

# Applewhite Reservoir

for

Ronald C. Griffin and Manzoor E. Chowdhury. "Evaluating a Locally Financed Reservoir: The Case of Applewhite." *Journal of Water Resources Planning and Management* 119 (November 1993): 628-44.

## Preliminaries

```
In[1]:= Off[General::spell];
Off[General::spell1];
thinn = AbsoluteThickness[.5];
think = AbsoluteThickness[1.];
thick = AbsoluteThickness[1.5];
$TextStyle = {FontFamily -> "Helvetica", FontSlant -> "Plain", FontSize -> 9};
SetOptions[Plot, PlotPoints -> 40, ImageSize -> 360];
SetOptions[Plot, FrameStyle -> think, AxesStyle -> think, PlotStyle -> think];
SetOptions[ListPlot, AxesStyle -> think, PlotStyle -> think, ImageSize -> 360];
SetOptions[ParametricPlot, PlotPoints -> 40,
FrameStyle -> think, AxesStyle -> think, PlotStyle -> think];
black = GrayLevel[0];
BGray = GrayLevel[0.3];
WGray = GrayLevel[0.6];
```

## Obtaining Monthly Values

### ■ Set-Up

Startprices are in \$/1000 gal and startquants are in gal/customer derived from 1988-1991 averages. Prices include sewer rates : adjusted by the monthly CPI so that 1/91=100. Elasticities are drawn from the GCD model of the "Seasonality" paper by Griffin and Startpop are numbers of customers for 1990. Basefactor is relevant to without-project water supply; a value of 1.0 indicates that supply is based upon full use under average initial conditions of startquant and startpop. Availfactor pertains to system water loss: startquant use is based upon quantities including such losses, an availfactor of 1.00 is appropriate. Otherwise, it would be less startcosts are accumulated principal and interest at the end of year0, just before the simulation begins. morecosts is the annual sc additional construction costs (interest excluded); these are assumed to be spread equally across 12 months. bondrate represents interest rate to be paid by the city on any outstanding reservoir debt. Without and without growths in water/sewer rates are expr increases over the preceding year. The last entry in the pricegrowthwo and pricegrowthwith vectors are used for the remainder planning period. When reservoir costs have been fully repaid, the program will lower with-reservoir rates to the without-reservo The first year in which the new water supply will be available is year0 plus readydate. If the supply is immediately available, us date=1. The amount of water obtained, totalacq, is in acre-feet. A couple of different ways of allocating this water across month: common year are available.

```
In[12]:= popgrowth=1.0111;
basefactor=1.00;
pricegrowthwo= {.061,.112,.089,.071,.069,.07}-0.050;
pricegrowthwith={.075,.137,.126,.140,.110,.07}-0.050;
```

```

In[16]:= startprice={2.8242,3.0352,3.006,2.9352,2.7959,2.5408,
  2.5415,2.6055,2.5286,2.6733,2.6971,2.7652};
startquant={568.02,536.74,488.11,529.77,561.65,734.44,
  759.98,699.33,768.93,629.68,596.25,545.10};
elast={-0.31,-0.30,-0.35,-0.37,-0.38,-0.39,
  -0.41,-0.41,-0.39,-0.36,-0.33,-0.31};
startpop={237100,237771,237909,238412,239166,240332,
  240391,240544,240387,239835,240348,239891};
dpm={31.,28.,31.,30.,31.,30.,31.,31.,30.,31.,30.,31.};
planhorizon=12.*50.;
year0=1990;
availfactor=1.00;
startcost=((7894000*1.075*1.05)+19054000)*(1.075*1.05*(6/12));
morecosts={32246000.,68170000.,52404000.};
bondrate=(1.075-0.050)^(1/12);
discount=1.04^(1/12);
readydate=4.;
totalacq=48000.;
monthallot={0.20,0.20,0.20,0.20,0.00,0.00,
  0.00,0.00,0.00,0.00,0.00,0.20};
monthallot=startquant/Apply[Plus,startquant];
If[N[Apply[Plus,monthallot],3]!=1.,Abort[]]

```

## ■ Main Analysis

```

ln[33]:= acq=325.85*availfactor*totalacq*monthallot;
wosupply=basefactor*startquant*dpm*startpop/1000.;
wsupply=wosupply+acq;
k0=(startquant*dpm*startpop/1000.)/(startprice^elast);
kt=Table[1,{j,planhorizon}];
mnth=Table[1,{i,11},{j,planhorizon}];
Do[mnth[[1,i+1]]=startpop[[1+Mod[i,12]]]*popgrowth^
  (1+Quotient[i,12]),{i,0,planhorizon-1}];
Do[mnth[[2,i]]=startprice[[i]]*(1+
  pricegrowthwo[[1]]),{i,12}];
Do[mnth[[2,i]]=mnth[[2,i-12]]*(1+
  pricegrowthwo[[1+Quotient[i-1,12]]]),
  {i,13,Length[pricegrowthwo]*12}];
Do[mnth[[2,i]]=mnth[[2,i-12]]*(1+
  Last[pricegrowthwo]),
  {i,1+Length[pricegrowthwo]*12,
  planhorizon}];
Do[mnth[[3,i]]=startprice[[i]]*(1+
  pricegrowthwith[[1]]),{i,12}];
Do[mnth[[3,i]]=mnth[[3,i-12]]*(1+
  pricegrowthwith[[1+Quotient[i-1,12]]]),
  {i,13,Length[pricegrowthwith]*12}];
Do[mnth[[3,i]]=mnth[[3,i-12]]*(1+
  Last[pricegrowthwith]),
  {i,1+Length[pricegrowthwith]*12,
  planhorizon}];
Do[kt[[i+1]]=k0[[1+Mod[i,12]]]*mnth[[1,i+1]]/
  startpop[[1+Mod[i,12]]],{i,0,planhorizon-1}];
Do[
  {
    mth=1+Mod[i,12],

    mnth[[4,i+1]]=kt[[i+1]]*(mnth[[2,i+1]]^elast[[mth]]),
    mnth[[5,i+1]]=kt[[i+1]]*(mnth[[3,i+1]]^elast[[mth]]),

    Which[
      1+Quotient[i,12]<readydate,
      {mnth[[10,i+1]]=(mnth[[3,i+1]]-mnth[[2,i+1]])*
        Min[mnth[[5,i+1]],wosupply[[mth]]],
      Which[
        mnth[[4,i+1]]<=wosupply[[mth]],
        {mnth[[7,i+1]]=0.,
        mnth[[6,i+1]]=NIntegrate[kt[[i+1]] p^
          elast[[mth]],
          {p,mnth[[3,i+1]],mnth[[2,i+1]]}
        },
        mnth[[5,i+1]]<=wosupply[[mth]]<=
          mnth[[4,i+1]],
        {mnth[[7,i+1]]="W-NR",
        mnth[[6,i+1]]=mnth[[5,i+1]]*
          (mnth[[2,i+1]]-mnth[[3,i+1]])+
          NIntegrate[(q/kt[[i+1]])^
            (1/elast[[mth]])-mnth[[2,i+1]],

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        {q,wosupply[mth],mnth[[5,i+1]]}
    },
    wosupply[mth]<mnth[[5,i+1]],
    {mnth[[7,i+1]]="W-NR",
     mnth[[6,i+1]]=-mnth[[10,i+1]]
    }
]
},
mnth[[2,i+1]]==mnth[[3,i+1]],
{mnth[[10,i+1]]=0.,
 Which[
  mnth[[4,i+1]]<=wosupply[mth],
  mnth[[6,i+1]]=0.,
  mnth[[4,i+1]]>wosupply[mth],
  mnth[[6,i+1]]=
  NIntegrate[(q/kt[[i+1]])^
  (1/elast[mth])-
  mnth[[2,i+1]],{q,wosupply[mth]},
  Min[wosupply[mth],mnth[[4,i+1]]]},
  True, mnth[[6,i+1]]=OOPS1
 ]
},
mnth[[2,i+1]]<mnth[[3,i+1]],
{mnth[[10,i+1]]=(mnth[[3,i+1]]-mnth[[2,i+1]])*
  Min[mnth[[5,i+1]],
  wosupply[mth]],
 Which[
  mnth[[4,i+1]]<=wosupply[mth],
  mnth[[6,i+1]]=NIntegrate[kt[[i+1]] p^
  elast[mth],
  {p,mnth[[3,i+1]],mnth[[2,i+1]]}],
  mnth[[5,i+1]]<=wosupply[mth]<=
  mnth[[4,i+1]],
  mnth[[6,i+1]]=mnth[[5,i+1]] (mnth[[2,i+1]]-
  mnth[[3,i+1]])+
  NIntegrate[(q/kt[[i+1]])^
  (1/elast[mth])-mnth[[2,i+1]],
  {q,wosupply[mth],mnth[[5,i+1]]}],
  wosupply[mth]<mnth[[5,i+1]],
  mnth[[6,i+1]]=wosupply[mth]*
  (mnth[[2,i+1]]-mnth[[3,i+1]])+
  NIntegrate[(q/kt[[i+1]])^
  (1/elast[mth])-mnth[[3,i+1]],
  {q,wosupply[mth]},
  Min[wosupply[mth],mnth[[5,i+1]]]}
 ]
},
True, mnth[[6,i+1]]=OOPS2
],
Which[i==0,mnth[[11,i+1]]=startcost*bondrate
+morecosts[[1]]/12
-mnth[[10,1]],
mnth[[11,i]]<=0. && i<12*Length[morecosts],
mnth[[11,i+1]]=mnth[[11,i]]
+morecosts[[1+Quotient[i,12]]]/12
-mnth[[10,i+1]],
mnth[[11,i]]<=0.,

```

```

        mnth[[11,i+1]]=mnth[[11,i]]-mnth[[10,i+1]],
mnth[[11,i]]>0. && i<12*Length[morecosts],
        mnth[[11,i+1]]=mnth[[11,i]]*bondrate
            +morecosts[[1+Quotient[i,12]]]/12
            -mnth[[10,i+1]],
mnth[[11,i]]>0.,
        mnth[[11,i+1]]=mnth[[11,i]]*bondrate
            -mnth[[10,i+1]]
    ],
If[mnth[[11,i+1]]<=0. && i<planhorizon-1,
    mnth[[3,i+2]]=mnth[[2,i+2]]],
If[1+Quotient[i,12]>=readydate,
    Which[
        mnth[[5,i+1]]<=wosupply[[mth]],mnth[[7,i+1]]=0.,
        wosupply[[mth]]<mnth[[5,i+1]]<wsupply[[mth]],
        mnth[[7,i+1]]=100*(mnth[[5,i+1]]-wosupply[[mth]])/
            (availfactor*acq[[mth]]),
        wsupply[[mth]]<mnth[[5,i+1]],mnth[[7,i+1]]=100.
    ]
    ],
},
{i,0,planhorizon-1}];
Do[{mnth[[8,i]]=mnth[[6,i]]/(discount^(i-1)),
    mnth[[9,i]]=StringJoin[ToString[1+Mod[i-1,12]],"-",
        StringDrop[ToString[year0+
            Quotient[(11+i),12]],2]}],
    {i,1,planhorizon}
];

```

In either the monthly or annual results, if "W-NR" appears in the percent used column, it means "some wanted-not ready". That is, at with project prices consumers want to use some portion of the reservoir's supply, but construction is not yet completed.

## Printing Results

### ■ Printing Monthly Results

```

In[50]:= label={{ "total", "without", "with", "without", "with", "current",
    "percent", "disc", "month", "unpaid"},
    {"popltn", "price", "price", "wanted", "wanted", "value",
    "used", "value", "year", "costs"};
results=Table[1,{i,planhorizon+2},{j,10}];
Do[results[[i,j]]=label[[i,j]],{i,1,2},{j,1,10}];
Do[results[[i+2,j]]=mnth[[j,i]],{i,1,planhorizon},{j,1,9}];
Do[results[[i+2,10]]=mnth[[11,i]],{i,1,planhorizon}];
TableForm[results]

```

Out[55]//TableForm=

total	without	with	without	with	current	percent	disc	month
popltn	price	price	wanted	wanted	value	used	value	year
239 732.	2.85527	2.8948	$4.20705 \times 10^6$	$4.18916 \times 10^6$	-165 075.	W-NR	-165 075.	1-91

240 410.	3.06859	3.11108	$3.60122 \times 10^6$	$3.58639 \times 10^6$	-151 844.	W-NR	-151 348.	2-91
240 550.	3.03907	3.08115	$3.62595 \times 10^6$	$3.60854 \times 10^6$	-151 498.	W-NR	-150 511.	3-91
241 058.	2.96749	3.00858	$3.81569 \times 10^6$	$3.79632 \times 10^6$	-155 705.	W-NR	-154 186.	4-91
241 821.	2.82665	2.8658	$4.19291 \times 10^6$	$4.17106 \times 10^6$	-162 996.	W-NR	-160 879.	5-91
243 000.	2.56875	2.60432	$5.33127 \times 10^6$	$5.30275 \times 10^6$	-188 360.	W-NR	-185 306.	6-91
243 059.	2.56946	2.60504	$5.7007 \times 10^6$	$5.66865 \times 10^6$	-201 512.	W-NR	-197 598.	7-91
243 214.	2.63416	2.67064	$5.2491 \times 10^6$	$5.21958 \times 10^6$	-190 221.	W-NR	-185 918.	8-91
243 055.	2.55641	2.59181	$5.5829 \times 10^6$	$5.55304 \times 10^6$	-196 303.	W-NR	-191 237.	9-91
242 497.	2.70271	2.74013	$4.71496 \times 10^6$	$4.69167 \times 10^6$	-175 214.	W-NR	-170 135.	10-91
243 016.	2.72677	2.76453	$4.33128 \times 10^6$	$4.31167 \times 10^6$	-162 336.	W-NR	-157 116.	11-91
242 554.	2.79562	2.83433	$4.08482 \times 10^6$	$4.06744 \times 10^6$	-156 930.	W-NR	-151 388.	12-91
242 393.	3.03229	3.14665	$4.17516 \times 10^6$	$4.12752 \times 10^6$	-474 727.	W-NR	-456 468.	1-92
243 079.	3.25884	3.38174	$3.57607 \times 10^6$	$3.53658 \times 10^6$	-437 057.	W-NR	-418 876.	2-92
243 220.	3.22749	3.34921	$3.58981 \times 10^6$	$3.5436 \times 10^6$	-434 123.	0.	-414 706.	3-92
243 734.	3.15147	3.27033	$3.77312 \times 10^6$	$3.72179 \times 10^6$	-445 379.	0.	-424 070.	4-92
244 505.	3.00191	3.11512	$4.14364 \times 10^6$	$4.08576 \times 10^6$	-465 815.	0.	-442 082.	5-92
245 697.	2.72801	2.8309	$5.26545 \times 10^6$	$5.18998 \times 10^6$	-537 818.	0.	-508 751.	6-92
245 757.	2.72876	2.83168	$5.62356 \times 10^6$	$5.53885 \times 10^6$	-574 340.	0.	-541 526.	7-92
245 914.	2.79748	2.90298	$5.17807 \times 10^6$	$5.10006 \times 10^6$	-542 159.	0.	-509 515.	8-92
245 753.	2.71491	2.8173	$5.51399 \times 10^6$	$5.43495 \times 10^6$	-560 499.	0.	-525 033.	9-92
245 189.	2.87027	2.97852	$4.66517 \times 10^6$	$4.6034 \times 10^6$	-501 633.	0.	-468 358.	10-92
245 713.	2.89583	3.00504	$4.29328 \times 10^6$	$4.24115 \times 10^6$	-466 015.	0.	-433 683.	11-92
245 246.	2.96895	3.08092	$4.05386 \times 10^6$	$4.0076 \times 10^6$	-451 305.	W-NR	-418 623.	12-92
245 083.	3.15055	3.3858	$4.17174 \times 10^6$	$4.07964 \times 10^6$	-970 384.	0.	-897 174.	1-93
245 777.	3.38593	3.63876	$3.5745 \times 10^6$	$3.49811 \times 10^6$	-893 904.	W-NR	-823 768.	2-93
245 920.	3.35336	3.60375	$3.58138 \times 10^6$	$3.49224 \times 10^6$	-885 401.	0.	-813 270.	3-93
246 440.	3.27438	3.51887	$3.76138 \times 10^6$	$3.66248 \times 10^6$	-907 341.	0.	-830 702.	4-93
247 219.	3.11898	3.35187	$4.12917 \times 10^6$	$4.01771 \times 10^6$	-948 445.	0.	-865 501.	5-93
248 424.	2.8344	3.04604	$5.24505 \times 10^6$	$5.0998 \times 10^6$	$-1.09444 \times 10^6$	0.	-995 467.	6-93
248 485.	2.83518	3.04688	$5.59749 \times 10^6$	$5.43464 \times 10^6$	$-1.16745 \times 10^6$	0.	$-1.05841 \times 10^6$	7-93
248 643.	2.90658	3.12361	$5.15406 \times 10^6$	$5.00411 \times 10^6$	$-1.10204 \times 10^6$	0.	-995 848.	8-93
248 481.	2.82079	3.03142	$5.49262 \times 10^6$	$5.34051 \times 10^6$	$-1.14059 \times 10^6$	0.	$-1.02733 \times 10^6$	9-93
247 910.	2.98221	3.20489	$4.65243 \times 10^6$	$4.53337 \times 10^6$	$-1.02252 \times 10^6$	0.	-917 970.	10-93
248 441.	3.00877	3.23342	$4.28648 \times 10^6$	$4.18581 \times 10^6$	-951 510.	0.	-851 436.	11-93
247 968.	3.08473	3.31507	$4.05053 \times 10^6$	$3.96111 \times 10^6$	-922 507.	0.	-822 790.	12-93
247 804.	3.21671	3.69052	$4.19096 \times 10^6$	$4.01619 \times 10^6$	$-1.94274 \times 10^6$	0.	$-1.72709 \times 10^6$	1-94
248 505.	3.45704	3.96624	$3.59172 \times 10^6$	$3.44667 \times 10^6$	$-1.79035 \times 10^6$	0.	$-1.58642 \times 10^6$	2-94
248 649.	3.42378	3.92809	$3.59489 \times 10^6$	$3.4261 \times 10^6$	$-1.76905 \times 10^6$	0.	$-1.56243 \times 10^6$	3-94

