



Estaca	Descrição	Progressiva	Nada	Este	Cosa	Azimuth
0	PI0	0,000	9.249.898,6953	530.532,6835	289,5150	206°16'39"
1		20,000	9.249.907,5497	530.514,7503	290,9396	206°16'39"
1+11,581	PI1	31,581	9.249.912,6771	530.504,3656	291,7646	205°09'37"
2		40,000	9.249.916,1070	530.496,6775	292,0999	204°02'35"
3		60,000	9.249.924,2555	530.478,4128	292,8963	204°02'35"
3+3,713	PI2	63,713	9.249.925,7683	530.475,0218	293,0442	206°35'18"
4		80,000	9.249.933,6974	530.460,7954	293,4362	209°08'00"
5		100,000	9.249.943,4343	530.443,3256	293,9177	209°08'00"
5+2,395	PI3	102,395	9.249.944,6002	530.441,2337	293,9753	204°18'36"
6		120,000	9.249.950,4731	530.424,6370	293,9749	199°29'13"
6+17,808	PI4	137,808	9.249.956,4138	530.407,8490	293,9745	199°39'52"
7		140,000	9.249.957,1579	530.405,7872	293,9849	199°50'31"
8		160,000	9.249.963,9464	530.386,9746	294,0800	199°50'31"
9		180,000	9.249.970,7349	530.368,1620	294,1751	199°50'31"
10		200,000	9.249.977,5235	530.349,3493	294,2702	199°50'31"
11		220,000	9.249.984,3121	530.330,5367	294,3653	199°50'31"
11+3,236	PI5	223,236	9.249.985,4104	530.327,4930	294,3807	207°28'46"
12		240,000	9.249.995,0540	530.313,7802	294,5767	215°07'01"
12+0,522	PI6	240,522	9.249.995,3543	530.313,3532	294,5828	225°57'20"
13		260,000	9.250.011,6516	530.302,6861	293,7354	236°47'39"
13+2,777	PI7	262,777	9.250.013,9753	530.301,1652	293,6146	241°27'49"
14		280,000	9.250.029,7254	530.294,1967	292,8563	246°00'00"
14+11,401	PI8	291,401	9.250.040,1510	530.289,5839	292,3544	250°12'47"
15		300,000	9.250.048,4294	530.287,2559	292,4744	254°17'35"
16		320,000	9.250.067,6826	530.281,8415	292,7534	254°17'35"
17		340,000	9.250.086,9358	530.276,4272	293,0324	254°17'35"
17+0,710	PI9	340,710	9.250.087,6196	530.276,2349	293,0423	258°51'49"
18		360,000	9.250.106,7827	530.274,0293	295,5115	263°26'04"
18+10,818	PI10	370,818	9.250.117,5302	530.272,7923	296,8964	263°02'59"
19		380,000	9.250.126,6367	530.271,6201	297,9437	262°39'55"
19+19,055	PI11	399,055	9.250.145,5361	530.269,1874	300,1174	262°10'52"
20		400,000	9.250.146,4708	530.269,0510	300,1945	261°41'49"
21		420,000	9.250.166,2612	530.266,1628	301,8261	261°41'49"
21+9,245	PI12	429,245	9.250.175,4092	530.264,8278	302,5803	254°02'50"
22		440,000	9.250.185,2646	530.260,5216	303,1662	246°23'51"
22+7,687	PI13	447,687	9.250.192,3085	530.257,4438	303,5849	237°38'15"
23		460,000	9.250.201,5840	530.249,3459	303,8850	228°52'39"
24		480,000	9.250.216,6500	530.236,1924	304,3725	228°52'39"
24+6,241	PI14	486,241	9.250.222,8577	530.230,7726	304,5734	229°48'01"
25		500,000	9.250.231,9606	530.223,3283	304,7305	230°43'23"
26		520,000	9.250.247,4425	530.210,6669	304,9976	230°43'23"
26+9,952	PI15	529,952	9.250.255,1467	530.204,3663	305,1305	230°11'44"
27		540,000	9.250.262,8060	530.197,8634	304,6211	229°40'05"
27+19,445	PI16	559,445	9.250.277,6294	530.185,2780	303,6352	228°57'31"
28		560,000	9.250.278,0431	530.184,9087	303,6518	228°14'57"
29		580,000	9.250.292,9641	530.171,5909	304,2502	228°14'57"
29+17,235	PI17	597,235	9.250.305,8221	530.160,1144	304,7659	230°03'52"
30		600,000	9.250.307,9975	530.158,4074	304,7661	231°52'47"



Estaca	Designação	Progressiva	Nodo	Elev	Cota	Azimute
30+18,532	PI18	618,532	9.250.322,5768	530.146,9675	304,6395	232°16'52"
31		620,000	9.250.323,7445	530.146,0774	304,5769	232°40'56"
31+19,693	PI19	639,693	9.250.339,4061	530.134,1388	303,7370	230°47'23"
32		640,000	9.250.339,6374	530.133,9370	303,7070	228°53'50"
33		660,000	9.250.354,7080	530.120,7888	301,7525	228°53'50"
33+0,284	PI20	660,284	9.250.354,9217	530.120,6023	301,7248	228°53'17"
34		680,000	9.250.369,7745	530.107,6358	299,3256	228°52'45"
34+5,894	PI21	685,894	9.250.374,2143	530.103,7599	298,6084	229°27'33"
35		700,000	9.250.385,0266	530.094,6998	298,1861	230°02'20"
35+18,413	PI22	718,413	9.250.399,1396	530.082,8740	297,6348	230°19'43"
36		720,000	9.250.400,3665	530.081,8669	297,4981	230°37'05"
36+15,999	PI23	735,999	9.250.412,7238	530.071,7230	296,1214	230°32'02"
37		740,000	9.250.415,8177	530.069,1680	295,8100	230°26'58"
37+13,511	PI24	753,511	9.250.426,2356	530.060,5647	294,7616	229°54'01"
38		760,000	9.250.431,1588	530.056,3377	294,9957	229°21'03"
38+5,515	PI25	765,515	9.250.435,3433	530.052,7449	295,1947	230°15'13"
39		780,000	9.250.446,6249	530.043,6601	296,4497	231°09'23"
39+4,607	PI26	784,607	9.250.450,2132	530.040,7705	296,8489	231°42'32"
40		800,000	9.250.462,3860	530.031,3492	297,4542	232°15'41"
41		820,000	9.250.478,2023	530.019,1080	298,2408	232°15'41"
41+7,386	PI27	827,386	9.250.484,0431	530.014,5874	298,4774	232°43'50"
42		840,000	9.250.494,1430	530.007,0312	298,0632	233°11'59"
43		860,000	9.250.510,1582	529.995,0507	297,4064	233°11'59"
44		880,000	9.250.526,1728	529.983,0701	296,7496	233°11'59"
44+0,797	PI28	880,797	9.250.526,8112	529.982,5925	296,7234	232°58'17"
45		900,000	9.250.542,0952	529.970,9674	295,5396	232°44'36"
45+13,351	PI29	913,351	9.250.552,7215	529.962,8850	294,7166	232°41'57"
46		920,000	9.250.558,0076	529.958,8515	294,0985	232°39'18"
47		940,000	9.250.573,9075	529.946,7193	292,2395	232°39'18"
47+8,697	PI30	948,697	9.250.580,8218	529.941,4434	291,4311	232°45'22"
48		960,000	9.250.589,8316	529.934,6188	290,8321	232°51'27"
49		980,000	9.250.605,7743	529.922,5428	289,7723	232°51'27"
49+0,494	PI31	980,494	9.250.606,1680	529.922,2446	289,7461	232°52'10"
50		1000,000	9.250.621,7220	529.910,4733	289,5287	232°52'53"
51		1020,000	9.250.637,6698	529.898,4040	289,3059	232°52'53"
51+2,411	PI32	1022,411	9.250.639,5923	529.896,9490	289,2790	233°23'15"
52		1040,000	9.250.653,8029	529.886,5841	289,5707	233°53'37"
53		1060,000	9.250.669,9614	529.874,7983	289,9023	233°53'37"
53+17,166	PI33	1077,166	9.250.683,8300	529.864,6826	290,1670	234°31'15"
54		1080,000	9.250.686,1559	529.863,0632	290,5846	235°08'53"
55		1100,000	9.250.702,5685	529.851,6340	293,3904	235°08'53"
55+7,669	PI34	1107,669	9.250.708,8620	529.847,2515	294,4673	234°33'36"
56		1120,000	9.250.718,8343	529.839,9986	294,5897	233°58'18"
57		1140,000	9.250.735,0089	529.828,2349	294,7882	233°58'18"
57+2,518	PI35	1142,518	9.250.737,0456	529.826,7536	294,8132	235°54'33"
58		1160,000	9.250.751,8460	529.817,4502	294,0245	237°50'49"
59		1180,000	9.250.768,7786	529.806,8065	293,1221	237°50'49"
59+0,529	PI36	1180,529	9.250.769,2268	529.806,5248	293,0982	237°54'56"



Estaca	Quilômetros	Progressiva	Norte	Este	Ouro	Azimute
60		1200,000	9.250.785,7359	529.796,2023	292,2627	237°59'02"
60+8,170	PI37	1208,170	9.250.792,6632	529.791,8710	291,9121	237°53'28"
61		1220,000	9.250.802,6735	529.785,5667	291,8311	237°47'53"
62		1240,000	9.250.819,5970	529.774,9087	291,6942	237°47'53"
62+0,759	PI38	1240,759	9.250.820,2394	529.774,5041	291,6890	238°13'53"
63		1260,000	9.250.836,6737	529.764,4979	290,7011	238°39'52"
64		1280,000	9.250.853,7564	529.754,0969	289,6742	238°39'52"
64+14,062	PI39	1294,062	9.250.865,7673	529.746,7840	288,9522	240°14'38"
65		1300,000	9.250.871,0016	529.743,9801	288,7377	241°49'23"
66		1320,000	9.250.888,6315	529.734,5362	288,0154	241°49'23"
66+8,330	PI40	1328,330	9.250.895,9743	529.730,6028	287,7145	245°07'03"
67		1340,000	9.250.906,9257	529.726,3090	287,7140	248°24'43"
68		1360,000	9.250.925,4228	529.718,9504	287,7133	248°24'43"
68+1,947	PI41	1361,947	9.250.927,2329	529.718,2341	287,7132	244°07'27"
69		1380,000	9.250.942,8417	529.709,1629	288,9018	239°50'12"
69+0,712	PI42	1380,712	9.250.943,4572	529.708,8052	288,9487	232°26'25"
69+10,408	PI43	1390,408	9.250.950,3188	529.701,9541	289,1852	221°03'22"
70		1400,000	9.250.956,1004	529.694,3007	288,4984	217°04'07"
70+8,479	PI44	1408,479	9.250.961,2114	529.687,5351	287,8912	210°54'32"
71		1420,000	9.250.966,0346	529.677,0724	288,0751	204°44'57"
72		1440,000	9.250.974,4075	529.658,9094	288,3944	204°44'57"
72+6,297	PI45	1446,297	9.250.977,8811	529.651,3744	288,5266	201°58'26"
73		1460,000	9.250.981,7296	529.640,3224	288,0939	199°11'56"
74		1480,000	9.250.988,3065	529.621,4347	287,3541	199°11'56"
74+0,743	PI46	1480,743	9.250.988,5507	529.620,7334	287,3266	195°51'02"
75		1500,000	9.250.992,7195	529.601,9327	287,3000	192°30'08"
75+10,751	PI47	1510,751	9.250.995,0468	529.591,4370	287,2851	180°46'03"
75+17,250	PI48	1517,250	9.250.993,8104	529.585,0568	287,3546	161°35'23"
76		1520,000	9.250.992,6110	529.582,5816	287,3766	154°08'48"
76+11,155	PI49	1531,155	9.250.987,7465	529.572,5428	287,4656	146°44'50"
77		1540,000	9.250.981,9845	529.565,8325	287,5489	139°20'51"
77+10,241	PI50	1550,241	9.250.975,3130	529.558,0632	287,6453	136°23'50"
78		1560,000	9.250.968,2276	529.551,3519	287,8521	133°26'49"
78+16,014	PI51	1576,014	9.250.956,6015	529.540,3396	288,1915	143°57'44"
79		1580,000	9.250.954,8839	529.536,7422	288,7151	154°28'39"
79+17,004	PI52	1597,004	9.250.947,5574	529.521,3974	290,9485	170°24'17"
80		1600,000	9.250.947,8878	529.518,4198	290,9248	186°19'54"
80+14,577	PI53	1614,577	9.250.949,4954	529.503,9317	290,8092	199°31'27"
81		1620,000	9.250.952,4264	529.499,3691	290,7144	212°43'00"
82		1640,000	9.250.963,2361	529.482,5420	290,3646	212°43'00"
82+0,603	PI54	1640,603	9.250.963,5620	529.482,0348	290,3541	217°43'32"
83		1660,000	9.250.976,7249	529.467,7874	290,8225	222°44'03"
83+17,254	PI55	1677,254	9.250.988,4334	529.455,1142	291,2392	255°55'36"
84		1680,000	9.250.991,0279	529.456,0136	291,1895	289°07'08"
84+16,308	PI56	1696,308	9.251.006,4367	529.461,3551	290,8942	294°57'37"
85		1700,000	9.251.009,6076	529.463,2455	290,7908	300°48'06"
86		1720,000	9.251.026,7866	529.473,4868	290,2305	300°48'06"
86+2,300	PI57	1722,300	9.251.028,7622	529.474,6646	290,1661	287°52'27"



