ANAS S.p.A.

Direzione Centrale Programmazione Progettazione

LAVORI DI COSTRUZIONE DELLA S.S.106 JONICA (E90) - CAT. B - MEGALOTTO 9

DALLO SVINCOLO AEROPORTO S.ANNA (KM 235+800)

A MANDATORICCIO (KM 306+000)

PROGETTO PRELIMINARE - STUDIO DI IMPATTO AMBIENTALE

GRUPPO DI PROGETTAZIONE ANAS

RESPONSABILE DI SETTORE
Dott. Arch. Giuseppe Barilà

RESPONSABILE DI ITINERARIO
Dott. Ing. Giulio Petrizzelli

RESPONSABILI TECNICI
Dott. Ing. Domenico Cimino Tracciati
Dott. Ing. Marco Mancina Geotecnica
Dott. Ing. Fulvio M. Soccodato Idraulica
Dott. Ing. Davide Di Pietro Strutture
Dott. Geol. Stefano Serangeli Geologia
Dott. Arch. Barbara Banchini Ambiente
Dott. Ing. Francesco Bezzi Impianti
Geom. Andrea F. Furlan Computi

PROGETTISTA:
Dott.Ing. ANTONIO VALENTE
Ordine degli Ingegneri di Roma n° 20739

ASSISTENZA ALLA PROGETTAZIONE

RTI:

PROGER SpA
VIA Ingegneria Srl
D'APPOLONIA SpA
DE.MA.CO Srl

22 LUG. 2005 0 0 4 0 4 3

Il Responsabile dello Studio di Impatto Ambientale
Dott. Arch. Barbara Banchini
Ord. Arch. Roma e Prov. N. 14321

VISTO:IL RESP. DEL PROCEDIMENTO
Dott. Arch. GIUSEPPE BARILA'

DATA

PROTOCOLLO

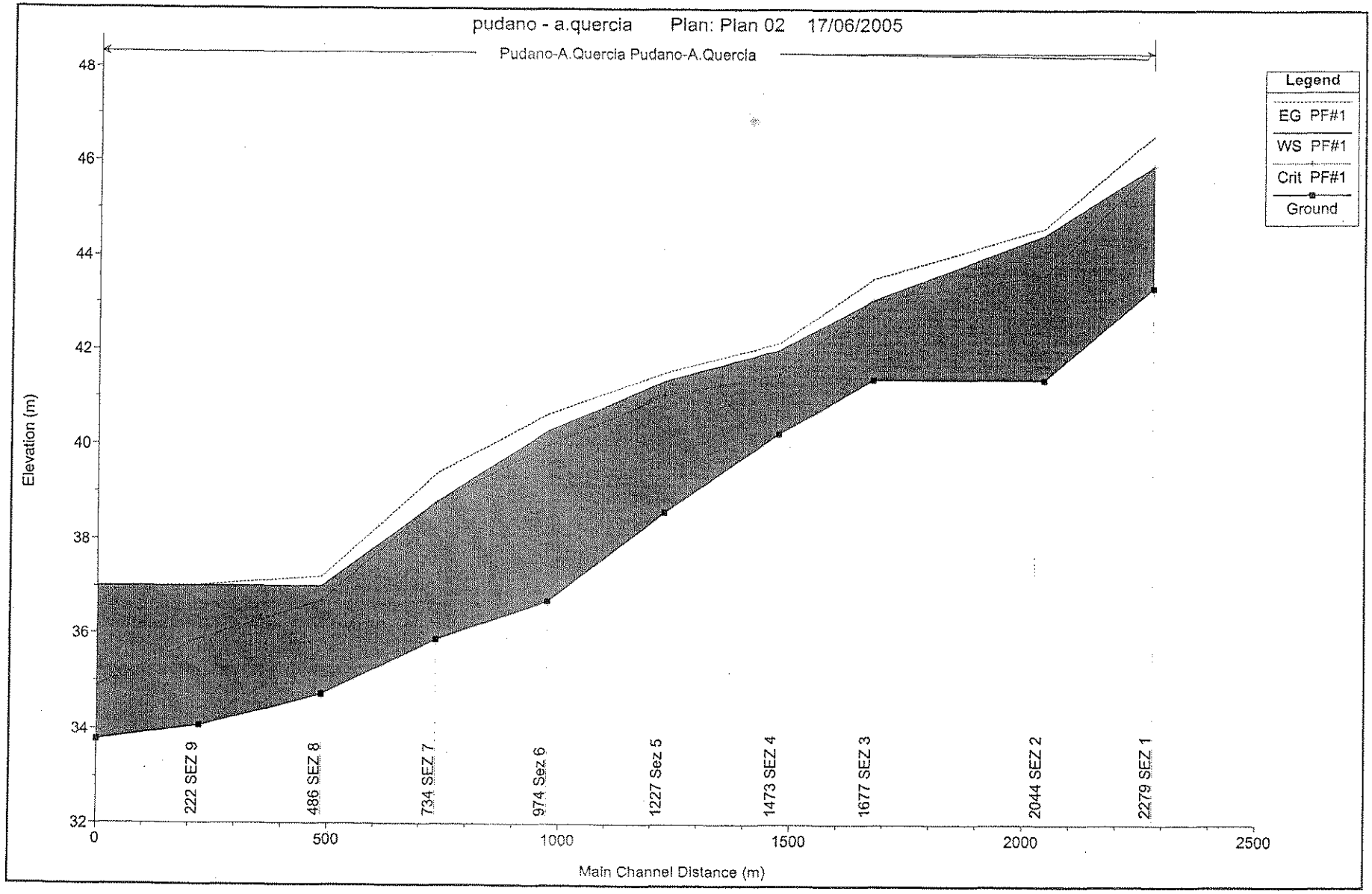
PROGETTO PRELIMINARE

ALLEGATO H - OUTPUT DI CALCOLO HEC RAS

MOTO UNIFORME - TOMBINI

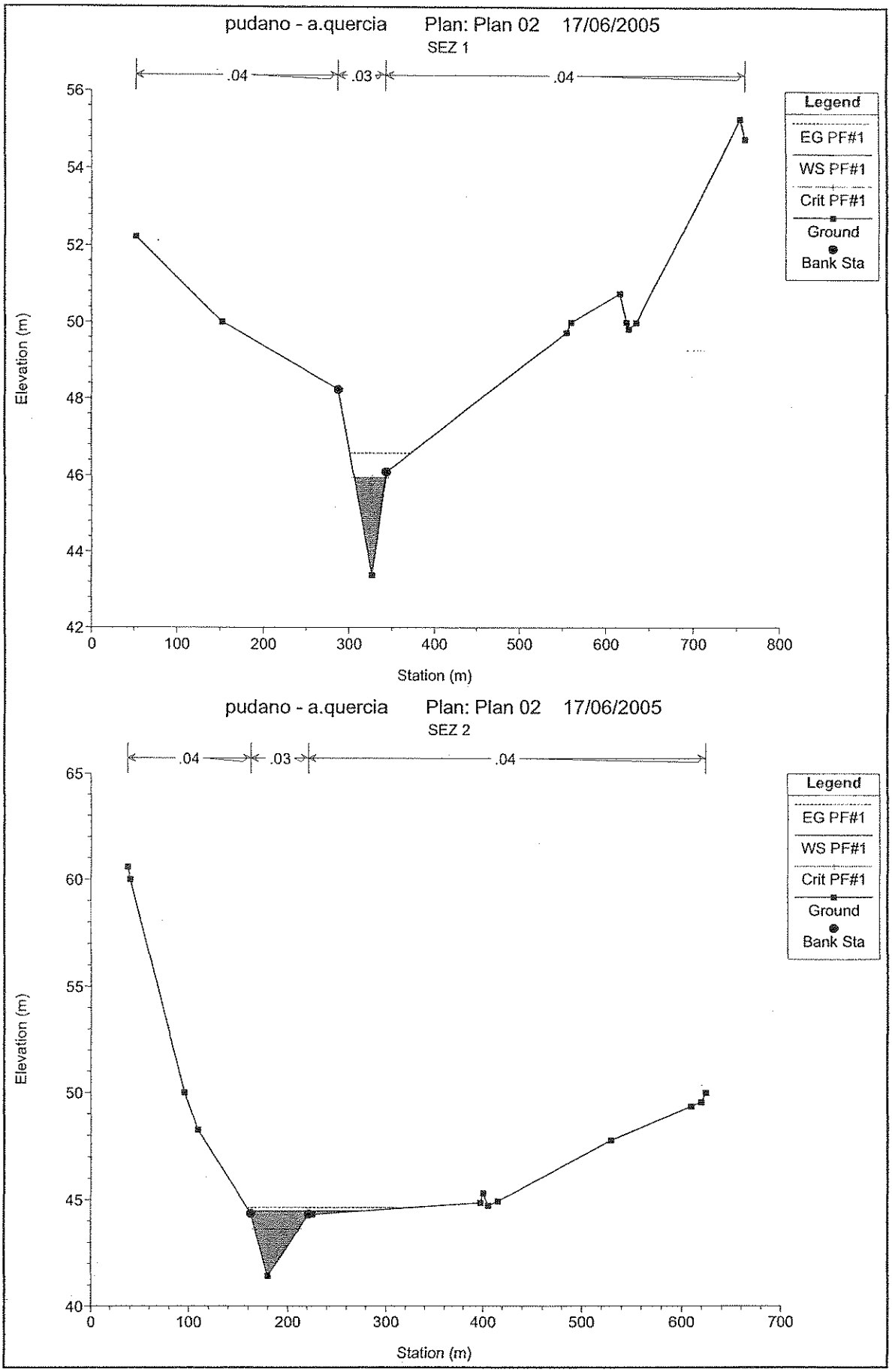
CODICE PROGETTO	CODICE FILE	REVISIONE	FOGLIO	SCALA:
LO7161 P 0401	CODICE ELAB. T00_ID00_IDR_RE29_B.DWG / T00ID00IDRRE29	B	01 DI 01	–

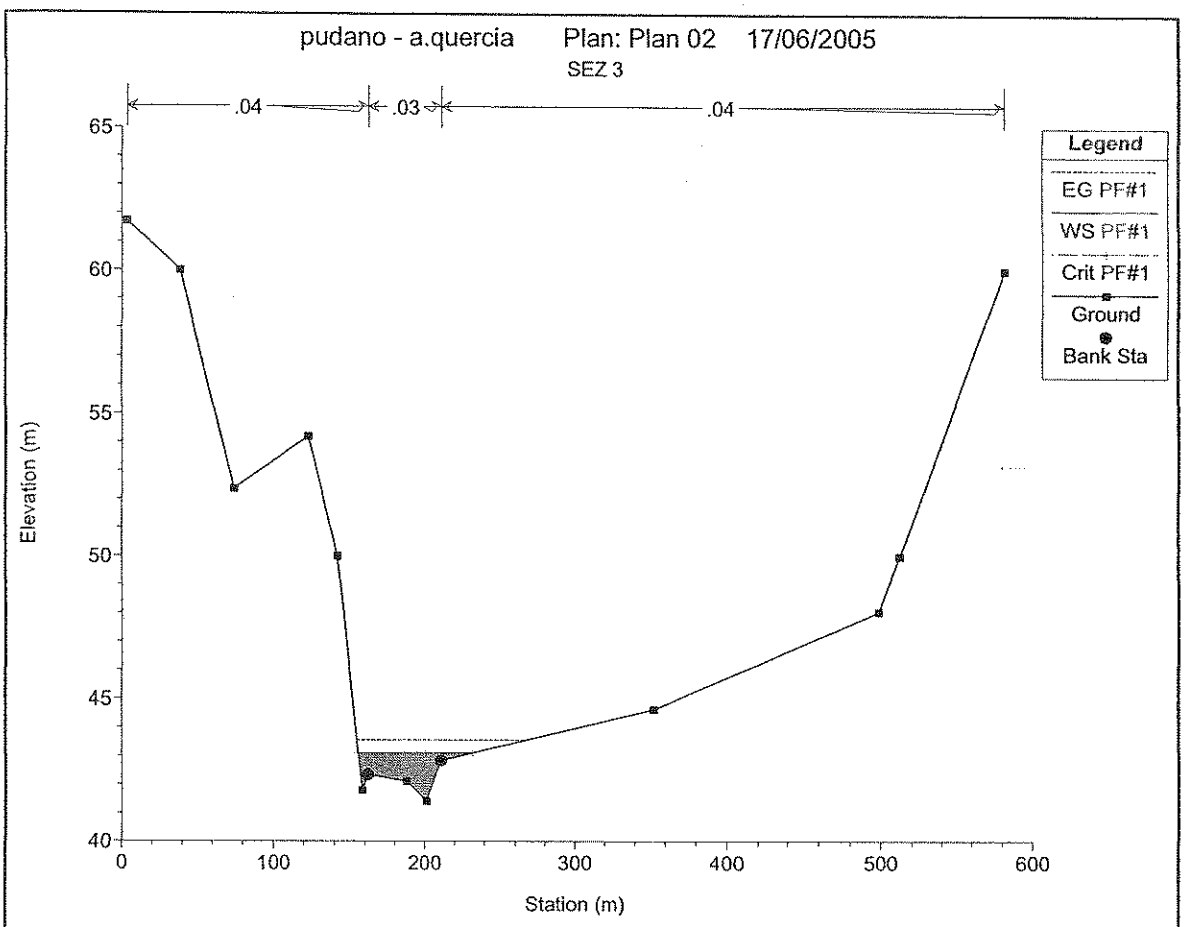
REV.	DESCRIZIONE	DATA	VERIFICATO	CONTROLLATO	APPROVATO
D					
C	–	–	–	–	–
B	*Modificato secondo controllo ANAS*	*Mag–2005*	*Ing.Di Girolamo*	*Ing.Soccodato*	*Ing.Petrizzelli*
A	*Emissione*	*Giu–2004*	*Ing.Di Girolamo*	*Ing.Soccodato*	*Ing.Petrizzelli*


pudano - a.quercia Plan: Plan 02 17/06/2005
Pudano-A.Quercia Pudano-A.Quercia
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Elevation (m)
48
46
44
42
40
38
36
34
32
0
500
1000
1500
2000
2500
Main Channel Distance (m)
222 SEZ 9
486 SEZ 8
734 SEZ 7
974 Sez 6
1227 Sez 5
1473 SEZ 4
1677 SEZ 3
2044 SEZ 2
2279 SEZ 1

HEC-RAS Plan: Plan 01 River: Pudano-A.Quercia Reach: Pudano-A.Quercia Profile: PF#1

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Pudano-A.Quercia	2279	PF#1	165.00	43.37	45.94	45.94	46.58	0.008307	3.56	46.33	36.14	1.00
Pudano-A.Quercia	2044	PF#1	165.00	41.42	44.49	43.64	44.64	0.001452	1.74	99.72	116.90	0.44
Pudano-A.Quercia	1677	PF#1	165.00	41.42	43.11	43.11	43.56	0.008160	3.05	58.23	76.06	0.96
Pudano-A.Quercia	1473	PF#1	165.00	40.26	42.04	41.51	42.18	0.002036	1.69	98.61	93.95	0.49
Pudano-A.Quercia	1227	PF#1	165.00	38.60	41.36	41.07	41.54	0.003368	2.47	100.99	103.90	0.64
Pudano-A.Quercia	974	PF#1	165.00	36.70	40.30	39.99	40.66	0.003460	3.33	92.66	147.81	0.68
Pudano-A.Quercia	734	PF#1	165.00	35.87	38.80	38.80	39.39	0.008678	3.41	48.33	41.23	1.01
Pudano-A.Quercia	486	PF#1	165.00	34.73	37.00	36.70	37.21	0.004308	2.77	93.06	94.28	0.71
Pudano-A.Quercia	222	PF#1	165.00	34.07	37.01	35.87	37.02	0.000174	0.67	466.38	448.64	0.15
Pudano-A.Quercia	0	PF#1	260.00	33.78	37.00	34.89	37.01	0.000037	0.39	779.46	380.02	0.08


pudano - a.quercia Plan: Plan 02 17/06/2005
SEZ 1
.04
.03
.04
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Bank Sta
Elevation (m)
Station (m)
pudano - a.quercia Plan: Plan 02 17/06/2005
SEZ 2
.04
.03
.04
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Bank Sta
Elevation (m)
Station (m)


pudano - a.quercia Plan: Plan 02 17/06/2005
SEZ 3
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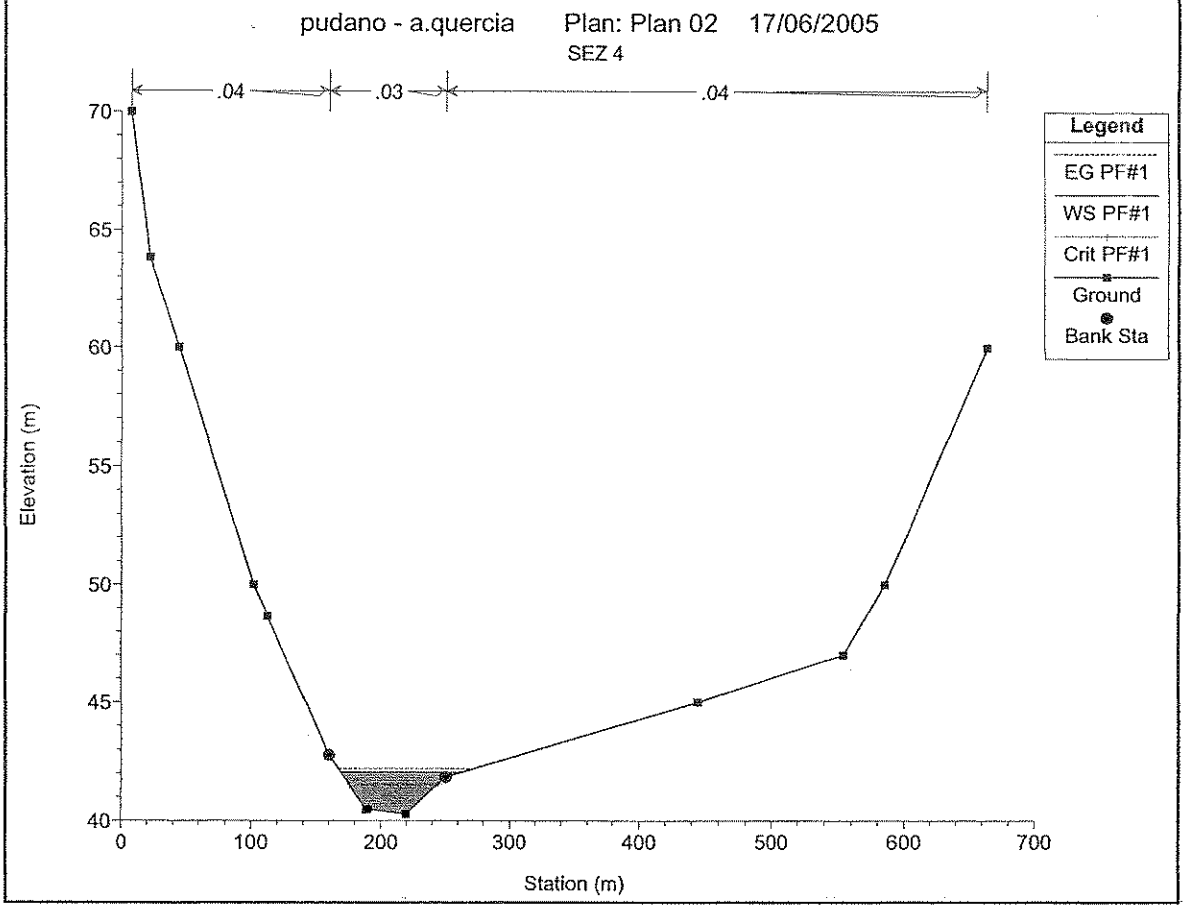
.03
.04
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Bank Sta
Elevation (m)
65
60
55
50
45
40
0
100
200
300
400
500
600
Station (m)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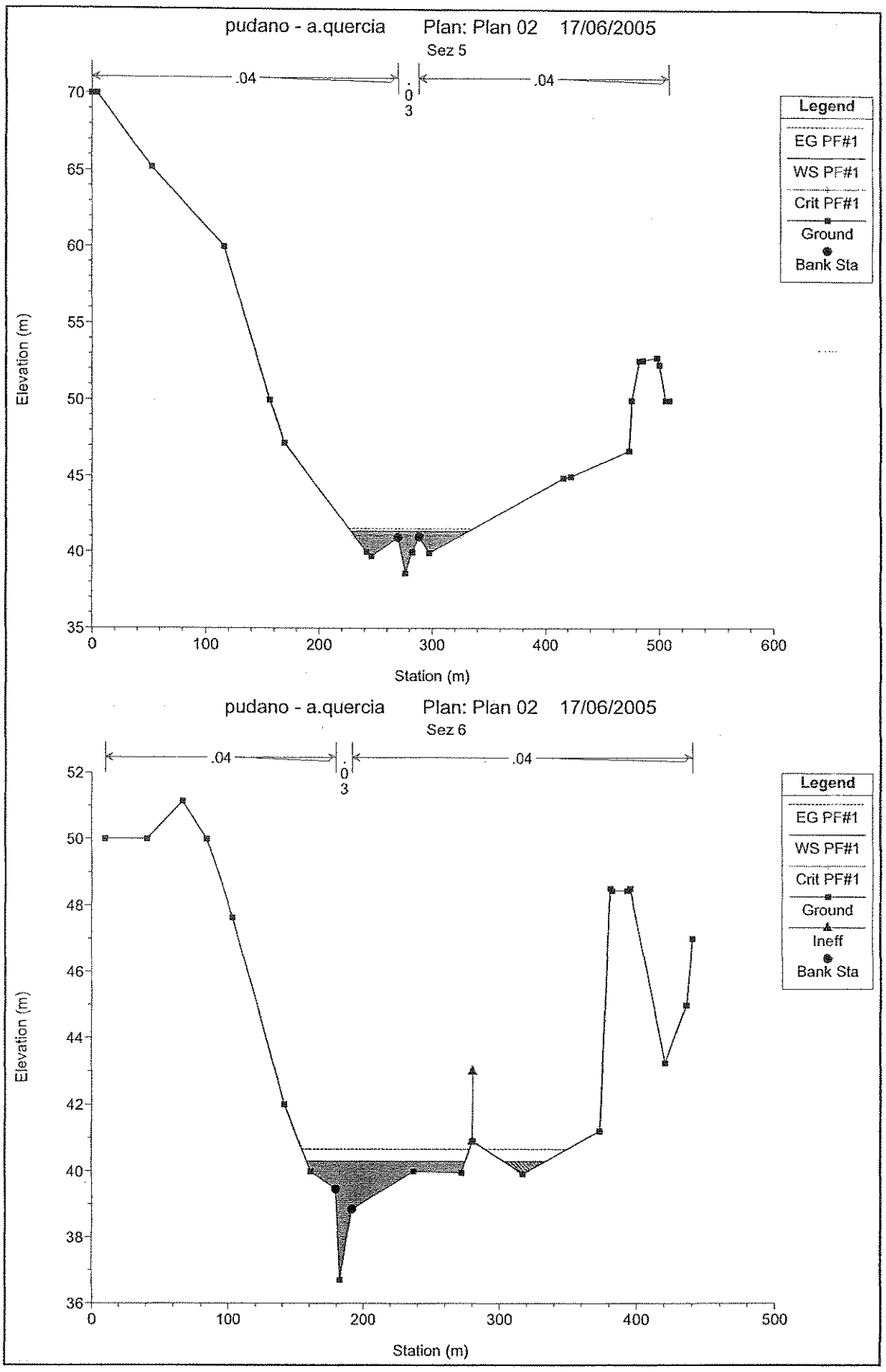
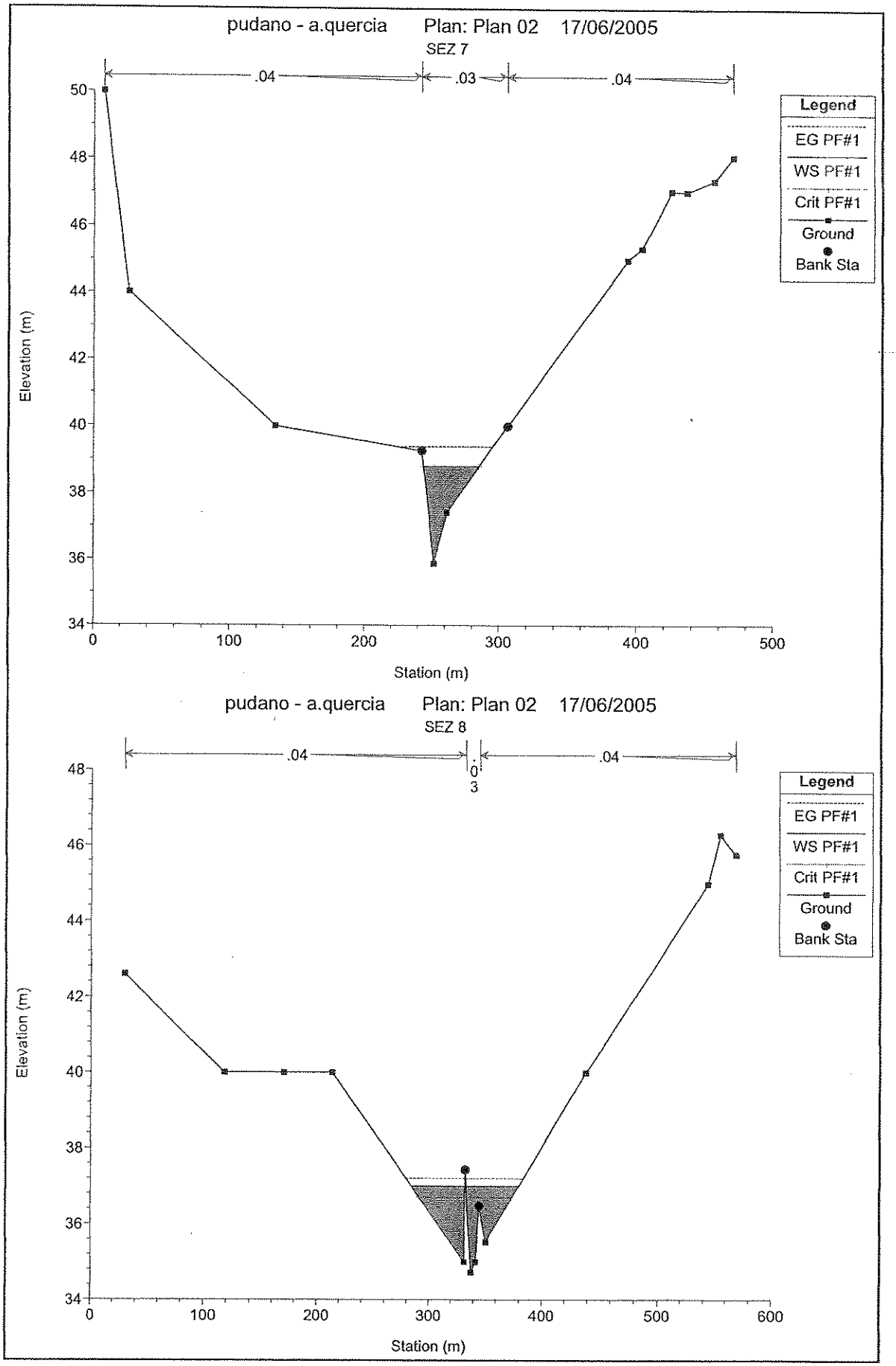
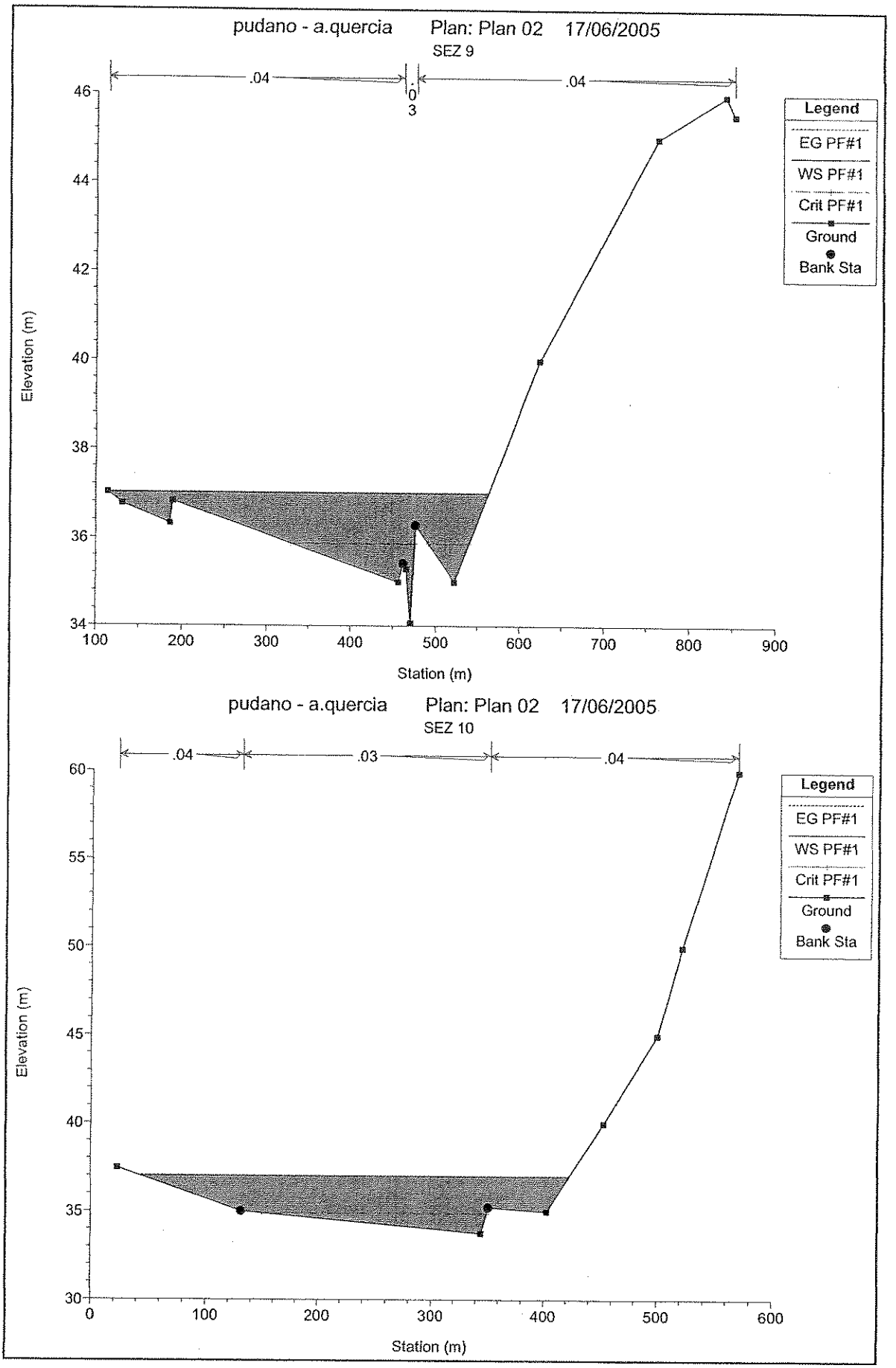
SEZ 4
.04
.03
.04
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Bank Sta
Elevation (m)
70
65
60
55
50
45
40
0
100
200
300
400
500
600
700
Station (m)


pudano - a.quercia Plan: Plan 02 17/06/2005
Sez 5
.04
.03
.04
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Bank Sta
Elevation (m)
70
65
60
55
50
45
40
35
0
100
200
300
400
500
600
Station (m)
pudano - a.quercia Plan: Plan 02 17/06/2005
Sez 6
.04
.03
.04
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (m)
52
50
48
46
44
42
40
38
36
0
100
200
300
400
500
Station (m)


pudano - a.quercia Plan: Plan 02 17/06/2005
SEZ 7
.04
.03
.04
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Bank Sta
Elevation (m)
Station (m)
pudano - a.quercia Plan: Plan 02 17/06/2005
SEZ 8
.04
.04
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Bank Sta
Elevation (m)
Station (m)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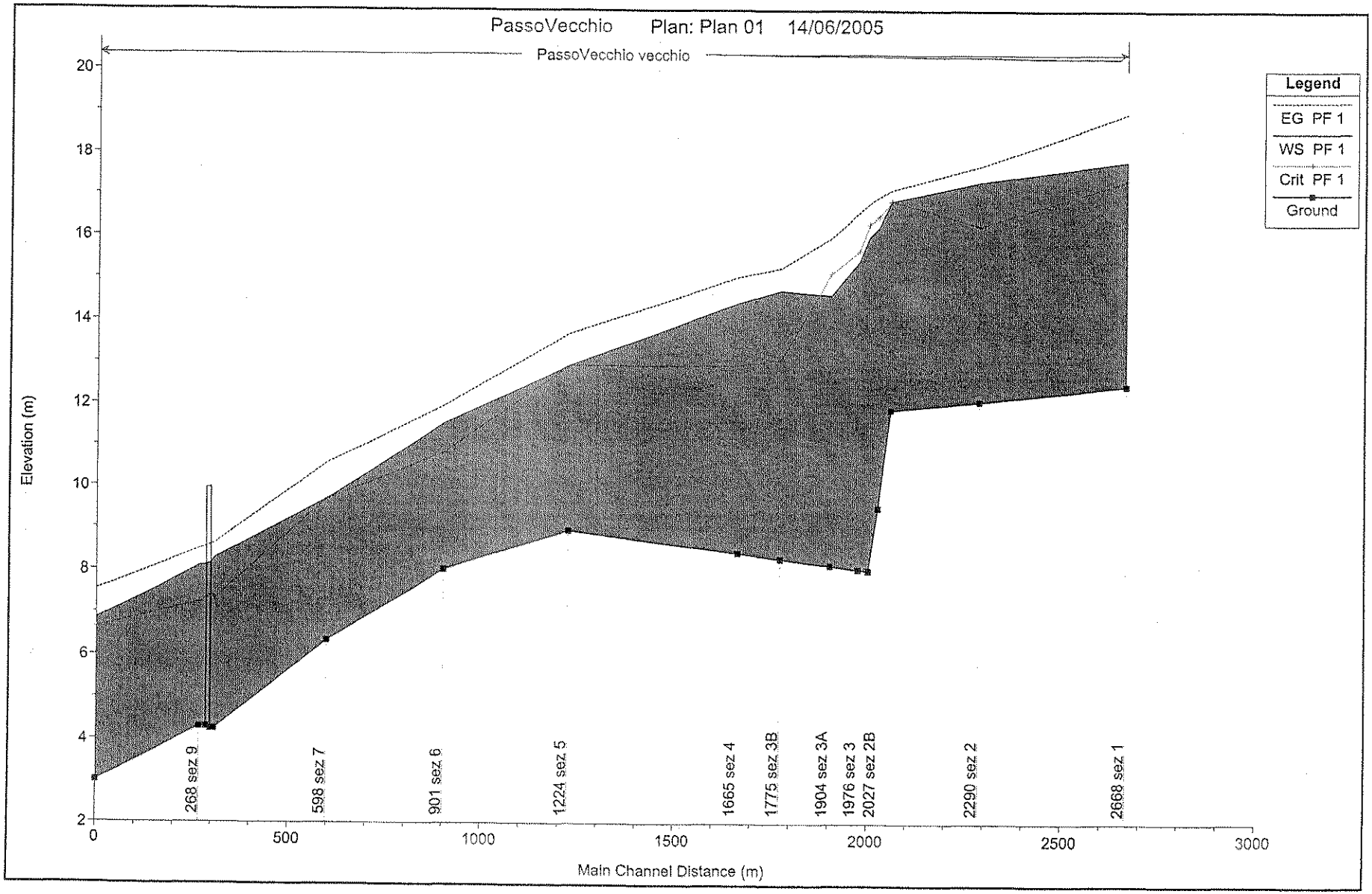
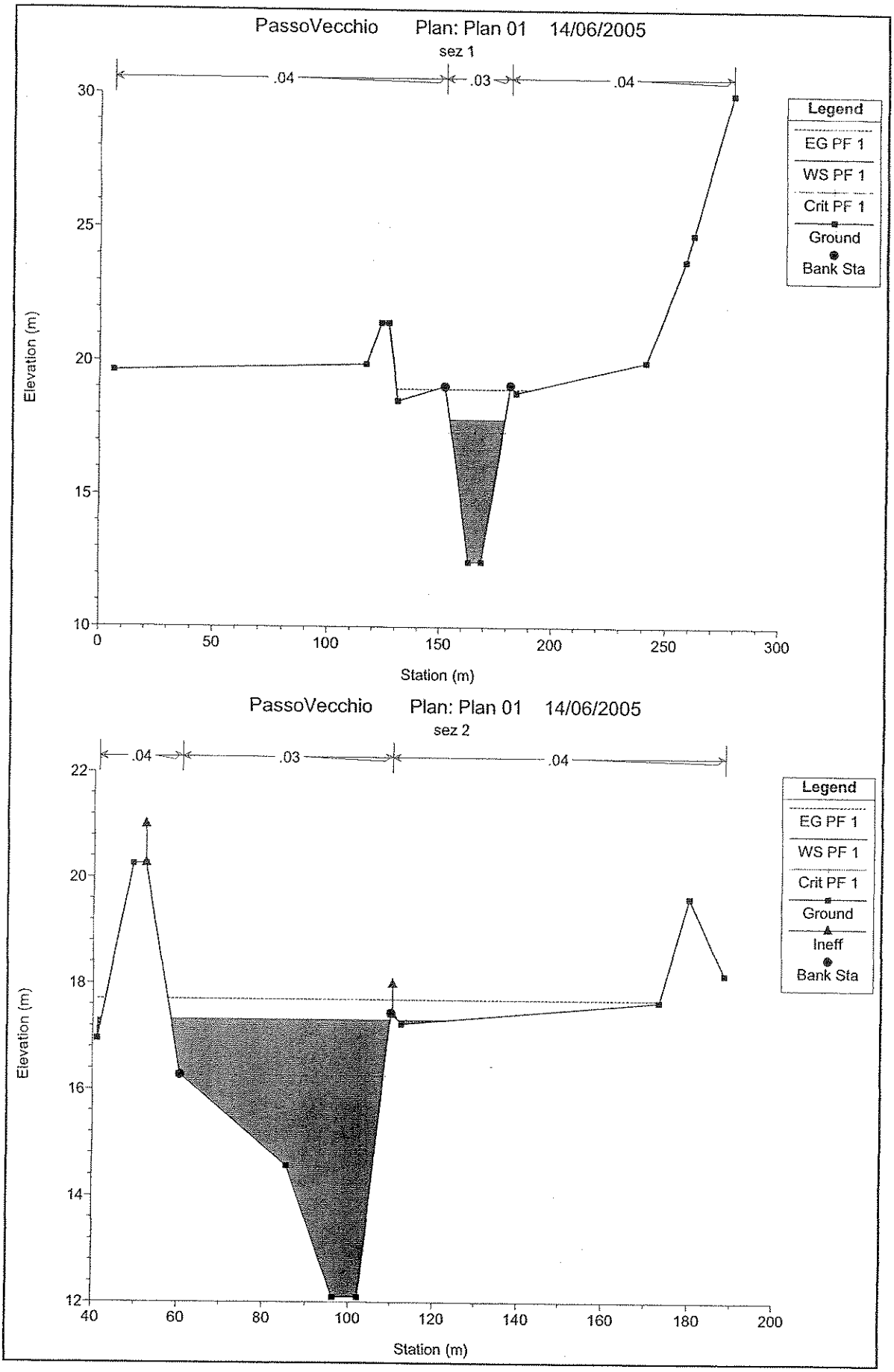
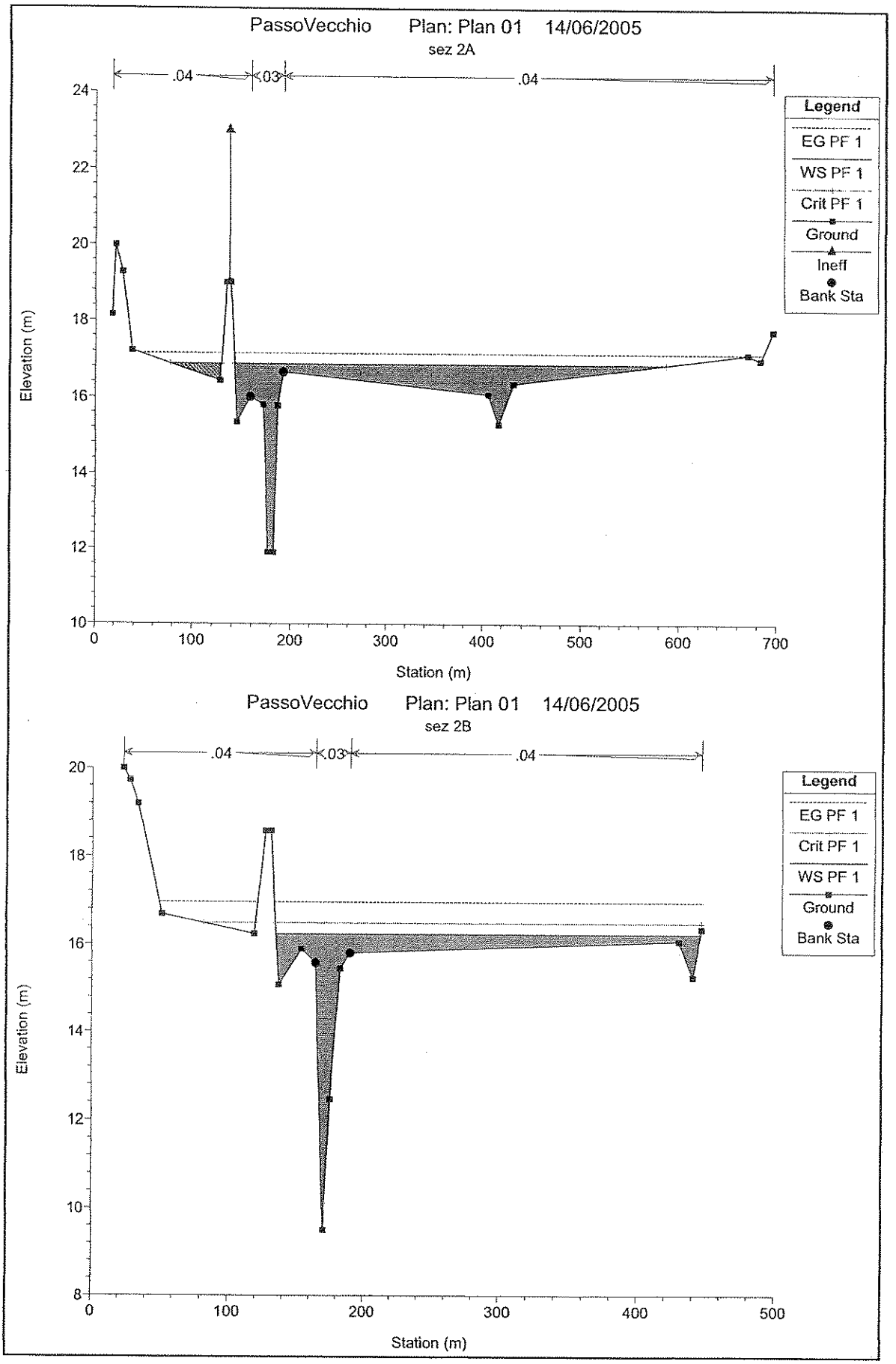
SEZ 9
.04
.03
.04
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Bank Sta
Elevation (m)
Station (m)
pudano - a.quercia Plan: Plan 02 17/06/2005
SEZ 10
.04
.03
.04
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Bank Sta
Elevation (m)
Station (m)

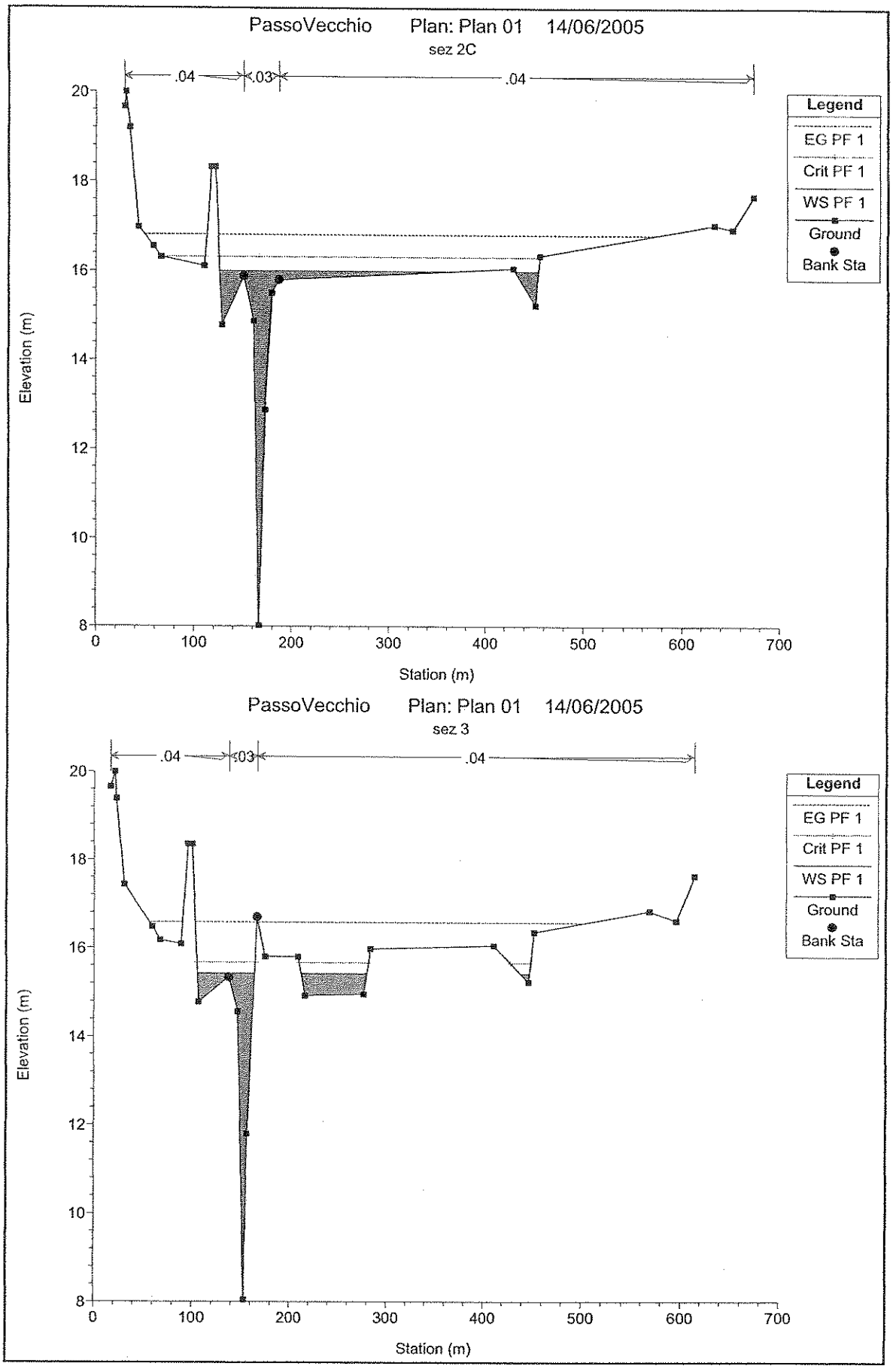

PassoVecchio Plan: Plan 01 14/06/2005
PassoVecchio vecchio
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Elevation (m)
Main Channel Distance (m)
20
18
16
14
12
10
8
6
4
2
0
500
1000
1500
2000
2500
3000
268 sez 9
598 sez 7
901 sez 6
1224 sez 5
1665 sez 4
1775 sez 3B
1904 sez 3A
1976 sez 3
2027 sez 2B
2290 sez 2
2668 sez 1

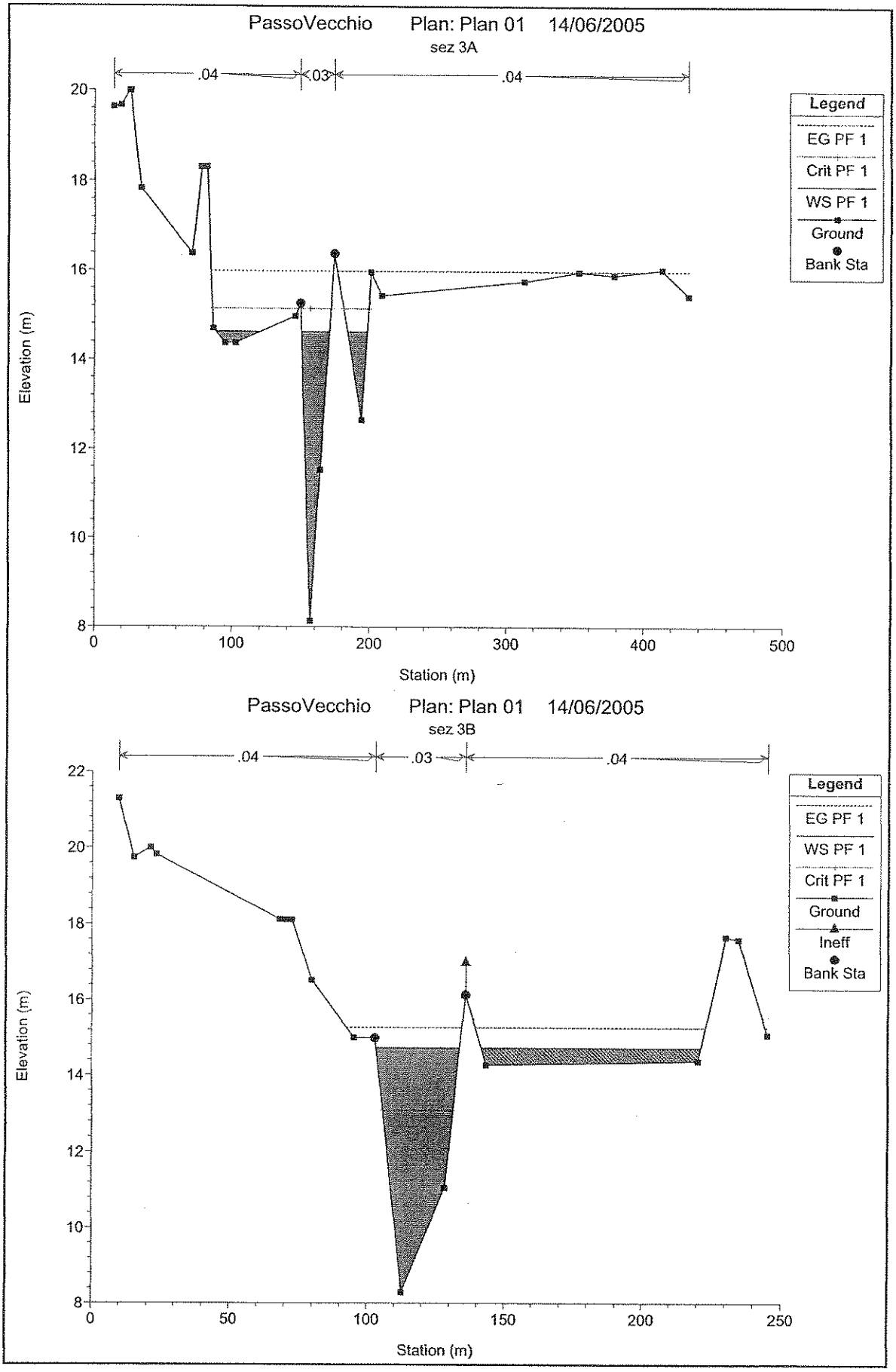
HEC-RAS Plan: Plan 01 River: PassoVecchio Reach: vecchio Profile: PF 1

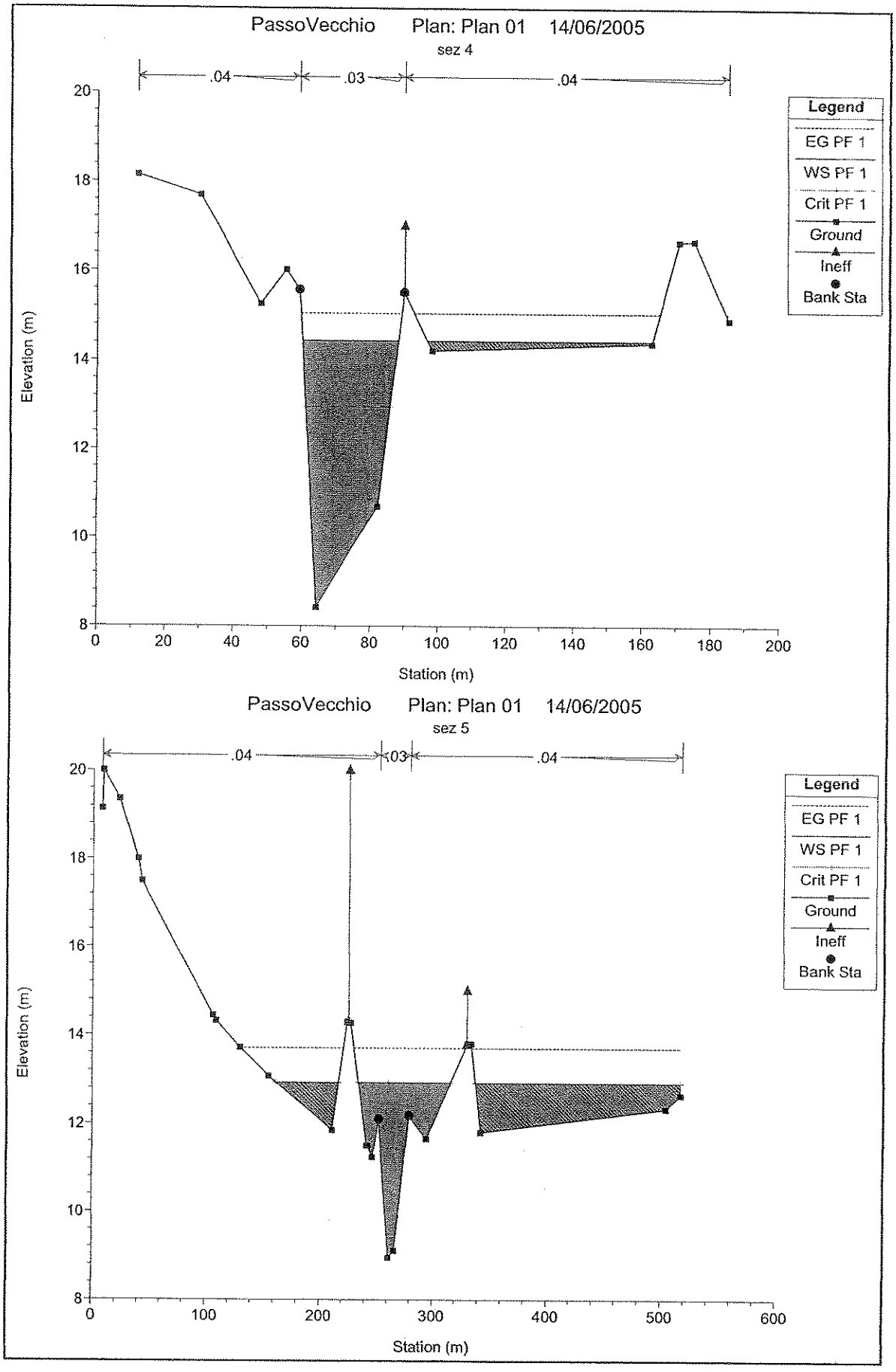
Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
vecchio	2668	PF 1	387.26	12.48	17.82	17.36	18.96	0.004772	4.74	81.68	24.86	0.83
vecchio	2290	PF 1	387.26	12.10	17.32	16.26	17.70	0.001754	2.75	141.93	63.32	0.52
vecchio	2059	PF 1	387.26	11.90	16.86	16.86	17.14	0.003232	2.99	264.67	496.63	0.65
vecchio	2027	PF 1	387.26	9.50	16.24	16.49	16.96	0.005292	4.28	167.45	311.48	0.83
vecchio	2002	PF 1	387.26	8.02	16.00	16.32	16.81	0.006333	4.19	125.31	262.39	0.89
vecchio	1976	PF 1	387.26	8.05	15.42	15.67	16.58	0.009280	5.13	107.22	135.21	1.05
vecchio	1904	PF 1	387.26	8.13	14.63	15.14	15.99	0.006905	5.36	85.84	67.79	0.95
vecchio	1775	PF 1	387.26	8.29	14.73	13.09	15.27	0.001771	3.25	119.24	110.47	0.52
vecchio	1665	PF 1	387.26	8.42	14.44	12.95	15.05	0.002083	3.46	111.88	94.37	0.55
vecchio	1224	PF 1	387.26	8.95	12.93	12.93	13.70	0.004769	4.29	120.43	316.15	0.84
vecchio	901	PF 1	387.26	8.02	11.53	10.82	11.96	0.002914	2.92	132.56	62.80	0.64
vecchio	598	PF 1	387.26	6.35	9.69	9.69	10.57	0.007674	4.14	93.61	54.71	1.01
vecchio	307	PF 1	387.26	4.24	8.27	7.33	8.62	0.002186	2.63	147.24	66.21	0.56
vecchio	285		Bridge									
vecchio	268	PF 1	387.26	4.30	8.09	7.24	8.49	0.002307	2.79	138.67	59.55	0.58
vecchio	0	PF 1	387.26	3.01	6.85	6.65	7.55	0.005489	3.69	104.84	68.46	0.87

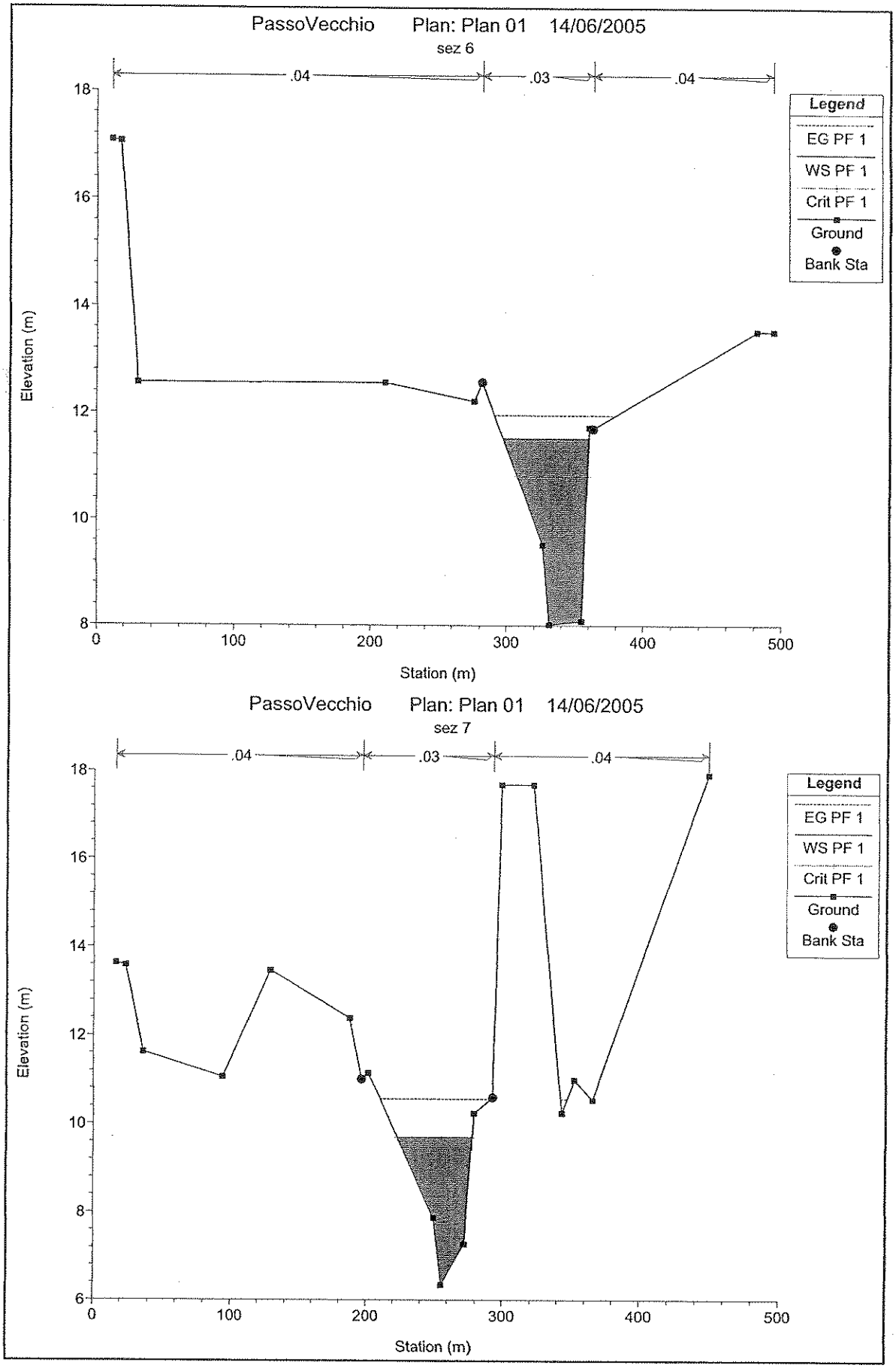

PassoVecchio Plan: Plan 01 14/06/2005
sez 1
.04
.03
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
PassoVecchio Plan: Plan 01 14/06/2005
sez 2
.04
.03
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Ineff
Bank Sta
Elevation (m)
Station (m)

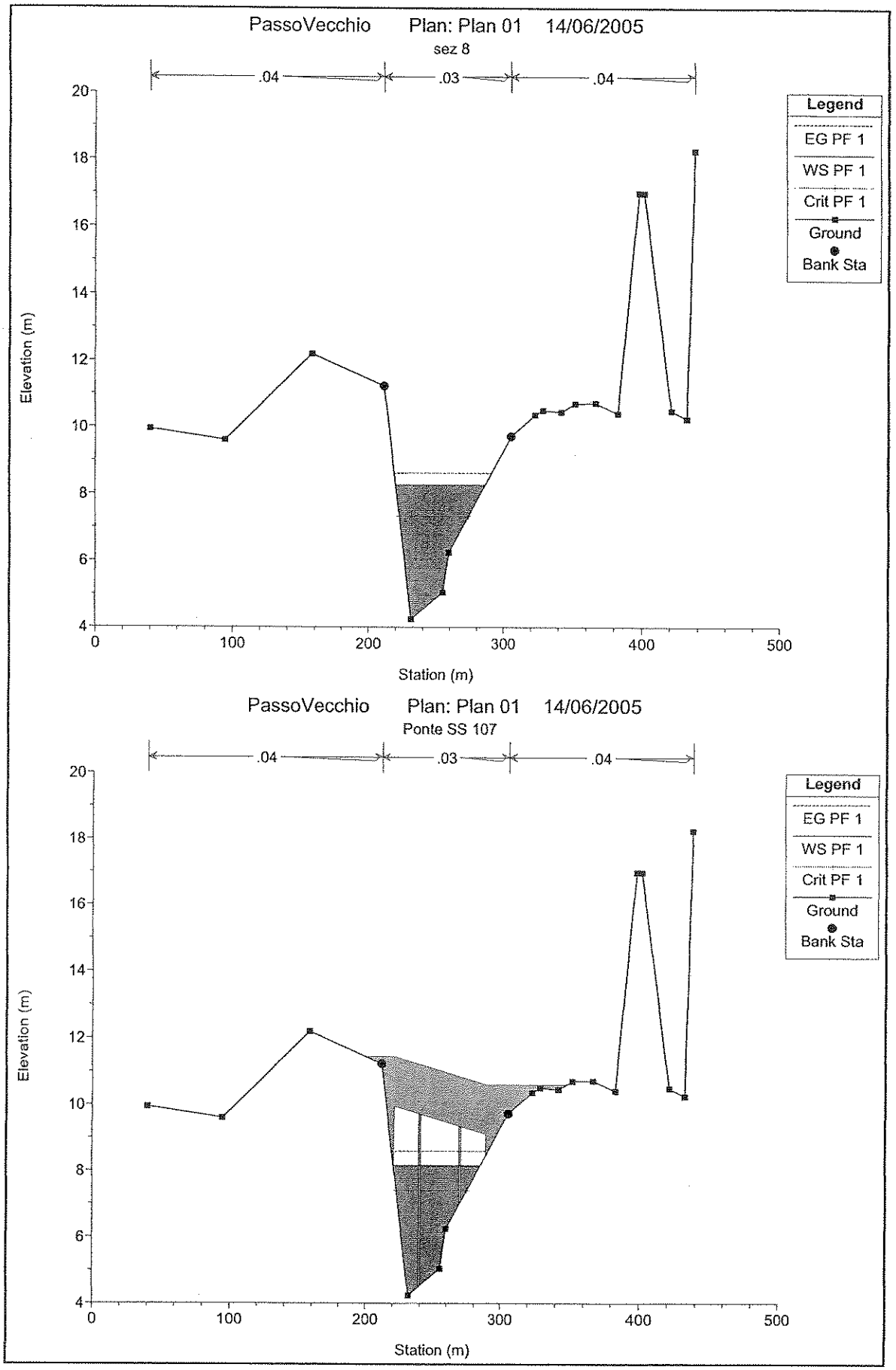

PassoVecchio Plan: Plan 01 14/06/2005
sez 2A
.04
.03
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Ineff
Bank Sta
Elevation (m)
Station (m)
PassoVecchio Plan: Plan 01 14/06/2005
sez 2B
.04
.03
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)

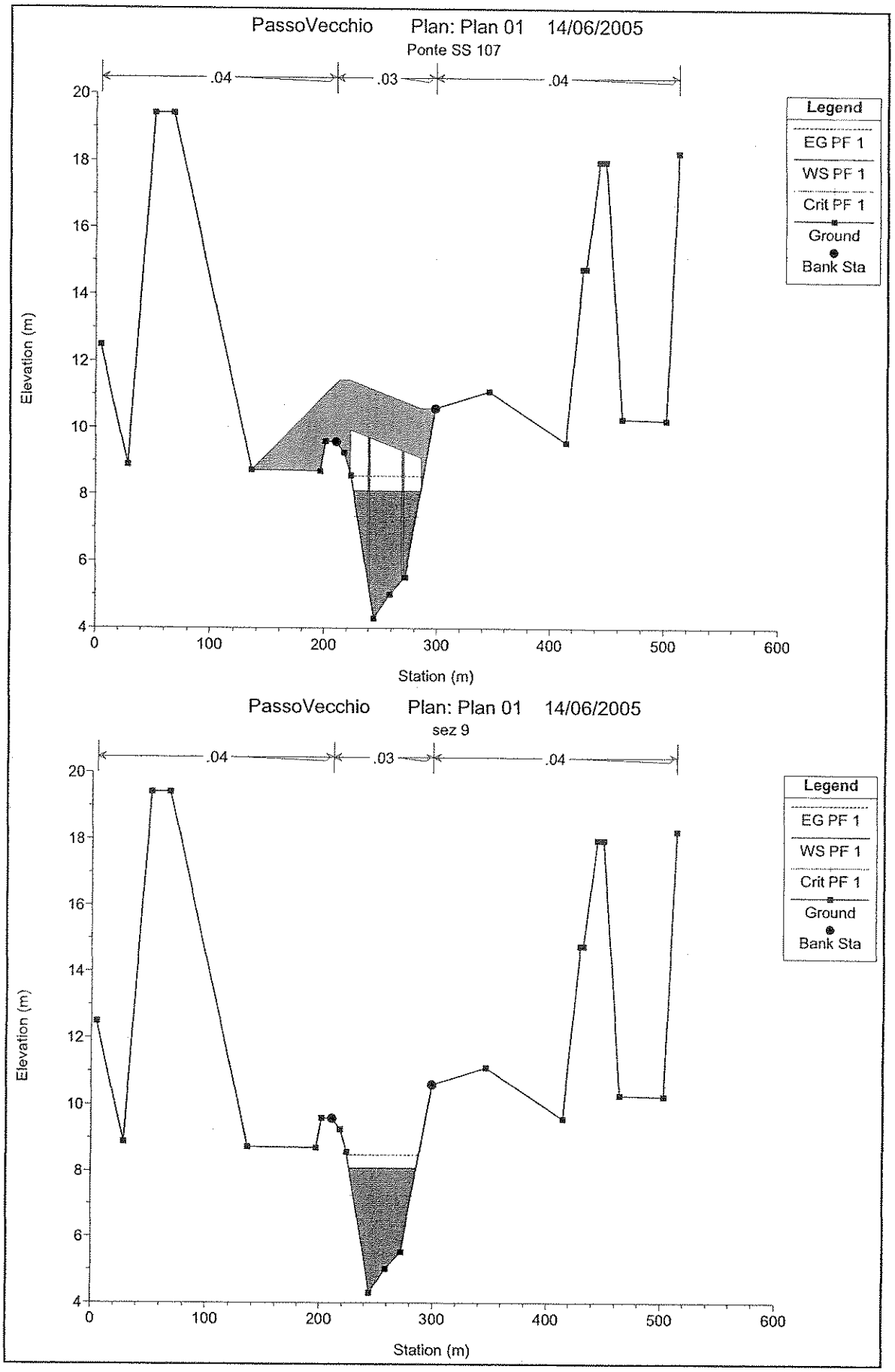

PassoVecchio Plan: Plan 01 14/06/2005
sez 2C
.04
.03
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
20
18
16
14
12
10
8
0
100
200
300
400
500
600
700
PassoVecchio Plan: Plan 01 14/06/2005
sez 3
.04
.03
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)

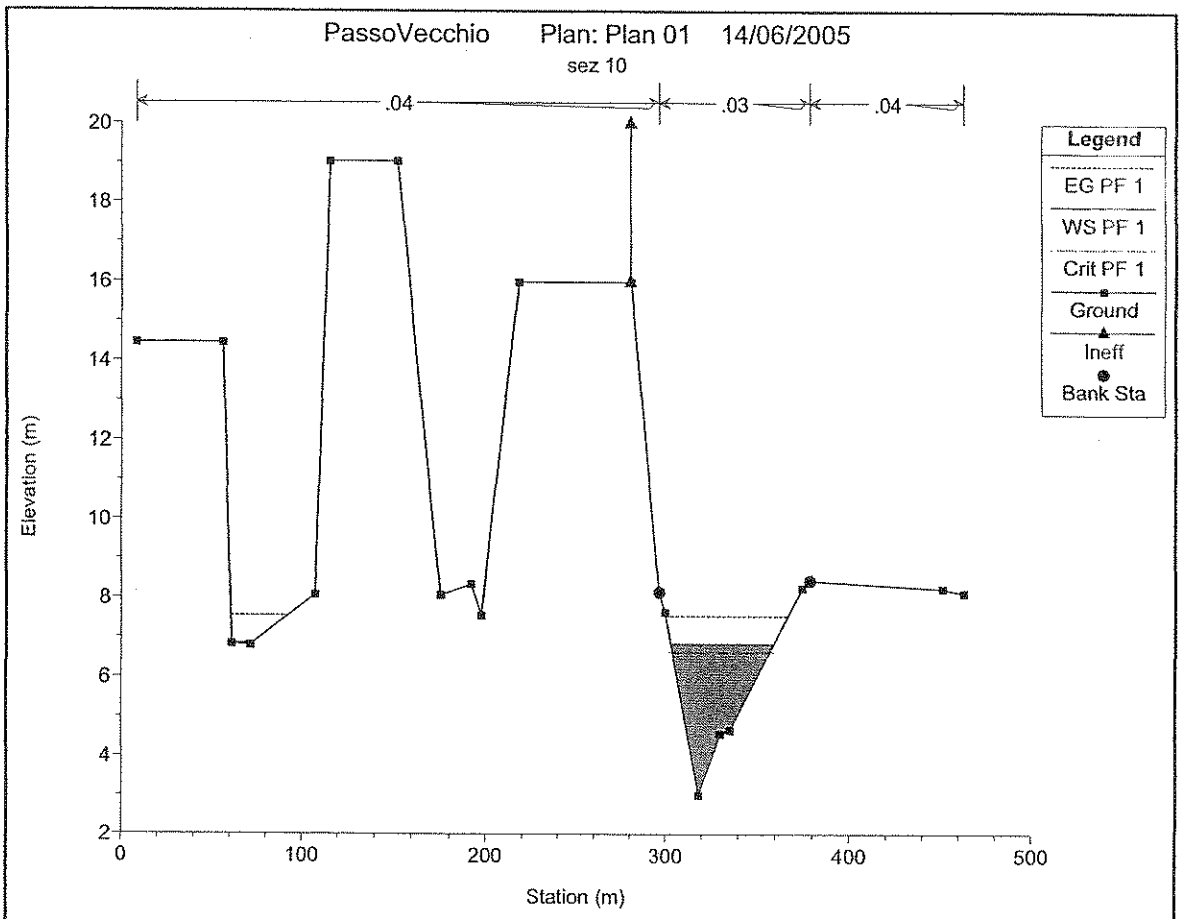

PassoVecchio Plan: Plan 01 14/06/2005
sez 3A
.04
.03
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
PassoVecchio Plan: Plan 01 14/06/2005
sez 3B
.04
.03
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Ineff
Bank Sta
Elevation (m)
Station (m)

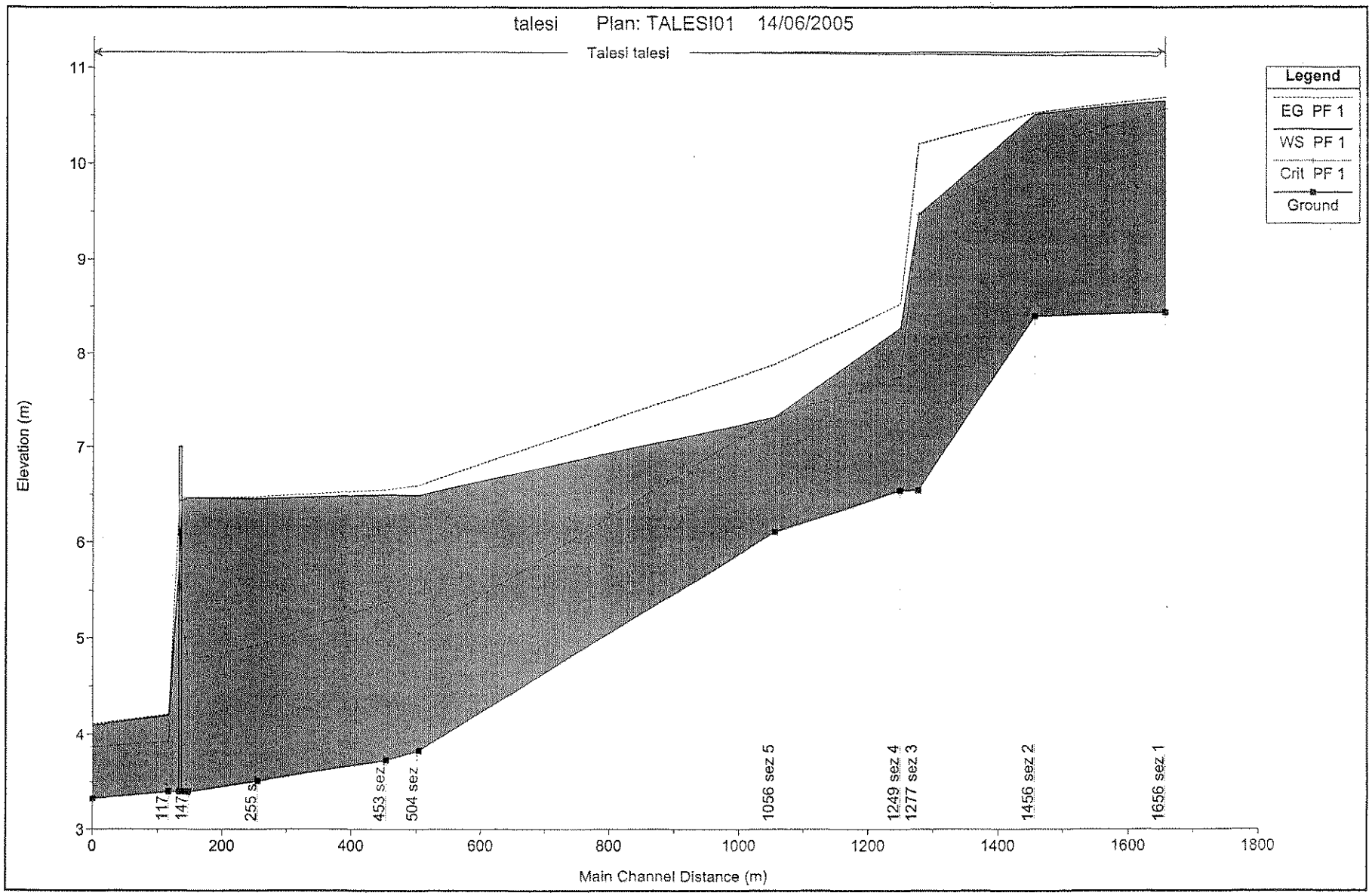

PassoVecchio Plan: Plan 01 14/06/2005
sez 4
.04
.03
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Ineff
Bank Sta
Elevation (m)
Station (m)
PassoVecchio Plan: Plan 01 14/06/2005
sez 5
.04
.03
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Ineff
Bank Sta
Elevation (m)
Station (m)


PassoVecchio Plan: Plan 01 14/06/2005
sez 6
.04
.03
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
18
16
14
12
10
8
0
100
200
300
400
500
PassoVecchio Plan: Plan 01 14/06/2005
sez 7
.04
.03
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
18
16
14
12
10
8
6
0
100
200
300
400
500


PassoVecchio Plan: Plan 01 14/06/2005
sez 8
.04
.03
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
20
18
16
14
12
10
8
6
4
0
100
200
300
400
500
PassoVecchio Plan: Plan 01 14/06/2005
Ponte SS 107
.04
.03
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
20
18
16
14
12
10
8
6
4
0
100
200
300
400
500

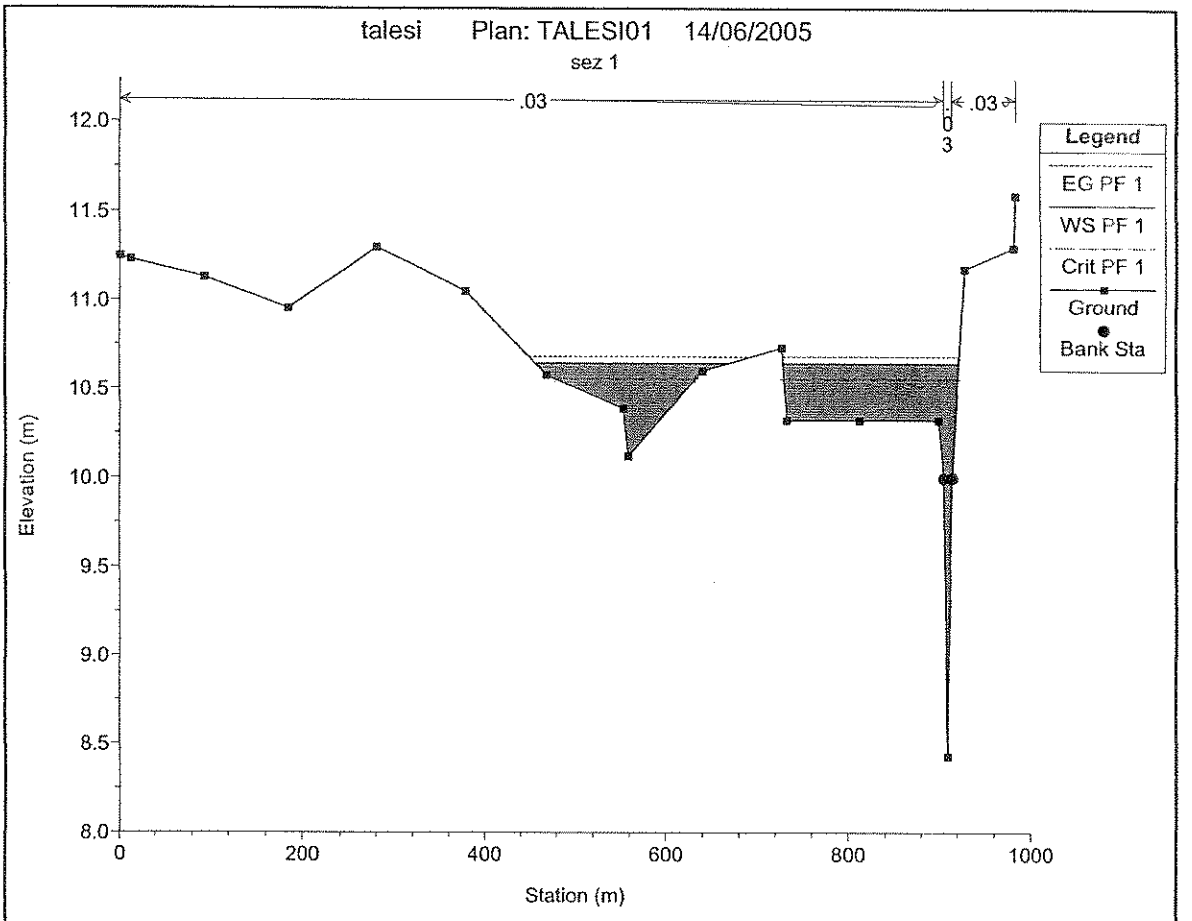

PassoVecchio Plan: Plan 01 14/06/2005
Ponte SS 107
.04
.03
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
PassoVecchio Plan: Plan 01 14/06/2005
sez 9
.04
.03
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)

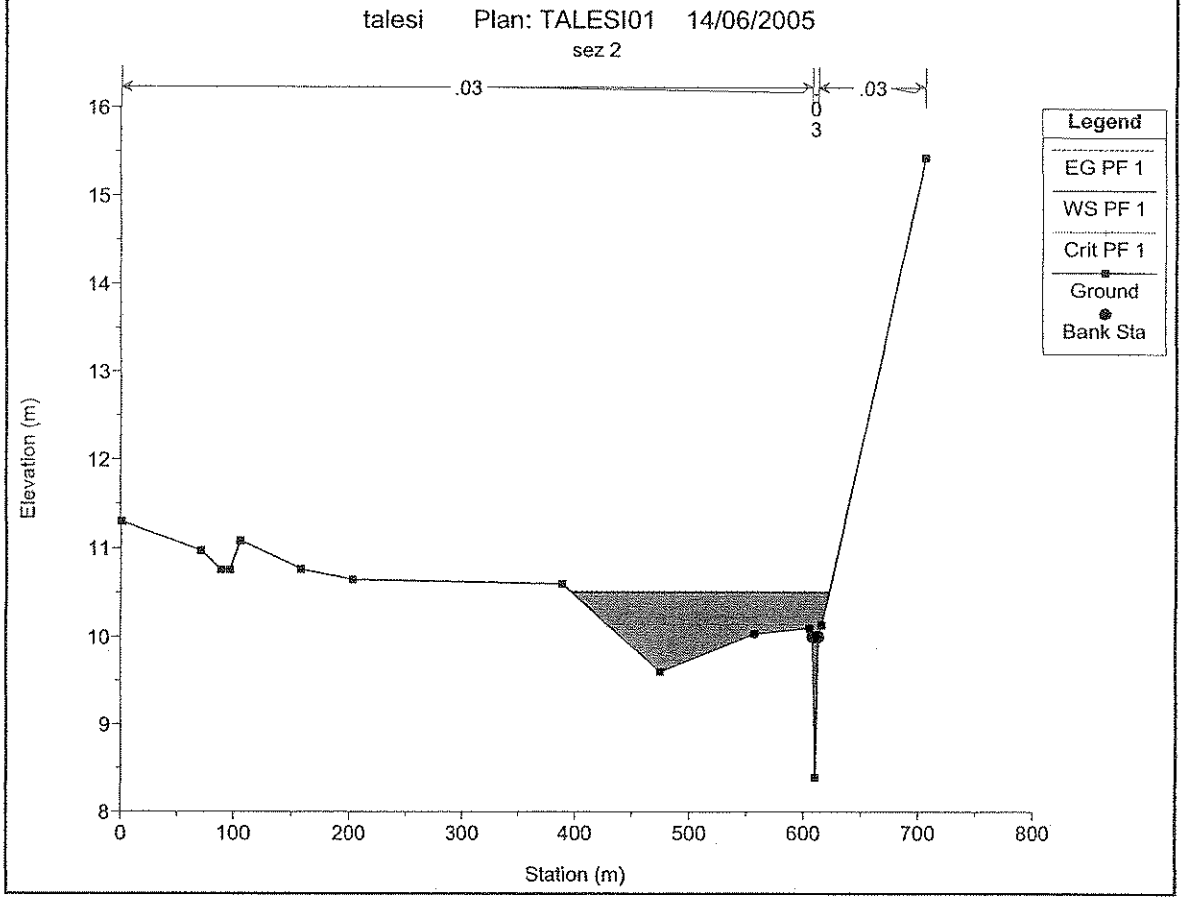

PassoVecchio Plan: Plan 01 14/06/2005
sez 10
.04
.03
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Ineff
Bank Sta
Elevation (m)
Station (m)
20
18
16
14
12
10
8
6
4
2
0
100
200
300
400
500

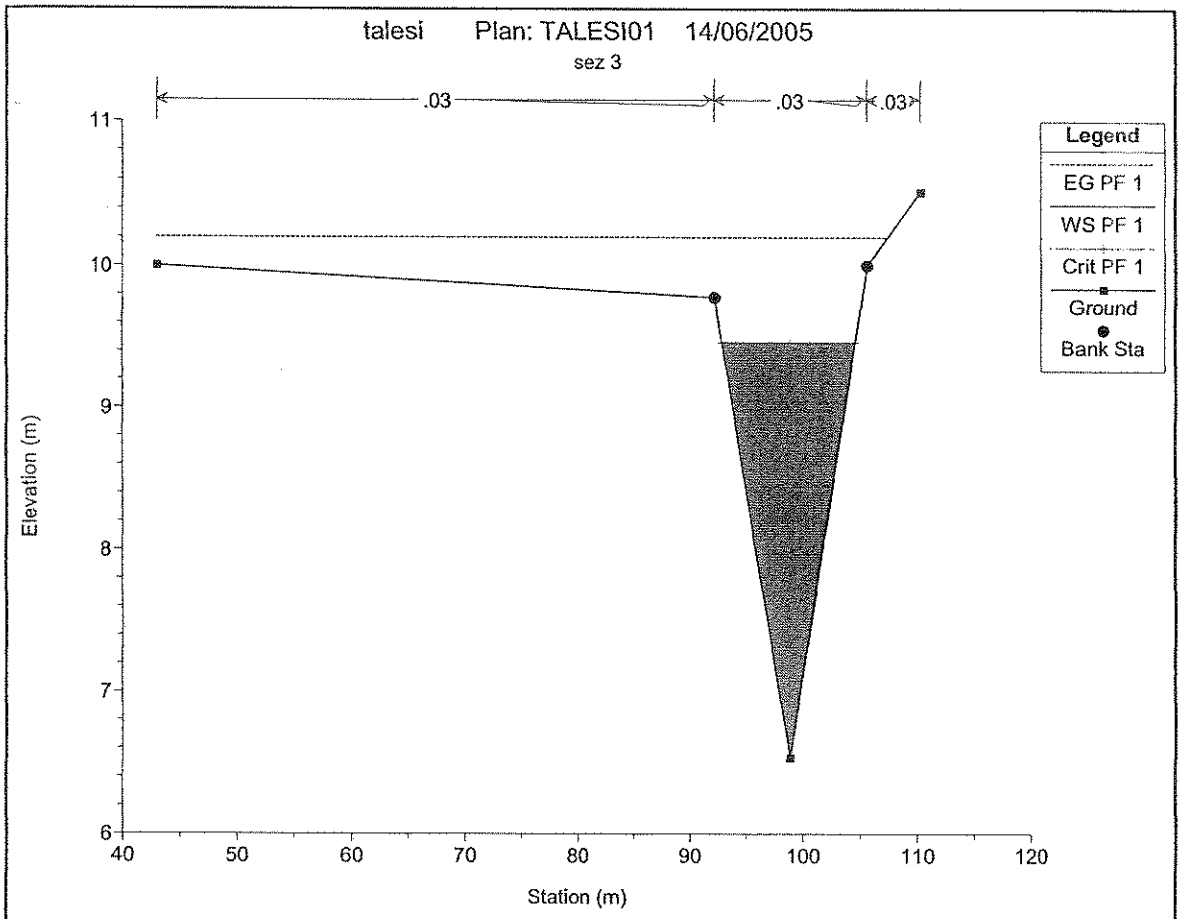

talesi Plan: TALESI01 14/06/2005
Talesi talesi
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Elevation (m)
Main Channel Distance (m)
11
10
9
8
7
6
5
4
3
0
200
400
600
800
1000
1200
1400
1600
1800
117
147
255 s
453 sez
504 sez
1056 sez 5
1249 sez 4
1277 sez 3
1456 sez 2
1656 sez 1

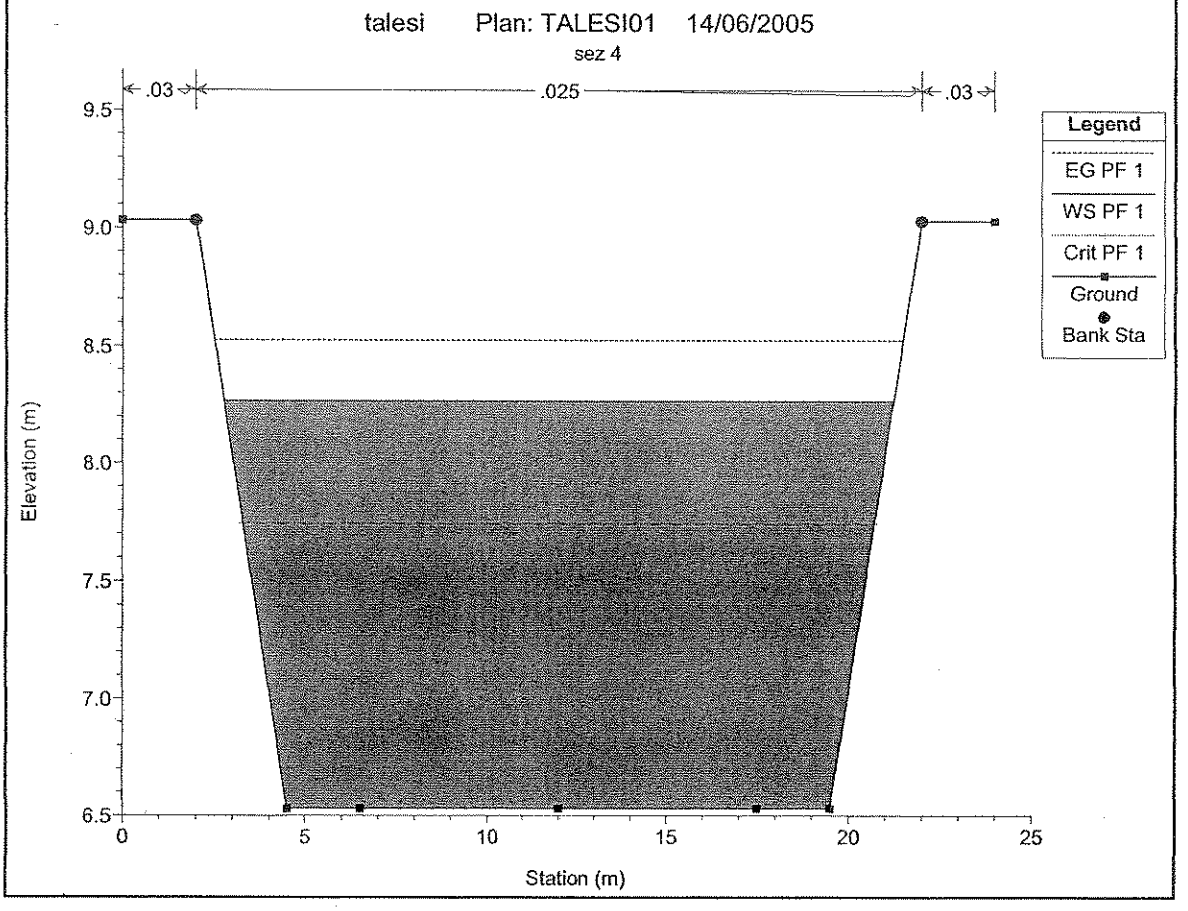
HEC-RAS Plan: TALESI01 River: Talesi Reach: talesi Profile: PF 1

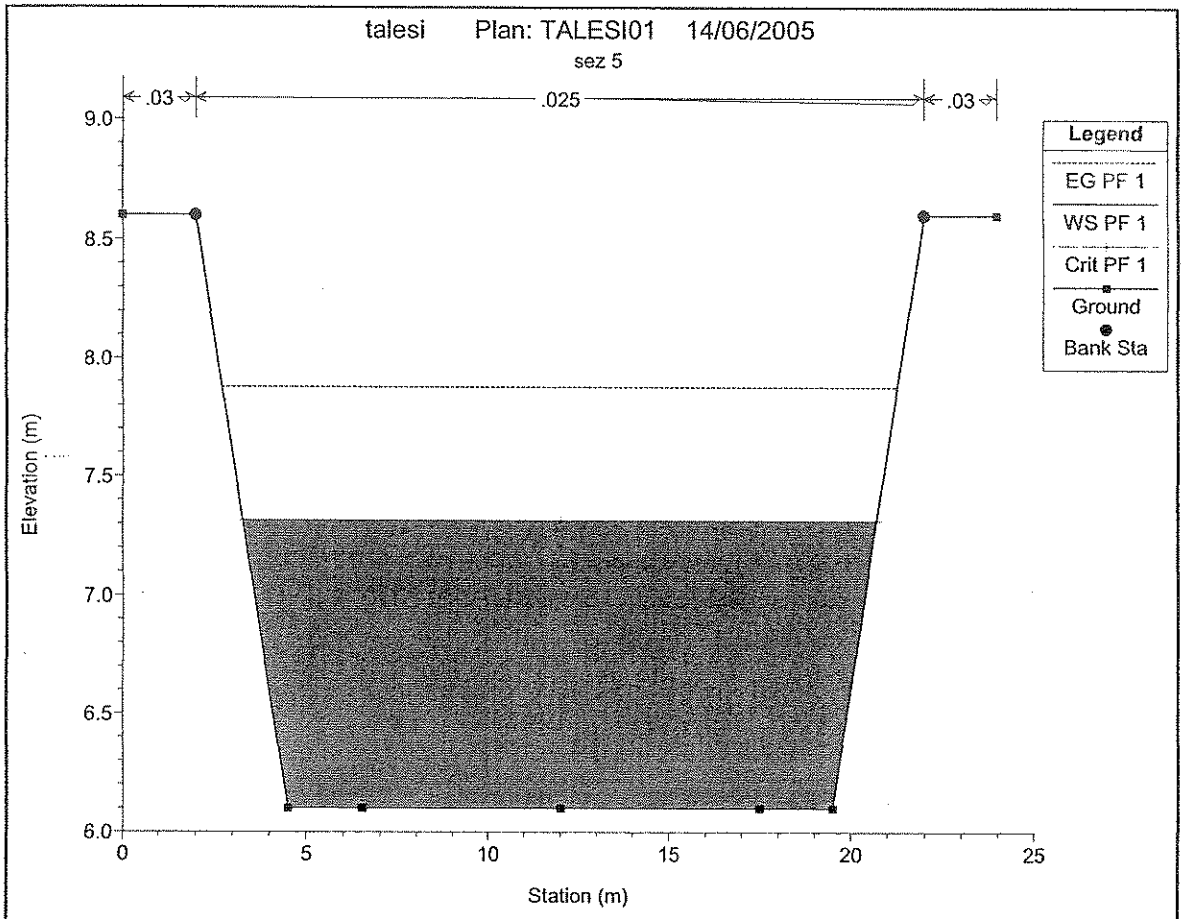
Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
talesi	1656	PF 1	65.50	8.43	10.64	10.56	10.68	0.001188	1.40	112.50	406.73	0.37
talesi	1456	PF 1	65.50	8.39	10.50	10.14	10.52	0.000544	0.82	123.77	225.88	0.23
talesi	1277	PF 1	65.50	6.53	9.46	9.46	10.20	0.009105	3.81	17.20	11.76	1.00
talesi	1249	PF 1	65.50	6.53	8.27	7.74	8.52	0.001920	2.25	29.05	18.47	0.57
talesi	1056	PF 1	65.50	6.10	7.31	7.31	7.88	0.006353	3.33	19.67	17.43	1.00
talesi	504	PF 1	65.50	3.82	6.49	5.04	6.59	0.000464	1.41	46.49	1140.74	0.29
talesi	453	PF 1	65.50	3.72	6.49	5.37	6.54	0.000603	1.01	65.04	1209.96	0.27
talesi	255	PF 1	65.50	3.51	6.45	4.92	6.47	0.000202	0.61	107.54	1056.08	0.16
talesi	147	PF 1	65.50	3.40	6.46	4.77	6.46	0.000001	0.06	1368.68	1021.28	0.01
talesi	130		Bridge									
talesi	117	PF 1	65.50	3.40	4.19	3.92	4.20	0.000799	0.49	134.34	360.17	0.25
talesi	0	PF 1	65.50	3.33	4.09	3.86	4.10	0.000907	0.50	126.98	343.96	0.26

