

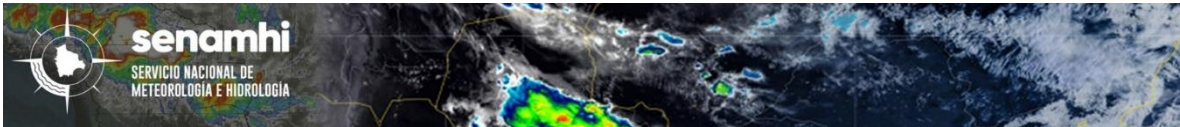
PRECIPITACIÓN TOTAL (mm)

Estacion: El Tejar
 Departamento: Tarija
 Provincia: Cercado

Latitud Sud: -21545599
 Longitud Oeste: -64.721868
 Altura m/s/n/m:1859

AÑO	ENE	FEB	MAR	ABR	MAY	JUN	JUL	AGO	SEP	OCT	NOV	DIC	TOTAL
1970	92,00	85,00	144,50	38,00	0,50	0,00	0,00	0,00	11,00	22,00	5,50	117,00	515,50
1971	105,50	199,00	62,00	13,00	0,00	0,00	0,00	0,00	6,50	35,00	98,00	77,00	596,00
1972	88,00	92,00	85,50	9,00	7,00	19,00	0,00	0,00	4,50	27,00	66,50	75,00	473,50
1973	163,00	92,00	118,00	26,50	37,50	0,00	0,00	3,00	0,00	22,00			
1974													
1975	198,20	74,60	31,00	20,80	1,50	0,00	1,30	0,00	19,40	15,30	86,70	122,40	571,20
1976	104,90	43,60	104,40	12,50	1,90	0,00	0,00	3,60	5,10	2,70	51,50	141,20	471,40
1977	151,60	74,00	56,90	20,90	4,70	0,00	0,00	15,60	10,20	64,20	66,00	102,10	566,20
1978	95,20	120,80	69,70	41,30	0,00	0,00	0,00	0,00	0,00	39,30	74,30	222,30	662,90
1979	93,60	96,20	79,50	19,40	0,00	6,20	21,00	9,20	0,00	62,40	82,10	124,80	594,40
1980	147,10	84,40	113,30	5,90	10,80	0,00	0,00	3,30	0,00	49,40	23,40	81,70	519,30
1981	168,80	134,10	75,70	63,30	0,00	0,00	0,40	7,20	3,80	39,70	108,80	142,90	744,70
1982	171,30	75,50	76,00	55,00	6,80	0,00	0,00	0,00	2,50	22,10	69,10	197,90	676,20
1983	69,90	57,20	6,20	8,70	0,80	0,00	1,30	0,00	6,50	31,40	74,90	98,20	355,10
1984	176,70	152,30	142,80	2,00	0,00	0,00	0,00	23,80	0,40	49,20	87,90	124,80	759,90
1985	133,60	147,70	34,40	38,40	0,00	0,00	1,50	11,00	2,80	14,70	107,20	246,40	737,70
1986	78,80	186,60	88,30	23,50	1,00	0,00	0,00	0,00	7,60	57,10	175,30	188,60	806,80
1987	190,90	85,70	57,70	20,30	0,80	0,00	0,30	0,00	0,20	47,80	98,60	63,20	565,50
1988	195,90	105,00	166,30	12,70	0,70	0,00	2,00	0,00	1,50	17,80	20,90	210,90	733,70
1989	98,60	60,70	121,00	37,10	0,00	1,30	0,00	0,00	8,00	37,90	136,00	77,90	578,50
1990	158,60	126,70	58,70	5,50	1,00	0,00	0,00	0,80	3,60	9,90	81,60	107,80	554,20
1991	186,80	123,20	163,10	20,90	0,20	0,20	0,00	5,00	3,80	84,20	63,70	92,30	743,40
1992	148,80	137,70	59,20	5,50	0,00	0,00	0,00	0,00	8,40	27,00	75,60	116,80	579,00
1993	116,00	90,40	80,60	13,10	0,00	0,00	2,00	2,70	0,20	65,70	91,40	157,50	619,60
1994	103,40	118,00	43,50	0,00	0,00	0,00	0,00	0,00	16,70	42,90	97,60	149,00	571,10
1995	105,80	50,30	137,70	0,50	1,90	0,00	0,00	0,00	10,40	52,80	86,60	116,90	562,90
1996	215,20	116,70	111,20	8,50	12,00	0,00	0,00	5,00	26,60	5,70	155,60	208,70	865,20
1997	118,50	177,40	115,80	19,50	5,60	0,00	0,00	0,00	13,80	9,90	79,10	62,50	602,10
1998	116,50	54,30	78,90	19,50	4,30	1,00	1,00	0,00	0,40	53,60	93,40	74,80	497,70
1999	91,30	127,40	260,50	16,00	4,70	2,20	0,00	0,00	48,70	93,00	35,00	97,60	776,40
2000	239,90	121,20	125,50	20,80	0,00	0,00	0,00	0,00	0,00	9,30	52,70	125,90	695,30
2001	146,60	137,90	73,80	9,00	0,00	0,00	0,00	0,70	7,00	72,50	40,80	215,70	704,00
2002	44,40	114,50	104,00	11,70	0,70	0,00	0,00	0,00	0,30	110,40	109,00	75,20	570,20
2003	141,00	28,30	103,40								57,50	161,80	
2004	78,70	83,60	102,90	16,00	2,40	0,00	0,00	4,40	15,20	42,90	66,60	161,70	574,40

2005	120,70	175,70	91,60	17,60	0,00	0,00	0,00	0,00	2,80	2,50	131,20	147,80	689,90
2006	154,30	141,60	109,40	22,70	1,70	0,00	0,00	0,00	1,80	82,50	37,00	80,40	631,40
2007	159,80	70,30	80,50	10,20	0,50	0,00	0,00	0,60	28,30	69,00	87,80	155,90	662,90
2008	153,20	78,30	125,00	28,70	0,00	0,00	0,00	1,20	0,90	37,80	112,10	219,60	756,80
2009	103,00	92,90	105,20	34,30	0,40	0,00	0,00			2,60	71,10	214,30	
2010	82,70	231,50	59,40	10,50	2,50	0,00	0,00	0,00	0,00	1,80	9,00	51,30	448,70
2011	123,60	191,60	121,90	22,00	6,00	0,00	0,00	0,00	0,00	49,60	25,40	167,60	707,70
2012	186,40	166,30	104,30	58,60	0,50	0,00					113,20		629,30
2013													
2014													
2015	128,30	340,50	211,80	216,10	30,30	19,80	3,10	10,30	8,20	26,90			
2016													
2017	62,20	106,30	167,30	18,70	0,00	0,00	0,00	0,00	29,00	3,90	16,60	99,60	503,60
2018	195,40	87,30	43,60	6,00	7,20	0,00	0,00	0,00		57,90	83,80	109,20	590,40
2019	149,60	146,10	87,90	79,90	6,60	0,00	17,00	0,40	0,00	59,30	75,30	62,60	684,70
2020	187,80	101,90	56,40	0,00	0,00	0,00	0,00	0,00	25,30	59,90	54,60	125,60	611,50
2021	129,50	87,40	100,60	21,70	0,00	0,00	0,00	0,00	12,50	5,20	120,50	52,90	530,30
2022	216,90	128,90	39,50	25,20	2,60	0,00	0,00	2,30	2,30		1,20	135,50	554,40
Media	136,50	116,75	97,07	25,15	3,44	1,04	1,08	2,39	7,92	39,04	75,70	129,58	618,79



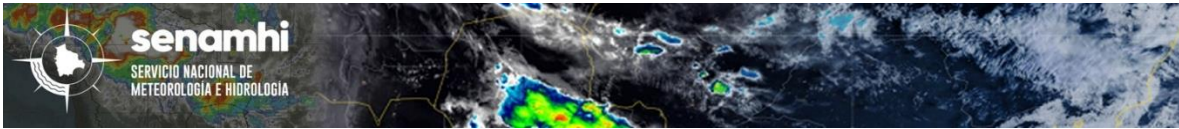
TEMPERATURA MÁXIMA (°C)

Estación: El Tejar
 Departamento: Tarija
 Provincia: Cercado

Latitud Sud: -21.545599
 Longitud Oeste: -64.721868
 Altura m/s/n/m: 1859

AÑO	ENE.	FEB.	MAR.	ABR.	MAY.	JUN.	JUL.	AGO.	SEP.	OCT.	NOV.	DIC.	Media
1970	31,50	32,50	32,00	31,20	32,50	32,30	31,50	33,00	35,50	34,80	35,80	34,20	33,07
1971	34,80	32,00	32,20	32,70	30,80	30,50	30,50	32,30	37,00	32,60	32,60	36,00	32,83
1972	32,50	32,30	32,50	32,80	33,50	34,50	31,50	34,00	34,80	35,50	36,00	32,50	33,53
1973	35,00	35,50	33,00	33,00	31,20	31,20	34,00	34,00	34,30	35,00	33,50	36,00	33,81
1974	33,50		31,00	31,00	32,50	32,00	32,50	34,00	36,00	33,50	37,00	33,50	33,32
1975	33,00	32,00	31,00	33,00	30,00	30,50	30,00	34,00	33,50	35,00	37,50	35,50	32,92
1976	33,50	33,00	32,20	32,00	29,00	28,60	31,40	31,80	36,00	36,00	34,20	34,60	32,69
1977	35,00	32,60	33,50	32,50	30,60	32,00	32,00	34,00	35,00	39,00	36,50	35,00	33,98
1978	34,50	31,60	32,30	31,00	32,20	31,00	34,00	33,00	34,00	36,00	37,00	29,00	32,97
1979	30,00	29,00	30,50	30,00	33,00	33,50	33,00	35,00	37,00	34,50	36,00	36,00	33,13
1980	31,50	34,00	32,00	35,50	34,50	32,00	34,50	33,50	36,00	34,00	33,50	35,50	33,88
1981	32,50	31,00	31,20	31,50	32,00	31,50	32,50	34,00	35,50	34,00	33,50	33,50	32,73
1982	32,00	32,00	31,00	32,00	33,00	33,50	32,50	35,00	34,00	38,00	35,50	29,50	33,17
1983	33,50	33,50	33,50	34,00	34,00	34,00	33,50	36,00	36,00	34,00	29,50	31,00	33,54
1984	29,50	31,50	33,50	32,50	36,00	33,00	33,00	33,20	36,50	35,40	32,00	30,40	33,04
1985	31,20	31,00	35,00	35,50	32,50	30,00	32,50	33,50	32,50	33,00	33,50	30,50	32,56
1986	31,20	30,00	31,00	33,50	34,50	33,50	30,50	32,70	33,70	33,50	34,50	29,00	32,30
1987	30,00	31,50	32,50	34,50	33,50	32,00	34,00	34,40	38,70	36,00	33,80	33,50	33,70
1988	33,40	28,90	33,00	30,70	31,40	31,70	34,60	36,50	36,60	36,70	37,00	32,80	33,61
1989	31,50	31,00	34,00	32,80	32,60	30,80	31,50	34,50	34,00	34,30	34,60	31,00	32,72
1990	33,40	29,20	33,80	35,50	33,00	31,00	32,60	33,00	34,50	35,70	37,50	38,50	33,98
1991	31,00	30,20	30,50	33,80	36,00	32,70	33,20	33,20	35,00	40,50	34,50	35,00	33,80
1992	29,50	33,50	32,40	34,00	34,20	34,20	32,70	35,00	35,50	36,80	35,40	33,50	33,89
1993	33,00	29,40	32,00	34,70	35,40	33,20	34,90	36,50	36,30	36,30	36,50	35,40	34,47
1994	31,00	31,80	34,00	35,40	34,00	31,80	35,50	34,00	36,30	36,20	33,00	34,20	33,93
1995	32,50	30,90	33,50	33,70	30,00	33,50	34,80	38,00	36,40	35,80	35,30	33,40	33,98
1996	33,70	34,50	30,70	35,40	31,70	32,00	33,00	33,50	35,50	38,00	35,80	31,00	33,73
1997	32,20	33,50	30,50	34,00	33,20	35,80	35,50	34,60	39,00	38,00	37,40	36,80	35,04
1998	36,00	36,20	35,20	36,60	35,00	33,20	35,40	35,80	35,80	36,10	35,00	35,50	35,48
1999	31,80	32,00	31,20	30,20	32,00	31,20	30,80	35,00	35,50	34,60	31,80	34,00	32,51
2000	33,00	32,00	30,20	29,80	32,50	31,70	33,50	33,00	36,00	35,60	35,00	34,00	33,03
2001	33,80	30,70	31,00	32,00	32,00	30,40	32,60	35,80	36,00	34,60	36,40	30,00	32,94
2002	34,80	31,10	35,00	33,50	35,00	32,50	33,40	34,00	35,00	37,60	35,50	35,00	34,37
2003	31,50	35,00	30,70	33,00							40,00	35,50	
2004	34,20	33,00	33,50	33,50	29,50	33,00	32,70	36,00	37,00	38,50	36,50	34,00	34,28
2005	32,50	31,20	32,00	32,00	33,50	30,60	33,00	36,20	35,50	38,50	34,00	32,60	33,47

2006	32,20	31,80	31,20	30,50	30,20	31,00	33,50	35,00	35,00	36,50	34,00	35,20	33,01
2007	32,50	34,50	33,50	33,40	32,00	34,50	31,50	37,50	35,00	37,50	36,50	32,50	34,24
2008	32,50	32,50	29,50	32,00	31,00	30,00	32,00	35,00	37,50	35,50	33,00	32,50	32,75
2009	32,50	35,00	32,80	31,00	31,00	30,50	29,00			38,00	38,00	32,00	32,98
2010	32,50	36,00	35,00	35,00	34,00	35,00	36,50	36,50	36,00	38,00	36,50	39,00	35,83
2011	35,00	30,00	31,00	34,00	32,00	34,00	34,00	36,50	40,00	37,00	36,00	33,00	34,38
2012	31,00	31,50	30,00	30,00	32,00	31,00							
2018										35,10	33,00	35,90	
2019	34,10	32,40	32,50	32,10	33,30	33,60	31,80	33,60	37,20	38,50	35,50	32,90	33,96
2020	32,30	30,90					32,00	33,80	37,00	36,00	37,00	32,00	
2021	31,00	30,00		29,00	29,00	30,10	31,80	34,60	36,90	36,80	32,40	31,40	32,09
2022	33,50	33,00	34,80	32,80	29,10	31,10	32,80	34,10	34,50		33,40	34,40	33,05
2023	33,30	31,60											
Media	32,62	32,09	32,30	32,80	32,44	32,13	32,84	34,51	35,80	36,06	35,07	33,58	33,51



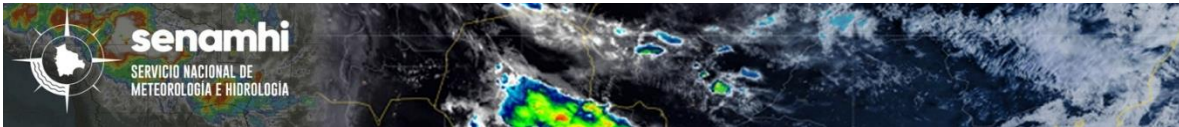
TEMPERATURA MEDIA (°C)

Estación: El Tejar
 Departamento: Tarija
 Provincia: Cercado

Latitud Sud: -21.545599
 Longitud Oeste: -64.721868
 Altura m/s/n/m: 1859

AÑO	ENE.	FEB.	MAR.	ABR.	MAY.	JUN.	JUL.	AGO.	SEP.	OCT.	NOV.	DIC.	Media
1970	21,18	20,31	20,01	19,31	16,61	13,80	13,24	14,93	17,99	18,91	19,36	21,69	18,11
1971	21,47	19,61	20,63	17,52	14,56	13,16	14,11	15,56	19,50	17,31	19,32	20,92	17,80
1972	20,30	20,15	20,21	17,65	17,48	15,65	14,53	15,42	18,76	19,07	20,58	21,28	18,42
1973	22,78	22,09	20,52	20,42	15,08	14,13	13,53	13,44	16,83	20,02	19,76	20,52	18,26
1974	21,90		19,70	17,35	15,81	13,77	14,18	15,11	17,13	18,09	21,44	21,12	17,78
1975	20,68	20,62	20,14	18,89	15,28	14,00	11,47	14,74	17,26	18,85	19,86	21,09	17,74
1976	20,98	20,20	19,47	17,05	14,26	12,18	13,81	14,78	15,84	19,43	19,94	21,63	17,46
1977	21,05	21,82	21,08	18,02	15,11	13,68	16,12	15,00	18,64	19,79	21,26	21,53	18,59
1978	21,10	21,22	20,98	17,89	15,70	13,62	15,99	12,71	16,00	20,08	20,79	19,63	17,97
1979	19,78	19,78	18,77	16,38	15,30	12,72	13,55	17,51	15,70	19,93	19,65	21,05	17,51
1980	19,82	20,20	20,31	18,89	16,03	13,52	14,31	15,36	15,55	18,70	19,45	21,01	17,76
1981	21,70	20,84	20,24	18,77	17,39	13,33	11,97	16,46	16,29	18,75	21,44	21,59	18,23
1982	21,32	21,08	20,48	18,68	15,24	14,87	15,05	16,66	18,98	19,74	20,43	20,29	18,57
1983	21,40	20,59	20,68	19,94	16,73	11,99	12,05	14,56	14,53	18,31	18,13	20,15	17,42
1984	19,97	20,63	20,25	17,13	16,73	13,92	15,03	12,87	17,15	20,84	19,82	19,63	17,83
1985	19,55	20,74	21,05	18,54	15,90	13,68	12,90	13,00	16,47	19,77	19,55	20,05	17,60
1986	20,95	19,71	19,69	19,03	15,69	14,04	12,37	16,02	16,14	17,37	20,55	19,73	17,61
1987	20,81	19,81	19,65	17,92	14,68	12,98	16,27	13,90	14,70	18,59	20,44	20,17	17,49
1988	21,25	18,50	20,58	18,55	12,57	12,25	11,14	15,76	16,66	18,50	20,39	20,90	17,25
1989	20,33	19,80	19,23	18,31	14,57	14,06	12,52	16,03	15,11	18,75	20,77	21,06	17,55
1990	20,81	19,76	21,00	20,35	16,53	13,38	11,34	15,49	15,19	20,85	21,45	21,54	18,14
1991	20,87	19,51	19,96	18,95	16,89	14,43	13,85	14,99	18,65	18,77	19,58	22,28	18,23
1992	20,69	20,38	19,58	18,42	16,86	15,41	10,80	14,18	16,03	19,72	19,38	21,50	17,75
1993	20,91	18,50	20,06	19,28	16,30	13,87	12,09	14,79	16,15	20,39	20,72	20,96	17,84
1994	20,89	20,80	19,31	19,03	17,61	14,40	13,26	15,78	19,08	20,64	20,47	21,50	18,56
1995	21,22	20,48	20,49	17,76	15,37	14,65	14,61	16,21	17,74	19,57	20,77	20,34	18,27
1996	20,89	21,33	19,77	19,17	16,48	11,66	12,54	16,46	16,02	19,47	20,65	20,82	17,94
1997	21,22	20,96	19,23	18,29	15,52	14,33	15,96	16,24	19,84	20,75	21,49	22,96	18,90
1998	23,39	21,08	20,90	19,26	15,03	14,28	15,10	15,49	16,45	19,32	20,17	20,25	18,39
1999	20,59	21,14	20,72	16,84	15,19	12,18	12,10	15,08	19,06	18,02	18,04	20,43	17,45
2000	20,92	21,08	19,93	18,88	14,82	14,60	10,52	16,12	16,49	20,38	19,73	20,86	17,86
2001	21,00	20,63	20,68	19,33	14,56	12,93	14,24	17,58	18,09	19,91	20,46	19,37	18,23
2002	20,59	19,65	21,44	19,02	17,34	13,14	13,78	17,33	18,15	21,53	20,90	21,80	18,72
2003	21,84	21,77	20,64	18,91							22,37	21,60	
2004	21,62	20,67	20,57	20,03	12,44	13,59	15,00	16,83	18,38	20,83	19,72	21,22	18,41
2005	21,42	20,09	20,22	18,30	16,43	14,82	12,67	16,58	13,99	19,33	20,78	21,43	18,00

2006	20,85	20,20	20,92	18,24	14,06	15,12	15,20	15,95	16,24	20,70	20,12	22,84	18,37
2007	21,49	21,29	20,95	19,04	13,73	15,04	12,73	14,01	18,64	21,00	19,69	20,35	18,16
2008	20,97	20,45	19,99	17,06	14,11	11,46	15,51	15,56	15,83	19,78	20,82	19,98	17,63
2009	20,95	21,24	20,58	18,79	16,57	11,86	12,94			19,90	23,10	20,28	18,62
2010	20,35	21,49	20,92	18,12	14,97	13,87	11,74	14,85	19,48	18,85	19,99	22,74	18,11
2011	21,70	20,32	19,90	19,26	15,52	14,55	14,46	15,56	18,26	20,54	21,43	20,78	18,52
2012	20,42	20,74	19,82	19,52	16,10	12,91							
2018										20,05	20,45	21,21	
2019	22,22	20,62	20,35	18,99	16,40	15,76	13,96	14,99	18,74	20,28	21,99	20,96	18,77
2020	21,88	20,41					14,14	16,78	18,37	21,34	21,07	20,98	
2021	20,63	20,14		18,07	13,35	13,12	13,98	14,89	19,34	20,36	20,39	21,00	17,75
2022	21,34	20,69	19,74	19,07	14,74	13,38	16,95	15,58	15,61		19,57	20,74	17,95
2023	20,95	20,54											
Media	21,06	20,50	20,25	18,57	15,50	13,69	13,63	15,39	17,16	19,62	20,39	20,97	18,04



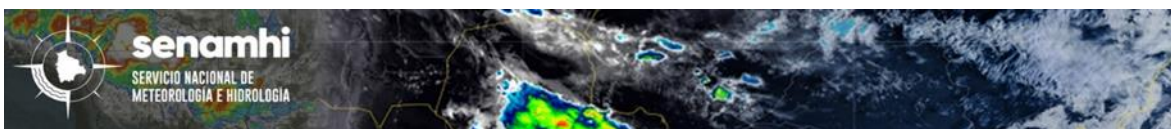
TEMPERATURA MÍNIMA (°C)

Estación: El Tejar
 Departamento: Tarija
 Provincia: Cercado

Latitud Sud: -21.545599
 Longitud Oeste: -64.721868
 Altura m/s/n/m: 1859

AÑO	ENE.	FEB.	MAR.	ABR.	MAY.	JUN.	JUL.	AGO.	SEP.	OCT.	NOV.	DIC.	Media
1970	11,00	7,00	8,00	2,00	-1,00	-3,00	-5,00	-2,80	2,00	3,80	6,00	10,30	3,19
1971	9,00	9,50	8,90	-1,50	-2,00	-5,00	-4,30	-4,00	4,00	3,20	8,00	5,50	2,61
1972	10,00	8,00	9,00	0,00	1,50	0,50	-3,00	-1,50	-2,00	1,00	6,60	11,20	3,44
1973	11,20	12,00	12,00	8,00	0,50	-1,50	-3,50	-2,10	-1,00	6,20	10,50	10,00	5,19
1974	11,00		7,00	2,00	-0,50	-2,00	-4,00	-3,00	0,00	3,00	6,00	10,00	2,68
1975	11,00	9,00	11,00	4,50	1,50	0,00	-6,00	-2,50	4,50	7,00	7,00	9,00	4,67
1976	12,00	9,00	6,50	2,00	1,00	-3,50	-2,50	-0,50	-0,80	5,00	9,00	10,50	3,98
1977	12,00	13,50	9,00	4,50	2,00	-2,50	0,00	-1,00	5,00	5,50	10,00	10,50	5,71
1978	9,50	12,50	8,50	5,00	1,50	0,00	1,00	-9,50	-1,00	6,50	9,20	10,50	4,48
1979	10,00	8,00	11,00	2,00	-3,00	-2,00	-2,00	2,00	-2,50	6,00	5,50	8,00	3,58
1980	10,50	9,50	9,50	3,50	1,00	-3,50	-2,00	-1,00	-1,00	1,50	2,50	9,50	3,33
1981	12,50	12,50	8,00	4,00	2,00	-3,00	-7,50	1,00	-4,50	2,00	7,00	10,00	3,67
1982	9,00	11,50	8,00	8,00	-1,00	-5,00	-2,40	-1,50	7,00	6,00	6,00	10,50	4,68
1983	12,00	11,00	8,00	4,50	1,00	-4,50	-4,50	-2,00	-1,50	1,00	3,50	10,50	3,25
1984	11,50	12,00	10,00	3,50	-1,50	-3,50	-3,00	-3,50	0,00	6,00	9,50	10,50	4,29
1985	7,50	12,00	11,00	4,00	-0,50	-3,00	-4,50	-7,40	0,00	3,50	9,00	8,50	3,34
1986	11,00	11,50	10,50	3,00	-2,00	-4,00	-4,50	-0,50	1,40	4,50	8,00	8,30	3,93
1987	12,50	7,50	6,50	6,00	-1,50	-5,10	-0,70	-5,40	-0,20	5,10	9,00	8,90	3,55
1988	9,10	7,50	10,00	7,00	0,40	-4,00	-6,60	-0,80	3,00	2,00	5,00	11,50	3,68
1989	9,60	9,00	6,50	5,80	-1,20	-1,50	-5,00	-1,00	-0,60	2,00	3,40	9,20	3,02
1990	7,30	11,00	6,80	4,50	0,30	-1,00	-6,00	-2,80	-3,50	3,50	9,00	10,30	3,28
1991	9,30	10,00	9,00	2,50	0,00	-1,80	-3,50	-3,30	3,70	2,00	8,50	11,00	3,95
1992	11,60	10,00	7,00	3,50	-4,00	-3,00	-6,00	-4,60	-1,70	5,20	5,20	11,00	2,85
1993	8,80	4,50	8,00	3,50	-1,40	-2,80	-6,30	-5,20	-1,00	8,40	8,00	10,00	2,88
1994	12,00	10,50	8,00	6,00	1,20	-5,40	-6,00	-2,50	0,00	8,00	7,00	9,20	4,00
1995	11,50	10,30	11,00	2,50	-1,00	-3,50	-4,00	-2,70	-2,00	2,00	8,40	10,60	3,59
1996	10,50	8,70	9,00	6,00	0,60	-8,50	-5,00	2,00	-1,30	2,00	9,20	10,80	3,67

1997	11,60	11,30	8,50	5,20	-2,40	-3,00	-3,00	-0,60	5,20	5,50	10,00	8,00	4,69
1998	14,20	12,40	9,20	5,00	-3,00	-1,50	-1,50	-0,80	-2,40	3,70	9,20	5,60	4,18
1999	11,40	12,40	12,80	0,00	0,00	-4,00	-5,50	-5,00	2,90	3,00	4,50	11,00	3,63
2000	12,60	12,30	7,20	5,00	0,00	-3,80	-6,50	-0,50	1,80	4,00	5,60	9,60	3,94
2001	6,00	10,80	7,50	5,50	0,70	-6,00	-4,00	2,50	2,40	5,60	8,00	7,00	3,83
2002	10,50	10,60	9,00	5,50	3,20	-3,00	-2,60	-1,00	1,00	6,70	7,00	12,00	4,91
2003	11,00	8,40	11,00	3,50							8,40	10,00	
2004	12,00	10,00	11,50	6,00	-1,00	-3,50	-1,50	1,00	-1,00	8,00	6,00	10,20	4,81
2005	12,00	8,00	9,00	2,50	-0,50	-1,00	-4,00	-0,50	-0,60	6,00	7,40	12,50	4,23
2006	11,60	10,50	10,00	5,00	0,00	0,50	0,00	-3,50	-1,50	4,50	7,60	11,50	4,68
2007	11,50	10,50	9,00	3,50	-1,50	-2,00	-5,00	-4,50	2,00	8,50	8,00	12,00	4,33
2008	13,00	8,50	10,00	4,00	-2,00	-3,00	0,00	1,50	-0,20	4,50	10,50	11,80	4,88
2009	9,50	10,50	10,00	7,00	-1,00	-2,00	-1,50			-1,00	8,00	10,00	4,95
2010	9,00	11,00	5,00	5,50	-3,00	-0,50	10,00	-5,00	2,00	6,00	6,00	3,50	2,46
2011	12,00	12,50	13,00	9,00	2,00	-4,00	-2,00	-5,50	-1,00	6,00	10,00	10,00	5,17
2012	10,00	13,00	10,00	3,00	2,00	-2,00							
2018											10,00	12,50	9,40
2019	12,40	11,30	11,40	6,90	-0,90	1,30	-3,60	-2,40	2,50	6,10	11,40	10,30	5,56
2020	12,30	12,00					-1,00	0,00	2,00	9,00	9,00	11,00	
2021	11,00	10,00		5,00	1,00	-5,60	-2,80	1,00	3,40	8,10	11,00	11,60	4,88
2022	12,10	11,30	5,90	5,80	0,30	-1,60	0,60	-0,20	1,70		2,90	10,30	4,46
2023	9,60	6,90											
Media	10,80	10,25	9,06	4,33	-0,27	-2,82	-3,57	-2,04	0,60	4,80	7,64	9,85	4,00

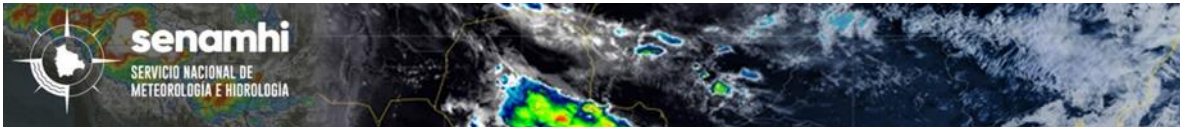


HUMEDAD RELATIVA (%)

Estación: El Tejar
 Departamento: Tarija
 Provincia: Cercado

Latitud Sud: -21.545599
 Longitud Oeste: -64.721868
 Altura m/s/n/m: 1859

AÑO	ENE.	FEB.	MAR.	ABR.	MAY.	JUN.	JUL.	AGO.	SEP.	OCT.	NOV.	DIC.	Media
1975	68,37	79,61	81,11	79,46	76,97	60,43	48,44	48,08	50,61	52,48	57,01	73,78	64,70
1976	72,49	67,44	68,91	58,87	58,58	52,53	47,66	46,10	56,29	49,14	52,09	57,30	57,28
1977	65,97	64,21	66,13	65,37	60,13	52,87	39,47	49,90	53,80	50,87	58,40	61,20	57,36
1978	62,87	65,11	61,16	64,43	57,52	56,83	45,20	47,45	43,97	50,42	57,07	66,97	56,58
1979	67,84	66,82	73,29	62,53	55,68	55,37	52,23	45,35	49,30	55,13	62,67	67,55	59,48
1980	72,26	68,55	71,77	65,17	60,42	61,90	55,17	57,32	51,00	62,26	57,40	61,60	62,07
1981	72,10	72,89	70,76	68,36	59,28	53,51	57,72	50,51	53,30	56,85	64,45	66,66	62,20
1982	69,92	70,14	72,02	69,44	57,26	47,10	48,16	52,95	55,48	56,79	60,34	68,37	60,66
1983	68,74	68,00	62,10	64,11	60,22	53,42	55,35	48,59	52,60	48,13	59,23	59,95	58,37
1984	72,19	70,88	70,79	66,29	56,42	50,43	46,26	51,99	52,46	59,55	64,93	67,29	60,79
1985	63,98	69,80	66,13	65,32	62,00	56,97	53,92	59,15	59,01	56,19	61,38	69,18	61,92
1986	63,91	72,40	74,38	67,99	59,45	54,82	54,36	55,13	58,51	56,64	61,01	73,38	62,67
1987	74,82	69,86	70,56	70,67	63,49	66,21	57,57	61,80	59,57	63,92	69,75	72,38	66,72
1988	75,94	77,35	76,93	76,75	70,27	61,76	61,09	54,97	59,09	58,41	55,45	70,83	66,57
1989	72,22	68,60	73,95	73,98	66,68	68,80	63,27	54,22	60,30	60,71	61,87	67,27	65,99
1990	70,38	75,45	70,24	67,47	65,03	63,49	61,60	58,86	56,70	55,52	67,17	70,02	65,16
1991	73,70	77,93	80,33	72,49	62,85	59,12	58,83	61,50	57,19	59,44	66,48	61,53	65,95
1992	71,92	72,78	69,81	66,37	58,06	56,93	63,34	55,17	55,86	60,69	62,25	64,10	63,11
1993	69,00	70,11	73,17	65,04	59,84	55,99	60,71	55,80	50,57	59,33	61,21	68,52	62,44
1994	70,32	73,73	68,26	64,30	59,64	56,72	55,35	52,35	55,12	62,77	67,61	64,90	62,59
1995	69,52	71,90	72,30	63,52	66,52	56,85	54,19	55,64	57,29	60,73	63,96	65,15	63,13
1996	72,04	67,47	71,59	69,42	68,08	63,88	60,43	57,13	57,10	58,58	66,37	72,77	65,41
1997	71,54	78,68	78,39	71,28	62,79	55,38	58,41	50,69	58,55	56,56	64,35	64,53	64,26
1998	67,67	72,12	70,97	67,58	62,98	60,25	58,20	55,29	53,82	54,42	66,32	60,34	62,50
1999	66,03	66,88	72,72	72,47	64,84	60,55	55,54	49,11	49,38	62,24	61,03	63,44	62,02
2000	67,55	67,31	72,14	67,25	63,98	52,92	59,31	57,02	51,86	56,64	63,76	64,56	62,03
2001	67,81	72,55	67,55	67,75	57,31	56,55	43,73	46,53	58,32	60,52	59,91	63,58	60,18
2002	63,32	71,45	67,68	65,67	54,36	52,78	52,51	46,20	45,27	58,25	58,71	63,27	58,29
2003	66,56	63,06	69,15	64,92							69,98	85,98	69,94
2004	85,29	88,15	91,24	77,92	71,12	59,63	59,22	57,97	58,06	55,05	64,56	70,96	69,93
2005	72,24	77,43	73,35	76,65	66,35	60,20	63,01	52,77	61,62	59,84	65,93	70,74	66,68
2006	70,97	70,86	73,60	78,11	76,84	70,03	63,20	61,77	56,87	67,70	58,93	60,58	67,46
2007	68,42	63,89	65,00	60,38	58,97	66,50	63,80	63,97	64,07	70,76	74,80	76,87	66,45
2008	80,81	77,21	79,45	74,76	73,57	74,55	72,18	70,03	71,83	73,62	76,10	83,24	75,61
2009	80,46	79,79	80,15	81,53	82,10	82,22	73,29			54,90	62,77	72,97	75,02
2010	71,94	73,71	73,26	68,83	64,30	64,17	57,93	59,74	58,20	65,74	62,33	63,74	65,32
2011	74,81	79,36	82,87	83,00	80,48	80,80	80,83	77,39	74,73	78,70	81,27	85,32	79,96
2012	85,26	86,17	84,26	86,27	82,35	80,04							84,06
2019	74,07	73,36	78,55	74,30	67,65	56,56	59,69	59,55	48,93	54,87	61,67	66,94	64,68
2020	68,66	79,97											74,32
Media	71,10	72,57	72,97	69,90	64,59	60,50	57,33	55,22	56,02	59,04	63,43	68,10	65,00



VELOCIDAD DEL VIENTO (km/h)

Estación: El Tejar
 Departamento: Tarija
 Provincia: Cercado

Latitud Sud: -21.545599
 Longitud Oeste: -64.721868
 Altura m/s/n/m: 1859

AÑO	ENE.	FEB.	MAR.	ABR.	MAY.	JUN.	JUL.	AGO.	SEP.	OCT.	NOV.	DIC.	MEDIA
2005								5,98	6,69	6,53	5,03	5,25	
2006	4,11	4,42	4,67	4,55	3,94	3,72	2,93	5,52	5,97	6,21	5,11	5,16	4,69
2007	5,19	4,88	5,59	5,07	4,84	3,35	4,59	7,42	7,06	7,06	5,64	4,83	5,46
2008	3,35	3,27	4,98	3,61	3,66	3,03	4,12	5,57	6,80	4,86	4,80	2,49	4,21
2009	3,39	3,36	3,47	4,08	4,32	3,95	5,80			8,60	6,58	5,09	
2010	4,20	9,65	9,69	8,95	10,11	8,47	9,55	10,88	14,31	11,21	13,75	12,32	10,26
2011	8,68	7,91	6,42	9,05	6,76	9,07	8,80	9,88	11,90	11,97	8,59	8,53	8,96
2012	7,42	7,24	8,76	10,07	7,97	7,48							
2019				9,26	10,96	7,52	9,05	14,40	14,97	13,02	11,55	12,41	11,46
2020	12,07	14,10											
Media	6,05	6,85	6,23	6,83	6,57	5,82	6,41	8,52	9,67	8,68	7,63	7,01	7,51

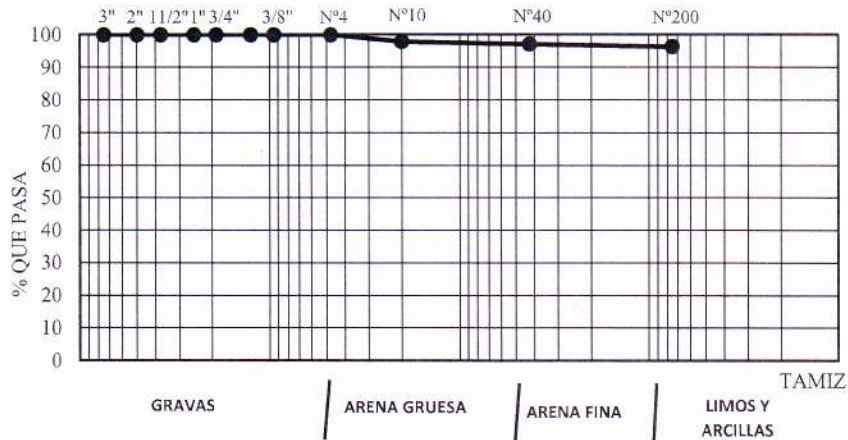


“UNIVERSIDAD AUTONOMA JUAN MISAEL SARACHO”
FACULTAD DE CIENCIAS Y TECNOLOGIA
LABORATORIO DE SUELOS

GRANULOMETRÍA

Proyecto:	"Propuesta de alternativas de control de inundaciones para la quebrada El Monte en el tramo del campus universitario de la Universidad Autónoma Juan Misael Saracho"		
Laboratorista:	Dayana Yasmin Encinas Aruquipa	Identificación:	Punto 1
Procedencia:	Universidad Autónoma Juan Misael Saracho	Fecha:	9/11/2022

Peso Total (gr.)		2810		A.S.T.M.	
Tamices	Tamaño	Peso Ret. (gr)	Ret. Acum (gr)	% Ret	% Que Pasa
3"	75	0.00	0.00	0.00	100.00
2"	50	0.00	0.00	0.00	100.00
1 1/2"	37.50	0.00	0.00	0.00	100.00
1"	25.00	0.00	0.00	0.00	100.00
3/4"	19.00	0.00	0.00	0.00	100.00
1/2"	12.50	0.00	0.00	0.00	100.00
3/8"	9.50	0.00	0.00	0.00	100.00
Nº4	4.75	0.00	0.00	0.00	100.00
Nº10	2.00	58.88	58.88	2.10	97.90
Nº40	0.425	21.54	80.42	2.86	97.14
Nº200	0.075	20.4	100.82	3.59	96.41



[Signature]

Dayana Yasmin Encinas Aruquipa
Universitaria

[Signature]

Ing. José Ricardo Arce Avendaño
Encargado de Laboratorio de Suelos

Nota: El laboratorio de suelos de la carrera de Ingeniería Civil no se hace responsable por los resultados obtenidos en esta investigación, es enteramente responsabilidad del investigador.



“UNIVERSIDAD AUTONOMA JUAN MISAEL SARACHO”
FACULTAD DE CIENCIAS Y TECNOLOGIA
LABORATORIO DE SUELOS

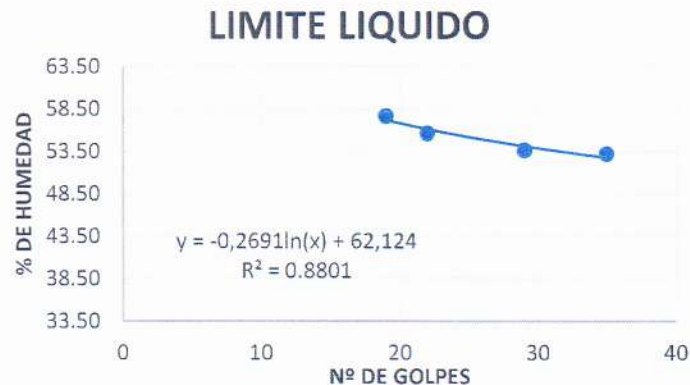
LIMITES DE ATTERBERG

Proyecto:	"Propuesta de alternativas de control de inundaciones para la quebrada El Monte en el tramo del campus universitario de la Universidad Autónoma Juan Misael Saracho"		
Laboratorista:	Dayana Yasmin Encinas Aruquipa	Identificación:	Punto 1
Procedencia:	Universidad Autónoma Juan Misael Saracho	Fecha:	9/11/2022

Determinación de Límite Líquido

Capsula N.º	1	2	3	4
N.º de golpes	19	22	29	35
Suelo Húmedo + Cápsula (gr.)	42.00	35.90	39.80	44.70
Suelo Seco + Cápsula (gr.)	31.22	27.54	30.29	35.15
Peso del agua (gr.)	10.78	8.36	9.51	9.55
Peso de la Cápsula (gr.)	12.54	12.52	12.56	17.21
Peso Suelo seco (gr.)	18.68	15.02	17.73	17.94
Porcentaje de Humedad (%)	57.71	55.66	53.64	53.23

Límite Líquido (LL)	62
Límite Plástico (LP)	31
Índice de plasticidad (IP)	31
Índice de grupo (IG)	10



Determinación de Límite Plástico

Cápsula	1	2	3
Peso de suelo húmedo + Cápsula (gr.)	21.89	15.86	16.59
Peso de suelo seco + Cápsula (gr.)	21.21	15.19	15.75
Peso de cápsula (gr.)	19.25	12.89	12.92
Peso de suelo seco (gr.)	1.96	2.30	2.83
Peso del agua (gr.)	0.68	0.67	0.84
Contenido de humedad (%)	34.69	29.13	29.68

Dayana Yasmin Encinas Aruquipa
Universitaria

Ing. José Ricardo Arce Avendaño
Encargado de Laboratorio de Suelos

Nota: El laboratorio de suelos de la carrera de Ingeniería Civil no se hace responsable por los resultados obtenidos en esta investigación, es enteramente responsabilidad del investigador.



“UNIVERSIDAD AUTONOMA JUAN MISAEL SARACHO”
FACULTAD DE CIENCIAS Y TECNOLOGIA
LABORATORIO DE SUELOS

HUMEDAD NATURAL Y CLASIFICACIÓN

Proyecto:	"Propuesta de alternativas de control de inundaciones para la quebrada El Monte en el tramo del campus universitario de la Universidad Autónoma Juan Misael Saracho"		
Laborarista:	Dayana Yasmin Encinas Aruquipa	Identificación:	Punto 1
Procedencia:	Universidad Autónoma Juan Misael Saracho	Fecha:	9/11/2022

HUMEDAD NATURAL			
Cápsula	1	2	3
Peso de suelo húmedo + Cápsula (gr.)	94.70	92.10	87.10
Peso de suelo seco + Cápsula (gr.)	79.30	76.70	70.60
Peso de cápsula (gr.)	17.50	12.70	12.90
Peso de suelo seco (gr.)	61.8	64	57.7
Peso del agua (gr.)	15.4	15.4	16.5
Contenido de humedad	24.92	24.06	28.60
PROMEDIO	25.86		

CLASIFICACIÓN DEL SUELO	SUCS: CH AASHTO: A-7
DESCRIPCIÓN	Arcillas inorgánicas de alta compresibilidad

Dayana Yasmin Encinas Aruquipa
Universitaria

Ing. José Ricardo Arce Avendaño
Encargado de Laboratorio de Suelos

Nota: El laboratorio de suelos de la carrera de Ingeniería Civil no se hace responsable por los resultados obtenidos en esta investigación, es enteramente responsabilidad del investigador.

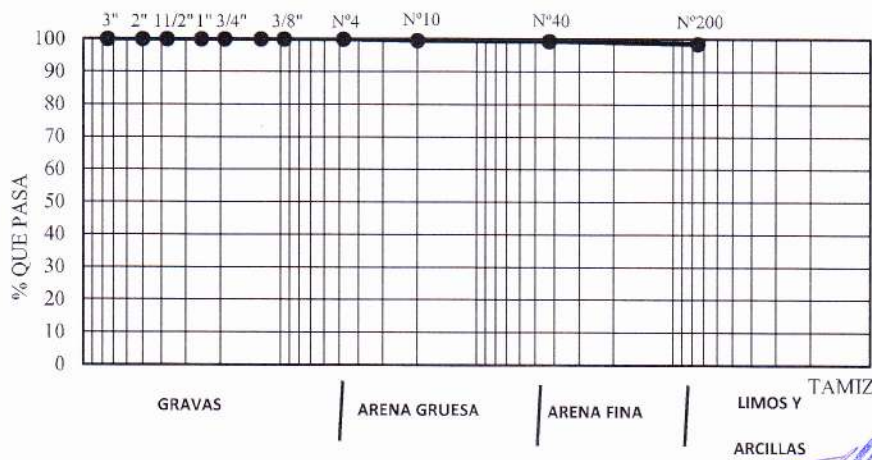


“UNIVERSIDAD AUTONOMA JUAN MISAEL SARACHO”
FACULTAD DE CIENCIAS Y TECNOLOGIA
LABORATORIO DE SUELOS

GRANULOMETRÍA

Proyecto: "Propuesta de alternativas de control de inundaciones para la quebrada El Monte en el tramo del campus universitario de la Universidad Autónoma Juan Misael Saracho"
Laboratorista: Dayana Yasmin Encinas Aruquipa **Identificación:** Punto 2
Procedencia: Universidad Autónoma Juan Misael Saracho **Fecha:** 9/11/2022

Peso Total (gr.)		3266		A.S.T.M.	
Tamices	Tamaño	Peso Ret. (gr)	Ret. Acum (gr)	% Ret	% Que Pasa
3"	75	0.00	0.00	0.00	100.00
2"	50	0.00	0.00	0.00	100.00
1 1/2"	37.50	0.00	0.00	0.00	100.00
1"	25.00	0.00	0.00	0.00	100.00
3/4"	19.00	0.00	0.00	0.00	100.00
1/2"	12.50	0.00	0.00	0.00	100.00
3/8"	9.50	0.00	0.00	0.00	100.00
Nº4	4.75	0.00	0.00	0.00	100.00
Nº10	2.00	11.89	11.89	0.36	99.64
Nº40	0.425	6.16	18.05	0.55	99.45
Nº200	0.075	27	45.05	1.38	98.62



Dayana Yasmin Encinas Aruquipa
 Universitaria

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FACULTAD DE CIENCIAS Y TECNOLOGIA
LABORATORIO DE SUELOS

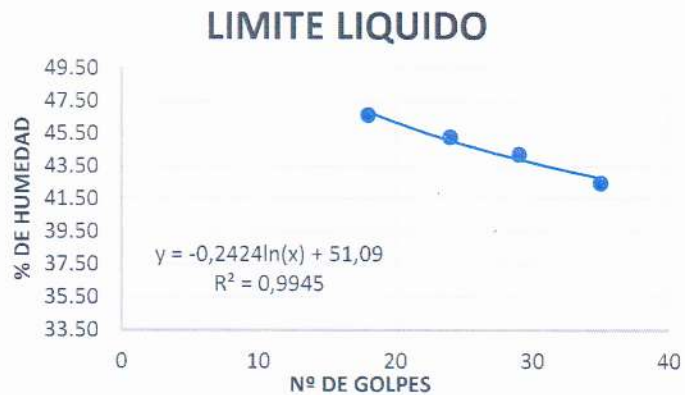
LIMITES DE ATTERBERG

Proyecto:	"Propuesta de alternativas de control de inundaciones para la quebrada El Monte en el tramo del campus universitario de la Universidad Autónoma Juan Misael Saracho"		
Laboratorista:	Dayana Yasmin Encinas Aruquipa	Identificación:	Punto 2
Procedencia:	Universidad Autónoma Juan Misael Saracho	Fecha:	9/11/2022

Determinación de Límite Líquido

Capsula N.º	1	2	3	4
N.º de golpes	18	24	29	35
Suelo Húmedo + Cápsula (gr.)	47.64	46.80	38.74	39.28
Suelo Seco + Cápsula (gr.)	36.65	36.14	30.73	31.28
Peso del agua (gr.)	10.99	10.66	8.01	8.00
Peso de la Cápsula (gr.)	13.09	12.61	12.62	12.45
Peso Suelo seco (gr.)	23.56	23.53	18.11	18.83
Porcentaje de Humedad (%)	46.65	45.30	44.23	42.49

Límite Líquido (LL)	51
Límite Plástico (LP)	30
Índice de plasticidad (IP)	21
Índice de grupo (IG)	10



Determinación de Límite Plástico

Cápsula	1	2	3
Peso de suelo húmedo + Cápsula (gr.)	15.68	15.16	15.80
Peso de suelo seco + Cápsula (gr.)	14.97	14.55	15.07
Peso de cápsula (gr.)	12.59	12.44	12.64
Peso de suelo seco (gr.)	2.38	2.11	2.43
Peso del agua (gr.)	0.71	0.61	0.73
Contenido de humedad (%)	29.83	28.91	30.04

Dayana Yasmin Encinas Aruquipa
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“UNIVERSIDAD AUTONOMA JUAN MISAEL SARACHO”
FACULTAD DE CIENCIAS Y TECNOLOGIA
LABORATORIO DE SUELOS

HUMEDAD NATURAL Y CLASIFICACIÓN

Proyecto:	"Propuesta de alternativas de control de inundaciones para la quebrada El Monte en el tramo del campus universitario de la Universidad Autónoma Juan Misael Saracho"		
Laboratorista:	Dayana Yasmin Encinas Aruquipa	Identificación:	Punto 2
Procedencia:	Universidad Autónoma Juan Misael Saracho	Fecha:	9/11/2022

HUMEDAD NATURAL			
Cápsula	1	2	3
Peso de suelo húmedo + Cápsula (gr.)	85.00	73.90	56.00
Peso de suelo seco + Cápsula (gr.)	70.90	61.50	47.60
Peso de cápsula (gr.)	12.50	12.70	13.40
Peso de suelo seco (gr.)	58.4	48.8	34.2
Peso del agua (gr.)	14.1	12.4	8.4
Contenido de humedad (%)	24.14	25.41	24.56
PROMEDIO	24.71		

CLASIFICACIÓN DEL SUELO	SUCS: CH AASHTO: A-7
DESCRIPCIÓN	Arcillas inorgánicas de alta compresibilidad,

Dayana Yasmin Encinas Aruquipa
Universitaria



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Encargado de Laboratorio de Suelos

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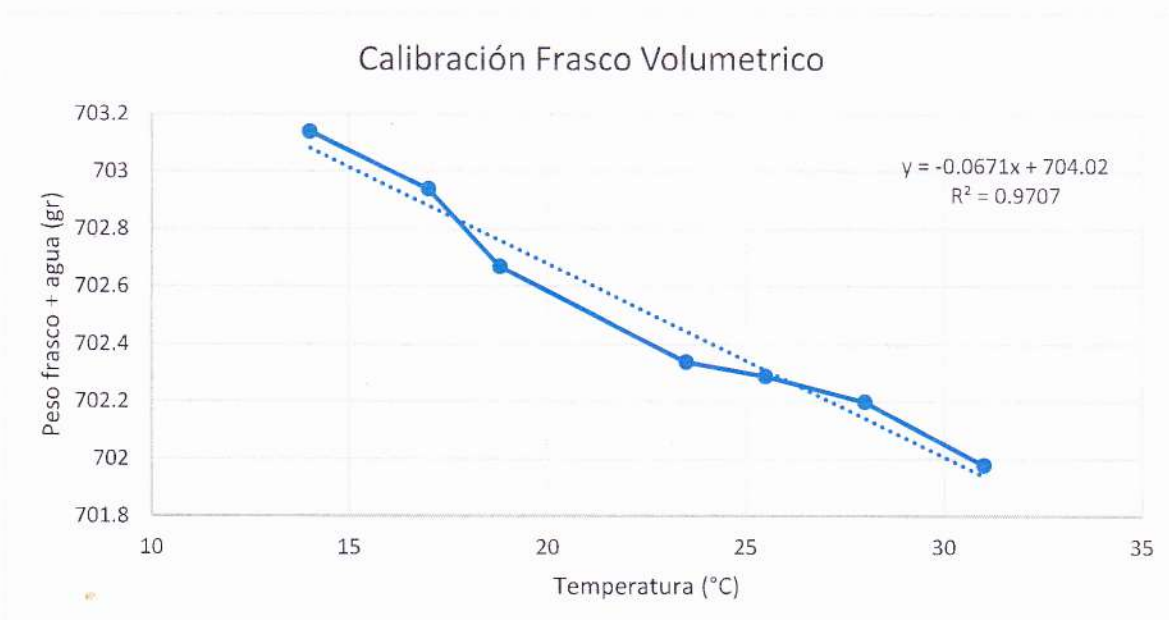


“UNIVERSIDAD AUTONOMA JUAN MISAEL SARACHO”
FACULTAD DE CIENCIAS Y TECNOLOGIA
LABORATORIO DE SUELOS

CALIBRACIÓN DEL FRASCO

Proyecto: "Propuesta de alternativas de control de inundaciones para la quebrada El Monte en el tramo del campus universitario de la Universidad Autónoma Juan Misael Saracho"
Laboratorista: Dayana Yasmin Encinas Aruquipa **Identificación:** Punto 1
Procedencia: Universidad Autónoma Juan Misael Saracho **Fecha:** 8/8/2023
Muestra: Única

Peso del frasco limpio (vacío-seco) (gr.) =	220.1	
Peso del frasco + agua W_{fw} (gr.) =	700.6	
Temperatura T (°C) =		
Numero de ensayo	T (°C)	W_{fw} (gr.)
1	31	701.98
2	28	702.20
3	25.5	702.29
4	23.5	702.34
5	18.8	702.67
6	17	702.94
7	14	703.14





“UNIVERSIDAD AUTONOMA JUAN MISAEL SARACHO”
FACULTAD DE CIENCIAS Y TECNOLOGIA
LABORATORIO DE SUELOS

PESO ESPECÍFICO

Proyecto:	"Propuesta de alternativas de control de inundaciones para la quebrada El Monte en el tramo del campus universitario de la Universidad Autónoma Juan Misael Saracho"		
Laboratorista:	Dayana Yasmin Encinas Aruquipa	Identificación:	Punto 1
Procedencia:	Universidad Autónoma Juan Misael Saracho	Fecha:	8/8/2023
Muestra:	Única		

PESO ESPECÍFICO AGREGADO FINO							
	1	2	3	4	5	6	Prom.
Temperatura ensayada (°C)	30	27	24	21	18	15	
Peso del suelo seco W_s (gr.)	80	80	80	80	80	80	
Peso del frasco más agua * W_{fw}	702.01	702.21	702.41	702.61	702.81	703.01	
Peso del frasco+agua+suelo W_{fws}	751.46	751.43	751.38	751.36	751.44	757.09	
Peso específico (gr/cm ³)	2.619	2.599	2.578	2.560	2.550	3.086	
Factor de corrección K	0.9974	0.9983	0.9991	0.9998	1.0040	0.9994	
Peso específico corregido (gr/cm ³)	2.612	2.595	2.576	2.559	2.560	3.084	2.586

El peso específico relativo de la muestra es de: **2.586** gr/cm³

Dayana Yasmin Encinas Aruquipa

Universitaria



Ing. José Ricardo Arce Avendaño

Encargado de Laboratorio de Suelos

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FACULTAD DE CIENCIAS Y TECNOLOGIA
LABORATORIO DE SUELOS

PESO ESPECÍFICO

Proyecto:	"Propuesta de alternativas de control de inundaciones para la quebrada El Monte en el tramo del campus universitario de la Universidad Autónoma Juan Misael Saracho"		
Laboratorista:	Dayana Yasmin Encinas Aruquipa	Identificación:	Punto 2
Procedencia:	Universidad Autónoma Juan Misael Saracho	Fecha:	8/8/2023
Muestra:	Única		

PESO ESPECÍFICO AGREGADO FINO							
	1	2	3	4	5	6	Prom.
Temperatura ensayada (°C)	30	27	24	21	18	15	
Peso del suelo seco W _s (gr.)	80	80	80	80	80	80	
Peso del frasco más agua * W _{fw}	702.01	702.21	702.41	702.61	702.81	703.01	
Peso del frasco+agua+suelo W _{fws}	747.98	750.47	751.48	751.50	751.92	751.90	
Peso específico (gr/cm ³)	2.351	2.521	2.587	2.571	2.590	2.571	
Factor de corrección K	0.9974	0.9983	0.9991	0.9998	1.0040	0.9994	
Peso específico corregido (gr/cm ³)	2.345	2.516	2.584	2.571	2.600	2.570	2.504

El peso específico relativo de la muestra es de: **2.504** gr/cm³

Dayana Yasmin Encinas Aruquipa

Universitaria

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**“UNIVERSIDAD AUTÓNOMA JUAN MISAEL SARACHO”
FACULTAD DE CIENCIAS Y TECNOLOGÍA**

AFORO DE FUENTE DE APORTE

DATOS DE AFORO

PROYECTO:	"PROPUESTA DE ALTERNATIVAS DE CONTROL DE INUNDACIONES PARA LA QUEBRADA EL MONTE EN EL TRAMO DEL CAMPUS UNIVERSITARIO DE LA UNIVERSIDAD AUTÓNOMA JUAN MISAEL SARACHO"			
RESPONSABLE DE AFORO:	Dayana Yasmin Encinas Aruquipa			
LUGAR:	Quebrada "El Monte"	ANCHO SECCIÓN:	0,84m	N° SECCIÓN: 5
NÚMERO DE AFORO:	PUNTO 1	FECHA DE AFORO:	21 de abril del 2023	
COORDENADA ESTE:	322010,98	COORDENADA NORTE:	7616006,76	
TIPO DE MOLINETE:	Electromagnético	MARCA:	KAILIU INSTRUMENT	METODO: DIRECTO

DATOS DE AFORO PUNTO 1

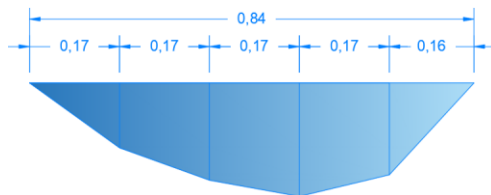
Sección	Dist. De Lectura (m)	Tirante Equipo (y)	Velocidad Equipo (m/s)
INICIO	0.00	0.00	0.000
1	0.17	0.12	0.144
2	0.34	0.18	0.147
3	0.50	0.21	0.149
4	0.67	0.17	0.146
FIN	0.84	0.10	0.142

Sección	Dist. De Lectura (m)	Tirante Equipo (y)	Velocidad Equipo (m/s)		Área m ²	Cálculo de caudal entre líneas de puntos de medición (m ³ /s)	Cálculo del flujo de línea (m ³ /s)	Cálculo del flujo de la pared lateral (m ³ /s)	
			k=	2				Kr=	0,55
Inicio	0,00	0,000	0,000	0,000	0,000			0,0016	
1	0,17	0,120	0,288	0,288	0,003	0,0073332	0,00581		
2	0,34	0,180	0,294	0,294	0,033	0,0096970	0,00889		
3	0,50	0,210	0,298	0,298	0,032	0,0094164	0,01051		
4	0,67	0,170	0,292	0,292	0,007	0,0020849	0,00834		
FIN	0,84	0,000	0,000	0,000				0,0140	
Caudal Total (m³/s)								0,044	
Caudal Total (l/s)								44,20	

Se considera un Kr=0,55, superficie rugosa sin mucha vegetación

CAUDAL AFORADO:	0,044	(m ³ /s)
	44,2	(l/s)

SECCIÓN DEL SITIO DE AFORO





**“UNIVERSIDAD AUTONOMA JUAN MISAEL SARACHO”
FACULTAD DE CIENCIAS Y TECNOLOGIA**

PROYECTO:

**“PROPUESTA DE ALTERNATIVAS DE CONTROL DE INUNDACIONES PARA
LA QUEBRADA EL MONTE EN EL TRAMO DEL CAMPUS UNIVERSITARIO
DE LA UNIVERSIDAD AUTÓNOMA JUAN MISAEL SARACHO”**

PUNTOS DE LEVANTAMIENTO TOPOGRAFICO				
Nro.	ESTE	NORTE	COTA	DESCRIPCION
1	321796.826	7616331.244	1878.677	BM-1
2	321849.0985	7616368.753	1879.065	BM-2
3	321761.134	7616306.33	1878.52	BM-3
4	321723.301	7616277.333	1877.825	BM-4
5	321735.192	7616253.763	1879.151	BM-5
6	321734.185	7616209.621	1877.364	BM-6
7	321881.0166	7616393.647	1878.9078	QUEBRADA
8	321879.8909	7616397.361	1880.1281	QUEBRADA1
9	321880.3717	7616395.578	1879.2652	QUEBRADA2
10	321881.3439	7616391.287	1878.5703	QUEBRADA3
11	321882.6273	7616389.368	1878.5595	QUEBRADA4
13	321883.0264	7616388.493	1879.2028	QUEBRADA6
14	321867.8137	7616388.494	1879.1555	QUEBRADA7
15	321868.8272	7616386.979	1878.6737	QUEBRADA8
16	321870.6881	7616384.606	1878.988	QUEBRADA9
17	321872.6878	7616381.614	1879.0107	QUEBRADA10
18	321873.0459	7616381.107	1880.2231	QUEBRADA11
19	321861.3062	7616372.934	1879.2927	QUEBRADA12
20	321858.7447	7616376.069	1878.9859	QUEBRADA13
21	321856.1544	7616380.959	1879.7462	QUEBRADA14
22	321856.3916	7616380.575	1878.5502	QUEBRADA15
23	321857.6872	7616378.318	1878.7952	QUEBRADA16
24	321846.8721	7616363.42	1879.117	QUEBRADA17
25	321843.9655	7616368.085	1878.9055	QUEBRADA18
26	321842.2827	7616369.976	1878.7752	QUEBRADA19
27	321841.3373	7616371.434	1878.8191	QUEBRADA20
28	321833.0917	7616353.468	1879.3543	QUEBRADA20
29	321840.9442	7616372.023	1879.2809	QUEBRADA20
30	321840.8831	7616372.338	1879.8028	QUEBRADA20
31	321831.2517	7616357.245	1878.7032	QUEBRADA20
32	321818.5127	7616343.76	1879.2108	QUEBRADA20
33	321829.3213	7616359.952	1878.3616	QUEBRADA20
34	321828.514	7616361.063	1878.3797	QUEBRADA20



**“UNIVERSIDAD AUTONOMA JUAN MISAEL SARACHO”
FACULTAD DE CIENCIAS Y TECNOLOGIA**

35	321816.2806	7616346.215	1878.6869	QUEBRADA20
36	321827.8589	7616362.14	1878.9452	QUEBRADA20
37	321827.7763	7616362.387	1879.9285	QUEBRADA20
38	321812.4624	7616351.374	1878.45	QUEBRADA20
39	321812.3543	7616351.485	1879.9566	QUEBRADA20
40	321809.2667	7616337.235	1879.1126	QUEBRADA20
41	321808.319	7616339.566	1878.91	QUEBRADA20
42	321806.5181	7616342.238	1878.485	QUEBRADA20
43	321807.9805	7616340.272	1878.4906	QUEBRADA20
44	321804.1442	7616345.679	1878.5944	QUEBRADA20
45	321803.5912	7616345.939	1879.1505	QUEBRADA20
46	321803.53	7616346.261	1880.1792	QUEBRADA20
47	321783.8642	7616331.167	1878.8024	QUEBRADA20
48	321783.4938	7616331.779	1879.4952	QUEBRADA20
49	321786.3958	7616327.179	1878.2224	QUEBRADA20
50	321789.4089	7616323.252	1878.9423	QUEBRADA20
51	321787.3881	7616326.337	1878.3088	QUEBRADA20
52	321787.6383	7616325.759	1878.6141	QUEBRADA20
53	321784.4012	7616330.159	1878.1235	QUEBRADA20
55	321774.7488	7616313.271	1878.7753	QUEBRADA20
56	321772.9667	7616315.899	1877.976	QUEBRADA20
57	321773.5402	7616315.121	1878.4546	QUEBRADA20
58	321771.1834	7616318.142	1878.0398	QUEBRADA20
59	321769.8353	7616319.574	1878.0538	QUEBRADA20
60	321769.4636	7616320.241	1878.9512	QUEBRADA20
61	321762.3278	7616304.137	1878.853	QUEBRADA20
62	321760.6315	7616307.355	1878.5552	QUEBRADA20
63	321760.439	7616307.442	1877.7112	QUEBRADA20
64	321760.3114	7616307.762	1877.5999	QUEBRADA20
65	321759.6734	7616309.309	1877.9506	QUEBRADA20
66	321758.622	7616311.776	1878.0905	QUEBRADA20
67	321758.0244	7616313.853	1879.1152	QUEBRADA20
68	321752.4233	7616301.515	1878.09	QUEBRADA20
69	321753.7672	7616298.466	1878.7375	QUEBRADA20
70	321753.1816	7616299.786	1878.6958	QUEBRADA20
71	321751.8341	7616302.612	1877.834	QUEBRADA20
72	321750.6039	7616304.508	1877.7814	QUEBRADA20
73	321749.8417	7616306.823	1877.9041	QUEBRADA20
74	321749.7739	7616307.489	1878.6628	QUEBRADA20
75	321725.3485	7616261.189	1875.9431	QUEBRADA20
76	321719.8791	7616265.001	1875.9602	FINAL SOCAVACION 2
77	321719.6532	7616264.186	1876.6758	QUEBRADA22
78	321719.1281	7616262.303	1877.6696	QUEBRADA23



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79	321715.858	7616264.174	1882.0692	QUEBRADA24
80	321716.0227	7616264.471	1878.6933	QUEBRADA25
81	321717.1317	7616266.662	1875.9532	QUEBRADA26
82	321714.0863	7616266.873	1884.193	QUEBRADA27
83	321714.291	7616267.106	1878.6578	QUEBRADA28
84	321715.9662	7616269.008	1875.948	QUEBRADA29
86	321714.5353	7616273.824	1881.5791	QUEBRADA31
87	321714.4899	7616273.806	1878.7616	QUEBRADA32
88	321715.7897	7616274.326	1875.9371	QUEBRADA33
89	321717.8673	7616284.929	1884.6258	QUEBRADA34
90	321717.8797	7616284.752	1881.0123	QUEBRADA35
92	321719.2682	7616282.624	1876.0015	INICIO SOCAVACION 2
93	321723.7542	7616288.311	1883.7045	QUEBRADA38
94	321723.4786	7616290.618	1881.7042	QUEBRADA39
95	321723.547	7616290.406	1880.4645	QUEBRADA40
96	321723.5688	7616291.57	1878.8413	QUEBRADA41
98	321724.2896	7616290.227	1876.9511	QUEBRADA43
99	321725.5882	7616289.352	1876.2863	QUEBRADA44
100	321725.9106	7616296.744	1883.7861	QUEBRADA45
101	321725.7887	7616296.929	1882.1996	QUEBRADA46
102	321726.4112	7616295.601	1879.0424	QUEBRADA47
103	321726.3605	7616292.052	1877.3473	QUEBRADA48
104	321727.463	7616290.381	1876.1882	QUEBRADA49
105	321728.2163	7616298.056	1881.1956	QUEBRADA50
106	321729.2803	7616297.548	1880.3595	QUEBRADA51
107	321730.3934	7616297.074	1879.2301	QUEBRADA52
108	321732.8181	7616296.308	1876.586	QUEBRADA53
109	321733.3831	7616269.617	1879.9311	QUEBRADA54
110	321730.2389	7616268.401	1878.9144	QUEBRADA55
111	321728.0841	7616265.73	1877.4952	QUEBRADA56
112	321724.1113	7616270.951	1878.0082	QUEBRADA57
113	321718.3545	7616269.84	1877.2765	QUEBRADA58
114	321721.2168	7616271.045	1877.6377	QUEBRADA59
115	321732.1782	7616271.28	1879.741	QUEBRADA60
116	321729.2662	7616272.252	1878.7659	QUEBRADA61
117	321720.9431	7616275.112	1877.8782	QUEBRADA62
118	321717.261	7616275.454	1877.2563	QUEBRADA63
119	321718.5539	7616275.578	1877.5327	QUEBRADA64
120	321723.1089	7616274.519	1877.5611	QUEBRADA65
121	321724.9665	7616273.997	1878.0569	QUEBRADA66
122	321728.386	7616288.877	1877.634	QUEBRADA67
123	321730.2999	7616286.477	1877.7157	QUEBRADA68
124	321729.613	7616287.813	1877.6688	QUEBRADA69



