.121	76.31400	9.96537
1859	3.765	76.30310	9.96770	1908	3.639	76.31400	9.96526
1860	3.990	76.30290	9.96769	1909	3.798	76.31410	9.96515
1861	4.140	76.30280	9.96768	1910	4.007	76.31410	9.96503
1911	4.161	76.31410	9.96491	1960	2.534	76.29790	9.96996
1912	4.027	76.31420	9.96480	1961	2.413	76.29790	9.97008
1913	3.864	76.31420	9.96468	1962	2.378	76.29780	9.97019
1914	3.946	76.31420	9.96456	1963	2.285	76.29780	9.97030
1915	3.976	76.31420	9.96445	1964	2.269	76.29770	9.97041
1916	3.825	76.31430	9.96434	1965	2.955	76.29770	9.97052
1917	2.930	76.31160	9.96760	1966	4.263	76.29760	9.97063
1918	2.815	76.31170	9.96749	1967	3.785	76.29760	9.97074
1919	2.846	76.31170	9.96739	1968	3.555	76.29750	9.97085
1920	2.581	76.31180	9.96729	1969	3.414	76.29750	9.97096
1921	2.649	76.31180	9.96719	1970	3.270	76.29740	9.97107
1922	2.799	76.31200	9.96713	1971	3.182	76.29740	9.97118
1923	2.910	76.31210	9.96713	1972	3.638	76.29730	9.97129
1924	3.122	76.31220	9.96714	1973	4.224	76.29730	9.97140
1925	3.292	76.31230	9.96714	1974	4.009	76.29730	9.97151
1926	3.435	76.31240	9.96715	1975	4.200	76.29720	9.97162

1927	3.759	76.31260	9.96715	1976	3.802	76.29720	9.97173
1928	3.883	76.31270	9.96716	1977	3.853	76.29710	9.97184
1929	3.818	76.31280	9.96716	1978	3.424	76.29710	9.97195
1930	3.818	76.31290	9.96717	1979	3.195	76.29700	9.97206
1931	3.863	76.31300	9.96718	1980	2.958	76.29700	9.97217
1932	3.962	76.31310	9.96718	1981	2.891	76.29710	9.97228
1933	2.608	76.29870	9.96691	1982	2.970	76.29720	9.97233
1934	6.839	76.29870	9.96703	1983	3.098	76.29730	9.97238
1935	9.719	76.29870	9.96715	1984	3.195	76.29740	9.97243
1936	8.689	76.29860	9.96727	1985	3.488	76.29750	9.97248
1937	7.392	76.29860	9.96739	1986	3.407	76.29760	9.97253
1938	5.979	76.29860	9.96751	1987	3.213	76.29770	9.97258
1939	4.572	76.29860	9.96763	1988	3.543	76.29780	9.97262
1940	3.872	76.29860	9.96774	1989	3.621	76.29790	9.97265
1941	3.593	76.29860	9.96786	1990	2.992	76.29810	9.97267
1942	3.389	76.29850	9.96798	1991	2.362	76.29440	9.97749
1943	3.287	76.29850	9.96810	1992	2.693	76.29450	9.97752
1944	3.386	76.29850	9.96822	1993	2.809	76.29460	9.97755
1945	3.363	76.29850	9.96834	1994	3.086	76.29480	9.97759
1946	2.839	76.29850	9.96845	1995	3.376	76.29490	9.97762
1947	2.419	76.29840	9.96857	1996	3.546	76.29500	9.97766
1948	2.683	76.29840	9.96869	1997	3.428	76.29510	9.97770
1949	2.780	76.29840	9.96880	1998	3.276	76.29520	9.97774
1950	2.536	76.29830	9.96891	1999	3.142	76.29530	9.97778
1951	2.549	76.29830	9.96902	2000	2.948	76.29540	9.97781
1952	2.472	76.29830	9.96913	2001	2.847	76.29560	9.97784
1953	2.448	76.29820	9.96924	2002	3.002	76.29570	9.97787
1954	2.421	76.29820	9.96935	2003	2.630	76.29580	9.97789
1955	2.436	76.29810	9.96946	2004	2.524	76.29590	9.97792
1956	2.466	76.29810	9.96957	2005	2.876	76.29600	9.97795
1957	3.093	76.29800	9.96968	2006	3.218	76.29610	9.97798
1958	3.819	76.29980	9.97055	2007	3.660	76.29620	9.97801
1959	2.882	76.29800	9.96986	2008	3.997	76.29640	9.97803
2009	3.928	76.29650	9.97805	2058	2.491	76.30250	9.96984
2010	3.731	76.29660	9.97807	2059	2.132	76.30260	9.96987
2011	3.064	76.29670	9.97809	2060	2.431	76.30270	9.96990
2012	2.973	76.29430	9.97757	2061	2.656	76.30280	9.96993
2013	3.163	76.29430	9.97769	2062	1.977	76.30410	9.97027
2014	2.926	76.29420	9.97781	2063	2.126	76.30420	9.97031
2015	3.034	76.29420	9.97793	2064	2.193	76.30430	9.97034

2016	3.532	76.29420	9.97804	2065	2.249	76.30450	9.97037
2017	3.450	76.29420	9.97816	2066	2.291	76.30460	9.97040
2018	3.056	76.29420	9.97828	2067	2.307	76.30470	9.97044
2019	2.705	76.29410	9.97840	2068	2.117	76.30480	9.97047
2020	2.833	76.29410	9.97851	2069	2.333	76.30490	9.97050
2021	3.227	76.29410	9.97863	2070	2.393	76.30500	9.97053
2022	3.352	76.29410	9.97875	2071	2.045	76.30400	9.97036
2023	3.501	76.29410	9.97887	2072	2.167	76.30390	9.97047
2024	3.164	76.29410	9.97780	2073	2.273	76.30390	9.97058
2025	3.030	76.29420	9.97783	2074	2.515	76.30390	9.97070
2026	3.436	76.29420	9.97895	2075	2.579	76.30360	9.97102
2027	3.438	76.29430	9.97898	2076	2.638	76.30370	9.97106
2028	3.473	76.29440	9.97901	2077	2.607	76.30380	9.97110
2029	3.217	76.29450	9.97904	2078	2.474	76.30390	9.97102
2030	3.456	76.29460	9.97907	2079	2.684	76.30400	9.97090
2031	2.627	76.30570	9.96842	2080	2.409	76.30400	9.97117
2032	2.331	76.30590	9.96845	2081	2.793	76.30410	9.97121
2033	2.373	76.30590	9.96859	2082	2.980	76.30410	9.97135
2034	2.698	76.30590	9.96871	2083	3.380	76.30410	9.97146
2035	3.060	76.30580	9.96882	2084	2.291	76.30430	9.97127
2036	2.341	76.30200	9.97018	2085	2.286	76.30440	9.97131
2037	2.113	76.30200	9.97006	2086	2.283	76.30450	9.97121
2038	1.889	76.30210	9.96995	2087	2.290	76.30450	9.97110
2039	2.019	76.30210	9.96983	2088	2.393	76.30140	9.97176
2040	2.595	76.30150	9.97020	2089	2.666	76.30140	9.97187
2041	2.345	76.30160	9.97022	2090	3.645	76.31320	9.96507
2042	2.340	76.30170	9.97025	2091	3.442	76.31320	9.96496
2043	2.490	76.30180	9.97027	2092	3.315	76.31320	9.96484
2044	2.565	76.30200	9.97029	2093	3.310	76.31200	9.96467
2045	3.852	76.30100	9.96946	2094	3.179	76.31210	9.96470
2046	3.594	76.30110	9.96949	2095	3.242	76.31220	9.96473
2047	3.193	76.30120	9.96952	2096	3.232	76.31240	9.96476
2048	2.760	76.30130	9.96955	2097	3.358	76.31250	9.96479
2049	2.464	76.30140	9.96958	2098	3.535	76.31260	9.96482
2050	2.387	76.30160	9.96961	2099	3.534	76.31270	9.96485
2051	2.428	76.30170	9.96963	2100	2.407	76.31220	9.96423
2052	2.616	76.30180	9.96966	2101	2.538	76.31230	9.96427
2053	2.914	76.30190	9.96969	2102	2.625	76.31240	9.96430
2054	2.893	76.30200	9.96972	2103	2.637	76.31250	9.96434
2055	2.118	76.30210	9.96975	2104	2.727	76.31270	9.96438

2056	1.863	76.30220	9.96978	2105	2.827	76.31280	9.96441
2057	2.437	76.30240	9.96981	2106	2.307	76.31230	9.96386
2107	1.955	76.31240	9.96389	2156	4.194	76.31430	9.96548
2108	1.755	76.31260	9.96391	2157	4.120	76.31450	9.96552
2109	1.751	76.31270	9.96394	2158	4.135	76.31460	9.96556
2110	1.862	76.31280	9.96397	2159	4.103	76.31470	9.96560
2111	2.472	76.31370	9.96380	2160	3.706	76.31330	9.96721
2112	3.788	76.31340	9.96503	2161	3.563	76.31340	9.96723
2113	4.070	76.31340	9.96515	2162	3.563	76.31350	9.96725
2114	4.332	76.31340	9.96527	2163	3.708	76.31360	9.96727
2115	4.461	76.31340	9.96539	2164	3.888	76.31370	9.96729
2116	4.233	76.31330	9.96550	2165	3.951	76.31390	9.96731
2117	4.431	76.31340	9.96555	2166	4.092	76.31400	9.96733
2118	4.474	76.31350	9.96557	2167	3.984	76.31410	9.96731
2119	4.174	76.31370	9.96560	2168	4.076	76.31420	9.96729
2120	4.147	76.31380	9.96562	2169	4.007	76.31430	9.96731
2121	4.611	76.31390	9.96565	2170	3.857	76.31440	9.96733
2122	4.152	76.31350	9.96519	2171	3.781	76.31460	9.96736
2123	4.112	76.31360	9.96522	2172	3.768	76.31470	9.96738
2124	3.928	76.31370	9.96524	2173	3.375	76.31480	9.96741
2125	3.753	76.31380	9.96527	2174	4.011	76.31400	9.96743
2126	3.742	76.31400	9.96530	2175	4.081	76.31400	9.96754
2127	3.254	76.31350	9.96661	2176	4.234	76.31390	9.96765
2128	3.539	76.31340	9.96656	2177	4.055	76.31390	9.96776
2129	3.722	76.31330	9.96651	2178	4.032	76.31380	9.96787
2130	3.809	76.31320	9.96647	2179	3.923	76.31380	9.96799
2131	3.782	76.31300	9.96642	2180	4.097	76.31370	9.96810
2132	3.688	76.31290	9.96637	2181	3.594	76.31230	9.96726
2133	3.627	76.31290	9.96630	2182	3.894	76.31230	9.96738
2134	3.698	76.31290	9.96619	2183	3.646	76.31230	9.96750
2135	3.978	76.31300	9.96607	2184	4.060	76.31230	9.96762
2136	4.445	76.31300	9.96596	2185	4.406	76.31230	9.96774
2137	4.809	76.31310	9.96586	2186	4.161	76.31230	9.96785
2138	4.477	76.31320	9.96589	2187	3.388	76.31560	9.96715
2139	3.794	76.31330	9.96593	2188	3.487	76.31580	9.96720
2140	3.817	76.31340	9.96597	2189	3.547	76.31590	9.96725
2141	3.707	76.31350	9.96600	2190	3.324	76.31570	9.96686
2142	3.646	76.31360	9.96603	2191	3.310	76.31590	9.96690
2143	3.612	76.31370	9.96606	2192	3.477	76.31590	9.96717
2144	3.944	76.31390	9.96593	2193	4.084	76.31170	9.96494

2145	4.096	76.31400	9.96595	2194	3.813	76.31180	9.96498
2146	4.292	76.31420	9.96597	2195	2.934	76.31190	9.96502
2147	4.410	76.31430	9.96600	2196	2.919	76.31200	9.96506
2148	4.409	76.31440	9.96602	2197	3.303	76.31210	9.96510
2149	4.317	76.31450	9.96604	2198	3.271	76.31230	9.96514
2150	2.739	76.31370	9.96659	2199	3.077	76.31240	9.96518
2151	2.656	76.31390	9.96663	2200	2.836	76.31250	9.96522
2152	3.671	76.31400	9.96667	2201	5.701	76.31580	9.96862
2153	4.700	76.31410	9.96671	2202	5.532	76.31570	9.96860
2154	4.075	76.31410	9.96540	2203	5.183	76.31560	9.96858
2155	4.171	76.31420	9.96544	2204	4.766	76.31550	9.96855
2205	4.404	76.31530	9.96853	2254	4.140	76.30960	9.96737
2206	4.243	76.31520	9.96851	2255	2.954	76.30950	9.96735
2207	4.274	76.31510	9.96849	2256	1.678	76.30940	9.96733
2208	4.354	76.31500	9.96846	2257	1.647	76.30920	9.96731
2209	4.348	76.31490	9.96844	2258	1.813	76.30910	9.96729
2210	4.171	76.31480	9.96841	2259	2.598	76.30900	9.96726
2211	3.805	76.31460	9.96838	2260	3.227	76.30890	9.96723
2212	3.416	76.31450	9.96835	2261	3.101	76.30880	9.96721
2213	3.089	76.31440	9.96833	2262	3.118	76.30870	9.96718
2214	2.875	76.31430	9.96830	2263	3.068	76.30860	9.96716
2215	2.783	76.31420	9.96827	2264	3.011	76.30840	9.96713
2216	2.832	76.31410	9.96825	2265	3.075	76.30830	9.96710
2217	3.012	76.31390	9.96822	2266	3.147	76.30820	9.96708
2218	3.552	76.31380	9.96820	2267	3.233	76.30810	9.96706
2219	4.228	76.31370	9.96816	2268	3.251	76.30800	9.96703
2220	4.674	76.31360	9.96814	2269	3.254	76.30790	9.96701
2221	4.832	76.31350	9.96812	2270	3.250	76.30770	9.96698
2222	4.578	76.31340	9.96809	2271	3.228	76.30760	9.96696
2223	4.186	76.31320	9.96807	2272	3.224	76.30750	9.96694
2224	3.769	76.31310	9.96804	2273	3.180	76.30740	9.96693
2225	3.419	76.31300	9.96802	2274	3.100	76.30730	9.96695
2226	3.300	76.31290	9.96800	2275	3.005	76.30710	9.96698
2227	3.400	76.31280	9.96797	2276	2.931	76.30700	9.96701
2228	3.505	76.31270	9.96795	2277	2.900	76.30690	9.96706
2229	3.765	76.31250	9.96792	2278	2.901	76.30680	9.96710
2230	3.964	76.31240	9.96790	2279	2.920	76.30670	9.96714
2231	4.144	76.31230	9.96787	2280	2.920	76.30660	9.96719
2232	4.071	76.31220	9.96784	2281	2.877	76.30650	9.96724
2233	3.786	76.31210	9.96782	2282	2.818	76.30640	9.96728

2234	3.444	76.31200	9.96779	2283	2.801	76.30630	9.96733
2235	3.155	76.31180	9.96777	2284	2.797	76.30610	9.96737
2236	3.049	76.31170	9.96775	2285	2.886	76.30600	9.96742
2237	3.049	76.31160	9.96772	2286	3.143	76.30590	9.96747
2238	3.131	76.31150	9.96770	2287	3.323	76.30580	9.96752
2239	3.265	76.31140	9.96767	2288	3.218	76.30570	9.96757
2240	3.395	76.31130	9.96765	2289	3.104	76.30560	9.96762
2241	3.519	76.31110	9.96763	2290	3.215	76.30550	9.96766
2242	3.725	76.31100	9.96761	2291	3.624	76.30540	9.96770
2243	4.193	76.31090	9.96759	2292	3.459	76.30320	9.97743
2244	4.923	76.31080	9.96756	2293	3.075	76.30310	9.97755
2245	4.869	76.31070	9.96754	2294	2.788	76.30310	9.97766
2246	4.114	76.31060	9.96752	2295	2.501	76.30300	9.97777
2247	3.066	76.31040	9.96750	2296	2.320	76.30650	9.97886
2248	2.528	76.31030	9.96748	2297	2.584	76.30640	9.97881
2249	2.533	76.31020	9.96746	2298	3.014	76.30620	9.97877
2250	2.754	76.31010	9.96744	2299	3.502	76.30610	9.97872
2251	3.121	76.31000	9.96742	2300	3.901	76.30600	9.97868
2252	3.733	76.30980	9.96740	2301	3.251	76.30590	9.97863
2253	4.191	76.30970	9.96739	2302	2.071	76.30580	9.97859
2303	1.759	76.30570	9.97854	2352	2.336	76.30820	9.96489
2304	1.904	76.30560	9.97850	2353	2.654	76.30820	9.96478
2305	2.618	76.30550	9.97845	2354	3.368	76.30820	9.96466
2306	3.216	76.30540	9.97843	2355	3.096	76.30820	9.96454
2307	2.522	76.30520	9.97844	2356	2.960	76.30830	9.96443
2308	2.462	76.30510	9.97845	2357	3.039	76.30830	9.96431
2309	2.726	76.30500	9.97844	2358	2.854	76.30830	9.96419
2310	2.846	76.30490	9.97843	2359	2.906	76.30830	9.96407
2311	2.766	76.30480	9.97840	2360	3.157	76.30840	9.96396
2312	2.820	76.30460	9.97837	2361	2.991	76.30840	9.96384
2313	2.865	76.30450	9.97834	2362	2.461	76.30840	9.96372
2314	2.806	76.30440	9.97830	2363	2.379	76.30840	9.96361
2315	2.669	76.30430	9.97826	2364	2.653	76.30850	9.96349
2316	2.522	76.30420	9.97822	2365	2.976	76.30850	9.96337
2317	2.340	76.30410	9.97818	2366	2.779	76.30850	9.96326
2318	2.266	76.30400	9.97814	2367	2.816	76.30850	9.96314
2319	2.668	76.30390	9.97812	2368	2.687	76.30860	9.96302
2320	2.974	76.30370	9.97813	2369	2.314	76.30860	9.96291
2321	2.706	76.30360	9.97815	2370	2.487	76.30860	9.96279
2322	2.677	76.30350	9.97819	2371	2.140	76.30870	9.96268

2323	2.304	76.30340	9.97823	2372	1.901	76.30870	9.96256
2324	2.357	76.30330	9.97827	2373	4.205	76.30610	9.96291
2325	2.447	76.30320	9.97831	2374	4.502	76.30630	9.96295
2326	2.280	76.30310	9.97836	2375	3.860	76.30640	9.96299
2327	2.241	76.30290	9.97839	2376	3.188	76.30650	9.96302
2328	2.382	76.30280	9.97840	2377	3.175	76.30660	9.96306
2329	2.472	76.30290	9.97829	2378	3.173	76.30670	9.96309
2330	2.400	76.30290	9.97818	2379	3.325	76.30680	9.96313
2331	2.467	76.30290	9.97807	2380	3.011	76.30690	9.96316
2332	2.430	76.30300	9.97795	2381	3.020	76.30710	9.96320
2333	2.492	76.30300	9.97784	2382	3.318	76.30720	9.96323
2334	3.677	76.30070	9.96307	2383	3.423	76.30730	9.96327
2335	3.343	76.30060	9.96319	2384	3.555	76.30610	9.96277
2336	3.428	76.30060	9.96330	2385	3.405	76.30610	9.96267
2337	3.720	76.30060	9.96342	2386	3.034	76.30620	9.96256
2338	3.869	76.30060	9.96354	2387	3.509	76.30590	9.96341
2339	3.770	76.30060	9.96366	2388	3.781	76.30590	9.96330
2340	3.506	76.30050	9.96378	2389	3.850	76.30600	9.96318
2341	3.271	76.30050	9.96389	2390	3.938	76.30600	9.96306
2342	3.351	76.30050	9.96401	2391	3.935	76.30600	9.96295
2343	3.740	76.30050	9.96413	2392	3.212	76.30580	9.96412
2344	4.204	76.30050	9.96424	2393	2.982	76.30600	9.96415
2345	4.100	76.29880	9.96325	2394	2.723	76.30610	9.96418
2346	4.061	76.29880	9.96337	2395	2.840	76.30620	9.96421
2347	4.021	76.29870	9.96349	2396	3.019	76.30630	9.96424
2348	3.965	76.29870	9.96361	2397	2.373	76.30640	9.96427
2349	3.910	76.29870	9.96373	2398	2.246	76.30650	9.96430
2350	3.849	76.29870	9.96385	2399	2.714	76.30670	9.96433
2351	3.794	76.29870	9.96397	2400	3.487	76.30680	9.96436
2401	3.953	76.30690	9.96439	2450	3.253	76.30000	9.96713
2402	3.358	76.30580	9.96397	2451	3.176	76.30000	9.96725
2403	3.507	76.30580	9.96385	2452	2.258	76.29790	9.96505
2404	3.657	76.30580	9.96374	2453	2.661	76.29780	9.96517
2405	3.525	76.30580	9.96362	2454	2.904	76.29780	9.96529
2406	2.777	76.30190	9.96311	2455	3.013	76.29780	9.96541
2407	2.990	76.30200	9.96315	2456	3.045	76.29780	9.96552
2408	3.428	76.30210	9.96318	2457	2.786	76.29780	9.96564
2409	3.914	76.30220	9.96322	2458	2.333	76.29770	9.96576
2410	3.841	76.30240	9.96325	2459	2.333	76.29780	9.96581
2411	3.387	76.30250	9.96329	2460	2.362	76.29800	9.96583

2412	3.048	76.30260	9.96332	2461	2.617	76.29810	9.96585
2413	2.730	76.30270	9.96336	2462	3.127	76.29820	9.96587
2414	3.024	76.30280	9.96338	2463	3.464	76.29830	9.96590
2415	2.642	76.30290	9.96341	2464	3.302	76.29840	9.96592
2416	3.096	76.30210	9.96414	2465	2.843	76.29850	9.96594
2417	3.268	76.30210	9.96403	2466	2.981	76.29790	9.96456
2418	3.489	76.30220	9.96391	2467	3.543	76.29790	9.96468
2419	3.425	76.30220	9.96379	2468	3.142	76.29790	9.96479
2420	3.280	76.30220	9.96367	2469	2.141	76.29790	9.96491
2421	3.175	76.30220	9.96355	2470	3.147	76.29850	9.96653
2422	3.249	76.30220	9.96343	2471	3.104	76.29850	9.96665
2423	3.475	76.30220	9.96332	2472	3.050	76.29860	9.96643
2424	2.985	76.30360	9.96416	2473	3.228	76.29880	9.96645
2425	3.087	76.30370	9.96418	2474	3.623	76.29890	9.96648
2426	3.209	76.30380	9.96420	2475	3.793	76.29900	9.96650
2427	3.460	76.30040	9.96445	2476	3.463	76.29790	9.96646
2428	3.989	76.30030	9.96456	2477	3.890	76.29780	9.96642
2429	4.326	76.30030	9.96467	2478	4.106	76.29770	9.96638
2430	4.325	76.30020	9.96477	2479	3.729	76.29760	9.96634
2431	4.304	76.30020	9.96488	2480	4.215	76.29750	9.96630
2432	4.308	76.30010	9.96499	2481	4.323	76.29740	9.96627
2433	4.246	76.30010	9.96511	2482	4.257	76.29720	9.96625
2434	4.206	76.30010	9.96523	2483	5.021	76.29710	9.96622
2435	3.524	76.30010	9.96535	2484	5.654	76.29700	9.96619
2436	3.479	76.30010	9.96547	2485	5.097	76.29690	9.96617
2437	3.452	76.30010	9.96559	2486	4.488	76.29680	9.96614
2438	4.103	76.30010	9.96571	2487	4.592	76.29670	9.96611
2439	4.170	76.30010	9.96583	2488	4.691	76.29660	9.96608
2440	3.411	76.30010	9.96595	2489	4.593	76.29640	9.96606
2441	3.351	76.30010	9.96607	2490	4.242	76.29630	9.96604
2442	3.435	76.30010	9.96619	2491	3.678	76.29620	9.96601
2443	3.073	76.30010	9.96631	2492	3.064	76.29610	9.96599
2444	2.826	76.30010	9.96643	2493	2.703	76.29600	9.96597
2445	3.219	76.30010	9.96655	2494	2.246	76.30770	9.96254
2446	3.340	76.30010	9.96666	2495	2.802	76.30760	9.96265
2447	3.285	76.30010	9.96678	2496	3.259	76.30760	9.96276
2448	3.592	76.30000	9.96690	2497	3.436	76.30750	9.96288
2449	3.615	76.30000	9.96701	2498	3.407	76.30750	9.96299
2499	3.272	76.30750	9.96310	2548	3.093	76.30360	9.96356
2500	3.133	76.30740	9.96321	2549	3.332	76.30370	9.96358