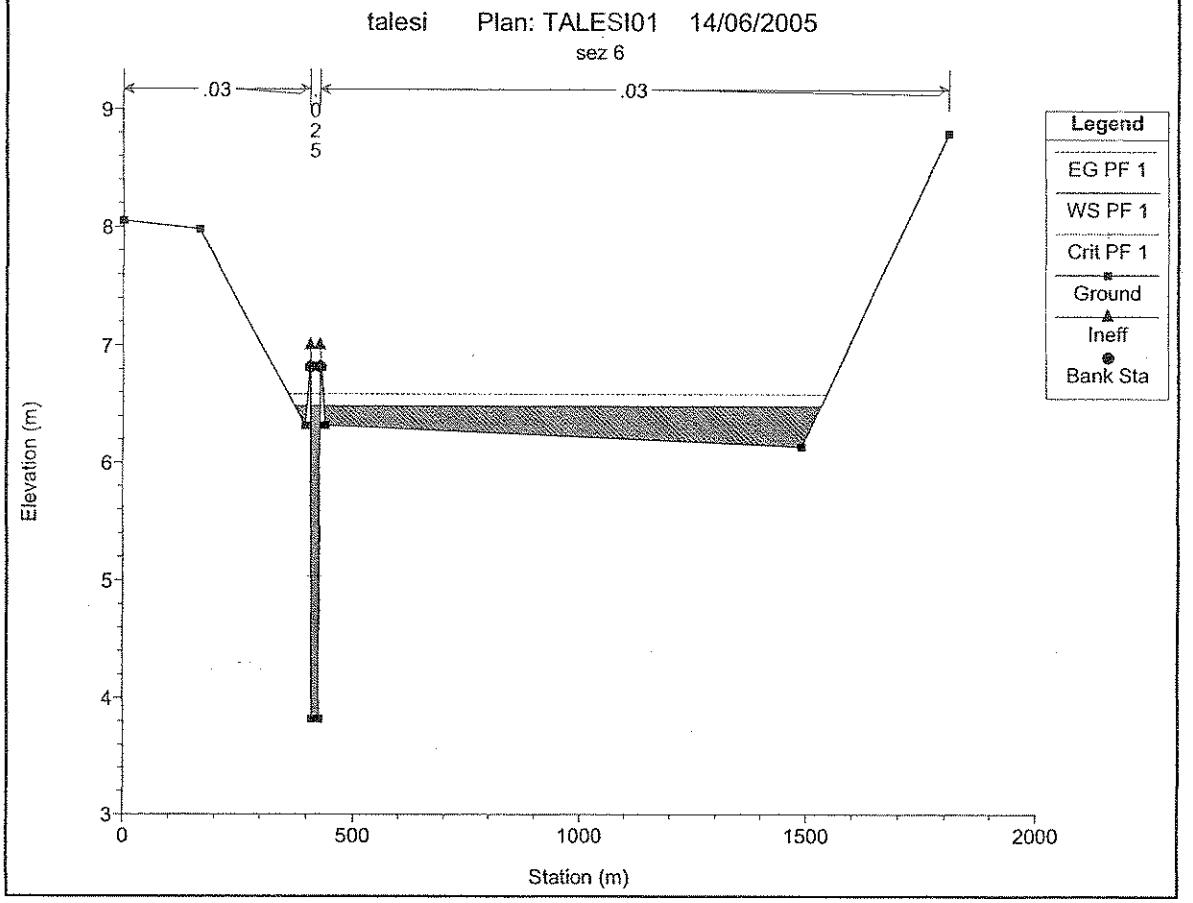

talesi Plan: TALESI01 14/06/2005
sez 1
.03
.03
0
3
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
12.0
11.5
11.0
10.5
10.0
9.5
9.0
8.5
8.0
0
200
400
600
800
1000

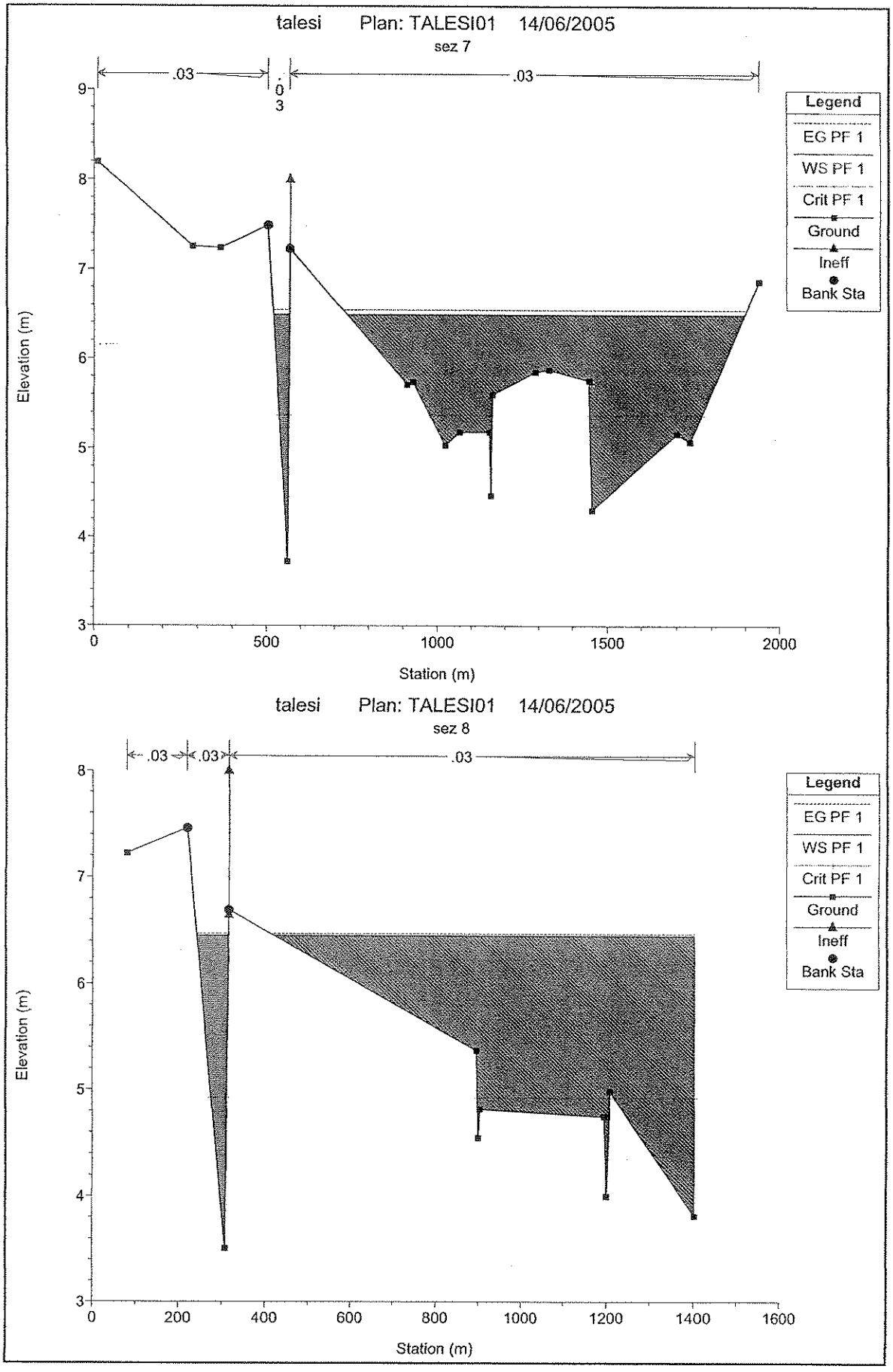

talesi Plan: TALESI01 14/06/2005
sez 2
.03
.03
0
3
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
16
15
14
13
12
11
10
9
8
0
100
200
300
400
500
600
700
800

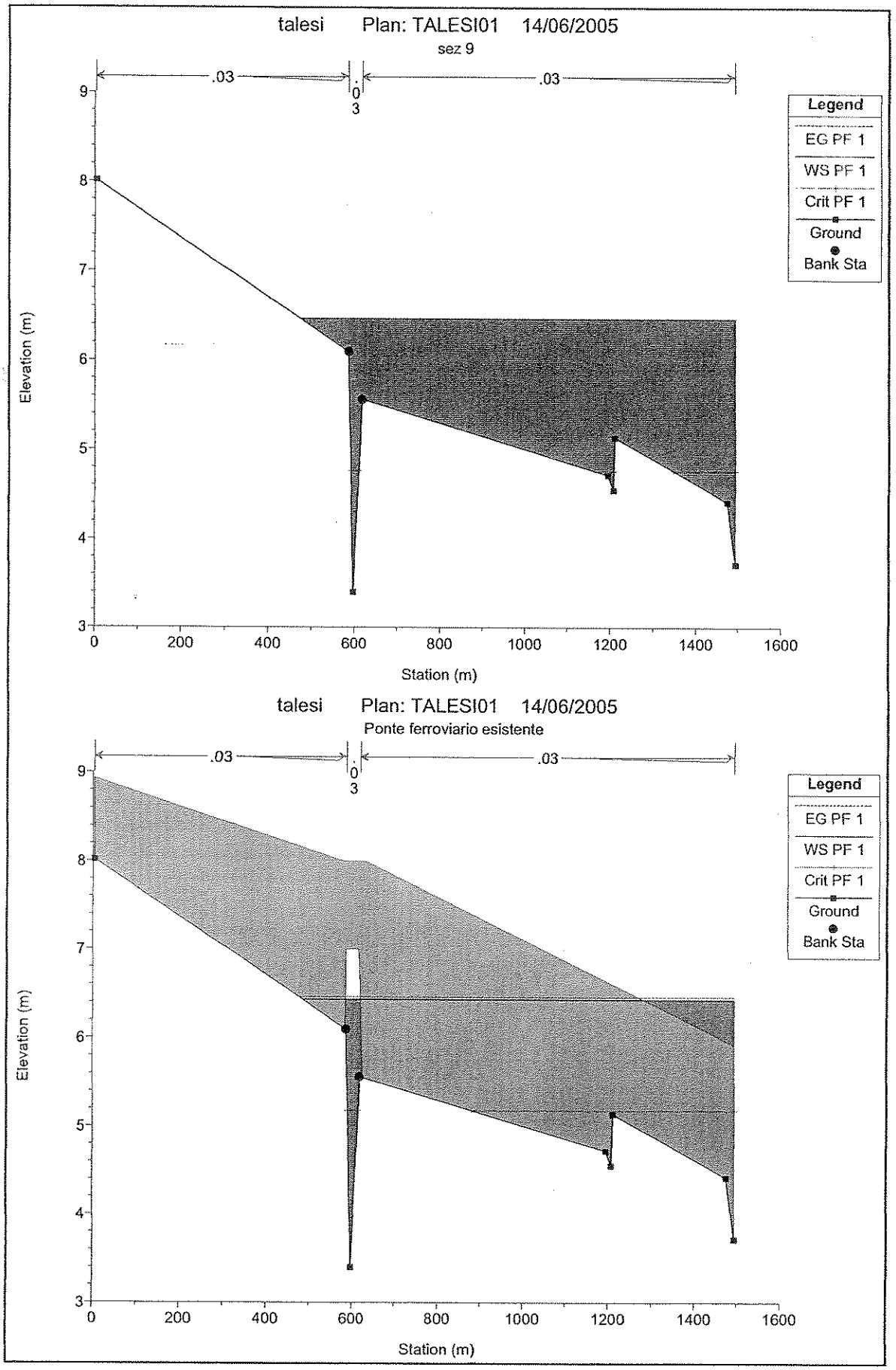

talesi Plan: TALESI01 14/06/2005
sez 3
.03
.03
.03
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
11
10
9
8
7
6
40
50
60
70
80
90
100
110
120

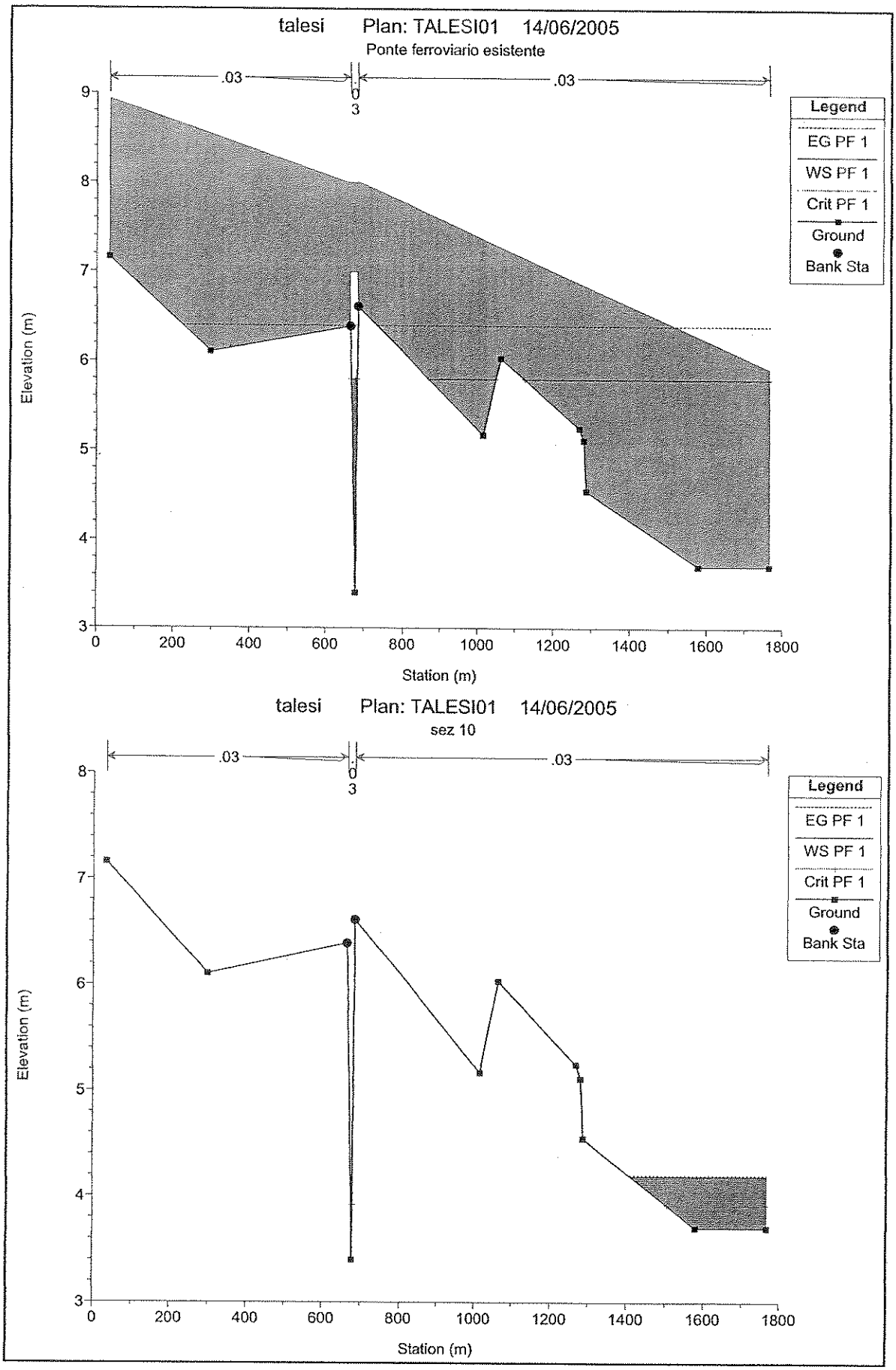

talesi Plan: TALESI01 14/06/2005
sez 4
.03
.025
.03
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
9.5
9.0
8.5
8.0
7.5
7.0
6.5
0
5
10
15
20
25

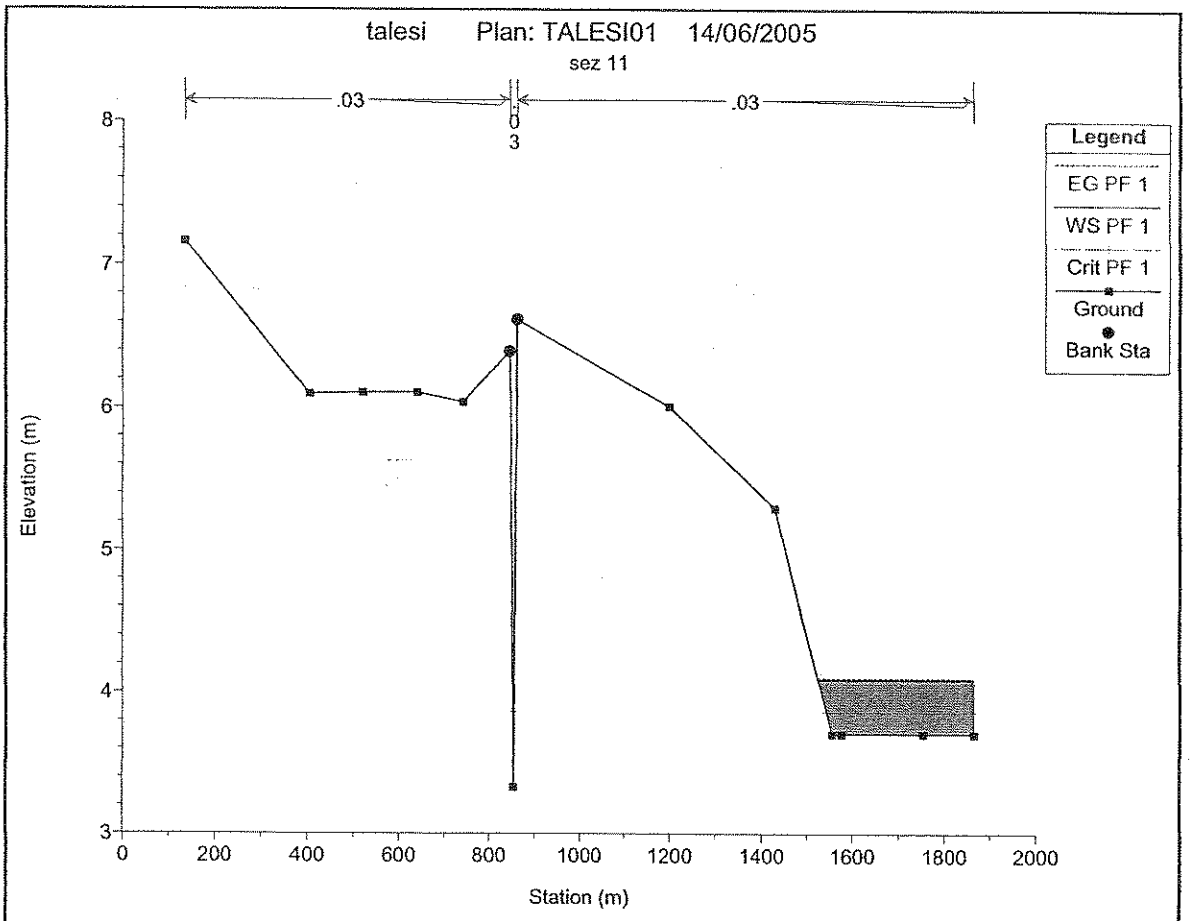

talesi Plan: TALESI01 14/06/2005
sez 5
.03
.025
.03
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
9.0
8.5
8.0
7.5
7.0
6.5
6.0
0
5
10
15
20
25

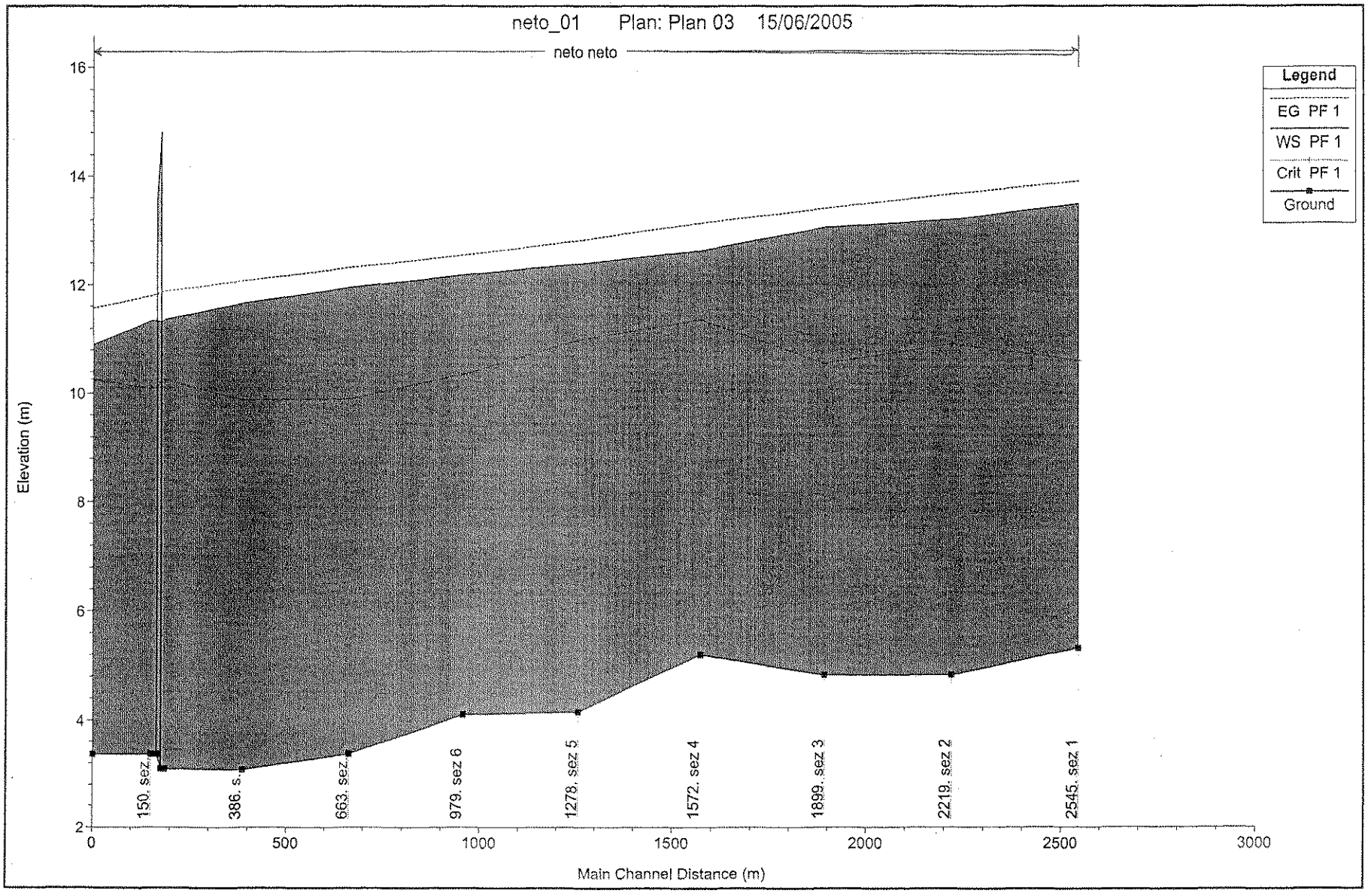

talesi Plan: TALESI01 14/06/2005
sez 6
.03
.03
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Ineff
Bank Sta
Elevation (m)
Station (m)
9
8
7
6
5
4
3
0
500
1000
1500
2000


talesi Plan: TALESI01 14/06/2005
sez 7
.03
.03
.03
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Ineff
Bank Sta
Elevation (m)
Station (m)
9
8
7
6
5
4
3
0
500
1000
1500
2000
talesi Plan: TALESI01 14/06/2005
sez 8
.03
.03
.03
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Ineff
Bank Sta
Elevation (m)
Station (m)
8
7
6
5
4
3
0
200
400
600
800
1000
1200
1400
1600


talesi Plan: TALESI01 14/06/2005
sez 9
.03
.03
0
3
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
talesi Plan: TALESI01 14/06/2005
Ponte ferroviario esistente
.03
.03
0
3
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)

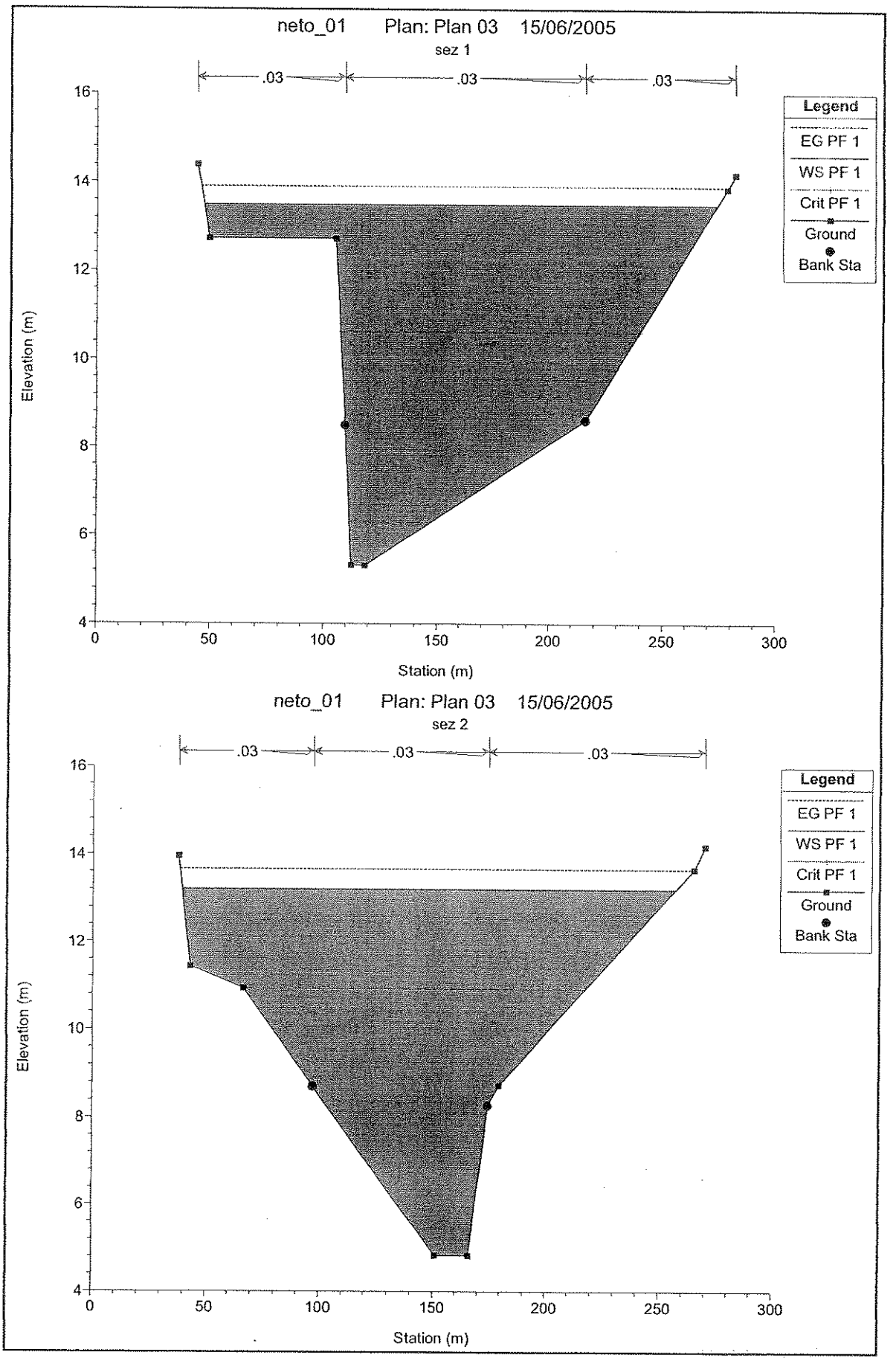

talesi Plan: TALESI01 14/06/2005
Ponte ferroviario esistente
.03
.03
0
3
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
talesi Plan: TALESI01 14/06/2005
sez 10
.03
.03
0
3
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)

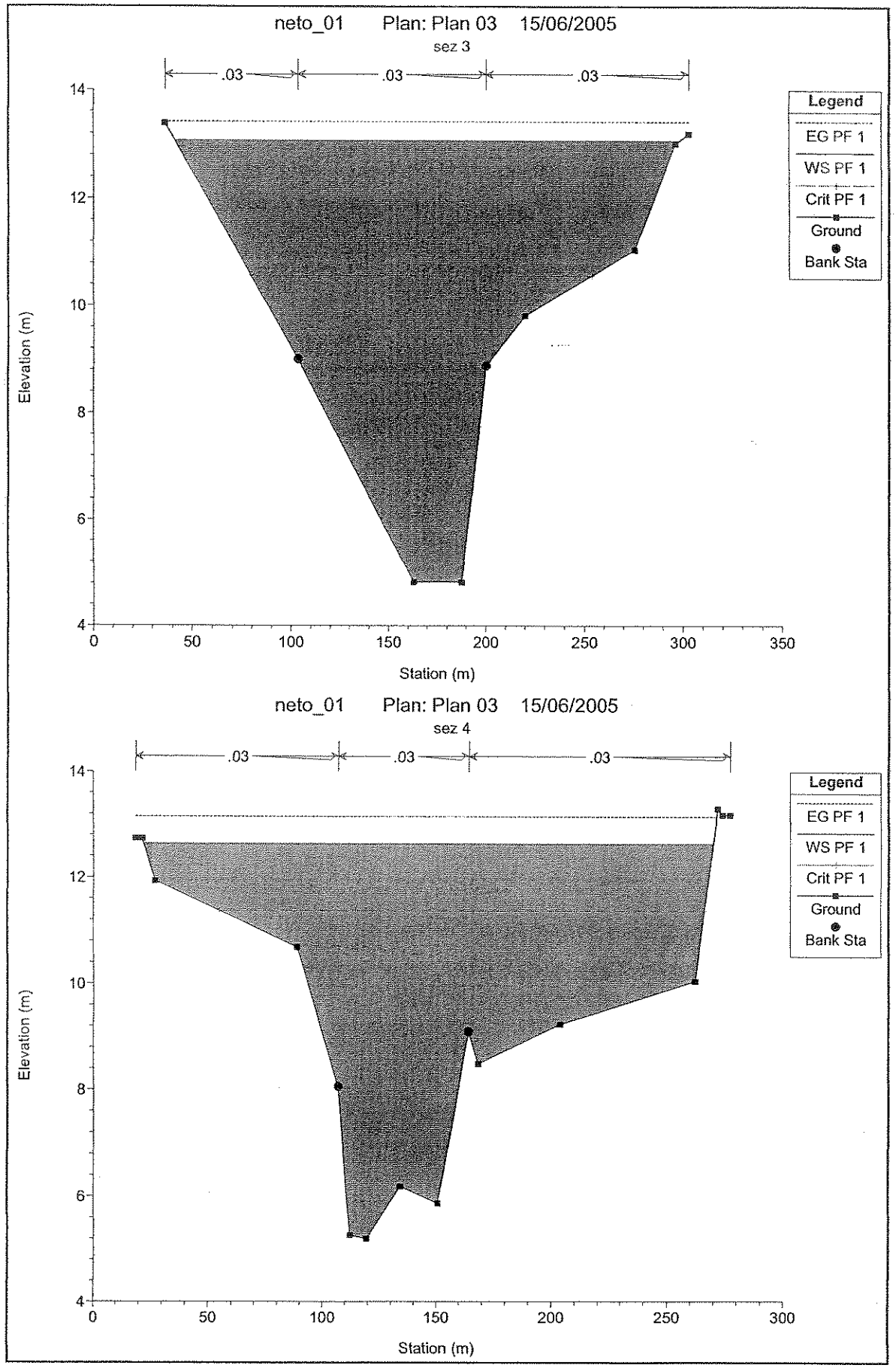

talesi Plan: TALESI01 14/06/2005
sez 11
.03
.03
0
3
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
8
7
6
5
4
3
0
200
400
600
800
1000
1200
1400
1600
1800
2000

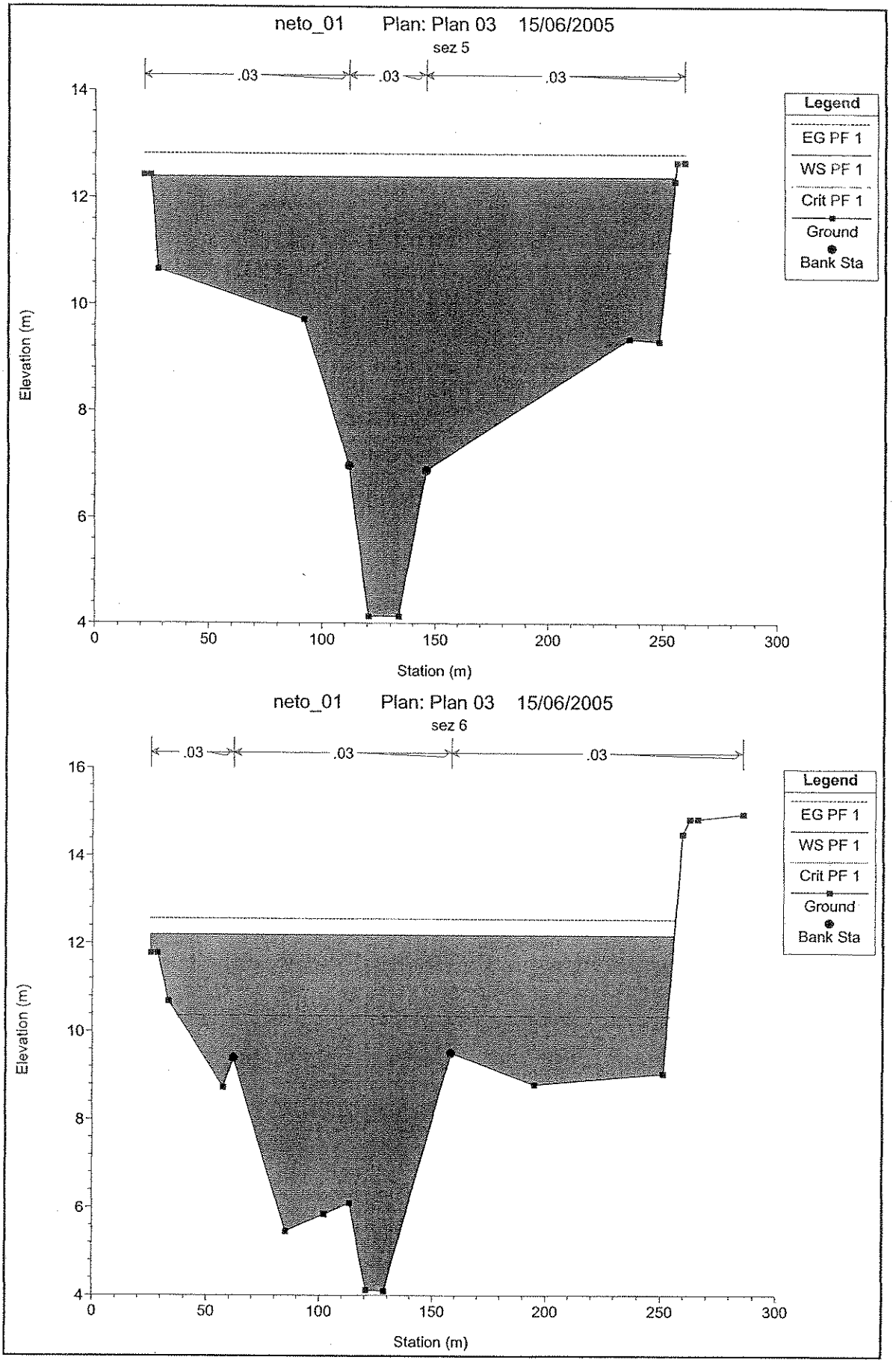

neto_01 Plan: Plan 03 15/06/2005
neto neto
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Elevation (m)
Main Channel Distance (m)
150. sez.
386. s.
663. sez.
979. sez 6
1278. sez 5
1572. sez 4
1899. sez 3
2219. sez 2
2545. sez 1
2
4
6
8
10
12
14
16
0
500
1000
1500
2000
2500
3000

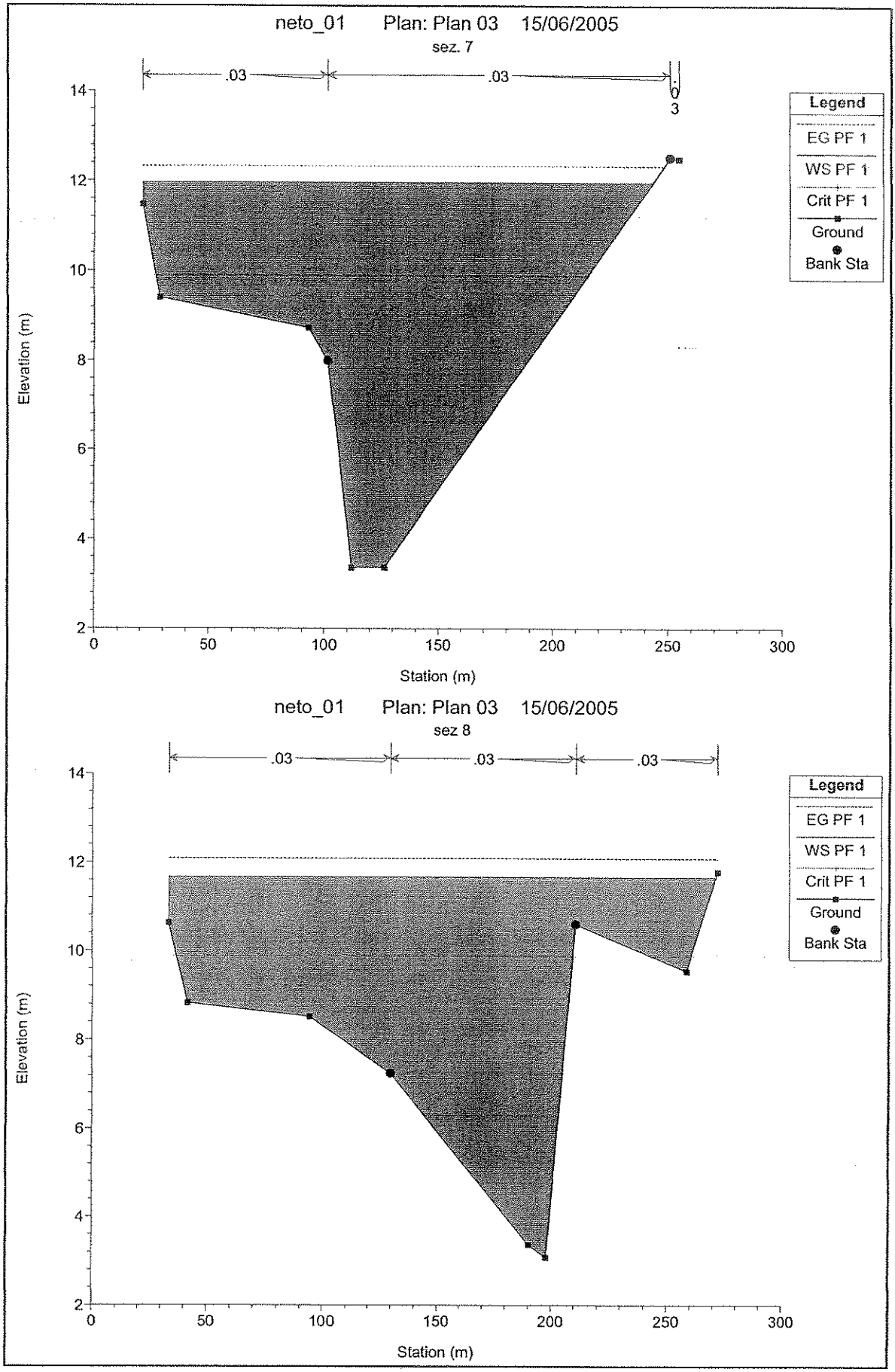
HEC-RAS Plan: Plan 02 River: neto Reach: neto Profile: PF 1

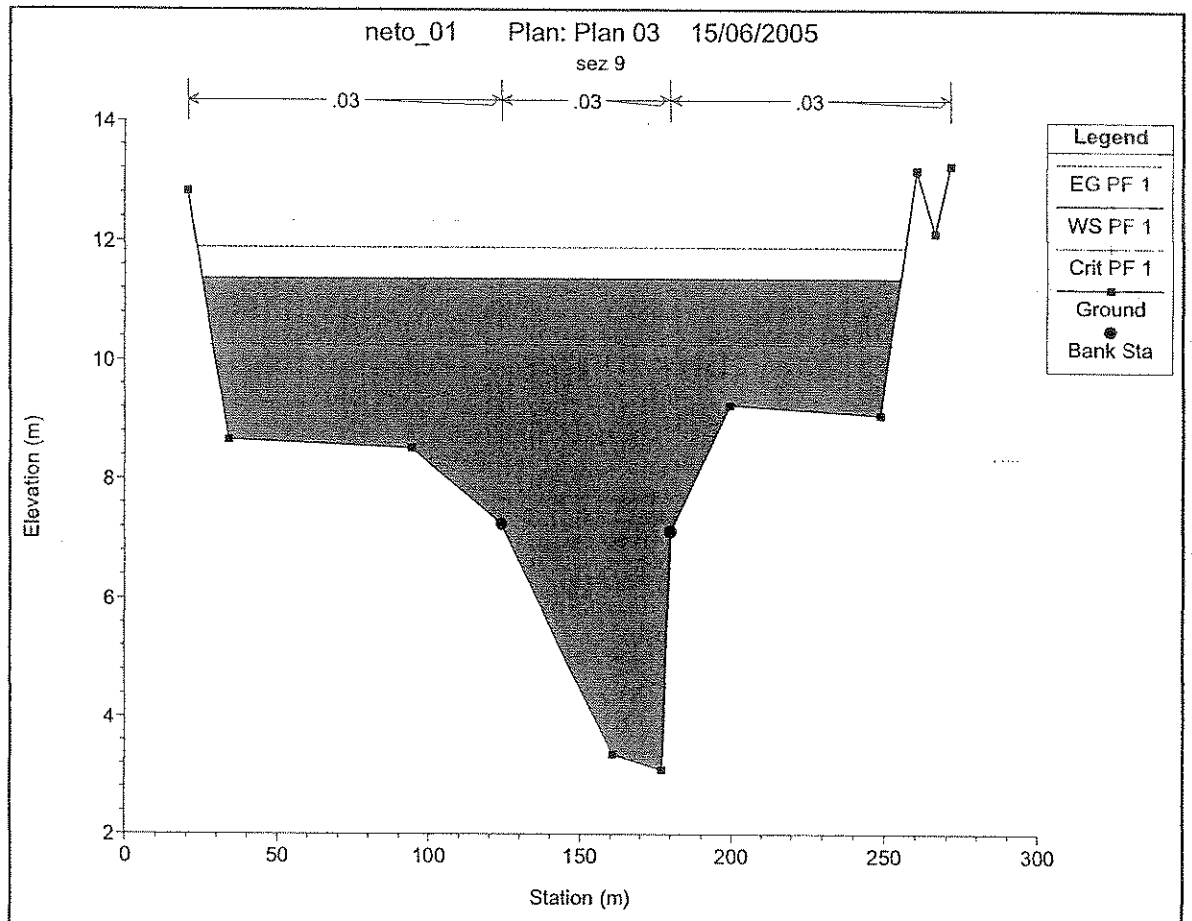
Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
neto	2545.	PF 1	2380.00	5.31	13.49	10.61	13.91	0.000662	3.00	903.79	226.95	0.37
neto	2219.	PF 1	2380.00	4.81	13.21	10.92	13.67	0.000785	3.34	882.79	217.97	0.41
neto	1899.	PF 1	2380.00	4.81	13.06	10.56	13.41	0.000593	2.87	1016.71	257.37	0.35
neto	1572.	PF 1	2380.00	5.20	12.63	11.37	13.15	0.001082	3.73	844.95	248.03	0.47
neto	1278.	PF 1	2380.00	4.13	12.39	10.99	12.82	0.000854	3.65	910.58	231.09	0.43
neto	979.	PF 1	2380.00	4.09	12.19	10.36	12.56	0.000752	2.96	948.94	230.51	0.39
neto	663.	PF 1	2380.00	3.36	11.96	9.90	12.32	0.000856	2.79	921.99	222.38	0.40
neto	386.	PF 1	2380.00	3.08	11.66	9.88	12.08	0.000819	3.20	908.63	237.71	0.41
neto	186.	PF 1	2380.00	3.09	11.37	10.25	11.89	0.001070	3.77	837.69	230.41	0.46
neto	165.		Bridge									
neto	150.	PF 1	2380.00	3.36	11.34	10.10	11.80	0.001015	3.62	864.35	227.89	0.46
neto	0	PF 1	2380.00	3.36	10.90	10.26	11.57	0.002040	4.20	702.66	226.06	0.61

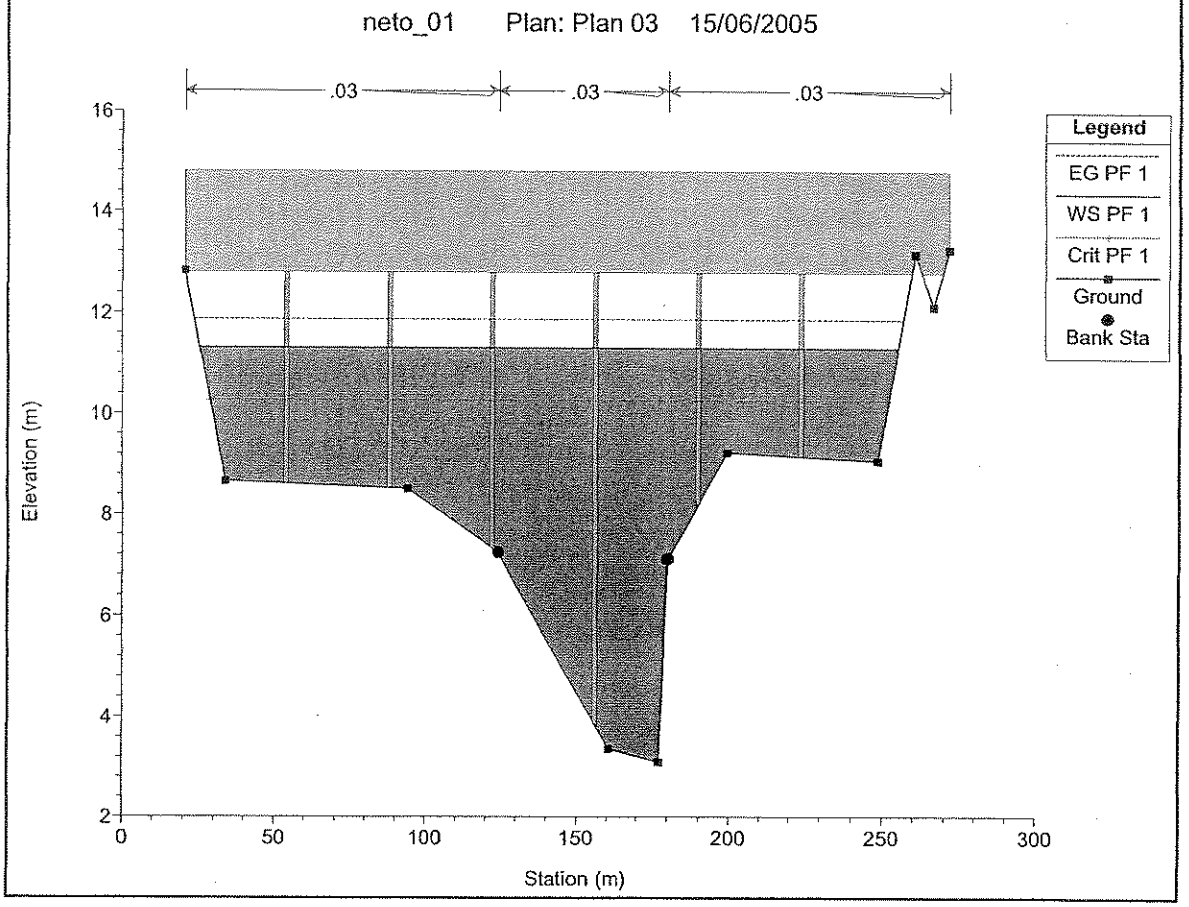

neto_01 Plan: Plan 03 15/06/2005
sez 1
.03
.03
.03
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
16
14
12
10
8
6
4
0
50
100
150
200
250
300
neto_01 Plan: Plan 03 15/06/2005
sez 2
.03
.03
.03
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)

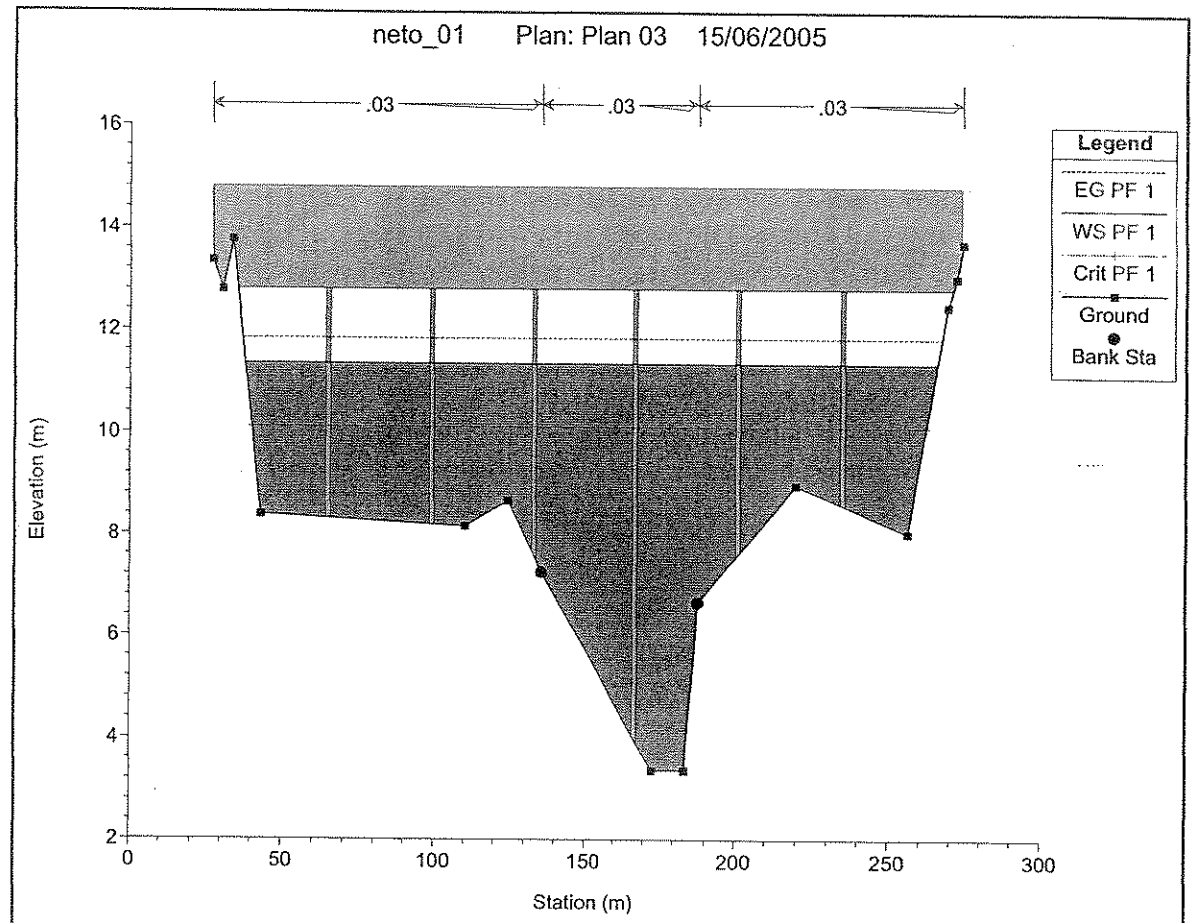

neto_01 Plan: Plan 03 15/06/2005
sez 3
.03
.03
.03
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
14
12
10
8
6
4
0
50
100
150
200
250
300
350
neto_01 Plan: Plan 03 15/06/2005
sez 4
.03
.03
.03
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
14
12
10
8
6
4
0
50
100
150
200
250
300

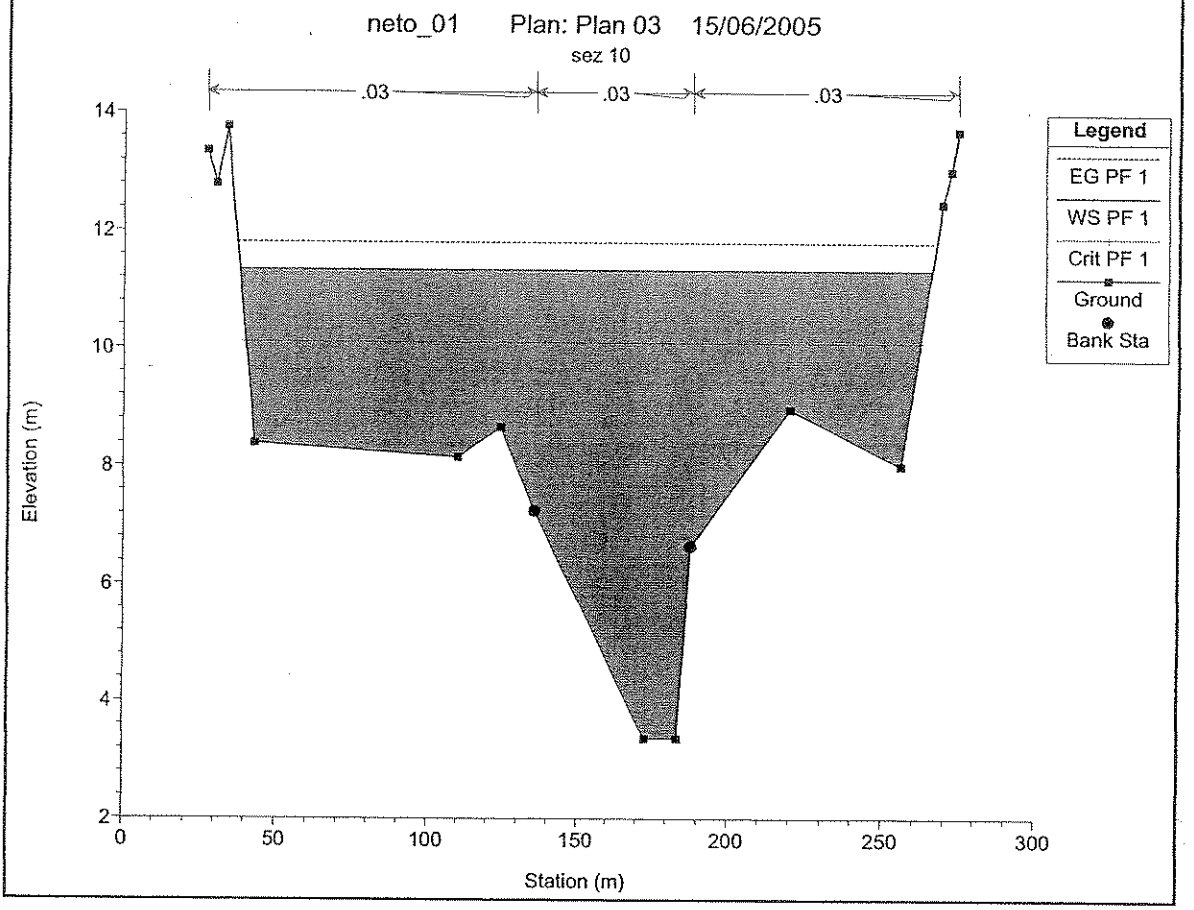

neto_01 Plan: Plan 03 15/06/2005
sez 5
.03
.03
.03
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
14
12
10
8
6
4
0
50
100
150
200
250
300
neto_01 Plan: Plan 03 15/06/2005
sez 6
.03
.03
.03
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
16
14
12
10
8
6
4
0
50
100
150
200
250
300

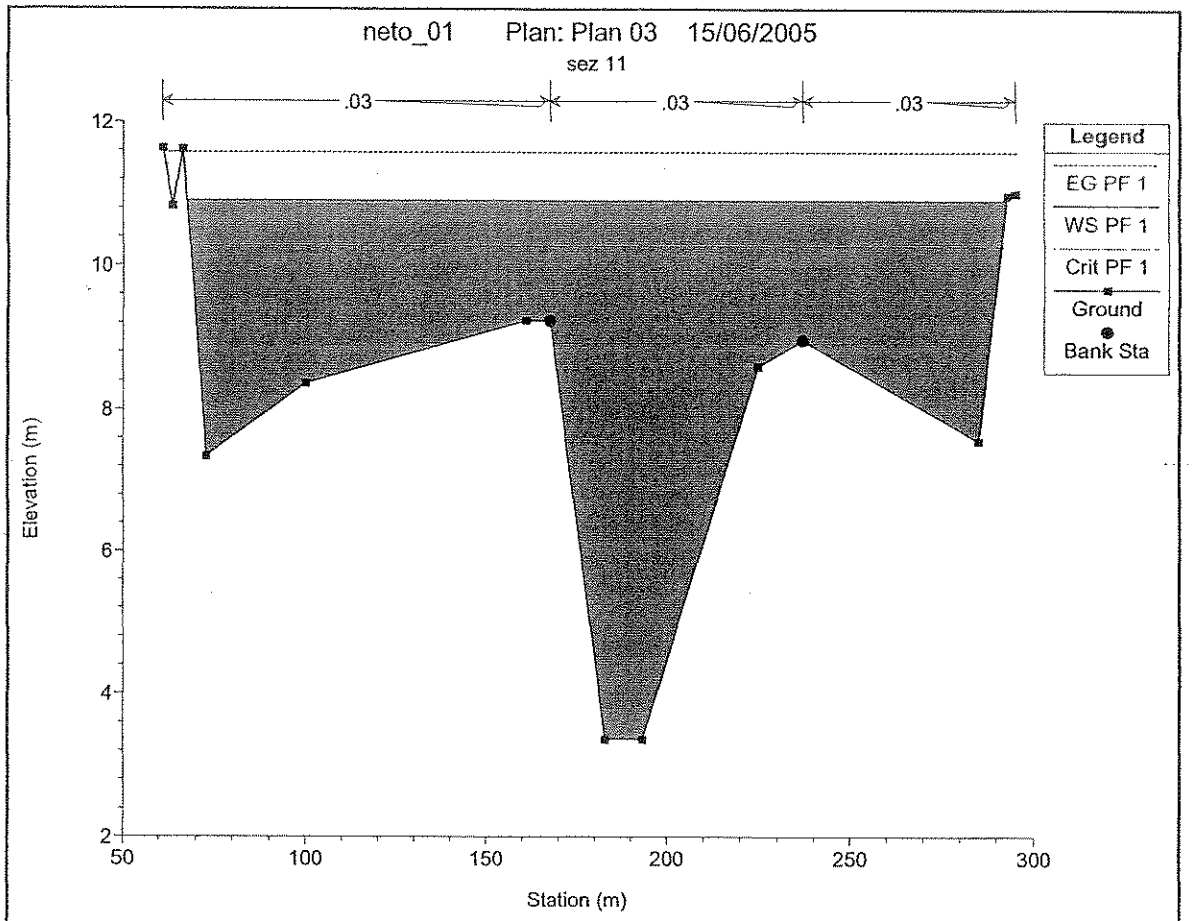

neto_01 Plan: Plan 03 15/06/2005
sez. 7
.03
.03
0
3
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
neto_01 Plan: Plan 03 15/06/2005
sez 8
.03
.03
.03
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)

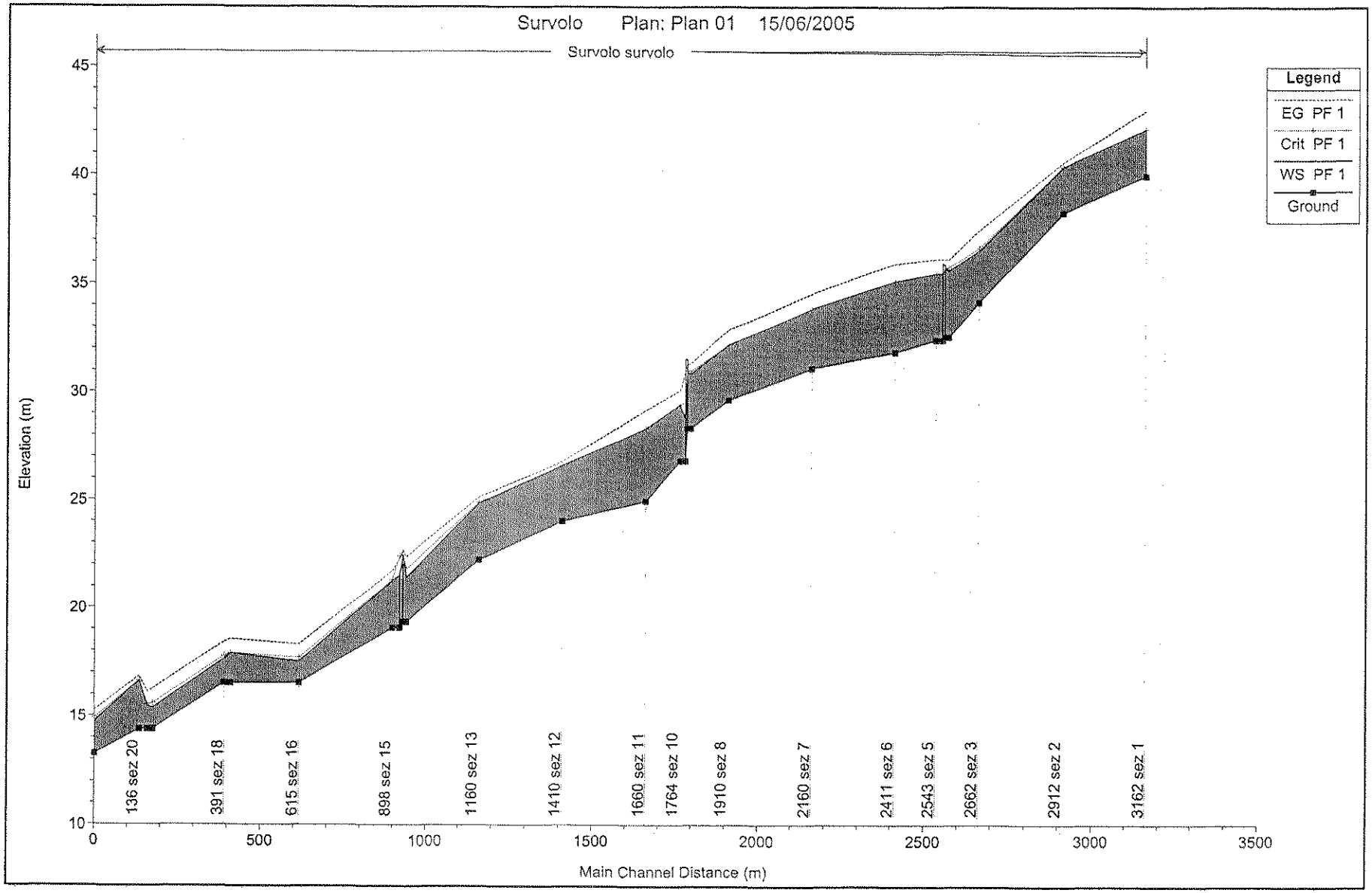

neto_01 Plan: Plan 03 15/06/2005
sez 9
.03
.03
.03
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
2
4
6
8
10
12
14
0
50
100
150
200
250
300


neto_01 Plan: Plan 03 15/06/2005
.03
.03
.03
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
2
4
6
8
10
12
14
16
0
50
100
150
200
250
300


neto_01 Plan: Plan 03 15/06/2005
.03
.03
.03
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
16
14
12
10
8
6
4
2
0
50
100
150
200
250
300

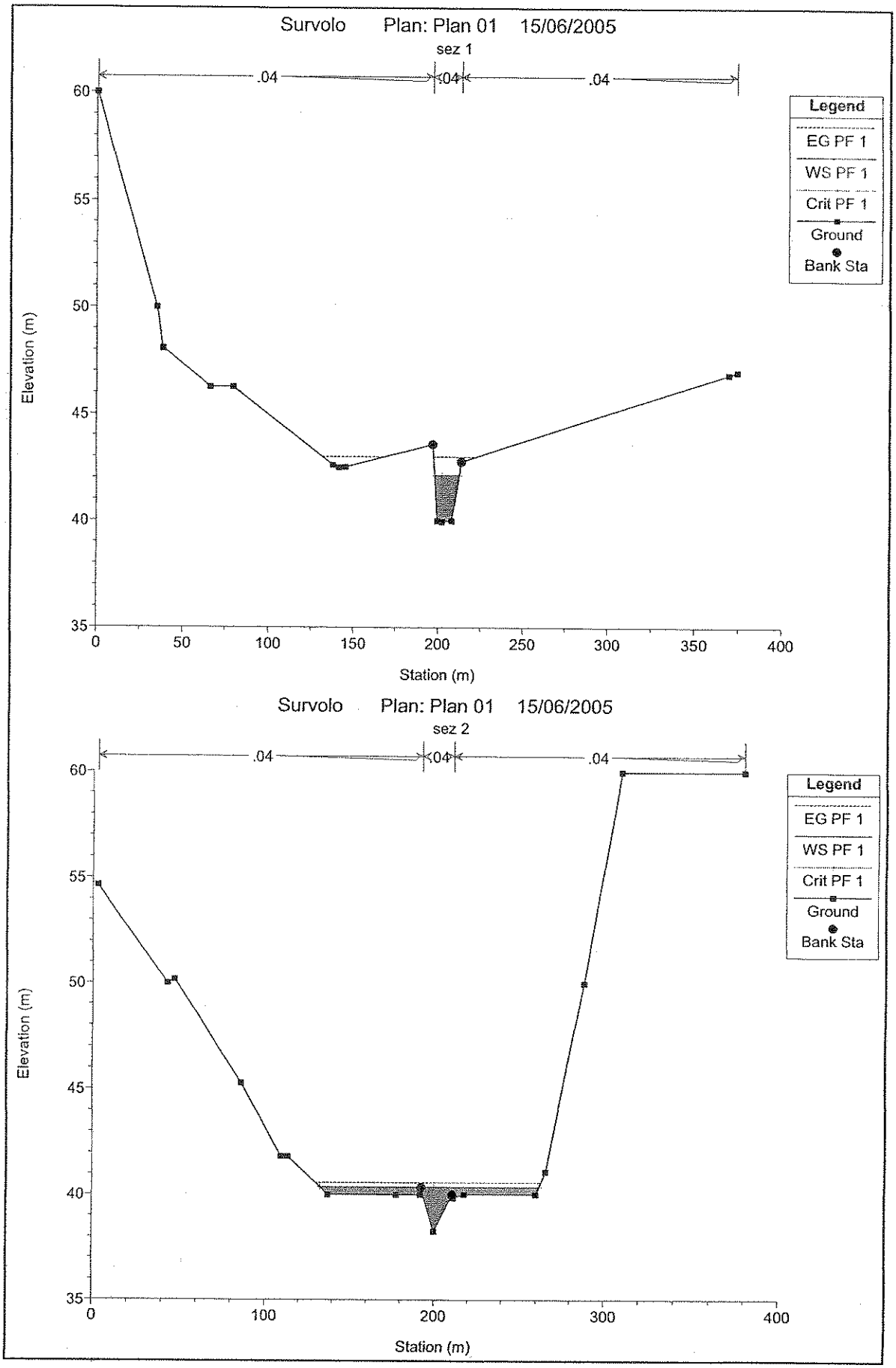

neto_01 Plan: Plan 03 15/06/2005
sez 10
.03
.03
.03
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
14
12
10
8
6
4
2
0
50
100
150
200
250
300

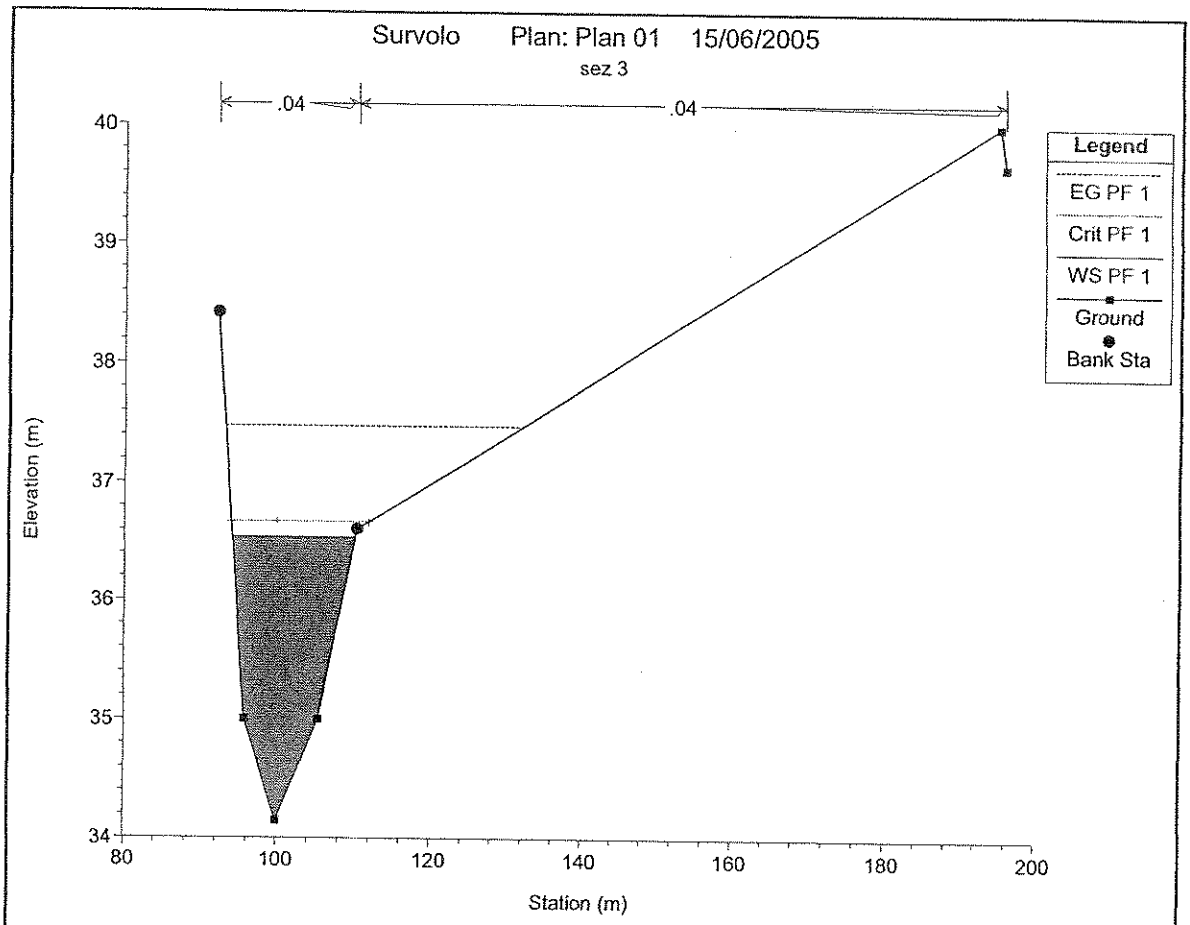

neto_01 Plan: Plan 03 15/06/2005
sez 11
.03
.03
.03
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
12
10
8
6
4
2
50
100
150
200
250
300

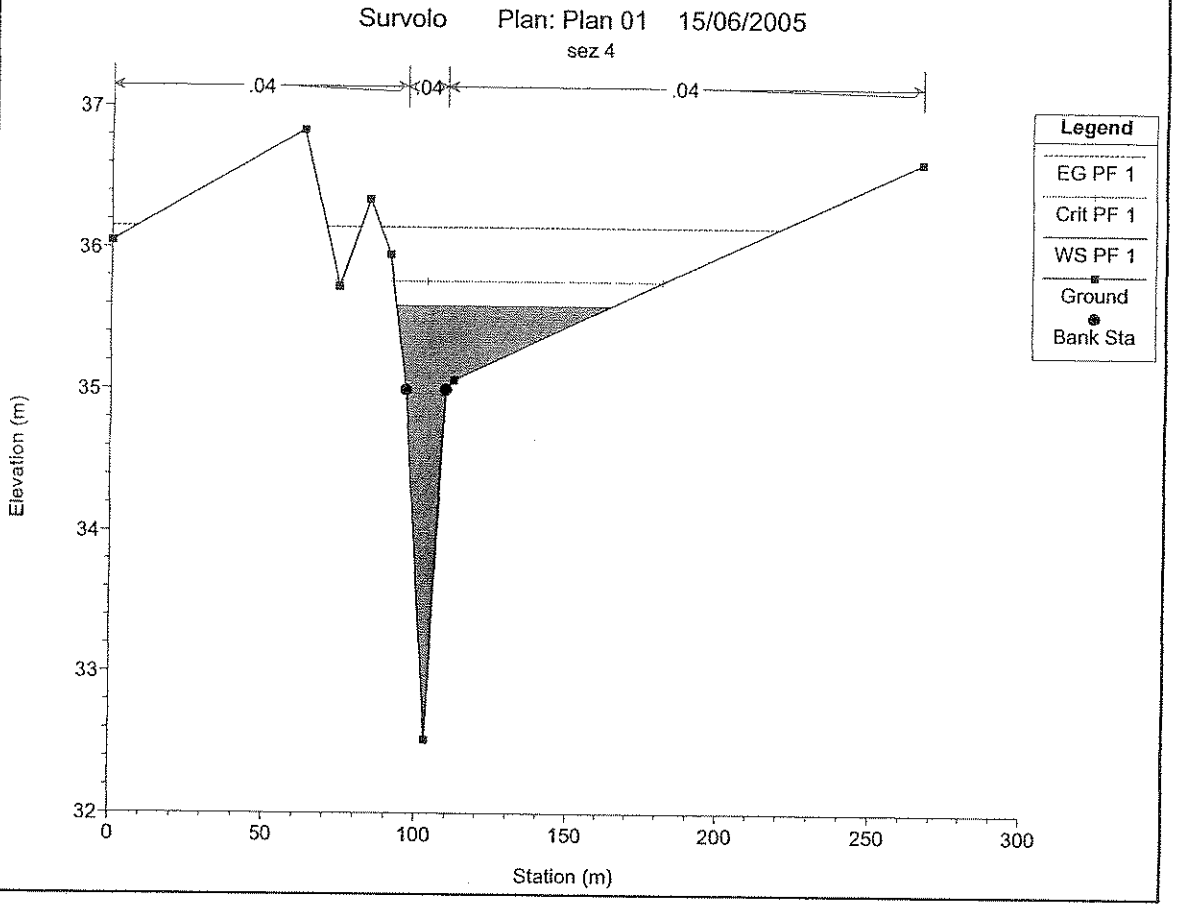

Survolo Plan: Plan 01 15/06/2005
Survolo survolo
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Elevation (m)
Main Channel Distance (m)
45
40
35
30
25
20
15
10
0
500
1000
1500
2000
2500
3000
3500
136 sez 20
391 sez 18
615 sez 16
898 sez 15
1160 sez 13
1410 sez 12
1660 sez 11
1764 sez 10
1910 sez 8
2160 sez 7
2411 sez 6
2543 sez 5
2662 sez 3
2912 sez 2
3162 sez 1

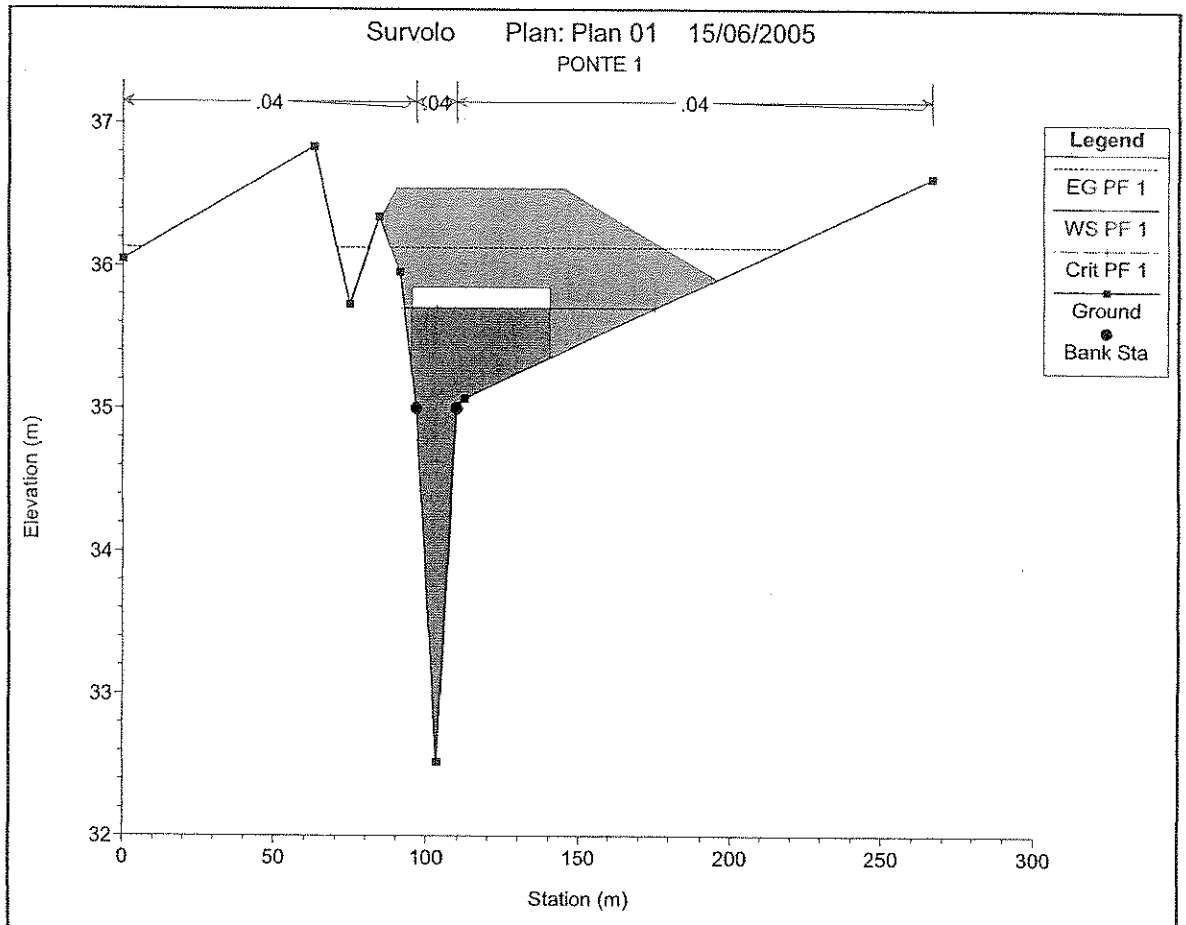
HEC-RAS Plan: Plan 01 River: Survolo Reach: survolo Profile: PF 1

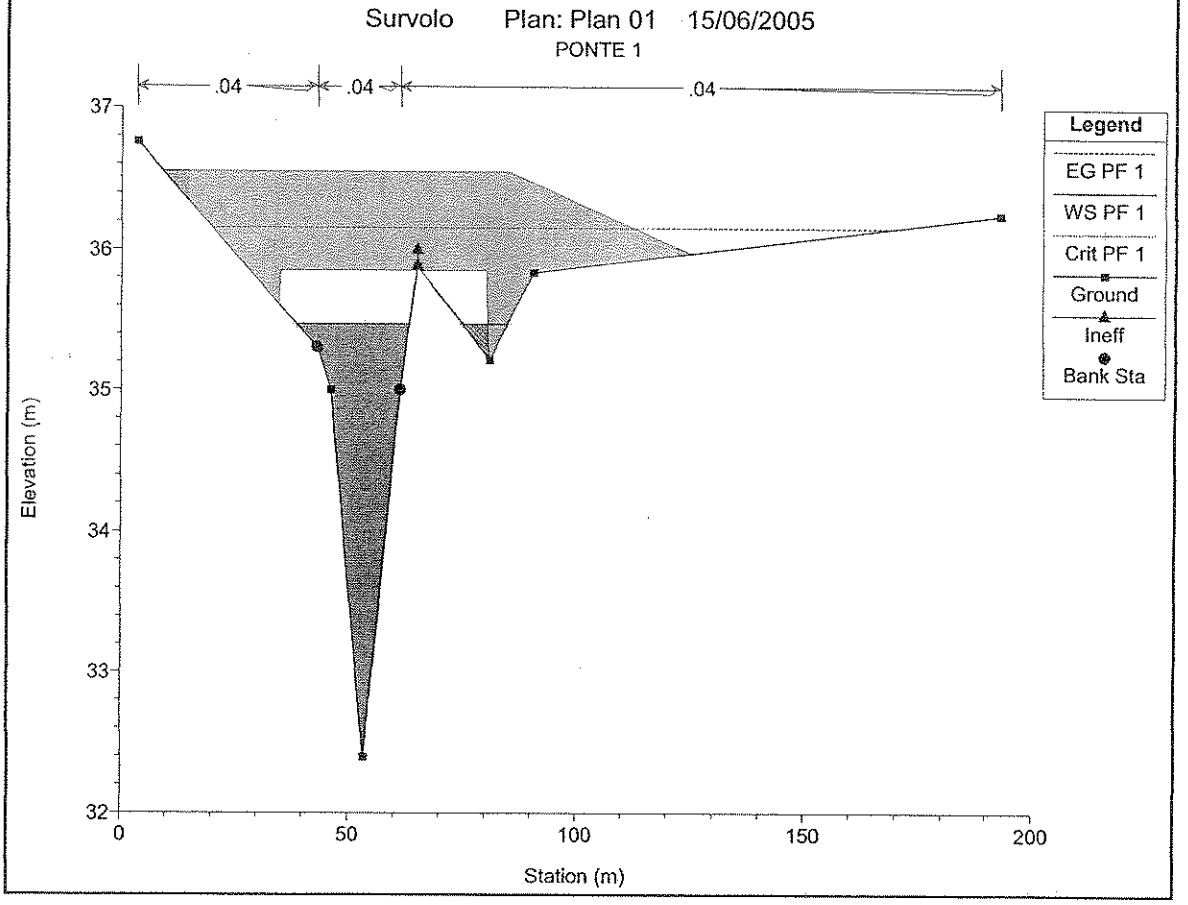
Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
survolo	3162	PF 1	103.00	39.96	42.14	42.14	43.00	0.015127	4.11	25.07	14.60	1.00
survolo	2912	PF 1	103.00	38.25	40.37	40.37	40.58	0.008458	2.53	62.38	129.50	0.74
survolo	2662	PF 1	103.00	34.15	36.53	36.67	37.47	0.018864	4.29	24.00	16.16	1.12
survolo	2572	PF 1	103.00	32.52	35.59	35.77	36.15	0.010095	3.59	39.98	71.15	0.85
survolo	2552		Bridge									
survolo	2543	PF 1	103.00	32.39	35.47	35.47	36.15	0.013090	3.68	28.63	34.65	0.95
survolo	2411	PF 1	103.00	31.83	35.11	35.11	35.93	0.014880	4.01	25.67	46.82	1.00
survolo	2160	PF 1	103.00	31.10	33.86	33.86	34.55	0.015067	3.70	27.87	20.21	1.00
survolo	1910	PF 1	103.00	29.61	32.16	32.16	32.88	0.014225	3.76	27.53	21.20	0.99
survolo	1796	PF 1	103.00	28.31	30.85	30.97	31.32	0.011939	3.75	48.39	122.37	0.92
survolo	1780		Bridge									
survolo	1764	PF 1	103.00	26.78	29.41	29.42	30.08	0.014844	3.65	28.43	23.95	1.00
survolo	1660	PF 1	103.00	24.90	28.31	28.31	29.16	0.015015	4.10	25.10	20.45	1.00
survolo	1410	PF 1	103.00	23.99	26.57	26.59	26.77	0.005762	2.30	71.78	183.10	0.63
survolo	1160	PF 1	103.00	22.20	24.81	24.87	25.11	0.007609	2.79	60.71	165.79	0.73
survolo	940	PF 1	103.00	19.32	21.37	21.78	22.36	0.022731	4.66	25.35	26.10	1.24
survolo	920		Bridge									
survolo	898	PF 1	103.00	19.04	21.23	21.28	21.69	0.013412	3.23	37.43	47.32	0.94
survolo	615	PF 1	103.00	16.52	17.49	17.67	18.30	0.010535	4.02	26.11	27.94	1.30
survolo	410	PF 1	103.00	16.53	17.90	17.90	18.56	0.005477	3.64	29.19	22.73	1.00
survolo	391	PF 1	103.00	16.52	17.61	17.76	18.41	0.008830	3.98	25.94	23.87	1.22
survolo	177	PF 1	103.00	14.38	15.36	15.58	16.27	0.011342	4.22	24.46	24.87	1.36
survolo	160	PF 1	103.00	14.38	15.46	15.53	16.11	0.007392	3.61	29.11	28.15	1.11
survolo	136	PF 1	103.00	14.38	16.64	16.64	16.84	0.006321	2.38	67.77	152.68	0.66
survolo	0	PF 1	103.00	13.27	14.75	14.91	15.28	0.025692	3.26	33.18	59.68	1.21

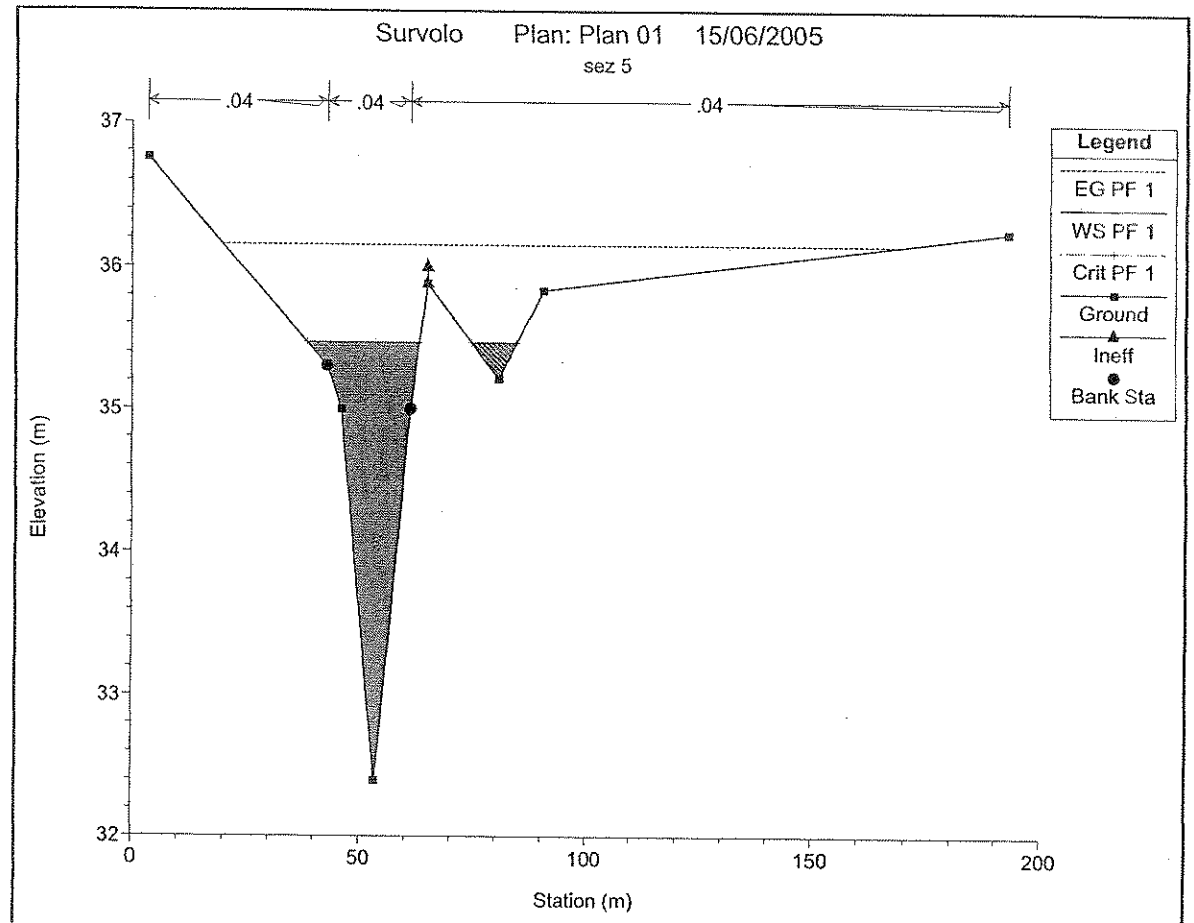

Survolo Plan: Plan 01 15/06/2005
sez 1
.04
.04
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
60
55
50
45
40
35
0
50
100
150
200
250
300
350
400
Survolo Plan: Plan 01 15/06/2005
sez 2
.04
.04
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
60
55
50
45
40
35
0
100
200
300
400

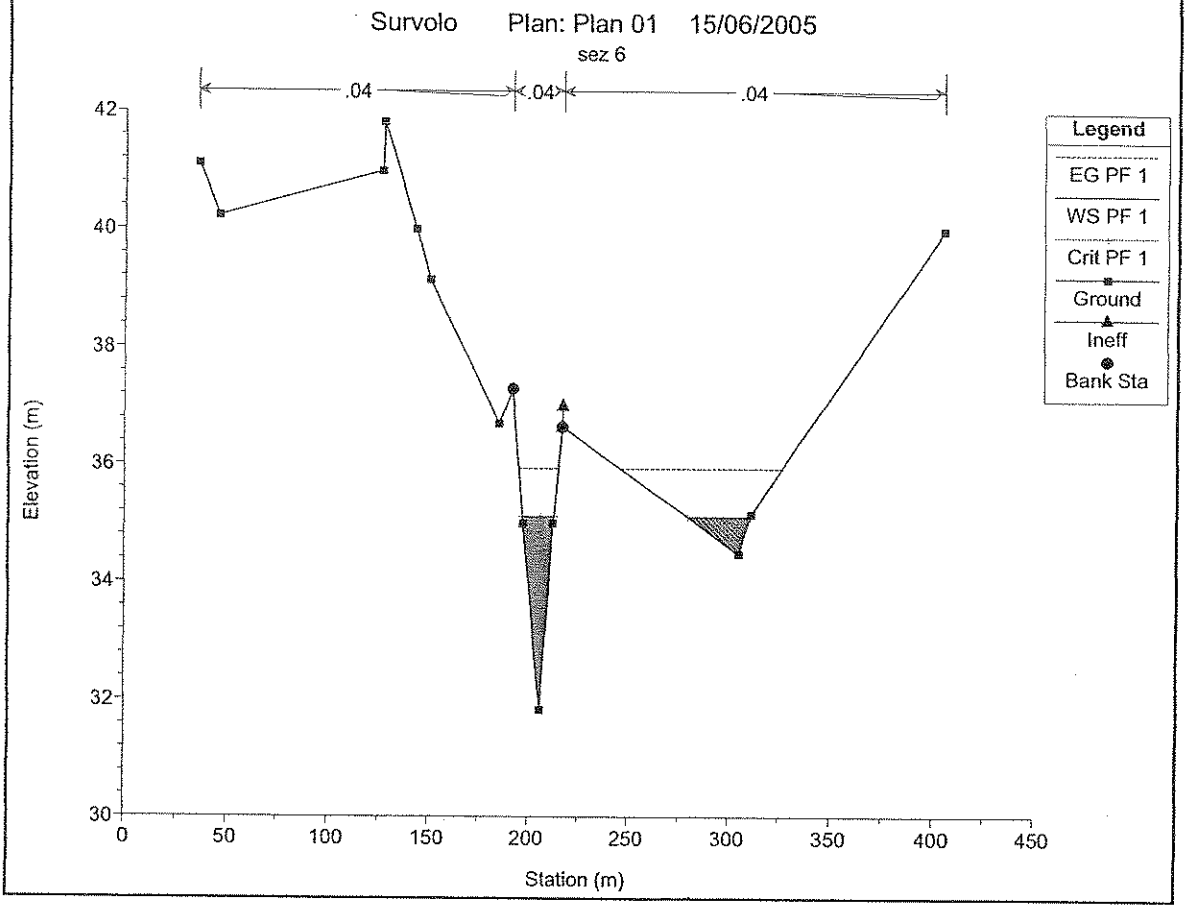

Survolo Plan: Plan 01 15/06/2005
sez 3
.04
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
40
39
38
37
36
35
34
80
100
120
140
160
180
200

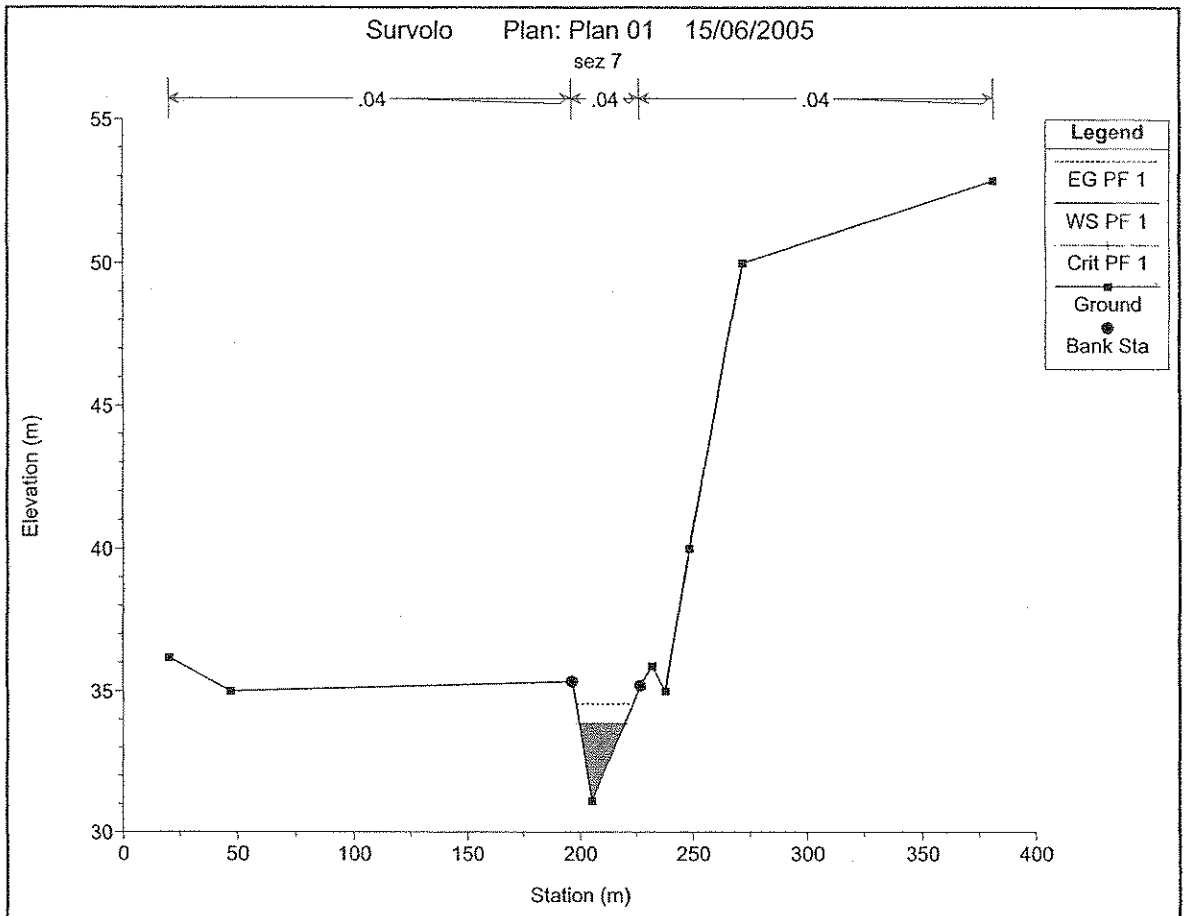

Survolo Plan: Plan 01 15/06/2005
sez 4
.04
.04
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
37
36
35
34
33
32
0
50
100
150
200
250
300

