

**Tabla B4. Información Requerida como datos de entrada para el modelo de Eventos.
Alternativa 1 Salida a el Escalante**

SEGMENTOS	TIPO DE SEGMENTOS	AREA (hec)	COEFICIENTE DE MANNING (n)	LONGITUD (mts)	PENDIENTE (S)	CN
3702	1	3.65	0.17	130.48	0.0005	85
3701	1	2.34	0.17	83.65	0.0005	85
37	2	-	0.030	279.73	0.00051	-
3801	1	2.79	0.17	181.89	0.0005	85
3802	1	1.66	0.17	108.22	0.0005	85
38	2	-	0.030	153.39	0.0021	-
39	2	-	0.030	291.68	0.00051	-
4001	1	3.5	0.17	143.21	0.0005	85
4002	1	3.68	0.17	150.58	0.0005	85
40	2	-	0.030	244.39	0.0005	-
4101	1	2.56	0.17	130.88	0.0005	85
41	2	-	0.030	195.60	0.00051	-
42	2	-	0.030	294.89	0.00051	-
4501	1	4.1	0.17	130.34	0.0005	85
4502	1	4.31	0.17	137.01	0.0005	85
45	2	-	0.030	314.57	0.00051	-
50	2	-	0.030	246.76	0.0005	-
500	2	-	0.030	921.02	0.0005	-
ESCALANTE	2	-	0.030	20	0.0005	-
4301	1	2.85	0.17	101.78	0.0005	85
43	2	-	0.030	280.01	0.0006	-
4401	1	1.74	0.17	48.13	0.0006	85
4402	1	1.41	0.17	38.99	0.0005	85
44	2	-	0.035	361.54	0.00108	-
470	2	-	0.030	135.62	0.00347	-
4601	1	2.86	0.17	129.59	0.0005	85
4602	1	3.09	0.17	140.02	0.0005	85
46	2	-	0.030	220.69	0.0005	-
47	2	-	0.030	131.5	0.00051	-
4801	1	3.06	0.17	105.53	0.0005	85
48	2	-	0.030	298.44	0.00251	-
4901	1	3.45	0.17	114.51	0.0005	85
4902	1	3.8	0.17	126.12	0.0005	85
49	2	-	0.030	301.29	0.00051	-
5101	1	4.69	0.17	169.78	0.0005	85
51	2	-	0.030	276.24	0.0005	-
5201	1	4.23	0.17	180.6	0.0005	-
52	2	-	0.030	234.22	0.00051	-

Tabla B4. Continuación

SEGMENTOS	TIPO DE SEGMENTOS	AREA (hec)	COEFICIENTE DE MANNING (n)	LONGITUD (mts)	PENDIENTE (S)	CN
53	2	-	0.030	180.98	0.0005	-
5401	1	3.61	0.17	198	0.0005	85
54	2	-	0.030	182.32	0.0054	-
540	2	-	0.030	72.18	0.0005	-
5601	1	5.01	0.17	253.90	0.0005	85
56	2	-	0.030	197.32	0.0073	-
5501	1	5.06	0.17	145.33	0.0005	85
5502	1	6.75	0.17	193.87	0.0005	85
55	2	-	0.030	348.18	0.00049	-

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Tabla B5. Datos de entrada alternativa 1 salida a el Escalante.

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47	2	800.000	15.000	.000					
		.00	720.00						
		11.08	11.08						
3701	1	83.650	85.00	.000	.001	.170	.550	.000	
3702	1	130.480	85.00	.000	.001	.170	.550	.000	
37	2	279.730	.00	.000	.001	.030	.550	.000	
	2	0	1	0	0				
3701	3702								
	3	.419	.600	1.500					
3801	1	181.890	85.00	.000	.001	.170	.550	.000	
3802	1	108.220	85.00	.000	.001	.170	.550	.000	
38	2	153.390	.00	.000	.002	.030	.550	.000	
	2	0	1	0	0				
3801	3802								
	3	.258	.600	1.500					
39	2	291.680	.00	.000	.001	.030	.550	.000	
	0	2	1	0	0				
37	38								
	3	.471	1.000	1.500					
4001	1	143.210	85.00	.000	.001	.170	.550	.000	
4002	1	150.580	85.00	.000	.001	.170	.550	.000	
40	2	244.390	.00	.000	.001	.030	.550	.000	
	2	0	1	0	0				
4001	4002								
	3	.453	.600	1.500					
4101	1	130.880	85.00	.000	.001	.170	.550	.000	
41	2	195.600	.00	.000	.001	.030	.550	.000	
	1	0	1	0	0				
4101									
	3	.295	.600	1.500					
4301	1	101.780	85.00	.000	.001	.170	.550	.000	
43	2	280.010	.00	.000	.001	.030	.550	.000	
	1	0	1	0	0				
4301									
	3	.296	.600	1.500					

42	2	294.890	.00	.000	.001	.030	.550	.000
0	3	1	0	0				
39	40	41						
3		.588	1.000	1.500				
4501	1	130.340	85.00	.000	.001	.170	.550	.000
4502	1	137.010	85.00	.000	.001	.170	.550	.000
45	2	314.570	.00	.000	.001	.030	.550	.000
2	1	1	0	0				
4501	4502							
42								
3		.695	1.000	1.500				
4401	1	48.130	85.00	.000	.001	.170	.550	.000
4402	1	38.990	85.00	.000	.001	.170	.550	.000
44	2	361.540	.00	.000	.001	.035	.550	.000
2	0	1	0	0				
4401	4402							
3		.159	2.000	1.500				
470	2	135.620	.00	.000	.003	.030	.550	.000
0	2	1	0	0				
43	44							
3		.177	1.500	1.500				
4601	1	129.590	85.00	.000	.001	.170	.550	.000
4602	1	140.020	85.00	.000	.001	.170	.550	.000
46	2	220.690	.00	.000	.001	.030	.550	.000
2	0	1	0	0				
4601	4602							
3		.421	.600	1.500				
47	2	131.500	.00	.000	.001	.030	.550	.000
0	2	1	0	0				
46	470							
3		.436	1.500	1.500				
4801	1	102.530	85.00	.000	.001	.170	.550	.000
48	2	298.440	.00	.000	.003	.030	.550	.000
1	0	1	0	0				
4801								
3		.210	.600	1.500				
4901	1	114.510	85.00	.000	.001	.170	.550	.000
4902	1	126.120	85.00	.000	.001	.170	.550	.000

49	2	301.290	.00	.000	.001	.030	.550	.000
2	2	1	0	0				
4901	4902							
47	48							
3		.544	1.500	1.500				
50	2	246.760	.00	.000	.001	.030	.550	.000
0	1	1	0	0				
45								
3		.534	2.000	1.500				
500	2	921.020	.00	.000	.001	.030	.550	.000
0	2	1	0	0				
49	50							
3		.739	2.000	1.500				
5101	1	169.780	85.00	.000	.001	.170	.550	.000
51	2	276.240	.00	.000	.001	.030	.550	.000
1	0	1	0	0				
5101								
3		.380	.600	1.500				
5201	1	180.600	85.00	.000	.001	.170	.550	.000
52	2	234.220	.00	.000	.001	.030	.550	.000
1	0	1	0	0				
5201								
3		.363	.600	1.500				
53	2	180.980	.00	.000	.001	.030	.550	.000
0	2	1	0	0				
51	52							
3		.371	1.500	1.500				
5401	1	198.000	85.00	.000	.001	.170	.550	.000
54	2	182.320	.00	.000	.005	.030	.550	.000
1	0	1	0	0				
5401								
3		.183	.600	1.500				
540	2	72.180	.00	.000	.001	.030	.550	.000
0	2	1	0	0				
53	54							
3		.417	1.500	1.500				
5601	1	253.900	85.00	.000	.001	.170	.550	.000
56	2	197.320	.00	.000	.007	.030	.550	.000
1	0	1	0	0				
5601								
3		.195	.600	1.500				

5501	1	145.330	85.00	.000	.001	.170	.550	.000
5502	1	193.870	85.00	.000	.001	.170	.550	.000
55	2	348.180	.00	.000	.00049	.030	.550	.000
2	2	1	0	0				
5501	5502							
56	540							
3		.644	1.500	1.500				
820	2	100.000	.00	.000	.001	.030	.550	.000
0	2	1	1	0				
500	55							
3		1.000	3.000	1.500				

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Tabla B6. Datos de salida alternativa 1 sector el Escalante.

MODELO DE SIMULACION DE EVENTOS

CIDIAT - 1987

LA GLORIETA

HIETOGRAMA DE PRECIPITACION

TIEMPO (MIN)	PRECIPITACION (MM/HR)
.00	11.08
720.00	11.08

ISEG = 3701 TSEG = 1 DT = 1.3631 NDX = 29 THETA = .55 IMPS = .00 LONG = 83.650

CN = 85.00 SS = .0010 NN = .1700 PROF = .0931 VMAX = .03 QMAX = .00317

PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 3702 TSEG = 1 DT = 2.1262 NDX = 30 THETA = .55 IMPS = .00 LONG = 130.480

CN = 85.00 SS = .0010 NN = .1700 PROF = .0931 VMAX = .03 QMAX = .00317

PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 37 TSEG = 2 DT = .4047 NDX = 28 THETA = .55 LONG = 279.730

TSEG = 3 SS = .0010 NN = .0300 BB = .60 PT = 1.5000

PROF = .4190 VMAX = .41 QMAX = .21179

NO HAY APORTES AGUAS ARRIBA

LAT = 3701 LAT = 3702

SEGMENTO = 37 TPICO = 719.526 MIN. QPICO = .1694 M3/SEG
 ESCOR = .005069 MILLONES DE METROS CUBICOS

ISEG = 3801 TSEG = 1 DT = 2.9639 NDX = 29 THETA = .55 IMPS = .00 LONG = 181.890

CN = 85.00 SS = .0010 NN = .1700 PROF = .0931 VMAX = .03 QMAX = .00317

PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 3802 TSEG = 1 DT = 1.7634 NDX = 29 THETA = .55 IMPS = .00 LONG = 108.220
CN = 85.00 SS .0010 NN = .1700 PROF = .0931 VMAX = .03 QMAX = .00317
PT = 133.0 PEPEC = 91.1 COEF = .68

ISEG = 38 TSEG = 2 DT = .4185 NDX = 13 THETA = .55 LONG = 153.390
TSEC = 3 SS .0020 NN = .0300 BB = .80 PT = 1.5000
PROF = .2580 VMAX = .47 QMAX = .14391
NO HAY APORTES AGUAS ARRIBA
LAT = 3801 LAT = 3802

SEGMENTO = 38 TPICO = 719.355 MIN. QPICO = .1257 M3/SEG
ESCOR = .003687 MILLONES DE METROS CUBICOS

ISEG = 39 TSEG = 2 DT = .4136 NDX = 25 THETA = .55 LONG = 291.680
TSEC = 3 SS .0010 NN = .0300 BB = 1.00 PT = 1.5000
PROF = .4710 VMAX = .47 QMAX = .37790
UP = 37 UP = 38 UP =
NO HAY APORTES LATERALES

SEGMENTO = 39 TPICO = 726.266 MIN. QPICO = .2950 M3/SEG
ESCOR = .008648 MILLONES DE METROS CUBICOS

ISEG = 4001 TSEG = 1 DT = 2.3336 NDX = 30 THETA = .55 IMPS = .00 LONG = 143.210
CN = 85.00 SS .0010 NN = .1700 PROF = .0931 VMAX = .03 QMAX = .00317
PT = 133.0 PEPEC = 91.1 COEF = .68

ISEG = 4002 TSEG = 1 DT = 2.4537 NDX = 29 THETA = .55 IMPS = .00 LONG = 150.580
CN = 85.00 SS .0010 NN = .1700 PROF = .0931 VMAX = .03 QMAX = .00317
PT = 133.0 PEPEC = 91.1 COEF = .68

ISEG = 40 TSEG = 2 DT = .4129 NDX = 23 THETA = .55 LONG = 244.390
TSEC = 3 SS .0010 NN = .0300 BB = .60 PT = 1.5000
PROF = .4530 VMAX = .43 QMAX = .24858
NO HAY APORTES AGUAS ARRIBA
LAT = 4001 LAT = 4002
SEGMENTO = 40 TPICO = 719.311 MIN. QPICO = .2027 M3/SEG

ESCOR = .005945 MILLONES DE METROS CUBICOS
ISEG = 4101 TSEG = 1 DT = 2.1327 NDX = 30 THETA = .55 IMPS = .00 LONG = 130.880
CN = 85.00 SS = .0010 NN = .1700 PROF = .0931 VMAX = .03 QMAX = .00317
PT = 133.0 PEPEC = 91.1 COEF = .68

ISEG = 41 TSEG = 2 DT = .4144 NDX = 23 THETA = .55 LONG = 195.600
TSEC = 3 SS = .0010 NN = .0300 BB = .60 PT = 1.5000
PROF = .2950 VMAX = .34 QMAX = .10520
NO HAY APORTES AGUAS ARRIBA
LAT = 4101 LAT =

SEGMENTO = 41 TPICO = 718.930 MIN. QPICO = .0723 M3/SEG
ESCOR = .002136 MILLONES DE METROS CUBICOS

ISEG = 4301 TSEG = 1 DT = 1.6585 NDX = 30 THETA = .55 IMPS = .00 LONG = 101.780
CN = 85.00 SS = .0010 NN = .1700 PROF = .0931 VMAX = .03 QMAX = .00317
PT = 133.0 PEPEC = 91.1 COEF = .68

ISEG = 43 TSEG = 2 DT = .4540 NDX = 30 THETA = .55 LONG = 280.010
TSEC = 3 SS = .0010 NN = .0300 BB = .60 PT = 1.5000
PROF = .2960 VMAX = .34 QMAX = .10589
NO HAY APORTES AGUAS ARRIBA
LAT = 4301 LAT =

SEGMENTO = 43 TPICO = 720.000 MIN. QPICO = .0807 M3/SEG
ESCOR = .002422 MILLONES DE METROS CUBICOS

ISEG = 42 TSEG = 2 DT = .4046 NDX = 23 THETA = .55 LONG = 294.890
TSEC = 3 SS = .0010 NN = .0300 BB = 1.00 PT = 1.5000
PROF = .5880 VMAX = .53 QMAX = .58447
UP = 39 UP = 40 UP = 41 UP =
NO HAY APORTES LATERALES

SEGMENTO = 42 TPICO = 726.238 MIN. QPICO = .5695 M3/SEG
ESCOR = .016538 MILLONES DE METROS CUBICOS

ISEG = 4501 TSEG = 1 DT = 2.1239 NDX = 29 THETA = .55 IMPS = .00 LONG = 130.340
CN = 85.00 SS = .0010 NN = .1700 PROF = .0931 VMAX = .03 QMAX = .00317
PT = 133.0 PEPEC = 91.1 COEF = .68

ISEG = 4502 TSEG = 1 DT = 2.2326 NDX = 30 THETA = .55 IMPS = .00 LONG = 137.010
CN = 85.00 SS .0010 NN = .1700 PROF = .0931 VMAX = .03 QMAX = .00317
PT = 133.0 PEPEC = 91.1 COEF = .68

ISEG = 45 TSEG = 2 DT = .4131 NDX = 22 THETA = .55 LONG = 314.570
TSEC = 3 SS .0010 NN = .0300 BB = 1.00 PT = 1.5000
PROF = .6950 VMAX = .58 QMAX = .81895
UP = 42 UP =
LAT = 4501 LAT = 4502

SEGMENTO = 45 TPICO = 720.406 MIN. QPICO = .8055 M3/SEG
ESCOR = .023361 MILLONES DE METROS CUBICOS

ISEG = 4401 TSEG = 1 DT = .7843 NDX = 29 THETA = .55 IMPS = .00 LONG = 48.130
CN = 85.00 SS .0010 NN = .1700 PROF = .0931 VMAX = .03 QMAX = .00317
PT = 133.0 PEPEC = 91.1 COEF = .68

ISEG = 4402 TSEG = 1 DT = .6353 NDX = 29 THETA = .55 IMPS = .00 LONG = 38.990
CN = 85.00 SS .0010 NN = .1700 PROF = .0931 VMAX = .03 QMAX = .00317
PT = 133.0 PEPEC = 91.1 COEF = .68

ISEG = 44 TSEG = 2 DT = .5780 NDX = 30 THETA = .55 LONG = 361.540
TSEC = 3 SS .0010 NN = .0350 BB = 2.00 PT = 1.5000
PROF = .3000 VMAX = .35 QMAX = .25540
NO HAY APORTES AGUAS ARRIBA
LAT = 4401 LAT = 4402

SEGMENTO = 44 TPICO = 720.229 MIN. QPICO = .0895 M3/SEG
ESCOR = .002781 MILLONES DE METROS CUBICOS

ISEG = 470 TSEG = 2 DT = .4164 NDX = 8 THETA = .55 LONG = 135.620
TSEC = 3 SS .0030 NN = .0300 BB = 1.50 PT = 1.5000
PROF = .3000 VMAX = .68 QMAX = .39698
UP = 43 UP = 44 UP =
NO HAY APORTES LATERALES
SEGMENTO = 470 TPICO = 722.394 MIN. QPICO = .1701 M3/SEG

ESCOR = .005182 MILLONES DE METROS CUBICOS

ISEG = 4601 TSEG = 1 DT = 2.1117 NDX = 30 THETA = .55 IMPS = .00 LONG = 129.590

CN = 85.00 SS = .0010 NN = .1700 PROF = .0931 VMAX = .03 QMAX = .00317

PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 4602 TSEG = 1 DT = 2.2816 NDX = 30 THETA = .55 IMPS = .00 LONG = 140.020

CN = 85.00 SS = .0010 NN = .1700 PROF = .0931 VMAX = .03 QMAX = .00317

PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 46 TSEG = 2 DT = .4053 NDX = 22 THETA = .55 LONG = 220.690

TSEC = 3 SS = .0010 NN = .0300 BB = .60 PT = 1.5000

PROF = .4210 VMAX = .41 QMAX = .21386

NO HAY APORTES AGUAS ARRIBA

LAT = 4601 LAT = 4602

SEGMENTO = 46 TPICO = 719.440 MIN. QPICO = .1681 M3/SEG

ESCOR = .004955 MILLONES DE METROS CUBICOS

ISEG = 47 TSEG = 2 DT = .4165 NDX = 11 THETA = .55 LONG = 131.500

TSEC = 3 SS = .0010 NN = .0300 BB = 1.50 PT = 1.5000

PROF = .4360 VMAX = .48 QMAX = .44924

UP = 46 UP = 470 UP =

NO HAY APORTES LATERALES

SEGMENTO = 47 TPICO = 723.073 MIN. QPICO = .3381 M3/SEG

ESCOR = .010083 MILLONES DE METROS CUBICOS

ISEG = 4801 TSEG = 1 DT = 1.6707 NDX = 30 THETA = .55 IMPS = .00 LONG = 102.530

CN = 85.00 SS = .0010 NN = .1700 PROF = .0931 VMAX = .03 QMAX = .00317

PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 48 TSEG = 2 DT = .4012 NDX = 25 THETA = .55 LONG = 298.440

TSEC = 3 SS = .0030 NN = .0300 BB = .60 PT = 1.5000

PROF = .2100 VMAX = .50 QMAX = .09530

NO HAY APORTES AGUAS ARRIBA

LAT = 4801 LAT =

SEGMENTO = 48 TPICO = 720.093 MIN. QPICO = .0866 M3/SEG
ESCOR = .002606 MILLONES DE METROS CUBICOS

ISEG = 4901 TSEG = 1 DT = 1.8659 NDX = 30 THETA = .55 IMPS = .00 LONG = 114.510
CN = 85.00 SS = .0010 NN = .1700 PROF = .0931 VMAX = .03 QMAX = .00317
PT = 133.0 PEPEC = 91.1 COEF = .68

ISEG = 4902 TSEG = 1 DT = 2.0551 NDX = 30 THETA = .55 IMPS = .00 LONG = 126.120
CN = 85.00 SS = .0010 NN = .1700 PROF = .0931 VMAX = .03 QMAX = .00317
PT = 133.0 PEPEC = 91.1 COEF = .68

ISEG = 49 TSEG = 2 DT = .4063 NDX = 23 THETA = .55 LONG = 301.290
TSEC = 3 SS = .0010 NN = .0300 BB = 1.50 PT = 1.5000
PROF = .5440 VMAX = .54 QMAX = .67702
UP = 47 UP = 48 UP =
LAT = 4901 LAT = 4902

SEGMENTO = 49 TPICO = 719.952 MIN. QPICO = .6289 M3/SEG
ESCOR = .018654 MILLONES DE METROS CUBICOS

ISEG = 50 TSEG = 2 DT = .4124 NDX = 18 THETA = .55 LONG = 246.760
TSEC = 3 SS = .0010 NN = .0300 BB = 2.00 PT = 1.5000
PROF = .5340 VMAX = .55 QMAX = .82867
UP = 45 UP =
NO HAY APORTES LATERALES

SEGMENTO = 50 TPICO = 725.421 MIN. QPICO = .8054 M3/SEG
ESCOR = .023119 MILLONES DE METROS CUBICOS

ISEG = 500 TSEG = 2 DT = .8052 NDX = 29 THETA = .55 LONG = 921.020
TSEC = 3 SS = .0010 NN = .0300 BB = 2.00 PT = 1.5000
PROF = .7390 VMAX = .66 QMAX = 1.51008
UP = 49 UP = 50 UP =

NO HAY APORTES LATERALES
SEGMENTO = 500 TPICO = 737.583 MIN. QPICO = 1.4326 M3/SEG
ESCOR = .040367 MILLONES DE METROS CUBICOS

ISEG = 5101 TSEG = 1 DT = 2.7666 NDX = 29 THETA = .55 IMPS = .00 LONG = 169.780
CN = 85.00 SS = .0010 NN = .1700 PROF = .0931 VMAX = .03 QMAX = .00317

PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 51 TSEG = 2 DT = .4063 NDX = 29 THETA = .55 LONG = 276.240

TSEC = 3 SS = .0010 NN = .0300 BB = .60 PT = 1.5000

PROF = .3800 VMAX = .39 QMAX = .17371

NO HAY APORTES AGUAS ARRIBA

LAT = 5101 LAT =

SEGMENTO = 51 TPICO = 719.603 MIN. QPICO = .1322 M3/SEG

ESCOR = .003826 MILLONES DE METROS CUBICOS

ISEG = 5201 TSEG = 1 DT = 2.9429 NDX = 29 THETA = .55 IMPS = .00 LONG = 180.600

CN = 85.00 SS = .0010 NN = .1700 PROF = .0931 VMAX = .03 QMAX = .00317

PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 52 TSEG = 2 DT = .4094 NDX = 25 THETA = .55 LONG = 234.220

TSEC = 3 SS = .0010 NN = .0300 BB = .60 PT = 1.5000

PROF = .3630 VMAX = .38 QMAX = .15845

NO HAY APORTES AGUAS ARRIBA

LAT = 5201 LAT =

SEGMENTO = 52 TPICO = 718.501 MIN. QPICO = .1192 M3/SEG

ESCOR = .003431 MILLONES DE METROS CUBICOS

ISEG = 53 TSEG = 2 DT = .4041 NDX = 17 THETA = .55 LONG = 180.980

TSEC = 3 SS = .0010 NN = .0300 BB = 1.50 PT = 1.5000

PROF = .3710 VMAX = .44 QMAX = .33502

UP = 51 UP = 52 UP =

NO HAY APORTES LATERALES

SEGMENTO = 53 TPICO = 724.097 MIN. QPICO = .2514 M3/SEG

ESCOR = .007184 MILLONES DE METROS CUBICOS

ISEG = 5401 TSEG = 1 DT = 3.2264 NDX = 29 THETA = .55 IMPS = .00 LONG = 198.000

CN = 85.00 SS = .0010 NN = .1700 PROF = .0931 VMAX = .03 QMAX = .00317

PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 54 TSEG = 2 DT = .4376 NDX = 9 THETA = .55 LONG = 182.320

TSEC = 3 SS = .0050 NN = .0300 BB = .60 PT = 1.5000

PROF = .3000 VMAX = .77 QMAX = .24306

NO HAY APORTES AGUAS ARRIBA

LAT = 5401 LAT =

SEGMENTO = 54 TPICO = 719.339 MIN. QPICO = .1017 M3/SEG
ESCOR .002909 MILLONES DE METROS CUBICOS

ISEG = 540 TSEG = 2 DT = .4291 NDX = 6 THETA = .55 LONG = 72.180

TSEC = 3 SS .0010 NN = .0300 BB = 1.50 PT = 1.5000

PROF = .4170 VMAX = .47 QMAX = .41411

UP = 53 UP = 54 UP =

NO HAY APORTES LATERALES

SEGMENTO = 540 TPICO = 721.803 MIN. QPICO = .3528 M3/SEG
ESCOR .010057 MILLONES DE METROS CUBICOS

ISEG = 5601 TSEG = 1 DT = 4.1373 NDX = 29 THETA = .55 IMPS = .00 LONG = 253.900

CN = 85.00 SS .0010 NN = .1700 PROF = .0931 VMAX = .03 QMAX = .00317

PT = 133.0 PEFIC 91.1 COEF = .68

ISEG = 56 TSEG = 2 DT = .4004 NDX = 8 THETA = .55 LONG = 197.320

TSEC = 3 SS .0070 NN = .0300 BB = .60 PT = 1.5000

PROF = .3000 VMAX = .91 QMAX = .28760

NO HAY APORTES AGUAS ARRIBA

LAT = 5601 LAT =

SEGMENTO = 56 TPICO = 719.920 MIN. QPICO = .1407 M3/SEG
ESCOR .003894 MILLONES DE METROS CUBICOS

ISEG = 5501 TSEG = 1 DT = 2.3681 NDX = 30 THETA = .55 IMPS = .00 LONG = 145.330

CN = 85.00 SS .0010 NN = .1700 PROF = .0931 VMAX = .03 QMAX = .00317

PT = 133.0 PEFIC 91.1 COEF = .68

ISEG = 5502 TSEG = 1 DT = 3.1591 NDX = 30 THETA = .55 IMPS = .00 LONG = 193.870

CN = 85.00 SS .0010 NN = .1700 PROF = .0931 VMAX = .03 QMAX = .00317

PT = 133.0 PEFIC 91.1 COEF = .68

ISEG = 55 TSEG = 2 DT = .4348 NDX = 29 THETA = .55 LONG = 348.180

TSEC = 3 SS = .0005 NN = .0300 BB = 1.50 PT = 1.5000

PROF = .8000 VMAX = .46 QMAX = .99416

UP = 56 UP = 540 UP =

LAT = 5501 LAT = 5502

SEGMENTO = 55 TPICO = 720.402 MIN. QPICO = .8249 M3/SEG
ESCOR = .023235 MILLONES DE METROS CUBICOS

ISEG = 820 TSEG = 2 DT = .4084 NDX = 5 THETA = .55 LONG = 100.000

TSEC = 3 SS = .0010 NN = .0300 BB = 3.00 PT = 1.5000

PROF = 1.0000 VMAX = .82 QMAX = 3.67248

UP = 500 UP = 55 UP =

NO HAY APORTES LATERALES

SEGMENTO = 820 TPICO = 723.353 MIN. QPICO = 2.2527 M3/SEG
ESCOR = .063360 MILLONES DE METROS CUBICOS

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TIEMPO (MIN)	.00	.23	.45	.68	.90	1.13	1.35	1.58	1.80	2.03	2.25	CAUDAL (M3/SKG)
.00	*0000
15.00	*0000
30.00	*0000
45.00	*0000
60.00	*0000
75.00	*0000
90.00	*0000
105.00	*0000
120.00	*0000
135.00	*0001
150.00	*0022
165.00	*0115
180.00	*0328
195.00	*0607
210.00	*1085
225.00	*	*3024
240.00	.	.	*5046
255.00	.	.	.	*6891
270.00	*8814
285.00	*	1.0730
300.00	*	1.2500
315.00	*	.	.	.	1.4024
330.00	*	.	.	1.5268
345.00	*	*	.	1.6256
360.00	*	.	.	1.7040
375.00	*	*	.	1.7675
390.00	*	*	.	1.8203
405.00	*	*	.	1.8653
420.00	*	*	.	1.9046
435.00	*	*	.	1.9394
450.00	*	*	.	1.9705
465.00	*	*	.	1.9988
480.00	*	*	.	2.0244
495.00	*	*	.	2.0478
510.00	*	*	.	2.0694
525.00	*	*	.	2.0892
540.00	*	*	.	2.1076
555.00	*	*	.	2.1245
570.00	*	*	.	2.1403
585.00	*	*	.	2.1550
600.00	*	*	.	2.1686
615.00	*	*	.	2.1814
630.00	*	*	.	2.1934
645.00	*	*	.	2.2046
660.00	*	*	.	2.2151
675.00	*	*	.	2.2250
690.00	*	*	.	2.2344
705.00	*	*	.	2.2431
720.00	*	*	.	2.2514
735.00	*	*	.	2.2344
750.00	*	*	.	2.1440
765.00	*	*	.	1.9541
780.00	*	*	*	.	1.7069
795.00	*	.	*	*	.	1.4596

Figura B2. Hidrograma de salida para el segmento 820

**Tabla B7. Información Requerida como datos de entrada para el modelo de Eventos.
Alternativa 2 Salida Total a La Maroma.**

SEGMENTOS	TIPO DE SEGMENTOS	AREA (hec)	COEFICIENTE DE MANNING (n)	LONGITUD (mts)	PENDIENTE (S)	CN
3702	1	3.65	0.17	130.48	0.0005	85
3701	1	2.34	0.17	83.65	0.0005	85
37	2	-	0.030	279.73	0.00051	-
3801	1	2.79	0.17	181.89	0.0005	85
3802	1	1.66	0.17	108.22	0.0005	85
38	2	-	0.030	153.39	0.0021	-
39	2	-	0.030	291.68	0.00051	-
4001	1	3.5	0.17	143.21	0.0005	85
4002	1	3.68	0.17	150.58	0.0005	85
40	2	-	0.030	244.39	0.0005	-
4101	1	2.56	0.17	130.88	0.0005	85
41	2	-	0.030	195.60	0.00051	-
42	2	-	0.030	294.89	0.00051	-
4501	1	4.1	0.17	130.34	0.0005	85
4502	1	4.31	0.17	137.01	0.0005	85
45	2	-	0.030	314.57	0.00051	-
50	2	-	0.030	246.76	0.0005	-
500	2	-	0.030	921.02	0.0005	-
4301	1	2.85	0.17	101.78	0.0005	85
43	2	-	0.030	280.01	0.0006	-
4401	1	1.74	0.17	48.13	0.0006	85
4402	1	1.41	0.17	38.99	0.0005	85
44	2	-	0.035	361.54	0.00108	-
470	2	-	0.030	135.62	0.00347	-
4601	1	2.86	0.17	129.59	0.0005	85
4602	1	3.09	0.17	140.02	0.0005	85
46	2	-	0.030	220.69	0.0005	-
47	2	-	0.030	131.5	0.00051	-
4801	1	3.06	0.17	105.53	0.0005	85
48	2	-	0.030	298.44	0.00251	-
4901	1	3.45	0.17	114.51	0.0005	85
4902	1	3.8	0.17	126.12	0.0005	85
49	2	-	0.030	301.29	0.00051	-

Tabla B7. Continuación

SEGMENTOS	TIPO DE SEGMENTOS	AREA (hec)	COEFICIENTE DE MANNING (n)	LONGITUD (mts)	PENDIENTE (S)	CN
9001	1	20.43	0.17	298.12	0.0005	85
9002	1	8.92	0.17	130.16	0.0005	85
9000	2	-	0.030	685.298	0.0005	-
201	1	25.69	0.17	357.36	0.0005	-
202	1	3.96	0.17	55.08	0.0005	85
20	2	-	0.030	718.89	0.00045	-
30	2	-	0.030	356.68	0.00053	-
401	1	2.71	0.17	67.21	0.0005	85
402	1	2.83	0.17	70.19	0.0005	85
40	2	-	0.030	403.20	0.00124	-
50	2	-	0.030	401.52	0.00053	-
601	1	2.99	0.17	69.8	0.0005	85
60	2	-	0.030	428.38	0.00053	-
70	2	-	0.030	189.24	0.00053	-
801	1	1.86	0.17	26.32	0.0005	85
802	1	2.12	0.17	30.00	0.0005	85
80	2	-	0.030	706.67	0.0034	-
901	1	2.44	0.060	49.62	0.0005	85
902	1	6.65	0.060	135.22	0.0005	85
90	2	-	0.030	491.78	0.00082	-
100	2	-	0.030	405.11	0.00073	-
1601	1	8.58	0.060	200.73	0.0005	85
160	2	-	0.030	427.44	0.00073	-
170	2	-	0.030	17.32	0.00073	-
2601	1	4.17	0.060	168.07	0.0005	85
260	2	-	0.035	248.11	0.0032	-
270	2	-	0.035	96.30	0.0032	-
271	2	-	0.030	144.85	0.0032	-
280	2	-	0.035	360.95	0.0032	-
2401	1	3.01	0.060	167.96	0.0005	85
2402	1	2.00	0.060	111.60	0.0005	85
240	2	-	0.035	179.21	0.00054	-
2501	1	2.50	0.060	120.6	0.0005	85
250	2	-	0.035	207.32	0.00054	85
2101	1	2.31	0.060	55.18	0.0005	85
2102	1	5.39	0.060	128.75	0.0005	85

Tabla B7. Continuación

SEGMENTOS	TIPO DE SEGMENTOS	AREA (hec)	COEFICIENTE DE MANNING (n)	LONGITUD (mts)	PENDIENTE (S)	CN
210	2	-	0.035	418.65	0.0005	-
2201	1	0.76	0.060	50.46	0.0005	85
220	2	-	0.030	150.62	0.00046	-
2301	1	2.50	0.060	92.87	0.0005	85
230	2	-	0.030	269.19	0.00046	-
3001	1	0.57	0.060	54.33	0.0005	85
3002	1	0.25	0.060	23.83	0.0005	85
300	2	-	0.035	104.92	0.00141	-
2901	1	4.88	0.060	170.81	0.0005	85
2902	1	1.22	0.060	42.70	0.0005	85
290	2	-	0.035	285.70	0.00084	-
3101	1	0.54	0.060	66.07	0.0005	85
310	2	-	0.035	81.73	0.00141	-
3201	1	0.73	0.060	35.97	0.0005	85
3202	1	1.34	0.060	66.4	0.0005	85
320	2	-	0.035	202.92	0.0012	-
3301	1	1.07	0.060	74.35	0.0005	85
3302	1	1.6	0.060	111.17	0.0005	85
330	2	-	0.035	143.92	0.00141	-
3401	1	2.61	0.060	161.28	0.0005	85
3402	1	0.65	0.060	40.17	0.0005	85
340	2	-	0.035	161.83	0.00295	-
3501	1	0.99	0.060	55.30	0.0005	85
3502	1	1.22	0.060	68.15	0.0005	85
350	2	-	0.035	179.03	0.00141	-
360	2	-	0.030	769.44	0.00052	-
3611	1	3.28	0.060	74.80	0.0005	85
3612	1	1.4	0.060	31.92	0.0005	85
361	2	-	0.035	438.53	0.0005	-
1801	1	4.62	0.060	126.92	0.0005	85
1802	1	5.4	0.060	148.35	0.0005	85
180	2	-	0.030	364.01	0.00245	-
190	2	-	0.030	405.02	0.0005	-
200	2	-	0.030	194.29	0.00073	-
MAROMA	2	-	0.030	20	0.0005	-

Tabla B7. Continuación.

