ANEJO 17: TRABAJOS TOPOGRÁFICOS Y REPLANTEO

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1. INFORMACIÓN OBTENIDA

Para lo localización y diseño de las obras se han efectuado los necesarios trabajos topográficos, apoyados en las siguientes herramientas:

- Las ortofotografías aéreas digitales del Plan Nacional de Ortofotografía Aérea (PNOA_NE_2005) con copropiedad de la Administración del Estado y de la Junta de Castilla y León (ITACyL), con sistema de referencia ETRS-89 procedentes de vuelos fotogramétricos a escala 1:5.000 realizados en el 2014 con tamaño píxel 25 cm de malla 5x5. Estas fotografías aéreas georreferenciadas son de gran ayuda para el estudio y análisis de la zona a la hora de definir la ubicación y trazado de las obras objeto del proyecto.
- Modelo Digital del Terreno del proyecto PNOA_NE_2005 con copropiedad de la Administración del Estado y de la Junta de Castilla y León (ITACyL) con sistema de referencia ETRS-89 y malla de puntos cada 5 metros.
- Catastro de rústica en soporte digital para la localización de parcelas, polígonos a los que pertenecen y término municipal en que se inscriben.

Los trabajos topográficos ejecutados han sido:

- Generador fotovoltaico: Se ha recurrido a un levantamiento con Dron DJI Phantom 4 RTK para la obtención de un MDT preciso.
- Tubería de impulsión: Se ha procedido a efectuar un levantamiento topográfico con GPS Leica GS 18.
- Balsa de Acumulación: se ha levantado con un GPS Leica GS 18.

Para la red de riego se ha utilizado el MDT del terreno, con puntos de comprobación y apoyo recogidos directamente mediante levantamiento topográfico.
Toda la información se pondrá al servicio de la Contrata en formato DWG.

2. PLANOS TOPOGRAFICOS

En apéndice a este anejo exponemos los planos topográficos que han servido de base para la georreferenciación de las obras y para el cálculo de los volúmenes de desmonte y terraplén de cada uno de los componentes del proyecto. En ellos figuran los puntos levantados topográficamente y las curvas de nivel calculadas.

Los planos son los siguientes:

Plano 1.- Levantamiento topográfico del generador fotovoltaico

Plano 2.- Levantamiento topográfico de la tubería de impulsión

Plano 3.- Levantamiento topográfico balsa de acumulación

Plano 4.- Modelo del terreno de la red de riego

3. REPLANTEO DE LAS INFRAESTRUCTURAS

A continuación exponemos el listado de coordenadas principales para el replanteo de las infraestructuras. Toda la información se suministrará a la Contrata en formato digital DWG.

Generador fotovoltaico:

LOCALIZACIÓN	Coord. X	Coord. Y
ESQUINA VALLA	394563,571	4730686,401
ESQUINA VALLA	394666,055	4730686,401
ESQUINA VALLA	394763,679	4736651,487
ESQUINA VALLA	394763,679	4730586,116
ESQUINA VALLA	394752,174	4730586,176
ESQUINA VALLA	394661,195	4730618,707
ESQUINA VALLA	394618,078	4730618,707
ESQUINA VALLA	394618,078	4730611,276
ESQUINA VALLA	394610,301	4730611,276
ESQUINA VALLA	394610,301	4730618,707
ESQUINA VALLA	394563,571	4730618,707

Balsa de acumulación:

LOCALIZACIÓN	Coord. X	Coord. Y
CORONACIÓN	394563,571	4730686,401
CORONACIÓN	394666,055	4730686,401
CORONACIÓN	394763,679	4736651,487
CORONACIÓN	394763,679	4730586,116
CORONACIÓN	394752,174	4730586,176
CORONACIÓN	394661,195	4730618,707
CORONACIÓN	394618,078	4730618,707
CORONACIÓN	394618,078	4730611,276
CORONACIÓN	394610,301	4730611,276
CORONACIÓN	394610,301	4730618,707
CORONACIÓN	394563,571	4730618,707

LOCALIZACIÓN	Coord. X	Coord. Y
FONDO TALUD	394563,571	4730686,401
FONDO TALUD	394666,055	4730686,401
FONDO TALUD	394763,679	4736651,487
FONDO TALUD	394763,679	4730586,116

FONDO TALUD	394752,174	4730586,176
FONDO TALUD	394661,195	4730618,707
FONDO TALUD	394618,078	4730618,707
FONDO TALUD	394618,078	4730611,276
FONDO TALUD	394610,301	4730611,276
FONDO TALUD	394610,301	4730618,707
FONDO TALUD	394563,571	4730618,707

Tubería de impulsión:

P.m.	Coord. X	Coord. Y	Longitud
0,000	311327,772	4584671,827	1,887
1,887	311329,240	4584673,013	8,113
10,000	311335,858	4584677,705	7,951
17,951	311342,344	4584682,304	2,049
20,000	311344,021	4584683,482	10,000
30,000	311352,204	4584689,230	10,000
40,000	311360,387	4584694,977	10,000
50,000	311368,570	4584700,725	4,261
54,261	311372,057	4584703,174	5,739
60,000	311376,486	4584706,825	10,000
70,000	311384,202	4584713,185	10,000
80,000	311391,918	4584719,546	10,000
90,000	311399,635	4584725,906	10,000
100,000	311407,351	4584732,267	10,000
110,000	311415,068	4584738,627	10,000
120,000	311422,784	4584744,988	10,000
130,000	311430,501	4584751,348	10,000
140,000	311438,217	4584757,709	10,000
150,000	311445,934	4584764,069	10,000
160,000	311453,650	4584770,430	3,719
163,719	311456,520	4584772,796	6,281
170,000	311462,042	4584769,804	10,000
180,000	311470,835	4584765,041	10,000
190,000	311479,628	4584760,278	10,000
200,000	311488,421	4584755,515	10,000
210,000	311497,213	4584750,751	10,000
220,000	311506,006	4584745,988	10,000
230,000	311514,799	4584741,225	10,000
240,000	311523,591	4584736,462	10,000
250,000	311532,384	4584731,698	6,236
256,236	311537,867	4584728,728	3,764

260,000	311541,151	4584726,889	8,232
268,232	311548,334	4584722,867	1,768
270,000	311549,872	4584721,996	10,000
280,000	311558,574	4584717,067	10,000
290,000	311567,275	4584712,139	10,000
300,000	311575,976	4584707,211	10,000
310,000	311584,677	4584702,283	10,000
320,000	311593,379	4584697,354	10,000
330,000	311602,080	4584692,426	10,000
340,000	311610,781	4584687,498	10,000
350,000	311619,483	4584682,570	10,000
360,000	311628,184	4584677,642	6,637
366,637	311633,959	4584674,371	3,363
370,000	311636,967	4584672,867	10,000
380,000	311645,911	4584668,395	10,000
390,000	311654,856	4584663,922	10,000
400,000	311663,800	4584659,450	10,000
410,000	311672,744	4584654,978	10,000
420,000	311681,688	4584650,506	10,000
430,000	311690,633	4584646,034	10,000
440,000	311699,577	4584641,562	10,000
450,000	311708,521	4584637,090	7,759
457,759	311715,461	4584633,620	2,241
460,000	311717,496	4584632,681	10,000
470,000	311726,576	4584628,492	10,000
480,000	311735,657	4584624,304	10,000
490,000	311744,737	4584620,115	10,000
500,000	311753,818	4584615,926	10,000
510,000	311762,898	4584611,738	10,000
520,000	311771,979	4584607,549	10,000
530,000	311781,059	4584603,361	10,000
540,000	311790,140	4584599,172	10,000
550,000	311799,220	4584594,983	10,000
560,000	311808,301	4584590,795	10,000
570,000	311817,381	4584586,606	10,000
580,000	311826,462	4584582,417	10,000
590,000	311835,542	4584578,229	10,000
600,000	311844,623	4584574,040	10,000
610,000	311853,703	4584569,851	10,000
620,000	311862,784	4584565,663	10,000
630,000	311871,864	4584561,474	10,000

640,000	311880,945	4584557,285	10,000
650,000	311890,025	4584553,097	10,000
660,000	311899,106	4584548,908	10,000
670,000	311908,186	4584544,719	10,000
680,000	311917,267	4584540,531	9,012
689,012	311925,450	4584536,756	0,988
690,000	311926,252	4584536,179	10,000
700,000	311934,370	4584530,339	10,000
710,000	311942,488	4584524,500	10,000
720,000	311950,605	4584518,660	10,000
730,000	311958,723	4584512,820	10,000
740,000	311966,841	4584506,981	10,000
750,000	311974,959	4584501,141	10,000
760,000	311983,077	4584495,301	10,000
770,000	311991,194	4584489,462	10,000
780,000	311999,312	4584483,622	10,000
790,000	312007,430	4584477,782	10,000
800,000	312015,548	4584471,943	10,000
810,000	312023,665	4584466,103	10,000
820,000	312031,783	4584460,264	10,000
830,000	312039,901	4584454,424	10,000
840,000	312048,019	4584448,584	10,000
850,000	312056,137	4584442,745	10,000
860,000	312064,254	4584436,905	10,000
870,000	312072,372	4584431,065	10,000
880,000	312080,490	4584425,226	10,000
890,000	312088,608	4584419,386	10,000
900,000	312096,726	4584413,546	10,000
910,000	312104,843	4584407,707	10,000
920,000	312112,961	4584401,867	4,732
924,732	312116,803	4584399,104	5,268
930,000	312120,657	4584395,513	10,000
940,000	312127,975	4584388,698	10,000
950,000	312135,293	4584381,882	7,156
957,156	312140,529	4584377,005	2,844
960,000	312141,725	4584374,425	10,000
970,000	312145,932	4584365,352	10,000
980,000	312150,139	4584356,280	10,000
990,000	312154,345	4584347,208	10,000
1000,000	312158,552	4584338,136	10,000
1010,000	312162,759	4584329,064	10,000

