

ANEXOS

CAPÍTULO N° 5

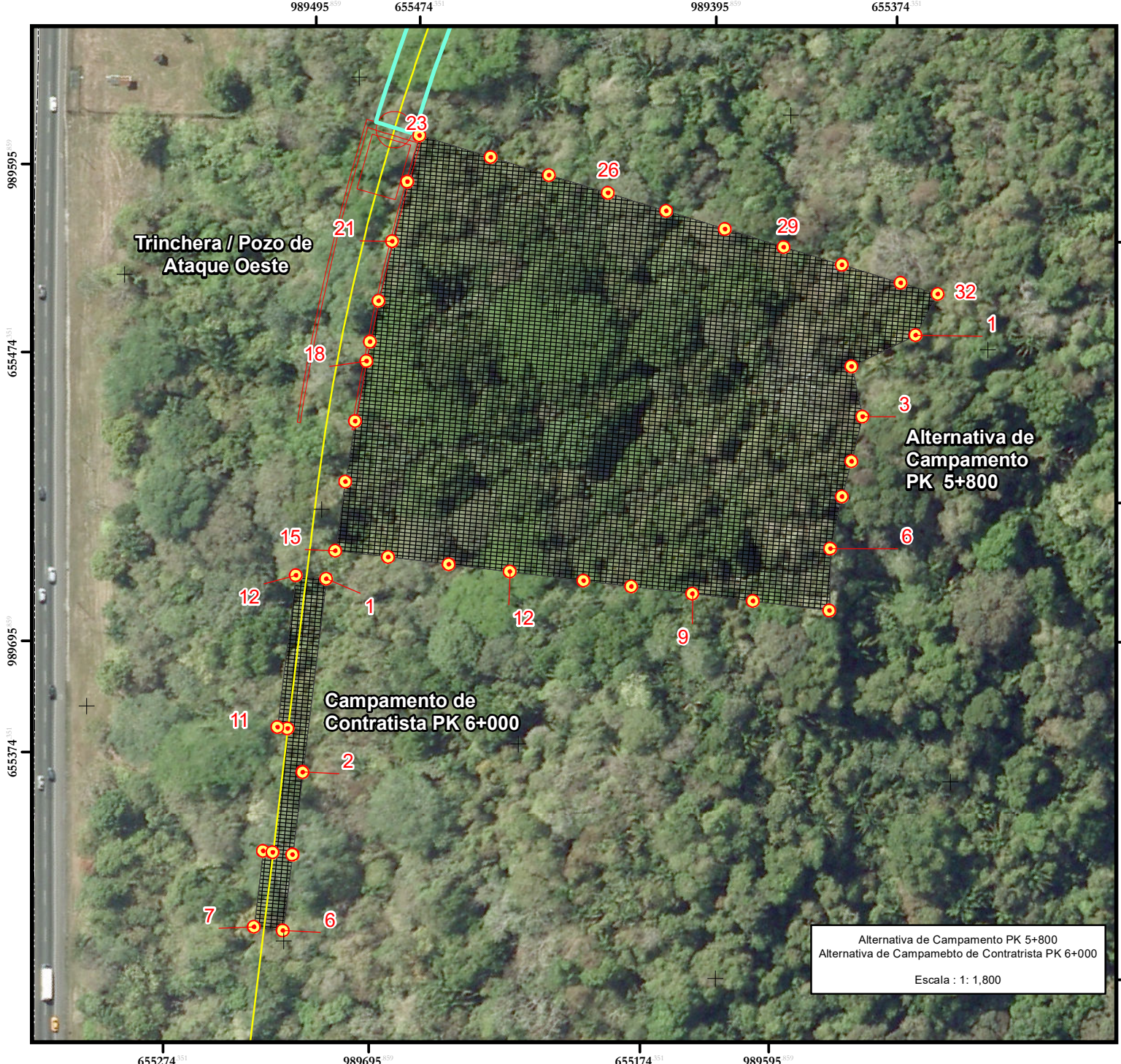
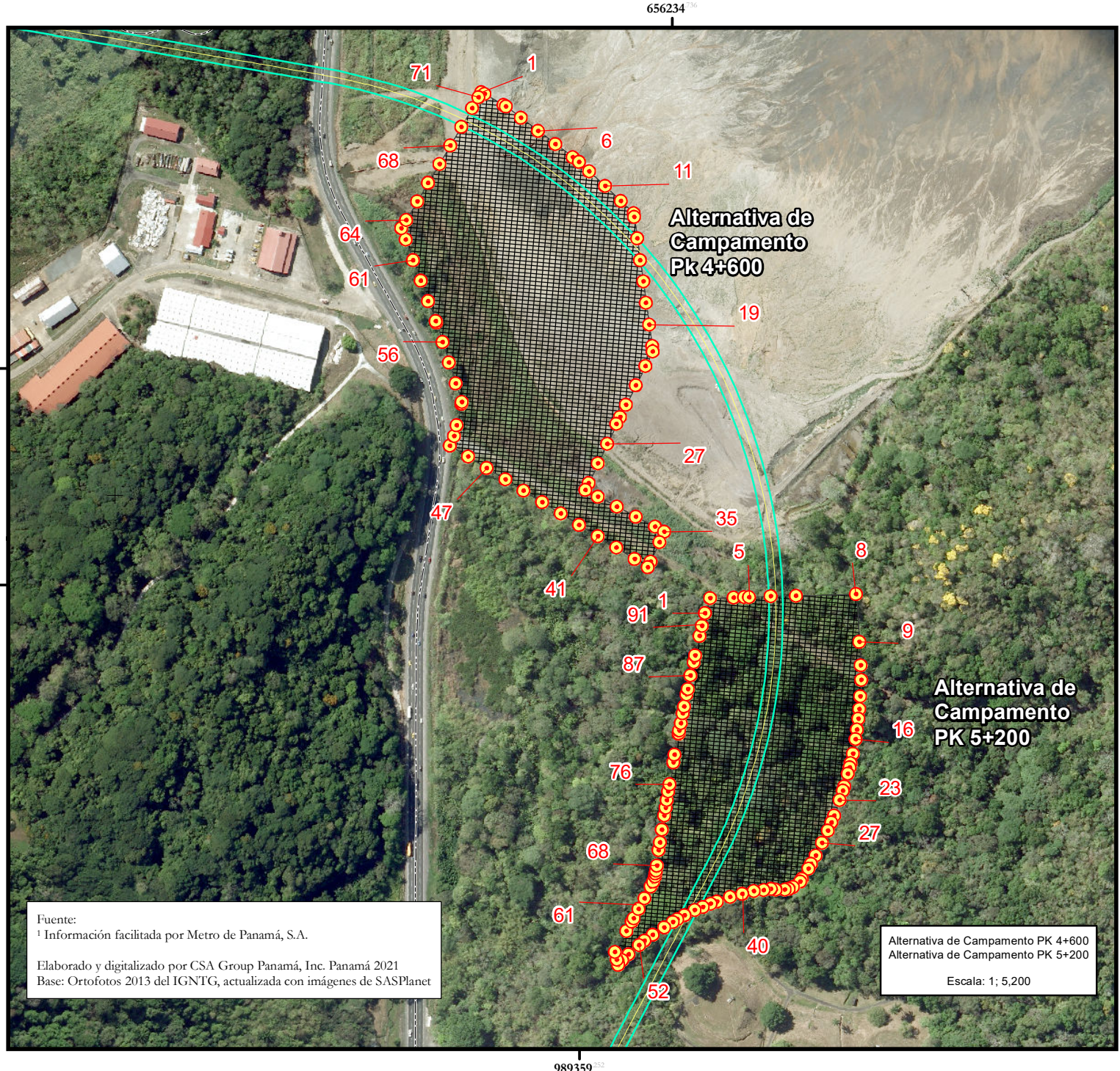
ANEXOS DEL CAPÍTULO N°5

- ANEXO 5-1** Coordenadas de los Componentes del proyecto en UTM
- ANEXO 5-2** Área de Influencia Directa e Indirecta del Proyecto y sus
Coordenadas UTM
- ANEXO 5-3** Zonas de Préstamo Identificadas

ANEXO 5-1

COORDENADAS UTM DE LOS COMPONENTES DEL PROYECTO

- **ALTERNATIVA CAMPAMENTO PK 4+600**
- **ALTERNATIVA CAMPAMENTO PK 5+200**
- **ALTERNATIVA CAMPAMENTO PK 5+800**
- **CAMPAMENTO DE CONTRATISTA PK 6+000**
- **TRINCHERA – POZO DE EXTRACCIÓN ESTE**
- **TRINCHERA – POZO DE ATAQUE OESTE**
- **CAMPAMENTO BALBOA**
- **ESTACIÓN BALBOA**
- **CAMPAMENTO ALBROOK**
- **ALINEAMIENTO DEL PROYECTO**
- **ALINEAMIENTO DEL PROYECTO, PK CADA 100M**
- **TRAMO SOTERRADO**



Leyenda

- Punto de Coordenadas
- Alineamiento del Proyecto¹
- Tramo Soterrado¹
- Trinchera/Pozo de Ataque Oeste¹
- Estación¹
- ▨ Campamento¹
- Límite de Corregimiento



Escala: 1:5,200



Sistema de Coordenadas: WGS 1984, UTM
Zona 17N Proyección - Transversal de Mercator.

LOCALIZACIÓN REGIONAL



COORDENADAS UTM DE LAS ALTERNATIVAS DE CAMPAMENTOS DEL OESTE

Estudio de Impacto Ambiental Categoría III, Proyecto de Cruce de la Línea 3 por debajo del Canal de Panamá

Promotor:



Consultor:



COMPONENTE: ALTERNATIVA DE CAMPAMENTO PK 4+600

ID	ESTE	NORTE
1	656302.969400	988853.522300
2	656299.737000	988852.291000
3	656280.742000	988845.059000
4	656278.200100	988844.090600
5	656261.024000	988840.230000
6	656241.194000	988835.772000
7	656221.364000	988831.314000
8	656201.534000	988826.856000
9	656194.371200	988825.246300
10	656181.481000	988823.693000
11	656161.302000	988821.261000
12	656141.123000	988818.830000
13	656124.467600	988816.822700
14	656121.463000	988818.711000
15	656104.256000	988829.528000
16	656087.048000	988840.345000
17	656069.840000	988851.161000
18	656052.633000	988861.978000
19	656035.425000	988872.795000
20	656018.218000	988883.611000
21	656013.687400	988886.459100
22	656007.802000	988900.228000
23	655999.813000	988918.917000
24	655991.824000	988937.606000
25	655986.729400	988949.522700
26	655983.651000	988956.213000
27	655975.157000	988974.678000
28	655966.662000	988993.143000
29	655958.167000	989011.607000
30	655955.127600	989018.214600
31	655943.042000	989013.285000
32	655924.223000	989005.608000

ID	ESTE	NORTE
33	655905.404000	988997.931000
34	655886.584000	988990.255000
35	655877.704200	988986.632200
36	655873.086000	988996.323000
37	655864.342000	989014.670000
38	655861.903600	989019.787900
39	655875.808000	989024.421000
40	655895.091000	989030.845000
41	655914.374000	989037.270000
42	655933.657000	989043.694000
43	655952.939000	989050.119000
44	655972.222000	989056.544000
45	655991.505000	989062.968000
46	656010.788000	989069.393000
47	656030.071000	989075.817000
48	656049.353000	989082.242000
49	656068.636000	989088.667000
50	656072.567500	989079.970200
51	656079.109000	989071.401000
52	656091.442000	989055.245000
53	656092.593800	989053.736100
54	656109.672000	989046.817000
55	656128.510000	989039.186000
56	656147.348000	989031.554000
57	656165.011700	989024.398300
58	656166.204000	989023.971000
59	656185.339000	989017.120000
60	656204.475000	989010.268000
61	656223.610000	989003.417000
62	656242.745000	988996.565000
63	656253.484400	988992.720300
64	656256.465000	988984.315000

ID	ESTE	NORTE
65	656263.258000	988965.159000
66	656270.051000	988946.003000
67	656276.845000	988926.847000
68	656283.638000	988907.691000
69	656290.431000	988888.535000
70	656297.224000	988869.379000
71	656301.051208	988858.586662

COMPONENTE: ALTERNATIVA DE CAMPAMENTO PK 5+200

ID	ESTE	NORTE
1	655794.726775	989006.370676
2	655802.418641	988993.903002
3	655788.728400	988976.618800
4	655782.550000	988968.818400
5	655779.662300	988965.172800
6	655767.101951	988949.315014
7	655752.312300	988930.642800
8	655717.458100	988886.638700
9	655681.173124	988912.871809
10	655663.521762	988926.050519
11	655652.975213	988934.781792
12	655641.494421	988945.130025
13	655632.760168	988953.589241
14	655626.723772	988959.806242
15	655619.561315	988967.592104
16	655613.752489	988974.261712
17	655604.891025	988985.169443
18	655599.381598	988992.333465
19	655596.889166	988995.596740
20	655593.413788	989000.601348
21	655586.536892	989010.789824
22	655584.305097	989014.266102
23	655579.457964	989022.136386
24	655571.647513	989035.874710
25	655568.547000	989041.750800
26	655564.865086	989049.094945
27	655559.309284	989060.929265
28	655554.206756	989073.200252
29	655551.184083	989081.235315
30	655549.277992	989086.302209
31	655545.784812	989096.821589
32	655544.866400	989099.587200

ID	ESTE	NORTE
33	655545.314834	989108.064121
34	655546.533220	989112.143759
35	655548.379276	989115.980421
36	655553.755344	989122.549782
37	655557.151000	989125.118300
38	655560.766608	989130.994860
39	655565.752744	989138.830556
40	655570.733104	989148.694289
41	655575.831326	989159.502520
42	655580.801113	989171.651046
43	655582.891071	989177.411286
44	655585.398829	989185.016976
45	655587.650509	989192.702372
46	655590.232577	989202.981739
47	655591.834445	989210.583225
48	655592.569296	989215.363525
49	655594.059910	989225.060166
50	655595.487544	989237.594896
51	655596.023598	989246.810925
52	655596.189693	989253.764370
53	655595.969398	989266.666030
54	655595.372348	989274.814317
55	655594.959900	989280.442600
56	655599.076400	989278.408000
57	655605.703300	989275.132700
58	655613.736043	989254.261776
59	655617.426146	989244.770563
60	655618.764801	989241.327445
61	655622.502162	989231.837981
62	655626.565879	989221.608788
63	655631.183100	989210.096100
64	655633.239276	989205.238263