2501	2.950	76.30740	9.96332	2550	3.424	76.30390	9.96361
2502	2.852	76.30730	9.96343	2551	2.988	76.30400	9.96364
2503	3.031	76.30730	9.96354	2552	2.446	76.30410	9.96367
2504	2.976	76.30720	9.96365	2553	2.594	76.30420	9.96370
2505	2.847	76.30720	9.96376	2554	2.893	76.30430	9.96373
2506	2.775	76.30710	9.96387	2555	2.691	76.30450	9.96376
2507	2.772	76.30710	9.96398	2556	2.299	76.30460	9.96379
2508	2.861	76.30700	9.96409	2557	1.977	76.30470	9.96382
2509	2.917	76.30700	9.96420	2558	1.898	76.30480	9.96385
2510	3.843	76.30690	9.96431	2559	2.264	76.30490	9.96387
2511	3.912	76.30690	9.96442	2560	2.653	76.30500	9.96390
2512	3.141	76.30690	9.96454	2561	3.088	76.30510	9.96393
2513	2.480	76.30680	9.96464	2562	3.382	76.30530	9.96396
2514	2.342	76.30670	9.96474	2563	3.299	76.30540	9.96399
2515	2.325	76.30660	9.96481	2564	3.329	76.30550	9.96402
2516	2.296	76.30660	9.96489	2565	3.338	76.30560	9.96405
2517	2.244	76.30650	9.96498	2566	3.213	76.30570	9.96408
2518	2.286	76.30640	9.96510	2567	3.842	76.30240	9.96313
2519	2.323	76.30640	9.96521	2568	3.082	76.30560	9.96279
2520	2.606	76.30640	9.96532	2569	3.267	76.30570	9.96282
2521	2.702	76.30630	9.96544	2570	3.454	76.30580	9.96284
2522	2.595	76.30630	9.96554	2571	3.666	76.30590	9.96286
2523	2.367	76.30620	9.96565	2572	3.689	76.30420	9.96357
2524	2.566	76.30620	9.96575	2573	4.156	76.30420	9.96346
2525	2.941	76.30610	9.96586	2574	3.939	76.30430	9.96334
2526	2.990	76.30610	9.96597	2575	3.099	76.30460	9.96326
2527	2.988	76.30600	9.96607	2576	2.847	76.30470	9.96328
2528	3.211	76.30600	9.96618	2577	2.722	76.30480	9.96331
2529	3.403	76.30590	9.96628	2578	2.679	76.30490	9.96333
2530	3.411	76.30580	9.96639	2579	2.713	76.30500	9.96339
2531	3.536	76.30580	9.96650	2580	2.663	76.30500	9.96351
2532	3.611	76.30570	9.96660	2581	2.591	76.30500	9.96362
2533	4.294	76.30570	9.96671	2582	2.462	76.30500	9.96374
2534	4.660	76.30560	9.96682	2583	2.386	76.30490	9.96386
2535	4.245	76.30560	9.96692	2584	3.422	76.30300	9.96329
2536	3.781	76.30550	9.96703	2585	3.700	76.30300	9.96318
2537	4.640	76.30550	9.96714	2586	3.560	76.30360	9.96331
2538	5.048	76.30540	9.96725	2587	3.723	76.30360	9.96342
2539	4.726	76.30540	9.96736	2588	2.720	76.30360	9.96353
2540	4.150	76.30530	9.96746	2589	3.712	76.30440	9.96767

2541	3.653	76.30530	9.96757	2590	3.520	76.30450	9.96756
2542	3.808	76.30520	9.96768	2591	3.177	76.30450	9.96745
2543	2.537	76.30300	9.96343	2592	2.825	76.30450	9.96734
2544	2.717	76.30320	9.96346	2593	2.568	76.30460	9.96723
2545	2.872	76.30330	9.96348	2594	2.439	76.30460	9.96712
2546	2.791	76.30340	9.96351	2595	2.365	76.30470	9.96701
2547	2.670	76.30350	9.96353	2596	2.295	76.30470	9.96690
2597	2.513	76.30480	9.96679	2646	3.636	76.30190	9.96678
2598	2.628	76.30480	9.96667	2647	3.748	76.30190	9.96666
2599	2.607	76.30480	9.96656	2648	3.649	76.30190	9.96654
2600	2.516	76.30490	9.96645	2649	3.568	76.30200	9.96642
2601	2.399	76.30490	9.96634	2650	3.759	76.30200	9.96631
2602	2.320	76.30500	9.96623	2651	4.314	76.30200	9.96619
2603	2.326	76.30500	9.96612	2652	4.354	76.30200	9.96607
2604	2.438	76.30510	9.96600	2653	4.437	76.30200	9.96595
2605	2.611	76.30510	9.96589	2654	4.543	76.30200	9.96583
2606	2.773	76.30510	9.96578	2655	4.621	76.30200	9.96571
2607	2.828	76.30520	9.96567	2656	4.623	76.30200	9.96559
2608	2.805	76.30520	9.96556	2657	4.570	76.30200	9.96547
2609	2.956	76.30530	9.96544	2658	4.485	76.30200	9.96535
2610	3.694	76.30530	9.96533	2659	4.335	76.30200	9.96523
2611	3.718	76.30540	9.96522	2660	4.067	76.30200	9.96511
2612	3.819	76.30540	9.96511	2661	3.778	76.30200	9.96499
2613	4.589	76.30540	9.96500	2662	3.551	76.30210	9.96487
2614	4.600	76.30550	9.96488	2663	3.446	76.30210	9.96476
2615	4.303	76.30550	9.96477	2664	3.384	76.30210	9.96464
2616	3.711	76.30550	9.96465	2665	3.321	76.30210	9.96452
2617	3.326	76.30560	9.96454	2666	3.202	76.30210	9.96440
2618	3.608	76.30560	9.96443	2667	3.080	76.30210	9.96428
2619	3.559	76.30570	9.96431	2668	2.862	76.30250	9.96626
2620	3.341	76.30570	9.96420	2669	3.033	76.30270	9.96629
2621	3.218	76.30570	9.96409	2670	3.096	76.30280	9.96631
2622	4.090	76.30550	9.96515	2671	2.789	76.30290	9.96634
2623	3.896	76.30560	9.96519	2672	2.512	76.30300	9.96636
2624	3.535	76.30570	9.96523	2673	2.370	76.30310	9.96638
2625	3.239	76.30580	9.96527	2674	2.290	76.30320	9.96641
2626	2.956	76.30600	9.96531	2675	2.316	76.30340	9.96643
2627	2.840	76.30610	9.96534	2676	2.368	76.30350	9.96646
2628	2.709	76.30620	9.96537	2677	2.560	76.30360	9.96648
2629	2.667	76.30630	9.96539	2678	2.772	76.30370	9.96651

2630	2.267	76.30630	9.96412	2679	2.804	76.30380	9.96653
2631	1.932	76.30630	9.96400	2680	2.794	76.30390	9.96656
2632	2.348	76.30630	9.96388	2681	2.781	76.30410	9.96658
2633	2.627	76.30630	9.96376	2682	2.737	76.30420	9.96661
2634	2.682	76.30630	9.96364	2683	2.653	76.30430	9.96663
2635	2.769	76.30640	9.96352	2684	2.559	76.30440	9.96665
2636	2.862	76.30640	9.96340	2685	2.471	76.30450	9.96668
2637	2.785	76.30640	9.96328	2686	2.469	76.30460	9.96670
2638	3.281	76.30640	9.96316	2687	2.567	76.30480	9.96673
2639	3.504	76.30640	9.96305	2688	4.729	76.30210	9.96560
2640	3.513	76.30190	9.96750	2689	4.535	76.30230	9.96562
2641	3.426	76.30190	9.96738	2690	3.704	76.30240	9.96563
2642	3.214	76.30190	9.96726	2691	3.480	76.30250	9.96565
2643	3.038	76.30190	9.96714	2692	3.621	76.30260	9.96567
2644	3.837	76.30190	9.96702	2693	3.775	76.30270	9.96568
2645	3.021	76.30190	9.96690	2694	3.772	76.30280	9.96570
2695	3.618	76.30300	9.96572	2744	3.477	76.30310	9.96576
2696	3.406	76.30310	9.96573	2745	3.341	76.30410	9.96380
2697	3.404	76.30320	9.96575	2746	4.381	76.30410	9.96391
2698	3.293	76.30330	9.96577	2747	4.210	76.30410	9.96403
2699	3.480	76.30340	9.96579	2748	3.806	76.30410	9.96414
2700	3.927	76.30360	9.96580	2749	3.511	76.30410	9.96426
2701	4.134	76.30370	9.96581	2750	3.128	76.30410	9.96437
2702	3.636	76.30380	9.96581	2751	2.924	76.30400	9.96448
2703	3.317	76.30390	9.96582	2752	2.902	76.30400	9.96460
2704	3.179	76.30400	9.96583	2753	2.994	76.30400	9.96471
2705	3.120	76.30410	9.96585	2754	3.164	76.30390	9.96482
2706	3.201	76.30430	9.96587	2755	3.037	76.30390	9.96494
2707	2.939	76.30440	9.96589	2756	2.823	76.30400	9.96499
2708	2.368	76.30450	9.96591	2757	2.797	76.30410	9.96502
2709	2.319	76.30460	9.96594	2758	2.877	76.30420	9.96504
2710	2.321	76.30470	9.96596	2759	3.065	76.30430	9.96507
2711	2.371	76.30490	9.96598	2760	3.365	76.30440	9.96510
2712	2.398	76.30500	9.96601	2761	3.760	76.30450	9.96513
2713	3.382	76.30200	9.96683	2762	4.325	76.30470	9.96515
2714	3.612	76.30220	9.96685	2763	4.718	76.30480	9.96518
2715	3.830	76.30230	9.96687	2764	4.962	76.30490	9.96521
2716	4.287	76.30240	9.96689	2765	5.039	76.30500	9.96524
2717	4.386	76.30250	9.96691	2766	4.495	76.30510	9.96526
2718	5.007	76.30260	9.96693	2767	4.111	76.30520	9.96529

2719	5.215	76.30280	9.96695	2768	3.897	76.30230	9.96392
2720	4.979	76.30290	9.96696	2769	4.465	76.30240	9.96395
2721	4.883	76.30300	9.96698	2770	3.950	76.30250	9.96397
2722	4.165	76.30310	9.96700	2771	3.434	76.30260	9.96399
2723	3.599	76.30320	9.96702	2772	3.052	76.30270	9.96401
2724	2.502	76.30350	9.96672	2773	2.844	76.30290	9.96403
2725	2.690	76.30360	9.96673	2774	2.612	76.30300	9.96405
2726	2.768	76.30380	9.96675	2775	2.365	76.30310	9.96407
2727	2.776	76.30390	9.96676	2776	2.625	76.30320	9.96410
2728	2.777	76.30400	9.96678	2777	2.860	76.30330	9.96412
2729	2.762	76.30410	9.96679	2778	2.761	76.30310	9.96396
2730	2.687	76.30420	9.96681	2779	3.302	76.30320	9.96385
2731	2.563	76.30430	9.96683	2780	3.186	76.30320	9.96373
2732	2.412	76.30450	9.96685	2781	3.012	76.30320	9.96362
2733	2.331	76.30460	9.96686	2782	2.885	76.30330	9.96350
2734	2.303	76.30470	9.96688	2783	2.793	76.30340	9.96425
2735	3.360	76.30330	9.96759	2784	2.817	76.30340	9.96437
2736	3.375	76.30330	9.96747	2785	3.017	76.30340	9.96449
2737	3.394	76.30330	9.96735	2786	3.034	76.30330	9.96461
2738	3.369	76.30330	9.96723	2787	3.147	76.30330	9.96472
2739	3.279	76.30330	9.96711	2788	3.250	76.30330	9.96484
2740	2.696	76.30300	9.96624	2789	3.450	76.30330	9.96496
2741	2.885	76.30300	9.96612	2790	3.690	76.30320	9.96505
2742	3.238	76.30300	9.96600	2791	3.855	76.30310	9.96515
2743	3.512	76.30300	9.96588	2792	4.862	76.30310	9.96522
2793	4.768	76.30290	9.96521	2842	5.269	76.30100	9.96364
2794	4.280	76.30280	9.96519	2843	4.966	76.30120	9.96366
2795	4.860	76.30270	9.96517	2844	4.626	76.30130	9.96368
2796	2.655	76.30290	9.96417	2845	4.403	76.30140	9.96367
2797	2.923	76.30290	9.96428	2846	4.352	76.30150	9.96358
2798	3.267	76.30290	9.96440	2847	4.060	76.30160	9.96354
2799	3.421	76.30290	9.96452	2848	3.758	76.30170	9.96355
2800	3.353	76.30280	9.96464	2849	3.507	76.30180	9.96358
2801	3.069	76.30290	9.96473	2850	3.370	76.30190	9.96361
2802	2.603	76.30300	9.96475	2851	3.267	76.30200	9.96364
2803	2.805	76.30310	9.96478	2852	3.236	76.30210	9.96367
2804	3.177	76.30320	9.96480	2853	3.278	76.30200	9.96426
2805	2.974	76.30350	9.96461	2854	3.438	76.30190	9.96423
2806	2.836	76.30360	9.96463	2855	3.479	76.30180	9.96412
2807	2.682	76.30370	9.96465	2856	3.519	76.30180	9.96401

2808	2.782	76.30380	9.96467	2857	3.633	76.30170	9.96397
2809	2.936	76.30390	9.96469	2858	3.788	76.30160	9.96395
2810	3.663	76.30250	9.96409	2859	3.968	76.30150	9.96389
2811	3.789	76.30250	9.96420	2860	4.117	76.30150	9.96378
2812	3.471	76.30240	9.96432	2861	4.203	76.30150	9.96366
2813	3.830	76.30570	9.96350	2862	3.873	76.30050	9.96438
2814	3.774	76.30560	9.96348	2863	3.996	76.30070	9.96440
2815	3.479	76.30550	9.96346	2864	4.066	76.30080	9.96442
2816	3.128	76.30540	9.96343	2865	4.103	76.30090	9.96444
2817	2.955	76.30530	9.96341	2866	4.111	76.30100	9.96446
2818	2.324	76.30450	9.96580	2867	4.099	76.30110	9.96448
2819	2.449	76.30460	9.96568	2868	3.645	76.30190	9.96477
2820	2.757	76.30460	9.96557	2869	3.806	76.30180	9.96477
2821	3.251	76.30460	9.96545	2870	3.939	76.30170	9.96477
2822	3.637	76.30460	9.96533	2871	4.026	76.30160	9.96477
2823	4.219	76.30470	9.96522	2872	3.048	76.29780	9.96368
2824	4.311	76.30040	9.96469	2873	3.063	76.29780	9.96380
2825	4.216	76.30050	9.96474	2874	3.073	76.29780	9.96392
2826	4.190	76.30060	9.96478	2875	3.080	76.29780	9.96404
2827	4.185	76.30070	9.96482	2876	3.088	76.29780	9.96416
2828	4.194	76.30080	9.96486	2877	3.097	76.29770	9.96427
2829	4.210	76.30100	9.96490	2878	3.105	76.29770	9.96439
2830	4.226	76.30110	9.96493	2879	3.100	76.29770	9.96451
2831	4.239	76.30120	9.96495	2880	3.085	76.29770	9.96463
2832	4.241	76.30130	9.96496	2881	3.093	76.29770	9.96475
2833	4.224	76.30140	9.96496	2882	3.091	76.29770	9.96487
2834	4.198	76.30150	9.96497	2883	3.086	76.29760	9.96498
2835	4.137	76.30170	9.96497	2884	3.095	76.29760	9.96510
2836	4.064	76.30180	9.96498	2885	3.117	76.29760	9.96522
2837	3.949	76.30190	9.96497	2886	3.164	76.29750	9.96528
2838	3.791	76.30200	9.96497	2887	3.244	76.29740	9.96526
2839	4.135	76.30070	9.96357	2888	3.329	76.29730	9.96524
2840	4.605	76.30080	9.96360	2889	3.407	76.29720	9.96523
2841	5.057	76.30090	9.96362	2890	3.447	76.29710	9.96521
2891	3.414	76.29700	9.96519	2940	3.834	76.29850	9.96497
2892	3.280	76.29680	9.96517	2941	3.846	76.29860	9.96497
2893	2.989	76.29670	9.96515	2942	3.795	76.29870	9.96498
2894	2.914	76.29660	9.96513	2943	3.775	76.29880	9.96499
2895	3.002	76.29650	9.96511	2944	3.778	76.29900	9.96499
2896	3.189	76.29640	9.96509	2945	3.756	76.29810	9.96445

2897	2.809	76.29910	9.96456	2946	4.140	76.29820	9.96446
2898	2.934	76.29910	9.96467	2947	4.128	76.29830	9.96447
2899	3.419	76.29900	9.96479	2948	3.936	76.29840	9.96449
2900	3.693	76.29900	9.96491	2949	3.778	76.29860	9.96450
2901	3.805	76.29900	9.96502	2950	3.270	76.29870	9.96451
2902	3.926	76.29900	9.96514	2951	3.432	76.29880	9.96452
2903	3.766	76.29900	9.96526	2952	3.409	76.29890	9.96453
2904	3.180	76.29890	9.96538	2953	2.945	76.29900	9.96454
2905	3.036	76.29890	9.96550	2954	3.774	76.29900	9.96543
2906	3.593	76.29890	9.96561	2955	4.103	76.29920	9.96544
2907	3.726	76.29890	9.96573	2956	4.403	76.29930	9.96544
2908	3.462	76.29890	9.96585	2957	4.207	76.29940	9.96545
2909	3.176	76.29890	9.96597	2958	3.408	76.29950	9.96546
2910	2.961	76.29880	9.96597	2959	3.090	76.29950	9.96557
2911	2.742	76.29860	9.96596	2960	3.116	76.29950	9.96568
2912	2.835	76.29860	9.96604	2961	3.396	76.29950	9.96632
2913	3.282	76.29860	9.96616	2962	3.402	76.29950	9.96644
2914	3.378	76.29850	9.96628	2963	3.366	76.29940	9.96655
2915	3.195	76.29850	9.96639	2964	3.276	76.29940	9.96667
2916	4.661	76.29940	9.96309	2965	3.113	76.29940	9.96679
2917	4.745	76.29940	9.96321	2966	2.883	76.29940	9.96690
2918	4.756	76.29940	9.96333	2967	3.516	76.29900	9.96601
2919	4.673	76.29940	9.96344	2968	3.734	76.29910	9.96603
2920	4.546	76.29930	9.96356	2969	3.607	76.29920	9.96606
2921	4.407	76.29930	9.96367	2970	3.401	76.29930	9.96610
2922	4.270	76.29930	9.96378	2971	3.330	76.29940	9.96615
2923	4.133	76.29920	9.96390	2972	3.608	76.29920	9.96445
2924	4.026	76.29920	9.96401	2973	4.075	76.29930	9.96443
2925	4.489	76.29920	9.96309	2974	4.389	76.29950	9.96441
2926	4.586	76.29930	9.96312	2975	4.691	76.29960	9.96441
2927	2.863	76.29790	9.96532	2976	5.044	76.29970	9.96440
2928	2.842	76.29800	9.96533	2977	4.394	76.29970	9.96428
2929	2.895	76.29820	9.96535	2978	3.954	76.29970	9.96417
2930	2.989	76.29830	9.96536	2979	3.665	76.29980	9.96406
2931	3.000	76.29840	9.96537	2980	4.110	76.29990	9.96406
2932	3.661	76.29850	9.96538	2981	4.432	76.30000	9.96415
2933	5.249	76.29860	9.96539	2982	4.584	76.30010	9.96419
2934	3.758	76.29880	9.96541	2983	4.527	76.30020	9.96420
2935	2.985	76.29890	9.96542	2984	4.520	76.30030	9.96426
2936	2.621	76.29800	9.96494	2985	4.037	76.30040	9.96429

2937	3.027	76.29810	9.96495	2986	3.550	76.29930	9.96457
2938	3.385	76.29820	9.96495	2987	3.131	76.29930	9.96469
2939	3.712	76.29840	9.96496	2988	3.563	76.29930	9.96481
2989	3.657	76.29930	9.96491	3038	3.126	76.30730	9.96693
2990	3.518	76.29940	9.96499	3039	2.566	76.30770	9.96624
2991	2.858	76.29810	9.96638	3040	2.155	76.30780	9.96627
2992	2.303	76.29820	9.96635	3041	2.273	76.30790	9.96629
2993	2.485	76.29830	9.96637	3042	2.356	76.30800	9.96631
2994	2.956	76.29840	9.96639	3043	2.515	76.30810	9.96633
2995	2.983	76.29710	9.96427	3044	2.773	76.30820	9.96636
2996	2.949	76.29720	9.96428	3045	2.966	76.30840	9.96638
2997	3.521	76.29670	9.96469	3046	2.675	76.30850	9.96640
2998	3.287	76.29680	9.96471	3047	2.259	76.30860	9.96642
2999	3.185	76.29690	9.96473	3048	2.187	76.30870	9.96645
3000	3.168	76.29700	9.96475	3049	2.038	76.30880	9.96647
3001	3.058	76.29720	9.96477	3050	1.949	76.30890	9.96652
3002	3.000	76.29730	9.96479	3051	1.995	76.30890	9.96663
3003	3.049	76.29740	9.96481	3052	2.051	76.30880	9.96674
3004	3.131	76.29750	9.96483	3053	2.156	76.30880	9.96686
3005	3.101	76.29760	9.96486	3054	2.465	76.30870	9.96697
3006	3.097	76.29730	9.96403	3055	2.994	76.30870	9.96706
3007	3.113	76.29730	9.96415	3056	2.988	76.30860	9.96705
3008	3.044	76.29730	9.96427	3057	2.930	76.30840	9.96704
3009	2.944	76.29730	9.96439	3058	2.479	76.30780	9.96569
3010	3.124	76.29720	9.96450	3059	2.415	76.30800	9.96571
3011	3.278	76.29720	9.96462	3060	2.385	76.30810	9.96574
3012	3.006	76.29720	9.96474	3061	2.367	76.30820	9.96576
3013	3.111	76.29730	9.96407	3062	2.394	76.30830	9.96579
3014	2.175	76.30660	9.96496	3063	2.488	76.30840	9.96581
3015	2.312	76.30680	9.96499	3064	2.586	76.30850	9.96583
3016	2.533	76.30690	9.96501	3065	2.637	76.30870	9.96586
3017	2.873	76.30700	9.96504	3066	2.634	76.30880	9.96588
3018	3.255	76.30710	9.96507	3067	2.591	76.30890	9.96591
3019	3.419	76.30720	9.96510	3068	2.524	76.30770	9.96511
3020	3.626	76.30730	9.96512	3069	2.368	76.30780	9.96500
3021	3.674	76.30750	9.96515	3070	2.600	76.30790	9.96497
3022	3.091	76.30760	9.96518	3071	2.610	76.30800	9.96499
3023	2.741	76.30770	9.96523	3072	2.457	76.30810	9.96500
3024	2.749	76.30770	9.96533	3073	2.461	76.30820	9.96502
3025	2.797	76.30770	9.96544	3074	2.452	76.30830	9.96504