SEGMENTOS	TIPO DE SEGMENTOS	AREA (hec)	COEFICIENTE DE MANNING (n)	LONGITUD (mts)	PENDIENTE (S)	CN
1101	1	1.5	0.060	62.22	0.0005	85
110	2	-	0.035	241.08	0.00079	-
1201	1	1.57	0.060	128.84	0.0005	85
120	2	-	0.030	121.86	0.0028	-
1301	1	2.76	0.060	157.89	0.0005	85
130	2	-	0.030	174.81	0.0028	-
1401	1	6.24	0.060	163.29	0.0005	85
1402	1	4.19	0.060	109.65	0.0005	85
140	2	-	0.035	382.14	0.0004	-
1501	1	6.80	0.060	233.91	0.0005	85
150	2	-	0.030	290.71	0.00051	-

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**Tabla B8. Datos de entrada para la alternativa 2
(Salida total sector de La Maroma)**

LA GLORIETA

121	2	900.000	15.000	.000				
		0.00	720.00					
		11.08	11.08					
3701	1	83.650	85.00	.000	.001	.170	.550	.000
3702	1	130.480	85.00	.000	.001	.170	.550	.000
37	2	279.730	.00	.000	.001	.030	.550	.000
2	0	1	0	0				
3701	3702							
	3	.419	.600	1.500				
3801	1	181.890	85.00	.000	.001	.170	.550	.000
3802	1	108.220	85.00	.000	.001	.170	.550	.000
38	2	153.390	.00	.000	.002	.030	.550	.000
2	0	1	0	0				
3801	3802							
	3	.258	.600	1.500				
39	2	291.680	.00	.000	.001	.030	.550	.000
0	2	1	0	0				
37	38							
	3	.471	1.000	1.500				
4001	1	143.210	85.00	.000	.001	.170	.550	.000
4002	1	150.580	85.00	.000	.001	.170	.550	.000
40	2	244.390	.00	.000	.001	.030	.550	.000
2	0	1	0	0				
4001	4002							
	3	.453	.600	1.500				
4101	1	130.880	85.00	.000	.001	.170	.550	.000
41	2	195.600	.00	.000	.001	.030	.550	.000
1	0	1	0	0				
4101								
	3	.295	.600	1.500				
4301	1	101.780	85.00	.000	.001	.170	.550	.000
43	2	280.010	.00	.000	.001	.030	.550	.000
1	0	1	0	0				
4301								
	3	.296	.600	1.500				
42	2	294.890	.00	.000	.001	.030	.550	.000
0	3	1	0	0				
39	40	41						
	3	.588	1.000	1.500				

4501	1	130.340	85.00	.000	.001	.170	.550	.000
4502	1	137.010	85.00	.000	.001	.170	.550	.000
45	2	314.570	.00	.000	.001	.030	.550	.000
2	1	1 0	0					
4501	4502							
42	3	.695	1.000	1.500				
4401	1	48.130	85.00	.000	.001	.170	.550	.000
4402	1	38.990	85.00	.000	.001	.170	.550	.000
44	2	361.540	.00	.000	.001	.035	.550	.000
2	0	1 0	0					
4401	4402							
	3	.159	2.000	1.500				
470	2	135.620	.00	.000	.003	.030	.550	.000
0	2	1 0	0					
43	44							
	3	.177	1.500	1.500				
4601	1	129.590	85.00	.000	.001	.170	.550	.000
4602	1	140.020	85.00	.000	.001	.170	.550	.000
46	2	220.690	.00	.000	.001	.030	.550	.000
2	0	1 0	0					
4601	4602							
	3	.421	.600	1.500				
47	2	131.500	.00	.000	.001	.030	.550	.000
0	2	1 0	0					
46	470							
	3	.436	1.500	1.500				
4801	1	102.530	85.00	.000	.001	.170	.550	.000
48	2	298.440	.00	.000	.003	.030	.550	.000
1	0	1 0	0					
4801								
	3	.210	.600	1.500				
4901	1	114.510	85.00	.000	.001	.170	.550	.000
4902	1	126.120	85.00	.000	.001	.170	.550	.000
49	2	301.290	.00	.000	.001	.030	.550	.000
2	2	1 0	0					
4901	4902							
47	48							
	3	.544	1.500	1.500				
50	2	246.760	.00	.000	.001	.030	.550	.000
0	1	1 0	0					
45								
	3	.534	2.000	1.500				

500	2	921.020	.00	.000	.001	.030	.550	.000
0	2	1 0	0					
49	50							
	3	.739	2.000	1.500				
9001	1	298.120	85.00	.000	.0005	.170	.550	.000
9002	1	130.160	85.00	.000	.0005	.170	.550	.000
9000	2	685.298	.00	.000	.0005	.030	.550	.000
2	1	1 0	0					
9001	9002							
500	3	.866	2.000	1.500				
201	1	357.360	85.00	.000	.0005	.170	.550	.000
202	1	55.080	85.00	.000	.0005	.170	.550	.000
20	2	718.890	.00	.000	.0005	.030	.550	.000
2	1	1 0	0					
201	202							
9000	3	.881	2.500	1.500				
30	2	356.680	.00	.000	.0005	.030	.550	.000
0	1	1 0	0					
20	3	.722	1.000	1.500				
401	1	67.210	85.00	.000	.0005	.170	.550	.000
402	1	70.190	85.00	.000	.0005	.170	.550	.000
40	2	403.200	.00	.000	.001	.030	.550	.000
2	0	1 0	0					
401	402							
50	3	.291	.800	1.500				
0	2	401.520	.00	.000	.0005	.030	.550	.000
30	2	1 0	0					
40	3	.690	1.200	1.500				
601	1	69.800	85.00	.000	.0005	.170	.550	.000
60	2	428.380	.00	.000	.0005	.030	.550	.000
1	0	1 0	0					
601	3	.311	.600	1.500				
70	2	189.240	.00	.000	.0005	.030	.550	.000
0	2	1 0	0					
50	60							
801	3	.714	1.200	1.500				
801	1	26.320	85.00	.000	.0005	.170	.550	.000
802	1	30.000	85.00	.000	.0005	.170	.550	.000
80	2	706.670	.00	.000	.003	.030	.550	.000
2	0	1 0	0					
801	802							
	3	.191	.800	1.500				
901	1	49.620	85.00	.000	.0005	.170	.550	.000
902	1	135.220	85.00	.000	.0005	.170	.550	.000
90	2	491.780	.00	.000	.0008	.030	.550	.000
2	0	1 0	0					
901	902							

	3	.402	.800	1.500					
100	2	405.110	.00	.000	.0007	.030	.550	.000	
0	2	1	0	0					
80	90								
	3	.426	1.200	1.500					
1201	1	128.840	85.00	.000	.0005	.170	.550	.000	
120	2	121.860	.00	.000	.0028	.030	.550	.000	
1	0	1	0	0					
1201									
	3	.116	1.000	1.500					
1101	1	62.220	85.00	.000	.0005	.170	.550	.000	
110	2	241.080	.00	.000	.0008	.035	.550	.000	
1	0	1	0	0					
1101									
	2	.248	.000	4.000					
1301	1	157.890	85.00	.000	.0005	.170	.550	.000	
130	2	174.810	.00	.000	.0028	.030	.550	.000	
1	2	1	0	0					
1301									
120	110								
	3	.238	1.000	1.500					
1401	1	163.290	85.00	.000	.0005	.170	.550	.000	
1402	1	109.650	85.00	.000	.0005	.170	.550	.000	
140	2	382.140	.00	.000	.0004	.035	.550	.000	
2	0	1	0	0					
1401	1402								
	2	.515	.000	4.000					
1501	1	233.910	85.00	.000	.0005	.170	.550	.000	
150	2	290.710	.00	.000	.0005	.030	.550	.000	
1	2	1	0	0					
1501									
130	140								
	3	.547	1.500	1.500					
5000	3	0.00	85.00	0.000	0.0005	0.170	0.55	0.00	
0	1	1	0	0					
70									
1601	1	200.730	85.00	.000	.0005	.170	.550	.000	
160	2	427.440	.00	.000	.0007	.030	.550	.000	
1	2	1	0	0					
1601									
100	150								
	3	.704	1.200	1.500					
170	2	17.320	.00	.000	.0007	.030	.550	.000	
0	2	1	0	0					
160	5000								
	3	.895	1.500	1.500					
1801	1	126.920	85.00	.000	.0005	.170	.550	.000	
1802	1	148.350	85.00	.000	.0005	.170	.550	.000	
180	2	364.010	.00	.000	.0025	.030	.550	.000	
2	0	1	0	0					
1801	1802								
	3	.315	.800	1.500					
190	2	405.020	.00	.000	.0005	.030	.550	.000	

0	1	1	0	0					
180									
	3	.475	.800	1.500					
200	2	194.290	.00	.000	.0007	.030	.550	.000	
0	2	1	0	0					
170	190								
	3	.895	1.500	1.500					
3611	1	74.800	85.00	.000	.0005	.170	.550	.000	
3612	1	31.920	85.00	.000	.0005	.170	.550	.000	
361	2	438.530	.00	.000	.0005	.035	.550	.000	
2	0	1	0	0					
3611	3612								
	2	.384	.000	4.000					
2101	1	55.180	85.00	.000	.0005	.170	.550	.000	
2102	1	128.750	85.00	.000	.0005	.170	.550	.000	
210	2	418.650	.00	.000	.0005	.035	.550	.000	
2	0	1	0	0					
2101	2102								
	3	.306	2.000	1.500					
2201	1	50.460	85.00	.000	.0005	.170	.550	.000	
220	2	150.620	.00	.000	.0005	.030	.550	.000	
1	1	1	0	0					
2201									
210									
	3	.469	1.000	1.500					
2301	1	92.870	85.00	.000	.0005	.170	.550	.000	
230	2	269.190	.00	.000	.0005	.030	.550	.000	
1	1	1	0	0					
2301									
220									
	3	.469	1.000	1.500					
2401	1	167.960	85.00	.000	.0005	.170	.550	.000	
2402	1	111.600	85.00	.000	.0005	.170	.550	.000	
240	2	179.210	.00	.000	.0005	.035	.550	.000	
2	0	1	0	0					
2401	2402								
	3	.308	2.000	1.500					
2501	1	120.600	85.00	.000	.0005	.170	.550	.000	
250	2	207.320	.00	.000	.0005	.035	.550	.000	
1	1	1	0	0					
2501									
240									
	3	.308	2.000	1.500					
2601	1	168.070	85.00	.000	.0005	.170	.550	.000	
260	2	248.110	.00	.000	.003	.035	.550	.000	
1	0	1	0	0					
2601									
	3	.132	2.000	1.500					
270	2	96.300	.00	.000	.003	.035	.550	.000	
0	2	1	0	0					
250	260								
	3	.230	2.000	1.500					
5001	3	0.00	85.00	0.000	0.0005	0.170	0.55	0.00	

0	1	1	0	0						
200										
6000	3	0.00	85.00	0.000	0.0005	0.170	0.55	0.00		
0	1	1	0	0						
361										
271	2	144.850	.00	.000	.003	.030	.550		.000	
0	1	1	0	0						
270										
	3	.275	1.200		1.500					
280	2	360.950	.00	.000	.003	.035	.550		.000	
0	2	1	0	0						
230	271									
	3	.389	1.200		1.500					
2901	1	170.810	85.00	.000	.0005	.170	.550		.000	
2902	1	42.700	85.00	.000	.0005	.170	.550		.000	
290	2	285.700	.00	.000	.0008	.035	.550		.000	
2	0	1	0	0						
2901	2902									
	3	.235	2.000		1.500					
3001	1	54.330	85.00	.000	.0005	.170	.550		.000	
3002	1	23.830	85.00	.000	.0005	.170	.550		.000	
300	2	104.920	.00	.000	.001	.035	.550		.000	
2	0	1	0	0						
3001	3002									
	3	.075	2.000		1.500					
3101	1	66.070	85.00	.000	.0005	.170	.550		.000	
310	2	81.730	.00	.000	.001	.035	.550		.000	
1	2	1	0	0						
3101	300									
290	3	.223	2.000		1.500					
3201	1	35.970	85.00	.000	.0005	.170	.550		.000	
3202	1	66.040	85.00	.000	.0005	.170	.550		.000	
320	2	202.920	.00	.000	.001	.035	.550		.000	
2	0	1	0	0						
3201	3202									
	3	.124	2.000		1.500					
3301	1	74.350	85.00	.000	.0005	.170	.550		.000	
3302	1	111.170	85.00	.000	.0005	.170	.550		.000	
330	2	143.920	.00	.000	.001	.035	.550		.000	
2	2	1	0	0						
3301	3302									
310	320									
	3	.284	2.000		1.500					
5002	3	0.00	85.00	0.000	0.0005	0.170	0.55	0.00		
0	1	1	0	0						
5001										
6001	3	0.00	85.00	0.000	0.0005	0.170	0.55	0.00		
0	1	1	0	0						
6000										
6002	3	0.00	85.00	0.000	0.0005	0.170	0.55	0.00		
0	1	1	0	0						
280										

3401	1	161.280	85.00	.000	.0005	.170	.550	.000
3402	1	40.170	85.00	.000	.0005	.170	.550	.000
340	2	161.830	.00	.000	.003	.035	.550	.000
2	0	1	0	0				
3401	3402							
	3	.119	2.000		1.500			
3501	1	55.300	85.00	.000	.0005	.170	.550	.000
3502	1	68.150	85.00	.000	.0005	.170	.550	.000
350	2	179.030	.00	.000	.001	.035	.550	.000
2	2	1	0	0				
3501	3502							
340	330							
	3	.338	2.000		1.500			
360	2	769.440	.00	.000	.0005	.030	.550	.000
0	2	1	0	0				
6002	350							
	3	.673	2.000		1.500			
810	2	20.000	.00	.000	.001	.030	.550	.000
0	3	1	1	0				
360	5002	6001						
	3	.500	2.500		1.500			

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**Tabla B9. Datos de salida para la alternativa 2
(Salida total sector de La Maroma)**

MODELO DE SIMULACION DE EVENTOS

CIDIAT - 1987

LA GLORIETA

HIETOGRAMA DE PRECIPITACION

TIEMPO (MIN)	PRECIPITACION (MM/HR)
.00	11.08
720.00	11.08

ISEG = 3701 TSEG = 1 DT = 1.3631 NDX = 29 THETA = .55 IMPS = .00 LONG = 83.650
 CN = 85.00 SS = .0010 NN = .1700 PROF = .0931 VMAX = .03 QMAX = .00317
 PT = 133.0 PEPEC = 91.1 COEF = .68

ISEG = 3702 TSEG = 1 DT = 2.1262 NDX = 30 THETA = .55 IMPS = .00 LONG = 130.480
 CN = 85.00 SS = .0010 NN = .1700 PROF = .0931 VMAX = .03 QMAX = .00317
 PT = 133.0 PEPEC = 91.1 COEF = .68

ISEG = 37 TSEG = 2 DT = .4532 NDX = 25 THETA = .55 LONG = 279.730
 TSEC = 3 SS = .0010 NN = .0300 BB = .60 PT = 1.5000
 PROF = .4190 VMAX = .41 QMAX = .21179
 NO HAY APORTES AGUAS ARRIBA
 LAT = 3701 LAT = 3702
 SEGMENTO = 37 TPICO = 719.299 MIN. QPICO = .1694 M3/SEG
 ESCOR = .005287 MILLONES DE METROS CUBICOS

ISEG = 3801 TSEG = 1 DT = 2.9639 NDX = 29 THETA = .55 IMPS = .00 LONG = 181.890
CN = 85.00 SS = .0010 NN = .1700 PROF = .0931 VMAX = .03 QMAX = .00317
PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 3802 TSEG = 1 DT = 1.7634 NDX = 29 THETA = .55 IMPS = .00 LONG = 108.220
CN = 85.00 SS = .0010 NN = .1700 PROF = .0931 VMAX = .03 QMAX = .00317
PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 38 TSEG = 2 DT = .4795 NDX = 11 THETA = .55 LONG = 153.390
TSEC = 3 SS = .0020 NN = .0300 BB = 1.00 PT = 1.5000
PROF = .2580 VMAX = .48 QMAX = .17344
NO HAY APORTES AGUAS ARRIBA
LAT = 3801 LAT = 3802

SEGMENTO = 38 TPICO = 719.276 MIN. QPICO = .1256 M3/SEG
ESCOR = .003880 MILLONES DE METROS CUBICOS

ISEG = 39 TSEG = 2 DT = .4505 NDX = 22 THETA = .55 LONG = 291.680
TSEC = 3 SS = .0010 NN = .0300 BB = 1.00 PT = 1.5000
PROF = .4710 VMAX = .47 QMAX = .37790
UP = 37 UP = 38 UP =
NO HAY APORTES LATERALES

SEGMENTO = 39 TPICO = 726.126 MIN. QPICO = .2950 M3/SEG
ESCOR = .009117 MILLONES DE METROS CUBICOS

ISEG = 4001 TSEG = 1 DT = 2.3336 NDX = 30 THETA = .55 IMPS = .00 LONG = 143.210
CN = 85.00 SS = .0010 NN = .1700 PROF = .0931 VMAX = .03 QMAX = .00317
PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 4002 TSEG = 1 DT = 2.4537 NDX = 29 THETA = .55 IMPS = .00 LONG = 150.580
CN = 85.00 SS = .0010 NN = .1700 PROF = .0931 VMAX = .03 QMAX = .00317
PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 40 TSEG = 2 DT = .4522 NDX = 21 THETA = .55 LONG = 244.390

TSEC = 3 SS = .0010 NN = .0300 BB = .60 PT = 1.5000

PROF = .4530 VMAX = .43 QMAX = .24858

NO HAY APORTES AGUAS ARRIBA

LAT = 4001 LAT = 4002

SEGMENTO = 40 TPICO = 719.075 MIN. QPICO = .2027 M3/SEG
ESCOR = .006265 MILLONES DE METROS CUBICOS

ISEG = 4101 TSEG = 1 DT = 2.1327 NDX = 30 THETA = .55 IMPS = .00 LONG = 130.880

CN = 85.00 SS = .0010 NN = .1700 PROF = .0931 VMAX = .03 QMAX = .00317

PT = 133.0 PEPEC = 91.1 COEF = .68

ISEG = 41 TSEG = 2 DT = .4538 NDX = 21 THETA = .55 LONG = 195.600

TSEC = 3 SS = .0010 NN = .0300 BB = .60 PT = 1.5000

PROF = .2950 VMAX = .34 QMAX = .10520

NO HAY APORTES AGUAS ARRIBA

LAT = 4101 LAT =

SEGMENTO = 41 TPICO = 719.325 MIN. QPICO = .0723 M3/SEG
ESCOR = .002243 MILLONES DE METROS CUBICOS

ISEG = 4301 TSEG = 1 DT = 1.6585 NDX = 30 THETA = .55 IMPS = .00 LONG = 101.780

CN = 85.00 SS = .0010 NN = .1700 PROF = .0931 VMAX = .03 QMAX = .00317

PT = 133.0 PEPEC = 91.1 COEF = .68

ISEG = 43 TSEG = 2 DT = .4540 NDX = 30 THETA = .55 LONG = 280.010

TSEC = 3 SS = .0010 NN = .0300 BB = .60 PT = 1.5000

PROF = .2960 VMAX = .34 QMAX = .10589

NO HAY APORTES AGUAS ARRIBA

LAT = 4301 LAT =

SEGMENTO = 43 TPICO = 720.000 MIN. QPICO = .0807 M3/SEG
ESCOR = .002522 MILLONES DE METROS CUBICOS

ISEG = 42 TSEF = 2 DT = .4653 NDX = 20 THETA = .55 LONG = 294.890

TSEC = 3 SS = .0010 NN = .0300 BB = 1.00 PT = 1.5000

PROF = .5880 VMAX = .53 QMAX = .58447

UP = 39 UP = 40 UP = 41 UP =

NO HAY APORTES LATERALES

SEGMENTO = 42 TPICO = 726.299 MIN. QPICO = .5695 M3/SEG
ESCOR = .017541 MILLONES DE METROS CUBICOS

ISEG = 4501 TSEG = 1 DT = 2.1239 NDX = 29 THETA = .55 IMPS = .00 LONG = 130.340

CN = 85.00 SS = .0010 NN = .1700 PROF = .0931 VMAX = .03 QMAX = .00317

PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 4502 TSEG = 1 DT = 2.2326 NDX = 30 THETA = .55 IMPS = .00 LONG = 137.010

CN = 85.00 SS = .0010 NN = .1700 PROF = .0931 VMAX = .03 QMAX = .00317

PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 45 TSEG = 2 DT = .4544 NDX = 20 THETA = .55 LONG = 314.570

TSEC = 3 SS = .0010 NN = .0300 BB = 1.00 PT = 1.5000

PROF = .6950 VMAX = .58 QMAX = .81895

UP = 42 UP =

LAT = 4501 LAT = 4502

SEGMENTO = 45 TPICO = 720.200 MIN. QPICO = .8056 M3/SEG
ESCOR = .024824 MILLONES DE METROS CUBICOS

ISEG = 4401 TSEG = 1 DT = .7843 NDX = 29 THETA = .55 IMPS = .00 LONG = 48.130

CN = 85.00 SS = .0010 NN = .1700 PROF = .0931 VMAX = .03 QMAX = .00317

PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 4402 TSEG = 1 DT = .6353 NDX = 29 THETA = .55 IMPS = .00 LONG = 38.990
CN = 85.00 SS = .0010 NN = .1700 PROF = .0931 VMAX = .03 QMAX = .00317
PT = 133.0 PEPEC = 91.1 COEF = .68

ISEG = 44 TSEG = 2 DT = .4531 NDX = 29 THETA = .55 LONG = 361.540
TSEC = 3 SS = .0010 NN = .0350 BB = 2.00 PT = 1.5000
PROF = .5000 VMAX = .46 QMAX = .63052
NO HAY APORTES AGUAS ARRIBA
LAT = 4401 LAT = 4402

SEGMENTO = 44 TPICO = 720.000 MIN. QPICO = .0895 M3/SEG
ESCOR = .002837 MILLONES DE METROS CUBICOS

ISEG = 470 TSEG = 2 DT = .5077 NDX = 5 THETA = .55 LONG = 135.620
TSEC = 3 SS = .0030 NN = .0300 BB = 1.50 PT = 1.5000
PROF = .5000 VMAX = .89 QMAX = 1.00178
UP = 13 UP = 44 UP =
NO HAY APORTES LATERALES

SEGMENTO = 470 TPICO = 721.908 MIN. QPICO = .1701 M3/SEG
ESCOR = .005350 MILLONES DE METROS CUBICOS

ISEG = 4601 TSEG = 1 DT = 2.1117 NDX = 30 THETA = .55 IMPS = .00 LONG = 129.590
CN = 85.00 SS = .0010 NN = .1700 PROF = .0931 VMAX = .03 QMAX = .00317
PT = 133.0 PEPEC = 91.1 COEF = .68

ISEG = 4602 TSEG = 1 DT = 2.2816 NDX = 30 THETA = .55 IMPS = .00 LONG = 140.020
CN = 85.00 SS = .0010 NN = .1700 PROF = .0931 VMAX = .03 QMAX = .00317
PT = 133.0 PEPEC = 91.1 COEF = .68

ISEG = 46 TSEG = 2 DT = .4693 NDX = 19 THETA = .55 LONG = 220.690
TSEC = 3 SS = .0010 NN = .0300 BB = .60 PT = 1.5000
PROF = .4210 VMAX = .41 QMAX = .21386
NO HAY APORTES AGUAS ARRIBA

LAT = 4601 LAT = 4602

SEGMENTO = 46 TPICO = 719.461 MIN. QPICO = .1681 M3/SEG
ESCOR = .005208 MILLONES DE METROS CUBICOS

ISEG = 47 TSEG = 2 DT = .4582 NDX = 10 THETA = .55 LONG = 131.500

TSEC = 3 SS = .0010 NN = .0300 BB = 1.50 PT = 1.5000

PROF = .4360 VMAX = .48 QMAX = .44924

UP = 46 UP = 470 UP =

NO HAY APORTES LATERALES

SEGMENTO = 47 TPICO = 722.990 MIN. QPICO = .3381 M3/SEG
ESCOR = .010534 MILLONES DE METROS CUBICOS

ISEG = 4801 TSEG = 1 DT = 1.6707 NDX = 30 THETA = .55 IMPS = .00 LONG = 102.530

CN = 85.00 SS = .0010 NN = .1700 PROF = .0931 VMAX = .03 QMAX = .00317

PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 48 TSEG = 2 DT = .4559 NDX = 22 THETA = .55 LONG = 298.440

TSEC = 3 SS = .0030 NN = .0300 BB = .60 PT = 1.5000

PROF = .2100 VMAX = .50 QMAX = .09530

NO HAY APORTES AGUAS ARRIBA

LAT = 4801 LAT =

SEGMENTO = 48 TPICO = 719.820 MIN. QPICO = .0866 M3/SEG
ESCOR = .002710 MILLONES DE METROS CUBICOS

ISEG = 4901 TSEG = 1 DT = 1.8659 NDX = 30 THETA = .55 IMPS = .00 LONG = 114.510

CN = 85.00 SS = .0010 NN = .1700 PROF = .0931 VMAX = .03 QMAX = .00317

PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 4902 TSEG = 1 DT = 2.0551 NDX = 30 THETA = .55 IMPS = .00 LONG = 126.120

CN = 85.00 SS = .0010 NN = .1700 PROF = .0931 VMAX = .03 QMAX = .00317

PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 49 TSEG = 2 DT = .4672 NDX = 20 THETA = .55 LONG = 301.290
TSEC = 3 SS = .0010 NN = .0300 BB = 1.50 PT = 1.5000
PROF = .5440 VMAX = .54 QMAX = .67702
UP = 47 UP = 48 UP =
LAT = 4901 LAT = 4902

SEGMENTO = 49 TPICO = 720.013 MIN. QPICO = .6289 M3/SEG
ESCOR = .019565 MILLONES DE METROS CUBICOS

ISEG = 50 TSEG = 2 DT = .4640 NDX = 16 THETA = .55 LONG = 246.760
TSEC = 3 SS = .0010 NN = .0300 BB = 2.00 PT = 1.5000
PROF = .5340 VMAX = .55 QMAX = .82867
UP = 45 UP =

NO HAY APORTES LATERALES

SEGMENTO 50 TPICO = 725.163 MIN. QPICO = .8054 M3/SEG
ESCOR = .024710 MILLONES DE METROS CUBICOS

ISEG = 500 TSEG = 2 DT = .8052 NDX = 29 THETA = .55 LONG = 921.020
TSEC = 3 SS = .0010 NN = .0300 BB = 2.00 PT = 1.5000
PROF = .7390 VMAX = .66 QMAX = 1.51008
UP = 49 UP = 50 UP =

NO HAY APORTES LATERALES

SEGMENTO 500 TPICO = 737.583 MIN. QPICO = 1.4326 M3/SEG
ESCOR = .043628 MILLONES DE METROS CUBICOS

ISEG = 9001 TSEG = 1 DT = 6.8700 NDX = 29 THETA = .55 IMPS = .00 LONG = 298.120
CN = 85.00 SS = .0005 NN = .1700 PROF = .0931 VMAX = .02 QMAX = .00224
PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 9002 TSEG = 1 DT = 2.9995 NDX = 30 THETA = .55 IMPS = .00 LONG = 130.160
CN = 85.00 SS = .0005 NN = .1700 PROF = .0931 VMAX = .02 QMAX = .00224

PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 9000 TSEG = 2 DT = .6772 NDX = 30 THETA = .55 LONG = 685.298

TSEC = 3 SS = .0005 NN = .0300 BB = 2.50 PT = 1.5000

PROF = 1.0000 VMAX = .56 QMAX = 2.24895

UP = 500 UP =

LAT = 9001 LAT = 9002

SEGMENTO = 9000 TPICO = 721.846 MIN. QPICO = 2.2391 M3/SEG
ESCOR = .066406 MILLONES DE METROS CUBICOS

ISEG = 201 TSEG = 1 DT = 8.2352 NDX = 29 THETA = .55 IMPS = .00 LONG = 357.360

CN = 85.00 SS = .0005 NN = .1700 PROF = .0931 VMAX = .02 QMAX = .00224

PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 202 TSEG = 1 DT = 1.2693 NDX = 29 THETA = .55 IMPS = .00 LONG = 55.080

CN = 85.00 SS = .0005 NN = .1700 PROF = .0931 VMAX = .02 QMAX = .00224

PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 20 TSEG = 2 DT = .6458 NDX = 30 THETA = .55 LONG = 718.890

TSEC = 3 SS = .0005 NN = .0300 BB = 2.50 PT = 1.5000

PROF = 1.2000 VMAX = .62 QMAX = 3.19135

UP = 9000 UP =

LAT = 201 LAT = 202

SEGMENTO = 20 TPICO = 721.951 MIN. QPICO = 3.0499 M3/SEG
ESCOR = .087854 MILLONES DE METROS CUBICOS

ISEG = 30 TSEG = 2 DT = .4577 NDX = 21 THETA = .55 LONG = 356.680

TSEC = 3 SS = .0005 NN = .0300 BB = 2.50 PT = 1.5000

PROF = 1.2000 VMAX = .62 QMAX = 3.19135

UP = 20 UP =

NO HAY APORTES LATERALES

SEGMENTO = 30 TPICO = 729.121 MIN. QPICO = 3.0495 M3/SEG
ESCOR = .086969 MILLONES DE METROS CUBICOS

ISEG = 401 TSEG = 1 DT = 1.5488 NDX = 29 THETA = .55 IMPS = .00 LONG = 67.210
CN = 85.00 SS = .0005 NN = .1700 PROF = .0931 VMAX = .02 QMAX = .00224
PT = 133.0 PEPEC = 91.1 COEF = .68

ISEG = 402 TSEG = 1 DT = 1.6175 NDX = 30 THETA = .55 IMPS = .00 LONG = 70.190
CN = 85.00 SS = .0005 NN = .1700 PROF = .0931 VMAX = .02 QMAX = .00224
PT = 133.0 PEPEC = 91.1 COEF = .68

ISEG = 40 TSEG = 2 DT = .4777 NDX = 29 THETA = .55 LONG = 403.200
TSEC = 3 SS = .0010 NN = .0300 BB = 1.00 PT = 1.5000
PROF = 5000 VMAX = .49 QMAX = .42445

NO HAY APORTES AGUAS ARRIBA

LAT = 401 LAT = 402

SEGMENTO = 40 TPICO = 719.881 MIN. QPICO = .1568 M3/SEG
ESCOR = .004910 MILLONES DE METROS CUBICOS

ISEG = 50 TSEG = 2 DT = .4583 NDX = 21 THETA = .55 LONG = 401.520
TSEC = 3 SS = .0005 NN = .0300 BB = 2.50 PT = 1.5000
PROF = 1.5000 VMAX = .70 QMAX = 4.95392

UP = 30 UP = 40 UP =

NO HAY APORTES LATERALES

SEGMENTO = 50 TPICO = 733.319 MIN. QPICO = 3.2025 M3/SEG
ESCOR = .090792 MILLONES DE METROS CUBICOS

ISEG = 601 TSEG = 1 DT = 1.6085 NDX = 29 THETA = .55 IMPS = .00 LONG = 69.800
CN = 85.00 SS = .0005 NN = .1700 PROF = .0931 VMAX = .02 QMAX = .00224

PI = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 60 TSEG = 2 DT = .8912 NDX = 30 THETA = .55 LONG = 428.380

TSEC = 3 SS = .0005 NN = .0300 BB = 1.00 PT = 1.5000

PROF = .3100 VMAX = .27 QMAX = .12128

NO HAY APORTES AGUAS ARRIBA

LAT = 601 LAT =

SEGMENTO = 60 TPICO = 720.089 MIN. QPICO = .0846 M3/SEG

ESCOR = .002642 MILLONES DE METROS CUBICOS

ISEG = 70 TSEG = 2 DT = .4536 NDX = 10 THETA = .55 LONG = 189.240

TSEC = 3 SS = .0005 NN = .0300 BB = 2.50 PT = 1.5000

PROF = 1.5000 VMAX = .70 QMAX = 4.95392

UP = 50 UP = 60 UP =

NO HAY APORTES LATERALES

SEGMENTO = 70 TPICO = 734.874 MIN. QPICO = 3.2836 M3/SEG

ESCOR = .092926 MILLONES DE METROS CUBICOS

ISEG = 801 TSEG = 1 DT = .6065 NDX = 30 THETA = .55 IMPS = .00 LONG = 26.320

CN = 85.00 SS = .0005 NN = .1700 PROF = .0931 VMAX = .02 QMAX = .00224

PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 802 TSEG = 1 DT = .6913 NDX = 29 THETA = .55 IMPS = .00 LONG = 30.000

CN = 85.00 SS = .0005 NN = .1700 PROF = .0931 VMAX = .02 QMAX = .00224

PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 80 TSEG = 2 DT = .7773 NDX = 30 THETA = .55 LONG = 706.670

TSEC = 3 SS = .0030 NN = .0300 BB = 1.00 PT = 1.5000

PROF = .1910 VMAX = .51 QMAX = .12411

NO HAY APORTES AGUAS ARRIBA

LAT = 801 LAT = 802

SEGMENTO = 80 TPICO = 719.755 MIN. QPICO = .1131 M3/SEG
ESCOR = .003589 MILLONES DE METROS CUBICOS

ISEG = 901 TSEG = 1 DT = 1.1435 NDX = 29 THETA = .55 IMPS = .00 LONG = 49.620
CN = 85.00 SS = .0005 NN = .1700 PROF = .0931 VMAX = .02 QMAX = .00224
PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 902 TSEG = 1 DT = 3.1161 NDX = 29 THETA = .55 IMPS = .00 LONG = 135.220
CN = 85.00 SS = .0005 NN = .1700 PROF = .0931 VMAX = .02 QMAX = .00224
PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 90 TSEG = 2 DT = .6514 NDX = 29 THETA = .55 LONG = 491.780
TSEC = 3 SS = .0008 NN = .0300 BB = 1.00 PT = 1.5000
PROF = .5000 VMAX = .43 QMAX = .37964

NO HAY APORTES AGUAS ARRIBA

LAT = 901 LAT = 902

SEGMENTO = 90 TPICO = 720.457 MIN. QPICO = .2563 M3/SEG
ESCOR = .007869 MILLONES DE METROS CUBICOS

ISEG = 100 TSEG = 2 DT = .4546 NDX = 27 THETA = .55 LONG = 405.110
TSEC = 3 SS = .0007 NN = .0300 BB = 1.50 PT = 1.5000
PROF = .8000 VMAX = .55 QMAX = 1.18825

UP = 80 UP = 90 UP =

NO HAY APORTES LATERALES

SEGMENTO = 100 TPICO = 730.501 MIN. QPICO = .3692 M3/SEG
ESCOR = .011358 MILLONES DE METROS CUBICOS

ISEG = 1201 TSEG = 1 DT = 2.9691 NDX = 29 THETA = .55 IMPS = .00 LONG = 128.840
CN = 85.00 SS = .0005 NN = .1700 PROF = .0931 VMAX = .02 QMAX = .00224
PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 120 TSEG = 2 DT = .4576 NDX = 12 THETA = .55 LONG = 121.860

ISEG = 3 SS = .0028 NN = .0300 BB = 1.00 PT = 1.5000

PROF = .1160 VMAX = .37 QMAX = .05037

NO HAY APORTES AGUAS ARRIBA

LAT = 1201 LAT =

SEGMIENTO = 120 TPICO = 718.898 MIN. QPICO = .0443 M3/SEG
ESCOR = .001355 MILLONES DE METROS CUBICOS

ISEG = 1101 TSEG = 1 DT = 1.4338 NDX = 29 THETA = .55 IMPS = 0 LONG = 62.220

CN = 85.00 SS = .0005 NN = .1700 PROF = .0931 VMAX = .02 QMAX = .00224

PT = 133.0 PEFFEC = 91.1 COEF = .68

ISEG = 110 TSEG = 2 DT = .7036 NDX = 29 THETA = .55 LONG = 291.080

TSEC = 2 SS = .0008 NN = .0350 BB = .00 PT = 4.0000

PROF = .2480 VMAX = .20 QMAX = .04845
NO HAY APORTES AGUAS ARRIBA

LAT = 1101 LAT =

SEGMIENTO = 110 TPICO = 719.740 MIN. QPICO = .0425 M3/SEG
ESCOR = .001335 MILLONES DE METROS CUBICOS

ISEG = 1301 TSEG = 1 DT = 3.6385 NDX = 29 THETA = .55 IMPS = 0 LONG = 157.890

CN = 85.00 SS = .0005 NN = .1700 PROF = .0931 VMAX = .02 QMAX = .00224

PT = 133.0 PEFFEC = 91.1 COEF = .68

ISEG = 130 TSEG = 2 DT = .4821 NDX = 11 THETA = .55 LONG = 171.810

TSEC = 3 SS = .0028 NN = .0300 BB = 1.00 PT = 1.5000

PROF = .2380 VMAX = .55 QMAX = .17742

UP = 120 UP = 110 UP =

LAT = 1301 LAT =

SEGMIENTO = 130 TPICO = 718.880 MIN. QPICO = .1642 M3/SEG
ESCOR = .005027 MILLONES DE METROS CUBICOS

ISEG = 1401 TSEG = 1 DT = 3.7629 NDX = 29 THETA = .55 IMPS = .00 LONG = 163.290
CN = 85.00 SS = .0005 NN = .1700 PROF = .0931 VMAX = .02 QMAX = .00224
PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 1402 TSEG = 1 DT = 2.5268 NDX = 30 THETA = .55 IMPS = .00 LONG = 109.650
CN = 85.00 SS = .0005 NN = .1700 PROF = .0931 VMAX = .02 QMAX = .00224
PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 140 TSEG = 2 DT = .6983 NDX = 30 THETA = .55 LONG = 382.140
TSEC = 2 SS = .0004 NN = .0350 BB = .00 PT = 4.0000
PROF = .8000 VMAX = .30 QMAX = .77827

NO HAY APORTES AGUAS ARRIBA

LAT = 1401 LAT = 1402

SEGMENTO = 140 TPICO = 719.976 MIN. QPICO = .2930 M3/SEG
ESCOR = .008860 MILLONES DE METROS CUBICOS

ISEG = 1501 TSEG = 1 DT = 5.3903 NDX = 30 THETA = .55 IMPS = .00 LONG = 233.910
CN = 85.00 SS = .0005 NN = .1700 PROF = .0931 VMAX = .02 QMAX = .00224
PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 150 TSEG = 2 DT = .4531 NDX = 23 THETA = .55 LONG = 290.710
TSEC = 3 SS = .0005 NN = .0300 BB = 1.50 PT = 1.5000
PROF = .8000 VMAX = .46 QMAX = 1.00425

UP = 130 UP = 140 UP =

LAT = 1501 LAT =

SEGMENTO = 150 TPICO = 719.972 MIN. QPICO = .6458 M3/SEG
ESCOR = .019242 MILLONES DE METROS CUBICOS

ISEG = 5000 TSEG = 3 DT = .4536

UP = 70 UP =

SEGMENTO = 5000 TPICO = 734.874 MIN. QPICO = 3.2836 M3/SEG
ESCOR = .092926 MILLONES DE METROS CUBICOS

ISEG = 1601 TSEG = 1 DT = 4.6257 NDX = 29 THETA = .55 IMPS = .00 LONG = 200.730
CN = 85.00 SS = .0005 NN = .1700 PROF = .0931 VMAX = .02 QMAX = .00224
PT = 133.0 PEFFC = 91.1 COEF = .68

ISEG = 160 TSEG = 2 DT = .4599 NDX = 28 THETA = .55 LONG = 1.440
TSEC = 3 SS = .0007 NN = .0300 BB = 2.50 PT = 1.5000
PROF = .7040 VMAX = .55 QMAX = 1.38504
UP = 100 UP = 150 UP =
LAT = 1601 LAT =

SEGMENTO = 160 TPICO = 722.003 MIN. QPICO = 1.2521 M3/SEG
ESCOR = .037376 MILLONES DE METROS CUBICOS

ISEG = 170 TSEG = 2 DT = .4811 NDX = 6 THETA = .55 LONG = 1.320
TSEC = 3 SS = .0007 NN = .0300 BB = 3.00 PT = 1.5000
PROF = 1.5000 VMAX = .10 QMAX = 6.64822
UP = 160 UP = 5000 UP =
NO HAY APORTES LATERALES

SEGMENTO = 170 TPICO = 727.440 MIN. QPICO = 4.5295 M3/SEG
ESCOR = .130207 MILLONES DE METROS CUBICOS

ISEG = 1801 TSEG = 1 DT = 2.9248 NDX = 29 THETA = .55 IMPS = .00 LONG = 126.920
CN = 85.00 SS = .0005 NN = .1700 PROF = .0931 VMAX = .02 QMAX = .00224
PT = 133.0 PEFFC = 91.1 COEF = .68

ISEG = 1802 TSEG = 1 DT = 3.4187 NDX = 30 THETA = .55 IMPS = .00 LONG = 148.350

CN = 85.00 SS = .0005 NN = .1700 PROF = .0931 VMAX = .02 QMAX = .00224

PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 180 TSEG = 2 DT = .4653 NDX = 17 THETA = .55 LONG = 364.010

TSEC = 3 SS = .0025 NN = .0300 BB = 1.00 PT = 1.5000

PROF = .5000 VMAX = .77 QMAX = .67112

NO HAY APORTES AGUAS ARRIBA

LAT = 1801 LAT = 1802

SEGMENTO = 180 TPICO = 718.866 MIN. QPICO = .2820 M3/SEG
ESCOR = .008569 MILLONES DE METROS CUBICOS

ISEG = 190 TSEG = 2 DT = .6560 NDX = 30 THETA = .55 LONG = 405.020

TSEC = 3 SS = .0005 NN = .0300 BB = 1.00 PT = 1.5000

PROF = .5000 VMAX = .34 QMAX = .30013

UP = 180 UP =

NO HAY APORTES LATERALES

SEGMENTO = 190 TPICO = 732.082 MIN. QPICO = .2818 M3/SEG
ESCOR = .008449 MILLONES DE METROS CUBICOS

ISEG = 200 TSEG = 2 DT = .4795 NDX = 8 THETA = .55 LONG = 194.290

TSEC = 3 SS = .0007 NN = .0300 BB = 3.00 PT = 1.5000

PROF = 1.5000 VMAX = .84 QMAX = 6.64822

UP = 170 UP = 190 UP =

NO HAY APORTES LATERALES

SEGMENTO = 200 TPICO = 731.180 MIN. QPICO = 4.8109 M3/SEG
ESCOR = .138078 MILLONES DE METROS CUBICOS

ISEG = 3611 TSEG = 1 DT = 1.7237 NDX = 29 THETA = .55 IMPS = .00 LONG = 74.800

CN = 85.00 SS = .0005 NN = .1700 PROF = .0931 VMAX = .02 QMAX = .00224

PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 3612 TSEG = 1 DT = .7356 NDX = 29 THETA = .55 IMPS = 0 LONG = 31.920
CN = 85.00 SS = .0005 NN = .1700 PROF = .0931 VMAX = .02 QMAX = .00224
PT = 133.0 PEPEC = 91.1 COEF = .68

ISEG = 361 TSEG = 2 DT = .7168 NDX = 30 THETA = .55 LONG = 11.530
TSEC = 2 SS = .0005 NN = .0350 BB = .00 PT = 4.0000
PROF = .8000 VMAX = .34 QMAX = .87013

NO HAY APORTES AGUAS ARRIBA

LAT = 3611 LAT = 3612

SEGMEN TO = 361 TPICO = 720.356 MIN. QPICO = .1324 M3/SRQ
ESCOR = .004153 MILLONES DE METROS CUBICOS

ISEG = 2101 TSEG = 1 DT = 1.2716 NDX = 29 THETA = .55 IMPS = 0 LONG = 55.180
CN = 85.00 SS = .0005 NN = .1700 PROF = .0931 VMAX = .02 QMAX = .00224
PT = 133.0 PEPEC = 91.1 COEF = .68

ISEG = 2102 TSEG = 1 DT = 2.9670 NDX = 30 THETA = .55 IMPS = 0 LONG = 128.750
CN = 85.00 SS = .0005 NN = .1700 PROF = .0931 VMAX = .02 QMAX = .00224
PT = 133.0 PEPEC = 91.1 COEF = .68

ISEG = 210 TSEG = 2 DT = .5793 NDX = 29 THETA = .55 LONG = 11.650
TSEC = 3 SS = .0005 NN = .0350 BB = 2.00 PT = 1.5000
PROF = .8000 VMAX = .42 QMAX = 1.06318