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125	321731.6117	7616284.796	1878.1282	QUEBRADA70
126	321733.6383	7616277.022	1880.0614	QUEBRADA71
127	321731.7412	7616276.992	1879.1637	QUEBRADA72
128	321732.5494	7616282.966	1878.6165	QUEBRADA73
129	321729.3272	7616277.282	1878.7356	QUEBRADA74
130	321728.868	7616277.253	1878.4908	QUEBRADA75
131	321733.4365	7616282.316	1878.9373	QUEBRADA76
132	321727.2946	7616280.444	1878.1189	QUEBRADA77
133	321734.1238	7616278.948	1879.9702	QUEBRADA78
134	321801.8992	7616348.928	1881.8595	TALUD
135	321802.8229	7616346.62	1880.6597	TALUD
136	321792.5132	7616345.744	1883.3203	TALUD
137	321793.4682	7616343.017	1881.8659	TALUD
138	321794.4377	7616340.302	1880.8147	TALUD
139	321783.1254	7616341.012	1883.0418	TALUD
140	321785.1797	7616338.014	1881.9483	TALUD
141	321786.8532	7616335.475	1880.8206	TALUD
142	321775.6358	7616335.757	1882.9544	TALUD
143	321826.5579	7616361.955	1879.9961	TALUD
144	321777.3908	7616332.82	1881.8168	TALUD
145	321779.5666	7616330.218	1880.4916	TALUD
146	321821.9586	7616365.725	1882.9051	TALUD
147	321768.948	7616331.117	1883.0762	TALUD
148	321771.0606	7616328.546	1881.7019	TALUD
149	321819.4557	7616357.308	1880.4615	TALUD
150	321773.216	7616324.702	1880.3642	TALUD
151	321816.7103	7616361.198	1882.4262	TALUD
152	321763.4054	7616327.068	1882.7147	TALUD
153	321765.806	7616324.18	1881.563	TALUD
154	321812.4691	7616352.777	1880.7335	TALUD
155	321767.3283	7616320.745	1880.4015	TALUD
156	321809.0208	7616357.437	1882.7055	TALUD
157	321806.2647	7616348.764	1880.5136	TALUD
158	321759.4552	7616319.745	1881.5004	TALUD
159	321761.3865	7616316.967	1880.1967	TALUD
160	321803.8962	7616350.636	1881.824	TALUD
161	321754.6842	7616316.777	1881.491	TALUD
162	321753.7851	7616318.643	1881.7444	TALUD
163	321755.9749	7616314.449	1880.362	TALUD
164	321846.5361	7616379.172	1881.7748	QUEBRADA
165	321845.6069	7616382.833	1883.6371	QUEBRADA
166	321845.7759	7616382.771	1883.6182	QUEBRADA
167	321894.4634	7616393.012	1881.2997	QUEBRADA



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168	321896.6509	7616389.416	1882.8929	QUEBRADA
169	321880.2111	7616405.093	1883.2149	QUEBRADA
170	321890.6304	7616392.047	1881.0865	QUEBRADA
171	321883.1538	7616400.423	1881.0898	QUEBRADA
172	321891.923	7616387.463	1882.3134	QUEBRADA
173	321888.3902	7616390.351	1881.2743	QUEBRADA
174	321872.5558	7616399.526	1883.3313	QUEBRADA
175	321890.8897	7616385.505	1882.7979	QUEBRADA
176	321882.3164	7616386.788	1880.5867	QUEBRADA
177	321882.5232	7616386.331	1881.333	QUEBRADA
178	321873.7118	7616395.651	1881.4542	QUEBRADA
179	321884.758	7616383.062	1882.6928	QUEBRADA
180	321876.3892	7616382.825	1880.5856	QUEBRADA
181	321878.2989	7616379.47	1882.2214	QUEBRADA
182	321866.1301	7616394.87	1883.1744	QUEBRADA
183	321877.0712	7616381.396	1881.3333	QUEBRADA
184	321867.318	7616391.568	1881.6235	QUEBRADA
185	321879.6867	7616375.844	1883.4213	QUEBRADA
186	321860.9614	7616392.891	1883.5781	QUEBRADA
187	321881.9236	7616373.868	1885.6398	QUEBRADA
188	321873,2216	7616378.406	1881.6534	QUEBRADA
189	321869.4453	7616365.791	1885.1932	QUEBRADA
190	321861.1711	7616386.981	1881.7857	QUEBRADA
191	321872.1842	7616379.637	1880.6567	QUEBRADA
192	321853.815	7616389.286	1883.4995	QUEBRADA
193	321874.9742	7616374.93	1882.5649	QUEBRADA
194	321855.0504	7616384.745	1882.108	QUEBRADA
195	321850.5031	7616381.786	1881.9049	QUEBRADA
196	321864.5943	7616372.02	1881.8931	QUEBRADA
197	321866.6819	7616368.985	1882.345	QUEBRADA
198	321847.9281	7616384.172	1883.6769	QUEBRADA
199	321863.9642	7616373.185	1881.2983	QUEBRADA
200	321863.9572	7616373.193	1881.2977	QUEBRADA
201	321856.1211	7616366.839	1881.2362	QUEBRADA
202	321858.6612	7616363.972	1882.3097	QUEBRADA
203	321831.4331	7616373.179	1883.3779	QUEBRADA
204	321858.8544	7616361.746	1882.5249	QUEBRADA
205	321859.0112	7616361.588	1883.0977	QUEBRADA
206	321859.9374	7616360.015	1883.6986	QUEBRADA
207	321860.0437	7616359.736	1885.0403	QUEBRADA
208	321834.4019	7616370.121	1881.3427	QUEBRADA
209	321848.6439	7616363.298	1880.9872	QUEBRADA
210	321818.2997	7616370.22	1884.2863	QUEBRADA



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211	321849.5615	7616358.583	1881.8746	QUEBRADA
212	321850.3916	7616355.797	1882.9839	QUEBRADA
213	321822.9181	7616361.089	1880.7138	QUEBRADA
214	321836.7113	7616354.768	1881.2376	QUEBRADA
215	321839.7917	7616347.933	1882.8247	QUEBRADA
216	321838.1217	7616351.438	1881.6853	QUEBRADA
217	321810.5305	7616365.196	1884.314	QUEBRADA
218	321840.572	7616346.786	1883.2311	QUEBRADA
219	321826.6644	7616348.376	1881.2792	QUEBRADA
220	321816.6548	7616355.932	1880.7431	QUEBRADA
221	321830.5226	7616344.681	1881.654	QUEBRADA
222	321831.7943	7616343.198	1882.1252	QUEBRADA
223	321831.8977	7616343.036	1882.7843	QUEBRADA
224	321832.7785	7616341.449	1883.1394	QUEBRADA
225	321820.3179	7616344.227	1881.2177	QUEBRADA
226	321858.7278	7616358.65	1885.0391	GAVION
227	321848.7554	7616351.81	1884.9922	GAVION
228	321833.5481	7616379.284	1885.7347	POSTE CIERRE
229	321851.8499	7616389.215	1885.4754	POSTE CIERRE
230	321825.5179	7616375.026	1886.0717	POSTE CIERRE
231	321751.3049	7616322.096	1885.2564	TALUD
232	321760.1637	7616326.349	1885.2714	TALUD
233	321738.4649	7616318.301	1885.5042	TALUD
234	321750.1036	7616318.889	1882.0156	TERREN
235	321754.0906	7616315.406	1881.3774	TERREN
236	321742.0228	7616315.208	1882.4865	TERREN
237	321755.6005	7616313.987	1880.2264	TERREN
238	321745.0025	7616311.836	1881.5002	TERREN
239	321746.4364	7616309.481	1880.7981	TERREN
240	321736.9807	7616309.708	1882.1358	TERREN
241	321740.6383	7616306.103	1880.8511	TERREN
242	321736.2273	7616306.439	1881.5805	TERREN
243	321737.7022	7616304.045	1880.3289	TERREN
244	321735.6118	7616301.559	1879.8823	TERREN
245	321734.9767	7616303.861	1881.134	TERREN
246	321733.747	7616300.205	1879.7336	TERREN
247	321731.6177	7616300.212	1881.3433	TERREN
248	321730.2715	7616299.171	1882.1996	TERREN
249	321746.1123	7616305.269	1878.1446	QUEBRDA
250	321742.53	7616294.822	1877.7792	QUEBRDA
251	321748.6041	7616302.597	1877.7189	QUEBRDA
252	321749.7178	7616300.989	1877.763	QUEBRDA
253	321751.7922	7616298.115	1878.7062	QUEBRDA



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255	321738.4473	7616291.271	1877.8159	QUEBRDA
256	321754.9662	7616301.04	1878.6384	QUEBRDA
257	321745.7145	7616295.685	1878.5833	QUEBRDA
258	321751.158	7616295.751	1879.9966	QUEBRDA
259	321718.8123	7616256.944	1881.5582	TALUD
260	321720.98	7616256.027	1881.1145	TALUD
261	321720.7072	7616249.52	1881.3523	TALUD
262	321717.0801	7616249.379	1881.8199	TALUD
263	321721.4125	7616242.04	1880.8538	TALUD
264	321715.5527	7616240.916	1881.9767	TALUD
265	321715.4813	7616233.259	1881.7829	TALUD
266	321723.7132	7616233.272	1880.0686	TALUD
267	321723.1915	7616222.955	1880.4178	TALUD
268	321718.8209	7616232.773	1881.5875	TALUD
269	321719.1657	7616226.05	1881.2375	TALUD
270	321723.3037	7616215.793	1881.0006	TALUD
271	321716.9851	7616225.797	1881.2016	TALUD
272	321716.9571	7616224.325	1881.3261	CANAL
273	321721.5243	7616225.578	1880.6411	CANAL
274	321717.0114	7616225.094	1880.2821	CANAL
275	321721.4973	7616225.301	1879.0615	CANAL
276	321719.557	7616223.807	1880.9462	CANAL
277	321719.557	7616223.807	1880.9462	CANAL
278	321718.6404	7616224.76	1880.2154	CANAL
279	321720.8988	7616216.494	1881.662	CANAL
280	321724.022	7616216.422	1880.6989	CANAL
281	321719.6399	7616213.614	1882.6333	CANAL
282	321723.9693	7616216.234	1878.7194	CANAL
283	321722.8827	7616214.489	1879.516	CANAL
284	321711.4747	7616243.497	1884.5717	TALUD
285	321713.614	7616253.123	1884.6242	TALUD
286	321714.0809	7616273.128	1886.601	TALUD
287	321722.3721	7616196.211	1882.8427	TALUD
288	321722.7713	7616194.251	1885.1075	TALUD
289	321737.035	7616252.513	1880.3241	TALUD
290	321734.4544	7616237.486	1879.6695	TALUD
291	322022.993	7616804.12	1887.394	Pt1
292	322019.227	7616806.377	1887.398	Pt2
293	322024.748	7616804.545	1887.386	Pt3
294	322031.371	7616801.091	1887.518	Pt4
295	322031.006	7616796.609	1887.572	Pt5
296	322037.012	7616801.19	1886.668	Pt6
297	322041.556	7616800.302	1885.111	Pt7



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298	322038.316	7616795.165	1885.02	Pt8
299	322035.424	7616795.349	1885.254	Pt9
300	322034.303	7616792.437	1885.226	Pt10
301	322035.979	7616791.182	1885.04	Pt11
302	322037.12	7616790.773	1884.695	Pt12
303	322033.01	7616788.734	1885.226	Pt13
304	322035.405	7616786.949	1884.625	Pt14
305	322033.398	7616782.811	1884.579	Pt15
306	322031.627	7616783.292	1885.003	Pt16
307	322030.429	7616783.645	1885.723	Pt17
308	322048.162	7616818.992	1885.001	Pt18
309	322045.691	7616819.785	1885.522	Pt19
310	322044.57	7616825.073	1885.8	Pt20
311	322050.952	7616819.349	1884.815	Pt21
312	322040.66	7616820.875	1885.895	Pt22
313	322036.026	7616823.131	1886.282	Pt23
314	322033.489	7616826.119	1886.509	Pt24
315	322057.294	7616816.283	1885.347	Pt25
316	322058.808	7616819.413	1885.505	Pt26
317	322056.512	7616820.955	1884.808	Pt27
318	322067.624	7616814.34	1886.585	Pt28
319	322068.607	7616817.381	1886.653	Pt29
320	322061.986	7616815.044	1885.44	Pt30
321	322065.68	7616818.452	1885.738	Pt31
322	322062.475	7616797.538	1887.543	Pt32
323	322059.294	7616796.43	1887.31	Pt33
324	322061.819	7616794.441	1887.573	Pt34
325	322056.68	7616791.423	1887.46	Pt35
326	322070.658	7616791.623	1889.387	Pt36
327	322071.538	7616793.309	1889.323	Pt37
328	322021.365	7616802.666	1889.015	quebrada
329	322012.067	7616803.783	1887.941	quebrada 1
330	322006.421	7616796.897	1889.381	quebrada 3
331	322009.136	7616802.169	1890.059	cierre
332	322007.106	7616798.676	1889.724	cierre0
333	321996.409	7616780.07	1888.447	cierre1
334	321989.824	7616768.429	1888.37	cierre2
335	321981.485	7616758.39	1888.148	cierre3
336	321971.758	7616750.146	1888.393	cierre4
337	321941.996	7616731.666	1887.82	cierre5
338	321925.382	7616723.89	1887.856	cierre6
339	321900.256	7616715.165	1887.623	cierre7
340	321882.184	7616709.803	1887.379	cierre8



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341	321833.834	7616696.009	1887.11	cierre9
342	321768.53	7616675.156	1886.629	cierre10
343	322014.134	7616783.449	1887.54	terreno 21
344	322020.138	7616782.724	1887.048	terreno 22
345	322020.807	7616778.468	1886.565	terreno 23
346	322025.032	7616774.922	1886.946	terreno 24
347	322018.694	7616764.933	1887.124	terreno 25
348	322008.033	7616764.425	1886.909	terreno 26
349	322005.724	7616767.583	1886.968	terreno 27
350	322000.743	7616763.532	1886.954	terreno 28
351	321987.561	7616753.322	1886.787	terreno 29
352	321980.023	7616742.409	1886.631	terreno 30
353	321972.012	7616738.132	1886.496	terreno 31
354	321953.826	7616728.325	1886.549	terreno 32
356	321936.115	7616721.228	1884.901	terreno 34
357	321929.682	7616719.835	1886.654	terreno 35
358	321916.7	7616711.069	1886.24	terreno 36
359	321914.151	7616706.823	1886.072	terreno 37
360	321899.248	7616704.376	1885.92	terreno 38
361	321892.432	7616702.907	1885.728	terreno 39
362	321888.626	7616705.82	1886.338	terreno 40
363	321876.786	7616701.783	1886.501	terreno 41
364	321858.525	7616703.573	1887.12	cierr0
365	321800.085	7616685.46	1887.224	cierr2
366	321767.635	7616675.69	1886.464	cierr3
367	321751.993	7616670.612	1887.904	cierr4
368	321745.664	7616663.511	1885.589	terreno
369	321739.799	7616664.065	1885.995	terren0
370	321726.75	7616662.134	1886.529	cierre
371	321705.331	7616652.539	1886.188	cier1
372	321707.896	7616646.62	1884.532	terr
373	321694.247	7616646.372	1886.247	cierree
374	321683.138	7616638.667	1892.694	cierree0
375	321674.789	7616631.345	1889.516	cierree1
376	321663.266	7616607.504	1888.354	cierree4
377	321659.799	7616595.538	1888.006	cierree5
378	321656.821	7616585.584	1887.4	cierree6
379	321652.219	7616568.048	1887.759	cierree7
380	321653.068	7616558.62	1887.545	tere
381	321657.734	7616559.559	1886.979	tere0
382	321658.925	7616555.837	1886.536	tere1
383	321659.193	7616549.624	1886.58	tere2
384	321654.829	7616548.297	1887.817	tere3



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385	321652.064	7616544.154	1887.968	cieer
386	321658.312	7616527.901	1887.141	cieer0
387	321662.88	7616517.936	1886.87	cieer1
388	321665.799	7616520.213	1885.904	terre
389	321664.989	7616520.532	1885.89	terre0
390	321674.115	7616509.276	1886.758	terre1
391	321676.334	7616504.142	1886.85	terre2
392	321670.585	7616503.075	1890.277	cierrr
393	321682.104	7616492.604	1887.037	cierrr0
394	321691.388	7616485.403	1887.107	cierrr1
395	321692.542	7616486.305	1886.858	des
396	321697.465	7616480.57	1886.813	ciere
397	321699.098	7616482.882	1886.735	des0
398	321706.939	7616478.797	1886.572	terr0
399	321704.55	7616475.497	1886.932	cierrr
400	321716.582	7616465.536	1886.711	cier cam
401	321718.962	7616468.834	1886.797	ter
402	321721.009	7616475.422	1884.698	ter0
403	321730.368	7616460.987	1886.065	cie0
404	321742.301	7616458.528	1885.564	cie1
405	321745.73	7616465.777	1884.249	tteer
406	321749.424	7616467.898	1882.938	tteer0
407	321763.349	7616457.862	1885.072	tteer1
408	321763.448	7616457.203	1885.281	cam mu
409	321774.094	7616459.321	1884.317	mu0
410	321781.799	7616461.419	1885.197	mu1
411	321789.472	7616464.747	1884.557	zap muro
412	321789.742	7616464.822	1883.749	zap muro0
413	321792.018	7616464.728	1884.001	muro1
414	321798.422	7616467.032	1884.898	muro2
415	321800.037	7616470.466	1884.817	tteeerr
416	321819.841	7616477.366	1884.669	tteeerr0
417	321818.929	7616480.507	1884.476	tteeerr1
418	321818.418	7616483.89	1884.123	tteeerr2
419	321835.903	7616490.49	1883.77	tteeerr3
420	321863.625	7616491.688	1883.923	muro esquina
421	321774.324	7616462.544	1880.658	INICIO SOCAVACION 1
422	321827.359	7616490.418	1880.339	quebrada0
423	321825.067	7616489.987	1880.433	quebrada1
424	321825.617	7616496.122	1880.504	quebrada2
425	321829.571	7616498.299	1882.008	quebrada gavion
426	321844.97	7616503.76	1881.17	quebrada gavion0
427	321860.419	7616508.671	1882.165	quebrada gavion1



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428	321865.287	7616509.9	1882.289	quebrada gavion2
429	321839.442	7616501.89	1881.514	quebrada gavion3
430	321838.229	7616504.264	1881.96	frenre
431	321835.344	7616502.082	1883.092	frenre0
432	321834.59	7616500.263	1881.876	gavi que
433	321822.881	7616499.058	1882.33	frente0
434	321816.295	7616492.391	1880.019	quebrada 12
435	321814.421	7616495.065	1882.287	gavion fren
436	321807.844	7616491.579	1880.664	quebrada fren
437	321807.229	7616485.215	1880.38	eje quebrada
438	321802.436	7616480.604	1880.409	eje quebrada0
439	321798.35	7616486.195	1881.048	quebrada fren1
440	321795.431	7616477.173	1880.129	que eje
441	321791.721	7616478.588	1881.351	quebrqda fren
442	321793.579	7616476.001	1880.501	quebrqda fren0
443	321791.592	7616472.672	1880.46	eje que
445	321785.217	7616469.675	1880.563	eje que1
446	321782.285	7616474.91	1881.683	quebr fren
447	321782.482	7616467.113	1880.399	eje de queb
448	321789.304	7616466.283	1880.666	u queb0
449	321790.967	7616467.379	1880.638	FINAL SOCAVACION 1
450	321783.387	7616464.664	1880.966	gavion
451	321777.854	7616463.562	1880.823	gavion0
452	321775.047	7616465.946	1880.89	eje quebrq
453	321773.047	7616469.181	1880.931	quebrq
454	321773.169	7616474.208	1881.826	quebrq0
455	321768.961	7616467.406	1880.979	quebrq1 eje
456	321769.145	7616462.756	1880.974	queb
457	321770.468	7616472.422	1881.188	queb0
458	321762.598	7616468.745	1880.976	eje queb
459	321758.333	7616471.705	1880.85	eje queb0
460	321753.639	7616471.847	1881.115	eje queb1
461	321745.693	7616475.534	1880.999	eje queb2
462	321739.56	7616478.342	1880.978	eje queb3
463	321732.814	7616479.663	1880.799	eje queb4
464	321728.734	7616482.401	1880.932	eje queb5
465	321723.029	7616484.695	1881.033	eje queb6
466	321715.378	7616487.938	1880.806	eje queb7
467	321711.514	7616489.865	1881.167	eje queb8
468	321706.182	7616490.544	1881.007	eje queb9
469	321697.115	7616494.617	1881.097	eje queb10
470	321698.834	7616498.01	1881.362	frente quebrada
471	321689.35	7616502.553	1881.401	eje quebr



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472	321682.494	7616511.229	1881.324	eje quebr0
473	321679.906	7616516.602	1881.306	eje quebr1
474	321676.698	7616525.54	1881.944	fr qu
475	321671.927	7616524.826	1881.262	eje qqueb
476	321670.573	7616533.677	1881.424	eje qqueb0
477	321672.886	7616535.52	1881.603	frent queb
478	321669.874	7616545.873	1881.531	eje quebr012
479	321669.789	7616554.922	1881.739	eje quebr013
480	321673.686	7616558.503	1881.606	frente q
481	321670.765	7616570.09	1881.994	eje quebra
482	321670.931	7616578.202	1881.837	eje quebra0
483	321672.14	7616588.946	1881.846	eje quebra1
484	321666.408	7616655.552	1891.655	BM-1
485	321690.309	7616749.686	1892.793	BM-2
486	321716.296	7616641.93	1882.03	quebrada v
487	321721.935	7616641.863	1882.694	quebrada v1
488	321732.259	7616646.706	1882.37	quebrada v2
489	321741.076	7616649.852	1882.584	quebrada v3
490	321749.609	7616652.534	1882.987	quebrada v4
491	321760.653	7616660.319	1882.608	quebrada eje
492	321751.102	7616656.458	1882.448	quebrada eje0
493	321740.134	7616653.034	1882.199	quebrada eje1
494	321727.72	7616648.074	1882.06	quebrada eje2
495	321719.901	7616645.043	1881.994	quebrada eje3
496	321709.334	7616639.756	1882.033	quebrada eje4
497	321701.076	7616635.784	1881.962	quebrada eje5
498	321693.447	7616631.135	1881.846	quebrada eje6
499	321684.647	7616624.466	1881.821	quebrada eje7
500	321679.863	7616614.855	1881.821	quebrada eje8
501	321676.418	7616606.426	1881.726	quebrada eje9
502	321674.276	7616598.486	1881.767	quebrada eje10
503	321670.392	7616594.744	1881.854	quebrada u
504	321667.783	7616586.433	1882.355	quebrada u0
505	321665.087	7616579.359	1880.453	quebrada u1
506	321665.416	7616569.878	1882.294	quebrada u2
507	321675.301	7616566.029	1881.613	quebrada ve
508	321674.634	7616555.503	1881.657	quebrada ve0
509	321666.647	7616556.022	1881.942	quebr u
510	321666.583	7616560.501	1881.66	quebr u0
511	321666.961	7616564.648	1881.715	quebr u1
512	321666.773	7616569.236	1881.766	quebr u2
513	321670.539	7616569.016	1881.991	eje q
514	321669.595	7616552.099	1881.511	eje q0



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515	321669.697	7616547.854	1881.418	eje q1
516	321675.417	7616555.126	1884.22	terreno frente
517	321679.217	7616554.634	1884.491	terreno frente0
518	321678.531	7616548.997	1884.286	terreno frente1
519	321674.251	7616549.264	1883.558	terreno frente2
520	321674.932	7616543.316	1883.985	terreno frente3
521	321678.204	7616543.8	1884.109	terreno frente4
522	321678.713	7616538.816	1884.087	terreno frente5
523	321673.748	7616536.882	1883.308	terreno frente6
524	321675.204	7616531.464	1883.728	terreno frente7
525	321679.117	7616532.166	1883.951	terreno frente8
526	321681.957	7616527.303	1884.18	terreno frente9
527	321678.837	7616524.467	1883.531	terreno frente10
528	321682.158	7616520.23	1883.158	terreno frente11
529	321685.398	7616522.082	1884.693	terreno frente12
530	321689.059	7616517.404	1884.715	terreno frente13
531	321687.133	7616515.315	1884.196	terreno frente14
532	321691.26	7616509.505	1883.602	terreno frente15
533	321693.727	7616512.003	1884.959	terreno frente16
534	321697.781	7616507.162	1884.75	terreno frente17
535	321695.312	7616504.493	1883.524	terreno frente18
536	321699.982	7616500.677	1883.931	terreno frente19
537	321702.322	7616502.383	1883.91	terreno frente20
538	321707.527	7616499.877	1884.358	terreno frente21
539	321704.915	7616496.363	1883.665	terreno frente22
540	321709.798	7616493.055	1883.392	terreno frente23
541	321711.924	7616496.689	1884.292	terreno frente24
542	321716.288	7616493.464	1884.038	terreno frente25
543	321715.49	7616491.583	1883.82	terreno frente26
544	321720.639	7616489.068	1883.52	terreno frente27
545	321722.523	7616492.006	1883.979	terreno frente28
546	321727.937	7616489.354	1883.883	terreno frente29
547	321726.284	7616486.501	1882.496	terreno frente30
548	321731.099	7616483.802	1881.009	terreno frente31
549	321735.509	7616482.854	1881.079	terreno frente32
550	321743.228	7616480.787	1881.032	terreno frente33
551	321743.415	7616480.867	1881.323	terreno frente34
552	321743.61	7616482.57	1882.295	terreno frente35
553	321751.136	7616479.87	1882.176	terreno frente36
554	321749.925	7616477.723	1881.068	terreno frente37
555	321748.325	7616472.845	1881.031	terreno u
556	321768.742	7616475.343	1882.984	terre v
557	321769.161	7616478.223	1883.647	terre v0



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558	321773.503	7616480.472	1883.641	terre v1
559	321777.989	7616476.836	1882.795	terre v2
560	321857.473	7616507.265	1881.746	terre v3
561	321856.892	7616508.634	1882.072	terre v4
562	321864.161	7616510.459	1882.333	terre v5
563	321864.306	7616509.249	1882.051	terre v6
564	321872.215	7616510.398	1882.095	terre v7
565	321871.978	7616512.846	1882.422	terre v8
566	321668.899	7616627.314	1891.353	mall a
567	321666.438	7616620.202	1891.076	mall a 0
568	321662.471	7616606.179	1891.122	mall a 1
569	321658.202	7616592.312	1890.71	mall a 2
570	321653.14	7616573.211	1890.562	mall a 3
571	321648.139	7616554.607	1890.477	mall a 4
572	321652.541	7616541.56	1890.213	mall a 5
573	321654.501	7616535.483	1889.959	mall a 6
574	321660.718	7616521.817	1890.094	mall a 7
575	321666.304	7616509.415	1889.822	mall a 8
576	321670.074	7616501.238	1889.777	mall a 9
577	321683.801	7616490.537	1889.451	mall a 10
578	321694.235	7616482.478	1889.241	mall a 11
579	321708.004	7616471.485	1889.03	mall a 12
580	321716.24	7616465.164	1888.703	mall a 13
581	321736.544	7616459.095	1888.147	mall a 14
582	321751.726	7616456.625	1887.614	mall a 15
583	321764.05	7616456.601	1887.456	mall a 16
584	321775.715	7616459.023	1887.444	mall a 17
585	321792.016	7616464.096	1886.899	mall a 18
586	321799.995	7616465.228	1887.547	mall a 19
587	321811.579	7616471.666	1886.384	mall a 20
588	321808.185	7616365.048	1884.707	mall a 21
589	321810.254	7616364.252	1890.594	terreno un
590	321880.149	7616405.311	1883.509	mall u
591	321903.066	7616424.198	1882.479	Terr u
592	321905.748	7616423.096	1882.224	Terr u0
593	321906.853	7616422.335	1882.693	Terr u1
594	321908.732	7616421.61	1882.039	Terr u2
596	321909.537	7616421.156	1881.558	Terr u4
597	321914.046	7616439.174	1882.98	Terr u5
598	321916.784	7616437.524	1883.265	Terr u6
599	321918.088	7616436.687	1882.957	Terr u7
600	321918.546	7616436.542	1882.221	Terr u8
601	321923.754	7616459.757	1883.574	Terr u9



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602	321926.758	7616459.881	1883.458	Terr u10
603	321928.386	7616459.828	1882.681	Terr u11
604	321925.518	7616466.82	1883.639	Terr u12
605	321927.714	7616467.056	1883.325	Terr u13
606	321929.082	7616467.083	1883.16	Terr u14
607	321929.376	7616467.078	1882.238	Terr u15
608	321930.188	7616466.685	1881.786	Terr u16
609	321931.617	7616466.421	1881.228	Terr u17
610	321931.791	7616466.274	1880.304	Terr u18
611	321933.215	7616476.836	1882.469	Terr u19
612	321932.403	7616476.898	1882.868	Terr u20
613	321931.173	7616476.825	1882.523	Terr u21
614	321928.742	7616476.6	1882.904	Terr u22
615	321928.406	7616476.803	1883.428	Terr u23
616	321923.889	7616475.637	1883.555	Terr u24
617	321919.202	7616474.141	1883.671	Terr u25
618	321914.46	7616471.199	1884.417	Terr u26
619	321910.474	7616469.839	1884.638	Terr u27
620	321908.858	7616492.567	1882.397	Terr u28
621	321908.785	7616492.409	1883.5	Terr u29
622	321907.824	7616488.506	1883.793	Terr u30
623	321903.951	7616483.499	1884.019	Terr u31
624	321903.181	7616481.443	1884.873	Terr u32
625	321902.069	7616480.18	1884.104	muro u
626	321899.561	7616486.804	1883.986	terren u
627	321899.1	7616490.151	1884.03	terren u0
628	321899.12	7616493.16	1883.857	terren u1
629	321899.078	7616494.749	1883.794	terren u2
630	321891.113	7616495.776	1883.971	terren u3
631	321890.376	7616492.566	1883.876	terren u4
632	321882.938	7616497.673	1883.922	borde u
633	321882.744	7616495.293	1884.034	u terr
634	321876.163	7616493.079	1883.967	u terr0
635	321871.72	7616498.258	1883.921	borde ua
636	321863.423	7616496.998	1884.14	borde ua0
637	321863.164	7616498.795	1883.997	borde ua1
638	321849.573	7616488.606	1884.55	u ter
639	321848.467	7616492.375	1884.588	u ter0
640	321847.996	7616493.374	1883.919	u ter1
641	321847.11	7616494.61	1883.669	bord u
642	321832.389	7616482.917	1884.506	bord u0
643	321828.585	7616487.895	1884.138	borde 1
644	321829.907	7616482.625	1885.968	u tere



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645	321788.166	7616316.545	1882.156	quebrada12
646	321792.489	7616319.157	1882.259	quebrada13
647	321768.872	7616127.317	1876.938	quebrada14
648	321767.914	7616126.788	1877.527	quebrada15
649	321771.666	7616128.367	1876.74	quebrada16
650	321772.671	7616128.619	1876.678	quebrada17
651	321773.734	7616129.154	1876.638	quebrada18
652	321774.759	7616129.463	1877.735	quebrada19
653	321775.189	7616129.644	1878.396	quebrada20
654	321776.851	7616130.467	1879.401	quebrada21
655	321774.793	7616139.424	1879.602	quebrada22
656	321774.375	7616139.128	1878.72	quebrada23
657	321772.28	7616138.984	1877.796	quebrada24
658	321771.889	7616138.932	1876.835	quebrada25
659	321771.071	7616139.036	1876.569	quebrada26
660	321766.077	7616137.457	1877.184	quebrada27
661	321763.24	7616136.294	1877.513	quebrada28
662	321766.512	7616139.021	1877.132	quebrada30
663	321764.228	7616144.038	1877.15	quebrada31
664	321760.938	7616142.212	1880.149	quebrada32
665	321763.836	7616137.767	1881.161	quebrada33
666	321766.492	7616158.944	1878.606	quebrada34
667	321764.369	7616158.21	1878.22	quebrada35
668	321763.865	7616157.84	1876.93	quebrada36
669	321761.788	7616157.806	1876.99	quebrada37
670	321759.095	7616156.729	1876.978	quebrada38
671	321757.535	7616156.014	1877.797	quebrada39
672	321757.121	7616156.03	1878.084	quebrada40
673	321755.93	7616155.206	1878.708	quebrada41
674	321757.826	7616155.663	1880.865	quebrada42
675	321753.994	7616163.185	1880.512	quebrada43
676	321755.513	7616166.571	1877.3	quebrada44
677	321758.122	7616167.964	1877.033	quebrada45
678	321759.057	7616168.325	1876.863	quebrada46
679	321760.328	7616168.579	1877.277	quebrada47
680	321761.076	7616169.076	1877.71	quebrada48
681	321761.861	7616168.888	1878.426	quebrada49
682	321763.033	7616169.415	1878.759	quebrada50
683	321763.535	7616169.58	1880.063	quebrada51
684	321742.311	7616183.866	1878.064	quebrada52
685	321741.91	7616183.12	1878.173	quebrada53
686	321742.619	7616183.903	1877.592	quebrada54
687	321745.734	7616183.227	1877.887	quebrada55



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688	321745.728	7616183.305	1877.4	quebrada56
689	321746.995	7616185.277	1876.688	quebrada57
690	321749.624	7616187.2	1877.599	quebrada58
691	321750.328	7616187.737	1878.356	quebrada59
692	321752.162	7616188.866	1879.34	quebrada60
693	321754.749	7616191.156	1880.713	quebrada61
694	321759.734	7616193.694	1883.224	quebrada62
695	321736.122	7616206.006	1877.448	quebrada63
696	321732.696	7616204.375	1876.791	quebrada64
697	321737.396	7616206.692	1877.754	quebrada65
698	321737.202	7616208.537	1878.576	quebrada66
699	321738.394	7616208.867	1879.378	quebrada67
700	321740.43	7616210.123	1880.28	quebrada68
701	321737.504	7616217.452	1879.641	quebrada69
702	321734.232	7616216.789	1878.704	quebrada70
703	321733.323	7616216.554	1877.447	quebrada71
704	321729.137	7616216.557	1877.094	quebrada72
705	321728.098	7616216.115	1877.48	quebrada73
706	321723.522	7616240.436	1878.582	quebrada74
707	321723.474	7616240.449	1879.461	quebrada75
708	321724.279	7616239.518	1879.278	quebrada76
709	321728.736	7616240.565	1877.581	quebrada77
710	321731.428	7616240.581	1877.227	quebrada78
711	321732.865	7616240.54	1877.184	quebrada79
712	321733.898	7616240.482	1876.982	quebrada80
713	321734.54	7616240.556	1879.085	quebrada81
714	321736.813	7616240.761	1879.773	quebrada82
715	321737.466	7616254.655	1879.763	quebrada83
716	321737.156	7616254.664	1878.961	quebrada84
717	321734.469	7616255.123	1878.706	quebrada85
718	321733.849	7616254.999	1877.716	quebrada86
719	321731.502	7616255.072	1877.453	quebrada87
720	321728.643	7616254.885	1877.527	quebrada88
721	321725.8	7616254.753	1877.656	quebrada89
722	321724.722	7616254.842	1877.917	quebrada90
723	321727.903	7616271.456	1878.55	quebrada91
724	321725.484	7616267.314	1877.457	quebrada92
725	321721.513	7616268.895	1877.525	quebrada93
726	321718.808	7616270.701	1877.379	quebrada94
727	321718.143	7616273.676	1877.333	quebrada95
728	321718.384	7616279.168	1877.447	quebrada96
729	321724.076	7616284.487	1877.697	quebrada97
730	321722.939	7616279.104	1878.002	quebrada98



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731	321728.567	7616278.326	1878.45	quebrada99
732	321732.192	7616277.606	1879.358	quebrada100
733	321730.365	7616272.998	1879.172	quebrada101
734	321740.648	7616232.864	1883.639	quebrada102
735	321740.609	7616232.89	1882.697	quebrada103
736	321740.856	7616242.477	1883.686	quebrada104
737	321740.814	7616242.468	1882.708	gavion23
738	321741.89	7616250.973	1883.768	gavion24
739	321741.829	7616250.885	1883.056	gavion25
740	321744.314	7616261.002	1883.888	gavion26
741	321744.304	7616261.143	1882.889	gavion27
742	321747.031	7616268.119	1883.874	gavion28
743	321747.007	7616268.196	1883.055	gavion29
744	321753.943	7616280.511	1883.804	gavion30
745	321753.94	7616280.643	1883.065	gavion31
746	321759.355	7616287.465	1883.837	gavion32
747	321759.184	7616287.578	1882.977	gavion33
748	321731.507	7616287.65	1877.876	quebr
749	321733.206	7616286.279	1877.952	quebr0
750	321735.456	7616286.938	1878.7	quebr1
751	321736.974	7616286.42	1879.421	quebr2
752	321736.964	7616286.374	1879.928	quebr3
753	321731.219	7616291.883	1877.267	quebr4
754	321731.545	7616290.676	1878.012	quebr5
755	321729.724	7616293.622	1879.252	quebr6
756	321740.285	7616301.806	1878.468	quebr7
757	321737.001	7616302.307	1879.179	quebr8
758	321740.363	7616300.962	1878.03	quebr9
759	321742.297	7616298.975	1877.81	quebr10
760	321743.599	7616297.232	1877.723	quebr11
761	321744.081	7616296.576	1877.713	quebr12
762	321744.413	7616296.298	1877.843	quebr13
764	321746.205	7616296.165	1878.978	quebr15
765	321754.75	7616298.508	1882.165	quebr16
766	321754.729	7616298.855	1881.244	quebr17
767	321753.611	7616300.274	1881.131	quebr18
768	321751.139	7616303.797	1877.704	quebr19
770	321752.192	7616302.142	1877.866	quebr21
771	321749.768	7616305.47	1877.826	quebr22
772	321749.346	7616307.313	1878.029	quebr23
777	321872.285	7616378.008	1881.503	quebr29
778	321794.354	7616335.247	1878.365	eje quebrada
779	321785.704	7616328.6	1878.171	eje quebrad



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780	321777.712	7616323.073	1878.057	eje quebrad0
781	321769.94	7616316.826	1878.055	eje quebrad1
782	321760.53	7616308.9	1877.841	eje quebrad2
783	321760.889	7616307.914	1877.618	eje quebrad3
784	321754.214	7616304.851	1877.736	eje quebrad4
785	321722.252	7616278.659	1880.013	estacion 3
786	321742.053	7616195.287	1877.471	quebrqda
787	321754.959	7616174.239	1877.145	quebrqda0
788	321750.549	7616172.21	1877.417	quebrqda1
789	321749.996	7616172.008	1877.799	quebrqda2
790	321755.396	7616174.932	1877.283	quebrqda3
791	321757.591	7616176.022	1877.446	quebrqda4
792	321759.062	7616176.671	1877.855	quebrqda5
793	321759.596	7616177.095	1878.472	quebrqda6
794	321762.711	7616153.117	1877.005	quebrqda7
795	321765.759	7616154.724	1877.16	quebrqda8
796	321761.72	7616152.53	1876.949	quebrqda9
797	321760.345	7616151.976	1877.767	quebrqda10
798	321910.893	7616410.52	1879.435	quebrqda11
799	321912.445	7616409.222	1879.507	quebrqda12
800	321913.682	7616420.149	1879.431	quebrqda13
802	321918.221	7616417.181	1879.538	quebrqda15
803	321919.078	7616416.755	1879.587	quebrqda16
804	321924.071	7616434.724	1879.642	quebrqda17
805	321922.101	7616436.517	1879.861	quebrqda18
806	321929.182	7616431.649	1880.349	quebrqda19
807	321928.772	7616431.917	1879.676	quebrqda20
808	321928.397	7616432.068	1879.286	quebrqda21
809	321927.737	7616432.448	1879.169	quebrqda22
810	321926.887	7616433.023	1879.339	quebrqda23
811	321925.994	7616433.854	1879.437	quebrqda24
812	321928.241	7616449.427	1881.07	quebrqda25
813	321928.459	7616449.231	1879.927	quebrqda26
814	321930.261	7616448.757	1879.629	quebrqda27
815	321932.539	7616447.824	1879.556	quebrqda28
816	321934.337	7616447.213	1879.527	quebrqda29
817	321935.858	7616446.733	1879.391	quebrqda30
818	321936.075	7616446.695	1879.687	quebrqda31
819	321936.59	7616446.458	1881.003	quebrqda32
820	321930.494	7616460.96	1881.016	quebrqda33
821	321930.669	7616460.791	1880.185	quebrqda34
822	321933.02	7616460.081	1880.144	quebrqda35
823	321933.242	7616460.003	1879.851	quebrqda36



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824	321933.831	7616459.843	1879.543	quebrqda37
825	321935	7616459.518	1879.615	quebrqda38
826	321936.608	7616459.01	1879.606	quebrqda39
827	321938.247	7616458.404	1879.52	quebrqda40
828	321939.895	7616458.823	1879.514	quebrqda41
829	321940.155	7616458.815	1879.905	quebrqda42
830	321940.371	7616458.908	1880.584	quebrqda43
831	321932.875	7616471.95	1881.22	quebrqda44
832	321933.002	7616471.734	1880.239	quebrqda45
833	321934.344	7616471.39	1879.956	quebrqda46
834	321935.874	7616471.352	1879.626	quebrqda47
835	321937.639	7616471.02	1879.482	quebrqda48
836	321938.831	7616470.875	1879.333	quebrqda49
837	321939.43	7616470.782	1879.155	quebrqda50
838	321935.483	7616481.292	1880.421	quebrqda51
839	321936.098	7616481.161	1879.75	quebrqda52
840	321936.966	7616481.195	1879.491	quebrqda53
841	321937.826	7616481.123	1879.332	quebrqda54
842	321935.222	7616485.737	1880.373	quebrqda55
843	321935.419	7616485.893	1880.073	quebrqda56
844	321936.429	7616486.194	1879.8	quebrqda57
845	321937.379	7616486.59	1879.444	quebrqda58
846	321931.42	7616489.911	1881.067	quebrqda59
847	321931.565	7616490.132	1880.584	quebrqda60
848	321931.885	7616490.821	1880.135	quebrqda61
849	321933.113	7616492.106	1880.119	quebrqda62
850	321934.587	7616493.473	1879.766	quebrqda63
851	321934.965	7616493.905	1879.504	quebrqda64
852	321935.535	7616494.417	1879.404	quebrqda65
853	321925.586	7616493.101	1880.507	quebrqda66
854	322054.702	7616793.733	1887.197	quebrqda67
855	322060.281	7616791.762	1887.55	quebrqda68
856	322070.014	7616790.893	1888.765	quebrqda69
857	322070.197	7616790.797	1889.502	muro
858	322067.197	7616787.099	1889.589	muro0
859	322063.469	7616781.796	1889.723	muro1
860	322058.515	7616774.944	1889.757	muro2
861	322051.682	7616765.416	1889.818	muro3
862	322044.501	7616755.511	1889.846	muro4
863	322037.159	7616746.303	1890.31	muro5
864	322029.731	7616737.298	1890.501	muro6
865	322023.186	7616742.934	1890.521	muro7
867	322036.455	7616754.636	1889.742	muro9



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FACULTAD DE CIENCIAS Y TECNOLOGIA**

868	322047.26	7616769.989	1889.437	muro10
869	322059.651	7616779.808	1889.785	muro11
870	322065.283	7616787.651	1889.098	muro12
871	322062.732	7616788.517	1887.731	muro13
872	322055.817	7616790.048	1887.487	muro14
873	322058.01	7616783.213	1887.485	quebradau
874	322049.099	7616773.269	1887.796	quebradau0
875	322045.482	7616775.726	1887.155	quebradau1
876	322042.008	7616769.862	1887.234	quebradau2
877	322040.641	7616764.851	1885.541	quebradau3
878	322053.733	7616796.971	1885.798	quebradau4
879	322052.852	7616797.565	1884.808	quebradau5
880	322047.881	7616798.664	1884.595	quebradau6
881	322046.915	7616799.043	1884.353	quebradau7
882	322043.417	7616799.552	1884.618	quebradau8
883	322034.113	7616792.733	1885.43	quebradau9
884	322037.88	7616790.962	1884.612	quebradau10
885	322041.212	7616789.237	1884.442	quebradau11
886	322043.147	7616787.837	1884.456	quebradau12
887	322045.094	7616786.06	1884.671	quebradau13
888	322047.968	7616783.643	1885.907	quebradau14
889	322048.688	7616783.148	1886.678	quebradau15
890	322042.571	7616772.658	1885.377	quebradau16
891	322038.589	7616773.775	1884.629	quebradau17
892	322035.204	7616775.955	1884.304	quebradau18
893	322029.956	7616778.294	1884.417	quebradau19
894	322036.6	7616761.703	1884.992	quebradau20
895	322030.919	7616764.625	1884.486	quebradau21
896	322027.191	7616767.264	1884.263	quebradau22
897	322024.726	7616769.248	1884.485	quebradau23
898	322023.376	7616770.258	1885.48	quebradau24
899	322020.275	7616763.855	1884.874	quebradau25
900	322023.312	7616760.572	1884.29	quebradau26
901	322027.415	7616757.565	1884.429	quebradau27
902	322031.002	7616754.929	1884.557	quebradau28
903	322022.569	7616744.156	1885.02	quebradau29
904	322022.505	7616743.546	1886.494	quebradau30
906	322017.074	7616739.725	1884.367	quebradau32
907	322017.063	7616739.674	1885.853	quebradau33
908	322008.74	7616733.718	1884.537	quebradau34
910	322012.311	7616743.595	1883.794	quebradau36
911	322010.217	7616745.916	1884.226	quebradau37
912	322005.351	7616748.36	1884.654	quebradau38



**“UNIVERSIDAD AUTONOMA JUAN MISAEL SARACHO”
FACULTAD DE CIENCIAS Y TECNOLOGIA**

913	322003.739	7616751.287	1885.212	quebradau39
914	322003.27	7616751.801	1886.267	quebradau40
915	321997.774	7616731.288	1884.83	quebradau41
916	321997.994	7616733.244	1883.731	quebradau42
917	321998.128	7616730.732	1886.765	quebradau43
918	322000.138	7616727.077	1887.454	quebradau44
919	321998.931	7616736.947	1883.631	quebradau45
920	321996.629	7616736.313	1883.81	quebradau46
921	321995.214	7616739.69	1883.864	quebradau47
922	321994.078	7616743.931	1884.476	quebradau48
923	321980.657	7616740.07	1883.991	quebradau49
924	321979.627	7616741.684	1886.464	quebradau50
925	321981.587	7616736.583	1883.702	quebradau51
926	321981.583	7616734.334	1883.686	quebradau52
927	321982.394	7616731.736	1883.625	quebradau53
928	321981.81	7616730.832	1884.877	quebradau54
929	321981.19	7616730.26	1885.35	quebradau55
930	321974.506	7616728.799	1884.22	quebradau56
931	321974.402	7616729.091	1883.674	quebradau57
932	321972.878	7616732.855	1883.392	quebradau58
933	321971.738	7616734.777	1883.474	quebradau59
934	321970.699	7616734.83	1884.011	quebradau60
935	321966.822	7616725.503	1883.858	quebradau61
936	321967.166	7616723.312	1885.3	quebradau62
937	321962.819	7616729.415	1883.441	quebradau63
938	321958.24	7616720.883	1883.853	quebradau64
939	321955.65	7616725.7	1883.742	quebradau65
940	321956.995	7616724.211	1883.673	quebradau66
941	321957.972	7616722.871	1883.698	quebradau67
942	321946.436	7616714.261	1883.577	quebradau68
943	321947.029	7616713.122	1883.982	quebradau69
944	321945.877	7616715.017	1883.207	quebradau70
945	321944.713	7616716.83	1883.305	quebradau71
946	321943.389	7616722.006	1883.827	quebradau72
947	321942.604	7616722.485	1886.754	quebradau73
948	321932.016	7616708.165	1883.048	quebradau74
949	321933.242	7616706.161	1884.316	quebradau75
950	321930.856	7616709.87	1883.079	quebradau76
951	321930.286	7616711.264	1883.118	quebradau77
952	321929.727	7616712.298	1883.644	quebradau78
953	321918.946	7616700.148	1883.564	quebradau79
954	321918.909	7616701.298	1883.076	quebradau80
955	321917.494	7616702.236	1882.908	quebradau81



**“UNIVERSIDAD AUTONOMA JUAN MISAEL SARACHO”
FACULTAD DE CIENCIAS Y TECNOLOGIA**

956	321916.933	7616703.723	1883.068	quebradau82
957	321915.428	7616705.669	1883.504	quebradau83
958	321676.511	7616561.219	1884.281	quebradau84
959	321680.424	7616561.588	1884.859	quebradau85
960	321676.859	7616566.695	1884.407	quebradau86
961	321680.626	7616565.474	1884.88	quebradau87
962	321677.276	7616570.967	1884.626	quebradau88
963	321681.224	7616570.954	1885.268	quebradau89
964	321677.802	7616578.438	1885.058	quebradau90
965	321682.403	7616576.632	1885.303	quebradau91
966	321676.797	7616578.025	1882.886	quebradau92
967	321675.393	7616577.863	1881.996	quebradau93
968	321673.449	7616578.063	1881.809	quebradau94
969	321673.735	7616586.911	1881.815	quebradau95
970	321676.333	7616586.437	1881.969	quebradau96
971	321678.09	7616587.152	1884.77	quebradau97
972	321684.656	7616584.126	1885.415	quebradau98
973	321685.77	7616593.662	1885.319	quebradau99
974	321680.886	7616595.47	1885.226	quebradau100
975	321678.565	7616596.238	1883.663	quebradau101
976	321677.407	7616596.466	1881.891	quebradau102
977	321675.891	7616596.747	1881.831	quebradau103
978	321681.013	7616607.033	1882.451	quebradau104
979	321682.685	7616606.596	1884.278	quebradau105
980	321684.269	7616605.905	1885.156	quebradau106
981	321691.085	7616602.519	1885.436	quebradau107
982	321695.647	7616616.687	1885.385	quebradau108
983	321692.122	7616619.706	1884.97	quebradau109
984	321690.097	7616621.009	1884.658	quebradau110
985	321689.546	7616621.269	1882.595	quebradau111
986	321688.591	7616622.131	1882.321	quebradau112
987	321703.172	7616634.315	1882.129	quebradau113
988	321704.995	7616633.301	1883.727	quebradau114
989	321705.837	7616630.636	1885.462	quebradau115
990	321707.011	7616628.524	1885.865	quebradau116
991	321720.384	7616632.904	1885.479	quebradau117
992	321719.277	7616636.345	1885.314	quebradau118
993	321718.383	7616637.873	1884.46	quebradau119
994	321717.086	7616639.733	1883.319	quebradau120
995	321717.019	7616639.996	1882.337	quebradau121
996	321737.313	7616652.13	1882.251	quebradau122
997	321739.604	7616649.366	1882.728	quebradau123
998	321739.716	7616648.724	1884.649	quebradau124



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999	321741.121	7616645.861	1885.597	quebradau125
1000	321752.261	7616652.439	1885.302	quebradau126
1001	321752.687	7616651.245	1885.531	quebradau127
1002	321752.185	7616653.106	1885.004	quebradau128
1003	321748.324	7616655.484	1882.406	quebradau129
1004	321747.89	7616658.11	1882.552	quebradau130
1005	321747.23	7616660.031	1882.67	quebradau131
1006	321760.001	7616662.887	1882.64	quebradau132
1007	321759.318	7616666.284	1882.838	quebradau133
1008	321759.241	7616667.028	1883.135	quebradau134
1009	321766.752	7616663.335	1882.7	quebradau135
1010	321742.378	7616650.71	1882.423	quebradau136
1011	321742.681	7616650.172	1882.585	quebradau137
1012	321741.647	7616652.523	1882.206	quebradau138
1013	321740.478	7616655.057	1882.113	quebradau139
1014	321751.536	7616660.562	1882.452	quebradau140
1015	321753.256	7616658.65	1882.356	quebradau141
1016	321754.063	7616656.939	1882.37	quebradau142
1017	321755.009	7616655.255	1882.614	quebradau143
1018	321773.78	7616665.484	1882.378	quebradau144
1019	321774.755	7616663.171	1882.888	quebradau145
1020	321774.012	7616663.988	1882.598	quebradau146
1021	321771.54	7616670.085	1882.446	quebradau147
1022	321773.617	7616667.501	1882.235	quebradau148
1023	321785.095	7616669.72	1882.138	quebradau149
1024	321781.219	7616675.623	1889.355	quebradau150
1025	321783.803	7616676.83	1883.657	quebradau151
1026	321787.855	7616676.16	1885.556	quebradau152
1027	321786.039	7616675.361	1887.108	quebradau153
1028	321787.091	7616676.003	1884.611	quebradau154
1029	321794.097	7616682.101	1891.039	quebradau155
1030	321790.907	7616681.887	1886.909	quebradau156
1031	321792.487	7616683.144	1886.435	quebradau157
1032	321794.009	7616679.994	1887.807	quebradau158
1033	321794.227	7616679.298	1888.214	quebradau159
1034	321793.551	7616679.573	1884.857	quebradau160
1035	321791.653	7616678.523	1883.274	quebradau161
1036	321791.823	7616677.852	1883.413	quebradau162
1037	321792.097	7616677.096	1884.381	quebradau163
1038	321794.19	7616679.666	1888.342	quebradau164
1039	321795.173	7616679.07	1886.52	quebradau165
1040	321797.297	7616678.349	1883.08	quebradau166
1041	321770.432	7616674.406	1886.031	quebradau167



**“UNIVERSIDAD AUTONOMA JUAN MISAEL SARACHO”
FACULTAD DE CIENCIAS Y TECNOLOGIA**

1042	321736.956	7616262.817	1880.367	quebradau168
1043	321739.833	7616268.613	1881.338	quebradau169
1044	321939.78	7616471.085	1878.939	quebradau170
1045	321937.953	7616483.12	1879.061	quebradau171
1046	321940.225	7616486.029	1878.914	quebradau172
1047	321940.942	7616486.231	1878.823	quebradau173
1048	321941.052	7616486.3	1879.599	quebradau174
1049	321940.495	7616489.125	1878.747	quebradau175
1050	321936.505	7616494.848	1879.127	quebradau176
1051	321936.992	7616495.44	1879.707	quebradau178
1052	321929.406	7616488.859	1882.541	quebradau179
1053	321927.71	7616486.768	1882.399	quebradau180
1054	321924.572	7616486.058	1882.904	quebradau181
1055	321919.962	7616483.383	1883.328	quebradau182
1056	321920.676	7616491.798	1882.525	quebradau183
1057	321919.361	7616489.715	1882.917	quebradau184
1058	321916.9	7616486.283	1883.329	quebradau185
1059	321914.1	7616480.242	1883.636	quebradau186
1060	321909.701	7616476.993	1884.424	quebradau187
1061	321907.824	7616474.377	1885.129	quebradau188
1062	321920.888	7616492.882	1881.432	quebradau189
1063	321921.032	7616493.314	1880.842	quebradau190
1064	321921.569	7616496.575	1880.285	quebradau191
1065	321921.6	7616499.126	1879.948	quebradau192
1066	321921.68	7616499.87	1879.596	quebradau193
1067	321921.852	7616500.741	1879.481	quebradau194
1068	321922.55	7616503.695	1880.135	quebradau195
1069	321923.073	7616505.207	1879.749	quebradau196
1070	321923.585	7616506.003	1879.934	quebradau197
1071	321923.901	7616506.125	1880.65	quebradau198
1072	321916.955	7616507.995	1881.028	quebradau199
1073	321916.724	7616507.728	1879.969	quebradau200
1074	321915.996	7616504.523	1880.303	quebradau201
1075	321915.827	7616501.553	1879.954	quebradau202
1076	321915.572	7616499.512	1879.798	quebradau203
1077	321915.614	7616498.6	1879.97	quebradau204
1078	321915.758	7616497.773	1880.295	quebradau205
1079	321915.732	7616495.128	1880.426	quebradau206
1080	321915.721	7616494.494	1881.151	quebradau207
1081	321915.49	7616493.013	1882.935	quebradau208
1082	321915.227	7616491.485	1883.217	quebradau209
1083	321911.206	7616512.774	1882.077	quebradau210
1084	321911.056	7616511.006	1881.853	quebradau211



**“UNIVERSIDAD AUTONOMA JUAN MISAEL SARACHO”
FACULTAD DE CIENCIAS Y TECNOLOGIA**

1085	321911.352	7616509.539	1881.084	quebradau212
1086	321911.803	7616509.047	1880.563	quebradau213
1087	321911.838	7616507.929	1880.443	quebradau214
1088	321911.652	7616504.4	1880.23	quebradau215
1089	321910.973	7616500.528	1880.027	quebradau216
1090	321910.921	7616498.543	1880.094	quebradau217
1091	321910.745	7616497.588	1880.341	quebradau218
1092	321910.531	7616495.282	1880.76	quebradau219
1093	321910.476	7616494.756	1881.505	quebradau220
1094	321900.861	7616514.004	1881.739	quebradau221
1095	321900.81	7616513.072	1881.721	quebradau222
1096	321900.683	7616511.305	1881.661	quebradau223
1097	321900.613	7616509.588	1881.122	quebradau224
1098	321900.412	7616508.584	1880.542	quebradau225
1099	321899.771	7616504.69	1880.108	quebradau226
1100	321898.81	7616501.741	1880.164	quebradau227
1101	321897.958	7616498.016	1880.587	quebradau228
1102	321883.149	7616512.68	1882.152	quebradau229
1103	321882.997	7616510.963	1881.57	quebradau230
1104	321882.949	7616510.361	1881.158	quebradau231
1105	321882.391	7616510.058	1880.3	quebradau232
1106	321881.82	7616506.971	1880.007	quebradau233
1107	321880.759	7616502.939	1880.449	quebradau234
1108	321880.07	7616498.538	1880.951	quebradau235
1109	321871.604	7616502.38	1880.599	quebradau236
1110	321871.044	7616506.152	1880.117	quebradau237
1111	321870.428	7616508.668	1879.808	quebradau238
1112	321870.471	7616509.349	1880.541	quebradau239
1113	321864.236	7616502.995	1880.189	quebradau240
1114	321862.901	7616505.392	1879.872	quebradau241
1115	321861.182	7616506.938	1881.989	quebradau242
1116	321860.529	7616502.981	1880.062	quebradau243
1117	321854.845	7616501.388	1879.774	quebradau244
1118	321849.022	7616500.189	1879.762	quebradau245
1119	321846.463	7616499.464	1879.952	quebradau246
1120	321844.18	7616499.052	1880.238	quebradau247
1121	321839.571	7616497.267	1880.318	quebradau248
1122	321833.169	7616494.679	1880.391	quebradau249
1123	321860.321	7616505.712	1879.653	quebradau250
1124	321871.687	7616373.403	1883.445	quebradau251
1125	321764.241	7616304.734	1881.072	quebradau252
1126	321766.054	7616302.308	1881.281	quebradau253
1127	321768.613	7616300.444	1881.414	quebradau254



**“UNIVERSIDAD AUTONOMA JUAN MISAEL SARACHO”
FACULTAD DE CIENCIAS Y TECNOLOGIA**

1128	321769.101	7616298.903	1882.026	quebradau255
1129	321769.736	7616298.082	1882.905	quebradau256
1130	321778.535	7616307.377	1881.67	quebradau257
1131	321777.174	7616309.802	1881.471	quebradau258
1132	321775.631	7616312.14	1881.306	quebradau259
1133	321786.031	7616319.866	1881.304	quebradau260
1134	321788.248	7616317.205	1881.442	quebradau261
1135	321790.438	7616314.98	1881.648	quebradau262
1136	321805.568	7616325.207	1882.469	quebradau263
1137	321805.316	7616325.335	1881.845	quebradau264
1138	321804.656	7616326.737	1881.486	quebradau265
1139	321803.658	7616330.083	1881.463	quebradau266
1140	321802.441	7616331.669	1881.371	quebradau267
1141	321819.989	7616335.157	1882.682	quebradau268
1142	321819.895	7616335.386	1882.025	quebradau269
1143	321818.975	7616337.21	1881.629	quebradau270
1144	321817.503	7616339.354	1881.632	quebradau271
1145	321816.682	7616341.695	1881.273	quebradau272
1146	321751.234	7616126.166	1884.096	cierre pe
1147	321744.868	7616139.933	1884.184	cierre pe0
1148	321736.086	7616158.756	1884.415	cierre pe1
1149	321726.075	7616180.681	1884.907	cierre pe2
1150	321720.429	7616193.644	1883.779	cierre pe3
1151	321710.082	7616216.144	1885.287	cierre pe4
1152	321704.311	7616228.859	1885.552	cierre pe5
1153	321703.423	7616231.922	1885.513	cierre pe6
1154	321703.275	7616246.365	1885.855	cierre pe7
1155	321707.994	7616263.137	1886.064	cierre pe8
1156	321715.246	7616279.642	1886	cierre pe9
1157	321716.084	7616282.142	1886.008	cierre pe10
1158	321718.233	7616287.994	1886.114	cierre pe11
1159	321721.946	7616302.387	1886.021	cierre pe12
1160	321724.616	7616307.932	1885.982	cierre pe13
1161	321727.773	7616312.123	1886.507	cierre pe14
1162	321737.674	7616323.426	1886.596	cierre pe15
1163	321755.506	7616334.404	1886.097	cierre pe16
1164	321771.794	7616342.286	1886.308	cierre pe17
1165	321790.85	7616354.99	1888.697	cierre pe18
1166	321735.077	7616251.344	1878.613	quebra
1167	321734.711	7616247.391	1878.601	quebra0
1168	321734.257	7616240.688	1879.191	quebra1
1169	321735.002	7616233.168	1879.294	quebra2
1170	321734.643	7616227.86	1879.262	quebra3



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FACULTAD DE CIENCIAS Y TECNOLOGIA**

1171	321734.533	7616221.673	1879.066	quebra4
1172	321768.557	7616467.618	1880.738	quebra5
1173	321741.24	7616474.219	1880.609	quebra6
1174	321734.153	7616475.725	1880.679	quebra7
1175	321725.715	7616477.698	1880.816	quebra8
1176	321713.422	7616478.621	1881.156	quebra9
1177	321711.167	7616486.027	1880.238	quebra10
1178	321701.521	7616483.554	1882.025	quebra11
1179	321699.958	7616487.62	1881.421	quebra12
1180	321696.151	7616493.456	1880.852	quebra13
1181	321673.413	7616602.421	1880.823	quebra14
1182	321711.683	7616638.346	1882.111	BMQ2
1183	321783.809	7616670.687	1882.275	BMQ3
1184	321782.815	7616674.65	1882.009	BMQ4
1185	321793.048	7616676.398	1882.016	quebradd0
1186	321794.413	7616672.34	1885.002	quebradd1
1187	321810.132	7616678.516	1882.969	quebradd2
1188	321810.287	7616678.902	1882.441	quebradd3
1189	321809.847	7616680.984	1882.519	quebradd4
1190	321809.129	7616682.859	1884.169	quebradd5
1191	321823.972	7616684.006	1882.335	quebradd6
1192	321824.764	7616683.27	1882.6	quebradd7
1193	321825.194	7616682.542	1883.532	quebradd8
1194	321824.56	7616689.206	1882.519	quebradd9
1195	321824.244	7616689.5	1883.492	quebradd10
1196	321845.486	7616691.246	1882.464	quebradd11
1197	321846.787	7616687.45	1883.043	quebradd12
1198	321846.912	7616686.98	1883.903	quebradd13
1199	321843.788	7616694.042	1882.892	quebradd14
1200	321867.501	7616694.165	1882.615	quebradd15
1202	321867.305	7616691.677	1884.17	quebradd17
1203	321866.946	7616697.174	1883.024	quebradd18
1204	321866.627	7616698.1	1884.031	quebradd19
1205	321905.17	7616700.222	1882.817	quebradd20
1206	321906.197	7616695.869	1882.633	quebradd21
1207	321906.383	7616695.476	1883.665	quebradd22
1208	321904.891	7616701.737	1882.521	quebradd23
1209	321904.677	7616702.162	1884.295	quebradd24
1210	321891.589	7616705.831	1886.106	quebradd25
1211	321890.27	7616709.032	1886.225	quebradd26
1212	321897.365	7616708.539	1886.19	quebradd27
1213	321903.477	7616709.556	1885.941	quebradd28
1214	321908.724	7616710.873	1886.116	quebradd29



**“UNIVERSIDAD AUTONOMA JUAN MISAEL SARACHO”
FACULTAD DE CIENCIAS Y TECNOLOGIA**

1215	321918.546	7616713.742	1886.289	quebradd30
1216	321922.917	7616715.369	1886.446	quebradd31
1217	321922.332	7616722.909	1887.393	quebradd32
1218	321934.096	7616727.796	1887.799	quebradd33
1219	321937.976	7616722.829	1886.443	quebradd34
1220	321943.849	7616723.559	1886.416	quebradd35
1221	321956.262	7616731.715	1886.625	quebradd36
1222	321967.23	7616735.023	1886.313	quebradd37
1223	321978.234	7616742.657	1886.472	quebradd38
1224	322045.418	7615823.265	1876.139	final terreno
1225	322038.078	7615823.043	1874.856	final terreno0
1226	322034.49	7615824.317	1874.112	final terreno1
1227	322032.696	7615824.981	1873.89	final orilla
1228	322030.175	7615825.657	1873.746	final eje
1229	322027.667	7615826.612	1873.773	final eje0
1230	322025.27	7615827.494	1873.902	final orilla1
1231	322023.286	7615828.232	1874.283	final terrenos
1232	322022.08	7615828.708	1874.765	final terrenos0
1233	322030.838	7615837.916	1873.425	quebrada O
1234	322031.377	7615837.811	1873.983	quebrada O0
1235	322034.463	7615838.527	1874.274	terreno
1236	322038.226	7615839.485	1875.158	terreno 0
1237	322040.51	7615839.774	1875.459	terreno 1
1238	322029.957	7615856.556	1873.18	quebrada O 2
1239	322030.477	7615856.383	1874.059	quebrada O 3
1240	322033.546	7615857.087	1874.54	quebrada O 4
1241	322039.018	7615858.088	1875.793	terreno 5
1242	322038.762	7615873.543	1875.589	terreno 6
1243	322035.782	7615875.967	1874.576	terreno 7
1244	322034.403	7615877.73	1873.926	terreno 8
1245	322031.109	7615885.049	1875.512	terreno 9
1246	322026.186	7615884.037	1875.419	quebrada O
1247	322022.605	7615883.315	1874.388	quebrada eje
1248	322020.679	7615883.042	1874.512	quebrada eje 4
1249	322018.772	7615882.791	1874.275	quebrada eje 5
1250	322018.503	7615882.532	1872.835	quebrada eje 6
1251	322018.873	7615900.191	1874.083	quebrada eje 7
1252	322020.833	7615901.024	1874.464	Quebrada O
1253	322023.386	7615902.202	1875.141	Quebrada O0
1254	322024.046	7615902.578	1875.942	terrenoo
1255	322014.72	7615899.918	1874.145	quebOO
1256	322011.327	7615899.103	1874.811	quebOO0
1257	322010.176	7615916.07	1877.345	quebOO1



**“UNIVERSIDAD AUTONOMA JUAN MISAEL SARACHO”
FACULTAD DE CIENCIAS Y TECNOLOGIA**

1258	322009.965	7615918.845	1873.879	queb ejjee2
1259	322010.955	7615920.042	1874.323	queb OO O3
1260	322012.636	7615922.29	1874.788	queb OO O4
1261	322016.793	7615924.989	1875.557	queb OO O5
1262	322019.447	7615925.682	1875.953	terreee
1263	322018.921	7615941.75	1876.866	terreee0
1264	322016.215	7615943.213	1875.519	terreee1
1265	322012.719	7615944.205	1875.093	terreee2
1266	322010.811	7615944.294	1874.48	quebrada aa ejee
1267	322008.176	7615943.842	1874.414	quebrada aa ejee0
1268	322003.253	7615943.601	1874.986	quebra da oooo
1269	322007.723	7615969.601	1875.391	quebra da oooo0
1270	322010.749	7615968.233	1874.886	quebra da oooo1
1271	322013.025	7615968.495	1874.768	quebra da ejee2
1272	322015.757	7615968.055	1874.693	quebra da ooor3
1273	322019.723	7615968.641	1876.011	terreor4
1274	322019.057	7615980.806	1876.287	quebr ooor
1275	322024.721	7615993.434	1875.933	quebr ooor0
1276	322021.131	7615993.536	1875.294	quebr ooor1
1277	322021.169	7615993.572	1874.293	quebr ooor2
1278	322014.765	7615993.762	1875.739	quebr ooor3
1279	322017.867	7615993.512	1875.216	quebr ooor4
1280	322018.025	7615993.43	1874.478	quebr ooor5
1281	322013.352	7615985.007	1874.942	quebr ooor6
1282	322011.865	7615985.805	1875.768	quebr ooor7
1283	322012.518	7616016.758	1876.504	quebr ooor8
1284	322013.344	7616016.776	1875.591	quebr ooor9
1285	322015.813	7616017.713	1875.121	quebr ooor10
1286	322018.587	7616018.796	1875.218	quebrada ejjeww
1287	322021.173	7616019.649	1874.906	quebrada oril
1288	322015.845	7616039.41	1875.547	quebrada oril0
1289	322011.925	7616038.154	1875.274	eje quebraaaa
1290	322009.863	7616037.395	1875.319	quwnra orillla
1291	322006.542	7616035.972	1875.632	quwnra orillla0
1292	322005.444	7616035.568	1876.399	quwnra orillla1
1293	321995.223	7616061.013	1875.758	quwnra orillla2
1294	321995.728	7616061.408	1874.825	quwnra orillla3
1295	321999.263	7616063.938	1874.517	quebrad
1296	322002.092	7616065.794	1874.242	quebrad0
1297	322002.6	7616066.235	1874.179	quebrad1
1298	322002.669	7616067.07	1874.753	quebrad2
1299	322003.357	7616067.577	1875.44	quebrad3
1300	321979.969	7616080.24	1876.974	quebrad4



