



Accordo di Pianificazione ai sensi dell' art. 57 della L.R. 36/1997
tra Autorità di bacino del fiume Po Regione Liguria e Provincia di Genova

V1 – Verifiche idrauliche per l'individuazione delle aree inondabili e delle fasce fluviali (AVETO)

Allegato tecnico alle Norme di attuazione

PROGETTO	VARIANTE AL PIANO TERRITORIALE DI COORDINAMENTO DELLA PROVINCIA DI GENOVA CON VALORE ED EFFETTI DEL PIANO DI BACINO PER LA PARTE DEL TERRITORIO PROVINCIALE COMPRESA NEL BACINO DEL FIUME PO
Codice : 1.2 / 17 / 04	

N. / Titolo elaborato :	V1 - VERIFICHE IDRAULICHE – Aveto
Nome file :	V1c_Verifiche idrauliche_ Aveto.pdf

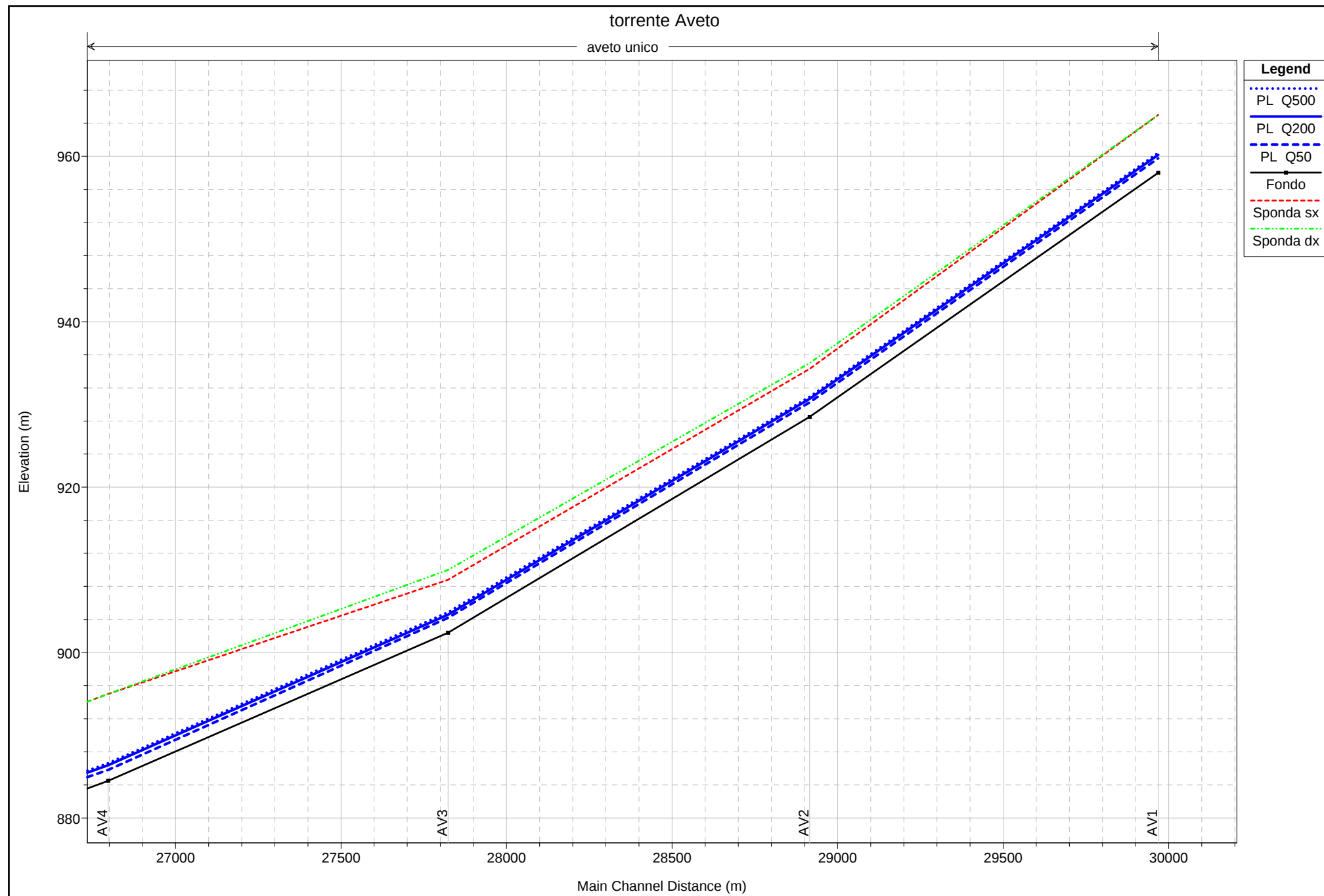
REV	DATA	REDATTO	VERIFICATO	APPROVATO
	06/2010	Ufficio Progettazione Territoriale	Il Dirigente del Servizio Pianificazione generale	Il Direttore
		Ufficio Pianificazione di Bacino e Protezione Civile	Arch. Andrea Pasetti	Dott. Geol. Mauro Lombardi

Indice

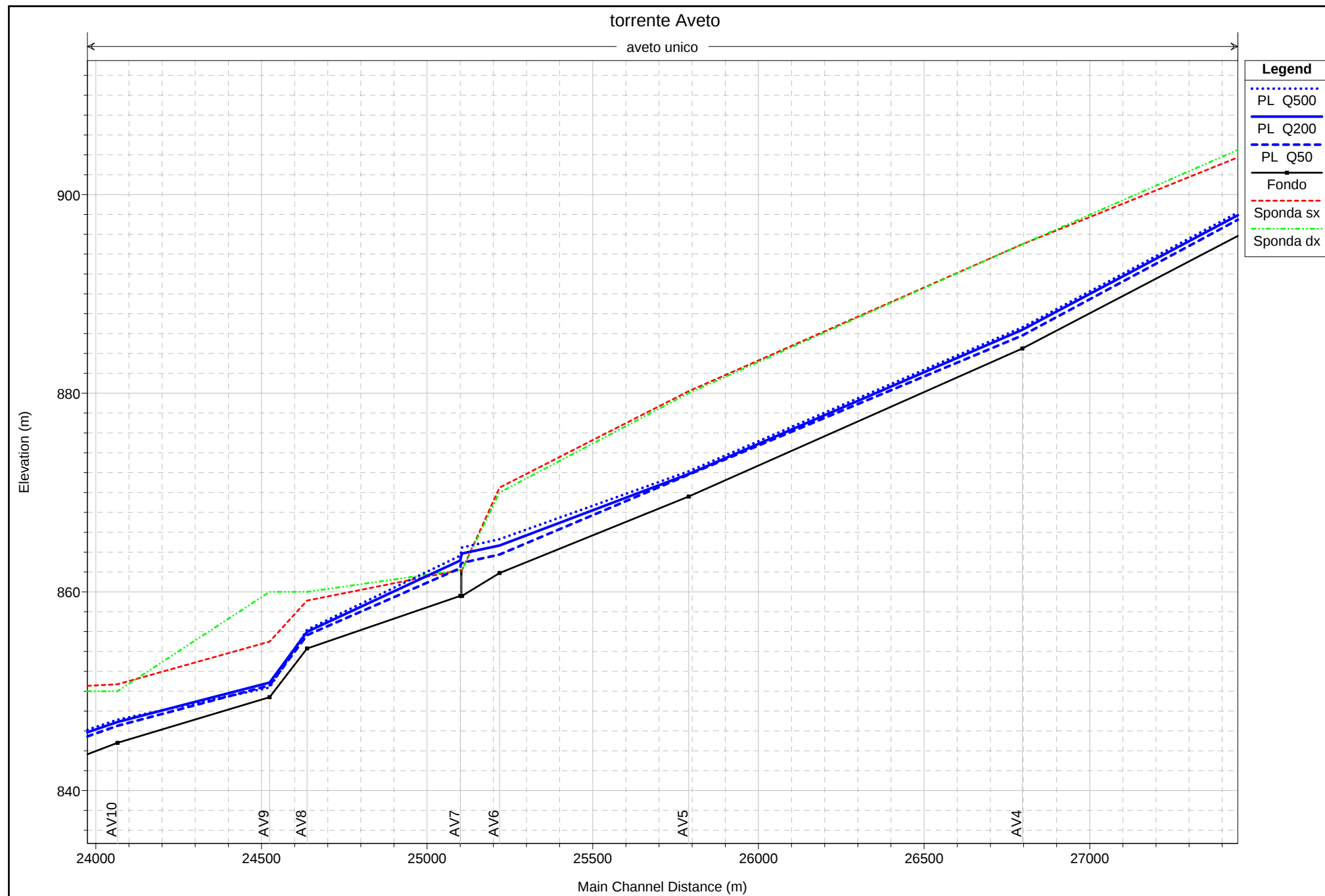
- Torrente Aveto**
- Torrente Ventarola**
- Torrente Rezzoaglio**
- Torrente Gramizza**
- Rio Freddo**
- Rio Molini**
- Rio Cugno**

Torrente Aveto

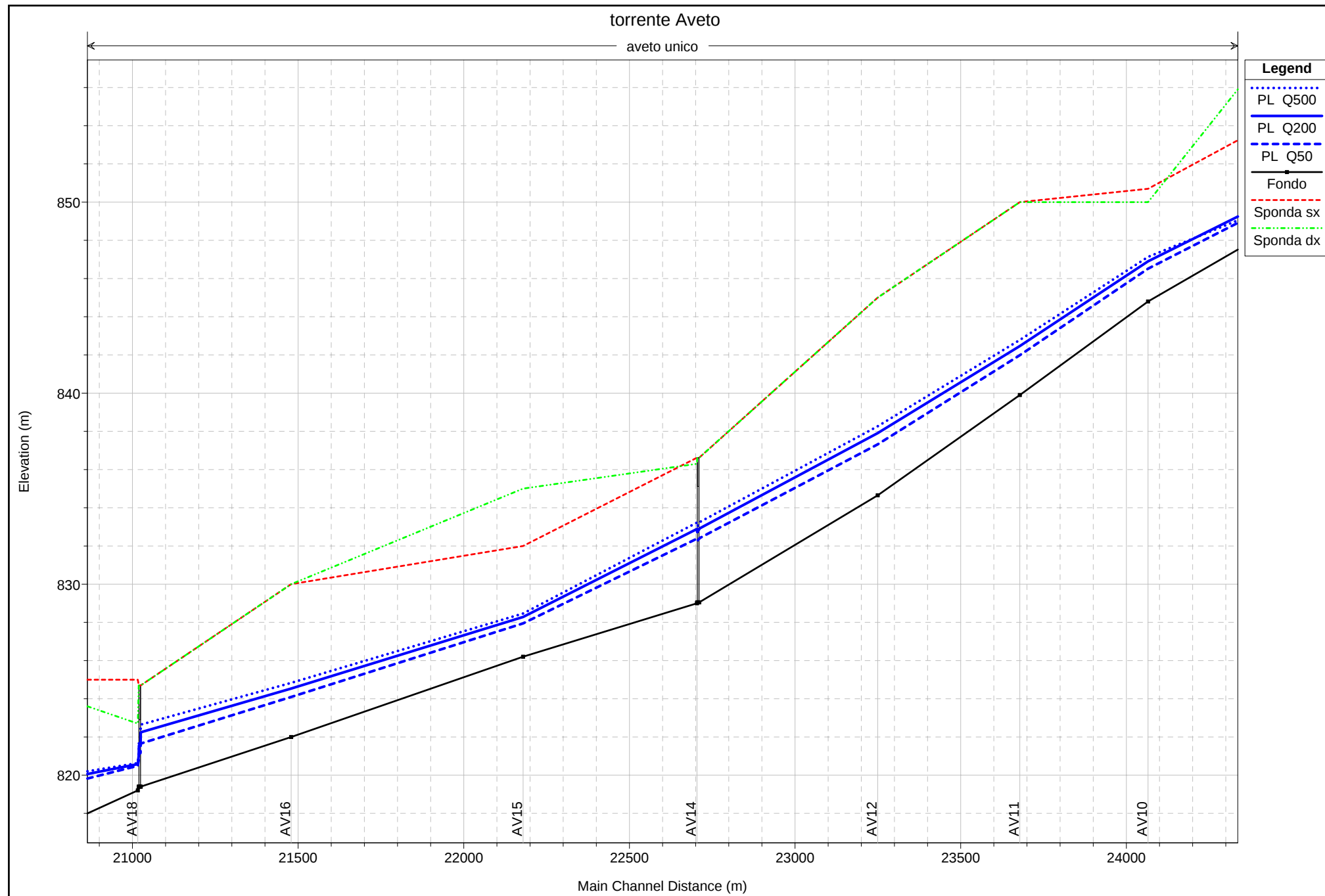
- Profili di corrente
- Sezioni idrauliche
- Tabelle dei risultati



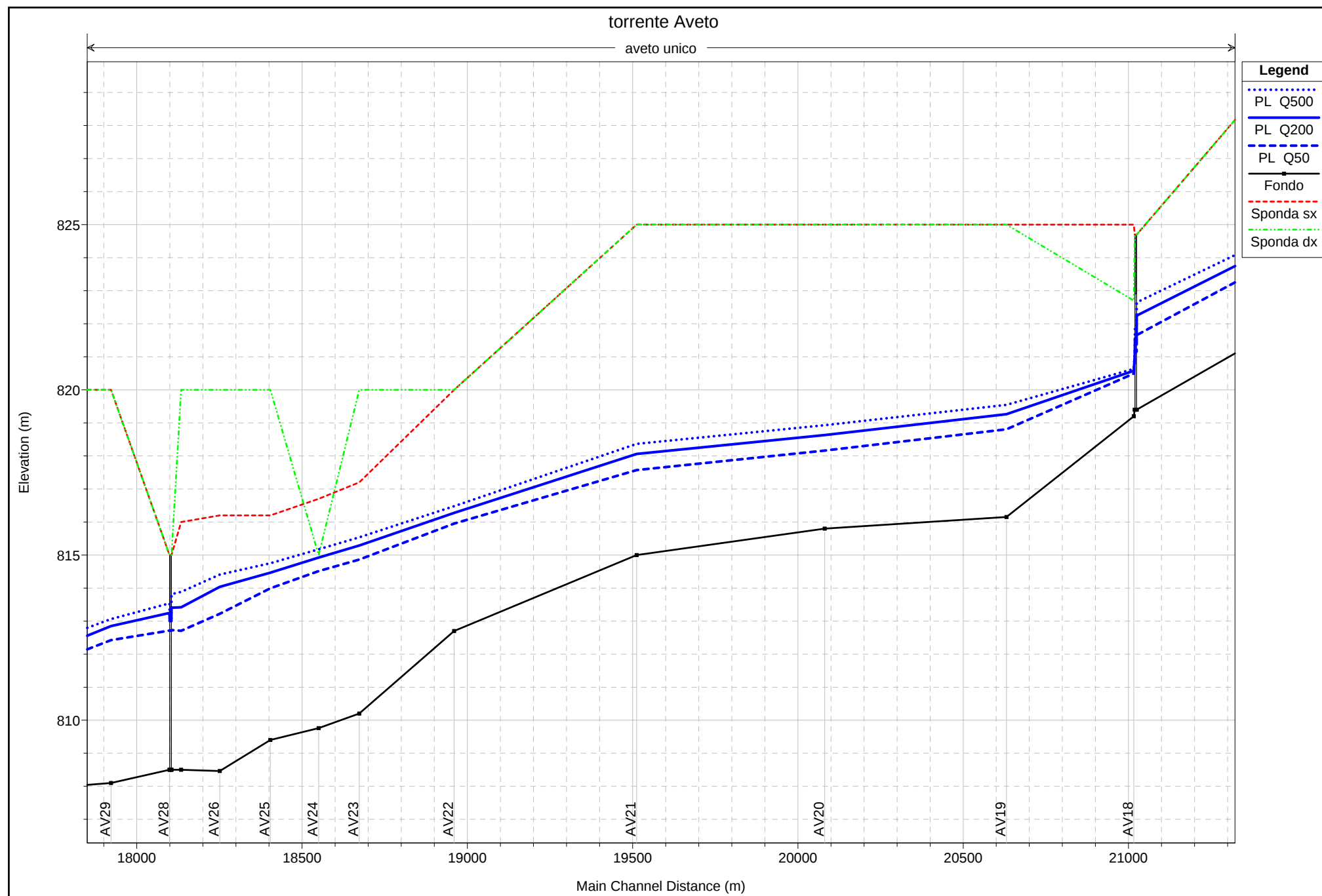
1 cm Horiz. = 150 m 1 cm Vert. = 6 m



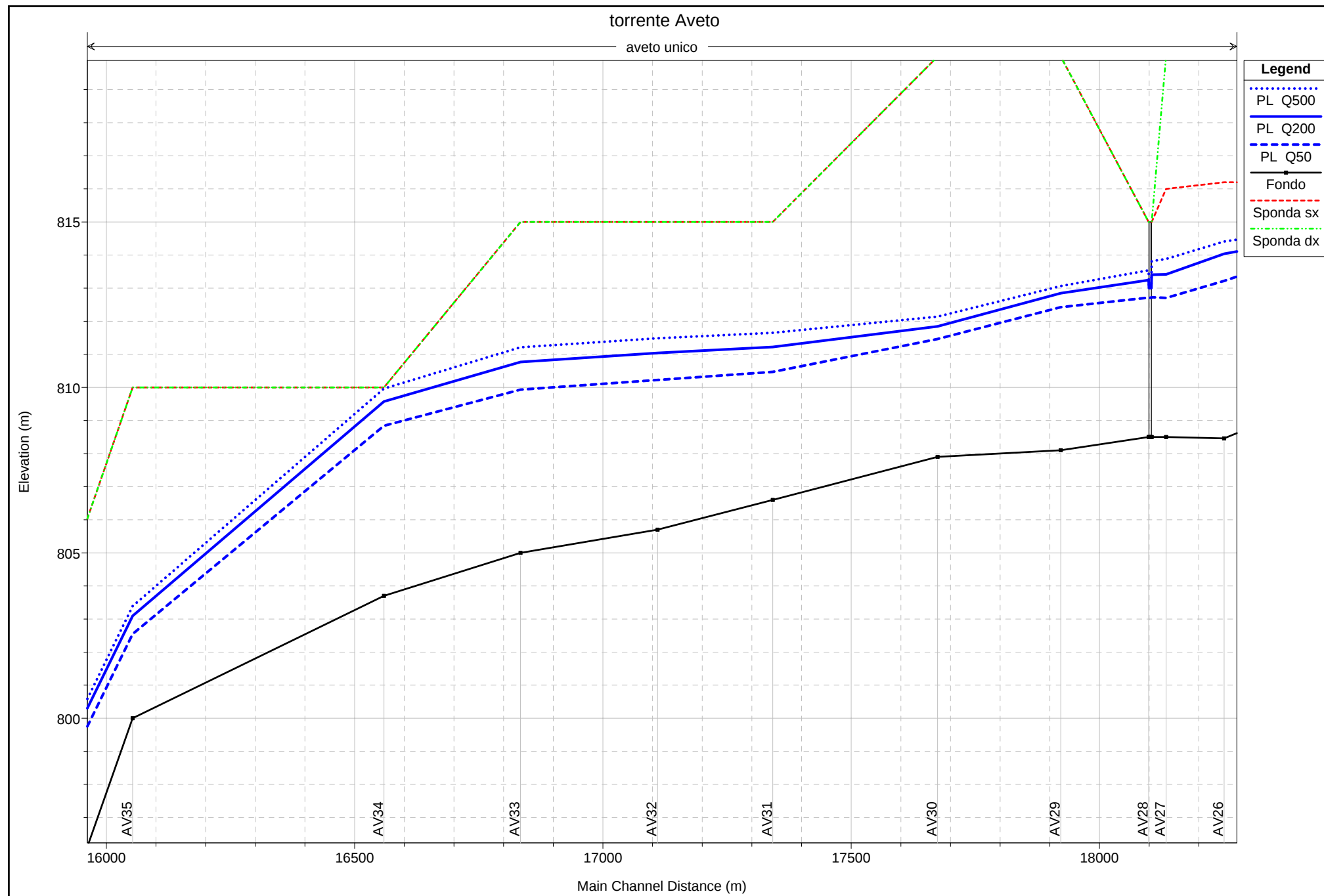
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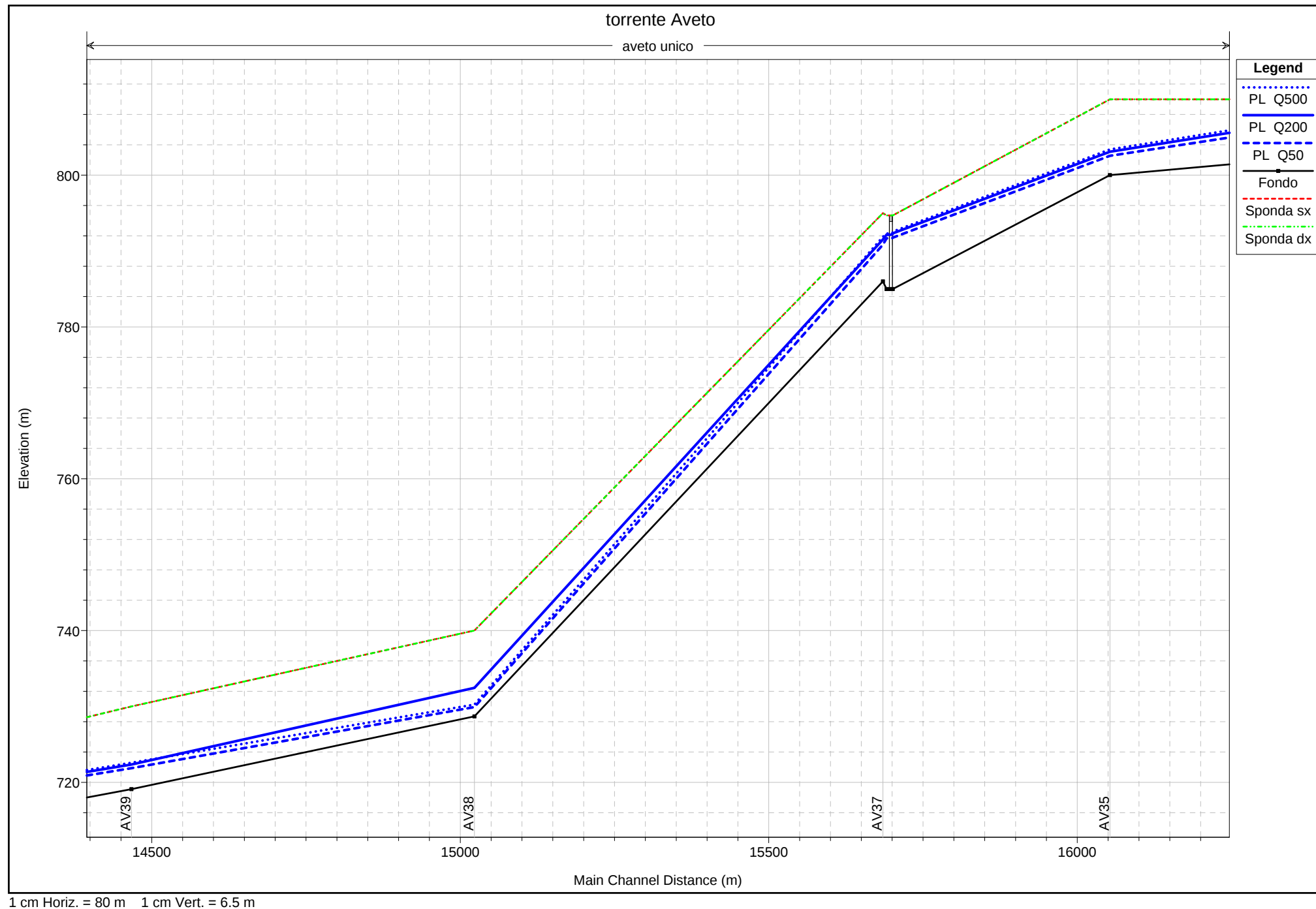
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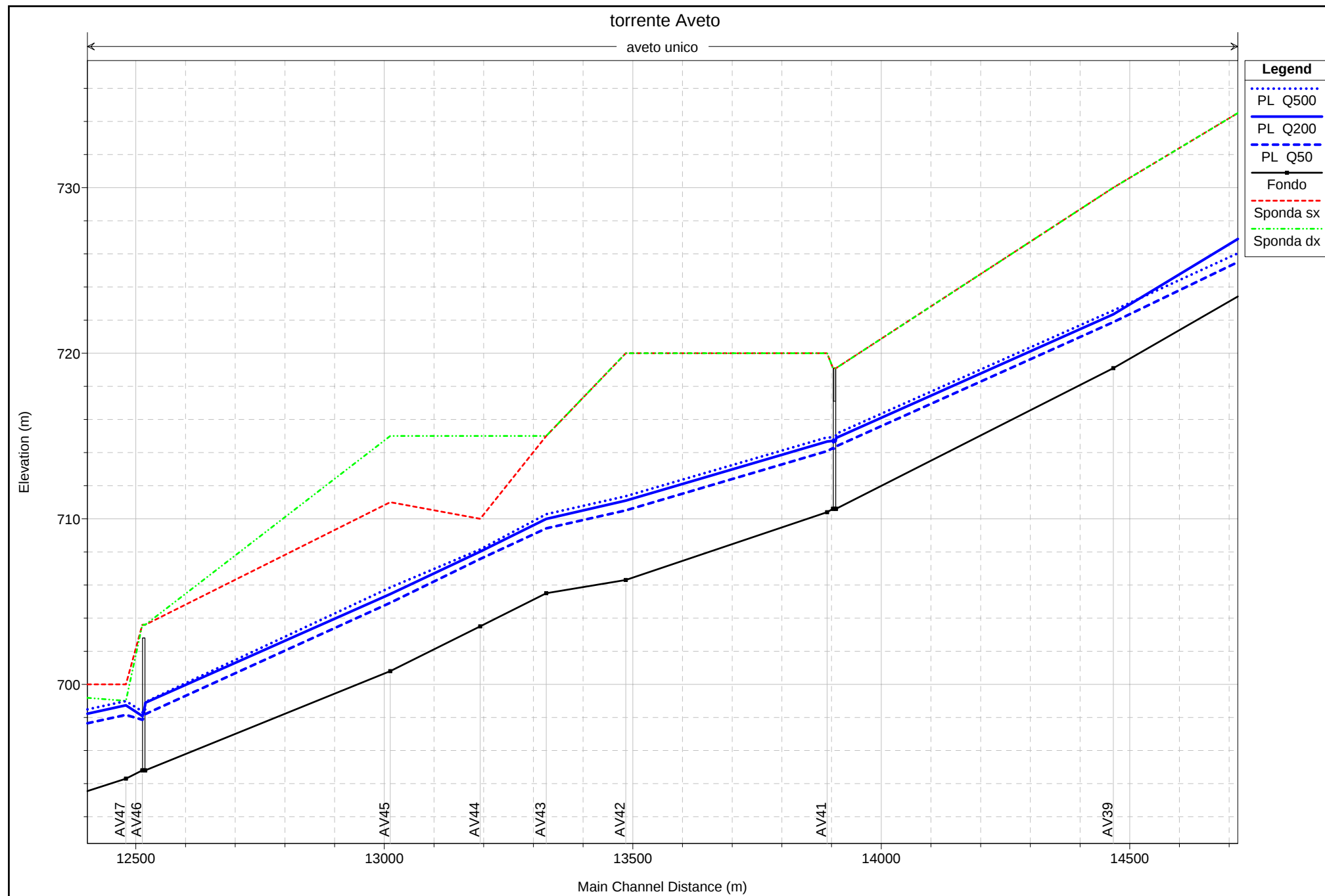


1 cm Horiz. = 150 m 1 cm Vert. = 1.5 m

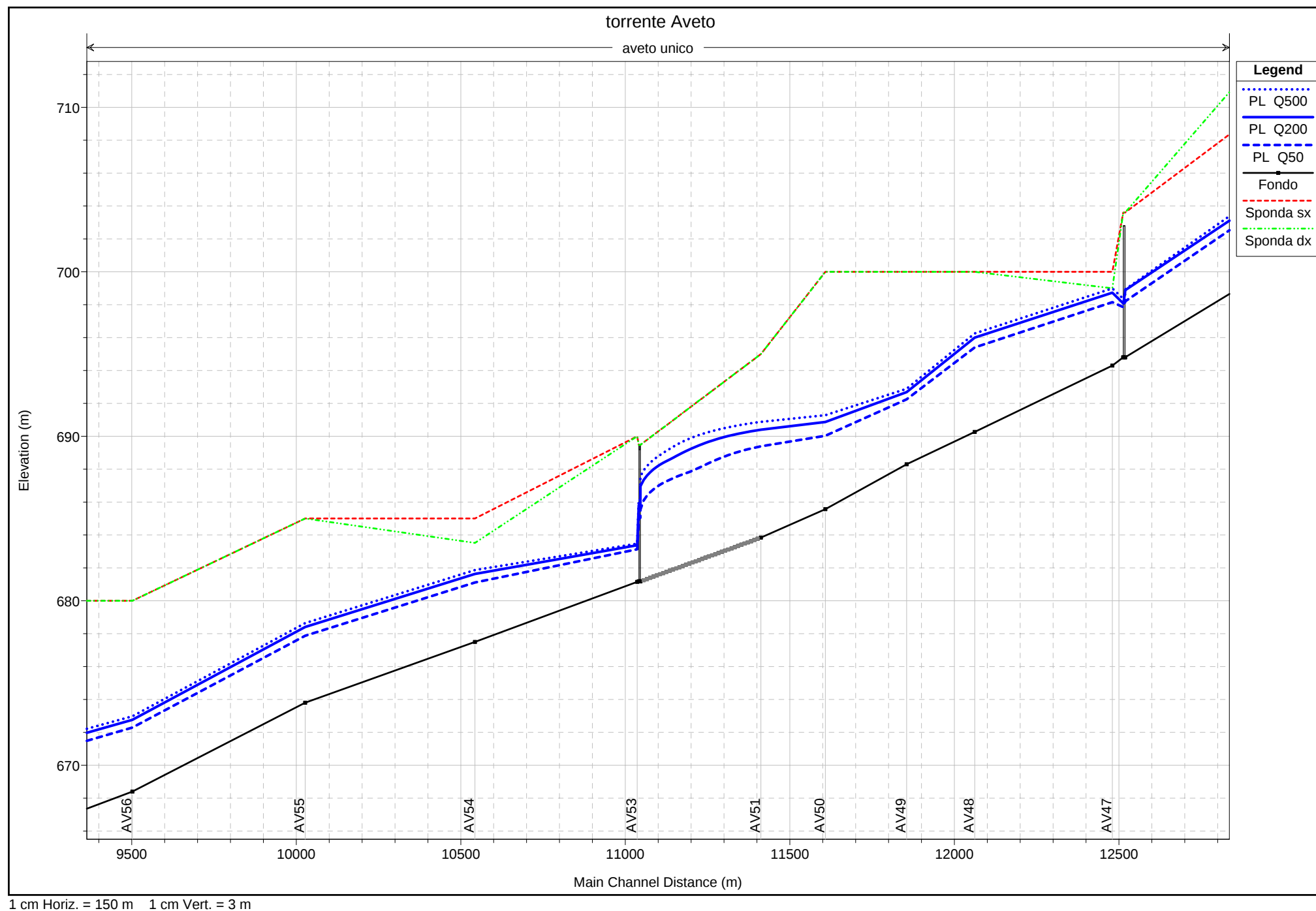


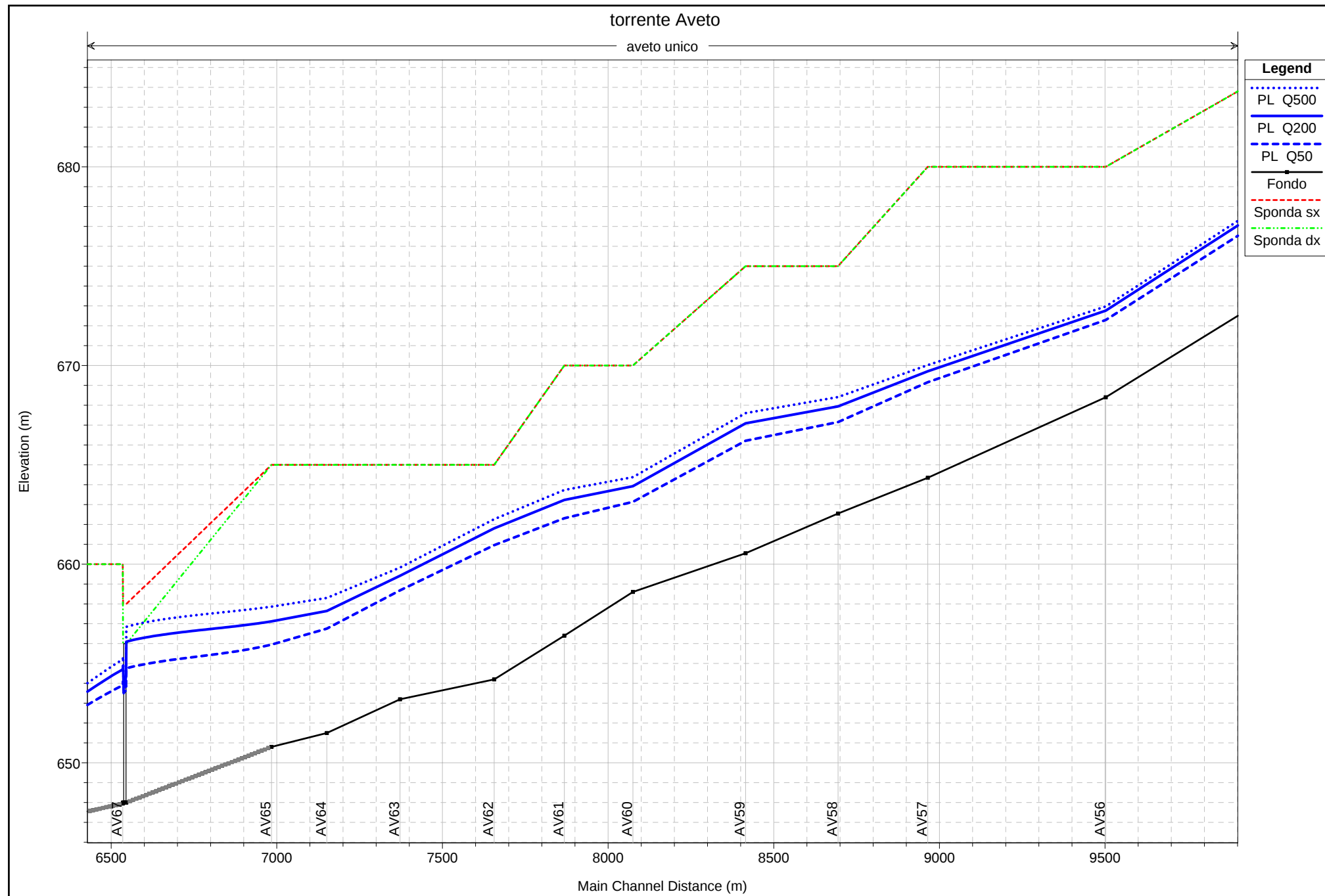
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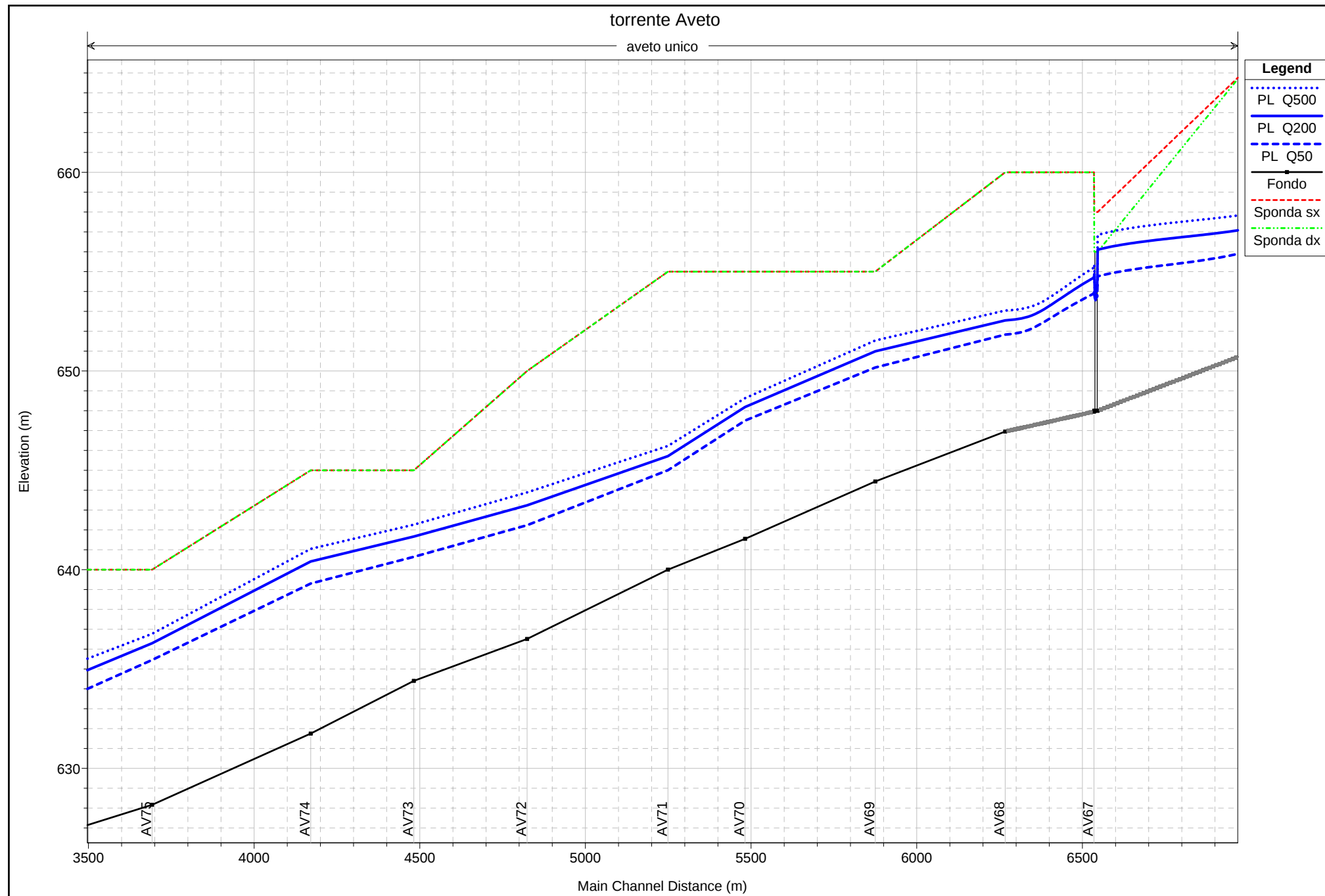




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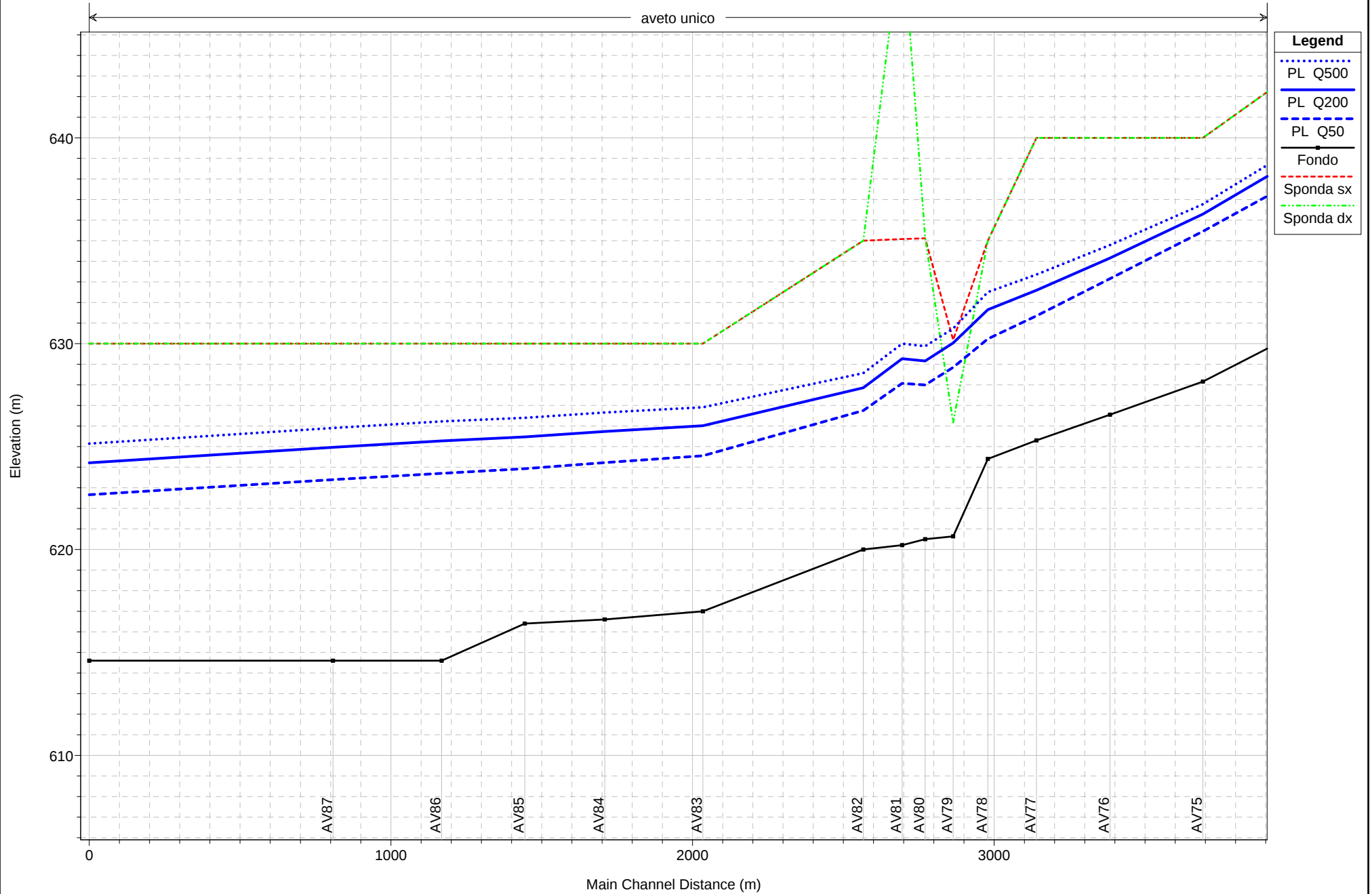


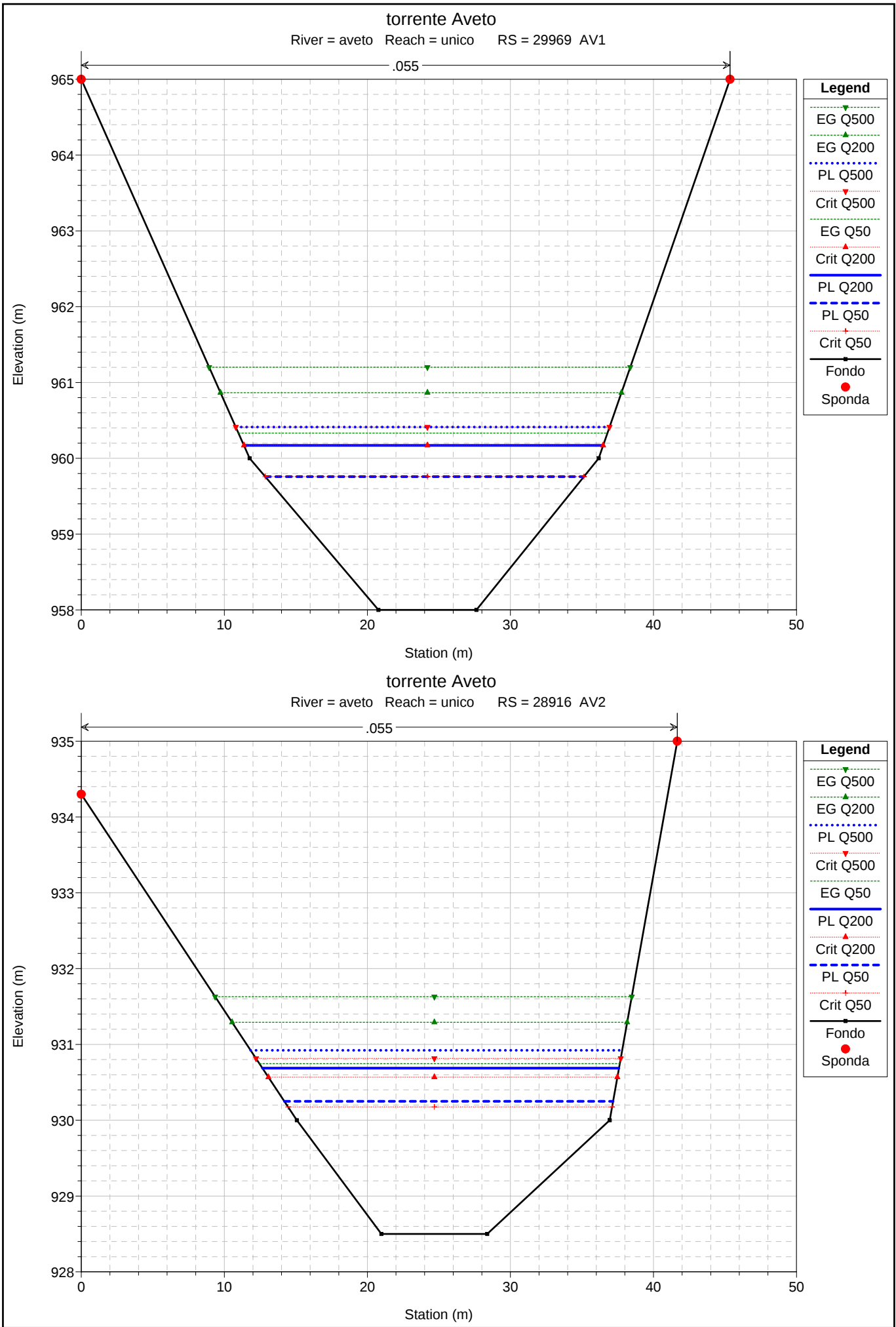


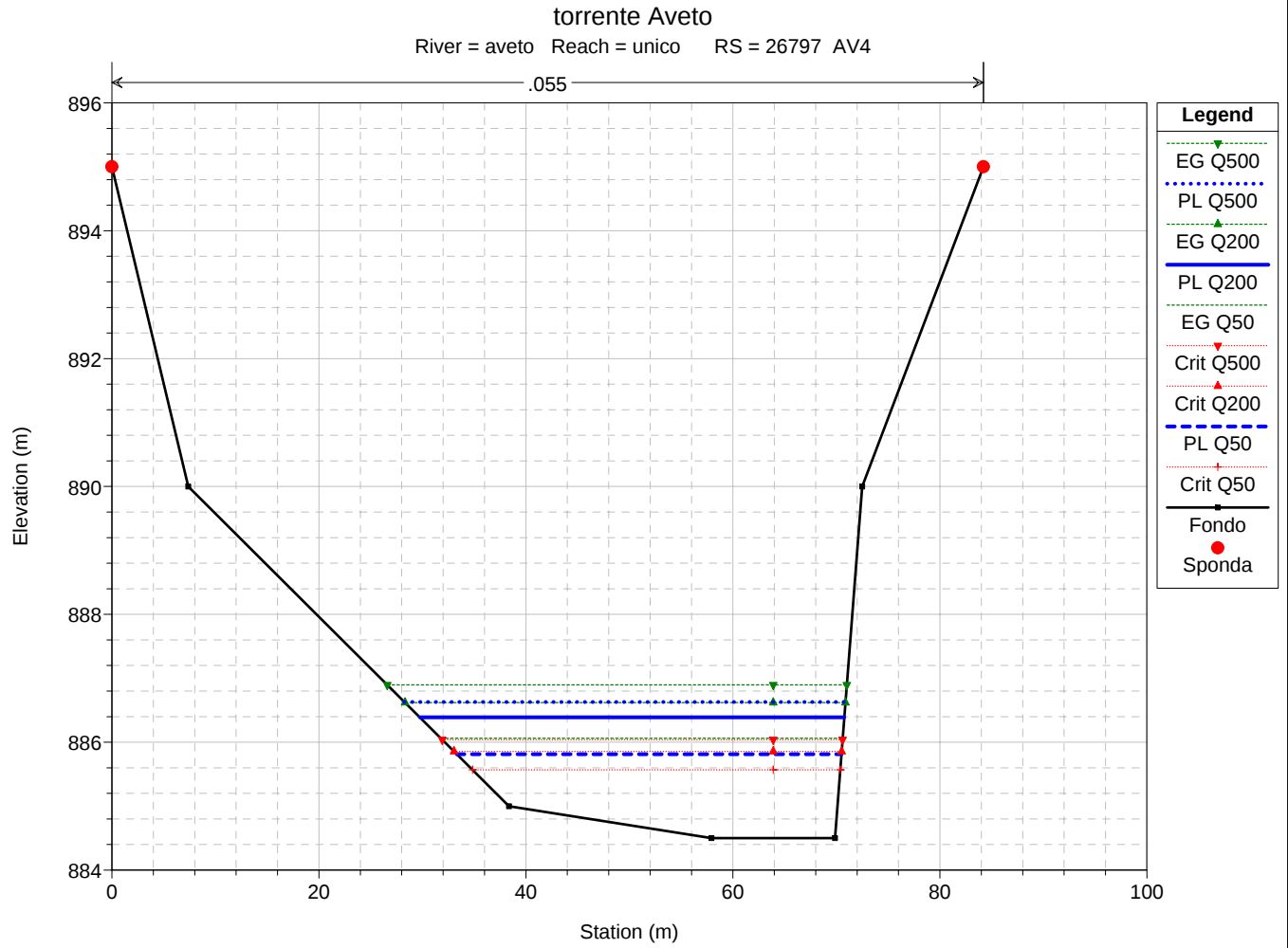
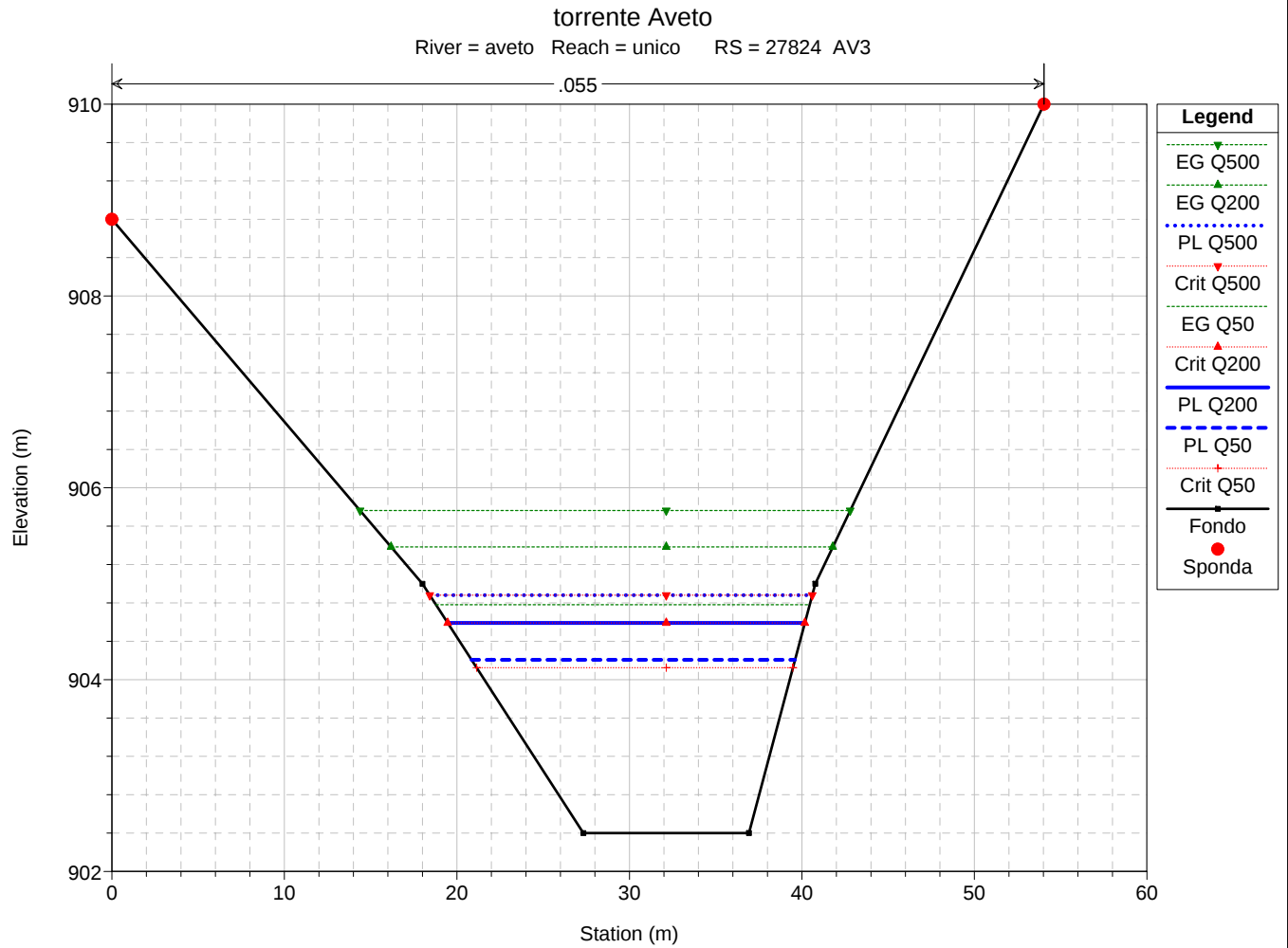
1 cm Horiz. = 150 m 1 cm Vert. = 2.5 m

torrente Aveto

aveto unico

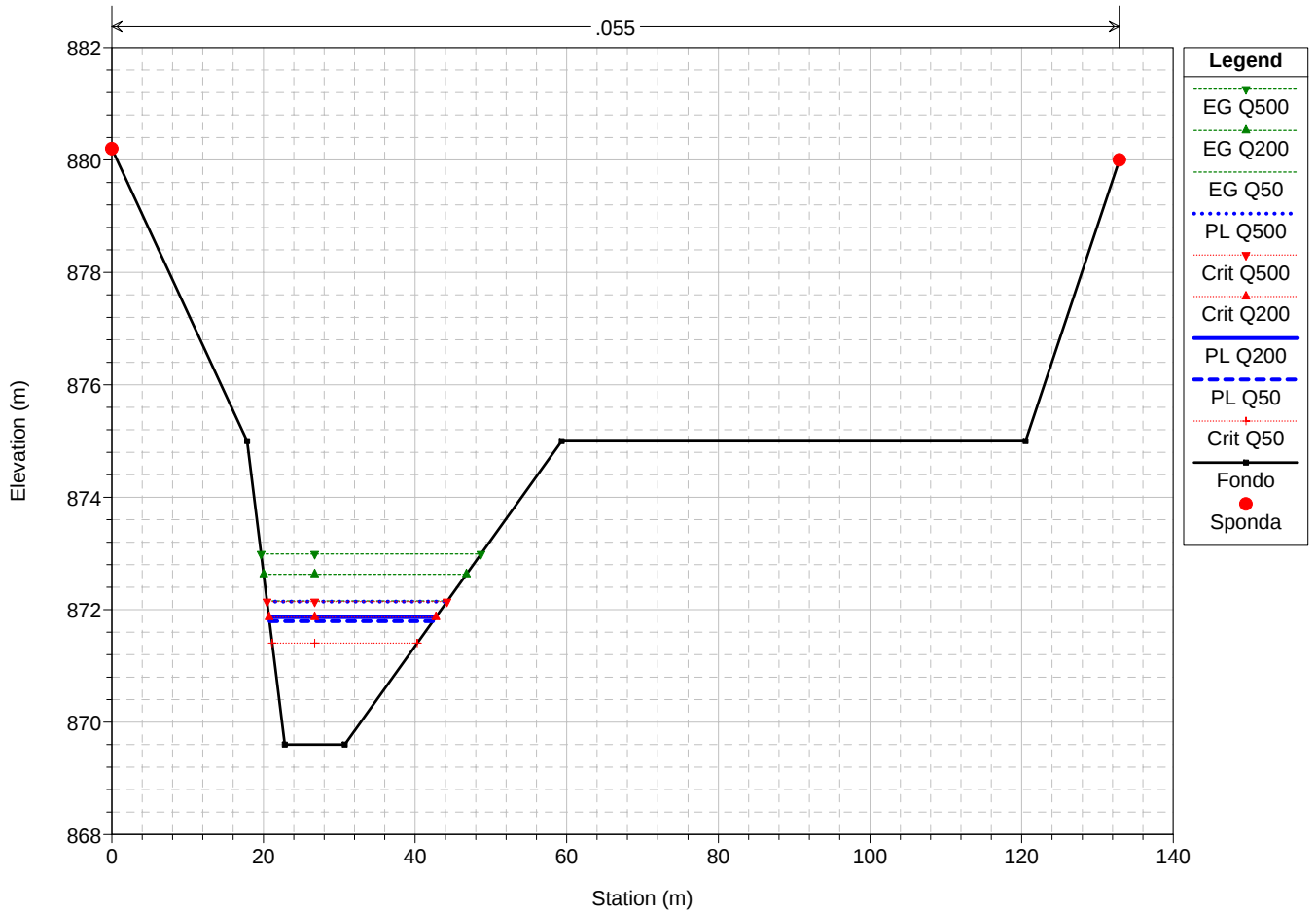






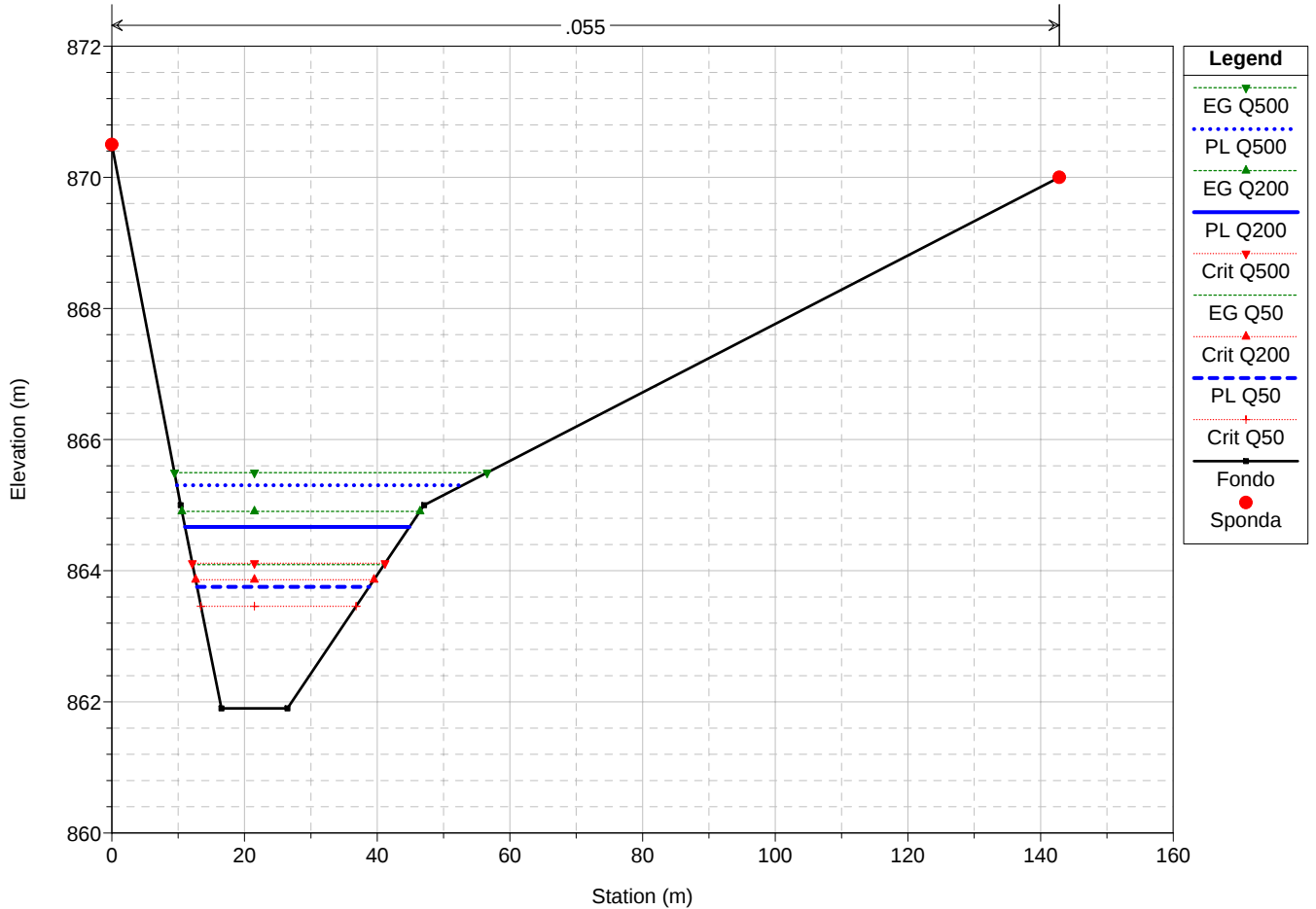
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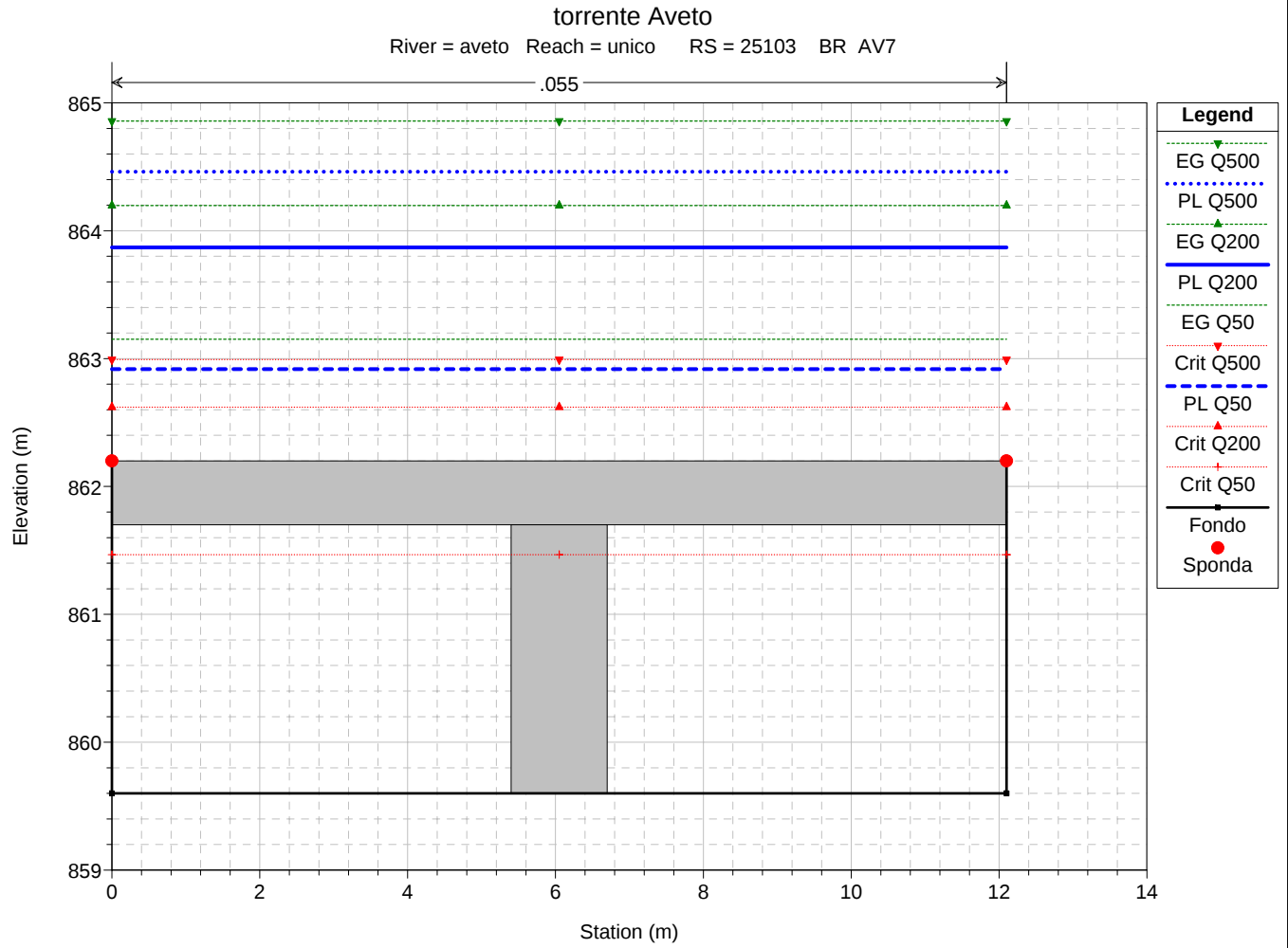
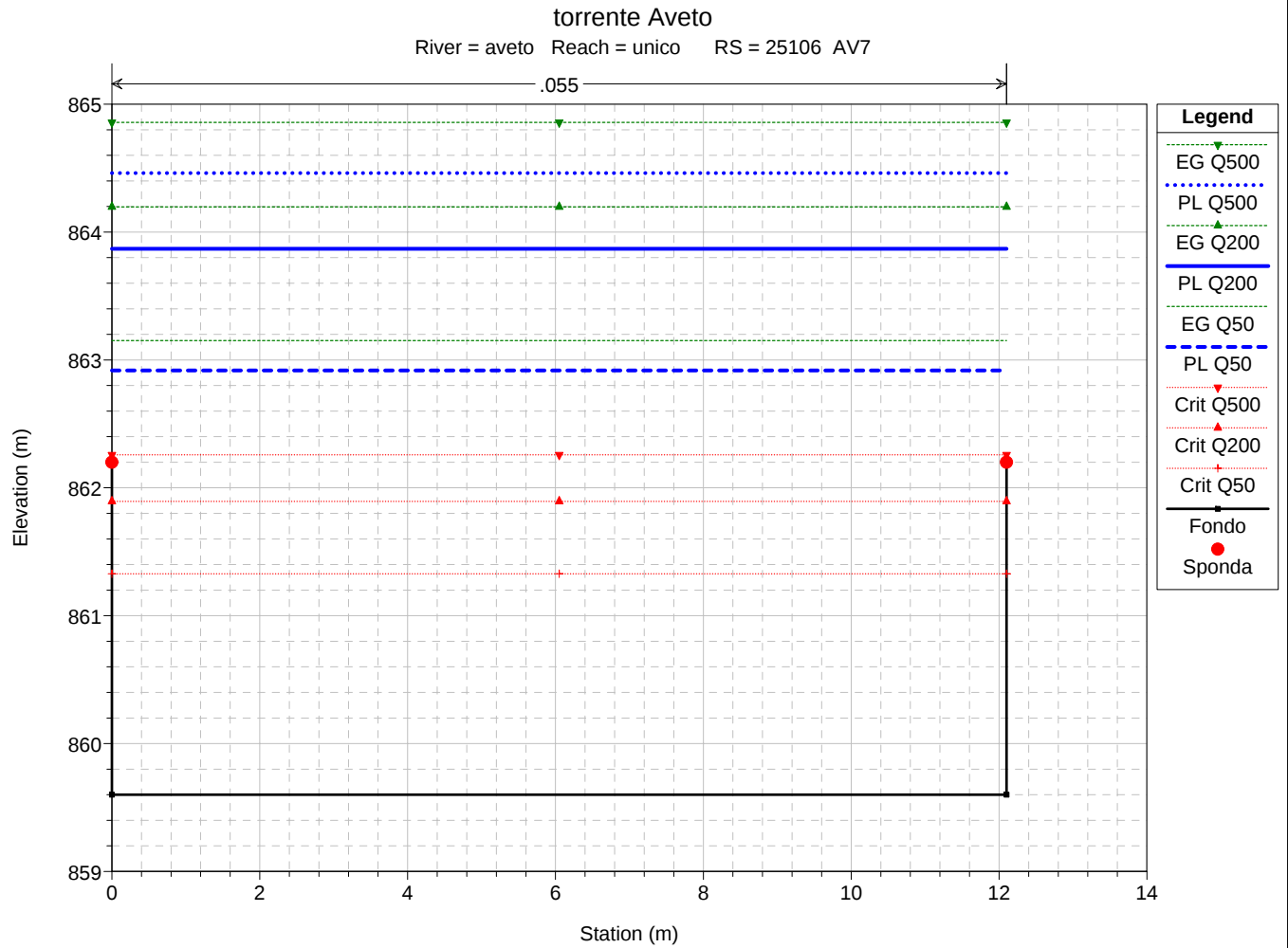
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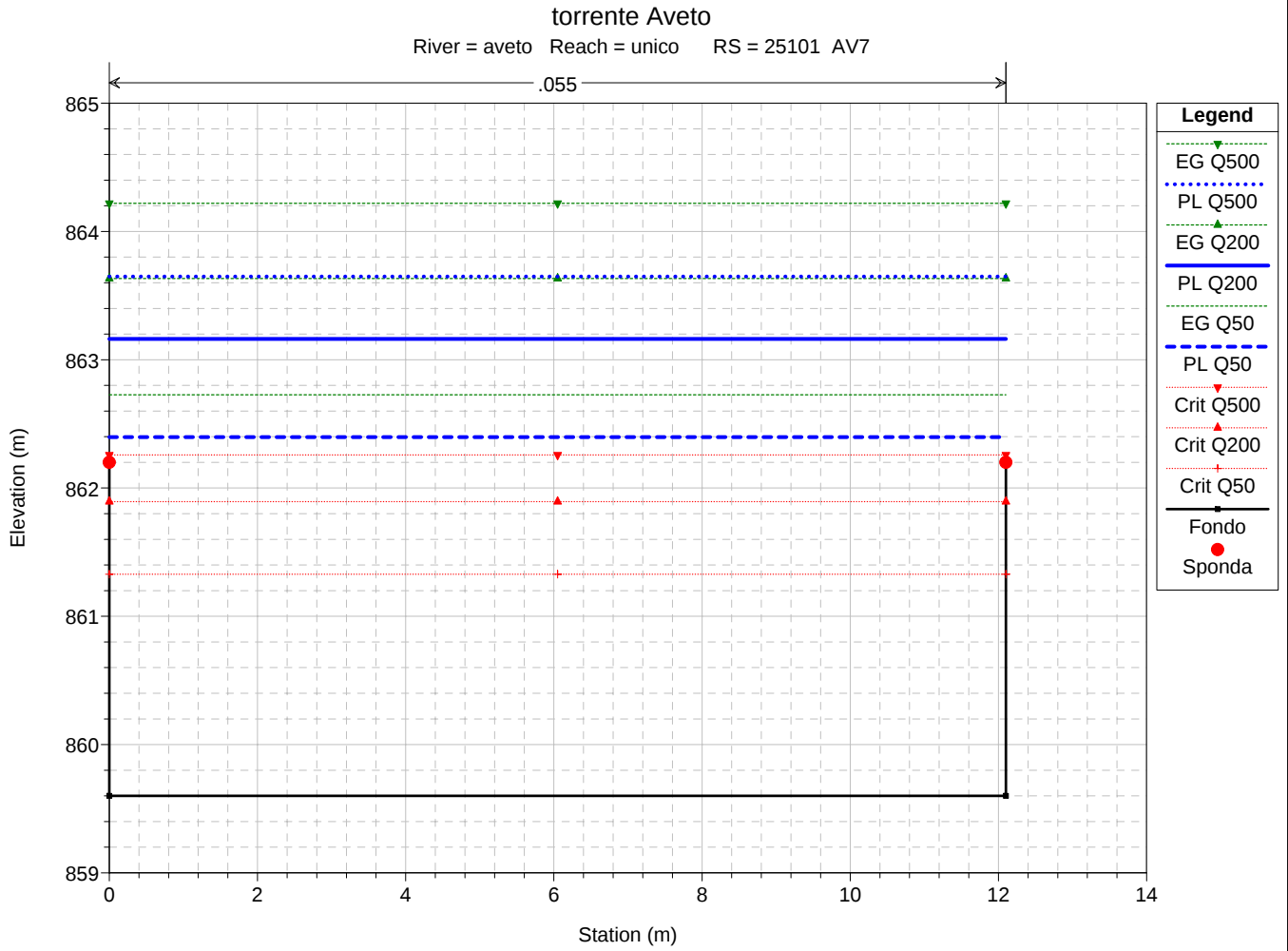
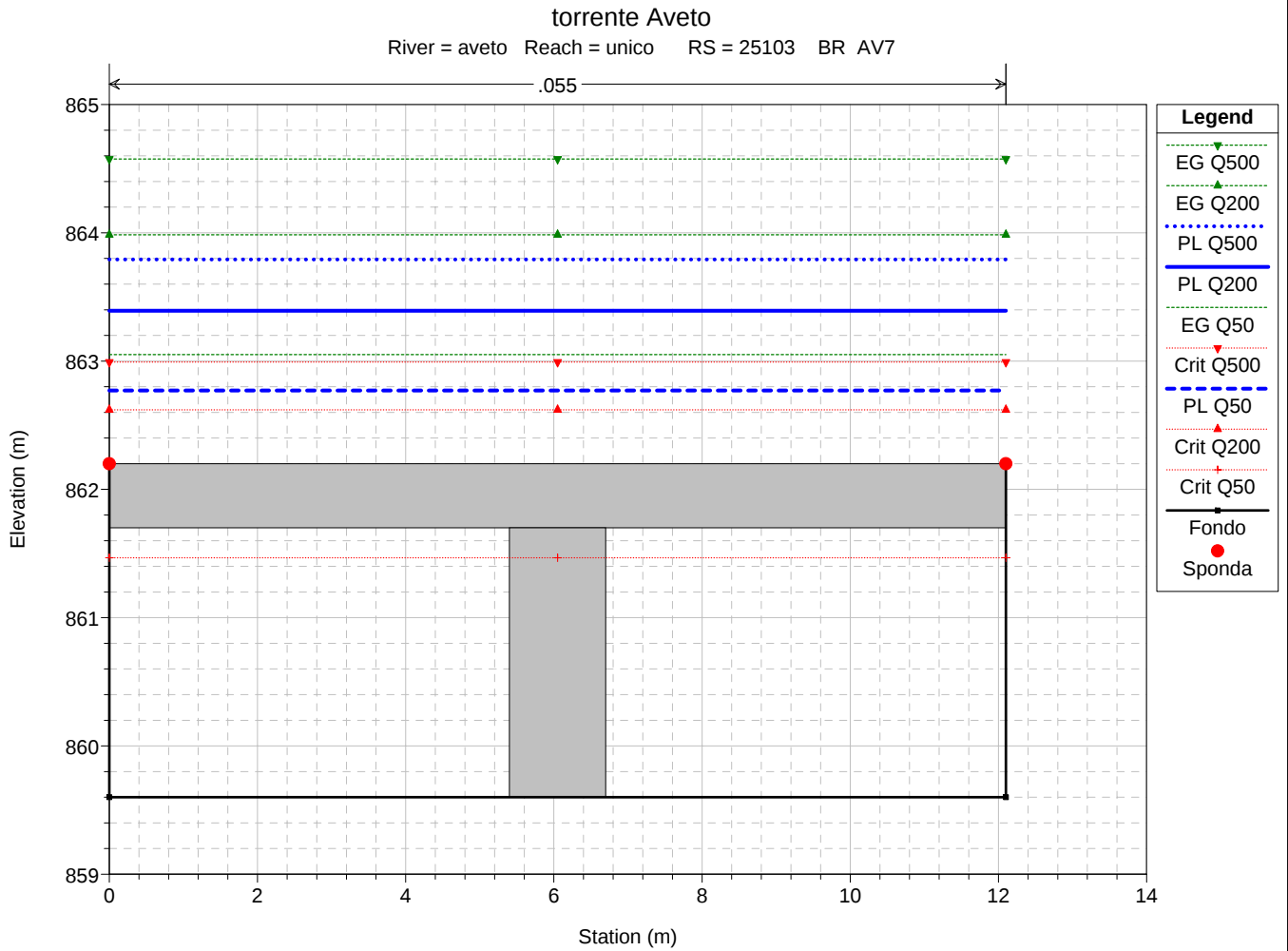


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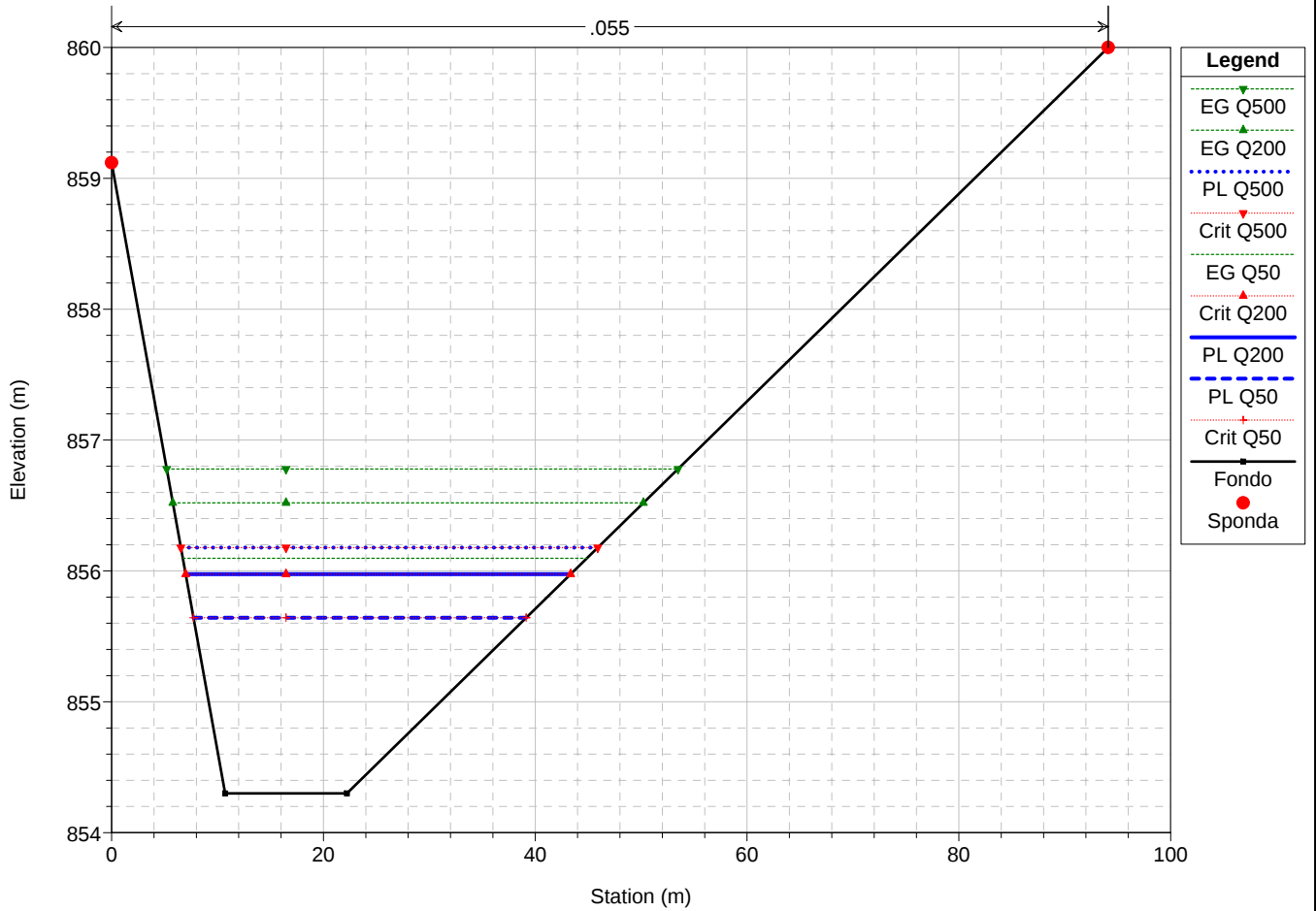






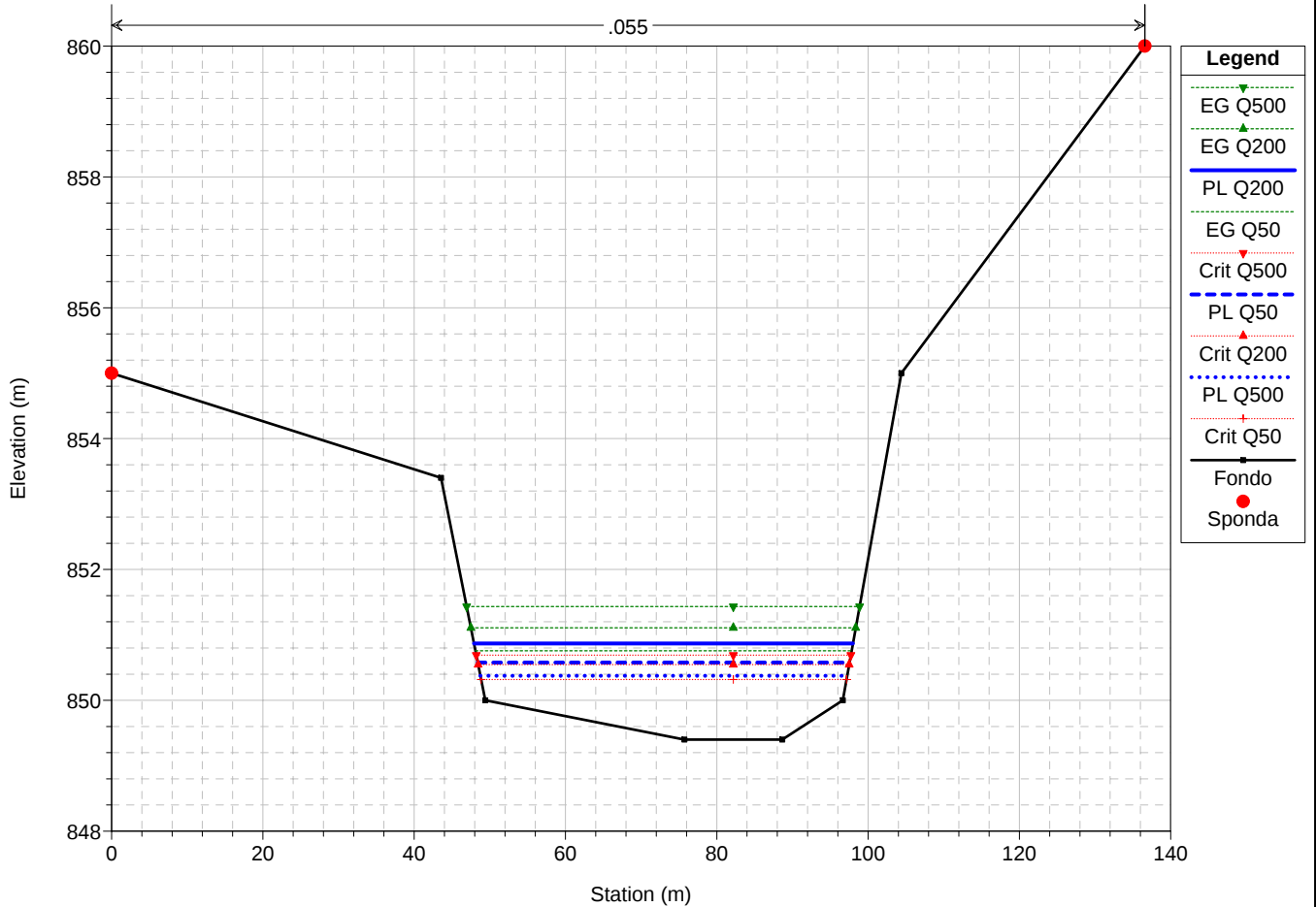
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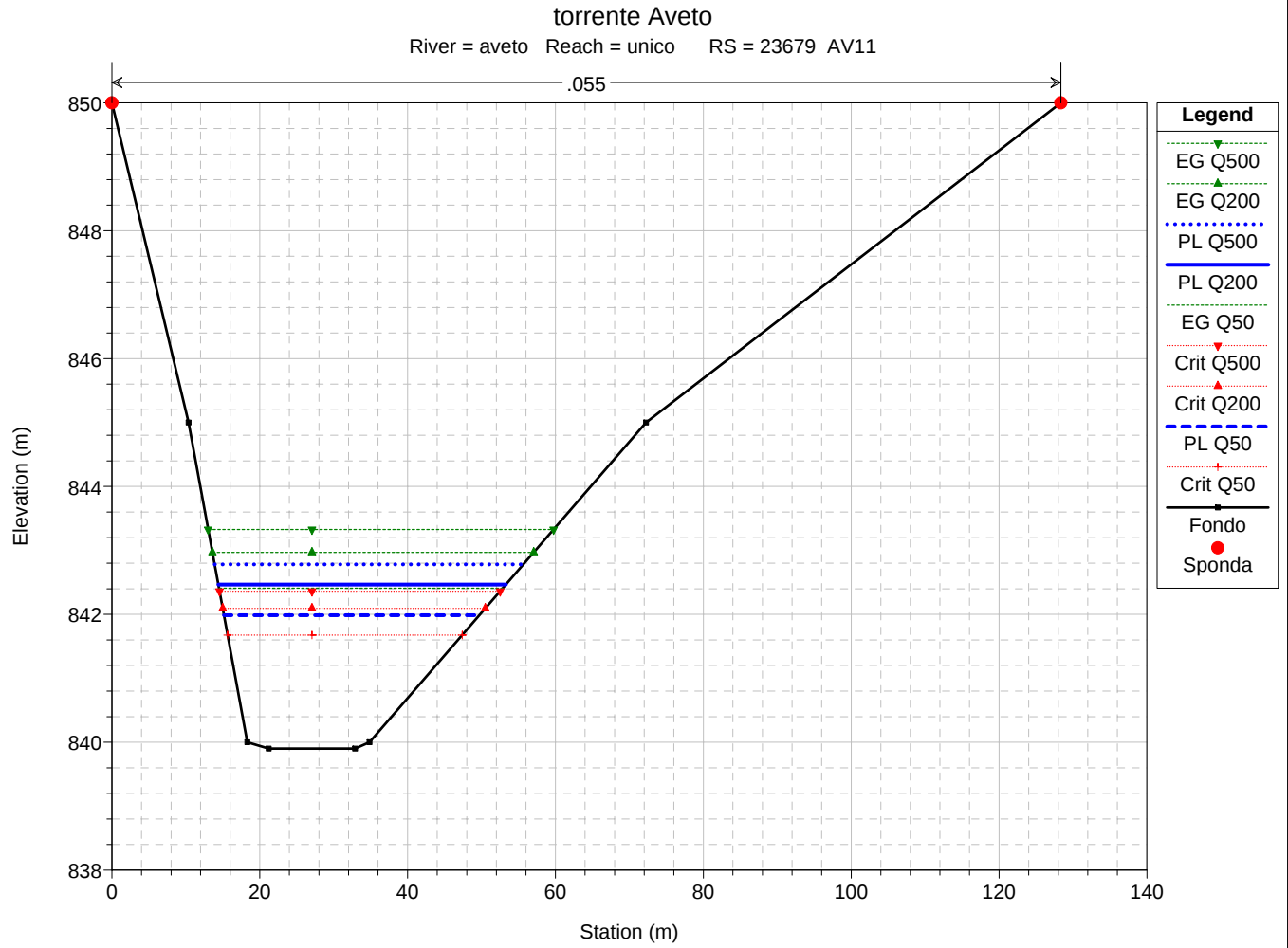
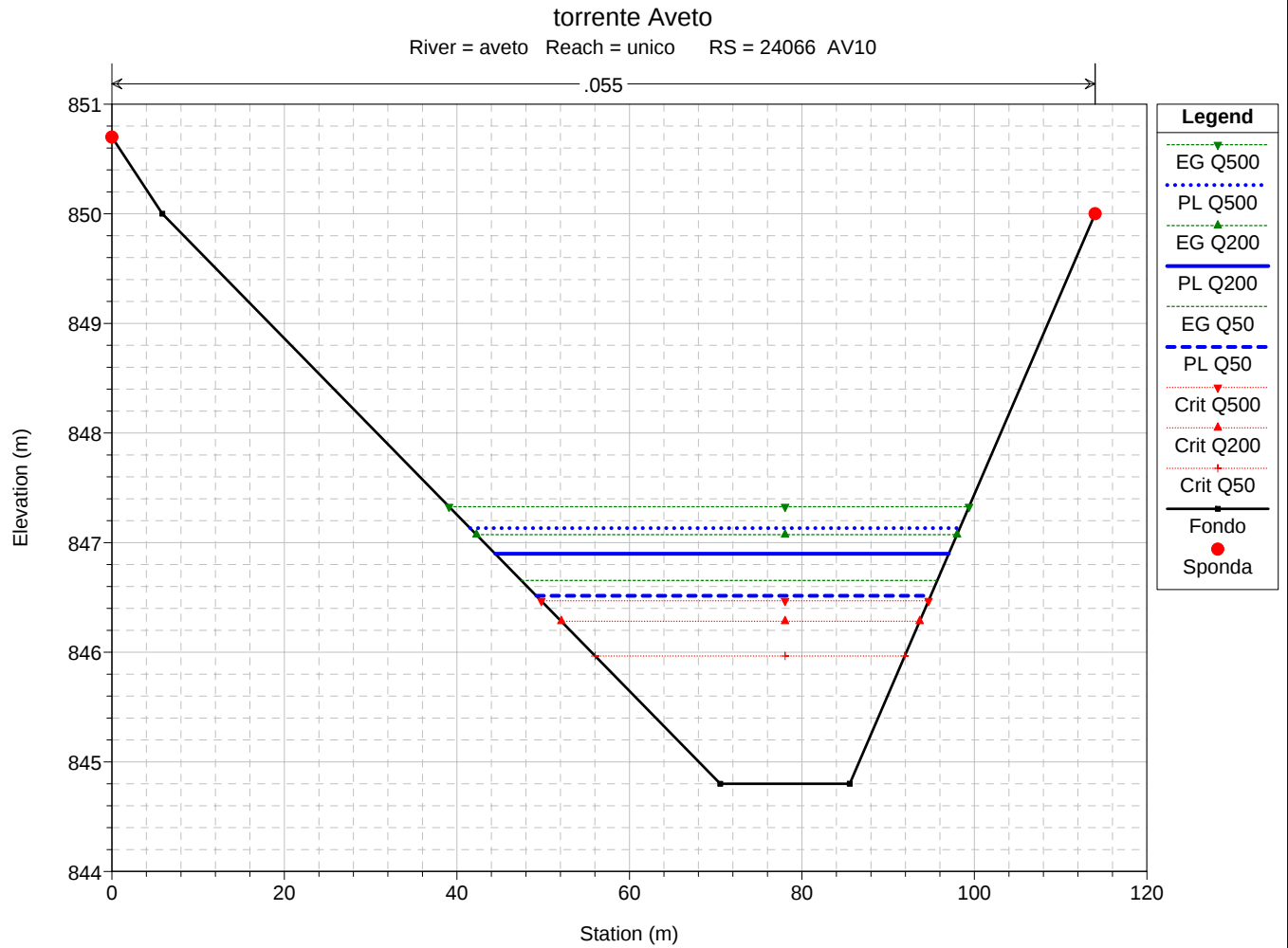
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torrente Aveto