NO HAY APORTES AGUAS ARRIBA

LAT = 2101 LAT = 2102

SEGMEN TO = 210 TPICO = 719.544 MIN. QPICO = .2170 M3/SRQ
ESCOR = .006649 MILLONES DE METROS CUBICOS

ISEG = 2201 TSEG = 1 DT = 1.1628 NDX = 29 THETA = .55 IMPS = 0 LONG = 50.460
CN = 85.00 SS = .0005 NN = .1700 PROF = .0931 VMAX = .02 QMAX = .00224

PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 220 TSEG = 2 DT = .4730 NDX = 16 THETA = .55 LONG = 150.620

TSEC = 3 SS = .0005 NN = .0300 BB = 1.00 PT = 1.5000

PROF = .4690 VMAX = .33 QMAX = .26502

UP = 210 UP =

LAT = 2201 LAT =

SEGMENTO = 220 TPICO = 720.832 MIN. QPICO = .2383 M3/SEG
ESCOR = .007299 MILLONES DE METROS CUBICOS

ISEG = 2301 TSEG = 1 DT = 2.1401 NDX = 29 THETA = .55 IMPS = .00 LONG = 92.870

CN = 85.00 SS = .0005 NN = .1700 PROF = .0931 VMAX = .02 QMAX = .00224

PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 230 TSEG = 2 DT = .4545 NDX = 27 THETA = .55 LONG = 269.190

TSEC = 3 SS = .0005 NN = .0300 BB = 2.00 PT = 1.5000

PROF = .4690 VMAX = .37 QMAX = .46355

UP = 220 UP =

LAT = 2301 LAT =

SEGMENTO = 230 TPICO = 720.856 MIN. QPICO = .3084 M3/SEG
ESCOR = .009423 MILLONES DE METROS CUBICOS

ISEG = 2401 TSEG = 1 DT = 3.8706 NDX = 29 THETA = .55 IMPS = .00 LONG = 167.960

CN = 85.00 SS = .0005 NN = .1700 PROF = .0931 VMAX = .02 QMAX = .00224

PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 2402 TSEG = 1 DT = 2.5718 NDX = 29 THETA = .55 IMPS = .00 LONG = 111.600

CN = 85.00 SS = .0005 NN = .1700 PROF = .0931 VMAX = .02 QMAX = .00224

PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 240 TSEG = 2 DT = .4608 NDX = 26 THETA = .55 LONG = 192.210

TSEC = 3 SS = .0005 NN = .0350 BB = 2.00 PT = 1.5000

PROF = .3080 VMAX = .25 QMAX = .18906

NO HAY APORTES AGUAS ARRIBA

LAT = 2401 LAT = 2402

SEGMENTO = 240 TPICO = 720.184 MIN. QPICO = .1410 M3/SEG
ESCOR = .004270 MILLONES DE METROS CUBICOS

ISEG = 2501 TSEG = 1 DT = 2.7792 NDX = 30 THETA = .55 IMPS = 0 LONG = 120.600

CN = 85.00 SS = .0005 NN = .1700 PROF = .0931 VMAX = .02 QMAX = .00224

PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 250 TSEG = 2 DT = .4633 NDX = 23 THETA = .55 LONG = 201.320

TSEC = 3 SS = .0005 NN = .0350 BB = 2.00 PT = 1.5000

PROF = .5000 VMAX = .32 QMAX = .44585

UP = 240 UP =

LAT = 2501 LAT =

SEGMENTO = 250 TPICO = 720.459 MIN. QPICO = .2111 M3/SEG
ESCOR = .006380 MILLONES DE METROS CUBICOS

ISEG = 2601 TSEG = 1 DT = 3.8731 NDX = 30 THETA = .55 IMPS = 00 LONG = 168.070

CN = 85.00 SS = .0005 NN = .1700 PROF = .0931 VMAX = .02 QMAX = .00224

PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 260 TSEG = 2 DT = .4733 NDX = 11 THETA = .55 LONG = 248.110

TSEC = 3 SS = .0030 NN = .0350 BB = 2.00 PT = 1.5000

PROF = .5000 VMAX = .79 QMAX = 1.09210

NO HAY APORTES AGUAS ARRIBA

LAT = 2601 LAT =

SEGMENTO = 260 TPICO = 718.951 MIN. QPICO = .1170 M3/SEG

ESCOR = .003493 MILLONES DE METROS CUBICOS

ISEG = 270 TSEG = 2 DT = .5350 NDX = 30 THETA = .55 LONG = 96.300

TSEC = 3 SS = .0030 NN = .0350 BB = 2.00 PT = 1.5000

PROF = .5000 VMAX = .10 QMAX = 1.09210

UP = 250 UP = 260 UP =

NO HAY APORTES LATERALES

SEGMENTO = 270 TPICO = 722.785 MIN. QPICO = .3281 M3/SEG

ESCOR = .009847 MILLONES DE METROS CUBICOS

ISEG = 5001 TSEG = 3 DT = .4795

UP = 200 UP =

SEGMENTO = 5001 TPICO = 731.180 MIN. QPICO = 4.8109 M3/SEG

ESCOR = .138078 MILLONES DE METROS CUBICOS

ISEG = 6000 TSEG = 3 DT = .7168

UP = 361 UP =

SEGMENTO = 6000 TPICO = 720.356 MIN. QPICO = .1324 M3/SEG

ESCOR = .004153 MILLONES DE METROS CUBICOS

ISEG = 271 TSEG = 2 DT = .4511 NDX = 8 THETA = .55 LONG = 144.850

TSEC = 3 SS = .0030 NN = .0300 BB = 2.00 PT = 1.5000

PROF = .2750 VMAX = .67 QMAX = .44379

UP = 270 UP =

NO HAY APORTES LATERALES

SEGMENTO = 271 TPICO = 725.418 MIN. QPICO = .3280 M3/SEG

ESCOR = .009814 MILLONES DE METROS CUBICOS

ISEG = 280 TSEG = 2 DT = .4562 NDX = 19 THETA = .55 LONG = 360.950

TSEC = 3 SS = .0030 NN = .0350 BB = 2.00 PT = 1.5000

PROF = .3890 VMAX = .69 QMAX = .69751

UP = 230 UP = 271 UP =

NO HAY APORTES LATERALES

SEGMENTO = 280 TPICO = 728.086 MIN. QPICO = .6362 M3/SEG
ESCOR = .019107 MILLONES DE METROS CUBICOS

ISEG = 2901 TSEG = 1 DT = 3.9362 NDX = 30 THETA = .55 IMPS = .00 LONG = 170.810

CN = 85.00 SS = .0005 NN = .1700 PROF = .0931 VMAX = .02 QMAX = .00224

PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 2902 TSEG = 1 DT = .9840 NDX = 30 THETA = .55 IMPS = .00 LONG = 42.700

CN = 85.00 SS = .0005 NN = .1700 PROF = .0931 VMAX = .02 QMAX = .00224

PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 290 TSEG = 2 DT = .4644 NDX = 25 THETA = .55 LONG = 28.700

TSEC = 3 SS = .0008 NN = .0350 BB = 2.00 PT = 1.5000

PROF = .5000 VMAX = .41 QMAX = .56396
NO HAY APORTES AGUAS ARRIBA

LAT = 2901 LAT = 2902

SEGMENTO = 290 TPICO = 720.257 MIN. QPICO = .1714 M3/SEG
ESCOR = .005163 MILLONES DE METROS CUBICOS

ISEG = 3001 TSEG = 1 DT = 1.2520 NDX = 30 THETA = .55 IMPS = .00 LONG = 54.330

CN = 85.00 SS = .0005 NN = .1700 PROF = .0931 VMAX = .02 QMAX = .00224

PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 3002 TSEG = 1 DT = .5492 NDX = 30 THETA = .55 IMPS = .00 LONG = 23.830

CN = 85.00 SS = .0005 NN = .1700 PROF = .0931 VMAX = .02 QMAX = .00224

PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 300 TSEG = 2 DT = .4567 NDX = 25 THETA = 55 LONG = 104.920

TSEC = 3 SS = .0010 NN = .0350 BB = 2.00 PT = 1.5000

PROF = .0750 VMAX = .15 QMAX = .02426

NO HAY APORTES AGUAS ARRIBA

LAT = 3001 LAT = 3002

SEGMENTO = 300 TPICO = 719.825 MIN. QPICO = .0233 M3/SEG
ESCOR = .000735 MILLONES DE METROS CUBICOS

ISEG = 3101 TSEG = 1 DT = 1.5226 NDX = 29 THETA = .55 IMPS = .00 LONG = 66.070

CN = 85.00 SS = .0005 NN = .1700 PROF = .0931 VMAX = .02 QMAX = .00224

PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 310 TSEG = 2 DT = .4951 NDX = 6 THETA = .55 LONG = 81.730

TSEC = 3 SS = .0010 NN = .0350 BB = 2.00 PT = 1.5000

PROF = .5000 VMAX = .46 QMAX = .63052

UP = 290 UP = 300 UP =

LAT = 3101 LAT =

SEGMENTO = 310 TPICO = 720.350 MIN. QPICO = .2099 M3/SEG
ESCOR = .006360 MILLONES DE METROS CUBICOS

ISEG = 3201 TSEG = 1 DT = .8289 NDX = 30 THETA = .55 IMPS = .00 LONG = 35.970

CN = 85.00 SS = .0005 NN = .1700 PROF = .0931 VMAX = .02 QMAX = .00224

PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 3202 TSEG = 1 DT = 1.5219 NDX = 30 THETA = .55 IMPS = .00 LONG = 66.040

CN = 85.00 SS = .0005 NN = .1700 PROF = .0931 VMAX = .02 QMAX = .00224

PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 320 TSEG = 2 DT = .4610 NDX = 16 THETA = .55 LONG = 202.920

TSEC = 3 SS = .0010 NN = .0350 BB = 2.00 PT = 1.5000

PROF = .5000 VMAX = .46 QMAX = .63052

NO HAY APORTES AGUAS ARRIBA

LAT = 3201 LAT = 3202

SEGMENTO = 320 TPICO = 720.006 MIN. QPICO = .0587 M3/SEG
ESCOR = .001844 MILLONES DE METROS CUBICOS

ISEG = 3301 TSEG = 1 DT = 1.7134 NDX = 29 THETA = .55 IMPS = .00 LONG = 74.350

CN = 85.00 SS = .0005 NN = .1700 PROF = .0931 VMAX = .02 QMAX = .00224

PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 3302 TSEG = 1 DT = 2.5619 NDX = 29 THETA = .55 IMPS = .00 LONG = 111.170

CN = 85.00 SS = .0005 NN = .1700 PROF = .0931 VMAX = .02 QMAX = .00224

PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 330 TSEG = 2 DT = .4755 NDX = 11 THETA = .55 LONG = 143.920

TSEC = 3 SS = .0010 NN = .0350 BB = 2.00 PT = 1.5000

PROF = .5000 VMAX = .46 QMAX = .63052

UP = 310 UP = 320 UP =

LAT = 3301 LAT = 3302

SEGMENTO = 330 TPICO = 720.429 MIN. QPICO = .3438 M3/SEG
ESCOR = .010515 MILLONES DE METROS CUBICOS

ISEG = 5002 TSEG = 3 DT = .4795

UP = 5001 UP =

SEGMENTO = 5002 TPICO = 731.180 MIN. QPICO = 4.8109 M3/SEG
ESCOR = .138078 MILLONES DE METROS CUBICOS

ISEG = 6001 TSEG = 3 DT = .7168

UP = 6000 UP =

SEGMENTO = 6001 TPICO = 720.356 MIN. QPICO = .1324 M3/SEG
ESCOR = .004153 MILLONES DE METROS CUBICOS

ISEG = 6002 TSEG = 3 DT = .4562

UP = 280 UP =

SEGMENTO = 6002 TPICO = 728.086 MIN. QPICO = .6362 M3/SEG
ESCOR = .019107 MILLONES DE METROS CUBICOS

ISEG = 3401 TSEG = 1 DT = 3.7166 NDX = 30 THETA = .55 IMPS = .00 LONG = 161.280

CN = 85.00 SS = .0005 NN = .1700 PROF = .0931 VMAX = .02 QMAX = .00224

PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 3402 TSEG = 1 DT = .9257 NDX = 30 THETA = .55 IMPS = .00 LONG = 40.170

CN = 85.00 SS = .0005 NN = .1700 PROF = .0931 VMAX = .02 QMAX = .00224

PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 340 TSEG = 2 DT = .4851 NDX = 7 THETA = .55 LONG = 161.830

TSEC = 3 SS = .0030 NN = .0350 BB = 2.00 PT = 1.5000

PROF = .5000 VMAX = .79 QMAX = 1.09210

NO HAY APORTES AGUAS ARRIBA

LAT = 3401 LAT = 3402

SEGMENTO = 340 TPICO = 717.980 MIN. QPICO = .0918 M3/SEG
ESCOR = .002783 MILLONES DE METROS CUBICOS

ISEG = 3501 TSEG = 1 DT = 1.2744 NDX = 29 THETA = .55 IMPS = .00 LONG = 55.300

CN = 85.00 SS = .0005 NN = .1700 PROF = .0931 VMAX = .02 QMAX = .00224

PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 3502 TSEG = 1 DT = 1.5705 NDX = 30 THETA = .55 IMPS = .00 LONG = 68.150

CN = 85.00 SS = .0005 NN = .1700 PROF = .0931 VMAX = .02 QMAX = .00224

PT = 133.0 PEFEC = 91.1 COEF = .68

ISEG = 350 TSEG = 2 DT = .4648 NDX = 14 THETA = .55 LONG = 179.030

TSEC = 3 SS = .0010 NN = .0350 BB = 2.00 PT = 1.5000

PROF = .5000 VMAX = .46 QMAX = .63052

UP = 340 UP = 330 UP =

LAT = 3501 LAT = 3502

SEGMENTO = 350 TPICO = 720.410 MIN. QPICO = .4978 M3/SEG
ESCOR = .015207 MILLONES DE METROS CUBICOS

ISEG = 360 TSEG = 2 DT = .9127 NDX = 29 THETA = .55 LONG = 769.440

TSEC = 3 SS = .0005 NN = .0300 BB = 2.00 PT = 1.5000

PROF = .8000 VMAX = .48 QMAX = 1.24037

UP = 6002 UP = 350 UP =

NO HAY APORTES LATERALES

SEGMENTO = 360 TPICO = 740.173 MIN. QPICO = 1.1322 M3/SEG
ESCOR = .033626 MILLONES DE METROS CUBICOS

ISEG = 810 TSEG = 2 DT = .4762 NDX = 7 THETA = .55 LONG = 20.000

TSEC = 3 SS = .0010 NN = .0300 BB = 3.50 PT = 1.5000

PROF = 1.5000 VMAX = .10 QMAX = 8.89774

UP = 360 UP = 5002 UP = 6001 UP =

NO HAY APORTES LATERALES

SEGMENTO = 810 TPICO = 729.524 MIN. QPICO = 6.0699 M3/SEG
ESCOR = .175716 MILLONES DE METROS CUBICOS

TIEMPO (MIN)	.00	.61	1.11	1.62	2.12	2.63	3.14	3.65	4.16	4.67	5.18	5.69	6.20	CAUDAL (M3/SEG)
.00	*0000
15.00	*0000
30.00	*0000
45.00	*0000
60.00	*0000
75.00	*0000
90.00	*0000
105.00	*0002
120.00	*0006
135.00	*0026
150.00	*0065
165.00	*0135
180.00	*0221
195.00	*0355
210.00	*1137
225.00	*2910
240.00	*5719
255.00	*8679
270.00	*	1.1622
285.00	*	1.4471
300.00	*	1.7170
315.00	*	2.1176
330.00	*	2.7638
345.00	*	3.1703
360.00	*	3.5409
375.00	*	3.8576
390.00	*	4.1250
405.00	*	4.3523
420.00	*	4.5501
435.00	*	4.7263
450.00	*	4.8852
465.00	*	5.0189
480.00	*	5.1582
495.00	*	5.2733
510.00	*	5.3750
525.00	*	5.4646
540.00	*	5.5432
555.00	*	5.6127
570.00	*	5.6744
585.00	*	5.7237
600.00	*	5.7736
615.00	*	5.8250
630.00	*	5.8666
645.00	*	5.9049
660.00	*	5.9404
675.00	*	5.9724
690.00	*	6.0041
705.00	*	6.0328
720.00	*	6.0597
735.00	*	6.0860
750.00	*	6.0714
765.00	*	6.0564
780.00	*	6.0412
795.00	*	6.0248
810.00	*	6.0076
825.00	*	5.9925
840.00	*	5.9791
855.00	*	5.9615
870.00	*	5.9443
885.00	*	5.9277
900.00	*0425

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Figura B3. Hidrograma de salida para el segmento 810 (total)

APÉNDICE C

INFORMACIÓN TOPOGRÁFICA DE LOS LEVANTAMIENTOS DEL CAÑO LA MAROMA Y DEL RIO ESCALANTE

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Tabla C1. Información topográfica de los sitios levantados Maroma y Escalante.

ESTE	NORTE	COTA (msnm)	IDENTIFICADOR	ESTACION
179698,12	993874,69	6,202	12	M-1
179697,10	993877,20	4,874	13	M-1
179700,05	993875,75	5,935	14	M-1
179702,53	993876,98	5,657	15	M-1
179705,68	993878,74	5,088	16	M-1
179708,12	993880,03	5,556	17	M-1
179711,45	993881,51	5,869	18	M-1
179714,47	993883,07	4,942	19	M-1
179714,18	993886,05	4,357	20	M-1
179711,67	993886,30	3,712	21	M-1
179708,68	993884,04	4,076	22	M-1
179707,11	993888,83	3,996	23	M-1
179705,90	993883,02	3,934	24	M-1
179703,27	993885,96	4,006	25	M-1
179701,64	993880,56	3,929	26	M-1
179698,88	993883,89	3,612	27	M-1
179697,82	993879,84	3,954	28	M-1
179694,32	993882,12	3,519	29	M-1
179693,80	993884,00	2,48	30	M-1
179697,74	993885,99	2,322	31	M-1
179700,84	993887,49	2,329	32	M-1
179709,23	993886,96	3,895	33	M-1
179707,55	993891,27	3,978	34	M-1
179705,19	993889,98	2,481	35	M-1
179705,31	993893,29	2,258	36	M-1
179708,18	993894,47	4,033	37	M-1
179704,73	993895,77	2,312	38	M-1
179711,29	993895,37	4,299	39	M-1
179718,49	993889,48	4,38	40	M-1
179716,12	993890,03	3,53	41	M-1
179715,45	993895,27	3,607	42	M-1
179718,61	993895,95	4,348	43	M-1
179715,28	993899,31	3,484	44	M-1
179718,55	993899,83	4,365	45	M-1
179715,37	993902,23	2,412	46	M-1
179711,79	993901,68	3,721	47	M-1
179710,71	993896,82	4,313	48	M-1
179709,05	993900,42	3,753	49	M-1
179708,80	993902,47	3,713	50	M-1
179706,50	993901,25	3,128	51	M-1
179705,92	993898,49	2,429	52	M-1
179704,35	993895,94	1,666	53	M-1

Tabla C1. Continuación

ESTE	NORTE	COTA (msnm)	IDENTIFICADOR	ESTACIÓN
79711,82	993903,82	3,264	54	M-1
179706,13	993901,39	3,135	55	M-1
179704,78	993902,15	2,402	56	M-1
179708,37	993903,19	3,154	57	M-1
179708,21	993903,93	2,757	58	M-1
179710,51	993905,02	2,698	59	M-1
179707,94	993905,52	3,431	60	M-1
179707,12	993907,45	4,419	61	M-1
179707,03	993909,29	4,754	62	M-1
179705,08	993907,19	4,212	63	M-1
179704,73	993905,40	3,282	64	M-1
179704,92	993904,32	2,62	65	M-1
179703,35	993907,42	4,606	66	M-1
179700,07	993906,85	4,41	67	M-1
179701,88	993905,29	3,937	68	M-1
179699,65	993904,90	4,026	69	M-1
179701,08	993903,08	3,457	70	M-1
179703,02	993903,04	2,667	71	M-1
179701,66	993901,69	2,919	72	M-1
179702,49	993901,27	2,222	73	M-1
179699,20	993903,32	3,634	74	M-1
179698,13	993901,59	3,144	75	M-1
179698,47	993900,71	2,562	76	M-1
179698,48	993900,78	2,561	77	M-1
179699,35	993900,28	2,231	78	M-1
179696,46	993902,33	3,305	79	M-1
179696,20	993900,63	2,332	80	M-1
179697,62	993905,48	4,107	81	M-1
179698,67	993908,18	4,6	82	M-1
179695,53	993906,94	4,107	83	M-1
179695,77	993904,33	3,595	84	M-1
179694,90	993902,55	3,166	85	M-1
179695,29	993901,37	2,716	86	M-1
179695,15	993900,85	2,325	87	M-1
179693,78	993901,58	2,215	88	M-1
179693,70	993904,63	3,558	89	M-1
179692,08	993903,53	2,455	90	M-1
179691,23	993905,26	2,592	91	M-1
179693,05	993906,19	3,546	92	M-1
179695,35	993906,63	4,066	93	M-1
179696,15	993909,40	4,288	94	M-1
179698,10	993911,18	4,656	95	M-1
179698,38	993913,47	4,367	96	M-1
179695,63	993913,20	4,165	97	M-1
179694,81	993910,28	4,101	98	M-1

Tabla C1. Continuación

ESTE	NORTE	COTA (msnm)	IDENTIFICADOR	ESTACION
179693,28	993908,59	3,75	99	M-1
179692,12	993909,97	3,036	100	M-1
179692,02	993908,20	3,059	101	M-1
179690,56	993907,31	2,489	102	M-1
179690,86	993909,62	2,517	103	M-1
179691,82	993911,80	2,821	104	M-1
179690,76	993911,84	2,658	105	M-1
179689,62	993909,69	2,86	106	M-1
179689,36	993910,40	3,207	107	M-1
179689,09	993911,84	3,579	108	M-1
179690,44	993912,05	2,82	109	M-1
179688,60	993913,70	3,987	110	M-1
179687,28	993913,15	2,751	111	M-1
179686,31	993912,77	2,648	112	M-1
179685,19	993912,78	2,996	113	M-1
179684,07	993912,03	3,662	114	M-1
179684,92	993910,14	3,646	115	M-1
179686,98	993910,90	2,665	116	M-1
179688,47	993908,71	2,589	117	M-1
179689,86	993907,10	2,57	118	M-1
179690,33	993905,57	2,447	119	M-1
179691,36	993903,44	2,356	120	M-1
179692,60	993901,80	2,221	121	M-1
179693,70	993900,51	2,177	122	M-1
179693,40	993899,62	2,33	123	M-1
179692,24	993900,01	2,895	124	M-1
179692,57	993898,91	2,304	125	M-1
179691,31	993899,37	2,696	126	M-1
179690,89	993897,74	2,258	127	M-1
179690,94	993901,25	3,143	128	M-1
179689,59	993903,00	3,333	129	M-1
179688,89	993904,95	3,471	130	M-1
179687,44	993906,65	3,571	131	M-1
179686,12	993908,33	3,544	132	M-1
179684,75	993910,35	3,689	133	M-1
179683,90	993912,09	3,663	134	M-1
179683,08	993907,60	3,749	135	M-1
179684,82	993904,72	3,693	136	M-1
179681,46	993904,98	3,756	137	M-1
179686,07	993899,62	2,796	138	M-1
179682,80	993899,01	2,527	139	M-1
179708,21	993913,70	4,623	140	M-1
179697,98	993915,40	3,834	141	140
179700,18	993914,24	4,498	142	140
179701,45	993911,02	4,664	143	140

Tabla C1. Continuación

ESTE	NORTE	COTA (msnm)	IDENTIFICADOR	ESTACION
179703,93	993913,60	4,599	144	140
179701,56	993916,64	4,225	145	140
179703,33	993918,87	4,181	146	140
179703,67	993923,02	3,84	147	140
179703,67	993927,87	4,003	148	140
179702,77	993940,36	4,533	149	140
179710,43	993939,68	4,399	150	140
179710,98	993928,64	4,191	151	140
179711,38	993920,98	4,284	152	140
179710,50	993916,14	4,3	153	140
179705,71	993916,00	4,576	154	140
179707,41	993924,37	4,287	155	140
179710,58	993911,78	4,595	156	140
179711,11	993915,51	4,475	157	140
179719,69	993901,72	4,364	158	140
179716,97	993902,17	2,925	159	140
179715,86	993903,32	2,234	160	140
179714,83	993904,20	2,245	161	140
179713,24	993904,92	2,716	162	140
179712,20	993905,53	2,578	163	140
179711,32	993906,89	3,328	164	140
179710,43	993908,38	3,885	165	140
179708,90	993910,03	4,978	166	140
179710,80	993911,46	4,612	167	140
179712,66	993909,98	3,12	168	140
179715,03	993908,26	2,352	169	140
179716,99	993907,15	2,099	170	140
179718,90	993906,35	2,794	171	140
179720,45	993906,10	3,572	172	140
179721,62	993905,89	4,476	173	140
179722,79	993908,60	4,214	174	140
179720,56	993909,18	2,804	175	140
179718,94	993909,97	2,129	176	140
179717,15	993911,26	2,317	177	140
179716,30	993912,51	2,4	178	140
179715,37	993914,03	2,959	179	140
179713,70	993915,19	3,126	180	140
179712,18	993916,56	4,136	181	140
179711,45	993925,57	4,058	182	140
179714,30	993922,45	3,583	183	140
179717,61	993919,25	2,877	184	140
179720,49	993916,67	2,489	185	140
179724,48	993913,53	2,996	186	140
179726,40	993911,83	3,661	187	140
179727,63	993911,07	4,458	188	140

Tabla C1. Continuación

ESTE	NORTE	COTA (msnm)	IDENTIFICADOR	ESTACION
179729,60	993908,11	3,798	189	140
179744,87	993926,76	4,433	190	140
179743,86	993928,45	3,926	191	140
179742,97	993929,61	2,687	192	140
179740,87	993932,25	2,128	193	140
179739,79	993933,69	2,348	194	140
179739,27	993934,15	2,825	195	140
179738,13	993935,58	3,025	196	140
179736,77	993936,90	3,15	197	140
179735,87	993938,17	3,249	198	140
179735,06	993939,35	3,819	199	140
179734,13	993940,93	3,87	200	140
179748,13	993955,54	3,809	201	140
179749,33	993953,81	3,603	202	140
179750,12	993952,47	3,112	203	140
179751,66	993950,55	3,106	204	140
179753,09	993948,19	3,034	205	140
179754,02	993946,94	2,767	206	140
179755,84	993944,05	2,093	207	140
179757,26	993941,94	2,42	208	140
179758,18	993940,53	3,621	209	140
179759,31	993938,95	4,281	210	140
179777,37	993951,20	4,303	211	140
179775,69	993953,29	4,114	212	140
179774,87	993954,51	3,302	213	140
179774,29	993955,11	2,59	214	140
179772,20	993957,71	2,172	215	140
179770,69	993960,00	2,335	216	140
179770,15	993960,59	2,78	217	140
179769,65	993961,60	3,148	218	140
179768,33	993963,21	3,413	219	140
179765,69	993966,27	3,507	220	140
179764,29	993967,73	4,11	221	140
179779,68	993980,07	3,885	222	140
179779,73	993980,01	3,89	223	140
179780,63	993978,10	3,644	224	140
179781,77	993975,92	3,381	225	140
179783,19	993972,92	3,11	226	140
179784,21	993970,53	2,553	227	140
179785,09	993968,02	2,052	228	140
179786,13	993965,82	2,246	229	140
179786,94	993963,74	3,778	230	140
179787,89	993961,56	4,457	231	140
179788,46	993959,94	4,453	232	140
179801,53	993987,50	4,079	233	222

Tabla CI. Continuación

ESTE	NORTE	COTA (msnm)	IDENTIFICADOR	ESTACION
179801,81	993985,12	3,725	234	222
179802,12	993983,46	3,291	235	222
179802,40	993981,18	3,053	236	222
179802,96	993979,09	3,062	237	222
179803,27	993978,00	2,554	238	222
179804,03	993974,56	1,888	239	222
179804,47	993972,22	2,002	240	222
179804,76	993970,54	3,368	241	222
179805,22	993967,92	4,458	242	222
179805,84	993965,67	4,245	243	222
179825,78	993969,62	4,118	244	222
179825,16	993971,95	4,378	245	222
179824,40	993974,78	3,222	246	222
179823,99	993976,17	2,152	247	222
179823,30	993979,30	1,987	248	222
179822,89	993982,38	2,351	249	222
179822,68	993983,15	2,958	250	222
179822,60	993984,25	3,462	251	222
179822,10	993986,94	3,552	252	222
179822,04	993988,53	4,181	253	222
179821,89	993990,49	4,227	254	222
179843,23	993996,33	5,779	255	222
179843,79	993993,90	5,849	256	222
179844,36	993991,71	5,246	257	222
179844,89	993989,44	5,155	258	222
179845,33	993988,10	4,538	259	222
179845,33	993987,27	3,855	260	222
179846,24	993983,23	3,456	261	222
179846,72	993979,65	3,505	262	222
179847,01	993977,89	4,754	263	222
179847,26	993975,25	5,726	264	222
179847,60	993973,22	5,665	265	222
179867,51	993978,47	5,809	266	222
179867,11	993979,69	5,805	267	222
179866,41	993982,61	2,759	268	222
179866,20	993983,86	1,877	269	222
179865,71	993987,97	1,92	270	222
179865,44	993990,89	2,329	271	222
179865,17	993992,34	3,035	272	222
179864,99	993993,66	3,835	273	222
179864,87	993995,62	3,99	274	222
179864,78	993996,87	4,442	275	222
179864,68	993999,41	4,484	276	222
179884,75	994004,94	4,549	277	222
179885,15	994002,70	4,524	278	222

Tabla C1. Continuación

ESTE	NORTE	COTA (msnm)	IDENTIFICADOR	ESTACION
179885,46	994001,01	3,908	279	222
179885,91	993999,52	3,826	280	222
179886,33	993998,07	3,583	281	222
179886,59	993996,60	2,572	282	222
179887,60	993993,01	1,956	283	222
179888,52	993988,62	2,058	284	222
179889,17	993986,91	3,446	285	222
179889,46	993984,64	4,119	286	222
179889,74	993982,86	3,941	287	222
179907,81	993991,38	4,13	288	222
179907,89	993990,17	4,033	289	222
179905,66	993993,56	3,41	290	222
179904,70	993994,98	2,115	291	222
179902,71	993997,85	1,926	292	222
179900,61	994001,62	2,527	293	222
179899,86	994003,20	3,651	294	222
179899,27	994003,86	4,008	295	222
179897,90	994005,61	4,08	296	222
179897,22	994006,88	4,581	297	222
179895,71	994009,33	4,494	298	222
179902,33	994030,41	4,751	299	222
179900,19	994013,83	4,416	300	299
179902,90	994012,27	4,385	301	299
179903,77	994011,55	3,832	302	299
179905,20	994010,72	3,842	303	299
179907,85	994008,93	3,788	304	299
179910,94	994007,03	2,098	305	299
179913,16	994005,77	1,835	306	299
179915,08	994004,49	2,026	307	299
179917,62	994002,73	3,477	308	299
179922,86	993999,64	3,728	309	299
179924,32	994009,28	3,745	310	299
179918,22	994011,06	3,179	311	299
179916,96	994011,15	2,372	312	299
179915,08	994011,64	1,913	313	299
179912,38	994012,50	2,364	314	299
179910,23	994012,87	3,191	315	299
179908,00	994013,72	3,885	316	299
179904,47	994014,72	3,771	317	299
179902,99	994015,44	4,466	318	299
179900,60	994016,09	4,415	319	299
179901,47	994022,36	4,677	320	299
179903,63	994022,25	4,542	321	299
179906,32	994022,62	4,025	322	299
179908,57	994022,69	2,796	323	299

Tabla C1. Continuación

ESTE	NORTE	COTA (msnm)	IDENTIFICADOR	ESTACION
179911,84	994022,89	2,108	324	299
179913,15	994023,17	1,754	325	299
179915,36	994022,54	1,779	326	299
179917,48	994022,62	2,236	327	299
179919,43	994022,95	3,355	328	299
179920,70	994023,11	3,558	329	299
179921,58	994037,89	3,73	330	299
179919,64	994038,13	3,636	331	299
179918,29	994038,07	2,741	332	299
179917,17	994038,10	1,921	333	299
179914,87	994038,30	1,826	334	299
179912,34	994038,59	1,848	335	299
179911,44	994038,71	2,298	336	299
179906,13	994039,63	2,913	337	299
179904,10	994039,56	4,409	338	299
179902,83	994039,62	4,533	339	299
179901,51	994050,38	4,786	340	299
179903,83	994049,62	4,446	341	299
179906,96	994048,63	3,325	342	299
179908,87	994048,40	2,535	343	299
179911,50	994047,66	2,281	344	299
179912,38	994047,61	1,993	345	299
179914,87	994047,10	1,806	346	299
179917,81	994046,46	1,841	347	299
179919,83	994046,03	3,087	348	299
179921,53	994045,45	3,789	349	299
179926,24	994056,17	3,831	350	299
179924,78	994056,75	3,166	351	299
179923,19	994057,63	2,007	352	299
179920,95	994058,72	1,89	353	299
179918,35	994060,51	2,028	354	299
179917,46	994060,85	2,281	355	299
179914,21	994062,24	2,628	356	299
179912,06	994063,08	4,044	357	299
179908,63	994064,78	4,714	358	299
179907,34	994065,34	4,716	359	299
179928,49	994072,69	4,44	360	299
179928,60	994072,68	2,156	361	299
179930,17	994071,61	1,679	362	299
179931,55	994070,58	2,203	363	299
179931,57	994070,56	4,484	364	299
179947,95	994091,16	1,38	365	299
178319,48	995483,82	5,232	366	E-1
178322,64	995483,70	4,946	367	E-1
178324,52	995483,29	4,174	368	E-1

Tabla C1. Continuación

ESTE	NORTE	COTA (msnm)	IDENTIFICADOR	ESTACIÓN
178326,78	995483,14	4,012	369	E-1
178328,62	995482,93	4,103	370	E-1
178330,01	995482,88	4,422	371	E-1
178332,93	995482,52	4,338	372	E-1
178332,92	995488,63	4,301	373	E-1
178329,54	995488,77	4,412	374	E-1
178327,90	995488,84	4,097	375	E-1
178325,76	995488,77	4,051	376	E-1
178324,02	995488,60	4,34	377	E-1
178321,93	995489,13	5,225	378	E-1
178318,05	995490,04	5,337	379	E-1
178317,31	995496,00	5,444	380	E-1
178320,60	995495,76	5,399	381	E-1
178322,57	995495,53	4,809	382	E-1
178323,16	995495,40	4,35	383	E-1
178325,18	995495,47	4,136	384	E-1
178327,01	995495,69	4,18	385	E-1
178328,69	995495,57	4,751	386	E-1
178331,59	995495,47	4,58	387	E-1
178331,92	995501,48	4,82	388	E-1
178328,78	995501,15	4,987	389	E-1
178327,31	995501,06	4,665	390	E-1
178326,26	995501,05	4,266	391	E-1
178324,65	995500,91	4,181	392	E-1
178322,74	995501,24	4,31	393	E-1
178320,45	995500,94	5,593	394	E-1
178317,26	995501,21	5,599	395	E-1
178315,71	995505,84	5,645	396	E-1
178316,76	995505,55	5,508	397	E-1
178317,89	995505,51	5,674	398	E-1
178320,14	995505,44	5,54	399	E-1
178322,35	995505,15	4,384	400	E-1
178324,07	995505,65	4,125	401	E-1
178325,60	995505,93	4,387	402	E-1
178327,75	995507,19	5,222	403	E-1
178330,62	995508,04	5,299	404	E-1
178333,66	995507,91	5,085	405	E-1
178332,98	995510,05	4,73	406	E-1
178332,54	995511,52	3,895	407	E-1
178332,38	995512,70	3,711	408	E-1
178332,34	995513,75	3,99	409	E-1
178332,27	995514,49	4,622	410	E-1
178332,26	995515,00	4,78	411	E-1
178328,98	995514,21	4,702	412	E-1
178328,99	995513,68	4,56	413	E-1

Tabla C1. Continuación

ESTE	NORTE	COTA (msnm)	IDENTIFICADOR	ESTACIÓN
178329,36	995512,93	3,916	414	E-1
178329,35	995511,91	3,627	415	E-1
178329,61	995511,05	3,886	416	E-1
178329,91	995509,72	4,866	417	E-1
178330,40	995507,65	5,26	418	E-1
178330,71	995506,09	5,193	419	E-1
178326,96	995508,35	4,749	420	E-1
178325,94	995508,55	4,492	421	E-1
178324,86	995508,63	4,187	422	E-1
178323,91	995508,78	4,105	423	E-1
178323,50	995510,52	3,78	424	E-1
178323,14	995511,50	3,886	425	E-1
178323,01	995512,66	4,61	426	E-1
178322,72	995508,56	4,165	427	E-1
178321,60	995507,45	4,781	428	E-1
178320,15	995506,11	5,283	429	E-1
178319,53	995504,97	5,662	430	E-1
178319,49	995505,79	5,533	431	E-1
178318,97	995507,27	4,991	432	E-1
178318,74	995508,66	4,112	433	E-1
178318,50	995509,80	4,101	434	E-1
178318,37	995510,89	4,366	435	E-1
178318,30	995511,70	4,568	436	E-1
178318,31	995512,14	4,636	437	E-1
178315,87	995511,76	5,035	438	E-1
178315,77	995510,77	4,772	439	E-1
178315,80	995509,75	4,229	440	E-1
178316,05	995508,69	4,187	441	E-1
178316,19	995507,18	4,501	442	E-1
178316,15	995506,71	5,394	443	E-1
178316,21	995504,98	5,652	444	E-1
178313,89	995511,62	5,269	445	E-1
178313,89	995510,59	5,014	446	E-1
178313,99	995509,47	4,358	447	E-1
178314,18	995508,43	4,63	448	E-1
178314,22	995506,73	5,451	449	E-1
178314,06	995505,22	5,834	450	E-1
178312,61	995511,39	5,294	451	E-1
178312,49	995510,02	5,074	452	E-1
178312,52	995509,95	5,071	453	E-1
178312,56	995508,64	5,178	454	E-1
178312,72	995506,82	5,567	455	E-1
178312,74	995505,24	5,749	456	E-1
178312,75	995502,77	6,008	457	E-1
178313,60	995495,69	5,904	458	E-1

Tabla C1. Continuación

ESTE	NORTE	COTA (msnm)	IDENTIFICADOR	ESTACION
178307,69	995480,30	5,16	459	E-1
178309,47	995481,15	5,324	460	E-1
178310,72	995479,97	5,714	461	E-1
178313,91	995479,92	5,901	462	E-1
178315,70	995479,63	5,763	463	E-1
178317,22	995479,44	5,209	464	E-1
178317,33	995482,79	5,218	465	E-1
178315,53	995482,93	5,787	466	E-1
178310,68	995484,41	5,721	467	E-1
178309,56	995484,43	5,3	468	E-1
178307,68	995484,92	5,087	469	E-1
178307,64	995489,61	5,129	470	E-1
178309,42	995489,68	5,359	471	E-1
178311,07	995489,73	5,874	472	E-1
178315,16	995490,03	5,84	473	E-1
178316,46	995490,27	5,459	474	E-1
178319,16	995490,88	5,401	475	E-1
178318,64	995494,38	5,405	476	E-1
178315,96	995494,75	5,57	477	E-1
178314,01	995494,79	5,889	478	E-1
178311,76	995494,70	5,908	479	E-1
178310,04	995494,69	5,726	480	E-1
178309,16	995494,88	5,294	481	E-1
178307,63	995494,99	5,117	482	E-1
178307,61	995498,24	5,327	483	E-1
178309,26	995498,36	5,516	484	E-1
178310,28	995498,30	5,882	485	E-1
178312,10	995498,54	5,985	486	E-1
178314,69	995498,50	5,892	487	E-1
178316,62	995498,78	5,568	488	E-1
178320,57	995499,58	5,564	489	E-1
178320,18	995502,49	5,712	490	E-1
178318,21	995502,26	5,68	491	E-1
178315,88	995501,86	5,686	492	E-1
178314,27	995501,56	5,92	493	E-1
178309,85	995500,66	5,965	494	E-1
178308,75	995500,63	5,45	495	E-1
178307,62	995500,60	5,282	496	E-1
178307,64	995503,81	5,176	497	E-1
178308,51	995503,75	5,45	498	E-1
178309,86	995503,78	5,813	499	E-1
178312,06	995504,08	5,93	500	E-1
178313,81	995504,22	5,976	501	E-1
178315,17	995504,14	5,802	502	E-1
178316,51	995504,09	5,632	503	E-1

Tabla C1. Continuación

ESTE	NORTE	COTA (msnm)	IDENTIFICADOR	ESTACION
178318,22	995504,08	5,729	504	E-1
178311,85	995505,08	5,727	505	E-1
178310,50	995505,85	5,462	506	E-1
178309,29	995506,45	5,189	507	E-1
178307,69	995506,98	4,466	508	E-1
178309,36	995507,63	5,122	509	E-1
178307,66	995508,72	4,401	510	E-1
178307,66	995509,63	4,51	511	E-1
178307,72	995510,63	4,762	512	E-1
178309,16	995509,43	4,843	513	E-1
178309,58	995511,00	4,945	514	E-1
178310,32	995509,04	4,999	515	E-1
178310,89	995507,65	5,176	516	E-1
178311,87	995507,39	5,452	517	E-1
178314,28	995503,58	5,972	518	E-1
178311,59	995506,54	5,629	519	E-1
178310,69	995509,39	5,054	520	E-1
178307,82	995510,65	4,77	521	E-1
178303,77	995510,30	4,615	522	E-1
178302,58	995513,42	4,304	523	E-1
178301,30	995523,51	4,257	524	E-1
178301,42	995517,20	3,908	525	E-1
178300,54	995531,05	3,968	529	525
178301,34	995537,30	3,604	530	525
178302,00	995546,15	3,054	531	525
178290,78	995560,53	10,826	532	525
178301,41	995517,26	8,334	533	E-5
178300,14	995552,87	9,034	534	E-6
178299,40	995556,18	9,65	535	E-6
178297,98	995563,65	9,423	536	E-6
178297,21	995566,21	8,581	537	E-6
178295,29	995574,18	3,119	538	E-6
178292,56	995576,61	3,398	539	E-6
178488,30	995667,32	7,112	540	E-6
178412,98	995631,28	7,769	541	E-6
178415,43	995624,48	7,838	542	E-6
178296,28	995563,91	9,083	543	E-6
178279,93	995628,93	2,939	544	543
178280,15	995630,29	5,883	545	543
178286,82	995613,36	4,965	546	545
178284,73	995621,98	5,003	547	545
178283,93	995626,59	6,184	548	545
178277,71	995645,53	5,799	549	545
178271,65	995669,17	4,879	550	545
178270,86	995672,27	4,136	551	545

Tabla C1. Continuación

ESTE	NORTE	COTA (msnm)	IDENTIFICADOR	ESTACION
178270,16	995675,26	3,524	552	545
178268,90	995678,85	2,718	553	545
178469,71	995727,63	4,105	554	540
178469,73	995727,65	2,612	555	540
178470,35	995724,63	3,552	556	540
178471,85	995714,63	4,005	557	540
178472,62	995709,09	4,947	558	540
178474,04	995701,42	5,571	559	540
178484,29	995676,66	5,77	560	540
178489,83	995666,79	7,253	561	540
178495,82	995656,58	7,049	562	540
178497,77	995653,49	6,177	563	540
178509,70	995629,77	5,301	564	540
178522,90	995606,11	5,123	565	540
178533,29	995578,39	5,168	566	565
178533,87	995576,94	4,919	567	565
178534,36	995575,24	3,826	568	565
178534,82	995573,15	3,773	569	565
178535,89	995570,85	5,506	570	565
178537,73	995566,65	5,563	571	565
178541,35	995580,72	5,116	572	565
178538,61	995585,96	5,163	573	565
178535,20	995591,26	5,285	574	565
178531,40	995590,01	5,154	575	565
178527,50	995587,92	5,197	576	565
178530,76	995582,31	5,181	577	565
178533,70	995583,39	5,068	578	565
178535,64	995578,59	5,019	579	565
178555,79	995579,64	3,758	580	571
178556,09	995575,86	4,07	581	571
178556,51	995569,48	4,083	582	571
178547,38	995573,13	5,66	583	571
178548,37	995568,93	5,467	584	571
178548,59	995565,05	5,043	585	571
178544,70	995563,97	5,22	586	571
178544,37	995567,57	5,485	587	571
178543,68	995571,67	5,535	588	571
178537,34	995570,89	5,57	589	571
178540,33	995560,72	4,998	590	571
178526,36	995565,85	5,496	591	571
178526,57	995561,18	5,398	592	571
178527,50	995555,59	5,111	593	571
178311,03	995500,71	5,614	594	593

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APÉNDICE D

TABLAS DE ELEVACION-VOLUMEN DE LA LAGUNA DEL SECTOR DEL RIO ESCALANTE

SITIO 1

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Tabla D1. Elevación Z = 0.2 sector Escalante.