249 175.	3.34314	3.83557	$3.774 \times 10^6$	$3.58692 \times 10^6$	$-1.81092 \times 10^6$	0.	$-1.59419 \times 10^6$	4-94
249 963.	3.18448	3.65354	$4.14216 \times 10^6$	$3.93143 \times 10^6$	$-1.89193 \times 10^6$	0.	$-1.66008 \times 10^6$	5-94
251 182.	2.89393	3.32019	$5.26046 \times 10^6$	$4.98598 \times 10^6$	$-2.18197 \times 10^6$	0.	$-1.90832 \times 10^6$	6-94
251 243.	2.89472	3.3211	$5.6116 \times 10^6$	$5.3042 \times 10^6$	$-2.32502 \times 10^6$	0.	$-2.02679 \times 10^6$	7-94
251 403.	2.96762	3.40473	$5.16705 \times 10^6$	$4.884 \times 10^6$	$-2.19474 \times 10^6$	0.	$-1.90699 \times 10^6$	8-94
251 239.	2.88003	3.30425	$5.50876 \times 10^6$	$5.22132 \times 10^6$	$-2.27399 \times 10^6$	0.	$-1.9694 \times 10^6$	9-94
250 662.	3.04484	3.49333	$4.66901 \times 10^6$	$4.44367 \times 10^6$	$-2.0419 \times 10^6$	0.	$-1.76262 \times 10^6$	10-94
251 198.	3.07195	3.52443	$4.30443 \times 10^6$	$4.11361 \times 10^6$	$-1.90317 \times 10^6$	0.	$-1.63751 \times 10^6$	11-94
250 721.	3.14951	3.61342	$4.06919 \times 10^6$	$3.8995 \times 10^6$	$-1.84689 \times 10^6$	0.	$-1.5839 \times 10^6$	12-94
250 554.	3.27783	3.91195	$4.21282 \times 10^6$	$3.98807 \times 10^6$	$-2.59561 \times 10^6$	0.	$-2.21874 \times 10^6$	1-95
251 264.	3.52272	4.20422	$3.61114 \times 10^6$	$3.42454 \times 10^6$	$-2.39261 \times 10^6$	0.	$-2.03854 \times 10^6$	2-95
251 409.	3.48883	4.16377	$3.61093 \times 10^6$	$3.39419 \times 10^6$	$-2.36094 \times 10^6$	0.	$-2.00499 \times 10^6$	3-95
251 941.	3.40666	4.0657	$3.78941 \times 10^6$	$3.54938 \times 10^6$	$-2.4151 \times 10^6$	0.	$-2.04429 \times 10^6$	4-95
252 738.	3.24499	3.87275	$4.15829 \times 10^6$	$3.88802 \times 10^6$	$-2.52215 \times 10^6$	0.	$-2.12794 \times 10^6$	5-95
253 970.	2.94891	3.5194	$5.27995 \times 10^6$	$4.92805 \times 10^6$	$-2.90767 \times 10^6$	0.	$-2.4452 \times 10^6$	6-95
254 032.	2.94972	3.52037	$5.63027 \times 10^6$	$5.23647 \times 10^6$	$-3.09586 \times 10^6$	0.	$-2.59496 \times 10^6$	7-95
254 194.	3.024	3.60902	$5.18425 \times 10^6$	$4.82164 \times 10^6$	$-2.92239 \times 10^6$	0.	$-2.44157 \times 10^6$	8-95
254 028.	2.93475	3.5025	$5.52917 \times 10^6$	$5.16066 \times 10^6$	$-3.03029 \times 10^6$	0.	$-2.52345 \times 10^6$	9-95
253 445.	3.10269	3.70293	$4.68895 \times 10^6$	$4.39972 \times 10^6$	$-2.72416 \times 10^6$	0.	$-2.26112 \times 10^6$	10-95
253 987.	3.13032	3.7359	$4.32526 \times 10^6$	$4.08006 \times 10^6$	$-2.5414 \times 10^6$	0.	$-2.10254 \times 10^6$	11-95
253 504.	3.20935	3.83023	$4.09042 \times 10^6$	$3.8722 \times 10^6$	$-2.46755 \times 10^6$	0.	$-2.03478 \times 10^6$	12-95
253 336.	3.34339	3.99019	$4.23352 \times 10^6$	$4.00766 \times 10^6$	$-2.65794 \times 10^6$	0.	$-2.18464 \times 10^6$	1-96
254 053.	3.59318	4.2883	$3.62959 \times 10^6$	$3.44204 \times 10^6$	$-2.45001 \times 10^6$	0.	$-2.00716 \times 10^6$	2-96
254 200.	3.55861	4.24705	$3.62579 \times 10^6$	$3.40816 \times 10^6$	$-2.4173 \times 10^6$	0.	$-1.9739 \times 10^6$	3-96
254 737.	3.47479	4.14702	$3.8035 \times 10^6$	$3.56258 \times 10^6$	$-2.47231 \times 10^6$	0.	$-2.01223 \times 10^6$	4-96
255 543.	3.30989	3.95021	$4.17293 \times 10^6$	$3.9017 \times 10^6$	$-2.58157 \times 10^6$	0.	$-2.0943 \times 10^6$	5-96
256 789.	3.00789	3.58979	$5.29749 \times 10^6$	$4.94442 \times 10^6$	$-2.97567 \times 10^6$	0.	$-2.40614 \times 10^6$	6-96
256 852.	3.00872	3.59078	$5.64673 \times 10^6$	$5.25178 \times 10^6$	$-3.16701 \times 10^6$	0.	$-2.5525 \times 10^6$	7-96
257 015.	3.08448	3.6812	$5.1994 \times 10^6$	$4.83574 \times 10^6$	$-2.98956 \times 10^6$	0.	$-2.40162 \times 10^6$	8-96
256 848.	2.99345	3.57255	$5.54754 \times 10^6$	$5.1778 \times 10^6$	$-3.10116 \times 10^6$	0.	$-2.48314 \times 10^6$	9-96
256 258.	3.16475	3.77699	$4.70732 \times 10^6$	$4.41696 \times 10^6$	$-2.78896 \times 10^6$	0.	$-2.22587 \times 10^6$	10-96
256 806.	3.19292	3.81062	$4.34479 \times 10^6$	$4.09848 \times 10^6$	$-2.60235 \times 10^6$	0.	$-2.07017 \times 10^6$	11-96
256 318.	3.27354	3.90683	$4.11051 \times 10^6$	$3.89122 \times 10^6$	$-2.5268 \times 10^6$	0.	$-2.00351 \times 10^6$	12-96
256 148.	3.41026	4.06999	$4.25431 \times 10^6$	$4.02735 \times 10^6$	$-2.72063 \times 10^6$	0.	$-2.15015 \times 10^6$	1-97
256 873.	3.66504	4.37407	$3.64815 \times 10^6$	$3.45963 \times 10^6$	$-2.50761 \times 10^6$	0.	$-1.97533 \times 10^6$	2-97
257 022.	3.62978	4.33199	$3.64072 \times 10^6$	$3.42219 \times 10^6$	$-2.47436 \times 10^6$	0.	$-1.94278 \times 10^6$	3-97
257 565.	3.54429	4.22996	$3.81765 \times 10^6$	$3.57583 \times 10^6$	$-2.53036 \times 10^6$	0.	$-1.98027 \times 10^6$	4-97
258 380.	3.37608	4.02921	$4.18762 \times 10^6$	$3.91544 \times 10^6$	$-2.64196 \times 10^6$	0.	$-2.06086 \times 10^6$	5-97

259 639.	3.06805	3.66158	$5.31509 \times 10^6$	$4.96084 \times 10^6$	$-3.04497 \times 10^6$	0.	$-2.36748 \times 10^6$	6-97
259 703.	3.06889	3.66259	$5.66324 \times 10^6$	$5.26714 \times 10^6$	$-3.2398 \times 10^6$	0.	$-2.51074 \times 10^6$	7-97
259 868.	3.14617	3.75482	$5.21461 \times 10^6$	$4.84988 \times 10^6$	$-3.05827 \times 10^6$	0.	$-2.36232 \times 10^6$	8-97
259 699.	3.05332	3.644	$5.56596 \times 10^6$	$5.195 \times 10^6$	$-3.17339 \times 10^6$	0.	$-2.44325 \times 10^6$	9-97
259 102.	3.22804	3.85253	$4.72576 \times 10^6$	$4.43426 \times 10^6$	$-2.85465 \times 10^6$	0.	$-2.19067 \times 10^6$	10-97
259 657.	3.25678	3.88683	$4.3644 \times 10^6$	$4.11698 \times 10^6$	$-2.66388 \times 10^6$	0.	$-2.03761 \times 10^6$	11-97
259 163.	3.33901	3.98497	$4.13071 \times 10^6$	$3.91034 \times 10^6$	$-2.5864 \times 10^6$	0.	$-1.97188 \times 10^6$	12-97
258 991.	3.47846	4.15139	$4.27521 \times 10^6$	$4.04713 \times 10^6$	$-2.7836 \times 10^6$	0.	$-2.11531 \times 10^6$	1-98
259 724.	3.73834	4.46155	$3.66679 \times 10^6$	$3.47732 \times 10^6$	$-2.56533 \times 10^6$	0.	$-1.94308 \times 10^6$	2-98
259 875.	3.70238	4.41863	$3.6557 \times 10^6$	$3.43628 \times 10^6$	$-2.5321 \times 10^6$	0.	$-1.91165 \times 10^6$	3-98
260 424.	3.61518	4.31456	$3.83184 \times 10^6$	$3.58913 \times 10^6$	$-2.58926 \times 10^6$	0.	$-1.94843 \times 10^6$	4-98
261 248.	3.4436	4.1098	$4.20236 \times 10^6$	$3.92922 \times 10^6$	$-2.7033 \times 10^6$	0.	$-2.0276 \times 10^6$	5-98
262 521.	3.12941	3.73481	$5.33274 \times 10^6$	$4.97732 \times 10^6$	$-3.11542 \times 10^6$	0.	$-2.32909 \times 10^6$	6-98
262 586.	3.13027	3.73584	$5.6798 \times 10^6$	$5.28254 \times 10^6$	$-3.31408 \times 10^6$	0.	$-2.46952 \times 10^6$	7-98
262 753.	3.2091	3.82992	$5.22986 \times 10^6$	$4.86406 \times 10^6$	$-3.12838 \times 10^6$	0.	$-2.32354 \times 10^6$	8-98
262 581.	3.11438	3.71688	$5.58445 \times 10^6$	$5.21225 \times 10^6$	$-3.24681 \times 10^6$	0.	$-2.40363 \times 10^6$	9-98
261 978.	3.2926	3.92958	$4.74428 \times 10^6$	$4.45164 \times 10^6$	$-2.92121 \times 10^6$	0.	$-2.15553 \times 10^6$	10-98
262 539.	3.32192	3.96457	$4.3841 \times 10^6$	$4.13556 \times 10^6$	$-2.72596 \times 10^6$	0.	$-2.00489 \times 10^6$	11-98
262 040.	3.40579	4.06467	$4.151 \times 10^6$	$3.92954 \times 10^6$	$-2.64627 \times 10^6$	0.	$-1.93993 \times 10^6$	12-98
261 866.	3.54803	4.23442	$4.29621 \times 10^6$	$4.06701 \times 10^6$	$-2.84681 \times 10^6$	0.	$-2.08014 \times 10^6$	1-99
262 607.	3.81311	4.55078	$3.68553 \times 10^6$	$3.49509 \times 10^6$	$-2.62311 \times 10^6$	0.	$-1.91043 \times 10^6$	2-99
262 759.	3.77642	4.507	$3.67075 \times 10^6$	$3.45043 \times 10^6$	$-2.59052 \times 10^6$	0.	$-1.88053 \times 10^6$	3-99
263 315.	3.68748	4.40085	$3.84609 \times 10^6$	$3.60248 \times 10^6$	$-2.649 \times 10^6$	0.	$-1.91671 \times 10^6$	4-99
264 147.	3.51248	4.19199	$4.21715 \times 10^6$	$3.94305 \times 10^6$	$-2.76558 \times 10^6$	0.	$-1.99453 \times 10^6$	5-99
265 435.	3.192	3.80951	$5.35045 \times 10^6$	$4.99385 \times 10^6$	$-3.18702 \times 10^6$	0.	$-2.29097 \times 10^6$	6-99
265 500.	3.19288	3.19288	$5.69641 \times 10^6$	$5.69641 \times 10^6$	747.043	2.05623	535.257	7-99
265 669.	3.27328	3.27328	$5.24515 \times 10^6$	$5.24515 \times 10^6$	705.185	2.05753	503.617	8-99
265 496.	3.17667	3.17667	$5.60299 \times 10^6$	$5.60299 \times 10^6$	2456.03	3.56332	1748.28	9-99
264 886.	3.35845	3.35845	$4.76286 \times 10^6$	$4.76286 \times 10^6$	6609.43	6.12082	4689.45	10-99
265 453.	3.38835	3.38835	$4.40389 \times 10^6$	$4.40389 \times 10^6$	13 191.9	8.32564	9329.26	11-99
264 948.	3.47391	3.47391	$4.17139 \times 10^6$	$4.17139 \times 10^6$	19 370.3	10.2392	13 653.9	12-99
264 772.	3.61899	3.61899	$4.31731 \times 10^6$	$4.31731 \times 10^6$	28 709.	11.8821	20 170.6	1-00
265 522.	3.88937	3.88937	$3.70437 \times 10^6$	$3.70437 \times 10^6$	31 628.	11.5733	22 148.9	2-00
265 676.	3.85195	3.85195	$3.68586 \times 10^6$	$3.68586 \times 10^6$	11 373.1	8.35272	7938.53	3-00
266 237.	3.76123	3.76123	$3.8604 \times 10^6$	$3.8604 \times 10^6$	6847.33	6.38215	4763.9	4-00
267 079.	3.58273	3.58273	$4.23199 \times 10^6$	$4.23199 \times 10^6$	5227.75	5.7285	3625.24	5-00
268 382.	3.25584	3.25584	$5.36822 \times 10^6$	$5.36822 \times 10^6$	4204.45	4.71006	2906.11	6-00
268 447.	3.25673	3.25673	$5.71307 \times 10^6$	$5.71307 \times 10^6$	1727.85	3.09569	1190.39	7-00