Estaca	Descrição	Progressiva	Norte	Este	Oeste	Azimuth
87		1740,000	9.251.046,3962	529.476,1909	289,5674	274°56'49"
87+8,133	PI58	1748,133	9.251.054,4985	529.476,8922	289,2923	272°05'09"
88		1760,000	9.251.066,3648	529.476,7316	289,2079	269°13'29"
89		1780,000	9.251.086,3630	529.476,4610	289,0657	269°13'29"
89+14,452	PI59	1794,452	9.251.100,8134	529.476,2655	288,9630	272°15'03"
90		1800,000	9.251.106,3381	529.476,7757	288,6644	275°16'36"
91		1820,000	9.251.126,2534	529.478,6150	287,5880	275°16'36"
91+7,258	PI60	1827,258	9.251.133,4805	529.479,2825	287,1974	272°56'39"
92		1840,000	9.251.146,2219	529.479,4186	287,4310	270°36'43"
93		1860,000	9.251.166,2208	529.479,6321	287,7976	270°36'43"
93+4,521	PI61	1864,521	9.251.170,7415	529.479,6804	287,8805	273°30'52"
94		1880,000	9.251.186,1235	529.481,4105	288,3740	276°25'02"
95		1900,000	9.251.205,9982	529.483,6459	289,0117	276°25'02"
95+3,541	PI62	1903,541	9.251.209,5167	529.484,0416	289,1246	276°06'19"
96		1920,000	9.251.225,8919	529.485,7031	291,6731	275°47'37"
96+2,243	PI63	1922,243	9.251.228,1238	529.485,9295	292,0205	263°55'13"
97		1940,000	9.251.245,0159	529.480,4563	292,7463	252°02'49"
98		1960,000	9.251.264,0421	529.474,2915	293,5639	252°02'49"
98+10,182	PI64	1970,182	9.251.273,7283	529.471,1531	293,9801	249°39'24"
99		1980,000	9.251.282,7836	529.467,3589	294,1999	247°15'58"
100		2000,000	9.251.301,2298	529.459,6298	294,6478	247°15'58"
100+10,098	PI65	2010,098	9.251.311,0905	529.455,4950	294,6873	231°47'03"
101		2020,000	9.251.316,6038	529.447,9990	296,6320	216°18'07"
101+6,532	PI66	2026,532	9.251.320,4709	529.442,7349	297,8571	209°55'28"
101+14,083	PI67	2034,083	9.251.323,4875	529.435,8126	295,7530	195°10'34"
102		2040,000	9.251.324,1887	529.429,9372	296,1171	186°48'20"
103		2060,000	9.251.326,5586	529.410,0781	297,3479	186°48'20"
103+17,142	PI68	2077,142	9.251.328,5899	529.393,0571	298,4028	200°32'34"
104		2080,000	9.251.330,1998	529.390,6953	300,4413	214°16'48"
105		2100,000	9.251.341,4645	529.374,1695	301,9923	214°16'48"
105+12,212	PI69	2112,212	9.251.348,3427	529.364,0789	302,9394	219°14'43"
106		2120,000	9.251.353,7734	529.358,4965	303,3576	224°12'39"
107		2140,000	9.251.367,7194	529.344,1609	304,4317	224°12'39"
108		2160,000	9.251.381,6654	529.329,8253	305,5057	224°12'39"
108+5,739	PI70	2165,739	9.251.385,6672	529.325,7117	305,8139	218°27'32"
109		2180,000	9.251.393,3730	529.313,7118	305,4157	212°42'24"
110		2200,000	9.251.404,1798	529.296,8829	304,8573	212°42'24"
110+16,928	PI71	2216,928	9.251.413,3264	529.282,6303	304,3847	211°46'23"
111		2220,000	9.251.414,9014	529.280,0012	304,1613	210°50'21"
112		2240,000	9.251.425,1540	529.262,8290	302,7073	210°50'21"
112+3,374	PI72	2243,374	9.251.426,8837	529.259,9320	302,4620	211°47'45"
113		2260,000	9.251.435,8786	529.245,9494	302,1623	212°45'10"
113+6,815	PI73	2266,815	9.251.439,5654	529.240,2182	302,0394	212°38'34"
114		2280,000	9.251.446,6562	529.229,1018	303,2888	212°31'57"
114+7,684	PI74	2287,684	9.251.450,7882	529.222,6240	304,0168	212°20'58"
115		2300,000	9.251.457,3453	529.212,1980	304,8628	212°09'59"
116		2320,000	9.251.467,9928	529.195,2679	306,2367	212°09'59"
116+10,504	PI75	2330,504	9.251.473,5851	529.186,3759	306,9582	211°50'29"



Estaca	Descrição	Progressiva	Norte	Este	Oeste	Azimuth
117		2340,000	9.251.478,5489	529.178,2809	307,3301	211°31'00"
117+17,634	PI76	2357,634	9.251.487,7670	529.163,2482	308,0207	210°52'35"
118		2360,000	9.251.488,9585	529.161,2040	307,9740	210°14'11"
119		2380,000	9.251.499,0298	529.143,9249	307,5790	210°14'11"
119+13,346	PI77	2393,346	9.251.505,7503	529.132,3948	307,3154	209°55'40"
120		2400,000	9.251.509,0391	529.126,6100	306,8171	209°37'09"
121		2420,000	9.251.518,9237	529.109,2234	305,3196	209°37'09"
121+15,839	PI78	2435,839	9.251.526,7519	529.095,4541	304,1336	211°54'47"
122		2440,000	9.251.529,0911	529.092,0129	303,6633	214°12'25"
123		2460,000	9.251.540,3348	529.075,4727	301,4026	214°12'25"
123+15,843	PI79	2475,843	9.251.549,2415	529.062,3702	299,6118	211°37'41"
124		2480,000	9.251.551,2599	529.058,7362	299,3211	209°02'58"
125		2500,000	9.251.560,9712	529.041,2522	297,9226	209°02'58"
125+10,422	PI80	2510,422	9.251.566,0318	529.032,1411	297,1938	210°50'26"
126		2520,000	9.251.571,1965	529.024,0751	297,5833	212°37'55"
126+14,670	PI81	2534,670	9.251.579,1071	529.011,7209	298,1800	212°11'22"
127		2540,000	9.251.581,9117	529.007,1882	298,6670	211°44'49"
128		2560,000	9.251.592,4351	528.990,1806	300,4942	211°44'49"
128+3,847	PI82	2563,847	9.251.594,4590	528.986,9096	300,8456	212°02'21"
129		2580,000	9.251.603,0981	528.973,2604	301,1112	212°19'53"
130		2600,000	9.251.613,7944	528.956,3611	301,4401	212°19'53"
130+10,554	PI83	2610,554	9.251.622,6477	528.942,3736	301,7123	211°13'44"
131		2620,000	9.251.624,3774	528.939,3930	302,0481	210°07'35"
132		2640,000	9.251.634,4156	528.922,0946	303,9972	210°07'35"
132+4,895	PI84	2644,895	9.251.636,8723	528.917,8610	304,4742	209°21'51"
133		2660,000	9.251.644,1035	528.904,5991	305,4361	208°36'07"
134		2680,000	9.251.653,6780	528.887,0398	306,7098	208°36'07"
134+10,948	PI85	2690,948	9.251.658,9192	528.877,4276	307,4070	217°16'31"
135		2700,000	9.251.665,4248	528.871,1339	307,6086	225°56'55"
135+16,374	PI86	2716,374	9.251.677,1928	528.859,7493	307,9734	232°56'34"
136		2720,000	9.251.680,3314	528.857,9326	308,0370	239°56'12"
137		2740,000	9.251.697,6408	528.847,9135	308,3877	239°56'12"
138		2760,000	9.251.714,9502	528.837,8943	308,7384	239°56'12"
138+6,154	PI87	2766,154	9.251.720,2762	528.834,8115	308,8463	239°42'22"
139		2780,000	9.251.732,2035	528.827,7789	308,6323	239°28'32"
140		2800,000	9.251.749,4317	528.817,6208	308,3231	239°28'32"
141		2820,000	9.251.766,6599	528.807,4626	308,0140	239°28'32"
141+9,481	PI88	2829,481	9.251.774,8267	528.802,6473	307,8674	239°27'36"
142		2840,000	9.251.783,8653	528.797,2996	307,7447	239°26'41"
143		2860,000	9.251.801,1081	528.787,1322	307,5115	239°26'41"
143+14,998	PI89	2874,998	9.251.814,0231	528.779,5079	307,3366	238°03'40"
144		2880,000	9.251.818,2031	528.776,7598	307,2902	236°40'39"
145		2900,000	9.251.834,9149	528.765,7728	307,1045	236°40'39"
145+14,894	PI90	2914,894	9.251.847,3599	528.757,5910	306,9662	235°42'05"
146		2920,000	9.251.851,5287	528.754,6421	306,9852	234°43'31"
147		2940,000	9.251.867,8565	528.743,0921	306,7425	234°43'31"
148		2960,000	9.251.884,1844	528.731,5422	306,4998	234°43'31"
149		2980,000	9.251.900,5122	528.719,9922	306,2570	234°43'31"



Estaca	Descrição	Progressiva	Norte	Este	Ouro	Azimuth
150		3000,000	9.251.916,8401	528.708,4423	306,0143	234°43'31"
150+19,194	PI91	3019,194	9.251.932,5102	528.697,3576	305,7813	241°46'22"
151		3020,000	9.251.933,2614	528.697,0665	305,7840	248°49'13"
152		3040,000	9.251.951,9105	528.689,8406	305,8509	248°49'13"
152+1,447	PI92	3041,447	9.251.953,2598	528.689,3178	305,8557	253°11'46"
153		3080,000	9.251.971,3780	528.685,3249	306,0905	257°34'19"
154		3080,000	9.251.990,9093	528.681,0207	306,3435	257°34'19"
155		3100,000	9.252.010,4407	528.676,7164	306,5966	257°34'19"
155+13,508	PI93	3113,508	9.252.023,6325	528.673,8092	306,7675	253°59'14"
156		3120,000	9.252.029,7481	528.671,6319	307,1305	250°24'09"
157		3140,000	9.252.048,5895	528.664,9237	308,2489	250°24'09"
157+12,462	PI94	3152,462	9.252.060,3300	528.660,7437	309,9458	250°04'09"
158		3160,000	9.252.067,4011	528.658,1330	309,4013	249°44'08"
159		3180,000	9.252.086,1632	528.651,2060	310,6098	249°44'08"
159+18,785	PI95	3198,785	9.252.103,7852	528.644,6999	311,7449	238°53'23"
160		3200,000	9.252.104,6889	528.643,8874	311,7519	228°02'37"
161		3220,000	9.252.119,5620	528.630,5161	311,8676	228°02'37"
161+4,362	PI96	3224,362	9.252.122,8060	528.627,5997	311,8928	228°14'25"
162		3240,000	9.252.134,5066	528.617,2249	311,4023	228°26'14"
163		3260,000	9.252.149,4712	528.603,9561	310,8136	228°26'14"
163+0,304	PI97	3260,304	9.252.149,6986	528.603,7545	310,8047	225°15'29"
164		3280,000	9.252.162,8981	528.589,1356	310,1621	222°04'45"
164+4,904	PI98	3284,904	9.252.166,1845	528.585,4958	310,0021	217°58'59"
164+18,128	PI99	3298,128	9.252.173,5574	528.574,5183	310,0278	205°39'36"
165		3300,000	9.252.174,1183	528.572,7320	309,9712	197°25'59"
165+18,769	PI100	3318,769	9.252.179,7413	528.554,8252	309,4040	190°40'53"
166		3320,000	9.252.179,8257	528.553,5969	309,3595	183°55'47"
167		3340,000	9.252.181,1964	528.533,6440	308,6372	183°55'47"
168		3360,000	9.252.182,5670	528.513,6910	307,9149	183°55'47"
168+6,911	PI101	3366,911	9.252.183,0407	528.506,7961	307,6653	183°32'10"
169		3380,000	9.252.183,7582	528.493,7269	307,0449	183°08'33"
169+13,808	PI102	3393,808	9.252.184,5152	528.479,9396	306,3905	186°08'46"
170		3400,000	9.252.185,4998	528.473,8265	306,1319	189°08'58"
170+11,481	PI103	3411,481	9.252.187,3254	528.462,4914	305,6525	198°36'34"
171		3420,000	9.252.191,3339	528.454,9745	305,2238	208°04'09"
171+11,297	PI104	3431,297	9.252.196,6495	528.445,0064	304,6552	215°15'01"
172		3440,000	9.252.202,5216	528.438,5828	304,2595	222°25'53"
173		3460,000	9.252.216,0157	528.423,8211	303,3502	222°25'53"
173+12,373	PI105	3472,373	9.252.224,3642	528.414,6864	302,7676	221°37'31"
174		3480,000	9.252.229,3494	528.408,9168	302,6583	220°49'08"
175		3500,000	9.252.242,4229	528.393,7812	302,3193	220°49'08"
176		3520,000	9.252.255,4963	528.378,6457	301,9803	220°49'08"
177		3540,000	9.252.268,5697	528.363,5101	301,6413	220°49'08"
178		3560,000	9.252.281,6432	528.348,3746	301,3023	220°49'08"
179		3580,000	9.252.294,7166	528.333,2390	300,9633	220°49'08"
179+4,616	PI106	3584,616	9.252.297,7343	528.329,7453	300,8850	221°29'33"
180		3600,000	9.252.308,0609	528.318,3430	300,7724	222°09'58"
181		3620,000	9.252.321,4866	528.303,5190	300,6260	222°09'58"