Grid Volume Computations

Mon May 10 12:03:10 2004

Upper Surface

Grid File Name: C:\AAGLORIETA\PLANOS\FA...GRD
Grid Size: 371 rows x 341 columns
X Minimum: 178260
X Maximum: 178600
X Spacing: 1
Y Minimum: 995250
Y Maximum: 995620
Y Spacing:
Z Minimum: 0
Z Maximum: 6.170329

Lower Surface

Level Surface defined by Z = 0.2

Volumes

Z Scale Factor: 1

Total Volumes by:

Trapezoidal Rule: 305469.473
Simpson's Rule: 305062.65088889
Simpson's 3/8 Rule: 305456.01159375

Cut & Fill Volumes

Positive Volume [Cut]: 310447.90232626
Negative Volume [Fill]: 4978.1411595901
Net Volume [Cut-Fill]: 305469.76116667

Areas

Planar Areas

Positive Planar Area [Cut]: 76396.617055213
Negative Planar Area [Fill]: 25072.382944787
Blanked Planar Area: 24331
Total Planar Area: 125800

Surface Areas

Positive Surface Area [Cut]: 77423.051365234
Negative Surface Area [Fill]: 25100.81168799

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Tabla D2. Elevación Z = 0.4 sector Escalante.

Grid Volume Computations

Mon May 10 12:03:34 2004

Upper Surface

Grid File Name: C:\AAGLORIE\A\PLANOS\PA2\ GRD

Grid Size: 471 rows x 341 columns

X Minimum: 178260

X Maximum: 178600

X Spacing: 1

Y Minimum: 295250

Y Maximum: 295620

Y Spacing: 1

Z Minimum: 0

Z Maximum: 6.170329

Lower Surface

Level Surface defined by Z = 0.4

Volumes

Z Scale Factor: 1

Total Volumes by:

Trapezoidal Rule: 285107.623
Simpson's Rule: 284717.29533333
Simpson's 3/8 Rule: 285094.40221875

Cut & Fill Volumes

Positive Volume [Cut]: 295126.71069971
Negative Volume [Fill]: 10018.816199705
Net Volume [Cut-Fill]: 285107.89450001

Areas

Planar Areas

Positive Planar Area [Cut]: 76146.956878822
Negative Planar Area [Fill]: 25322.043121178
Blanked Planar Area: 24331
Total Planar Area: 125800

Surface Areas

Positive Surface Area [Cut]: 77138.585989286
Negative Surface Area [Fill]: 25385.277063937

Tabla D3. Elevación Z = 0.6 sector Escalante.

Grid Volume Computations

Mon May 10 12:04:00 2004

Upper Surface

Grid File Name: C:\AAGLORIETA\PLANOS\PA2M.GRI

Grid Size: 371 rows x 341 columns

X Minimum: 178260

X Maximum: 178600

X Spacing: 1

Y Minimum: 995250

Y Maximum: 995620

Y Spacing: 1

Z Minimum: 0

Z Maximum: 6.170329

Lower Surface

Level Surface defined by Z = 0.6

Volumes

Z Scale Factor: 1

Total Volumes by:

Trapezoidal Rule: 264745.773

Simpson's Rule: 264371.93977778
Simpson's 3/8 Rule: 264732.79284375

Cut & Fill Volumes

Positive Volume [Cut]: 279850.04952847
Negative Volume [Fill]: 15104.021695146
Net Volume [Cut-Fill]: 264746.02783333

Areas

Planar Areas

Positive Planar Area [Cut]: 75942.733511578
Negative Planar Area [Fill]: 25526.266488422
Blanked Planar Area: 24331
Total Planar Area: 125800

Surface Areas

Positive Surface Area [Cut]: 76895.181498016
Negative Surface Area [Fill]: 25628.68155207

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Tabla D4. Elevación Z = 0.8 sector Escalante.

Grid Volume Computations

Mon May 10 12:04:41 2004

Upper Surface

Grid File Name: C:\AAGLORIETA\PLANOS\PAZM.GRD

Grid Size: 371 rows x 341 columns

X Minimum: 178260

X Maximum: 178600

X Spacing: 1

Y Minimum: 995250

Y Maximum: 995620

Y Spacing: 1

Z Minimum: 0

Z Maximum: 6.170329

Lower Surface

Level Surface defined by Z = 0.8

Volumes

Z Scale Factor: 1

Total Volumes by:

Trapezoidal Rule: 244383.923

Simpson's Rule: 244026.58422222

Simpson's 3/8 Rule: 244371.18346875

Cut & Fill Volumes

Positive Volume [Cut]: 264612.77671921
Negative Volume [Fill]: 20228.61552537
Net Volume [Cut-Fill]: 244384.16116668

Areas

Planar Areas

Positive Planar Area [Cut]: 75749.82848285
Negative Planar Area [Fill]: 25719.17151715
Blanked Planar Area: 24331
Total Planar Area: 125800

Surface Areas

Positive Surface Area [Cut]: 76601.310333367
Negative Surface Area [Fill]: 25802.552719857

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Tabla D5. elevación Z = 1 sector Escalante.

Grid Volume Computations

Mon May 10 12:05:15 2004

Upper Surface

Grid File Name: C:\AAGLORIEFA\PLANOS\PA2M.GRID
Grid Size: 371 rows x 341 columns

X Minimum: 178260
X Maximum: 178600
X Spacing: 1

Y Minimum: 995250
Y Maximum: 995620
Y Spacing: 1

Z Minimum: 0
Z Maximum: 0.170329

Lower Surface

Level Surface defined by Z = 1

Volumes

Z Scale Factor: 1

Total Volumes by:

Trapezoidal Rule: 224022.073
Simpson's Rule: 223681.22866667
Simpson's 3/8 Rule: 224009.57409375

Cut & Fill Volumes

Positive Volume [Cut]: 249413.94949936
Negative Volume [Fill]: 25391.654999357
Net Volume [Cut-Fill]: 224022.2945

Areas

Planar Areas

Positive Planar Area [Cut]:	75557.724404194
Negative Planar Area [Fill]:	25981.275595806
Blanked Planar Area:	24331
Total Planar Area:	125800

Surface Areas

Positive Surface Area [Cut]:	76437.891530298
Negative Surface Area [Fill]:	26095.971522925

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Tabla D6. Elevación Z = 1.2 sector Escalante.

Grid Volume Computations

Mon May 10 16:27:46 2004

Upper Surface

Grid File Name: C:\AAGLORIETA\PLANOS\PA211.GRD
Grid Size: 371 rows x 341 columns

X Minimum: 178260
X Maximum: 178600
X Spacing: 1

Y Minimum: 995250
Y Maximum: 995620
Y Spacing: 1

Z Minimum: 0
Z Maximum: 6.170329

Lower Surface

Level Surface defined by Z = 1.2

Volumes

Z Scale Factor: 1

Total Volumes by:

Trapezoidal Rule: 203660.223
Simpson's Rule: 203335.87311111
Simpson's 3/8 Rule: 203647.96471875

Cut & Fill Volumes

Positive Volume [Cut]: 234253.61083686
Negative Volume [Fill]: 30593.183003541
Net Volume [Cut-Fill]: 203660.42783332

Areas

Planar Areas

Positive Planar Area [Cut]:	75364.812771587
Negative Planar Area [Fill]:	26104.187228413
Blanked Planar Area:	24331
Total Planar Area:	125800

Surface Areas

Positive Surface Area [Cut]:	76193.515211267
Negative Surface Area [Fill]:	26380.347841957

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Tabla D7. Elevación Z = 1.4 sector Escalante.

Grid Volume Computations

Mon May 10 16:28:38 2004

Upper Surface

Grid File Name: C:\AAGLORIE\A\PLANOS\PA.M.GRD

Grid Size: 371 rows x 341 columns

X Minimum: 178260

X Maximum: 178600

X Spacing: 1

Y Minimum: 995250

Y Maximum: 995620

Y Spacing: 1

Z Minimum: 0

Z Maximum: 6.170329

Lower Surface

Level Surface defined by Z = 1.4

Volumes

Z Scale Factor: 1

Total Volumes by:

Trapezoidal Rule: 183298.373

Simpson's Rule: 182990.51755556

Simpson's 3/8 Rule: 183286.35534375

Cut & Fill Volumes

Positive Volume [Cut]: 219131.91946247

Negative Volume [Fill]: 35833.358295816

Net Volume [Cut-Fill]: 183298.56116665

Areas

Planar Areas

Positive Planar Area [Cut]:	75171.331057718
Negative Planar Area [Fill]:	26297.668942282
Blanked Planar Area:	24331
Total Planar Area:	125800

Surface Areas

Positive Surface Area [Cut]:	75958.43662541
Negative Surface Area [Fill]:	26565.426427814

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Tabla D8. Elevación Z = 1.6 sector Escalante.

Grid Volume Computations

Mon May 10 12:02:03 2004

Upper Surface

Grid File Name: C:\AAGLORIEVA\PLANOS\PA. 1.GRD

Grid Size: 371 rows x 341 columns

X Minimum: 178260

X Maximum: 178600

X Spacing: 1

Y Minimum: 995250

Y Maximum: 995620

Y Spacing: 1

Z Minimum: 0

Z Maximum: 6.170329

Lower Surface

Level Surface defined by Z = 1.6

Volumes

Z Scale Factor: 1

Total Volumes by:

Trapezoidal Rule: 162936.523

Simpson's Rule: 162645.162

Simpson's 3/8 Rule: 162924.74596875

Cut & Fill Volumes

Positive Volume [Cut]: 204048.96334266

Negative Volume [Fill]: 41112.268842639

Net Volume [Cut-Fill]: 162936.69450002

Areas

Planar Areas

Positive Planar Area [Cut]:	74977.464443921
Negative Planar Area [Fill]:	26491.535556078
Blanked Planar Area:	24331
Total Planar Area:	125800

Surface Areas

Positive Surface Area [Cut]:	75772.810242245
Negative Surface Area [Fill]:	26801.052810978

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Tabla D9. Elevación Z = 1.8 sector Escalante.

Grid Volume Computations

Mon May 10 16:29:12 2004

Upper Surface

Grid File Name: C:\AAGLORIETA\PLANOS\FAM.GRD

Grid Size: 371 rows x 341 columns

X Minimum: 178260

X Maximum: 178600

X Spacing: 1

Y Minimum: 995250

Y Maximum: 995620

Y Spacing: 1

Z Minimum: 0

Z Maximum: 6.170329

Lower Surface

Level Surface defined by Z = 1.8

Volumes

Z Scale Factor: 1

Total Volumes by:

Trapezoidal Rule: 142574.673

Simpson's Rule: 142299.80644444

Simpson's 3/8 Rule: 142563.13659375

Cut & Fill Volumes

Positive Volume [Cut]: 189004.86694174

Negative Volume [Fill]: 46430.039108415

Net Volume [Cut-Fill]: 142574.82783332

Areas

Planar Areas

Positive Planar Area [Cut]:	74782.719037253
Negative Planar Area [Fill]:	26686.280962747
Blanked Planar Area:	24331
Total Planar Area:	125800

Surface Areas

Positive Surface Area [Cut]:	75486.164846799
Negative Surface Area [Fill]:	27037.698206424

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Tabla D10. Elevación Z = 2 sector Escalante.

Grid Volume Computations

Mon May 10 16:29:48 2004

Upper Surface

Grid File Name: C:\AAGLORIETA\PLANOS\PA.M.GRD

Grid Size: 371 rows x 341 columns

X Minimum: 178260

X Maximum: 178600

X Spacing: 1

Y Minimum: 995250

Y Maximum: 995620

Y Spacing: 1

Z Minimum: 0

Z Maximum: 6.170329

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Lower Surface

Level Surface defined by Z = 2

Volumes

Z Scale Factor: 1

Total Volumes by:

Trapezoidal Rule: 122212.823

Simpson's Rule: 121954.45088889

Simpson's 3/8 Rule: 122201.52721875

Cut & Fill Volumes

Positive Volume [Cut]: 173999.79174308

Negative Volume [Fill]: 51786.830576411

Net Volume [Cut-Fill]: 122212.96116667

Areas

Planar Areas

Positive Planar Area [Cut]:	74537.136055699
Negative Planar Area [Fill]:	26831.863944301
Blanked Planar Area:	24331
Total Planar Area:	125800

Surface Areas

Positive Surface Area [Cut]:	75248.542187365
Negative Surface Area [Fill]:	27275.320865859

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Tabla D11. Elevación Z = 2.2 sector Escalante.

Grid Volume Computations

Mon May 10 16:30:18 2004

Upper Surface

Grid File Name: C:\AAGLORIETA\PLANOS\PA M.GRD
Grid Size: 371 rows x 341 columns

X Minimum: 178260
X Maximum: 178600
X Spacing: 1

Y Minimum: 995250
Y Maximum: 995620
Y Spacing: 1

Z Minimum: 0
Z Maximum: 6.170329

Lower Surface

Level Surface defined by Z = 2.2

Volumes

Z Scale Factor: 1

Total Volumes by:

Trapezoidal Rule: 101850.973
Simpson's Rule: 101609.09533333
Simpson's 3/8 Rule: 101839.91784375

Cut & Fill Volumes

Positive Volume [Cut]: 159033.85976653
Negative Volume [Fill]: 57182.765266502
Net Volume [Cut-Fill]: 101851.09450002

Areas

Planar Areas

Positive Planar Area [Cut]:	74391.430332092
Negative Planar Area [Fill]:	27077.569667908
Blanked Planar Area:	24331
Total Planar Area:	125800

Surface Areas

Positive Surface Area [Cut]:	75010.628260951
Negative Surface Area [Fill]:	27513.234792273

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Tabla D12. Elevación Z = 2.4 sector Escalante.

Grid Volume Computations

Mon May 10 16:30:46 2004

Upper Surface

Grid File Name: C:\AAGLORIETA\PLANOS\PA M.GRD

Grid Size: 371 rows x 341 columns

X Minimum: 178260

X Maximum: 178600

X Spacing: 1

Y Minimum: 995250

Y Maximum: 995620

Y Spacing: 1

Z Minimum: 0

Z Maximum: 6.170329

Lower Surface

Level Surface defined by Z = 2.4

Volumes

Z Scale Factor: 1

Total Volumes by:

Trapezoidal Rule: 81489.123

Simpson's Rule: 81263.739777778

Simpson's 3/8 Rule: 81478.30846875

Cut & Fill Volumes

Positive Volume [Cut]: 144107.13711573

Negative Volume [Fill]: 62617.909282426

Net Volume [Cut-Fill]: 81489.227833308

Planar Areas

Positive Planar Area [Cut]:	74194.939741247
Negative Planar Area [Fill]:	27274.060258753
Blanked Planar Area:	24331
Total Planar Area:	125800

Surface Areas

Positive Surface Area [Cut]:	74771.819279
Negative Surface Area [Fill]:	27752.043774224

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Tabla D13. Elevación Z = 2.6 sector Escalante.

Grid Volume Computations

Mon May 10 16:31:35 2004

Upper Surface

Grid File Name: C:\AAGLORIETA\PLANOS\PA2M.GRD

Grid Size: 371 rows x 341 columns

X Minimum: 178260

X Maximum: 178600

X Spacing: 1

Y Minimum: 995250

Y Maximum: 995620

Y Spacing: 1

Z Minimum: 0

Z Maximum: 6.170329

Lower Surface

Level Surface defined by Z = 2.6

Volumes

Z Scale Factor: 1

Total Volumes by:

Trapezoidal Rule: 61127.273

Simpson's Rule: 60918.384222222

Simpson's 3/8 Rule: 61116.69909375

Cut & Fill Volumes

Positive Volume [Cut]: 129219.77523381

Negative Volume [Fill]: 68092.414067124

Net Volume [Cut-Fill]: 61127.361166687

Areas

Planar Areas

Positive Planar Area [Cut]:	73997.91978744
Negative Planar Area [Fill]:	27471.08021256
Blanked Planar Area:	24331
Total Planar Area:	125800

Surface Areas

Positive Surface Area [Cut]:	74532.33715393
Negative Surface Area [Fill]:	27991.525899293

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Tabla D14. Elevación Z = 2.8 sector Escalante.

Grid Volume Computations

Mon May 10 16:32:11 2004

Upper Surface

Grid File Name: C:\AAGLORIETA\PLANOS\PA2M.DRD
Grid Size: 371 rows x 341 columns
X Minimum: 178260
X Maximum: 178600
X Spacing: 1
Y Minimum: 995250
Y Maximum: 995620
Y Spacing: 1
Z Minimum: 0
Z Maximum: 6.170329

Lower Surface

Level Surface defined by Z = 2.8

Volumes

Z Scale Factor: 1

Total Volumes by:

Trapezoidal Rule: 40765.423
Simpson's Rule: 40573.028666667
Simpson's 3/8 Rule: 40755.08971875

Cut & Fill Volumes

Positive Volume [Cut]: 114371.90451918
Negative Volume [Fill]: 73606.410019215
Net Volume [Cut-Fill]: 40765.494499966

Areas

Planar Areas

Positive Planar Area [Cut]: 73799.975773961
Negative Planar Area [Fill]: 27669.024226039
Blanked Planar Area: / 24331
Total Planar Area: . 125800

Surface Areas

Positive Surface Area [Cut]: 74291.78953079
Negative Surface Area [Fill]: 28232.073522433

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Tabla D15. Elevación Z = 3 sector Escalante.

Grid Volume Computations

Mon May 10 16:32:52 2004

Upper Surface

Grid File Name: C:\AAGLORIETA\PLANOS\1102M.GRD

Grid Size: 371 rows x 341 columns

X Minimum: 178260

X Maximum: 178600

X Spacing: 1

Y Minimum: 995250

Y Maximum: 995620

Y Spacing: 1

Z Minimum: 0

Z Maximum: 6.170329

Lower Surface

Level Surface defined by Z = 3

Volumes

Z Scale Factor: 1

Total Volumes by:

Trapezoidal Rule: 20403.573

Simpson's Rule: 20227.673111111

Simpson's 3/8 Rule: 20393.48034375

Cut & Fill Volumes

Positive Volume [Cut]: 99563.678843807

Negative Volume [Fill]: 79160.051010474

Net Volume [Cut-Fill]: 20403.627833333

Areas

Planar Areas

Positive Planar Area [Cut]:	73601.613101482
Negative Planar Area [Fill]:	27867.386898518
Blanked Planar Area:	24331
Total Planar Area:	125800

Surface Areas

Positive Surface Area [Cut]:	74050.687889553
Negative Surface Area [Fill]:	28473.17516367

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APÉNDICE E

**TABLAS DE ELEVACION-VOLUMEN DE LA
LAGUNA DEL SECTOR LA MAROMA
SITIO 2**

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Tabla E1. Elevación Z = 0.2 sector La Maroma.

Grid Volume Computations

Mon May 10 11:48:52 2004

Upper Surface

Grid File Name: C:\AAGLORIE TA\PLANOS\PRUEBA.GRD
Grid Size: 431 rows x 226 columns
X Minimum: 179260
X Maximum: 179710
X Spacing: 2
Y Minimum: 993680
Y Maximum: 994110
Y Spacing: 1
Z Minimum: 0
Z Maximum: 6.111976

Lower Surface

Level Surface defined by Z = 0.2

Volumes

Z Scale Factor: 1

Total Volumes by:

Trapezoidal Rule: 401227.4515
Simpson's Rule: 401388.29622222
Simpson's 3/8 Rule: 401410.55765625

Cut & Fill Volumes

Positive Volume [Cut]: 407655.44044056
Negative Volume [Fill]: 6428.1897738848
Net Volume [Cut-Fill]: 401227.25066667

Areas

Planar Areas

Positive Planar Area [Cut]:	124425.53243428
Negative Planar Area [Fill]:	32415.467565723
Blanked Planar Area:	36659
Total Planar Area:	193500

Surface Areas

Positive Surface Area [Cut]:	125430.47151645
Negative Surface Area [Fill]:	32442.872830372

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Tabla E2. Elevación Z = 0.4 sector La Maroma.

Grid Volume Computations

Mon May 10 11:49:45 2004

Upper Surface

Grid File Name: C:\AAGLORIETA\PLANOS\PRUEBA.GRD
Grid Size: 431 rows x 226 columns

X Minimum: 179260
X Maximum: 179710
X Spacing: 2

Y Minimum: 993680
Y Maximum: 994110
Y Spacing: 1

Z Minimum: 0
Z Maximum: 0.111976

Lower Surface

Level Surface defined by Z = 0.4

Volumes

Z Scale Factor: 1

Total Volumes by:

Trapezoidal Rule: 369744.2515
Simpson's Rule: 369898.074
Simpson's 3/8 Rule: 369917.81390625

Cut & Fill Volumes

Positive Volume [Cut]: 382693.98634942
Negative Volume [Fill]: 12949.935682756
Net Volume [Cut-Fill]: 369744.05066667

Areas

Planar Areas

Positive Planar Area [Cut]:	124059.2574152
Negative Planar Area [Fill]:	32781.742584804
Blanked Planar Area:	36659
Total Planar Area:	193500

Surface Areas

Positive Surface Area [Cut]:	125030.29983248
Negative Surface Area [Fill]:	32843.044514336

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Tabla E3. Elevación Z = 0.6 sector La Maroma.

Grid Volume Computations

Mon May 10 11:50:17 2004

Upper Surface

Grid File Name: C:\AAGLORIETA\PLANOS\1 PRUEBA.GRD

Grid Size: 431 rows x 226 columns

X Minimum: 179260

X Maximum: 179710

X Spacing: 2

Y Minimum: 993680

Y Maximum: 994110

Y Spacing: 1

Z Minimum: 0

Z Maximum: 6.111976

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Lower Surface

Level Surface defined by Z = 0.6

Volumes

Z Scale Factor: 1

Total Volumes by:

Trapezoidal Rule: 338261.0515

Simpson's Rule: 338407.85177778

Simpson's 3/8 Rule: 338425.07015625

Cut & Fill Volumes

Positive Volume [Cut]: 357796.85648912

Negative Volume [Fill]: 19536.005822459

Net Volume [Cut-Fill]: 338260.85066666

Areas

Planar Areas

Positive Planar Area [Cut]:	123770.32063857
Negative Planar Area [Fill]:	33070.679361434
Blanked Planar Area:	36659
Total Planar Area:	193500

Surface Areas

Positive Surface Area [Cut]:	124703.29186272
Negative Surface Area [Fill]:	33170.052484098

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Tabla E4. Elevación Z = 0.8 sector La Maroma.

Grid Volume Computations

Mon May 10 11:50:48 2004

Upper Surface

Grid File Name: C:\AAGLORIETA\PLANOS\PRUEBA.GRD
Grid Size: 431 rows x 226 columns
X Minimum: 179260
X Maximum: 179710
X Spacing: 2
Y Minimum: 993680
Y Maximum: 994110
Y Spacing: 1
Z Minimum: 0
Z Maximum: 6.111976

Lower Surface

Level Surface defined by Z = 0.8

Volumes

Z Scale Factor: 1

Total Volumes by:

Trapezoidal Rule: 306777.8515
Simpson's Rule: 306917.62955556
Simpson's 3/8 Rule: 306932.32640625

Cut & Fill Volumes

Positive Volume [Cut]: 332953.81955555
Negative Volume [Fill]: 26176.168888878
Net Volume [Cut-Fill]: 306777.65066667

Areas

Planar Areas

Positive Planar Area [Cut]:	123512.95237753
Negative Planar Area [Fill]:	33328.047622469
Blanked Planar Area:	36659
Total Planar Area:	193500

Surface Areas

Positive Surface Area [Cut]:	124405.19840285
Negative Surface Area [Fill]:	33468.145943969

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Tabla E5. Elevación Z = 1 sector La Maroma.

Grid Volume Computations

Mon May 10 11:51:20 2004

Upper Surface

Grid File Name: C:\AAGLORIETA\PLANOS\PRUEBA.GRD
Grid Size: 431 rows x 226 columns

X Minimum: 179260
X Maximum: 179710
X Spacing: 5

Y Minimum: 993680
Y Maximum: 994110
Y Spacing: 4

Z Minimum: 0
Z Maximum: 6.111976

Lower Surface

Level Surface defined by Z = 1

Volumes

Z Scale Factor: 1

Total Volumes by:

Trapezoidal Rule: 275294.6515
Simpson's Rule: 275427.40733333
Simpson's 3/8 Rule: 275439.58265625

Cut & Fill Volumes

Positive Volume [Cut]: 308160.90183311
Negative Volume [Fill]: 32866.451166442
Net Volume [Cut-Fill]: 275294.45066667

Areas

Planar Areas

Positive Planar Area [Cut]:	123267.31246335
Negative Planar Area [Fill]:	33573.687536654
Blanked Planar Area:	36659
Total Planar Area:	193500

Surface Areas

Positive Surface Area [Cut]:	124117.44480418
Negative Surface Area [Fill]:	33755.899542641

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Tabla E6. Elevación Z = 1.2 sector La Maroma.

Grid Volume Computations

Mon May 10 11:51:58 2004

Upper Surface

Grid File Name: C:\AAGLORIETA\PLANOS\PIEBA.GRD

Grid Size: 431 rows x 226 columns

X Minimum: 179260

X Maximum: 179710

X Spacing: 2

Y Minimum: 993680

Y Maximum: 994110

Y Spacing: 1

Z Minimum: 0

Z Maximum: 6.111976

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Lower Surface

Level Surface defined by Z = 1.2

Volumes

Z Scale Factor: 1

Total Volumes by:

Trapezoidal Rule: 243811.4515

Simpson's Rule: 243937.18511111

Simpson's 3/8 Rule: 243946.83890625

Cut & Fill Volumes

Positive Volume [Cut]: 283416.68520762

Negative Volume [Fill]: 39605.434540962

Net Volume [Cut-Fill]: 243811.25066665

Areas

Planar Areas

Positive Planar Area [Cut]:	123024.97186921
Negative Planar Area [Fill]:	33816.028130789
Blanked Planar Area:	36659
Total Planar Area:	193500

Surface Areas

Positive Surface Area [Cut]:	123832.37455302
Negative Surface Area [Fill]:	34040.969793801

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Tabla E7. Elevación Z = 1.4 sector La Maroma.

Grid Volume Computations

Mon May 10 11:52:30 2004

Upper Surface

Grid File Name: C:\AAGLORIETA\PLANOS\PRUEBA.GRD

Grid Size: 431 rows x 226 columns

X Minimum: 179260

X Maximum: 179710

X Spacing: 2

Y Minimum: 993680

Y Maximum: 994110

Y Spacing: 1

Z Minimum: 0

Z Maximum: 6.111976

Lower Surface

Level Surface defined by Z = 1.4

Volumes

Z Scale Factor: 1

Total Volumes by:

Trapezoidal Rule: 212328.2515

Simpson's Rule: 212446.96288889

Simpson's 3/8 Rule: 212454.09515625

Cut & Fill Volumes

Positive Volume [Cut]: 258720.93163777

Negative Volume [Fill]: 46392.880971112

Net Volume [Cut-Fill]: 212328.05066666

Planar Areas

Positive Planar Area [Cut]:	122782.39023143
Negative Planar Area [Fill]:	34058.609768572
Blanked Planar Area:	36659.
Total Planar Area:	193500

Surface Areas

Positive Surface Area [Cut]:	123546.85434396
Negative Surface Area [Fill]:	34326.490002858

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Tabla E8. Elevación Z = 1.6 sector La Maroma.

Grid Volume Computations

Mon May 19 11:52:58 2004

Upper Surface

Grid File Name: C:\AAGLORIETA\PLANOS\PRUEBA.GRD

Grid Size: 431 rows x 226 columns

X Minimum: 179260

X Maximum: 179710

Z Spacing: 2

Y Minimum: 993680

Y Maximum: 994110

Y Spacing: 1

Z Minimum: 0

Z Maximum: 6.111976

Lower Surface

Level Surface defined by Z = 1.6

Volumes

Z Scale Factor: 1

Total Volumes by:

Trapezoidal Rule: 180845.0515

Simpson's Rule: 180956.74066667

Simpson's 3/8 Rule: 180961.35140625

Cut & Fill Volumes

Positive Volume [Cut]: 234073.78727805

Negative Volume [Fill]: 53228.936611367

Net Volume [Cut-Fill]: 180844.85066668

Areas

Planar Areas

Positive Planar Area [Cut]:	122538.90832005
Negative Planar Area [Fill]:	34302.09167995
Blanked Planar Area:	36659
Total Planar Area:	193500

Surface Areas

Positive Surface Area [Cut]:	123260.32190687
Negative Surface Area [Fill]:	34623.022439949

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Tabla E9. Elevación Z = 1.7 sector La Maroma.

Grid Volume Computations

Tue Jun 29 11:00:51 2004

Upper Surface

Grid File Name: C:\AAGLORIETA\PLANOS\lug2.grd
Grid Size: 431 rows x 226 columns

X Minimum: 179260
X Maximum: 179710
X Spacing: 2

Y Minimum: 993680
Y Maximum: 994110
Y Spacing: 1

Z Minimum: 0
Z Maximum: 3.25

Lower Surface

Level Surface defined by Z = 1.7

Volumes

Z Scale Factor: 1

Total Volumes by:

Trapezoidal Rule: -54495.513709952
Simpson's Rule: -54478.743143522
Simpson's 3/8 Rule: -54506.732977892

Cut & Fill Volumes

Positive Volume [Cut]: 2169.7328012591
Negative Volume [Fill]: 56665.246511226
Net Volume [Cut-Fill]: -54495.513709967

Areas

Planar Areas

Positive Planar Area [Cut]:	1741.8201051294
Negative Planar Area [Fill]:	34424.179894871
Blanked Planar Area:	157334
Total Planar Area:	193500

Surface Areas

Positive Surface Area [Cut]:	2013.2497974491
Negative Surface Area [Fill]:	34756.681713981

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Tabla E10. Elevación Z = 1.8 sector La Maroma.

Grid Volume Computations

Mon May 10 11:53:31 2004

Upper Surface

Grid File Name: C:\AAGLORIETA\PLANOS\PIÑEBA.GRD
Grid Size: 431 rows x 226 columns
X Minimum: 179260
X Maximum: 179710
X Spacing: 2
Y Minimum: 993680
Y Maximum: 994110
Y Spacing: 1
Z Minimum: 0
Z Maximum: 6.111976

Lower Surface

Level Surface defined by Z = 1.8

Volumes

Z Scale Factor: 1

Total Volumes by:

Trapezoidal Rule: 149361.8515
Simpson's Rule: 149466.51844444
Simpson's 3/8 Rule: 149468.60765625

Cut & Fill Volumes

Positive Volume [Cut]: 209475.43859276
Negative Volume [Fill]: 60113.78792608
Net Volume [Cut-Fill]: 149361.65066668

Areas

Planar Areas

Positive Planar Area [Cut]:	122294.34555438
Negative Planar Area [Fill]:	34546.654445625
Blanked Planar Area:	36659
Total Planar Area:	193500

Surface Areas

Positive Surface Area [Cut]:	122972.61782896
Negative Surface Area [Fill]:	34900.726517859

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Tabla E11. Elevación Z = 2 sector La Maroma.

Grid Volume Computations

Mon May 10 11:54:09 2004

Upper Surface

Grid File Name: C:\AAGLORIETA\PLANOS\PRUEBA.GRD
Grid Size: 431 rows x 226 columns
X Minimum: 179260
X Maximum: 179710
X Spacing: 2
Y Minimum: 993680
Y Maximum: 994110
Y Spacing: 1
Z Minimum: 0
Z Maximum: 6.111976

Lower Surface

Level Surface defined by Z = 2

Volumes

Z Scale Factor: 1

Total Volumes by:

Trapezoidal Rule: 117878.6515
Simpson's Rule: 117976.2962222
Simpson's 3/8 Rule: 117975.86390625

Cut & Fill Volumes

Positive Volume [Cut]: 184926.10768065
Negative Volume [Fill]: 67047.657013981
Net Volume [Cut-Fill]: 117878.45066667

Areas

Planar Areas

Positive Planar Area [Cut]:	122048.37801073
Negative Planar Area [Fill]:	34792.621989268
Blanked Planar Area:	36659
Total Planar Area:	193500

Surface Areas

Positive Surface Area [Cut]:	122683.38964921
Negative Surface Area [Fill]:	35189.954697609

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Tabla E12. Elevación Z = 2.2 sector La Maroma.

Grid Volume Computations

Mon May 10 11:55:27 2004

Upper Surface

Grid File Name: C:\AAGLORIETA\PLANOS\PRUEBA.GRD

Grid Size: 431 rows x 226 columns

X Minimum: 179260

X Maximum: 179710

X Spacing: 2

Y Minimum: 993680

Y Maximum: 994110

Y Spacing: 1

Z Minimum: 0

Z Maximum: 6.111976

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Lower Surface

Level Surface defined by Z = 2.2

Volumes

Z Scale Factor: 1

Total Volumes by:

Trapezoidal Rule: 86395.4515

Simpson's Rule: 86486.074

Simpson's 3/8 Rule: 86483.12015625

Cut & Fill Volumes

Positive Volume [Cut]: 160433.93515925

Negative Volume [Fill]: 74038.684492587

Net Volume [Cut-Fill]: 86395.250666661

Areas

Planar Areas

Positive Planar Area [Cut]:	121689.04359437
Negative Planar Area [Fill]:	35151.956405631
Blanked Planar Area:	36659
Total Planar Area:	193500

Surface Areas

Positive Surface Area [Cut]:	122279.45488307
Negative Surface Area [Fill]:	35593.889463748

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Tabla E13. Elevación Z = 2.4 sector La Maroma.

Grid Volume Computations

Mon May 10 11:56:08 2004

Upper Surface

Grid File Name: C:\AAGLORIETA\PLANOS\PRUEBA.GRD
Grid Size: 431 rows x 226 columns
X Minimum: 179260
X Maximum: 179710
X Spacing: 2
Y Minimum: 993680
Y Maximum: 994110
Y Spacing: 1
Z Minimum: 0
Z Maximum: 6.111976

Lower Surface

Level Surface defined by Z = 2.4

Volumes

Z Scale Factor: 1

Total Volumes by:

Trapezoidal Rule: 54912.2515
Simpson's Rule: 54995.851777778
Simpson's 3/8 Rule: 54990.37640625

Cut & Fill Volumes

Positive Volume [Cut]: 136060.18057369
Negative Volume [Fill]: 81148.129907049
Net Volume [Cut-Fill]: 54912.050666643

Areas

Planar Areas

Positive Planar Area [Cut]:	120757.70662785
Negative Planar Area [Fill]:	36083.293372146
Blanked Planar Area:	36659
Total Planar Area:	193500

Surface Areas

Positive Surface Area [Cut]:	121300.10690296
Negative Surface Area [Fill]:	36573.237443863

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Tabla E14. Elevación Z = 2.6 sector La Maroma.

