

Agilp Manual Vignette

Benny Chain

Introduction

This package was developed to provide a pipeline for the low-level analysis of gene expression microarray data, primarily focused on the Agilent platform, but which also provides utilities which may be useful for other platforms. Agilp v2.0 is made up of five processing functions, which are described briefly below and in more detail in the individual help files for each function. The package is designed for people with little previous experience of R, or of microarray analysis. The package was developed for use in the Innate2Adaptive Immunity Laboratory, Division of Infection and Immunity, UCL, London run by Benny Chain and Maddy Noursadeghi. A number of references describing the microarray work from the laboratory are given at the end of this document.

A note on default paths in agilp functions

The default folders for all the functions in agilp use folders input, input1 and output within the agilp folder. The user files to be processed (e.g. array scanner files or the output of agilp functions themselves) should be placed within the input or input1 folders as instructed in the help files. Note that after installing the package these folders will initially contain a dummy file called toberemoved.txt in order to avoid the installation process removing empty folders. These dummy files should be deleted before use. To locate the path of the agilp folder on your computer type

```
> file.path(system.file(package="agilp"))  
[1] "/tmp/Rtmp0UpZ0I/Rinst372eea6273467/agilp"
```

Alternatively, the user can create their own input and output directories, and alter the path description in the function call as appropriate.

Workflow

A typical workflow for using the package is described below. The examples are designed to be implemented sequentially.

- **AAProcess. Extract and save the red and green median expression data from Agilent scanner arrays, averaging replicate probes.** The raw (unprocessed) expression data is first extracted from the scanner files which are in tab delimited .txt format. This step is platform specific, and uses the column *gMedianSignal* or *rMedianSignal* to identify the data to use. The expression values for replicate probes are averaged. The function can use single or two colour outputs, and treats each colour independently. Output is one spreadsheet per microarray per colour, saved as tab delimited text files to a directory of choice. Each file contains all probe names (first column) and raw (untransformed, unnormalized) expression levels (second column).

Examples. This example extracts expression data from two sample array scanner files which are found in the folder "scanner" within the agilp package extdata folder and places them in the folder output within the agilp package folder.

```
> library(agilp)  
> inputdir<-file.path(system.file(package="agilp"),"extdata","scanner/", "", fsep = .Platform$file.sep)  
> outputdir<-file.path(system.file(package="agilp"),"output/", "", fsep = .Platform$file.sep)  
> AAProcess(input = inputdir, output = outputdir, s = 9)
```

To remove these files again and empty the output directory use :

```
> unlink(file.path(system.file(package="agilp"),"output", "", "*..*"),  
+ fsep = .Platform$file.sep, recursive=FALSE)
```

The number of lines header to be skipped from scanner array files can be changed from the default value of 9 by setting variable s. AAProcess(input = inputdir, output = outputdir, s = 10)

- **filenamex. Copy extracted raw file names to template.** Typically, the array file names are stored in a database. We use a simple spreadsheet for this (e.g. Excel or other) which contains details such as the date the experiments were run, the types of samples, the experimenter, and any other important experimental detail (see *sample_template.txt* in the *agilp* *extdata* folder for an example). However, a major source of documentation error occurs while entering the array file names into the template file (array file names are often very long arbitrary alphanumeric sequences). For this reason we use *filenamex* which outputs a text file containing the names of all the files in a directory; this list can be easily copied and pasted directly into a template file.

Examples. This example makes a list of the names of all the files in the folder *agilp/extdata/raw* and saves it in a file called *names.txt* (tab delimited) in the folder *agilp/output*.

```
> library(agilp)
> inputdir<-file.path(system.file(package="agilp"),"extdata","raw/", "", fsep = .Platform$file.sep)
> outputdir<-file.path(system.file(package="agilp"),"output/", "", fsep = .Platform$file.sep)
> filenamex(input=inputdir,output=outputdir)
```

To remove these files again and empty the output directory use :

```
> unlink(file.path(system.file(package="agilp"),"output", "", "*..*",
+ fsep = .Platform$file.sep), recursive=FALSE)
```

- **Baseline. Generate a normalisation baseline file.**

The *AALoess* normalisation function (see below) requires a 'baseline' file which contains the mean value for each probe from a number of different arrays against which to normalise each new array. *Baseline* generates such a baseline from a set of arrays. The set can be either all arrays in a chosen directory, or selected from a template file (see help file for more details). By default, all array data is base 2 log transformed before calculating the mean. If the files to be analysed contain different numbers of identifiers, the output will contain only the data for the IDs common to the whole set.

Examples. Takes all the files of unprocessed data in folder *agilp/extdata/raw*), calculates the mean expression value for each probe, and saves as *agilp/output/testbase.txt*.

```
> library(agilp)
> inputdir<-file.path(system.file(package="agilp"),"extdata","raw/", "", fsep = .Platform$file.sep)
> outputbase<-file.path(system.file(package="agilp"),"output", "testbase.txt", fsep = .Platform$file.sep)
> template<-file.path(system.file(package="agilp"),"extdata","sample_template.txt", fsep = .Platform$file.sep)
> Baseline(NORM="LOG",allfiles="TRUE",r=2,A=2,B=3,input=inputdir, baseout=outputbase, t = template)
```

Alternatively the following example uses only those data files defined in column 2, rows 2-5 of the template file. In addition, this example does not log transform the data.

```
> Baseline(NORM="FALSE",allfiles="FALSE",r=2,A=2,B=5,input=inputdir, baseout=outputbase, t = template)
```

To remove these files again and empty the output directory use :

```
> unlink(file.path(system.file(package="agilp"),"output", "", "*..*",
+ fsep = .Platform$file.sep), recursive=FALSE)
```

- **Loader. Select set of processed array files from directory according to criteria from a template file.** It is often necessary to select a series of expression array data files (for example generated by *AAProcess*) from a directory containing many such files (our repository has around 1000 array data sets so far) according to some criteria in the template file. For example, one might want to analyze all samples from particular dates, or tissue type etc. *Loader* inputs a template file in which each row contains the details for a separate array, and which has previously been sorted according to some predefined criteria (see *sample_template.txt* in the *agilp/extdata* for an example). It uses the array file names for a set of rows of the template (first and last row chosen by user, but must be contiguous), and either (if *f* = "TRUE") transfers the chosen files to a different directory, or outputs a single file (by default saved as *alldata.txt*) in which each column contains one array set of data.

Examples. This will copy the files with names given in column 2, rows 2:3 of the sample template file from the input folder to output folder.

```
> inputdir<-file.path(system.file(package="agilp"),"extdata","raw/", "", fsep = .Platform$file.sep)
> outputdir<-file.path(system.file(package="agilp"),"output/", "", fsep = .Platform$file.sep)
> template<-file.path(system.file(package="agilp"),"extdata","sample_template.txt",
```

```
+ fsep = .Platform$file.sep)
> Loader(input=inputdir,output=outputdir,t=template,f="TRUE",r=2,A=2,B=5)
```

Alternatively this will output a single file all_data.txt with the same data in a merged file. The file is also output back to R as object dataout

```
> Loader(input=inputdir,output=outputdir,t=template,f="FALSE",r=2,A=2,B=5)
```

```
gRaw_arrays_scanner_file1.txt
(+)E1A_r60_1      84.76562
(+)E1A_r60_3      86.65625
(+)E1A_r60_a104   85.42188
(+)E1A_r60_a107   84.73438
(+)E1A_r60_a135   84.98438
(+)E1A_r60_a20    90.53125
(+)E1A_r60_a22    99.98438
(+)E1A_r60_a97    83.65625
(+)E1A_r60_n11    87.15625
(+)E1A_r60_n9     85.90625
(+)eQC-39         83.25000
(+)eQC-40         80.20000
(+)eQC-41         83.15000
(+)eQC-42         84.55000
3xSLv1           84.34967
A_23_P100001     1244.00000
A_23_P100011     145.00000
A_23_P100022     134.00000
A_23_P100056     288.50000
A_23_P100074     1641.00000
A_23_P100092     372.00000
A_23_P100103     173.00000
A_23_P100111     128.00000
A_23_P100127     489.00000
A_23_P100133     184.00000
A_23_P100141     562.00000
A_23_P100156     253.00000
A_23_P100177     116.00000
A_23_P100189      99.00000
A_23_P100196    1209.00000
A_23_P100203    2508.00000
A_23_P100220    1887.50000
A_23_P100240     140.00000
A_23_P10025      191.00000
A_23_P100263    1572.50000
A_23_P100278     110.00000
A_23_P100292    9570.00000
A_23_P100315     3100.00000
A_23_P100326     4399.50000
A_23_P100341    10593.50000
A_23_P100344     1922.00000
A_23_P100355     2719.00000
A_23_P100386      92.50000
A_23_P100392     804.50000
A_23_P100408      80.50000
A_23_P100413     239.00000
A_23_P100420    3512.50000
A_23_P100441    1324.00000
A_23_P100455     328.00000
A_23_P100469     427.00000
A_23_P100478     785.50000
A_23_P100486    11739.00000
```

| | |
|--------------|-------------|
| A_23_P100499 | 152.00000 |
| A_23_P100501 | 3271.00000 |
| A_23_P100517 | 586.00000 |
| A_23_P100522 | 4774.00000 |
| A_23_P100539 | 387.00000 |
| A_23_P100556 | 649.00000 |
| A_23_P100576 | 5485.00000 |
| A_23_P100583 | 103.00000 |
| A_23_P100595 | 94.50000 |
| A_23_P10060 | 79.00000 |
| A_23_P100602 | 687.00000 |
| A_23_P10062 | 91.00000 |
| A_23_P100632 | 19335.00000 |
| A_23_P100642 | 366.00000 |
| A_23_P100654 | 1244.00000 |
| A_23_P100660 | 3949.00000 |
| A_23_P100676 | 375.00000 |
| A_23_P100693 | 670.50000 |
| A_23_P100704 | 592.50000 |
| A_23_P100711 | 3972.50000 |
| A_23_P100730 | 436.00000 |
| A_23_P100754 | 231.50000 |
| A_23_P100764 | 2644.00000 |
| A_23_P10077 | 270.50000 |
| A_23_P100779 | 367.50000 |
| A_23_P100788 | 211.00000 |
| A_23_P100795 | 408.00000 |
| A_23_P100802 | 7216.00000 |
| A_23_P10081 | 178.00000 |
| A_23_P100868 | 2487.00000 |
| A_23_P100872 | 97.00000 |
| A_23_P100883 | 2943.00000 |
| A_23_P10091 | 163.50000 |
| A_23_P100912 | 190.00000 |
| A_23_P100931 | 80.00000 |
| A_23_P100935 | 82.00000 |
| A_23_P100959 | 99.00000 |
| A_23_P100963 | 223.00000 |
| A_23_P100990 | 101.00000 |
| A_23_P100991 | 81.00000 |
| A_23_P101007 | 387.00000 |
| A_23_P101013 | 1405.00000 |
| A_23_P101025 | 364.00000 |
| A_23_P101038 | 83.00000 |
| A_23_P101048 | 98.50000 |
| A_23_P101054 | 180.00000 |
| A_23_P101073 | 106.00000 |
| A_23_P101084 | 98.00000 |
| A_23_P101093 | 827.00000 |
| A_23_P101111 | 857.00000 |
| A_23_P101121 | 511.00000 |
| A_23_P101131 | 93.00000 |
| A_23_P101141 | 196.00000 |
| A_23_P101185 | 4124.00000 |
| A_23_P101193 | 563.00000 |
| A_23_P101208 | 3651.00000 |
| A_23_P10121 | 3057.00000 |
| A_23_P101237 | 1711.00000 |
| A_23_P101240 | 15390.50000 |
| A_23_P101246 | 379.00000 |

| | |
|--------------|-------------|
| A_23_P101253 | 381.50000 |
| A_23_P101258 | 220.00000 |
| A_23_P10127 | 7540.00000 |
| A_23_P101272 | 1224.50000 |
| A_23_P101281 | 497.50000 |
| A_23_P101297 | 295.00000 |
| A_23_P101303 | 1100.00000 |
| A_23_P101308 | 263.50000 |
| A_23_P101319 | 130.00000 |
| A_23_P101321 | 159.50000 |
| A_23_P101332 | 1987.00000 |
| A_23_P101342 | 316.00000 |
| A_23_P10135 | 546.50000 |
| A_23_P101351 | 740.00000 |
| A_23_P101374 | 203.00000 |
| A_23_P101380 | 834.00000 |
| A_23_P101392 | 320.00000 |
| A_23_P1014 | 1205.50000 |
| A_23_P101407 | 7430.50000 |
| A_23_P101427 | 166.50000 |
| A_23_P101434 | 106.00000 |
| A_23_P101461 | 6686.00000 |
| A_23_P101476 | 161.50000 |
| A_23_P101480 | 356.00000 |
| A_23_P101505 | 794.50000 |
| A_23_P101516 | 175.00000 |
| A_23_P101521 | 78.00000 |
| A_23_P101532 | 64534.20000 |
| A_23_P101551 | 2714.50000 |
| A_23_P10156 | 394.00000 |
| A_23_P101564 | 91.00000 |
| A_23_P101573 | 83.00000 |
| A_23_P101615 | 330.00000 |
| A_23_P101623 | 135.00000 |
| A_23_P101636 | 84.00000 |
| A_23_P101642 | 805.00000 |
| A_23_P101655 | 1207.00000 |
| A_23_P101671 | 231.00000 |
| A_23_P101683 | 81.50000 |
| A_23_P101699 | 566.00000 |
| A_23_P101707 | 1906.50000 |
| A_23_P10172 | 92.00000 |
| A_23_P101737 | 339.00000 |
| A_23_P101742 | 1413.00000 |
| A_23_P101759 | 205.50000 |
| A_23_P101761 | 910.00000 |
| A_23_P101774 | 89.00000 |
| A_23_P101783 | 115.00000 |
| A_23_P101796 | 392.00000 |
| A_23_P101806 | 698.00000 |
| A_23_P101811 | 223.00000 |
| A_23_P10182 | 603.00000 |
| A_23_P101829 | 215.00000 |
| A_23_P101871 | 326.00000 |
| A_23_P101893 | 163.00000 |
| A_23_P101905 | 269.00000 |
| A_23_P101908 | 192.50000 |
| A_23_P10194 | 5600.00000 |
| A_23_P101943 | 1189.00000 |
| A_23_P101950 | 9901.00000 |

| | |
|--------------|-------------|
| A_23_P101960 | 7311.00000 |
| A_23_P101972 | 156.00000 |
| A_23_P101992 | 169.00000 |
| A_23_P102000 | 3021.10000 |
| A_23_P102017 | 95.00000 |
| A_23_P102037 | 282.00000 |
| A_23_P102058 | 352.00000 |
| A_23_P10206 | 297.00000 |
| A_23_P102060 | 1751.00000 |
| A_23_P102071 | 975.50000 |
| A_23_P102083 | 68.00000 |
| A_23_P102109 | 1917.00000 |
| A_23_P10211 | 379.00000 |
| A_23_P102113 | 279.00000 |
| A_23_P102117 | 133.00000 |
| A_23_P102122 | 6253.50000 |
| A_23_P102160 | 205.00000 |
| A_23_P102172 | 79.00000 |
| A_23_P102183 | 2426.00000 |
| A_23_P102192 | 355.00000 |
| A_23_P102202 | 11726.00000 |
| A_23_P102235 | 5885.00000 |
| A_23_P102242 | 683.00000 |
| A_23_P102258 | 5873.50000 |
| A_23_P102262 | 7163.00000 |
| A_23_P102278 | 87.00000 |
| A_23_P102286 | 85.50000 |
| A_23_P10232 | 99.00000 |
| A_23_P102320 | 1915.00000 |
| A_23_P102331 | 81.00000 |
| A_23_P102351 | 184.00000 |
| A_23_P102364 | 2503.50000 |
| A_23_P102391 | 386.00000 |
| A_23_P102404 | 21629.90000 |
| A_23_P102412 | 747.00000 |
| A_23_P102420 | 49593.30000 |
| A_23_P102439 | 119.00000 |
| A_23_P102454 | 2043.00000 |
| A_23_P102462 | 117.00000 |
| A_23_P102471 | 3809.15000 |
| A_23_P102481 | 89.00000 |
| A_23_P102494 | 149.00000 |
| A_23_P102508 | 1182.50000 |
| A_23_P102517 | 1165.00000 |
| A_23_P102523 | 288.50000 |
| A_23_P102542 | 931.50000 |
| A_23_P102551 | 95.50000 |
| A_23_P102571 | 15099.00000 |
| A_23_P102575 | 3246.50000 |
| A_23_P102582 | 9381.00000 |
| A_23_P102607 | 105.50000 |
| A_23_P102611 | 8720.50000 |
| A_23_P102622 | 285.00000 |
| A_23_P102634 | 79.00000 |
| A_23_P102681 | 135.00000 |
| A_23_P102694 | 83.50000 |
| A_23_P102706 | 247.00000 |
| A_23_P102731 | 781.00000 |
| A_23_P102743 | 287.00000 |
| A_23_P102759 | 138.00000 |

| | |
|--------------|-------------|
| A_23_P102769 | 498.00000 |
| A_23_P102770 | 1588.00000 |
| A_23_P102816 | 216.00000 |
| A_23_P102832 | 2042.00000 |
| A_23_P102842 | 2041.50000 |
| A_23_P102864 | 242.50000 |
| A_23_P102876 | 12896.00000 |
| A_23_P102884 | 129.00000 |
| A_23_P102890 | 7136.00000 |
| A_23_P1029 | 467.00000 |
| A_23_P10291 | 114.00000 |
| A_23_P102917 | 91.50000 |
| A_23_P102919 | 87.00000 |
| A_23_P102925 | 1436.00000 |
| A_23_P102937 | 1490.00000 |
| A_23_P102950 | 180.00000 |
| A_23_P102965 | 600.00000 |
| A_23_P102973 | 726.00000 |
| A_23_P102988 | 173.00000 |
| A_23_P102994 | 3032.00000 |
| A_23_P103011 | 537.00000 |
| A_23_P103034 | 90.00000 |
| A_23_P103041 | 106.00000 |
| A_23_P10305 | 257.00000 |
| A_23_P103062 | 281.00000 |
| A_23_P103070 | 2849.00000 |
| A_23_P103084 | 177.00000 |
| A_23_P103099 | 472.00000 |
| A_23_P103104 | 488.00000 |
| A_23_P103110 | 717.00000 |
| A_23_P103120 | 3092.00000 |
| A_23_P103131 | 3394.00000 |
| A_23_P103149 | 5649.50000 |
| A_23_P103172 | 2215.00000 |
| A_23_P103180 | 680.00000 |
| A_23_P103201 | 2201.00000 |
| A_23_P103226 | 98.00000 |
| A_23_P103232 | 6305.00000 |
| A_23_P103248 | 533.00000 |
| A_23_P103256 | 197.50000 |
| A_23_P103269 | 114.50000 |
| A_23_P103276 | 299.00000 |
| A_23_P103282 | 9325.00000 |
| A_23_P103310 | 107.50000 |
| A_23_P103315 | 11200.50000 |
| A_23_P103328 | 128.00000 |
| A_23_P103334 | 192.00000 |
| A_23_P103349 | 83.50000 |
| A_23_P103361 | 1188.75000 |
| A_23_P103371 | 135.00000 |
| A_23_P103398 | 2641.00000 |
| A_23_P103405 | 178.00000 |
| A_23_P103414 | 4946.00000 |
| A_23_P103424 | 81.00000 |
| A_23_P103433 | 534.50000 |
| A_23_P103442 | 2955.00000 |
| A_23_P103454 | 11044.00000 |
| A_23_P103465 | 118.50000 |
| A_23_P103476 | 698.00000 |
| A_23_P103486 | 214.00000 |

| | |
|--------------|-------------|
| A_23_P103496 | 108.00000 |
| A_23_P103503 | 554.00000 |
| A_23_P103511 | 712.50000 |
| A_23_P103522 | 82.00000 |
| A_23_P103532 | 217.00000 |
| A_23_P10356 | 102.00000 |
| A_23_P103561 | 274.00000 |
| A_23_P103571 | 121.00000 |
| A_23_P103588 | 96.00000 |
| A_23_P103601 | 1778.50000 |
| A_23_P103617 | 224.00000 |
| A_23_P103628 | 2768.00000 |
| A_23_P103631 | 16923.50000 |
| A_23_P103661 | 3438.00000 |
| A_23_P103672 | 2898.50000 |
| A_23_P103690 | 1005.00000 |
| A_23_P103698 | 3372.00000 |
| A_23_P103703 | 166.50000 |
| A_23_P103720 | 1096.00000 |
| A_23_P10374 | 3247.00000 |
| A_23_P103743 | 87.00000 |
| A_23_P103756 | 156.00000 |
| A_23_P103765 | 81.50000 |
| A_23_P103775 | 160.00000 |
| A_23_P103787 | 1023.00000 |
| A_23_P103795 | 617.00000 |
| A_23_P1038 | 196.00000 |
| A_23_P103803 | 81.00000 |
| A_23_P103812 | 144.50000 |
| A_23_P103824 | 1076.00000 |
| A_23_P103837 | 819.00000 |
| A_23_P10385 | 1040.40000 |
| A_23_P103864 | 485.00000 |
| A_23_P103877 | 914.00000 |
| A_23_P103885 | 8531.00000 |
| A_23_P103897 | 104.00000 |
| A_23_P103905 | 1208.50000 |
| A_23_P10391 | 430.00000 |
| A_23_P103919 | 1757.00000 |
| A_23_P103923 | 131.00000 |
| A_23_P103932 | 1080.00000 |
| A_23_P103942 | 1387.50000 |
| A_23_P103951 | 5832.00000 |
| A_23_P103968 | 1337.00000 |
| A_23_P103971 | 97.00000 |
| A_23_P103981 | 19732.00000 |
| A_23_P103996 | 629.00000 |
| A_23_P10401 | 251.50000 |
| A_23_P104012 | 92.00000 |
| A_23_P104022 | 2387.00000 |
| A_23_P104025 | 569.00000 |
| A_23_P104046 | 501.00000 |
| A_23_P104054 | 1738.50000 |
| A_23_P104065 | 911.00000 |
| A_23_P104073 | 181.00000 |
| A_23_P104086 | 173.00000 |
| A_23_P104098 | 100.00000 |
| A_23_P104109 | 457.00000 |
| A_23_P104116 | 21624.70000 |
| A_23_P104138 | 219.00000 |

| | |
|--------------|-------------|
| A_23_P104146 | 728.00000 |
| A_23_P104151 | 424.00000 |
| A_23_P104188 | 540.00000 |
| A_23_P104193 | 2763.00000 |
| A_23_P104199 | 1128.55000 |
| A_23_P104201 | 5256.00000 |
| A_23_P104224 | 229.00000 |
| A_23_P104237 | 98.00000 |
| A_23_P104252 | 226.00000 |
| A_23_P104275 | 90.00000 |
| A_23_P104282 | 254.00000 |
| A_23_P104295 | 297.00000 |
| A_23_P1043 | 539.00000 |
| A_23_P104318 | 21087.70000 |
| A_23_P104323 | 586.00000 |
| A_23_P104335 | 80.00000 |
| A_23_P104346 | 457.00000 |
| A_23_P104351 | 2140.00000 |
| A_23_P104362 | 6140.00000 |
| A_23_P104372 | 6645.00000 |
| A_23_P104387 | 4674.00000 |
| A_23_P104413 | 9091.00000 |
| A_23_P10442 | 876.00000 |
| A_23_P104438 | 196.50000 |
| A_23_P104445 | 177.50000 |
| A_23_P104451 | 5345.00000 |
| A_23_P104464 | 181.00000 |
| A_23_P104471 | 1338.00000 |
| A_23_P104484 | 80.00000 |
| A_23_P104493 | 321.00000 |
| A_23_P104509 | 121.00000 |
| A_23_P104522 | 166.00000 |
| A_23_P104555 | 91.00000 |
| A_23_P104563 | 224.00000 |
| A_23_P104579 | 569.00000 |
| A_23_P10458 | 91.00000 |
| A_23_P104583 | 443.50000 |
| A_23_P104594 | 102.00000 |
| A_23_P104607 | 2069.00000 |
| A_23_P104617 | 244.50000 |
| A_23_P104624 | 1572.00000 |
| A_23_P10463 | 16057.00000 |
| A_23_P104641 | 2339.00000 |
| A_23_P104651 | 5964.00000 |
| A_23_P104676 | 3952.00000 |
| A_23_P104689 | 525.45000 |
| A_23_P104692 | 694.00000 |
| A_23_P104705 | 179.00000 |
| A_23_P104734 | 4757.50000 |
| A_23_P104741 | 250.00000 |
| A_23_P104762 | 545.00000 |
| A_23_P104798 | 186.10000 |
| A_23_P104804 | 277.50000 |
| A_23_P104819 | 98.00000 |
| A_23_P104845 | 89.00000 |
| A_23_P104853 | 94.50000 |
| A_23_P104865 | 79.00000 |
| A_23_P104876 | 1045.00000 |
| A_23_P10488 | 160.00000 |
| A_23_P104881 | 117.50000 |