268 618.	3.33874	3.33874	$5.26048 \times 10^6$	$5.26048 \times 10^6$	1631.03	3.09766	1120.02	8-00
268 443.	3.2402	3.2402	$5.6216 \times 10^6$	$5.6216 \times 10^6$	4381.77	4.71114	2999.12	9-00
267 827.	3.42562	3.42562	$4.78152 \times 10^6$	$4.78152 \times 10^6$	10 203.3	7.52619	6960.91	10-00
268 399.	3.45612	3.45612	$4.42377 \times 10^6$	$4.42377 \times 10^6$	19 082.5	9.90693	12 976.	11-00
267 889.	3.54339	3.54339	$4.19188 \times 10^6$	$4.19188 \times 10^6$	27 292.6	12.022	18 498.2	12-00
267 711.	3.69137	3.69137	$4.33852 \times 10^6$	$4.33852 \times 10^6$	38 740.6	13.6528	26 171.7	1-01
268 469.	3.96716	3.96716	$3.7233 \times 10^6$	$3.7233 \times 10^6$	42 360.2	13.2463	28 523.6	2-01
268 625.	3.92899	3.92899	$3.70104 \times 10^6$	$3.70104 \times 10^6$	16 076.	9.82695	10 789.6	3-01
269 193.	3.83645	3.83645	$3.87475 \times 10^6$	$3.87475 \times 10^6$	10 089.3	7.66735	6749.46	4-01
270 044.	3.65438	3.65438	$4.24689 \times 10^6$	$4.24689 \times 10^6$	7937.21	6.98642	5292.45	5-01
271 361.	3.32095	3.32095	$5.38605 \times 10^6$	$5.38605 \times 10^6$	6645.64	5.86142	4416.79	6-01
271 427.	3.32187	3.32187	$5.72977 \times 10^6$	$5.72977 \times 10^6$	3150.64	4.1382	2087.13	7-01
271 600.	3.40552	3.40552	$5.27587 \times 10^6$	$5.27587 \times 10^6$	2974.11	4.14083	1963.75	8-01
271 423.	3.30501	3.30501	$5.64028 \times 10^6$	$5.64028 \times 10^6$	6925.9	5.86276	4558.14	9-01
270 799.	3.49414	3.49414	$4.80025 \times 10^6$	$4.80025 \times 10^6$	14 690.2	8.93707	9636.5	10-01
271 379.	3.52524	3.52524	$4.44374 \times 10^6$	$4.44374 \times 10^6$	26 247.5	11.4954	17 161.7	11-01
270 863.	3.61425	3.61425	$4.21247 \times 10^6$	$4.21247 \times 10^6$	36 829.2	13.8135	24 001.8	12-01
270 683.	3.7652	3.7652	$4.35983 \times 10^6$	$4.35983 \times 10^6$	50 590.8	15.4322	32 862.8	1-02
271 449.	4.0465	4.0465	$3.74233 \times 10^6$	$3.74233 \times 10^6$	55 001.9	14.9278	35 611.6	2-02
271 607.	4.00757	4.00757	$3.71627 \times 10^6$	$3.71627 \times 10^6$	21 735.7	11.3072	14 027.1	3-02
272 181.	3.91318	3.91318	$3.88916 \times 10^6$	$3.88916 \times 10^6$	14 057.6	8.95734	9042.45	4-02
273 042.	3.72747	3.72747	$4.26184 \times 10^6$	$4.26184 \times 10^6$	11 294.4	8.24877	7241.32	5-02
274 373.	3.38737	3.38737	$5.40394 \times 10^6$	$5.40394 \times 10^6$	9719.86	7.01661	6211.49	6-02
274 440.	3.3883	3.3883	$5.74653 \times 10^6$	$5.74653 \times 10^6$	5044.9	5.18375	3213.43	7-02
274 615.	3.47363	3.47363	$5.29129 \times 10^6$	$5.29129 \times 10^6$	4762.22	5.18705	3023.48	8-02
274 436.	3.37111	3.37111	$5.65901 \times 10^6$	$5.65901 \times 10^6$	10 129.8	7.01822	6410.28	9-02
273 805.	3.56402	3.56402	$4.81906 \times 10^6$	$4.81906 \times 10^6$	20 130.6	10.3535	12 697.4	10-02
274 391.	3.59575	3.59575	$4.4638 \times 10^6$	$4.4638 \times 10^6$	34 775.5	13.091	21 863.1	11-02
273 869.	3.68654	3.68654	$4.23316 \times 10^6$	$4.23316 \times 10^6$	48 094.8	15.6139	30 138.2	12-02
273 688.	3.8405	3.8405	$4.38125 \times 10^6$	$4.38125 \times 10^6$	64 386.8	17.2203	40 215.8	1-03
274 462.	4.12743	4.12743	$3.76146 \times 10^6$	$3.76146 \times 10^6$	69 688.1	16.6179	43 384.9	2-03
274 621.	4.08772	4.08772	$3.73157 \times 10^6$	$3.73157 \times 10^6$	28 416.4	12.7936	17 633.2	3-03
275 202.	3.99145	3.99145	$3.90362 \times 10^6$	$3.90362 \times 10^6$	18 800.3	10.2521	11 628.	4-03
276 072.	3.80202	3.80202	$4.27684 \times 10^6$	$4.27684 \times 10^6$	15 341.9	9.51556	9458.04	5-03
277 418.	3.45512	3.45512	$5.42189 \times 10^6$	$5.42189 \times 10^6$	13 468.6	8.17564	8276.09	6-03
277 486.	3.45607	3.45607	$5.76333 \times 10^6$	$5.76333 \times 10^6$	7441.44	6.23236	4557.64	7-03
277 663.	3.5431	3.5431	$5.30677 \times 10^6$	$5.30677 \times 10^6$	7024.48	6.23633	4288.23	8-03
277 482.	3.43853	3.43853	$5.6778 \times 10^6$	$5.6778 \times 10^6$	14 036.6	8.17751	8540.96	9-03

276 845.	3.6353	3.6353	$4.83794 \times 10^6$	$4.83794 \times 10^6$	26 588.1	11.7754	16 125.5	10-03
277 437.	3.66766	3.66766	$4.48395 \times 10^6$	$4.48395 \times 10^6$	44 759.6	14.6938	27 057.7	11-03
276 909.	3.76027	3.76027	$4.25395 \times 10^6$	$4.25395 \times 10^6$	61 210.	17.423	36 881.5	12-03
276 725.	3.91731	3.91731	$4.40277 \times 10^6$	$4.40277 \times 10^6$	80 261.9	19.0172	48 203.2	1-04
277 509.	4.20998	4.20998	$3.78069 \times 10^6$	$3.78069 \times 10^6$	86 560.9	18.3167	51 816.6	2-04
277 670.	4.16948	4.16948	$3.74693 \times 10^6$	$3.74693 \times 10^6$	36 185.5	14.2861	21 590.5	3-04
278 257.	4.07127	4.07127	$3.91814 \times 10^6$	$3.91814 \times 10^6$	24 367.7	11.5517	14 491.8	4-04
279 137.	3.87806	3.87806	$4.2919 \times 10^6$	$4.2919 \times 10^6$	20 124.4	10.7868	11 929.2	5-04
280 498.	3.52422	3.52422	$5.4399 \times 10^6$	$5.4399 \times 10^6$	17 935.4	9.33852	10 596.9	6-04
280 566.	3.52519	3.52519	$5.78018 \times 10^6$	$5.78018 \times 10^6$	10 372.5	7.28403	6108.49	7-04
280 745.	3.61396	3.61396	$5.32228 \times 10^6$	$5.32228 \times 10^6$	9791.31	7.28867	5747.4	8-04
280 562.	3.5073	3.5073	$5.69666 \times 10^6$	$5.69666 \times 10^6$	18 691.7	9.34065	10 936.1	9-04
279 918.	3.70801	3.70801	$4.85689 \times 10^6$	$4.85689 \times 10^6$	34 129.2	13.2029	19 903.	10-04
280 516.	3.74102	3.74102	$4.50419 \times 10^6$	$4.50419 \times 10^6$	56 297.6	16.3038	32 723.7	11-04
279 983.	3.83548	3.83548	$4.27485 \times 10^6$	$4.27485 \times 10^6$	76 301.9	19.2411	44 206.7	12-04
279 797.	3.99566	3.99566	$4.42439 \times 10^6$	$4.42439 \times 10^6$	98 356.7	20.823	56 798.5	1-05
280 589.	4.29418	4.29418	$3.80001 \times 10^6$	$3.80001 \times 10^6$	105 770.	20.0241	60 880.1	2-05
280 752.	4.25287	4.25287	$3.76235 \times 10^6$	$3.76235 \times 10^6$	45 113.4	15.7848	25 882.1	3-05
281 345.	4.1527	4.1527	$3.93271 \times 10^6$	$3.93271 \times 10^6$	30 812.7	12.8561	17 620.	4-05
282 235.	3.95562	3.95562	$4.307 \times 10^6$	$4.307 \times 10^6$	25 688.7	12.0625	14 641.9	5-05
283 611.	3.59471	3.59471	$5.45796 \times 10^6$	$5.45796 \times 10^6$	23 165.6	10.5053	13 160.7	6-05
283 681.	3.5957	3.5957	$5.79708 \times 10^6$	$5.79708 \times 10^6$	13 871.8	8.33879	7855.07	7-05
283 861.	3.68624	3.68624	$5.33785 \times 10^6$	$5.33785 \times 10^6$	13 094.6	8.34409	7390.74	8-05
283 676.	3.57745	3.57745	$5.71558 \times 10^6$	$5.71558 \times 10^6$	24 142.5	10.5077	13 581.9	9-05
283 025.	3.78217	3.78217	$4.87592 \times 10^6$	$4.87592 \times 10^6$	42 823.7	14.6361	24 012.8	10-05
283 630.	3.81584	3.81584	$4.52453 \times 10^6$	$4.52453 \times 10^6$	69 492.2	17.9211	38 839.6	11-05
283 091.	3.91219	3.91219	$4.29585 \times 10^6$	$4.29585 \times 10^6$	93 504.	21.0681	52 089.4	12-05
282 903.	4.07557	4.07557	$4.44613 \times 10^6$	$4.44613 \times 10^6$	118 819.	22.6376	65 975.9	1-06
283 703.	4.38006	4.38006	$3.81943 \times 10^6$	$3.81943 \times 10^6$	127 472.	21.7403	70 549.9	2-06
283 868.	4.33792	4.33792	$3.77784 \times 10^6$	$3.77784 \times 10^6$	55 274.4	17.2896	30 491.9	3-06
284 468.	4.23575	4.23575	$3.94734 \times 10^6$	$3.94734 \times 10^6$	38 190.4	14.1654	20 998.9	4-06
285 368.	4.03473	4.03473	$4.32216 \times 10^6$	$4.32216 \times 10^6$	32 083.7	13.3428	17 583.6	5-06
286 759.	3.6666	3.6666	$5.47609 \times 10^6$	$5.47609 \times 10^6$	29 206.8	11.6759	15 954.6	6-06
286 830.	3.66761	3.66761	$5.81404 \times 10^6$	$5.81404 \times 10^6$	17 974.6	9.39662	9786.85	7-06
287 012.	3.75997	3.75997	$5.35345 \times 10^6$	$5.35345 \times 10^6$	16 967.5	9.4026	9208.32	8-06
286 825.	3.64899	3.64899	$5.73457 \times 10^6$	$5.73457 \times 10^6$	30 438.5	11.6785	16 465.2	9-06
286 166.	3.85781	3.85781	$4.89502 \times 10^6$	$4.89502 \times 10^6$	52 744.7	16.0748	28 438.3	10-06
286 778.	3.89215	3.89215	$4.54495 \times 10^6$	$4.54495 \times 10^6$	84 451.1	19.5457	45 384.8	11-06

286 233.	3.99043	3.99043	$4.31695 \times 10^6$	$4.31695 \times 10^6$	112 957.	22.904	60 505.9	12-06
286 043.	4.15708	4.15708	$4.46797 \times 10^6$	$4.46797 \times 10^6$	141 804.	24.4611	75 710.1	1-07
286 853.	4.46766	4.46766	$3.83895 \times 10^6$	$3.83895 \times 10^6$	151 834.	23.4653	80 800.9	2-07
287 019.	4.42468	4.42468	$3.79339 \times 10^6$	$3.79339 \times 10^6$	66 745.9	18.8006	35 404.	3-07
287 626.	4.32047	4.32047	$3.96202 \times 10^6$	$3.96202 \times 10^6$	46 558.7	15.4796	24 615.5	4-07
288 536.	4.11543	4.11543	$4.33738 \times 10^6$	$4.33738 \times 10^6$	39 360.6	14.6275	20 742.	5-07
289 942.	3.73993	3.73993	$5.49428 \times 10^6$	$5.49428 \times 10^6$	36 108.9	12.8504	18 966.3	6-07
290 013.	3.74096	3.74096	$5.83104 \times 10^6$	$5.83104 \times 10^6$	22 717.7	10.4576	11 893.6	7-07
290 198.	3.83517	3.83517	$5.36911 \times 10^6$	$5.36911 \times 10^6$	21 444.8	10.4642	11 190.6	8-07
290 009.	3.72197	3.72197	$5.75361 \times 10^6$	$5.75361 \times 10^6$	37 631.7	12.8533	19 573.3	9-07
289 343.	3.93497	3.93497	$4.9142 \times 10^6$	$4.9142 \times 10^6$	63 968.8	17.5192	33 163.5	10-07
289 962.	3.97	3.97	$4.56547 \times 10^6$	$4.56547 \times 10^6$	101 288.	21.1776	52 339.3	11-07
289 410.	4.07024	4.07024	$4.33815 \times 10^6$	$4.33815 \times 10^6$	134 807.	24.749	69 433.	12-07
289 218.	4.24022	4.24022	$4.48991 \times 10^6$	$4.48991 \times 10^6$	167 474.	26.2936	85 976.8	1-08
290 037.	4.55702	4.55702	$3.85857 \times 10^6$	$3.85857 \times 10^6$	179 029.	25.199	91 608.7	2-08
290 205.	4.51318	4.51318	$3.80901 \times 10^6$	$3.80901 \times 10^6$	79 609.3	20.3179	40 603.	3-08
290 819.	4.40688	4.40688	$3.97675 \times 10^6$	$3.97675 \times 10^6$	55 978.1	16.7986	28 457.3	4-08
291 738.	4.19773	4.19773	$4.35265 \times 10^6$	$4.35265 \times 10^6$	47 572.9	15.9167	24 105.5	5-08
293 161.	3.81473	3.81473	$5.51253 \times 10^6$	$5.51253 \times 10^6$	43 923.7	14.0288	22 183.8	6-08
293 233.	3.81578	3.81578	$5.84809 \times 10^6$	$5.84809 \times 10^6$	28 139.6	11.5216	14 165.6	7-08
293 419.	3.91187	3.91187	$5.38481 \times 10^6$	$5.38481 \times 10^6$	26 562.9	11.5289	13 328.2	8-08
293 228.	3.79641	3.79641	$5.77272 \times 10^6$	$5.77272 \times 10^6$	45 776.1	14.032	22 893.7	9-08
292 554.	4.01366	4.01366	$4.93345 \times 10^6$	$4.93345 \times 10^6$	76 576.1	18.9692	38 172.6	10-08
293 180.	4.0494	4.0494	$4.58608 \times 10^6$	$4.58608 \times 10^6$	120 120.	22.8169	59 683.6	11-08
292 623.	4.15164	4.15164	$4.35946 \times 10^6$	$4.35946 \times 10^6$	159 211.	26.6031	78 848.5	12-08
292 428.	4.32503	4.32503	$4.51197 \times 10^6$	$4.51197 \times 10^6$	196 002.	28.135	96 752.1	1-09
293 256.	4.64816	4.64816	$3.8783 \times 10^6$	$3.8783 \times 10^6$	209 240.	26.9416	102 950.	2-09
293 426.	4.60344	4.60344	$3.82468 \times 10^6$	$3.82468 \times 10^6$	93 949.8	21.8413	46 074.1	3-09
294 047.	4.49502	4.49502	$3.99154 \times 10^6$	$3.99154 \times 10^6$	66 512.	18.1225	32 511.8	4-09
294 977.	4.28169	4.28169	$4.36797 \times 10^6$	$4.36797 \times 10^6$	56 776.7	17.2105	27 662.6	5-09
296 415.	3.89103	3.89103	$5.53084 \times 10^6$	$5.53084 \times 10^6$	52 705.8	15.2111	25 595.3	6-09
296 487.	3.8921	3.8921	$5.86519 \times 10^6$	$5.86519 \times 10^6$	34 280.4	12.5887	16 593.2	7-09
296 676.	3.99011	3.99011	$5.40055 \times 10^6$	$5.40055 \times 10^6$	32 359.6	12.5967	15 612.3	8-09
296 483.	3.87234	3.87234	$5.79189 \times 10^6$	$5.79189 \times 10^6$	54 928.5	15.2146	26 414.5	9-09
295 802.	4.09394	4.09394	$4.95277 \times 10^6$	$4.95277 \times 10^6$	90 650.7	20.4249	43 450.6	10-09
296 434.	4.13039	4.13039	$4.60678 \times 10^6$	$4.60678 \times 10^6$	141 074.	24.4636	67 398.7	11-09
295 871.	4.23468	4.23468	$4.38088 \times 10^6$	$4.38088 \times 10^6$	186 332.	28.4662	88 730.4	12-09
295 674.	4.41153	4.41153	$4.53413 \times 10^6$	$4.53413 \times 10^6$	227 567.	29.9856	108 013.	1-10