**“UNIVERSIDAD AUTONOMA JUAN MISAEL SARACHO”
FACULTAD DE CIENCIAS Y TECNOLOGIA**

1301	321982.182	7616082.864	1876.603	quebrad5
1302	321983.775	7616084.183	1876.356	quebrad6
1303	321984.116	7616085.656	1876.439	quebrad7
1304	321984.297	7616085.89	1876.68	quebrad8
1305	321986.101	7616088.623	1877.06	quebrad9
1306	321987.094	7616089.802	1878.096	quebrad10
1307	321987.961	7616091.179	1878.71	quebrad11
1308	321965.818	7616087.909	1877.492	quebrad12
1309	321966.067	7616088.102	1877.017	quebrad13
1310	321967.035	7616088.671	1876.691	quebrad14
1311	321967.404	7616089.097	1876.187	quebrad15
1312	321968.934	7616091.503	1875.569	quebrad16
1313	321969.579	7616093.109	1875.216	quebrad17
1314	321949.008	7616095.431	1877.42	quebrad18
1315	321949.157	7616095.876	1876.895	quebrad19
1316	321949.443	7616096.8	1876.61	quebrad20
1317	321949.765	7616098.243	1876.125	quebrad21
1318	321950.312	7616101.958	1875.965	quebrad22
1319	321951.069	7616103.475	1875.515	quebrad23
1320	321951.337	7616104.583	1875.115	quebrad24
1321	321951.568	7616104.908	1875.211	quebrad25
1322	321951.618	7616105.22	1875.586	quebrad26
1323	321952.442	7616107.421	1875.991	quebrad27
1324	321952.628	7616107.878	1876.339	quebrad28
1325	321954.53	7616109.802	1880.566	quebrad29
1326	321957.139	7616105.599	1880.115	quebrad30
1327	321957.777	7616105.064	1878.949	quebrad31
1328	321972.752	7616096.006	1875.673	quebrad32
1329	321972.653	7616095.526	1875.245	quebrad33
1330	321972.915	7616096.227	1877.004	quebrad34
1331	321975.085	7616099.054	1877.6	quebrad35
1332	321956.058	7616103.933	1874.677	quebrad36
1333	321956.195	7616104.535	1875.747	quebrad37
1334	321929.621	7616099.947	1876.13	quebrad38
1335	321929.035	7616101.394	1875.844	quebrad39
1336	321928.698	7616102.581	1875.95	quebrad40
1337	321929.489	7616097.966	1876.021	quebrad41
1338	321930.12	7616095.762	1876.221	quebrad42
1339	321930.539	7616094.559	1876.619	quebrad43
1340	321896.768	7616085.328	1877.585	quebrad44
1341	321896.844	7616085.229	1876.428	quebrad45
1342	321896.371	7616087.375	1876.238	quebrad46
1343	321895.73	7616089.844	1876.09	quebrad47



**“UNIVERSIDAD AUTONOMA JUAN MISAEL SARACHO”
FACULTAD DE CIENCIAS Y TECNOLOGIA**

1344	321895.069	7616092.046	1876.001	quebrad48
1345	321894.777	7616093.585	1876.182	quebrad49
1347	321874.24	7616078.85	1876.507	quebrad51
1348	321874.283	7616079.341	1876.165	quebrad52
1349	321874.585	7616078.061	1876.765	quebrad53
1350	321874.867	7616077.675	1877.948	quebrad54
1351	321873.143	7616082.118	1876.122	quebrad55
1352	321872.42	7616084.6	1876.259	quebrad56
1353	321872.035	7616085.717	1876.575	quebrad57
1354	321871.232	7616088.058	1877.284	quebrad58
1355	321851.479	7616073.162	1876.172	FINAL SOCAVACION 3
1356	321851.426	7616075.571	1875.77	quebrad60
1357	321850.227	7616078.422	1876.157	quebrad61
1358	321849.958	7616079.051	1876.312	quebrad62
1359	321850.043	7616079	1876.766	quebrad63
1360	321849.441	7616080.861	1876.844	quebrad64
1361	321839.368	7616073.603	1875.286	quebrad65
1362	321838.785	7616074.162	1876.237	quebrad66
1363	321837.802	7616075.954	1876.907	quebrad67
1364	321836.772	7616077.911	1878.048	quebrad68
1365	321828.249	7616065.995	1875.713	quebrad69
1366	321828.332	7616068.573	1876.212	quebrad70
1367	321827.878	7616073.552	1877.162	quebrad71
1368	321827.88	7616074.947	1877.647	quebrad72
1369	321827.821	7616076.458	1878.423	quebrad73
1370	321828.271	7616065.561	1876.171	quebrad74
1371	321828.18	7616064.578	1876.361	quebrad75
1372	321813.281	7616068.336	1877.19	quebrad76
1373	321812.809	7616067.41	1878.485	quebrad77
1374	321813.912	7616068.969	1876.395	INICIO SOCAVACION 3
1375	321814.311	7616069.601	1876.265	quebrad79
1376	321814.402	7616069.928	1876.028	quebrad80
1377	321814.952	7616071.014	1876.249	quebrad81
1378	321814.971	7616071.412	1876.293	quebrad82
1379	321815.685	7616074.826	1876.669	quebrad83
1380	321797.334	7616080.52	1876.648	quebrad84
1381	321792.691	7616080.303	1878.12	quebrad85
1382	321798.76	7616082.728	1876.593	quebrad86
1383	321801.245	7616085.306	1877.103	quebrad87
1384	321802.536	7616086.964	1878.181	quebrad88
1385	321781.952	7616096.861	1876.479	quebrad89
1386	321781.484	7616095.634	1876.152	quebrad90
1387	321783.198	7616097.924	1876.687	quebrad91



**“UNIVERSIDAD AUTONOMA JUAN MISAEL SARACHO”
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1388	321785.689	7616100.198	1877.214	quebrad92
1389	321788.677	7616101.919	1877.523	quebrad93
1390	321776.381	7616109.716	1876.321	quebrad94
1391	321778.331	7616110.351	1876.595	quebrad95
1392	321779.595	7616110.432	1876.731	quebrad96
1393	321781.535	7616110.651	1877.374	quebrad97
1394	321782.767	7616111.694	1878.227	quebrad98
1396	321777.19	7616116.337	1876.179	quebrad100
1397	321780.685	7616117.886	1879.034	quebrad101
1398	321774.625	7616132.435	1878.626	quebrad102
1399	321773.807	7616132.168	1876.541	quebrad103
1400	321761.901	7616166.141	1878.269	quebrad104
1401	321761.307	7616165.16	1877.385	quebrad105
1402	321759.538	7616108.814	1883.868	cierre19
1403	321773.896	7616090.471	1883.226	cierre20
1404	321785.862	7616077.261	1881.956	cierre21
1405	321799.024	7616069.045	1881.437	cierre22
1406	321808.088	7616064.042	1881.459	cierre23
1407	321829.549	7616059.285	1882.286	cierre24
1408	321841.454	7616059.917	1882.825	cierre25
1409	321841.225	7616062.194	1881.291	cierre26
1410	321801.673	7616361.912	1885.992	cierre27
1411	321827.28	7616425.403	1885.878	BM-BLOQUE CIV
1412	321864.442	7616465.331	1885.14	BM-BLOQUE2
1413	321799.9654	7616411.93	1884.8337	CIVIL1
1414	321796.4142	7616432.776	1886.9617	CIVIL2
1415	321814.2407	7616412.633	1884.6835	CIVIL3
1416	321809.3541	7616430.727	1886.687	CIVIL4
1417	321819.6304	7616433.543	1886.671	CIVIL5
1418	321830.4363	7616413.62	1884.7941	CIVIL6
1419	321852.1488	7616429.126	1885.9656	CIVIL7
1420	321830.574	7616434.061	1886.5476	CIVIL8
1421	321867.0686	7616428.044	1886.2093	CIVIL9
1422	321834.224	7616425.41	1885.2597	CIVIL10
1423	321863.5282	7616430.374	1886.6508	AUX-CIVIL
1424	321858.4663	7616434.637	1885.2061	CIVIL11
1425	321845.9656	7616435.329	1885.3916	CIVIL12
1426	321833.5554	7616437.98	1885.6987	CIVIL13
1427	321829.146	7616441.548	1885.411	CIVIL14
1428	321818.6168	7616438.709	1885.5164	CIVIL15
1429	321805.9884	7616435.604	1885.5226	CIVIL16
1430	321799.0006	7616438.61	1885.5114	CIVIL17
1431	321818.5878	7616438.629	1886.5593	CIVIL18



**“UNIVERSIDAD AUTONOMA JUAN MISAEL SARACHO”
FACULTAD DE CIENCIAS Y TECNOLOGIA**

1432	321806.9684	7616435.593	1886.9681	CIVIL19
1433	321800.7503	7616436.94	1886.9681	CIVIL20
1434	321849.0594	7616450.202	1885.3407	CIVIL20
1435	321842.6102	7616474.588	1885.2314	CIVIL21
1436	321875.1587	7616435.409	1884.4584	CIVIL22
1437	321839.4705	7616482.741	1885.4254	CIVIL23
1438	321884.5869	7616447.671	1884.8006	CIVIL24
1439	321855.7664	7616488.463	1885.4743	CIERRE
1440	321863.6721	7616491.17	1885.5468	CIERRE
1441	321884.2474	7616486.416	1885.3854	CIERRE
1442	321899.1086	7616482.779	1885.0983	CIERRE
1443	321907.4476	7616474.283	1885.0002	CIERRE
1444	321906.6479	7616470.415	1885.0279	CIERRE
1445	321911.55	7616459.456	1884.4861	CIERRE
1446	321913.7134	7616453.901	1884.1824	CIERRE
1447	321912.9259	7616445.165	1884.0948	CIERRE
1448	321903.4235	7616429.558	1883.8678	CIERRE
1449	321893.1992	7616417.854	1883.4979	CIERRE
1450	321888.2324	7616467.098	1884.6441	CIERRE
1451	321864.0044	7616479.545	1885.2016	CIVIL30
1452	321861.9542	7616453.443	1885.4758	CIVIL30
1453	321820.1364	7616475.29	1885.8839	CIERRE
1454	321874.2346	7616408.88	1884.6787	AUX-CIVIL2
1455	321882.0826	7616408.862	1883.5163	CIERRE
1456	321852.1726	7616429.067	1884.6102	CIVIL31
1457	321866.8831	7616427.635	1884.5406	CIVIL 32
1458	321875.6332	7616409.005	1884.6706	CIVIL 33
1459	321863.9407	7616395.957	1883.4515	CIERRE
1460	321841.5249	7616383.801	1883.8602	CIERRE
1461	321819.6261	7616371.818	1884.3745	CIERRE
1462	321800.5377	7616369.127	1885.8468	CIVIL32
1463	321805.8007	7616371.604	1885.191	CIVIL33
1464	321839.4436	7616387.904	1884.8243	CIVIL34
1465	321860.4556	7616400.162	1884.6901	CIVIL35
1467	321908.8518	7616397.258	1882.4863	GABION PIE
1468	321876.6275	7616408.704	1884.6719	AUX CIVIL 3
1469	321906.0525	7616398.901	1879.1726	ORILLA
1470	321903.0728	7616400.372	1878.9924	ORILLA1
1472	321887.1175	7616408.045	1882.5645	TERRENO
1473	321887.6131	7616405.978	1882.2185	ORILLAA
1474	321895.7342	7616400.556	1878.941	EJE
1475	321905.2968	7616398.517	1879.187	ORILLA LA
1476	321903.3402	7616402.637	1879.0681	EJE LA



**“UNIVERSIDAD AUTONOMA JUAN MISAEL SARACHO”
FACULTAD DE CIENCIAS Y TECNOLOGIA**

1477	321725.471	7616704.942	1887.089	BM-CANCHA1
1478	321734.344	7616688.569	1887.034	BM-CANCHA2
1479	321693.9879	7616654.724	1888.8534	TERRENO
1480	321691.4499	7616659.725	1891.5532	TERRENO
1481	321686.1961	7616651.485	1891.197	TERRENO
1482	321688.878	7616649.383	1888.9646	TERRENO
1483	321694.3448	7616674.277	1887.566	TERRENO
1484	321683.5358	7616668.017	1891.1311	TERRENO
1485	321687.9482	7616675.648	1891.2121	TERRENO
1486	321693.4677	7616682.439	1887.4116	TERRENO
1487	321678.3773	7616673.886	1891.9864	TERRENO
1488	321698.368	7616691.721	1887.0881	TERRENO
1489	321687.2835	7616684.026	1891.2076	TERRENO
1490	321681.6617	7616693.382	1892.0328	TERRENO
1491	321701.6954	7616698.027	1887.3931	TERRENO
1492	321701.192	7616707.927	1890.1476	TERRENO
1493	321684.42	7616709.32	1892.1163	TERRENO
1494	321684.4161	7616709.32	1892.1099	TERRENO
1495	321695.5637	7616715.971	1890.6058	TERRENO
1496	321686.8116	7616723.541	1892.4103	TERRENO
1497	321705.0701	7616718.867	1889.754	TERRENO
1498	321695.9025	7616727.181	1891.7696	TERRENO
1499	321710.0366	7616715.867	1888.1505	TERRENO
1500	321695.9032	7616727.206	1891.7771	TERRENO
1501	321689.1756	7616733.956	1892.5339	TERRENO
1502	321706.7262	7616729.502	1890.2136	TERRENO
1503	321702.679	7616736.43	1892.3611	TERRENO
1504	321712.362	7616722.946	1889.0858	TERRENO
1505	321701.9232	7616752.612	1892.6677	TERRENO
1506	321714.0674	7616734.91	1889.9574	TERRENO
1507	321712.508	7616746.846	1892.2322	TERRENO
1508	321719.3613	7616726.039	1888.9675	TERRENO
1509	321721.1911	7616721.921	1887.2935	TERRENO
1510	321723.0165	7616744.462	1890.4898	TERRENO
1511	321725.8986	7616734.582	1888.0451	TERRENO
1512	321723.1466	7616744.565	1892.2141	MURO
1513	321741.3958	7616736.175	1892.7079	TERRENO
1514	321734.9925	7616733.423	1889.3845	TERRENO
1515	321743.1238	7616740.305	1891.7679	MURO
1516	321761.8995	7616739.924	1888.3851	TERRENO
1517	321778.1991	7616748.061	1889.1943	TERRENO
1518	321795.4175	7616760.2	1887.6162	CAMBIO EST
1519	321781.1287	7616761.689	1890.9702	JARDIN



**“UNIVERSIDAD AUTONOMA JUAN MISAEL SARACHO”
FACULTAD DE CIENCIAS Y TECNOLOGIA**

1520	321784.8984	7616761.8	1890.5656	JARDIN1
1521	321789.8438	7616760.876	1887.9373	JARDIN2
1522	321787.055	7616772.388	1890.8839	JARDIN3
1523	321793.4525	7616765.541	1888.0254	JARDIN4
1524	321790.0521	7616770.656	1890.9308	JARDIN5
1525	321808.3916	7616771.264	1887.264	JARDIN6
1526	321790.4583	7616784.735	1890.8122	JARDIN7
1527	321806.0664	7616776.809	1887.4081	JARDIN8
1528	321792.3662	7616774.759	1890.8254	JARDIN9
1529	321818.9873	7616787.899	1887.5814	JARDIN10
1530	321826.7396	7616781.745	1887.2364	JARDIN11
1531	321826.4809	7616797.329	1888.4522	JARDIN12
1532	321794.6545	7616791.606	1891.0568	JARDIN13
1533	321834.7062	7616792.383	1887.4206	JARDIN14
1534	321800.3536	7616783.633	1890.7633	JARDIN15
1535	321850.6379	7616805.897	1887.4114	JARDIN16
1536	321859.1816	7616816.079	1887.8802	JARDIN17
1537	321807.5382	7616791.278	1890.469	JARDIN18
1538	321813.3798	7616790.118	1889.2626	JARDIN19
1539	321851.8688	7616818.496	1887.5012	JARDIN20
1540	321811.6677	7616802.366	1890.7503	JARDIN21
1541	321818.8791	7616798.274	1890.0402	JARDIN22
1542	321821.3143	7616794.319	1888.9062	JARDIN23
1543	321817.3472	7616806.215	1890.8844	JARDIN24
1544	321819.7073	7616810.556	1892.4699	JARDIN25
1545	321829.7791	7616810.001	1892.1566	JARDIN26
1546	321829.0967	7616803.733	1889.3973	JARDIN27
1547	321826.4775	7616797.845	1888.5766	JARDIN28
1548	321836.378	7616817.633	1891.7642	JARDINN
1549	322015.766	7615835.471	1879.042	FC
1550	322016.508	7615847.134	1879.48	FC0
1551	322014.905	7615858.511	1882.683	FC1
1552	322012.809	7615868.482	1879.8	FC2
1553	322014.622	7615869.575	1878.486	FC3
1554	322014.53	7615869.63	1879.485	FC4
1555	322007.869	7615887.347	1880.183	FC5
1556	322009.04	7615888.179	1880.035	FC6
1557	322009.446	7615888.389	1879.822	FC7
1558	322009.187	7615882.24	1880.015	FC8
1559	322011.541	7615882.811	1879.518	FC9
1560	322012.118	7615883.067	1878.274	FC10
1561	322002.86	7615901.546	1882.26	FC11
1562	322007.492	7615902.194	1880.195	FC12



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1563	321999.495	7615917.035	1880.303	FC13
1564	322004.161	7615916.823	1879.98	FC14
1565	321992.999	7615942.794	1880.195	FC15
1566	321996.672	7615942.418	1879.279	FC16
1567	321994.62	7616806.857	1891.503	CA
1568	321989.448	7616805.825	1891.669	CA0
1569	321965.218	7616810.606	1891.556	CA1
1570	321942.861	7616814.991	1891.648	CA2
1571	321921.948	7616819.139	1891.812	CA3
1572	321893.624	7616824.866	1891.913	CA4
1573	321874.34	7616828.595	1891.944	CA5
1574	321857.798	7616831.884	1892.067	CA6
1575	321841.661	7616835.182	1892.236	CA7
1576	321889.519	7616809.297	1887.281	CE
1577	321917.195	7616803.95	1887.527	CE0
1578	321927.796	7616793.294	1887.431	CE1
1579	321933.095	7616777.496	1887.449	CE2
1580	321922.696	7616782.045	1887.374	CF
1581	321908.117	7616792.909	1887.316	CF0
1582	321878.439	7616802.921	1887.297	CE3
1583	321886.607	7616785.959	1887.316	cancha futbo±
1584	321896.232	7616768.71	1887.383	cancha futbo±0
1585	321910.714	7616741.86	1887.103	cancha futbo±1
1586	321926.051	7616751.355	1887.221	cancha futbo±2
1587	321887.749	7616729.394	1887.662	cancha futbo±3
1588	321873.406	7616751.701	1887.288	cancha futbo±4
1589	321860.756	7616768.08	1887.256	cancha futbo±5
1590	321847.849	7616786.029	1887.078	cancha futbo±6
1591	321826.857	7616774.47	1887.081	cancha futbo±7
1592	321838.311	7616756.352	1887.24	cancha futbo±8
1593	321849.573	7616736.834	1887.232	cancha futbo±9
1594	321859.307	7616713.657	1887.044	cancha futbo±10
1595	321834.414	7616700.92	1887.158	cancha futbo±11
1596	321822.209	7616727.018	1887.188	cancha futbo±12
1597	321812.404	7616745.143	1887.109	cancha futbo±13
1598	321803.15	7616761.254	1887.101	cancha futbo±14
1599	321796.309	7616752.865	1887.017	cancha futbo±15
1600	321793.124	7616728.118	1887.103	cancha futbo±16
1601	321801.456	7616711.612	1887.119	cancha futbo±17
1602	321816.832	7616701.947	1887.107	cancha futbo±18
1603	321937.278	7616777.703	1888.31	coliseo
1604	321954.202	7616772.614	1888.379	coliseo0
1605	321972.116	7616769.005	1888.431	coliseo1



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1606	321960.613	7616754.661	1888.381	jard?n
1607	321949.578	7616757.539	1888.292	jard?n 0
1608	321937.805	7616759.312	1887.951	jard?n 1
1609	321935.234	7616749.966	1888.587	jard?n 2
1610	321942.643	7616741.133	1888.504	jard?n 3
1611	321935.252	7616738.413	1889.18	jard?n 4
1612	321806.997	7616693.934	1889.986	jardín 5
1613	321794.385	7616705.172	1887.1	jardín 6
1614	321783.99	7616723.248	1886.995	jardín 7
1615	321774.079	7616740.115	1887.067	jardín 8
1616	321760.345	7616734.123	1887.488	jardín 9
1617	321770.622	7616716.892	1887.032	jardín 10
1618	321779.63	7616699.831	1886.982	jardín 11
1619	321784.075	7616688.657	1887.147	jardín 12
1620	321766.662	7616687.133	1887.322	jardín 13
1621	321762.063	7616702.142	1886.179	jardín 14
1622	321755.336	7616718.163	1887.01	jardín 15
1623	321749.184	7616727.308	1887.157	jardín 16
1624	321753.637	7616682.496	1888.426	cancha Básquet
1625	321744.924	7616700.593	1887.036	cancha Basquet0
1626	321743.355	7616703.302	1887.037	cancha Basquet1
1627	321732.794	7616721.879	1885.606	cancha Basquet2
1628	321707.484	7616707.652	1887.186	cancha Basquet3
1629	321717.058	7616689.13	1887.07	cancha Basquet4
1630	321718.414	7616686.407	1887.051	cancha Basquet5
1631	321728.566	7616667.932	1887.016	cancha Basquet6
1632	321729.133	7616667.004	1887.211	jardín 17
1633	321739.668	7616672.771	1887.153	jardín 18
1634	321755.196	7616681.155	1887.415	jardín 19
1635	321718.258	7616660.807	1886.654	jardín 20
1636	321712.354	7616671.92	1887.079	jardín 21
1637	321700.152	7616666.306	1887.635	jardín 22
1638	321667.563	7616631.047	1891.312	cordón
1639	321659.918	7616615.729	1891.105	cord?n 0
1640	321654.681	7616600.165	1890.921	cord?n 1
1641	321649.424	7616584.392	1890.702	cord?n 2
1642	321644.474	7616566.837	1890.506	cord?n 3
1643	321642.694	7616550.87	1890.4	cord?n 4
1644	321644.904	7616535.896	1890.089	cord?n 5
1645	321654.833	7616515.166	1889.829	cord?n 6
1646	321667.827	7616492.136	1889.527	cord?n 7
1647	321679.159	7616476.839	1888.736	cord?n 8
1648	321695.262	7616463.542	1888.255	cord?n 9



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1649	321699.439	7616465.763	1888.119	cord?n 10
1650	321709.33	7616460.669	1887.892	cord?n 11
1651	321727.874	7616454.247	1887.999	cord?n 12
1652	321746.963	7616451.346	1887.678	cord?n 13
1653	321769.43	7616452.399	1887.307	cord?n 14
1654	321774.83	7616448.801	1887.138	eje av.
1655	321753.814	7616446.464	1887.457	eje av.0
1656	321736.575	7616447.71	1887.722	eje av.1
1657	321713.362	7616454.096	1888.131	eje av.2
1658	321694.129	7616461.3	1888.63	eje av.3
1659	321679.322	7616467.358	1889.055	eje av.4
1660	321672.576	7616478.732	1889.215	eje av.5
1661	321659.523	7616501.224	1889.501	eje av.6
1662	321650.35	7616517.402	1889.715	eje av.7
1663	321641.687	7616536.768	1890.052	eje av.8
1664	321640.364	7616554.765	1890.287	eje av.9
1665	321642.142	7616573.36	1890.454	eje av.10
1666	321649.284	7616595.602	1890.59	eje av.11
1667	321657.22	7616619.684	1891.081	eje av.12
1668	321648.927	7616611.766	1891.019	cordón 15
1669	321645.799	7616601.06	1890.842	cordón 16
1670	321639.159	7616578.143	1890.671	cordón 17
1671	321631.521	7616556.646	1890.573	cordón 18
1672	321622.514	7616548.437	1890.506	cordón 19
1673	321612.635	7616545.735	1890.558	cordón 20
1674	321610.998	7616535.05	1890.477	cordón 21
1675	321622.067	7616526.257	1890.215	cordón 22
1676	321638.856	7616518.873	1889.909	cordón 23
1677	321651.937	7616497.457	1889.561	cordón 24
1678	321659.811	7616483.465	1889.318	cordón 25
1679	321666.672	7616471.377	1889.015	cordón 26
1680	321674.609	7616468.8	1889.156	cordón 27
1681	321689.675	7616460.937	1888.772	cordón 28
1682	321706.033	7616452.48	1888.329	cordón 29
1683	321724.313	7616446.013	1887.958	cordón 30
1684	321755.224	7616442.259	1887.536	cordón 31
1685	321778.846	7616444.513	1887.133	jardin arq
1686	321791.914	7616440.741	1887.005	jardin arq0
1687	321802.926	7616432.68	1886.705	jardin arq1
1688	321822.408	7616433.43	1886.731	jardin arq2
1689	321828.089	7616424.16	1885.804	jardin arq3
1690	321827.28	7616425.403	1885.878	BM-Estacion
1691	321864.442	7616465.331	1885.14	BM-Estacion1



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1692	321958.7118	7615875.442	1880.4384	Pt1
1693	321958.721	7615875.371	1880.4488	Pt2
1694	321958.6401	7615875.429	1880.4281	R
1695	321958.706	7615875.402	1880.4329	R0
1696	322003.9174	7615851.25	1880.5208	R1
1697	322015.9519	7615841.43	1879.5322	R2
1698	322016.0686	7615842.641	1879.5396	R3
1700	322016.035	7615849.275	1879.5278	borde
1701	322015.1373	7615856.022	1879.6247	borde0
1702	322014.0357	7615862.605	1879.6974	borde1
1703	322010.3279	7615876.588	1879.978	borde2
1704	322007.024	7615884.961	1880.2766	borde3
1705	322004.4223	7615897.373	1880.2822	borde4
1706	322001.6722	7615907.882	1880.4221	borde5
1707	321999.6341	7615914.842	1880.5006	borde6
1708	321995.9322	7615928.813	1880.3257	borde7
1709	321992.4915	7615943.97	1880.0012	borde8
1710	321993.2992	7615953.97	1880.1839	borde9
1711	321982.1276	7615947.94	1880.4947	r3
1712	321969.3127	7615946.542	1880.6016	r4
1713	321966.5576	7615946.243	1880.7524	r5
1714	321945.2512	7615954.485	1880.8139	r6
1715	321888.7982	7615983.265	1882.0702	r7
1716	321867.6358	7615993.148	1882.4949	r8
1717	321841.3981	7615954.578	1882.7922	r9
1718	321871.7567	7615955.94	1882.6486	r10
1719	321892.7655	7615957.263	1881.803	r11
1720	321890.5102	7615942.952	1882.0721	r12
1721	321899.0682	7615937.173	1881.1205	r13
1722	321884.0605	7615924.812	1881.4319	r14
1723	321920.4626	7615931.945	1880.8129	r15
1724	321936.0103	7615926.456	1880.9014	r16
1725	321928.0733	7615911.543	1880.6481	r17
1726	321952.3098	7615909.296	1880.6636	r18
1727	321963.9759	7615906.331	1880.6657	r19
1728	321961.2959	7615893.237	1880.3225	r20
1729	321958.4179	7615881.38	1880.3519	r21
1730	321954.1168	7615876.376	1880.482	r22
1731	321934.5552	7615971.171	1881.011	bm
1732	321996.6334	7616018.581	1879.8263	bordealamb
1733	321979.3085	7616018.391	1880.5671	r30
1734	321970.3715	7615988.068	1880.3212	r31
1735	321973.9495	7616033.369	1881.0718	r32



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1736	321954.5736	7616024.194	1881.2269	r33
1737	321961.8472	7616054.438	1881.3634	r34
1738	321952.1953	7616066.256	1881.4564	r35
1739	321936.4491	7616075.866	1881.5281	r36
1740	321926.0133	7616082.544	1880.8518	r37
1741	321926.052	7616082.615	1880.7818	bordealam
1742	321909.6328	7616081.073	1880.7873	bordealam0
1743	321902.5592	7616079.249	1880.7414	bordealam1
1744	321889.7677	7616076.49	1880.7574	bordealam2
1745	321882.4708	7616074.638	1880.6926	bordealam3
1746	321872.0857	7616071.771	1880.7501	bordealam4
1747	321860.4804	7616068.299	1880.4652	borde10
1748	321861.2826	7616064.565	1882.3812	r38
1749	321870.819	7616066.769	1882.2907	r39
1750	321879.2224	7616069.206	1882.1788	r40
1751	321891.2266	7616071.884	1882.2672	r41
1752	321903.1856	7616075.863	1881.9044	r42
1753	321916.0429	7616076.554	1881.7218	r43
1754	321921.4781	7616064.906	1881.8777	r44
1755	321917.2143	7616050.48	1881.9993	r45
1756	321937.4568	7616043.381	1881.5766	r46
1757	321934.9126	7616036.494	1881.5772	r47
1758	321938.387	7616024.55	1881.3002	r48
1759	321945.6601	7616015.022	1881.3786	r49
1760	321947.2154	7615988.041	1880.7389	r50
1761	321894.5833	7616013.131	1882.039	r51
1762	321879.2088	7616027.315	1882.5159	r52
1763	321859.3546	7616041.581	1882.6097	r53
1764	321849.0471	7616055.997	1882.6332	r54
1765	321841.2372	7616060.369	1882.4562	borde40
1766	321834.8107	7616059.013	1882.6592	borde41
1767	321828.3918	7616058.877	1882.3701	borde42
1768	321818.9834	7616058.952	1882.8108	borde43
1769	321811.085	7616060.981	1882.8206	borde44
1770	321807.233	7616061.684	1883.0702	borde45
1771	321803.1144	7616063.778	1882.9575	borde46
1772	321796.4817	7616067.861	1882.9382	borde47
1773	321787.0802	7616073.319	1883.0812	borde48
1774	321786.9515	7616068.721	1883.3544	r60
1775	321820.233	7616038.663	1882.977	r61
1776	321841.4348	7616025.675	1882.7396	r62
1777	321844.1055	7616006.968	1882.9057	r63
1778	321829.3232	7615989.588	1883.2291	r64



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1779	321809.3977	7615996.578	1883.3492	r65
1780	321812.6991	7616017.876	1883.24	r66
1781	321793.4283	7616032.551	1883.9514	r67
1782	321786.1013	7616022.018	1884.0278	r68
1783	321783.1606	7616042.549	1884.0452	r69
1784	321788.2674	7616051.3	1883.4292	r70
1785	321770.9392	7616068.526	1883.6089	r71
1786	321757.9561	7616059.295	1884.0391	r72
1787	321746.3707	7616071.394	1883.9452	r73
1788	321744.4815	7616084.575	1884.4373	r74
1789	321758.5129	7616098.832	1883.8651	r75
1790	321743.169	7616118.074	1884.2365	r76
1791	321721.4606	7616109.963	1884.8573	r77
1792	321699.2228	7616139.635	1884.9828	r78
1793	321718.012	7616156.508	1884.8082	r79
1794	321707.1921	7616176.54	1885.1093	r80
1795	321680.3642	7616171.731	1885.4137	r81
1796	321666.4661	7616190.408	1885.7146	r82
1797	321695.9418	7616202.381	1885.5826	r83
1798	321695.6306	7616223.047	1885.546	r84
1799	321675.6739	7616228.928	1885.5202	r85
1800	321672.693	7616266.161	1886.0382	r86
1801	321691.8896	7616268.745	1885.6588	r87
1802	321703.9726	7616271.482	1885.8593	r88
1803	321711.2712	7616291.626	1885.863	r89
1804	321683.708	7616309.368	1885.8141	r90
1805	321695.6809	7616327.066	1885.9604	r91
1806	321708.3189	7616362.057	1886.205	r92
1807	321728.1608	7616347.877	1886.1658	r93
1808	321723.0014	7616308.974	1885.9463	r94
1809	321736.8633	7616325.693	1886.0314	r95
1810	321746.4208	7616345.353	1886.2599	r96
1811	321771.104	7616368.964	1886.6725	r97
1812	321798.3339	7616372.053	1886.6344	r98
1813	321799.2584	7616366.095	1886.4226	r99
1814	321802.1795	7616372.973	1885.4418	r100
1815	321743.7275	7616399.96	1886.8784	r101
1816	321705.3461	7616425.502	1888.3309	r102
1817	321696.2721	7616441.273	1888.6229	r103
1818	321639.3663	7616579.036	1890.5477	r104
1819	321642.9074	7616591.089	1890.5977	r105
1820	321646.002	7616601.709	1890.8158	r106
1821	322097.8395	7615700.004	1879.5475	r107



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1822	322082.5746	7615693.505	1879.3876	r108
1823	322068.7287	7615692.921	1879.316	r109
1824	322067.0168	7615703.66	1878.4865	r110
1825	322064.6819	7615721.947	1878.3049	r111
1826	322085.1928	7615724.731	1879.2714	r112
1827	322081.99	7615754.752	1879.209	r113
1828	322063.3558	7615755.358	1878.5139	r114
1829	322078.4848	7615783.061	1879.6437	r115
1830	322060.2295	7615783.72	1878.1734	r116
1831	322052.3435	7615786.944	1877.208	r117
1832	322051.5661	7615784.231	1876.2173	r118
1833	322058.0283	7615781.877	1876.6732	r119
1834	322044.5292	7615779.76	1875.4086	r120
1835	322044.3509	7615759.153	1874.8473	r121
1836	322031.8058	7615760.128	1873.8158	r122
1837	322033.0581	7615739.601	1873.8332	r123
1838	322041.2224	7615740.161	1873.9725	r124
1839	322044.767	7615740.352	1874.9995	r125
1840	322044.7971	7615719.973	1875.2518	r126
1841	322044.5279	7615719.915	1874.4719	r127
1842	322041.7705	7615719.724	1873.6773	r128
1843	322036.6541	7615719.025	1873.6725	r129
1844	322045.7823	7615699.6	1875.0575	r130
1845	322045.4746	7615699.618	1874.1519	r131
1846	322038.7055	7615699.806	1873.6519	r132
1847	322032.9389	7615698.771	1873.5942	r133
1848	322060.9268	7615695.155	1875.6688	r134
1849	322059.8484	7615724.126	1875.7376	r135
1850	322059.3866	7615740.857	1876.0129	r136
1851	322058.5525	7615768.837	1876.2578	r137
1852	322036.4654	7615796.635	1875.5493	r138
1853	322034.253	7615801.787	1874.2088	r139
1854	322040.893	7615801.599	1875.4343	r140
1855	322036.4649	7615812.819	1873.9455	r141
1856	322041.5351	7615812.388	1875.6565	r142
1857	322077.0511	7615794.892	1878.8826	r143
1858	322054.9923	7615796.295	1878.2547	r144
1859	322049.5273	7615814.825	1877.6058	r145
1860	322048.5763	7615829.674	1877.9729	r146
1861	322045.0784	7615843.312	1877.5485	r147
1862	322041.8013	7615861.299	1877.3665	r148
1863	322040.6085	7615869.487	1877.53	r149
1864	322042.6621	7615878.612	1875.6394	r150



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1865	322045.4766	7615876.534	1877.2149	r151
1866	322041.8183	7615884.866	1875.0322	r152
1867	322041.472	7615885.275	1874.1906	r153
1868	322040.8457	7615886.643	1874.338	r154
1869	322040.597	7615887.409	1874.4198	r155
1870	322040.4567	7615887.684	1875.1784	r156
1871	322039.8392	7615890.464	1875.8619	r157
1872	322039.9866	7615890.762	1877.3919	r158
1873	322048.1502	7615895.6	1878.696	r159
1874	322048.1966	7615895.372	1875.8991	r160
1875	322048.7992	7615894.25	1875.3598	r161
1876	322049.2183	7615893.79	1874.7387	r162
1877	322050.7921	7615891.858	1874.7393	curso
1878	322052.2692	7615889.939	1875.4563	r165
1879	322054.6729	7615886.417	1876.8595	r166
1880	322066.4841	7615905.261	1878.7222	r167
1881	322066.7555	7615903.97	1875.228	r168
1882	322067.19	7615902.723	1874.9231	curso1
1883	322069.8164	7615897.264	1875.8003	r169
1884	322071.1581	7615894.006	1877.4274	r170
1885	322088.0397	7615904.821	1876.1176	curso3
1886	322089.6304	7615901.618	1875.8647	r171
1887	322090.5309	7615898.403	1876.9308	r172
1888	322101.3291	7615904.778	1875.0319	curso4
1889	322101.225	7615903.966	1875.3765	r174
1890	322101.1533	7615901.29	1876.349	r175
1891	322100.8612	7615896.651	1877.3963	r176
1892	322123.9715	7615903.328	1875.4571	curso5
1893	322124.4598	7615900.61	1876.2297	r177
1894	322125.8671	7615896.607	1877.5286	r178
1895	322126.3099	7615892.206	1878.3739	r179
1896	322126.5034	7615887.999	1880.6842	r180
1897	322125.9827	7615886.041	1880.1938	r181
1898	322125.063	7615882.933	1879.4192	r182
1899	322140.2349	7615858.321	1880.0211	r183
1900	322108.3587	7615860.573	1879.9466	r184
1901	322098.6854	7615874.72	1880.1521	r185
1902	322082.3229	7615870.957	1880.005	r186
1903	322077.9968	7615843.107	1879.4316	r187
1904	322073.9595	7615824.692	1879.0309	r188
1905	322117.1797	7615953.705	1885.2311	r189
1906	322095.1132	7615979.343	1886.1451	r190
1907	322069.1015	7616012.116	1886.2641	r191



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1908	322047.1595	7615987.383	1884.2644	r192
1909	322036.8669	7615974.76	1881.9707	r193
1910	322030.7739	7615958.105	1880.3418	r194
1911	322023.5146	7615946.988	1877.9551	r195
1912	322025.5617	7615920.095	1877.9759	r196
1913	322035.1118	7615891.714	1878.0576	r197
1914	322043.3389	7615905.195	1878.8756	r198
1915	322045.4475	7615919.966	1879.7605	r199
1916	322059.7257	7615917.122	1879.9638	r200
1917	322043.7299	7615901.3	1878.8348	r201
1918	322062.7025	7616016.243	1886.373	r202
1919	322067.178	7616023.587	1886.6323	r203
1920	322055.3605	7616037.113	1887.1958	r204
1921	322036.1511	7616020.535	1884.0704	r205
1922	322035.2414	7615994.906	1882.7492	r206
1923	322035.2773	7616001.14	1882.7546	r207
1924	322032.8971	7616029.873	1884.81	r208
1925	322045.4259	7616044.257	1886.788	r209
1926	322041.8421	7616050.653	1886.8661	r210
1927	322032.9025	7616059.024	1886.8815	r211
1928	322032.0114	7616055.869	1886.8964	r212
1929	322023.207	7616059.863	1887.2991	r213
1930	322022.1189	7616065.587	1887.0573	r214
1931	322035.4953	7616067.463	1886.8917	r215
1932	322065.4014	7616100.479	1887.8658	r216
1933	322091.9283	7616128.597	1888.5311	r217
1934	322073.8142	7616156.055	1888.6877	r218
1935	322040.088	7616179.338	1888.725	r219
1936	322011.9077	7616201.536	1888.8556	r220
1937	321998.5208	7616221.779	1889.0768	r221
1938	321971.7345	7616185.388	1888.123	r222
1939	321955.9581	7616165.43	1887.265	r223
1940	321969.975	7616190.383	1888.3051	r224
1941	321993.1534	7616247.93	1889.3027	r225
1942	321974.6104	7616235.435	1889.2999	r226
1943	321943.3648	7616221.259	1888.3636	r227
1944	321919.5269	7616142.763	1884.9211	r228
1945	321894.7128	7616108.559	1881.5942	r229
1946	321872.8363	7616100.245	1880.7487	r230
1947	321863.0641	7616090.834	1880.8433	r231
1948	321844.764	7616133.634	1880.9977	r232
1949	321808.1322	7616090.877	1881.1534	r233
1950	321804.8119	7616093.257	1881.1755	r234



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1951	321792.2845	7616114.816	1881.5107	r235
1952	321799.3987	7616143.069	1882.2233	r236
1953	321780.2327	7616149.098	1882.43	r237
1954	321751.946	7616218.193	1883.3847	r238
1955	321822.8284	7616232.508	1883.5273	r239
1956	321878.2964	7616233.59	1883.7139	r240
1957	321899.8431	7616215.803	1884.1487	r241
1958	321933.001	7616195.307	1888.3306	r242
1959	321937.5542	7616233.41	1888.5442	r243
1960	321995.1	7616286.975	1889.7472	r244
1961	321927.258	7616282.721	1888.4628	r245
1962	321909.3551	7616282.424	1886.6155	r246
1963	321880.2764	7616280.708	1883.4215	r247
1964	321800.1322	7616276.452	1883.2181	r248
1965	321777.6023	7616264.001	1883.5453	r249
1966	321771.9596	7616235.842	1883.476	r250
1967	321742.7491	7616235.231	1883.089	r251
1968	321742.6946	7616247.048	1883.4952	r252
1969	321746.5809	7616264.207	1883.2511	r253
1970	321762.4549	7616287.211	1883.5602	r254
1971	321776.482	7616300.478	1883.5014	r255
1972	321806.5335	7616293.527	1883.5082	r256
1973	321819.5744	7616304.946	1883.8067	r257
1974	321809.8689	7616323.706	1884.1818	r258
1975	321836.0036	7616341.197	1884.3027	r259
1976	321853.0567	7616331.185	1884.5387	r260
1977	321875.7015	7616347.367	1885.0912	r261
1978	321862.6127	7616360.242	1885.0062	r262
1979	321882.8924	7616373.653	1886.0196	r263
1980	321893.597	7616358.608	1886.0475	r264
1981	321903.703	7616386.612	1886.6304	r265
1982	321914.6622	7616378.555	1887.0461	r266
1983	321929.162	7616394.044	1887.4298	r267
1984	321924.7996	7616408.749	1887.5392	r268
1985	321946.0459	7616434.417	1887.3994	r269
1986	321947.0045	7616387.28	1887.8152	r270
1987	321969.5761	7616364.6	1888.6084	r271
1988	321902.3004	7616360.839	1886.356	r272
1989	321937.0382	7616332.181	1886.9107	r273
1990	321998.6687	7616312.623	1889.9896	r274
1991	322041.2805	7616367.588	1890.6695	r275
1992	322079.7402	7616417.31	1891.3354	r276
1993	322022.8883	7616467.411	1889.2334	r277



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1994	321936.8314	7616527.445	1888.6807	r278
1995	321891.9992	7616560.181	1888.2861	r279
1996	321843.1224	7616592.211	1887.9604	r280
1997	321795.3172	7616634.854	1887.1978	r281
1998	321772.6088	7616657.043	1885.8341	r282
1999	321780.5241	7616647.939	1886.6141	r283
2000	321741.589	7616608.538	1886.6576	r284
2001	321765.4407	7616574.774	1886.2644	r285
2002	321737.8362	7616626.257	1887.2891	r286
2003	321720.6274	7616636.167	1885.4366	r287
2004	321711.8473	7616625.983	1885.5245	r288
2005	321691.5474	7616602.508	1885.3499	r289
2006	321681.514	7616589.714	1885.1762	r290
2007	321680.2969	7616569.317	1884.7574	r291
2008	321679.1853	7616538.652	1883.9403	r292
2009	321683.3021	7616527.146	1884.5877	r293
2010	321693.4139	7616513.777	1884.9951	r294
2011	321708.7676	7616498.687	1884.2683	r295
2012	321711.7037	7616506.077	1885.7181	r296
2013	321722.6349	7616495.671	1885.6899	r297
2014	321743.6376	7616485.509	1885.9111	r298
2015	321766.9468	7616483.055	1884.7986	r299
2016	321792.0459	7616490.849	1884.7608	r300
2017	321815.6949	7616502.633	1885.1641	r301
2018	321787.8055	7616531.89	1885.4252	r302
2019	321767.9956	7616509.505	1885.4777	r303
2020	321744.5331	7616496.734	1885.399	r304
2021	321709.573	7616526.814	1886.0216	r305
2022	321704.7514	7616573.486	1886.722	r306
2023	321737.6938	7616607.908	1886.7258	r307
2024	321817.1191	7616615.376	1887.6848	r308
2025	321923.6964	7616599.527	1889.146	r309
2026	321947.7503	7616621.282	1889.5636	r310
2027	321981.7815	7616599.698	1889.6266	r311
2028	321982.8752	7616671.33	1890.4583	r312
2029	322002.9295	7616697.157	1890.9925	r313
2030	322045.936	7616749.855	1889.8464	r314
2031	322023.6595	7616743.205	1890.2426	r315
2032	322031.307	7616749.355	1890.2677	r316
2033	322044.7975	7616765.464	1889.6863	r317
2034	322050.0379	7616770.584	1889.6034	r318
2035	322055.9708	7616775.633	1889.7122	r319
2036	322062.058	7616782.218	1889.6196	r320



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2037	322068.8308	7616789.376	1889.3394	r321
2038	322076.3049	7616782.846	1889.8064	r322
2039	322072.4166	7616794.69	1889.3533	r323
2040	322073.3237	7616797.502	1889.3995	r324
2041	322070.8693	7616797.019	1887.7232	r325
2042	322070.3656	7616791.876	1887.9197	r326
2043	322071.5425	7616794.241	1887.8996	r327
2044	322060.2305	7616799.468	1887.3882	r328
2045	322054.9418	7616793.843	1887.0673	r329
2046	322054.18	7616790.678	1887.3337	r330
2047	322049.3531	7616783.304	1886.8932	r331
2048	322048.3657	7616779.189	1887.0382	r332
2049	322045.4974	7616775.764	1887.1324	r333
2050	322047.9343	7616773.387	1887.5745	r334
2051	322052.581	7616777.013	1887.3286	r335
2052	322057.0721	7616782.429	1887.3009	r336
2053	322062.0909	7616787.639	1887.6137	r337
2054	322065.588	7616790.721	1887.9119	r338
2055	322062.4341	7616813.141	1885.6104	r339
2056	322061.5339	7616810.769	1886.0716	r340
2057	322060.988	7616811.111	1884.9696	r341
2058	322061.6851	7616813.164	1884.6293	r342
2059	322063.0703	7616815.17	1884.4652	r343
2060	322063.3922	7616814.618	1885.588	r344
2061	322066.6535	7616817.5	1885.9024	r345
2062	322066.193	7616817.866	1884.7398	r346
2063	322066.4966	7616817.598	1885.9503	r347
2064	322068.1138	7616816.086	1886.6114	r348
2065	322069.0058	7616818.429	1886.5718	r349
2066	322071.0172	7616820.727	1886.5738	r350
2067	322073.9791	7616834.855	1886.3001	r351
2068	322072.0975	7616833.956	1885.1776	r352
2069	322075.5649	7616837.291	1885.4876	r353
2070	322075.9755	7616836.995	1886.5808	r354
2071	322078.2915	7616841.666	1886.7995	r355
2072	322077.7081	7616841.687	1885.4177	r356
2073	322079.7286	7616845.474	1885.4595	r357
2074	322080.2042	7616844.959	1886.789	r358
2075	322082.8196	7616842.487	1886.9523	r359
2076	322082.7346	7616837.717	1887.1593	r360
2077	322071.0328	7616829.644	1882.9572	r361
2078	322079.6331	7616832.573	1886.7692	r362
2079	322075.5576	7616818.031	1887.0615	r363



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2080	322074.8995	7616809.891	1887.6485	r364
2081	322113.8703	7616753.458	1892.1222	r365
2082	322104.5893	7616786.907	1889.9546	r366
2083	322128.7274	7616784.961	1890.9819	r367
2084	322108.7246	7616708.895	1892.6298	r368
2085	322093.2816	7616628.166	1892.2561	r369
2086	322082.6368	7615910.01	1879.5359	r370
2087	322090.2582	7615908.678	1875.8662	r371
2088	322122.6941	7615911.265	1878.7362	r372
2089	322113.3864	7615909.454	1878.4425	r373
2090	322107.7232	7615913.979	1878.6908	r374
2091	322087.6586	7615914.431	1880.513	r375
2092	322118.078	7615920.904	1881.2046	r376
2093	322122.4095	7615954.908	1885.4116	r377
2094	322105.6407	7615969.717	1885.9358	r378
2095	322072.3929	7615970.186	1884.7438	r379
2096	322056.5334	7615942.395	1880.976	r380
2097	322042.6983	7615958.249	1880.7574	r381
2098	322070.44	7616789.304	1889.374	BM-GASOL1
2099	322109.537	7616792.947	1891.015	BM-GASOL2
2100	322074.0443	7616799.52	1888.5884	SECCION PUENTE 1
2101	322073.4571	7616799.451	1887.6611	SECCION PUENTE 2
2102	322069.5689	7616800.4	1886.9957	SECCION PUENTE 3
2103	322065.1554	7616801.186	1886.3205	SECCION PUENTE 4
2104	322062.748	7616801.676	1886.7466	SECCION PUENTE 5
2105	322059.7034	7616802.636	1885.9211	SECCION PUENTE 6
2106	322058.3252	7616802.626	1885.5647	SECCION PUENTE 7
2107	322057.6447	7616802.766	1884.7906	SECCION PUENTE 8
2108	322051.7739	7616803.886	1884.8413	SECCION PUENTE 9
2109	322046.6001	7616804.829	1884.0903	SECCION PUENTE 10
2110	322041.5672	7616806.075	1884.5831	SECCION PUENTE 11
2111	322040.076	7616806.249	1885.2163	SECCION PUENTE 12
2112	322033.654	7616807.166	1886.0436	SECCION PUENTE 13
2113	322032.1241	7616807.733	1887.2265	SECCION PUENTE 14
2114	322025.5378	7616809.006	1886.5726	SECCION PUENTE 15
2115	322015.7423	7616810.671	1886.7688	SECCION PUENTE 16
2116	322015.5279	7616810.29	1888.4264	SECCION PUENTE 17
2117	321682.2053	7616517.973	1881.221	eje quebr1
2118	321686.0124	7616513.309	1881.161	eje quebr1
2119	321693.3994	7616505.071	1881.076	eje quebr1
2120	322076.389	7616808.178	1891.341	puente1
2121	322077.539	7616814.511	1891.402	jardinera puente
2122	322078.859	7616822.381	1891.329	jardinera puente 0



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2123	322080.768	7616830.196	1891.319	jardinera puente 2
2124	322083.318	7616835.622	1891.383	jardinera puente 2.1
2125	322083.787	7616847.624	1891.408	jardinera puente 2.2
2126	322085.489	7616857.177	1891.449	puente 3.1
2128	322030.042	7616867.94	1891.437	puente 3.3
2129	322027.791	7616858.407	1891.384	puente 3.4
2130	322025.08	7616851.686	1891.361	jardinera puente 2.2jardinera 2.3
2131	322021.065	7616841.687	1891.301	jardinera puente 2.2jardinera 2.4
2132	322008.11	7616843.967	1891.309	acerca puente
2133	321981.297	7616849.206	1891.15	acerca puente0
2134	321981.055	7616857.466	1891.111	jardinera puente23
2135	321984.784	7616865.887	1891.356	cordón
2136	321993.766	7616861.575	1891.273	cordón 0
2137	322017.81	7616860.039	1891.292	cordón 1
2138	322019.079	7616870.019	1891.075	calle puente 3
2139	322100.971	7616854.029	1891.192	cordón4
2140	322107.527	7616857.682	1891	cordón5
2141	322116.886	7616854.235	1891.086	cordón6
2142	322113.569	7616842.244	1891.188	cordón7
2143	322112.038	7616833.301	1891.222	acera jardín
2144	322109.002	7616824.675	1891.205	cordón 8
2145	322107.902	7616816.99	1891.213	cordón 9
2146	322106.667	7616810.015	1891.308	acera puente
2147	322105.667	7616803.064	1891.311	cordón 10
2149	321998.453	7616814.32	1891.382	cordón 12
2150	321984.82	7616816.138	1891.209	avenida
2151	321973.4	7616818.028	1891.252	avenida 0
2152	321973.903	7616827.362	1891.42	cordón12
2153	321991.208	7616824.152	1891.414	cordón13
2154	321991.777	7616831.274	1891.448	acera jardinera
2155	321978.22	7616834.42	1891.359	acera jardinera 0
2156	321979.153	7616841.752	1891.158	cordón14
2157	321993.818	7616839	1891.218	cordón15
2158	322019.65	7616833.968	1891.342	puente 1.2
2159	322018.674	7616827.688	1891.197	medio puente 1
2160	322016.816	7616819.665	1891.397	esquina puente 1
2161	322063.992	7616866.661	1886.586	BM-1 pendiente
2162	322090.81	7616886.589	1885.43	BM-1 pendiente 0
2163	322083.939	7616875.369	1885.411	eje aguas arriba
2170	322063.992	7616866.661	1886.586	AUX PUENTE1
2172	322084.9287	7616856.655	1888.458	SECCION 2 P1
2173	322083.3215	7616856.383	1885.2198	SECCION 2 P2
2174	322077.677	7616857.893	1885.0836	SECCION 2 P3



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2175	322066.3349	7616859.84	1885.355	SECCION 2 P4
2176	322061.3139	7616860.934	1886.4497	SECCION 2 P5
2177	322056.3922	7616861.89	1887.2548	SECCION 2 P6
2178	322050.2444	7616863.181	1887.3858	SECCION 2 P7
2179	322045.1948	7616863.915	1888.4422	SECCION 2 P8
2180	322044.9599	7616865.294	1890.0792	SECCION 2 P9
2181	322030.1332	7616868.129	1891.1359	SECCION 2 P10
2182	322088.2694	7616864.599	1887.2502	MURO QUEBR1
2183	322096.1577	7616880.133	1887.3367	MURO QUEBR2
2187	322094.783	7616879.733	1883.7697	MURO QUEBR6
2188	322086.3562	7616863.923	1883.7662	MURO QUEBR7
2189	322074.4199	7616871.627	1885.6311	TERR P1
2190	322080.3338	7616880.494	1885.4986	TERR P2
2191	322084.1429	7616887.365	1885.6032	TERR P3
2192	322078.6774	7616888.828	1887.4153	TERR P4
2193	322075.1253	7616879.35	1887.493	TERR P5
2194	322071.0212	7616872.945	1887.1686	TERR P6
2195	322064.1769	7616873.609	1887.446	TERRE 8
2196	322066.1386	7616880.13	1887.4211	TERRE 9
2197	322057.0059	7616882.442	1887.5142	TERRE 10
2198	321956.5689	7616127.064	1885.458	borde1
2199	321991.2025	7616115.27	1886.098	borde2
2200	322003.8047	7616090.46	1886.95	borde3
2201	321831.5216	7616660.933	1886.689	borde7
2202	321887.8791	7616680.257	1886.796	borde8
2203	321907.8913	7616690.627	1886.834	borde6
2204	321957.948	7616709.305	1886.954	borde5
2205	321977.8893	7616715.63	1887.0312	borde4
2206	321855.77	7616515.315	1885.245	borde
2207	321880.9937	7616519.061	1885.5624	borde9
2208	321901.0025	7616517.57	1885.698	borde10
2209	321929.0833	7616509.271	1888.054	borde11
2210	321944.5929	7616494.875	1888.164	borde12
2211	321946.1931	7616472.31	1887.987	borde13
2212	321946.9661	7616451.273	1887.613	borde14
2213	322020.0004	7615759.511	1878.453	BORDE
2214	322024.7701	7615698.227	1875.085	BORDE
2215	322024.5239	7615724.2	1875.364	BORDE
2216	322028.3787	7615801.267	1874.308	ORILLA
2217	32220.6449	7615801.689	1878.882	BORDE




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37	321827,7763	7616362,387	1879,9285	QUEBRADA20
38	321812,4624	7616351,374	1878,45	QUEBRADA20
39	321812,3543	7616351,485	1879,9566	QUEBRADA20
40	321809,2667	7616337,235	1879,1126	QUEBRADA20
41	321808,319	7616339,566	1878,91	QUEBRADA20
42	321806,5181	7616342,238	1878,485	QUEBRADA20
43	321807,9805	7616340,272	1878,4906	QUEBRADA20
44	321804,1442	7616345,679	1878,5944	QUEBRADA20
45	321803,5912	7616345,939	1879,1505	QUEBRADA20
46	321803,53	7616346,261	1880,1792	QUEBRADA20
47	321783,8642	7616331,167	1878,8024	QUEBRADA20
48	321783,4938	7616331,779	1879,4952	QUEBRADA20
49	321786,3958	7616327,179	1878,2224	QUEBRADA20
50	321789,4089	7616323,252	1878,9423	QUEBRADA20
51	321787,3881	7616326,337	1878,3088	QUEBRADA20
52	321787,6383	7616325,759	1878,6141	QUEBRADA20
53	321784,4012	7616330,159	1878,1235	QUEBRADA20
55	321774,7488	7616313,271	1878,7753	QUEBRADA20
56	321772,9667	7616315,899	1877,976	QUEBRADA20
57	321773,5402	7616315,121	1878,4546	QUEBRADA20
58	321771,1834	7616318,142	1878,0398	QUEBRADA20
59	321769,8353	7616319,574	1878,0538	QUEBRADA20
60	321769,4636	7616320,241	1878,9512	QUEBRADA20
61	321762,3278	7616304,137	1878,853	QUEBRADA20
62	321760,6315	7616307,355	1878,5552	QUEBRADA20
63	321760,439	7616307,442	1877,7112	QUEBRADA20
64	321760,3114	7616307,762	1877,5999	QUEBRADA20
65	321759,6734	7616309,309	1877,9506	QUEBRADA20
66	321758,622	7616311,776	1878,0905	QUEBRADA20
67	321758,0244	7616313,853	1879,1152	QUEBRADA20
68	321752,4233	7616301,515	1878,09	QUEBRADA20
69	321753,7672	7616298,466	1878,7375	QUEBRADA20
70	321753,1816	7616299,786	1878,6958	QUEBRADA20
71	321751,8341	7616302,612	1877,834	QUEBRADA20
72	321750,6039	7616304,508	1877,7814	QUEBRADA20
73	321749,8417	7616306,823	1877,9041	QUEBRADA20
74	321749,7739	7616307,489	1878,6628	QUEBRADA20
75	321725,3485	7616261,189	1875,9431	QUEBRADA20
76	321719,8791	7616265,001	1875,9602	FINAL SOCAVACION 2
77	321719,6532	7616264,186	1876,6758	QUEBRADA22
78	321719,1281	7616262,303	1877,6696	QUEBRADA23
79	321715,858	7616264,174	1882,0692	QUEBRADA24





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80	321716,0227	7616264,471	1878,6933	QUEBRADA25
81	321717,1317	7616266,662	1875,9532	QUEBRADA26
82	321714,0863	7616266,873	1884,193	QUEBRADA27
83	321714,291	7616267,106	1878,6578	QUEBRADA28
84	321715,9662	7616269,008	1875,948	QUEBRADA29
86	321714,5353	7616273,824	1881,5791	QUEBRADA31
87	321714,4899	7616273,806	1878,7616	QUEBRADA32
88	321715,7897	7616274,326	1875,9371	QUEBRADA33
89	321717,8673	7616284,929	1884,6258	QUEBRADA34
90	321717,8797	7616284,752	1881,0123	QUEBRADA35
92	321719,2682	7616282,624	1876,0015	INICIO SOCAVACION 2
93	321723,7542	7616288,311	1883,7045	QUEBRADA38
94	321723,4786	7616290,618	1881,7042	QUEBRADA39
95	321723,547	7616290,406	1880,4645	QUEBRADA40
96	321723,5688	7616291,57	1878,8413	QUEBRADA41
98	321724,2896	7616290,227	1876,9511	QUEBRADA43
99	321725,5882	7616289,352	1876,2863	QUEBRADA44
100	321725,9106	7616296,744	1883,7861	QUEBRADA45
101	321725,7887	7616296,929	1882,1996	QUEBRADA46
102	321726,4112	7616295,601	1879,0424	QUEBRADA47
103	321726,3605	7616292,052	1877,3473	QUEBRADA48
104	321727,463	7616290,381	1876,1882	QUEBRADA49
105	321728,2163	7616298,056	1881,1956	QUEBRADA50
106	321729,2803	7616297,548	1880,3595	QUEBRADA51
107	321730,3934	7616297,074	1879,2301	QUEBRADA52
108	321732,8181	7616296,308	1876,586	QUEBRADA53
109	321733,3831	7616269,617	1879,9311	QUEBRADA54
110	321730,2389	7616268,401	1878,9144	QUEBRADA55
111	321728,0841	7616265,73	1877,4952	QUEBRADA56
112	321724,1113	7616270,951	1878,0082	QUEBRADA57
113	321718,3545	7616269,84	1877,2765	QUEBRADA58
114	321721,2168	7616271,045	1877,6377	QUEBRADA59
115	321732,1782	7616271,28	1879,741	QUEBRADA60
116	321729,2662	7616272,252	1878,7659	QUEBRADA61
117	321720,9431	7616275,112	1877,8782	QUEBRADA62
118	321717,261	7616275,454	1877,2563	QUEBRADA63
119	321718,5539	7616275,578	1877,5327	QUEBRADA64
120	321723,1089	7616274,519	1877,5611	QUEBRADA65
121	321724,9665	7616273,997	1878,0569	QUEBRADA66
122	321728,386	7616288,877	1877,634	QUEBRADA67


CONDICIONES DEL CANAL		MARGEN			SECCION 41
		DER	EJE	IZQ	
MATERIAL	Tierra	x	x	x	
	Roca				
	Grava fina				
	Grava gruesa				
GRADO DE IRREGULARIDAD	Ligero		x		
	Menor				
	Moderado	x		x	
	Severo				
VARIACIONES EN LA SECCION TRANSVERSAL DEL CANAL	Gradual	x	x	x	
	Ocasional				
	Frecuente				
EFECTO RELATIVO DE OBSTACULOS	Despreciable	x	x	x	
	Menor				
	Apreciable				
	Severo				
VEGETACION	Baja		x	x	
	Media	x			
	Alta				
	Muy alta				
GRADO DE SINUOSIDAD	Menor	x	x	x	
	Apreciable				
	Severo				


CONDICIONES DEL CANAL		MARGEN			SECCION 40
		DER	EJE	IZQ	
MATERIAL	Tierra	x	x	x	
	Roca				
	Grava fina				
	Grava gruesa				
GRADO DE IRREGULARIDAD	Ligero		x		
	Menor			x	
	Moderado	x			
	Severo				
VARIACIONES EN LA SECCION TRANSVERSAL DEL CANAL	Gradual				
	Ocasional	x	x	x	
	Frecuente				
EFECTO RELATIVO DE OBSTACULOS	Despreciable	x	x	x	
	Menor				
	Apreciable				
	Severo				
VEGETACION	Baja		x	x	
	Media	x			
	Alta				
	Muy alta				
GRADO DE SINUOSIDAD	Menor	x	x	x	
	Apreciable				
	Severo				


CONDICIONES DEL CANAL		MARGEN			SECCION 39
		DER	EJE	IZQ	
MATERIAL	Tierra	x	x	x	
	Roca				
	Grava fina				
	Grava gruesa				
GRADO DE IRREGULARIDAD	Ligero	x		x	
	Menor		x		
	Moderado				
VARIACIONES EN LA SECCION TRANSVERSAL DEL CANAL	Gradual		x		
	Ocasional	x		x	
	Frecuente				
EFECTO RELATIVO DE OBSTACULOS	Despreciable	x	x	x	
	Menor				
	Apreciable				
VEGETACION	Baja		x	x	
	Media	x			
	Alta				
	Muy alta				
GRADO DE SINUOSIDAD	Menor				
	Apreciable	x	x	x	
	Severo				


CONDICIONES DEL CANAL		MARGEN			SECCION 38
		DER	EJE	IZQ	
MATERIAL	Tierra	x	x	x	
	Roca				
	Grava fina				
	Grava gruesa				
GRADO DE IRREGULARIDAD	Ligero		x	x	
	Menor	x			
	Moderado				
VARIACIONES EN LA SECCION TRANSVERSAL DEL CANAL	Gradual		x		
	Ocasional	x		x	
	Frecuente				
EFECTO RELATIVO DE OBSTACULOS	Despreciable	x	x	x	
	Menor				
	Apreciable				
VEGETACION	Baja		x	x	
	Media	x			
	Alta				
	Muy alta				
GRADO DE SINUOSIDAD	Menor				
	Apreciable	x	x	x	
	Severo				


CONDICIONES DEL CANAL		MARGEN			SECCION 37
		DER	EJE	IZQ	
MATERIAL	Tierra	x	x	x	
	Roca				
	Grava fina				
	Grava gruesa				
GRADO DE IRREGULARIDAD	Ligero	x	x	x	
	Menor				
	Moderado				
VARIACIONES EN LA SECCION TRANSVERSAL DEL CANAL	Gradual				
	Ocasional	x	x	x	
	Frecuente				
EFECTO RELATIVO DE OBSTACULOS	Despreciable	x	x	x	
	Menor				
	Apreciable				
VEGETACION	Baja		x	x	
	Media	x			
	Alta				
	Muy alta				
GRADO DE SINUOSIDAD	Menor				
	Apreciable	x	x	x	
	Severo				


CONDICIONES DEL CANAL		MARGEN			SECCION 36
		DER	EJE	IZQ	
MATERIAL	Tierra	x	x	x	
	Roca				
	Grava fina				
	Grava gruesa				
GRADO DE IRREGULARIDAD	Ligero	x			
	Menor		x	x	
	Moderado				
VARIACIONES EN LA SECCION TRANSVERSAL DEL CANAL	Gradual			x	
	Ocasional	x	x		
	Frecuente				
EFECTO RELATIVO DE OBSTACULOS	Despreciable	x	x		
	Menor			x	
	Apreciable				
VEGETACION	Baja	x	x	x	
	Media				
	Alta				
	Muy alta				
GRADO DE SINUOSIDAD	Menor				
	Apreciable	x	x	x	
	Severo				

CONDICIONES DEL CANAL		MARGEN			SECCION 35
		DER	EJE	IZQ	
MATERIAL	Tierra	x		x	
	Roca				
	Grava fina				
	Grava gruesa		x		
GRADO DE IRREGULARIDAD	Ligero		x		
	Menor	x		x	
	Moderado				
VARIACIONES EN LA SECCION TRANSVERSAL DEL CANAL	Gradual		x		
	Ocasional	x		x	
	Frecuente				
EFECTO RELATIVO DE OBSTACULOS	Despreciable	x	x	x	
	Menor				
	Apreciable				
VEGETACION	Baja	x	x		
	Media			x	
	Alta				
	Muy alta				
GRADO DE SINUOSIDAD	Menor				
	Apreciable	x	x	x	
	Severo				


CONDICIONES DEL CANAL		MARGEN			SECCION 34
		DER	EJE	IZQ	
MATERIAL	Tierra	x	x	x	
	Roca				
	Grava fina				
	Grava gruesa				
GRADO DE IRREGULARIDAD	Ligero		x		
	Menor	x			
	Moderado			x	
VARIACIONES EN LA SECCION TRANSVERSAL DEL CANAL	Gradual				
	Ocasional	x	x	x	
	Frecuente				
EFECTO RELATIVO DE OBSTACULOS	Despreciable	x	x		
	Menor			x	
	Apreciable				
VEGETACION	Baja		x	x	
	Media	x			
	Alta				
	Muy alta				
GRADO DE SINUOSIDAD	Menor	x		x	
	Apreciable		x		
	Severo				


CONDICIONES DEL CANAL		MARGEN			SECCION 33
		DER	EJE	IZQ	
MATERIAL	Tierra	x		x	
	Roca				
	Grava fina				
	Grava gruesa		x		
GRADO DE IRREGULARIDAD	Ligero	x	x	x	
	Menor				
	Moderado				
VARIACIONES EN LA SECCION TRANSVERSAL DEL CANAL	Gradual				
	Ocasional	x	x	x	
	Frecuente				
EFECTO RELATIVO DE OBSTACULOS	Despreciable	x	x		
	Menor			x	
	Apreciable				
	Severo				
VEGETACION	Baja	x	x	x	
	Media				
	Alta				
	Muy alta				
GRADO DE SINUOSIDAD	Menor				
	Apreciable	x	x	x	
	Severo				