| | |
|--------------|-------------|
| A_23_P104892 | 13696.00000 |
| A_23_P104942 | 3675.00000 |
| A_23_P10497 | 499.00000 |
| A_23_P104972 | 90.00000 |
| A_23_P104996 | 125.00000 |
| A_23_P10500 | 85.00000 |
| A_23_P105002 | 594.00000 |
| A_23_P105012 | 112.00000 |
| A_23_P105028 | 1233.50000 |
| A_23_P105044 | 2551.00000 |
| A_23_P10506 | 178.00000 |
| A_23_P105066 | 1322.00000 |
| A_23_P105088 | 90.00000 |
| A_23_P105118 | 89.00000 |
| A_23_P105138 | 1352.00000 |
| A_23_P105144 | 319.50000 |
| A_23_P10518 | 120.50000 |
| A_23_P105184 | 1456.00000 |
| A_23_P105197 | 122.50000 |
| A_23_P105212 | 100.00000 |
| A_23_P105227 | 99.50000 |
| A_23_P10525 | 91.00000 |
| A_23_P105251 | 332.50000 |
| A_23_P105264 | 341.00000 |
| A_23_P105276 | 864.00000 |
| A_23_P105307 | 174.00000 |
| A_23_P105313 | 3329.50000 |
| A_23_P105368 | 123.00000 |
| A_23_P105382 | 233.00000 |
| A_23_P105392 | 21202.40000 |
| A_23_P105409 | 182.00000 |
| A_23_P10542 | 119.00000 |
| A_23_P105423 | 104.00000 |
| A_23_P105436 | 135.00000 |
| A_23_P105442 | 1250.00000 |
| A_23_P105453 | 87.00000 |
| A_23_P105461 | 97.00000 |
| A_23_P105465 | 83.00000 |
| A_23_P105475 | 116.50000 |
| A_23_P105495 | 110.00000 |
| A_23_P105519 | 1105.00000 |
| A_23_P105524 | 94.00000 |
| A_23_P105535 | 448.50000 |
| A_23_P105545 | 104.00000 |
| A_23_P105562 | 186.95000 |
| A_23_P105571 | 858.00000 |
| A_23_P105583 | 416.00000 |
| A_23_P10559 | 642.00000 |
| A_23_P105592 | 7167.00000 |
| A_23_P1056 | 570.00000 |
| A_23_P10561 | 79.00000 |
| A_23_P105619 | 285.50000 |
| A_23_P105625 | 1494.00000 |
| A_23_P10564 | 72.00000 |
| A_23_P105646 | 724.00000 |
| A_23_P105651 | 70.50000 |
| A_23_P105664 | 4484.00000 |
| A_23_P105691 | 94.50000 |
| A_23_P105705 | 80.00000 |
| A_23_P105730 | 86.00000 |

| | |
|--------------|-------------|
| A_23_P105732 | 5018.00000 |
| A_23_P105747 | 350.00000 |
| A_23_P105753 | 550.00000 |
| A_23_P105794 | 131.00000 |
| A_23_P105803 | 138.00000 |
| A_23_P105815 | 246.00000 |
| A_23_P105833 | 504.00000 |
| A_23_P105856 | 99.00000 |
| A_23_P105862 | 179.00000 |
| A_23_P105873 | 74.00000 |
| A_23_P105886 | 86.00000 |
| A_23_P105900 | 8387.00000 |
| A_23_P10591 | 7305.00000 |
| A_23_P105923 | 116.00000 |
| A_23_P105939 | 102.00000 |
| A_23_P105957 | 3658.00000 |
| A_23_P105963 | 130.00000 |
| A_23_P105973 | 321.00000 |
| A_23_P106 | 243.00000 |
| A_23_P106002 | 12168.00000 |
| A_23_P106016 | 279.00000 |
| A_23_P106024 | 248.00000 |
| A_23_P106042 | 95.00000 |
| A_23_P10605 | 556.00000 |
| A_23_P106056 | 5281.00000 |
| A_23_P106069 | 87.50000 |
| A_23_P106080 | 88.00000 |
| A_23_P106103 | 96.00000 |
| A_23_P106117 | 483.50000 |
| A_23_P106127 | 1179.00000 |
| A_23_P106131 | 5604.00000 |
| A_23_P10614 | 278.50000 |
| A_23_P106145 | 4310.00000 |
| A_23_P106158 | 302.00000 |
| A_23_P106162 | 495.50000 |
| A_23_P106174 | 103.50000 |
| A_23_P106194 | 4285.00000 |
| A_23_P106204 | 628.50000 |
| A_23_P106226 | 5984.00000 |
| A_23_P106236 | 90.00000 |
| A_23_P106241 | 2226.00000 |
| A_23_P106258 | 130.00000 |
| A_23_P106280 | 2098.50000 |
| A_23_P106299 | 9061.00000 |
| A_23_P106322 | 318.00000 |
| A_23_P106362 | 271.00000 |
| A_23_P106371 | 170.50000 |
| A_23_P106389 | 117.00000 |
| A_23_P106391 | 383.00000 |
| A_23_P10640 | 112.50000 |
| A_23_P106405 | 670.00000 |
| A_23_P106412 | 1024.00000 |
| A_23_P106425 | 148.00000 |
| A_23_P106433 | 3566.00000 |
| A_23_P106439 | 854.00000 |
| A_23_P106463 | 3001.00000 |
| A_23_P10647 | 322.00000 |
| A_23_P106472 | 9703.00000 |
| A_23_P106481 | 3735.00000 |
| A_23_P106497 | 323.00000 |

| | |
|--------------|-------------|
| A_23_P106505 | 522.50000 |
| A_23_P106522 | 1894.00000 |
| A_23_P106532 | 1722.00000 |
| A_23_P106544 | 6777.50000 |
| A_23_P106559 | 118.00000 |
| A_23_P106562 | 708.50000 |
| A_23_P106575 | 2616.00000 |
| A_23_P106602 | 114.00000 |
| A_23_P106617 | 585.00000 |
| A_23_P106629 | 167.00000 |
| A_23_P106633 | 2990.00000 |
| A_23_P106656 | 79.00000 |
| A_23_P106661 | 160.00000 |
| A_23_P106663 | 103.00000 |
| A_23_P106675 | 401.00000 |
| A_23_P106682 | 7958.00000 |
| A_23_P106694 | 2114.00000 |
| A_23_P106708 | 92440.20000 |
| A_23_P106720 | 297.00000 |
| A_23_P106727 | 1611.50000 |
| A_23_P106737 | 628.50000 |
| A_23_P106741 | 14091.00000 |
| A_23_P106761 | 859.00000 |
| A_23_P106773 | 2697.00000 |
| A_23_P106798 | 376.50000 |
| A_23_P106806 | 106.00000 |
| A_23_P106814 | 159.00000 |
| A_23_P106822 | 2021.50000 |
| A_23_P106835 | 1841.00000 |
| A_23_P106844 | 10954.00000 |
| A_23_P10685 | 2067.00000 |
| A_23_P106859 | 6059.00000 |
| A_23_P106874 | 171.00000 |
| A_23_P106887 | 5083.00000 |
| A_23_P106898 | 462.00000 |
| A_23_P106906 | 200.00000 |
| A_23_P106922 | 678.00000 |
| A_23_P106933 | 106.00000 |
| A_23_P106945 | 221.50000 |
| A_23_P106973 | 22625.60000 |
| A_23_P10699 | 235.00000 |
| A_23_P106998 | 2149.00000 |
| A_23_P10701 | 363.00000 |
| A_23_P107036 | 2133.00000 |
| A_23_P107048 | 735.00000 |
| A_23_P107051 | 364.00000 |
| A_23_P107064 | 121.00000 |
| A_23_P107073 | 8229.00000 |
| A_23_P107087 | 593.50000 |
| A_23_P107102 | 84.00000 |
| A_23_P107116 | 427.00000 |
| A_23_P107132 | 83.00000 |
| A_23_P107154 | 1461.00000 |
| A_23_P107166 | 219.00000 |
| A_23_P107173 | 95.00000 |
| A_23_P1072 | 8840.00000 |
| A_23_P107206 | 332.20000 |
| A_23_P10721 | 84.00000 |
| A_23_P107211 | 369.00000 |
| A_23_P107214 | 1256.00000 |

| | |
|--------------|-------------|
| A_23_P107238 | 125.50000 |
| A_23_P107247 | 105.00000 |
| A_23_P107257 | 838.00000 |
| A_23_P107283 | 2198.50000 |
| A_23_P107295 | 361.00000 |
| A_23_P107307 | 210.00000 |
| A_23_P107313 | 601.00000 |
| A_23_P107322 | 552.00000 |
| A_23_P107336 | 117.00000 |
| A_23_P107350 | 97.00000 |
| A_23_P107351 | 1923.00000 |
| A_23_P107369 | 10845.50000 |
| A_23_P107373 | 1251.50000 |
| A_23_P107394 | 8818.00000 |
| A_23_P107401 | 5553.50000 |
| A_23_P107412 | 9993.00000 |
| A_23_P107421 | 39980.20000 |
| A_23_P10743 | 170.00000 |
| A_23_P107432 | 463.50000 |
| A_23_P107443 | 79.00000 |
| A_23_P107454 | 195.00000 |
| A_23_P107465 | 147.00000 |
| A_23_P107483 | 110.00000 |
| A_23_P107507 | 669.00000 |
| A_23_P107513 | 336.00000 |
| A_23_P10753 | 87.50000 |
| A_23_P107531 | 85.00000 |
| A_23_P107552 | 473.00000 |
| A_23_P107565 | 86.00000 |
| A_23_P107578 | 98.00000 |
| A_23_P107587 | 688.50000 |
| A_23_P107597 | 104.00000 |
| A_23_P107612 | 120.50000 |
| A_23_P107623 | 80.00000 |
| A_23_P107644 | 23579.60000 |
| A_23_P107653 | 12829.00000 |
| A_23_P107661 | 2474.00000 |
| A_23_P107673 | 115.50000 |
| A_23_P107684 | 419.00000 |
| A_23_P107693 | 195.00000 |
| A_23_P107701 | 1687.50000 |
| A_23_P107714 | 286.50000 |
| A_23_P107724 | 255.00000 |
| A_23_P107735 | 640.00000 |
| A_23_P107744 | 125.50000 |
| A_23_P107750 | 81.00000 |
| A_23_P107763 | 886.00000 |
| A_23_P107775 | 129.00000 |
| A_23_P107795 | 4580.50000 |
| A_23_P107801 | 632.00000 |
| A_23_P107847 | 247.50000 |
| A_23_P10785 | 459.00000 |
| A_23_P107855 | 193.00000 |
| A_23_P107881 | 157.50000 |
| A_23_P107894 | 537.00000 |
| A_23_P107903 | 577.00000 |
| A_23_P107911 | 184.00000 |
| A_23_P107933 | 237.00000 |
| A_23_P107942 | 414.00000 |
| A_23_P107959 | 3037.50000 |

| | |
|--------------|-------------|
| A_23_P107963 | 186.50000 |
| A_23_P107974 | 89.00000 |
| A_23_P10798 | 162.50000 |
| A_23_P107981 | 121.00000 |
| A_23_P107994 | 1819.00000 |
| A_23_P108028 | 688.50000 |
| A_23_P108042 | 110.00000 |
| A_23_P108054 | 589.00000 |
| A_23_P108062 | 116.50000 |
| A_23_P108075 | 167.50000 |
| A_23_P108082 | 231.00000 |
| A_23_P108103 | 1160.00000 |
| A_23_P108129 | 169.00000 |
| A_23_P108135 | 7576.00000 |
| A_23_P108143 | 2295.00000 |
| A_23_P10815 | 3103.00000 |
| A_23_P108157 | 133.00000 |
| A_23_P108170 | 148.00000 |
| A_23_P108180 | 83.00000 |
| A_23_P108200 | 141.00000 |
| A_23_P108216 | 90.00000 |
| A_23_P108221 | 89.00000 |
| A_23_P108244 | 6670.50000 |
| A_23_P108265 | 128.00000 |
| A_23_P108280 | 154.00000 |
| A_23_P108294 | 716.00000 |
| A_23_P1083 | 98.00000 |
| A_23_P108303 | 6402.00000 |
| A_23_P108314 | 121.00000 |
| A_23_P108326 | 843.00000 |
| A_23_P108331 | 6608.50000 |
| A_23_P108342 | 164.50000 |
| A_23_P108376 | 716.00000 |
| A_23_P10839 | 1309.00000 |
| A_23_P108394 | 1200.00000 |
| A_23_P108404 | 719.50000 |
| A_23_P108415 | 10913.50000 |
| A_23_P108427 | 287.00000 |
| A_23_P108437 | 1457.00000 |
| A_23_P108463 | 185.50000 |
| A_23_P108492 | 112.00000 |
| A_23_P108501 | 361.00000 |
| A_23_P108514 | 263.00000 |
| A_23_P108522 | 2978.00000 |
| A_23_P108534 | 99.00000 |
| A_23_P108546 | 86.00000 |
| A_23_P108554 | 11833.00000 |
| A_23_P108564 | 91.00000 |
| A_23_P108574 | 958.00000 |
| A_23_P10858 | 512.00000 |
| A_23_P108592 | 93.00000 |
| A_23_P108604 | 2259.00000 |
| A_23_P108641 | 7607.00000 |
| A_23_P108657 | 361.00000 |
| A_23_P108662 | 5877.00000 |
| A_23_P108673 | 534.50000 |
| A_23_P108699 | 92.50000 |
| A_23_P10870 | 658.50000 |
| A_23_P108708 | 6451.50000 |
| A_23_P10873 | 184.00000 |

| | |
|--------------|-------------|
| A_23_P108734 | 86.00000 |
| A_23_P108743 | 88.00000 |
| A_23_P108751 | 13299.00000 |
| A_23_P108761 | 1027.50000 |
| A_23_P108785 | 4759.00000 |
| A_23_P108819 | 88.00000 |
| A_23_P108823 | 704.00000 |
| A_23_P108835 | 1003.00000 |
| A_23_P108842 | 1044.50000 |
| A_23_P10885 | 124.00000 |
| A_23_P108871 | 1829.00000 |
| A_23_P108883 | 131.00000 |
| A_23_P108911 | 108.00000 |
| A_23_P108922 | 188.00000 |
| A_23_P108932 | 334.50000 |
| A_23_P108948 | 814.50000 |
| A_23_P108970 | 97.50000 |
| A_23_P108990 | 91.00000 |
| A_23_P108994 | 2884.50000 |
| A_23_P109001 | 182.50000 |
| A_23_P109017 | 1016.00000 |
| A_23_P10902 | 223.00000 |
| A_23_P109026 | 1402.50000 |
| A_23_P109034 | 1230.00000 |
| A_23_P109055 | 120.00000 |
| A_23_P109072 | 1900.00000 |
| A_23_P10911 | 229.00000 |
| A_23_P109122 | 1343.00000 |
| A_23_P109133 | 126.00000 |
| A_23_P109143 | 4631.05000 |
| A_23_P109171 | 510.50000 |
| A_23_P109184 | 128.00000 |
| A_23_P109193 | 102.00000 |
| A_23_P109201 | 12490.00000 |
| A_23_P109224 | 116.00000 |
| A_23_P109229 | 89.50000 |
| A_23_P109235 | 1145.00000 |
| A_23_P109254 | 4757.50000 |
| A_23_P109269 | 661.00000 |
| A_23_P10927 | 161.00000 |
| A_23_P109286 | 103.00000 |
| A_23_P109304 | 204.00000 |
| A_23_P109320 | 218.00000 |
| A_23_P109322 | 653.00000 |
| A_23_P109333 | 5091.00000 |
| A_23_P109345 | 11680.50000 |
| A_23_P10936 | 84.00000 |
| A_23_P109382 | 82.50000 |
| A_23_P109393 | 156.00000 |
| A_23_P109410 | 318.00000 |
| A_23_P109420 | 934.00000 |
| A_23_P109427 | 660.00000 |
| A_23_P109436 | 368.00000 |
| A_23_P109442 | 2632.00000 |
| A_23_P109446 | 989.50000 |
| A_23_P109452 | 645.50000 |
| A_23_P10947 | 108.50000 |
| A_23_P109470 | 522.00000 |
| A_23_P109488 | 120.00000 |
| A_23_P109508 | 131.00000 |

| | |
|--------------|-------------|
| A_23_P109547 | 598.00000 |
| A_23_P10956 | 98.50000 |
| A_23_P109593 | 530.00000 |
| A_23_P109606 | 856.50000 |
| A_23_P109614 | 76.00000 |
| A_23_P109636 | 1501.00000 |
| A_23_P109643 | 353.50000 |
| A_23_P109655 | 532.00000 |
| A_23_P10966 | 139.00000 |
| A_23_P109677 | 10353.00000 |
| A_23_P109682 | 1011.00000 |
| A_23_P109720 | 82.00000 |
| A_23_P109733 | 651.00000 |
| A_23_P109768 | 10573.50000 |
| A_23_P109774 | 690.00000 |
| A_23_P109785 | 100.00000 |
| A_23_P109794 | 112.00000 |
| A_23_P10980 | 147.00000 |
| A_23_P109812 | 98.00000 |
| A_23_P109821 | 9566.00000 |
| A_23_P109843 | 88.00000 |
| A_23_P109864 | 195.00000 |
| A_23_P10987 | 445.00000 |
| A_23_P109877 | 572.50000 |
| A_23_P109881 | 453.00000 |
| A_23_P109895 | 1230.00000 |
| A_23_P109907 | 29397.50000 |
| A_23_P109913 | 76.50000 |
| A_23_P109928 | 9560.00000 |
| A_23_P109934 | 291.00000 |
| A_23_P10995 | 92.00000 |
| A_23_P109950 | 282.00000 |
| A_23_P109964 | 98.50000 |
| A_23_P109974 | 278.00000 |
| A_23_P109988 | 323.50000 |
| A_23_P110005 | 665.00000 |
| A_23_P110022 | 320.50000 |
| A_23_P110031 | 454.00000 |
| A_23_P11005 | 3057.00000 |
| A_23_P110052 | 384.00000 |
| A_23_P110062 | 1300.00000 |
| A_23_P110076 | 606.00000 |
| A_23_P110090 | 111.00000 |
| A_23_P110108 | 110.00000 |
| A_23_P110116 | 326.00000 |
| A_23_P110122 | 1629.50000 |
| A_23_P110135 | 94.00000 |
| A_23_P110151 | 124.00000 |
| A_23_P110167 | 2651.00000 |
| A_23_P11017 | 220.00000 |
| A_23_P110175 | 91.00000 |
| A_23_P110184 | 604.00000 |
| A_23_P110196 | 240.00000 |
| A_23_P1102 | 246.00000 |
| A_23_P110204 | 102.00000 |
| A_23_P110212 | 921.00000 |
| A_23_P110234 | 102.50000 |
| A_23_P110243 | 646.50000 |
| A_23_P11025 | 289.50000 |
| A_23_P110253 | 177.70000 |

| | |
|--------------|-------------|
| A_23_P110266 | 127.00000 |
| A_23_P110276 | 219.00000 |
| A_23_P110288 | 148.00000 |
| A_23_P110299 | 97.00000 |
| A_23_P110304 | 189.50000 |
| A_23_P110319 | 82.00000 |
| A_23_P11032 | 161.00000 |
| A_23_P110345 | 650.00000 |
| A_23_P110362 | 747.00000 |
| A_23_P110386 | 86.00000 |
| A_23_P110403 | 519.00000 |
| A_23_P110412 | 126.00000 |
| A_23_P110430 | 197.00000 |
| A_23_P110433 | 2014.50000 |
| A_23_P110445 | 618.50000 |
| A_23_P110462 | 114.00000 |
| A_23_P110473 | 686.00000 |
| A_23_P110492 | 1254.50000 |
| A_23_P110504 | 4358.50000 |
| A_23_P11051 | 153.00000 |
| A_23_P110531 | 6683.00000 |
| A_23_P110557 | 113.50000 |
| A_23_P110569 | 235.50000 |
| A_23_P110571 | 560.50000 |
| A_23_P110585 | 542.00000 |
| A_23_P110598 | 484.00000 |
| A_23_P110606 | 448.50000 |
| A_23_P110611 | 532.00000 |
| A_23_P110624 | 1133.00000 |
| A_23_P110643 | 267.00000 |
| A_23_P110655 | 1192.00000 |
| A_23_P110661 | 5500.00000 |
| A_23_P110686 | 2578.50000 |
| A_23_P110699 | 132.00000 |
| A_23_P11070 | 98.00000 |
| A_23_P110704 | 2933.50000 |
| A_23_P11071 | 2900.00000 |
| A_23_P110712 | 1778.00000 |
| A_23_P110725 | 516.50000 |
| A_23_P110764 | 71.00000 |
| A_23_P110777 | 84.00000 |
| A_23_P110787 | 217.00000 |
| A_23_P110791 | 2032.00000 |
| A_23_P110802 | 1734.50000 |
| A_23_P11081 | 81.00000 |
| A_23_P110811 | 25732.70000 |
| A_23_P110837 | 419.00000 |
| A_23_P110846 | 981.50000 |
| A_23_P110851 | 732.20000 |
| A_23_P110879 | 193.50000 |
| A_23_P110882 | 978.50000 |
| A_23_P110896 | 202.00000 |
| A_23_P110903 | 126.00000 |
| A_23_P110941 | 536.00000 |
| A_23_P110957 | 2094.50000 |
| A_23_P110961 | 3224.00000 |
| A_23_P111000 | 2566.00000 |
| A_23_P111005 | 3314.50000 |
| A_23_P111020 | 128.00000 |
| A_23_P11103 | 92.00000 |

| | |
|--------------|-------------|
| A_23_P111037 | 6260.00000 |
| A_23_P111041 | 1338.00000 |
| A_23_P111054 | 1210.00000 |
| A_23_P111088 | 96.50000 |
| A_23_P111092 | 2128.50000 |
| A_23_P111112 | 5505.50000 |
| A_23_P111126 | 201.00000 |
| A_23_P111132 | 12475.50000 |
| A_23_P111141 | 3038.00000 |
| A_23_P111155 | 97.50000 |
| A_23_P111171 | 355.00000 |
| A_23_P111188 | 199.00000 |
| A_23_P11119 | 82.00000 |
| A_23_P111194 | 394.00000 |
| A_23_P111206 | 223.50000 |
| A_23_P111228 | 442.00000 |
| A_23_P111240 | 491.00000 |
| A_23_P111260 | 390.00000 |
| A_23_P111267 | 236.50000 |
| A_23_P111273 | 8034.50000 |
| A_23_P111288 | 11071.00000 |
| A_23_P111297 | 1321.00000 |
| A_23_P111303 | 1120.00000 |
| A_23_P111306 | 836.50000 |
| A_23_P111311 | 232.00000 |
| A_23_P111321 | 132.50000 |
| A_23_P111343 | 1243.00000 |
| A_23_P111360 | 242.00000 |
| A_23_P111361 | 103.00000 |
| A_23_P111373 | 1531.50000 |
| A_23_P111381 | 916.50000 |
| A_23_P111395 | 87.00000 |
| A_23_P111402 | 80.00000 |
| A_23_P111413 | 181.00000 |
| A_23_P11144 | 103.50000 |
| A_23_P111452 | 5570.00000 |
| A_23_P111480 | 111.00000 |
| A_23_P111481 | 11455.00000 |
| A_23_P111487 | 364.00000 |
| A_23_P111492 | 155.00000 |
| A_23_P111506 | 9518.00000 |
| A_23_P111517 | 110.00000 |
| A_23_P111525 | 1124.00000 |
| A_23_P111531 | 1521.00000 |
| A_23_P111571 | 13044.00000 |
| A_23_P111583 | 218.00000 |
| A_23_P111593 | 161.00000 |
| A_23_P11160 | 300.00000 |
| A_23_P111604 | 90.00000 |
| A_23_P111621 | 2416.50000 |
| A_23_P111635 | 782.00000 |
| A_23_P111657 | 91.00000 |
| A_23_P111662 | 88.00000 |
| A_23_P111672 | 321.00000 |
| A_23_P111698 | 114.00000 |
| A_23_P1117 | 116.50000 |
| A_23_P111701 | 5163.00000 |
| A_23_P111712 | 292.00000 |
| A_23_P111724 | 88.00000 |
| A_23_P111737 | 130.00000 |