3026	2.769	76.30770	9.96556	3075	2.383	76.30850	9.96506
3027	2.670	76.30770	9.96568	3076	2.139	76.30860	9.96507
3028	2.593	76.30770	9.96579	3077	1.960	76.30870	9.96509
3029	2.586	76.30760	9.96591	3078	2.117	76.30880	9.96511
3030	2.735	76.30760	9.96602	3079	2.173	76.30890	9.96512
3031	3.048	76.30760	9.96613	3080	2.660	76.30860	9.96323
3032	3.261	76.30750	9.96625	3081	2.536	76.30880	9.96326
3033	3.374	76.30750	9.96636	3082	3.106	76.30890	9.96328
3034	3.401	76.30740	9.96647	3083	1.885	76.30900	9.96331
3035	3.311	76.30740	9.96659	3084	1.935	76.30910	9.96334
3036	3.216	76.30740	9.96670	3085	2.465	76.30920	9.96336
3037	3.149	76.30730	9.96681	3086	2.597	76.30930	9.96339
3087	2.438	76.30940	9.96342	3136	2.729	76.31240	9.96556
3088	2.780	76.30960	9.96344	3137	2.456	76.31240	9.96546
3089	2.430	76.30970	9.96347	3138	2.754	76.31250	9.96535
3090	2.293	76.30980	9.96350	3139	2.616	76.31250	9.96525
3091	2.388	76.30870	9.96300	3140	2.549	76.31260	9.96514
3092	2.597	76.30880	9.96303	3141	2.526	76.31260	9.96503
3093	4.075	76.30890	9.96306	3142	2.938	76.31270	9.96492
3094	3.825	76.30900	9.96310	3143	3.663	76.31270	9.96481
3095	2.651	76.30910	9.96313	3144	3.730	76.31280	9.96470
3096	2.465	76.30930	9.96316	3145	3.240	76.31280	9.96458
3097	2.892	76.30940	9.96319	3146	3.010	76.31280	9.96447
3098	3.173	76.30950	9.96323	3147	2.574	76.31280	9.96435
3099	3.344	76.30840	9.96426	3148	2.304	76.31290	9.96423
3100	3.560	76.30850	9.96428	3149	2.197	76.31290	9.96411
3101	3.585	76.30860	9.96430	3150	2.040	76.31290	9.96399
3102	2.821	76.30880	9.96433	3151	2.211	76.31290	9.96387
3103	2.594	76.30890	9.96435	3152	2.297	76.31290	9.96375
3104	2.796	76.30900	9.96437	3153	2.400	76.31290	9.96364
3105	2.996	76.30910	9.96439	3154	2.669	76.31290	9.96352
3106	2.507	76.30920	9.96442	3155	3.495	76.31460	9.96824
3107	2.541	76.30940	9.96444	3156	3.747	76.31460	9.96814
3108	2.787	76.30950	9.96446	3157	3.945	76.31470	9.96804
3109	2.760	76.30720	9.96400	3158	3.914	76.31470	9.96793
3110	2.858	76.30730	9.96406	3159	4.329	76.31480	9.96783
3111	3.153	76.30740	9.96414	3160	4.340	76.31480	9.96772
3112	3.212	76.30750	9.96419	3161	4.481	76.31480	9.96760
3113	3.106	76.30760	9.96419	3162	3.879	76.31480	9.96748
3114	3.953	76.30740	9.96463	3163	3.468	76.31490	9.96737

3115	3.997	76.30740	9.96459	3164	3.054	76.31490	9.96725
3116	4.069	76.30760	9.96462	3165	2.842	76.31490	9.96714
3117	3.814	76.30770	9.96465	3166	2.844	76.31500	9.96703
3118	3.580	76.30770	9.96470	3167	2.939	76.31500	9.96692
3119	3.603	76.30770	9.96482	3168	3.134	76.31510	9.96681
3120	2.655	76.30770	9.96494	3169	3.289	76.31510	9.96671
3121	2.841	76.30810	9.96437	3170	3.343	76.31520	9.96660
3122	2.926	76.30820	9.96440	3171	3.197	76.31530	9.96650
3123	2.831	76.31180	9.96700	3172	3.161	76.31530	9.96640
3124	2.518	76.31180	9.96689	3173	3.005	76.31540	9.96628
3125	2.345	76.31190	9.96678	3174	3.090	76.31540	9.96617
3126	2.604	76.31190	9.96667	3175	3.071	76.31540	9.96606
3127	3.598	76.31200	9.96655	3176	3.266	76.31550	9.96594
3128	3.081	76.31200	9.96645	3177	3.342	76.31550	9.96582
3129	2.376	76.31210	9.96634	3178	2.896	76.31550	9.96570
3130	2.739	76.31210	9.96623	3179	5.500	76.31590	9.96852
3131	3.194	76.31210	9.96611	3180	4.174	76.31600	9.96840
3132	2.974	76.31220	9.96600	3181	4.338	76.31600	9.96828
3133	2.353	76.31220	9.96589	3182	3.700	76.31430	9.96468
3134	2.616	76.31230	9.96578	3183	3.601	76.31440	9.96471
3135	2.844	76.31230	9.96567	3184	3.803	76.31450	9.96473
3185	4.020	76.31460	9.96475	3234	3.073	76.31160	9.96608
3186	4.368	76.31480	9.96477	3235	2.785	76.31170	9.96610
3187	4.040	76.31420	9.96505	3236	3.008	76.31180	9.96613
3188	3.936	76.31430	9.96506	3237	3.125	76.31190	9.96615
3189	3.914	76.31450	9.96507	3238	2.778	76.31200	9.96618
3190	4.115	76.31460	9.96509	3239	2.102	76.31120	9.96539
3191	4.329	76.31470	9.96510	3240	2.225	76.31130	9.96542
3192	4.371	76.31480	9.96512	3241	2.371	76.31140	9.96545
3193	4.380	76.31490	9.96513	3242	2.138	76.31150	9.96548
3194	4.414	76.31510	9.96514	3243	2.008	76.31160	9.96550
3195	3.294	76.31290	9.96459	3244	2.055	76.31180	9.96553
3196	3.185	76.31300	9.96461	3245	2.196	76.31190	9.96556
3197	3.132	76.31320	9.96464	3246	2.312	76.31200	9.96559
3198	3.167	76.31330	9.96467	3247	2.421	76.31210	9.96562
3199	3.258	76.31340	9.96470	3248	2.611	76.31220	9.96565
3200	3.454	76.31350	9.96473	3249	2.402	76.31270	9.96527
3201	3.751	76.31360	9.96476	3250	2.969	76.31280	9.96530
3202	3.850	76.31370	9.96481	3251	3.921	76.31290	9.96534
3203	3.876	76.31380	9.96486	3252	4.128	76.31300	9.96536

3204	3.951	76.31390	9.96492	3253	4.161	76.31310	9.96529
3205	3.954	76.31400	9.96499	3254	3.948	76.31310	9.96519
3206	2.566	76.31010	9.96681	3255	2.524	76.30550	9.97545
3207	3.006	76.31020	9.96683	3256	3.379	76.30360	9.97528
3208	3.281	76.31030	9.96685	3257	3.555	76.30370	9.97529
3209	3.227	76.31040	9.96687	3258	3.438	76.30390	9.97531
3210	2.904	76.31060	9.96689	3259	3.190	76.30400	9.97532
3211	2.627	76.31070	9.96691	3260	3.009	76.30410	9.97534
3212	2.434	76.31080	9.96694	3261	2.833	76.30420	9.97535
3213	2.336	76.31090	9.96696	3262	2.257	76.30430	9.97536
3214	2.394	76.31100	9.96698	3263	3.082	76.30380	9.97474
3215	2.582	76.31110	9.96700	3264	3.848	76.30390	9.97476
3216	2.791	76.31130	9.96702	3265	4.278	76.30410	9.97478
3217	2.998	76.31140	9.96704	3266	3.966	76.30420	9.97480
3218	2.990	76.31150	9.96706	3267	3.162	76.30430	9.97482
3219	3.001	76.31160	9.96708	3268	3.636	76.30360	9.97743
3220	2.975	76.31170	9.96710	3269	3.712	76.30360	9.97731
3221	1.649	76.31080	9.96645	3270	3.624	76.30360	9.97719
3222	1.603	76.31090	9.96647	3271	3.399	76.30360	9.97707
3223	1.715	76.31100	9.96650	3272	2.628	76.30570	9.97781
3224	2.026	76.31110	9.96652	3273	2.726	76.30580	9.97769
3225	2.599	76.31130	9.96655	3274	2.448	76.30580	9.97759
3226	2.862	76.31140	9.96657	3275	2.238	76.30590	9.97748
3227	3.017	76.31150	9.96660	3276	2.187	76.30590	9.97737
3228	3.241	76.31160	9.96662	3277	2.735	76.30590	9.97767
3229	3.210	76.31170	9.96665	3278	2.963	76.30600	9.97771
3230	2.774	76.31190	9.96667	3279	2.848	76.30610	9.97775
3231	2.663	76.31120	9.96601	3280	3.058	76.30620	9.97779
3232	2.696	76.31130	9.96603	3281	3.180	76.30630	9.97782
3233	2.795	76.31140	9.96605	3282	3.170	76.30650	9.97786
3283	3.063	76.30660	9.97790	3332	2.999	76.30550	9.97378
3284	2.903	76.30670	9.97793	3333	2.830	76.30550	9.97367
3285	2.775	76.30680	9.97798	3334	2.787	76.30560	9.97355
3286	2.623	76.30690	9.97802	3335	2.860	76.30560	9.97343
3287	2.885	76.30590	9.97800	3336	2.380	76.30520	9.97375
3288	2.917	76.30600	9.97805	3337	2.355	76.30520	9.97363
3289	2.935	76.30610	9.97810	3338	2.290	76.30520	9.97351
3290	2.930	76.30630	9.97814	3339	2.309	76.30520	9.97339
3291	2.897	76.30640	9.97819	3340	2.269	76.30530	9.97328
3292	2.841	76.30650	9.97824	3341	2.235	76.30530	9.97317

3293	2.778	76.30660	9.97829	3342	2.199	76.30540	9.97305
3294	2.715	76.30670	9.97834	3343	2.330	76.30540	9.97339
3295	2.635	76.30680	9.97839	3344	2.679	76.30550	9.97340
3296	2.843	76.30650	9.97815	3345	2.889	76.30670	9.97529
3297	2.898	76.30660	9.97803	3346	3.521	76.30680	9.97533
3298	2.969	76.30660	9.97793	3347	3.442	76.30690	9.97537
3299	2.815	76.30530	9.97891	3348	3.060	76.30710	9.97541
3300	3.054	76.30530	9.97880	3349	3.089	76.30720	9.97545
3301	3.089	76.30540	9.97869	3350	3.409	76.30730	9.97549
3302	2.729	76.30540	9.97858	3351	3.539	76.30740	9.97553
3303	2.471	76.30550	9.97847	3352	3.559	76.30750	9.97557
3304	1.803	76.30380	9.97873	3353	3.668	76.30760	9.97561
3305	1.966	76.30390	9.97861	3354	3.729	76.30770	9.97565
3306	2.015	76.30390	9.97850	3355	3.546	76.30780	9.97569
3307	2.154	76.30390	9.97838	3356	3.251	76.30800	9.97573
3308	2.374	76.30400	9.97826	3357	2.980	76.30700	9.97498
3309	2.270	76.30400	9.97815	3358	2.658	76.30710	9.97502
3310	2.580	76.30430	9.97878	3359	2.552	76.30720	9.97506
3311	2.562	76.30430	9.97867	3360	2.360	76.30740	9.97510
3312	2.740	76.30440	9.97856	3361	2.618	76.30750	9.97513
3313	2.785	76.30440	9.97845	3362	2.696	76.30760	9.97517
3314	2.836	76.30450	9.97834	3363	2.585	76.30770	9.97521
3315	2.893	76.30450	9.97872	3364	2.560	76.30780	9.97524
3316	3.124	76.30460	9.97876	3365	2.615	76.30790	9.97528
3317	3.576	76.30470	9.97880	3366	2.779	76.30800	9.97532
3318	4.007	76.30480	9.97884	3367	2.856	76.30810	9.97536
3319	4.310	76.30490	9.97888	3368	2.851	76.30740	9.97483
3320	2.263	76.30420	9.97434	3369	2.855	76.30730	9.97494
3321	2.303	76.30420	9.97422	3370	2.468	76.30730	9.97506
3322	2.415	76.30430	9.97410	3371	2.527	76.30660	9.97585
3323	2.562	76.30430	9.97399	3372	2.714	76.30670	9.97588
3324	2.725	76.30430	9.97387	3373	2.663	76.30680	9.97591
3325	2.824	76.30430	9.97375	3374	2.264	76.30690	9.97594
3326	2.827	76.30440	9.97364	3375	2.247	76.30700	9.97597
3327	2.888	76.30440	9.97353	3376	2.732	76.30720	9.97600
3328	3.697	76.30550	9.97426	3377	3.377	76.30730	9.97604
3329	3.500	76.30550	9.97414	3378	4.160	76.30740	9.97601
3330	3.310	76.30550	9.97402	3379	3.866	76.30750	9.97603
3331	3.130	76.30550	9.97390	3380	2.967	76.30760	9.97608
3381	3.045	76.30770	9.97612	3430	2.890	76.30940	9.97458

3382	2.746	76.30780	9.97624	3431	2.884	76.30940	9.97451
3383	2.335	76.30790	9.97628	3432	2.845	76.30930	9.97447
3384	2.106	76.30810	9.97633	3433	2.823	76.30920	9.97442
3385	2.631	76.30820	9.97638	3434	2.806	76.30910	9.97438
3386	2.739	76.30830	9.97642	3435	2.811	76.30890	9.97434
3387	2.719	76.30840	9.97647	3436	2.889	76.30880	9.97430
3388	2.620	76.30850	9.97651	3437	2.458	76.31000	9.97368
3389	2.170	76.30860	9.97656	3438	2.264	76.31010	9.97372
3390	2.004	76.30870	9.97660	3439	2.259	76.31020	9.97376
3391	2.173	76.30880	9.97665	3440	2.396	76.31030	9.97379
3392	2.367	76.30890	9.97670	3441	3.176	76.31000	9.97429
3393	2.890	76.30810	9.97578	3442	3.069	76.31000	9.97418
3394	2.752	76.30820	9.97583	3443	2.883	76.31000	9.97407
3395	2.844	76.30830	9.97587	3444	2.612	76.31010	9.97395
3396	2.882	76.30840	9.97591	3445	2.389	76.31010	9.97384
3397	2.948	76.30850	9.97596	3446	2.604	76.31060	9.97393
3398	3.270	76.30870	9.97600	3447	2.602	76.31060	9.97382
3399	3.311	76.30880	9.97605	3448	2.596	76.31060	9.97370
3400	3.241	76.30890	9.97609	3449	2.582	76.31070	9.97359
3401	3.309	76.30900	9.97614	3450	2.542	76.31070	9.97347
3402	3.315	76.30910	9.97618	3451	3.043	76.30970	9.97487
3403	2.639	76.30830	9.97541	3452	3.175	76.30980	9.97496
3404	2.401	76.30840	9.97545	3453	3.245	76.30990	9.97500
3405	2.366	76.30850	9.97550	3454	3.311	76.31000	9.97503
3406	2.437	76.30860	9.97554	3455	3.230	76.31020	9.97491
3407	2.546	76.30870	9.97559	3456	3.191	76.31030	9.97494
3408	2.630	76.30880	9.97563	3457	3.188	76.31040	9.97497
3409	2.868	76.30900	9.97567	3458	3.164	76.31050	9.97500
3410	3.134	76.30910	9.97572	3459	3.281	76.31040	9.97538
3411	3.475	76.30920	9.97576	3460	3.278	76.31030	9.97535
3412	3.626	76.30930	9.97581	3461	3.271	76.31020	9.97533
3413	2.856	76.30860	9.97484	3462	3.272	76.31010	9.97523
3414	2.678	76.30870	9.97488	3463	3.274	76.31020	9.97511
3415	2.454	76.30720	9.97643	3464	3.250	76.31020	9.97508
3416	2.557	76.30730	9.97648	3465	3.240	76.31040	9.97510
3417	2.636	76.30740	9.97654	3466	3.196	76.31050	9.97512
3418	2.520	76.30750	9.97663	3467	2.396	76.31130	9.97444
3419	3.082	76.30700	9.97711	3468	2.392	76.31140	9.97447
3420	2.582	76.30710	9.97716	3469	2.456	76.31150	9.97450
3421	2.326	76.30720	9.97721	3470	2.589	76.31160	9.97453

3422	2.850	76.30870	9.97464	3471	2.728	76.31180	9.97455
3423	2.800	76.30880	9.97468	3472	2.858	76.31190	9.97457
3424	2.775	76.30890	9.97472	3473	2.990	76.31200	9.97461
3425	2.776	76.30910	9.97476	3474	3.090	76.31210	9.97465
3426	2.764	76.30920	9.97480	3475	2.859	76.31200	9.97434
3427	2.709	76.30930	9.97485	3476	2.821	76.31190	9.97445
3428	2.758	76.30940	9.97480	3477	2.875	76.31190	9.97457
3429	2.826	76.30940	9.97469	3478	2.333	76.31150	9.97438
3479	2.327	76.31150	9.97426	3528	4.173	76.31260	9.97492
3480	2.448	76.31160	9.97415	3529	3.932	76.31280	9.97496
3481	2.691	76.31160	9.97404	3530	4.117	76.31290	9.97499
3482	2.889	76.31160	9.97392	3531	4.201	76.31300	9.97502
3483	2.994	76.31170	9.97381	3532	4.132	76.31310	9.97500
3484	3.549	76.31240	9.97544	3533	4.135	76.31310	9.97488
3485	3.640	76.31250	9.97547	3534	3.997	76.31280	9.97543
3486	3.761	76.31260	9.97549	3535	4.020	76.31280	9.97531
3487	3.863	76.31270	9.97552	3536	4.060	76.31280	9.97519
3488	3.976	76.31280	9.97554	3537	4.101	76.31290	9.97509
3489	4.070	76.31300	9.97558	3538	3.486	76.31220	9.97507
3490	4.163	76.31310	9.97561	3539	3.703	76.31230	9.97508
3491	4.281	76.31320	9.97564	3540	3.983	76.31240	9.97511
3492	4.410	76.31330	9.97568	3541	4.001	76.31260	9.97515
3493	4.579	76.31340	9.97571	3542	4.014	76.31270	9.97518
3494	4.748	76.31350	9.97575	3543	4.050	76.31280	9.97522
3495	4.925	76.31360	9.97578	3544	4.484	76.31270	9.97472
3496	4.939	76.31380	9.97581	3545	4.286	76.31270	9.97484
3497	4.513	76.31300	9.97477	3546	3.677	76.31040	9.97616
3498	4.146	76.31310	9.97484	3547	3.627	76.31060	9.97618
3499	3.829	76.31320	9.97490	3548	3.566	76.31070	9.97621
3500	3.621	76.31330	9.97495	3549	3.491	76.31080	9.97623
3501	3.642	76.31340	9.97500	3550	3.416	76.31090	9.97625
3502	3.781	76.31350	9.97504	3551	3.326	76.31100	9.97628
3503	4.010	76.31370	9.97509	3552	3.232	76.31110	9.97630
3504	4.185	76.31380	9.97513	3553	3.146	76.31130	9.97632
3505	4.295	76.31390	9.97518	3554	3.052	76.31140	9.97635
3506	4.332	76.31400	9.97522	3555	3.348	76.31100	9.97615
3507	4.282	76.31410	9.97525	3556	3.383	76.31100	9.97604
3508	4.263	76.31420	9.97529	3557	3.471	76.31090	9.97597
3509	4.324	76.31430	9.97533	3558	3.138	76.30370	9.97944
3510	4.465	76.31440	9.97536	3559	3.013	76.30360	9.97946

3511	4.562	76.31460	9.97537	3560	3.193	76.30350	9.97948
3512	4.459	76.31470	9.97537	3561	2.956	76.30340	9.97950
3513	4.505	76.31480	9.97535	3562	2.806	76.30330	9.97951
3514	5.347	76.31490	9.97535	3563	2.762	76.30320	9.97953
3515	5.296	76.31500	9.97540	3564	2.754	76.30300	9.97955
3516	4.211	76.31440	9.97564	3565	2.872	76.30290	9.97956
3517	4.467	76.31440	9.97552	3566	3.145	76.30280	9.97958
3518	4.466	76.31440	9.97541	3567	3.186	76.30270	9.97960
3519	4.564	76.31390	9.97532	3568	3.151	76.30260	9.97962
3520	4.952	76.31400	9.97544	3569	2.629	76.30250	9.97964
3521	4.825	76.31390	9.97555	3570	2.478	76.30230	9.97965
3522	4.687	76.31390	9.97566	3571	2.922	76.30220	9.97967
3523	4.663	76.31390	9.97577	3572	2.957	76.30210	9.97969
3524	3.341	76.31220	9.97472	3573	2.943	76.30200	9.97970
3525	3.564	76.31230	9.97478	3574	2.998	76.30190	9.97972
3526	3.790	76.31240	9.97484	3575	3.228	76.30170	9.97974
3527	4.024	76.31250	9.97488	3576	3.086	76.30160	9.97976
3577	2.360	76.30150	9.97978	3626	2.239	76.29920	9.97921
3578	2.265	76.30140	9.97979	3627	2.118	76.29930	9.97922
3579	2.419	76.30130	9.97981	3628	2.378	76.29940	9.97925
3580	2.722	76.30110	9.97983	3629	2.341	76.29950	9.97927
3581	2.785	76.30100	9.97985	3630	2.250	76.29960	9.97930
3582	2.837	76.30090	9.97987	3631	2.554	76.29980	9.97932
3583	2.647	76.30080	9.97988	3632	2.593	76.29990	9.97934
3584	2.352	76.30070	9.97990	3633	2.570	76.30000	9.97937
3585	2.352	76.30060	9.97992	3634	2.486	76.30010	9.97939
3586	2.217	76.30040	9.97994	3635	2.383	76.30020	9.97941
3587	2.312	76.30030	9.97996	3636	2.267	76.30030	9.97944
3588	2.327	76.30020	9.97997	3637	2.245	76.30050	9.97946
3589	2.606	76.30010	9.97999	3638	1.970	76.30060	9.97949
3590	2.853	76.30000	9.98001	3639	2.417	76.30070	9.97951
3591	2.494	76.29990	9.98003	3640	2.745	76.30080	9.97954
3592	2.400	76.29970	9.98005	3641	3.021	76.30090	9.97956
3593	2.441	76.29960	9.98007	3642	2.838	76.30100	9.97958
3594	2.587	76.29950	9.98008	3643	2.529	76.30120	9.97960
3595	2.360	76.29940	9.98010	3644	2.335	76.30130	9.97961
3596	2.414	76.29930	9.98012	3645	2.110	76.30140	9.97960
3597	2.549	76.29910	9.98014	3646	1.987	76.30150	9.97951
3598	3.376	76.29900	9.98016	3647	2.444	76.30140	9.97939
3599	3.154	76.29890	9.98017	3648	2.977	76.30140	9.97927