CONDICIONES DEL CANAL		MARGEN			SECCION 32
		DER	EJE	IZQ	
MATERIAL	Tierra	x		x	
	Roca				
	Grava fina				
	Grava gruesa		x		
GRADO DE IRREGULARIDAD	Ligero	x	x	x	
	Menor				
	Moderado				
VARIACIONES EN LA SECCION TRANSVERSAL DEL CANAL	Gradual				
	Ocasional	x	x	x	
	Frecuente				
EFECTO RELATIVO DE OBSTACULOS	Despreciable	x	x	x	
	Menor				
	Apreciable				
	Severo				
VEGETACION	Baja	x	x		
	Media			x	
	Alta				
	Muy alta				
GRADO DE SINUOSIDAD	Menor				
	Apreciable	x	x	x	
	Severo				


CONDICIONES DEL CANAL		MARGEN			SECCION 31
		DER	EJE	IZQ	
MATERIAL	Tierra	x	x	x	
	Roca				
	Grava fina				
	Grava gruesa				
GRADO DE IRREGULARIDAD	Ligero	x	x		
	Menor			x	
	Moderado				
VARIACIONES EN LA SECCION TRANSVERSAL DEL CANAL	Gradual				
	Ocasional	x	x	x	
	Frecuente				
EFECTO RELATIVO DE OBSTACULOS	Despreciable		x	x	
	Menor	x			
	Apreciable				
VEGETACION	Baja	x	x		
	Media			x	
	Alta				
	Muy alta				
GRADO DE SINUOSIDAD	Menor				
	Apreciable	x	x	x	
	Severo				


CONDICIONES DEL CANAL		MARGEN			SECCION 30
		DER	EJE	IZQ	
MATERIAL	Tierra			x	
	Roca				
	Grava fina				
	Grava gruesa	x	x		
GRADO DE IRREGULARIDAD	Ligero	x	x		
	Menor				
	Moderado			x	
VARIACIONES EN LA SECCION TRANSVERSAL DEL CANAL	Gradual	x	x	x	
	Ocasional				
	Frecuente				
EFECTO RELATIVO DE OBSTACULOS	Despreciable		x	x	
	Menor	x			
	Apreciable				
VEGETACION	Baja	x	x	x	
	Media				
	Alta				
	Muy alta				
GRADO DE SINUOSIDAD	Menor				
	Apreciable	x	x	x	
	Severo				


CONDICIONES DEL CANAL		MARGEN			SECCION 29
		DER	EJE	IZQ	
MATERIAL	Tierra	x	x	x	
	Roca				
	Grava fina				
	Grava gruesa				
GRADO DE IRREGULARIDAD	Ligero	x	x	x	
	Menor				
	Moderado				
VARIACIONES EN LA SECCION TRANSVERSAL DEL CANAL	Gradual	x	x	x	
	Ocasional				
	Frecuente				
EFECTO RELATIVO DE OBSTACULOS	Despreciable		x		
	Menor	x		x	
	Apreciable				
	Severo				
VEGETACION	Baja		x	x	
	Media	x			
	Alta				
	Muy alta				
GRADO DE SINUOSIDAD	Menor	x	x	x	
	Apreciable				
	Severo				


CONDICIONES DEL CANAL		MARGEN			SECCION 28
		DER	EJE	IZQ	
MATERIAL	Tierra		x	x	
	Roca				
	Grava fina				
	Grava gruesa	x			
GRADO DE IRREGULARIDAD	Ligero		x	x	
	Menor	x			
	Moderado				
VARIACIONES EN LA SECCION TRANSVERSAL DEL CANAL	Gradual	x	x	x	
	Ocasional				
	Frecuente				
EFECTO RELATIVO DE OBSTACULOS	Despreciable		x		
	Menor	x		x	
	Apreciable				
	Severo				
VEGETACION	Baja		x	x	
	Media	x			
	Alta				
	Muy alta				
GRADO DE SINUOSIDAD	Menor	x	x	x	
	Apreciable				
	Severo				


CONDICIONES DEL CANAL		MARGEN			SECCION 27
		DER	EJE	IZQ	
MATERIAL	Tierra	x	x	x	
	Roca				
	Grava fina				
	Grava gruesa				
GRADO DE IRREGULARIDAD	Ligero		x	x	
	Menor				
	Moderado				
VARIACIONES EN LA SECCION TRANSVERSAL DEL CANAL	Severo	x			
	Gradual				
	Ocasional	x			
EFECTO RELATIVO DE OBSTACULOS	Frecuente		x	x	
	Despreciable	x	x		
	Menor			x	
	Apreciable				
VEGETACION	Severo				
	Baja	x	x		
	Media			x	
	Alta				
GRADO DE SINUOSIDAD	Muy alta				
	Menor				
	Apreciable			x	
	Severo	x	x		


CONDICIONES DEL CANAL		MARGEN			SECCION 26
		DER	EJE	IZQ	
MATERIAL	Tierra	x	x	x	
	Roca				
	Grava fina				
	Grava gruesa				
GRADO DE IRREGULARIDAD	Ligero	x	x	x	
	Menor				
	Moderado				
VARIACIONES EN LA SECCION TRANSVERSAL DEL CANAL	Severo				
	Gradual			x	
	Ocasional	x	x		
EFECTO RELATIVO DE OBSTACULOS	Frecuente				
	Despreciable	x	x	x	
	Menor				
	Apreciable				
VEGETACION	Severo				
	Baja		x		
	Media	x		x	
	Alta				
GRADO DE SINUOSIDAD	Muy alta				
	Menor	x	x	x	
	Apreciable				
	Severo				


CONDICIONES DEL CANAL		MARGEN			SECCION 25
		DER	EJE	IZQ	
MATERIAL	Tierra	x	x	x	
	Roca				
	Grava fina				
	Grava gruesa				
GRADO DE IRREGULARIDAD	Ligero	x	x		
	Menor			x	
	Moderado				
VARIACIONES EN LA SECCION TRANSVERSAL DEL CANAL	Gradual	x	x	x	
	Ocasional				
	Frecuente				
EFECTO RELATIVO DE OBSTACULOS	Despreciable		x	x	
	Menor	x			
	Apreciable				
VEGETACION	Baja	x	x	x	
	Media				
	Alta				
	Muy alta				
GRADO DE SINUOSIDAD	Menor	x	x	x	
	Apreciable				
	Severo				


CONDICIONES DEL CANAL		MARGEN			SECCION 24
		DER	EJE	IZQ	
MATERIAL	Tierra	x	x	x	
	Roca				
	Grava fina				
	Grava gruesa				
GRADO DE IRREGULARIDAD	Ligero	x	x		
	Menor			x	
	Moderado				
VARIACIONES EN LA SECCION TRANSVERSAL DEL CANAL	Gradual	x	x	x	
	Ocasional				
	Frecuente				
EFECTO RELATIVO DE OBSTACULOS	Despreciable		x	x	
	Menor	x			
	Apreciable				
VEGETACION	Baja		x		
	Media	x		x	
	Alta				
	Muy alta				
GRADO DE SINUOSIDAD	Menor	x	x	x	
	Apreciable				
	Severo				


CONDICIONES DEL CANAL		MARGEN			SECCION 23
		DER	EJE	IZQ	
MATERIAL	Tierra	x	x	x	
	Roca				
	Grava fina				
	Grava gruesa				
GRADO DE IRREGULARIDAD	Ligero	x	x	x	
	Menor				
	Moderado				
VARIACIONES EN LA SECCION TRANSVERSAL DEL CANAL	Gradual	x	x	x	
	Ocasional				
	Frecuente				
EFECTO RELATIVO DE OBSTACULOS	Despreciable		x		
	Menor	x		x	
	Apreciable				
	Severo				
VEGETACION	Baja		x		
	Media	x		x	
	Alta				
	Muy alta				
GRADO DE SINUOSIDAD	Menor	x	x	x	
	Apreciable				
	Severo				


CONDICIONES DEL CANAL		MARGEN			SECCION 22
		DER	EJE	IZQ	
MATERIAL	Tierra	x	x	x	
	Roca				
	Grava fina				
	Grava gruesa				
GRADO DE IRREGULARIDAD	Ligero		x		
	Menor	x		x	
	Moderado				
VARIACIONES EN LA SECCION TRANSVERSAL DEL CANAL	Gradual		x		
	Ocasional			x	
	Frecuente	x			
EFECTO RELATIVO DE OBSTACULOS	Despreciable				
	Menor				
	Apreciable	x	x	x	
	Severo				
VEGETACION	Baja		x		
	Media	x		x	
	Alta				
	Muy alta				
GRADO DE SINUOSIDAD	Menor	x	x	x	
	Apreciable				
	Severo				


CONDICIONES DEL CANAL		MARGEN			SECCION 21
		DER	EJE	IZQ	
MATERIAL	Tierra	x	x	x	
	Roca				
	Grava fina				
	Grava gruesa				
GRADO DE IRREGULARIDAD	Ligero		x		
	Menor	x		x	
	Moderado				
VARIACIONES EN LA SECCION TRANSVERSAL DEL CANAL	Gradual	x	x	x	
	Ocasional				
	Frecuente				
EFECTO RELATIVO DE OBSTACULOS	Despreciable	x	x		
	Menor			x	
	Apreciable				
VEGETACION	Baja	x	x		
	Media			x	
	Alta				
	Muy alta				
GRADO DE SINUOSIDAD	Menor	x	x	x	
	Apreciable				
	Severo				


CONDICIONES DEL CANAL		MARGEN			SECCION 20
		DER	EJE	IZQ	
MATERIAL	Tierra	x	x	x	
	Roca				
	Grava fina				
	Grava gruesa				
GRADO DE IRREGULARIDAD	Ligero		x	x	
	Menor	x			
	Moderado				
VARIACIONES EN LA SECCION TRANSVERSAL DEL CANAL	Gradual	x			
	Ocasional		x	x	
	Frecuente				
EFECTO RELATIVO DE OBSTACULOS	Despreciable		x	x	
	Menor	x			
	Apreciable				
VEGETACION	Baja		x	x	
	Media	x			
	Alta				
	Muy alta				
GRADO DE SINUOSIDAD	Menor				
	Apreciable				
	Severo	x	x	x	


CONDICIONES DEL CANAL		MARGEN			SECCION 19
		DER	EJE	IZQ	
MATERIAL	Tierra	x		x	
	Roca				
	Grava fina				
	Grava gruesa		x		
GRADO DE IRREGULARIDAD	Ligero		x		
	Menor	x		x	
	Moderado				
VARIACIONES EN LA SECCION TRANSVERSAL DEL CANAL	Gradual	x		x	
	Ocasional		x		
	Frecuente				
EFECTO RELATIVO DE OBSTACULOS	Despreciable	x	x		
	Menor			x	
	Apreciable				
	Severo				
VEGETACION	Baja	x	x	x	
	Media				
	Alta				
	Muy alta				
GRADO DE SINUOSIDAD	Menor	x	x	x	
	Apreciable				
	Severo				


CONDICIONES DEL CANAL		MARGEN			SECCION 18
		DER	EJE	IZQ	
MATERIAL	Tierra	x	x	x	
	Roca				
	Grava fina				
	Grava gruesa				
GRADO DE IRREGULARIDAD	Ligero		x	x	
	Menor	x			
	Moderado				
VARIACIONES EN LA SECCION TRANSVERSAL DEL CANAL	Gradual				
	Ocasional	x	x	x	
	Frecuente				
EFECTO RELATIVO DE OBSTACULOS	Despreciable		x	x	
	Menor	x			
	Apreciable				
	Severo				
VEGETACION	Baja	x	x	x	
	Media				
	Alta				
	Muy alta				
GRADO DE SINUOSIDAD	Menor	x	x	x	
	Apreciable				
	Severo				


CONDICIONES DEL CANAL		MARGEN			SECCION 17
		DER	EJE	IZQ	
MATERIAL	Tierra	x		x	
	Roca				
	Grava fina				
	Grava gruesa		x		
GRADO DE IRREGULARIDAD	Ligero	x		x	
	Menor		x		
	Moderado				
VARIACIONES EN LA SECCION TRANSVERSAL DEL CANAL	Gradual	x			
	Ocasional		x	x	
	Frecuente				
EFECTO RELATIVO DE OBSTACULOS	Despreciable		x		
	Menor	x		x	
	Apreciable				
VEGETACION	Baja	x	x	x	
	Media				
	Alta				
	Muy alta				
GRADO DE SINUOSIDAD	Menor	x	x	x	
	Apreciable				
	Severo				


CONDICIONES DEL CANAL		MARGEN			SECCION 16
		DER	EJE	IZQ	
MATERIAL	Tierra	x		x	
	Roca				
	Grava fina				
	Grava gruesa		x		
GRADO DE IRREGULARIDAD	Ligero	x		x	
	Menor		x		
	Moderado				
VARIACIONES EN LA SECCION TRANSVERSAL DEL CANAL	Gradual		x		
	Ocasional	x		x	
	Frecuente				
EFECTO RELATIVO DE OBSTACULOS	Despreciable		x		
	Menor	x		x	
	Apreciable				
VEGETACION	Baja	x	x	x	
	Media				
	Alta				
	Muy alta				
GRADO DE SINUOSIDAD	Menor	x	x	x	
	Apreciable				
	Severo				


CONDICIONES DEL CANAL		MARGEN			SECCION 15
		DER	EJE	IZQ	
MATERIAL	Tierra	x	x	x	
	Roca				
	Grava fina				
	Grava gruesa				
GRADO DE IRREGULARIDAD	Ligero	x	x	x	
	Menor				
	Moderado				
VARIACIONES EN LA SECCION TRANSVERSAL DEL CANAL	Gradual		x		
	Ocasional	x		x	
	Frecuente				
EFECTO RELATIVO DE OBSTACULOS	Despreciable	x	x	x	
	Menor				
	Apreciable				
VEGETACION	Baja	x	x		
	Media			x	
	Alta				
	Muy alta				
GRADO DE SINUOSIDAD	Menor	x	x	x	
	Apreciable				
	Severo				


CONDICIONES DEL CANAL		MARGEN			SECCION 14
		DER	EJE	IZQ	
MATERIAL	Tierra	x	x	x	
	Roca				
	Grava fina				
	Grava gruesa				
GRADO DE IRREGULARIDAD	Ligero	x	x	x	
	Menor				
	Moderado				
VARIACIONES EN LA SECCION TRANSVERSAL DEL CANAL	Gradual		x		
	Ocasional	x		x	
	Frecuente				
EFECTO RELATIVO DE OBSTACULOS	Despreciable	x	x	x	
	Menor				
	Apreciable				
VEGETACION	Baja	x	x		
	Media			x	
	Alta				
	Muy alta				
GRADO DE SINUOSIDAD	Menor	x	x	x	
	Apreciable				
	Severo				


CONDICIONES DEL CANAL		MARGEN			SECCION 13
		DER	EJE	IZQ	
MATERIAL	Tierra	x		x	
	Roca				
	Grava fina				
	Grava gruesa		x		
GRADO DE IRREGULARIDAD	Ligero		x	x	
	Menor	x			
	Moderado				
VARIACIONES EN LA SECCION TRANSVERSAL DEL CANAL	Gradual				
	Ocasional	x	x	x	
	Frecuente				
EFECTO RELATIVO DE OBSTACULOS	Despreciable		x	x	
	Menor	x			
	Apreciable				
VEGETACION	Baja	x	x	x	
	Media				
	Alta				
	Muy alta				
GRADO DE SINUOSIDAD	Menor	x	x	x	
	Apreciable				
	Severo				


CONDICIONES DEL CANAL		MARGEN			SECCION 12
		DER	EJE	IZQ	
MATERIAL	Tierra	x		x	
	Roca				
	Grava fina				
	Grava gruesa		x		
GRADO DE IRREGULARIDAD	Ligero	x	x	x	
	Menor				
	Moderado				
VARIACIONES EN LA SECCION TRANSVERSAL DEL CANAL	Gradual				
	Ocasional	x	x	x	
	Frecuente				
EFECTO RELATIVO DE OBSTACULOS	Despreciable		x	x	
	Menor	x			
	Apreciable				
VEGETACION	Baja		x	x	
	Media	x			
	Alta				
	Muy alta				
GRADO DE SINUOSIDAD	Menor	x	x	x	
	Apreciable				
	Severo				


CONDICIONES DEL CANAL		MARGEN			SECCION 11
		DER	EJE	IZQ	
MATERIAL	Tierra	x		x	
	Roca				
	Grava fina				
	Grava gruesa		x		
GRADO DE IRREGULARIDAD	Ligero		x	x	
	Menor	x			
	Moderado				
VARIACIONES EN LA SECCION TRANSVERSAL DEL CANAL	Gradual	x	x	x	
	Ocasional				
	Frecuente				
EFECTO RELATIVO DE OBSTACULOS	Despreciable		x	x	
	Menor	x			
	Apreciable				
	Severo				
VEGETACION	Baja		x	x	
	Media	x			
	Alta				
	Muy alta				
GRADO DE SINUOSIDAD	Menor	x	x	x	
	Apreciable				
	Severo				


CONDICIONES DEL CANAL		MARGEN			SECCION 10
		DER	EJE	IZQ	
MATERIAL	Tierra	x	x	x	
	Roca				
	Grava fina				
	Grava gruesa				
GRADO DE IRREGULARIDAD	Ligero	x	x	x	
	Menor				
	Moderado				
VARIACIONES EN LA SECCION TRANSVERSAL DEL CANAL	Gradual	x	x	x	
	Ocasional				
	Frecuente				
EFECTO RELATIVO DE OBSTACULOS	Despreciable	x	x	x	
	Menor				
	Apreciable				
	Severo				
VEGETACION	Baja		x	x	
	Media	x			
	Alta				
	Muy alta				
GRADO DE SINUOSIDAD	Menor	x	x	x	
	Apreciable				
	Severo				


CONDICIONES DEL CANAL		MARGEN			SECCION 9
		DER	EJE	IZQ	
MATERIAL	Tierra	x	x	x	
	Roca				
	Grava fina				
	Grava gruesa				
GRADO DE IRREGULARIDAD	Ligero	x	x		
	Menor			x	
	Moderado				
VARIACIONES EN LA SECCION TRANSVERSAL DEL CANAL	Gradual				
	Ocasional	x			
	Frecuente		x	x	
EFECTO RELATIVO DE OBSTACULOS	Despreciable	x	x	x	
	Menor				
	Apreciable				
VEGETACION	Baja		x	x	
	Media	x			
	Alta				
	Muy alta				
GRADO DE SINUOSIDAD	Menor	x	x	x	
	Apreciable				
	Severo				


CONDICIONES DEL CANAL		MARGEN			SECCION 8
		DER	EJE	IZQ	
MATERIAL	Tierra	x	x	x	
	Roca				
	Grava fina				
	Grava gruesa				
GRADO DE IRREGULARIDAD	Ligero	x	x		
	Menor			x	
	Moderado				
VARIACIONES EN LA SECCION TRANSVERSAL DEL CANAL	Gradual	x	x	x	
	Ocasional				
	Frecuente				
EFECTO RELATIVO DE OBSTACULOS	Despreciable		x	x	
	Menor	x			
	Apreciable				
VEGETACION	Baja	x	x	x	
	Media				
	Alta				
	Muy alta				
GRADO DE SINUOSIDAD	Menor	x	x	x	
	Apreciable				
	Severo				


CONDICIONES DEL CANAL		MARGEN			SECCION 7
		DER	EJE	IZQ	
MATERIAL	Tierra	x	x	x	
	Roca				
	Grava fina				
	Grava gruesa				
GRADO DE IRREGULARIDAD	Ligero	x	x	x	
	Menor				
	Moderado				
VARIACIONES EN LA SECCION TRANSVERSAL DEL CANAL	Gradual	x	x	x	
	Ocasional				
	Frecuente				
EFECTO RELATIVO DE OBSTACULOS	Despreciable		x	x	
	Menor	x			
	Apreciable				
VEGETACION	Baja		x	x	
	Media	x			
	Alta				
	Muy alta				
GRADO DE SINUOSIDAD	Menor	x	x	x	
	Apreciable				
	Severo				


CONDICIONES DEL CANAL		MARGEN			SECCION 6
		DER	EJE	IZQ	
MATERIAL	Tierra	x	x	x	
	Roca				
	Grava fina				
	Grava gruesa				
GRADO DE IRREGULARIDAD	Ligero	x	x	x	
	Menor				
	Moderado				
VARIACIONES EN LA SECCION TRANSVERSAL DEL CANAL	Gradual	x	x	x	
	Ocasional				
	Frecuente				
EFECTO RELATIVO DE OBSTACULOS	Despreciable		x	x	
	Menor	x			
	Apreciable				
VEGETACION	Baja		x	x	
	Media	x			
	Alta				
	Muy alta				
GRADO DE SINUOSIDAD	Menor	x	x	x	
	Apreciable				
	Severo				

CONDICIONES DEL CANAL		MARGEN			SECCION 5
		DER	EJE	IZQ	
MATERIAL	Tierra	x	x	x	
	Roca				
	Grava fina				
	Grava gruesa				
GRADO DE IRREGULARIDAD	Ligero	x	x	x	
	Menor				
	Moderado				
VARIACIONES EN LA SECCION TRANSVERSAL DEL CANAL	Gradual	x	x	x	
	Ocasional				
	Frecuente				
EFECTO RELATIVO DE OBSTACULOS	Despreciable	x	x	x	
	Menor				
	Apreciable				
	Severo				
VEGETACION	Baja		x	x	
	Media	x			
	Alta				
	Muy alta				
GRADO DE SINUOSIDAD	Menor	x	x	x	
	Apreciable				
	Severo				

CONDICIONES DEL CANAL		MARGEN			SECCION 4
		DER	EJE	IZQ	
MATERIAL	Tierra	x	x	x	
	Roca				
	Grava fina				
	Grava gruesa				
GRADO DE IRREGULARIDAD	Ligero	x	x	x	
	Menor				
	Moderado				
VARIACIONES EN LA SECCION TRANSVERSAL DEL CANAL	Gradual	x	x	x	
	Ocasional				
	Frecuente				
EFECTO RELATIVO DE OBSTACULOS	Despreciable		x	x	
	Menor	x			
	Apreciable				
	Severo				
VEGETACION	Baja		x	x	
	Media	x			
	Alta				
	Muy alta				
GRADO DE SINUOSIDAD	Menor	x	x	x	
	Apreciable				
	Severo				

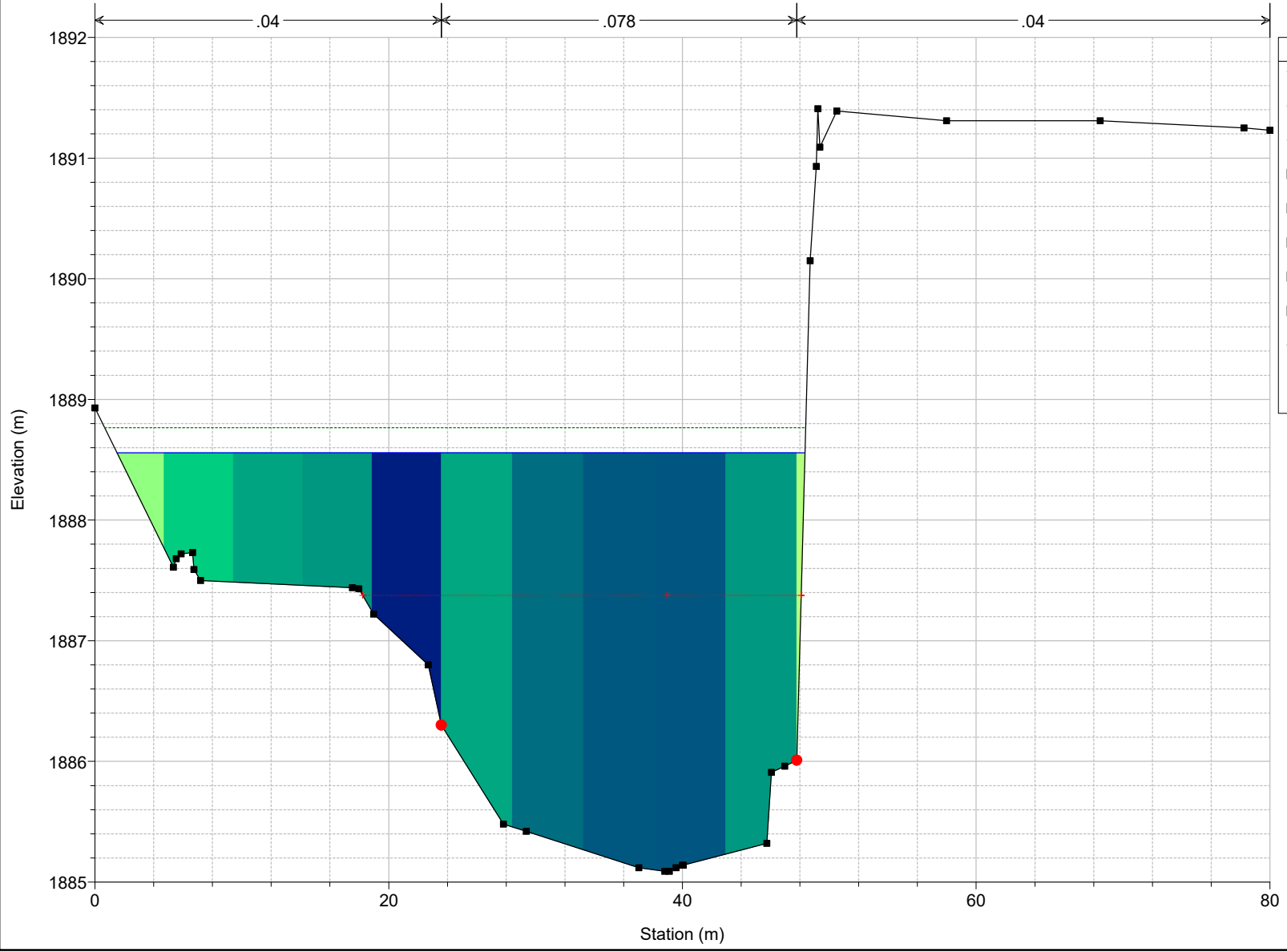
CONDICIONES DEL CANAL		MARGEN			SECCION 3
		DER	EJE	IZQ	
MATERIAL	Tierra	x	x	x	
	Roca				
	Grava fina				
	Grava gruesa				
GRADO DE IRREGULARIDAD	Ligero	x	x	x	
	Menor				
	Moderado				
VARIACIONES EN LA SECCION TRANSVERSAL DEL CANAL	Gradual	x	x	x	
	Ocasional				
	Frecuente				
EFECTO RELATIVO DE OBSTACULOS	Despreciable		x	x	
	Menor	x			
	Apreciable				
VEGETACION	Baja		x	x	
	Media	x			
	Alta				
	Muy alta				
GRADO DE SINUOSIDAD	Menor	x	x	x	
	Apreciable				
	Severo				

CONDICIONES DEL CANAL		MARGEN			SECCION 2
		DER	EJE	IZQ	
MATERIAL	Tierra				
	Roca	x		x	
	Grava fina				
	Grava gruesa		x		
GRADO DE IRREGULARIDAD	Ligero	x	x	x	
	Menor				
	Moderado				
VARIACIONES EN LA SECCION TRANSVERSAL DEL CANAL	Gradual				
	Ocasional	x		x	
	Frecuente		x		
EFECTO RELATIVO DE OBSTACULOS	Despreciable	x		x	
	Menor		x		
	Apreciable				
VEGETACION	Baja	x	x	x	
	Media				
	Alta				
	Muy alta				
GRADO DE SINUOSIDAD	Menor	x	x	x	
	Apreciable				
	Severo				

CONDICIONES DEL CANAL		MARGEN			SECCION 1
		DER	EJE	IZQ	
MATERIAL	tierra				
	Roca	x		x	
	Grava fina				
	Grava gruesa		x		
GRADO DE IRREGULARIDAD	Ligero	x	x	x	
	Menor				
	Moderado				
VARIACIONES EN LA SECCION TRANSVERSAL DEL CANAL	Severo				
	Gradual				
	Ocasional		x		
EFECTO RELATIVO DE OBSTACULOS	Frecuente	x		x	
	Despreciable	x		x	
	Menor				
VEGETACION	Apreciable				
	Severo		x		
	Baja	x	x	x	
GRADO DE SINUOSIDAD	Media				
	Alta				
	Muy alta				
	Menor	x	x	x	
GRADO DE SINUOSIDAD	Apreciable				
	Severo				

Condición sin Medidas de Intervención

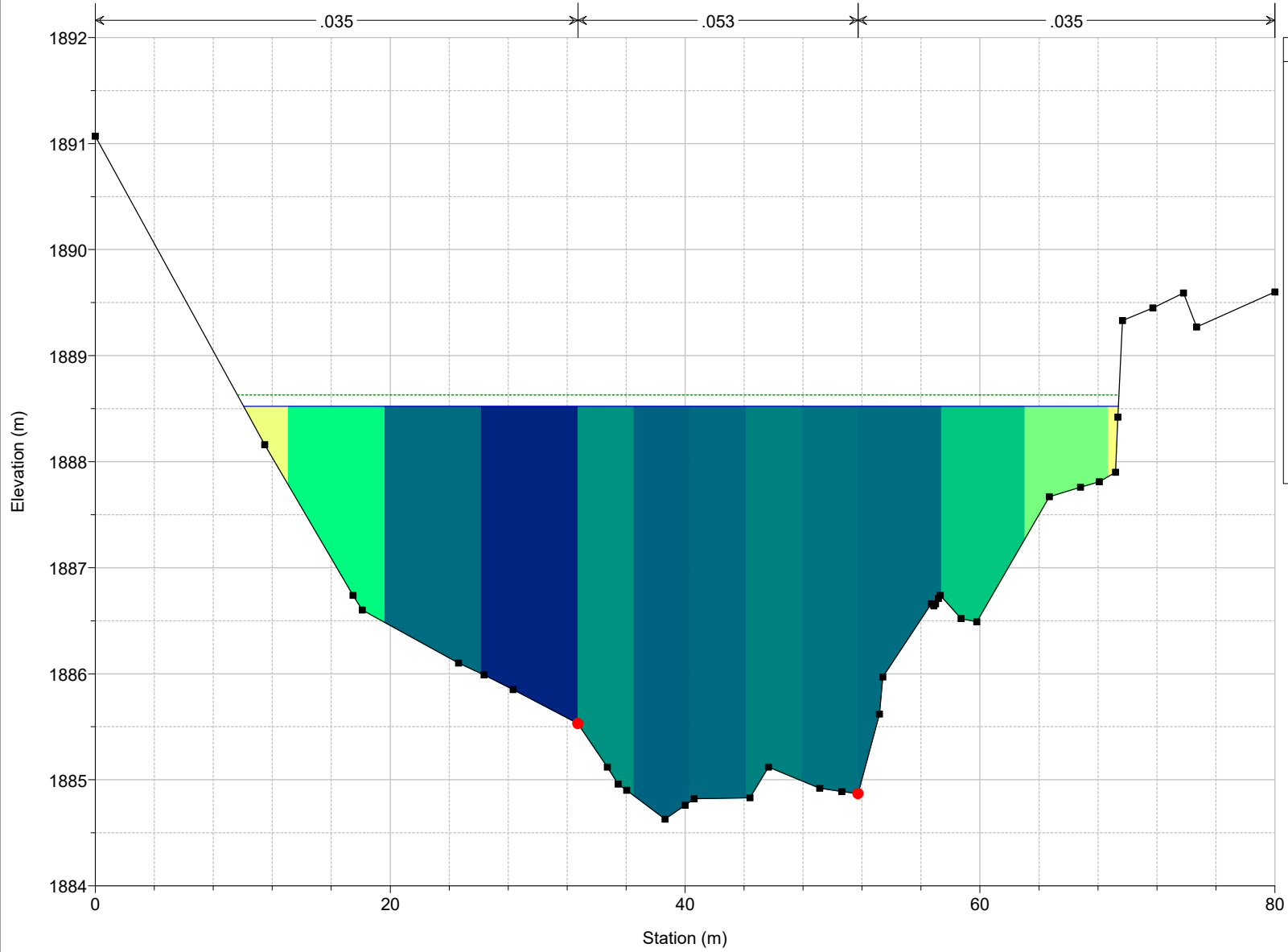
PROYECTO Plan: Plan 01 26/8/2023
RS = 2050



Legend

- EG T=100
- WS T=100
- Crit T=100
- 0.5 m/s
- 1.0 m/s
- 1.5 m/s
- 2.0 m/s
- 2.5 m/s
- Ground
- Bank Sta

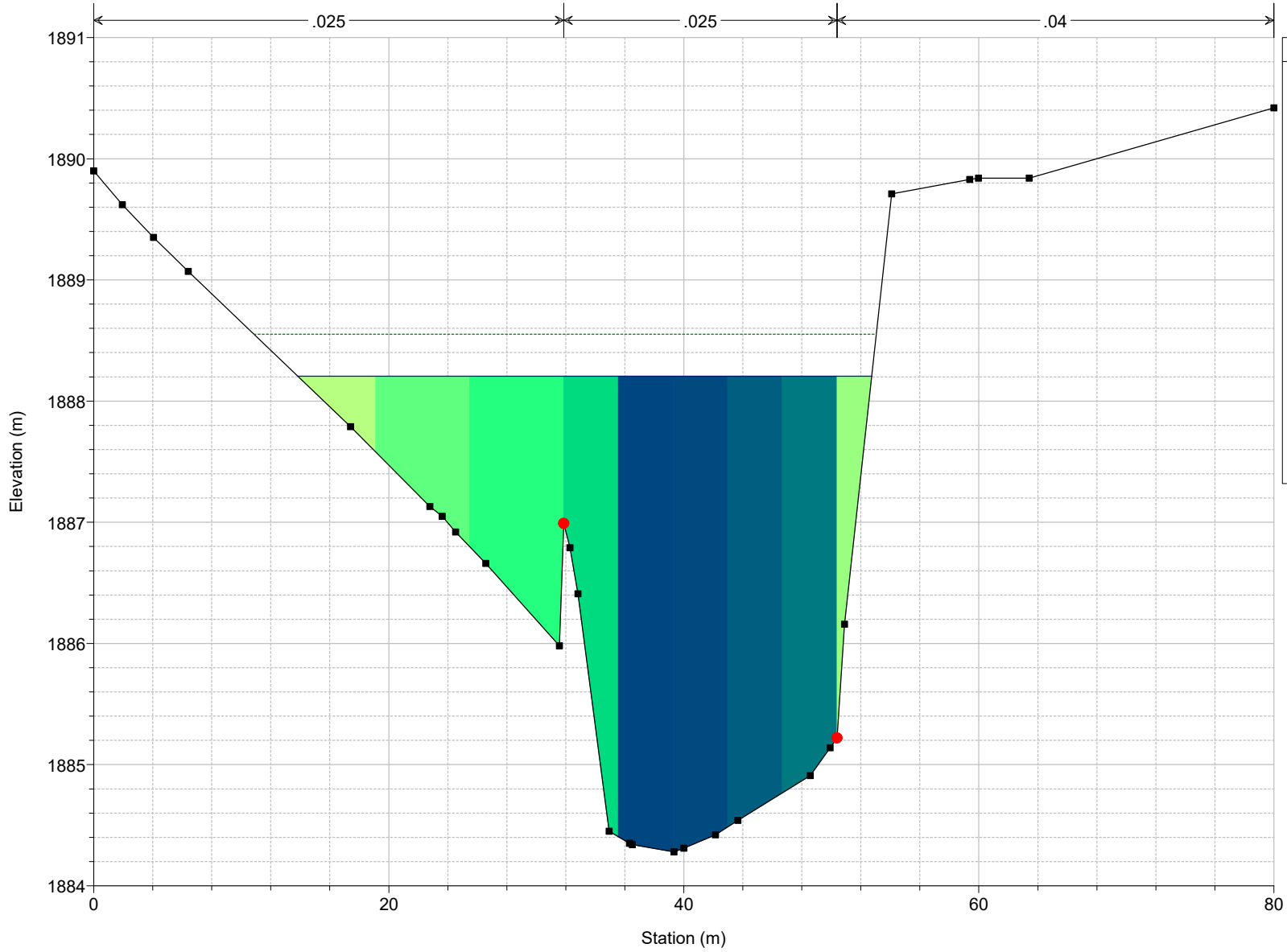
PROYECTO Plan: Plan 01 26/8/2023
RS = 2000



Legend

- EG T=100
- WS T=100
- 0.4 m/s
- 0.6 m/s
- 0.8 m/s
- 1.0 m/s
- 1.2 m/s
- 1.4 m/s
- 1.6 m/s
- 1.8 m/s
- Ground
- Bank Sta

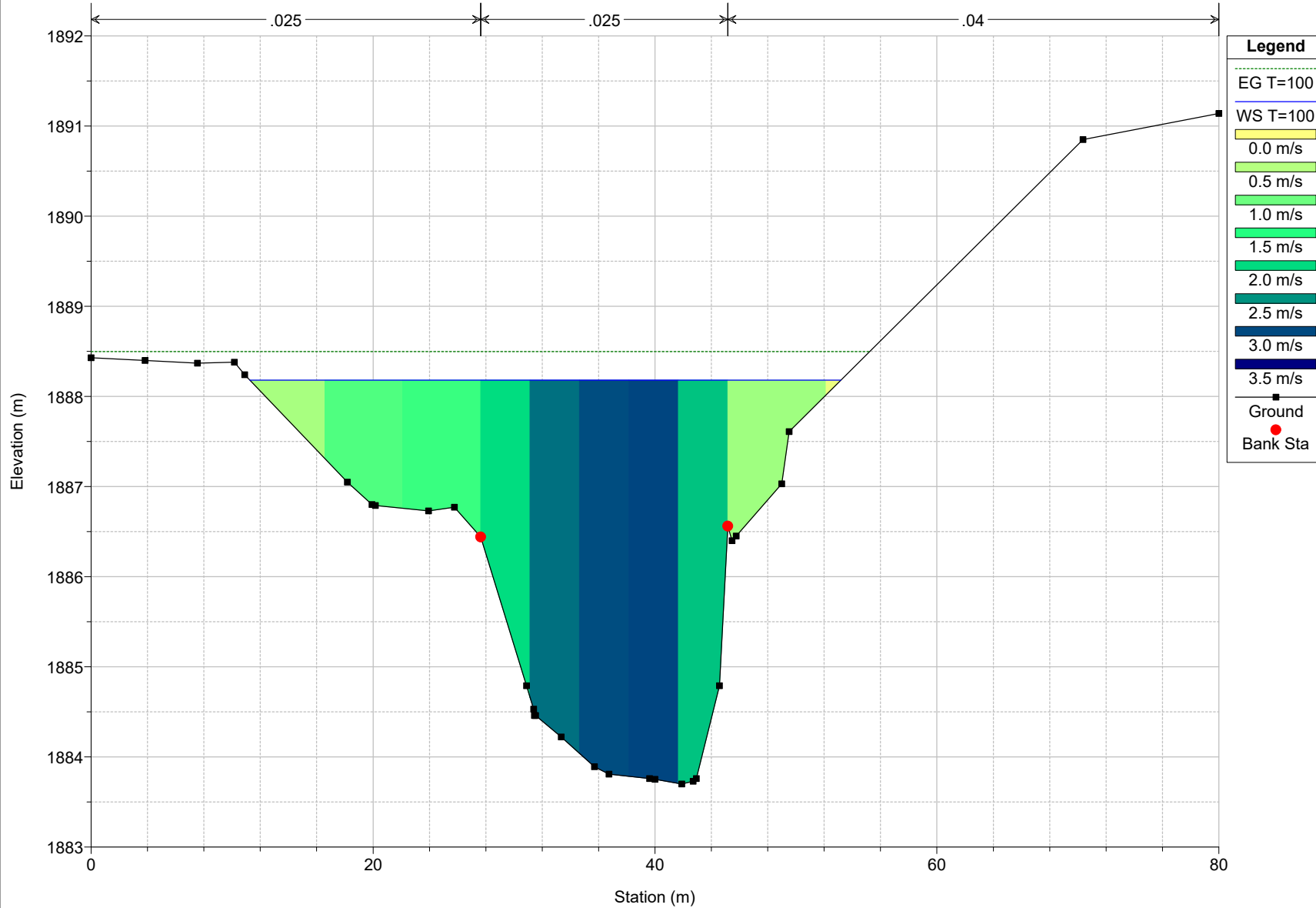
PROYECTO Plan: Plan 01 26/8/2023
RS = 1950



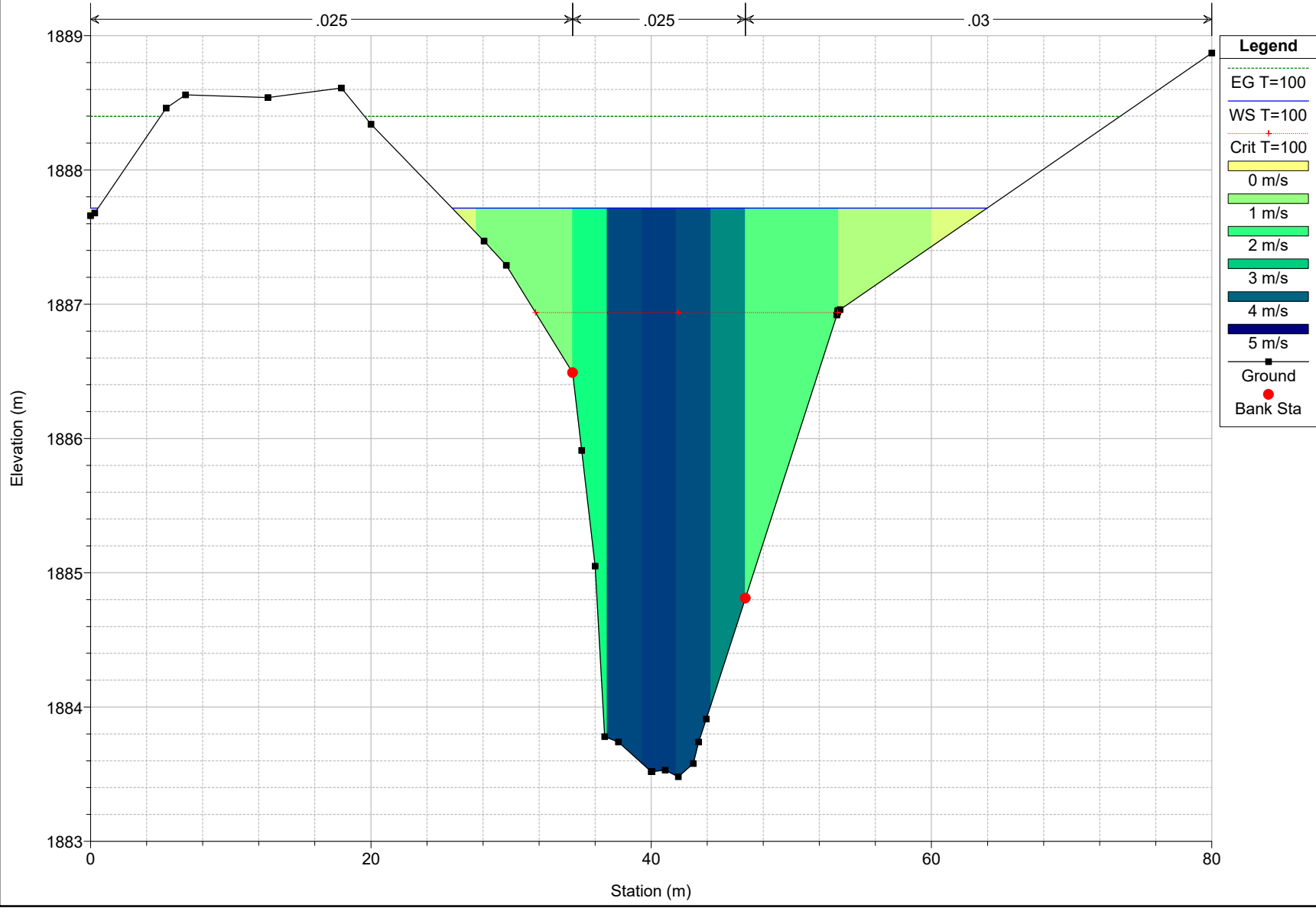
Legend

- EG T=100
- WS T=100
- 0.0 m/s
- 0.5 m/s
- 1.0 m/s
- 1.5 m/s
- 2.0 m/s
- 2.5 m/s
- 3.0 m/s
- 3.5 m/s
- Ground
- Bank Sta

PROYECTO Plan: Plan 01 26/8/2023
RS = 1900

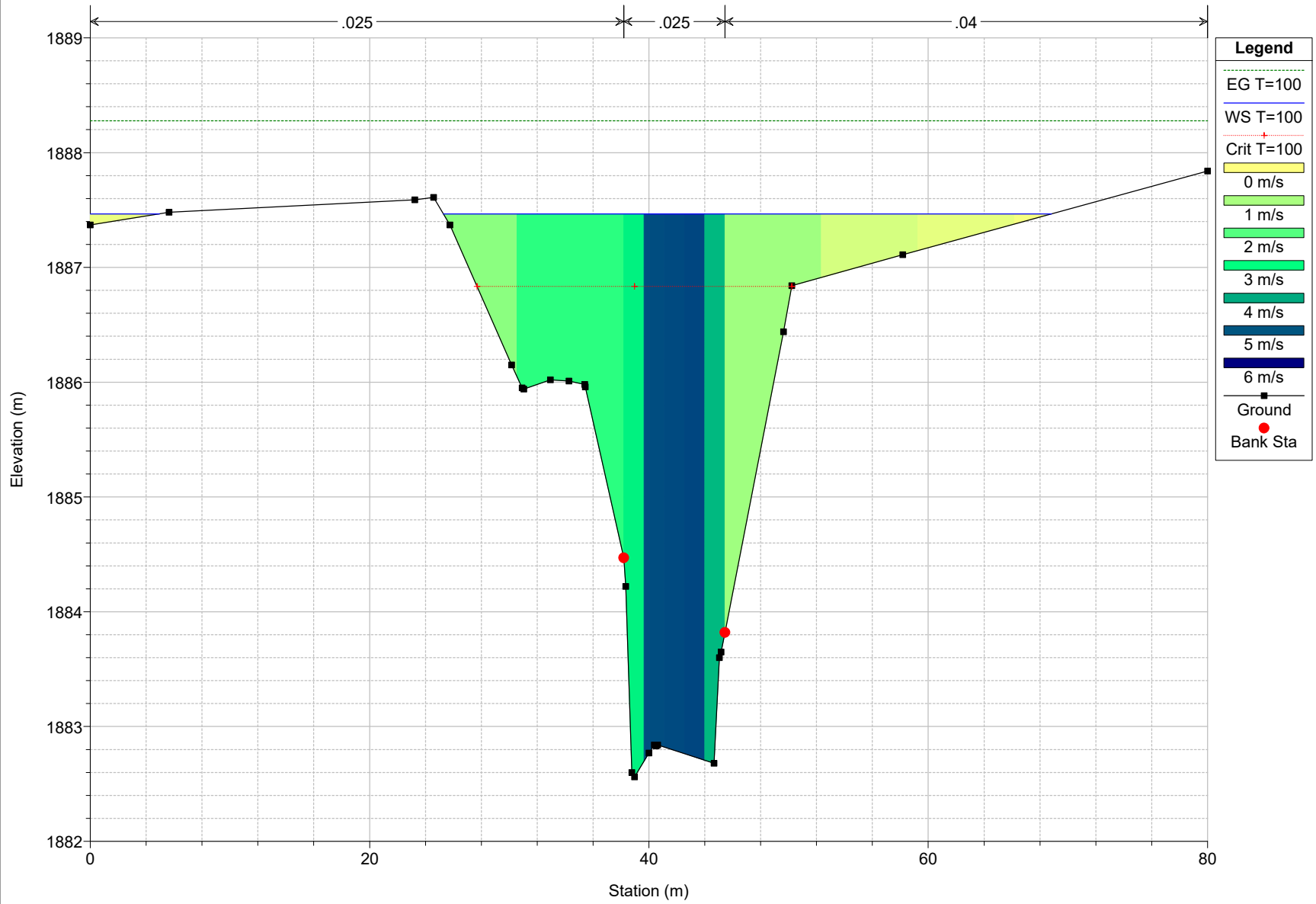


PROYECTO Plan: Plan 01 26/8/2023
RS = 1850

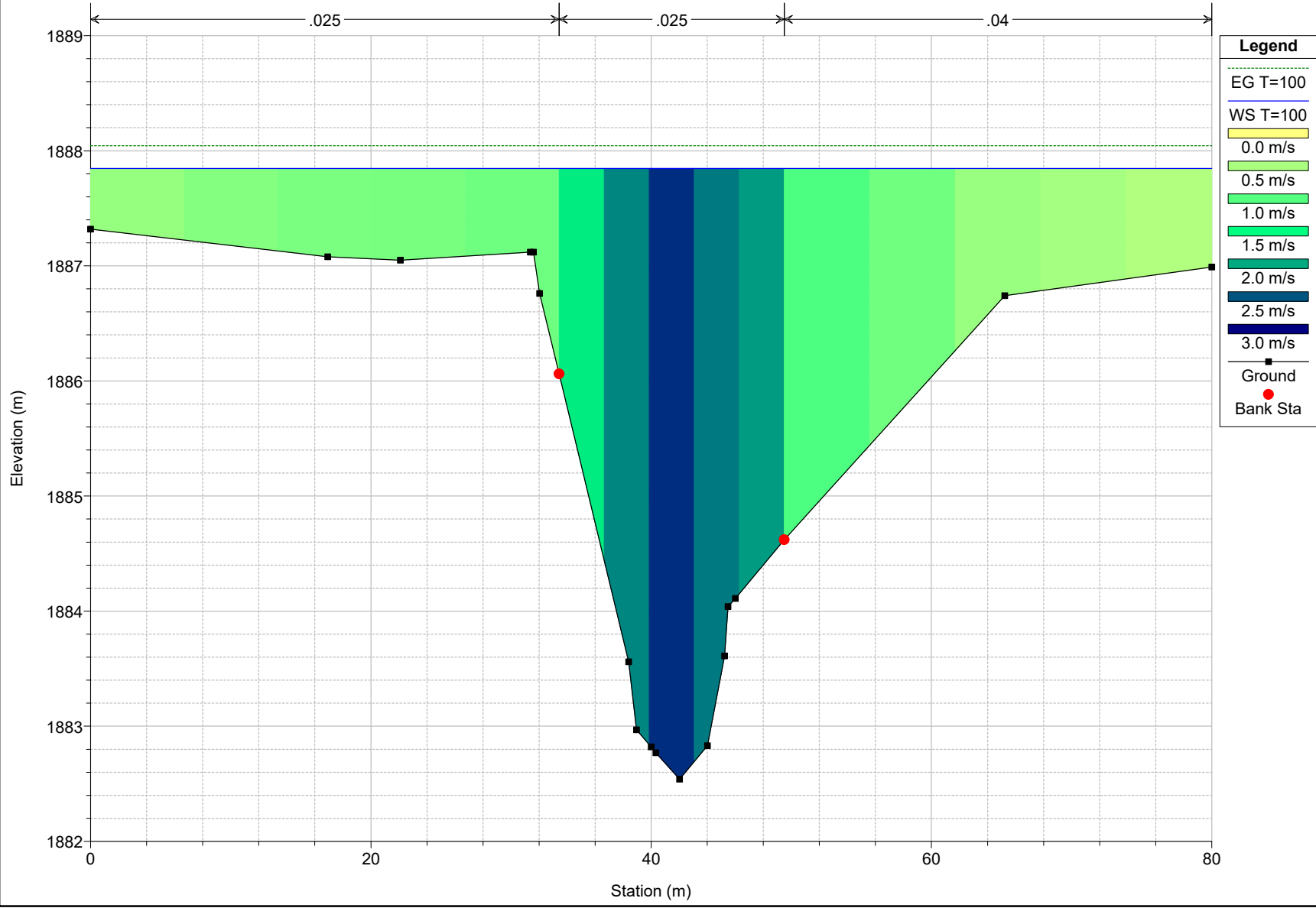


PROYECTO Plan: Plan 01 26/8/2023

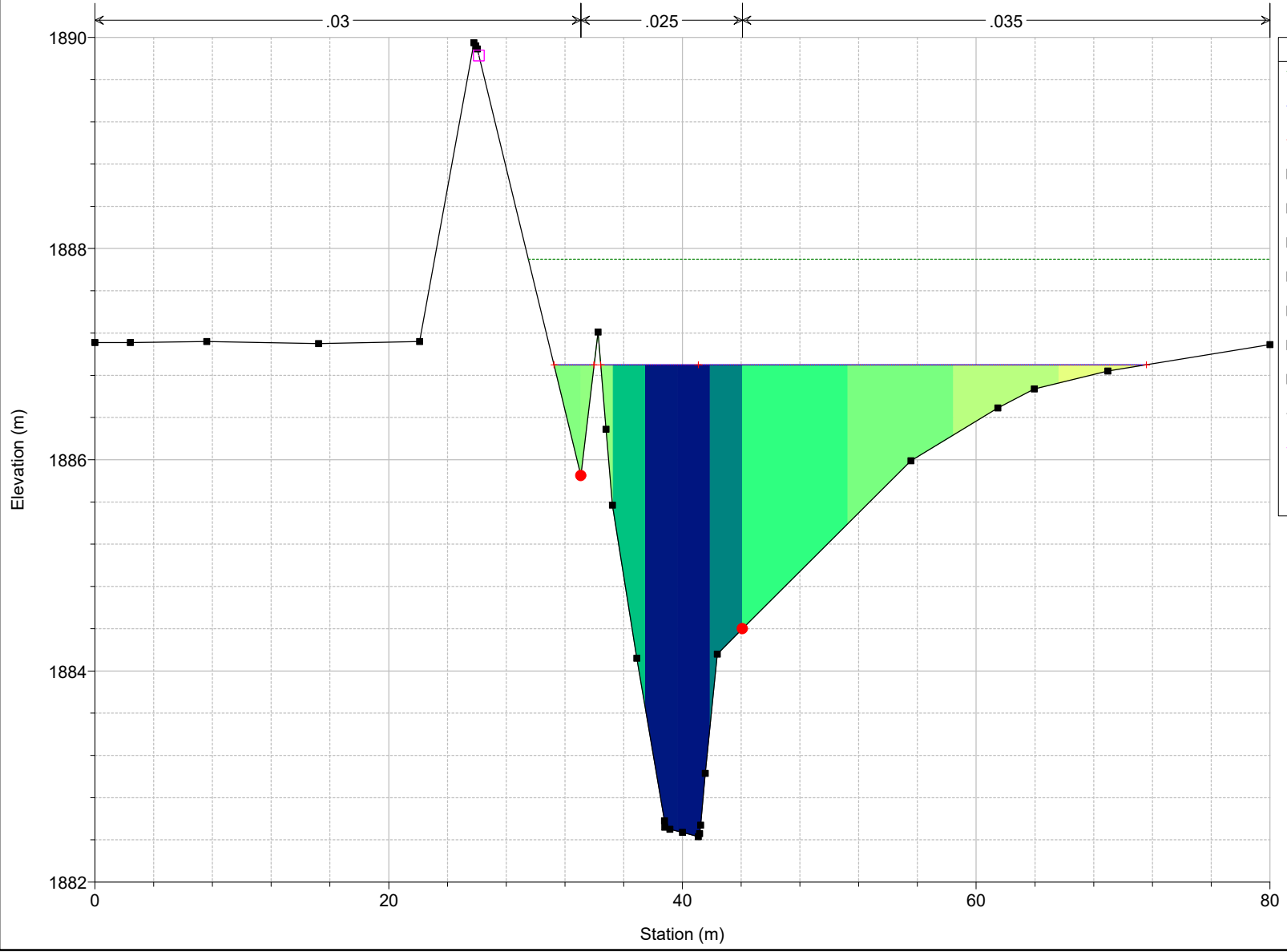
RS = 1800



PROYECTO Plan: Plan 01 26/8/2023
RS = 1750

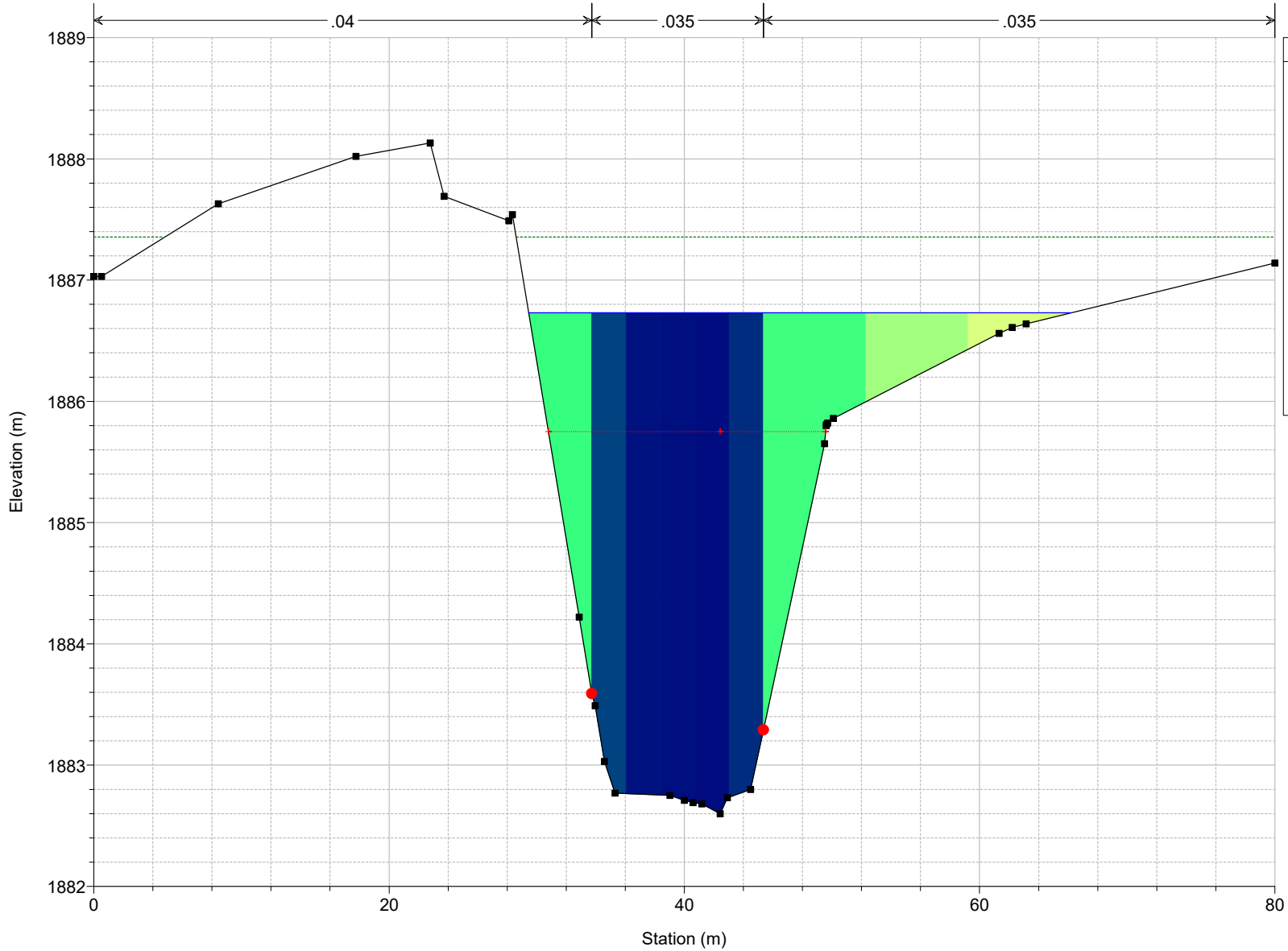


PROYECTO Plan: Plan 01 26/8/2023
RS = 1700



- Legend**
- EG T=100
 - WS T=100
 - Crit T=100
 - 0 m/s
 - 1 m/s
 - 2 m/s
 - 3 m/s
 - 4 m/s
 - 5 m/s
 - 6 m/s
 - Ground
 - Levee
 - Bank Sta

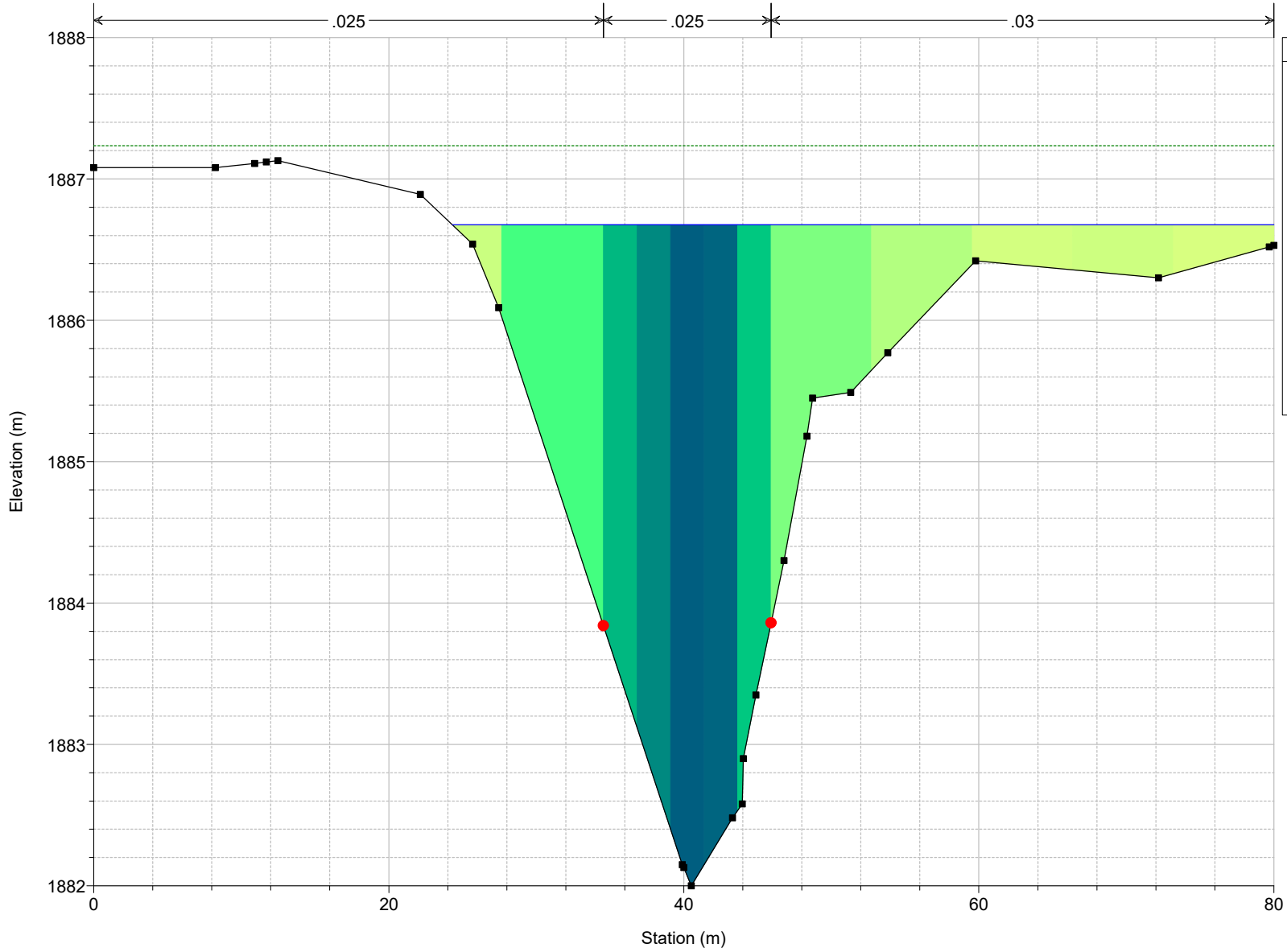
PROYECTO Plan: Plan 01 26/8/2023
RS = 1650



Legend

- EG T=100
- WS T=100
- Crit T=100
- 0 m/s
- 1 m/s
- 2 m/s
- 3 m/s
- 4 m/s
- Ground
- Bank Sta

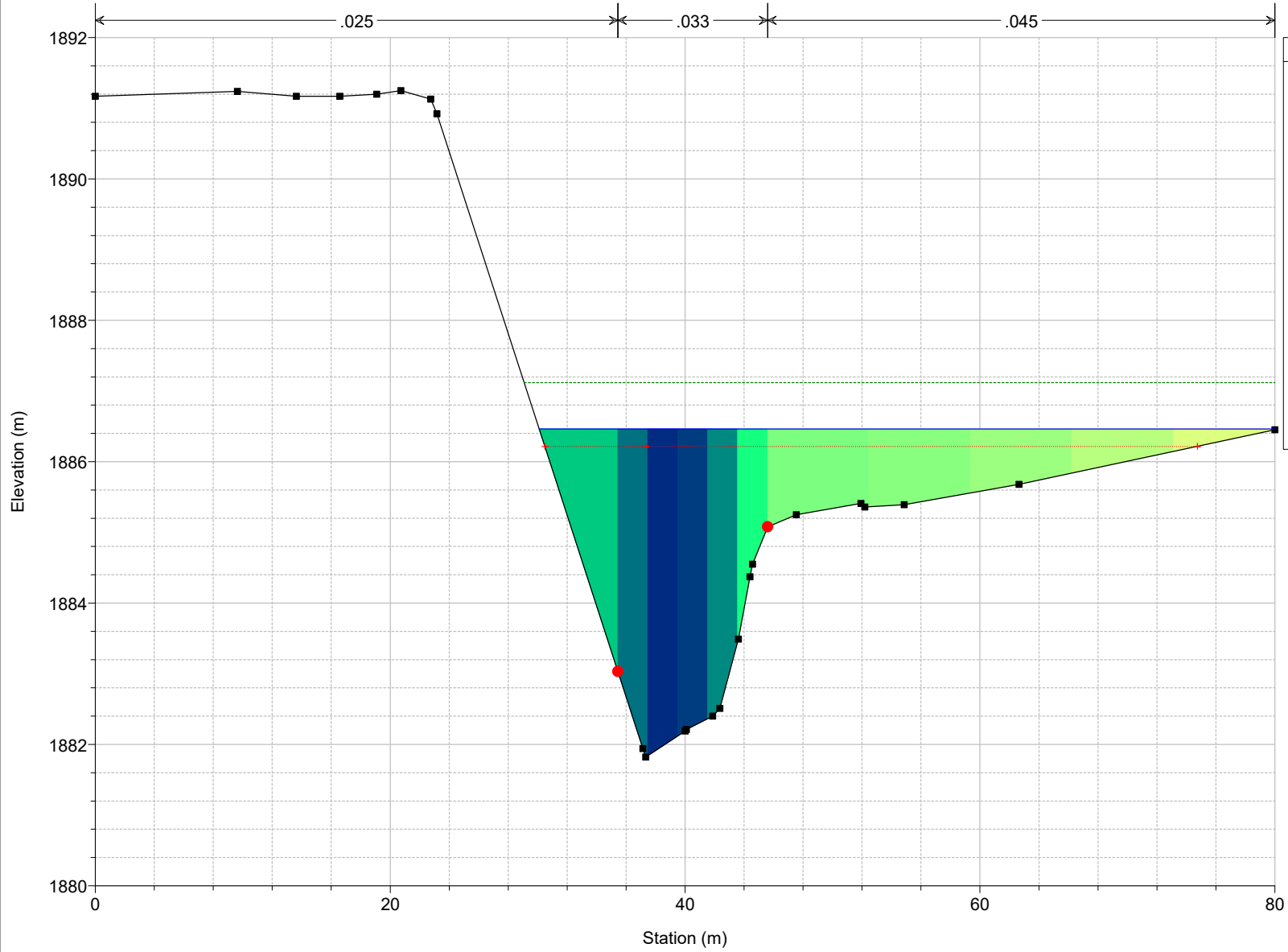
PROYECTO Plan: Plan 01 26/8/2023
RS = 1600



Legend

- EG T=100
- WS T=100
- 0 m/s
- 1 m/s
- 2 m/s
- 3 m/s
- 4 m/s
- 5 m/s
- Ground
- Bank Sta