| | |
|--------------|------------|
| A_23_P111745 | 1121.00000 |
| A_23_P111753 | 7785.00000 |
| A_23_P111766 | 6585.00000 |
| A_23_P111797 | 1931.50000 |
| A_23_P111804 | 430.00000 |
| A_23_P111811 | 1234.00000 |
| A_23_P111826 | 87.50000 |
| A_23_P111835 | 5137.00000 |
| A_23_P111843 | 7180.00000 |
| A_23_P111860 | 823.00000 |
| A_23_P111865 | 233.00000 |
| A_23_P111888 | 1030.00000 |
| A_23_P111919 | 114.00000 |
| A_23_P11192 | 8159.00000 |
| A_23_P111929 | 158.00000 |
| A_23_P111947 | 80.00000 |
| A_23_P111961 | 1465.50000 |
| A_23_P111978 | 111.00000 |
| A_23_P111981 | 237.00000 |
| A_23_P111995 | 5391.95000 |
| A_23_P112004 | 139.50000 |
| A_23_P11201 | 95.00000 |
| A_23_P112016 | 96.00000 |
| A_23_P112026 | 452.00000 |
| A_23_P112061 | 1822.00000 |
| A_23_P112078 | 195.00000 |
| A_23_P112086 | 77.00000 |
| A_23_P112100 | 86.00000 |
| A_23_P112103 | 373.50000 |
| A_23_P112113 | 1467.00000 |
| A_23_P112135 | 4675.00000 |
| A_23_P11214 | 1209.00000 |
| A_23_P112159 | 839.50000 |
| A_23_P112162 | 887.00000 |
| A_23_P112173 | 75.00000 |
| A_23_P112187 | 100.00000 |
| A_23_P112201 | 493.00000 |
| A_23_P112220 | 201.00000 |
| A_23_P11224 | 2049.00000 |
| A_23_P112241 | 1001.50000 |
| A_23_P112251 | 3672.50000 |
| A_23_P112260 | 1383.00000 |
| A_23_P112275 | 86.00000 |
| A_23_P112289 | 152.00000 |
| A_23_P112296 | 100.00000 |
| A_23_P112311 | 240.50000 |
| A_23_P112327 | 88.50000 |

gRaw_arrays_scanner_file2.txt

| | |
|-----------------|-----------|
| (+)E1A_r60_1 | 87.35938 |
| (+)E1A_r60_3 | 88.62500 |
| (+)E1A_r60_a104 | 88.32812 |
| (+)E1A_r60_a107 | 86.28125 |
| (+)E1A_r60_a135 | 87.53125 |
| (+)E1A_r60_a20 | 94.57812 |
| (+)E1A_r60_a22 | 103.20312 |
| (+)E1A_r60_a97 | 86.03125 |
| (+)E1A_r60_n11 | 89.70312 |
| (+)E1A_r60_n9 | 89.60938 |
| (+)eQC-39 | 85.40000 |
| (+)eQC-40 | 85.35000 |

| | |
|--------------|-------------|
| (+)eQC-41 | 85.70000 |
| (+)eQC-42 | 86.25000 |
| 3xSLv1 | 86.34641 |
| A_23_P100001 | 1529.00000 |
| A_23_P100011 | 158.00000 |
| A_23_P100022 | 151.00000 |
| A_23_P100056 | 309.50000 |
| A_23_P100074 | 1893.00000 |
| A_23_P100092 | 439.00000 |
| A_23_P100103 | 188.00000 |
| A_23_P100111 | 145.00000 |
| A_23_P100127 | 514.00000 |
| A_23_P100133 | 193.00000 |
| A_23_P100141 | 569.00000 |
| A_23_P100156 | 262.00000 |
| A_23_P100177 | 155.50000 |
| A_23_P100189 | 120.50000 |
| A_23_P100196 | 1204.00000 |
| A_23_P100203 | 2258.00000 |
| A_23_P100220 | 2036.50000 |
| A_23_P100240 | 149.00000 |
| A_23_P10025 | 202.00000 |
| A_23_P100263 | 1342.00000 |
| A_23_P100278 | 110.50000 |
| A_23_P100292 | 9656.00000 |
| A_23_P100315 | 3180.00000 |
| A_23_P100326 | 4983.00000 |
| A_23_P100341 | 10252.00000 |
| A_23_P100344 | 1868.00000 |
| A_23_P100355 | 3029.00000 |
| A_23_P100386 | 99.00000 |
| A_23_P100392 | 1002.50000 |
| A_23_P100408 | 116.00000 |
| A_23_P100413 | 265.00000 |
| A_23_P100420 | 3611.50000 |
| A_23_P100441 | 1490.50000 |
| A_23_P100455 | 355.00000 |
| A_23_P100469 | 449.00000 |
| A_23_P100478 | 874.50000 |
| A_23_P100486 | 11929.00000 |
| A_23_P100499 | 161.00000 |
| A_23_P100501 | 3245.00000 |
| A_23_P100517 | 662.00000 |
| A_23_P100522 | 4815.00000 |
| A_23_P100539 | 416.00000 |
| A_23_P100556 | 724.50000 |
| A_23_P100576 | 5526.00000 |
| A_23_P100583 | 102.00000 |
| A_23_P100595 | 106.50000 |
| A_23_P10060 | 89.50000 |
| A_23_P100602 | 705.00000 |
| A_23_P10062 | 104.00000 |
| A_23_P100632 | 19371.00000 |
| A_23_P100642 | 364.00000 |
| A_23_P100654 | 1131.00000 |
| A_23_P100660 | 4197.00000 |
| A_23_P100676 | 434.00000 |
| A_23_P100693 | 696.00000 |
| A_23_P100704 | 651.00000 |
| A_23_P100711 | 3928.50000 |

| | |
|--------------|-------------|
| A_23_P100730 | 443.00000 |
| A_23_P100754 | 235.00000 |
| A_23_P100764 | 2998.00000 |
| A_23_P10077 | 317.00000 |
| A_23_P100779 | 360.50000 |
| A_23_P100788 | 251.00000 |
| A_23_P100795 | 442.00000 |
| A_23_P100802 | 8185.50000 |
| A_23_P10081 | 180.00000 |
| A_23_P100868 | 2694.00000 |
| A_23_P100872 | 111.00000 |
| A_23_P100883 | 2810.50000 |
| A_23_P10091 | 160.00000 |
| A_23_P100912 | 213.00000 |
| A_23_P100931 | 84.00000 |
| A_23_P100935 | 88.00000 |
| A_23_P100959 | 105.00000 |
| A_23_P100963 | 244.00000 |
| A_23_P100990 | 110.00000 |
| A_23_P100991 | 88.00000 |
| A_23_P101007 | 440.00000 |
| A_23_P101013 | 1552.00000 |
| A_23_P101025 | 351.00000 |
| A_23_P101038 | 88.00000 |
| A_23_P101048 | 93.00000 |
| A_23_P101054 | 172.00000 |
| A_23_P101073 | 107.00000 |
| A_23_P101084 | 101.00000 |
| A_23_P101093 | 810.50000 |
| A_23_P101111 | 917.00000 |
| A_23_P101121 | 529.00000 |
| A_23_P101131 | 97.00000 |
| A_23_P101141 | 186.00000 |
| A_23_P101185 | 4017.00000 |
| A_23_P101193 | 500.00000 |
| A_23_P101208 | 3307.50000 |
| A_23_P10121 | 3521.00000 |
| A_23_P101237 | 1736.00000 |
| A_23_P101240 | 16751.50000 |
| A_23_P101246 | 393.00000 |
| A_23_P101253 | 366.00000 |
| A_23_P101258 | 227.00000 |
| A_23_P10127 | 7056.00000 |
| A_23_P101272 | 1378.00000 |
| A_23_P101281 | 506.00000 |
| A_23_P101297 | 322.00000 |
| A_23_P101303 | 1216.00000 |
| A_23_P101308 | 259.00000 |
| A_23_P101319 | 141.00000 |
| A_23_P101321 | 199.00000 |
| A_23_P101332 | 2504.50000 |
| A_23_P101342 | 278.00000 |
| A_23_P10135 | 622.50000 |
| A_23_P101351 | 691.00000 |
| A_23_P101374 | 213.00000 |
| A_23_P101380 | 523.00000 |
| A_23_P101392 | 325.50000 |
| A_23_P1014 | 1142.50000 |
| A_23_P101407 | 8634.00000 |
| A_23_P101427 | 194.50000 |

| | |
|--------------|-------------|
| A_23_P101434 | 111.50000 |
| A_23_P101461 | 6493.00000 |
| A_23_P101476 | 179.00000 |
| A_23_P101480 | 365.00000 |
| A_23_P101505 | 781.00000 |
| A_23_P101516 | 181.00000 |
| A_23_P101521 | 86.00000 |
| A_23_P101532 | 78989.50000 |
| A_23_P101551 | 2751.00000 |
| A_23_P10156 | 403.50000 |
| A_23_P101564 | 95.00000 |
| A_23_P101573 | 91.00000 |
| A_23_P101615 | 267.00000 |
| A_23_P101623 | 139.00000 |
| A_23_P101636 | 88.00000 |
| A_23_P101642 | 914.00000 |
| A_23_P101655 | 1222.00000 |
| A_23_P101671 | 231.00000 |
| A_23_P101683 | 95.00000 |
| A_23_P101699 | 583.00000 |
| A_23_P101707 | 1774.00000 |
| A_23_P10172 | 87.00000 |
| A_23_P101737 | 397.50000 |
| A_23_P101742 | 1636.00000 |
| A_23_P101759 | 239.00000 |
| A_23_P101761 | 783.50000 |
| A_23_P101774 | 99.50000 |
| A_23_P101783 | 132.00000 |
| A_23_P101796 | 441.50000 |
| A_23_P101806 | 884.00000 |
| A_23_P101811 | 278.00000 |
| A_23_P10182 | 626.00000 |
| A_23_P101829 | 208.00000 |
| A_23_P101871 | 411.00000 |
| A_23_P101893 | 178.00000 |
| A_23_P101905 | 282.00000 |
| A_23_P101908 | 196.00000 |
| A_23_P10194 | 6206.50000 |
| A_23_P101943 | 950.50000 |
| A_23_P101950 | 11271.00000 |
| A_23_P101960 | 6563.00000 |
| A_23_P101972 | 170.50000 |
| A_23_P101992 | 122.50000 |
| A_23_P102000 | 3262.45000 |
| A_23_P102017 | 98.00000 |
| A_23_P102037 | 267.00000 |
| A_23_P102058 | 331.00000 |
| A_23_P10206 | 279.50000 |
| A_23_P102060 | 1460.00000 |
| A_23_P102071 | 871.50000 |
| A_23_P102083 | 79.00000 |
| A_23_P102109 | 2095.00000 |
| A_23_P10211 | 411.00000 |
| A_23_P102113 | 287.00000 |
| A_23_P102117 | 125.00000 |
| A_23_P102122 | 5754.00000 |
| A_23_P102160 | 201.00000 |
| A_23_P102172 | 90.50000 |
| A_23_P102183 | 2351.50000 |
| A_23_P102192 | 368.00000 |

| | |
|--------------|-------------|
| A_23_P102202 | 10014.00000 |
| A_23_P102235 | 5233.50000 |
| A_23_P102242 | 607.00000 |
| A_23_P102258 | 5643.00000 |
| A_23_P102262 | 6370.50000 |
| A_23_P102278 | 86.00000 |
| A_23_P102286 | 85.50000 |
| A_23_P10232 | 94.00000 |
| A_23_P102320 | 1716.00000 |
| A_23_P102331 | 97.00000 |
| A_23_P102351 | 204.00000 |
| A_23_P102364 | 2701.00000 |
| A_23_P102391 | 436.50000 |
| A_23_P102404 | 23606.70000 |
| A_23_P102412 | 734.00000 |
| A_23_P102420 | 42608.60000 |
| A_23_P102439 | 137.00000 |
| A_23_P102454 | 1965.00000 |
| A_23_P102462 | 130.50000 |
| A_23_P102471 | 3426.70000 |
| A_23_P102481 | 93.00000 |
| A_23_P102494 | 155.00000 |
| A_23_P102508 | 1381.00000 |
| A_23_P102517 | 1108.00000 |
| A_23_P102523 | 285.50000 |
| A_23_P102542 | 908.00000 |
| A_23_P102551 | 96.50000 |
| A_23_P102571 | 16045.00000 |
| A_23_P102575 | 3276.50000 |
| A_23_P102582 | 8677.50000 |
| A_23_P102607 | 115.50000 |
| A_23_P102611 | 9740.00000 |
| A_23_P102622 | 299.00000 |
| A_23_P102634 | 88.00000 |
| A_23_P102681 | 151.00000 |
| A_23_P102694 | 89.00000 |
| A_23_P102706 | 235.00000 |
| A_23_P102731 | 1053.50000 |
| A_23_P102743 | 280.00000 |
| A_23_P102759 | 147.00000 |
| A_23_P102769 | 587.00000 |
| A_23_P102770 | 1851.00000 |
| A_23_P102816 | 231.00000 |
| A_23_P102832 | 2282.00000 |
| A_23_P102842 | 1789.00000 |
| A_23_P102864 | 246.50000 |
| A_23_P102876 | 12947.50000 |
| A_23_P102884 | 134.00000 |
| A_23_P102890 | 7696.00000 |
| A_23_P1029 | 518.00000 |
| A_23_P10291 | 132.00000 |
| A_23_P102917 | 84.50000 |
| A_23_P102919 | 95.00000 |
| A_23_P102925 | 1514.00000 |
| A_23_P102937 | 1543.00000 |
| A_23_P102950 | 170.50000 |
| A_23_P102965 | 588.00000 |
| A_23_P102973 | 726.50000 |
| A_23_P102988 | 199.00000 |
| A_23_P102994 | 3405.00000 |

| | |
|--------------|-------------|
| A_23_P103011 | 598.00000 |
| A_23_P103034 | 91.50000 |
| A_23_P103041 | 103.00000 |
| A_23_P10305 | 246.00000 |
| A_23_P103062 | 288.50000 |
| A_23_P103070 | 2316.00000 |
| A_23_P103084 | 184.00000 |
| A_23_P103099 | 535.50000 |
| A_23_P103104 | 523.00000 |
| A_23_P103110 | 552.00000 |
| A_23_P103120 | 3155.00000 |
| A_23_P103131 | 2676.00000 |
| A_23_P103149 | 5292.50000 |
| A_23_P103172 | 2187.00000 |
| A_23_P103180 | 654.00000 |
| A_23_P103201 | 1966.00000 |
| A_23_P103226 | 103.00000 |
| A_23_P103232 | 6803.00000 |
| A_23_P103248 | 555.00000 |
| A_23_P103256 | 211.50000 |
| A_23_P103269 | 121.00000 |
| A_23_P103276 | 264.00000 |
| A_23_P103282 | 9068.00000 |
| A_23_P103310 | 118.00000 |
| A_23_P103315 | 9739.00000 |
| A_23_P103328 | 96.00000 |
| A_23_P103334 | 207.00000 |
| A_23_P103349 | 82.00000 |
| A_23_P103361 | 1239.80000 |
| A_23_P103371 | 132.00000 |
| A_23_P103398 | 2493.00000 |
| A_23_P103405 | 187.00000 |
| A_23_P103414 | 4390.00000 |
| A_23_P103424 | 93.00000 |
| A_23_P103433 | 604.00000 |
| A_23_P103442 | 3085.50000 |
| A_23_P103454 | 11128.50000 |
| A_23_P103465 | 157.00000 |
| A_23_P103476 | 711.50000 |
| A_23_P103486 | 220.00000 |
| A_23_P103496 | 110.00000 |
| A_23_P103503 | 512.00000 |
| A_23_P103511 | 769.00000 |
| A_23_P103522 | 83.50000 |
| A_23_P103532 | 278.00000 |
| A_23_P10356 | 92.00000 |
| A_23_P103561 | 267.00000 |
| A_23_P103571 | 147.00000 |
| A_23_P103588 | 85.00000 |
| A_23_P103601 | 1775.00000 |
| A_23_P103617 | 239.00000 |
| A_23_P103628 | 2886.00000 |
| A_23_P103631 | 16078.00000 |
| A_23_P103661 | 3051.00000 |
| A_23_P103672 | 2843.00000 |
| A_23_P103690 | 1144.00000 |
| A_23_P103698 | 3361.00000 |
| A_23_P103703 | 127.00000 |
| A_23_P103720 | 1056.50000 |
| A_23_P10374 | 3367.00000 |

| | |
|--------------|-------------|
| A_23_P103743 | 89.00000 |
| A_23_P103756 | 182.00000 |
| A_23_P103765 | 90.00000 |
| A_23_P103775 | 168.00000 |
| A_23_P103787 | 1083.00000 |
| A_23_P103795 | 646.00000 |
| A_23_P1038 | 228.50000 |
| A_23_P103803 | 90.00000 |
| A_23_P103812 | 163.00000 |
| A_23_P103824 | 1057.00000 |
| A_23_P103837 | 812.00000 |
| A_23_P10385 | 1080.10000 |
| A_23_P103864 | 461.00000 |
| A_23_P103877 | 842.00000 |
| A_23_P103885 | 8737.50000 |
| A_23_P103897 | 112.00000 |
| A_23_P103905 | 1398.00000 |
| A_23_P10391 | 395.00000 |
| A_23_P103919 | 1694.00000 |
| A_23_P103923 | 141.50000 |
| A_23_P103932 | 499.00000 |
| A_23_P103942 | 1552.50000 |
| A_23_P103951 | 4855.50000 |
| A_23_P103968 | 1369.00000 |
| A_23_P103971 | 85.00000 |
| A_23_P103981 | 21937.00000 |
| A_23_P103996 | 621.00000 |
| A_23_P10401 | 183.00000 |
| A_23_P104012 | 100.00000 |
| A_23_P104022 | 2247.00000 |
| A_23_P104025 | 576.00000 |
| A_23_P104046 | 462.00000 |
| A_23_P104054 | 1592.00000 |
| A_23_P104065 | 984.00000 |
| A_23_P104073 | 217.00000 |
| A_23_P104086 | 188.00000 |
| A_23_P104098 | 111.00000 |
| A_23_P104109 | 458.00000 |
| A_23_P104116 | 22561.20000 |
| A_23_P104138 | 206.00000 |
| A_23_P104146 | 681.00000 |
| A_23_P104151 | 426.00000 |
| A_23_P104188 | 627.00000 |
| A_23_P104193 | 2698.00000 |
| A_23_P104199 | 1099.05000 |
| A_23_P104201 | 5096.00000 |
| A_23_P104224 | 223.00000 |
| A_23_P104237 | 108.50000 |
| A_23_P104252 | 223.00000 |
| A_23_P104275 | 89.00000 |
| A_23_P104282 | 277.00000 |
| A_23_P104295 | 327.00000 |
| A_23_P1043 | 659.00000 |
| A_23_P104318 | 21250.40000 |
| A_23_P104323 | 593.00000 |
| A_23_P104335 | 86.00000 |
| A_23_P104346 | 523.00000 |
| A_23_P104351 | 2147.50000 |
| A_23_P104362 | 6437.00000 |
| A_23_P104372 | 6248.00000 |

| | |
|--------------|-------------|
| A_23_P104387 | 3723.00000 |
| A_23_P104413 | 12216.00000 |
| A_23_P10442 | 833.00000 |
| A_23_P104438 | 188.50000 |
| A_23_P104445 | 181.00000 |
| A_23_P104451 | 4958.50000 |
| A_23_P104464 | 328.00000 |
| A_23_P104471 | 1013.50000 |
| A_23_P104484 | 85.00000 |
| A_23_P104493 | 327.00000 |
| A_23_P104509 | 134.50000 |
| A_23_P104522 | 175.00000 |
| A_23_P104555 | 108.00000 |
| A_23_P104563 | 250.00000 |
| A_23_P104579 | 695.00000 |
| A_23_P10458 | 89.00000 |
| A_23_P104583 | 452.00000 |
| A_23_P104594 | 109.50000 |
| A_23_P104607 | 2112.00000 |
| A_23_P104617 | 254.00000 |
| A_23_P104624 | 1234.00000 |
| A_23_P10463 | 18052.50000 |
| A_23_P104641 | 2316.00000 |
| A_23_P104651 | 6061.00000 |
| A_23_P104676 | 4245.00000 |
| A_23_P104689 | 611.15000 |
| A_23_P104692 | 841.00000 |
| A_23_P104705 | 201.00000 |
| A_23_P104734 | 4593.00000 |
| A_23_P104741 | 257.00000 |
| A_23_P104762 | 645.00000 |
| A_23_P104798 | 178.45000 |
| A_23_P104804 | 228.00000 |
| A_23_P104819 | 94.00000 |
| A_23_P104845 | 96.00000 |
| A_23_P104853 | 92.50000 |
| A_23_P104865 | 89.00000 |
| A_23_P104876 | 1081.50000 |
| A_23_P10488 | 159.00000 |
| A_23_P104881 | 122.00000 |
| A_23_P104892 | 11215.00000 |
| A_23_P104942 | 3144.50000 |
| A_23_P10497 | 504.00000 |
| A_23_P104972 | 98.00000 |
| A_23_P104996 | 141.50000 |
| A_23_P10500 | 94.00000 |
| A_23_P105002 | 625.50000 |
| A_23_P105012 | 116.00000 |
| A_23_P105028 | 1181.00000 |
| A_23_P105044 | 2985.00000 |
| A_23_P10506 | 118.00000 |
| A_23_P105066 | 1241.00000 |
| A_23_P105088 | 91.00000 |
| A_23_P105118 | 98.50000 |
| A_23_P105138 | 1479.50000 |
| A_23_P105144 | 323.50000 |
| A_23_P10518 | 145.00000 |
| A_23_P105184 | 1385.50000 |
| A_23_P105197 | 128.00000 |
| A_23_P105212 | 107.00000 |

| | |
|--------------|-------------|
| A_23_P105227 | 103.00000 |
| A_23_P10525 | 91.00000 |
| A_23_P105251 | 295.00000 |
| A_23_P105264 | 350.50000 |
| A_23_P105276 | 834.00000 |
| A_23_P105307 | 175.00000 |
| A_23_P105313 | 3022.00000 |
| A_23_P105368 | 117.00000 |
| A_23_P105382 | 230.50000 |
| A_23_P105392 | 19263.30000 |
| A_23_P105409 | 214.00000 |
| A_23_P10542 | 132.00000 |
| A_23_P105423 | 110.00000 |
| A_23_P105436 | 139.00000 |
| A_23_P105442 | 1165.00000 |
| A_23_P105453 | 83.00000 |
| A_23_P105461 | 107.00000 |
| A_23_P105465 | 91.00000 |
| A_23_P105475 | 118.00000 |
| A_23_P105495 | 122.00000 |
| A_23_P105519 | 1051.50000 |
| A_23_P105524 | 88.50000 |
| A_23_P105535 | 384.50000 |
| A_23_P105545 | 107.00000 |
| A_23_P105562 | 173.55000 |
| A_23_P105571 | 989.50000 |
| A_23_P105583 | 451.50000 |
| A_23_P10559 | 561.50000 |
| A_23_P105592 | 7722.00000 |
| A_23_P1056 | 573.00000 |
| A_23_P10561 | 79.50000 |
| A_23_P105619 | 332.00000 |
| A_23_P105625 | 1749.00000 |
| A_23_P10564 | 79.00000 |
| A_23_P105646 | 710.00000 |
| A_23_P105651 | 82.00000 |
| A_23_P105664 | 4715.00000 |
| A_23_P105691 | 108.00000 |
| A_23_P105705 | 87.00000 |
| A_23_P105730 | 91.00000 |
| A_23_P105732 | 6212.00000 |
| A_23_P105747 | 385.00000 |
| A_23_P105753 | 542.00000 |
| A_23_P105794 | 133.00000 |
| A_23_P105803 | 160.50000 |
| A_23_P105815 | 230.50000 |
| A_23_P105833 | 504.00000 |
| A_23_P105856 | 94.00000 |
| A_23_P105862 | 155.00000 |
| A_23_P105873 | 82.00000 |
| A_23_P105886 | 84.00000 |
| A_23_P105900 | 8753.00000 |
| A_23_P10591 | 6799.00000 |
| A_23_P105923 | 125.50000 |
| A_23_P105939 | 115.50000 |
| A_23_P105957 | 3823.50000 |
| A_23_P105963 | 126.50000 |
| A_23_P105973 | 321.00000 |
| A_23_P106 | 234.00000 |
| A_23_P106002 | 9759.50000 |