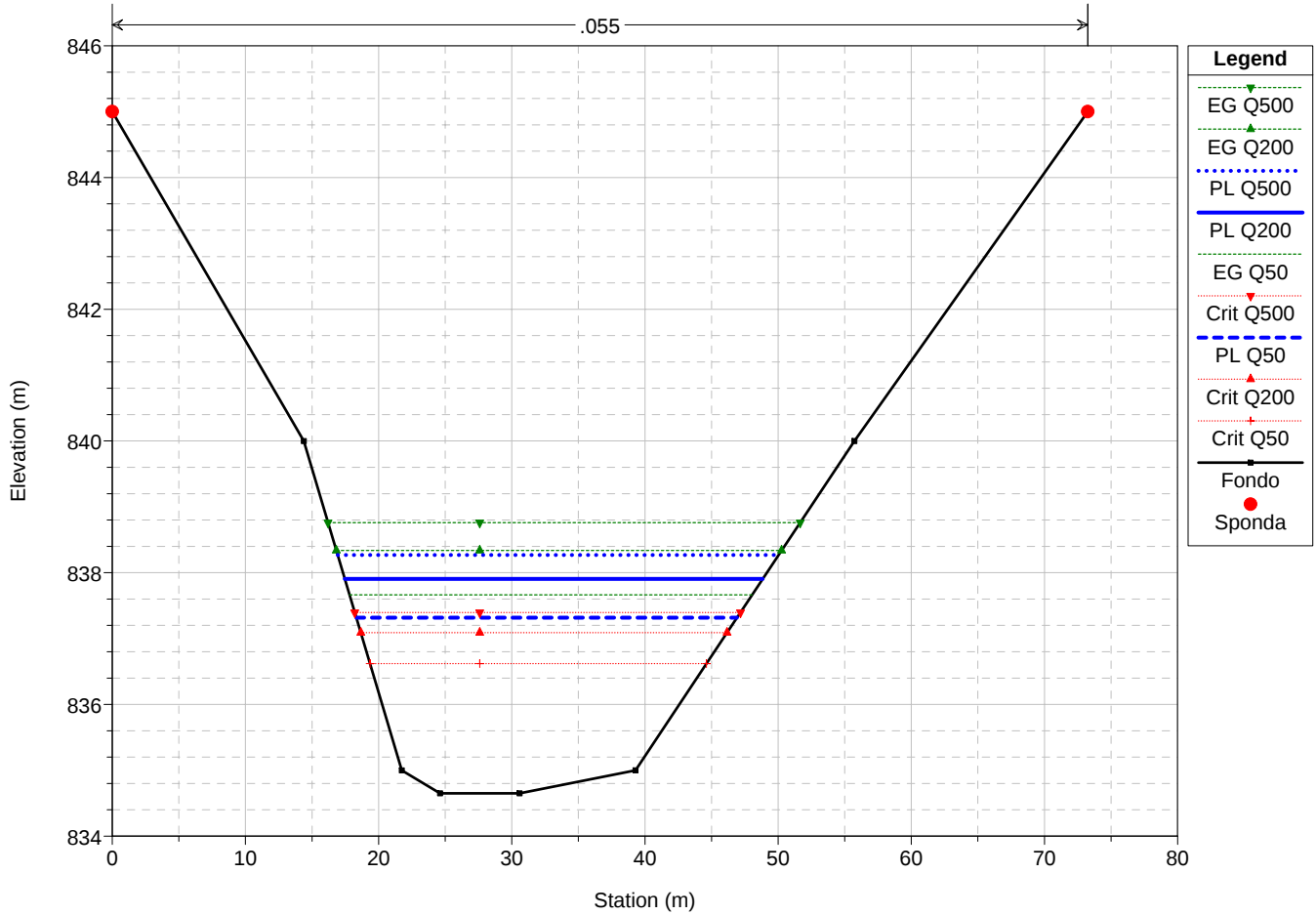
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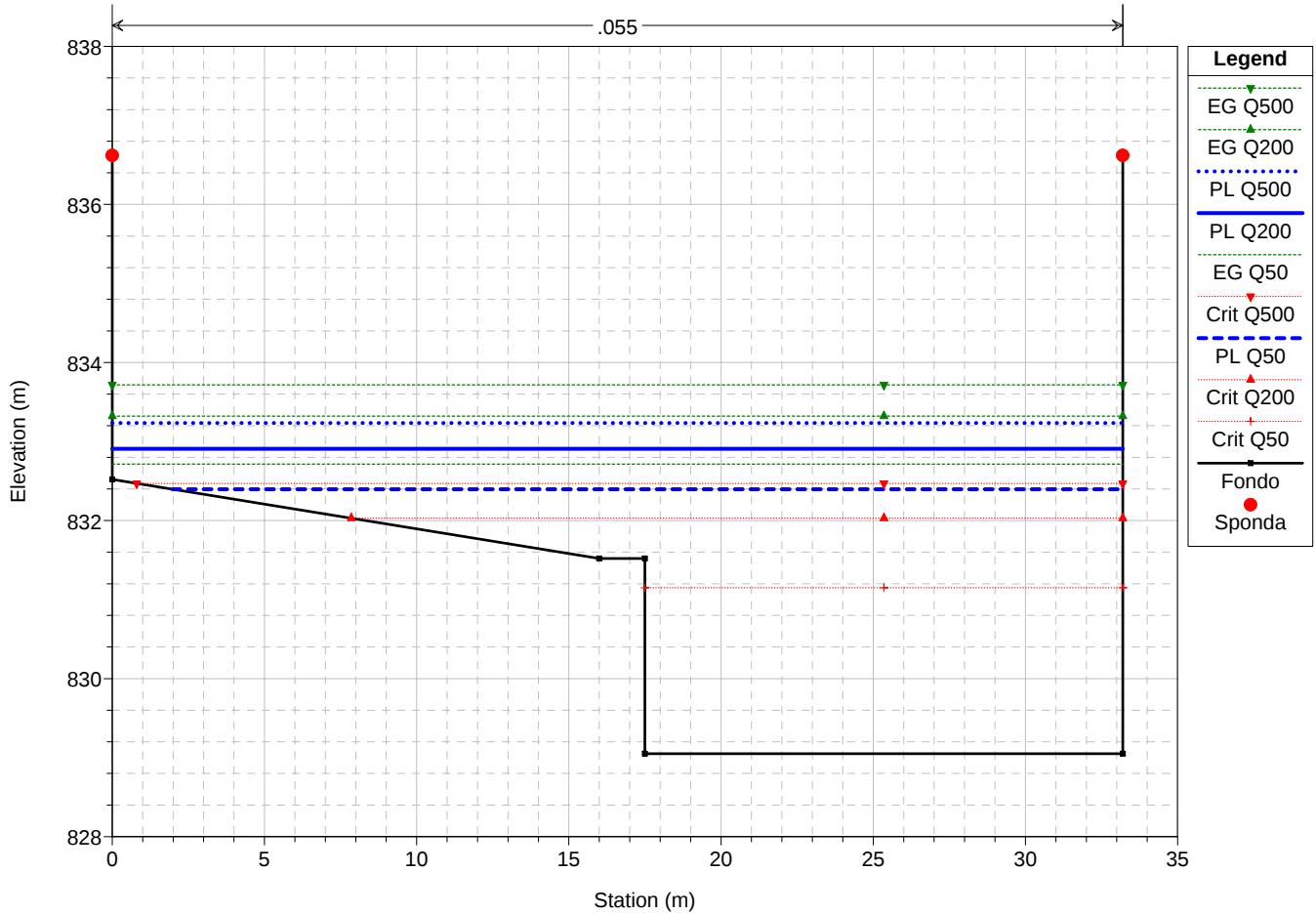
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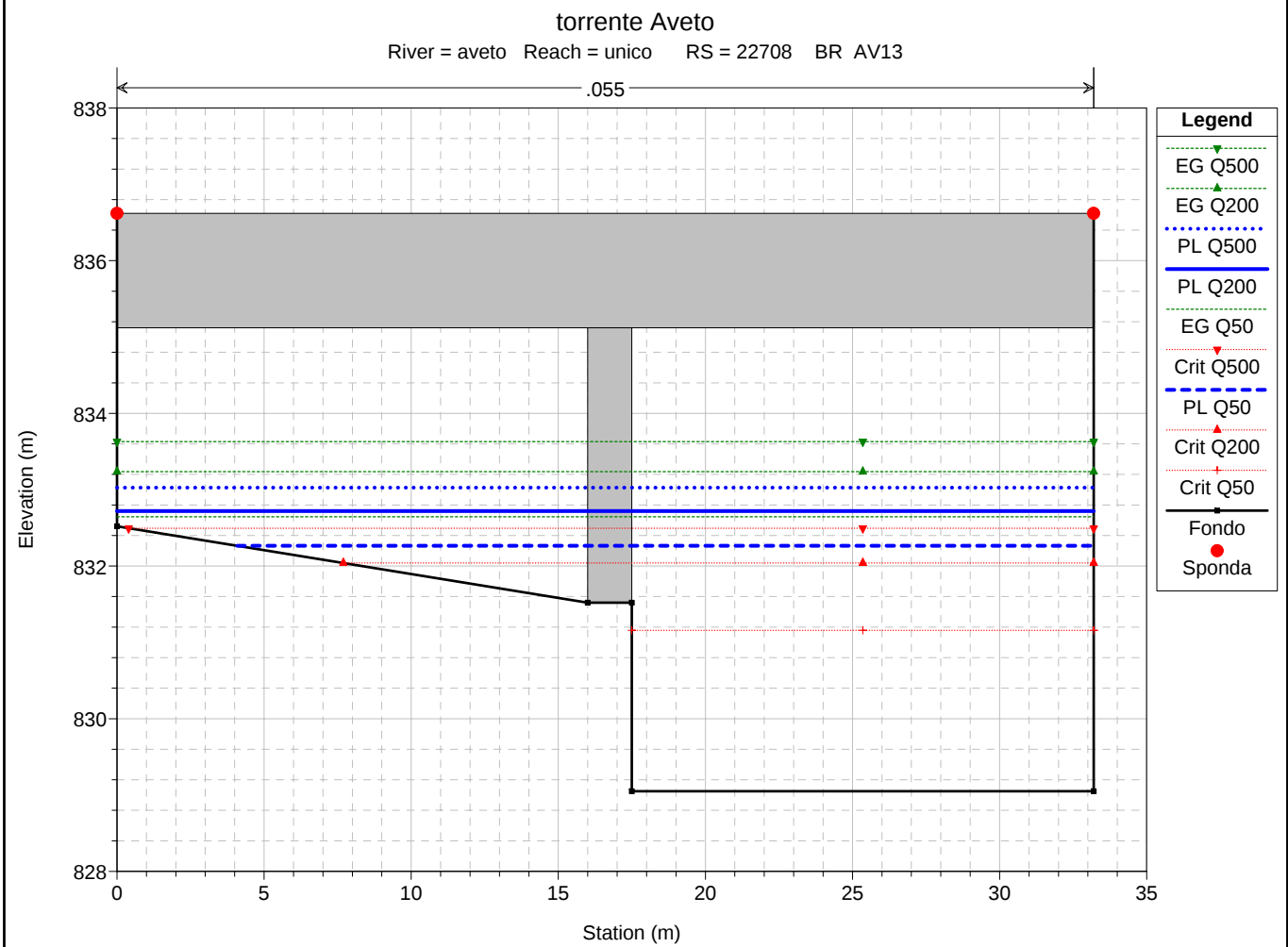
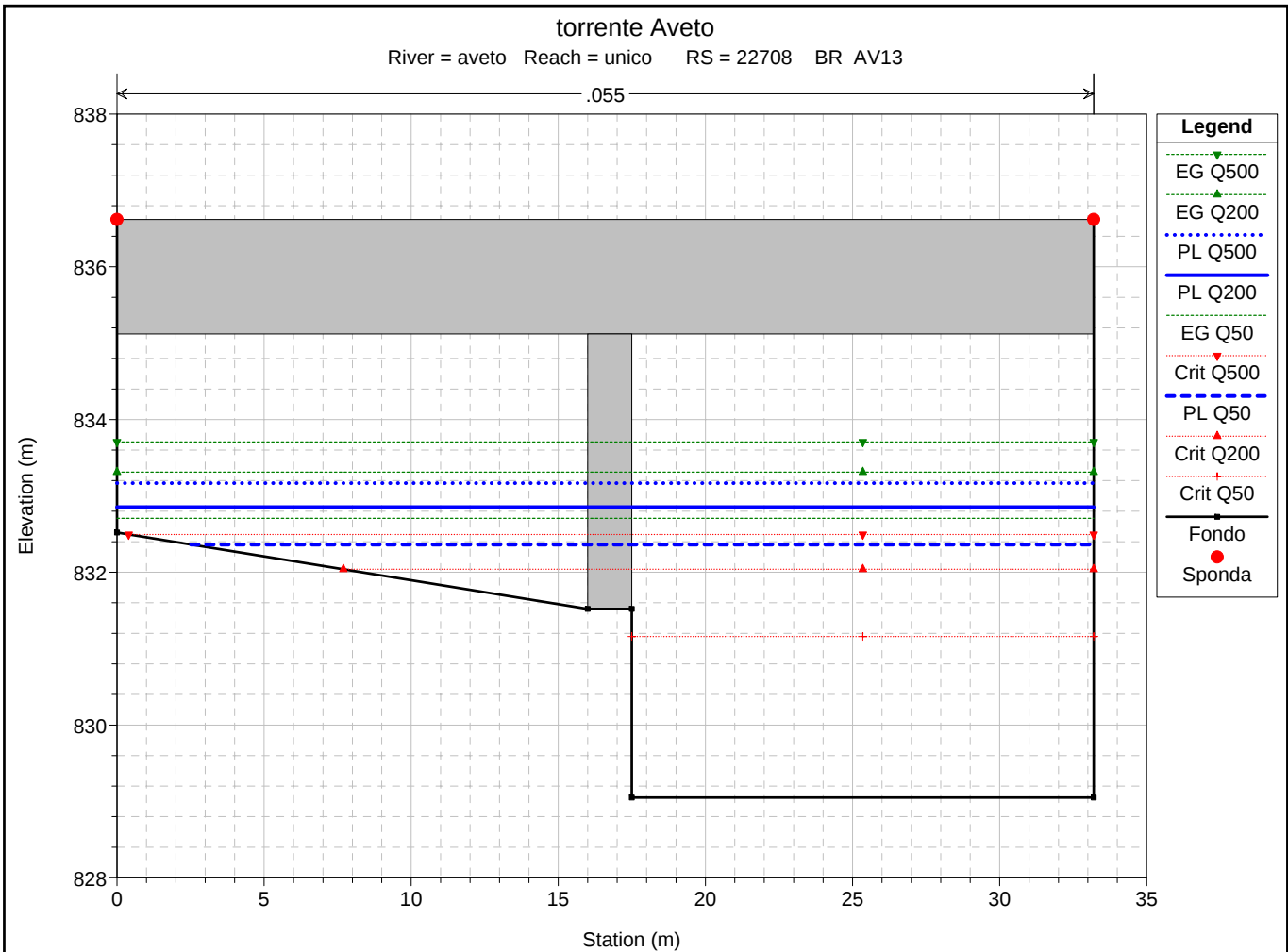
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torrente Aveto

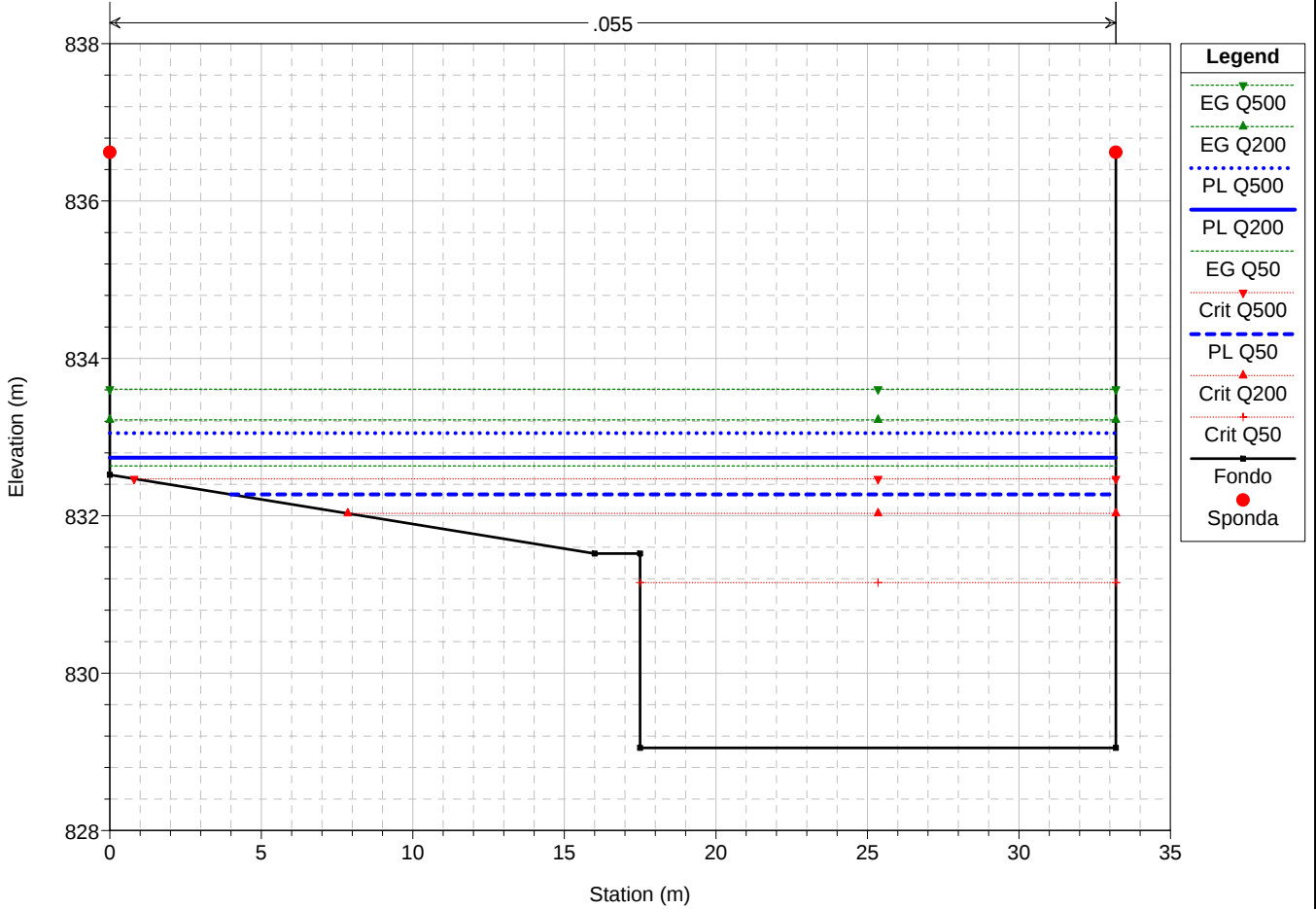
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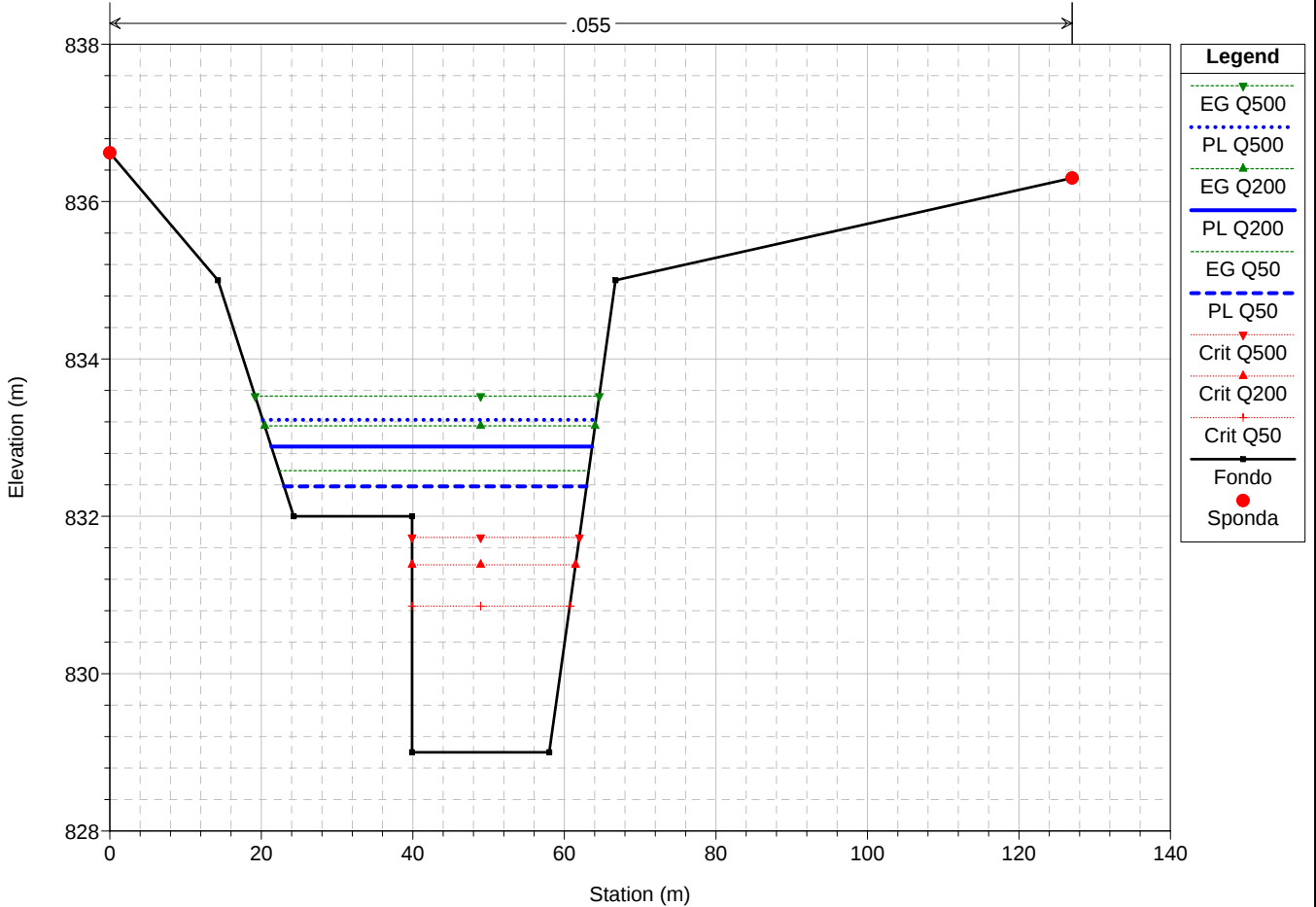
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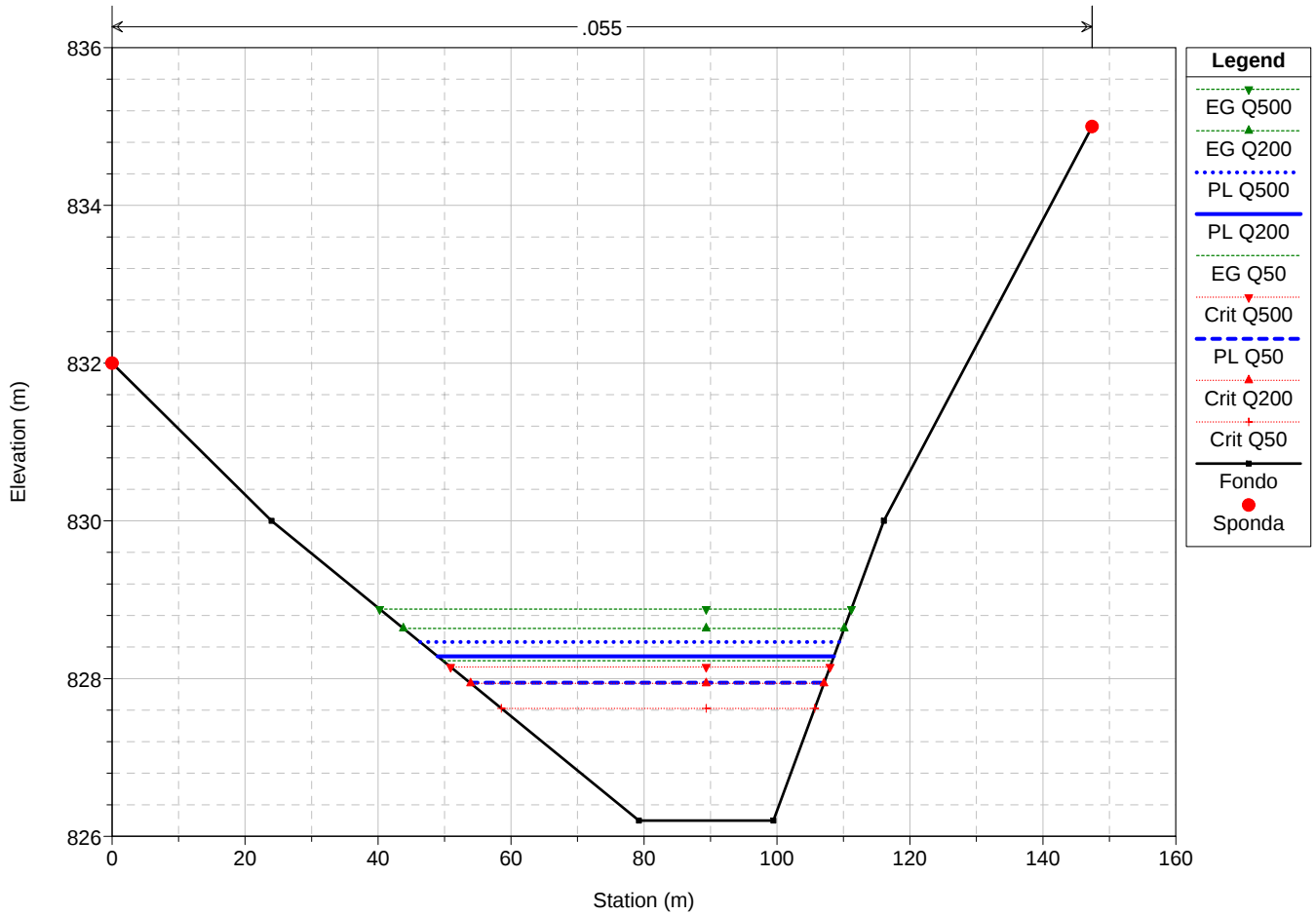
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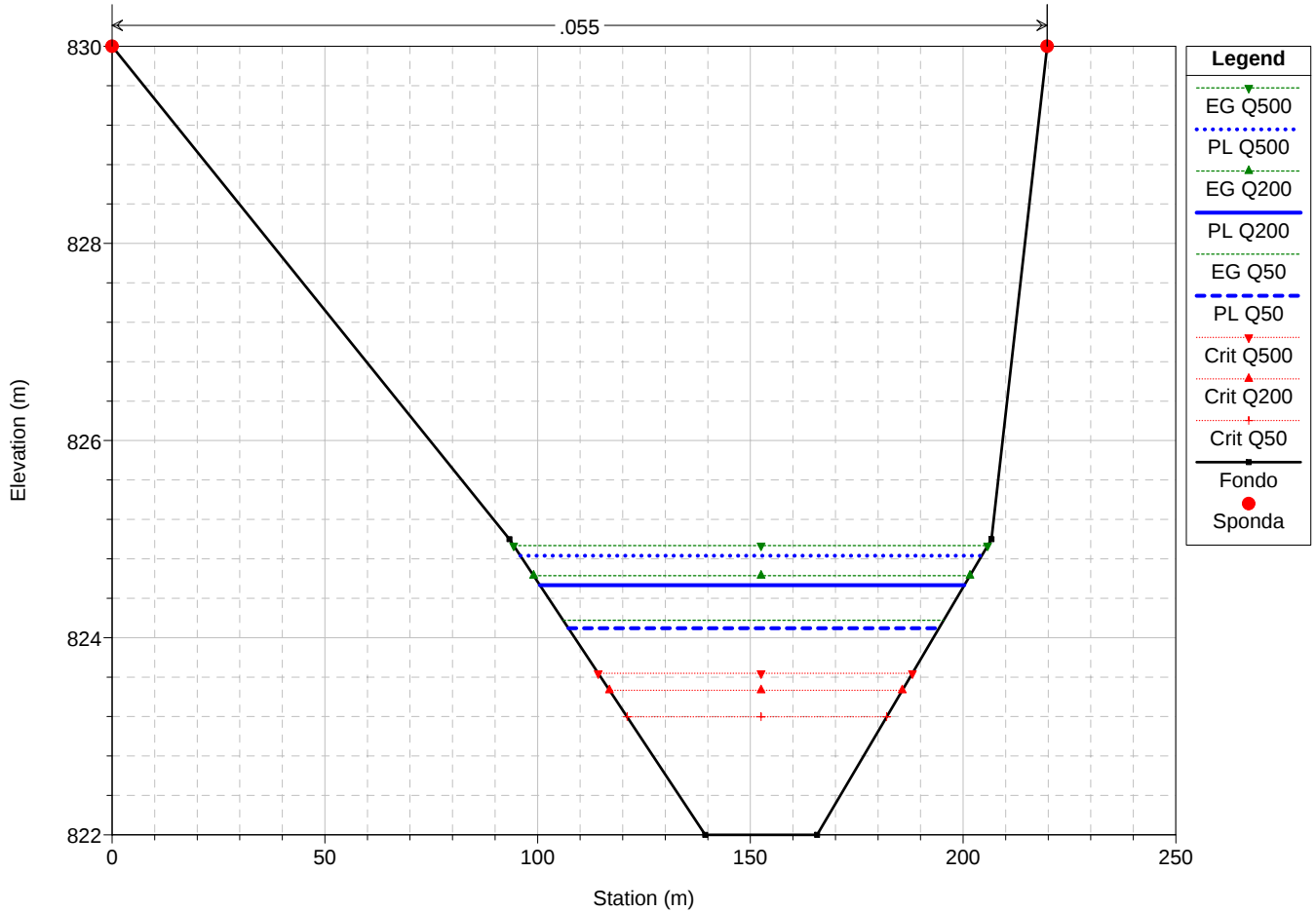
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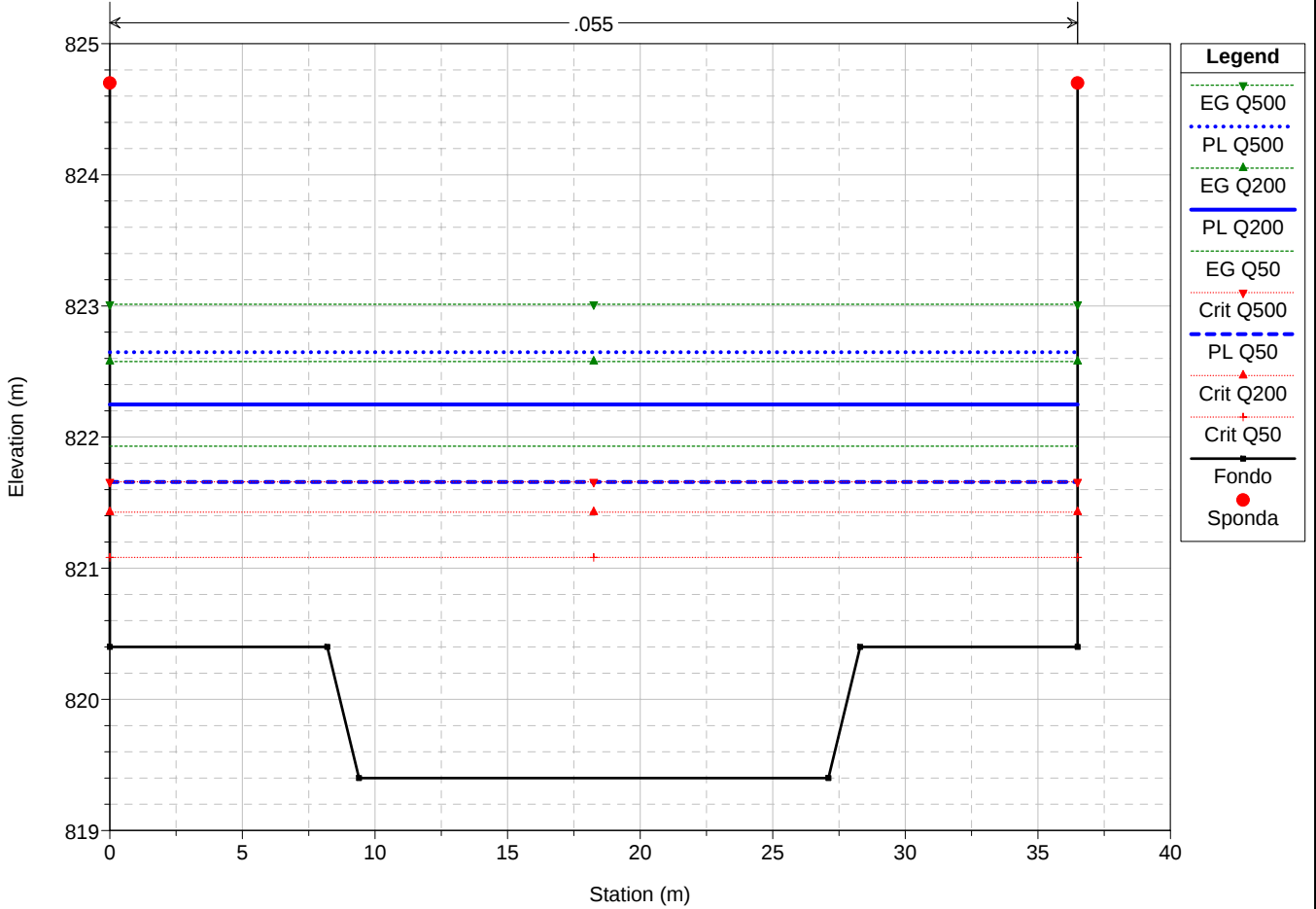
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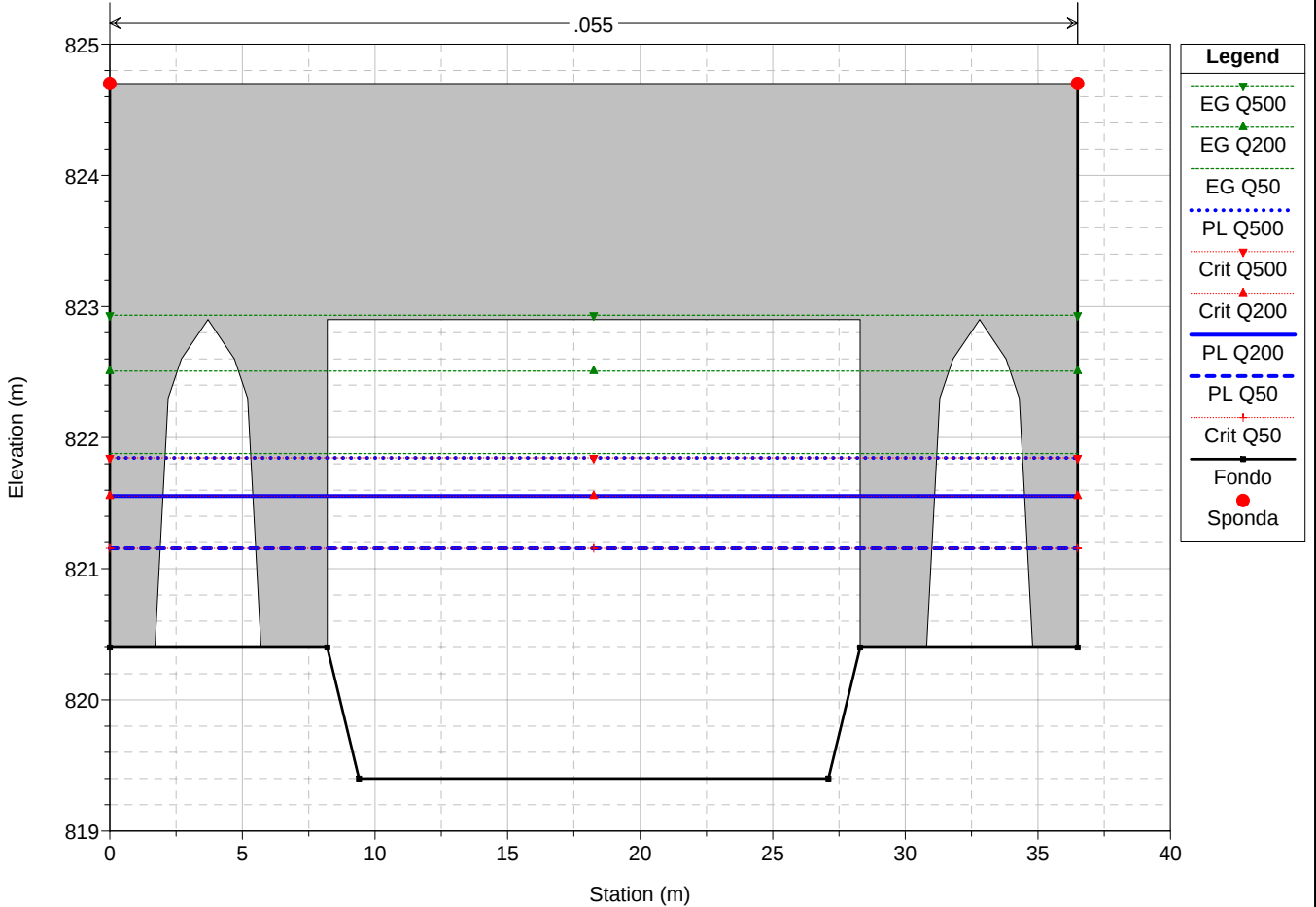
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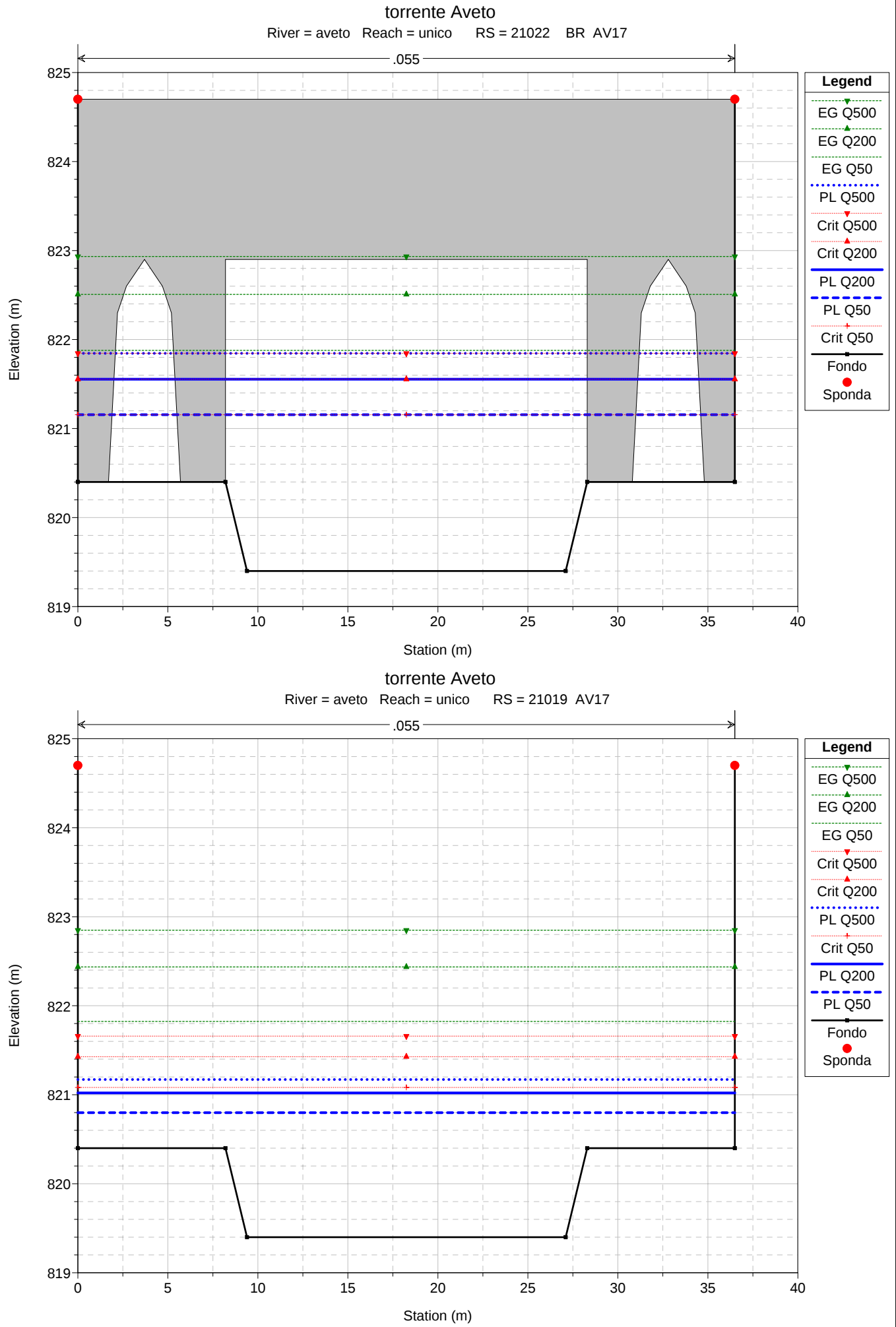
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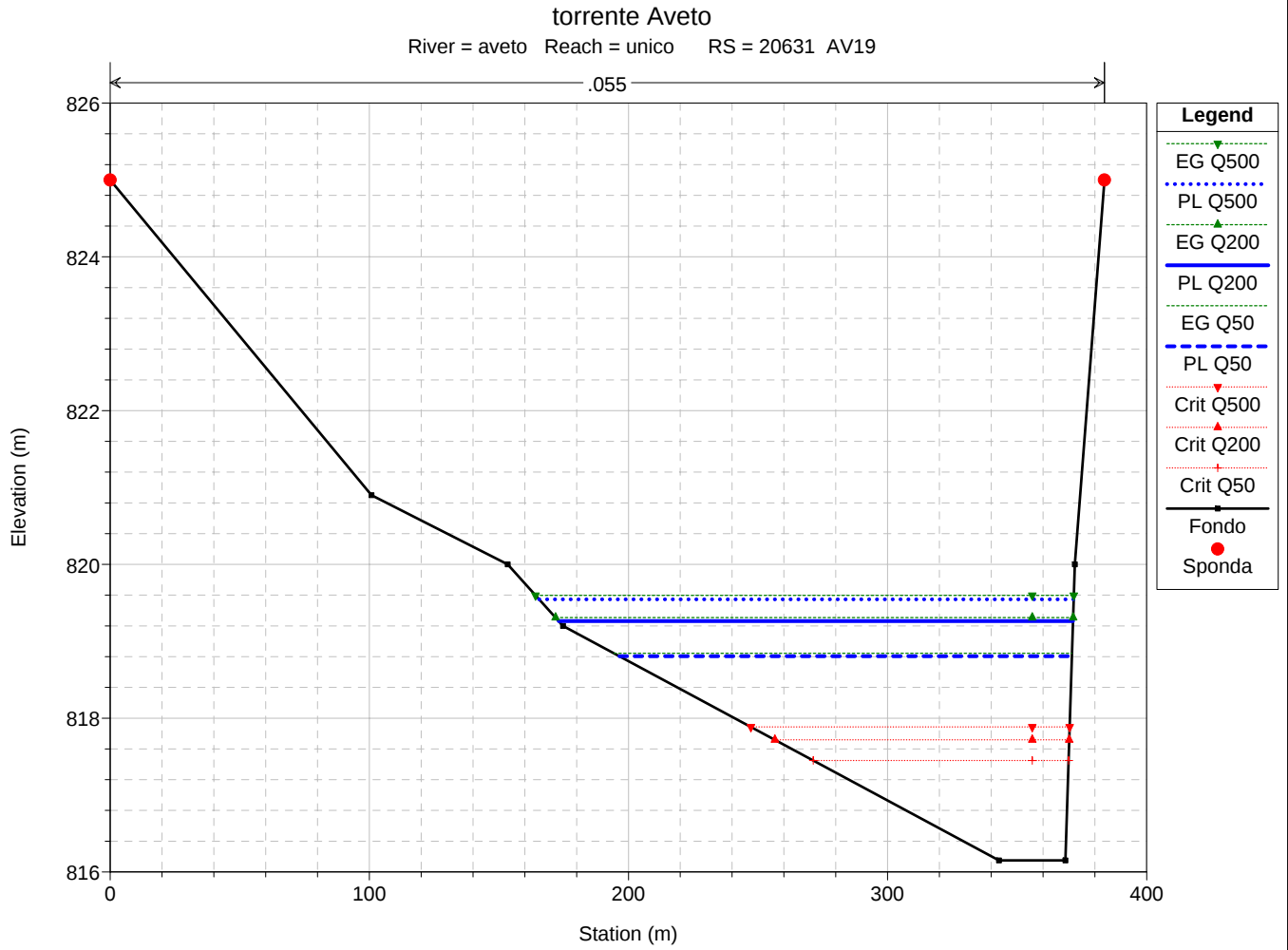
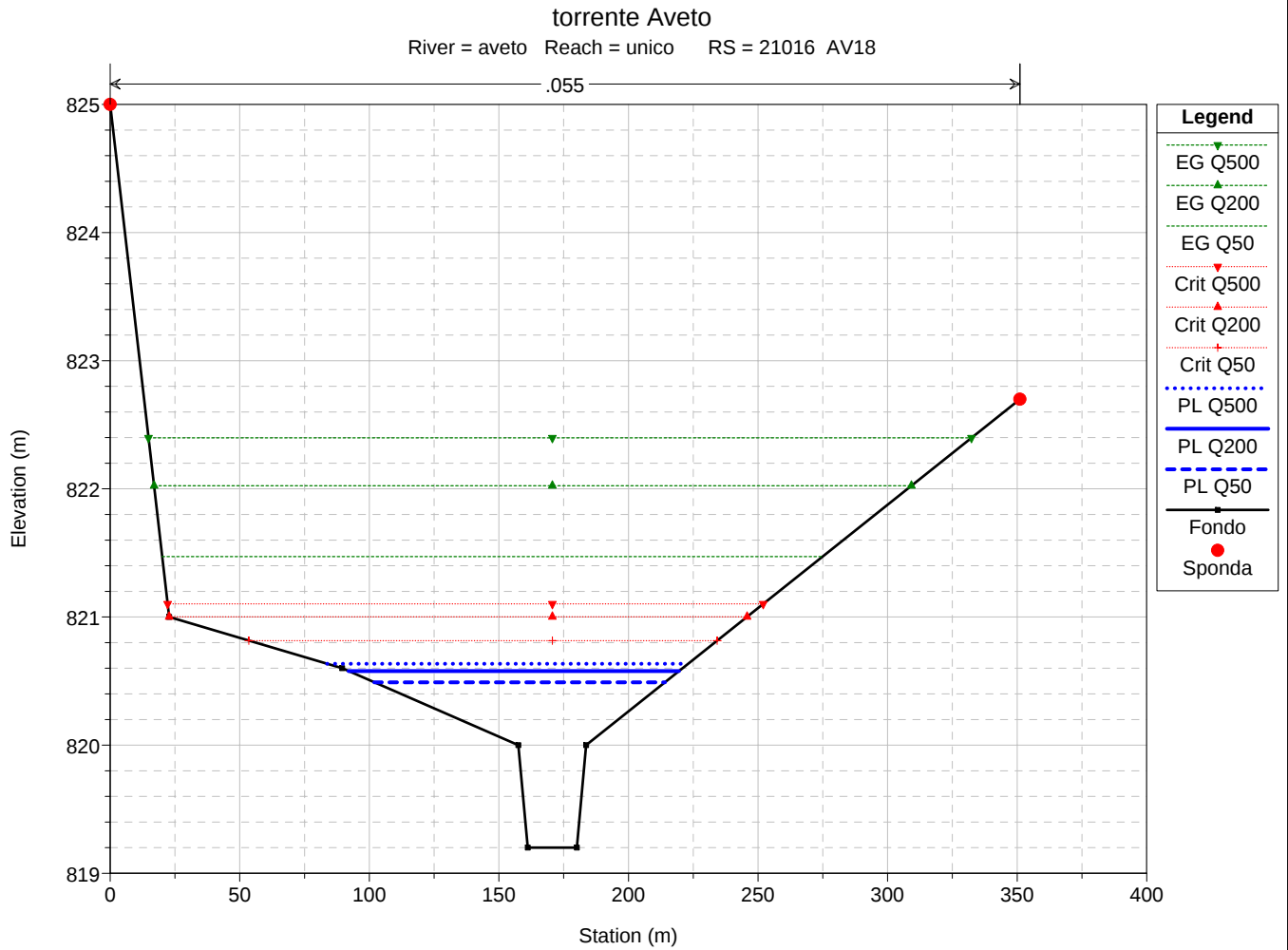


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River = aveto Reach = unico RS = 21022 BR AV17

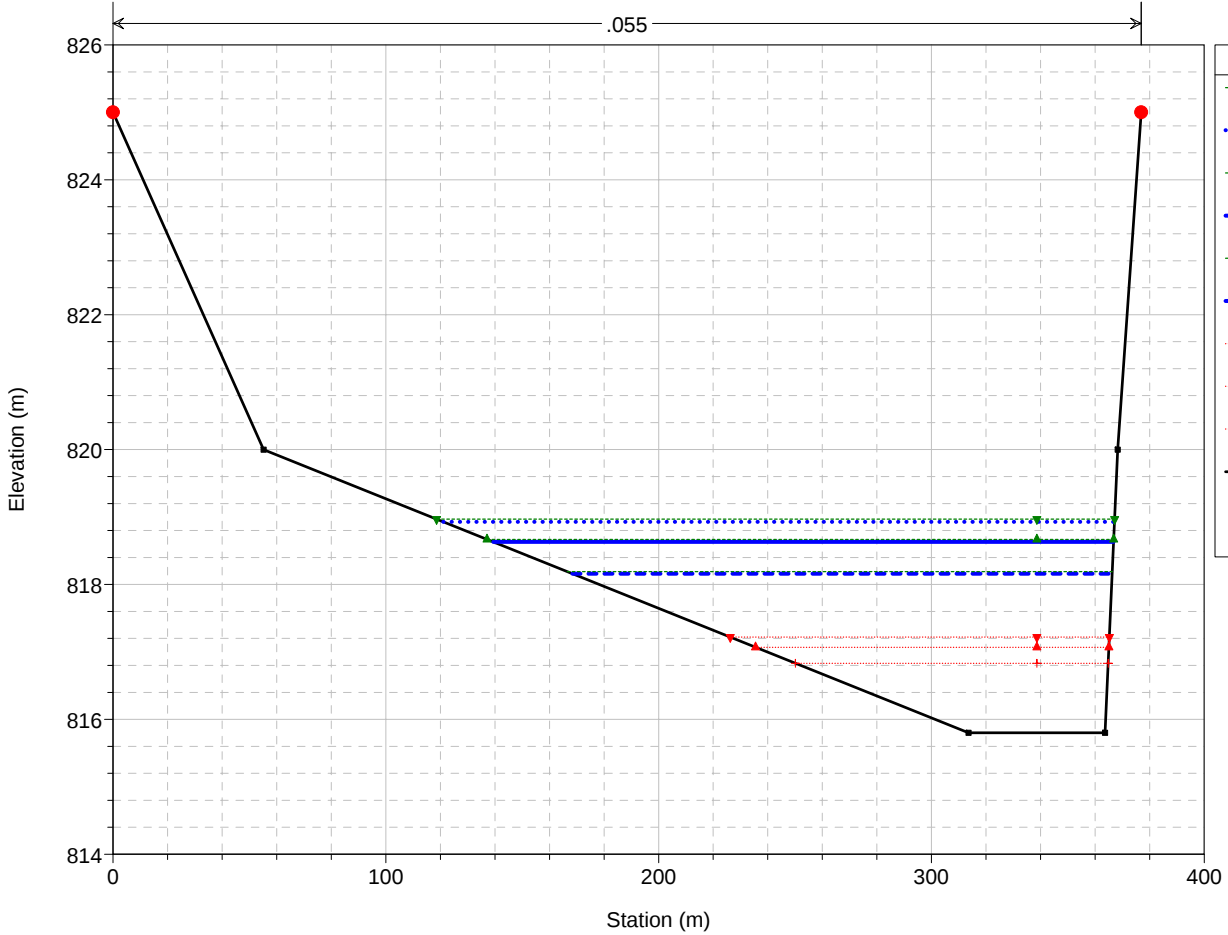






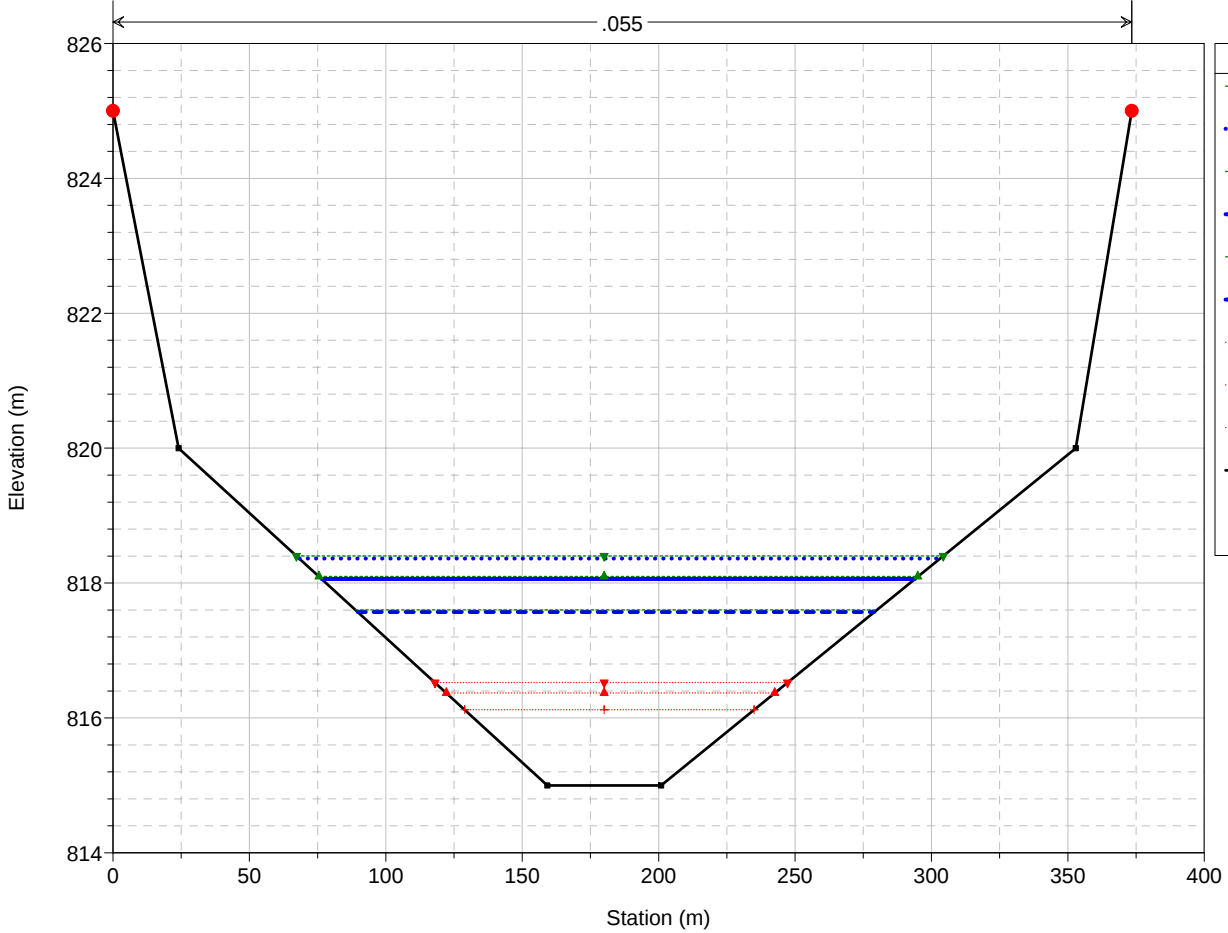
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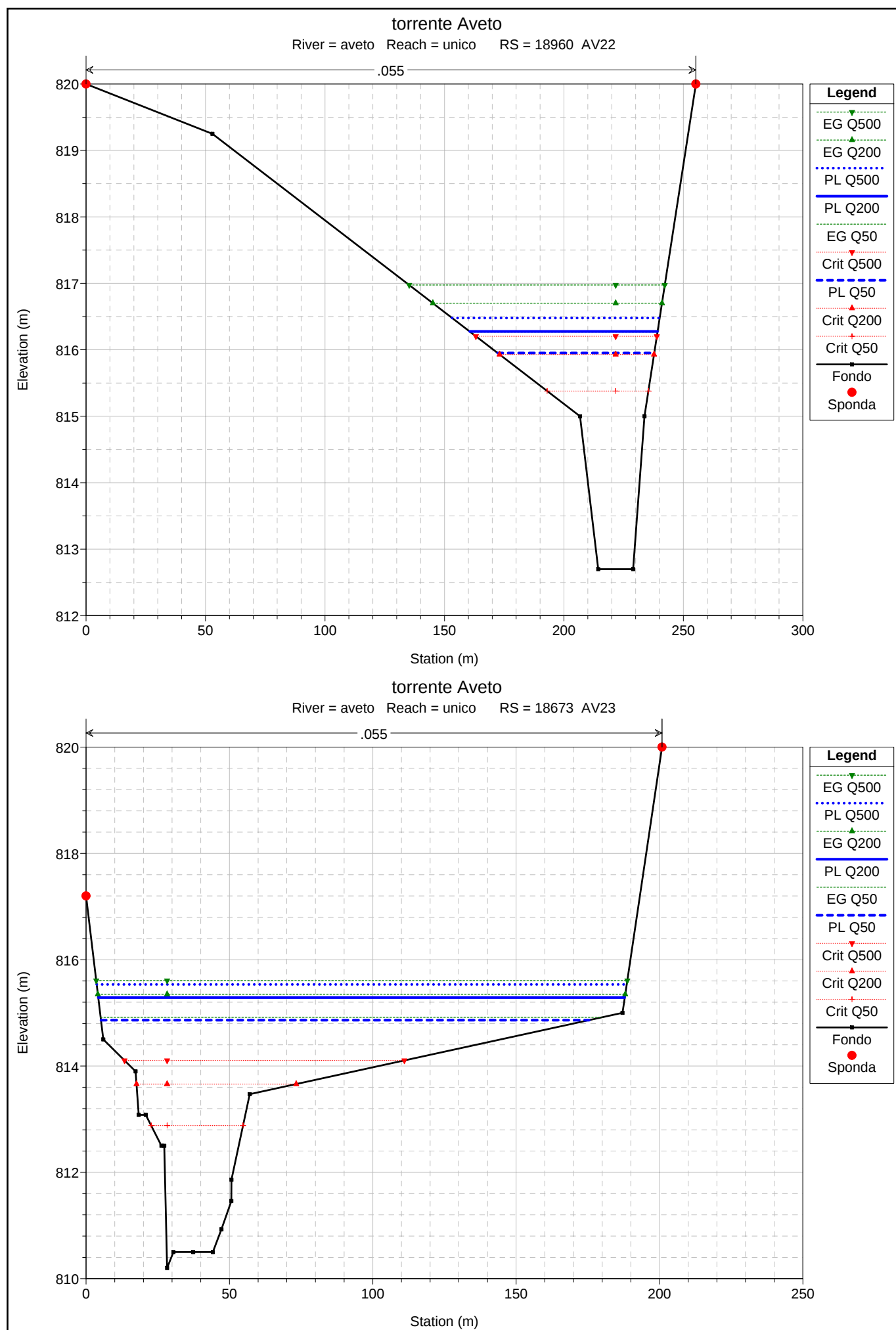
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torrente Aveto

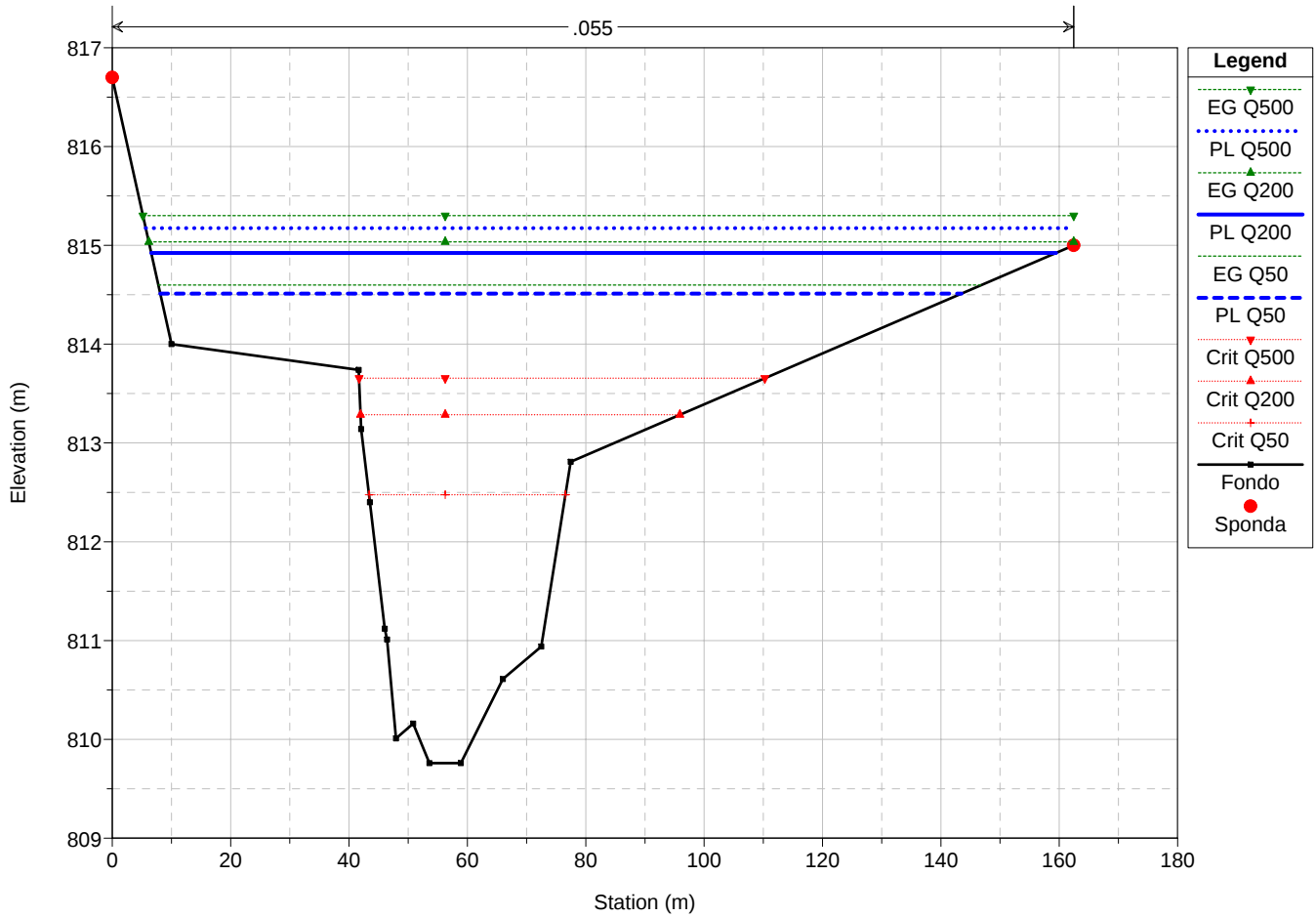
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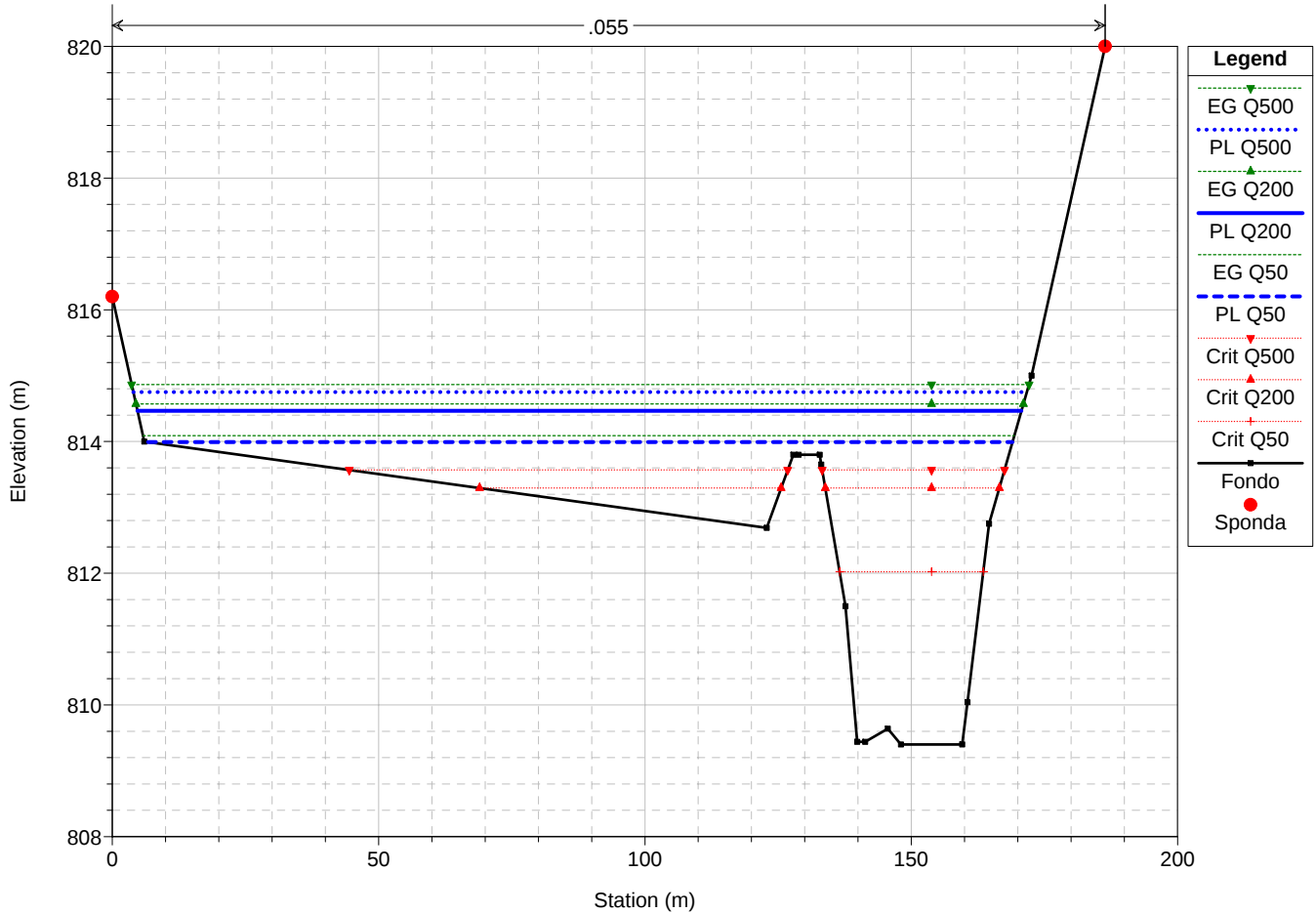
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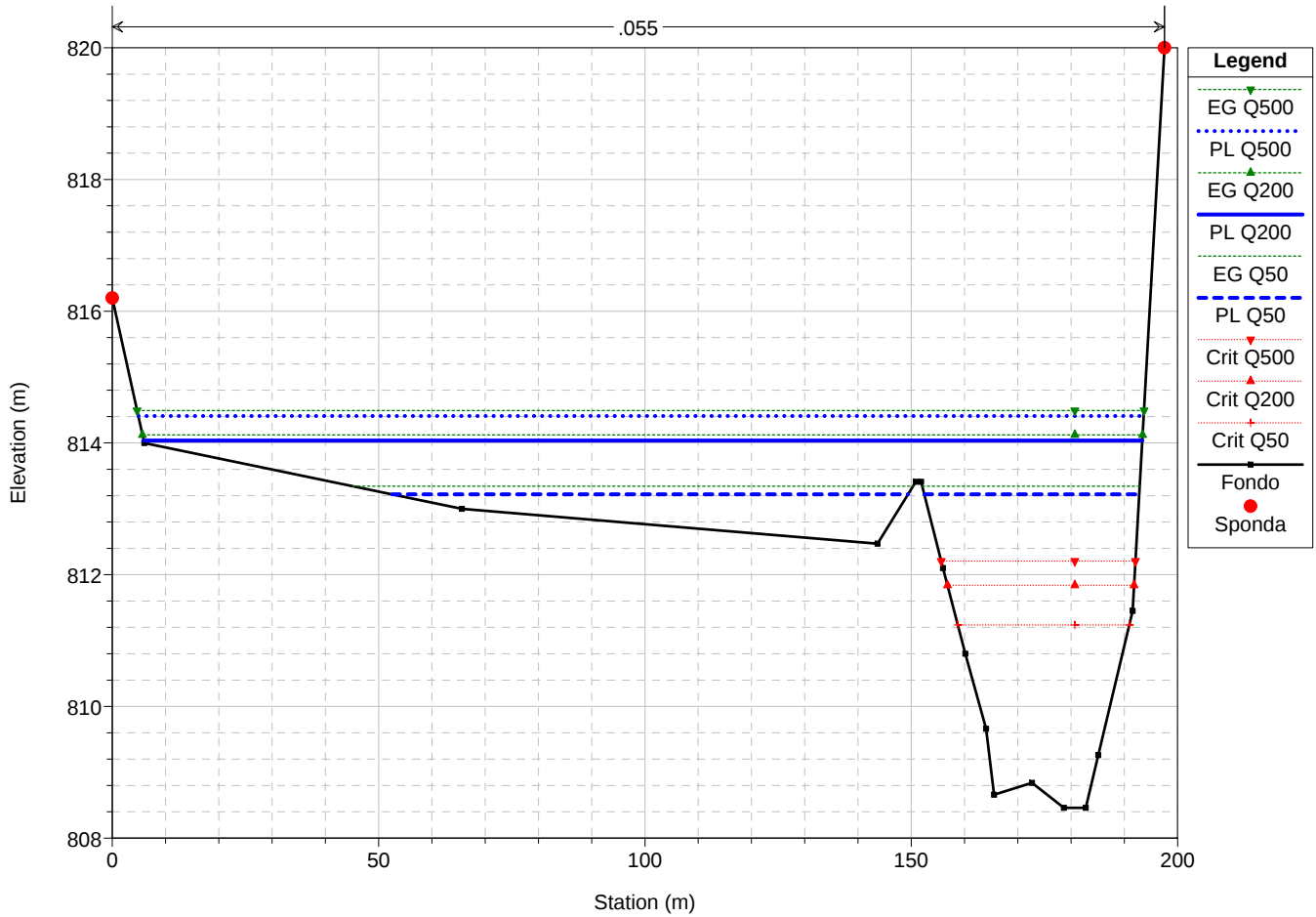
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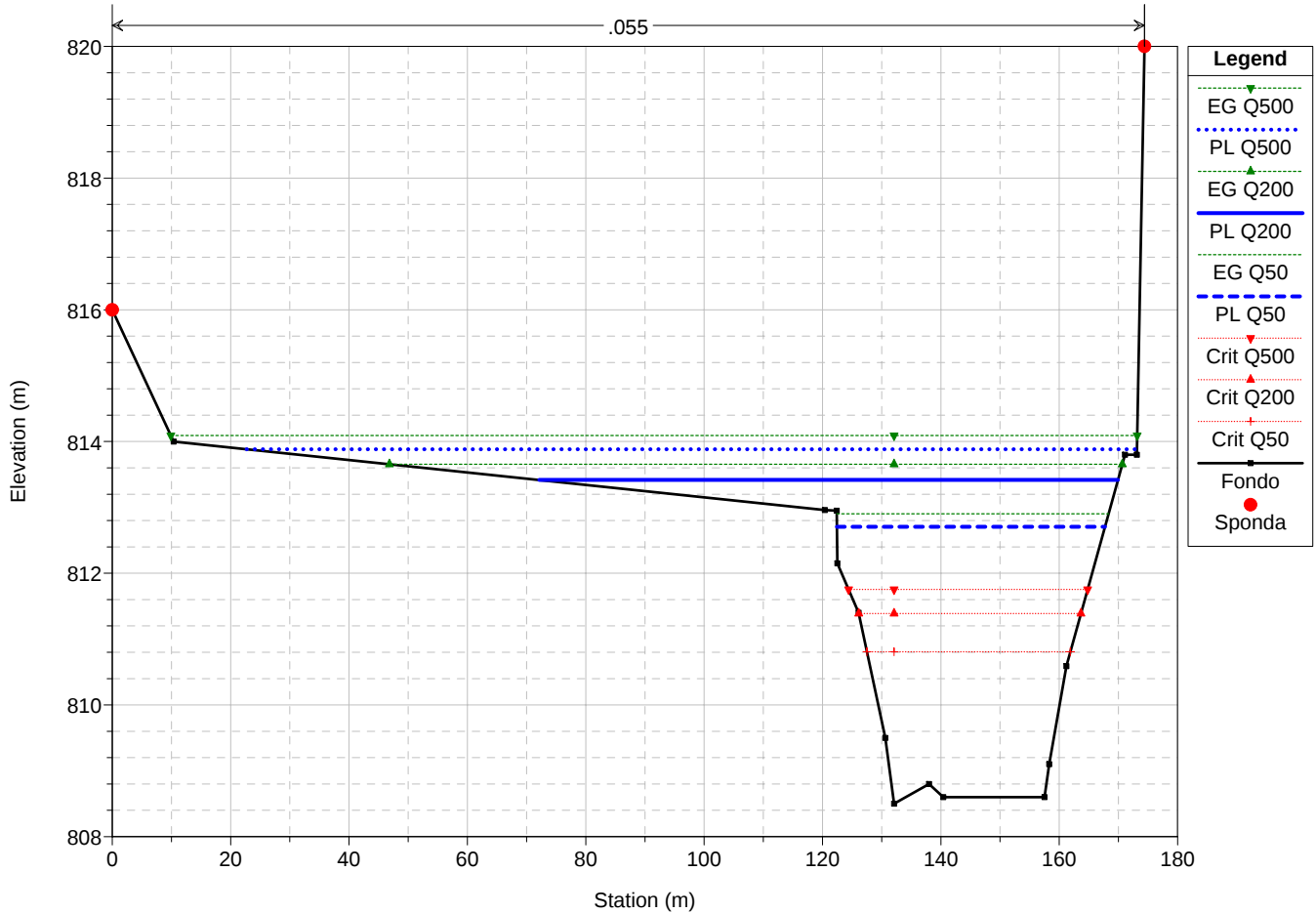
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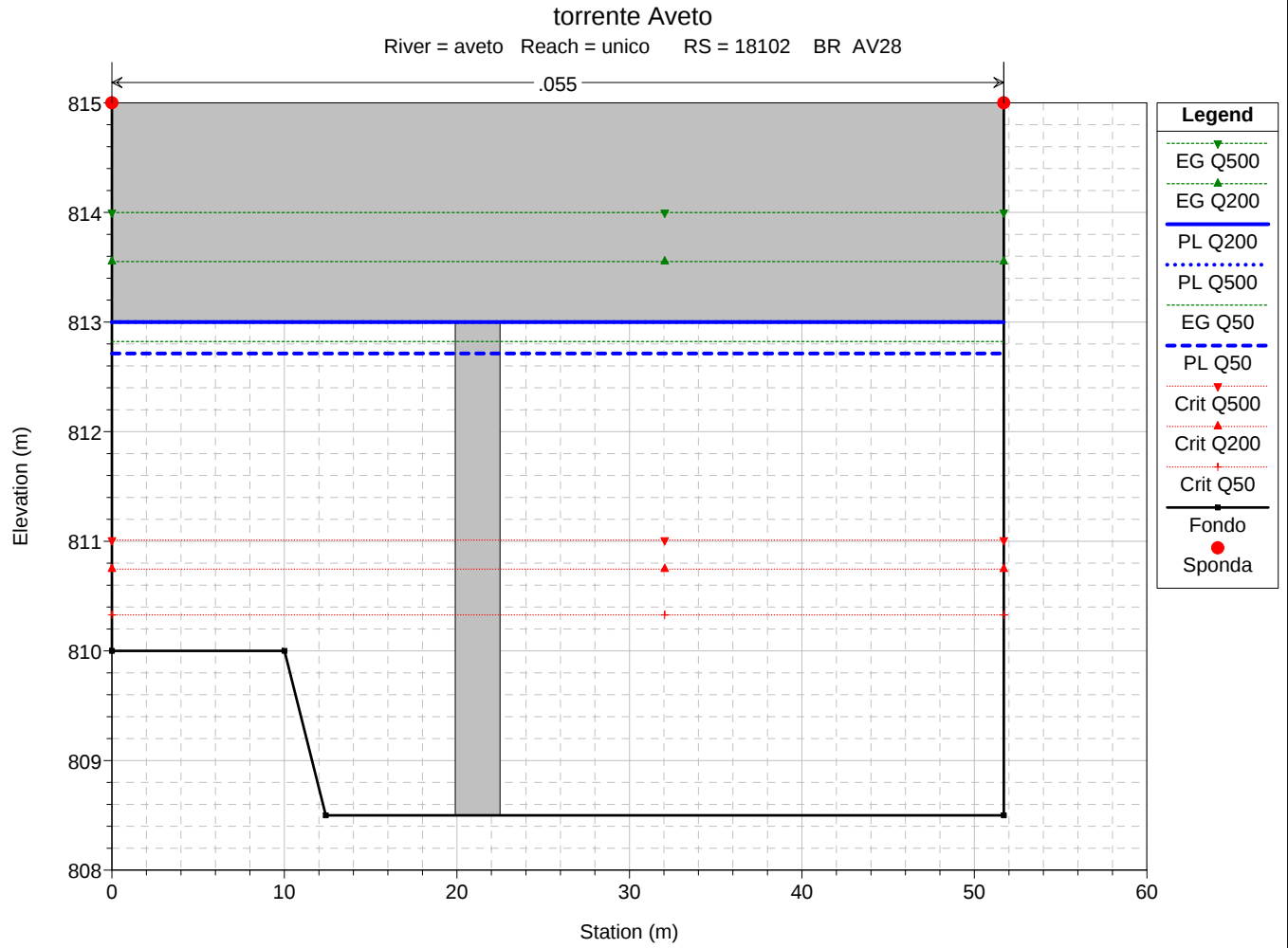
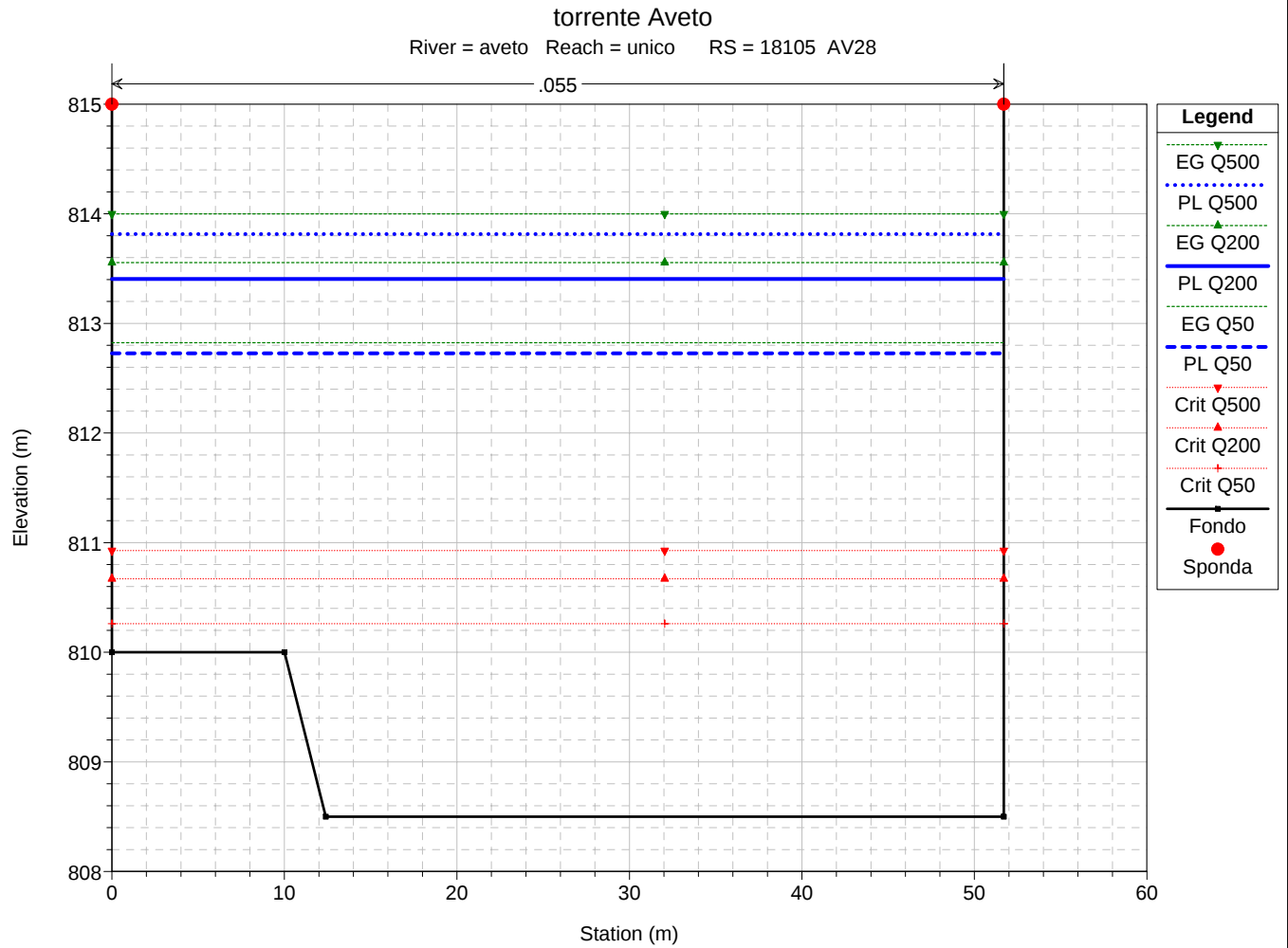
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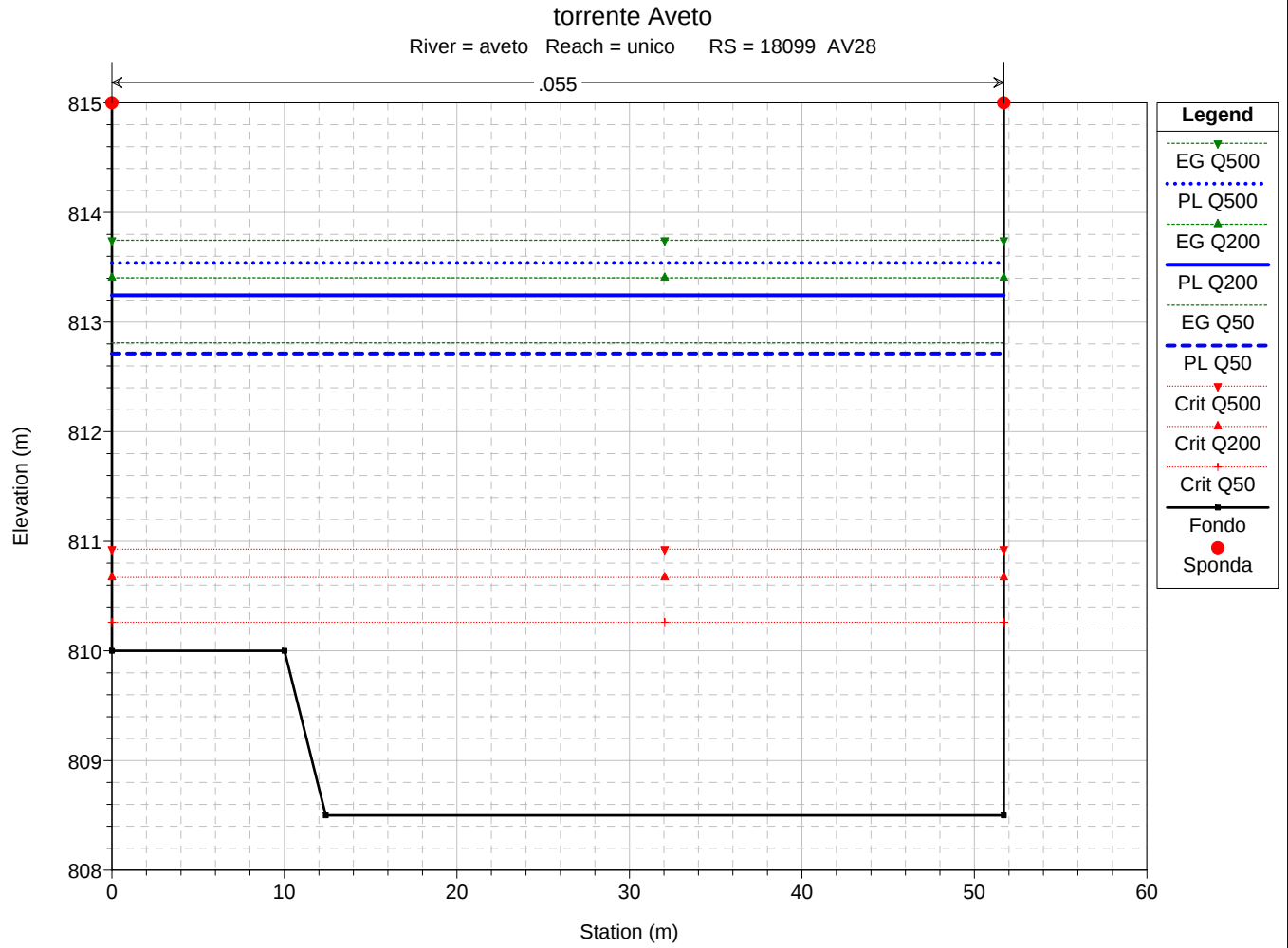
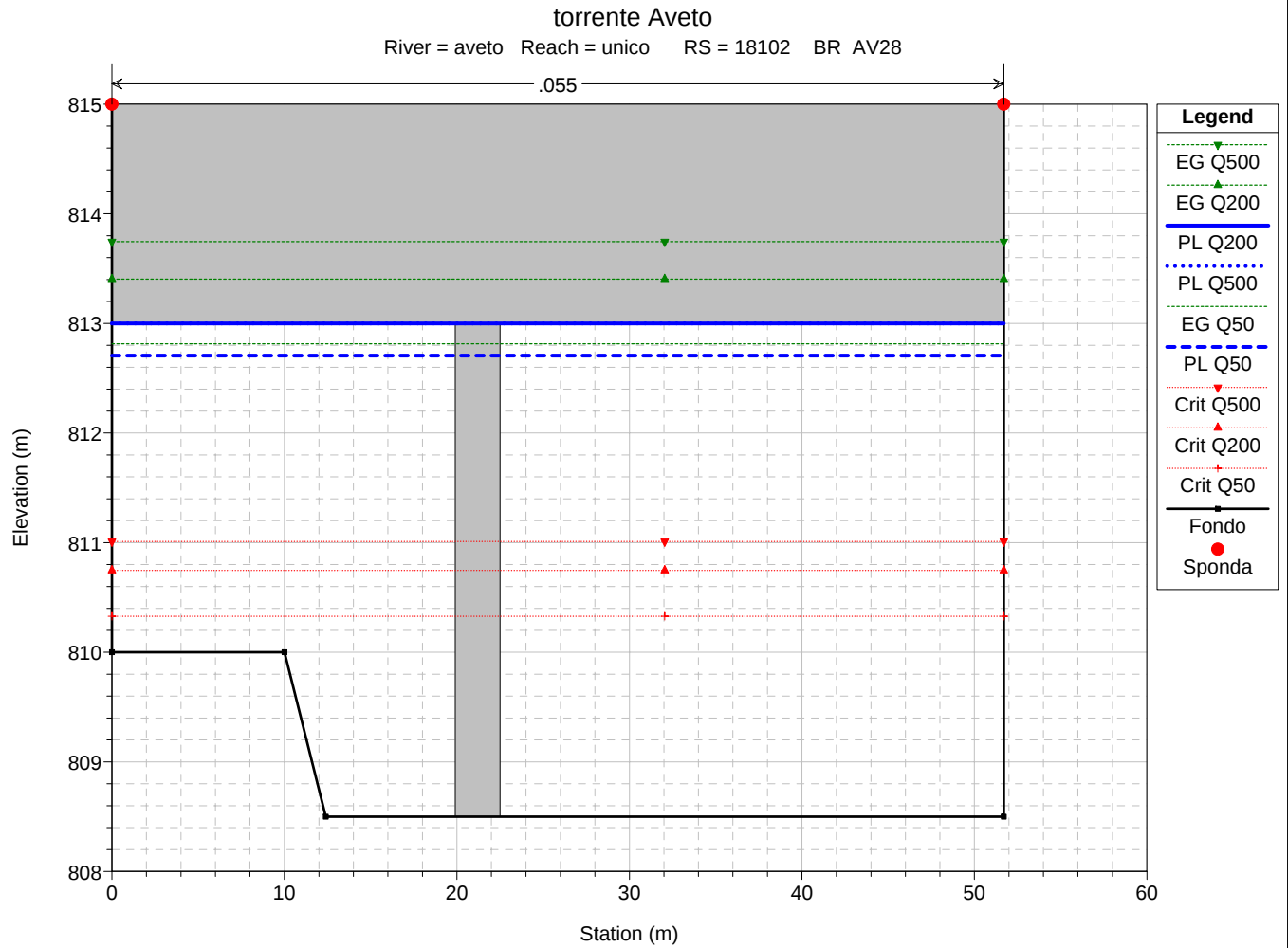


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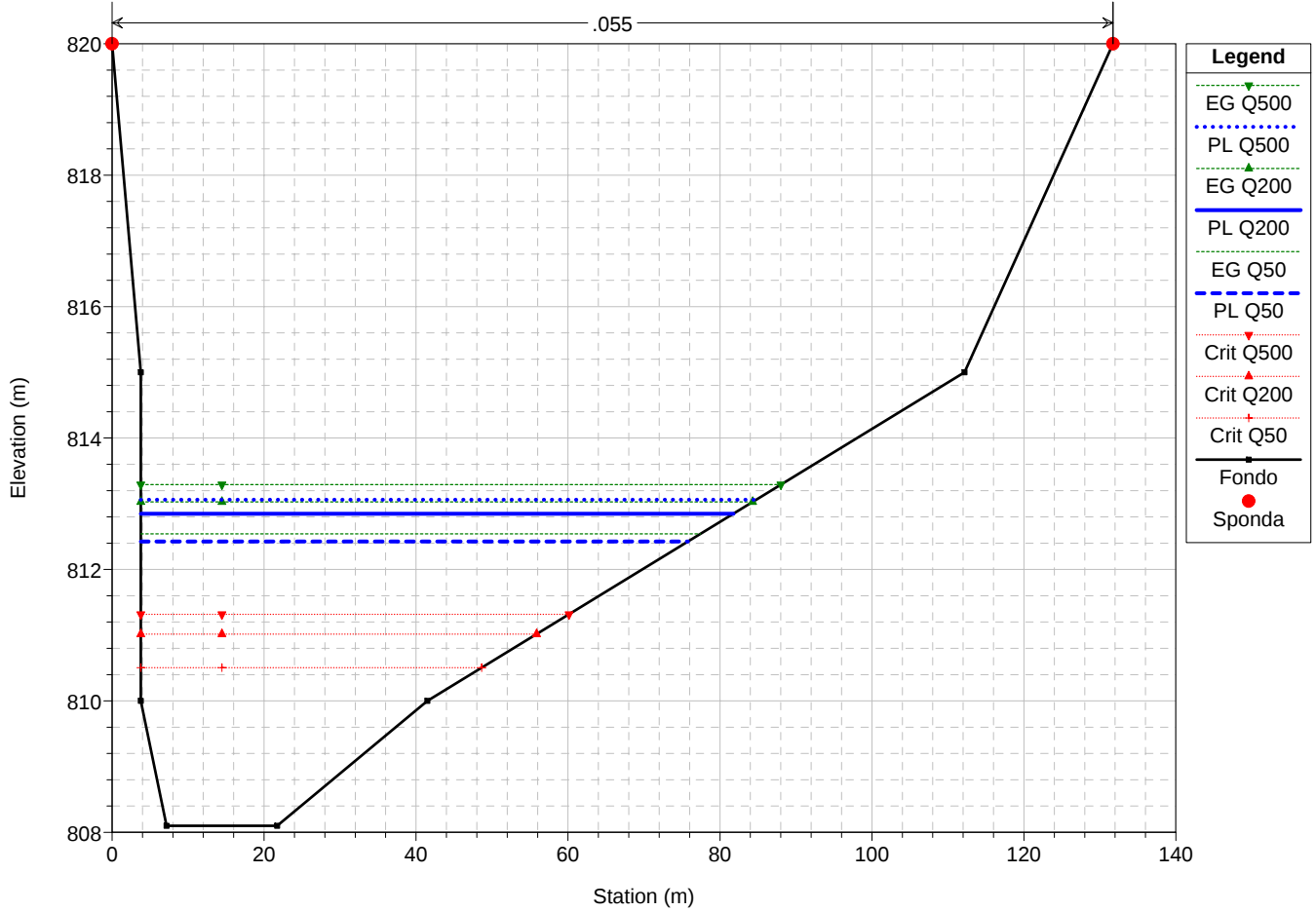