Estaca	Descrição	Progressiva	Nome	Elev.	Cota	Azimute
182		3640,000	9.252.334,9122	528.288,6949	300,4796	222°09'58"
183		3660,000	9.252.348,3378	528.273,8709	300,3332	222°09'58"
184		3680,000	9.252.361,7635	528.259,0468	300,1868	222°09'58"
184+7,101	PI107	3687,101	9.252.366,5303	528.253,7835	300,1348	218°56'36"
185		3700,000	9.252.374,0611	528.243,3112	300,2453	215°43'13"
186		3720,000	9.252.385,7377	528.227,0737	300,4166	215°43'13"
186+13,011	PI108	3733,011	9.252.393,3337	528.216,5106	300,5281	219°24'31"
187		3740,000	9.252.398,1090	528.211,4070	300,6575	223°05'49"
188		3760,000	9.252.411,7737	528.196,8030	301,0278	223°05'49"
189		3780,000	9.252.425,4384	528.182,1990	301,3981	223°05'49"
190		3800,000	9.252.439,1030	528.167,5950	301,7684	223°05'49"
190+1,154	PI109	3801,154	9.252.439,8916	528.166,7522	301,7809	228°33'20"
191		3820,000	9.252.455,1409	528.155,6786	302,1436	234°00'51"
191+4,934	PI110	3824,934	9.252.459,1333	528.152,7795	302,2362	241°13'38"
191+18,411	PI111	3838,411	9.252.471,6677	528.147,8270	301,8485	249°38'43"
192		3840,000	9.252.473,1685	528.147,3058	301,7432	250°51'00"
193		3860,000	9.252.492,0617	528.140,7450	300,4176	250°51'00"
194		3880,000	9.252.510,9550	528.134,1841	299,0919	250°51'00"
194+12,660	PI112	3892,660	9.252.522,9142	528.130,0312	298,2528	248°31'39"
195		3900,000	9.252.529,6305	528.127,0697	297,6993	246°12'18"
196		3920,000	9.252.547,9304	528.119,0004	296,1910	246°12'18"
197		3940,000	9.252.566,2303	528.110,9311	294,6826	246°12'18"
197+1,957	PI113	3941,957	9.252.568,0208	528.110,1416	294,5352	243°28'23"
197+17,751	PI114	3957,751	9.252.581,8000	528.102,4221	293,3744	242°36'51"
198		3960,000	9.252.583,8296	528.101,4534	293,2996	244°29'14"
199		3980,000	9.252.601,8794	528.092,8392	292,6341	244°29'14"
199+6,836	PI115	3986,836	9.252.608,0486	528.089,8949	292,4066	252°16'12"
200		4000,000	9.252.621,0149	528.087,6209	291,9527	260°03'10"
201		4020,000	9.252.640,7143	528.084,1660	291,2632	260°03'10"
201+11,662	PI116	4031,662	9.252.652,2013	528.082,1514	290,8611	262°24'17"
202		4040,000	9.252.660,5041	528.081,3895	289,7766	264°45'24"
202+5,761	PI117	4045,761	9.252.666,2411	528.080,8630	289,0272	266°35'57"
202+19,278	PI118	4059,278	9.252.679,7529	528.080,4954	288,6319	270°12'47"
203		4060,000	9.252.680,4745	528.080,5204	288,6780	271°59'04"
204		4080,000	9.252.700,4625	528.081,2130	289,9558	271°59'04"
204+1,866	PI119	4081,866	9.252.702,3273	528.081,2776	290,0750	273°17'55"
205		4100,000	9.252.720,4027	528.082,7360	289,2937	274°36'47"
206		4120,000	9.252.740,3379	528.084,3445	288,4319	274°36'47"
206+3,204	PI120	4123,204	9.252.743,5313	528.084,6022	288,2939	263°16'19"
207		4140,000	9.252.759,4992	528.079,3926	287,9386	251°55'50"
207+9,687	PI121	4149,687	9.252.768,7086	528.076,3879	287,7337	251°35'35"
208		4160,000	9.252.778,4744	528.073,0739	287,9992	251°15'20"
209		4180,000	9.252.797,4137	528.066,6470	288,5140	251°15'20"
209+9,543	PI122	4189,543	9.252.806,4503	528.063,5805	288,7596	249°15'46"
210		4200,000	9.252.816,0954	528.059,5399	289,0957	247°16'11"
210+8,852	PI123	4208,852	9.252.824,2594	528.056,1197	289,3802	239°54'07"
211		4220,000	9.252.833,1082	528.049,3382	289,2810	232°32'04"
212		4240,000	9.252.848,9825	528.037,1725	289,1032	232°32'04"



Estaca	Descrição	Progressiva	Norte	Este	Cota	Azimute
212+11,279	PI124	4251,279	9.252.857,9350	528.030,3116	288,9705	233°00'16"
213		4260,000	9.252.864,9430	528.025,1211	288,9694	233°28'27"
214		4280,000	9.252.881,0148	528.013,2174	288,9669	233°28'27"
215		4300,000	9.252.897,0866	528.001,3137	288,9644	233°28'27"
215+2,450	PI125	4302,450	9.252.899,0550	527.999,8558	288,9641	233°12'27"
216		4320,000	9.252.913,0605	527.989,2792	288,6893	232°56'27"
217		4340,000	9.252.929,0207	527.977,2264	288,3762	232°56'27"
217+5,593	PI126	4345,593	9.252.933,4843	527.973,8556	288,2886	228°37'22"
218		4360,000	9.252.943,5470	527.963,5457	287,7976	224°18'18"
219		4380,000	9.252.957,5166	527.949,2331	287,1159	224°18'18"
219+1,836	PI127	4381,836	9.252.958,7992	527.947,9190	287,0533	230°13'52"
220		4400,000	9.252.973,8854	527.937,8033	296,3835	236°09'26"
220+4,956	PI128	4404,956	9.252.978,0018	527.935,0432	286,2007	242°12'33"
221		4420,000	9.252.991,9758	527.929,4713	285,0791	248°15'40"
222		4440,000	9.253.010,5534	527.922,0638	283,5879	248°15'40"
222+4,323	PI129	4444,323	9.253.014,5694	527.920,4625	283,2656	243°58'16"
223		4460,000	9.253.028,1018	527.912,5487	281,7788	239°40'51"
223+7,851	PI130	4467,851	9.253.034,8793	527.908,5852	281,0341	234°00'06"
224		4480,000	9.253.043,9532	527.900,5071	280,2846	228°19'22"
224+16,829	PI131	4496,829	9.253.056,5228	527.889,3170	279,2464	218°07'23"
225		4500,000	9.253.058,0078	527.886,5152	279,3449	207°55'24"
225+14,211	PI132	4514,211	9.253.064,0625	527.873,8590	279,7802	208°42'38"
226		4520,000	9.253.067,5131	527.868,9201	280,0743	209°29'51"
226+3,238	PI133	4523,238	9.253.069,1074	527.866,1019	280,2355	209°43'29"
227		4540,000	9.253.077,4763	527.851,5785	280,3053	209°57'07"
228		4560,000	9.253.087,4618	527.834,2496	280,3887	209°57'07"
229		4580,000	9.253.097,4472	527.816,9207	280,4720	209°57'07"
229+5,600	PI134	4585,600	9.253.100,2432	527.812,0686	280,4953	211°20'49"
230		4600,000	9.253.108,0316	527.799,9566	280,4545	212°44'32"
231		4620,000	9.253.118,8487	527.783,1344	280,3978	212°44'32"
231+11,564	PI135	4631,564	9.253.125,1032	527.773,4078	280,3650	223°56'39"
232		4640,000	9.253.132,0260	527.768,5867	280,4344	235°08'47"
232+14,276	PI136	4654,276	9.253.143,7409	527.760,4284	280,5518	241°38'16"
233		4660,000	9.253.149,0531	527.758,2961	280,8643	248°07'46"
234		4680,000	9.253.167,6137	527.750,8458	281,9560	248°07'46"
234+15,799	PI137	4695,799	9.253.182,2759	527.744,9604	282,8185	240°23'41"
235		4700,000	9.253.185,6156	527.742,4125	282,8934	232°39'35"
236		4720,000	9.253.201,5166	527.730,2816	283,3966	232°39'35"
237		4740,000	9.253.217,4176	527.716,1507	283,6999	232°39'35"
237+2,273	PI138	4742,273	9.253.219,2247	527.716,7720	283,9571	236°20'32"
238		4760,000	9.253.234,5805	527.707,9150	283,1613	240°01'28"
239		4780,000	9.253.251,9053	527.697,9224	282,2634	240°01'28"
240		4800,000	9.253.269,2301	527.687,9298	281,3656	240°01'28"
240+3,869	PI139	4803,869	9.253.272,5812	527.685,9970	281,1919	235°21'16"
241		4820,000	9.253.285,0616	527.675,7763	280,4932	230°41'04"
241+9,209	PI140	4829,209	9.253.292,1865	527.669,9414	280,0943	224°16'25"
242		4840,000	9.253.298,8096	527.661,4223	280,1168	217°51'46"
243		4860,000	9.253.311,0850	527.645,6326	280,1585	217°51'46"



Estaca	Descrição	Progressiva	Norte	Este	Sul	Oeste	Azimute
243+18,729	PI141	4878,729	9.253.322,5804	527.630,8463	280,1975	216°33'27"	
244		4880,000	9.253.323,3139	527.629,8085	280,2228	215°15'08"	
245		4900,000	9.253.334,8575	527.613,4761	280,6217	215°15'08"	
245+9,317	PI142	4909,317	9.253.340,2348	527.605,8679	280,8075	211°50'45"	
246		4920,000	9.253.345,3225	527.596,4738	280,4254	208°26'22"	
247		4940,000	9.253.354,8471	527.578,8874	279,7101	208°26'22"	
247+15,622	PI143	4955,622	9.253.362,2870	527.565,1502	279,1514	216°02'37"	
248		4960,000	9.253.365,3084	527.561,9826	278,9782	223°38'51"	
249		4980,000	9.253.379,1129	527.547,5107	278,1868	223°38'51"	
249+2,154	PI144	4982,154	9.253.380,5999	527.545,9517	278,1015	225°36'45"	
250		5000,000	9.253.393,7733	527.533,9132	278,1088	227°34'39"	
251		5020,000	9.253.408,5371	527.520,4214	278,1170	227°34'39"	
252		5040,000	9.253.423,3009	527.506,9295	278,1252	227°34'39"	
253		5060,000	9.253.438,0647	527.493,4376	278,1334	227°34'39"	
253+1,747	PI145	5061,747	9.253.439,3540	527.492,2594	278,1341	229°20'16"	
254		5080,000	9.253.453,5592	527.480,7964	278,0979	231°05'53"	
255		5100,000	9.253.469,1236	527.468,2367	278,0582	231°05'53"	
255+17,910	PI146	5117,910	9.253.483,0618	527.456,9892	278,0226	225°47'11"	
256		5120,000	9.253.484,4183	527.455,3995	278,0192	220°28'28"	
257		5140,000	9.253.497,4005	527.440,1856	277,9862	220°28'28"	
257+4,952	PI147	5144,952	9.253.500,6151	527.436,4184	277,9780	219°29'48"	
258		5160,000	9.253.509,9064	527.424,0451	278,0012	218°31'08"	
259		5180,000	9.253.522,4418	527.408,9971	278,0321	218°31'08"	
259+3,123	PI148	5183,123	9.253.524,3871	527.406,5532	278,0369	216°04'38"	
260		5200,000	9.253.533,7351	527.392,5022	278,0521	213°38'07"	
260+10,710	PI149	5210,710	9.253.539,6672	527.383,5856	278,0617	203°00'48"	
261		5220,000	9.253.541,6608	527.374,5116	278,1639	192°23'28"	
261+8,800	PI150	5228,800	9.253.543,5492	527.365,9162	278,2608	205°24'59"	
262		5240,000	9.253.550,5122	527.357,1442	277,9123	218°26'30"	
262+0,576	PI151	5240,576	9.253.550,8705	527.356,6928	277,8944	232°54'18"	
263		5260,000	9.253.568,7985	527.349,2185	277,7632	247°22'06"	
264		5280,000	9.253.587,2584	527.341,5224	277,6280	247°22'06"	
264+0,224	PI152	5280,224	9.253.587,4652	527.341,4362	277,6265	237°39'17"	
264+15,432	PI153	5295,432	9.253.598,7567	527.331,2483	277,6598	215°40'02"	
265		5300,000	9.253.600,5703	527.327,0560	277,6870	203°23'36"	
265+7,556	PI154	5307,556	9.253.603,5704	527.320,1209	277,7319	196°06'34"	
266		5320,000	9.253.605,4797	527.307,8245	277,9861	188°49'33"	
267		5340,000	9.253.608,5483	527.288,0613	278,3946	188°49'33"	
268		5360,000	9.253.611,6169	527.268,2961	278,6032	168°49'33"	
268+8,361	PI155	5368,361	9.253.612,8997	527.260,0362	278,9983	190°14'57"	
269		5380,000	9.253.615,2545	527.248,6378	279,9223	191°40'20"	
269+16,819	PI156	5396,819	9.253.618,6571	527.232,1670	281,2575	202°12'02"	
270		5400,000	9.253.620,3772	527.229,4907	281,4345	212°43'43"	
270+8,996	PI157	5408,996	9.253.625,2408	527.221,9231	281,9348	227°00'53"	
271		5420,000	9.253.634,8932	527.216,6387	281,9413	241°18'03"	
272		5440,000	9.253.652,4363	527.207,0345	281,9532	241°18'03"	
272+7,490	PI158	5447,490	9.253.659,0059	527.203,4379	281,9576	237°49'38"	
273		5460,000	9.253.669,1721	527.196,1471	282,0671	234°21'13"	