| | |
|--------------|--------------|
| A_23_P106016 | 277.00000 |
| A_23_P106024 | 294.50000 |
| A_23_P106042 | 100.00000 |
| A_23_P10605 | 471.50000 |
| A_23_P106056 | 4823.00000 |
| A_23_P106069 | 92.00000 |
| A_23_P106080 | 93.00000 |
| A_23_P106103 | 95.50000 |
| A_23_P106117 | 492.00000 |
| A_23_P106127 | 1258.00000 |
| A_23_P106131 | 5134.50000 |
| A_23_P10614 | 285.00000 |
| A_23_P106145 | 3915.50000 |
| A_23_P106158 | 308.00000 |
| A_23_P106162 | 415.50000 |
| A_23_P106174 | 122.00000 |
| A_23_P106194 | 4183.00000 |
| A_23_P106204 | 666.00000 |
| A_23_P106226 | 6296.00000 |
| A_23_P106236 | 92.00000 |
| A_23_P106241 | 2204.50000 |
| A_23_P106258 | 148.00000 |
| A_23_P106280 | 2366.00000 |
| A_23_P106299 | 9023.00000 |
| A_23_P106322 | 420.00000 |
| A_23_P106362 | 218.50000 |
| A_23_P106371 | 181.00000 |
| A_23_P106389 | 112.50000 |
| A_23_P106391 | 350.00000 |
| A_23_P10640 | 113.50000 |
| A_23_P106405 | 729.00000 |
| A_23_P106412 | 1043.00000 |
| A_23_P106425 | 152.00000 |
| A_23_P106433 | 3784.50000 |
| A_23_P106439 | 900.50000 |
| A_23_P106463 | 3145.50000 |
| A_23_P10647 | 347.00000 |
| A_23_P106472 | 13987.00000 |
| A_23_P106481 | 3911.50000 |
| A_23_P106497 | 329.00000 |
| A_23_P106505 | 475.50000 |
| A_23_P106522 | 1803.00000 |
| A_23_P106532 | 1738.50000 |
| A_23_P106544 | 6108.50000 |
| A_23_P106559 | 124.00000 |
| A_23_P106562 | 800.00000 |
| A_23_P106575 | 2951.00000 |
| A_23_P106602 | 114.00000 |
| A_23_P106617 | 656.00000 |
| A_23_P106629 | 101.00000 |
| A_23_P106633 | 2874.00000 |
| A_23_P106656 | 89.00000 |
| A_23_P106661 | 168.00000 |
| A_23_P106663 | 105.00000 |
| A_23_P106675 | 387.50000 |
| A_23_P106682 | 8203.00000 |
| A_23_P106694 | 2419.50000 |
| A_23_P106708 | 122653.00000 |
| A_23_P106720 | 318.50000 |
| A_23_P106727 | 1749.00000 |

| | |
|--------------|-------------|
| A_23_P106737 | 562.00000 |
| A_23_P106741 | 13257.50000 |
| A_23_P106761 | 971.00000 |
| A_23_P106773 | 2713.50000 |
| A_23_P106798 | 395.00000 |
| A_23_P106806 | 124.00000 |
| A_23_P106814 | 165.00000 |
| A_23_P106822 | 2226.50000 |
| A_23_P106835 | 1837.50000 |
| A_23_P106844 | 12734.00000 |
| A_23_P10685 | 2142.00000 |
| A_23_P106859 | 5679.00000 |
| A_23_P106874 | 187.00000 |
| A_23_P106887 | 5389.50000 |
| A_23_P106898 | 491.00000 |
| A_23_P106906 | 207.00000 |
| A_23_P106922 | 703.00000 |
| A_23_P106933 | 107.50000 |
| A_23_P106945 | 218.00000 |
| A_23_P106973 | 17488.50000 |
| A_23_P10699 | 257.00000 |
| A_23_P106998 | 2052.00000 |
| A_23_P10701 | 382.50000 |
| A_23_P107036 | 2033.00000 |
| A_23_P107048 | 719.50000 |
| A_23_P107051 | 395.00000 |
| A_23_P107064 | 120.00000 |
| A_23_P107073 | 7968.00000 |
| A_23_P107087 | 632.00000 |
| A_23_P107102 | 88.00000 |
| A_23_P107116 | 432.50000 |
| A_23_P107132 | 85.50000 |
| A_23_P107154 | 1460.50000 |
| A_23_P107166 | 214.00000 |
| A_23_P107173 | 109.00000 |
| A_23_P1072 | 8917.50000 |
| A_23_P107206 | 347.25000 |
| A_23_P10721 | 85.00000 |
| A_23_P107211 | 424.00000 |
| A_23_P107214 | 1373.00000 |
| A_23_P107238 | 120.00000 |
| A_23_P107247 | 128.00000 |
| A_23_P107257 | 884.00000 |
| A_23_P107283 | 2094.00000 |
| A_23_P107295 | 490.00000 |
| A_23_P107307 | 285.00000 |
| A_23_P107313 | 632.00000 |
| A_23_P107322 | 531.50000 |
| A_23_P107336 | 115.00000 |
| A_23_P107350 | 105.00000 |
| A_23_P107351 | 1867.00000 |
| A_23_P107369 | 10675.00000 |
| A_23_P107373 | 1301.00000 |
| A_23_P107394 | 13076.00000 |
| A_23_P107401 | 4592.00000 |
| A_23_P107412 | 9927.00000 |
| A_23_P107421 | 41261.40000 |
| A_23_P10743 | 152.50000 |
| A_23_P107432 | 493.00000 |
| A_23_P107443 | 88.00000 |

| | |
|--------------|-------------|
| A_23_P107454 | 195.00000 |
| A_23_P107465 | 148.00000 |
| A_23_P107483 | 118.00000 |
| A_23_P107507 | 593.00000 |
| A_23_P107513 | 344.00000 |
| A_23_P10753 | 87.00000 |
| A_23_P107531 | 89.00000 |
| A_23_P107552 | 442.00000 |
| A_23_P107565 | 91.00000 |
| A_23_P107578 | 108.00000 |
| A_23_P107587 | 695.00000 |
| A_23_P107597 | 105.00000 |
| A_23_P107612 | 126.00000 |
| A_23_P107623 | 86.00000 |
| A_23_P107644 | 21968.20000 |
| A_23_P107653 | 14332.50000 |
| A_23_P107661 | 2649.00000 |
| A_23_P107673 | 106.00000 |
| A_23_P107684 | 486.00000 |
| A_23_P107693 | 203.50000 |
| A_23_P107701 | 1611.00000 |
| A_23_P107714 | 267.00000 |
| A_23_P107724 | 294.00000 |
| A_23_P107735 | 652.50000 |
| A_23_P107744 | 135.00000 |
| A_23_P107750 | 80.50000 |
| A_23_P107763 | 859.00000 |
| A_23_P107775 | 162.00000 |
| A_23_P107795 | 4471.50000 |
| A_23_P107801 | 649.50000 |
| A_23_P107847 | 160.00000 |
| A_23_P10785 | 470.50000 |
| A_23_P107855 | 215.00000 |
| A_23_P107881 | 153.00000 |
| A_23_P107894 | 608.00000 |
| A_23_P107903 | 577.00000 |
| A_23_P107911 | 173.00000 |
| A_23_P107933 | 252.00000 |
| A_23_P107942 | 426.50000 |
| A_23_P107959 | 3297.00000 |
| A_23_P107963 | 192.00000 |
| A_23_P107974 | 98.00000 |
| A_23_P10798 | 182.00000 |
| A_23_P107981 | 135.00000 |
| A_23_P107994 | 2090.50000 |
| A_23_P108028 | 747.00000 |
| A_23_P108042 | 109.00000 |
| A_23_P108054 | 613.50000 |
| A_23_P108062 | 120.00000 |
| A_23_P108075 | 160.00000 |
| A_23_P108082 | 269.00000 |
| A_23_P108103 | 1090.50000 |
| A_23_P108129 | 141.00000 |
| A_23_P108135 | 7905.00000 |
| A_23_P108143 | 2794.00000 |
| A_23_P10815 | 3240.00000 |
| A_23_P108157 | 162.00000 |
| A_23_P108170 | 162.00000 |
| A_23_P108180 | 93.00000 |
| A_23_P108200 | 162.50000 |

| | |
|--------------|-------------|
| A_23_P108216 | 105.50000 |
| A_23_P108221 | 90.50000 |
| A_23_P108244 | 6832.00000 |
| A_23_P108265 | 141.00000 |
| A_23_P108280 | 172.00000 |
| A_23_P108294 | 833.00000 |
| A_23_P1083 | 99.50000 |
| A_23_P108303 | 6150.00000 |
| A_23_P108314 | 102.00000 |
| A_23_P108326 | 1033.00000 |
| A_23_P108331 | 7617.00000 |
| A_23_P108342 | 177.00000 |
| A_23_P108376 | 695.00000 |
| A_23_P10839 | 1336.00000 |
| A_23_P108394 | 1009.00000 |
| A_23_P108404 | 731.50000 |
| A_23_P108415 | 12676.00000 |
| A_23_P108427 | 292.00000 |
| A_23_P108437 | 1442.00000 |
| A_23_P108463 | 205.00000 |
| A_23_P108492 | 116.50000 |
| A_23_P108501 | 373.00000 |
| A_23_P108514 | 306.50000 |
| A_23_P108522 | 2970.50000 |
| A_23_P108534 | 122.00000 |
| A_23_P108546 | 85.00000 |
| A_23_P108554 | 12077.00000 |
| A_23_P108564 | 90.00000 |
| A_23_P108574 | 890.50000 |
| A_23_P10858 | 500.00000 |
| A_23_P108592 | 93.50000 |
| A_23_P108604 | 2321.00000 |
| A_23_P108641 | 7355.50000 |
| A_23_P108657 | 364.00000 |
| A_23_P108662 | 5713.00000 |
| A_23_P108673 | 529.00000 |
| A_23_P108699 | 105.00000 |
| A_23_P10870 | 670.00000 |
| A_23_P108708 | 6953.50000 |
| A_23_P10873 | 170.00000 |
| A_23_P108734 | 86.50000 |
| A_23_P108743 | 95.00000 |
| A_23_P108751 | 15079.50000 |
| A_23_P108761 | 962.50000 |
| A_23_P108785 | 4185.00000 |
| A_23_P108819 | 108.00000 |
| A_23_P108823 | 814.00000 |
| A_23_P108835 | 995.00000 |
| A_23_P108842 | 859.50000 |
| A_23_P10885 | 123.00000 |
| A_23_P108871 | 1767.00000 |
| A_23_P108883 | 151.00000 |
| A_23_P108911 | 107.00000 |
| A_23_P108922 | 189.50000 |
| A_23_P108932 | 284.50000 |
| A_23_P108948 | 831.50000 |
| A_23_P108970 | 100.00000 |
| A_23_P108990 | 86.00000 |
| A_23_P108994 | 2982.00000 |
| A_23_P109001 | 191.00000 |

| | |
|--------------|-------------|
| A_23_P109017 | 1068.50000 |
| A_23_P10902 | 210.00000 |
| A_23_P109026 | 1525.00000 |
| A_23_P109034 | 1428.00000 |
| A_23_P109055 | 148.00000 |
| A_23_P109072 | 1862.00000 |
| A_23_P10911 | 240.00000 |
| A_23_P109122 | 1218.00000 |
| A_23_P109133 | 109.00000 |
| A_23_P109143 | 4229.90000 |
| A_23_P109171 | 577.00000 |
| A_23_P109184 | 127.00000 |
| A_23_P109193 | 99.00000 |
| A_23_P109201 | 11171.00000 |
| A_23_P109224 | 131.00000 |
| A_23_P109229 | 94.00000 |
| A_23_P109235 | 1202.50000 |
| A_23_P109254 | 4676.00000 |
| A_23_P109269 | 708.50000 |
| A_23_P10927 | 166.00000 |
| A_23_P109286 | 84.00000 |
| A_23_P109304 | 230.00000 |
| A_23_P109320 | 210.00000 |
| A_23_P109322 | 643.00000 |
| A_23_P109333 | 5207.00000 |
| A_23_P109345 | 11165.00000 |
| A_23_P10936 | 92.00000 |
| A_23_P109382 | 86.50000 |
| A_23_P109393 | 164.50000 |
| A_23_P109410 | 349.00000 |
| A_23_P109420 | 1049.00000 |
| A_23_P109427 | 768.00000 |
| A_23_P109436 | 444.50000 |
| A_23_P109442 | 2586.00000 |
| A_23_P109446 | 1072.00000 |
| A_23_P109452 | 674.00000 |
| A_23_P10947 | 109.00000 |
| A_23_P109470 | 547.00000 |
| A_23_P109488 | 111.50000 |
| A_23_P109508 | 137.00000 |
| A_23_P109547 | 682.00000 |
| A_23_P10956 | 99.00000 |
| A_23_P109593 | 520.00000 |
| A_23_P109606 | 946.00000 |
| A_23_P109614 | 84.00000 |
| A_23_P109636 | 2066.00000 |
| A_23_P109643 | 434.50000 |
| A_23_P109655 | 504.50000 |
| A_23_P10966 | 134.00000 |
| A_23_P109677 | 11509.00000 |
| A_23_P109682 | 971.00000 |
| A_23_P109720 | 81.00000 |
| A_23_P109733 | 687.00000 |
| A_23_P109768 | 10024.00000 |
| A_23_P109774 | 565.00000 |
| A_23_P109785 | 102.00000 |
| A_23_P109794 | 123.00000 |
| A_23_P10980 | 147.00000 |
| A_23_P109812 | 98.00000 |
| A_23_P109821 | 10514.00000 |

| | |
|--------------|-------------|
| A_23_P109843 | 90.00000 |
| A_23_P109864 | 217.00000 |
| A_23_P10987 | 451.00000 |
| A_23_P109877 | 532.50000 |
| A_23_P109881 | 508.50000 |
| A_23_P109895 | 1244.00000 |
| A_23_P109907 | 28309.10000 |
| A_23_P109913 | 83.00000 |
| A_23_P109928 | 9720.00000 |
| A_23_P109934 | 269.00000 |
| A_23_P10995 | 98.00000 |
| A_23_P109950 | 324.00000 |
| A_23_P109964 | 102.50000 |
| A_23_P109974 | 304.00000 |
| A_23_P109988 | 263.00000 |
| A_23_P110005 | 751.00000 |
| A_23_P110022 | 360.00000 |
| A_23_P110031 | 466.00000 |
| A_23_P11005 | 2325.00000 |
| A_23_P110052 | 405.00000 |
| A_23_P110062 | 1380.50000 |
| A_23_P110076 | 635.00000 |
| A_23_P110090 | 104.00000 |
| A_23_P110108 | 118.00000 |
| A_23_P110116 | 270.00000 |
| A_23_P110122 | 1662.00000 |
| A_23_P110135 | 98.00000 |
| A_23_P110151 | 124.50000 |
| A_23_P110167 | 2512.00000 |
| A_23_P11017 | 235.00000 |
| A_23_P110175 | 100.00000 |
| A_23_P110184 | 553.00000 |
| A_23_P110196 | 250.50000 |
| A_23_P1102 | 257.50000 |
| A_23_P110204 | 94.00000 |
| A_23_P110212 | 891.00000 |
| A_23_P110234 | 116.00000 |
| A_23_P110243 | 644.00000 |
| A_23_P11025 | 290.00000 |
| A_23_P110253 | 190.90000 |
| A_23_P110266 | 126.50000 |
| A_23_P110276 | 221.00000 |
| A_23_P110288 | 155.00000 |
| A_23_P110299 | 92.00000 |
| A_23_P110304 | 183.50000 |
| A_23_P110319 | 86.00000 |
| A_23_P11032 | 144.50000 |
| A_23_P110345 | 619.00000 |
| A_23_P110362 | 772.00000 |
| A_23_P110386 | 82.00000 |
| A_23_P110403 | 458.00000 |
| A_23_P110412 | 120.00000 |
| A_23_P110430 | 227.00000 |
| A_23_P110433 | 1836.00000 |
| A_23_P110445 | 678.00000 |
| A_23_P110462 | 91.50000 |
| A_23_P110473 | 547.00000 |
| A_23_P110492 | 1337.00000 |
| A_23_P110504 | 4518.50000 |
| A_23_P11051 | 144.00000 |

| | |
|--------------|-------------|
| A_23_P110531 | 6440.00000 |
| A_23_P110557 | 122.00000 |
| A_23_P110569 | 238.00000 |
| A_23_P110571 | 580.00000 |
| A_23_P110585 | 553.00000 |
| A_23_P110598 | 515.50000 |
| A_23_P110606 | 457.50000 |
| A_23_P110611 | 532.00000 |
| A_23_P110624 | 1217.00000 |
| A_23_P110643 | 240.00000 |
| A_23_P110655 | 1209.00000 |
| A_23_P110661 | 5973.00000 |
| A_23_P110686 | 2857.00000 |
| A_23_P110699 | 140.00000 |
| A_23_P11070 | 100.00000 |
| A_23_P110704 | 3060.50000 |
| A_23_P11071 | 3228.00000 |
| A_23_P110712 | 1698.00000 |
| A_23_P110725 | 595.00000 |
| A_23_P110764 | 84.00000 |
| A_23_P110777 | 86.00000 |
| A_23_P110787 | 214.00000 |
| A_23_P110791 | 1791.00000 |
| A_23_P110802 | 1718.00000 |
| A_23_P11081 | 88.50000 |
| A_23_P110811 | 24641.90000 |
| A_23_P110837 | 405.50000 |
| A_23_P110846 | 891.00000 |
| A_23_P110851 | 739.95000 |
| A_23_P110879 | 188.00000 |
| A_23_P110882 | 1019.00000 |
| A_23_P110896 | 202.00000 |
| A_23_P110903 | 127.00000 |
| A_23_P110941 | 564.00000 |
| A_23_P110957 | 2052.50000 |
| A_23_P110961 | 2985.00000 |
| A_23_P111000 | 2627.50000 |
| A_23_P111005 | 3877.00000 |
| A_23_P111020 | 138.50000 |
| A_23_P11103 | 89.00000 |
| A_23_P111037 | 7396.00000 |
| A_23_P111041 | 1626.00000 |
| A_23_P111054 | 1300.00000 |
| A_23_P111088 | 105.00000 |
| A_23_P111092 | 1786.00000 |
| A_23_P111112 | 5674.00000 |
| A_23_P111126 | 173.00000 |
| A_23_P111132 | 10760.00000 |
| A_23_P111141 | 3176.00000 |
| A_23_P111155 | 91.00000 |
| A_23_P111171 | 327.50000 |
| A_23_P111188 | 230.00000 |
| A_23_P11119 | 90.00000 |
| A_23_P111194 | 404.50000 |
| A_23_P111206 | 244.50000 |
| A_23_P111228 | 400.00000 |
| A_23_P111240 | 500.50000 |
| A_23_P111260 | 410.00000 |
| A_23_P111267 | 243.00000 |
| A_23_P111273 | 8366.00000 |

| | |
|--------------|-------------|
| A_23_P111288 | 11451.00000 |
| A_23_P111297 | 1349.50000 |
| A_23_P111303 | 1168.00000 |
| A_23_P111306 | 772.00000 |
| A_23_P111311 | 250.00000 |
| A_23_P111321 | 158.50000 |
| A_23_P111343 | 1272.50000 |
| A_23_P111360 | 230.50000 |
| A_23_P111361 | 101.00000 |
| A_23_P111373 | 1547.00000 |
| A_23_P111381 | 813.50000 |
| A_23_P111395 | 87.00000 |
| A_23_P111402 | 82.50000 |
| A_23_P111413 | 215.00000 |
| A_23_P11144 | 98.50000 |
| A_23_P111452 | 5614.00000 |
| A_23_P111480 | 121.50000 |
| A_23_P111481 | 11674.00000 |
| A_23_P111487 | 360.00000 |
| A_23_P111492 | 171.50000 |
| A_23_P111506 | 16700.00000 |
| A_23_P111517 | 125.00000 |
| A_23_P111525 | 1122.00000 |
| A_23_P111531 | 1694.00000 |
| A_23_P111571 | 19618.00000 |
| A_23_P111583 | 181.00000 |
| A_23_P111593 | 162.00000 |
| A_23_P11160 | 341.00000 |
| A_23_P111604 | 95.00000 |
| A_23_P111621 | 2592.50000 |
| A_23_P111635 | 842.50000 |
| A_23_P111657 | 96.00000 |
| A_23_P111662 | 92.00000 |
| A_23_P111672 | 348.00000 |
| A_23_P111698 | 118.00000 |
| A_23_P1117 | 126.00000 |
| A_23_P111701 | 4467.00000 |
| A_23_P111712 | 293.50000 |
| A_23_P111724 | 89.00000 |
| A_23_P111737 | 144.00000 |
| A_23_P111745 | 1443.50000 |
| A_23_P111753 | 6786.00000 |
| A_23_P111766 | 6674.00000 |
| A_23_P111797 | 1863.00000 |
| A_23_P111804 | 430.00000 |
| A_23_P111811 | 1205.00000 |
| A_23_P111826 | 92.00000 |
| A_23_P111835 | 4901.00000 |
| A_23_P111843 | 8304.00000 |
| A_23_P111860 | 897.00000 |
| A_23_P111865 | 244.00000 |
| A_23_P111888 | 1063.00000 |
| A_23_P111919 | 104.50000 |
| A_23_P11192 | 8605.00000 |
| A_23_P111929 | 169.00000 |
| A_23_P111947 | 75.50000 |
| A_23_P111961 | 1552.00000 |
| A_23_P111978 | 118.00000 |
| A_23_P111981 | 246.00000 |
| A_23_P111995 | 5810.90000 |

| | |
|-------------------------------|------------|
| A_23_P112004 | 127.00000 |
| A_23_P11201 | 94.00000 |
| A_23_P112016 | 101.00000 |
| A_23_P112026 | 465.00000 |
| A_23_P112061 | 1670.00000 |
| A_23_P112078 | 210.00000 |
| A_23_P112086 | 84.00000 |
| A_23_P112100 | 84.50000 |
| A_23_P112103 | 365.50000 |
| A_23_P112113 | 1628.50000 |
| A_23_P112135 | 4607.00000 |
| A_23_P11214 | 1178.00000 |
| A_23_P112159 | 898.00000 |
| A_23_P112162 | 859.00000 |
| A_23_P112173 | 83.00000 |
| A_23_P112187 | 116.00000 |
| A_23_P112201 | 449.00000 |
| A_23_P112220 | 219.50000 |
| A_23_P11224 | 1903.50000 |
| A_23_P112241 | 1002.00000 |
| A_23_P112251 | 3550.00000 |
| A_23_P112260 | 1360.50000 |
| A_23_P112275 | 92.00000 |
| A_23_P112289 | 144.00000 |
| A_23_P112296 | 95.50000 |
| A_23_P112311 | 243.00000 |
| A_23_P112327 | 84.00000 |
| rRaw_arrays_scanner_file1.txt | |
| (+)E1A_r60_1 | 157.2031 |
| (+)E1A_r60_3 | 172.8438 |
| (+)E1A_r60_a104 | 152.4531 |
| (+)E1A_r60_a107 | 165.1406 |
| (+)E1A_r60_a135 | 155.4844 |
| (+)E1A_r60_a20 | 197.2188 |
| (+)E1A_r60_a22 | 282.9375 |
| (+)E1A_r60_a97 | 139.3906 |
| (+)E1A_r60_n11 | 172.0000 |
| (+)E1A_r60_n9 | 143.7500 |
| (+)eQC-39 | 158.2000 |
| (+)eQC-40 | 147.3000 |
| (+)eQC-41 | 165.4000 |
| (+)eQC-42 | 165.2500 |
| 3xSLv1 | 141.4150 |
| A_23_P100001 | 1026.0000 |
| A_23_P100011 | 885.0000 |
| A_23_P100022 | 291.0000 |
| A_23_P100056 | 533.0000 |
| A_23_P100074 | 5038.0000 |
| A_23_P100092 | 1750.0000 |
| A_23_P100103 | 3320.5000 |
| A_23_P100111 | 994.0000 |
| A_23_P100127 | 418.0000 |
| A_23_P100133 | 1148.0000 |
| A_23_P100141 | 1599.5000 |
| A_23_P100156 | 10831.0000 |
| A_23_P100177 | 199.0000 |
| A_23_P100189 | 232.0000 |
| A_23_P100196 | 5813.0000 |
| A_23_P100203 | 4554.0000 |
| A_23_P100220 | 1355.0000 |