296 511.	4.74112	4.74112	$3.89812 \times 10^6$	$3.89812 \times 10^6$	242 661.	28.6932	114 801.	2-10
296 683.	4.69551	4.69551	$3.84043 \times 10^6$	$3.84043 \times 10^6$	109 856.	23.3711	51 802.8	3-10
297 311.	4.58492	4.58492	$4.00638 \times 10^6$	$4.00638 \times 10^6$	78 226.5	19.4514	36 767.3	4-10
298 251.	4.36732	4.36732	$4.38334 \times 10^6$	$4.38334 \times 10^6$	67 030.6	18.5088	31 402.3	5-10
299 705.	3.96885	3.96885	$5.54921 \times 10^6$	$5.54921 \times 10^6$	62 511.8	16.3973	29 189.8	6-10
299 778.	3.96994	3.96994	$5.88234 \times 10^6$	$5.88234 \times 10^6$	41 182.2	13.659	19 167.2	7-10
299 969.	4.06991	4.06991	$5.41634 \times 10^6$	$5.41634 \times 10^6$	38 874.7	13.6677	18 034.2	8-10
299 773.	3.94979	3.94979	$5.81113 \times 10^6$	$5.81113 \times 10^6$	65 148.1	16.4011	30 124.	9-10
299 085.	4.17582	4.17582	$4.97218 \times 10^6$	$4.97218 \times 10^6$	106 280.	21.8863	48 982.9	10-10
299 725.	4.21299	4.21299	$4.62757 \times 10^6$	$4.62757 \times 10^6$	164 279.	26.1178	75 466.3	11-10
299 155.	4.31937	4.31937	$4.40239 \times 10^6$	$4.40239 \times 10^6$	216 339.	30.3385	99 057.6	12-10
298 956.	4.49976	4.49976	$4.5564 \times 10^6$	$4.5564 \times 10^6$	262 358.	31.8452	119 737.	1-11
299 802.	4.83594	4.83594	$3.91804 \times 10^6$	$3.91804 \times 10^6$	279 492.	30.4536	127 140.	2-11
299 976.	4.78942	4.78942	$3.85624 \times 10^6$	$3.85624 \times 10^6$	127 423.	24.9071	57 775.2	3-11
300 611.	4.67661	4.67661	$4.02128 \times 10^6$	$4.02128 \times 10^6$	91 191.1	20.7852	41 212.3	4-11
301 561.	4.45467	4.45467	$4.39877 \times 10^6$	$4.39877 \times 10^6$	78 395.6	19.8118	35 314.	5-11
303 032.	4.04822	4.04822	$5.56764 \times 10^6$	$5.56764 \times 10^6$	73 401.3	17.5875	32 956.4	6-11
303 106.	4.04934	4.04934	$5.89954 \times 10^6$	$5.89954 \times 10^6$	48 888.7	14.7324	21 878.9	7-11
303 299.	4.15131	4.15131	$5.43218 \times 10^6$	$5.43218 \times 10^6$	46 149.4	14.7418	20 585.6	8-11
303 101.	4.02878	4.02878	$5.83043 \times 10^6$	$5.83043 \times 10^6$	76 496.8	17.5915	34 011.1	9-11
302 405.	4.25933	4.25933	$4.99166 \times 10^6$	$4.99166 \times 10^6$	123 557.	23.3534	54 755.3	10-11
303 052.	4.29725	4.29725	$4.64846 \times 10^6$	$4.64846 \times 10^6$	189 872.	27.7794	83 868.6	11-11
302 476.	4.40576	4.40576	$4.42402 \times 10^6$	$4.42402 \times 10^6$	249 414.	32.22	109 809.	12-11
302 275.	4.58976	4.58976	$4.57878 \times 10^6$	$4.57878 \times 10^6$	300 574.	33.7139	131 902.	1-12
303 130.	4.93266	4.93266	$3.93807 \times 10^6$	$3.93807 \times 10^6$	319 948.	32.2231	139 946.	2-12
303 306.	4.88521	4.88521	$3.87211 \times 10^6$	$3.87211 \times 10^6$	146 747.	26.4495	63 977.8	3-12
303 947.	4.77015	4.77015	$4.03623 \times 10^6$	$4.03623 \times 10^6$	105 478.	22.124	45 835.7	4-12
304 909.	4.54376	4.54376	$4.41426 \times 10^6$	$4.41426 \times 10^6$	90 935.9	21.1193	39 387.4	5-12
306 395.	4.12919	4.12919	$5.58613 \times 10^6$	$5.58613 \times 10^6$	85 436.1	18.7817	36 884.5	6-12
306 470.	4.13032	4.13032	$5.91679 \times 10^6$	$5.91679 \times 10^6$	57 445.6	15.8089	24 719.5	7-12
306 666.	4.23433	4.23433	$5.44806 \times 10^6$	$5.44806 \times 10^6$	54 226.8	15.819	23 258.3	8-12
306 465.	4.10936	4.10936	$5.8498 \times 10^6$	$5.8498 \times 10^6$	89 039.2	18.786	38 065.	9-12
305 762.	4.34452	4.34452	$5.01121 \times 10^6$	$5.01121 \times 10^6$	142 577.	24.8263	60 753.9	10-12
306 416.	4.3832	4.3832	$4.66945 \times 10^6$	$4.66945 \times 10^6$	217 997.	29.4485	92 588.2	11-12
305 833.	4.49387	4.49387	$4.44575 \times 10^6$	$4.44575 \times 10^6$	285 744.	34.1108	120 966.	12-12
305 630.	4.68155	4.68155	$4.60128 \times 10^6$	$4.60128 \times 10^6$	342 423.	35.5918	144 487.	1-13
306 495.	5.03132	5.03132	$3.95819 \times 10^6$	$3.95819 \times 10^6$	364 251.	34.0016	153 196.	2-13
306 673.	4.98291	4.98291	$3.88805 \times 10^6$	$3.88805 \times 10^6$	167 930.	27.9982	70 397.4	3-13

307321.	4.86555	4.86555	$4.05124 \times 10^6$	$4.05124 \times 10^6$	121 163.	23.4677	50 626.6	4-13
308293.	4.63464	4.63464	$4.42979 \times 10^6$	$4.42979 \times 10^6$	104 718.	22.4313	43 612.5	5-13
309796.	4.21177	4.21177	$5.60468 \times 10^6$	$5.60468 \times 10^6$	98 681.1	19.9798	40 964.1	6-13
309872.	4.21293	4.21293	$5.93409 \times 10^6$	$5.93409 \times 10^6$	66 900.6	16.8886	27 680.9	7-13
310070.	4.31902	4.31902	$5.46399 \times 10^6$	$5.46399 \times 10^6$	63 152.	16.8993	26 044.6	8-13
309867.	4.19155	4.19155	$5.86923 \times 10^6$	$5.86923 \times 10^6$	102 843.	19.9843	42 275.1	9-13
309156.	4.43141	4.43141	$5.03084 \times 10^6$	$5.03084 \times 10^6$	163 441.	26.305	66 965.7	10-13
309817.	4.47086	4.47086	$4.69053 \times 10^6$	$4.69053 \times 10^6$	248 804.	31.1251	101 608.	11-13
309228.	4.58375	4.58375	$4.46759 \times 10^6$	$4.46759 \times 10^6$	325 528.	36.0108	132 508.	12-13
309023.	4.77518	4.77518	$4.62388 \times 10^6$	$4.62388 \times 10^6$	388 123.	37.479	157 472.	1-14
309897.	5.13194	5.13194	$3.97843 \times 10^6$	$3.97843 \times 10^6$	412 635.	35.7893	166 871.	2-14
310077.	5.08257	5.08257	$3.90405 \times 10^6$	$3.90405 \times 10^6$	191 081.	29.5533	77 021.3	3-14
310733.	4.96286	4.96286	$4.06631 \times 10^6$	$4.06631 \times 10^6$	138 326.	24.8165	55 574.7	4-14
311715.	4.72733	4.72733	$4.44539 \times 10^6$	$4.44539 \times 10^6$	119 812.	23.7481	47 979.7	5-14
313235.	4.29601	4.29601	$5.6233 \times 10^6$	$5.6233 \times 10^6$	113 204.	21.1818	45 185.3	6-14
313312.	4.29719	4.29719	$5.95144 \times 10^6$	$5.95144 \times 10^6$	77 303.5	17.9714	30 755.	7-14
313511.	4.4054	4.4054	$5.47997 \times 10^6$	$5.47997 \times 10^6$	72 972.1	17.9829	28 937.	8-14
313307.	4.27538	4.27538	$5.88872 \times 10^6$	$5.88872 \times 10^6$	117 978.	21.1867	46 631.4	9-14
312587.	4.52004	4.52004	$5.05055 \times 10^6$	$5.05055 \times 10^6$	186 254.	27.7894	73 377.5	10-14
313256.	4.56028	4.56028	$4.7117 \times 10^6$	$4.7117 \times 10^6$	282 451.	32.8093	110 913.	11-14
312660.	4.67542	4.67542	$4.48953 \times 10^6$	$4.48953 \times 10^6$	368 973.	37.9202	144 416.	12-14
312453.	4.87068	4.87068	$4.64659 \times 10^6$	$4.64659 \times 10^6$	437 903.	39.3754	170 836.	1-15
313337.	5.23458	5.23458	$3.99876 \times 10^6$	$3.99876 \times 10^6$	465 347.	37.586	180 949.	2-15
313519.	5.18422	5.18422	$3.92013 \times 10^6$	$3.92013 \times 10^6$	216 310.	31.1148	83 837.3	3-15
314182.	5.06212	5.06212	$4.08143 \times 10^6$	$4.08143 \times 10^6$	157 048.	26.1702	60 669.9	4-15
315175.	4.82188	4.82188	$4.46104 \times 10^6$	$4.46104 \times 10^6$	136 291.	25.0694	52 479.6	5-15
316712.	4.38193	4.38193	$5.64197 \times 10^6$	$5.64197 \times 10^6$	129 075.	22.3879	49 538.7	6-15
316790.	4.38313	4.38313	$5.96884 \times 10^6$	$5.96884 \times 10^6$	88 706.2	19.0574	33 934.2	7-15
316991.	4.49351	4.49351	$5.496 \times 10^6$	$5.496 \times 10^6$	83 735.8	19.0696	31 928.2	8-15
316784.	4.36089	4.36089	$5.90828 \times 10^6$	$5.90828 \times 10^6$	134 518.	22.393	51 124.2	9-15
316057.	4.61044	4.61044	$5.07034 \times 10^6$	$5.07034 \times 10^6$	211 126.	29.2797	79 977.1	10-15
316733.	4.65149	4.65149	$4.73297 \times 10^6$	$4.73297 \times 10^6$	319 102.	34.5012	120 486.	11-15
316131.	4.76893	4.76893	$4.51159 \times 10^6$	$4.51159 \times 10^6$	416 298.	39.8389	156 672.	12-15
315921.	4.9681	4.9681	$4.66941 \times 10^6$	$4.66941 \times 10^6$	492 005.	41.2811	184 559.	1-16
316815.	5.33927	5.33927	$4.0192 \times 10^6$	$4.0192 \times 10^6$	522 645.	39.3919	195 413.	2-16
316999.	5.28791	5.28791	$3.93626 \times 10^6$	$3.93626 \times 10^6$	243 735.	32.6828	90 833.3	3-16
317669.	5.16336	5.16336	$4.09661 \times 10^6$	$4.09661 \times 10^6$	177 417.	27.529	65 902.6	4-16
318674.	4.91832	4.91832	$4.47674 \times 10^6$	$4.47674 \times 10^6$	154 231.	26.3954	57 103.3	5-16

320 227.	4.46956	4.46956	$5.66071 \times 10^6$	$5.66071 \times 10^6$	146 368.	23.598	54 015.2	6-16
320 306.	4.4708	4.4708	$5.98629 \times 10^6$	$5.98629 \times 10^6$	101 163.	20.1466	37 210.9	7-16
320 510.	4.58338	4.58338	$5.51207 \times 10^6$	$5.51207 \times 10^6$	95 494.4	20.1594	35 011.3	8-16
320 301.	4.4481	4.4481	$5.9279 \times 10^6$	$5.9279 \times 10^6$	152 541.	23.6034	55 743.9	9-16
319 565.	4.70265	4.70265	$5.0902 \times 10^6$	$5.0902 \times 10^6$	238 171.	30.7758	86 752.3	10-16
320 249.	4.74451	4.74451	$4.75433 \times 10^6$	$4.75433 \times 10^6$	358 931.	36.2006	130 312.	11-16
319 640.	4.86431	4.86431	$4.53375 \times 10^6$	$4.53375 \times 10^6$	467 731.	41.7671	169 258.	12-16
319 428.	5.06746	5.06746	$4.69235 \times 10^6$	$4.69235 \times 10^6$	550 680.	43.1962	198 624.	1-17
320 332.	5.44606	5.44606	$4.03974 \times 10^6$	$4.03974 \times 10^6$	584 800.	41.2071	210 243.	2-17
320 518.	5.39366	5.39366	$3.95246 \times 10^6$	$3.95246 \times 10^6$	273 478.	34.2571	97 997.9	3-17
321 195.	5.26663	5.26663	$4.11184 \times 10^6$	$4.11184 \times 10^6$	199 522.	28.8928	71 263.2	4-17
322 211.	5.01668	5.01668	$4.4925 \times 10^6$	$4.4925 \times 10^6$	173 712.	27.7261	61 842.1	5-17
323 782.	4.55896	4.55896	$5.67951 \times 10^6$	$5.67951 \times 10^6$	165 160.	24.8121	58 605.9	6-17
323 861.	4.56021	4.56021	$6.0038 \times 10^6$	$6.0038 \times 10^6$	114 730.	21.239	40 578.1	7-17
324 068.	4.67505	4.67505	$5.52818 \times 10^6$	$5.52818 \times 10^6$	108 301.	21.2525	38 179.5	8-17
323 856.	4.53707	4.53707	$5.94759 \times 10^6$	$5.94759 \times 10^6$	172 125.	24.8178	60 481.5	9-17
323 112.	4.7967	4.7967	$5.11014 \times 10^6$	$5.11014 \times 10^6$	267 511.	32.2777	93 691.5	10-17
323 803.	4.83941	4.83941	$4.7758 \times 10^6$	$4.7758 \times 10^6$	402 118.	37.9077	140 376.	11-17
323 188.	4.9616	4.9616	$4.55602 \times 10^6$	$4.55602 \times 10^6$	523 510.	43.7047	182 156.	12-17
322 973.	5.16881	5.16881	$4.7154 \times 10^6$	$4.7154 \times 10^6$	614 192.	45.1207	213 012.	1-18
323 887.	5.55498	5.55498	$4.06039 \times 10^6$	$4.06039 \times 10^6$	652 097.	43.0315	225 420.	2-18
324 075.	5.50154	5.50154	$3.96873 \times 10^6$	$3.96873 \times 10^6$	305 668.	35.838	105 320.	3-18
324 761.	5.37196	5.37196	$4.12713 \times 10^6$	$4.12713 \times 10^6$	223 458.	30.2618	76 742.7	4-18
325 788.	5.11702	5.11702	$4.50831 \times 10^6$	$4.50831 \times 10^6$	194 815.	29.0614	66 687.5	5-18
327 376.	4.65014	4.65014	$5.69838 \times 10^6$	$5.69838 \times 10^6$	185 531.	26.0302	63 302.3	6-18
327 456.	4.65142	4.65142	$6.02135 \times 10^6$	$6.02135 \times 10^6$	129 466.	22.3345	44 028.9	7-18
327 665.	4.76855	4.76855	$5.54435 \times 10^6$	$5.54435 \times 10^6$	122 211.	22.3487	41 426.2	8-18
327 451.	4.62781	4.62781	$5.96734 \times 10^6$	$5.96734 \times 10^6$	193 356.	26.0362	65 328.2	9-18
326 699.	4.89263	4.89263	$5.13016 \times 10^6$	$5.13016 \times 10^6$	299 271.	33.7856	100 783.	10-18
327 398.	4.93619	4.93619	$4.79736 \times 10^6$	$4.79736 \times 10^6$	448 854.	39.6225	150 664.	11-18
326 775.	5.06083	5.06083	$4.5784 \times 10^6$	$4.5784 \times 10^6$	583 889.	45.6519	195 351.	12-18
326 558.	5.27219	5.27219	$4.73856 \times 10^6$	$4.73856 \times 10^6$	682 818.	47.0547	227 704.	1-19
327 482.	5.66608	5.66608	$4.08114 \times 10^6$	$4.08114 \times 10^6$	724 834.	44.8653	240 927.	2-19
327 673.	5.61157	5.61157	$3.98507 \times 10^6$	$3.98507 \times 10^6$	340 437.	37.4254	112 788.	3-19
328 365.	5.4794	5.4794	$4.14248 \times 10^6$	$4.14248 \times 10^6$	249 323.	31.6358	82 332.4	4-19
329 404.	5.21936	5.21936	$4.52418 \times 10^6$	$4.52418 \times 10^6$	217 628.	30.4015	71 631.5	5-19
331 010.	4.74314	4.74314	$5.7173 \times 10^6$	$5.7173 \times 10^6$	207 565.	27.2524	68 096.2	6-19
331 091.	4.74444	4.74444	$6.03896 \times 10^6$	$6.03896 \times 10^6$	145 432.	23.4333	47 556.5	7-19