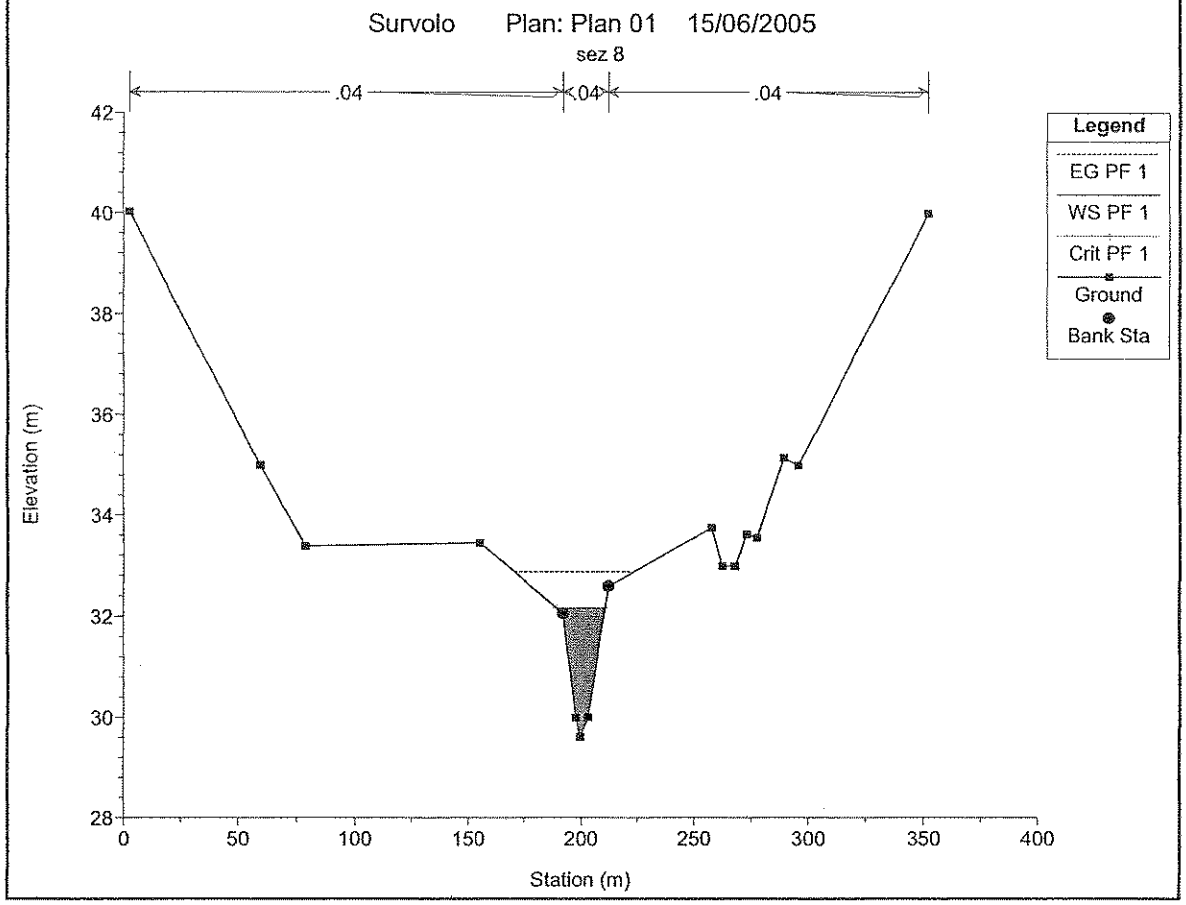

Survolo Plan: Plan 01 15/06/2005
PONTE 1
.04
.04
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
37
36
35
34
33
32
0
50
100
150
200
250
300
Station (m)

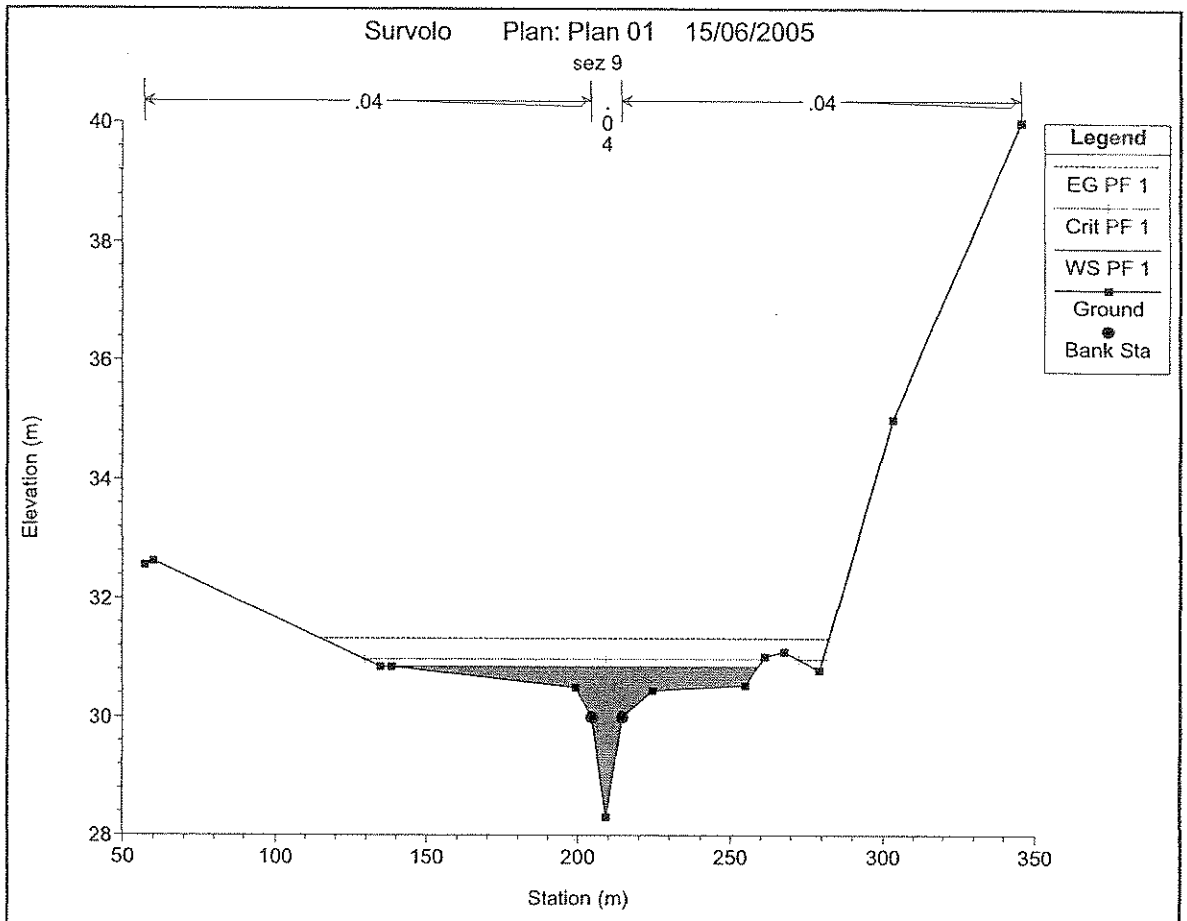

Survolo Plan: Plan 01 15/06/2005
PONTE 1
.04
.04
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Ineff
Bank Sta
Elevation (m)
37
36
35
34
33
32
0
50
100
150
200
Station (m)

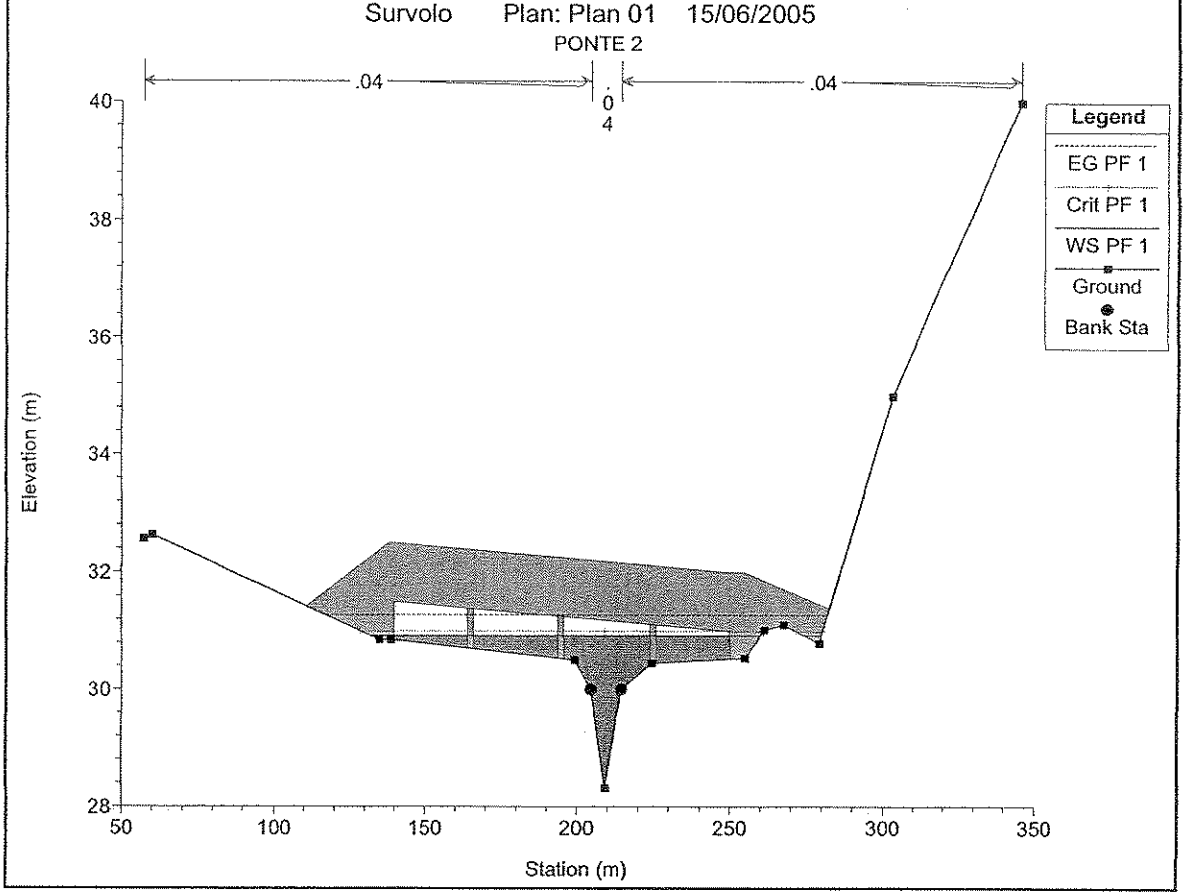

Survolo Plan: Plan 01 15/06/2005
sez 5
.04
.04
.04
37
36
35
34
33
32
Elevation (m)
0
50
100
150
200
Station (m)
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Ineff
Bank Sta

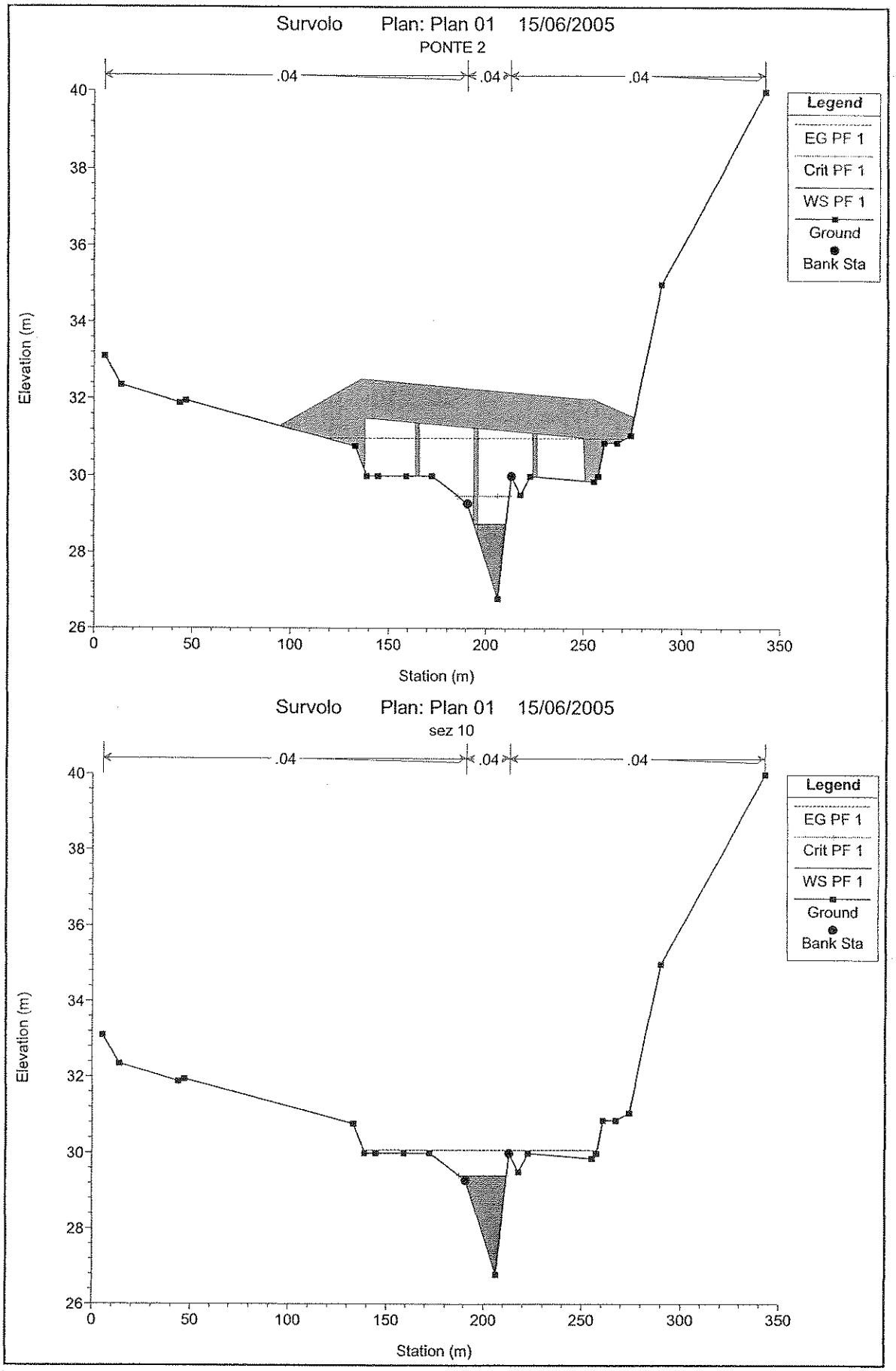

Survolo Plan: Plan 01 15/06/2005
sez 6
.04
.04
.04
42
40
38
36
34
32
30
Elevation (m)
0
50
100
150
200
250
300
350
400
450
Station (m)
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Ineff
Bank Sta

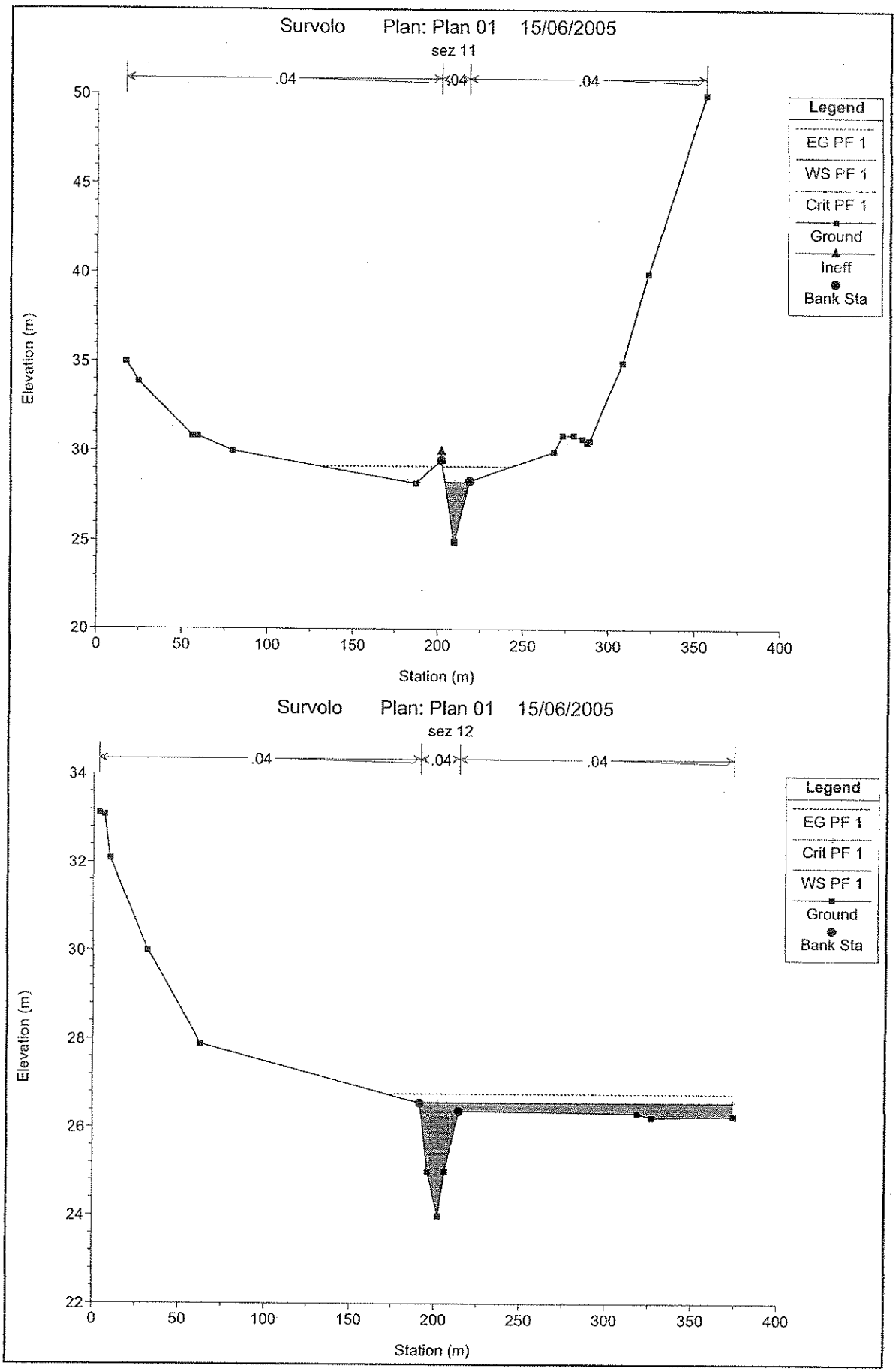

Survolo Plan: Plan 01 15/06/2005
sez 7
.04
.04
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
55
50
45
40
35
30
0
50
100
150
200
250
300
350
400
Station (m)

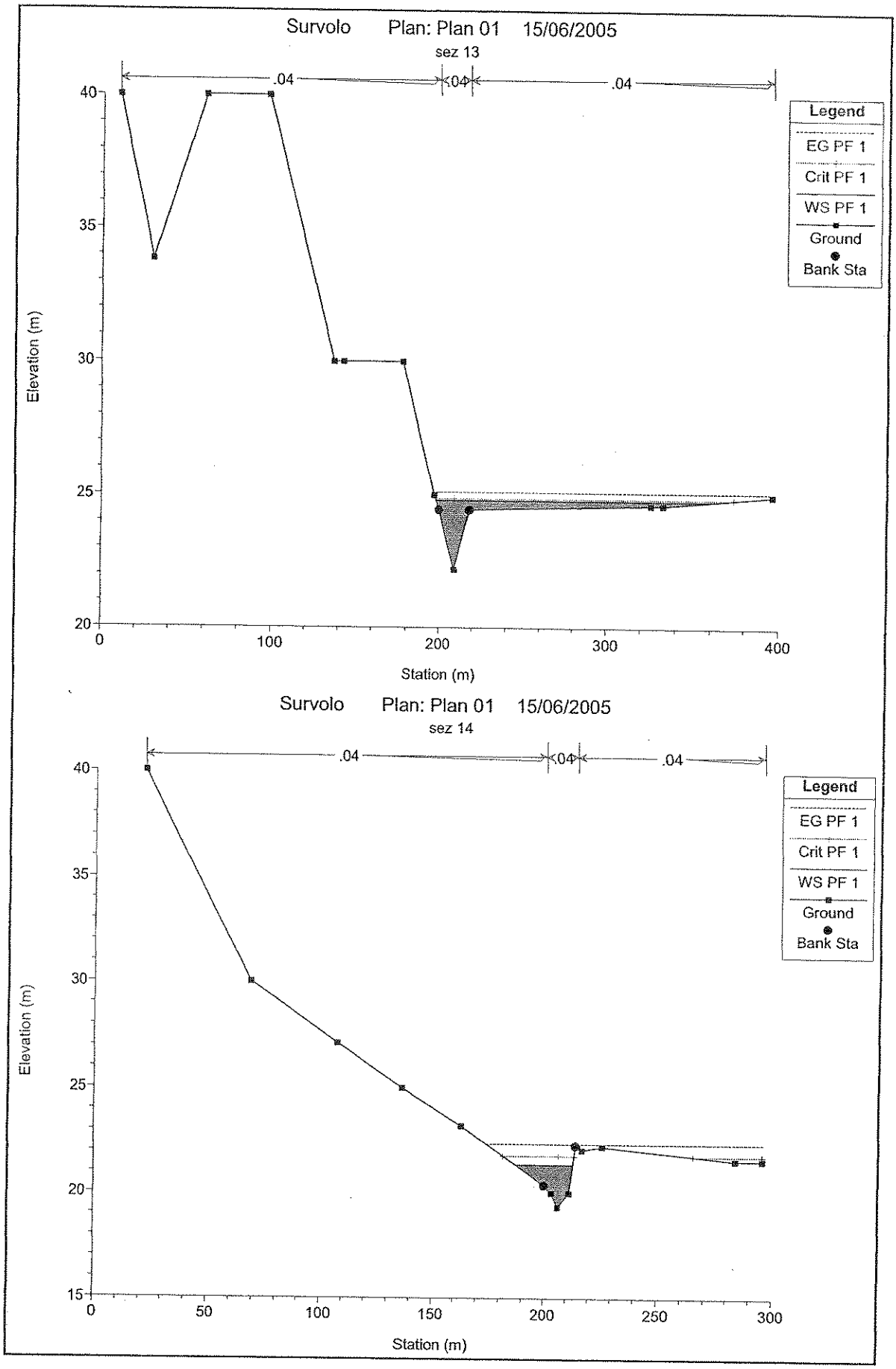

Survolo Plan: Plan 01 15/06/2005
sez 8
.04
.04
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
42
40
38
36
34
32
30
28
0
50
100
150
200
250
300
350
400
Station (m)

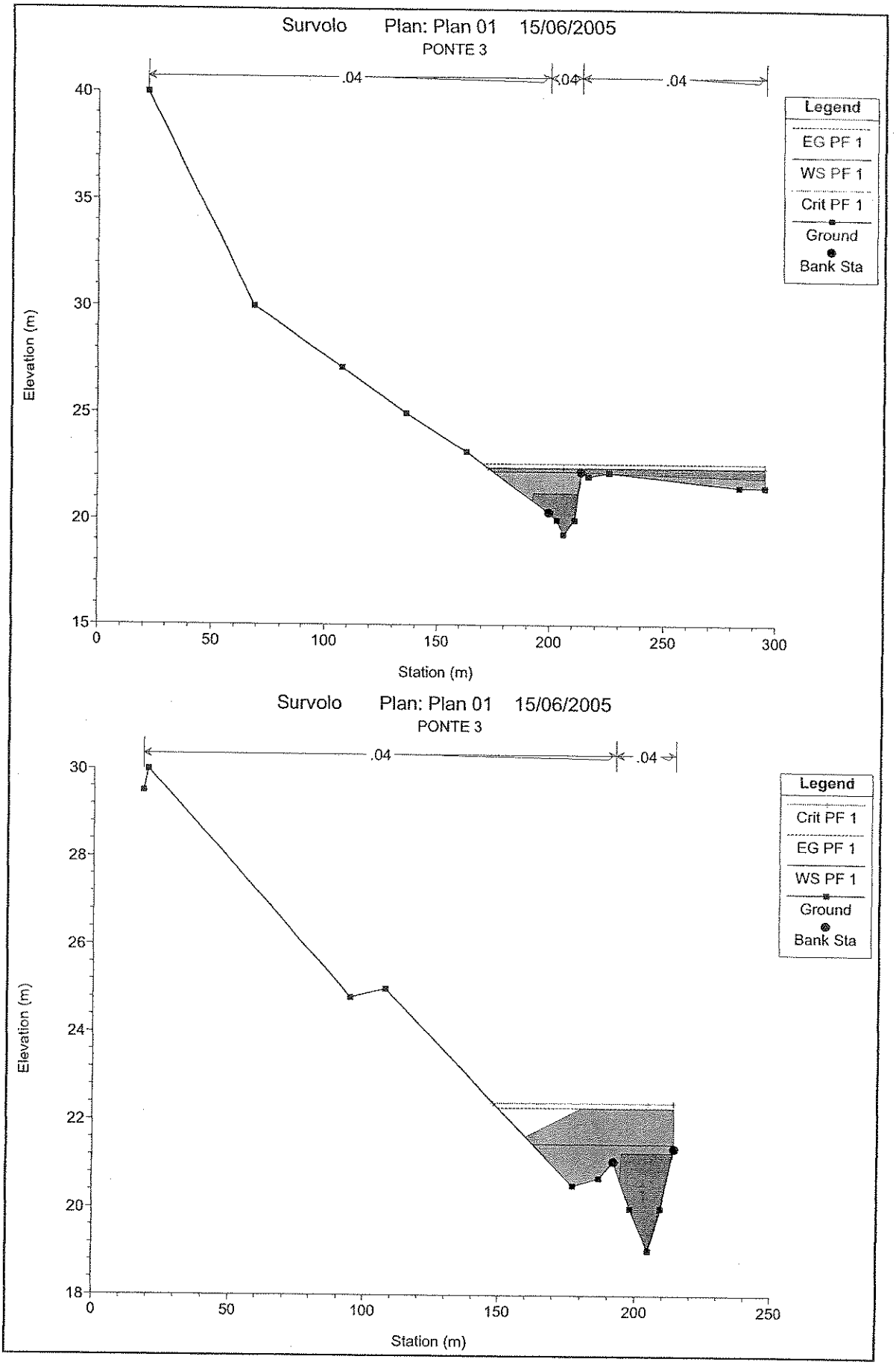

Survolo Plan: Plan 01 15/06/2005
sez 9
.04
.04
0
4
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
40
38
36
34
32
30
28
50
100
150
200
250
300
350
Station (m)

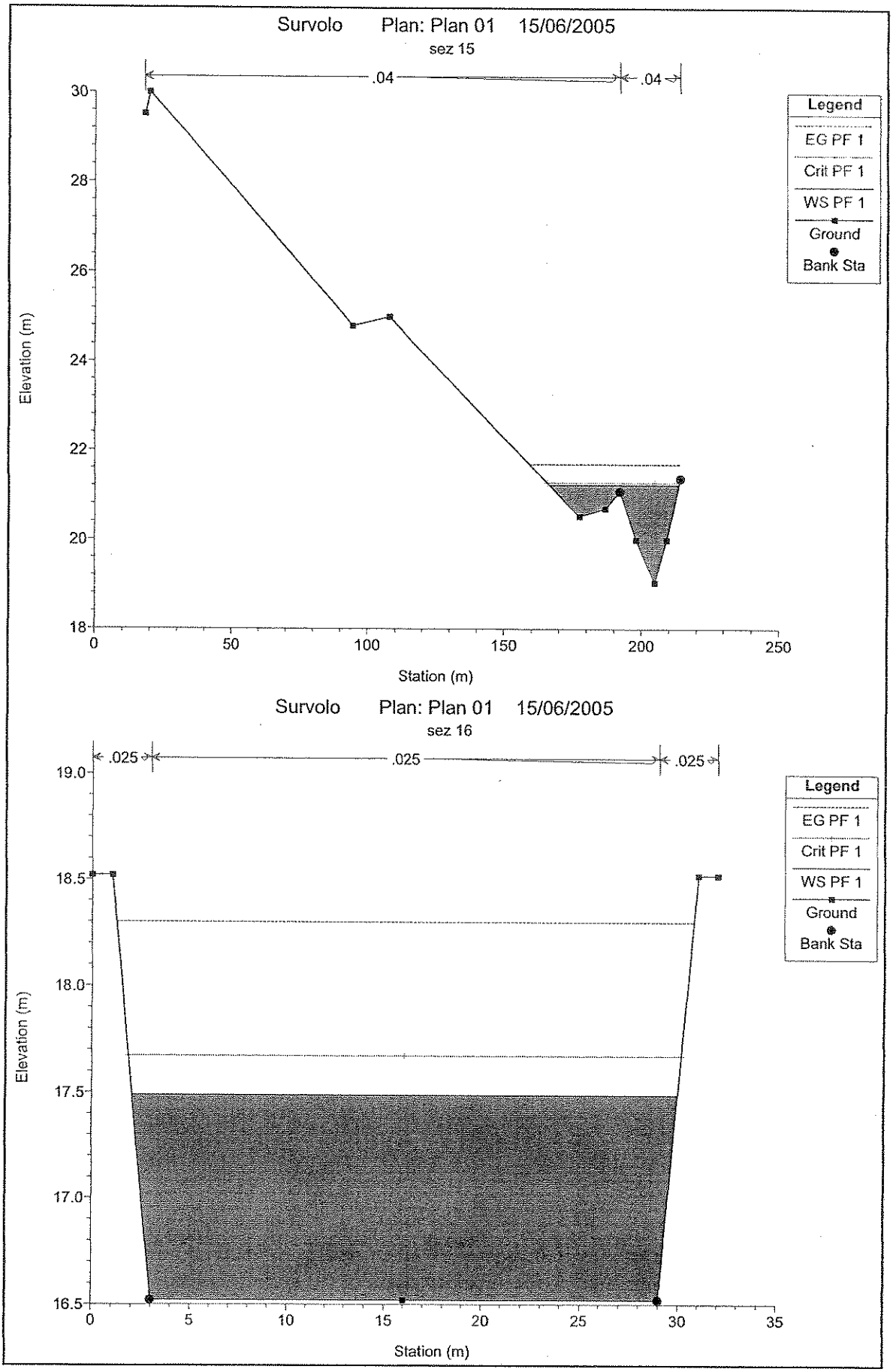

Survolo Plan: Plan 01 15/06/2005
PONTE 2
.04
.04
0
4
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
40
38
36
34
32
30
28
50
100
150
200
250
300
350
Station (m)

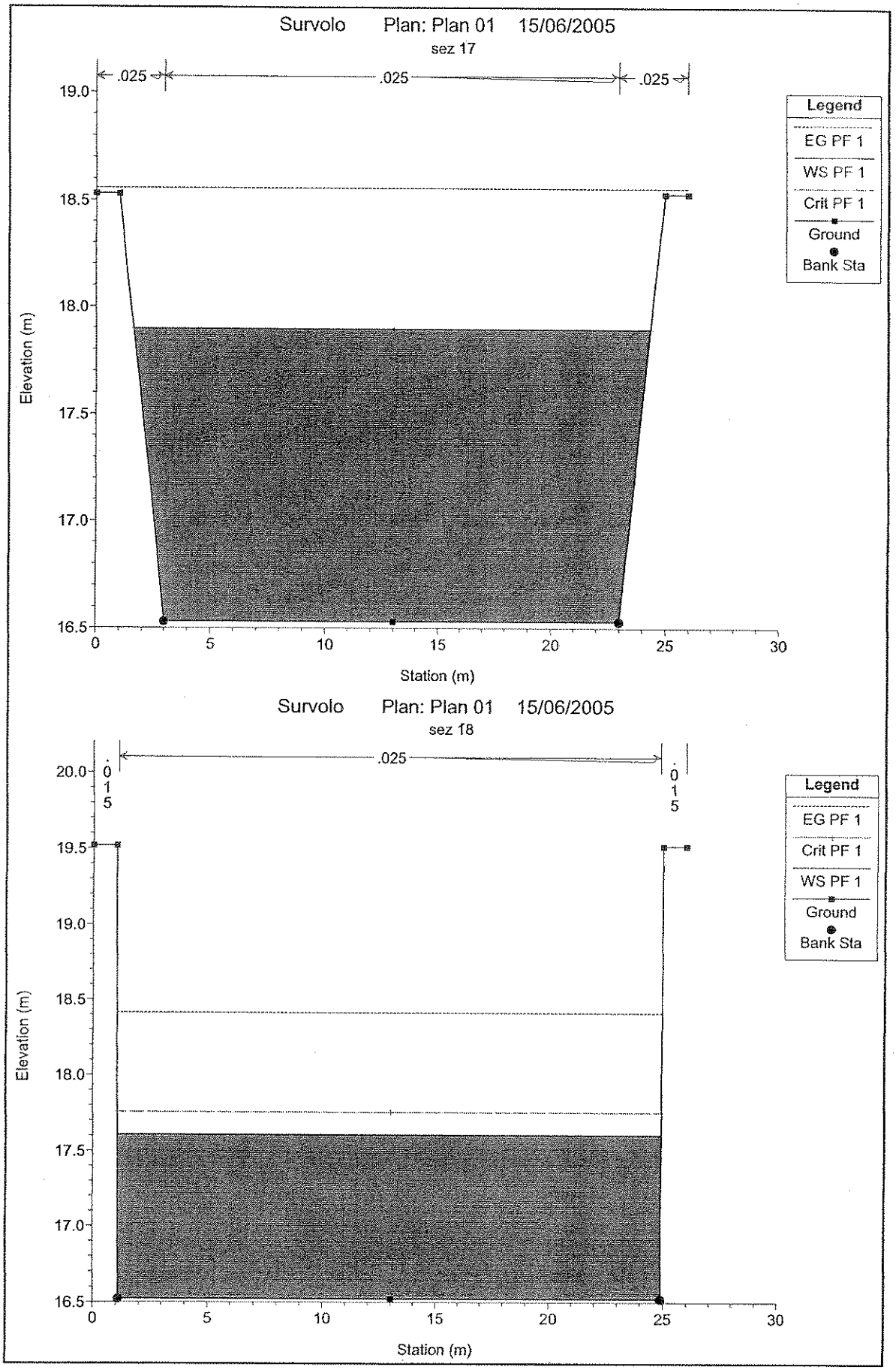

Survolo Plan: Plan 01 15/06/2005
PONTE 2
.04
.04
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
Survolo Plan: Plan 01 15/06/2005
sez 10
.04
.04
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)

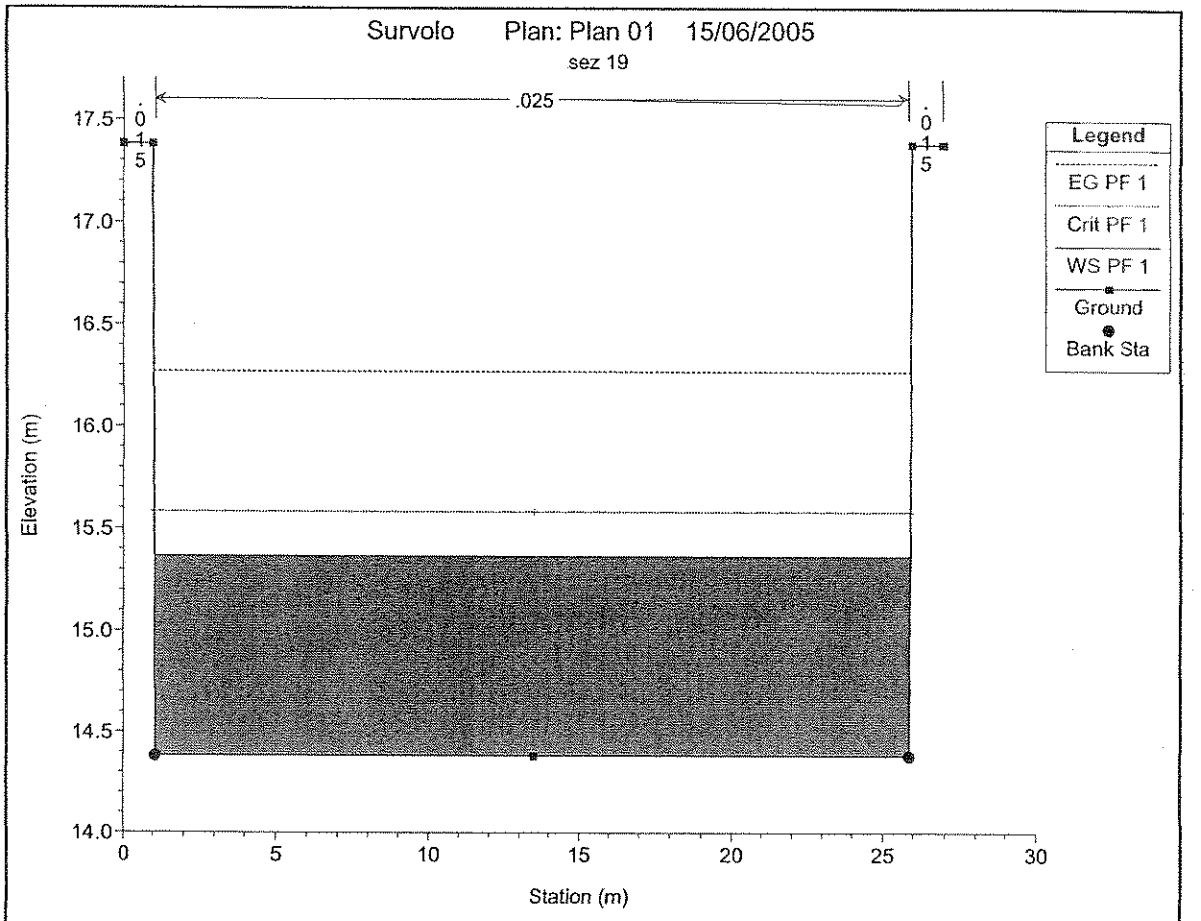

Survolo Plan: Plan 01 15/06/2005
sez 11
.04
.04
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Ineff
Bank Sta
Elevation (m)
Station (m)
Survolo Plan: Plan 01 15/06/2005
sez 12
.04
.04
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)

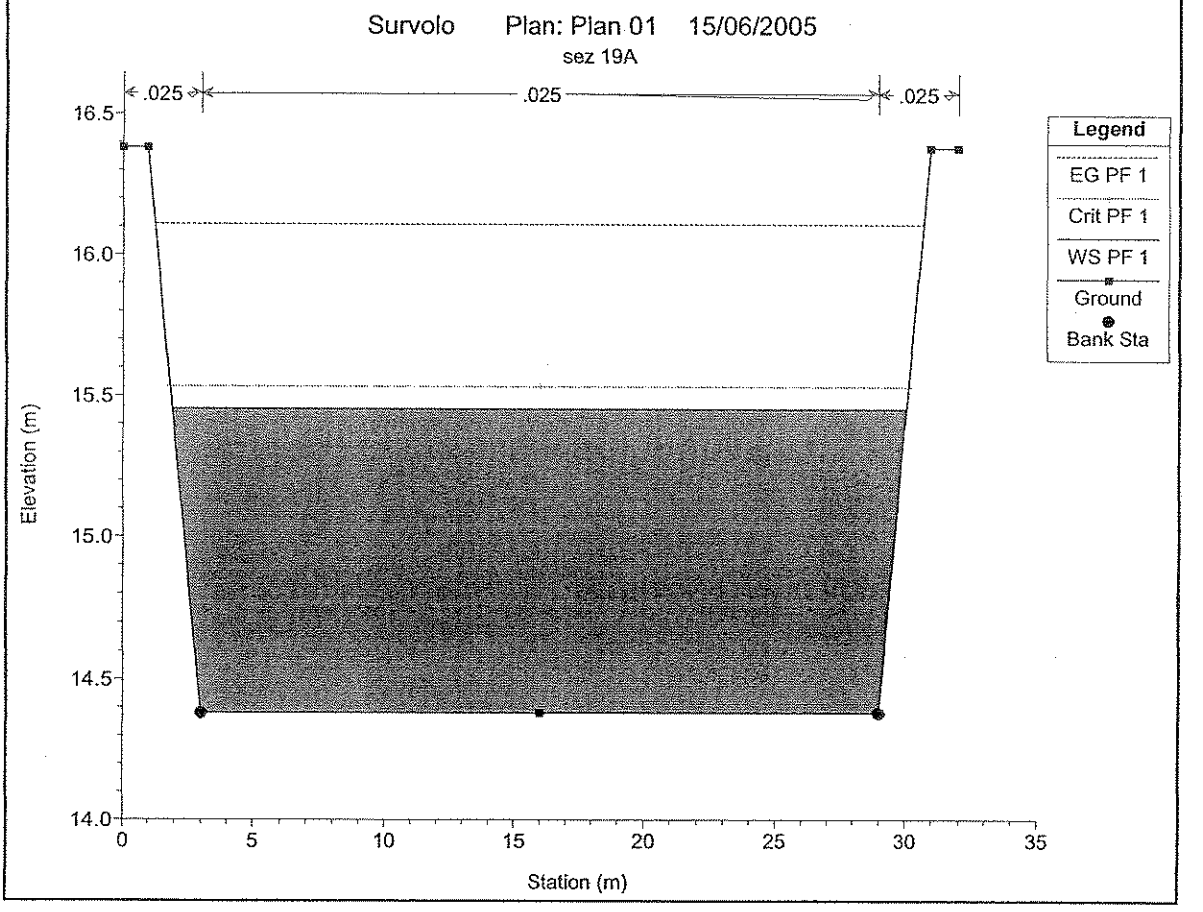

Survolo Plan: Plan 01 15/06/2005
sez 13
.04
.04
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
40
35
30
25
20
0
100
200
300
400
Survolo Plan: Plan 01 15/06/2005
sez 14
.04
.04
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
40
35
30
25
20
15
0
50
100
150
200
250
300

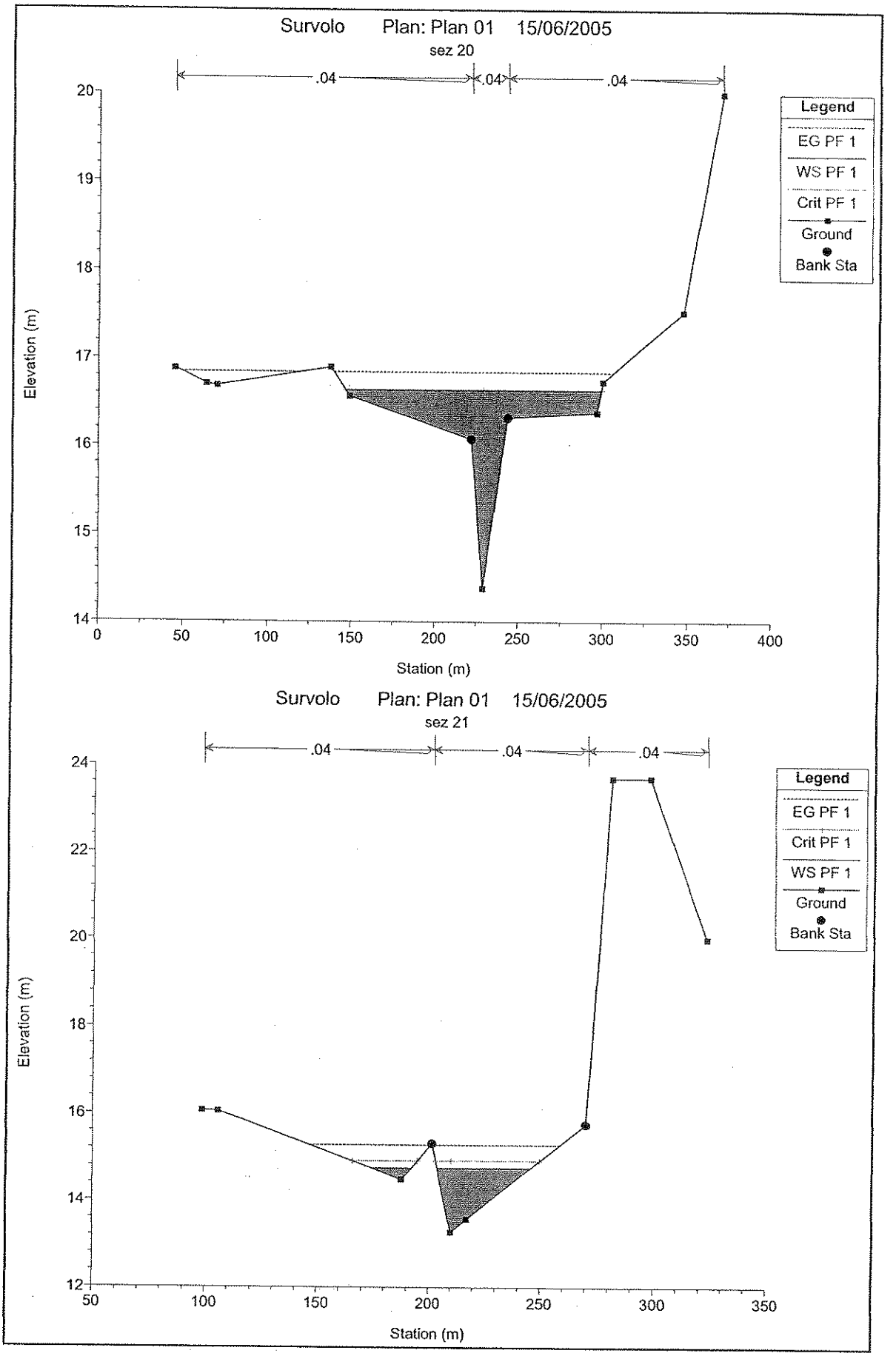

Survolo Plan: Plan 01 15/06/2005
PONTE 3
.04
.04
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
40
35
30
25
20
15
0
50
100
150
200
250
300
Station (m)
Survolo Plan: Plan 01 15/06/2005
PONTE 3
.04
.04
Legend
Crit PF 1
EG PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
30
28
26
24
22
20
18
0
50
100
150
200
250
Station (m)

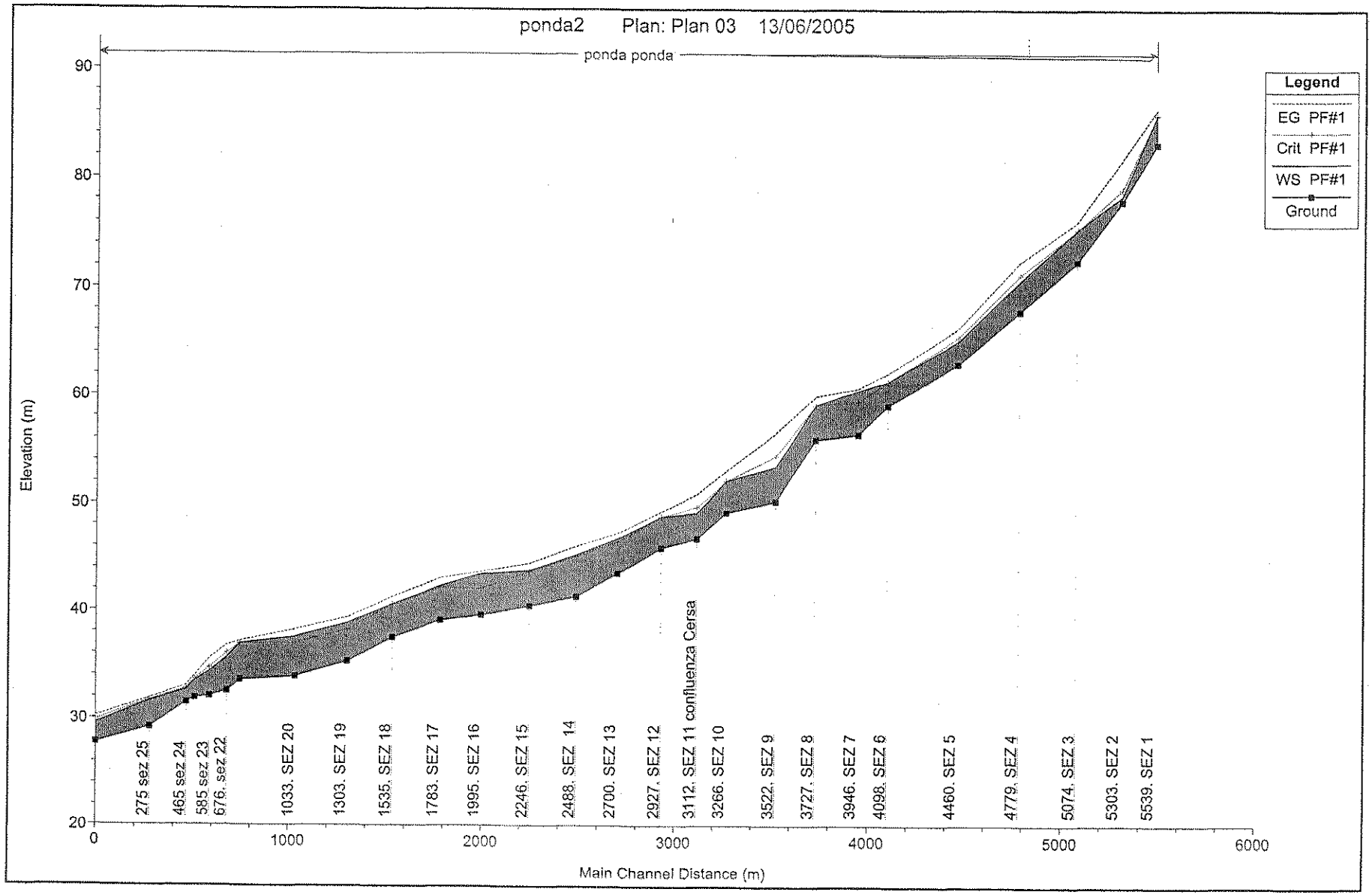

Survolo Plan: Plan 01 15/06/2005
sez 15
.04
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
30
28
26
24
22
20
18
0
50
100
150
200
250
Station (m)
Survolo Plan: Plan 01 15/06/2005
sez 16
.025
.025
.025
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
19.0
18.5
18.0
17.5
17.0
16.5
0
5
10
15
20
25
30
35
Station (m)


Survolo Plan: Plan 01 15/06/2005
sez 17
.025
.025
.025
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
19.0
18.5
18.0
17.5
17.0
16.5
0
5
10
15
20
25
30
Station (m)
Survolo Plan: Plan 01 15/06/2005
sez 18
.025
.015
.015
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
20.0
19.5
19.0
18.5
18.0
17.5
17.0
16.5
0
5
10
15
20
25
30
Station (m)


Survolo Plan: Plan 01 15/06/2005
sez 19
.025
.015
.015
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
17.5
17.0
16.5
16.0
15.5
15.0
14.5
14.0
0
5
10
15
20
25
30

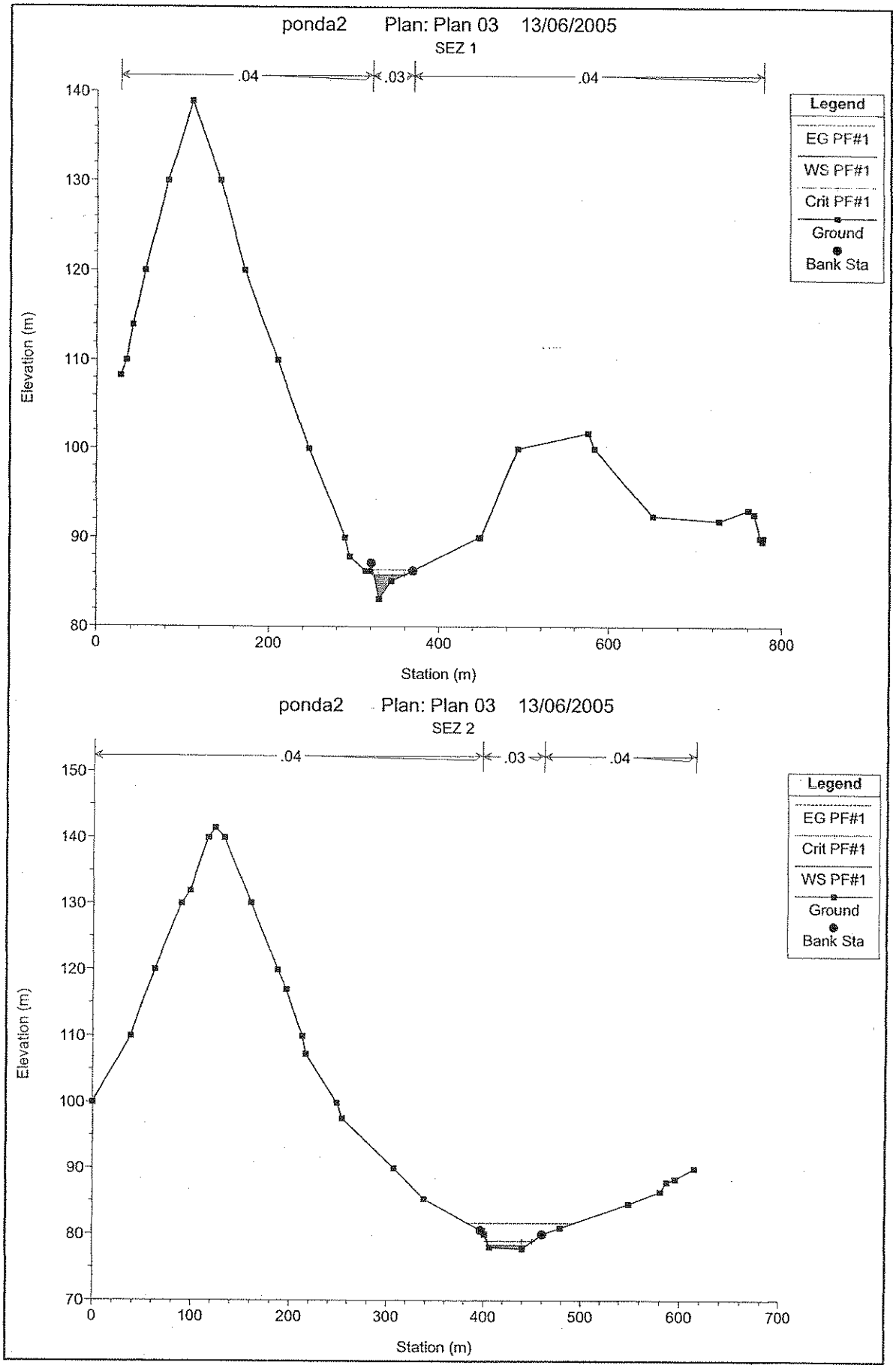

Survolo Plan: Plan 01 15/06/2005
sez 19A
.025
.025
.025
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
16.5
16.0
15.5
15.0
14.5
14.0
0
5
10
15
20
25
30
35

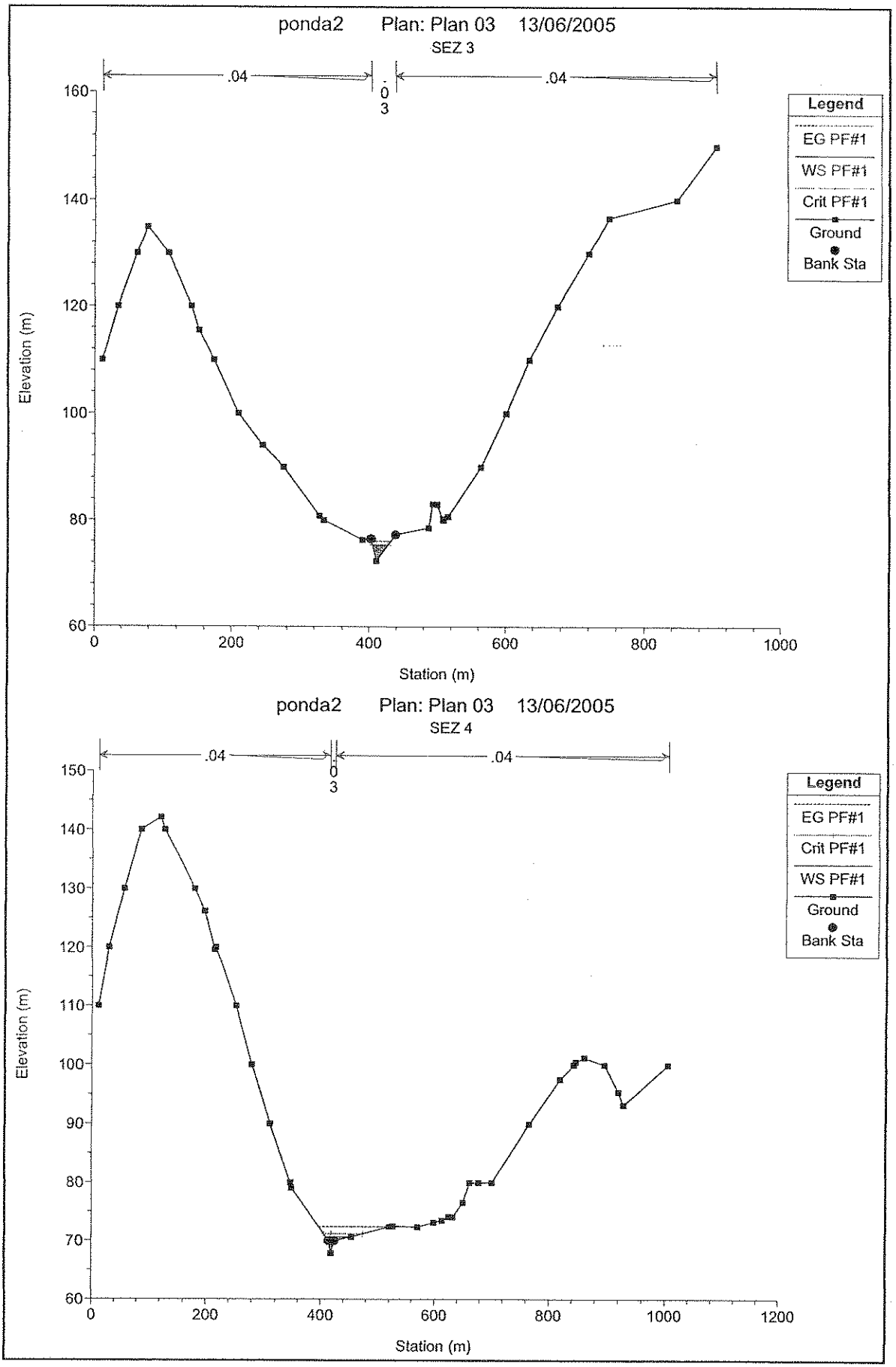

Survolo Plan: Plan 01 15/06/2005
sez 20
.04
.04
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
20
19
18
17
16
15
14
0
50
100
150
200
250
300
350
400
Survolo Plan: Plan 01 15/06/2005
sez 21
.04
.04
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
24
22
20
18
16
14
12
50
100
150
200
250
300
350

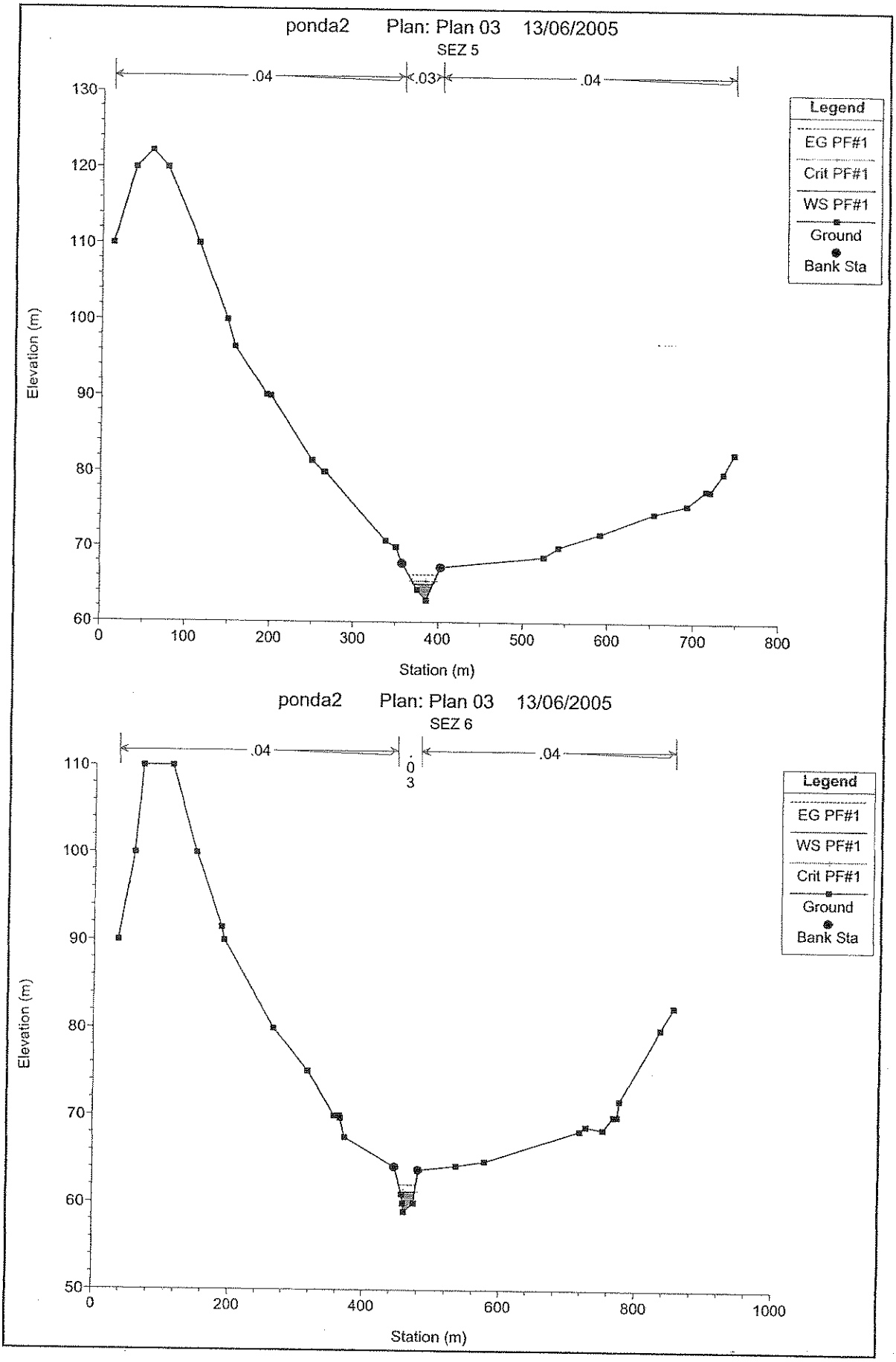

ponda2 Plan: Plan 03 13/06/2005
ponda ponda
Legend
EG PF#1
Crit PF#1
WS PF#1
Ground
Elevation (m)
Main Channel Distance (m)
90
80
70
60
50
40
30
20
0
1000
2000
3000
4000
5000
6000
275 sez 25
465 sez 24
585 sez 23
676. sez 22
1033. SEZ 20
1303. SEZ 19
1535. SEZ 18
1783. SEZ 17
1995. SEZ 16
2246. SEZ 15
2488. SEZ 14
2700. SEZ 13
2927. SEZ 12
3112. SEZ 11 confluenza Cersa
3266. SEZ 10
3522. SEZ 9
3727. SEZ 8
3946. SEZ 7
4098. SEZ 6
4460. SEZ 5
4779. SEZ 4
5074. SEZ 3
5303. SEZ 2
5539. SEZ 1

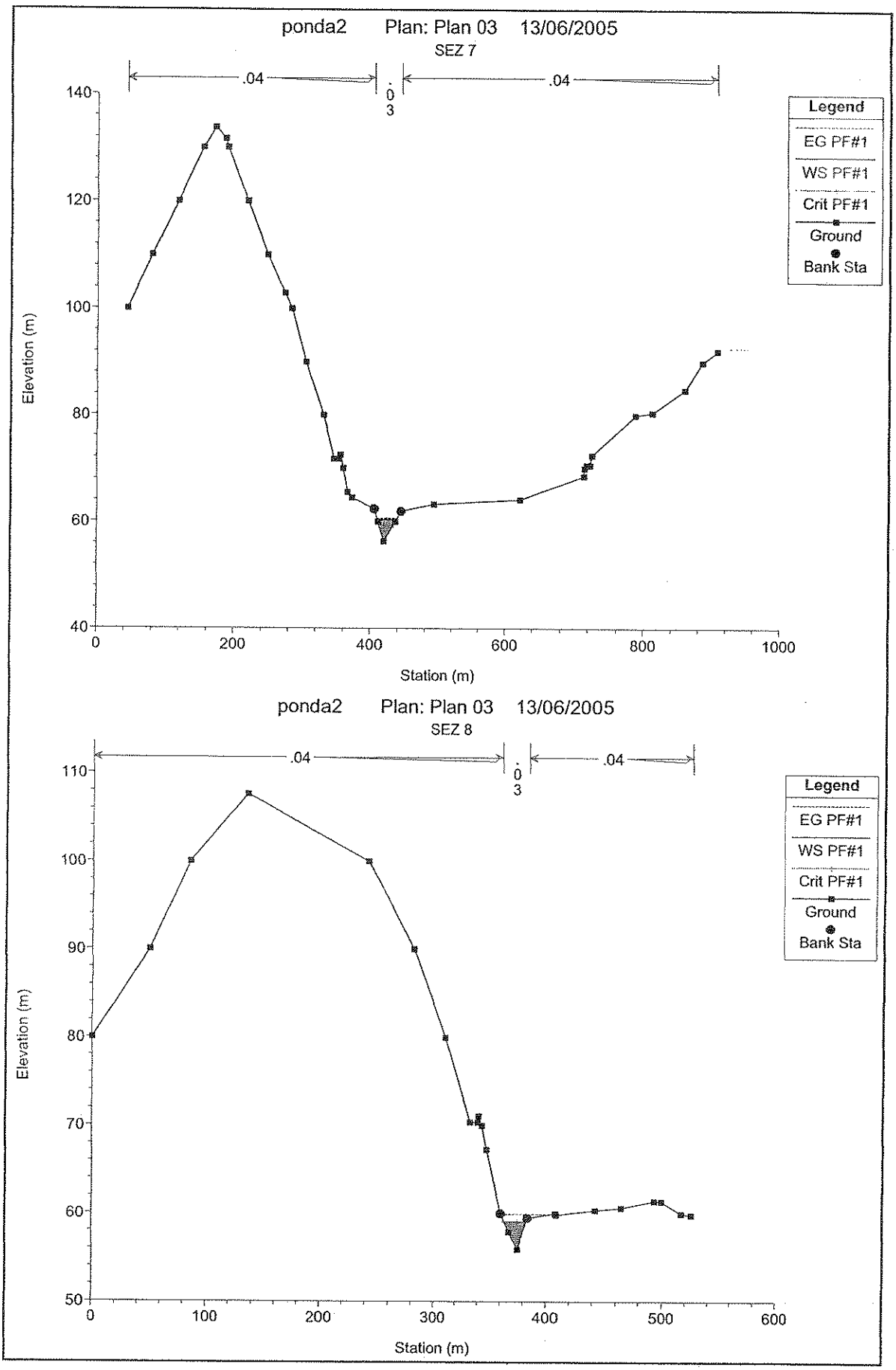
HEC-RAS Plan: Plan 03 River: ponda Reach: ponda Profile: PF#1

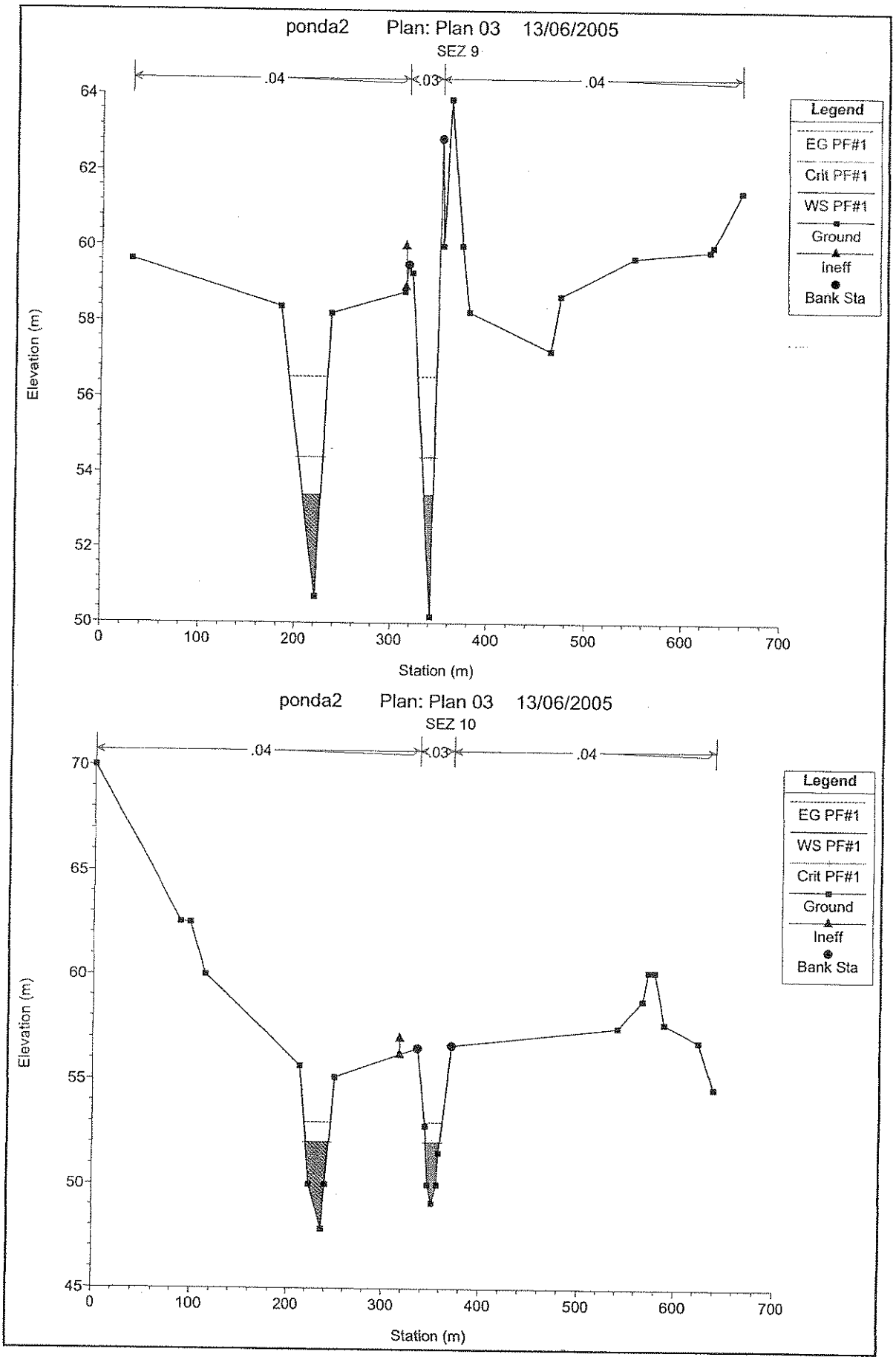
Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
ponda	5539.	PF#1	125.00	83.14	85.85	85.85	86.38	0.008996	3.25	38.43	36.10	1.01
ponda	5303.	PF#1	125.00	77.85	78.37	78.98	81.70	0.204833	8.09	15.45	39.27	4.12
ponda	5074.	PF#1	125.00	72.39	75.34	75.34	76.08	0.008316	3.82	32.73	22.23	1.00
ponda	4779.	PF#1	125.00	67.83	70.66	71.19	72.39	0.019487	6.32	28.72	45.95	1.53
ponda	4460.	PF#1	125.00	62.91	65.08	65.44	66.27	0.017912	4.82	25.92	22.60	1.44
ponda	4098.	PF#1	125.00	59.02	61.31	61.31	62.09	0.008278	3.90	32.03	20.89	1.01
ponda	3946.	PF#1	125.00	56.38	60.44	59.43	60.68	0.001761	2.18	57.21	28.05	0.49
ponda	3727.	PF#1	125.00	55.92	59.09	59.09	59.90	0.008202	4.00	31.26	19.46	1.01
ponda	3522.	PF#1	125.00	50.18	53.41	54.42	56.54	0.038023	7.84	15.94	28.61	1.97
ponda	3266.	PF#1	125.00	49.11	52.04	52.04	52.99	0.008110	4.33	28.85	39.08	1.00
ponda	3112.	PF#1	125.00	46.71	49.07	49.65	50.85	0.026248	5.91	21.17	41.98	1.73
ponda	2927.	PF#1	160.00	45.86	48.71	48.71	49.21	0.006046	3.56	60.77	57.47	0.88
ponda	2700.	PF#1	160.00	43.43	46.71	46.43	47.23	0.005200	3.22	49.68	30.34	0.80
ponda	2488.	PF#1	160.00	41.27	45.20	45.03	46.00	0.006267	3.96	40.44	20.57	0.90
ponda	2246.	PF#1	160.00	40.39	43.76	43.61	44.44	0.006330	3.66	43.66	25.96	0.90
ponda	1995.	PF#1	160.00	39.53	43.38	42.01	43.63	0.001505	2.21	72.29	30.59	0.46
ponda	1783.	PF#1	160.00	39.06	42.27	42.08	43.01	0.005892	3.83	41.77	21.71	0.88
ponda	1535.	PF#1	160.00	37.44	40.55	40.55	41.26	0.008498	3.73	42.88	30.53	1.01
ponda	1303.	PF#1	160.00	35.23	38.78	38.15	39.32	0.003657	3.26	49.08	22.18	0.70
ponda	1033.	PF#1	160.00	33.85	37.52	36.93	38.20	0.004631	3.67	44.05	25.68	0.77
ponda	743.	PF#1	160.00	33.54	36.88	36.88	37.12	0.002433	2.53	123.75	289.04	0.57
ponda	676.	PF#1	160.00	32.53	35.57	36.00	36.73	0.010559	4.93	44.33	107.38	1.15
ponda	585.	PF#1	160.00	32.07	34.29	34.64	35.49	0.018131	5.53	46.92	99.35	1.47
ponda	508.	PF#1	160.00	31.88	33.44	33.61	33.93	0.016921	4.59	80.01	315.68	1.36
ponda	465.	PF#1	160.00	31.46	32.63	32.74	33.02	0.025002	4.72	79.60	264.46	1.59
ponda	275.	PF#1	160.00	29.19	31.60	31.69	31.86	0.004479	3.08	134.87	412.12	0.74
ponda	0.	PF#1	160.00	27.75	29.56	29.87	30.20	0.008141	3.58	48.11	71.93	1.00

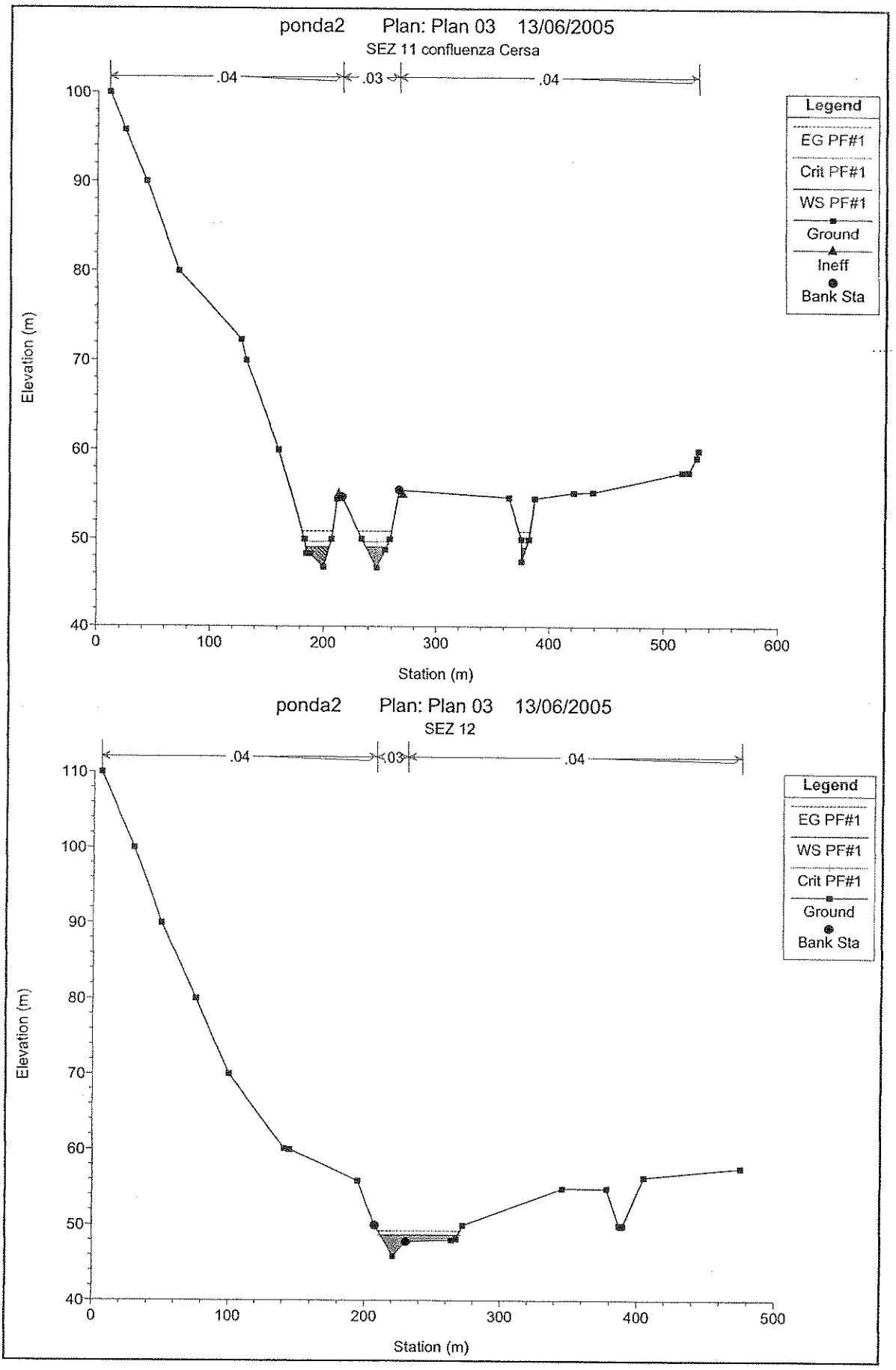

ponda2 Plan: Plan 03 13/06/2005
SEZ 1
.04
.03
.04
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Bank Sta
Elevation (m)
140
130
120
110
100
90
80
0
200
400
600
800
Station (m)
ponda2 Plan: Plan 03 13/06/2005
SEZ 2
.04
.03
.04
Legend
EG PF#1
Crit PF#1
WS PF#1
Ground
Bank Sta
Elevation (m)
150
140
130
120
110
100
90
80
70
0
100
200
300
400
500
600
700
Station (m)

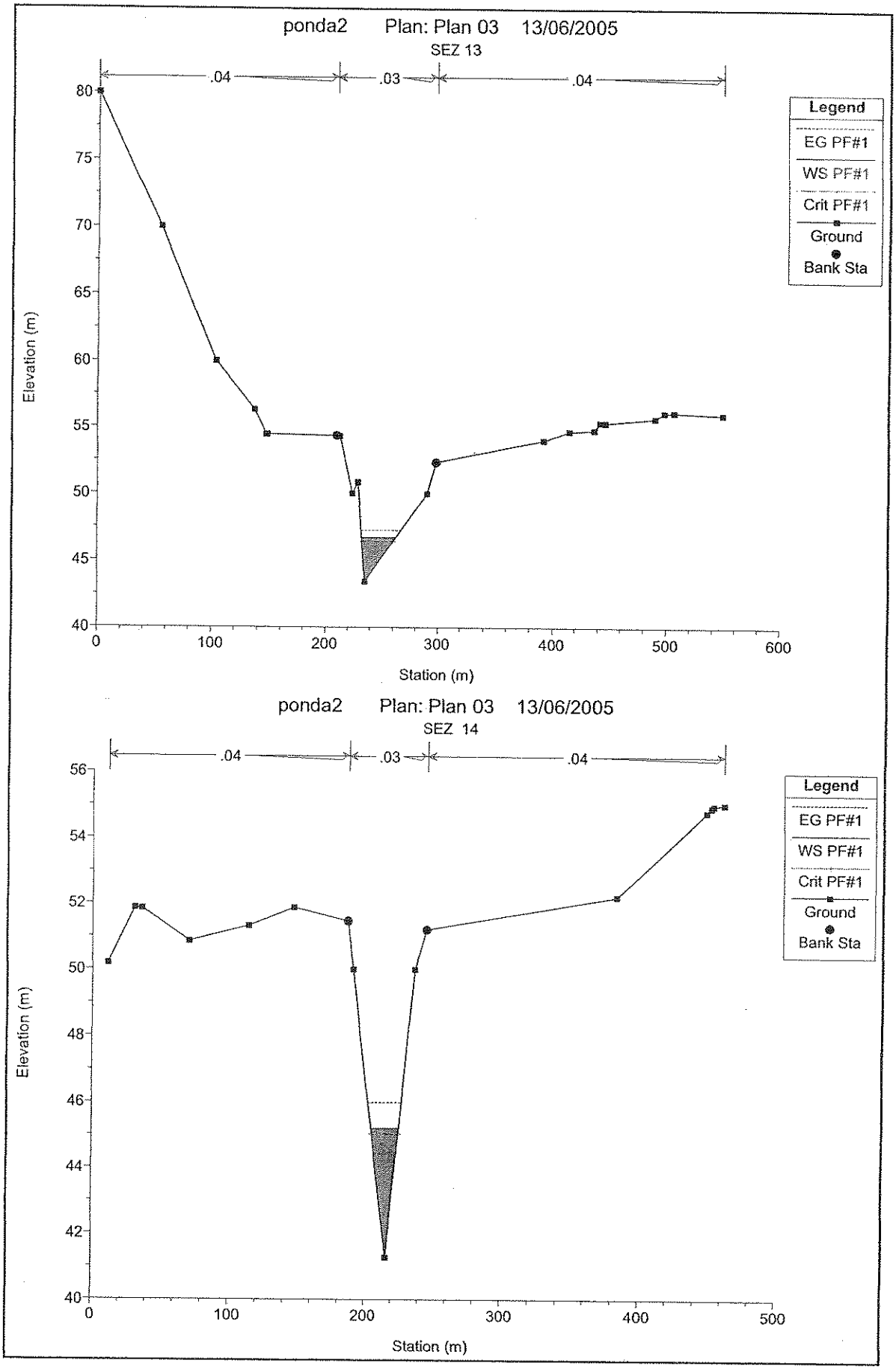

ponda2 Plan: Plan 03 13/06/2005
SEZ 3
.04
.04
0.03
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Bank Sta
Elevation (m)
160
140
120
100
80
60
0
200
400
600
800
1000
Station (m)
ponda2 Plan: Plan 03 13/06/2005
SEZ 4
.04
.04
0.03
Legend
EG PF#1
Crit PF#1
WS PF#1
Ground
Bank Sta
Elevation (m)
150
140
130
120
110
100
90
80
70
60
0
200
400
600
800
1000
1200
Station (m)

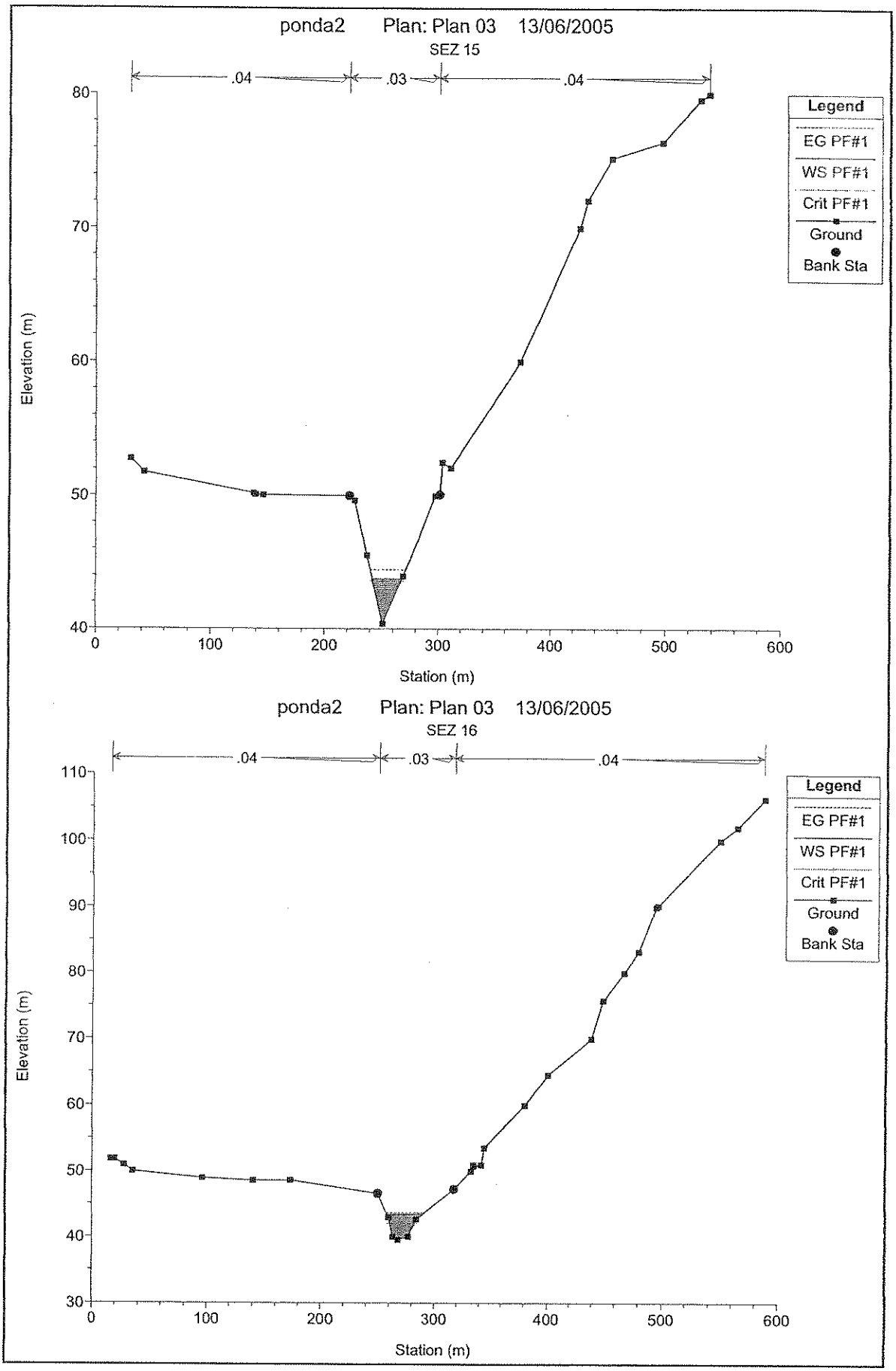

ponda2 Plan: Plan 03 13/06/2005
SEZ 5
.04
.03
.04
Legend
EG PF#1
Crit PF#1
WS PF#1
Ground
Bank Sta
Elevation (m)
130
120
110
100
90
80
70
60
0
100
200
300
400
500
600
700
800
Station (m)
ponda2 Plan: Plan 03 13/06/2005
SEZ 6
.04
.03
.04
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Bank Sta
Elevation (m)
110
100
90
80
70
60
50
0
200
400
600
800
1000
Station (m)

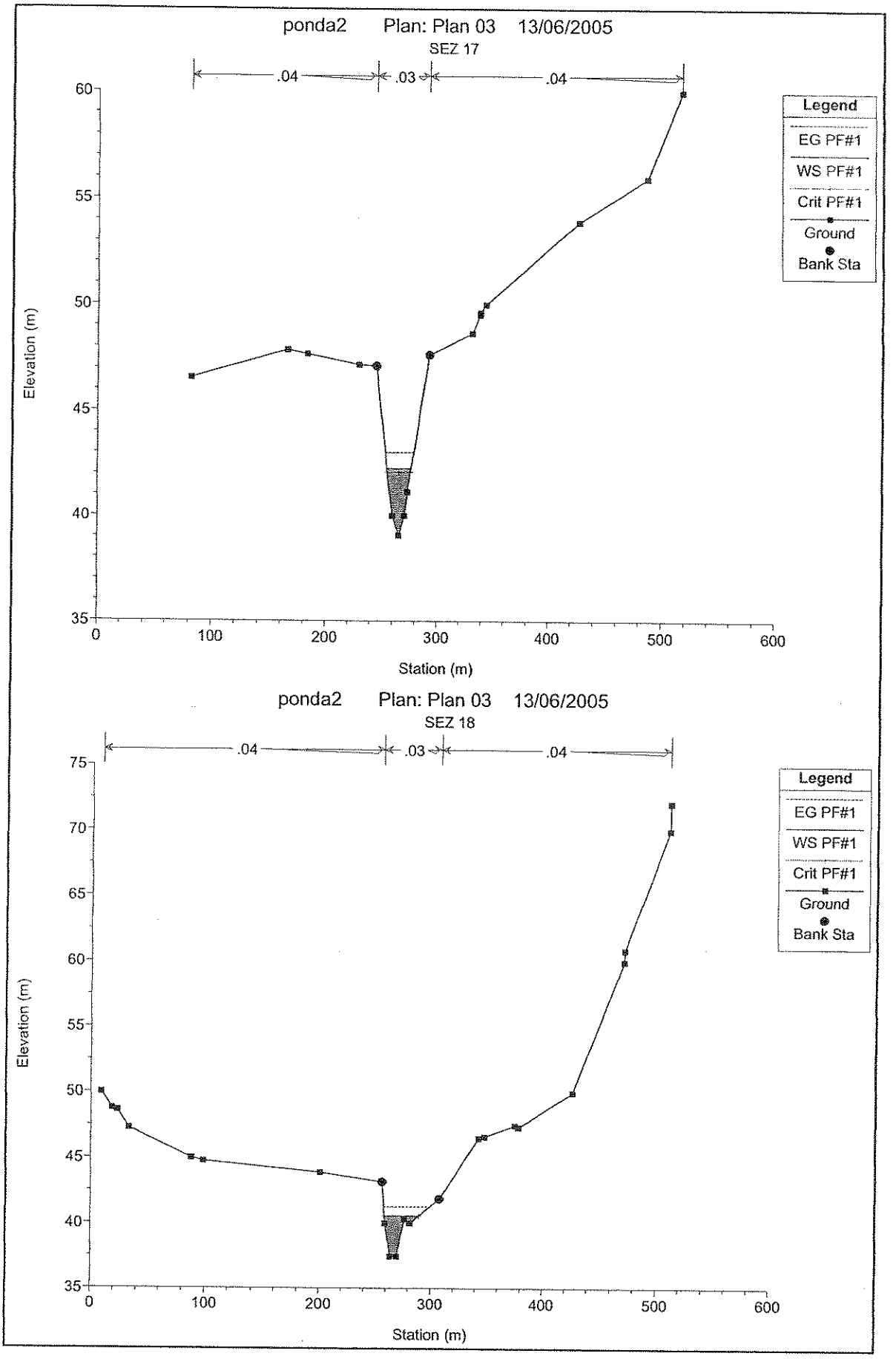

ponda2 Plan: Plan 03 13/06/2005
SEZ 7
.04
.03
.04
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Bank Sta
Elevation (m)
140
120
100
80
60
40
0
200
400
600
800
1000
Station (m)
ponda2 Plan: Plan 03 13/06/2005
SEZ 8
.04
.03
.04
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Bank Sta
Elevation (m)
110
100
90
80
70
60
50
0
100
200
300
400
500
600
Station (m)

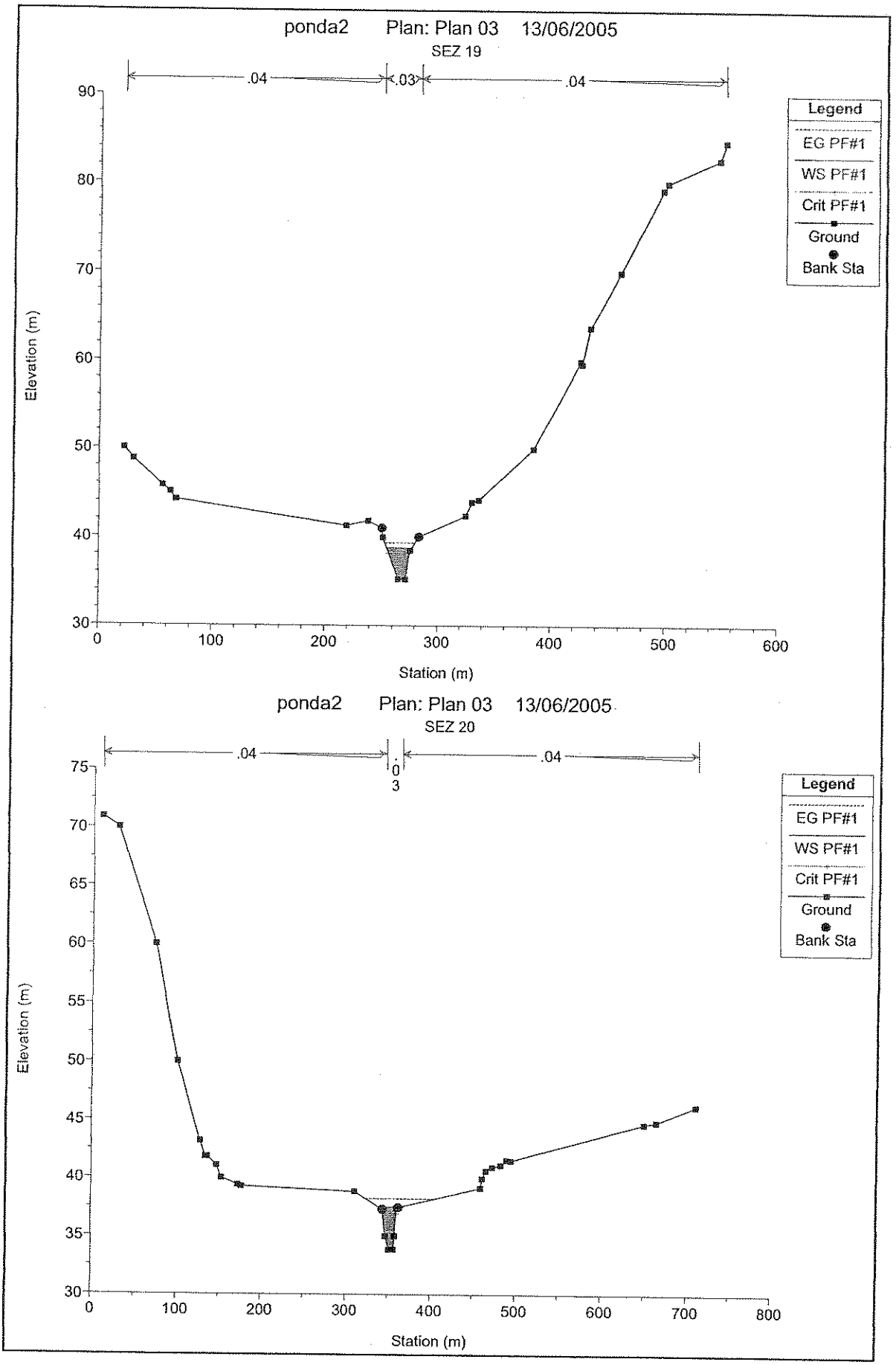

ponda2 Plan: Plan 03 13/06/2005
SEZ 9
.04
.03
.04
Legend
EG PF#1
Crit PF#1
WS PF#1
Ground
Ineff
Bank Sta
Elevation (m)
64
62
60
58
56
54
52
50
0
100
200
300
400
500
600
700
Station (m)
ponda2 Plan: Plan 03 13/06/2005
SEZ 10
.04
.03
.04
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (m)
70
65
60
55
50
45
0
100
200
300
400
500
600
700
Station (m)