| | |
|--------------|-------------|
| A_23_P100240 | 177.0000 |
| A_23_P10025 | 226.0000 |
| A_23_P100263 | 72679.9000 |
| A_23_P100278 | 243.0000 |
| A_23_P100292 | 23486.5000 |
| A_23_P100315 | 11115.0000 |
| A_23_P100326 | 15391.0000 |
| A_23_P100341 | 28618.7000 |
| A_23_P100344 | 1470.0000 |
| A_23_P100355 | 32649.7000 |
| A_23_P100386 | 235.5000 |
| A_23_P100392 | 2911.0000 |
| A_23_P100408 | 283.5000 |
| A_23_P100413 | 1070.0000 |
| A_23_P100420 | 6228.5000 |
| A_23_P100441 | 6746.0000 |
| A_23_P100455 | 1356.0000 |
| A_23_P100469 | 2036.5000 |
| A_23_P100478 | 3943.0000 |
| A_23_P100486 | 132344.0000 |
| A_23_P100499 | 1258.0000 |
| A_23_P100501 | 70688.9000 |
| A_23_P100517 | 5415.0000 |
| A_23_P100522 | 26023.1000 |
| A_23_P100539 | 1333.0000 |
| A_23_P100556 | 11250.0000 |
| A_23_P100576 | 45721.1000 |
| A_23_P100583 | 244.0000 |
| A_23_P100595 | 251.0000 |
| A_23_P10060 | 192.5000 |
| A_23_P100602 | 4288.0000 |
| A_23_P10062 | 118.0000 |
| A_23_P100632 | 155567.0000 |
| A_23_P100642 | 360.0000 |
| A_23_P100654 | 12462.0000 |
| A_23_P100660 | 3875.0000 |
| A_23_P100676 | 2357.0000 |
| A_23_P100693 | 3157.5000 |
| A_23_P100704 | 8289.5000 |
| A_23_P100711 | 9958.0000 |
| A_23_P100730 | 2201.0000 |
| A_23_P100754 | 764.5000 |
| A_23_P100764 | 20586.1000 |
| A_23_P10077 | 1266.0000 |
| A_23_P100779 | 1705.0000 |
| A_23_P100788 | 2543.0000 |
| A_23_P100795 | 1625.0000 |
| A_23_P100802 | 41065.7000 |
| A_23_P10081 | 318.0000 |
| A_23_P100868 | 5587.0000 |
| A_23_P100872 | 228.0000 |
| A_23_P100883 | 14359.0000 |
| A_23_P10091 | 225.0000 |
| A_23_P100912 | 1264.0000 |
| A_23_P100931 | 131.0000 |
| A_23_P100935 | 146.0000 |
| A_23_P100959 | 282.0000 |
| A_23_P100963 | 653.0000 |
| A_23_P100990 | 443.0000 |
| A_23_P100991 | 121.0000 |

| | |
|--------------|-------------|
| A_23_P101007 | 852.0000 |
| A_23_P101013 | 24735.1000 |
| A_23_P101025 | 15347.0000 |
| A_23_P101038 | 141.0000 |
| A_23_P101048 | 215.0000 |
| A_23_P101054 | 231.0000 |
| A_23_P101073 | 344.0000 |
| A_23_P101084 | 258.0000 |
| A_23_P101093 | 4378.0000 |
| A_23_P101111 | 9688.0000 |
| A_23_P101121 | 1031.0000 |
| A_23_P101131 | 209.0000 |
| A_23_P101141 | 750.0000 |
| A_23_P101185 | 32875.9000 |
| A_23_P101193 | 740.5000 |
| A_23_P101208 | 38657.0000 |
| A_23_P10121 | 1205.0000 |
| A_23_P101237 | 13009.0000 |
| A_23_P101240 | 72065.4000 |
| A_23_P101246 | 2790.5000 |
| A_23_P101253 | 1071.0000 |
| A_23_P101258 | 787.0000 |
| A_23_P10127 | 2893.0000 |
| A_23_P101272 | 6017.0000 |
| A_23_P101281 | 2425.0000 |
| A_23_P101297 | 2397.0000 |
| A_23_P101303 | 15739.0000 |
| A_23_P101308 | 2601.5000 |
| A_23_P101319 | 460.0000 |
| A_23_P101321 | 898.0000 |
| A_23_P101332 | 6079.0000 |
| A_23_P101342 | 1522.0000 |
| A_23_P10135 | 4580.5000 |
| A_23_P101351 | 2987.0000 |
| A_23_P101374 | 2682.0000 |
| A_23_P101380 | 54048.6000 |
| A_23_P101392 | 483.5000 |
| A_23_P1014 | 5141.5000 |
| A_23_P101407 | 42801.1000 |
| A_23_P101427 | 734.0000 |
| A_23_P101434 | 237.0000 |
| A_23_P101461 | 79925.9000 |
| A_23_P101476 | 443.0000 |
| A_23_P101480 | 805.0000 |
| A_23_P101505 | 409.0000 |
| A_23_P101516 | 1643.0000 |
| A_23_P101521 | 178.0000 |
| A_23_P101532 | 574480.0000 |
| A_23_P101551 | 14215.0000 |
| A_23_P10156 | 3321.0000 |
| A_23_P101564 | 214.0000 |
| A_23_P101573 | 160.5000 |
| A_23_P101615 | 2131.0000 |
| A_23_P101623 | 432.0000 |
| A_23_P101636 | 153.0000 |
| A_23_P101642 | 840.0000 |
| A_23_P101655 | 7308.0000 |
| A_23_P101671 | 338.0000 |
| A_23_P101683 | 193.5000 |
| A_23_P101699 | 5178.0000 |

| | |
|--------------|-------------|
| A_23_P101707 | 41872.0000 |
| A_23_P10172 | 156.0000 |
| A_23_P101737 | 1952.0000 |
| A_23_P101742 | 9967.0000 |
| A_23_P101759 | 576.5000 |
| A_23_P101761 | 30958.7000 |
| A_23_P101774 | 296.0000 |
| A_23_P101783 | 609.0000 |
| A_23_P101796 | 991.0000 |
| A_23_P101806 | 906.0000 |
| A_23_P101811 | 796.0000 |
| A_23_P10182 | 10201.0000 |
| A_23_P101829 | 4446.0000 |
| A_23_P101871 | 362.0000 |
| A_23_P101893 | 2274.0000 |
| A_23_P101905 | 310.0000 |
| A_23_P101908 | 686.0000 |
| A_23_P10194 | 72193.2000 |
| A_23_P101943 | 15575.5000 |
| A_23_P101950 | 283223.0000 |
| A_23_P101960 | 50602.6000 |
| A_23_P101972 | 688.0000 |
| A_23_P101992 | 12516.0000 |
| A_23_P102000 | 176717.0000 |
| A_23_P102017 | 238.0000 |
| A_23_P102037 | 2446.0000 |
| A_23_P102058 | 136.0000 |
| A_23_P10206 | 178.0000 |
| A_23_P102060 | 8455.0000 |
| A_23_P102071 | 2597.0000 |
| A_23_P102083 | 144.0000 |
| A_23_P102109 | 63988.6000 |
| A_23_P10211 | 785.0000 |
| A_23_P102113 | 490.0000 |
| A_23_P102117 | 260.0000 |
| A_23_P102122 | 330494.0000 |
| A_23_P102160 | 4127.0000 |
| A_23_P102172 | 189.0000 |
| A_23_P102183 | 5255.0000 |
| A_23_P102192 | 1875.0000 |
| A_23_P102202 | 14093.0000 |
| A_23_P102235 | 12189.0000 |
| A_23_P102242 | 5236.0000 |
| A_23_P102258 | 45932.5000 |
| A_23_P102262 | 27522.5000 |
| A_23_P102278 | 151.0000 |
| A_23_P102286 | 148.0000 |
| A_23_P10232 | 175.0000 |
| A_23_P102320 | 2469.0000 |
| A_23_P102331 | 116.5000 |
| A_23_P102351 | 325.0000 |
| A_23_P102364 | 1345.5000 |
| A_23_P102391 | 867.0000 |
| A_23_P102404 | 76971.4000 |
| A_23_P102412 | 3800.0000 |
| A_23_P102420 | 251564.0000 |
| A_23_P102439 | 553.0000 |
| A_23_P102454 | 14393.5000 |
| A_23_P102462 | 375.0000 |
| A_23_P102471 | 4475.3500 |

| | |
|--------------|-------------|
| A_23_P102481 | 154.0000 |
| A_23_P102494 | 1340.0000 |
| A_23_P102508 | 3056.0000 |
| A_23_P102517 | 11571.0000 |
| A_23_P102523 | 1779.0000 |
| A_23_P102542 | 14413.5000 |
| A_23_P102551 | 139.5000 |
| A_23_P102571 | 29370.8000 |
| A_23_P102575 | 7079.0000 |
| A_23_P102582 | 198011.0000 |
| A_23_P102607 | 192.5000 |
| A_23_P102611 | 5072.5000 |
| A_23_P102622 | 530.0000 |
| A_23_P102634 | 145.0000 |
| A_23_P102681 | 194.0000 |
| A_23_P102694 | 317.5000 |
| A_23_P102706 | 459.0000 |
| A_23_P102731 | 3219.0000 |
| A_23_P102743 | 734.0000 |
| A_23_P102759 | 270.0000 |
| A_23_P102769 | 1444.5000 |
| A_23_P102770 | 14792.0000 |
| A_23_P102816 | 778.0000 |
| A_23_P102832 | 13085.0000 |
| A_23_P102842 | 10243.5000 |
| A_23_P102864 | 178.5000 |
| A_23_P102876 | 72783.1000 |
| A_23_P102884 | 551.0000 |
| A_23_P102890 | 337376.0000 |
| A_23_P1029 | 802.0000 |
| A_23_P10291 | 337.5000 |
| A_23_P102917 | 166.0000 |
| A_23_P102919 | 168.0000 |
| A_23_P102925 | 4101.5000 |
| A_23_P102937 | 11714.0000 |
| A_23_P102950 | 539.5000 |
| A_23_P102965 | 5893.5000 |
| A_23_P102973 | 6407.5000 |
| A_23_P102988 | 606.0000 |
| A_23_P102994 | 39207.5000 |
| A_23_P103011 | 8013.0000 |
| A_23_P103034 | 216.0000 |
| A_23_P103041 | 294.0000 |
| A_23_P10305 | 977.0000 |
| A_23_P103062 | 3952.0000 |
| A_23_P103070 | 18389.5000 |
| A_23_P103084 | 3741.5000 |
| A_23_P103099 | 669.0000 |
| A_23_P103104 | 15668.5000 |
| A_23_P103110 | 26396.7000 |
| A_23_P103120 | 18445.0000 |
| A_23_P103131 | 41842.5000 |
| A_23_P103149 | 215895.0000 |
| A_23_P103172 | 7815.0000 |
| A_23_P103180 | 2099.0000 |
| A_23_P103201 | 19671.8000 |
| A_23_P103226 | 187.5000 |
| A_23_P103232 | 62676.0000 |
| A_23_P103248 | 899.0000 |
| A_23_P103256 | 211.0000 |

| | |
|--------------|-------------|
| A_23_P103269 | 147.0000 |
| A_23_P103276 | 1552.0000 |
| A_23_P103282 | 144398.0000 |
| A_23_P103310 | 302.5000 |
| A_23_P103315 | 68604.6000 |
| A_23_P103328 | 498.0000 |
| A_23_P103334 | 1654.0000 |
| A_23_P103349 | 181.0000 |
| A_23_P103361 | 638.9500 |
| A_23_P103371 | 332.5000 |
| A_23_P103398 | 80614.1000 |
| A_23_P103405 | 814.0000 |
| A_23_P103414 | 39197.7000 |
| A_23_P103424 | 148.0000 |
| A_23_P103433 | 5720.0000 |
| A_23_P103442 | 12092.0000 |
| A_23_P103454 | 60282.0000 |
| A_23_P103465 | 382.0000 |
| A_23_P103476 | 2542.0000 |
| A_23_P103486 | 522.0000 |
| A_23_P103496 | 413.0000 |
| A_23_P103503 | 2482.0000 |
| A_23_P103511 | 13665.5000 |
| A_23_P103522 | 132.5000 |
| A_23_P103532 | 1121.0000 |
| A_23_P10356 | 569.0000 |
| A_23_P103561 | 1403.0000 |
| A_23_P103571 | 362.0000 |
| A_23_P103588 | 240.0000 |
| A_23_P103601 | 15612.5000 |
| A_23_P103617 | 1090.0000 |
| A_23_P103628 | 5511.0000 |
| A_23_P103631 | 49471.9000 |
| A_23_P103661 | 15346.0000 |
| A_23_P103672 | 52033.1000 |
| A_23_P103690 | 4582.0000 |
| A_23_P103698 | 63206.9000 |
| A_23_P103703 | 4152.0000 |
| A_23_P103720 | 590.0000 |
| A_23_P10374 | 17923.0000 |
| A_23_P103743 | 149.0000 |
| A_23_P103756 | 581.0000 |
| A_23_P103765 | 228.0000 |
| A_23_P103775 | 483.5000 |
| A_23_P103787 | 5061.0000 |
| A_23_P103795 | 484.0000 |
| A_23_P1038 | 1615.0000 |
| A_23_P103803 | 176.0000 |
| A_23_P103812 | 258.5000 |
| A_23_P103824 | 11106.0000 |
| A_23_P103837 | 5340.0000 |
| A_23_P10385 | 481.8000 |
| A_23_P103864 | 1729.0000 |
| A_23_P103877 | 546.5000 |
| A_23_P103885 | 46665.0000 |
| A_23_P103897 | 377.0000 |
| A_23_P103905 | 10144.5000 |
| A_23_P10391 | 243.0000 |
| A_23_P103919 | 15004.5000 |
| A_23_P103923 | 835.0000 |

| | |
|--------------|-------------|
| A_23_P103932 | 641130.0000 |
| A_23_P103942 | 8046.0000 |
| A_23_P103951 | 5098.5000 |
| A_23_P103968 | 31381.4000 |
| A_23_P103971 | 237.5000 |
| A_23_P103981 | 23855.2000 |
| A_23_P103996 | 2265.0000 |
| A_23_P10401 | 3215.5000 |
| A_23_P104012 | 146.5000 |
| A_23_P104022 | 3576.0000 |
| A_23_P104025 | 952.0000 |
| A_23_P104046 | 3496.0000 |
| A_23_P104054 | 5125.0000 |
| A_23_P104065 | 4212.0000 |
| A_23_P104073 | 344.0000 |
| A_23_P104086 | 869.0000 |
| A_23_P104098 | 588.0000 |
| A_23_P104109 | 1790.0000 |
| A_23_P104116 | 103154.0000 |
| A_23_P104138 | 366.0000 |
| A_23_P104146 | 4082.0000 |
| A_23_P104151 | 2837.0000 |
| A_23_P104188 | 649.0000 |
| A_23_P104193 | 52116.7000 |
| A_23_P104199 | 25880.0500 |
| A_23_P104201 | 52165.8000 |
| A_23_P104224 | 312.0000 |
| A_23_P104237 | 162.0000 |
| A_23_P104252 | 286.0000 |
| A_23_P104275 | 186.0000 |
| A_23_P104282 | 1746.5000 |
| A_23_P104295 | 2191.0000 |
| A_23_P1043 | 374.0000 |
| A_23_P104318 | 68103.2000 |
| A_23_P104323 | 8650.0000 |
| A_23_P104335 | 124.0000 |
| A_23_P104346 | 6968.0000 |
| A_23_P104351 | 35845.1000 |
| A_23_P104362 | 74749.5000 |
| A_23_P104372 | 19460.5000 |
| A_23_P104387 | 65507.6000 |
| A_23_P104413 | 428561.0000 |
| A_23_P10442 | 17225.0000 |
| A_23_P104438 | 356.0000 |
| A_23_P104445 | 8424.5000 |
| A_23_P104451 | 15215.0000 |
| A_23_P104464 | 3115.0000 |
| A_23_P104471 | 86469.0000 |
| A_23_P104484 | 217.0000 |
| A_23_P104493 | 4529.0000 |
| A_23_P104509 | 642.0000 |
| A_23_P104522 | 189.0000 |
| A_23_P104555 | 258.0000 |
| A_23_P104563 | 1846.0000 |
| A_23_P104579 | 2238.0000 |
| A_23_P10458 | 213.0000 |
| A_23_P104583 | 10963.5000 |
| A_23_P104594 | 365.0000 |
| A_23_P104607 | 16456.5000 |
| A_23_P104617 | 1391.0000 |

| | |
|--------------|-------------|
| A_23_P104624 | 4593.0000 |
| A_23_P10463 | 205099.0000 |
| A_23_P104641 | 20318.0000 |
| A_23_P104651 | 3701.5000 |
| A_23_P104676 | 26259.1000 |
| A_23_P104689 | 6098.3000 |
| A_23_P104692 | 10556.0000 |
| A_23_P104705 | 793.0000 |
| A_23_P104734 | 24779.4000 |
| A_23_P104741 | 301.0000 |
| A_23_P104762 | 471.0000 |
| A_23_P104798 | 6413.0000 |
| A_23_P104804 | 705.0000 |
| A_23_P104819 | 281.0000 |
| A_23_P104845 | 243.0000 |
| A_23_P104853 | 147.0000 |
| A_23_P104865 | 159.0000 |
| A_23_P104876 | 4950.5000 |
| A_23_P10488 | 131.0000 |
| A_23_P104881 | 271.5000 |
| A_23_P104892 | 174385.0000 |
| A_23_P104942 | 17654.5000 |
| A_23_P10497 | 16847.5000 |
| A_23_P104972 | 220.0000 |
| A_23_P104996 | 1937.5000 |
| A_23_P10500 | 224.5000 |
| A_23_P105002 | 1738.0000 |
| A_23_P105012 | 218.0000 |
| A_23_P105028 | 5858.5000 |
| A_23_P105044 | 15708.0000 |
| A_23_P10506 | 44492.1000 |
| A_23_P105066 | 15822.0000 |
| A_23_P105088 | 226.0000 |
| A_23_P105118 | 238.0000 |
| A_23_P105138 | 19388.0000 |
| A_23_P105144 | 1612.0000 |
| A_23_P10518 | 255.0000 |
| A_23_P105184 | 129296.0000 |
| A_23_P105197 | 644.0000 |
| A_23_P105212 | 146.0000 |
| A_23_P105227 | 913.5000 |
| A_23_P10525 | 141.5000 |
| A_23_P105251 | 328.5000 |
| A_23_P105264 | 6405.0000 |
| A_23_P105276 | 3121.0000 |
| A_23_P105307 | 1188.0000 |
| A_23_P105313 | 23525.8000 |
| A_23_P105368 | 359.0000 |
| A_23_P105382 | 771.0000 |
| A_23_P105392 | 68604.6000 |
| A_23_P105409 | 1056.0000 |
| A_23_P10542 | 228.0000 |
| A_23_P105423 | 207.0000 |
| A_23_P105436 | 605.0000 |
| A_23_P105442 | 13908.0000 |
| A_23_P105453 | 154.0000 |
| A_23_P105461 | 706.0000 |
| A_23_P105465 | 298.0000 |
| A_23_P105475 | 181.0000 |
| A_23_P105495 | 181.0000 |

| | |
|--------------|-------------|
| A_23_P105519 | 5698.0000 |
| A_23_P105524 | 184.0000 |
| A_23_P105535 | 5387.5000 |
| A_23_P105545 | 203.0000 |
| A_23_P105562 | 9074.8500 |
| A_23_P105571 | 4699.0000 |
| A_23_P105583 | 1932.0000 |
| A_23_P10559 | 3476.0000 |
| A_23_P105592 | 31735.4000 |
| A_23_P1056 | 1922.0000 |
| A_23_P10561 | 167.0000 |
| A_23_P105619 | 1041.5000 |
| A_23_P105625 | 13093.0000 |
| A_23_P10564 | 142.0000 |
| A_23_P105646 | 3716.0000 |
| A_23_P105651 | 149.0000 |
| A_23_P105664 | 12450.5000 |
| A_23_P105691 | 252.0000 |
| A_23_P105705 | 163.0000 |
| A_23_P105730 | 180.0000 |
| A_23_P105732 | 13817.0000 |
| A_23_P105747 | 1334.0000 |
| A_23_P105753 | 2190.0000 |
| A_23_P105794 | 400.5000 |
| A_23_P105803 | 245.0000 |
| A_23_P105815 | 426.0000 |
| A_23_P105833 | 808.0000 |
| A_23_P105856 | 574.0000 |
| A_23_P105862 | 3026.0000 |
| A_23_P105873 | 155.5000 |
| A_23_P105886 | 175.5000 |
| A_23_P105900 | 37359.2000 |
| A_23_P10591 | 196231.0000 |
| A_23_P105923 | 264.0000 |
| A_23_P105939 | 176.5000 |
| A_23_P105957 | 126642.0000 |
| A_23_P105963 | 204.0000 |
| A_23_P105973 | 256.5000 |
| A_23_P106 | 1092.0000 |
| A_23_P106002 | 118491.0000 |
| A_23_P106016 | 298.0000 |
| A_23_P106024 | 315.0000 |
| A_23_P106042 | 225.0000 |
| A_23_P10605 | 16953.0000 |
| A_23_P106056 | 95583.0000 |
| A_23_P106069 | 183.0000 |
| A_23_P106080 | 208.0000 |
| A_23_P106103 | 281.0000 |
| A_23_P106117 | 368.0000 |
| A_23_P106127 | 3700.0000 |
| A_23_P106131 | 54220.7000 |
| A_23_P10614 | 2138.5000 |
| A_23_P106145 | 118265.0000 |
| A_23_P106158 | 1079.0000 |
| A_23_P106162 | 4101.0000 |
| A_23_P106174 | 1525.0000 |
| A_23_P106194 | 11377.0000 |
| A_23_P106204 | 5599.0000 |
| A_23_P106226 | 57504.5000 |
| A_23_P106236 | 175.0000 |

| | |
|--------------|-------------|
| A_23_P106241 | 18582.0000 |
| A_23_P106258 | 774.5000 |
| A_23_P106280 | 4297.0000 |
| A_23_P106299 | 294102.0000 |
| A_23_P106322 | 2006.0000 |
| A_23_P106362 | 156068.0000 |
| A_23_P106371 | 470.0000 |
| A_23_P106389 | 1249.0000 |
| A_23_P106391 | 368.0000 |
| A_23_P10640 | 473.5000 |
| A_23_P106405 | 1223.0000 |
| A_23_P106412 | 611.0000 |
| A_23_P106425 | 1458.0000 |
| A_23_P106433 | 3852.0000 |
| A_23_P106439 | 2323.0000 |
| A_23_P106463 | 31435.5000 |
| A_23_P10647 | 1120.5000 |
| A_23_P106472 | 581033.0000 |
| A_23_P106481 | 34773.4000 |
| A_23_P106497 | 1874.0000 |
| A_23_P106505 | 1068.5000 |
| A_23_P106522 | 7045.0000 |
| A_23_P106532 | 4552.0000 |
| A_23_P106544 | 20399.3000 |
| A_23_P106559 | 1530.0000 |
| A_23_P106562 | 28490.9000 |
| A_23_P106575 | 15279.5000 |
| A_23_P106602 | 429.0000 |
| A_23_P106617 | 576.0000 |
| A_23_P106629 | 25644.6000 |
| A_23_P106633 | 21613.5000 |
| A_23_P106656 | 202.0000 |
| A_23_P106661 | 601.0000 |
| A_23_P106663 | 244.5000 |
| A_23_P106675 | 20079.8000 |
| A_23_P106682 | 4232.0000 |
| A_23_P106694 | 26996.5000 |
| A_23_P106708 | 641125.0000 |
| A_23_P106720 | 1239.5000 |
| A_23_P106727 | 5093.0000 |
| A_23_P106737 | 1499.0000 |
| A_23_P106741 | 87879.8000 |
| A_23_P106761 | 7476.0000 |
| A_23_P106773 | 13368.0000 |
| A_23_P106798 | 1337.5000 |
| A_23_P106806 | 225.0000 |
| A_23_P106814 | 239.0000 |
| A_23_P106822 | 3938.0000 |
| A_23_P106835 | 15443.0000 |
| A_23_P106844 | 641130.0000 |
| A_23_P10685 | 14574.0000 |
| A_23_P106859 | 30506.4000 |
| A_23_P106874 | 3076.0000 |
| A_23_P106887 | 13838.0000 |
| A_23_P106898 | 3988.0000 |
| A_23_P106906 | 518.0000 |
| A_23_P106922 | 369.5000 |
| A_23_P106933 | 157.0000 |
| A_23_P106945 | 6657.5000 |
| A_23_P106973 | 641130.0000 |