Estaca	Descrição	Progressiva	Norte	Este	Oeste	Azimute
274		5480,000	9.253.685,4247	527.184,4915	282,2423	234°21'13"
275		5500,000	9.253.701,6772	527.172,8358	282,4174	234°21'13"
276		5520,000	9.253.717,9298	527.161,1801	282,5925	234°21'13"
276+6,691	PI159	5526,691	9.253.723,3673	527.157,2806	282,6511	243°39'37"
277		5540,000	9.253.736,0923	527.153,3822	282,9431	252°58'01"
277+16,293	PI160	5556,293	9.253.751,6702	527.148,6097	283,3005	261°08'09"
278		5560,000	9.253.755,3774	527.148,5647	283,3000	269°18'17"
279		5580,000	9.253.775,3759	527.148,3221	283,2971	269°18'17"
279+4,283	PI161	5584,283	9.253.779,6587	527.148,2701	283,2965	273°20'22"
280		5600,000	9.253.795,2456	527.150,2874	282,3440	277°22'27"
280+19,499	PI162	5619,499	9.253.814,5830	527.152,7900	281,1623	283°32'18"
281		5620,000	9.253.815,0550	527.152,9590	281,1385	289°42'09"
282		5640,000	9.253.833,8841	527.159,7018	280,1901	289°42'09"
282+19,586	PI163	5659,586	9.253.852,3232	527.166,3049	279,2614	276°04'18"
283		5660,000	9.253.852,7338	527.166,2504	279,2341	262°26'26"
284		5680,000	9.253.872,5600	527.163,6193	277,9140	262°26'26"
284+1,030	PI164	5681,030	9.253.873,5810	527.163,4838	277,8460	245°39'17"
285		5700,000	9.253.887,8693	527.151,0056	277,7641	228°52'08"
286		5720,000	9.253.902,9335	527.137,8499	277,6777	228°52'08"
286+1,357	PI165	5721,357	9.253.903,9556	527.136,9573	277,6718	227°59'53"
287		5740,000	9.253.917,6184	527.124,2731	277,8030	227°07'38"
288		5760,000	9.253.932,2757	527.110,6957	277,5436	227°07'36"
289		5780,000	9.253.946,9331	527.097,0582	278,0846	227°07'38"
290		5800,000	9.253.961,5904	527.083,4508	278,2254	227°07'38"
291		5820,000	9.253.976,2477	527.069,8433	278,3661	227°07'38"
291+8,888	PI166	5828,888	9.253.982,7614	527.063,7962	278,4287	222°20'41"
292		5840,000	9.253.989,5355	527.054,9878	278,6376	217°33'44"
293		5860,000	9.254.001,7280	527.039,1339	279,0136	217°33'44"
293+19,108	PI167	5879,108	9.254.013,3766	527.023,9872	279,3729	207°50'30"
294		5880,000	9.254.013,6540	527.023,1394	279,3999	198°07'17"
295		5900,000	9.254.019,8747	527.004,1314	280,0055	198°07'17"
296		5920,000	9.254.026,0953	526.985,1234	280,6111	198°07'17"
296+19,625	PI168	5939,625	9.254.032,1994	526.966,4715	281,2054	204°32'42"
297		5940,000	9.254.032,3922	526.966,1502	281,2127	210°58'06"
298		5960,000	9.254.042,6835	526.949,0012	281,6008	210°58'06"
299		5980,000	9.254.052,9748	526.931,8522	281,9890	210°58'06"
300		6000,000	9.254.063,2661	526.914,7032	282,3771	210°58'06"
300+1,278	PI169	6001,278	9.254.063,9237	526.913,6074	282,4019	215°36'36"
301		6020,000	9.254.076,0209	526.899,3165	282,7326	220°15'07"
302		6040,000	9.254.088,9439	526.884,0543	283,0862	220°15'07"
303		6060,000	9.254.101,8669	526.868,7900	283,4396	220°15'07"
303+12,974	PI170	6072,974	9.254.110,2499	526.858,8882	283,6689	221°57'12"
304		6080,000	9.254.115,1001	526.853,8047	283,5483	223°39'17"
305		6100,000	9.254.128,9063	526.839,3344	283,2050	223°39'17"
306		6120,000	9.254.142,7125	526.824,8641	282,8617	223°39'17"
306+8,204	PI171	6128,204	9.254.148,3759	526.818,9283	282,7209	214°13'48"
307		6140,000	9.254.153,3247	526.808,2208	282,4657	204°48'20"
308		6160,000	9.254.161,7156	526.790,0661	282,0331	204°48'20"



Estaca	Descrição	Progressiva	Nom	Elev	Cota	Acumule
309		6180,000	9.254.170,1064	526.771,9114	281,6004	204°48'20"
310		6200,000	9.254.178,4972	526.753,7566	281,1678	204°48'20"
310+3,961	PI172	6203,961	9.254.180,1589	526.750,1614	281,0821	213°36'17"
311		6220,000	9.254.190,9750	526.738,3177	279,8654	222°24'13"
312		6240,000	9.254.204,4620	526.723,5495	278,3482	222°24'13"
312+0,324	PI173	6240,324	9.254.204,6803	526.723,3104	278,3236	226°48'04"
313		6260,000	9.254.220,0144	526.710,9808	278,1211	231°11'55"
313+14,821	PI174	6274,821	9.254.231,5651	526.701,6934	277,9686	238°43'11"
314		6280,000	9.254.236,3048	526.699,6070	277,9812	246°14'26"
314+10,049	PI175	6290,049	9.254.245,5018	526.695,5584	278,0056	255°16'06"
315		6300,000	9.254.255,4039	526.694,5694	277,7094	264°17'46"
316		6320,000	9.254.275,3048	526.692,5817	277,1141	264°17'46"
317		6340,000	9.254.295,2058	526.690,5940	276,5189	264°17'46"
318		6360,000	9.254.315,1068	526.688,6063	275,9236	264°17'46"
318+1,922	PI176	6361,922	9.254.317,0190	526.688,4153	275,8664	256°03'39"
319		6380,000	9.254.333,7602	526.681,5921	275,1536	247°49'32"
320		6400,000	9.254.352,2810	526.674,0435	274,3649	247°49'32"
320+10,381	PI177	6410,381	9.254.361,8943	526.670,1254	273,9556	243°08'01"
321		6420,000	9.254.370,0906	526.665,0912	273,8915	238°26'29"
322		6440,000	9.254.387,1327	526.654,6238	273,7583	238°26'29"
323		6460,000	9.254.404,1748	526.644,1564	273,6250	238°26'29"
324		6480,000	9.254.421,2168	526.633,6880	273,4918	238°26'29"
324+19,524	PI178	6499,524	9.254.437,8536	526.623,4706	273,3617	237°52'00"
325		6500,000	9.254.438,2540	526.623,2135	273,3611	237°17'32"
326		6520,000	9.254.455,0827	526.612,4064	273,3356	237°17'32"
327		6540,000	9.254.471,9114	526.601,5993	273,3102	237°17'32"
328		6560,000	9.254.488,7402	526.590,7922	273,2847	237°17'32"
328+1,019	PI179	6561,019	9.254.489,5975	526.590,2416	273,2834	232°06'41"
329		6580,000	9.254.503,4637	526.577,2797	273,1901	226°55'49"
330		6600,000	9.254.518,0742	526.563,6219	273,0917	226°55'49"
331		6620,000	9.254.532,6847	526.549,9642	272,9934	226°55'49"
331+14,932	PI180	6634,932	9.254.543,5926	526.539,7676	272,9200	226°59'13"
332		6640,000	9.254.547,3020	526.536,3138	272,9379	227°02'36"
333		6660,000	9.254.561,9394	526.522,6849	272,8611	227°02'36"
334		6680,000	9.254.576,5768	526.509,0561	272,7842	227°02'36"
335		6700,000	9.254.591,2142	526.495,4272	272,7074	227°02'36"
336		6720,000	9.254.605,8517	526.481,7983	272,6305	227°02'36"
336+0,070	PI181	6720,070	9.254.605,9026	526.481,7509	272,6303	229°10'35"
337		6740,000	9.254.621,4568	526.468,2920	273,5602	231°18'33"
337+14,773	PI182	6754,773	9.254.632,9896	526.460,0572	274,2494	238°12'59"
338		6760,000	9.254.637,7317	526.457,8584	274,0655	245°07'25"
339		6780,000	9.254.655,8761	526.449,4452	273,3620	245°07'25"
339+0,976	PI183	6780,976	9.254.656,7620	526.449,0344	273,3276	242°25'28"
340		6800,000	9.254.673,1910	526.439,4437	272,9247	239°43'30"
340+19,066	PI184	6819,066	9.254.689,6563	526.429,8318	272,5210	236°29'25"
341		6820,000	9.254.690,4051	526.429,2728	272,5343	233°15'19"
342		6840,000	9.254.706,4312	526.417,3078	272,8186	233°15'19"
343		6860,000	9.254.722,4574	526.405,3428	273,1029	233°15'19"



Estaca	Descrição	Progressiva	Norte	Este	Cota	Azimuth
343+13,549	PI185	6873,549	9.254.733,3145	526.397,2370	273,2955	234°07'20"
344		6880,000	9.254.738,5980	526.393,5359	273,5625	234°59'20"
345		6900,000	9.254.754,9788	526.382,0612	274,3904	234°59'20"
345+12,356	PI186	6912,356	9.254.765,0989	526.374,9721	274,9019	231°33'06"
346		6920,000	9.254.770,7897	526.369,8687	274,7748	228°06'52"
347		6940,000	9.254.785,6793	526.356,5158	274,4421	228°06'52"
347+7,956	PI187	6947,956	9.254.791,6024	526.351,2040	274,3098	234°27'57"
348		6960,000	9.254.802,1176	526.345,3314	274,4572	240°49'02"
349		6980,000	9.254.819,5790	526.335,5795	274,7019	240°49'02"
349+16,538	PI188	6996,538	9.254.834,0179	526.327,5156	274,9042	235°47'24"
350		7000,000	9.254.836,6993	526.325,3258	275,1849	230°45'46"
350+8,514	PI189	7008,514	9.254.843,2940	526.319,9402	275,8752	226°42'00"
350+17,291	PI190	7017,291	9.254.849,2391	526.313,4834	276,7875	221°42'50"
351		7020,000	9.254.851,0087	526.311,4326	276,9790	220°47'26"
351+18,726	PI191	7038,726	9.254.863,2422	526.297,2552	278,3032	227°32'38"
352		7040,000	9.254.864,2768	526.296,5117	278,3738	234°17'51"
353		7060,000	9.254.880,5180	526.284,8401	279,4827	234°17'51"
353+13,608	PI192	7073,608	9.254.891,5687	526.276,8987	280,2372	240°48'07"
354		7080,000	9.254.897,4656	526.274,4327	280,0421	247°18'22"
355		7100,000	9.254.915,9172	526.266,7166	279,4317	247°18'22"
356		7120,000	9.254.934,3688	526.259,0005	278,8213	247°18'22"
356+9,639	PI193	7129,639	9.254.943,2619	526.255,2616	278,5271	241°14'43"
357		7140,000	9.254.951,7679	526.249,3663	277,9437	235°11'04"
358		7160,000	9.254.968,1878	526.237,9476	276,8175	235°11'04"
358+13,453	PI194	7173,453	9.254.979,2327	526.230,2667	276,0600	217°52'24"
359		7180,000	9.254.981,5321	526.224,1369	275,5812	200°33'44"
360		7200,000	9.254.988,5566	526.205,4111	274,1186	200°33'44"
360+17,781	PI195	7217,781	9.254.994,8018	526.188,7625	272,8182	205°42'52"
361		7220,000	9.254.995,9401	526.186,8581	272,7870	210°52'01"
361+16,660	PI196	7236,660	9.255.004,4875	526.172,5577	272,5526	218°04'14"
362		7240,000	9.255.006,8604	526.170,2074	272,5157	225°16'26"
363		7260,000	9.255.021,0700	526.156,1330	272,2948	225°16'26"
364		7280,000	9.255.035,2795	526.142,0586	272,0739	225°16'26"
364+18,717	PI197	7298,717	9.255.048,5772	526.128,8875	271,8672	230°51'44"
365		7300,000	9.255.049,6469	526.128,1781	271,8635	236°27'02"
366		7320,000	9.255.066,3151	526.117,1250	271,8062	236°27'02"
367		7340,000	9.255.082,9832	526.106,0719	271,7488	236°27'02"
367+14,811	PI198	7354,811	9.255.095,3271	526.097,8863	271,7063	239°47'29"
368		7360,000	9.255.099,9557	526.095,5413	271,7401	243°07'55"
369		7380,000	9.255.117,7967	526.086,5026	271,8705	243°07'55"
370		7400,000	9.255.135,6377	526.077,4639	272,0008	243°07'55"
371		7420,000	9.255.153,4787	526.068,4251	272,1311	243°07'55"
371+8,862	PI199	7428,862	9.255.161,3842	526.064,4200	272,1889	242°22'42"
372		7440,000	9.255.171,1838	526.059,1268	272,3147	241°37'28"
373		7460,000	9.255.188,7809	526.049,6218	272,5405	241°37'28"
374		7480,000	9.255.206,3779	526.040,1169	272,7663	241°37'28"
374+0,175	PI200	7480,175	9.255.206,5319	526.040,0337	272,7683	240°05'56"
375		7500,000	9.255.223,4487	526.029,6968	273,1623	238°34'24"