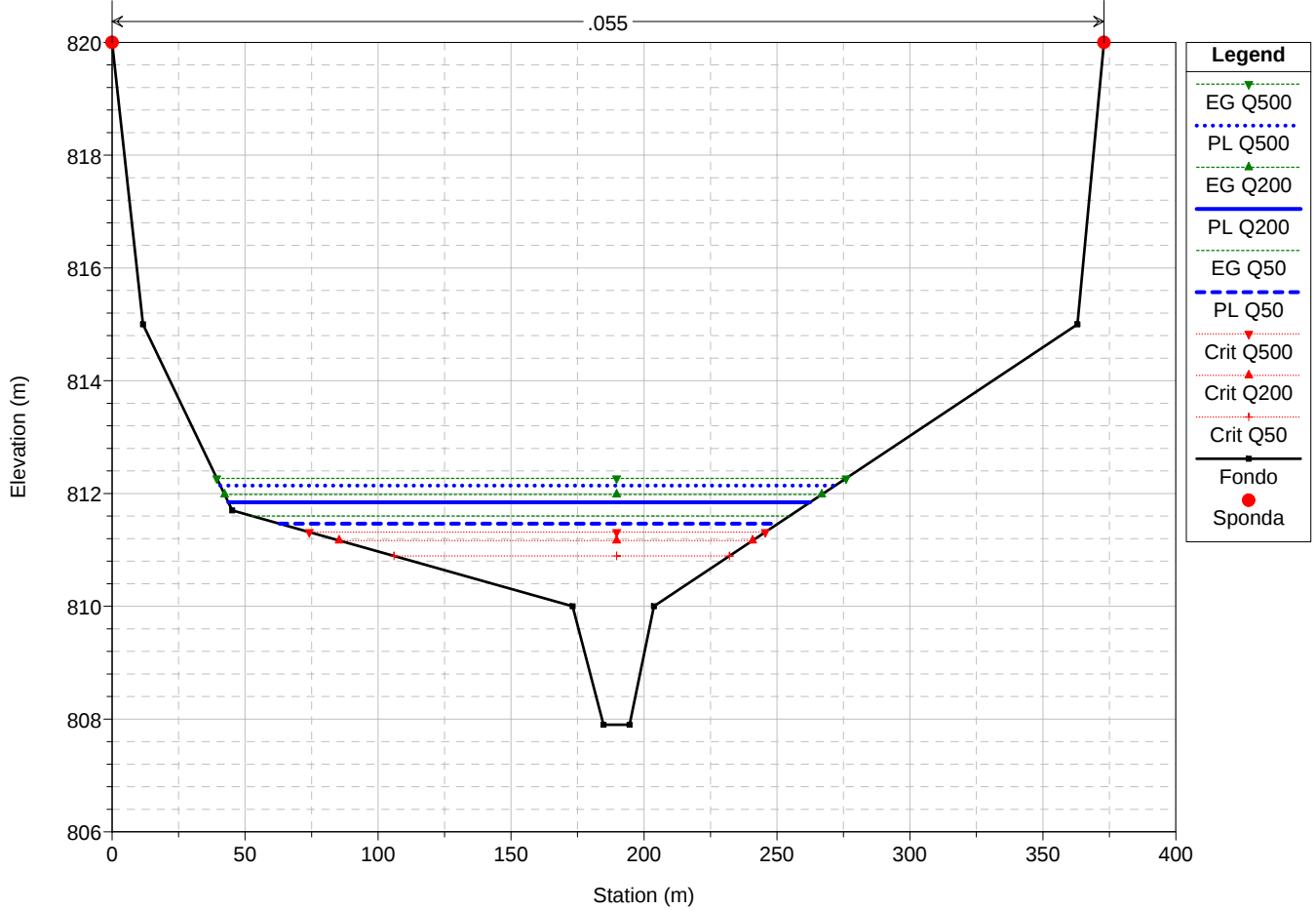
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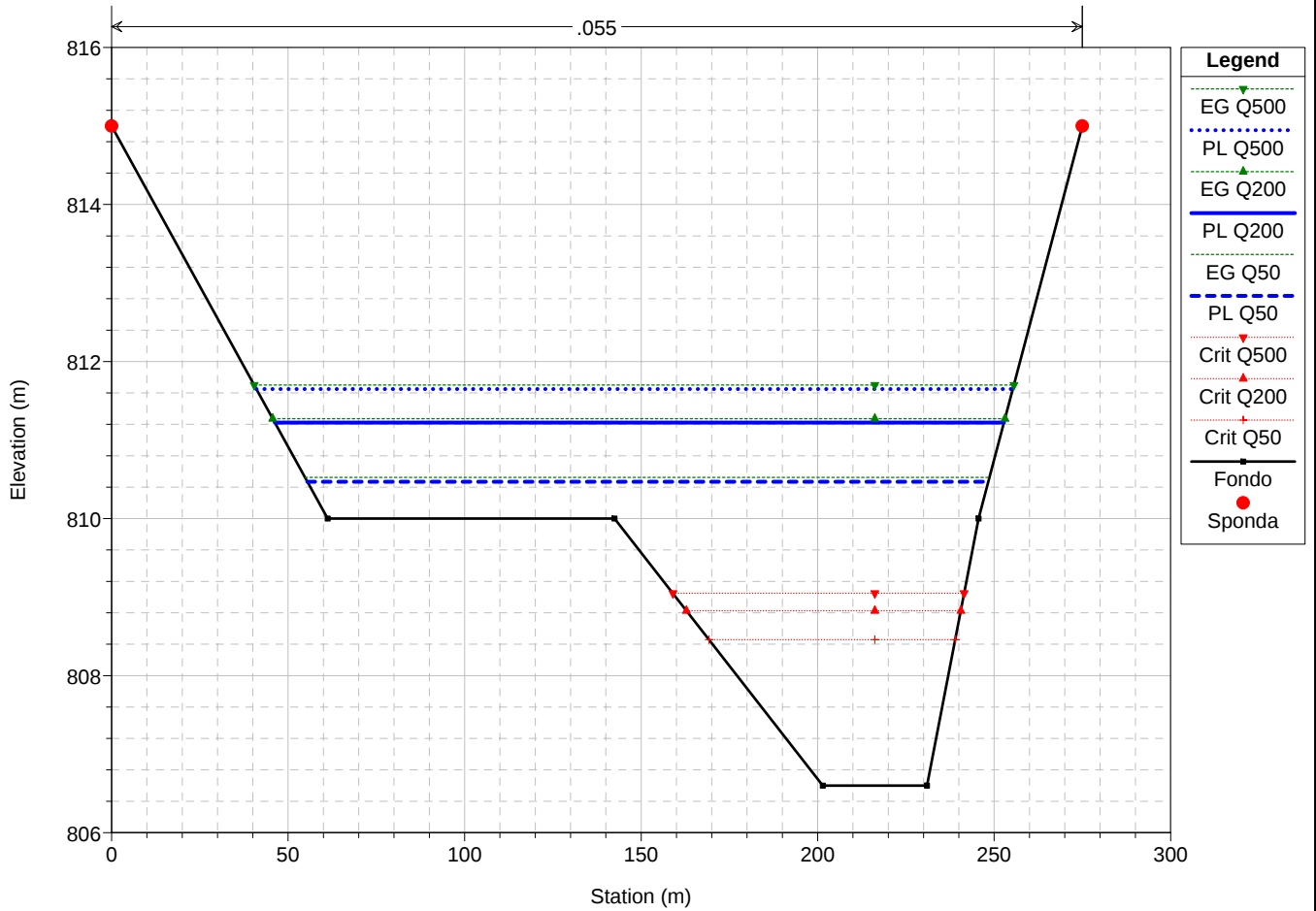
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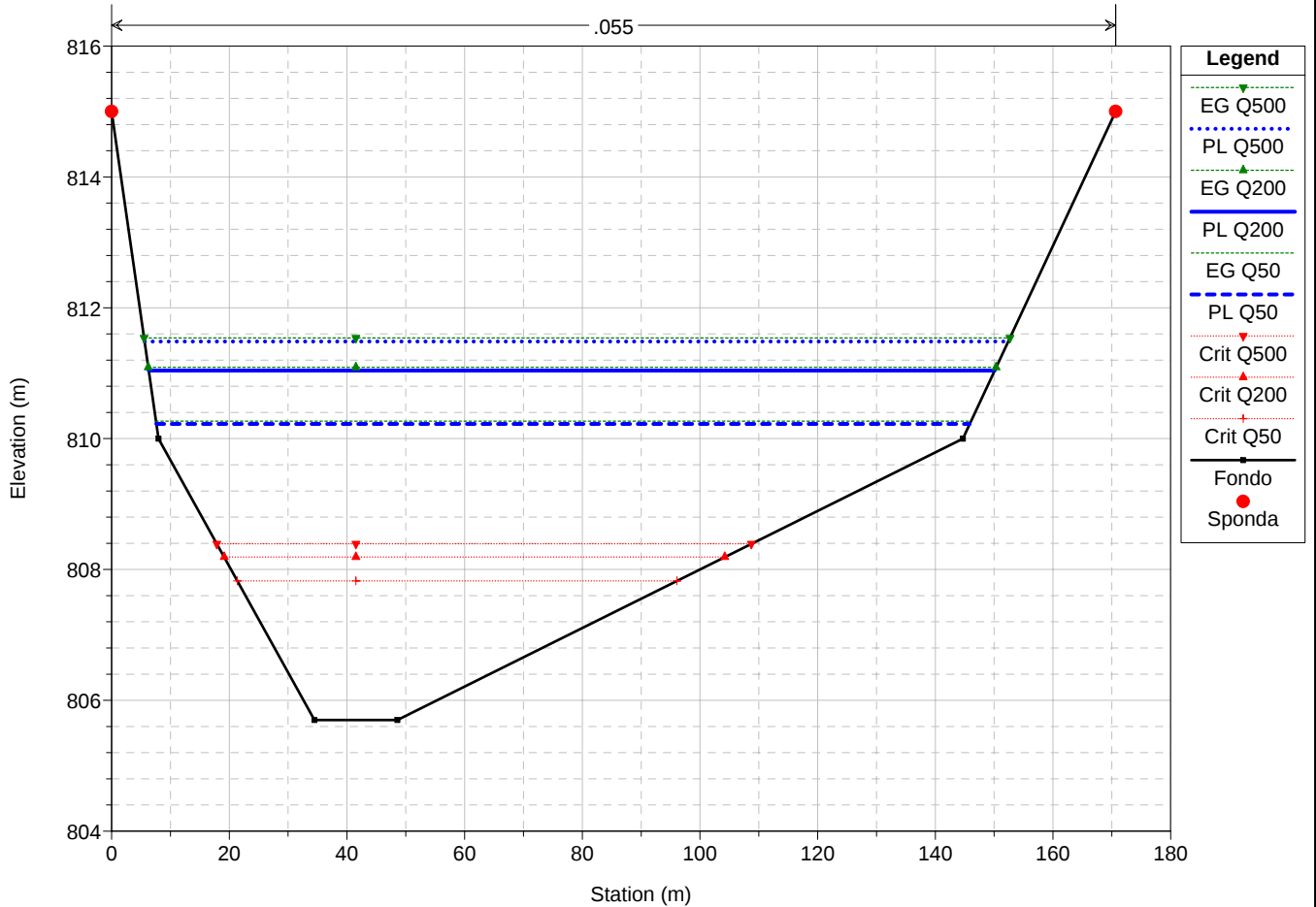
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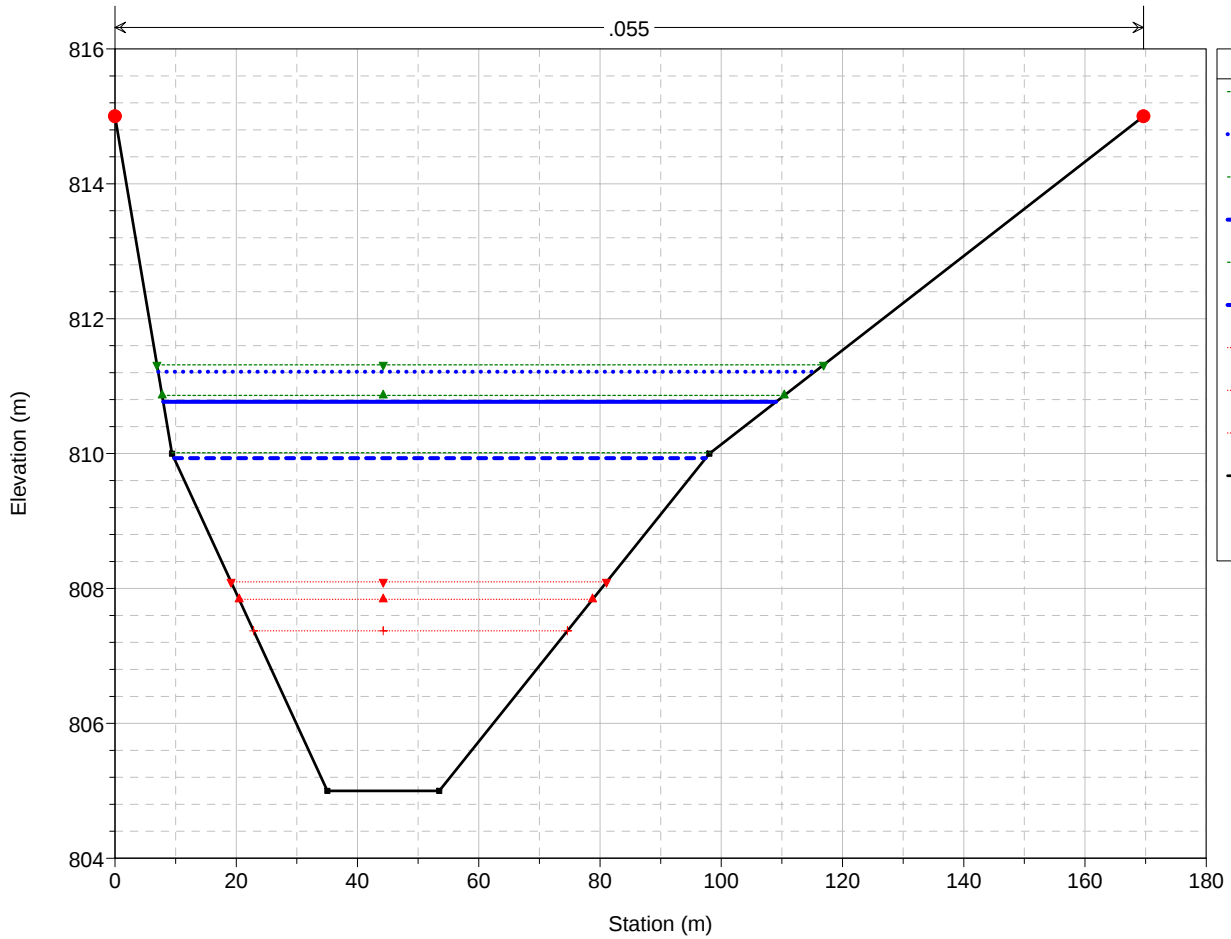
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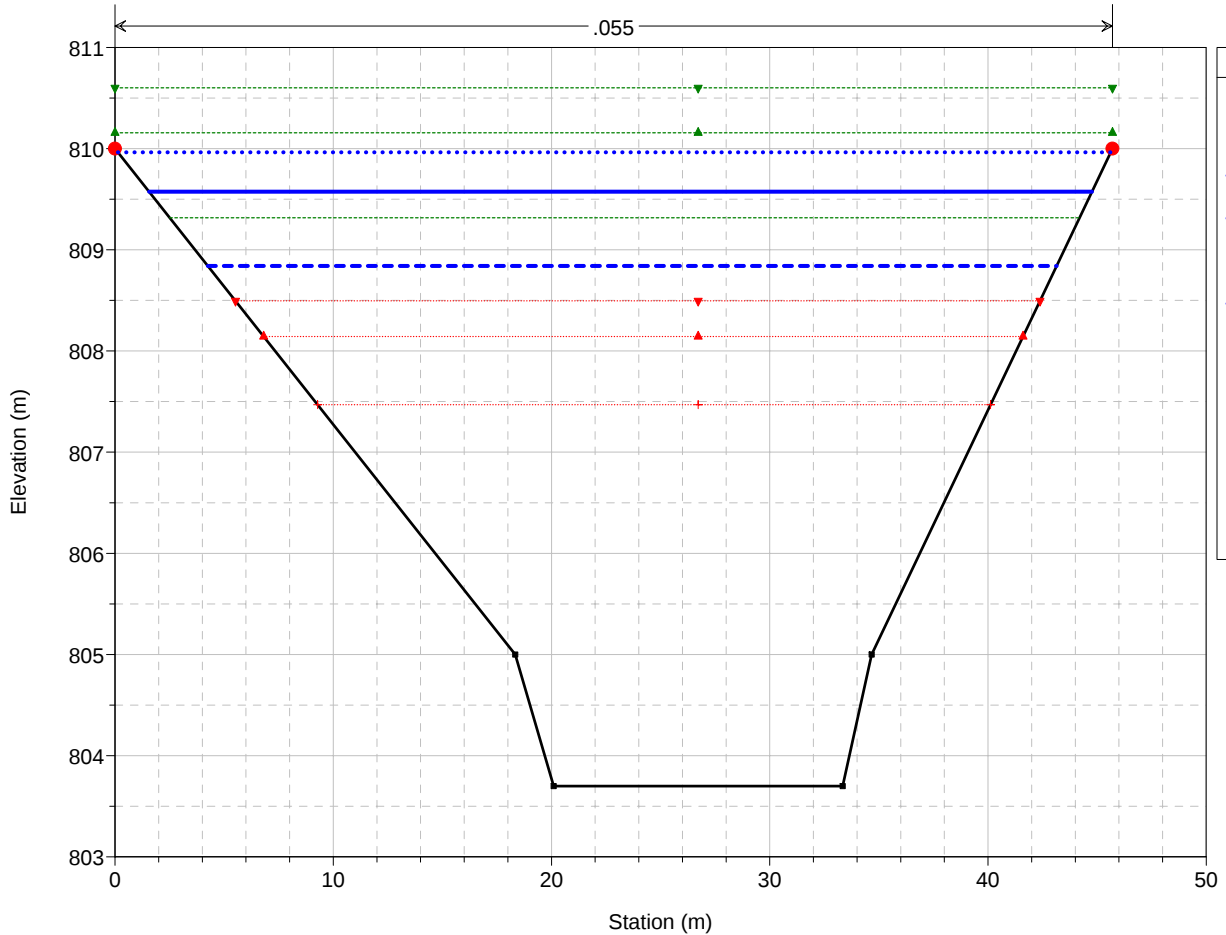
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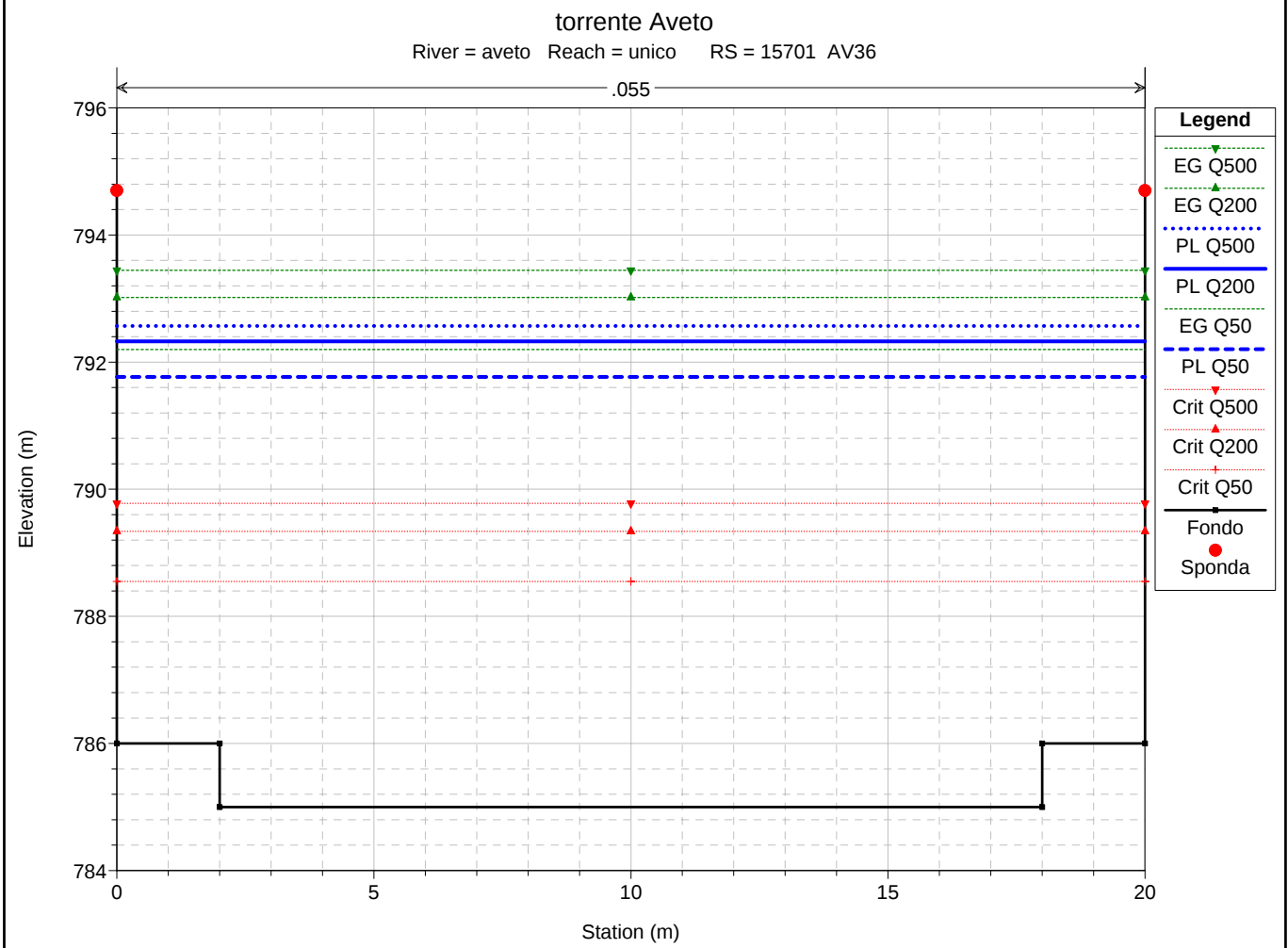
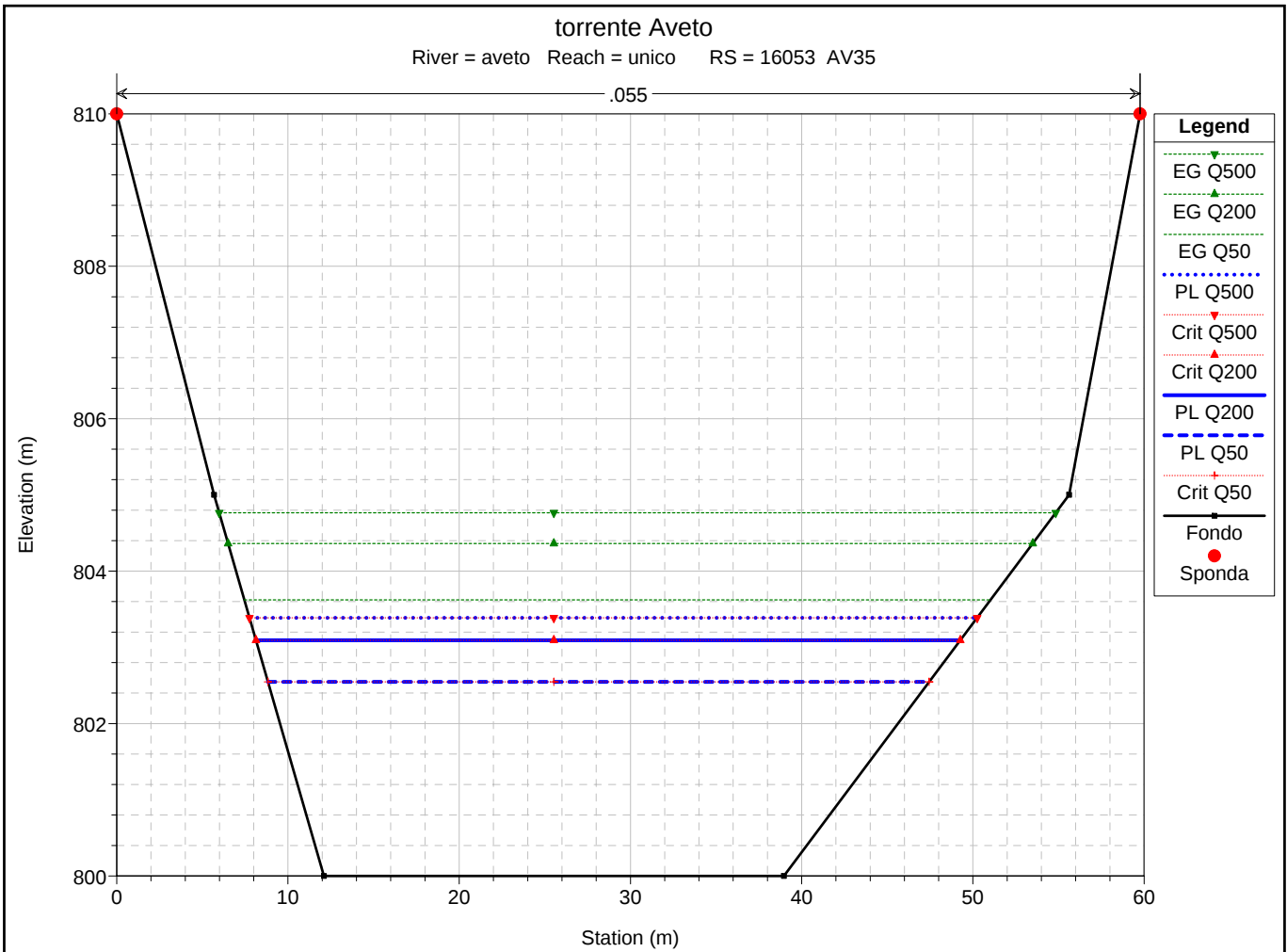
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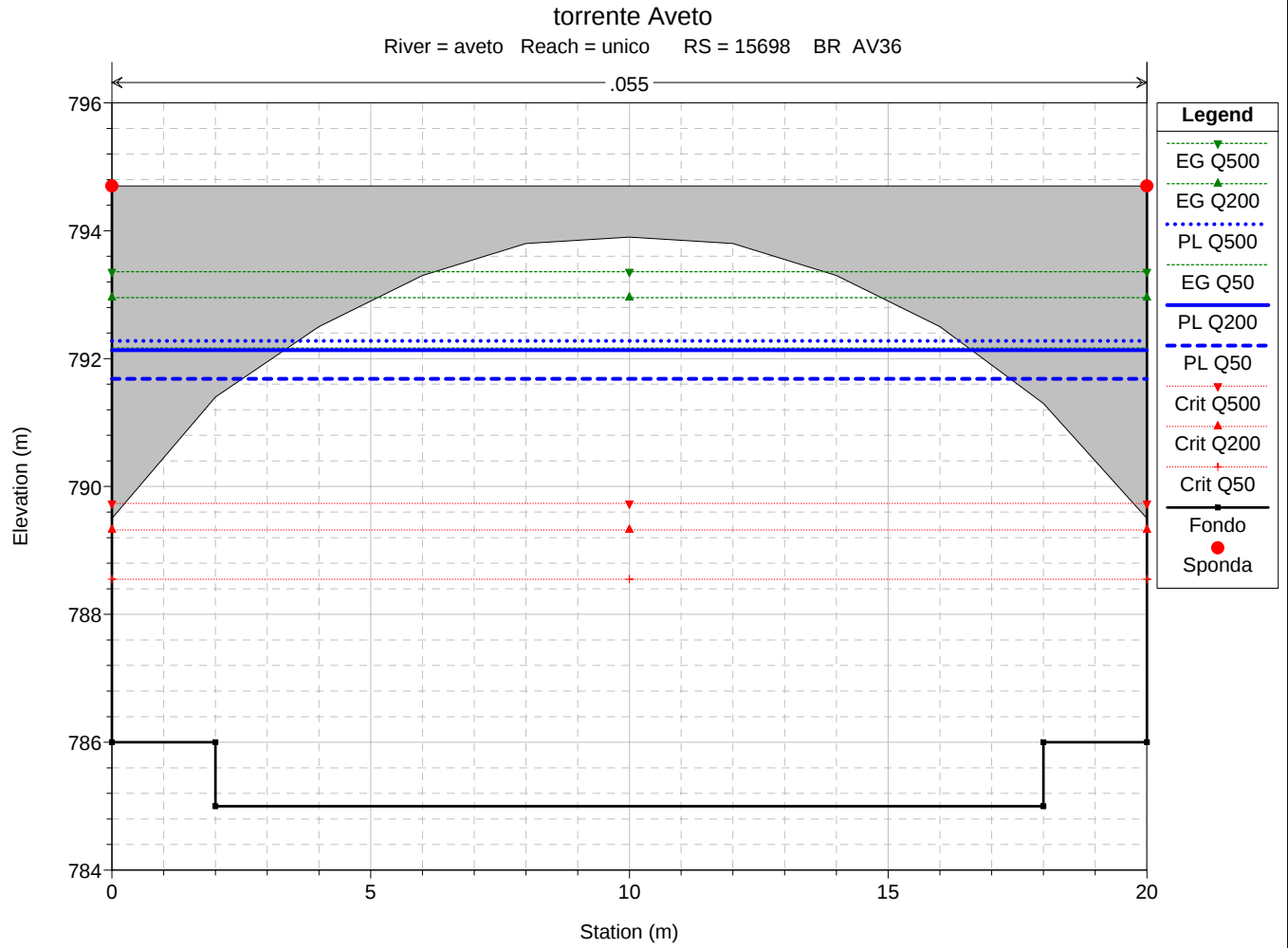
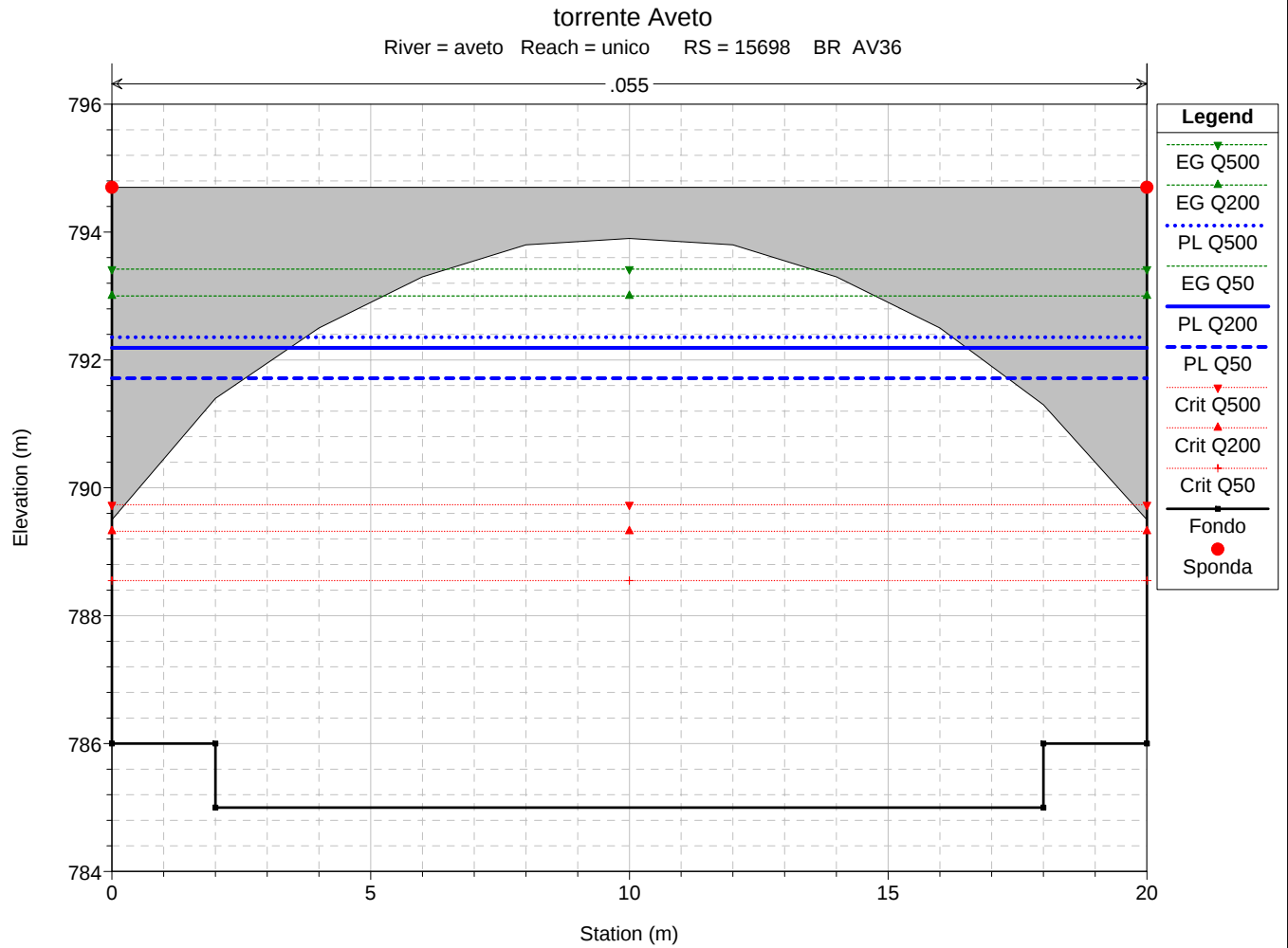


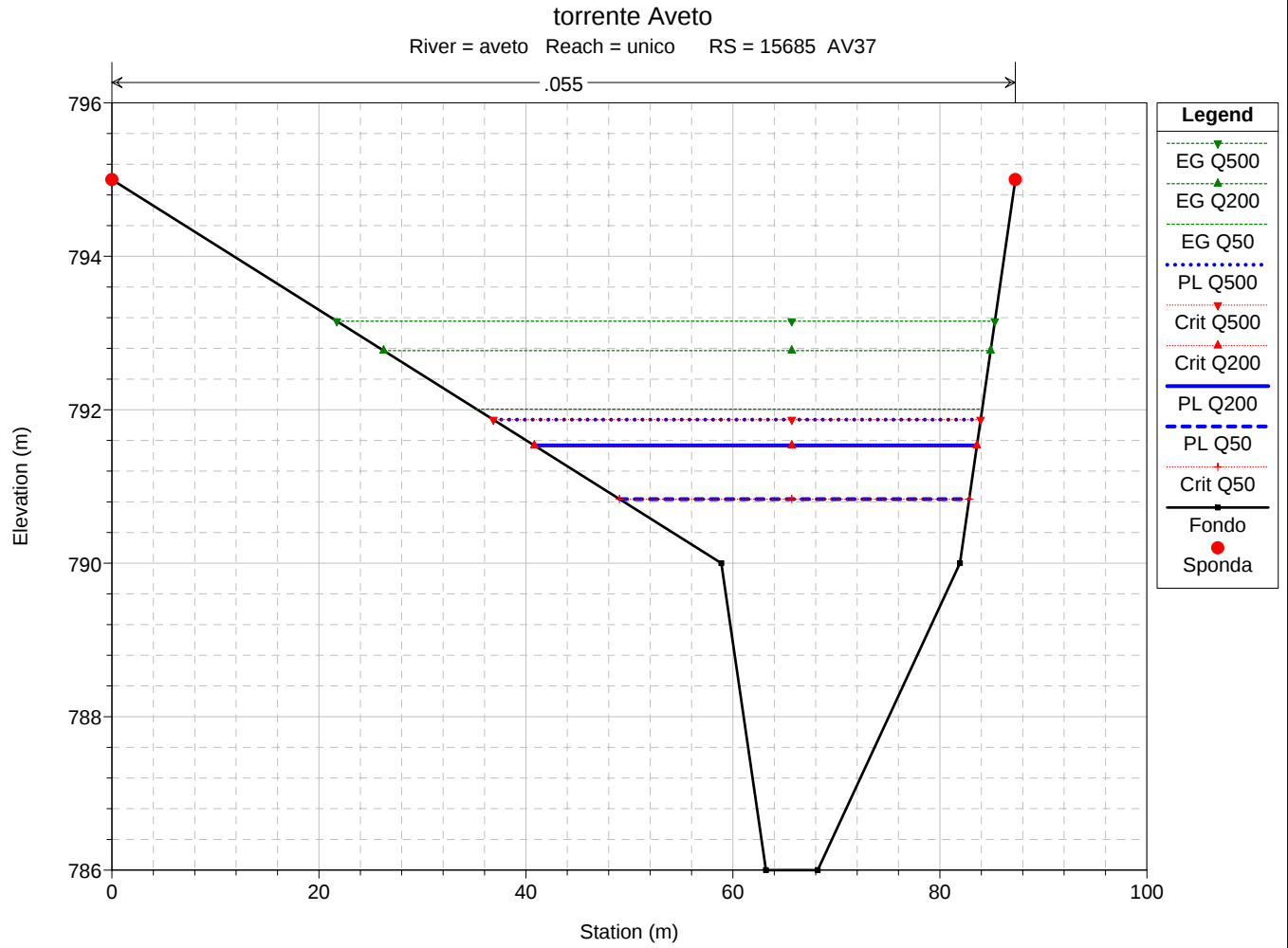
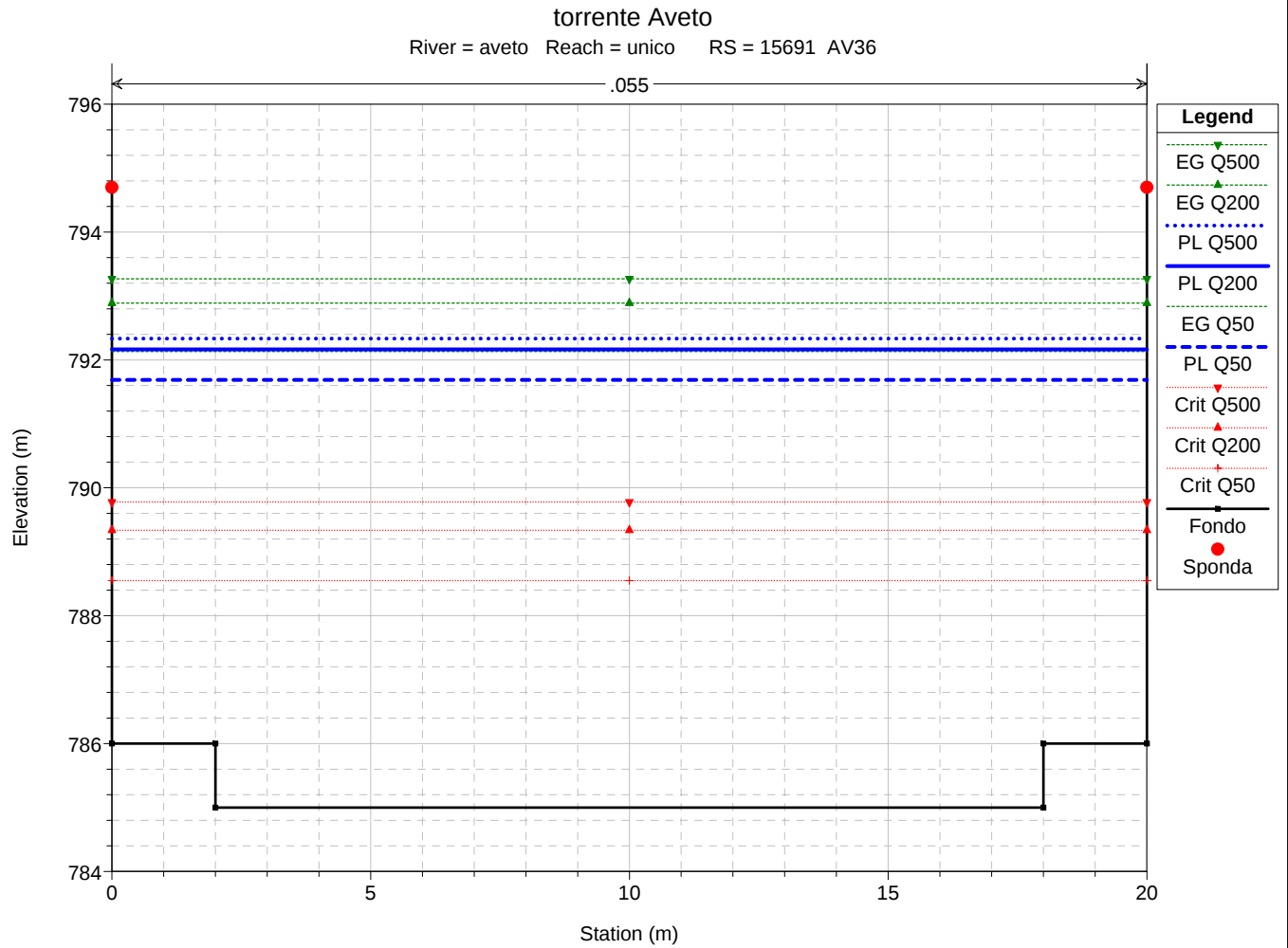
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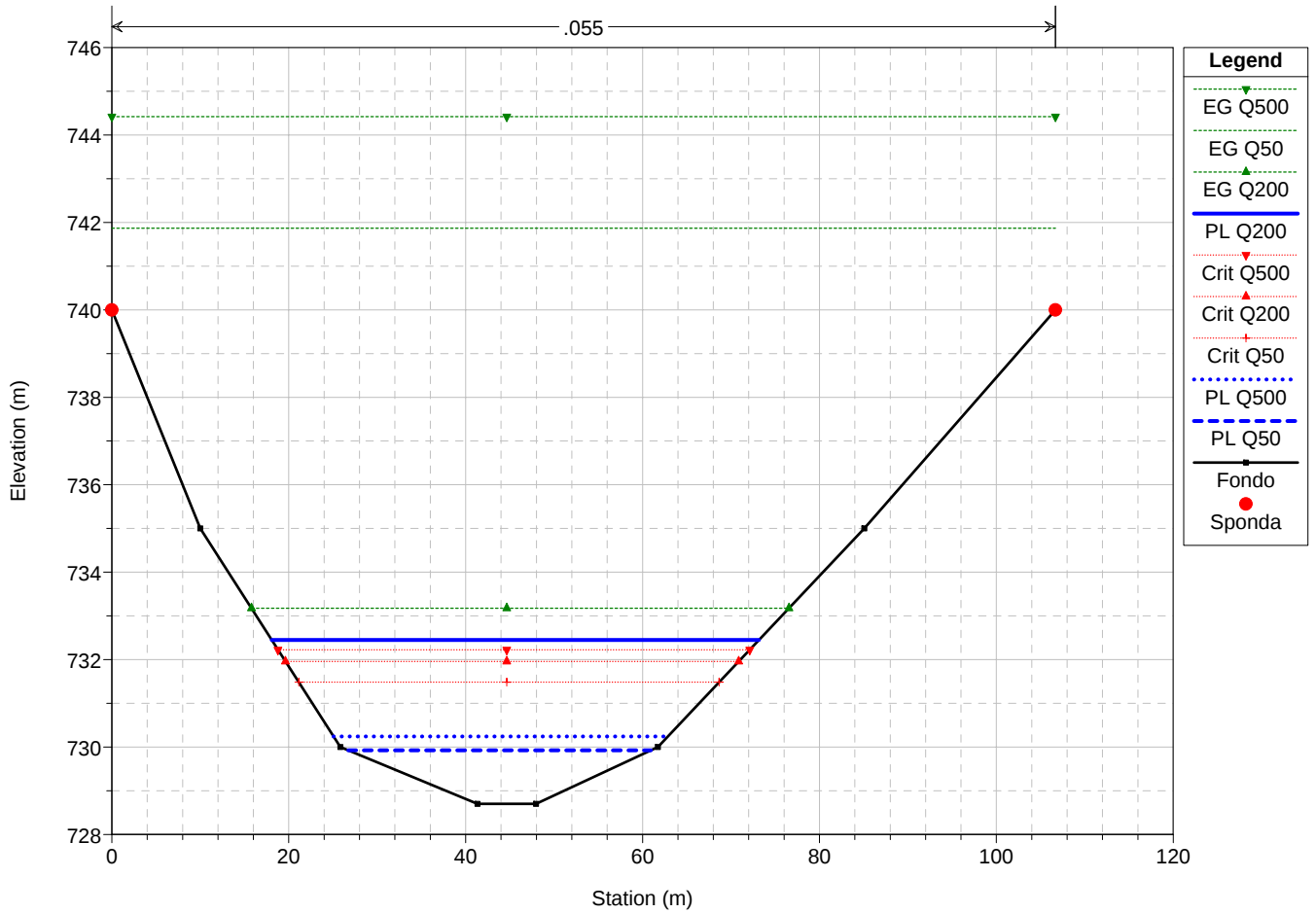






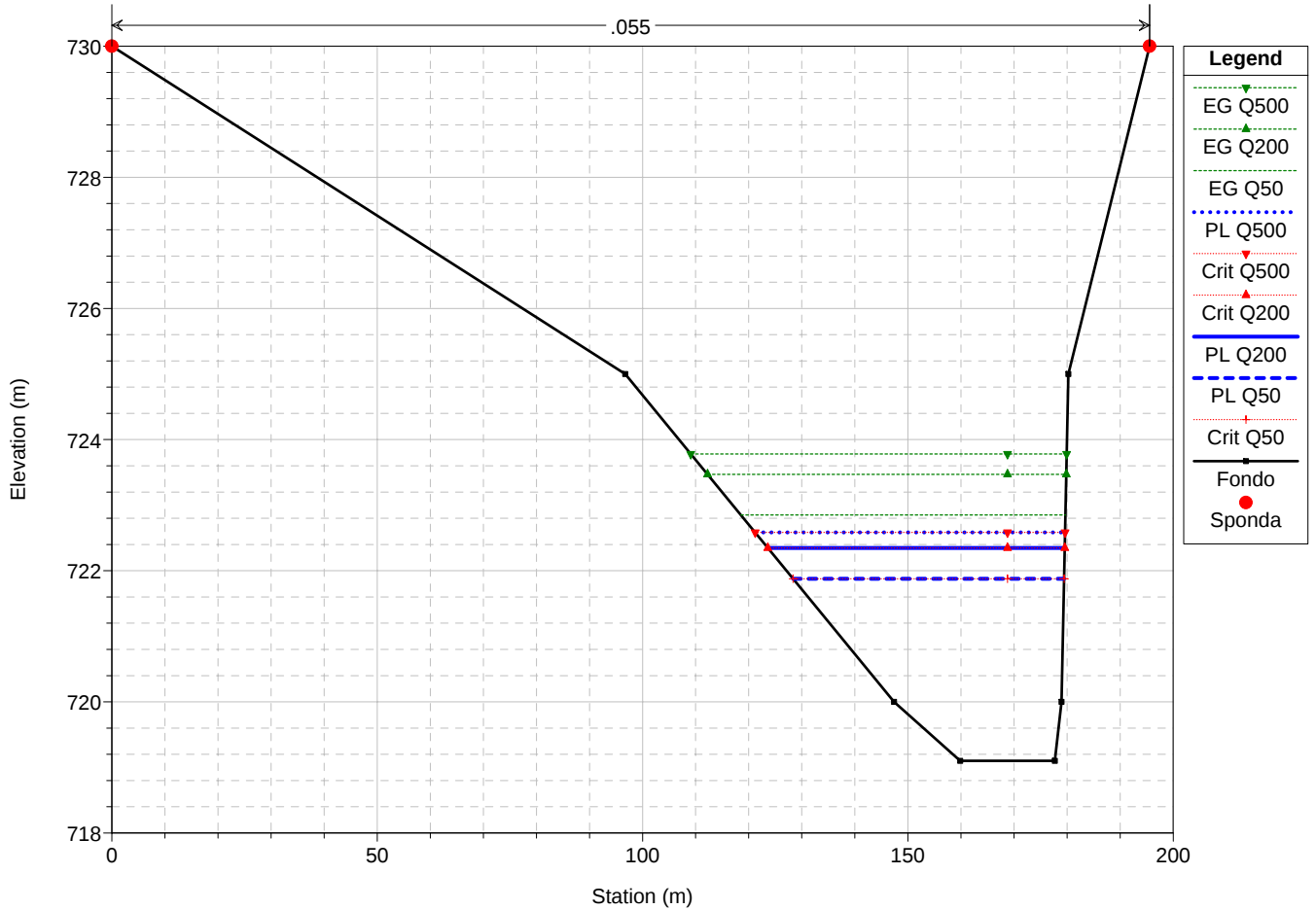
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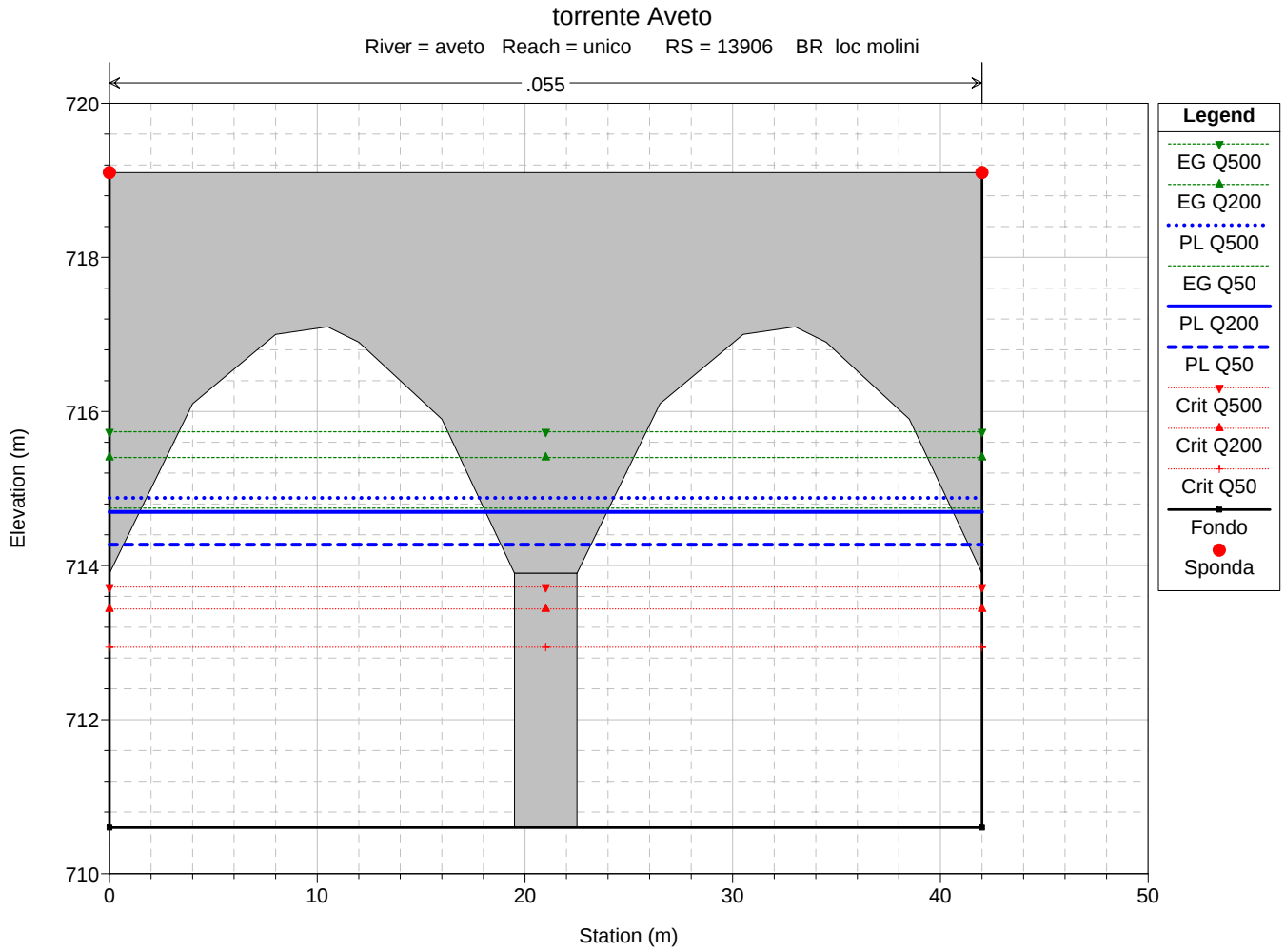
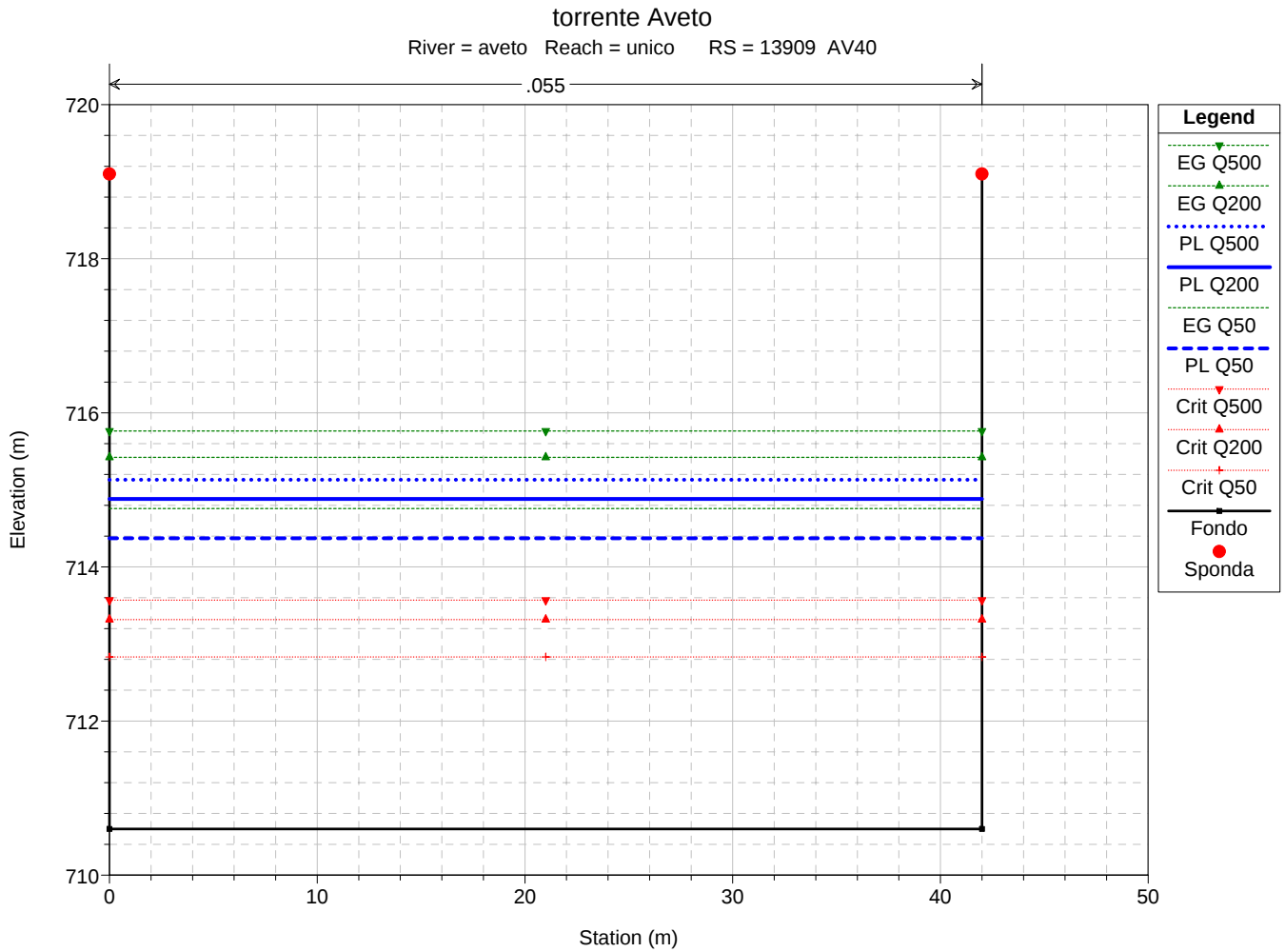
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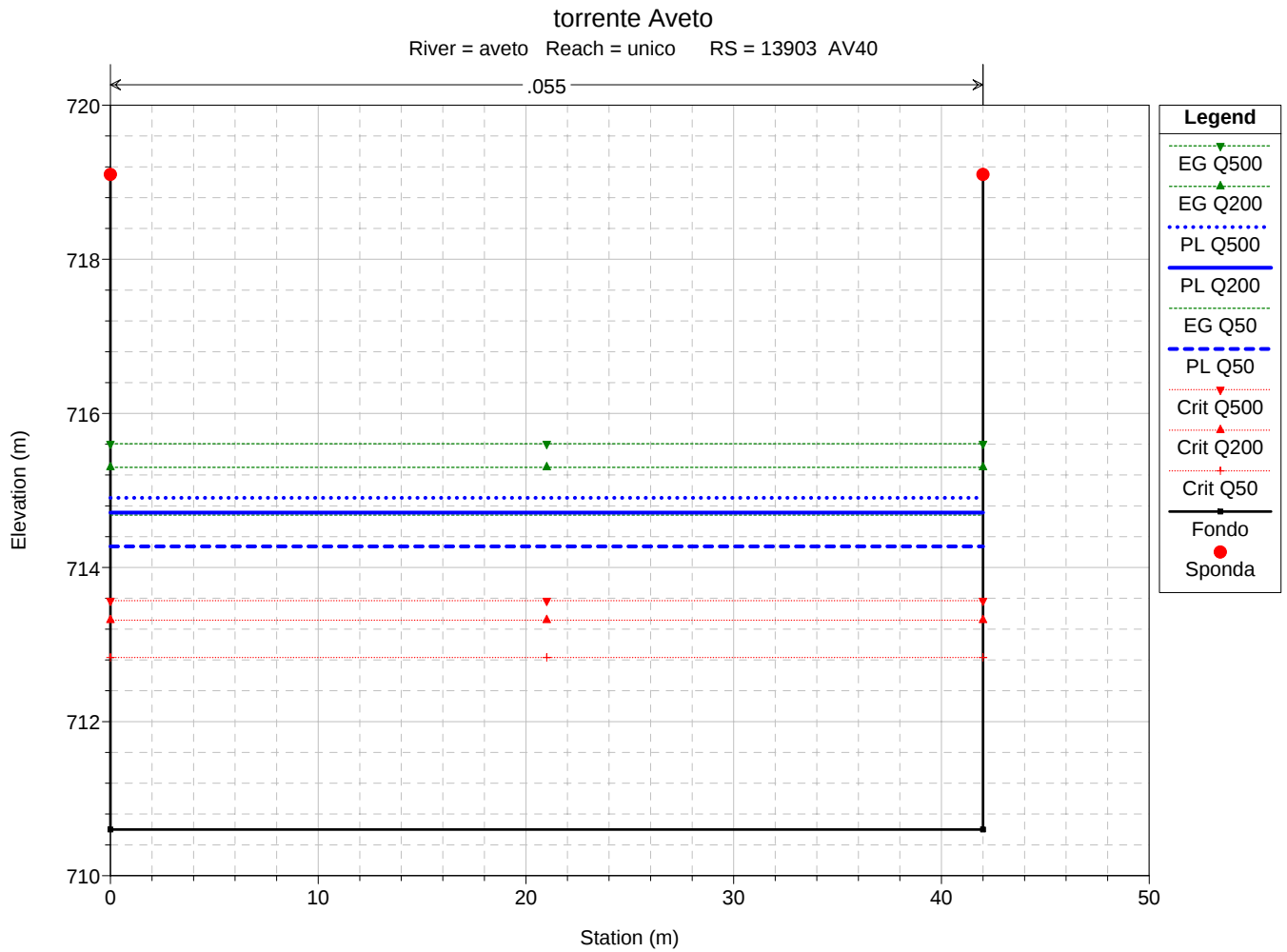
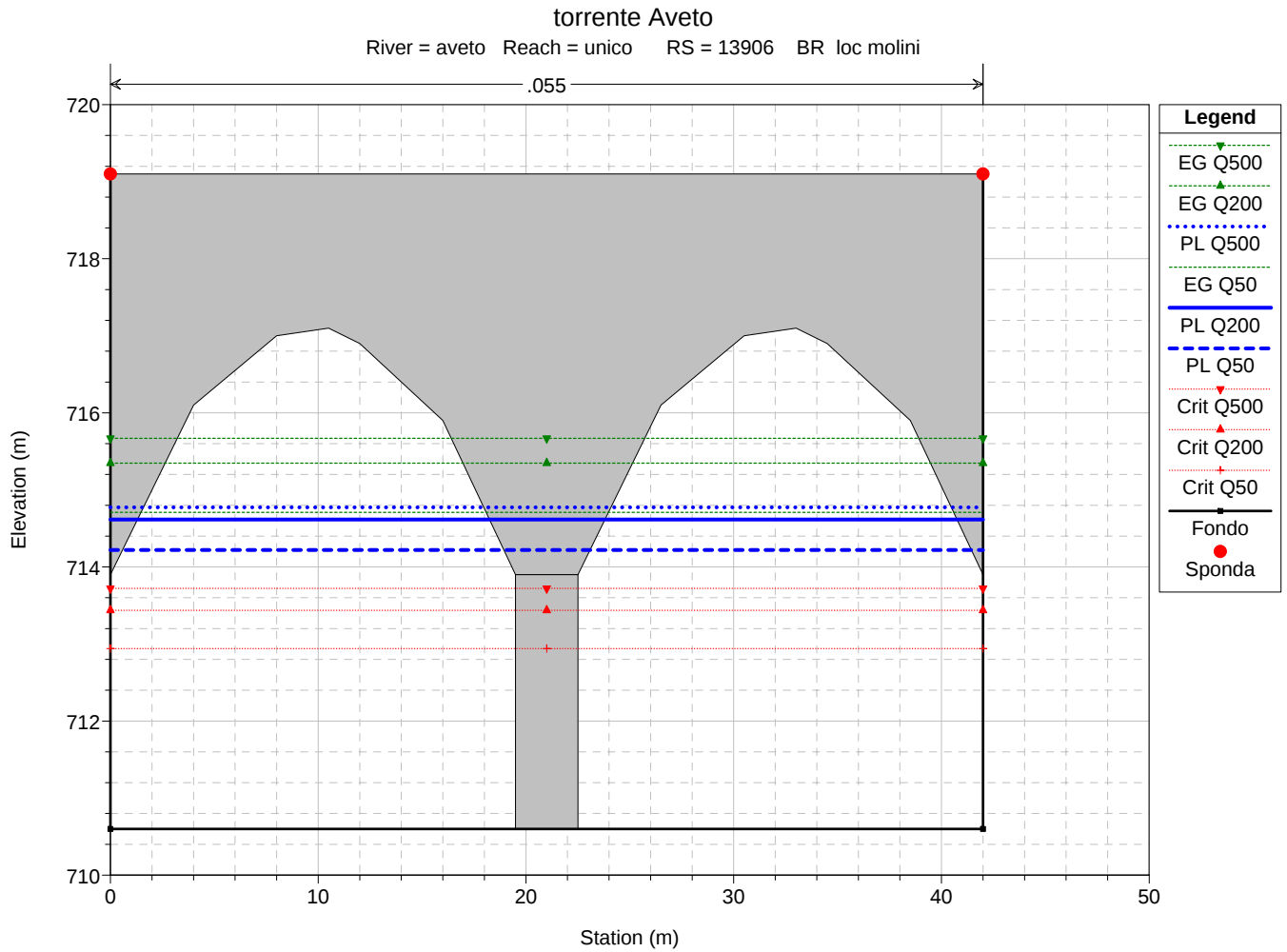


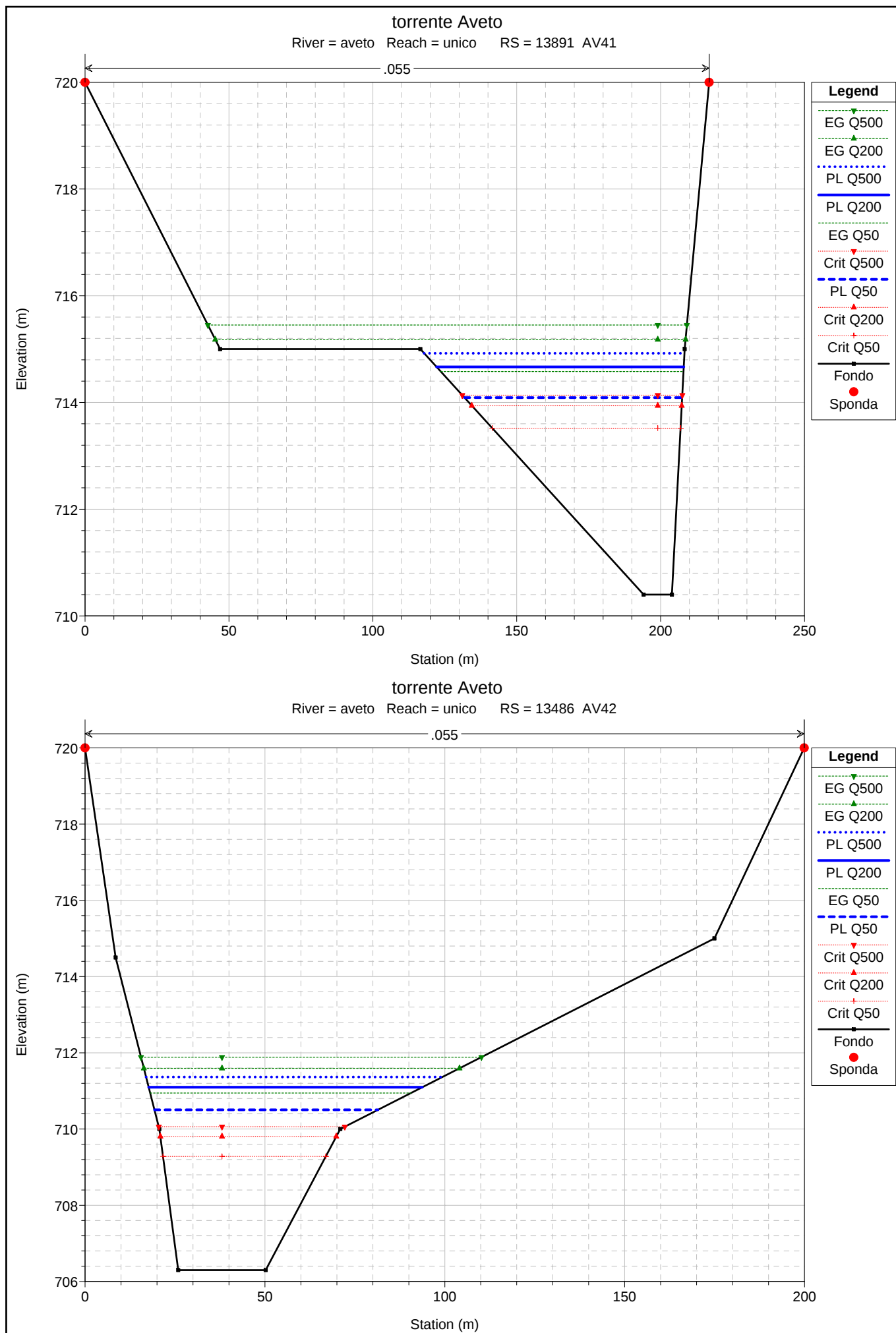
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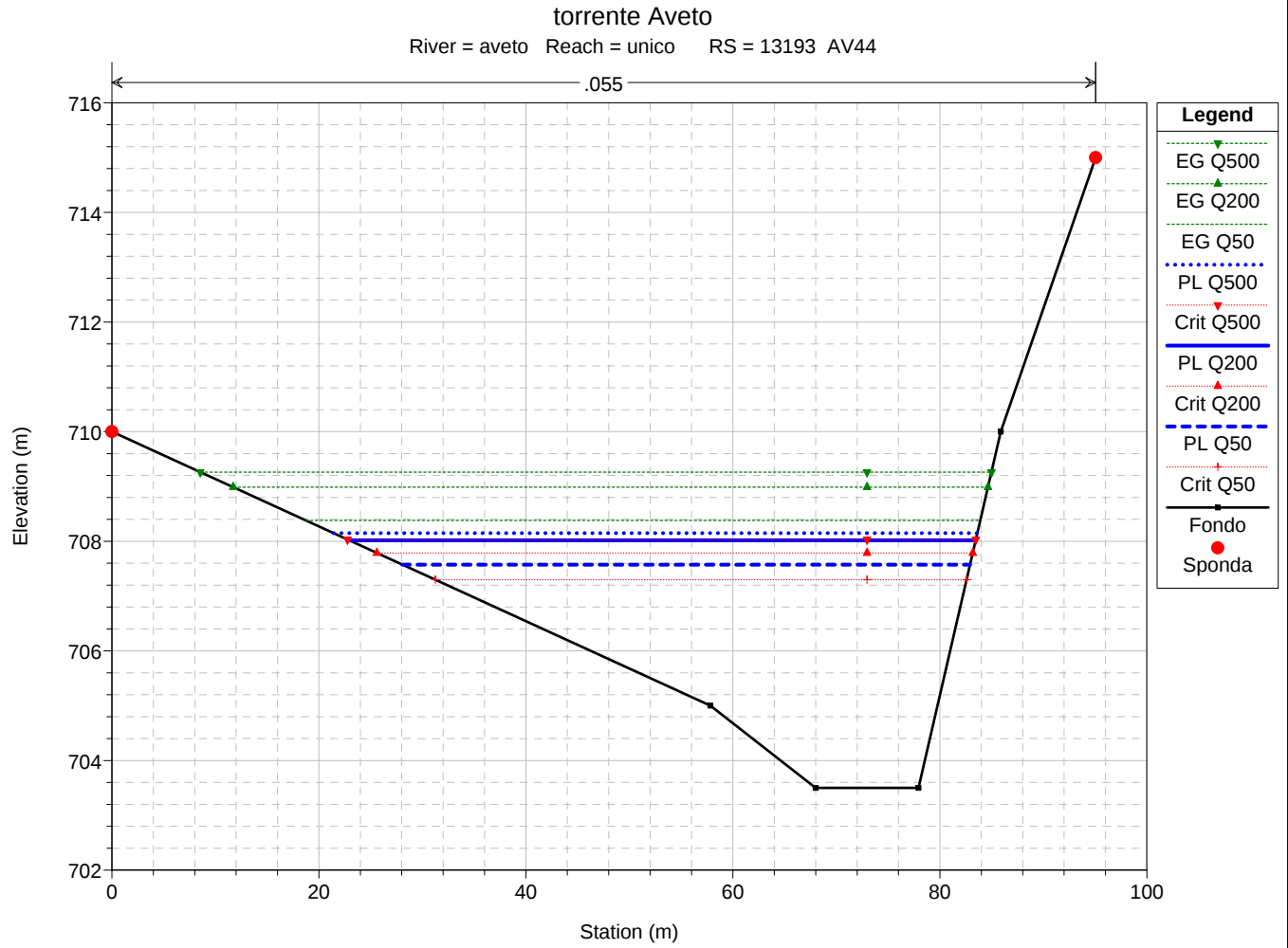
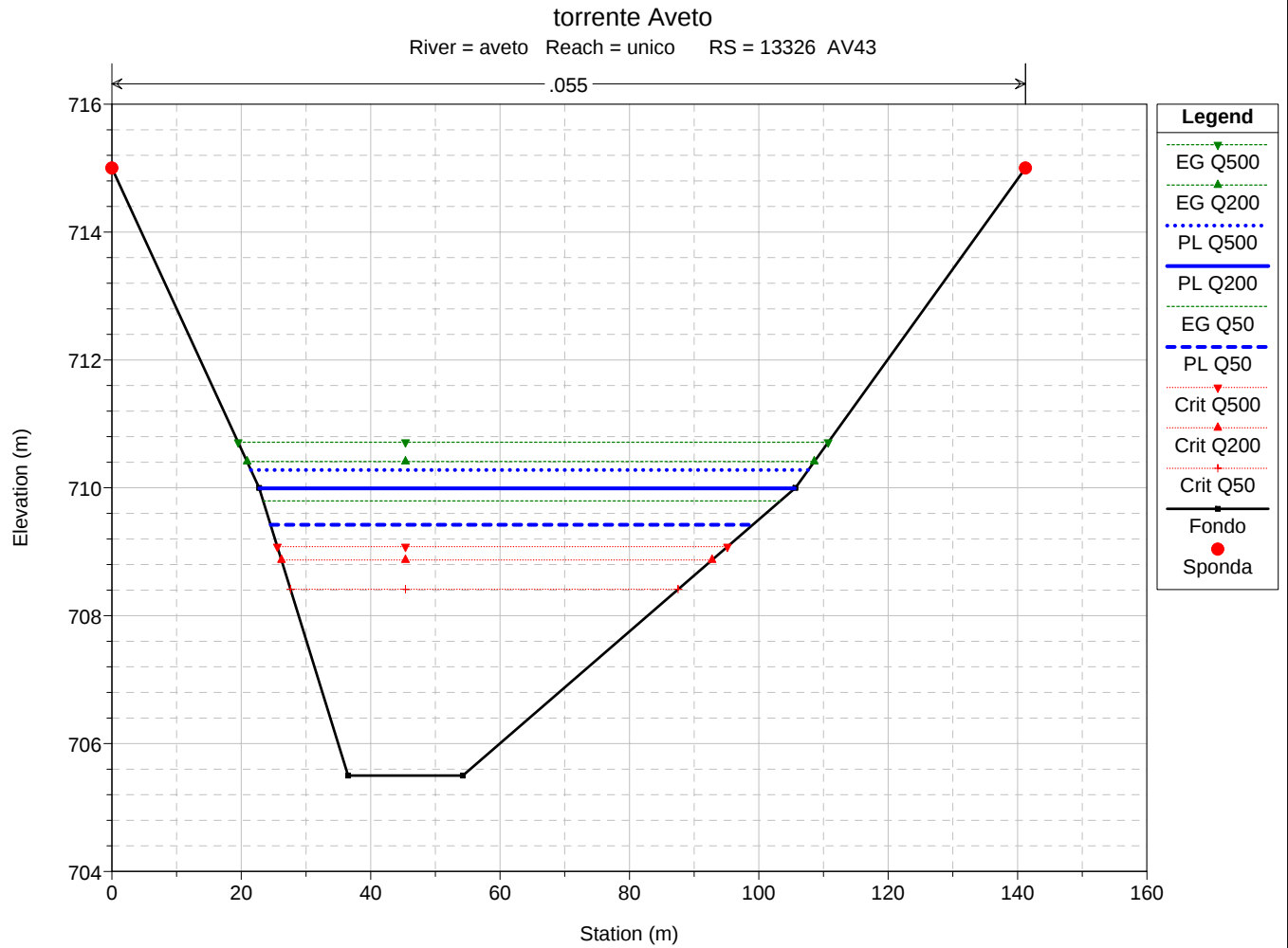
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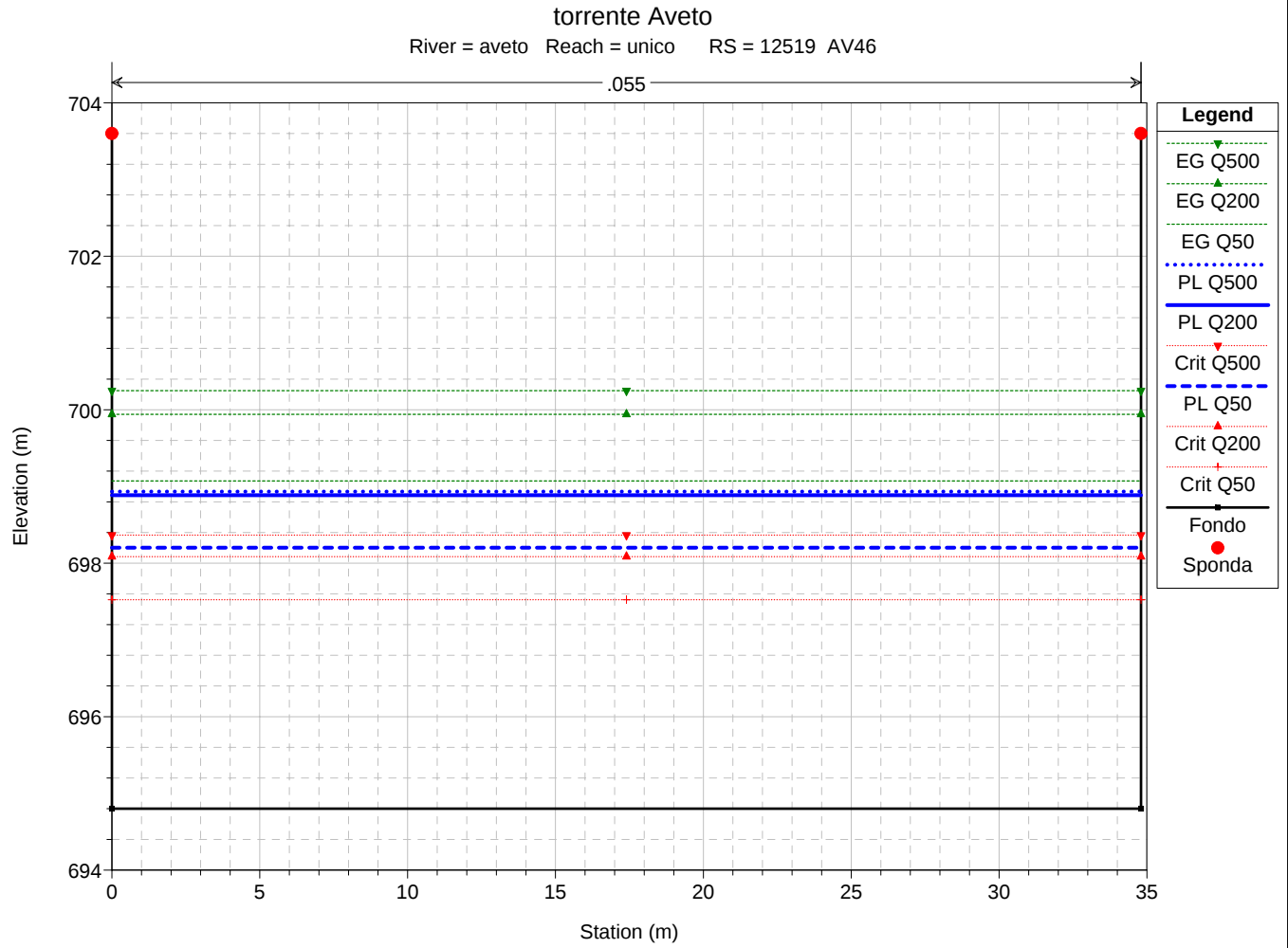
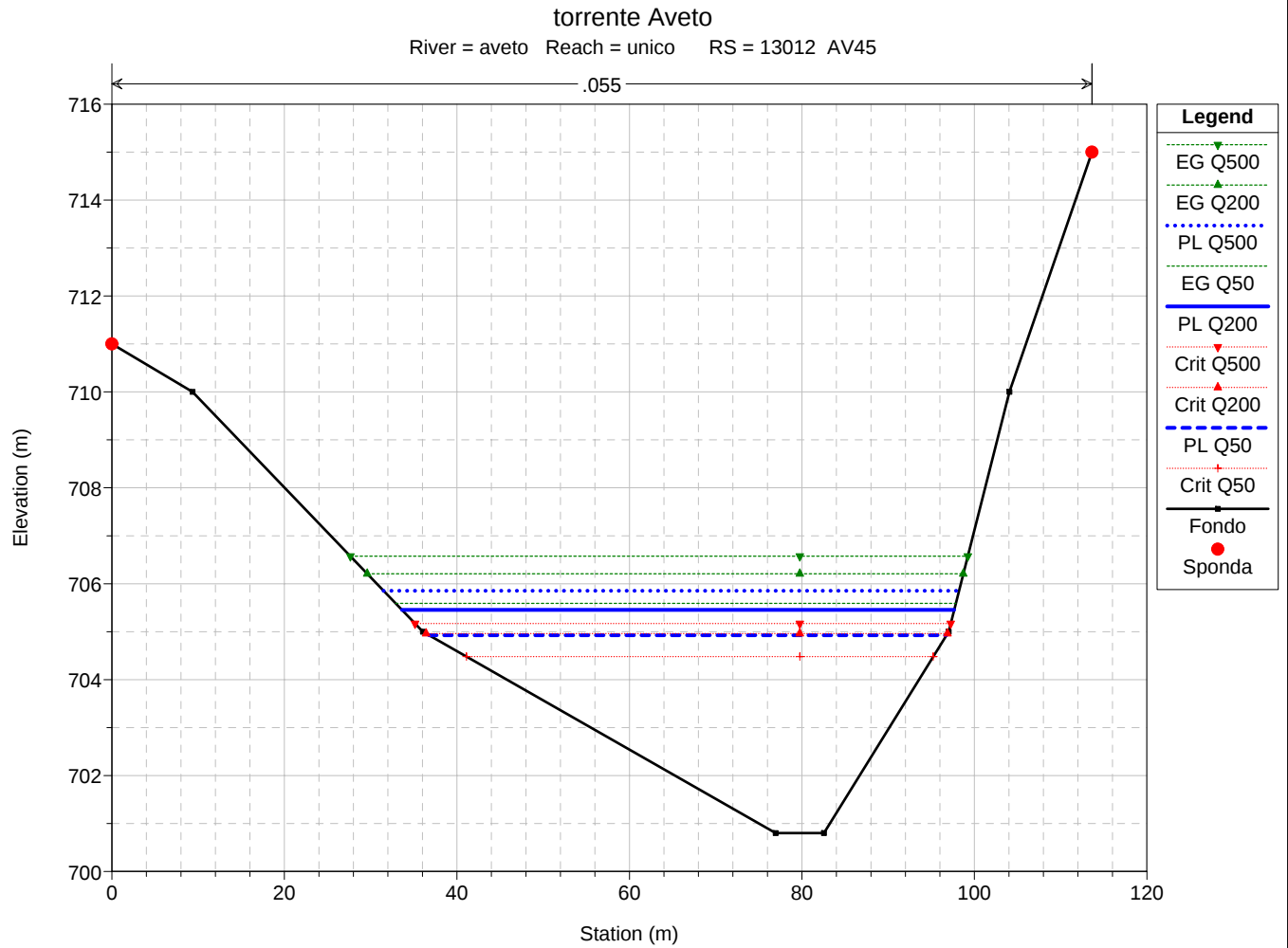


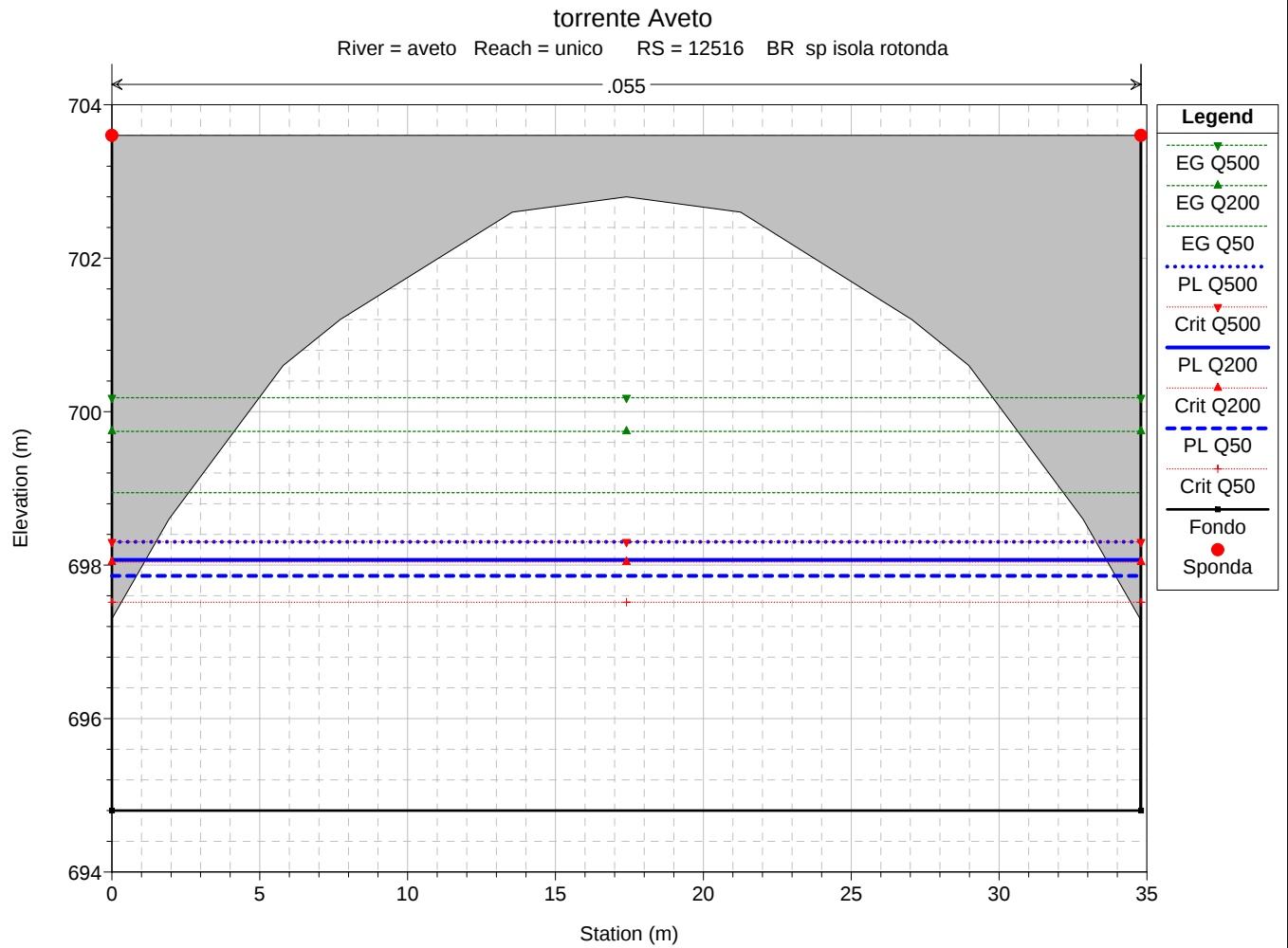
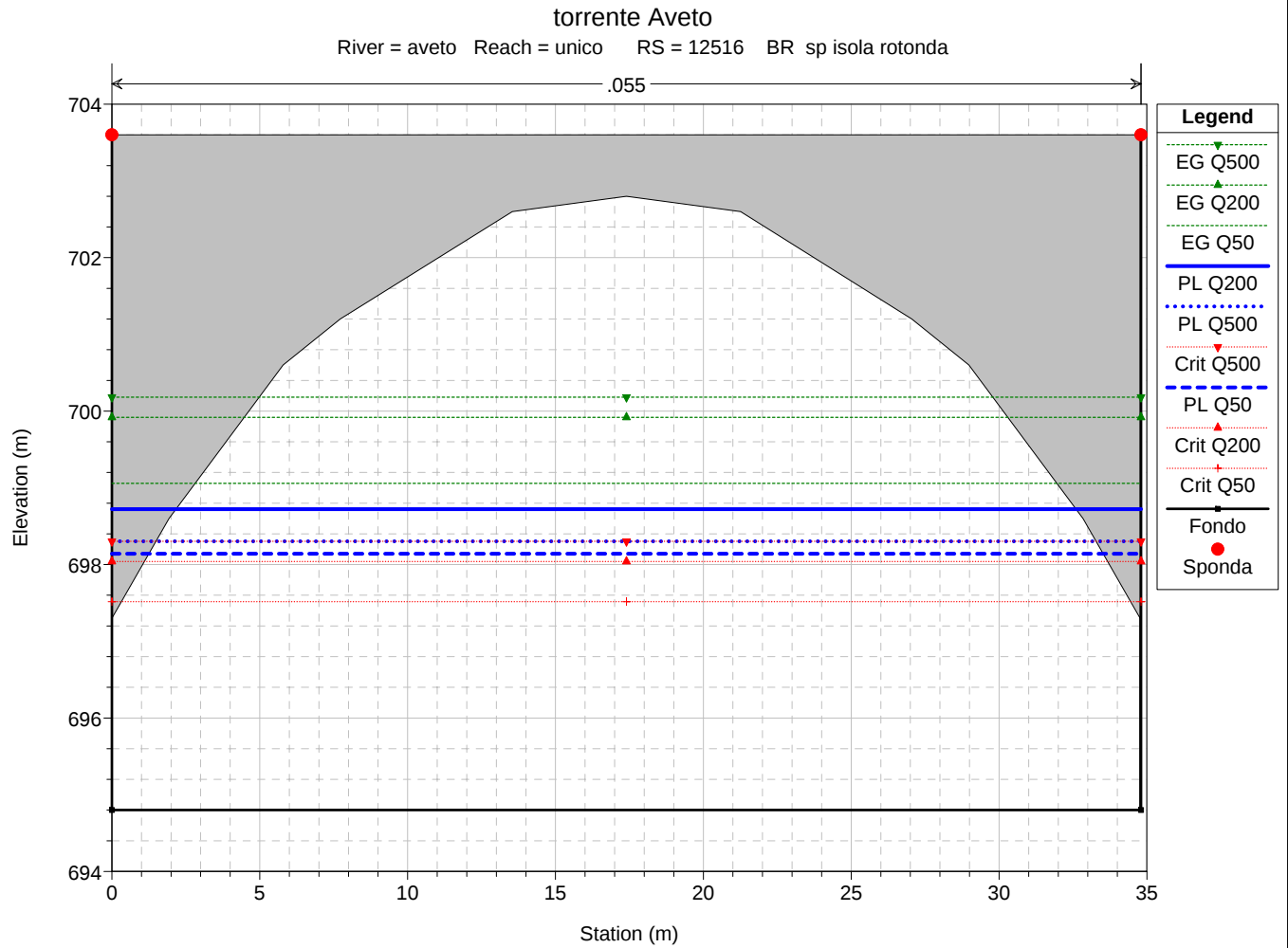


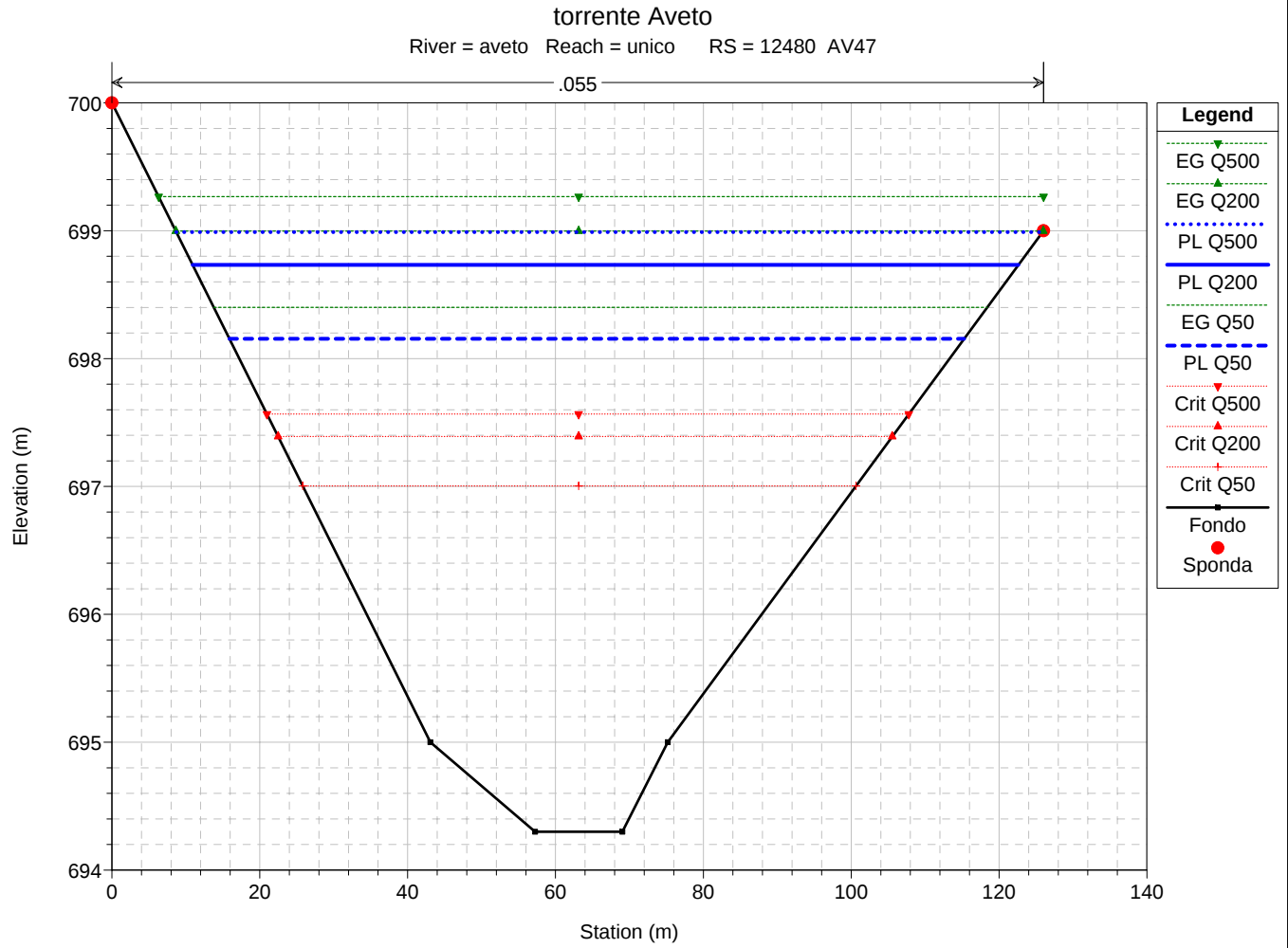
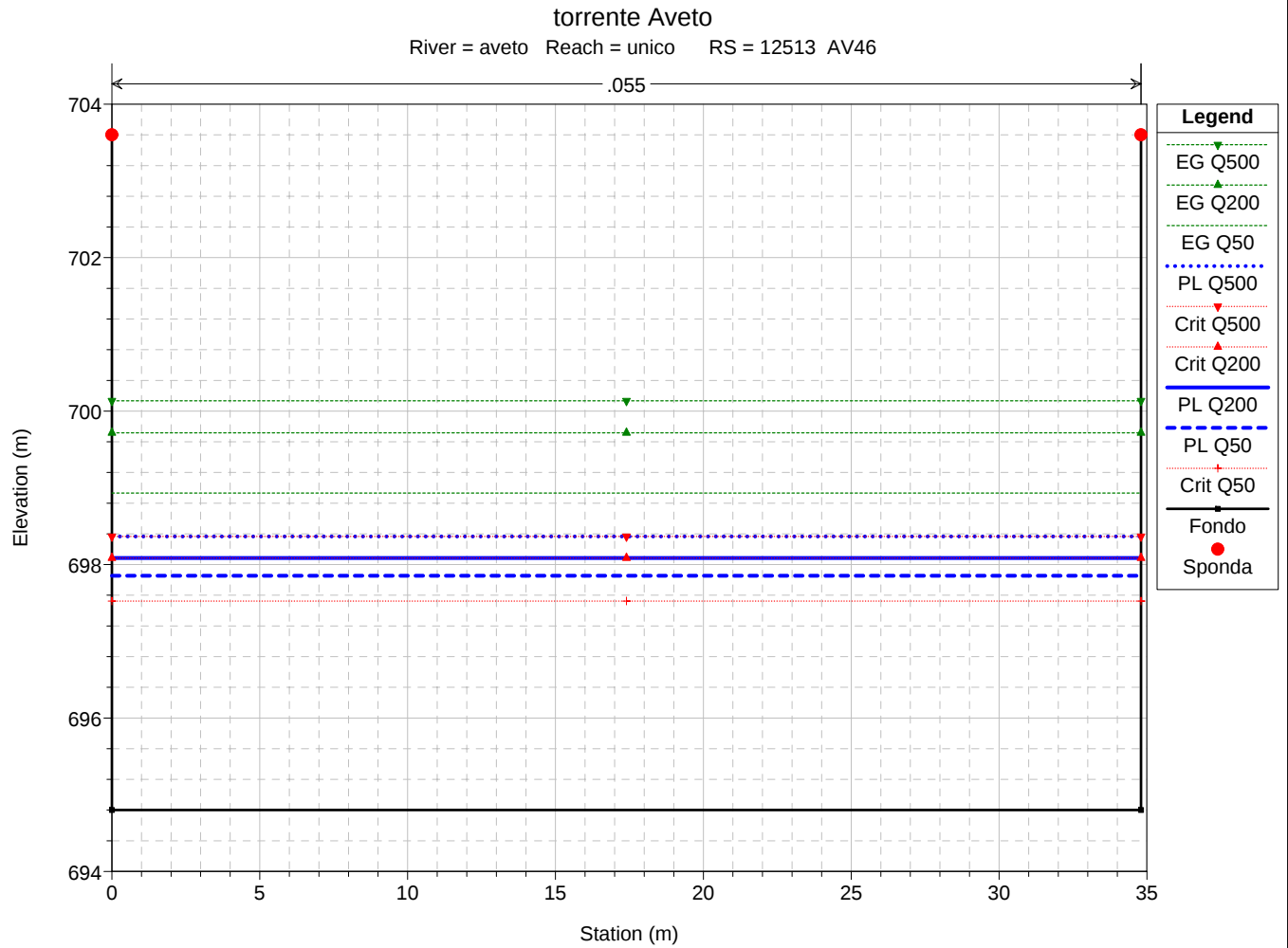