| | |
|--------------|-------------|
| A_23_P10699 | 2509.0000 |
| A_23_P106998 | 4463.0000 |
| A_23_P10701 | 5437.0000 |
| A_23_P107036 | 25880.5000 |
| A_23_P107048 | 3500.0000 |
| A_23_P107051 | 2339.0000 |
| A_23_P107064 | 330.0000 |
| A_23_P107073 | 58694.1000 |
| A_23_P107087 | 1249.5000 |
| A_23_P107102 | 133.5000 |
| A_23_P107116 | 671.0000 |
| A_23_P107132 | 126.0000 |
| A_23_P107154 | 10429.0000 |
| A_23_P107166 | 835.0000 |
| A_23_P107173 | 206.0000 |
| A_23_P1072 | 169110.0000 |
| A_23_P107206 | 5486.9500 |
| A_23_P10721 | 158.0000 |
| A_23_P107211 | 5551.0000 |
| A_23_P107214 | 27104.6000 |
| A_23_P107238 | 221.0000 |
| A_23_P107247 | 1041.0000 |
| A_23_P107257 | 3711.0000 |
| A_23_P107283 | 1787.5000 |
| A_23_P107295 | 1530.0000 |
| A_23_P107307 | 2264.0000 |
| A_23_P107313 | 6076.0000 |
| A_23_P107322 | 2596.0000 |
| A_23_P107336 | 1583.0000 |
| A_23_P107350 | 375.5000 |
| A_23_P107351 | 1581.0000 |
| A_23_P107369 | 113310.0000 |
| A_23_P107373 | 8772.0000 |
| A_23_P107394 | 467608.0000 |
| A_23_P107401 | 417092.0000 |
| A_23_P107412 | 193242.0000 |
| A_23_P107421 | 62853.0000 |
| A_23_P10743 | 2866.0000 |
| A_23_P107432 | 697.0000 |
| A_23_P107443 | 119.0000 |
| A_23_P107454 | 488.0000 |
| A_23_P107465 | 957.0000 |
| A_23_P107483 | 463.5000 |
| A_23_P107507 | 3712.0000 |
| A_23_P107513 | 1234.0000 |
| A_23_P10753 | 129.0000 |
| A_23_P107531 | 203.0000 |
| A_23_P107552 | 3521.0000 |
| A_23_P107565 | 183.0000 |
| A_23_P107578 | 149.0000 |
| A_23_P107587 | 24164.9000 |
| A_23_P107597 | 199.5000 |
| A_23_P107612 | 131.0000 |
| A_23_P107623 | 129.0000 |
| A_23_P107644 | 50052.0000 |
| A_23_P107653 | 63325.4000 |
| A_23_P107661 | 35319.1000 |
| A_23_P107673 | 459.0000 |
| A_23_P107684 | 1991.0000 |
| A_23_P107693 | 2817.0000 |

| | |
|--------------|-------------|
| A_23_P107701 | 21569.3000 |
| A_23_P107714 | 1793.0000 |
| A_23_P107724 | 1255.0000 |
| A_23_P107735 | 18871.5000 |
| A_23_P107744 | 162.0000 |
| A_23_P107750 | 142.0000 |
| A_23_P107763 | 6466.0000 |
| A_23_P107775 | 388.0000 |
| A_23_P107795 | 50366.6000 |
| A_23_P107801 | 3165.5000 |
| A_23_P107847 | 10252.0000 |
| A_23_P10785 | 7482.5000 |
| A_23_P107855 | 687.0000 |
| A_23_P107881 | 634.5000 |
| A_23_P107894 | 6156.0000 |
| A_23_P107903 | 3229.0000 |
| A_23_P107911 | 447.0000 |
| A_23_P107933 | 2178.0000 |
| A_23_P107942 | 1480.0000 |
| A_23_P107959 | 27724.0000 |
| A_23_P107963 | 284.5000 |
| A_23_P107974 | 276.0000 |
| A_23_P10798 | 523.0000 |
| A_23_P107981 | 207.0000 |
| A_23_P107994 | 12039.0000 |
| A_23_P108028 | 956.5000 |
| A_23_P108042 | 169.0000 |
| A_23_P108054 | 2072.0000 |
| A_23_P108062 | 391.5000 |
| A_23_P108075 | 239.5000 |
| A_23_P108082 | 224.0000 |
| A_23_P108103 | 4020.0000 |
| A_23_P108129 | 792.0000 |
| A_23_P108135 | 158379.0000 |
| A_23_P108143 | 3818.0000 |
| A_23_P10815 | 34547.3000 |
| A_23_P108157 | 461.5000 |
| A_23_P108170 | 176.0000 |
| A_23_P108180 | 268.0000 |
| A_23_P108200 | 342.0000 |
| A_23_P108216 | 148.0000 |
| A_23_P108221 | 171.0000 |
| A_23_P108244 | 72906.0000 |
| A_23_P108265 | 401.0000 |
| A_23_P108280 | 204.0000 |
| A_23_P108294 | 1623.5000 |
| A_23_P1083 | 245.0000 |
| A_23_P108303 | 48626.4000 |
| A_23_P108314 | 412.0000 |
| A_23_P108326 | 1382.0000 |
| A_23_P108331 | 63905.0000 |
| A_23_P108342 | 470.5000 |
| A_23_P108376 | 11221.0000 |
| A_23_P10839 | 12405.0000 |
| A_23_P108394 | 8104.5000 |
| A_23_P108404 | 440.5000 |
| A_23_P108415 | 63413.4000 |
| A_23_P108427 | 239.0000 |
| A_23_P108437 | 2132.0000 |
| A_23_P108463 | 419.0000 |

| | |
|--------------|-------------|
| A_23_P108492 | 235.0000 |
| A_23_P108501 | 279.0000 |
| A_23_P108514 | 2295.0000 |
| A_23_P108522 | 46148.8000 |
| A_23_P108534 | 189.5000 |
| A_23_P108546 | 134.0000 |
| A_23_P108554 | 43307.4000 |
| A_23_P108564 | 167.0000 |
| A_23_P108574 | 2927.0000 |
| A_23_P10858 | 3414.0000 |
| A_23_P108592 | 324.5000 |
| A_23_P108604 | 11053.0000 |
| A_23_P108641 | 15631.5000 |
| A_23_P108657 | 2758.0000 |
| A_23_P108662 | 66505.5000 |
| A_23_P108673 | 205.5000 |
| A_23_P108699 | 281.0000 |
| A_23_P10870 | 2607.5000 |
| A_23_P108708 | 99048.7000 |
| A_23_P10873 | 27822.3000 |
| A_23_P108734 | 162.0000 |
| A_23_P108743 | 182.0000 |
| A_23_P108751 | 1319.0000 |
| A_23_P108761 | 5517.0000 |
| A_23_P108785 | 110577.0000 |
| A_23_P108819 | 279.0000 |
| A_23_P108823 | 460.0000 |
| A_23_P108835 | 13926.0000 |
| A_23_P108842 | 42953.4000 |
| A_23_P10885 | 466.0000 |
| A_23_P108871 | 5747.5000 |
| A_23_P108883 | 235.0000 |
| A_23_P108911 | 1857.5000 |
| A_23_P108922 | 1890.0000 |
| A_23_P108932 | 295.5000 |
| A_23_P108948 | 65350.3000 |
| A_23_P108970 | 234.5000 |
| A_23_P108990 | 143.0000 |
| A_23_P108994 | 27409.4000 |
| A_23_P109001 | 480.0000 |
| A_23_P109017 | 5986.0000 |
| A_23_P10902 | 250.0000 |
| A_23_P109026 | 15804.5000 |
| A_23_P109034 | 10771.5000 |
| A_23_P109055 | 368.0000 |
| A_23_P109072 | 2206.0000 |
| A_23_P10911 | 4075.0000 |
| A_23_P109122 | 7362.5000 |
| A_23_P109133 | 971.0000 |
| A_23_P109143 | 45357.3200 |
| A_23_P109171 | 282.5000 |
| A_23_P109184 | 13896.5000 |
| A_23_P109193 | 304.5000 |
| A_23_P109201 | 163491.0000 |
| A_23_P109224 | 473.0000 |
| A_23_P109229 | 202.5000 |
| A_23_P109235 | 11312.0000 |
| A_23_P109254 | 30486.7000 |
| A_23_P109269 | 838.0000 |
| A_23_P10927 | 1231.0000 |

| | |
|--------------|-------------|
| A_23_P109286 | 249.0000 |
| A_23_P109304 | 10318.0000 |
| A_23_P109320 | 251.0000 |
| A_23_P109322 | 918.0000 |
| A_23_P109333 | 44929.6000 |
| A_23_P109345 | 77841.6000 |
| A_23_P10936 | 161.0000 |
| A_23_P109382 | 157.0000 |
| A_23_P109393 | 467.0000 |
| A_23_P109410 | 784.0000 |
| A_23_P109420 | 13706.5000 |
| A_23_P109427 | 1832.0000 |
| A_23_P109436 | 1320.0000 |
| A_23_P109442 | 11516.0000 |
| A_23_P109446 | 4828.5000 |
| A_23_P109452 | 1937.5000 |
| A_23_P10947 | 1757.5000 |
| A_23_P109470 | 6278.0000 |
| A_23_P109488 | 3135.5000 |
| A_23_P109508 | 4023.0000 |
| A_23_P109547 | 6147.5000 |
| A_23_P10956 | 312.5000 |
| A_23_P109593 | 17987.5000 |
| A_23_P109606 | 8239.5000 |
| A_23_P109614 | 145.0000 |
| A_23_P109636 | 1221.0000 |
| A_23_P109643 | 5949.5000 |
| A_23_P109655 | 2086.0000 |
| A_23_P10966 | 203.0000 |
| A_23_P109677 | 25433.2000 |
| A_23_P109682 | 5832.0000 |
| A_23_P109720 | 166.5000 |
| A_23_P109733 | 2017.0000 |
| A_23_P109768 | 67690.2000 |
| A_23_P109774 | 5488.0000 |
| A_23_P109785 | 137.0000 |
| A_23_P109794 | 275.0000 |
| A_23_P10980 | 121.0000 |
| A_23_P109812 | 245.0000 |
| A_23_P109821 | 86714.8000 |
| A_23_P109843 | 230.0000 |
| A_23_P109864 | 7006.0000 |
| A_23_P10987 | 1538.0000 |
| A_23_P109877 | 6743.0000 |
| A_23_P109881 | 2299.0000 |
| A_23_P109895 | 8394.0000 |
| A_23_P109907 | 164592.0000 |
| A_23_P109913 | 147.0000 |
| A_23_P109928 | 37496.8000 |
| A_23_P109934 | 991.5000 |
| A_23_P10995 | 213.0000 |
| A_23_P109950 | 815.0000 |
| A_23_P109964 | 290.5000 |
| A_23_P109974 | 9707.0000 |
| A_23_P109988 | 13178.5000 |
| A_23_P110005 | 5499.0000 |
| A_23_P110022 | 462.0000 |
| A_23_P110031 | 13664.0000 |
| A_23_P11005 | 103827.0000 |
| A_23_P110052 | 219.0000 |

| | |
|--------------|------------|
| A_23_P110062 | 11436.0000 |
| A_23_P110076 | 1714.0000 |
| A_23_P110090 | 185.0000 |
| A_23_P110108 | 823.0000 |
| A_23_P110116 | 27792.8000 |
| A_23_P110122 | 11866.5000 |
| A_23_P110135 | 242.0000 |
| A_23_P110151 | 495.0000 |
| A_23_P110167 | 41498.3000 |
| A_23_P11017 | 193.0000 |
| A_23_P110175 | 448.0000 |
| A_23_P110184 | 4009.0000 |
| A_23_P110196 | 740.0000 |
| A_23_P1102 | 310.0000 |
| A_23_P110204 | 262.0000 |
| A_23_P110212 | 87929.0000 |
| A_23_P110234 | 351.5000 |
| A_23_P110243 | 3476.5000 |
| A_23_P11025 | 1820.5000 |
| A_23_P110253 | 155.6000 |
| A_23_P110266 | 164.5000 |
| A_23_P110276 | 277.0000 |
| A_23_P110288 | 287.5000 |
| A_23_P110299 | 308.0000 |
| A_23_P110304 | 1644.0000 |
| A_23_P110319 | 168.0000 |
| A_23_P11032 | 5280.0000 |
| A_23_P110345 | 6105.0000 |
| A_23_P110362 | 10317.5000 |
| A_23_P110386 | 150.0000 |
| A_23_P110403 | 162.5000 |
| A_23_P110412 | 188.0000 |
| A_23_P110430 | 321.5000 |
| A_23_P110433 | 7180.0000 |
| A_23_P110445 | 4310.0000 |
| A_23_P110462 | 486.0000 |
| A_23_P110473 | 2437.5000 |
| A_23_P110492 | 6590.0000 |
| A_23_P110504 | 33559.2000 |
| A_23_P11051 | 761.0000 |
| A_23_P110531 | 2803.0000 |
| A_23_P110557 | 404.0000 |
| A_23_P110569 | 719.0000 |
| A_23_P110571 | 2504.0000 |
| A_23_P110585 | 2999.0000 |
| A_23_P110598 | 2065.0000 |
| A_23_P110606 | 1889.5000 |
| A_23_P110611 | 3036.0000 |
| A_23_P110624 | 637.0000 |
| A_23_P110643 | 2656.0000 |
| A_23_P110655 | 3974.0000 |
| A_23_P110661 | 21815.1000 |
| A_23_P110686 | 4050.0000 |
| A_23_P110699 | 241.0000 |
| A_23_P11070 | 161.0000 |
| A_23_P110704 | 37713.1000 |
| A_23_P11071 | 13364.0000 |
| A_23_P110712 | 39895.8000 |
| A_23_P110725 | 2942.0000 |
| A_23_P110764 | 123.5000 |

| | |
|--------------|-------------|
| A_23_P110777 | 148.0000 |
| A_23_P110787 | 3237.0000 |
| A_23_P110791 | 255350.0000 |
| A_23_P110802 | 1298.5000 |
| A_23_P11081 | 123.0000 |
| A_23_P110811 | 253398.0000 |
| A_23_P110837 | 392.5000 |
| A_23_P110846 | 7032.5000 |
| A_23_P110851 | 695.1500 |
| A_23_P110879 | 1965.0000 |
| A_23_P110882 | 3539.0000 |
| A_23_P110896 | 8692.5000 |
| A_23_P110903 | 181.0000 |
| A_23_P110941 | 663.5000 |
| A_23_P110957 | 984.5000 |
| A_23_P110961 | 73579.5000 |
| A_23_P111000 | 26495.0000 |
| A_23_P111005 | 23270.2000 |
| A_23_P111020 | 707.0000 |
| A_23_P11103 | 187.0000 |
| A_23_P111037 | 34429.3000 |
| A_23_P111041 | 5618.0000 |
| A_23_P111054 | 3508.0000 |
| A_23_P111088 | 296.0000 |
| A_23_P111092 | 49029.5000 |
| A_23_P111112 | 19614.0000 |
| A_23_P111126 | 10783.0000 |
| A_23_P111132 | 184246.0000 |
| A_23_P111141 | 29149.6000 |
| A_23_P111155 | 186.5000 |
| A_23_P111171 | 18823.0000 |
| A_23_P111188 | 1706.0000 |
| A_23_P11119 | 113.0000 |
| A_23_P111194 | 912.0000 |
| A_23_P111206 | 1292.0000 |
| A_23_P111228 | 1163.0000 |
| A_23_P111240 | 5570.5000 |
| A_23_P111260 | 499.0000 |
| A_23_P111267 | 281.5000 |
| A_23_P111273 | 13340.0000 |
| A_23_P111288 | 96536.7000 |
| A_23_P111297 | 996.0000 |
| A_23_P111303 | 4315.0000 |
| A_23_P111306 | 2487.0000 |
| A_23_P111311 | 248.0000 |
| A_23_P111321 | 746.0000 |
| A_23_P111343 | 7714.0000 |
| A_23_P111360 | 509.0000 |
| A_23_P111361 | 267.5000 |
| A_23_P111373 | 11099.0000 |
| A_23_P111381 | 9310.5000 |
| A_23_P111395 | 207.5000 |
| A_23_P111402 | 111.0000 |
| A_23_P111413 | 1090.0000 |
| A_23_P11144 | 575.5000 |
| A_23_P111452 | 112022.0000 |
| A_23_P111480 | 187.5000 |
| A_23_P111481 | 57027.7000 |
| A_23_P111487 | 1464.0000 |
| A_23_P111492 | 1089.0000 |

| | |
|--------------|-------------|
| A_23_P111506 | 641125.0000 |
| A_23_P111517 | 265.0000 |
| A_23_P111525 | 5860.5000 |
| A_23_P111531 | 970.0000 |
| A_23_P111571 | 641130.0000 |
| A_23_P111583 | 129075.0000 |
| A_23_P111593 | 592.0000 |
| A_23_P11160 | 586.0000 |
| A_23_P111604 | 130.0000 |
| A_23_P111621 | 12973.5000 |
| A_23_P111635 | 8971.0000 |
| A_23_P111657 | 229.0000 |
| A_23_P111662 | 140.0000 |
| A_23_P111672 | 2825.0000 |
| A_23_P111698 | 415.0000 |
| A_23_P1117 | 359.0000 |
| A_23_P111701 | 700.0000 |
| A_23_P111712 | 1257.0000 |
| A_23_P111724 | 138.0000 |
| A_23_P111737 | 234.0000 |
| A_23_P111745 | 10695.0000 |
| A_23_P111753 | 25561.0000 |
| A_23_P111766 | 1685.0000 |
| A_23_P111797 | 10323.0000 |
| A_23_P111804 | 10018.0000 |
| A_23_P111811 | 3234.0000 |
| A_23_P111826 | 178.0000 |
| A_23_P111835 | 38411.2000 |
| A_23_P111843 | 72468.5000 |
| A_23_P111860 | 283.0000 |
| A_23_P111865 | 797.0000 |
| A_23_P111888 | 379.0000 |
| A_23_P111919 | 211.0000 |
| A_23_P11192 | 20666.5000 |
| A_23_P111929 | 300.0000 |
| A_23_P111947 | 119.0000 |
| A_23_P111961 | 3264.0000 |
| A_23_P111978 | 508.0000 |
| A_23_P111981 | 3633.5000 |
| A_23_P111995 | 1631.4000 |
| A_23_P112004 | 2137.0000 |
| A_23_P11201 | 2928.0000 |
| A_23_P112016 | 217.0000 |
| A_23_P112026 | 393.0000 |
| A_23_P112061 | 30998.0000 |
| A_23_P112078 | 3301.0000 |
| A_23_P112086 | 144.0000 |
| A_23_P112100 | 141.0000 |
| A_23_P112103 | 3525.0000 |
| A_23_P112113 | 17602.0000 |
| A_23_P112135 | 47825.1000 |
| A_23_P11214 | 3070.0000 |
| A_23_P112159 | 10531.0000 |
| A_23_P112162 | 22257.5000 |
| A_23_P112173 | 170.0000 |
| A_23_P112187 | 289.0000 |
| A_23_P112201 | 3067.0000 |
| A_23_P112220 | 147.0000 |
| A_23_P11224 | 28864.5000 |
| A_23_P112241 | 47387.6000 |

| | |
|-------------------------------|-------------|
| A_23_P112251 | 86016.7000 |
| A_23_P112260 | 27547.0000 |
| A_23_P112275 | 161.5000 |
| A_23_P112289 | 204.5000 |
| A_23_P112296 | 153.0000 |
| A_23_P112311 | 1649.5000 |
| A_23_P112327 | 173.5000 |
| rRaw_arrays_scanner_file2.txt | |
| (+)E1A_r60_1 | 153.7812 |
| (+)E1A_r60_3 | 179.5312 |
| (+)E1A_r60_a104 | 150.9531 |
| (+)E1A_r60_a107 | 146.3750 |
| (+)E1A_r60_a135 | 149.9844 |
| (+)E1A_r60_a20 | 198.4688 |
| (+)E1A_r60_a22 | 302.6875 |
| (+)E1A_r60_a97 | 140.7031 |
| (+)E1A_r60_n11 | 161.6094 |
| (+)E1A_r60_n9 | 144.9688 |
| (+)eQC-39 | 153.7000 |
| (+)eQC-40 | 155.2000 |
| (+)eQC-41 | 169.2000 |
| (+)eQC-42 | 161.2500 |
| 3xSLv1 | 139.8137 |
| A_23_P100001 | 1391.0000 |
| A_23_P100011 | 1794.0000 |
| A_23_P100022 | 456.0000 |
| A_23_P100056 | 612.0000 |
| A_23_P100074 | 9026.5000 |
| A_23_P100092 | 2744.0000 |
| A_23_P100103 | 4385.0000 |
| A_23_P100111 | 1306.0000 |
| A_23_P100127 | 485.0000 |
| A_23_P100133 | 1011.5000 |
| A_23_P100141 | 1402.0000 |
| A_23_P100156 | 11903.0000 |
| A_23_P100177 | 225.5000 |
| A_23_P100189 | 258.0000 |
| A_23_P100196 | 8358.0000 |
| A_23_P100203 | 7320.0000 |
| A_23_P100220 | 1299.5000 |
| A_23_P100240 | 276.0000 |
| A_23_P10025 | 447.0000 |
| A_23_P100263 | 22883.7000 |
| A_23_P100278 | 309.0000 |
| A_23_P100292 | 28151.9000 |
| A_23_P100315 | 9749.5000 |
| A_23_P100326 | 18650.5000 |
| A_23_P100341 | 24028.0000 |
| A_23_P100344 | 1769.0000 |
| A_23_P100355 | 38757.4000 |
| A_23_P100386 | 251.0000 |
| A_23_P100392 | 5730.0000 |
| A_23_P100408 | 535.0000 |
| A_23_P100413 | 1245.0000 |
| A_23_P100420 | 7035.0000 |
| A_23_P100441 | 8944.5000 |
| A_23_P100455 | 1830.0000 |
| A_23_P100469 | 3970.0000 |
| A_23_P100478 | 4214.0000 |
| A_23_P100486 | 146722.0000 |

| | |
|--------------|-------------|
| A_23_P100499 | 810.0000 |
| A_23_P100501 | 86398.2000 |
| A_23_P100517 | 5971.0000 |
| A_23_P100522 | 22804.9000 |
| A_23_P100539 | 1420.0000 |
| A_23_P100556 | 9328.5000 |
| A_23_P100576 | 57107.7000 |
| A_23_P100583 | 277.0000 |
| A_23_P100595 | 306.0000 |
| A_23_P10060 | 201.5000 |
| A_23_P100602 | 4299.0000 |
| A_23_P10062 | 116.5000 |
| A_23_P100632 | 146900.0000 |
| A_23_P100642 | 291.0000 |
| A_23_P100654 | 11738.0000 |
| A_23_P100660 | 4501.0000 |
| A_23_P100676 | 2323.0000 |
| A_23_P100693 | 3962.0000 |
| A_23_P100704 | 7177.5000 |
| A_23_P100711 | 7812.5000 |
| A_23_P100730 | 1117.0000 |
| A_23_P100754 | 1594.0000 |
| A_23_P100764 | 23602.5000 |
| A_23_P10077 | 1922.0000 |
| A_23_P100779 | 1521.5000 |
| A_23_P100788 | 2775.0000 |
| A_23_P100795 | 2060.0000 |
| A_23_P100802 | 44365.4000 |
| A_23_P10081 | 419.0000 |
| A_23_P100868 | 5934.0000 |
| A_23_P100872 | 288.0000 |
| A_23_P100883 | 16616.5000 |
| A_23_P10091 | 160.0000 |
| A_23_P100912 | 1421.0000 |
| A_23_P100931 | 123.0000 |
| A_23_P100935 | 164.5000 |
| A_23_P100959 | 267.0000 |
| A_23_P100963 | 672.0000 |
| A_23_P100990 | 502.0000 |
| A_23_P100991 | 119.0000 |
| A_23_P101007 | 847.0000 |
| A_23_P101013 | 20815.8000 |
| A_23_P101025 | 14066.5000 |
| A_23_P101038 | 154.5000 |
| A_23_P101048 | 170.0000 |
| A_23_P101054 | 234.0000 |
| A_23_P101073 | 443.0000 |
| A_23_P101084 | 295.0000 |
| A_23_P101093 | 5436.0000 |
| A_23_P101111 | 10624.0000 |
| A_23_P101121 | 1849.0000 |
| A_23_P101131 | 212.0000 |
| A_23_P101141 | 882.0000 |
| A_23_P101185 | 42085.7000 |
| A_23_P101193 | 282.0000 |
| A_23_P101208 | 36743.6000 |
| A_23_P10121 | 1322.0000 |
| A_23_P101237 | 14152.0000 |
| A_23_P101240 | 41219.2000 |
| A_23_P101246 | 3518.5000 |