1020,000	312166,965	4584319,992	10,000
1030,000	312171,172	4584310,919	10,000
1040,000	312175,379	4584301,847	10,000
1050,000	312179,585	4584292,775	10,000
1060,000	312183,792	4584283,703	10,000
1070,000	312187,998	4584274,631	10,000
1080,000	312192,205	4584265,559	6,236
1086,236	312194,828	4584259,901	3,764
1090,000	312196,118	4584256,365	9,905
1099,905	312199,512	4584247,060	0,095
1100,000	312199,430	4584247,012	10,000
1110,000	312190,786	4584241,984	6,182
1116,182	312185,442	4584238,876	3,818
1120,000	312182,018	4584237,188	10,000
1130,000	312173,048	4584232,767	10,000
1140,000	312164,078	4584228,346	10,000
1150,000	312155,108	4584223,926	10,000
1160,000	312146,139	4584219,505	10,000
1170,000	312137,169	4584215,084	10,000
1180,000	312128,199	4584210,663	10,000
1190,000	312119,229	4584206,243	10,000
1200,000	312110,259	4584201,822	10,000
1210,000	312101,290	4584197,401	10,000
1220,000	312092,320	4584192,980	10,000
1230,000	312083,350	4584188,559	10,000
1240,000	312074,380	4584184,139	10,000
1250,000	312065,411	4584179,718	10,000
1260,000	312056,441	4584175,297	10,000
1270,000	312047,471	4584170,876	10,000
1280,000	312038,501	4584166,456	10,000
1290,000	312029,532	4584162,035	10,000
1300,000	312020,562	4584157,614	10,000
1310,000	312011,592	4584153,193	10,000
1320,000	312002,622	4584148,772	10,000
1330,000	311993,653	4584144,352	10,000
1340,000	311984,683	4584139,931	10,000
1350,000	311975,713	4584135,510	10,000
1360,000	311966,743	4584131,089	10,000
1370,000	311957,773	4584126,668	10,000
1380,000	311948,804	4584122,248	10,000
1390,000	311939,834	4584117,827	10,000

1400,000	311930,864	4584113,406	10,000
1410,000	311921,894	4584108,985	10,000
1420,000	311912,925	4584104,565	10,000
1430,000	311903,955	4584100,144	6,106
1436,106	311898,478	4584097,445	3,894
1440,000	311895,014	4584095,666	10,000
1450,000	311886,117	4584091,100	10,000
1460,000	311877,220	4584086,534	10,000
1470,000	311868,324	4584081,968	10,000
1480,000	311859,427	4584077,401	10,000
1490,000	311850,531	4584072,835	10,000
1500,000	311841,634	4584068,269	10,000
1510,000	311832,738	4584063,702	10,000
1520,000	311823,841	4584059,136	10,000
1530,000	311814,944	4584054,570	10,000
1540,000	311806,048	4584050,004	10,000
1550,000	311797,151	4584045,437	10,000
1560,000	311788,255	4584040,871	10,000
1570,000	311779,358	4584036,305	10,000
1580,000	311770,461	4584031,738	10,000
1590,000	311761,565	4584027,172	10,000
1600,000	311752,668	4584022,606	10,000
1610,000	311743,772	4584018,040	10,000
1620,000	311734,875	4584013,473	10,000
1630,000	311725,979	4584008,907	10,000
1640,000	311717,082	4584004,341	10,000
1650,000	311708,185	4583999,775	0,428
1650,428	311707,804	4583999,579	9,572
1660,000	311699,444	4583994,918	2,440
1662,440	311697,312	4583993,730	7,560
1670,000	311690,911	4583989,709	4,455
1674,455	311687,139	4583987,339	5,545
1680,000	311682,604	4583984,148	6,477
1686,477	311677,307	4583980,420	3,523
1690,000	311674,654	4583978,102	8,499
1698,499	311668,253	4583972,511	1,501
1700,000	311667,176	4583971,466	10,000
1710,000	311659,999	4583964,502	0,514
1710,514	311659,630	4583964,144	9,486
1720,000	311653,193	4583957,177	10,000
1730,000	311646,406	4583949,832	10,000

1740,000	311639,619	4583942,488	10,000
1750,000	311632,832	4583935,144	10,000
1760,000	311626,046	4583927,799	0,661
1760,661	311625,597	4583927,314	9,339
1770,000	311619,291	4583920,425	10,000
1780,000	311612,539	4583913,049	10,000
1790,000	311605,787	4583905,673	10,000
1800,000	311599,034	4583898,297	10,000
1810,000	311592,282	4583890,921	10,000
1820,000	311585,530	4583883,545	6,899
1826,899	311580,871	4583878,456	

Red de riego:

Por simplificación y a modo de ejemplo, expondremos a continuación las coordenadas del eje de la tubería T-1, quedando a disposición de la contrata el resto de los ejes en formato digital y automáticamente accesible a los instrumentos de replanteo.

P.m.	Coord. X	Coord. Y	Longitud
0,000	311548,471	4584723,111	10,000
10,000	311551,785	4584732,546	10,000
20,000	311555,098	4584741,981	10,000
30,000	311558,411	4584751,416	10,000
40,000	311561,724	4584760,852	10,000
50,000	311565,037	4584770,287	10,000
60,000	311568,351	4584779,722	10,000
70,000	311571,664	4584789,157	10,000
80,000	311574,977	4584798,592	10,000
90,000	311578,290	4584808,027	0,910
90,910	311578,592	4584808,886	3,535
94,445	311580,199	4584812,034	5,555
100,000	311582,821	4584816,932	10,000
110,000	311587,539	4584825,749	10,000
120,000	311592,258	4584834,565	10,000
130,000	311596,977	4584843,382	10,000
140,000	311601,696	4584852,198	10,000
150,000	311606,415	4584861,015	10,000
160,000	311611,134	4584869,831	5,568
165,568	311613,762	4584874,741	4,432
170,000	311616,024	4584878,552	10,000
180,000	311621,128	4584887,151	10,000

190,000	311626,233	4584895,750	10,000
200,000	311631,337	4584904,349	5,998
205,998	311634,399	4584909,507	4,002
210,000	311636,370	4584912,989	7,917
217,917	311640,271	4584919,879	2,083
220,000	311641,317	4584921,680	10,000
230,000	311646,341	4584930,327	9,642
239,642	311651,185	4584938,664	0,358
240,000	311651,363	4584938,974	10,000
250,000	311656,357	4584947,638	10,000
260,000	311661,350	4584956,302	10,000
270,000	311666,344	4584964,966	0,559
270,559	311666,623	4584965,450	9,441
280,000	311671,461	4584973,557	2,021
282,021	311672,497	4584975,293	7,979
290,000	311676,512	4584982,188	10,000
300,000	311681,545	4584990,829	10,000
310,000	311686,577	4584999,471	10,000
320,000	311691,610	4585008,112	10,000
330,000	311696,642	4585016,753	10,000
340,000	311701,674	4585025,395	10,000
350,000	311706,707	4585034,036	8,429
358,429	311710,949	4585041,321	1,571
360,000	311711,735	4585042,680	10,000
370,000	311716,737	4585051,339	1,801
371,801	311717,638	4585052,899	8,199
380,000	311721,739	4585059,998	10,000
390,000	311726,741	4585068,657	10,000
400,000	311731,744	4585077,316	10,000
410,000	311736,746	4585085,975	0,291
410,291	311736,891	4585086,227	9,709
420,000	311741,774	4585094,619	10,000
430,000	311746,803	4585103,263	10,000
440,000	311751,832	4585111,906	10,000
450,000	311756,860	4585120,550	10,000
460,000	311761,889	4585129,193	10,000
470,000	311766,918	4585137,837	10,000
480,000	311771,947	4585146,481	4,487
484,487	311774,203	4585150,359	5,513
490,000	311776,950	4585155,139	10,000
500,000	311781,932	4585163,809	10,000

510,000	311786,915	4585172,480	10,000
520,000	311791,897	4585181,150	10,000
530,000	311796,880	4585189,820	10,000
540,000	311801,862	4585198,491	10,000
550,000	311806,845	4585207,161	10,000
560,000	311811,827	4585215,832	10,000
570,000	311816,809	4585224,502	10,000
580,000	311821,792	4585233,172	10,000
590,000	311826,774	4585241,843	10,000
600,000	311831,757	4585250,513	10,000
610,000	311836,739	4585259,183	10,000
620,000	311841,721	4585267,854	10,000
630,000	311846,704	4585276,524	10,000
640,000	311851,686	4585285,195	10,000
650,000	311856,669	4585293,865	6,229
656,229	311859,772	4585299,266	3,771
660,000	311861,651	4585302,535	10,000
670,000	311866,633	4585311,206	10,000
680,000	311871,616	4585319,876	2,547
682,547	311872,885	4585322,084	7,453
690,000	311876,605	4585328,543	10,000
700,000	311881,596	4585337,208	10,000
710,000	311886,587	4585345,873	10,000
720,000	311891,578	4585354,539	10,000
730,000	311896,570	4585363,204	10,000
740,000	311901,561	4585371,869	10,000
750,000	311906,552	4585380,535	10,000
760,000	311911,543	4585389,200	10,000
770,000	311916,534	4585397,865	10,000
780,000	311921,526	4585406,531	10,000
790,000	311926,517	4585415,196	9,842
799,842	311931,429	4585423,724	0,158
800,000	311931,507	4585423,862	10,000
810,000	311936,439	4585432,561	10,000
820,000	311941,371	4585441,260	10,000
830,000	311946,303	4585449,960	10,000
840,000	311951,235	4585458,659	10,000
850,000	311956,166	4585467,358	10,000
860,000	311961,098	4585476,057	10,000
870,000	311966,030	4585484,757	3,599
873,599	311967,805	4585487,887	6,401

880,000	311970,962	4585493,456	10,000
890,000	311975,894	4585502,155	2,545
892,545	311977,149	4585504,370	7,455
900,000	311981,487	4585510,432	10,000
910,000	311987,305	4585518,565	10,000
920,000	311993,124	4585526,698	10,000
930,000	311998,942	4585534,831	1,161
931,161	311999,618	4585535,776	8,839
940,000	312005,217	4585542,614	10,000
950,000	312011,553	4585550,351	10,000
960,000	312017,888	4585558,089	10,000
970,000	312024,223	4585565,826	10,000
980,000	312030,559	4585573,563	8,163
988,163	312035,730	4585579,878	1,837
990,000	312036,804	4585581,370	10,000
1000,000	312042,646	4585589,485	10,000
1010,000	312048,488	4585597,601	10,000
1020,000	312054,331	4585605,717	10,000
1030,000	312060,173	4585613,833	3,201
1033,201	312062,043	4585616,431	6,799
1040,000	312065,504	4585622,283	10,000
1050,000	312070,593	4585630,891	4,410
1054,410	312072,838	4585634,687	5,590
1060,000	312075,637	4585639,526	10,000
1070,000	312080,643	4585648,183	10,000
1080,000	312085,649	4585656,839	10,000
1090,000	312090,656	4585665,496	10,000
1100,000	312095,662	4585674,152	10,000
1110,000	312100,669	4585682,809	10,000
1120,000	312105,675	4585691,465	10,000
1130,000	312110,682	4585700,122	10,000
1140,000	312115,688	4585708,778	10,000
1150,000	312120,694	4585717,435	1,341
1151,341	312121,366	4585718,596	8,659
1160,000	312125,701	4585726,091	10,000
1170,000	312130,707	4585734,748	10,000
1180,000	312135,714	4585743,405	10,000
1190,000	312140,720	4585752,061	10,000
1200,000	312145,727	4585760,718	10,000
1210,000	312150,733	4585769,374	10,000
1220,000	312155,739	4585778,031	3,870