Grid Volume Computations

Mon May 10 11:56:50 2004

Upper Surface

Grid File Name: C:\AAGLORIETA\PLANOS\PRUEBA.GRD

Grid Size: 431 rows x 226 columns

X Minimum: 179260

X Maximum: 179710

X Spacing: 2

Y Minimum: 993680

Y Maximum: 994110

Y Spacing: 1

Z Minimum: 0

Z Maximum: 6.111976

Lower Surface

Level Surface defined by Z = 2.6

Volumes

Z Scale Factor: 1

Total Volumes by:

Trapezoidal Rule: 23429.0515

Simpson's Rule: 23505.629555556

Simpson's 3/8 Rule: 23497.63265625

Cut & Fill Volumes

Positive Volume [Cut]: 111943.76951011

Negative Volume [Fill]: 88514.918843417

Net Volume [Cut-Fill]: 23428.850666692

Areas

Planar Areas

Positive Planar Area [Cut]:	119111.28977179
Negative Planar Area [Fill]:	37729.71022821
Blanked Planar Area:	36659
Total Planar Area:	193500

Surface Areas

Positive Surface Area [Cut]:	119599.50272042
Negative Surface Area [Fill]:	38273.841626401

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Tabla E15. Elevación Z = 2.8 sector La Maroma.

Grid Volume Computations

Mon May 10 11:57:41 2004

Upper Surface

Grid File Name: C:\AAGLORIEFA\PLANOS\PRUEBA.GRD

Grid Size: 431 rows x 226 columns

X Minimum: 179260

X Maximum: 179710

X Spacing: 2

Y Minimum: 993680

Y Maximum: 994110

Y Spacing: 1

Z Minimum: 0

Z Maximum: 6.111976

Lower Surface

Level Surface defined by Z = 2.8

Volumes

Z Scale Factor: 1

Total Volumes by:

Trapezoidal Rule: -8054.1485

Simpson's Rule: -7984.5926666666

Simpson's 3/8 Rule: -7995.1110937499

Cut & Fill Volumes

Positive Volume [Cut]: 88288.358228142

Negative Volume [Fill]: 96342.707561493

Net Volume [Cut-Fill]: -8054.3493333505

Areas

Planar Areas

Positive Planar Area [Cut]:	115764.99841845
Negative Planar Area [Fill]:	41076.001581546
Blanked Planar Area:	36659
Total Planar Area:	193500

Surface Areas

Positive Surface Area [Cut]:	116192.11387116
Negative Surface Area [Fill]:	41681.230475666

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Tabla E16 Elevación Z = 3 sector La Maroma.

Grid Volume Computations

Mon May 10 11:58:11 2004

Upper Surface

Grid File Name: C:\AAGLORIETA\PLANOS\PRUEBA.GRD

Grid Size: 431 rows x 226 columns

X Minimum: 179260

X Maximum: 179710

X Spacing: 2

Y Minimum: 993680

Y Maximum: 994110

Y Spacing: 1

Z Minimum: 0

Z Maximum: 6.111976

Lower Surface

Level Surface defined by Z = 3

Volumes

Z Scale Factor: 1

Total Volumes by:

Trapezoidal Rule: -39537.3485

Simpson's Rule: -39474.814888889

Simpson's 3/8 Rule: -39487.85484375

Cut & Fill Volumes

Positive Volume [Cut]: 65812.291715939

Negative Volume [Fill]: 105349.84104927

Net Volume [Cut-Fill]: -39537.549333333

Areas

Planar Areas

Positive Planar Area [Cut]:	107188.51418413
Negative Planar Area [Fill]:	49652.485815865
Blanked Planar Area:	36659
Total Planar Area:	193500

Surface Areas

Positive Surface Area [Cut]:	107650.08674644
Negative Surface Area [Fill]:	50323.257600387

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APÉNDICE F

RESULTADO DE LOS CÁLCULOS DE LOS VOLÚMENES DE CORTE PARA LOS COLECTORES CONSIDERADOS

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Tabla F1. Plani-altimetria canal: CPM-1, CPM-3, CPM-5 y CPM-7.

PROGRESIVA M	COTA DEL TERRENO msnm	COTA DE LA RASANTE msnm	CORTE m	AREA m ²	VOLUMEN m ³
0+000,00	5,00	4,50	0,50	0,78	0,00
0+052,96	5,25	4,50	0,50	0,78	41,05
0+159,99	5,00	4,39	0,86	1,81	138,56
0+224,49	5,00	4,15	0,85	1,75	115,07
0+333,37	5,00	4,01	0,99	2,25	218,07
0+397,66	4,75	3,78	1,22	3,22	175,99
0+451,68	4,75	3,64	1,11	2,75	161,31
0+494,83	4,50	3,52	1,23	3,25	129,51
0+530,98	4,25	3,43	1,07	2,59	105,59
0+564,84	4,00	3,35	0,90	1,94	76,72
0+589,20	3,75	3,27	0,73	1,37	40,35
0+654,62	3,75	3,22	0,53	0,84	72,38
0+656,92	4,00	3,08	0,67	1,21	2,36
0+659,25	4,25	3,07	0,93	2,03	3,78
0+661,50	4,50	3,07	1,18	3,04	5,68
0+706,93	4,50	3,06	1,44	4,24	165,25
0+806,83	3,00	2,97	1,53	4,76	449,34
0+807,68	2,75	2,75	0,25	0,30	2,17
0+808,81	2,50	2,75	0,00	0,00	0,17
0+809,38	2,25	2,25	0,00	0,00	0,00
0+809,86	2,00	2,00	0,00	0,00	0,00
0+812,41	1,72	1,65	0,07	0,11	0,14
0+858,17	1,95	1,63	0,32	0,57	15,37
0+908,30	2,14	1,60	0,54	2,04	65,38
0+959,30	2,25	1,57	0,67	2,41	113,50
1+008,20	2,29	1,55	0,75	3,33	140,36
1+058,46	2,22	1,52	0,70	2,86	155,45
1+108,75	2,25	1,49	0,76	2,86	143,75
1+158,68	2,25	1,47	0,78	2,80	141,29
1+169,09	2,50	1,46	1,04	2,80	29,11
1+208,44	2,18	1,44	0,74	3,25	119,02
1+258,32	2,32	1,41	0,90	4,23	186,52
1+308,95	2,24	1,39	0,85	4,15	212,00
1+359,47	2,33	1,36	0,97	5,13	234,36
1+410,43	2,35	1,33	1,02	8,11	337,19
1+460,05	2,49	1,31	1,18	9,96	448,21
1+510,21	2,56	1,28	1,28	9,42	485,95
1+560,11	2,44	1,25	1,18	9,42	469,81
1+570,61	2,75	1,25	1,50	8,97	96,48
1+610,27	2,55	1,23	1,32	9,37	363,70
1+660,16	2,60	1,20	1,39	11,30	515,69
1+710,05	2,53	1,17	1,35	10,89	553,48
1+759,85	2,75	1,15	1,60	10,89	542,16
TOTAL				7272,24	

Tabla F2. Plani-altimetria canal: CMS-2.

PROGRESIVA M	COTA DEL TERRENO msnm	COTA DE LA RASANTE msnm	CORTE m	AREA m ²	VOLUMEN m ³
0+000,00	2272.00	1,97	0,30	3,75	0,00
0+049,68	1,95	1,95	0,00	0,29	100,33
0+099,80	2,10	1,93	0,17	1,28	39,17
0+149,66	2,09	1,90	0,19	1,35	65,47
0+201,11	2,51	1,88	0,63	5,04	164,47
0+252,28	2,27	1,86	0,41	2,54	193,97
0+303,29	2,02	1,83	0,19	1,72	108,55
0+352,75	1,83	1,81	0,02	0,81	62,35
0+403,40	1,87	1,79	0,08	1,17	50,11
0+451,53	2,08	1,77	0,32	1,86	73,08
0+501,47	2,22	1,74	0,47	3,16	125,42
0+551,11	2,54	1,72	0,81	4,33	185,80
0+601,82	2,09	1,70	0,39	2,31	168,16
0+651,71	1,71	1,68	0,03	0,66	73,98
0+701,82	1,70	1,65	0,05	0,24	22,45
0+718,89	1,72	1,65	0,07	0,11	2,94
TOTAL					1436,26

Tabla F3. Plani-altimetria canal: CSM-4.

PROGRESIVA M	COTA DEL TERRENO msnm	COTA DE LA RASANTE msnm	CORTE m	AREA m ²	VOLUMEN m ³
0+000,00	3,00	2,50	0,50	0,78	0,00
0+007,05	3,00	2,49	0,51	0,80	5,54
0+027,04	3,00	2,47	0,53	0,85	16,48
0+048,57	3,00	2,44	0,56	0,92	19,09
0+072,91	2,75	2,41	0,34	0,45	16,61
0+120,99	3,00	2,35	0,65	1,15	38,47
0+166,15	2,75	2,29	0,46	0,68	41,34
0+215,23	2,75	2,23	0,52	0,81	36,59
0+282,38	2,50	2,15	0,35	0,46	42,92
0+367,62	2,50	2,04	0,46	0,68	48,61
0+386,78	2,75	2,02	0,73	1,38	19,71
0+401,13	2,75	2,00	0,75	1,44	20,22
0+401,61	2,50	2,00	0,50	0,77	0,54
0+403,20	2,50	2,00	0,50	0,77	1,22
TOTAL					307,32

Tabla F4. Plani-altimetria canal: CSM-6.

PROGRESIVA M	COTA DEL TERRENO msnm	COTA DE LA RASANTE msnm	CORTE m	AREA m ²	VOLUMEN m ³
0+000,00	2,75	2,38	0,37	0,43	0,00
0+008,40	2,75	2,38	0,37	0,44	3,62
0+034,98	2,75	2,36	0,39	0,46	11,94
0+042,08	2,63	2,36	0,27	0,27	2,60
0+081,33	2,63	2,33	0,29	0,30	11,26
0+130,93	2,57	2,30	0,27	0,27	14,11
0+151,49	2,50	2,29	0,21	0,19	4,68
0+214,51	2,25	2,26	0,00	0,00	5,97
0+257,27	2,25	2,23	0,02	0,01	0,26
0+262,00	2,50	2,23	0,27	0,27	0,68
0+262,14	2,25	2,23	0,02	0,01	0,02
0+275,53	2,25	2,22	0,03	0,02	0,22
0+322,09	2,25	2,19	0,06	0,04	1,35
0+352,90	2,50	2,18	0,32	0,35	6,04
0+401,83	2,50	2,15	0,35	0,40	18,39
0+423,78	2,25	2,13	0,12	0,09	5,36
0+424,46	2,50	2,13	0,37	0,42	0,17
0+425,19	2,75	2,13	0,62	0,94	0,49
0+425,83	3,00	2,13	0,87	1,65	0,84
0+426,53	3,25	2,13	1,12	2,54	1,46
0+426,92	3,25	2,13	1,12	2,54	0,99
0+427,30	3,00	2,13	0,87	1,65	0,79
0+428,38	2,75	2,13	0,62	0,94	1,41
TOTAL					92,67

Tabla F5. Plani-altimetria canal: CSE-38.

PROGRESIVA M	COTA DEL TERRENO msnm	COTA DE LA RASANTE msnm	CORTE m	AREA m ²	VOLUMEN m ³
0+000,00	3,75	3,25	0,50	0,68	0,00
0+018,94	3,50	3,21	0,29	0,30	9,23
0+153,39	3,40	2,93	0,47	0,62	61,67
TOTAL					70,91

Tabla F6. Plani-altimetria canal: CSM-12, CSM-13 y CSM-15.

PROGRESIVA	COTA DEL TERRENO msnm	COTA DE LA RASANTE msnm	CORTE m	AREA m ²	VOLUMEN m ³
0+000,00	3,50	2,97	0,53		
0+019,04	3,50	2,92	0,58		
0+049,02	3,60	2,83	0,77		
0+121,86	3,08	2,63	0,44		
0+146,95	3,08	2,56	0,52		
0+197,23	2,96	2,43	0,54	0,05	
0+246,66	2,92	2,29	0,63	0,19	6,08
0+296,66	2,88	2,15	0,72	0,39	14,62
0+347,30	2,73	2,13	0,61	0,44	20,94
0+395,97	2,70	2,10	0,60	0,48	22,25
0+447,37	2,52	2,07	0,44	0,53	25,86
0+456,54	2,60	2,07	0,53	0,54	4,88
0+460,32	2,82	2,07	0,75	0,54	2,03
0+463,36	2,78	2,07	0,71	0,54	1,64
0+473,68	2,57	2,06	0,51	0,55	5,65
0+477,66	2,76	2,06	0,70	0,56	2,21
0+482,28	2,67	2,06	0,61	0,56	2,58
0+508,21	2,75	2,04	0,71	0,59	14,88
0+550,58	2,70	2,02	0,68	0,63	25,78
0+564,17	2,80	2,01	0,78	0,64	8,66
0+583,57	2,75	2,00	0,75	0,66	12,70
0+584,51	2,50	2,00	0,50	0,67	0,62
0+585,20	2,25	2,00	0,25	0,67	0,46
0+587,37	2,00	2,00	0,00	0,68	1,46
TOTAL					174,64

Tabla F7. Plani-altimetria canal: CSE-41.

PROGRESIVA	COTA DEL TERRENO msnm	COTA DE LA RASANTE msnm	CORTE m	AREA m ²	VOLUMEN m ³
0+000,00	3,75	3,05	0,70	1,16	0,00
0+096,76	3,50	3,00	0,50	0,67	88,47
0+173,42	3,50	2,96	0,54	0,76	54,87
0+195,60	3,75	2,95	0,80	1,44	24,37
TOTAL					167,71

Tabla F8. Plani-altimetria canal: CSM-9.

PROGRESIVA M	COTA DEL TERRENO Msnm	COTA DE LA RASANTE msnm	CORTE m	AREA m ²	VOLUMEN m ³
0+000,00	3,50	2,65	0,85	1,76	0,00
0+026,72	3,50	3,50	2,63	1,84	48,13
0+036,24	3,50	3,50	2,62	1,86	17,61
0+046,74	3,50	3,50	2,61	1,89	19,75
0+058,90	3,50	3,50	2,60	1,93	23,24
0+118,35	3,50	3,50	2,55	2,10	119,85
0+262,96	3,25	3,25	2,43	1,65	271,39
0+265,36	3,00	3,00	2,43	0,94	3,11
0+274,12	3,00	3,00	2,43	0,96	8,29
0+279,28	3,25	3,25	2,42	1,69	6,84
0+335,42	3,25	3,25	2,37	1,85	99,45
0+378,44	3,25	3,25	2,34	1,97	82,17
0+410,96	3,25	3,25	2,31	2,07	65,64
0+443,30	3,25	3,25	2,29	2,16	68,39
0+456,88	3,50	3,50	2,28	3,23	36,64
0+472,45	3,75	3,75	2,26	4,51	60,21
0+473,35	4,00	4,00	2,26	5,92	4,71
0+474,22	4,25	4,25	2,26	7,52	5,82
0+475,02	4,50	4,50	2,26	9,31	6,73
0+476,05	4,50	4,50	2,26	9,32	9,62
0+476,94	4,25	4,25	2,26	7,54	7,53
0+477,83	4,00	4,00	2,26	5,94	6,02
0+478,64	3,75	3,75	2,26	4,54	4,25
0+479,40	3,50	3,50	2,26	3,31	2,97
0+480,48	3,25	3,25	2,26	2,28	3,02
0+487,29	3,00	3,00	2,25	1,44	12,66
0+488,12	2,75	2,75	2,25	0,78	0,92
0+488,64	2,50	2,50	2,25	0,29	0,28
0+489,40	2,25	2,25	0,00	0,00	0,11
0+491,78	1,27	1,27	0,00	0,00	0,00
				TOTAL	995,33

Tabla F9. Plani-altimetria canal: CSM-8, CPM-8A, CPM-10, CPM-16, CPM-17 y CSM-20

PROGRESIVA m	NOTA DEL TERRENO m.s.n.m.	GOTA DE LA RASANTE m.s.n.m.	CORTE m	AREA m ²	VOLUMEN m ³
0+000,00	3,50	2,50	1,00	2,30	0,00
0+013,02	3,25	2,47	0,78	1,53	24,96
0+044,28	3,25	2,40	0,85	1,76	51,57
0+229,33	3,25	1,98	1,27	3,43	480,33
0+428,63	3,00	1,53	1,47	4,41	781,04
0+457,21	1,47	1,47	0,00	0,10	64,42
0+506,41	1,76	1,43	0,33	0,58	16,76
0+556,85	1,73	1,39	0,33	0,85	36,14
0+607,65	1,79	1,36	0,43	1,64	63,25
0+656,99	1,91	1,32	0,59	2,45	101,03
0+706,67	1,37	1,28	0,08	1,66	102,19
0+756,73	1,27	1,25	0,02	0,46	52,98
0+806,88	1,22	1,21	0,00	0,37	20,61
0+862,07	1,47	1,17	0,30	2,09	67,70
0+907,76	1,45	1,14	0,32	1,45	80,80
0+961,37	1,48	1,10	0,38	1,46	77,92
1+011,88	1,26	1,06	0,20	0,78	56,62
1+061,76	1,79	1,03	0,76	3,27	101,21
1+111,78	1,66	0,99	0,67	2,69	149,26
1+139,15	1,99	0,97	1,02	4,36	96,48
1+188,35	2,03	0,93	1,09	6,67	271,34
1+238,93	1,91	0,90	1,02	5,33	303,53
1+288,20	1,90	0,86	1,03	5,94	277,72
1+338,21	1,94	0,82	1,11	6,47	310,44
1+388,20	1,94	0,79	1,15	6,95	335,43
1+438,42	2,04	0,75	1,29	8,16	379,45
1+487,37	2,03	0,71	1,32	8,35	404,03
1+539,22	2,64	0,68	1,96	13,46	565,43
1+544,25	2,75	0,67	2,08	13,46	67,63
1+556,54	2,82	0,66	1,86	16,54	184,45
1+584,69	2,75	0,64	2,11	16,54	465,58
1+634,76	2,47	0,61	1,86	16,49	826,87
1+684,69	2,55	0,57	1,98	18,84	881,95
1+734,44	2,32	0,53	1,78	15,20	846,48
1+750,83	2,50	0,52	1,98	13,17	232,38
TOTAL				8777,95	

Tabla F10. Plani-altimetria canal: CPM-36.

PROGRESIVA M	COTA DEL TERRENO msnm	COTA DE LA RASANTE msnm	CORTE m	AREA m ²	VOLUMEN m ³
0+000,00	3,00	1,50	1,50	5,98	0,00
0+021,23	2,73	1,49	1,24	5,81	125,11
0+066,61	2,68	1,47	1,22	5,01	245,57
0+117,02	2,50	1,44	1,06	3,92	225,19
0+169,17	2,48	1,41	1,07	4,41	217,16
0+218,22	2,53	1,39	1,15	4,47	217,62
0+267,94	2,45	1,36	1,09	4,46	221,84
0+315,03	2,28	1,34	0,94	3,71	192,30
0+364,94	2,30	1,31	0,99	4,18	196,82
0+393,66	2,08	1,30	0,78	3,33	107,81
0+444,90	2,18	1,27	0,91	3,34	170,88
0+495,67	2,15	1,24	0,91	3,61	176,44
0+546,37	2,16	1,22	0,95	3,71	185,67
0+595,59	2,07	1,19	0,88	3,40	174,93
0+656,25	1,84	1,16	0,68	2,61	182,31
0+661,11	1,70	1,16	0,54	2,21	11,72
TOTAL				2651,36	

Tabla F11. Plani-altimetria canal: CSE-43.

PROGRESIVA M	COTA DEL TERRENO Msnm	COTA DE LA RASANTE msnm	CORTE m	AREA m ²	VOLUMEN m ³
0+000,00	3,75	2,95	0,80	1,44	0,00
0+024,32	3,50	2,93	0,57	0,82	27,47
0+223,78	3,50	2,81	0,69	1,14	195,06
0+247,62	3,50	2,79	0,71	1,18	27,59
0+271,16	3,25	2,78	0,47	0,62	21,17
0+280,01	3,25	2,77	0,48	0,63	5,54
TOTAL				276,83	

Tabla F12. Plani-altimetria canal: CSE-37, CPE-39, CPE-42 y CPE-45.

PROGRESIVA M	COTA DEL TERRENO msnm	COTA DE LA RASANTE msnm	CORTE m	AREA m ²	VOLUMEN m ³
0+000,00	4,00	2,28	1,72	5,47	0,00
0+015,76	4,00	2,27	1,73	5,52	86,57
0+046,46	3,75	2,26	1,49	4,24	149,80
0+078,48	3,50	2,24	1,26	3,14	118,16
0+165,18	3,50	2,20	1,30	3,33	280,54
0+235,21	3,50	2,16	1,34	3,50	239,20
0+279,73	3,40	2,14	1,26	3,65	159,19
0+420,49	3,25	2,07	1,18	3,29	488,65
0+444,07	3,25	2,05	1,20	3,34	78,20
0+462,62	3,25	2,04	1,21	3,39	62,43
0+508,62	3,25	2,02	1,23	3,50	158,33
0+553,55	3,50	2,00	1,50	4,89	188,35
0+571,41	3,75	1,99	1,76	6,42	100,94
0+591,40	3,50	1,98	1,52	4,99	114,04
0+866,30	3,50	1,84	1,66	5,80	1484,30
0+893,14	3,25	1,82	1,43	4,47	137,94
0+946,97	3,00	1,80	1,20	3,37	211,18
0+954,42	3,00	1,79	1,21	3,39	25,20
0+957,37	3,25	1,79	1,46	4,65	11,87
0+987,39	3,25	1,78	1,47	4,73	140,80
1+046,00	3,00	1,75	1,25	3,61	244,41
1+114,53	3,00	1,71	1,29	3,78	253,19
1+145,58	3,25	1,70	1,55	5,18	139,03
1+173,11	3,50	1,68	1,82	6,78	164,55
1+180,87	3,50	1,68	1,82	6,80	52,73
TOTAL					5089,60

Tabla F13. Plani-altimetria canal: CSE-40.

PROGRESIVA M	COTA DEL TERRENO msnm	COTA DE LA RASANTE msnm	CORTE m	AREA m ²	VOLUMEN m ³
0+000,00	3,75	2,78	0,97	1,99	0,00
0+015,10	3,50	2,77	0,73	1,23	24,34
0+067,58	3,25	2,75	0,50	0,68	50,16
0+141,07	3,25	2,71	0,54	0,76	52,95
0+186,90	3,25	2,69	0,56	0,81	35,96
0+223,63	3,25	2,67	0,58	0,85	30,52
0+240,17	3,50	2,66	0,84	1,56	19,90
0+244,39	3,75	2,66	1,09	2,44	8,42
TOTAL					222,25

Tabla F14. Plani-altimetria canal: CSE-46.

PROGRESIVA M	COTA DEL TERRENO msnm	COTA DE LA RASANTE msnm	CORTE m	AREA m ²	VOLUMEN m ³
0+000,00	3,50	2,79	0,71	1,18	0,00
0+077,08	3,25	2,75	0,50	0,67	71,46
0+085,98	3,25	2,75	0,50	0,68	6,02
0+095,04	3,50	2,74	0,76	1,32	9,04
0+123,33	3,75	2,73	1,02	2,18	49,42
0+133,07	3,75	2,72	1,03	2,20	21,31
0+175,62	3,50	2,70	0,80	1,43	77,23
0+220,69	3,50	2,68	0,82	1,50	66,14
TOTAL				300,62	

Tabla F15. Plani-altimetria canal: CSE-48.

PROGRESIVA M	COTA DEL TERRENO msnm	COTA DE LA RASANTE msnm	CORTE m	AREA m ²	VOLUMEN m ³
0+000,00	4,25	3,35	0,90	1,76	0,00
0+006,25	4,00	3,33	0,67	1,06	8,81
0+054,55	4,00	3,21	0,79	1,40	59,53
0+063,63	4,00	3,19	0,81	1,47	13,03
0+152,87	3,75	2,97	0,78	1,39	127,65
0+178,32	3,50	2,90	0,60	0,89	29,09
0+195,88	3,25	2,86	0,39	0,47	11,93
0+208,85	3,25	2,83	0,42	0,52	6,42
0+261,63	3,41	2,69	0,72	1,20	45,52
0+274,53	3,50	2,66	0,84	1,56	17,80
0+292,08	3,50	2,62	0,88	1,70	28,60
0+295,33	3,25	2,61	0,64	1,00	4,39
0+298,44	3,11	2,60	0,51	0,69	2,64
TOTAL				355,41	

Tabla F16. Plani-altimetria canal: CPE-47A, CPE-47 y CPE-49.

PROGRESIVA	COTA DEL TERRENO msnm	COTA DE LA RASANTE msnm	CORTE m	AREA m ²	VOLUMEN m ³
0+000,00	4,00	2,54	1,46	5,39	0,00
0+004,00	3,25	2,53	0,72	1,87	14,52
0+018,36	3,25	2,48	0,77	2,06	28,22
0+083,34	3,25	2,25	1,00	3,00	164,23
0+115,05	3,25	2,14	1,11	3,51	103,15
0+135,62	3,50	2,07	1,43	5,22	89,74
0+152,90	3,75	2,06	1,69	6,82	103,95
0+248,08	3,50	2,01	1,49	5,55	588,61
0+257,85	3,25	2,01	1,24	4,18	47,55
0+267,12	3,11	2,00	1,11	3,50	35,61
0+401,74	3,00	1,93	1,07	3,31	458,18
0+462,63	3,00	1,90	1,10	3,45	205,71
0+477,39	3,25	1,90	1,35	4,79	60,79
0+499,89	3,25	1,88	1,37	4,85	108,40
0+516,77	3,00	1,88	1,12	3,59	71,23
0+547,94	3,00	1,86	1,14	3,66	112,99
0+555,86	3,25	1,86	1,39	5,01	34,32
0+561,51	3,50	1,85	1,65	6,54	32,08
0+568,41	3,51	1,85	1,66	6,63	45,42
TOTAL				2305,32	

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Tabla F17. Plani-altimetria canal: CPE-50 y CPE-50A.

PROGRESIVA M	COTA DEL TERRENO msnm	COTA DE LA RASANTE msnm	CORTE m	ÁREA m ²	VOLUMEN m ³
0+000,00	3,50	1,48	2,02	9,77	0,00
0+048,34	3,49	1,46	2,03	11,39	511,40
0+097,65	3,57	1,43	2,14	12,23	582,53
0+146,78	3,57	1,41	2,16	12,97	619,08
0+196,86	3,60	1,38	2,22	11,90	622,79
0+246,76	3,51	1,36	2,15	11,24	577,26
0+296,43	3,54	1,33	2,21	11,97	576,30
0+346,65	3,59	1,31	2,28	12,49	614,15
0+397,39	3,59	1,28	2,31	12,83	642,26
0+447,20	3,81	1,26	2,55	15,28	700,11
0+497,23	3,67	1,23	2,44	15,59	772,14
0+547,28	3,90	1,21	2,69	22,00	940,50
0+597,24	3,90	1,18	2,71	26,74	1217,41
0+647,25	3,76	1,16	2,60	20,34	1177,16
0+697,24	3,82	1,13	2,68	21,48	1044,95
0+747,24	3,95	1,11	2,84	25,65	1178,25
0+797,22	3,83	1,08	2,74	27,73	1334,01
0+833,67	3,87	1,06	2,81	25,10	962,57
0+836,12	3,84	1,06	2,78	22,49	58,31
TOTAL				14131,22	

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Tabla F18. Plani-altimetria canal: CSE-51, CPE-53 y CPE-54A.

PROGRESIVA M	COTA DEL TERRENO msnm	COTA DE LA RASANTE msnm	CORTE m	AREA m ²	VOLUMEN m ³
0+000,00	4,00	2,73	1,27	3,18	0,00
0+011,48	4,00	2,72	1,28	3,21	36,67
0+024,09	3,75	2,72	1,03	2,22	34,20
0+036,63	3,50	2,71	0,79	1,41	22,71
0+068,76	3,25	2,70	0,55	0,79	35,32
0+111,84	3,25	2,67	0,58	0,84	35,25
0+148,15	3,25	2,66	0,59	0,89	31,39
0+171,91	3,25	2,64	0,61	0,91	21,39
0+190,74	3,50	2,63	0,87	1,64	24,07
0+199,24	3,75	2,63	1,12	2,55	17,83
0+209,67	3,75	2,63	1,12	2,57	26,73
0+227,54	3,75	2,62	1,13	2,61	46,29
0+234,23	4,00	2,61	1,39	3,72	21,16
0+260,96	4,00	2,60	1,40	3,78	100,25
0+276,24	3,75	2,59	1,16	3,75	57,54
0+319,20	3,75	2,57	1,18	3,86	163,37
0+352,99	4,00	2,55	1,45	5,31	154,84
0+360,08	4,00	2,55	1,45	5,33	37,71
0+378,54	3,75	2,54	1,21	4,01	86,17
0+453,60	3,75	2,50	1,25	4,20	308,10
0+457,22	3,76	2,50	1,26	4,26	15,32
0+462,32	3,75	2,50	1,25	4,22	21,65
0+488,71	3,50	2,49	1,01	3,06	96,19
0+529,40	3,50	2,47	1,03	3,16	126,60
TOTAL					1520,75

Tabla F19. Plani-altimetria canal: CSE-52.

PROGRESIVA M	COTA DEL TERRENO msnm	COTA DE LA RASANTE msnm	CORTE m	AREA m ²	VOLUMEN m ³
0+000,00	4,50	3,06	1,44	3,97	
0+006,95	4,25	3,06	1,19	2,85	23,73
0+008,67	4,00	3,06	0,94	1,90	4,09
0+062,66	3,75	3,03	0,72	1,22	84,21
0+118,09	3,50	3,00	0,50	0,68	52,39
0+151,16	3,75	2,98	0,77	1,34	33,37
0+181,22	3,75	2,97	0,78	1,39	41,04
0+214,04	3,50	2,95	0,55	0,78	35,60
0+234,22	3,75	2,94	0,81	1,47	22,71
TOTAL					297,15

Tabla F20. Plani-altimetria canal: CSE-54.

PROGRESIVA M	COTA DEL TERRENO msnm	COTA DE LA RASANTE msnm	CORTE m	AREA m ²	VOLUMEN m ³
0+000,00	4,75	4,25	0,50	0,68	0,00
0+023,25	4,50	4,12	0,38	0,44	12,93
0+068,21	4,25	3,88	0,37	0,42	19,36
0+113,98	4,00	3,63	0,37	0,42	19,32
0+182,32	3,76	3,27	0,49	0,66	37,01
				TOTAL	88,62

Tabla F21. Plani-altimetria canal: CSE-56 y CPE-55.

PROGRESIVA M	COTA DEL TERRENO msnm	COTA DE LA RASANTE msnm	CORTE m	AREA m ²	VOLUMEN m ³
0+000,00	4,25	3,25	1,00	3,00	0,00
0+000,60	4,50	3,25	1,25	4,24	2,17
0+005,96	4,50	3,21	1,29	4,45	23,28
0+012,83	4,25	3,16	1,09	3,43	27,10
0+020,19	4,00	3,10	0,90	2,55	22,05
0+026,89	3,75	3,05	0,70	1,77	14,49
0+035,73	3,50	2,99	0,51	1,16	12,94
0+049,52	3,75	2,89	0,86	2,41	24,56
0+060,23	4,00	2,81	1,19	3,91	33,81
0+071,34	4,25	2,73	1,52	5,75	53,65
0+101,73	4,25	2,51	1,74	7,17	196,30
0+133,19	4,00	2,28	1,72	7,03	223,40
0+164,92	3,75	2,05	1,70	6,91	221,22
0+197,32	3,50	1,81	1,69	6,82	222,44
0+205,57	3,50	1,81	1,69	6,85	56,39
0+255,48	3,75	1,78	1,97	8,77	389,71
0+303,50	4,00	1,76	2,24	10,91	472,39
0+385,31	4,25	1,72	2,53	13,42	995,04
0+427,15	4,25	1,70	2,55	13,61	565,38
0+435,00	4,00	1,69	2,31	11,44	98,32
0+491,93	4,25	1,67	2,58	13,90	721,35
0+514,22	4,50	1,65	2,85	16,42	337,85
0+516,98	4,75	1,65	3,10	19,03	48,92
0+519,74	5,00	1,65	3,35	21,84	56,41
0+522,50	5,25	1,65	3,60	24,84	64,41
0+525,26	5,50	1,65	3,85	28,02	72,95
0+526,07	5,50	1,65	3,85	28,03	22,92
0+526,51	5,25	1,65	3,60	24,86	11,44
0+526,94	5,00	1,65	3,35	21,88	10,05
0+527,35	4,75	1,65	3,10	19,09	8,46
0+527,79	4,50	1,65	2,85	16,48	7,77
0+529,49	4,25	1,65	2,60	14,07	26,10
0+545,49	4,25	1,64	2,61	14,14	225,70
				TOTAL	5268,98

Tabla F22. Plani-altimetria canal: CSM-18 y CSM-19.

PROGRESIVA M	COTA DEL TERRENO msnm	COTA DE LA RASANTE msnm	CORTE m	AREA m ²	VOLUMEN m ³
0+000,00	3,63	3,13	0,50	0,78	0,00
0+027,87	3,50	3,06	0,44	0,64	19,70
0+105,37	3,50	2,87	0,63	1,09	67,16
0+139,18	3,50	2,79	0,71	1,33	40,94
0+153,99	3,25	2,75	0,50	0,77	15,52
0+180,77	3,25	2,69	0,56	0,93	22,69
0+220,51	3,25	2,59	0,66	1,18	41,88
0+235,57	3,00	2,55	0,45	0,66	13,85
0+243,47	3,00	2,53	0,47	0,70	5,36
0+253,70	3,25	2,51	0,74	1,42	10,83
0+274,26	3,25	2,46	0,79	1,57	30,77
0+293,37	3,50	2,41	1,09	2,65	40,35
0+356,60	3,25	2,26	0,99	2,28	155,70
0+364,01	2,67	2,24	0,43	0,97	12,04
0+414,88	2,31	2,21	0,09	0,16	28,82
0+465,38	2,30	2,19	0,11	0,45	15,48
0+515,14	2,17	2,16	0,00	0,06	12,79
0+565,19	2,14	2,14	0,00	0,07	3,38
0+596,37	2,13	2,11	0,01	0,03	1,57
0+598,64	2,12	2,09	0,03	0,06	0,10
TOTAL					538,92

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Tabla F23. Plani-altimetria caño: CNSM-26 y CNSM-27, canal: CSM-27A y CSM-28.

PROGRESIVA M	COTA DEL TERRENO msnm	COTA DE LA RASANTE msnm	CORTE m	AREA m ²	VOLUMEN m ³
0+000,00	3,81	3,30	0,51		
0+047,22	3,14	3,14	0,00		
0+069,31	3,12	3,07	0,05		
0+110,39	3,15	2,93	0,21		
0+129,79	3,25	2,87	0,38		
0+201,39	2,95	2,63	0,32		
0+232,55	3,12	2,53	0,59		
0+248,11	3,07	2,48	0,60		
0+297,53	3,16	2,31	0,84	0,00	0,00
0+344,41	3,17	2,16	1,02	0,12	2,74
0+349,86	3,25	2,14	1,11	0,14	0,69
0+399,12	3,50	1,97	1,53	0,35	12,06
0+455,39	3,50	1,79	1,71	0,70	29,65
0+465,99	3,50	1,75	1,75	0,78	7,83
0+481,87	3,50	1,70	1,80	0,90	13,32
0+489,26	3,51	1,70	1,81	0,91	6,68
0+547,72	2,72	1,66	1,05	0,99	55,42
0+598,09	2,51	1,64	0,87	1,06	51,45
0+638,75	2,40	1,62	0,79	1,11	44,11
0+704,52	2,45	1,58	0,87	1,21	76,40
0+764,30	2,34	1,55	0,79	1,30	75,02
0+808,45	2,31	1,52	0,79	1,37	58,94
0+850,21	3,00	1,50	1,50	1,44	58,58
TOTAL				492,88	

TOTAL DE VOLUMEN DE CORTE EN m³ 52834,93

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APÉNDICE G

DISEÑOS HIDRAULICOS. ALTERNATIVA 1 y 2.

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Figura G1. Alternativa 1. Diseño hidráulico del CPM-3.

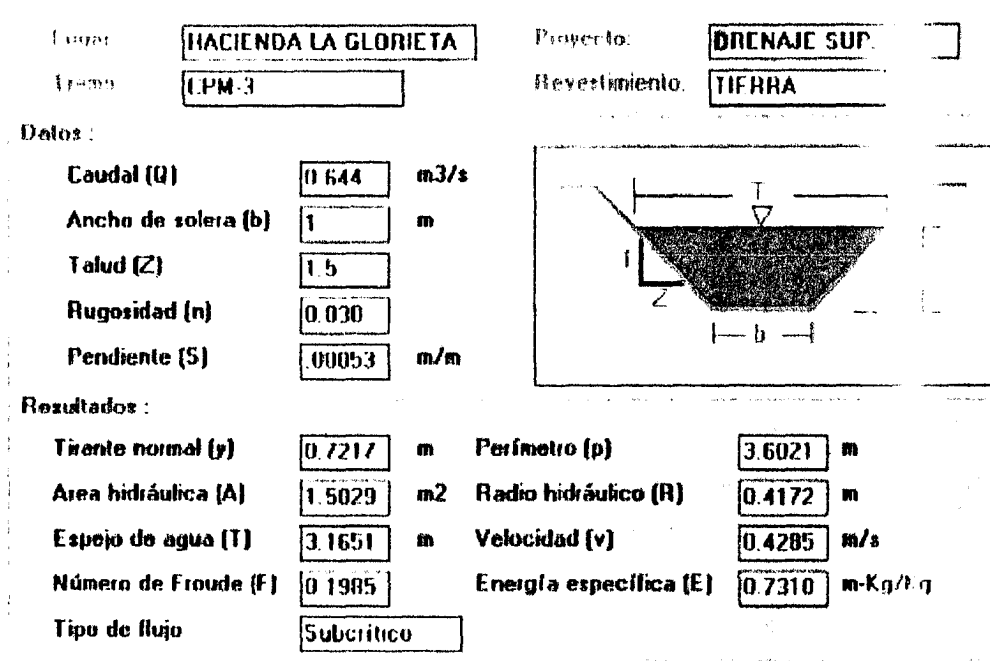


Figura G2. Alternativa 1. Diseño hidráulico del CSM-4.

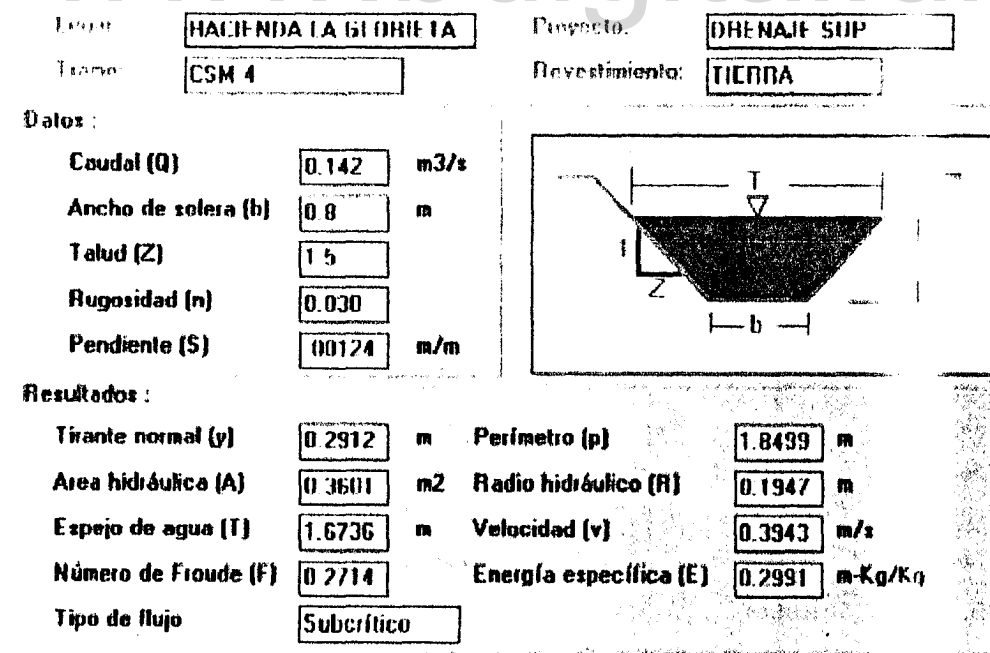


Figura G3. Alternativa 1. Diseño hidráulico del CPM-5.