| | |
|--------------|-------------|
| A_23_P101253 | 1288.0000 |
| A_23_P101258 | 999.0000 |
| A_23_P10127 | 2694.0000 |
| A_23_P101272 | 6241.0000 |
| A_23_P101281 | 1854.0000 |
| A_23_P101297 | 2476.5000 |
| A_23_P101303 | 13725.5000 |
| A_23_P101308 | 2400.0000 |
| A_23_P101319 | 423.0000 |
| A_23_P101321 | 1016.5000 |
| A_23_P101332 | 8789.0000 |
| A_23_P101342 | 1536.0000 |
| A_23_P10135 | 6961.5000 |
| A_23_P101351 | 3329.0000 |
| A_23_P101374 | 2648.0000 |
| A_23_P101380 | 40500.3000 |
| A_23_P101392 | 620.0000 |
| A_23_P1014 | 5934.0000 |
| A_23_P101407 | 37984.4000 |
| A_23_P101427 | 888.0000 |
| A_23_P101434 | 234.0000 |
| A_23_P101461 | 68555.1000 |
| A_23_P101476 | 655.0000 |
| A_23_P101480 | 745.0000 |
| A_23_P101505 | 324.0000 |
| A_23_P101516 | 1815.5000 |
| A_23_P101521 | 173.5000 |
| A_23_P101532 | 506057.0000 |
| A_23_P101551 | 14817.5000 |
| A_23_P10156 | 3589.5000 |
| A_23_P101564 | 252.0000 |
| A_23_P101573 | 198.5000 |
| A_23_P101615 | 2114.0000 |
| A_23_P101623 | 345.0000 |
| A_23_P101636 | 174.0000 |
| A_23_P101642 | 857.0000 |
| A_23_P101655 | 9199.5000 |
| A_23_P101671 | 450.0000 |
| A_23_P101683 | 232.0000 |
| A_23_P101699 | 4836.0000 |
| A_23_P101707 | 46064.0000 |
| A_23_P10172 | 144.0000 |
| A_23_P101737 | 2250.5000 |
| A_23_P101742 | 14727.0000 |
| A_23_P101759 | 726.0000 |
| A_23_P101761 | 9747.0000 |
| A_23_P101774 | 361.0000 |
| A_23_P101783 | 761.0000 |
| A_23_P101796 | 966.5000 |
| A_23_P101806 | 875.0000 |
| A_23_P101811 | 871.0000 |
| A_23_P10182 | 4393.0000 |
| A_23_P101829 | 3562.0000 |
| A_23_P101871 | 389.0000 |
| A_23_P101893 | 2584.0000 |
| A_23_P101905 | 250.0000 |
| A_23_P101908 | 853.5000 |
| A_23_P10194 | 93232.2000 |
| A_23_P101943 | 11219.0000 |
| A_23_P101950 | 227937.0000 |

| | |
|--------------|-------------|
| A_23_P101960 | 66378.8000 |
| A_23_P101972 | 913.5000 |
| A_23_P101992 | 3994.0000 |
| A_23_P102000 | 138131.6000 |
| A_23_P102017 | 249.0000 |
| A_23_P102037 | 3329.0000 |
| A_23_P102058 | 147.0000 |
| A_23_P10206 | 143.5000 |
| A_23_P102060 | 8176.0000 |
| A_23_P102071 | 3028.5000 |
| A_23_P102083 | 130.0000 |
| A_23_P102109 | 82794.1000 |
| A_23_P10211 | 974.0000 |
| A_23_P102113 | 522.0000 |
| A_23_P102117 | 249.0000 |
| A_23_P102122 | 336951.0000 |
| A_23_P102160 | 5628.0000 |
| A_23_P102172 | 199.0000 |
| A_23_P102183 | 9158.0000 |
| A_23_P102192 | 4173.0000 |
| A_23_P102202 | 16373.0000 |
| A_23_P102235 | 15043.0000 |
| A_23_P102242 | 5730.5000 |
| A_23_P102258 | 40884.4000 |
| A_23_P102262 | 28019.0000 |
| A_23_P102278 | 149.0000 |
| A_23_P102286 | 150.5000 |
| A_23_P10232 | 277.5000 |
| A_23_P102320 | 3423.0000 |
| A_23_P102331 | 181.0000 |
| A_23_P102351 | 299.0000 |
| A_23_P102364 | 973.0000 |
| A_23_P102391 | 1931.5000 |
| A_23_P102404 | 105118.0000 |
| A_23_P102412 | 5914.5000 |
| A_23_P102420 | 308423.0000 |
| A_23_P102439 | 692.0000 |
| A_23_P102454 | 10810.0000 |
| A_23_P102462 | 361.5000 |
| A_23_P102471 | 3670.1000 |
| A_23_P102481 | 160.0000 |
| A_23_P102494 | 1331.0000 |
| A_23_P102508 | 5565.0000 |
| A_23_P102517 | 13128.0000 |
| A_23_P102523 | 1338.5000 |
| A_23_P102542 | 14865.0000 |
| A_23_P102551 | 117.5000 |
| A_23_P102571 | 32002.2000 |
| A_23_P102575 | 7001.5000 |
| A_23_P102582 | 279404.0000 |
| A_23_P102607 | 211.0000 |
| A_23_P102611 | 3952.5000 |
| A_23_P102622 | 494.0000 |
| A_23_P102634 | 160.0000 |
| A_23_P102681 | 197.0000 |
| A_23_P102694 | 333.0000 |
| A_23_P102706 | 523.0000 |
| A_23_P102731 | 8602.0000 |
| A_23_P102743 | 1099.0000 |
| A_23_P102759 | 356.5000 |

| | |
|--------------|-------------|
| A_23_P102769 | 1985.0000 |
| A_23_P102770 | 19121.0000 |
| A_23_P102816 | 904.5000 |
| A_23_P102832 | 13781.0000 |
| A_23_P102842 | 11566.0000 |
| A_23_P102864 | 169.0000 |
| A_23_P102876 | 76383.6000 |
| A_23_P102884 | 754.0000 |
| A_23_P102890 | 258601.0000 |
| A_23_P1029 | 611.0000 |
| A_23_P10291 | 450.5000 |
| A_23_P102917 | 145.5000 |
| A_23_P102919 | 148.0000 |
| A_23_P102925 | 4943.0000 |
| A_23_P102937 | 18830.0000 |
| A_23_P102950 | 352.5000 |
| A_23_P102965 | 7427.5000 |
| A_23_P102973 | 6110.5000 |
| A_23_P102988 | 863.0000 |
| A_23_P102994 | 46211.7000 |
| A_23_P103011 | 4308.0000 |
| A_23_P103034 | 218.0000 |
| A_23_P103041 | 341.0000 |
| A_23_P10305 | 1535.0000 |
| A_23_P103062 | 4954.5000 |
| A_23_P103070 | 18062.0000 |
| A_23_P103084 | 3021.0000 |
| A_23_P103099 | 904.0000 |
| A_23_P103104 | 16304.0000 |
| A_23_P103110 | 21347.5000 |
| A_23_P103120 | 22214.1000 |
| A_23_P103131 | 35512.7000 |
| A_23_P103149 | 202211.0000 |
| A_23_P103172 | 10229.0000 |
| A_23_P103180 | 2365.0000 |
| A_23_P103201 | 21869.4000 |
| A_23_P103226 | 242.0000 |
| A_23_P103232 | 72119.8000 |
| A_23_P103248 | 1403.0000 |
| A_23_P103256 | 203.5000 |
| A_23_P103269 | 154.0000 |
| A_23_P103276 | 1458.5000 |
| A_23_P103282 | 145910.0000 |
| A_23_P103310 | 324.0000 |
| A_23_P103315 | 45315.6000 |
| A_23_P103328 | 192.0000 |
| A_23_P103334 | 1860.0000 |
| A_23_P103349 | 190.0000 |
| A_23_P103361 | 971.2000 |
| A_23_P103371 | 278.5000 |
| A_23_P103398 | 91292.3000 |
| A_23_P103405 | 569.0000 |
| A_23_P103414 | 50150.6000 |
| A_23_P103424 | 155.0000 |
| A_23_P103433 | 4717.0000 |
| A_23_P103442 | 20343.1000 |
| A_23_P103454 | 81671.6000 |
| A_23_P103465 | 616.0000 |
| A_23_P103476 | 2945.5000 |
| A_23_P103486 | 591.0000 |

| | |
|--------------|-------------|
| A_23_P103496 | 437.0000 |
| A_23_P103503 | 2338.0000 |
| A_23_P103511 | 12753.0000 |
| A_23_P103522 | 164.5000 |
| A_23_P103532 | 1421.0000 |
| A_23_P10356 | 550.5000 |
| A_23_P103561 | 1403.0000 |
| A_23_P103571 | 1072.5000 |
| A_23_P103588 | 233.0000 |
| A_23_P103601 | 23307.1000 |
| A_23_P103617 | 676.0000 |
| A_23_P103628 | 7617.0000 |
| A_23_P103631 | 49028.0000 |
| A_23_P103661 | 18960.5000 |
| A_23_P103672 | 34995.8000 |
| A_23_P103690 | 5718.0000 |
| A_23_P103698 | 52317.0000 |
| A_23_P103703 | 658.5000 |
| A_23_P103720 | 551.0000 |
| A_23_P10374 | 16482.0000 |
| A_23_P103743 | 146.0000 |
| A_23_P103756 | 1096.0000 |
| A_23_P103765 | 182.0000 |
| A_23_P103775 | 668.0000 |
| A_23_P103787 | 5799.0000 |
| A_23_P103795 | 844.0000 |
| A_23_P1038 | 1577.0000 |
| A_23_P103803 | 212.0000 |
| A_23_P103812 | 277.0000 |
| A_23_P103824 | 13538.0000 |
| A_23_P103837 | 6713.0000 |
| A_23_P10385 | 574.1500 |
| A_23_P103864 | 2495.0000 |
| A_23_P103877 | 462.0000 |
| A_23_P103885 | 47821.8000 |
| A_23_P103897 | 425.5000 |
| A_23_P103905 | 13302.0000 |
| A_23_P10391 | 249.0000 |
| A_23_P103919 | 12884.5000 |
| A_23_P103923 | 1043.5000 |
| A_23_P103932 | 488677.0000 |
| A_23_P103942 | 13871.5000 |
| A_23_P103951 | 5921.0000 |
| A_23_P103968 | 20029.0000 |
| A_23_P103971 | 180.0000 |
| A_23_P103981 | 44508.2000 |
| A_23_P103996 | 6271.0000 |
| A_23_P10401 | 3215.0000 |
| A_23_P104012 | 149.5000 |
| A_23_P104022 | 4702.0000 |
| A_23_P104025 | 1468.0000 |
| A_23_P104046 | 3387.0000 |
| A_23_P104054 | 4559.0000 |
| A_23_P104065 | 7115.0000 |
| A_23_P104073 | 381.0000 |
| A_23_P104086 | 997.0000 |
| A_23_P104098 | 731.0000 |
| A_23_P104109 | 2427.0000 |
| A_23_P104116 | 105994.0000 |
| A_23_P104138 | 296.0000 |

| | |
|--------------|-------------|
| A_23_P104146 | 4513.0000 |
| A_23_P104151 | 5251.0000 |
| A_23_P104188 | 613.5000 |
| A_23_P104193 | 61721.1000 |
| A_23_P104199 | 29447.3400 |
| A_23_P104201 | 69283.8000 |
| A_23_P104224 | 251.0000 |
| A_23_P104237 | 197.5000 |
| A_23_P104252 | 210.0000 |
| A_23_P104275 | 178.0000 |
| A_23_P104282 | 2140.5000 |
| A_23_P104295 | 2400.0000 |
| A_23_P1043 | 376.0000 |
| A_23_P104318 | 36571.3000 |
| A_23_P104323 | 4975.0000 |
| A_23_P104335 | 111.0000 |
| A_23_P104346 | 8534.0000 |
| A_23_P104351 | 39033.1000 |
| A_23_P104362 | 70421.1000 |
| A_23_P104372 | 22219.0000 |
| A_23_P104387 | 66428.1000 |
| A_23_P104413 | 235022.0000 |
| A_23_P10442 | 25247.0000 |
| A_23_P104438 | 467.0000 |
| A_23_P104445 | 10507.5000 |
| A_23_P104451 | 20362.8000 |
| A_23_P104464 | 7293.0000 |
| A_23_P104471 | 74473.2000 |
| A_23_P104484 | 266.0000 |
| A_23_P104493 | 10971.0000 |
| A_23_P104509 | 939.0000 |
| A_23_P104522 | 179.0000 |
| A_23_P104555 | 304.0000 |
| A_23_P104563 | 2227.0000 |
| A_23_P104579 | 2875.0000 |
| A_23_P10458 | 238.0000 |
| A_23_P104583 | 10877.5000 |
| A_23_P104594 | 368.0000 |
| A_23_P104607 | 19155.0000 |
| A_23_P104617 | 1369.0000 |
| A_23_P104624 | 4042.0000 |
| A_23_P10463 | 170090.0000 |
| A_23_P104641 | 15746.0000 |
| A_23_P104651 | 3844.0000 |
| A_23_P104676 | 30835.3000 |
| A_23_P104689 | 8135.3000 |
| A_23_P104692 | 11238.0000 |
| A_23_P104705 | 801.0000 |
| A_23_P104734 | 31844.6000 |
| A_23_P104741 | 337.5000 |
| A_23_P104762 | 423.0000 |
| A_23_P104798 | 7168.4000 |
| A_23_P104804 | 647.0000 |
| A_23_P104819 | 318.0000 |
| A_23_P104845 | 284.0000 |
| A_23_P104853 | 143.0000 |
| A_23_P104865 | 165.0000 |
| A_23_P104876 | 6656.5000 |
| A_23_P10488 | 146.0000 |
| A_23_P104881 | 263.0000 |

| | |
|--------------|-------------|
| A_23_P104892 | 271230.0000 |
| A_23_P104942 | 24332.0000 |
| A_23_P10497 | 24513.4000 |
| A_23_P104972 | 246.0000 |
| A_23_P104996 | 2459.0000 |
| A_23_P10500 | 362.0000 |
| A_23_P105002 | 1795.5000 |
| A_23_P105012 | 199.5000 |
| A_23_P105028 | 9812.0000 |
| A_23_P105044 | 18332.0000 |
| A_23_P10506 | 13032.5000 |
| A_23_P105066 | 16711.0000 |
| A_23_P105088 | 201.0000 |
| A_23_P105118 | 248.5000 |
| A_23_P105138 | 27009.7000 |
| A_23_P105144 | 816.5000 |
| A_23_P10518 | 357.0000 |
| A_23_P105184 | 86486.9000 |
| A_23_P105197 | 904.0000 |
| A_23_P105212 | 149.0000 |
| A_23_P105227 | 1144.5000 |
| A_23_P10525 | 176.0000 |
| A_23_P105251 | 402.0000 |
| A_23_P105264 | 7578.0000 |
| A_23_P105276 | 3667.5000 |
| A_23_P105307 | 1530.0000 |
| A_23_P105313 | 28664.0000 |
| A_23_P105368 | 236.0000 |
| A_23_P105382 | 712.5000 |
| A_23_P105392 | 95920.5000 |
| A_23_P105409 | 1198.5000 |
| A_23_P10542 | 522.0000 |
| A_23_P105423 | 213.0000 |
| A_23_P105436 | 705.0000 |
| A_23_P105442 | 8074.0000 |
| A_23_P105453 | 147.0000 |
| A_23_P105461 | 2356.5000 |
| A_23_P105465 | 885.5000 |
| A_23_P105475 | 145.0000 |
| A_23_P105495 | 199.5000 |
| A_23_P105519 | 6045.0000 |
| A_23_P105524 | 176.5000 |
| A_23_P105535 | 6959.0000 |
| A_23_P105545 | 314.0000 |
| A_23_P105562 | 6933.9500 |
| A_23_P105571 | 6830.0000 |
| A_23_P105583 | 1828.0000 |
| A_23_P10559 | 3480.0000 |
| A_23_P105592 | 33789.5000 |
| A_23_P1056 | 2546.0000 |
| A_23_P10561 | 189.0000 |
| A_23_P105619 | 1563.5000 |
| A_23_P105625 | 20096.9000 |
| A_23_P10564 | 133.0000 |
| A_23_P105646 | 3979.0000 |
| A_23_P105651 | 125.0000 |
| A_23_P105664 | 16290.0000 |
| A_23_P105691 | 298.0000 |
| A_23_P105705 | 153.0000 |
| A_23_P105730 | 174.0000 |

| | |
|--------------|-------------|
| A_23_P105732 | 16170.0000 |
| A_23_P105747 | 1686.0000 |
| A_23_P105753 | 3098.0000 |
| A_23_P105794 | 633.0000 |
| A_23_P105803 | 238.5000 |
| A_23_P105815 | 430.5000 |
| A_23_P105833 | 1640.5000 |
| A_23_P105856 | 572.0000 |
| A_23_P105862 | 1777.0000 |
| A_23_P105873 | 161.0000 |
| A_23_P105886 | 159.0000 |
| A_23_P105900 | 38718.0000 |
| A_23_P10591 | 178696.0000 |
| A_23_P105923 | 328.5000 |
| A_23_P105939 | 192.0000 |
| A_23_P105957 | 104251.0000 |
| A_23_P105963 | 165.0000 |
| A_23_P105973 | 218.0000 |
| A_23_P106 | 1391.0000 |
| A_23_P106002 | 224171.0000 |
| A_23_P106016 | 295.0000 |
| A_23_P106024 | 371.0000 |
| A_23_P106042 | 266.0000 |
| A_23_P10605 | 13843.5000 |
| A_23_P106056 | 105413.0000 |
| A_23_P106069 | 161.0000 |
| A_23_P106080 | 250.0000 |
| A_23_P106103 | 278.0000 |
| A_23_P106117 | 332.0000 |
| A_23_P106127 | 5191.0000 |
| A_23_P106131 | 58688.2000 |
| A_23_P10614 | 2471.0000 |
| A_23_P106145 | 196342.0000 |
| A_23_P106158 | 1399.0000 |
| A_23_P106162 | 2072.0000 |
| A_23_P106174 | 2479.0000 |
| A_23_P106194 | 21574.0000 |
| A_23_P106204 | 4691.0000 |
| A_23_P106226 | 58968.8000 |
| A_23_P106236 | 192.0000 |
| A_23_P106241 | 21209.6000 |
| A_23_P106258 | 906.0000 |
| A_23_P106280 | 4583.0000 |
| A_23_P106299 | 266686.0000 |
| A_23_P106322 | 2244.0000 |
| A_23_P106362 | 151833.0000 |
| A_23_P106371 | 490.0000 |
| A_23_P106389 | 856.0000 |
| A_23_P106391 | 356.0000 |
| A_23_P10640 | 438.0000 |
| A_23_P106405 | 2549.5000 |
| A_23_P106412 | 687.0000 |
| A_23_P106425 | 1598.0000 |
| A_23_P106433 | 5762.5000 |
| A_23_P106439 | 2871.0000 |
| A_23_P106463 | 34124.3000 |
| A_23_P10647 | 571.0000 |
| A_23_P106472 | 380288.0000 |
| A_23_P106481 | 38885.4000 |
| A_23_P106497 | 2313.5000 |

| | |
|--------------|-------------|
| A_23_P106505 | 1610.5000 |
| A_23_P106522 | 10578.0000 |
| A_23_P106532 | 5074.5000 |
| A_23_P106544 | 22573.5000 |
| A_23_P106559 | 2944.0000 |
| A_23_P106562 | 38530.9000 |
| A_23_P106575 | 21347.5000 |
| A_23_P106602 | 344.0000 |
| A_23_P106617 | 503.0000 |
| A_23_P106629 | 8033.0000 |
| A_23_P106633 | 22918.1000 |
| A_23_P106656 | 273.5000 |
| A_23_P106661 | 634.0000 |
| A_23_P106663 | 234.0000 |
| A_23_P106675 | 25768.9000 |
| A_23_P106682 | 2979.0000 |
| A_23_P106694 | 30406.9000 |
| A_23_P106708 | 527790.0000 |
| A_23_P106720 | 1710.5000 |
| A_23_P106727 | 4493.0000 |
| A_23_P106737 | 1322.0000 |
| A_23_P106741 | 94404.0000 |
| A_23_P106761 | 10614.0000 |
| A_23_P106773 | 19265.0000 |
| A_23_P106798 | 1605.5000 |
| A_23_P106806 | 290.0000 |
| A_23_P106814 | 233.0000 |
| A_23_P106822 | 5858.0000 |
| A_23_P106835 | 13539.5000 |
| A_23_P106844 | 629517.0000 |
| A_23_P10685 | 13561.0000 |
| A_23_P106859 | 37954.8000 |
| A_23_P106874 | 5914.0000 |
| A_23_P106887 | 18007.0000 |
| A_23_P106898 | 4559.0000 |
| A_23_P106906 | 472.0000 |
| A_23_P106922 | 366.0000 |
| A_23_P106933 | 215.5000 |
| A_23_P106945 | 7868.0000 |
| A_23_P106973 | 642136.0000 |
| A_23_P10699 | 2551.0000 |
| A_23_P106998 | 5598.0000 |
| A_23_P10701 | 3830.5000 |
| A_23_P107036 | 31529.5000 |
| A_23_P107048 | 3327.0000 |
| A_23_P107051 | 3129.0000 |
| A_23_P107064 | 412.0000 |
| A_23_P107073 | 48383.0000 |
| A_23_P107087 | 1941.0000 |
| A_23_P107102 | 144.0000 |
| A_23_P107116 | 487.5000 |
| A_23_P107132 | 141.5000 |
| A_23_P107154 | 13269.5000 |
| A_23_P107166 | 740.5000 |
| A_23_P107173 | 294.5000 |
| A_23_P1072 | 162640.0000 |
| A_23_P107206 | 7453.7000 |
| A_23_P10721 | 129.0000 |
| A_23_P107211 | 8129.0000 |
| A_23_P107214 | 33046.0000 |

| | |
|--------------|-------------|
| A_23_P107238 | 223.0000 |
| A_23_P107247 | 2251.0000 |
| A_23_P107257 | 4091.0000 |
| A_23_P107283 | 2306.0000 |
| A_23_P107295 | 2496.0000 |
| A_23_P107307 | 3504.0000 |
| A_23_P107313 | 7352.0000 |
| A_23_P107322 | 2726.0000 |
| A_23_P107336 | 980.0000 |
| A_23_P107350 | 636.0000 |
| A_23_P107351 | 1512.0000 |
| A_23_P107369 | 120292.0000 |
| A_23_P107373 | 11401.0000 |
| A_23_P107394 | 294588.0000 |
| A_23_P107401 | 464433.0000 |
| A_23_P107412 | 255672.0000 |
| A_23_P107421 | 40076.9000 |
| A_23_P10743 | 1939.0000 |
| A_23_P107432 | 534.0000 |
| A_23_P107443 | 117.0000 |
| A_23_P107454 | 537.5000 |
| A_23_P107465 | 1147.5000 |
| A_23_P107483 | 637.0000 |
| A_23_P107507 | 2909.0000 |
| A_23_P107513 | 1359.0000 |
| A_23_P10753 | 139.0000 |
| A_23_P107531 | 199.0000 |
| A_23_P107552 | 5213.0000 |
| A_23_P107565 | 144.0000 |
| A_23_P107578 | 272.0000 |
| A_23_P107587 | 34700.3000 |
| A_23_P107597 | 224.0000 |
| A_23_P107612 | 146.0000 |
| A_23_P107623 | 127.5000 |
| A_23_P107644 | 48122.1000 |
| A_23_P107653 | 64271.0500 |
| A_23_P107661 | 45330.4000 |
| A_23_P107673 | 366.0000 |
| A_23_P107684 | 2505.0000 |
| A_23_P107693 | 2392.5000 |
| A_23_P107701 | 16359.0000 |
| A_23_P107714 | 1616.0000 |
| A_23_P107724 | 1285.5000 |
| A_23_P107735 | 10510.5000 |
| A_23_P107744 | 202.0000 |
| A_23_P107750 | 145.5000 |
| A_23_P107763 | 7162.0000 |
| A_23_P107775 | 552.0000 |
| A_23_P107795 | 56157.4000 |
| A_23_P107801 | 2892.5000 |
| A_23_P107847 | 6098.0000 |
| A_23_P10785 | 10728.5000 |
| A_23_P107855 | 708.0000 |
| A_23_P107881 | 846.0000 |
| A_23_P107894 | 7029.0000 |
| A_23_P107903 | 2557.0000 |
| A_23_P107911 | 636.0000 |
| A_23_P107933 | 2303.0000 |
| A_23_P107942 | 1915.0000 |
| A_23_P107959 | 33371.0000 |