1223,870	312157,677	4585781,381	6,130
1230,000	312160,811	4585786,649	10,000
1240,000	312165,923	4585795,243	1,879
1241,879	312166,884	4585796,859	0,605
1242,484	312167,193	4585797,379	7,516
1250,000	312171,029	4585803,842	10,000
1260,000	312176,847	4585811,975	10,000
1270,000	312182,664	4585820,109	10,000
1280,000	312188,482	4585828,242	10,000
1290,000	312194,300	4585836,376	10,000
1300,000	312200,118	4585844,510	10,000
1310,000	312205,935	4585852,643	10,000
1320,000	312211,753	4585860,777	10,000
1330,000	312217,571	4585868,910	10,000
1340,000	312223,388	4585877,044	10,000
1350,000	312229,206	4585885,177	10,000
1360,000	312235,024	4585893,311	10,000
1370,000	312240,841	4585901,444	10,000
1380,000	312246,659	4585909,578	1,003
1381,003	312247,242	4585910,393	8,997
1390,000	312251,488	4585918,326	10,000
1400,000	312256,208	4585927,142	10,000
1410,000	312260,927	4585935,958	10,000
1420,000	312265,646	4585944,775	10,000
1430,000	312270,366	4585953,591	10,000
1440,000	312275,085	4585962,408	10,000
1450,000	312279,804	4585971,224	0,044
1450,044	312279,825	4585971,263	9,956
1460,000	312285,978	4585979,090	10,000
1470,000	312292,158	4585986,952	1,961
1471,961	312293,370	4585988,494	3,192
1475,153	312295,343	4585991,002	4,847
1480,000	312298,336	4585994,815	10,000
1490,000	312304,509	4586002,682	8,187
1498,187	312309,564	4586009,123	1,813
1500,000	312310,682	4586010,549	10,000
1510,000	312316,854	4586018,417	10,000
1520,000	312323,026	4586026,286	1,423
1521,423	312323,904	4586027,406	8,577
1530,000	312329,195	4586034,156	10,000
1540,000	312335,363	4586042,027	2,346

1542,346	312336,810	4586043,873	7,654
1550,000	312341,535	4586049,895	5,145
1555,145	312344,711	4586053,943	4,855
1560,000	312347,709	4586057,762	10,000
1570,000	312353,884	4586065,627	10,000
1580,000	312360,059	4586073,493	10,000
1590,000	312366,235	4586081,358	10,000
1600,000	312372,410	4586089,224	7,739
1607,739	312377,189	4586095,311	2,261
1610,000	312378,583	4586097,091	10,000
1620,000	312384,751	4586104,962	10,000
1630,000	312390,919	4586112,833	10,000
1640,000	312397,088	4586120,704	10,000
1650,000	312403,256	4586128,575	10,000
1660,000	312409,424	4586136,447	8,329
1668,329	312414,561	4586143,002	1,671
1670,000	312415,580	4586144,327	10,000
1680,000	312421,678	4586152,252	10,000
1690,000	312427,776	4586160,178	1,012
1691,012	312428,393	4586160,980	8,988
1700,000	312433,874	4586168,104	10,000
1710,000	312439,971	4586176,029	2,599
1712,599	312441,556	4586178,089	7,401
1720,000	312446,033	4586183,983	10,000
1730,000	312452,082	4586191,946	10,000
1740,000	312458,132	4586199,908	10,000
1750,000	312464,181	4586207,871	10,000
1760,000	312470,230	4586215,834	10,000
1770,000	312476,279	4586223,797	10,000
1780,000	312482,328	4586231,760	10,000
1790,000	312488,378	4586239,723	10,000
1800,000	312494,427	4586247,686	10,000
1810,000	312500,476	4586255,648	3,583
1813,583	312502,643	4586258,502	6,417
1820,000	312506,536	4586263,603	0,845
1820,845	312507,048	4586264,275	3,099
1823,944	312508,919	4586266,746	6,056
1830,000	312512,579	4586271,571	10,000
1840,000	312518,622	4586279,538	10,000
1850,000	312524,665	4586287,506	6,591
1856,591	312528,647	4586292,757	3,409

1860,000	312530,684	4586295,492	10,000
1870,000	312536,657	4586303,512	10,000
1880,000	312542,630	4586311,532	10,000
1890,000	312548,603	4586319,552	10,000
1900,000	312554,577	4586327,572	10,000
1910,000	312560,550	4586335,592	10,000
1920,000	312566,523	4586343,612	0,826
1920,826	312567,016	4586344,274	0,950
1921,776	312567,584	4586345,036	8,224
1930,000	312572,509	4586351,622	10,000
1940,000	312578,499	4586359,630	10,000
1950,000	312584,488	4586367,638	10,000
1960,000	312590,477	4586375,646	1,093
1961,093	312591,132	4586376,522	8,907
1970,000	312596,493	4586383,634	10,000
1980,000	312602,512	4586391,620	10,000
1990,000	312608,531	4586399,605	10,000
2000,000	312614,550	4586407,591	10,000
2010,000	312620,570	4586415,577	6,259
2016,259	312624,337	4586420,575	3,741
2020,000	312626,674	4586423,496	10,000
2030,000	312632,921	4586431,305	10,000
2040,000	312639,168	4586439,113	10,000
2050,000	312645,415	4586446,922	10,000
2060,000	312651,662	4586454,731	7,084
2067,084	312656,087	4586460,263	2,916
2070,000	312657,909	4586462,539	8,943
2078,943	312663,496	4586469,523	1,057
2080,000	312664,155	4586470,349	10,000
2090,000	312670,391	4586478,166	10,000
2100,000	312676,628	4586485,983	6,672
2106,672	312680,789	4586491,199	3,328
2110,000	312682,864	4586493,800	10,000
2120,000	312689,101	4586501,617	10,000
2130,000	312695,337	4586509,434	10,000
2140,000	312701,574	4586517,251	10,000
2150,000	312707,810	4586525,068	9,135
2159,135	312713,507	4586532,209	0,865
2160,000	312714,048	4586532,884	10,000
2170,000	312720,293	4586540,694	1,133
2171,133	312721,001	4586541,579	2,738

2173,871	312722,711	4586543,717	6,129
2180,000	312726,414	4586548,601	10,000
2190,000	312732,456	4586556,569	10,000
2200,000	312738,498	4586564,538	10,000
2210,000	312744,539	4586572,507	10,000
2220,000	312750,581	4586580,475	10,000
2230,000	312756,623	4586588,444	1,859
2231,859	312757,746	4586589,925	1,759
2233,618	312758,809	4586591,327	6,382
2240,000	312762,430	4586596,582	10,000
2250,000	312768,104	4586604,816	10,000
2260,000	312773,779	4586613,050	10,000
2270,000	312779,453	4586621,284	10,000
2280,000	312785,127	4586629,519	10,000
2290,000	312790,802	4586637,753	10,000
2300,000	312796,476	4586645,987	10,000
2310,000	312802,150	4586654,221	10,000
2320,000	312807,825	4586662,455	10,000
2330,000	312813,499	4586670,689	10,000
2340,000	312819,173	4586678,924	10,000
2350,000	312824,848	4586687,158	10,000
2360,000	312830,522	4586695,392	10,000
2370,000	312836,197	4586703,626	10,000
2380,000	312841,871	4586711,860	10,000
2390,000	312847,545	4586720,095	10,000
2400,000	312853,220	4586728,329	10,000
2410,000	312858,894	4586736,563	10,000
2420,000	312864,568	4586744,797	10,000
2430,000	312870,243	4586753,031	10,000
2440,000	312875,917	4586761,266	10,000
2450,000	312881,591	4586769,500	6,496
2456,496	312885,278	4586774,849	3,504
2460,000	312887,262	4586777,736	10,000
2470,000	312892,928	4586785,976	10,000
2480,000	312898,594	4586794,216	10,000
2490,000	312904,259	4586802,457	10,000
2500,000	312909,925	4586810,697	10,000
2510,000	312915,591	4586818,937	10,000
2520,000	312921,256	4586827,177	9,991
2529,991	312926,917	4586835,410	0,009
2530,000	312926,922	4586835,417	10,000

2540,000	312932,588	4586843,657	10,000
2550,000	312938,253	4586851,898	10,000
2560,000	312943,919	4586860,138	10,000
2570,000	312949,585	4586868,378	10,000
2580,000	312955,250	4586876,618	10,000
2590,000	312960,916	4586884,858	4,813
2594,813	312963,643	4586888,824	5,187
2600,000	312966,684	4586893,026	10,000
2610,000	312972,548	4586901,127	10,000
2620,000	312978,411	4586909,227	10,000
2630,000	312984,275	4586917,328	10,000
2640,000	312990,139	4586925,428	10,000
2650,000	312996,002	4586933,529	10,000
2660,000	313001,866	4586941,629	0,031
2660,031	313001,884	4586941,654	2,705
2662,737	313003,502	4586943,823	5,093
2667,830	313006,547	4586947,905	2,170
2670,000	313007,927	4586949,580	10,000
2680,000	313014,285	4586957,299	5,569
2685,569	313017,825	4586961,597	4,431
2690,000	313020,611	4586965,044	9,815
2699,815	313026,781	4586972,677	0,185
2700,000	313026,898	4586972,820	10,000
2710,000	313033,216	4586980,572	10,000
2720,000	313039,533	4586988,323	10,000
2730,000	313045,851	4586996,075	1,491
2731,491	313046,793	4586997,231	8,509
2740,000	313052,173	4587003,823	10,000
2750,000	313058,496	4587011,570	5,037
2755,037	313061,681	4587015,472	4,963
2760,000	313064,812	4587019,323	10,000
2770,000	313071,119	4587027,083	10,000
2780,000	313077,426	4587034,843	10,000
2790,000	313083,734	4587042,603	10,000
2800,000	313090,041	4587050,363	10,000
2810,000	313096,349	4587058,123	9,706
2819,706	313102,470	4587065,655	0,294
2820,000	313102,660	4587065,879	10,000
2830,000	313109,111	4587073,521	10,000
2840,000	313115,562	4587081,162	6,315
2846,315	313119,636	4587085,987	3,685

2850,000	313122,087	4587088,738	1,187
2851,187	313122,877	4587089,625	1,219
2852,406	313123,747	4587090,479	3,982
2856,388	313126,588	4587093,269	2,221
2858,609	313128,184	4587094,813	1,391
2860,000	313129,176	4587095,788	1,444
2861,444	313130,206	4587096,800	0,145
2861,588	313130,308	4587096,901	0,409
2861,997	313130,600	4587097,188	1,319
2863,315	313131,541	4587098,111	1,175
2864,490	313132,379	4587098,935	0,773
2865,263	313132,933	4587099,474	4,737
2870,000	313136,310	4587102,795	10,000
2880,000	313143,440	4587109,807	3,900
2883,900	313146,221	4587112,542	6,100
2890,000	313151,118	4587116,179	10,000
2900,000	313159,146	4587122,141	6,443
2906,443	313164,319	4587125,982	3,557
2910,000	313167,297	4587127,927	10,000
2920,000	313175,670	4587133,394	0,704
2920,704	313176,260	4587133,779	9,005
2929,709	313184,515	4587137,377	0,291
2930,000	313184,779	4587137,498	10,000
2940,000	313193,869	4587141,667	10,000
2950,000	313202,959	4587145,835	0,783
2950,783	313203,671	4587146,161	9,217
2960,000	313212,092	4587149,907	5,156
2965,156	313216,803	4587152,002	