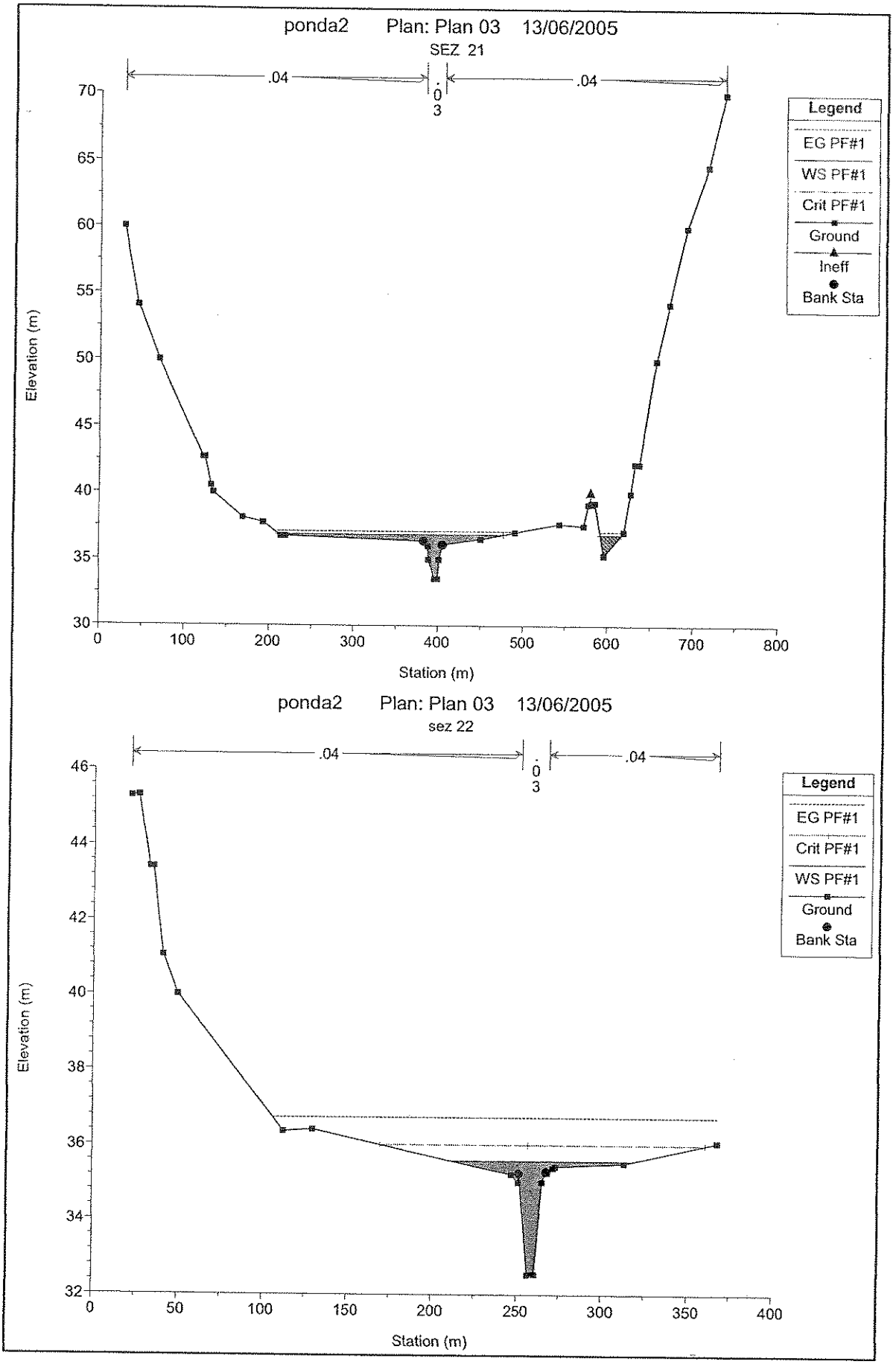

ponda2 Plan: Plan 03 13/06/2005
SEZ 11 confluenza Cersa
.04
.03
.04
Legend
EG PF#1
Crit PF#1
WS PF#1
Ground
Ineff
Bank Sta
Elevation (m)
Station (m)
ponda2 Plan: Plan 03 13/06/2005
SEZ 12
.04
.03
.04
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Bank Sta
Elevation (m)
Station (m)

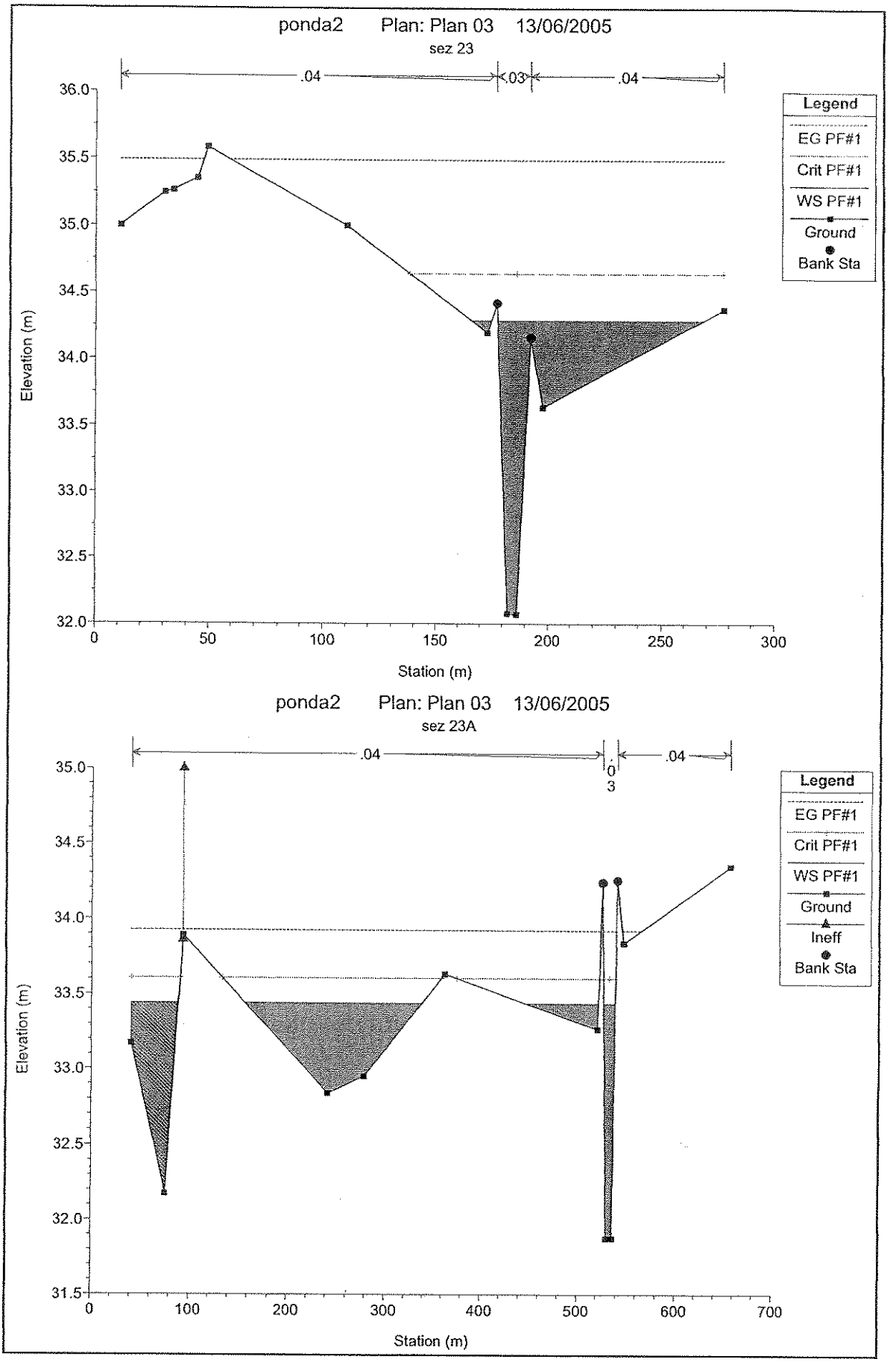

ponda2 Plan: Plan 03 13/06/2005
SEZ 13
.04
.03
.04
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Bank Sta
Elevation (m)
Station (m)
ponda2 Plan: Plan 03 13/06/2005
SEZ 14
.04
.03
.04
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Bank Sta
Elevation (m)
Station (m)

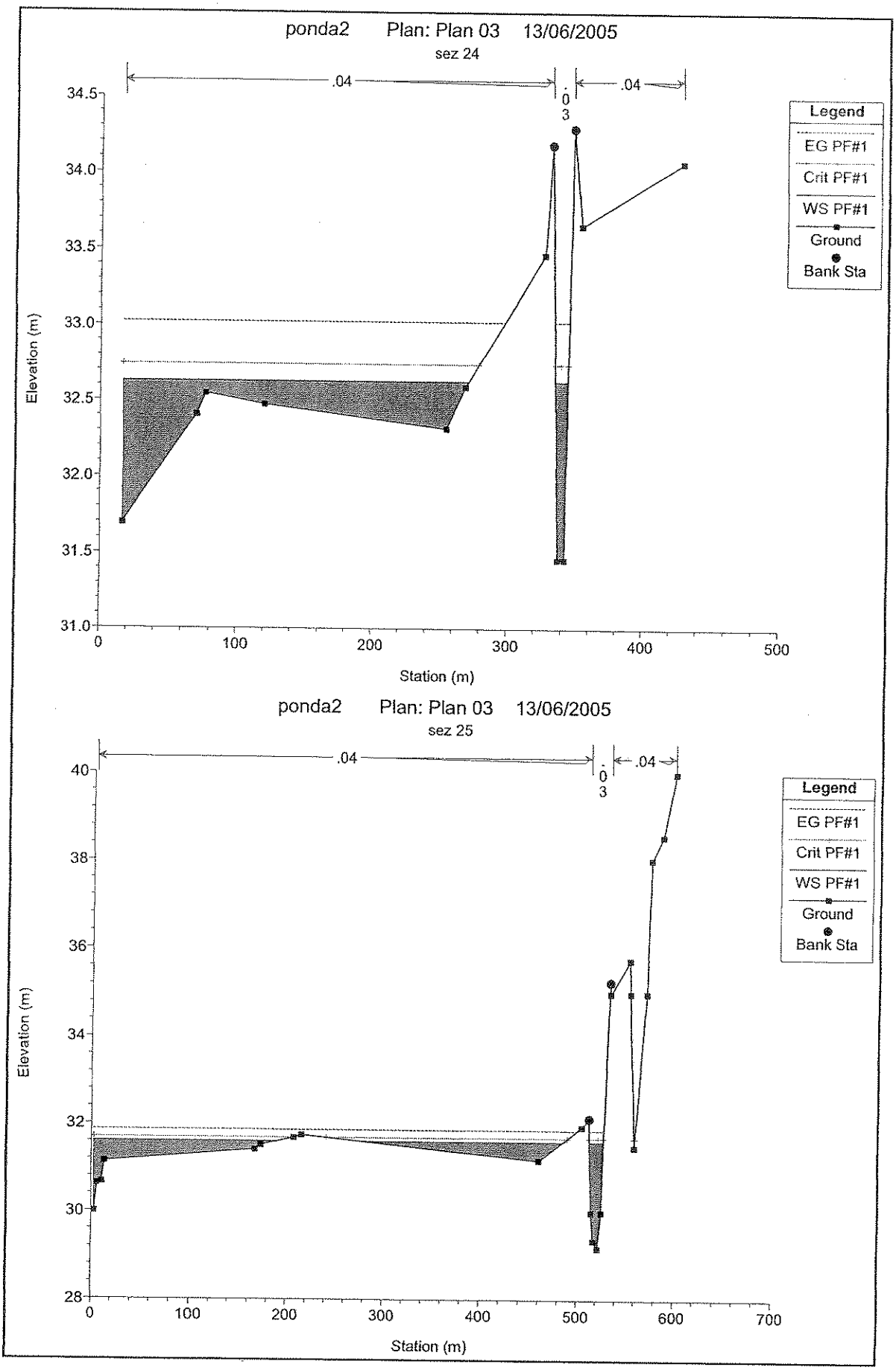

ponda2 Plan: Plan 03 13/06/2005
SEZ 15
.04
.03
.04
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Bank Sta
Elevation (m)
Station (m)
ponda2 Plan: Plan 03 13/06/2005
SEZ 16
.04
.03
.04
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Bank Sta
Elevation (m)
Station (m)

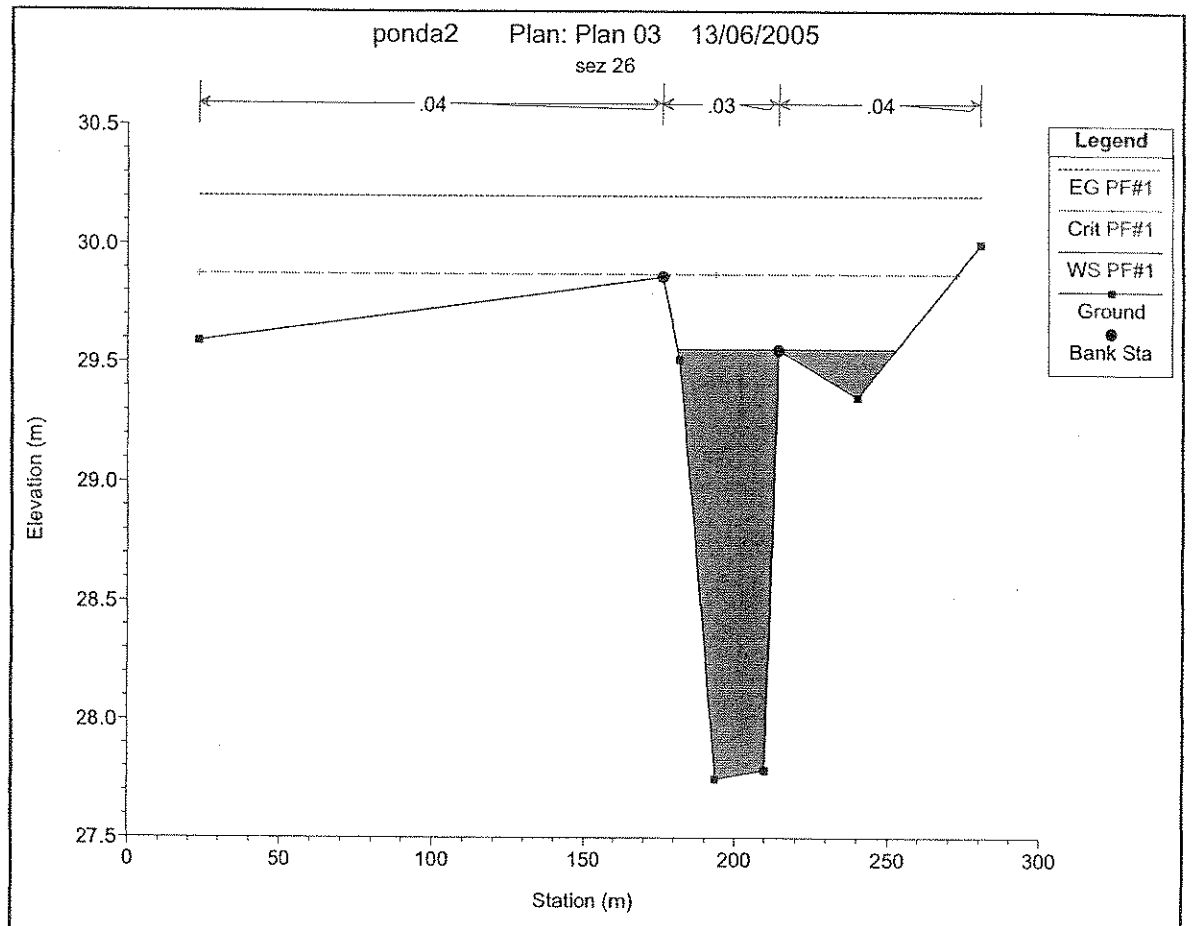

ponda2 Plan: Plan 03 13/06/2005
SEZ 17
.04
.03
.04
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Bank Sta
Elevation (m)
Station (m)
ponda2 Plan: Plan 03 13/06/2005
SEZ 18
.04
.03
.04
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Bank Sta
Elevation (m)
Station (m)

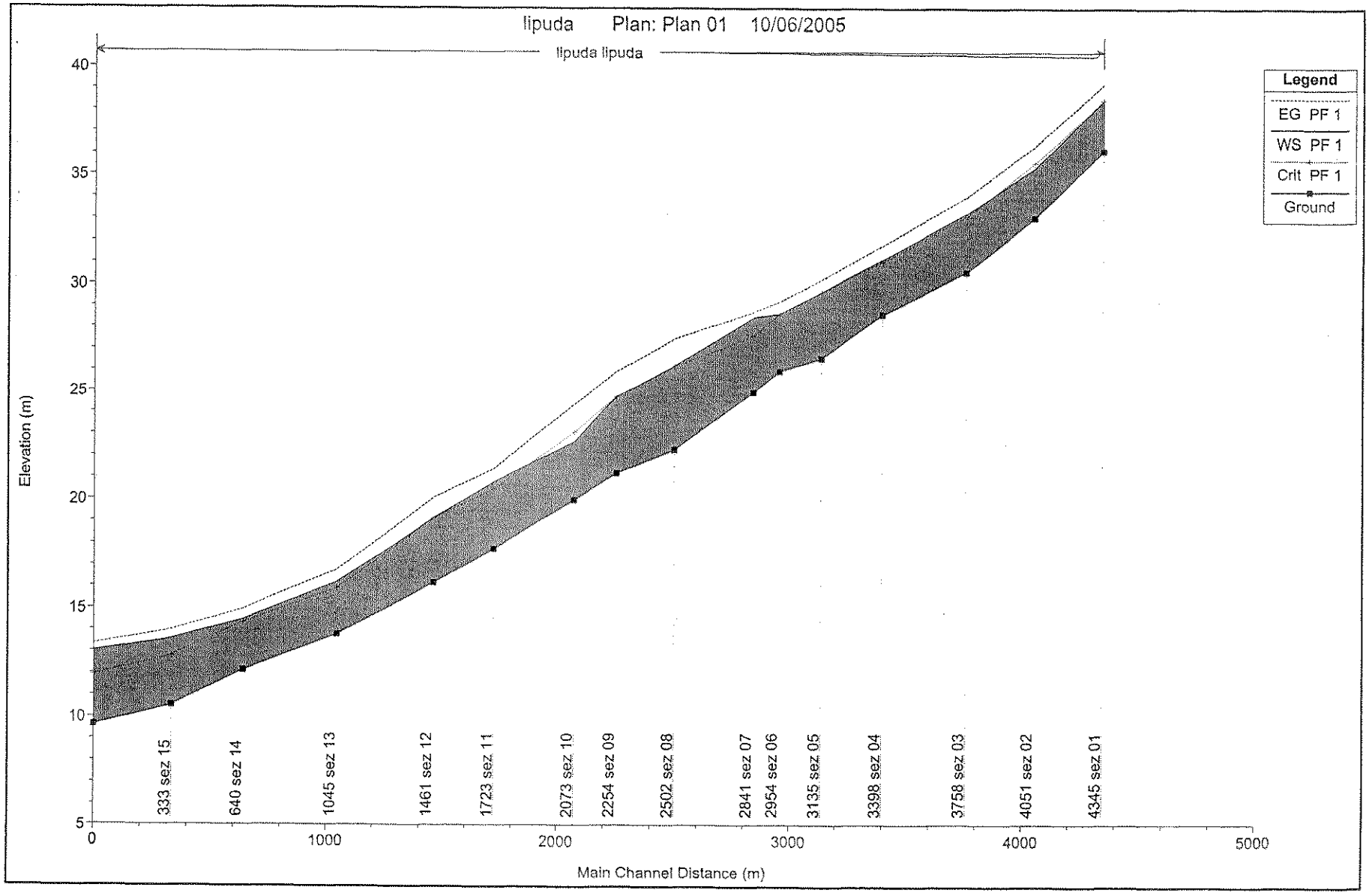

ponda2 Plan: Plan 03 13/06/2005
SEZ 19
.04
.03
.04
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Bank Sta
Elevation (m)
Station (m)
ponda2 Plan: Plan 03 13/06/2005
SEZ 20
.04
.03
.04
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Bank Sta
Elevation (m)
Station (m)


ponda2 Plan: Plan 03 13/06/2005
SEZ 21
.04
.03
.04
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (m)
70
65
60
55
50
45
40
35
30
0
100
200
300
400
500
600
700
800
Station (m)
ponda2 Plan: Plan 03 13/06/2005
sez 22
.04
.03
.04
Legend
EG PF#1
Crit PF#1
WS PF#1
Ground
Bank Sta
Elevation (m)
46
44
42
40
38
36
34
32
0
50
100
150
200
250
300
350
400
Station (m)


ponda2 Plan: Plan 03 13/06/2005
sez 23
.04
.03
.04
Legend
EG PF#1
Crit PF#1
WS PF#1
Ground
Bank Sta
Elevation (m)
Station (m)
ponda2 Plan: Plan 03 13/06/2005
sez 23A
.04
.04
Legend
EG PF#1
Crit PF#1
WS PF#1
Ground
Ineff
Bank Sta
Elevation (m)
Station (m)

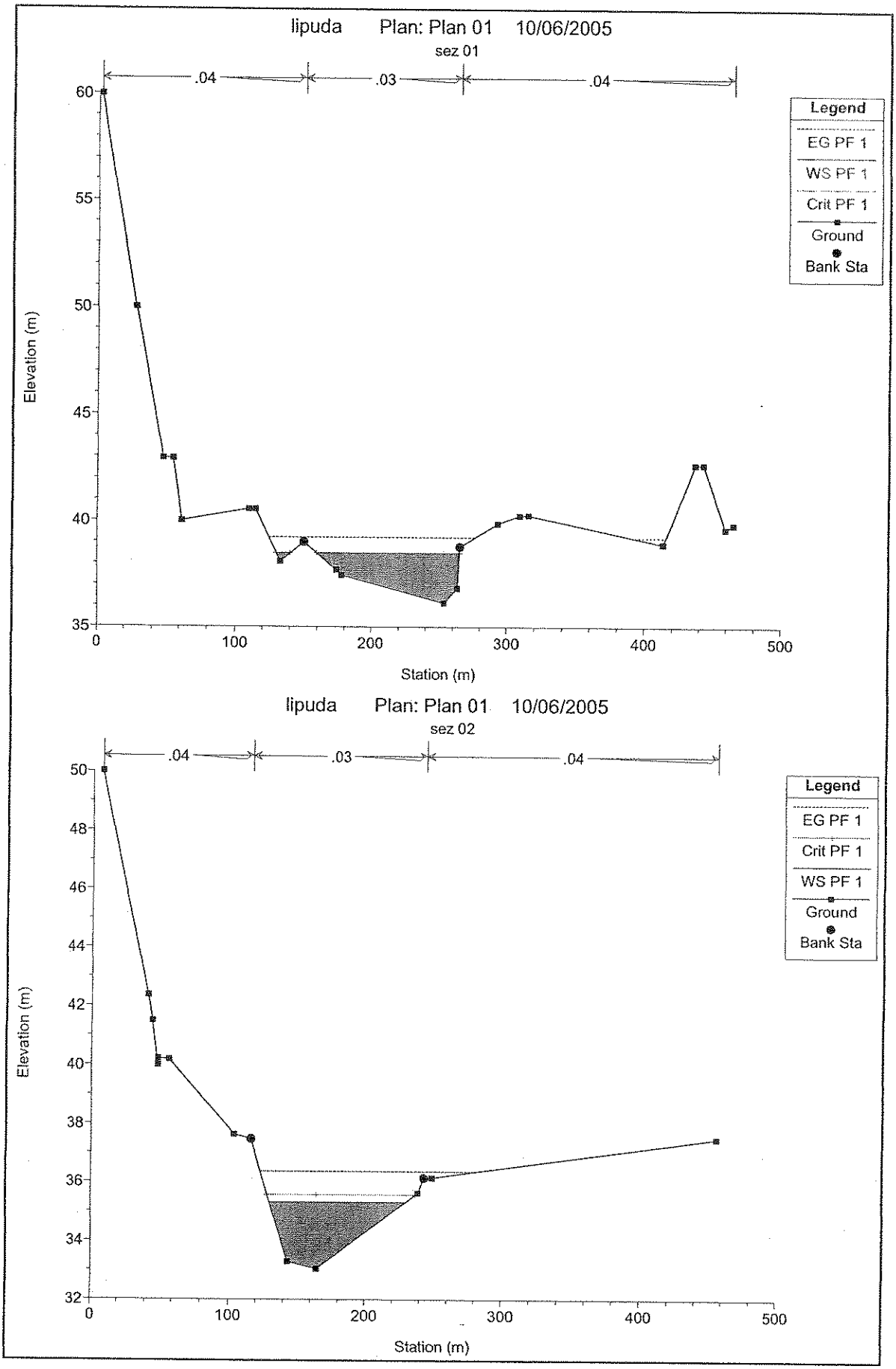

ponda2 Plan: Plan 03 13/06/2005
sez 24
.04
.03
.04
Legend
EG PF#1
Crit PF#1
WS PF#1
Ground
Bank Sta
Elevation (m)
Station (m)
ponda2 Plan: Plan 03 13/06/2005
sez 25
.04
.03
.04
Legend
EG PF#1
Crit PF#1
WS PF#1
Ground
Bank Sta
Elevation (m)
Station (m)

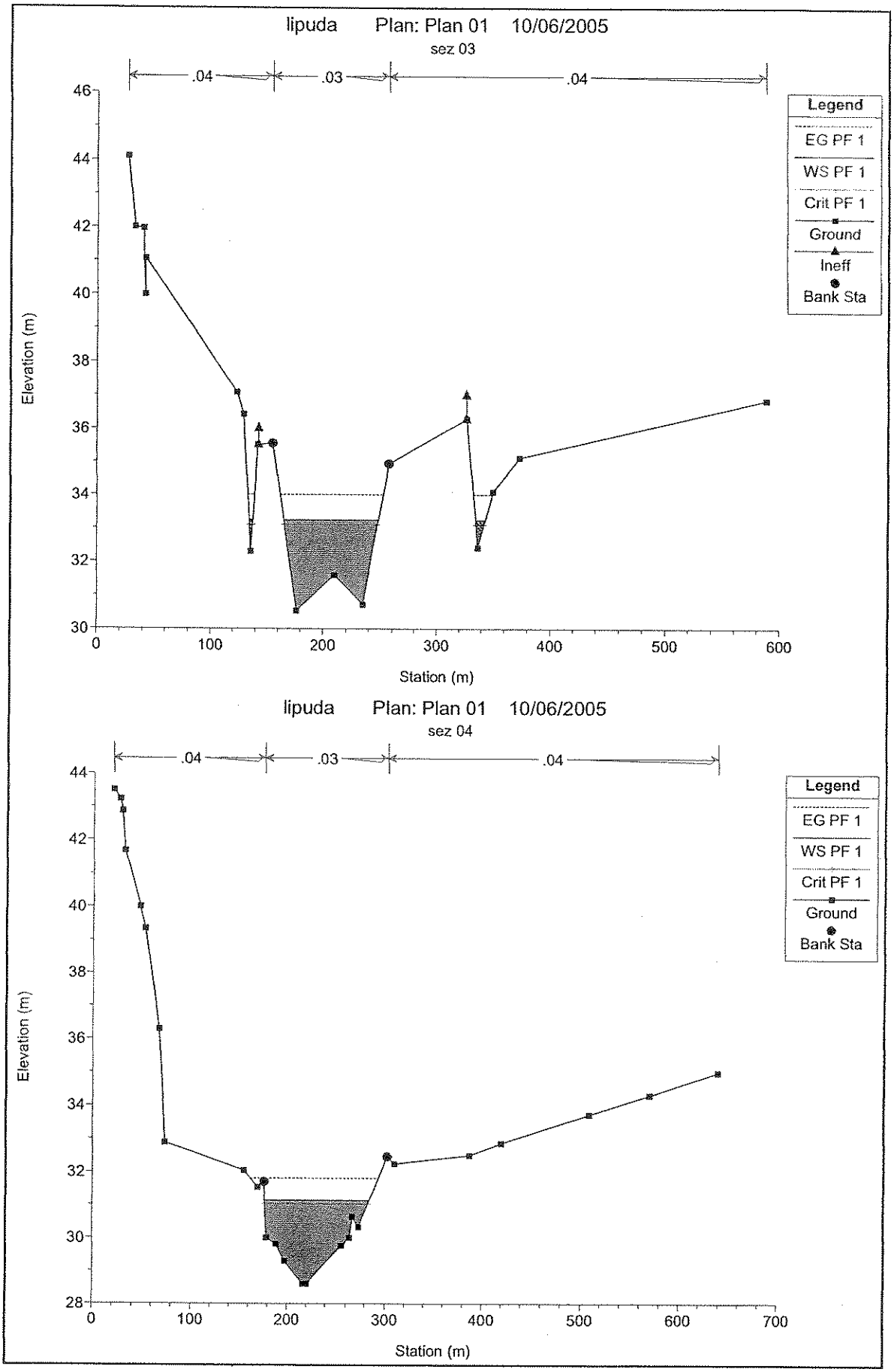

ponda2 Plan: Plan 03 13/06/2005
sez 26
.04
.03
.04
Legend
EG PF#1
Crit PF#1
WS PF#1
Ground
Bank Sta
Elevation (m)
30.5
30.0
29.5
29.0
28.5
28.0
27.5
0
50
100
150
200
250
300
Station (m)

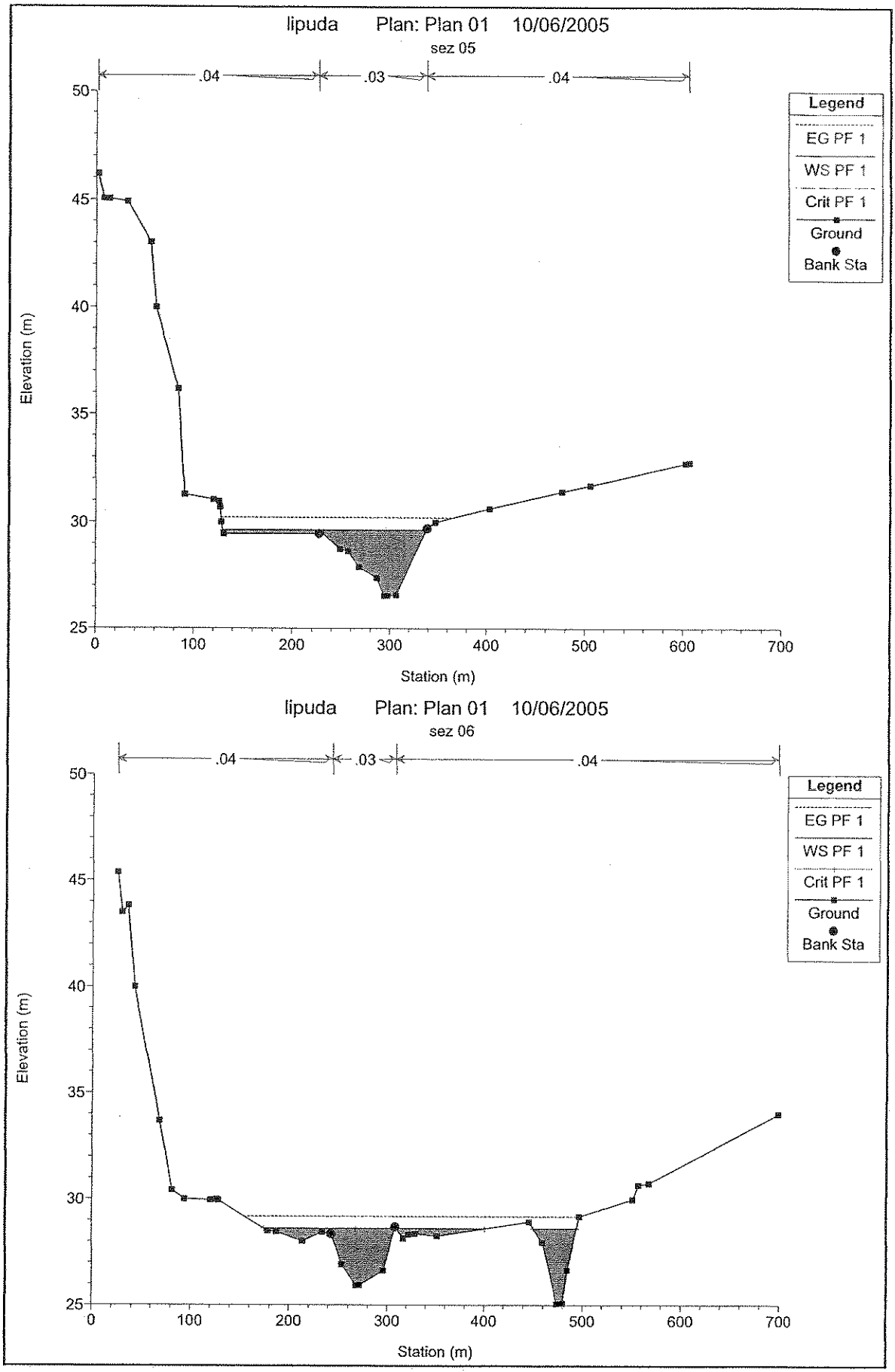

Iipuda Plan: Plan 01 10/06/2005
Iipuda Iipuda
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Elevation (m)
40
35
30
25
20
15
10
5
0
1000
2000
3000
4000
5000
Main Channel Distance (m)
333 sez 15
640 sez 14
1045 sez 13
1461 sez 12
1723 sez 11
2073 sez 10
2254 sez 09
2502 sez 08
2841 sez 07
2954 sez 06
3135 sez 05
3398 sez 04
3758 sez 03
4051 sez 02
4345 sez 01

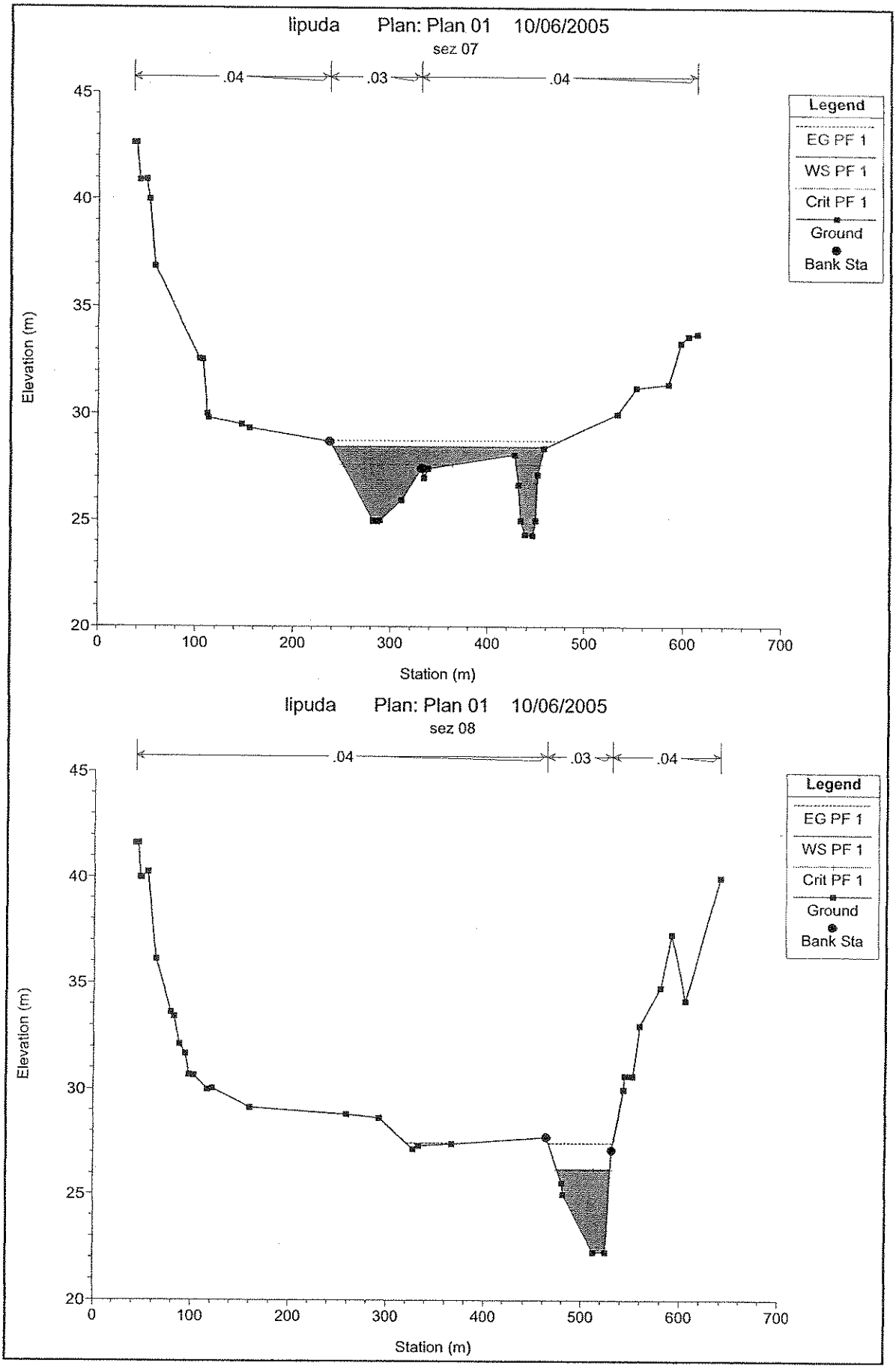
HEC-RAS Plan:

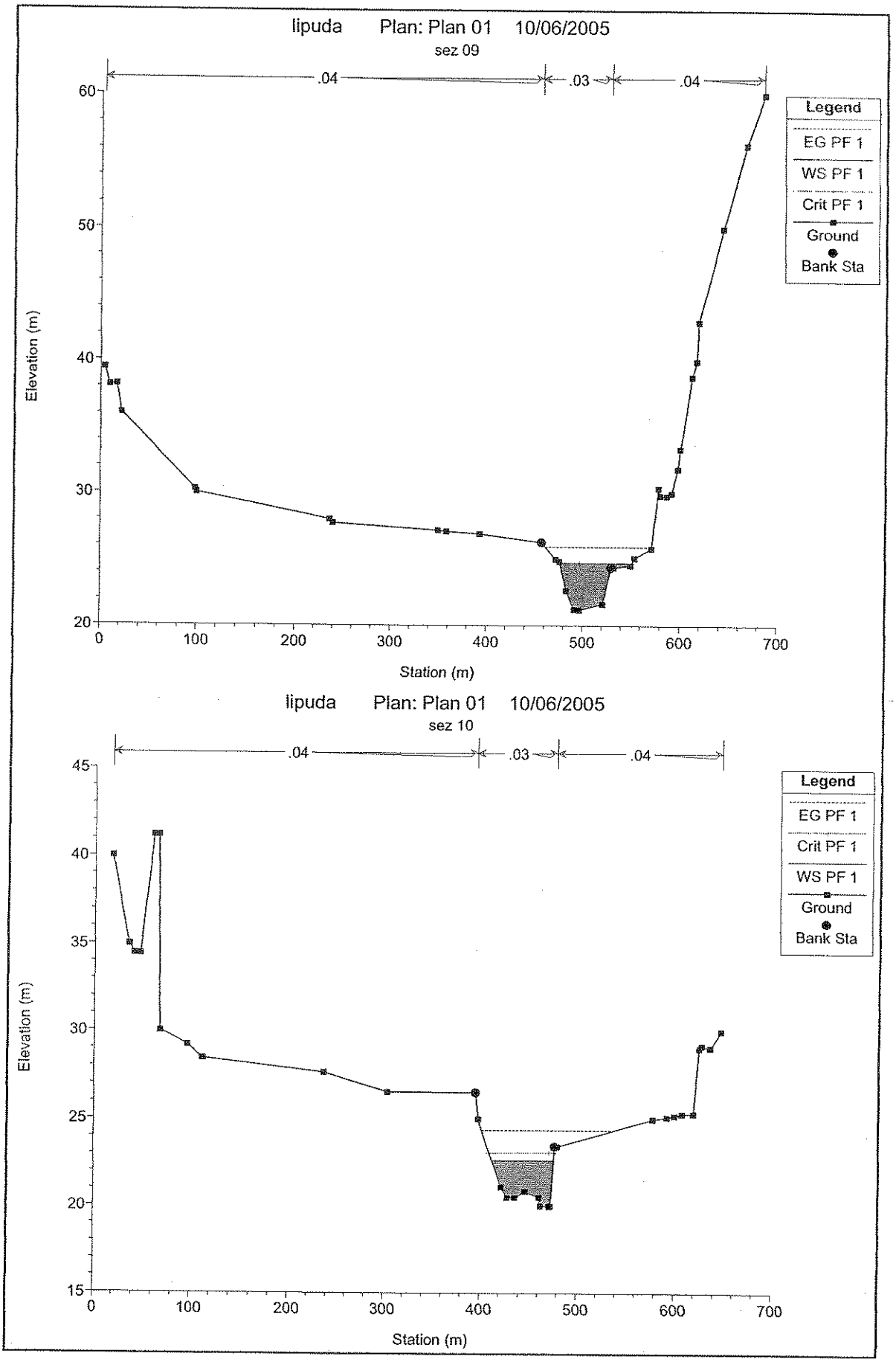
Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
lipuda	4345	PF 1	608.50	36.13	38.49	38.49	39.23	0.007605	3.81	161.28	115.57	0.99
lipuda	4051	PF 1	608.50	33.04	35.31	35.57	36.36	0.012571	4.54	134.17	100.17	1.25
lipuda	3758	PF 1	608.50	30.53	33.24	33.10	34.00	0.005802	3.87	157.43	95.30	0.90
lipuda	3398	PF 1	608.50	28.59	31.14	31.04	31.80	0.006282	3.58	169.97	107.29	0.91
lipuda	3135	PF 1	608.50	26.56	29.64	29.62	30.22	0.005574	3.39	194.48	208.86	0.86
lipuda	2954	PF 1	703.50	25.93	28.62	28.62	29.19	0.005717	3.82	239.35	268.22	0.89
lipuda	2841	PF 1	703.50	24.96	28.45	27.60	28.72	0.002131	2.58	349.99	220.89	0.56
lipuda	2502	PF 1	703.50	22.26	26.20	26.17	27.46	0.006502	4.96	141.74	54.86	0.99
lipuda	2254	PF 1	703.50	21.18	24.74	24.74	25.93	0.005706	4.85	150.07	75.15	0.94
lipuda	2073	PF 1	703.50	19.96	22.62	23.07	24.36	0.013486	5.84	120.48	63.86	1.36
lipuda	1723	PF 1	734.50	17.73	20.78	20.45	21.39	0.003636	3.52	222.84	117.35	0.74
lipuda	1461	PF 1	734.50	16.13	19.12	19.12	20.06	0.007189	4.29	171.34	90.95	1.00
lipuda	1045	PF 1	734.50	13.75	16.17	15.88	16.75	0.004427	3.37	219.20	122.27	0.78
lipuda	640	PF 1	734.50	12.13	14.46	14.33	14.94	0.004366	3.28	269.17	202.23	0.77
lipuda	333	PF 1	734.50	10.52	13.55	12.79	13.98	0.002264	2.90	254.99	107.50	0.59
lipuda	0	PF 1	734.50	9.63	13.00	11.93	13.33	0.001559	2.55	288.44	105.60	0.49

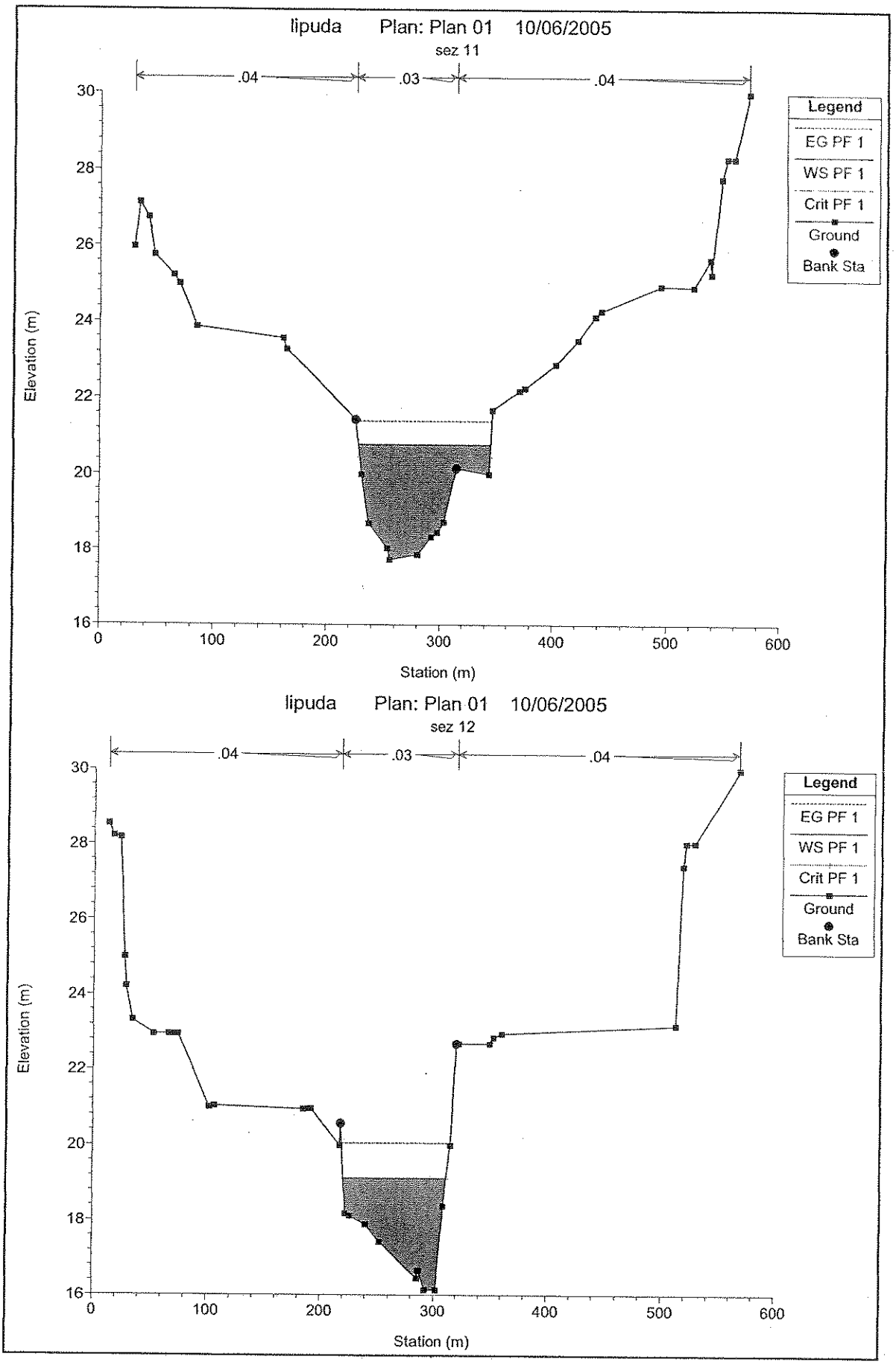

lipuda Plan: Plan 01 10/06/2005
sez 01
.04
.03
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
60
55
50
45
40
35
0
100
200
300
400
500
Station (m)
lipuda Plan: Plan 01 10/06/2005
sez 02
.04
.03
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
50
48
46
44
42
40
38
36
34
32
0
100
200
300
400
500
Station (m)

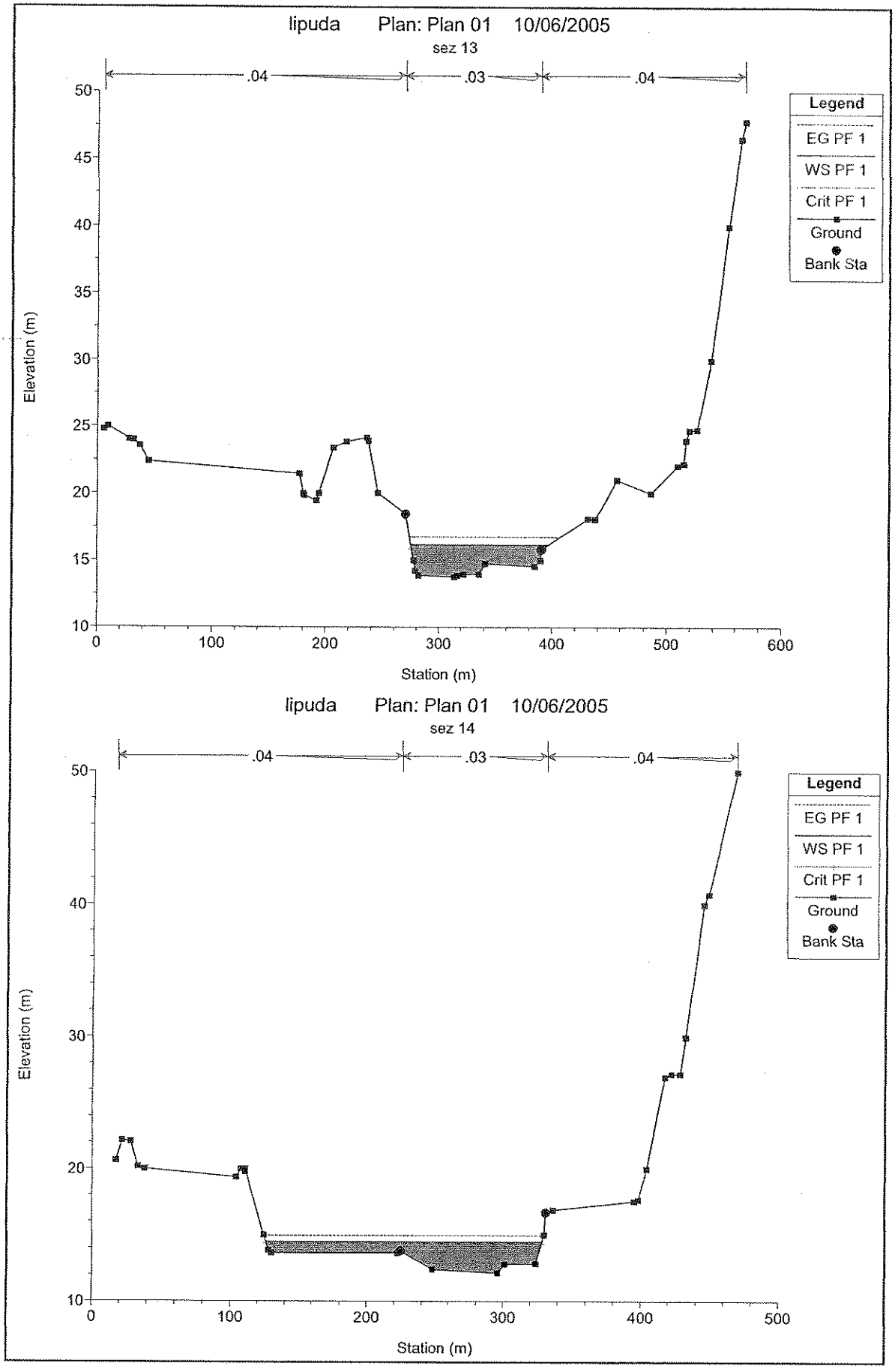

lipuda Plan: Plan 01 10/06/2005
sez 03
.04
.03
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Ineff
Bank Sta
Elevation (m)
Station (m)
lipuda Plan: Plan 01 10/06/2005
sez 04
.04
.03
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)

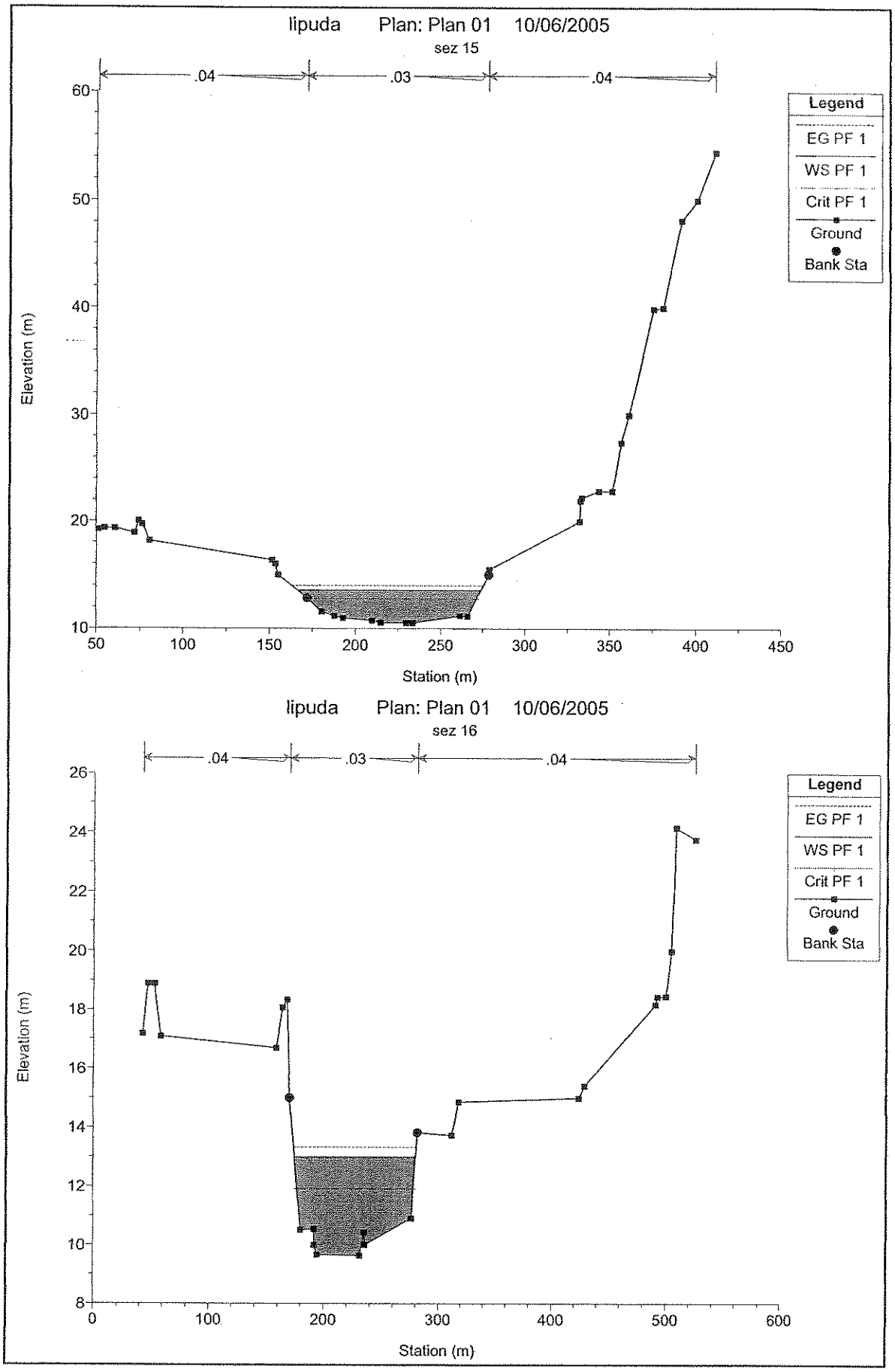

lipuda Plan: Plan 01 10/06/2005
sez 05
.04
.03
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
50
45
40
35
30
25
0
100
200
300
400
500
600
700
lipuda Plan: Plan 01 10/06/2005
sez 06
.04
.03
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)

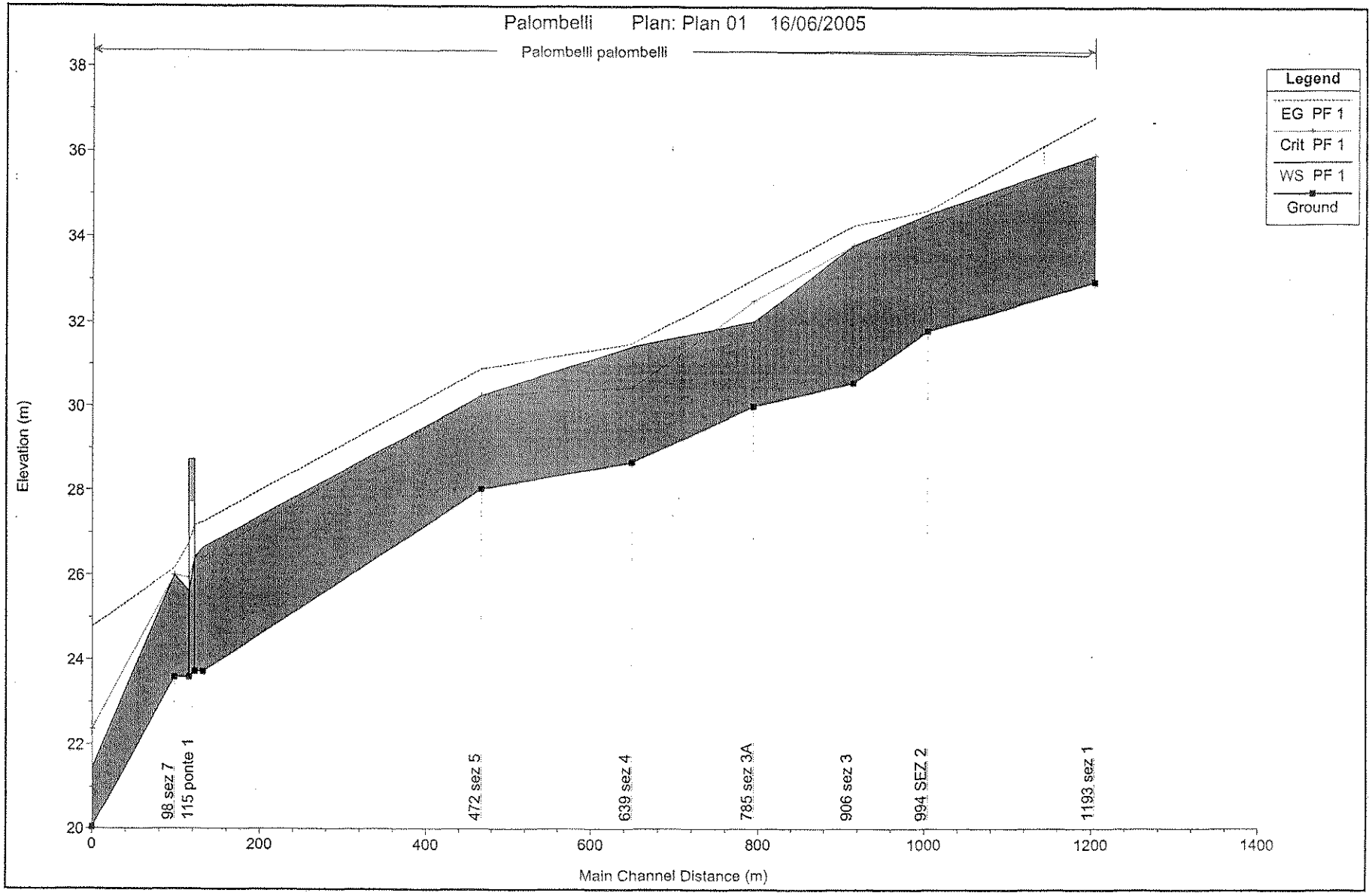

lipuda Plan: Plan 01 10/06/2005
sez 07
.04
.03
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
lipuda Plan: Plan 01 10/06/2005
sez 08
.04
.03
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)


Iipuda Plan: Plan 01 10/06/2005
sez 09
.04
.03
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
Iipuda Plan: Plan 01 10/06/2005
sez 10
.04
.03
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)


lipuda Plan: Plan 01 10/06/2005
sez 11
.04
.03
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
lipuda Plan: Plan 01 10/06/2005
sez 12
.04
.03
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)

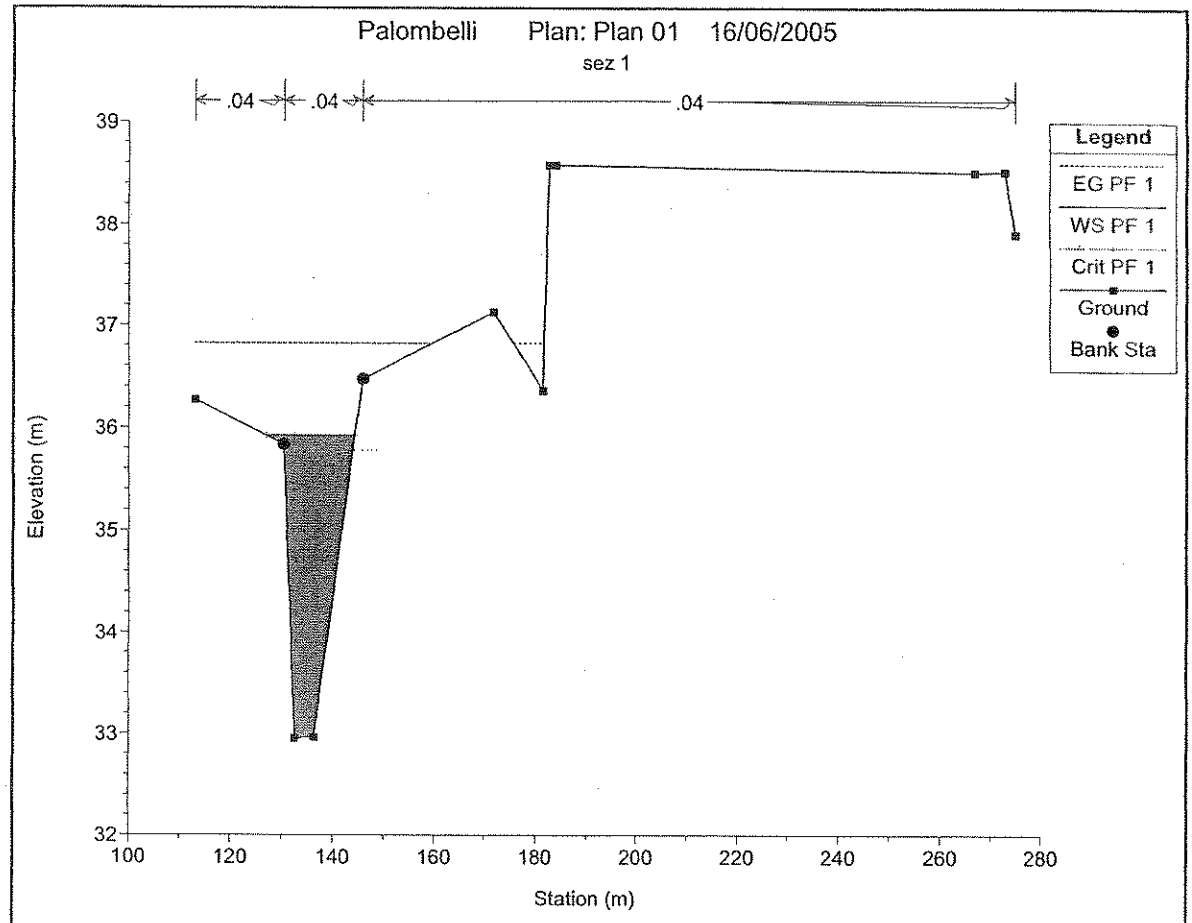

lipuda Plan: Plan 01 10/06/2005
sez 13
.04
.03
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
lipuda Plan: Plan 01 10/06/2005
sez 14
.04
.03
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)

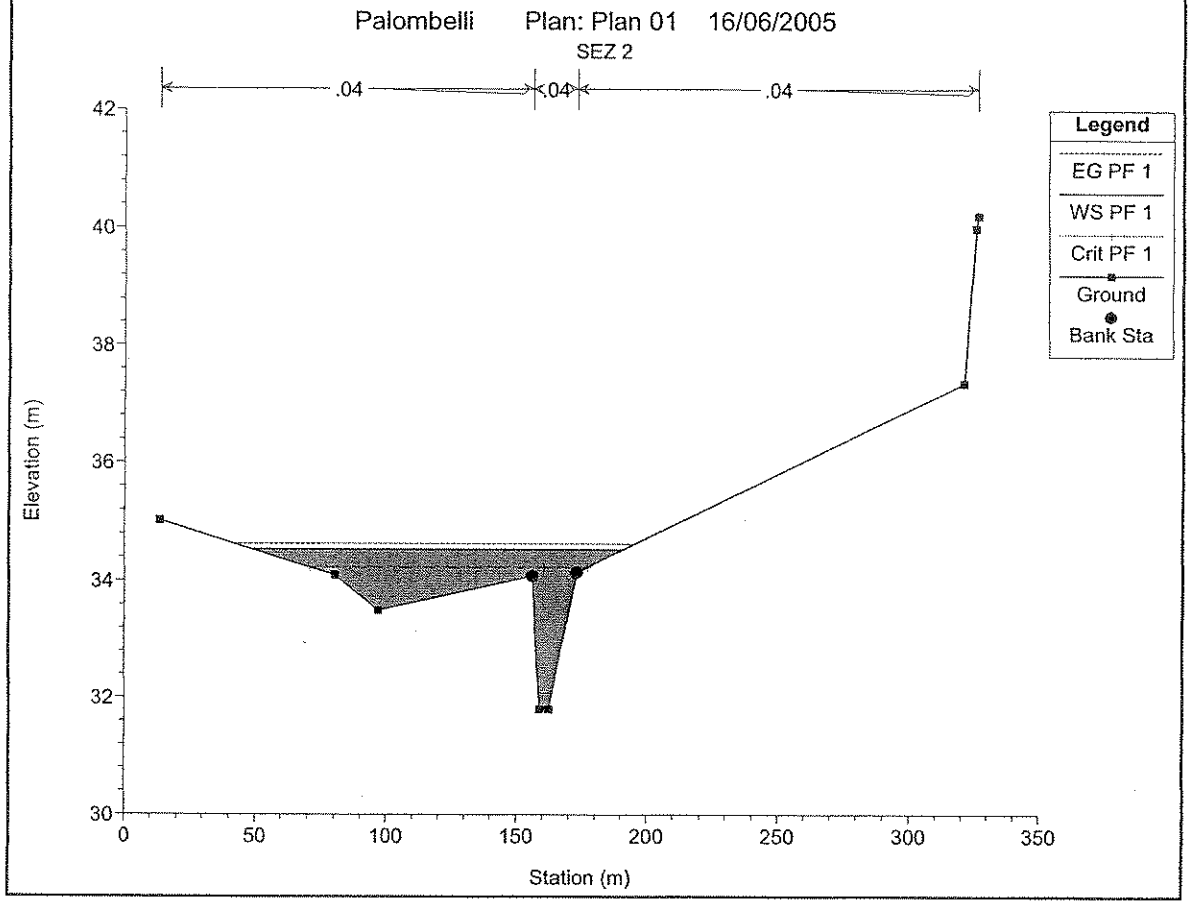

lipuda Plan: Plan 01 10/06/2005
sez 15
.04
.03
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
lipuda Plan: Plan 01 10/06/2005
sez 16
.04
.03
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)

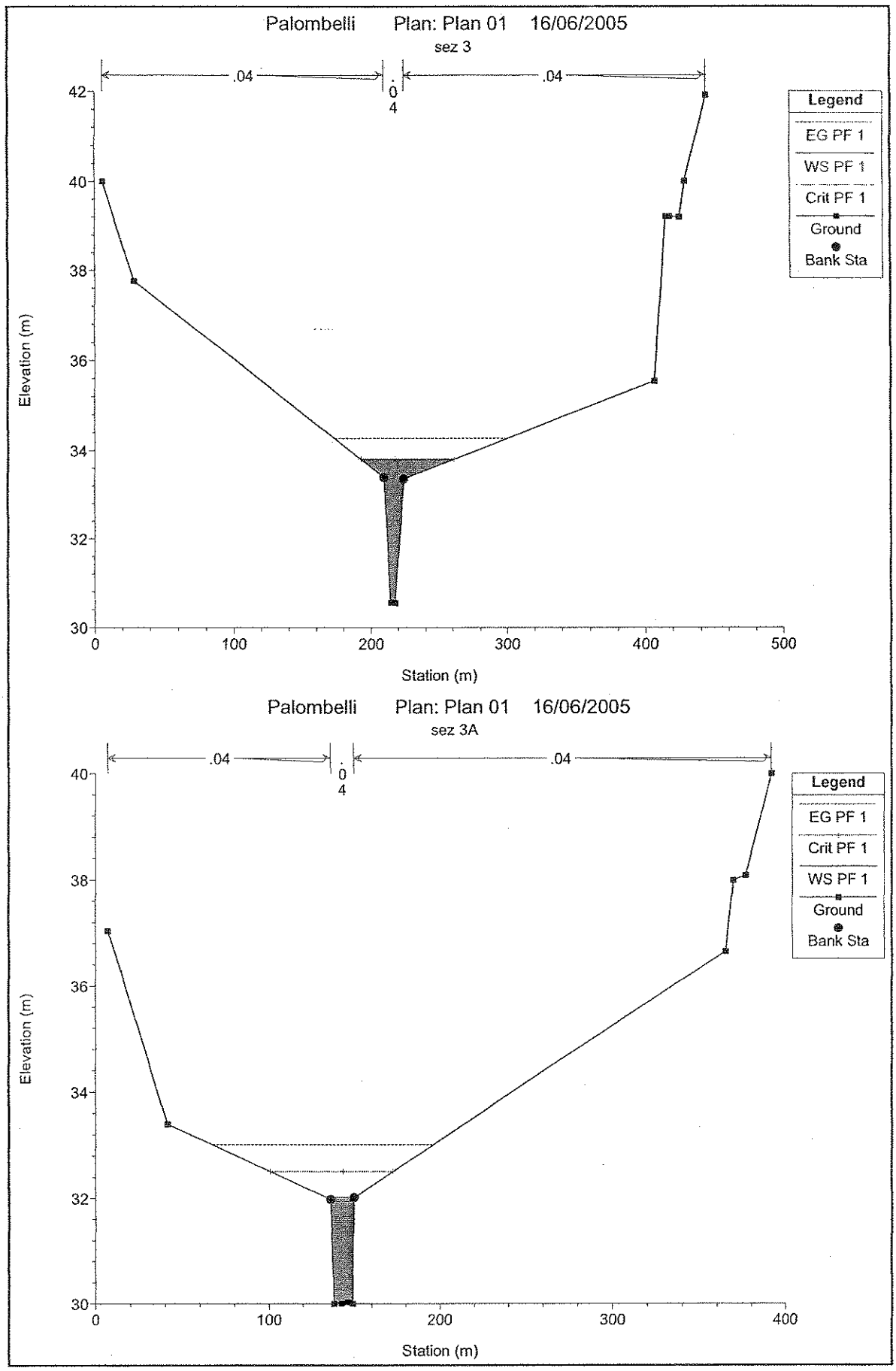

Palombelli Plan: Plan 01 16/06/2005
Palombelli palombelli
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Elevation (m)
Main Channel Distance (m)
98 sez 7
115 ponte 1
472 sez 5
639 sez 4
785 sez 3A
906 sez 3
994 SEZ 2
1193 sez 1

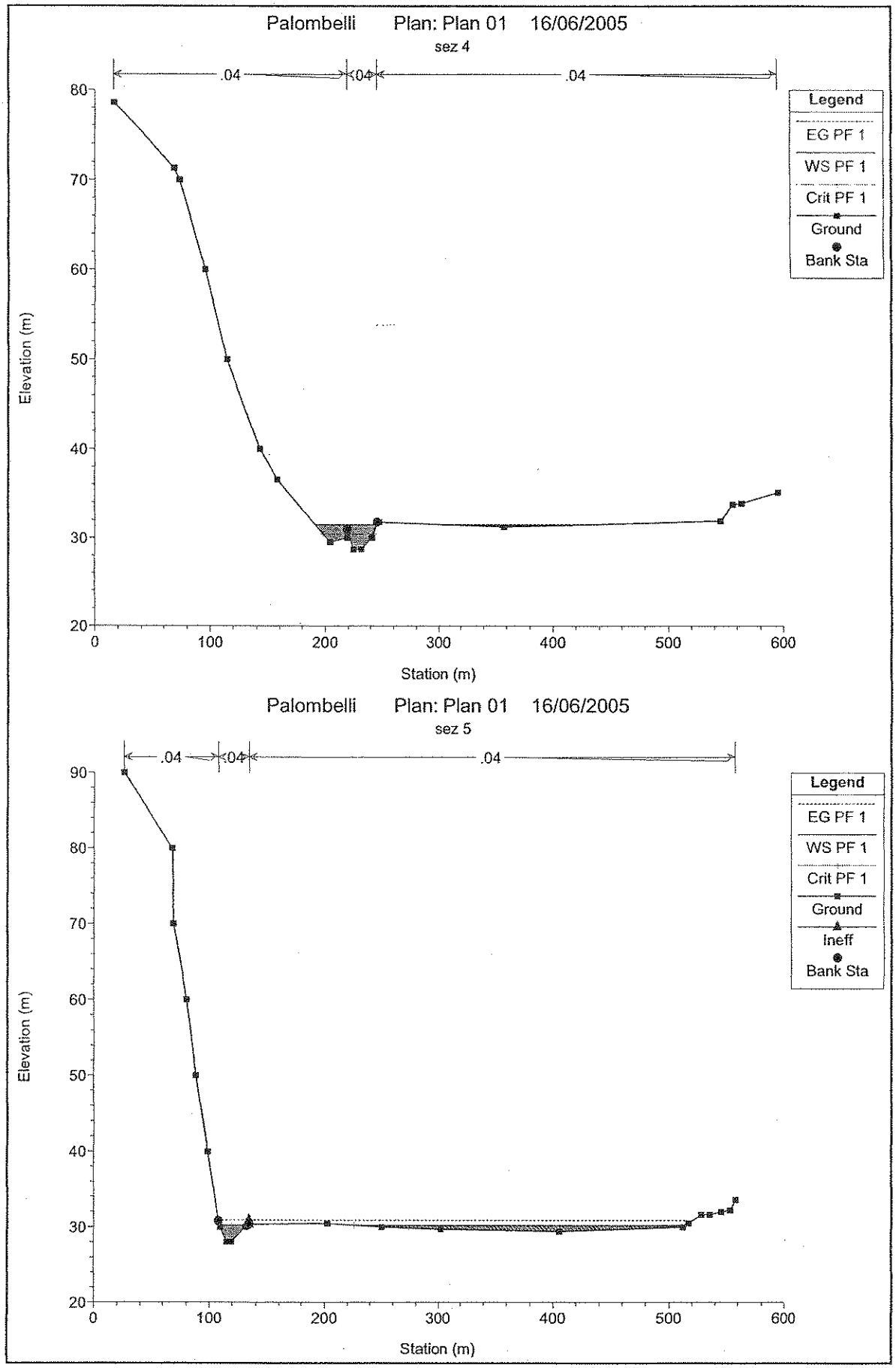
HEC-RAS Plan: Plan 01 River: Palombelli Reach: palombelli Profile: PF 1

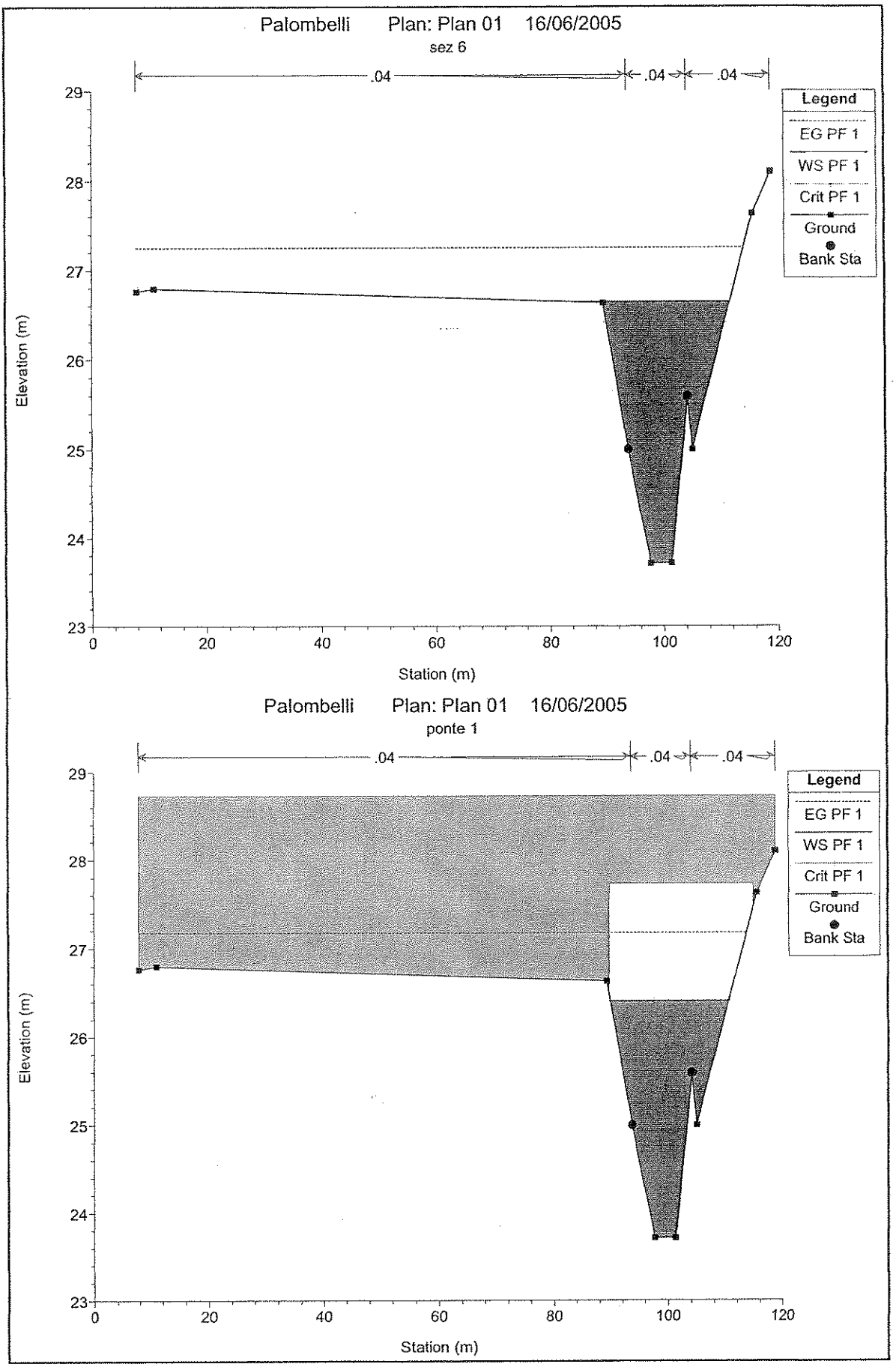
Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
palombelli	1193	PF 1	109.50	32.96	35.92	35.92	36.82	0.014611	4.21	26.15	17.27	0.98
palombelli	994	PF 1	109.50	31.80	34.53	34.23	34.63	0.002375	1.74	97.81	142.54	0.41
palombelli	906	PF 1	109.50	30.55	33.80	33.80	34.27	0.006319	3.14	43.76	68.47	0.68
palombelli	785	PF 1	109.50	30.00	32.02	32.51	33.02	0.017348	4.42	24.80	16.22	1.05
palombelli	639	PF 1	109.50	28.67	31.42	30.43	31.50	0.001265	1.36	96.78	148.25	0.31
palombelli	472	PF 1	109.50	28.02	30.25	30.25	30.89	0.014931	3.55	30.88	312.79	1.00
palombelli	132	PF 1	109.50	23.71	26.64	26.41	27.25	0.007213	3.66	35.58	27.81	0.75
palombelli	115		Bridge									
palombelli	98	PF 1	109.50	23.58	26.00	26.00	26.16	0.003829	2.22	83.01	150.43	0.53
palombelli	0	PF 1	109.50	20.03	21.45	22.36	24.78	0.110292	8.09	13.54	13.45	2.57

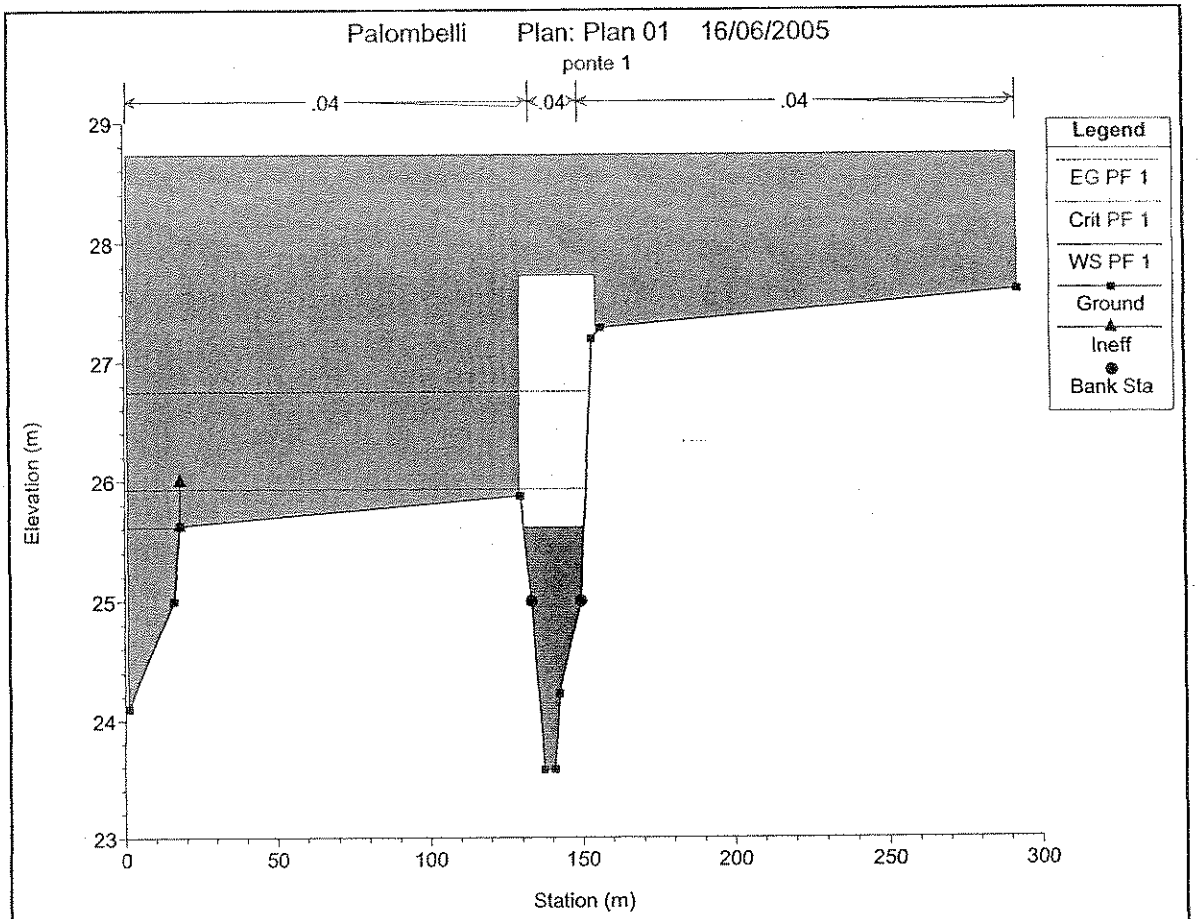

Palombelli Plan: Plan 01 16/06/2005
sez 1
.04
.04
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
39
38
37
36
35
34
33
32
100
120
140
160
180
200
220
240
260
280

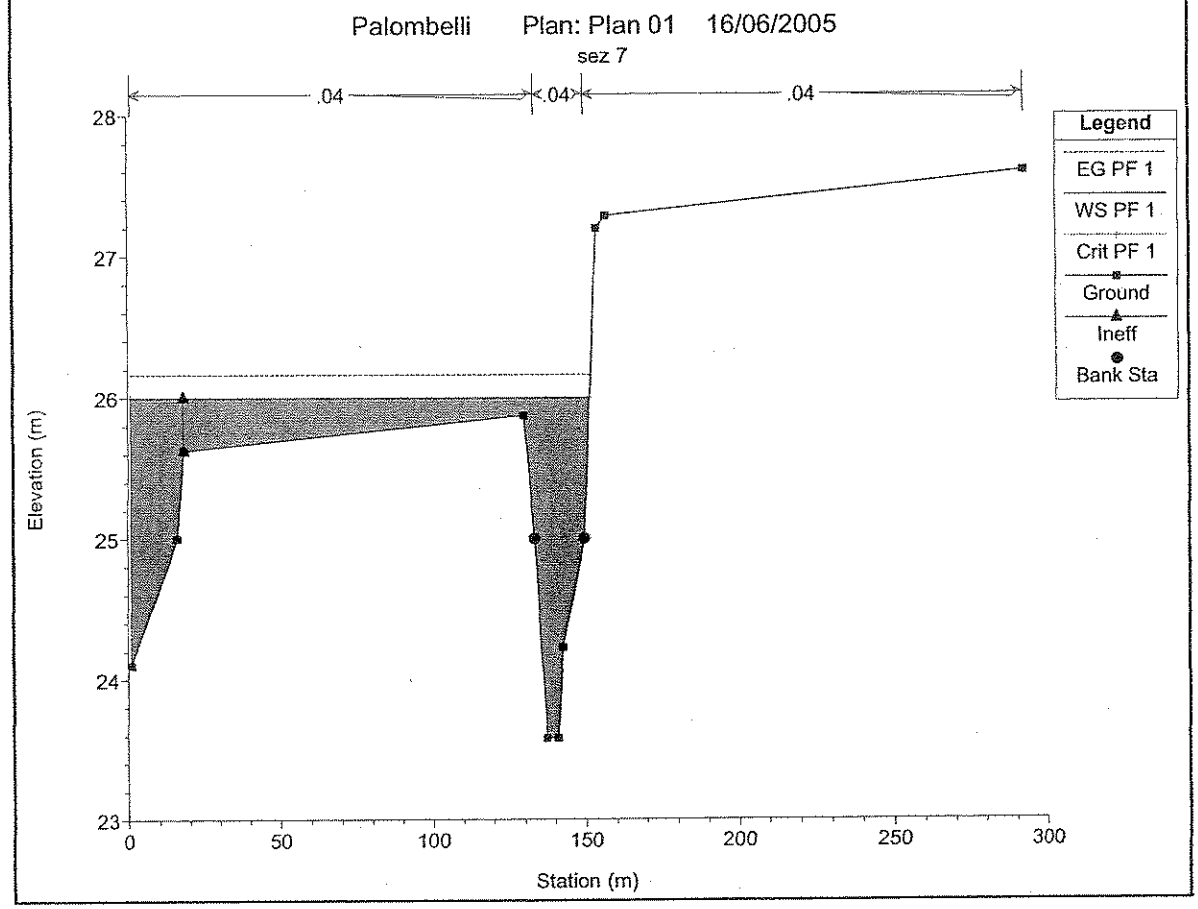

Palombelli Plan: Plan 01 16/06/2005
SEZ 2
.04
.04
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
42
40
38
36
34
32
30
0
50
100
150
200
250
300
350

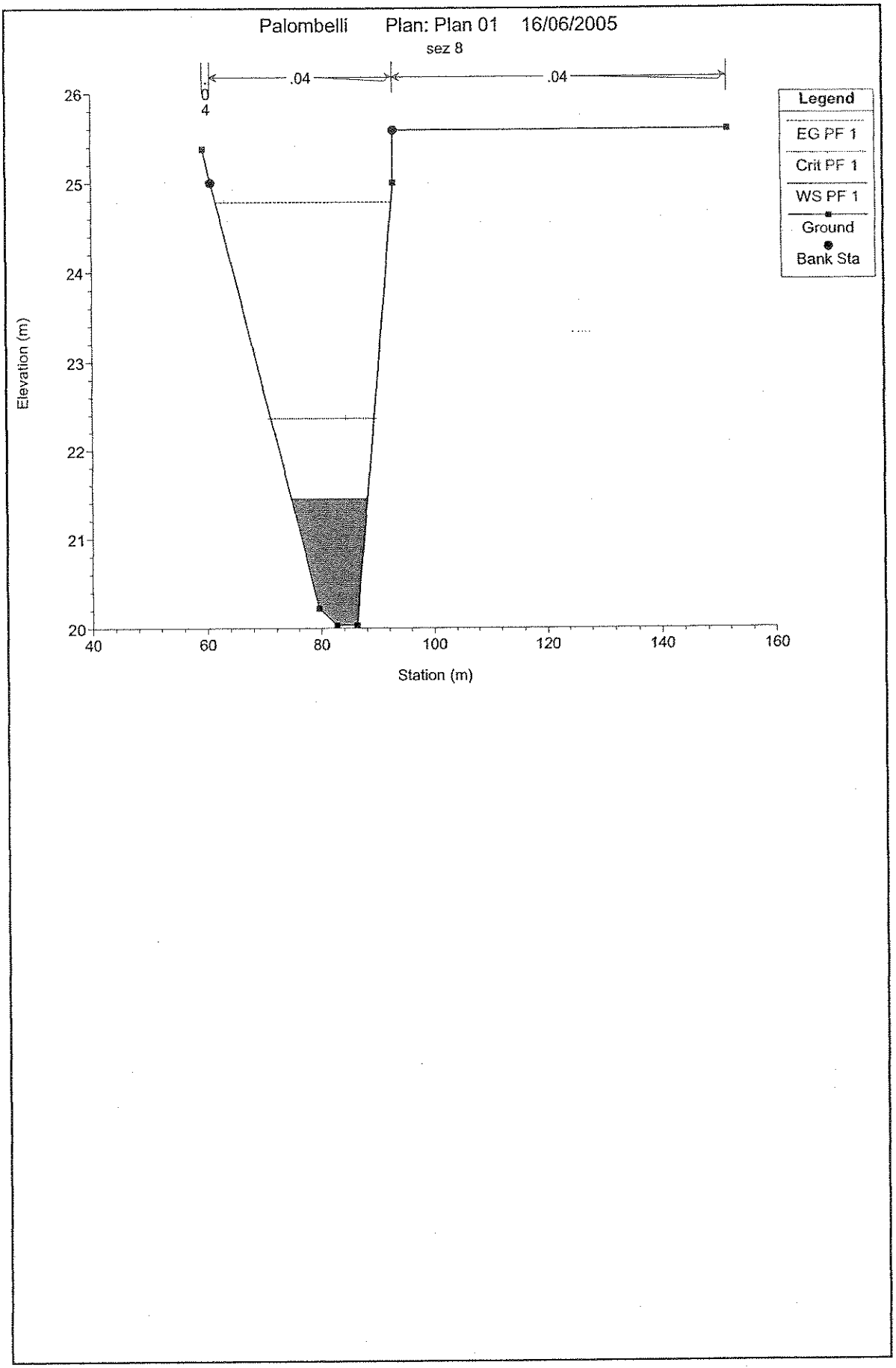

Palombelli Plan: Plan 01 16/06/2005
sez 3
.04
.04
0
4
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
42
40
38
36
34
32
30
0
100
200
300
400
500
Station (m)
Palombelli Plan: Plan 01 16/06/2005
sez 3A
.04
.04
0
4
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
40
38
36
34
32
30
0
100
200
300
400
Station (m)

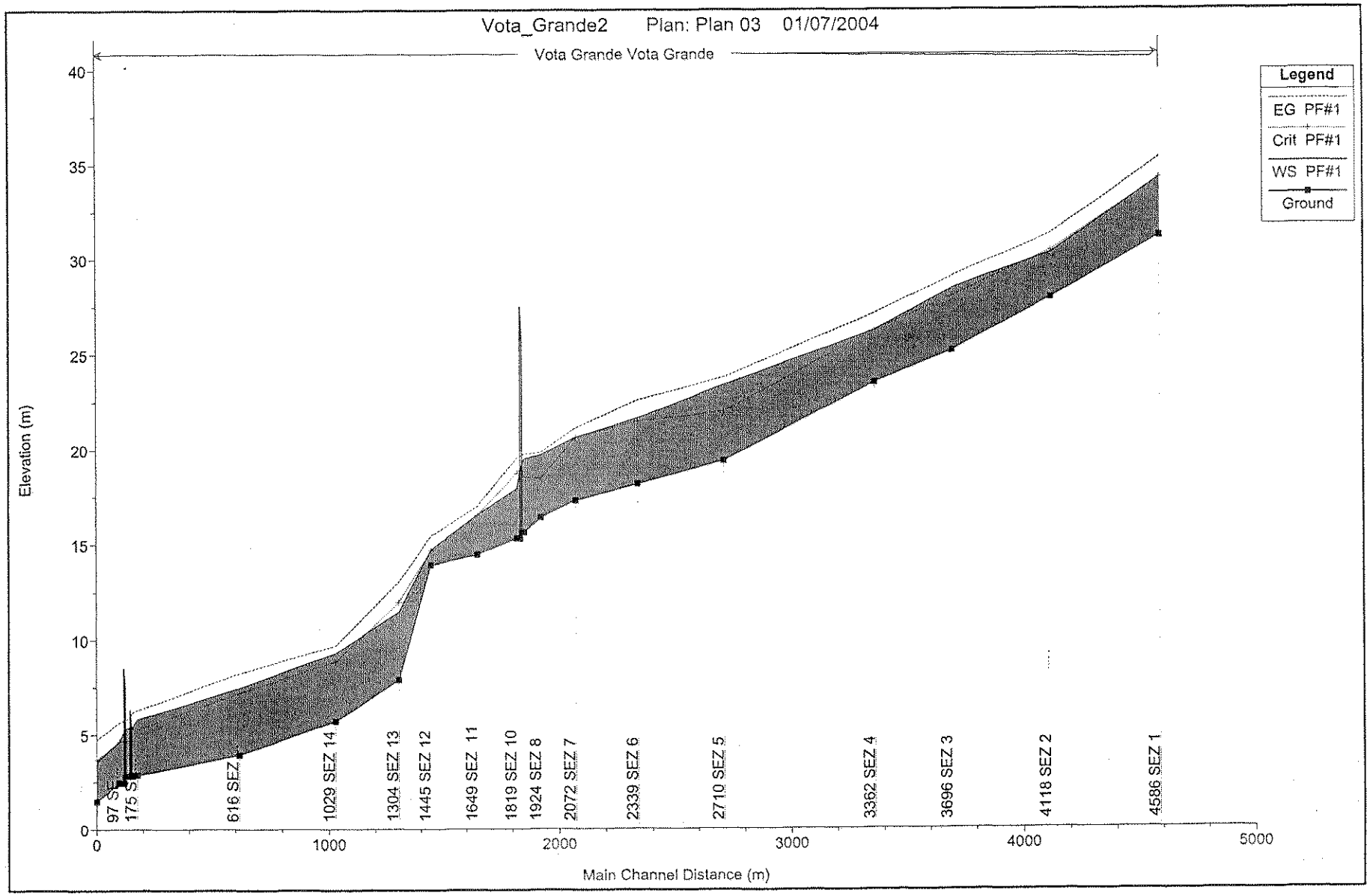

Palombelli Plan: Plan 01 16/06/2005
sez 4
.04
.04
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
Palombelli Plan: Plan 01 16/06/2005
sez 5
.04
.04
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Ineff
Bank Sta
Elevation (m)
Station (m)


Palombelli Plan: Plan 01 16/06/2005
sez 6
.04
.04
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
29
28
27
26
25
24
23
0
20
40
60
80
100
120
Station (m)
Palombelli Plan: Plan 01 16/06/2005
ponte 1
.04
.04
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
29
28
27
26
25
24
23
0
20
40
60
80
100
120
Station (m)