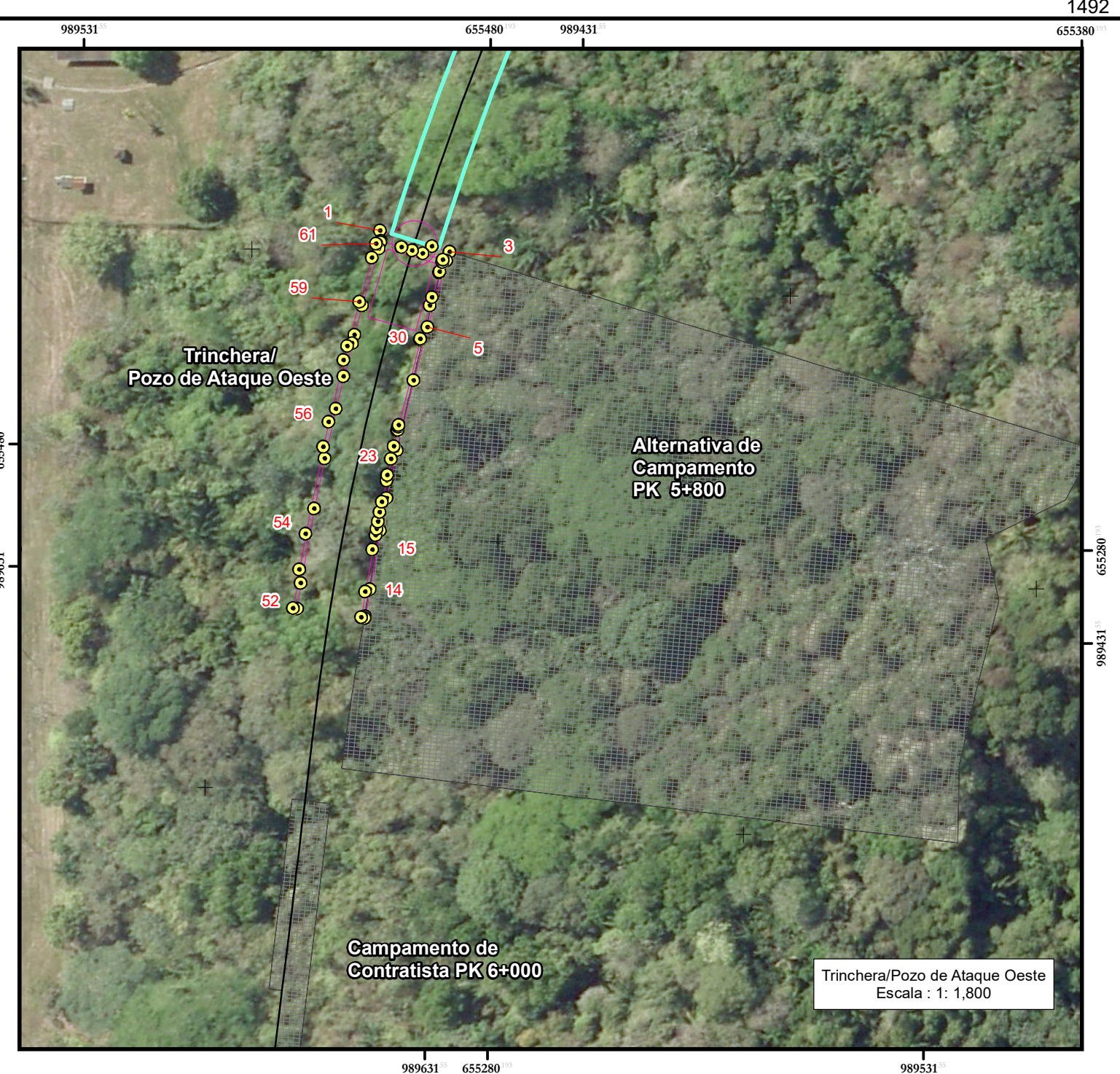
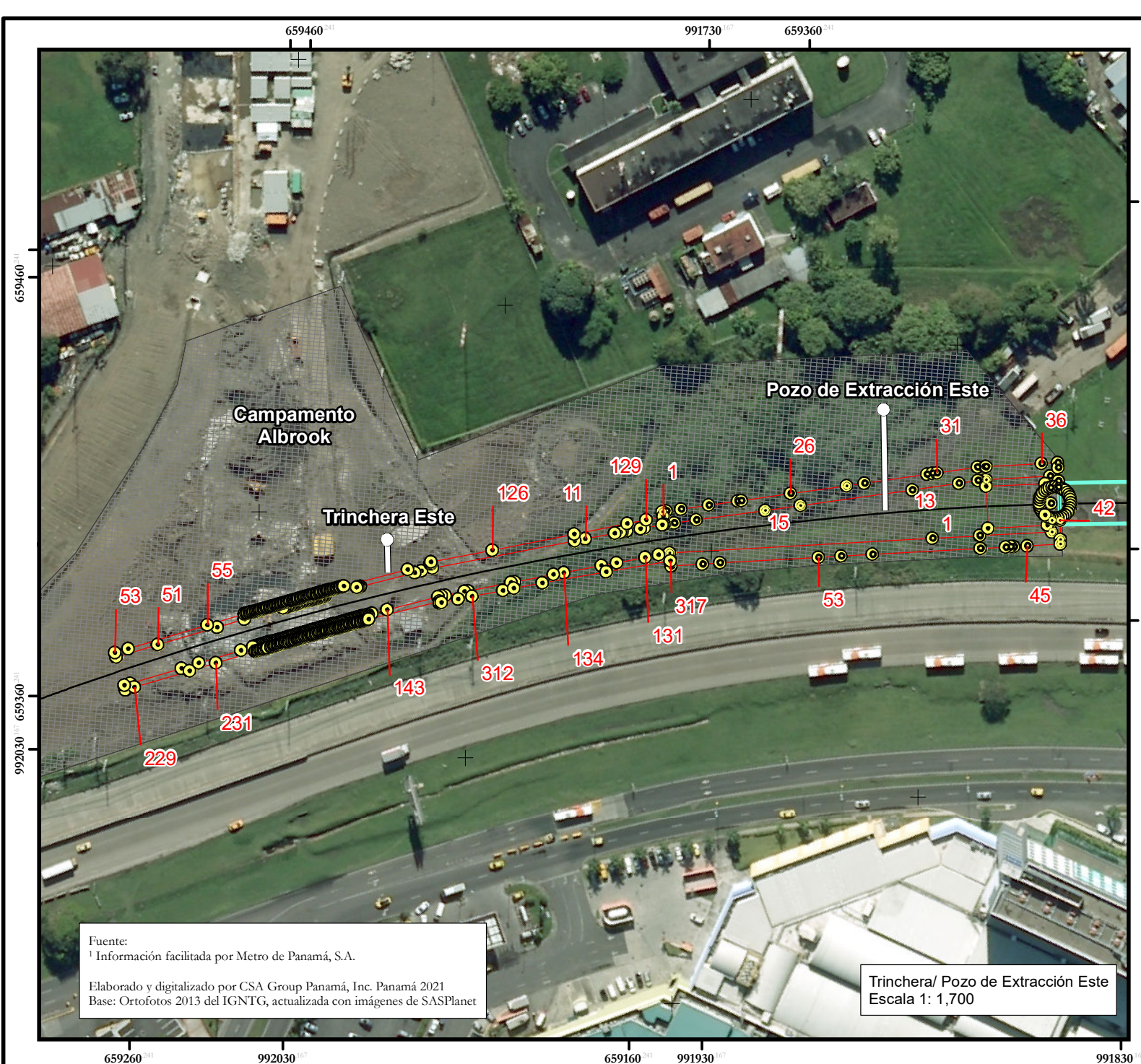
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65	655636.002792	989200.745017
66	655637.827706	989198.588941
67	655639.539100	989196.589000
68	655642.771475	989193.003467
69	655652.393032	989182.246130
70	655657.352103	989176.624066
71	655665.267747	989167.650155
72	655673.969236	989157.651875
73	655678.786894	989152.032788
74	655683.591382	989146.429063
75	655689.005598	989140.114179
76	655693.447204	989134.869265
77	655706.759948	989118.968394
78	655711.421845	989113.335132
79	655724.000022	989097.963787
80	655724.424341	989097.440796
81	655725.902856	989095.616170
82	655730.291176	989090.157796
83	655736.265503	989082.726680
84	655740.254271	989077.717555
85	655747.477553	989068.577766
86	655750.571206	989064.635884
87	655758.604945	989054.321453
88	655766.364943	989044.249844
89	655770.353994	989039.030245
90	655781.694151	989024.031908
91	655787.450899	989016.325825

COMPONENTE: ALTERNATIVA DE CAMPAMENTO PK 5+800

ID	ESTE	NORTE	ID	ESTE	NORTE
1	655293.0153	989410.7470	17	655389.1387	989568.9473
2	655298.7493	989433.2641	18	655401.8641	989553.5184
3	655283.9821	989441.1615	19	655405.9331	989548.4501
4	655275.0281	989453.3396	20	655414.2794	989537.8389
5	655268.2319	989463.0237	21	655426.3795	989521.9149
6	655257.6023	989476.8633	22	655438.1597	989505.7528
7	655242.3771	989490.0061	23	655447.1744	989492.9107
8	655260.7199	989507.1770	24	655426.7768	989479.6861
9	655275.3207	989520.8451	25	655409.9952	989468.8059
10	655289.9216	989534.5131	26	655393.2136	989457.9257
11	655301.4510	989545.3060	27	655376.4321	989447.0455
12	655319.1232	989561.8492	28	655359.6505	989436.1653
13	655333.7241	989575.5173	29	655342.8689	989425.2851
14	655348.3249	989589.1853	30	655326.0873	989414.4049
15	655360.9611	989601.0142	31	655309.3058	989403.5247
16	655376.1080	989584.1193	32	655298.7460	989396.6783

COMPONENTE: CAMPAMENTO DE CONTRATISTA PK 6+000

ID	ESTE	NORTE
1	655355.8448	989609.2357
2	655312.507077	989655.66308
3	655312.414292	989655.716855
4	655293.958211	989675.429771
5	655294.026035	989675.493549
6	655276.9812	989693.7830
7	655283.941702	989700.310429
8	655301.0428	989682.0745
9	655298.728831	989679.971159
10	655326.494596	989650.314581
11	655329.0351	989652.5862
12	655363.1434	989616.0428



COMPONENTE: TRINCHERA OESTE/POZO DE ATAQUE, VENTILACIÓN, BOMBEO

VETILACIÓN 4		
ID	ESTE	NORTE
1	655457.382162	989504.517434
2	655446.617784	989497.228526
3	655436.266673	989512.515217
4	655447.031051	989519.804124

BOMBEO					
ID	ESTE	NORTE	ID	ESTE	NORTE
1	655453.949030	989504.026234	29	655448.099695	989499.118059
2	655454.980426	989503.935998	30	655448.367660	989500.118116
3	655455.980483	989503.668034	31	655448.805212	989501.056449
4	655456.918815	989503.230482	32	655449.399055	989501.904546
5	655457.766913	989502.636638	33	655450.131148	989502.636638
6	655458.499005	989501.904546	34	655450.979245	989503.230482
7	655459.092849	989501.056449	35	655451.917578	989503.668034
8	655459.530401	989500.118116	36	655452.917635	989503.935998
9	655459.798365	989499.118059			
10	655459.888601	989498.086663			
11	655459.798365	989497.055268			
12	655459.530401	989496.055211			
13	655459.092849	989495.116878			
14	655458.499005	989494.268781			
15	655457.766913	989493.536689			
16	655456.918815	989492.942845			
17	655455.980483	989492.505293			
18	655454.980426	989492.237328			
19	655453.949030	989492.147093			
20	655452.917635	989492.237328			
21	655451.917578	989492.505293			
22	655450.979245	989492.942845			
23	655450.131148	989493.536689			
24	655449.399055	989494.268781			
25	655448.805212	989495.116878			
26	655448.367660	989496.055211			
27	655448.099695	989497.055268			
28	655448.009460	989498.086663			

TRINCHERA/ POZO DE ATAQUE					
ID	ESTE	NORTE	ID	ESTE	NORTE
1	655462.285502	989502.691284	34	655443.975838	989497.718599
2	655450.352970	989494.967993	35	655445.421195	989495.605711
3	655446.334888	989492.367303	36	655445.796074	989495.031761
4	655444.957222	989494.487395	37	655450.535584	989498.107430
5	655434.932663	989509.422997	38	655452.926310	989499.658873
6	655426.628156	989521.189810	39	655455.317036	989501.210316
7	655415.404662	989536.306942	40	655460.056546	989504.285984
8	655407.491593	989546.469149	41	655459.858210	989504.589840
9	655402.057880	989553.227040	42	655458.893650	989506.062745
10	655392.108599	989565.166103	43	655450.260803	989518.901858
11	655387.424589	989570.602496	44	655445.706825	989525.438560
12	655387.136086	989570.933631	45	655444.386305	989527.305071
13	655387.876745	989571.605807	46	655439.148409	989534.585319
14	655392.402348	989566.362315	47	655433.988526	989541.571855
15	655399.504793	989557.913807	48	655425.893087	989552.183841
16	655401.956740	989554.801477	49	655417.599176	989562.641442
17	655403.008977	989553.642696	50	655404.916159	989577.885990
18	655404.207292	989552.122896	51	655400.446554	989583.013371
19	655405.853475	989550.123814	52	655401.208548	989583.704909
20	655407.585909	989547.958149	53	655407.921857	989575.899228
21	655411.097982	989543.510042	54	655413.975604	989568.659166
22	655411.969315	989542.397661	55	655428.473629	989550.485268
23	655414.667665	989538.924613	56	655432.539330	989545.162069
24	655416.699251	989536.258660	57	655442.434721	989531.754099
25	655419.286387	989532.841179	58	655444.599463	989528.730996
26	655419.325396	989532.754921	59	655451.491882	989518.876430
27	655419.877687	989532.053882	60	655458.216285	989508.906460
28	655420.102911	989531.753389	61	655460.327324	989505.699757
29	655433.609870	989513.073480			
30	655433.771136	989512.839459			
31	655438.877808	989505.428909			
32	655440.117436	989503.595609			
33	655443.924437	989497.884984			

COMPONENTE: TRINCHERA /POZO DE EXTRACCIÓN ESTE, VENTILACIÓN, BOMBEO

POZO DE EXTRACCIÓN		
ID	ESTE	NORTE
1	659219.015496	991774.766408
2	659210.145455	991762.944175
3	659210.160190	991762.933359
4	659196.647235	991744.936361
5	659199.424251	991742.754745
6	659203.574915	991739.493995
7	659207.500095	991736.410385
8	659210.290128	991734.218543
9	659222.292887	991750.184259
10	659223.515593	991752.134788
11	659223.644373	991752.340224
12	659226.862400	991757.473801
13	659234.627256	991769.860732
14	659253.314777	991799.672109
15	659259.184151	991809.035262
16	659270.683917	991827.380331
17	659274.341545	991833.215184
18	659276.022551	991835.896818
19	659278.175660	991834.626337
20	659279.467525	991833.864048
21	659278.771864	991832.749517
22	659276.332057	991828.840656
23	659271.712816	991821.440082
24	659266.914754	991813.753016
25	659266.314358	991812.791111
26	659258.112461	991799.650696
27	659248.825469	991784.771831
28	659245.822103	991779.960081
29	659235.400458	991763.263367
30	659234.481747	991761.791483
31	659233.750750	991760.620338
32	659226.957791	991749.737211
33	659225.549750	991747.863866
34	659225.455379	991747.738309
35	659225.418440	991747.689163

POZO DE EXTRACCIÓN		
ID	ESTE	NORTE
36	659214.950184	991733.761546
37	659211.933670	991729.748189
38	659210.735667	991730.650842
39	659210.753861	991730.675043
40	659207.499812	991733.231415
41	659205.952661	991734.446852
42	659197.882862	991740.786463
43	659193.179034	991744.481777
44	659191.999213	991745.408641
45	659198.205164	991753.670499
46	659200.752981	991757.062356
47	659201.303473	991757.795215
48	659202.257864	991759.065777
49	659206.939057	991765.297755
50	659207.035235	991765.426258
51	659227.144232	991792.293546
52	659233.006500	991800.126023
53	659237.303981	991805.867814
54	659255.690620	991830.433890
55	659258.940092	991834.775454
56	659264.754800	991842.545560
57	659268.053615	991840.598990
58	659266.053791	991841.779067
59	659268.211143	991840.506080

VENTILACIÓN		
ID	ESTE	NORTE
1	659220.681860	991751.656980
2	659209.563422	991736.918977
3	659199.185412	991744.748211
4	659210.303850	991759.486214

BOMBEO		
ID	ESTE	NORTE
1	659202.958956	991743.285234
2	659203.816298	991743.210227
3	659204.647590	991742.987483
4	659205.427574	991742.623770
5	659206.132550	991742.130141
6	659206.741097	991741.521593
7	659207.234727	991740.816617
8	659207.598439	991740.036633
9	659207.821183	991739.205341
10	659207.896191	991738.347999
11	659207.821183	991737.490657
12	659207.598439	991736.659365
13	659207.234727	991735.879382
14	659206.741097	991735.174406
15	659206.132550	991734.565858
16	659205.427574	991734.072228
17	659204.647590	991733.708516
18	659203.816298	991733.485772
19	659202.958956	991733.410764
20	659202.101614	991733.485772
21	659201.270322	991733.708516
22	659200.490339	991734.072228
23	659199.785363	991734.565858
24	659199.176815	991735.174406
25	659198.683185	991735.879382
26	659198.319473	991736.659365
27	659198.096729	991737.490657
28	659198.021721	991738.347999
29	659198.096729	991739.205341
30	659198.319473	991740.036633
31	659198.683185	991740.816617
32	659199.176815	991741.521593
33	659199.785363	991742.130141
34	659200.490339	991742.623770
35	659201.270322	991742.987483
36	659202.101614	991743.210227