APENDICE: LEVANTAMIENTO TOPOGRÁFICO

Levantamiento topográfico de la tubería de impulsión y de la balsa de acumulación (correspondiente a los Planos 2.- Levantamiento topográfico de la tubería de impulsión y Plano 3.- Levantamiento topográfico balsa de acumulación)

PUNTO	COORD X	COORD Y	COORD Z	CODIGO
1	311.519.067	4.584.662.385	660.254	ctr
2	311.515.859	4.584.652.991	660.781	ctr
3	311.512.934	4.584.644.287	661.264	ctr
4	311.509.585	4.584.637.882	661.584	ctr
5	311.506.949	4.584.633.813	661.848	ctr
6	311.496.694	4.584.629.622	662.227	ctr
7	311.498.651	4.584.622.374	662.536	ctr
8	311.498.986	4.584.620.921	662.125	cun
9	311.513.980	4.584.626.568	661.516	cun
10	311.513.574	4.584.628.368	662.028	ctr
11	311.521.963	4.584.631.393	661.743	of
12	311.523.132	4.584.629.335	661.753	of
13	311.527.468	4.584.631.821	661.882	of
14	311.526.864	4.584.633.686	661.622	of
15	311.529.379	4.584.633.271	661.041	cun
16	311.536.734	4.584.636.222	660.771	cun
17	311.536.501	4.584.637.993	661.317	ctr
18	311.551.102	4.584.644.401	661.000	ctr
19	311.552.129	4.584.643.016	660.395	cun
20	311.575.965	4.584.655.653	660.693	ctr
21	311.576.993	4.584.654.274	660.096	cun
22	311.592.732	4.584.661.415	659.963	cun
23	311.592.308	4.584.663.000	660.698	ctr
24	311.613.327	4.584.672.988	661.048	ctr
25	311.614.422	4.584.671.373	660.560	cun
26	311.630.938	4.584.679.192	660.937	cun
27	311.629.785	4.584.680.812	661.527	ctr
28	311.630.743	4.584.680.745	661.477	of
29	311.633.420	4.584.681.078	661.593	of
30	311.634.081	4.584.680.278	661.579	of
31	311.641.207	4.584.684.022	661.660	of
32	311.640.660	4.584.685.248	661.599	of
33	311.642.602	4.584.687.091	661.483	of
34	311.640.812	4.584.694.542	661.411	ctr
35	311.639.418	4.584.696.947	661.152	ct
36	311.627.611	4.584.693.298	661.008	ct
37	311.628.333	4.584.688.549	661.410	ctr
38	311.616.930	4.584.683.006	661.133	ctr
39	311.615.148	4.584.687.442	660.736	ct
40	311.603.010	4.584.680.165	660.481	ct
41	311.603.935	4.584.676.829	660.827	ctr

42	311.590.717	4.584.670.658	660.610	ctr
43	311.589.322	4.584.672.494	660.418	ct
44	311.573.901	4.584.665.031	660.335	ct
45	311.574.081	4.584.663.073	660.534	ctr
46	311.554.778	4.584.654.258	660.611	ctr
47	311.553.274	4.584.656.038	660.342	ct
48	311.539.832	4.584.650.680	660.596	ct
49	311.530.729	4.584.650.535	660.622	ct
50	311.522.517	4.584.654.230	660.454	ct
51	311.536.947	4.584.646.340	660.895	ctr
52	311.525.973	4.584.641.736	661.243	ctr
53	311.515.812	4.584.637.482	661.613	ctr
54	311.503.756	4.584.632.387	661.972	ctr
55	311.496.384	4.584.631.062	661.801	cun
56	311.504.196	4.584.635.999	661.260	cun
57	311.503.199	4.584.633.463	661.848	ct
58	311.508.056	4.584.638.572	661.482	ct
59	311.506.881	4.584.639.583	661.044	cun
60	311.510.156	4.584.646.467	660.626	cun
61	311.512.186	4.584.646.152	660.968	ct
62	311.514.958	4.584.654.434	660.509	ct
63	311.513.070	4.584.654.915	660.218	cun
64	311.513.585	4.584.661.385	659.866	cun
65	311.511.235	4.584.661.121	660.127	ele
66	311.497.741	4.584.636.399	661.261	lin
67	311.502.721	4.584.640.469	660.998	lin
68	311.506.809	4.584.646.265	660.632	lin
69	311.509.063	4.584.652.731	660.349	lin
70	311.510.742	4.584.663.126	660.124	lin
71	311.512.431	4.584.669.616	659.962	lin
72	311.507.935	4.584.679.406	659.690	lin
73	311.502.489	4.584.688.863	659.358	lin
74	311.496.860	4.584.698.547	659.092	lin
75	311.490.176	4.584.710.188	658.778	lin
76	311.491.820	4.584.711.987	657.638	cam
77	311.494.059	4.584.713.133	657.555	cam
78	311.500.833	4.584.700.332	657.813	cam
79	311.498.871	4.584.698.591	658.163	cam
80	311.505.954	4.584.686.434	658.590	cam
81	311.508.617	4.584.687.454	658.399	cam
82	311.511.844	4.584.675.797	659.026	cam
83	311.513.803	4.584.678.725	658.860	cam
84	311.514.185	4.584.680.081	658.622	ct
85	311.517.094	4.584.676.638	658.896	ct

86	311.519.670	4.584.675.750	659.200	ct
87	311.522.728	4.584.676.651	659.160	ct
88	311.524.379	4.584.677.825	659.338	ctr
89	311.527.890	4.584.688.249	658.816	ctr
90	311.526.519	4.584.688.822	658.589	ct
91	311.530.862	4.584.699.623	658.035	ct
92	311.531.721	4.584.699.378	658.195	ctr
93	311.535.127	4.584.709.022	657.729	ctr
94	311.534.222	4.584.709.460	657.560	ct
95	311.537.540	4.584.719.453	657.052	ct
96	311.538.639	4.584.719.292	657.217	ctr
97	311.542.723	4.584.718.533	657.228	ctr
98	311.543.630	4.584.718.175	657.169	ct
99	311.545.126	4.584.717.811	657.176	lin
100	311.540.256	4.584.703.019	657.110	lin
101	311.539.028	4.584.703.022	657.659	ct
102	311.537.406	4.584.703.405	657.936	ctr
103	311.532.874	4.584.690.230	658.639	ctr
104	311.534.212	4.584.689.825	658.415	ct
105	311.536.405	4.584.689.031	657.198	lin
106	311.528.035	4.584.675.922	659.386	ctr
107	311.529.761	4.584.675.935	658.935	ct
108	311.528.854	4.584.675.000	659.154	of
109	311.522.977	4.584.677.945	659.138	of
110	311.532.844	4.584.672.784	658.389	ele
111	311.525.627	4.584.665.776	659.799	ct
112	311.524.468	4.584.665.905	659.931	ctr
113	311.521.854	4.584.657.182	660.438	ctr
114	311.522.762	4.584.655.816	660.282	ct
115	311.524.943	4.584.652.598	660.442	ct
116	311.522.626	4.584.646.898	660.945	0
117	311.517.818	4.584.644.425	661.120	ctr
118	311.518.808	4.584.662.434	660.225	cam
119	311.520.931	4.584.668.128	659.889	cam
120	311.534.721	4.584.677.016	657.201	lin
121	311.533.584	4.584.668.777	657.345	lin
122	311.532.711	4.584.662.100	657.290	lin
123	311.535.030	4.584.659.697	657.315	lin
124	311.547.203	4.584.660.186	657.322	lin
125	311.554.092	4.584.661.810	657.288	lin
126	311.559.740	4.584.663.929	657.237	lin
127	311.576.479	4.584.671.882	657.227	lin
128	311.603.851	4.584.686.387	657.224	lin
129	311.616.381	4.584.693.272	657.257	lin

130	311.626.491	4.584.697.550	657.218	lin
131	311.623.472	4.584.705.789	657.163	0
132	311.607.954	4.584.699.164	657.140	0
133	311.603.545	4.584.699.944	657.142	0
134	311.583.743	4.584.702.252	657.183	0
135	311.583.773	4.584.692.630	657.174	0
136	311.560.322	4.584.701.883	657.187	0
137	311.559.508	4.584.692.553	657.128	0
138	311.559.679	4.584.680.987	657.175	0
139	311.544.323	4.584.670.584	657.278	0
140	311.536.476	4.584.721.784	656.161	lin
141	311.530.585	4.584.706.204	656.122	lin
142	311.525.832	4.584.695.073	656.093	lin
143	311.521.187	4.584.683.099	656.162	lin
144	311.520.133	4.584.679.020	656.446	lin
145	311.516.005	4.584.682.006	656.327	lin
146	311.506.927	4.584.694.469	656.391	lin
147	311.498.170	4.584.708.862	656.346	lin
148	311.504.780	4.584.712.625	656.329	0
149	311.512.187	4.584.700.383	656.352	0
150	311.518.209	4.584.690.157	656.343	0
151	311.522.901	4.584.708.181	656.255	0
152	311.521.604	4.584.720.045	656.231	0
153	311.497.159	4.584.680.347	659.486	0
154	311.497.585	4.584.672.778	659.736	0
155	311.477.052	4.584.679.776	660.038	0
156	311.475.830	4.584.693.476	659.449	0
157	311.471.019	4.584.711.874	658.707	0
158	311.448.904	4.584.713.037	659.097	0
159	311.451.144	4.584.699.688	659.804	0
160	311.453.486	4.584.688.712	660.355	0
161	311.457.106	4.584.674.097	661.082	0
162	311.429.545	4.584.672.182	662.050	0
163	311.424.558	4.584.686.313	661.297	0
164	311.421.769	4.584.698.513	660.552	0
165	311.419.174	4.584.713.826	659.718	0
166	311.420.280	4.584.722.244	659.478	ele
167	311.417.768	4.584.726.564	659.296	lin
168	311.407.320	4.584.715.662	660.069	lin
169	311.401.114	4.584.709.625	660.450	lin
170	311.391.761	4.584.699.107	661.126	lin
171	311.393.218	4.584.689.499	661.598	0
172	311.397.946	4.584.676.250	662.457	0
173	311.402.469	4.584.661.877	663.388	0