3600	3.025	76.29880	9.98019	3649	3.235	76.30140	9.97916
3601	3.090	76.29870	9.98021	3650	3.023	76.30140	9.97904
3602	2.406	76.29860	9.98023	3651	2.675	76.30150	9.97892
3603	2.196	76.29840	9.98025	3652	2.752	76.29860	9.98011
3604	2.209	76.29830	9.98027	3653	2.645	76.29860	9.97999
3605	2.301	76.29820	9.98028	3654	2.381	76.29860	9.97988
3606	2.361	76.29810	9.98030	3655	2.471	76.29870	9.97976
3607	2.395	76.29800	9.98032	3656	3.073	76.29870	9.97964
3608	2.776	76.29780	9.98034	3657	2.795	76.29870	9.97952
3609	3.085	76.29780	9.98023	3658	2.585	76.29870	9.97941
3610	3.294	76.29780	9.98012	3659	2.318	76.29880	9.97929
3611	3.036	76.29790	9.98000	3660	2.375	76.29830	9.97986
3612	2.987	76.29790	9.97988	3661	2.244	76.29830	9.97974
3613	2.427	76.29790	9.97977	3662	2.198	76.29830	9.97963
3614	2.282	76.29790	9.97965	3663	2.243	76.29830	9.97951
3615	2.374	76.29800	9.97953	3664	2.278	76.29840	9.97939
3616	2.217	76.29800	9.97943	3665	2.874	76.29880	9.97974
3617	2.099	76.29810	9.97939	3666	3.098	76.29890	9.97977
3618	2.036	76.29820	9.97937	3667	3.455	76.29900	9.97979
3619	2.232	76.29830	9.97935	3668	2.987	76.29910	9.97982
3620	2.344	76.29850	9.97933	3669	3.006	76.29920	9.97973
3621	2.629	76.29860	9.97931	3670	2.702	76.29920	9.97961
3622	2.286	76.29870	9.97929	3671	2.294	76.29920	9.97949
3623	2.334	76.29880	9.97927	3672	2.436	76.29920	9.97937
3624	2.222	76.29890	9.97925	3673	2.246	76.29920	9.97925
3625	2.144	76.29910	9.97923	3674	2.744	76.30070	9.97933
3675	2.167	76.30070	9.97945	3724	2.695	76.29970	9.97890
3676	2.793	76.30280	9.97851	3725	2.719	76.29970	9.97902
3677	2.616	76.30280	9.97862	3726	2.940	76.29970	9.97914
3678	2.508	76.30280	9.97873	3727	2.669	76.29970	9.97926
3679	2.262	76.30270	9.97884	3728	3.534	76.29990	9.97851
3680	1.999	76.30270	9.97895	3729	3.212	76.30000	9.97854
3681	2.144	76.30260	9.97906	3730	2.888	76.30010	9.97857
3682	2.418	76.30260	9.97917	3731	2.602	76.30030	9.97860
3683	2.563	76.30250	9.97928	3732	2.446	76.30040	9.97863
3684	3.378	76.30250	9.97939	3733	2.422	76.30050	9.97860
3685	3.106	76.30240	9.97947	3734	2.451	76.30060	9.97856
3686	2.799	76.30230	9.97949	3735	2.536	76.30070	9.97853
3687	2.724	76.30220	9.97952	3736	2.548	76.30080	9.97852
3688	2.441	76.30210	9.97954	3737	2.692	76.30090	9.97852

3689	2.669	76.30190	9.97957	3738	2.572	76.30110	9.97851
3690	2.931	76.30180	9.97959	3739	2.402	76.30120	9.97851
3691	2.459	76.30270	9.97865	3740	2.290	76.30130	9.97850
3692	2.418	76.30260	9.97867	3741	2.329	76.30140	9.97849
3693	2.359	76.30250	9.97869	3742	2.397	76.30160	9.97848
3694	2.405	76.30230	9.97871	3743	2.481	76.30170	9.97846
3695	2.438	76.30220	9.97873	3744	2.652	76.30180	9.97845
3696	2.433	76.30210	9.97875	3745	2.600	76.30130	9.97795
3697	2.511	76.30200	9.97876	3746	2.586	76.30130	9.97807
3698	2.497	76.30190	9.97878	3747	2.583	76.30130	9.97819
3699	2.736	76.30170	9.97880	3748	2.192	76.30130	9.97831
3700	2.644	76.30160	9.97882	3749	2.364	76.30130	9.97843
3701	2.638	76.30150	9.97884	3750	2.596	76.30090	9.97840
3702	2.452	76.30140	9.97886	3751	2.742	76.30090	9.97828
3703	2.419	76.30130	9.97887	3752	3.114	76.30090	9.97816
3704	2.527	76.30120	9.97889	3753	3.486	76.30080	9.97804
3705	2.778	76.30100	9.97891	3754	3.690	76.30080	9.97792
3706	2.515	76.30090	9.97893	3755	2.710	76.30140	9.97814
3707	2.693	76.30080	9.97894	3756	2.666	76.30150	9.97813
3708	2.827	76.30070	9.97896	3757	2.823	76.30170	9.97812
3709	2.405	76.30060	9.97898	3758	2.823	76.30180	9.97812
3710	2.436	76.30040	9.97899	3759	2.830	76.30190	9.97811
3711	2.347	76.30030	9.97901	3760	3.049	76.29900	9.97881
3712	2.197	76.30020	9.97903	3761	3.134	76.29900	9.97869
3713	2.357	76.30010	9.97905	3762	3.258	76.29900	9.97857
3714	2.365	76.30000	9.97906	3763	3.095	76.29910	9.97846
3715	2.369	76.29990	9.97908	3764	2.856	76.29910	9.97834
3716	2.707	76.29970	9.97910	3765	2.658	76.29910	9.97822
3717	2.897	76.29990	9.97808	3766	2.570	76.29910	9.97811
3718	3.570	76.29990	9.97820	3767	3.040	76.29910	9.97876
3719	4.018	76.29980	9.97832	3768	2.799	76.29920	9.97877
3720	3.818	76.29980	9.97843	3769	2.741	76.29940	9.97878
3721	3.823	76.29980	9.97855	3770	2.813	76.29950	9.97879
3722	3.713	76.29980	9.97867	3771	2.808	76.29820	9.97902
3723	3.292	76.29970	9.97878	3772	2.941	76.29820	9.97890
3773	3.140	76.29830	9.97879	3822	3.532	76.31170	9.96989
3774	3.155	76.29830	9.97867	3823	3.672	76.31190	9.96991
3775	3.119	76.29830	9.97855	3824	3.905	76.31190	9.96983
3776	3.180	76.29830	9.97844	3825	4.135	76.31200	9.96974
3777	3.083	76.29840	9.97832	3826	3.690	76.31210	9.96984

3778	2.957	76.31000	9.97327	3827	3.533	76.31210	9.96995
3779	3.083	76.31010	9.97331	3828	3.410	76.31210	9.97004
3780	3.023	76.31020	9.97336	3829	3.335	76.31220	9.97012
3781	2.995	76.31070	9.97192	3830	3.304	76.31220	9.97020
3782	3.400	76.31080	9.97194	3831	3.319	76.31250	9.96810
3783	3.821	76.31090	9.97196	3832	3.329	76.31250	9.96821
3784	3.963	76.31100	9.97199	3833	3.270	76.31240	9.96832
3785	3.923	76.31110	9.97201	3834	3.460	76.31210	9.96801
3786	3.855	76.31130	9.97203	3835	3.202	76.31210	9.96813
3787	3.842	76.31140	9.97206	3836	2.962	76.31210	9.96825
3788	3.790	76.31150	9.97208	3837	2.815	76.31210	9.96837
3789	3.660	76.31160	9.97210	3838	2.719	76.31210	9.96848
3790	3.466	76.31170	9.97213	3839	2.685	76.31210	9.96860
3791	3.634	76.31130	9.97171	3840	2.876	76.31210	9.96872
3792	3.838	76.31130	9.97183	3841	3.330	76.31210	9.96884
3793	3.881	76.31130	9.97195	3842	3.891	76.31210	9.96896
3794	2.871	76.31080	9.97076	3843	4.798	76.31200	9.96907
3795	2.829	76.31090	9.97079	3844	4.241	76.31210	9.96916
3796	2.777	76.31100	9.97082	3845	3.969	76.31210	9.96928
3797	2.763	76.31110	9.97088	3846	4.442	76.31210	9.96939
3798	2.832	76.31120	9.97096	3847	4.570	76.31210	9.96951
3799	2.955	76.31130	9.97100	3848	4.364	76.31210	9.96963
3800	3.104	76.31140	9.97103	3849	2.945	76.31260	9.96968
3801	3.188	76.31150	9.97105	3850	2.761	76.31280	9.96970
3802	3.552	76.31110	9.96943	3851	2.647	76.31290	9.96974
3803	3.535	76.31120	9.96948	3852	3.094	76.31300	9.96977
3804	3.566	76.31130	9.96953	3853	3.449	76.31310	9.96980
3805	3.782	76.31140	9.96957	3854	3.656	76.31320	9.96983
3806	3.991	76.31150	9.96961	3855	3.960	76.31330	9.96986
3807	4.298	76.31160	9.96964	3856	4.245	76.31340	9.96986
3808	4.525	76.31170	9.96966	3857	4.634	76.31330	9.97116
3809	4.576	76.31180	9.96968	3858	4.364	76.31320	9.97114
3810	4.422	76.31200	9.96969	3859	3.862	76.31310	9.97112
3811	4.137	76.31210	9.96970	3860	3.646	76.31300	9.97110
3812	3.757	76.31220	9.96974	3861	3.485	76.31280	9.97109
3813	3.440	76.31230	9.96977	3862	3.362	76.31270	9.97107
3814	3.215	76.31240	9.96981	3863	3.278	76.31270	9.97116
3815	3.428	76.31140	9.96971	3864	3.200	76.31270	9.97128
3816	3.225	76.31140	9.96983	3865	3.093	76.31260	9.97140
3817	2.912	76.31140	9.96995	3866	2.960	76.31260	9.97152

3818	2.886	76.31140	9.97002	3867	2.798	76.31260	9.97163
3819	3.077	76.31160	9.97006	3868	2.638	76.31260	9.97175
3820	3.232	76.31150	9.96983	3869	2.519	76.31260	9.97187
3821	3.332	76.31160	9.96986	3870	2.454	76.31260	9.97199
3871	2.430	76.31260	9.97211	3920	3.118	76.31300	9.97309
3872	2.431	76.31250	9.97222	3921	3.099	76.31310	9.97310
3873	2.470	76.31250	9.97234	3922	2.909	76.31200	9.97373
3874	2.539	76.31250	9.97245	3923	2.961	76.31210	9.97361
3875	2.636	76.31240	9.97256	3924	3.009	76.31210	9.97350
3876	2.674	76.31240	9.97268	3925	3.029	76.31220	9.97339
3877	2.578	76.31240	9.97279	3926	3.168	76.31230	9.97339
3878	3.669	76.31180	9.97235	3927	3.306	76.31240	9.97341
3879	3.230	76.31190	9.97239	3928	3.397	76.31250	9.97343
3880	2.870	76.31210	9.97242	3929	4.862	76.31170	9.97262
3881	2.680	76.31220	9.97245	3930	4.200	76.31180	9.97266
3882	2.587	76.31230	9.97248	3931	3.456	76.31190	9.97270
3883	2.589	76.31240	9.97251	3932	3.290	76.31190	9.97281
3884	2.982	76.31270	9.97163	3933	3.284	76.31190	9.97293
3885	3.148	76.31290	9.97163	3934	3.266	76.31190	9.97305
3886	3.192	76.31300	9.97164	3935	3.940	76.31300	9.97100
3887	3.119	76.31310	9.97166	3936	3.959	76.31310	9.97088
3888	2.977	76.31320	9.97169	3937	3.837	76.31310	9.97076
3889	2.701	76.31270	9.97183	3938	3.661	76.31310	9.97064
3890	2.793	76.31290	9.97185	3939	3.564	76.31310	9.97052
3891	2.884	76.31300	9.97185	3940	3.579	76.31320	9.97045
3892	2.901	76.31310	9.97186	3941	3.548	76.31330	9.97045
3893	2.912	76.31320	9.97186	3942	4.316	76.31350	9.97018
3894	2.850	76.31320	9.97221	3943	4.350	76.31360	9.97020
3895	2.715	76.31310	9.97223	3944	4.525	76.31380	9.97022
3896	2.563	76.31290	9.97224	3945	4.568	76.31380	9.97031
3897	2.466	76.31280	9.97226	3946	4.555	76.31380	9.97043
3898	2.394	76.31280	9.97236	3947	4.673	76.31380	9.97051
3899	2.510	76.31280	9.97247	3948	4.820	76.31400	9.97054
3900	2.630	76.31280	9.97259	3949	4.896	76.31410	9.97058
3901	2.904	76.31280	9.97271	3950	5.236	76.31420	9.97061
3902	3.292	76.31270	9.97283	3951	5.582	76.31430	9.97065
3903	3.546	76.31270	9.97294	3952	5.067	76.31440	9.97069
3904	3.540	76.31270	9.97306	3953	5.579	76.31450	9.97073
3905	2.659	76.31290	9.97257	3954	5.424	76.31460	9.97077
3906	2.652	76.31300	9.97259	3955	5.122	76.31480	9.97082

3907	2.567	76.31310	9.97261	3956	4.353	76.31510	9.96866
3908	2.479	76.31330	9.97263	3957	4.289	76.31500	9.96878
3909	3.706	76.31250	9.97394	3958	4.063	76.31510	9.96888
3910	3.568	76.31250	9.97382	3959	3.984	76.31520	9.96898
3911	3.405	76.31250	9.97370	3960	3.674	76.31520	9.96909
3912	3.327	76.31250	9.97358	3961	3.427	76.31530	9.96919
3913	3.373	76.31250	9.97346	3962	3.314	76.31530	9.96931
3914	3.488	76.31250	9.97334	3963	3.274	76.31530	9.96942
3915	3.621	76.31250	9.97322	3964	3.164	76.31520	9.96953
3916	3.722	76.31260	9.97310	3965	2.967	76.31520	9.96964
3917	3.579	76.31270	9.97307	3966	2.746	76.31510	9.96975
3918	3.500	76.31280	9.97307	3967	2.594	76.31510	9.96986
3919	3.247	76.31290	9.97308	3968	2.555	76.31500	9.96997
3969	3.147	76.31500	9.97008	4018	5.658	76.31460	9.97142
3970	3.443	76.31500	9.97020	4019	5.601	76.31470	9.97145
3971	3.674	76.31490	9.97031	4020	4.847	76.31480	9.97150
3972	3.996	76.31490	9.97040	4021	2.976	76.31350	9.97277
3973	4.362	76.31480	9.97052	4022	2.677	76.31360	9.97279
3974	4.668	76.31480	9.97063	4023	2.858	76.31370	9.97281
3975	4.890	76.31480	9.97075	4024	2.890	76.31380	9.97284
3976	4.867	76.31480	9.97087	4025	3.388	76.31390	9.97288
3977	4.366	76.31480	9.97099	4026	4.154	76.31400	9.97292
3978	4.049	76.31480	9.97111	4027	4.343	76.31410	9.97296
3979	4.737	76.31480	9.97123	4028	4.291	76.31430	9.97301
3980	4.901	76.31480	9.97135	4029	4.360	76.31440	9.97305
3981	4.860	76.31480	9.97147	4030	4.244	76.31450	9.97308
3982	4.514	76.31480	9.97158	4031	4.144	76.31460	9.97312
3983	4.440	76.31490	9.97169	4032	4.590	76.31470	9.97315
3984	4.265	76.31490	9.97181	4033	4.952	76.31480	9.97319
3985	4.021	76.31490	9.97192	4034	4.681	76.31490	9.97322
3986	3.624	76.31490	9.97204	4035	4.292	76.31510	9.97325
3987	3.331	76.31480	9.97216	4036	3.857	76.31520	9.97326
3988	3.418	76.31480	9.97228	4037	4.950	76.31530	9.97328
3989	4.939	76.31480	9.97239	4038	6.010	76.31540	9.97331
3990	3.627	76.31480	9.97251	4039	6.407	76.31550	9.97335
3991	3.109	76.31480	9.97263	4040	3.171	76.31490	9.97219
3992	3.475	76.31470	9.97275	4041	3.386	76.31510	9.97222
3993	3.811	76.31470	9.97287	4042	3.988	76.31520	9.97224
3994	4.376	76.31470	9.97298	4043	4.371	76.31530	9.97227
3995	4.546	76.31470	9.97310	4044	5.182	76.31540	9.97230

3996	2.954	76.31340	9.97174	4045	7.104	76.31540	9.97318
3997	2.992	76.31360	9.97177	4046	7.987	76.31540	9.97307
3998	3.004	76.31370	9.97180	4047	7.622	76.31550	9.97295
3999	3.907	76.31380	9.97183	4048	6.436	76.31550	9.97283
4000	3.650	76.31390	9.97186	4049	7.816	76.31550	9.97272
4001	3.794	76.31400	9.97189	4050	2.820	76.31490	9.97268
4002	3.806	76.31410	9.97192	4051	4.024	76.31500	9.97271
4003	3.762	76.31430	9.97195	4052	5.438	76.31510	9.97273
4004	3.651	76.31440	9.97198	4053	6.295	76.31520	9.97276
4005	3.768	76.31450	9.97201	4054	7.023	76.31530	9.97279
4006	4.136	76.31460	9.97204	4055	7.084	76.31540	9.97282
4007	4.050	76.31470	9.97207	4056	3.667	76.31390	9.97197
4008	3.521	76.31480	9.97210	4057	3.814	76.31400	9.97207
4009	4.249	76.31350	9.97122	4058	4.047	76.31400	9.97219
4010	4.125	76.31370	9.97124	4059	3.519	76.31400	9.97231
4011	3.924	76.31380	9.97125	4060	3.082	76.31400	9.97242
4012	3.583	76.31390	9.97127	4061	3.099	76.31390	9.97253
4013	3.363	76.31400	9.97128	4062	3.176	76.31390	9.97265
4014	3.232	76.31410	9.97131	4063	2.882	76.31390	9.97276
4015	3.446	76.31420	9.97135	4064	5.570	76.31450	9.97100
4016	4.624	76.31430	9.97139	4065	4.772	76.31460	9.97102
4017	5.617	76.31450	9.97141	4066	3.935	76.31470	9.97104
4067	3.524	76.31490	9.97151	4116	5.222	76.31430	9.97345
4068	3.907	76.31500	9.97156	4117	5.446	76.31430	9.96999
4069	4.038	76.31510	9.97163	4118	5.395	76.31440	9.97002
4070	3.856	76.31510	9.97142	4119	4.571	76.31450	9.97005
4071	3.863	76.31520	9.97151	4120	3.503	76.31470	9.97005
4072	4.011	76.31510	9.97162	4121	3.680	76.31480	9.97008
4073	4.890	76.31380	9.97377	4122	3.876	76.31490	9.97011
4074	5.162	76.31390	9.97378	4123	5.467	76.31420	9.96984
4075	5.401	76.31400	9.97379	4124	5.110	76.31430	9.96975
4076	5.121	76.31420	9.97380	4125	4.635	76.31440	9.96967
4077	4.694	76.31430	9.97381	4126	4.247	76.31450	9.96957
4078	4.302	76.31440	9.97382	4127	4.133	76.31450	9.96946
4079	4.183	76.31450	9.97383	4128	3.983	76.31460	9.96935
4080	4.051	76.31460	9.97384	4129	3.951	76.31460	9.96924
4081	4.014	76.31480	9.97385	4130	4.253	76.31470	9.96913
4082	4.012	76.31490	9.97386	4131	4.533	76.31470	9.96902
4083	4.115	76.31500	9.97387	4132	4.703	76.31480	9.96891
4084	4.666	76.31510	9.97388	4133	4.786	76.31480	9.96881

4085	5.443	76.31520	9.97392	4134	4.743	76.31490	9.96878
4086	6.139	76.31530	9.97396	4135	4.338	76.31500	9.96877
4087	6.442	76.31550	9.97401	4136	2.966	76.31530	9.96970
4088	6.113	76.31560	9.97405	4137	3.003	76.31540	9.96974
4089	4.483	76.31510	9.97377	4138	3.043	76.31550	9.96978
4090	4.118	76.31520	9.97365	4139	3.046	76.31560	9.96984
4091	3.347	76.31520	9.97353	4140	2.920	76.31510	9.97010
4092	3.497	76.31520	9.97342	4141	2.930	76.31520	9.97013
4093	4.234	76.31530	9.97330	4142	2.879	76.31530	9.97016
4094	4.524	76.31440	9.97316	4143	2.855	76.31550	9.97019
4095	4.771	76.31440	9.97328	4144	2.775	76.30900	9.97348
4096	5.122	76.31440	9.97340	4145	2.798	76.30890	9.97360
4097	5.424	76.31440	9.97352	4146	3.102	76.30890	9.97371
4098	5.217	76.31440	9.97364	4147	2.919	76.30890	9.97383
4099	4.607	76.31450	9.97376	4148	3.044	76.30890	9.97394
4100	4.738	76.31360	9.97419	4149	3.127	76.30880	9.97406
4101	5.435	76.31370	9.97407	4150	2.924	76.30880	9.97418
4102	5.401	76.31370	9.97395	4151	2.897	76.30880	9.97430
4103	4.272	76.31370	9.97383	4152	2.906	76.30880	9.97441
4104	5.142	76.31380	9.97364	4153	2.880	76.30870	9.97449
4105	5.232	76.31380	9.97352	4154	2.863	76.30860	9.97459
4106	5.677	76.31370	9.97340	4155	2.897	76.30850	9.97469
4107	5.208	76.31370	9.97328	4156	2.974	76.30850	9.97478
4108	4.680	76.31370	9.97317	4157	3.070	76.30840	9.97488
4109	4.786	76.31380	9.97310	4158	3.014	76.30830	9.97497
4110	4.971	76.31390	9.97311	4159	2.861	76.30830	9.97508
4111	5.276	76.31400	9.97313	4160	2.735	76.30820	9.97519
4112	4.997	76.31410	9.97315	4161	2.762	76.30820	9.97531
4113	5.257	76.31410	9.97327	4162	2.857	76.30820	9.97542
4114	5.292	76.31410	9.97339	4163	2.844	76.30810	9.97552
4115	5.252	76.31420	9.97345	4164	2.987	76.30800	9.97563
4165	3.186	76.30800	9.97574	4214	3.648	76.31040	9.97602
4166	3.718	76.31240	9.97417	4215	3.719	76.31030	9.97613
4167	3.645	76.31240	9.97428	4216	3.796	76.31030	9.97625
4168	3.559	76.31230	9.97438	4217	3.863	76.31020	9.97636
4169	3.434	76.31230	9.97449	4218	3.913	76.31020	9.97647
4170	3.266	76.31220	9.97458	4219	3.946	76.31020	9.97658
4171	3.095	76.31210	9.97466	4220	3.959	76.31010	9.97669
4172	3.144	76.31200	9.97475	4221	3.946	76.31010	9.97681
4173	3.212	76.31190	9.97482	4222	3.916	76.31000	9.97692