Palombelli Plan: Plan 01 16/06/2005
ponte 1
.04
.04
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Ineff
Bank Sta
Elevation (m)
29
28
27
26
25
24
23
0
50
100
150
200
250
300
Station (m)

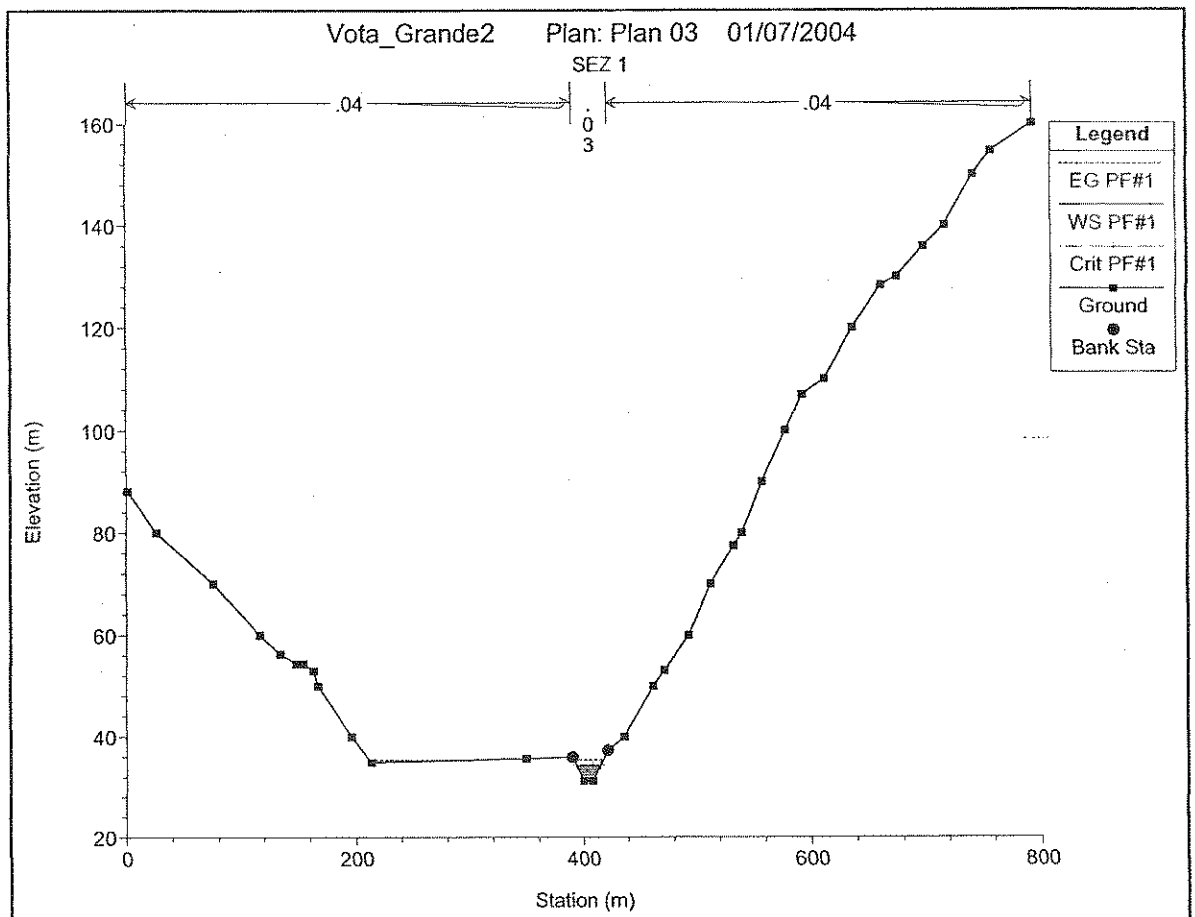

Palombelli Plan: Plan 01 16/06/2005
sez 7
.04
.04
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Ineff
Bank Sta
Elevation (m)
28
27
26
25
24
23
0
50
100
150
200
250
300
Station (m)

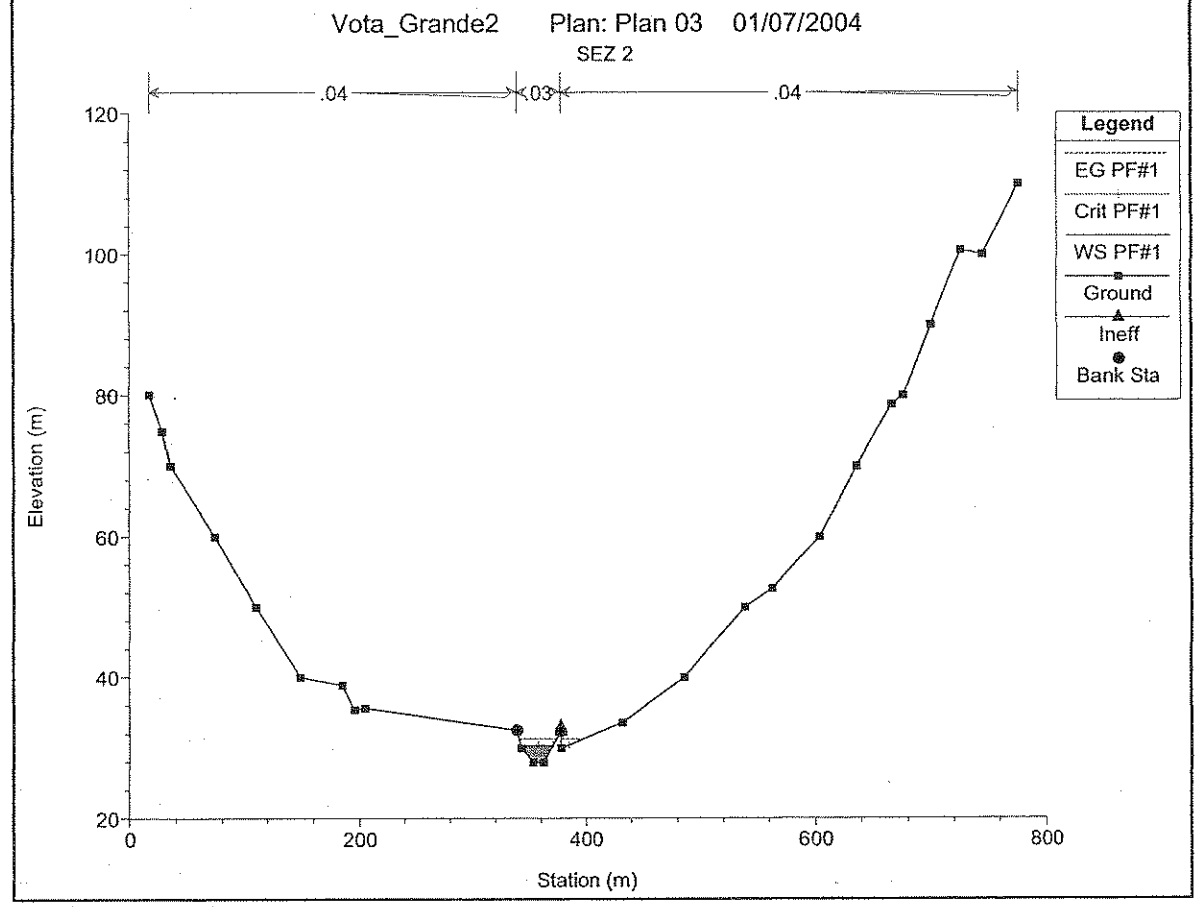

Palombelli Plan: Plan 01 16/06/2005
sez 8
.04
.04
0
4
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
26
25
24
23
22
21
20
40
60
80
100
120
140
160

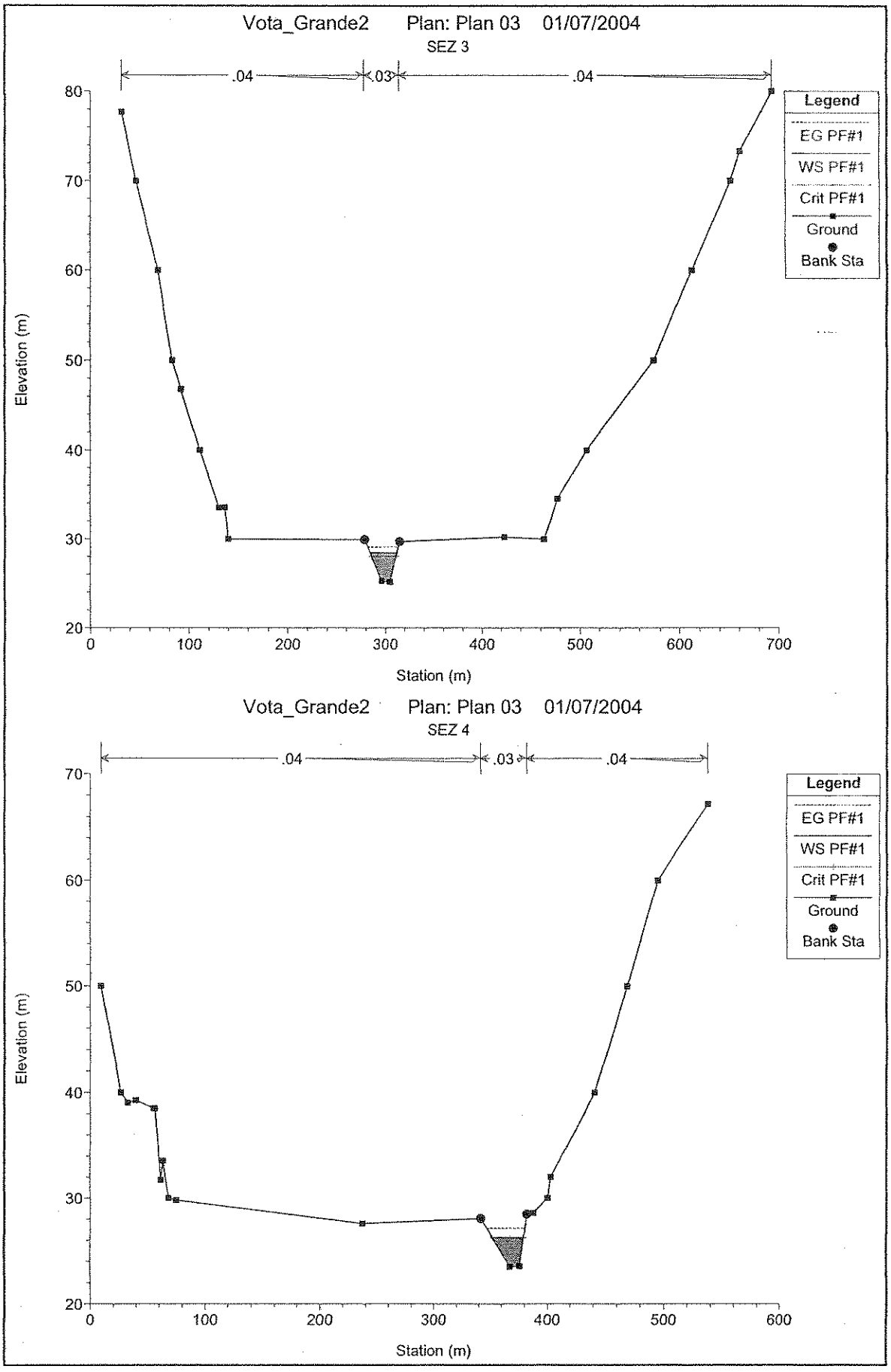

Vota_Grande2 Plan: Plan 03 01/07/2004
Vota Grande Vota Grande
Legend
EG PF#1
Crit PF#1
WS PF#1
Ground
Elevation (m)
Main Channel Distance (m)
0
5
10
15
20
25
30
35
40
0
1000
2000
3000
4000
5000
97 SEZ
175 SEZ
616 SEZ
1029 SEZ 14
1304 SEZ 13
1445 SEZ 12
1649 SEZ 11
1819 SEZ 10
1924 SEZ 8
2072 SEZ 7
2339 SEZ 6
2710 SEZ 5
3362 SEZ 4
3696 SEZ 3
4118 SEZ 2
4586 SEZ 1

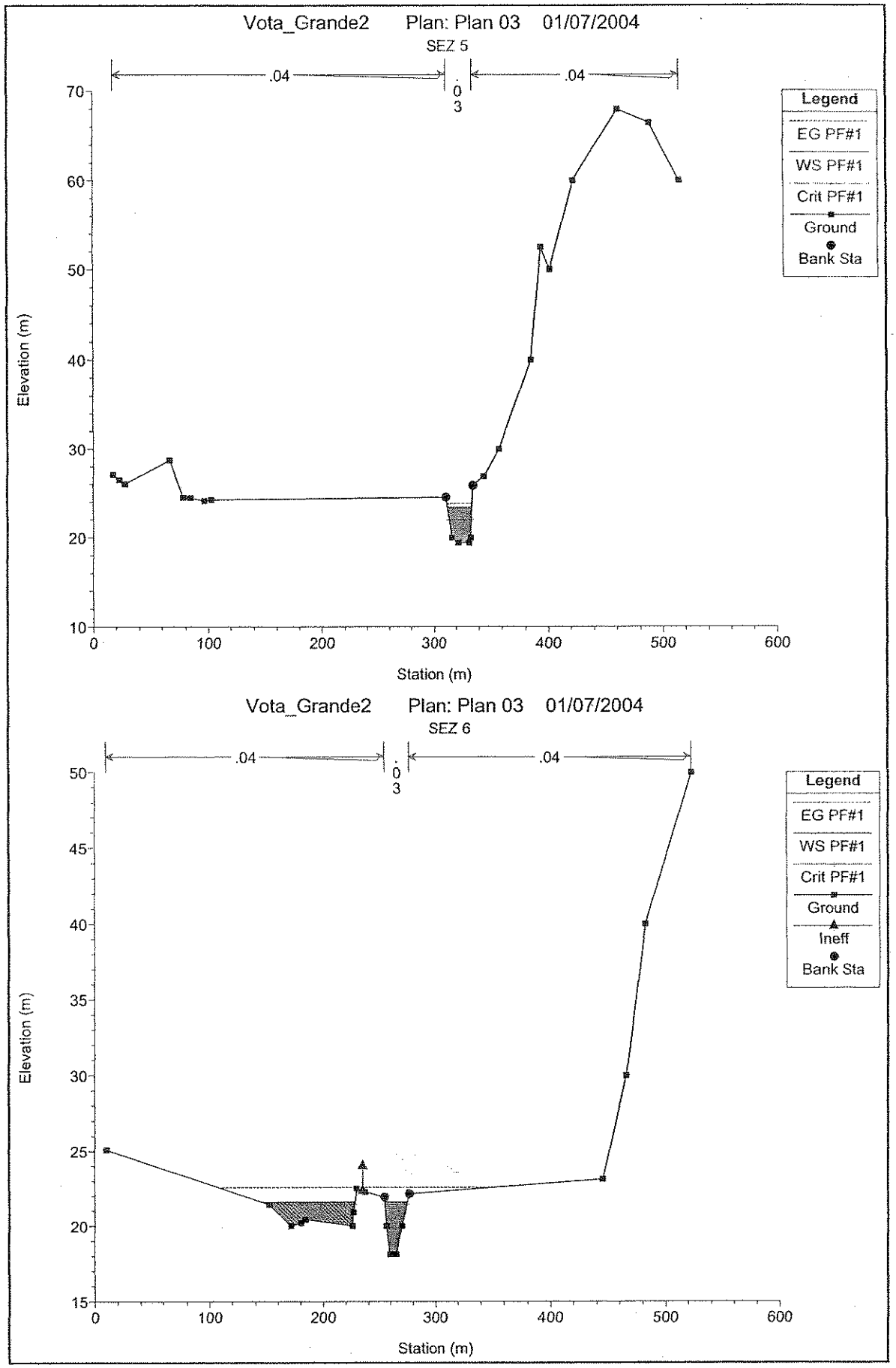
HEC-RAS Plan: Plan 02 River: Vota Grande Reach: Vota Grande Profile: PF#1

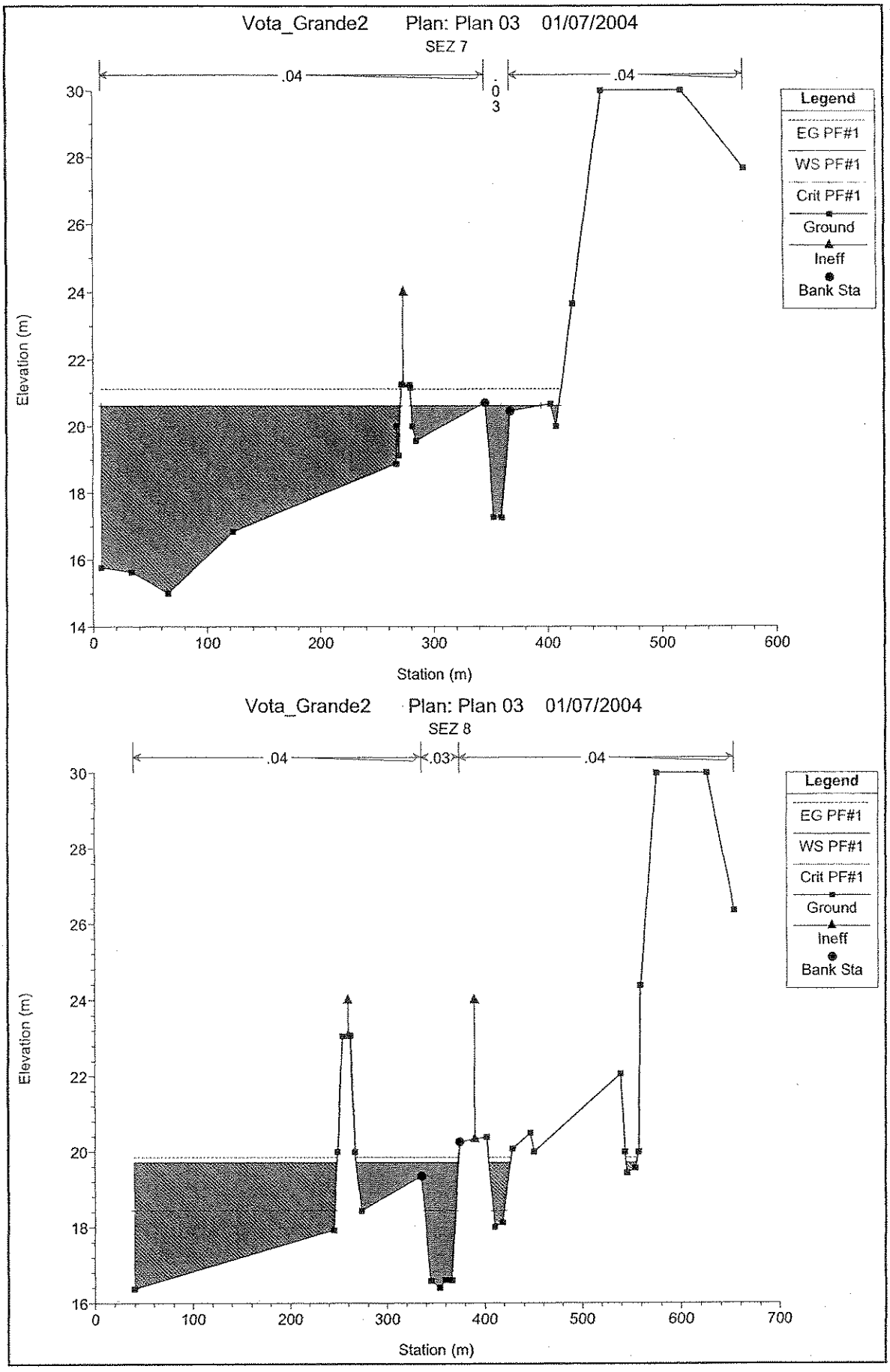
Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Vota Grande	4586	PF#1	202.25	31.21	34.26	34.26	35.32	0.007617	4.57	44.25	21.13	1.01
Vota Grande	4118	PF#1	202.25	27.94	30.31	30.44	31.32	0.009595	4.44	45.56	32.88	1.11
Vota Grande	3696	PF#1	202.25	25.17	28.44	28.02	29.06	0.004322	3.49	57.90	27.64	0.77
Vota Grande	3362	PF#1	202.25	23.50	26.23	26.23	27.13	0.007871	4.20	48.17	27.31	1.01
Vota Grande	2710	PF#1	202.25	19.38	23.36	21.98	23.77	0.001805	2.83	71.36	21.53	0.50
Vota Grande	2339	PF#1	202.25	18.13	21.61	21.47	22.58	0.006354	4.36	46.40	102.89	0.92
Vota Grande	2072	PF#1	202.25	17.27	20.62	20.62	21.12	0.003950	3.43	85.63	380.22	0.73
Vota Grande	1924	PF#1	202.25	16.40	19.71	18.46	19.85	0.000846	1.77	149.53	346.19	0.35
Vota Grande	1852	PF#1	202.25	15.61	19.50	18.53	19.76	0.001462	2.35	103.73	66.28	0.47
Vota Grande	1834		Bridge									
Vota Grande	1819	PF#1	202.25	15.27	17.91	18.69	19.54	0.016482	5.67	35.69	22.68	1.44
Vota Grande	1649	PF#1	202.25	14.43	16.52	16.51	16.97	0.005913	3.94	90.26	98.94	0.91
Vota Grande	1445	PF#1	202.25	13.89	14.68	14.68	15.42	0.009782	2.17	55.52	38.07	0.94
Vota Grande	1304	PF#1	202.25	7.86	11.45	11.97	12.99	0.030861	5.50	36.77	38.76	1.80
Vota Grande	1029	PF#1	202.25	5.66	9.27	8.84	9.68	0.002385	3.02	91.27	83.17	0.58
Vota Grande	616	PF#1	202.25	3.92	7.44	7.17	8.22	0.005436	3.92	51.63	24.05	0.85
Vota Grande	175	PF#1	202.25	2.84	5.78	5.28	6.28	0.003332	3.13	64.86	48.70	0.69
Vota Grande	145		Bridge									
Vota Grande	134	PF#1	202.25	2.78	5.31	4.69	5.81	0.003158	3.12	64.82	27.80	0.65
Vota Grande	125		Bridge									
Vota Grande	97	PF#1	202.25	2.42	4.62	4.62	5.59	0.007814	4.37	46.30	24.12	1.01
Vota Grande	0	PF#1	202.25	1.48	3.59	3.70	4.74	0.009463	4.75	42.53	21.85	1.09

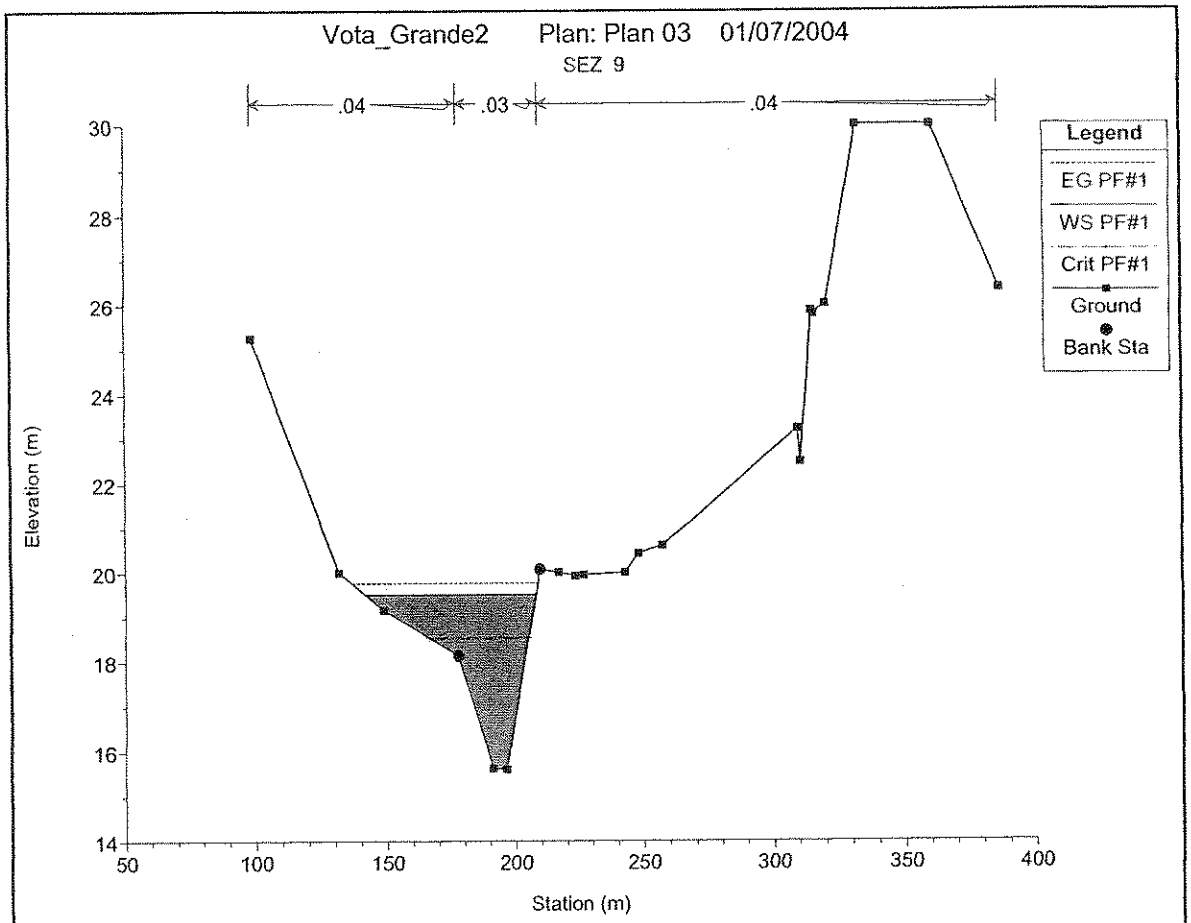

Vota_Grande2 Plan: Plan 03 01/07/2004
SEZ 1
.04
.03
.04
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Bank Sta
Elevation (m)
Station (m)
160
140
120
100
80
60
40
20
0
200
400
600
800

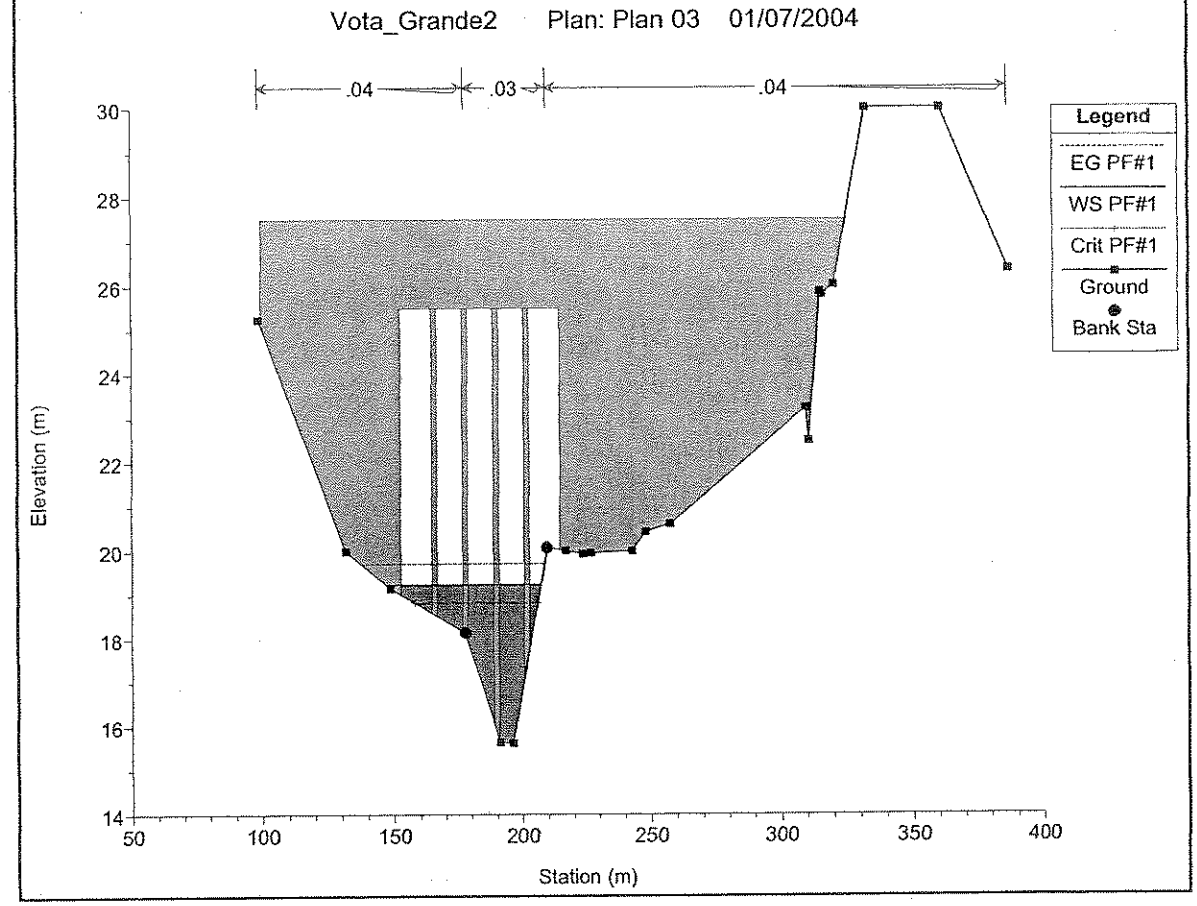

Vota_Grande2 Plan: Plan 03 01/07/2004
SEZ 2
.04
.03
.04
Legend
EG PF#1
Crit PF#1
WS PF#1
Ground
Ineff
Bank Sta
Elevation (m)
Station (m)
120
100
80
60
40
20
0
200
400
600
800

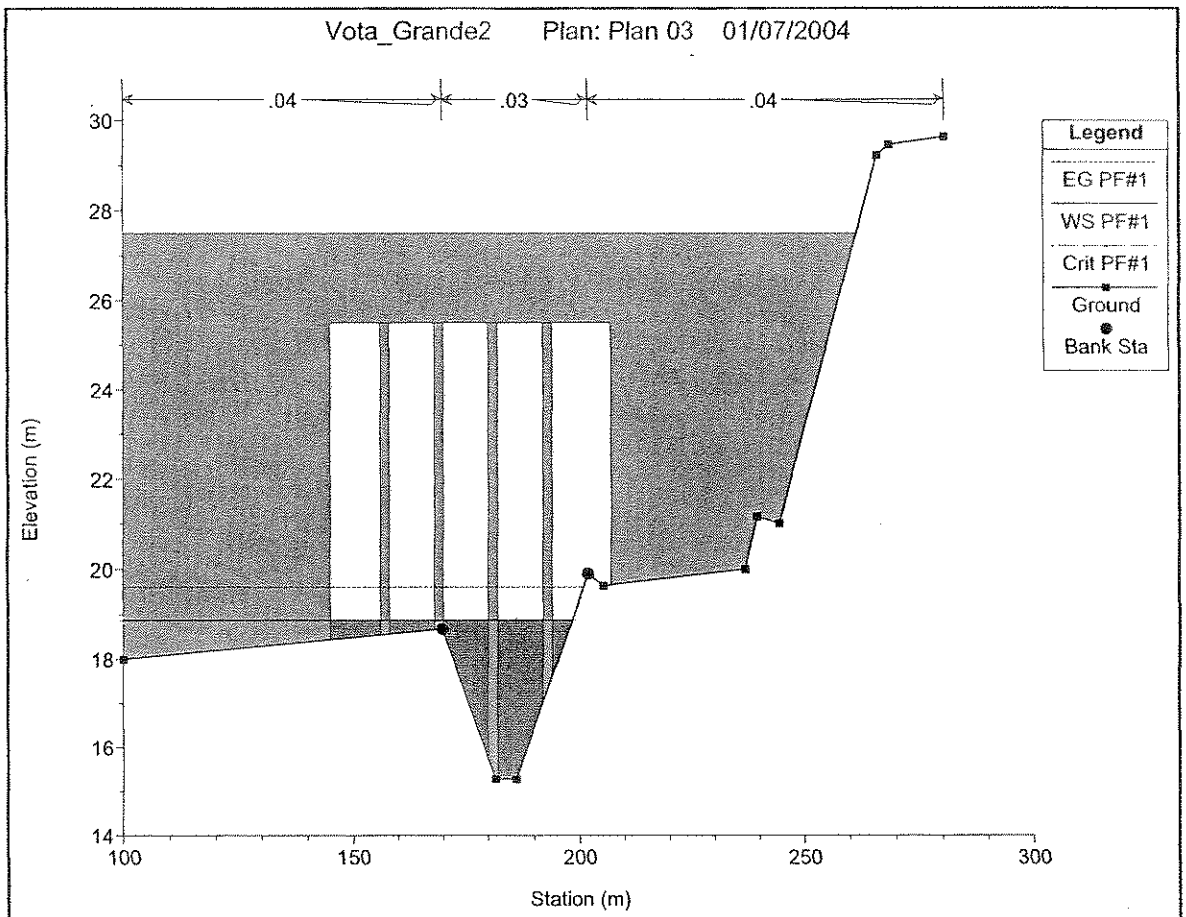

Vota_Grande2 Plan: Plan 03 01/07/2004
SEZ 3
.04
.03
.04
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Bank Sta
Elevation (m)
Station (m)
Vota_Grande2 Plan: Plan 03 01/07/2004
SEZ 4
.04
.03
.04
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Bank Sta
Elevation (m)
Station (m)

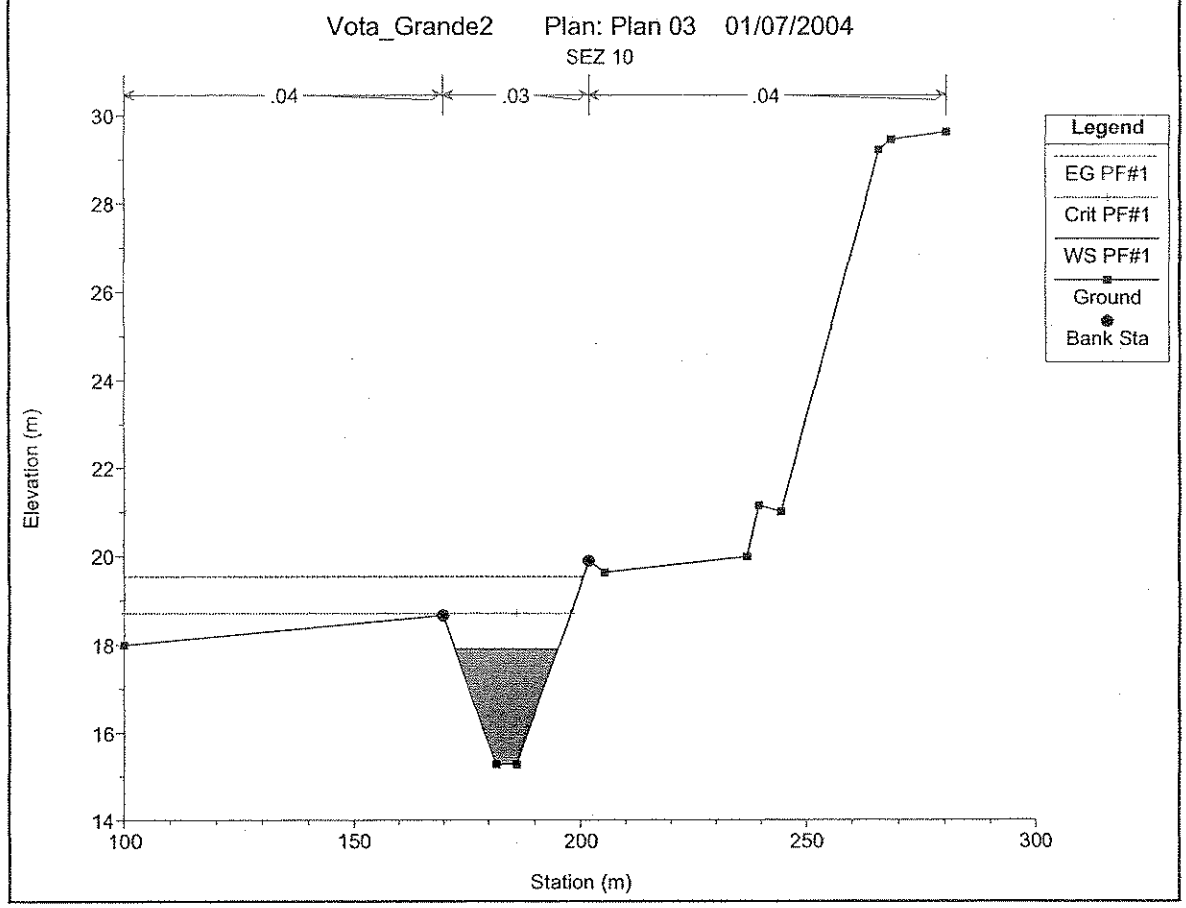

Vota_Grande2 Plan: Plan 03 01/07/2004
SEZ 5
.04
.03
.04
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Bank Sta
Elevation (m)
Station (m)
Vota_Grande2 Plan: Plan 03 01/07/2004
SEZ 6
.04
.03
.04
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (m)
Station (m)

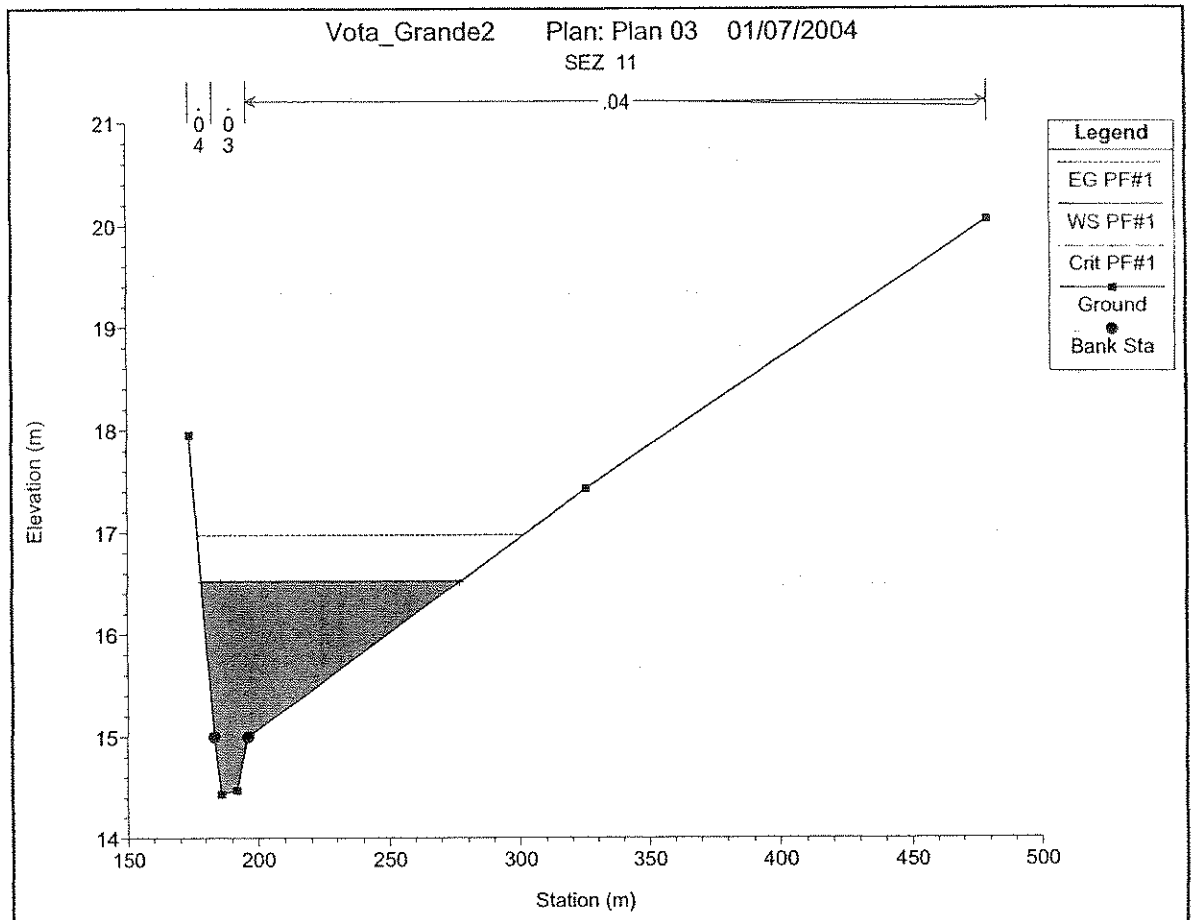

Vota_Grande2 Plan: Plan 03 01/07/2004
SEZ 7
.04
.03
.04
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (m)
Station (m)
Vota_Grande2 Plan: Plan 03 01/07/2004
SEZ 8
.04
.03
.04
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (m)
Station (m)

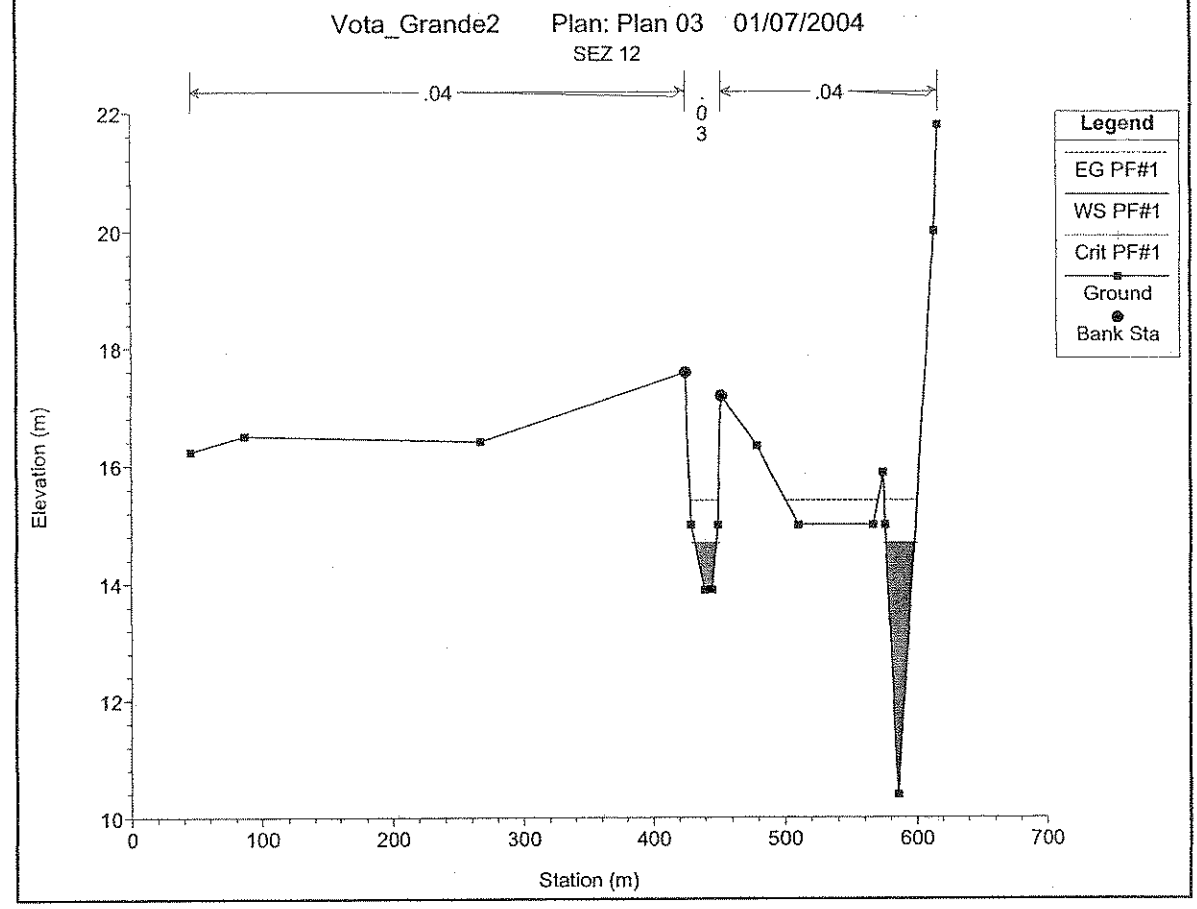

Vota_Grande2 Plan: Plan 03 01/07/2004
SEZ 9
.04
.03
.04
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Bank Sta
Elevation (m)
Station (m)
30
28
26
24
22
20
18
16
14
50
100
150
200
250
300
350
400

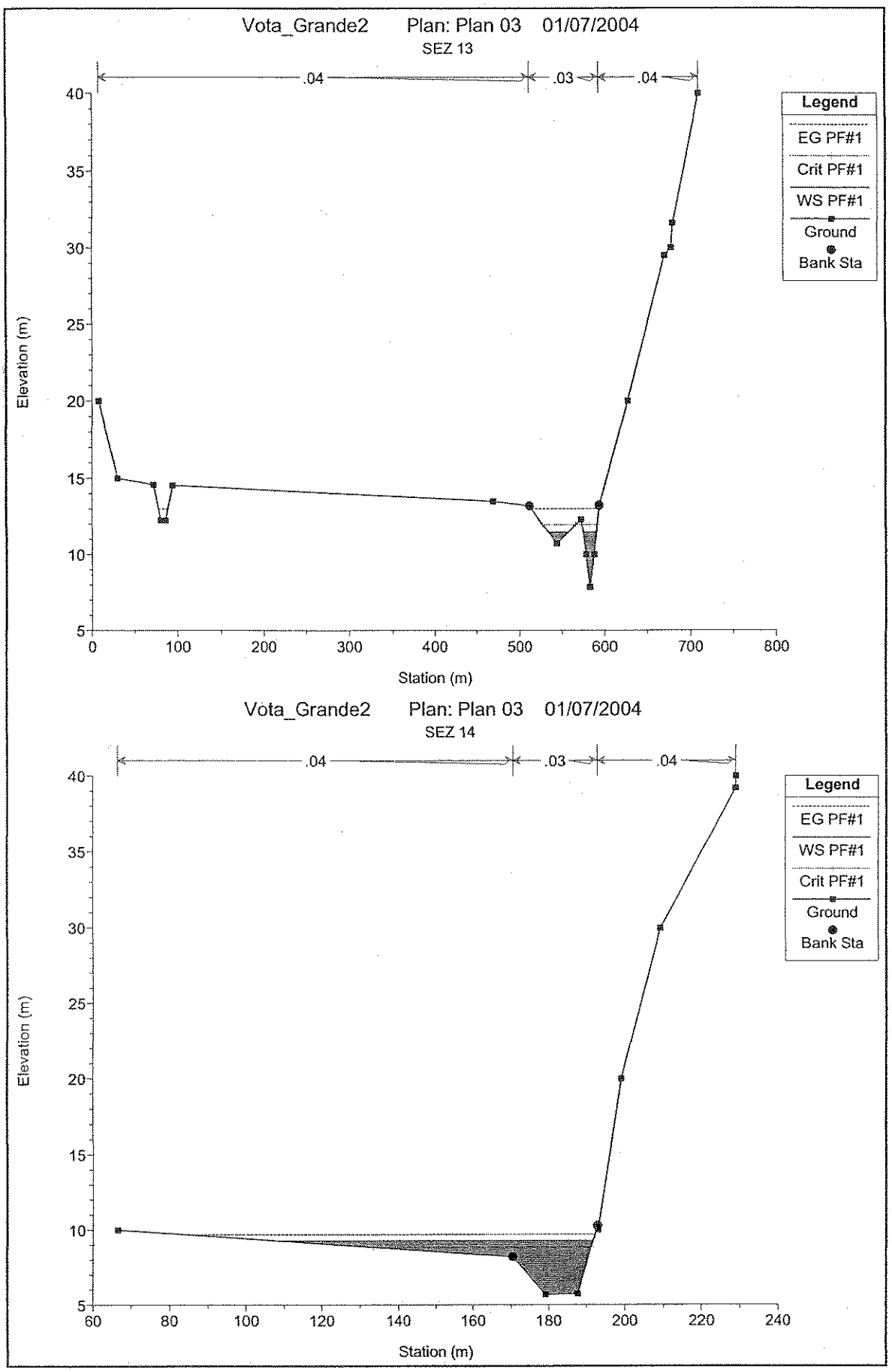

Vota_Grande2 Plan: Plan 03 01/07/2004
.04
.03
.04
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Bank Sta
Elevation (m)
Station (m)
30
28
26
24
22
20
18
16
14
50
100
150
200
250
300
350
400

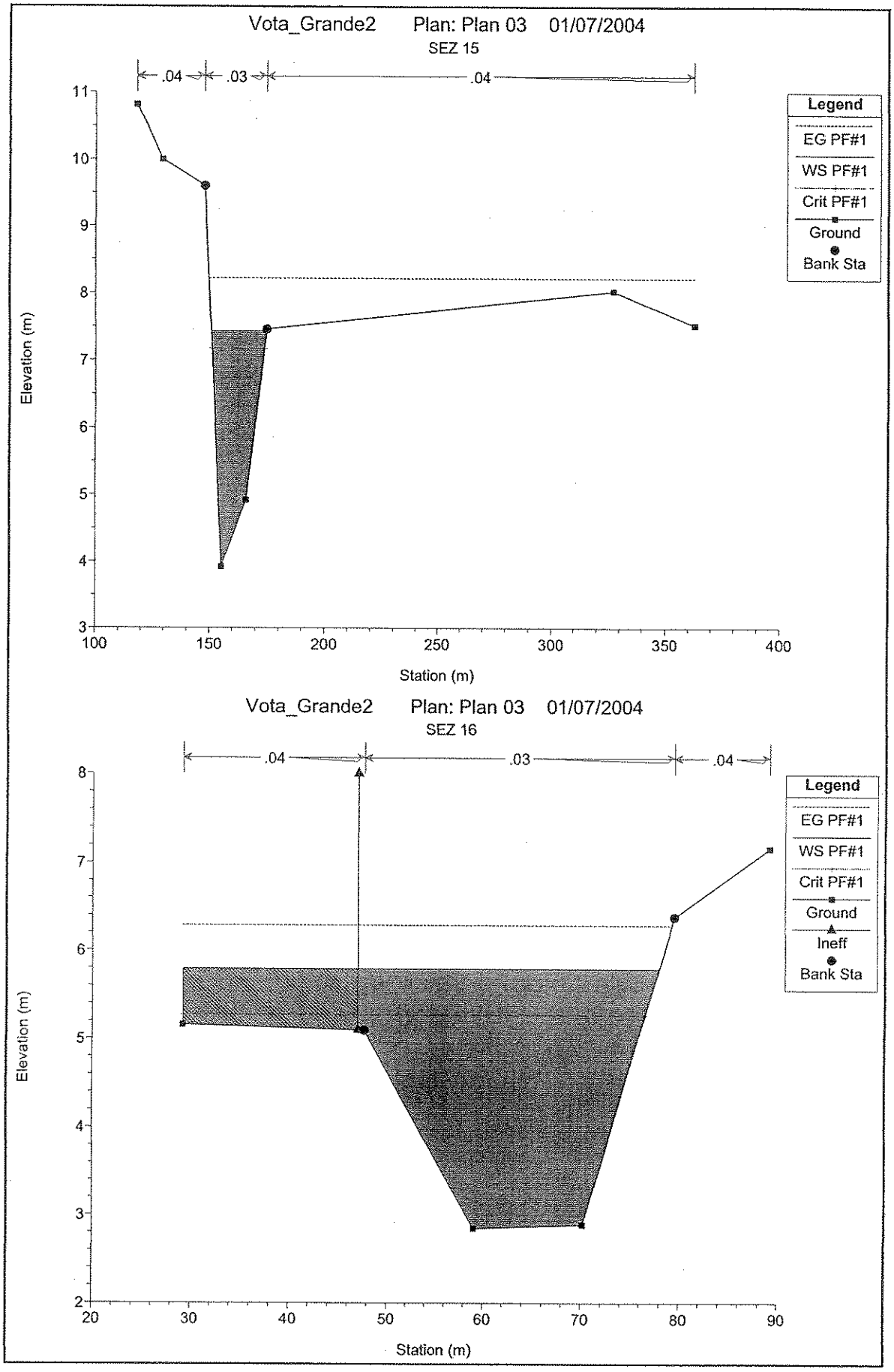

Vota_Grande2 Plan: Plan 03 01/07/2004
.04
.03
.04
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Bank Sta
Elevation (m)
Station (m)
30
28
26
24
22
20
18
16
14
100
150
200
250
300

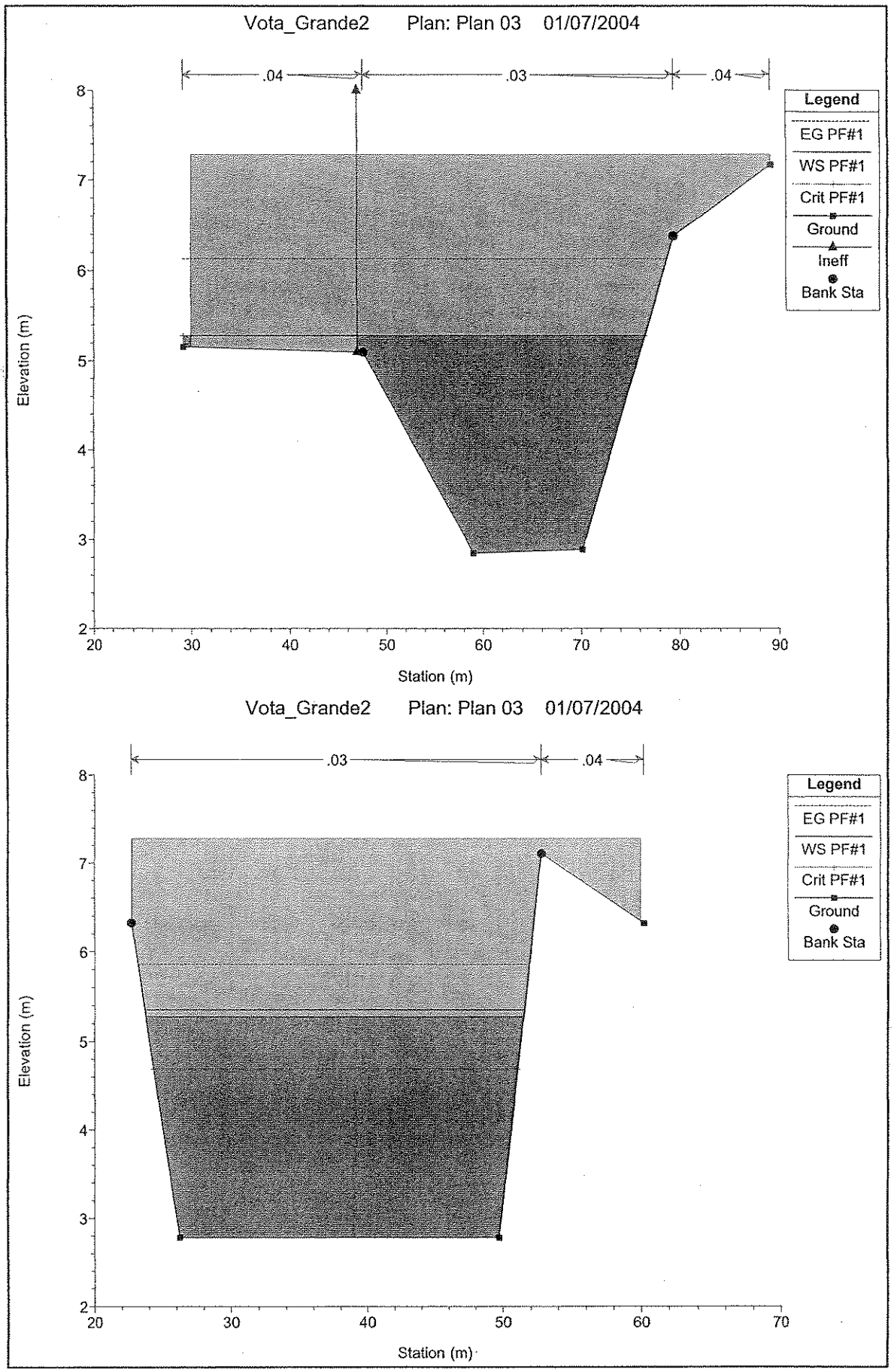

Vota_Grande2 Plan: Plan 03 01/07/2004
SEZ 10
.04
.03
.04
Legend
EG PF#1
Crit PF#1
WS PF#1
Ground
Bank Sta
Elevation (m)
Station (m)
30
28
26
24
22
20
18
16
14
100
150
200
250
300

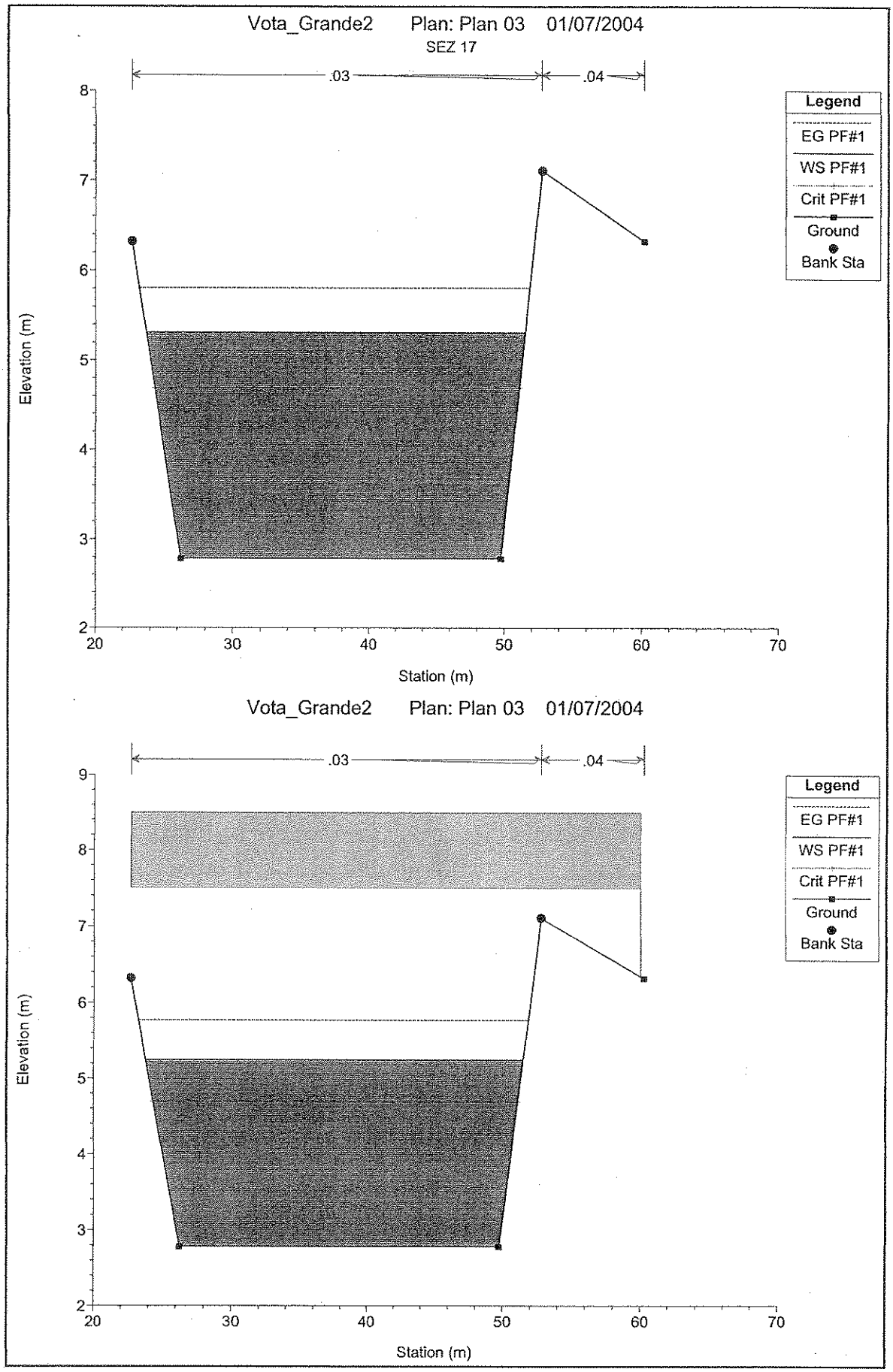

Vota_Grande2 Plan: Plan 03 01/07/2004
SEZ 11
.04
.04
.03
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Bank Sta
Elevation (m)
Station (m)
21
20
19
18
17
16
15
14
150
200
250
300
350
400
450
500

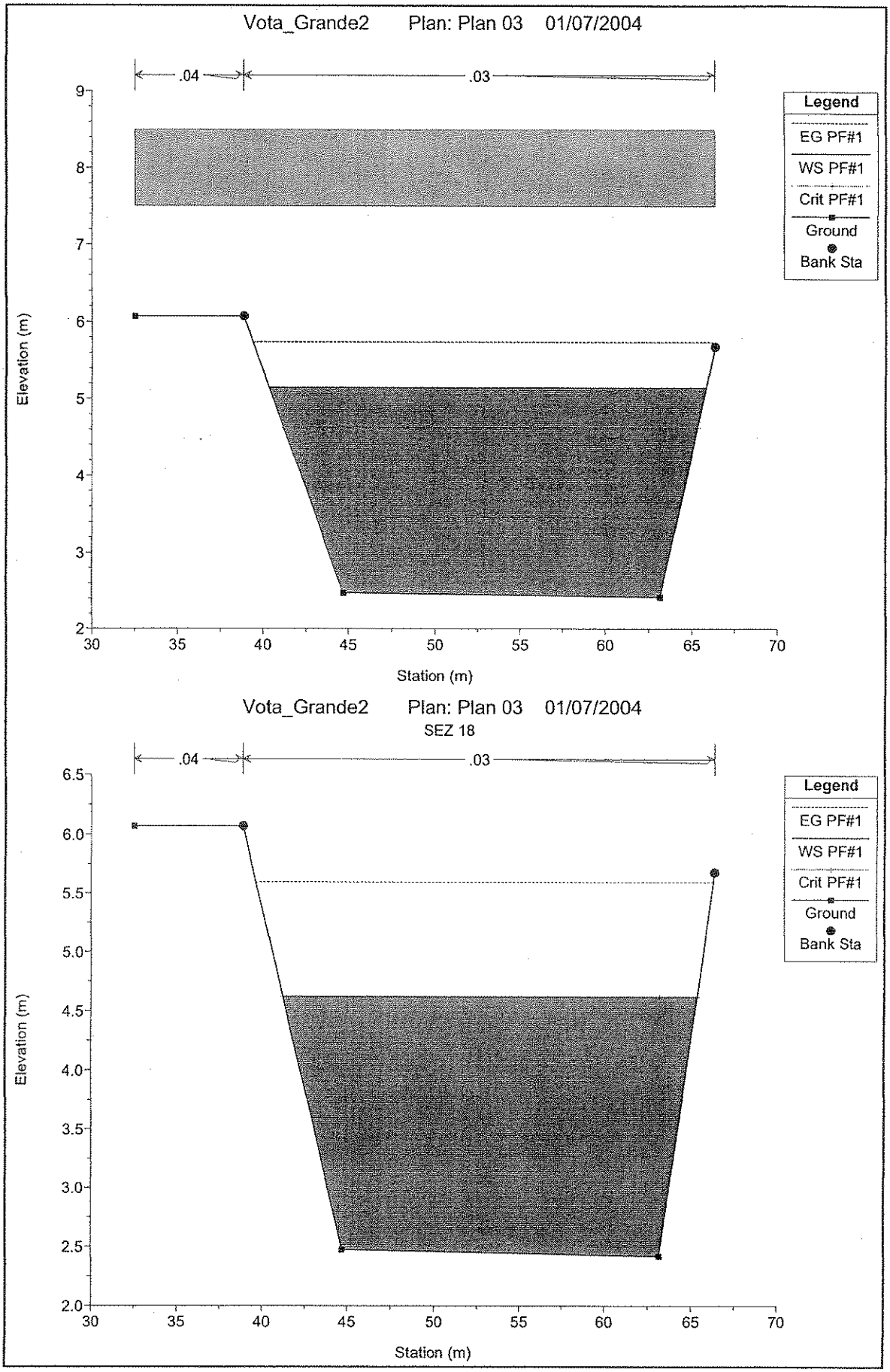

Vota_Grande2 Plan: Plan 03 01/07/2004
SEZ 12
.04
.03
.04
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Bank Sta
Elevation (m)
Station (m)
22
20
18
16
14
12
10
0
100
200
300
400
500
600
700

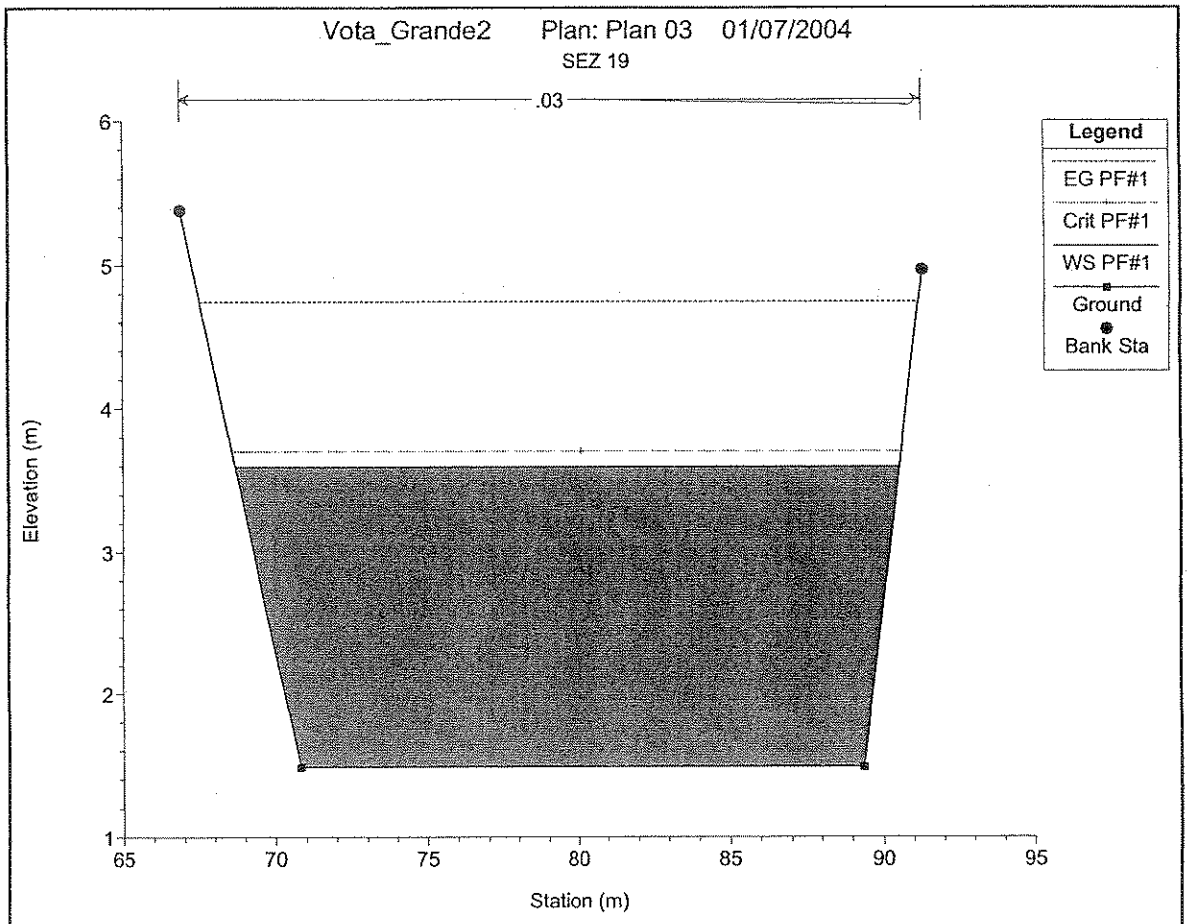

Vota_Grande2 Plan: Plan 03 01/07/2004
SEZ 13
.04
.03
.04
Legend
EG PF#1
Crit PF#1
WS PF#1
Ground
Bank Sta
Elevation (m)
Station (m)
Vota_Grande2 Plan: Plan 03 01/07/2004
SEZ 14
.04
.03
.04
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Bank Sta
Elevation (m)
Station (m)

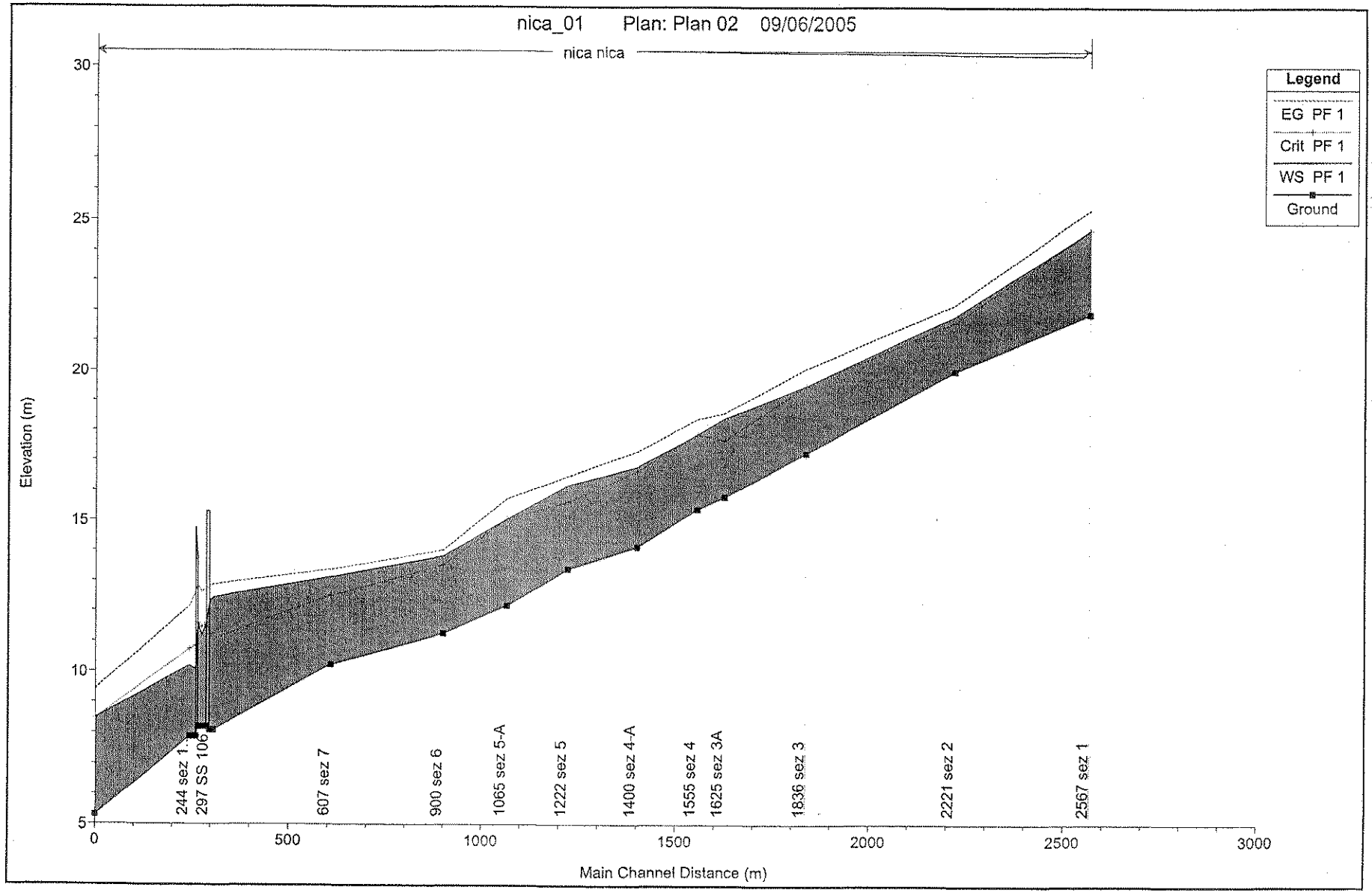

Vota_Grande2 Plan: Plan 03 01/07/2004
SEZ 15
.04
.03
.04
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Bank Sta
Elevation (m)
Station (m)
Vota_Grande2 Plan: Plan 03 01/07/2004
SEZ 16
.04
.03
.04
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (m)
Station (m)


Vota_Grande2 Plan: Plan 03 01/07/2004
.04
.03
.04
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Ineff
Bank Sta
Elevation (m)
Station (m)
Vota_Grande2 Plan: Plan 03 01/07/2004
.03
.04
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Bank Sta
Elevation (m)
Station (m)


Vota_Grande2 Plan: Plan 03 01/07/2004
SEZ 17
.03
.04
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Bank Sta
Elevation (m)
Station (m)
Vota_Grande2 Plan: Plan 03 01/07/2004
.03
.04
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Bank Sta
Elevation (m)
Station (m)

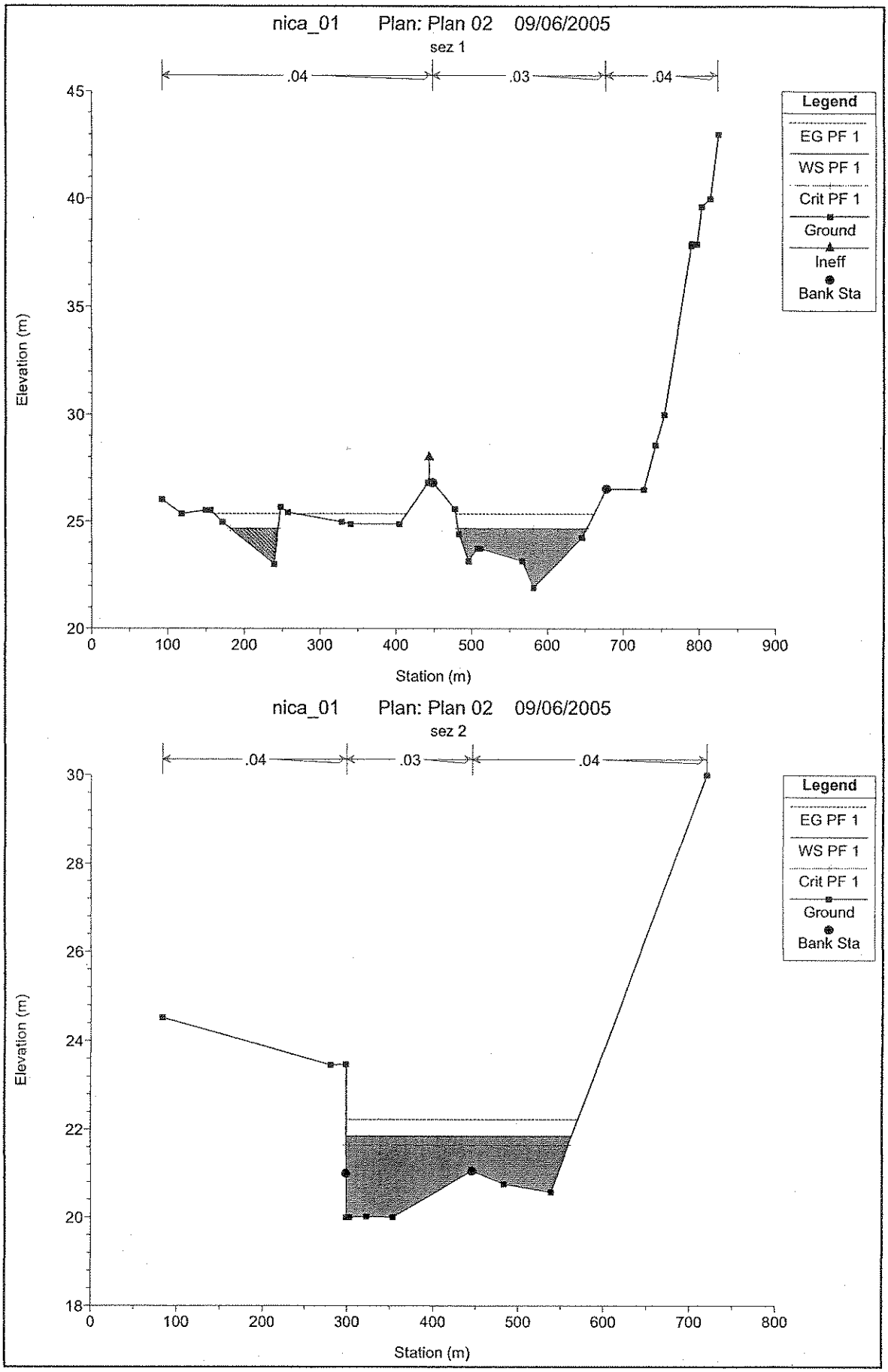

Vota_Grande2 Plan: Plan 03 01/07/2004
.04
.03
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Bank Sta
Elevation (m)
Station (m)
Vota_Grande2 Plan: Plan 03 01/07/2004
SEZ 18
.04
.03
Legend
EG PF#1
WS PF#1
Crit PF#1
Ground
Bank Sta
Elevation (m)
Station (m)

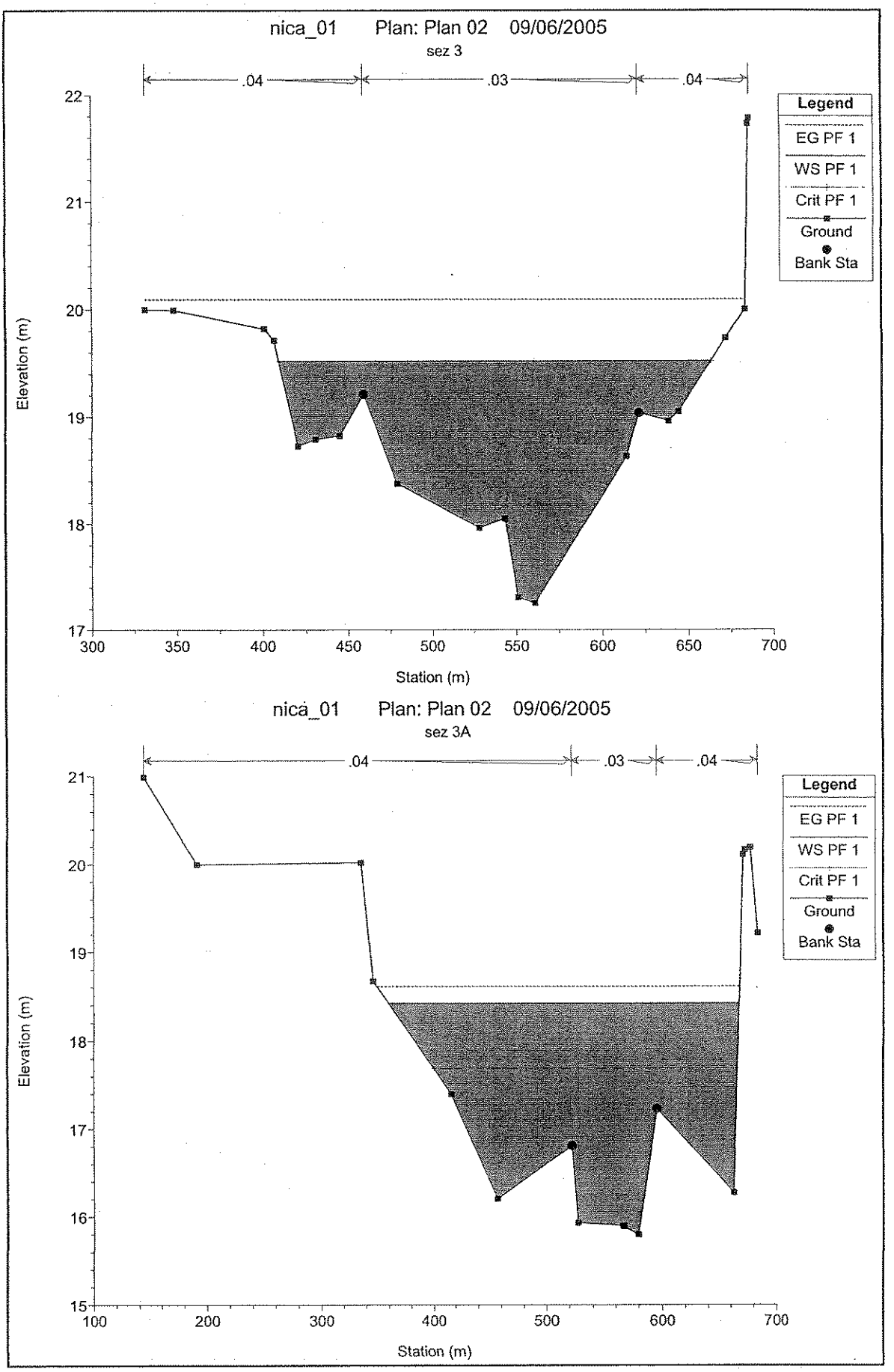

Vota_Grande2 Plan: Plan 03 01/07/2004
SEZ 19
.03
Legend
EG PF#1
Crit PF#1
WS PF#1
Ground
Bank Sta
Elevation (m)
Station (m)
1
2
3
4
5
6
65
70
75
80
85
90
95

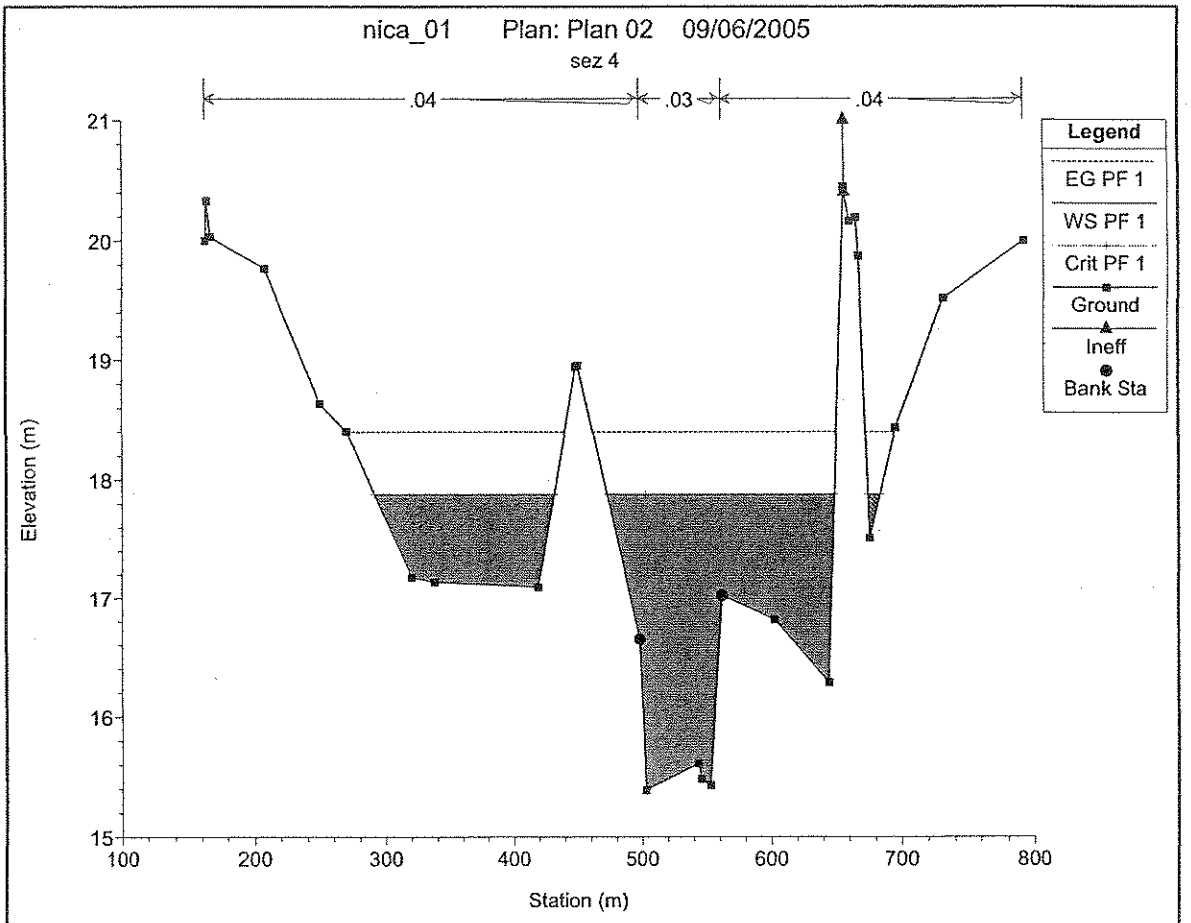

nica_01 Plan: Plan 02 09/06/2005
nica nica
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Elevation (m)
30
25
20
15
10
5
0
500
1000
1500
2000
2500
3000
Main Channel Distance (m)
244 sez 1
297 SS 106
607 sez 7
900 sez 6
1065 sez 5-A
1222 sez 5
1400 sez 4-A
1555 sez 4
1625 sez 3A
1836 sez 3
2221 sez 2
2567 sez 1

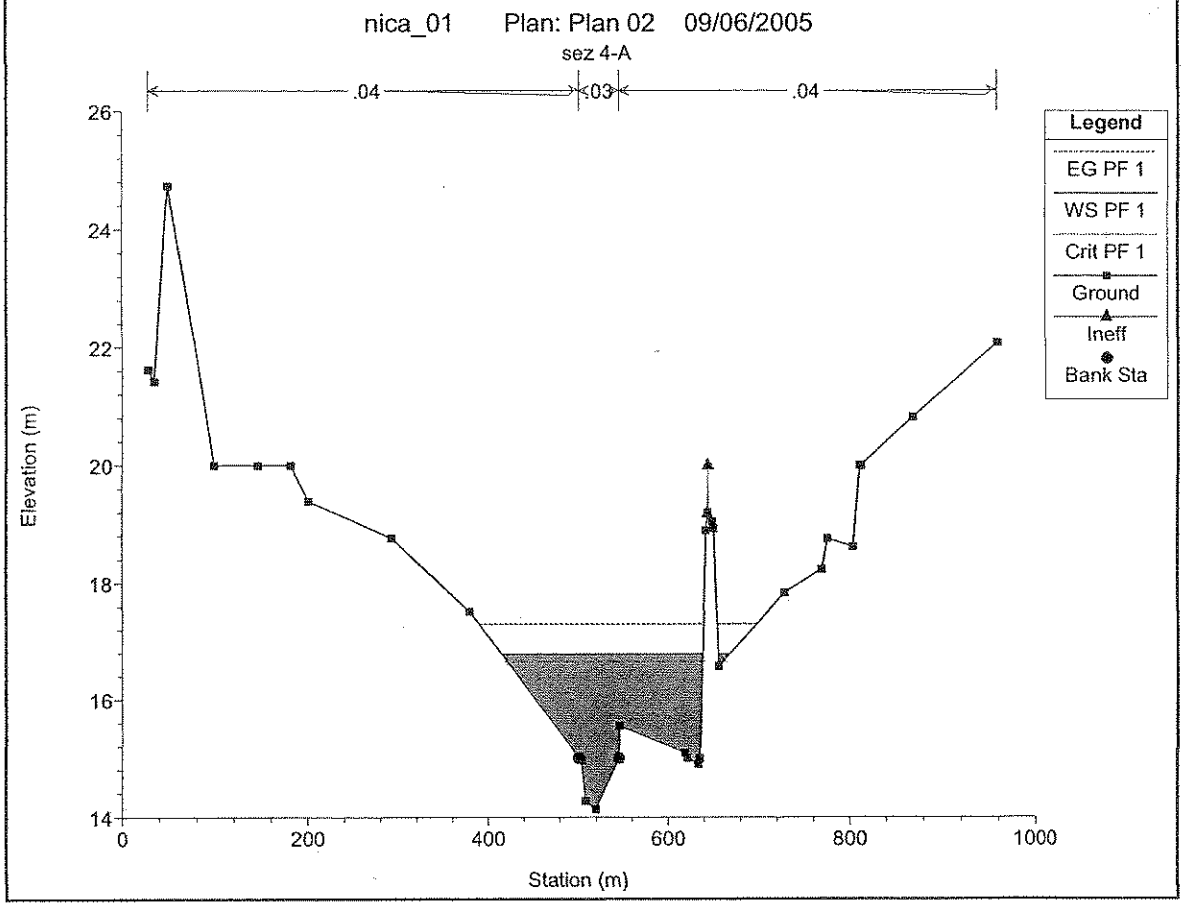
HEC-RAS Plan: Plan 02 River: nica Reach: nica Profile: PF 1

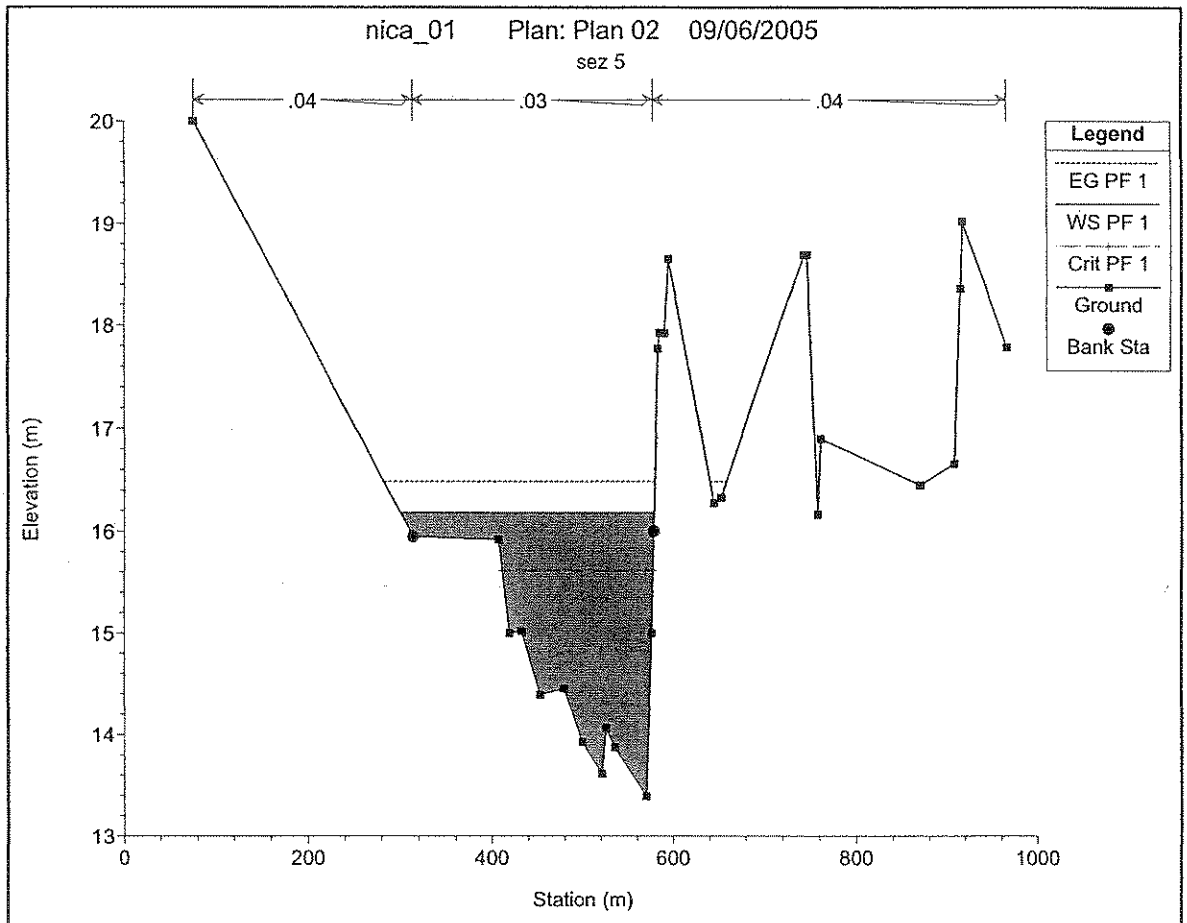
Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
nica	2567	PF 1	855.00	21.91	24.67	24.67	25.36	0.007960	3.67	233.08	232.62	1.00
nica	2221	PF 1	855.00	20.00	21.85	21.64	22.22	0.004527	2.95	340.47	264.66	0.76
nica	1836	PF 1	855.00	17.25	19.52	19.52	20.09	0.006783	3.46	275.74	254.17	0.93
nica	1625	PF 1	855.00	15.80	18.42	17.69	18.61	0.001659	2.40	510.64	307.96	0.50
nica	1555	PF 1	855.00	15.39	17.88	17.88	18.40	0.004520	3.82	346.39	325.79	0.82
nica	1400	PF 1	855.00	14.13	16.78	16.65	17.30	0.004930	4.05	317.87	236.11	0.86
nica	1222	PF 1	855.00	13.39	16.18	15.62	16.48	0.003672	2.43	352.85	279.67	0.67
nica	1065	PF 1	855.00	12.17	15.05	15.05	15.73	0.005868	3.96	262.81	455.47	0.91
nica	900	PF 1	855.00	11.25	13.82	13.53	14.02	0.002513	2.13	492.62	488.52	0.57
nica	607	PF 1	855.00	10.23	13.12	12.50	13.38	0.001911	2.44	418.17	230.10	0.53
nica	306	PF 1	855.00	8.07	12.44	11.05	12.87	0.001380	2.96	304.25	215.35	0.49
nica	297		Bridge									
nica	276	PF 1	855.00	8.19	11.18	11.44	12.62	0.008273	5.41	168.85	129.63	1.11
nica	267		Bridge									
nica	244	PF 1	855.00	7.87	10.20	10.74	12.14	0.016409	6.16	138.74	79.92	1.49
nica	0	PF 1	855.00	5.30	8.47	8.48	9.43	0.006611	4.35	203.20	116.88	0.97

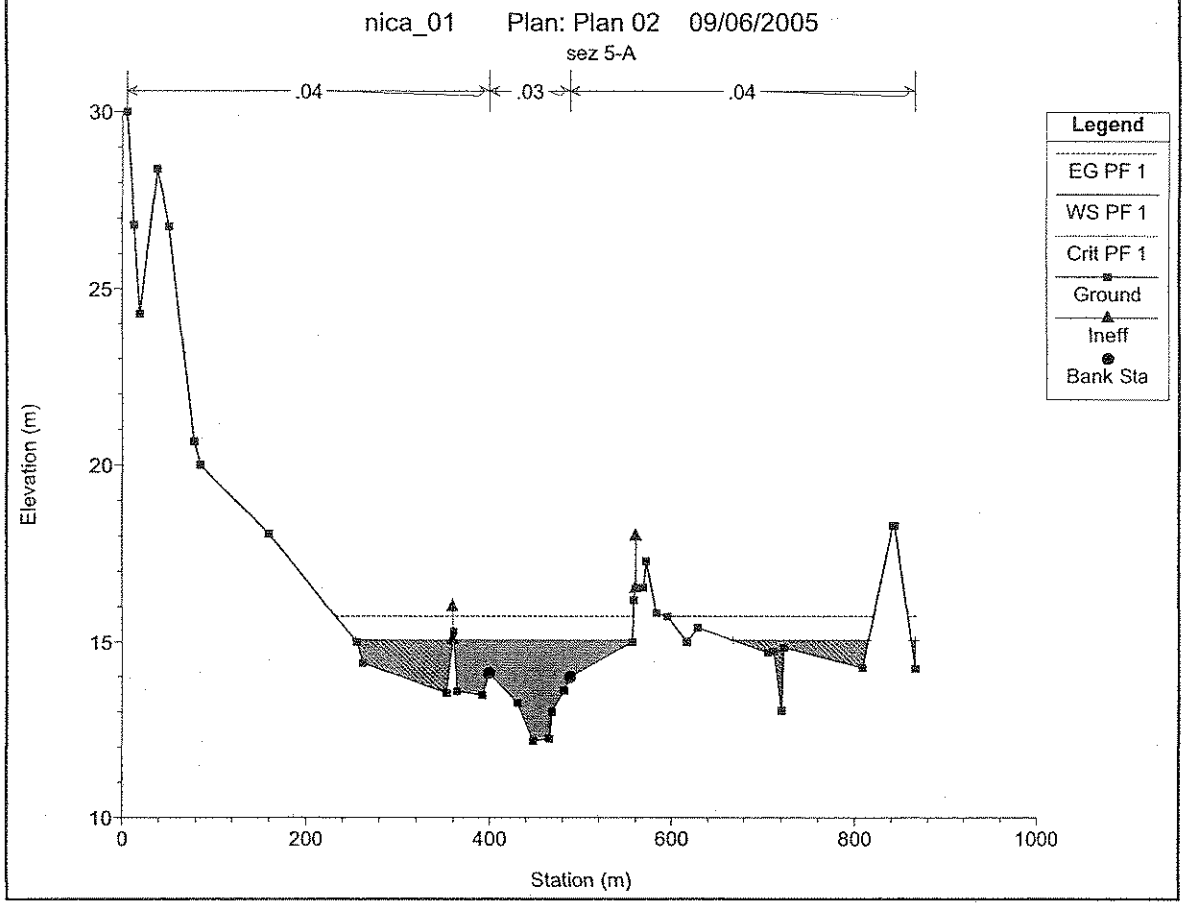

nica_01 Plan: Plan 02 09/06/2005
sez 1
.04
.03
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Ineff
Bank Sta
Elevation (m)
Station (m)
nica_01 Plan: Plan 02 09/06/2005
sez 2
.04
.03
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)