174	311.406.513	4.584.649.230	664.186	0
175	311.399.272	4.584.644.023	664.592	0
176	311.389.596	4.584.640.978	664.607	lin
177	311.382.892	4.584.656.621	663.721	lin
178	311.390.510	4.584.664.975	663.255	0
179	311.382.653	4.584.676.489	662.574	0
180	311.375.735	4.584.669.159	663.038	lin
181	311.372.992	4.584.676.415	662.801	lin
182	311.376.212	4.584.681.981	662.648	lin
183	311.385.580	4.584.690.020	661.830	lin
184	311.390.480	4.584.697.442	661.212	lin
186	311.355.431	4.584.675.257	663.318	ct
187	311.346.733	4.584.666.868	663.950	ct
188	311.363.195	4.584.679.776	663.142	ct
189	311.373.526	4.584.687.814	662.122	ct
190	311.376.885	4.584.684.467	662.625	ct
191	311.381.174	4.584.688.258	662.124	ct
192	311.422.274	4.584.663.235	662.746	0
193	311.433.929	4.584.649.640	663.220	0
194	311.448.268	4.584.643.861	662.979	0
195	311.448.800	4.584.666.416	661.796	0
196	311.458.382	4.584.661.876	661.700	0
197	311.476.790	4.584.661.567	660.954	0
198	311.471.999	4.584.650.034	661.719	0
199	311.472.600	4.584.636.562	662.208	0
200	311.478.879	4.584.627.299	662.157	lin
201	311.490.041	4.584.632.001	661.551	lin
202	311.499.872	4.584.637.913	661.208	lin
203	311.499.136	4.584.647.263	660.770	0
204	311.488.746	4.584.646.666	661.137	0
205	311.497.533	4.584.661.624	660.157	0
206	311.481.244	4.584.671.614	660.286	0
207	311.527.730	4.584.631.589	662.006	cam
208	311.526.464	4.584.629.487	662.011	cam
209	311.535.004	4.584.627.544	663.546	cam
210	311.535.531	4.584.630.292	663.471	cam
211	311.533.957	4.584.631.118	663.487	ct
212	311.542.533	4.584.635.265	663.647	ct
213	311.560.919	4.584.643.349	663.560	ct
214	311.567.926	4.584.645.868	663.589	ct
215	311.568.781	4.584.647.437	662.762	ct
216	311.571.595	4.584.638.439	662.848	pt
217	311.570.491	4.584.638.363	663.585	ct
218	311.587.022	4.584.644.728	662.744	0

219	311.581.417	4.584.652.696	662.780	ct
220	311.592.700	4.584.657.146	662.866	ct
221	311.596.072	4.584.649.668	662.877	0
222	311.601.684	4.584.648.119	662.886	pt
223	311.602.242	4.584.648.191	663.420	ct
224	311.600.043	4.584.660.313	663.141	ct
225	311.598.995	4.584.657.788	662.717	pt
226	311.622.646	4.584.660.013	663.335	0
227	311.618.205	4.584.669.507	663.303	ct
228	311.632.177	4.584.664.945	663.309	0
229	311.643.052	4.584.660.475	663.391	0
230	311.649.463	4.584.658.467	663.483	0
231	311.662.011	4.584.650.743	663.765	pt
232	311.663.777	4.584.659.121	663.788	pt
233	311.659.512	4.584.662.985	663.636	ct
234	311.649.660	4.584.669.159	663.501	ct
235	311.642.822	4.584.672.664	663.387	ct
236	311.633.197	4.584.675.784	663.241	ct
237	311.632.824	4.584.670.433	663.252	0
238	311.667.495	4.584.660.684	663.340	cun
239	311.667.793	4.584.661.977	663.346	cam
240	311.669.468	4.584.665.301	663.278	cam
241	311.658.443	4.584.672.031	662.596	cam
242	311.656.326	4.584.668.970	662.526	cam
243	311.655.995	4.584.668.174	662.554	cun
244	311.645.759	4.584.674.645	662.011	cun
245	311.645.922	4.584.675.076	662.015	cam
246	311.647.202	4.584.679.203	662.028	cam
247	311.638.060	4.584.678.663	661.681	cam
248	311.637.256	4.584.678.133	661.536	cun
249	311.582.557	4.584.715.885	657.063	0
250	311.577.321	4.584.705.689	657.190	0
251	311.553.372	4.584.708.653	657.143	0
252	311.564.345	4.584.724.332	657.142	0
253	311.549.079	4.584.731.943	657.051	lin
254	311.548.266	4.584.732.110	656.722	cun
255	311.547.648	4.584.732.399	656.875	ctr
256	311.543.957	4.584.734.045	656.862	ctr
257	311.542.999	4.584.735.055	656.642	ct
258	311.541.829	4.584.736.134	656.118	lin
259	311.525.466	4.584.742.518	656.182	0
260	311.518.499	4.584.733.542	656.179	0
261	311.511.553	4.584.722.526	656.283	0
262	311.498.172	4.584.731.240	656.288	0

263	311.500.027	4.584.742.421	656.237	0
264	311.510.504	4.584.754.856	656.172	0
265	311.495.760	4.584.761.154	656.214	0
266	311.486.050	4.584.753.518	656.279	0
267	311.487.614	4.584.730.472	656.284	lin
268	311.486.308	4.584.730.999	656.995	ct
269	311.485.431	4.584.730.620	656.974	cam
270	311.482.942	4.584.729.451	656.980	cam
271	311.476.063	4.584.745.806	656.411	cam
272	311.478.678	4.584.746.736	656.461	cam
273	311.479.502	4.584.747.209	656.677	ct
274	311.480.206	4.584.747.706	656.287	lin
275	311.472.951	4.584.765.248	656.274	ele
276	311.475.265	4.584.761.864	656.295	lin
277	311.474.375	4.584.761.273	656.362	ct
278	311.473.592	4.584.760.802	656.134	cam
279	311.470.781	4.584.758.966	656.114	cam
280	311.465.479	4.584.766.796	655.861	cam
281	311.465.102	4.584.765.872	655.989	pt
282	311.467.640	4.584.769.281	655.821	cam
283	311.468.714	4.584.770.694	656.201	ct
284	311.468.421	4.584.772.206	656.284	lin
285	311.461.746	4.584.778.624	655.992	lin
286	311.470.602	4.584.778.483	656.229	0
287	311.480.659	4.584.771.248	656.150	0
288	311.461.702	4.584.775.600	655.639	pt
289	311.456.937	4.584.778.689	655.489	pt
290	311.451.987	4.584.774.034	655.620	pt
291	311.452.172	4.584.772.440	655.720	cam
292	311.453.507	4.584.769.907	655.753	cam
293	311.453.865	4.584.769.342	655.858	pt
294	311.458.891	4.584.769.591	655.843	pt
295	311.459.359	4.584.770.205	655.766	cam
296	311.460.902	4.584.773.400	655.680	cam
297	311.466.093	4.584.770.112	655.782	cam
298	311.464.675	4.584.767.175	655.891	cam
300	311.476.792	4.584.736.710	658.023	lin
301	311.471.059	4.584.748.108	657.656	lin
302	311.471.902	4.584.748.462	657.762	ct
303	311.468.388	4.584.755.029	657.681	ct
304	311.467.237	4.584.754.355	657.521	lin
305	311.461.062	4.584.759.215	657.539	lin
306	311.455.808	4.584.761.108	657.576	lin
307	311.453.127	4.584.760.463	657.701	lin

308	311.449.203	4.584.757.744	657.673	lin
309	311.441.761	4.584.752.123	657.927	lin
310	311.434.038	4.584.744.822	658.199	lin
311	311.428.184	4.584.737.789	658.489	lin
313	311.447.207	4.584.769.359	655.672	cam
314	311.448.487	4.584.767.059	655.789	cam
315	311.448.985	4.584.766.657	655.860	pt
316	311.435.031	4.584.758.669	655.835	cam
317	311.436.736	4.584.756.828	656.043	cam
318	311.423.056	4.584.747.964	655.984	cam
319	311.407.702	4.584.734.772	655.916	cam
320	311.391.123	4.584.720.670	656.007	cam
321	311.373.765	4.584.707.496	656.303	cam
322	311.356.393	4.584.693.896	656.197	cam
323	311.351.834	4.584.690.816	656.197	cam
324	311.340.279	4.584.682.118	656.443	cam
336	311.479.128	4.584.738.962	656.618	cam
337	311.481.466	4.584.739.678	656.698	cam
338	311.486.800	4.584.727.404	657.074	cam
339	311.484.495	4.584.726.318	657.092	cam
340	311.488.587	4.584.717.870	657.398	cam
341	311.490.942	4.584.719.051	657.317	cam
342	311.723.904	4.584.635.825	667.619	of
343	311.726.252	4.584.641.256	667.647	of
344	311.722.267	4.584.642.950	667.645	of
345	311.720.011	4.584.637.412	667.655	of
346	311.723.267	4.584.635.426	667.146	mur
347	311.722.031	4.584.633.176	667.153	mur
348	311.718.302	4.584.631.402	667.300	mur
349	311.711.291	4.584.631.488	667.187	mur
350	311.706.597	4.584.631.716	667.182	mur
351	311.700.383	4.584.631.885	667.160	mur
352	311.695.765	4.584.631.786	667.164	mur
353	311.698.106	4.584.630.682	667.525	cam
354	311.698.944	4.584.627.379	667.624	cam
355	311.713.721	4.584.627.388	667.737	cam
356	311.713.965	4.584.630.284	667.654	cam
357	311.720.279	4.584.630.610	667.768	cam
358	311.721.877	4.584.627.708	667.881	cam
359	311.727.871	4.584.629.818	667.940	cam
360	311.731.127	4.584.630.357	668.061	cam
361	311.724.840	4.584.634.829	667.716	cam
362	311.722.929	4.584.632.036	667.745	cam
363	311.720.487	4.584.630.866	667.740	cam