COMPONENTE: TRINCHERA /POZO DE EXTRACCIÓN ESTE,VENTILACIÓN, BOMBEO

TRINCHERA ESTE											
ID	ESTE	NORTE	ID	ESTE	NORTE	ID	ESTE	NORTE	ID	ESTE	NORTE
1	659278.175660	991834.626337	36	659330.118848	991938.582444	71	659335.578475	991947.114188	106	659328.386837	991931.109837
2	659276.019522	991835.898605	37	659330.324265	991939.039450	72	659335.374708	991946.656919	107	659328.178900	991930.652871
3	659276.076005	991835.987590	38	659330.529563	991939.496475	73	659335.170875	991946.199635	108	659327.970788	991930.195940
4	659276.381428	991836.526030	39	659330.734747	991939.953517	74	659334.966972	991945.742337	109	659327.762499	991929.739044
5	659279.144461	991841.377437	40	659330.939819	991940.410577	75	659334.762997	991945.285026	110	659327.554027	991929.282187
6	659279.804685	991842.538523	41	659331.144782	991940.867651	76	659334.558946	991944.827704	111	659327.345372	991928.825368
7	659281.894643	991846.218695	42	659331.349639	991941.324738	77	659334.354817	991944.370372	112	659327.136529	991928.368590
8	659282.693056	991847.626503	43	659331.554394	991941.781838	78	659334.150605	991943.913032	113	659326.927495	991927.911853
9	659282.861472	991847.923599	44	659331.759050	991942.238948	79	659333.946309	991943.455684	114	659326.718268	991927.455161
10	659283.751765	991849.494905	45	659331.963609	991942.696068	80	659333.741925	991942.998332	115	659326.508845	991926.998513
11	659288.380626	991857.685709	46	659332.168075	991943.153196	81	659333.537449	991942.540975	116	659326.299221	991926.541912
12	659290.074827	991860.692538	47	659332.372451	991943.610330	82	659333.332879	991942.083615	117	659326.089395	991926.085359
13	659312.023993	991900.088833	48	659332.378385	991943.623608	83	659333.128212	991941.626254	118	659325.879362	991925.628856
14	659313.507413	991903.096869	49	659337.430429	991954.975893	84	659332.923444	991941.168893	119	659325.669121	991925.172403
15	659314.477186	991905.077141	50	659340.975050	991963.141319	85	659332.718573	991940.711533	120	659325.458667	991924.716003
16	659322.040233	991920.913177	51	659348.695255	991980.925664	86	659332.513595	991940.254176	121	659316.686903	991906.188102
17	659322.194989	991921.244787	52	659354.060126	991993.284236	87	659332.308507	991939.796824	122	659313.523498	991899.736897
18	659322.407181	991921.699980	53	659355.430743	991992.674804	88	659332.103306	991939.339477	123	659313.350828	991899.388093
19	659322.549374	991922.005400	54	659353.701452	991988.691189	89	659331.897989	991938.882137	124	659313.545488	991899.266680
20	659326.813604	991931.274133	55	659343.481065	991965.147401	90	659331.692553	991938.424806	125	659313.775459	991899.123243
21	659327.021330	991931.730636	56	659338.629134	991953.970442	91	659331.486995	991937.967485	126	659304.292759	991882.129088
22	659327.228889	991932.187181	57	659338.425987	991953.513563	92	659331.281311	991937.510175	127	659291.734038	991859.416402
23	659327.436283	991932.643767	58	659338.222822	991953.056655	93	659331.075499	991937.052878	128	659283.626887	991844.627413
24	659327.643516	991933.100393	59	659338.019635	991952.599712	94	659330.869555	991936.595595	129	659280.761346	991839.375912
25	659327.850590	991933.557056	60	659337.816422	991952.142735	95	659330.663477	991936.138328	130	659269.879371	991843.433315
26	659328.057510	991934.013757	61	659337.613180	991951.685727	96	659330.457261	991935.681078	131	659271.952837	991847.077950
27	659328.264277	991934.470492	62	659337.409905	991951.228688	97	659330.250903	991935.223846	132	659276.421590	991854.956891
28	659328.470895	991934.927260	63	659337.206595	991950.771620	98	659330.044402	991934.766635	133	659278.785321	991859.137763
29	659328.677367	991935.384061	64	659337.003247	991950.314524	99	659329.837754	991934.309445	134	659284.665254	991869.578342
30	659328.883697	991935.840892	65	659336.799857	991949.857401	100	659329.630956	991933.852278	135	659286.266605	991872.431800
31	659329.089886	991936.297753	66	659336.596423	991949.400254	101	659329.424004	991933.395135	136	659292.227608	991883.091943
32	659329.295940	991936.754641	67	659336.392941	991948.943082	102	659329.216896	991932.938018	137	659292.820668	991884.155833
33	659329.501859	991937.211556	68	659336.189409	991948.485889	103	659329.009628	991932.480928	138	659299.444334	991896.079158
34	659329.707648	991937.668496	69	659335.985822	991948.028674	104	659328.802198	991932.023867	139	659300.003986	991897.090072
35	659329.913310	991938.125459	70	659335.782179	991947.571440	105	659328.594602	991931.566836	140	659302.905536	991902.339973

TRINCHERA ESTE														
ID	ESTE	NORTE		ID	ESTE	NORTE		ID	ESTE	NORTE		ID	ESTE	NORTE
141	659303.521305	991903.456006		176	659320.205156	991938.661328		211	659326.938585	991953.695860		246	659324.552209	991952.024145
142	659304.001057	991904.325978		177	659320.410561	991939.115767		212	659327.141756	991954.152417		247	659324.348943	991951.568000
143	659311.171721	991919.120244		178	659320.615849	991939.570292		213	659327.344912	991954.609014		248	659324.145644	991951.111915
144	659313.233964	991923.493455		179	659320.821024	991940.024902		214	659327.548056	991955.065650		249	659323.942309	991950.655891
145	659313.820550	991924.747515		180	659321.026088	991940.479597		215	659327.751190	991955.522324		250	659323.738936	991950.199929
146	659313.973662	991925.075603		181	659321.231044	991940.934373		216	659327.954319	991955.979035		251	659323.535520	991949.744031
147	659314.183979	991925.526768		182	659321.435896	991941.389231		217	659328.157444	991956.435781		252	659323.332060	991949.288198
148	659314.394088	991925.978064		183	659321.640646	991941.844168		218	659328.360570	991956.892560		253	659323.128551	991948.832431
149	659314.603992	991926.429490		184	659321.782784	991942.160192		219	659328.563699	991957.349372		254	659322.924991	991948.376732
150	659314.813696	991926.881043		185	659321.845298	991942.299183		220	659328.766834	991957.806215		255	659322.721376	991947.921103
151	659315.023201	991927.332722		186	659322.049855	991942.754275		221	659328.969977	991958.263082		256	659322.517704	991947.465544
152	659315.232510	991927.784525		187	659322.254319	991943.209442		222	659329.103721	991958.571775		257	659322.313972	991947.010057
153	659315.441628	991928.236452		188	659322.458694	991943.664683		223	659330.655863	991962.154260		258	659322.110176	991946.554643
154	659315.650556	991928.688500		189	659322.621989	991944.028631		224	659336.096013	991974.710618		259	659321.906313	991946.099304
155	659315.859297	991929.140668		190	659322.662983	991944.119997		225	659338.370889	991979.961237		260	659321.702381	991945.644042
156	659316.067855	991929.592955		191	659322.867189	991944.575381		226	659345.015812	991995.298320		261	659321.498376	991945.188856
157	659316.276233	991930.045359		192	659323.071314	991945.030836		227	659345.745047	991996.981460		262	659321.294295	991944.733750
158	659316.484433	991930.497878		193	659323.275363	991945.486358		228	659344.374429	991997.590892		263	659321.090135	991944.278724
159	659316.692460	991930.950512		194	659323.479338	991945.941948		229	659343.198379	991994.876463		264	659320.885893	991943.823780
160	659316.900314	991931.403258	195	659323.683242	991946.397603	230	659336.113429	991978.523757	265	659320.681567	991943.368919			
161	659317.108001	991931.856116	196	659323.887078	991946.853322	231	659332.734628	991970.725180	266	659320.477152	991942.914143			
162	659317.315522	991932.309083	197	659324.090850	991947.309104	232	659327.599359	991958.872515	267	659320.272646	991942.459453			
163	659317.522881	991932.762158	198	659324.294559	991947.764947	233	659327.396217	991958.415649	268	659320.068046	991942.004850			
164	659317.730080	991933.215341	199	659324.498211	991948.220851	234	659327.193086	991957.958815	269	659319.863349	991941.550335			
165	659317.937124	991933.668628	200	659324.701807	991948.676812	235	659326.989966	991957.502022	270	659319.658551	991941.095911			
166	659318.144014	991934.122019	201	659324.905351	991949.132831	236	659326.786852	991957.045271	271	659319.453650	991940.641579			
167	659318.350754	991934.575513	202	659325.108845	991949.588906	237	659326.583743	991956.588562	272	659319.248643	991940.187339			
168	659318.557347	991935.029108	203	659325.312293	991950.045035	238	659326.380636	991956.131898	273	659319.043526	991939.733194			
169	659318.763795	991935.482802	204	659325.515698	991950.501217	239	659326.177526	991955.675279	274	659318.838297	991939.279145			
170	659318.970103	991935.936595	205	659325.719063	991950.957451	240	659325.974411	991955.218708	275	659318.632953	991938.825193			
171	659319.176273	991936.390484	206	659325.922391	991951.413735	241	659325.568154	991954.305713	276	659318.427489	991938.371339			
172	659319.382307	991936.844468	207	659326.125685	991951.870068	242	659325.365006	991953.849291	277	659318.221905	991937.917586			
173	659319.588210	991937.298546	208	659326.328949	991952.326448	243	659325.161841	991953.392922	278	659318.016195	991937.463934			
174	659319.793983	991937.752716	209	659326.532184	991952.782875	244	659324.958654	991952.936607	279	659317.810358	991937.010386			
175	659319.999631	991938.206977	210	659326.735395	991953.239346	245	659324.755445	991952.480348	280	659317.604391	991936.556941			

COMPONENTE: TRINCHERA /POZO DE EXTRACCIÓN ESTE,VENTILACIÓN, BOMBEO

TRINCHERA ESTE					
ID	ESTE	NORTE	ID	ESTE	NORTE
281	659317.398289	991936.103603	313	659292.540586	991887.635181
282	659317.192051	991935.650371	314	659290.863312	991884.633396
283	659316.985673	991935.197249	315	659286.404953	991876.721427
284	659316.779153	991934.744236	316	659276.331012	991859.191049
285	659316.572486	991934.291336	317	659266.053791	991841.779067
286	659316.365671	991933.838548			
287	659316.334174	991933.769657			
288	659316.158704	991933.385874			
289	659315.951582	991932.933317			
290	659315.744302	991932.480877			
291	659315.536862	991932.028556			
292	659315.329257	991931.576355			
293	659315.121486	991931.124276			
294	659314.913545	991930.672321			
295	659314.705431	991930.220490			
296	659314.497141	991929.768785			
297	659314.288672	991929.317208			
298	659314.080022	991928.865760			
299	659313.871186	991928.414443			
300	659313.662163	991927.963258			
301	659313.452949	991927.512207			
302	659313.243541	991927.061291			
303	659313.033937	991926.610511			
304	659312.824132	991926.159870			
305	659312.772435	991926.048970			
306	659312.614125	991925.709368			
307	659312.461284	991925.381862			
308	659302.674212	991905.026723			
309	659302.231930	991905.260305			
310	659301.989121	991904.812675			
311	659299.417931	991900.091725			
312	659297.279169	991896.192012			

COMPONENTE: CAMPAMENTO BALBOA

CAMPAMENTO BALBOA		
ID	ESTE	NORTE
1	658236.200000	990621.418000
2	658233.748000	990603.948000
3	658230.969000	990584.142000
4	658228.190000	990564.336000
5	658226.563000	990552.741000
6	658227.955000	990544.567000
7	658231.314000	990524.851000
8	658235.413000	990500.790000
9	658245.887000	990489.240000
10	658259.322000	990474.424000
11	658272.649000	990459.726000
12	658287.842000	990472.733000
13	658303.034000	990485.741000
14	658318.227000	990498.748000
15	658333.419000	990511.755000
16	658348.611000	990524.763000
17	658363.804000	990537.770000
18	658383.562000	990554.686000
19	658395.455000	990562.052000
20	658416.586000	990575.141000
21	658407.353000	990587.145000
22	658390.751892	990608.731079
23	658400.749000	990616.674000
24	658416.409000	990629.115000
25	658431.104082	990640.790234
26	658418.822000	990658.108000
27	658406.068000	990676.090000
28	658388.244000	990673.926000
29	658369.284000	990671.624000
30	658349.043000	990666.416000
31	658329.674000	990661.433000
32	658310.305000	990656.449000
33	658301.118000	990654.086000
34	658291.326000	990650.255000
35	658274.960000	990643.853000
36	658255.551000	990632.618000

COMPONENTE: ESTACIÓN BALBOA

ESTACIÓN BALBOA		
ID	ESTE	NORTE
1	658314.279800	990534.028800
2	658327.800200	990514.508900
3	658338.283500	990499.373600
4	658340.151075	990496.652262
5	658344.069360	990490.942730
6	658347.641267	990485.863446
7	658350.466896	990487.899727
8	658375.359105	990505.838221
9	658387.248410	990489.513432
10	658388.509100	990487.782500
11	658387.529263	990487.331504
12	658386.387128	990486.664139
13	658385.809384	990486.254891
14	658385.038356	990485.635929
15	658384.216153	990484.833135
16	658384.172212	990484.790231
17	658384.099491	990484.719226
18	658383.360197	990483.836809
19	658382.563298	990482.653689
20	658381.898949	990481.365079
21	658381.734300	990480.975700
22	658381.347525	990479.865142
23	658381.029815	990478.515122
24	658380.861843	990477.071918
25	658380.845266	990476.847341
26	658380.841900	990476.371100
27	658380.841960	990476.308260
28	658380.842339	990475.907936
29	658380.860930	990475.604294
30	658380.897616	990475.200428
31	658381.012708	990474.326189
32	658381.090068	990473.910139
33	658381.181873	990473.497694
34	658381.191500	990473.456300
35	658381.265457	990473.167642
36	658381.544313	990472.269587

ESTACIÓN BALBOA		
ID	ESTE	NORTE
37	658381.918046	990471.343380
38	658382.162608	990470.829922
39	658382.496971	990470.201737
40	658382.963406	990469.457505
41	658383.438534	990468.803492
42	658383.616176	990468.580506
43	658353.126740	990445.461803
44	658350.794563	990444.750341
45	658349.641800	990448.734370
46	658348.173007	990450.887530
47	658342.497647	990459.037224
48	658338.378862	990464.852929
49	658337.137741	990466.451937
50	658336.176172	990468.233113
51	658335.520282	990470.148057
52	658335.322693	990471.483906
53	658335.319593	990472.834286
54	658335.511046	990474.171029
55	658335.893059	990475.466251
56	658336.457663	990476.692936
57	658337.682880	990478.308215
58	658339.132285	990479.725786
59	658340.774364	990480.914844
60	658341.153400	990481.188000
61	658340.529694	990482.088391
62	658321.227300	990509.956100
63	658309.547218	990526.819155
64	658304.830900	990519.902800
65	658299.192000	990511.644300
66	658293.549800	990503.388100
67	658291.900261	990501.533660
68	658290.086727	990499.839252
69	658286.794697	990497.441725
70	658286.008400	990496.974000
71	658283.276281	990495.859561
72	658280.411970	990495.150916

COMPONENTE: ESTACIÓN BALBOA

ESTACIÓN BALBOA		
ID	ESTE	NORTE
73	658277.475392	990494.862891
74	658274.917300	990494.958600
75	658273.010419	990495.141980
76	658271.140290	990495.557240
77	658269.335003	990496.198145
78	658268.829696	990496.423895
79	658266.808700	990497.559900
80	658266.084811	990497.995206
81	658265.155296	990498.616930
82	658263.552652	990499.878695
83	658262.084020	990501.294196
84	658260.859437	990502.725812
85	658259.772142	990504.264291
86	658258.236600	990507.151500
87	658255.410400	990513.460200
88	658251.321900	990522.586200
89	658247.233500	990531.712300
90	658243.145000	990540.838303
91	658242.051969	990543.906035
92	658241.532716	990545.910564
93	658241.086310	990548.411970
94	658240.983602	990549.264153
95	658240.836762	990551.320883
96	658241.014731	990554.714886
97	658241.682198	990558.047365
98	658242.825100	990561.248100
99	658246.460914	990567.151809
100	658250.623100	990572.697000
101	658251.115374	990573.278105
102	658251.513901	990573.927098
103	658251.809478	990574.628989
104	658251.995277	990575.367565
105	658252.067006	990576.125767
106	658252.067781	990576.192709
107	658252.011497	990576.966615