Escala	Descrição	Progressiva	Norte	Este	Oeste	Azimuth
375+10,588	PI201	7510,588	9.255.232,4834	526.024,1763	273,3727	226°40'06"
376		7520,000	9.255.237,8501	526.016,4440	273,2605	214°45'47"
377		7540,000	9.255.249,2538	526.000,0137	273,0219	214°45'47"
378		7560,000	9.255.260,6574	525.983,5833	272,7834	214°45'47"
378+3,012	PI202	7563,012	9.255.262,3747	525.981,1091	272,7475	218°38'42"
379		7580,000	9.255.273,8577	525.968,5895	272,5310	222°31'38"
380		7600,000	9.255.287,3765	525.953,8504	272,2761	222°31'38"
380+7,606	PI203	7607,606	9.255.292,5177	525.948,2451	272,1792	225°51'33"
381		7620,000	9.255.301,8987	525.940,1451	272,2491	229°11'28"
382		7640,000	9.255.317,0365	525.927,0743	272,2825	229°11'28"
382+14,111	PI204	7654,111	9.255.327,7173	525.917,8520	272,3060	224°49'46"
383		7660,000	9.255.331,5391	525.913,3721	272,2927	220°28'04"
384		7680,000	9.255.344,5196	525.898,1567	272,2474	220°28'04"
385		7700,000	9.255.357,5000	525.882,9413	272,2022	220°28'04"
386		7720,000	9.255.370,4804	525.867,7259	272,1570	220°28'04"
386+6,831	PI205	7726,831	9.255.374,9139	525.862,5290	272,1415	217°40'41"
387		7740,000	9.255.382,4463	525.851,7270	271,9095	214°53'19"
388		7760,000	9.255.393,8859	525.835,3216	271,5571	214°53'19"
389		7780,000	9.255.405,3256	525.818,9163	271,2047	214°53'19"
389+16,972	PI206	7796,972	9.255.415,0332	525.804,9948	270,9057	217°35'23"
390		7800,000	9.255.416,9914	525.802,6851	270,8923	220°17'27"
391		7820,000	9.255.429,9247	525.787,4286	270,6037	220°17'27"
392		7840,000	9.255.442,8581	525.772,1742	270,7151	220°17'27"
393		7860,000	9.255.455,7914	525.756,9188	270,6266	220°17'27"
394		7880,000	9.255.468,7248	525.741,6633	270,5380	220°17'27"
394+1,687	PI207	7881,687	9.255.469,8159	525.740,3763	270,5305	221°17'56"
395		7900,000	9.255.482,1423	525.726,8332	270,6503	222°18'26"
396		7920,000	9.255.495,6044	525.712,0423	270,7810	222°18'26"
396+3,220	PI208	7923,220	9.255.497,7719	525.709,6608	270,8021	224°34'26"
397		7940,000	9.255.510,0120	525.698,1829	270,7783	226°50'26"
398		7960,000	9.255.524,6011	525.684,5023	270,7499	226°50'26"
399		7980,000	9.255.539,1901	525.670,8217	270,7215	226°50'26"
400		8000,000	9.255.553,7792	525.657,1411	270,6931	226°50'26"
400+11,682	PI209	8011,682	9.255.562,3004	525.649,1505	270,6765	224°54'27"
401		8020,000	9.255.567,9708	525.643,0643	270,7430	222°58'28"
402		8040,000	9.255.581,6043	525.628,4311	270,9028	222°58'28"
402+10,821	PI210	8050,821	9.255.588,9807	525.620,5138	270,9893	216°15'12"
403		8060,000	9.255.593,5051	525.612,5274	271,0912	209°31'57"
403+12,866	PI211	8072,866	9.255.599,8471	525.601,3326	271,2341	205°06'32"
404		8080,000	9.255.602,3748	525.594,6619	271,5500	200°45'08"
405		8100,000	9.255.609,4613	525.575,9595	272,4355	200°45'08"
406		8120,000	9.255.616,5479	525.557,2570	273,3210	200°45'08"
406+1,389	PI212	8121,389	9.255.617,0399	525.555,9586	273,3825	208°55'54"
407		8140,000	9.255.628,2694	525.541,1166	274,7676	217°06'40"
407+6,956	PI213	8146,956	9.255.632,4662	525.535,5696	275,2852	219°02'35"
408		8160,000	9.255.641,0197	525.525,7213	275,8578	220°58'30"
408+14,442	PI214	8174,442	9.255.650,4899	525.514,8175	276,4917	218°42'40"
409		8180,000	9.255.653,7917	525.510,3467	276,6058	216°26'49"



Estaca	Descrição	Progressiva	Norte	Este	Oeste	Azimuth
410		8200,000	9.255.665,6732	525.494,2586	277,0162	216°26'49"
411		8220,000	9.255.677,5548	525.478,1704	277,4267	216°26'49"
411+7,461	PI215	8227,461	9.255.681,9874	525.472,1685	277,5798	209°35'52"
412		8240,000	9.255.686,8359	525.460,6052	277,9887	202°44'54"
412+14,617	PI216	8254,617	9.255.692,4880	525.447,1255	278,4654	211°29'24"
413		8260,000	9.255.695,9650	525.443,0157	278,4340	220°13'54"
413+16,889	PI217	8276,889	9.255.706,8732	525.430,1220	278,3356	220°13'54"

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CREA 53913



QUANTITATIVOS DE MATERIAL

PREFEITURA MUNICIPAL DE IPAUMIRIM

COMUNIDADE SÃO VICENTE

VOLUME 10 cm DE BASE

ESTACAS	DIST. ACUMULADO	LARGURA	COTA TN	C. ATERRO	VOLUME	DISTÂNCIA	V. ACUMULADO
0	0	5	289,515	289,615	0,5		
1	20	5	290,9396	291,0396	0,5	20	10
1+11,581	31,581	5	291,7646	291,8646	0,5	11,581	5,7905
2	40	5	292,0999	292,1999	0,5	8,419	4,2095
3	60	5	292,8963	292,9963	0,5	20	10
3+3,713	63,713	5	293,0442	293,1442	0,5	3,713	1,8565
4	80	5	293,4362	293,5362	0,5	16,287	8,1435
5	100	5	293,9177	294,0177	0,5	20	10
5+2,395	102,395	5	293,9753	294,0753	0,5	2,395	1,1975
6	120	5	293,9749	294,0749	0,5	17,605	8,8025
6+17,808	137,808	5	293,9745	294,0745	0,5	17,808	8,904
7	140	5	293,9849	294,0849	0,5	2,192	1,096
8	160	5	294,08	294,18	0,5	20	10
9	180	5	294,1751	294,2751	0,5	20	10
10	200	5	294,2702	294,3702	0,5	20	10
11	220	5	294,3653	294,4653	0,5	20	10
11+3,236	223,236	5	294,3807	294,4807	0,5	3,236	1,618
12	240	5	294,5767	294,6767	0,5	16,764	8,382
12+0,522	240,522	5	294,5828	294,6828	0,5	0,522	0,261
13	260	5	293,7354	293,8354	0,5	19,478	9,739
13+2,777	262,777	5	293,6146	293,7146	0,5	2,777	1,3885
14	280	5	292,8563	292,9563	0,5	17,223	8,6115
14+11,401	291,401	5	292,3544	292,4544	0,5	11,401	5,7005
15	300	5	292,4744	292,5744	0,5	8,599	4,2995
16	320	5	292,7534	292,8534	0,5	20	10
17	340	5	293,0324	293,1324	0,5	20	10
17+0,710	340,71	5	293,0423	293,1423	0,5	0,71	0,355
18	360	5	295,5115	295,6115	0,5	19,29	9,645
18+10,818	370,818	5	296,8964	296,9964	0,5	10,818	5,409
19	380	5	297,9437	298,0437	0,5	9,182	4,591
19+19,055	399,055	5	300,1174	300,2174	0,5	19,055	9,5275
20	400	5	300,1945	300,2945	0,5	0,945	0,4725
21	420	5	301,8261	301,9261	0,5	20	10
21+9,245	429,245	5	302,5803	302,6803	0,5	9,245	4,6225
22	440	5	303,1662	303,2662	0,5	10,755	5,3775
22+7,687	447,687	5	303,5849	303,6849	0,5	7,687	3,8435
23	460	5	303,885	303,985	0,5	12,313	6,1565
24	480	5	304,3725	304,4725	0,5	20	10
24+8,241	488,241	5	304,5734	304,6734	0,5	8,241	4,1205
25	500	5	304,7305	304,8305	0,5	11,759	5,8795
26	520	5	304,9976	305,0976	0,5	20	10
26+9,952	529,952	5	305,1305	305,2305	0,5	9,952	4,976
27	540	5	304,6211	304,7211	0,5	10,048	5,024

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27+19,445	559,445	5	303,6352	303,7352	0,5	19,445	9,7725
28	560	5	303,6518	303,7518	0,5	0,555	0,2775
29	580	5	304,2502	304,3502	0,5	20	10
29+17,235	597,235	5	304,7659	304,8659	0,5	17,235	8,6175
30	600	5	304,7661	304,8661	0,5	2,765	1,3825
30+18,532	618,532	5	304,6395	304,7395	0,5	18,532	9,266
31	620	5	304,5769	304,6769	0,5	1,468	0,734
31+19,693	639,693	5	303,737	303,837	0,5	19,693	9,8465
32	640	5	303,707	303,807	0,5	0,307	0,1535
33	660	5	301,7525	301,8525	0,5	20	10
33+0,284	660,284	5	301,7248	301,8248	0,5	0,284	0,142
34	680	5	299,3256	299,4256	0,5	19,716	9,858
34+5,894	685,894	5	298,6084	298,7084	0,5	5,894	2,947
35	700	5	298,1861	298,2861	0,5	14,106	7,053
35+18,413	718,413	5	297,6348	297,7348	0,5	18,413	9,2065
36	720	5	297,4981	297,5981	0,5	1,587	0,7935
36+15,988	735,988	5	296,1214	296,2214	0,5	15,988	7,994
37	740	5	295,81	295,91	0,5	4,012	2,006
37+13,511	753,511	5	294,7616	294,8616	0,5	13,511	6,7555
38	760	5	294,9957	295,0957	0,5	6,489	3,2445
38+5,515	765,515	5	295,1947	295,2947	0,5	5,515	2,7575
39	780	5	296,4497	296,5497	0,5	14,485	7,2425
39+4,607	784,607	5	296,8489	296,9489	0,5	4,607	2,3035
40	800	5	297,4542	297,5542	0,5	15,393	7,6965
41	820	5	298,2408	298,3408	0,5	20	10
41+7,386	827,386	5	298,4774	298,5774	0,5	7,386	3,693
42	840	5	298,0632	298,1632	0,5	12,614	6,307
43	860	5	297,4064	297,5064	0,5	20	10
44	880	5	296,7496	296,8496	0,5	20	10
44+0,797	880,797	5	296,7234	296,8234	0,5	0,797	0,3985
45	900	5	295,5396	295,6396	0,5	19,203	9,6015
45+13,351	913,351	5	294,7166	294,8166	0,5	13,351	6,6755
46	920	5	294,0985	294,1985	0,5	6,649	3,3245
47	940	5	292,2395	292,3395	0,5	20	10
47+8,697	948,697	5	291,4311	291,5311	0,5	8,697	4,3485
48	960	5	290,8321	290,9321	0,5	11,303	5,6515
49	980	5	289,7723	289,8723	0,5	20	10
49+0,494	980,494	5	289,7461	289,8461	0,5	0,494	0,247
50	1000	5	289,5287	289,6287	0,5	19,506	9,753
51	1020	5	289,3059	289,4059	0,5	20	10
51+2,411	1022,411	5	289,279	289,379	0,5	2,411	1,2055
52	1040	5	289,5707	289,6707	0,5	17,589	8,7945
53	1060	5	289,9023	290,0023	0,5	20	10
53+17,166	1077,166	5	290,187	290,287	0,5	17,166	8,583
54	1080	5	290,5846	290,6846	0,5	2,834	1,417
55	1100	5	293,5904	293,6904	0,5	20	10
55+7,669	1107,669	5	294,4673	294,5673	0,5	7,669	3,8345
56	1120	5	294,5897	294,6897	0,5	12,331	6,1655
57	1140	5	294,7882	294,8882	0,5	20	10