331 302.	4.86392	4.86392	$5.56056 \times 10^6$	$5.56056 \times 10^6$	137 283.	23.4482	44 745.3	8-19
331 086.	4.72036	4.72036	$5.98716 \times 10^6$	$5.98716 \times 10^6$	216 318.	27.2586	70 275.6	9-19
330 325.	4.99049	4.99049	$5.15026 \times 10^6$	$5.15026 \times 10^6$	333 581.	35.2993	108 017.	10-19
331 032.	5.03492	5.03492	$4.81901 \times 10^6$	$4.81901 \times 10^6$	499 335.	41.3451	161 162.	11-19
330 402.	5.16205	5.16205	$4.60089 \times 10^6$	$4.60089 \times 10^6$	649 129.	47.6086	208 826.	12-19
330 183.	5.37763	5.37763	$4.76184 \times 10^6$	$4.76184 \times 10^6$	756 848.	48.9981	242 684.	1-20
331 118.	5.7794	5.7794	$4.102 \times 10^6$	$4.102 \times 10^6$	803 325.	46.7084	256 747.	2-20
331 310.	5.7238	5.7238	$4.00148 \times 10^6$	$4.00148 \times 10^6$	377 927.	39.0193	120 393.	3-20
332 010.	5.58899	5.58899	$4.15789 \times 10^6$	$4.15789 \times 10^6$	277 220.	33.0149	88 023.7	4-20
333 060.	5.32374	5.32374	$4.54011 \times 10^6$	$4.54011 \times 10^6$	242 242.	31.7463	76 666.3	5-20
334 684.	4.838	4.838	$5.73629 \times 10^6$	$5.73629 \times 10^6$	231 348.	28.4786	72 979.8	6-20
334 766.	4.83933	4.83933	$6.05662 \times 10^6$	$6.05662 \times 10^6$	162 692.	24.5353	51 154.5	7-20
334 979.	4.9612	4.9612	$5.57682 \times 10^6$	$5.57682 \times 10^6$	153 576.	24.5509	48 130.6	8-20
334 761.	4.81477	4.81477	$6.00705 \times 10^6$	$6.00705 \times 10^6$	241 105.	28.4852	75 315.4	9-20
333 992.	5.0903	5.0903	$5.17044 \times 10^6$	$5.17044 \times 10^6$	370 578.	36.819	115 382.	10-20
334 706.	5.13562	5.13562	$4.84076 \times 10^6$	$4.84076 \times 10^6$	553 769.	43.0755	171 857.	11-20
334 070.	5.26529	5.26529	$4.62349 \times 10^6$	$4.62349 \times 10^6$	719 507.	49.5749	222 564.	12-20
333 848.	5.48518	5.48518	$4.78523 \times 10^6$	$4.78523 \times 10^6$	836 587.	50.9511	257 935.	1-21
334 793.	5.89499	5.89499	$4.12296 \times 10^6$	$4.12296 \times 10^6$	887 896.	48.561	272 862.	2-21
334 987.	5.83828	5.83828	$4.01795 \times 10^6$	$4.01795 \times 10^6$	418 282.	40.6197	128 124.	3-21
335 696.	5.70077	5.70077	$4.17335 \times 10^6$	$4.17335 \times 10^6$	307 256.	34.3991	93 808.4	4-21
336 757.	5.43022	5.43022	$4.55609 \times 10^6$	$4.55609 \times 10^6$	268 749.	33.0958	81 784.2	5-21
338 399.	4.93476	4.93476	$5.75534 \times 10^6$	$5.75534 \times 10^6$	256 973.	29.7089	77 945.2	6-21
338 482.	4.93612	4.93612	$6.07433 \times 10^6$	$6.07433 \times 10^6$	181 314.	25.6404	54 816.8	7-21
338 697.	5.06042	5.06042	$5.59313 \times 10^6$	$5.59313 \times 10^6$	171 154.	25.6568	51 576.5	8-21
338 476.	4.91107	4.91107	$6.027 \times 10^6$	$6.027 \times 10^6$	267 810.	29.7157	80 439.7	9-21
337 699.	5.1921	5.1921	$5.19069 \times 10^6$	$5.19069 \times 10^6$	410 407.	38.3446	122 868.	10-21
338 421.	5.23833	5.23833	$4.86262 \times 10^6$	$4.86262 \times 10^6$	612 373.	44.8136	182 735.	11-21
337 778.	5.37059	5.37059	$4.6462 \times 10^6$	$4.6462 \times 10^6$	795 311.	51.5509	236 550.	12-21
337 554.	5.59489	5.59489	$4.80873 \times 10^6$	$4.80873 \times 10^6$	922 352.	52.9137	273 441.	1-22
338 509.	6.01289	6.01289	$4.14404 \times 10^6$	$4.14404 \times 10^6$	978 893.	50.423	289 256.	2-22
338 706.	5.95504	5.95504	$4.03449 \times 10^6$	$4.03449 \times 10^6$	461 656.	42.2268	135 971.	3-22
339 422.	5.81478	5.81478	$4.18887 \times 10^6$	$4.18887 \times 10^6$	339 542.	35.7885	99 678.6	4-22
340 495.	5.53882	5.53882	$4.57212 \times 10^6$	$4.57212 \times 10^6$	297 249.	34.45	86 978.1	5-22
342 155.	5.03346	5.03346	$5.77446 \times 10^6$	$5.77446 \times 10^6$	284 532.	30.9433	82 985.2	6-22
342 239.	5.03484	5.03484	$6.09209 \times 10^6$	$6.09209 \times 10^6$	201 365.	26.7489	58 537.4	7-22
342 457.	5.16163	5.16163	$5.60948 \times 10^6$	$5.60948 \times 10^6$	190 082.	26.7659	55 077.1	8-22
342 233.	5.00929	5.00929	$6.04702 \times 10^6$	$6.04702 \times 10^6$	296 532.	30.9504	85 641.	9-22

341 448.	5.29595	5.29595	$5.21103 \times 10^6$	$5.21103 \times 10^6$	453 214.	39.8762	130 465.	10-22
342 178.	5.34309	5.34309	$4.88457 \times 10^6$	$4.88457 \times 10^6$	675 375.	46.5596	193 783.	11-22
341 527.	5.478	5.478	$4.66902 \times 10^6$	$4.66902 \times 10^6$	876 845.	53.5366	250 770.	12-22
341 301.	5.70678	5.70678	$4.83235 \times 10^6$	$4.83235 \times 10^6$	$1.01448 \times 10^6$	54.886	289 185.	1-23
342 267.	6.13315	6.13315	$4.16522 \times 10^6$	$4.16522 \times 10^6$	$1.07668 \times 10^6$	52.2946	305 913.	2-23
342 465.	6.07414	6.07414	$4.05109 \times 10^6$	$4.05109 \times 10^6$	508 207.	43.8404	143 925.	3-23
343 189.	5.93108	5.93108	$4.20445 \times 10^6$	$4.20445 \times 10^6$	374 196.	37.1831	105 627.	4-23
344 275.	5.6496	5.6496	$4.58822 \times 10^6$	$4.58822 \times 10^6$	327 844.	35.809	92 240.8	5-23
345 953.	5.13412	5.13412	$5.79364 \times 10^6$	$5.79364 \times 10^6$	314 126.	32.1818	88 092.7	6-23
346 038.	5.13554	5.13554	$6.1099 \times 10^6$	$6.1099 \times 10^6$	222 918.	27.8605	62 310.6	7-23
346 258.	5.26486	5.26486	$5.62588 \times 10^6$	$5.62588 \times 10^6$	210 428.	27.8783	58 627.3	8-23
346 032.	5.10947	5.10947	$6.0671 \times 10^6$	$6.0671 \times 10^6$	327 374.	32.1892	90 912.	9-23
345 238.	5.40186	5.40186	$5.23144 \times 10^6$	$5.23144 \times 10^6$	499 157.	41.4139	138 164.	10-23
345 976.	5.44996	5.44996	$4.90662 \times 10^6$	$4.90662 \times 10^6$	743 010.	48.3135	204 990.	11-23
345 318.	5.58756	5.58756	$4.69195 \times 10^6$	$4.69195 \times 10^6$	964 426.	55.532	265 209.	12-23
345 089.	5.82092	5.82092	$4.85609 \times 10^6$	$4.85609 \times 10^6$	$1.11331 \times 10^6$	56.8679	305 153.	1-24
346 066.	6.25581	6.25581	$4.18651 \times 10^6$	$4.18651 \times 10^6$	$1.18162 \times 10^6$	54.1757	322 819.	2-24
346 267.	6.19562	6.19562	$4.06777 \times 10^6$	$4.06777 \times 10^6$	558 103.	45.4607	151 976.	3-24
346 999.	6.0497	6.0497	$4.22008 \times 10^6$	$4.22008 \times 10^6$	411 338.	38.5828	111 645.	4-24
348 096.	5.76259	5.76259	$4.60437 \times 10^6$	$4.60437 \times 10^6$	360 641.	37.1729	97 565.6	5-24
349 793.	5.23681	5.23681	$5.81288 \times 10^6$	$5.81288 \times 10^6$	345 857.	33.4244	93 260.8	6-24
349 879.	5.23825	5.23825	$6.12777 \times 10^6$	$6.12777 \times 10^6$	246 049.	28.9755	66 130.9	7-24
350 102.	5.37016	5.37016	$5.64233 \times 10^6$	$5.64233 \times 10^6$	232 262.	28.9939	62 221.7	8-24
349 873.	5.21166	5.21166	$6.08725 \times 10^6$	$6.08725 \times 10^6$	360 443.	33.4321	96 245.5	9-24
349 070.	5.5099	5.5099	$5.25193 \times 10^6$	$5.25193 \times 10^6$	548 398.	42.9575	145 956.	10-24
349 816.	5.55896	5.55896	$4.92877 \times 10^6$	$4.92877 \times 10^6$	815 528.	50.0753	216 344.	11-24
349 151.	5.69932	5.69932	$4.715 \times 10^6$	$4.715 \times 10^6$	$1.05838 \times 10^6$	57.5373	279 853.	12-24
348 920.	5.93734	5.93734	$4.87994 \times 10^6$	$4.87994 \times 10^6$	$1.21922 \times 10^6$	58.8595	321 329.	1-25
349 907.	6.38092	6.38092	$4.2079 \times 10^6$	$4.2079 \times 10^6$	$1.29413 \times 10^6$	56.0664	339 957.	2-25
350 110.	6.31954	6.31954	$4.08451 \times 10^6$	$4.08451 \times 10^6$	611 516.	47.0877	160 116.	3-25
350 850.	6.17069	6.17069	$4.23578 \times 10^6$	$4.23578 \times 10^6$	451 096.	39.9878	117 727.	4-25
351 960.	5.87784	5.87784	$4.62058 \times 10^6$	$4.62058 \times 10^6$	395 750.	38.5415	102 946.	5-25
353 676.	5.34154	5.34154	$5.83219 \times 10^6$	$5.83219 \times 10^6$	379 832.	34.6712	98 483.	6-25
353 763.	5.34302	5.34302	$6.14569 \times 10^6$	$6.14569 \times 10^6$	270 835.	30.0936	69 992.9	7-25
353 988.	5.47756	5.47756	$5.65883 \times 10^6$	$5.65883 \times 10^6$	255 659.	30.1128	65 855.5	8-25
353 757.	5.3159	5.3159	$6.10747 \times 10^6$	$6.10747 \times 10^6$	395 851.	34.6791	101 635.	9-25
352 945.	5.6201	5.6201	$5.27251 \times 10^6$	$5.27251 \times 10^6$	601 107.	44.5072	153 831.	10-25
353 699.	5.67013	5.67013	$4.95102 \times 10^6$	$4.95102 \times 10^6$	893 187.	51.845	227 832.	11-25



353 027.	5.8133	5.8133	$4.73816 \times 10^6$	$4.73816 \times 10^6$	$1.15907 \times 10^6$	59.5524	294 688.	12-25
352 793.	6.05608	6.05608	$4.90392 \times 10^6$	$4.90392 \times 10^6$	$1.33259 \times 10^6$	60.861	337 699.	1-26
353 791.	6.50854	6.50854	$4.22941 \times 10^6$	$4.22941 \times 10^6$	$1.41461 \times 10^6$	57.9668	357 313.	2-26
353 996.	6.44593	6.44593	$4.10133 \times 10^6$	$4.10133 \times 10^6$	668 628.	48.7214	168 337.	3-26
354 745.	6.29411	6.29411	$4.25153 \times 10^6$	$4.25153 \times 10^6$	493 602.	41.398	123 866.	4-26
355 867.	5.9954	5.9954	$4.63684 \times 10^6$	$4.63684 \times 10^6$	433 288.	39.9149	108 376.	5-26
357 602.	5.44837	5.44837	$5.85156 \times 10^6$	$5.85156 \times 10^6$	416 164.	35.9221	103 753.	6-26
357 689.	5.44988	5.44988	$6.16366 \times 10^6$	$6.16366 \times 10^6$	297 357.	31.2151	73 891.6	7-26
357 917.	5.58711	5.58711	$5.67538 \times 10^6$	$5.67538 \times 10^6$	280 696.	31.235	69 523.7	8-26
357 684.	5.42221	5.42221	$6.12775 \times 10^6$	$6.12775 \times 10^6$	433 714.	35.9303	107 073.	9-26
356 862.	5.7325	5.7325	$5.29316 \times 10^6$	$5.29316 \times 10^6$	657 460.	46.0629	161 781.	10-26
357 626.	5.78354	5.78354	$4.97336 \times 10^6$	$4.97336 \times 10^6$	976 258.	53.6228	239 444.	11-26
356 946.	5.92957	5.92957	$4.76144 \times 10^6$	$4.76144 \times 10^6$	$1.26684 \times 10^6$	61.5774	309 701.	12-26
356 709.	6.17721	6.17721	$4.928 \times 10^6$	$4.928 \times 10^6$	$1.45382 \times 10^6$	62.8722	354 249.	1-27
357 718.	6.63871	6.63871	$4.25103 \times 10^6$	$4.25103 \times 10^6$	$1.54349 \times 10^6$	59.8769	374 874.	2-27
357 926.	6.57485	6.57485	$4.11821 \times 10^6$	$4.11821 \times 10^6$	729 629.	50.3618	176 629.	3-27
358 683.	6.41999	6.41999	$4.26734 \times 10^6$	$4.26734 \times 10^6$	538 993.	42.8134	130 054.	4-27
359 817.	6.11531	6.11531	$4.65316 \times 10^6$	$4.65316 \times 10^6$	473 376.	41.2931	113 849.	5-27
361 571.	5.55734	5.55734	$5.87099 \times 10^6$	$5.87099 \times 10^6$	454 967.	37.1771	109 064.	6-27
361 660.	5.55887	5.55887	$6.18168 \times 10^6$	$6.18168 \times 10^6$	325 701.	32.3398	77 822.1	7-27
361 890.	5.69886	5.69886	$5.69197 \times 10^6$	$5.69197 \times 10^6$	307 452.	32.3604	73 221.8	8-27
361 654.	5.53066	5.53066	$6.14811 \times 10^6$	$6.14811 \times 10^6$	474 154.	37.1856	112 555.	9-27
360 823.	5.84715	5.84715	$5.3139 \times 10^6$	$5.3139 \times 10^6$	717 642.	47.6248	169 798.	10-27
361 595.	5.89921	5.89921	$4.99582 \times 10^6$	$4.99582 \times 10^6$	$1.06502 \times 10^6$	55.4086	251 168.	11-27
360 908.	6.04816	6.04816	$4.78482 \times 10^6$	$4.78482 \times 10^6$	$1.38209 \times 10^6$	63.6123	324 879.	12-27
360 668.	6.30075	6.30075	$4.95221 \times 10^6$	$4.95221 \times 10^6$	$1.58332 \times 10^6$	64.8934	370 966.	1-28
361 689.	6.77149	6.77149	$4.27276 \times 10^6$	$4.27276 \times 10^6$	$1.68125 \times 10^6$	61.7968	392 625.	2-28
361 899.	6.70634	6.70634	$4.13516 \times 10^6$	$4.13516 \times 10^6$	794 715.	52.009	184 986.	3-28
362 664.	6.54839	6.54839	$4.28321 \times 10^6$	$4.28321 \times 10^6$	587 414.	44.2341	136 286.	4-28
363 811.	6.23761	6.23761	$4.66954 \times 10^6$	$4.66954 \times 10^6$	516 138.	42.6762	119 359.	5-28
365 585.	5.66849	5.66849	$5.89049 \times 10^6$	$5.89049 \times 10^6$	496 364.	38.4363	114 411.	6-28
365 674.	5.67005	5.67005	$6.19976 \times 10^6$	$6.19976 \times 10^6$	355 955.	33.4678	81 779.5	7-28
365 907.	5.81283	5.81283	$5.70862 \times 10^6$	$5.70862 \times 10^6$	336 010.	33.4891	76 945.4	8-28
365 668.	5.64127	5.64127	$6.16853 \times 10^6$	$6.16853 \times 10^6$	517 297.	38.4451	118 073.	9-28
364 828.	5.96409	5.96409	$5.33472 \times 10^6$	$5.33472 \times 10^6$	781 845.	49.1927	177 874.	10-28
365 609.	6.01719	6.01719	$5.01837 \times 10^6$	$5.01837 \times 10^6$	$1.15978 \times 10^6$	57.2024	262 996.	11-28
364 914.	6.16912	6.16912	$4.80833 \times 10^6$	$4.80833 \times 10^6$	$1.5052 \times 10^6$	65.6573	340 210.	12-28
364 672.	6.42677	6.42677	$4.97654 \times 10^6$	$4.97654 \times 10^6$	$1.72154 \times 10^6$	66.9245	387 837.	1-29