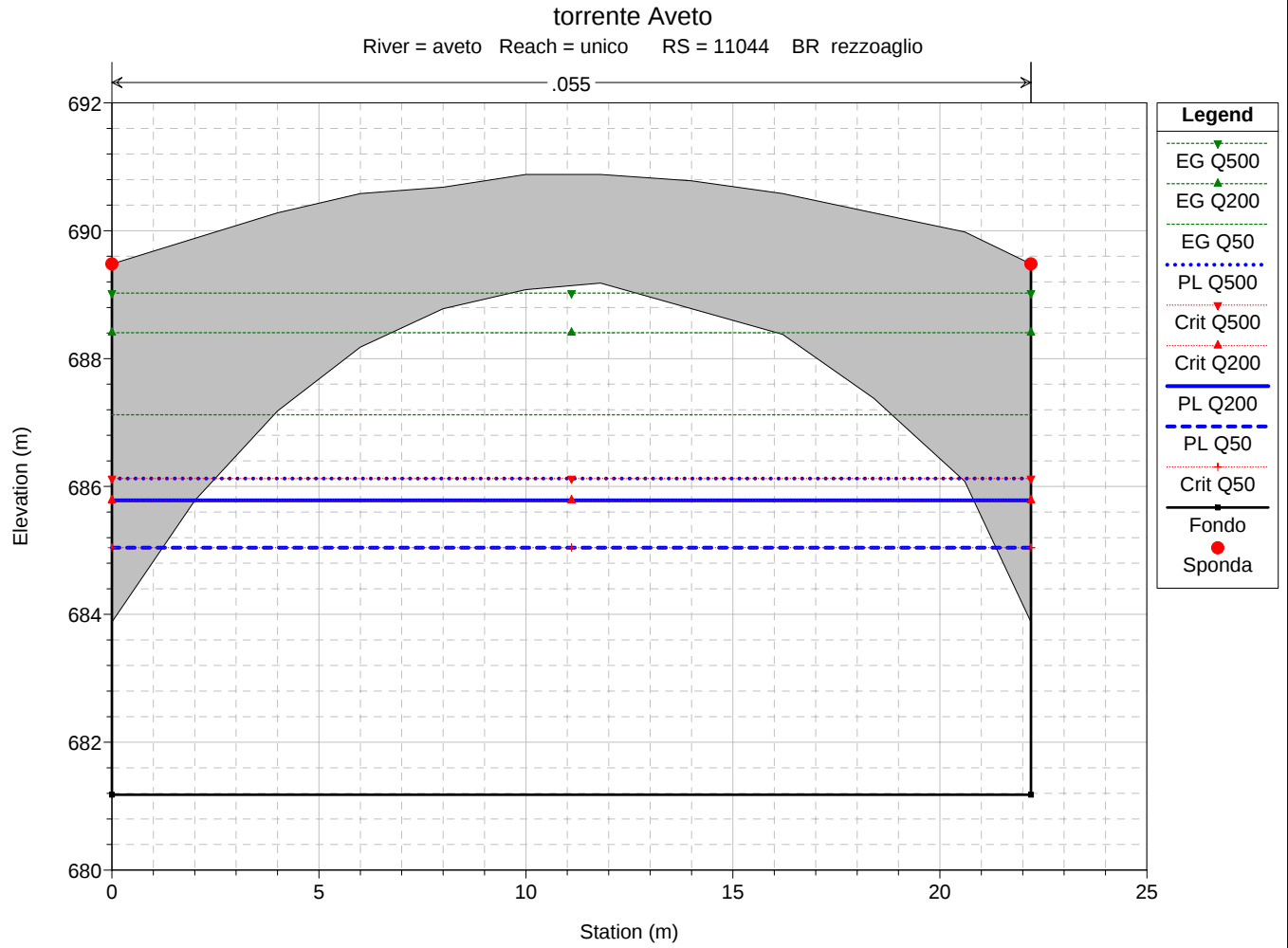
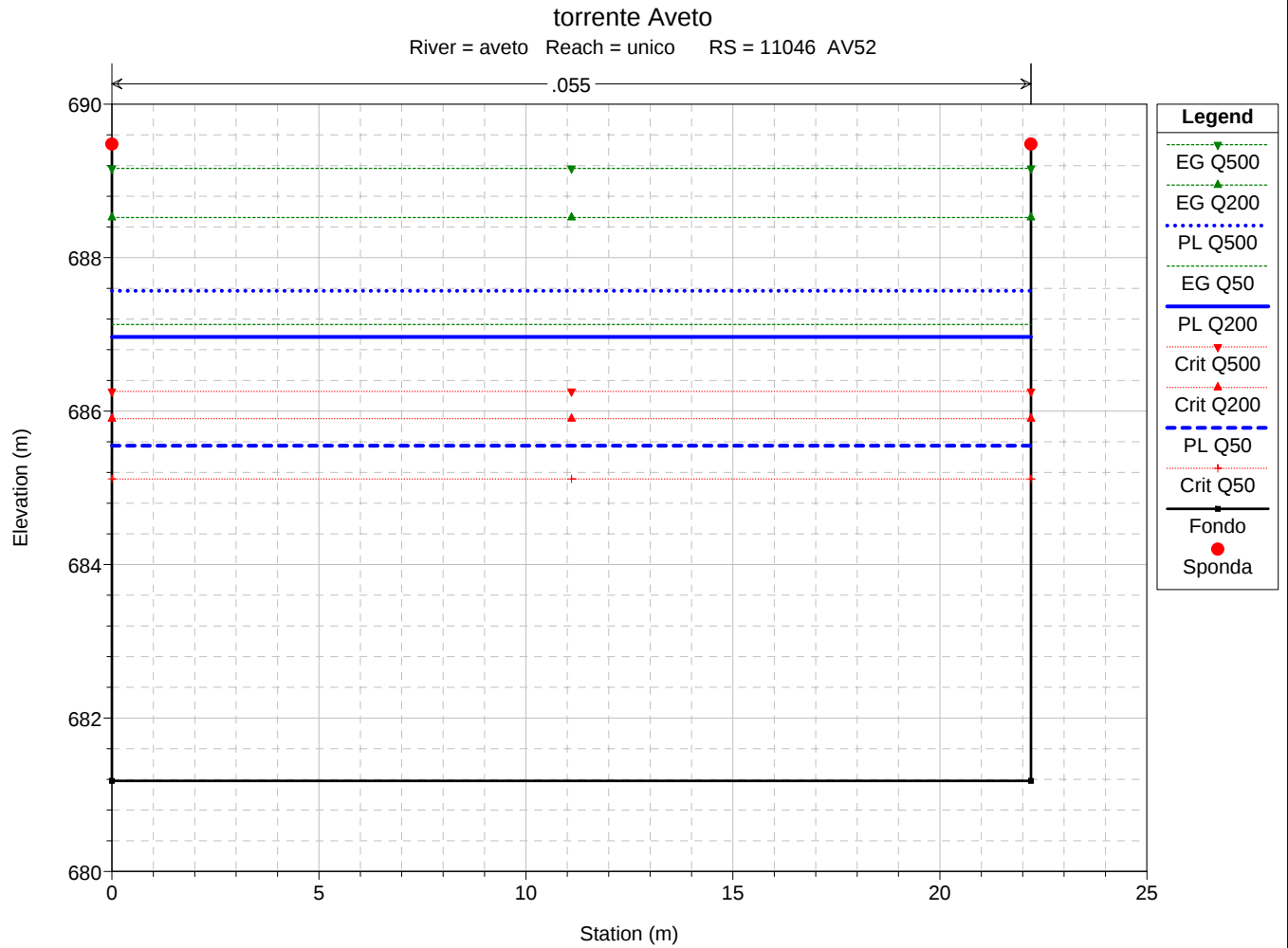


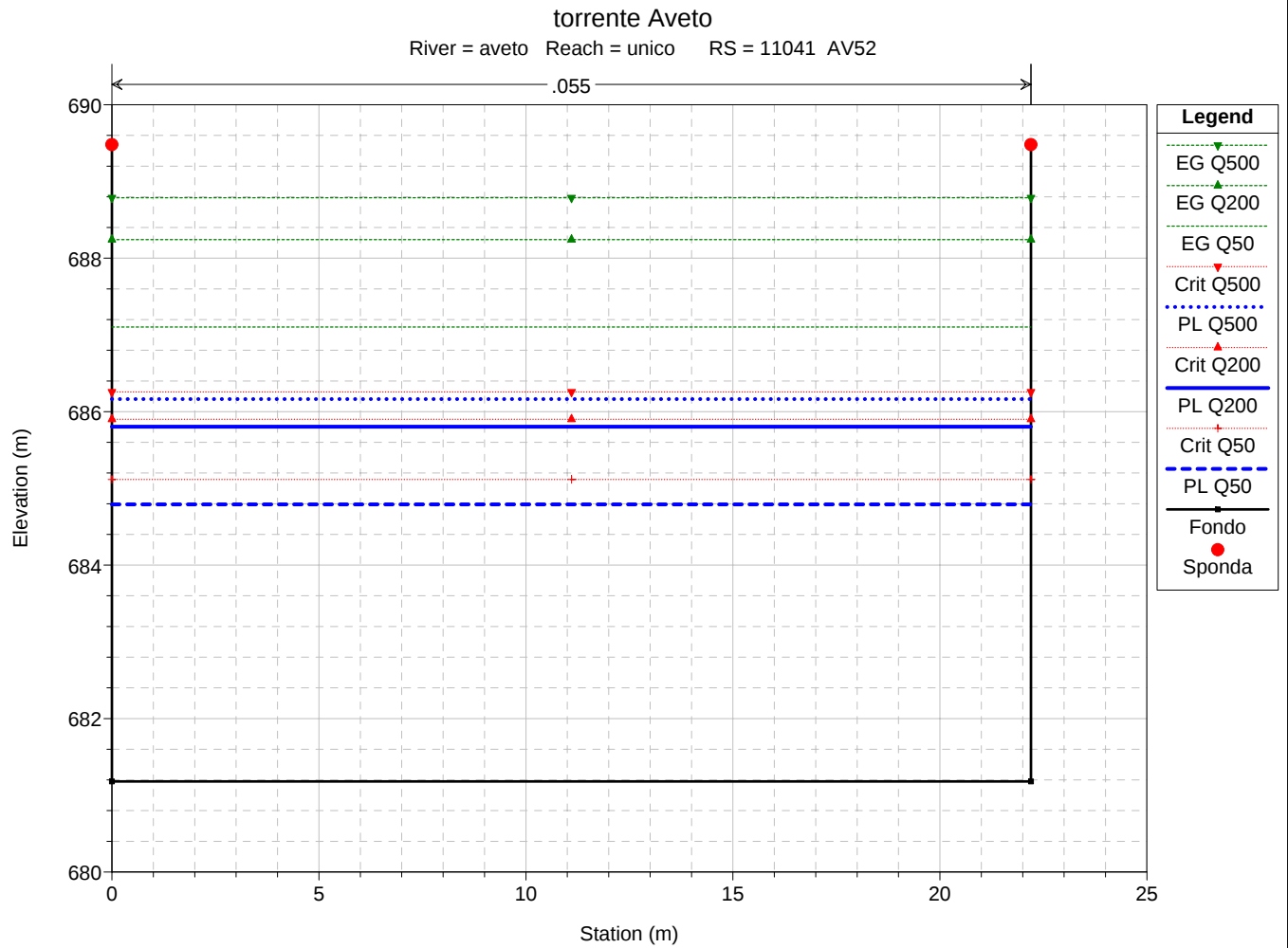
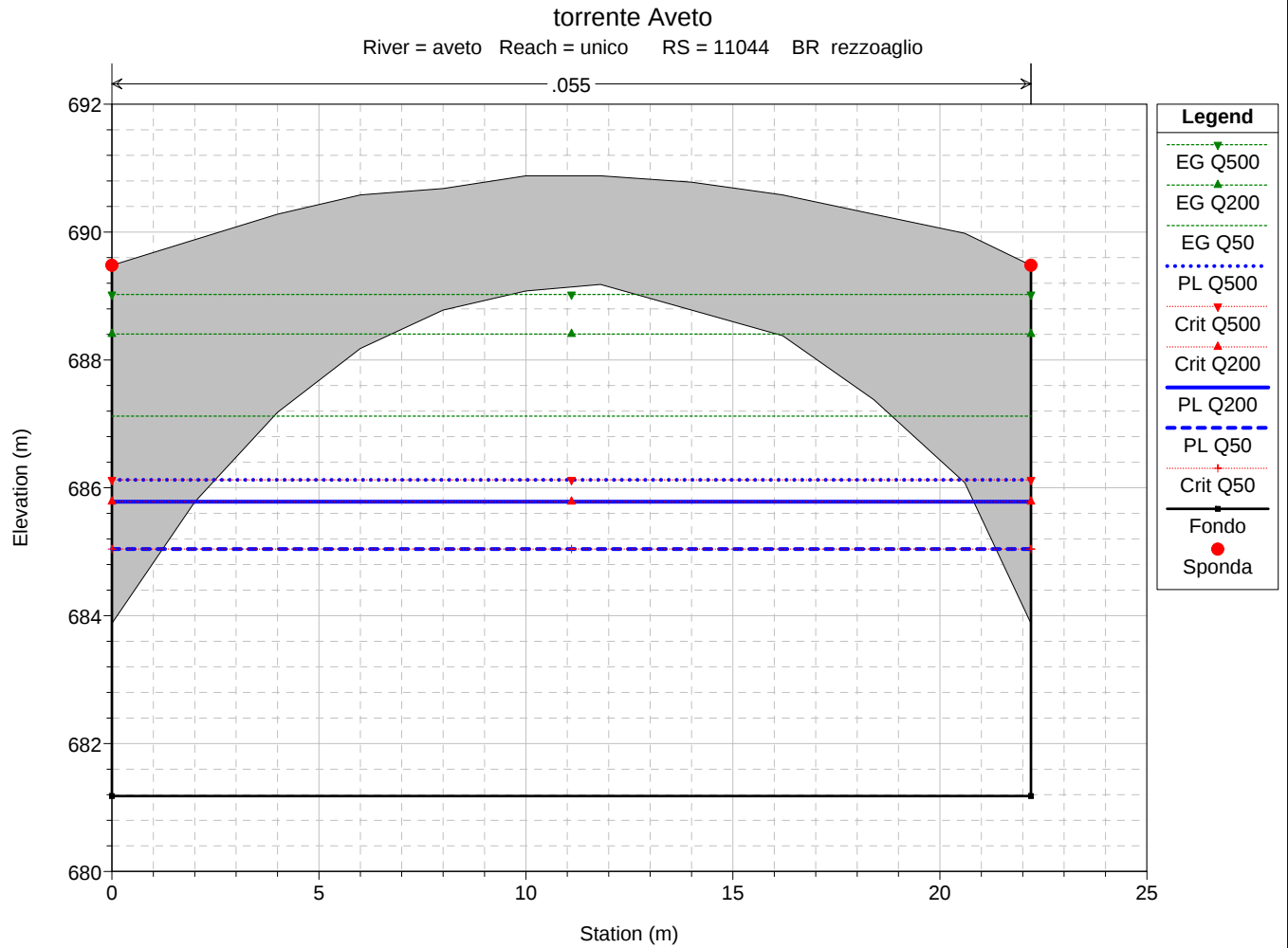






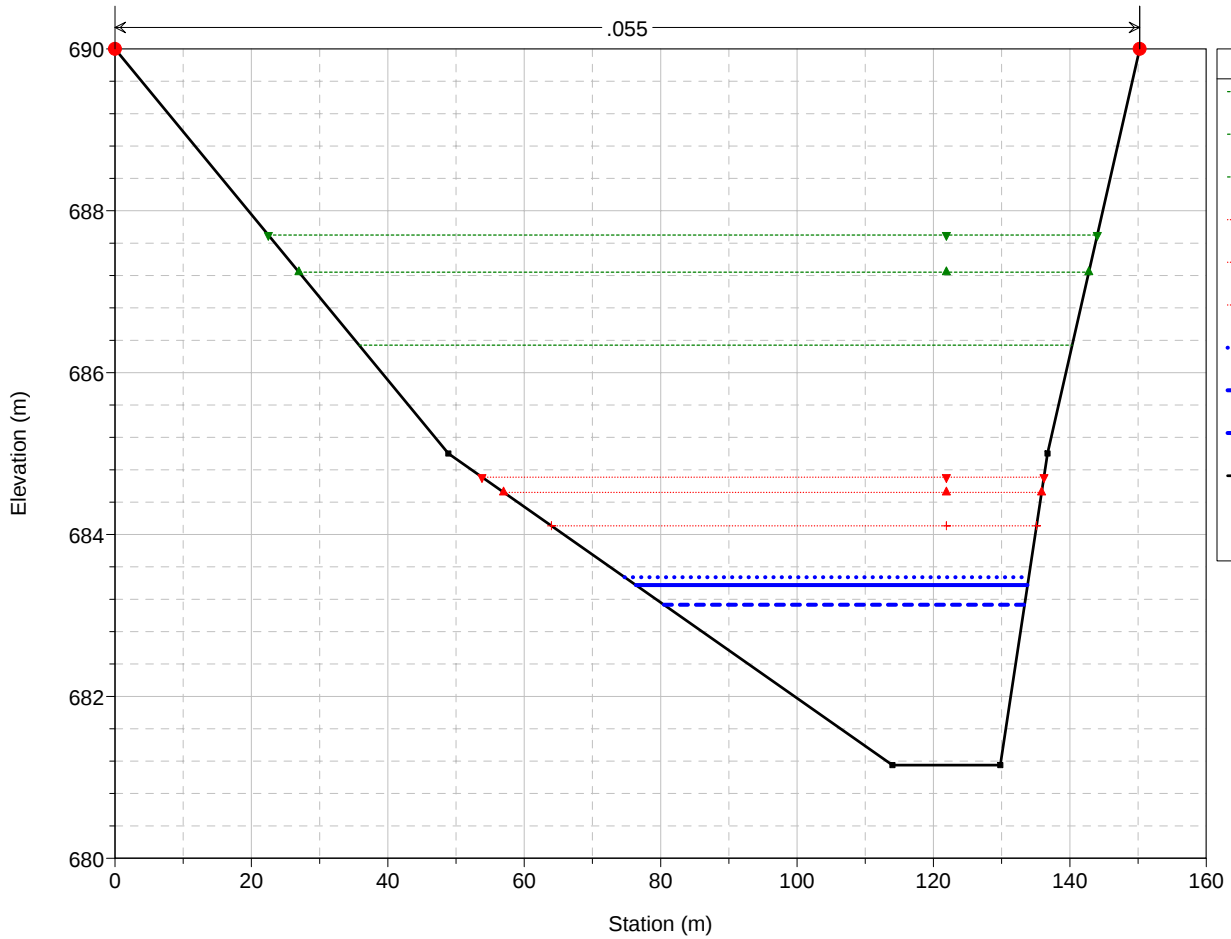






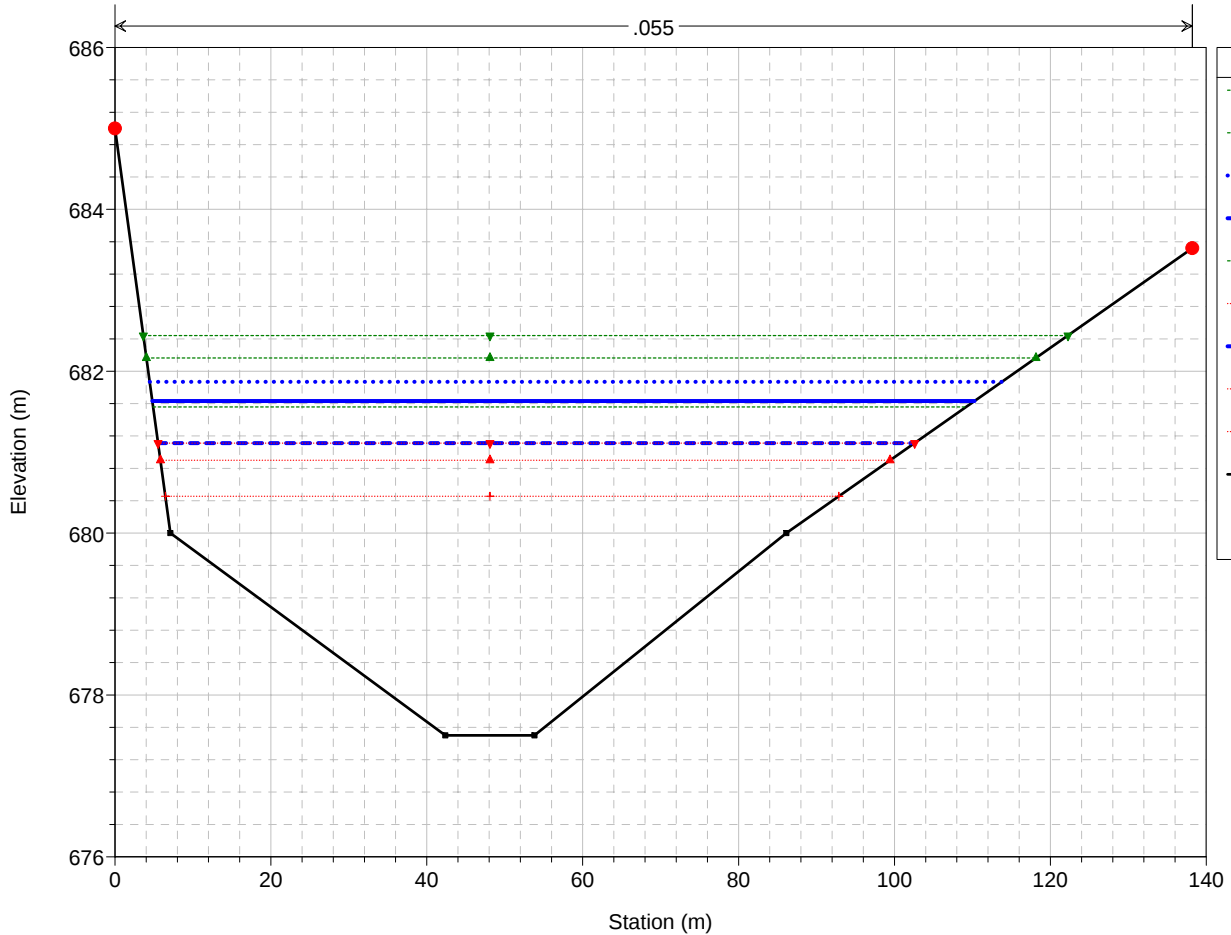
torrente Aveto

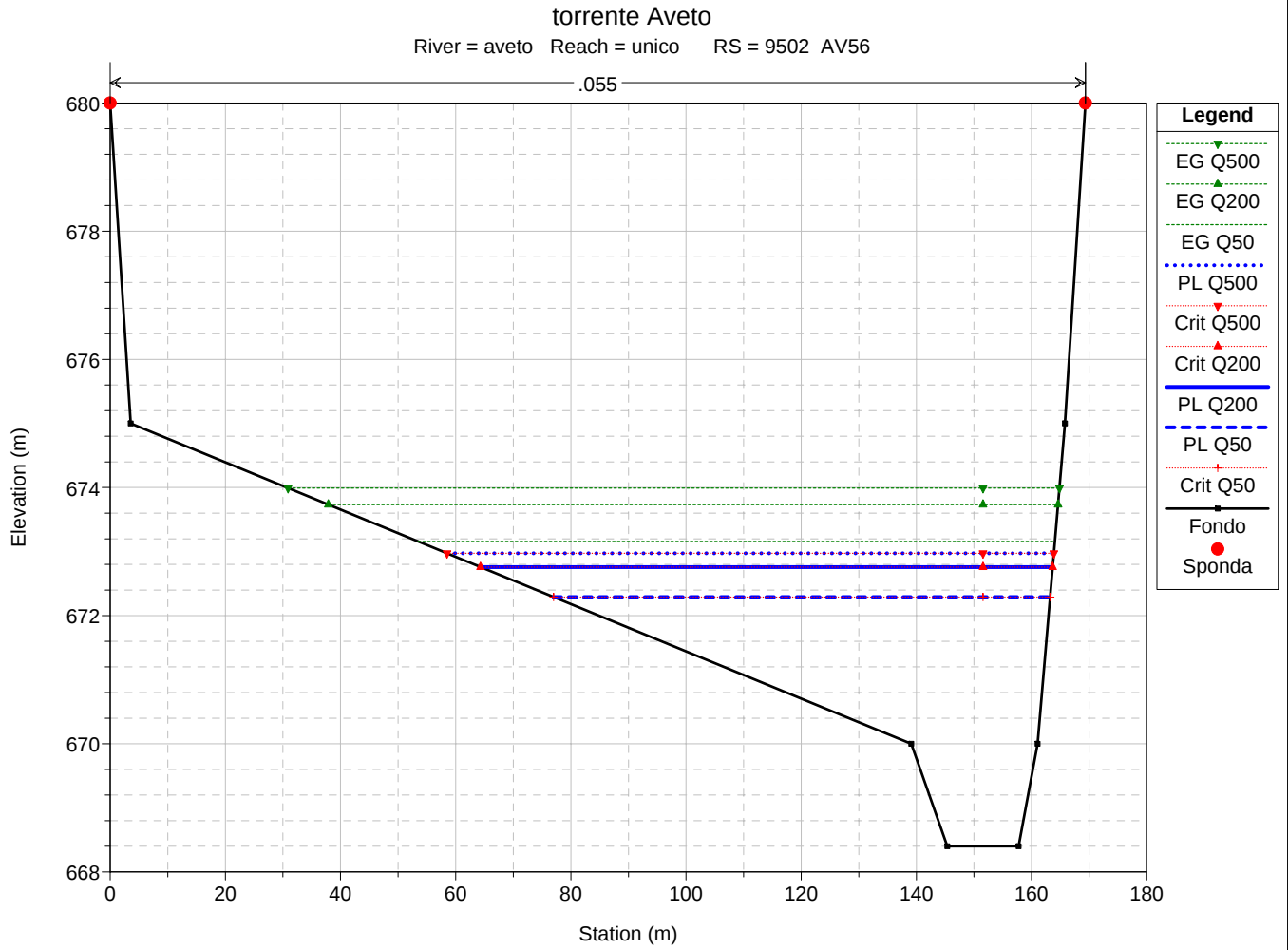
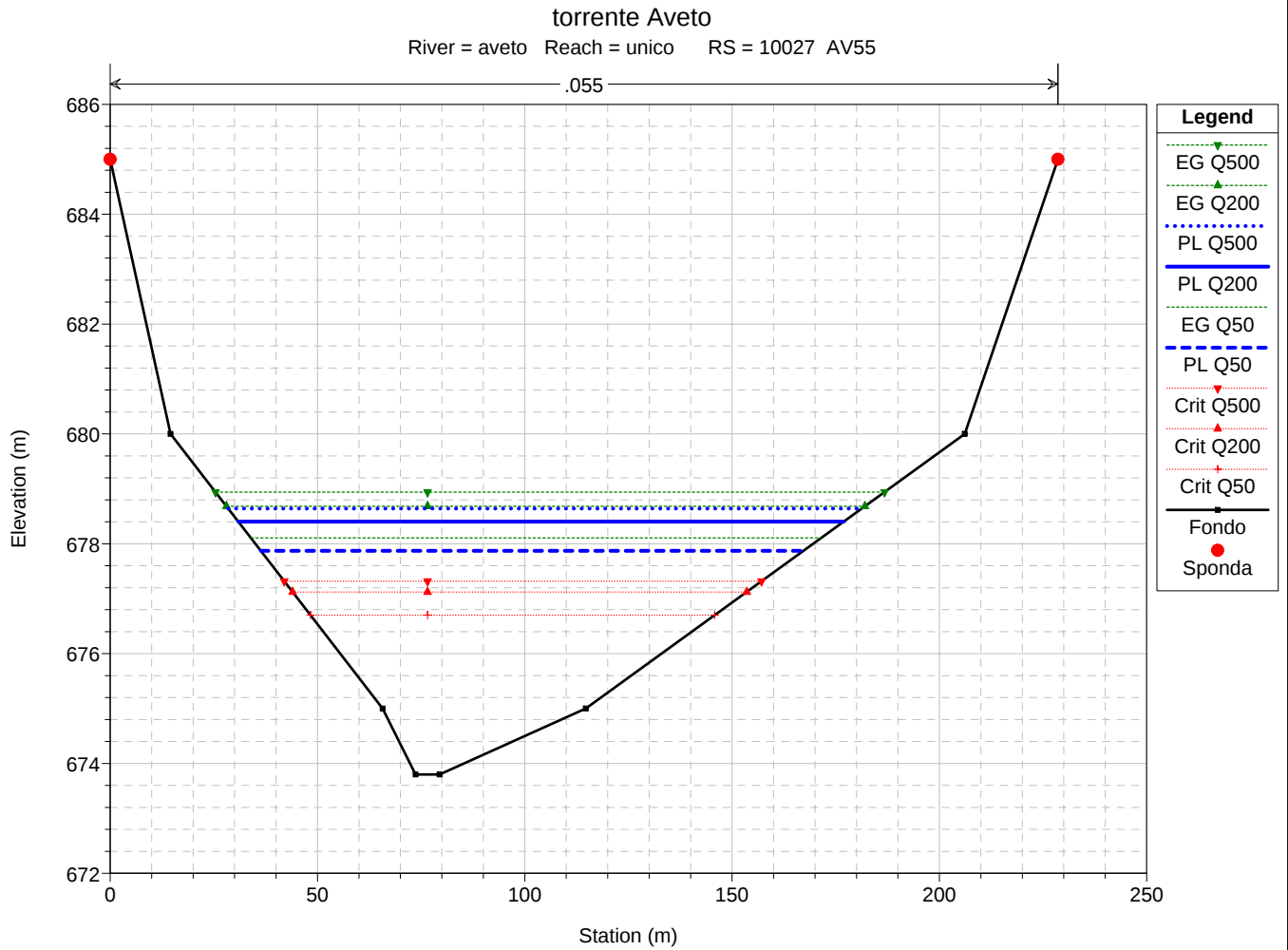
River = aveto Reach = unico RS = 11036 AV53



torrente Aveto

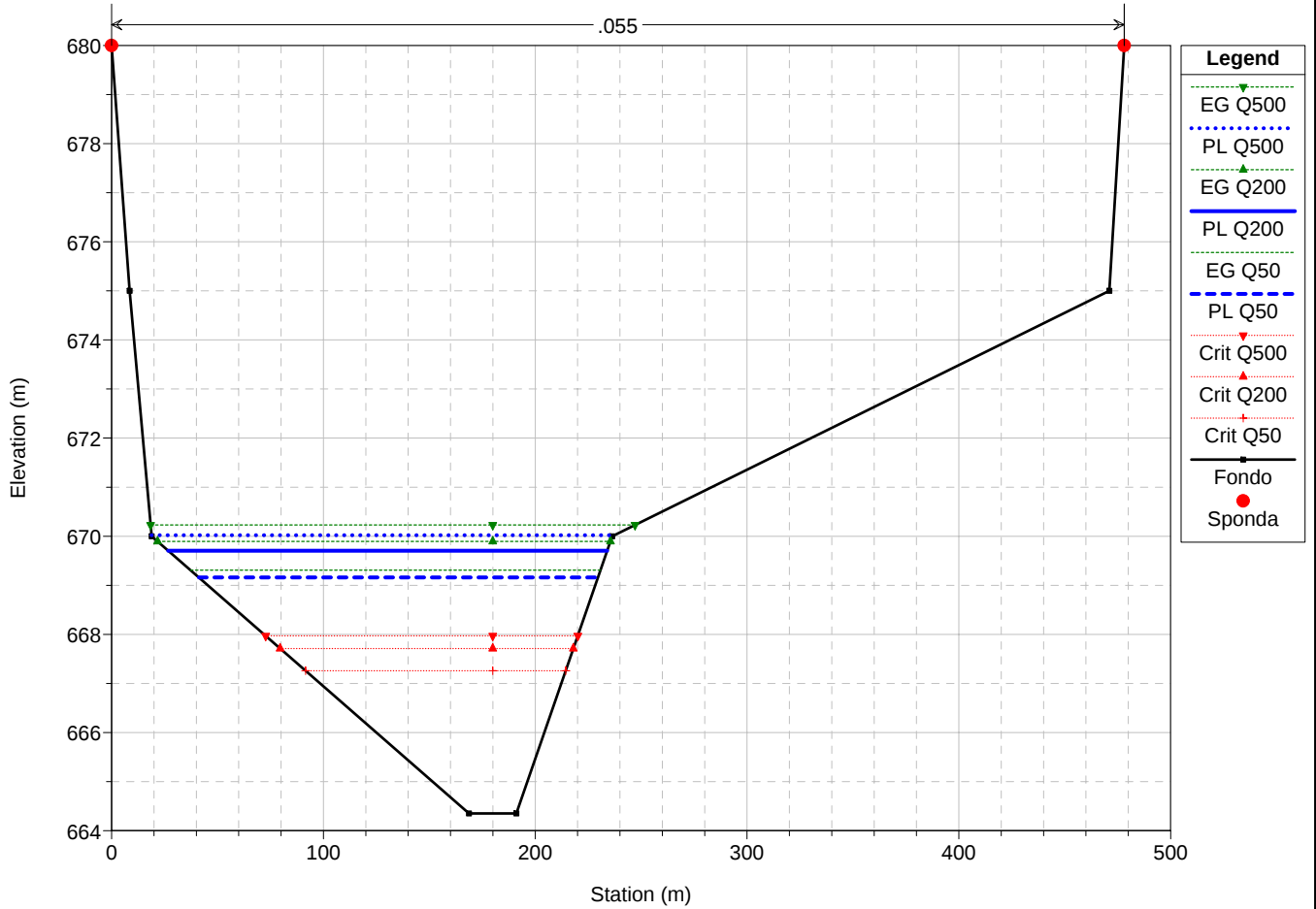
River = aveto Reach = unico RS = 10543 AV54





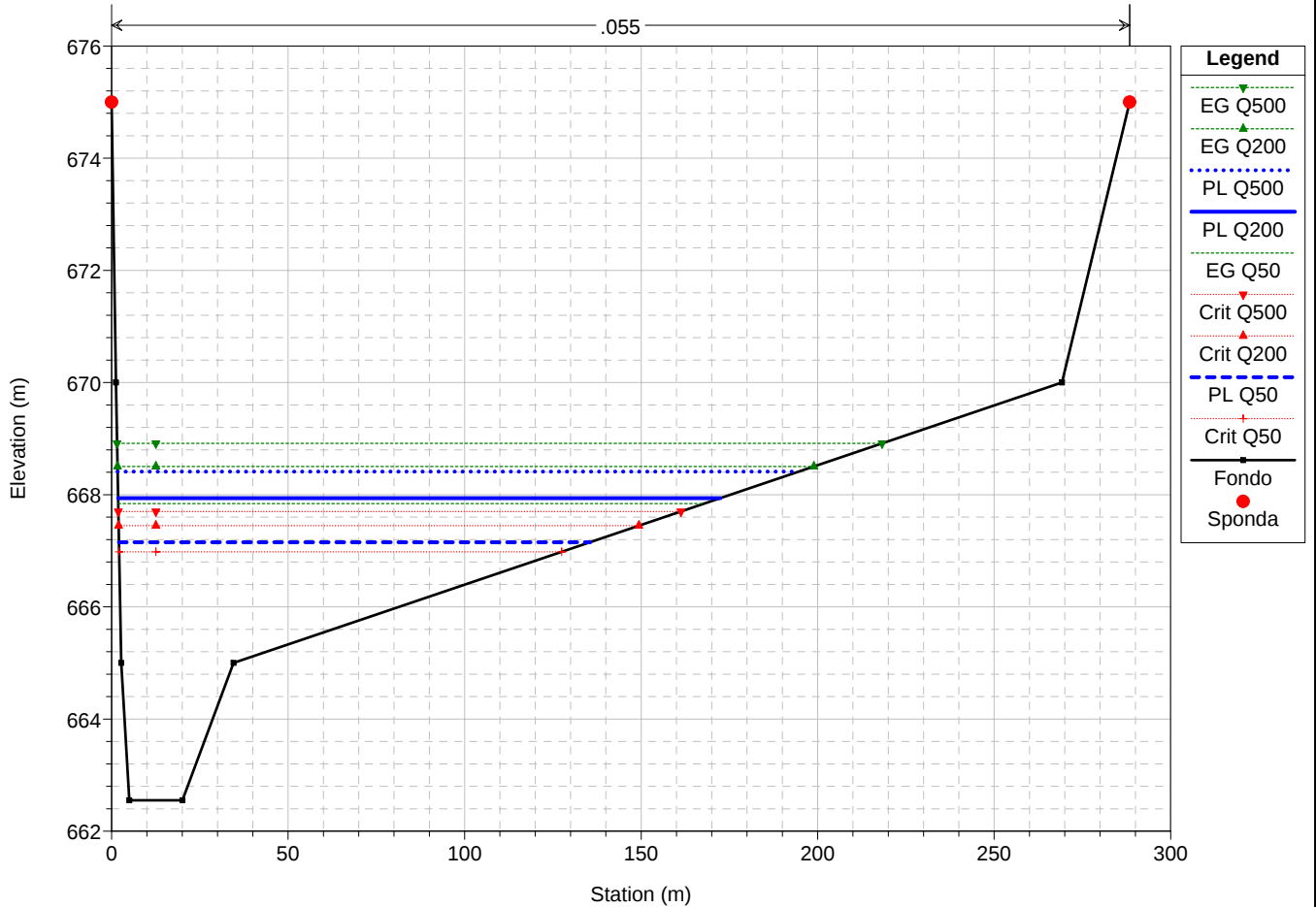
torrente Aveto

River = aveto Reach = unico RS = 8965 AV57



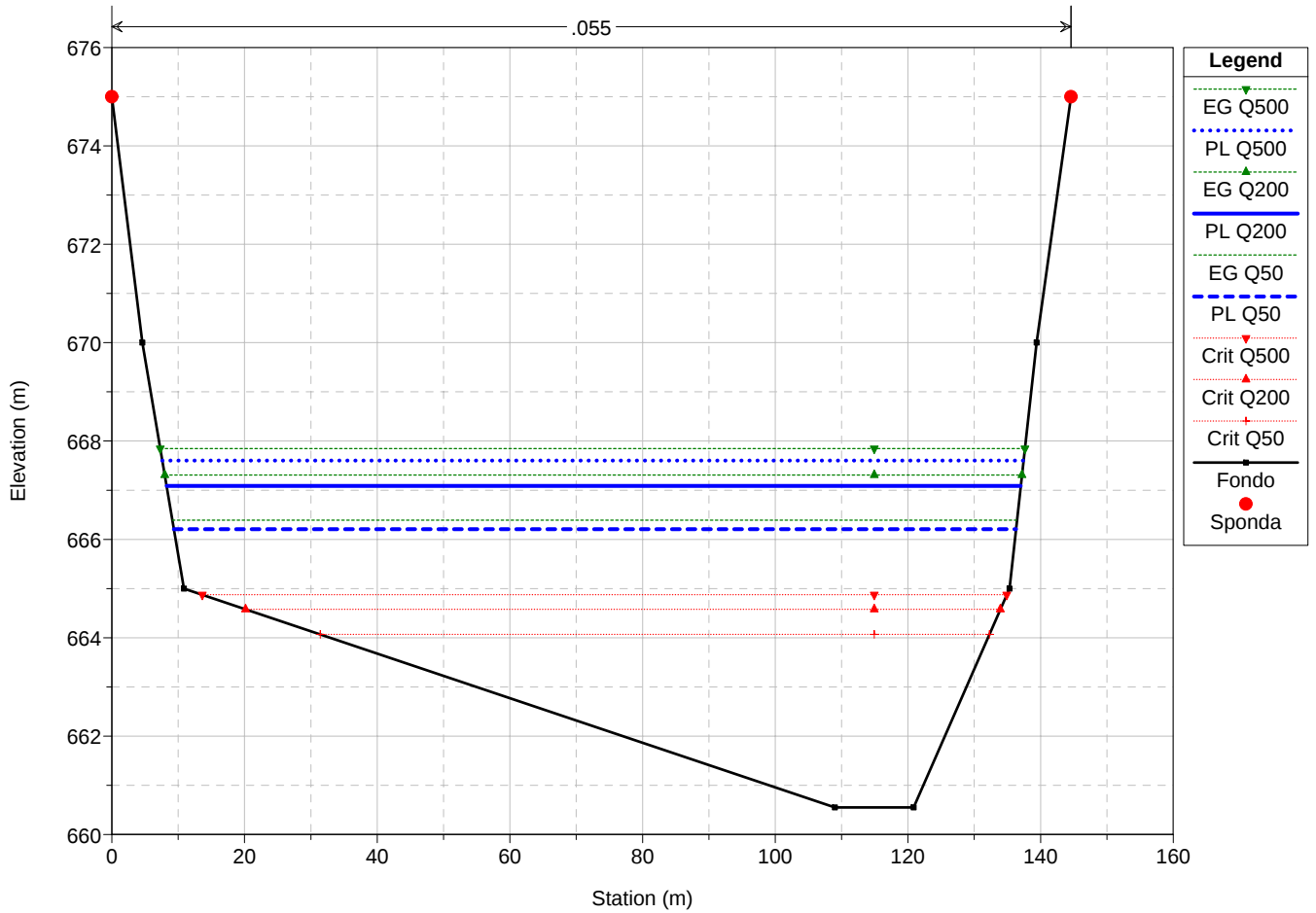
torrente Aveto

River = aveto Reach = unico RS = 8694 AV58



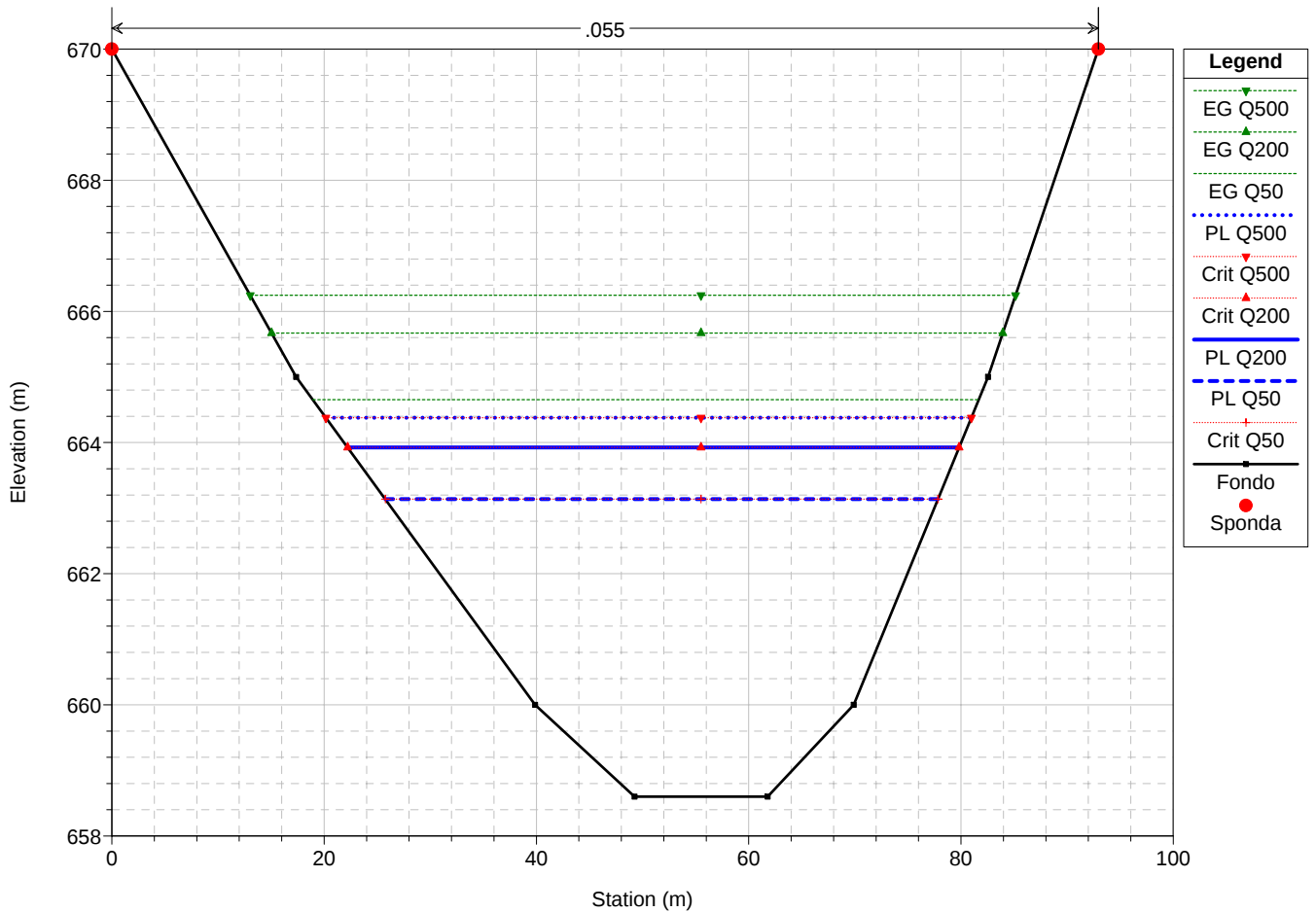
torrente Aveto

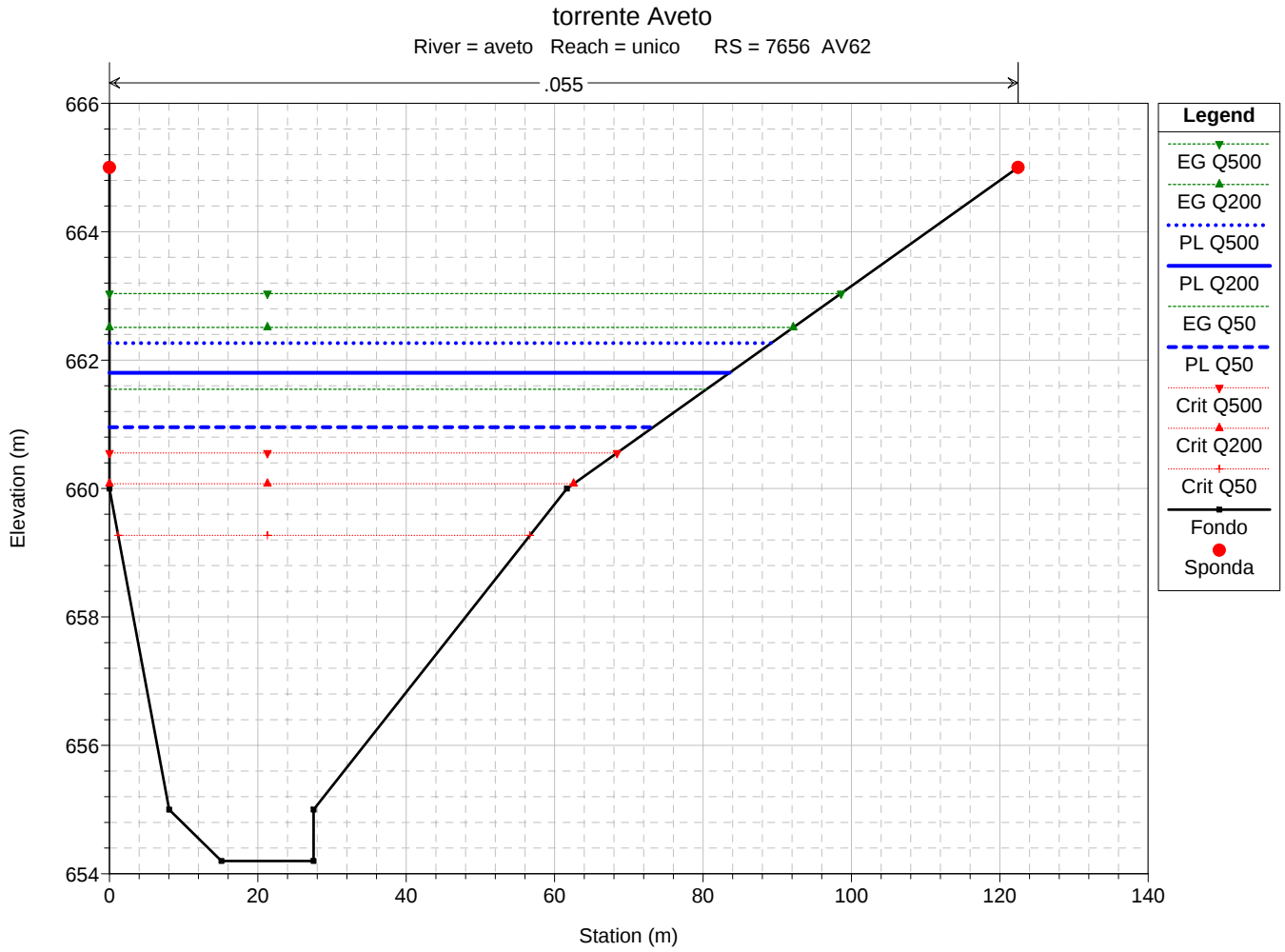
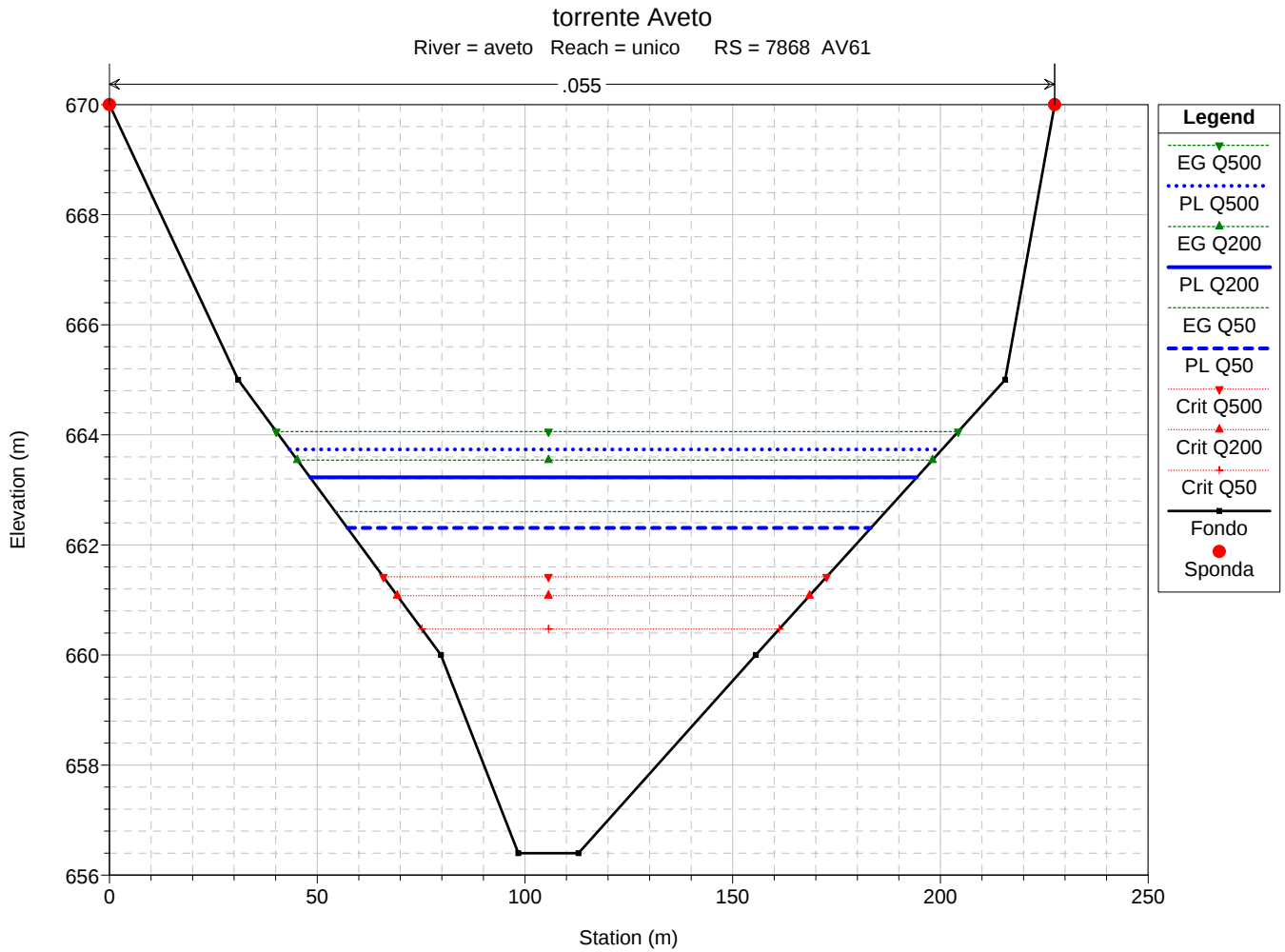
River = aveto Reach = unico RS = 8415 AV59

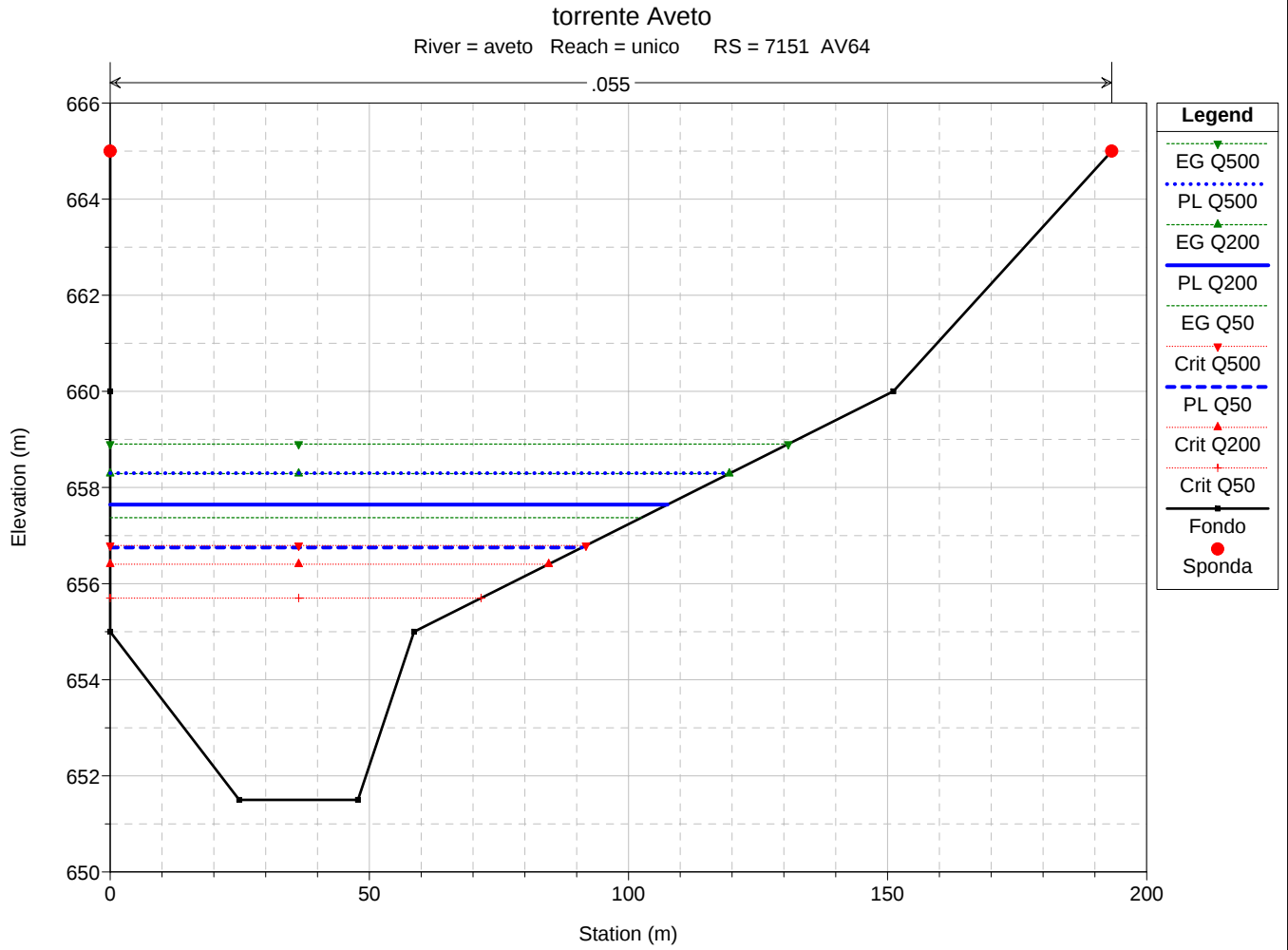
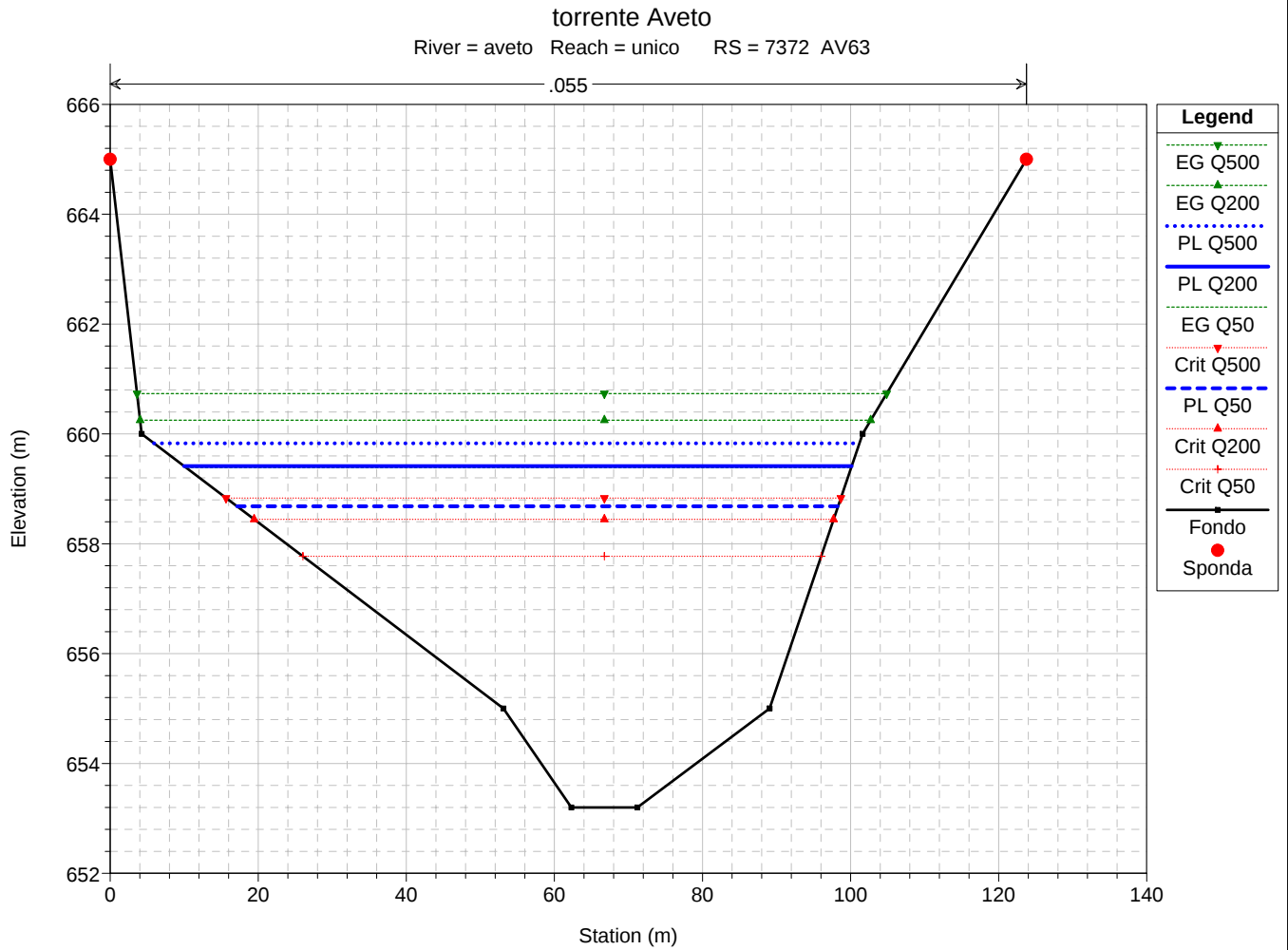


torrente Aveto

River = aveto Reach = unico RS = 8075 AV60

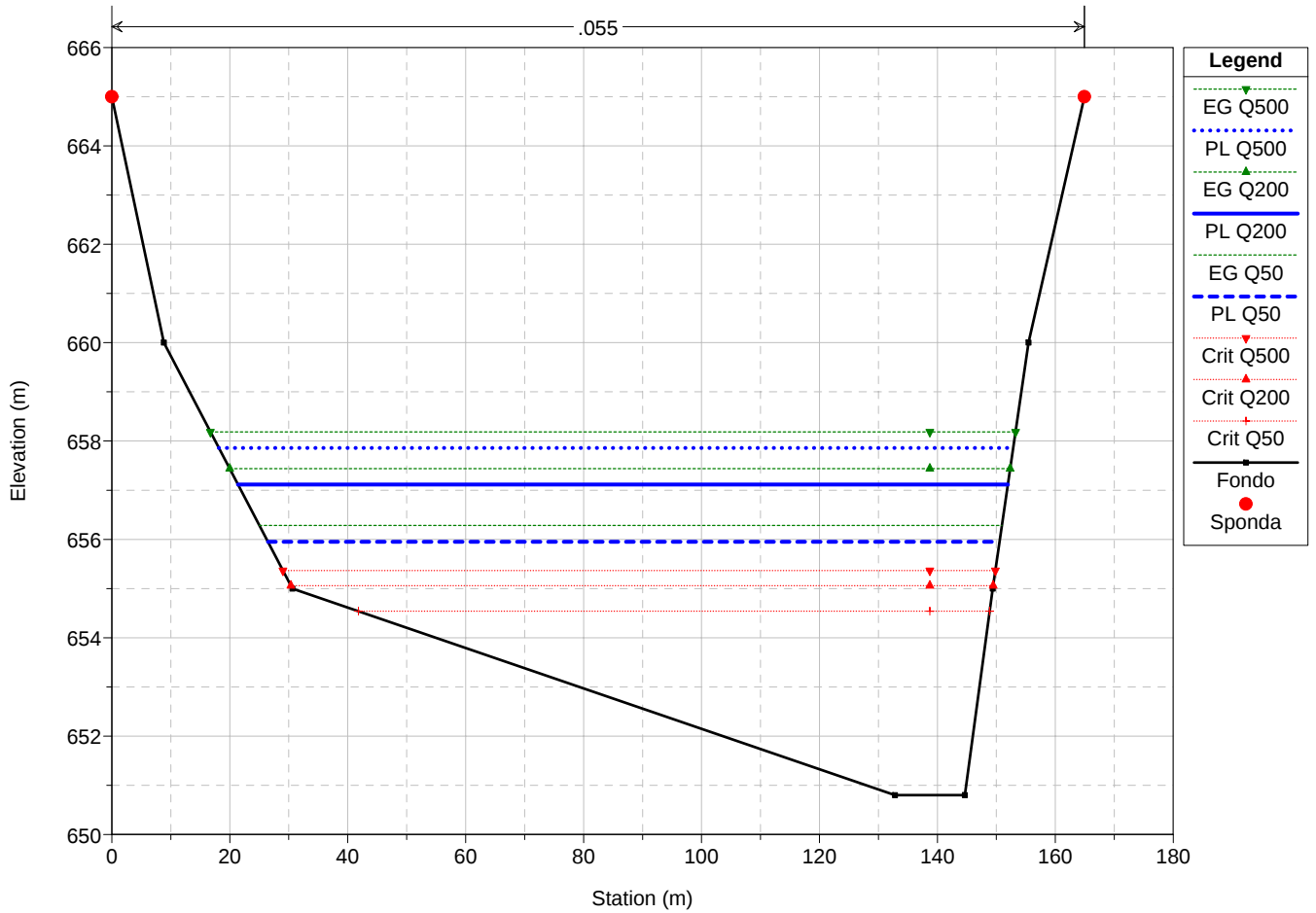






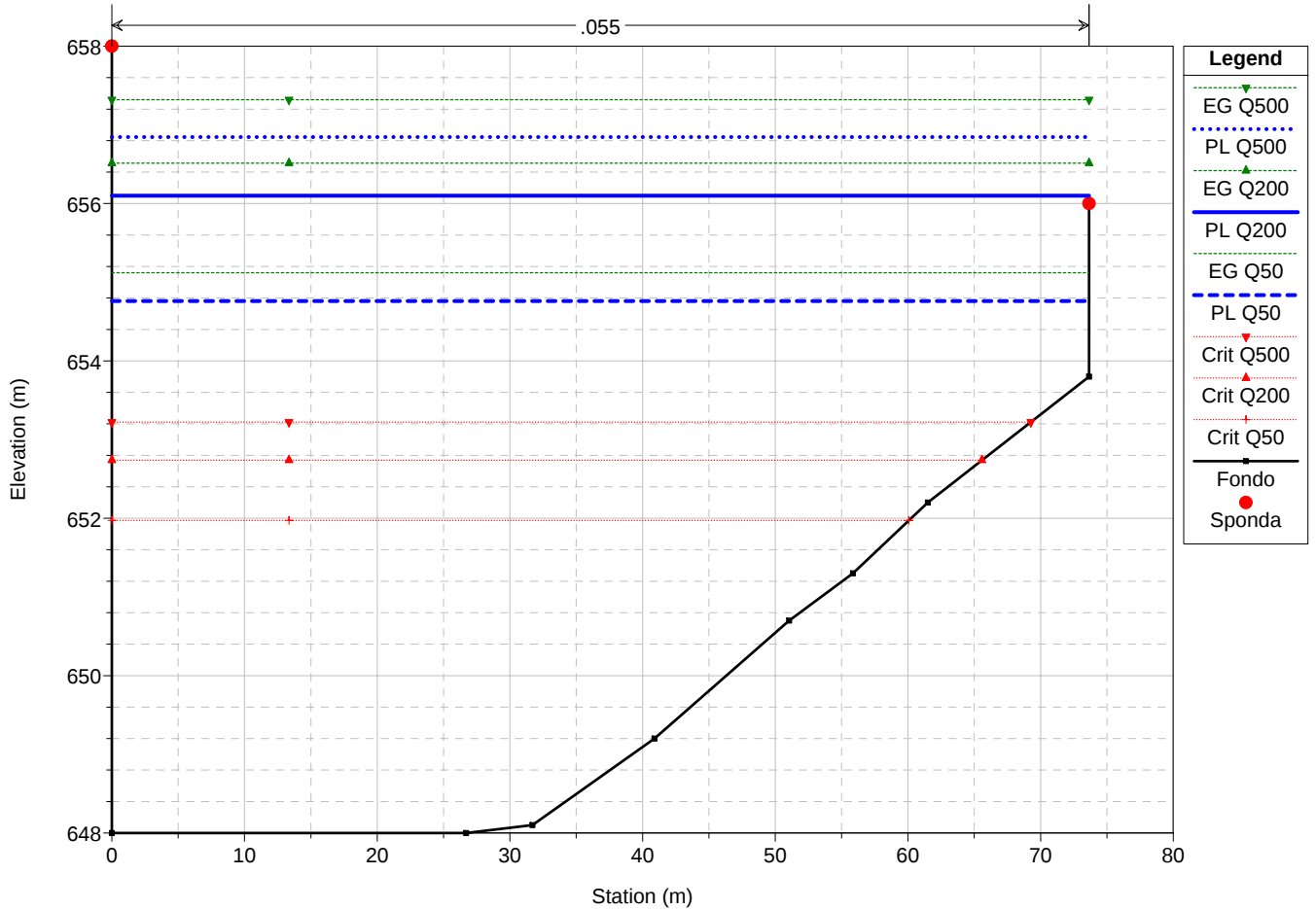
torrente Aveto

River = aveto Reach = unico RS = 6984 AV65



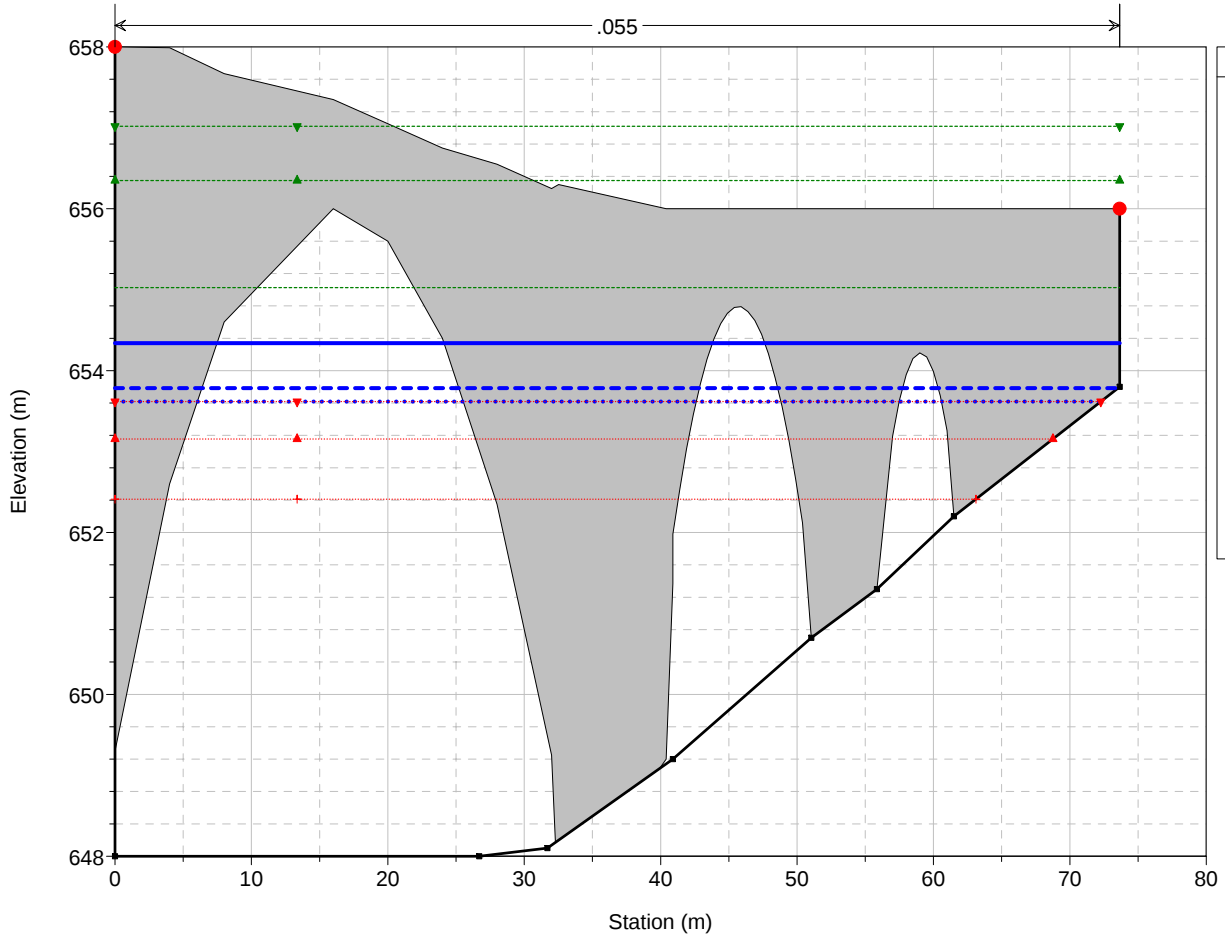
torrente Aveto

River = aveto Reach = unico RS = 6546 AV66



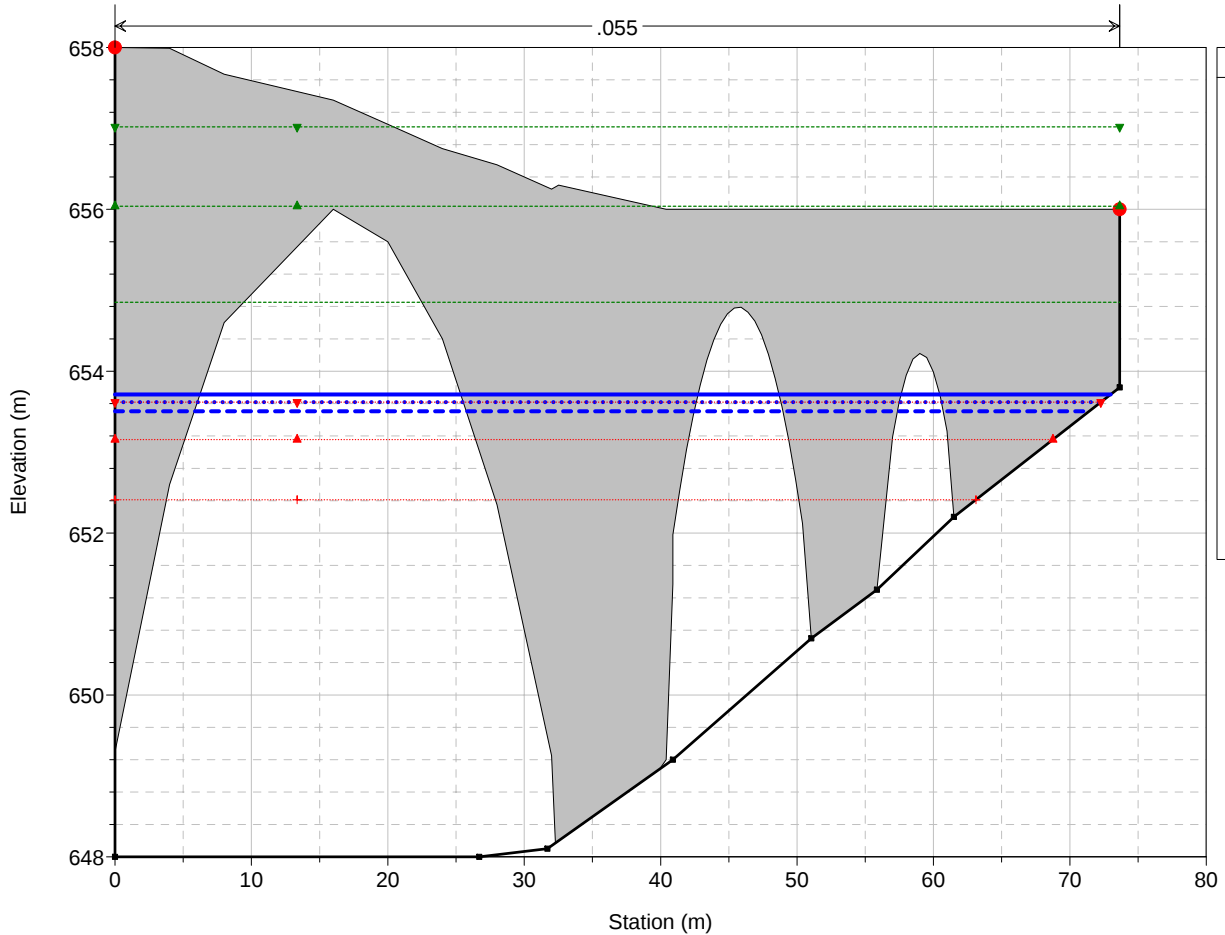
torrente Aveto

River = aveto Reach = unico RS = 6542 BR alpepiana



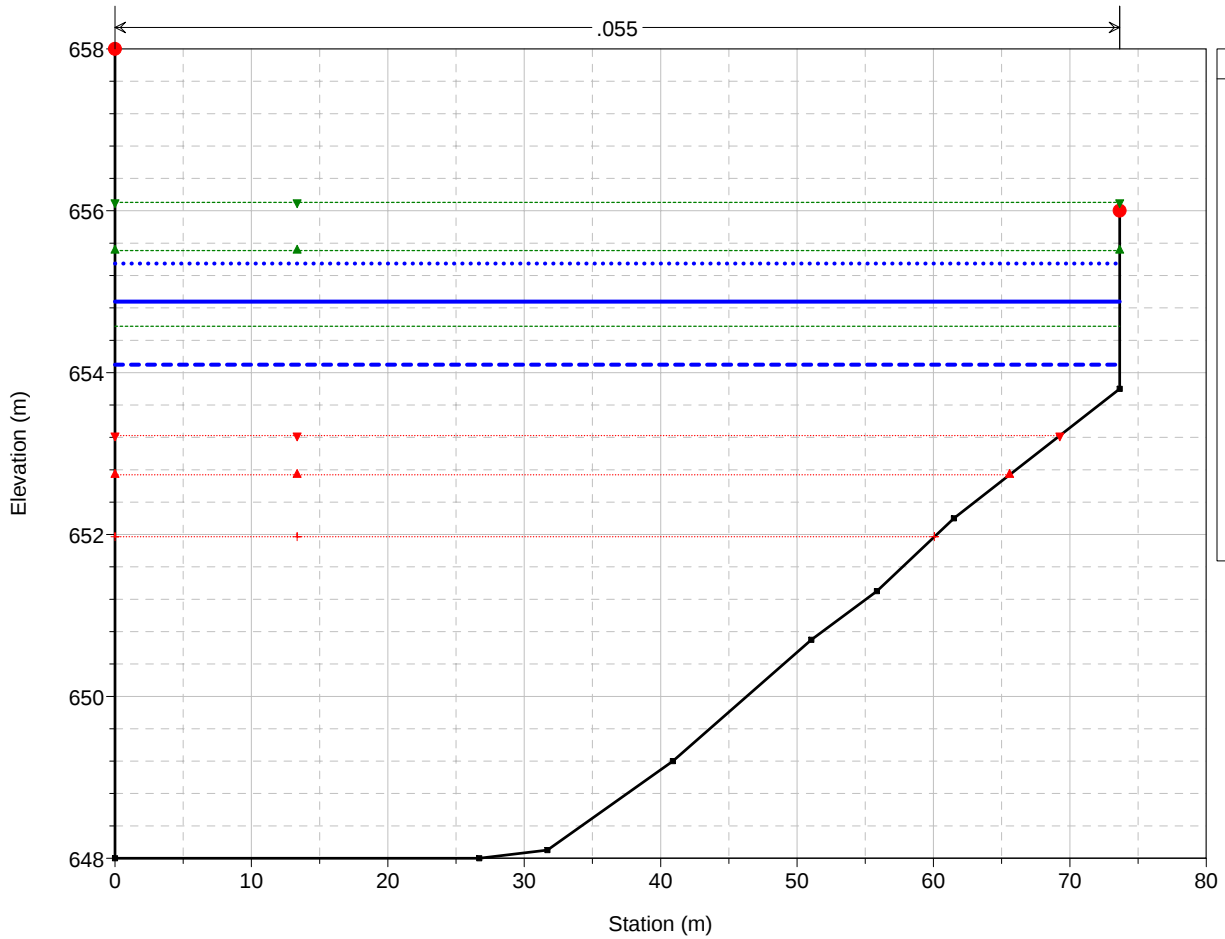
torrente Aveto

River = aveto Reach = unico RS = 6542 BR alpepiana



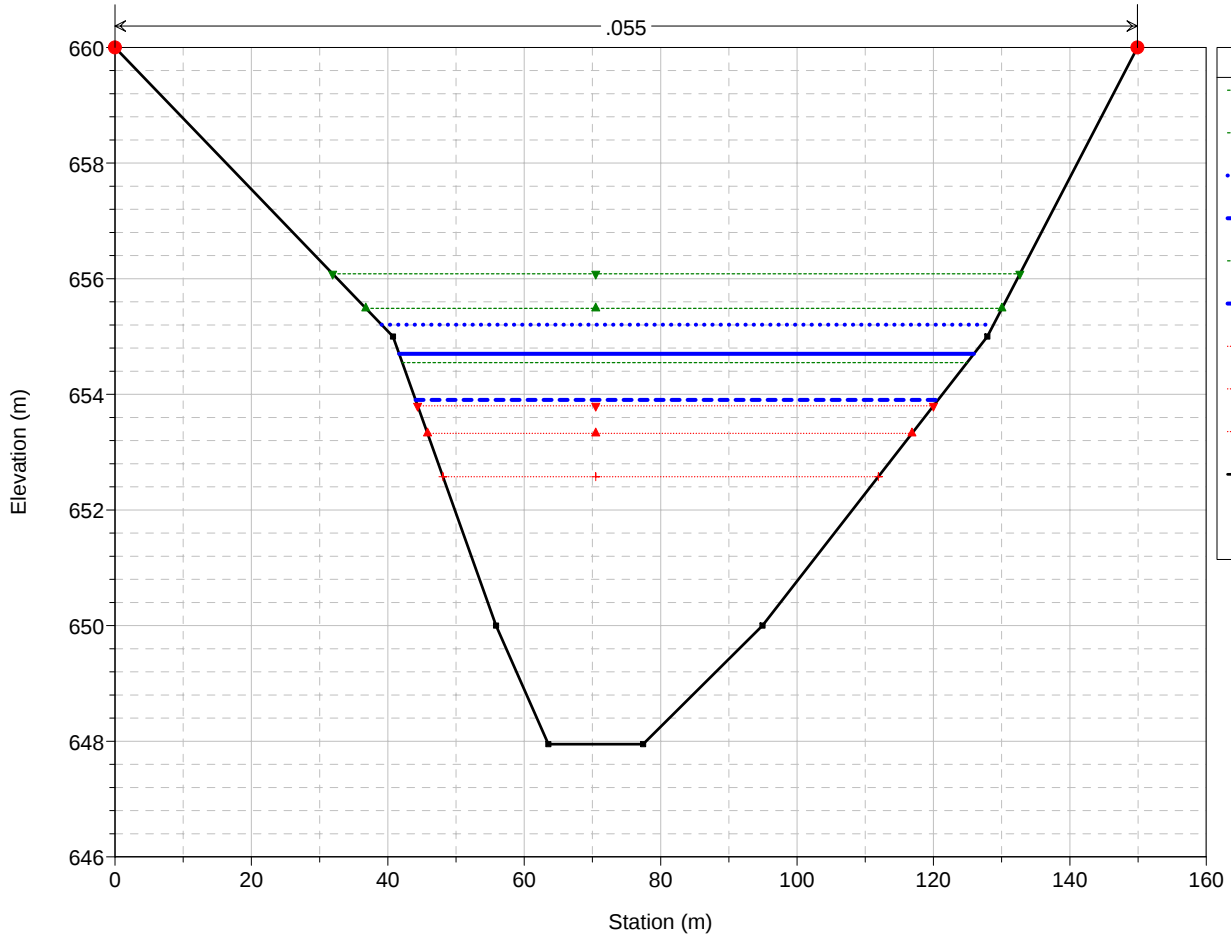
torrente Aveto

River = aveto Reach = unico RS = 6536 AV66



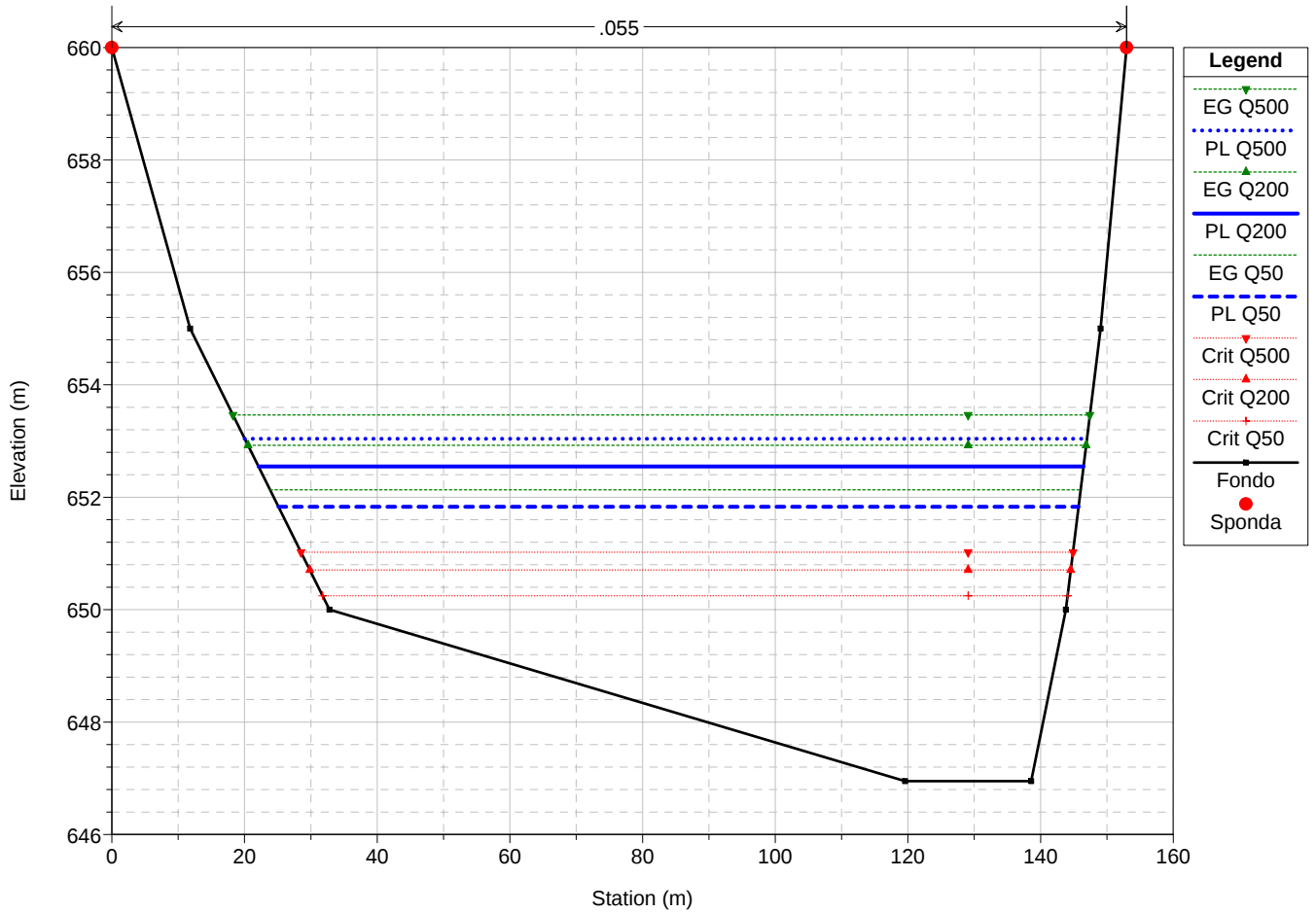
torrente Aveto

River = aveto Reach = unico RS = 6535 AV67



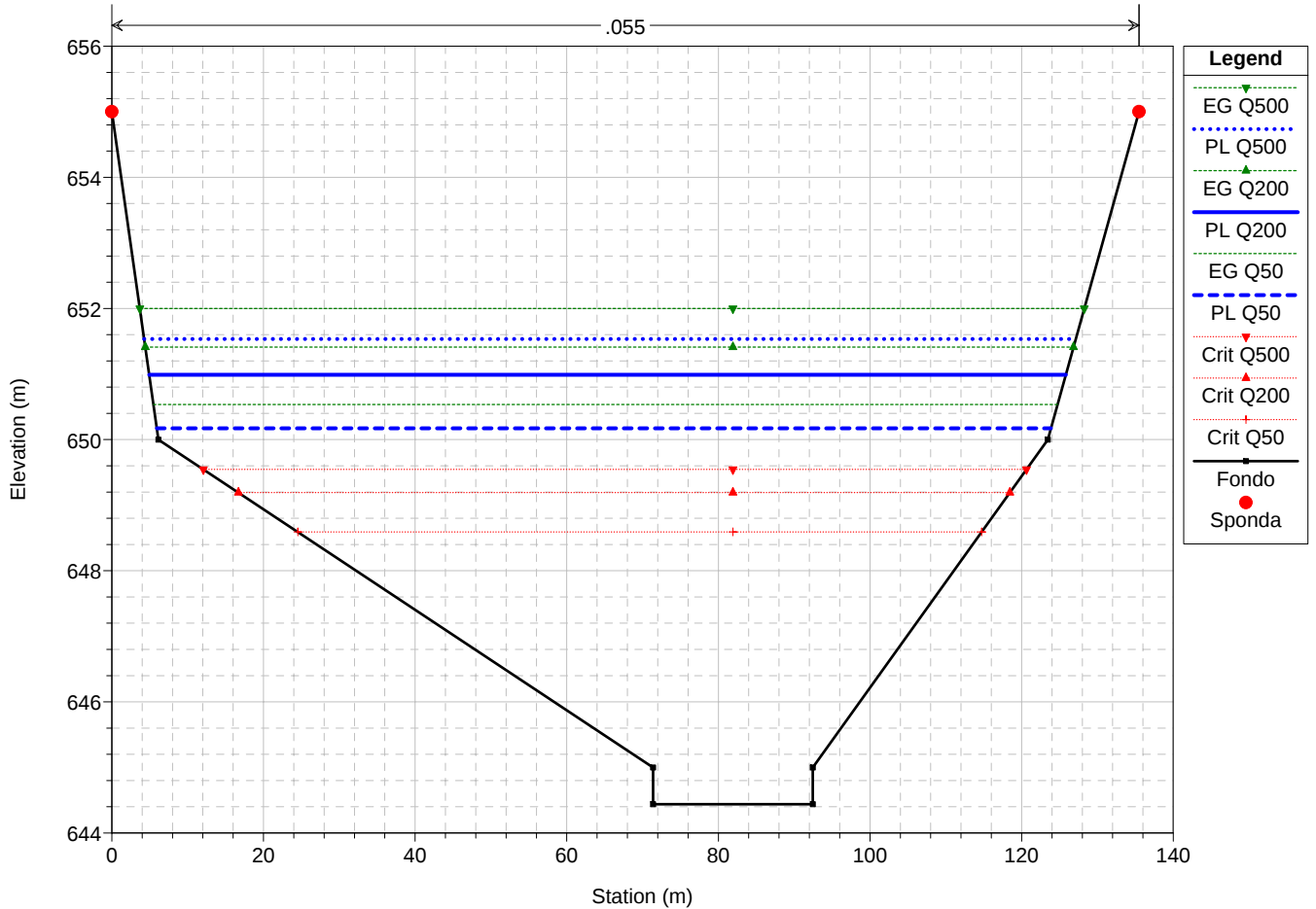
torrente Aveto

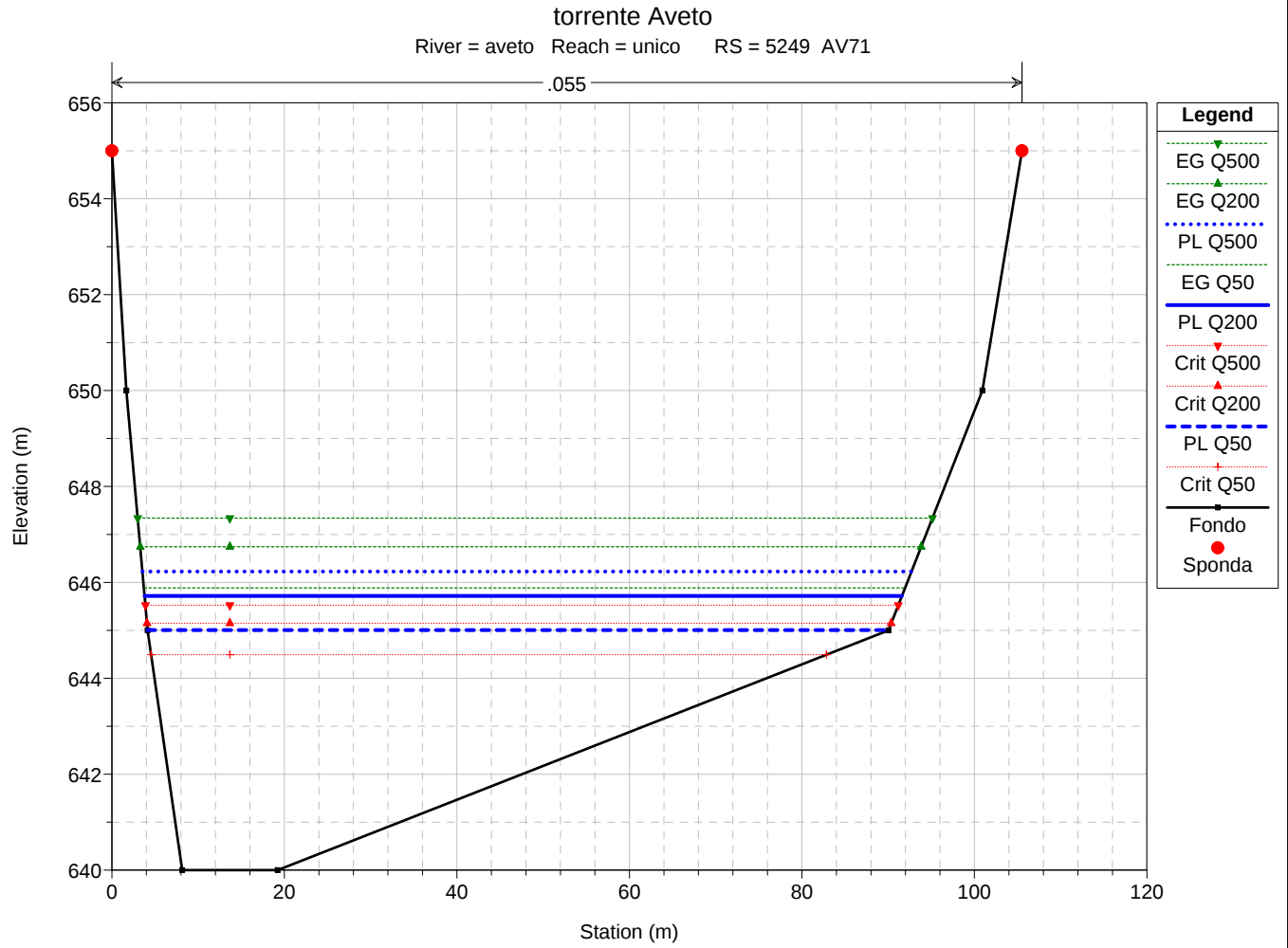
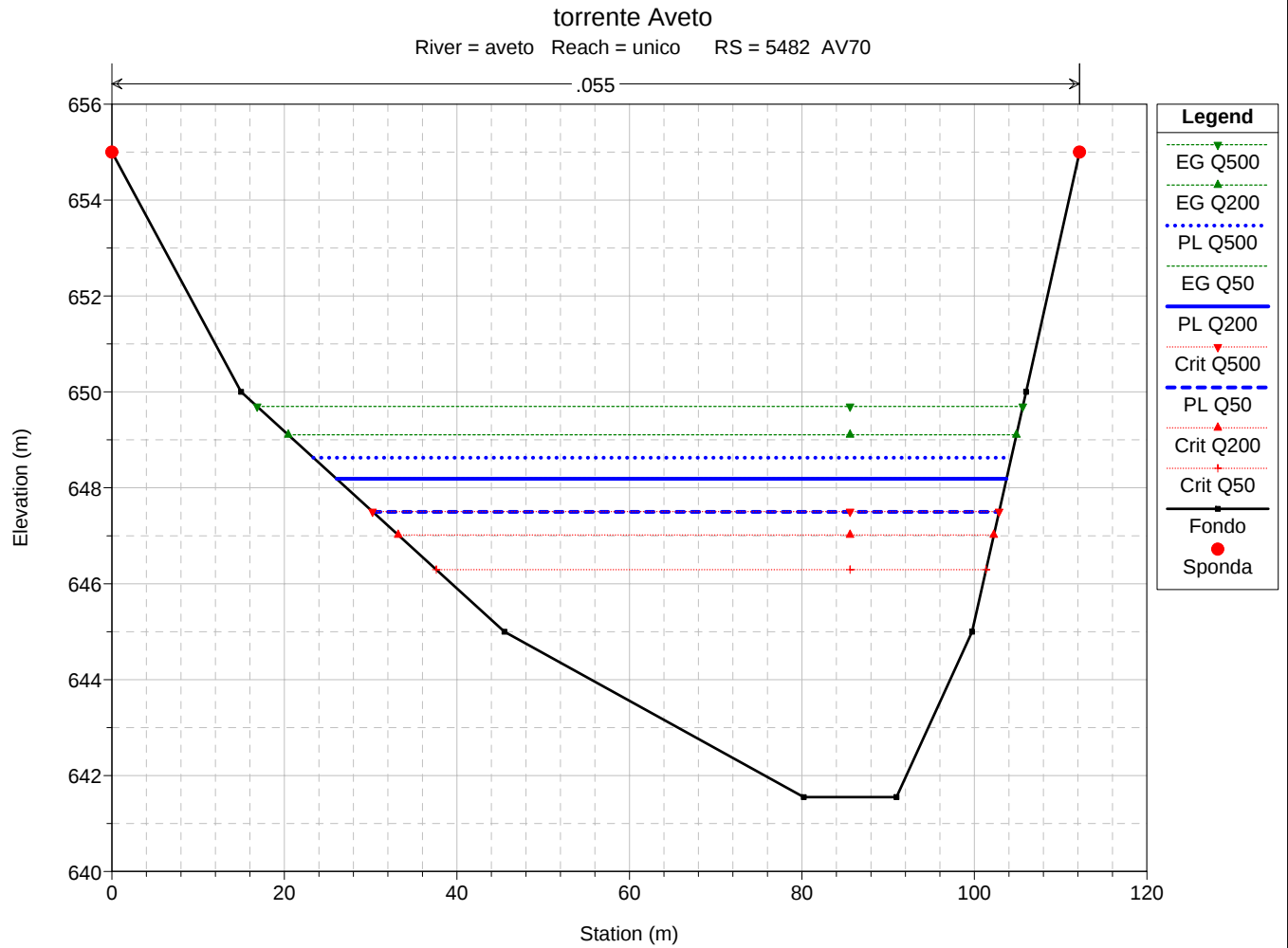
River = aveto Reach = unico RS = 6267 AV68