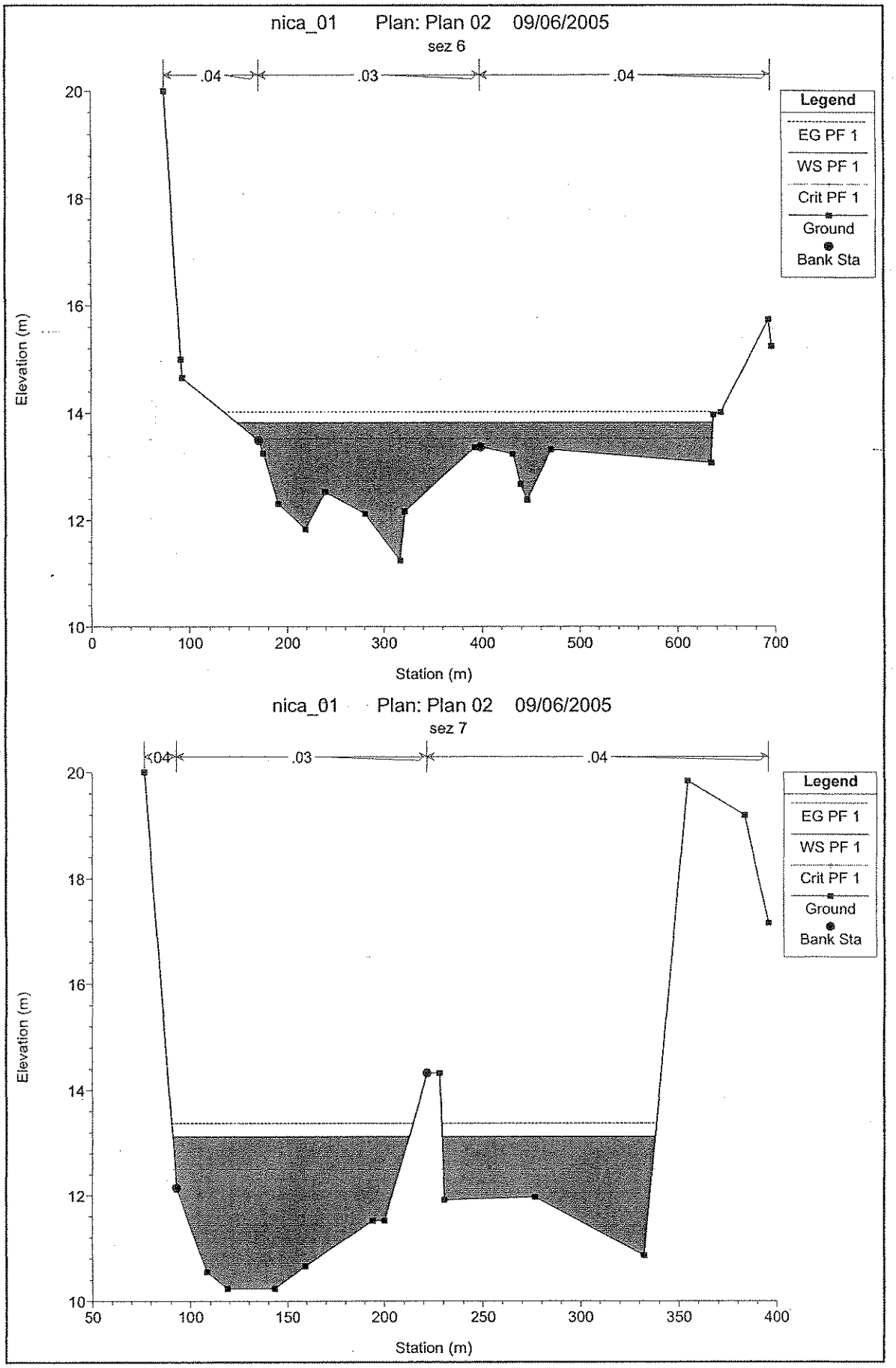

nica_01 Plan: Plan 02 09/06/2005
sez 3
.04
.03
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
22
21
20
19
18
17
300
350
400
450
500
550
600
650
700
nica_01 Plan: Plan 02 09/06/2005
sez 3A
.04
.03
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
21
20
19
18
17
16
15
100
200
300
400
500
600
700

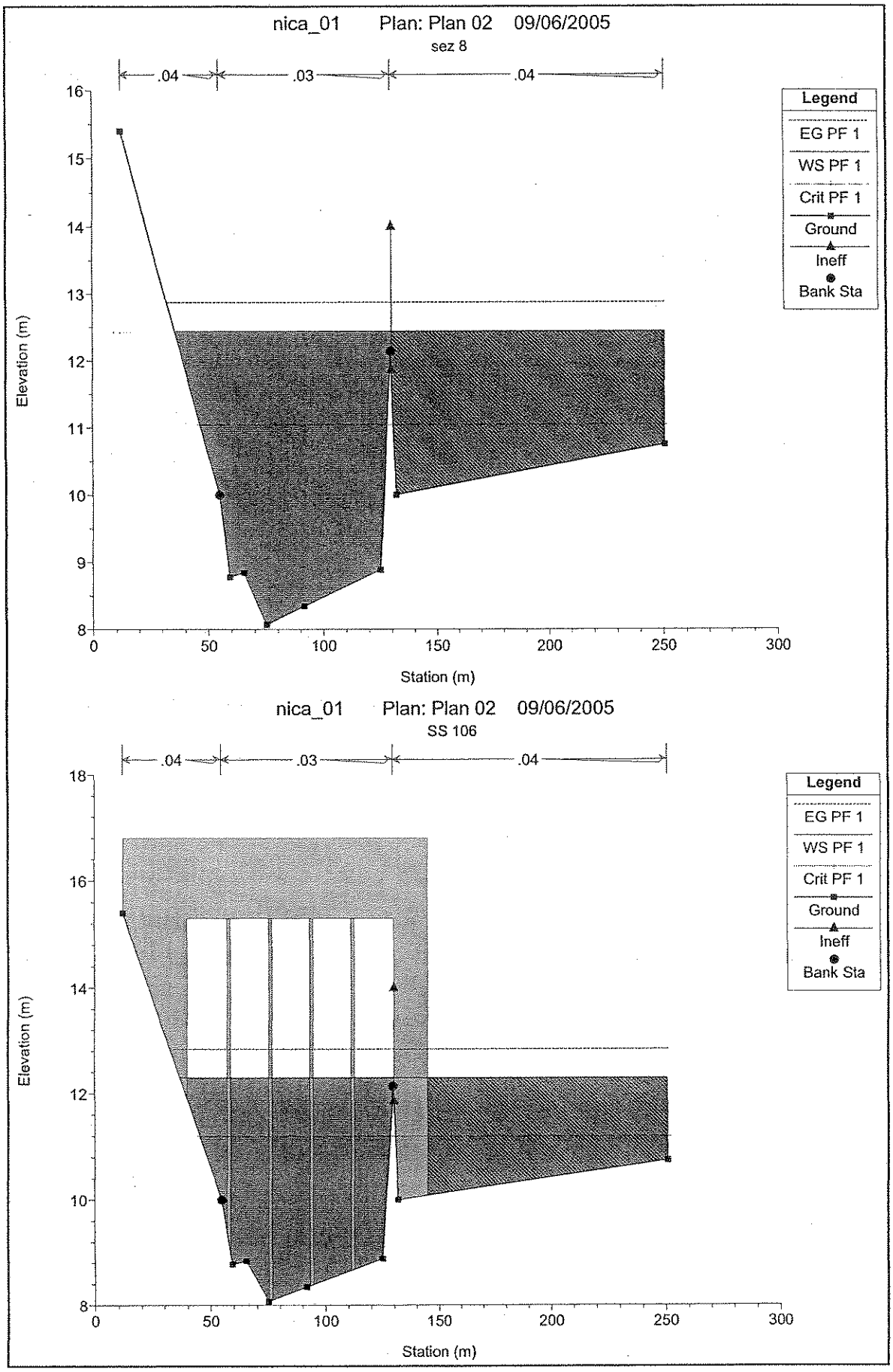

nica_01 Plan: Plan 02 09/06/2005
sez 4
.04
.03
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Ineff
Bank Sta
Elevation (m)
Station (m)
21
20
19
18
17
16
15
100
200
300
400
500
600
700
800

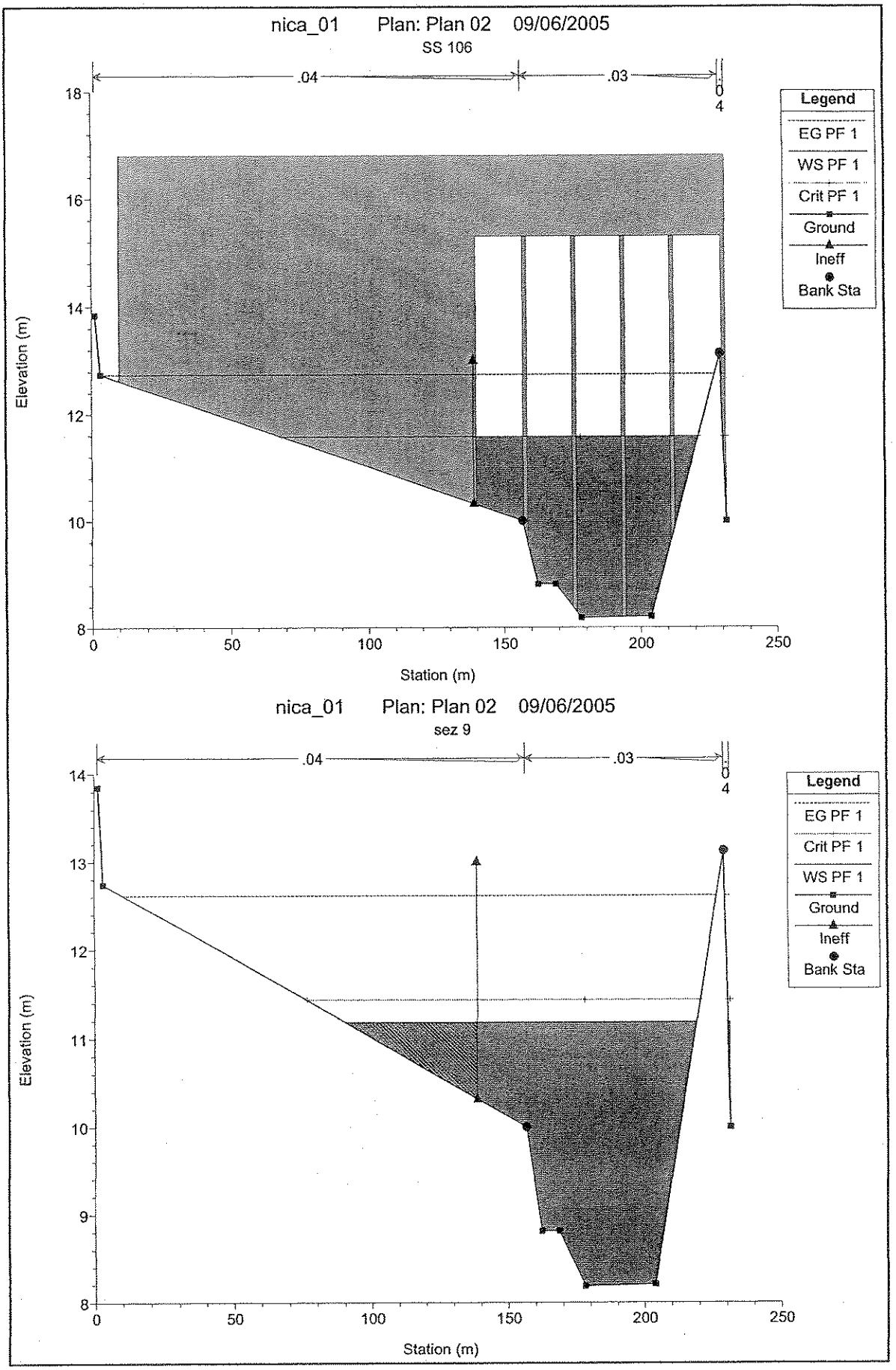

nica_01 Plan: Plan 02 09/06/2005
sez 4-A
.04
.03
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Ineff
Bank Sta
Elevation (m)
Station (m)
26
24
22
20
18
16
14
0
200
400
600
800
1000

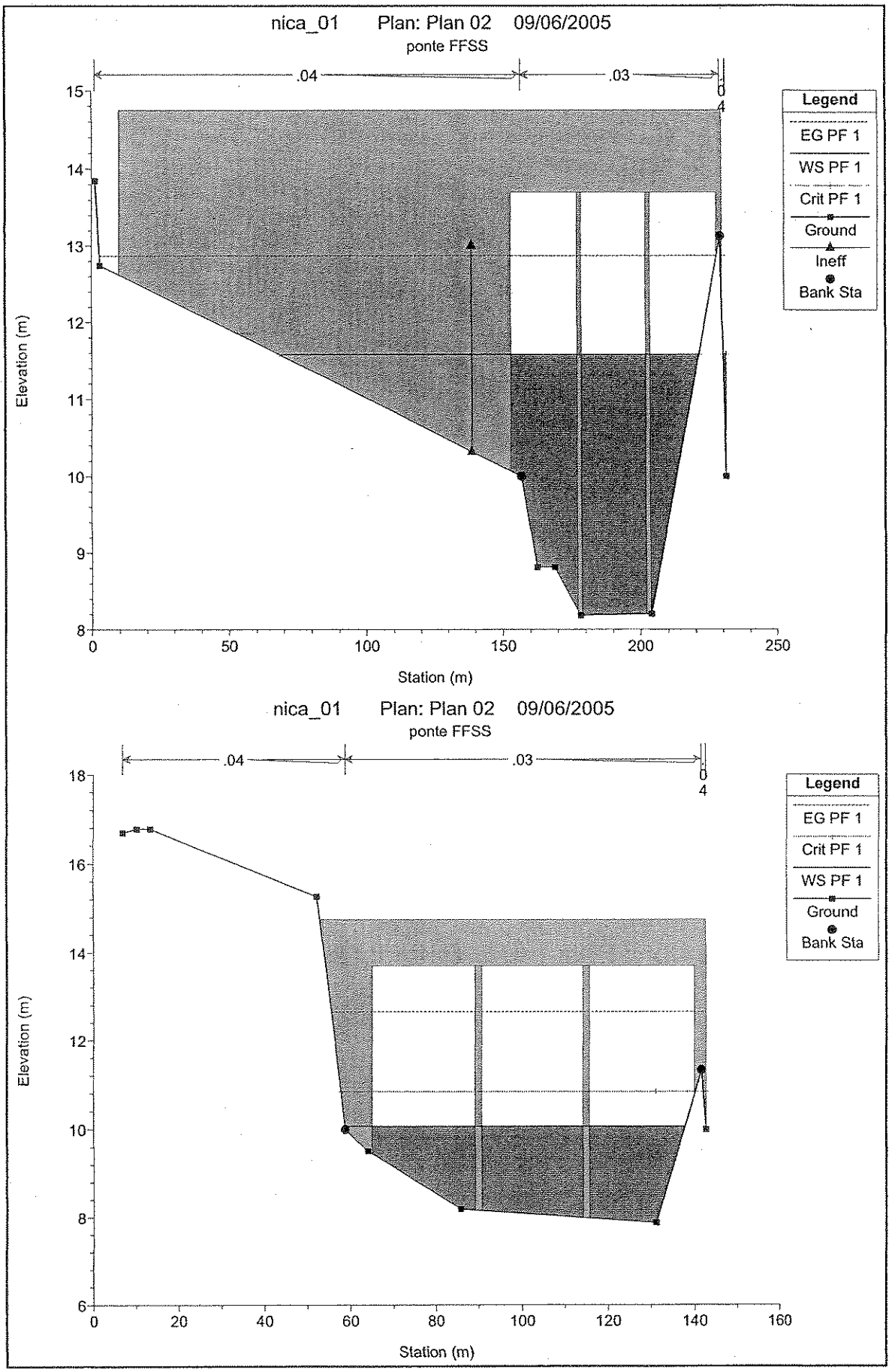

nica_01 Plan: Plan 02 09/06/2005
sez 5
.04
.03
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
20
19
18
17
16
15
14
13
0
200
400
600
800
1000

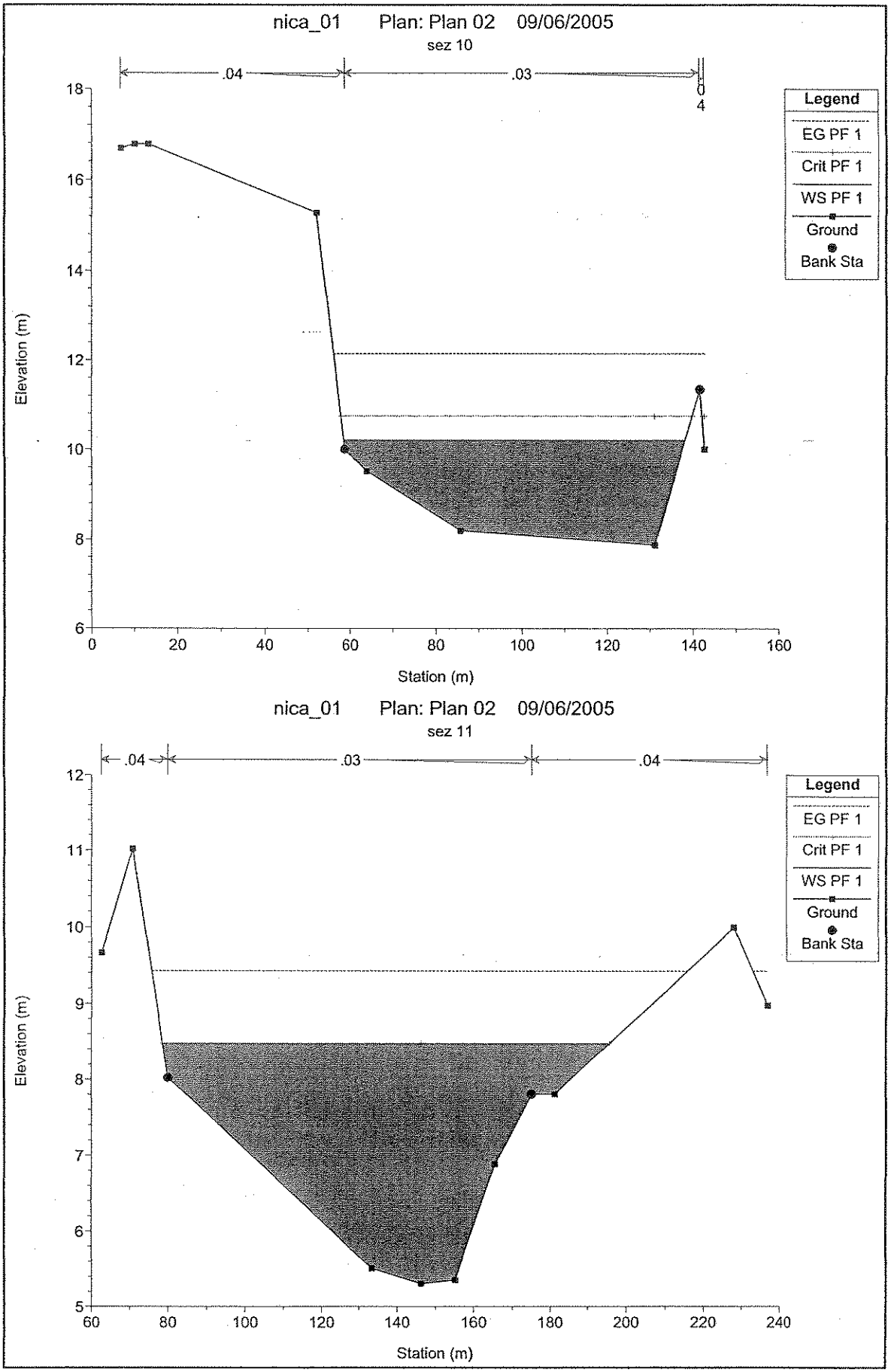

nica_01 Plan: Plan 02 09/06/2005
sez 5-A
.04
.03
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Ineff
Bank Sta
Elevation (m)
Station (m)
30
25
20
15
10
0
200
400
600
800
1000

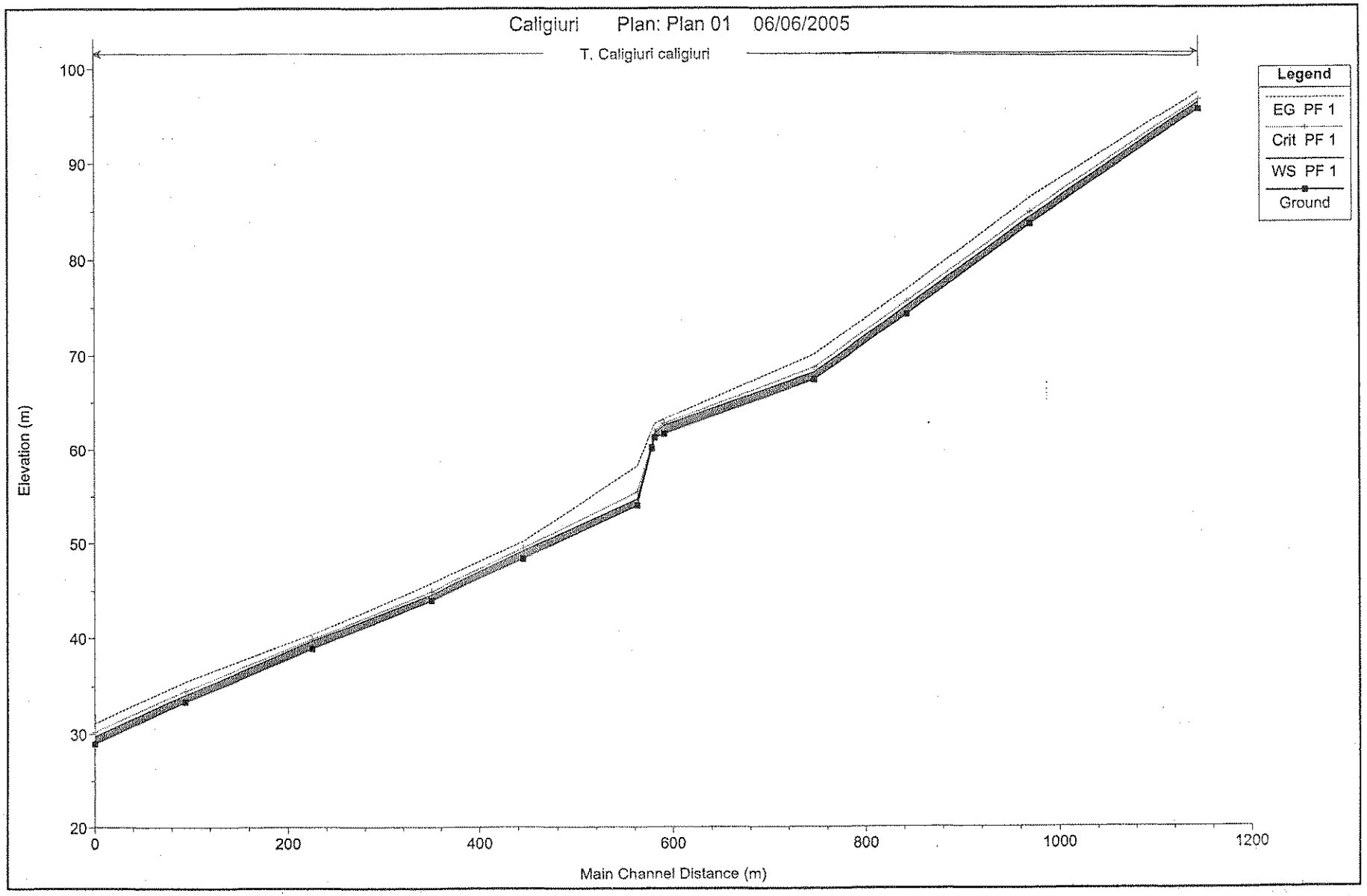

nica_01 Plan: Plan 02 09/06/2005
sez 6
.04
.03
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
nica_01 Plan: Plan 02 09/06/2005
sez 7
.04
.03
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)


nica_01 Plan: Plan 02 09/06/2005
sez 8
.04
.03
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Ineff
Bank Sta
Elevation (m)
Station (m)
nica_01 Plan: Plan 02 09/06/2005
SS 106
.04
.03
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Ineff
Bank Sta
Elevation (m)
Station (m)


nica_01 Plan: Plan 02 09/06/2005
SS 106
.04
.03
0
4
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Ineff
Bank Sta
Elevation (m)
18
16
14
12
10
8
0
50
100
150
200
250
Station (m)
nica_01 Plan: Plan 02 09/06/2005
sez 9
.04
.03
0
4
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Ineff
Bank Sta
Elevation (m)
14
13
12
11
10
9
8
0
50
100
150
200
250
Station (m)

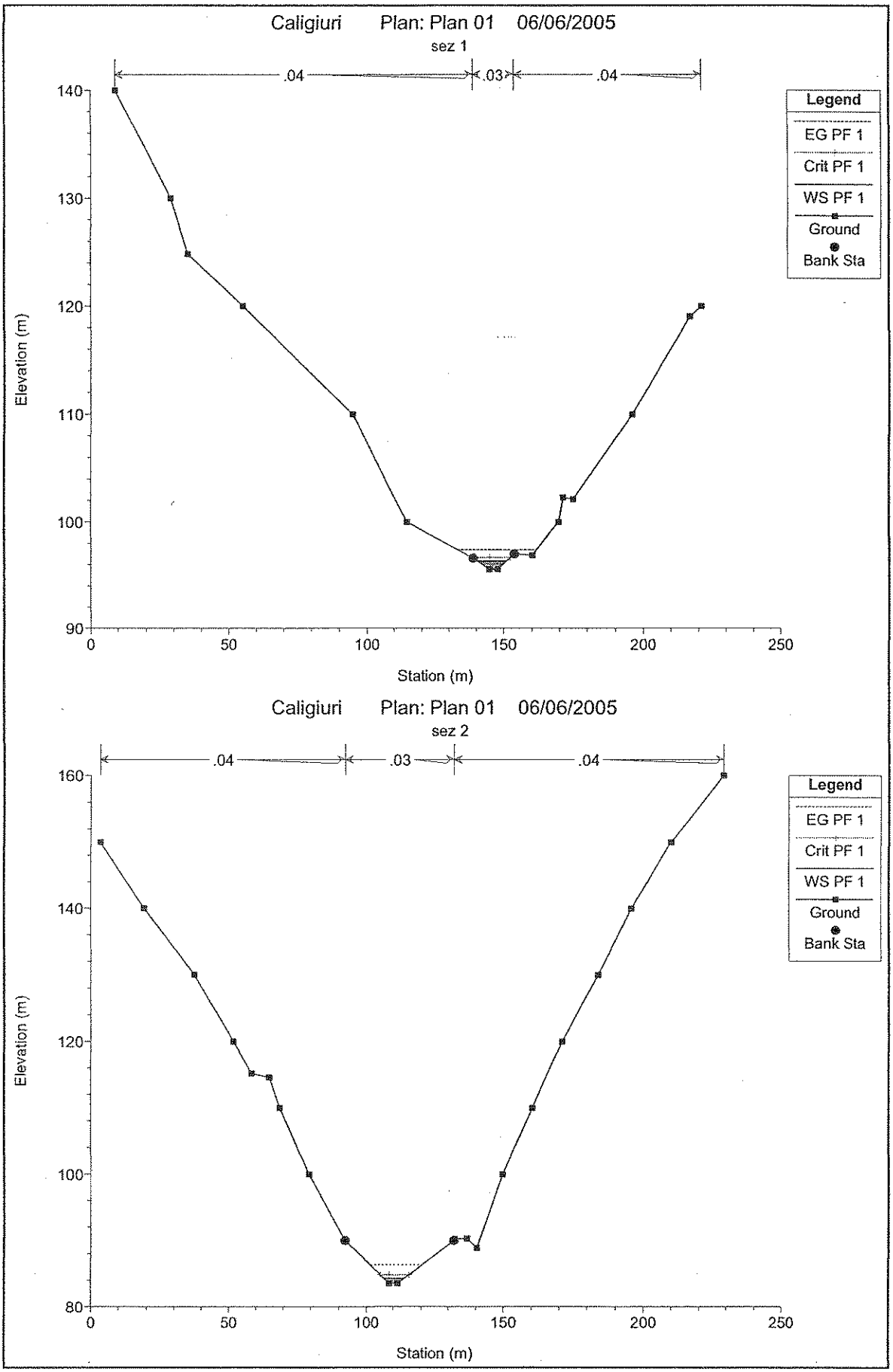

nica_01 Plan: Plan 02 09/06/2005
ponte FFSS
.04
.03
0.4
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Ineff
Bank Sta
Elevation (m)
Station (m)
15
14
13
12
11
10
9
8
0
50
100
150
200
250
nica_01 Plan: Plan 02 09/06/2005
ponte FFSS
.04
.03
0.4
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
18
16
14
12
10
8
6
0
20
40
60
80
100
120
140
160

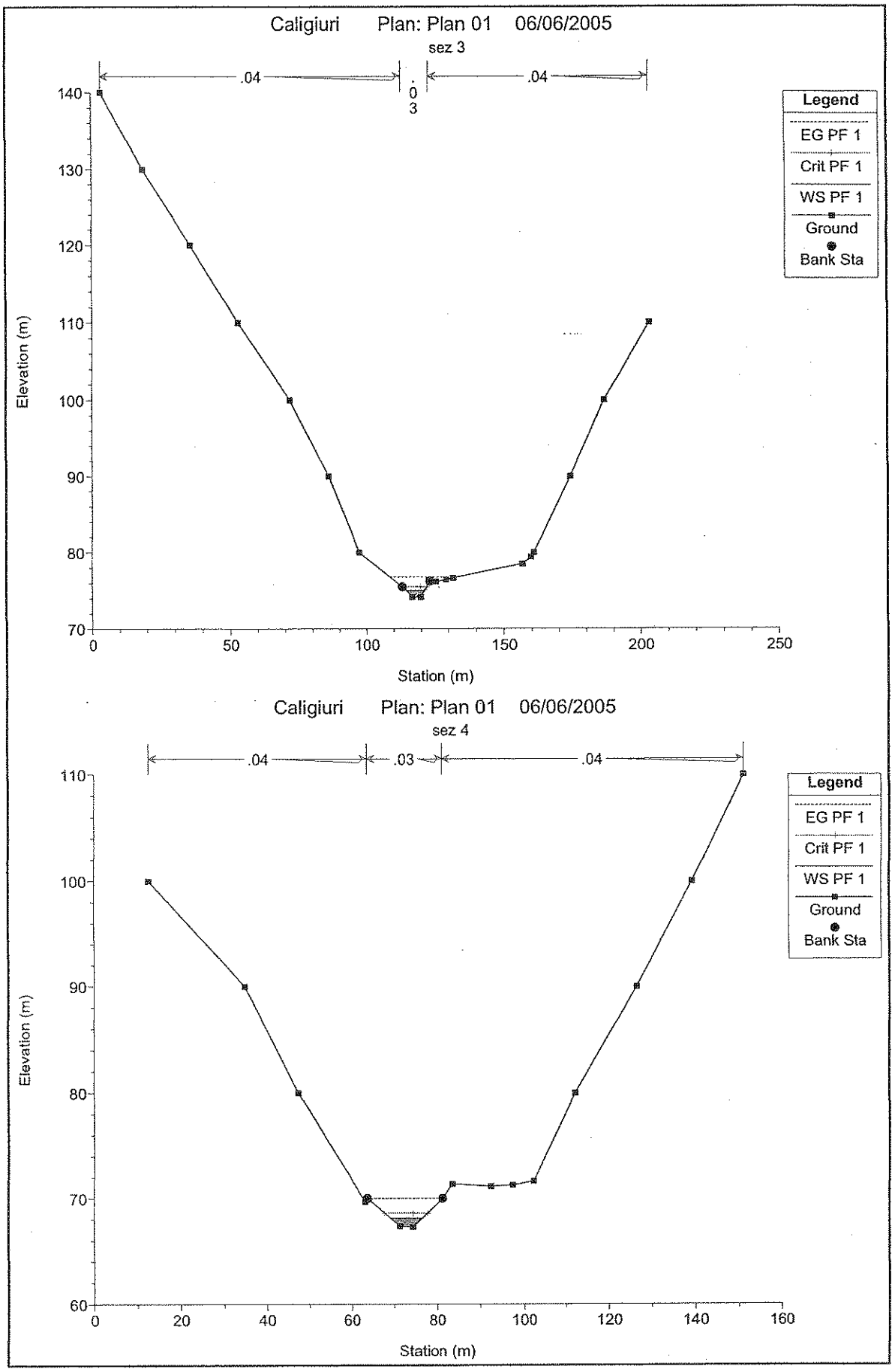

nica_01 Plan: Plan 02 09/06/2005
sez 10
.04
.03
0
4
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
nica_01 Plan: Plan 02 09/06/2005
sez 11
.04
.03
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)

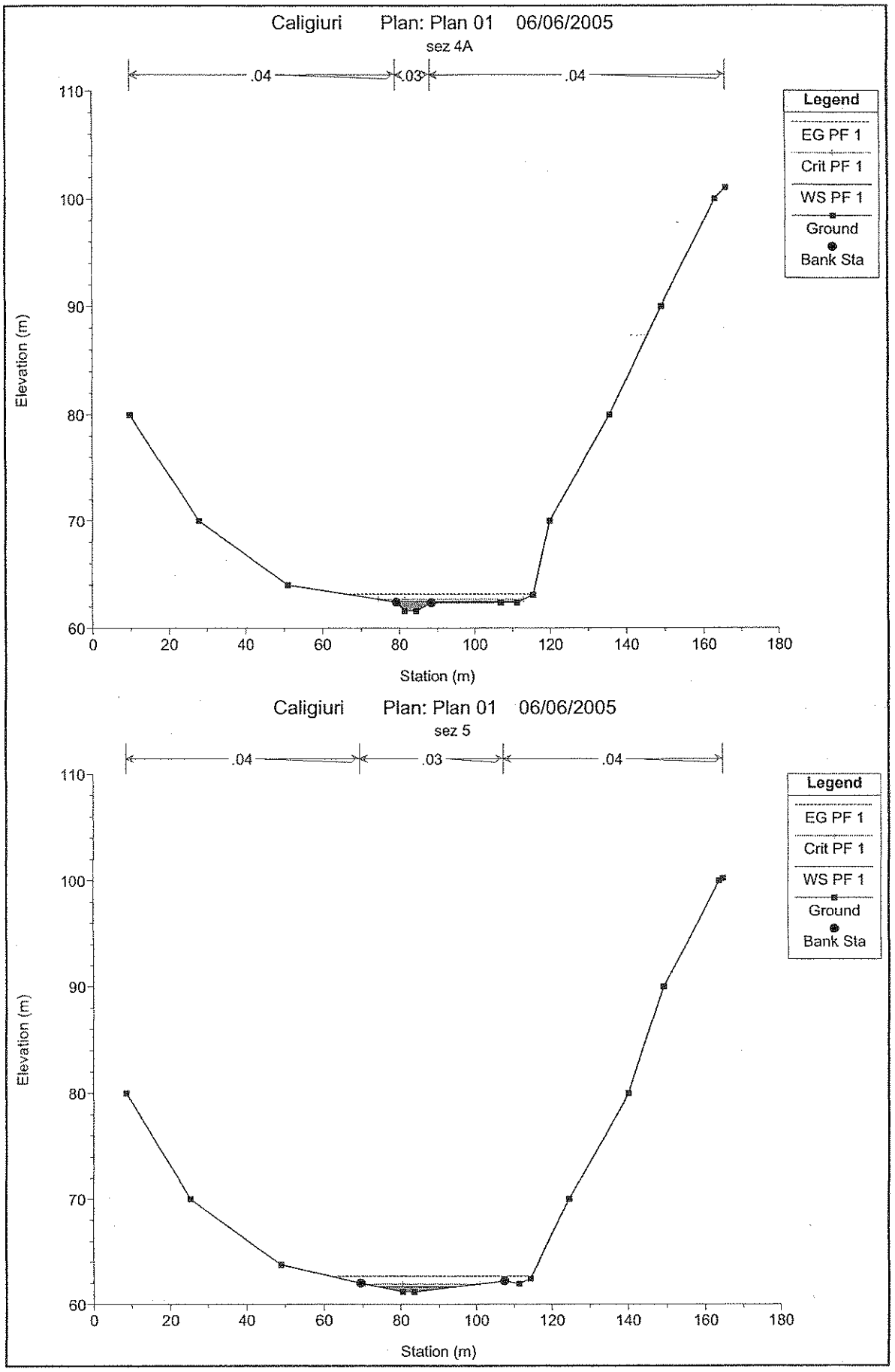

Caligiuri Plan: Plan 01 06/06/2005
T. Caligiuri caligiuri
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Elevation (m)
100
90
80
70
60
50
40
30
20
0
200
400
600
800
1000
1200
Main Channel Distance (m)

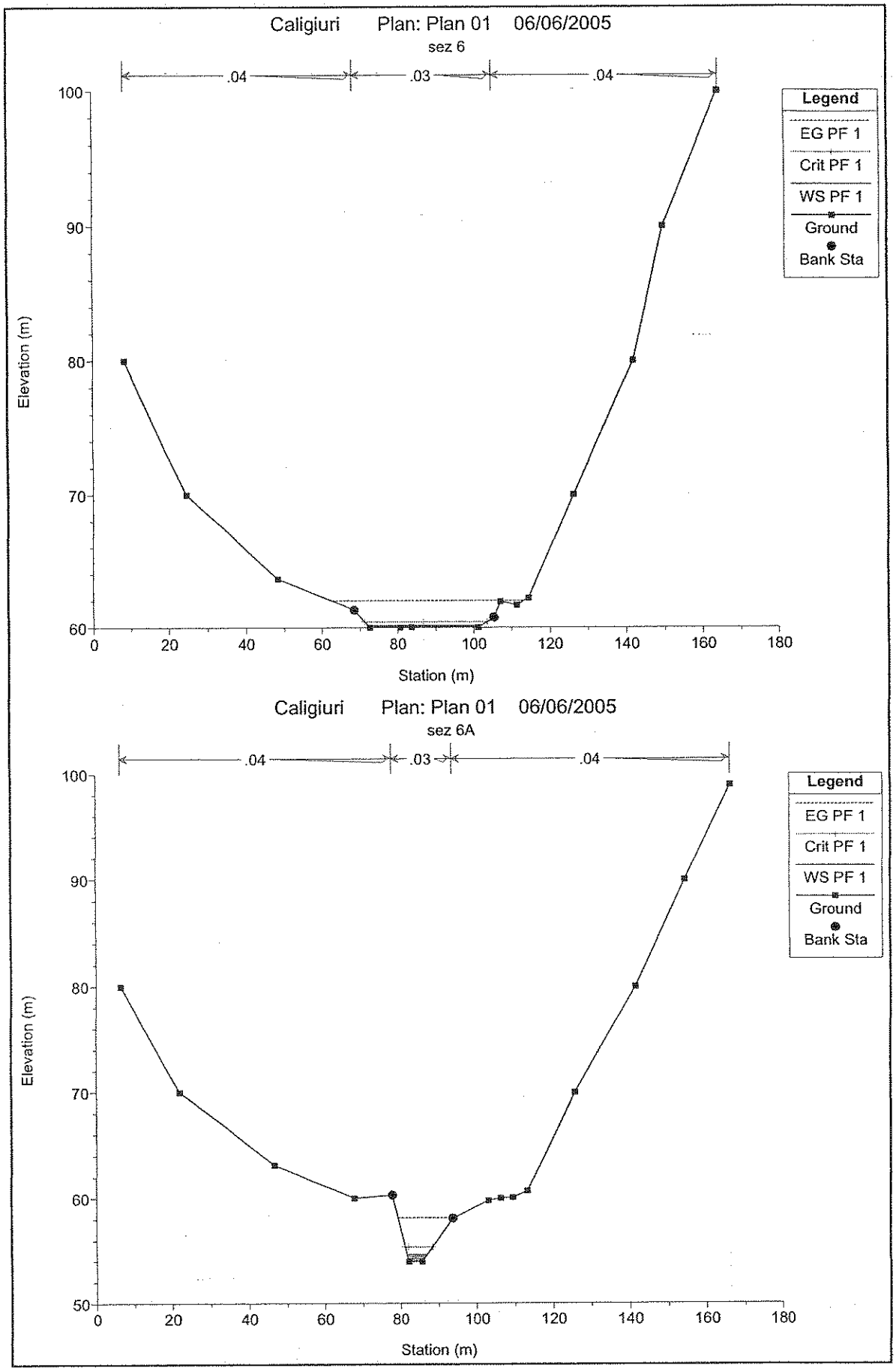
HEC-RAS Plan: Plan 01 River: T. Caligiuri Reach: caligiuri Profile: PF 1

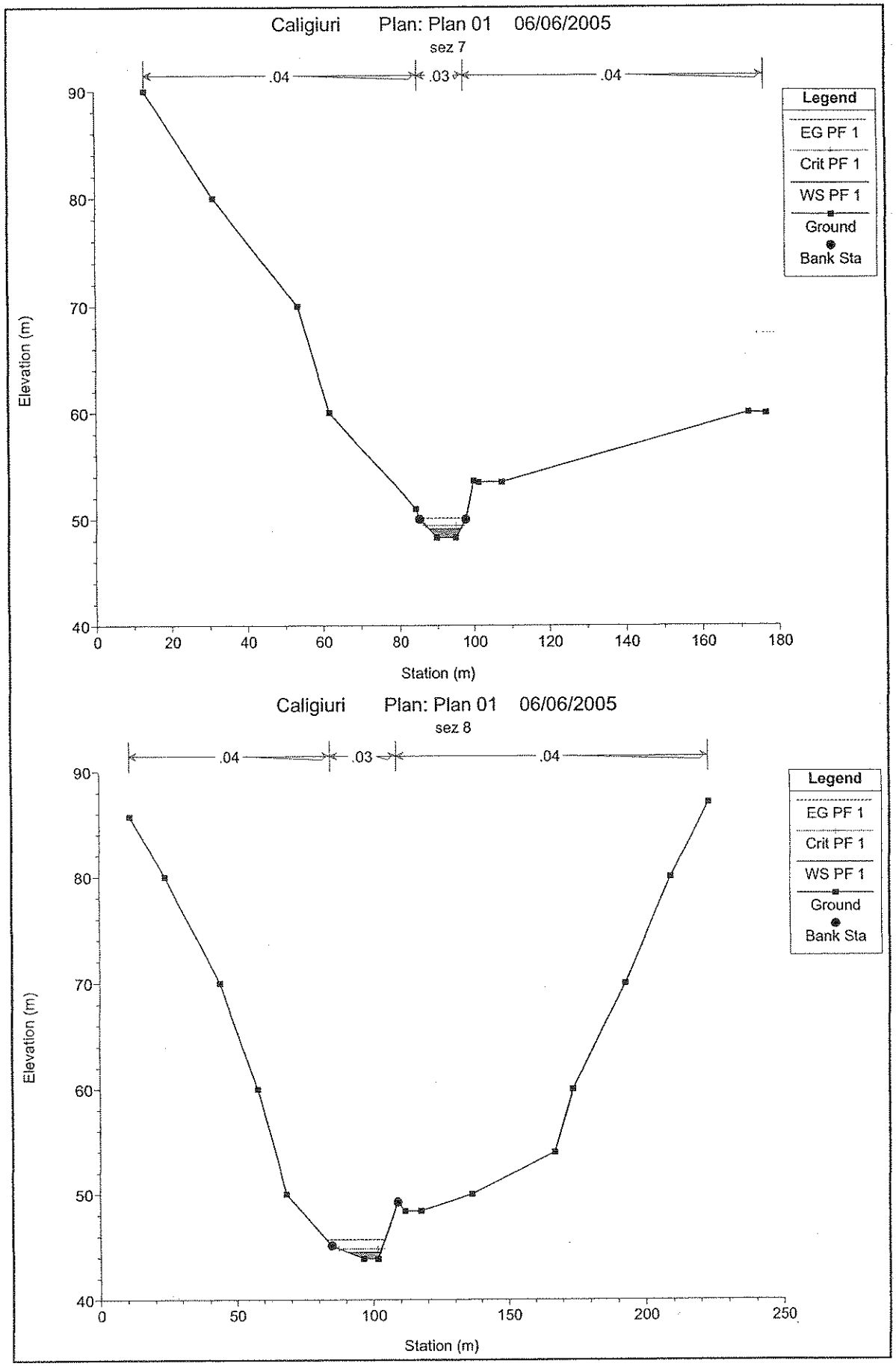
Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
caligiuri	1145	PF 1	24.50	95.55	96.34	96.67	97.39	0.047702	4.55	5.39	10.76	2.05
caligiuri	970	PF 1	24.50	83.51	84.28	84.81	86.30	0.086495	6.30	3.89	7.30	2.75
caligiuri	843	PF 1	24.50	74.18	75.03	75.53	76.80	0.064408	5.89	4.16	6.75	2.40
caligiuri	747	PF 1	24.50	67.32	68.12	68.63	70.01	0.077778	6.09	4.03	7.32	2.62
caligiuri	591	PF 1	24.50	61.58	62.47	62.68	63.16	0.025835	3.85	8.34	33.70	1.56
caligiuri	581	PF 1	24.50	61.17	61.64	61.91	62.66	0.103811	4.47	5.48	20.34	2.75
caligiuri	578	PF 1	24.50	60.00	60.15	60.42	62.00	0.470978	6.03	4.06	29.94	5.23
caligiuri	563	PF 1	24.50	53.96	54.64	55.38	58.14	0.151226	8.29	2.96	5.26	3.53
caligiuri	445	PF 1	24.50	48.28	49.10	49.42	50.10	0.033377	4.44	5.52	8.48	1.76
caligiuri	350	PF 1	24.50	43.90	44.51	44.86	45.72	0.067061	4.88	5.02	11.60	2.37
caligiuri	225	PF 1	24.50	38.83	39.64	39.86	40.36	0.028396	3.76	6.52	11.49	1.59
caligiuri	94	PF 1	24.50	33.30	34.07	34.51	35.50	0.048829	5.31	4.62	7.03	2.09
caligiuri	0	PF 1	24.50	28.93	29.72	30.18	31.07	0.045013	5.16	4.74	7.01	2.00

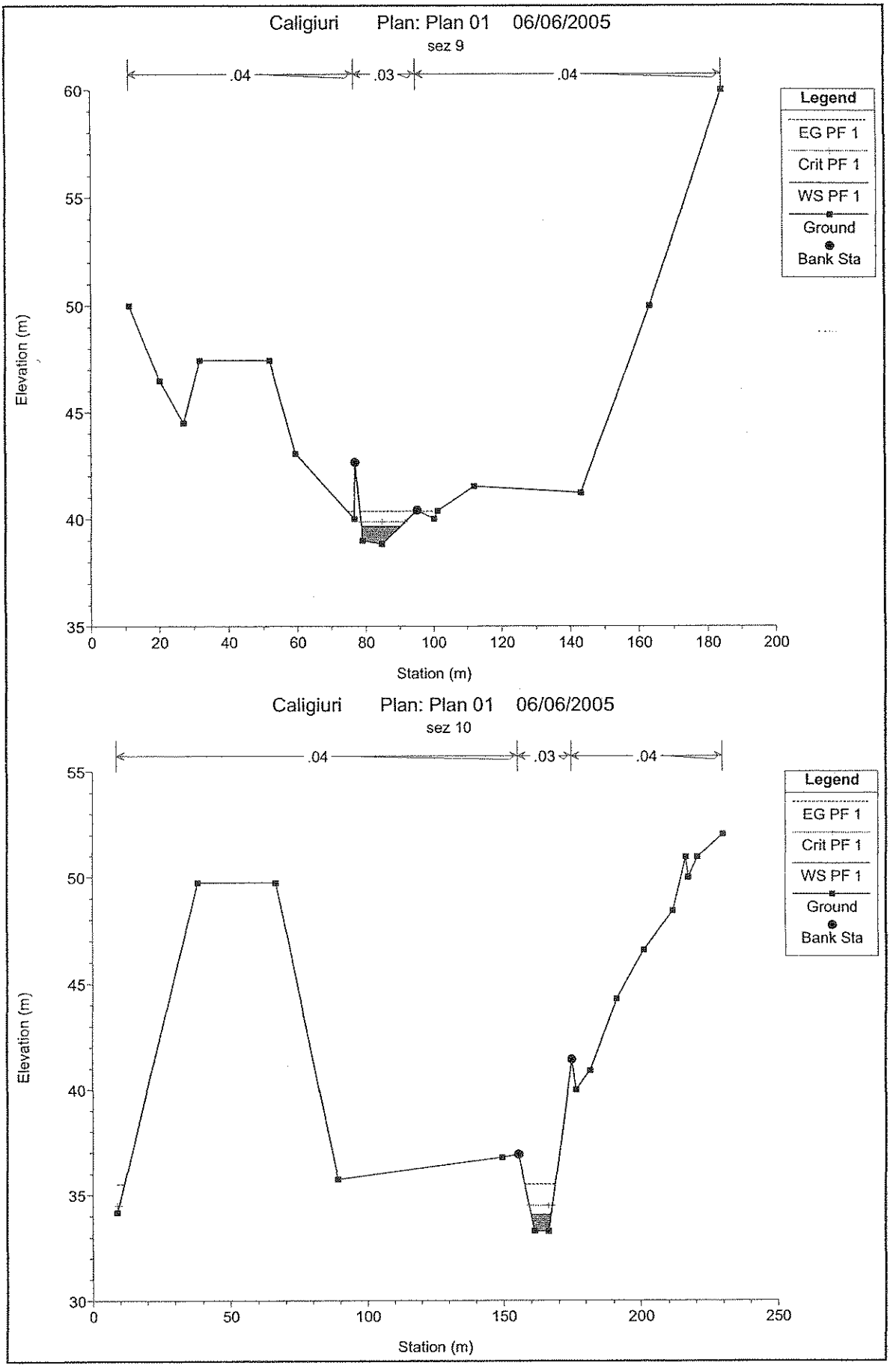

Caligiuri Plan: Plan 01 06/06/2005
sez 1
.04
.03
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
140
130
120
110
100
90
0
50
100
150
200
250
Station (m)
Caligiuri Plan: Plan 01 06/06/2005
sez 2
.04
.03
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
160
140
120
100
80
0
50
100
150
200
250
Station (m)

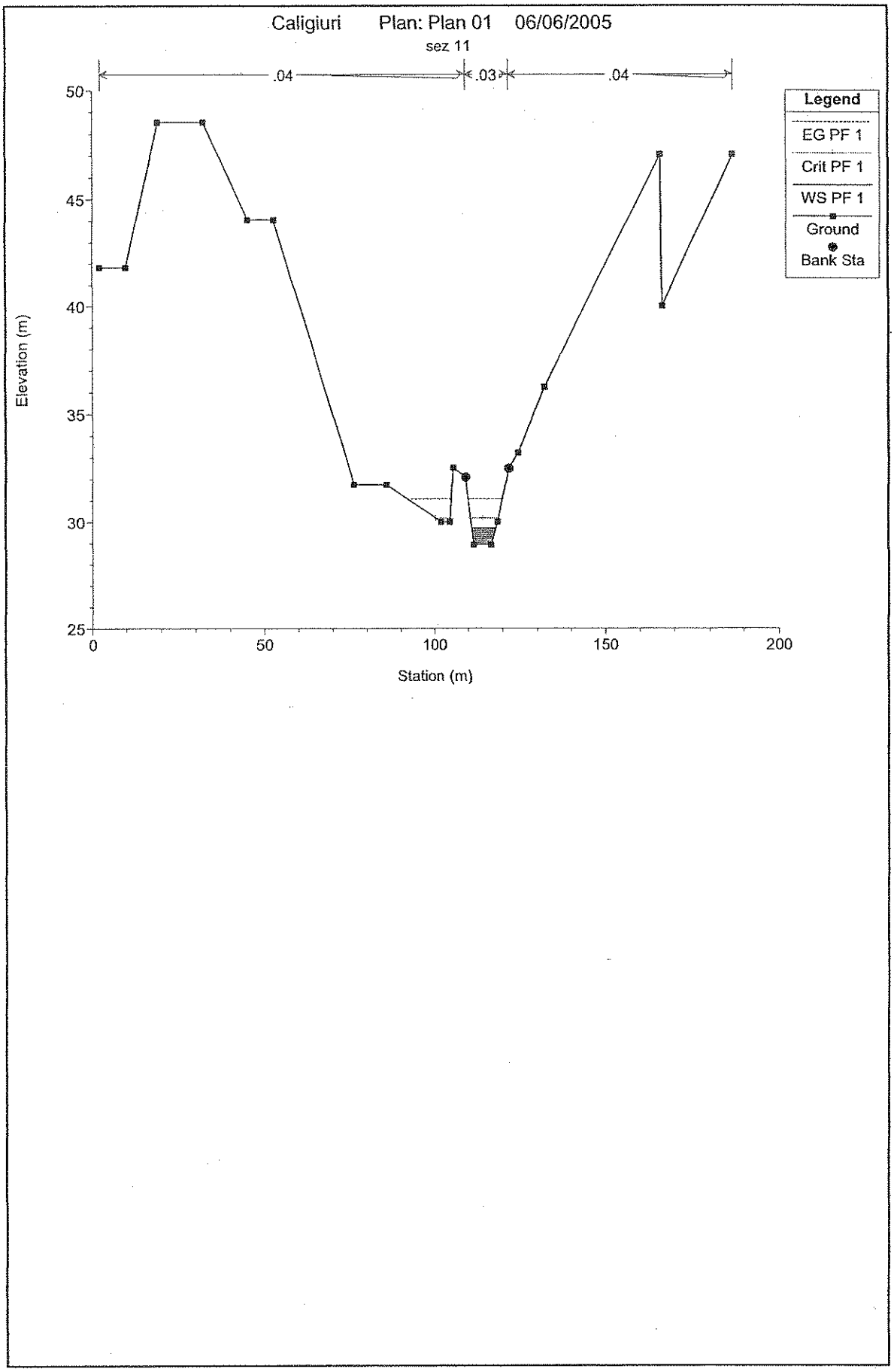

Caligiuri Plan: Plan 01 06/06/2005
sez 3
.04
.03
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
Caligiuri Plan: Plan 01 06/06/2005
sez 4
.04
.03
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)

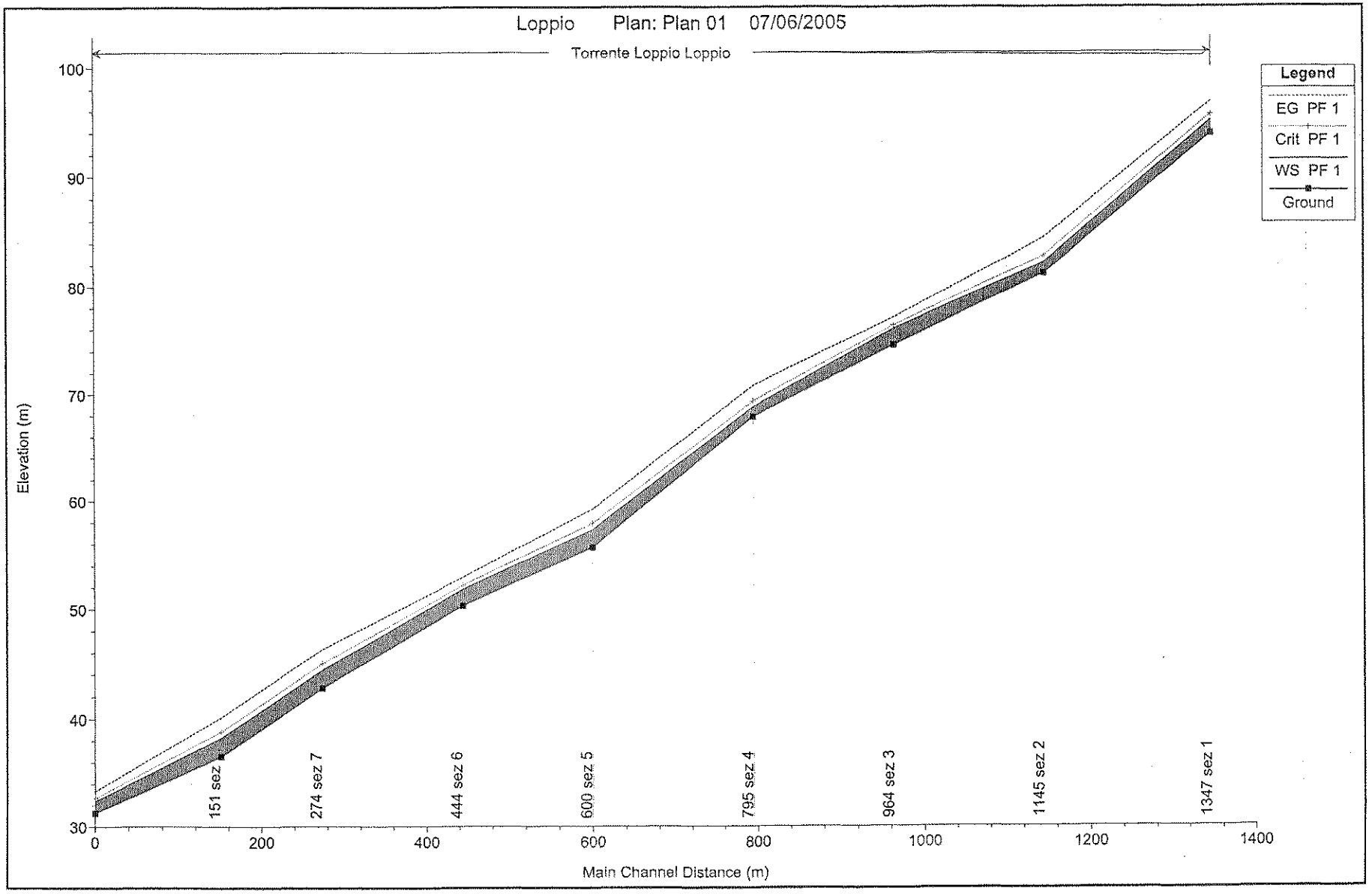

Caligiuri Plan: Plan 01 06/06/2005
sez 4A
.04
.03
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
Caligiuri Plan: Plan 01 06/06/2005
sez 5
.04
.03
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)


Caligiuri Plan: Plan 01 06/06/2005
sez 6
.04
.03
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
Caligiuri Plan: Plan 01 06/06/2005
sez 6A
.04
.03
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)


Caligiuri Plan: Plan 01 06/06/2005
sez 7
.04
.03
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
Caligiuri Plan: Plan 01 06/06/2005
sez 8
.04
.03
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)

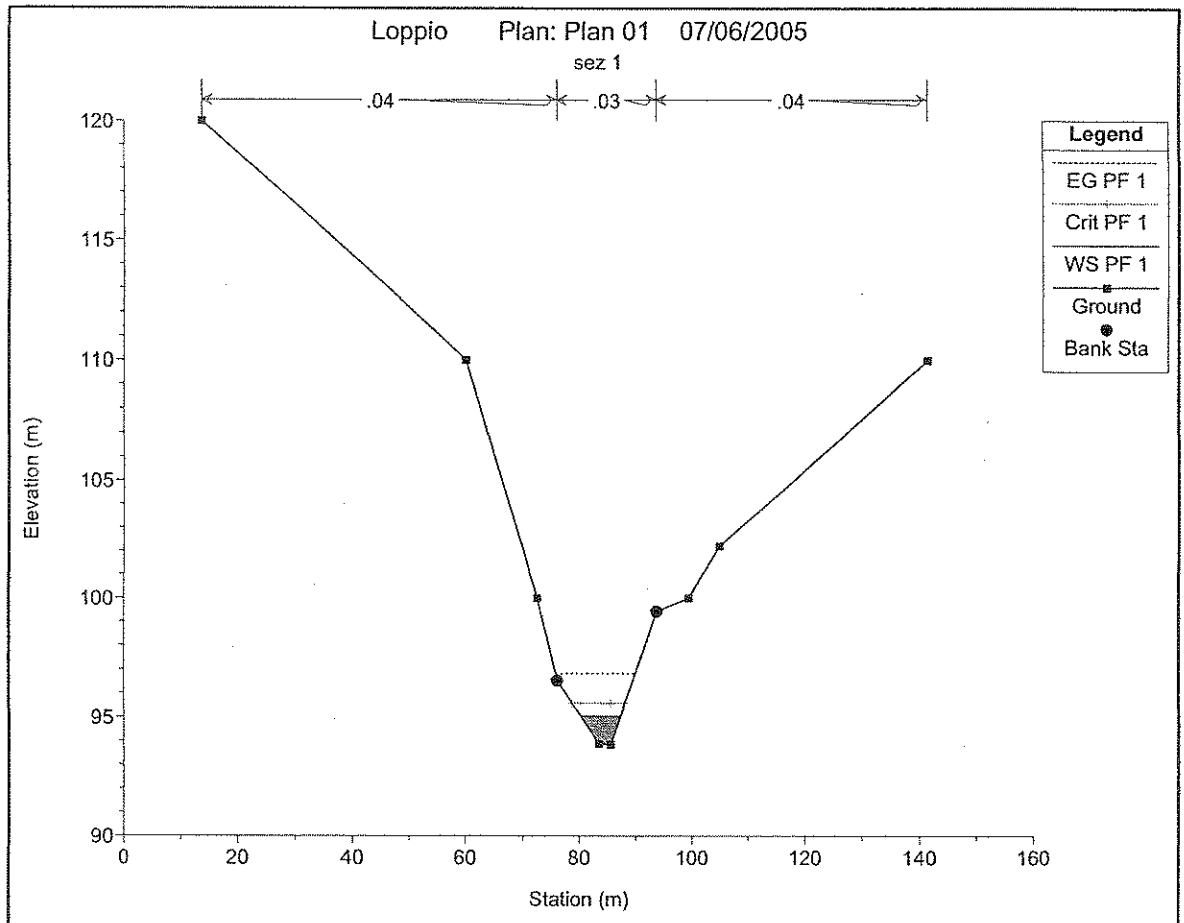

Caligiuri Plan: Plan 01 06/06/2005
sez 9
.04
.03
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
Caligiuri Plan: Plan 01 06/06/2005
sez 10
.04
.03
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)

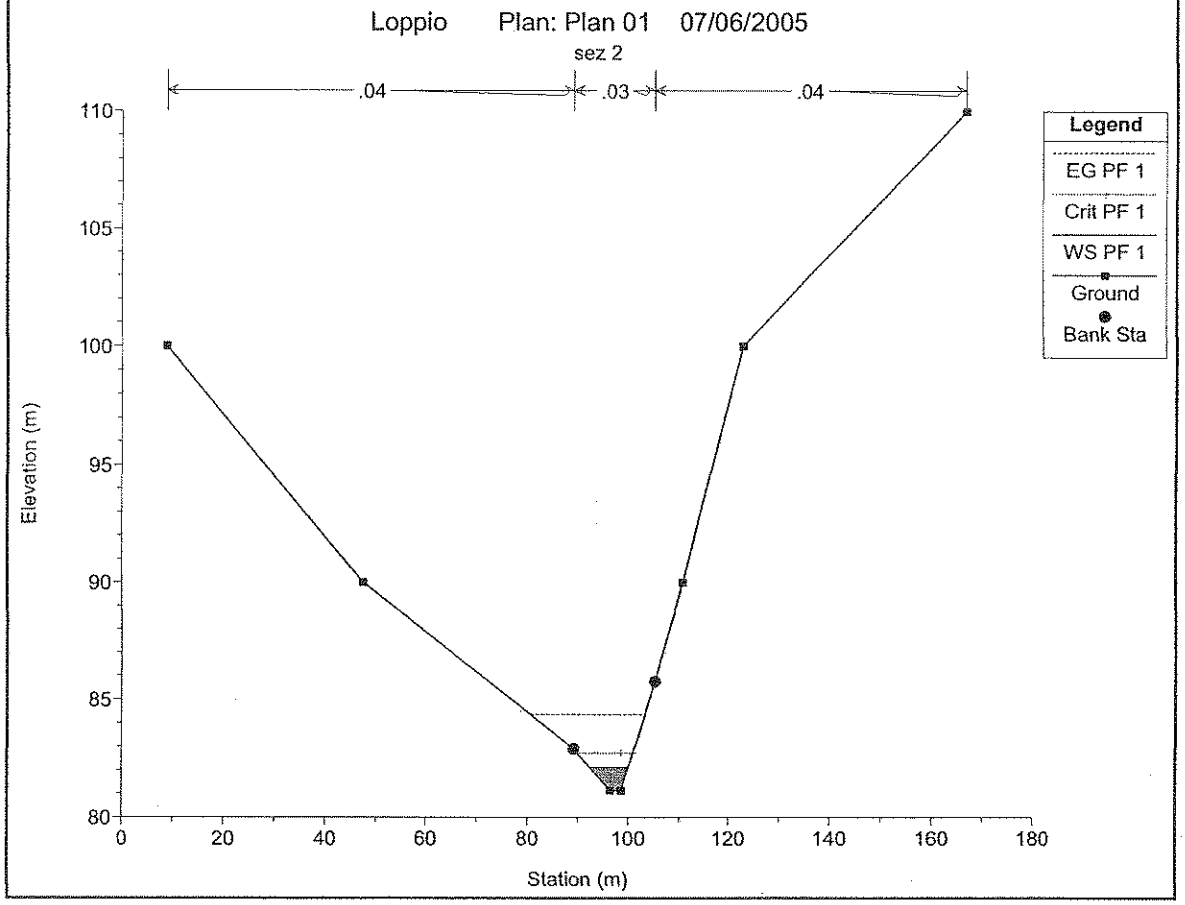

Caligiuri Plan: Plan 01 06/06/2005
sez 11
.04
.03
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
50
45
40
35
30
25
0
50
100
150
200
Station (m)

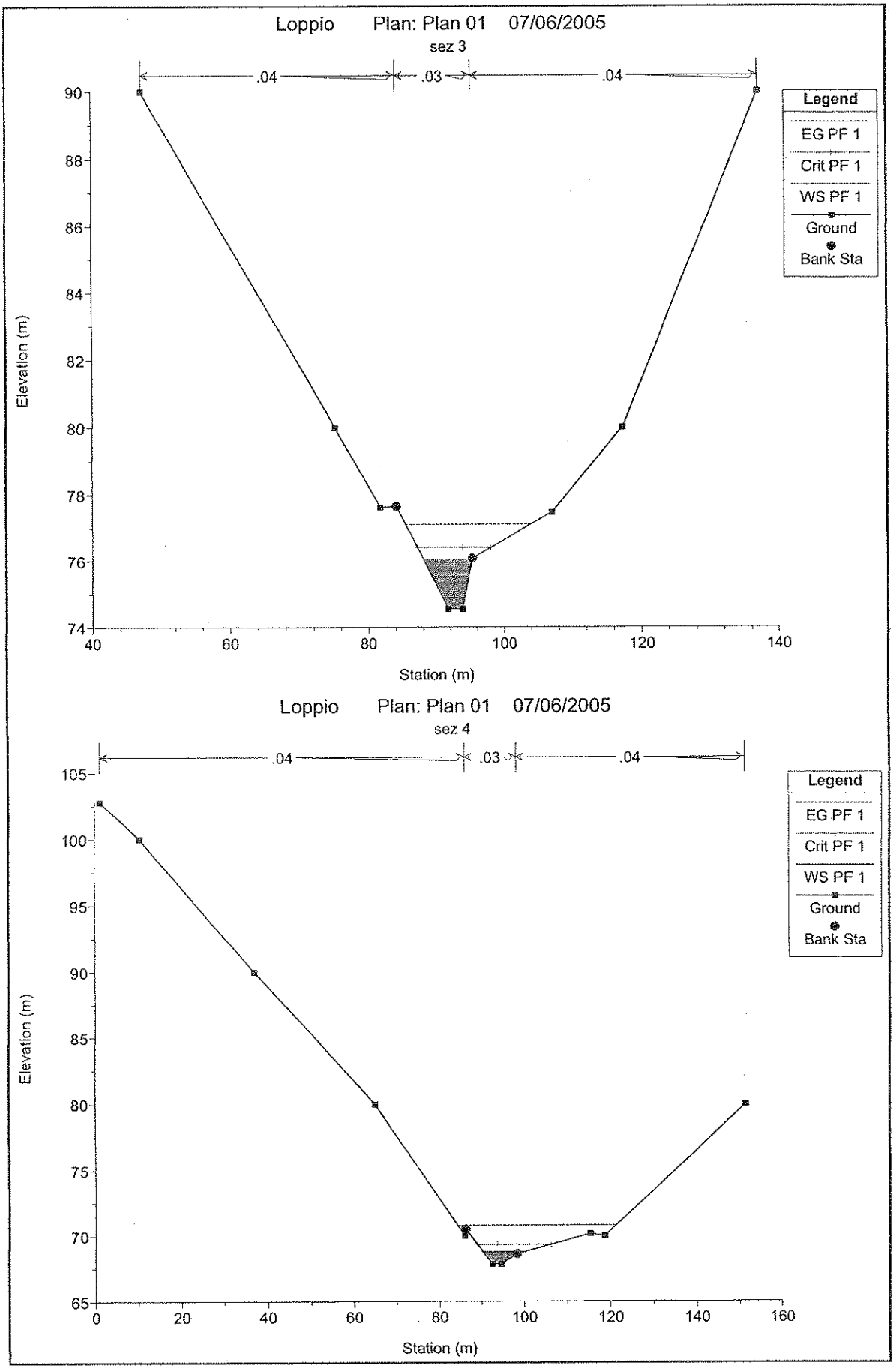

Loppio Plan: Plan 01 07/06/2005
Torrente Loppio Loppio
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Elevation (m)
100
90
80
70
60
50
40
30
0
200
400
600
800
1000
1200
1400
Main Channel Distance (m)
151 sez
274 sez 7
444 sez 6
600 sez 5
795 sez 4
964 sez 3
1145 sez 2
1347 sez 1

HEC-RAS Plan: Plan 01 River: Torrente Loppio Reach: Loppio Profile: PF 1

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
Loppio	1347	PF 1	32.00	93.85	95.04	95.58	96.82	0.049804	5.90	5.42	7.09	2.16
Loppio	1145	PF 1	32.00	81.13	82.12	82.73	84.35	0.077758	6.61	4.84	7.63	2.65
Loppio	964	PF 1	32.00	74.54	76.06	76.40	77.10	0.022541	4.54	7.05	7.22	1.47
Loppio	795	PF 1	32.00	67.84	68.77	69.33	70.80	0.070308	6.32	5.18	9.85	2.55
Loppio	600	PF 1	32.00	55.66	57.30	57.88	59.18	0.050742	6.08	5.26	6.41	2.14
Loppio	444	PF 1	32.00	50.30	51.83	52.19	52.94	0.030249	4.67	6.85	8.93	1.70
Loppio	274	PF 1	32.00	42.75	44.40	44.99	46.30	0.050997	6.11	5.24	6.36	2.15
Loppio	151	PF 1	32.00	36.52	38.25	38.84	40.14	0.049159	6.10	5.25	6.08	2.10
Loppio	0	PF 1	32.00	31.27	32.39	32.71	33.37	0.038000	4.38	7.31	16.82	1.87


Loppio Plan: Plan 01 07/06/2005
sez 1
.04
.03
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
120
115
110
105
100
95
90
0
20
40
60
80
100
120
140
160


Loppio Plan: Plan 01 07/06/2005
sez 2
.04
.03
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
110
105
100
95
90
85
80
0
20
40
60
80
100
120
140
160
180


Loppio Plan: Plan 01 07/06/2005
sez 3
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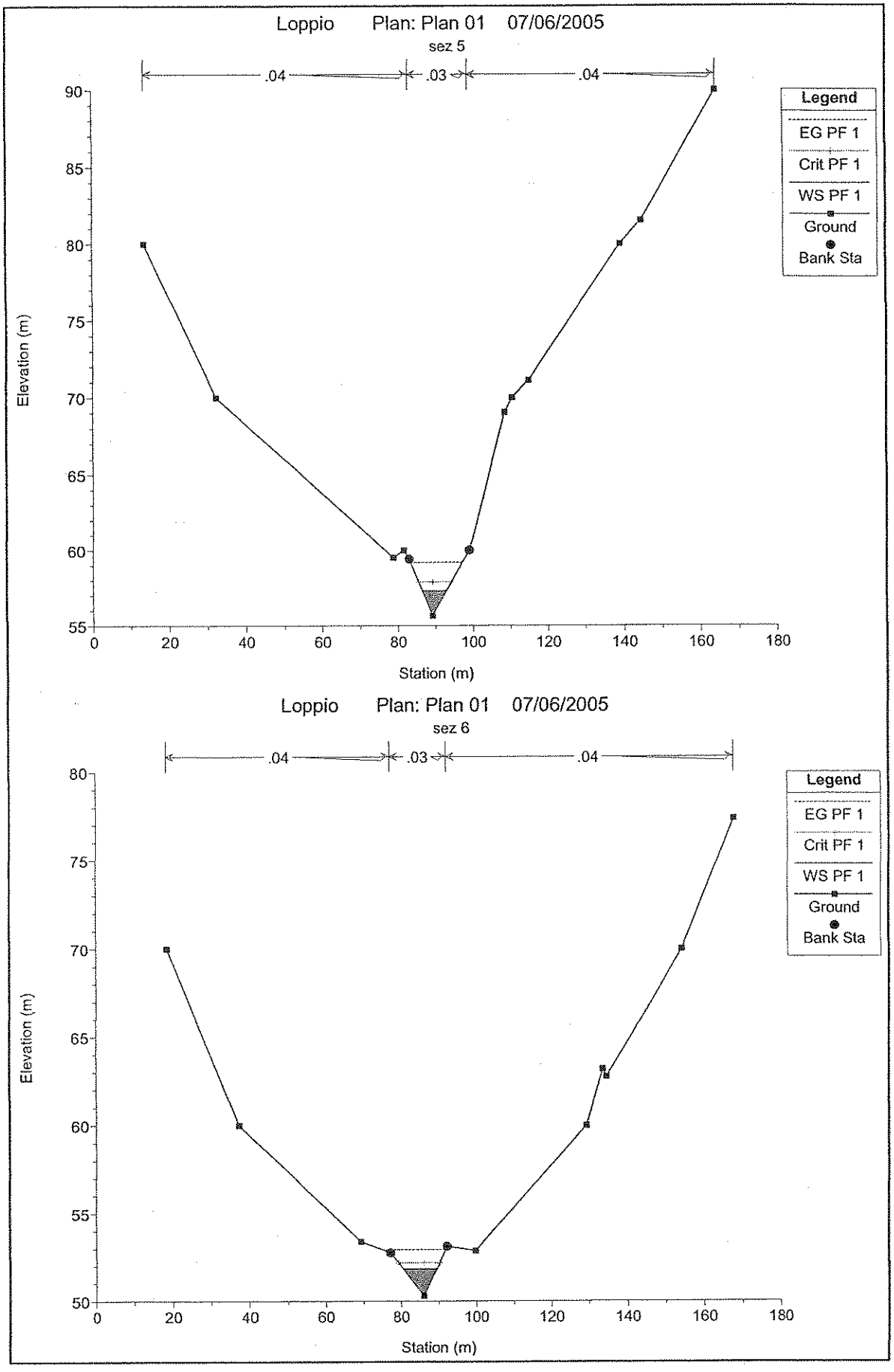
.03
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
Loppio Plan: Plan 01 07/06/2005
sez 4
.04
.03
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)


Loppio Plan: Plan 01 07/06/2005
sez 5
.04
.03
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
Loppio Plan: Plan 01 07/06/2005
sez 6
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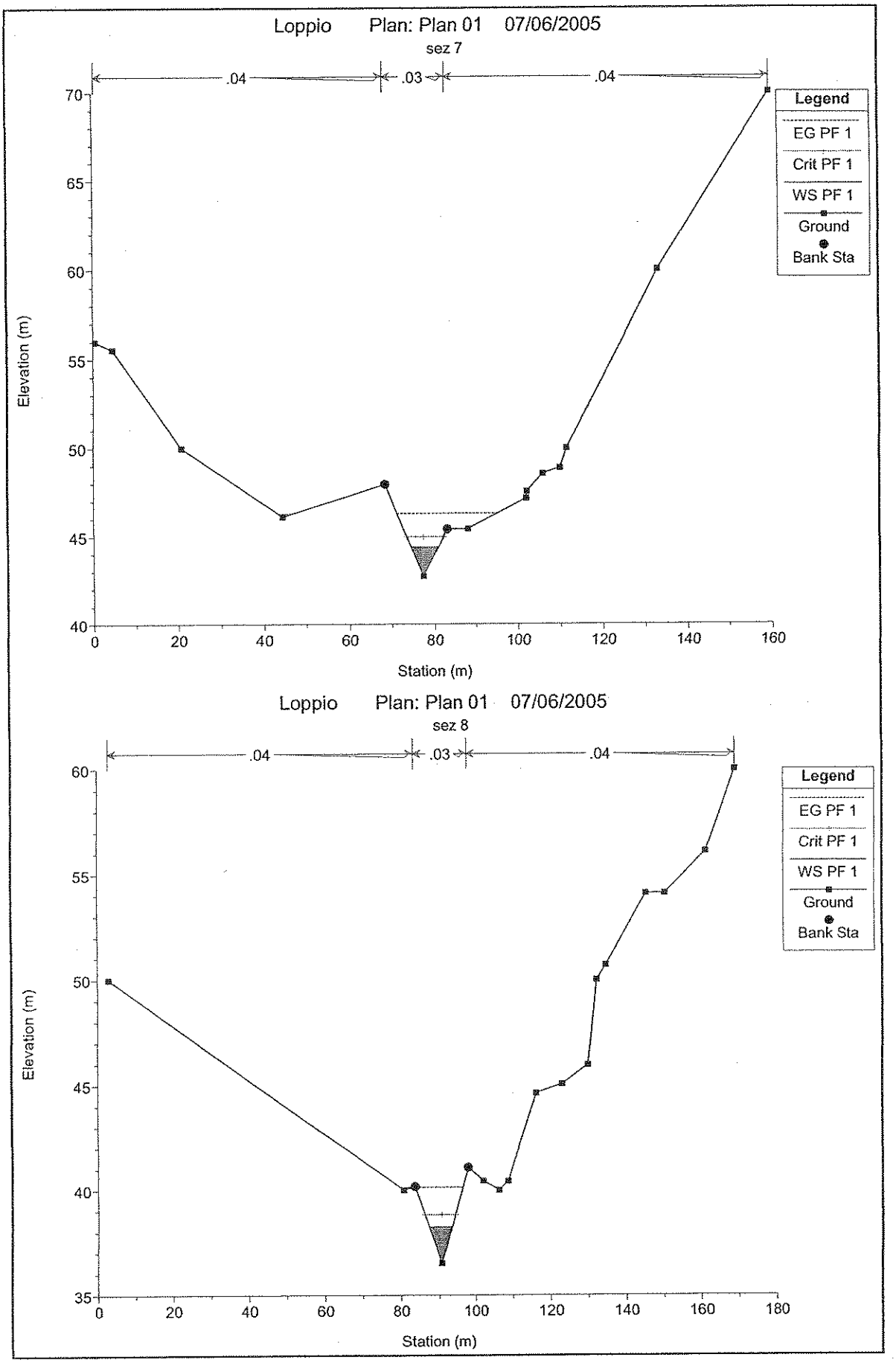
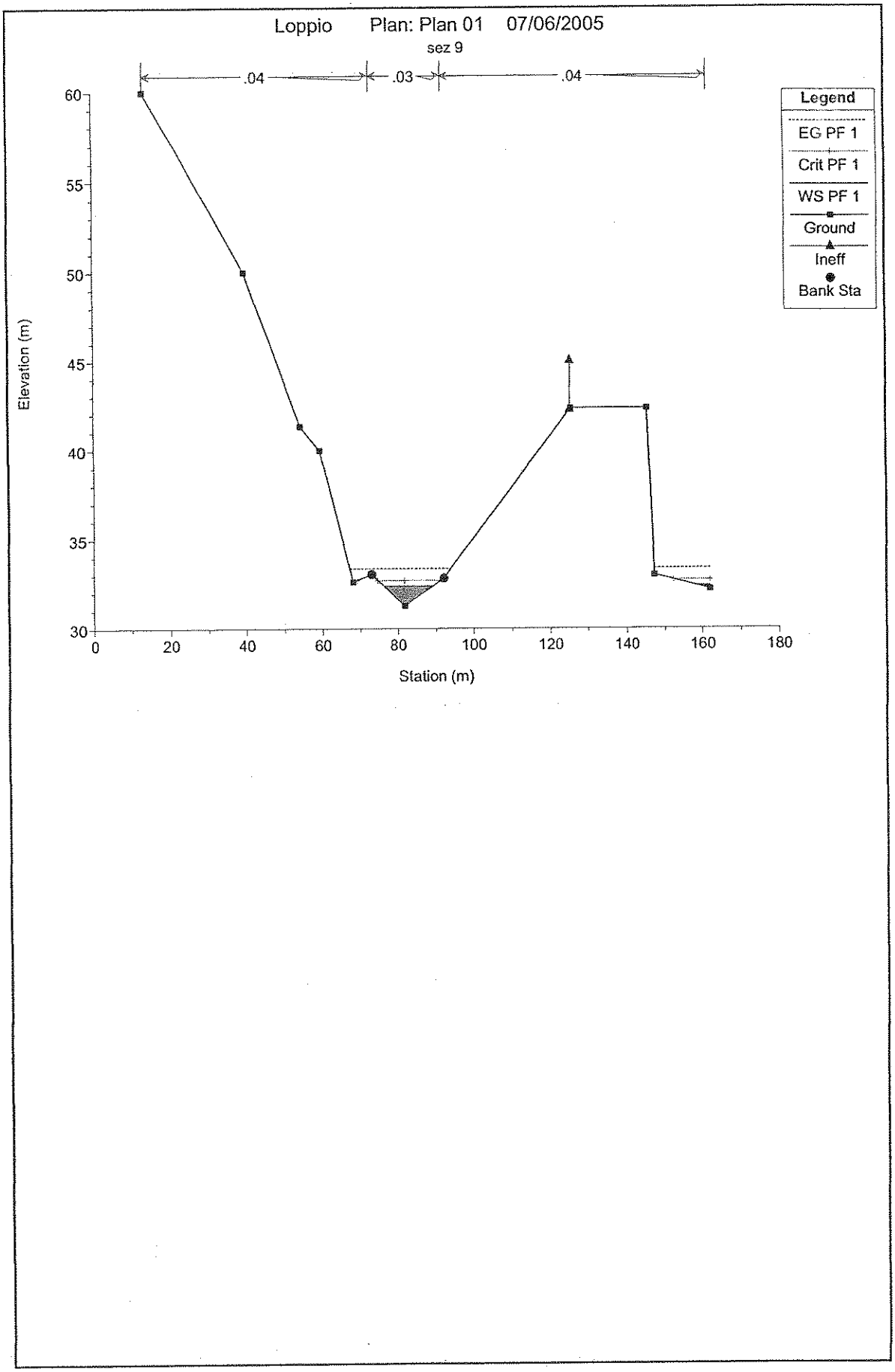
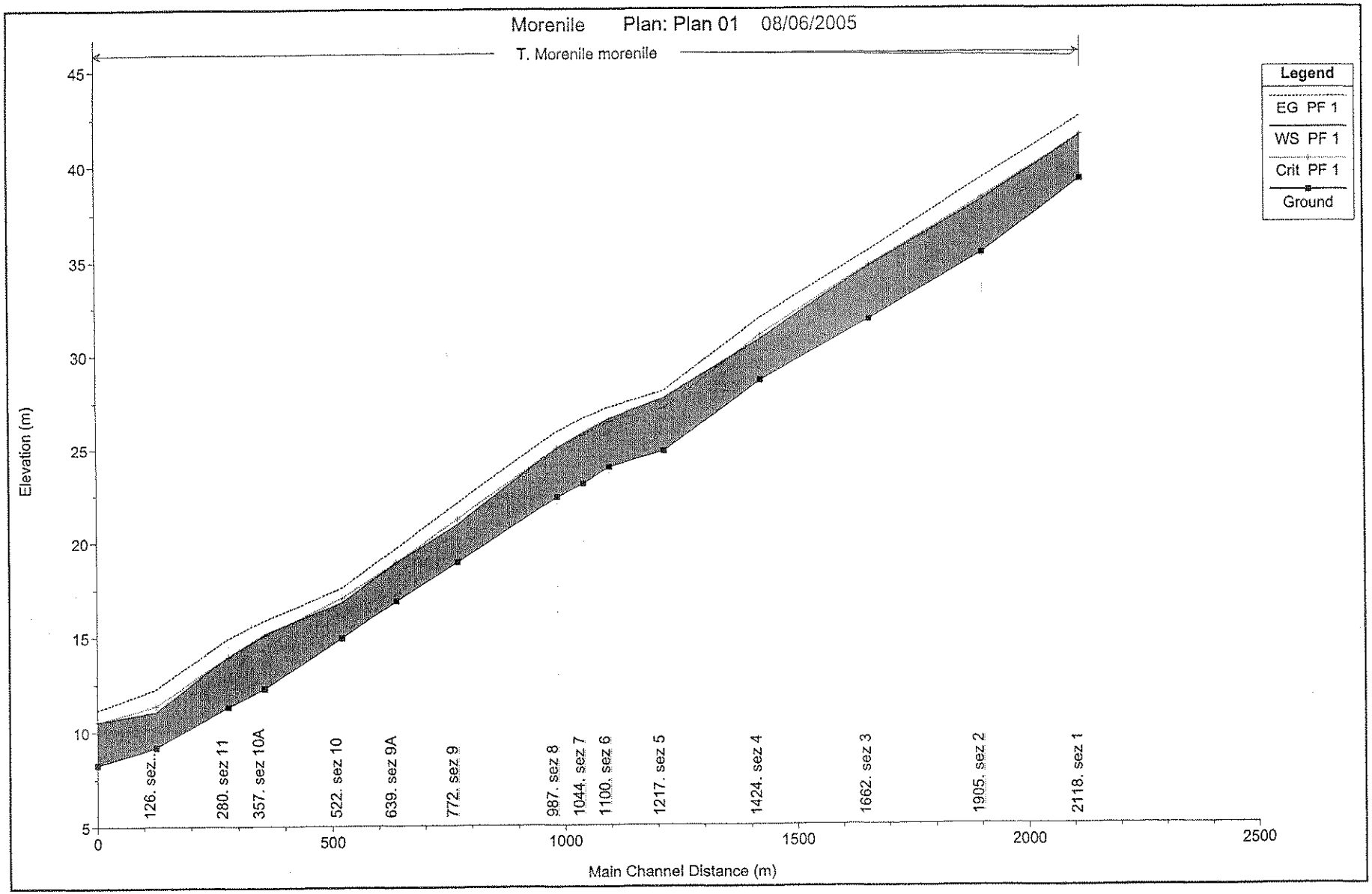
.03
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)

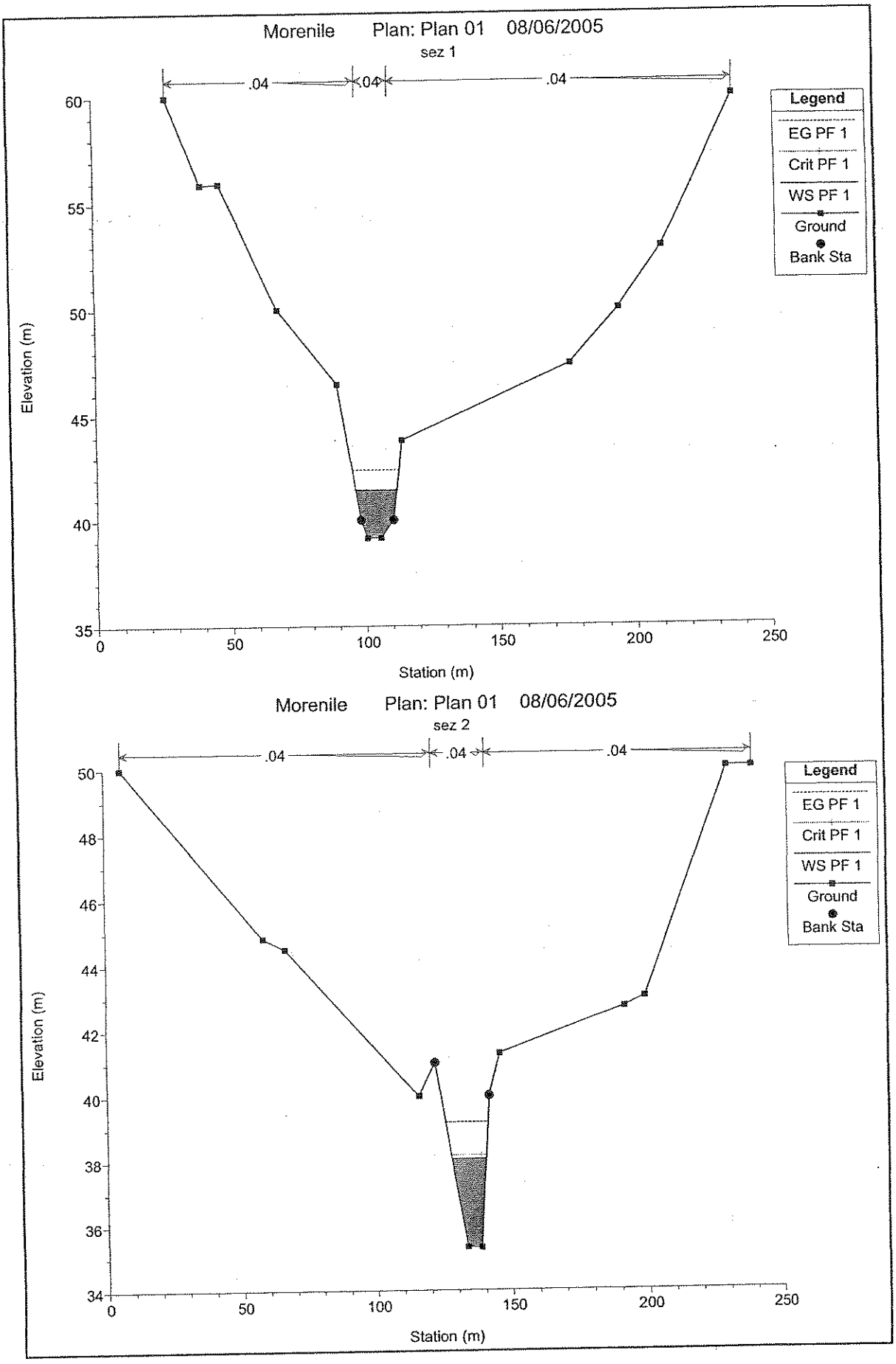

Loppio Plan: Plan 01 07/06/2005
sez 7
.04
.03
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
Loppio Plan: Plan 01 07/06/2005
sez 8
.04
.03
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)

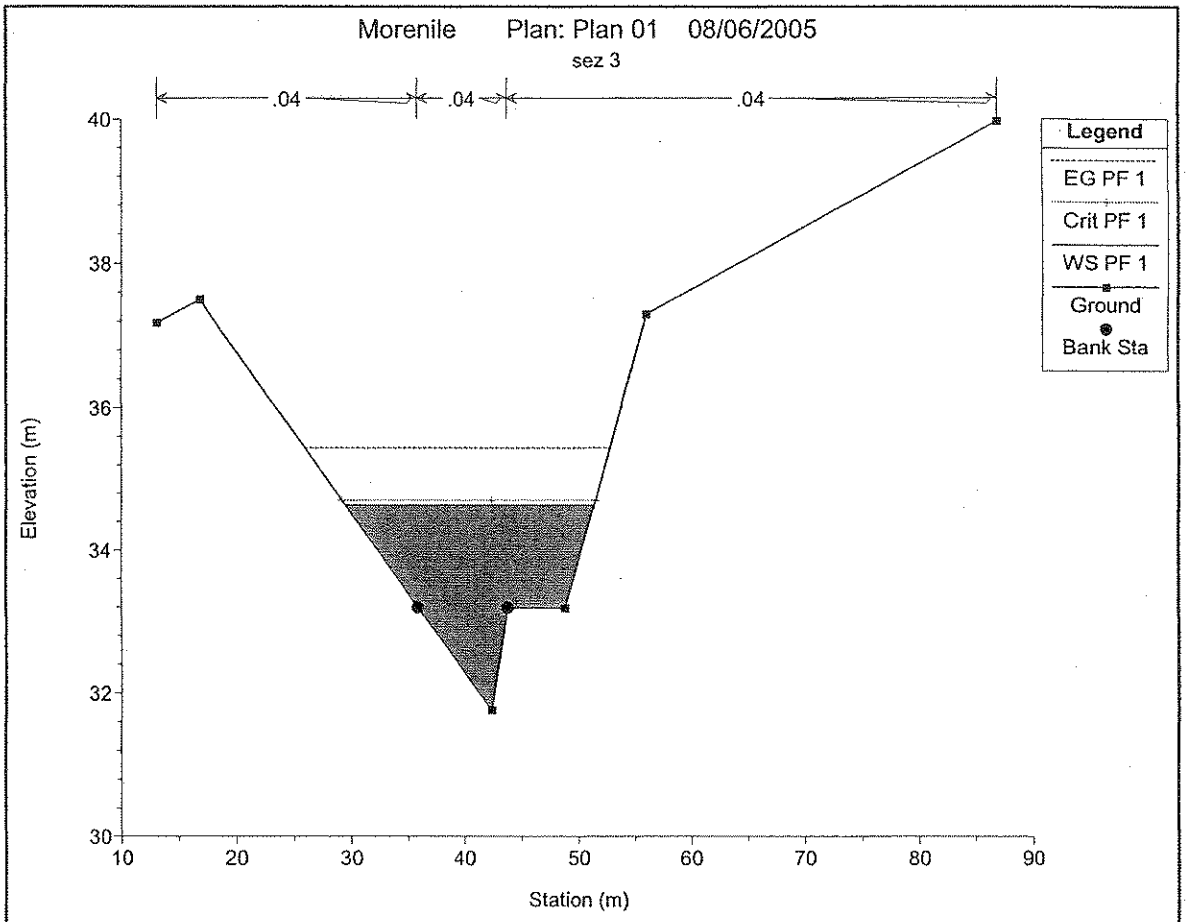

Loppio Plan: Plan 01 07/06/2005
sez 9
.04
.03
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Ineff
Bank Sta
Elevation (m)
60
55
50
45
40
35
30
0
20
40
60
80
100
120
140
160
180
Station (m)