4174	3.211	76.31180	9.97487	4223	3.864	76.31000	9.97703
4175	3.447	76.31170	9.97493	4224	3.777	76.31000	9.97715
4176	3.905	76.31160	9.97501	4225	3.679	76.30990	9.97726
4177	3.831	76.31160	9.97511	4226	3.547	76.30990	9.97738
4178	3.428	76.31150	9.97522	4227	3.398	76.30990	9.97749
4179	3.052	76.31150	9.97534	4228	2.604	76.30960	9.97844
4180	3.299	76.31150	9.97546	4229	3.223	76.30950	9.97848
4181	3.340	76.31150	9.97557	4230	3.549	76.30940	9.97851
4182	3.292	76.31150	9.97569	4231	3.075	76.30930	9.97854
4183	3.216	76.31150	9.97581	4232	3.028	76.30920	9.97857
4184	3.124	76.31150	9.97593	4233	3.032	76.30910	9.97860
4185	3.054	76.31150	9.97605	4234	2.814	76.30890	9.97863
4186	3.005	76.31150	9.97617	4235	2.780	76.30880	9.97866
4187	2.983	76.31150	9.97629	4236	2.993	76.30870	9.97869
4188	2.986	76.31150	9.97640	4237	2.859	76.30860	9.97871
4189	3.012	76.31150	9.97652	4238	2.785	76.30850	9.97873
4190	3.058	76.31140	9.97664	4239	2.898	76.30840	9.97875
4191	3.123	76.31140	9.97676	4240	2.981	76.30820	9.97877
4192	3.202	76.31140	9.97688	4241	2.441	76.30810	9.97878
4193	3.286	76.31140	9.97699	4242	2.584	76.30800	9.97880
4194	3.379	76.31140	9.97711	4243	2.778	76.30790	9.97882
4195	3.469	76.31130	9.97723	4244	2.427	76.30780	9.97884
4196	3.537	76.31130	9.97735	4245	2.321	76.30760	9.97886
4197	3.460	76.31130	9.97747	4246	2.324	76.30750	9.97887
4198	3.278	76.31130	9.97759	4247	2.320	76.30740	9.97889
4199	3.048	76.31110	9.97453	4248	2.249	76.30730	9.97891
4200	3.221	76.31100	9.97460	4249	2.158	76.30720	9.97893
4201	3.328	76.31090	9.97466	4250	2.126	76.30710	9.97894
4202	3.361	76.31080	9.97472	4251	2.044	76.30690	9.97896
4203	3.339	76.31070	9.97479	4252	2.079	76.30680	9.97898
4204	3.299	76.31060	9.97486	4253	2.241	76.30670	9.97900
4205	3.328	76.31060	9.97497	4254	2.335	76.30660	9.97902
4206	3.235	76.31060	9.97509	4255	2.347	76.30650	9.97903
4207	3.330	76.31060	9.97521	4256	2.346	76.30640	9.97905
4208	3.325	76.31050	9.97532	4257	2.549	76.30620	9.97907
4209	3.272	76.31050	9.97544	4258	2.708	76.30610	9.97909
4210	3.288	76.31050	9.97555	4259	2.719	76.30600	9.97911
4211	3.393	76.31040	9.97567	4260	2.545	76.30590	9.97912
4212	3.492	76.31040	9.97579	4261	2.377	76.30580	9.97914
4213	3.572	76.31040	9.97590	4262	2.696	76.30560	9.97916

4263	2.754	76.30550	9.97918	4312	1.733	76.30390	9.97303
4264	2.798	76.30540	9.97920	4313	2.098	76.30390	9.97292
4265	3.211	76.30530	9.97921	4314	2.961	76.30390	9.97280
4266	3.163	76.30520	9.97923	4315	3.735	76.30400	9.97269
4267	2.717	76.30510	9.97925	4316	4.543	76.30260	9.97351
4268	2.373	76.30490	9.97927	4317	4.025	76.30270	9.97340
4269	2.463	76.30480	9.97929	4318	4.275	76.30270	9.97328
4270	2.314	76.30470	9.97930	4319	3.901	76.30270	9.97317
4271	2.455	76.30460	9.97932	4320	3.319	76.30280	9.97306
4272	2.628	76.30450	9.97934	4321	3.815	76.30280	9.97294
4273	2.691	76.30430	9.97935	4322	3.675	76.30280	9.97283
4274	2.818	76.30420	9.97937	4323	3.320	76.30290	9.97272
4275	2.858	76.30410	9.97939	4324	3.871	76.30290	9.97260
4276	2.795	76.30400	9.97941	4325	3.858	76.30300	9.97256
4277	2.943	76.30390	9.97942	4326	3.430	76.30310	9.97261
4278	2.212	76.30240	9.97419	4327	3.266	76.30320	9.97266
4279	1.731	76.30250	9.97422	4328	3.212	76.30330	9.97271
4280	1.994	76.30260	9.97425	4329	3.045	76.30340	9.97275
4281	2.404	76.30270	9.97429	4330	2.870	76.30350	9.97280
4282	2.784	76.30280	9.97432	4331	2.583	76.30360	9.97285
4283	2.478	76.30290	9.97435	4332	2.391	76.30380	9.97287
4284	2.291	76.30310	9.97439	4333	2.201	76.30390	9.97289
4285	2.294	76.30320	9.97442	4334	2.709	76.30320	9.97330
4286	2.417	76.30330	9.97446	4335	2.560	76.30330	9.97319
4287	2.693	76.30340	9.97449	4336	2.700	76.30330	9.97308
4288	2.670	76.30350	9.97452	4337	2.823	76.30330	9.97296
4289	2.682	76.30360	9.97456	4338	2.958	76.30340	9.97285
4290	2.736	76.30370	9.97459	4339	4.147	76.30280	9.97330
4291	3.454	76.30200	9.97347	4340	3.883	76.30290	9.97334
4292	3.456	76.30210	9.97350	4341	3.517	76.30300	9.97337
4293	3.992	76.30230	9.97353	4342	3.084	76.30320	9.97341
4294	4.259	76.30240	9.97357	4343	4.197	76.30270	9.97356
4295	4.494	76.30250	9.97360	4344	4.080	76.30280	9.97359
4296	4.491	76.30260	9.97363	4345	3.967	76.30300	9.97363
4297	4.385	76.30270	9.97366	4346	3.395	76.30310	9.97366
4298	4.327	76.30280	9.97369	4347	3.626	76.30290	9.97305
4299	4.041	76.30290	9.97372	4348	3.487	76.30300	9.97309
4300	3.508	76.30310	9.97375	4349	3.012	76.30310	9.97313
4301	2.899	76.30320	9.97379	4350	2.621	76.30320	9.97317
4302	2.537	76.30330	9.97382	4351	3.296	76.30320	9.97276

4303	2.468	76.30340	9.97385	4352	3.105	76.30310	9.97288
4304	2.483	76.30350	9.97388	4353	3.313	76.30310	9.97299
4305	2.242	76.30360	9.97382	4354	2.268	76.30340	9.97321
4306	1.990	76.30360	9.97371	4355	2.000	76.30350	9.97325
4307	2.277	76.30370	9.97359	4356	1.939	76.30360	9.97328
4308	2.088	76.30370	9.97348	4357	1.851	76.30370	9.97332
4309	1.825	76.30370	9.97337	4358	1.984	76.30350	9.97313
4310	1.577	76.30380	9.97326	4359	2.100	76.30360	9.97302
4311	1.617	76.30380	9.97314	4360	2.412	76.30360	9.97291
4361	3.388	76.30150	9.97290	4410	2.987	76.30280	9.97543
4362	3.411	76.30150	9.97279	4411	3.185	76.30280	9.97555
4363	3.217	76.30160	9.97267	4412	3.775	76.30280	9.97572
4364	3.052	76.30160	9.97256	4413	4.220	76.30280	9.97583
4365	2.874	76.30170	9.97246	4414	4.354	76.30270	9.97595
4366	2.855	76.30180	9.97246	4415	4.475	76.30270	9.97606
4367	2.837	76.30190	9.97248	4416	4.176	76.30260	9.97617
4368	2.808	76.30200	9.97252	4417	3.970	76.30260	9.97628
4369	2.791	76.30210	9.97257	4418	3.311	76.30040	9.97513
4370	2.754	76.30220	9.97261	4419	4.740	76.30050	9.97518
4371	2.669	76.30230	9.97265	4420	5.232	76.30060	9.97523
4372	2.663	76.30240	9.97270	4421	5.096	76.30070	9.97528
4373	3.256	76.30260	9.97274	4422	4.901	76.30080	9.97533
4374	3.994	76.30270	9.97278	4423	4.583	76.30090	9.97537
4375	4.075	76.30280	9.97282	4424	4.086	76.30110	9.97542
4376	2.680	76.30250	9.97260	4425	3.990	76.30120	9.97547
4377	2.772	76.30260	9.97249	4426	4.005	76.30130	9.97554
4378	3.021	76.30260	9.97238	4427	3.668	76.30120	9.97564
4379	2.882	76.30270	9.97227	4428	3.388	76.30110	9.97575
4380	2.856	76.30270	9.97217	4429	3.639	76.30110	9.97586
4381	1.772	76.30240	9.97432	4430	3.763	76.30100	9.97596
4382	1.878	76.30240	9.97444	4431	3.460	76.30100	9.97607
4383	1.993	76.30230	9.97455	4432	3.080	76.30090	9.97618
4384	2.375	76.30230	9.97466	4433	2.780	76.30090	9.97629
4385	2.962	76.30230	9.97478	4434	2.478	76.30090	9.97641
4386	3.114	76.30220	9.97489	4435	2.348	76.30080	9.97652
4387	2.907	76.30220	9.97500	4436	2.814	76.30080	9.97663
4388	2.825	76.30210	9.97511	4437	3.549	76.30080	9.97675
4389	2.806	76.30210	9.97523	4438	3.833	76.30070	9.97686
4390	2.787	76.30210	9.97534	4439	4.035	76.30070	9.97697
4391	2.823	76.30220	9.97538	4440	4.302	76.30060	9.97709

4392	2.583	76.30230	9.97542	4441	4.809	76.30050	9.97474
4393	2.853	76.30240	9.97546	4442	5.284	76.30060	9.97472
4394	3.035	76.30250	9.97550	4443	4.503	76.30070	9.97466
4395	3.198	76.30260	9.97554	4444	3.814	76.30080	9.97460
4396	3.099	76.30270	9.97558	4445	3.715	76.30090	9.97454
4397	3.046	76.30290	9.97562	4446	3.489	76.30100	9.97448
4398	3.167	76.30300	9.97566	4447	3.265	76.30120	9.97442
4399	3.137	76.30310	9.97570	4448	3.226	76.30120	9.97438
4400	3.206	76.30320	9.97574	4449	3.182	76.30130	9.97449
4401	3.609	76.30330	9.97578	4450	3.022	76.30140	9.97459
4402	1.877	76.30310	9.97452	4451	2.895	76.30140	9.97470
4403	2.331	76.30310	9.97464	4452	3.167	76.30130	9.97481
4404	2.913	76.30300	9.97475	4453	3.911	76.30130	9.97492
4405	3.120	76.30300	9.97486	4454	4.697	76.30120	9.97503
4406	2.461	76.30290	9.97498	4455	5.264	76.30120	9.97514
4407	2.274	76.30290	9.97509	4456	4.597	76.30110	9.97525
4408	2.410	76.30290	9.97521	4457	4.104	76.30110	9.97536
4409	2.606	76.30280	9.97532	4458	3.577	76.30060	9.97444
4459	3.983	76.30070	9.97448	4508	2.464	76.29900	9.97782
4460	3.859	76.30080	9.97456	4509	2.620	76.29900	9.97770
4461	3.224	76.30110	9.97614	4510	3.281	76.29900	9.97758
4462	3.087	76.30120	9.97618	4511	3.668	76.29900	9.97746
4463	2.933	76.30130	9.97621	4512	4.078	76.29900	9.97734
4464	2.845	76.30140	9.97625	4513	3.687	76.29900	9.97723
4465	2.827	76.30150	9.97629	4514	3.102	76.29910	9.97712
4466	2.555	76.30170	9.97632	4515	2.743	76.29920	9.97702
4467	2.722	76.30180	9.97636	4516	3.134	76.29920	9.97693
4468	2.821	76.30190	9.97640	4517	2.614	76.29930	9.97686
4469	2.770	76.30200	9.97643	4518	2.056	76.29940	9.97683
4470	2.848	76.30210	9.97647	4519	2.349	76.29960	9.97685
4471	2.562	76.30220	9.97650	4520	2.499	76.29970	9.97688
4472	2.609	76.30230	9.97654	4521	2.667	76.29980	9.97690
4473	2.982	76.30240	9.97657	4522	2.759	76.29990	9.97693
4474	3.605	76.30260	9.97661	4523	2.920	76.30000	9.97698
4475	4.296	76.30270	9.97664	4524	3.252	76.30000	9.97709
4476	4.585	76.30280	9.97668	4525	3.653	76.29990	9.97721
4477	4.113	76.30290	9.97671	4526	3.788	76.29990	9.97732
4478	2.982	76.30300	9.97674	4527	3.753	76.29990	9.97744
4479	2.685	76.30310	9.97676	4528	3.731	76.29990	9.97755
4480	2.788	76.30330	9.97678	4529	3.447	76.29980	9.97767

4481	4.421	76.30080	9.97704	4530	3.135	76.29980	9.97778
4482	4.592	76.30090	9.97707	4531	2.867	76.29980	9.97790
4483	5.261	76.30100	9.97711	4532	3.875	76.30120	9.97728
4484	3.848	76.30110	9.97714	4533	4.784	76.30110	9.97739
4485	3.183	76.30120	9.97717	4534	3.816	76.30110	9.97751
4486	3.418	76.30140	9.97721	4535	3.011	76.30110	9.97763
4487	3.431	76.30150	9.97724	4536	2.877	76.30110	9.97774
4488	3.272	76.30160	9.97727	4537	3.476	76.30100	9.97786
4489	2.991	76.30170	9.97731	4538	3.751	76.30000	9.97745
4490	2.811	76.30180	9.97734	4539	3.804	76.30010	9.97747
4491	2.700	76.30190	9.97737	4540	3.856	76.30020	9.97750
4492	2.625	76.30200	9.97728	4541	3.853	76.30040	9.97752
4493	2.647	76.30200	9.97717	4542	3.950	76.30050	9.97754
4494	2.649	76.30210	9.97705	4543	2.432	76.30190	9.97066
4495	2.131	76.30210	9.97694	4544	2.644	76.30190	9.97055
4496	2.338	76.30100	9.97652	4545	2.687	76.30190	9.97044
4497	2.395	76.30110	9.97655	4546	2.598	76.30200	9.97032
4498	2.509	76.30120	9.97659	4547	2.553	76.30210	9.97033
4499	2.757	76.30130	9.97662	4548	2.455	76.30220	9.97036
4500	2.509	76.30140	9.97666	4549	2.256	76.30230	9.97040
4501	2.340	76.30150	9.97669	4550	2.116	76.30240	9.97043
4502	2.352	76.30160	9.97673	4551	2.167	76.30250	9.97046
4503	2.351	76.30180	9.97676	4552	2.349	76.30270	9.97050
4504	2.312	76.30190	9.97680	4553	2.308	76.30080	9.97022
4505	2.452	76.30200	9.97684	4554	1.978	76.30090	9.97025
4506	2.305	76.30210	9.97687	4555	1.814	76.30100	9.97028
4507	2.496	76.29890	9.97793	4556	2.532	76.30120	9.97031
4557	3.006	76.30130	9.97034	4606	2.699	76.30470	9.96862
4558	2.549	76.30140	9.97037	4607	2.753	76.30470	9.96873
4559	2.072	76.30150	9.97040	4608	2.610	76.30460	9.96884
4560	4.813	76.30070	9.97094	4609	2.343	76.30460	9.96895
4561	3.972	76.30080	9.97098	4610	2.353	76.30460	9.96906
4562	3.331	76.30090	9.97102	4611	2.428	76.30450	9.96917
4563	2.886	76.30100	9.97106	4612	2.606	76.30450	9.96927
4564	2.804	76.30120	9.97110	4613	2.739	76.30440	9.96938
4565	2.943	76.30130	9.97114	4614	2.712	76.30440	9.96949
4566	2.631	76.30200	9.97137	4615	2.314	76.30430	9.96960
4567	2.537	76.30210	9.97142	4616	2.504	76.30420	9.96971
4568	2.384	76.30220	9.97147	4617	2.725	76.30420	9.96982
4569	2.328	76.30230	9.97151	4618	2.748	76.30410	9.96992

4570	2.549	76.30220	9.97079	4619	2.591	76.30410	9.97003
4571	2.533	76.30230	9.97084	4620	2.048	76.30400	9.97014
4572	2.520	76.30240	9.97089	4621	3.825	76.30370	9.96865
4573	2.510	76.30250	9.97094	4622	3.646	76.30380	9.96868
4574	4.617	76.30250	9.96785	4623	3.391	76.30390	9.96870
4575	2.811	76.30250	9.96797	4624	3.154	76.30400	9.96872
4576	2.983	76.30250	9.96809	4625	2.911	76.30420	9.96875
4577	3.079	76.30250	9.96821	4626	2.721	76.30430	9.96877
4578	3.136	76.30250	9.96833	4627	2.629	76.30440	9.96879
4579	3.541	76.30250	9.96845	4628	2.594	76.30450	9.96882
4580	3.099	76.30250	9.96857	4629	2.594	76.30460	9.96884
4581	2.547	76.30250	9.96869	4630	3.171	76.30410	9.96795
4582	1.817	76.30250	9.96880	4631	3.360	76.30410	9.96807
4583	2.517	76.30240	9.96892	4632	3.296	76.30410	9.96819
4584	3.118	76.30240	9.96904	4633	3.139	76.30410	9.96831
4585	3.174	76.30240	9.96915	4634	3.048	76.30410	9.96843
4586	2.917	76.30240	9.96927	4635	3.065	76.30410	9.96855
4587	2.665	76.30230	9.96939	4636	3.147	76.30410	9.96867
4588	2.569	76.30230	9.96951	4637	4.725	76.30310	9.96841
4589	2.417	76.30230	9.96962	4638	4.869	76.30310	9.96829
4590	1.961	76.30230	9.96974	4639	4.611	76.30320	9.96817
4591	3.310	76.30250	9.96907	4640	4.094	76.30320	9.96805
4592	3.762	76.30260	9.96910	4641	3.627	76.30320	9.96794
4593	3.951	76.30270	9.96914	4642	3.659	76.30320	9.96782
4594	4.031	76.30290	9.96918	4643	3.503	76.30330	9.96813
4595	3.776	76.30300	9.96920	4644	2.877	76.30340	9.96813
4596	2.689	76.30310	9.96922	4645	3.038	76.30350	9.96815
4597	2.879	76.30320	9.96925	4646	3.287	76.30360	9.96823
4598	2.751	76.30330	9.96927	4647	3.291	76.30370	9.96825
4599	2.722	76.30350	9.96929	4648	3.197	76.30380	9.96825
4600	2.715	76.30360	9.96932	4649	3.180	76.30400	9.96826
4601	2.666	76.30370	9.96934	4650	4.126	76.30290	9.96788
4602	2.542	76.30380	9.96937	4651	3.999	76.30290	9.96800
4603	2.175	76.30490	9.96830	4652	3.925	76.30290	9.96812
4604	2.454	76.30480	9.96841	4653	3.726	76.30290	9.96824
4605	2.772	76.30480	9.96851	4654	3.718	76.30290	9.96836
4655	3.840	76.30290	9.96848	4704	4.092	76.30040	9.96972
4656	4.044	76.30290	9.96860	4705	3.508	76.29480	9.97558
4657	4.417	76.30280	9.96871	4706	2.667	76.29470	9.97569
4658	4.161	76.30280	9.96883	4707	2.558	76.29470	9.97581

4659	3.870	76.30280	9.96895	4708	2.843	76.29470	9.97592
4660	4.076	76.30280	9.96907	4709	3.060	76.29470	9.97604
4661	2.514	76.30260	9.96879	4710	3.058	76.29460	9.97616
4662	3.229	76.30270	9.96880	4711	2.971	76.29460	9.97627
4663	4.231	76.30280	9.96881	4712	2.932	76.29460	9.97639
4664	3.790	76.30100	9.96927	4713	3.034	76.29450	9.97650
4665	3.664	76.30110	9.96932	4714	2.938	76.29450	9.97662
4666	3.226	76.30120	9.96938	4715	2.633	76.29450	9.97674
4667	2.782	76.30130	9.96942	4716	2.585	76.29450	9.97685
4668	2.569	76.30150	9.96945	4717	2.486	76.29440	9.97697
4669	2.502	76.30160	9.96949	4718	2.304	76.29440	9.97708
4670	3.842	76.30110	9.96895	4719	2.066	76.29440	9.97720
4671	3.726	76.30120	9.96897	4720	1.873	76.29430	9.97731
4672	3.486	76.30130	9.96902	4721	1.975	76.29430	9.97743
4673	3.118	76.30140	9.96905	4722	3.887	76.29310	9.97642
4674	2.807	76.30160	9.96909	4723	5.377	76.29310	9.97631
4675	2.722	76.30170	9.96913	4724	5.774	76.29320	9.97620
4676	2.549	76.30170	9.96925	4725	4.355	76.29320	9.97609
4677	5.289	76.30010	9.96934	4726	3.439	76.29330	9.97598
4678	5.118	76.30020	9.96937	4727	2.755	76.29330	9.97587
4679	4.805	76.30030	9.96939	4728	2.295	76.29340	9.97577
4680	4.482	76.30040	9.96942	4729	2.598	76.29340	9.97566
4681	4.273	76.30050	9.96945	4730	3.549	76.29350	9.97555
4682	4.227	76.30070	9.96948	4731	3.049	76.29350	9.97544
4683	4.233	76.30080	9.96950	4732	2.906	76.29360	9.97533
4684	3.360	76.30020	9.96870	4733	3.063	76.29360	9.97522
4685	3.423	76.30030	9.96872	4734	3.244	76.29370	9.97511
4686	3.521	76.30040	9.96875	4735	3.118	76.29370	9.97501
4687	3.705	76.30050	9.96884	4736	3.040	76.29380	9.97490
4688	3.939	76.30040	9.96895	4737	2.941	76.29380	9.97479
4689	4.204	76.30040	9.96907	4738	2.765	76.29390	9.97468
4690	4.297	76.30050	9.96913	4739	2.356	76.29390	9.97458
4691	4.360	76.30060	9.96917	4740	2.264	76.29400	9.97447
4692	4.441	76.30070	9.96921	4741	2.395	76.29400	9.97436
4693	4.333	76.30080	9.96924	4742	2.407	76.29410	9.97425
4694	3.914	76.30020	9.96891	4743	2.470	76.29410	9.97414
4695	3.879	76.30030	9.96893	4744	2.847	76.29420	9.97404
4696	3.906	76.30040	9.96894	4745	3.151	76.29430	9.97393
4697	2.948	76.30030	9.96824	4746	3.416	76.29430	9.97382
4698	2.831	76.30040	9.96826	4747	3.637	76.29440	9.97371