364	311.722.098	4.584.635.505	665.972	mur
365	311.721.428	4.584.635.675	665.984	mur
366	311.720.952	4.584.633.817	666.007	mur
367	311.720.572	4.584.634.318	665.987	mur
368	311.717.589	4.584.632.652	666.020	mur
369	311.717.581	4.584.633.240	666.010	mur
370	311.707.605	4.584.632.916	666.003	mur
371	311.707.617	4.584.633.521	666.013	mur
372	311.697.678	4.584.633.088	666.046	mur
373	311.697.729	4.584.633.786	665.980	mur
374	311.697.623	4.584.635.090	667.150	mur
375	311.705.654	4.584.634.983	667.171	mur
376	311.717.554	4.584.634.558	667.192	mur
377	311.719.204	4.584.635.016	667.178	mur
378	311.720.230	4.584.636.250	667.151	mur
379	311.691.591	4.584.637.977	665.595	pt
380	311.701.713	4.584.637.812	665.847	pt
381	311.710.773	4.584.636.354	666.246	pt
382	311.714.364	4.584.637.263	666.658	pt
383	311.710.323	4.584.640.186	666.206	pt
384	311.699.370	4.584.644.371	665.854	pt
385	311.694.347	4.584.646.429	665.699	ct
386	311.683.590	4.584.650.319	665.414	ct
387	311.681.117	4.584.641.543	665.535	0
388	311.663.468	4.584.645.245	665.428	lin
389	311.664.849	4.584.653.213	665.300	lin
390	311.665.495	4.584.656.115	664.956	ct
391	311.669.835	4.584.655.060	665.161	ct
392	311.670.582	4.584.658.840	663.488	cun
393	311.671.384	4.584.659.638	663.624	cam
394	311.678.250	4.584.655.958	664.129	cam
395	311.678.053	4.584.654.754	663.844	cun
396	311.687.237	4.584.650.907	664.624	cun
397	311.688.004	4.584.651.432	664.850	cam
398	311.704.802	4.584.644.207	666.350	cam
399	311.717.158	4.584.639.254	667.385	cam
400	311.730.092	4.584.633.067	667.942	cam
401	311.710.918	4.584.625.343	668.844	ct
402	311.720.194	4.584.625.601	668.899	ct
403	311.728.167	4.584.626.531	668.764	ct
404	311.735.003	4.584.625.637	669.045	ct
405	311.722.449	4.584.618.838	669.088	0
406	311.713.403	4.584.617.027	669.273	0
407	311.730.323	4.584.616.939	669.292	0

408	311.744.934	4.584.610.085	670.356	0
409	311.749.330	4.584.619.532	669.887	ct
410	311.770.211	4.584.609.614	671.465	ct
411	311.766.012	4.584.599.483	672.021	0
412	311.790.838	4.584.588.616	673.439	0
413	311.795.277	4.584.597.605	672.935	ct
414	311.819.334	4.584.586.027	674.156	ct
415	311.815.932	4.584.577.381	674.835	ct
416	311.844.729	4.584.566.000	675.631	0
417	311.847.953	4.584.574.012	675.087	ct
418	311.872.921	4.584.563.048	676.243	ct
419	311.869.067	4.584.552.276	676.757	ct
420	311.894.480	4.584.540.511	677.921	0
421	311.899.472	4.584.550.416	677.405	ct
422	311.907.903	4.584.545.098	677.797	ct
423	311.910.269	4.584.533.256	678.377	0
424	311.917.185	4.584.539.512	678.107	ct
425	311.921.269	4.584.536.182	678.167	ct
426	311.925.040	4.584.520.306	679.175	ct
427	311.927.595	4.584.519.220	678.646	cam
428	311.932.592	4.584.517.726	679.025	cam
429	311.932.063	4.584.527.101	678.140	cam
430	311.930.169	4.584.535.384	677.401	cam
431	311.924.801	4.584.536.571	677.096	cam
432	311.925.484	4.584.531.260	677.539	cam
433	311.926.474	4.584.524.658	678.288	cam
434	311.932.556	4.584.532.905	677.734	ct
435	311.946.534	4.584.523.052	679.144	ct
436	311.940.837	4.584.512.846	679.711	0
437	311.963.617	4.584.499.517	680.431	0
438	311.968.185	4.584.509.341	679.983	ct
439	311.954.974	4.584.517.623	679.742	ct
440	311.949.621	4.584.508.214	680.192	0
441	311.981.812	4.584.488.775	680.716	0
442	311.987.287	4.584.497.479	680.304	ct
443	312.012.301	4.584.480.671	681.254	ct
444	312.006.463	4.584.472.136	681.687	0
445	312.032.071	4.584.455.383	683.052	0
446	312.037.556	4.584.462.605	682.509	ct
447	312.059.665	4.584.445.463	684.282	ct
448	312.053.245	4.584.435.145	685.276	0
449	312.071.183	4.584.423.584	686.274	0
450	312.077.359	4.584.431.899	685.448	ct
451	312.075.238	4.584.418.177	687.073	0

452	312.098.228	4.584.403.587	688.939	0
453	312.105.333	4.584.410.651	688.055	ct
454	312.125.842	4.584.392.359	690.248	ct
455	312.118.163	4.584.383.938	691.019	0
456	312.131.362	4.584.370.626	691.957	0
457	312.136.653	4.584.374.970	691.563	0
458	312.140.332	4.584.377.995	691.544	ct
459	312.149.536	4.584.365.159	692.074	ct
460	312.139.798	4.584.359.245	692.253	0
461	312.149.673	4.584.340.764	692.185	0
462	312.158.842	4.584.344.356	691.685	ct
463	312.159.663	4.584.338.999	691.834	ct
464	312.154.574	4.584.331.245	692.162	0
465	312.157.708	4.584.314.237	692.190	ct
466	312.165.622	4.584.315.776	691.629	ct
467	312.170.871	4.584.318.963	691.038	ct
468	312.166.575	4.584.326.648	691.337	ct
469	312.172.962	4.584.313.420	690.843	pt
470	312.160.297	4.584.312.013	691.644	pt
471	312.156.094	4.584.311.126	691.812	pt
472	312.164.749	4.584.301.682	691.687	0
473	312.175.361	4.584.307.472	691.034	ct
474	312.181.566	4.584.291.741	691.381	ct
475	312.171.298	4.584.286.317	691.963	0
476	312.178.482	4.584.269.166	692.075	0
477	312.188.939	4.584.273.491	691.751	ct
478	312.199.436	4.584.254.092	691.845	ct
479	312.189.938	4.584.248.942	692.156	0
480	312.192.091	4.584.240.926	692.331	0
481	312.196.087	4.584.235.381	692.467	0
482	312.200.448	4.584.240.779	692.158	0
483	312.198.996	4.584.233.708	692.264	ct
484	312.204.025	4.584.240.692	691.902	0
485	312.206.161	4.584.239.630	691.617	ct
486	312.205.609	4.584.242.866	691.662	ct
487	312.192.671	4.584.265.388	691.755	ct
489	312.208.357	4.584.242.601	691.096	cun
490	312.207.979	4.584.239.589	691.256	cam
491	312.209.157	4.584.243.521	690.978	cam
492	312.207.211	4.584.248.959	690.644	cam
493	312.206.193	4.584.248.629	690.527	cun
494	312.211.734	4.584.249.841	690.700	cam
495	312.204.018	4.584.264.668	690.247	cam
496	312.199.523	4.584.263.549	690.235	cam

497	312.198.572	4.584.263.258	690.032	cun
498	312.189.123	4.584.282.638	690.069	cun
499	312.189.852	4.584.283.343	690.250	cam
500	312.180.229	4.584.304.970	690.399	cam
501	312.179.465	4.584.304.542	690.279	cun
502	312.171.602	4.584.322.637	690.265	cun
503	312.172.177	4.584.323.371	690.450	cam
504	312.162.910	4.584.344.428	690.581	cam
505	312.162.065	4.584.344.375	690.313	cun
506	312.154.614	4.584.362.358	690.073	cun
507	312.155.109	4.584.363.232	690.273	cam
508	312.155.076	4.584.363.217	690.207	cam
510	312.147.804	4.584.376.304	689.186	cun
511	312.147.062	4.584.375.846	688.951	cun
512	312.136.866	4.584.388.988	687.973	cam
513	312.136.097	4.584.388.287	687.581	cun
514	312.115.723	4.584.407.866	686.368	cam
515	312.115.576	4.584.406.906	686.129	cam
516	312.115.575	4.584.406.899	686.122	cun
517	312.101.580	4.584.419.042	684.949	cun
518	312.101.793	4.584.420.246	685.280	cam
519	312.078.550	4.584.437.233	683.676	cam
520	312.077.666	4.584.435.890	683.350	cam
521	312.080.437	4.584.440.958	683.643	cam
522	312.056.187	4.584.453.590	682.302	cam
523	312.055.754	4.584.452.403	682.152	cun
524	312.036.045	4.584.466.358	681.047	cun
525	312.036.589	4.584.467.418	681.214	cam
526	312.013.486	4.584.483.699	679.997	cam
527	312.012.815	4.584.482.710	679.860	cun
528	311.991.435	4.584.498.792	679.090	cam
529	311.991.103	4.584.497.631	678.797	cun
530	311.958.913	4.584.518.675	677.515	cun
531	311.959.205	4.584.519.933	677.859	cam
532	311.936.587	4.584.534.282	677.012	cam
533	311.936.306	4.584.533.071	676.923	cun
534	311.918.164	4.584.544.356	676.274	cun
535	311.918.272	4.584.545.754	676.253	cam
536	311.904.928	4.584.552.755	675.656	cam
537	311.904.261	4.584.551.493	675.552	cun
538	311.882.760	4.584.562.156	674.456	cun
539	311.882.809	4.584.563.171	674.688	cam
540	311.857.594	4.584.574.173	673.740	cam
541	311.857.289	4.584.573.052	673.362	cun

542	311.831.168	4.584.585.926	672.568	cam
543	311.830.435	4.584.584.792	672.270	cun
544	311.806.476	4.584.597.498	671.501	cam
545	311.805.727	4.584.596.255	671.113	cun
546	311.778.120	4.584.609.574	669.823	cun
547	311.778.228	4.584.610.827	670.037	cam
548	311.755.487	4.584.621.037	668.842	cam
549	311.754.852	4.584.620.134	668.559	cun
550	311.736.776	4.584.629.519	668.052	cam
551	311.736.649	4.584.628.477	667.881	cun
552	312.204.102	4.584.234.931	691.731	cam
553	312.193.728	4.584.223.854	692.904	cam
554	312.190.958	4.584.226.367	693.004	cam
555	312.190.528	4.584.226.684	692.865	cun
556	312.184.210	4.584.233.163	692.979	0
557	312.169.848	4.584.231.322	693.832	0
558	312.172.124	4.584.223.328	694.236	0
559	312.174.523	4.584.218.118	694.282	cun
560	312.174.962	4.584.217.175	694.536	cam
561	312.160.156	4.584.212.433	695.994	cam
562	312.159.853	4.584.213.388	695.735	cun
563	312.155.095	4.584.224.455	695.593	0
564	312.142.646	4.584.210.675	697.568	cam
565	312.142.225	4.584.211.385	697.433	cun
566	312.134.780	4.584.210.397	698.193	cun
567	312.134.842	4.584.209.561	698.234	cam
568	312.121.791	4.584.204.483	699.224	cam
569	312.121.157	4.584.205.044	699.618	ct
570	312.125.303	4.584.217.787	699.381	0
571	312.112.685	4.584.213.808	700.656	0
572	312.093.800	4.584.198.975	702.204	0
573	312.098.828	4.584.191.461	701.716	ct
574	312.099.781	4.584.190.359	701.294	cam
575	312.073.497	4.584.174.074	704.118	cam
576	312.073.130	4.584.174.592	704.333	ct
577	312.065.795	4.584.184.681	705.023	0
578	312.045.221	4.584.171.099	707.427	0
579	312.049.390	4.584.161.832	706.989	ct
580	312.049.684	4.584.161.189	706.847	cam
581	312.050.993	4.584.158.256	706.942	cam
582	312.027.834	4.584.147.355	709.457	cam
583	312.025.822	4.584.150.011	709.491	cam
584	312.025.566	4.584.150.445	709.512	ct
585	312.023.607	4.584.154.063	709.583	0

