

VALORES MÁXIMOS MENSUALES DE CAUDALES (m³/s)

ESTACIÓN : 2120714 PTE CUNDINAMARCA

Latitud	0442 N X=N=1011950	Departamento	BOGOTA	Corriente	R. BOGOTÁ	Categoría	LM
Longitud	7410 W Y=E=989670	Municipio	SANTAFE DE BOGOT	Cuenca	R. BOGOTÁ	Fecha Instalación	2/01/1956
Elevación	2540 m.s.n.m	Oficina Provincial	10 SABANA OCCIDENTE			Fecha Suspensión	

AÑO	ENERO	FEBRE	MARZO	ABRIL	MAYO	JUNIO	JULIO	AGOST	SEPTI	OCTUB	NOVIE	DICIE
1969	23,46	18,5	18,95	31,25	28,16	18,91	16,18	13,05	17,51	36,42	35,68	20,5
1970	22,43	22,85	18,16	18,03	25,27	19,81	17,51	18,89	21,14	54,74	58,45	26,8
1971	18,86	22,6	29,85	53,24	56	54,26	29,27	31,17	31,54	36,42	35,8	30,05
1972	39,7	22,44	21,96	56,17	62,27	51,93	46,54	31,49	22,76	24,86	31,67	17,83
1973	17,98	17,2	22,12	24,15	25,2	18,63	17,83	44,99	38,77	23,61	43,12	42,68
1974	15,29	26	25,51	30,47	35,94	18,22	16,82	16,05	23,68	29,36	35,74	30,59
1975	18,22	18,54	21,53	25,6	37,06	24,54	19,67	22,41	25,25	30,76	34,94	36,48
1976	21,56	22,1	23,98	45,32	29,2	29,39	37,21	26,56	37,39	44,51	47,71	26,89
1977	21,19	20,48	26,58	27,81	27,62	19,47	12,88	11,07	20,48	19,9	29,38	11,71
1978	12,77	10,55	15,53	25,1	14,9	18,65	17,72	14,39	15,9	14,9	15,41	25,52
1979	20,88	19,16	18,87	38,14	42,73	45,52	23,04	26,4	25,52	56,78	59,78	53,44
1991	26,07	19,83	37,92	30,72	35,39	18,16	24,65	35,39	27,64	23,08	55,09	38,17
2003	16,222	14,769	39,275	36,83								
2007	18,32	22,854	41,177	53,987	33,378	46,567	36,83	28,627	17,955	81,226	86,556	71,268
2008	26,873	33,246	46,849	50,368	80,62	44,583	48,892	36,292	33,018	49,187	56,638	51,597
2009	24,947	36,053	36,769	42,136	31,454	22,224	20,21	34,157	16,549	42,952	27,465	20,531
2010	14,496	12,993	10,719	60,996	49,777	43,495	63,066	55,039	27,07	43,767	82,686	103,6
2011	32,79	34,385	66,995	97,841	104,09	86,961	36,53	37,765	28,274	63,412	95,495	105,55
2012	31,447	29,723	42,941	91,382	62,715	31,447	33,007	51,89	25,886	48,584	29,513	33,463
2013	15,701		35,563	42,941	25,505	42,941	21,366	31,227	18,927	28,474	41,075	50,069
2014	21,032	16,4	24,935	15,156	22,224	22,576	19,718	11,365	10,82	17,858	25,505	22,4
2015	26,798	29,655	32,549	34,64	20,999	43,629	42,542	38,238	32,134	15,938	31,926	17,675
2016	15,171	17,288	29,244	48,029	37,812	32,966	32,549	30,891	29,244	31,926	60,524	36,75
2017	25,787	29,86	57,288	40,38	69,975	55,456	33,383	42,759	23,579	32,966	32,966	36,75
2018	30,891	19,233	32,549	64,032	59,827							