| | |
|--------------|-------------|
| A_23_P107963 | 284.0000 |
| A_23_P107974 | 288.0000 |
| A_23_P10798 | 679.0000 |
| A_23_P107981 | 257.0000 |
| A_23_P107994 | 12170.0000 |
| A_23_P108028 | 1697.0000 |
| A_23_P108042 | 246.5000 |
| A_23_P108054 | 2017.5000 |
| A_23_P108062 | 414.0000 |
| A_23_P108075 | 198.0000 |
| A_23_P108082 | 218.0000 |
| A_23_P108103 | 3451.0000 |
| A_23_P108129 | 648.5000 |
| A_23_P108135 | 164974.0000 |
| A_23_P108143 | 3828.0000 |
| A_23_P10815 | 37172.0000 |
| A_23_P108157 | 522.0000 |
| A_23_P108170 | 167.0000 |
| A_23_P108180 | 308.0000 |
| A_23_P108200 | 351.0000 |
| A_23_P108216 | 154.0000 |
| A_23_P108221 | 194.5000 |
| A_23_P108244 | 61617.7000 |
| A_23_P108265 | 562.0000 |
| A_23_P108280 | 204.0000 |
| A_23_P108294 | 1448.0000 |
| A_23_P1083 | 248.0000 |
| A_23_P108303 | 48540.6000 |
| A_23_P108314 | 262.0000 |
| A_23_P108326 | 2184.0000 |
| A_23_P108331 | 68210.4000 |
| A_23_P108342 | 501.0000 |
| A_23_P108376 | 11268.0000 |
| A_23_P10839 | 13372.0000 |
| A_23_P108394 | 7727.0000 |
| A_23_P108404 | 643.5000 |
| A_23_P108415 | 74212.3000 |
| A_23_P108427 | 294.0000 |
| A_23_P108437 | 3280.0000 |
| A_23_P108463 | 494.0000 |
| A_23_P108492 | 340.0000 |
| A_23_P108501 | 338.0000 |
| A_23_P108514 | 2729.0000 |
| A_23_P108522 | 46457.9000 |
| A_23_P108534 | 267.0000 |
| A_23_P108546 | 143.0000 |
| A_23_P108554 | 70775.6000 |
| A_23_P108564 | 156.0000 |
| A_23_P108574 | 4203.0000 |
| A_23_P10858 | 3408.0000 |
| A_23_P108592 | 447.5000 |
| A_23_P108604 | 24784.2000 |
| A_23_P108641 | 25222.4000 |
| A_23_P108657 | 3665.0000 |
| A_23_P108662 | 80686.8000 |
| A_23_P108673 | 186.0000 |
| A_23_P108699 | 312.0000 |
| A_23_P10870 | 3598.0000 |
| A_23_P108708 | 103070.0000 |
| A_23_P10873 | 35084.4000 |

| | |
|--------------|-------------|
| A_23_P108734 | 183.5000 |
| A_23_P108743 | 189.0000 |
| A_23_P108751 | 1542.0000 |
| A_23_P108761 | 8391.5000 |
| A_23_P108785 | 150996.0000 |
| A_23_P108819 | 319.0000 |
| A_23_P108823 | 480.0000 |
| A_23_P108835 | 18190.5000 |
| A_23_P108842 | 31962.8000 |
| A_23_P10885 | 500.0000 |
| A_23_P108871 | 8448.0000 |
| A_23_P108883 | 225.0000 |
| A_23_P108911 | 2009.0000 |
| A_23_P108922 | 2178.0000 |
| A_23_P108932 | 268.0000 |
| A_23_P108948 | 57851.1000 |
| A_23_P108970 | 269.0000 |
| A_23_P108990 | 149.0000 |
| A_23_P108994 | 28713.2000 |
| A_23_P109001 | 667.5000 |
| A_23_P109017 | 4949.5000 |
| A_23_P10902 | 238.0000 |
| A_23_P109026 | 20205.2000 |
| A_23_P109034 | 13820.0000 |
| A_23_P109055 | 489.0000 |
| A_23_P109072 | 1772.0000 |
| A_23_P10911 | 4824.5000 |
| A_23_P109122 | 3775.0000 |
| A_23_P109133 | 657.0000 |
| A_23_P109143 | 61898.3600 |
| A_23_P109171 | 338.5000 |
| A_23_P109184 | 18103.0000 |
| A_23_P109193 | 338.0000 |
| A_23_P109201 | 172990.0000 |
| A_23_P109224 | 518.0000 |
| A_23_P109229 | 205.0000 |
| A_23_P109235 | 11679.5000 |
| A_23_P109254 | 40195.1000 |
| A_23_P109269 | 812.0000 |
| A_23_P10927 | 2049.0000 |
| A_23_P109286 | 134.0000 |
| A_23_P109304 | 7771.0000 |
| A_23_P109320 | 303.0000 |
| A_23_P109322 | 731.0000 |
| A_23_P109333 | 36886.4000 |
| A_23_P109345 | 138874.0000 |
| A_23_P10936 | 186.5000 |
| A_23_P109382 | 161.5000 |
| A_23_P109393 | 533.0000 |
| A_23_P109410 | 862.0000 |
| A_23_P109420 | 21972.8000 |
| A_23_P109427 | 4838.5000 |
| A_23_P109436 | 1776.0000 |
| A_23_P109442 | 11371.0000 |
| A_23_P109446 | 5680.0000 |
| A_23_P109452 | 2351.0000 |
| A_23_P10947 | 2098.0000 |
| A_23_P109470 | 8675.0000 |
| A_23_P109488 | 2592.0000 |
| A_23_P109508 | 5579.0000 |

| | |
|--------------|-------------|
| A_23_P109547 | 9329.0000 |
| A_23_P10956 | 318.0000 |
| A_23_P109593 | 17560.0000 |
| A_23_P109606 | 14450.0000 |
| A_23_P109614 | 137.0000 |
| A_23_P109636 | 1336.0000 |
| A_23_P109643 | 6203.0000 |
| A_23_P109655 | 4592.5000 |
| A_23_P10966 | 145.0000 |
| A_23_P109677 | 26064.3000 |
| A_23_P109682 | 7073.0000 |
| A_23_P109720 | 137.0000 |
| A_23_P109733 | 2660.0000 |
| A_23_P109768 | 85127.9000 |
| A_23_P109774 | 6753.0000 |
| A_23_P109785 | 136.0000 |
| A_23_P109794 | 506.0000 |
| A_23_P10980 | 113.0000 |
| A_23_P109812 | 324.0000 |
| A_23_P109821 | 92503.5000 |
| A_23_P109843 | 193.0000 |
| A_23_P109864 | 3843.0000 |
| A_23_P10987 | 2034.0000 |
| A_23_P109877 | 6997.5000 |
| A_23_P109881 | 3179.0000 |
| A_23_P109895 | 8652.0000 |
| A_23_P109907 | 128677.0000 |
| A_23_P109913 | 239.0000 |
| A_23_P109928 | 68003.6000 |
| A_23_P109934 | 955.0000 |
| A_23_P10995 | 234.0000 |
| A_23_P109950 | 791.0000 |
| A_23_P109964 | 289.0000 |
| A_23_P109974 | 11557.0000 |
| A_23_P109988 | 10121.0000 |
| A_23_P110005 | 4490.0000 |
| A_23_P110022 | 486.0000 |
| A_23_P110031 | 11564.0000 |
| A_23_P11005 | 38796.8000 |
| A_23_P110052 | 223.0000 |
| A_23_P110062 | 14998.5000 |
| A_23_P110076 | 2146.0000 |
| A_23_P110090 | 218.0000 |
| A_23_P110108 | 2688.0000 |
| A_23_P110116 | 19233.0000 |
| A_23_P110122 | 11181.5000 |
| A_23_P110135 | 239.0000 |
| A_23_P110151 | 703.0000 |
| A_23_P110167 | 41071.5000 |
| A_23_P11017 | 185.0000 |
| A_23_P110175 | 694.5000 |
| A_23_P110184 | 4775.0000 |
| A_23_P110196 | 765.0000 |
| A_23_P1102 | 363.5000 |
| A_23_P110204 | 9024.0000 |
| A_23_P110212 | 90859.0000 |
| A_23_P110234 | 365.0000 |
| A_23_P110243 | 3307.0000 |
| A_23_P11025 | 2735.0000 |
| A_23_P110253 | 160.9500 |

| | |
|--------------|-------------|
| A_23_P110266 | 132.0000 |
| A_23_P110276 | 256.0000 |
| A_23_P110288 | 277.0000 |
| A_23_P110299 | 243.0000 |
| A_23_P110304 | 1639.0000 |
| A_23_P110319 | 128.0000 |
| A_23_P11032 | 4034.5000 |
| A_23_P110345 | 8535.0000 |
| A_23_P110362 | 13426.0000 |
| A_23_P110386 | 174.0000 |
| A_23_P110403 | 147.0000 |
| A_23_P110412 | 220.0000 |
| A_23_P110430 | 280.5000 |
| A_23_P110433 | 7310.0000 |
| A_23_P110445 | 4270.0000 |
| A_23_P110462 | 211.5000 |
| A_23_P110473 | 2791.0000 |
| A_23_P110492 | 7173.0000 |
| A_23_P110504 | 40973.0000 |
| A_23_P11051 | 912.5000 |
| A_23_P110531 | 1846.0000 |
| A_23_P110557 | 473.0000 |
| A_23_P110569 | 757.0000 |
| A_23_P110571 | 1571.5000 |
| A_23_P110585 | 3453.0000 |
| A_23_P110598 | 4440.0000 |
| A_23_P110606 | 2827.5000 |
| A_23_P110611 | 3965.0000 |
| A_23_P110624 | 677.5000 |
| A_23_P110643 | 2914.0000 |
| A_23_P110655 | 3610.0000 |
| A_23_P110661 | 30850.1000 |
| A_23_P110686 | 3121.0000 |
| A_23_P110699 | 324.5000 |
| A_23_P11070 | 162.0000 |
| A_23_P110704 | 36423.6000 |
| A_23_P11071 | 14480.0000 |
| A_23_P110712 | 74650.5000 |
| A_23_P110725 | 4980.0000 |
| A_23_P110764 | 116.0000 |
| A_23_P110777 | 162.0000 |
| A_23_P110787 | 2859.0000 |
| A_23_P110791 | 370820.0000 |
| A_23_P110802 | 1746.0000 |
| A_23_P11081 | 125.0000 |
| A_23_P110811 | 210513.0000 |
| A_23_P110837 | 347.0000 |
| A_23_P110846 | 7915.0000 |
| A_23_P110851 | 644.8500 |
| A_23_P110879 | 2683.0000 |
| A_23_P110882 | 3730.0000 |
| A_23_P110896 | 10628.0000 |
| A_23_P110903 | 183.0000 |
| A_23_P110941 | 874.0000 |
| A_23_P110957 | 794.5000 |
| A_23_P110961 | 61534.0000 |
| A_23_P111000 | 21889.1000 |
| A_23_P111005 | 33430.0000 |
| A_23_P111020 | 928.5000 |
| A_23_P11103 | 169.0000 |

| | |
|--------------|-------------|
| A_23_P111037 | 42716.0000 |
| A_23_P111041 | 7684.0000 |
| A_23_P111054 | 4593.0000 |
| A_23_P111088 | 313.0000 |
| A_23_P111092 | 28476.9000 |
| A_23_P111112 | 23858.5000 |
| A_23_P111126 | 6330.0000 |
| A_23_P111132 | 288759.0000 |
| A_23_P111141 | 28078.1000 |
| A_23_P111155 | 160.0000 |
| A_23_P111171 | 15640.0000 |
| A_23_P111188 | 1657.0000 |
| A_23_P11119 | 122.0000 |
| A_23_P111194 | 929.0000 |
| A_23_P111206 | 1437.0000 |
| A_23_P111228 | 1647.0000 |
| A_23_P111240 | 8219.5000 |
| A_23_P111260 | 531.0000 |
| A_23_P111267 | 254.0000 |
| A_23_P111273 | 18023.0000 |
| A_23_P111288 | 111420.0000 |
| A_23_P111297 | 1531.0000 |
| A_23_P111303 | 5959.0000 |
| A_23_P111306 | 2925.0000 |
| A_23_P111311 | 244.0000 |
| A_23_P111321 | 895.5000 |
| A_23_P111343 | 12614.0000 |
| A_23_P111360 | 673.5000 |
| A_23_P111361 | 267.0000 |
| A_23_P111373 | 15759.0000 |
| A_23_P111381 | 12513.0000 |
| A_23_P111395 | 201.0000 |
| A_23_P111402 | 110.5000 |
| A_23_P111413 | 1390.0000 |
| A_23_P11144 | 659.0000 |
| A_23_P111452 | 87240.2000 |
| A_23_P111480 | 322.5000 |
| A_23_P111481 | 75866.6000 |
| A_23_P111487 | 2107.0000 |
| A_23_P111492 | 1238.5000 |
| A_23_P111506 | 589906.0000 |
| A_23_P111517 | 288.0000 |
| A_23_P111525 | 3045.5000 |
| A_23_P111531 | 1006.0000 |
| A_23_P111571 | 601132.0000 |
| A_23_P111583 | 257553.0000 |
| A_23_P111593 | 1028.0000 |
| A_23_P11160 | 589.0000 |
| A_23_P111604 | 133.0000 |
| A_23_P111621 | 12597.5000 |
| A_23_P111635 | 10722.0000 |
| A_23_P111657 | 256.0000 |
| A_23_P111662 | 180.0000 |
| A_23_P111672 | 3361.0000 |
| A_23_P111698 | 453.0000 |
| A_23_P1117 | 667.0000 |
| A_23_P111701 | 362.5000 |
| A_23_P111712 | 1396.5000 |
| A_23_P111724 | 129.0000 |
| A_23_P111737 | 235.0000 |

| | |
|--------------|------------|
| A_23_P111745 | 14369.0000 |
| A_23_P111753 | 29929.4000 |
| A_23_P111766 | 1319.0000 |
| A_23_P111797 | 8004.0000 |
| A_23_P111804 | 15423.0000 |
| A_23_P111811 | 3979.5000 |
| A_23_P111826 | 172.0000 |
| A_23_P111835 | 51332.3000 |
| A_23_P111843 | 74128.6000 |
| A_23_P111860 | 262.0000 |
| A_23_P111865 | 1140.0000 |
| A_23_P111888 | 321.0000 |
| A_23_P111919 | 133.5000 |
| A_23_P11192 | 32297.6000 |
| A_23_P111929 | 422.0000 |
| A_23_P111947 | 116.0000 |
| A_23_P111961 | 4956.0000 |
| A_23_P111978 | 526.0000 |
| A_23_P111981 | 3947.5000 |
| A_23_P111995 | 1500.0000 |
| A_23_P112004 | 2790.5000 |
| A_23_P11201 | 5492.0000 |
| A_23_P112016 | 290.0000 |
| A_23_P112026 | 387.0000 |
| A_23_P112061 | 42474.7000 |
| A_23_P112078 | 4556.0000 |
| A_23_P112086 | 202.0000 |
| A_23_P112100 | 127.5000 |
| A_23_P112103 | 2445.0000 |
| A_23_P112113 | 25867.4000 |
| A_23_P112135 | 85984.6000 |
| A_23_P11214 | 3756.0000 |
| A_23_P112159 | 17420.5000 |
| A_23_P112162 | 16918.0000 |
| A_23_P112173 | 194.0000 |
| A_23_P112187 | 325.0000 |
| A_23_P112201 | 3832.0000 |
| A_23_P112220 | 164.5000 |
| A_23_P11224 | 39850.4000 |
| A_23_P112241 | 47629.7000 |
| A_23_P112251 | 94985.0000 |
| A_23_P112260 | 29112.0000 |
| A_23_P112275 | 164.0000 |
| A_23_P112289 | 216.0000 |
| A_23_P112296 | 148.5000 |
| A_23_P112311 | 2030.5000 |
| A_23_P112327 | 215.0000 |

```
> dim(dataout)
```

```
[1] 999 4
```

To remove these files again and empty the output directory use :

```
> unlink(file.path(system.file(package="agilp"), "output", "", "*. *" ,
+ fsep = .Platform$file.sep), recursive=FALSE)
```

For further detail on function variables see individual help files.

- **AALoess.** Normalises a set of gene expression data files using LOESS against a reference data set. An important aspect of analysing sets of microarray expression data is to be able to compare different experiments carried

out at different times. This requires being able to normalize data sets as far as possible correcting for global differences between experiments. *AALoess* function normalises data sets which share a common set of identifiers (typically probe names if all the experiments are carried out on a single platform) by comparison to a baseline file which typically contains an average of many datasets (for example as produced by *Baseline*). If the files to be analysed contain different numbers of identifiers, the output will contain only the data for the IDs common to the whole set. The underlying assumption is that the overall expression distribution over all the probes is the same in all samples, and that most probes are unchanged when comparing any two samples. The normalisation rationale is discussed in more detail in Chain et al. (see Bibliography) . The function also outputs a frequency histogram of the distances between each sample and the baseline which has proved useful in identifying technical outliers (e.g. if there is a problem in hybridization, for example).

Examples. This example takes the files in `agilp/extdata/raw`, *LOess* normalises them and saves them in `agilp/output` folder.

```
> inputdir<-file.path(system.file(package="agilp"),"extdata","raw/", "", fsep = .Platform$file.sep)
> outputdir<-file.path(system.file(package="agilp"),"output/", "", fsep = .Platform$file.sep)
> baselinedir<-file.path(system.file(package="agilp"),"extdata","testbase.txt", fsep = .Platform$file.sep)
> AALoess(input=inputdir, output=outputdir, baseline = baselinedir, LOG="TRUE")
```

After running this function review the SSE plot and file to identify outliers - note these in template file.

Alternatively the following example does not log transform the data.

```
> AALoess(input=inputdir, output=outputdir, baseline = baselinedir, LOG="FALSE")
```

To remove these files again and empty the output directory use :

```
> unlink(file.path(system.file(package="agilp"),"output", "", "*. *" ,
+ fsep = .Platform$file.sep), recursive=FALSE)
```

- **IDswop. Maps expression data across different bioinformatic identifiers.** *IDswop* replaces one set of identifiers associated with an expression data set (for example platform specific probe IDs) by another set (for example ENSEMBL transcript IDs). This allows expression data sets from different platforms to be combined for analysis . Any appropriate mapping spreadsheet file which contains the source identifiers in one column and the equivalent target IDs in another column can be used. We have typically used files produced by biomaRt, but suitable annotation files can also be made using the `select` function, in the AnnotationDbi package. If multiple source IDs(e.g. probe IDs) map to the same target ID the function returns the mean or the maximum value within the set.

Examples. This example maps expression data from Agilent ProbeIDs (found in column one of input files) to corresponding EnsemblID. Each output file has the name of the original file with the suffix "_EnsemblID". If multiple probes map to the same ID and vary by more than 20% they are discarded.

```
> inputdir<-file.path(system.file(package="agilp"),"extdata","raw/", "", fsep = .Platform$file.sep)
> outputdir<-file.path(system.file(package="agilp"),"output/", "", fsep = .Platform$file.sep)
> annotation<-file.path(system.file(package="agilp"),"extdata","annotations_sample.txt", fsep = .Platform$file.sep)
> IDswop(input=inputdir,output=outputdir,annotation=annotation,source_ID="ProbeID",
+ target_ID="EnsemblID", ERR=0.2)
```

Alternatively the following keeps all output IDs, even when multiple probes map to a single annotation.

```
> IDswop(input=inputdir,output=outputdir,annotation=annotation,source_ID="ProbeID",
+ target_ID="EnsemblID", ERR=1)
```

More details of how to use this function are given in the *IDswop* individual help file. *IDswop* and *Equaliser* (see below) should be used BEFORE *Baseline* and *AALoess*. To remove these files again and empty the output directory use :

```
> unlink(file.path(system.file(package="agilp"),"output", "", "*. *" ,
+ fsep = .Platform$file.sep), recursive=FALSE)
```

- **Equaliser. Trims a set of gene expression data files to include only the set of identifiers common to all files.** Different platforms will typically generate files with different numbers of distinct identifiers (for example compare the Agilent 44K and Agilent 60K whole genome expression arrays. Different numbers of identifiers will also often result from use of *IDswop*. *Equaliser* is a utility which takes a set of gene expression data files and trims each file so as to include only the set of IDs which are common to all files in the set. More details of how to use this function are given in the *IDswop* individual help file. *Equaliser* and *IDswop* (see above) should be used BEFORE *Baseline* and *AALoess*.

Examples Takes four files in folder agilp/dataset/raw, selects only those entries common to all four, and outputs the shortened files to the folder agilp/output.

```
> inputdir<-file.path(system.file(package="agilp"),"extdata","raw/","", fsep = .Platform$file.sep)
> outputdir<-file.path(system.file(package="agilp"),"output/","", fsep = .Platform$file.sep)
> Equaliser(input = inputdir, output = outputdir)
```

To remove these files again and empty the output directory use :

```
> unlink(file.path(system.file(package="agilp"),"output","", "*. *" ,
+ fsep = .Platform$file.sep), recursive=FALSE)
```

Examples

All the examples given above and in the individual help files use data files contained within the /extdata folder within the installed agilp folder. The output is sent to the agilp/output folder. To locate the path of the agilp folder on your computer type

```
> file.path(system.file(package="agilp"))
```

```
[1] "/tmp/Rtmp0UpZ0I/Rinst372eea6273467/agilp"
```

Bibliography

1. Tomlinson GS, Booth H, Petit SJ, Potton E, Towers GJ, Miller RF, Chain BM, Noursadeghi M. Adherent human alveolar macrophages exhibit a transient pro-inflammatory profile that confounds responses to innate immune stimulation. PLoS One. 2012;7(6):e40348. Epub 2012 Jun 29. PubMed PMID: 22768282; PubMed Central PMCID: PMC3386998.
2. Tomlinson GS, Cashmore TJ, Elkington PT, Yates J, Lehloeny R, Tsang J, Brown M, Miller RF, Dheda K, Katz DR, Chain BM, Noursadeghi M. Transcriptional profiling of innate and adaptive human immune responses to mycobacteria in the tuberculin skin test. Eur J Immunol. 2011 Nov;41(11):3253-60. doi: 10.1002/eji.201141841. Epub 2011 Aug 30. PubMed PMID: 21805471; PubMed Central PMCID: PMC3258543.
3. Le Bert N, Chain BM, Rook G, Noursadeghi M. DC priming by M. vaccae inhibits Th2 responses in contrast to specific TLR2 priming and is associated with selective activation of the CREB pathway. PLoS One. 2011 Apr 1;6(4):e18346. PubMed PMID: 21483768; PubMed Central PMCID: PMC3069967.
4. Chain B, Bowen H, Hammond J, Posch W, Rasaiyaah J, Tsang J, Noursadeghi M. Error, reproducibility and sensitivity: a pipeline for data processing of Agilent oligonucleotide expression arrays. BMC Bioinformatics. 2010 Jun 24;11:344. PubMed PMID: 20576120; PubMed Central PMCID: PMC2909218.
5. Tsang J, Chain BM, Miller RF, Webb BL, Barclay W, Towers GJ, Katz DR, Noursadeghi M. HIV-1 infection of macrophages is dependent on evasion of innate immune cellular activation. AIDS. 2009 Nov 13;23(17):2255-63. PubMed PMID: 19741482; PubMed Central PMCID: PMC2873676.
6. Rasaiyaah J, Noursadeghi M, Kellam P, Chain B. Transcriptional and functional defects of dendritic cells derived from the MUTZ-3 leukaemia line. Immunology. 2009 Jul;127(3):429-41. PubMed PMID: 19538250; PubMed Central PMCID: PMC2712111.