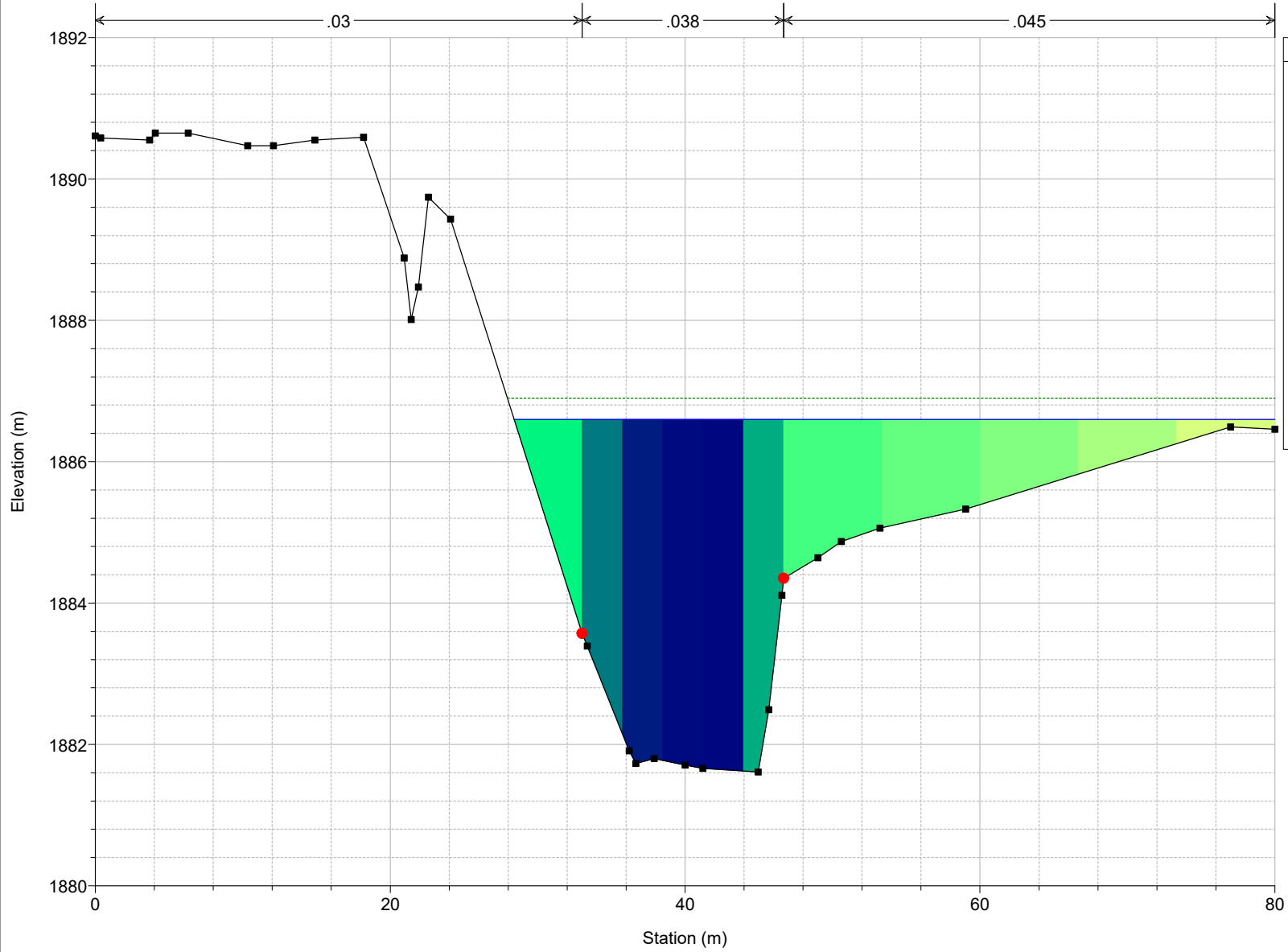
PROYECTO Plan: Plan 01 26/8/2023
RS = 1550



Legend

- EG T=100
- WS T=100
- Crit T=100
- 0 m/s
- 1 m/s
- 2 m/s
- 3 m/s
- 4 m/s
- 5 m/s
- Ground
- Bank Sta

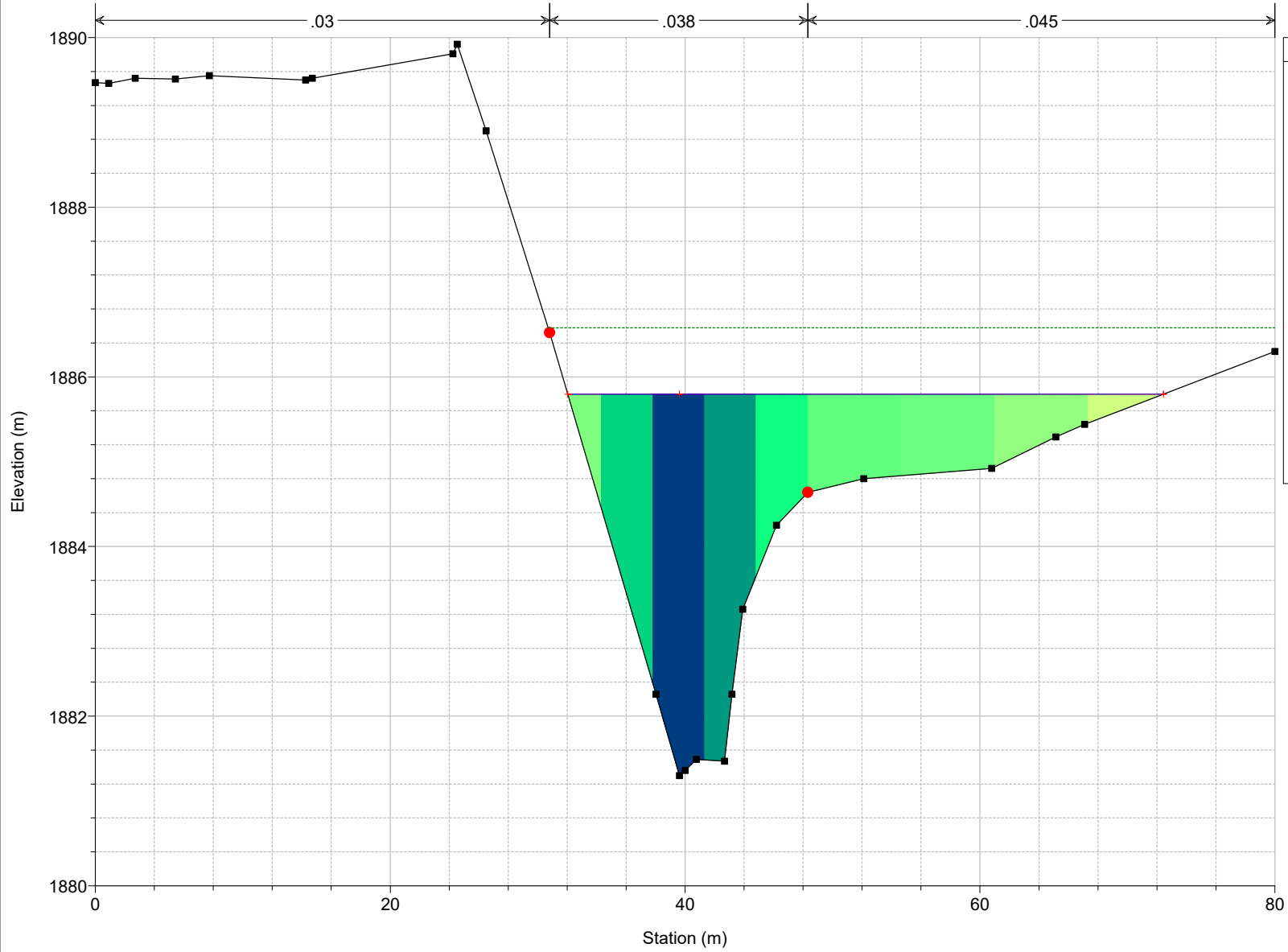
PROYECTO Plan: Plan 01 26/8/2023
RS = 1500



Legend

- EG T=100
- WS T=100
- 0.0 m/s
- 0.5 m/s
- 1.0 m/s
- 1.5 m/s
- 2.0 m/s
- 2.5 m/s
- 3.0 m/s
- Ground
- Bank Sta

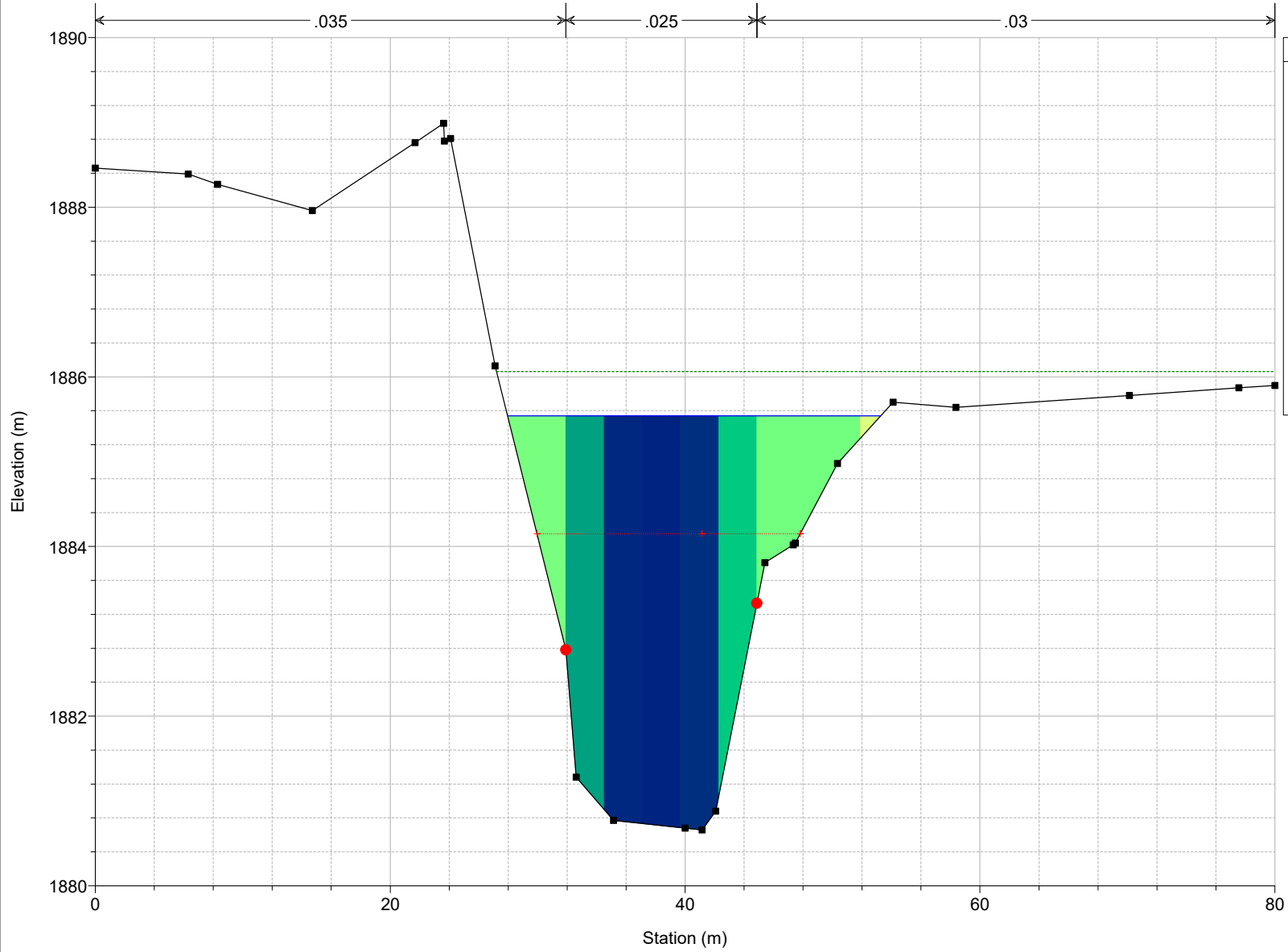
PROYECTO Plan: Plan 01 26/8/2023
RS = 1450



Legend

- EG T=100
- WS T=100
- Crit T=100
- 0 m/s
- 1 m/s
- 2 m/s
- 3 m/s
- 4 m/s
- 5 m/s
- 6 m/s
- Ground
- Bank Sta

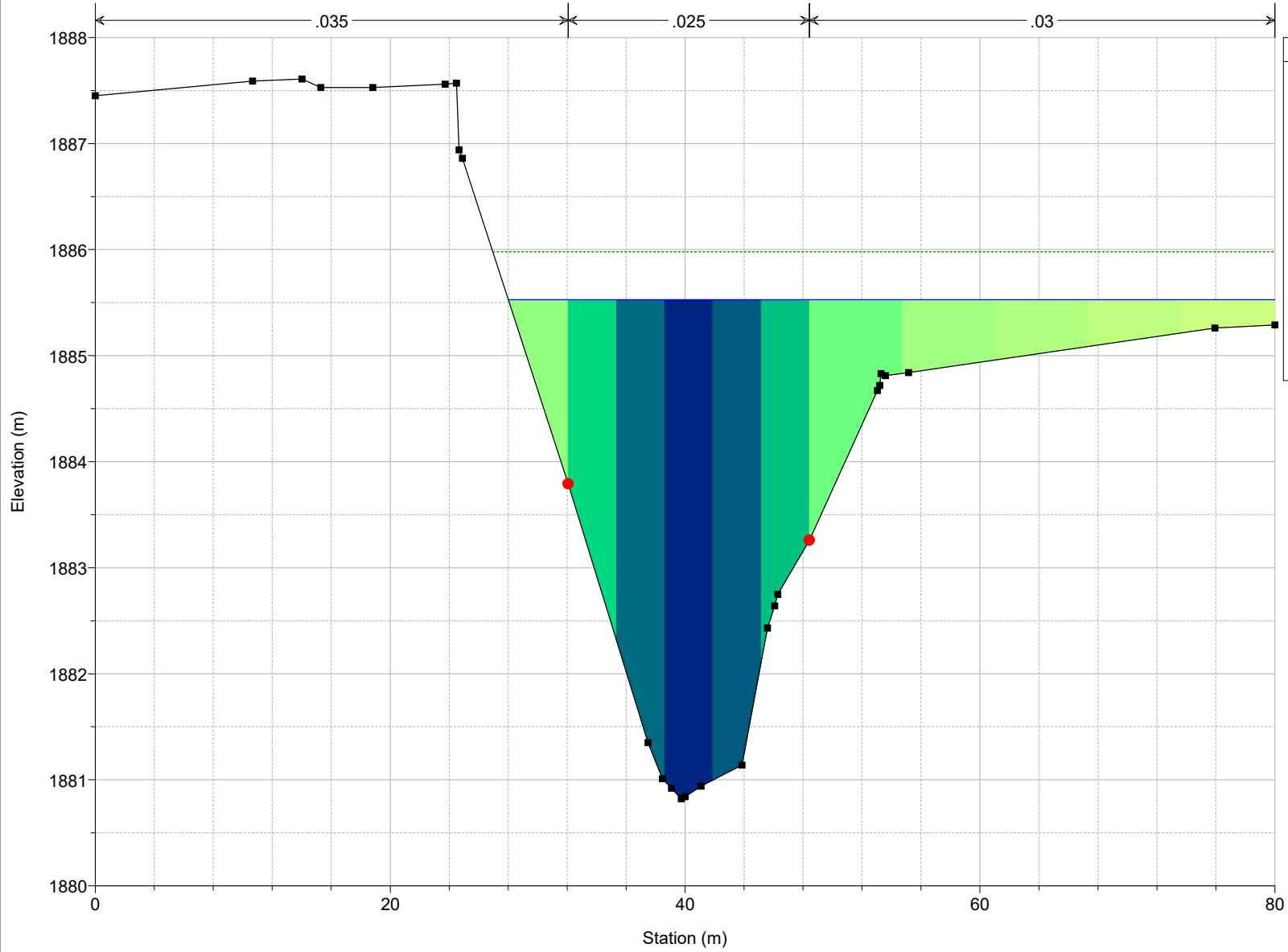
PROYECTO Plan: Plan 01 26/8/2023
RS = 1400



Legend

- EG T=100
- WS T=100
- Crit T=100
- 0 m/s
- 1 m/s
- 2 m/s
- 3 m/s
- 4 m/s
- Ground
- Bank Sta

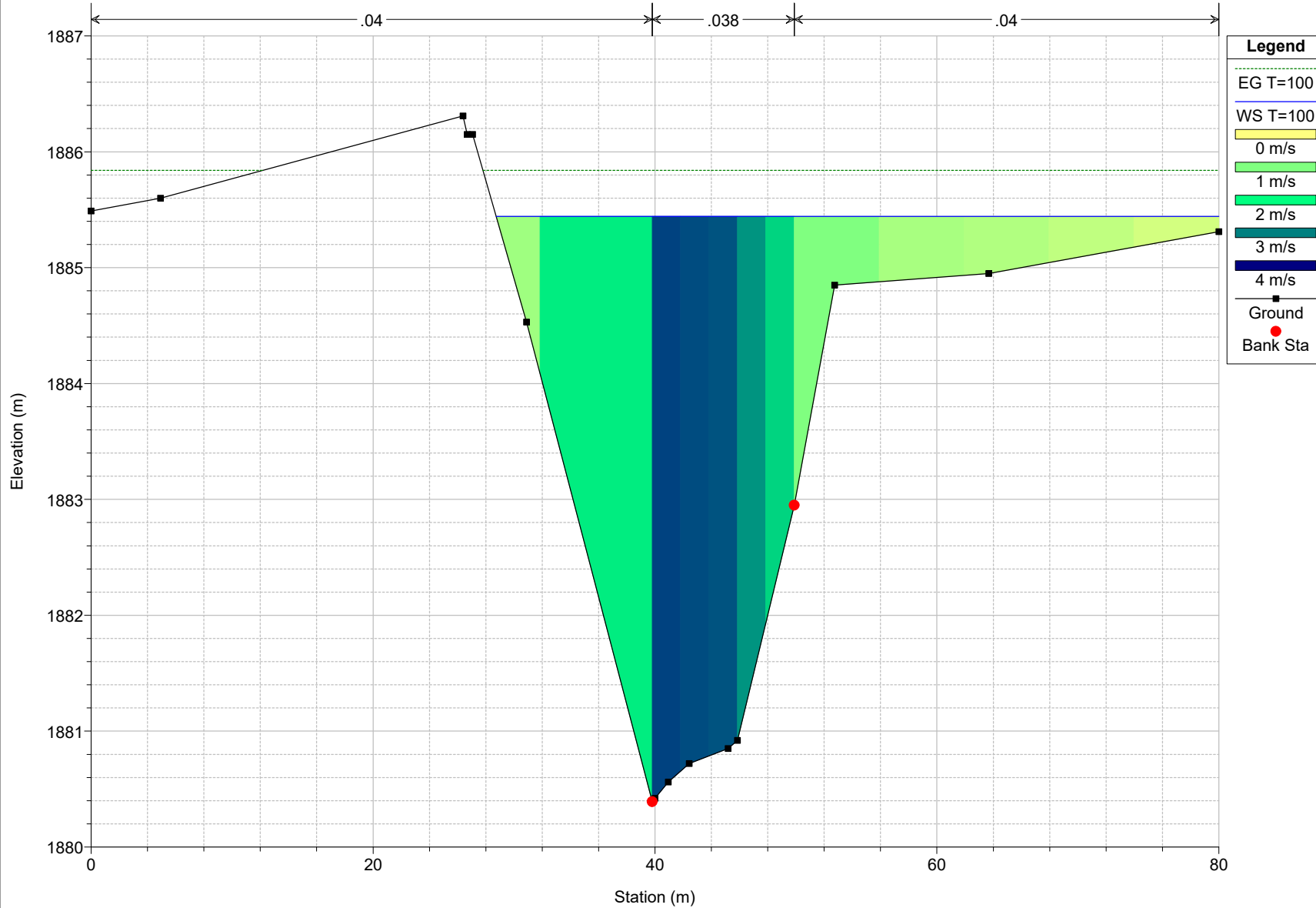
PROYECTO Plan: Plan 01 26/8/2023
RS = 1350



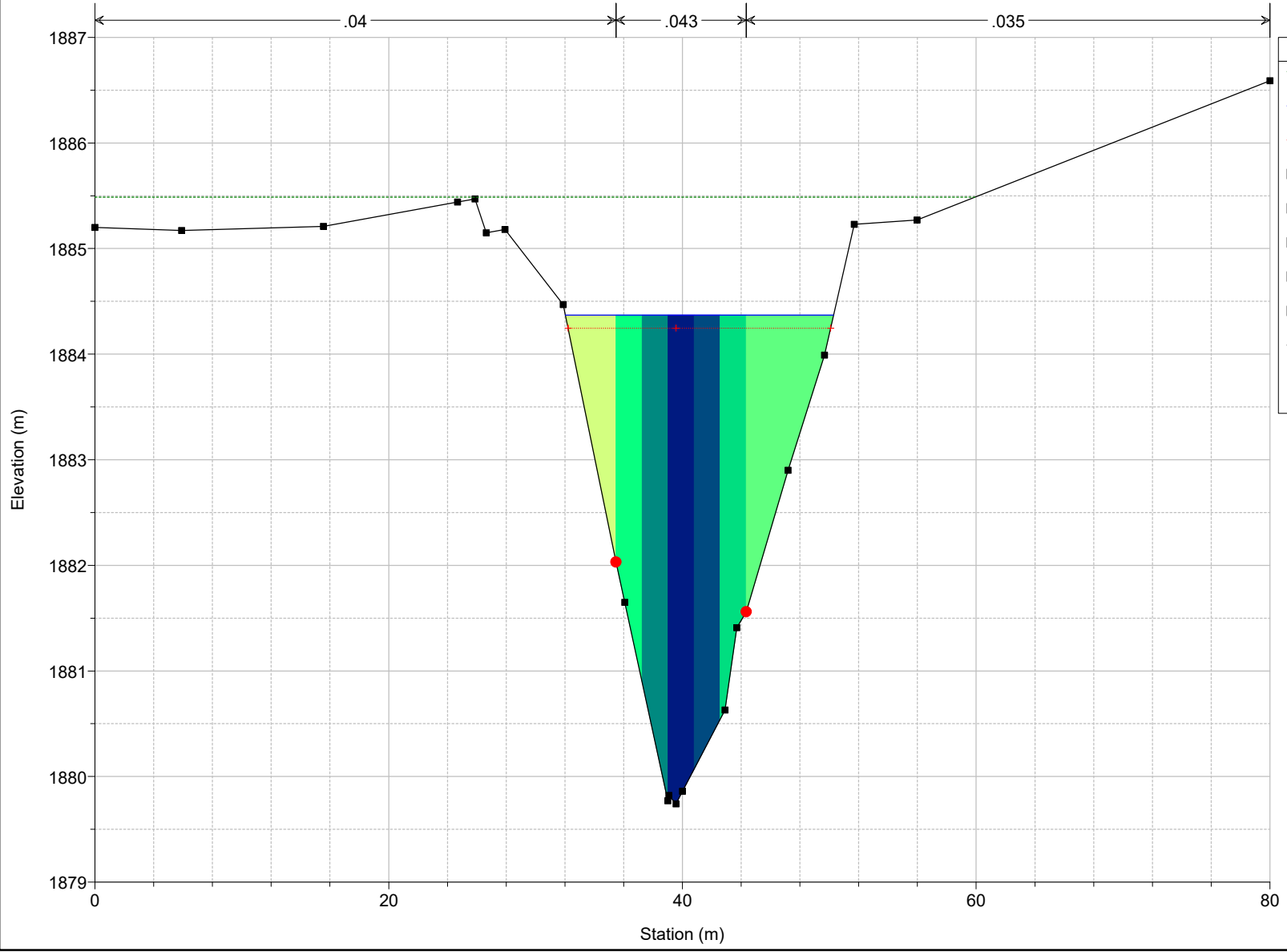
Legend

- EG T=100
- WS T=100
- 0 m/s
- 1 m/s
- 2 m/s
- 3 m/s
- 4 m/s
- Ground
- Bank Sta

PROYECTO Plan: Plan 01 26/8/2023
RS = 1300



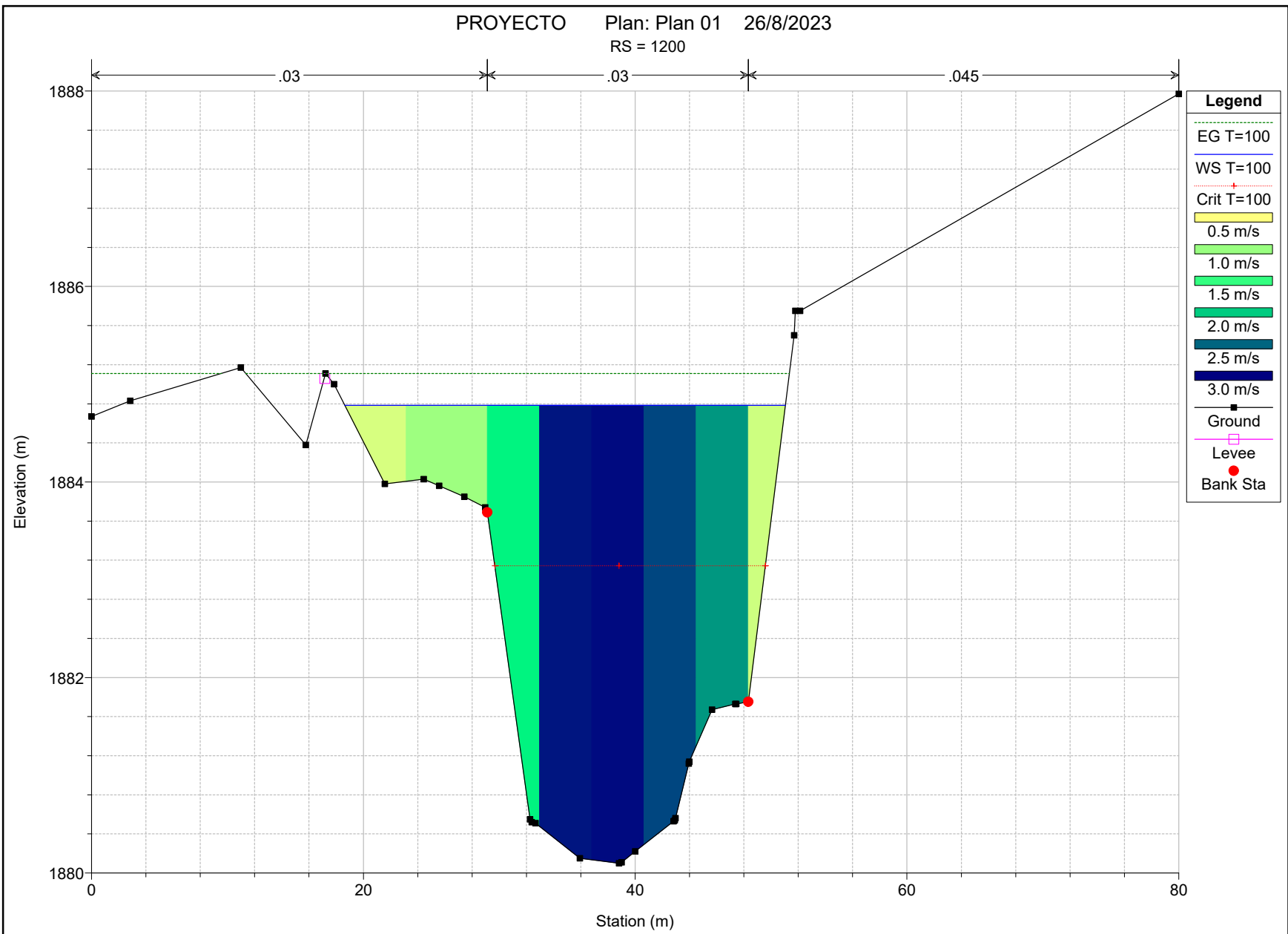
PROYECTO Plan: Plan 01 26/8/2023
RS = 1250



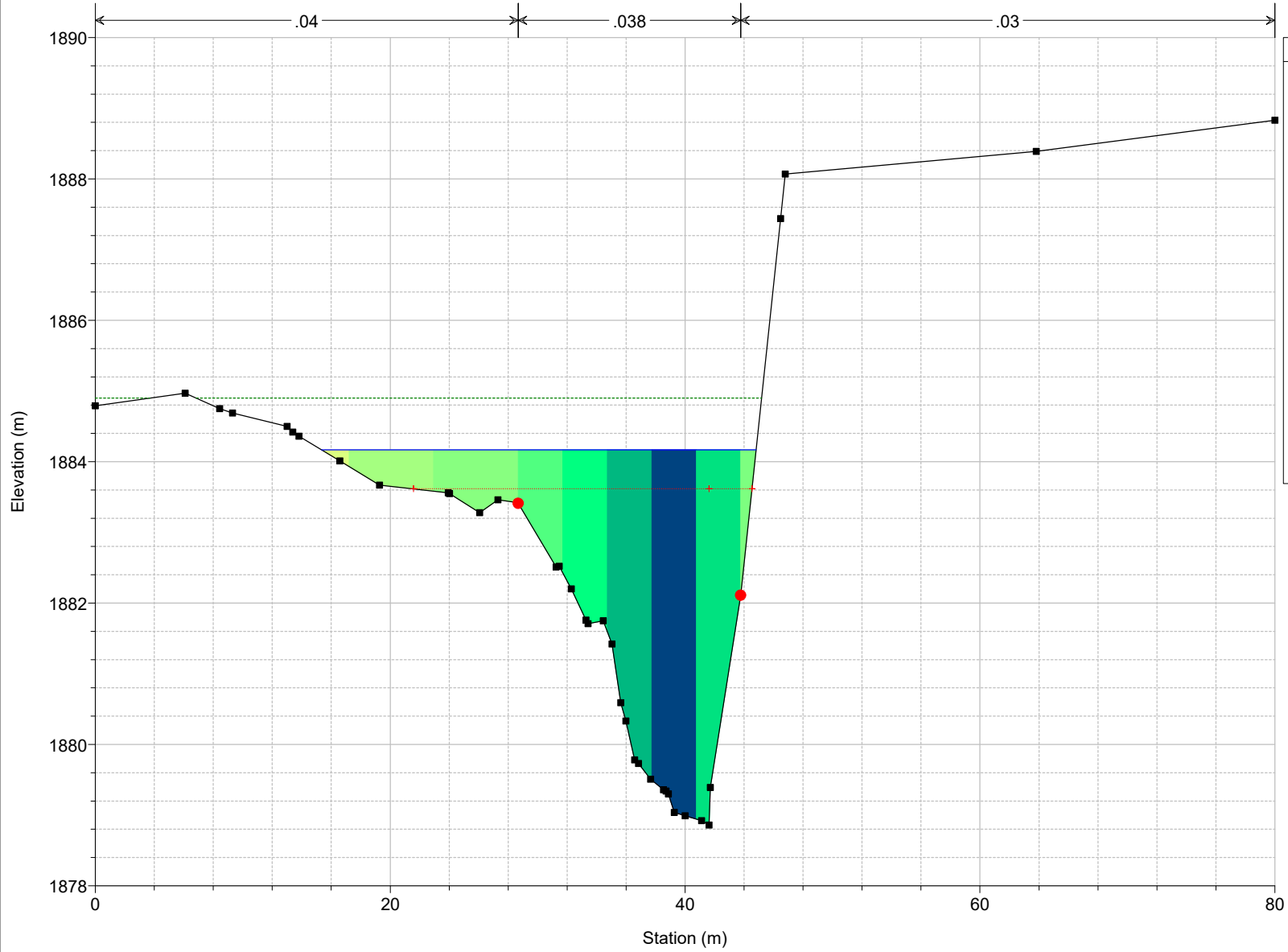
Legend

- EG T=100
- WS T=100
- Crit T=100
- 2 m/s
- 3 m/s
- 4 m/s
- 5 m/s
- 6 m/s
- Ground
- Bank Sta

PROYECTO Plan: Plan 01 26/8/2023
RS = 1200



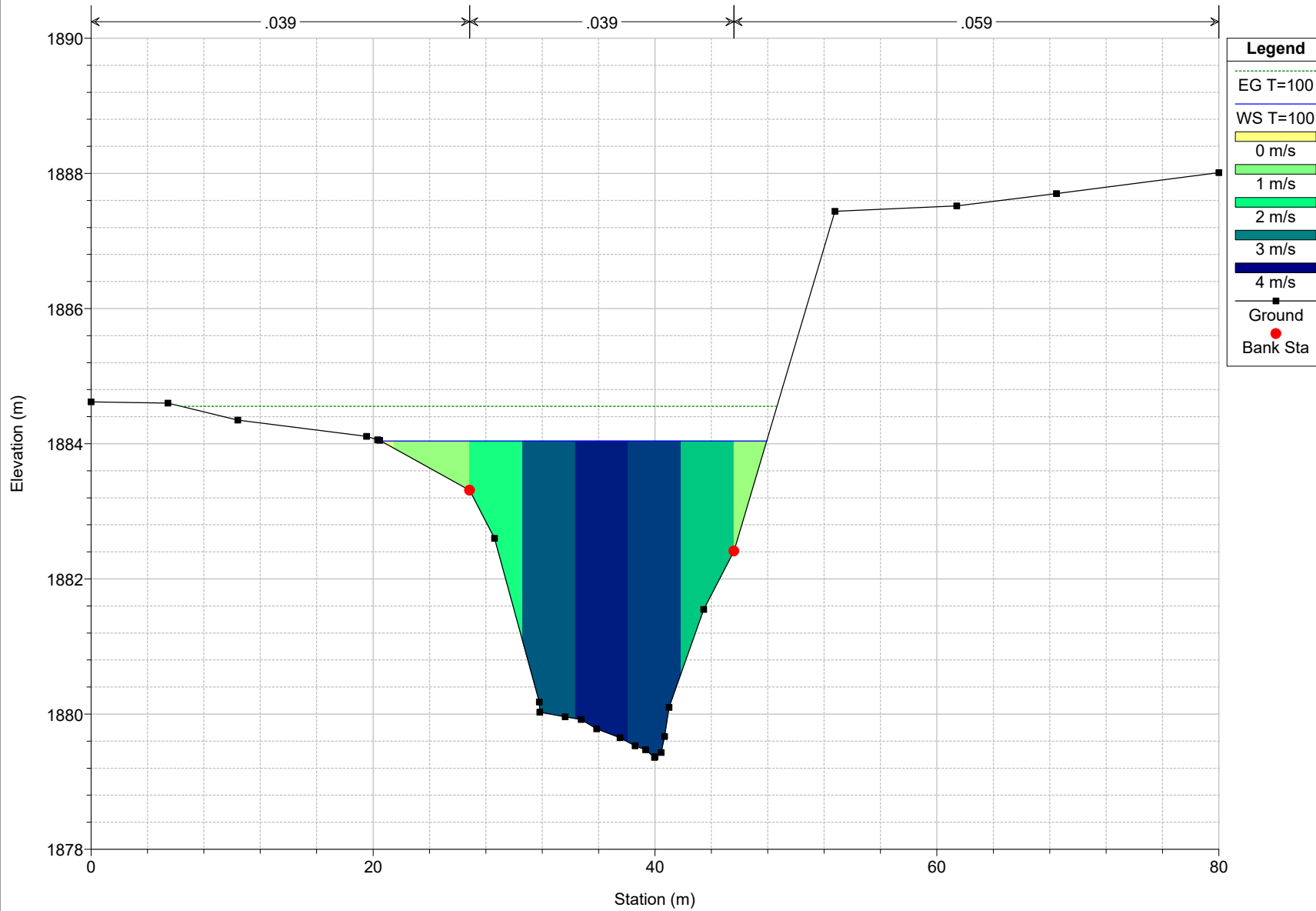
PROYECTO Plan: Plan 01 26/8/2023
RS = 1150



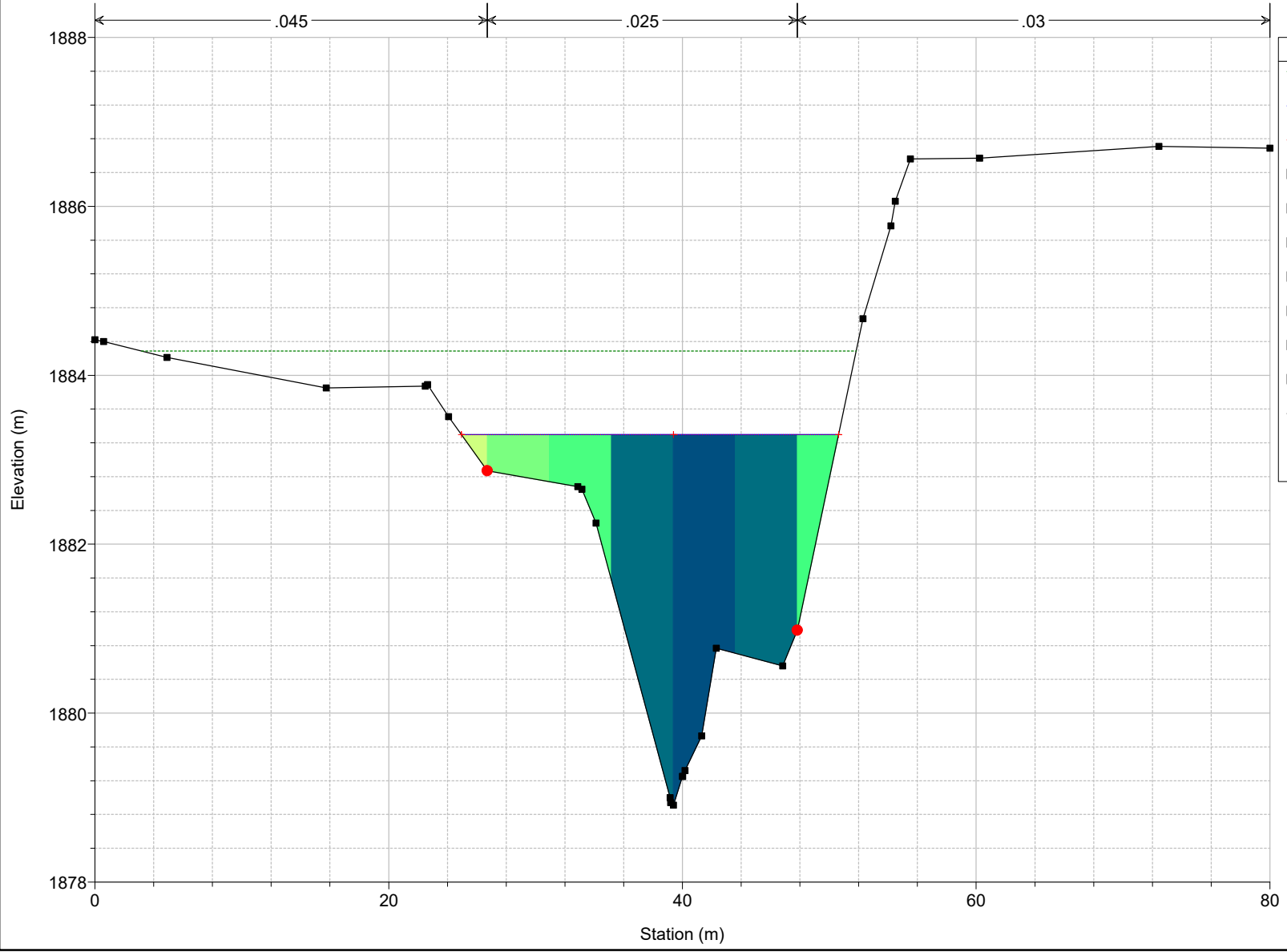
Legend

- EG T=100
- WS T=100
- Crit T=100
- 0 m/s
- 1 m/s
- 2 m/s
- 3 m/s
- 4 m/s
- 5 m/s
- 6 m/s
- Ground
- Bank Sta

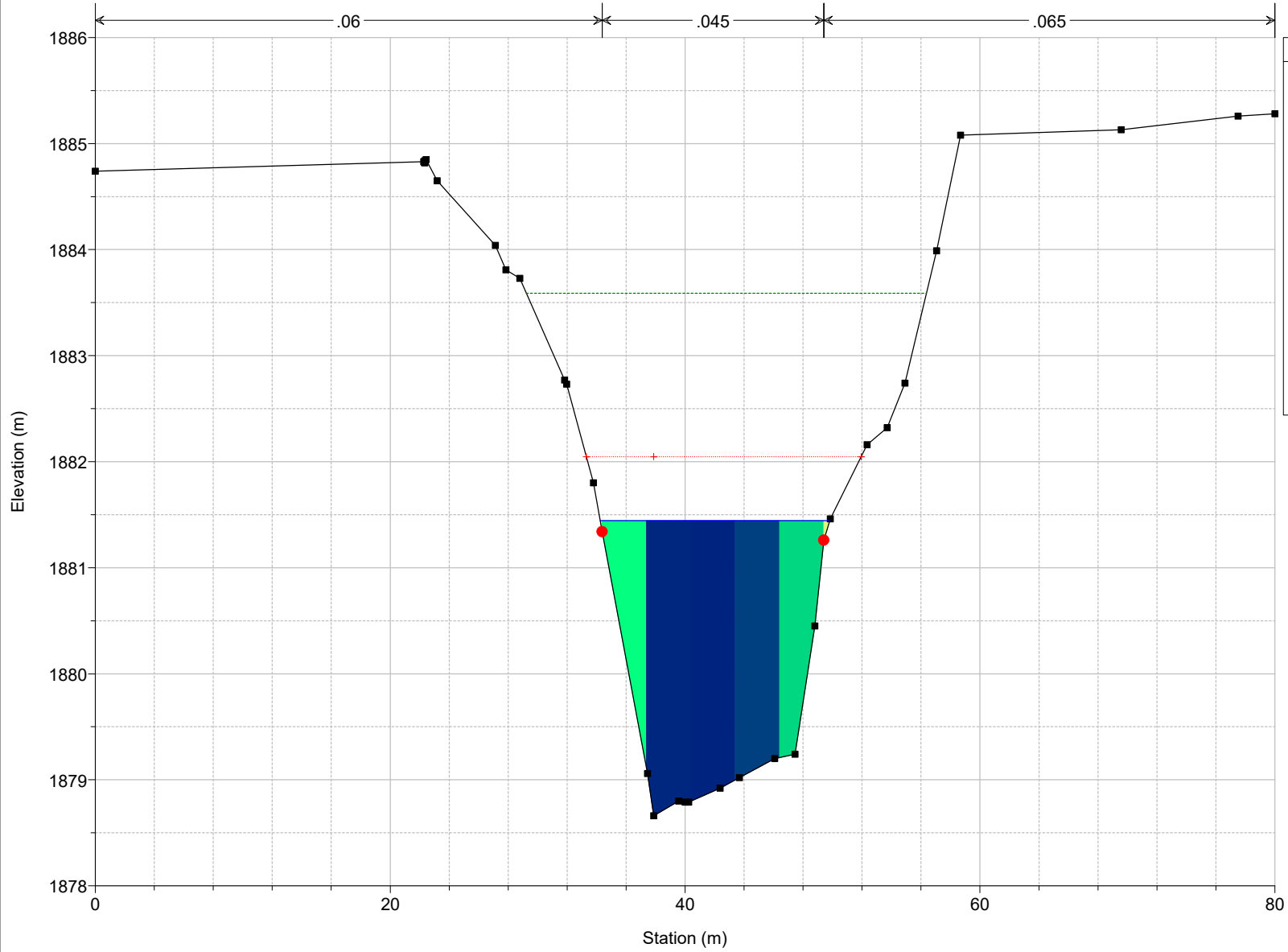
PROYECTO Plan: Plan 01 26/8/2023
RS = 1100



PROYECTO Plan: Plan 01 26/8/2023
RS = 1050



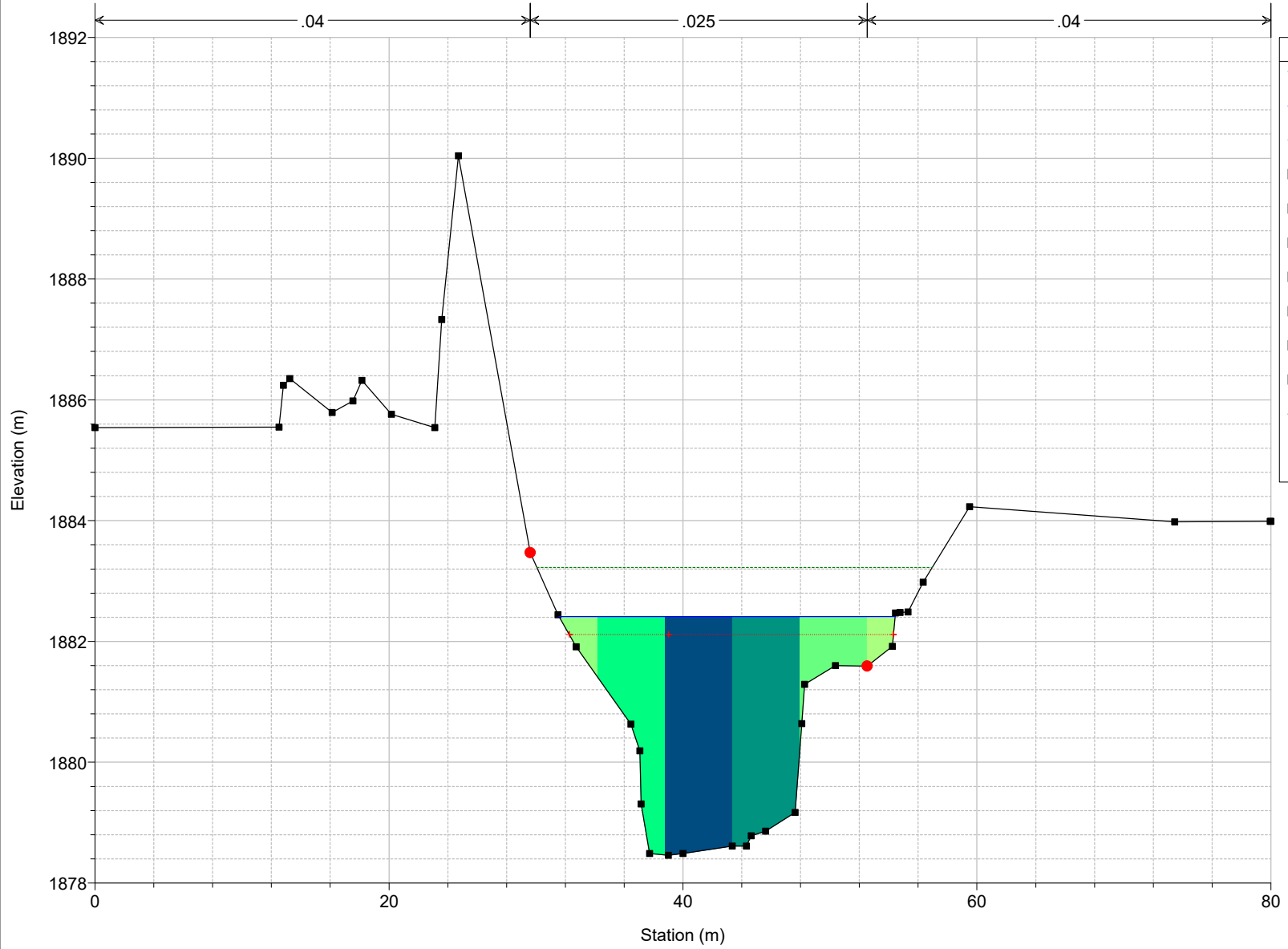
PROYECTO Plan: Plan 01 26/8/2023
RS = 1000



Legend

- EG T=100
- Crit T=100
- WS T=100
- 0 m/s
- 2 m/s
- 4 m/s
- 6 m/s
- 8 m/s
- Ground
- Bank Sta

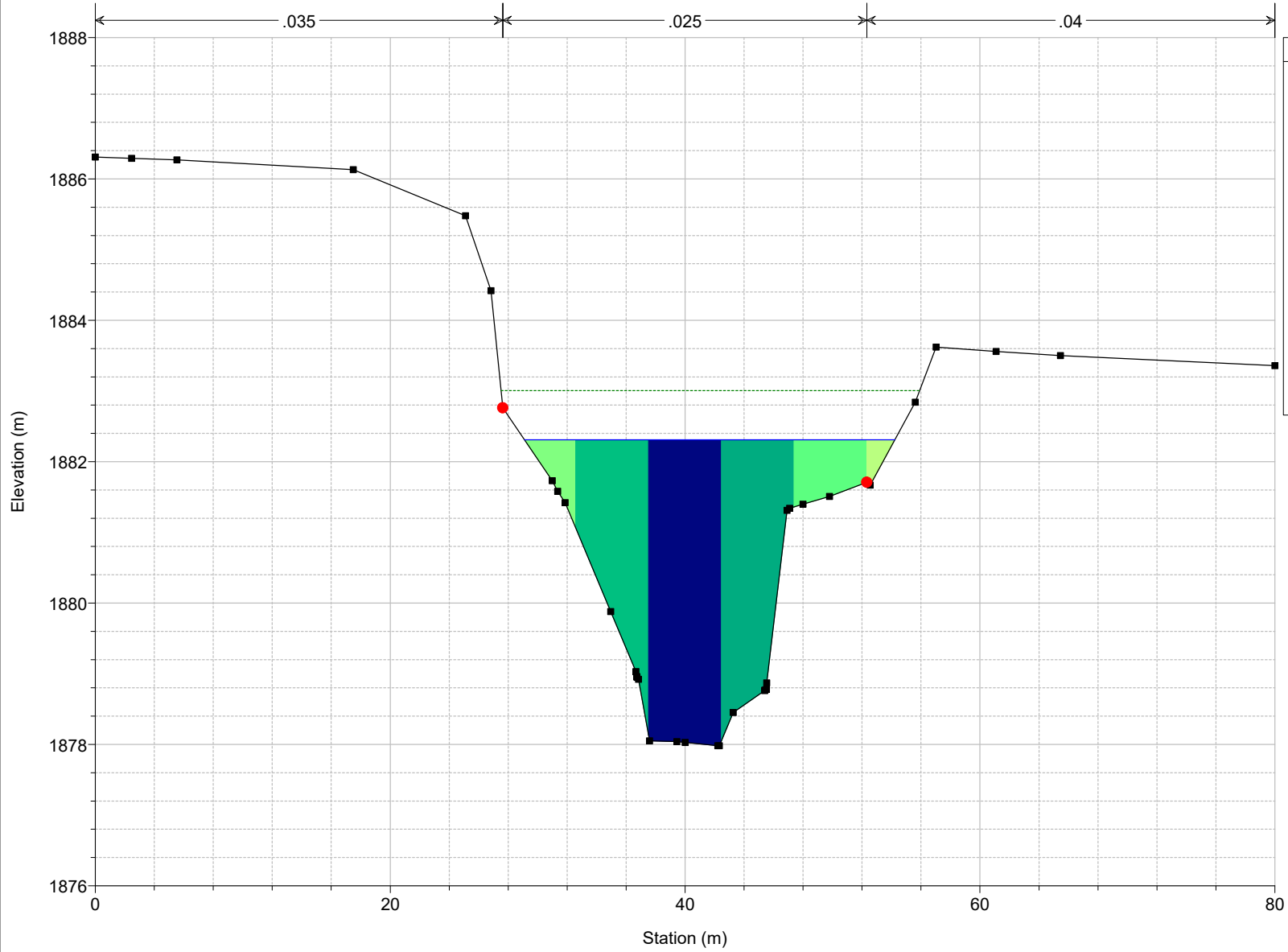
PROYECTO Plan: Plan 01 26/8/2023
RS = 950



Legend

- EG T=100
- WS T=100
- Crit T=100
- 0 m/s
- 1 m/s
- 2 m/s
- 3 m/s
- 4 m/s
- 5 m/s
- 6 m/s
- Ground
- Bank Sta

PROYECTO Plan: Plan 01 26/8/2023
RS = 900

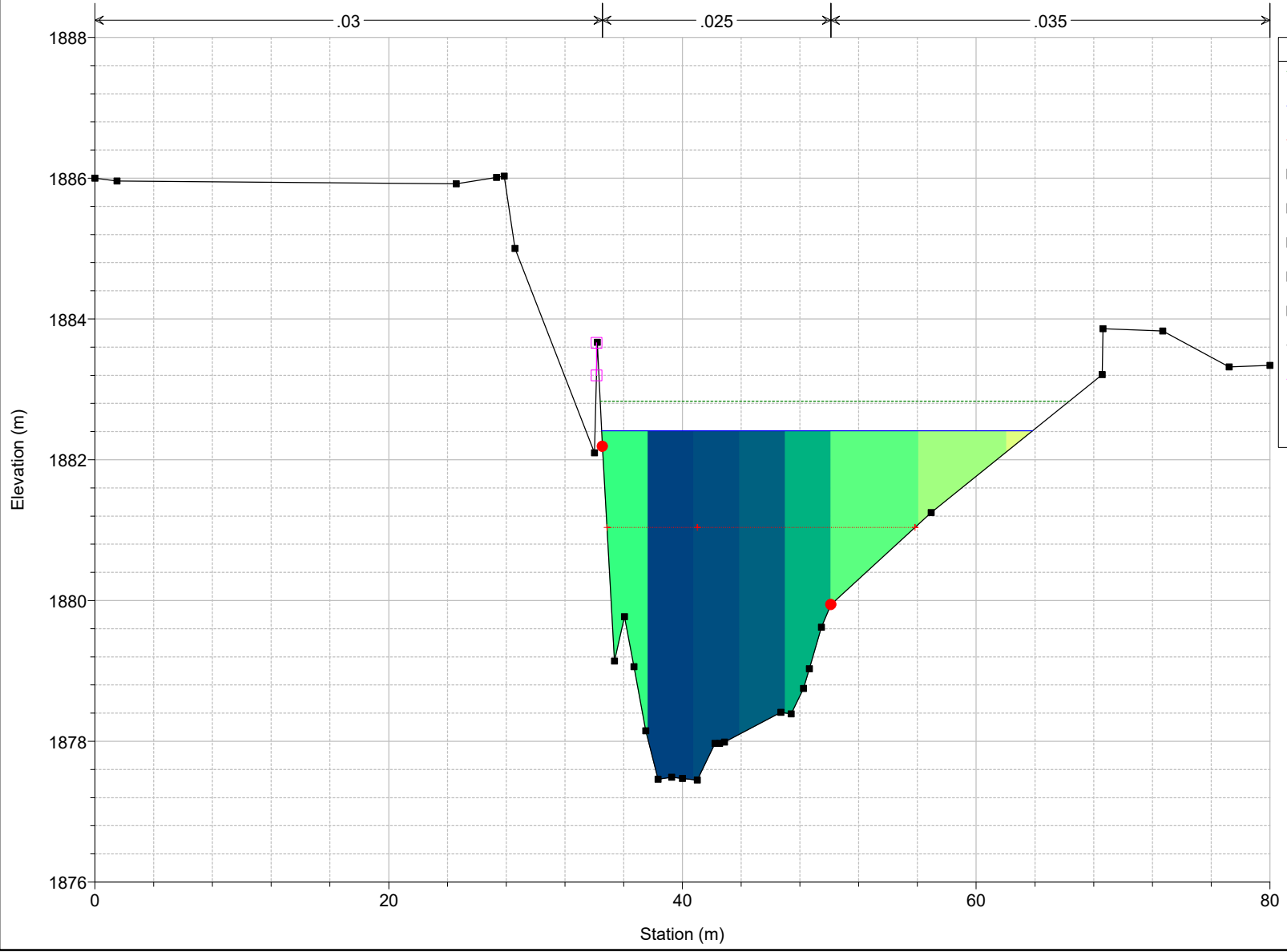


Legend

- EG T=100
- WS T=100
- 0 m/s
- 1 m/s
- 2 m/s
- 3 m/s
- 4 m/s
- 5 m/s
- Ground
- Bank Sta

PROYECTO Plan: Plan 01 26/8/2023

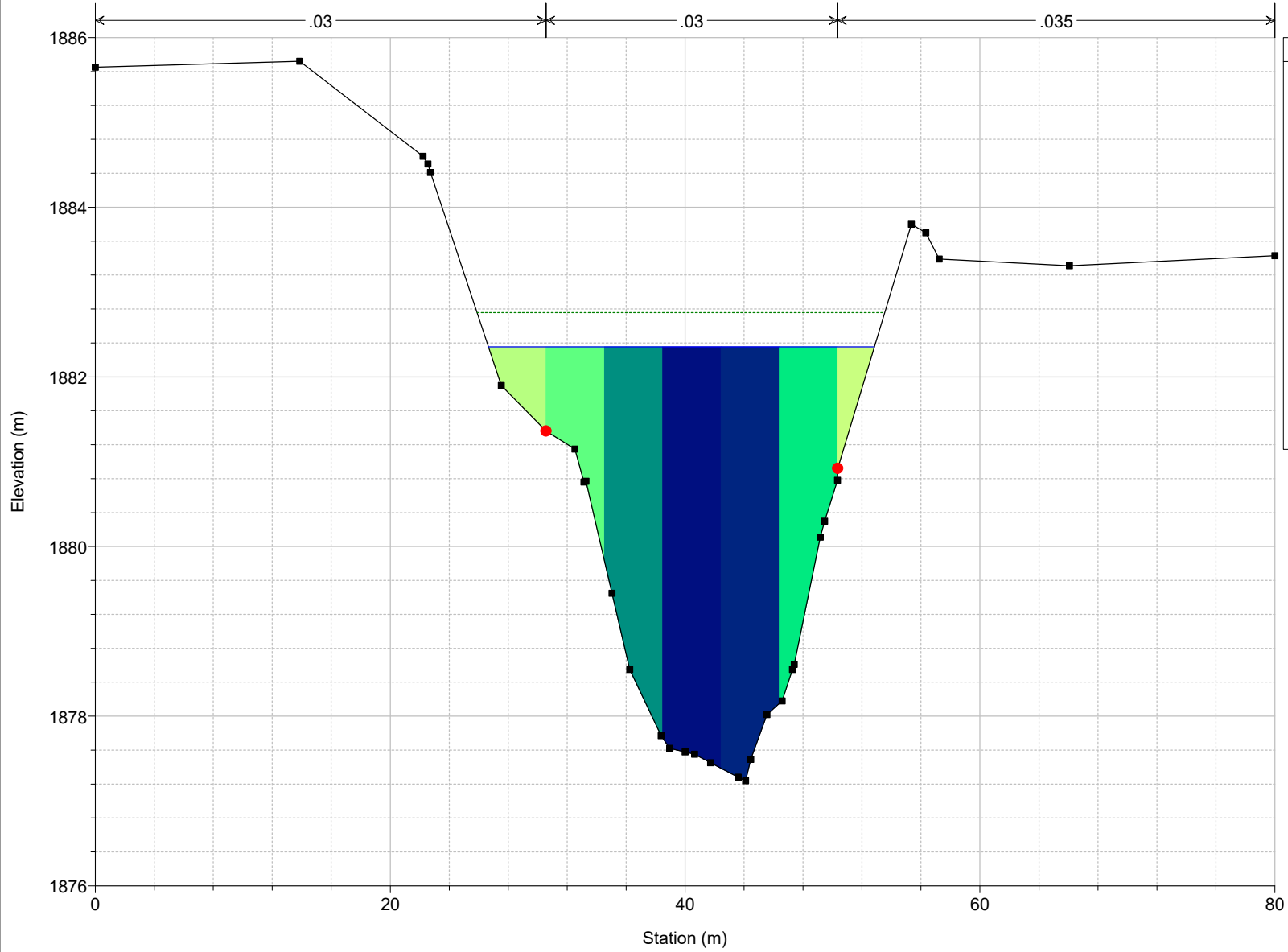
RS = 850



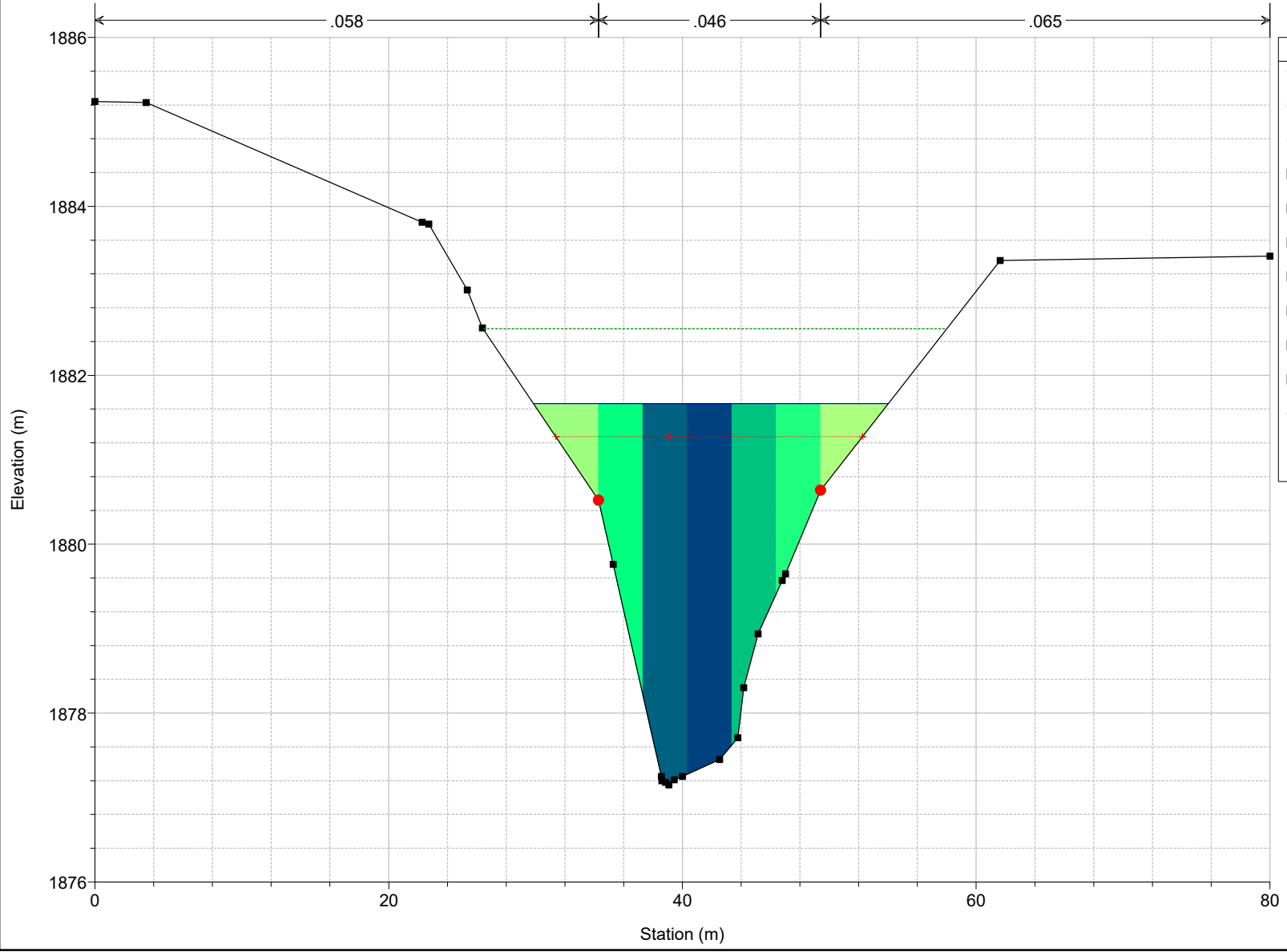
Legend

- EG T=100
- WS T=100
- Crit T=100
- 0 m/s
- 1 m/s
- 2 m/s
- 3 m/s
- 4 m/s
- Ground
- Levee
- Bank Sta

PROYECTO Plan: Plan 01 26/8/2023
RS = 800



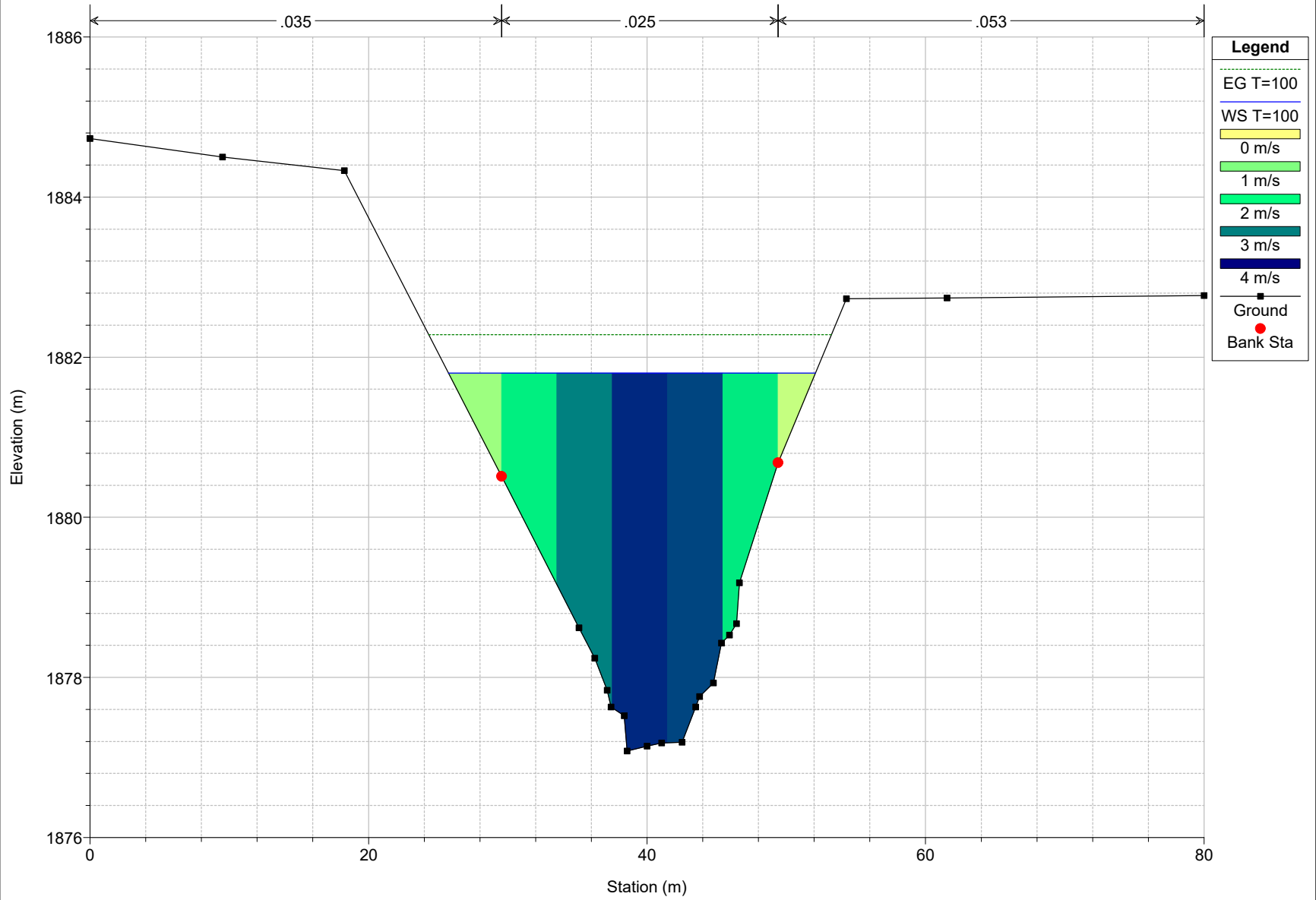
PROYECTO Plan: Plan 01 26/8/2023
RS = 750



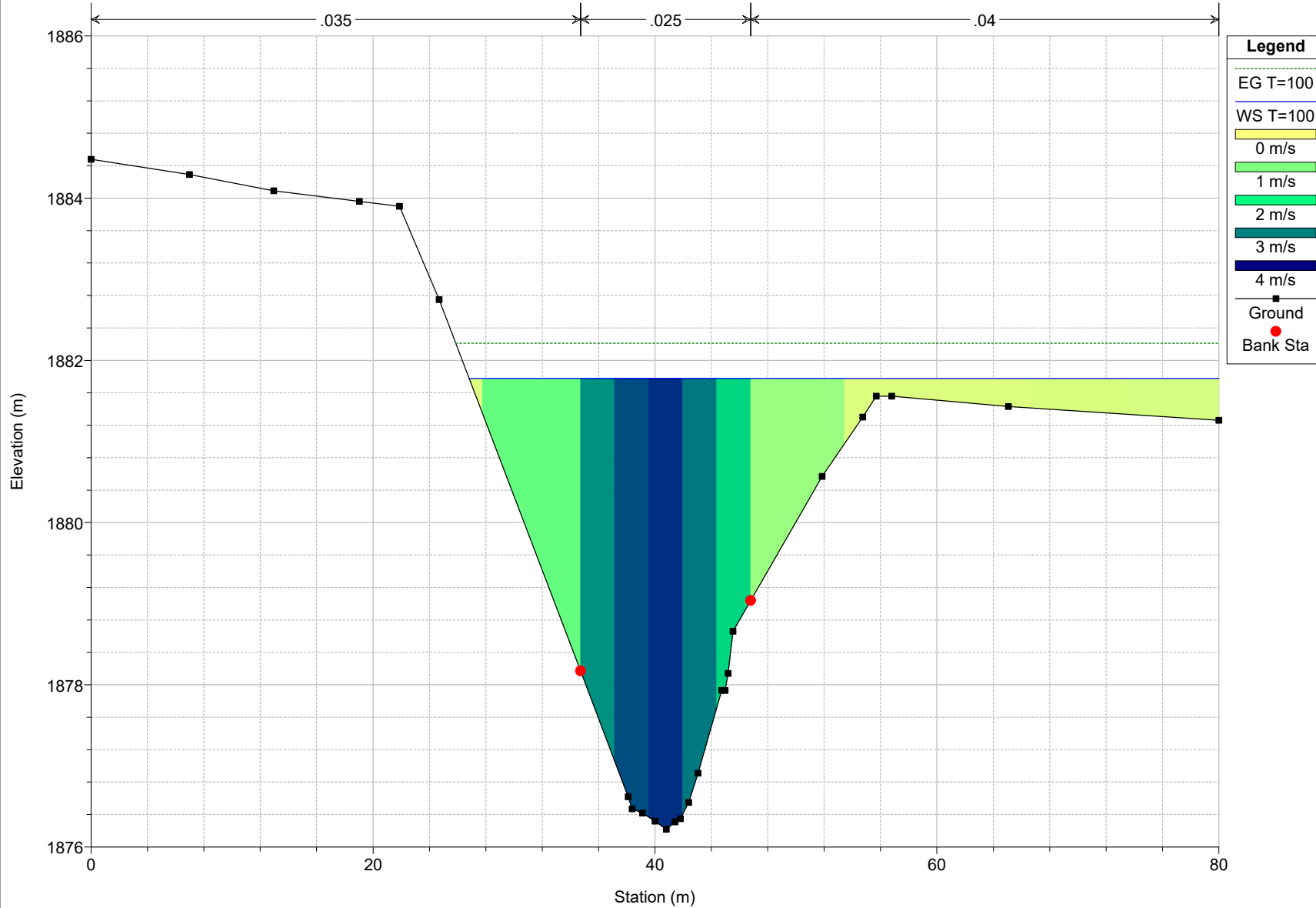
Legend	
EG T=100	(Green dashed line)
WS T=100	(Blue solid line)
Crit T=100	(Red dashed line with crosshair)
0 m/s	(Yellow)
1 m/s	(Light Green)
2 m/s	(Green)
3 m/s	(Medium Green)
4 m/s	(Teal)
5 m/s	(Dark Teal)
6 m/s	(Dark Blue)
Ground	(Black square)
Bank Sta	(Red circle)