A1	2715427589	2715,42759
A2	2924651634	2924,65163
Factor	1,03781026	

36,42	37,7970495	109,539835
58,45	60,6600095	107,516105
56	58,1173744	94,8371769
62,27	64,6244447	89,8287046
44,99	46,6910834	83,6682629
35,94	37,2989006	72,6207727
37,06	38,4612481	64,6244447
47,71	49,5139273	62,812428
29,38	30,4908653	62,0402971
25,52	26,4849177	60,6600095
59,78	62,0402971	58,1173744
55,09	57,172967	57,172967
39,275	40,7599978	51,9621217
86,556	89,8287046	49,5139273
80,62	83,6682629	46,6910834
42,952	44,5760261	45,2786237
103,599	107,516105	44,5760261
105,549	109,539835	38,4612481
91,382	94,8371769	37,7970495
50,069	51,9621217	37,2989006
25,505	26,4693506	30,4908653
43,629	45,2786237	26,4849177
60,524	62,812428	26,4693506
69,975	72,6207727	
64,032	66,4530663	

# C A R - CORPORACIÓN AUTÓNOMA REGIONAL DE CUNDINAMARCA

SICLICA - Sistema de Información Climatológica e Hidrológica

## VALORES MEDIOS MENSUALES DE CAUDALES (m³/s)

ESTACIÓN : 2120714 PTE CUNDINAMARCA

Latitud	0442 N X=N=1011950	Departamento	BOGOTA	Corriente	R. BOGOTÁ	Categoría	LM
Longitud	7410 W Y=E=989670	Municipio	SANTAFE DE BOGOT	Cuenca	R. BOGOTÁ	Fecha Instalación	2/01/1956
Elevación	2540 m.s.n.m	Oficina Provincial	10 SABANA OCCIDENTE			Fecha Suspensión	