4699	2.887	76.30050	9.96828	4748	3.693	76.29440	9.97361
4700	3.142	76.30060	9.96830	4749	3.628	76.29450	9.97350
4701	4.993	76.30000	9.96967	4750	3.355	76.29450	9.97339
4702	4.896	76.30010	9.96969	4751	3.403	76.29460	9.97328
4703	4.539	76.30020	9.96970	4752	3.394	76.29460	9.97318
4753	3.487	76.29470	9.97307	4802	2.485	76.29550	9.96964
4754	3.968	76.29470	9.97296	4803	3.326	76.29530	9.96964
4755	4.930	76.29480	9.97285	4804	3.684	76.29520	9.96970
4756	6.205	76.29480	9.97275	4805	4.715	76.29510	9.96976
4757	7.760	76.29490	9.97264	4806	4.162	76.29510	9.96986
4758	9.001	76.29490	9.97253	4807	3.026	76.29500	9.96996
4759	10.221	76.29500	9.97242	4808	2.797	76.29490	9.97006
4760	11.105	76.29500	9.97232	4809	2.772	76.29490	9.97016
4761	11.954	76.29510	9.97221	4810	2.854	76.29480	9.97026
4762	12.073	76.29510	9.97210	4811	2.747	76.29470	9.97036
4763	12.221	76.29520	9.97199	4812	3.089	76.29470	9.97045
4764	12.224	76.29520	9.97189	4813	3.162	76.29460	9.97056
4765	11.590	76.29530	9.97178	4814	3.134	76.29450	9.97066
4766	10.410	76.29530	9.97167	4815	2.914	76.29450	9.97076
4767	8.069	76.29540	9.97156	4816	2.316	76.29440	9.97086
4768	4.957	76.29540	9.97146	4817	2.512	76.29430	9.97095
4769	3.314	76.29550	9.97135	4818	2.363	76.29420	9.97103
4770	2.945	76.29560	9.97124	4819	2.018	76.29420	9.97111
4771	2.898	76.29560	9.97113	4820	1.862	76.29410	9.97118
4772	2.713	76.29570	9.97103	4821	1.922	76.29400	9.97122
4773	2.499	76.29570	9.97092	4822	2.070	76.29380	9.97126
4774	2.377	76.29580	9.97081	4823	9.127	76.29510	9.97245
4775	2.341	76.29580	9.97070	4824	7.933	76.29520	9.97250
4776	2.318	76.29590	9.97060	4825	6.981	76.29530	9.97254
4777	2.334	76.29590	9.97049	4826	6.138	76.29540	9.97259
4778	2.387	76.29600	9.97038	4827	5.542	76.29550	9.97263
4779	2.502	76.29600	9.97027	4828	5.104	76.29570	9.97268
4780	2.744	76.29610	9.97017	4829	4.931	76.29580	9.97272
4781	3.206	76.29610	9.97006	4830	5.074	76.29590	9.97276
4782	3.909	76.29620	9.96995	4831	5.901	76.29600	9.97281
4783	3.160	76.29750	9.97054	4832	5.807	76.29610	9.97285
4784	2.488	76.29740	9.97049	4833	5.067	76.29620	9.97290
4785	2.884	76.29730	9.97044	4834	4.402	76.29630	9.97294
4786	4.964	76.29720	9.97039	4835	3.885	76.29640	9.97299
4787	5.225	76.29710	9.97034	4836	3.387	76.29650	9.97303

4788	4.042	76.29700	9.97029	4837	2.975	76.29670	9.97308
4789	3.427	76.29690	9.97024	4838	3.379	76.29550	9.97159
4790	3.237	76.29680	9.97019	4839	2.453	76.29560	9.97164
4791	3.416	76.29670	9.97014	4840	2.299	76.29570	9.97169
4792	2.995	76.29660	9.97009	4841	2.484	76.29580	9.97174
4793	2.962	76.29640	9.97004	4842	2.826	76.29600	9.97178
4794	3.534	76.29630	9.96999	4843	3.095	76.29610	9.97183
4795	4.315	76.29620	9.96994	4844	3.175	76.29620	9.97188
4796	3.083	76.29610	9.96989	4845	3.150	76.29630	9.97193
4797	2.053	76.29600	9.96984	4846	3.658	76.29640	9.97198
4798	2.100	76.29590	9.96979	4847	4.022	76.29650	9.97203
4799	1.957	76.29580	9.96974	4848	3.947	76.29660	9.97208
4800	2.354	76.29570	9.96969	4849	3.738	76.29670	9.97212
4801	2.310	76.29560	9.96965	4850	3.406	76.29680	9.97217
4851	2.966	76.29690	9.97222	4900	2.571	76.29590	9.97393
4852	3.583	76.29580	9.97185	4901	3.013	76.29480	9.97338
4853	4.596	76.29570	9.97195	4902	3.080	76.29490	9.97326
4854	5.478	76.29570	9.97206	4903	3.292	76.29490	9.97315
4855	6.087	76.29560	9.97217	4904	3.754	76.29500	9.97304
4856	6.462	76.29560	9.97228	4905	4.552	76.29500	9.97293
4857	6.544	76.29550	9.97238	4906	2.880	76.29500	9.97324
4858	6.385	76.29550	9.97249	4907	2.693	76.29510	9.97328
4859	5.045	76.29590	9.97263	4908	2.625	76.29520	9.97332
4860	4.941	76.29590	9.97252	4909	2.675	76.29540	9.97336
4861	4.838	76.29590	9.97241	4910	2.626	76.29550	9.97341
4862	4.785	76.29600	9.97230	4911	2.703	76.29560	9.97345
4863	4.648	76.29600	9.97219	4912	2.847	76.29570	9.97349
4864	4.254	76.29610	9.97208	4913	3.051	76.29580	9.97353
4865	3.672	76.29610	9.97197	4914	3.329	76.29590	9.97358
4866	3.400	76.29460	9.97342	4915	3.182	76.29640	9.97373
4867	3.212	76.29470	9.97346	4916	3.057	76.29650	9.97380
4868	2.916	76.29490	9.97351	4917	3.176	76.29660	9.97386
4869	2.600	76.29500	9.97356	4918	3.439	76.29670	9.97393
4870	2.411	76.29510	9.97360	4919	3.719	76.29690	9.97399
4871	2.384	76.29520	9.97365	4920	3.891	76.29700	9.97404
4872	2.509	76.29530	9.97369	4921	3.879	76.29710	9.97409
4873	2.764	76.29540	9.97374	4922	3.834	76.29720	9.97414
4874	2.850	76.29550	9.97379	4923	3.794	76.29730	9.97417
4875	2.752	76.29560	9.97383	4924	3.745	76.29740	9.97421
4876	2.641	76.29570	9.97388	4925	3.686	76.29750	9.97423

4877	2.583	76.29580	9.97392	4926	3.639	76.29760	9.97426
4878	2.525	76.29600	9.97397	4927	3.239	76.29780	9.97428
4879	2.469	76.29610	9.97402	4928	2.875	76.29680	9.97311
4880	6.165	76.29490	9.97279	4929	3.449	76.29690	9.97315
4881	5.491	76.29500	9.97283	4930	4.140	76.29700	9.97319
4882	4.835	76.29520	9.97287	4931	4.703	76.29710	9.97323
4883	4.211	76.29530	9.97292	4932	4.597	76.29720	9.97327
4884	3.834	76.29540	9.97296	4933	4.449	76.29730	9.97331
4885	3.344	76.29550	9.97301	4934	4.681	76.29740	9.97335
4886	3.030	76.29560	9.97305	4935	4.639	76.29760	9.97337
4887	3.072	76.29570	9.97310	4936	4.320	76.29770	9.97338
4888	4.006	76.29580	9.97314	4937	3.773	76.29780	9.97338
4889	4.547	76.29590	9.97319	4938	3.050	76.29790	9.97339
4890	4.477	76.29600	9.97323	4939	4.601	76.29740	9.97346
4891	4.103	76.29620	9.97328	4940	4.493	76.29740	9.97358
4892	3.556	76.29630	9.97332	4941	4.447	76.29730	9.97369
4893	2.967	76.29640	9.97337	4942	4.323	76.29730	9.97380
4894	2.825	76.29650	9.97341	4943	4.153	76.29730	9.97391
4895	4.212	76.29610	9.97339	4944	4.010	76.29720	9.97402
4896	3.971	76.29610	9.97350	4945	4.492	76.29720	9.97384
4897	3.364	76.29600	9.97361	4946	4.676	76.29700	9.97381
4898	2.933	76.29600	9.97371	4947	4.530	76.29700	9.97370
4899	2.692	76.29590	9.97382	4948	4.215	76.29710	9.97361
4949	4.368	76.29720	9.97352	4998	4.390	76.29610	9.98039
4950	4.701	76.29720	9.97342	4999	2.725	76.29850	9.97087
4951	4.421	76.29730	9.97332	5000	3.107	76.29870	9.97089
4952	2.901	76.29660	9.97420	5001	3.408	76.29880	9.97090
4953	3.109	76.29670	9.97410	5002	3.282	76.29890	9.97092
4954	3.376	76.29680	9.97401	5003	3.061	76.29900	9.97094
4955	3.226	76.29340	9.97379	5004	2.842	76.29910	9.97097
4956	2.613	76.29350	9.97384	5005	2.987	76.29930	9.97100
4957	2.640	76.29360	9.97389	5006	2.799	76.29940	9.97105
4958	2.945	76.29510	9.97918	5007	2.619	76.29950	9.97112
4959	2.938	76.29520	9.97921	5008	2.936	76.29950	9.97120
4960	2.817	76.29530	9.97923	5009	3.123	76.29970	9.97123
4961	2.545	76.29540	9.97926	5010	3.159	76.29980	9.97125
4962	2.648	76.29550	9.97929	5011	3.174	76.29990	9.97127
4963	2.864	76.29570	9.97932	5012	3.202	76.30000	9.97128
4964	3.096	76.29580	9.97935	5013	3.309	76.30010	9.97129
4965	3.707	76.29590	9.97937	5014	3.350	76.30030	9.97130

4966	4.302	76.29600	9.97940	5015	3.196	76.30040	9.97132
4967	4.544	76.29610	9.97943	5016	2.922	76.30050	9.97133
4968	4.467	76.29620	9.97946	5017	3.219	76.30060	9.97136
4969	4.405	76.29640	9.97949	5018	3.346	76.30070	9.97140
4970	3.154	76.29580	9.97803	5019	3.242	76.30080	9.97143
4971	3.140	76.29580	9.97815	5020	2.726	76.30090	9.97147
4972	2.947	76.29580	9.97826	5021	2.441	76.30110	9.97151
4973	2.960	76.29580	9.97838	5022	2.446	76.30120	9.97155
4974	2.764	76.29570	9.97850	5023	2.495	76.30130	9.97159
4975	2.950	76.29570	9.97861	5024	2.313	76.30140	9.97163
4976	2.941	76.29570	9.97873	5025	2.410	76.30150	9.97168
4977	2.843	76.29570	9.97885	5026	2.482	76.30160	9.97172
4978	2.833	76.29580	9.97891	5027	2.495	76.30170	9.97176
4979	2.970	76.29590	9.97893	5028	2.424	76.30180	9.97180
4980	3.162	76.29600	9.97896	5029	2.590	76.30200	9.97185
4981	3.500	76.29610	9.97898	5030	3.032	76.30210	9.97189
4982	3.962	76.29620	9.97901	5031	3.158	76.30220	9.97193
4983	4.567	76.29640	9.97903	5032	3.378	76.30230	9.97198
4984	3.718	76.29510	9.97782	5033	3.565	76.30240	9.97202
4985	3.774	76.29510	9.97794	5034	3.446	76.30250	9.97206
4986	3.661	76.29500	9.97805	5035	2.574	76.30260	9.97211
4987	3.346	76.29500	9.97817	5036	2.844	76.30270	9.97215
4988	3.570	76.29500	9.97829	5037	3.818	76.30280	9.97219
4989	3.716	76.29490	9.97840	5038	4.483	76.30300	9.97223
4990	2.715	76.29460	9.97848	5039	4.065	76.30310	9.97228
4991	2.566	76.29460	9.97860	5040	4.133	76.30320	9.97232
4992	3.363	76.29460	9.97871	5041	3.896	76.30330	9.97236
4993	3.872	76.29460	9.97883	5042	4.287	76.30340	9.97240
4994	3.426	76.29450	9.97895	5043	3.554	76.30350	9.97244
4995	3.282	76.29470	9.97921	5044	3.211	76.30360	9.97248
4996	3.620	76.29470	9.97933	5045	3.344	76.30370	9.97253
4997	4.145	76.29470	9.97944	5046	3.337	76.30390	9.97256
5047	3.209	76.30400	9.97259	5096	2.575	76.30950	9.97353
5048	2.952	76.30410	9.97257	5097	2.524	76.30960	9.97357
5049	2.909	76.30420	9.97248	5098	2.137	76.30970	9.97361
5050	3.084	76.30420	9.97238	5099	2.401	76.30990	9.97364
5051	3.167	76.30430	9.97230	5100	2.564	76.31000	9.97365
5052	3.193	76.30440	9.97226	5101	2.250	76.31010	9.97364
5053	3.234	76.30450	9.97229	5102	2.361	76.31020	9.97357
5054	3.272	76.30470	9.97232	5103	3.057	76.31030	9.97348

5055	3.479	76.30480	9.97236	5104	2.685	76.31040	9.97339
5056	3.050	76.30490	9.97239	5105	2.361	76.31050	9.97334
5057	3.087	76.30500	9.97242	5106	2.406	76.31060	9.97334
5058	2.728	76.30510	9.97244	5107	2.696	76.31070	9.97336
5059	2.388	76.30520	9.97246	5108	2.971	76.31080	9.97338
5060	2.195	76.30540	9.97247	5109	3.107	76.31090	9.97341
5061	2.062	76.30550	9.97249	5110	3.341	76.31100	9.97345
5062	2.315	76.30560	9.97251	5111	3.308	76.31120	9.97348
5063	1.906	76.30570	9.97253	5112	3.268	76.31130	9.97351
5064	1.995	76.30580	9.97255	5113	3.340	76.31140	9.97355
5065	1.811	76.30590	9.97257	5114	3.238	76.31150	9.97360
5066	2.050	76.30610	9.97259	5115	3.193	76.31160	9.97365
5067	2.585	76.30620	9.97261	5116	3.052	76.31170	9.97370
5068	2.162	76.30630	9.97263	5117	2.909	76.31180	9.97375
5069	2.327	76.30640	9.97265	5118	2.855	76.31190	9.97380
5070	2.419	76.30650	9.97267	5119	2.898	76.31200	9.97385
5071	2.267	76.30670	9.97269	5120	3.060	76.31210	9.97390
5072	2.267	76.30680	9.97272	5121	3.309	76.31230	9.97395
5073	2.324	76.30690	9.97274	5122	3.555	76.31240	9.97400
5074	2.192	76.30700	9.97276	5123	3.749	76.31250	9.97406
5075	2.280	76.30710	9.97278	5124	3.801	76.31260	9.97410
5076	2.419	76.30720	9.97281	5125	3.809	76.31270	9.97413
5077	2.567	76.30740	9.97284	5126	3.941	76.31280	9.97415
5078	2.103	76.30750	9.97288	5127	3.896	76.31290	9.97418
5079	1.782	76.30760	9.97292	5128	4.014	76.31300	9.97420
5080	2.244	76.30770	9.97295	5129	4.078	76.31320	9.97423
5081	2.621	76.30780	9.97299	5130	3.829	76.31330	9.97425
5082	2.126	76.30790	9.97303	5131	3.740	76.31340	9.97427
5083	1.834	76.30800	9.97307	5132	3.741	76.31350	9.97429
5084	1.833	76.30820	9.97311	5133	3.512	76.31360	9.97431
5085	1.964	76.30830	9.97314	5134	3.514	76.31380	9.97432
5086	2.061	76.30840	9.97318	5135	3.784	76.31390	9.97434
5087	2.313	76.30850	9.97321	5136	3.854	76.31400	9.97436
5088	2.516	76.30860	9.97325	5137	3.836	76.31410	9.97438
5089	2.974	76.30870	9.97328	5138	3.647	76.31420	9.97439
5090	2.869	76.30880	9.97332	5139	3.665	76.31430	9.97441
5091	2.677	76.30900	9.97335	5140	3.621	76.31450	9.97443
5092	2.602	76.30910	9.97339	5141	4.149	76.31460	9.97444
5093	2.511	76.30920	9.97342	5142	4.025	76.31470	9.97446
5094	2.388	76.30930	9.97346	5143	3.686	76.31480	9.97447

5095	2.306	76.30940	9.97350	5144	3.924	76.31490	9.97449
5145	4.058	76.31510	9.97451	5194	2.962	76.30110	9.97785
5146	4.260	76.31520	9.97457	5195	3.670	76.30100	9.97787
5147	4.555	76.31530	9.97464	5196	3.674	76.30090	9.97789
5148	5.057	76.31540	9.97470	5197	3.670	76.30080	9.97790
5149	7.498	76.31560	9.97454	5198	3.446	76.30060	9.97791
5150	5.981	76.31550	9.97465	5199	3.629	76.30050	9.97792
5151	5.348	76.31550	9.97475	5200	3.661	76.30040	9.97793
5152	5.019	76.31540	9.97485	5201	3.309	76.30000	9.96737
5153	4.940	76.31530	9.97495	5202	3.507	76.30010	9.96742
5154	5.229	76.31530	9.97506	5203	3.536	76.30030	9.96746
5155	5.578	76.31520	9.97516	5204	3.517	76.30040	9.96749
5156	5.531	76.31520	9.97527	5205	3.495	76.30050	9.96753
5157	5.114	76.31510	9.97537	5206	3.512	76.30060	9.96755
5158	4.688	76.31500	9.97547	5207	3.765	76.30070	9.96758
5159	4.249	76.31500	9.97558	5208	4.050	76.30080	9.96759
5160	4.167	76.31490	9.97569	5209	4.350	76.30100	9.96761
5161	4.208	76.31490	9.97580	5210	4.691	76.30110	9.96763
5162	4.399	76.31490	9.97592	5211	5.031	76.30120	9.96763
5163	4.163	76.31490	9.97604	5212	5.254	76.30130	9.96764
5164	4.235	76.31490	9.97616	5213	5.311	76.30140	9.96766
5165	4.320	76.31480	9.97627	5214	5.031	76.30160	9.96767
5166	4.301	76.31480	9.97639	5215	4.518	76.30170	9.96768
5167	4.290	76.31480	9.97651	5216	3.744	76.30180	9.96769
5168	4.407	76.31480	9.97663	5217	3.291	76.30190	9.96769
5169	4.391	76.31480	9.97674	5218	3.150	76.30200	9.96770
5170	4.526	76.31470	9.97686	5219	3.248	76.30220	9.96771
5171	4.574	76.31470	9.97697	5220	3.491	76.30230	9.96772
5172	4.047	76.31460	9.97708	5221	3.831	76.30240	9.96773
5173	4.030	76.31460	9.97719	5222	4.677	76.30250	9.96774
5174	4.107	76.31450	9.97730	5223	4.839	76.30260	9.96775
5175	4.158	76.31450	9.97742	5224	4.483	76.30270	9.96775
5176	3.937	76.31450	9.97753	5225	4.182	76.30290	9.96776
5177	3.793	76.31440	9.97764	5226	3.953	76.30300	9.96776
5178	3.848	76.31440	9.97776	5227	3.734	76.30310	9.96777
5179	3.005	76.30290	9.97779	5228	3.630	76.30320	9.96777
5180	3.223	76.30280	9.97778	5229	3.306	76.30330	9.96778
5181	3.155	76.30270	9.97778	5230	2.894	76.30350	9.96779
5182	2.921	76.30250	9.97777	5231	3.205	76.30360	9.96779
5183	2.796	76.30240	9.97777	5232	3.777	76.30370	9.96780

5184	2.713	76.30230	9.97777	5233	3.814	76.30380	9.96781
5185	2.674	76.30220	9.97778	5234	3.385	76.30390	9.96782
5186	2.704	76.30210	9.97778	5235	3.154	76.30410	9.96783
5187	2.800	76.30190	9.97779	5236	3.212	76.30420	9.96784
5188	2.957	76.30180	9.97780	5237	3.445	76.30430	9.96784
5189	3.086	76.30170	9.97781	5238	3.938	76.30440	9.96785
5190	3.013	76.30160	9.97781	5239	4.422	76.30450	9.96786
5191	3.310	76.30150	9.97782	5240	4.908	76.30470	9.96786
5192	3.249	76.30140	9.97783	5241	4.865	76.30480	9.96787
5193	2.787	76.30120	9.97784	5242	4.049	76.30490	9.96787
5243	3.243	76.30500	9.96786	5292	4.848	76.31060	9.96762
5244	3.533	76.30510	9.96783	5293	5.323	76.31080	9.96764
5245	3.906	76.30520	9.96780	5294	4.355	76.31090	9.96766
5246	3.757	76.30540	9.96777	5295	3.638	76.31100	9.96768
5247	3.082	76.30550	9.96773	5296	3.448	76.31110	9.96770
5248	2.721	76.30560	9.96769	5297	3.370	76.31120	9.96772
5249	2.866	76.30570	9.96764	5298	3.236	76.31140	9.96774
5250	3.007	76.30580	9.96760	5299	3.195	76.31150	9.96777
5251	3.047	76.30590	9.96755	5300	3.143	76.31160	9.96779
5252	2.889	76.30600	9.96750	5301	3.122	76.31170	9.96781
5253	2.810	76.30610	9.96745	5302	3.183	76.31180	9.96784
5254	2.801	76.30620	9.96741	5303	3.404	76.31190	9.96786
5255	2.802	76.30640	9.96736	5304	3.678	76.31210	9.96788
5256	2.876	76.30650	9.96731	5305	3.851	76.31220	9.96791
5257	2.951	76.30660	9.96727	5306	3.943	76.31230	9.96793
5258	2.945	76.30670	9.96722	5307	3.750	76.31240	9.96796
5259	2.920	76.30680	9.96718	5308	3.560	76.31250	9.96798
5260	2.914	76.30690	9.96713	5309	3.395	76.31260	9.96801
5261	2.949	76.30700	9.96709	5310	3.322	76.31280	9.96803
5262	3.024	76.30710	9.96705	5311	3.250	76.31290	9.96806
5263	3.124	76.30730	9.96702	5312	3.394	76.31300	9.96808
5264	3.205	76.30740	9.96701	5313	3.782	76.31310	9.96811
5265	3.251	76.30750	9.96702	5314	4.148	76.31320	9.96813
5266	3.247	76.30760	9.96703	5315	4.834	76.31330	9.96816
5267	3.266	76.30770	9.96705	5316	4.986	76.31350	9.96819
5268	3.271	76.30780	9.96707	5317	4.556	76.31360	9.96821
5269	3.279	76.30800	9.96710	5318	4.077	76.31370	9.96824
5270	3.292	76.30810	9.96712	5319	3.562	76.31380	9.96826
5271	3.231	76.30820	9.96715	5320	3.019	76.31390	9.96829
5272	3.156	76.30830	9.96717	5321	2.865	76.31400	9.96831