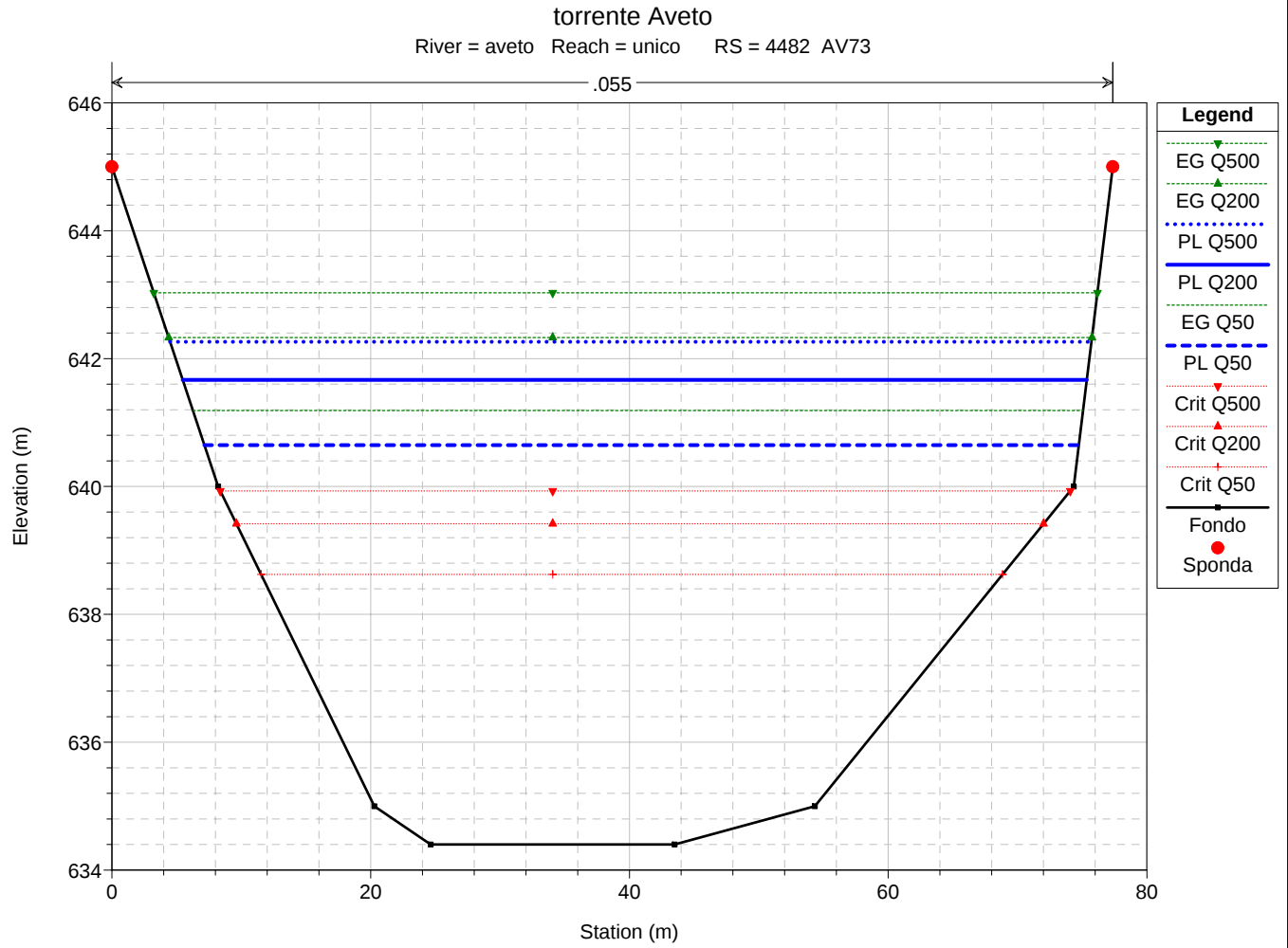
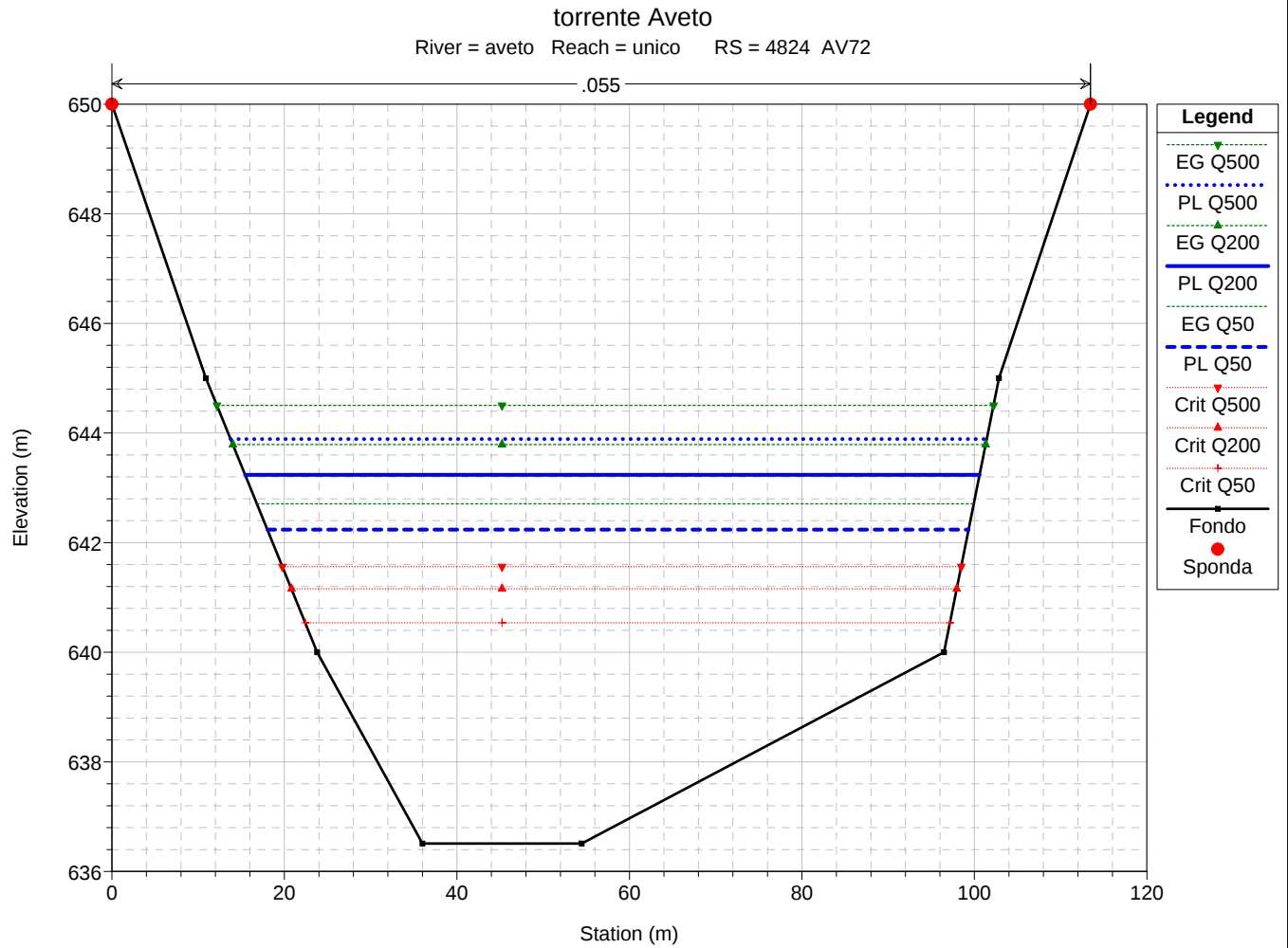


torrente Aveto

River = aveto Reach = unico RS = 5875 AV69

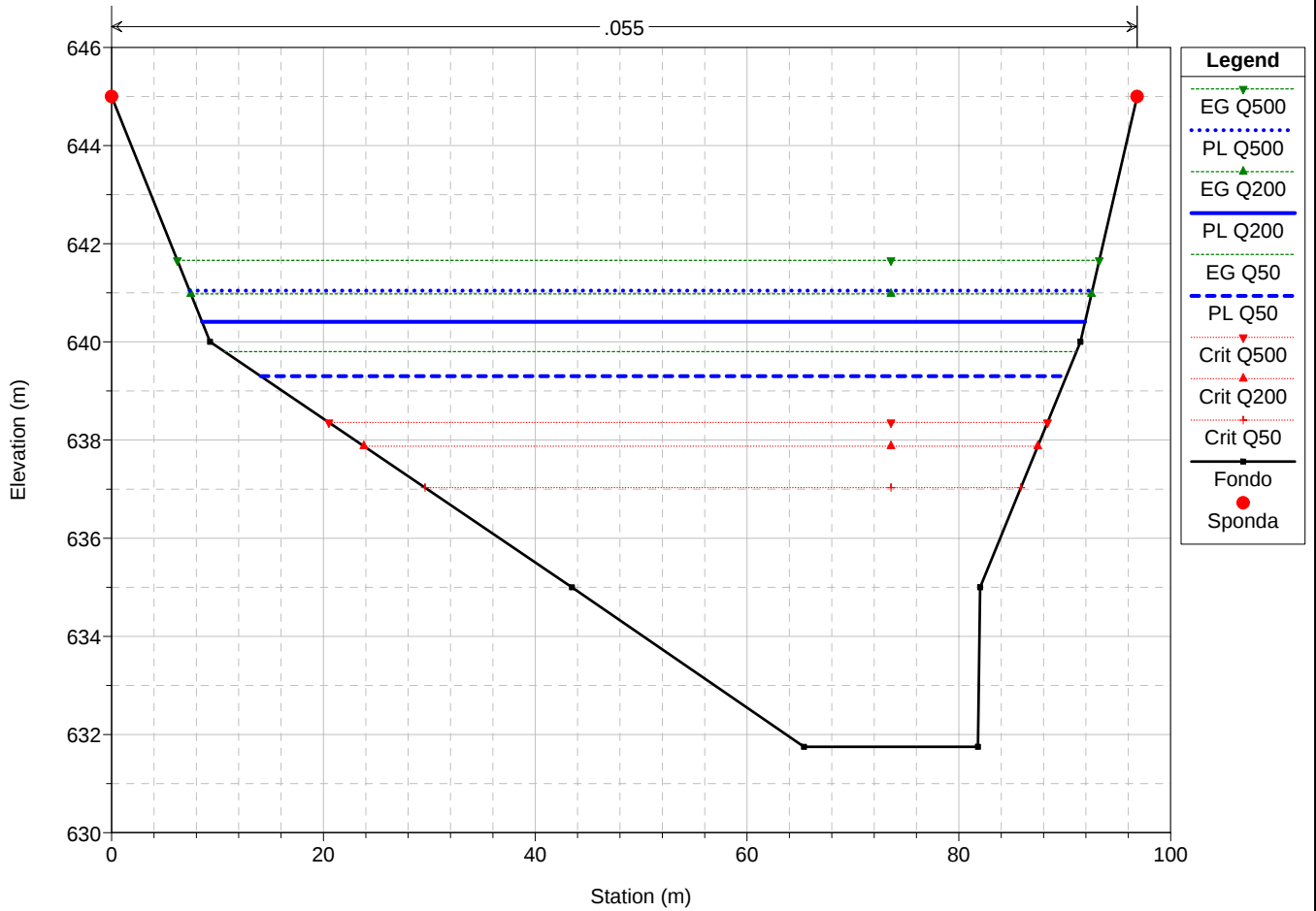






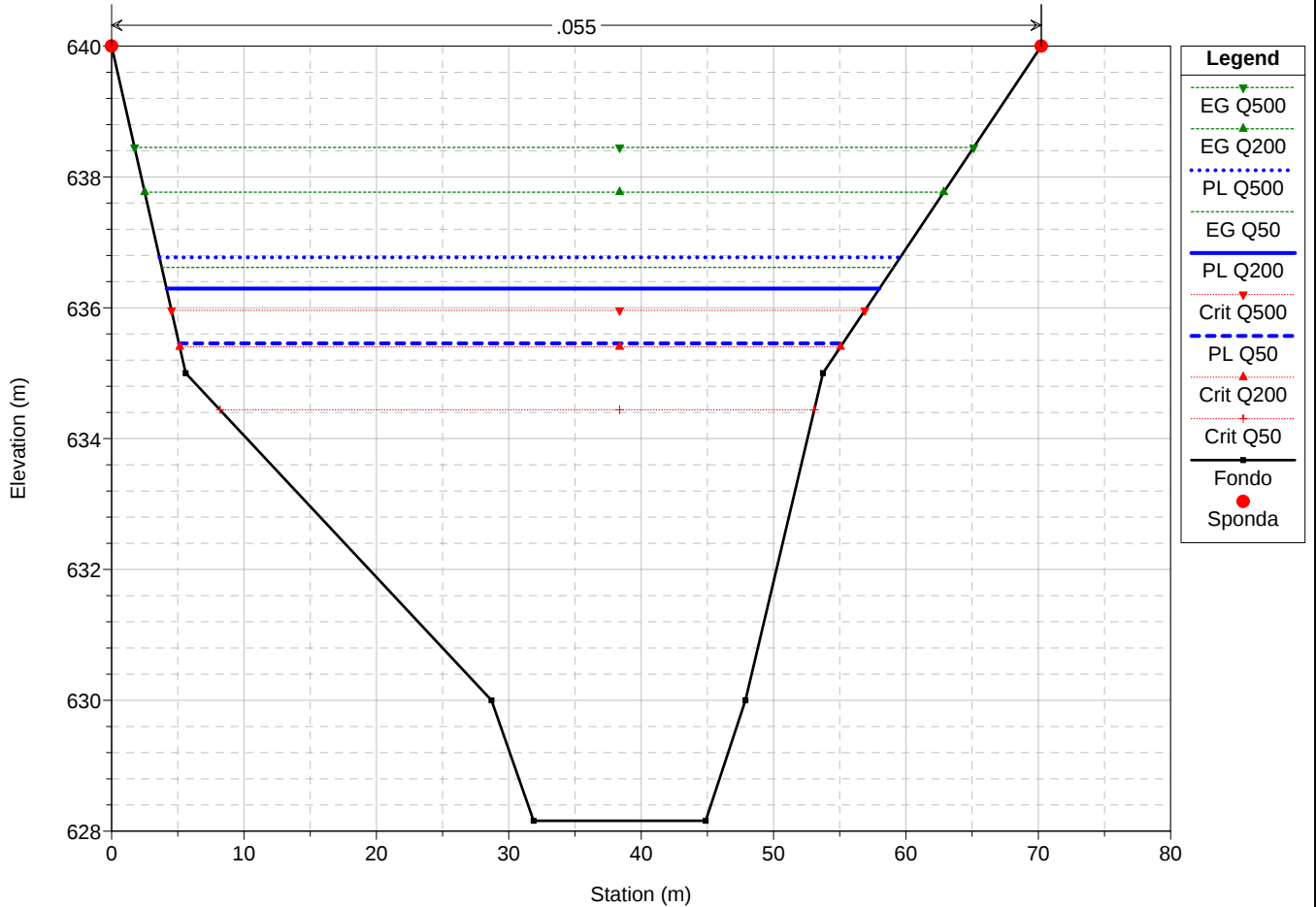
torrente Aveto

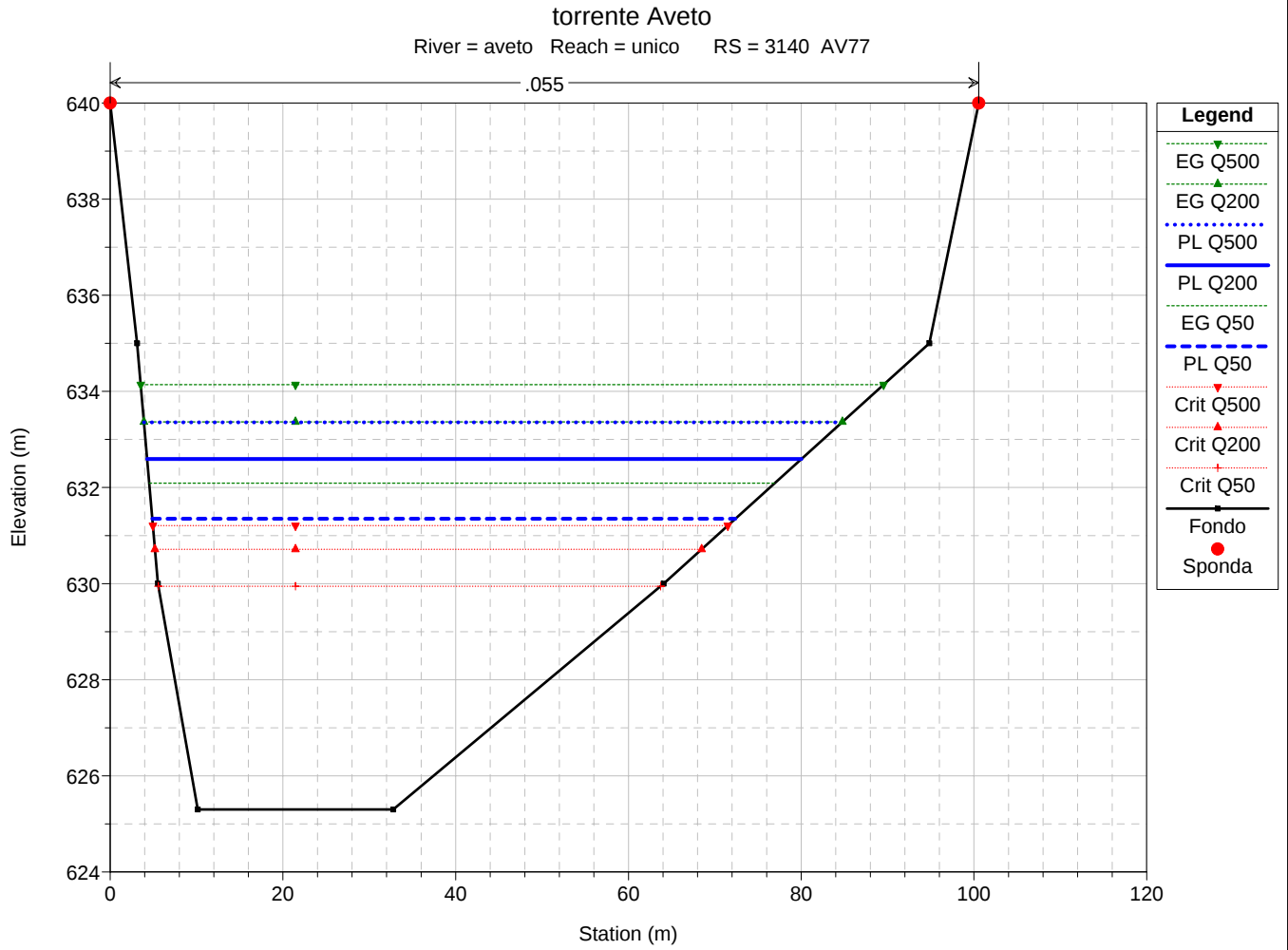
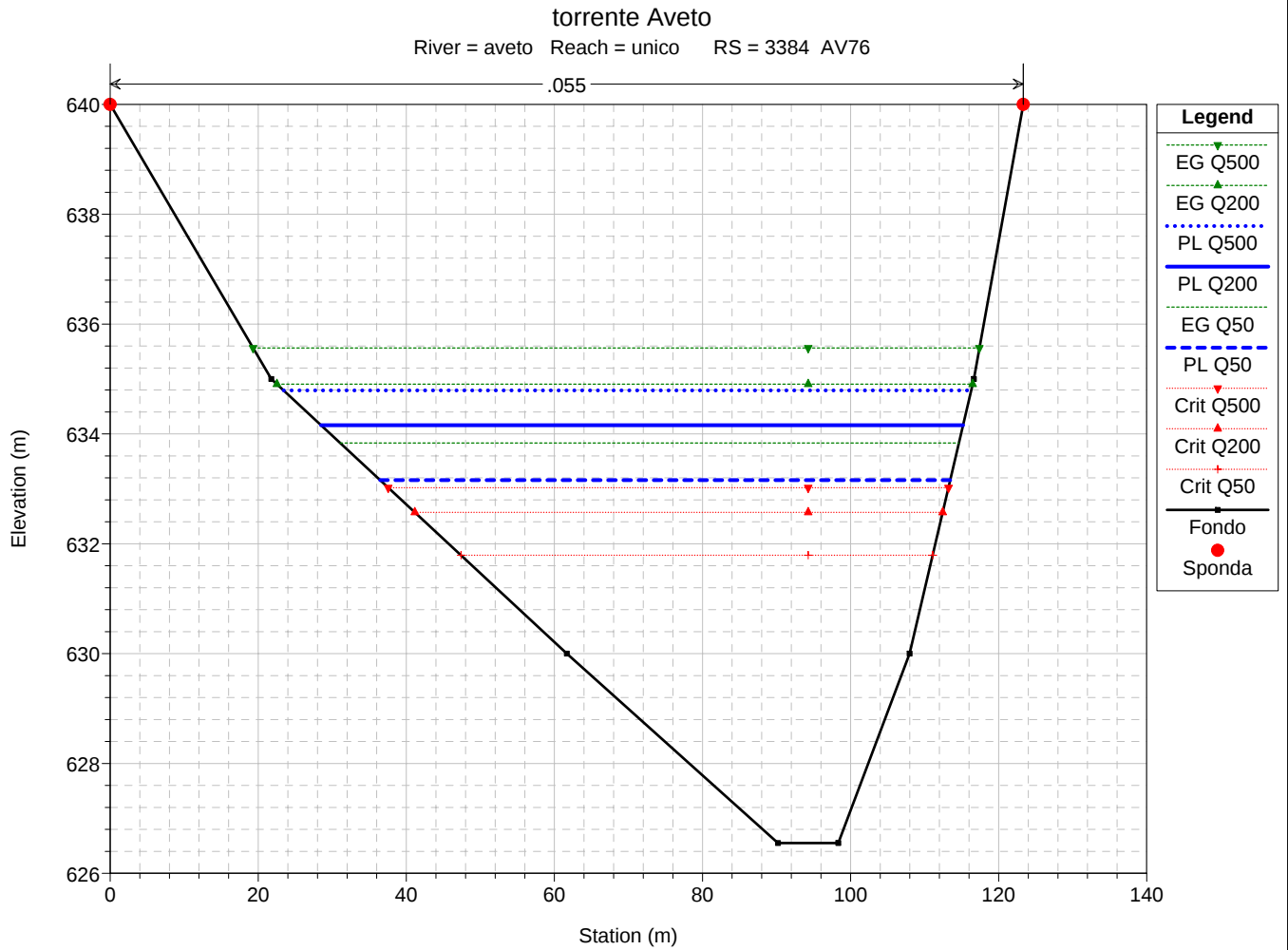
River = aveto Reach = unico RS = 4171 AV74



torrente Aveto

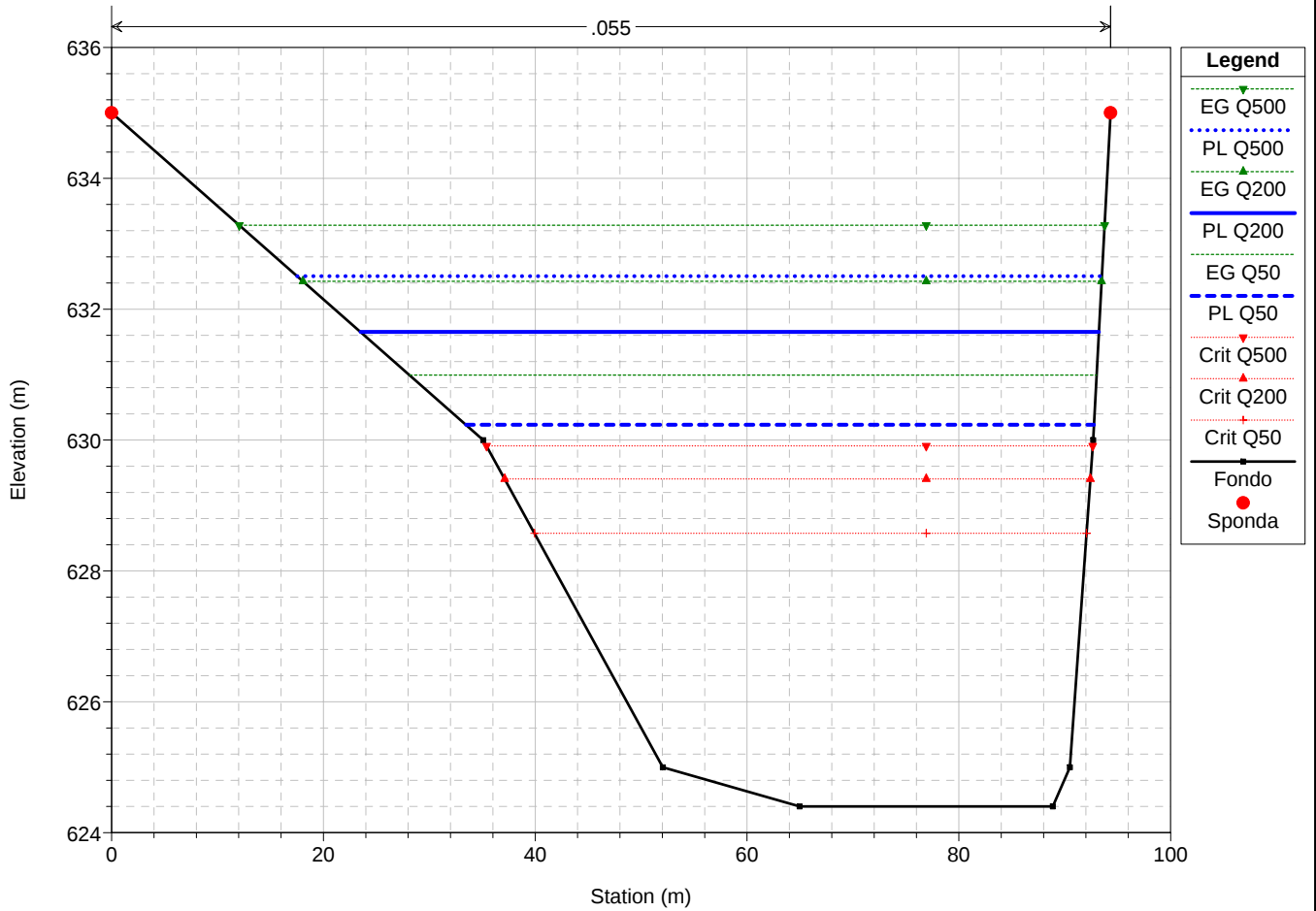
River = aveto Reach = unico RS = 3692 AV75





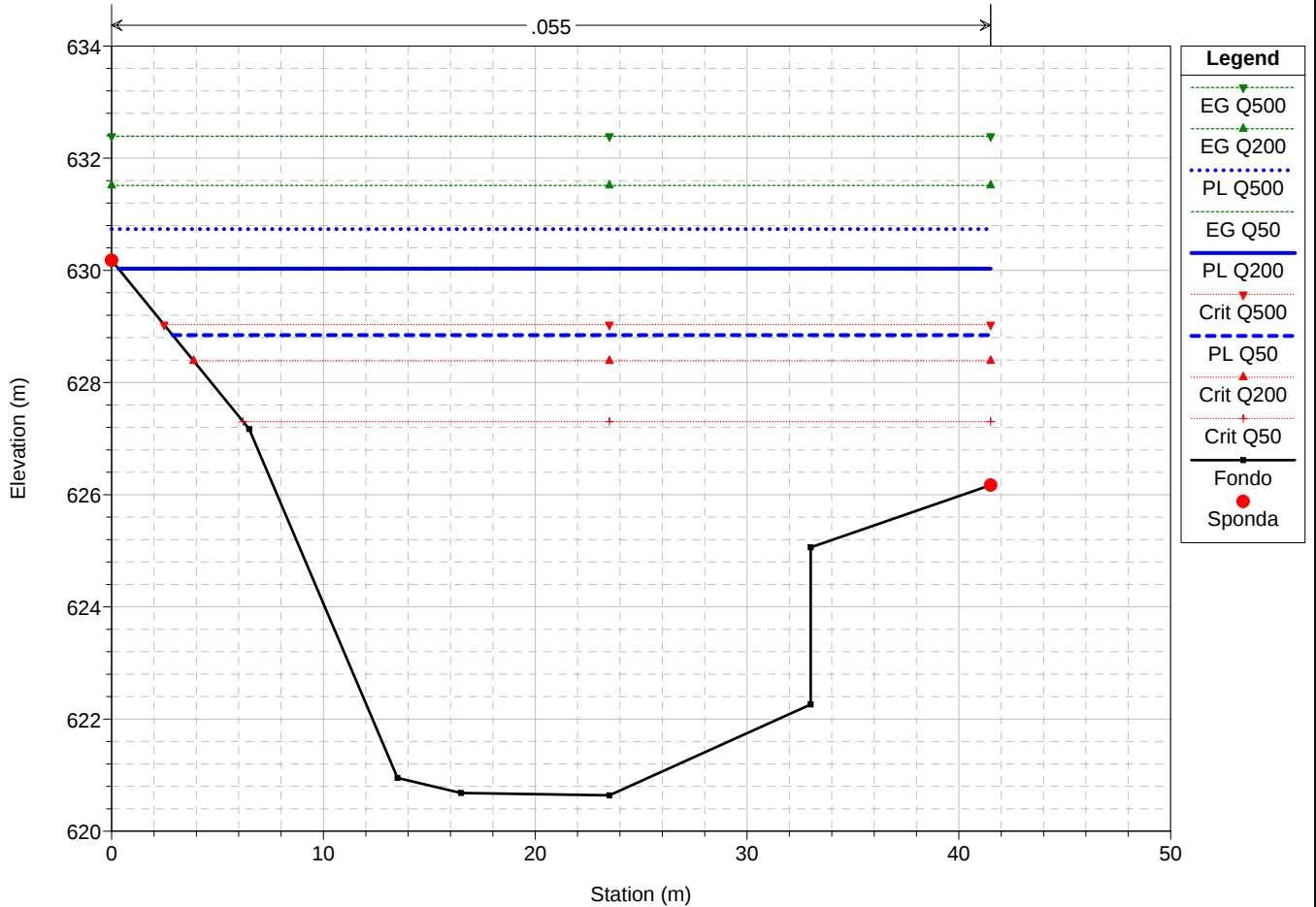
torrente Aveto

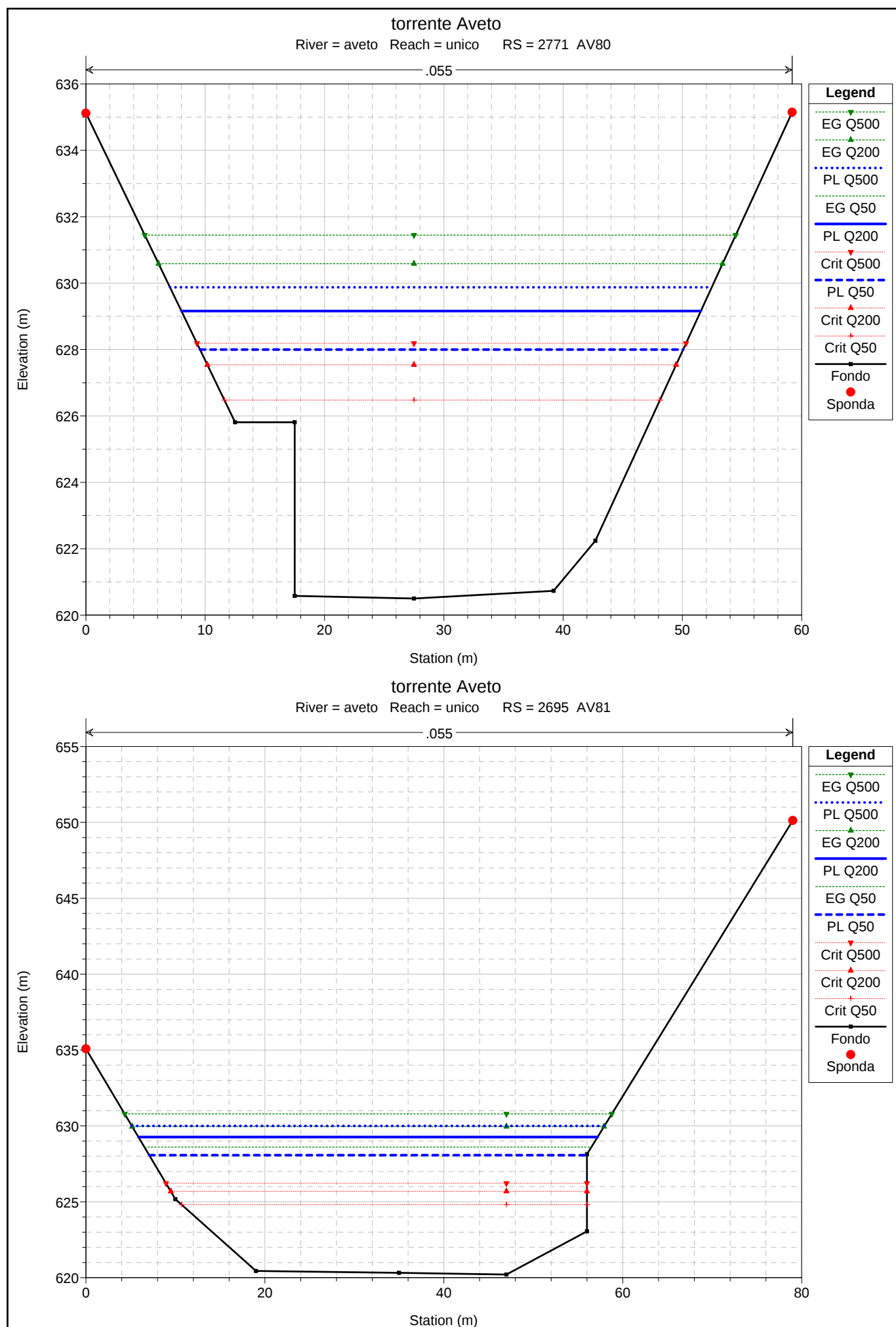
River = aveto Reach = unico RS = 2979 AV78

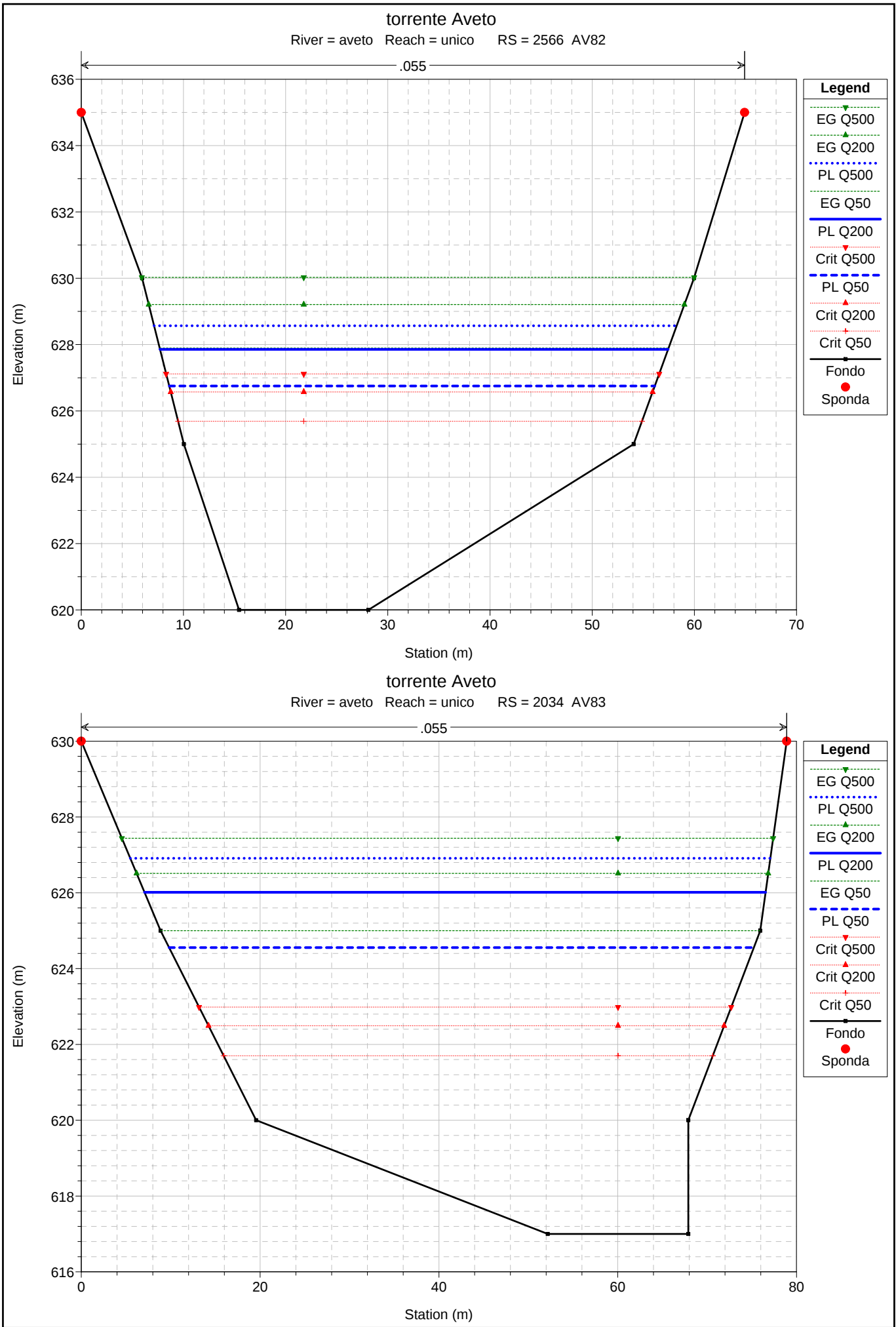


torrente Aveto

River = aveto Reach = unico RS = 2864 AV79

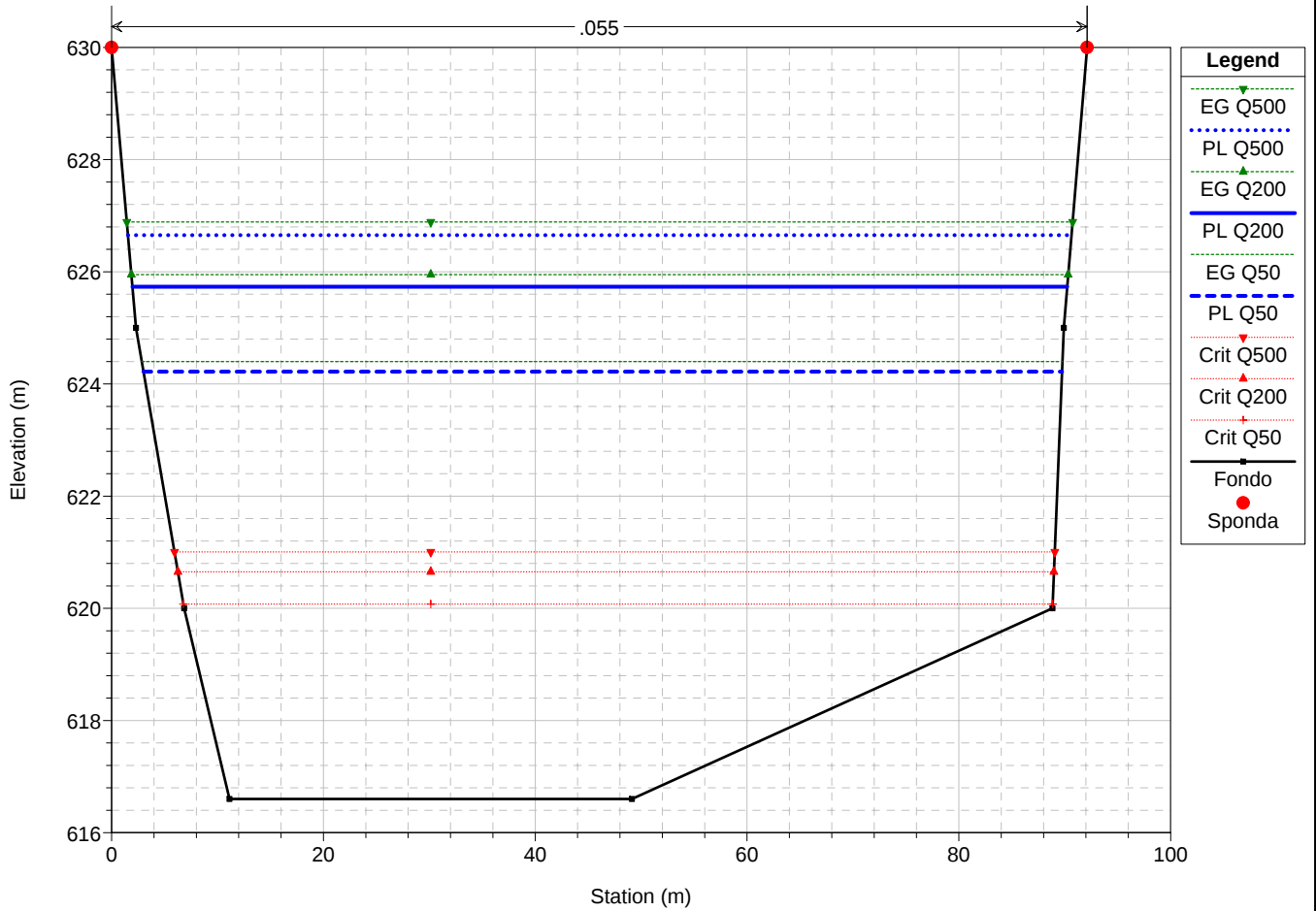






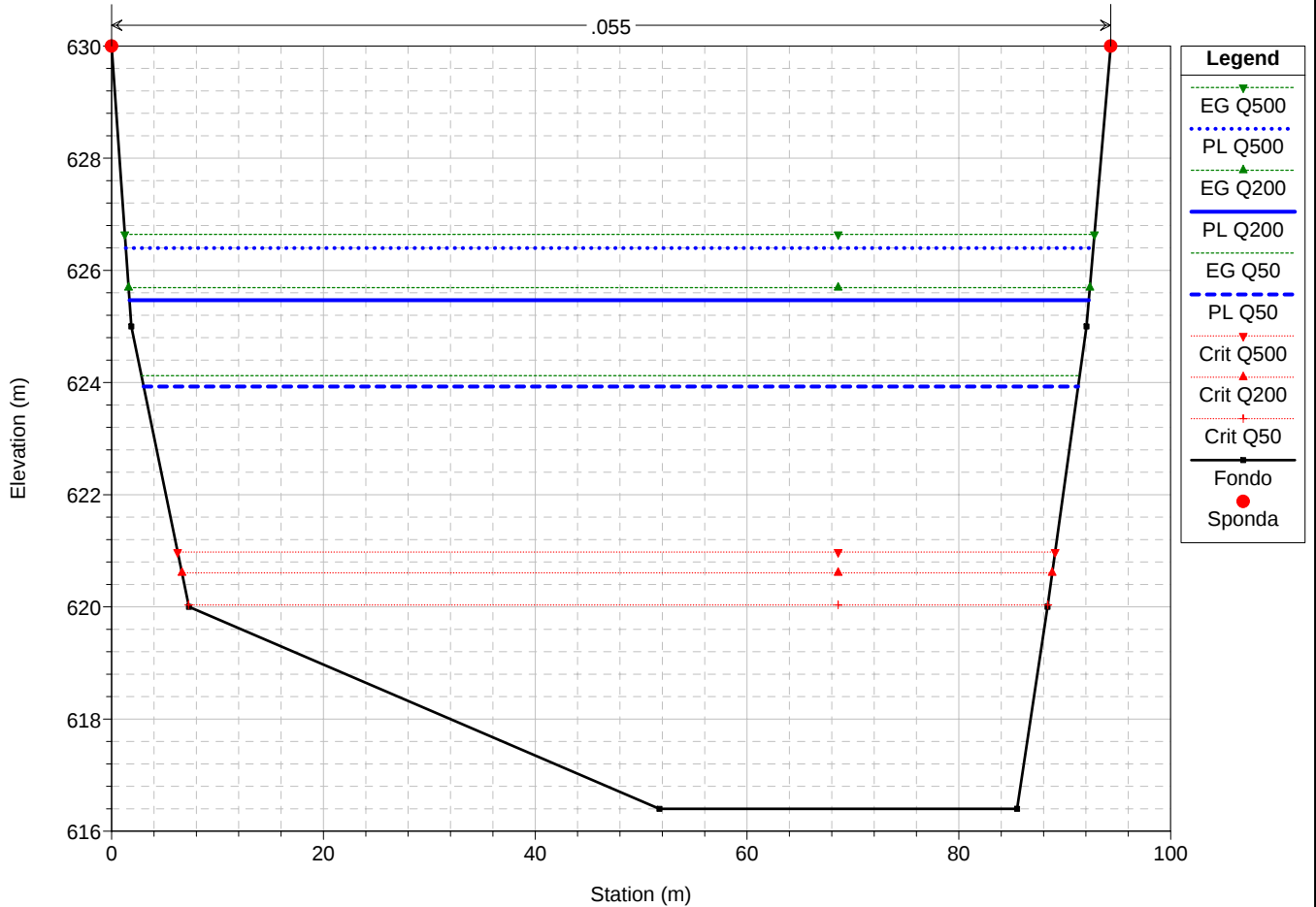
torrente Aveto

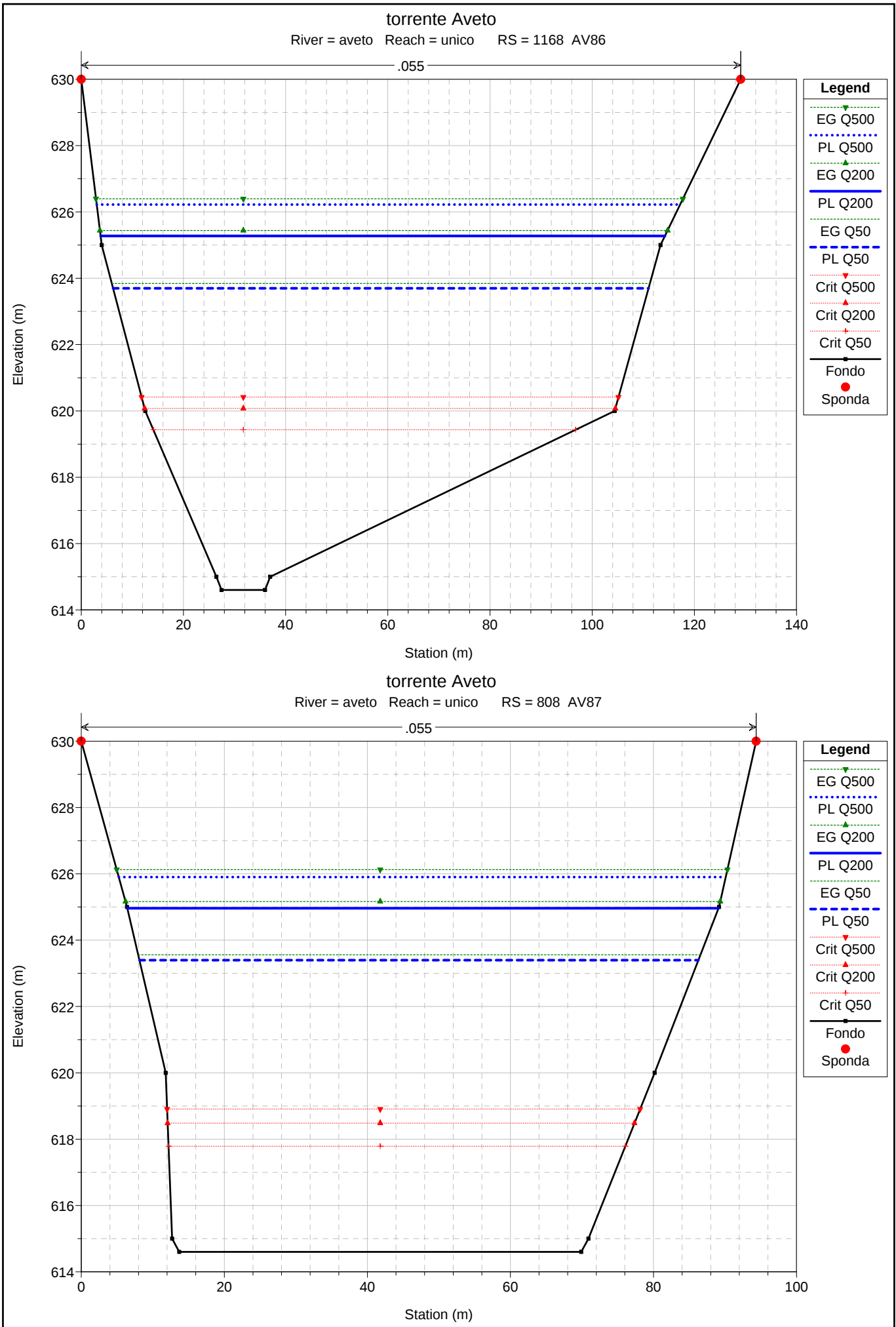
River = aveto Reach = unico RS = 1709 AV84



torrente Aveto

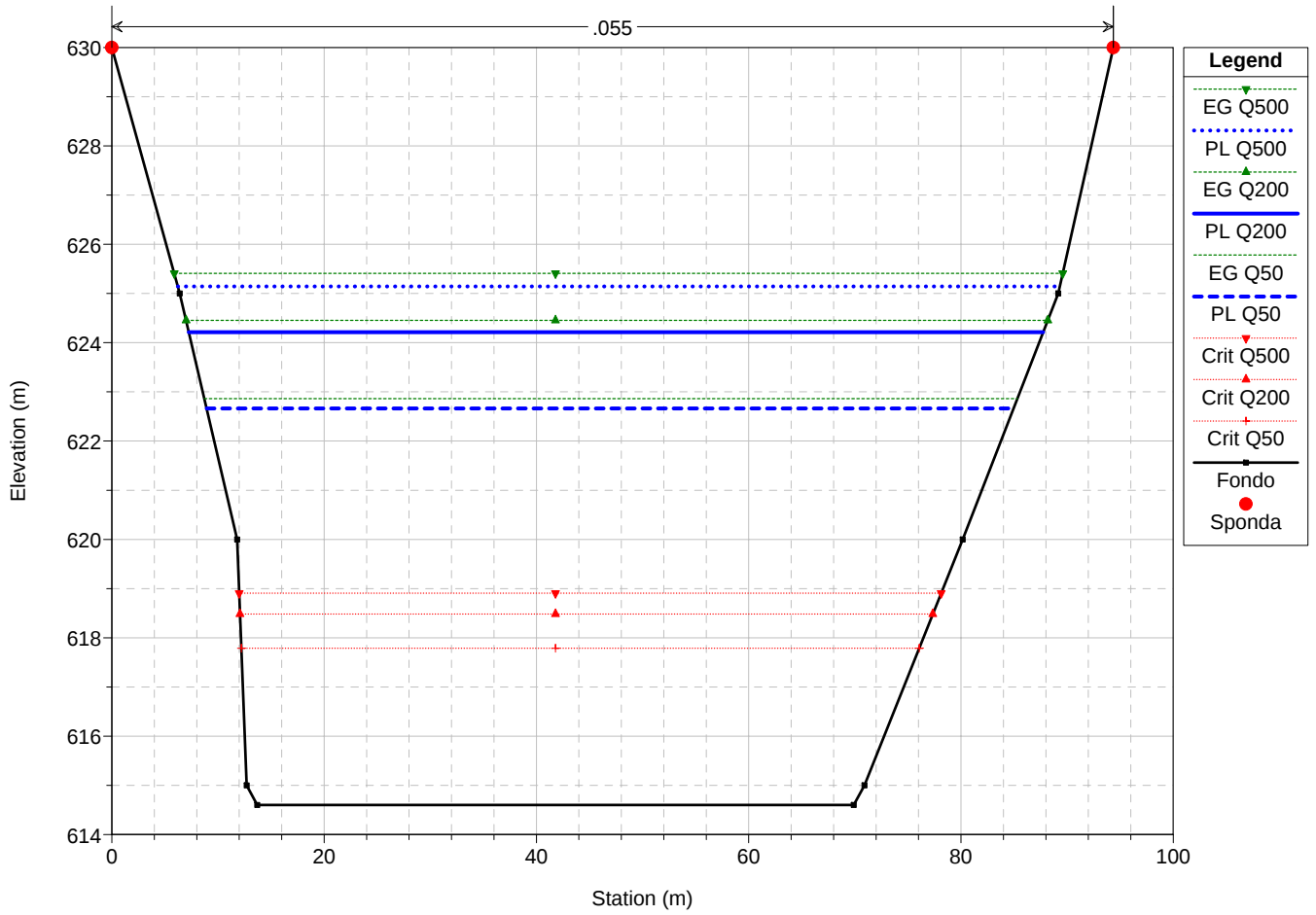
River = aveto Reach = unico RS = 1444 AV85





River = aveto Reach = unico RS = 0 AV 88

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HEC-RAS Plan: 03_C=18 River: aveto Reach: unico

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	LOB Elev	L. Freeboard	ROB Elev	R. Freeboard	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
unico	29969 AV1	Q50	86.00	958.00	959.76	965.00	5.24	965.00	5.24	959.76	960.33	0.029047	3.36	25.60	22.28	1.00
unico	29969 AV1	Q200	131.00	958.00	960.17	965.00	4.83	965.00	4.83	960.17	960.87	0.026790	3.69	35.46	25.11	0.99
unico	29969 AV1	Q500	164.00	958.00	960.41	965.00	4.59	965.00	4.59	960.41	961.20	0.025967	3.94	41.67	26.13	0.99
unico	28916 AV2	Q50	86.00	928.50	930.25	934.30	4.05	935.00	4.75	930.18	930.75	0.023780	3.12	27.54	22.98	0.91
unico	28916 AV2	Q200	131.00	928.50	930.69	934.30	3.61	935.00	4.31	930.57	931.29	0.021212	3.44	38.03	24.93	0.89
unico	28916 AV2	Q500	164.00	928.50	930.92	934.30	3.38	935.00	4.08	930.82	931.63	0.021678	3.73	44.02	25.97	0.91
unico	27824 AV3	Q50	86.00	902.40	904.21	908.80	4.59	910.00	5.79	904.12	904.78	0.023758	3.36	25.63	18.76	0.92
unico	27824 AV3	Q200	131.00	902.40	904.59	908.80	4.21	910.00	5.41	904.59	905.38	0.026675	3.95	33.20	20.70	0.99
unico	27824 AV3	Q500	164.00	902.40	904.88	908.80	3.92	910.00	5.12	904.88	905.76	0.025952	4.16	39.41	22.17	1.00
unico	26797 AV4	Q50	86.00	884.50	885.81	895.00	9.19	895.00	9.19	885.57	886.06	0.014289	2.21	38.96	37.17	0.69
unico	26797 AV4	Q200	131.00	884.50	886.39	895.00	8.61	895.00	8.61	885.86	886.62	0.008365	2.13	61.44	41.01	0.56
unico	26797 AV4	Q500	164.00	884.50	886.63	895.00	8.37	895.00	8.37	886.04	886.90	0.008356	2.29	71.49	42.61	0.57
unico	25790 AV5	Q50	86.00	869.60	871.80	880.20	8.40	880.00	8.20	871.41	872.16	0.013337	2.66	32.37	21.56	0.69
unico	25790 AV5	Q200	131.00	869.60	871.87	880.20	8.33	880.00	8.13	871.87	872.63	0.027202	3.86	33.93	22.01	0.99
unico	25790 AV5	Q500	164.00	869.60	872.15	880.20	8.05	880.00	7.85	872.15	872.99	0.026732	4.07	40.25	23.73	1.00
unico	25219 AV6	Q50	86.00	861.90	863.75	870.50	6.75	870.00	6.25	863.46	864.09	0.014955	2.59	33.26	25.94	0.73
unico	25219 AV6	Q200	131.00	861.90	864.67	870.50	5.83	870.00	5.33	863.86	864.91	0.006729	2.16	60.58	33.83	0.52
unico	25219 AV6	Q500	164.00	861.90	865.30	870.50	5.20	870.00	4.70	864.11	865.50	0.004812	1.94	84.40	43.07	0.44
unico	25106 AV7	Q50	86.00	859.60	862.92	862.20	-0.72	862.20	-0.72	861.33	863.15	0.005026	2.14	40.14	12.10	0.38
unico	25106 AV7	Q200	131.00	859.60	863.87	862.20	-1.67	862.20	-1.67	861.89	864.20	0.005726	2.54	51.65	12.10	0.39
unico	25106 AV7	Q500	164.00	859.60	864.46	862.20	-2.26	862.20	-2.26	862.26	864.86	0.006267	2.79	58.83	12.10	0.40
unico	25103 AV7		Bridge													
unico	25101 AV7	Q50	86.00	859.60	862.40	862.20	-0.20	862.20	-0.20	861.33	862.73	0.008223	2.54	33.85	12.10	0.48
unico	25101 AV7	Q200	131.00	859.60	863.16	862.20	-0.96	862.20	-0.96	861.89	863.63	0.009522	3.04	43.10	12.10	0.51
unico	25101 AV7	Q500	164.00	859.60	863.65	862.20	-1.45	862.20	-1.45	862.26	864.22	0.010401	3.35	48.99	12.10	0.53
unico	24638 AV8	Q50	86.00	854.30	855.64	859.12	3.48	860.00	4.36	855.64	856.10	0.030757	2.99	28.79	31.41	1.00
unico	24638 AV8	Q200	131.00	854.30	855.98	859.12	3.14	860.00	4.02	855.98	856.52	0.028765	3.27	40.11	36.36	0.99
unico	24638 AV8	Q500	164.00	854.30	856.18	859.12	2.94	860.00	3.82	856.18	856.78	0.028011	3.43	47.76	39.36	1.00
unico	24525 AV9	Q50	86.00	849.40	850.58	855.00	4.42	860.00	9.42	850.32	850.76	0.011767	1.87	45.87	49.14	0.62
unico	24525 AV9	Q200	131.00	849.40	850.87	855.00	4.13	860.00	9.13	850.55	851.11	0.011309	2.17	60.29	50.09	0.63
unico	24525 AV9	Q500	164.00	849.40	850.37	855.00	4.63	860.00	9.63	850.69	851.43	0.094054	4.56	35.99	48.48	1.69
unico	24066 AV10	Q50	86.00	844.80	846.52	850.70	4.18	850.00	3.48	845.97	846.65	0.006979	1.65	52.08	45.73	0.49
unico	24066 AV10	Q200	131.00	844.80	846.90	850.70	3.80	850.00	3.10	846.28	847.07	0.006973	1.85	70.93	52.60	0.51
unico	24066 AV10	Q500	164.00	844.80	847.13	850.70	3.57	850.00	2.87	846.47	847.33	0.006975	1.96	83.69	56.78	0.52
unico	23679 AV11	Q50	150.00	839.90	841.99	850.00	8.01	850.00	8.01	841.68	842.41	0.014840	2.88	52.16	34.55	0.75
unico	23679 AV11	Q200	219.00	839.90	842.47	850.00	7.53	850.00	7.53	842.09	842.97	0.014105	3.14	69.74	38.89	0.75
unico	23679 AV11	Q500	270.00	839.90	842.78	850.00	7.22	850.00	7.22	842.36	843.33	0.013491	3.27	82.49	41.76	0.74
unico	23250 AV12	Q50	150.00	834.65	837.32	845.00	7.68	845.00	7.68	836.62	837.66	0.008483	2.61	57.57	28.58	0.59

HEC-RAS Plan: 03_C=18 River: aveto Reach: unico (Continued)

Reach	River Sta		Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	LOB Elev (m)	L. Freeboard (m)	ROB Elev (m)	R. Freeboard (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
unico	23250	AV12	Q200	219.00	834.65	837.91	845.00	7.09	845.00	7.09	837.09	838.34	0.008462	2.91	75.20	31.38	0.60
unico	23250	AV12	Q500	270.00	834.65	838.27	845.00	6.73	845.00	6.73	837.40	838.76	0.008565	3.11	86.89	33.11	0.61
unico	22711	AV13	Q50	150.00	829.05	832.40	836.62	4.22	836.62	4.22	831.15	832.72	0.009945	2.50	60.01	31.23	0.58
unico	22711	AV13	Q200	219.00	829.05	832.91	836.62	3.71	836.62	3.71	832.03	833.32	0.010268	2.85	76.85	33.20	0.60
unico	22711	AV13	Q500	270.00	829.05	833.24	836.62	3.38	836.62	3.38	832.47	833.72	0.010261	3.08	87.72	33.20	0.60
unico	22708	AV13		Bridge													
unico	22705	AV13	Q50	150.00	829.05	832.27	836.62	4.35	836.62	4.35	831.15	832.63	0.011426	2.67	56.20	29.21	0.61
unico	22705	AV13	Q200	219.00	829.05	832.74	836.62	3.88	836.62	3.88	832.03	833.22	0.013103	3.08	71.18	33.20	0.67
unico	22705	AV13	Q500	270.00	829.05	833.05	836.62	3.57	836.62	3.57	832.47	833.61	0.012897	3.31	81.61	33.20	0.67
unico	22704	AV14	Q50	150.00	829.00	832.38	836.62	4.24	836.30	3.92	830.86	832.58	0.005764	1.98	75.71	39.93	0.46
unico	22704	AV14	Q200	219.00	829.00	832.89	836.62	3.73	836.30	3.41	831.38	833.15	0.005910	2.27	96.53	42.35	0.48
unico	22704	AV14	Q500	270.00	829.00	833.23	836.62	3.39	836.30	3.07	831.73	833.53	0.005891	2.43	111.22	43.98	0.49
unico	22179	AV15	Q50	150.00	826.20	827.95	832.00	4.05	835.00	7.05	827.62	828.23	0.012904	2.33	64.30	53.31	0.68
unico	22179	AV15	Q200	219.00	826.20	828.28	832.00	3.72	835.00	6.72	827.94	828.64	0.013566	2.63	83.14	59.62	0.71
unico	22179	AV15	Q500	270.00	826.20	828.46	832.00	3.54	835.00	6.54	828.15	828.88	0.014640	2.87	94.22	63.04	0.75
unico	21479	AV16	Q50	150.00	822.00	824.10	830.00	5.90	830.00	5.90	823.20	824.18	0.003200	1.26	118.72	87.05	0.35
unico	21479	AV16	Q200	219.00	822.00	824.53	830.00	5.47	830.00	5.47	823.47	824.63	0.003049	1.37	159.63	99.75	0.35
unico	21479	AV16	Q500	270.00	822.00	824.83	830.00	5.17	830.00	5.17	823.64	824.93	0.002861	1.42	190.75	108.43	0.34
unico	21025	AV17	Q50	150.00	819.40	821.66	824.70	3.04	824.70	3.04	821.08	821.93	0.008444	2.31	64.80	36.50	0.55
unico	21025	AV17	Q200	219.00	819.40	822.25	824.70	2.45	824.70	2.45	821.43	822.58	0.007187	2.54	86.36	36.50	0.53
unico	21025	AV17	Q500	270.00	819.40	822.65	824.70	2.05	824.70	2.05	821.66	823.01	0.006664	2.67	100.94	36.50	0.51
unico	21022	AV17		Bridge													
unico	21019	AV17	Q50	150.00	819.40	820.80	824.70	3.90	824.70	3.90	821.08	821.82	0.072266	4.49	33.43	36.50	1.50
unico	21019	AV17	Q200	219.00	819.40	821.02	824.70	3.68	824.70	3.68	821.43	822.44	0.075803	5.27	41.55	36.50	1.58
unico	21019	AV17	Q500	270.00	819.40	821.17	824.70	3.53	824.70	3.53	821.66	822.85	0.076972	5.74	47.05	36.50	1.61
unico	21016	AV18	Q50	228.00	819.20	820.49	825.00	4.51	822.70	2.21	820.82	821.47	0.162783	4.39	51.96	112.15	2.06
unico	21016	AV18	Q200	333.00	819.20	820.58	825.00	4.42	822.70	2.12	821.00	822.02	0.222701	5.33	62.51	127.57	2.43
unico	21016	AV18	Q500	412.00	819.20	820.63	825.00	4.37	822.70	2.07	821.10	822.40	0.262555	5.88	70.02	139.33	2.65
unico	20631	AV19	Q50	228.00	816.15	818.81	825.00	6.19	825.00	6.19	817.45	818.84	0.001280	0.86	266.00	174.64	0.22
unico	20631	AV19	Q200	333.00	816.15	819.26	825.00	5.74	825.00	5.74	817.72	819.31	0.001278	0.95	351.52	198.47	0.23
unico	20631	AV19	Q500	412.00	816.15	819.55	825.00	5.45	825.00	5.45	817.89	819.60	0.001248	1.01	408.66	206.29	0.23
unico	20081	AV20	Q50	228.00	815.80	818.16	825.00	6.84	825.00	6.84	816.83	818.19	0.001097	0.78	292.59	197.86	0.20
unico	20081	AV20	Q200	333.00	815.80	818.63	825.00	6.37	825.00	6.37	817.07	818.67	0.001055	0.85	392.93	227.41	0.21
unico	20081	AV20	Q500	412.00	815.80	818.93	825.00	6.07	825.00	6.07	817.22	818.97	0.001036	0.89	463.18	245.99	0.21
unico	19512	AV21	Q50	228.00	815.00	817.57	825.00	7.43	825.00	7.43	816.12	817.60	0.000978	0.77	297.06	189.36	0.20
unico	19512	AV21	Q200	333.00	815.00	818.06	825.00	6.94	825.00	6.94	816.37	818.10	0.000958	0.84	396.55	217.45	0.20
unico	19512	AV21	Q500	412.00	815.00	818.36	825.00	6.64	825.00	6.64	816.52	818.40	0.000957	0.89	464.79	234.78	0.20

HEC-RAS Plan: 03_C=18 River: aveto Reach: unico (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	LOB Elev	L. Freeboard	ROB Elev	R. Freeboard	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
unico	18960 AV22	Q50	228.00	812.70	815.95	820.00	4.05	820.00	4.05	815.38	816.27	0.012101	2.48	91.92	65.57	0.67
unico	18960 AV22	Q200	333.00	812.70	816.28	820.00	3.72	820.00	3.72	815.93	816.70	0.015445	2.89	115.25	78.67	0.76
unico	18960 AV22	Q500	412.00	812.70	816.48	820.00	3.52	820.00	3.52	816.20	816.97	0.017140	3.12	132.00	86.86	0.81
unico	18673 AV23	Q50	228.00	810.20	814.86	817.20	2.34	820.00	5.14	812.88	814.92	0.002277	1.03	222.25	170.26	0.29
unico	18673 AV23	Q200	333.00	810.20	815.29	817.20	1.91	820.00	4.71	813.66	815.35	0.002002	1.11	298.78	183.62	0.28
unico	18673 AV23	Q500	412.00	810.20	815.53	817.20	1.67	820.00	4.47	814.10	815.61	0.001926	1.20	344.46	184.85	0.28
unico	18550 AV24	Q50	277.00	809.76	814.51	816.70	2.19	815.00	0.49	812.48	814.60	0.002845	1.30	212.91	135.39	0.33
unico	18550 AV24	Q200	403.00	809.76	814.92	816.70	1.78	815.00	0.08	813.29	815.04	0.003117	1.48	272.23	152.88	0.35
unico	18550 AV24	Q500	491.00	809.76	815.17	816.70	1.53	815.00	-0.17	813.66	815.30	0.003062	1.58	311.40	156.79	0.36
unico	18404 AV25	Q50	277.00	809.40	813.99	816.20	2.21	820.00	6.01	812.02	814.09	0.004372	1.37	201.57	162.27	0.39
unico	18404 AV25	Q200	403.00	809.40	814.47	816.20	1.73	820.00	5.53	813.29	814.57	0.003210	1.44	279.49	165.95	0.35
unico	18404 AV25	Q500	491.00	809.40	814.75	816.20	1.45	820.00	5.25	813.57	814.87	0.002863	1.50	327.09	167.74	0.34
unico	18251 AV26	Q50	277.00	808.46	813.22	816.20	2.98	820.00	6.78	811.24	813.34	0.005392	1.56	177.03	137.19	0.44
unico	18251 AV26	Q200	403.00	808.46	814.04	816.20	2.16	820.00	5.96	811.84	814.12	0.002628	1.29	311.36	187.47	0.32
unico	18251 AV26	Q500	491.00	808.46	814.41	816.20	1.79	820.00	5.59	812.21	814.49	0.002008	1.29	381.22	188.74	0.29
unico	18134 AV27	Q50	277.00	808.50	812.71	816.00	3.29	820.00	7.29	810.81	812.90	0.002723	1.96	141.10	45.29	0.36
unico	18134 AV27	Q200	403.00	808.50	813.42	816.00	2.58	820.00	6.58	811.39	813.66	0.006223	2.17	186.02	97.78	0.50
unico	18134 AV27	Q500	491.00	808.50	813.88	816.00	2.12	820.00	6.12	811.75	814.09	0.006596	2.01	243.75	150.41	0.51
unico	18105 AV28	Q50	277.00	808.50	812.73	815.00	2.27	815.00	2.27	810.26	812.82	0.001109	1.37	201.78	51.70	0.22
unico	18105 AV28	Q200	403.00	808.50	813.41	815.00	1.60	815.00	1.60	810.67	813.56	0.001419	1.70	236.79	51.70	0.25
unico	18105 AV28	Q500	491.00	808.50	813.82	815.00	1.18	815.00	1.18	810.93	814.00	0.001611	1.90	258.00	51.70	0.27
unico	18102 AV28		Bridge													
unico	18099 AV28	Q50	277.00	808.50	812.71	815.00	2.29	815.00	2.29	810.26	812.81	0.001122	1.38	201.03	51.70	0.22
unico	18099 AV28	Q200	403.00	808.50	813.25	815.00	1.75	815.00	1.75	810.67	813.40	0.001586	1.76	228.53	51.70	0.27
unico	18099 AV28	Q500	491.00	808.50	813.54	815.00	1.46	815.00	1.46	810.93	813.75	0.001924	2.01	243.74	51.70	0.30
unico	17922 AV29	Q50	277.00	808.10	812.42	820.00	7.58	820.00	7.58	810.51	812.54	0.002125	1.52	182.71	72.00	0.30
unico	17922 AV29	Q200	403.00	808.10	812.85	820.00	7.15	820.00	7.15	811.02	813.03	0.002939	1.88	214.52	78.00	0.36
unico	17922 AV29	Q500	491.00	808.10	813.06	820.00	6.94	820.00	6.94	811.32	813.29	0.003566	2.12	231.49	81.01	0.40
unico	17674 AV30	Q50	330.00	807.90	811.46	820.00	8.54	820.00	8.54	810.89	811.60	0.007343	1.63	201.88	187.39	0.50
unico	17674 AV30	Q200	464.00	807.90	811.84	820.00	8.16	820.00	8.16	811.17	811.98	0.005993	1.66	280.01	218.72	0.47
unico	17674 AV30	Q500	551.00	807.90	812.14	820.00	7.86	820.00	7.86	811.31	812.27	0.004461	1.59	346.77	231.19	0.41
unico	17342 AV31	Q50	330.00	806.60	810.47	815.00	4.53	815.00	4.53	808.46	810.53	0.001751	1.05	314.03	192.91	0.26
unico	17342 AV31	Q200	464.00	806.60	811.22	815.00	3.78	815.00	3.78	808.83	811.27	0.001029	1.00	464.40	206.55	0.21
unico	17342 AV31	Q500	551.00	806.60	811.65	815.00	3.35	815.00	3.35	809.05	811.70	0.000845	0.99	554.47	214.30	0.20
unico	17110 AV32	Q50	330.00	805.70	810.22	815.00	4.78	815.00	4.78	807.83	810.27	0.000747	0.93	354.95	138.23	0.19
unico	17110 AV32	Q200	464.00	805.70	811.04	815.00	3.96	815.00	3.96	808.19	811.09	0.000611	0.99	470.27	143.78	0.17
unico	17110 AV32	Q500	551.00	805.70	811.48	815.00	3.52	815.00	3.52	808.39	811.54	0.000579	1.03	534.67	146.79	0.17
unico	16834 AV33	Q50	330.00	805.00	809.93	815.00	5.07	815.00	5.07	807.37	810.01	0.001132	1.26	261.72	87.67	0.23

HEC-RAS Plan: 03_C=18 River: aveto Reach: unico (Continued)

Reach	River Sta		Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	LOB Elev (m)	L. Freeboard (m)	ROB Elev (m)	R. Freeboard (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
unico	16834	AV33	Q200	464.00	805.00	810.77	815.00	4.23	815.00	4.23	807.84	810.86	0.001126	1.36	340.62	101.08	0.24
unico	16834	AV33	Q500	551.00	805.00	811.21	815.00	3.79	815.00	3.79	808.10	811.32	0.001136	1.42	387.20	108.29	0.24
unico	16559	AV34	Q50	383.00	803.70	808.84	810.00	1.16	810.00	1.16	807.47	809.32	0.006418	3.06	125.27	38.89	0.54
unico	16559	AV34	Q200	525.00	803.70	809.57	810.00	0.43	810.00	0.43	808.14	810.16	0.006766	3.38	155.38	43.20	0.57
unico	16559	AV34	Q500	611.00	803.70	809.96	810.00	0.04	810.00	0.04	808.50	810.60	0.006908	3.54	172.66	45.49	0.58
unico	16053	AV35	Q50	383.00	800.00	802.55	810.00	7.45	810.00	7.45	802.55	803.62	0.023875	4.59	83.36	38.61	1.00
unico	16053	AV35	Q200	525.00	800.00	803.09	810.00	6.91	810.00	6.91	803.09	804.36	0.022634	4.99	105.17	41.14	1.00
unico	16053	AV35	Q500	611.00	800.00	803.39	810.00	6.61	810.00	6.61	803.39	804.77	0.022186	5.20	117.50	42.50	1.00
unico	15701	AV36	Q50	383.00	785.00	791.77	794.70	2.93	794.70	2.93	788.55	792.20	0.004168	2.92	131.33	20.00	0.36
unico	15701	AV36	Q200	525.00	785.00	792.33	794.70	2.37	794.70	2.37	789.34	793.02	0.006230	3.68	142.51	20.00	0.44
unico	15701	AV36	Q500	611.00	785.00	792.57	794.70	2.13	794.70	2.13	789.78	793.44	0.007687	4.15	147.38	20.00	0.49
unico	15698	AV36		Bridge													
unico	15691	AV36	Q50	383.00	785.00	791.69	794.70	3.01	794.70	3.01	788.55	792.13	0.004310	2.95	129.77	20.00	0.37
unico	15691	AV36	Q200	525.00	785.00	792.17	794.70	2.53	794.70	2.53	789.34	792.89	0.006635	3.77	139.33	20.00	0.46
unico	15691	AV36	Q500	611.00	785.00	792.33	794.70	2.37	794.70	2.37	789.78	793.27	0.008408	4.28	142.70	20.00	0.51
unico	15685	AV37	Q50	383.00	786.00	790.84	795.00	4.16	795.00	4.16	790.84	792.01	0.024327	4.80	79.84	33.78	1.00
unico	15685	AV37	Q200	525.00	786.00	791.53	795.00	3.47	795.00	3.47	791.53	792.77	0.023648	4.93	106.57	42.75	1.00
unico	15685	AV37	Q500	611.00	786.00	791.87	795.00	3.13	795.00	3.13	791.87	793.16	0.023323	5.02	121.68	47.08	1.00
unico	15023	AV38	Q50	383.00	728.70	729.93	740.00	10.08	740.00	10.08	731.48	741.87	1.080954	15.31	25.02	34.21	5.72
unico	15023	AV38	Q200	525.00	728.70	732.45	740.00	7.55	740.00	7.55	731.96	733.18	0.012772	3.78	139.06	55.08	0.76
unico	15023	AV38	Q500	611.00	728.70	730.24	740.00	9.76	740.00	9.76	732.23	744.42	0.883715	16.68	36.63	37.81	5.41
unico	14467	AV39	Q50	436.00	719.10	721.88	730.00	8.12	730.00	8.12	721.88	722.85	0.024779	4.37	99.81	51.07	1.00
unico	14467	AV39	Q200	586.00	719.10	722.35	730.00	7.65	730.00	7.65	722.35	723.47	0.024045	4.69	124.91	55.94	1.00
unico	14467	AV39	Q500	671.00	719.10	722.58	730.00	7.42	730.00	7.42	722.58	723.78	0.023746	4.85	138.45	58.40	1.00
unico	13909	AV40	Q50	436.00	710.60	714.37	719.10	4.73	719.10	4.73	712.83	714.76	0.004860	2.75	158.46	42.00	0.45
unico	13909	AV40	Q200	586.00	710.60	714.88	719.10	4.22	719.10	4.22	713.32	715.42	0.005918	3.26	179.82	42.00	0.50
unico	13909	AV40	Q500	671.00	710.60	715.13	719.10	3.97	719.10	3.97	713.57	715.76	0.006511	3.53	190.28	42.00	0.53
unico	13906	loc molini		Bridge													
unico	13903	AV40	Q50	436.00	710.60	714.27	719.10	4.83	719.10	4.83	712.83	714.68	0.005284	2.83	154.28	42.00	0.47
unico	13903	AV40	Q200	586.00	710.60	714.71	719.10	4.39	719.10	4.39	713.32	715.30	0.006709	3.39	172.71	42.00	0.53
unico	13903	AV40	Q500	671.00	710.60	714.90	719.10	4.20	719.10	4.20	713.57	715.61	0.007630	3.71	180.79	42.00	0.57
unico	13891	AV41	Q50	489.00	710.40	714.09	720.00	5.91	720.00	5.91	713.52	714.58	0.011250	3.10	157.67	75.65	0.69
unico	13891	AV41	Q200	647.00	710.40	714.67	720.00	5.33	720.00	5.33	713.94	715.18	0.009857	3.17	204.25	85.93	0.66
unico	13891	AV41	Q500	731.00	710.40	714.92	720.00	5.08	720.00	5.08	714.14	715.45	0.009512	3.22	226.78	90.49	0.65
unico	13486	AV42	Q50	489.00	706.30	710.50	720.00	9.50	720.00	9.50	709.28	710.94	0.007271	2.94	166.41	62.17	0.57
unico	13486	AV42	Q200	647.00	706.30	711.10	720.00	8.90	720.00	8.90	709.80	711.59	0.007972	3.12	207.35	76.09	0.60
unico	13486	AV42	Q500	731.00	706.30	711.37	720.00	8.63	720.00	8.63	710.06	711.89	0.008161	3.20	228.62	82.39	0.61

HEC-RAS Plan: 03_C=18 River: aveto Reach: unico (Continued)

Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	LOB Elev	L. Freeboard	ROB Elev	R. Freeboard	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
unico	13326 AV43	Q50	489.00	705.50	709.42	715.00	5.58	715.00	5.58	708.41	709.79	0.006870	2.70	180.91	74.51	0.55
unico	13326 AV43	Q200	647.00	705.50	709.99	715.00	5.01	715.00	5.01	708.87	710.41	0.006615	2.87	225.76	82.77	0.55
unico	13326 AV43	Q500	731.00	705.50	710.28	715.00	4.72	715.00	4.72	709.08	710.71	0.006347	2.92	249.92	86.13	0.55
unico	13193 AV44	Q50	489.00	703.50	707.57	710.00	2.43	715.00	7.43	707.30	708.38	0.017074	3.98	122.75	54.86	0.85
unico	13193 AV44	Q200	647.00	703.50	708.02	710.00	1.98	715.00	6.98	707.79	708.99	0.018123	4.36	148.36	60.53	0.89
unico	13193 AV44	Q500	731.00	703.50	708.15	710.00	1.85	715.00	6.85	708.03	709.26	0.020134	4.67	156.37	62.20	0.94
unico	13012 AV45	Q50	489.00	700.80	704.93	711.00	6.07	715.00	10.07	704.48	705.59	0.013585	3.61	135.34	59.99	0.77
unico	13012 AV45	Q200	647.00	700.80	705.45	711.00	5.55	715.00	9.55	704.96	706.21	0.012608	3.85	168.20	64.03	0.76
unico	13012 AV45	Q500	731.00	700.80	705.85	711.00	5.15	715.00	9.15	705.17	706.58	0.010535	3.76	194.32	66.73	0.70
unico	12519 AV46	Q50	489.00	694.80	698.20	703.60	5.40	703.60	5.40	697.52	699.07	0.012792	4.13	118.41	34.80	0.71
unico	12519 AV46	Q200	647.00	694.80	698.89	703.60	4.71	703.60	4.71	698.09	699.94	0.012698	4.55	142.21	34.80	0.72
unico	12519 AV46	Q500	731.00	694.80	698.93	703.60	4.67	703.60	4.67	698.37	700.25	0.015652	5.08	143.83	34.80	0.80
unico	12516 sp isola rotonda	Bridge														
unico	12513 AV46	Q50	489.00	694.80	697.85	703.60	5.75	703.60	5.75	697.52	698.93	0.017923	4.60	106.29	34.80	0.84
unico	12513 AV46	Q200	647.00	694.80	698.09	703.60	5.51	703.60	5.51	698.09	699.72	0.024976	5.66	114.34	34.80	1.00
unico	12513 AV46	Q500	731.00	694.80	698.37	703.60	5.23	703.60	5.23	698.37	700.13	0.024703	5.89	124.10	34.80	1.00
unico	12480 AV47	Q50	489.00	694.30	698.16	700.00	1.84	699.00	0.84	697.00	698.40	0.004991	2.19	222.79	99.38	0.47
unico	12480 AV47	Q200	647.00	694.30	698.73	700.00	1.27	699.00	0.27	697.39	699.00	0.004560	2.28	283.76	111.70	0.46
unico	12480 AV47	Q500	731.00	694.30	698.99	700.00	1.01	699.00	0.01	697.57	699.27	0.004469	2.33	313.10	117.17	0.46
unico	12062 AV48	Q50	489.00	690.27	695.40	700.00	4.60	700.00	4.60	694.22	695.83	0.007654	2.89	169.08	67.21	0.58
unico	12062 AV48	Q200	647.00	690.27	696.00	700.00	4.00	700.00	4.00	694.75	696.46	0.008284	3.01	214.78	85.38	0.61
unico	12062 AV48	Q500	731.00	690.27	696.26	700.00	3.74	700.00	3.74	694.99	696.74	0.008475	3.08	237.59	93.13	0.61
unico	11855 AV49	Q50	489.00	688.30	692.25	700.00	7.75	700.00	7.75	692.25	693.15	0.025230	4.20	116.55	64.64	1.00
unico	11855 AV49	Q200	647.00	688.30	692.69	700.00	7.31	700.00	7.31	692.69	693.68	0.024272	4.41	146.69	73.27	1.00
unico	11855 AV49	Q500	731.00	688.30	692.89	700.00	7.11	700.00	7.11	692.89	693.93	0.023898	4.51	162.01	77.29	0.99
unico	11608 AV50	Q50	489.00	685.57	690.03	700.00	9.97	700.00	9.97	688.71	690.30	0.004712	2.30	212.96	84.07	0.46
unico	11608 AV50	Q200	647.00	685.57	690.87	700.00	9.13	700.00	9.13	689.14	691.13	0.003332	2.27	284.90	87.83	0.40
unico	11608 AV50	Q500	731.00	685.57	691.28	700.00	8.72	700.00	8.72	689.35	691.55	0.002927	2.27	321.64	89.70	0.38
unico	11412 AV51	Q50	540.00	683.84	689.39	695.00	5.61	695.00	5.61	687.29	689.60	0.002738	2.05	263.91	82.46	0.37
unico	11412 AV51	Q200	710.00	683.84	690.40	695.00	4.60	695.00	4.60	687.78	690.61	0.002106	2.01	353.54	93.19	0.33
unico	11412 AV51	Q500	794.00	683.84	690.88	695.00	4.12	695.00	4.12	688.00	691.08	0.001855	1.99	398.86	96.80	0.31
unico	11046 AV52	Q50	540.00	681.18	685.55	689.48	3.93	689.48	3.93	685.11	687.13	0.020448	5.57	96.97	22.20	0.85
unico	11046 AV52	Q200	710.00	681.18	686.97	689.48	2.51	689.48	2.51	685.90	688.52	0.015560	5.53	128.47	22.20	0.73
unico	11046 AV52	Q500	794.00	681.18	687.57	689.48	1.91	689.48	1.91	686.26	689.16	0.014675	5.60	141.78	22.20	0.71
unico	11044 rezzoaglio	Bridge														
unico	11041 AV52	Q50	540.00	681.18	684.79	689.48	4.69	689.48	4.69	685.11	687.10	0.036087	6.74	80.15	22.20	1.13
unico	11041 AV52	Q200	710.00	681.18	685.80	689.48	3.68	689.48	3.68	685.90	688.24	0.029877	6.92	102.66	22.20	1.03
unico	11041 AV52	Q500	794.00	681.18	686.16	689.48	3.32	689.48	3.32	686.26	688.79	0.030016	7.18	110.63	22.20	1.03

HEC-RAS Plan: 03_C=18 River: aveto Reach: unico (Continued)

Reach	River Sta		Profile	Q Total	Min Ch El	W.S. Elev	LOB Elev	L. Freeboard	ROB Elev	R. Freeboard	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
unico	11036	AV53	Q50	540.00	681.15	683.13	690.00	6.87	690.00	6.87	684.11	686.34	0.138036	7.93	68.05	52.88	2.23
unico	11036	AV53	Q200	710.00	681.15	683.38	690.00	6.63	690.00	6.63	684.52	687.24	0.146191	8.71	81.49	57.44	2.33
unico	11036	AV53	Q500	794.00	681.15	683.47	690.00	6.53	690.00	6.53	684.71	687.70	0.152350	9.11	87.16	59.26	2.40
unico	10543	AV54	Q50	625.00	677.50	681.11	685.00	3.89	683.52	2.41	680.46	681.56	0.009505	2.96	210.95	97.05	0.64
unico	10543	AV54	Q200	852.00	677.50	681.63	685.00	3.37	683.52	1.89	680.90	682.16	0.009412	3.23	263.56	105.48	0.65
unico	10543	AV54	Q500	969.00	677.50	681.87	685.00	3.13	683.52	1.65	681.11	682.44	0.009394	3.35	289.05	109.33	0.66
unico	10027	AV55	Q50	625.00	673.80	677.87	685.00	7.13	685.00	7.13	676.70	678.11	0.004816	2.15	291.14	130.88	0.46
unico	10027	AV55	Q200	852.00	673.80	678.40	685.00	6.60	685.00	6.60	677.12	678.68	0.004879	2.33	364.96	146.07	0.47
unico	10027	AV55	Q500	969.00	673.80	678.64	685.00	6.36	685.00	6.36	677.32	678.94	0.004922	2.42	400.40	152.83	0.48
unico	9502	AV56	Q50	625.00	668.40	672.29	680.00	7.71	680.00	7.71	672.29	673.16	0.024973	4.13	151.33	86.22	1.00
unico	9502	AV56	Q200	852.00	668.40	672.76	680.00	7.24	680.00	7.24	672.76	673.73	0.024169	4.37	194.76	99.36	1.00
unico	9502	AV56	Q500	969.00	668.40	672.97	680.00	7.03	680.00	7.03	672.97	673.99	0.023669	4.47	216.75	105.38	1.00
unico	8965	AV57	Q50	865.00	664.35	669.16	680.00	10.84	680.00	10.84	667.26	669.31	0.002360	1.71	506.93	188.40	0.33
unico	8965	AV57	Q200	1181.00	664.35	669.71	680.00	10.29	680.00	10.29	667.71	669.89	0.002623	1.92	615.03	207.26	0.36
unico	8965	AV57	Q500	1384.00	664.35	670.02	680.00	9.98	680.00	9.98	667.97	670.23	0.002739	2.03	681.88	218.41	0.37
unico	8694	AV58	Q50	865.00	662.55	667.15	675.00	7.85	675.00	7.85	666.98	667.84	0.019733	3.67	235.40	133.51	0.88
unico	8694	AV58	Q200	1181.00	662.55	667.94	675.00	7.06	675.00	7.06	667.45	668.50	0.012966	3.33	354.85	170.62	0.74
unico	8694	AV58	Q500	1384.00	662.55	668.41	675.00	6.59	675.00	6.59	667.70	668.91	0.010165	3.14	440.97	192.99	0.66
unico	8415	AV59	Q50	865.00	660.55	666.21	675.00	8.79	675.00	8.79	664.07	666.39	0.002028	1.90	455.19	126.95	0.32
unico	8415	AV59	Q200	1181.00	660.55	667.09	675.00	7.91	675.00	7.91	664.58	667.31	0.001857	2.08	567.75	128.76	0.32
unico	8415	AV59	Q500	1384.00	660.55	667.60	675.00	7.40	675.00	7.40	664.87	667.85	0.001790	2.18	634.21	129.83	0.32
unico	8075	AV60	Q50	865.00	658.60	663.14	670.00	6.86	670.00	6.86	663.14	664.65	0.021032	5.46	158.51	52.07	1.00
unico	8075	AV60	Q200	1181.00	658.60	663.92	670.00	6.08	670.00	6.08	663.92	665.67	0.020133	5.85	201.74	57.62	1.00
unico	8075	AV60	Q500	1384.00	658.60	664.38	670.00	5.62	670.00	5.62	664.38	666.25	0.019593	6.05	228.67	60.81	1.00
unico	7868	AV61	Q50	954.00	656.40	662.31	670.00	7.69	670.00	7.69	660.47	662.60	0.003865	2.41	395.31	126.02	0.43
unico	7868	AV61	Q200	1290.00	656.40	663.23	670.00	6.77	670.00	6.77	661.08	663.54	0.003438	2.48	520.53	146.05	0.42
unico	7868	AV61	Q500	1505.00	656.40	663.74	670.00	6.26	670.00	6.26	661.42	664.06	0.003259	2.52	597.31	157.08	0.41
unico	7656	AV62	Q50	954.00	654.20	660.95	665.00	4.05	665.00	4.05	659.27	661.55	0.006274	3.41	279.92	73.26	0.56
unico	7656	AV62	Q200	1290.00	654.20	661.80	665.00	3.20	665.00	3.20	660.07	662.51	0.006757	3.72	346.43	83.58	0.58
unico	7656	AV62	Q500	1505.00	654.20	662.26	665.00	2.74	665.00	2.74	660.55	663.04	0.006991	3.90	386.35	89.20	0.60
unico	7372	AV63	Q50	954.00	653.20	658.68	665.00	6.32	665.00	6.32	657.77	659.39	0.009262	3.73	255.96	81.18	0.67
unico	7372	AV63	Q200	1290.00	653.20	659.41	665.00	5.59	665.00	5.59	658.45	660.25	0.009391	4.05	318.67	90.17	0.69
unico	7372	AV63	Q500	1505.00	653.20	659.83	665.00	5.17	665.00	5.17	658.83	660.73	0.009405	4.21	357.22	95.28	0.69
unico	7151	AV64	Q50	954.00	651.50	656.75	665.00	8.25	665.00	8.25	655.70	657.37	0.008771	3.48	273.93	91.06	0.64
unico	7151	AV64	Q200	1290.00	651.50	657.64	665.00	7.36	665.00	7.36	656.40	658.29	0.007915	3.56	362.45	107.54	0.62
unico	7151	AV64	Q500	1505.00	651.50	658.30	665.00	6.70	665.00	6.70	656.79	658.90	0.006681	3.44	436.97	119.67	0.58
unico	6984	AV65	Q50	998.00	650.80	655.95	665.00	9.05	665.00	9.05	654.54	656.28	0.004411	2.56	389.74	124.07	0.46
unico	6984	AV65	Q200	1352.00	650.80	657.12	665.00	7.88	665.00	7.88	655.06	657.44	0.002967	2.51	538.26	130.58	0.39

HEC-RAS Plan: 03_C=18 River: aveto Reach: unico (Continued)