AÑO	ENERO	FEBRE	MARZO	ABRIL	MAYO	JUNIO	JULIO	AGOST	SEPTI	OCTUB	NOVIE	DICIE
1956	30,300	17,700	18,600	20,600	15,500	29,700	34,000	26,700	22,800	42,300	46,900	29,900
1957	20,700	9,400	16,700	20,700	42,300	38,900	29,400	20,200	18,000	19,900	22,700	16,900
1958	10,200	9,600	9,400	9,300	10,800	10,300	15,700	15,700	10,200	10,200	17,700	8,300
1959	7,400	7,100	7,100	8,200	16,100	14,200	32,400	11,600	19,500	18,200	25,000	9,000
1960	9,200	12,600	9,100	16,500	10,400	12,000	17,600	20,900	12,400	9,000	12,000	16,000
1961	7,550	9,390	11,730	12,740	7,330	11,420	22,320	20,210	7,270	18,400	31,960	6,090
1962	9,620	10,450	13,060	9,340	21,270	28,050	25,380	20,600	11,140	14,490	33,520	9,820
1963	13,060	13,550	8,260	15,020	37,290	19,550	12,040	15,570	6,450	6,700	24,680	9,360
1964	8,800	9,450	9,150	11,360	12,650	24,420	18,490	9,300	7,950	10,280	11,570	10,880
1965	10,600	12,200	10,600	17,400	24,800	9,800	11,100	15,600	17,000	19,600	29,300	14,700
1966	11,300	14,900	15,700	12,600	12,200	10,200	8,900	10,700	10,700	16,900	21,400	43,700
1967	10,600	10,100	11,800	13,500	18,100	23,300	15,200	19,500	8,200	6,200	16,900	8,500
1968	6,370	8,100	6,440	13,740	14,160	29,040	22,230	22,010	12,820	19,990	25,830	10,630
1969	10,99	9,338	7,939	19,72	18,69	12,72	12,07	9,623	7,412	31,62	26,94	13,67
1970	12,81	15,97	13,49	12,88	13,85	14,65	13,03	10,56	12,47	35,27	41,97	14,48
1971	14,65	16,4	20,71	35,99	36,32	33,51	25,67	22,86	24,43	16,34	22,47	15,58
1972	19,34	12,61	14,85	26,1	47,82	37,07	40,97	27,37	19,74	18,61	22,85	12,09
1973	14,9	15,33	17,3	17,68	15,99	14,37	11,77	11,3	22,27	17,03	22,17	27,77
1974	10,99	16,77	13,84	14,83	19,72	10,08	11,77	12,94	15,03	15,6	27,79	14,65
1975	15,1	11,95	9,236	10,77	17,89	13,39	11,57	13,59	13,9	15,86	24,11	24,73
1976	10,29	13,65	14,36	24,69	23,8	20,86	29,51	20,42	24	30,99	29,47	23,54
1977	17,7	16,2	15	16,88	14,68	9,836	9,546	6,925	9,443	11,26	19,05	6,603
1978	5,801	5,248	6,049	13,73	9,597	13,53	9,035	7,692	7,411	9,686	8,388	9,352
1979	8,097	12,16	12,08	18,61	24,58	28,96	13,73	11,49	17,6	26,02	56,56	33,04
1980	13,500	13,430	9,810	13,460	13,190	22,630	12,850	12,750	14,900	19,940	17,820	14,030
1981	9,760	10,000	9,840	17,150	37,280	16,350	9,010	8,830	12,980	14,310	16,580	9,660
1982	16,150	14,670	13,710	39,780	42,120	17,710	15,240	12,400	10,770	18,300	15,860	15,650
1983	12,870	16,600	19,870	30,800	17,610	11,480	17,650	11,970	16,390	18,210	14,960	14,100
1984	9,490	8,480	6,400	6,790	8,720	10,600	7,440	9,020	10,350	8,050	12,880	7,140
1985	5,190	4,710	4,800	5,640	9,590	14,570	13,630	10,510	11,230	12,870	18,500	11,370
1986	10,080	13,930	17,060	10,630	15,500	23,270	20,050	19,000	21,460	37,830	31,360	14,750
1987	14,450	15,940	18,340	25,670	24,530	15,200	18,430	13,800	11,370	18,880	17,430	22,150
1988	12,450	13,770	12,320	13,520	9,060	11,540	11,880	8,500	10,970	18,900	30,260	19,900
1989	9,010	9,170	16,690	10,400	15,380	14,950	13,770	10,400	14,980	16,360	15,140	13,480
1990	12,490	15,520	14,170	17,670	31,450	16,920	13,320	15,400	15,600	23,020	20,900	20,000
1991	16,36	15,51	19,69	18,8	18,58	13,69	19,94	23,42	17,57	14,92	29,11	22,72
1992	16,550	20,600	24,660	22,790	13,880	8,140	13,750	13,040	10,650	8,180	16,030	16,590
1993	9,470	9,730	15,610	13,520	25,530	16,790	17,730	13,040	12,400	10,970	20,570	15,870
1994	12,570	14,810	16,420	20,790	26,730	22,620	27,330	22,060	17,930	27,960	29,020	14,650
1995	9,300	9,710	20,270	23,300	23,260	25,240	17,980	22,430	16,130	17,600	18,180	20,130
1996	11,400	13,800	23,020	16,460	16,400	13,740	21,020	13,380	11,640	18,750	13,730	14,210
1997	19,170	10,920	8,790	10,090	8,870	9,640	17,550	9,200	9,890	8,810	11,370	7,880
1998	6,980	9,390	10,170	13,410	23,982	18,347	23,511	14,505	13,735	16,901	17,292	21,720
1999	13,538	15,461	19,931	17,347	14,206	13,278	10,649	13,021	20,641	32,905	35,226	20,095
2000	11,948	19,306	22,328	15,945	16,652	16,608	17,992	15,344	22,491	19,688	22,443	9,972
2001	8,064	8,382	11,959	10,721	10,687	11,492	11,287	16,553	16,514	9,293	12,347	13,456
2002	8,246	10,563	14,394	23,569	21,116	47,573	27,128	24,065	14,680	14,022	16,236	13,042
2003	7,861	23,676	12,946	18,465	13,171	11,674	15,517	15,181	15,014	20,103	23,989	21,418
2004	10,984	12,033	16,079	23,838	24,938	29,020	18,530	23,142	21,330	30,199	37,593	17,840
2005	11,551	17,457	13,561	19,937	38,470	20,986	17,205	18,054	18,359	36,178	37,580	23,000
2007	15,823	16,966	21,578	27,894	20,602	22,678	16,722	16,15	13,283	40,393	34,864	31,32
2008	11,698	15,41	18,926	18,512	32,809	29,201	29,468	23,963	21,781	23,976	40,577	30,791
2009	16,11	18,413	22,167	23,077	17,265	14,681	14,977	13,878	11,55	20,904	16,889	13,021