PROYECTO Plan: Plan 01 26/8/2023

RS = 700



PROYECTO Plan: Plan 01 26/8/2023
RS = 650



Legend

- EG T=100
- WS T=100
- 0 m/s
- 1 m/s
- 2 m/s
- 3 m/s
- 4 m/s
- Ground
- Bank Sta

PROYECTO Plan: Plan 01 26/8/2023

RS = 600

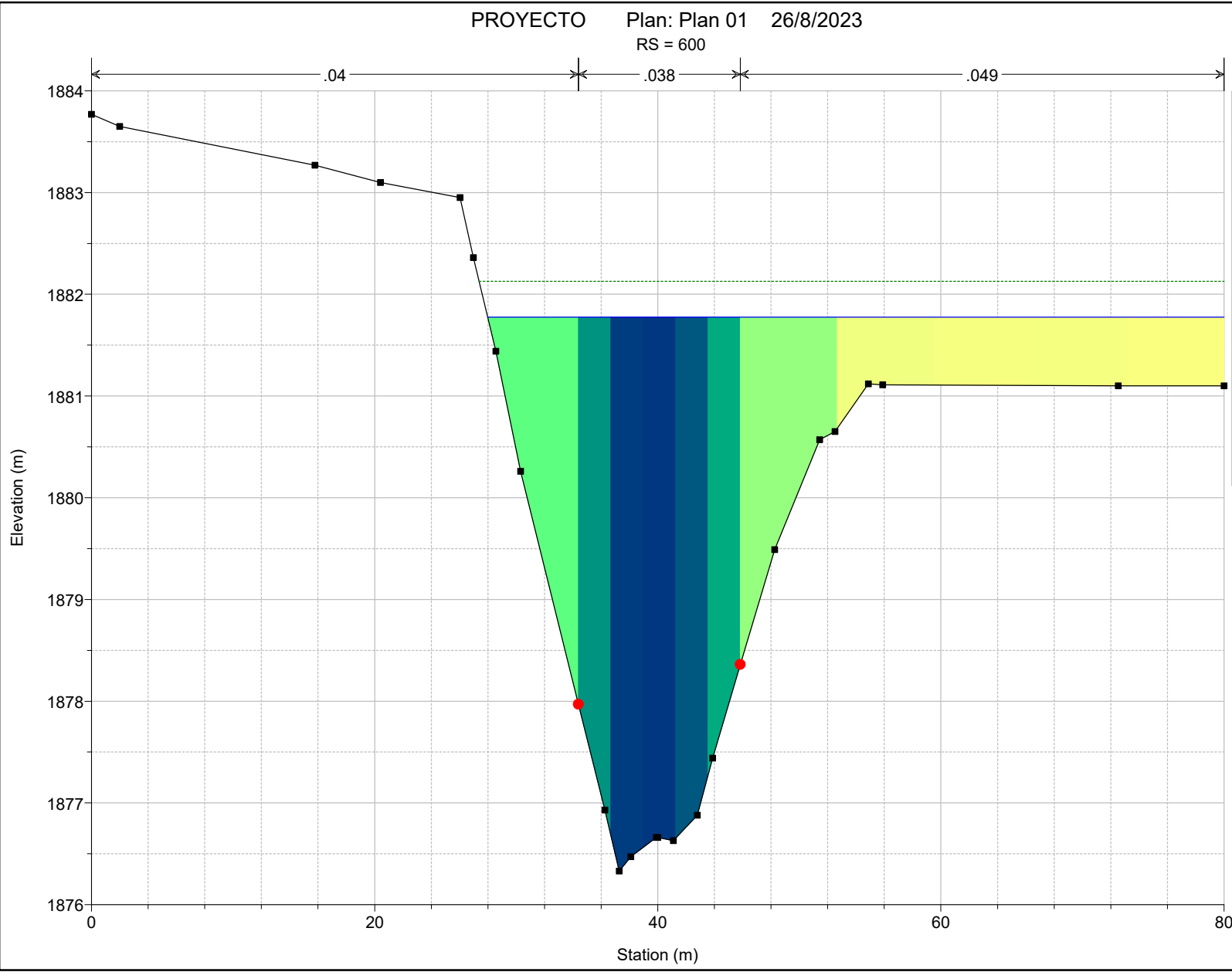
.04

.038

.049

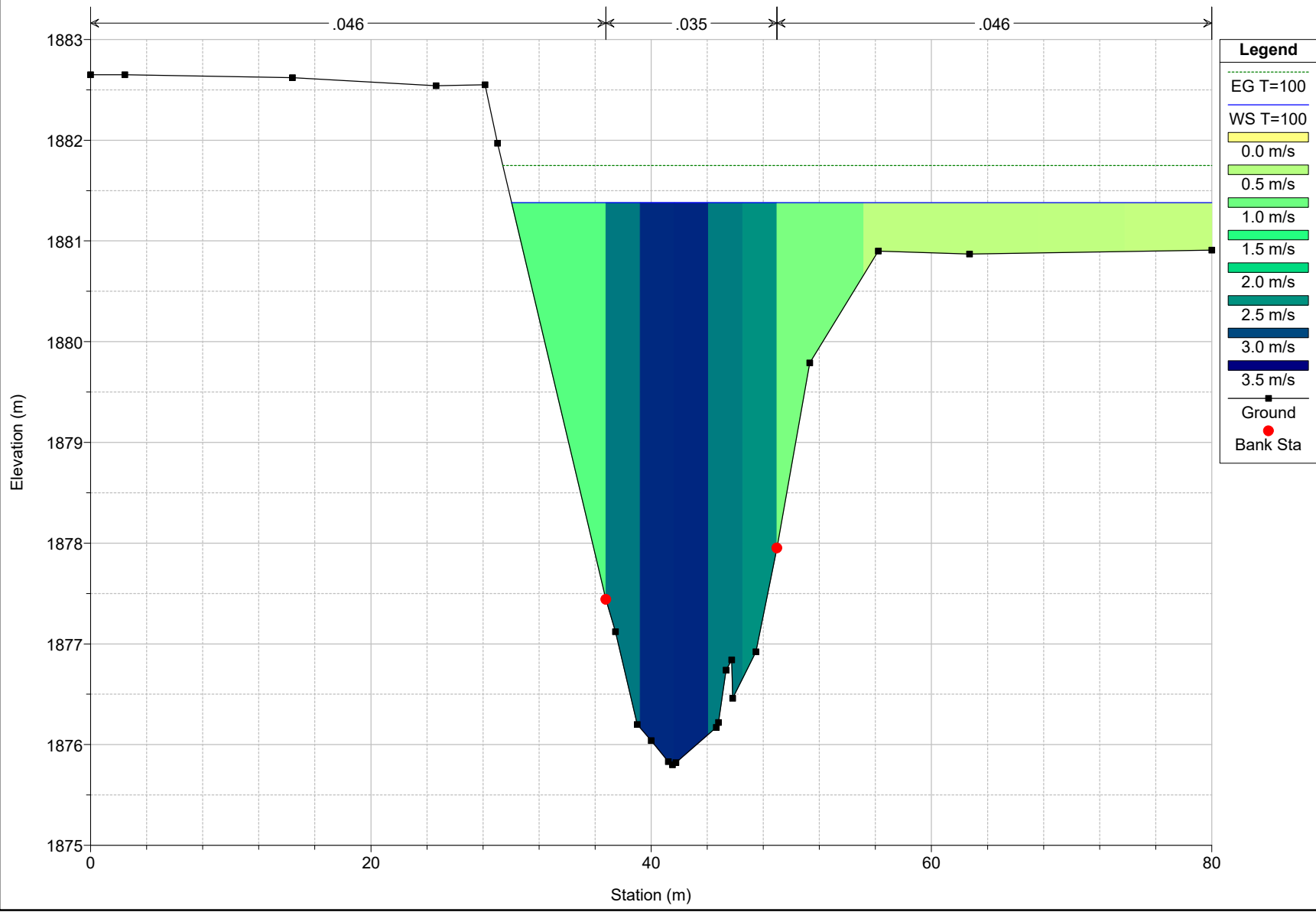
Legend

- EG T=100
- WS T=100
- 0.5 m/s
- 1.0 m/s
- 1.5 m/s
- 2.0 m/s
- 2.5 m/s
- 3.0 m/s
- 3.5 m/s
- Ground
- Bank Sta

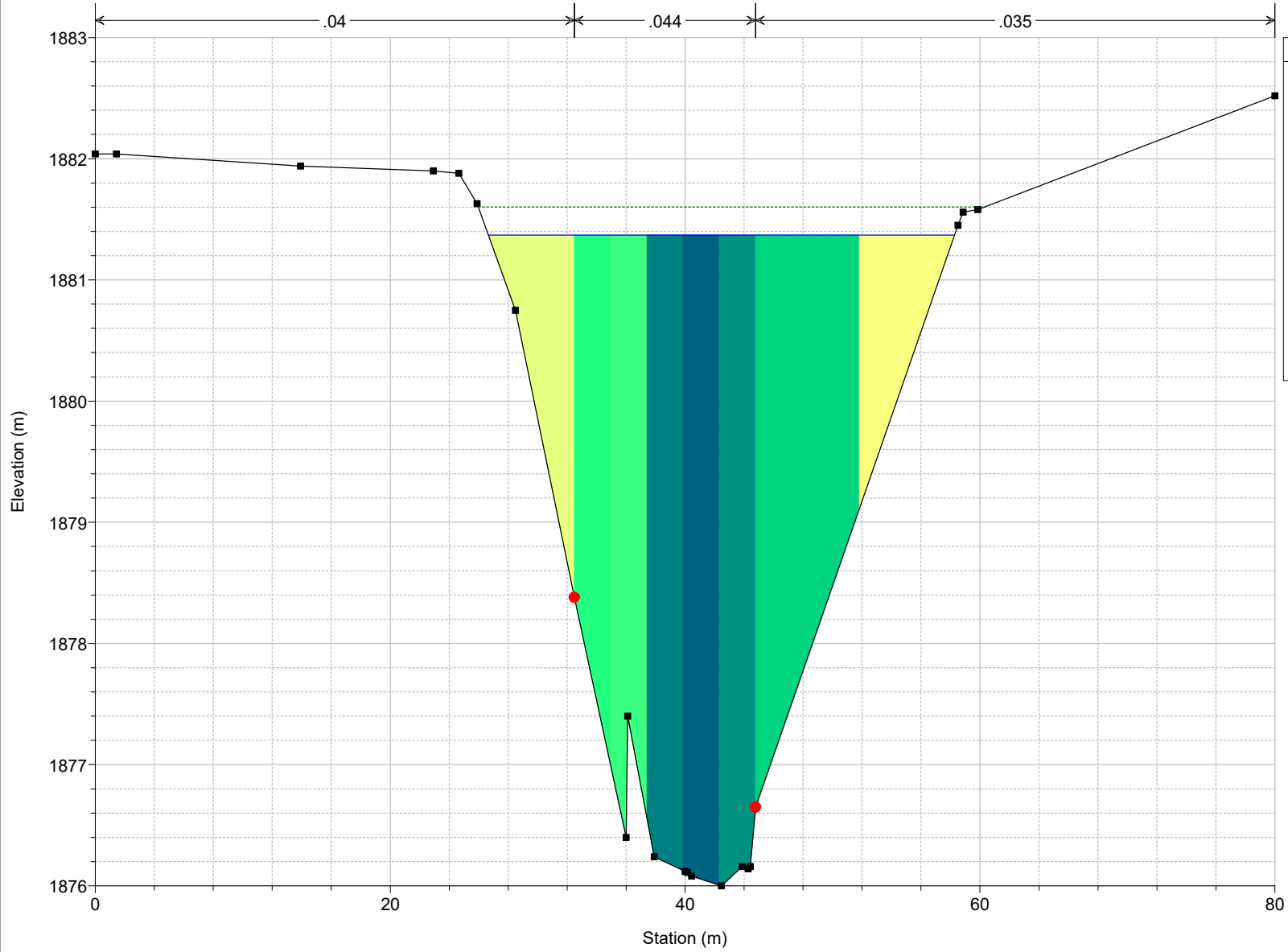


PROYECTO Plan: Plan 01 26/8/2023

RS = 550

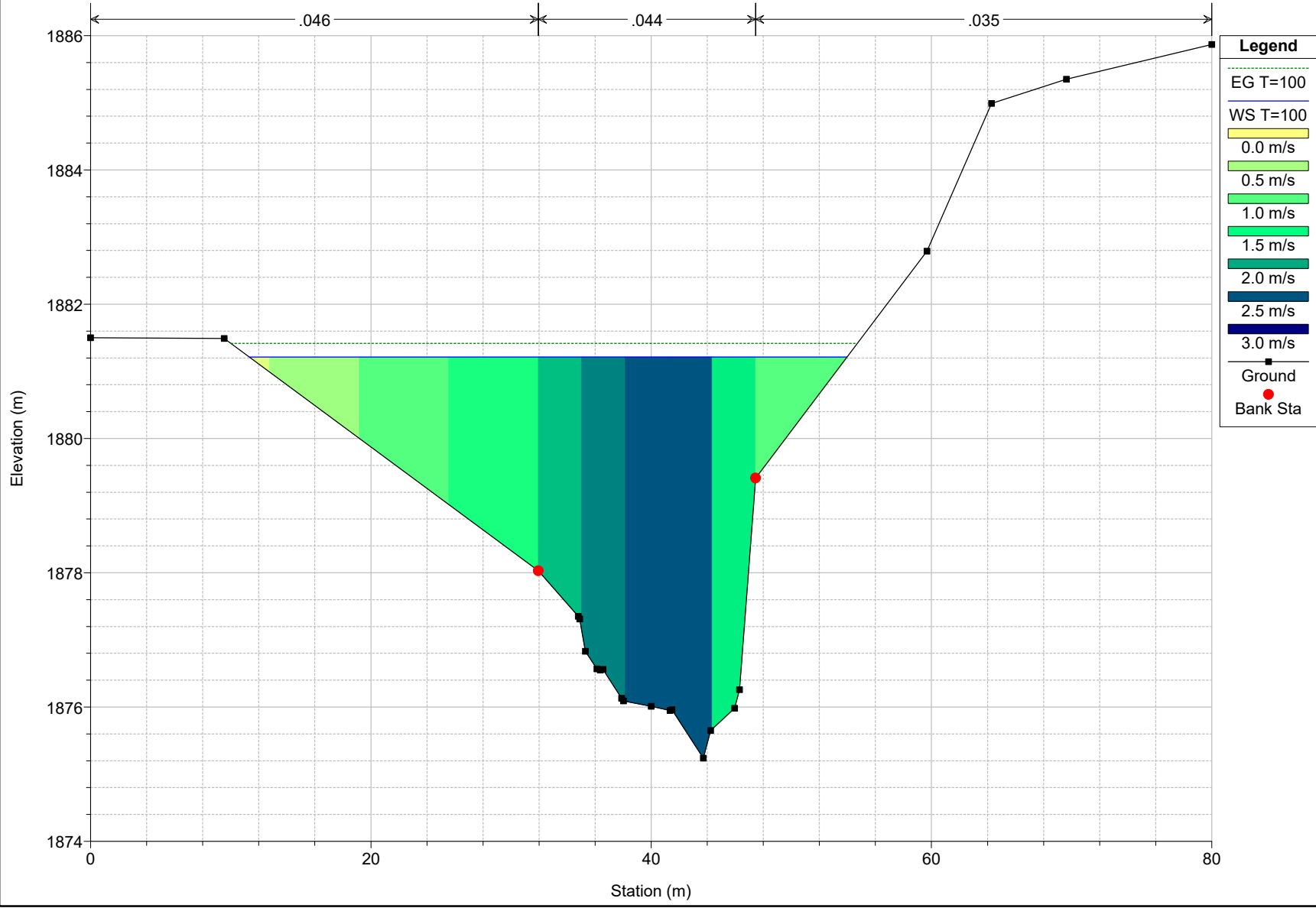


PROYECTO Plan: Plan 01 26/8/2023
RS = 500



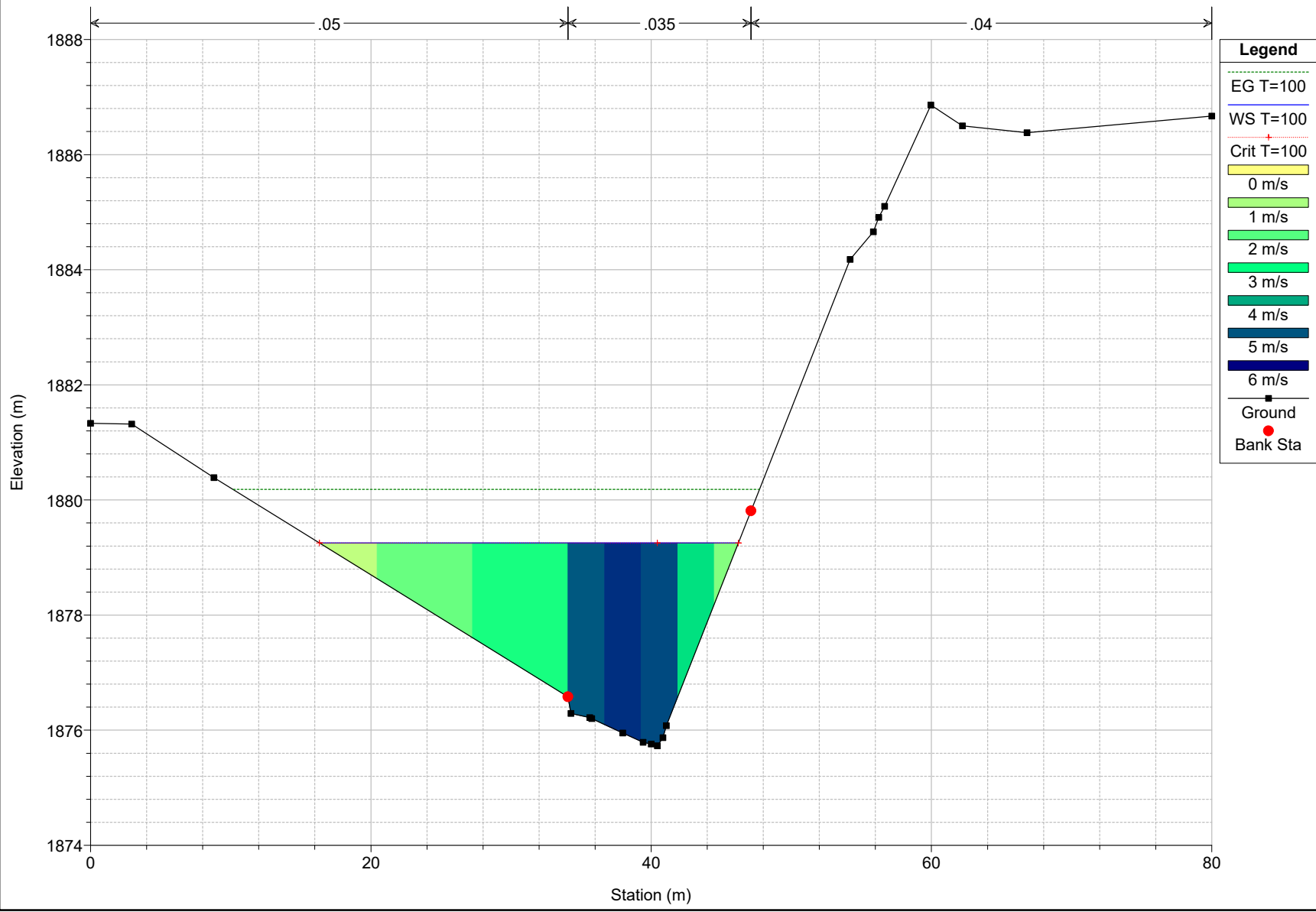
PROYECTO Plan: Plan 01 26/8/2023

RS = 450

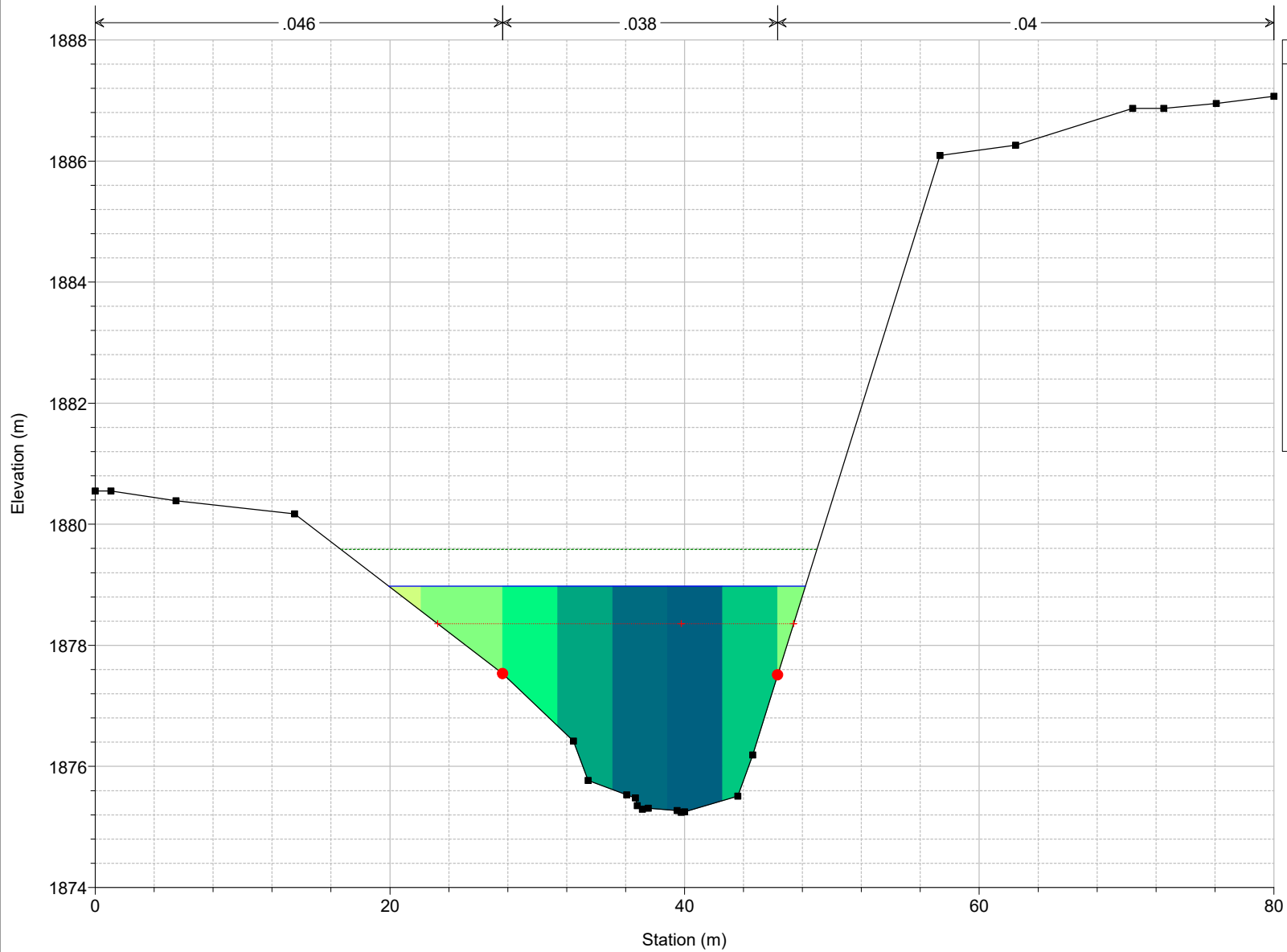


PROYECTO Plan: Plan 01 26/8/2023

RS = 400



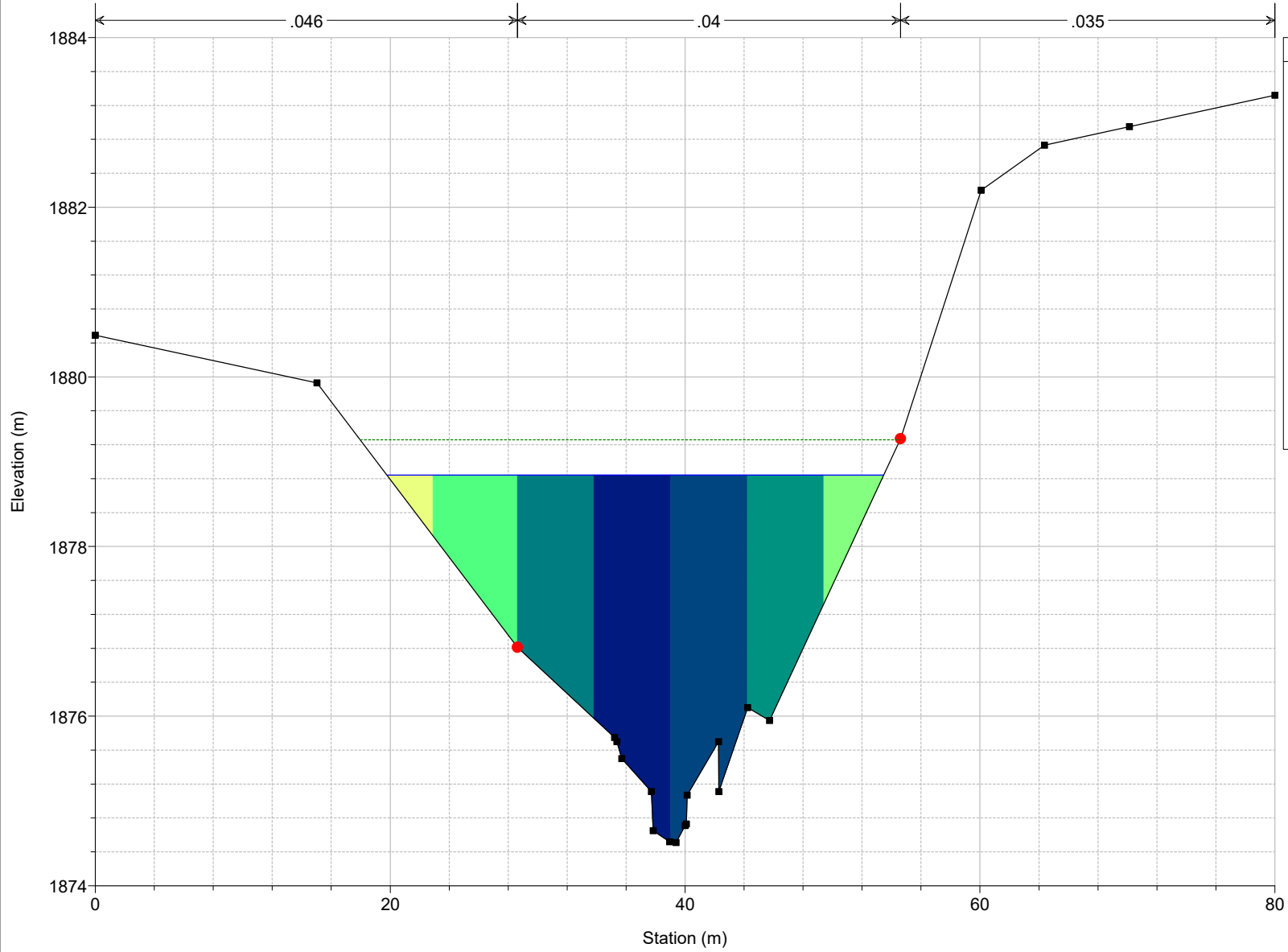
PROYECTO Plan: Plan 01 26/8/2023
RS = 350



Legend

- EG T=100 (dashed green line)
- WS T=100 (solid blue line)
- Crit T=100 (red line with crosshair)
- 0 m/s (yellow bar)
- 1 m/s (light green bar)
- 2 m/s (medium green bar)
- 3 m/s (teal bar)
- 4 m/s (dark teal bar)
- 5 m/s (dark blue bar)
- Ground (black line with square markers)
- Bank Sta (red dot)

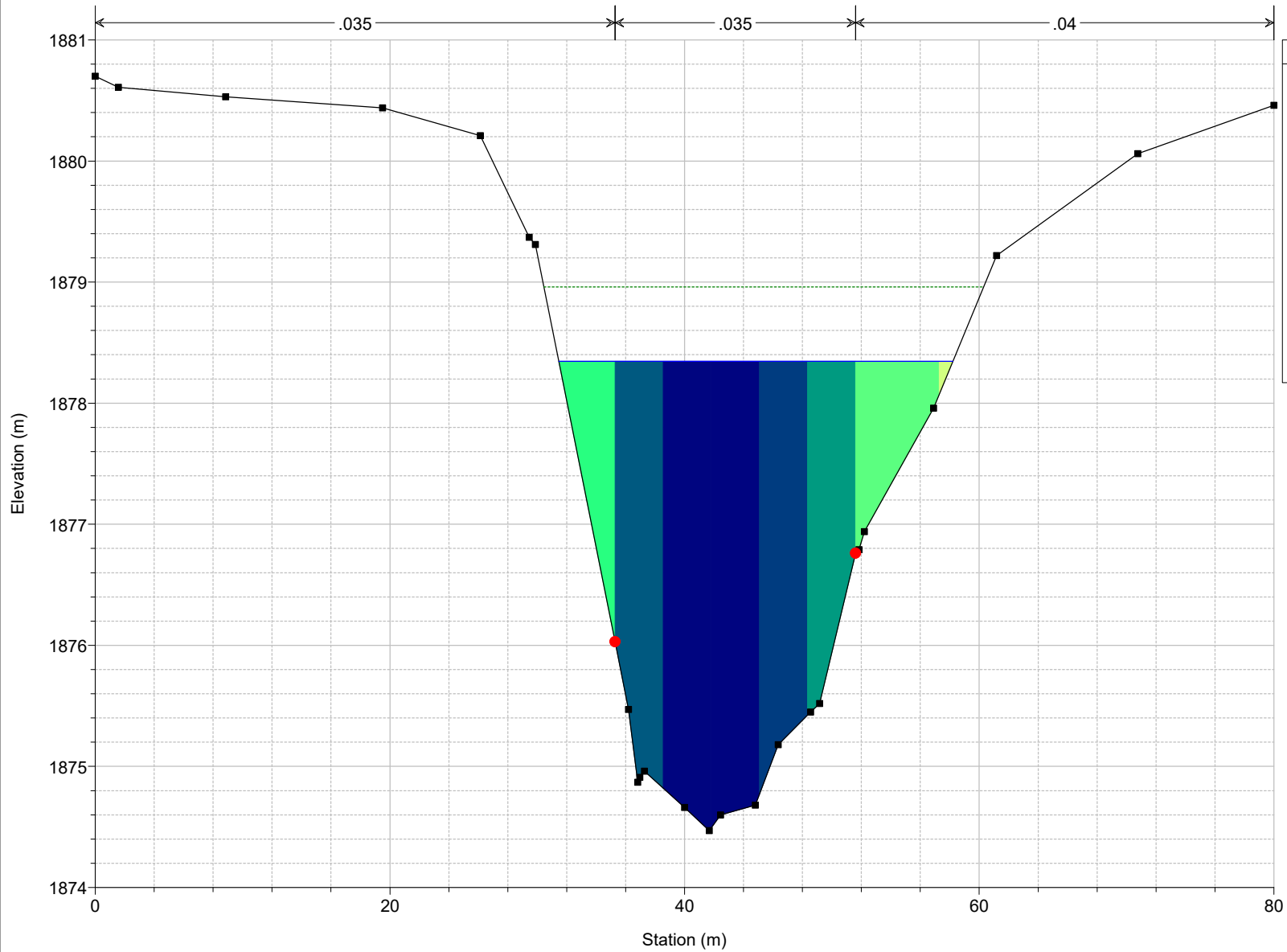
PROYECTO Plan: Plan 01 26/8/2023
RS = 300



Legend

- EG T=100
- WS T=100
- 0.5 m/s
- 1.0 m/s
- 1.5 m/s
- 2.0 m/s
- 2.5 m/s
- 3.0 m/s
- 3.5 m/s
- Ground
- Bank Sta

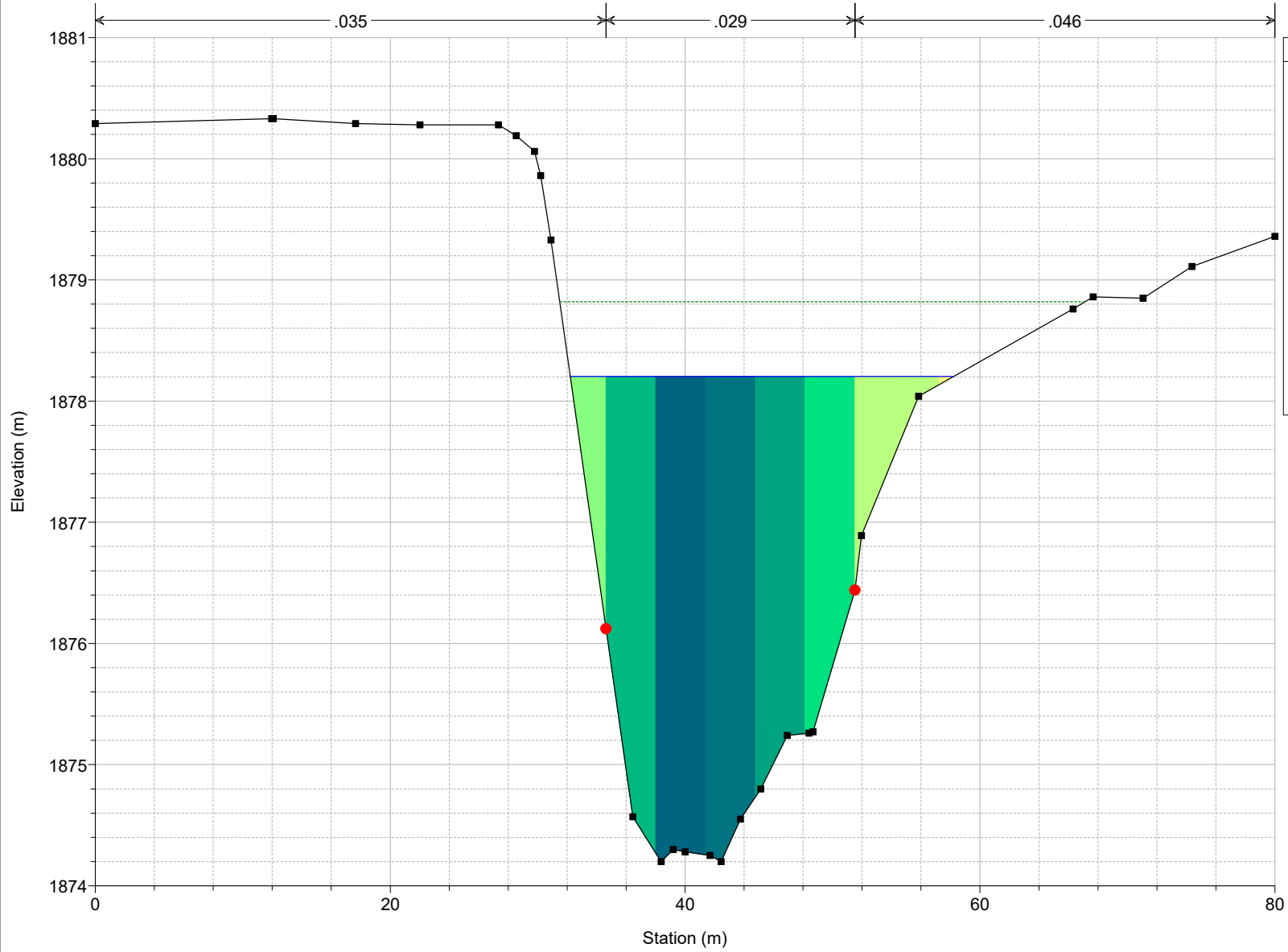
PROYECTO Plan: Plan 01 26/8/2023
RS = 250



Legend

- EG T=100
- WS T=100
- 0 m/s
- 1 m/s
- 2 m/s
- 3 m/s
- 4 m/s
- Ground
- Bank Sta

PROYECTO Plan: Plan 01 26/8/2023
RS = 200

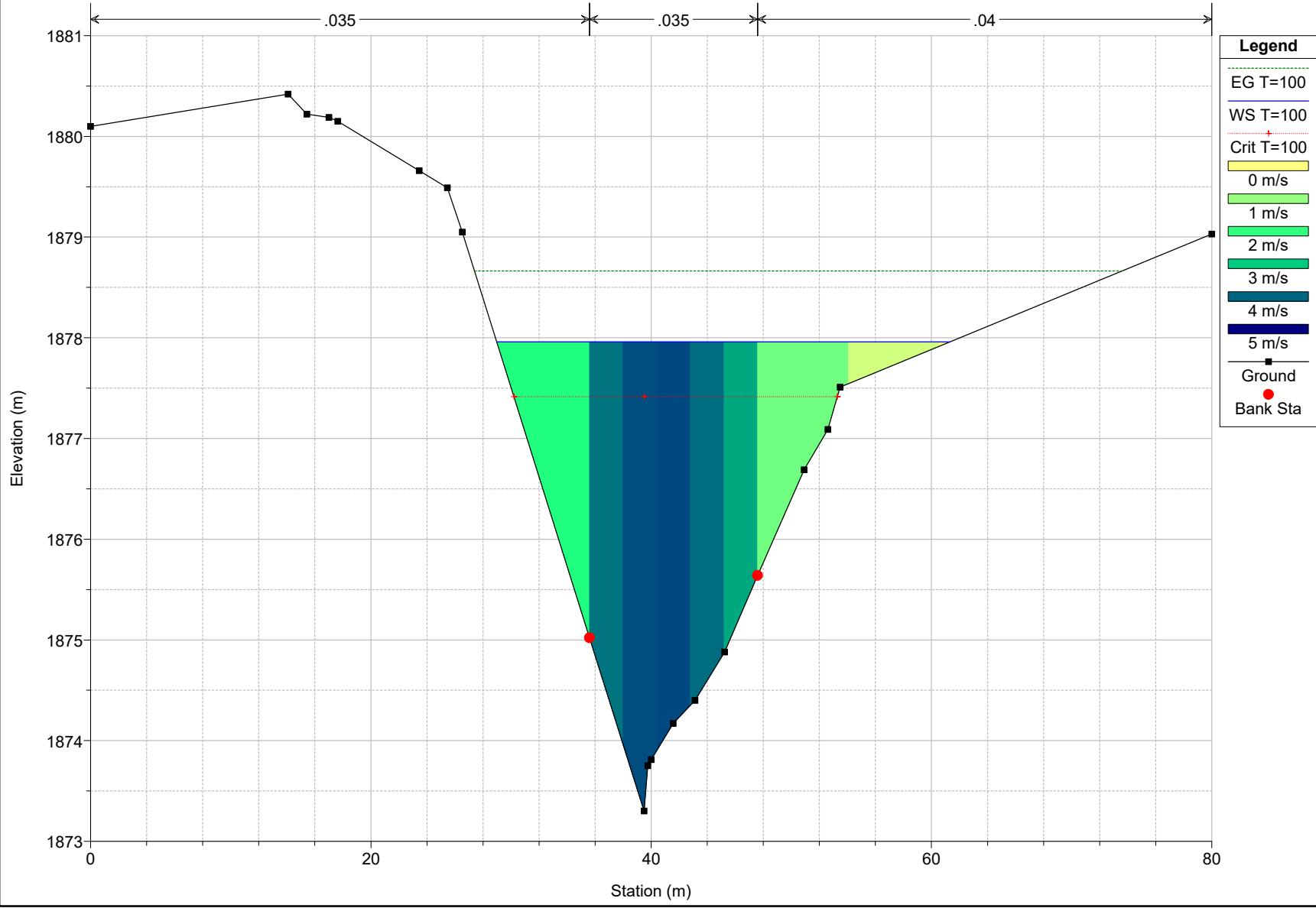


Legend

- EG T=100
- WS T=100
- 0 m/s
- 1 m/s
- 2 m/s
- 3 m/s
- 4 m/s
- 5 m/s
- Ground
- Bank Sta

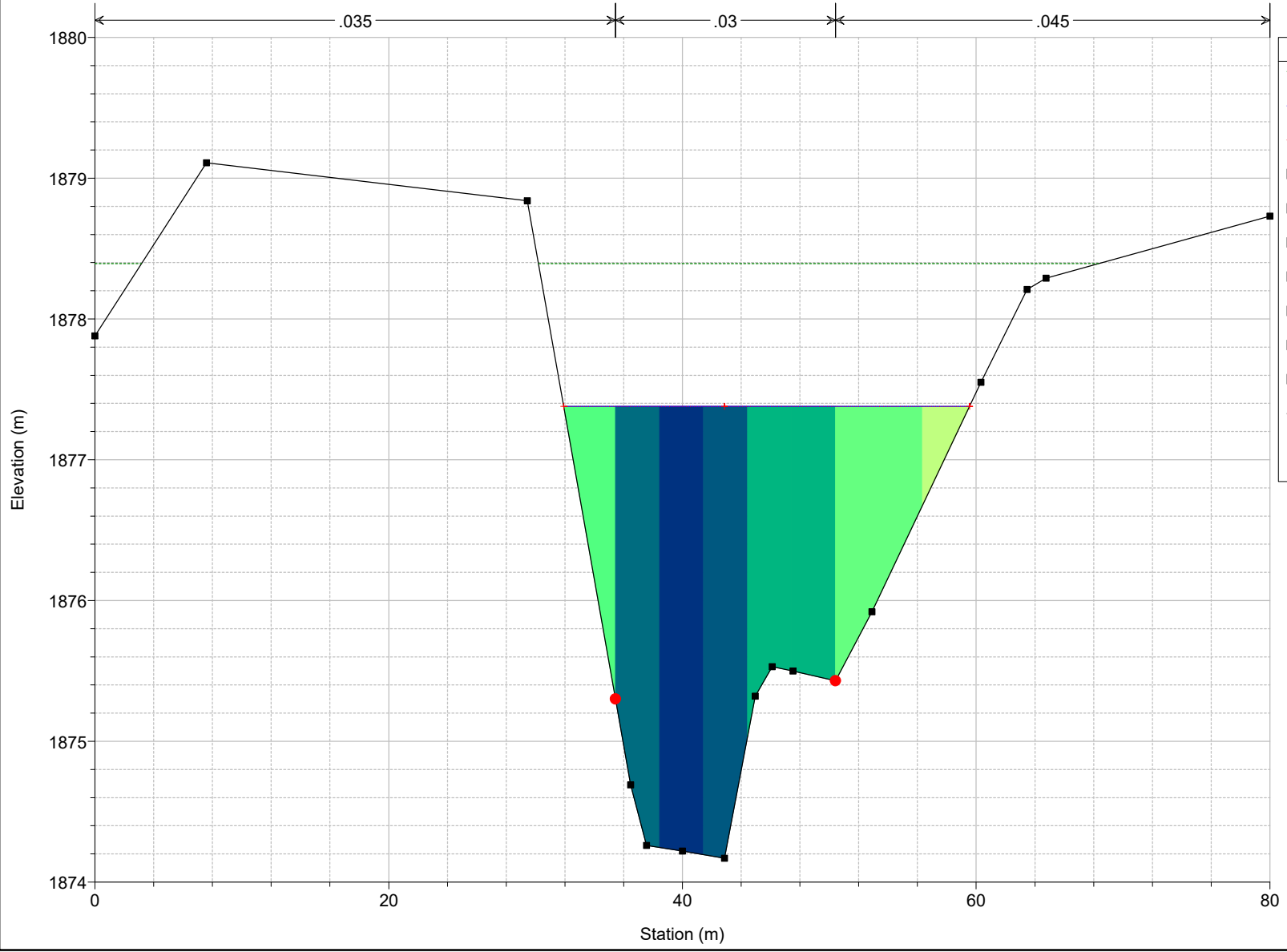
PROYECTO Plan: Plan 01 26/8/2023

RS = 150



PROYECTO Plan: Plan 01 26/8/2023

RS = 100

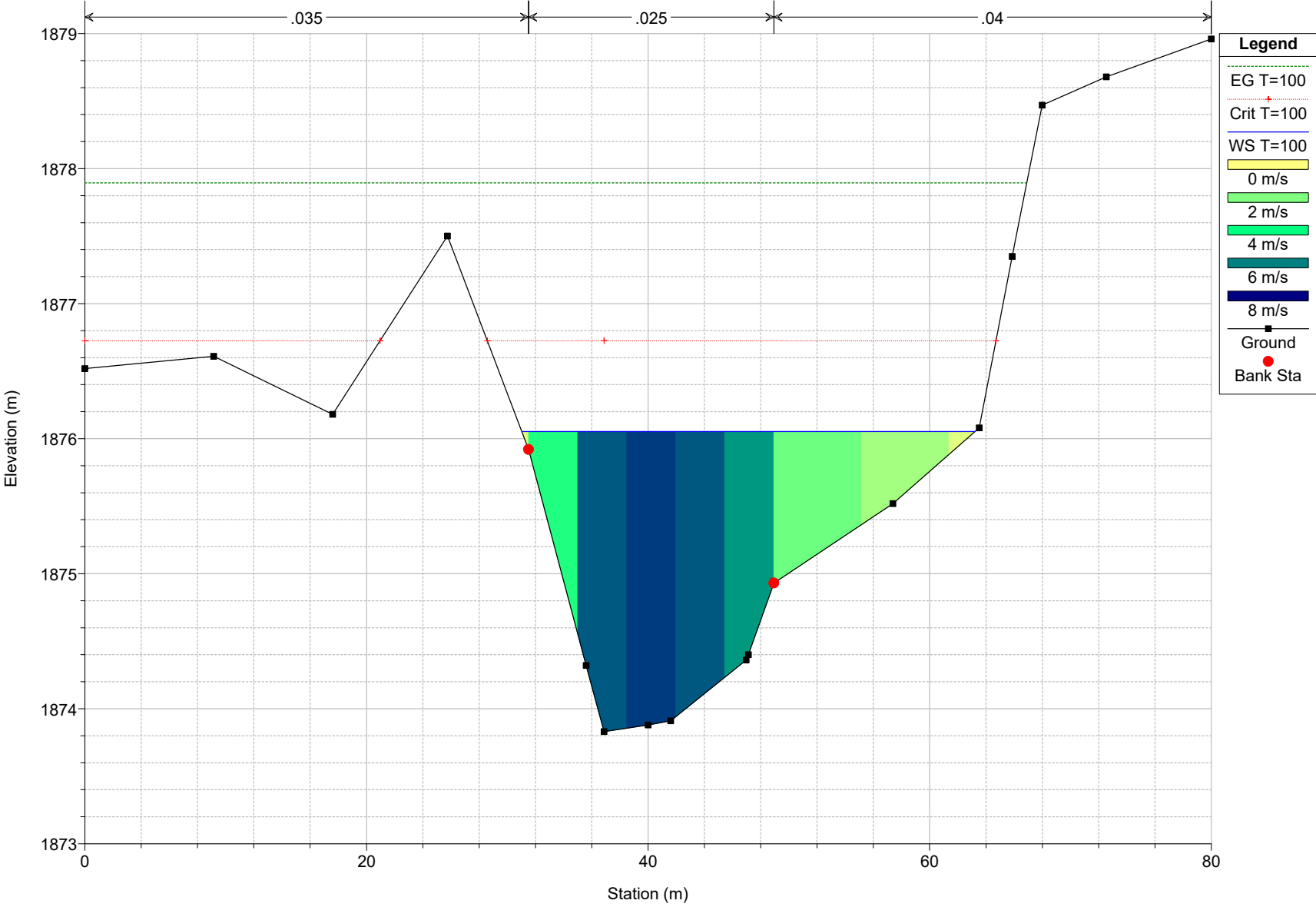


Legend

- EG T=100
- WS T=100
- Crit T=100
- 0 m/s
- 1 m/s
- 2 m/s
- 3 m/s
- 4 m/s
- 5 m/s
- 6 m/s
- Ground
- Bank Sta

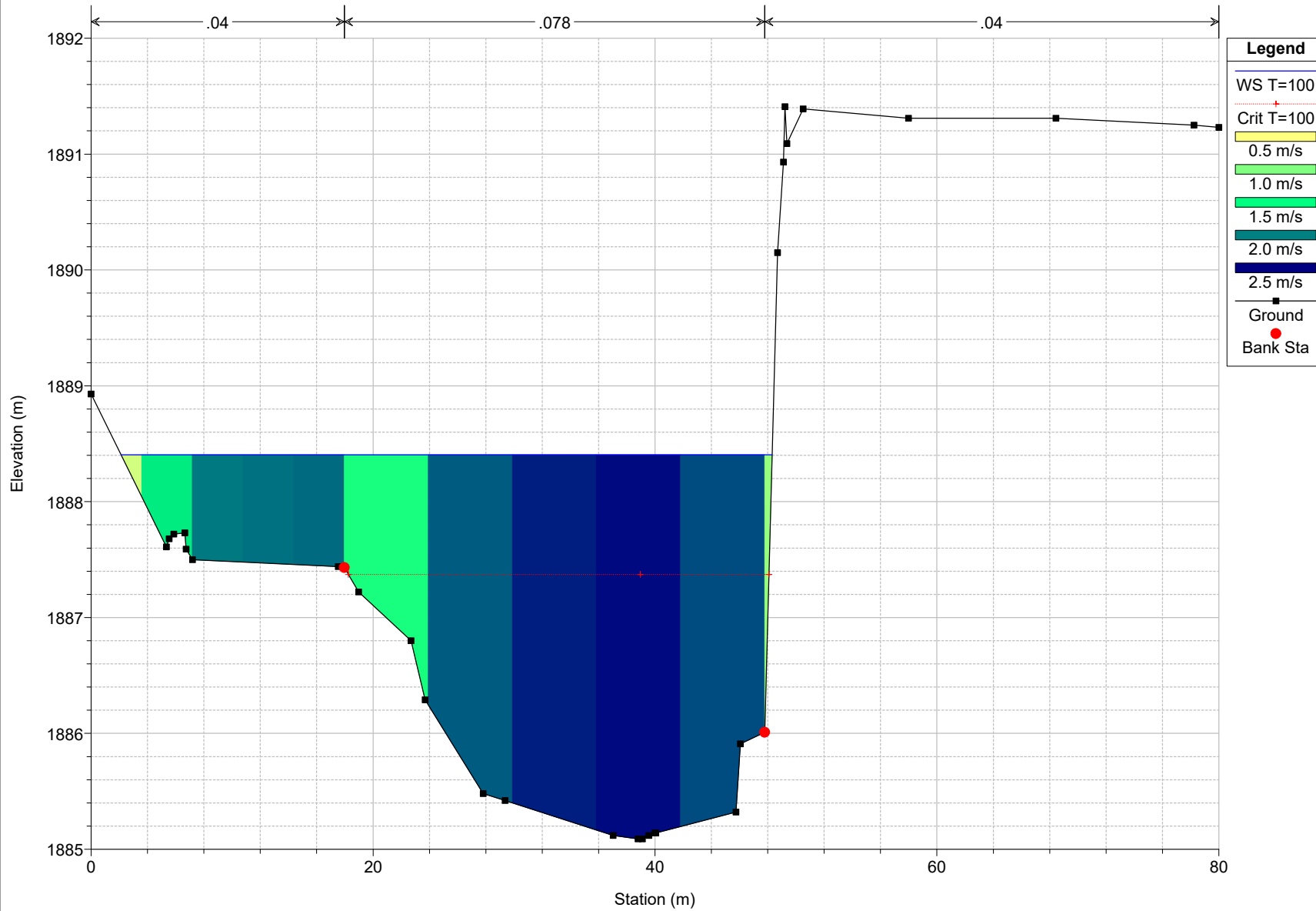
PROYECTO Plan: Plan 01 26/8/2023

RS = 50

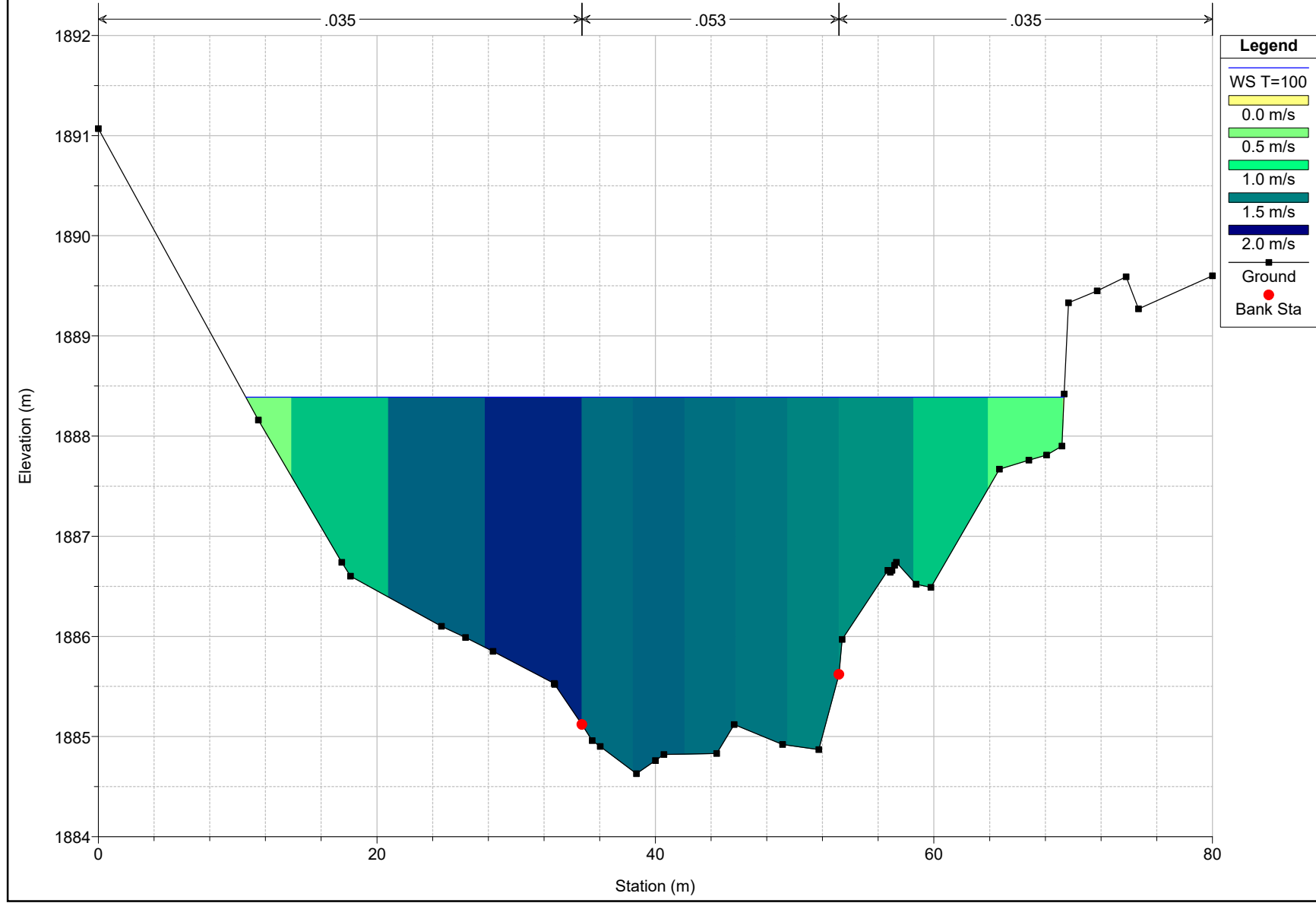


Condición con Medidas de Intervención

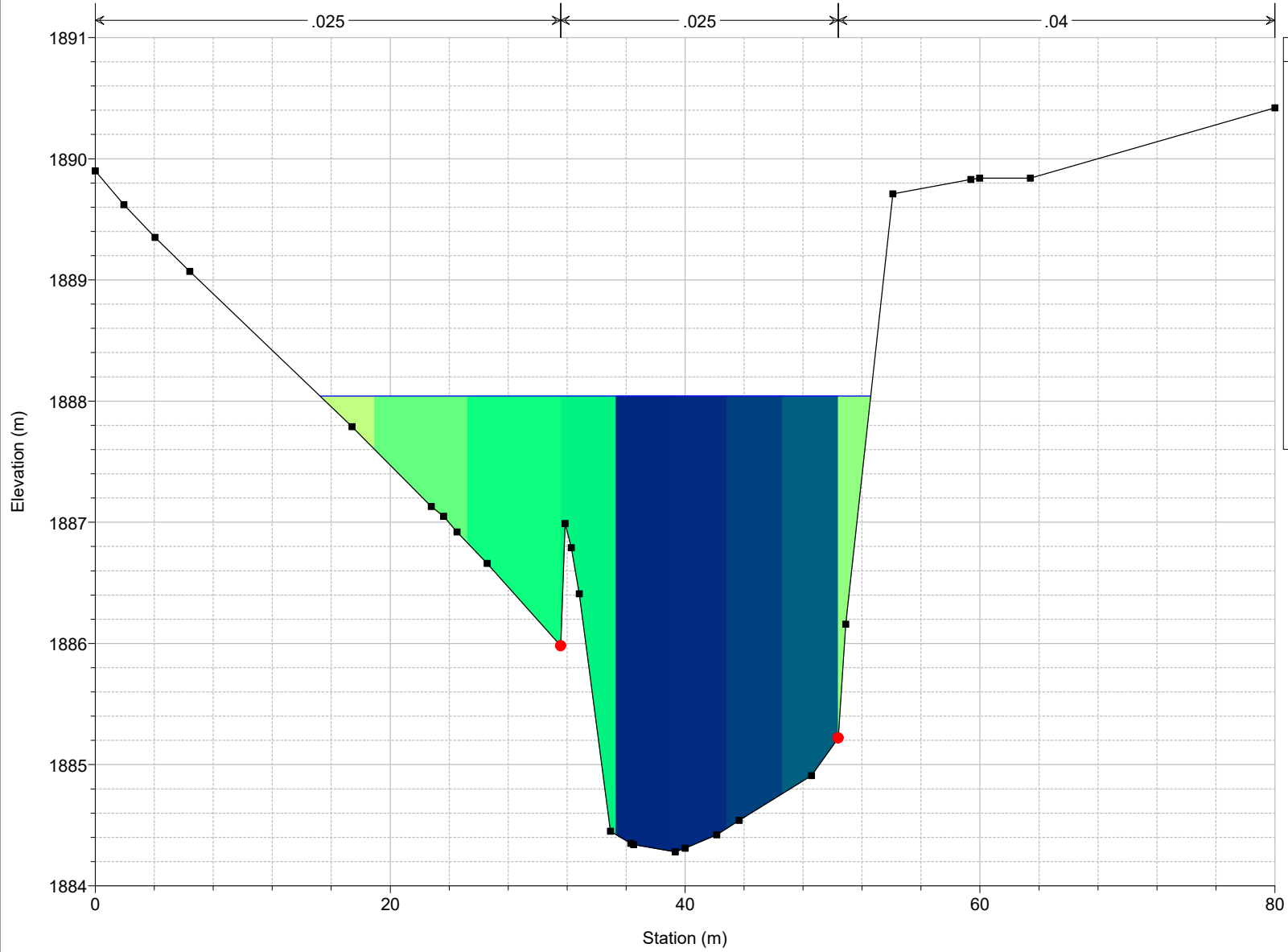
PROYECTO Plan: Plan 01 30/8/2023
RS = 2050



PROYECTO Plan: Plan 01 30/8/2023
RS = 2000



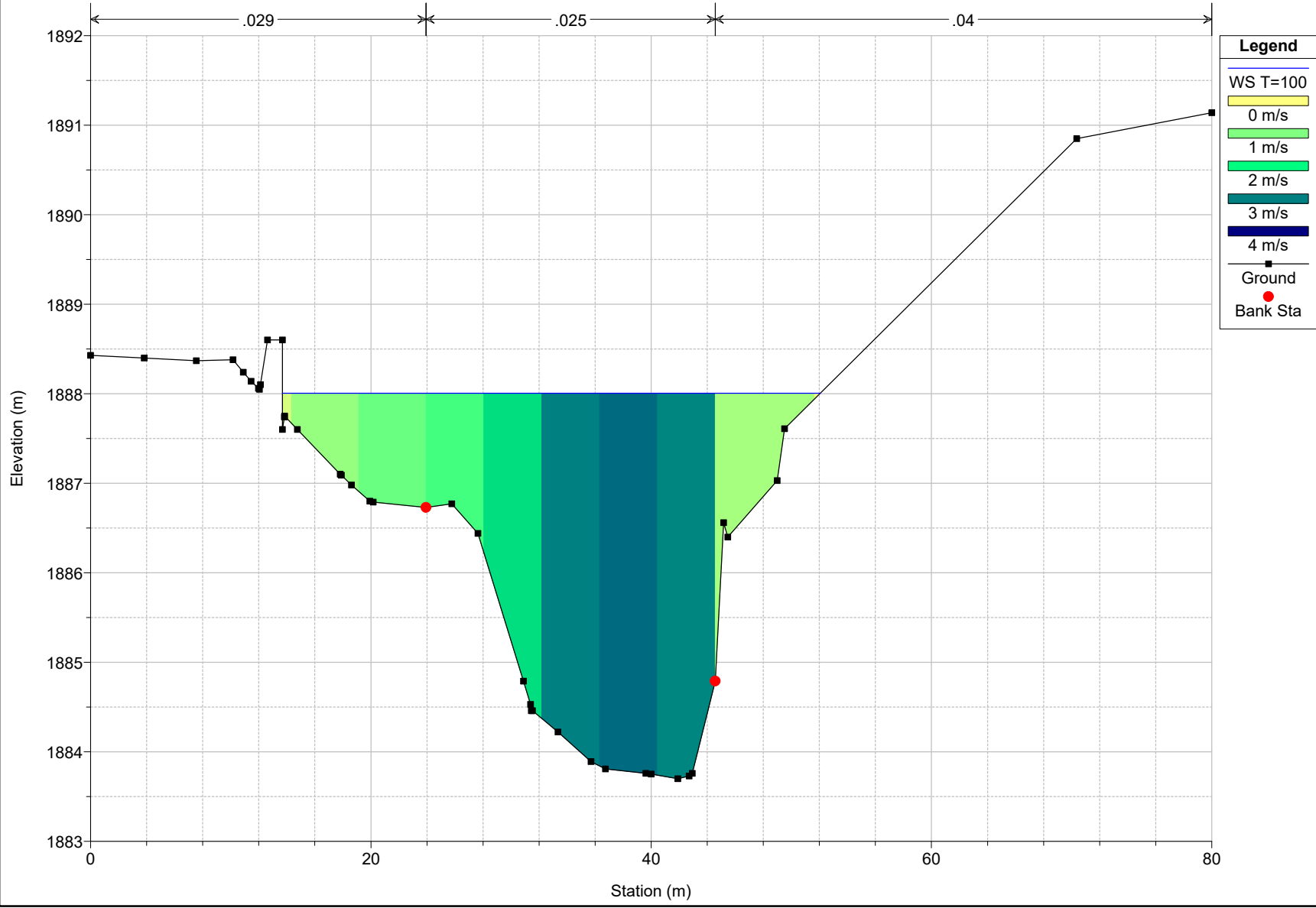
PROYECTO Plan: Plan 01 30/8/2023
RS = 1950



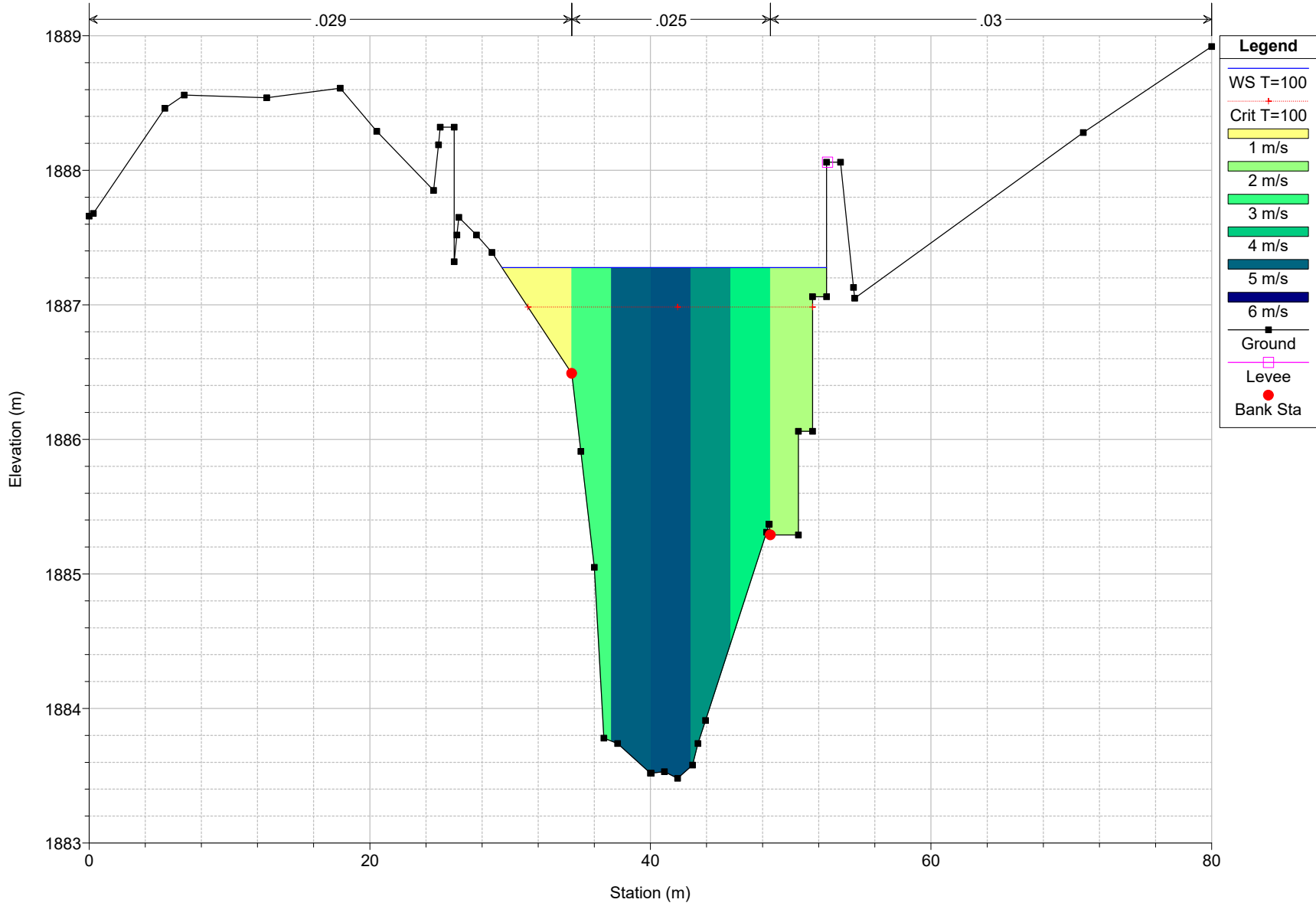
Legend

- WS T=100
- 0.0 m/s
- 0.5 m/s
- 1.0 m/s
- 1.5 m/s
- 2.0 m/s
- 2.5 m/s
- 3.0 m/s
- 3.5 m/s
- Ground
- Bank Sta