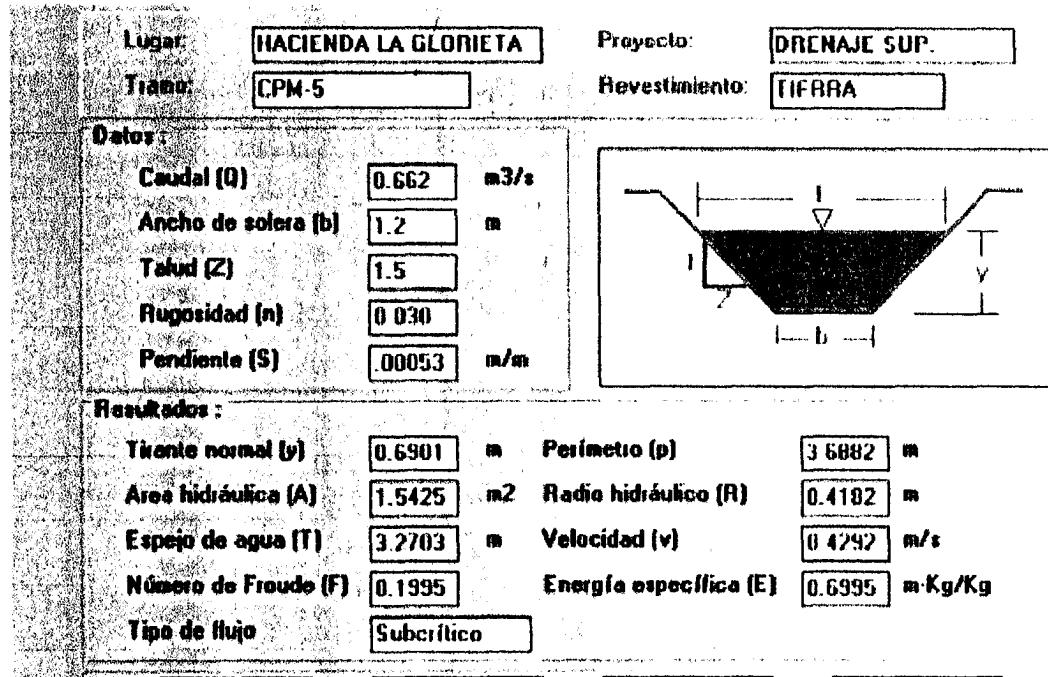


Figura G4. Alternativa 1. Diseño hidráulico del CSM-6.

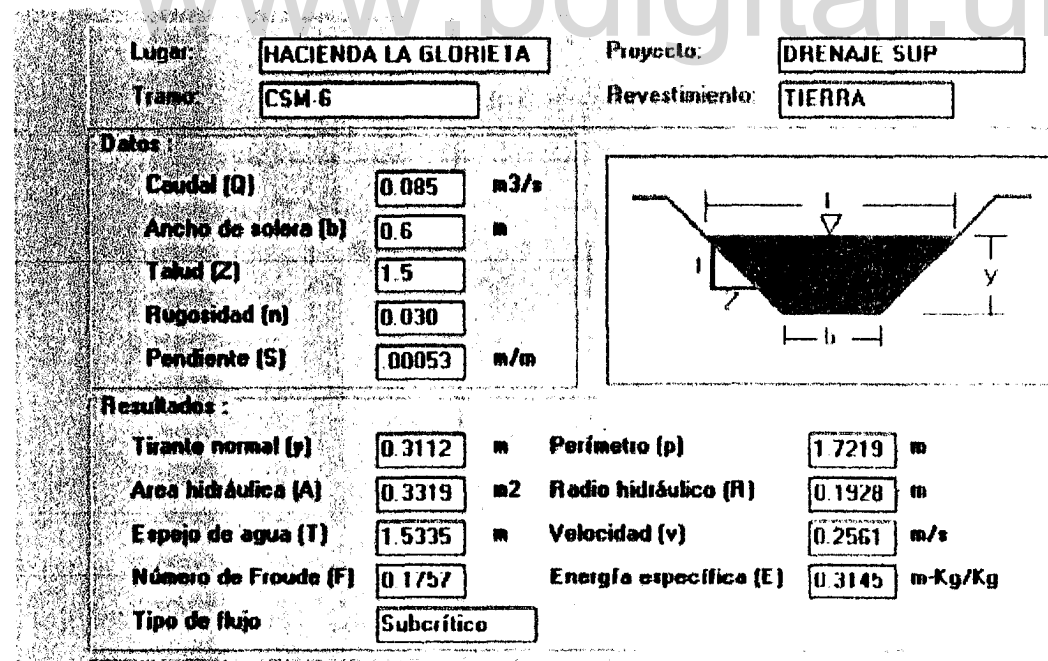


Figura G5. Alternativa 1. Diseño hidráulico del CPM-7.

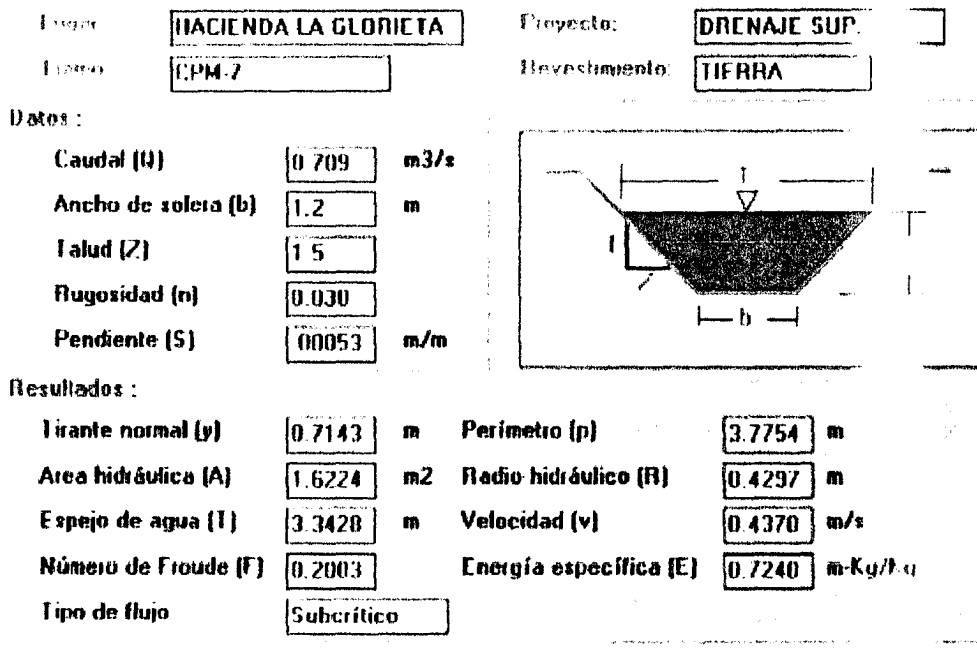


Figura G6. Alternativa 1. Diseño hidráulico del CPM-8A.

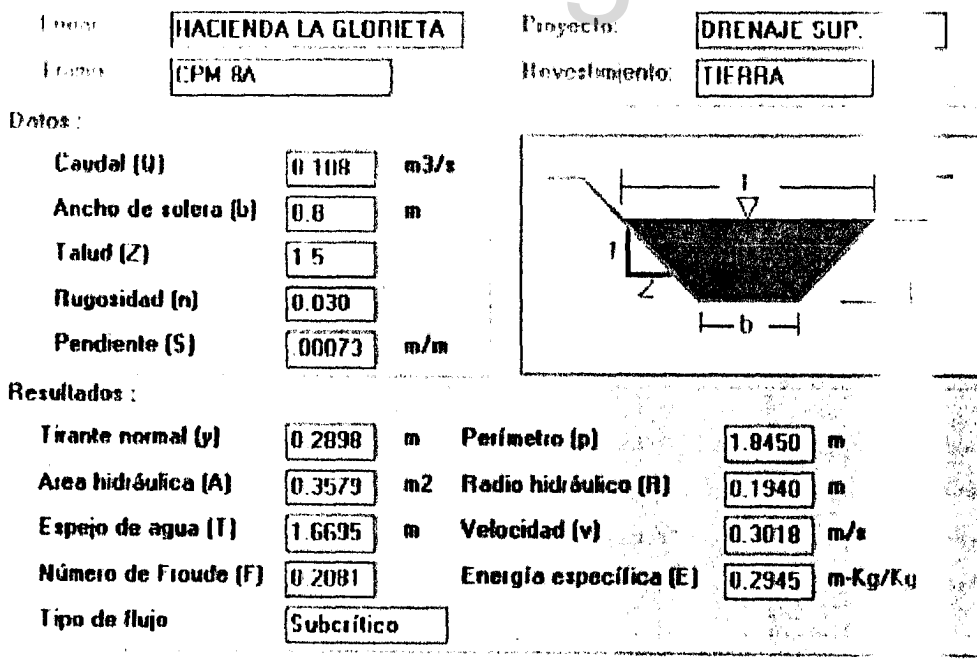


Figura G7. Alternativa 1. Diseño hidráulico del CSM-9.

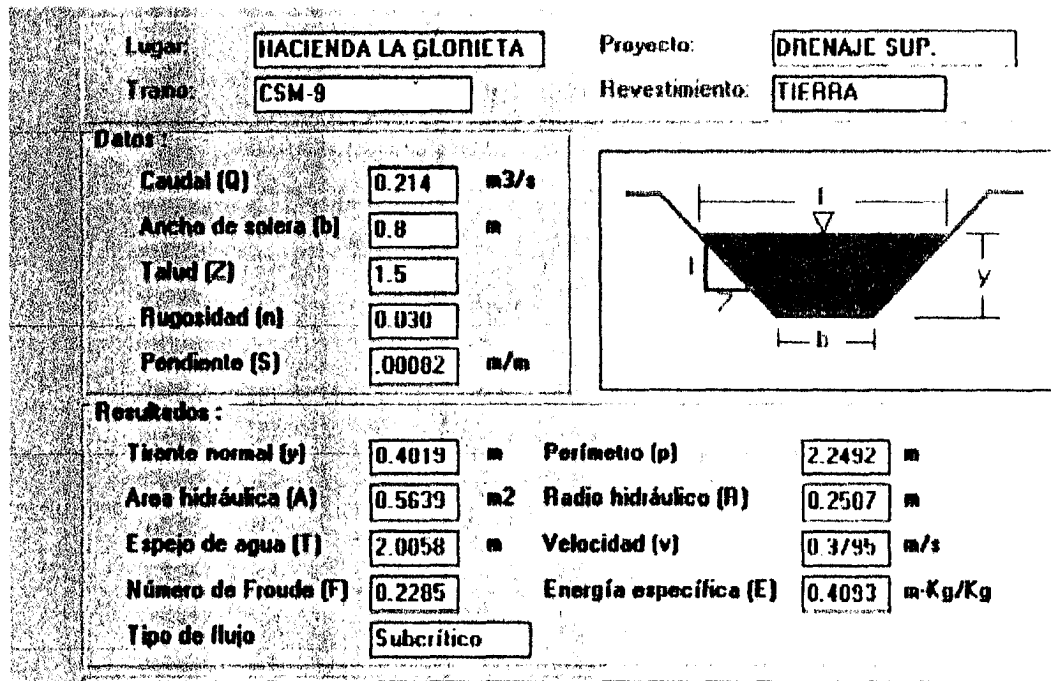


Figura G8. Alternativa 1. Diseño hidráulico del CPM-10.

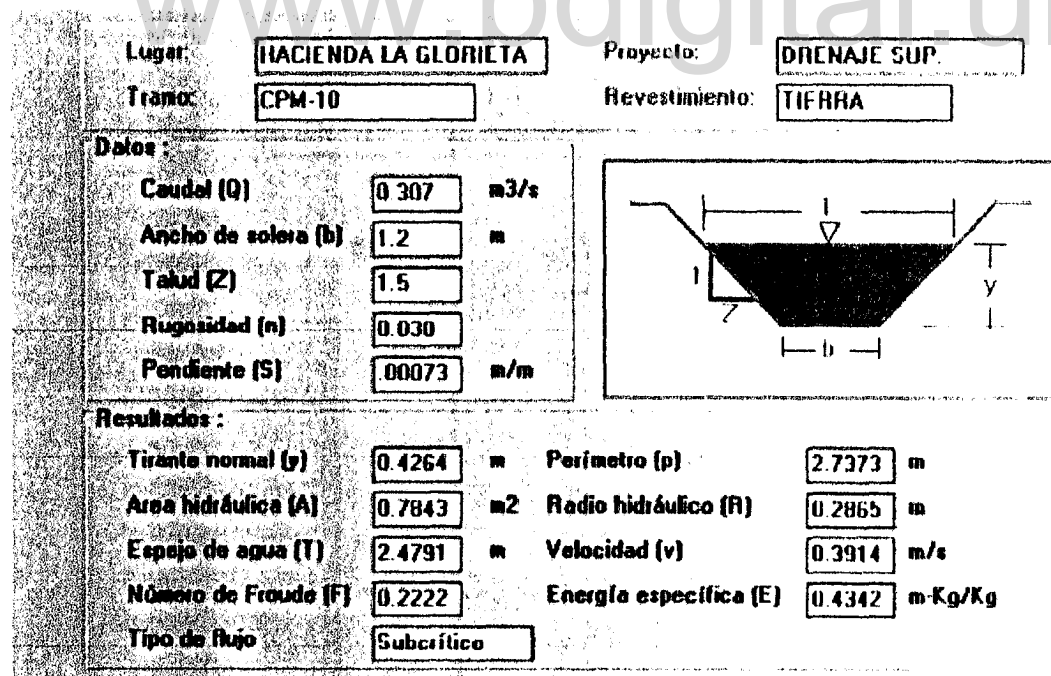


Figura G9. Alternativa 1. Diseño hidráulico del CNSM-11.

Lugar:	HACIENDA LA GLORIETA	Proyecto:	DRENAJE SUP.
Tramo:	CNSM 11	Revestimiento:	TIERRA

Datos :

Caudal (Q)	0.040	m ³ /s
Ancho de solera (b)	0	m
Talud (Z)	4	
Rugosidad (n)	0.035	
Pendiente (S)	0.0079	m/m

Resultados :

Tirante normal (y)	0.2477	m	Perímetro (p)	2.0428	m
Área hidráulica (A)	0.2455	m ²	Radio hidráulico (R)	0.1202	m
Espejo de agua (T)	1.9818	m	Velocidad (v)	0.1955	m/s
Número de Froude (F)	0.1774		Energía específica (E)	0.2497	m-Kg/Kg
Tipo de flujo	Subcrítico				

Figura G10. Alternativa 1. Diseño hidráulico del CSM-12.

Lugar:	HACIENDA LA GLORIETA	Proyecto:	DRENAJE SUP.
Tramo:	CSM 12	Revestimiento:	TIERRA

Datos :

Caudal (Q)	0.050	m ³ /s
Ancho de solera (b)	1	m
Talud (Z)	1.5	
Rugosidad (n)	0.030	
Pendiente (S)	0.028	m/m

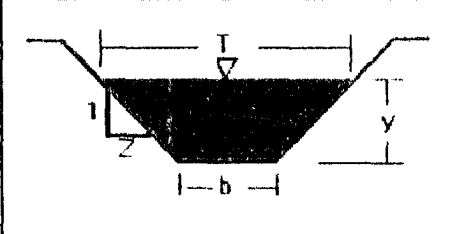
Resultados :

Tirante normal (y)	0.1155	m	Perímetro (p)	1.4165	m
Área hidráulica (A)	0.1355	m ²	Radio hidráulico (R)	0.0957	m
Espejo de agua (T)	1.3465	m	Velocidad (v)	0.3690	m/s
Número de Froude (F)	0.3713		Energía específica (E)	0.1224	m-Kg/Kg
Tipo de flujo	Subcrítico				

Figura G11. Alternativa 1. Diseño hidráulico del CSM-13.

Lugar:	HACIENDA LA GLORIETA	Proyecto:	DRENAJE SUP.
Tramo:	CSM-13	Revestimiento:	TIERRA

Datos:			
Caudal (Q)	0.177	m ³ /s	
Ancho de solera (b)	1	m	
Talud (Z)	1.5		
Rugosidad (n)	0.030		
Pendiente (S)	0.0028	m/m	

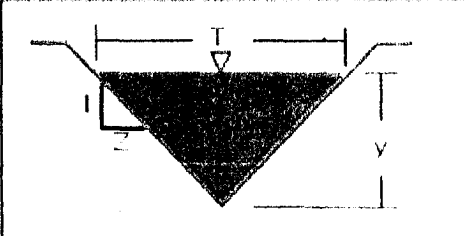


Resultados:					
Tirante normal (y)	0.2377	m	Perímetro (p)	1.0570	m
Área hidráulica (A)	0.3224	m ²	Radio hidráulico (R)	0.1736	m
Espejo de agua (T)	1.7131	m	Velocidad (v)	0.5490	m/s
Número de Froude (F)	0.4040		Energía específica (E)	0.2530	m-Kg/Kg
Tipo de flujo	Subcrítico				

Figura G12. Alternativa 1. Diseño hidráulico del CNSM-14.

Lugar:	HACIENDA LA GLORIETA	Proyecto:	DRENAJE SUP.
Tramo:	CNSM-14	Revestimiento:	TIERRA

Datos:			
Caudal (Q)	0.240	m ³ /s	
Ancho de solera (b)	0	m	
Talud (Z)	4		
Rugosidad (n)	0.035		
Pendiente (S)	0.004	m/m	



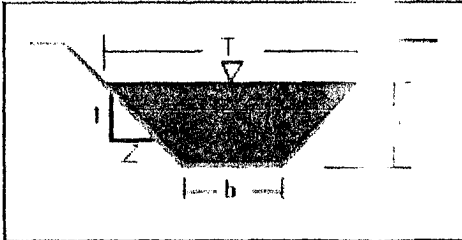
Resultados:					
Tirante normal (y)	0.5146	m	Perímetro (p)	4.2437	m
Área hidráulica (A)	1.0594	m ²	Radio hidráulico (R)	0.2496	m
Espejo de agua (T)	4.1170	m	Velocidad (v)	0.2265	m/s
Número de Froude (F)	0.1426		Energía específica (E)	0.5172	m-Kg/Kg
Tipo de flujo	Subcrítico				

Figura G13. Alternativa 1. Diseño hidráulico del CSM-15.

Lugar:	HACIENDA LA GLORIETA	Proyecto:	DRENAJE SUP.
Tramo:	CSM-15	Revestimiento:	TIERRA

Datos:

Caudal (Q)	0.490	m ³ /s
Ancho de solera (b)	1.5	m
Talud (Z)	1.5	
Rugosidad (n)	0.030	
Pendiente (S)	00051	m/m



Resultados:

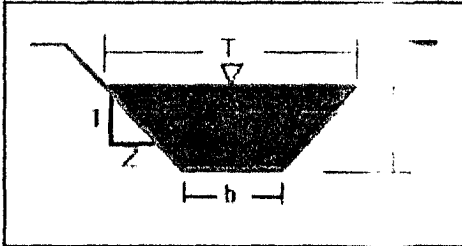
Tirante normal (y)	0.5471	m	Perímetro (p)	3.4726	m
Área hidráulica (A)	1.2696	m ²	Radio hidráulico (R)	0.3656	m
Espejo de agua (T)	3.1413	m	Velocidad (v)	0.3059	m/s
Número de Froude (F)	0.1938		Energía específica (E)	0.5547	m-Kg/Kg
Tipo de flujo	Subcrítico				

Figura G14. Alternativa 1. Diseño hidráulico del CPM-16.

Lugar:	HACIENDA LA GLORIETA	Proyecto:	DRENAJE SUP.
Tramo:	CPM-16	Revestimiento:	TIERRA

Datos:

Caudal (Q)	0.800	m ³ /s
Ancho de solera (b)	1.2	m
Talud (Z)	1.5	
Rugosidad (n)	0.030	
Pendiente (S)	00073	m/m



Resultados:

Tirante normal (y)	0.7038	m	Perímetro (p)	3.7377	m
Área hidráulica (A)	1.5077	m ²	Radio hidráulico (R)	0.4248	m
Espejo de agua (T)	3.3115	m	Velocidad (v)	0.5089	m/s
Número de Froude (F)	0.2347		Energía específica (E)	0.7170	m-Kg/Kg
Tipo de flujo	Subcrítico				

Figura G15. Alternativa 1. Diseño hidráulico del CPM-17.

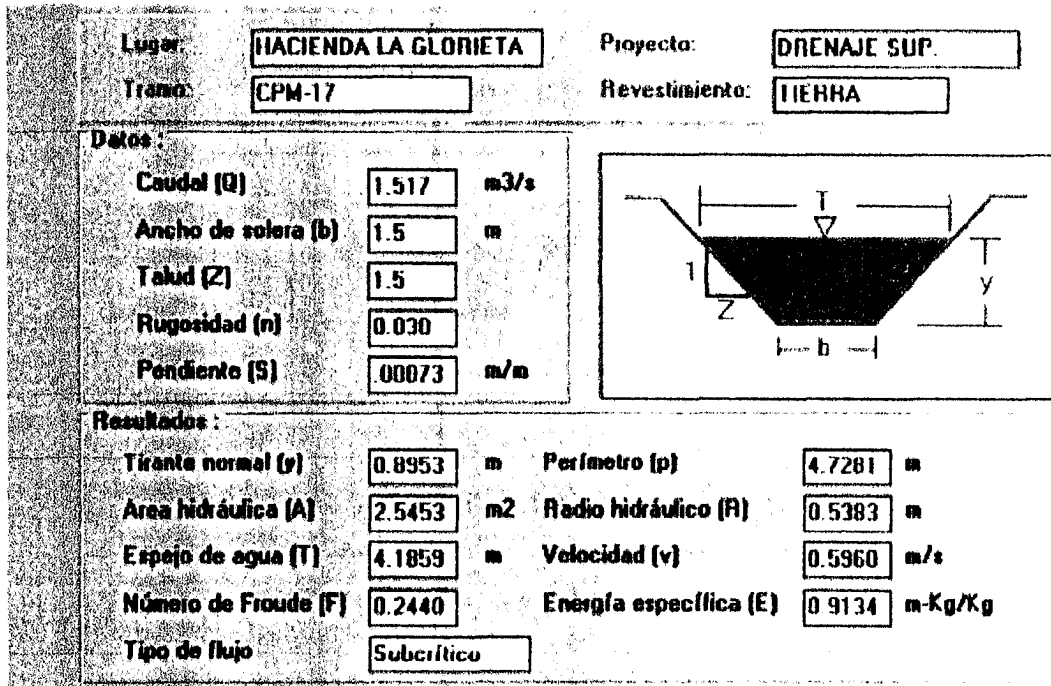


Figura G16. Alternativa 1. Diseño hidráulico del CSM-18.

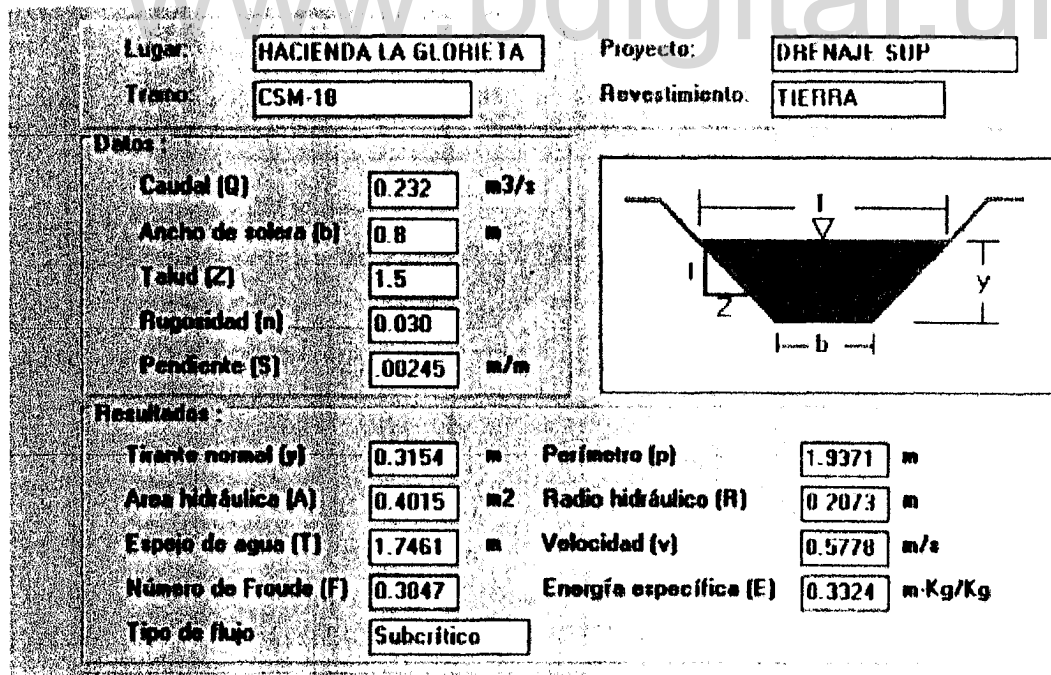


Figura G17. Alternativa 1. Diseño hidráulico del CSM-19.

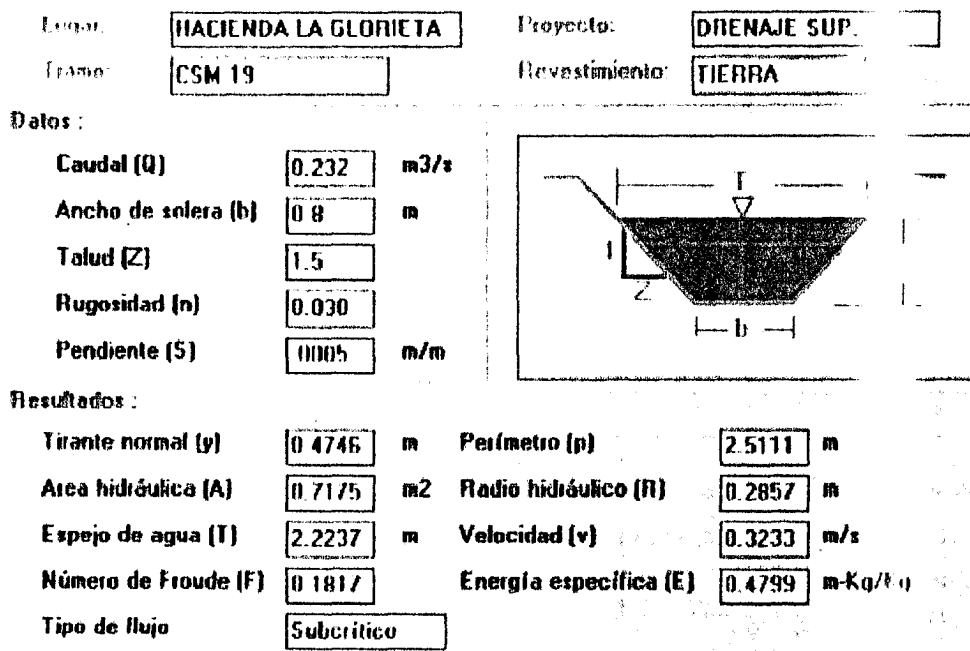


Figura G18. Alternativa 1. Diseño hidráulico del CPM-20.

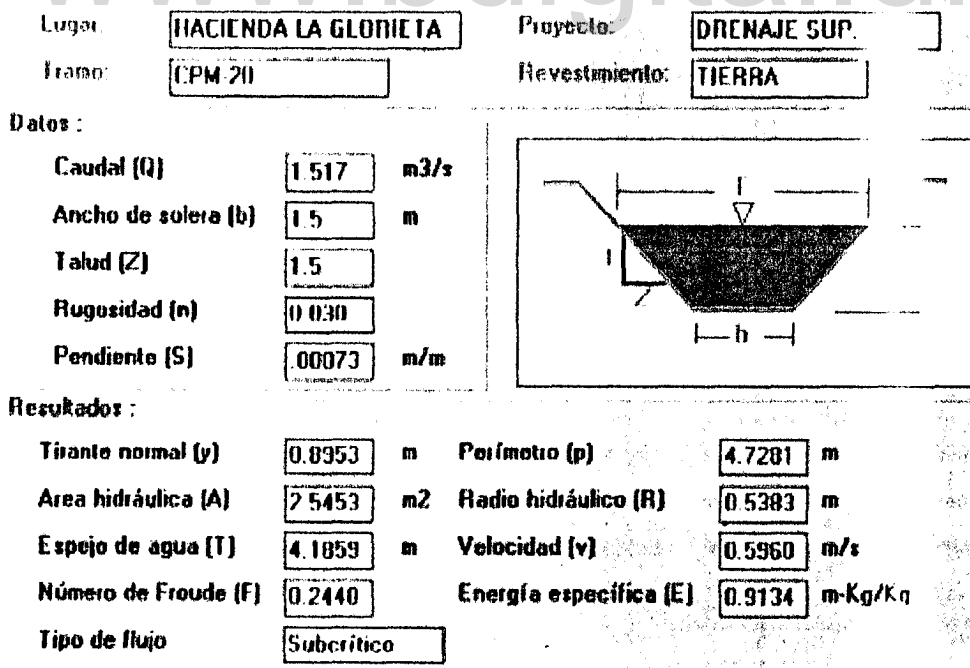


Figura G19. Alternativa 1. Diseño hidráulico del CNSM-21.

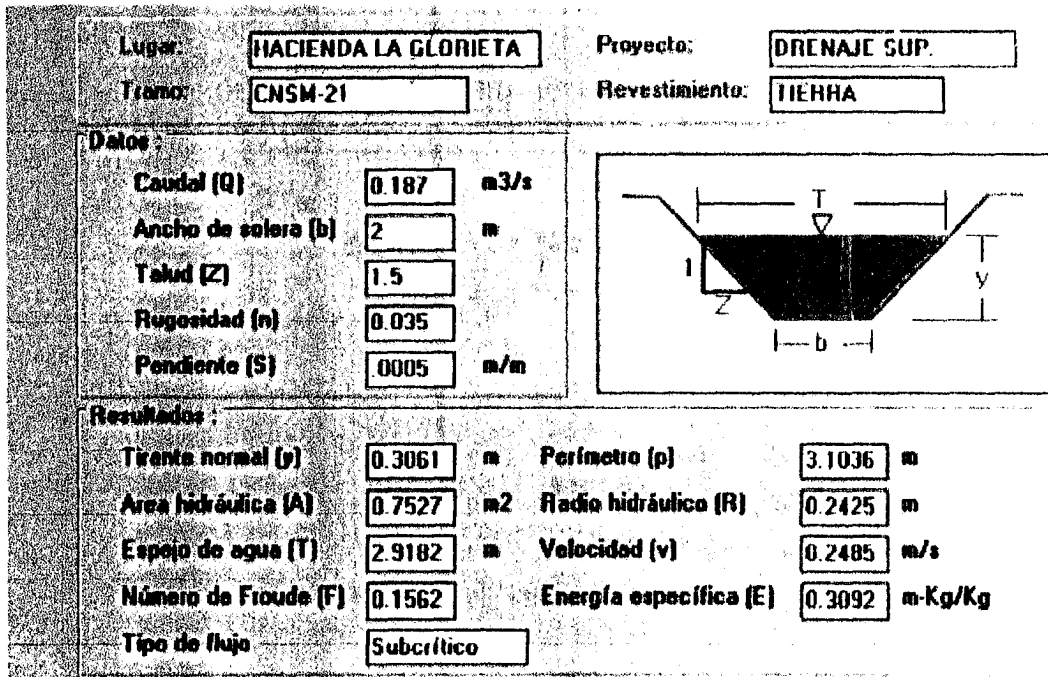


Figura G20. Alternativa 1. Diseño hidráulico del CSM-22-23.

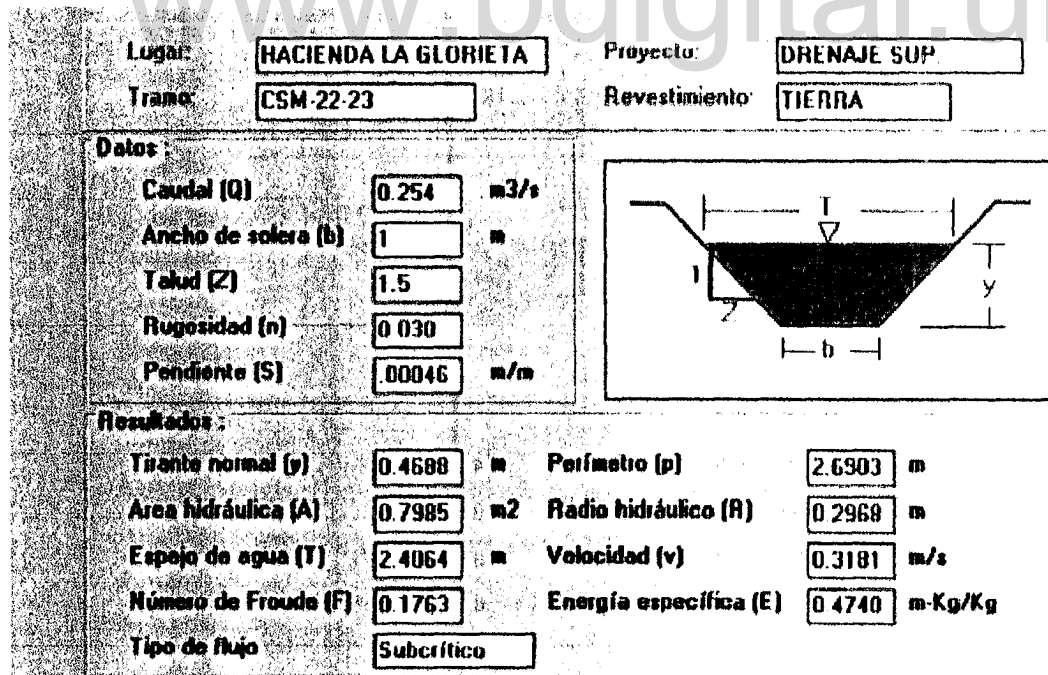


Figura G21. Alternativa 1. Diseño hidráulico del CNSM-24-25.

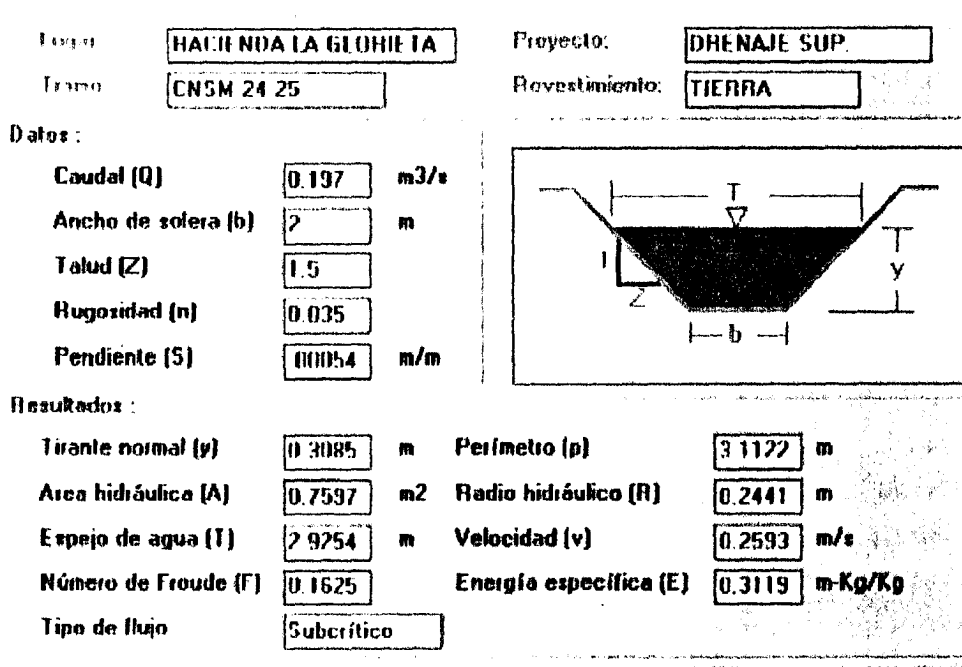


Figura G22. Alternativa 1. Diseño hidráulico del CNSM-26.

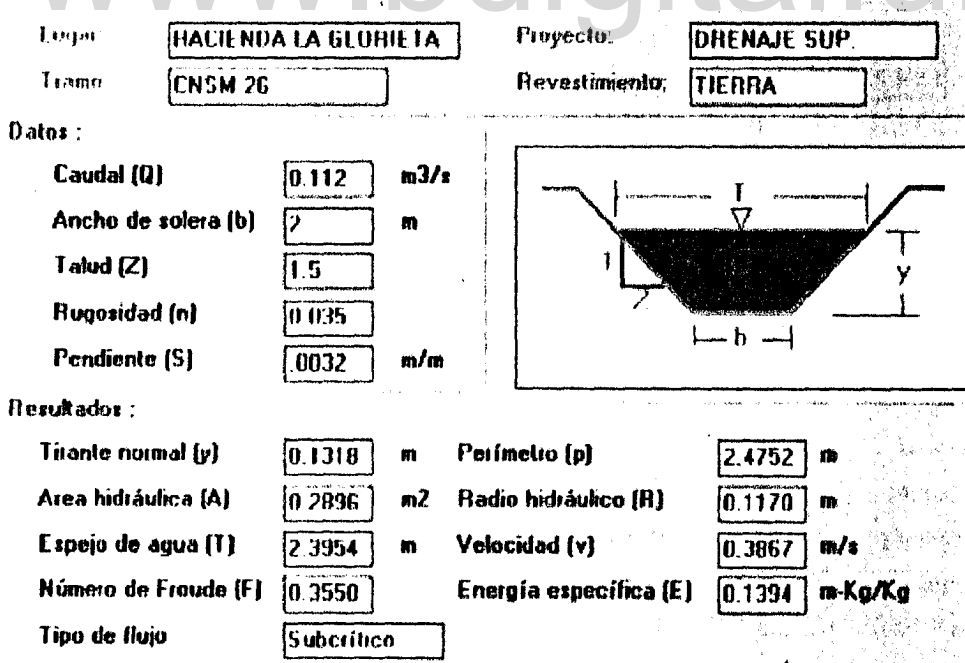


Figura G23. Alternativa 1. Diseño hidráulico del CNSM-27.

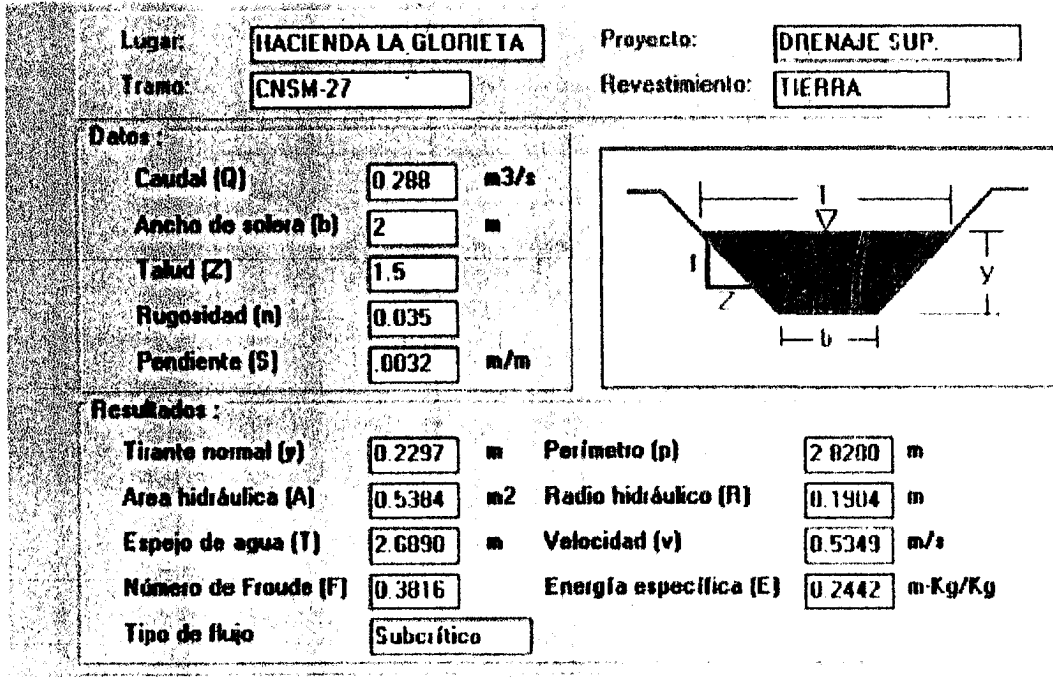


Figura G24. Alternativa 1. Diseño hidráulico del CSM-27A.