2010	10,577	9,851	8,526	25,403	28,133	27,472	42,582	22,835	17,635	26,859	52,278	47,418
2011	18,942	21,971	41,968	63,197	90,541	58,938	28,466	25,193	19,975	38,402	63,911	64,727
2012	22,594	20,39	22,612	56,466	36,546	19,697	21,899	32,737	18,637	29,393	19,014	17,613
2013	13,547		18,814	20,648	14,27	20,439	16,957	17,661	14,526	14,69	24,652	22,798
2014	12,468	11,209	14,012	9,398	11,667	12,853	12,111	8,489	7,454	8,804	13,529	11,492
2015	17,696	17,136	19,874	19,749	16,519	24,158	24,53	24,994	17,454	12,368	18,908	14,022
2016	12,136	13,353	19,293	26,859	27,204	21,739	21,966	19,647	21,012	23,149	38,558	25,43
2017	18,893	16,476	33,919	26,987	38,615	33,231	25,47	25,335	18,449	21,833	21,601	23,093
2018	20,681	15,273	20,765	41,335	39,905	32,753						

A1	2715427589
A2	2924651634
Factor	1,07705013

27,917	30,0676494	48,1289723
22,983	24,7542021	30,0676494
11,450	12,3322224	28,6826527
14,650	15,7787844	28,5057472
13,142	14,1542338	27,276474
13,868	14,9359927	26,8741958
17,228	18,5557786	26,6670432
15,128	16,2930758	25,5736578
12,025	12,9515278	24,9761642
16,058	17,29563	24,7542021
15,767	16,9814904	24,443392
13,492	14,5312013	24,2646828
15,947	17,1753594	23,8369144
15,061	16,221452	23,8321859
17,619	18,9767257	23,5987966
23,744	25,5736578	22,6979339
24,952	26,8741958	21,0850514
17,323	18,6580984	21,0592365
15,334	16,5156662	20,8552807
15,175	16,3438767	20,6712846
22,132	23,8369144	20,410818
12,760	13,7434289	20,3111908
8,793	9,47077104	20,0627513
21,911	23,5987966	19,4850118
14,859	16,0040674	19,4281892
14,313	15,41528	19,4039556
19,363	20,8552807	18,9767257
16,876	18,1761185	18,9128565
8,780	9,45650013	18,6580984
10,218	11,0047597	18,5557786
19,577	21,0850514	18,2139947
18,016	19,4039556	18,1761185
14,423	15,5337555	17,8623444
13,311	14,3364348	17,29563
18,038	19,4281892	17,1753594
19,193	20,6712846	17,0482569
15,405	16,5919572	16,9814904
15,103	16,2661496	16,833396
21,074	22,6979339	16,5919572
18,628	20,0627513	16,5156662
15,629	16,833396	16,3438767
11,015	11,8637072	16,2930758
15,829	17,0482569	16,2661496
18,858	20,3111908	16,221452
17,560	18,9128565	16,0040674
11,730	12,6334796	15,7787844
19,553	21,0592365	15,5337555
16,585	17,8623444	15,41528
22,127	23,8321859	14,9359927
22,695	24,443392	14,5312013
23,189	24,9761642	14,3364348
24,759	26,6670432	14,1542338
16,911	18,2139947	13,7434289