365 704.	6.90692	6.90692	$4.29459 \times 10^6$	$4.29459 \times 10^6$	$1.82834 \times 10^6$	63.7264	410 553.	2-29
365 916.	6.84047	6.84047	$4.15218 \times 10^6$	$4.15218 \times 10^6$	864 092.	53.6629	193 399.	3-29
366 689.	6.67936	6.67936	$4.29914 \times 10^6$	$4.29914 \times 10^6$	639 014.	45.66	142 556.	4-29
367 849.	6.36237	6.36237	$4.68598 \times 10^6$	$4.68598 \times 10^6$	561 708.	44.0642	124 901.	5-29
369 643.	5.78186	5.78186	$5.91006 \times 10^6$	$5.91006 \times 10^6$	540 480.	39.6997	119 789.	6-29
369 733.	5.78345	5.78345	$6.21788 \times 10^6$	$6.21788 \times 10^6$	388 210.	34.5991	85 759.6	7-29
369 969.	5.92909	5.92909	$5.72531 \times 10^6$	$5.72531 \times 10^6$	366 457.	34.6212	80 690.1	8-29
369 727.	5.7541	5.7541	$6.18901 \times 10^6$	$6.18901 \times 10^6$	563 273.	39.7088	123 622.	9-29
368 878.	6.08338	6.08338	$5.35562 \times 10^6$	$5.35562 \times 10^6$	850 270.	50.7668	186 001.	10-29
369 667.	6.13754	6.13754	$5.04102 \times 10^6$	$5.04102 \times 10^6$	$1.26084 \times 10^6$	59.0043	274 915.	11-29
368 964.	6.2925	6.2925	$4.83195 \times 10^6$	$4.83195 \times 10^6$	$1.6366 \times 10^6$	67.7123	355 681.	12-29
368 719.	6.5553	6.5553	$5.00098 \times 10^6$	$5.00098 \times 10^6$	$1.86893 \times 10^6$	68.9655	404 848.	1-30
369 763.	7.04506	7.04506	$4.31654 \times 10^6$	$4.31654 \times 10^6$	$1.98527 \times 10^6$	65.666	428 646.	2-30
369 977.	6.97728	6.97728	$4.16928 \times 10^6$	$4.16928 \times 10^6$	937 976.	55.3236	201 861.	3-30
370 760.	6.81294	6.81294	$4.31512 \times 10^6$	$4.31512 \times 10^6$	693 949.	47.0913	148 857.	4-30
371 932.	6.48961	6.48961	$4.70247 \times 10^6$	$4.70247 \times 10^6$	610 220.	45.4571	130 469.	5-30
373 746.	5.8975	5.8975	$5.92969 \times 10^6$	$5.92969 \times 10^6$	587 447.	40.9672	125 190.	6-30
373 837.	5.89912	5.89912	$6.23607 \times 10^6$	$6.23607 \times 10^6$	422 561.	35.7338	89 757.8	7-30
374 075.	6.04767	6.04767	$5.74205 \times 10^6$	$5.74205 \times 10^6$	398 884.	35.7565	84 452.	8-30
373 831.	5.86918	5.86918	$6.20957 \times 10^6$	$6.20957 \times 10^6$	612 221.	40.9766	129 197.	9-30
372 973.	6.20504	6.20504	$5.3766 \times 10^6$	$5.3766 \times 10^6$	923 126.	52.3471	194 172.	10-30
373 770.	6.26029	6.26029	$5.06378 \times 10^6$	$5.06378 \times 10^6$	$1.36852 \times 10^6$	60.8144	286 918.	11-30
373 060.	6.41835	6.41835	$4.85568 \times 10^6$	$4.85568 \times 10^6$	$1.77672 \times 10^6$	69.7774	371 282.	12-30
372 812.	6.68641	6.68641	$5.02555 \times 10^6$	$5.02555 \times 10^6$	$2.02597 \times 10^6$	71.0166	421 987.	1-31
373 867.	7.18596	7.18596	$4.33861 \times 10^6$	$4.33861 \times 10^6$	$2.15255 \times 10^6$	67.6154	446 891.	2-31
374 084.	7.11683	7.11683	$4.18644 \times 10^6$	$4.18644 \times 10^6$	$1.01659 \times 10^6$	56.9912	210 365.	3-31
374 875.	6.9492	6.9492	$4.33117 \times 10^6$	$4.33117 \times 10^6$	752 382.	48.5279	155 184.	4-31
376 061.	6.61941	6.61941	$4.71903 \times 10^6$	$4.71903 \times 10^6$	661 818.	46.8549	136 059.	5-31
377 894.	6.01545	6.01545	$5.94938 \times 10^6$	$5.94938 \times 10^6$	637 401.	42.239	130 612.	6-31
377 987.	6.0171	6.0171	$6.2543 \times 10^6$	$6.2543 \times 10^6$	459 107.	36.8717	93 770.	7-31
378 227.	6.16863	6.16863	$5.75884 \times 10^6$	$5.75884 \times 10^6$	433 383.	36.8952	88 227.	8-31
377 981.	5.98656	5.98656	$6.23019 \times 10^6$	$6.23019 \times 10^6$	664 282.	42.2487	134 792.	9-31
377 113.	6.32914	6.32914	$5.39766 \times 10^6$	$5.39766 \times 10^6$	$1.00063 \times 10^6$	53.9336	202 379.	10-31
377 919.	6.38549	6.38549	$5.08663 \times 10^6$	$5.08663 \times 10^6$	$1.48316 \times 10^6$	62.6326	298 993.	11-31
377 201.	6.54672	6.54672	$4.87953 \times 10^6$	$4.87953 \times 10^6$	$1.92601 \times 10^6$	71.8526	387 001.	12-31
376 950.	6.82013	6.82013	$5.05023 \times 10^6$	$5.05023 \times 10^6$	$2.19317 \times 10^6$	73.0778	439 243.	1-32
378 017.	7.32968	7.32968	$4.36078 \times 10^6$	$4.36078 \times 10^6$	$2.33075 \times 10^6$	69.5748	465 275.	2-32
378 237.	7.25916	7.25916	$4.20367 \times 10^6$	$4.20367 \times 10^6$	$1.10017 \times 10^6$	58.6656	218 904.	3-32

379 036.	7.08819	7.08819	$4.34728 \times 10^6$	$4.34728 \times 10^6$	814 481.	49.9698	161 531.	4-32
380 235.	6.75179	6.75179	$4.73564 \times 10^6$	$4.73564 \times 10^6$	716 648.	48.2575	141 665.	5-32
382 089.	6.13575	6.13575	$5.96914 \times 10^6$	$5.96914 \times 10^6$	690 484.	43.515	136 047.	6-32
382 183.	6.13745	6.13745	$6.27259 \times 10^6$	$6.27259 \times 10^6$	497 953.	38.013	97 792.2	7-32
382 426.	6.292	6.292	$5.77568 \times 10^6$	$5.77568 \times 10^6$	470 051.	38.0372	92 011.5	8-32
382 176.	6.10629	6.10629	$6.25089 \times 10^6$	$6.25089 \times 10^6$	719 604.	43.525	140 401.	9-32
381 299.	6.45573	6.45573	$5.41881 \times 10^6$	$5.41881 \times 10^6$	$1.08301 \times 10^6$	55.5263	210 616.	10-32
382 114.	6.5132	6.5132	$5.1096 \times 10^6$	$5.1096 \times 10^6$	$1.60512 \times 10^6$	64.459	311 133.	11-32
381 388.	6.67766	6.67766	$4.9035 \times 10^6$	$4.9035 \times 10^6$	$2.08496 \times 10^6$	73.938	402 826.	12-32
381 135.	6.95654	6.95654	$5.07504 \times 10^6$	$5.07504 \times 10^6$	$2.37105 \times 10^6$	75.1491	456 604.	1-33
382 213.	7.47627	7.47627	$4.38307 \times 10^6$	$4.38307 \times 10^6$	$2.52042 \times 10^6$	71.5443	483 787.	2-33
382 435.	7.40435	7.40435	$4.22098 \times 10^6$	$4.22098 \times 10^6$	$1.18895 \times 10^6$	60.347	227 471.	3-33
383 244.	7.22995	7.22995	$4.36344 \times 10^6$	$4.36344 \times 10^6$	880 424.	51.4171	167 893.	4-33
384 456.	6.88683	6.88683	$4.75231 \times 10^6$	$4.75231 \times 10^6$	774 866.	49.6652	147 282.	5-33
386 330.	6.25847	6.25847	$5.98897 \times 10^6$	$5.98897 \times 10^6$	746 845.	44.7953	141 492.	6-33
386 425.	6.26019	6.26019	$6.29093 \times 10^6$	$6.29093 \times 10^6$	539 204.	39.1576	101 821.	7-33
386 671.	6.41784	6.41784	$5.79257 \times 10^6$	$5.79257 \times 10^6$	508 991.	39.1825	95 801.8	8-33
386 418.	6.22842	6.22842	$6.27165 \times 10^6$	$6.27165 \times 10^6$	778 341.	44.8056	146 021.	9-33
385 531.	6.58484	6.58484	$5.44004 \times 10^6$	$5.44004 \times 10^6$	$1.17051 \times 10^6$	57.1252	218 877.	10-33
386 356.	6.64347	6.64347	$5.13266 \times 10^6$	$5.13266 \times 10^6$	$1.73475 \times 10^6$	66.2937	323 327.	11-33
385 621.	6.81121	6.81121	$4.92759 \times 10^6$	$4.92759 \times 10^6$	$2.25406 \times 10^6$	76.0337	418 747.	12-33
385 365.	7.09567	7.09567	$5.09997 \times 10^6$	$5.09997 \times 10^6$	$2.56015 \times 10^6$	77.2305	474 059.	1-34
386 456.	7.6258	7.6258	$4.40547 \times 10^6$	$4.40547 \times 10^6$	$2.72217 \times 10^6$	73.5238	502 415.	2-34
386 680.	7.55243	7.55243	$4.23835 \times 10^6$	$4.23835 \times 10^6$	$1.2832 \times 10^6$	62.0352	236 060.	3-34
387 498.	7.37455	7.37455	$4.37967 \times 10^6$	$4.37967 \times 10^6$	950 393.	52.8698	174 265.	4-34
388 723.	7.02457	7.02457	$4.76904 \times 10^6$	$4.76904 \times 10^6$	836 632.	51.0777	152 905.	5-34
390 618.	6.38364	6.38364	$6.00886 \times 10^6$	$6.00886 \times 10^6$	806 637.	46.0798	146 942.	6-34
390 714.	6.3854	6.3854	$6.30932 \times 10^6$	$6.30932 \times 10^6$	582 972.	40.3055	105 852.	7-34
390 963.	6.54619	6.54619	$5.8095 \times 10^6$	$5.8095 \times 10^6$	550 307.	40.3312	99 594.5	8-34
390 708.	6.35299	6.35299	$6.29248 \times 10^6$	$6.29248 \times 10^6$	840 655.	46.0903	151 645.	9-34
389 810.	6.71654	6.71654	$5.46135 \times 10^6$	$5.46135 \times 10^6$	$1.26336 \times 10^6$	58.7304	227 154.	10-34
390 644.	6.77634	6.77634	$5.15583 \times 10^6$	$5.15583 \times 10^6$	$1.87245 \times 10^6$	68.1367	335 569.	11-34
389 901.	6.94743	6.94743	$4.95179 \times 10^6$	$4.95179 \times 10^6$	$2.43384 \times 10^6$	78.1396	434 755.	12-34
389 643.	7.23758	7.23758	$5.12502 \times 10^6$	$5.12502 \times 10^6$	$2.76106 \times 10^6$	79.3222	491 596.	1-35
390 745.	7.77831	7.77831	$4.42799 \times 10^6$	$4.42799 \times 10^6$	$2.93662 \times 10^6$	75.5134	521 149.	2-35
390 972.	7.70348	7.70348	$4.2558 \times 10^6$	$4.2558 \times 10^6$	$1.38317 \times 10^6$	63.7304	244 665.	3-35
391 799.	7.52204	7.52204	$4.39596 \times 10^6$	$4.39596 \times 10^6$	$1.02458 \times 10^6$	54.3279	180 643.	4-35
393 038.	7.16506	7.16506	$4.78582 \times 10^6$	$4.78582 \times 10^6$	902 112.	52.4953	158 532.	5-35

394 954.	6.51131	6.51131	$6.02881 \times 10^6$	$6.02881 \times 10^6$	870 020.	47.3686	152 393.	6-35
395 051.	6.51311	6.51311	$6.32777 \times 10^6$	$6.32777 \times 10^6$	629 373.	41.4568	109 882.	7-35
395 302.	6.67712	6.67712	$5.82649 \times 10^6$	$5.82649 \times 10^6$	594 108.	41.4832	103 386.	8-35
395 044.	6.48005	6.48005	$6.31338 \times 10^6$	$6.31338 \times 10^6$	906 711.	47.3794	157 270.	9-35
394 137.	6.85087	6.85087	$5.48274 \times 10^6$	$5.48274 \times 10^6$	$1.36183 \times 10^6$	60.3418	235 441.	10-35
394 980.	6.91186	6.91186	$5.17911 \times 10^6$	$5.17911 \times 10^6$	$2.01861 \times 10^6$	69.988	347 849.	11-35
394 229.	7.08638	7.08638	$4.97612 \times 10^6$	$4.97612 \times 10^6$	$2.62483 \times 10^6$	80.2559	450 838.	12-35
393 968.	7.38233	7.38233	$5.15019 \times 10^6$	$5.15019 \times 10^6$	$2.97436 \times 10^6$	81.4241	509 206.	1-36
395 083.	7.93388	7.93388	$4.45062 \times 10^6$	$4.45062 \times 10^6$	$3.16443 \times 10^6$	77.5132	539 978.	2-36
395 312.	7.85755	7.85755	$4.27332 \times 10^6$	$4.27332 \times 10^6$	$1.48915 \times 10^6$	65.4326	253 279.	3-36
396 148.	7.67248	7.67248	$4.4123 \times 10^6$	$4.4123 \times 10^6$	$1.10319 \times 10^6$	55.7914	187 021.	4-36
397 401.	7.30836	7.30836	$4.80267 \times 10^6$	$4.80267 \times 10^6$	971 480.	53.9178	164 156.	5-36
399 338.	6.64154	6.64154	$6.04884 \times 10^6$	$6.04884 \times 10^6$	937 162.	48.6616	157 840.	6-36
399 436.	6.64337	6.64337	$6.34627 \times 10^6$	$6.34627 \times 10^6$	678 528.	42.6115	113 907.	7-36
399 690.	6.81066	6.81066	$5.84353 \times 10^6$	$5.84353 \times 10^6$	640 508.	42.6386	107 174.	8-36
399 429.	6.60965	6.60965	$6.33435 \times 10^6$	$6.33435 \times 10^6$	976 684.	48.6728	162 891.	9-36
398 512.	6.98789	6.98789	$5.50422 \times 10^6$	$5.50422 \times 10^6$	$1.46619 \times 10^6$	61.9596	243 734.	10-36
399 365.	7.0501	7.0501	$5.20248 \times 10^6$	$5.20248 \times 10^6$	$2.17365 \times 10^6$	71.8476	360 159.	11-36
398 605.	7.22811	7.22811	$5.00056 \times 10^6$	$5.00056 \times 10^6$	$2.82761 \times 10^6$	82.3826	466 988.	12-36
398 341.	7.52998	7.52998	$5.17549 \times 10^6$	$5.17549 \times 10^6$	$3.20069 \times 10^6$	83.5364	526 877.	1-37
399 468.	8.09256	8.09256	$4.47337 \times 10^6$	$4.47337 \times 10^6$	$3.40628 \times 10^6$	79.5232	558 891.	2-37
399 700.	8.0147	8.0147	$4.29091 \times 10^6$	$4.29091 \times 10^6$	$1.60142 \times 10^6$	67.1418	261 898.	3-37
400 545.	7.82593	7.82593	$4.42871 \times 10^6$	$4.42871 \times 10^6$	$1.18641 \times 10^6$	57.2603	193 395.	4-37
401 812.	7.45453	7.45453	$4.81957 \times 10^6$	$4.81957 \times 10^6$	$1.04492 \times 10^6$	55.3454	169 774.	5-37
403 771.	6.77437	6.77437	$6.06893 \times 10^6$	$6.06893 \times 10^6$	$1.00823 \times 10^6$	49.959	163 279.	6-37
403 870.	6.77624	6.77624	$6.36483 \times 10^6$	$6.36483 \times 10^6$	730 561.	43.7696	117 925.	7-37
404 127.	6.94687	6.94687	$5.86062 \times 10^6$	$5.86062 \times 10^6$	689 626.	43.7974	110 954.	8-37
403 863.	6.74184	6.74184	$6.35539 \times 10^6$	$6.35539 \times 10^6$	$1.05075 \times 10^6$	49.9704	168 505.	9-37
402 936.	7.12764	7.12764	$5.52578 \times 10^6$	$5.52578 \times 10^6$	$1.57671 \times 10^6$	63.5837	252 025.	10-37
403 798.	7.1911	7.1911	$5.22597 \times 10^6$	$5.22597 \times 10^6$	$2.33801 \times 10^6$	73.7156	372 492.	11-37
403 030.	7.37267	7.37267	$5.02512 \times 10^6$	$5.02512 \times 10^6$	$3.04277 \times 10^6$	84.5198	483 194.	12-37
402 762.	7.68058	7.68058	$5.20091 \times 10^6$	$5.20091 \times 10^6$	$3.44069 \times 10^6$	85.6591	544 602.	1-38
403 902.	8.25441	8.25441	$4.49623 \times 10^6$	$4.49623 \times 10^6$	$3.66288 \times 10^6$	81.5434	577 879.	2-38
404 137.	8.175	8.175	$4.30857 \times 10^6$	$4.30857 \times 10^6$	$1.72027 \times 10^6$	68.858	270 515.	3-38
404 991.	7.98245	7.98245	$4.44518 \times 10^6$	$4.44518 \times 10^6$	$1.27448 \times 10^6$	58.7347	199 760.	4-38
406 272.	7.60362	7.60362	$4.83654 \times 10^6$	$4.83654 \times 10^6$	$1.12261 \times 10^6$	56.778	175 382.	5-38
408 253.	6.90986	6.90986	$6.08909 \times 10^6$	$6.08909 \times 10^6$	$1.08342 \times 10^6$	51.2606	168 706.	6-38
408 353.	6.91176	6.91176	$6.38344 \times 10^6$	$6.38344 \times 10^6$	785 602.	44.931	121 932.	7-38