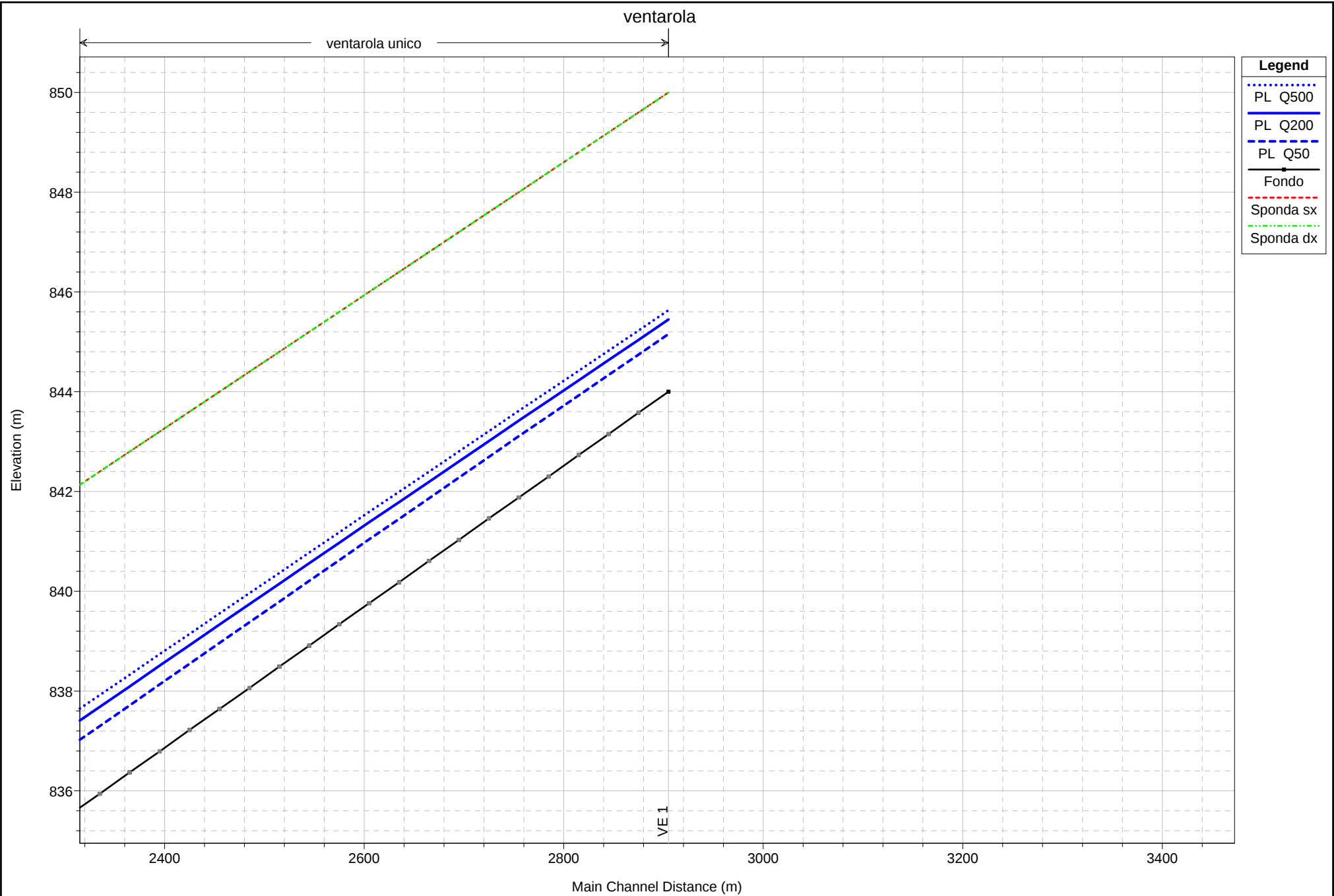
Reach	River Sta		Profile	Q Total	Min Ch El	W.S. Elev	LOB Elev	L. Freeboard	ROB Elev	R. Freeboard	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
unico	6984	AV65	Q500	1613.00	650.80	657.86	665.00	7.14	665.00	7.14	655.36	658.19	0.002523	2.53	636.56	134.71	0.37
unico	6546	AV66	Q50	998.00	648.00	654.76	658.00	3.24	656.00	1.24	651.97	655.12	0.002797	2.66	375.59	73.65	0.38
unico	6546	AV66	Q200	1352.00	648.00	656.10	658.00	1.90	656.00	-0.10	652.74	656.51	0.002464	2.85	474.18	73.65	0.36
unico	6546	AV66	Q500	1613.00	648.00	656.85	658.00	1.15	656.00	-0.85	653.22	657.32	0.002491	3.05	529.10	73.65	0.36
unico	6542	alpepiana	Bridge														
unico	6536	AV66	Q50	998.00	648.00	654.10	658.00	3.90	656.00	1.90	651.97	654.57	0.004354	3.05	326.74	73.65	0.46
unico	6536	AV66	Q200	1352.00	648.00	654.88	658.00	3.12	656.00	1.12	652.74	655.51	0.004777	3.52	384.21	73.65	0.49
unico	6536	AV66	Q500	1613.00	648.00	655.35	658.00	2.65	656.00	0.65	653.22	656.10	0.005176	3.85	418.88	73.65	0.52
unico	6535	AV67	Q50	998.00	647.95	653.90	660.00	6.10	660.00	6.10	652.58	654.55	0.006979	3.56	280.02	76.59	0.59
unico	6535	AV67	Q200	1352.00	647.95	654.70	660.00	5.30	660.00	5.30	653.32	655.49	0.007316	3.93	344.24	84.27	0.62
unico	6535	AV67	Q500	1613.00	647.95	655.20	660.00	4.80	660.00	4.80	653.80	656.09	0.007603	4.16	387.90	89.71	0.64
unico	6267	AV68	Q50	998.00	646.95	651.83	660.00	8.17	660.00	8.17	650.25	652.13	0.003567	2.43	410.38	120.62	0.42
unico	6267	AV68	Q200	1352.00	646.95	652.55	660.00	7.45	660.00	7.45	650.71	652.92	0.003587	2.71	498.12	124.38	0.43
unico	6267	AV68	Q500	1613.00	646.95	653.04	660.00	6.96	660.00	6.96	651.02	653.46	0.003556	2.88	560.16	126.97	0.44
unico	5875	AV69	Q50	1009.00	644.44	650.17	655.00	4.83	655.00	4.83	648.59	650.54	0.004650	2.67	378.11	117.94	0.48
unico	5875	AV69	Q200	1368.00	644.44	650.99	655.00	4.01	655.00	4.01	649.19	651.41	0.004136	2.88	475.42	120.90	0.46
unico	5875	AV69	Q500	1635.00	644.44	651.54	655.00	3.46	655.00	3.46	649.55	652.00	0.003910	3.02	542.10	122.89	0.46
unico	5482	AV70	Q50	1009.00	641.55	647.50	655.00	7.50	655.00	7.50	646.29	648.21	0.007537	3.73	270.58	72.61	0.62
unico	5482	AV70	Q200	1368.00	641.55	648.19	655.00	6.81	655.00	6.81	647.02	649.11	0.008490	4.25	322.22	77.67	0.67
unico	5482	AV70	Q500	1635.00	641.55	648.63	655.00	6.37	655.00	6.37	647.50	649.70	0.009094	4.58	357.26	80.92	0.70
unico	5249	AV71	Q50	1009.00	640.00	645.01	655.00	9.99	655.00	9.99	644.49	645.89	0.013569	4.15	242.97	85.91	0.79
unico	5249	AV71	Q200	1368.00	640.00	645.72	655.00	9.28	655.00	9.28	645.15	646.74	0.012189	4.49	304.55	87.80	0.77
unico	5249	AV71	Q500	1635.00	640.00	646.23	655.00	8.77	655.00	8.77	645.52	647.34	0.011273	4.68	349.70	89.16	0.75
unico	4824	AV72	Q50	1009.00	636.51	642.24	650.00	7.76	650.00	7.76	640.54	642.71	0.004444	3.05	331.21	81.30	0.48
unico	4824	AV72	Q200	1368.00	636.51	643.24	650.00	6.76	650.00	6.76	641.16	643.79	0.004143	3.30	414.46	85.15	0.48
unico	4824	AV72	Q500	1635.00	636.51	643.89	650.00	6.11	650.00	6.11	641.56	644.50	0.004035	3.47	470.99	87.67	0.48
unico	4482	AV73	Q50	1009.00	634.40	640.65	645.00	4.35	645.00	4.35	638.63	641.19	0.004409	3.26	309.60	67.59	0.49
unico	4482	AV73	Q200	1368.00	634.40	641.67	645.00	3.33	645.00	3.33	639.42	642.33	0.004351	3.60	379.77	69.88	0.49
unico	4482	AV73	Q500	1635.00	634.40	642.26	645.00	2.74	645.00	2.74	639.93	643.03	0.004530	3.88	421.75	71.22	0.51
unico	4171	AV74	Q50	1051.00	631.75	639.30	645.00	5.70	645.00	5.70	637.03	639.80	0.004432	3.13	335.79	76.08	0.48
unico	4171	AV74	Q200	1419.00	631.75	640.41	645.00	4.59	645.00	4.59	637.88	640.98	0.004166	3.34	424.96	83.38	0.47
unico	4171	AV74	Q500	1666.00	631.75	641.05	645.00	3.96	645.00	3.96	638.36	641.66	0.003998	3.48	478.55	85.24	0.47
unico	3692	AV75	Q50	1051.00	628.16	635.45	640.00	4.55	640.00	4.55	634.44	636.62	0.010514	4.77	220.24	50.14	0.73
unico	3692	AV75	Q200	1419.00	628.16	636.29	640.00	3.71	640.00	3.71	635.40	637.77	0.011590	5.38	263.84	53.85	0.78
unico	3692	AV75	Q500	1666.00	628.16	636.77	640.00	3.23	640.00	3.23	635.96	638.45	0.012289	5.74	290.04	55.96	0.81
unico	3384	AV76	Q50	1051.00	626.55	633.16	640.00	6.84	640.00	6.84	631.79	633.83	0.007096	3.64	288.81	77.01	0.60
unico	3384	AV76	Q200	1419.00	626.55	634.16	640.00	5.84	640.00	5.84	632.57	634.91	0.006608	3.83	370.64	86.72	0.59
unico	3384	AV76	Q500	1666.00	626.55	634.79	640.00	5.21	640.00	5.21	633.02	635.57	0.006212	3.90	427.36	92.85	0.58

HEC-RAS Plan: 03_C=18 River: aveto Reach: unico (Continued)

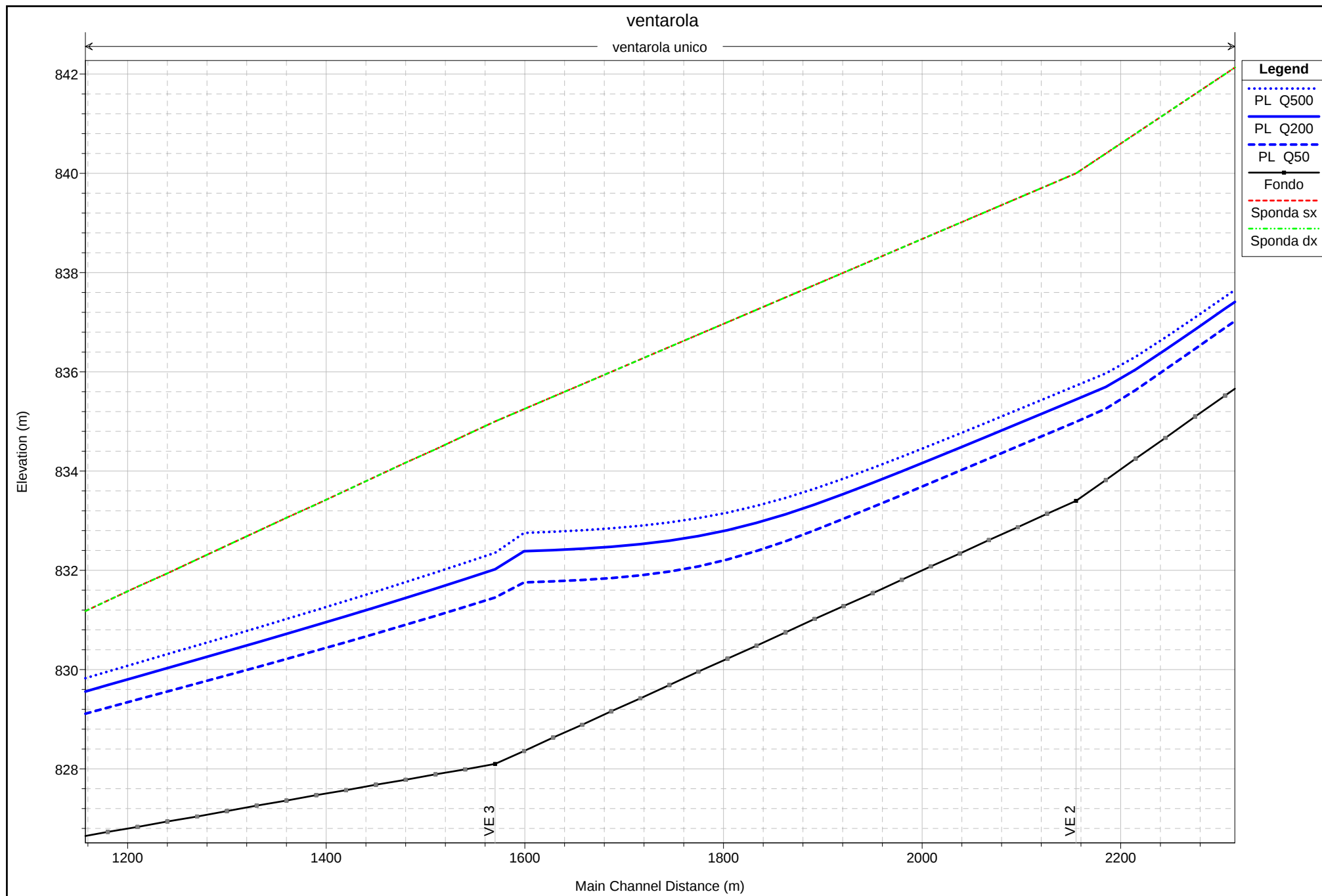
Reach	River Sta		Profile	Q Total	Min Ch El	W.S. Elev	LOB Elev	L. Freeboard	ROB Elev	R. Freeboard	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
unico	3140	AV77	Q50	1051.00	625.30	631.35	640.00	8.65	640.00	8.65	629.95	632.09	0.007157	3.81	275.91	67.51	0.60
unico	3140	AV77	Q200	1419.00	625.30	632.59	640.00	7.41	640.00	7.41	630.71	633.36	0.006033	3.89	365.02	75.76	0.57
unico	3140	AV77	Q500	1666.00	625.30	633.36	640.00	6.64	640.00	6.64	631.21	634.14	0.005492	3.92	424.75	80.82	0.55
unico	2979	AV78	Q50	1051.00	624.40	630.23	635.00	4.77	635.00	4.77	628.58	630.99	0.006473	3.86	272.40	59.30	0.57
unico	2979	AV78	Q200	1419.00	624.40	631.65	635.00	3.35	635.00	3.35	629.41	632.43	0.005615	3.90	363.87	69.72	0.54
unico	2979	AV78	Q500	1666.00	624.40	632.50	635.00	2.50	635.00	2.50	629.91	633.28	0.005150	3.91	425.96	75.99	0.53
unico	2864	AV79	Q50	1051.00	620.64	628.85	630.18	1.33	626.17	-2.68	627.30	630.06	0.009435	4.87	215.67	38.62	0.66
unico	2864	AV79	Q200	1419.00	620.64	630.03	630.18	0.15	626.17	-3.86	628.39	631.52	0.009905	5.40	262.95	41.18	0.68
unico	2864	AV79	Q500	1666.00	620.64	630.73	630.18	-0.55	626.17	-4.56	629.03	632.39	0.010022	5.70	292.11	41.50	0.69
unico	2771	AV80	Q50	1051.00	620.50	628.00	635.12	7.12	635.15	7.15	626.48	629.17	0.009391	4.80	219.06	40.49	0.66
unico	2771	AV80	Q200	1419.00	620.50	629.16	635.12	5.96	635.15	5.99	627.54	630.59	0.009686	5.30	267.84	43.54	0.68
unico	2771	AV80	Q500	1666.00	620.50	629.87	635.12	5.25	635.15	5.28	628.19	631.45	0.009739	5.56	299.65	45.41	0.69
unico	2695	AV81	Q50	1051.00	620.21	628.07	635.08	7.01	650.13	22.06	624.81	628.60	0.003046	3.22	326.32	48.92	0.40
unico	2695	AV81	Q200	1419.00	620.21	629.27	635.08	5.81	650.13	20.86	625.69	629.96	0.003420	3.67	386.26	51.32	0.43
unico	2695	AV81	Q500	1666.00	620.21	630.00	635.08	5.08	650.13	20.13	626.22	630.79	0.003604	3.92	424.48	52.83	0.44
unico	2566	AV82	Q50	1051.00	620.00	626.75	635.00	8.25	635.00	8.25	625.69	627.89	0.009673	4.74	221.81	47.52	0.70
unico	2566	AV82	Q200	1419.00	620.00	627.86	635.00	7.14	635.00	7.14	626.57	629.21	0.009253	5.15	275.61	49.73	0.70
unico	2566	AV82	Q500	1666.00	620.00	628.57	635.00	6.43	635.00	6.43	627.12	630.03	0.008902	5.35	311.50	51.15	0.69
unico	2034	AV83	Q50	1051.00	617.00	624.55	630.00	5.45	630.00	5.45	621.70	625.00	0.003092	2.96	355.00	65.40	0.41
unico	2034	AV83	Q200	1419.00	617.00	626.01	630.00	3.99	630.00	3.99	622.49	626.51	0.002729	3.13	453.85	69.47	0.39
unico	2034	AV83	Q500	1666.00	617.00	626.91	630.00	3.09	630.00	3.09	622.98	627.44	0.002560	3.22	516.97	71.59	0.38
unico	1709	AV84	Q50	1051.00	616.60	624.22	630.00	5.78	630.00	5.78	620.08	624.40	0.000978	1.88	559.96	86.73	0.24
unico	1709	AV84	Q200	1419.00	616.60	625.73	630.00	4.27	630.00	4.27	620.65	625.95	0.000921	2.05	692.57	88.27	0.23
unico	1709	AV84	Q500	1666.00	616.60	626.65	630.00	3.35	630.00	3.35	621.01	626.89	0.000901	2.15	774.08	89.10	0.23
unico	1444	AV85	Q50	1051.00	616.40	623.93	630.00	6.07	630.00	6.07	620.04	624.12	0.001113	1.95	539.22	88.23	0.25
unico	1444	AV85	Q200	1419.00	616.40	625.47	630.00	4.53	630.00	4.53	620.61	625.69	0.001003	2.10	677.26	90.58	0.24
unico	1444	AV85	Q500	1666.00	616.40	626.40	630.00	3.60	630.00	3.60	620.98	626.64	0.000960	2.19	761.83	91.35	0.24
unico	1168	AV86	Q50	1051.00	614.60	623.70	630.00	6.30	630.00	6.30	619.43	623.84	0.000830	1.69	623.54	104.82	0.22
unico	1168	AV86	Q200	1419.00	614.60	625.28	630.00	4.72	630.00	4.72	620.07	625.44	0.000733	1.79	793.35	110.47	0.21
unico	1168	AV86	Q500	1666.00	614.60	626.22	630.00	3.78	630.00	3.78	620.42	626.40	0.000698	1.85	899.62	114.19	0.21
unico	808	AV87	Q50	1051.00	614.60	623.40	630.00	6.60	630.00	6.60	617.79	623.56	0.000744	1.79	588.04	78.14	0.21
unico	808	AV87	Q200	1419.00	614.60	624.96	630.00	5.04	630.00	5.04	618.48	625.17	0.000771	1.99	714.10	82.66	0.22
unico	808	AV87	Q500	1666.00	614.60	625.90	630.00	4.10	630.00	4.10	618.91	626.13	0.000783	2.10	792.61	84.85	0.22
unico	0	AV 88	Q50	1051.00	614.60	622.66	630.00	7.34	630.00	7.34	617.79	622.86	0.001000	1.98	531.50	76.03	0.24
unico	0	AV 88	Q200	1419.00	614.60	624.21	630.00	5.79	630.00	5.79	618.48	624.45	0.001000	2.17	652.89	80.50	0.24
unico	0	AV 88	Q500	1666.00	614.60	625.14	630.00	4.86	630.00	4.86	618.91	625.41	0.001001	2.29	728.98	83.09	0.25

Torrente Ventarola

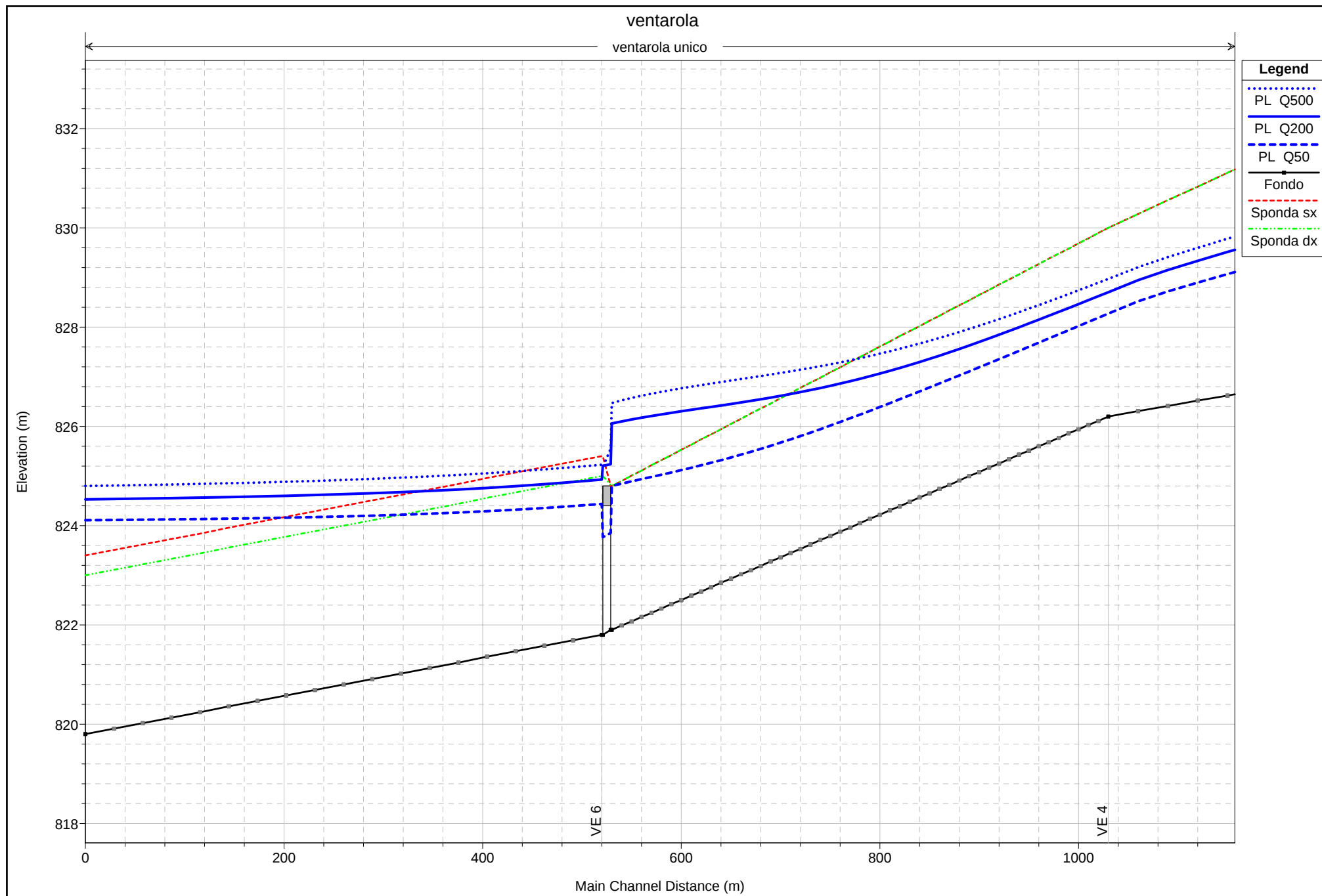
- Profili di corrente
- Sezioni idrauliche
- Tabelle dei risultati



1 cm Horiz. = 50 m 1 cm Vert. = 1 m



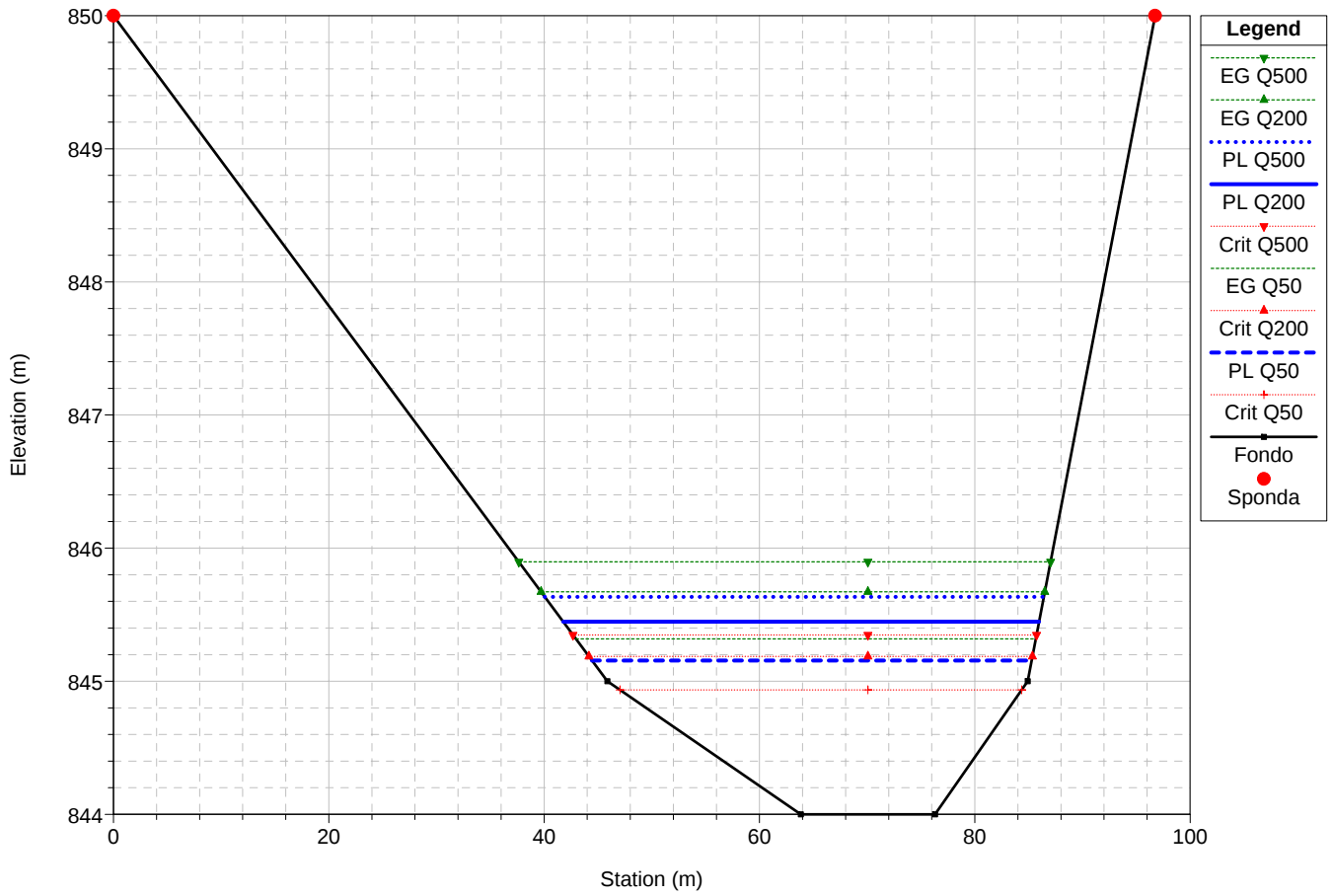
1 cm Horiz. = 50 m 1 cm Vert. = 1 m



1 cm Horiz. = 50 m 1 cm Vert. = 1 m

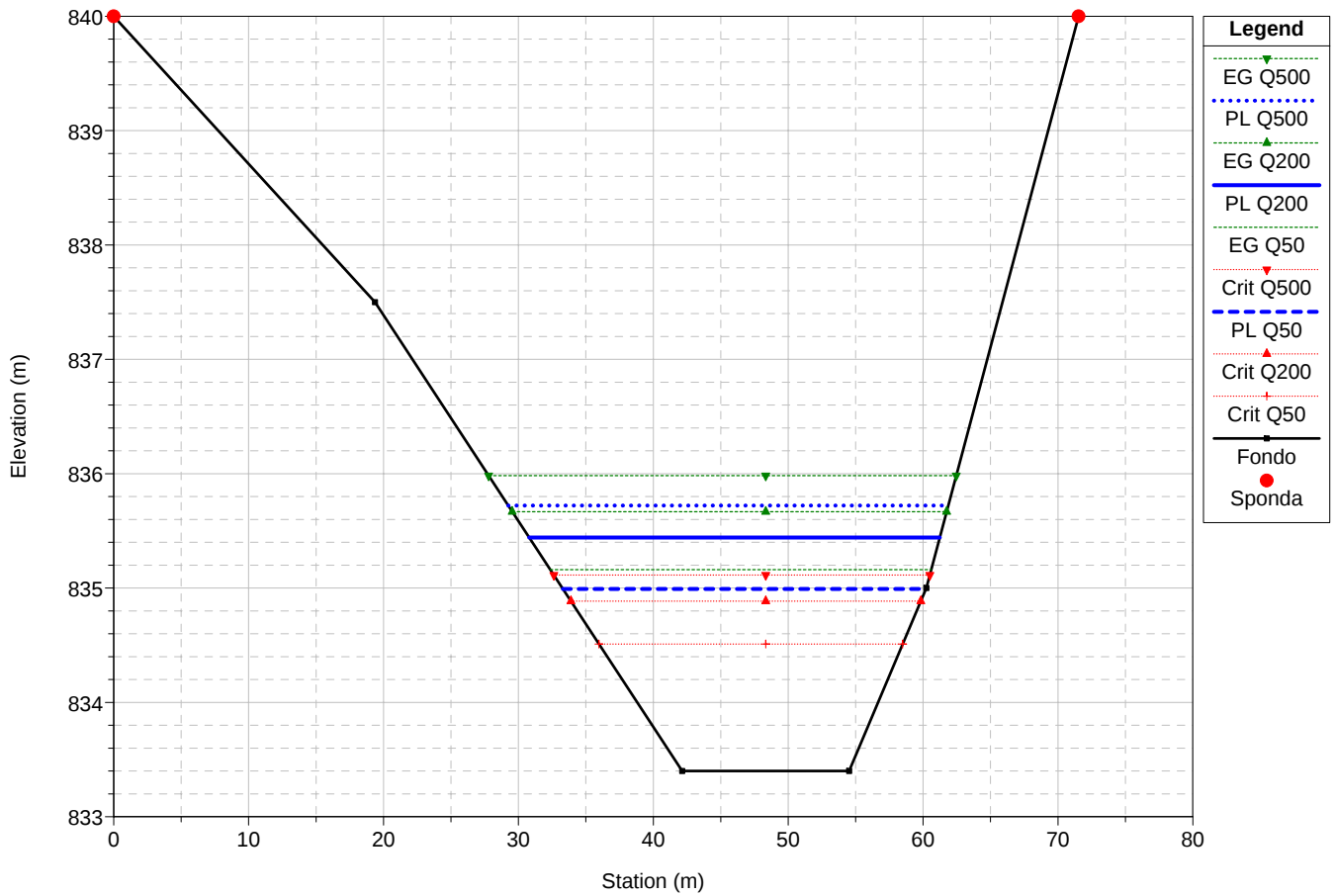
ventarola

River = ventarola Reach = unico VE 1

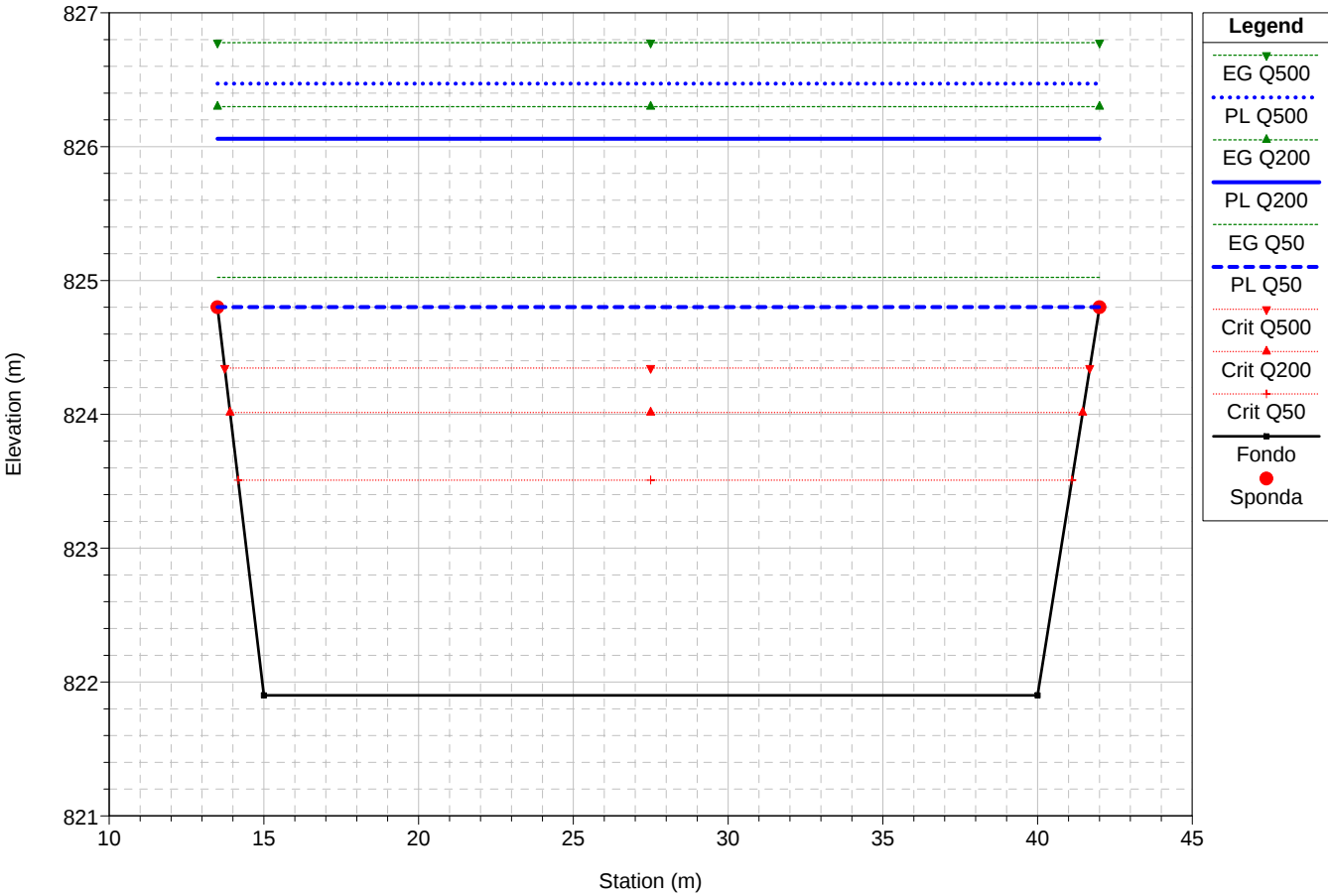


ventarola

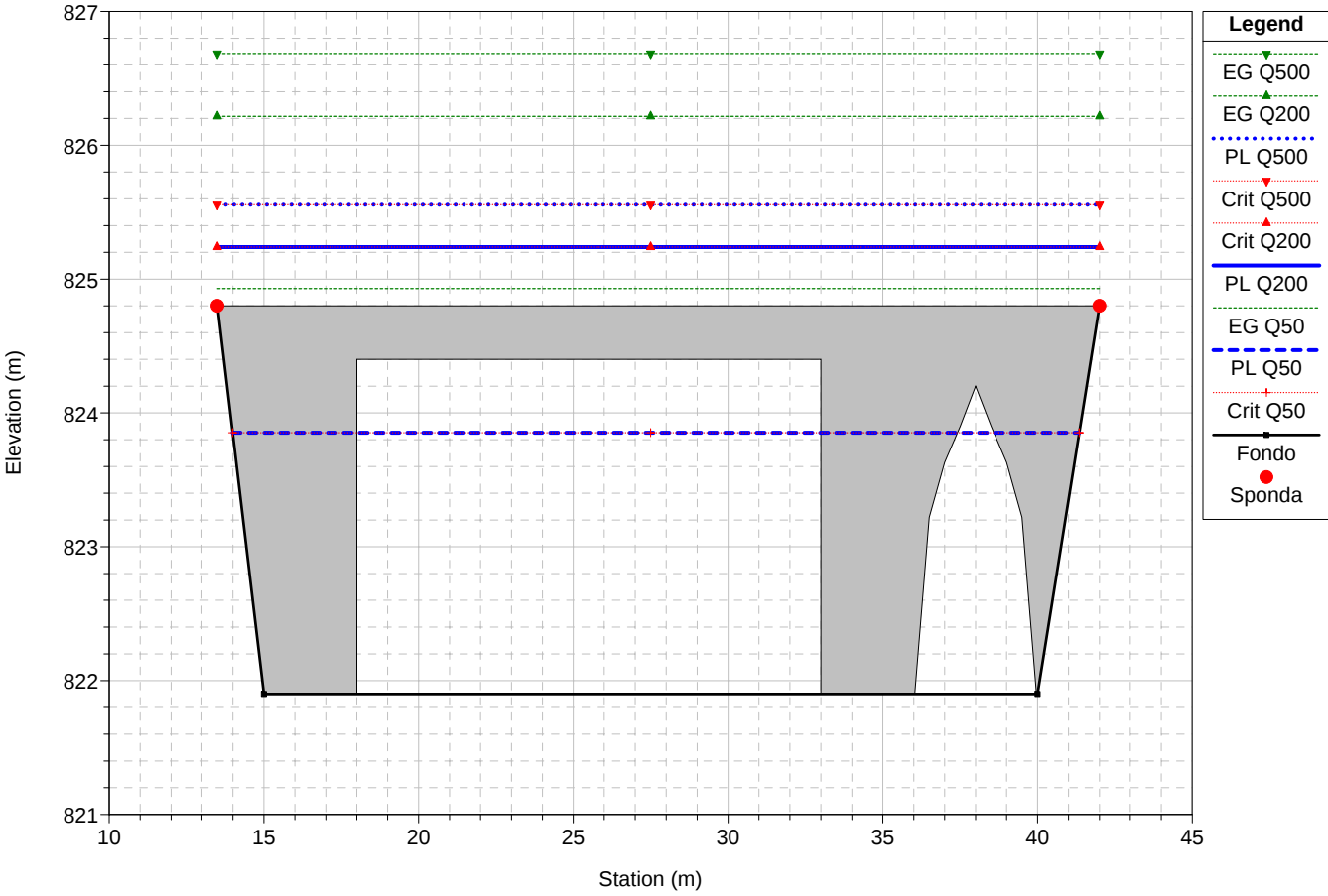
River = ventarola Reach = unico VE 2



ventarola
River = ventarola Reach = unico VE 5 a monte ponte

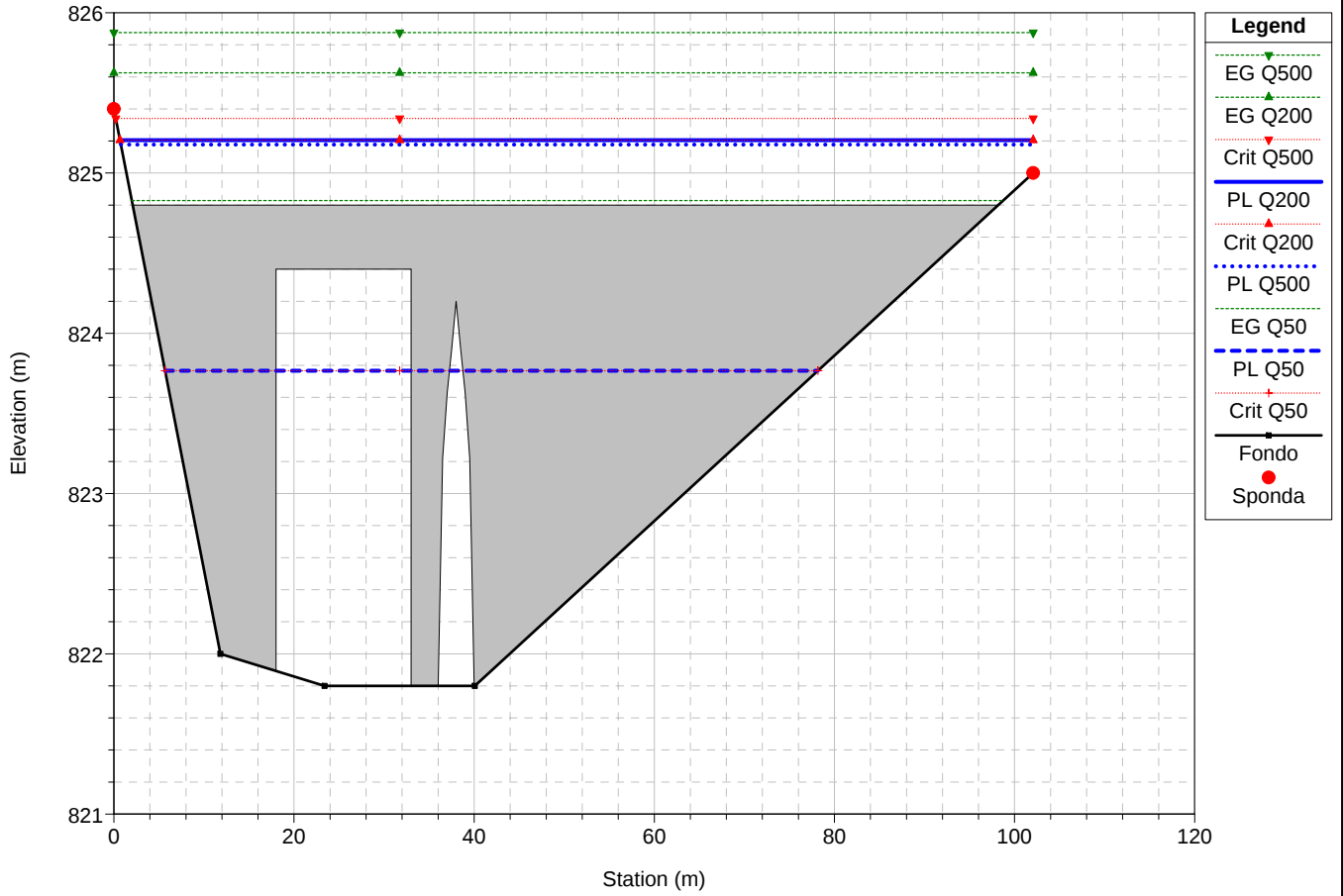


ventarola
River = ventarola Reach = unico VE 5 ponte



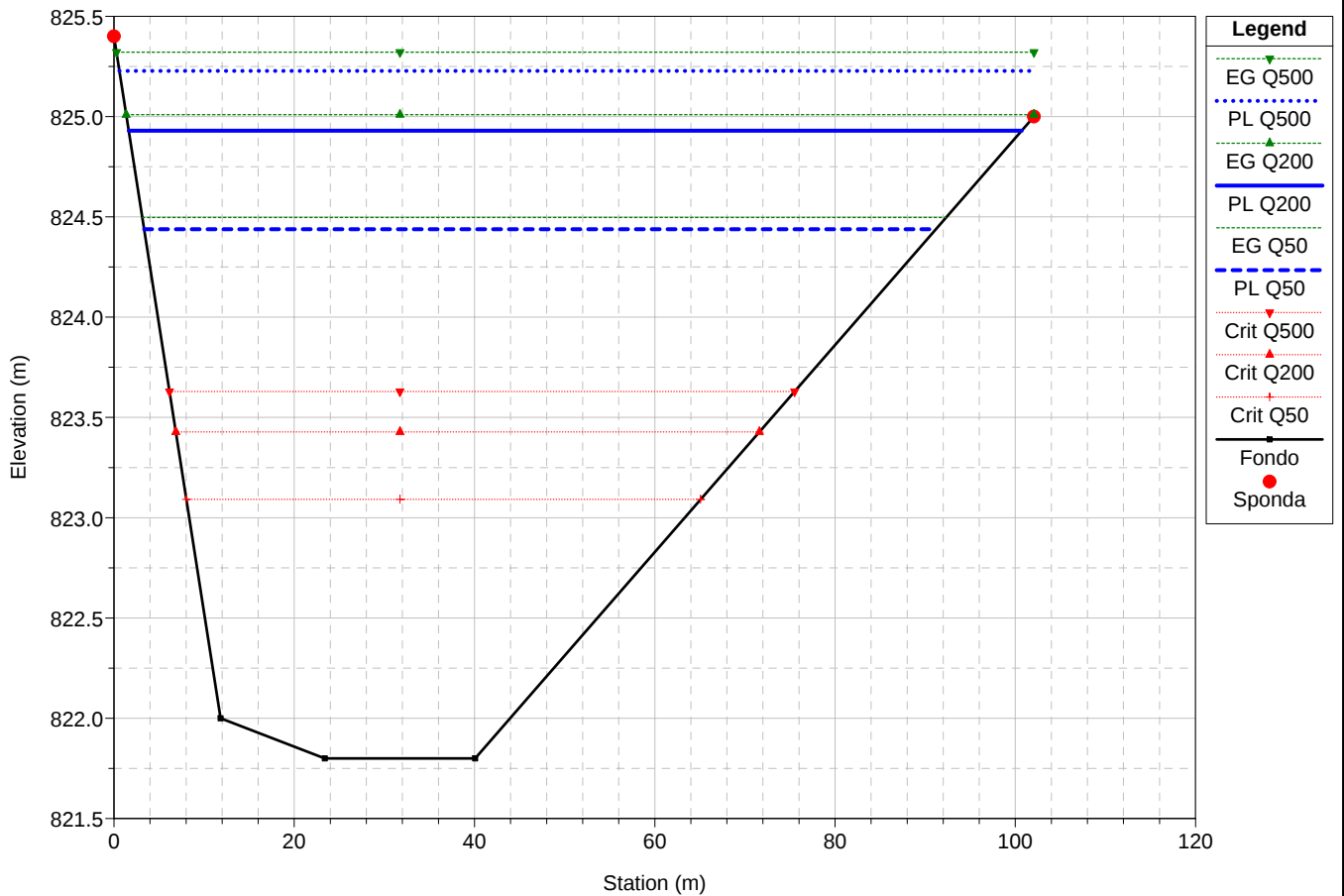
ventarola

River = ventarola Reach = unico VE 5 ponte



ventarola

River = ventarola Reach = unico VE 6 a valle ponte



HEC-RAS Plan: 01_Ventarola River: ventarola Reach: unico

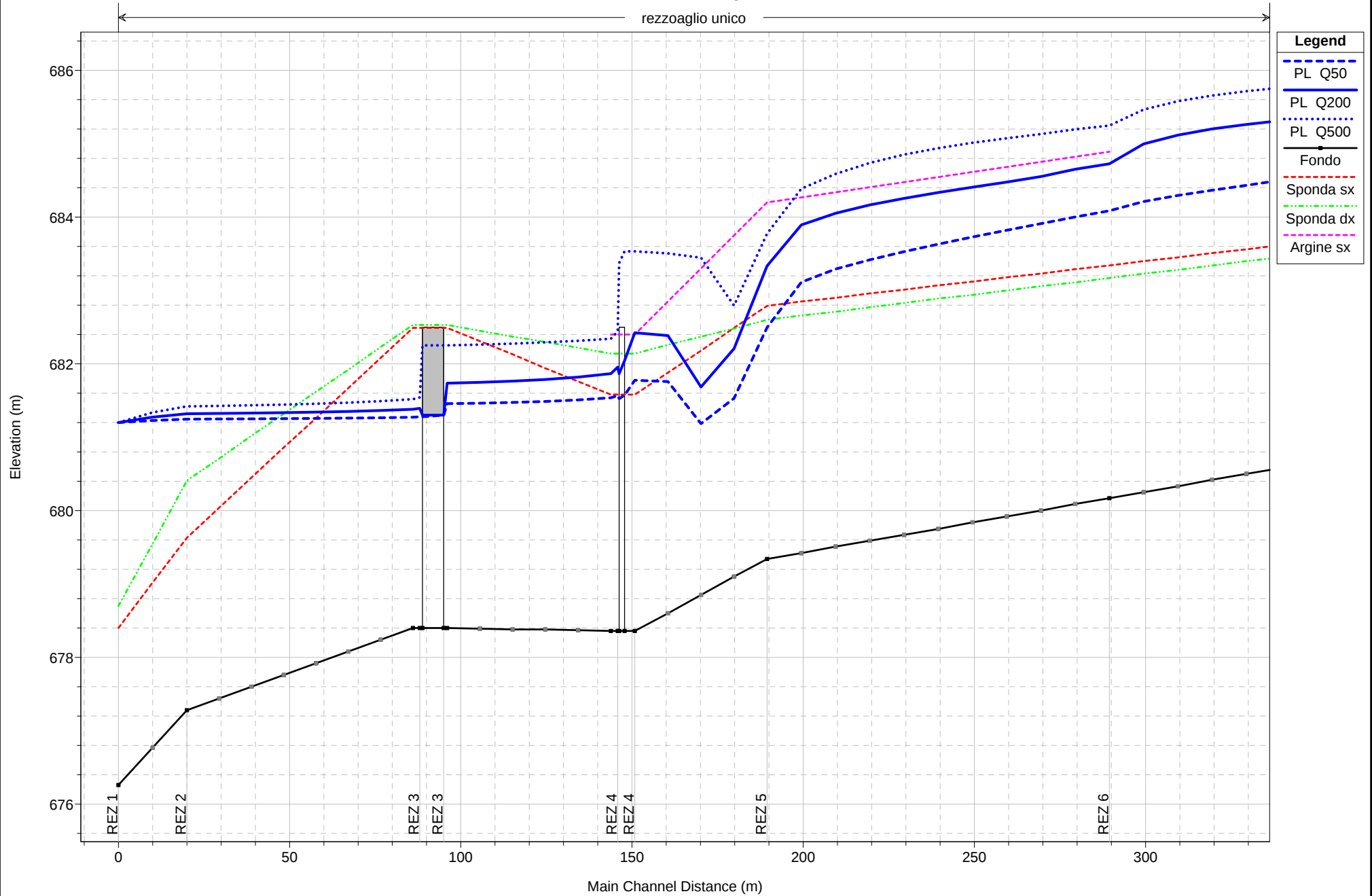
Reach	River Sta		Profile	Q Total	Min Ch El	W.S. Elev	LOB Elev	L. Freeboard	ROB Elev	R. Freeboard	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
unico	7	VE 1	Q50	57.00	844.00	845.16	850.00	4.84	850.00	4.84	844.93	845.32	0.013373	1.78	31.98	40.84	0.64
unico	7	VE 1	Q200	93.00	844.00	845.45	850.00	4.55	850.00	4.55	845.19	845.67	0.013293	2.10	44.38	44.20	0.67
unico	7	VE 1	Q500	120.00	844.00	845.63	850.00	4.37	850.00	4.37	845.35	845.90	0.013222	2.27	52.81	46.35	0.68
unico	6	VE 2	Q50	57.00	833.40	834.99	840.00	5.01	840.00	5.01	834.51	835.16	0.008369	1.82	31.28	26.91	0.54
unico	6	VE 2	Q200	93.00	833.40	835.44	840.00	4.56	840.00	4.56	834.88	835.67	0.008326	2.10	44.20	30.44	0.56
unico	6	VE 2	Q500	120.00	833.40	835.72	840.00	4.28	840.00	4.28	835.11	835.98	0.008314	2.26	53.00	32.62	0.57
unico	5	VE 3	Q50	162.00	828.10	831.45	835.00	3.55	835.00	3.55	830.58	831.68	0.006542	2.12	76.48	43.54	0.51
unico	5	VE 3	Q200	246.00	828.10	832.02	835.00	2.98	835.00	2.98	831.09	832.31	0.006886	2.38	103.55	51.60	0.54
unico	5	VE 3	Q500	307.00	828.10	832.35	835.00	2.65	835.00	2.65	831.40	832.68	0.007068	2.53	121.51	56.32	0.55
unico	4	VE 4	Q50	162.00	826.20	828.27	830.00	1.73	830.00	1.73	827.76	828.45	0.008296	1.88	85.95	70.54	0.55
unico	4	VE 4	Q200	246.00	826.20	828.70	830.00	1.30	830.00	1.30	828.10	828.92	0.007993	2.07	118.97	82.64	0.55
unico	4	VE 4	Q500	307.00	826.20	828.97	830.00	1.03	830.00	1.03	828.31	829.21	0.007719	2.16	142.20	90.18	0.55
unico	3	VE 5	Q50	162.00	821.90	824.80	824.80	0.00	824.80	0.00	823.51	825.02	0.004007	2.09	77.62	28.50	0.40
unico	3	VE 5	Q200	246.00	821.90	826.06	824.80	-1.26	824.80	-1.26	824.01	826.30	0.002887	2.17	113.45	28.50	0.35
unico	3	VE 5	Q500	307.00	821.90	826.47	824.80	-1.67	824.80	-1.67	824.35	826.78	0.003342	2.45	125.19	28.50	0.37
unico	2.9	VE 5		Bridge													
unico	2	VE 6	Q50	162.00	821.80	824.44	825.40	0.96	825.00	0.56	823.09	824.50	0.001696	1.07	151.16	87.85	0.26
unico	2	VE 6	Q200	246.00	821.80	824.93	825.40	0.47	825.00	0.07	823.43	825.01	0.001896	1.25	197.09	99.08	0.28
unico	2	VE 6	Q500	307.00	821.80	825.23	825.40	0.17	825.00	-0.23	823.63	825.32	0.001907	1.35	227.12	101.47	0.29
unico	1		Q50	162.00	819.80	824.11	823.40	-0.71	823.00	-1.11	821.09	824.12	0.000180	0.51	317.10	102.07	0.09
unico	1		Q200	246.00	819.80	824.53	823.40	-1.13	823.00	-1.53	821.42	824.55	0.000274	0.68	359.96	102.07	0.12
unico	1		Q500	307.00	819.80	824.80	823.40	-1.40	823.00	-1.80	821.63	824.83	0.000336	0.79	387.54	102.07	0.13

Torrente Rezzoaglio

- Profili di corrente
- Sezioni idrauliche
- Tabelle dei risultati

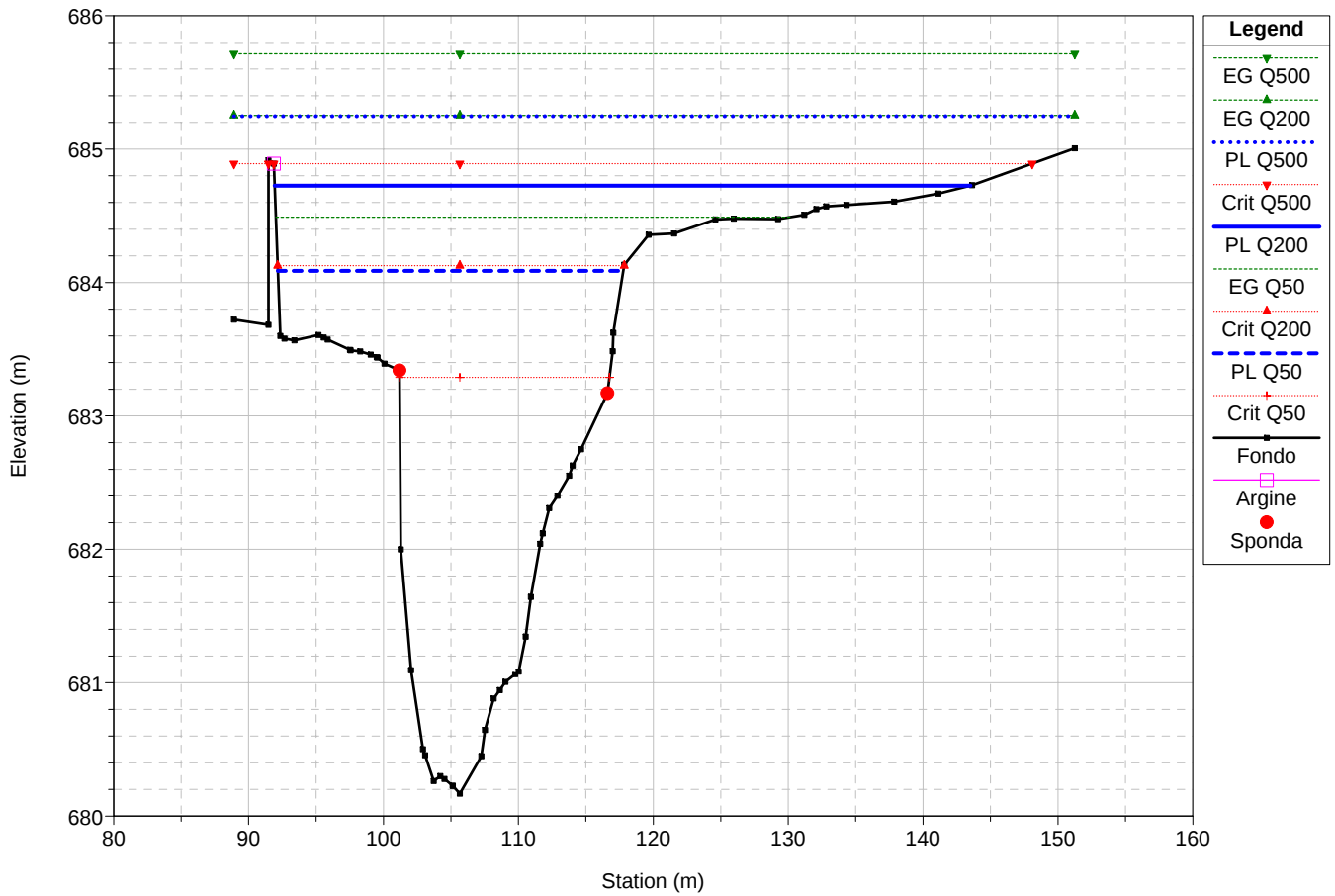
Torrente Rezzoaglio

rezzoaglio unico



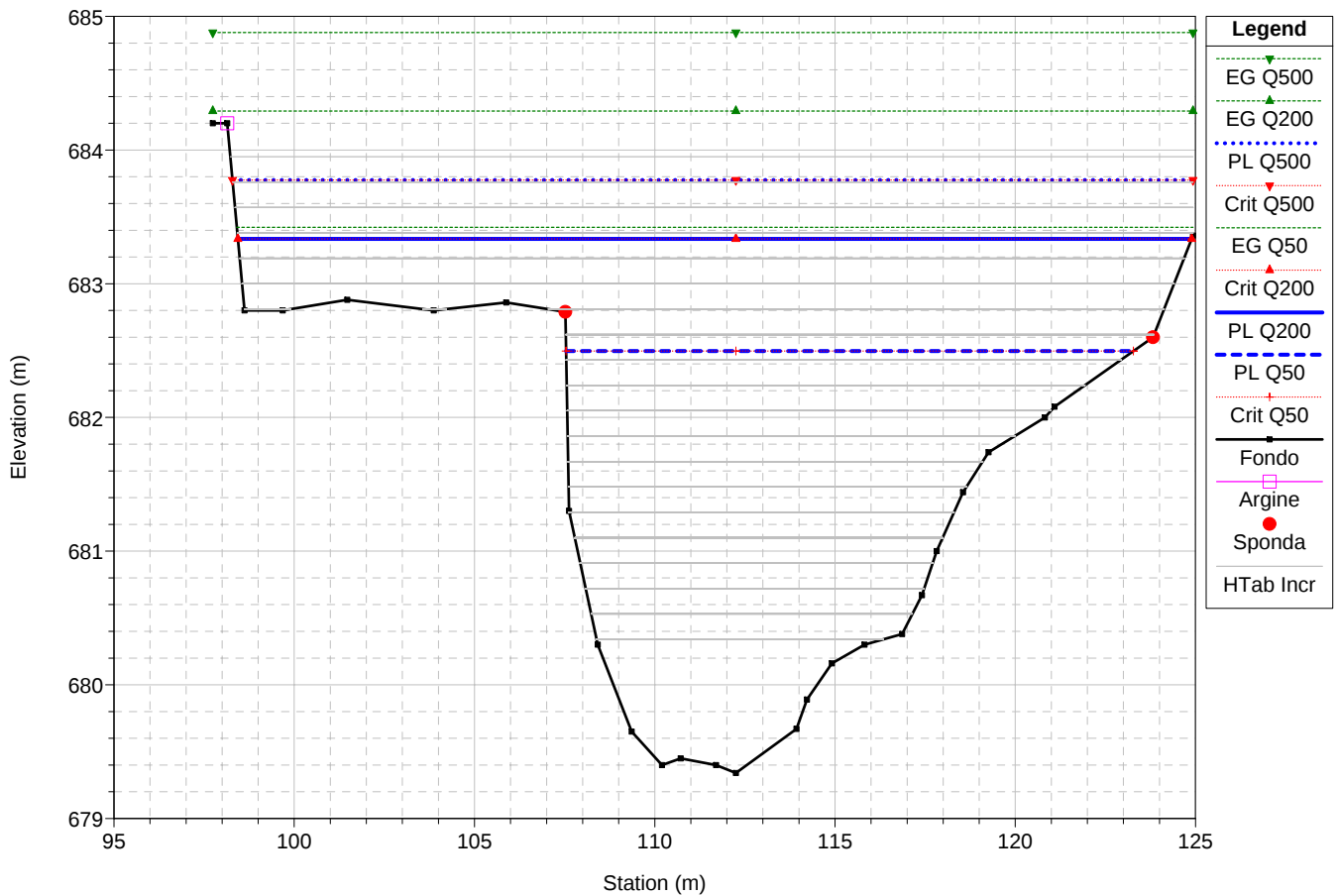
Torrente Rezzoaglio

River = rezzoaglio Reach = unico REZ 6 Sez.6



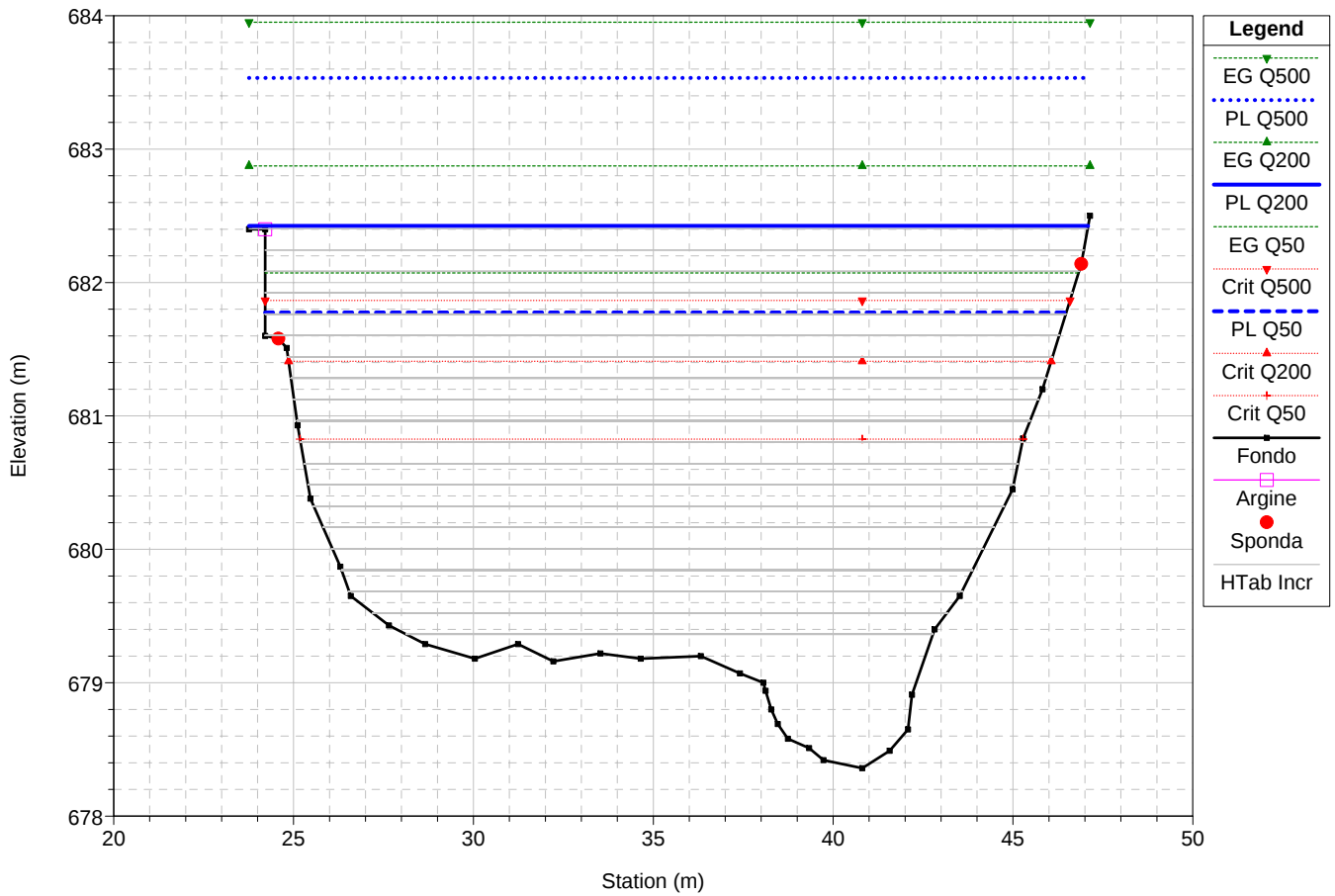
Torrente Rezzoaglio

River = rezzoaglio Reach = unico REZ 5 sez.5



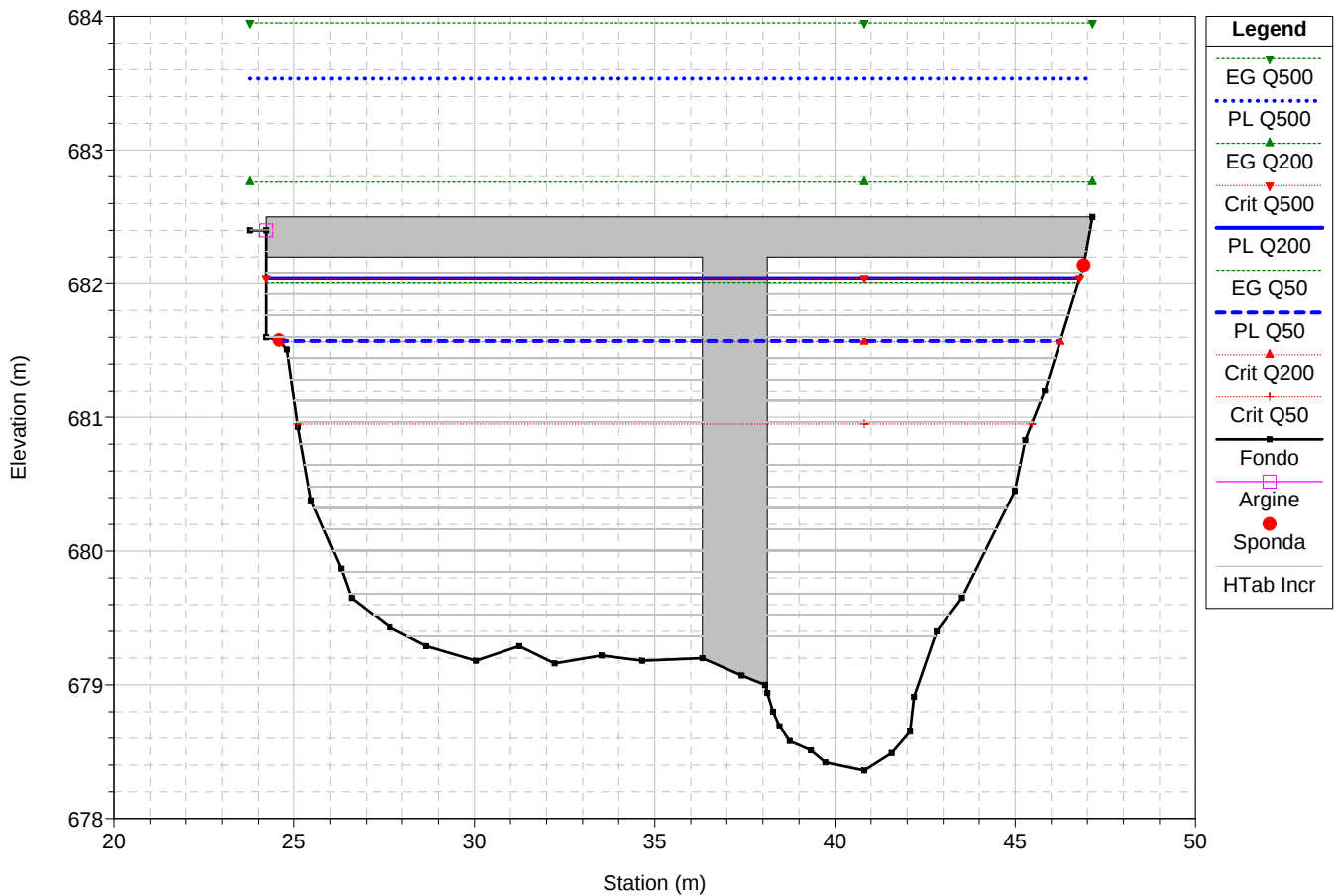
Torrente Rezzoaglio

River = rezzoaglio Reach = unico REZ 4 sez.4_passerella monte

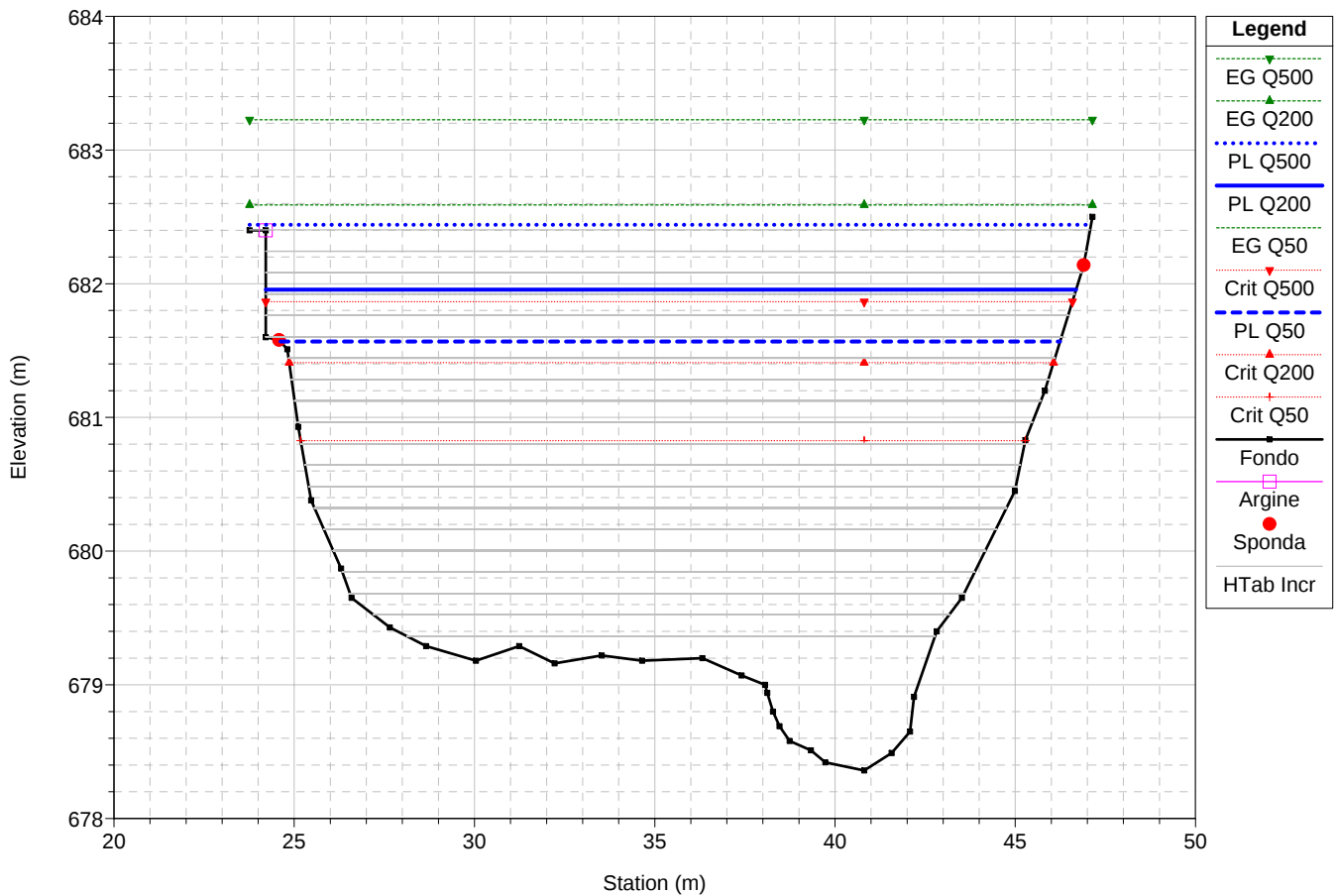
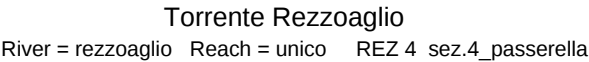


Torrente Rezzoaglio

River = rezzoaglio Reach = unico REZ 4 Passerella pedonale

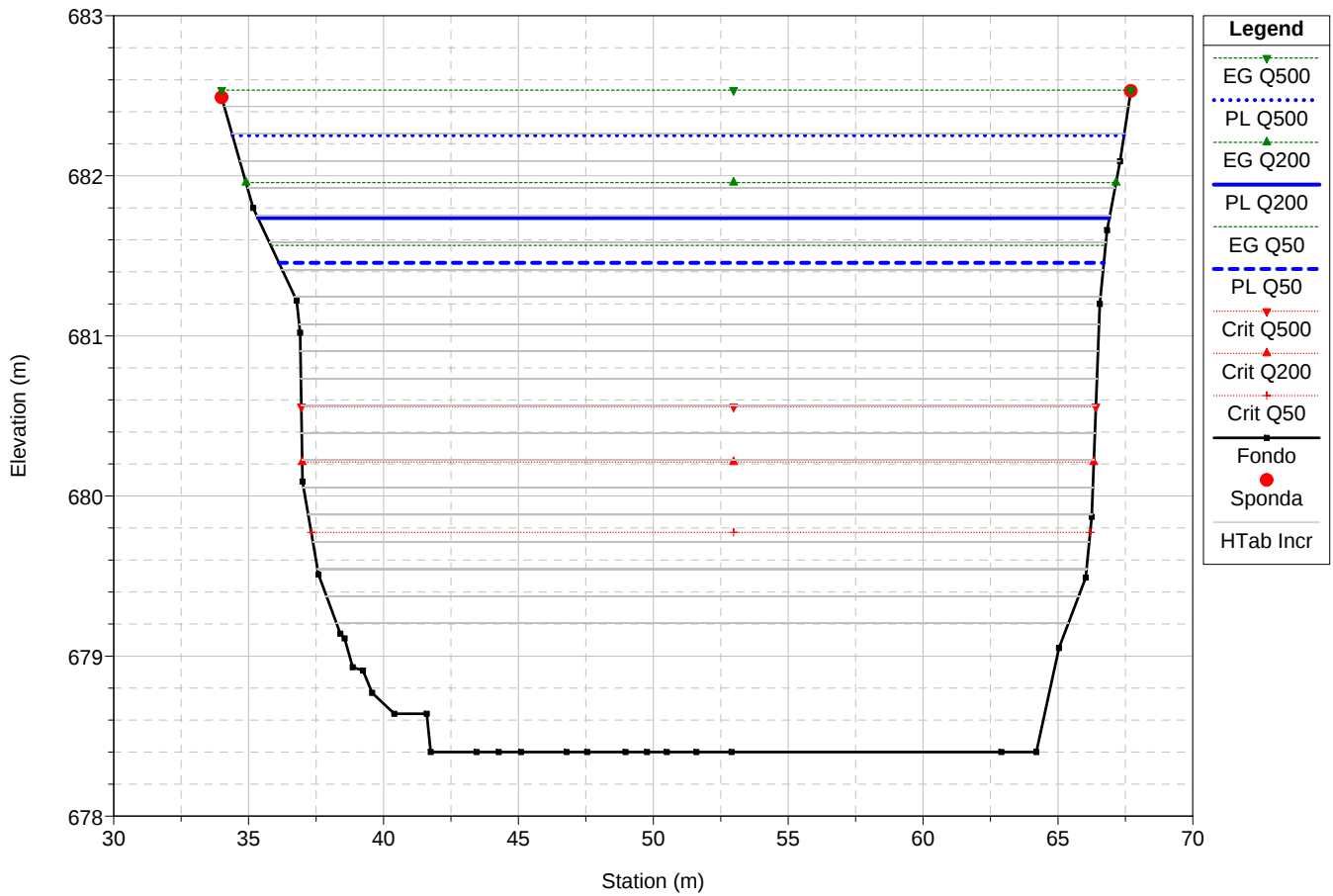


River = rezzoaglio Reach = unico REZ 4 Passerella pedonale



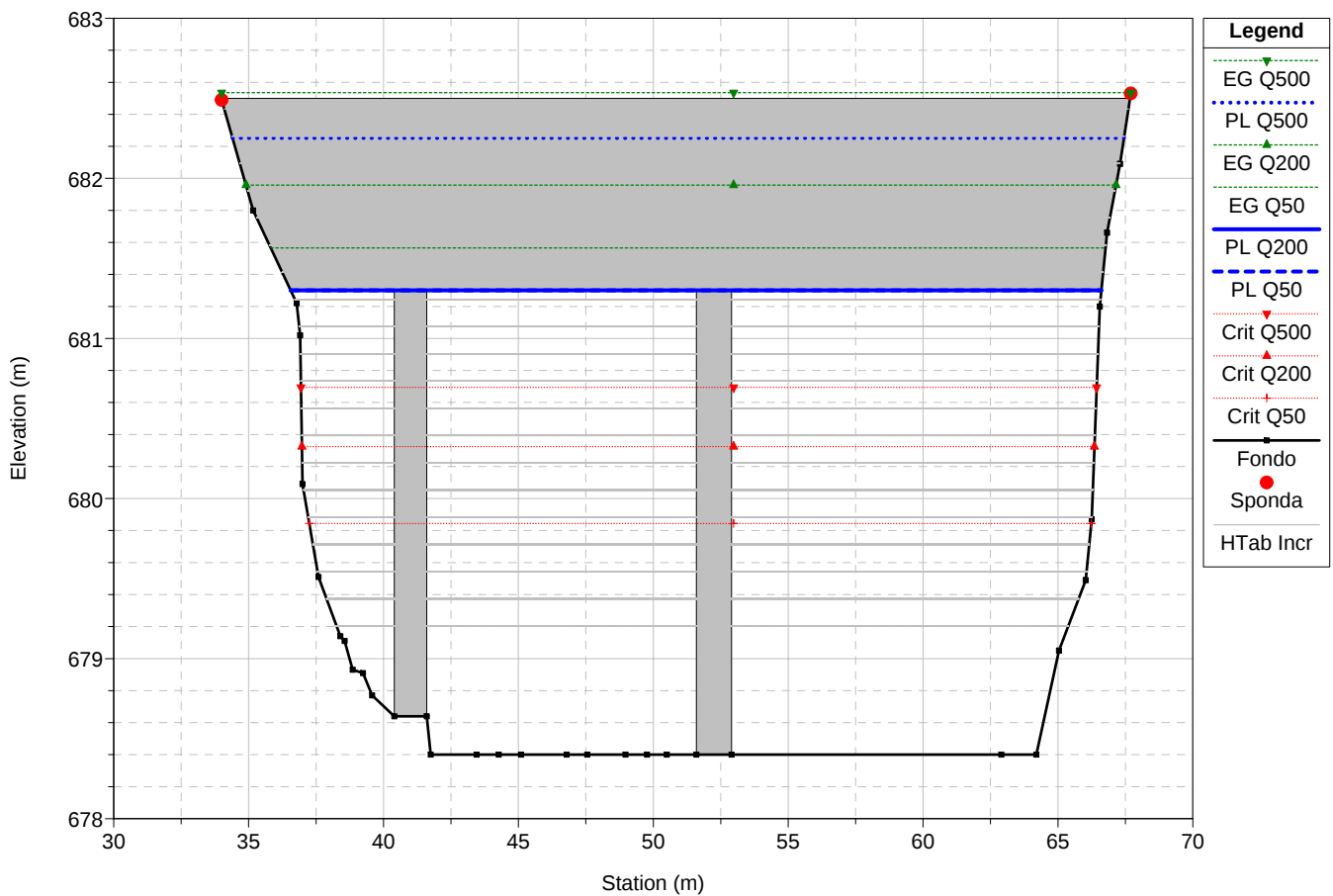
Torrente Rezzoaglio

River = rezzoaglio Reach = unico REZ 3 sez.3_ponte monte



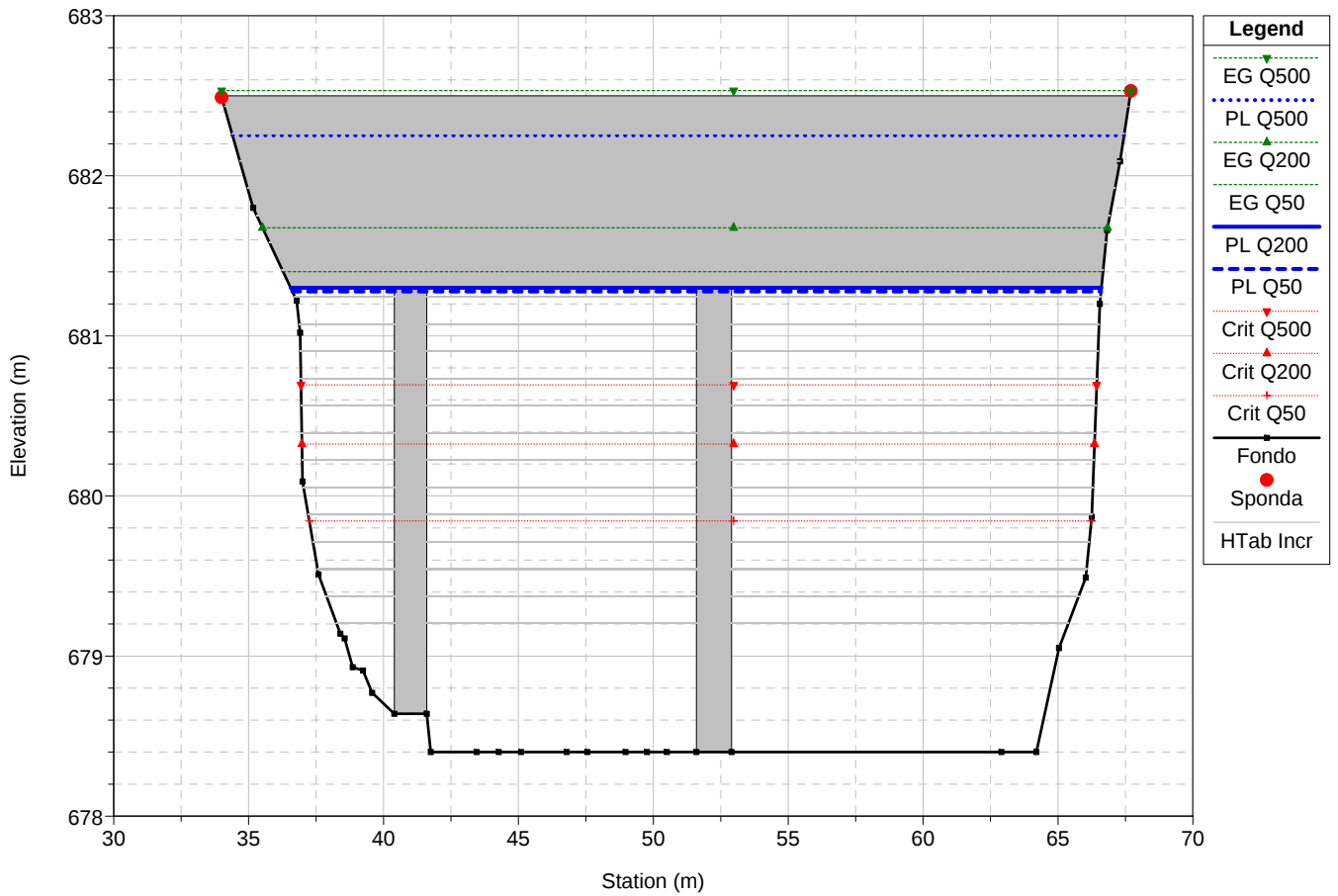
Torrente Rezzoaglio

River = rezzoaglio Reach = unico REZ 3 ponte SP



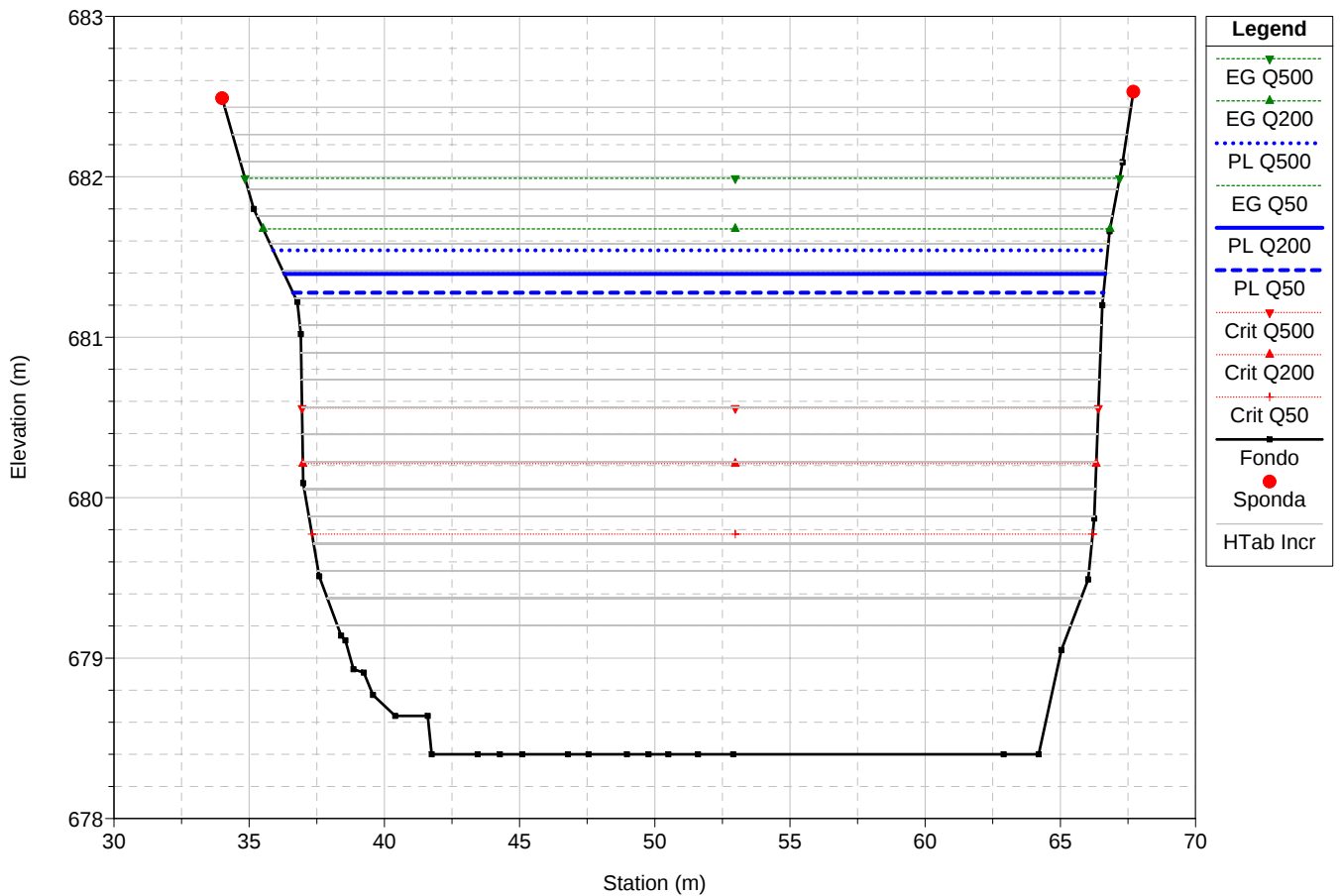
Torrente Rezzoaglio

River = rezzoaglio Reach = unico REZ 3 ponte SP



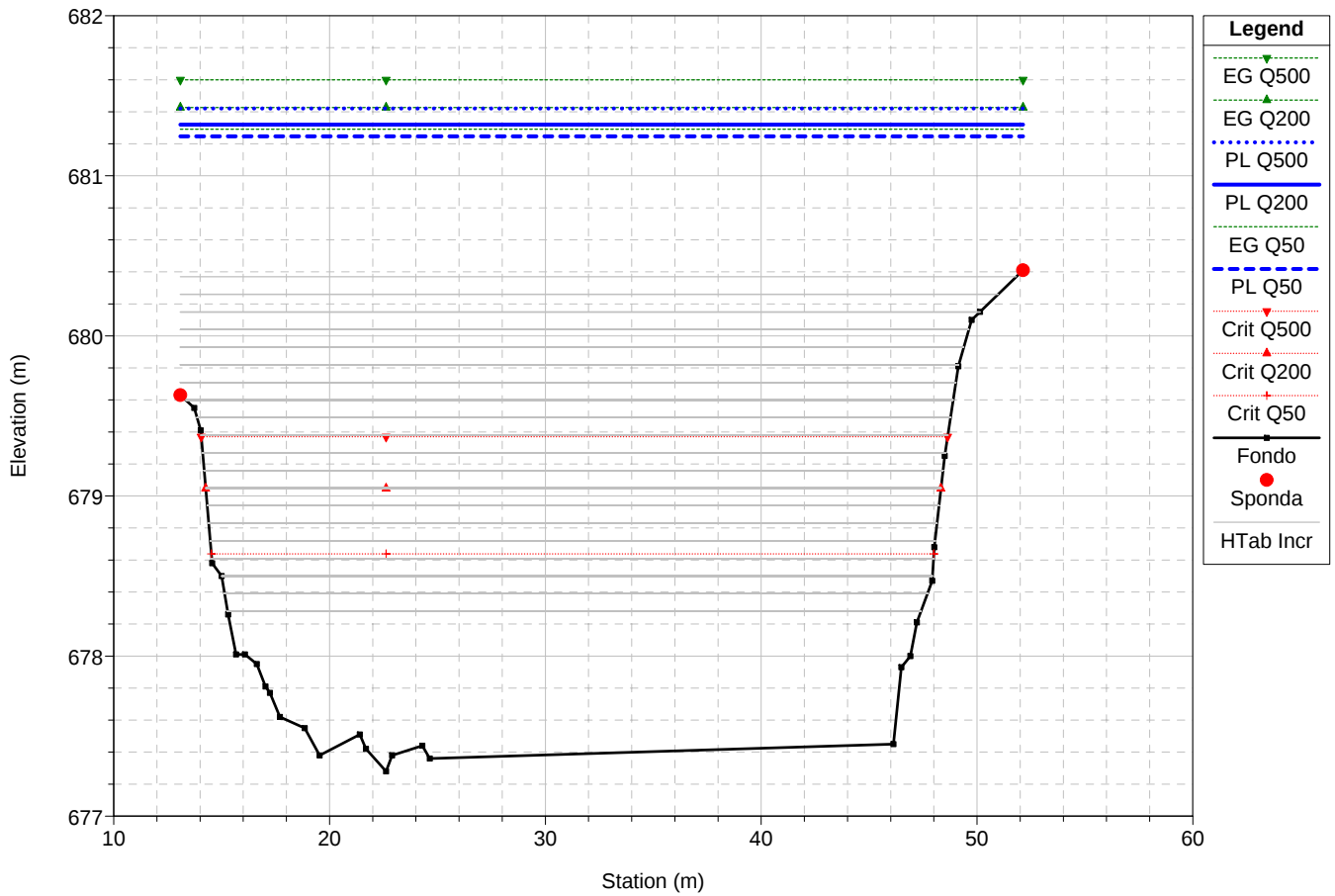
Torrente Rezzoaglio

River = rezzoaglio Reach = unico REZ 3 sez.3_ponte



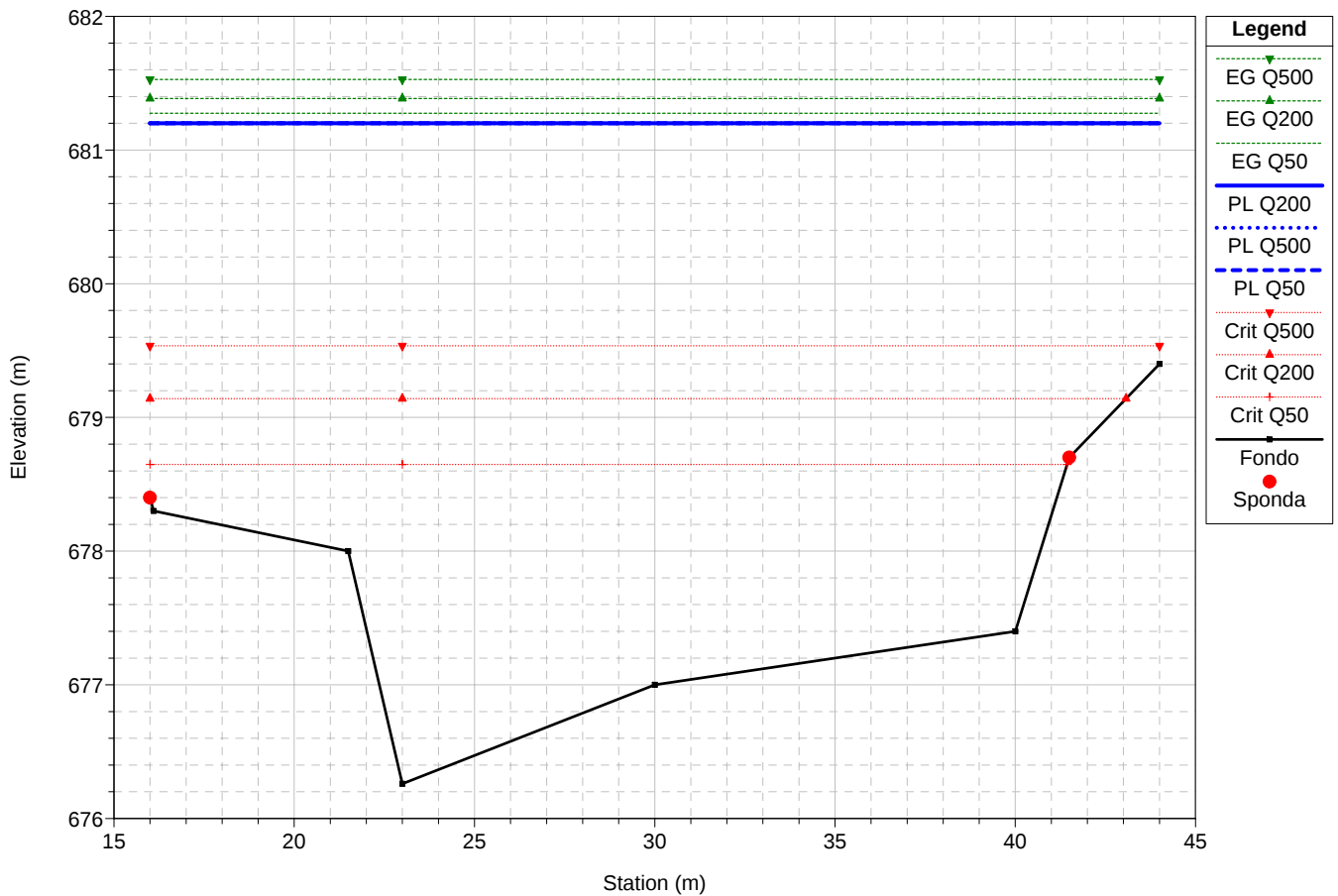
Torrente Rezzoaglio

River = rezzoaglio Reach = unico REZ 2 sez.2



Torrente Rezzoaglio

River = rezzoaglio Reach = unico REZ 1 sez1

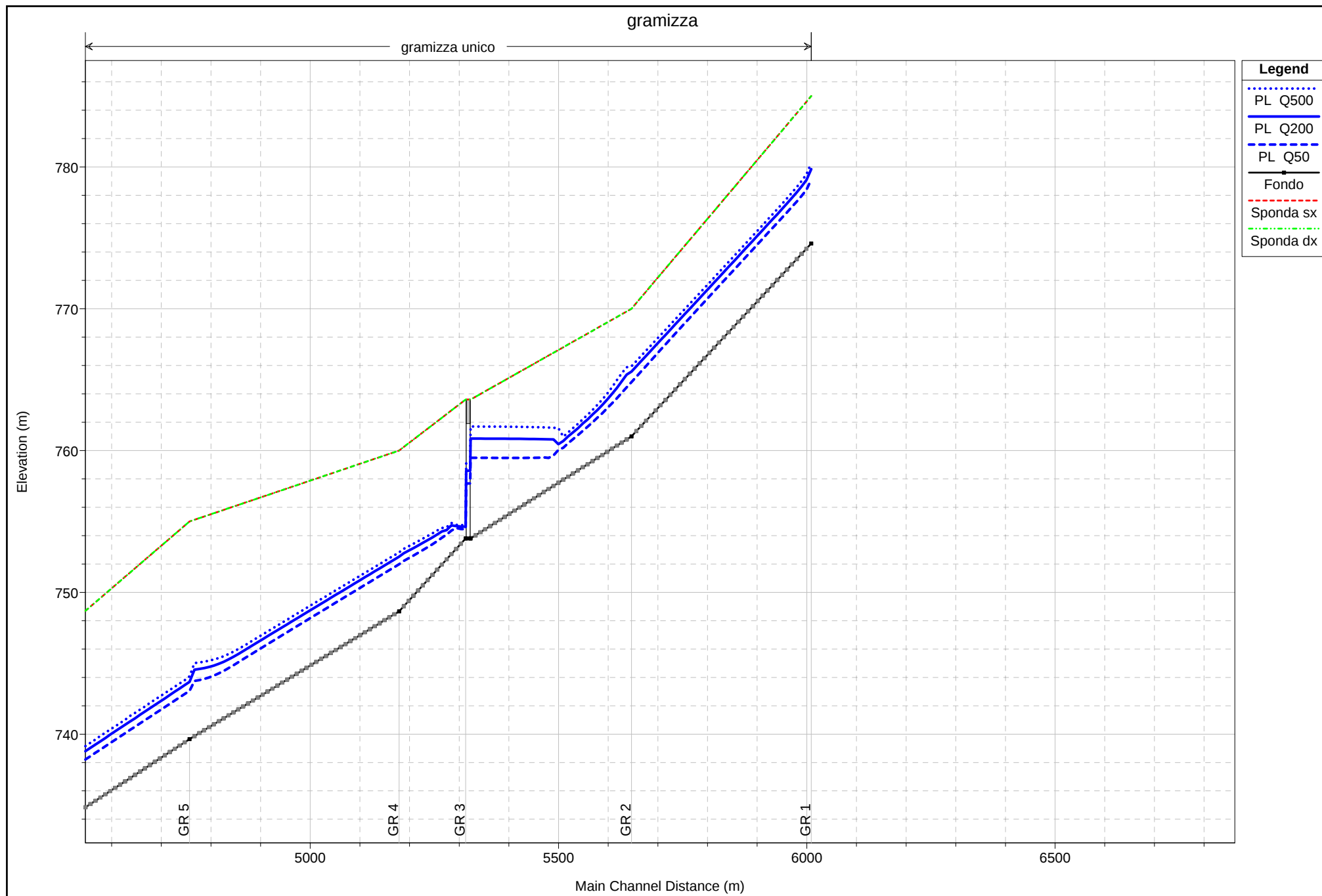


HEC-RAS Plan: 01_Rezzoaglio River: rezzoaglio Reach: unico

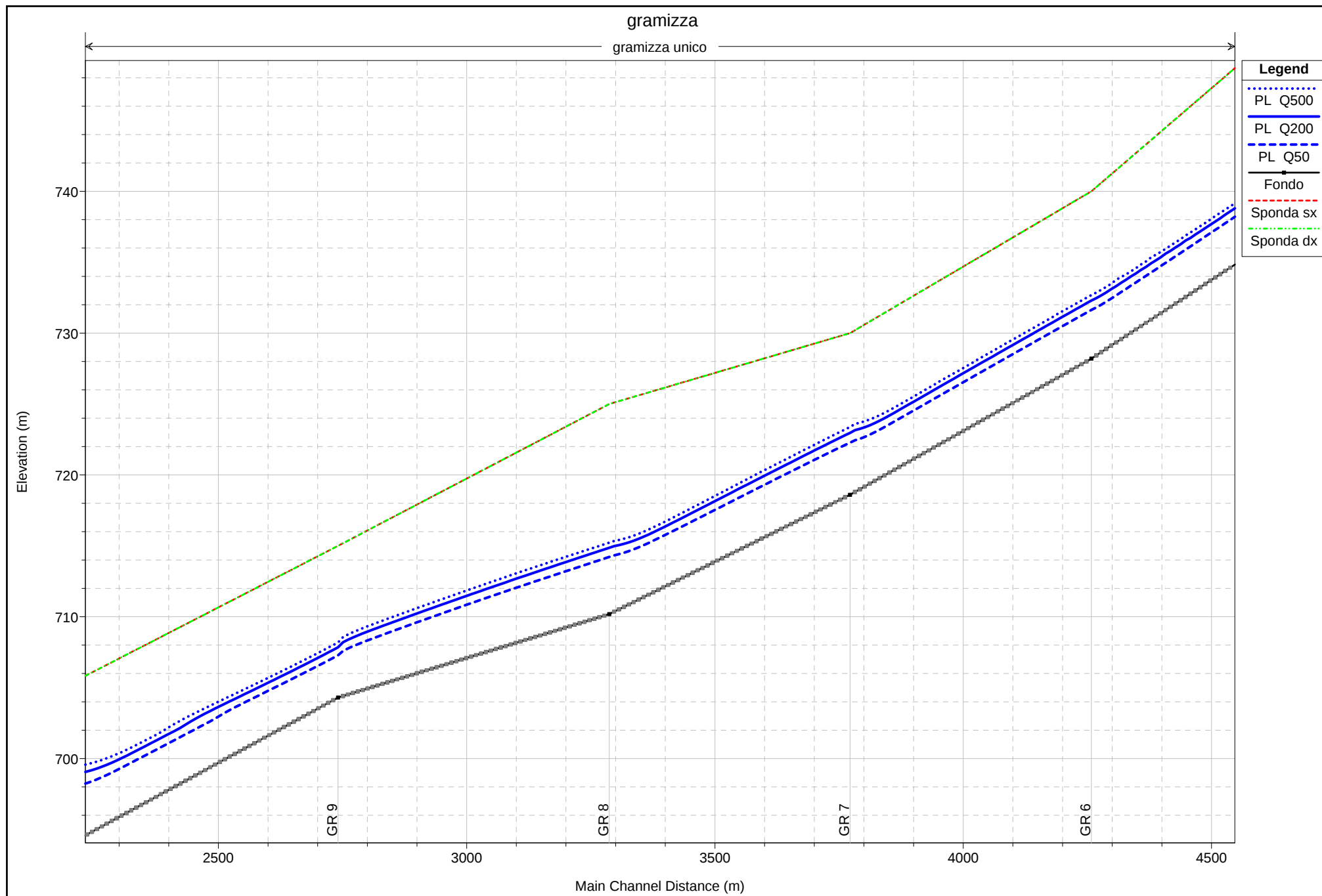
Reach	River Sta		Profile	Q Total	Min Ch El	W.S. Elev	LOB Elev	L. Freeboard	ROB Elev	R. Freeboard	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
unico	6	REZ 6	Q50	125.00	680.17	684.09	683.34	-0.75	683.17	-0.92	683.29	684.49	0.008127	2.87	47.05	25.61	0.56
unico	6	REZ 6	Q200	197.00	680.17	684.73	683.34	-1.39	683.17	-1.56	684.13	685.25	0.008446	3.38	69.01	51.59	0.59
unico	6	REZ 6	Q500	262.00	680.17	685.25	683.34	-1.91	683.17	-2.08	684.89	685.71	0.006911	3.36	102.95	62.34	0.55
unico	5	REZ 5	Q50	125.00	679.34	682.50	682.79	0.29	682.60	0.10	682.50	683.42	0.029106	4.26	29.32	15.74	1.00
unico	5	REZ 5	Q200	197.00	679.34	683.34	682.79	-0.55	682.60	-0.74	683.34	684.29	0.019862	4.41	47.91	26.46	0.87
unico	5	REZ 5	Q500	262.00	679.34	683.78	682.79	-0.99	682.60	-1.18	683.78	684.88	0.019229	4.81	59.59	26.64	0.87
unico	4.5	REZ 4	Q50	125.00	678.36	681.78	681.58	-0.20	682.14	0.36	680.83	682.07	0.006340	2.41	51.91	22.27	0.50
unico	4.5	REZ 4	Q200	197.00	678.36	682.42	681.58	-0.84	682.14	-0.28	681.41	682.87	0.007161	2.97	66.59	23.33	0.55
unico	4.5	REZ 4	Q500	262.00	678.36	683.53	681.58	-1.95	682.14	-1.39	681.87	683.95	0.004371	2.87	92.52	23.38	0.45
unico	4.2	REZ 4		Bridge													
unico	4	REZ 4	Q50	125.00	678.36	681.57	681.58	0.01	682.14	0.57	680.83	681.92	0.008434	2.64	47.31	21.62	0.57
unico	4	REZ 4	Q200	197.00	678.36	681.96	681.58	-0.38	682.14	0.18	681.41	682.59	0.012512	3.53	55.93	22.48	0.71
unico	4	REZ 4	Q500	262.00	678.36	682.44	681.58	-0.86	682.14	-0.30	681.87	683.23	0.012431	3.93	66.98	23.34	0.73
unico	3.8		Q50	125.00	678.36	681.54	681.58	0.04	682.14	0.60	680.83	681.90	0.008758	2.68	46.66	21.49	0.58
unico	3.8		Q200	197.00	678.36	681.87	681.58	-0.29	682.14	0.27	681.41	682.55	0.013998	3.66	53.93	22.38	0.75
unico	3.8		Q500	262.00	678.36	682.34	681.58	-0.76	682.14	-0.20	681.87	683.18	0.013916	4.06	64.69	22.82	0.76
unico	3.5	REZ 3	Q50	125.00	678.40	681.46	682.49	1.03	682.53	1.07	679.77	681.57	0.001864	1.46	85.72	30.58	0.28
unico	3.5	REZ 3	Q200	197.00	678.40	681.74	682.49	0.75	682.53	0.79	680.21	681.96	0.003516	2.09	94.38	31.56	0.39
unico	3.5	REZ 3	Q500	262.00	678.40	682.25	682.49	0.24	682.53	0.28	680.56	682.54	0.003866	2.36	111.08	33.04	0.41
unico	3.2	REZ 3		Bridge													
unico	3	REZ 3	Q50	125.00	678.40	681.28	682.49	1.21	682.53	1.25	679.77	681.40	0.002251	1.56	80.30	29.98	0.30
unico	3	REZ 3	Q200	197.00	678.40	681.39	682.49	1.10	682.53	1.14	680.21	681.68	0.004944	2.35	83.79	30.37	0.45
unico	3	REZ 3	Q500	262.00	678.40	681.54	682.49	0.95	682.53	0.99	680.56	681.99	0.007512	2.97	88.33	30.86	0.56
unico	2.5		Q50	125.00	678.40	681.27	682.49	1.22	682.53	1.26	679.77	681.40	0.002263	1.56	80.15	29.96	0.30
unico	2.5		Q200	197.00	678.40	681.38	682.49	1.11	682.53	1.15	680.21	681.67	0.005012	2.36	83.40	30.32	0.45
unico	2.5		Q500	262.00	678.40	681.52	682.49	0.97	682.53	1.01	680.56	681.97	0.007698	2.99	87.59	30.78	0.57
unico	2	REZ 2	Q50	125.00	677.28	681.25	679.63	-1.62	680.41	-0.84	678.64	681.29	0.000599	0.94	133.03	39.04	0.16
unico	2	REZ 2	Q200	197.00	677.28	681.32	679.63	-1.69	680.41	-0.91	679.05	681.43	0.001392	1.45	135.88	39.04	0.25
unico	2	REZ 2	Q500	262.00	677.28	681.42	679.63	-1.79	680.41	-1.01	679.37	681.60	0.002252	1.87	139.82	39.04	0.32
unico	1	REZ 1	Q50	125.00	676.26	681.20	678.40	-2.80	678.70	-2.50	678.65	681.27	0.000899	1.22	104.95	28.00	0.20
unico	1	REZ 1	Q200	197.00	676.26	681.20	678.40	-2.80	678.70	-2.50	679.14	681.39	0.002233	1.93	104.95	28.00	0.31
unico	1	REZ 1	Q500	262.00	676.26	681.20	678.40	-2.80	678.70	-2.50	679.54	681.53	0.003949	2.56	104.95	28.00	0.41