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Comissão Permanente de FLS. 108
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57+2,518	1142,518	5	294,8132	294,9132	0,5	2,518	1,259
58	1160	5	294,0245	294,1245	0,5	17,482	8,741
59	1180	5	293,1221	293,2221	0,5	20	10
59+0,529	1180,529	5	293,0982	293,1982	0,5	0,529	0,2645
60	1200	5	292,2627	292,3627	0,5	19,471	9,7355
60+8,170	1208,17	5	291,9121	292,0121	0,5	8,17	4,085
61	1220	5	291,8311	291,9311	0,5	11,83	5,915
62	1240	5	291,6942	291,7942	0,5	20	10
62+0,759	1240,759	5	291,689	291,789	0,5	0,759	0,3795
63	1260	5	290,7011	290,8011	0,5	19,241	9,6205
64	1280	5	289,6742	289,7742	0,5	20	10
64+14,062	1294,062	5	288,9522	289,0522	0,5	14,062	7,031
65	1300	5	288,7377	288,8377	0,5	5,938	2,969
66	1320	5	288,0154	288,1154	0,5	20	10
66+8,330	1328,33	5	287,7145	287,8145	0,5	8,33	4,165
67	1340	5	287,714	287,814	0,5	11,67	5,835
68	1360	5	287,7133	287,8133	0,5	20	10
68+1,947	1361,947	5	287,7132	287,8132	0,5	1,947	0,9735
69	1380	5	288,9018	289,0018	0,5	18,053	9,0265
69+0,712	1380,712	5	288,9487	289,0487	0,5	0,712	0,356
69+10,408	1390,408	5	289,1852	289,2852	0,5	9,696	4,848
70	1400	5	288,4984	288,5984	0,5	9,592	4,796
70+8,479	1408,479	5	287,8912	287,9912	0,5	8,479	4,2395
71	1420	5	288,0751	288,1751	0,5	11,521	5,7605
72	1440	5	288,3944	288,4944	0,5	20	10
72+8,297	1448,297	5	288,5268	288,6268	0,5	8,297	4,1485
73	1460	5	288,0939	288,1939	0,5	11,703	5,8515
74	1480	5	287,3541	287,4541	0,5	20	10
74+0,743	1480,743	5	287,3266	287,4266	0,5	0,743	0,3715
75	1500	5	287,3	287,4	0,5	19,257	9,6285
75+10,751	1510,751	5	287,2851	287,3851	0,5	10,751	5,3755
75+17,250	1517,25	5	287,3546	287,4546	0,5	6,499	3,2495
76	1520	5	287,3766	287,4766	0,5	2,75	1,375
76+11,155	1531,155	5	287,4656	287,5656	0,5	11,155	5,5775
77	1540	5	287,5489	287,6489	0,5	8,845	4,4225
77+10,241	1550,241	5	287,6453	287,7453	0,5	10,241	5,1205
78	1560	5	287,8521	287,9521	0,5	9,759	4,8795
78+16,014	1576,014	5	288,1915	288,2915	0,5	16,014	8,007
79	1580	5	288,7151	288,8151	0,5	3,986	1,993
79+17,004	1597,004	5	290,9485	291,0485	0,5	17,004	8,502
80	1600	5	290,9248	291,0248	0,5	2,996	1,498
80+14,577	1614,577	5	290,8092	290,9092	0,5	14,577	7,2885
81	1620	5	290,7144	290,8144	0,5	5,423	2,7115
82	1640	5	290,3646	290,4646	0,5	20	10
82+0,603	1640,603	5	290,3541	290,4541	0,5	0,603	0,3015
83	1660	5	290,8225	290,9225	0,5	19,397	9,6985
83+17,254	1677,254	5	291,2392	291,3392	0,5	17,254	8,627
84	1680	5	291,1895	291,2895	0,5	2,746	1,373
84+16,308	1696,308	5	290,8942	290,9942	0,5	16,308	8,154

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85	1700	5	290,7908	290,8908	0,5	3,692	1,846
86	1720	5	290,2305	290,3305	0,5	20	10
86+2.300	1722,3	5	290,1661	290,2661	0,5	2,3	1,15
87	1740	5	289,5674	289,6674	0,5	17,7	8,85
87+8,133	1748,133	5	289,2923	289,3923	0,5	8,133	4,0665
88	1760	5	289,2079	289,3079	0,5	11,867	5,9335
89	1780	5	289,0657	289,1657	0,5	20	10
89+14,452	1794,452	5	288,963	289,063	0,5	14,452	7,226
90	1800	5	288,6644	288,7644	0,5	5,548	2,774
91	1820	5	287,588	287,688	0,5	20	10
91+7,258	1827,258	5	287,1974	287,2974	0,5	7,258	3,629
92	1840	5	287,431	287,531	0,5	12,742	6,371
93	1860	5	287,7976	287,8976	0,5	20	10
93+4,521	1864,521	5	287,8805	287,9805	0,5	4,521	2,2605
94	1880	5	288,374	288,474	0,5	15,479	7,7395
95	1900	5	289,0117	289,1117	0,5	20	10
95+3,541	1903,541	5	289,1246	289,2246	0,5	3,541	1,7705
96	1920	5	291,6731	291,7731	0,5	16,459	8,2295
96+2,243	1922,243	5	292,0205	292,1205	0,5	2,243	1,1215
97	1940	5	292,7463	292,8463	0,5	17,757	8,8785
98	1960	5	293,5639	293,6639	0,5	20	10
98+10,182	1970,182	5	293,9801	294,0801	0,5	10,182	5,091
99	1980	5	294,1999	294,2999	0,5	9,818	4,909
100	2000	5	294,6478	294,7478	0,5	20	10
100+10,698	2010,698	5	294,8873	294,9873	0,5	10,698	5,349
101	2020	5	296,632	296,732	0,5	9,302	4,651
101+6,532	2026,532	5	297,8571	297,9571	0,5	6,532	3,266
101+14,083	2034,083	5	295,753	295,853	0,5	7,551	3,7755
102	2040	5	296,1171	296,2171	0,5	5,917	2,9585
103	2060	5	297,3479	297,4479	0,5	20	10
103+17,142	2077,142	5	298,4028	298,5028	0,5	17,142	8,571
104	2080	5	300,4413	300,5413	0,5	2,858	1,429
105	2100	5	301,9923	302,0923	0,5	20	10
105+12,212	2112,212	5	302,9394	303,0394	0,5	12,212	6,106
106	2120	5	303,3576	303,4576	0,5	7,788	3,894
107	2140	5	304,4317	304,5317	0,5	20	10
108	2160	5	305,5057	305,6057	0,5	20	10
108+5,739	2165,739	5	305,8139	305,9139	0,5	5,739	2,8695
109	2180	5	305,4157	305,5157	0,5	14,261	7,1305
110	2200	5	304,8573	304,9573	0,5	20	10
110+16,928	2216,928	5	304,3847	304,4847	0,5	16,928	8,464
111	2220	5	304,1613	304,2613	0,5	3,072	1,536
112	2240	5	302,7073	302,8073	0,5	20	10
112+3,374	2243,374	5	302,462	302,562	0,5	3,374	1,687
113	2260	5	302,1623	302,2623	0,5	16,626	8,313
113+6,815	2266,815	5	302,0394	302,1394	0,5	6,815	3,4075
114	2280	5	303,2888	303,3888	0,5	13,185	6,5925
114+7,684	2287,684	5	304,0168	304,1168	0,5	7,684	3,842
115	2300	5	304,8628	304,9628	0,5	12,316	6,158



116	2320	5	306,2367	306,3367	0,5	20	10
116+10,504	2330,504	5	306,9582	307,0582	0,5	10,504	5,252
117	2340	5	307,3301	307,4301	0,5	9,496	4,748
117+17,634	2357,634	5	308,0207	308,1207	0,5	17,634	8,817
118	2360	5	307,974	308,074	0,5	2,366	1,183
119	2380	5	307,579	307,679	0,5	20	10
119+13,346	2393,346	5	307,3154	307,4154	0,5	13,346	6,673
120	2400	5	306,8171	306,9171	0,5	6,654	3,327
121	2420	5	305,3196	305,4196	0,5	20	10
121+15,839	2435,839	5	304,1336	304,2336	0,5	15,839	7,9195
122	2440	5	303,6633	303,7633	0,5	4,161	2,0805
123	2460	5	301,4026	301,5026	0,5	20	10
123+15,843	2475,843	5	299,6118	299,7118	0,5	15,843	7,9215
124	2480	5	299,3211	299,4211	0,5	4,157	2,0785
125	2500	5	297,9226	298,0226	0,5	20	10
125+10,422	2510,422	5	297,1938	297,2938	0,5	10,422	5,211
126	2520	5	297,5833	297,6833	0,5	9,578	4,789
126+14,670	2534,67	5	298,18	298,28	0,5	14,67	7,335
127	2540	5	298,667	298,767	0,5	5,33	2,665
128	2560	5	300,4942	300,5942	0,5	20	10
128+3,847	2563,847	5	300,8456	300,9456	0,5	3,847	1,9235
129	2580	5	301,1112	301,2112	0,5	16,153	8,0765
130	2600	5	301,4401	301,5401	0,5	20	10
130+16,554	2616,554	5	301,7123	301,8123	0,5	16,554	8,277
131	2620	5	302,0481	302,1481	0,5	3,446	1,723
132	2640	5	303,9972	304,0972	0,5	20	10
132+4,895	2644,895	5	304,4742	304,5742	0,5	4,895	2,4475
133	2660	5	305,4361	305,5361	0,5	15,105	7,5525
134	2680	5	306,7098	306,8098	0,5	20	10
134+10,948	2690,948	5	307,407	307,507	0,5	10,948	5,474
135	2700	5	307,6086	307,7086	0,5	9,052	4,526
135+16,374	2716,374	5	307,9734	308,0734	0,5	16,374	8,187
136	2720	5	308,037	308,137	0,5	3,626	1,813
137	2740	5	308,3877	308,4877	0,5	20	10
138	2760	5	308,7384	308,8384	0,5	20	10
138+6,154	2766,154	5	308,8463	308,9463	0,5	6,154	3,077
139	2780	5	308,6323	308,7323	0,5	13,846	6,923
140	2800	5	308,3231	308,4231	0,5	20	10
141	2820	5	308,014	308,114	0,5	20	10
141+9,481	2829,481	5	307,8674	307,9674	0,5	9,481	4,7405
142	2840	5	307,7447	307,8447	0,5	10,513	5,2565
143	2860	5	307,5115	307,6115	0,5	20	10
143+14,998	2874,998	5	307,3366	307,4366	0,5	14,998	7,499
144	2880	5	307,2902	307,3902	0,5	5,002	2,501
145	2900	5	307,1045	307,2045	0,5	20	10
145+14,894	2914,894	5	306,9662	307,0662	0,5	14,894	7,447
146	2920	5	306,9852	307,0852	0,5	5,106	2,553
147	2940	5	306,7425	306,8425	0,5	20	10
148	2960	5	306,4998	306,5998	0,5	20	10



149	2980	5	306,257	306,357	0,5	20	10
150	3000	5	306,0143	306,1143	0,5	20	10
150+19,194	3019,194	5	305,7813	305,8813	0,5	19,194	9,597
151	3020	5	305,784	305,884	0,5	0,806	0,403
152	3040	5	305,8509	305,9509	0,5	20	10
152+1,447	3041,447	5	305,8557	305,9557	0,5	1,447	0,7235
153	3060	5	306,0905	306,1905	0,5	18,553	9,2765
154	3080	5	306,3435	306,4435	0,5	20	10
155	3100	5	306,5966	306,6966	0,5	20	10
155+13,508	3113,508	5	306,7675	306,8675	0,5	13,508	6,754
156	3120	5	307,1305	307,2305	0,5	6,492	3,246
157	3140	5	308,2489	308,3489	0,5	20	10
157+12,462	3152,462	5	308,9458	309,0458	0,5	12,462	6,231
158	3160	5	309,4013	309,5013	0,5	7,538	3,769
159	3180	5	310,6098	310,7098	0,5	20	10
159+18,785	3198,785	5	311,7449	311,8449	0,5	18,785	9,3925
160	3200	5	311,7519	311,8519	0,5	1,215	0,6075
161	3220	5	311,8676	311,9676	0,5	20	10
161+4,362	3224,362	5	311,8928	311,9928	0,5	4,362	2,181
162	3240	5	311,4023	311,5023	0,5	15,638	7,819
163	3260	5	310,8136	310,9136	0,5	20	10
163+0,304	3260,304	5	310,8047	310,9047	0,5	0,304	0,152
164	3280	5	310,1621	310,2621	0,5	19,696	9,848
164+4,904	3284,904	5	310,0021	310,1021	0,5	4,904	2,452
164+18,128	3298,128	5	310,0278	310,1278	0,5	13,224	6,612
165	3300	5	309,9712	310,0712	0,5	1,872	0,936
165+18,769	3318,769	5	309,404	309,504	0,5	18,769	9,3845
166	3320	5	309,3595	309,4595	0,5	1,231	0,6155
167	3340	5	308,6372	308,7372	0,5	20	10
168	3360	5	307,9149	308,0149	0,5	20	10
168+6,911	3366,911	5	307,6653	307,7653	0,5	6,911	3,4555
169	3380	5	307,0449	307,1449	0,5	13,089	6,5445
169+13,808	3393,808	5	306,3905	306,4905	0,5	13,808	6,904
170	3400	5	306,1319	306,2319	0,5	6,192	3,096
170+11,481	3411,481	5	305,6525	305,7525	0,5	11,481	5,7405
171	3420	5	305,2238	305,3238	0,5	8,519	4,2595
171+11,297	3431,297	5	304,6552	304,7552	0,5	11,297	5,6485
172	3440	5	304,2595	304,3595	0,5	8,703	4,3515
173	3460	5	303,3502	303,4502	0,5	20	10
173+12,373	3472,373	5	302,7876	302,8876	0,5	12,373	6,1865
174	3480	5	302,6583	302,7583	0,5	7,627	3,8135
175	3500	5	302,3193	302,4193	0,5	20	10
176	3520	5	301,9803	302,0803	0,5	20	10
177	3540	5	301,6413	301,7413	0,5	20	10
178	3560	5	301,3023	301,4023	0,5	20	10
179	3580	5	300,9633	301,0633	0,5	20	10
179+4,616	3584,616	5	300,885	300,985	0,5	4,616	2,308
180	3600	5	300,7724	300,8724	0,5	15,384	7,692
181	3620	5	300,626	300,726	0,5	20	10