408 613.	7.08581	7.08581	$5.87775 \times 10^6$	$5.87775 \times 10^6$	741 583.	44.9596	114 725.	8-38
408 346.	6.87668	6.87668	$6.37649 \times 10^6$	$6.37649 \times 10^6$	$1.12911 \times 10^6$	51.2723	174 106.	9-38
407 408.	7.2702	7.2702	$5.54743 \times 10^6$	$5.54743 \times 10^6$	$1.69369 \times 10^6$	65.2142	260 310.	10-38
408 280.	7.33492	7.33492	$5.24956 \times 10^6$	$5.24956 \times 10^6$	$2.51213 \times 10^6$	75.5921	384 841.	11-38
407 503.	7.52013	7.52013	$5.0498 \times 10^6$	$5.0498 \times 10^6$	$3.27093 \times 10^6$	86.6674	499 449.	12-38
407 233.	7.83419	7.83419	$5.22646 \times 10^6$	$5.22646 \times 10^6$	$3.69506 \times 10^6$	87.7922	562 369.	1-39
408 385.	8.41949	8.41949	$4.51921 \times 10^6$	$4.51921 \times 10^6$	$3.93499 \times 10^6$	83.574	596 931.	2-39
408 623.	8.3385	8.3385	$4.3263 \times 10^6$	$4.3263 \times 10^6$	$1.84603 \times 10^6$	70.5813	279 125.	3-39
409 486.	8.1421	8.1421	$4.46171 \times 10^6$	$4.46171 \times 10^6$	$1.36762 \times 10^6$	60.2146	206 113.	4-39
410 781.	7.75569	7.75569	$4.85356 \times 10^6$	$4.85356 \times 10^6$	$1.20476 \times 10^6$	58.2156	180 976.	5-39
412 784.	7.04805	7.04805	$6.10931 \times 10^6$	$6.10931 \times 10^6$	$1.1629 \times 10^6$	52.5666	174 118.	6-39
412 885.	7.05	7.05	$6.40211 \times 10^6$	$6.40211 \times 10^6$	843 786.	46.0958	125 926.	7-39
413 148.	7.22753	7.22753	$5.89494 \times 10^6$	$5.89494 \times 10^6$	796 507.	46.1252	118 482.	8-39
412 879.	7.01421	7.01421	$6.39767 \times 10^6$	$6.39767 \times 10^6$	$1.21194 \times 10^6$	52.5786	179 691.	9-39
411 931.	7.4156	7.4156	$5.56916 \times 10^6$	$5.56916 \times 10^6$	$1.81742 \times 10^6$	66.8511	268 583.	10-39
412 812.	7.48162	7.48162	$5.27326 \times 10^6$	$5.27326 \times 10^6$	$2.69651 \times 10^6$	77.4771	397 198.	11-39
412 027.	7.67053	7.67053	$5.07461 \times 10^6$	$5.07461 \times 10^6$	$3.51275 \times 10^6$	88.8256	515 743.	12-39
411 753.	7.99087	7.99087	$5.25213 \times 10^6$	$5.25213 \times 10^6$	$3.9645 \times 10^6$	89.9357	580 169.	1-40
412 919.	8.58788	8.58788	$4.54231 \times 10^6$	$4.54231 \times 10^6$	$4.22338 \times 10^6$	85.615	616 038.	2-40
413 158.	8.50527	8.50527	$4.34411 \times 10^6$	$4.34411 \times 10^6$	$1.97901 \times 10^6$	72.3117	287 724.	3-40
414 032.	8.30494	8.30494	$4.4783 \times 10^6$	$4.4783 \times 10^6$	$1.46605 \times 10^6$	61.7	212 450.	4-40
415 341.	7.9108	7.9108	$4.87065 \times 10^6$	$4.87065 \times 10^6$	$1.29156 \times 10^6$	59.6583	186 553.	5-40
417 366.	7.18901	7.18901	$6.1296 \times 10^6$	$6.1296 \times 10^6$	$1.24687 \times 10^6$	53.8769	179 511.	6-40
417 469.	7.191	7.191	$6.42083 \times 10^6$	$6.42083 \times 10^6$	905 254.	47.2641	129 903.	7-40
417 734.	7.37208	7.37208	$5.91218 \times 10^6$	$5.91218 \times 10^6$	854 531.	47.2941	122 224.	8-40
417 462.	7.1545	7.1545	$6.41892 \times 10^6$	$6.41892 \times 10^6$	$1.29946 \times 10^6$	53.8892	185 256.	9-40
416 503.	7.56391	7.56391	$5.59098 \times 10^6$	$5.59098 \times 10^6$	$1.94822 \times 10^6$	68.4944	276 840.	10-40
417 394.	7.63125	7.63125	$5.29706 \times 10^6$	$5.29706 \times 10^6$	$2.89163 \times 10^6$	79.3705	409 557.	11-40
416 600.	7.82394	7.82394	$5.09954 \times 10^6$	$5.09954 \times 10^6$	$3.7689 \times 10^6$	90.9944	532 068.	12-40

■ **Printing Annual Summary**

```

In[56]:= labelyr={{"the", "without", "with", "perc", "undisc", "disc",
  "disc val", "new", "unpaid"},
  {"year", "wanted", "wanted", "used", "value", "value",
  "to date", "revenue", "costs"}};
annresults=Table[1, {i, planhorizon/12+3}, {j, 9}];
Do[annresults[[i, j]]=labelyr[[i, j]], {i, 1, 2}, {j, 1, 9}];
Do[annresults[[i+2, 1]]=i+year0, {i, 1, planhorizon/12}];
Do[
  {annresults[[i+2, 2]]=Sum[mnth[[4, j]],
    {j, 12*(i-1)+1, 12*i}],
  annresults[[i+2, 3]]=Sum[mnth[[5, j]],
    {j, 12*(i-1)+1, 12*i}],
  annresults[[i+2, 5]]=Sum[mnth[[6, j]],
    {j, 12*(i-1)+1, 12*i}],
  annresults[[i+2, 6]]=Sum[mnth[[8, j]],
    {j, 12*(i-1)+1, 12*i}],
  annresults[[i+2, 8]]=Sum[mnth[[10, j]],
    {j, 12*(i-1)+1, 12*i}]
  },
  {i, 1, planhorizon/12}
];
Do[If[Sum[mnth[[7, j]], {j, 12*(i-1)+1, 12*i}]==0.,
  annresults[[i+2, 4]]=0.,
  annresults[[i+2, 4]]="",
  annresults[[i+2, 4]]="W-NR"
  ],
  {i, 1, readydate-1}
];
Do[annresults[[i+2, 4]]=Sum[mnth[[7, j]]*acq[[1+Mod[j-1, 12]]]
  /(325.85*availfactor*totalacq),
  {j, 12*(i-1)+1, 12*i}],
  {i, readydate, planhorizon/12}
];
annresults[[3, 7]]=annresults[[3, 6]];
Do[annresults[[i+2, 7]]=annresults[[i+1, 7]]
  +annresults[[i+2, 6]],
  {i, 2, planhorizon/12}];
Do[annresults[[i+2, 9]]=mnth[[11, 12*i]],
  {i, 1, planhorizon/12}];
Do[annresults[[planhorizon/12+3, j]]=="*", {j, 1, 4}];
Do[annresults[[planhorizon/12+3, j]]=="*", {j, 7, 9}];
Do[annresults[[planhorizon/12+3, j]]=
  Sum[annresults[[i, j]], {i, 3, 2+planhorizon/12}],
  {j, 5, 6}];
TableForm[annresults]

```

Out[69]//TableForm=

	the	without	with	perc	undisc	disc	disc val	new
year	wanted	wanted	used	value	value	to date	revenue	
1991	5.44378 × 10 <sup>7</sup>	5.41663 × 10 <sup>7</sup>	W-NR	-2.05799 × 10 <sup>6</sup>	-2.0207 × 10 <sup>6</sup>	-2.0207 × 10 <sup>6</sup>	2.05799 × 10 <sup>6</sup>	
1992	5.38512 × 10 <sup>7</sup>	5.31312 × 10 <sup>7</sup>	W-NR	-5.89087 × 10 <sup>6</sup>	-5.56169 × 10 <sup>6</sup>	-7.58239 × 10 <sup>6</sup>	5.85174 × 10 <sup>6</sup>	
1993	5.36968 × 10 <sup>7</sup>	5.23095 × 10 <sup>7</sup>	W-NR	-1.20065 × 10 <sup>7</sup>	-1.08997 × 10 <sup>7</sup>	-1.84821 × 10 <sup>7</sup>	1.18526 × 10 <sup>7</sup>	
1994	5.38842 × 10 <sup>7</sup>	5.12596 × 10 <sup>7</sup>	0.	-2.39727 × 10 <sup>7</sup>	-2.09257 × 10 <sup>7</sup>	-3.94078 × 10 <sup>7</sup>	2.33962 × 10 <sup>7</sup>	
1995	5.41109 × 10 <sup>7</sup>	5.0743 × 10 <sup>7</sup>	0.	-3.19757 × 10 <sup>7</sup>	-2.68381 × 10 <sup>7</sup>	-6.62459 × 10 <sup>7</sup>	3.09997 × 10 <sup>7</sup>	
1996	5.43191 × 10 <sup>7</sup>	5.09386 × 10 <sup>7</sup>	0.	-3.27306 × 10 <sup>7</sup>	-2.64152 × 10 <sup>7</sup>	-9.26611 × 10 <sup>7</sup>	3.17425 × 10 <sup>7</sup>	

1997	$5.45282 \times 10^7$	$5.11349 \times 10^7$	0.	$-3.34963 \times 10^7$	$-2.59933 \times 10^7$	$-1.18654 \times 10^8$	$3.25032 \times 10^7$
1998	$5.47381 \times 10^7$	$5.1332 \times 10^7$	0.	$-3.42717 \times 10^7$	$-2.55722 \times 10^7$	$-1.44227 \times 10^8$	$3.32821 \times 10^7$
1999	$5.49489 \times 10^7$	$5.34346 \times 10^7$	2.71519	$-1.6619 \times 10^7$	$-1.20429 \times 10^7$	$-1.5627 \times 10^8$	$1.62236 \times 10^7$
2000	$5.51605 \times 10^7$	$5.51605 \times 10^7$	7.06885	152 309.	105 298.	$-1.56164 \times 10^8$	0.
2001	$5.53729 \times 10^7$	$5.53729 \times 10^7$	8.42712	212 666.	141 353.	$-1.56023 \times 10^8$	0.
2002	$5.55862 \times 10^7$	$5.55862 \times 10^7$	9.79083	285 338.	182 343.	$-1.55841 \times 10^8$	0.
2003	$5.58004 \times 10^7$	$5.58004 \times 10^7$	11.16	371 162.	228 048.	$-1.55612 \times 10^8$	0.
2004	$5.60154 \times 10^7$	$5.60154 \times 10^7$	12.5346	471 020.	278 254.	$-1.55334 \times 10^8$	0.
2005	$5.62312 \times 10^7$	$5.62312 \times 10^7$	13.9147	585 836.	332 753.	$-1.55001 \times 10^8$	0.
2006	$5.6448 \times 10^7$	$5.6448 \times 10^7$	15.3004	716 580.	391 344.	$-1.5461 \times 10^8$	0.
2007	$5.66656 \times 10^7$	$5.66656 \times 10^7$	16.6916	864 270.	453 832.	$-1.54156 \times 10^8$	0.
2008	$5.6884 \times 10^7$	$5.6884 \times 10^7$	18.0883	$1.02997 \times 10^6$	520 027.	$-1.53636 \times 10^8$	0.
2009	$5.71034 \times 10^7$	$5.71034 \times 10^7$	19.4906	$1.21481 \times 10^6$	589 746.	$-1.53047 \times 10^8$	0.
2010	$5.73236 \times 10^7$	$5.73236 \times 10^7$	20.8986	$1.41996 \times 10^6$	662 809.	$-1.52384 \times 10^8$	0.
2011	$5.75447 \times 10^7$	$5.75447 \times 10^7$	22.3122	$1.64664 \times 10^6$	739 044.	$-1.51645 \times 10^8$	0.
2012	$5.77666 \times 10^7$	$5.77666 \times 10^7$	23.7314	$1.89615 \times 10^6$	818 284.	$-1.50826 \times 10^8$	0.
2013	$5.79895 \times 10^7$	$5.79895 \times 10^7$	25.1563	$2.16983 \times 10^6$	900 366.	$-1.49926 \times 10^8$	0.
2014	$5.82133 \times 10^7$	$5.82133 \times 10^7$	26.5869	$2.46911 \times 10^6$	985 133.	$-1.48941 \times 10^8$	0.
2015	$5.84379 \times 10^7$	$5.84379 \times 10^7$	28.0233	$2.79546 \times 10^6$	$1.07243 \times 10^6$	$-1.47868 \times 10^8$	0.
2016	$5.86635 \times 10^7$	$5.86635 \times 10^7$	29.4654	$3.15043 \times 10^6$	$1.16211 \times 10^6$	$-1.46706 \times 10^8$	0.
2017	$5.88899 \times 10^7$	$5.88899 \times 10^7$	30.9132	$3.53565 \times 10^6$	$1.25404 \times 10^6$	$-1.45452 \times 10^8$	0.
2018	$5.91173 \times 10^7$	$5.91173 \times 10^7$	32.3669	$3.95281 \times 10^6$	$1.34807 \times 10^6$	$-1.44104 \times 10^8$	0.
2019	$5.93456 \times 10^7$	$5.93456 \times 10^7$	33.8264	$4.40368 \times 10^6$	$1.44406 \times 10^6$	$-1.4266 \times 10^8$	0.
2020	$5.95748 \times 10^7$	$5.95748 \times 10^7$	35.2917	$4.89014 \times 10^6$	$1.5419 \times 10^6$	$-1.41118 \times 10^8$	0.
2021	$5.98049 \times 10^7$	$5.98049 \times 10^7$	36.7629	$5.41411 \times 10^6$	$1.64144 \times 10^6$	$-1.39477 \times 10^8$	0.
2022	$6.00359 \times 10^7$	$6.00359 \times 10^7$	38.2401	$5.97764 \times 10^6$	$1.74258 \times 10^6$	$-1.37734 \times 10^8$	0.
2023	$6.02679 \times 10^7$	$6.02679 \times 10^7$	39.7231	$6.58284 \times 10^6$	$1.8452 \times 10^6$	$-1.35889 \times 10^8$	0.
2024	$6.05008 \times 10^7$	$6.05008 \times 10^7$	41.2121	$7.23194 \times 10^6$	$1.94917 \times 10^6$	$-1.3394 \times 10^8$	0.
2025	$6.07346 \times 10^7$	$6.07346 \times 10^7$	42.707	$7.92725 \times 10^6$	$2.05439 \times 10^6$	$-1.31885 \times 10^8$	0.
2026	$6.09693 \times 10^7$	$6.09693 \times 10^7$	44.2079	$8.67121 \times 10^6$	$2.16076 \times 10^6$	$-1.29725 \times 10^8$	0.
2027	$6.1205 \times 10^7$	$6.1205 \times 10^7$	45.7149	$9.46633 \times 10^6$	$2.26816 \times 10^6$	$-1.27457 \times 10^8$	0.
2028	$6.14417 \times 10^7$	$6.14417 \times 10^7$	47.2279	$1.03153 \times 10^7$	$2.37651 \times 10^6$	$-1.2508 \times 10^8$	0.
2029	$6.16793 \times 10^7$	$6.16793 \times 10^7$	48.747	$1.12208 \times 10^7$	$2.4857 \times 10^6$	$-1.22594 \times 10^8$	0.
2030	$6.19178 \times 10^7$	$6.19178 \times 10^7$	50.2721	$1.21858 \times 10^7$	$2.59565 \times 10^6$	$-1.19999 \times 10^8$	0.
2031	$6.21573 \times 10^7$	$6.21573 \times 10^7$	51.8034	$1.32133 \times 10^7$	$2.70626 \times 10^6$	$-1.17292 \times 10^8$	0.
2032	$6.23978 \times 10^7$	$6.23978 \times 10^7$	53.3409	$1.43064 \times 10^7$	$2.81744 \times 10^6$	$-1.14475 \times 10^8$	0.
2033	$6.26392 \times 10^7$	$6.26392 \times 10^7$	54.8845	$1.54684 \times 10^7$	$2.92912 \times 10^6$	$-1.11546 \times 10^8$	0.
2034	$6.28816 \times 10^7$	$6.28816 \times 10^7$	56.4343	$1.67028 \times 10^7$	$3.04122 \times 10^6$	$-1.08505 \times 10^8$	0.