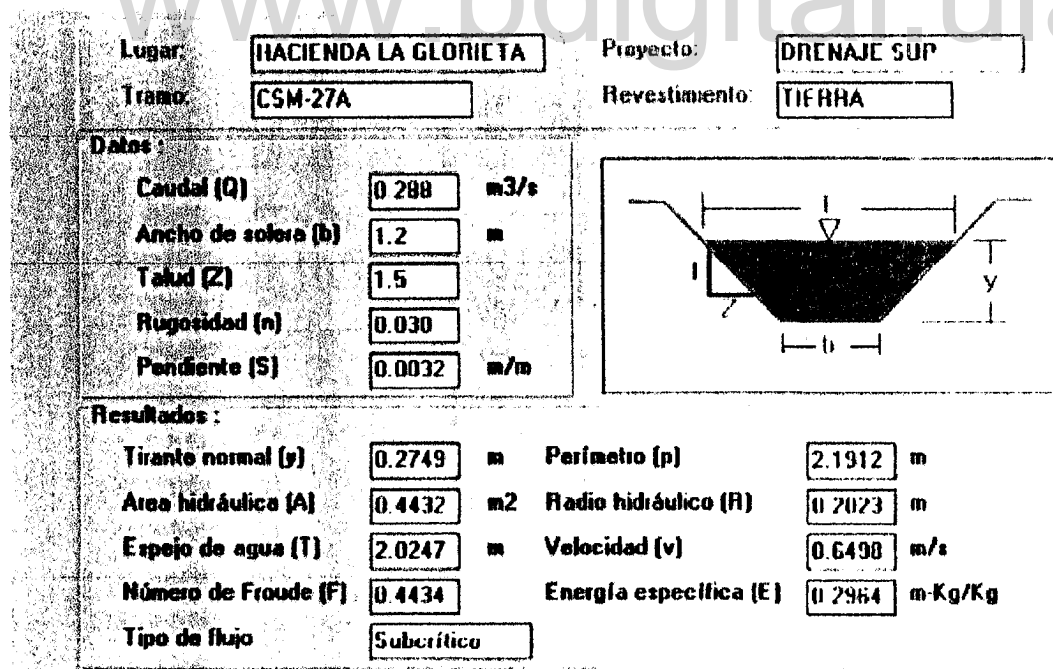


Figura G25. Alternativa 1. Diseño hidráulico del CSM-28.

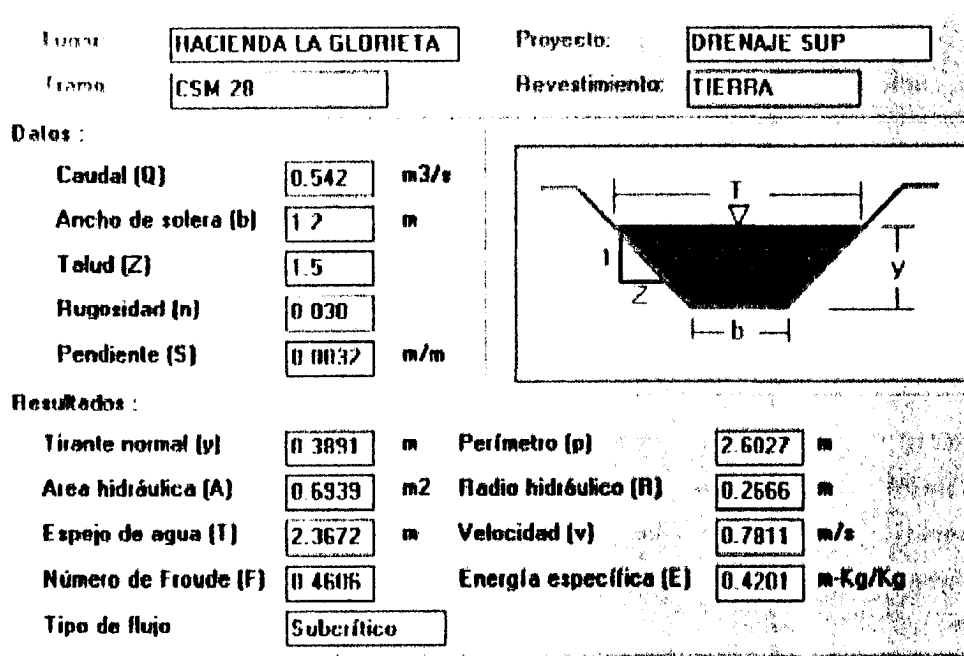


Figura G26. Alternativa 1. Diseño hidráulico del CNSM-29.

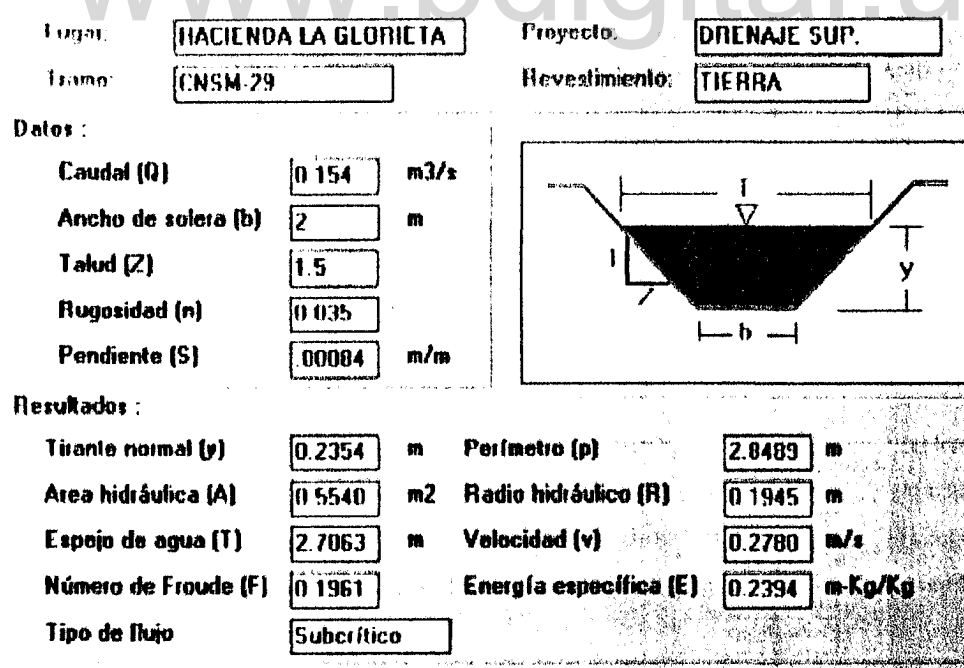


Figura G27 Alternativa 1. Diseño hidráulico del CNPM-30.

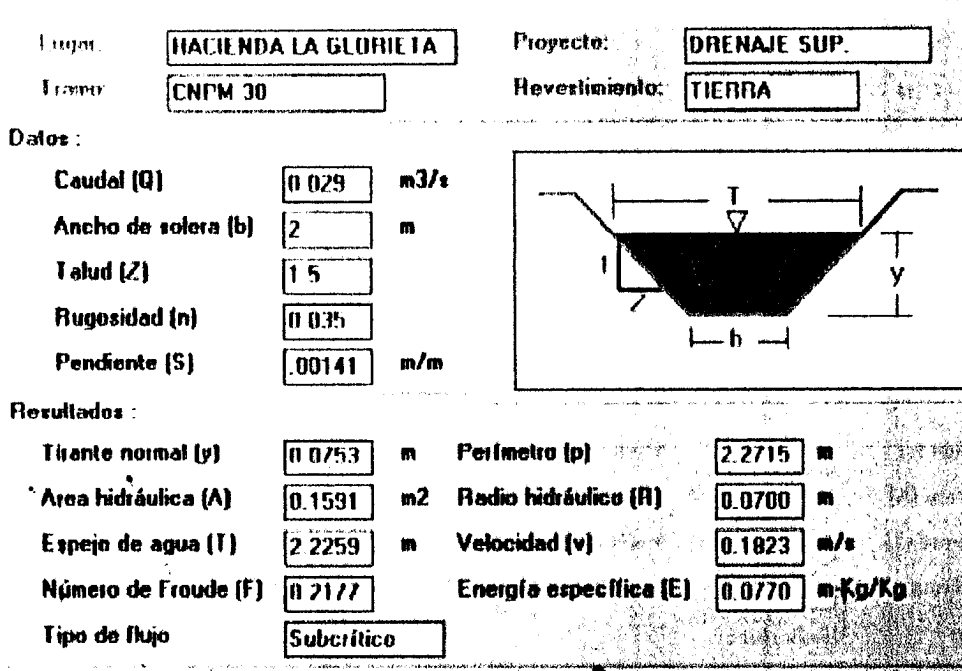


Figura G28 Alternativa 1. Diseño hidráulico del CNPM-31.

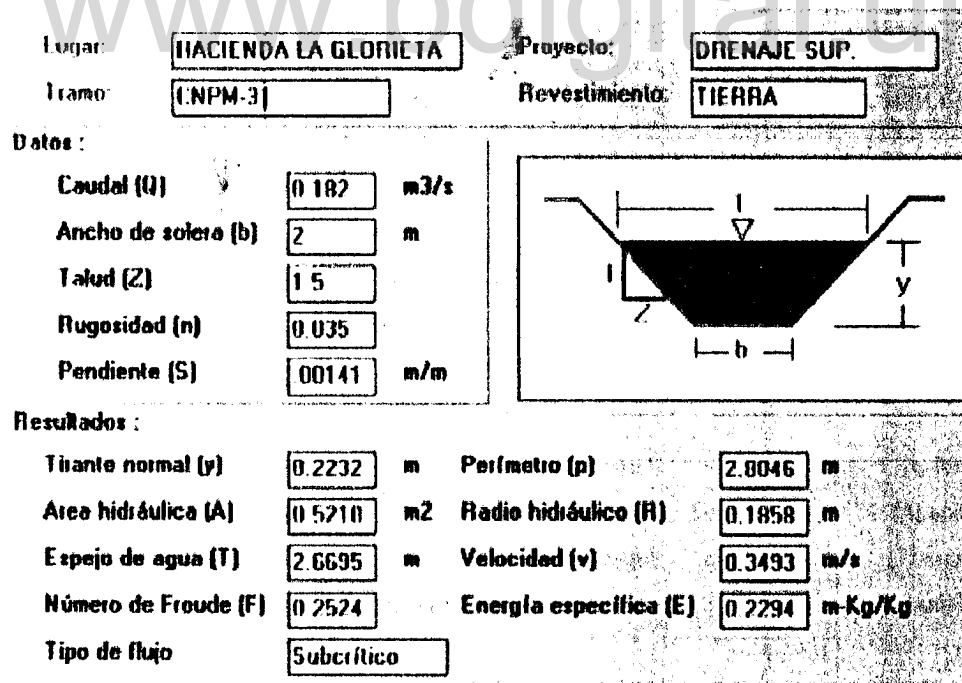


Figura G29. Alternativa 1. Diseño hidráulico del CNSM-32.

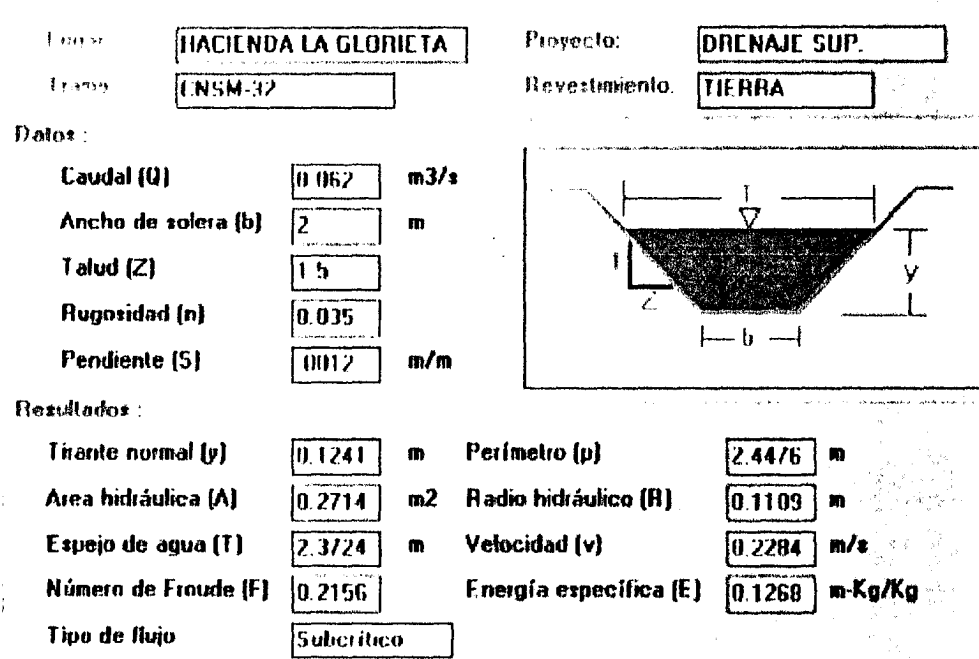


Figura G30. Alternativa 1. Diseño hidráulico del CNPM-33.

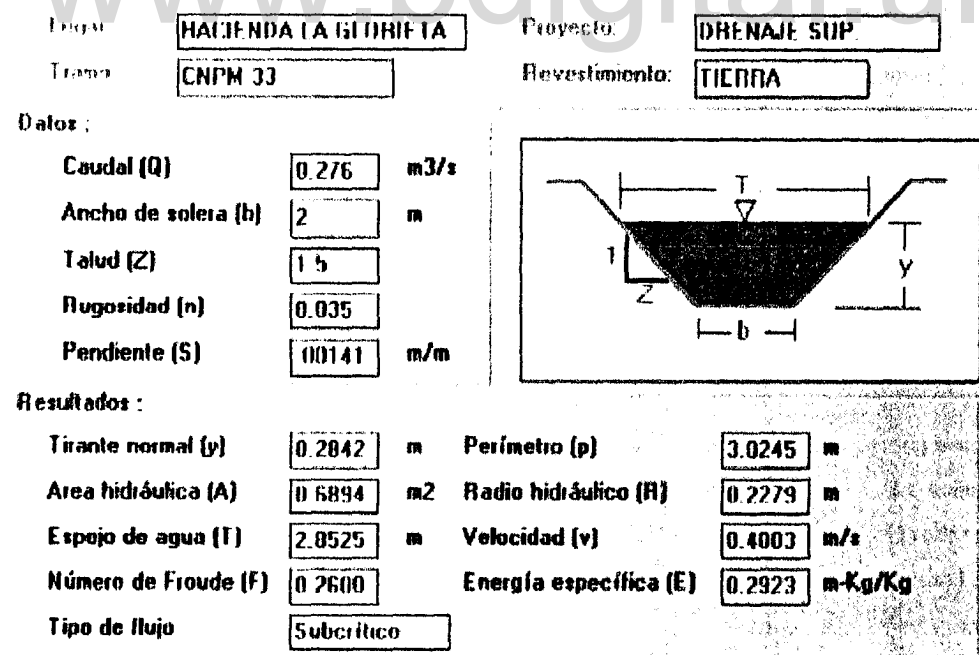


Figura G31. Alternativa 1. Diseño hidráulico del CNSM-34.

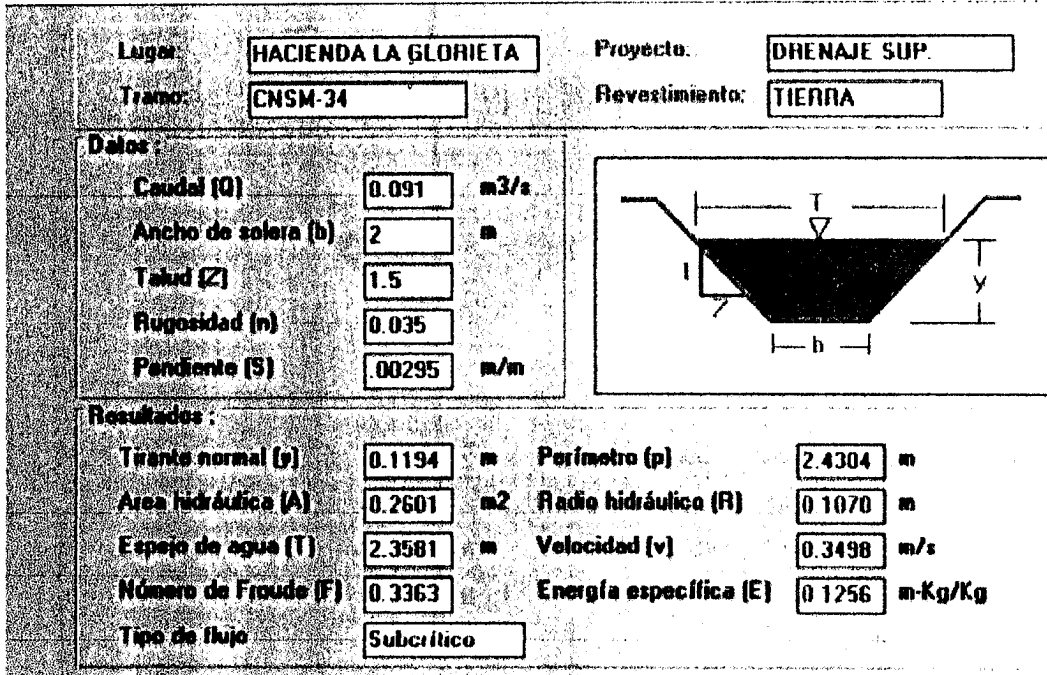


Figura G32. Alternativa 1. Diseño hidráulico del CNPM-35.

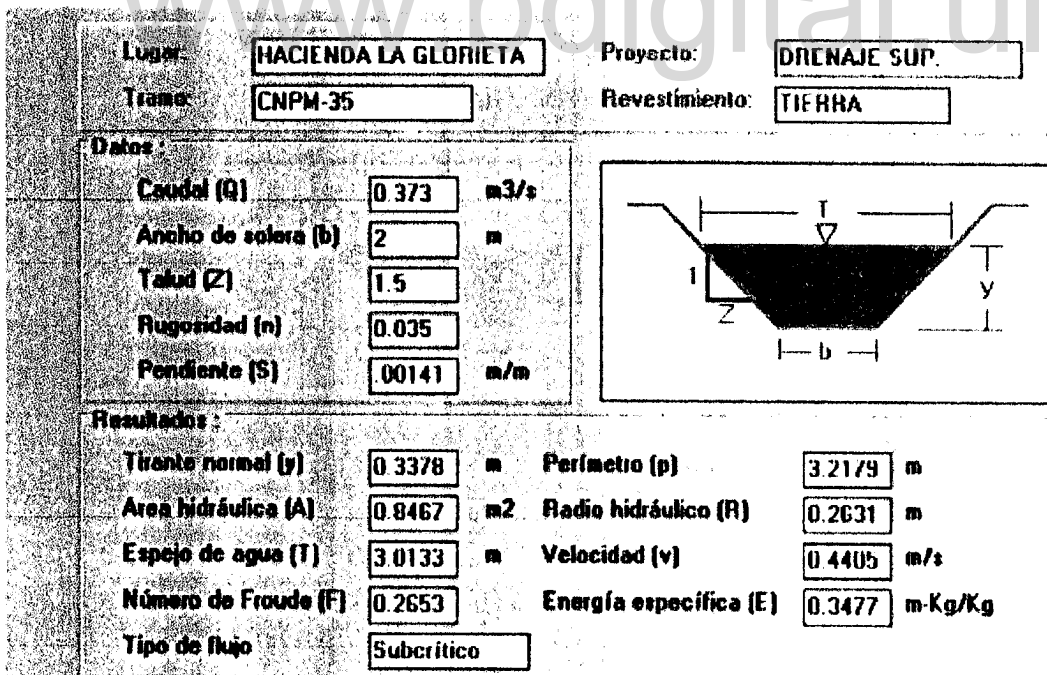


Figura G33. Alternativa 1. Diseño hidráulico del CPM-36.

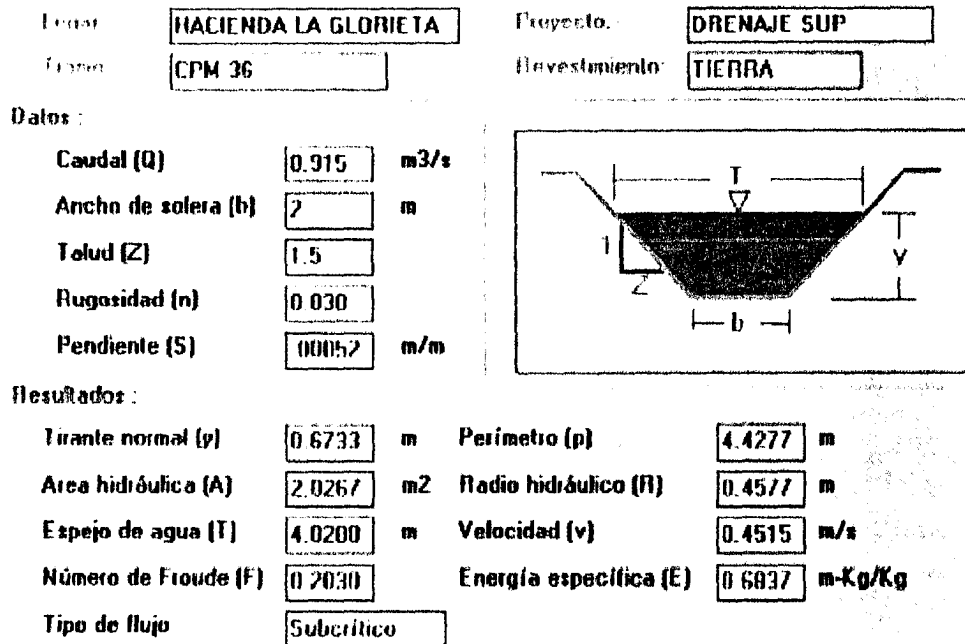


Figura G34. Alternativa 1. Diseño hidráulico del CSE-37.

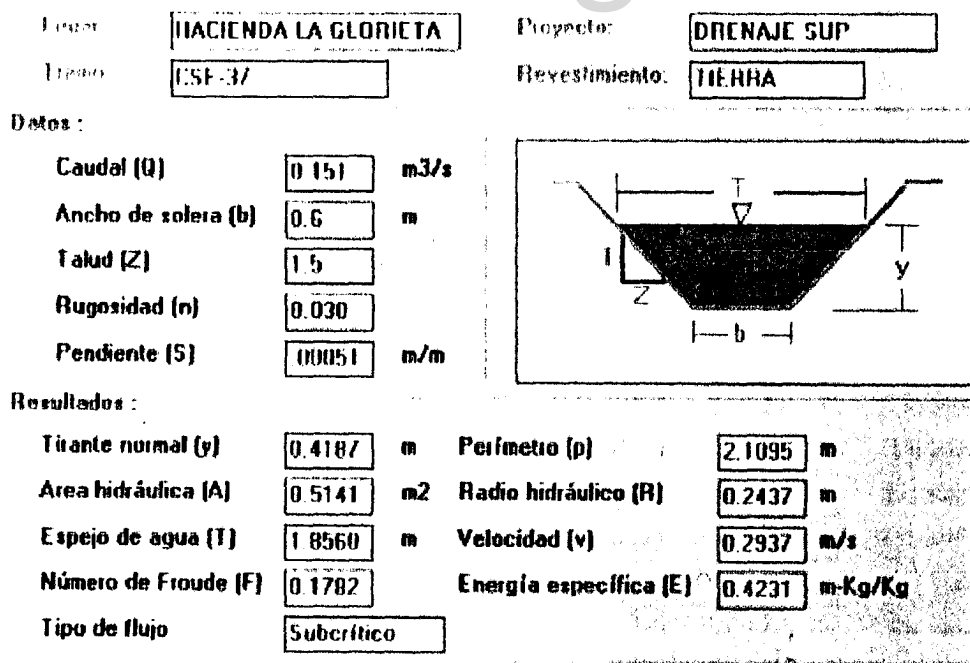


Figura G35. Alternativa 1. Diseño hidráulico del CSE-38.

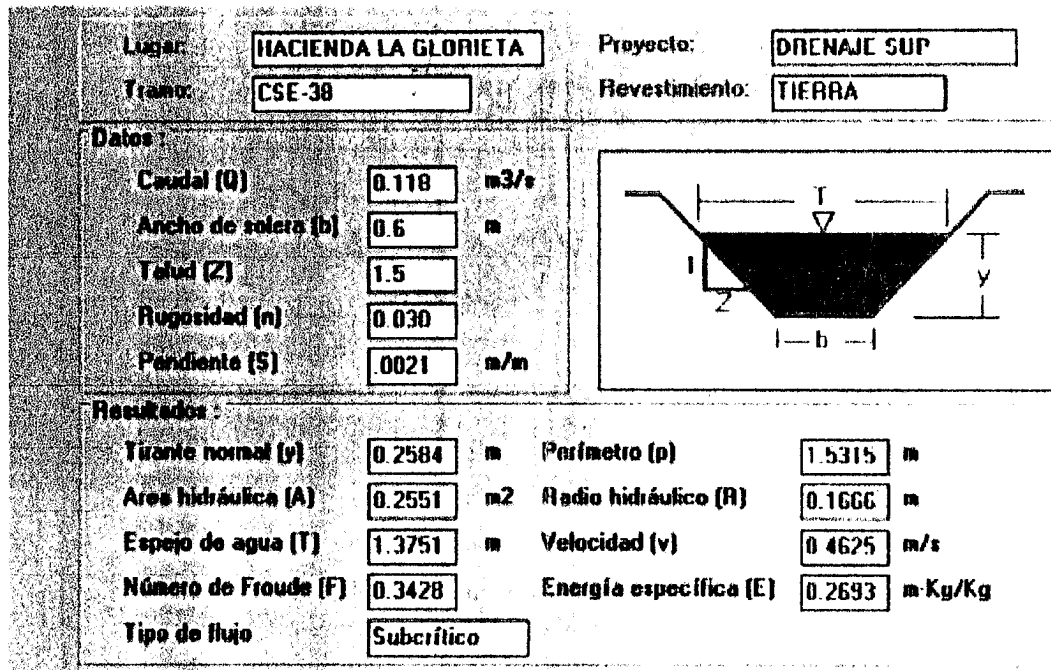


Figura G36. Alternativa 1. Diseño hidráulico del CPE-39.

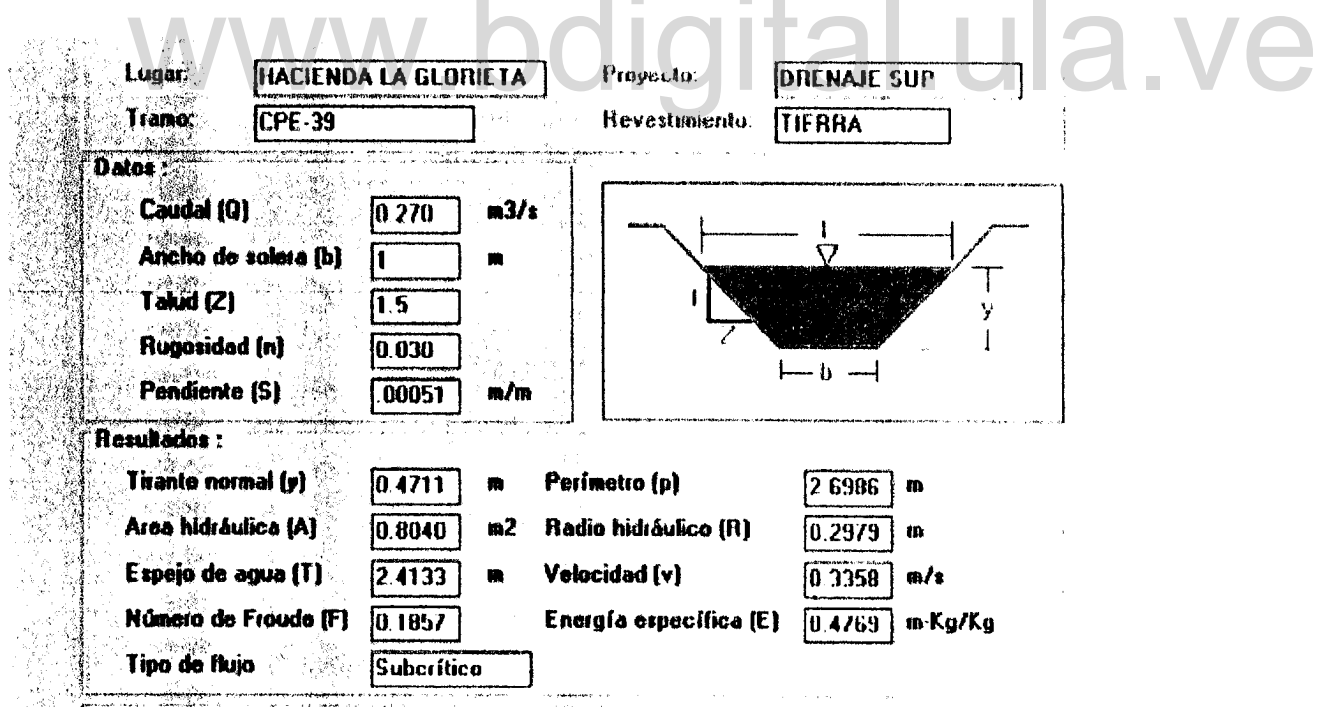


Figura G37. Alternativa 1. Diseño hidráulico del CSE-40.

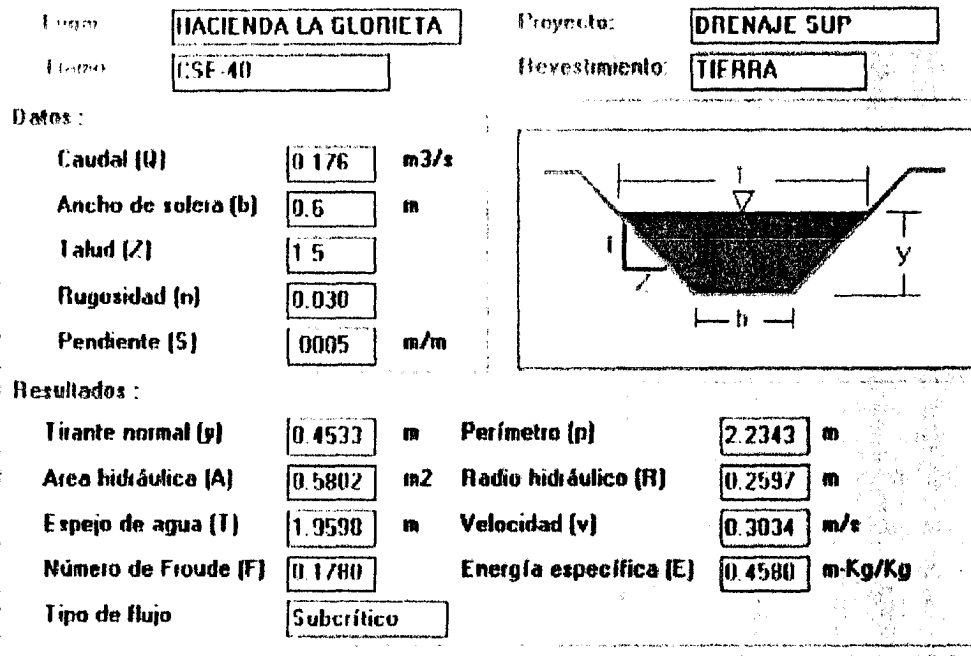


Figura G38. Alternativa 1. Diseño hidráulico del CSE-41.

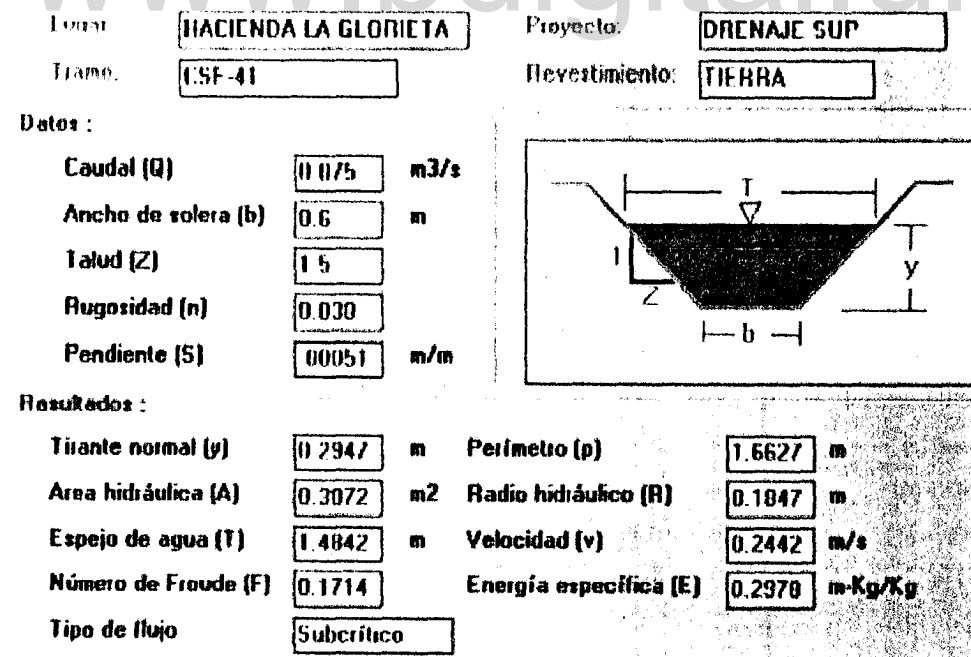


Figura G39. Alternativa 1. Diseño hidráulico del CPE-42.

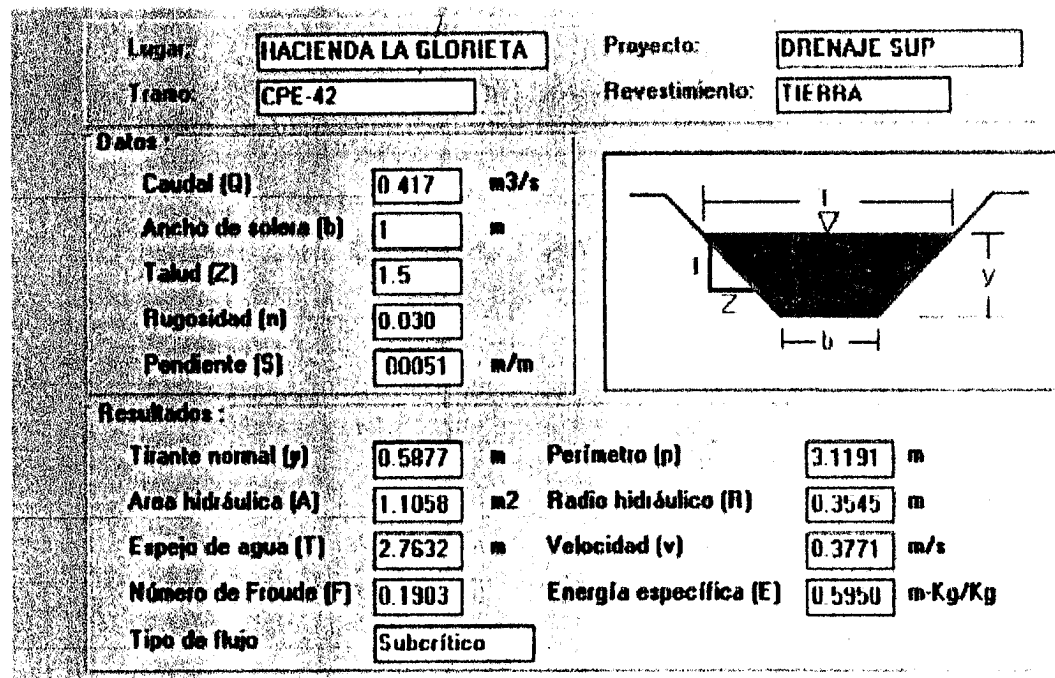


Figura G40. Alternativa 1. Diseño hidráulico del CSE-43.

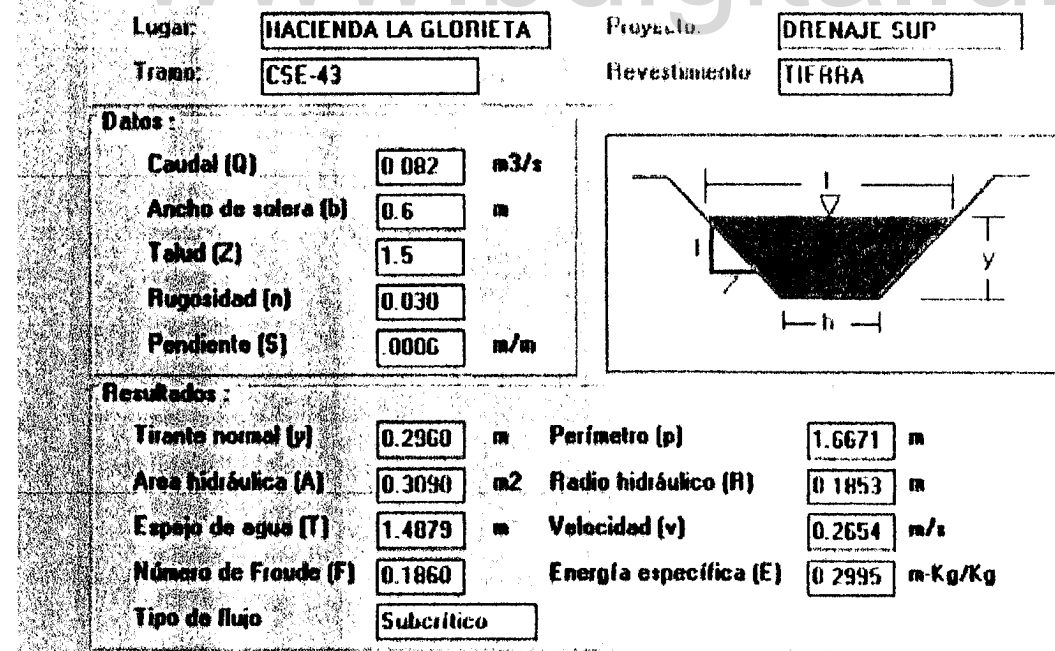


Figura G41. Alternativa 1. Diseño hidráulico del CNSE-44.

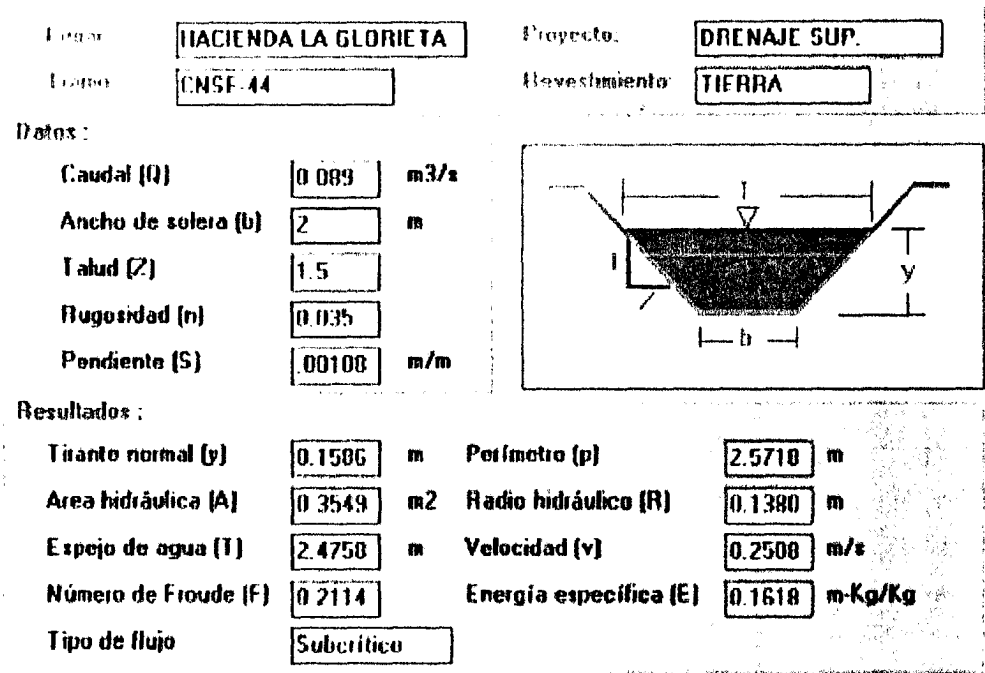


Figura G42. Alternativa 1. Diseño hidráulico del CPE-45.