586	312.018.926	4.584.161.126	709.532	0
587	311.999.192	4.584.151.062	710.658	0
588	312.002.414	4.584.145.509	711.132	0
589	312.004.542	4.584.140.962	711.114	pt
590	312.004.833	4.584.140.358	711.394	cam
591	311.979.134	4.584.127.460	712.533	cam
592	311.978.543	4.584.128.163	712.059	pt
593	311.975.401	4.584.132.882	711.916	0
594	311.971.432	4.584.138.467	711.317	0
595	311.942.903	4.584.127.874	712.451	pt
596	311.941.950	4.584.126.858	713.255	ct
597	311.947.517	4.584.120.451	713.274	ct
598	311.948.315	4.584.121.090	712.718	pt
599	311.953.069	4.584.116.021	713.127	pt
600	311.951.113	4.584.115.087	713.452	ct
601	311.955.164	4.584.115.541	713.231	cam
602	311.940.921	4.584.109.100	713.964	cam
603	311.940.534	4.584.109.781	713.920	pt
604	311.936.767	4.584.115.108	713.659	0
605	311.932.524	4.584.120.582	713.489	0
606	311.913.055	4.584.108.038	714.928	0
607	311.915.857	4.584.099.953	715.080	pt
608	311.915.812	4.584.099.001	715.236	cam
609	311.896.372	4.584.091.244	716.695	cam
610	311.895.712	4.584.092.024	716.595	pt
611	311.890.517	4.584.099.600	716.463	0
612	311.887.731	4.584.102.948	716.230	0
613	311.871.344	4.584.093.990	717.407	0
614	311.875.854	4.584.086.012	717.788	0
615	311.877.545	4.584.083.058	717.792	pt
616	311.878.113	4.584.082.162	717.956	cam
617	311.860.425	4.584.068.357	719.251	cam
618	311.859.732	4.584.068.935	719.074	pt
619	311.856.210	4.584.071.794	719.069	0
620	311.851.096	4.584.076.047	718.879	0
621	311.834.674	4.584.059.478	719.503	0
622	311.840.882	4.584.053.094	720.264	0
623	311.843.247	4.584.050.781	720.352	pt
624	311.843.912	4.584.050.054	720.572	cam
625	311.830.152	4.584.035.132	721.592	cam
626	311.829.531	4.584.035.701	721.429	pt
627	311.825.497	4.584.039.154	721.396	0
628	311.821.035	4.584.044.144	720.983	0
629	311.804.719	4.584.027.678	722.303	0

630	311.808.811	4.584.022.596	722.980	0
631	311.812.258	4.584.019.059	722.935	pt
632	311.812.780	4.584.018.255	723.128	cam
633	311.800.831	4.584.007.648	723.959	cam
634	311.800.483	4.584.007.967	723.755	pt
636	311.793.810	4.584.002.363	724.398	cam
637	311.793.413	4.584.002.990	724.284	pt
638	311.795.464	4.583.999.003	724.631	cam
639	311.787.459	4.583.996.980	724.832	cam
640	311.786.834	4.584.000.228	724.622	cam
641	311.786.586	4.584.000.973	724.309	pt
642	311.784.626	4.584.006.170	723.829	0
643	311.783.141	4.584.012.361	723.362	0
644	311.791.814	4.584.019.108	723.131	0
645	311.796.903	4.584.011.641	723.757	0
646	311.772.965	4.583.993.908	724.701	cam
647	311.772.121	4.583.996.873	724.555	cam
648	311.771.677	4.583.998.093	724.037	0
649	311.770.320	4.584.004.991	723.348	0
650	311.769.303	4.584.009.345	722.930	0
651	311.749.839	4.584.004.230	722.534	0
652	311.749.975	4.583.998.391	723.188	0
653	311.750.653	4.583.993.744	723.820	pt
654	311.750.647	4.583.992.611	724.291	cam
655	311.751.113	4.583.989.705	724.621	cam
656	311.751.326	4.583.988.741	724.942	ct
657	311.766.508	4.583.992.005	724.902	ct
658	311.766.163	4.583.992.843	724.734	cam
659	311.737.510	4.583.987.259	724.907	cam
660	311.737.687	4.583.986.022	725.273	ct
661	311.710.057	4.583.983.126	725.666	cam
662	311.709.778	4.583.985.740	725.411	cam
663	311.709.992	4.583.982.126	726.150	ct
664	311.682.965	4.583.979.329	724.330	cam
670	311.712.074	4.583.975.553	726.813	0
671	311.732.306	4.583.978.288	726.092	0
672	311.749.929	4.583.979.898	725.831	0
673	311.753.172	4.583.977.449	725.962	lin
674	311.761.723	4.583.987.180	725.220	lin
675	311.766.272	4.583.991.042	725.026	lin
676	311.342.083	4.584.679.721	656.443	cam
677	311.353.577	4.584.688.373	656.197	cam
678	311.358.160	4.584.691.469	656.197	cam
679	311.375.597	4.584.705.120	656.303	cam

680	311.393.003	4.584.718.331	656.007	cam
681	311.409.651	4.584.732.492	655.916	cam
682	311.425.033	4.584.745.708	655.984	cam
684	311.382.242	4.584.692.224	661.430	ct
685	311.387.222	4.584.699.767	660.812	ct
686	311.388.677	4.584.701.659	660.726	ct
687	311.398.221	4.584.712.391	660.050	ct
688	311.404.481	4.584.718.480	659.669	ct
689	311.414.858	4.584.729.308	658.896	ct
690	311.425.179	4.584.740.431	658.089	ct
691	311.431.116	4.584.747.565	657.799	ct
692	311.439.174	4.584.755.182	657.527	ct
693	311.446.858	4.584.760.985	657.273	ct
694	311.451.464	4.584.764.177	657.301	ct
695	311.456.037	4.584.765.277	657.176	ct
696	311.462.418	4.584.762.978	657.139	ct
697	311.673.274	4.584.663.164	663.624	cam
698	311.680.038	4.584.659.538	664.129	cam
699	311.689.636	4.584.655.084	664.850	cam
700	311.706.337	4.584.647.901	666.350	cam
701	311.719.004	4.584.642.823	667.385	cam
702	311.721.867	4.584.640.975	667.655	cam
703	311.725.474	4.584.639.505	667.619	cam
704	311.731.846	4.584.636.665	667.942	cam
705	311.738.541	4.584.633.111	668.052	cam
706	311.757.132	4.584.624.683	668.842	cam
707	311.779.901	4.584.614.461	670.037	cam
708	311.808.178	4.584.601.118	671.501	cam
709	311.832.830	4.584.589.565	672.568	cam
710	311.859.207	4.584.577.834	673.740	cam
711	311.884.461	4.584.566.814	674.688	cam
712	311.906.710	4.584.556.337	675.656	cam
713	311.920.266	4.584.549.225	676.253	cam
714	311.938.720	4.584.537.666	677.012	cam
715	311.961.373	4.584.523.294	677.859	cam
716	311.993.662	4.584.502.115	679.090	cam
717	312.015.768	4.584.486.984	679.997	cam
718	312.038.894	4.584.470.687	681.214	cam
719	312.058.521	4.584.456.839	682.302	cam
720	312.080.911	4.584.440.462	683.676	cam
721	312.104.310	4.584.423.361	685.280	cam
722	312.139.724	4.584.391.799	687.973	cam
723	312.151.098	4.584.378.609	689.186	cam
724	312.158.714	4.584.364.980	690.273	cam

725	312.166.588	4.584.346.000	690.581	cam
726	312.175.840	4.584.324.978	690.450	cam
727	312.183.889	4.584.306.585	690.399	cam
728	312.193.477	4.584.285.035	690.250	cam
729	312.203.090	4.584.265.360	690.235	cam
730	312.210.882	4.584.250.573	690.644	cam
731	312.212.923	4.584.244.869	690.978	cam
732	311.545.205	4.584.630.663	663.600	0
733	311.563.335	4.584.636.565	663.600	0
734	312.210.515	4.584.237.478	691.256	cam
735	312.206.320	4.584.232.438	691.731	cam
736	312.192.682	4.584.223.552	693.004	cam
737	312.176.302	4.584.214.139	694.536	cam
738	312.160.832	4.584.209.184	695.994	cam
739	312.143.044	4.584.207.398	697.568	cam
740	312.135.684	4.584.206.348	698.234	cam
741	312.123.295	4.584.201.527	699.224	cam
742	312.101.541	4.584.187.568	701.294	cam
743	312.075.153	4.584.171.218	704.118	cam
744	312.051.170	4.584.158.241	706.847	cam
745	312.027.211	4.584.147.018	709.491	cam
746	312.006.263	4.584.137.383	711.394	cam
747	311.980.609	4.584.124.508	712.533	cam
748	311.956.579	4.584.112.559	713.231	cam
749	311.942.217	4.584.106.064	713.964	cam
750	311.917.039	4.584.095.938	715.236	cam
751	311.897.721	4.584.088.229	716.695	cam
752	311.879.881	4.584.079.356	717.956	cam
753	311.862.682	4.584.065.933	719.251	cam
754	311.846.350	4.584.047.830	720.572	cam
755	311.832.517	4.584.032.828	721.592	cam
756	311.815.026	4.584.015.836	723.128	cam
757	311.803.022	4.584.005.180	723.959	cam
762	311.545.023	4.583.968.929	729.369	ct
763	311.559.600	4.583.965.955	728.936	ct
766	311.606.905	4.583.966.915	724.906	ct
767	311.623.348	4.583.969.523	724.027	ct
768	311.648.605	4.583.973.274	723.863	ct
772	311.709.429	4.583.963.095	728.803	
787	311.696.165	4.583.940.604	731.185	
800	311.670.436	4.583.976.794	724.061	cam
801	311.648.474	4.583.974.266	723.563	cam
802	311.623.196	4.583.970.511	723.727	cam
803	311.606.752	4.583.967.903	724.606	cam