26,631	28,6826527	12,9515278
44,686	48,1289723	12,6334796
26,467	28,5057472	12,332224
18,091	19,4850118	11,9809261
11,124	11,9809261	11,8637072
18,951	20,410818	11,0047597
22,529	24,2646828	9,47077104
25,325	27,276474	9,45650013

# C A R - CORPORACIÓN AUTÓNOMA REGIONAL DE CUNDINAMARCA

SICLICA - Sistema de Información Climatológica e Hidrológica

## VALORES MÍNIMOS MENSUALES DE CAUDALES (m³/s)

ESTACIÓN : 2120714 PTE CUNDINAMARCA

Latitud	0442 N X=N=1011950	Departamento	BOGOTA	Corriente	R. BOGOTÁ	Categoría	LM
Longitud	7410 W Y=E=989670	Municipio	SANTAFE DE BOGOT	Cuenca	R. BOGOTÁ	Fecha Instalación	2/01/1956
Elevación	2540 m.s.n.m	Oficina Provincial	10 SABANA OCCIDENTE			Fecha Suspensión	

AÑO	ENERO	FEBRE	MARZO	ABRIL	MAYO	JUNIO	JULIO	AGOST	SEPTI	OCTUB	NOVIE	DICIE
1957	8,180	7,700	9,560	8,640	22,500	24,620	23,420	9,200	13,780	7,310	7,180	9,380
1958	8,340	8,800	7,940	8,030	7,850	8,030	8,800	9,630	4,120	4,580	6,910	4,130
1959	5,080	4,780	3,600	5,590	6,580	6,910	15,460	5,700	10,680	4,780	8,620	4,780
1960	7,240	9,340	6,470	7,460	6,250	5,920	9,840	11,100	6,580	4,080	2,680	4,680
1961	6,370	6,250	7,590	6,850	3,780	5,280	13,540	11,260	4,280	3,880	16,000	3,800
1962	5,000	6,600	6,800	6,500	10,730	16,560	20,020	11,890	7,880	7,640	18,920	6,800
1963	5,780	1,660	5,330	7,300	9,130	13,750	6,690	6,690	3,250	2,090	7,600	5,180
1964	6,100	6,100	8,760	8,760	9,740	12,400	9,460	4,980	4,840	9,180	10,020	6,660
1965	8,330	8,690	8,210	8,330	10,970	7,610	6,290	9,650	15,740	12,430	11,810	7,250
1966	7,740	10,650	13,630	8,940	7,860	5,380	5,950	7,740	8,700	10,400	7,740	12,260
1967	7,860	5,720	7,980	5,950	10,160	12,510	9,300	12,640	3,990	2,120	11,890	3,750
1968	4,700	5,660	4,990	4,990	10,340	10,740	13,950	7,950	7,840	9,680	5,570	6,120
1969	4,7	5,34	5,48	7,15	11,75	8,01	6,84	7,09	4,25	23,61	17,2	6,25
1970	5,22	11,63	10,55	9,47	8,84	11,95	8,88	5,84	6,49	15,69	22,14	8,56
1971	10,04	12,53	15,33	19,93	17,27	22,62	22,27	19,45	12,83	9,99	14,13	7,76
1972	6,2	9,1	6,9	10,29	32,9	26,6	31,03	20,77	16,93	14,94	14,81	10,38
1973	12,87	14,17	14,17	14,75	12,83	11,08	7,95	6,18	12,85	9,21	7,56	11,57
1974	6,06	9,67	7,95	8,55	7,61	5,71	7,19	9,01	10,26	8,9	20,95	8,99
1975	10,45	8,13	4,01	4,31	8,12	7,64	7,22	8,87	7,19	6,94	12,12	11,2
1976	5,71	7,14	8,5	7,68	17,96	13,59	22,66	10,62	19,5	17,34	11,89	20,86
1977	14,54	12,49	11,45	11,75	6,4	6,12	6,56	4,82	6	6,67	6,91	4,66
1978	3,91	4,08	3,78	7,49	5,93	9,32	4,82	5,1	3,55	6,1	6,17	5,22
1979	5,63	9,95	7,91	8,13	10,56	13,88	8,2	6,83	10,64	8,78	54,03	20,95
1980	7,780	6,990	5,940	6,460	7,550	12,830	6,770	6,350	7,440	9,800	10,490	6,670