5273	3.013	76.30840	9.96720	5322	2.805	76.31420	9.96834
5274	2.994	76.30850	9.96724	5323	2.906	76.31430	9.96837
5275	3.061	76.30860	9.96727	5324	3.058	76.31440	9.96839
5276	3.155	76.30880	9.96731	5325	3.396	76.31450	9.96842
5277	3.885	76.30890	9.96735	5326	3.819	76.31460	9.96844
5278	3.580	76.30900	9.96738	5327	4.156	76.31470	9.96847
5279	1.899	76.30910	9.96740	5328	4.349	76.31490	9.96850
5280	1.641	76.30920	9.96742	5329	4.362	76.31500	9.96852
5281	1.635	76.30930	9.96745	5330	4.291	76.31510	9.96855
5282	1.884	76.30950	9.96747	5331	4.267	76.31520	9.96857
5283	3.022	76.30960	9.96749	5332	4.385	76.31530	9.96860
5284	3.238	76.30970	9.96751	5333	4.723	76.31540	9.96862
5285	2.995	76.30980	9.96754	5334	5.129	76.31560	9.96864
5286	2.795	76.30990	9.96755	5335	5.444	76.31570	9.96867
5287	2.650	76.31010	9.96756	5336	5.534	76.31580	9.96869
5288	2.847	76.31020	9.96758	5337	5.333	76.31590	9.96871
5289	3.012	76.31030	9.96758	5338	4.117	76.29680	9.96633
5290	3.945	76.31040	9.96759	5339	4.450	76.29670	9.96644
5291	4.624	76.31050	9.96761	5340	4.642	76.29670	9.96656
5341	4.626	76.29670	9.96668	5390	2.808	76.29700	9.96751
5342	4.379	76.29660	9.96679	5391	2.527	76.29690	9.96750
5343	3.621	76.29660	9.96691	5392	2.167	76.29670	9.96749
5344	3.623	76.29660	9.96702	5393	2.109	76.29660	9.96748
5345	3.136	76.29660	9.96714	5394	2.768	76.29650	9.96747
5346	2.988	76.29650	9.96725	5395	3.813	76.29670	9.96688
5347	2.935	76.29650	9.96737	5396	3.492	76.29690	9.96691
5348	2.897	76.29650	9.96748	5397	3.134	76.29700	9.96693
5349	1.871	76.29640	9.96760	5398	2.880	76.29710	9.96696
5350	1.810	76.29640	9.96771	5399	3.317	76.29720	9.96736
5351	1.577	76.29630	9.96775	5400	3.728	76.29730	9.96737
5352	1.403	76.29620	9.96776	5401	3.613	76.29740	9.96738
5353	1.838	76.29600	9.96774	5402	3.193	76.29760	9.96739
5354	2.369	76.29590	9.96772	5403	2.257	76.29420	9.96958
5355	2.316	76.29580	9.96769	5404	2.136	76.29430	9.96961
5356	2.306	76.29570	9.96767	5405	2.510	76.29440	9.96964
5357	2.361	76.29560	9.96765	5406	2.809	76.29450	9.96966
5358	2.514	76.29540	9.96763	5407	2.932	76.29470	9.96970
5359	2.340	76.29530	9.96761	5408	3.016	76.29480	9.96975
5360	1.666	76.29520	9.96761	5409	3.234	76.29490	9.96979
5361	4.055	76.29630	9.96623	5410	3.989	76.29500	9.96983

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5366	2.844	76.29610	9.96680	5415	2.713	76.29440	9.96921
5367	2.449	76.29610	9.96691	5416	2.517	76.29450	9.96923
5368	3.048	76.29610	9.96703	5417	2.447	76.29460	9.96931
5369	2.963	76.29610	9.96715	5418	2.660	76.29460	9.96943
5370	3.151	76.29600	9.96726	5419	2.457	76.29450	9.96955
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5374	2.092	76.29550	9.96717	5423	2.858	76.29390	9.97046
5375	2.525	76.29550	9.96705	5424	3.311	76.29400	9.97037
5376	3.491	76.29570	9.96661	5425	3.661	76.29400	9.97026
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5441	3.437	76.29630	9.97995	5490	3.218	76.30170	9.97468
5442	3.502	76.29630	9.97983	5491	3.024	76.30160	9.97480
5443	3.644	76.29630	9.97971	5492	3.504	76.30160	9.97491
5444	4.159	76.29640	9.97959	5493	3.742	76.30160	9.97503
5445	4.418	76.29640	9.97948	5494	3.956	76.30160	9.97515
5446	4.560	76.29640	9.97936	5495	3.091	76.30150	9.97316
5447	4.827	76.29640	9.97924	5496	3.540	76.30150	9.97327
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5449	5.193	76.29650	9.97901	5498	3.780	76.30140	9.97350
5450	4.402	76.29650	9.97889	5499	4.109	76.30140	9.97361

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5452	3.595	76.29660	9.97866	5501	4.876	76.30130	9.97384
5453	3.235	76.29660	9.97855	5502	4.815	76.30140	9.97390
5454	3.331	76.29660	9.97843	5503	4.094	76.30150	9.97393
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5458	2.611	76.30120	9.97221	5507	2.424	76.30330	9.97345
5459	2.456	76.30120	9.97233	5508	2.219	76.30340	9.97349
5460	2.550	76.30120	9.97244	5509	2.177	76.30350	9.97353
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5466	2.975	76.30090	9.97312	5515	2.698	76.30560	9.97329
5467	2.790	76.30090	9.97323	5516	2.560	76.30560	9.97318
5468	2.889	76.30100	9.97329	5517	2.458	76.30560	9.97306
5469	3.534	76.30110	9.97333	5518	2.392	76.30560	9.97294
5470	3.935	76.29900	9.97375	5519	2.381	76.30570	9.97290
5471	3.945	76.29910	9.97378	5520	2.352	76.30590	9.97291
5472	3.972	76.29920	9.97381	5521	2.353	76.30600	9.97292
5473	4.011	76.29930	9.97384	5522	2.426	76.30710	9.97401
5474	4.074	76.29940	9.97387	5523	2.622	76.30710	9.97413
5475	4.168	76.29950	9.97390	5524	2.558	76.30710	9.97424
5476	3.635	76.30010	9.97345	5525	2.167	76.30670	9.97381
5477	3.683	76.30000	9.97342	5526	2.248	76.30680	9.97383
5478	3.724	76.29990	9.97339	5527	2.385	76.30700	9.97386
5479	3.822	76.29980	9.97345	5528	2.427	76.30710	9.97388
5480	3.919	76.29980	9.97356	5529	3.528	76.30090	9.97763
5481	4.019	76.29970	9.97366	5530	3.020	76.30100	9.97765
5482	4.130	76.29960	9.97377	5531	3.469	76.30080	9.97749
5483	4.189	76.29960	9.97387	5532	3.279	76.30700	9.97820
5484	3.409	76.30170	9.97409	5533	3.016	76.30710	9.97826
5485	3.281	76.30160	9.97421	5534	2.479	76.30750	9.97675
5486	3.176	76.30160	9.97432	5535	2.337	76.30740	9.97686
5487	3.063	76.30160	9.97444	5536	2.128	76.30740	9.97697
5537	2.067	76.30730	9.97708	5586	4.074	76.31110	9.96878
5538	2.180	76.30730	9.97718	5587	3.984	76.31120	9.96867
5539	2.223	76.30720	9.97729	5588	3.719	76.31120	9.96855

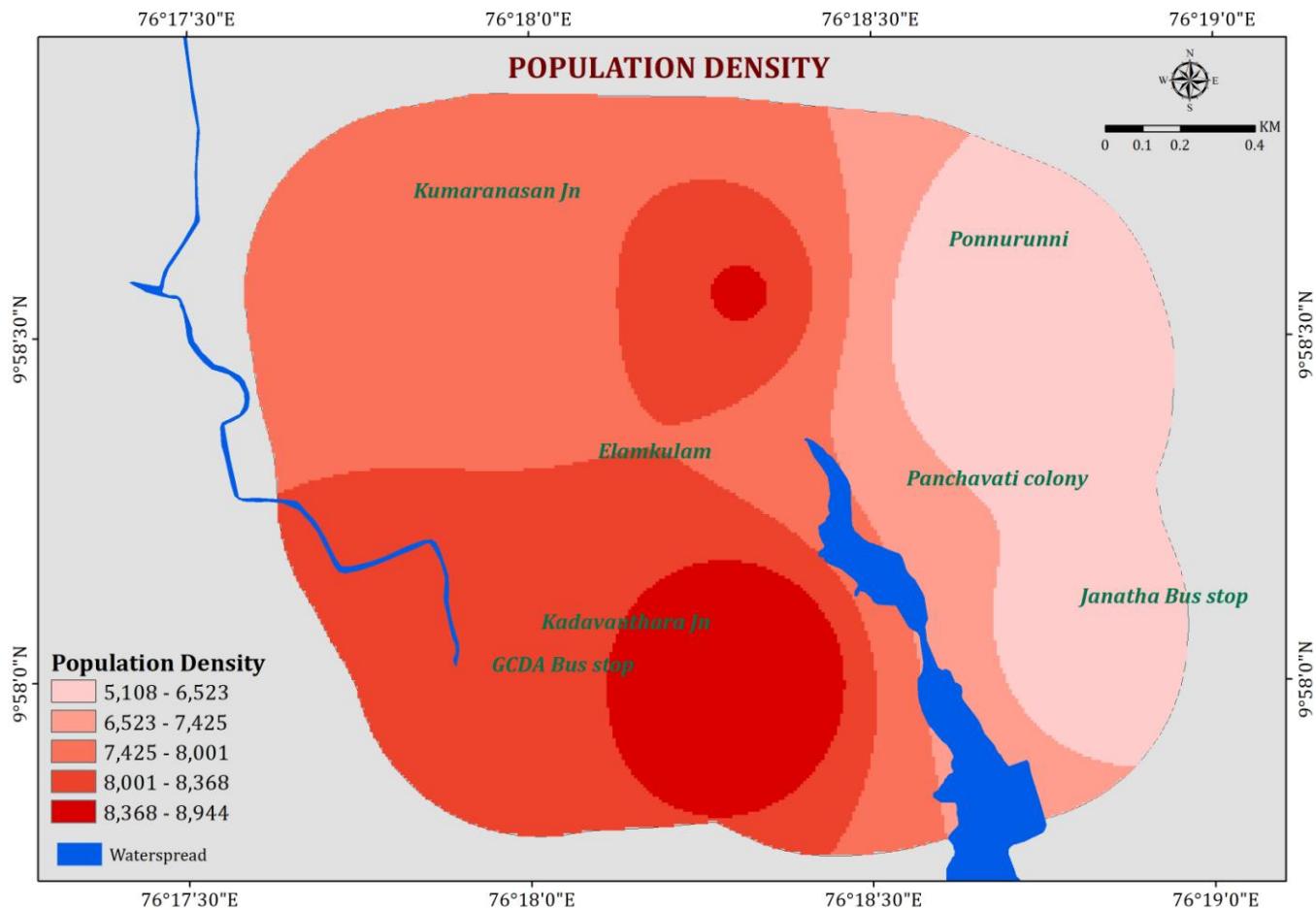
5540	2.350	76.30720	9.97740	5589	3.773	76.31120	9.96844
5541	2.520	76.30710	9.97751	5590	3.364	76.31130	9.96833
5542	2.326	76.30710	9.97762	5591	3.579	76.31130	9.96821
5543	1.848	76.30700	9.97773	5592	3.476	76.31130	9.96810
5544	2.086	76.30700	9.97784	5593	3.400	76.31140	9.96798
5545	2.637	76.30690	9.97795	5594	3.301	76.31140	9.96787
5546	2.611	76.30690	9.97807	5595	2.726	76.31080	9.97050
5547	2.875	76.30690	9.97819	5596	2.794	76.31090	9.97053
5548	2.745	76.30690	9.97830	5597	2.855	76.31100	9.97056
5549	2.602	76.30680	9.97841	5598	2.585	76.31110	9.97059
5550	2.519	76.30680	9.97852	5599	3.921	76.31360	9.96925
5551	2.589	76.30670	9.97863	5600	6.391	76.31350	9.96922
5552	2.526	76.30670	9.97874	5601	7.291	76.31340	9.96916
5553	2.344	76.30660	9.97885	5602	6.518	76.31330	9.96909
5554	3.102	76.30980	9.97766	5603	5.682	76.31320	9.96903
5555	2.700	76.30980	9.97778	5604	4.838	76.31310	9.96897
5556	2.356	76.30970	9.97789	5605	4.100	76.31300	9.96894
5557	2.284	76.30970	9.97801	5606	3.583	76.31290	9.96890
5558	1.994	76.30970	9.97813	5607	3.367	76.31280	9.96889
5559	1.766	76.30970	9.97825	5608	3.255	76.31270	9.96900
5560	2.296	76.30970	9.97837	5609	3.053	76.31270	9.96912
5561	3.370	76.30950	9.97745	5610	3.303	76.31270	9.96923
5562	3.351	76.30960	9.97748	5611	3.371	76.31260	9.96935
5563	3.315	76.30980	9.97752	5612	3.250	76.31260	9.96946
5564	3.283	76.30790	9.97584	5613	3.152	76.31250	9.96957
5565	3.284	76.30790	9.97594	5614	3.117	76.31250	9.96969
5566	3.180	76.30780	9.97605	5615	3.170	76.31250	9.96980
5567	3.039	76.30770	9.97615	5616	4.441	76.31370	9.96975
5568	2.713	76.30770	9.97626	5617	4.464	76.31380	9.96979
5569	2.475	76.30760	9.97637	5618	4.515	76.31390	9.96983
5570	2.390	76.30760	9.97647	5619	4.966	76.31400	9.96986
5571	2.407	76.30750	9.97658	5620	5.224	76.31410	9.96990
5572	2.887	76.31070	9.97038	5621	4.125	76.31390	9.97589
5573	2.917	76.31070	9.97026	5622	3.613	76.31400	9.97595
5574	2.562	76.31070	9.97014	5623	3.334	76.31420	9.97600
5575	2.695	76.31070	9.97002	5624	3.301	76.31430	9.97606
5576	2.788	76.31070	9.96991	5625	4.486	76.31380	9.97596
5577	3.152	76.31080	9.96980	5626	3.906	76.31380	9.97607
5578	3.963	76.31080	9.96969	5627	3.446	76.31380	9.97619
5579	3.874	76.31090	9.96957	5628	3.083	76.31380	9.97631

5580	3.563	76.31090	9.96946	5629	4.321	76.31360	9.97375
5581	3.505	76.31100	9.96935	5630	4.078	76.31090	9.97520
5582	3.715	76.31100	9.96924	5631	2.582	76.29770	9.98036
5583	3.934	76.31100	9.96913	5632	2.177	76.29750	9.98037
5584	4.098	76.31110	9.96901	5633	2.110	76.29740	9.98037
5585	4.117	76.31110	9.96890	5634	2.210	76.29730	9.98038
5635	2.235	76.29720	9.98038	5684	3.067	76.31150	9.97754
5636	2.161	76.29710	9.98039	5685	2.814	76.31140	9.97760
5637	2.155	76.29690	9.98039	5686	3.134	76.31130	9.97766
5638	2.254	76.29680	9.98040	5687	3.348	76.31120	9.97773
5639	2.680	76.29670	9.98040	5688	3.287	76.31110	9.97778
5640	3.794	76.29660	9.98040	5689	3.322	76.31100	9.97784
5641	3.732	76.29650	9.98040	5690	2.929	76.31090	9.97789
5642	3.895	76.29630	9.98040	5691	2.994	76.31080	9.97795
5643	3.281	76.29670	9.98052	5692	2.799	76.31070	9.97801
5644	3.205	76.29680	9.98051	5693	2.989	76.31060	9.97806
5645	3.133	76.29690	9.98050	5694	2.918	76.31050	9.97812
5646	2.501	76.29710	9.98049	5695	3.042	76.31040	9.97817
5647	2.585	76.29720	9.98048	5696	2.992	76.31020	9.97822
5648	2.584	76.29730	9.98047	5697	2.831	76.31010	9.97826
5649	2.499	76.29740	9.98044	5698	2.524	76.31000	9.97830
5650	2.509	76.29750	9.98042	5699	2.465	76.30990	9.97834
5651	2.629	76.29760	9.98039	5700	2.357	76.30980	9.97838
5652	2.826	76.29780	9.98036	5701	3.779	76.29830	9.96343
5653	4.268	76.31480	9.97581	5702	3.724	76.29830	9.96355
5654	4.183	76.31470	9.97586	5703	3.657	76.29830	9.96367
5655	4.092	76.31460	9.97592	5704	3.620	76.29830	9.96379
5656	3.862	76.31450	9.97597	5705	3.591	76.29820	9.96390
5657	3.490	76.31440	9.97602	5706	3.740	76.29860	9.96400
5658	3.434	76.31430	9.97608	5707	3.694	76.29840	9.96399
5659	3.473	76.31420	9.97613	5708	3.635	76.29830	9.96398
5660	3.634	76.31410	9.97618	5709	3.483	76.29810	9.96396
5661	3.512	76.31400	9.97624	5710	3.360	76.29800	9.96401
5662	3.325	76.31390	9.97629	5711	3.275	76.29800	9.96412
5663	3.026	76.31380	9.97635	5712	3.260	76.29800	9.96424
5664	3.404	76.31360	9.97640	5713	3.061	76.29800	9.96436
5665	3.469	76.31350	9.97646	5714	2.759	76.30430	9.97346
5666	3.782	76.31340	9.97651	5715	2.893	76.30440	9.97349
5667	3.442	76.31330	9.97657	5716	2.929	76.30450	9.97340
5668	3.149	76.31320	9.97662	5717	3.360	76.30460	9.97329

5669	3.149	76.31310	9.97668	5718	3.352	76.30460	9.97317
5670	3.203	76.31300	9.97673	5719	3.112	76.30460	9.97306
5671	2.931	76.31290	9.97679	5720	3.148	76.30470	9.97294
5672	3.006	76.31280	9.97685	5721	3.339	76.30470	9.97283
5673	2.921	76.31270	9.97690	5722	3.761	76.30480	9.97272
5674	2.882	76.31260	9.97696	5723	4.249	76.30480	9.97260
5675	2.880	76.31250	9.97702	5724	3.591	76.30480	9.97249
5676	3.006	76.31240	9.97708	5725	2.530	76.30460	9.97354
5677	2.824	76.31230	9.97714	5726	2.136	76.30470	9.97357
5678	2.710	76.31220	9.97720	5727	2.099	76.30480	9.97349
5679	2.786	76.31210	9.97726	5728	2.121	76.30480	9.97338
5680	2.881	76.31200	9.97732	5729	2.105	76.30490	9.97326
5681	3.128	76.31190	9.97738	5730	2.097	76.30490	9.97315
5682	3.255	76.31180	9.97743				
5683	3.194	76.31160	9.97749				

## 5.9 Population Density

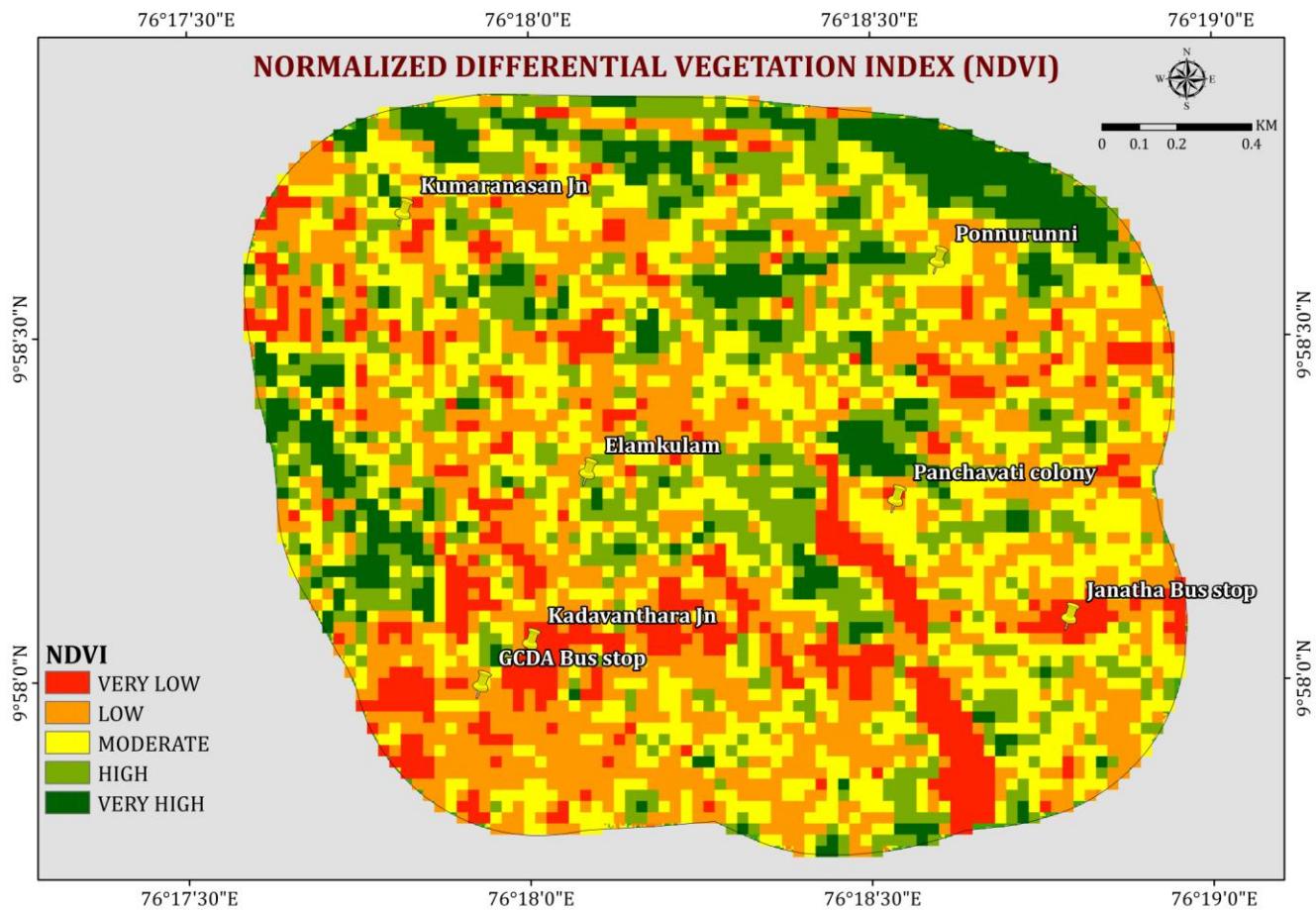
Fig. 12 illustrates of the study area. The population density ranges from 5108 to 8944 persons per square kilometer.