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182	3640	5	300,4796	300,5796	0,5	20	10
183	3660	5	300,3332	300,4332	0,5	20	10
184	3680	5	300,1868	300,2868	0,5	20	10
184+7,101	3687,101	5	300,1348	300,2348	0,5	7,101	3,5505
185	3700	5	300,2453	300,3453	0,5	12,899	6,4495
186	3720	5	300,4166	300,5166	0,5	20	10
186+13,011	3733,011	5	300,5281	300,6281	0,5	13,011	6,5055
187	3740	5	300,6575	300,7575	0,5	6,989	3,4945
188	3760	5	301,0278	301,1278	0,5	20	10
189	3780	5	301,3981	301,4981	0,5	20	10
190	3800	5	301,7684	301,8684	0,5	20	10
190+1,154	3801,154	5	301,7898	301,8898	0,5	1,154	0,577
191	3820	5	302,1436	302,2436	0,5	18,846	9,423
191+4,934	3824,934	5	302,2362	302,3362	0,5	4,934	2,467
191+18,411	3838,411	5	301,8485	301,9485	0,5	13,477	6,7385
192	3840	5	301,7432	301,8432	0,5	1,589	0,7945
193	3860	5	300,4176	300,5176	0,5	20	10
194	3880	5	299,0919	299,1919	0,5	20	10
194+12,660	3892,66	5	298,2528	298,3528	0,5	12,66	6,33
195	3900	5	297,6993	297,7993	0,5	7,34	3,67
196	3920	5	296,191	296,291	0,5	20	10
197	3940	5	294,6828	294,7828	0,5	20	10
197+1,957	3941,957	5	294,5352	294,6352	0,5	1,957	0,9785
197+17,751	3957,751	5	293,3744	293,4744	0,5	15,794	7,897
198	3960	5	293,2996	293,3996	0,5	2,249	1,1245
199	3980	5	292,6341	292,7341	0,5	20	10
199+6,836	3986,836	5	292,4066	292,5066	0,5	6,836	3,418
200	4000	5	291,9527	292,0527	0,5	13,164	6,582
201	4020	5	291,2632	291,3632	0,5	20	10
201+11,662	4031,662	5	290,8611	290,9611	0,5	11,662	5,831
202	4040	5	289,7766	289,8766	0,5	8,338	4,169
202+5,761	4045,761	5	289,0272	289,1272	0,5	5,761	2,8805
202+19,278	4059,278	5	288,6319	288,7319	0,5	13,517	6,7585
203	4060	5	288,678	288,778	0,5	0,722	0,361
204	4080	5	289,9558	290,0558	0,5	20	10
204+1,866	4081,866	5	290,075	290,175	0,5	1,866	0,933
205	4100	5	289,2937	289,3937	0,5	18,134	9,067
206	4120	5	288,4319	288,5319	0,5	20	10
206+3,204	4123,204	5	288,2939	288,3939	0,5	3,204	1,602
207	4140	5	287,9386	288,0386	0,5	16,796	8,398
207+9,687	4149,687	5	287,7337	287,8337	0,5	9,687	4,8435
208	4160	5	287,9992	288,0992	0,5	10,313	5,1565
209	4180	5	288,514	288,614	0,5	20	10
209+9,543	4189,543	5	288,7596	288,8596	0,5	9,543	4,7715
210	4200	5	289,0957	289,1957	0,5	10,457	5,2285
210+8,852	4208,852	5	289,3802	289,4802	0,5	8,852	4,426
211	4220	5	289,281	289,381	0,5	11,148	5,574
212	4240	5	289,1032	289,2032	0,5	20	10
212+11,279	4251,279	5	288,9705	289,0705	0,5	11,279	5,6395

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213	4260	5	288,9694	289,0694	0,5	8,721	4,9605
214	4280	5	288,9669	289,0669	0,5	20	10
215	4300	5	288,9644	289,0644	0,5	20	10
215+2,450	4302,45	5	288,9641	289,0641	0,5	2,45	1,225
216	4320	5	288,6893	288,7893	0,5	17,55	8,775
217	4340	5	288,3762	288,4762	0,5	20	10
217+5,593	4345,593	5	288,2886	288,3886	0,5	5,593	2,7965
218	4360	5	287,7976	287,8976	0,5	14,407	7,2035
219	4380	5	287,1159	287,2159	0,5	20	10
219+1,836	4381,836	5	287,0533	287,1533	0,5	1,836	0,918
220	4400	5	286,3835	286,4835	0,5	18,164	9,082
220+4,956	4404,956	5	286,2007	286,3007	0,5	4,956	2,478
221	4420	5	285,0791	285,1791	0,5	15,044	7,522
222	4440	5	283,5879	283,6879	0,5	20	10
222+4,323	4444,323	5	283,2656	283,3656	0,5	4,323	2,1615
223	4460	5	281,7788	281,8788	0,5	15,677	7,8385
223+7,851	4467,851	5	281,0341	281,1341	0,5	7,851	3,9255
224	4480	5	280,2846	280,3846	0,5	12,149	6,0745
224+16,829	4496,829	5	279,2464	279,3464	0,5	16,829	8,4145
225	4500	5	279,3449	279,4449	0,5	3,171	1,5855
225+14,211	4514,211	5	279,7862	279,8862	0,5	14,211	7,1055
226	4520	5	280,0743	280,1743	0,5	5,789	2,8945
226+3,238	4523,238	5	280,2355	280,3355	0,5	3,238	1,619
227	4540	5	280,3053	280,4053	0,5	16,762	8,381
228	4560	5	280,3887	280,4887	0,5	20	10
229	4580	5	280,472	280,572	0,5	20	10
229+5,600	4585,6	5	280,4953	280,5953	0,5	5,6	2,8
230	4600	5	280,4545	280,5545	0,5	14,4	7,2
231	4620	5	280,3978	280,4978	0,5	20	10
231+11,564	4631,564	5	280,365	280,465	0,5	11,564	5,782
232	4640	5	280,4344	280,5344	0,5	8,436	4,218
232+14,276	4654,276	5	280,5518	280,6518	0,5	14,276	7,138
233	4660	5	280,8643	280,9643	0,5	5,724	2,862
234	4680	5	281,956	282,056	0,5	20	10
234+15,799	4695,799	5	282,8185	282,9185	0,5	15,799	7,8995
235	4700	5	282,8934	282,9934	0,5	4,201	2,1005
236	4720	5	283,3966	283,4966	0,5	20	10
237	4740	5	283,8999	283,9999	0,5	20	10
237+2,273	4742,273	5	283,9571	284,0571	0,5	2,273	1,1365
238	4760	5	283,1613	283,2613	0,5	17,727	8,8635
239	4780	5	282,2634	282,3634	0,5	20	10
240	4800	5	281,3656	281,4656	0,5	20	10
240+3,869	4803,869	5	281,1919	281,2919	0,5	3,869	1,9345
241	4820	5	280,4932	280,5932	0,5	16,131	8,0655
241+9,209	4829,209	5	280,0943	280,1943	0,5	9,209	4,6045
242	4840	5	280,1168	280,2168	0,5	10,791	5,3955
243	4860	5	280,1585	280,2585	0,5	20	10
243+18,729	4878,729	5	280,1975	280,2975	0,5	18,729	9,3645
244	4880	5	280,2228	280,3228	0,5	1,271	0,6355

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245	4900	5	280,6217	280,7217	0,5	20	10
245+9,317	4909,317	5	280,8075	280,9075	0,5	9,317	4,6585
246	4920	5	280,4254	280,5254	0,5	10,683	5,3415
247	4940	5	279,7101	279,8101	0,5	20	10
247+15,622	4955,622	5	279,1514	279,2514	0,5	15,622	7,811
248	4960	5	278,9782	279,0782	0,5	4,378	2,189
249	4980	5	278,1868	278,2868	0,5	20	10
249+2,154	4982,154	5	278,1015	278,2015	0,5	2,154	1,077
250	5000	5	278,1088	278,2088	0,5	17,846	8,923
251	5020	5	278,117	278,217	0,5	20	10
252	5040	5	278,1252	278,2252	0,5	20	10
253	5060	5	278,1334	278,2334	0,5	20	10
253+1,747	5061,747	5	278,1341	278,2341	0,5	1,747	0,8735
254	5080	5	278,0979	278,1979	0,5	18,253	9,1265
255	5100	5	278,0582	278,1582	0,5	20	10
255+17,910	5117,91	5	278,0226	278,1226	0,5	17,91	8,955
256	5120	5	278,0192	278,1192	0,5	2,09	1,045
257	5140	5	277,9862	278,0862	0,5	20	10
257+4,952	5144,952	5	277,978	278,078	0,5	4,952	2,476
258	5160	5	278,0012	278,1012	0,5	15,048	7,524
259	5180	5	278,0321	278,1321	0,5	20	10
259+3,123	5183,123	5	278,0369	278,1369	0,5	3,123	1,5615
260	5200	5	278,0521	278,1521	0,5	16,877	8,4385
260+10,710	5210,71	5	278,0617	278,1617	0,5	10,71	5,355
261	5220	5	278,1639	278,2639	0,5	9,29	4,645
261+8,800	5228,8	5	278,2608	278,3608	0,5	8,8	4,4
262	5240	5	277,9123	278,0123	0,5	11,2	5,6
262+0,576	5240,576	5	277,8944	277,9944	0,5	0,576	0,288
263	5260	5	277,7632	277,8632	0,5	19,424	9,712
264	5280	5	277,628	277,728	0,5	20	10
264+0,224	5280,224	5	277,6265	277,7265	0,5	0,224	0,112
264+15,432	5295,432	5	277,6598	277,7598	0,5	15,208	7,604
265	5300	5	277,687	277,787	0,5	4,568	2,284
265+7,556	5307,556	5	277,7319	277,8319	0,5	7,556	3,778
266	5320	5	277,9861	278,0861	0,5	12,444	6,222
267	5340	5	278,3946	278,4946	0,5	20	10
268	5360	5	278,8032	278,9032	0,5	20	10
268+8,361	5368,361	5	278,9983	279,0983	0,5	8,361	4,1805
269	5380	5	279,9223	280,0223	0,5	11,639	5,8195
269+16,819	5396,819	5	281,2575	281,3575	0,5	16,819	8,4095
270	5400	5	281,4345	281,5345	0,5	3,161	1,5805
270+8,996	5408,996	5	281,9348	282,0348	0,5	8,996	4,498
271	5420	5	281,9413	282,0413	0,5	11,004	5,502
272	5440	5	281,9532	282,0532	0,5	20	10
272+7,490	5447,49	5	281,9576	282,0576	0,5	7,49	3,745
273	5460	5	282,0671	282,1671	0,5	12,51	6,255
274	5480	5	282,2423	282,3423	0,5	20	10
275	5500	5	282,4174	282,5174	0,5	20	10
276	5520	5	282,5925	282,6925	0,5	20	10

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276+6,691	5526,691	5	282,6511	282,7511	0,5	6,691	3,3455
277	5540	5	282,9431	283,0431	0,5	13,309	6,6545
277+16,293	5556,293	5	283,3005	283,4005	0,5	16,293	8,1465
278	5560	5	283,3	283,4	0,5	3,707	1,8535
279	5580	5	283,2971	283,3971	0,5	20	10
279+4,283	5584,283	5	283,2965	283,3965	0,5	4,283	2,1415
280	5600	5	282,344	282,444	0,5	15,717	7,8585
280+19,499	5619,499	5	281,1623	281,2623	0,5	19,499	9,7495
281	5620	5	281,1385	281,2385	0,5	0,501	0,2505
282	5640	5	280,1901	280,2901	0,5	20	10
282+19,586	5659,586	5	279,2614	279,3614	0,5	19,586	9,793
283	5660	5	279,2341	279,3341	0,5	0,414	0,207
284	5680	5	277,914	278,014	0,5	20	10
284+1,030	5681,03	5	277,846	277,946	0,5	1,03	0,515
285	5700	5	277,7641	277,8641	0,5	18,97	9,485
286	5720	5	277,6777	277,7777	0,5	20	10
286+1,357	5721,357	5	277,6718	277,7718	0,5	1,357	0,6785
287	5740	5	277,803	277,903	0,5	18,643	9,3215
288	5760	5	277,9438	278,0438	0,5	20	10
289	5780	5	278,0846	278,1846	0,5	20	10
290	5800	5	278,2254	278,3254	0,5	20	10
291	5820	5	278,3661	278,4661	0,5	20	10
291+8,888	5828,888	5	278,4287	278,5287	0,5	8,888	4,444
292	5840	5	278,6376	278,7376	0,5	11,112	5,556
293	5860	5	279,0136	279,1136	0,5	20	10
293+19,108	5879,108	5	279,3729	279,4729	0,5	19,108	9,554
294	5880	5	279,3999	279,4999	0,5	0,892	0,446
295	5900	5	280,0055	280,1055	0,5	20	10
296	5920	5	280,6111	280,7111	0,5	20	10
296+19,625	5939,625	5	281,2054	281,3054	0,5	19,625	9,8125
297	5940	5	281,2127	281,3127	0,5	0,375	0,1875
298	5960	5	281,6008	281,7008	0,5	20	10
299	5980	5	281,989	282,089	0,5	20	10
300	6000	5	282,3771	282,4771	0,5	20	10
300+1,278	6001,278	5	282,4019	282,5019	0,5	1,278	0,639
301	6020	5	282,7328	282,8328	0,5	18,722	9,361
302	6040	5	283,0862	283,1862	0,5	20	10
303	6060	5	283,4396	283,5396	0,5	20	10
303+12,974	6072,974	5	283,6689	283,7689	0,5	12,974	6,487
304	6080	5	283,5483	283,6483	0,5	7,026	3,513
305	6100	5	283,205	283,305	0,5	20	10
306	6120	5	282,8617	282,9617	0,5	20	10
306+8,204	6128,204	5	282,7209	282,8209	0,5	8,204	4,102
307	6140	5	282,4657	282,5657	0,5	11,796	5,898
308	6160	5	282,0331	282,1331	0,5	20	10
309	6180	5	281,6004	281,7004	0,5	20	10
310	6200	5	281,1678	281,2678	0,5	20	10
310+3,961	6203,961	5	281,0821	281,1821	0,5	3,961	1,9805
311	6220	5	279,8654	279,9654	0,5	16,039	8,0195