ESTACIÓN BALBOA		
ID	ESTE	NORTE
108	658251.997483	990577.054045
109	658251.821528	990577.769024
110	658251.542700	990578.450500
111	658251.155682	990579.340856
112	658250.626814	990580.154990
113	658250.544251	990580.259101
114	658250.246181	990580.598648
115	658249.531900	990581.237600
116	658244.385200	990585.234000
117	658240.306296	990588.401402
118	658243.236197	990592.161459
119	658249.405300	990600.119200
120	658252.431997	990604.051342
121	658252.789036	990604.476859
122	658254.913833	990607.213196
123	658255.538390	990608.017508
124	658257.038663	990609.949576
125	658257.372938	990610.380059
126	658260.655223	990614.607022
127	658261.736227	990615.999152
128	658262.237066	990616.644138
129	658262.339329	990616.775809
130	658265.226729	990614.533711
131	658265.454749	990614.356651
132	658267.003453	990613.154065
133	658267.393334	990612.851318
134	658267.505579	990612.764158
135	658267.876537	990612.523693
136	658268.282871	990612.349549
137	658268.712834	990612.246760
138	658269.153995	990612.218299
139	658269.593601	990612.264987
140	658270.018943	990612.385476
141	658270.417724	990612.576282
142	658270.778416	990612.831888

ESTACIÓN BALBOA		
ID	ESTE	NORTE
143	658271.153800	990613.223100
144	658276.236600	990619.767400
145	658282.370600	990627.665200
146	658288.396124	990635.472384
147	658294.026200	990642.672100
148	658295.959000	990641.170900
149	658296.094003	990641.344765
150	658296.550134	990641.932198
151	658299.461400	990645.681500
152	658303.791499	990642.319138
153	658306.957132	990639.860994
154	658309.605000	990637.804900
155	658317.312200	990631.820200
156	658320.310415	990635.681413
157	658321.114700	990636.717200
158	658322.942586	990635.297823
159	658332.205700	990628.104900
160	658333.278203	990627.272101
161	658332.635430	990626.444322
162	658329.828600	990622.829600
163	658331.756902	990621.322475
164	658332.347817	990620.860594
165	658332.3554	990620.8547
166	658332.339026	990620.849266
167	658330.636919	990618.656055
168	658339.160918	990607.644903
169	658355.951651	990585.932539
170	658355.957149	990585.925481
171	658355.926990	990585.902761
172	658346.525100	990574.541300
173	658340.850800	990567.233900
174	658338.573297	990559.239799
175	658337.119829	990559.270993
176	658335.680714	990559.064868
177	658334.351919	990558.650184

ESTACIÓN BALBOA		
ID	ESTE	NORTE
178	658333.104150	990558.033152
179	658331.968000	990557.228900
180	658329.343076	990554.975846
181	658327.025400	990552.407800
182	658321.747600	990544.678300

COMPONENTE: CAMPAMENTO ALBROOK

ID	ESTE	NORTE
1	659340.780518	991881.853882
2	659314.393921	991804.773315
3	659257.179504	991728.929321
4	659224.835083	991728.929321
5	659211.336731	991728.929321
6	659188.810486	991747.435486
7	659207.697876	991770.555115
8	659234.962708	991806.649109
9	659250.736877	991829.282715
10	659272.888489	991866.247498
11	659327.777199	992002.837815
12	659361.273782	992086.194213
13	659372.191475	992081.987487
14	659388.285522	992075.786072
15	659381.822083	992048.893921
16	659381.822083	992019.531311
17	659385.690491	991996.079285
18	659387.030753	991982.364342
19	659398.606669	991945.157938
20	659406.930478	991924.167537
21	659415.492330	991913.352132
22	659397.769096	991865.422663

COMPONENTE: ALINEAMIENTO DEL PROYECTO - LONGITUD 6.136963 KM (6.14 KM)

ID	ESTE	NORTE
1	659380.216875	992079.031105
2	659379.384571	992076.786804
3	659378.841532	992075.113237
4	659376.217506	992067.636974
5	659368.509513	992045.675687
6	659368.343925	992045.203903
7	659368.342562	992045.200022
8	659368.178333	992044.732120
9	659368.012736	992044.260338
10	659367.847129	992043.788561
11	659367.681509	992043.316787
12	659367.515873	992042.845020
13	659367.350218	992042.373259
14	659367.184540	992041.901506
15	659367.018837	992041.429762
16	659366.853105	992040.958028
17	659366.687341	992040.486305
18	659366.521542	992040.014595
19	659366.355704	992039.542898
20	659366.189825	992039.071216
21	659366.023901	992038.599549
22	659365.857929	992038.127900
23	659365.691906	992037.656268
24	659365.525829	992037.184656
25	659365.359694	992036.713063
26	659365.193498	992036.241493
27	659365.027239	992035.769944
28	659364.860912	992035.298420
29	659364.694515	992034.826920
30	659364.528044	992034.355446
31	659364.361496	992033.884000
32	659364.194869	992033.412581
33	659364.028158	992032.941192
34	659363.861362	992032.469834
35	659363.694475	992031.998507
36	659363.527496	992031.527213

ID	ESTE	NORTE
37	659363.360421	992031.055953
38	659363.193247	992030.584728
39	659363.025971	992030.113540
40	659362.908401	992029.782599
41	659362.858589	992029.642389
42	659362.691099	992029.171276
43	659362.523497	992028.700203
44	659362.355780	992028.229172
45	659362.187944	992027.758182
46	659362.019988	992027.287235
47	659361.859691	992026.838142
48	659361.851906	992026.816334
49	659361.683697	992026.345477
50	659361.515357	992025.874668
51	659361.346883	992025.403906
52	659361.178272	992024.933193
53	659361.009520	992024.462531
54	659360.840625	992023.991921
55	659360.671583	992023.521363
56	659360.502391	992023.050859
57	659360.333046	992022.580410
58	659360.163544	992022.110017
59	659359.993883	992021.639682
60	659359.824059	992021.169406
61	659359.654070	992020.699189
62	659359.483911	992020.229034
63	659359.313580	992019.758941
64	659359.143074	992019.288911
65	659358.972390	992018.818947
66	659358.801523	992018.349048
67	659358.630472	992017.879217
68	659358.459233	992017.409454
69	659358.287803	992016.939761
70	659358.116179	992016.470138
71	659357.944357	992016.000588
72	659357.772334	992015.531112

ID	ESTE	NORTE
73	659357.600108	992015.061710
74	659357.427675	992014.592384
75	659357.255032	992014.123135
76	659357.082175	992013.653965
77	659356.909103	992013.184875
78	659356.735810	992012.715865
79	659356.562296	992012.246938
80	659356.388555	992011.778095
81	659356.214586	992011.309336
82	659356.087790	992010.968134
83	659350.832636	991997.148198
84	659349.988492	991994.984181
85	659347.617454	991988.983768
86	659340.066959	991970.588164
87	659336.441727	991962.109269
88	659330.137745	991947.856826
89	659323.612420	991933.704353
90	659322.663886	991931.694381
91	659316.426498	991918.756269
92	659310.003928	991905.909078
93	659309.299472	991904.527537
94	659306.259786	991898.626102
95	659304.534763	991895.319261
96	659300.825338	991888.308346
97	659290.480207	991869.433583
98	659285.793244	991861.188126
99	659281.693432	991854.121535
100	659274.219890	991841.571336
101	659270.985736	991836.266677
102	659260.270013	991819.201016
103	659259.532278	991818.053707
104	659257.337467	991814.660577
105	659249.189297	991802.320019
106	659238.491073	991786.696778
107	659231.619378	991776.986206
108	659223.528767	991765.858651

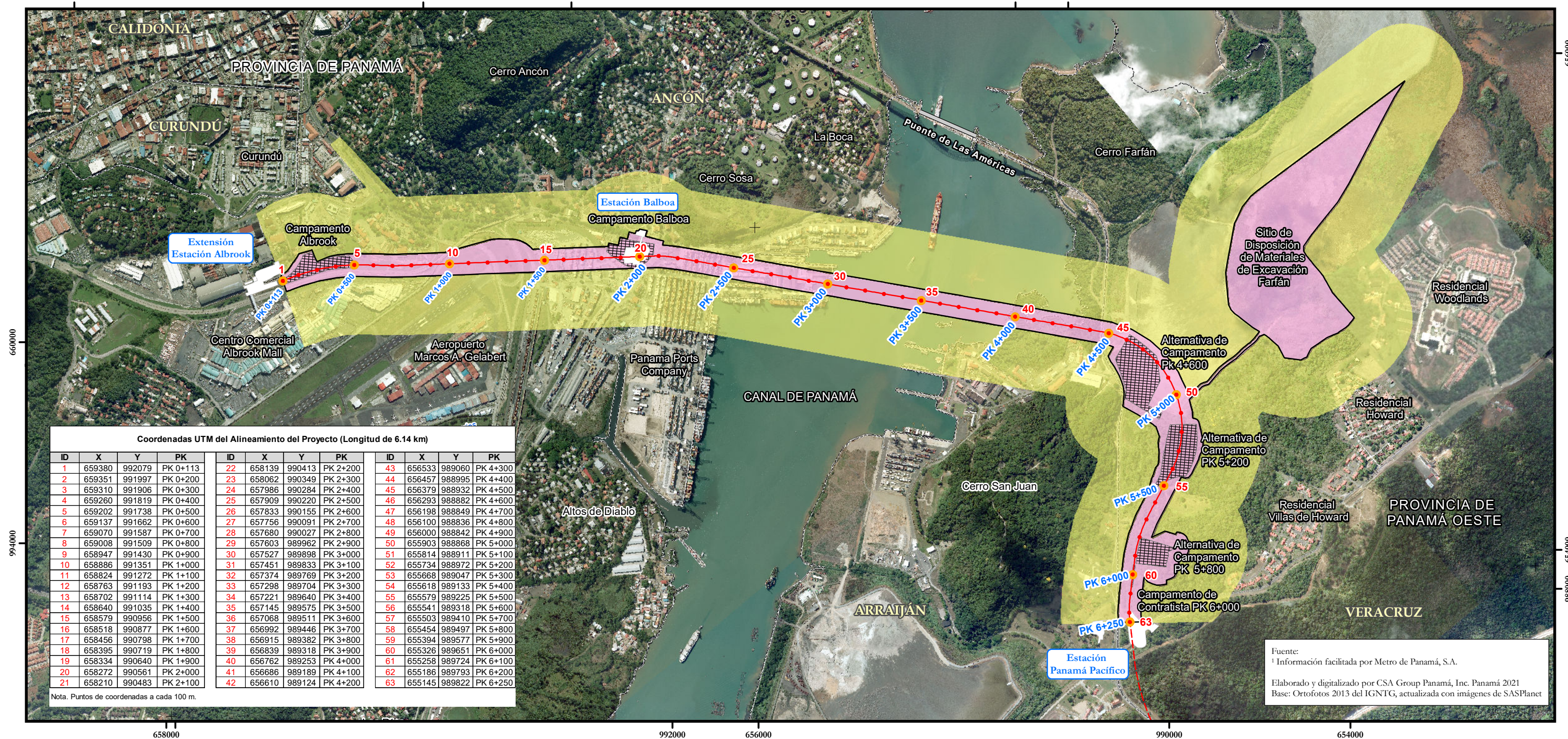
ID	ESTE	NORTE
109	659216.309483	991756.194316
110	659202.128363	991737.891511
111	659201.114812	991736.616332
112	659191.659960	991724.922295
113	659182.243301	991713.623432
114	659175.654730	991705.914728
115	659175.327854	991705.536374
116	659175.000792	991705.158180
117	659174.673546	991704.780146
118	659174.346119	991704.402269
119	659174.018513	991704.024546
120	659173.690730	991703.646976
121	659173.362775	991703.269557
122	659173.034649	991702.892287
123	659172.706354	991702.515162
124	659172.377894	991702.138182
125	659172.049272	991701.761344
126	659171.720489	991701.384645
127	659171.395592	991701.012714
128	659171.391548	991701.008085
129	659171.062452	991700.631659
130	659170.733204	991700.255367
131	659170.403806	991699.879207
132	659170.074261	991699.503175
133	659169.744571	991699.127270
134	659169.414739	991698.751490
135	659169.084767	991698.375832
136	659168.754659	991698.000294
137	659168.424416	991697.624874
138	659168.094042	991697.249571
139	659167.763539	991696.874381
140	659167.432909	991696.499302
141	659167.102155	991696.124333
142	659166.771280	991695.749471
143	659166.440286	991695.374713
144	659166.109176	991695.000059

COMPONENTE: ALINEAMIENTO DEL PROYECTO											
ID	ESTE	NORTE	ID	ESTE	NORTE	ID	ESTE	NORTE	ID	ESTE	NORTE
293	659049.304258	991561.766817	330	659037.880040	991547.215715	367	658909.596367	991382.017590	404	658536.887239	990902.038459
294	659048.993383	991561.375209	331	659037.572886	991546.821181	368	658897.646710	991366.628684	405	658528.674367	990891.461827
295	659048.682657	991560.983483	332	659037.265783	991546.426609	369	658885.607098	991351.123932	406	658525.595406	990887.496705
296	659048.372076	991560.591642	333	659036.958727	991546.031999	370	658884.148775	991349.245887	407	658517.878792	990877.559160
297	659048.061637	991560.199688	334	659036.651716	991545.637355	371	658872.936360	991334.806409	408	658517.616993	990877.222013
298	659047.751339	991559.807623	335	659036.344747	991545.242678	372	658866.027399	991325.908968	409	658456.284875	990798.238105
299	659047.441178	991559.415449	336	659036.037817	991544.847970	373	658849.391474	991304.485032	410	658455.873746	990797.708345
300	659047.131153	991559.023169	337	659035.730924	991544.453234	374	658841.744101	991294.636657	411	658454.840502	990796.377721
301	659046.821259	991558.630784	338	659035.424065	991544.058471	375	658824.275503	991272.140394	412	658452.799416	990793.749187
302	659046.511495	991558.238296	339	659035.117238	991543.663684	376	658822.474134	991269.820569	413	658444.667958	990783.277400
303	659046.201859	991557.845709	340	659034.810439	991543.268874	377	658803.358476	991245.203204	414	658441.339141	990778.990512
304	659045.892346	991557.453023	341	659034.503667	991542.874045	378	658797.048330	991237.076925	415	658434.393919	990770.046373
305	659045.582956	991557.060241	342	659034.196917	991542.479197	379	658786.644125	991223.678269	416	658429.830214	990764.169182
306	659045.273685	991556.667365	343	659033.890189	991542.084333	380	658775.691210	991209.572979	417	658424.600199	990757.433908
307	659044.964530	991556.274398	344	659033.583478	991541.689455	381	658762.943875	991193.156105	418	658420.784343	990752.519805
308	659044.655489	991555.881341	345	659033.276783	991541.294565	382	658761.209391	991190.923125	419	658412.666287	990742.065278
309	659044.346559	991555.488197	346	659032.970100	991540.899665	383	658758.191503	991187.036653	420	658410.067136	990738.718061
310	659044.037738	991555.094967	347	659032.663428	991540.504758	384	658755.763853	991183.910296	421	658401.890488	990728.188079
311	659043.729023	991554.701654	348	659032.356762	991540.109844	385	658701.612046	991114.172972	422	658394.953427	990719.254452
312	659043.420411	991554.308260	349	659032.050102	991539.714928	386	658700.181564	991112.330781	423	658394.628184	990718.835600
313	659043.111900	991553.914788	350	659031.826854	991539.427427	387	658687.565515	991096.083687	424	658392.289430	990715.823726
314	659042.803487	991553.521238	351	659031.800019	991539.392869	388	658643.684148	991039.572754	425	658386.788794	990708.739943
315	659042.495169	991553.127614	352	659028.639219	991535.322353	389	658640.280075	991035.188950	426	658382.559249	990703.293086
316	659042.186944	991552.733917	353	659008.270556	991509.091353	390	658638.923179	991033.441524	427	658375.263169	990693.897110
317	659041.878809	991552.340149	354	659006.429048	991506.719838	391	658638.845344	991033.341286	428	658371.453221	990688.990614
318	659041.570761	991551.946313	355	658999.716830	991498.075767	392	658578.948875	990956.205105	429	658364.077269	990679.491778
319	659041.262799	991551.552411	356	658993.673644	991490.293281	393	658578.543689	990955.684117	430	658361.938848	990676.737894
320	659040.954918	991551.158445	357	658984.072702	991477.929077	394	658573.030924	990948.584715	431	658356.335858	990669.522299
321	659040.647117	991550.764416	358	658976.962829	991468.772900	395	658572.580420	990948.004550	432	658352.065080	990664.022342
322	659040.339392	991550.370328	359	658967.643443	991456.771287	396	658571.861608	990947.078856	433	658346.953726	990657.439881
323	659040.031742	991549.976182	360	658959.259405	991445.974225	397	658569.423370	990943.938864	434	658338.172458	990646.131262
324	659039.724163	991549.581980	361	658946.939069	991430.107954	398	658564.955310	990938.184845	435	658333.621941	990640.271054
325	659039.416652	991549.187724	362	658945.335715	991428.043137	399	658556.181428	990926.885739	436	658333.009216	990639.481979
326	659039.109208	991548.793417	363	658940.536906	991421.863175	400	658555.755691	990926.337469	437	658329.096504	990634.443144
327	659038.801828	991548.399061	364	658930.940302	991409.504557	401	658546.532915	990914.460272	438	658325.346721	990629.614129
328	659038.494508	991548.004657	365	658929.327456	991407.427515	402	658545.203277	990912.747948	439	658320.554668	990623.442869
329	659038.187246	991547.610207	366	658916.101909	991390.395503	403	658538.227943	990903.765033	440	658316.876555	990618.706151