2035	$6.3125 \times 10^7$	$6.3125 \times 10^7$	57.9903	$1.8013 \times 10^7$	$3.15364 \times 10^6$	$-1.05351 \times 10^8$	0.
2036	$6.33694 \times 10^7$	$6.33694 \times 10^7$	59.5525	$1.94029 \times 10^7$	$3.26633 \times 10^6$	$-1.02085 \times 10^8$	0.
2037	$6.36147 \times 10^7$	$6.36147 \times 10^7$	61.1211	$2.08764 \times 10^7$	$3.37921 \times 10^6$	$-9.87055 \times 10^7$	0.
2038	$6.3861 \times 10^7$	$6.3861 \times 10^7$	62.6959	$2.24374 \times 10^7$	$3.49221 \times 10^6$	$-9.52133 \times 10^7$	0.
2039	$6.41083 \times 10^7$	$6.41083 \times 10^7$	64.2771	$2.40903 \times 10^7$	$3.60526 \times 10^6$	$-9.1608 \times 10^7$	0.
2040	$6.43566 \times 10^7$	$6.43566 \times 10^7$	65.8646	$2.58394 \times 10^7$	$3.71829 \times 10^6$	$-8.78897 \times 10^7$	0.
*	*	*	*	$1.20556 \times 10^8$	$-8.78897 \times 10^7$	*	*

### ■ Net Present Value

This project's NPV is given by the final entry in the annual summary table plus the present value of any excess revenue obtained from consumers. The current value of the latter term can be found in the "Unpaid Costs" column of the monthly results. As soon as unpaid costs become negative (meaning that reservoir-related collections have overshoot construction expenses), they do not accumulate further. Using the appropriate discount rate applied to this excess revenue for the month in which it is originally collected, it's present value can be obtained. In the baseline Applewhite case, the correct calculation for NPV is as follows.

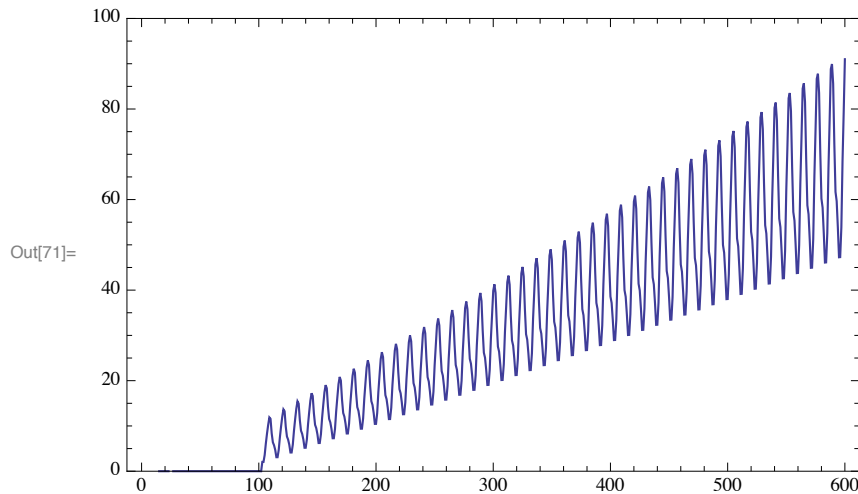
In[70]:=  $-8.78897 \times 10^7 + 2.04045 \times 10^6 / (1.04^{(102 / 12)})$

Out[70]:=  $-8.64277 \times 10^7$

## Plotting

### Percent of Reservoir Used

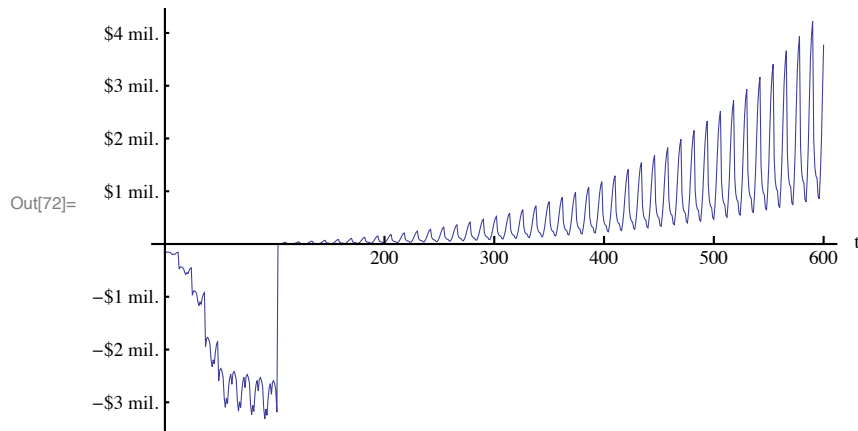
In[71]:= `p1=ListPlot[mnth[[7]],PlotRange->{0,100},  
Joined->True,  
Frame->True]`





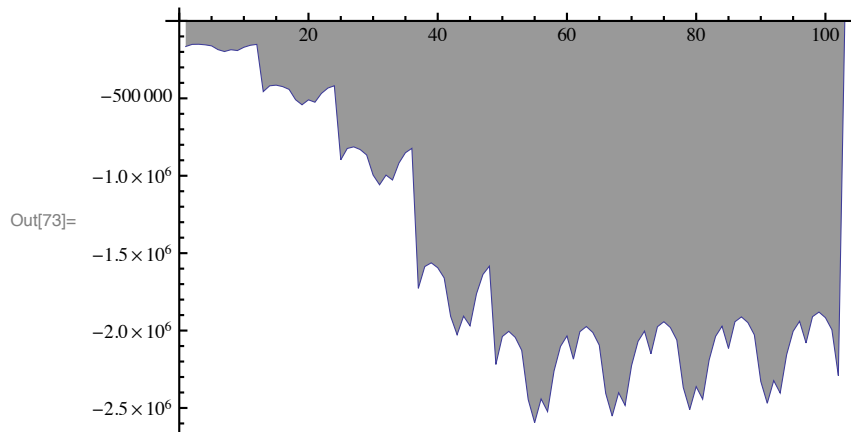
## Current (Undiscounted) Value

```
In[72]:= p1=ListPlot[mnth[[6]],PlotStyle->{thinn},
  Ticks->{{200,300,400,500,600},
  {{-3*10^6,"-$3 mil.",{0.00625,0.},{black,think}},
  {-2*10^6,"-$2 mil.",{0.00625,0.},{black,think}},
  {-1*10^6,"-$1 mil.",{0.00625,0.},{black,think}},
  {1*10^6,"$1 mil.",{0.00625,0.},{black,think}},
  {2*10^6,"$2 mil.",{0.00625,0.},{black,think}},
  {3*10^6,"$3 mil.",{0.00625,0.},{black,think}},
  {4*10^6,"$4 mil.",{0.00625,0.},{black,think}}}},
  PlotRange->All,AxesLabel->{"t",""},
  Joined->True]
```

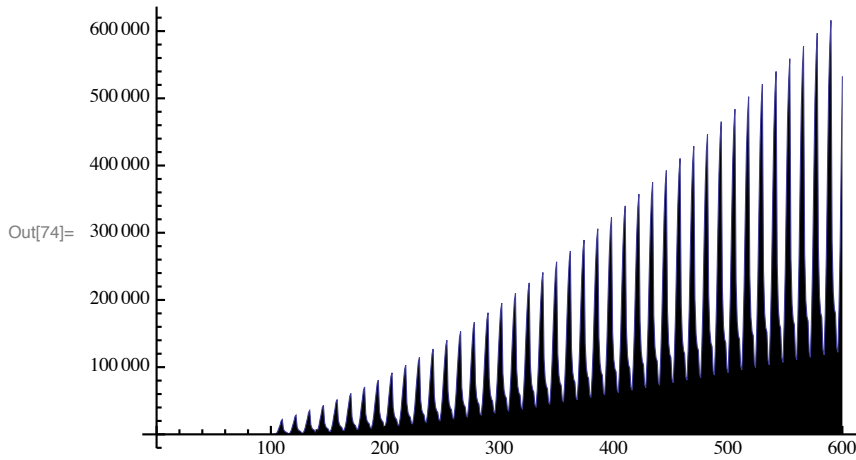


## Present (discounted) Value

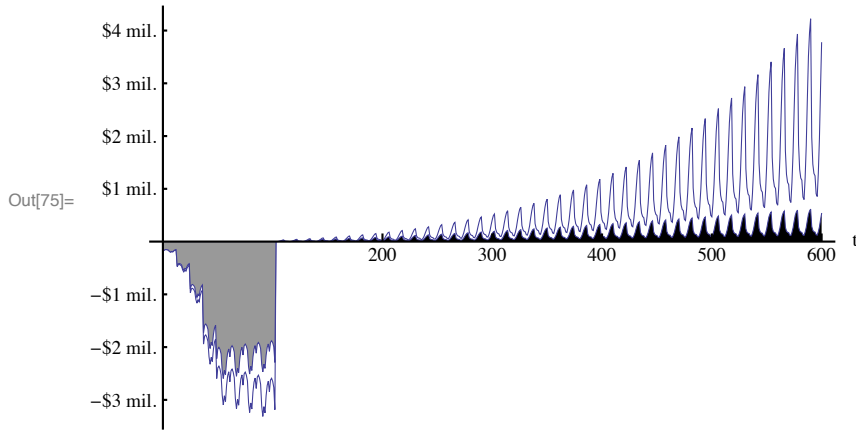
```
In[73]:= fp1=ListPlot[Take[mnth[[8]], 103],PlotStyle->{thinn},PlotRange->All,Joined->True,Filling->Axis]
```



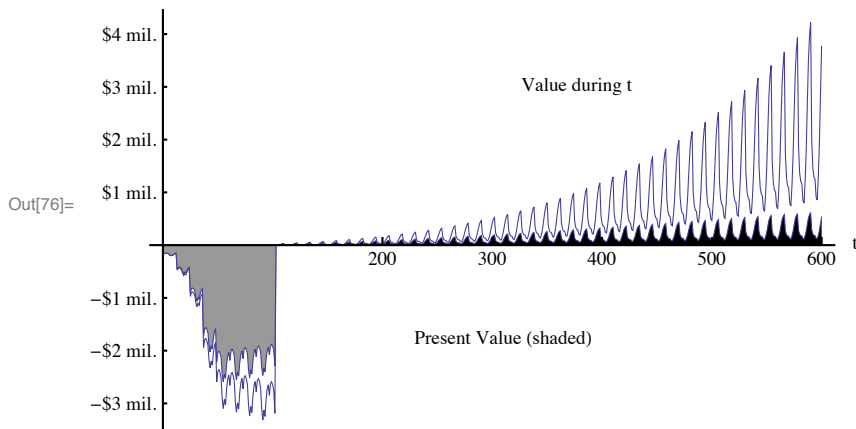
```
In[74]:= fp2 = ListPlot[Join[Table[0, {102}], Take[mnth[[8]], {103, 600}]], PlotStyle -> {thinn},
    PlotRange -> All, Joined -> True, Filling -> Axis, FillingStyle -> Black]
```



```
In[75]:= Show[p1, fp1, fp2]
```

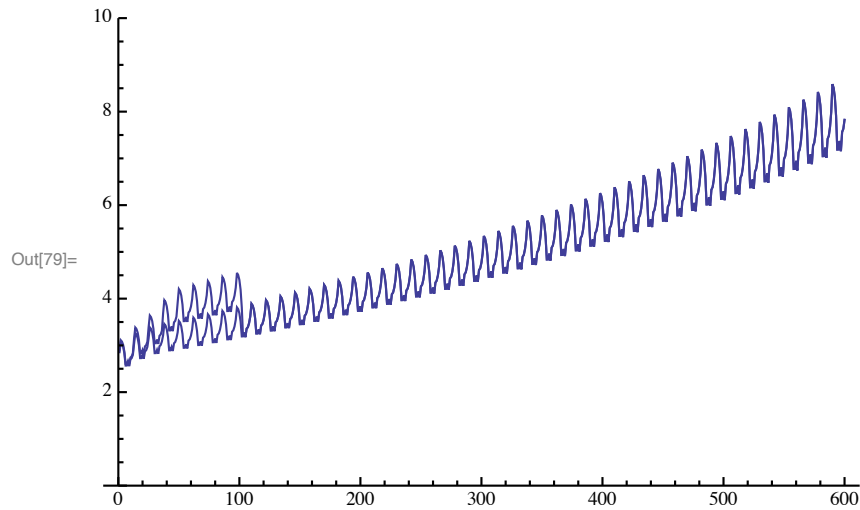


```
In[76]:= p165 = Show[p1, fp1, fp2,
    Graphics[Text["Value during t", {377., 300 * 10^4}]],
    Graphics[Text["Present Value (shaded)", {310., -180 * 10^4}]]
]
```



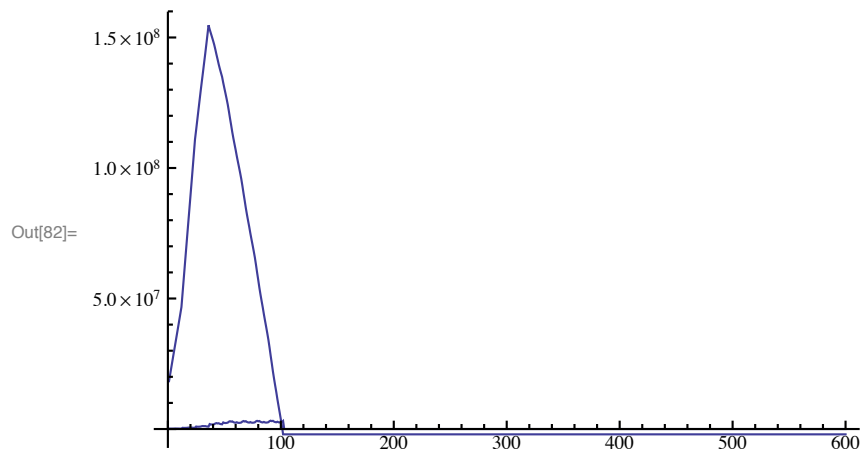
## With and Without Prices

```
In[77]:= pp1=ListPlot[mnth[[2]],PlotRange->{0,10},Joined->True];  
pp2=ListPlot[mnth[[3]],PlotRange->{0,10},Joined->True];  
Show[pp1,pp2]
```



## Added Revenue and Unpaid Costs

```
In[80]:= pp1=ListPlot[mnth[[10]],PlotRange->All,Joined->True];  
pp2=ListPlot[mnth[[11]],PlotRange->All,Joined->True];  
Show[pp1,pp2]
```



## Demand and Surplus Illustration

```

In[83]:= Plot[{{{(10^6)*q/kt[[1]]}^(1/elastic[[1]]),
  {(10^6)*q/kt[[589]]}^(1/elastic[[1]])},
  {q,1.,8.},
  PlotRange->{0.,10},
  PlotLabel->"January Year 1 vs. Year 50",
  AxesLabel->{"mil gal", "$"},
  GridLines->{{wosupply[[1]]/10^6,wsupply[[1]]/10^6,
    {mnth[[2,1]],mnth[[3,1]],mnth[[2,589]]}}]

```

January Year 1 vs. Year 50