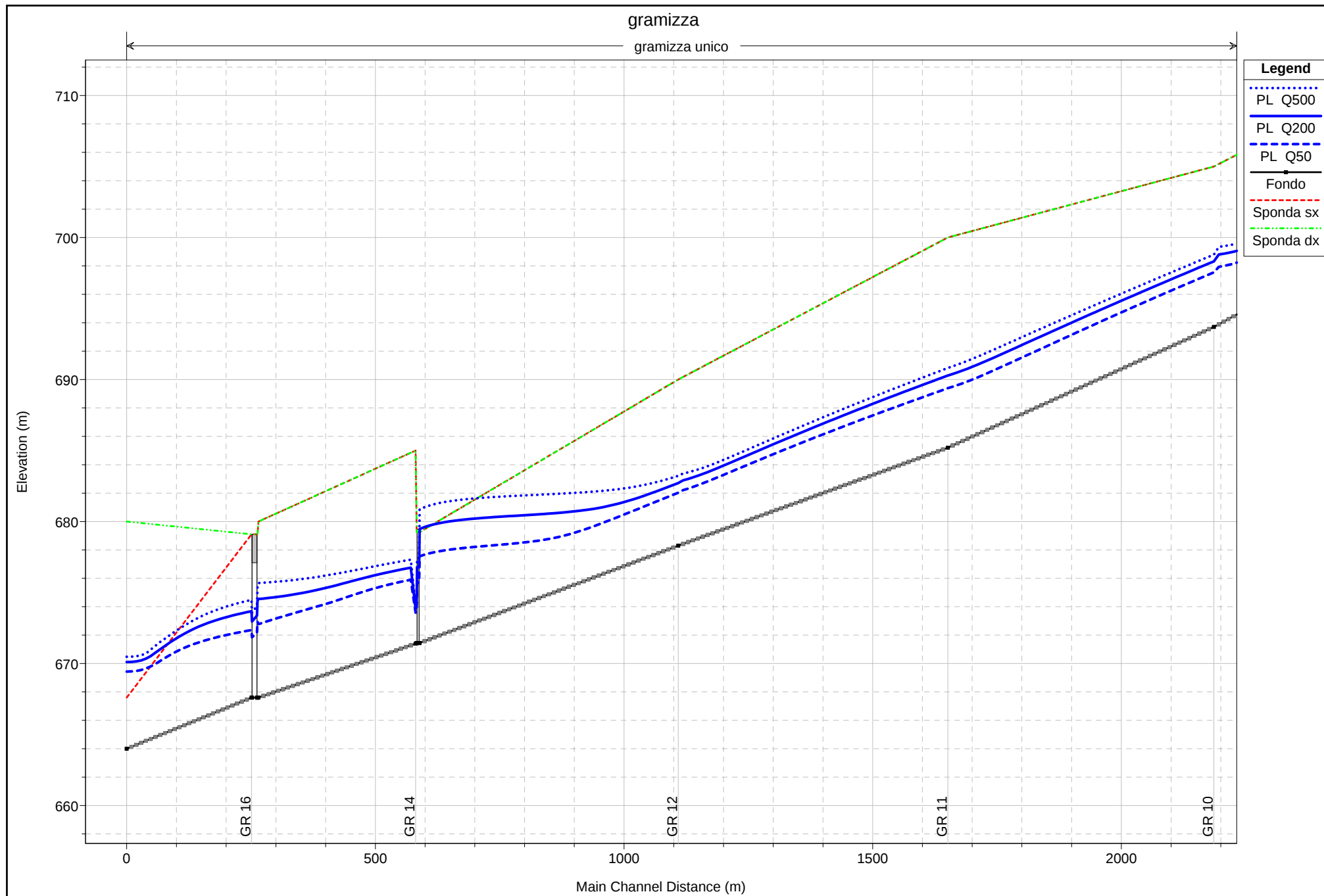
Torrente Gramizza

- Profili di corrente
- Sezioni idrauliche
- Tabelle dei risultati

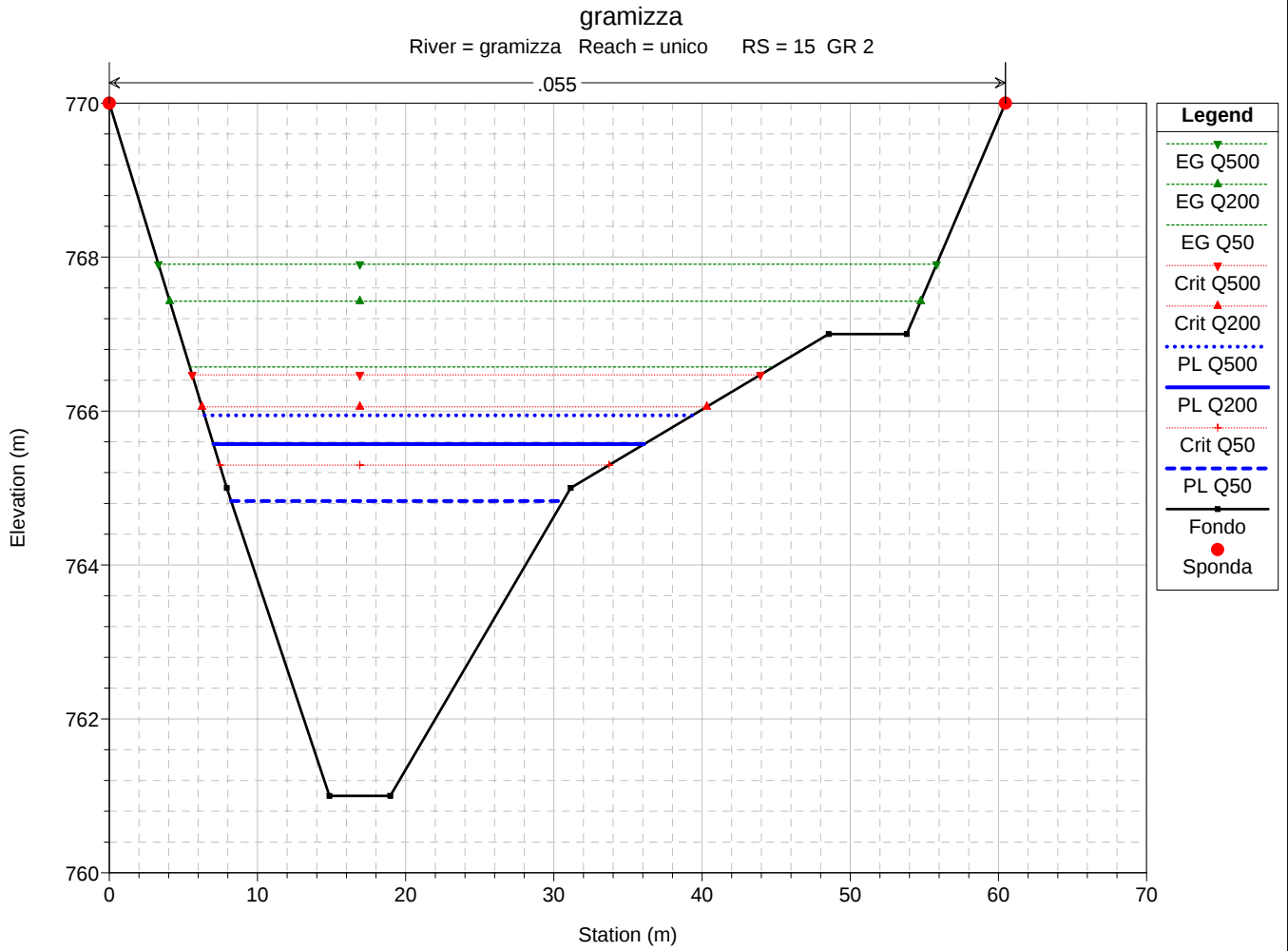
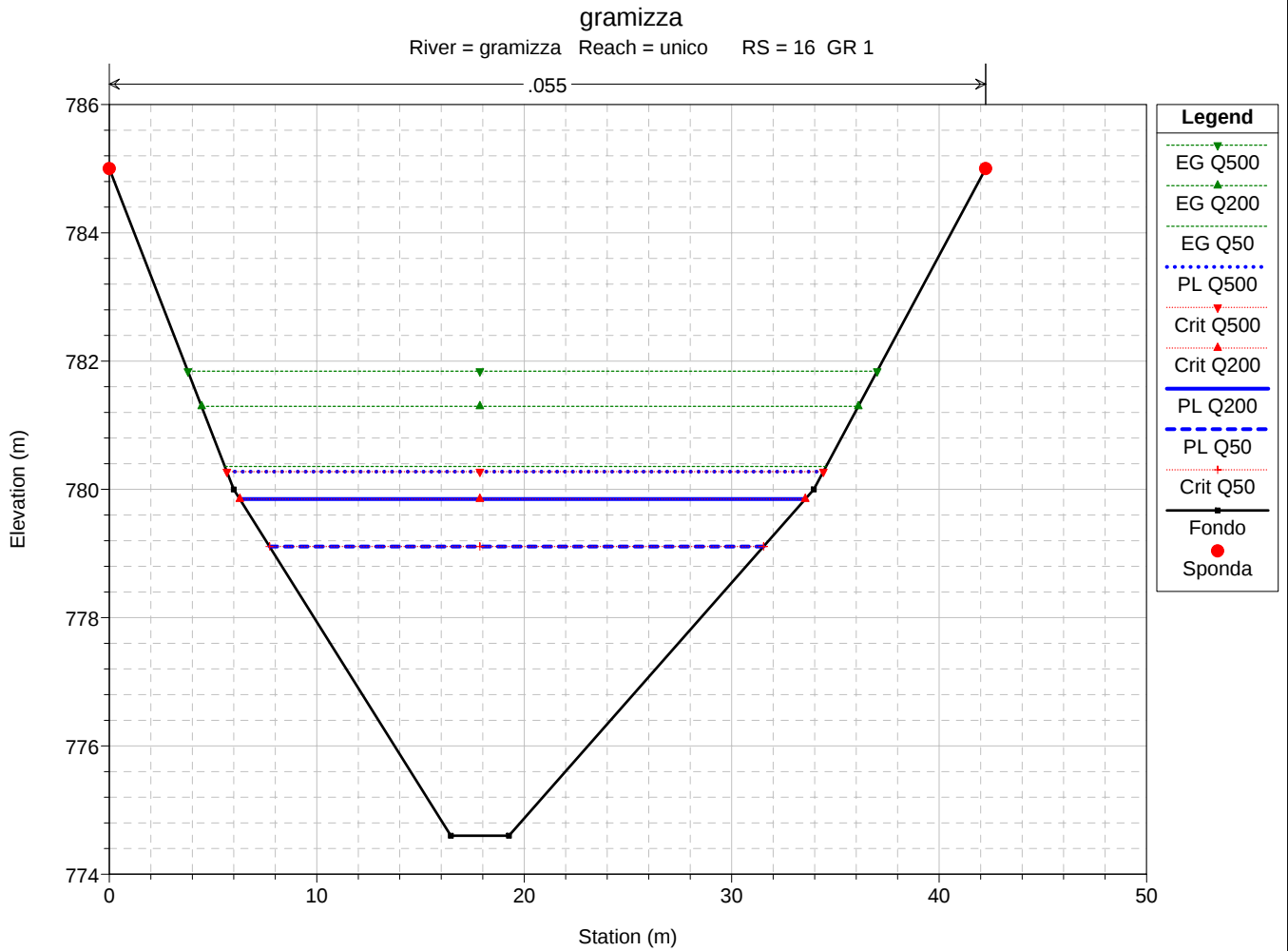


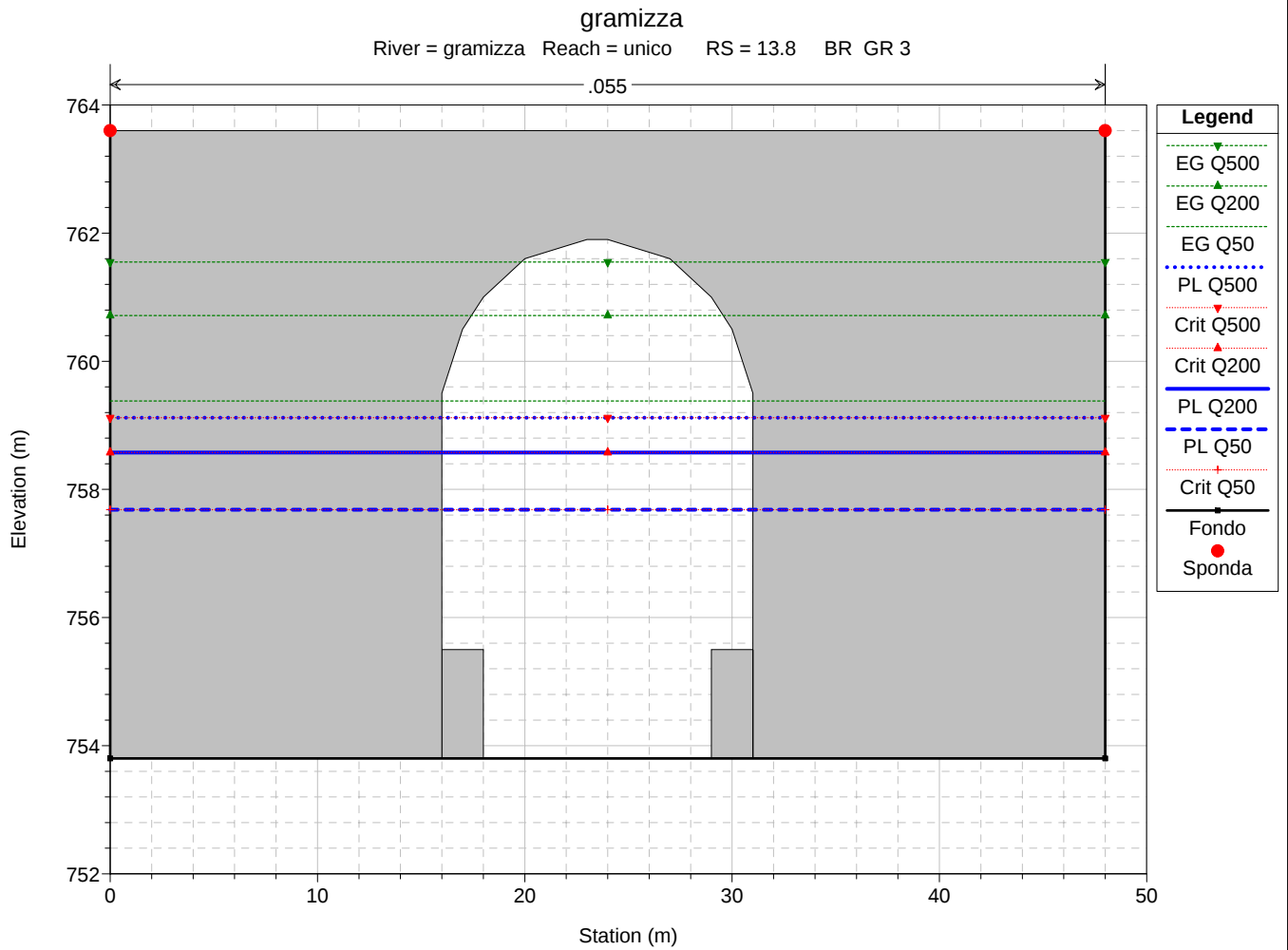
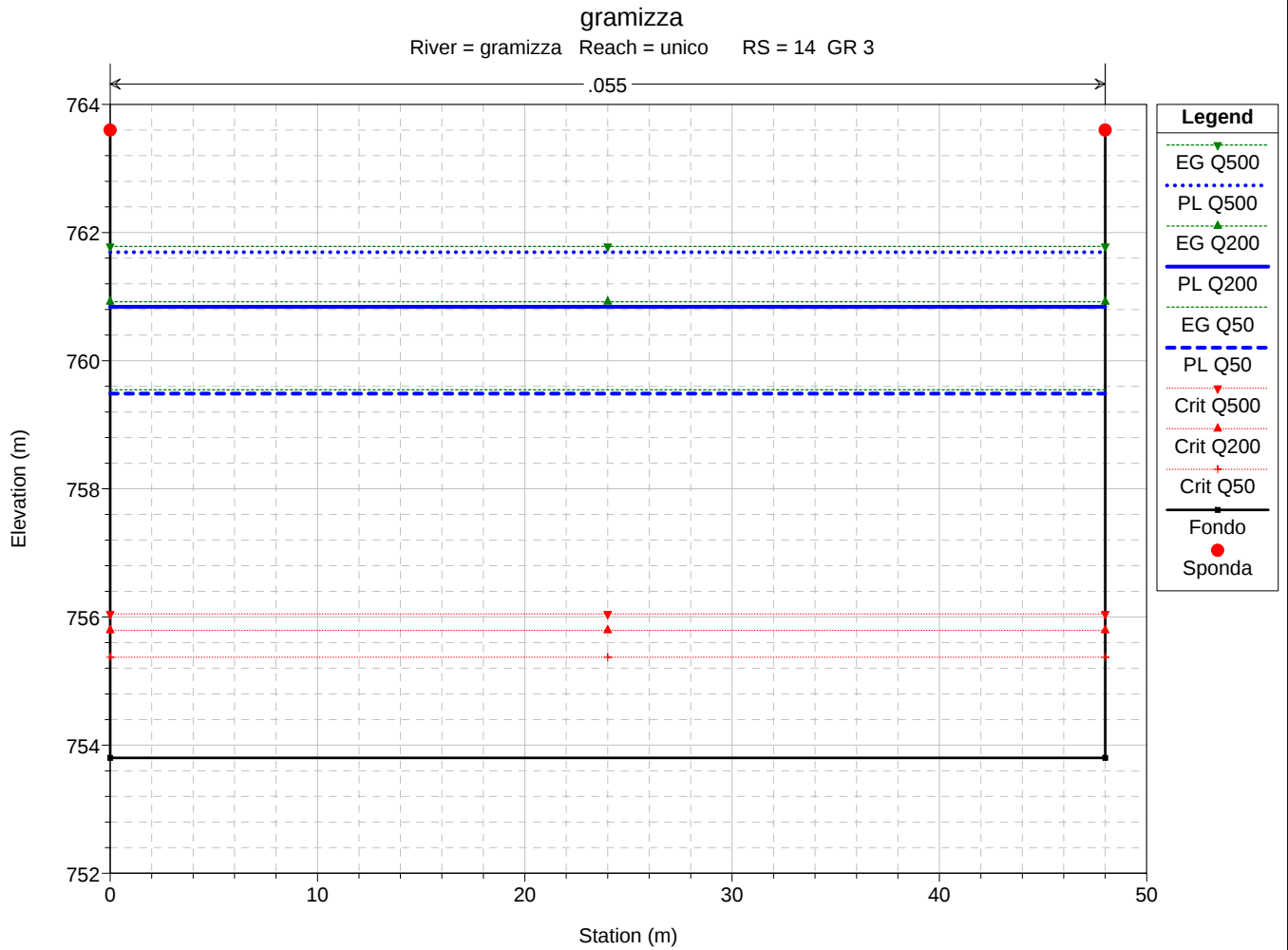
1 cm Horiz. = 100 m 1 cm Vert. = 3.5 m

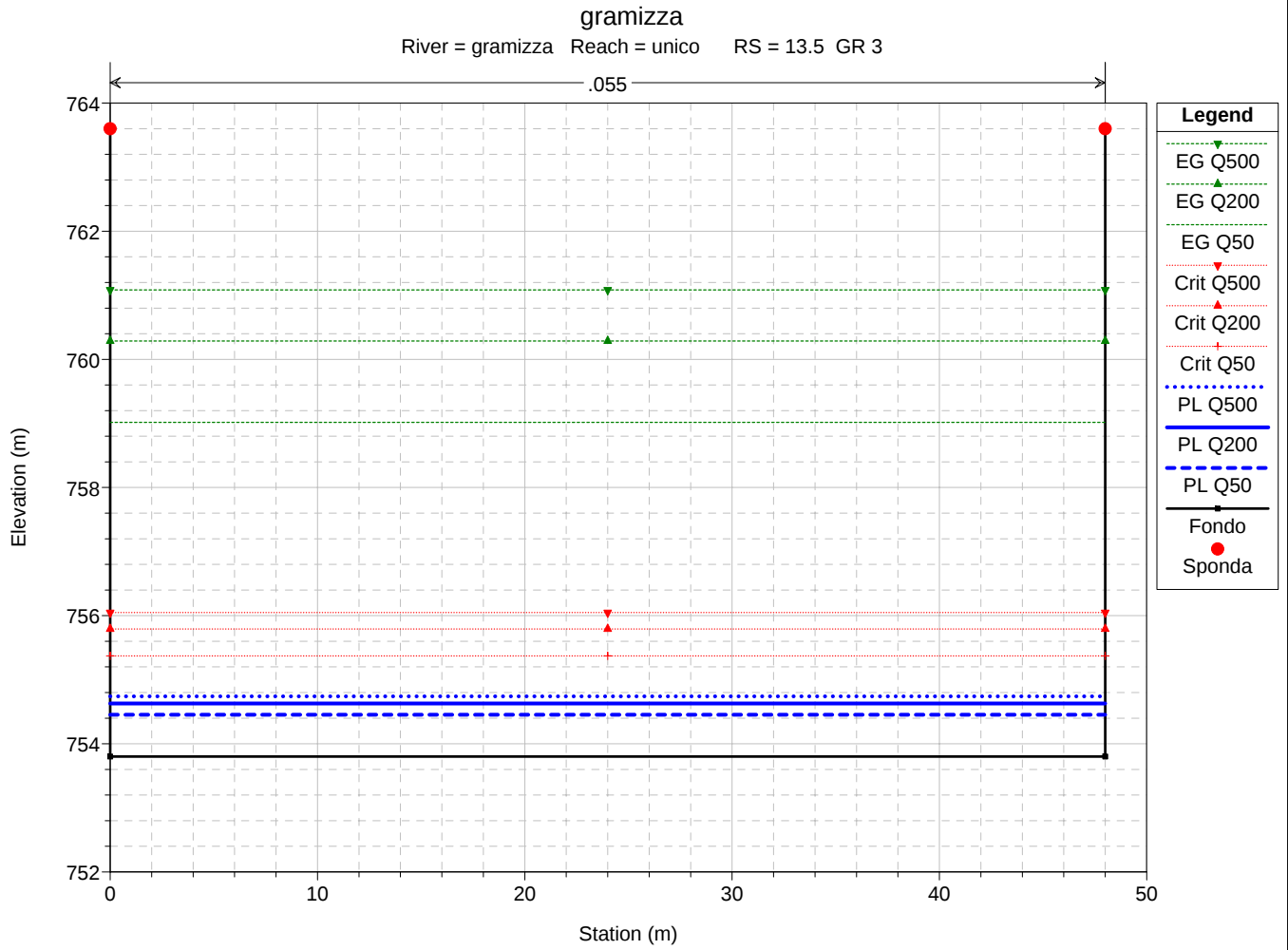
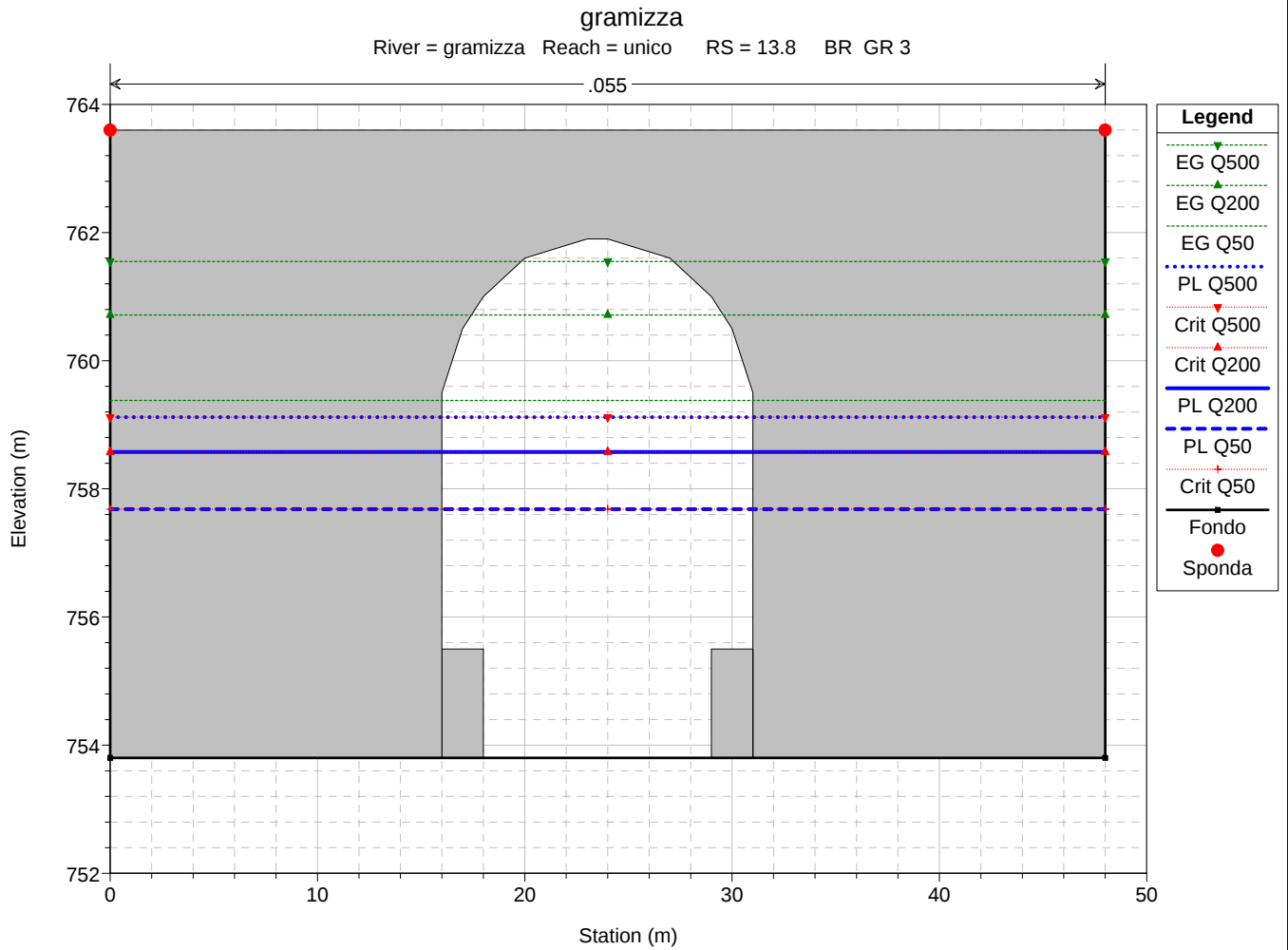


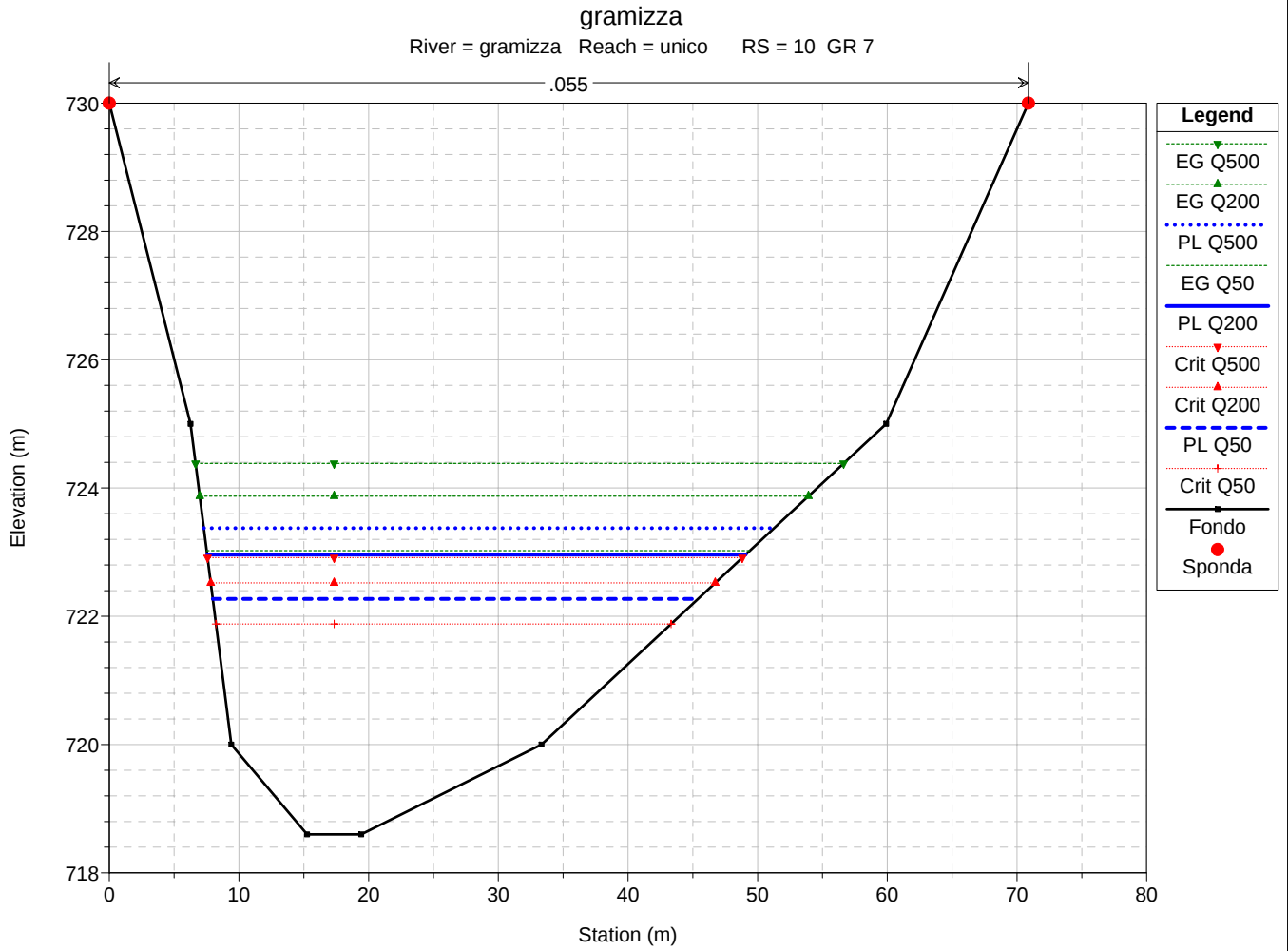
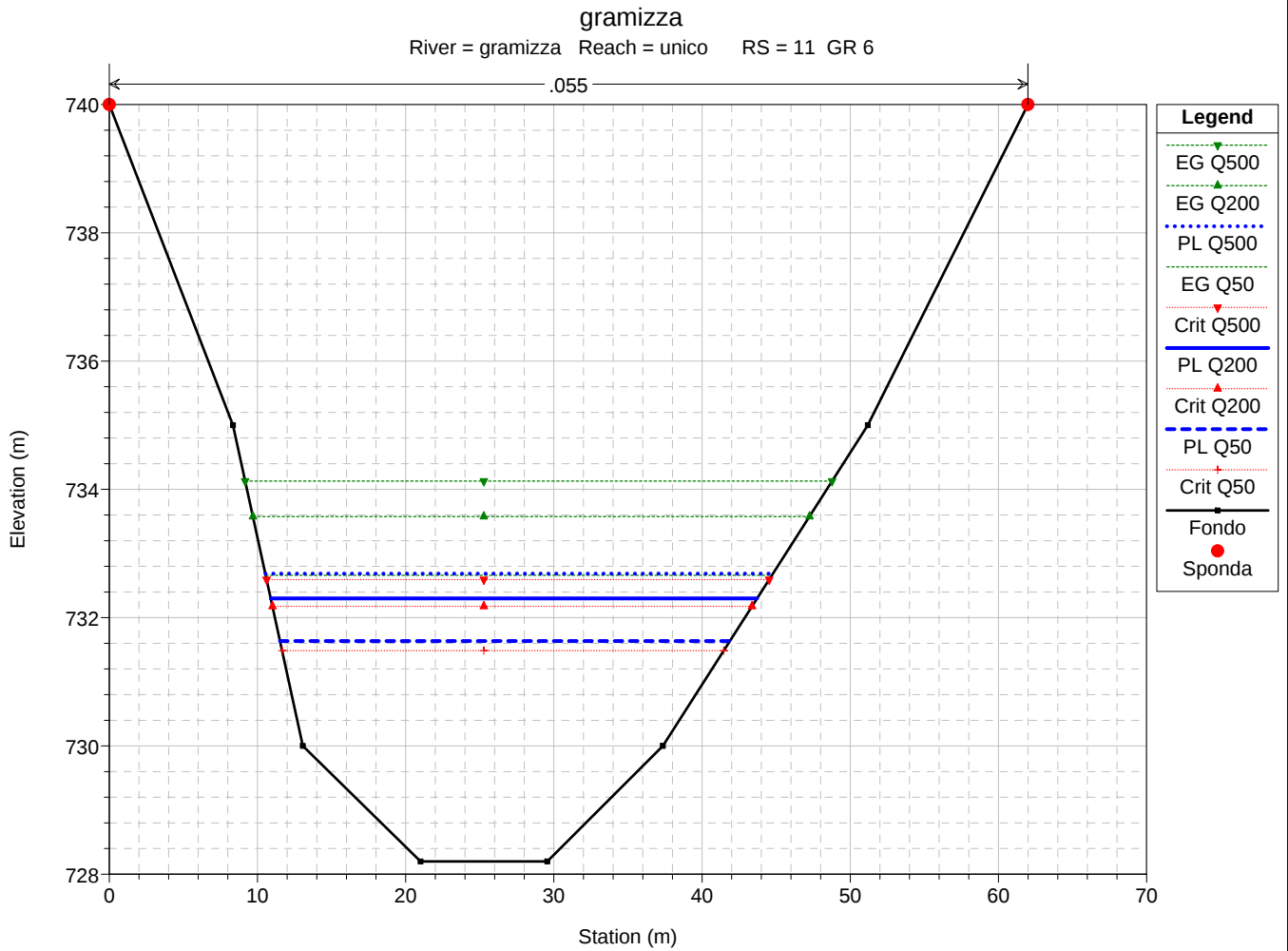


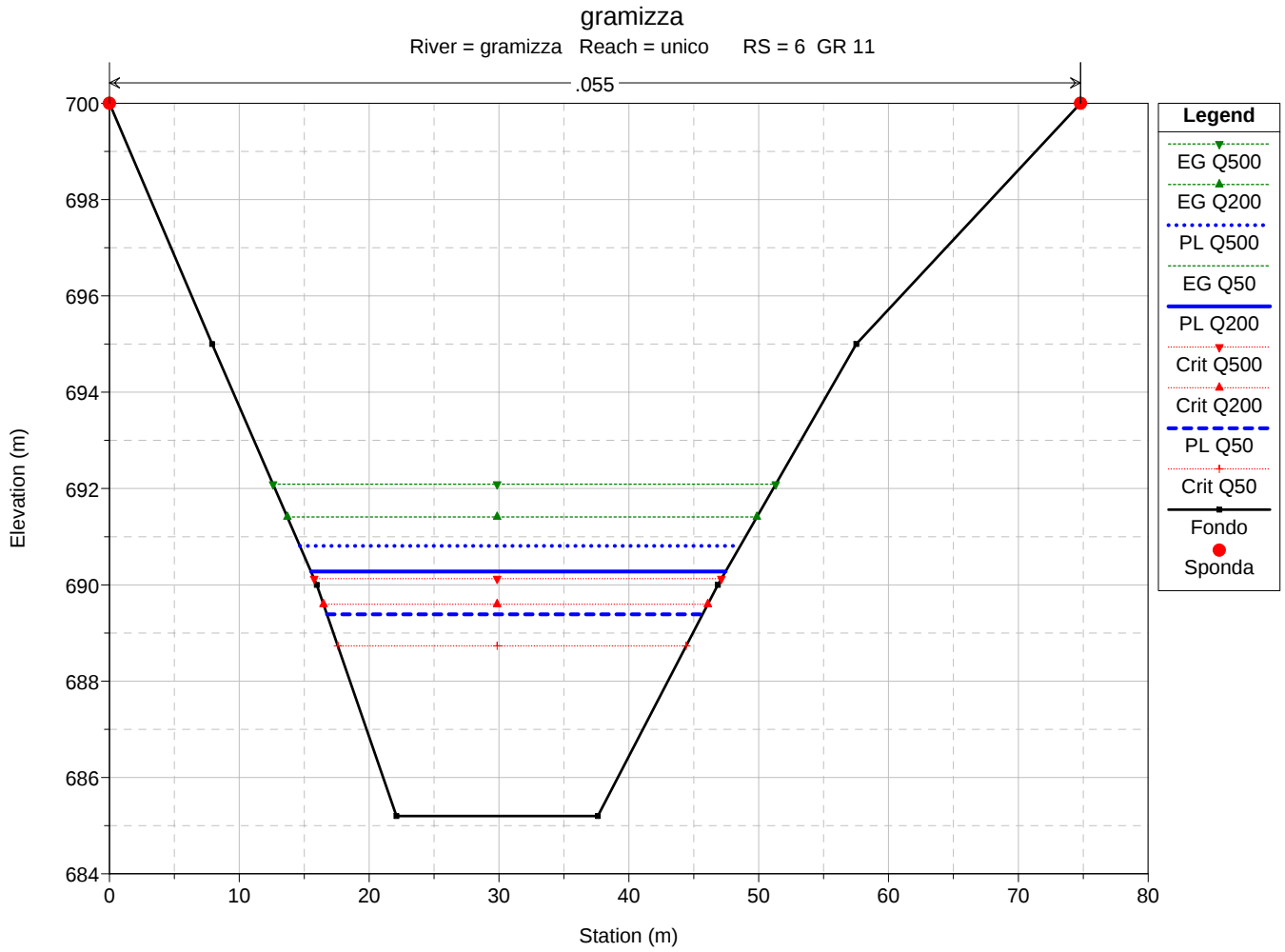
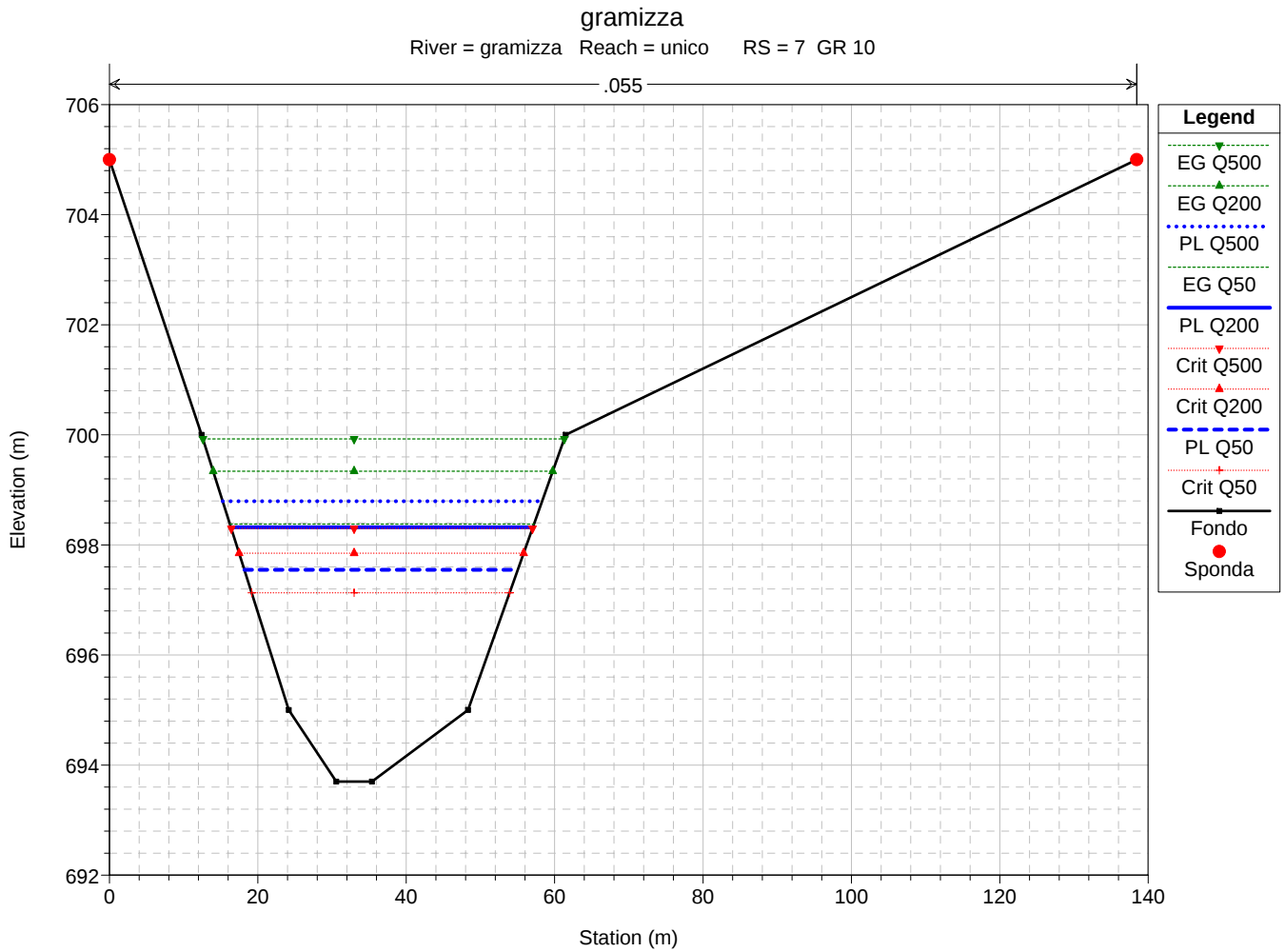
1 cm Horiz. = 100 m 1 cm Vert. = 3.5 m

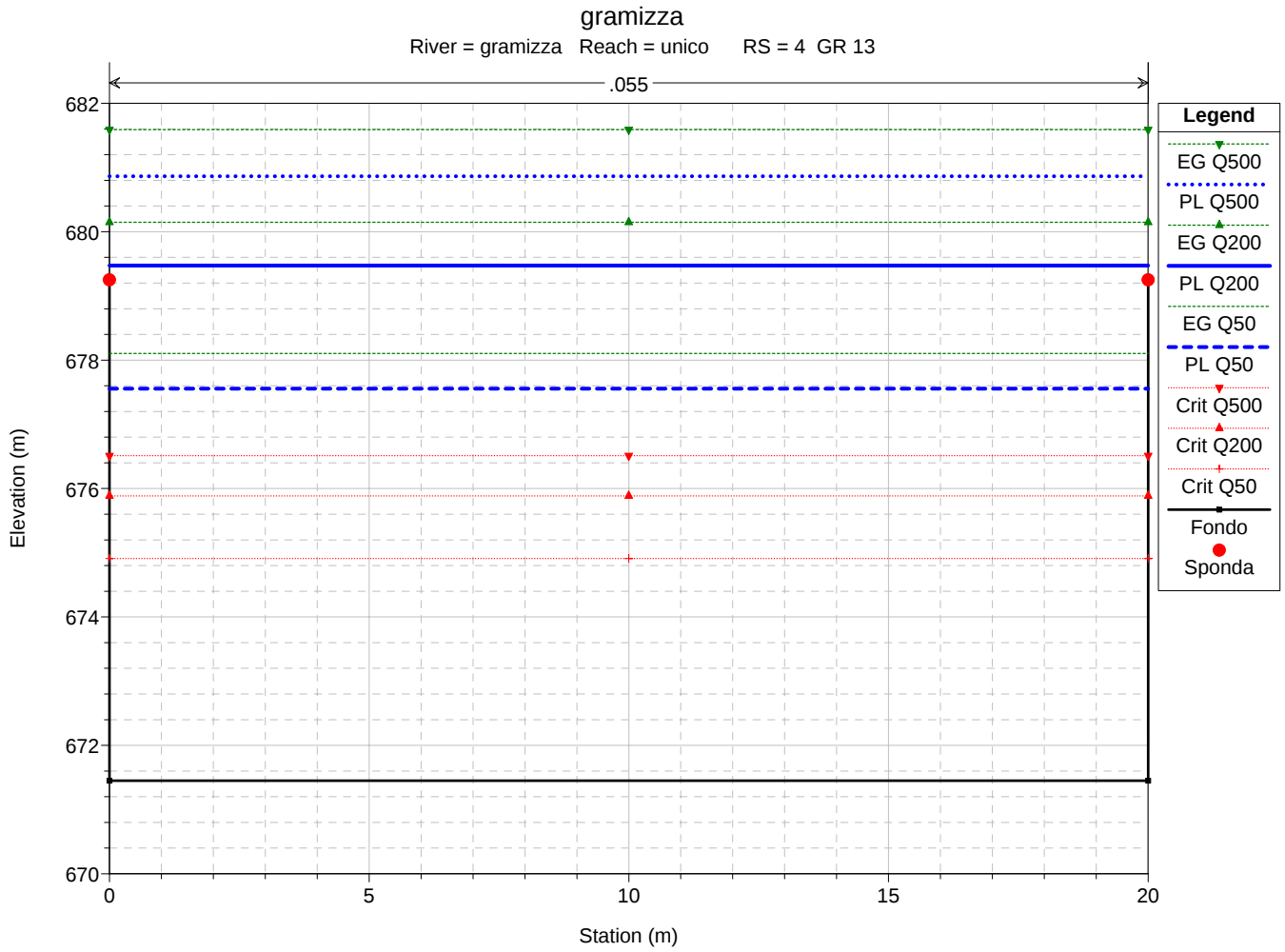
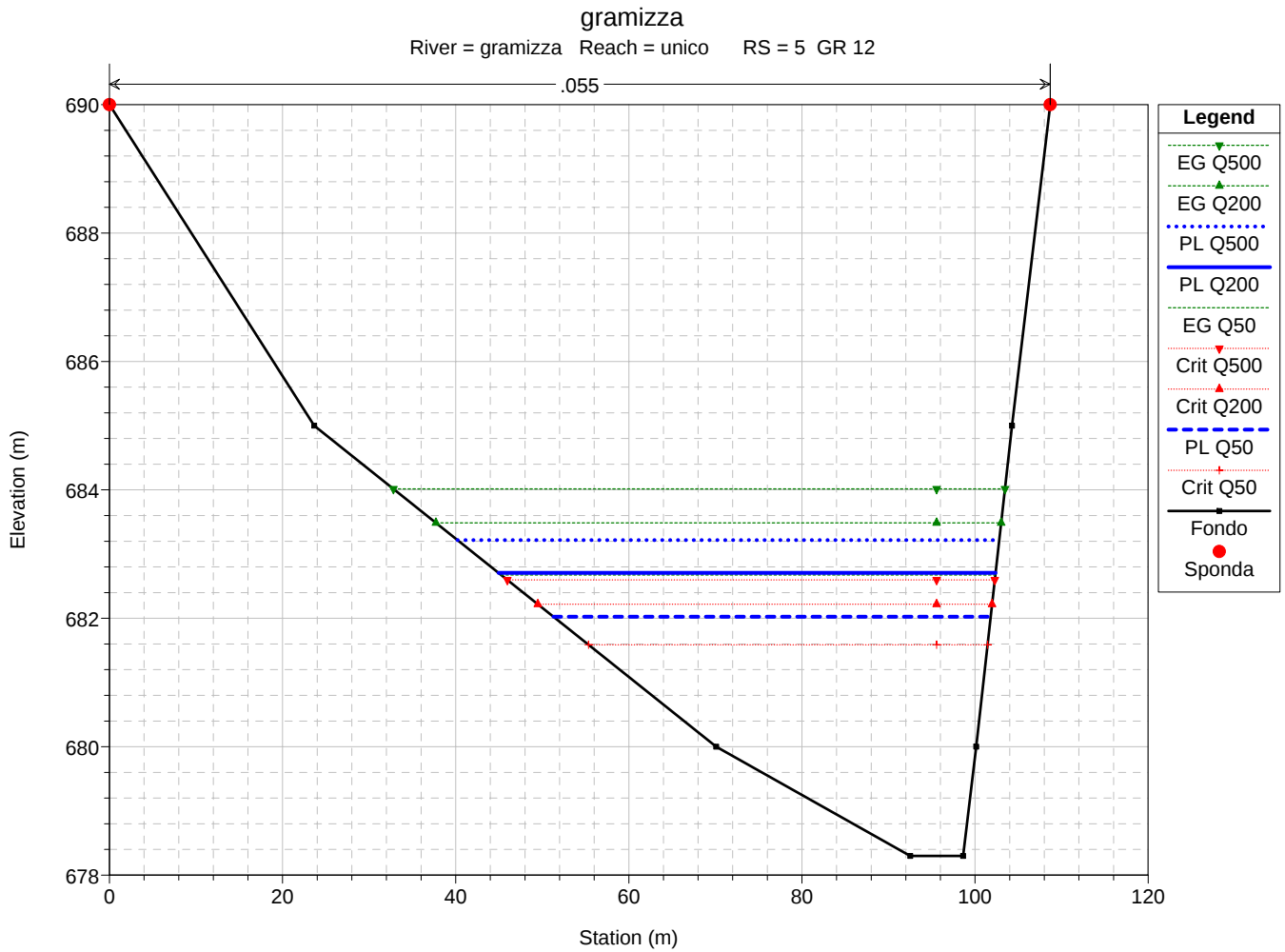


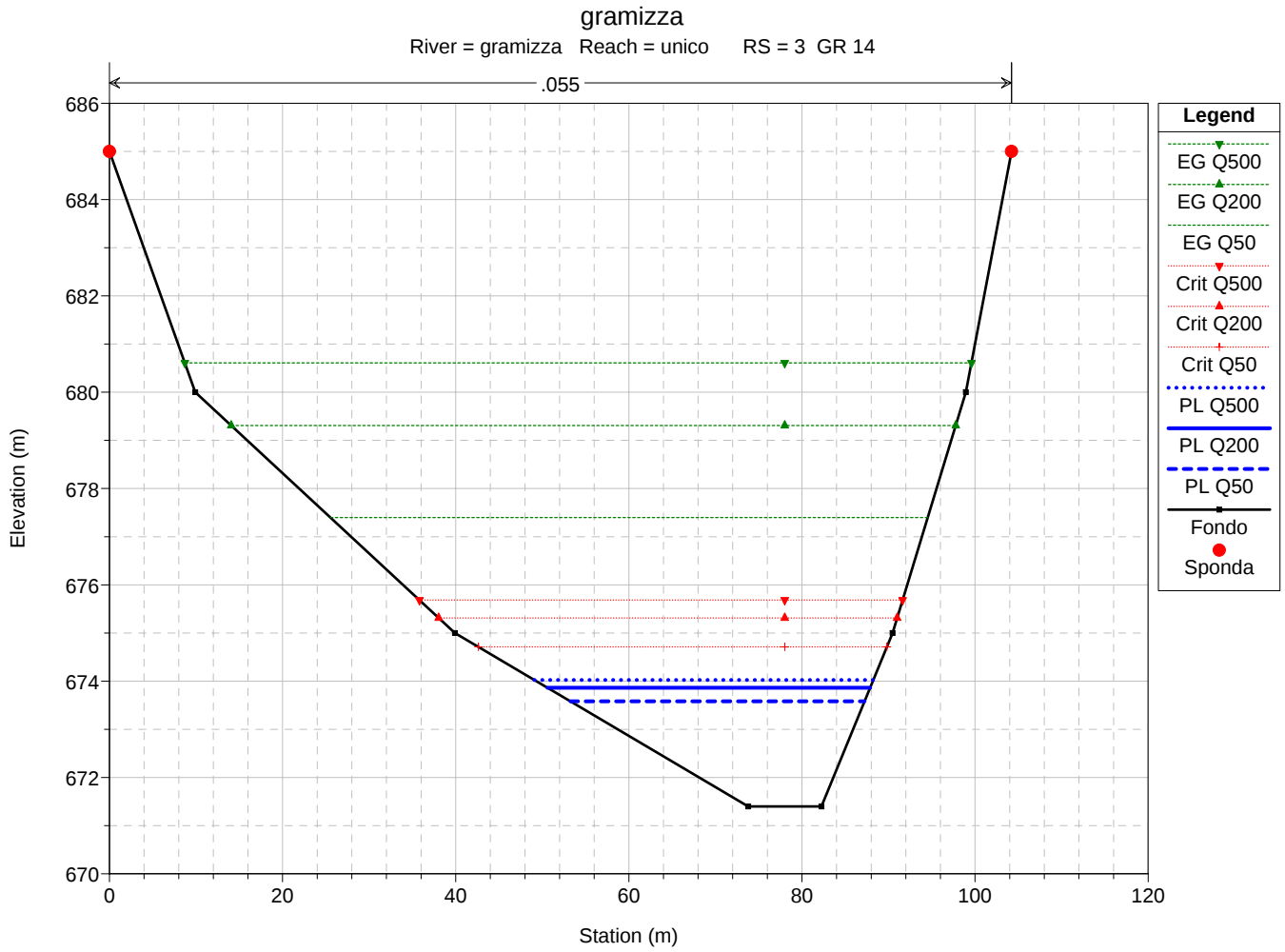
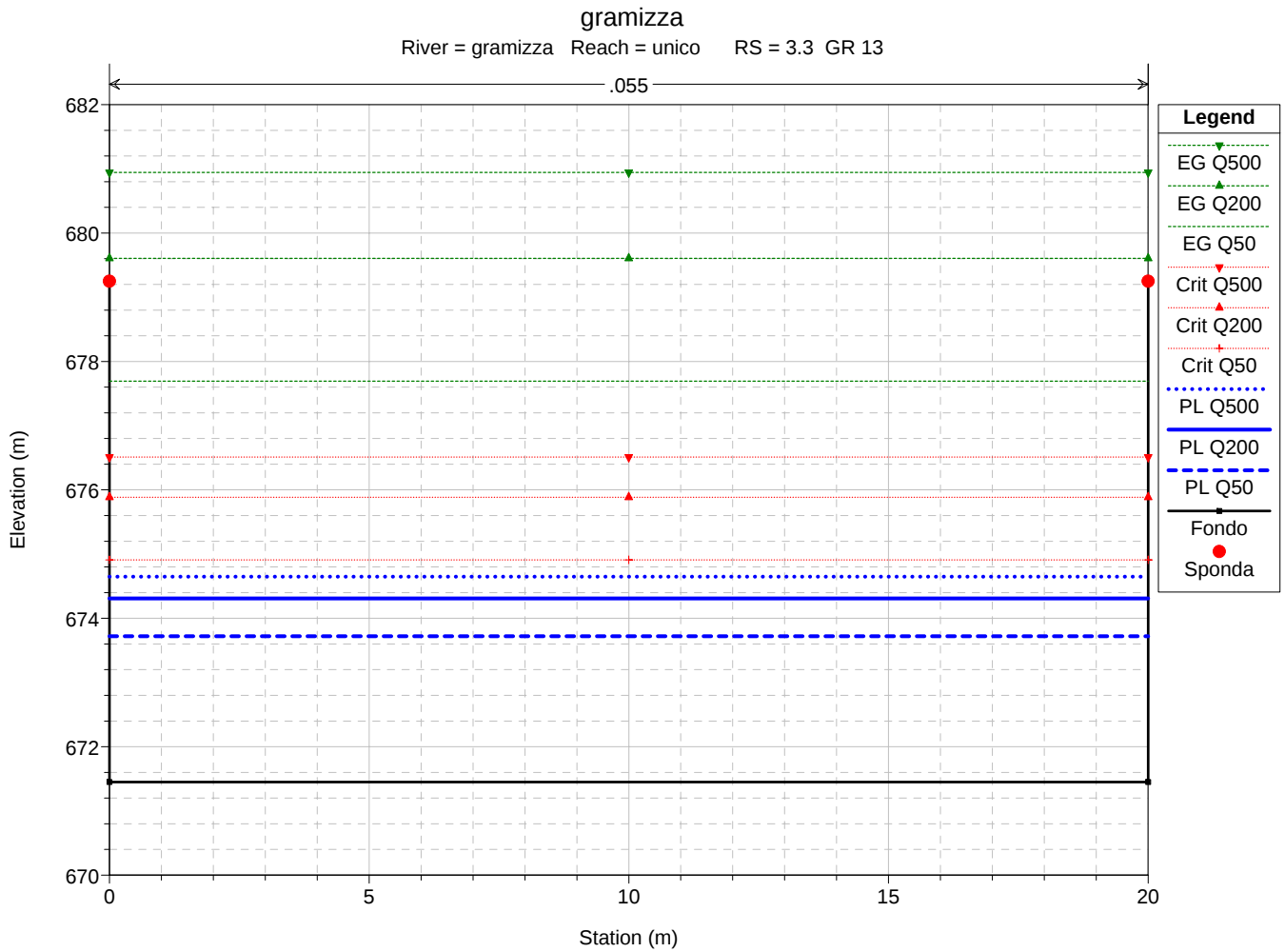


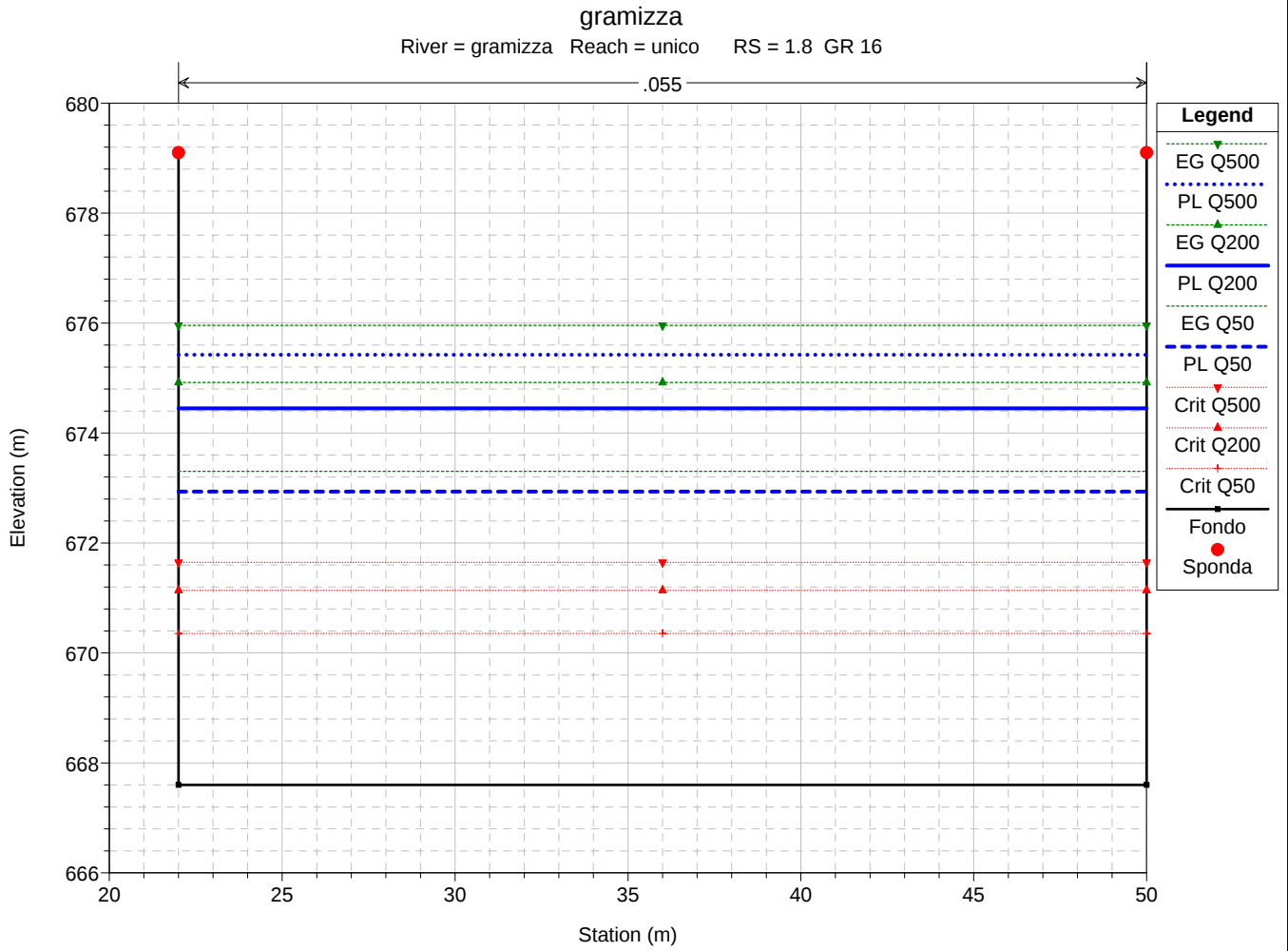
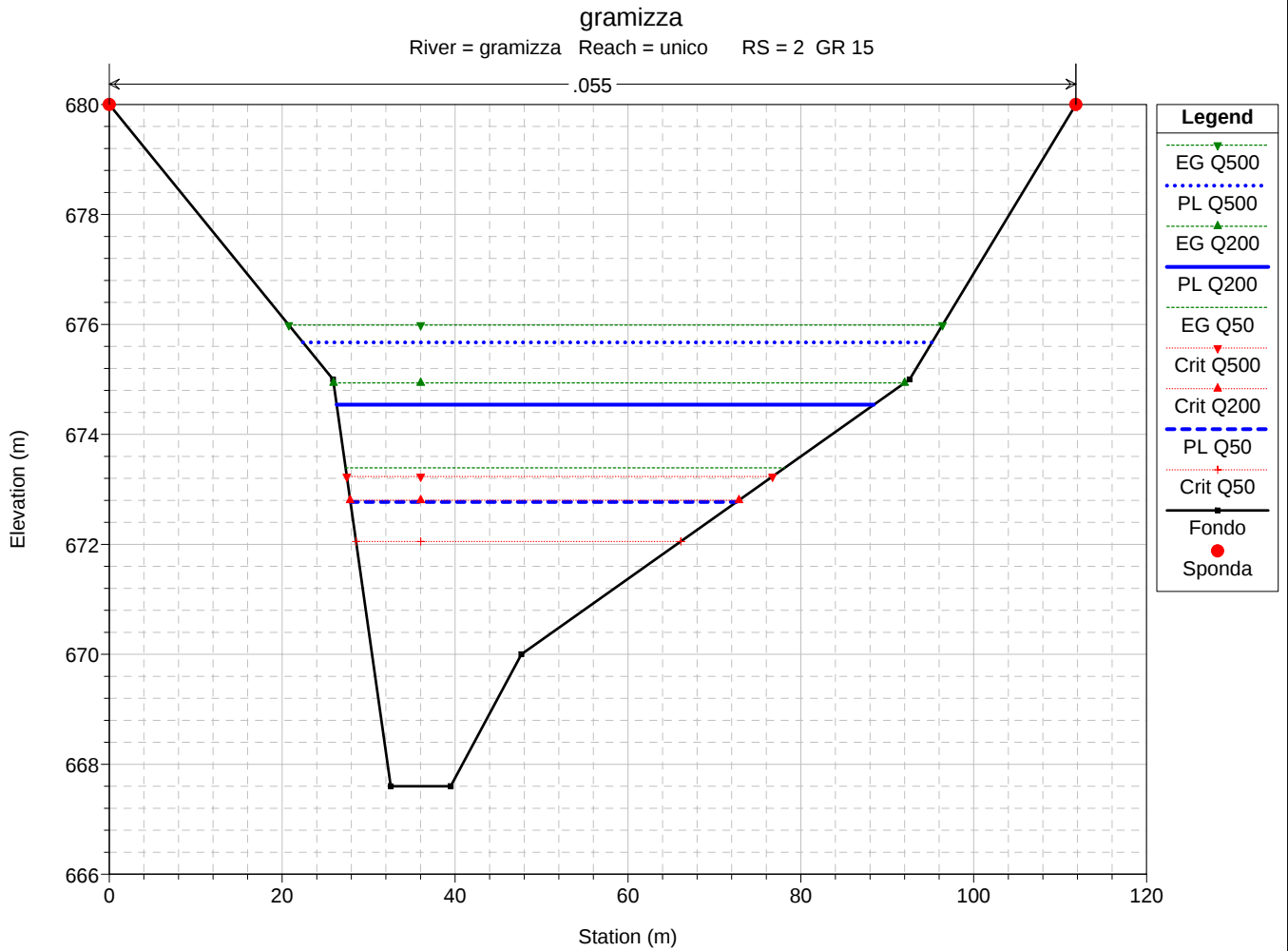


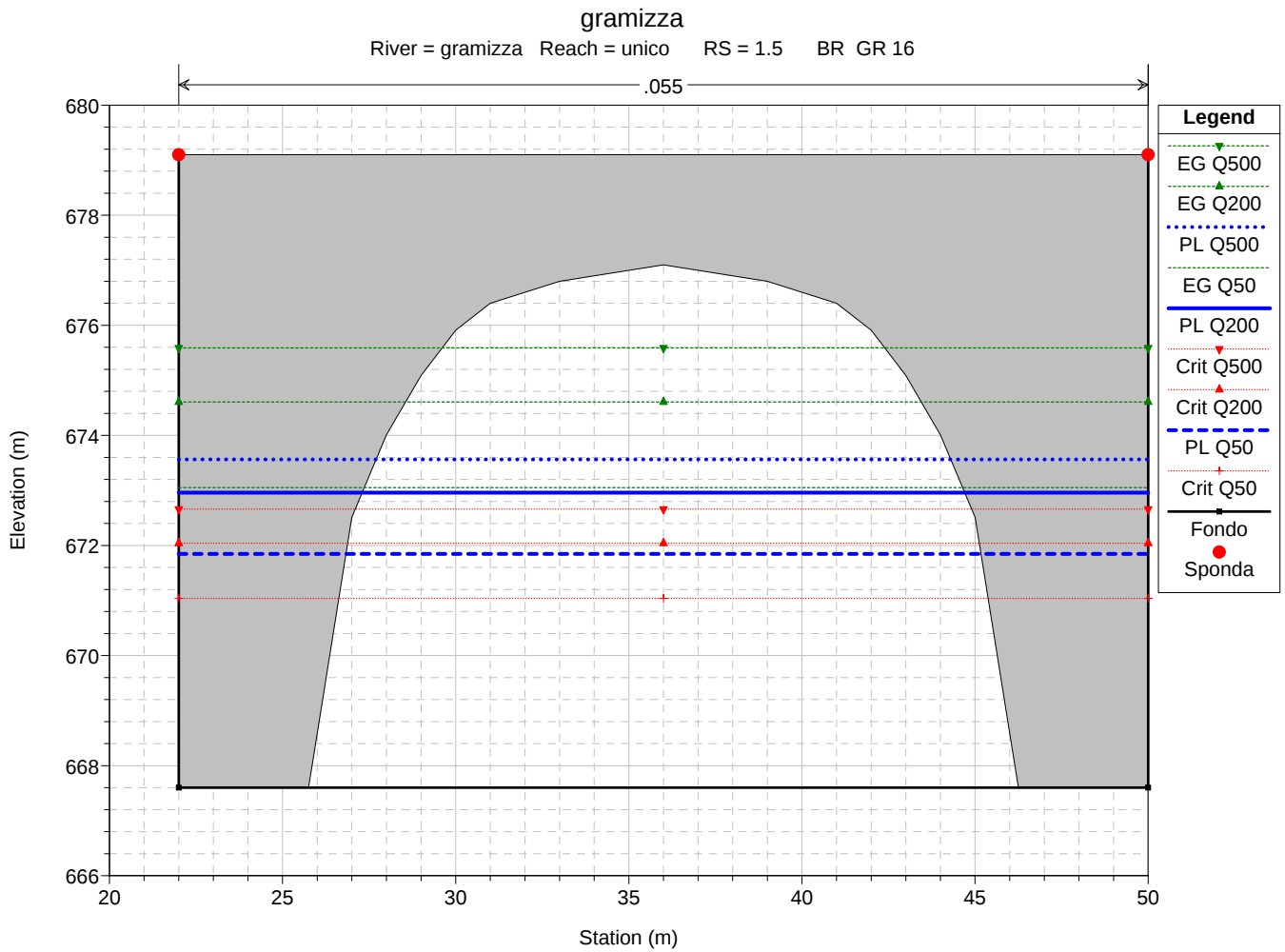
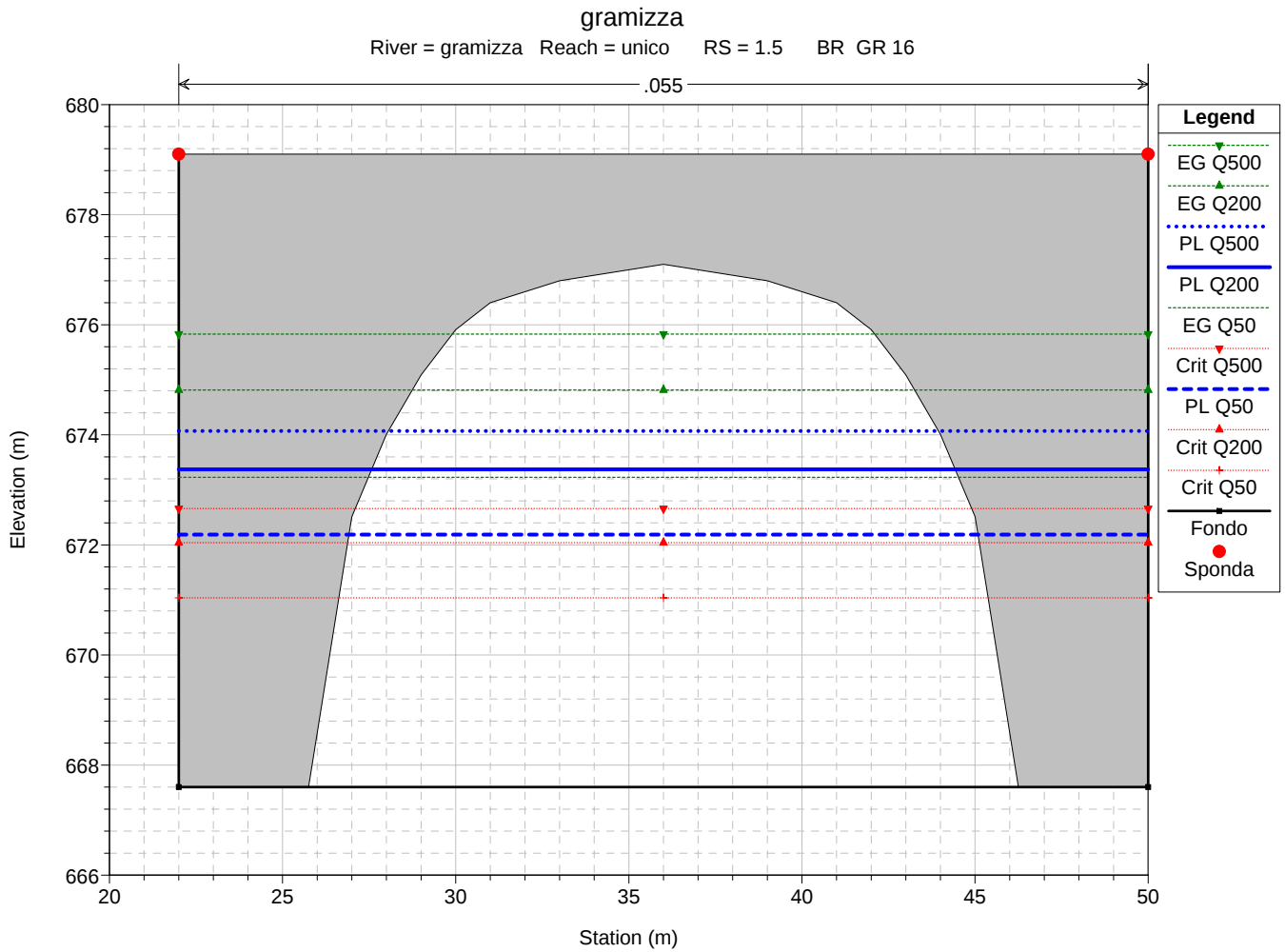




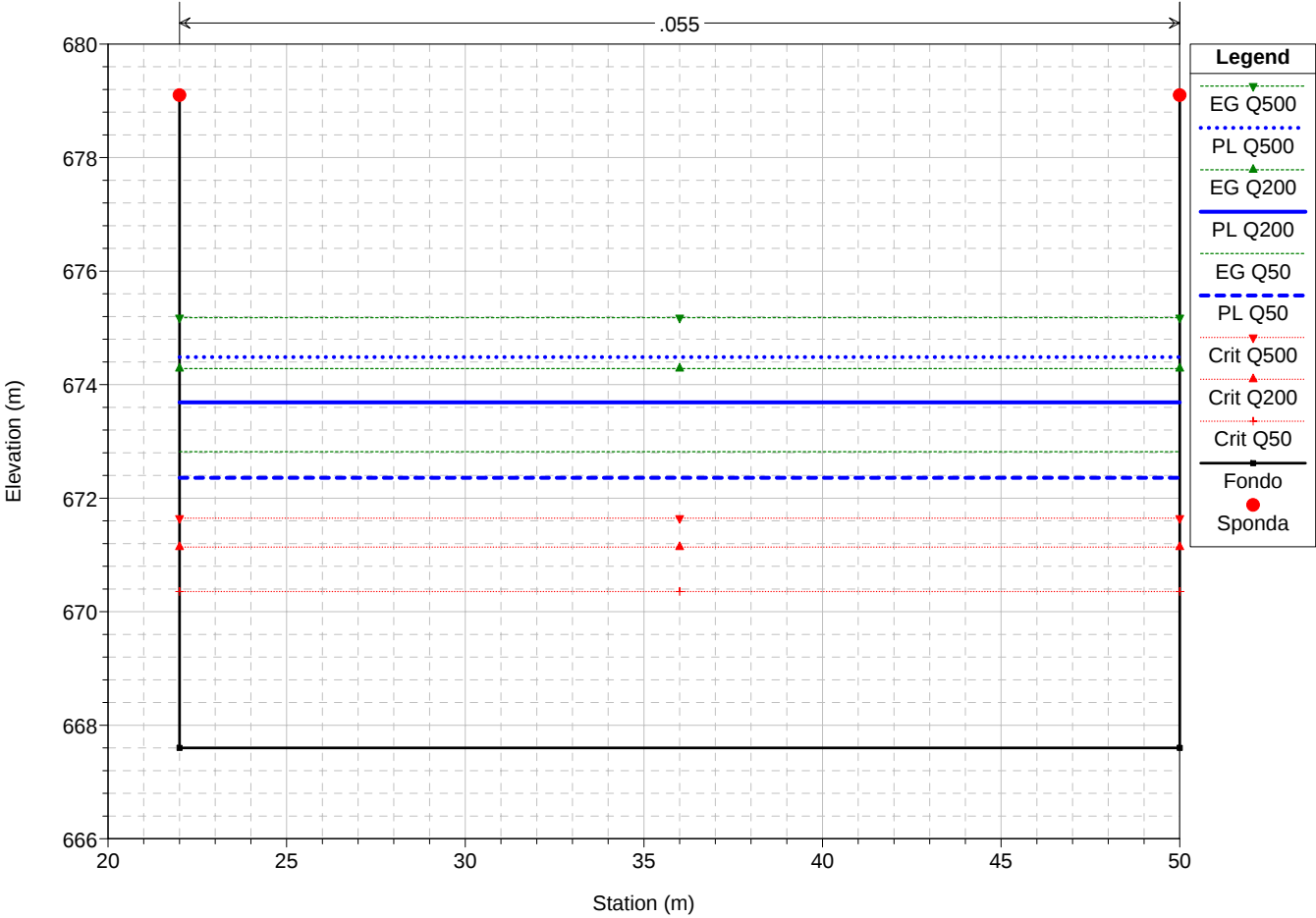








gramizza
River = gramizza Reach = unico RS = 1 GR 16



HEC-RAS Plan: 01_Gramizza River: gramizza Reach: unico

Reach	River Sta		Profile	Q Total	Min Ch El	W.S. Elev	LOB Elev	L. Freeboard	ROB Elev	R. Freeboard	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
unico	16	GR 1	Q50	297.00	774.60	779.11	785.00	5.89	785.00	5.89	779.11	780.36	0.023946	4.95	60.00	23.81	1.00
unico	16	GR 1	Q200	420.00	774.60	779.85	785.00	5.15	785.00	5.15	779.85	781.29	0.023072	5.32	78.88	27.26	1.00
unico	16	GR 1	Q500	504.00	774.60	780.28	785.00	4.72	785.00	4.72	780.28	781.84	0.022368	5.55	90.87	28.75	1.00
unico	15	GR 2	Q50	297.00	761.00	764.83	770.00	5.17	770.00	5.17	765.30	766.57	0.038188	5.85	50.78	22.41	1.24
unico	15	GR 2	Q200	420.00	761.00	765.57	770.00	4.43	770.00	4.43	766.06	767.43	0.037516	6.04	69.57	29.08	1.25
unico	15	GR 2	Q500	504.00	761.00	765.95	770.00	4.05	770.00	4.05	766.47	767.91	0.037918	6.21	81.20	32.94	1.26
unico	14	GR 3	Q50	297.00	753.80	759.49	763.60	4.11	763.60	4.11	755.37	759.55	0.000469	1.09	272.92	48.00	0.15
unico	14	GR 3	Q200	420.00	753.80	760.84	763.60	2.76	763.60	2.76	755.79	760.92	0.000488	1.24	338.04	48.00	0.15
unico	14	GR 3	Q500	504.00	753.80	761.69	763.60	1.91	763.60	1.91	756.05	761.78	0.000498	1.33	378.90	48.00	0.15
unico	13.8	GR 3		Bridge													
unico	13.5	GR 3	Q50	297.00	753.80	754.45	763.60	9.15	763.60	9.15	755.37	759.02	0.495067	9.46	31.38	48.00	3.74
unico	13.5	GR 3	Q200	420.00	753.80	754.63	763.60	8.97	763.60	8.97	755.79	760.29	0.450303	10.54	39.86	48.00	3.69
unico	13.5	GR 3	Q500	504.00	753.80	754.74	763.60	8.86	763.60	8.86	756.05	761.08	0.429882	11.16	45.17	48.00	3.67
unico	13	GR 4	Q50	297.00	748.66	751.98	760.00	8.01	760.00	8.01	751.83	752.72	0.020407	3.81	77.93	42.28	0.90
unico	13	GR 4	Q200	420.00	748.66	752.51	760.00	7.49	760.00	7.49	752.36	753.38	0.020043	4.12	101.91	48.39	0.91
unico	13	GR 4	Q500	504.00	748.66	752.82	760.00	7.18	760.00	7.18	752.67	753.76	0.019792	4.29	117.48	51.97	0.91
unico	12	GR 5	Q50	333.00	739.65	743.05	755.00	11.95	755.00	11.95	743.00	744.10	0.023046	4.53	73.50	33.53	0.98
unico	12	GR 5	Q200	477.00	739.65	743.69	755.00	11.31	755.00	11.31	743.69	744.94	0.022801	4.96	96.23	37.99	0.99
unico	12	GR 5	Q500	576.00	739.65	744.08	755.00	10.92	755.00	10.92	744.08	745.44	0.022311	5.16	111.57	40.72	1.00
unico	11	GR 6	Q50	333.00	728.20	731.64	740.00	8.36	740.00	8.36	731.49	732.66	0.019590	4.48	74.27	30.36	0.92
unico	11	GR 6	Q200	477.00	728.20	732.30	740.00	7.70	740.00	7.70	732.18	733.58	0.019704	5.01	95.21	32.82	0.94
unico	11	GR 6	Q500	576.00	728.20	732.69	740.00	7.31	740.00	7.31	732.59	734.13	0.019985	5.32	108.19	34.25	0.96
unico	10	GR 7	Q50	343.00	718.60	722.27	730.00	7.73	730.00	7.73	721.88	723.02	0.014818	3.84	89.36	37.43	0.79
unico	10	GR 7	Q200	493.00	718.60	722.96	730.00	7.04	730.00	7.04	722.52	723.87	0.014624	4.23	116.54	41.52	0.81
unico	10	GR 7	Q500	597.00	718.60	723.37	730.00	6.63	730.00	6.63	722.91	724.38	0.014511	4.45	134.24	43.98	0.81
unico	9	GR 8	Q50	354.00	710.18	714.21	725.00	10.79	725.00	10.79	713.62	714.74	0.011407	3.22	109.83	49.81	0.69
unico	9	GR 8	Q200	509.00	710.18	714.86	725.00	10.14	725.00	10.14	714.22	715.49	0.011361	3.53	144.39	57.06	0.71
unico	9	GR 8	Q500	618.00	710.18	715.22	725.00	9.78	725.00	9.78	714.55	715.93	0.011252	3.74	165.33	59.30	0.71
unico	8	GR 9	Q50	354.00	704.30	707.28	715.00	7.72	715.00	7.72	707.10	708.07	0.019063	3.95	89.51	44.39	0.89
unico	8	GR 9	Q200	509.00	704.30	707.84	715.00	7.16	715.00	7.16	707.69	708.82	0.019223	4.38	116.12	49.57	0.91
unico	8	GR 9	Q500	618.00	704.30	708.19	715.00	6.81	715.00	6.81	708.02	709.28	0.019295	4.63	133.59	52.69	0.93
unico	7	GR 10	Q50	390.00	693.70	697.55	705.00	7.45	705.00	7.45	697.13	698.38	0.014267	4.04	96.52	36.85	0.80
unico	7	GR 10	Q200	566.00	693.70	698.32	705.00	6.68	705.00	6.68	697.85	699.34	0.014007	4.47	126.48	40.70	0.81
unico	7	GR 10	Q500	690.00	693.70	698.79	705.00	6.21	705.00	6.21	698.30	699.93	0.013849	4.72	146.32	43.05	0.82
unico	6	GR 11	Q50	390.00	685.20	689.39	700.00	10.61	700.00	10.61	688.73	690.28	0.012462	4.19	93.10	28.93	0.75
unico	6	GR 11	Q200	566.00	685.20	690.28	700.00	9.72	700.00	9.72	689.60	691.41	0.012929	4.71	120.11	31.93	0.78
unico	6	GR 11	Q500	690.00	685.20	690.81	700.00	9.19	700.00	9.19	690.13	692.09	0.013281	5.02	137.59	33.92	0.79
unico	5	GR 12	Q50	401.00	678.30	682.02	690.00	7.98	690.00	7.98	681.59	682.67	0.013986	3.57	112.23	50.51	0.77
unico	5	GR 12	Q200	583.00	678.30	682.71	690.00	7.29	690.00	7.29	682.22	683.49	0.013635	3.91	149.12	57.43	0.77
unico	5	GR 12	Q500	711.00	678.30	683.22	690.00	6.78	690.00	6.78	682.60	684.01	0.012230	3.96	179.69	62.58	0.75