COMPONENTE: ALINEAMIENTO DEL PROYECTO											
ID	ESTE	NORTE	ID	ESTE	NORTE	ID	ESTE	NORTE	ID	ESTE	NORTE
741	657695.914477	990040.078419	779	657420.801117	989808.137758	817	657125.964850	989559.569245	855	656812.794793	989295.544008
742	657679.882628	990026.562399	780	657420.752771	989808.096999	818	657120.682362	989555.115722	856	656808.225913	989291.692108
743	657679.055832	990025.865350	781	657405.158364	989794.949774	819	657105.684566	989542.471484	857	656795.432890	989280.906655
744	657676.616830	990023.809093	782	657401.776467	989792.098588	820	657104.329489	989541.329055	858	656790.683200	989276.902320
745	657666.044452	990014.895805	783	657390.318324	989782.438536	821	657091.062190	989530.143753	859	656778.222097	989266.396699
746	657655.006602	990005.590091	784	657374.064002	989768.734955	822	657068.244883	989510.907096	860	656762.426842	989253.080145
747	657649.415953	990000.876766	785	657373.164381	989767.976509	823	657067.076062	989509.921694	861	656761.499326	989252.298181
748	657637.924239	989991.188411	786	657369.439784	989764.836402	824	657060.972583	989504.776015	862	656748.057298	989240.965570
749	657629.523861	989984.106279	787	657360.477419	989757.280473	825	657053.005470	989498.059157	863	656741.181609	989235.168862
750	657618.782785	989975.050768	788	657354.414660	989752.169124	826	657042.299095	989489.032901	864	656732.317999	989227.696191
751	657613.674524	989970.744130	789	657342.694047	989742.287791	827	657028.864063	989477.706187	865	656724.942691	989221.478267
752	657603.427702	989962.105311	790	657336.997568	989737.485243	828	657019.763662	989470.033885	866	656715.867838	989213.827503
753	657602.906348	989961.665771	791	657326.003163	989728.216156	829	657009.444743	989461.334282	867	656705.998900	989205.507268
754	657601.697448	989960.646580	792	657322.299372	989725.093590	830	656991.790542	989446.450500	868	656685.971916	989188.623057
755	657596.954520	989956.647946	793	657311.859094	989716.291673	831	656990.394199	989445.273281	869	656685.216747	989187.986394
756	657584.432067	989946.090603	794	657297.609076	989704.277867	832	656980.659818	989437.066487	870	656681.477621	989184.834038
757	657579.068551	989941.568767	795	657296.615613	989703.440305	833	656972.685693	989430.343718	871	656670.063370	989175.210991
758	657571.266631	989934.991179	796	657289.613767	989697.537237	834	656962.990480	989422.169944	872	656662.337289	989168.697340
759	657566.438439	989930.920660	797	657287.451497	989695.714286	835	656954.753978	989415.225971	873	656651.459257	989159.526364
760	657555.411025	989921.623744	798	657276.363723	989686.366482	836	656946.490236	989408.259034	874	656648.992201	989157.446456
761	657550.550280	989917.525781	799	657275.204019	989685.388767	837	656933.156618	989397.017819	875	656636.692694	989147.077073
762	657546.153986	989913.819384	800	657260.815956	989673.258579	838	656915.336109	989381.993828	876	656632.525657	989143.563956
763	657541.940727	989910.267299	801	657259.764095	989672.371783	839	656914.244714	989381.073703	877	656620.499534	989133.425056
764	657526.972776	989897.648223	802	657244.301317	989659.335531	840	656914.084937	989380.938999	878	656609.516990	989124.165969
765	657525.920862	989896.761382	803	657244.299154	989659.333708	841	656900.942193	989369.858706	879	656608.471110	989123.284215
766	657524.393046	989895.473322	804	657228.655603	989646.145052	842	656899.544792	989368.680594	880	656605.360545	989120.661782
767	657522.411955	989893.803117	805	657221.154735	989639.821272	843	656891.044673	989361.514373	881	656593.550657	989110.705184
768	657509.355757	989882.795788	806	657220.327488	989639.123842	844	656884.430233	989355.937917	882	656588.637148	989106.562737
769	657505.248219	989879.332834	807	657217.772348	989636.969673	845	656878.844342	989351.228603	883	656576.185986	989096.065497
770	657492.944757	989868.960116	808	657209.017639	989629.588813	846	656866.763021	989341.043166	884	656569.761077	989090.648830
771	657491.192887	989867.483162	809	657196.887598	989619.362303	847	656864.036189	989338.744248	885	656556.659902	989079.603582
772	657476.985044	989855.504913	810	657188.042586	989611.905311	848	656853.539066	989329.894406	886	656533.062649	989059.709374
773	657476.211654	989854.852888	811	657178.241883	989603.642603	849	656852.599760	989329.102503	887	656531.800339	989058.645154
774	657462.145004	989842.993675	812	657168.560064	989595.480122	850	656838.881183	989317.536740	888	656529.115267	989056.381442
775	657450.518927	989833.192043	813	657160.780162	989588.921096	851	656838.357263	989317.095037	889	656516.981082	989046.151438
776	657449.936360	989832.700896	814	657144.699809	989575.364184	852	656838.093483	989316.872651	890	656509.847070	989040.136945
777	657437.812273	989822.479405	815	657143.806450	989574.611017	853	656828.537376	989308.816155			
778	657437.425478	989822.153309	816	657139.231897	989570.754334	854	656827.362541	989307.825683			

COMPONENTE: ALINEAMIENTO DEL PROYECTO											
ID	ESTE	NORTE	ID	ESTE	NORTE	ID	ESTE	NORTE	ID	ESTE	NORTE
891	656497.199912	989029.474467	928	656223.310678	988855.949535	965	655900.731558	988868.665361	1002	655665.034221	989050.741888
892	656491.540586	989024.703241	929	656213.604883	988853.234543	966	655891.372675	988872.309142	1003	655658.393896	989060.338556
893	656479.880988	989014.873348	930	656210.168613	988852.322661	967	655882.990052	988875.755002	1004	655657.151777	989062.187004
894	656472.671977	989008.795625	931	656198.462875	988849.407105	968	655872.821100	988880.171964	1005	655647.238658	989077.601226
895	656463.438266	989001.010932	932	656197.214953	988849.113919	969	655864.043445	988884.198722	1006	655646.480727	989078.831540
896	656456.607723	988995.252286	933	656196.643031	988848.980512	970	655854.353437	988888.881043	1007	655639.235862	989091.005170
897	656455.697991	988994.485315	934	656184.721782	988846.356982	971	655845.260836	988893.507553	1008	655638.951872	989091.498440
898	656452.322394	988991.639440	935	656177.541577	988844.920368	972	655836.287000	988898.301664	1009	655631.251226	989105.387211
899	656446.298183	988986.560590	936	656161.721006	988842.130610	973	655828.686838	988902.544556	1010	655631.023878	989105.813228
900	656439.914051	988981.178301	937	656152.562515	988840.749137	974	655819.005930	988908.199756	1011	655623.815124	989119.856120
901	656428.502094	988971.557188	938	656139.994139	988839.128893	975	655813.610070	988911.477421	1012	655617.610100	989132.879208
902	656428.114149	988971.230121	939	656127.320762	988837.815169	976	655812.660019	988912.064037	1013	655617.229342	989133.710303
903	656414.356883	988959.631741	940	656120.704351	988837.256150	977	655810.558141	988913.372104	1014	655612.825494	989143.623049
904	656411.376528	988957.119084	941	656109.977386	988836.533789	978	655807.672758	988915.190955	1015	655612.131633	989145.238392
905	656409.806606	988955.795525	942	656099.521000	988836.048000	979	655795.099481	988923.438210	1016	655609.459340	989151.608322
906	656398.644897	988946.652344	943	656099.237578	988836.037710	980	655793.407094	988924.589302	1017	655607.423837	989156.553964
907	656388.963963	988939.136584	944	656098.215434	988836.002315	981	655781.595046	988932.905863	1018	655605.229352	989161.885884
908	656379.231875	988931.947105	945	656088.251293	988835.764724	982	655776.793205	988936.432464	1019	655605.065277	989162.284535
909	656378.204889	988931.208755	946	656080.058519	988835.715272	983	655767.512738	988943.498302	1020	655600.785791	989172.682360
910	656368.743948	988924.587759	947	656066.000157	988835.937148	984	655765.128032	988945.368816	1021	655599.630822	989175.488576
911	656362.383767	988920.312908	948	656059.150252	988836.185814	985	655752.480613	988955.682661	1022	655594.028304	989189.100961
912	656348.122306	988911.218435	949	656044.705124	988837.012858	986	655750.322515	988957.511084	1023	655593.753313	989189.769103
913	656340.041040	988906.353988	950	656035.437947	988837.760411	987	655735.489876	988970.654551	1024	655590.057189	989198.749540
914	656334.720943	988903.261351	951	656022.383911	988839.102805	988	655734.135667	988971.906880	1025	655588.444298	989202.668365
915	656318.037883	988894.106711	952	656013.412690	988840.222823	989	655733.157006	988972.817592	1026	655580.319887	989222.408168
916	656316.814659	988893.466988	953	655999.871808	988842.220687	990	655726.225968	988979.407016	1027	655579.174057	989225.192179
917	656302.579578	988886.327215	954	655998.474215	988842.448086	991	655715.551548	988990.057961	1028	655578.741239	989226.243793
918	656292.906694	988881.787502	955	655988.429063	988844.200124	992	655714.170884	988991.482468	1029	655577.194321	989230.002325
919	656292.174439	988881.453851	956	655978.853554	988846.063939	993	655706.251739	988999.872838	1030	655571.718268	989243.307438
920	656285.082935	988878.294278	957	655973.565571	988847.175022	994	655701.511237	989005.082347	1031	655571.546687	989243.724328
921	656277.492105	988875.054114	958	655955.358835	988851.452148	995	655699.695253	989007.116810	1032	655565.788685	989257.714489
922	656265.854800	988870.364873	959	655954.904304	988851.567983	996	655695.719798	989011.648249	1033	655562.785531	989265.011223
923	656264.704763	988869.919430	960	655938.543019	988856.036643	997	655687.327421	989021.582268	1034	655558.957727	989274.311601
924	656250.023058	988864.510441	961	655936.043164	988856.771224	998	655686.447071	989022.654671	1035	655553.737621	989286.994841
925	656249.976559	988864.494118	962	655919.354827	988862.034556	999	655676.122801	989035.694287	1036	655550.970095	989293.719072
926	656238.095353	988860.487374	963	655903.335817	988867.688947	1000	655667.956984	989046.662183	1037	655547.031455	989303.288750
927	656231.662990	988858.452771	964	655901.993905	988868.190046	1001	655667.072527	989047.887818	1038	655542.363071	989314.631477

COMPONENTE: ALINEAMIENTO DEL PROYECTO										
ID	ESTE	NORTE		ID	ESTE	NORTE		ID	ESTE	NORTE
1039	655541.114062	989317.666181		1077	655393.710551	989577.848104		1115	655196.773215	989783.733447
1040	655537.648460	989326.086520		1078	655381.071070	989591.920438		1116	655185.807722	989792.713912
1041	655534.420715	989333.928940		1079	655381.051559	989591.941578		1117	655183.342650	989794.662419
1042	655532.601349	989338.349438		1080	655377.690460	989595.557531		1118	655174.696858	989801.301332
1043	655527.494323	989350.757930		1081	655371.173285	989602.519473		1119	655172.732244	989802.768635
1044	655525.750211	989354.995580		1082	655368.379710	989605.503697		1120	655163.562628	989809.422238
1045	655520.249982	989368.359434		1083	655367.016620	989606.959811		1121	655149.231489	989819.206257
1046	655519.202524	989370.904433		1084	655359.290006	989615.213731		1122	655148.855181	989819.453734
1047	655517.007632	989376.237339		1085	655358.851397	989615.682273		1123	655148.437417	989819.728458
1048	655513.979149	989383.595616		1086	655358.675554	989615.870117		1124	655148.019648	989820.003174
1049	655513.190103	989385.504744		1087	655356.429986	989618.268934		1125	655147.667434	989820.234778
1050	655511.570748	989389.373740		1088	655351.176045	989623.881433		1126	655145.202545	989821.855602
1051	655506.445737	989401.210635		1089	655347.720805	989627.572477				
1052	655502.513189	989409.908249		1090	655344.543928	989630.966161				
1053	655501.840052	989411.365985		1091	655343.492973	989632.088839				
1054	655498.267462	989418.959773		1092	655341.130815	989634.612204				
1055	655492.538440	989430.668566		1093	655329.338820	989647.208948				
1056	655490.211605	989435.271579		1094	655326.211969	989650.549192				
1057	655483.976187	989447.209489		1095	655325.425708	989651.389112				
1058	655482.960699	989449.101930		1096	655315.270260	989662.237622				
1059	655474.994448	989463.485898		1097	655313.284217	989664.359203				
1060	655474.380815	989464.561599		1098	655299.704335	989678.865850				
1061	655465.838686	989479.096178		1099	655299.448237	989679.139425				
1062	655465.171565	989480.198338		1100	655288.045060	989691.320817				
1063	655459.962615	989488.650493		1101	655285.507604	989694.031443				
1064	655454.358796	989497.454054		1102	655270.455560	989710.110719				
1065	655453.154820	989499.308300		1103	655257.871875	989723.553105				
1066	655452.836518	989499.796383		1104	655257.722686	989723.712554				
1067	655445.029527	989511.498117		1105	655256.125632	989725.418600				
1068	655443.151395	989514.238849		1106	655249.446974	989732.553045				
1069	655435.810035	989524.692194		1107	655247.177100	989734.977827				
1070	655434.142307	989527.011376		1108	655239.540333	989743.135769				
1071	655425.148161	989539.185654		1109	655238.711805	989744.018694				
1072	655423.602725	989541.223132		1110	655232.664694	989750.335606				
1073	655414.176062	989553.326547		1111	655223.650654	989759.355432				
1074	655413.155718	989554.604354		1112	655220.943830	989761.975951				
1075	655403.170834	989566.794980		1113	655212.717809	989769.703225				
1076	655394.231383	989577.251547		1114	655209.667818	989772.481065				



Legenda

- Punto de Coordenadas a cada 100m
- Punto de Coordenadas a cada 500m
- Alineamiento del Proyecto¹
- Línea 3 del Metro¹
- Estacion¹
- Campamento¹
- Límite de Corregimiento
- Área de Influencia
 - Área de Influencia Directa (AID)
 - Área de Influencia Indirecta (AII)



Escala: 1:20,000

0 400 800 1,200 m

Sistema de Coordenadas: WGS 1984, UTM
Zona 17N Proyección - Transversal de Mercator.