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312	6240	5	278,3482	278,4482	0,5	20	10,712
312+0,324	6240,324	5	278,3236	278,4236	0,5	0,324	0,162
313	6260	5	278,1211	278,2211	0,5	19,676	9,838
313+14,821	6274,821	5	277,9686	278,0686	0,5	14,821	7,4105
314	6280	5	277,9812	278,0812	0,5	5,179	2,5895
314+10,049	6290,049	5	278,0056	278,1056	0,5	10,049	5,0245
315	6300	5	277,7094	277,8094	0,5	9,951	4,9755
316	6320	5	277,1141	277,2141	0,5	20	10
317	6340	5	276,5189	276,6189	0,5	20	10
318	6360	5	275,9236	276,0236	0,5	20	10
318+1,922	6361,922	5	275,8664	275,9664	0,5	1,922	0,961
319	6380	5	275,1536	275,2536	0,5	18,078	9,039
320	6400	5	274,3649	274,4649	0,5	20	10
320+10,381	6410,381	5	273,9556	274,0556	0,5	10,381	5,1905
321	6420	5	273,8915	273,9915	0,5	9,619	4,8095
322	6440	5	273,7583	273,8583	0,5	20	10
323	6460	5	273,625	273,725	0,5	20	10
324	6480	5	273,4918	273,5918	0,5	20	10
324+19,524	6499,524	5	273,3617	273,4617	0,5	19,524	9,762
325	6500	5	273,3611	273,4611	0,5	0,476	0,238
326	6520	5	273,3356	273,4356	0,5	20	10
327	6540	5	273,3102	273,4102	0,5	20	10
328	6560	5	273,2847	273,3847	0,5	20	10
328+1,019	6561,019	5	273,2834	273,3834	0,5	1,019	0,5095
329	6580	5	273,1901	273,2901	0,5	18,981	9,4905
330	6600	5	273,0917	273,1917	0,5	20	10
331	6620	5	272,9934	273,0934	0,5	20	10
331+14,932	6634,932	5	272,92	273,02	0,5	14,932	7,466
332	6640	5	272,9379	273,0379	0,5	5,068	2,534
333	6660	5	272,8611	272,9611	0,5	20	10
334	6680	5	272,7842	272,8842	0,5	20	10
335	6700	5	272,7074	272,8074	0,5	20	10
336	6720	5	272,6305	272,7305	0,5	20	10
336+0,070	6720,07	5	272,6303	272,7303	0,5	0,07	0,035
337	6740	5	273,5602	273,6602	0,5	19,93	9,965
337+14,773	6754,773	5	274,2494	274,3494	0,5	14,773	7,3865
338	6760	5	274,0655	274,1655	0,5	5,227	2,6135
339	6780	5	273,362	273,462	0,5	20	10
339+0,976	6780,976	5	273,3276	273,4276	0,5	0,976	0,488
340	6800	5	272,9247	273,0247	0,5	19,024	9,512
340+19,066	6819,066	5	272,521	272,621	0,5	19,066	9,533
341	6820	5	272,5343	272,6343	0,5	0,934	0,467
342	6840	5	272,8186	272,9186	0,5	20	10
343	6860	5	273,1029	273,2029	0,5	20	10
343+13,549	6873,549	5	273,2955	273,3955	0,5	13,549	6,7745
344	6880	5	273,5625	273,6625	0,5	6,451	3,2255
345	6900	5	274,3904	274,4904	0,5	20	10
345+12,356	6912,356	5	274,9019	275,0019	0,5	12,356	6,178
346	6920	5	274,7748	274,8748	0,5	7,644	3,822

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347	6940	5	274,4421	274,5421	0,5	20	
347+7,956	6947,956	5	274,3098	274,4098	0,5	7,956	3,978
348	6960	5	274,4572	274,5572	0,5	12,044	6,022
349	6980	5	274,7019	274,8019	0,5	20	10
349+16,538	6996,538	5	274,9042	275,0042	0,5	16,538	8,269
350	7000	5	275,1849	275,2849	0,5	3,462	1,731
350+8,514	7008,514	5	275,8752	275,9752	0,5	8,514	4,257
350+17,291	7017,291	5	276,7875	276,8875	0,5	8,777	4,3885
351	7020	5	276,979	277,079	0,5	2,709	1,3545
351+18,726	7038,726	5	278,3032	278,4032	0,5	18,726	9,363
352	7040	5	278,3738	278,4738	0,5	1,274	0,637
353	7060	5	279,4827	279,5827	0,5	20	10
353+13,608	7073,608	5	280,2372	280,3372	0,5	13,608	6,804
354	7080	5	280,0421	280,1421	0,5	6,392	3,196
355	7100	5	279,4317	279,5317	0,5	20	10
356	7120	5	278,8213	278,9213	0,5	20	10
356+9,639	7129,639	5	278,5271	278,6271	0,5	9,639	4,8195
357	7140	5	277,9437	278,0437	0,5	10,361	5,1805
358	7160	5	276,8175	276,9175	0,5	20	10
358+13,453	7173,453	5	276,06	276,16	0,5	13,453	6,7265
359	7180	5	275,5812	275,6812	0,5	6,547	3,2735
360	7200	5	274,1186	274,2186	0,5	20	10
360+17,781	7217,781	5	272,8182	272,9182	0,5	17,781	8,8905
361	7220	5	272,787	272,887	0,5	2,219	1,1095
361+16,660	7236,66	5	272,5526	272,6526	0,5	16,66	8,33
362	7240	5	272,5157	272,6157	0,5	3,24	1,62
363	7260	5	272,2948	272,3948	0,5	20	10
364	7280	5	272,0739	272,1739	0,5	20	10
364+18,717	7298,717	5	271,8672	271,9672	0,5	18,717	9,3585
365	7300	5	271,8635	271,9635	0,5	1,283	0,6415
366	7320	5	271,8062	271,9062	0,5	20	10
367	7340	5	271,7488	271,8488	0,5	20	10
367+14,811	7354,811	5	271,7063	271,8063	0,5	14,811	7,4055
368	7360	5	271,7401	271,8401	0,5	5,189	2,5945
369	7380	5	271,8705	271,9705	0,5	20	10
370	7400	5	272,0008	272,1008	0,5	20	10
371	7420	5	272,1311	272,2311	0,5	20	10
371+8,862	7428,862	5	272,1889	272,2889	0,5	8,862	4,431
372	7440	5	272,3147	272,4147	0,5	11,138	5,569
373	7460	5	272,5405	272,6405	0,5	20	10
374	7480	5	272,7003	272,8003	0,5	20	10
374+0,175	7480,175	5	272,7683	272,8683	0,5	0,175	0,0875
375	7500	5	273,1623	273,2623	0,5	19,825	9,9125
375+10,588	7510,588	5	273,3727	273,4727	0,5	10,588	5,294
376	7520	5	273,2605	273,3605	0,5	9,412	4,706
377	7540	5	273,0219	273,1219	0,5	20	10
378	7560	5	272,7834	272,8834	0,5	20	10
378+3,012	7563,012	5	272,7475	272,8475	0,5	3,012	1,506
379	7580	5	272,531	272,631	0,5	16,988	8,494

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380	7600	5	272,2761	272,3761	0,5	20	10
380+7,606	7607,606	5	272,1792	272,2792	0,5	7,606	3,803
381	7620	5	272,2491	272,3491	0,5	12,394	6,197
382	7640	5	272,2825	272,3825	0,5	20	10
382+14,111	7654,111	5	272,306	272,406	0,5	14,111	7,0555
383	7660	5	272,2927	272,3927	0,5	5,889	2,9445
384	7680	5	272,2474	272,3474	0,5	20	10
385	7700	5	272,2022	272,3022	0,5	20	10
386	7720	5	272,157	272,257	0,5	20	10
386+6,831	7726,831	5	272,1415	272,2415	0,5	6,831	3,4155
387	7740	5	271,9095	272,0095	0,5	13,169	6,5845
388	7760	5	271,5571	271,6571	0,5	20	10
389	7780	5	271,2047	271,3047	0,5	20	10
389+16,972	7796,972	5	270,9057	271,0057	0,5	16,972	8,486
390	7800	5	270,8923	270,9923	0,5	3,028	1,514
391	7820	5	270,8037	270,9037	0,5	20	10
392	7840	5	270,7151	270,8151	0,5	20	10
393	7860	5	270,6266	270,7266	0,5	20	10
394	7880	5	270,538	270,638	0,5	20	10
394+1,687	7881,687	5	270,5305	270,6305	0,5	1,687	0,8435
395	7900	5	270,6503	270,7503	0,5	18,313	9,1565
396	7920	5	270,781	270,881	0,5	20	10
396+3,220	7923,22	5	270,8021	270,9021	0,5	3,22	1,61
397	7940	5	270,7783	270,8783	0,5	16,78	8,39
398	7960	5	270,7499	270,8499	0,5	20	10
399	7980	5	270,7215	270,8215	0,5	20	10
400	8000	5	270,6931	270,7931	0,5	20	10
400+11,682	8011,682	5	270,6765	270,7765	0,5	11,682	5,841
401	8020	5	270,743	270,843	0,5	8,318	4,159
402	8040	5	270,9028	271,0028	0,5	20	10
402+10,821	8050,821	5	270,9893	271,0893	0,5	10,821	5,4105
403	8060	5	271,0912	271,1912	0,5	9,179	4,5895
403+12,866	8072,866	5	271,2341	271,3341	0,5	12,866	6,433
404	8080	5	271,55	271,65	0,5	7,134	3,567
405	8100	5	272,4355	272,5355	0,5	20	10
406	8120	5	273,321	273,421	0,5	20	10
406+1,389	8121,389	5	273,3825	273,4825	0,5	1,389	0,6945
407	8140	5	274,7676	274,8676	0,5	18,611	9,3055
407+6,956	8146,956	5	275,2852	275,3852	0,5	6,956	3,478
408	8160	5	275,8578	275,9578	0,5	13,044	6,522
408+14,442	8174,442	5	276,4917	276,5917	0,5	14,442	7,221
409	8180	5	276,6058	276,7058	0,5	5,558	2,779
410	8200	5	277,0162	277,1162	0,5	20	10
411	8220	5	277,4267	277,5267	0,5	20	10
411+7,461	8227,461	5	277,5798	277,6798	0,5	7,461	3,7305
412	8240	5	277,9887	278,0887	0,5	12,539	6,2695
412+14,617	8254,617	5	278,4654	278,5654	0,5	14,617	7,3085
413	8260	5	278,434	278,534	0,5	5,383	2,6915
413+16,889	8276,889	5	278,3356	278,4356	0,5	16,889	8,4445

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TOTAL	8276,889				315,5	8276,889	FLS. 4138,4445
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Richardson Jorge Dantas

RICHARDSON JORGE DANTAS
ENGENHEIRO CIVIL
CREA 53913

FIM DE TRECHO

COORDENADA UTM
NORTE 9 255.706,8732
LESTE 625.430,1220



IMAGEM GOOGLE MAPS



LEGENDA DE CURVAS

- █ CURVA PRIMÁRIA
- █ CURVA MESTRA
- █ TRAÇADO

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Engenheiro Civil
CREA-CE 53913

PROJ. AUTOMÁTICO

PROJ. AUTOMÁTICO

OBRA:

EMPIC-APRESENTAÇÃO ESTRADAS VICINAIS

EMPÍRECO: COMUNIDADE SÃO VICENTE - ZONA RURAL

RELIÇÃO: PROJETO DE CURVA

QUANTIDADE DE CURVAS: 02

8,275

8,275

8,275

8,275

DETALHE DE PERSPECTIVA DE CORTE



INÍCIO DE TRECHO

COORDENADA UTM
NORTE 9 249.898,6653
LESTE 550.532,6635

DETALHE DE TRANSVERSAL DE CORTE



DETALHE DE VALETA E SANGRIA