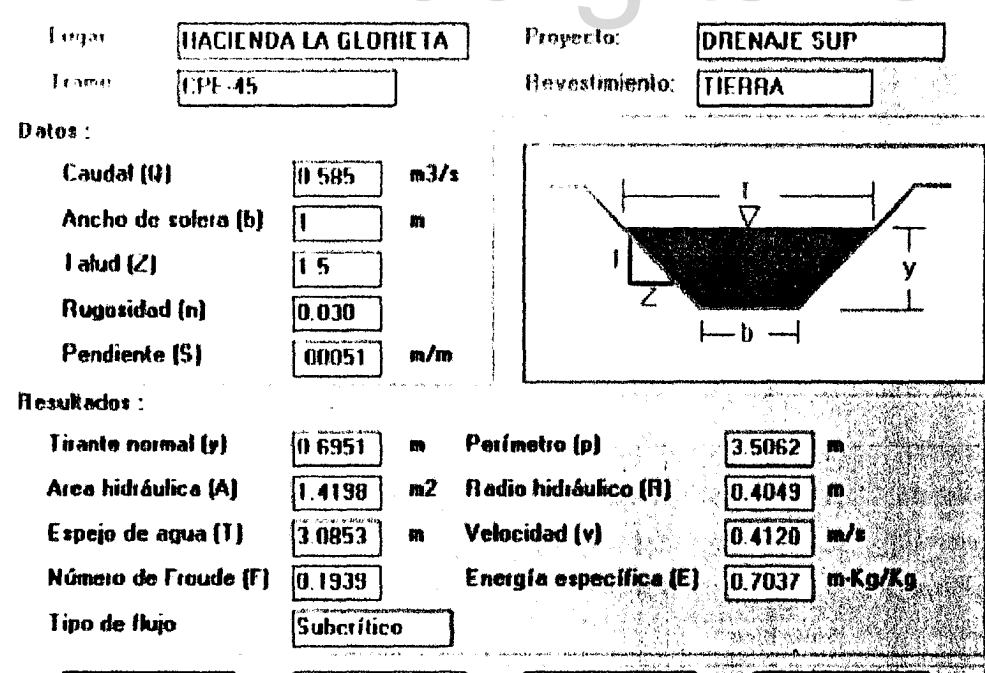


Figura G43. Alternativa 1. Diseño hidráulico del CSE-46.

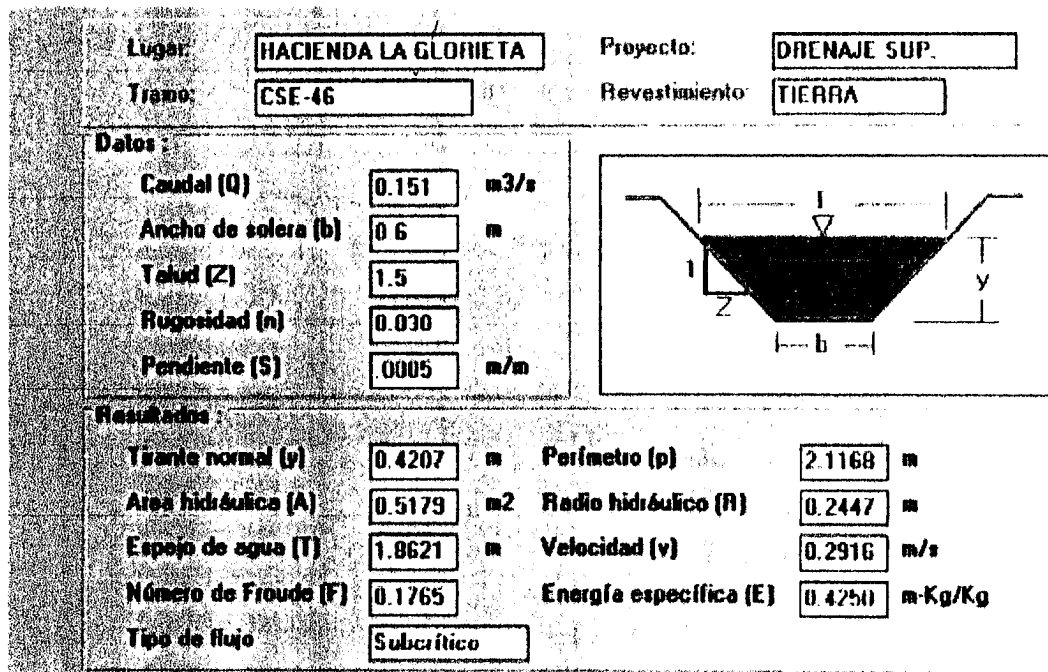


Figura G44. Alternativa 1. Diseño hidráulico del CPE-47.

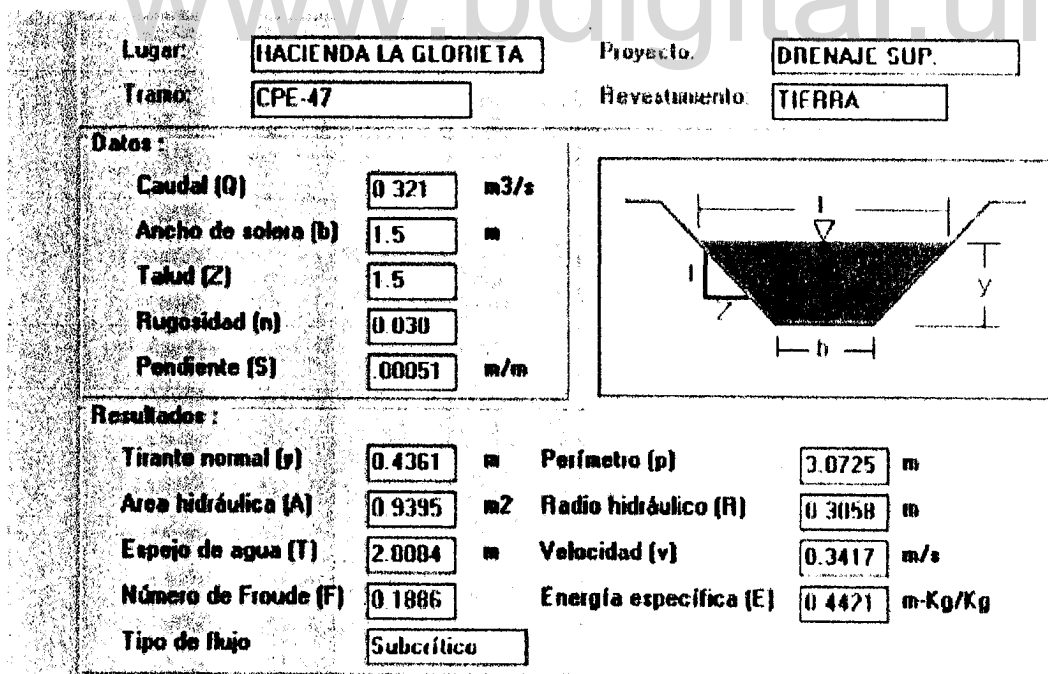


Figura G45. Alternativa 1. Diseño hidráulico del CPE-47A.

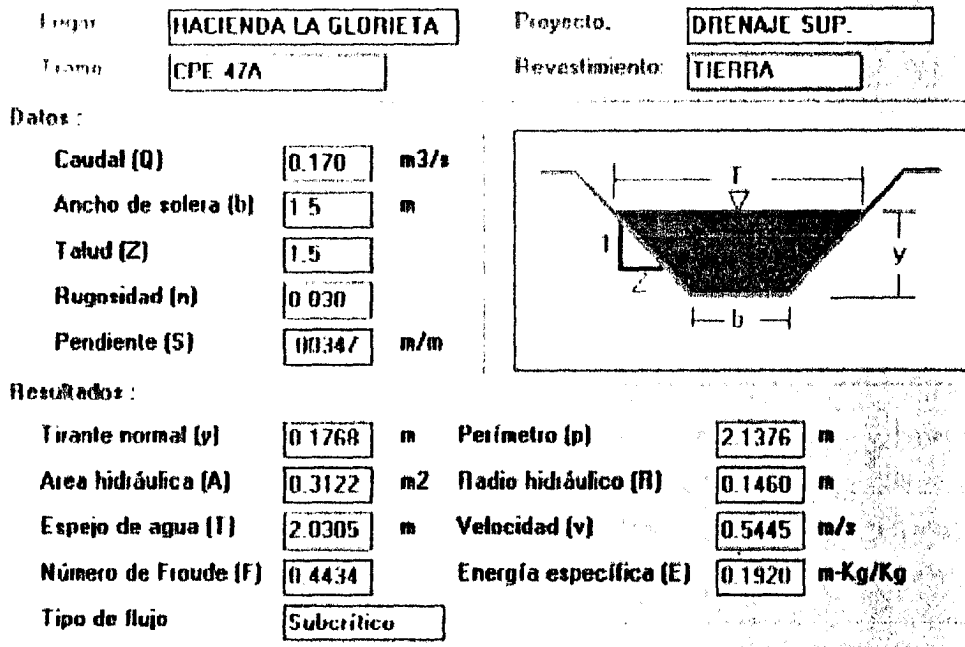


Figura G46. Alternativa 1. Diseño hidráulico del CSE-48.

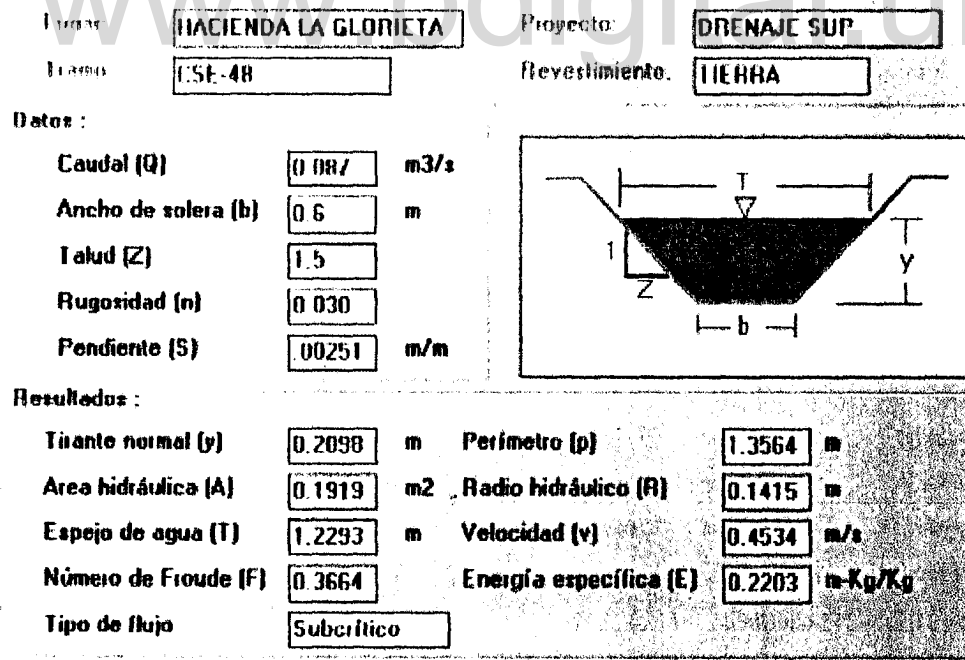


Figura G47. Alternativa 1. Diseño hidráulico del CPE-49.

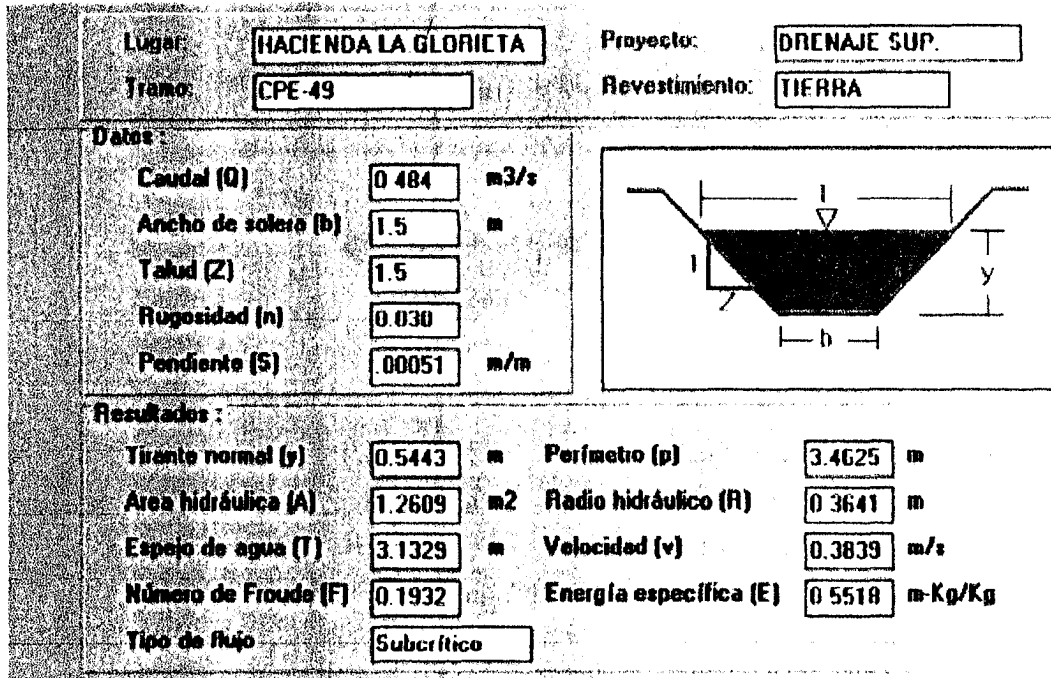


Figura G48. Alternativa 1. Diseño hidráulico del CPE-50.

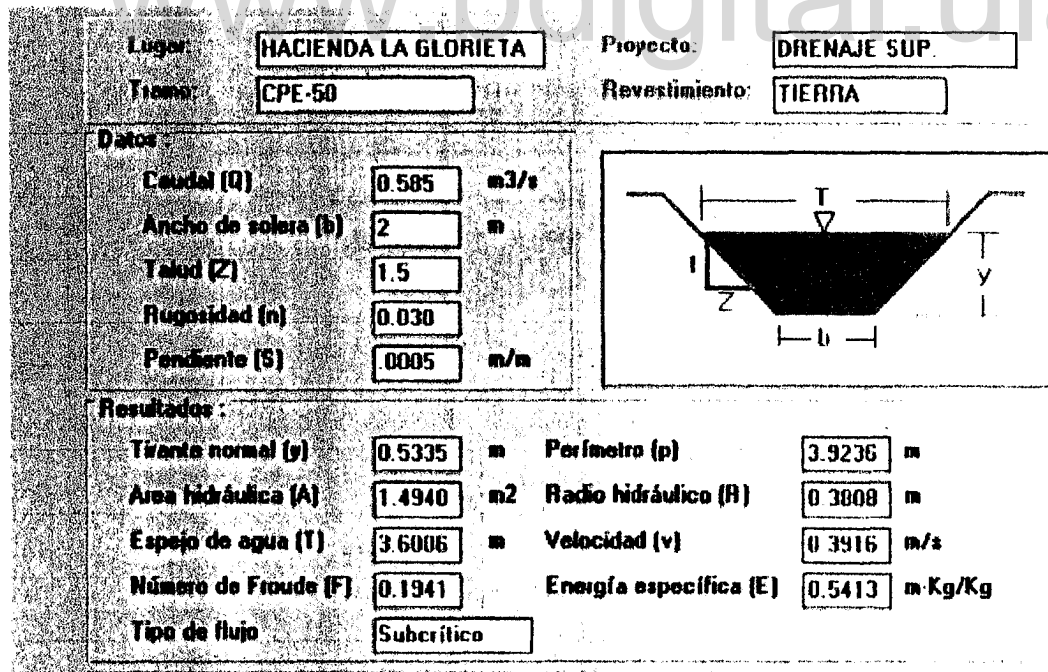


Figura G49. Alternativa 1. Diseño hidráulico del CPE-50A.

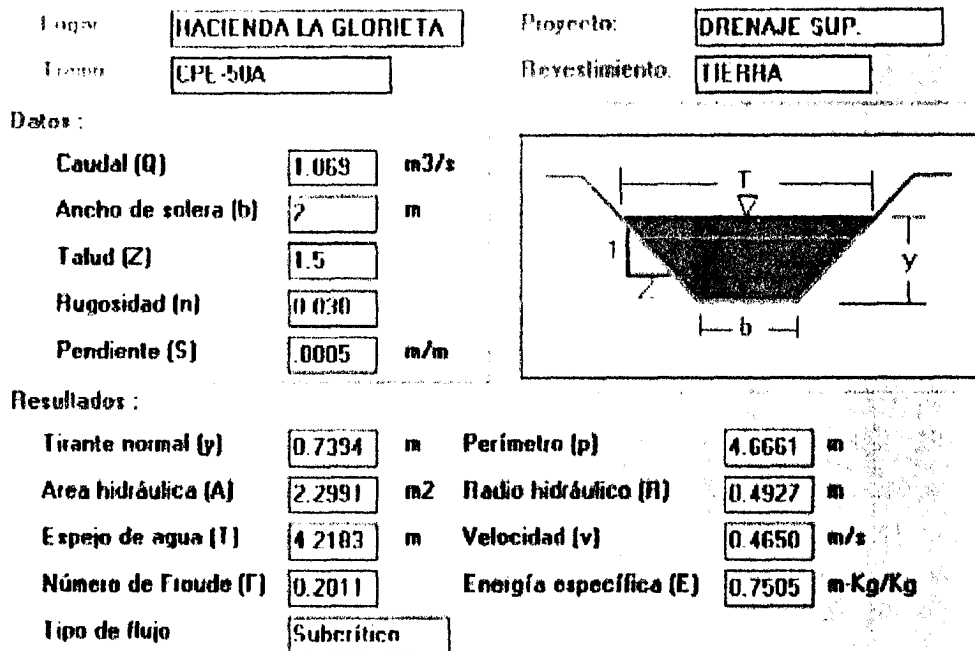


Figura G50 Alternativa 1. Diseño hidráulico del CSE-51.

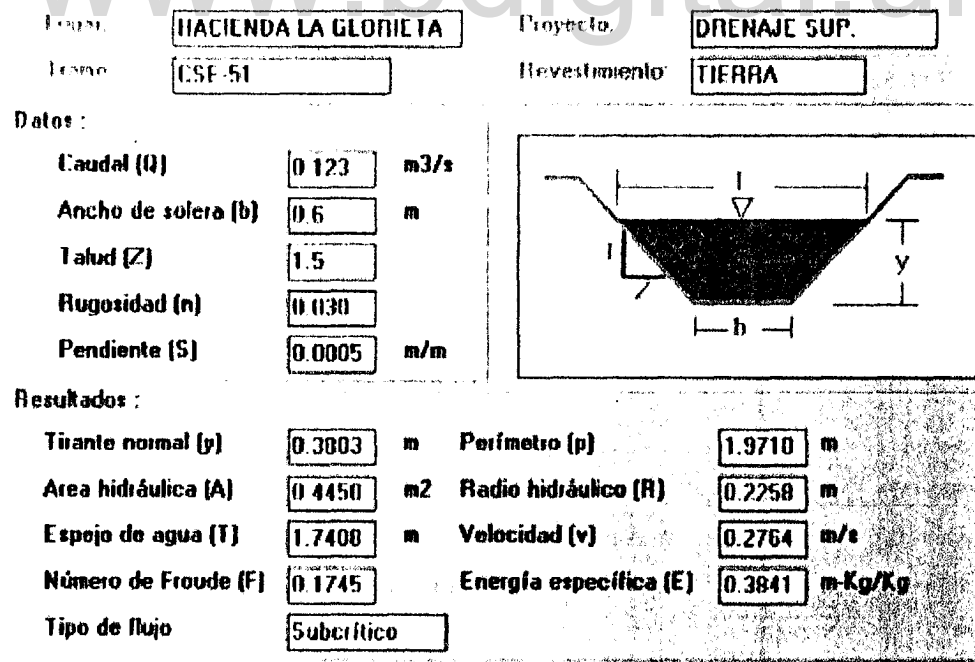


Figura G51. Alternativa 1. Diseño hidráulico del CSE-52.

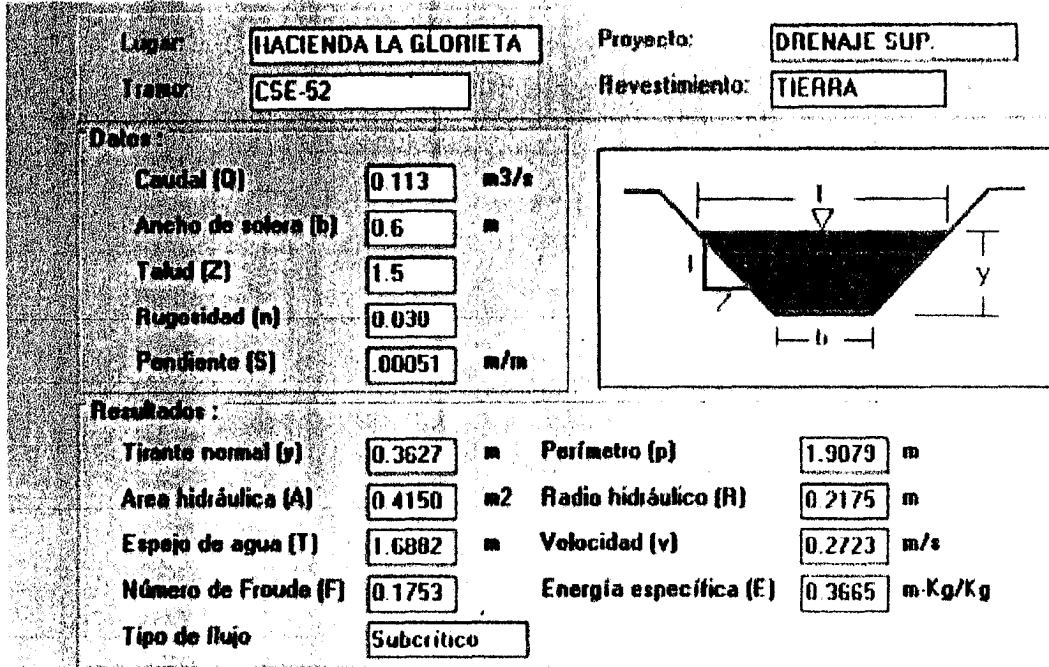


Figura G52. Alternativa 1. Diseño hidráulico del CPE-53.

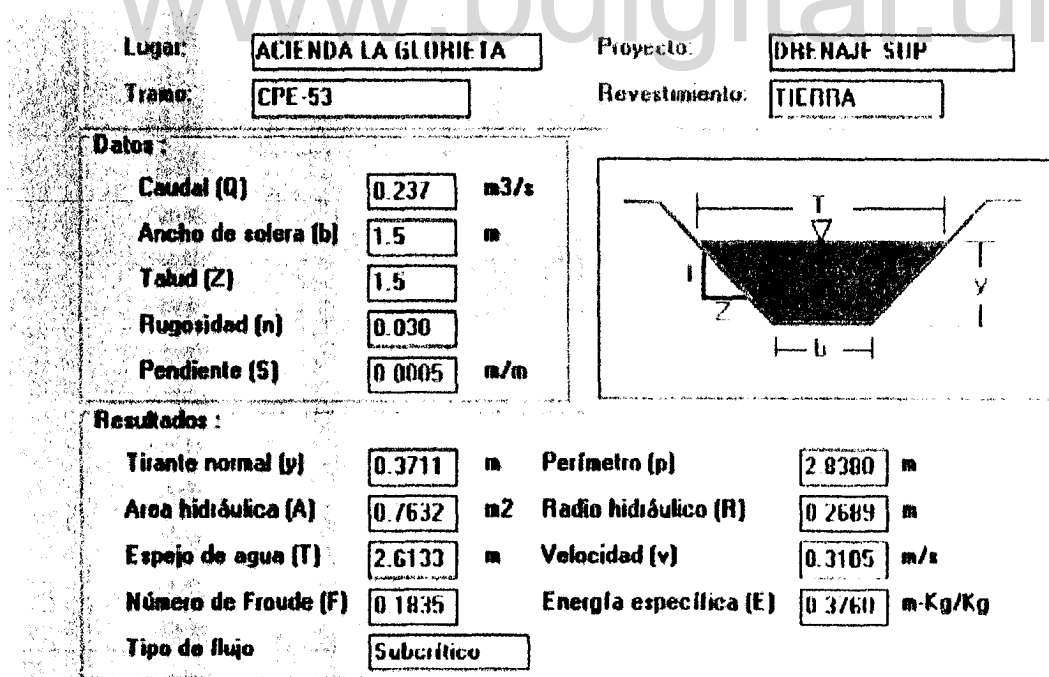


Figura G53. Alternativa 1. Diseño hidráulico del CSE-54.

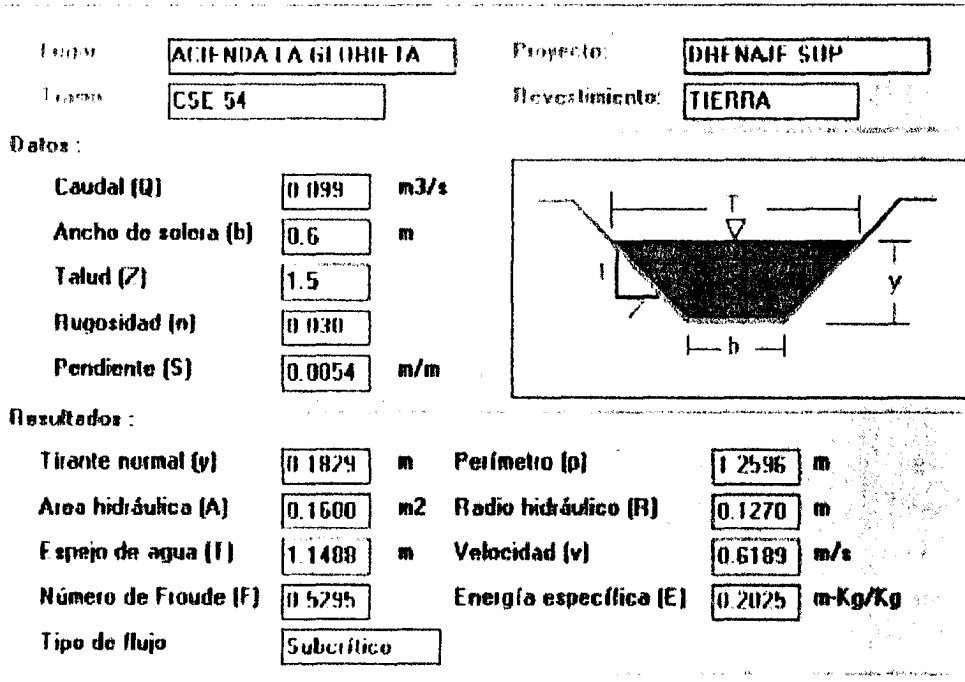


Figura G54. Alternativa 1. Diseño hidráulico del CPE-54A.

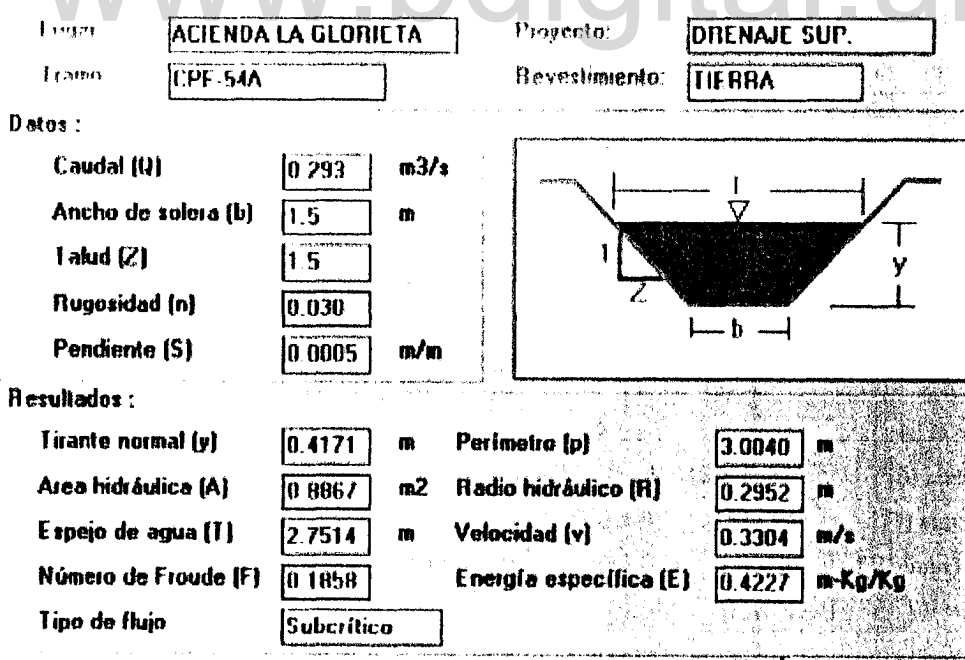


Figura G55. Alternativa 1. Diseño hidráulico del CPE-55.

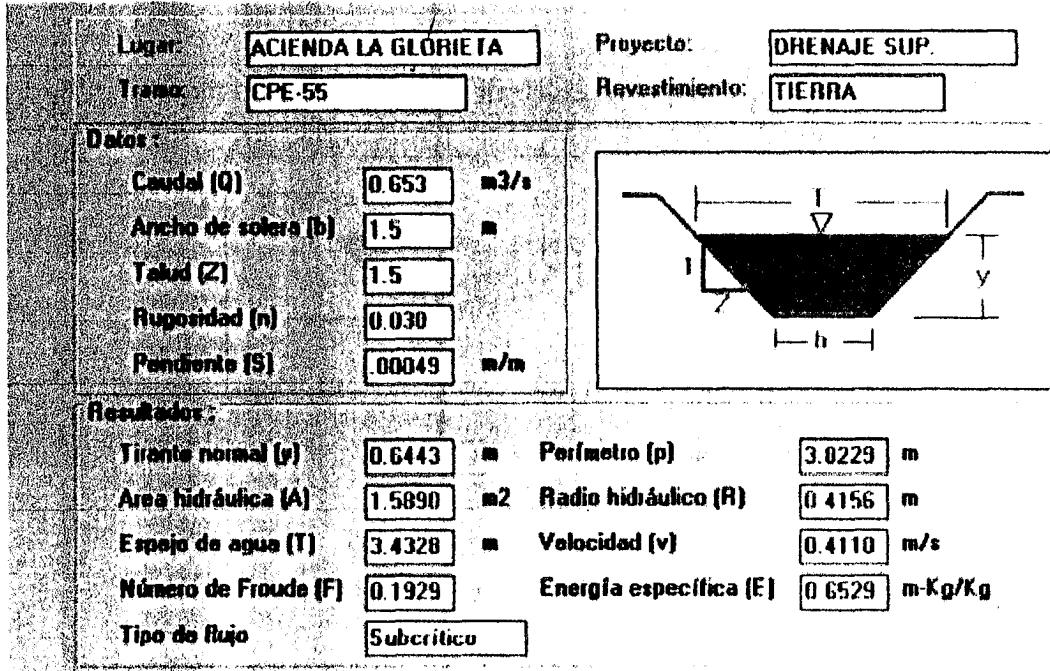


Figura G56. Alternativa 1. Diseño hidráulico del CSE-56.

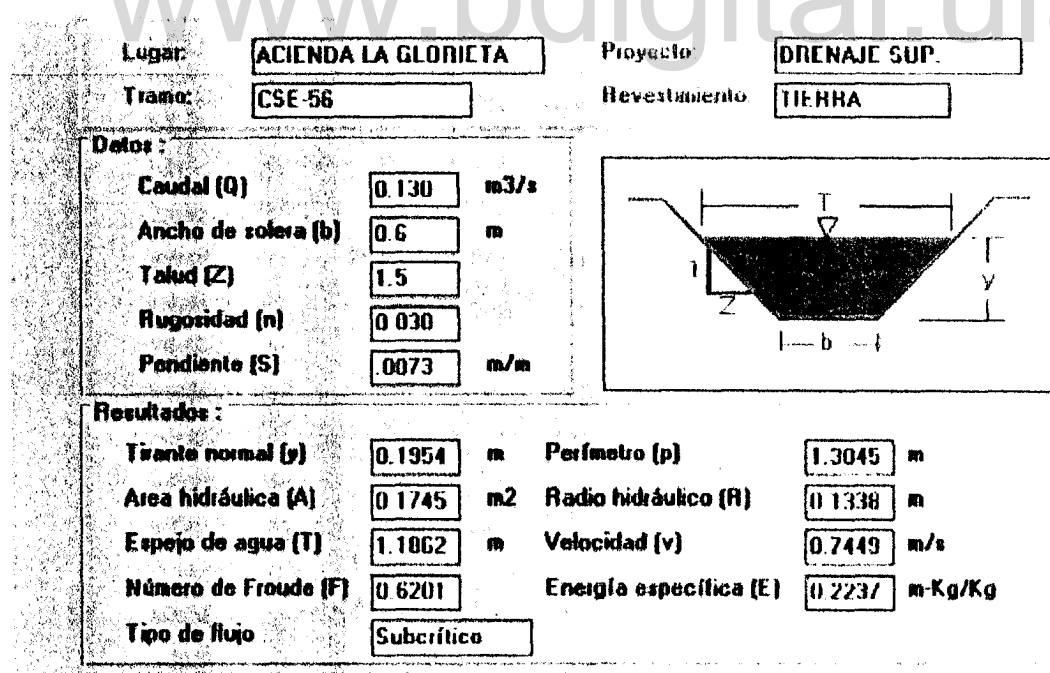


Figura G57. Alternativa 2. Diseño hidráulico del CPM-5

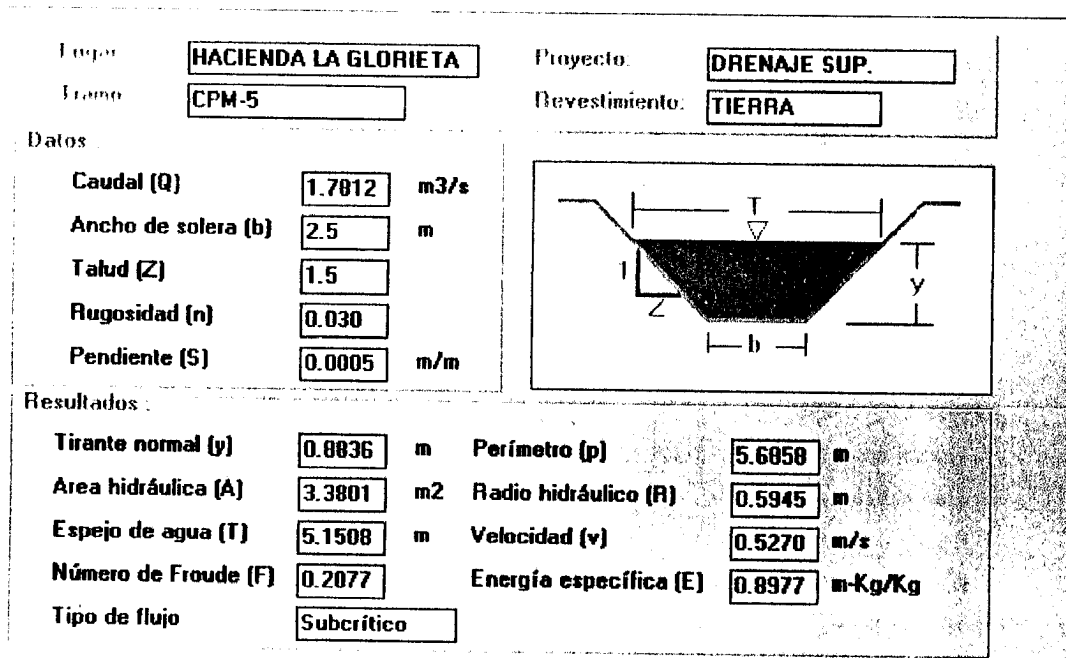


Figura G58. Alternativa 2. Diseño hidráulico del CPM-7

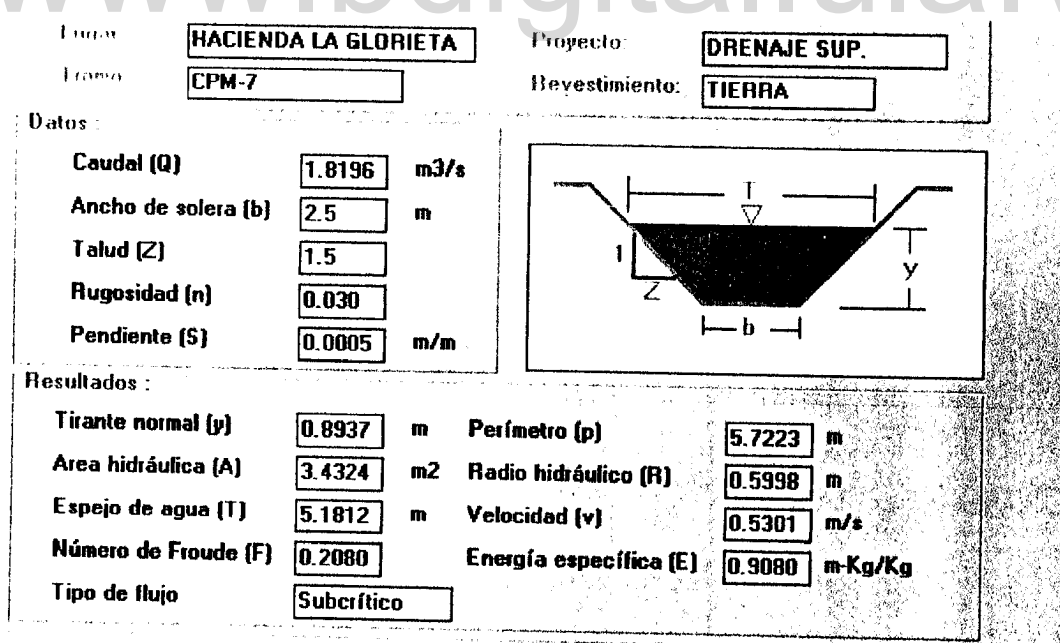


Figura G59. Alternativa 2. Diseño hidráulico del CPM-17

Lugar:	HACIENDA LA GLORIETA	Proyecto:	DRENAJE SUP.		
Tramo:	CPM-17	Revestimiento:	TIERRA		
Datos:					
Caudal (Q)	2.4698	m³/s			
Ancho de zócalo (b)	2.5	m			
Talud (Z)	1.5				
Rugosidad (n)	0.030				
Pendiente (S)	0.0005	m/m			
Resultados:					
Tirante normal (y)	1.0504	m	Perímetro (p)	6.2874	m
Área hidráulica (A)	4.2812	m²	Radio hidráulico (R)	0.6809	m
Espejo de agua (T)	5.6513	m	Velocidad (v)	0.5769	m/s
Número de Froude (F)	0.2116		Energía específica (E)	1.0674	m-Kg/Kg
Tipo de flujo	Subcrítico				

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ANEXO I

MAPAS

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