LOCALIZACIÓN REGIONAL



ALINEAMIENTO DEL PROYECTO Y COORDENADAS UTM DE LOS PK CADA 100 M

Estudio de Impacto Ambiental Categoría III, Proyecto de Cruce de la Línea 3 por debajo del Canal de Panamá

Promotor:



REPÚBLICA DE PANAMÁ
GOBIERNO NACIONAL

Consultor:



COORDENADAS UTM DE LOS PK DEL ALINEAMIENTO CADA 100 MT

ID	Este	Norte	PK
1	659380	992079	0+113
2	659351	991997	0+200
3	659310	991906	0+300
4	659260	991819	0+400
5	659202	991738	0+500
6	659137	991662	0+600
7	659070	991587	0+700
8	659008	991509	0+800
9	658947	991430	0+900
10	658886	991351	1+000
11	658824	991272	1+100
12	658763	991193	1+200
13	658702	991114	1+300
14	658640	991035	1+400
15	658579	990956	1+500
16	658518	990877	1+600
17	658456	990798	1+700
18	658395	990719	1+800
19	658334	990640	1+900
20	658272	990561	2+000
21	658210	990483	2+100
22	658139	990413	2+200
23	658062	990349	2+300
24	657986	990284	2+400
25	657909	990220	2+500
26	657833	990155	2+600
27	657756	990091	2+700
28	657680	990027	2+800
29	657603	989962	2+900
30	657527	989898	3+000
31	657451	989833	3+100
32	657374	989769	3+200

ID	Este	Norte	PK
33	657298	989704	PK 3+300
34	657221	989640	PK 3+400
35	657145	989575	PK 3+500
36	657068	989511	PK 3+600
37	656992	989446	PK 3+700
38	656915	989382	PK 3+800
39	656839	989318	PK 3+900
40	656762	989253	PK 4+000
41	656686	989189	PK 4+100
42	656610	989124	PK 4+200
43	656533	989060	PK 4+300
44	656457	988995	PK 4+400
45	656379	988932	PK 4+500
46	656293	988882	PK 4+600
47	656198	988849	PK 4+700
48	656100	988836	PK 4+800
49	656000	988842	PK 4+900
50	655903	988868	PK 5+000
51	655814	988911	PK 5+100
52	655734	988972	PK 5+200
53	655668	989047	PK 5+300
54	655618	989133	PK 5+400
55	655579	989225	PK 5+500
56	655541	989318	PK 5+600
57	655503	989410	PK 5+700
58	655454	989497	PK 5+800
59	655394	989577	PK 5+900
60	655326	989651	PK 6+000
61	655258	989724	PK 6+100
62	655186	989793	PK 6+200
63	655145	989822	PK 6+250



Fuente:
1 Información facilitada por Metro de Panamá, S.A.
Elaborado y digitalizado por CSA Group Panamá, Inc. Panamá 2021
Base: Ortofotos 2013 del IGNTG, actualizada con imágenes de SASPlanet

Leyenda

- Punto de Coordenadas
- Tramo Soterrado 1
- Alineamiento del Proyecto 1
- Estacion 1
- Campamento 1
- Trinchera/Pozo de Extracción Este 1



Escala: 1:6,000



Sistema de Coordenadas: WGS 1984, UTM
Zona 17N Proyección - Transversal de Mercator.

LOCALIZACIÓN REGIONAL



COORDENADAS UTM DEL TRAMO SOTERRADO
1 Hoja de 3

Estudio de Impacto Ambiental Categoría III, Proyecto de Cruce de la Línea 3 por debajo del Canal de Panamá

Promotor:  METRO DE PANAMÁ  REPÚBLICA DE PANAMÁ GOBIERNO NACIONAL

Consultor:  CSAGROUP EST. 1958



Legenda

- Punto de Coordenadas
- Tramo Soterrado¹
- Alineamiento del Proyecto¹
- Estacion¹
- ▨ Campamento¹



Escala: 1:6,000



Sistema de Coordenadas: WGS 1984, UTM
Zona 17N Proyección - Transversal de Mercator.

LOCALIZACIÓN REGIONAL



**COORDENADAS UTM DEL
TRAMO SOTERRADO**

2 Hoja de 3

Estudio de Impacto Ambiental Categoría III, Proyecto de Cruce de
la Línea 3 por debajo del Canal de Panamá

Promotor:



Consultor:





Fuente:
¹ Información facilitada por Metro de Panamá, S.A.
Elaborado y digitalizado por CSA Group Panamá, Inc. Panamá 2021
Base: Ortofotos 2013 del IGNTG, actualizada con imágenes de SASPlanet



Escala: 1:6,000



Sistema de Coordenadas: WGS 1984, UTM
Zona 17N Proyección - Transversal de Mercator.

Leyenda

- Punto de Coordenadas
- Tramo Soterrado ¹
- Alineamiento del Proyecto ¹
- ▨ Campamento ¹
- Trinchera/Pozo de Ataque Oeste ¹
- Límite de Corregimiento

Promotor:  **METRO DE PANAMÁ**  **REPÚBLICA DE PANAMÁ**
GOBIERNO NACIONAL

Consultor:  **CSAGROUP**
EST. 1958

LOCALIZACIÓN REGIONAL



COORDENADAS UTM DEL TRAMO SOTERRADO

3 Hoja de 3

Estudio de Impacto Ambiental Categoría III, Proyecto de Cruce de la Línea 3 por debajo del Canal de Panamá

COMPONENTE: TRAMO SOTERRADO - LONGITUD 5.3 KM

COMPONENTE: TRAMO SOTERRADO											
ID	ESTE	NORTE	ID	ESTE	NORTE	ID	ESTE	NORTE	ID	ESTE	NORTE
1	659205.553992	991731.756992	37	659169.981978	991689.567822	73	659157.973722	991676.107270	109	659095.759877	991606.667271
2	659194.581088	991718.245109	38	659169.649209	991689.192179	74	659157.639888	991675.734702	110	659095.428127	991606.294893
3	659183.376163	991704.925002	39	659169.316366	991688.816660	75	659157.306070	991675.362178	111	659095.096482	991605.922481
4	659182.063369	991703.394610	40	659168.983451	991688.441265	76	659157.200725	991675.244623	112	659094.764945	991605.550032
5	659180.574524	991701.666465	41	659168.650467	991688.065990	77	659154.372931	991672.089289	113	659094.433517	991605.177544
6	659180.246591	991701.286886	42	659168.317415	991687.690833	78	659128.292813	991642.988667	114	659094.102203	991604.805015
7	659179.917433	991700.906267	43	659167.984300	991687.315792	79	659120.451214	991634.238883	115	659093.771003	991604.432442
8	659179.588118	991700.525842	44	659167.651123	991686.940864	80	659105.415000	991617.461230	116	659093.757313	991604.417034
9	659179.258649	991700.145608	45	659167.317887	991686.566049	81	659105.081304	991617.088886	117	659087.832002	991597.716194
10	659178.929030	991699.765563	46	659166.984595	991686.191342	82	659104.747636	991616.716567	118	659087.503474	991597.342379
11	659178.599262	991699.385705	47	659166.651248	991685.816742	83	659104.414002	991616.344277	119	659087.175111	991596.968476
12	659178.269349	991699.006032	48	659166.317851	991685.442247	84	659104.080405	991615.972012	120	659086.846917	991596.594484
13	659177.939293	991698.626541	49	659165.984404	991685.067854	85	659103.746847	991615.599772	121	659086.518894	991596.220401
14	659177.609096	991698.247231	50	659165.650912	991684.693562	86	659103.413332	991615.227553	122	659086.191044	991595.846223
15	659177.278763	991697.868099	51	659165.317376	991684.319367	87	659103.079861	991614.855353	123	659085.863371	991595.471951
16	659176.948294	991697.489143	52	659164.983799	991683.945268	88	659102.746437	991614.483170	124	659085.535877	991595.097580
17	659176.617693	991697.110361	53	659164.650183	991683.571262	89	659102.413063	991614.111002	125	659085.208564	991594.723109
18	659176.286963	991696.731751	54	659164.316532	991683.197347	90	659102.079741	991613.738846	126	659084.881435	991594.348536
19	659175.956105	991696.353310	55	659163.982847	991682.823522	91	659101.746473	991613.366701	127	659084.554493	991593.973858
20	659175.625124	991695.975036	56	659163.649131	991682.449783	92	659101.413263	991612.994564	128	659084.227740	991593.599075
21	659175.294021	991695.596928	57	659163.315387	991682.076128	93	659101.080112	991612.622432	129	659083.901178	991593.224182
22	659174.962798	991695.218982	58	659162.981618	991681.702555	94	659100.747024	991612.250304	130	659083.574811	991592.849179
23	659174.631460	991694.841196	59	659162.647825	991681.329062	95	659100.414000	991611.878177	131	659083.248640	991592.474064
24	659174.300008	991694.463569	60	659162.314012	991680.955647	96	659100.081044	991611.506049	132	659082.922669	991592.098833
25	659173.968445	991694.086099	61	659161.980181	991680.582306	97	659099.748157	991611.133918	133	659082.596900	991591.723485
26	659173.636773	991693.708782	62	659161.646334	991680.209039	98	659099.415343	991610.761781	134	659082.271335	991591.348018
27	659173.304996	991693.331617	63	659161.312474	991679.835843	99	659099.082603	991610.389636	135	659081.945978	991590.972430
28	659172.973115	991692.954601	64	659160.978604	991679.462715	100	659098.749941	991610.017482	136	659081.620830	991590.596719
29	659172.641134	991692.577733	65	659160.644726	991679.089653	101	659098.417359	991609.645315	137	659081.295895	991590.220882
30	659172.309055	991692.201010	66	659160.310842	991678.716655	102	659098.084859	991609.273134	138	659081.059764	991589.947525
31	659171.976880	991691.824430	67	659159.976956	991678.343719	103	659097.752443	991608.900936	139	659071.690895	991578.936744
32	659171.644613	991691.447990	68	659159.643070	991677.970842	104	659097.420116	991608.528719	140	659067.141428	991573.470849
33	659171.312256	991691.071688	69	659159.309186	991677.598023	105	659097.087878	991608.156480	141	659065.936491	991572.009777
34	659170.979811	991690.695523	70	659158.975306	991677.225258	106	659096.755733	991607.784219	142	659064.151142	991569.834434
35	659170.647282	991690.319492	71	659158.641434	991676.852546	107	659096.423683	991607.411932	143	659059.674010	991564.323462
36	659170.314670	991689.943592	72	659158.307572	991676.479884	108	659096.091730	991607.039616	144	659059.361237	991563.935444

COMPONENTE: TRAMO SOTERRADO											
ID	ESTE	NORTE	ID	ESTE	NORTE	ID	ESTE	NORTE	ID	ESTE	NORTE
145	659059.049652	991563.548509	180	659048.534656	991550.296203	215	659038.103921	991536.912687	250	658458.795984	990790.873263
146	659058.738228	991563.161388	181	659048.227172	991549.904038	216	659037.797350	991536.517909	251	658442.058343	990769.318336
147	659058.426962	991562.774082	182	659047.919757	991549.511763	217	659037.490758	991536.123091	252	658424.888263	990747.206508
148	659058.115851	991562.386596	183	659047.612411	991549.119378	218	659037.184144	991535.728235	253	658409.892826	990727.895210
149	659057.804893	991561.998930	184	659047.305130	991548.726886	219	659036.960916	991535.440759	254	658383.124544	990693.422707
150	659057.494086	991561.611086	185	659046.997911	991548.334290	220	659036.618882	991535.000284	255	658361.759859	990665.909018
151	659057.183427	991561.223068	186	659046.690752	991547.941590	221	659026.978673	991522.585511	256	658341.322700	990639.589807
152	659056.872913	991560.834877	187	659046.383651	991547.548790	222	658998.240391	991485.576018	257	658329.723365	990624.652050
153	659056.562543	991560.446515	188	659046.076604	991547.155891	223	658996.420527	991483.232377	258	658315.524719	990606.366869
154	659056.252312	991560.057985	189	659045.769610	991546.762895	224	658962.577782	991439.649297	259	658298.227529	990584.091347
155	659055.942220	991559.669288	190	659045.462665	991546.369805	225	658962.463654	991439.502322	260	658277.566695	990557.484086
156	659055.632262	991559.280427	191	659045.155767	991545.976622	226	658935.101248	991404.264698	261	658269.163126	990546.661872
157	659055.322438	991558.891404	192	659044.848912	991545.583349	227	658926.913836	991393.720855	262	658264.552789	990540.724628
158	659055.012743	991558.502222	193	659044.542100	991545.189987	228	658896.722756	991354.840433	263	658254.958447	990528.368923
159	659054.703176	991558.112881	194	659044.235326	991544.796540	229	658882.201812	991336.140192	264	658239.035716	990507.863446
160	659054.393734	991557.723384	195	659043.928589	991544.403008	230	658852.590642	991298.006585	265	658238.729043	990507.468511
161	659054.084415	991557.333734	196	659043.621885	991544.009394	231	658819.874854	991255.874814	266	658238.422292	990507.073494
162	659053.775215	991556.943933	197	659043.315211	991543.615700	232	658807.357966	991239.755421	267	658238.115443	990506.678383
163	659053.466133	991556.553982	198	659043.008567	991543.221929	233	658748.953004	991164.540835	268	658237.808487	990506.283186
164	659053.157165	991556.163885	199	659042.701947	991542.828081	234	658719.264083	991126.307098	269	658237.501416	990505.887908
165	659052.848309	991555.773642	200	659042.395351	991542.434160	235	658708.045550	991111.859742	270	658237.194222	990505.492555
166	659052.539564	991555.383256	201	659042.088775	991542.040168	236	658682.839774	991079.399451	271	658236.886896	990505.097135
167	659052.230925	991554.992730	202	659041.782217	991541.646105	237	658672.165107	991065.652491	272	658236.579431	990504.701652
168	659052.183841	991554.933113	203	659041.475673	991541.251975	238	658655.476341	991044.160505	273	658236.271818	990504.306115
169	659051.922390	991554.602065	204	659041.465098	991541.238375	239	658625.829738	991005.981266	274	658235.964049	990503.910529
170	659051.613957	991554.211263	205	659041.169142	991540.857780	240	658611.881222	990988.018206	275	658235.656116	990503.514901
171	659051.305624	991553.820327	206	659040.862621	991540.463522	241	658591.389936	990961.629290	276	658235.348010	990503.119236
172	659050.997387	991553.429259	207	659040.556106	991540.069202	242	658586.781795	990955.694873	277	658235.039724	990502.723542
173	659050.689244	991553.038060	208	659040.249596	991539.674823	243	658562.085311	990923.890455	278	658234.731249	990502.327825
174	659050.381192	991552.646734	209	659039.943088	991539.280387	244	658535.310644	990889.409729	279	658234.422577	990501.932091
175	659050.073230	991552.255281	210	659039.636578	991538.885895	245	658529.294099	990881.661552	280	658234.113700	990501.536347
176	659049.765353	991551.863705	211	659039.330065	991538.491351	246	658507.795365	990853.975235	281	658233.804609	990501.140599
177	659049.457560	991551.472007	212	659039.023545	991538.096756	247	658495.936455	990838.703193	282	658233.495297	990500.744854
178	659049.149848	991551.080189	213	659038.717017	991537.702113	248	658476.192928	990813.277249	283	658233.185755	990500.349119
179	659048.842214	991550.688253	214	659038.410476	991537.307422	249	658472.761136	990808.857748	284	658232.875974	990499.953399