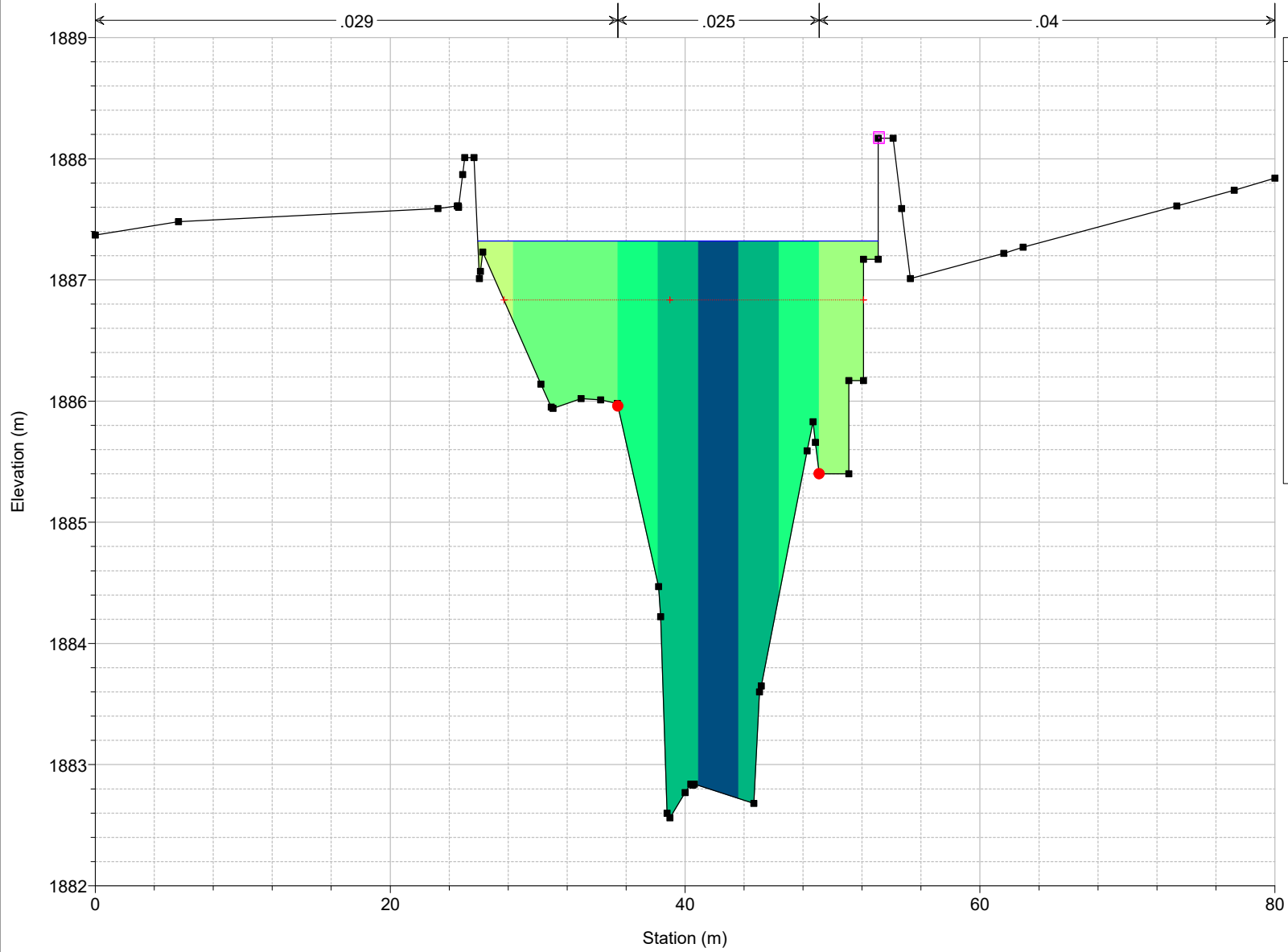
PROYECTO Plan: Plan 01 30/8/2023
RS = 1900



PROYECTO Plan: Plan 01 30/8/2023
RS = 1850

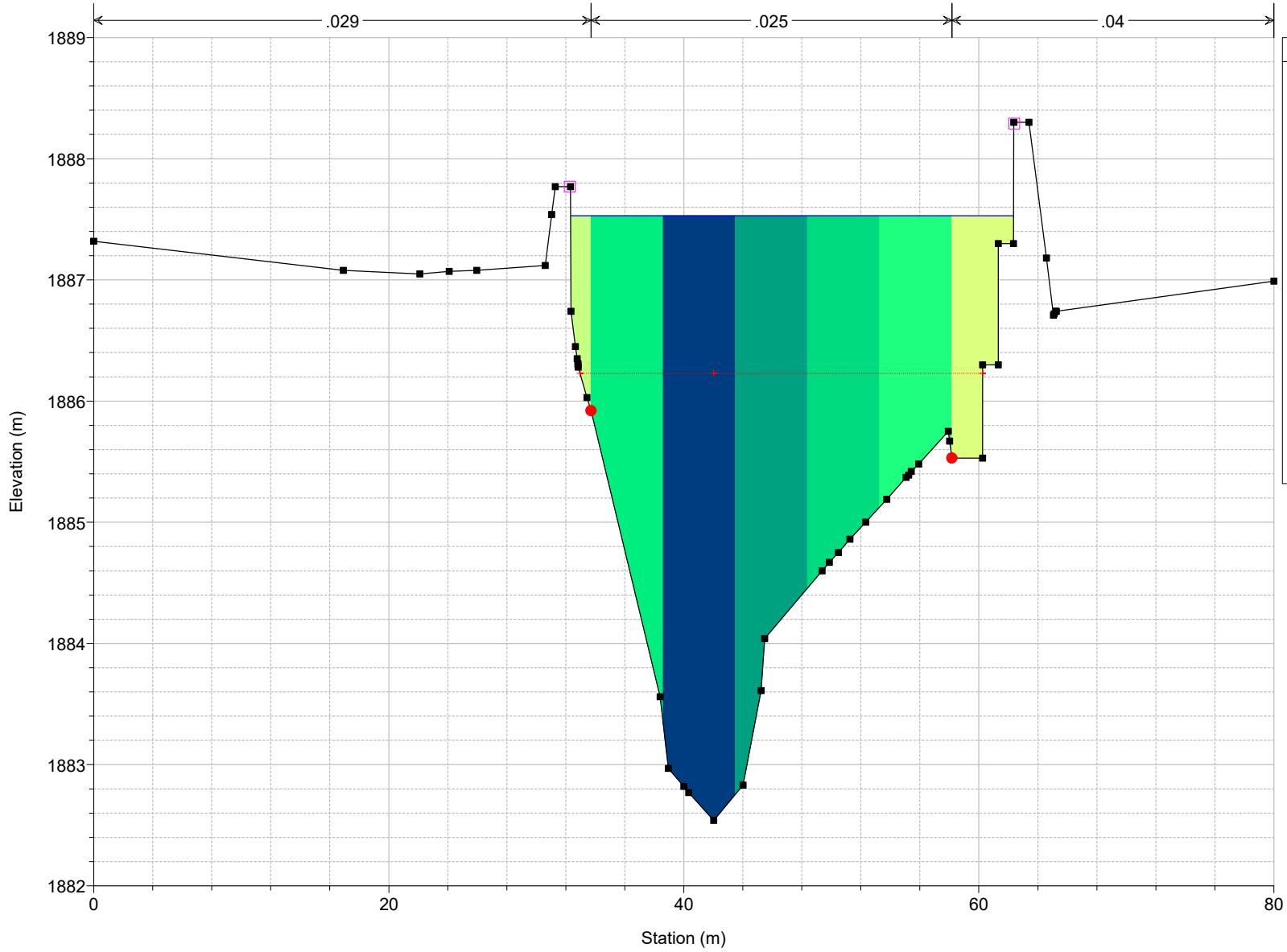


PROYECTO Plan: Plan 01 30/8/2023
RS = 1800



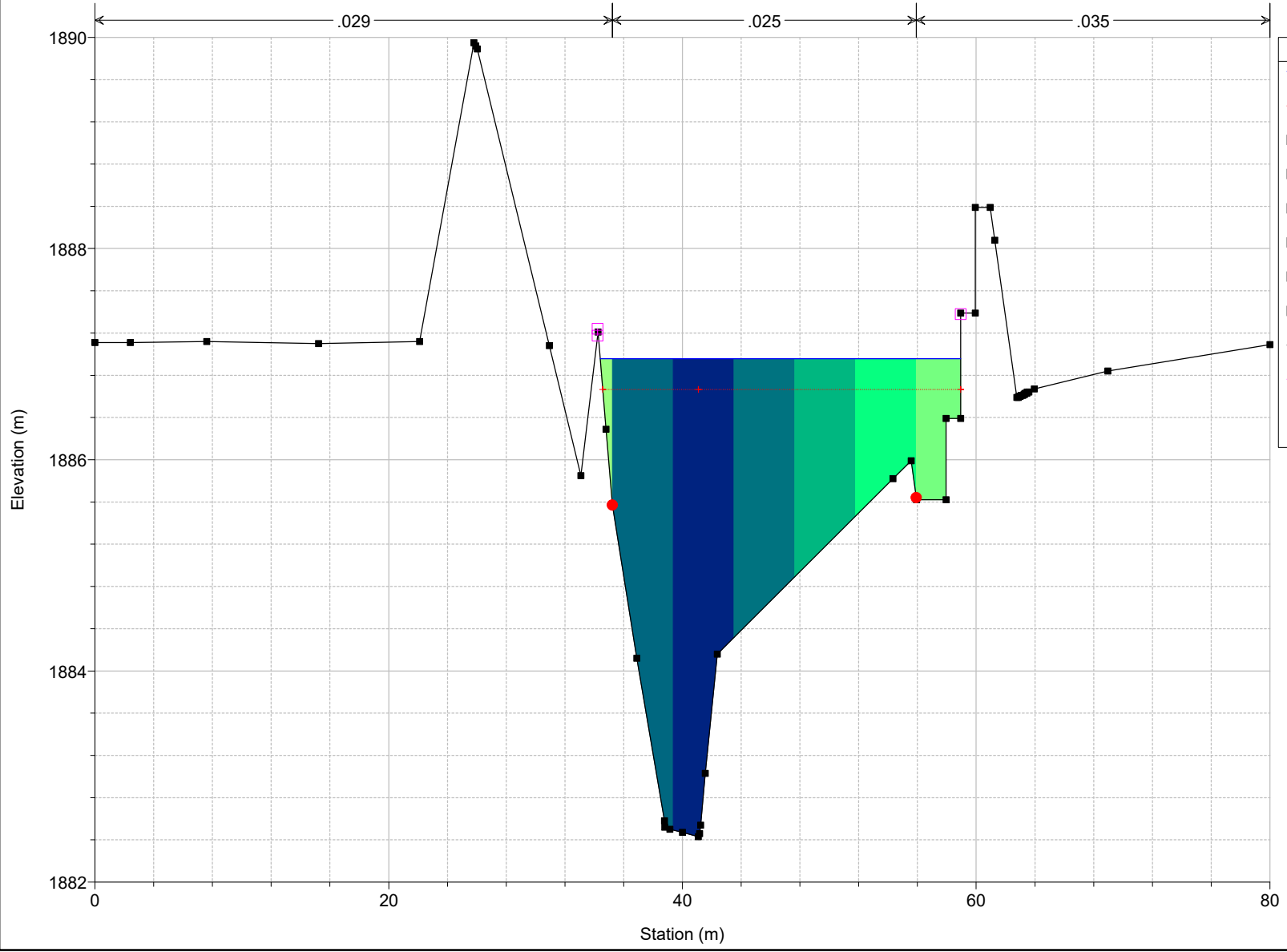
- Legend**
- WS T=100
 - Crit T=100
 - 0 m/s
 - 1 m/s
 - 2 m/s
 - 3 m/s
 - 4 m/s
 - 5 m/s
 - 6 m/s
 - Ground
 - Levee
 - Bank Sta

PROYECTO Plan: Plan 01 30/8/2023
RS = 1750



- Legend**
- WS T=100
 - Crit T=100
 - 0.5 m/s
 - 1.0 m/s
 - 1.5 m/s
 - 2.0 m/s
 - 2.5 m/s
 - 3.0 m/s
 - 3.5 m/s
 - Ground
 - Levee
 - Bank Sta

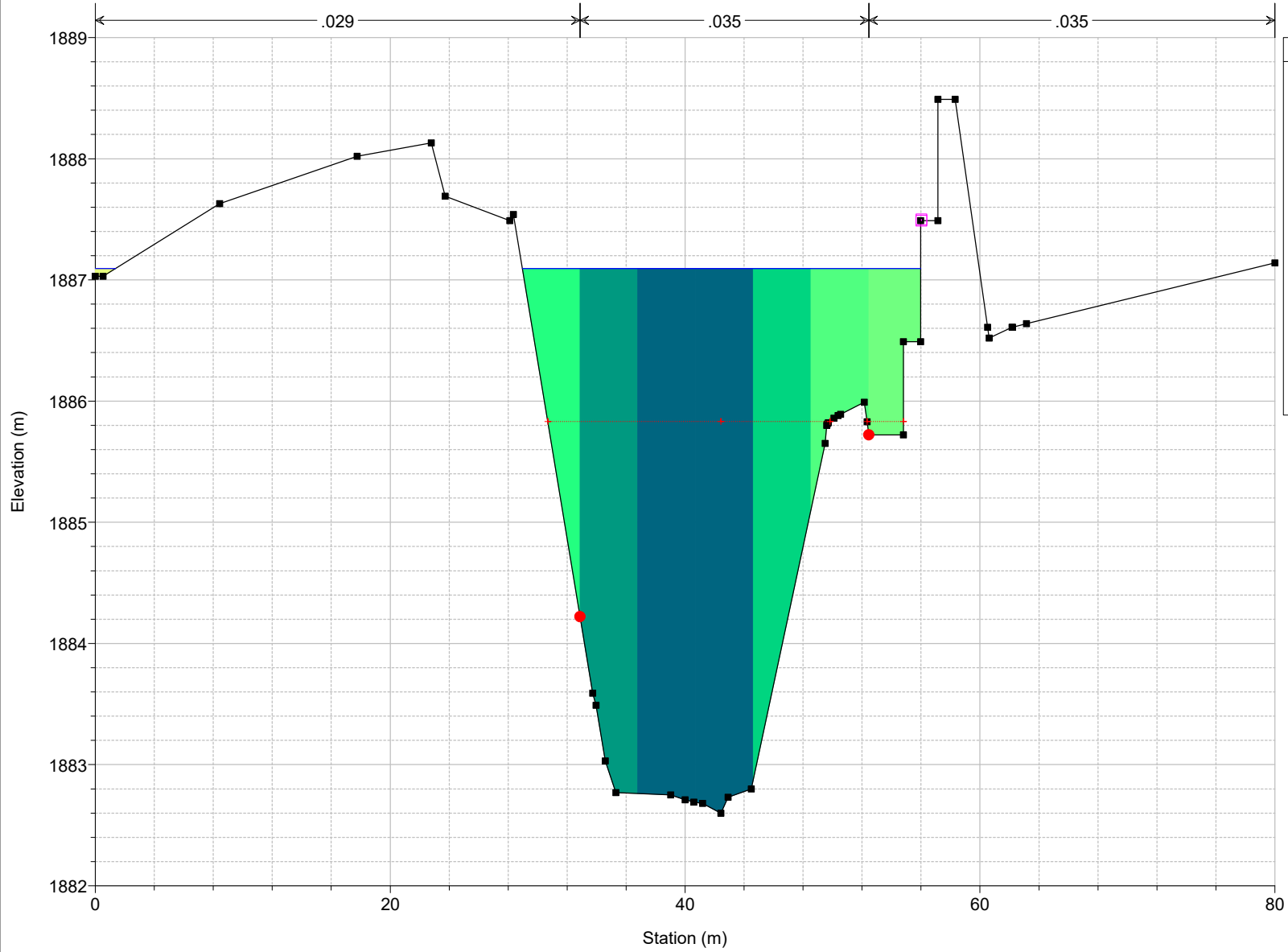
PROYECTO Plan: Plan 01 30/8/2023
RS = 1700



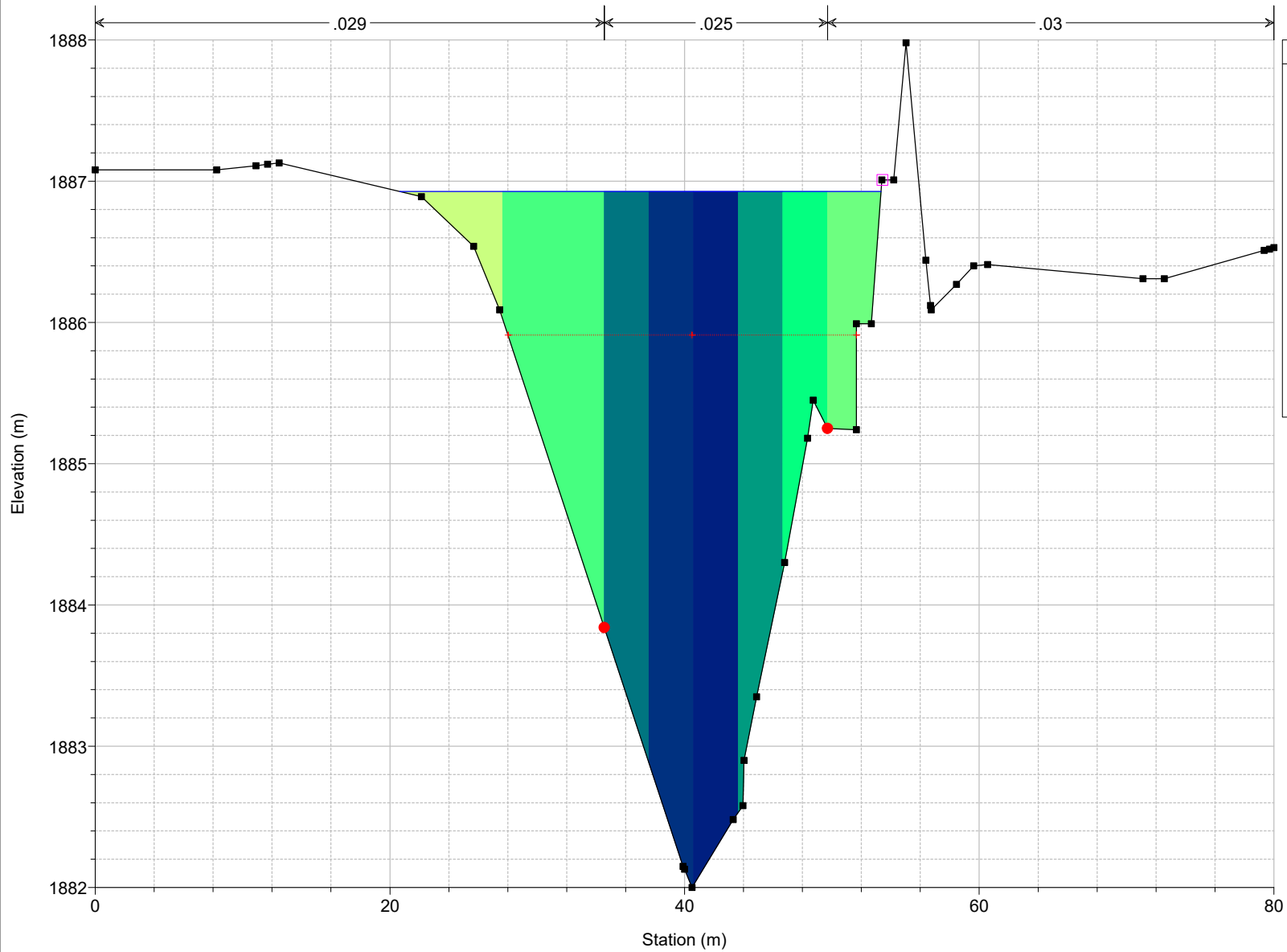
Legend

- WS T=100
- Crit T=100
- 0 m/s
- 1 m/s
- 2 m/s
- 3 m/s
- 4 m/s
- 5 m/s
- Ground
- Levee
- Bank Sta

PROYECTO Plan: Plan 01 30/8/2023
RS = 1650

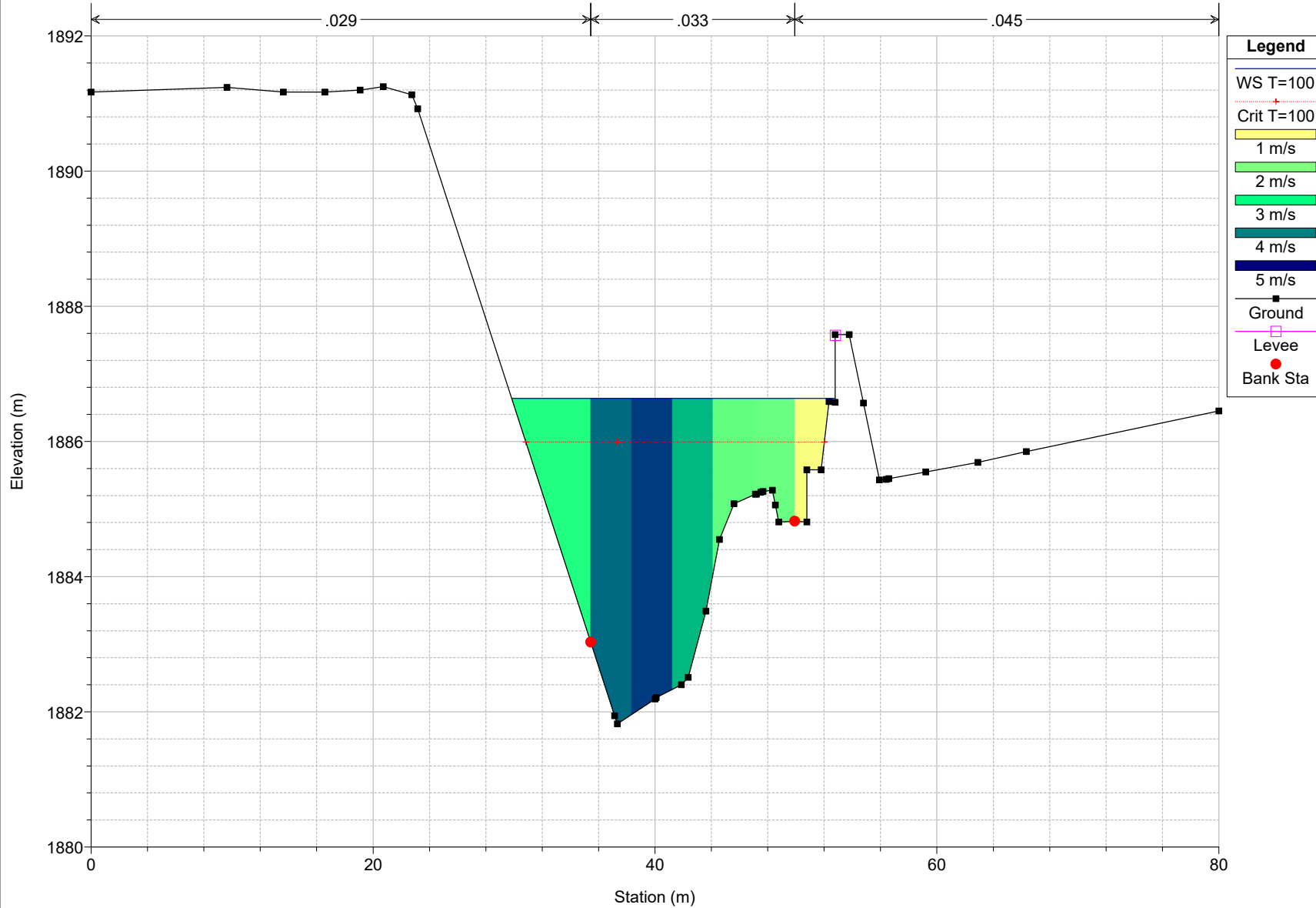


PROYECTO Plan: Plan 01 30/8/2023
RS = 1600

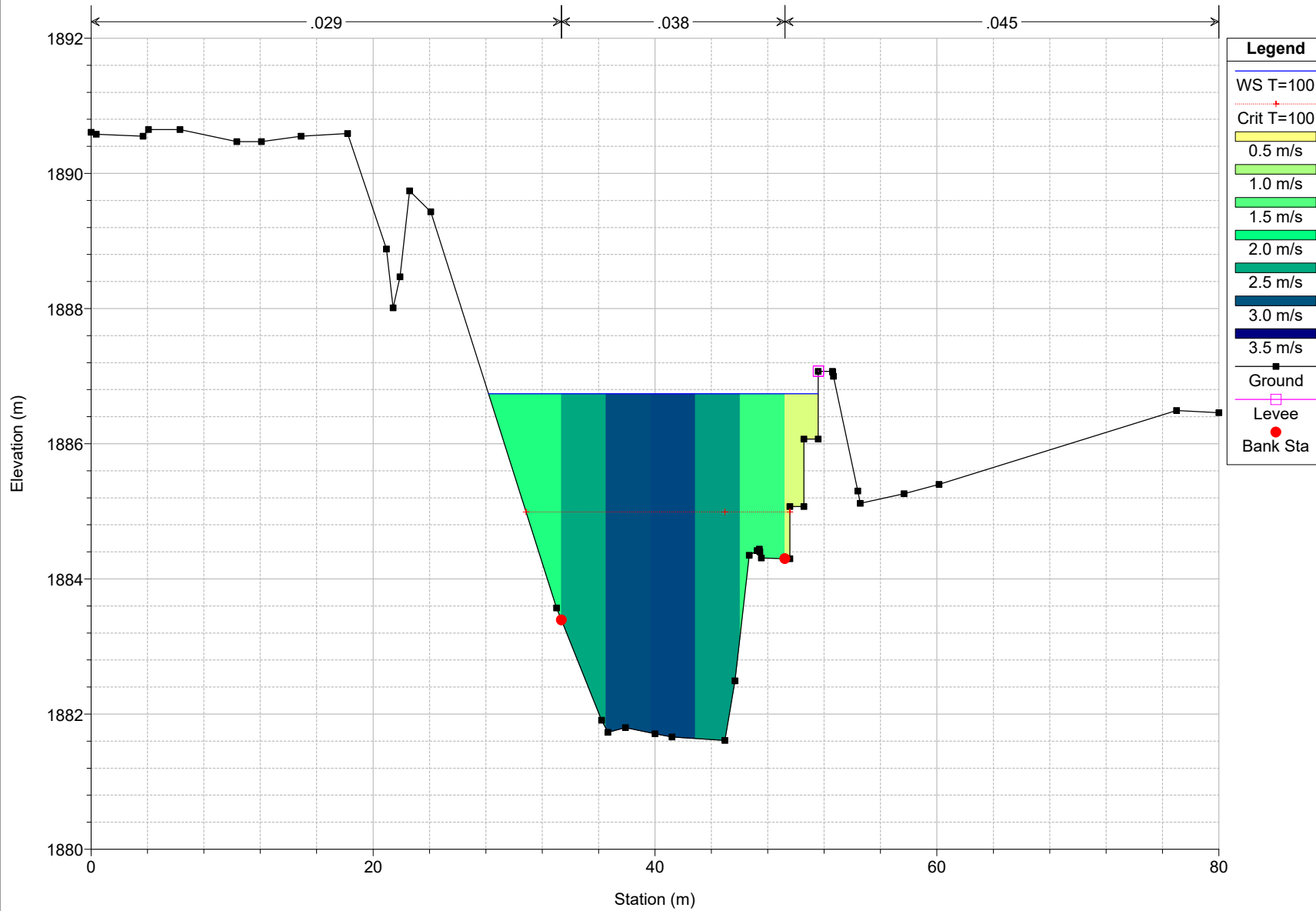


- Legend**
- WS T=100
 - Crit T=100
 - 0 m/s
 - 1 m/s
 - 2 m/s
 - 3 m/s
 - 4 m/s
 - Ground
 - Levee
 - Bank Sta

PROYECTO Plan: Plan 01 30/8/2023
RS = 1550

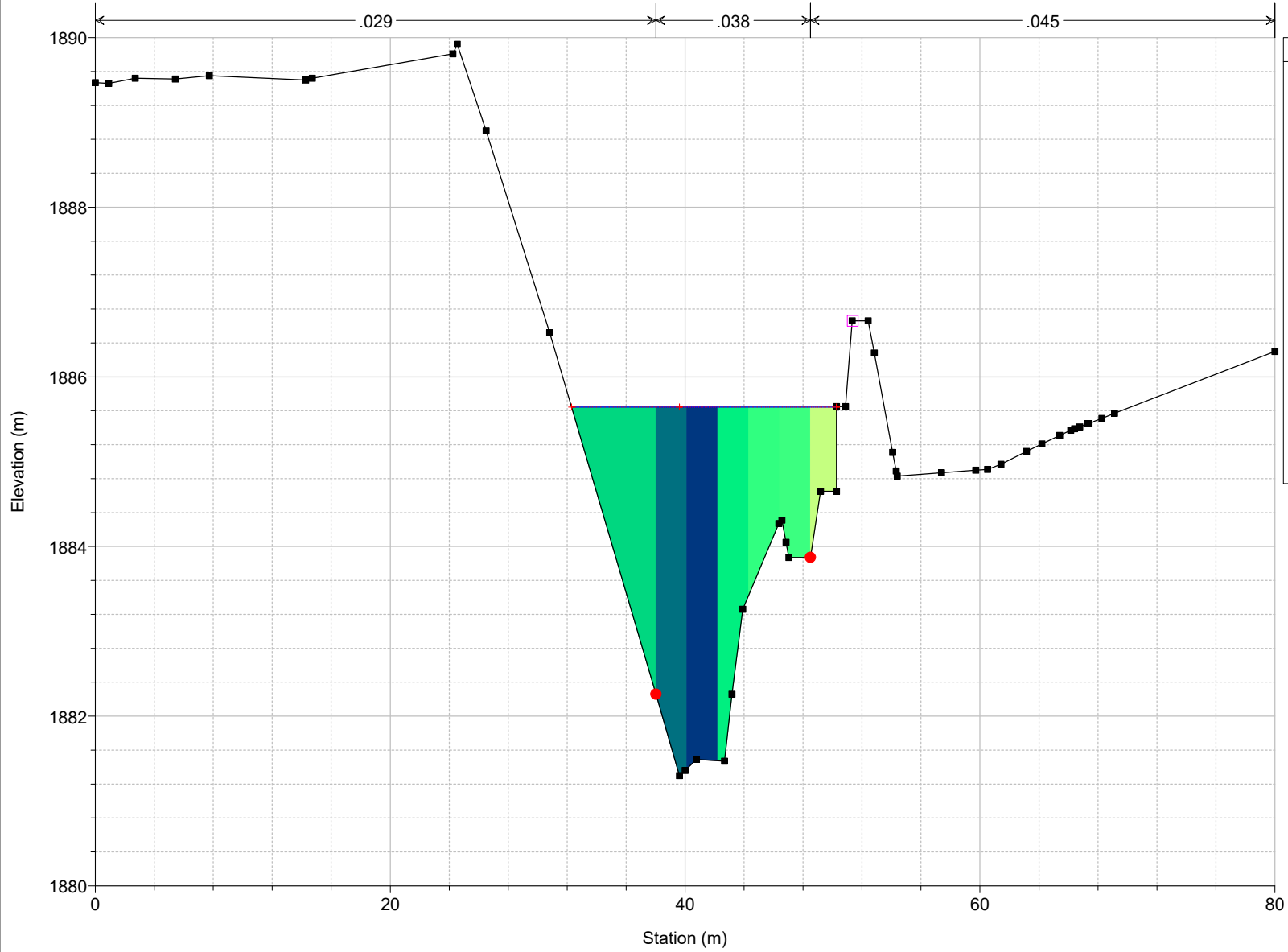


PROYECTO Plan: Plan 01 30/8/2023
RS = 1500

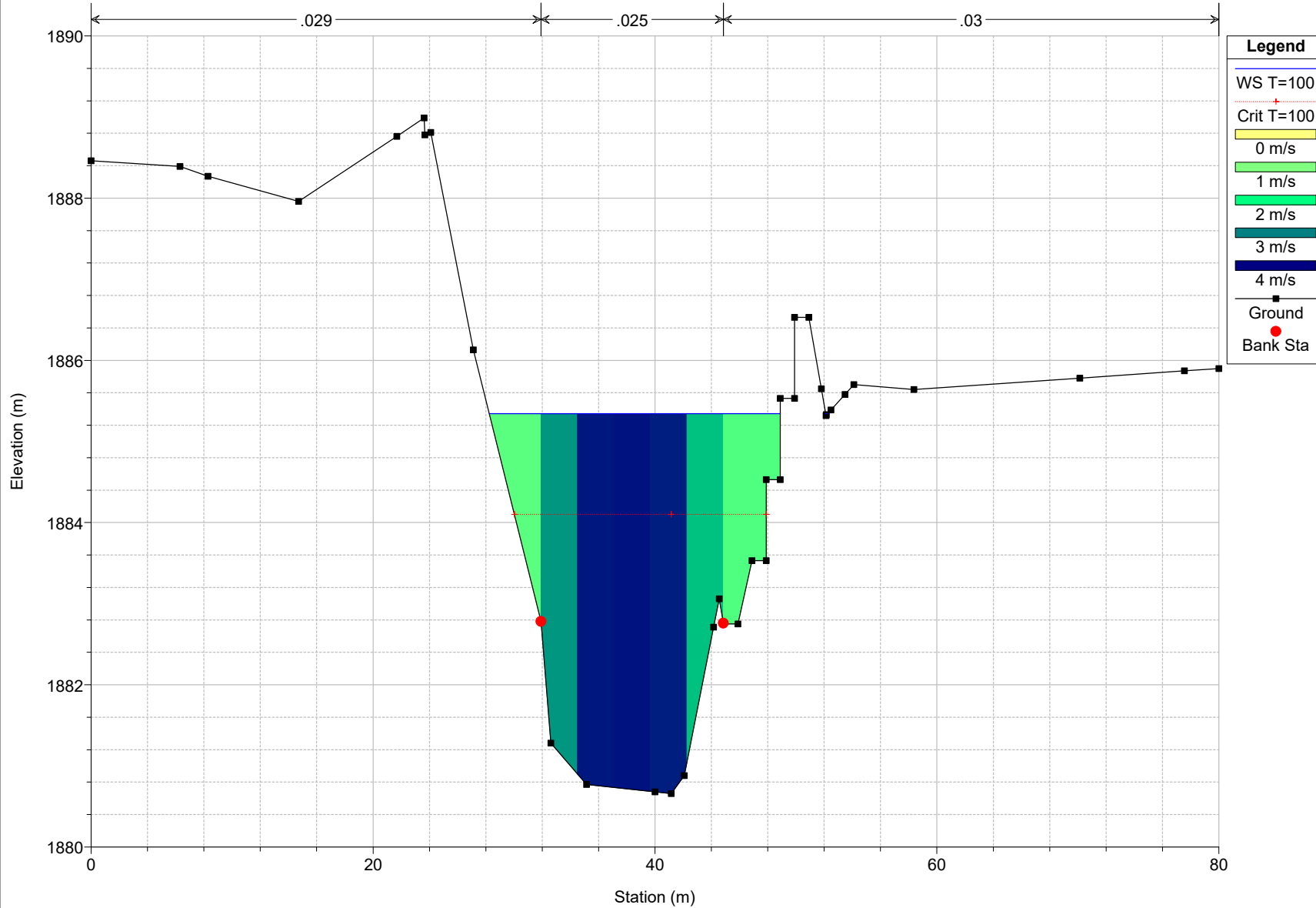


PROYECTO Plan: Plan 01 30/8/2023

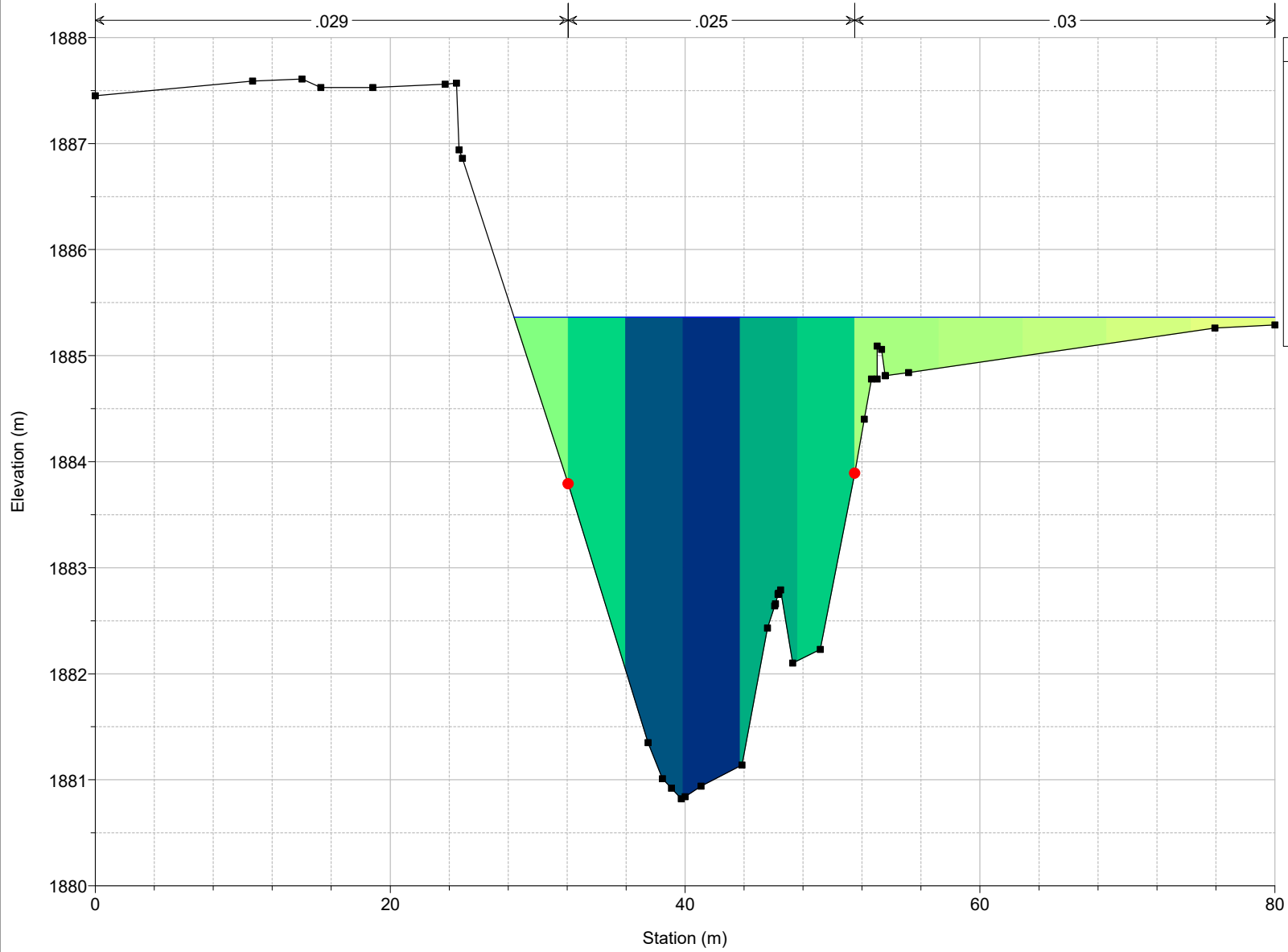
RS = 1450



PROYECTO Plan: Plan 01 30/8/2023
RS = 1400



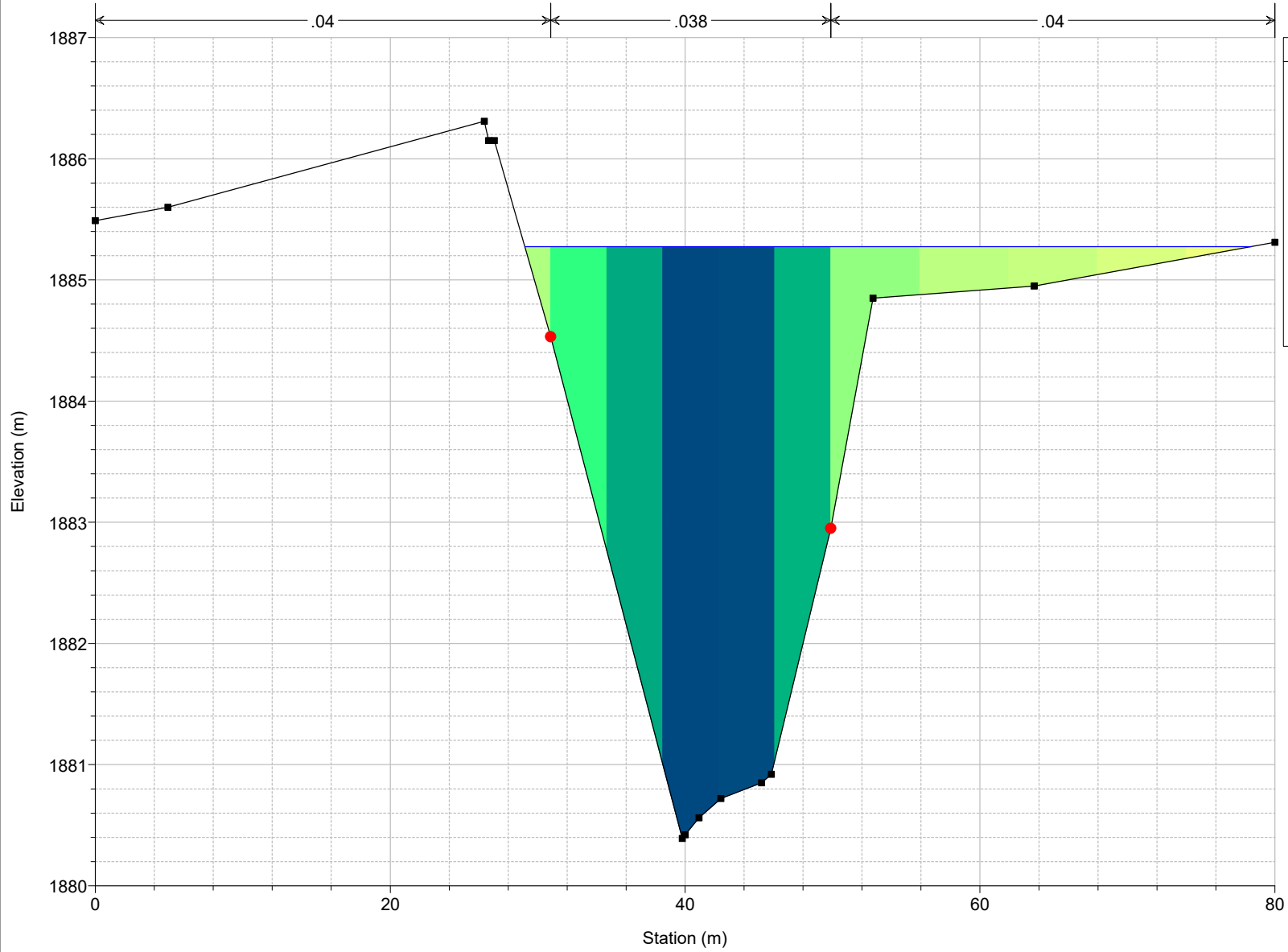
PROYECTO Plan: Plan 01 30/8/2023
RS = 1350



Legend

- WS T=100
- 0 m/s
- 1 m/s
- 2 m/s
- 3 m/s
- 4 m/s
- Ground
- Bank Sta

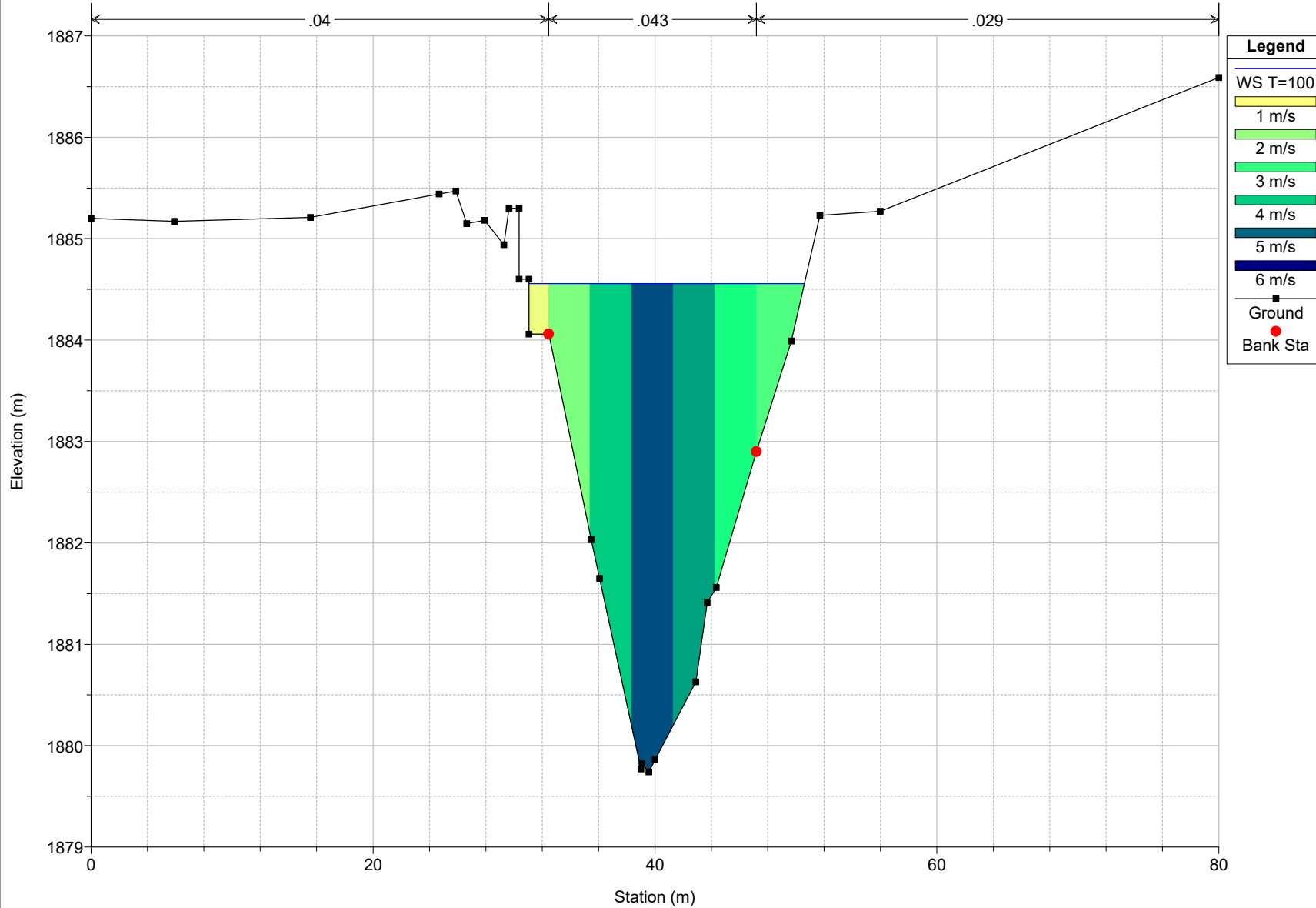
PROYECTO Plan: Plan 01 30/8/2023
RS = 1300



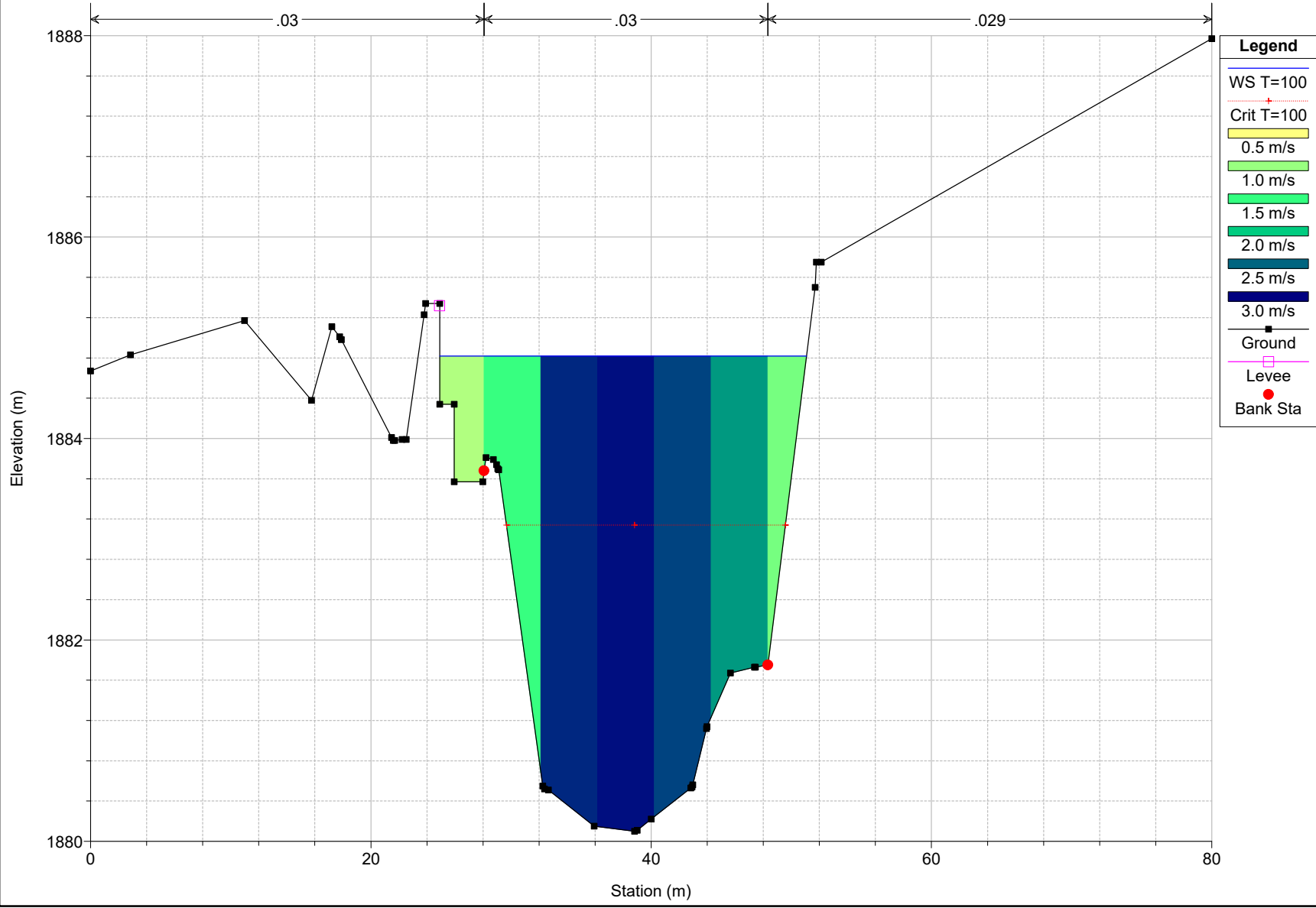
Legend

- WS T=100
- 0 m/s
- 1 m/s
- 2 m/s
- 3 m/s
- 4 m/s
- Ground
- Bank Sta

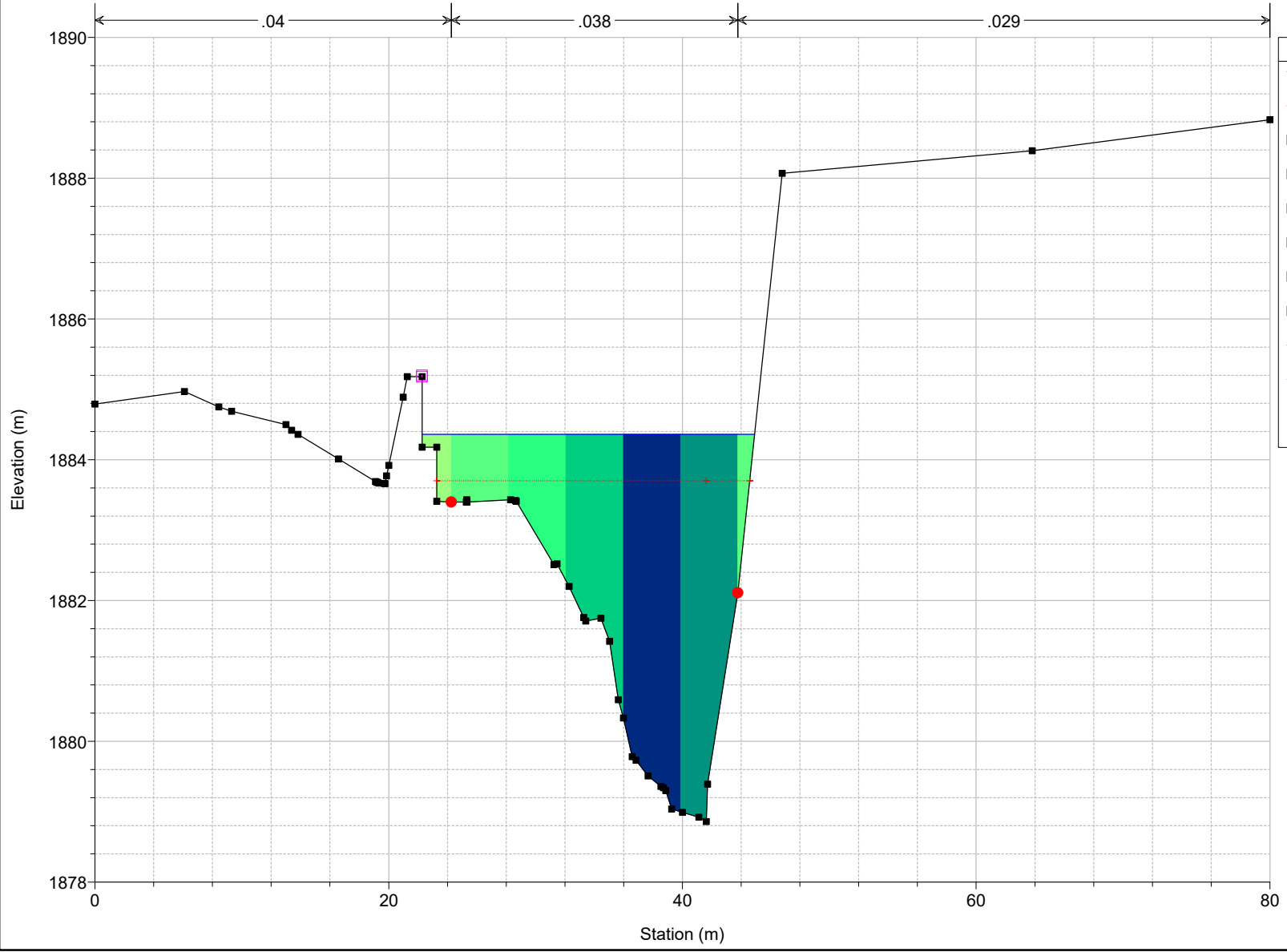
PROYECTO Plan: Plan 01 30/8/2023
RS = 1250



PROYECTO Plan: Plan 01 30/8/2023
RS = 1200



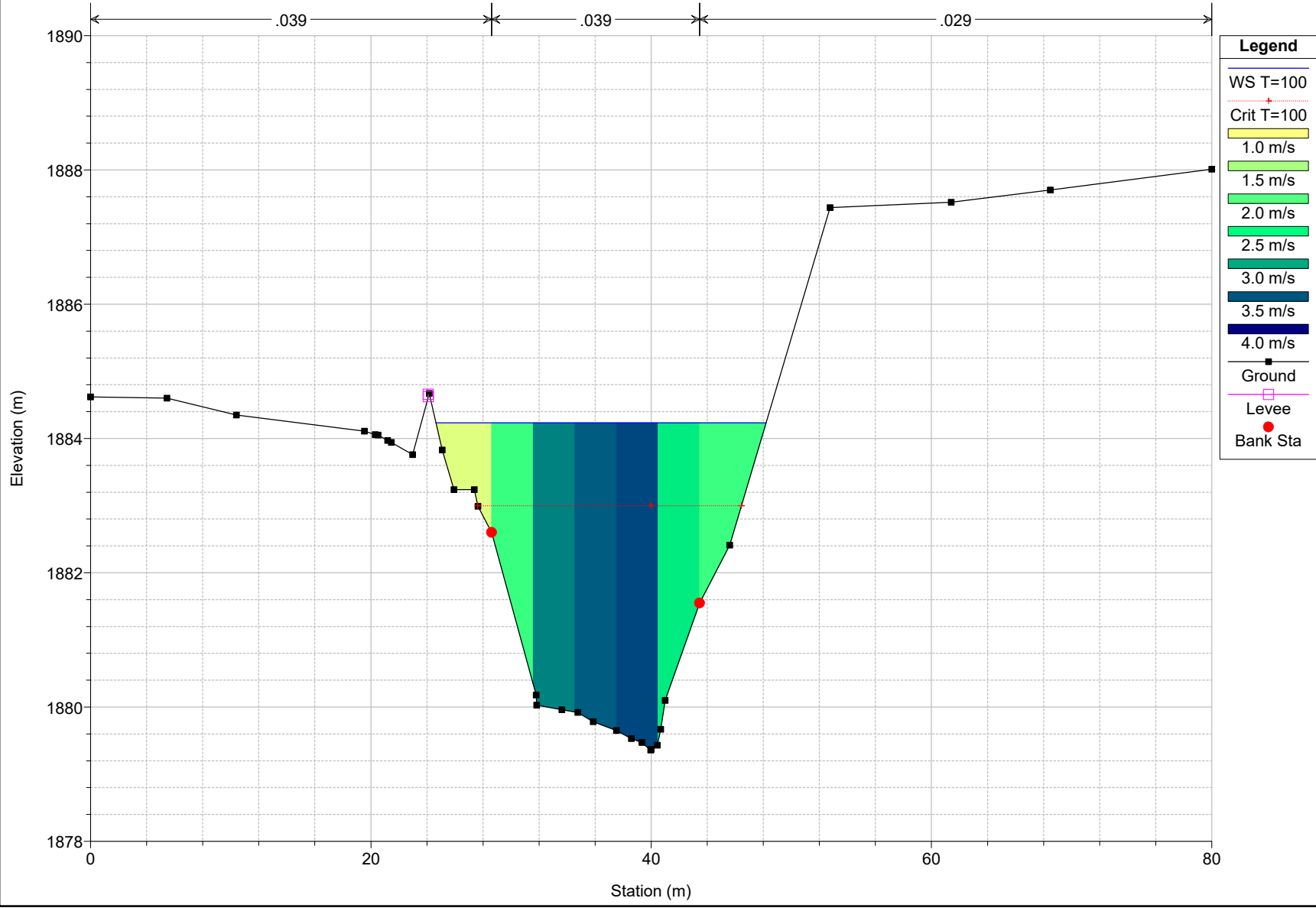
PROYECTO Plan: Plan 01 30/8/2023
RS = 1150



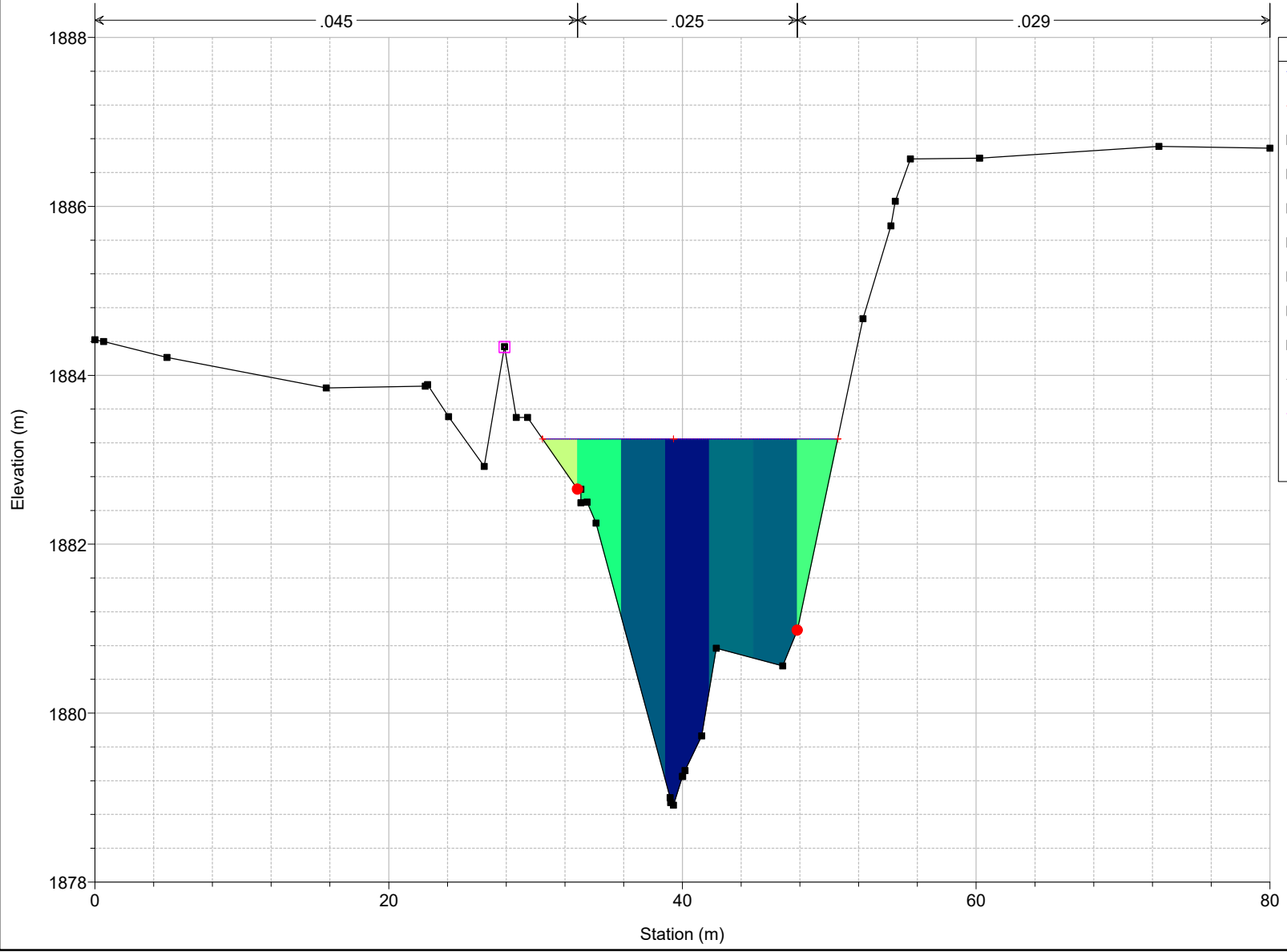
Legend

- WS T=100
- Crit T=100
- 0 m/s
- 1 m/s
- 2 m/s
- 3 m/s
- 4 m/s
- 5 m/s
- Ground
- Levee
- Bank Sta

PROYECTO Plan: Plan 01 30/8/2023
RS = 1100



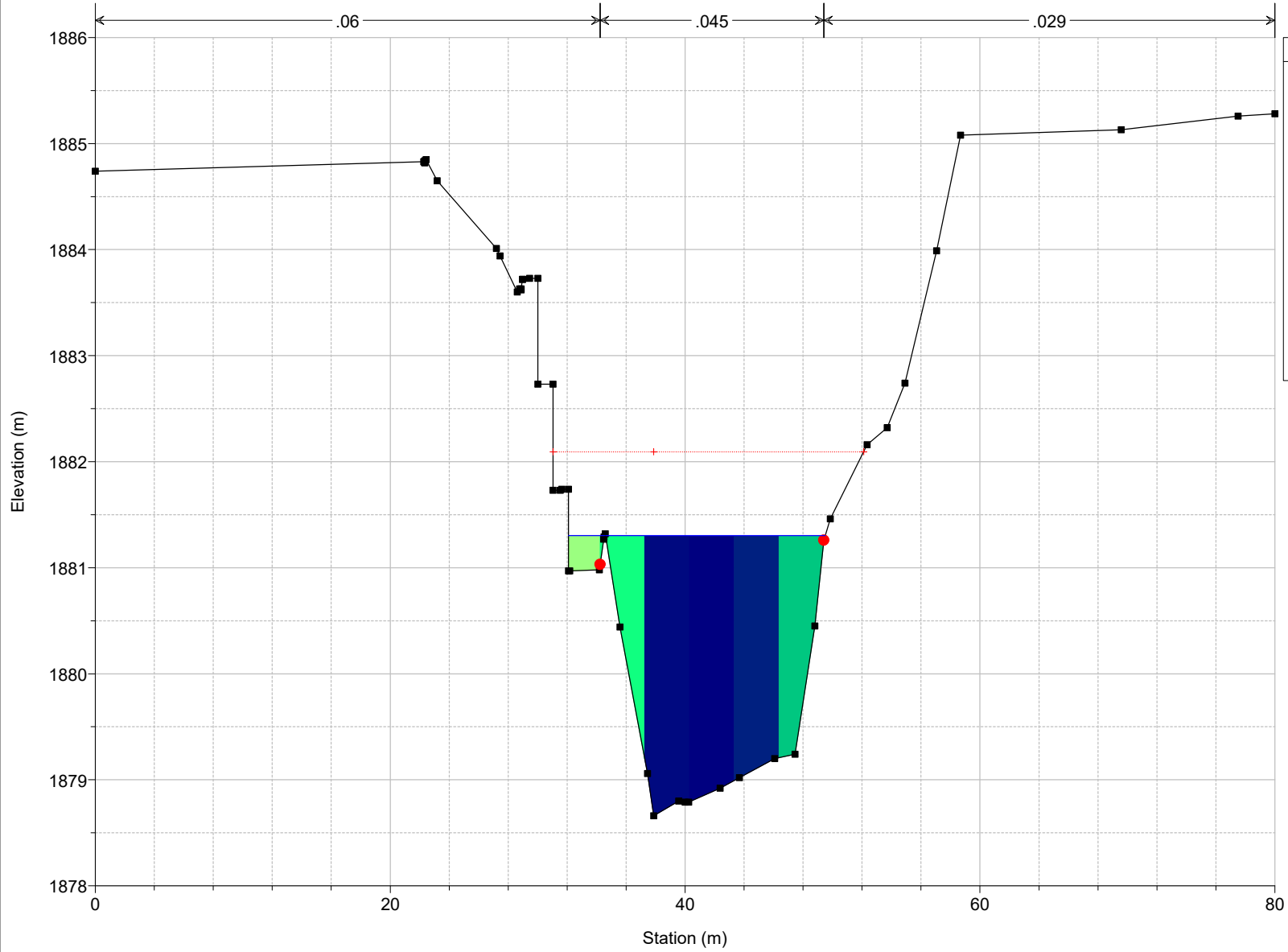
PROYECTO Plan: Plan 01 30/8/2023
RS = 1050



Legend

- WS T=100
- Crit T=100
- 0 m/s
- 1 m/s
- 2 m/s
- 3 m/s
- 4 m/s
- 5 m/s
- 6 m/s
- Ground
- Levee
- Bank Sta

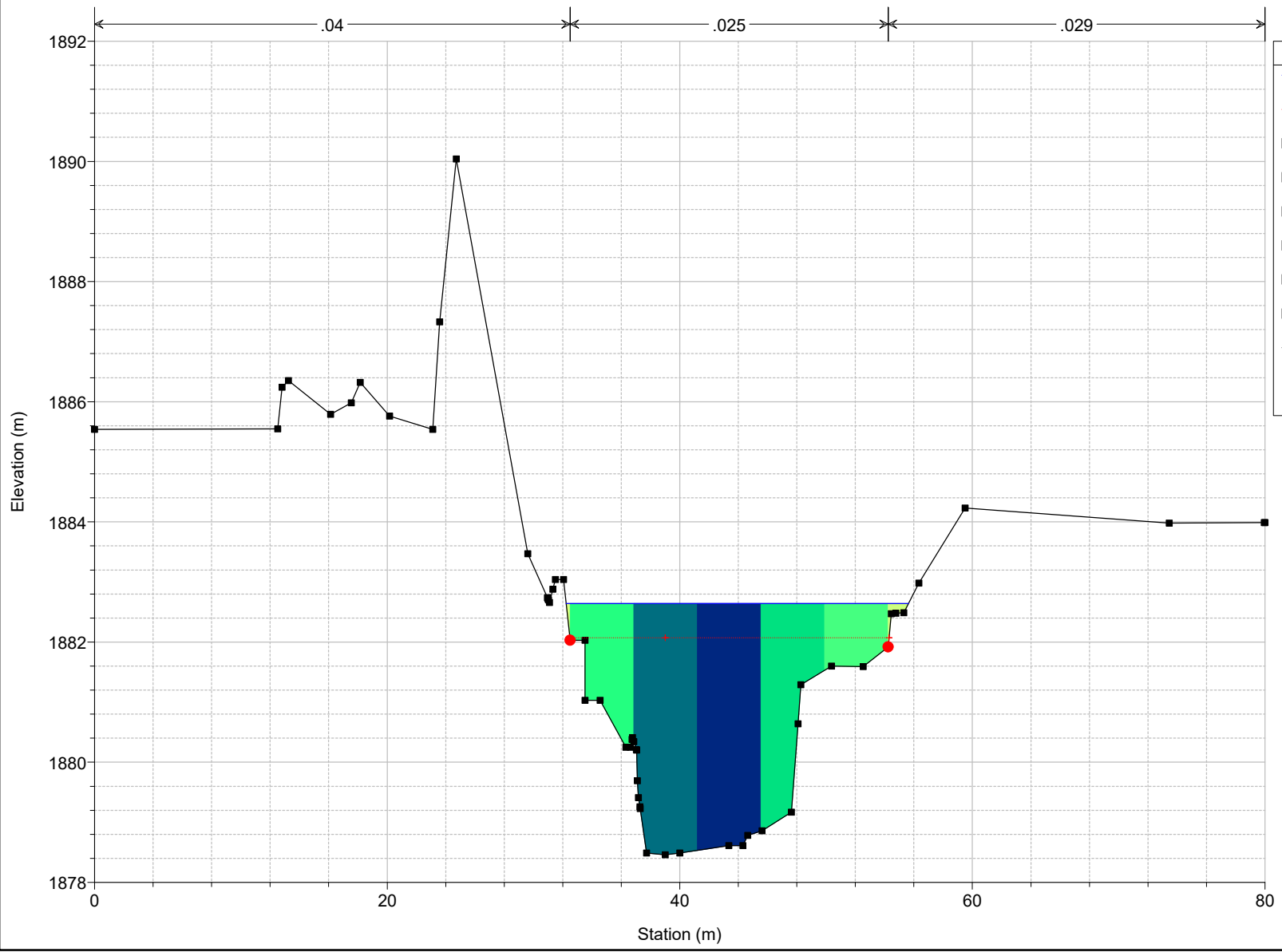
PROYECTO Plan: Plan 01 30/8/2023
RS = 1000