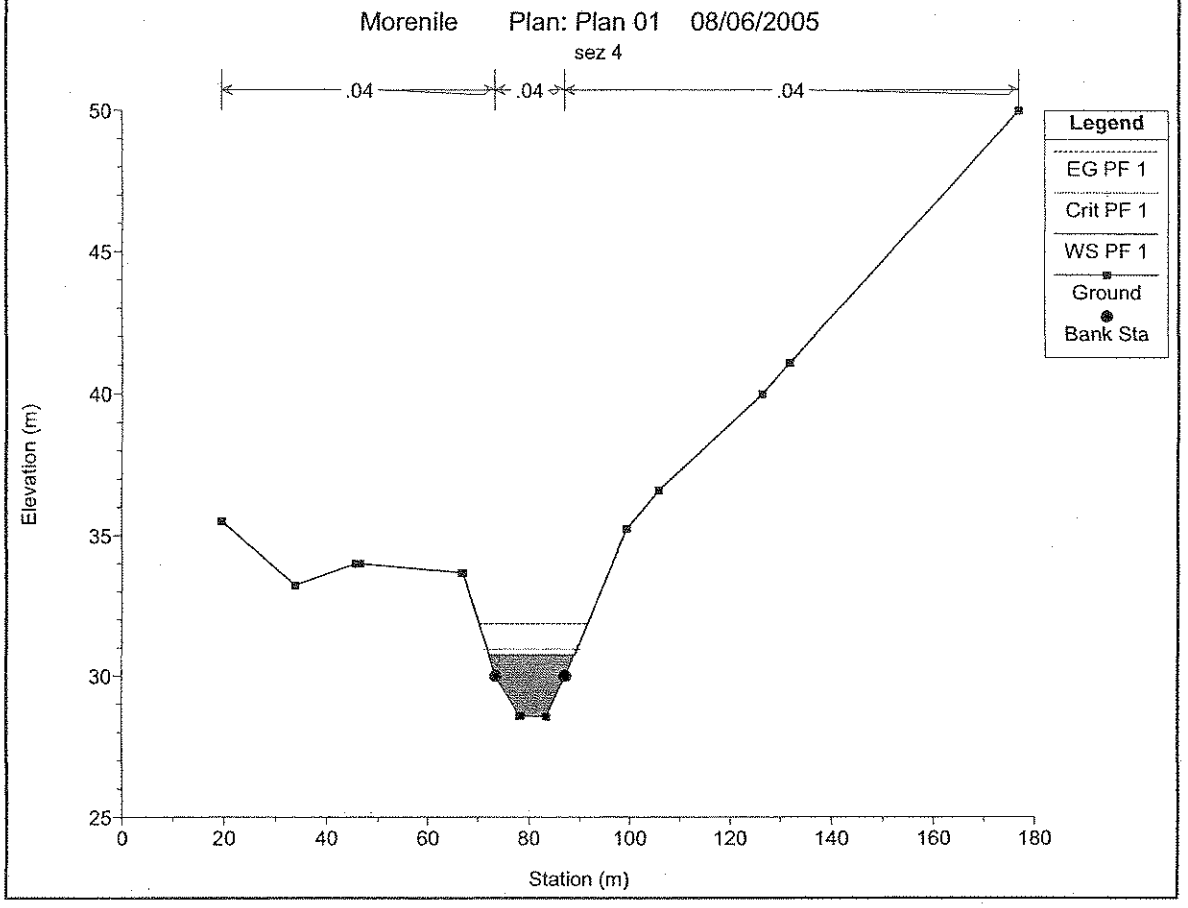

Morenile Plan: Plan 01 08/06/2005
T. Morenile morenile
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Elevation (m)
Main Channel Distance (m)
126. sez...
280. sez 11
357. sez 10A
522. sez 10
639. sez 9A
772. sez 9
987. sez 8
1044. sez 7
1100. sez 6
1217. sez 5
1424. sez 4
1662. sez 3
1905. sez 2
2118. sez 1

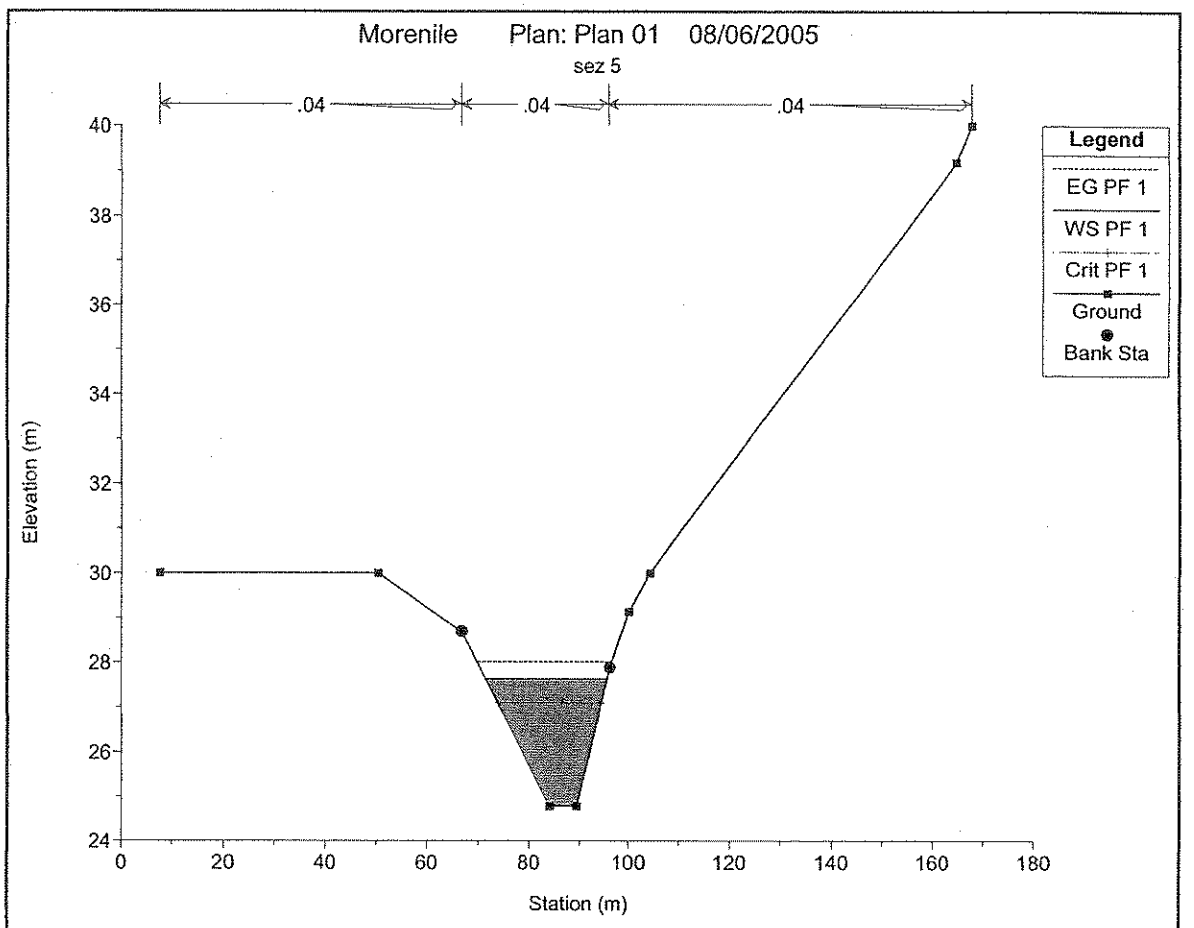
HEC-RAS Plan: Plan 01 River: T. Morenile Reach: morenile Profile: PF 1

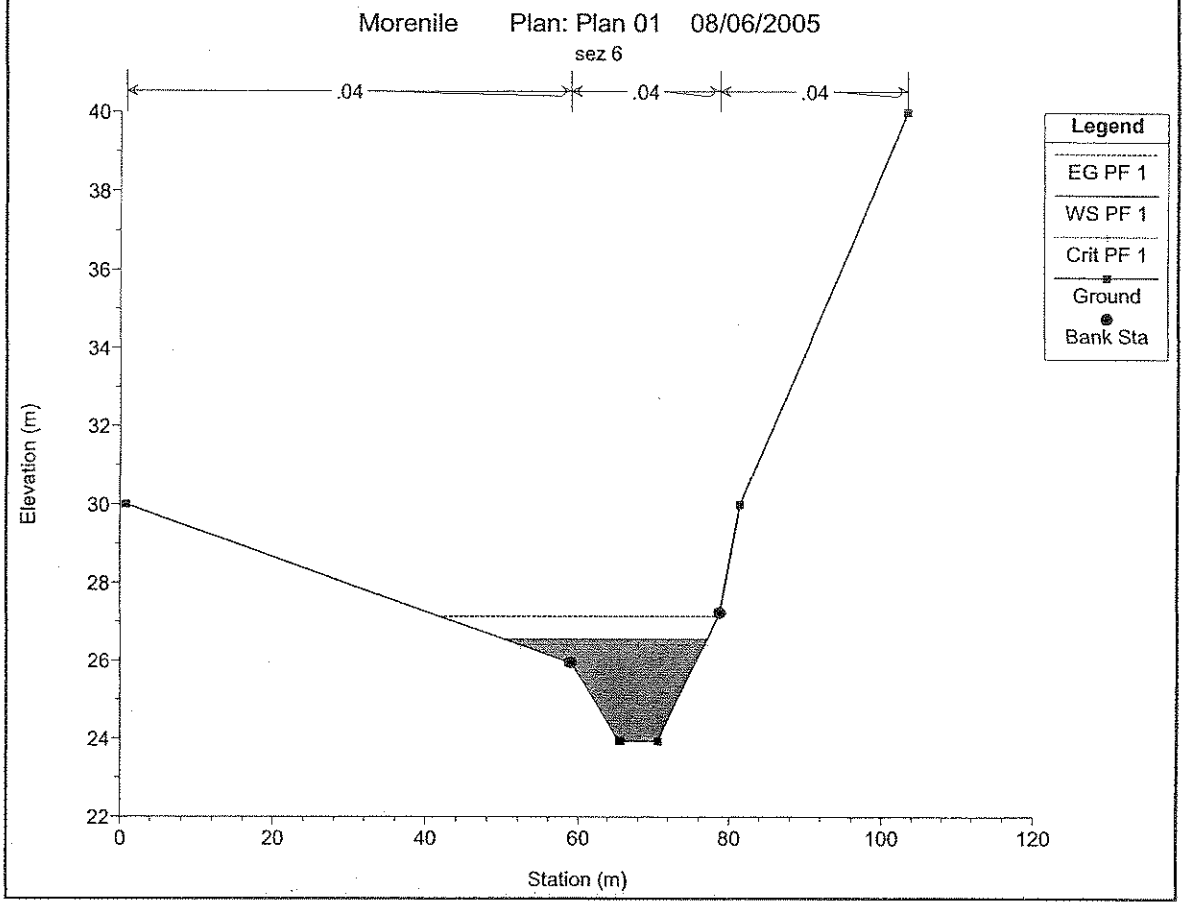
Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
morenile	2118.	PF 1	114.50	39.14	41.42	41.46	42.40	0.012649	4.44	27.07	15.41	1.00
morenile	1905.	PF 1	114.50	35.30	38.06	38.17	39.19	0.018068	4.71	24.29	12.55	1.08
morenile	1662.	PF 1	114.50	31.76	34.63	34.70	35.44	0.012697	4.43	30.90	21.91	0.96
morenile	1424.	PF 1	114.50	28.56	30.76	30.96	31.87	0.017654	4.71	25.09	16.78	1.14
morenile	1217.	PF 1	114.50	24.78	27.64	27.10	28.01	0.005846	2.70	42.36	24.25	0.65
morenile	1100.	PF 1	114.50	23.92	26.56	26.40	27.14	0.009230	3.44	35.16	26.96	0.82
morenile	1044.	PF 1	114.50	23.04	25.81	25.68	26.57	0.010497	3.92	30.19	17.03	0.88
morenile	987.	PF 1	114.50	22.30	24.98	24.98	25.86	0.014672	4.16	27.50	15.64	1.00
morenile	772.	PF 1	114.50	18.89	20.90	21.18	22.04	0.021605	4.81	25.06	19.63	1.24
morenile	639.	PF 1	114.50	16.84	18.89	18.90	19.64	0.014422	3.83	29.98	21.09	1.01
morenile	522.	PF 1	114.50	14.92	16.80	17.03	17.56	0.022591	4.41	37.26	73.26	1.22
morenile	357.	PF 1	114.50	12.28	15.14	15.07	15.85	0.009710	3.83	32.85	22.65	0.83
morenile	280.	PF 1	114.50	11.32	13.98	13.98	14.92	0.014415	4.29	26.80	14.61	0.99
morenile	126.	PF 1	114.50	9.16	11.07	11.37	12.27	0.020520	4.96	24.73	18.76	1.23
morenile	0	PF 1	114.50	8.27	10.55	10.55	11.17	0.010171	3.61	35.04	28.70	0.87

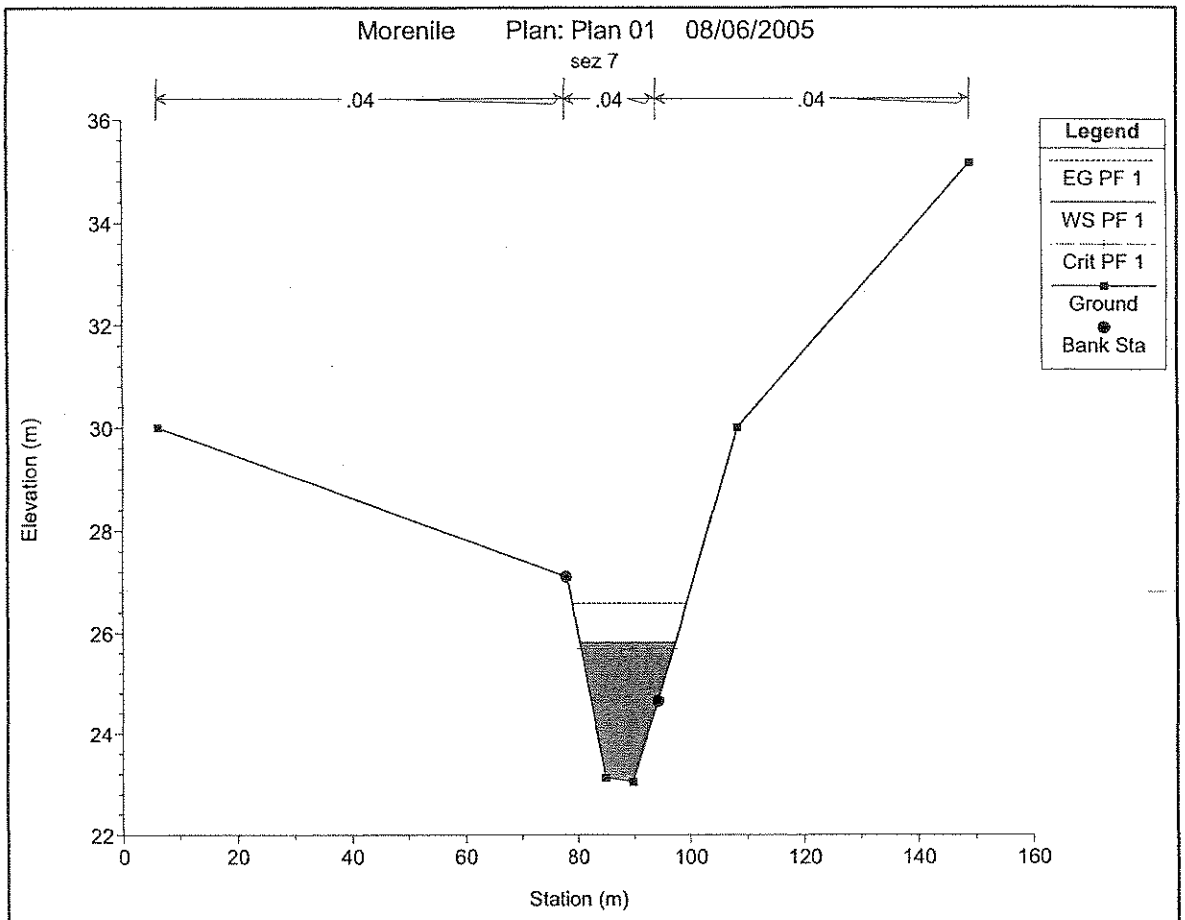

Morenile Plan: Plan 01 08/06/2005
sez 1
.04
.04
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
60
55
50
45
40
35
0
50
100
150
200
250
Station (m)
Morenile Plan: Plan 01 08/06/2005
sez 2
.04
.04
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
50
48
46
44
42
40
38
36
34
0
50
100
150
200
250
Station (m)

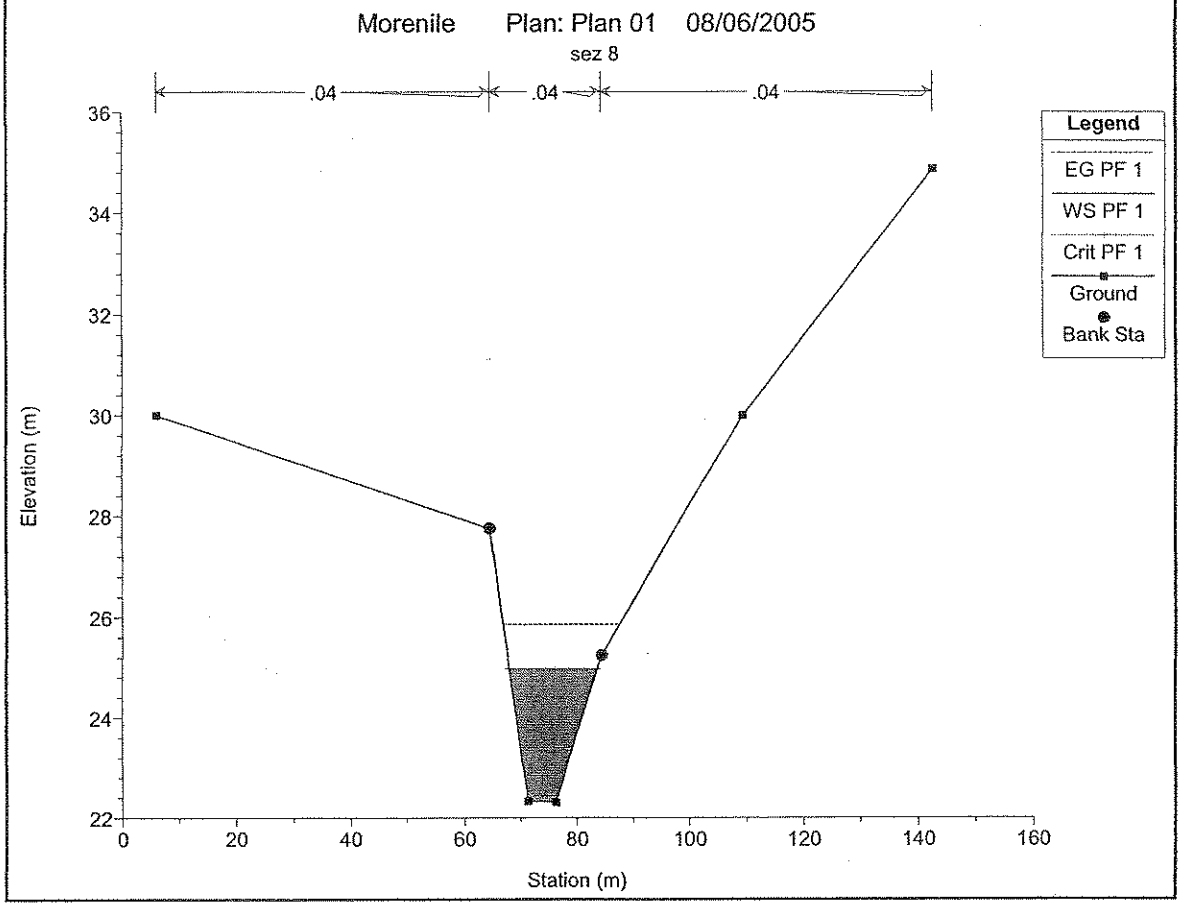

Morenile Plan: Plan 01 08/06/2005
sez 3
.04
.04
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
40
38
36
34
32
30
10
20
30
40
50
60
70
80
90

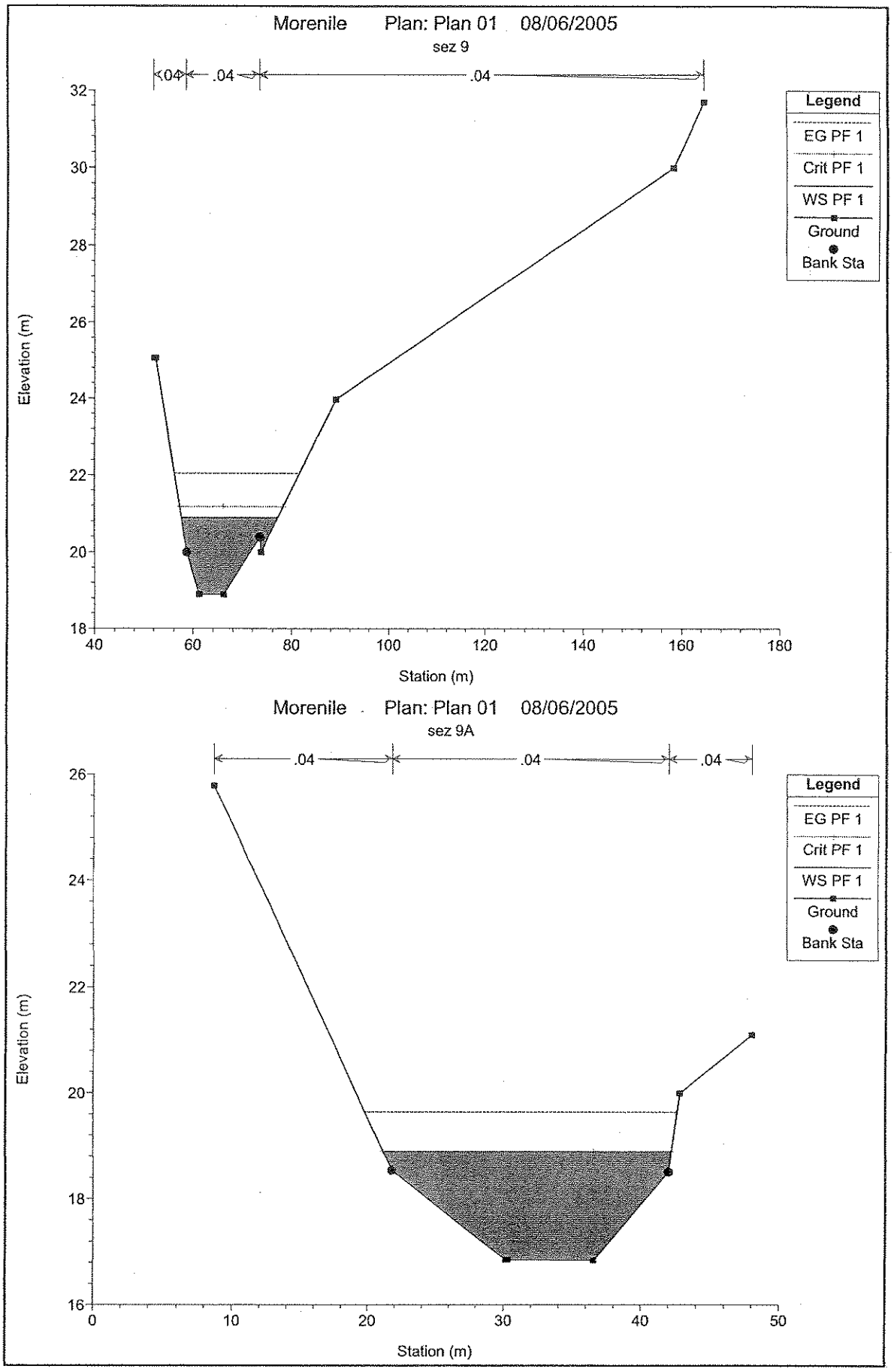

Morenile Plan: Plan 01 08/06/2005
sez 4
.04
.04
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
50
45
40
35
30
25
0
20
40
60
80
100
120
140
160
180

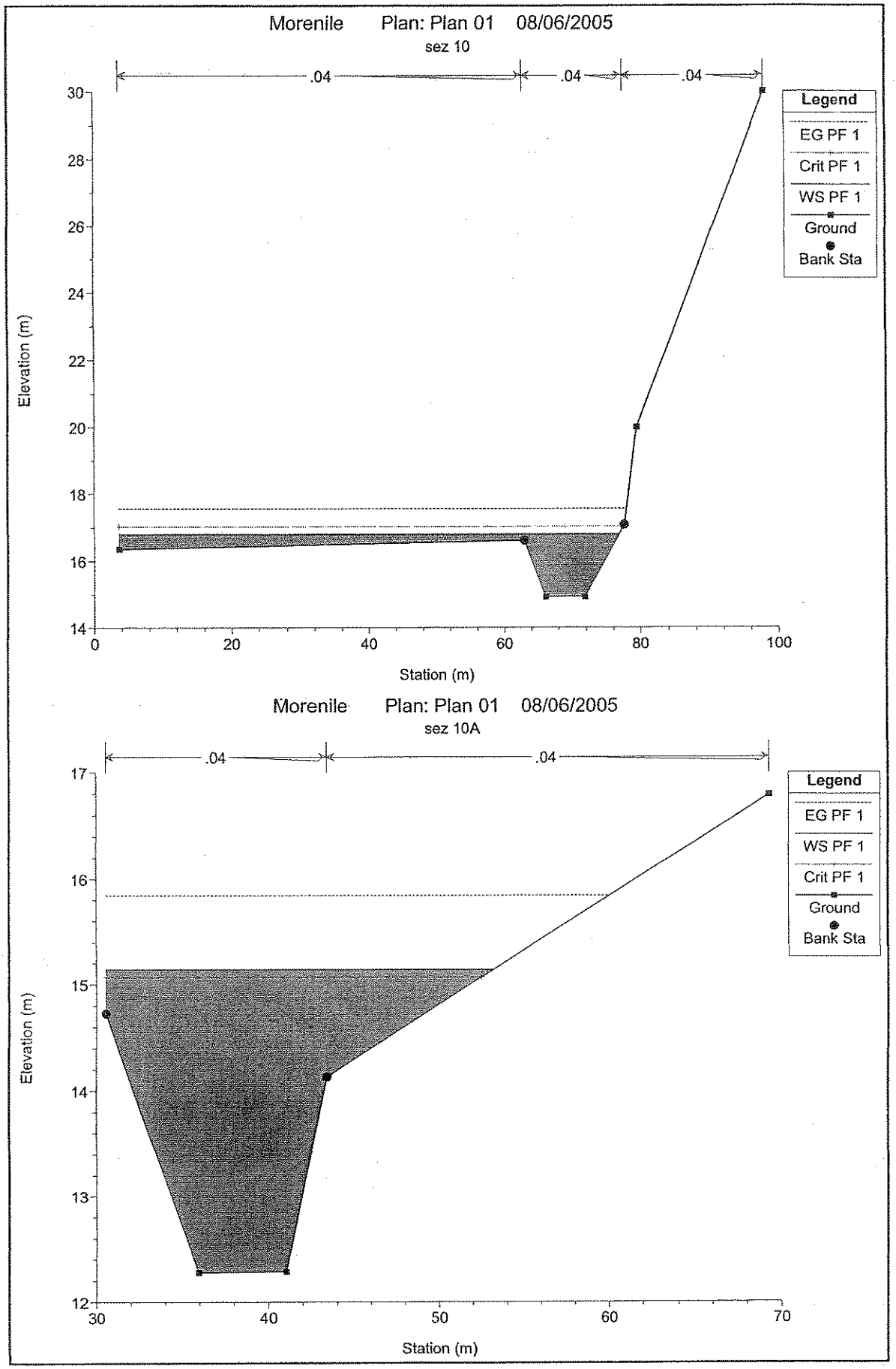

Morenile Plan: Plan 01 08/06/2005
sez 5
.04
.04
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
40
38
36
34
32
30
28
26
24
0
20
40
60
80
100
120
140
160
180

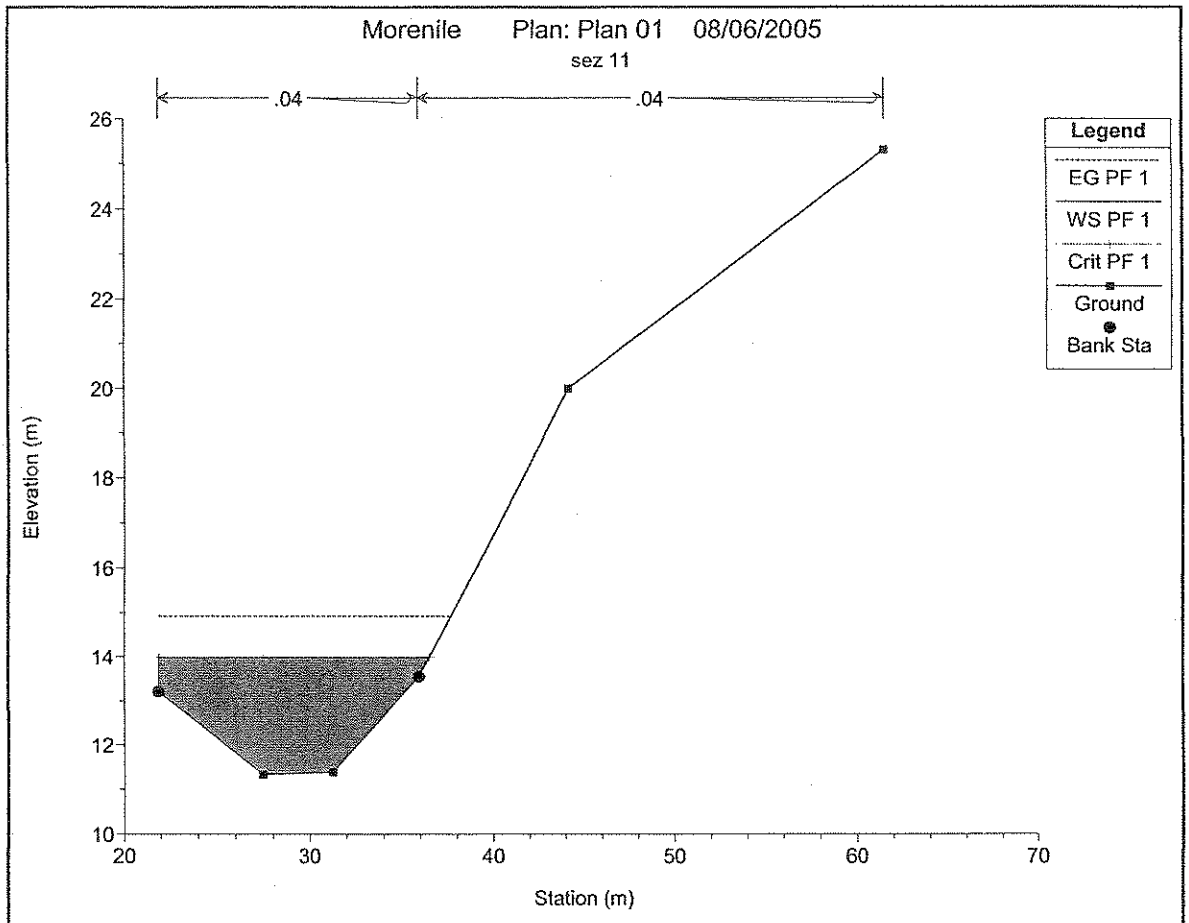

Morenile Plan: Plan 01 08/06/2005
sez 6
.04
.04
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
40
38
36
34
32
30
28
26
24
22
0
20
40
60
80
100
120

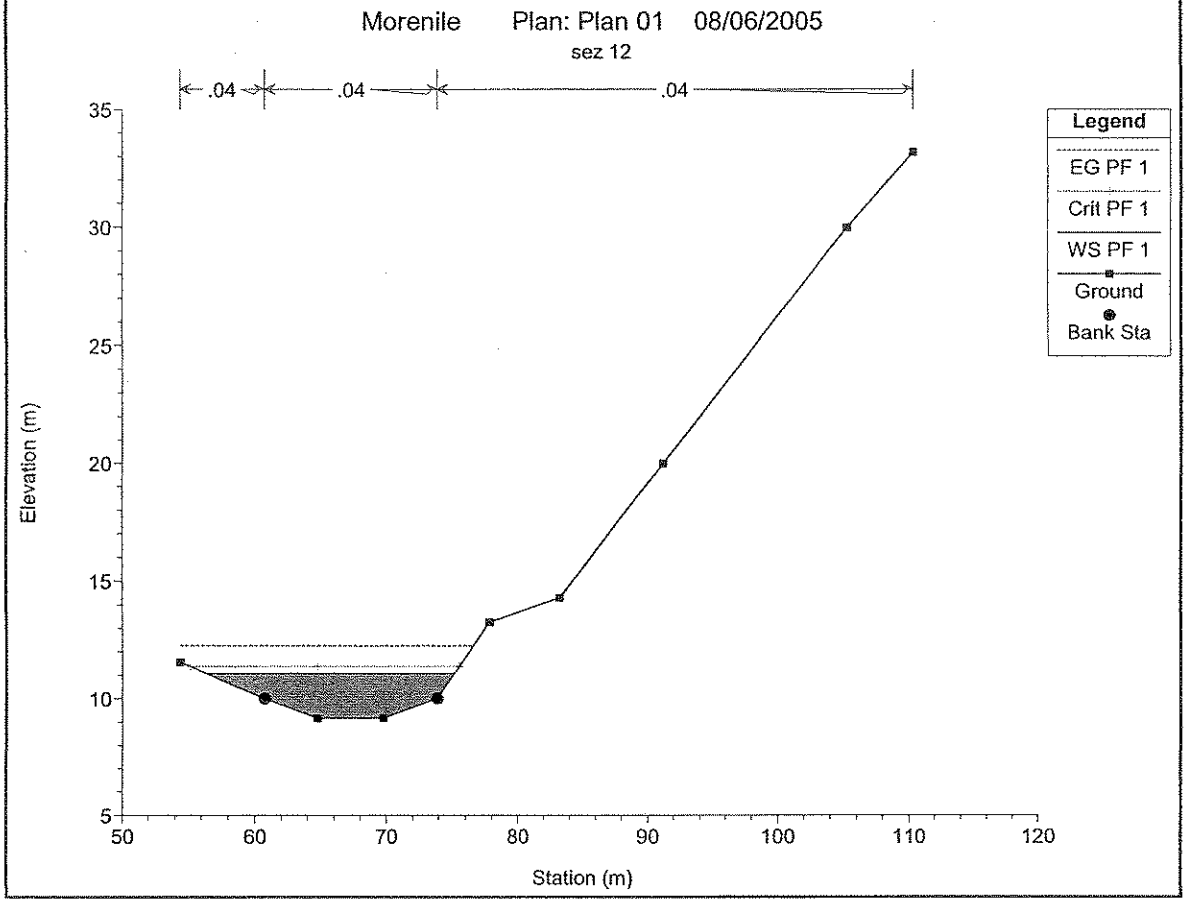

Morenile Plan: Plan 01 08/06/2005
sez 7
.04
.04
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
36
34
32
30
28
26
24
22
0
20
40
60
80
100
120
140
160

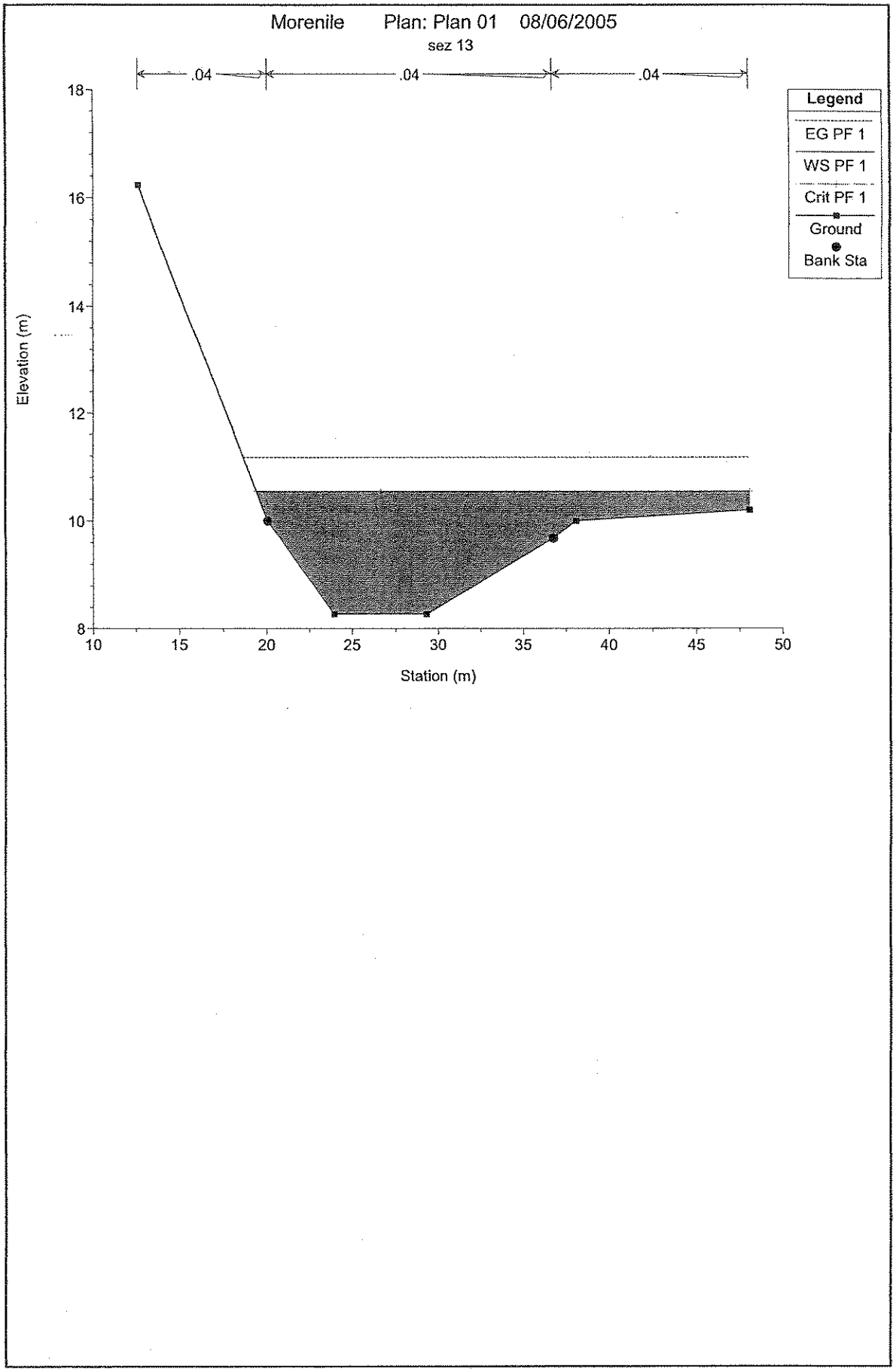

Morenile Plan: Plan 01 08/06/2005
sez 8
.04
.04
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
36
34
32
30
28
26
24
22
0
20
40
60
80
100
120
140
160

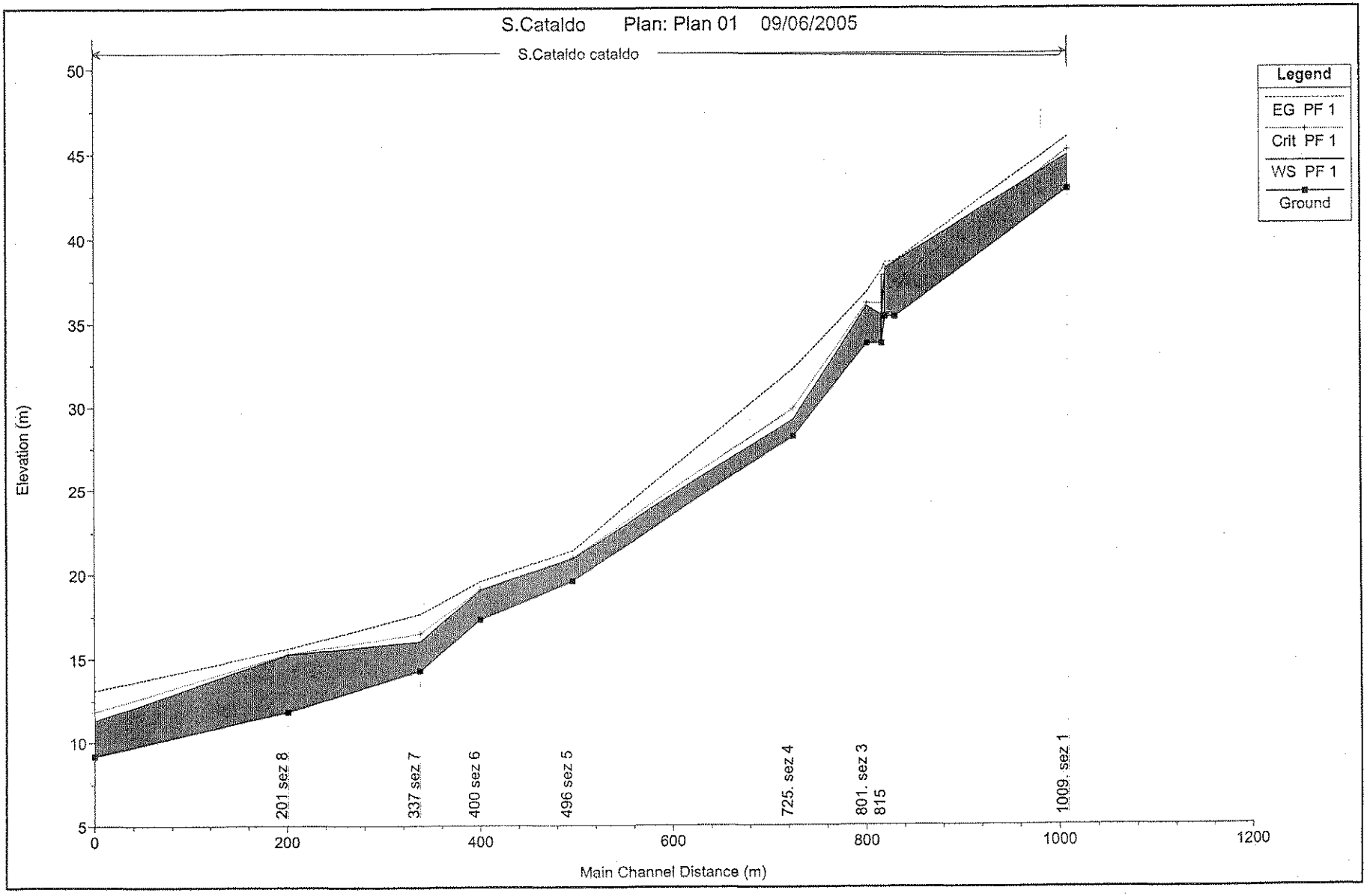

Morenile Plan: Plan 01 08/06/2005
sez 9
.04
.04
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
Morenile Plan: Plan 01 08/06/2005
sez 9A
.04
.04
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)


Morenile Plan: Plan 01 08/06/2005
sez 10
.04
.04
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
Morenile Plan: Plan 01 08/06/2005
sez 10A
.04
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)


Morenile Plan: Plan 01 08/06/2005
sez 11
.04
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
26
24
22
20
18
16
14
12
10
20
30
40
50
60
70

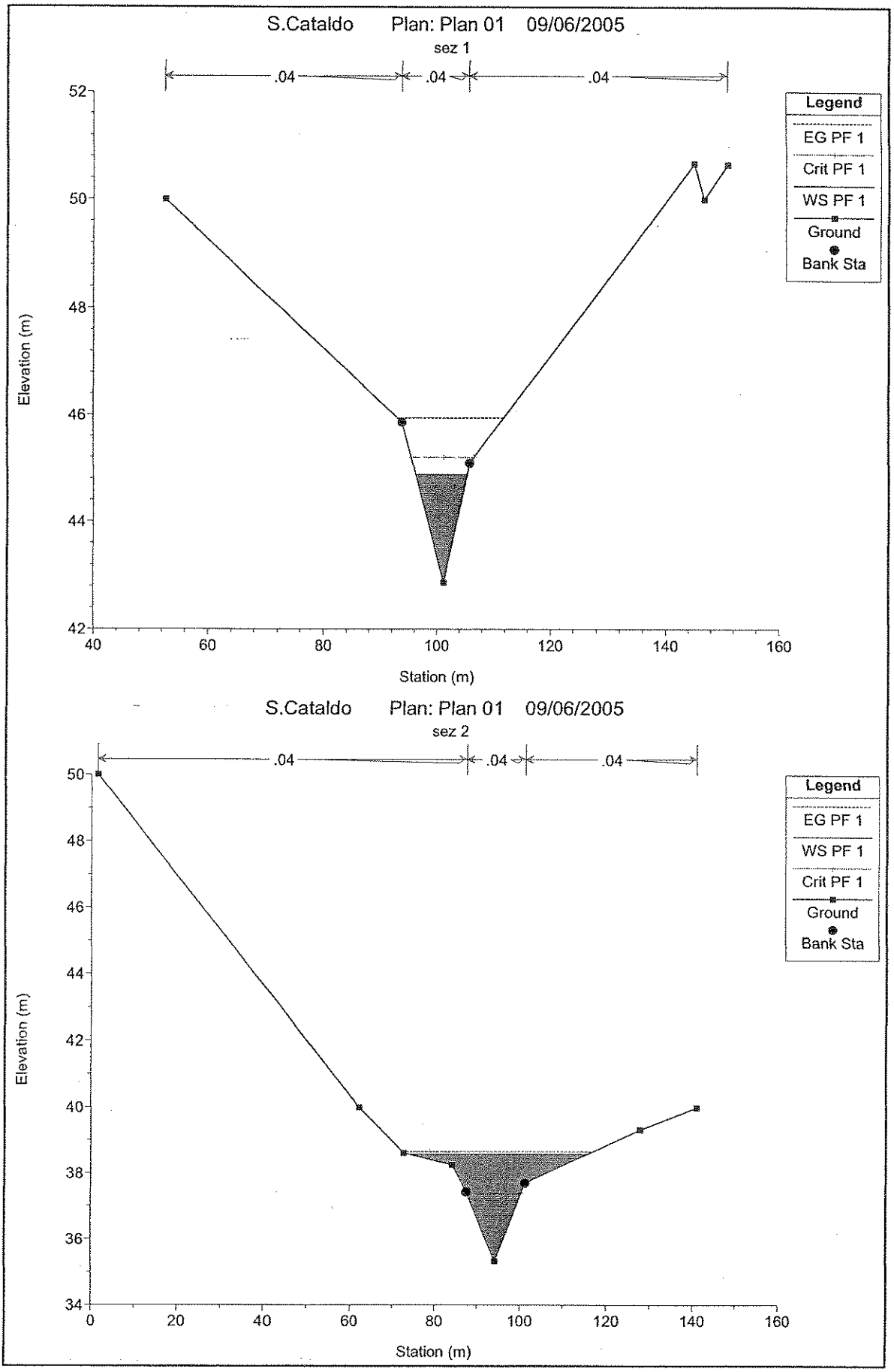

Morenile Plan: Plan 01 08/06/2005
sez 12
.04
.04
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
35
30
25
20
15
10
5
50
60
70
80
90
100
110
120

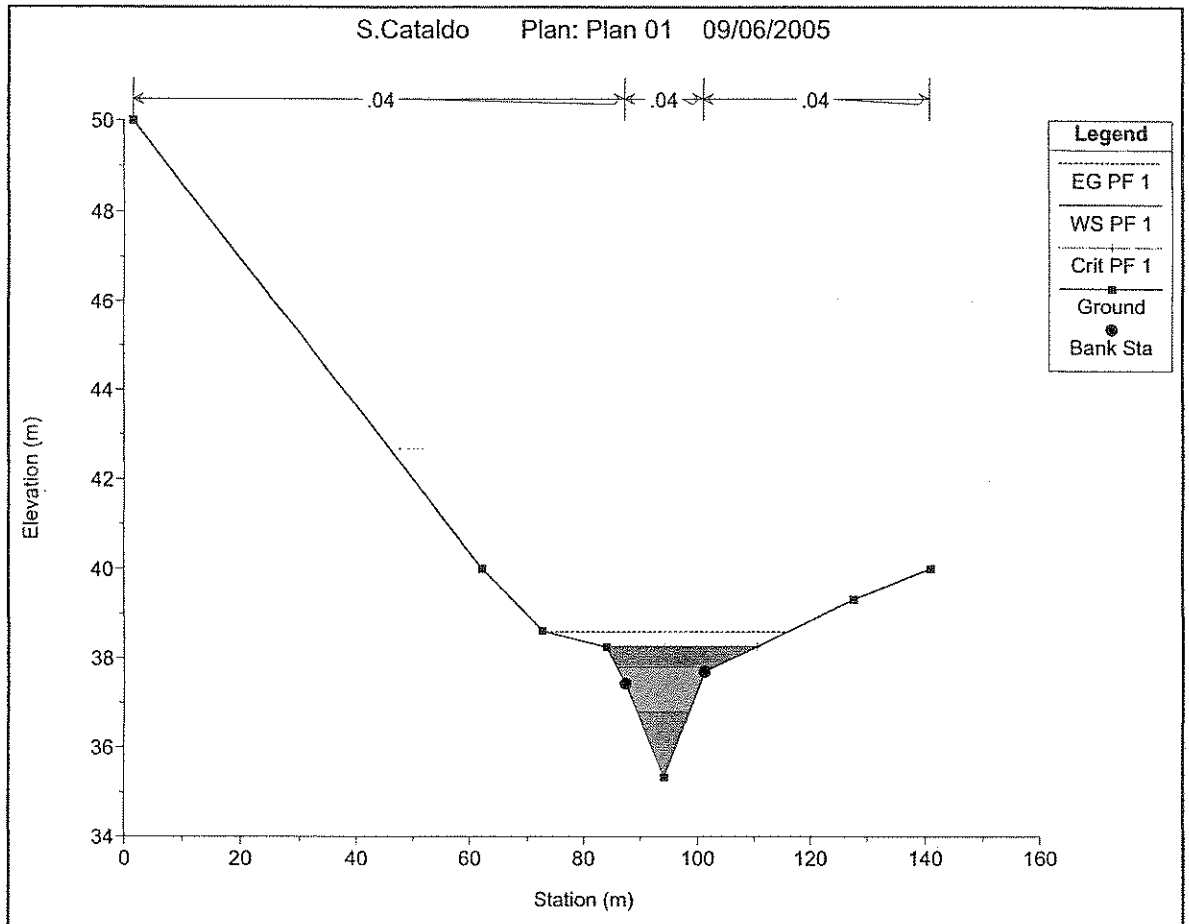

Morenile Plan: Plan 01 08/06/2005
sez 13
.04
.04
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
18
16
14
12
10
8
10
15
20
25
30
35
40
45
50

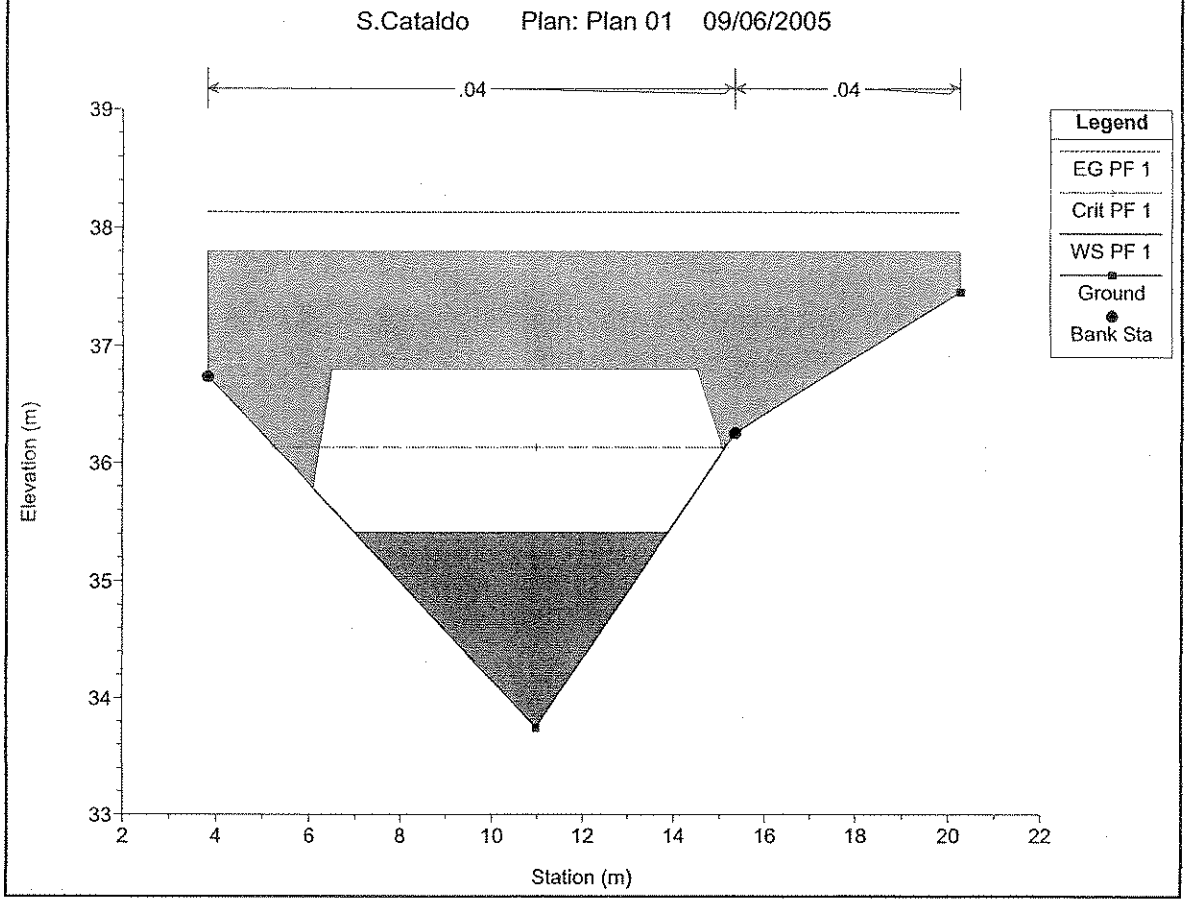

S.Cataldo Plan: Plan 01 09/06/2005
S.Cataldo cataldo
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Elevation (m)
Main Channel Distance (m)
201 sez 8
337 sez 7
400 sez 6
496 sez 5
725. sez 4
801. sez 3
815
1009. sez 1
0
200
400
600
800
1000
1200
5
10
15
20
25
30
35
40
45
50

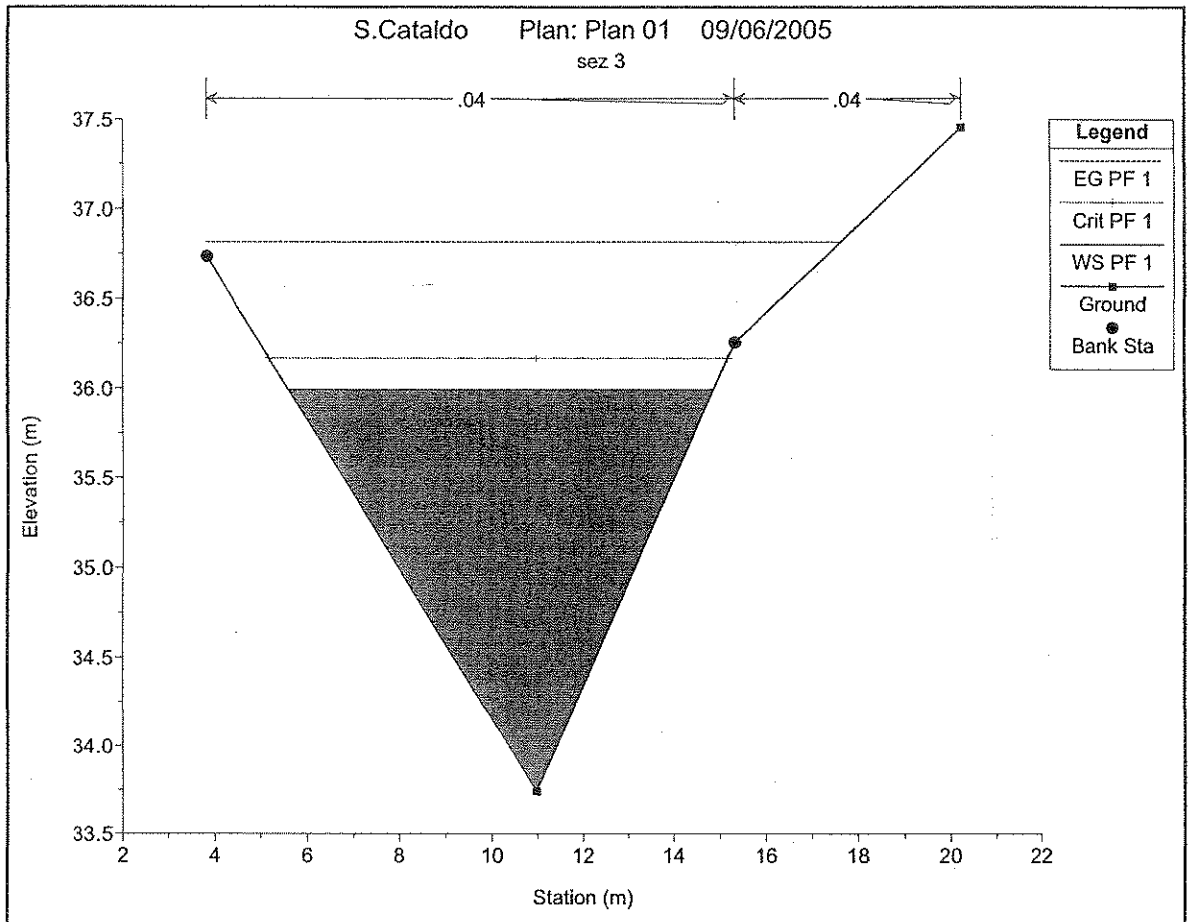
HEC-RAS Plan: Plan 01 River: S.Cataldo Reach: cataldo Profile: PF 1

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
cataldo	1009	PF 1	42.00	42.87	44.86	45.20	45.94	0.037201	4.56	9.20	9.14	1.45
cataldo	830	PF 1	42.00	35.33	38.57	37.38	38.65	0.001028	1.28	39.72	41.62	0.28
cataldo	815		Bridge									
cataldo	801	PF 1	42.00	33.74	35.99	36.17	36.82	0.025430	4.02	10.46	9.29	1.21
cataldo	725	PF 1	42.00	28.16	29.20	29.85	32.21	0.235783	7.70	5.46	10.52	3.41
cataldo	496	PF 1	42.00	19.54	20.87	20.92	21.36	0.017936	3.35	14.18	17.79	1.07
cataldo	400	PF 1	42.00	17.28	19.03	19.08	19.54	0.019983	3.16	13.28	15.16	1.08
cataldo	337	PF 1	102.00	14.24	16.01	16.50	17.63	0.033788	5.71	18.62	15.05	1.54
cataldo	201	PF 1	102.00	11.81	15.24	15.28	15.60	0.006233	2.89	49.28	80.98	0.67
cataldo	0	PF 1	102.00	9.20	11.31	11.85	13.10	0.029570	6.08	17.98	12.60	1.49


S.Cataldo Plan: Plan 01 09/06/2005
sez 1
.04
.04
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
S.Cataldo Plan: Plan 01 09/06/2005
sez 2
.04
.04
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)


S.Cataldo Plan: Plan 01 09/06/2005
.04
.04
.04
Legend
EG PF 1
WS PF 1
Crit PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
50
48
46
44
42
40
38
36
34
0
20
40
60
80
100
120
140
160


S.Cataldo Plan: Plan 01 09/06/2005
.04
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
39
38
37
36
35
34
33
2
4
6
8
10
12
14
16
18
20
22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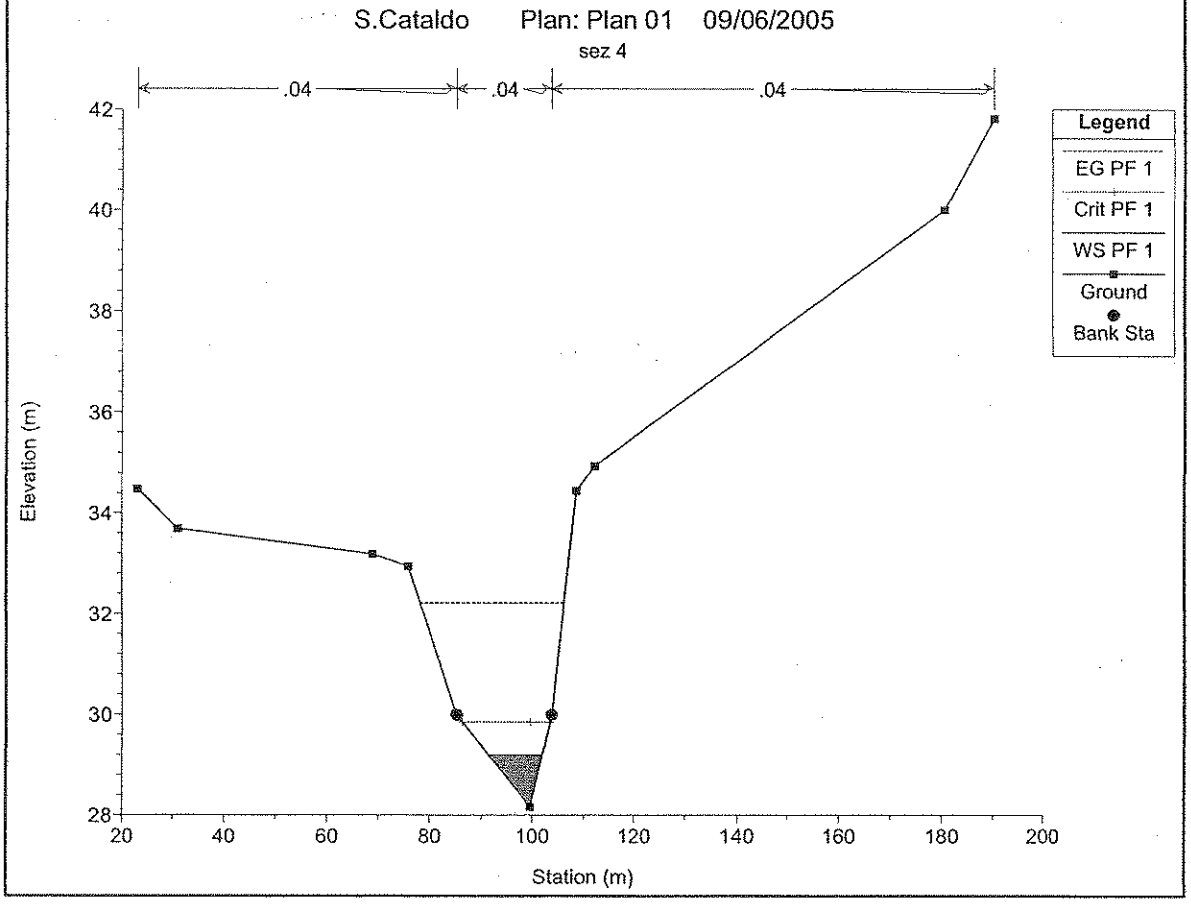
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
37.5
37.0
36.5
36.0
35.5
35.0
34.5
34.0
33.5
2
4
6
8
10
12
14
16
18
20
22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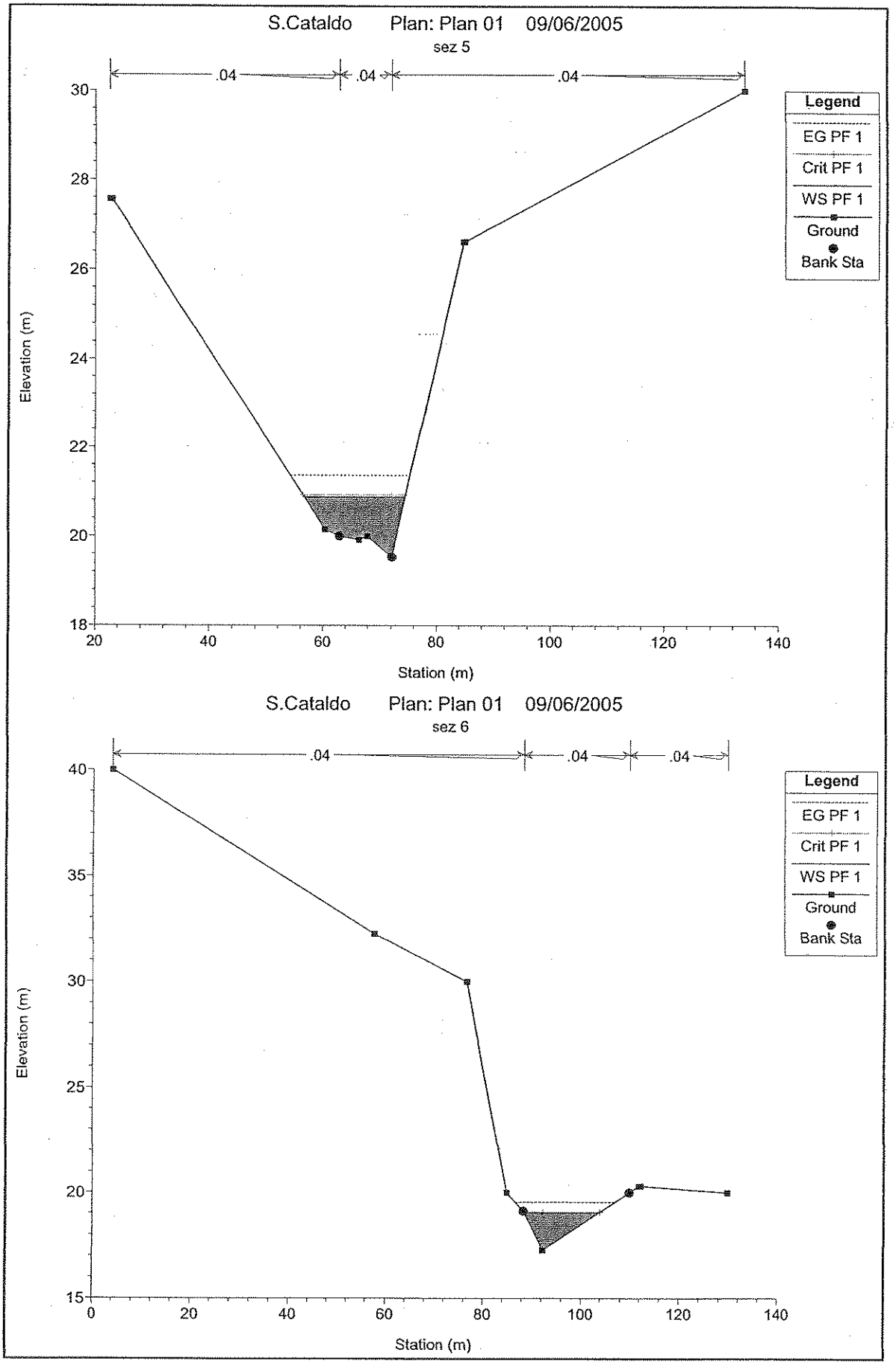
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
42
40
38
36
34
32
30
28
20
40
60
80
100
120
140
160
180
200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Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
S.Cataldo Plan: Plan 01 09/06/2005
sez 6
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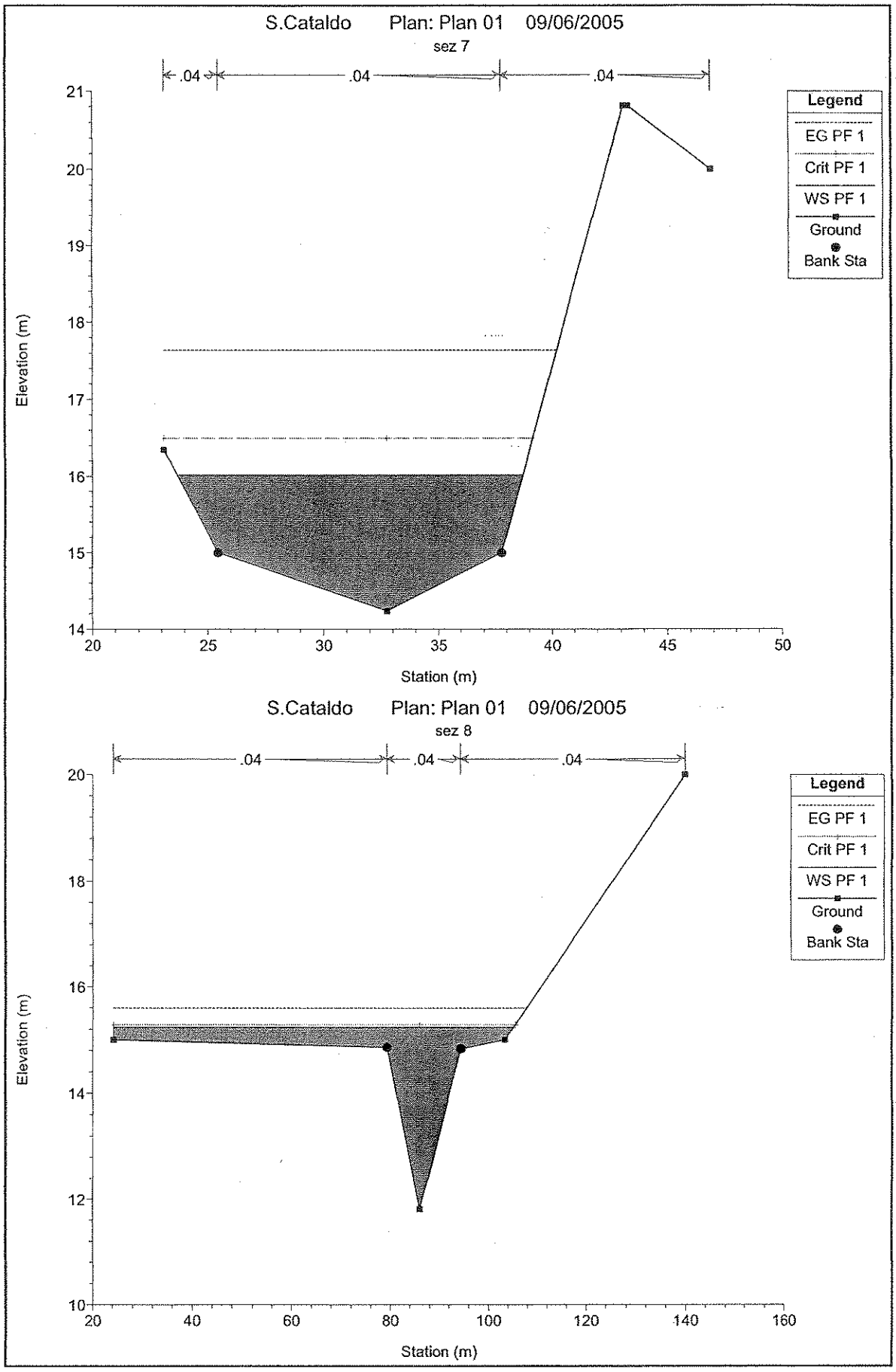
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)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Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
S.Cataldo Plan: Plan 01 09/06/2005
sez 8
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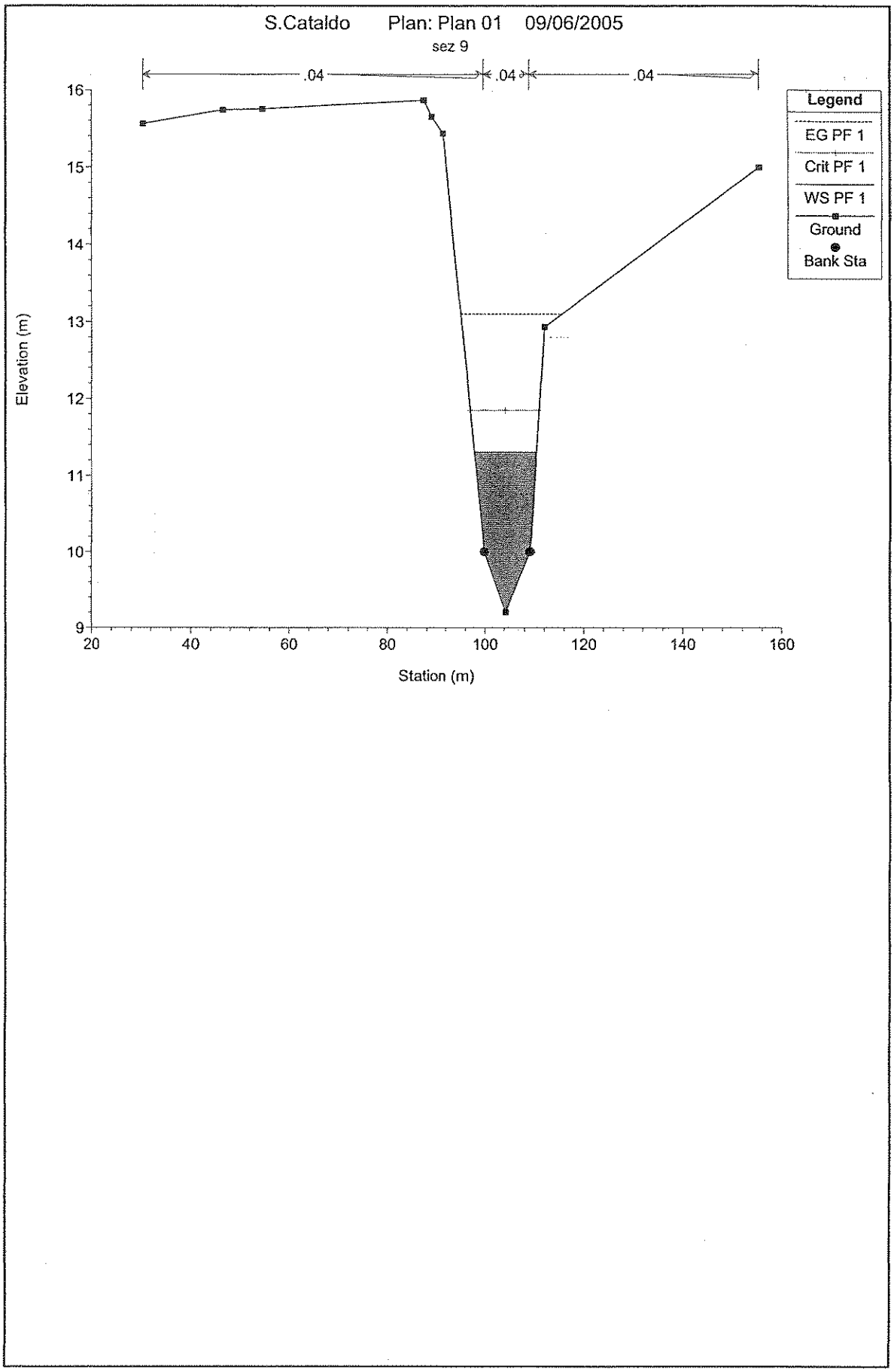
.04
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)


S.Cataldo Plan: Plan 01 09/06/2005
sez 9
.04
.04
.04
Legend
EG PF 1
Crit PF 1
WS PF 1
Ground
Bank Sta
Elevation (m)
Station (m)
16
15
14
13
12
11
10
9
20
40
60
80
100
120
140
160

Moto Uniforme Torrente Falcosa Tr = 200
Worksheet for Irregular Channel

Project Description	
Project File	c:\docume~1\computer\desktop\moto_uni.fm2
Worksheet	03.Falcosa Tr=200
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Input Data	
Channel Slope	0,020000 m/m

Elevation range: 39.0 m to 45.0 m.

Station (m)	Elevation (m)
11,96	40,81
16,30	40,00
19,93	39,35
101,96	38,97
114,05	40,00
121,15	41,71
270,14	44,69
275,49	44,69
288,66	45,00

Discharge	52,70 m³/s

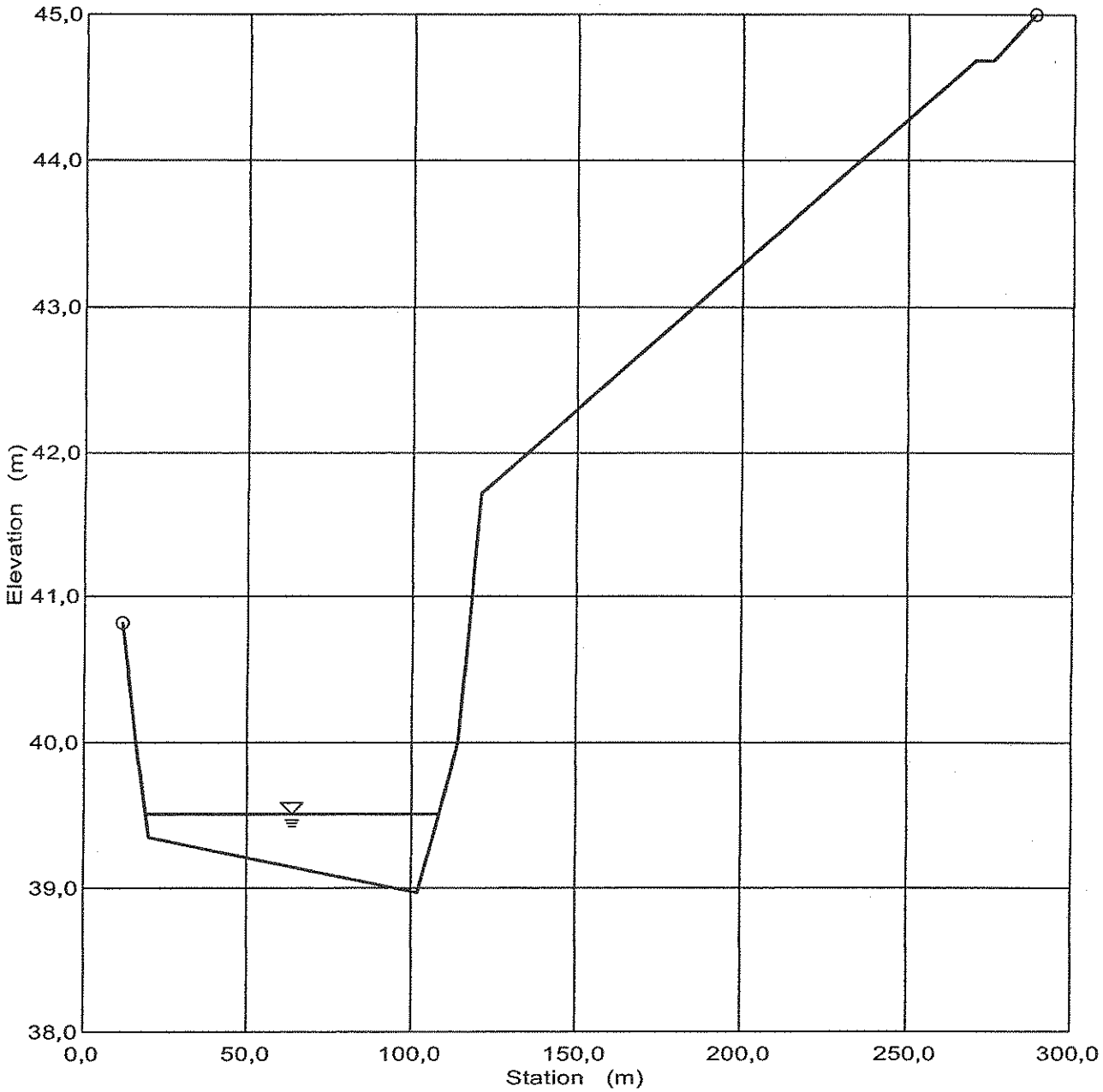
Start Station	End Station	Roughness
11,96	288,66	0,040

Results	
Wtd. Mannings Coefficient	0,040
Water Surface Elevation	39,51 m
Flow Area	30,50 m²
Wetted Perimeter	89,27 m
Top Width	89,23 m
Height	0,54 m
Critical Depth	39,49 m
Critical Slope	0,022731 m/m
Velocity	1,73 m/s
Velocity Head	0,15 m
Specific Energy	39,66 m
Froude Number	0,94
Flow is subcritical.	

Sezione Torrente Falcosa
Cross Section for Irregular Channel

Project Description	
Project File	c:\docume~1\computer\desktop\moto_uni.fm2
Worksheet	03.Falcosa Tr=200
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Section Data		
Wtd. Mannings Coefficient	0,040	
Channel Slope	0,020000	m/m
Water Surface Elevation	39,51	m
Discharge	52,70	m³/s



Moto Uniforme T. Valle Lampo Tr = 200
Worksheet for Irregular Channel

Project Description	
Project File	c:\docume~1\computer\desktop\moto_uni.fm2
Worksheet	04.Valle Lampo Tr=200
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

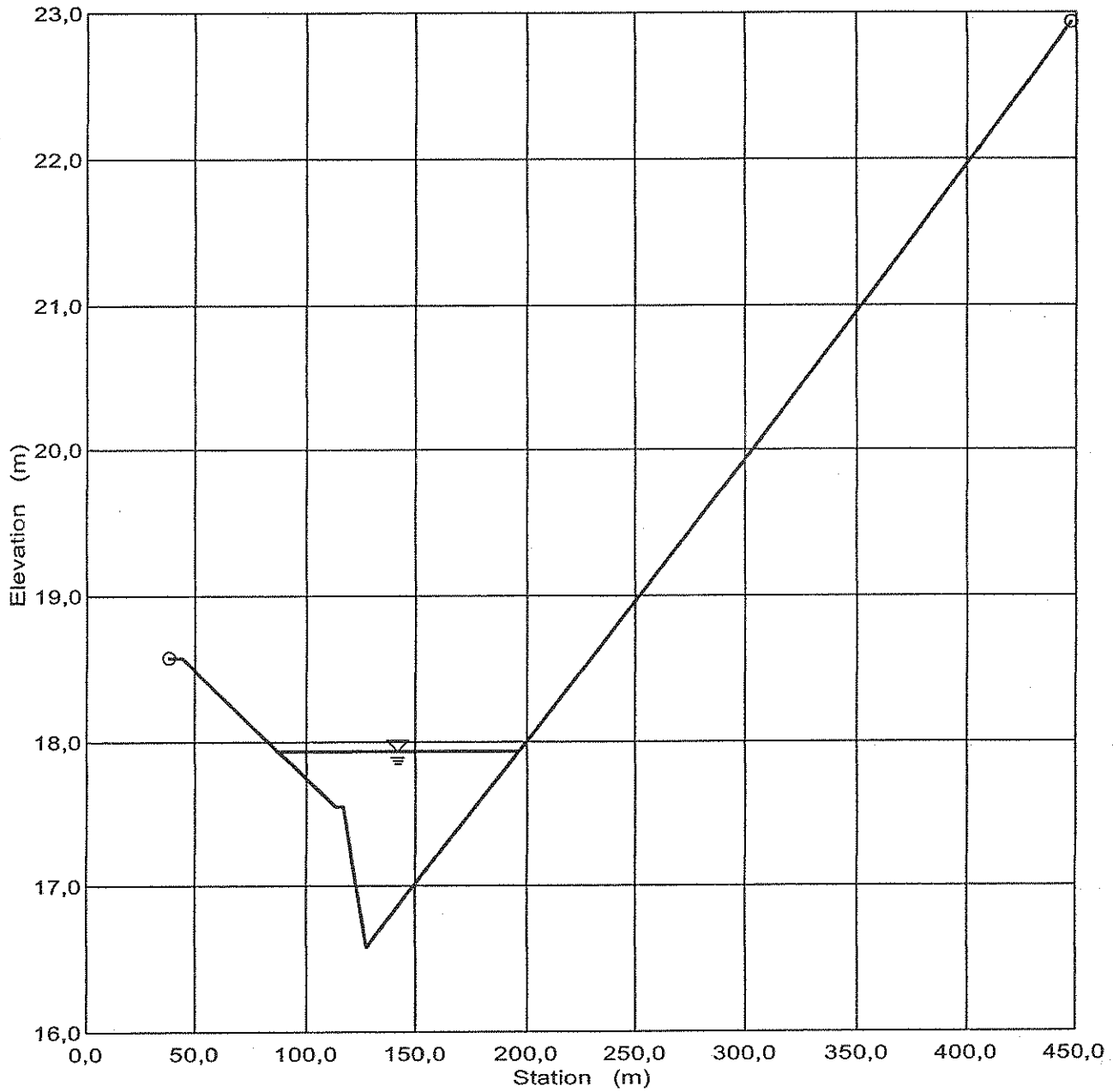
Input Data				
Channel Slope	0,006000 m/m			
Elevation range: 16.6 m to 22.9 m.				
Station (m)	Elevation (m)	Start Station	End Station	Roughness
38,19	18,57	38,19	448,54	0,040
43,93	18,57			
113,27	17,55			
116,89	17,55			
127,30	16,58			
268,54	19,33			
304,21	20,01			
448,54	22,94			
Discharge	83,80 m^3/s			

Results		
Wtd. Mannings Coefficient	0,040	
Water Surface Elevation	17,93	m
Flow Area	62,82	m^2
Wetted Perimeter	109,88	m
Top Width	109,82	m
Height	1,36	m
Critical Depth	17,68	m
Critical Slope	0,019975	m/m
Velocity	1,33	m/s
Velocity Head	0,09	m
Specific Energy	18,03	m
Froude Number	0,56	
Flow is subcritical.		

Sezione Torrente Valle Lampo
Cross Section for Irregular Channel

Project Description	
Project File	c:\docume~1\computer\desktop\moto_uni.fm2
Worksheet	04.Valle Lampo Tr=200
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Section Data		
Wtd. Mannings Coefficient	0,040	
Channel Slope	0,006000	m/m
Water Surface Elevation	17,93	m
Discharge	83,80	m³/s



Moto Uniforme Torrente Vergaro Tr = 200
Worksheet for Irregular Channel

Project Description	
Project File	c:\docume~1\computer\desktop\moto_uni.fm2
Worksheet	09.Vergaro Tr=200
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

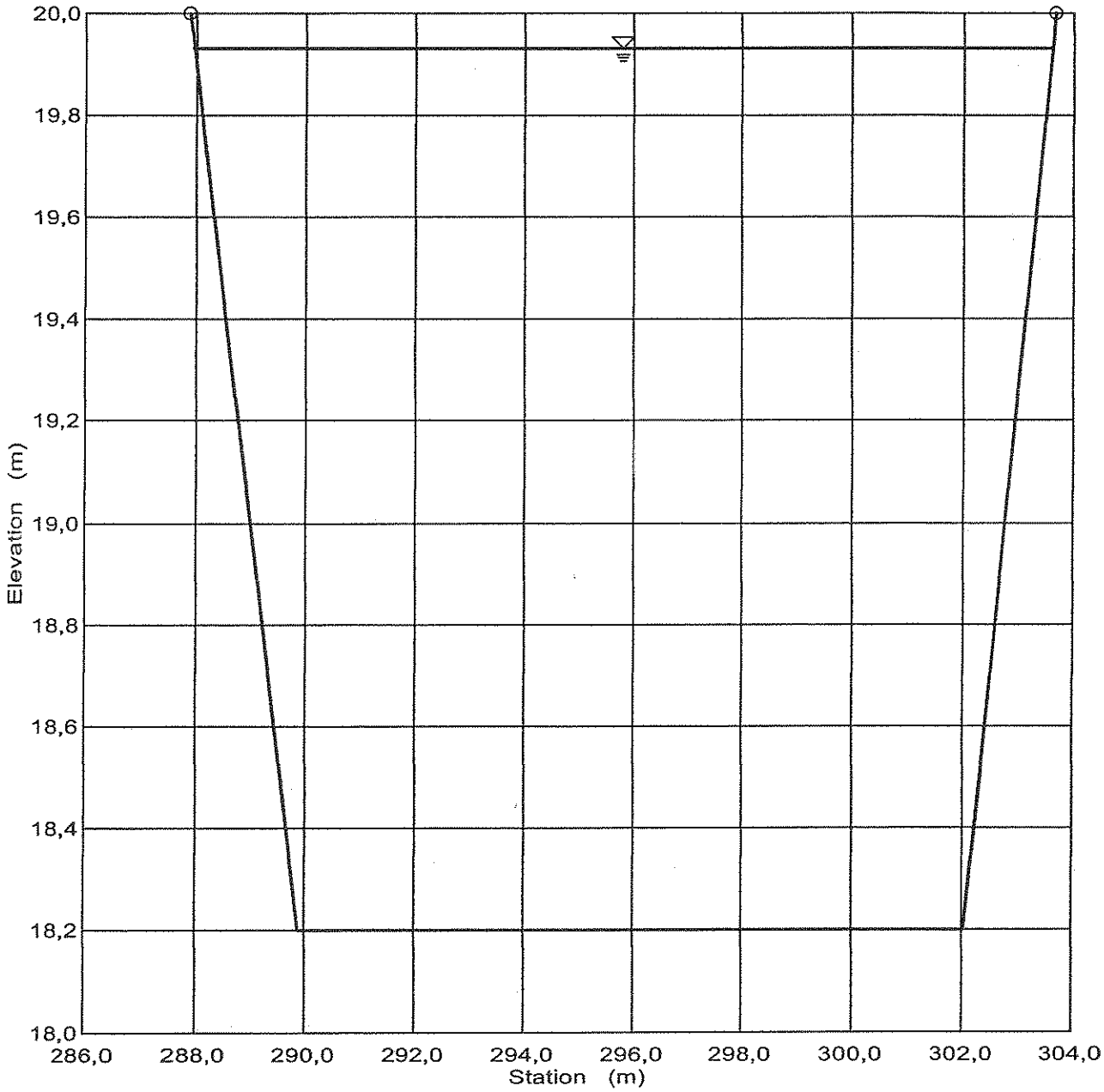
Input Data				
Channel Slope	0,010000 m/m			
Elevation range: 18.2 m to 20.0 m.				
Station (m)	Elevation (m)	Start Station	End Station	Roughness
287,88	20,00	287,88	303,70	0,040
289,88	18,20			
294,05	18,20			
302,04	18,20			
303,70	20,00			
Discharge	75,70 m^3/s			

Results		
Wtd. Mannings Coefficient	0,040	
Water Surface Elevation	19,93	m
Flow Area	24,09	m^2
Wetted Perimeter	17,10	m
Top Width	15,68	m
Height	1,73	m
Critical Depth	19,71	m
Critical Slope	0,015724	m/m
Velocity	3,14	m/s
Velocity Head	0,50	m
Specific Energy	20,43	m
Froude Number	0,81	
Flow is subcritical.		

Sezione Torrente Vergaro
Cross Section for Irregular Channel

Project Description	
Project File	c:\docume~1\computer\desktop\moto_uni.fm2
Worksheet	09.Vergaro Tr=200
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Section Data		
Wtd. Mannings Coefficient	0,040	
Channel Slope	0,010000	m/m
Water Surface Elevation	19,93	m
Discharge	75,70	m³/s



Borrone della Marina Tr = 200
Worksheet for Irregular Channel

Project Description	
Project File	c:\docume~1\computer\desktop\moto_uni.fm2
Worksheet	11. Borrone della Marina Tr=200
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Input Data	
Channel Slope	0,026000 m/m

Elevation range: 31.6 m to 45.0 m.

Station (m)	Elevation (m)	Start Station	End Station	Roughness
20,15	40,00	20,15	667,38	0,040
111,10	37,41			
153,56	35,87			
158,29	36,55			
165,05	35,62			
277,69	35,00			
289,19	35,46			
300,44	34,49			
310,16	31,57			
318,42	34,12			
324,67	36,38			
439,83	35,00			
510,55	39,55			
516,79	38,24			
523,65	38,40			
528,65	39,00			
586,55	38,81			
592,20	39,44			
604,95	40,00			
667,38	45,00			

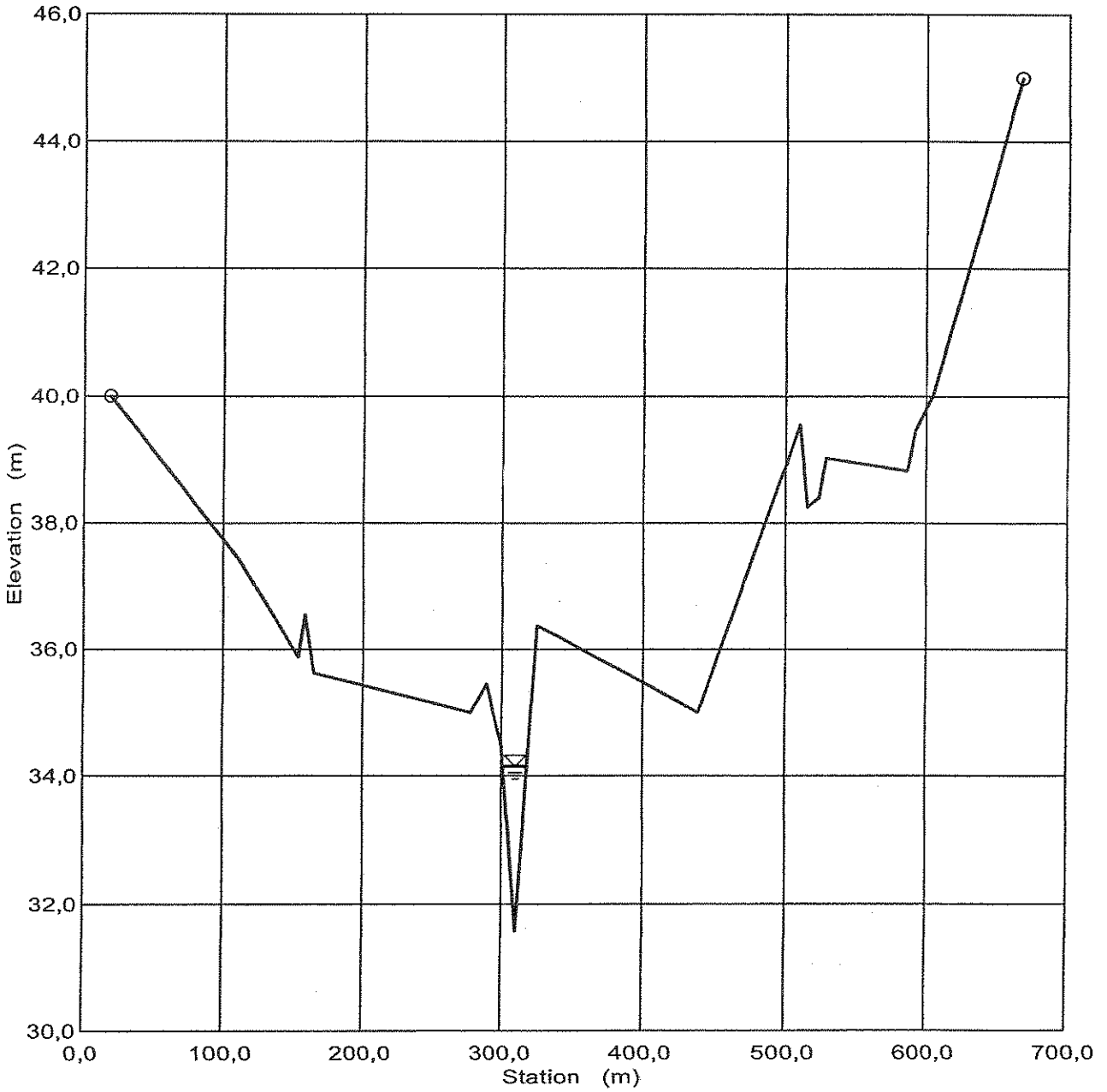
Discharge	103,50 m³/s

Results		
Wtd. Mannings Coefficient	0,040	
Water Surface Elevation	34,17	m
Flow Area	22,19	m²
Wetted Perimeter	17,83	m
Top Width	17,06	m
Height	2,60	m
Critical Depth	34,46	m
Critical Slope	0,014704	m/m
Velocity	4,66	m/s
Velocity Head	1,11	m
Specific Energy	35,28	m
Froude Number	1,31	
Flow is supercritical.		