COMPONENTE: TRAMO SOTERRADO											
ID	ESTE	NORTE	ID	ESTE	NORTE	ID	ESTE	NORTE	ID	ESTE	NORTE
437	658141.376624	990407.152502	471	657970.581531	990263.140830	505	656467.128748	988995.620297	539	655973.476075	988840.546516
438	658140.994278	990406.828292	472	657892.143073	990197.011480	506	656435.005223	988968.537819	540	655954.416232	988844.985325
439	658140.611903	990406.504185	473	657823.112782	990138.813901	507	656413.996426	988950.825868	541	655938.421630	988849.305288
440	658140.229502	990406.180177	474	657763.240730	990088.337387	508	656403.957874	988942.576400	542	655925.109351	988853.325674
441	658139.847076	990405.856266	475	657731.393852	990061.488142	509	656364.863619	988914.161979	543	655911.910131	988857.702987
442	658139.464628	990405.532450	476	657700.827935	990035.718841	510	656354.697288	988907.645589	544	655895.716567	988863.620961
443	658139.082160	990405.208726	477	657557.282776	989914.699786	511	656344.381395	988901.368647	545	655881.966794	988869.135233
444	658138.699674	990404.885091	478	657537.835541	989898.304345	512	656329.906804	988893.104091	546	655868.380821	988875.041567
445	658138.317173	990404.561543	479	657274.474708	989676.271923	513	656315.173081	988885.310883	547	655854.969825	988881.335106
446	658137.934658	990404.238079	480	657250.334041	989655.919577	514	656301.764427	988878.735339	548	655854.568098	988881.530923
447	658137.552132	990403.914696	481	657209.692360	989621.655671	515	656288.171271	988872.550205	549	655841.225249	988888.282740
448	658137.169596	990403.591393	482	657187.692260	989603.107980	516	656283.454269	988870.513562	550	655828.083453	988895.417994
449	658136.787054	990403.268166	483	657182.796798	989598.980747	517	656267.939944	988864.201528	551	655815.153726	988902.930703
450	658136.404508	990402.945012	484	657161.137804	989580.720633	518	656252.229114	988858.395850	552	655808.102923	988907.242343
451	658136.021959	990402.621930	485	657139.308216	989562.316696	519	656236.338301	988853.102632	553	655797.166830	988914.242955
452	658135.639410	990402.298916	486	657112.448068	989539.671629	520	656232.468649	988851.899661	554	655786.410174	988921.516267
453	658135.256863	990401.975968	487	657069.394086	989503.373977	521	656219.363312	988848.070620	555	655775.309263	988929.446835
454	658134.874320	990401.653084	488	657046.778422	989484.307319	522	656206.161345	988844.589316	556	655764.421682	988937.667827
455	658134.491783	990401.330260	489	657011.469730	989454.539513	523	656192.871974	988841.458181	557	655755.481959	988944.764945
456	658134.109255	990401.007494	490	657009.025273	989452.478657	524	656188.327506	988840.472099	558	655745.012031	988953.498983
457	658133.726738	990400.684784	491	656947.851810	989400.904958	525	656173.599321	988837.568671	559	655734.776293	988962.506340
458	658133.344234	990400.362127	492	656941.121000	989395.230394	526	656158.792981	988835.094487	560	655724.781877	988971.780739
459	658132.961745	990400.039520	493	656892.511390	989354.248941	527	656143.920991	988833.051636	561	655715.949921	988980.399723
460	658132.579274	990399.716961	494	656861.514620	989328.116399	528	656128.490456	988831.394996	562	655705.124462	988991.550194
461	658132.196822	990399.394447	495	656824.156947	989296.621152	529	656112.781009	988830.188117	563	655694.639372	989003.021308
462	658131.814391	990399.071976	496	656792.492991	989269.926124	530	656097.042060	988829.460958	564	655688.750565	989009.779045
463	658131.431985	990398.749545	497	656765.455535	989247.131573	531	656084.988878	988829.228967	565	655679.406727	989021.009018
464	658131.049605	990398.427151	498	656741.513537	989226.946720	532	656072.933564	988829.278349	566	655670.384228	989032.498758
465	658130.667253	990398.104792	499	656696.481833	989188.981704	533	656058.512474	988829.707269	567	655661.690286	989044.239072
466	658130.284932	990397.782465	500	656641.283043	989142.445090	534	656044.108991	988830.538809	568	655646.880760	989065.989159
467	658130.110600	990397.635490	501	656618.792080	989123.483566	535	656032.976467	988831.458757	569	655636.947030	989082.045760
468	658091.771157	990365.312538	502	656551.679220	989066.902522	536	656013.521964	988833.651071	570	655623.170355	989106.770724
469	658032.425958	990315.280200	503	656531.618793	989049.990116	537	655994.164520	988836.579090	571	655618.443606	989116.056140
470	657996.184554	990284.726049	504	656530.974667	989049.447071	538	655992.690392	988836.832930	572	655613.905123	989125.435014

COMPONENTE: TRAMO SOTERRADO											
ID	ESTE	NORTE	ID	ESTE	NORTE	ID	ESTE	NORTE	ID	ESTE	NORTE
573	655601.403513	989154.103382	610	655514.808746	989398.329057	647	655607.631820	989173.127132	684	655758.395627	988959.205255
574	655590.250777	989181.201076	611	655516.075051	989395.391630	648	655610.428241	989166.332693	685	655766.326170	988952.720122
575	655579.245258	989207.941079	612	655519.338704	989387.646644	649	655613.968783	989157.730273	686	655770.511328	988949.404482
576	655570.340135	989229.577769	613	655519.990082	989386.069411	650	655615.470273	989154.082117	687	655779.121329	988942.805775
577	655528.886040	989330.298383	614	655521.267748	989382.965078	651	655615.769198	989153.357426	688	655782.038295	988940.636087
578	655491.172665	989418.718183	615	655523.018566	989378.711134	652	655620.018950	989143.382906	689	655791.763142	988933.634217
579	655481.477610	989438.023346	616	655524.290008	989375.621923	653	655622.436721	989137.960567	690	655794.879489	988931.463788
580	655471.185968	989457.017175	617	655525.945968	989371.598454	654	655625.907277	989130.463183	691	655801.345292	988927.070451
581	655460.307723	989475.681237	618	655529.404467	989363.195372	655	655629.210182	989123.613200	692	655811.128028	988920.696593
582	655448.853433	989493.997423	619	655531.835181	989357.289490	656	655631.453299	989119.106602	693	655812.778801	988919.652598
583	655449.273182	989494.269104	620	655534.082686	989351.828747	657	655635.793120	989110.693477	694	655824.584860	988912.442703
584	655454.310171	989497.529278	621	655536.195599	989346.695024	658	655639.489332	989103.819999	695	655837.741970	988904.918934
585	655456.702741	989499.077861	622	655539.971899	989337.519784	659	655641.052634	989100.987761	696	655850.034035	988898.353555
586	655459.347161	989500.789453	623	655541.254372	989334.403773	660	655641.974852	989099.336896	697	655858.320444	988894.170281
587	655459.766910	989501.061134	624	655544.332318	989326.925318	661	655644.973922	989094.066476	698	655869.506395	988888.822233
588	655460.930069	989499.258049	625	655546.698755	989321.175608	662	655649.266226	989086.770334	699	655875.458231	988886.112949
589	655462.105913	989497.422994	626	655549.391090	989314.634067	663	655654.347182	989078.479975	700	655882.693242	988882.943988
590	655462.356619	989497.030118	627	655551.767423	989308.860315	664	655654.459802	989078.300222	701	655894.123966	988878.209181
591	655466.463667	989490.511226	628	655554.835474	989301.405901	665	655655.463751	989076.705221	702	655894.852111	988877.918656
592	655466.659326	989490.196696	629	655556.117103	989298.291938	666	655661.435550	989067.481347	703	655897.366141	988876.925656
593	655472.955524	989479.873386	630	655559.904141	989289.090609	667	655667.607216	989058.389989	704	655906.969247	988873.274929
594	655473.346396	989479.219196	631	655560.591895	989287.419580	668	655669.012349	989056.378429	705	655919.278927	988868.918905
595	655478.507544	989470.426990	632	655564.253822	989278.522232	669	655675.434939	989047.440867	706	655929.171546	988865.675557
596	655479.627053	989468.480819	633	655567.904893	989269.651261	670	655682.051347	989038.645822	707	655930.504353	988865.255832
597	655483.640862	989461.382794	634	655568.728614	989267.649873	671	655686.792895	989032.580836	708	655940.240919	988862.312132
598	655484.715470	989459.449489	635	655573.120147	989256.979807	672	655694.579934	989023.018563	709	655946.428079	988860.552344
599	655489.117310	989451.377469	636	655576.041611	989249.881555	673	655699.560611	989017.145030	710	655956.676150	988857.824067
600	655490.541559	989448.711113	637	655578.950141	989242.814727	674	655705.407667	989010.475472	711	655964.101303	988855.990771
601	655493.337825	989443.394709	638	655581.256866	989237.210101	675	655710.313813	989005.057320	712	655971.300980	988854.326804
602	655494.262041	989441.613088	639	655584.677734	989228.898450	676	655717.681842	988997.208235	713	655983.858135	988851.689064
603	655497.982105	989434.313450	640	655587.086860	989223.045021	677	655719.915340	988994.894157	714	655994.559343	988849.703079
604	655499.334035	989431.607763	641	655590.189465	989215.506651	678	655726.359145	988988.380059	715	656001.664750	988848.516021
605	655503.238977	989423.625003	642	655592.814453	989209.128744	679	655732.791135	988982.108096	716	656012.025944	988846.971499
606	655507.531462	989414.543744	643	655596.254557	989200.770355	680	655737.645376	988977.519740	717	656015.068208	988846.559747
607	655508.930516	989411.509817	644	655598.326184	989195.736945	681	655745.032837	988970.765191	718	656027.513898	988845.071296
608	655510.316385	989408.466708	645	655602.291523	989186.102399	682	655747.815027	988968.290175	719	656036.681671	988844.175195
609	655510.790701	989407.416350	646	655604.391276	989181.000649	683	655755.615198	988961.543600	720	656044.912023	988843.514628

COMPONENTE: TRAMO SOTERRADO											
ID	ESTE	NORTE	ID	ESTE	NORTE	ID	ESTE	NORTE	ID	ESTE	NORTE
721	656063.060595	988842.536581	759	656448.040756	988996.531269	797	656949.444278	989419.251069	835	657385.101236	989786.541712
722	656065.650337	988842.450527	760	656459.179591	989005.922120	798	656949.969382	989419.693770	836	657401.408367	989800.289815
723	656077.211796	988842.228985	761	656469.577129	989014.688004	799	656954.961466	989423.902462	837	657406.495345	989804.578508
724	656088.775294	988842.273010	762	656481.408554	989024.662760	800	656958.534217	989426.914551	838	657419.422938	989815.477414
725	656091.227985	988842.316492	763	656484.420292	989027.201875	801	656976.999011	989442.481722	839	657427.917256	989822.638745
726	656103.732926	988842.724142	764	656507.269417	989046.465357	802	656991.334733	989454.567783	840	657433.461272	989827.312755
727	656116.223877	988843.442381	765	656509.945320	989048.721339	803	657014.946549	989474.474269	841	657449.982086	989841.241009
728	656116.291890	988843.447145	766	656533.335645	989068.441092	804	657016.016605	989475.376404	842	657455.746290	989846.100653
729	656132.152960	988844.811493	767	656546.296772	989079.368269	805	657025.786460	989483.613106	843	657480.303167	989866.803895
730	656147.962970	988846.676590	768	656560.598176	989091.425397	806	657032.523479	989489.292904	844	657482.453582	989868.616852
731	656152.195038	988847.262104	769	656568.540194	989098.121098	807	657047.397696	989501.832957	845	657506.477856	989888.871070
732	656167.592678	988849.702812	770	656578.887048	989106.844252	808	657055.760892	989508.883741	846	657513.040348	989894.403730
733	656185.912040	988853.249109	771	656583.886605	989111.059244	809	657066.915792	989518.288137	847	657531.092742	989909.623217
734	656195.211302	988855.320881	772	656601.618103	989126.008192	810	657080.735592	989529.939238	848	657539.230880	989916.484262
735	656207.110108	988858.243281	773	656602.029054	989126.354654	811	657088.426165	989536.422953	849	657560.371910	989934.307695
736	656220.145546	988861.800804	774	656627.143362	989147.527850	812	657097.074758	989543.714349	850	657562.341490	989935.968195
737	656233.080827	988865.706840	775	656650.168739	989166.939925	813	657109.197229	989553.934478	851	657578.090497	989949.245758
738	656236.086941	988866.669165	776	656660.113378	989175.323983	814	657123.520466	989566.010012	852	657589.014464	989958.455460
739	656250.647071	988871.627487	777	656673.753505	989186.823606	815	657130.677443	989572.043867	853	657601.416453	989968.911243
740	656265.048956	988877.028236	778	656678.350972	989190.699607	816	657151.659595	989589.733354	854	657611.084243	989977.061896
741	656267.873675	988878.146864	779	656682.154049	989193.905878	817	657169.720937	989604.960385	855	657621.577984	989985.908887
742	656280.297307	988883.303695	780	656703.485744	989211.890056	818	657176.884303	989610.999626	856	657632.696504	989995.282612
743	656292.578750	988888.790563	781	656711.010606	989218.234064	819	657180.307132	989613.885321	857	657639.140395	990000.715283
744	656308.468200	988896.486603	782	656729.653242	989233.951168	820	657201.572099	989631.813242	858	657653.296010	990012.649499
745	656319.526378	988902.257234	783	656732.061386	989235.981410	821	657216.715785	989644.580475	859	657657.308639	990016.032440
746	656331.846390	988909.105802	784	656751.153764	989252.077679	822	657227.393720	989653.582754	860	657673.100056	990029.345757
747	656346.925936	988918.120332	785	656755.561928	989255.794083	823	657231.109732	989656.715624	861	657675.406258	990031.290054
748	656354.058716	988922.638377	786	656775.771485	989272.832216	824	657231.942557	989657.417756	862	657692.483004	990045.686999
749	656366.339538	988930.819699	787	656790.539801	989285.282986	825	657244.562428	989668.057230	863	657702.441131	990054.082427
750	656378.375335	988939.357391	788	656811.781878	989303.191609	826	657252.253047	989674.540983	864	657710.580623	990060.944613
751	656382.034749	988942.060156	789	656831.267773	989319.619642	827	657279.736793	989697.711789	865	657732.807981	990079.683900
752	656390.462131	988948.482541	790	656840.107053	989327.071800	828	657296.220013	989711.608348	866	657734.646931	990081.234270
753	656398.752501	988955.080840	791	656841.389190	989328.152735	829	657313.858148	989726.478584	867	657749.659096	990093.890622
754	656400.552156	988956.551291	792	656863.897748	989347.129094	830	657329.236819	989739.443927	868	657760.231218	990102.803693
755	656405.617035	988960.764973	793	656883.459548	989363.621121	831	657344.058117	989751.939364	869	657784.623922	990123.368524
756	656419.932860	988972.834259	794	656897.621619	989375.560782	832	657358.026832	989763.716011	870	657785.902890	990124.446787
757	656434.793704	988985.363036	795	656907.685870	989384.045680	833	657368.507070	989772.551618	871	657799.409902	990135.834185
758	656444.925550	988993.904923	796	656928.143925	989401.293315	834	657374.879919	989777.924395	872	657816.650845	990150.369560