Legend

- Crit T=100
- WS T=100
- 0 m/s
- 2 m/s
- 4 m/s
- 6 m/s
- 8 m/s
- Ground
- Bank Sta

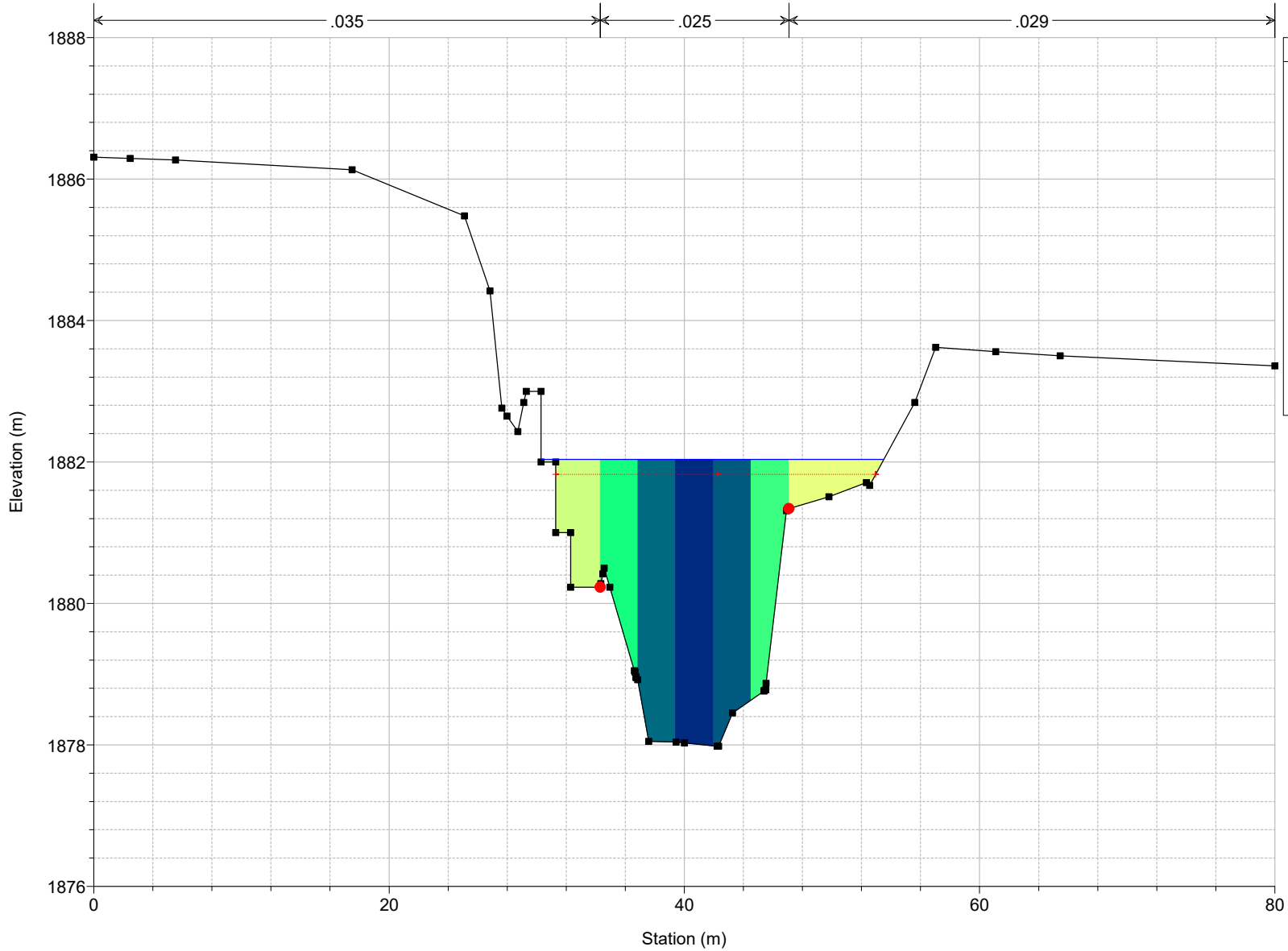
PROYECTO Plan: Plan 01 30/8/2023
RS = 950



Legend

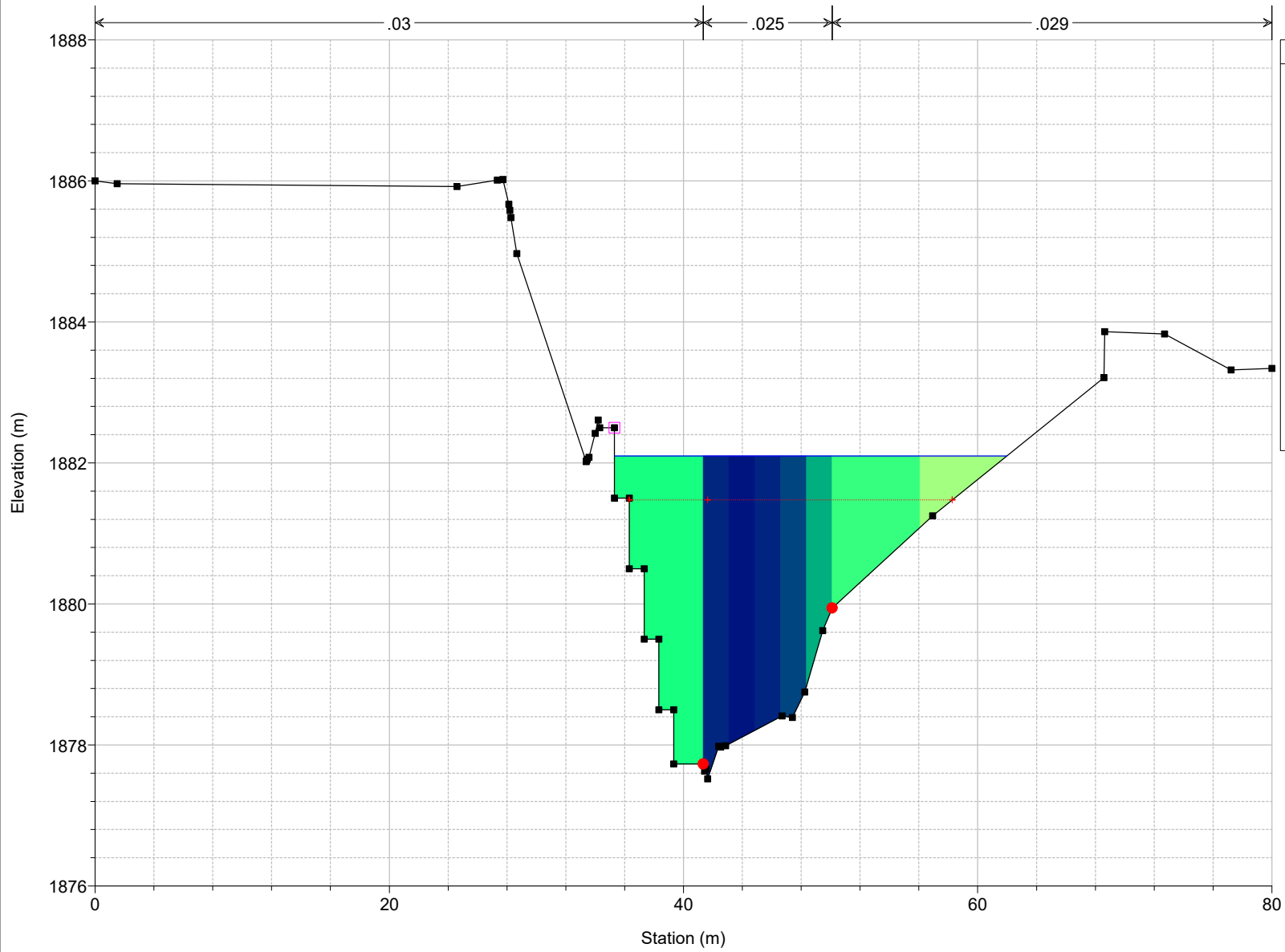
- WS T=100
- Crit T=100
- 0 m/s
- 1 m/s
- 2 m/s
- 3 m/s
- 4 m/s
- 5 m/s
- Ground
- Bank Sta

PROYECTO Plan: Plan 01 30/8/2023
RS = 900



PROYECTO Plan: Plan 01 30/8/2023

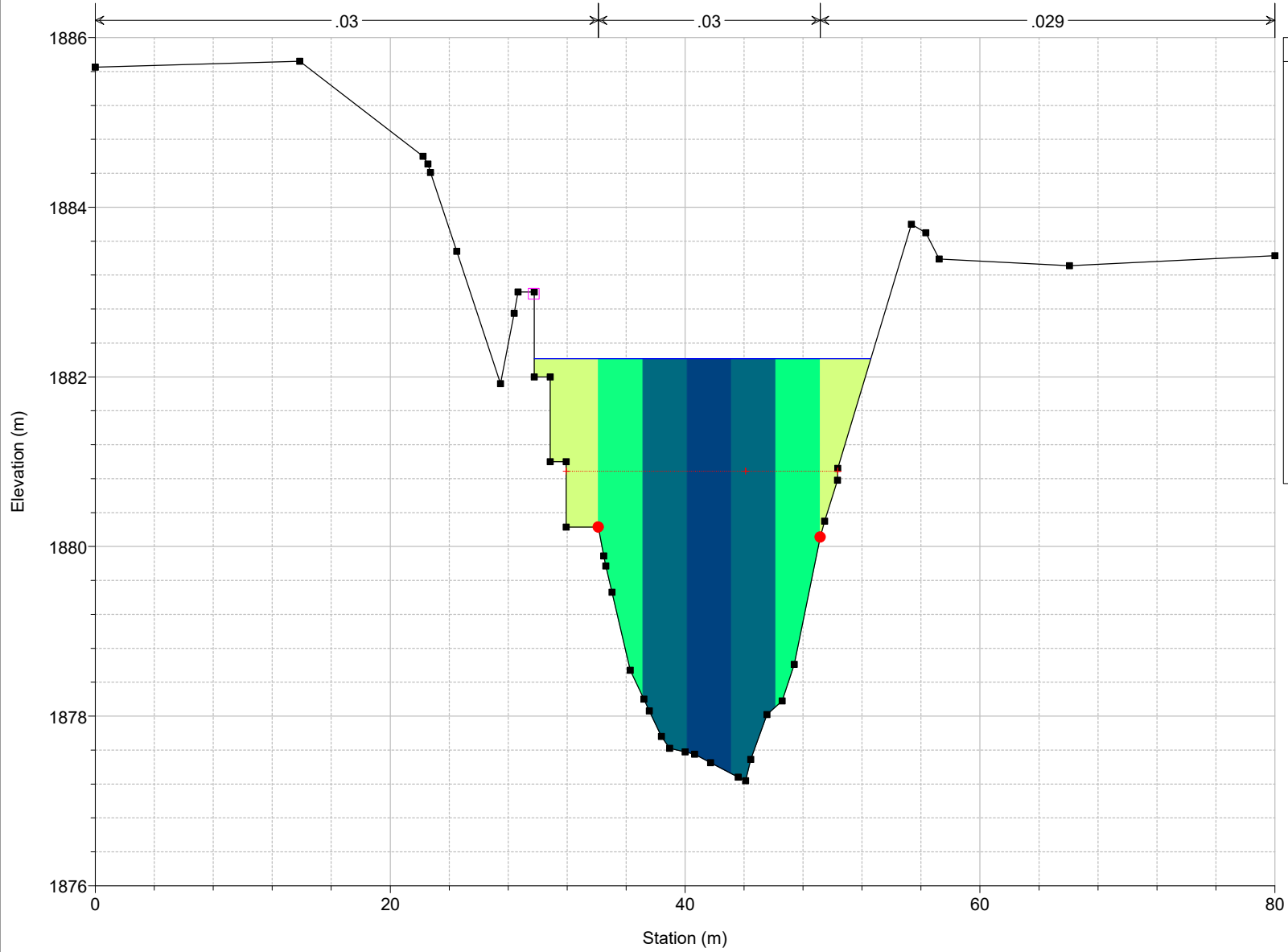
RS = 850



Legend

- WS T=100
- Crit T=100
- 0 m/s
- 1 m/s
- 2 m/s
- 3 m/s
- 4 m/s
- 5 m/s
- Ground
- Levee
- Bank Sta

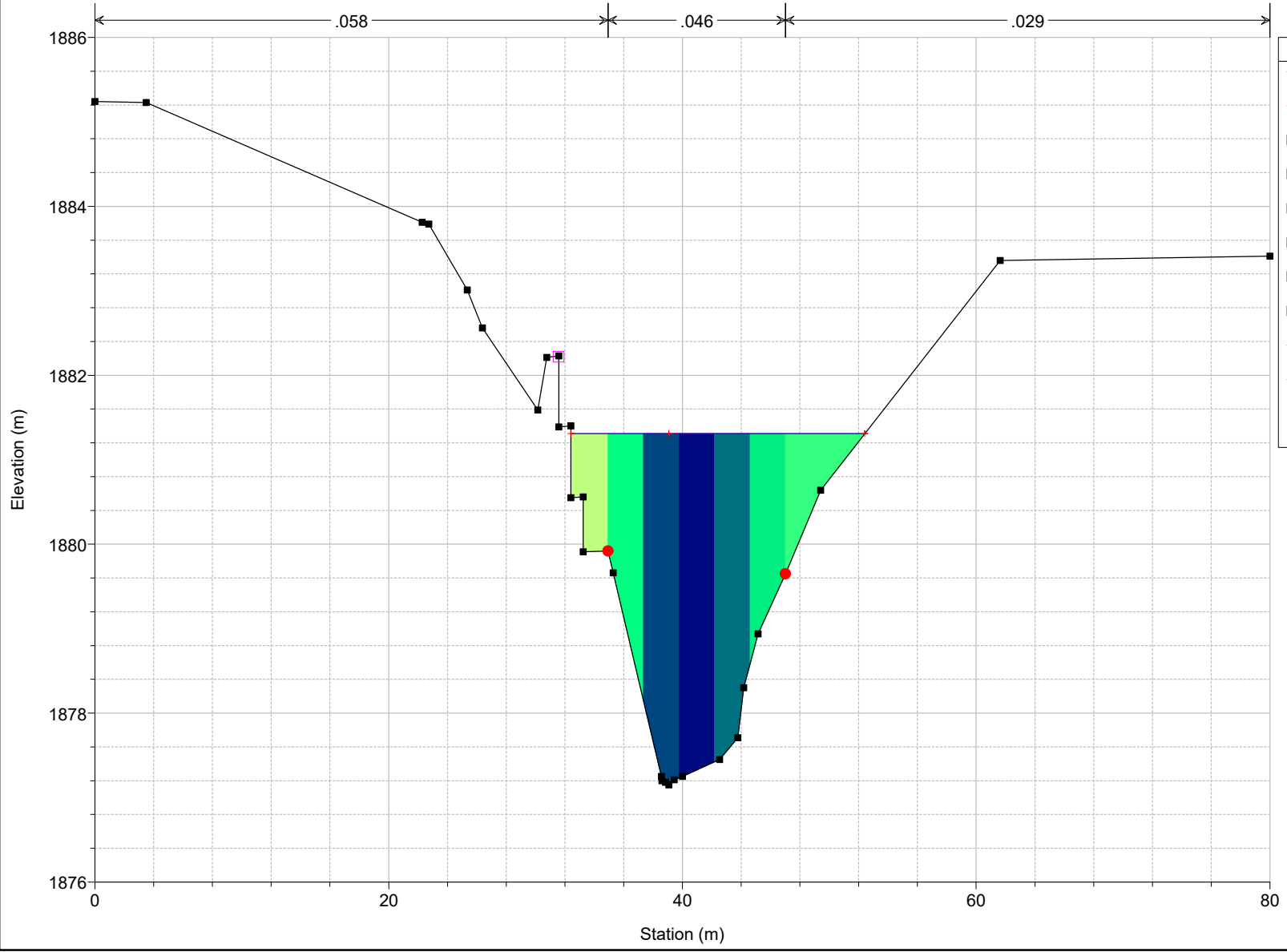
PROYECTO Plan: Plan 01 30/8/2023
RS = 800



Legend

- WS T=100
- Crit T=100
- 1.0 m/s
- 1.5 m/s
- 2.0 m/s
- 2.5 m/s
- 3.0 m/s
- 3.5 m/s
- 4.0 m/s
- Ground
- Levee
- Bank Sta

PROYECTO Plan: Plan 01 30/8/2023
RS = 750

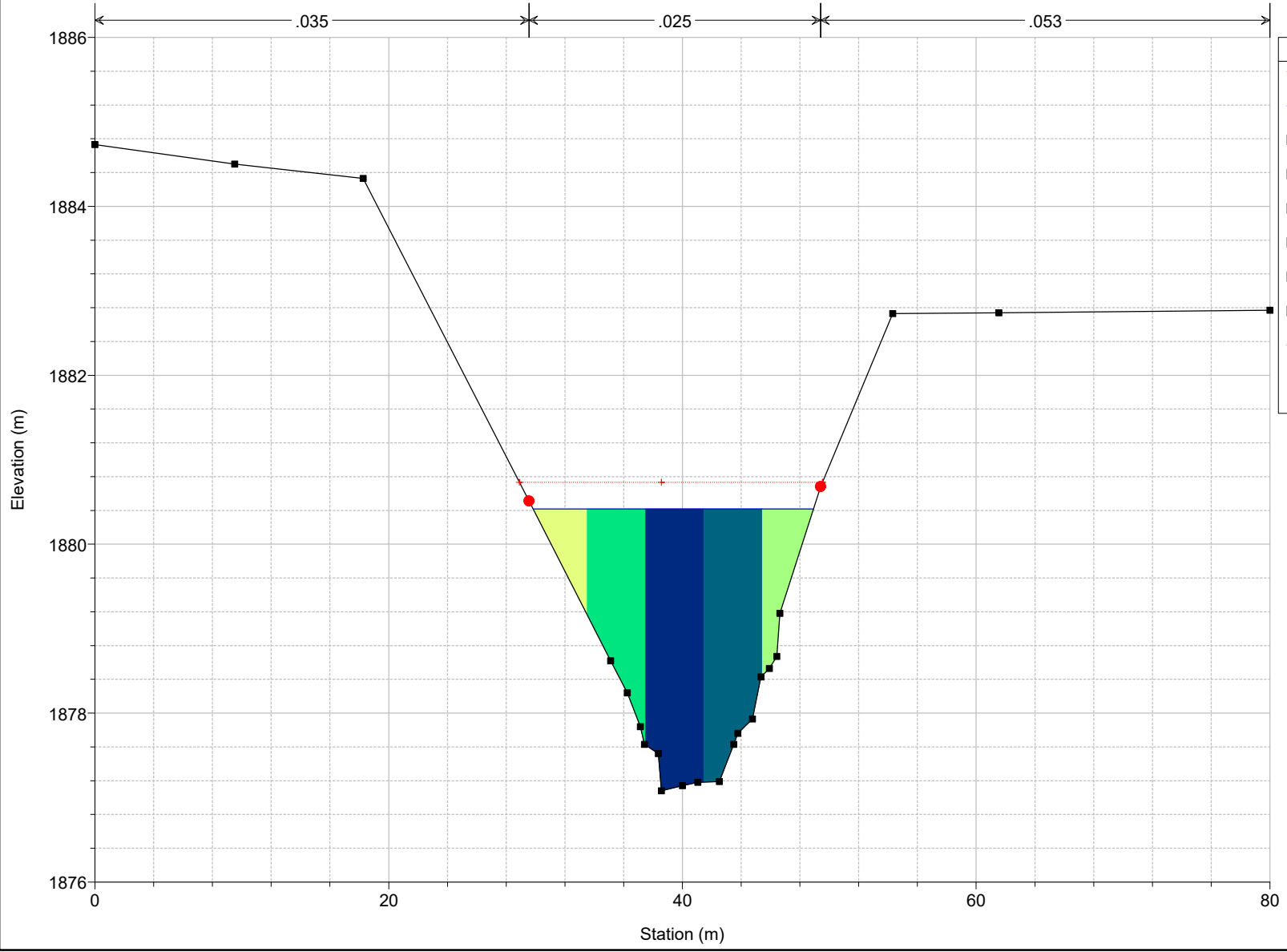


Legend

- WS T=100
- Crit T=100
- 1 m/s
- 2 m/s
- 3 m/s
- 4 m/s
- 5 m/s
- 6 m/s
- Ground
- Levee
- Bank Sta

PROYECTO Plan: Plan 01 30/8/2023

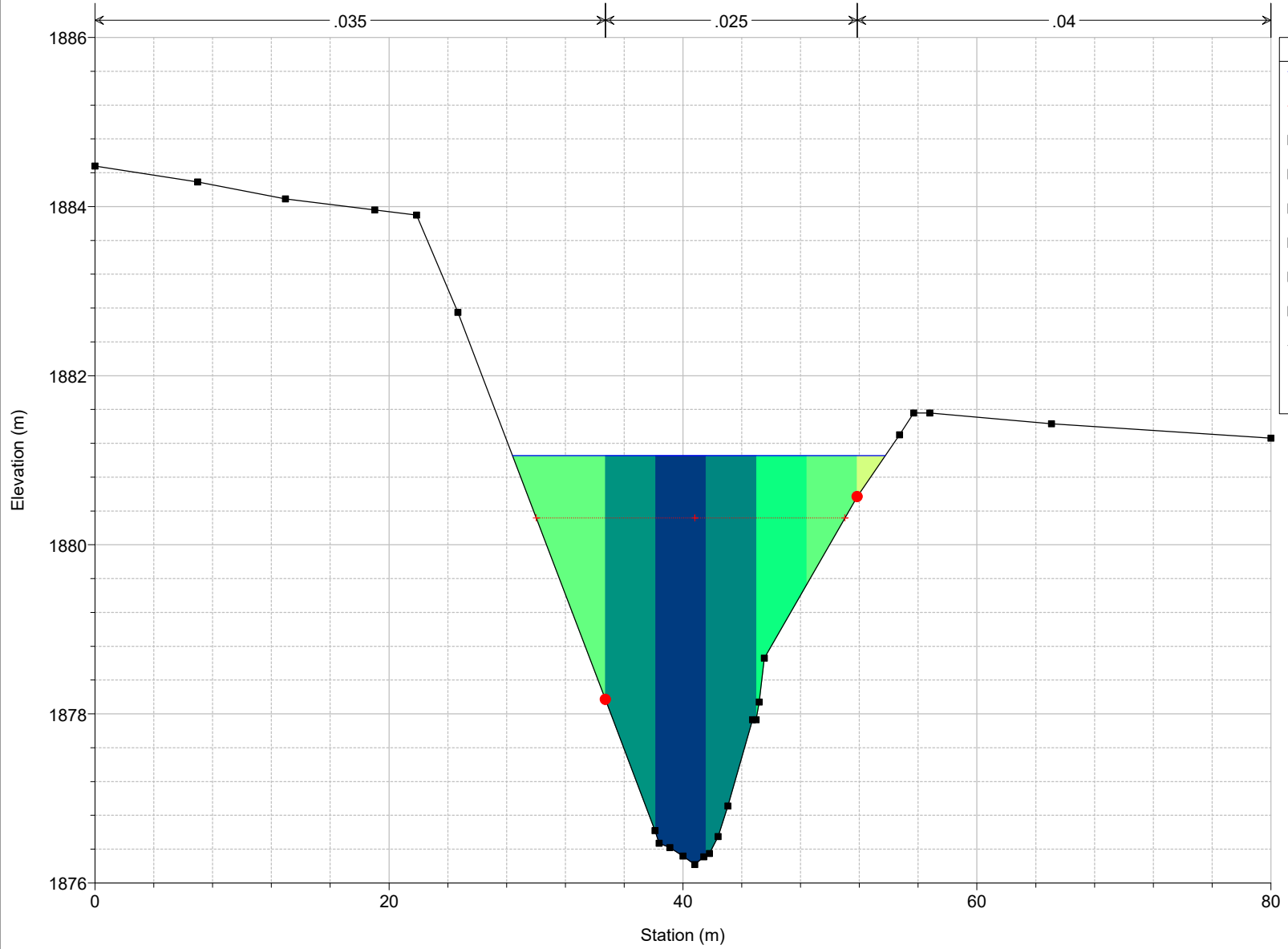
RS = 700



Legend

- Crit T=100
- WS T=100
- 2 m/s
- 3 m/s
- 4 m/s
- 5 m/s
- 6 m/s
- 7 m/s
- Ground
- Bank Sta

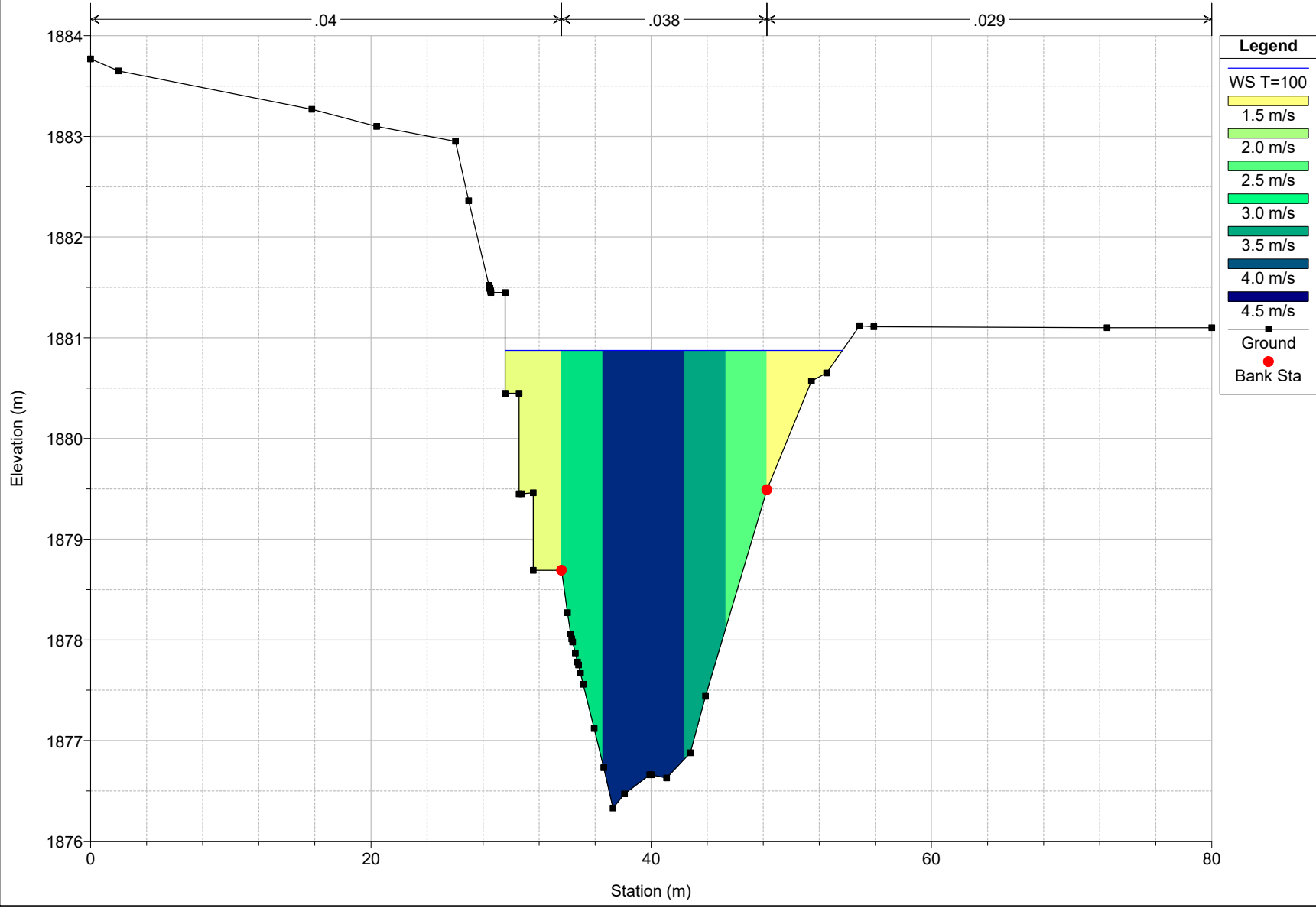
PROYECTO Plan: Plan 01 30/8/2023
RS = 650



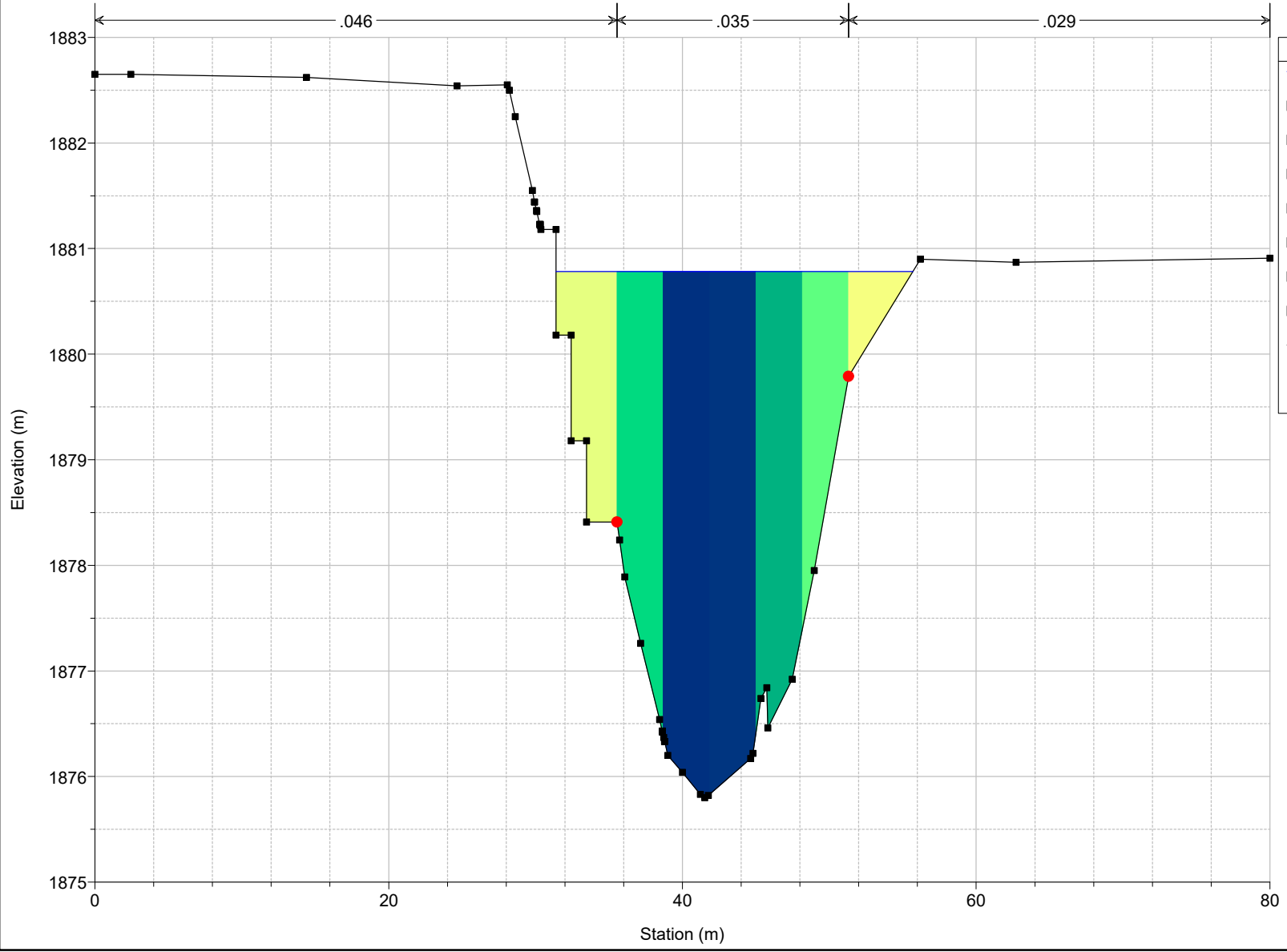
Legend

- WS T=100
- Crit T=100
- 0 m/s
- 1 m/s
- 2 m/s
- 3 m/s
- 4 m/s
- 5 m/s
- Ground
- Bank Sta

PROYECTO Plan: Plan 01 30/8/2023
RS = 600



PROYECTO Plan: Plan 01 30/8/2023
RS = 550

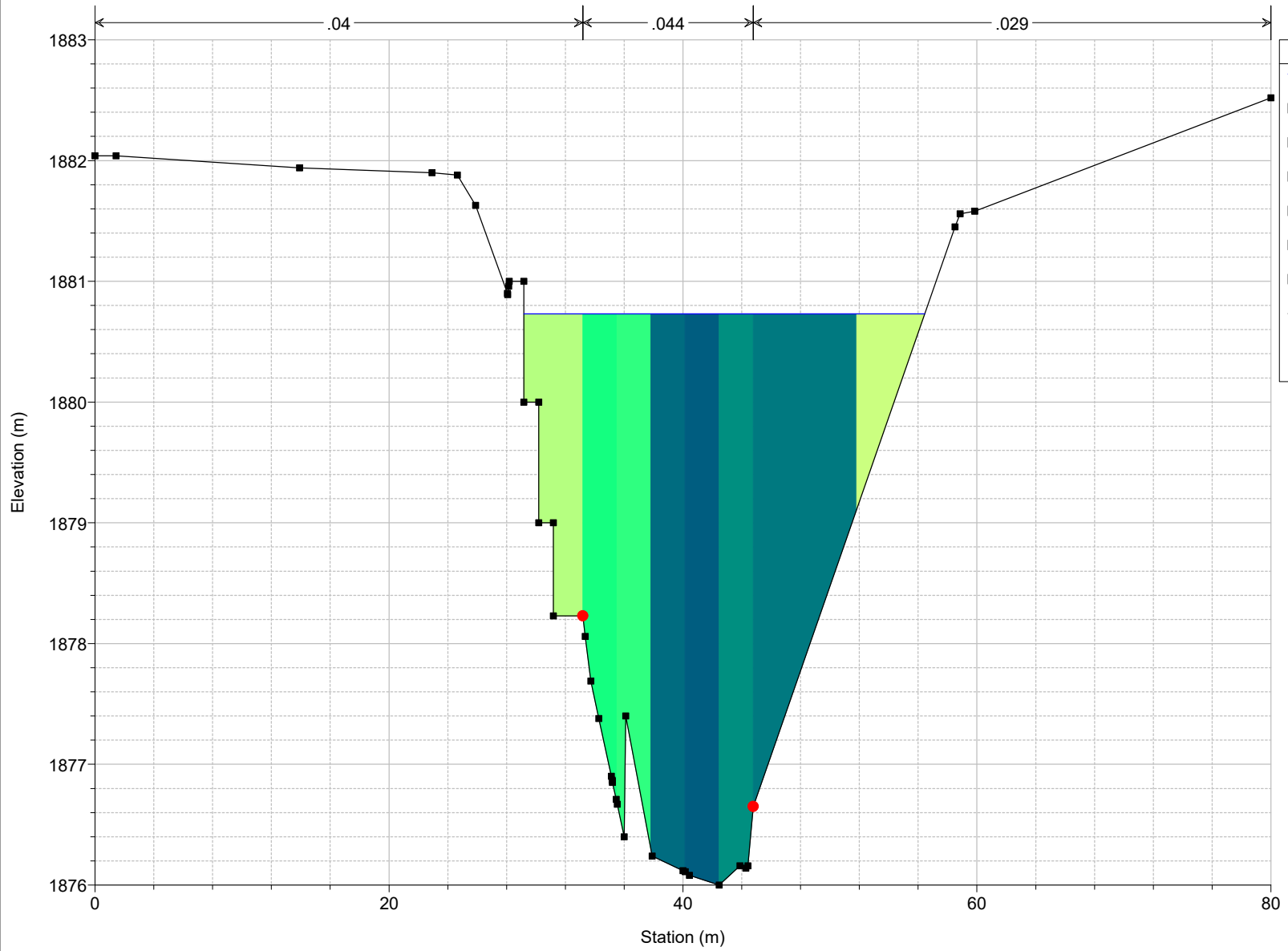


Legend

- WS T=100
- 1.0 m/s
- 1.5 m/s
- 2.0 m/s
- 2.5 m/s
- 3.0 m/s
- 3.5 m/s
- 4.0 m/s
- Ground
- Bank Sta

PROYECTO Plan: Plan 01 30/8/2023

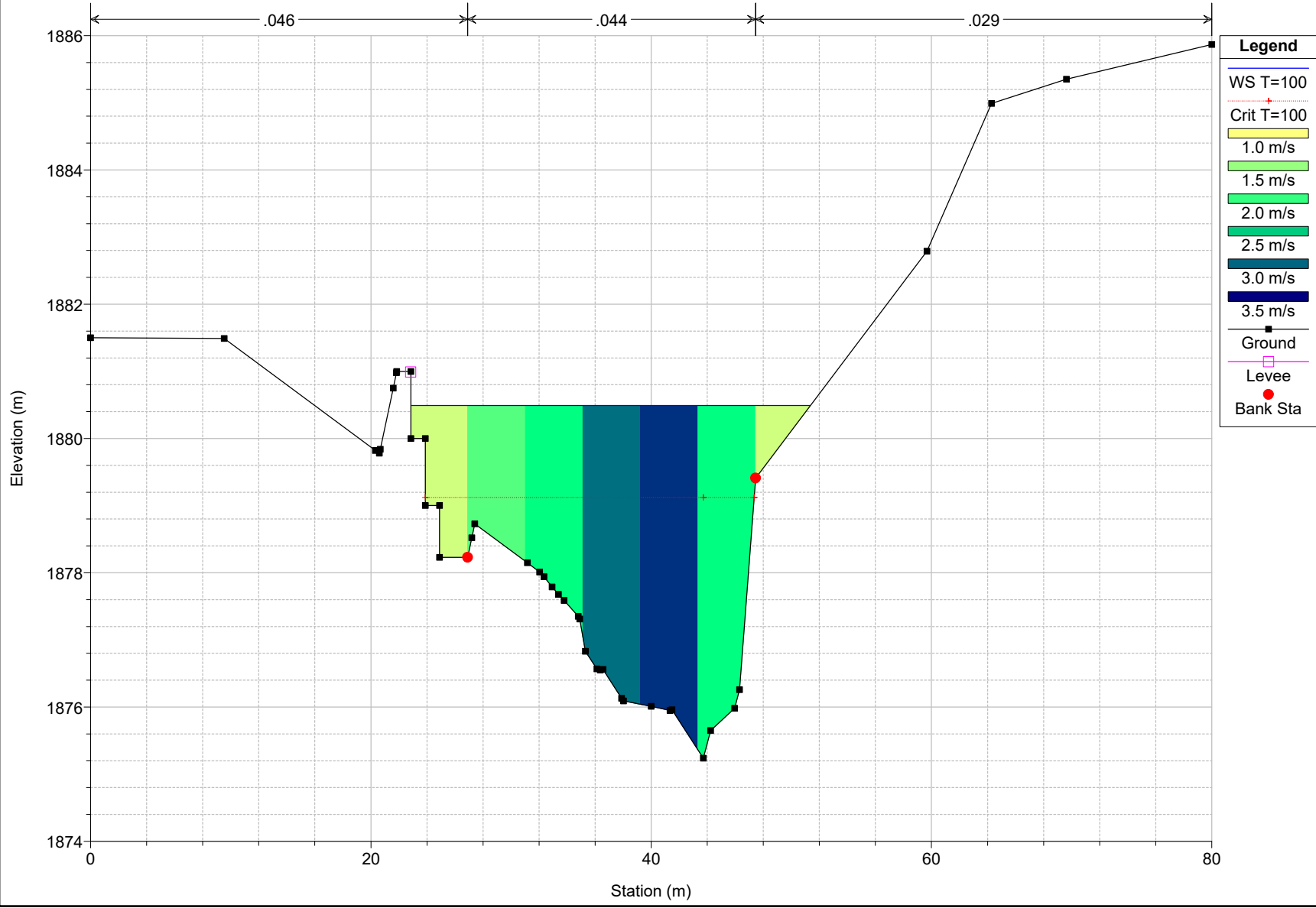
RS = 500



Legend

- WS T=100
- 1.0 m/s
- 1.5 m/s
- 2.0 m/s
- 2.5 m/s
- 3.0 m/s
- 3.5 m/s
- Ground
- Bank Sta

PROYECTO Plan: Plan 01 30/8/2023
RS = 450



.046

.044

.029

Elevation (m)

Station (m)

1886

1884

1882

1880

1878

1876

1874

0

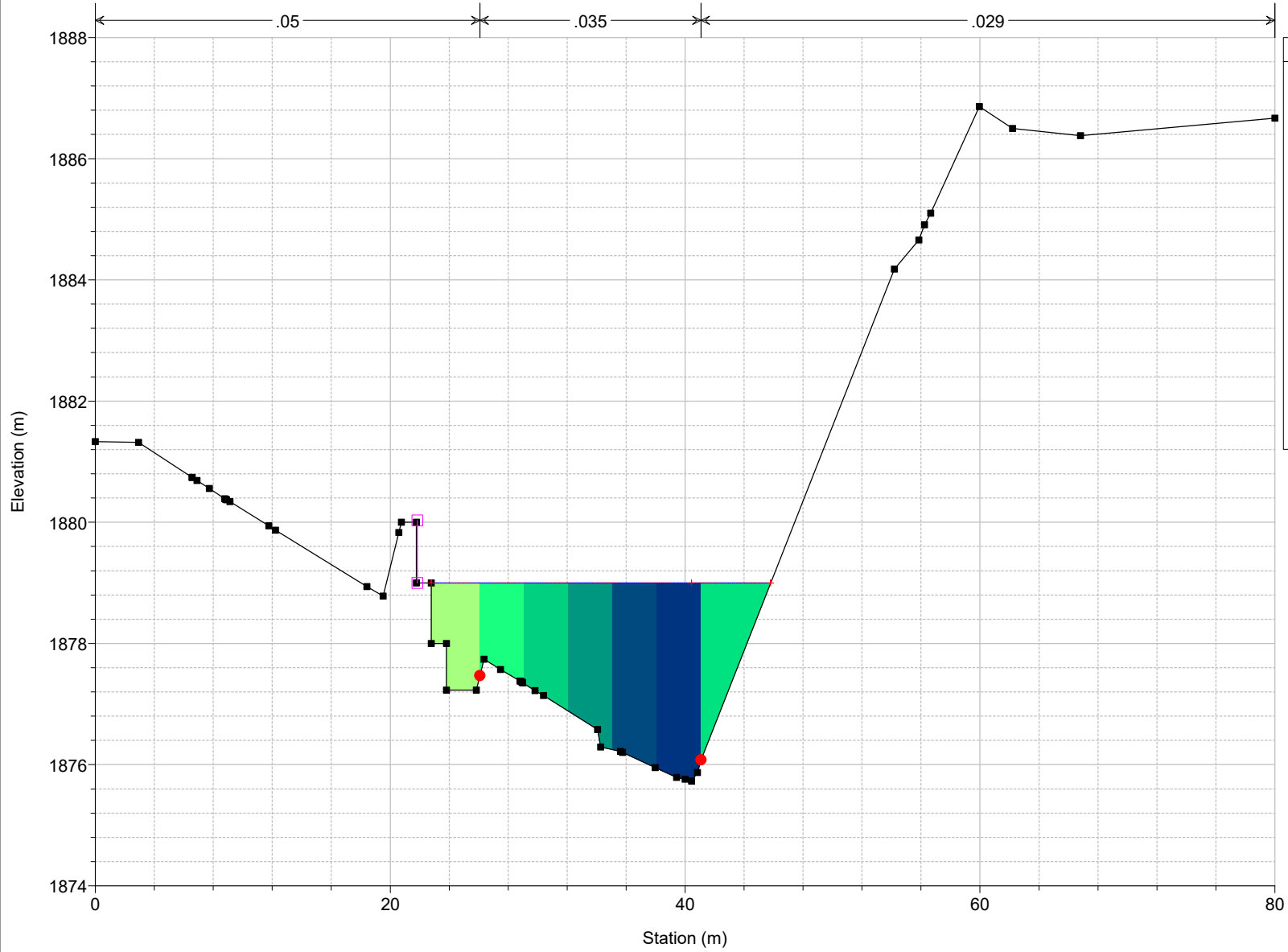
20

40

60

80

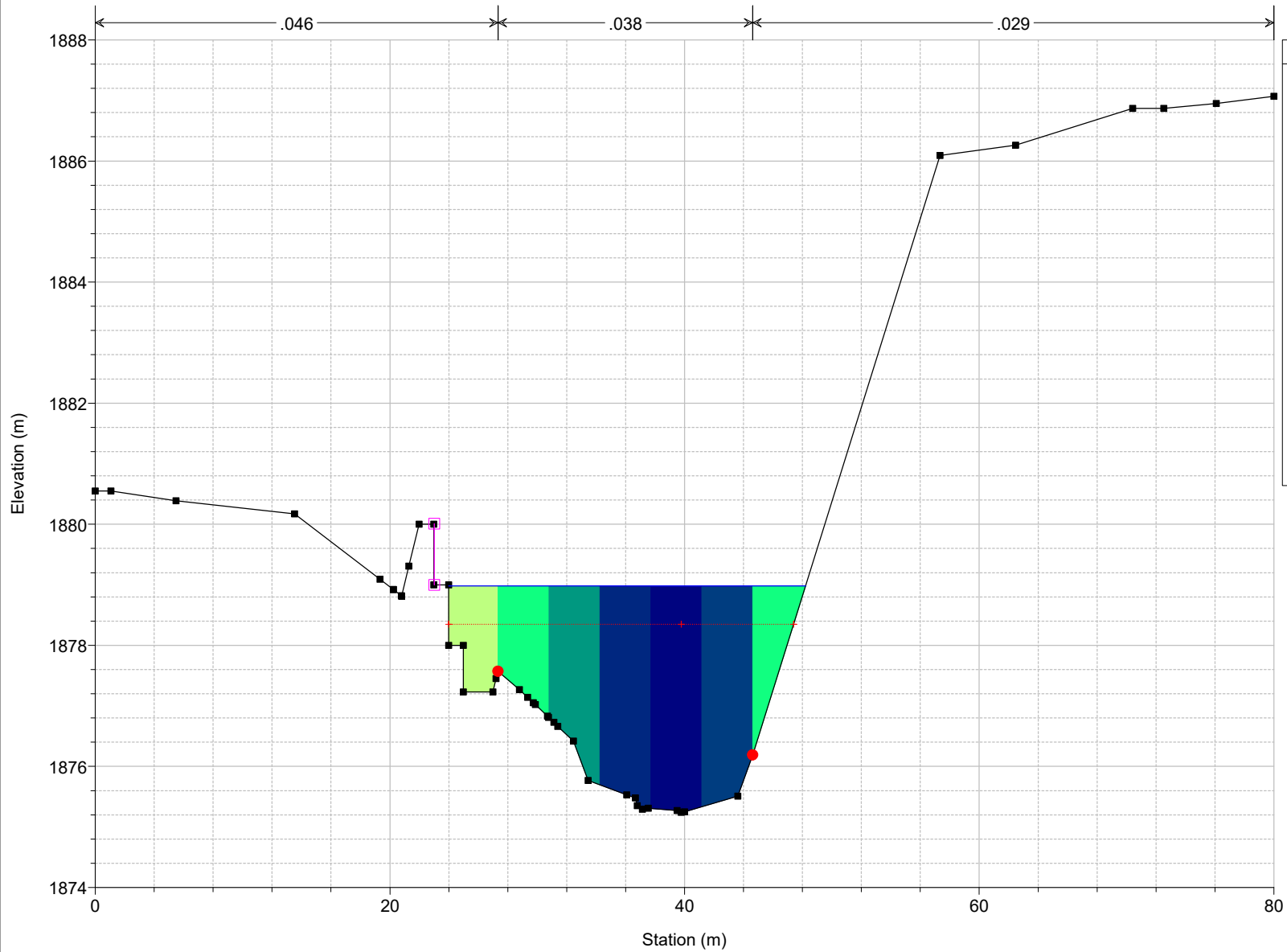
PROYECTO Plan: Plan 01 30/8/2023
RS = 400



Legend

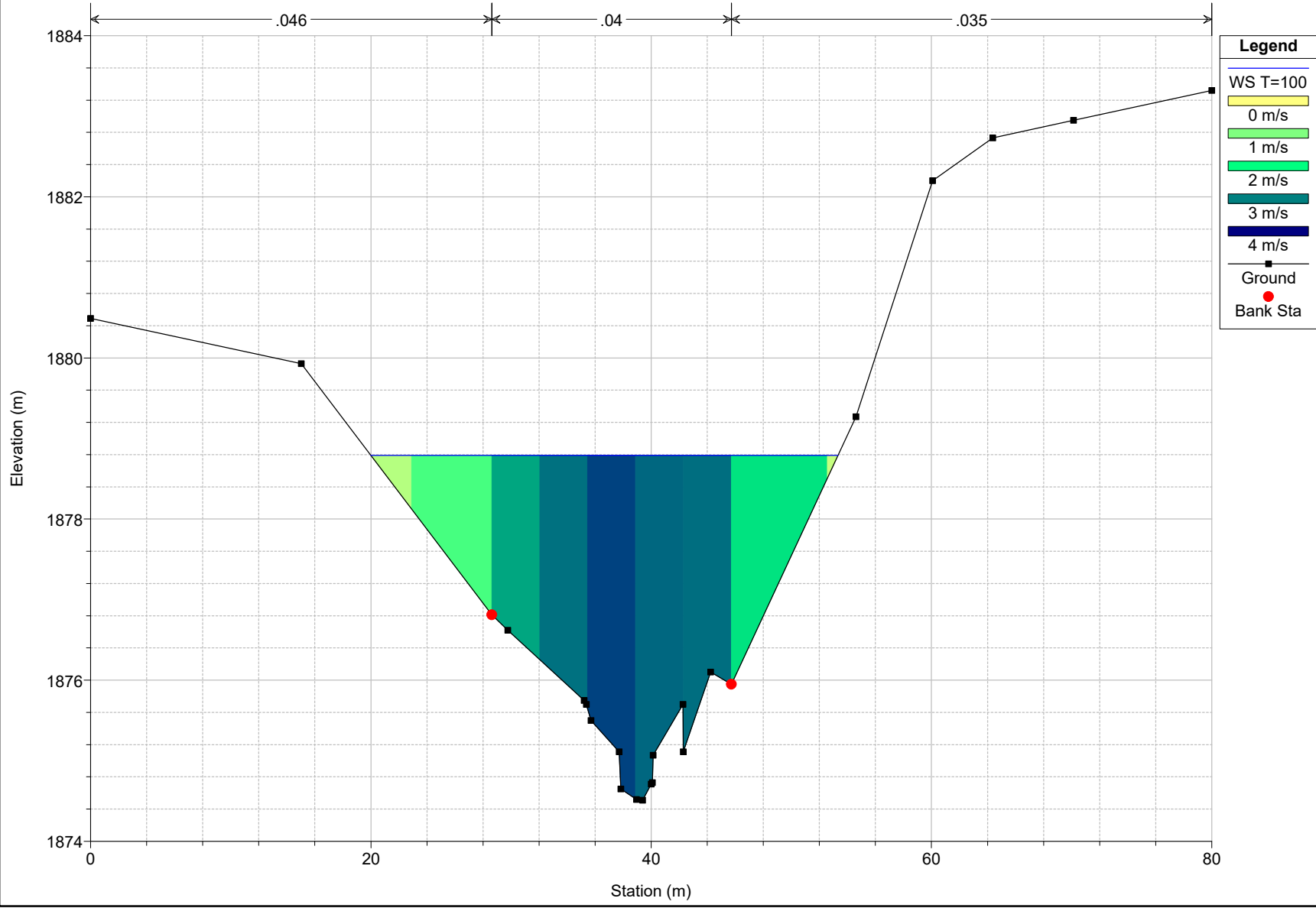
- WS T=100
- Crit T=100
- 1 m/s
- 2 m/s
- 3 m/s
- 4 m/s
- 5 m/s
- 6 m/s
- Ground
- Levee
- Bank Sta

PROYECTO Plan: Plan 01 30/8/2023
RS = 350

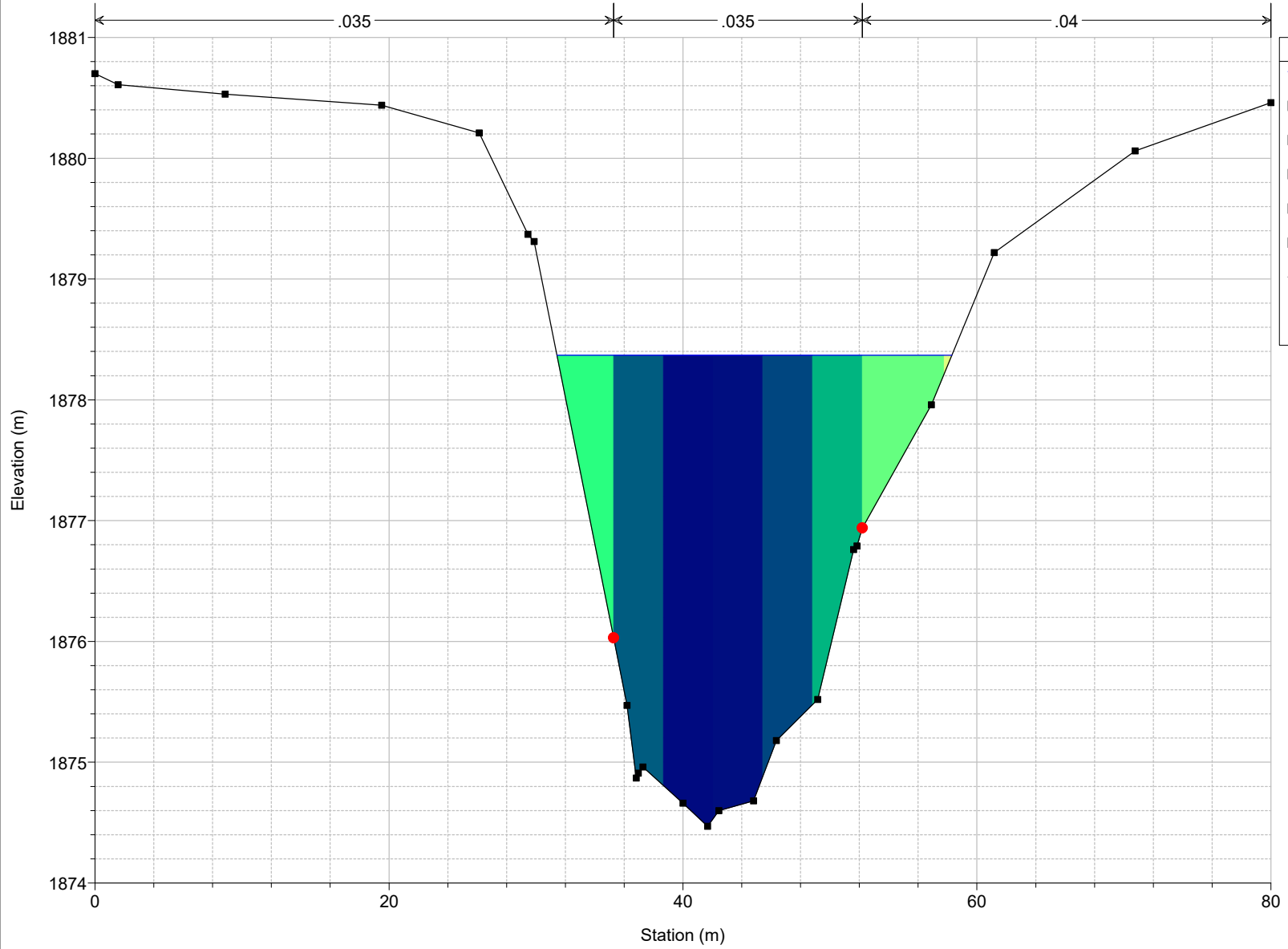


- Legend**
- WS T=100
 - Crit T=100
 - 1.0 m/s
 - 1.5 m/s
 - 2.0 m/s
 - 2.5 m/s
 - 3.0 m/s
 - 3.5 m/s
 - 4.0 m/s
 - Ground
 - Levee
 - Bank Sta

PROYECTO Plan: Plan 01 30/8/2023
RS = 300



PROYECTO Plan: Plan 01 30/8/2023
RS = 250

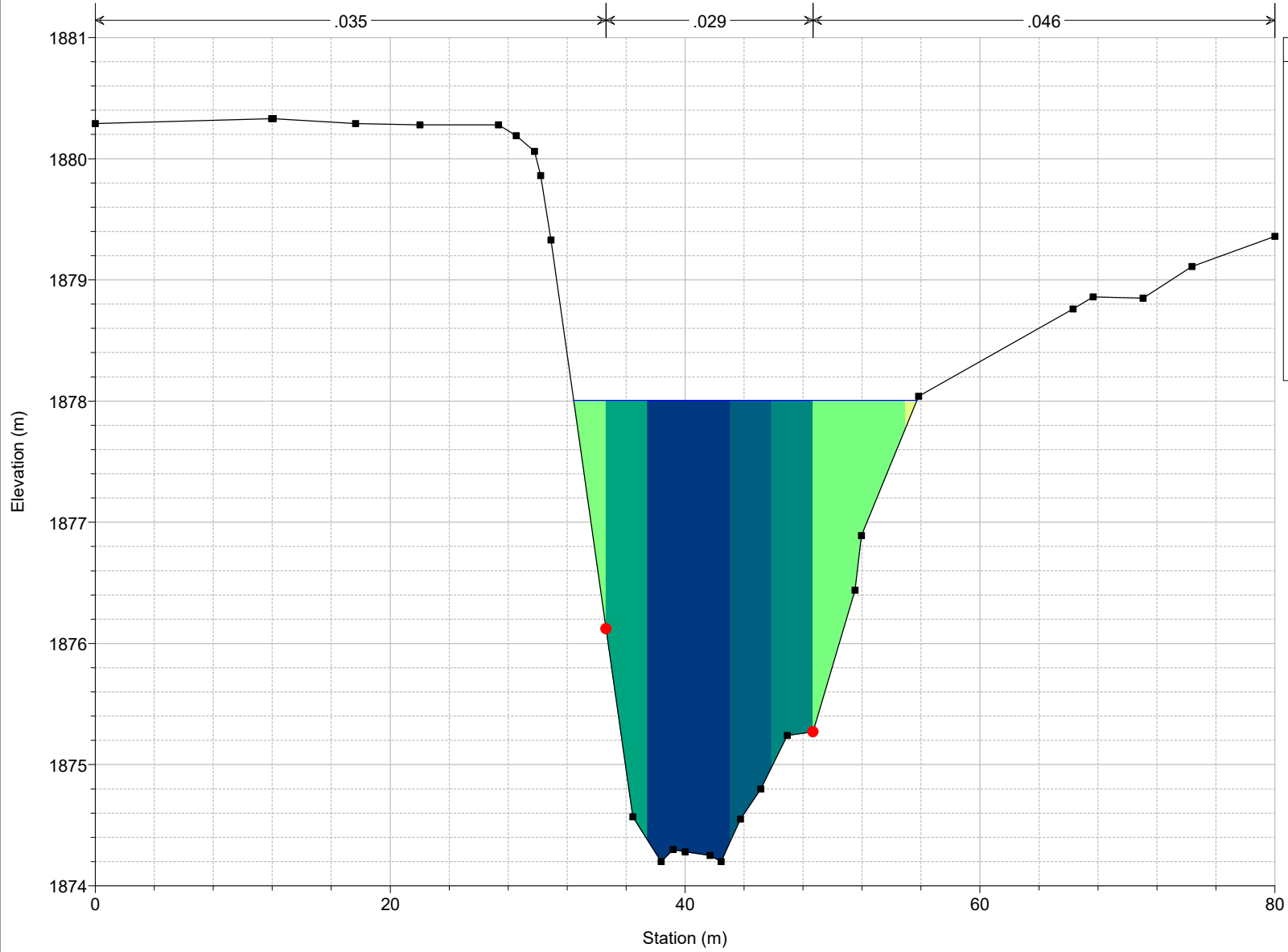


Legend

- WS T=100
- 0 m/s
- 1 m/s
- 2 m/s
- 3 m/s
- 4 m/s
- Ground
- Bank Sta

PROYECTO Plan: Plan 01 30/8/2023

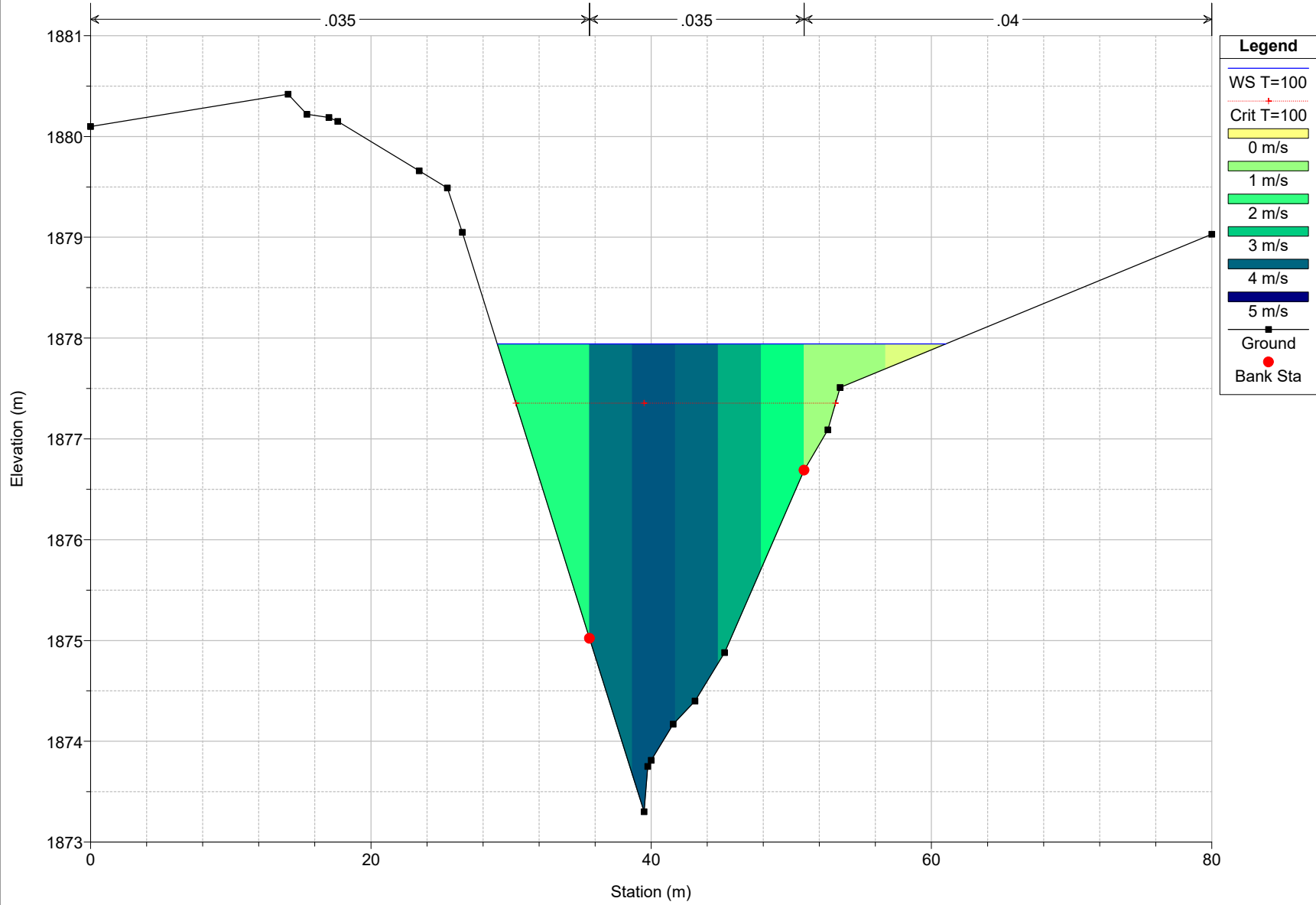
RS = 200



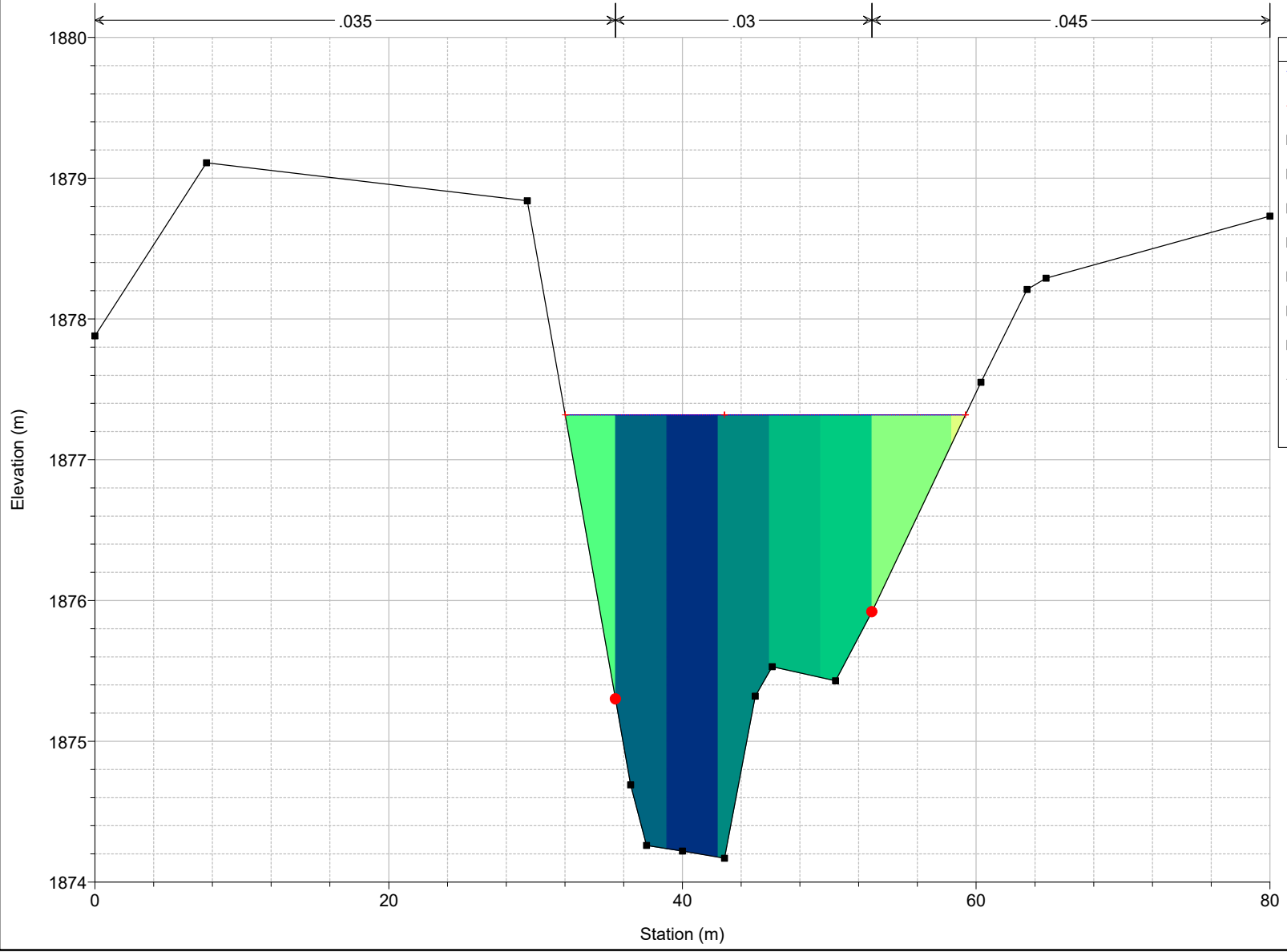
Legend

- WS T=100
- 0 m/s
- 1 m/s
- 2 m/s
- 3 m/s
- 4 m/s
- 5 m/s
- Ground
- Bank Sta

PROYECTO Plan: Plan 01 30/8/2023
RS = 150



PROYECTO Plan: Plan 01 30/8/2023
RS = 100



Legend

- WS T=100
- Crit T=100
- 0 m/s
- 1 m/s
- 2 m/s
- 3 m/s
- 4 m/s
- 5 m/s
- 6 m/s
- Ground
- Bank Sta

PROYECTO Plan: Plan 01 30/8/2023

RS = 50