804	311.588.213	4.583.964.992	726.300	cam
805	311.573.040	4.583.964.627	727.710	cam
806	311.559.787	4.583.966.937	728.636	cam
807	311.545.223	4.583.969.909	729.069	cam
808	311.670.172	4.583.979.079	724.061	cam
809	311.648.174	4.583.976.546	723.563	cam
810	311.622.847	4.583.972.785	723.727	cam
811	311.606.400	4.583.970.176	724.606	cam
812	311.588.083	4.583.967.406	726.297	cam
813	311.573.348	4.583.966.869	727.721	cam
814	311.560.218	4.583.969.197	728.636	cam
815	311.545.683	4.583.972.162	729.069	cam
816	311.774.553	4.583.984.032	726.000	0
817	311.499.818	4.583.955.077	730.203	ct
818	311.509.036	4.583.956.021	730.000	ct
819	311.527.027	4.583.962.258	729.725	ct
820	311.537.718	4.583.966.421	729.455	ct
821	311.573.117	4.583.963.558	728.021	ct
822	311.588.391	4.583.964.115	726.597	ct
823	311.674.714	4.583.976.975	724.384	ct
824	311.698.787	4.583.980.667	725.607	ct
826	311.688.425	4.583.959.639	727.671	
827	311.665.375	4.583.955.037	726.388	
828	311.643.610	4.583.951.356	725.595	
829	311.623.292	4.583.948.564	725.266	
830	311.602.899	4.583.944.993	725.827	
831	311.584.046	4.583.942.898	727.503	
832	311.565.368	4.583.943.645	728.701	
833	311.546.969	4.583.947.033	729.926	
834	311.528.297	4.583.951.066	730.191	
835	311.495.436	4.583.937.881	731.829	
836	311.515.680	4.583.946.456	730.539	
837	311.515.547	4.583.933.408	731.812	
838	311.537.805	4.583.927.322	730.969	
839	311.559.054	4.583.922.612	729.555	
840	311.579.132	4.583.920.849	728.341	
841	311.599.991	4.583.923.385	727.632	
842	311.621.665	4.583.927.227	727.582	
843	311.640.998	4.583.930.737	727.841	
844	311.660.741	4.583.933.730	728.681	
845	311.681.957	4.583.938.168	730.116	
846	311.686.312	4.583.914.913	734.117	
847	311.664.120	4.583.909.658	732.378	
848	311.637.981	4.583.904.501	730.786	

849	311.618.255	4.583.900.188	730.062	
850	311.597.673	4.583.896.351	729.776	
851	311.575.921	4.583.894.711	729.851	
852	311.553.914	4.583.897.143	730.598	
853	311.533.328	4.583.901.234	731.723	
854	311.514.133	4.583.906.512	733.064	
855	311.496.015	4.583.912.802	734.350	
856	311.485.401	4.583.911.380	735.621	ct
857	311.477.154	4.583.896.072	737.141	ct
858	311.497.647	4.583.889.029	735.282	
859	311.518.983	4.583.882.747	733.526	
860	311.540.441	4.583.877.667	732.280	
861	311.562.327	4.583.874.145	731.376	
862	311.583.829	4.583.873.843	731.450	
863	311.604.615	4.583.876.715	731.727	
864	311.629.030	4.583.881.489	732.321	
865	311.648.722	4.583.885.737	733.493	
866	311.673.116	4.583.890.320	735.378	ct
867	311.661.473	4.583.871.321	736.208	ct
868	311.641.448	4.583.866.883	734.948	ct
869	311.620.581	4.583.861.445	733.990	ct
870	311.600.672	4.583.857.983	733.689	
871	311.579.130	4.583.855.548	733.145	
872	311.557.453	4.583.856.337	732.871	
873	311.536.973	4.583.859.640	733.461	
874	311.514.059	4.583.865.457	735.028	
875	311.493.302	4.583.870.800	736.900	
876	311.478.975	4.583.874.818	738.242	
877	311.470.728	4.583.883.771	738.504	ct
878	311.468.444	4.583.873.039	739.094	ct
879	311.471.194	4.583.866.976	739.241	ct
880	311.476.936	4.583.859.802	739.433	ct
881	311.480.805	4.583.853.174	739.705	ct
882	311.482.304	4.583.843.150	740.241	ct
883	311.490.575	4.583.856.008	738.456	
884	311.511.014	4.583.849.982	736.354	
885	311.531.120	4.583.844.515	734.952	
886	311.551.622	4.583.840.685	734.566	
887	311.573.152	4.583.838.994	734.820	
888	311.593.847	4.583.840.798	735.601	
889	311.601.037	4.583.835.424	736.619	ct
890	311.607.706	4.583.841.895	736.163	ct
891	311.621.424	4.583.845.789	736.482	ct
892	311.627.932	4.583.844.173	737.092	ct

893	311.636.428	4.583.840.700	738.060	ct
894	311.642.825	4.583.841.412	738.413	ct
895	311.649.491	4.583.847.213	738.080	ct
896	311.657.653	4.583.863.091	736.783	ct
897	311.593.618	4.583.823.552	738.057	ct
898	311.584.524	4.583.821.280	738.074	
899	311.562.021	4.583.821.424	737.197	
900	311.539.804	4.583.823.478	737.062	
901	311.519.984	4.583.826.916	737.110	
902	311.502.435	4.583.831.171	738.104	
903	311.488.954	4.583.835.396	739.551	
904	311.498.029	4.583.845.445	738.095	
905	311.478.795	4.583.827.142	740.531	ct
906	311.474.865	4.583.817.915	741.260	ct
907	311.486.829	4.583.817.677	740.252	
908	311.505.246	4.583.812.653	739.142	
909	311.525.572	4.583.808.402	739.503	
910	311.536.617	4.583.804.471	740.070	ct
911	311.548.549	4.583.804.555	739.953	ct
912	311.559.912	4.583.797.955	740.939	ct
913	311.569.830	4.583.796.528	741.319	ct
914	311.580.998	4.583.803.689	740.567	ct
915	311.589.168	4.583.815.551	739.005	ct
916	311.566.885	4.583.810.151	739.196	ct
917	311.525.558	4.583.793.459	741.731	ct
918	311.522.237	4.583.786.939	742.821	ct
919	311.505.420	4.583.793.150	741.797	
920	311.486.219	4.583.797.995	742.234	
921	311.473.253	4.583.801.409	742.863	
922	311.464.879	4.583.805.139	743.172	ct
923	311.511.270	4.583.812.989	738.928	sondeo_4
924	311.547.006	4.583.953.829	729.779	sondeo_3
925	311.636.974	4.583.952.039	725.271	sondeo_1
926	311.612.191	4.583.859.709	733.885	sondeo_2
927	311.287.596	4.584.717.556	655.811	
928	311.288.808	4.584.716.002	655.792	
929	311.286.633	4.584.714.223	655.831	
930	311.285.327	4.584.715.844	655.751	
931	311.286.651	4.584.718.230	654.872	
932	311.290.341	4.584.714.275	655.060	
933	311.288.959	4.584.711.970	655.281	
934	311.300.320	4.584.701.598	655.442	
935	311.298.880	4.584.699.906	655.440	
936	311.305.529	4.584.691.317	655.523	

937	311.307.574	4.584.692.256	655.520	
938	311.313.745	4.584.684.657	655.686	
939	311.315.207	4.584.680.286	656.030	
940	311.317.092	4.584.681.078	655.996	
941	311.328.245	4.584.679.954	656.359	
942	311.336.747	4.584.680.196	656.527	
943	311.338.871	4.584.676.984	656.601	
944	311.336.224	4.584.672.355	656.357	
945	311.335.973	4.584.669.893	656.299	
946	311.329.910	4.584.671.720	656.407	
947	311.319.108	4.584.662.813	656.430	
948	311.308.237	4.584.670.588	656.193	
949	311.307.558	4.584.662.585	656.225	
950	311.309.598	4.584.659.399	656.169	
951	311.311.303	4.584.660.382	656.217	
952	311.313.881	4.584.660.192	656.352	
953	311.316.923	4.584.658.755	656.397	
954	311.316.213	4.584.664.610	656.096	
955	311.312.840	4.584.668.574	655.996	
956	311.316.306	4.584.672.216	656.013	
957	311.320.141	4.584.668.950	656.040	
958	311.326.438	4.584.677.593	656.178	
959	311.332.855	4.584.674.781	656.231	
960	311.310.915	4.584.657.209	657.354	
961	311.333.385	4.584.667.358	656.451	
962	311.334.917	4.584.666.948	656.232	
963	311.338.320	4.584.666.764	656.490	
964	311.331.899	4.584.661.502	656.437	
965	311.329.980	4.584.663.079	656.254	
966	311.324.941	4.584.660.583	656.429	
967	311.324.791	4.584.659.090	656.347	
968	311.322.217	4.584.653.671	656.742	
969	311.319.462	4.584.656.628	656.424	
970	311.336.708	4.584.670.340	659.509	
971	311.339.876	4.584.666.450	659.751	
972	311.331.799	4.584.660.106	659.732	
973	311.321.843	4.584.652.305	660.078	
974	311.318.883	4.584.655.549	659.646	
975	311.321.213	4.584.641.833	665.245	0
976	311.322.837	4.584.643.129	665.174	0
977	311.328.804	4.584.646.172	665.140	0
978	311.329.981	4.584.646.237	665.144	0
979	311.329.809	4.584.647.569	665.031	0
980	311.332.101	4.584.650.403	664.798	0

981	311.336.395	4.584.644.655	665.238	0
982	311.335.643	4.584.643.780	665.378	0
983	311.336.442	4.584.643.033	665.327	0
984	311.337.307	4.584.643.795	665.421	0
985	311.340.984	4.584.640.469	665.495	0
986	311.343.527	4.584.642.650	667.544	0
987	311.346.417	4.584.644.961	667.490	0
988	311.352.305	4.584.632.268	667.466	0
989	311.354.787	4.584.634.322	667.460	0
990	311.322.177	4.584.644.284	664.778	0
991	311.327.265	4.584.648.199	664.750	0
992	311.333.077	4.584.652.263	664.277	0
993	311.339.319	4.584.657.545	664.196	0
994	311.338.950	4.584.658.229	663.862	0
995	311.338.620	4.584.646.372	665.773	0
996	311.343.864	4.584.651.486	665.897	0
997	311.339.139	4.584.656.649	667.409	0
998	311.334.195	4.584.652.478	667.400	0
999	311.338.497	4.584.647.222	667.303	0
1000	311.343.278	4.584.651.484	667.327	0
1001	311.342.534	4.584.650.074	667.488	0
1002	311.339.979	4.584.647.905	667.510	0
1003	311.348.411	4.584.646.822	666.318	0
1004	311.330.710	4.584.649.169	665.167	0
1005	311.338.654	4.584.635.322	665.458	0
1006	311.348.714	4.584.630.050	665.934	0

APENDICE: PLANOS TOPOGRÁFICOS

Plano 1.- Levantamiento topográfico del generador fotovoltaico

Plano 2.- Levantamiento topográfico de la tubería de impulsión

Plano 3.- Levantamiento topográfico balsa de acumulación

Plano 4.- Modelo del terreno de la red de riego