1981	5,540	7,780	6,460	5,260	14,870	7,110	6,770	4,690	7,670	7,670	8,620	6,040
1982	7,990	9,720	7,880	13,620	21,530	11,140	11,960	7,450	7,560	8,660	9,350	0,860
1983	9,970	12,650	11,960	8,320	10,350	8,430	9,600	7,340	10,350	11,820	10,600	7,560
1984	6,540	5,960	4,740	4,910	5,690	6,340	5,690	5,690	5,690	5,810	6,540	5,240
1985	4,500	3,980	4,270	4,270	5,420	11,410	12,230	8,430	6,730	6,540	8,890	5,690
1986	8,550	9,120	6,640	6,540	7,990	14,590	9,350	14,590	18,090	21,920	14,310	12,090
1987	12,790	12,930	14,450	18,630	14,470	11,960	9,470	8,660	8,100	10,600	7,230	15,930
1988	7,990	10,350	9,850	6,240	6,440	7,990	7,770	6,150	5,780	7,990	16,440	9,850
1989	4,420	6,640	6,540	6,440	8,210	9,350	7,990	7,560	9,600	11,960	9,350	8,210
1990	8,270	10,540	10,340	9,530	14,700	10,310	10,750	10,180	11,020	14,090	10,690	11,250
1991	12,29	12,38	6,76	9,51	10,73	9,8	17,04	14,82	10,08	11,14	13,54	13,51
1992	11,650	17,000	19,070	17,040	8,890	5,850	5,340	8,040	6,260	5,050	5,120	5,630
1993	4,630	4,770	6,460	7,740	14,270	9,280	12,200	8,720	6,840	5,880	11,740	8,520
1994	6,530	7,000	10,720	9,910	18,370	14,820	17,310	17,550	11,110	13,990	13,750	9,340
1995	6,950	6,860	12,190	12,350	17,660	17,960	13,860	14,850	12,660	11,860	11,200	9,280
1996	6,890	9,340	11,860	11,110	10,170	10,060	14,210	10,300	8,270		7,790	
1997	3,380	7,680	6,430	7,480	6,970	7,000	10,750	7,000	6,750	6,430	5,730	5,960
1998	5,688	5,688	7,740	8,969	9,971	12,135	16,680	7,477	9,971	8,903	10,007	4,085
1999	9,477	8,620	11,370	10,940	8,580	8,820	8,420	8,940	11,490	18,710	22,640	10,060
2000	8,609	9,720	12,010	10,870	10,650	13,560	12,690	11,520	13,700	9,270	10,450	7,310
2001	6,470	6,700	7,110	6,700	7,030	8,550	8,670	9,430	8,340	5,570	6,110	9,430
2002	5,759	6,200	6,848	9,668	10,580	28,214	17,777	17,898	9,584	8,909	10,455	8,693
2003	5,496	7,061	6,696	8,775								
2004	8,374	7,360	12,090	12,692	17,897	20,339	14,767	16,113	16,225	13,999	24,456	12,182
2005	9,021	12,463	10,415	13,505	20,598	14,613	11,019	13,360	13,849	21,956	20,794	14,201
2007	14,612	13,565	11,081	16,057	14,979	6,981	7,453	6,531	6,531	9,867	6,762	6,762
2008	9,003	9,003	14,623	6,102	13,152	21,838	23,294	16,215	17,266	14,584	21,49	15,39
2009	11,782	13,564	15,48	13,574	11,669	10,824	11,712	10,718	8,032	10,438	11,819	10,369
2010	9,133	7,834	7,03	8,974	13,441	18,269	20,049	14,327	12,953	13,606	19,729	19,942
2011	12,754	12,594	23,413	17,766	75,109	34,543	24,759	18,828	15,795	14,767	31,672	24,946
2012	16,07	16,164	13,894	15,985	21,88	15,158	14,236	23,416	13,56	13,441	13,937	10,27
2013	12,196		12,351	12,273	10,68	12,273	14,239	13,477	11,366	10,469	12,949	11,984