Sezione Borrone della Marina
Cross Section for Irregular Channel

Project Description	
Project File	c:\docume~1\computer\desktop\moto_uni.fm2
Worksheet	11. Borrone della Marina Tr=200
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Section Data		
Wtd. Mannings Coefficient	0,040	
Channel Slope	0,026000	m/m
Water Surface Elevation	34,17	m
Discharge	103,50	m³/s



Moto Uniforme Borrone Dattole Tr = 200
Worksheet for Rectangular Channel

Project Description	
Project File	c:\docume~1\computer\desktop\moto_uni.fm2
Worksheet	12.Borrone Dattole Tr=200
Flow Element	Rectangular Channel
Method	Manning's Formula
Solve For	Channel Depth

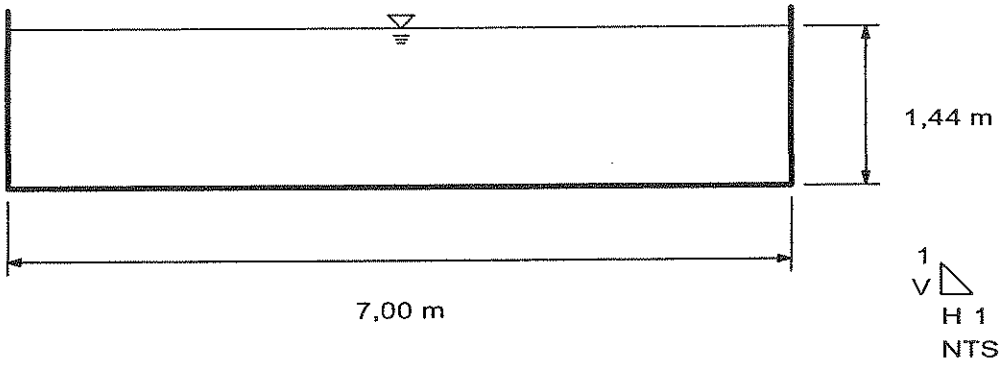
Input Data		
Mannings Coefficient	0,025	
Channel Slope	0,020000	m/m
Bottom Width	7,00	m
Discharge	57,65	m³/s

Results		
Depth	1,44	m
Flow Area	10,06	m²
Wetted Perimeter	9,88	m
Top Width	7,00	m
Critical Depth	1,91	m
Critical Slope	0,008826	m/m
Velocity	5,73	m/s
Velocity Head	1,67	m
Specific Energy	3,11	m
Froude Number	1,53	
Flow is supercritical.		

Sezione Borrone Dattole
Cross Section for Rectangular Channel

Project Description	
Project File	c:\docume~1\computer\desktop\moto_uni.fm2
Worksheet	12.Borrone Dattole Tr=200
Flow Element	Rectangular Channel
Method	Manning's Formula
Solve For	Channel Depth

Section Data		
Mannings Coefficient	0,025	
Channel Slope	0,020000	m/m
Depth	1,44	m
Bottom Width	7,00	m
Discharge	57,65	m³/s



Moto Uniforme Fosso Tr=200
Worksheet for Irregular Channel

Project Description	
Project File	c:\docume~1\computer\desktop\moto_uni.fm2
Worksheet	18. Fosso Tr=200
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Input Data	
Channel Slope	0,040000 m/m

Elevation range: 79,5 m to 100,0 m.

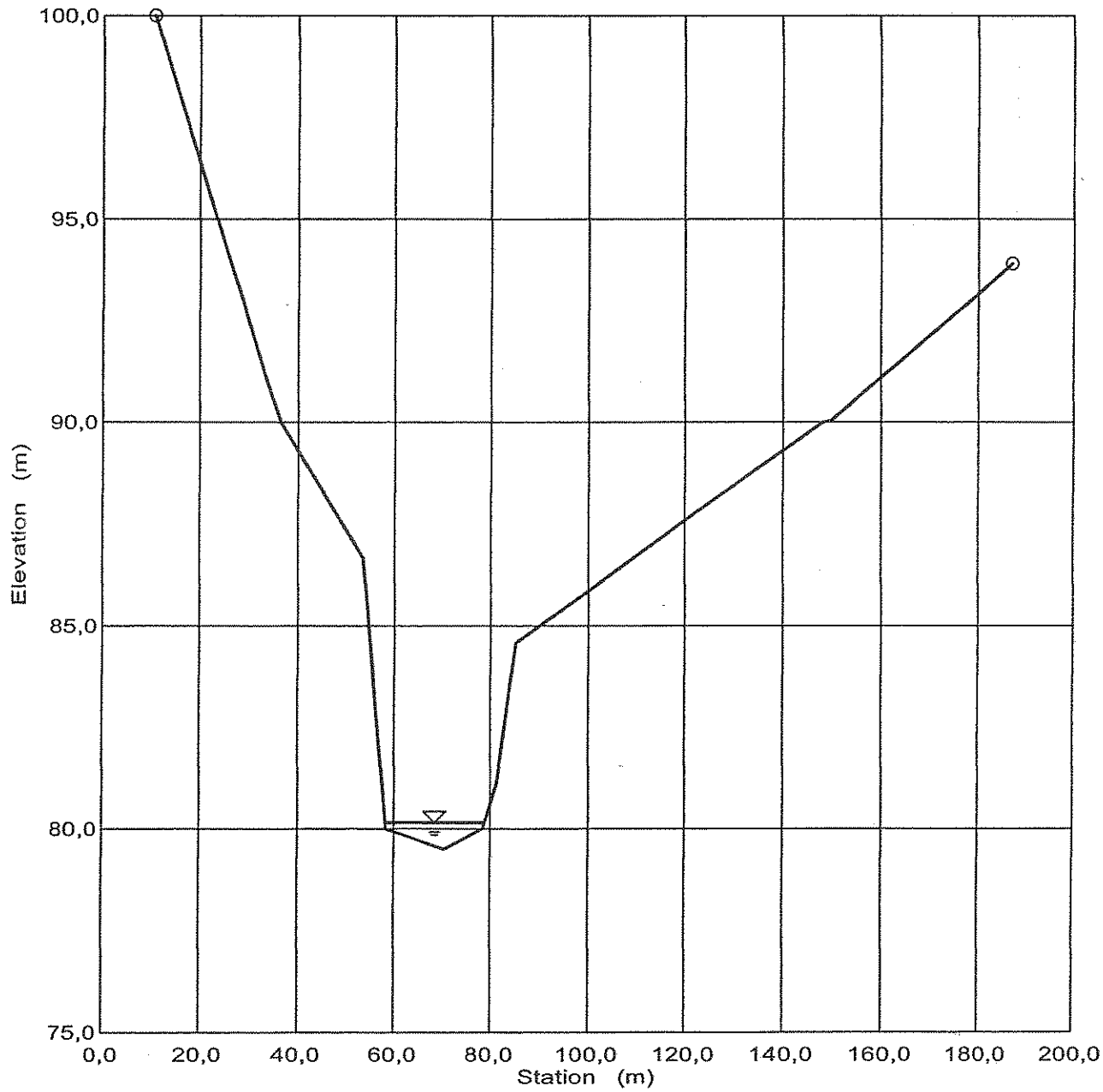
Station (m)	Elevation (m)	Start Station	End Station	Roughness
10,91	100,00	10,91	187,39	0,040
36,50	90,00			
53,62	86,67			
58,51	80,00			
70,50	79,50			
78,56	80,00			
81,37	81,14			
85,25	84,56			
148,20	90,00			
149,94	90,05			
187,39	93,89			
Discharge	23,00 m^3/s			

Results		
Wtd. Mannings Coefficient	0,040	
Water Surface Elevation	80,16	m
Flow Area	8,40	m^2
Wetted Perimeter	20,72	m
Top Width	20,57	m
Height	0,67	m
Critical Depth	80,26	m
Critical Slope	0,020058	m/m
Velocity	2,74	m/s
Velocity Head	0,38	m
Specific Energy	80,55	m
Froude Number	1,37	
Flow is supercritical.		

Sezione Fosso
Cross Section for Irregular Channel

Project Description	
Project File	c:\docume~1\computer\desktop\moto_uni.fm2
Worksheet	18. Fosso Tr=200
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Section Data		
Wtd. Mannings Coefficient	0,040	
Channel Slope	0,040000	m/m
Water Surface Elevation	80,16	m
Discharge	23,00	m³/s



Moto Uniforme T. S. Nicola Tr = 200
Worksheet for Irregular Channel

Project Description	
Project File	c:\docume~1\computer\desktop\moto_uni.fm2
Worksheet	19.T.San Nicola Tr=200
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Input Data	
Channel Slope	0,026000 m/m

Elevation range: 55.9 m to 68.5 m.

Station (m)	Elevation (m)	Start Station	End Station	Roughness
17,52	63,93	17,52	354,63	0,040
29,11	63,72			
51,44	62,36			
60,49	62,60			
71,11	62,46			
76,67	62,23			
80,39	59,38			
124,53	59,40			
126,19	60,00			
126,22	60,00			
131,58	59,40			
131,59	59,40			
150,18	55,86			
157,13	57,57			
162,37	57,59			
218,29	60,00			
270,51	59,39			
280,24	62,00			
293,26	63,17			
294,32	63,18			
299,20	63,23			
299,40	63,38			
307,83	65,00			
310,50	62,69			
323,49	65,00			
331,28	64,05			
343,75	67,06			
354,63	66,96			
354,63	68,50			
Discharge	31,27 m^3/s			

Results		
Wtd. Mannings Coefficient	0,040	
Water Surface Elevation	57,31	m
Flow Area	9,77	m^2
Wetted Perimeter	13,80	m
Top Width	13,49	m
Height	1,45	m
Critical Depth	57,42	m
Critical Slope	0,017579	m/m
Velocity	3,20	m/s

Moto Uniforme T. S. Nicola Tr = 200

Worksheet for Irregular Channel

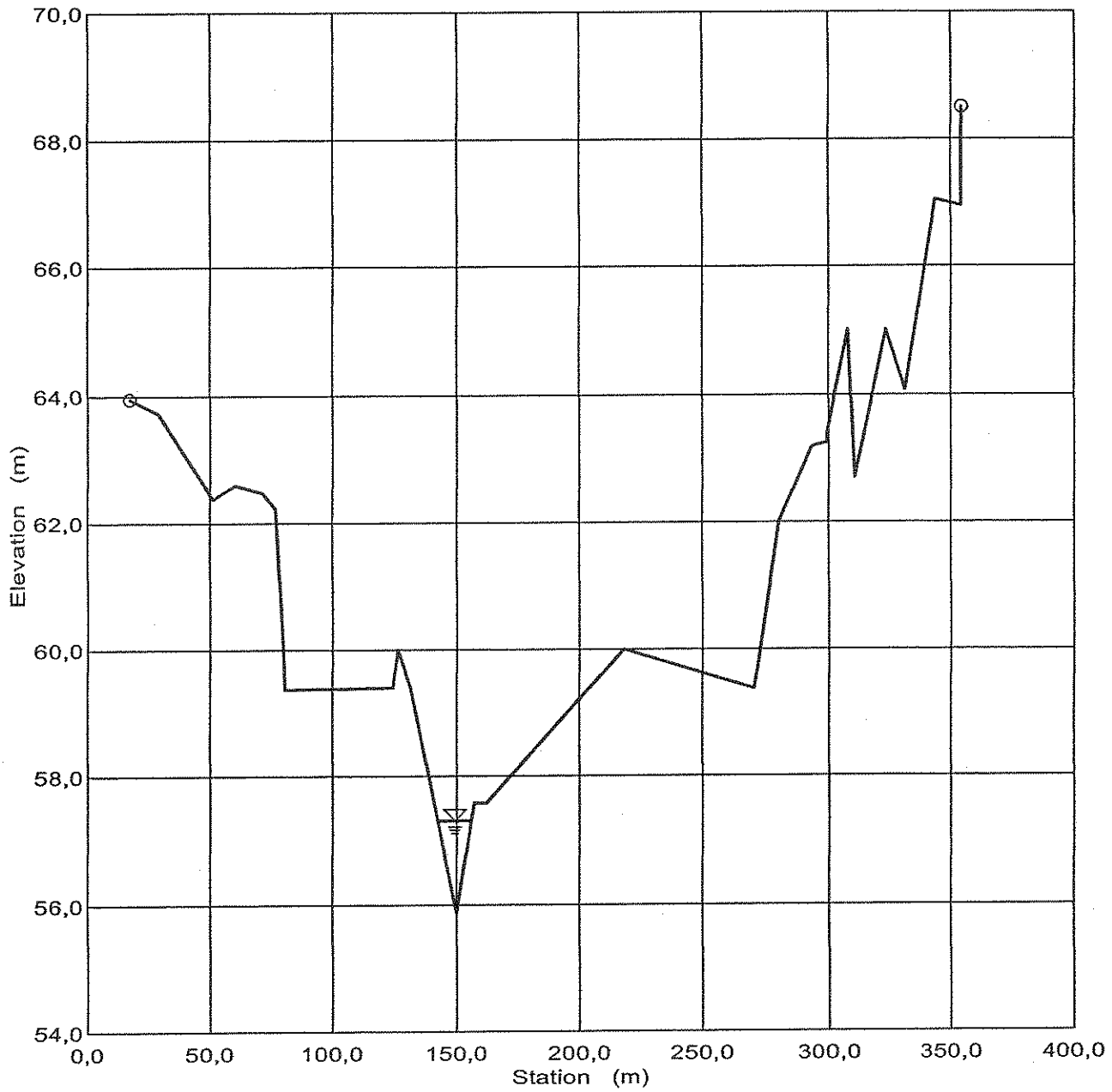
Velocity Head	0,52	m
Specific Energy	57,83	m
Froude Number	1,20	

Flow is supercritical.

Sezione Torrente S. Nicola
Cross Section for Irregular Channel

Project Description	
Project File	c:\docume~1\computer\desktop\moto_uni.fm2
Worksheet	19.T.San Nicola Tr=200
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Section Data		
Wtd. Mannings Coefficient	0,040	
Channel Slope	0,026000	m/m
Water Surface Elevation	57,31	m
Discharge	31,27	m³/s



Moto Uniforme T. Petrosino Tr = 200
Worksheet for Irregular Channel

Project Description	
Project File	c:\docume~1\computer\desktop\moto_uni.fm2
Worksheet	20.T. Petrosino Tr=200
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Input Data	
Channel Slope	0,032000 m/m

Elevation range: 50.6 m to 70.2 m.

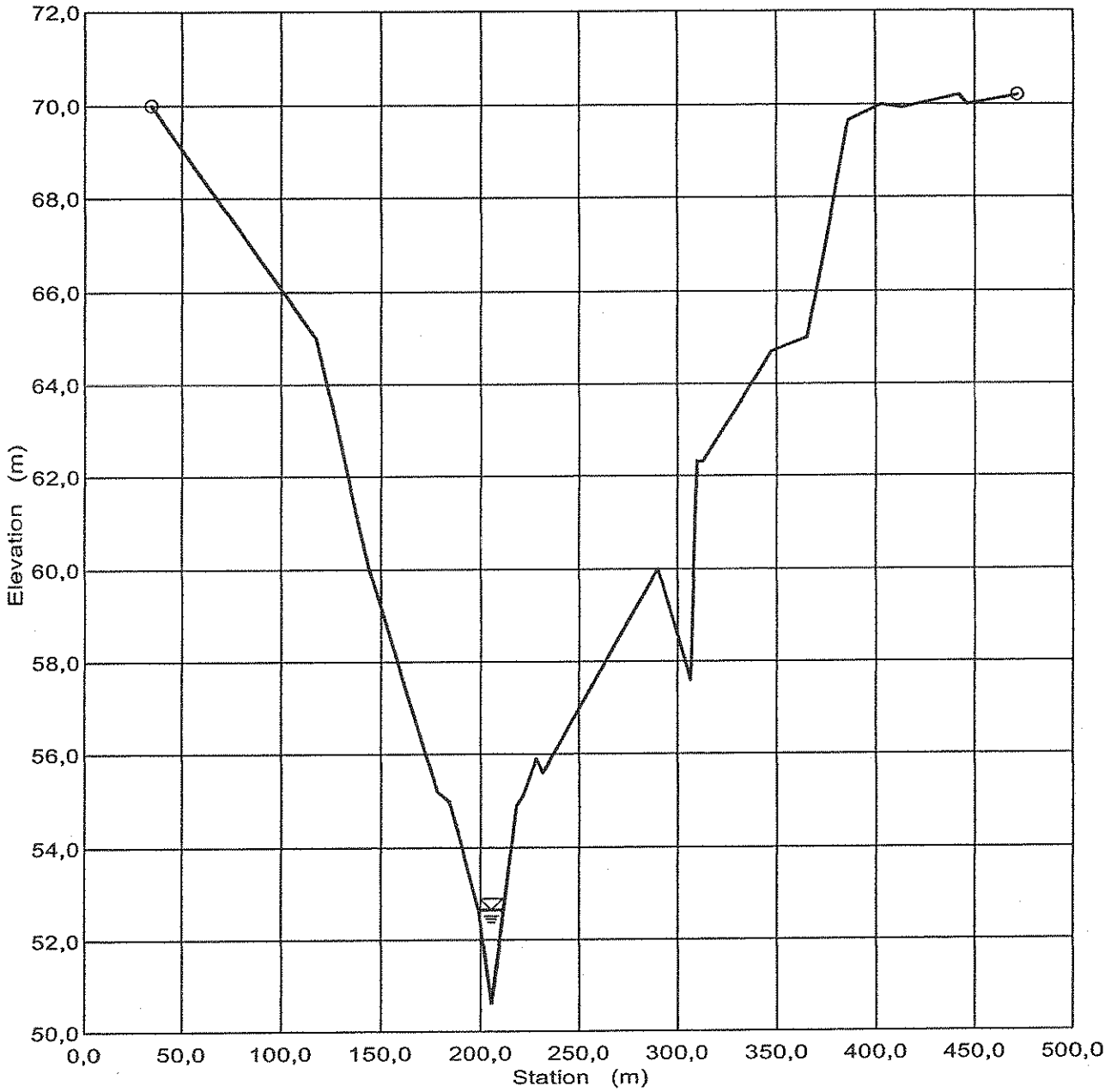
Station (m)	Elevation (m)	Start Station	End Station	Roughness
34,41	70,00	34,41	472,13	0,040
117,22	65,00			
144,12	60,00			
177,79	55,20			
183,80	55,00			
199,50	52,63			
205,76	50,64			
217,99	54,88			
219,58	55,00			
220,73	55,09			
227,84	55,93			
231,60	55,61			
290,73	60,00			
306,87	57,60			
310,10	62,31			
313,31	62,32			
347,72	64,67			
365,44	65,00			
386,73	69,66			
403,75	70,00			
413,88	69,92			
442,00	70,20			
445,90	70,00			
472,13	70,21			
Discharge	51,60 m^3/s			

Results		
Wtd. Mannings Coefficient	0,040	
Water Surface Elevation	52,64	m
Flow Area	11,99	m^2
Wetted Perimeter	12,69	m
Top Width	12,04	m
Height	1,99	m
Critical Depth	52,93	m
Critical Slope	0,016319	m/m
Velocity	4,31	m/s
Velocity Head	0,95	m
Specific Energy	53,58	m
Froude Number	1,38	
Flow is supercritical.		

Sezione Torrente Petrosino
Cross Section for Irregular Channel

Project Description	
Project File	c:\docume~1\computer\desktop\moto_uni.fm2
Worksheet	20.T. Petrosino Tr=200
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Section Data		
Wtd. Mannings Coefficient	0,040	
Channel Slope	0,032000	m/m
Water Surface Elevation	52,64	m
Discharge	51,60	m³/s



Moto Uniforme Fosso Tr = 200
Worksheet for Irregular Channel

Project Description	
Project File	c:\docume~1\computer\desktop\moto_uni.fm2
Worksheet	21. Fosso Tr=200
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

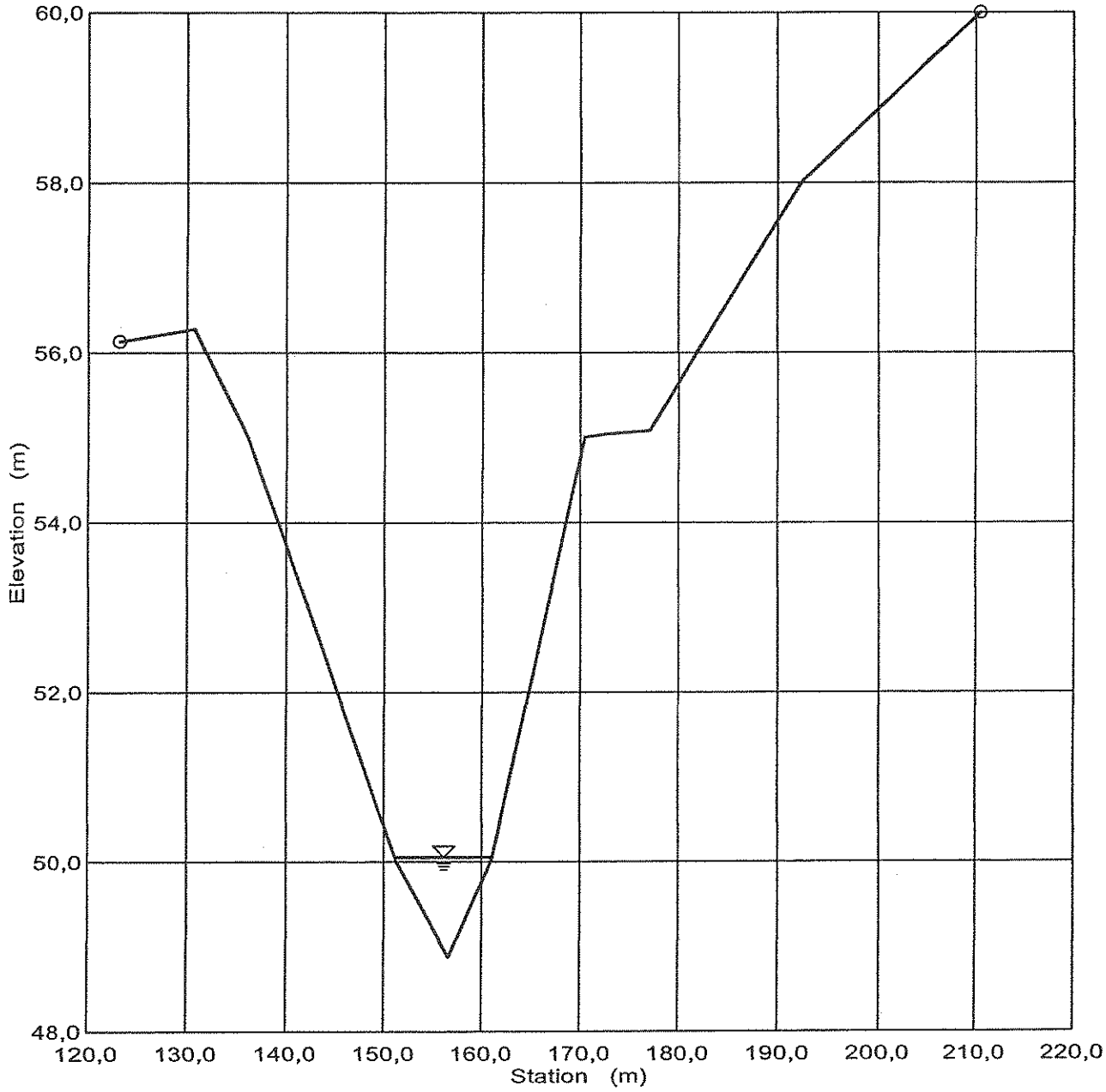
Input Data				
Channel Slope	0,020000 m/m			
Elevation range: 48.9 m to 60.0 m.				
Station (m)	Elevation (m)	Start Station	End Station	Roughness
123,24	56,13	123,24	210,49	0,040
130,70	56,28			
136,05	55,00			
151,33	50,00			
156,56	48,88			
160,98	50,00			
170,44	55,00			
172,80	55,04			
177,18	55,08			
192,56	58,02			
210,49	60,00			
Discharge	14,50 m^3/s			

Results		
Wtd. Mannings Coefficient	0,040	
Water Surface Elevation	50,05	m
Flow Area	5,90	m^2
Wetted Perimeter	10,17	m
Top Width	9,89	m
Height	1,17	m
Critical Depth	50,06	m
Critical Slope	0,019298	m/m
Velocity	2,46	m/s
Velocity Head	0,31	m
Specific Energy	50,36	m
Froude Number	1,02	
Flow is supercritical.		

Sezione Fosso
Cross Section for Irregular Channel

Project Description	
Project File	c:\docume~1\computer\desktop\moto_uni.fm2
Worksheet	21. Fosso Tr=200
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Section Data		
Wtd. Mannings Coefficient	0,040	
Channel Slope	0,020000	m/m
Water Surface Elevation	50,05	m
Discharge	14,50	m³/s



Moto Uniforme Fosso
Worksheet for Irregular Channel

Project Description	
Project File	c:\docume~1\computer\desktop\moto_uni.fm2
Worksheet	22. Fosso Tr=200
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

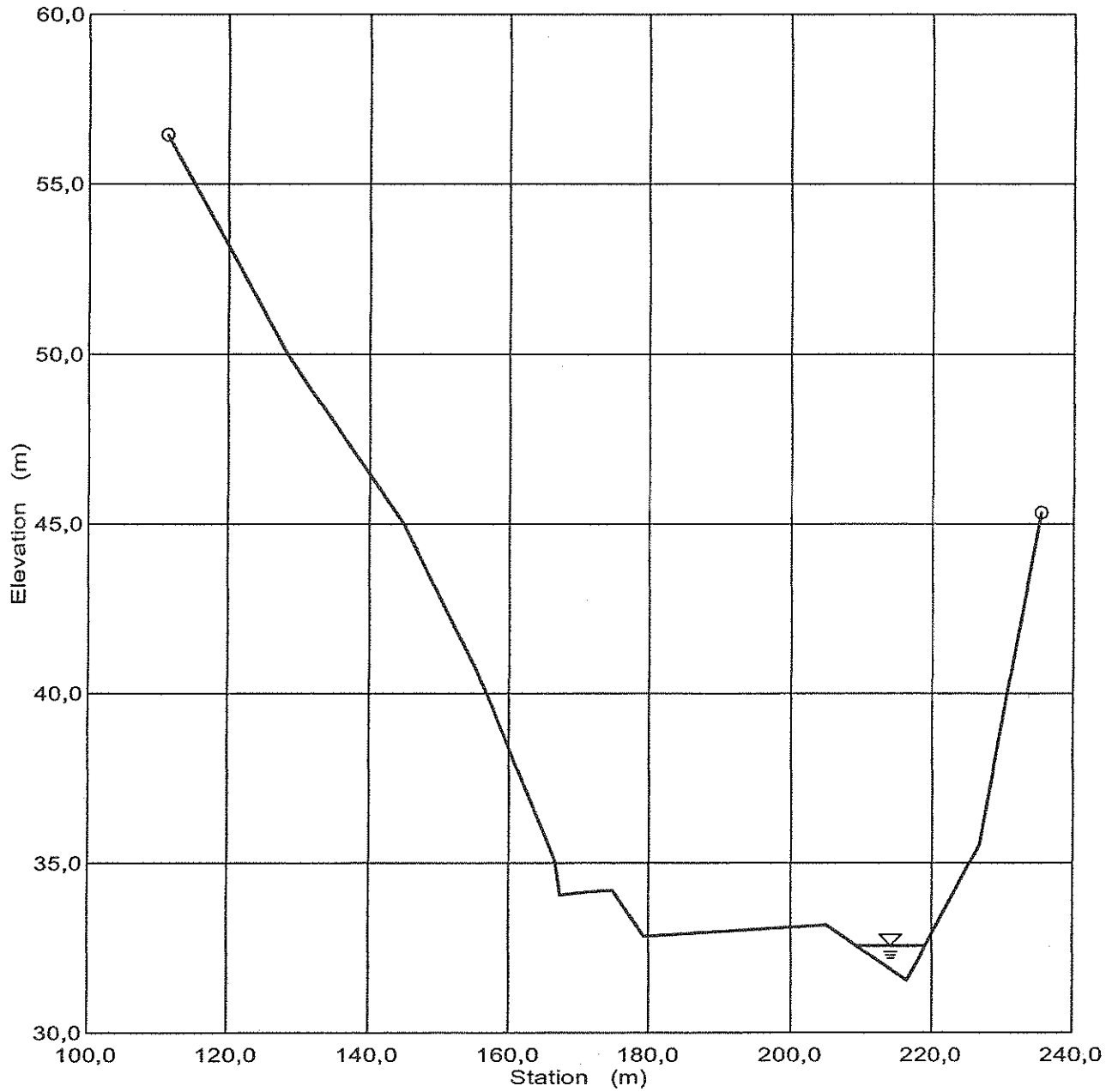
Input Data				
Channel Slope	0,048000 m/m			
Elevation range: 31.5 m to 56.4 m.				
Station (m)	Elevation (m)	Start Station	End Station	Roughness
111,35	56,42	111,35	235,48	0,040
128,35	50,00			
145,10	45,00			
156,96	40,00			
166,68	35,00			
167,27	34,05			
171,61	34,15			
174,74	34,18			
179,35	32,84			
204,97	33,16			
216,38	31,50			
226,79	35,48			
235,48	45,30			
Discharge	18,40 m^3/s			

Results		
Wtd. Mannings Coefficient	0,040	
Water Surface Elevation	32,55	m
Flow Area	5,25	m^2
Wetted Perimeter	10,24	m
Top Width	9,97	m
Height	1,05	m
Critical Depth	32,75	m
Critical Slope	0,019009	m/m
Velocity	3,51	m/s
Velocity Head	0,63	m
Specific Energy	33,18	m
Froude Number	1,54	
Flow is supercritical.		

Sezione Fosso
Cross Section for Irregular Channel

Project Description	
Project File	c:\docume~1\computer\desktop\moto_uni.fm2
Worksheet	22. Fosso Tr=200
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Section Data		
Wtd. Mannings Coefficient	0,040	
Channel Slope	0,048000	m/m
Water Surface Elevation	32,55	m
Discharge	18,40	m³/s



Moto Uniforme T. Cappellieri Tr = 200
Worksheet for Irregular Channel

Project Description	
Project File	c:\docume~1\computer\desktop\moto_uni.fm2
Worksheet	26. Cappellieri Tr=200
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

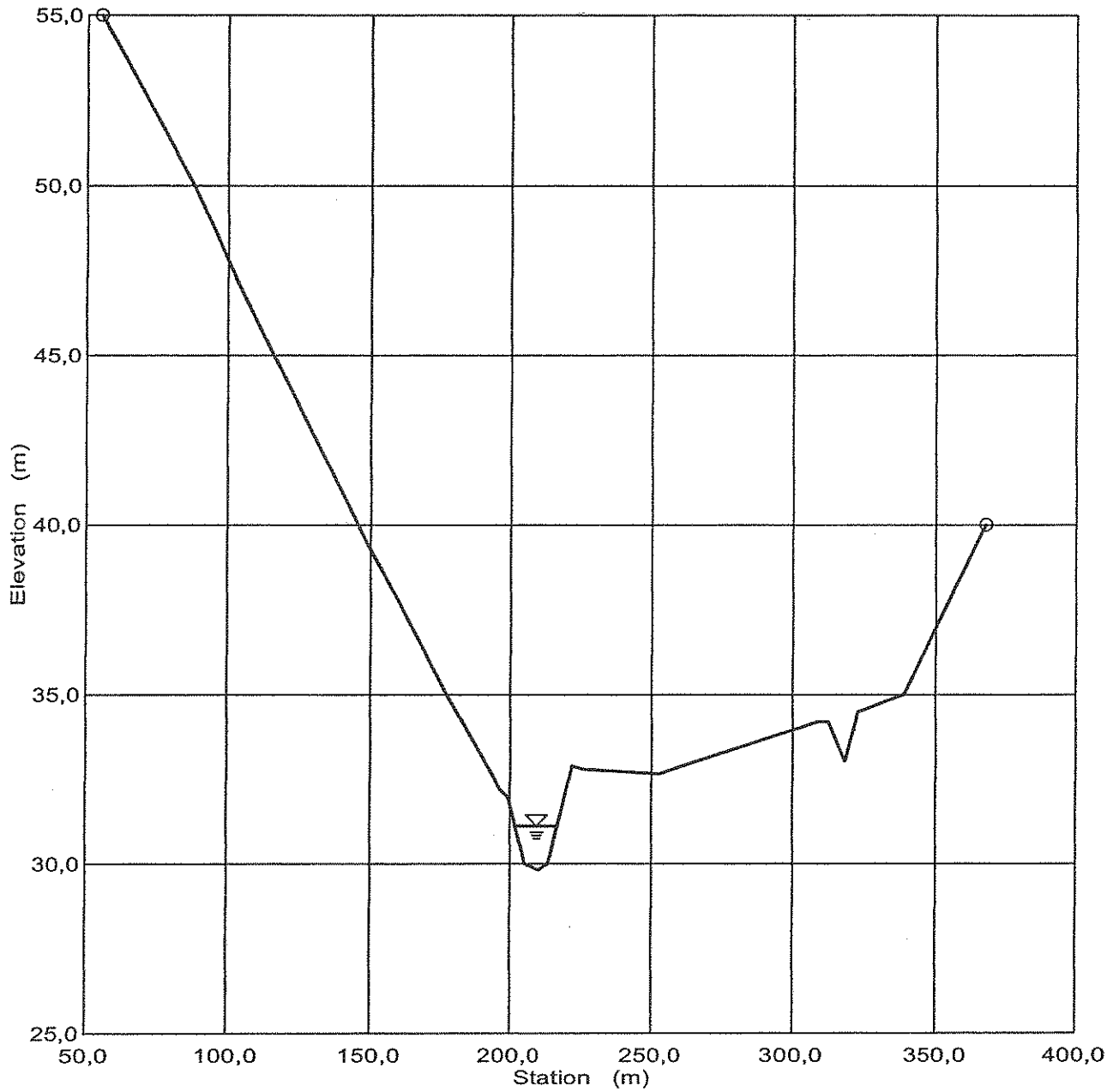
Input Data				
Channel Slope	0,020000 m/m			
Elevation range: 29.8 m to 55.0 m.				
Station (m)	Elevation (m)	Start Station	End Station	Roughness
55,05	55,00	55,05	367,65	0,040
87,67	50,00			
104,89	46,83			
115,74	45,00			
145,63	40,00			
177,26	35,00			
196,68	32,16			
199,37	31,94			
205,03	30,00			
209,96	29,78			
213,40	30,00			
221,75	32,86			
225,68	32,80			
252,76	32,62			
309,07	34,20			
312,39	34,19			
318,04	33,01			
322,85	34,46			
339,19	35,00			
367,65	40,00			
Discharge	44,50 m^3/s			

Results		
Wtd. Mannings Coefficient	0,040	
Water Surface Elevation	31,09	m
Flow Area	13,55	m^2
Wetted Perimeter	15,13	m
Top Width	14,76	m
Height	1,31	m
Critical Depth	31,16	m
Critical Slope	0,016471	m/m
Velocity	3,28	m/s
Velocity Head	0,55	m
Specific Energy	31,64	m
Froude Number	1,09	
Flow is supercritical.		

Sezione Torrente Cappellieri
Cross Section for Irregular Channel

Project Description	
Project File	c:\docume~1\computer\desktop\moto_uni.fm2
Worksheet	26. Cappellieri Tr=200
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Section Data		
Wtd. Mannings Coefficient	0,040	
Channel Slope	0,020000	m/m
Water Surface Elevation	31,09	m
Discharge	44,50	m³/s



Moto Uniforme T. Faviziotaglio Tr = 200
Worksheet for Irregular Channel

Project Description	
Project File	c:\docume~1\computer\desktop\moto_uni.fm2
Worksheet	27. Faviziotaglio Tr=200
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Input Data	
Channel Slope	0,020000 m/m

Elevation range: 37.3 m to 75.0 m.

Station (m)	Elevation (m)	Start Station	End Station	Roughness
14,60	75,00	14,60	322,02	0,040
18,94	75,00			
39,23	70,00			
49,74	65,00			
57,70	60,00			
65,07	55,00			
74,70	50,00			
87,21	45,00			
110,91	40,00			
117,74	38,68			
160,59	37,36			
164,72	37,30			
172,04	37,66			
177,47	37,39			
181,87	38,84			
188,92	39,18			
192,31	40,00			
208,84	45,00			
218,62	50,00			
243,92	55,00			
296,18	60,00			
313,21	61,56			
322,02	61,49			

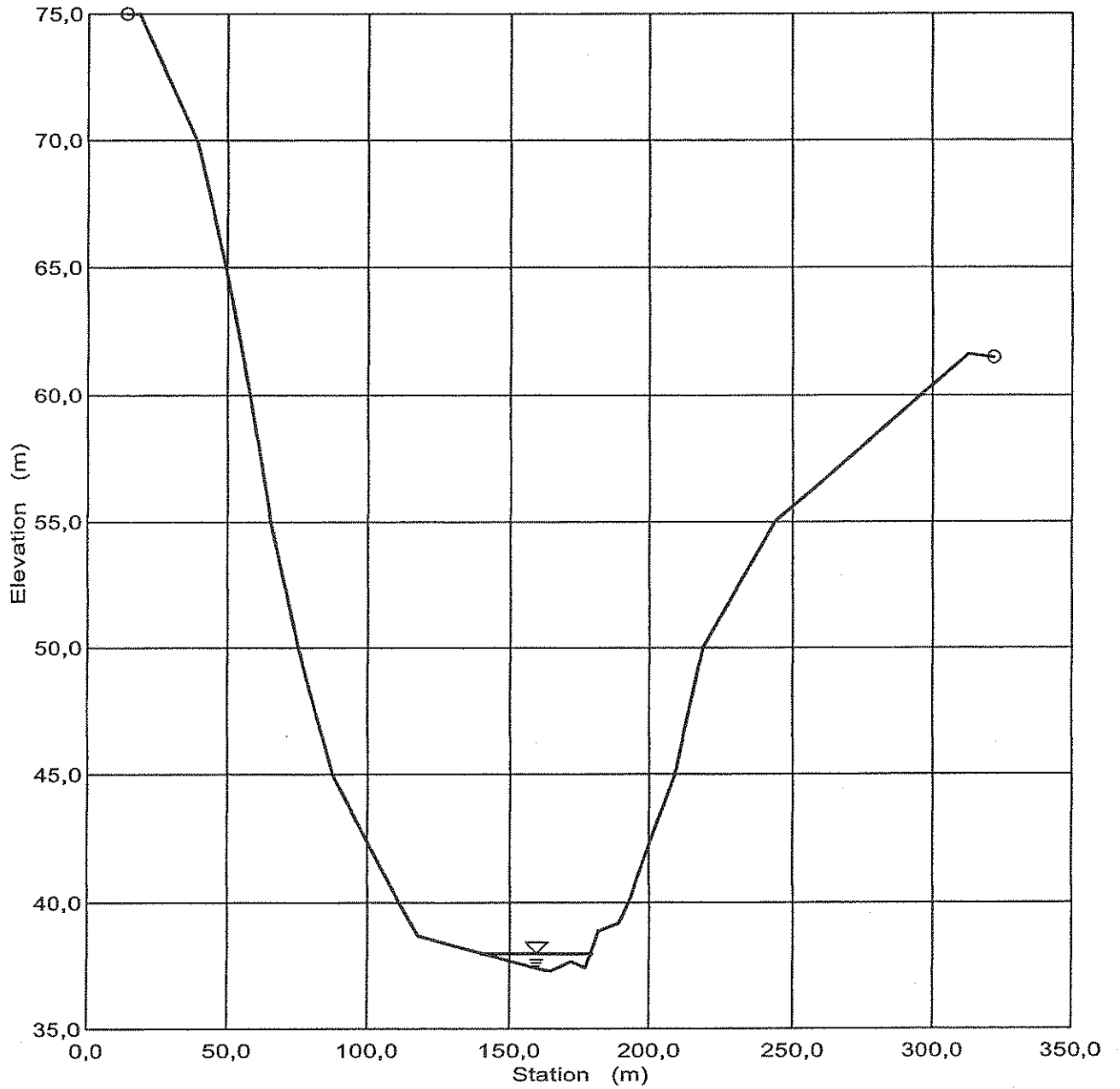
Discharge	32,00 m^3/s

Results		
Wtd. Mannings Coefficient	0,040	
Water Surface Elevation	38,00	m
Flow Area	16,33	m^2
Wetted Perimeter	39,59	m
Top Width	39,46	m
Height	0,70	m
Critical Depth	37,99	m
Critical Slope	0,021238	m/m
Velocity	1,96	m/s
Velocity Head	0,20	m
Specific Energy	38,20	m
Froude Number	0,97	
Flow is subcritical.		

Sezione Torrente Faviziotaglio
Cross Section for Irregular Channel

Project Description	
Project File	c:\docume~1\computer\desktop\moto_uni.fm2
Worksheet	27. Faviziotaglio Tr=200
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Section Data		
Wtd. Mannings Coefficient	0,040	
Channel Slope	0,020000	m/m
Water Surface Elevation	38,00	m
Discharge	32,00	m³/s



Moto Uniforme T. Giardinello Tr = 200
Worksheet for Irregular Channel

Project Description	
Project File	c:\docume~1\computer\desktop\moto_uni.fm2
Worksheet	28. Giardinello Tr=200
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

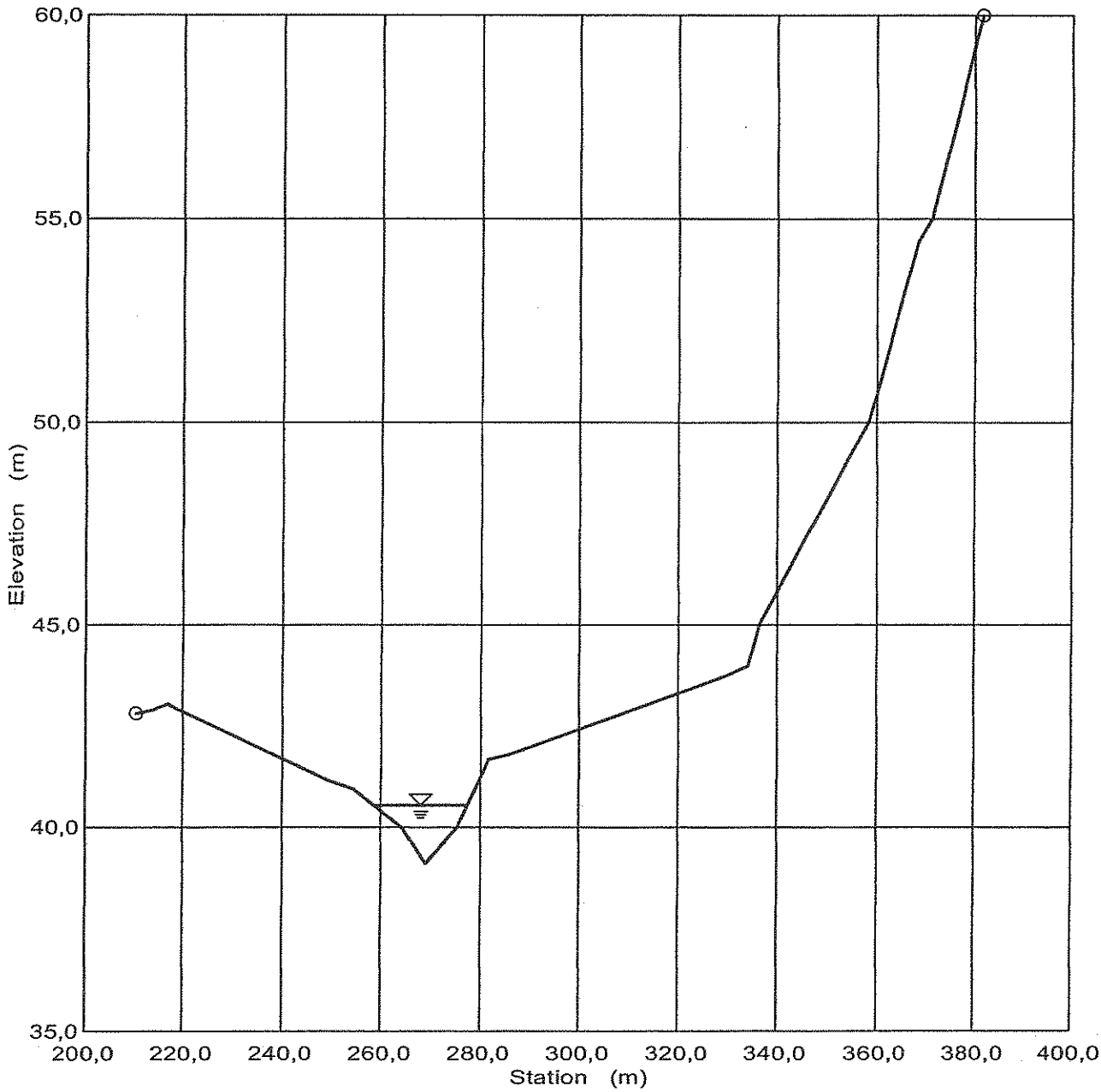
Input Data				
Channel Slope	0,030000 m/m			
Elevation range: 39.1 m to 60.0 m.				
Station (m)	Elevation (m)	Start Station	End Station	Roughness
210,56	42,81	210,56	381,71	0,040
213,57	42,91			
217,04	43,04			
217,40	43,00			
249,02	41,17			
254,45	40,96			
264,06	40,00			
269,05	39,10			
275,45	40,00			
281,72	41,70			
285,63	41,80			
329,90	43,73			
334,40	43,98			
336,52	45,00			
358,45	50,00			
368,43	54,41			
371,33	55,00			
381,71	60,00			
Discharge	45,20 m³/s			

Results		
Wtd. Mannings Coefficient	0,040	
Water Surface Elevation	40,54	m
Flow Area	13,27	m²
Wetted Perimeter	19,04	m
Top Width	18,79	m
Height	1,44	m
Critical Depth	40,69	m
Critical Slope	0,017330	m/m
Velocity	3,41	m/s
Velocity Head	0,59	m
Specific Energy	41,13	m
Froude Number	1,29	
Flow is supercritical.		

Sezione Torrente Giardinello
Cross Section for Irregular Channel

Project Description	
Project File	c:\docume~1\computer\desktop\moto_uni.fm2
Worksheet	28. Giardinello Tr=200
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Section Data		
Wtd. Mannings Coefficient	0,040	
Channel Slope	0,030000	m/m
Water Surface Elevation	40,54	m
Discharge	45,20	m³/s



Moto Uniforme Fosso
Worksheet for Irregular Channel

Project Description	
Project File	c:\docume~1\computer\desktop\moto_uni.fm2
Worksheet	29. Fosso Tr=200
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Input Data	
Channel Slope	0,090000 m/m

Elevation range: 42.4 m to 48.5 m.

Station (m)	Elevation (m)	Start Station	End Station	Roughness
86,39	48,47	86,39	182,04	0,040
94,36	46,42			
103,40	45,00			
127,28	42,89			
132,86	42,37			
138,26	42,96			
141,06	42,89			
173,02	45,00			
178,45	46,42			
182,04	46,57			

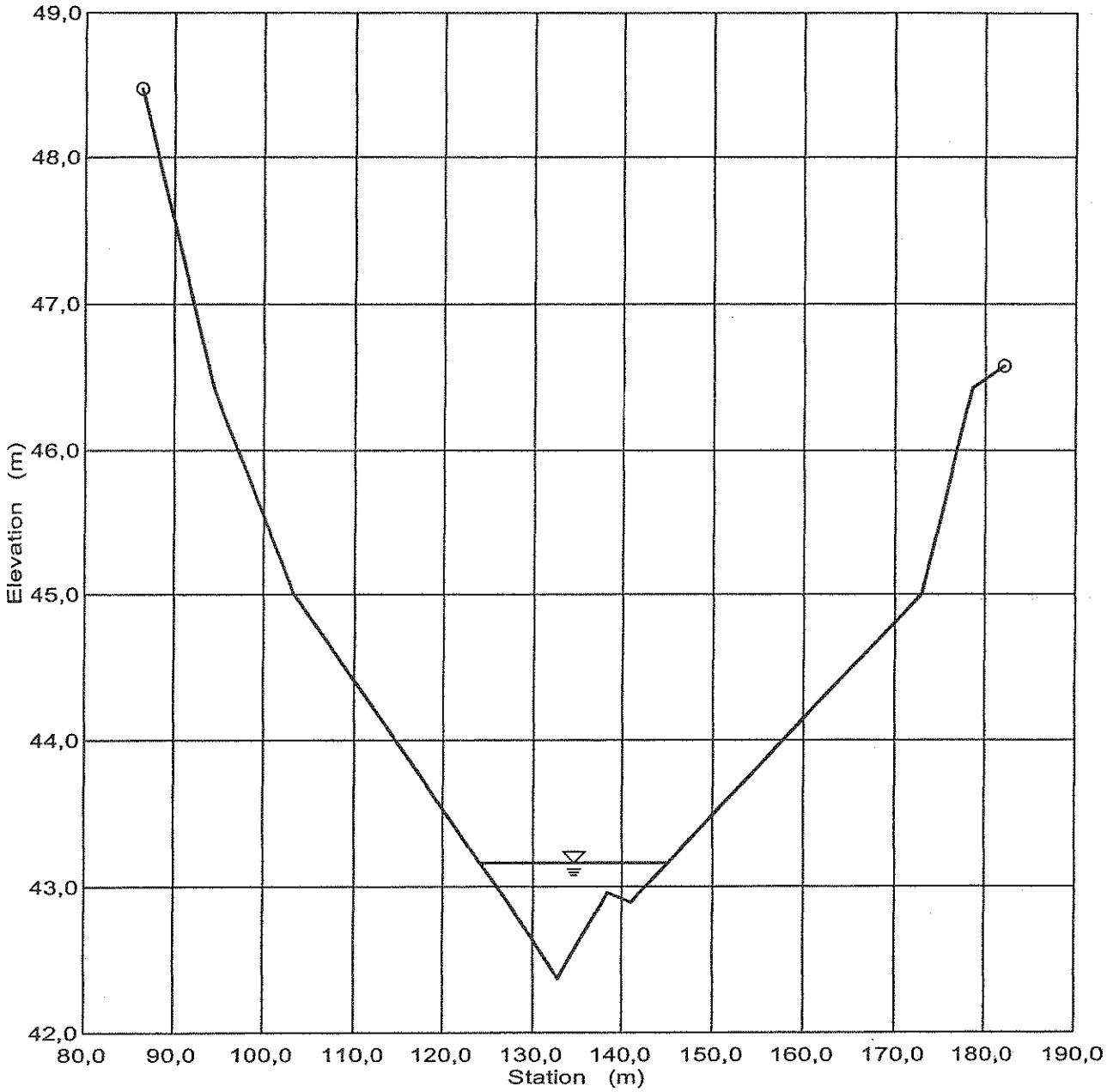
Discharge 27,24 m^3/s

Results		
Wtd. Mannings Coefficient	0,040	
Water Surface Elevation	43,16	m
Flow Area	7,34	m^2
Wetted Perimeter	21,05	m
Top Width	20,97	m
Height	0,80	m
Critical Depth	43,39	m
Critical Slope	0,020257	m/m
Velocity	3,71	m/s
Velocity Head	0,70	m
Specific Energy	43,87	m
Froude Number	2,01	
Flow is supercritical.		

Sezione Fosso
Cross Section for Irregular Channel

Project Description	
Project File	c:\docume~1\computer\desktop\moto_uni.fm2
Worksheet	29. Fosso Tr=200
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Section Data		
Wtd. Mannings Coefficient	0,040	
Channel Slope	0,090000	m/m
Water Surface Elevation	43,16	m
Discharge	27,24	m³/s



Moto Uniforme Torrente Giardino Tr = 200
Worksheet for Irregular Channel

Project Description	
Project File	c:\docume~1\computer\desktop\moto_uni.fm2
Worksheet	30. Giardino Tr=200
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

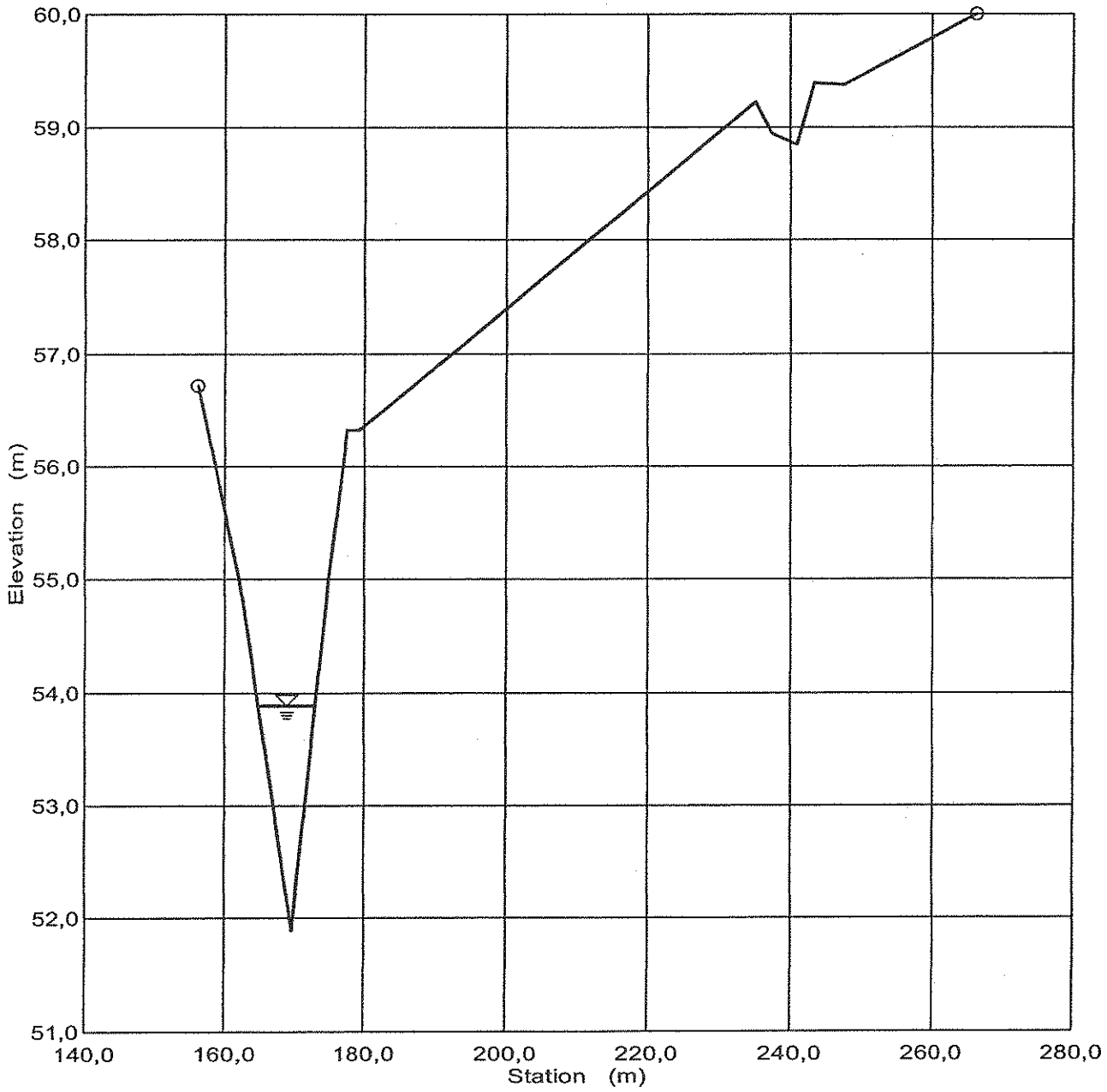
Input Data				
Channel Slope	0,077000 m/m			
Elevation range: 51.9 m to 60.0 m.				
Station (m)	Elevation (m)	Start Station	End Station	Roughness
156,21	56,71	156,21	266,37	0,040
162,13	55,00			
169,59	51,89			
174,69	55,00			
177,41	56,32			
179,13	56,32			
235,41	59,23			
237,68	58,95			
240,90	58,85			
243,43	59,39			
247,76	59,38			
266,37	60,00			
Discharge	51,20 m^3/s			

Results		
Wtd. Mannings Coefficient	0,040	
Water Surface Elevation	53,88	m
Flow Area	7,98	m^2
Wetted Perimeter	8,98	m
Top Width	8,02	m
Height	1,99	m
Critical Depth	54,54	m
Critical Slope	0,016599	m/m
Velocity	6,41	m/s
Velocity Head	2,10	m
Specific Energy	55,97	m
Froude Number	2,05	
Flow is supercritical.		

Sezione Torrente Giardino
Cross Section for Irregular Channel

Project Description	
Project File	c:\docume~1\computer\desktop\moto_uni.fm2
Worksheet	30. Giardino Tr=200
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Section Data		
Wtd. Mannings Coefficient	0,040	
Channel Slope	0,077000	m/m
Water Surface Elevation	53,88	m
Discharge	51,20	m³/s



Moto Uniforme Torrente Salto Tr = 200
Worksheet for Irregular Channel

Project Description	
Project File	c:\docume~1\computer\desktop\moto_uni.fm2
Worksheet	38. Salto Tr=200
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

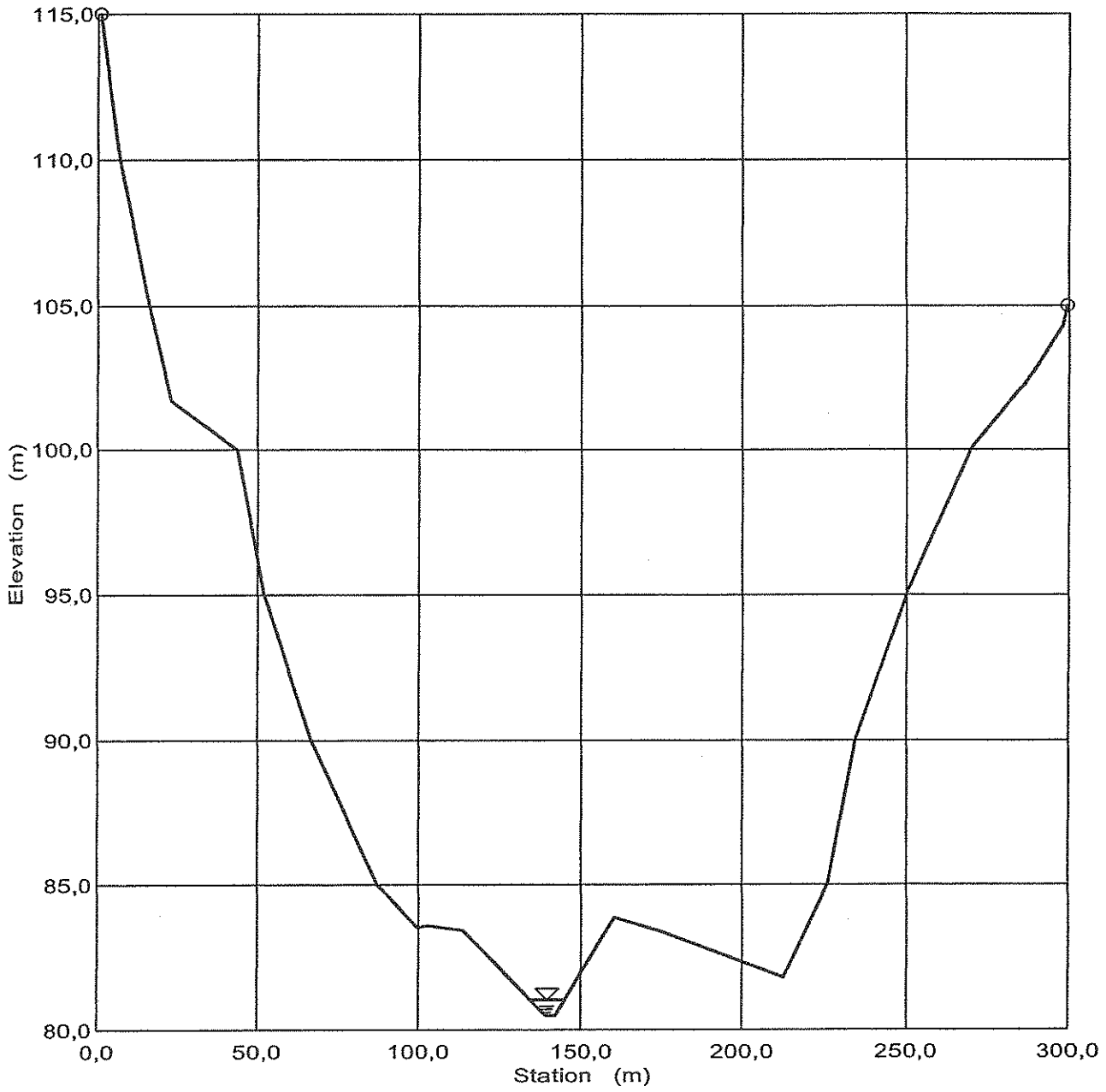
Input Data				
Channel Slope	0,083000 m/m			
Elevation range: 80.5 m to 115.0 m.				
Station (m)	Elevation (m)	Start Station	End Station	Roughness
1,41	115,00	1,41	299,94	0,040
7,14	110,00			
16,25	105,00			
23,16	101,69			
43,71	100,00			
51,69	95,00			
66,50	90,00			
87,23	85,00			
99,44	83,53			
102,89	83,61			
113,99	83,46			
131,13	81,48			
139,22	80,51			
142,61	80,52			
160,50	83,86			
175,32	83,41			
212,72	81,81			
225,82	85,00			
234,43	90,00			
249,99	95,00			
269,87	100,00			
285,02	102,07			
286,50	102,22			
298,45	104,27			
299,94	105,00			
Discharge	14,30 m^3/s			

Results		
Wtd. Mannings Coefficient	0,040	
Water Surface Elevation	81,07	m
Flow Area	3,94	m^2
Wetted Perimeter	11,02	m
Top Width	10,94	m
Height	0,56	m
Critical Depth	81,28	m
Critical Slope	0,020316	m/m
Velocity	3,63	m/s
Velocity Head	0,67	m
Specific Energy	81,74	m
Froude Number	1,93	
Flow is supercritical.		

Sezione Torrente Salto
Cross Section for Irregular Channel

Project Description	
Project File	c:\docume~1\computer\desktop\moto_uni.fm2
Worksheet	38. Salto Tr=200
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Section Data		
Wtd. Mannings Coefficient	0,040	
Channel Slope	0,083000	m/m
Water Surface Elevation	81,07	m
Discharge	14,30	m³/s



Moto Uniforme Torrente Varca Tr = 200
Worksheet for Irregular Channel

Project Description	
Project File	c:\docume~1\computer\desktop\moto_uni.fm2
Worksheet	41. Varca Tr=200
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Input Data	
Channel Slope	0,055000 m/m

Elevation range: 54.0 m to 121.4 m.

Station (m)	Elevation (m)	Start Station	End Station	Roughness
2,27	121,42	2,27	493,21	0,040
5,49	121,42			
16,66	120,00			
33,23	116,81			
45,39	115,00			
68,91	110,00			
88,02	105,00			
89,01	105,14			
90,45	103,68			
98,68	101,94			
106,86	101,66			
110,06	100,00			
120,79	95,00			
134,90	90,00			
167,78	85,00			
191,15	80,00			
203,98	75,00			
218,88	70,00			
226,79	68,93			
231,07	68,10			
240,08	65,00			
280,97	60,19			
284,71	60,00			
295,07	57,20			
305,17	55,00			
305,60	54,00			
307,02	55,00			
314,16	57,81			
337,65	60,00			
346,29	65,00			
351,72	70,00			
357,06	75,00			
360,27	75,74			
374,48	80,00			
392,27	85,00			
413,65	90,00			
435,56	95,00			
462,31	100,00			
466,56	102,07			
471,01	102,11			
474,31	102,16			
474,54	102,16			

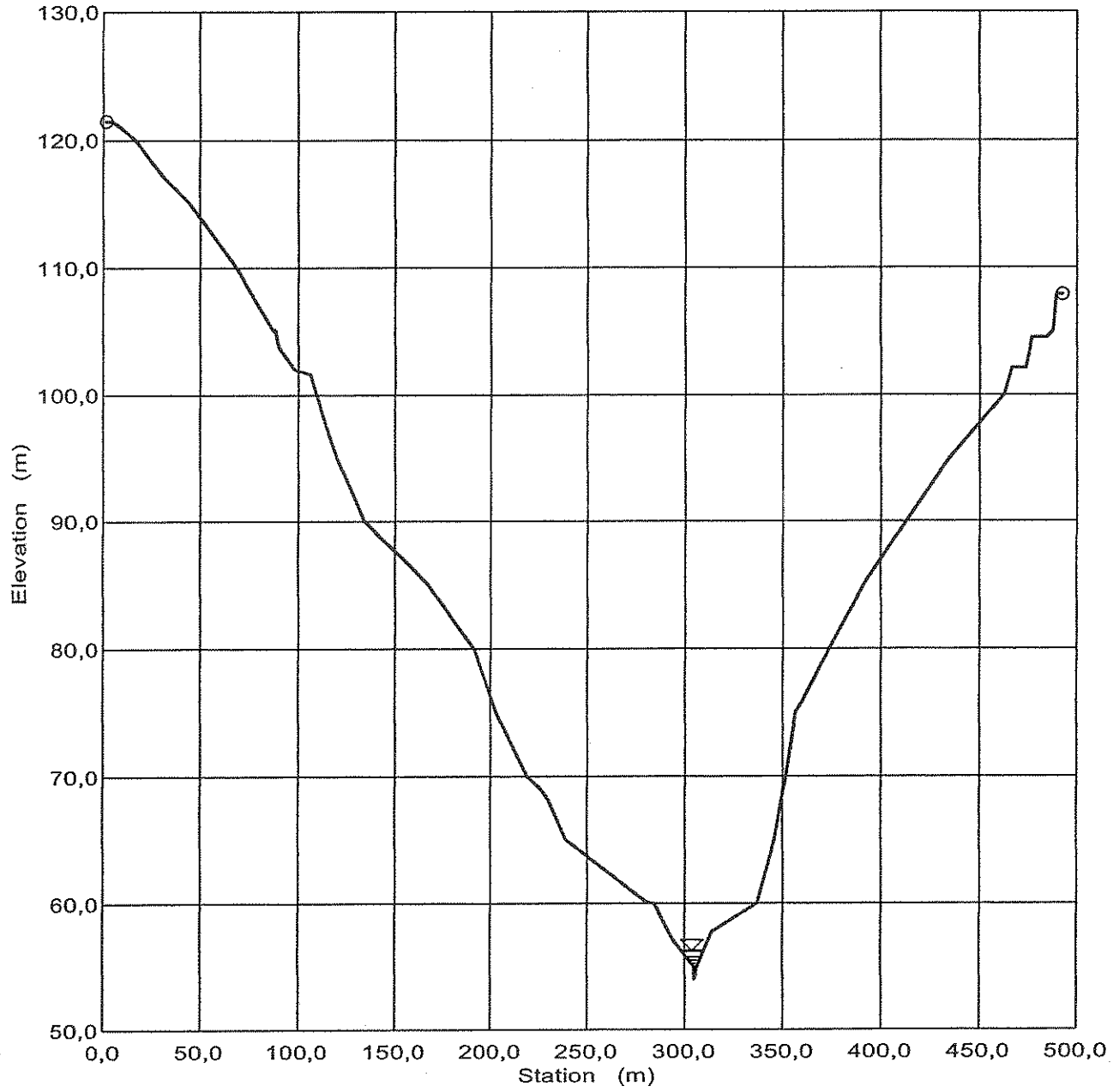
477,39	104,44
477,62	104,44
484,93	104,53
488,21	105,00
489,48	107,85
493,21	107,89
Discharge	39,70 m³/s

Results		
Wtd. Mannings Coefficient	0,040	
Water Surface Elevation	56,22	m
Flow Area	8,48	m²
Wetted Perimeter	11,88	m
Top Width	10,55	m
Height	2,22	m
Critical Depth	56,59	m
Critical Slope	0,018178	m/m
Velocity	4,68	m/s
Velocity Head	1,12	m
Specific Energy	57,34	m
Froude Number	1,67	
Flow is supercritical.		

Sezione Torrente Varca
Cross Section for Irregular Channel

Project Description	
Project File	c:\docume~1\computer\desktop\moto_uni.fm2
Worksheet	41. Varca Tr=200
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Section Data		
Wtd. Mannings Coefficient	0,040	
Channel Slope	0,055000	m/m
Water Surface Elevation	56,22	m
Discharge	39,70	m³/s



Moto Uniforme Torrente Rionena Tr = 200
Worksheet for Irregular Channel

Project Description	
Project File	c:\docume~1\computer\desktop\moto_uni.fm2
Worksheet	46. Rionena Tr=200
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Input Data	
Channel Slope	0,023000 m/m
Elevation range: 22.1 m to 50.0 m.	

Station (m)	Elevation (m)	Start Station	End Station	Roughness
18,59	40,00	18,59	340,33	0,040
30,74	37,92			
34,73	37,89			
39,29	35,00			
40,54	35,25			
43,80	35,15			
59,67	36,34			
69,86	34,93			
72,34	35,46			
130,38	30,00			
131,35	30,02			
133,94	30,02			
141,59	25,00			
147,17	24,67			
151,72	24,67			
154,95	24,11			
161,99	22,06			
165,26	23,69			
174,97	25,04			
176,09	25,00			
193,43	25,81			
265,12	30,00			
272,11	31,17			
287,48	35,00			
300,91	40,00			
316,27	45,00			
340,33	50,00			
Discharge	82,50 m^3/s			

Results		
Wtd. Mannings Coefficient	0,040	
Water Surface Elevation	24,78	m
Flow Area	24,27	m^2
Wetted Perimeter	28,59	m
Top Width	27,79	m
Height	2,72	m
Critical Depth	24,90	m
Critical Slope	0,016802	m/m
Velocity	3,40	m/s
Velocity Head	0,59	m
Specific Energy	25,37	m

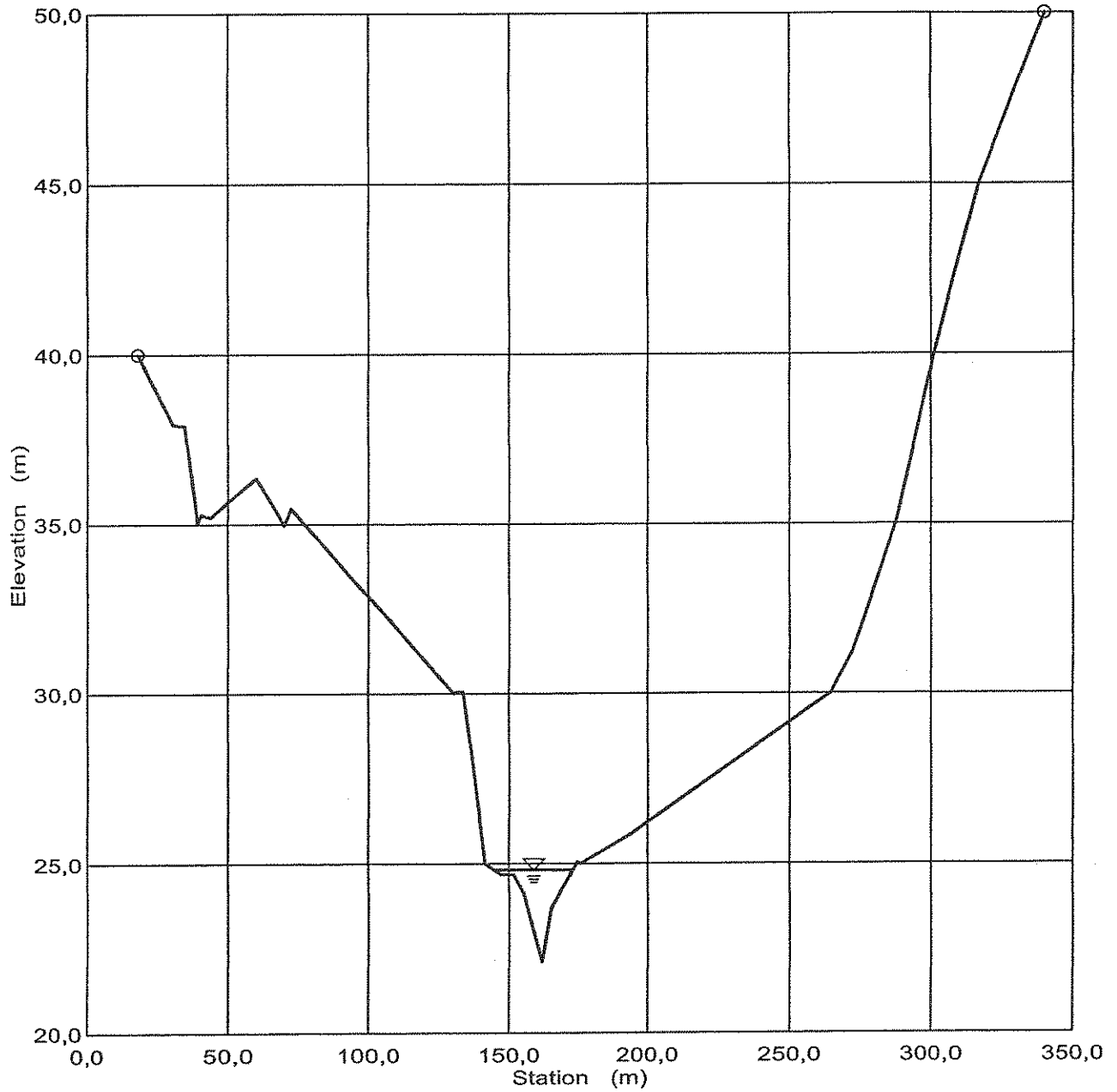
Froude Number	1,16

Flow is supercritical.

Sezione Torrente Rionena
Cross Section for Irregular Channel

Project Description	
Project File	c:\docume~1\computer\desktop\moto_uni.fm2
Worksheet	46. Rionena Tr=200
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Section Data		
Wtd. Mannings Coefficient	0,040	
Channel Slope	0,023000	m/m
Water Surface Elevation	24,78	m
Discharge	82,50	m³/s



Moto Uniforme Torrente S. Leo Tr = 200
Worksheet for Irregular Channel

Project Description	
Project File	c:\docume~1\computer\desktop\moto_uni.fm2
Worksheet	47. S.Leo Tr=200
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

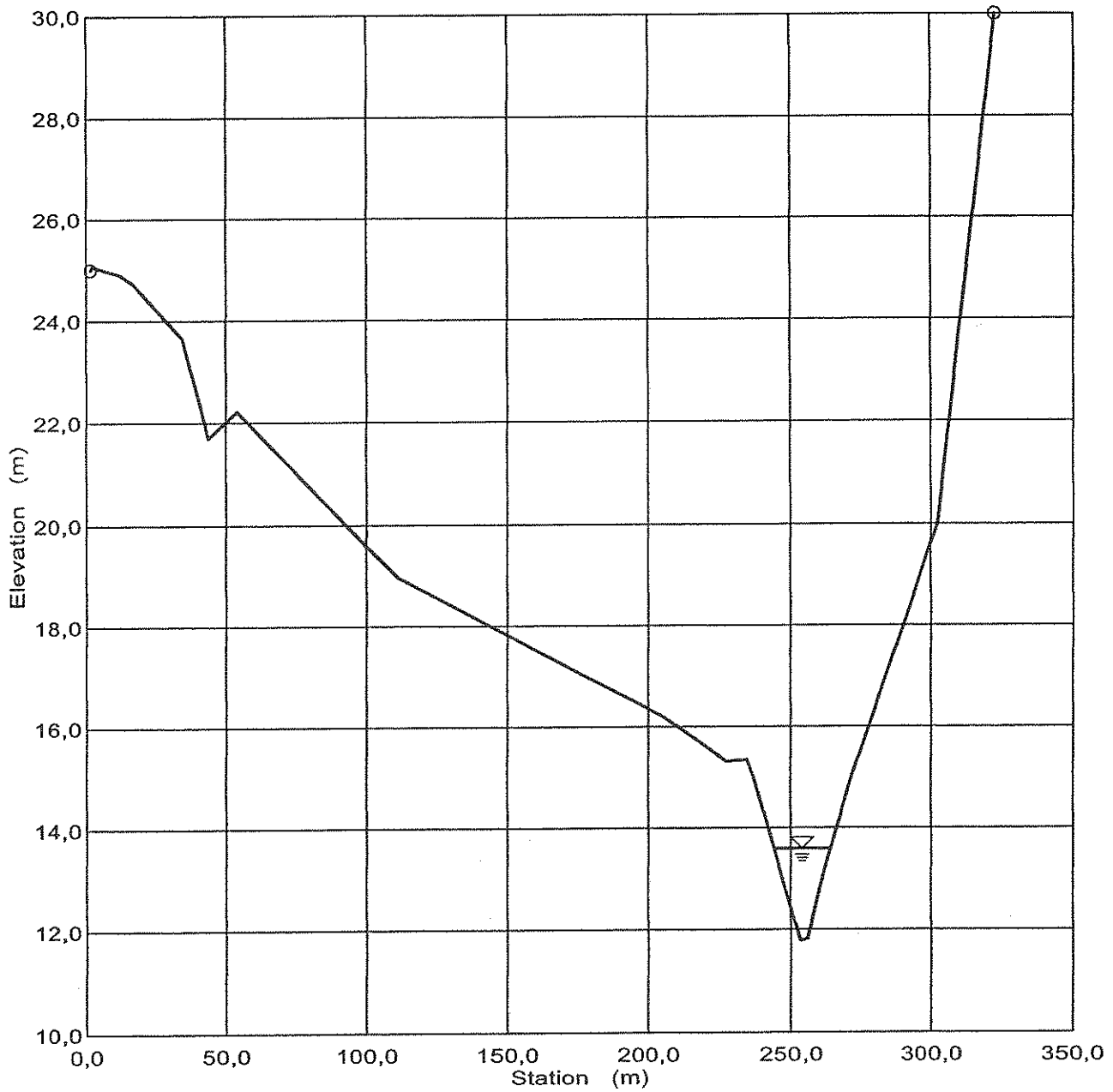
Input Data				
Channel Slope	0,022000 m/m			
Elevation range: 11.8 m to 30.0 m.				
Station (m)	Elevation (m)	Start Station	End Station	Roughness
2,13	25,00	2,13	322,73	0,040
2,57	25,06			
12,33	24,92			
16,98	24,73			
35,05	23,65			
43,93	21,70			
54,15	22,23			
92,31	20,00			
110,92	18,95			
205,68	16,20			
227,45	15,32			
234,71	15,34			
237,27	15,00			
253,69	11,80			
254,03	11,80			
255,72	11,81			
262,60	13,35			
271,95	15,00			
301,99	20,00			
312,12	25,00			
322,73	30,00			
Discharge	68,50 m^3/s			

Results		
Wtd. Mannings Coefficient	0,040	
Water Surface Elevation	13,59	m
Flow Area	19,01	m^2
Wetted Perimeter	19,85	m
Top Width	19,48	m
Height	1,80	m
Critical Depth	13,72	m
Critical Slope	0,015906	m/m
Velocity	3,60	m/s
Velocity Head	0,66	m
Specific Energy	14,25	m
Froude Number	1,16	
Flow is supercritical.		

Sezione Torrente S. Leo
Cross Section for Irregular Channel

Project Description	
Project File	c:\docume~1\computer\desktop\moto_uni.fm2
Worksheet	47. S.Leo Tr=200
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Section Data		
Wtd. Mannings Coefficient	0,040	
Channel Slope	0,022000	m/m
Water Surface Elevation	13,59	m
Discharge	68,50	m³/s



Moto Uniforme Torrente Arso Tr = 200
Worksheet for Irregular Channel

Project Description	
Project File	c:\docume~1\computer\desktop\moto_uni.fm2
Worksheet	48. Arso Tr=200
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

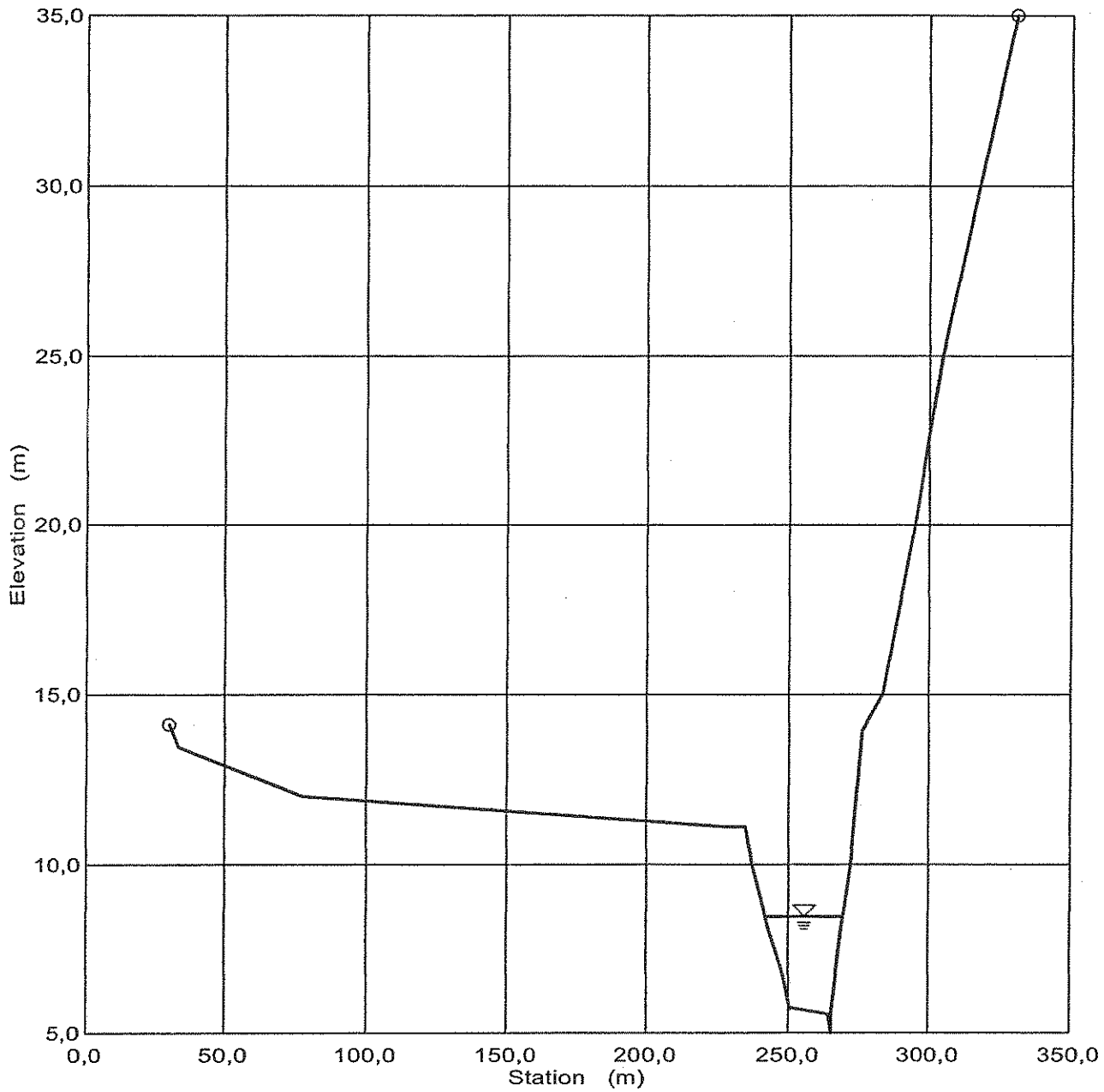
Input Data				
Channel Slope	0,009000 m/m			
Elevation range: 5.0 m to 35.0 m.				
Station (m)	Elevation (m)	Start Station	End Station	Roughness
30,40	14,08	30,40	330,50	0,040
33,49	13,43			
77,46	12,00			
228,23	11,08			
231,90	11,08			
234,99	11,08			
235,20	11,08			
237,01	10,00			
243,59	8,00			
247,76	6,86			
250,64	5,70			
251,60	5,70			
264,52	5,56			
265,30	5,00			
265,51	5,56			
268,83	8,00			
272,53	10,00			
276,40	13,88			
283,37	15,00			
295,05	20,00			
304,56	25,00			
317,30	30,00			
330,50	35,00			
Discharge	219,00 m^3/s			

Results		
Wtd. Mannings Coefficient	0,040	
Water Surface Elevation	8,44	m
Flow Area	58,42	m^2
Wetted Perimeter	29,40	m
Top Width	27,48	m
Height	3,44	m
Critical Depth	8,13	m
Critical Slope	0,013757	m/m
Velocity	3,75	m/s
Velocity Head	0,72	m
Specific Energy	9,15	m
Froude Number	0,82	
Flow is subcritical.		

Sezione Torrente Arso
Cross Section for Irregular Channel

Project Description	
Project File	c:\docume~1\computer\desktop\moto_uni.fm2
Worksheet	48. Arso Tr=200
Flow Element	Irregular Channel
Method	Manning's Formula
Solve For	Water Elevation

Section Data		
Wtd. Mannings Coefficient	0,040	
Channel Slope	0,009000	m/m
Water Surface Elevation	8,44	m
Discharge	219,00	m³/s



TOMBINO SCATOLARE

IDENTIFICATIVO TOMBINO

5 fosso

REGIME DI CORRENTE

veloce (i>ic)

CARATTERISTICHE TOMBINO

4.00	D	m	altezza tombino
4.00	B	m	larghezza tombino
60.00	L	m	lunghezza tombino
0.02000	i	m/m	pendenza longitudinale tombino
0.015	n		scabrezza di Manning

CONDIZIONI IMPOSTE

0.60	yo	m	altezza pelo libero allo sbocco
15.00	Q	mc/s	portata di progetto

CARATTERISTICHE DELLA CORRENTE

0.64	y	m	altezza di moto uniforme
1.13	yc	m	altezza critica
3.33	vc	m/s	velocità critica
4.51	Ac	mq	area critica
0.72	Rc	m	raggio idraulico critico
0.00385	ic	m/m	pendenza critica

RISULTATI CORRENTE CONTROLLATA DA MONTE

4.51	A	mq	area deflusso all'imbocco
3.33	v	m/s	velocità all'imbocco
0.17	DH	m	perdita all'imbocco
1.86	H	m	carico a monte dell'imbocco

VERIFICA

28%	GR	TOMBINO VERIFICATO (GR<70%)
0.47	H/D	TOMBINO VERIFICATO (H/D<1,5)

TOMBINO SCATOLARE

IDENTIFICATIVO TOMBINO

31 f. Le Monache

REGIME DI CORRENTE

veloce (i>ic)

CARATTERISTICHE TOMBINO

5.00	D	m	altezza tombino
5.00	B	m	larghezza tombino
60.00	L	m	lunghezza tombino
0.03000	i	m/m	pendenza longitudinale tombino
0.015	n		scabrezza di Manning

CONDIZIONI IMPOSTE

0.60	yo	m	altezza pelo libero allo sbocco
30.70	Q	mc/s	portata di progetto

CARATTERISTICHE DELLA CORRENTE

0.76	y	m	altezza di moto uniforme
1.57	yc	m	altezza critica
3.92	vc	m/s	velocità critica
7.83	Ac	mq	area critica
0.96	Rc	m	raggio idraulico critico
0.00364	ic	m/m	pendenza critica

RISULTATI CORRENTE CONTROLLATA DA MONTE

7.83	A	mq	area deflusso all'imbocco
3.92	v	m/s	velocità all'imbocco
0.23	DH	m	perdita all'imbocco
2.58	H	m	carico a monte dell'imbocco

VERIFICA

31%	GR	TOMBINO VERIFICATO (GR<70%)
0.52	H/D	TOMBINO VERIFICATO (H/D<1,5)

TOMBINO SCATOLARE

IDENTIFICATIVO TOMBINO

33 f. Rasello

REGIME DI CORRENTE

veloce (i>ic)

CARATTERISTICHE TOMBINO

5.00	D	m	altezza tombino
5.00	B	m	larghezza tombino
60.00	L	m	lunghezza tombino
0.03000	i	m/m	pendenza longitudinale tombino
0.015	n		scabrezza di Manning

CONDIZIONI IMPOSTE

0.60	yo	m	altezza pelo libero allo sbocco
16.30	Q	mc/s	portata di progetto

CARATTERISTICHE DELLA CORRENTE

0.50	y	m	altezza di moto uniforme
1.03	yc	m	altezza critica
3.17	vc	m/s	velocità critica
5.14	Ac	mq	area critica
0.73	Rc	m	raggio idraulico critico
0.00346	ic	m/m	pendenza critica

RISULTATI CORRENTE CONTROLLATA DA MONTE

5.14	A	mq	area deflusso all'imbocco
3.17	v	m/s	velocità all'imbocco
0.15	DH	m	perdita all'imbocco
1.69	H	m	carico a monte dell'imbocco

VERIFICA

21%	GR	TOMBINO VERIFICATO (GR<70%)
0.34	H/D	TOMBINO VERIFICATO (H/D<1,5)

TOMBINO SCATOLARE

IDENTIFICATIVO TOMBINO

34 f. Granco

REGIME DI CORRENTE

veloce (i>ic)

CARATTERISTICHE TOMBINO

5.00	D	m	altezza tombino
5.00	B	m	larghezza tombino
60.00	L	m	lunghezza tombino
0.04000	i	m/m	pendenza longitudinale tombino
0.015	n		scabrezza di Manning

CONDIZIONI IMPOSTE

0.40	yo	m	altezza pelo libero allo sbocco
14.50	Q	mc/s	portata di progetto

CARATTERISTICHE DELLA CORRENTE

0.43	y	m	altezza di moto uniforme
0.95	yc	m	altezza critica
3.05	vc	m/s	velocità critica
4.75	Ac	mq	area critica
0.69	Rc	m	raggio idraulico critico
0.00345	ic	m/m	pendenza critica

RISULTATI CORRENTE CONTROLLATA DA MONTE

4.75	A	mq	area deflusso all'imbocco
3.05	v	m/s	velocità all'imbocco
0.14	DH	m	perdita all'imbocco
1.57	H	m	carico a monte dell'imbocco

VERIFICA

19%	GR	TOMBINO VERIFICATO (GR<70%)
0.31	H/D	TOMBINO VERIFICATO (H/D<1,5)

TOMBINO SCATOLARE

IDENTIFICATIVO TOMBINO

35 rio S. Giuseppe

REGIME DI CORRENTE

veloce (i>ic)

CARATTERISTICHE TOMBINO

5.00	D	m	altezza tombino
5.00	B	m	larghezza tombino
60.00	L	m	lunghezza tombino
0.03000	i	m/m	pendenza longitudinale tombino
0.015	n		scabrezza di Manning

CONDIZIONI IMPOSTE

0.60	yo	m	altezza pelo libero allo sbocco
34.40	Q	mc/s	portata di progetto

CARATTERISTICHE DELLA CORRENTE

0.82	y	m	altezza di moto uniforme
1.69	yc	m	altezza critica
4.07	vc	m/s	velocità critica
8.45	Ac	mq	area critica
1.01	Rc	m	raggio idraulico critico
0.00369	ic	m/m	pendenza critica

RISULTATI CORRENTE CONTROLLATA DA MONTE

8.45	A	mq	area deflusso all'imbocco
4.07	v	m/s	velocità all'imbocco
0.25	DH	m	perdita all'imbocco
2.79	H	m	carico a monte dell'imbocco

VERIFICA

34%	GR	TOMBINO VERIFICATO (GR<70%)
0.56	H/D	TOMBINO VERIFICATO (H/D<1,5)

TOMBINO SCATOLARE

IDENTIFICATIVO TOMBINO

36 rio S. Caterina

REGIME DI CORRENTE

veloce (i>ic)

CARATTERISTICHE TOMBINO

5.00	D	m	altezza tombino
5.00	B	m	larghezza tombino
60.00	L	m	lunghezza tombino
0.04000	i	m/m	pendenza longitudinale tombino
0.015	n		scabrezza di Manning

CONDIZIONI IMPOSTE

0.30	yo	m	altezza pelo libero allo sbocco
10.65	Q	mc/s	portata di progetto

CARATTERISTICHE DELLA CORRENTE

0.35	y	m	altezza di moto uniforme
0.77	yc	m	altezza critica
2.75	vc	m/s	velocità critica
3.87	Ac	mq	area critica
0.59	Rc	m	raggio idraulico critico
0.00344	ic	m/m	pendenza critica

RISULTATI CORRENTE CONTROLLATA DA MONTE

3.87	A	mq	area deflusso all'imbocco
2.75	v	m/s	velocità all'imbocco
0.12	DH	m	perdita all'imbocco
1.28	H	m	carico a monte dell'imbocco

VERIFICA

15%	GR	TOMBINO VERIFICATO (GR<70%)
0.26	H/D	TOMBINO VERIFICATO (H/D<1,5)

TOMBINO SCATOLARE

IDENTIFICATIVO TOMBINO

37 t. Centopale

REGIME DI CORRENTE

veloce (i>ic)

CARATTERISTICHE TOMBINO

5.00	D	m	altezza tombino
5.00	B	m	larghezza tombino
60.00	L	m	lunghezza tombino
0.05000	i	m/m	pendenza longitudinale tombino
0.015	n		scabrezza di Manning

CONDIZIONI IMPOSTE

0.40	yo	m	altezza pelo libero allo sbocco
19.30	Q	mc/s	portata di progetto

CARATTERISTICHE DELLA CORRENTE

0.48	y	m	altezza di moto uniforme
1.15	yc	m	altezza critica
3.36	vc	m/s	velocità critica
5.75	Ac	mq	area critica
0.79	Rc	m	raggio idraulico critico
0.00349	ic	m/m	pendenza critica

RISULTATI CORRENTE CONTROLLATA DA MONTE

5.75	A	mq	area deflusso all'imbocco
3.36	v	m/s	velocità all'imbocco
0.17	DH	m	perdita all'imbocco
1.90	H	m	carico a monte dell'imbocco

VERIFICA

23%	GR	TOMBINO VERIFICATO (GR<70%)
0.38	H/D	TOMBINO VERIFICATO (H/D<1,5)

TOMBINO SCATOLARE

IDENTIFICATIVO TOMBINO

42 f. S. Lucia

REGIME DI CORRENTE

veloce (i>ic)

CARATTERISTICHE TOMBINO

5.00	D	m	altezza tombino
5.00	B	m	larghezza tombino
60.00	L	m	lunghezza tombino
0.04000	i	m/m	pendenza longitudinale tombino
0.015	n		scabrezza di Manning

CONDIZIONI IMPOSTE

0.40	yo	m	altezza pelo libero allo sbocco
17.50	Q	mc/s	portata di progetto

CARATTERISTICHE DELLA CORRENTE

0.48	y	m	altezza di moto uniforme
1.08	yc	m	altezza critica
3.25	vc	m/s	velocità critica
5.38	Ac	mq	area critica
0.75	Rc	m	raggio idraulico critico
0.00347	ic	m/m	pendenza critica

RISULTATI CORRENTE CONTROLLATA DA MONTE

5.38	A	mq	area deflusso all'imbocco
3.25	v	m/s	velocità all'imbocco
0.16	DH	m	perdita all'imbocco
1.78	H	m	carico a monte dell'imbocco

VERIFICA

22%	GR	TOMBINO VERIFICATO (GR<70%)
0.36	H/D	TOMBINO VERIFICATO (H/D<1,5)

TOMBINO SCATOLARE

IDENTIFICATIVO TOMBINO

44 fosso

REGIME DI CORRENTE

veloce (i>ic)

CARATTERISTICHE TOMBINO

6.00	D	m	altezza tombino
3.00	B	m	larghezza tombino
60.00	L	m	lunghezza tombino
0.04000	i	m/m	pendenza longitudinale tombino
0.015	n		scabrezza di Manning

CONDIZIONI IMPOSTE

0.50	yo	m	altezza pelo libero allo sbocco
15.00	Q	mc/s	portata di progetto

CARATTERISTICHE DELLA CORRENTE

0.64	y	m	altezza di moto uniforme
1.37	yc	m	altezza critica
3.66	vc	m/s	velocità critica
4.10	Ac	mq	area critica
0.71	Rc	m	raggio idraulico critico
0.00472	ic	m/m	pendenza critica

RISULTATI CORRENTE CONTROLLATA DA MONTE

4.10	A	mq	area deflusso all'imbocco
3.66	v	m/s	velocità all'imbocco
0.20	DH	m	perdita all'imbocco
2.25	H	m	carico a monte dell'imbocco

VERIFICA

23%	GR	TOMBINO VERIFICATO (GR<70%)
0.38	H/D	TOMBINO VERIFICATO (H/D<1,5)