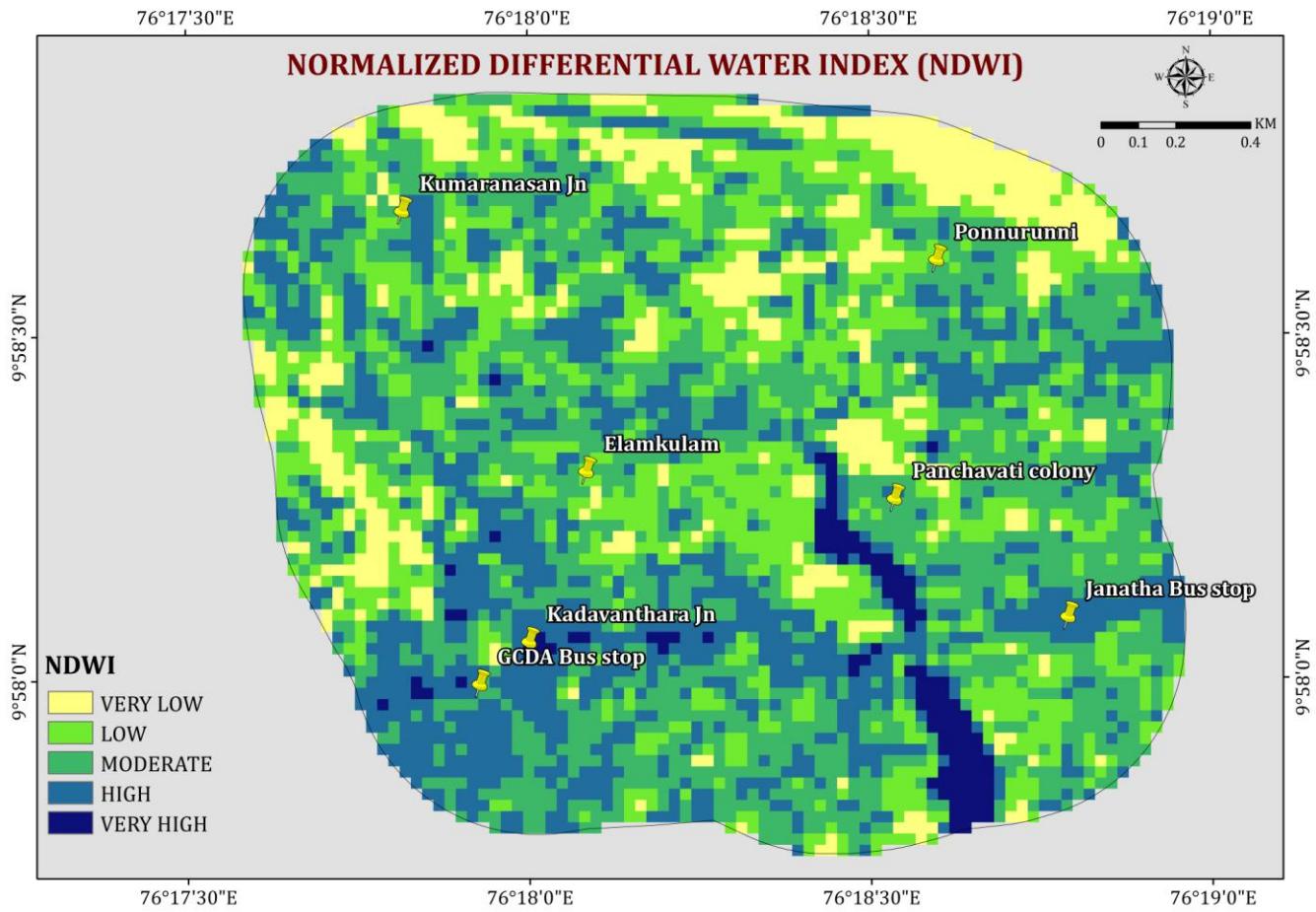
**Fig 12 Population Density Map**

### **5.10 NDVI, NDWI and NDBI**

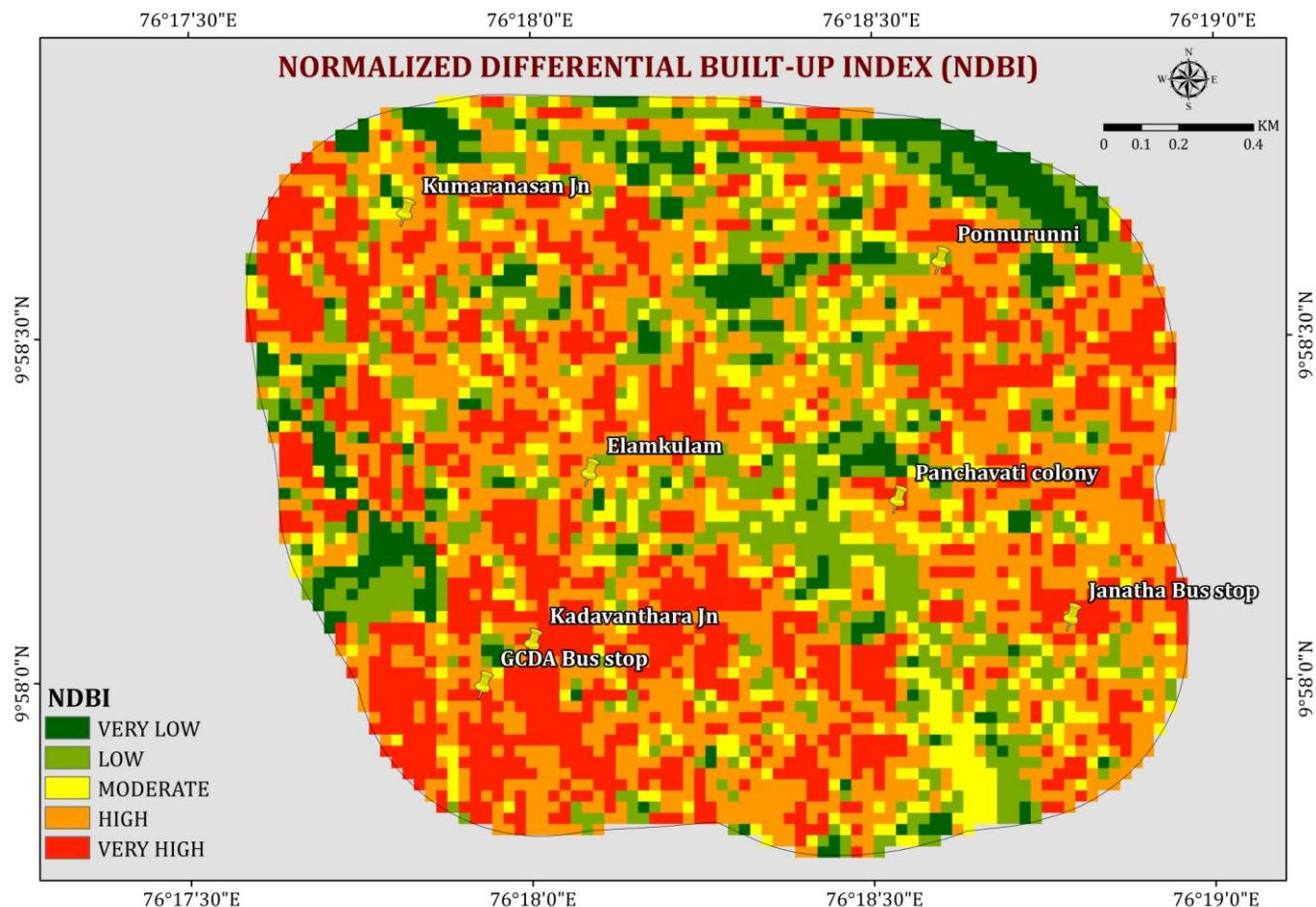
Figs: 13, 14 and 15 depicts the normalized differential vegetation index, normalized differential water index, normalized differential buildup index of the region. This forms the terrain variables considered in the study. These variables have been computed by using the latest landsat 8 images( imagery date : 03.02.2021).



**Fig 13 : NDVI MAP**



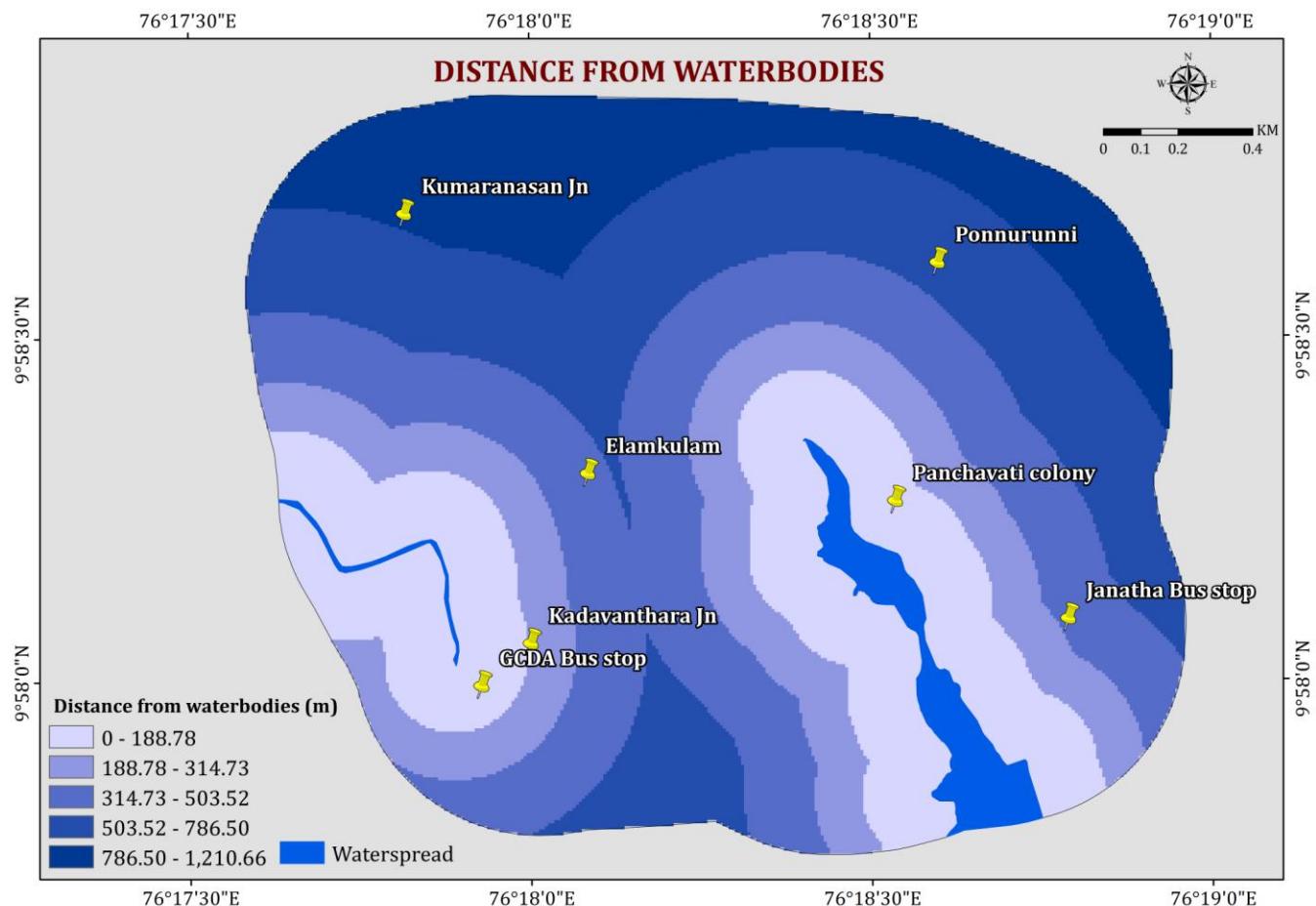
**Fig 14 : NDWI MAP**



**Fig 15 : NDBI MAP**

## 5.11 Distance from water bodies

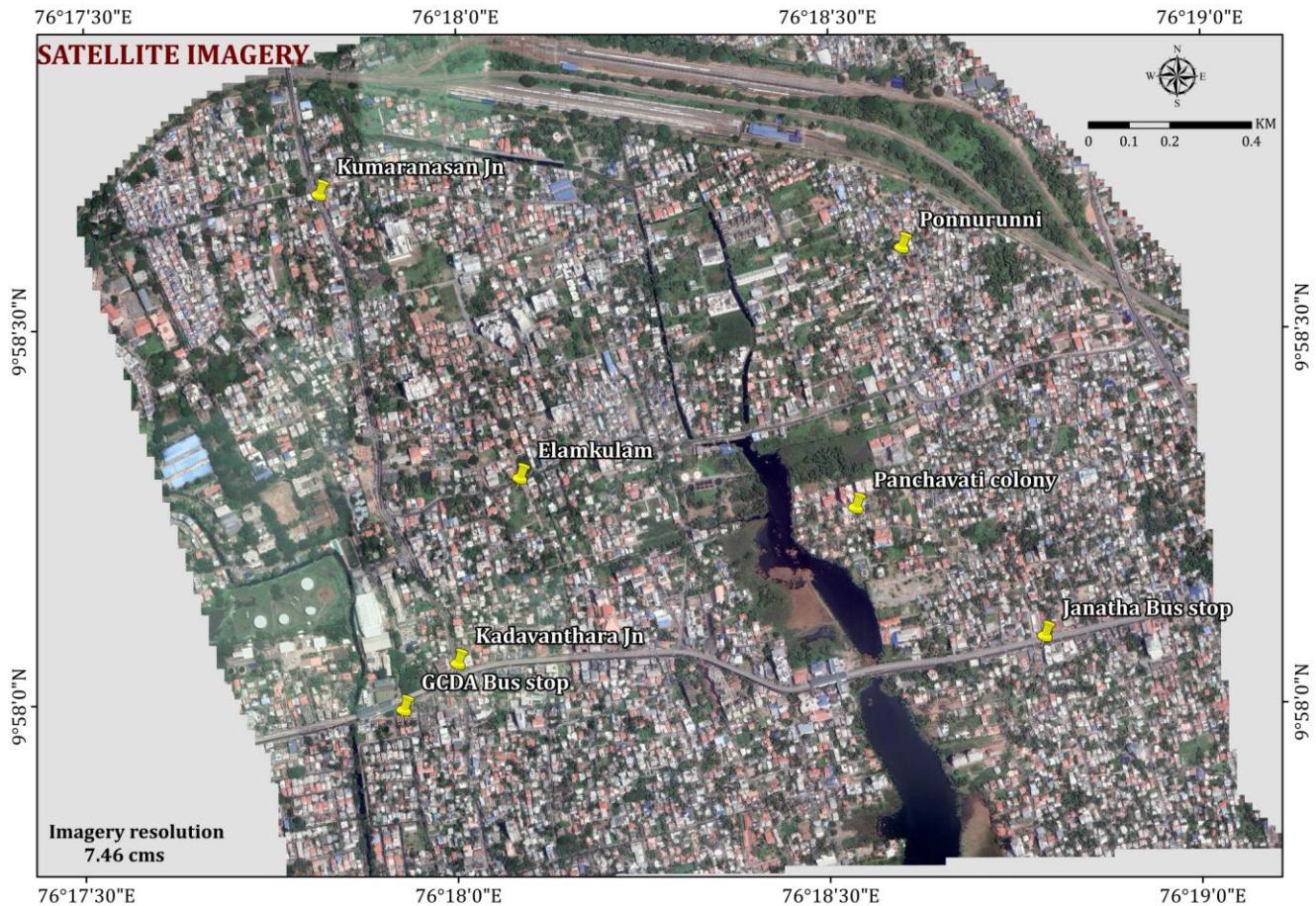
Distance from the water bodies within the study area ranges from 188.78 m to 1210.66 m Fig 16 depicts the distance from waterbodies.



**Fig. 16 Distance from waterbodies**

## 5.12 Satellite Imagery

The satellite Imagery extracted for the study is of **0.76 m** resolution. Fig 17 shows the satellite imagery of the study area.



**Fig. 17 Satellite Imagery**

### **5.13 Optimum site selection for sewerage treatment plant**

The following criteria were taken in finding out the best suitable site for STP in the study area (Table 4)

**Table 4. Criteria applied to the themes for finding best suitable sites**

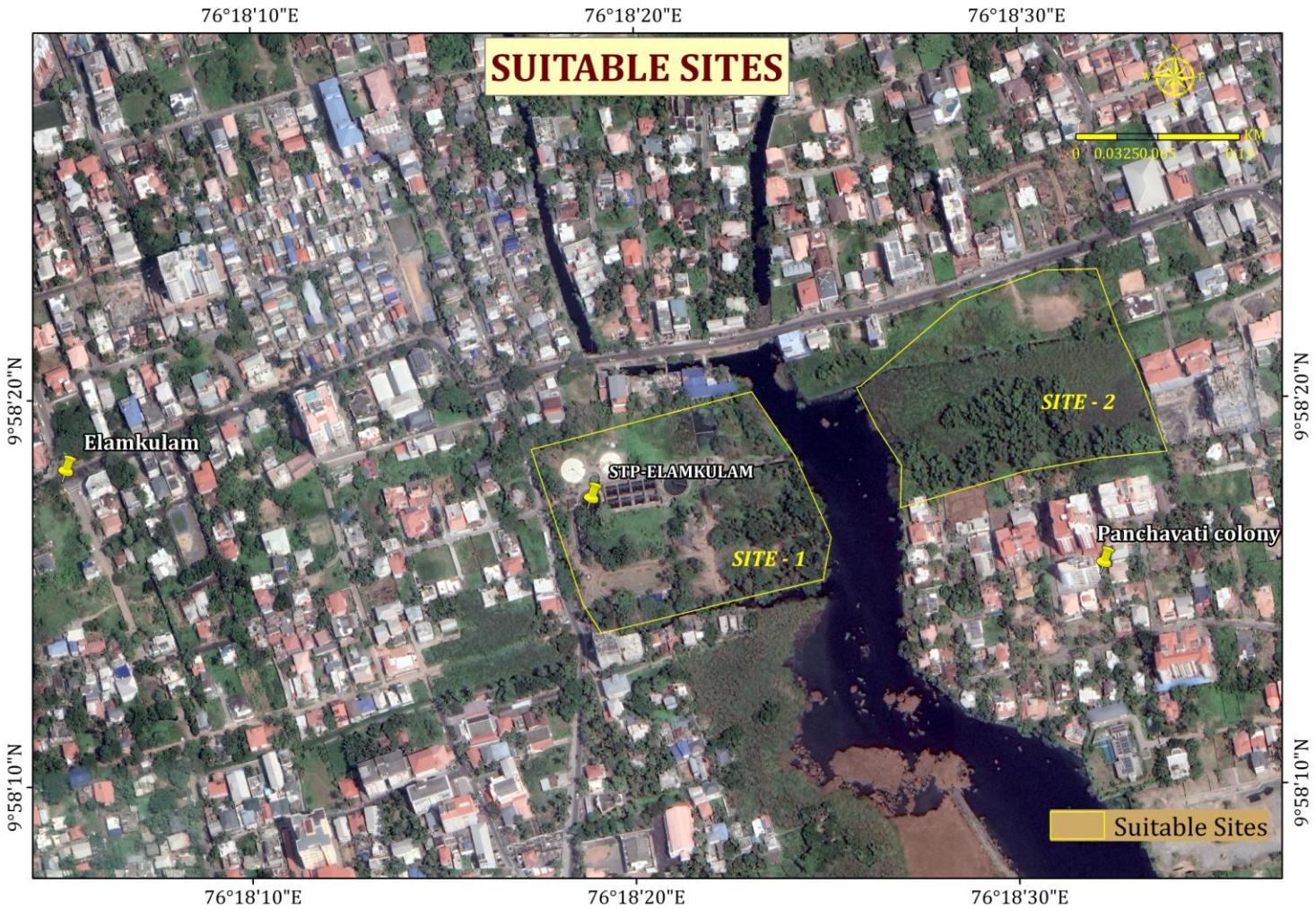
S. No	Theme	Criteria
1	Distance from water bodies	Less distance area (0-188.78 m)
2	Distance from building footprints	More distance area (47.28 m – 213.57 m)
3	Elevation	Low elevation areas (0.5m – 3.32 m)
4	Slope	0.53 – 0.60 degrees
5	Distance from Roads	More distance area (45.98 m – 172.69 m)
6	NDVI	High areas
7	NDWI	Low areas
8	NDBI	Low areas

Fig 18 illustrates the optimum sites derived out from the analysis as per the criteria given to the datasets. Fig 19 presents the 3D perspective view of the suitable sites.

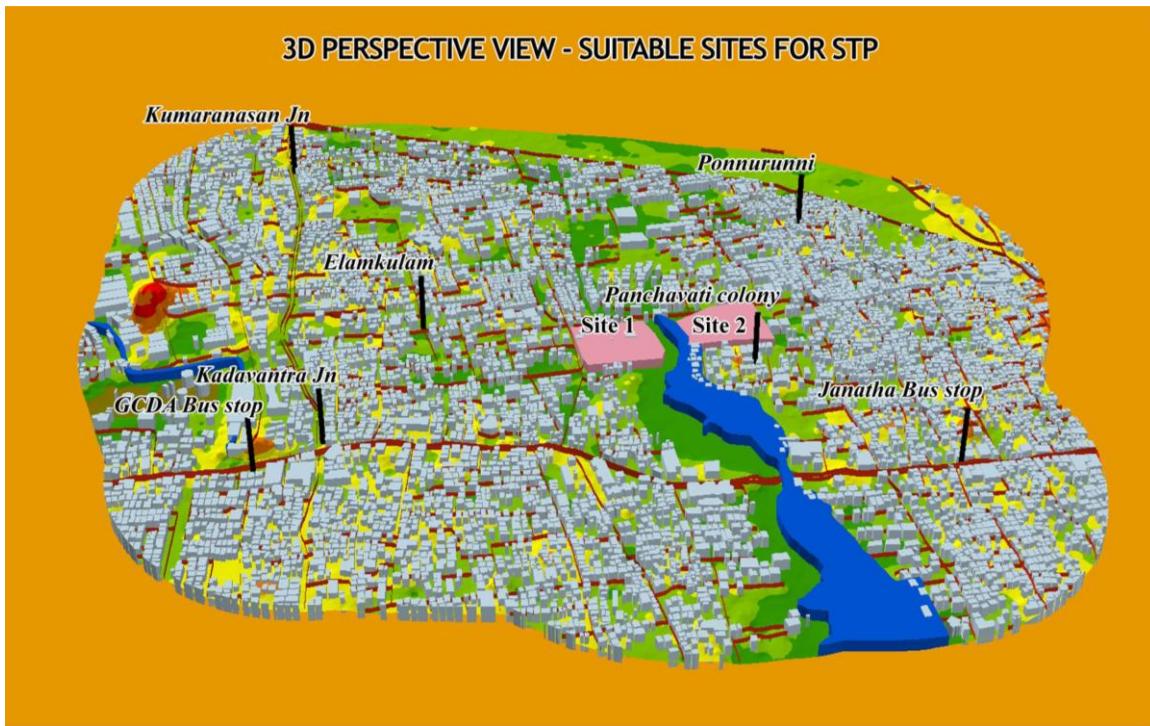
***Site 1 has an area of 76.60 acres***

***Site 2 has an area of 71.66 acres***

Ground truthing also has to be done before selecting the best suitable site from the GIS derive one.



**Fig. 18 Optimal sites for STP**



**Fig. 19 3D Perspective view**

## Conclusion

Site selection for a sewage treatment plant is a very challenging task involving socio-economical, environmental and technical dimension. This study has hereby shown that a GIS technologies acts an aid in finding out suitable locations for setting up of a sewerage treatment plant. Ground truthing is also required before finalizing the best site. Therefore, this study justifies the proposition that an integration of GIS and open source technologies can be very fruitful in solving problems having multi-dimensional scope and conflict of interests of stakeholders.

## References

- <https://www.newindianexpress.com/states/kerala/2020/feb/11/kerala-dumps-94-sewage-in-the-open-everyday-2101693.html>
- <https://www.linkedin.com/pulse/ndvi-ndbi-ndwi-calculation-using-landsat-7-8-tek-bahadur-kshetri/>
- <https://terra-incognita.en.lo4d.com/windows>
- <https://www.gpsessentials.com/>
- <https://plugins.qgis.org/plugins/QuickOSM/>
- [https://plugins.qgis.org/plugins/quick\\_map\\_services/](https://plugins.qgis.org/plugins/quick_map_services/)



## GIS-BASED MULTI-CRITERIA ANALYSIS FOR OPTIMAL SITES SELECTION FOR A SEWAGE TREATMENT PLANT - A CASE STUDY AT ELAMKULAM, KOCHI, KERALA



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