2014	9,197	8,852	7,545	6,46	7,35	7,028	7,743	6,354	6,23	4,7	6,684	5,726
2015	14,534	12,26	13,648	12,832	12,509	10,475	16,579	19,103	11,569	7,462	13,709	11,819
2016	9,763	10,822	14,917	18,387	20,736	18,453	17,546	15,651	15,171	17,804	23,979	18,258
2017	15,22	12,506	21,965	20,498	19,055	20,221	20,637	18,299	13,14	16,954	16,954	11,492
2018	11,43	14,498	14,498	21,614	25,236	28,072						



A1	2715427589
A2	2924651634
Factor	1,07705013

7,180	7,73321992	0,92626311
4,120	4,43744653	1,78790321
3,600	3,87738046	2,28334627
2,680	2,88649434	2,88649434
3,780	4,07124949	3,64042943
5,000	5,38525064	3,82352796
1,660	1,78790321	3,87738046
4,840	5,21292262	4,07124949
6,290	6,77464531	4,28665951
5,380	5,79452969	4,31897102
2,120	2,28334627	4,4001713
4,700	5,0621356	4,43744653
4,250	4,57746305	4,57746305
5,220	5,62220167	4,76056157
7,760	8,357909	4,9867421
6,200	6,6777108	5,0190536
6,180	6,65616979	5,0513651
5,710	6,14995623	5,0621356
4,010	4,31897102	5,0621356
5,710	6,14995623	5,10521761
4,660	5,0190536	5,21292262
3,550	3,82352796	5,38525064
5,630	6,06379222	5,43910315
5,940	6,39767776	5,62220167
4,690	5,0513651	5,79452969
0,860	0,92626311	5,99916922
7,340	7,90554794	6,06379222
4,740	5,10521761	6,14995623
3,980	4,28665951	6,14995623
6,540	7,04390784	6,20277557
7,230	7,78707243	6,22534974
5,780	6,22534974	6,39767776
4,420	4,76056157	6,57215988
8,270	8,90720456	6,65616979
6,760	7,28085887	6,6777108
5,050	5,43910315	6,77464531
4,630	4,9867421	7,03313734
6,530	7,03313734	7,03421439
6,860	7,38856388	7,04390784
6,890	7,42087539	7,28085887
3,380	3,64042943	7,38856388
4,085	4,4001713	7,42087539
8,420	9,06876208	7,5716624
7,310	7,87323644	7,73321992
5,570	5,99916922	7,78707243
5,759	6,20277557	7,87323644
5,496	5,91946751	7,90554794
7,360	7,92747123	7,92747123
9,021	9,71564491	8,03694806
6,531	7,03421439	8,357909
6,102	6,57215988	8,65086663
8,032	8,65086663	8,90720456
7,030	7,5716624	9,06876208
12,594	13,5643693	9,71564491
10,270	11,0613048	10,5152404
10,469	11,2756378	11,0613048

4,700	5,0621356	11,2756378
7,462	8,03694806	12,3774601
9,763	10,5152404	13,5643693
11,492	12,3774601	
11,430	12,310683	