COMPONENTE: TRAMO SOTERRADO											
ID	ESTE	NORTE	ID	ESTE	NORTE	ID	ESTE	NORTE	ID	ESTE	NORTE
873	657828.823781	990160.632234	908	658125.344004	990410.621069	943	658138.659507	990421.911132	978	658151.441515	990432.977612
874	657831.763106	990163.110300	909	658125.725816	990410.943185	944	658139.038040	990422.234726	979	658151.814262	990433.305590
875	657847.291931	990176.202234	910	658126.107572	990411.265299	945	658139.416439	990422.558408	980	658152.186798	990433.633740
876	657862.229480	990188.795679	911	658126.489270	990411.587415	946	658139.794703	990422.882181	981	658152.338462	990433.767480
877	657866.937471	990192.764860	912	658126.870906	990411.909534	947	658140.172830	990423.206047	982	658152.559123	990433.962064
878	657890.352636	990212.505554	913	658127.252479	990412.231660	948	658140.550816	990423.530008	983	658152.931233	990434.290564
879	657890.791763	990212.875771	914	658127.633988	990412.553795	949	658140.928660	990423.854068	984	658153.303127	990434.619243
880	657913.652041	990232.148654	915	658128.015428	990412.875941	950	658141.306360	990424.178228	985	658153.674801	990434.948104
881	657922.165686	990239.326279	916	658128.396799	990413.198101	951	658141.683913	990424.502491	986	658154.046254	990435.277147
882	657944.890541	990258.484992	917	658128.778098	990413.520278	952	658142.061318	990424.826860	987	658154.417484	990435.606377
883	657964.633253	990275.129541	918	658129.159324	990413.842474	953	658142.438572	990425.151336	988	658154.788487	990435.935795
884	657976.183339	990284.867107	919	658129.540473	990414.164692	954	658142.815672	990425.475923	989	658155.159262	990436.265404
885	657990.437016	990296.883999	920	658129.921543	990414.486935	955	658143.192617	990425.800623	990	658155.529806	990436.595206
886	657995.578757	990301.218862	921	658130.302533	990414.809204	956	658143.569404	990426.125439	991	658155.900117	990436.925203
887	658015.684239	990318.169252	922	658130.683441	990415.131504	957	658143.946031	990426.450373	992	658156.270193	990437.255398
888	658019.912168	990321.733705	923	658131.064263	990415.453835	958	658144.322496	990426.775427	993	658156.640031	990437.585793
889	658037.004378	990336.143687	924	658131.444999	990415.776200	959	658144.698796	990427.100604	994	658157.009629	990437.916391
890	658041.741760	990340.137646	925	658131.825645	990416.098603	960	658145.074930	990427.425906	995	658157.378985	990438.247193
891	658061.253629	990356.587577	926	658132.206199	990416.421046	961	658145.450895	990427.751337	996	658157.748096	990438.578202
892	658074.834488	990368.037233	927	658132.586660	990416.743531	962	658145.826688	990428.076897	997	658158.116959	990438.909421
893	658086.675736	990378.020270	928	658132.967025	990417.066062	963	658146.202309	990428.402591	998	658158.485573	990439.240851
894	658100.639232	990389.792517	929	658133.347292	990417.388639	964	658146.577753	990428.728420	999	658158.853936	990439.572496
895	658109.754111	990397.477026	930	658133.727459	990417.711267	965	658146.953020	990429.054386	1000	658159.222044	990439.904356
896	658111.851037	990399.412093	931	658134.107524	990418.033947	966	658147.328106	990429.380493	1001	658159.589895	990440.236436
897	658115.253868	990402.113723	932	658134.487483	990418.356682	967	658147.703010	990429.706742	1002	658159.957488	990440.568736
898	658121.731206	990407.574593	933	658134.867336	990418.679475	968	658148.077730	990430.033136	1003	658160.324819	990440.901260
899	658121.905507	990407.721541	934	658135.247080	990419.002328	969	658148.452262	990430.359678	1004	658160.691886	990441.234009
900	658122.287730	990408.043785	935	658135.626713	990419.325243	970	658148.826605	990430.686369	1005	658161.058687	990441.566986
901	658122.669916	990408.366005	936	658136.006232	990419.648224	971	658149.200756	990431.013213	1006	658161.425220	990441.900193
902	658123.052064	990408.688202	937	658136.385636	990419.971273	972	658149.283422	990431.085498	1007	658161.791481	990442.233632
903	658123.434170	990409.010380	938	658136.764922	990420.294392	973	658149.574714	990431.340212	1008	658162.157470	990442.567306
904	658123.816232	990409.332542	939	658137.144088	990420.617584	974	658149.948475	990431.667368	1009	658162.523182	990442.901217
905	658124.198249	990409.654689	940	658137.523131	990420.940852	975	658150.322039	990431.994684	1010	658162.888616	990443.235367
906	658124.580218	990409.976824	941	658137.902051	990421.264197	976	658150.695401	990432.322161	1011	658163.253770	990443.569758
907	658124.962137	990410.298950	942	658138.280843	990421.587623	977	658151.068561	990432.649803	1012	658163.618640	990443.904393

COMPONENTE: TRAMO SOTERRADO											
ID	ESTE	NORTE	ID	ESTE	NORTE	ID	ESTE	NORTE	ID	ESTE	NORTE
1013	658163.983225	990444.239274	1050	658215.549165	990499.034756	1087	658226.622506	990513.074746	1124	658630.925011	991033.739233
1014	658164.347523	990444.574403	1051	658215.859599	990499.419492	1088	658226.928842	990513.468894	1125	658643.788525	991050.305015
1015	658164.711529	990444.909782	1052	658216.169783	990499.804602	1089	658227.235213	990513.863186	1126	658660.416057	991071.718143
1016	658165.075243	990445.245414	1053	658216.479725	990500.190080	1090	658227.541625	990514.257616	1127	658673.618824	991088.720820
1017	658165.438662	990445.581300	1054	658216.789432	990500.575918	1091	658227.848086	990514.652177	1128	658690.087735	991109.929674
1018	658165.801783	990445.917444	1055	658217.098912	990500.962110	1092	658228.154606	990515.046863	1129	658706.722531	991131.352157
1019	658166.164604	990446.253846	1056	658217.408172	990501.348651	1093	658228.461192	990515.441668	1130	658720.228394	991148.745163
1020	658166.527122	990446.590510	1057	658217.717221	990501.735533	1094	658228.767838	990515.836568	1131	658737.538366	991171.037146
1021	658166.889335	990446.927438	1058	658218.026066	990502.122749	1095	658229.834022	990517.209612	1132	658744.441751	991179.927406
1022	658167.251241	990447.264631	1059	658218.334714	990502.510294	1096	658232.610157	990520.784751	1133	658759.928678	991199.871649
1023	658167.612836	990447.602092	1060	658218.643173	990502.898161	1097	658238.803792	990528.760986	1134	658772.613525	991216.207342
1024	658167.974119	990447.939823	1061	658218.951451	990503.286343	1098	658244.257197	990535.783943	1135	658791.134072	991240.058317
1025	658168.335087	990448.277826	1062	658219.259556	990503.674834	1099	658257.153920	990552.392492	1136	658806.049222	991259.266220
1026	658168.688455	990448.609274	1063	658219.567495	990504.063628	1100	658268.262010	990566.697620	1137	658822.704665	991280.715293
1027	658171.926887	990451.673300	1064	658219.875277	990504.452718	1101	658285.553301	990588.965545	1138	658826.856878	991286.062560
1028	658172.284223	990452.014438	1065	658220.182908	990504.842098	1102	658294.888270	990600.987225	1139	658850.018282	991315.890085
1029	658172.641214	990452.355874	1066	658220.490397	990505.231761	1103	658306.446658	990615.872252	1140	658857.991319	991326.157854
1030	658172.997857	990452.697610	1067	658220.797752	990505.621701	1104	658319.165316	990632.251487	1141	658877.402851	991351.156250
1031	658173.354150	990453.039647	1068	658221.104981	990506.011912	1105	658335.070697	990652.734621	1142	658892.835490	991371.030581
1032	658173.710090	990453.381988	1069	658221.412091	990506.402387	1106	658346.075007	990666.906098	1143	658918.636852	991404.257873
1033	658174.065674	990453.724635	1070	658221.719090	990506.793120	1107	658358.749038	990683.227863	1144	658926.611855	991414.528175
1034	658174.420900	990454.067590	1071	658222.025986	990507.184104	1108	658374.664853	990703.724434	1145	658951.973684	991447.189432
1035	658174.775765	990454.410855	1072	658222.332787	990507.575334	1109	658393.017931	990727.359739	1146	658955.943297	991452.301545
1036	658175.130266	990454.754431	1073	658222.639502	990507.966802	1110	658405.108988	990742.930743	1147	658973.974818	991475.522747
1037	658175.484402	990455.098322	1074	658222.946137	990508.358503	1111	658426.229821	990770.130396	1148	658981.197412	991484.824087
1038	658175.838169	990455.442529	1075	658223.252701	990508.750430	1112	658436.679581	990783.587719	1149	659001.188587	991510.568954
1039	658176.191563	990455.787052	1076	658223.559202	990509.142577	1113	658446.894720	990796.742892	1150	659007.050232	991518.117648
1040	658176.546913	990456.134174	1077	658223.779897	990509.425145	1114	658462.692006	990817.086820	1151	659026.693042	991543.413887
1041	658185.912757	990465.542034	1078	658223.865648	990509.534937	1115	658484.151241	990844.722272	1152	659026.916309	991543.701412
1042	658208.451668	990490.441728	1079	658224.172047	990509.927505	1116	658495.406153	990859.216478	1153	659027.223016	991544.096389
1043	658212.222789	990494.958445	1080	658224.478407	990510.320273	1117	658519.853018	990890.699433	1154	659027.529755	991544.491397
1044	658213.869405	990496.965419	1081	658224.784736	990510.713236	1118	658533.935955	990908.835603	1155	659027.836529	991544.886434
1045	658213.992985	990497.116914	1082	658225.091041	990511.106387	1119	658550.571734	990930.259352	1156	659028.143339	991545.281498
1046	658214.304780	990497.499681	1083	658225.397332	990511.499721	1120	658570.490973	990955.911579	1157	659028.450189	991545.676588
1047	658214.616289	990497.882856	1084	658225.703616	990511.893229	1121	658586.738557	990976.835406	1158	659028.757082	991546.071700
1048	658214.927517	990498.266431	1085	658226.009900	990512.286907	1122	658600.467111	990994.515197	1159	659029.064019	991546.466833
1049	658215.238473	990498.650400	1086	658226.316194	990512.680748	1123	658614.666009	991012.800702	1160	659029.371004	991546.861985

COMPONENTE: TRAMO SOTERRADO											
ID	ESTE	NORTE	ID	ESTE	NORTE	ID	ESTE	NORTE	ID	ESTE	NORTE
1161	659029.678040	991547.257153	1195	659042.966359	991564.235283	1229	659075.089888	991602.899886	1263	659088.723931	991618.307731
1162	659029.985129	991547.652336	1196	659043.278268	991564.629094	1230	659075.420555	991603.278509	1264	659089.057688	991618.681213
1163	659030.292274	991548.047531	1197	659043.590348	991565.022825	1231	659075.751350	991603.656962	1265	659089.391467	991619.054616
1164	659030.599477	991548.442737	1198	659043.902602	991565.416475	1232	659076.082270	991604.035247	1266	659089.725264	991619.427944
1165	659030.906741	991548.837951	1199	659044.215032	991565.810041	1233	659076.413312	991604.413367	1267	659090.059077	991619.801197
1166	659031.214070	991549.233171	1200	659044.527640	991566.203522	1234	659076.744474	991604.791323	1268	659090.392905	991620.174380
1167	659031.521464	991549.628396	1201	659044.840431	991566.596915	1235	659077.075752	991605.169118	1269	659090.726743	991620.547493
1168	659031.828928	991550.023622	1202	659045.153405	991566.990217	1236	659077.407145	991605.546754	1270	659091.060590	991620.920540
1169	659032.136464	991550.418848	1203	659045.466566	991567.383428	1237	659080.062092	991608.562386	1271	659091.394443	991621.293522
1170	659032.444075	991550.814072	1204	659045.779916	991567.776544	1238	659080.394396	991608.938691	1272	659091.728299	991621.666442
1171	659032.562741	991550.966497	1205	659046.093458	991568.169563	1239	659080.726789	991609.314860	1273	659092.062156	991622.039302
1172	659035.833481	991555.160790	1206	659046.407196	991568.562483	1240	659081.059267	991609.690894	1274	659092.396012	991622.412104
1173	659036.142196	991555.555824	1207	659046.721130	991568.955301	1241	659081.391828	991610.066796	1275	659092.729863	991622.784851
1174	659036.451020	991555.950827	1208	659047.035264	991569.348017	1242	659081.724469	991610.442568	1276	659093.063708	991623.157544
1175	659036.759957	991556.345800	1209	659047.349601	991569.740627	1243	659082.057188	991610.818212	1277	659093.397544	991623.530186
1176	659037.069008	991556.740738	1210	659047.664143	991570.133128	1244	659082.389982	991611.193730	1278	659093.731368	991623.902780
1177	659037.378177	991557.135640	1211	659047.978893	991570.525520	1245	659082.722849	991611.569126	1279	659094.065177	991624.275328
1178	659037.687466	991557.530504	1212	659048.293854	991570.917799	1246	659083.055786	991611.944400	1280	659094.398970	991624.647831
1179	659037.996878	991557.925328	1213	659048.609027	991571.309964	1247	659083.388791	991612.319556	1281	659094.732744	991625.020292
1180	659038.306415	991558.320110	1214	659048.924417	991571.702012	1248	659083.721860	991612.694595	1282	659095.066496	991625.392714
1181	659038.616081	991558.714847	1215	659049.240024	991572.093940	1249	659084.054991	991613.069520	1283	659095.400223	991625.765098
1182	659038.925878	991559.109537	1216	659049.554828	991572.484477	1250	659084.388183	991613.444332	1284	659095.733928	991626.137453
1183	659039.235808	991559.504178	1217	659054.324489	991578.353315	1251	659084.721431	991613.819035	1285	659111.740321	991643.997647
1184	659039.545874	991559.898769	1218	659071.461729	991598.723187	1252	659085.054734	991614.193631	1286	659115.169133	991647.823572
1185	659039.856079	991560.293306	1219	659071.790817	991599.103825	1253	659085.388088	991614.568121	1287	659127.302096	991661.361730
1186	659040.166426	991560.687788	1220	659072.120062	991599.484268	1254	659085.721493	991614.942508	1288	659137.698777	991672.962516
1187	659040.476917	991561.082213	1221	659072.449462	991599.864520	1255	659086.054944	991615.316795	1289	659146.380717	991682.649967
1188	659040.787556	991561.476578	1222	659072.779012	991600.244582	1256	659086.388439	991615.690983	1290	659146.623630	991682.921014
1189	659041.098343	991561.870881	1223	659073.108712	991600.624456	1257	659086.721976	991616.065075	1291	659146.957278	991683.293308
1190	659041.409283	991562.265121	1224	659073.438558	991601.004145	1258	659087.055552	991616.439073	1292	659147.290892	991683.665573
1191	659041.720378	991562.659294	1225	659073.768548	991601.383651	1259	659087.389165	991616.812979	1293	659147.624470	991684.037811
1192	659042.031630	991563.053399	1226	659074.098678	991601.762976	1260	659087.722812	991617.186795	1294	659147.958009	991684.410025
1193	659042.343043	991563.447434	1227	659074.428947	991602.142122	1261	659088.056490	991617.560525	1295	659148.291507	991684.782217
1194	659042.654618	991563.841396	1228	659074.759351	991602.521091	1262	659088.390197	991617.934169	1296	659148.624961	991685.154389

COMPONENTE: TRAMO SOTERRADO					
ID	ESTE	NORTE	ID	ESTE	NORTE
1297	659148.958369	991685.526544	1335	659160.908873	991698.931309
1298	659149.291727	991685.898683	1336	659161.238790	991699.304386
1299	659149.625034	991686.270809	1337	659161.568566	991699.677530
1300	659149.958288	991686.642924	1338	659161.898196	991700.050743
1301	659150.291484	991687.015030	1339	659162.227680	991700.424028
1302	659150.624622	991687.387130	1340	659162.557013	991700.797386
1303	659150.957698	991687.759226	1341	659162.886193	991701.170820
1304	659151.290710	991688.131320	1342	659163.215219	991701.544331
1305	659151.623656	991688.503415	1343	659163.544087	991701.917923
1306	659151.956533	991688.875512	1344	659163.872794	991702.291598
1307	659152.289338	991689.247614	1345	659164.201339	991702.665356
1308	659152.622068	991689.619724	1346	659164.529719	991703.039201
1309	659152.954723	991689.991842	1347	659164.857931	991703.413135
1310	659153.287298	991690.363973	1348	659165.185972	991703.787160
1311	659153.589994	991690.702766	1349	659165.513841	991704.161277
1312	659153.619791	991690.736117	1350	659165.841534	991704.535490
1313	659153.952200	991691.108277	1351	659166.169049	991704.909800
1314	659154.284523	991691.480456	1352	659166.496383	991705.284210
1315	659154.616756	991691.852655	1353	659166.823534	991705.658721
1316	659154.948897	991692.224877	1354	659167.150499	991706.033336
1317	659155.280944	991692.597124	1355	659167.477276	991706.408056
1318	659155.612895	991692.969399	1356	659167.803862	991706.782885
1319	659155.944746	991693.341702	1357	659168.130255	991707.157824
1320	659156.276495	991693.714038	1358	659168.456451	991707.532874
1321	659156.331360	991693.775640	1359	659168.782449	991707.908040
1322	659156.608140	991694.086408	1360	659169.108246	991708.283321
1323	659156.939678	991694.458813	1361	659169.433838	991708.658721
1324	659157.271106	991694.831257	1362	659169.759225	991709.034242
1325	659157.602422	991695.203742	1363	659170.084402	991709.409885
1326	659157.933624	991695.576270	1364	659170.409367	991709.785653
1327	659158.264709	991695.948842	1365	659170.735186	991710.162783
1328	659158.595675	991696.321462	1366	659181.267454	991722.563722
1329	659158.926518	991696.694131	1367	659195.947102	991740.563733
1330	659159.257237	991697.066852	1368	659196.797276	991741.630022
1331	659159.587828	991697.439627	1369	659207.010449	991733.586843
1332	659159.918290	991697.812458	1370	659196.801785	991741.635754
1333	659160.248620	991698.185347	1371	659207.010449	991733.586843
1334	659160.578815	991698.558296			