HEC-RAS Plan: 01_Gramizza River: gramizza Reach: unico (Continued)

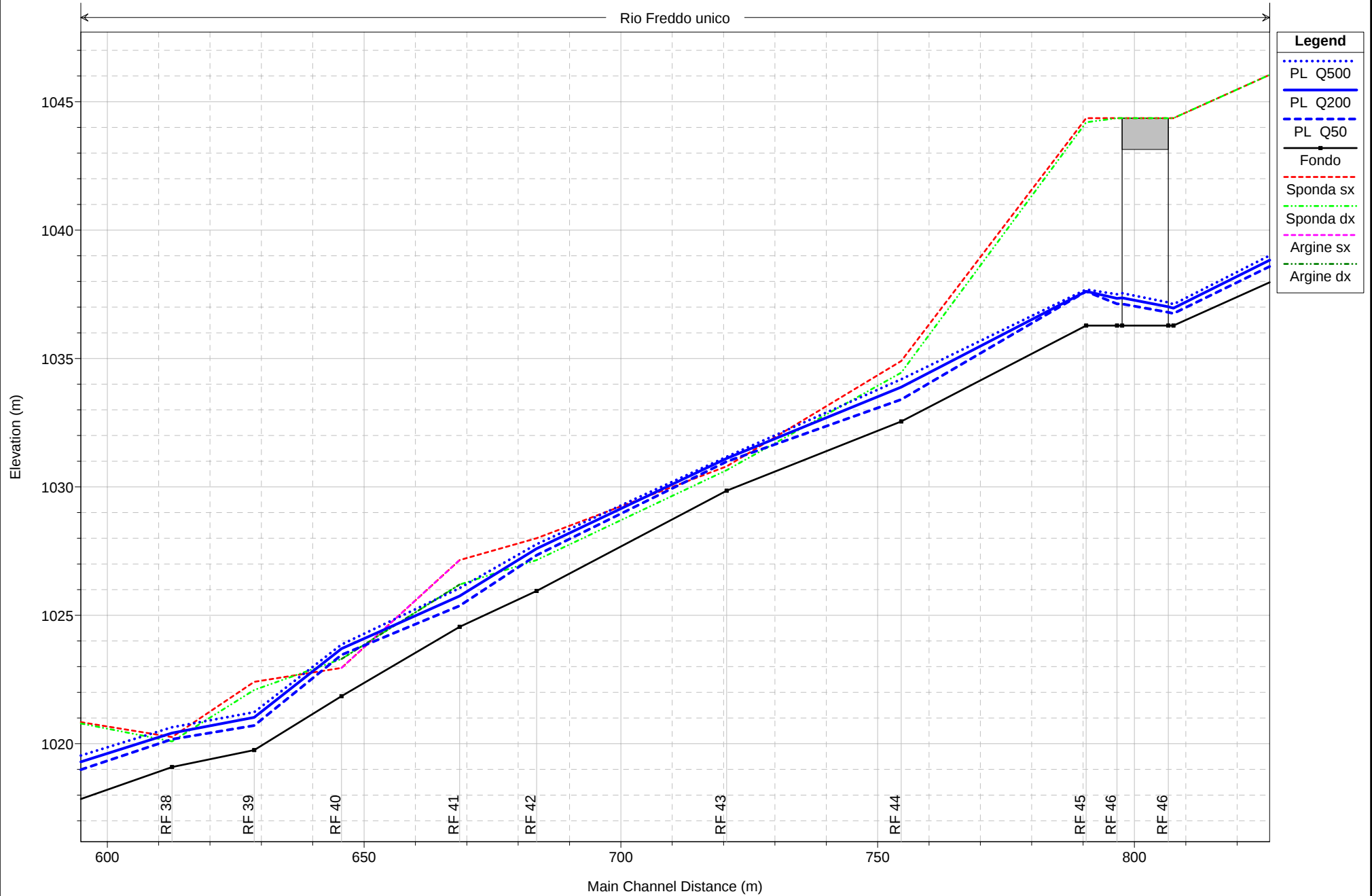
Reach	River Sta		Profile	Q Total	Min Ch El	W.S. Elev	LOB Elev	L. Freeboard	ROB Elev	R. Freeboard	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
unico	4	GR 13	Q50	401.00	671.45	677.56	679.25	1.69	679.25	1.69	674.91	678.10	0.005520	3.28	122.10	20.00	0.42
unico	4	GR 13	Q200	583.00	671.45	679.47	679.25	-0.22	679.25	-0.22	675.89	680.15	0.005452	3.63	160.47	20.00	0.41
unico	4	GR 13	Q500	711.00	671.45	680.86	679.25	-1.61	679.25	-1.61	676.51	681.59	0.005257	3.78	188.26	20.00	0.39
unico	3.5	GR 13	Bridge														
unico	3.3	GR 13	Q50	401.00	671.45	673.72	679.25	5.53	679.25	5.53	674.91	677.69	0.103889	8.83	45.40	20.00	1.87
unico	3.3	GR 13	Q200	583.00	671.45	674.31	679.25	4.94	679.25	4.94	675.89	679.61	0.108402	10.20	57.17	20.00	1.93
unico	3.3	GR 13	Q500	711.00	671.45	674.65	679.25	4.60	679.25	4.60	676.51	680.94	0.114869	11.12	63.96	20.00	1.98
unico	3	GR 14	Q50	401.00	671.40	673.58	685.00	11.42	685.00	11.42	674.71	677.40	0.153127	8.65	46.35	33.99	2.37
unico	3	GR 14	Q200	583.00	671.40	673.86	685.00	11.14	685.00	11.14	675.31	679.31	0.190551	10.34	56.39	37.29	2.68
unico	3	GR 14	Q500	711.00	671.40	674.03	685.00	10.97	685.00	10.97	675.68	680.61	0.214307	11.37	62.55	39.17	2.87
unico	2	GR 15	Q50	401.00	667.60	672.77	680.00	7.23	680.00	7.23	672.05	673.39	0.011351	3.49	114.85	44.66	0.70
unico	2	GR 15	Q200	583.00	667.60	674.54	680.00	5.46	680.00	5.46	672.80	674.94	0.005013	2.78	209.40	62.16	0.48
unico	2	GR 15	Q500	711.00	667.60	675.67	680.00	4.33	680.00	4.33	673.23	675.99	0.003242	2.49	285.97	72.78	0.40
unico	1.8	GR 16	Q50	401.00	667.60	672.94	679.10	6.16	679.10	6.16	670.36	673.30	0.003595	2.68	149.40	28.00	0.37
unico	1.8	GR 16	Q200	583.00	667.60	674.45	679.10	4.65	679.10	4.65	671.14	674.92	0.003656	3.04	191.76	28.00	0.37
unico	1.8	GR 16	Q500	711.00	667.60	675.42	679.10	3.68	679.10	3.68	671.65	675.96	0.003710	3.25	219.03	28.00	0.37
unico	1.5	GR 16	Bridge														
unico	1	GR 16	Q50	401.00	667.60	672.36	679.10	6.74	679.10	6.74	670.36	672.82	0.005057	3.01	133.23	28.00	0.44
unico	1	GR 16	Q200	583.00	667.60	673.69	679.10	5.41	679.10	5.41	671.14	674.28	0.005155	3.42	170.42	28.00	0.44
unico	1	GR 16	Q500	711.00	667.60	674.49	679.10	4.61	679.10	4.61	671.65	675.18	0.005352	3.69	192.81	28.00	0.45
unico	0.1		Q50	401.00	664.00	669.43	667.60	-1.83	680.00	10.57	668.51	670.12	0.009555	3.67	109.32	33.83	0.65
unico	0.1		Q200	583.00	664.00	670.11	667.60	-2.51	680.00	9.89	669.31	671.09	0.011628	4.38	133.11	36.04	0.73
unico	0.1		Q500	711.00	664.00	670.48	667.60	-2.88	680.00	9.52	669.80	671.68	0.013072	4.85	146.60	36.87	0.78

Rio Freddo

- Profili di corrente
- Sezioni idrauliche
- Tabelle dei risultati

Santo Stefano

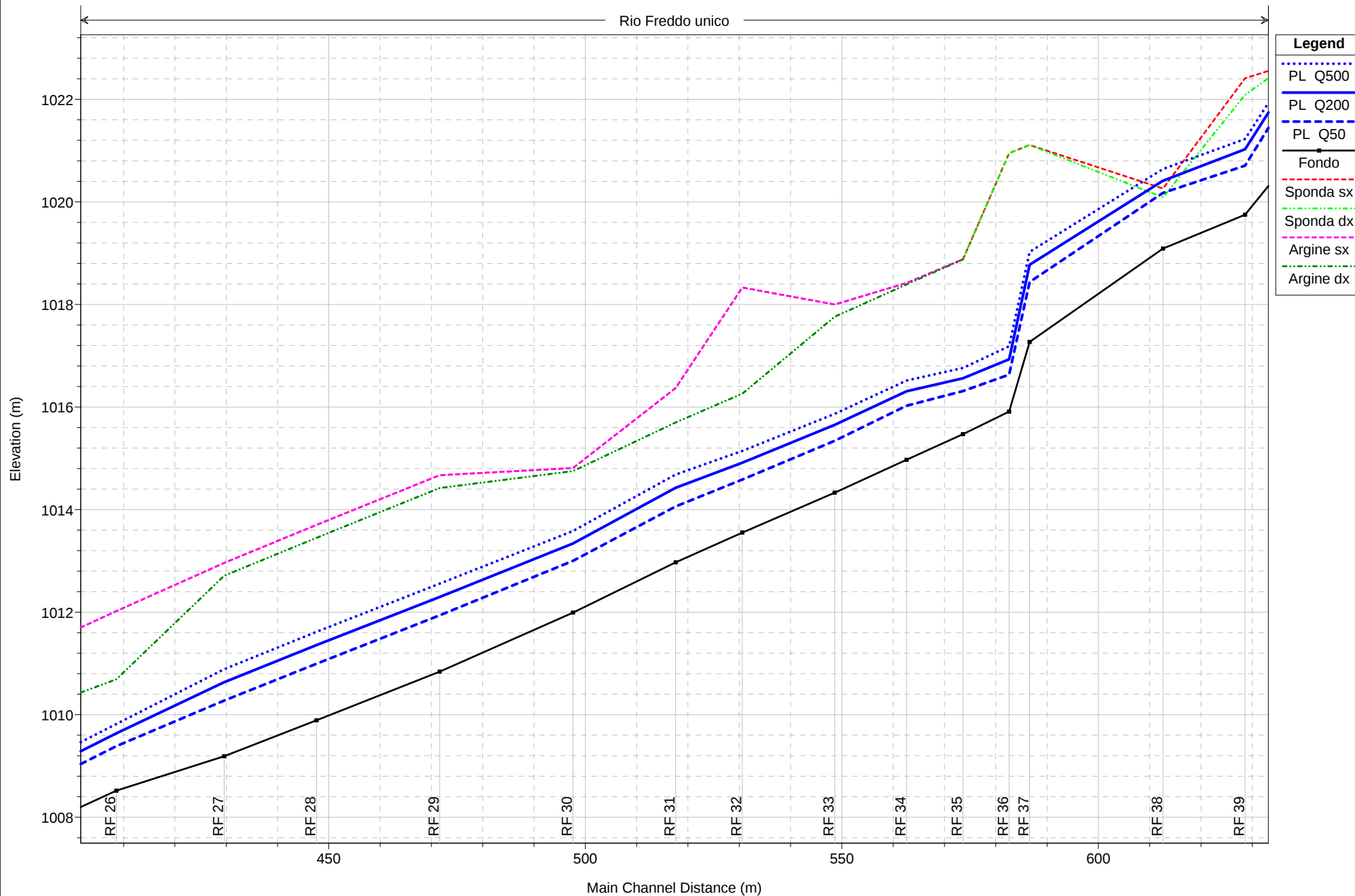
Rio Freddo unico



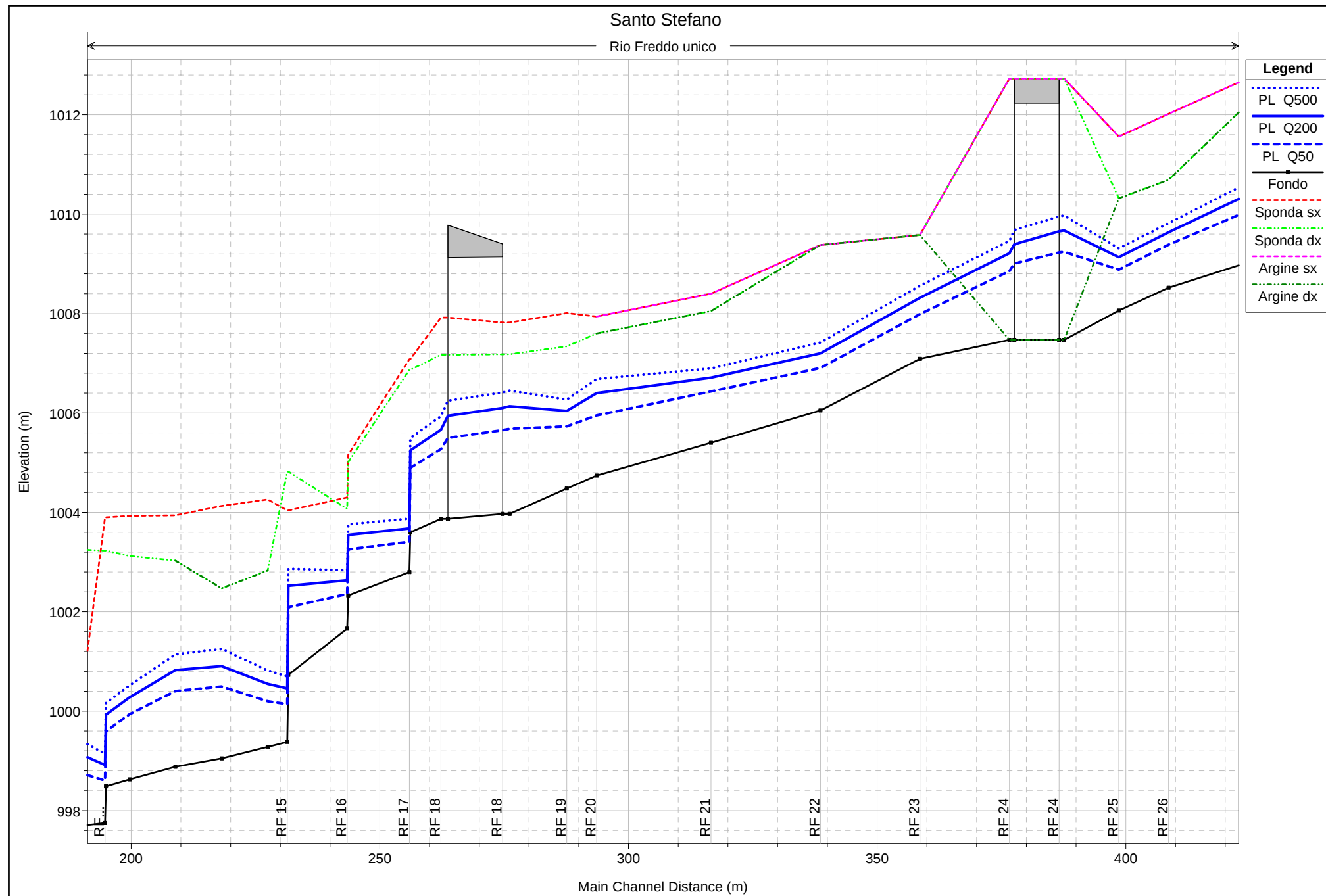
1 cm Horiz. = 10 m 1 cm Vert. = 2 m

Santo Stefano

Rio Freddo unico



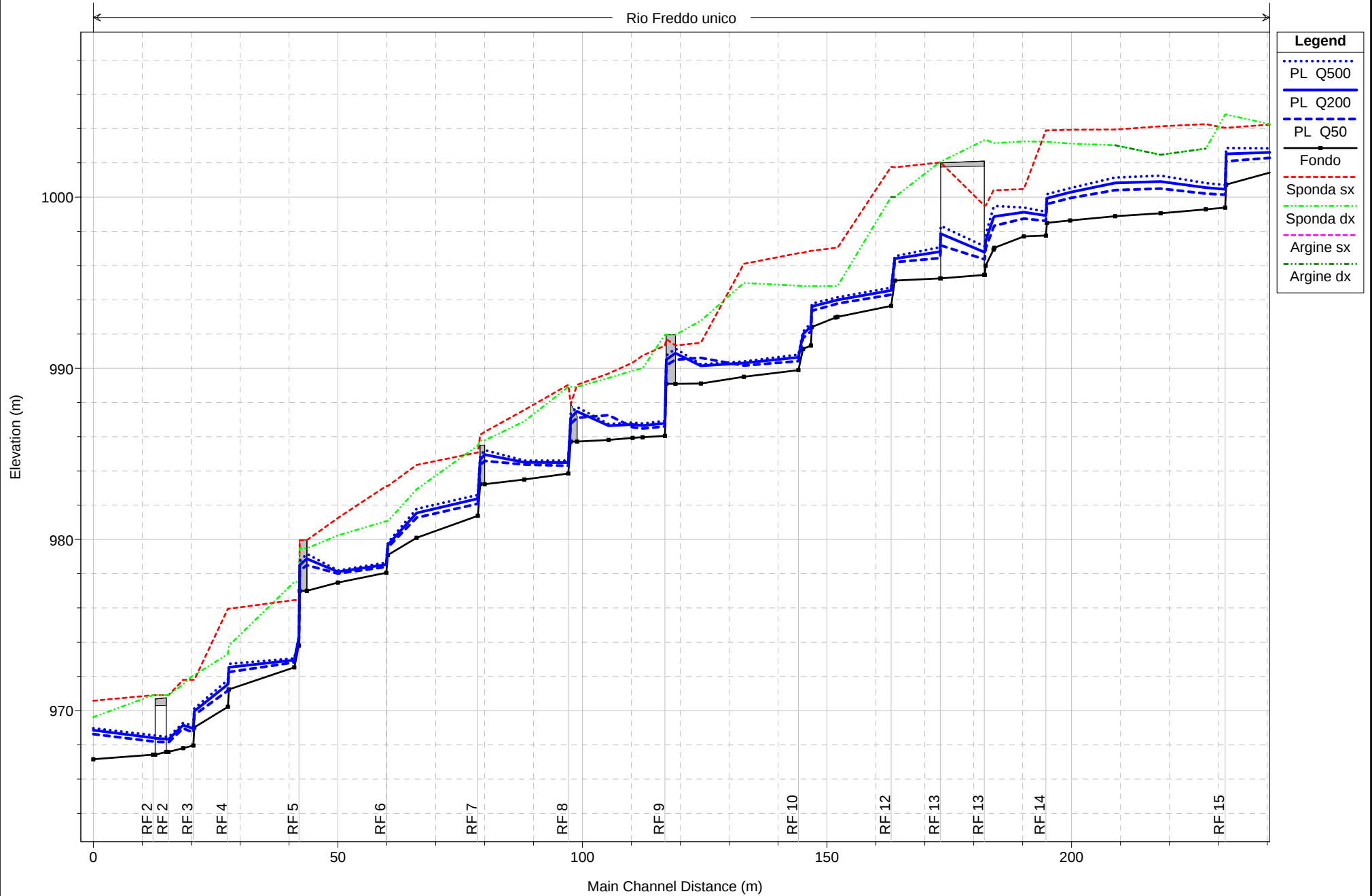
1 cm Horiz. = 10 m 1 cm Vert. = 1 m

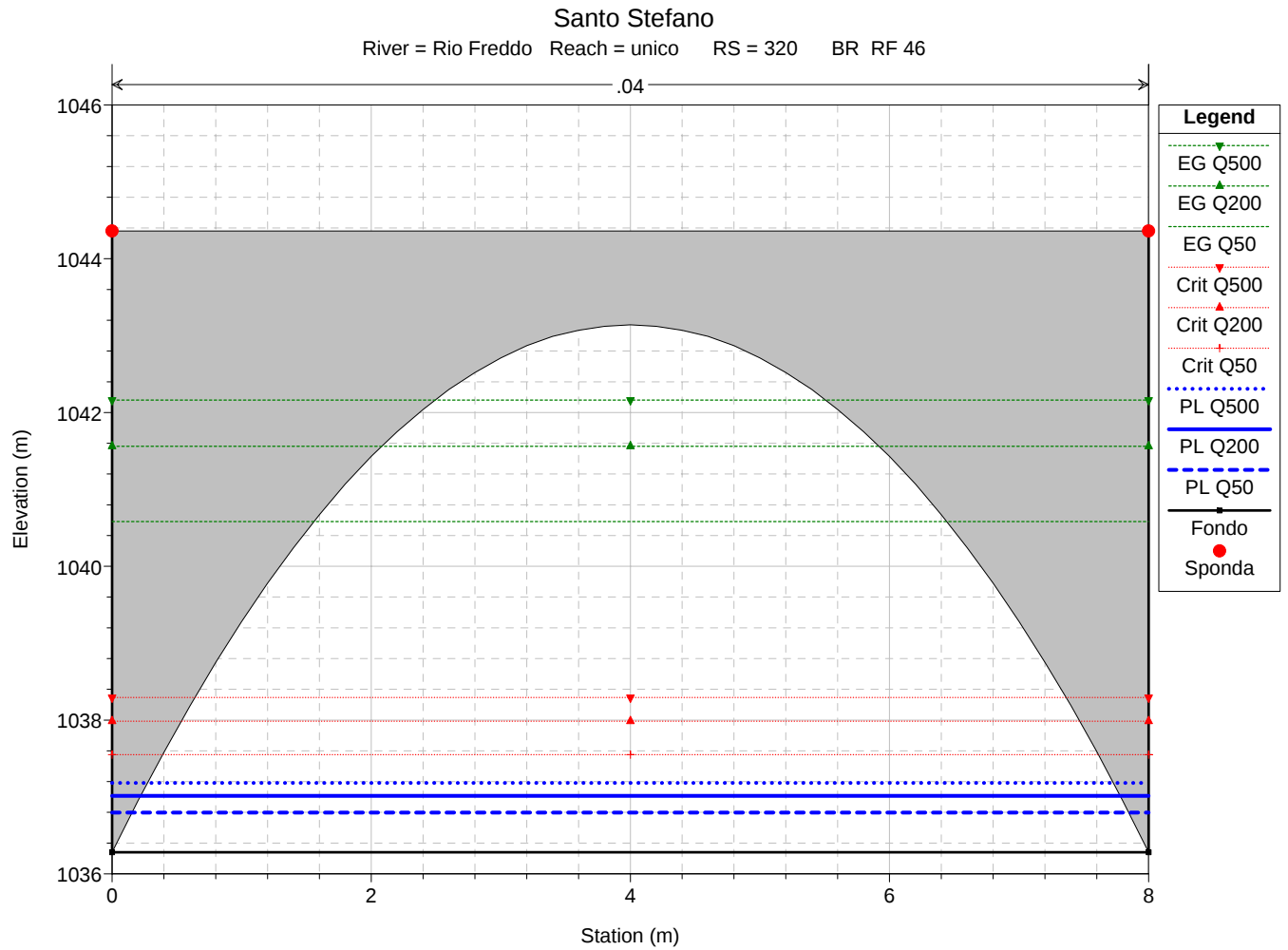
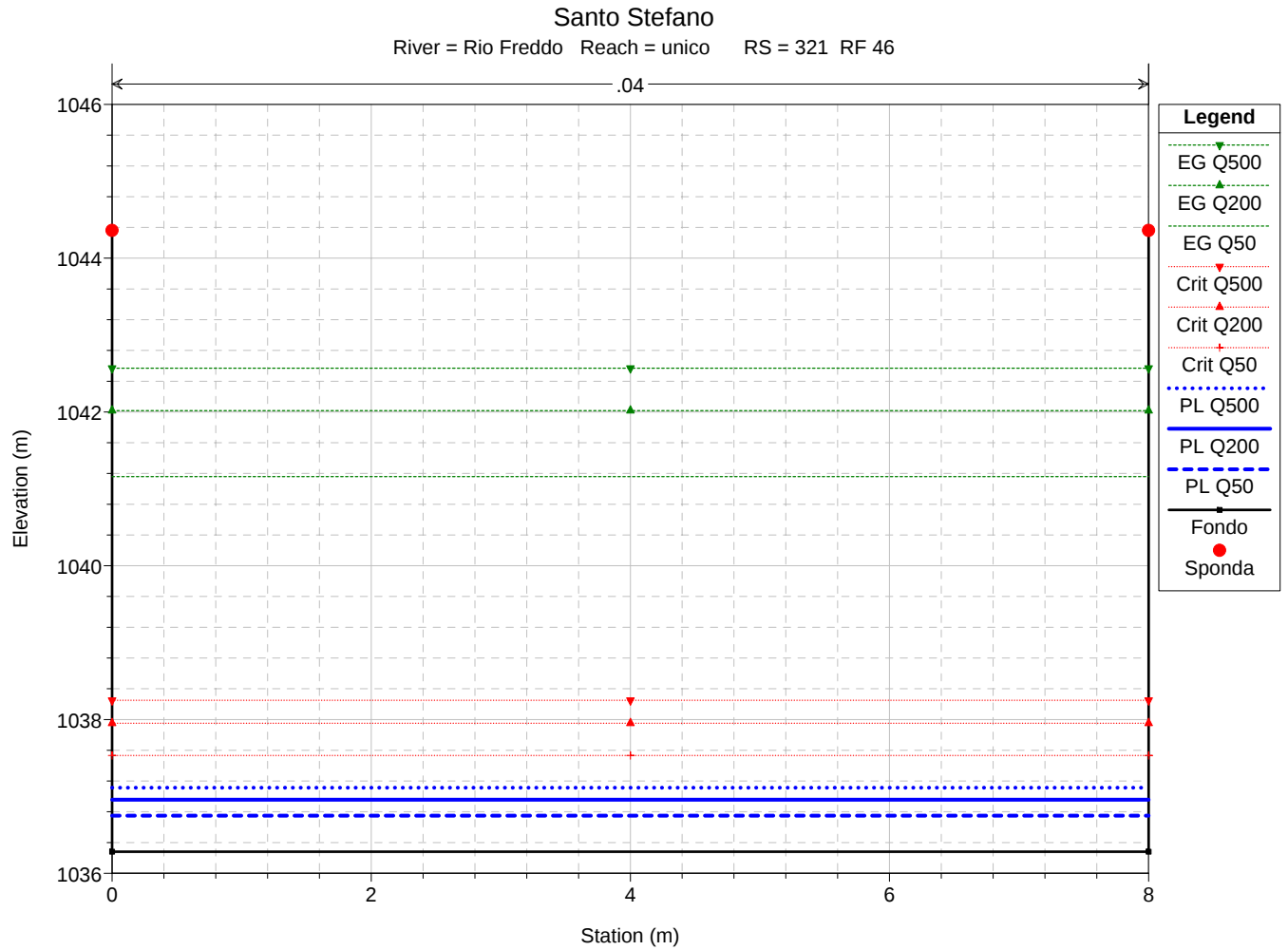


1 cm Horiz. = 10 m 1 cm Vert. = 1 m

Santo Stefano

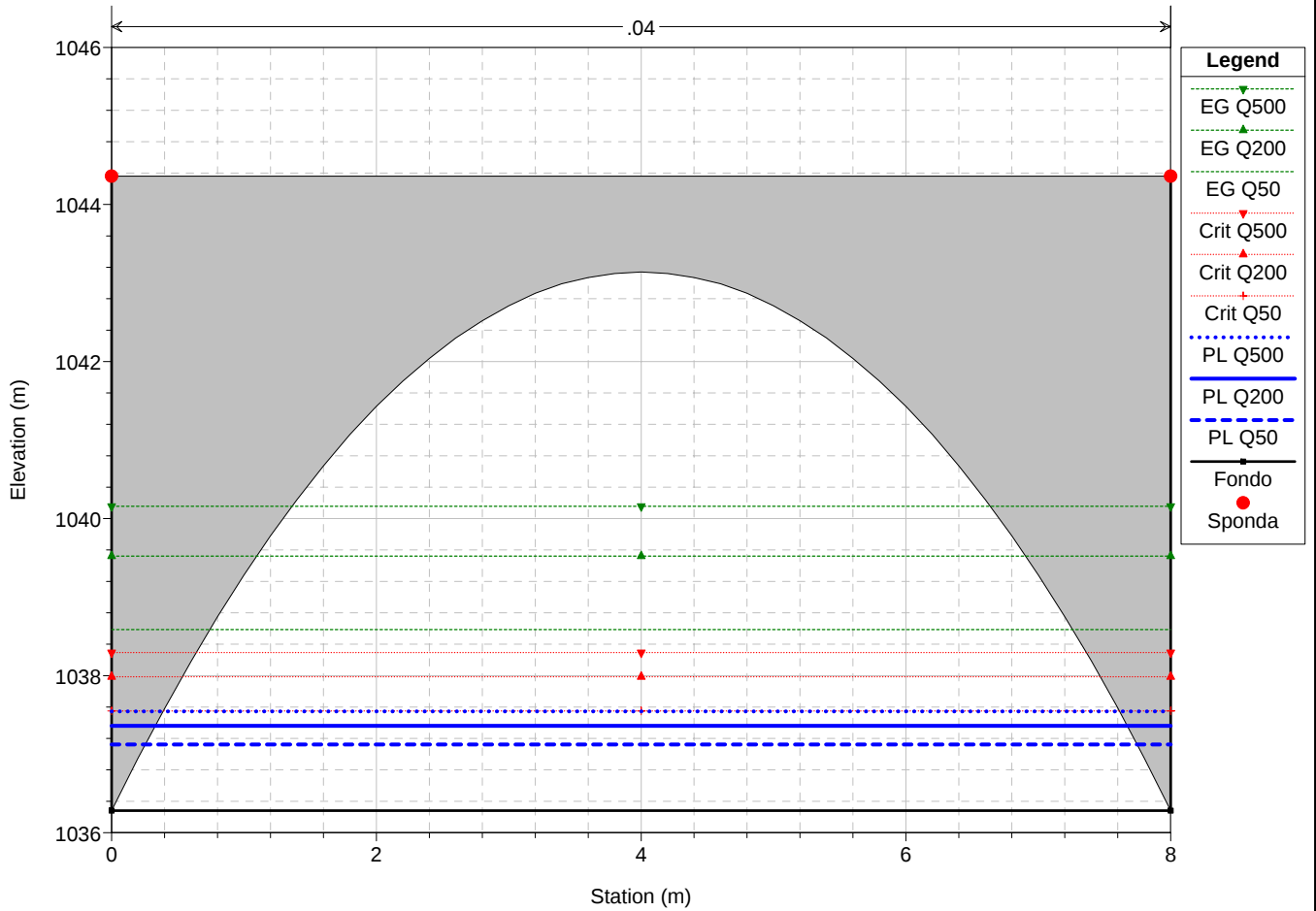
Rio Freddo unico





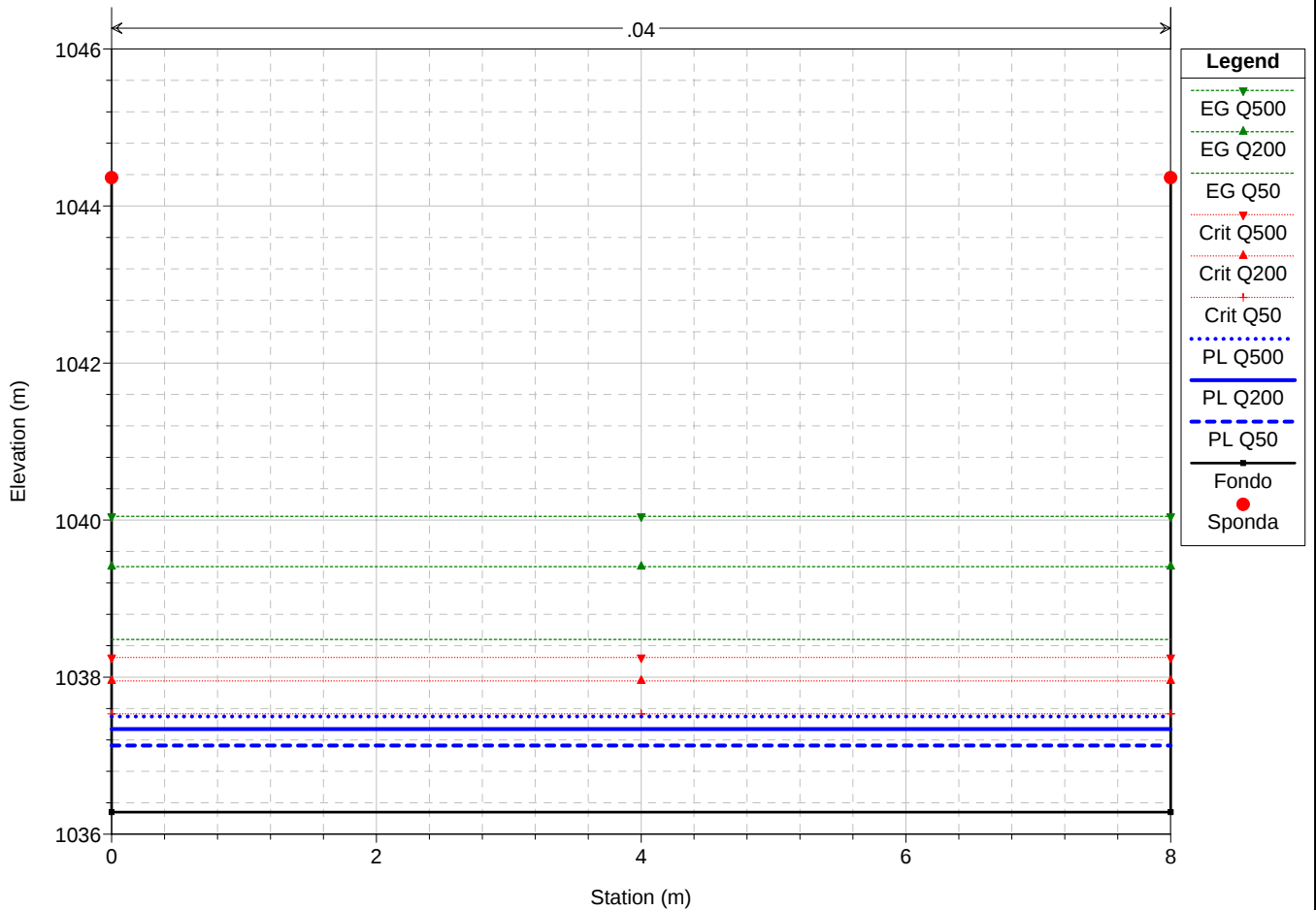
Santo Stefano

River = Rio Freddo Reach = unico RS = 320 BR RF 46



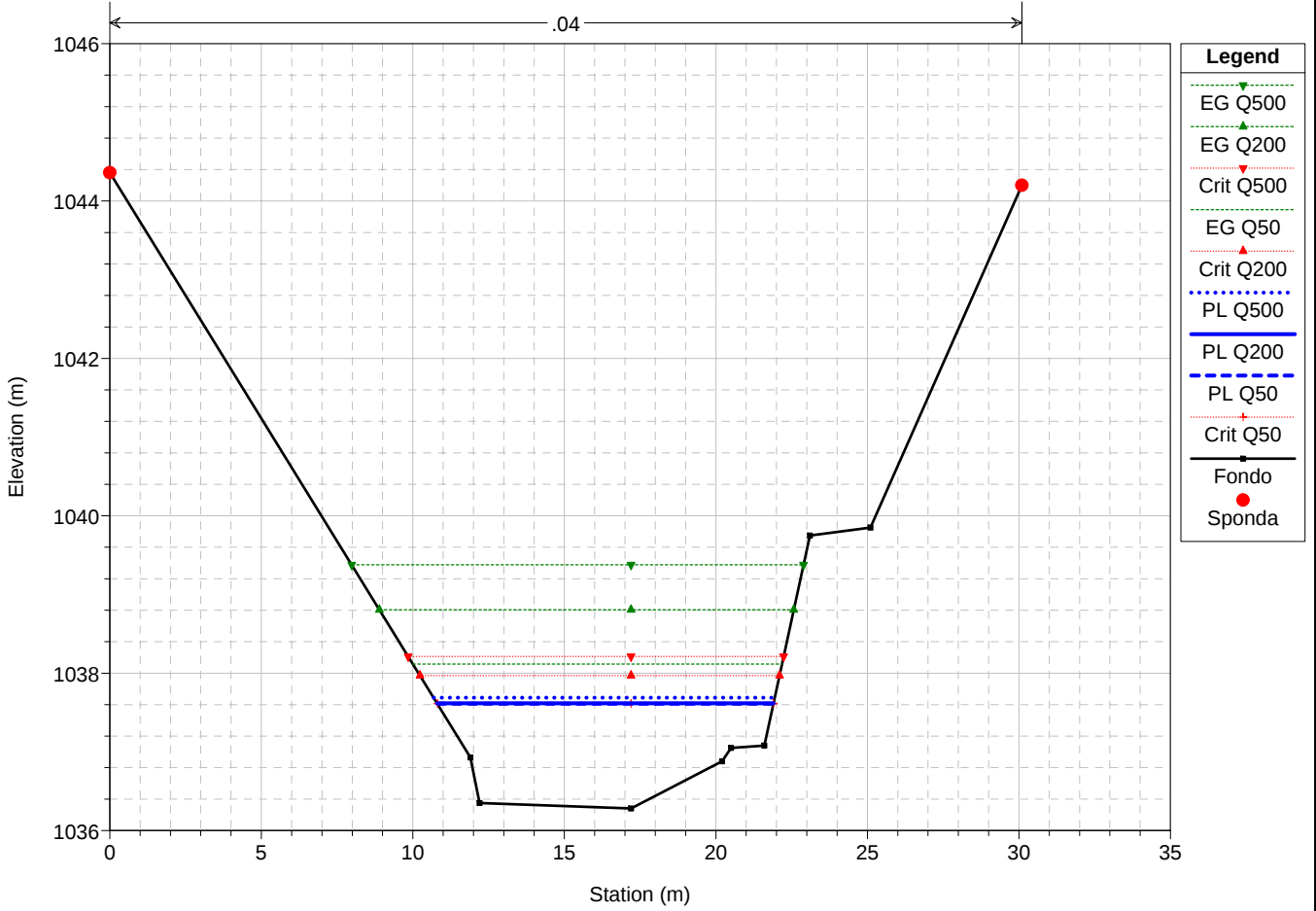
Santo Stefano

River = Rio Freddo Reach = unico RS = 319 RF 46



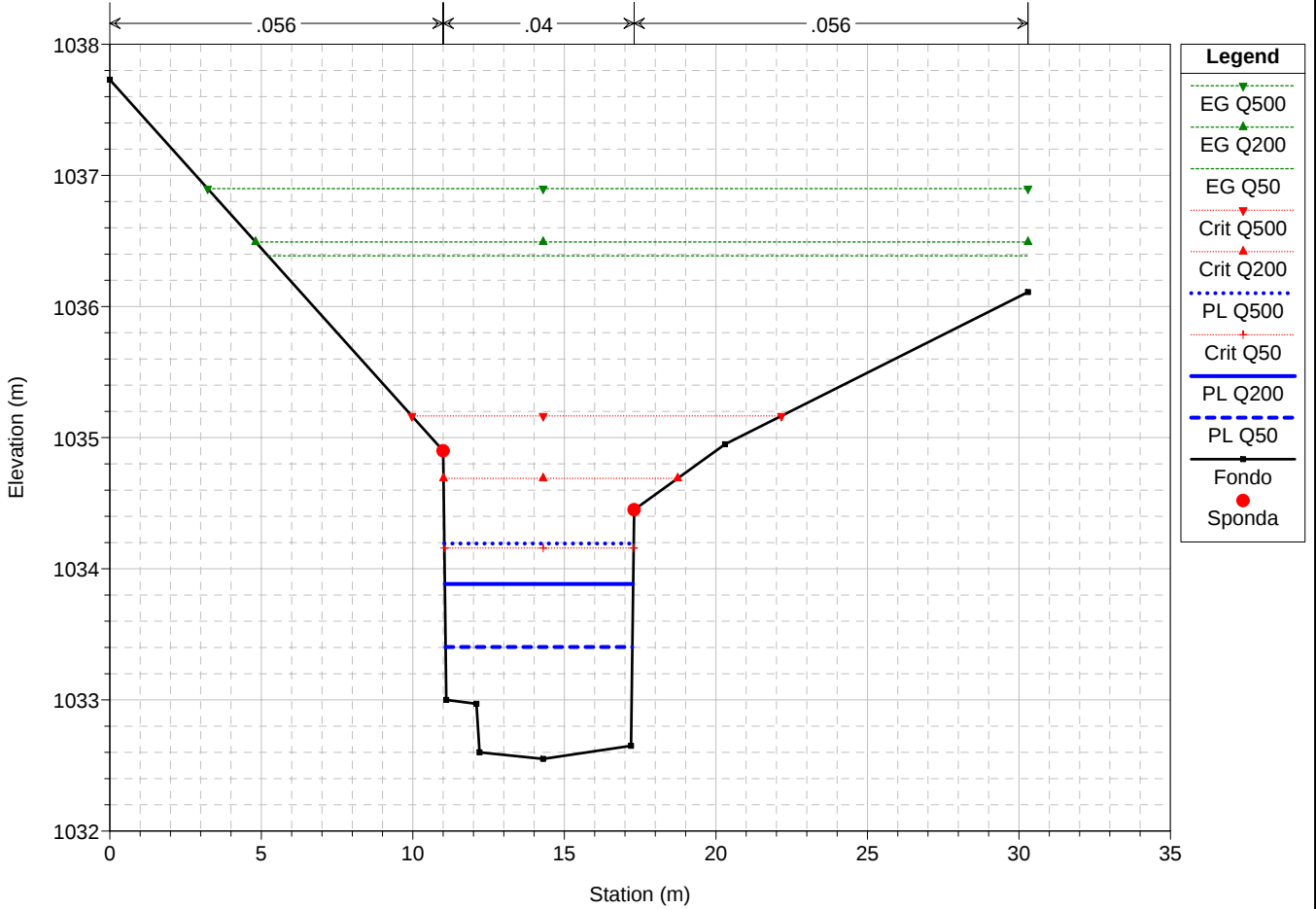
Santo Stefano

River = Rio Freddo Reach = unico RS = 310 RF 45



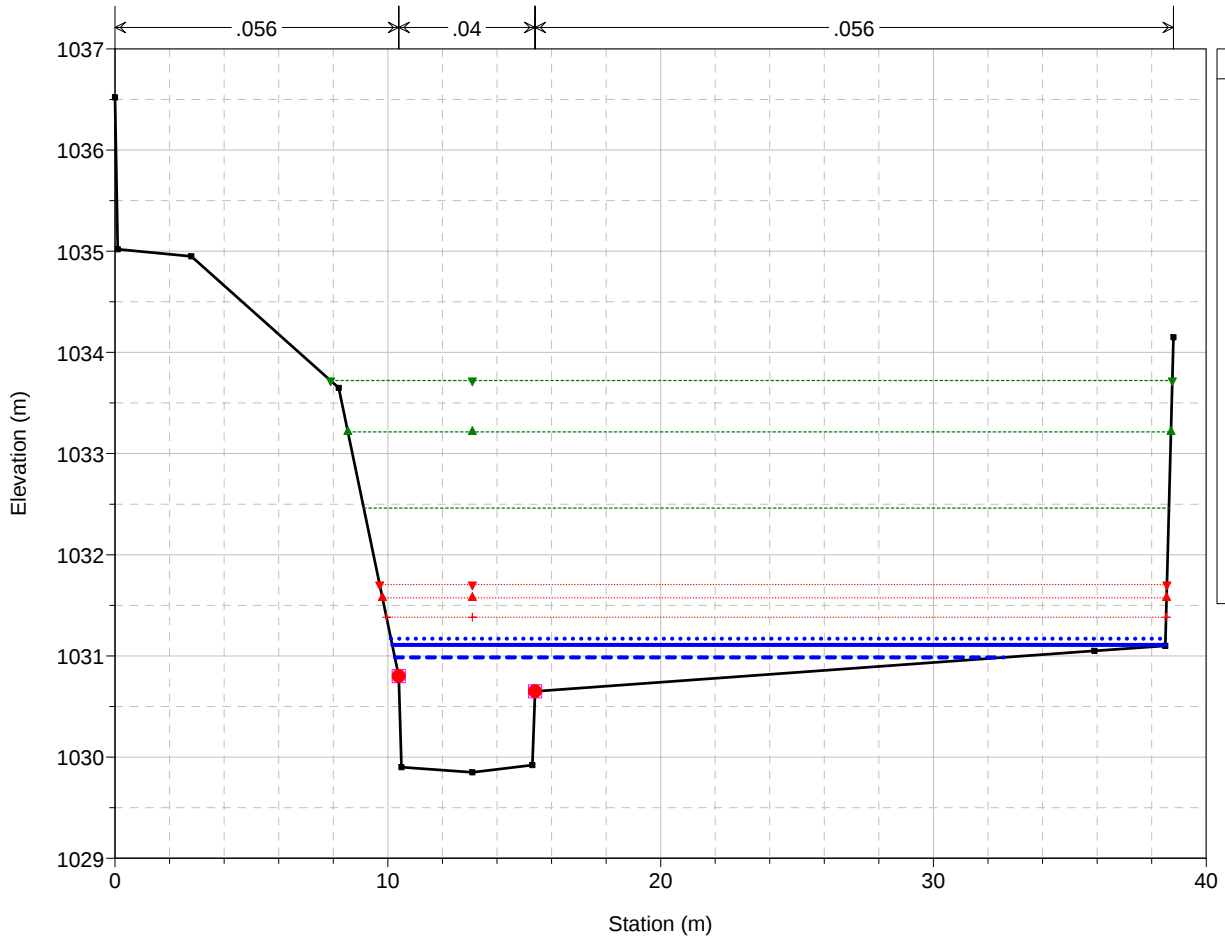
Santo Stefano

River = Rio Freddo Reach = unico RS = 300 RF 44



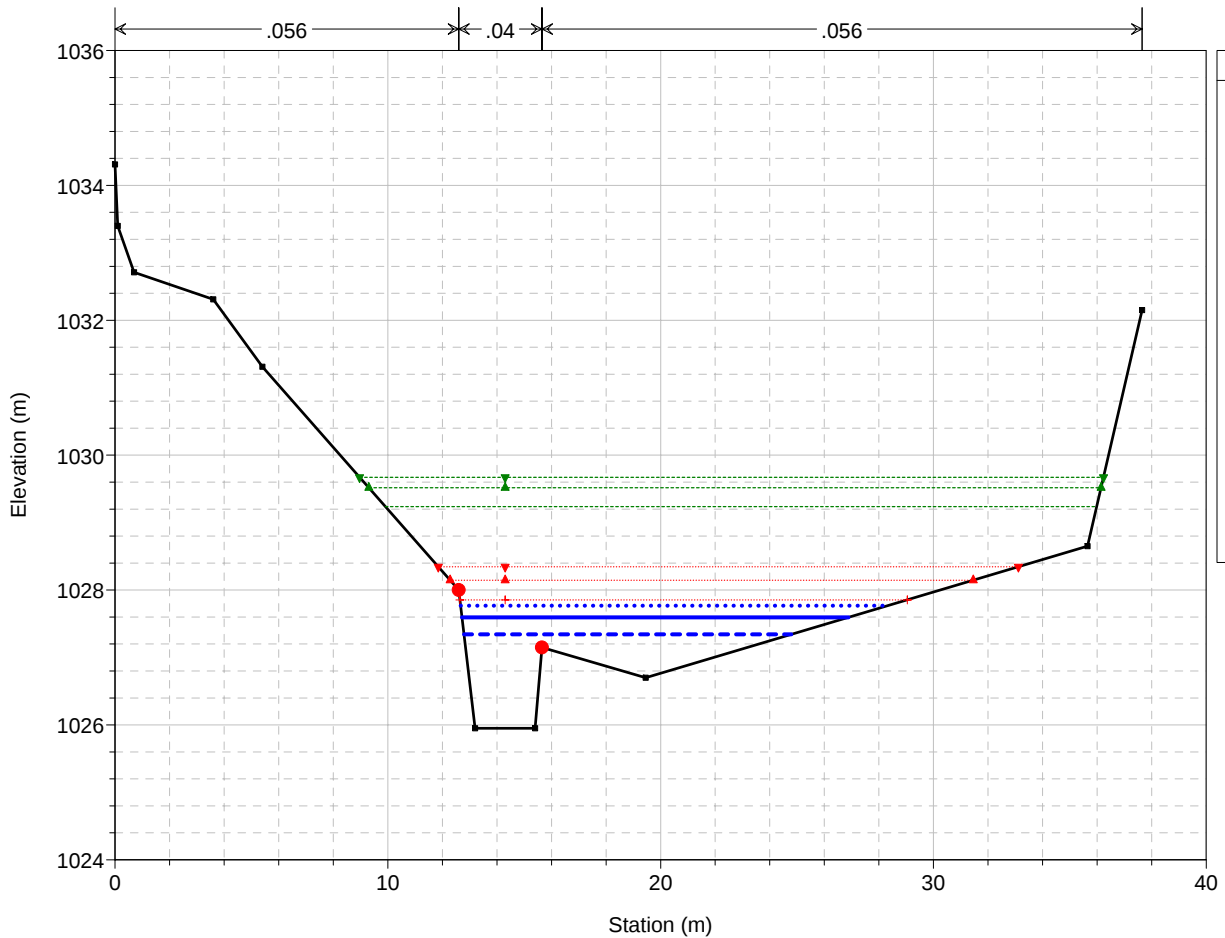
Santo Stefano

River = Rio Freddo Reach = unico RS = 290 RF 43



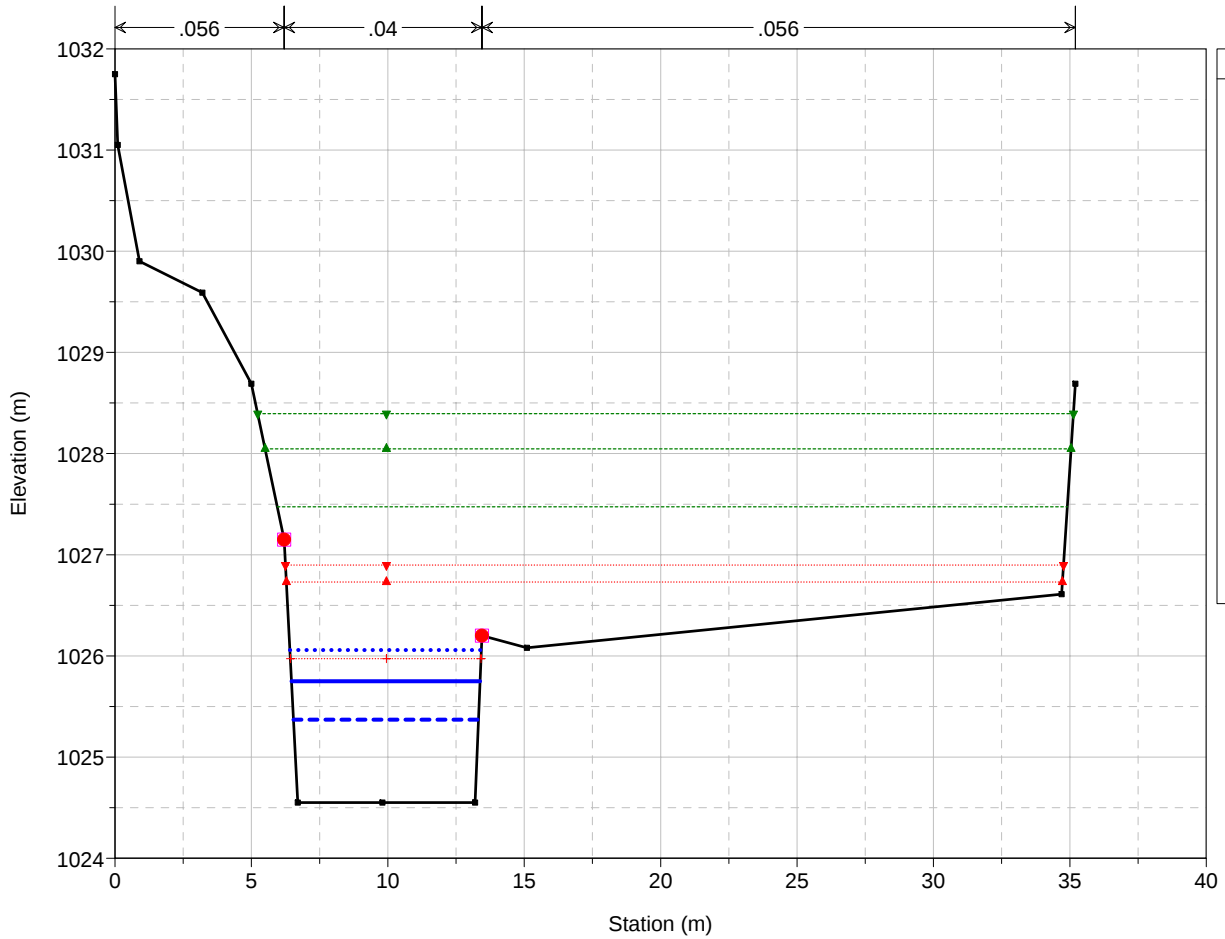
Santo Stefano

River = Rio Freddo Reach = unico RS = 280 RF 42



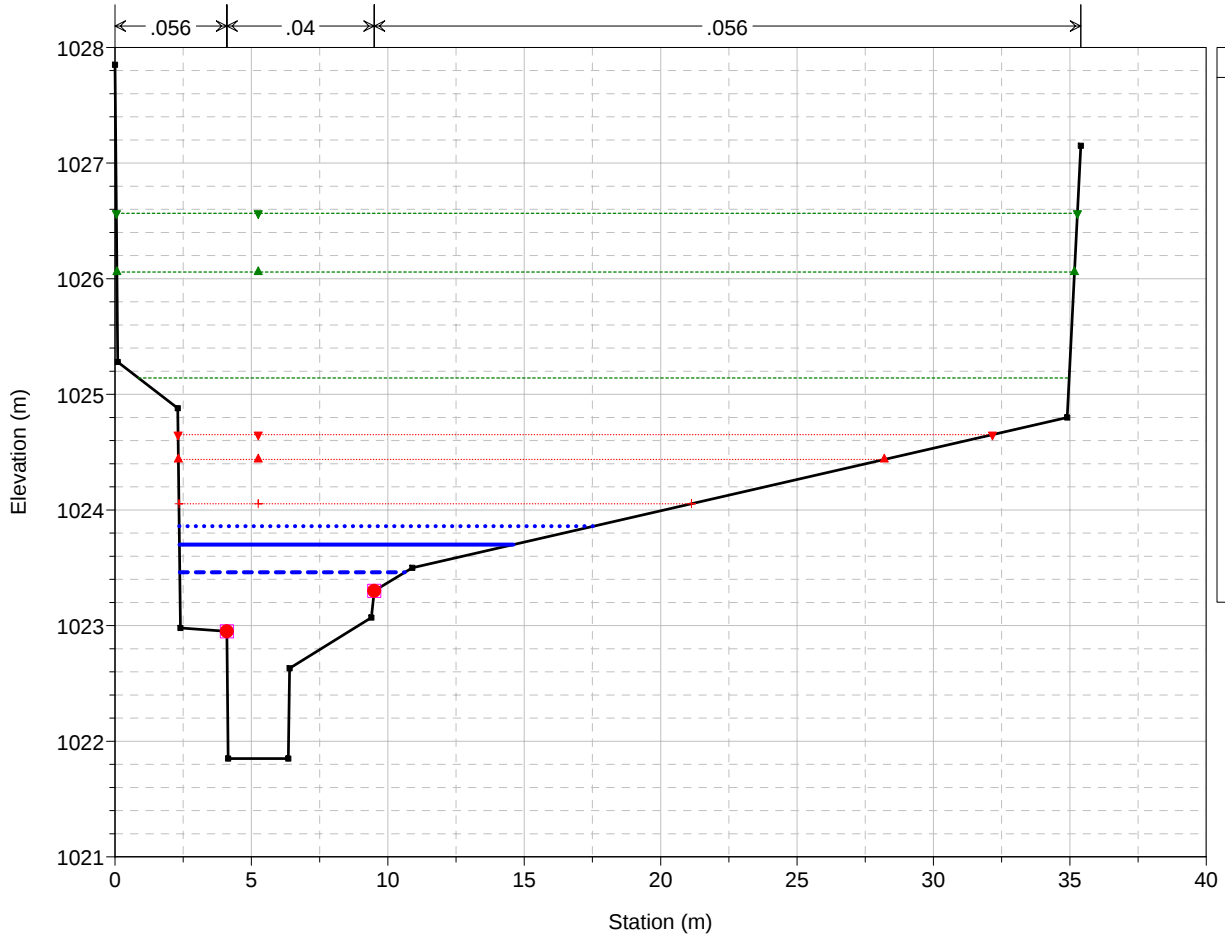
Santo Stefano

River = Rio Freddo Reach = unico RS = 270 RF 41



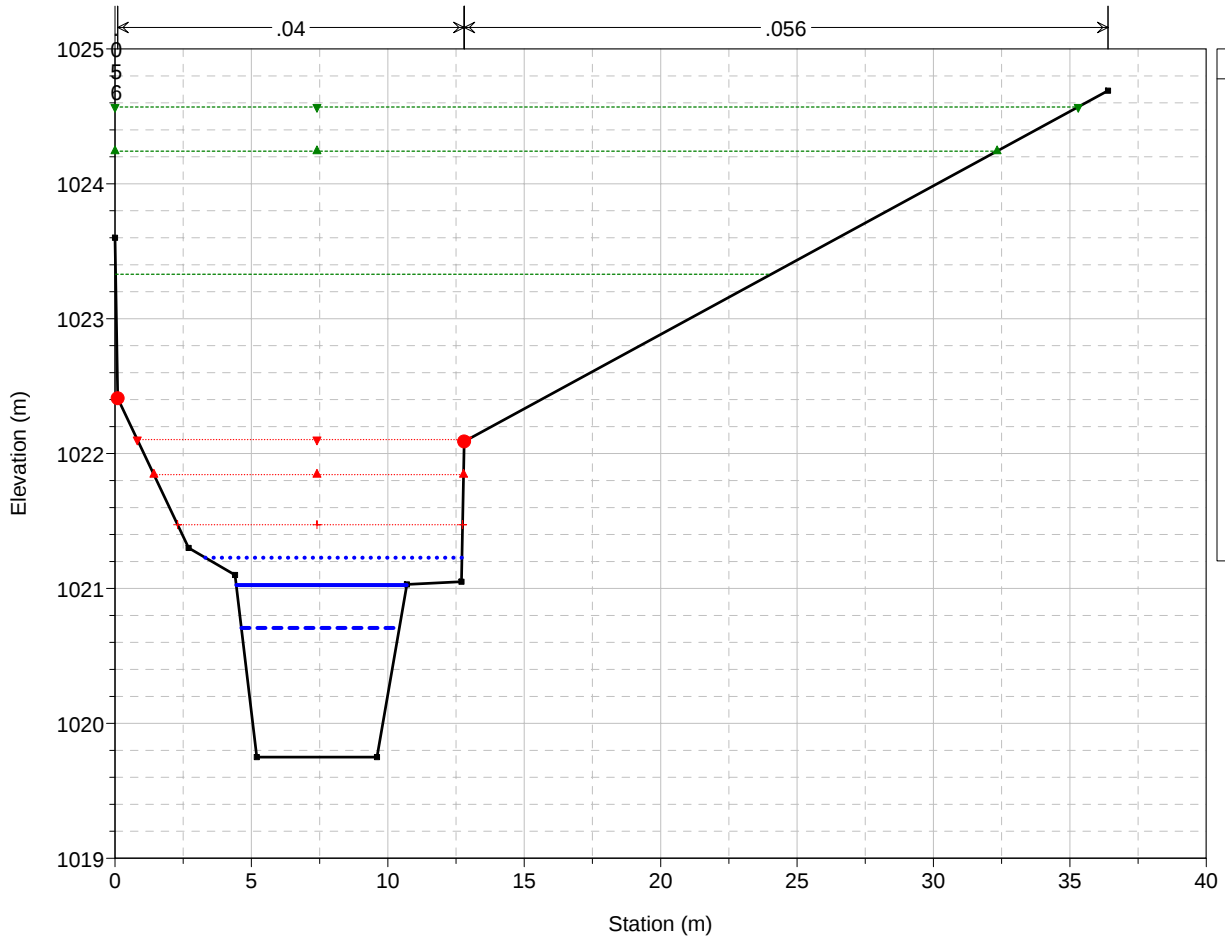
Santo Stefano

River = Rio Freddo Reach = unico RS = 260 RF 40



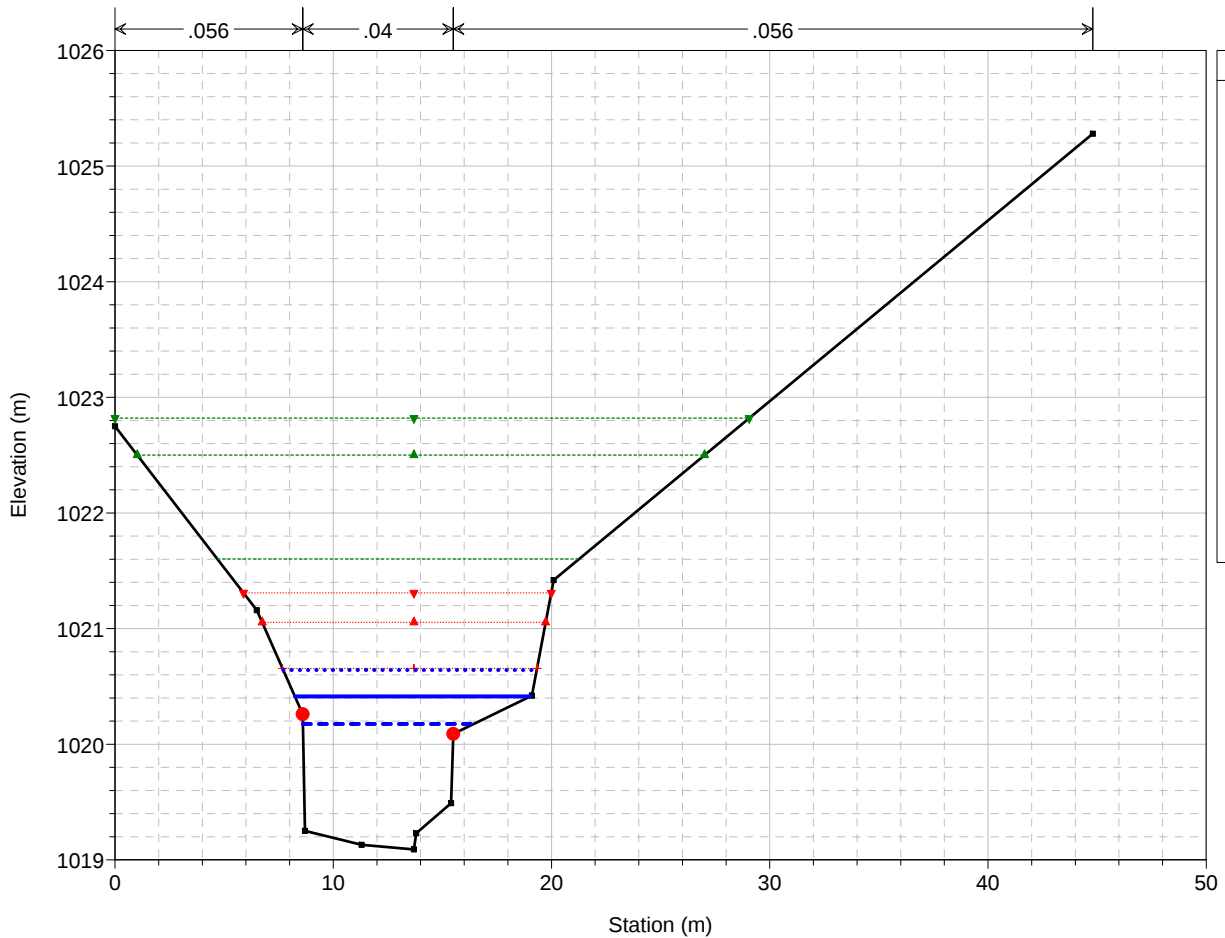
Santo Stefano

River = Rio Freddo Reach = unico RS = 250 RF 39



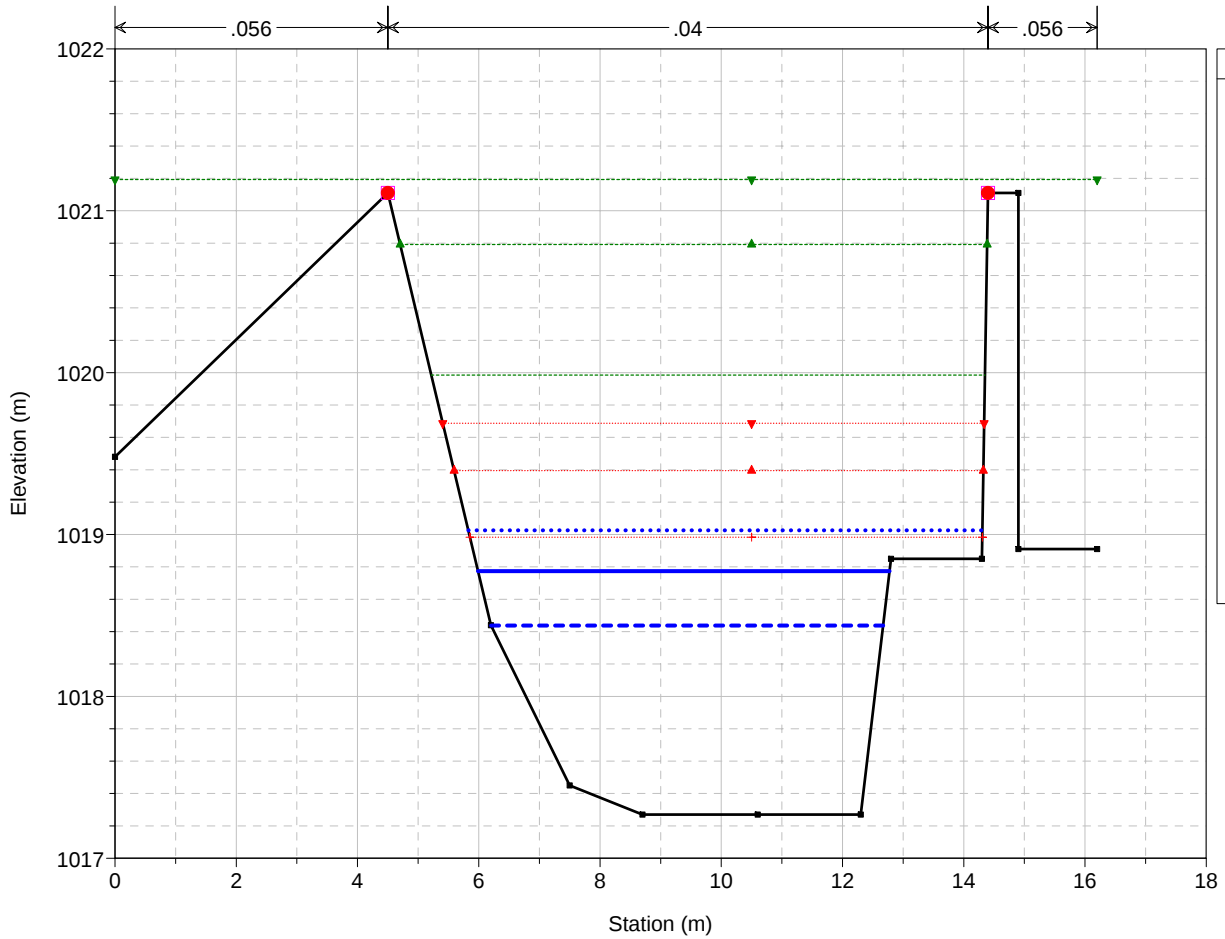
Santo Stefano

River = Rio Freddo Reach = unico RS = 240 RF 38



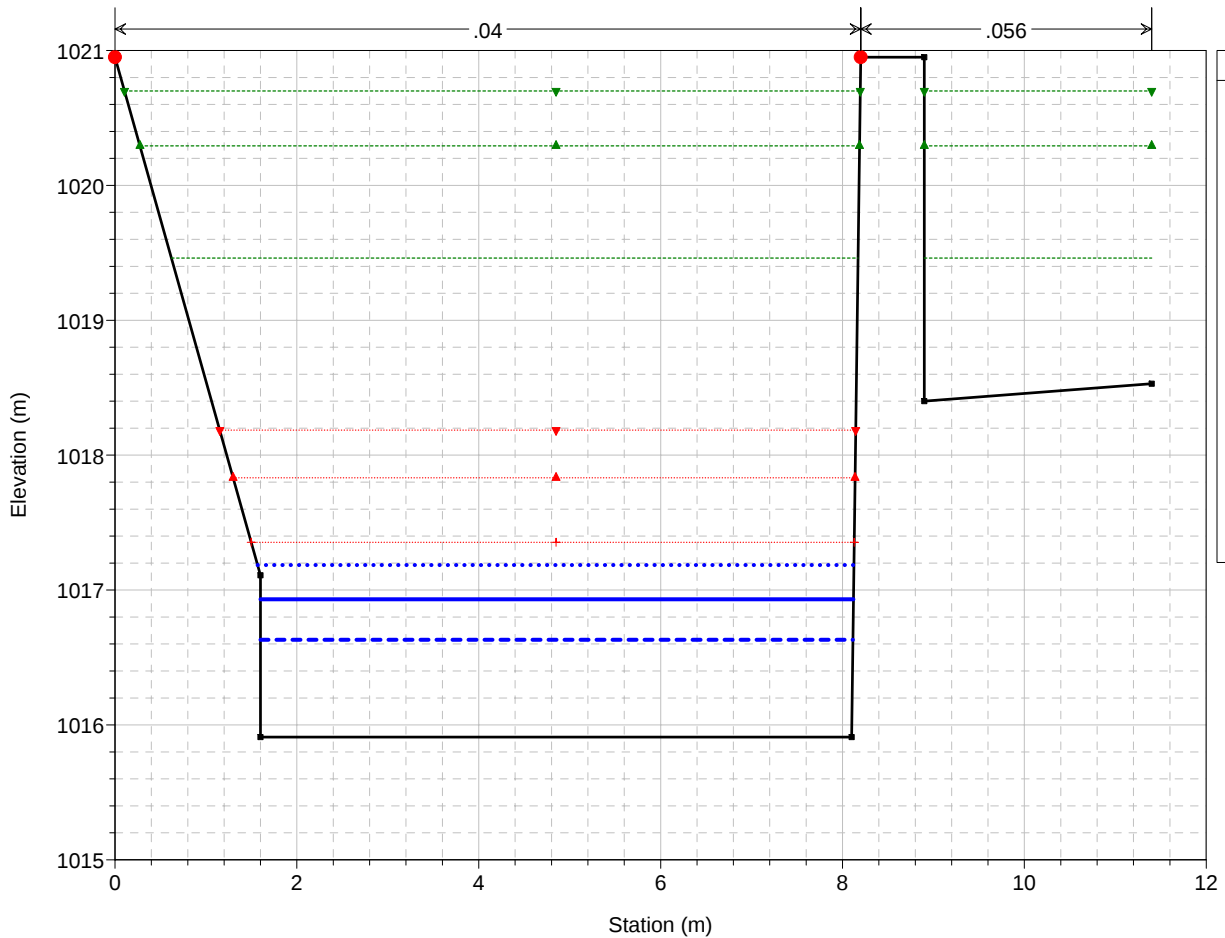
Santo Stefano

River = Rio Freddo Reach = unico RS = 230 RF 37



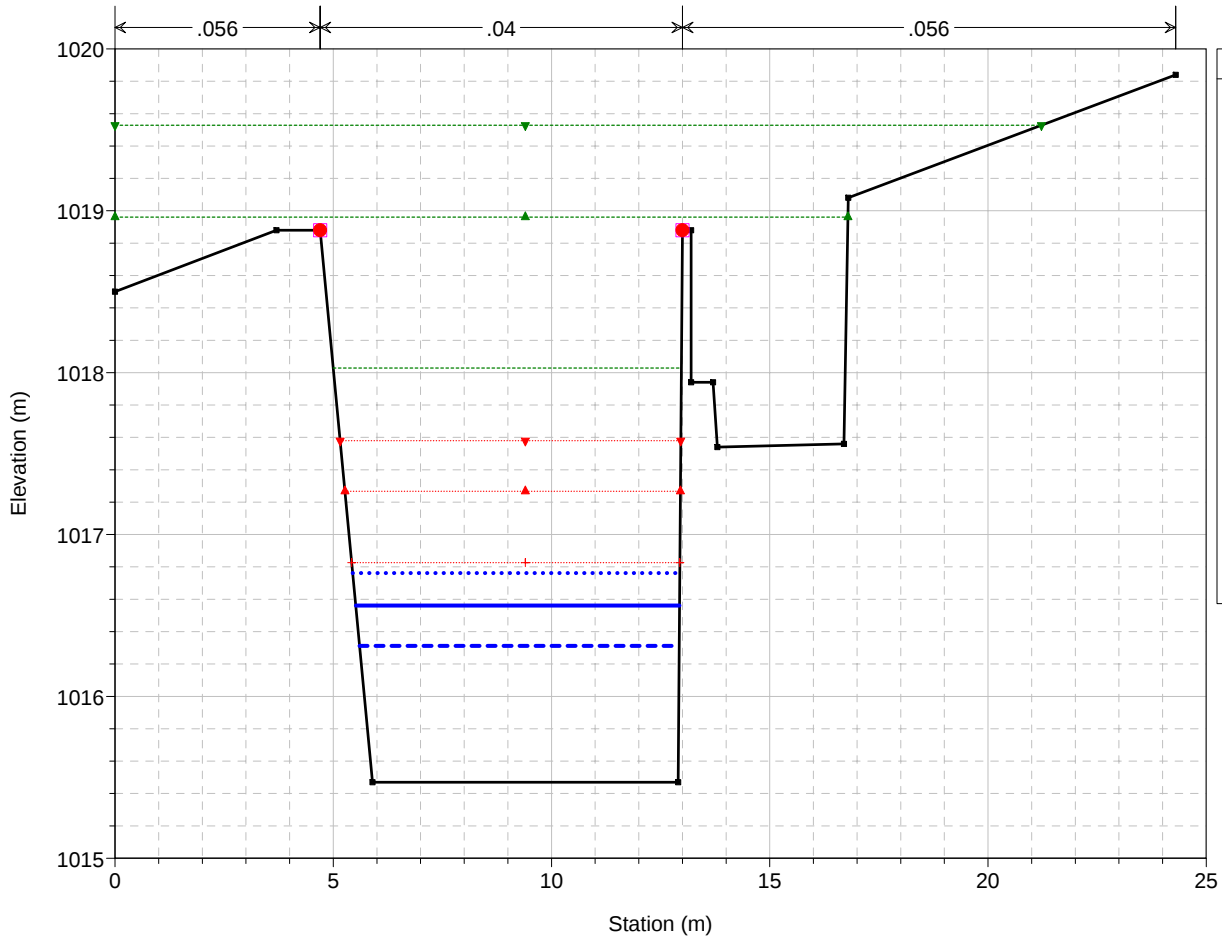
Santo Stefano

River = Rio Freddo Reach = unico RS = 220 RF 36



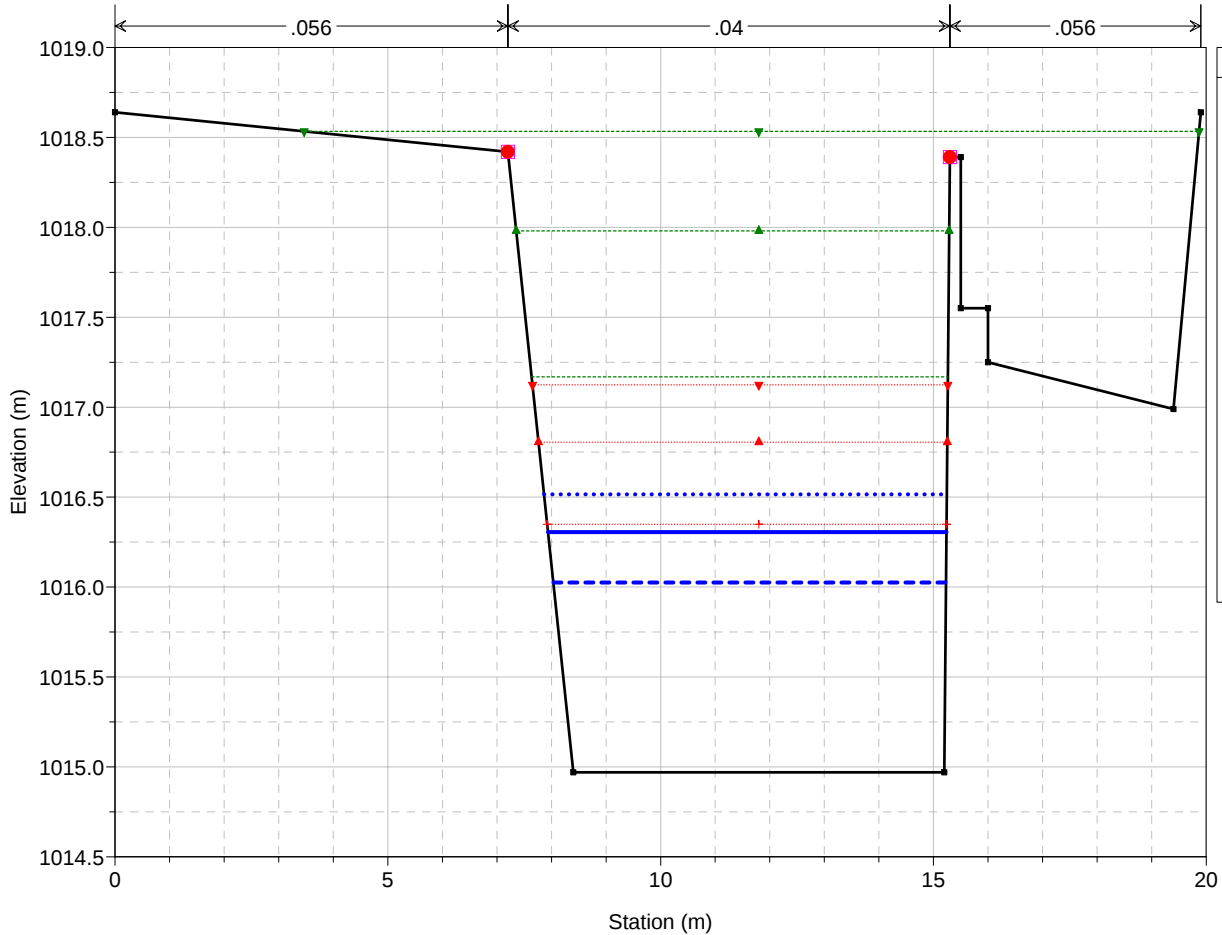
Santo Stefano

River = Rio Freddo Reach = unico RS = 210 RF 35



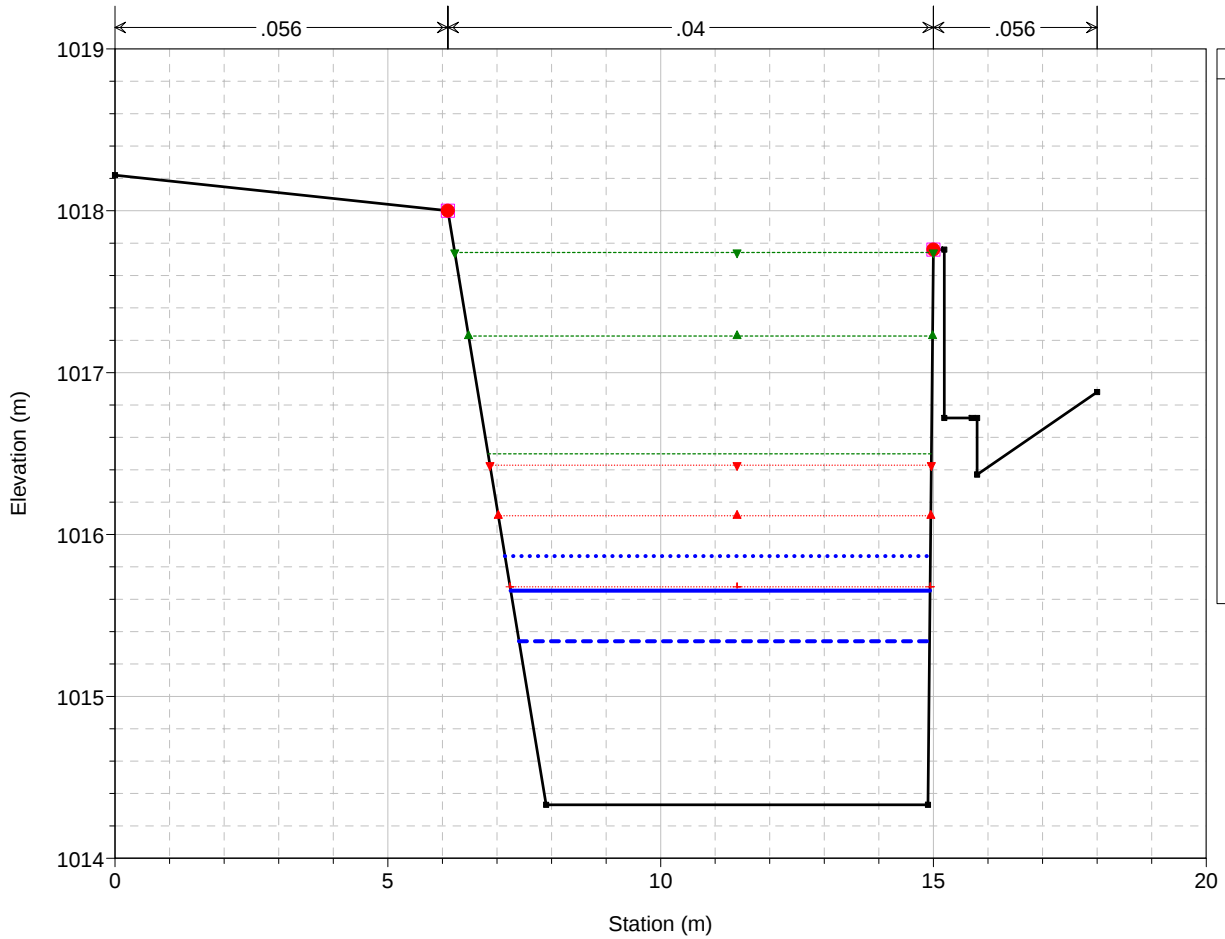
Santo Stefano

River = Rio Freddo Reach = unico RS = 200 RF 34



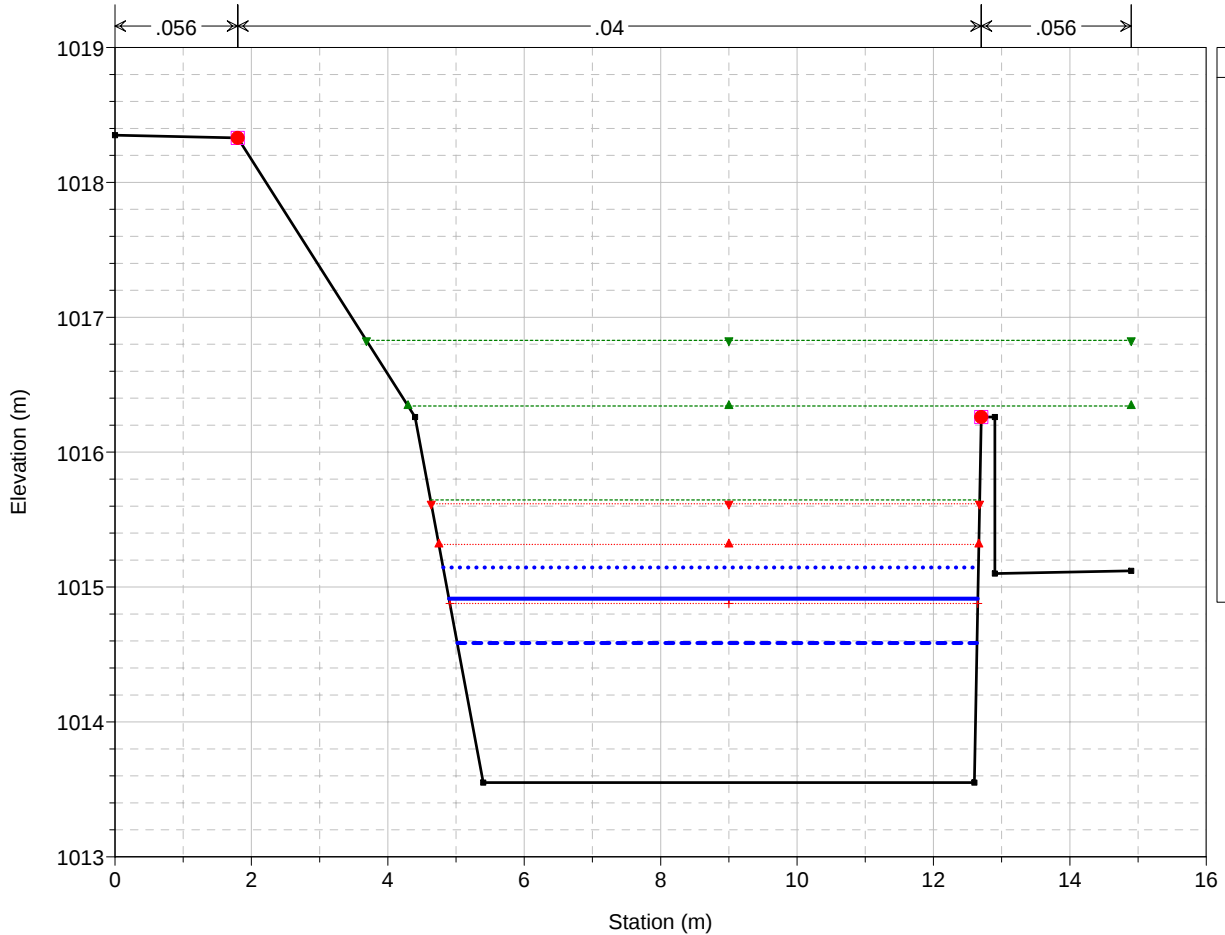
Santo Stefano

River = Rio Freddo Reach = unico RS = 190 RF 33



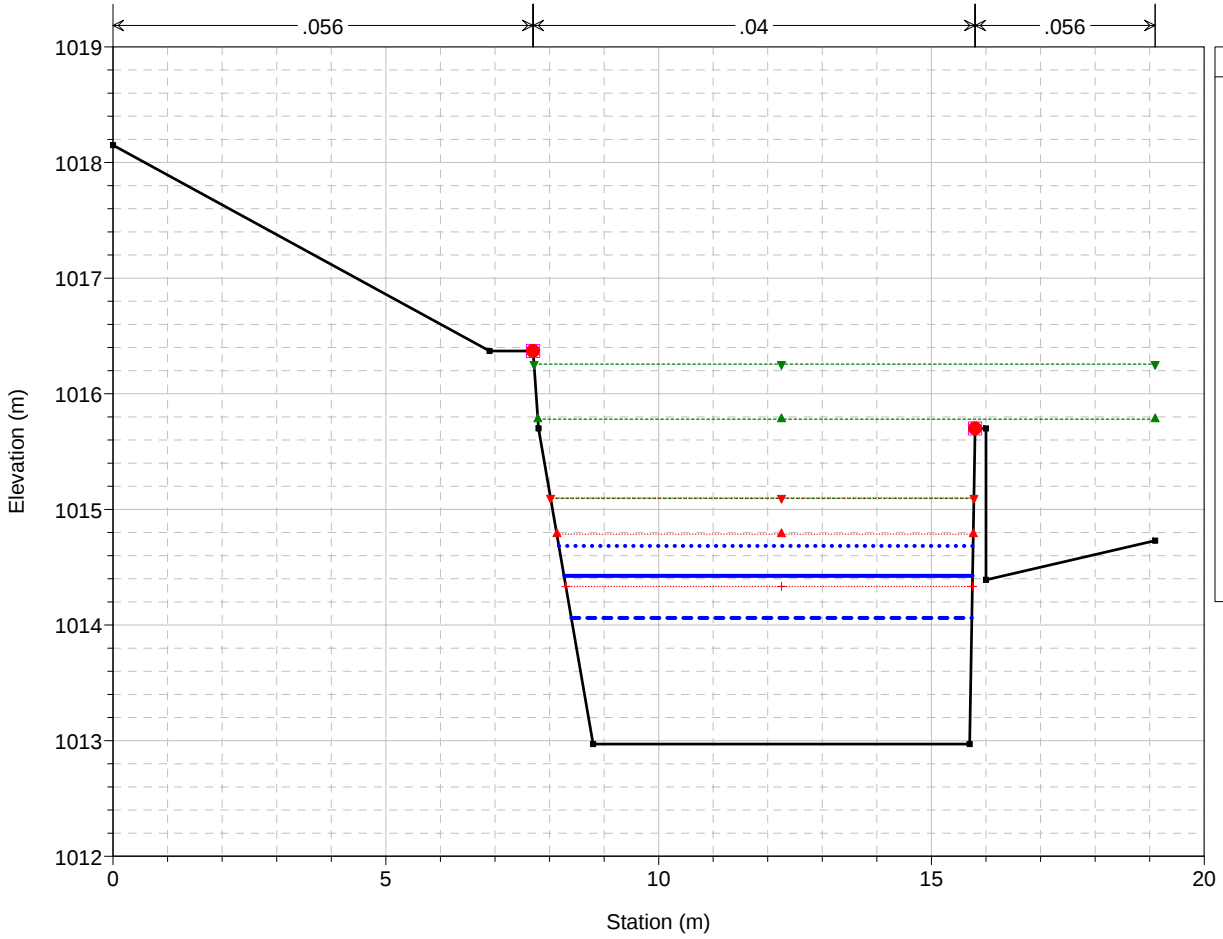
Santo Stefano

River = Rio Freddo Reach = unico RS = 180 RF 32



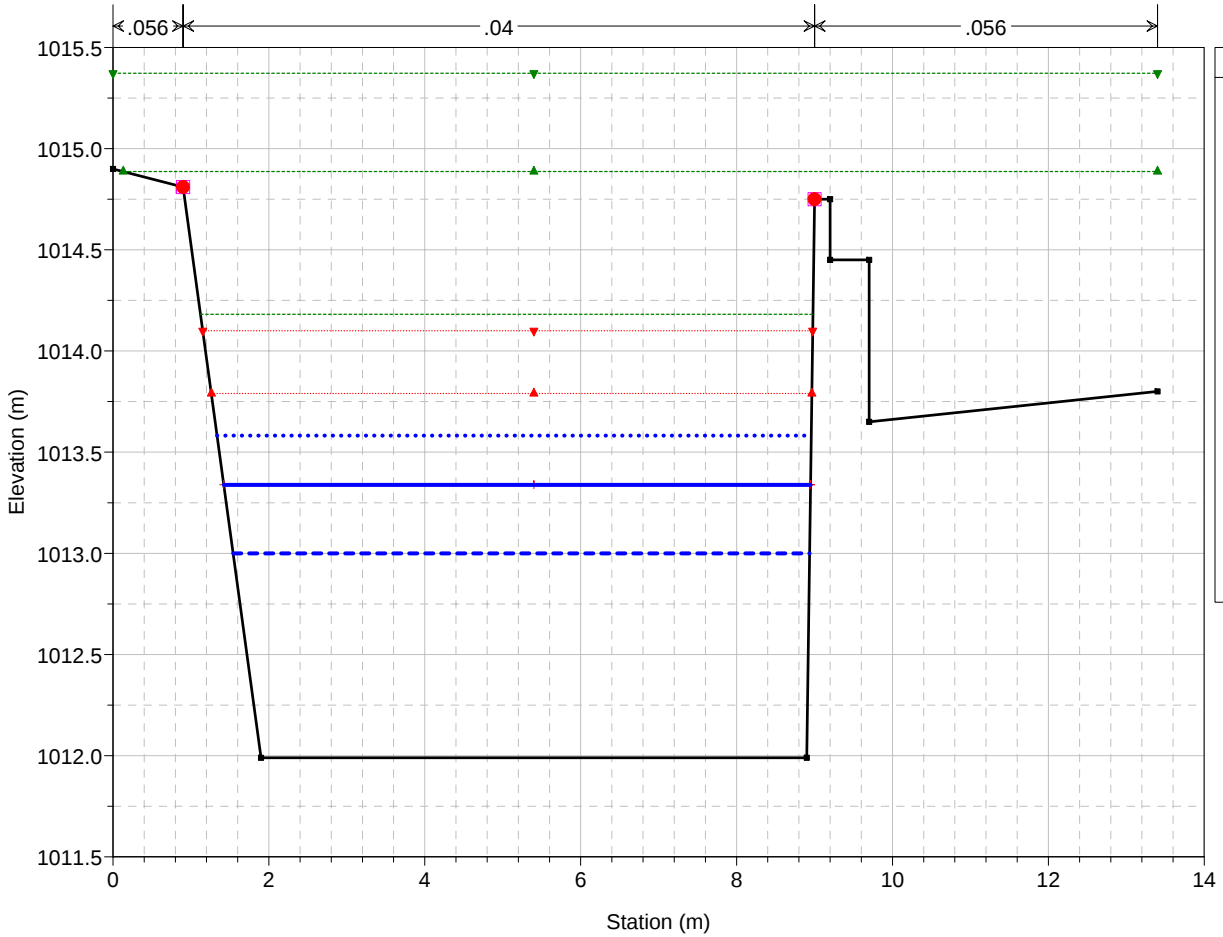
Santo Stefano

River = Rio Freddo Reach = unico RS = 170 RF 31



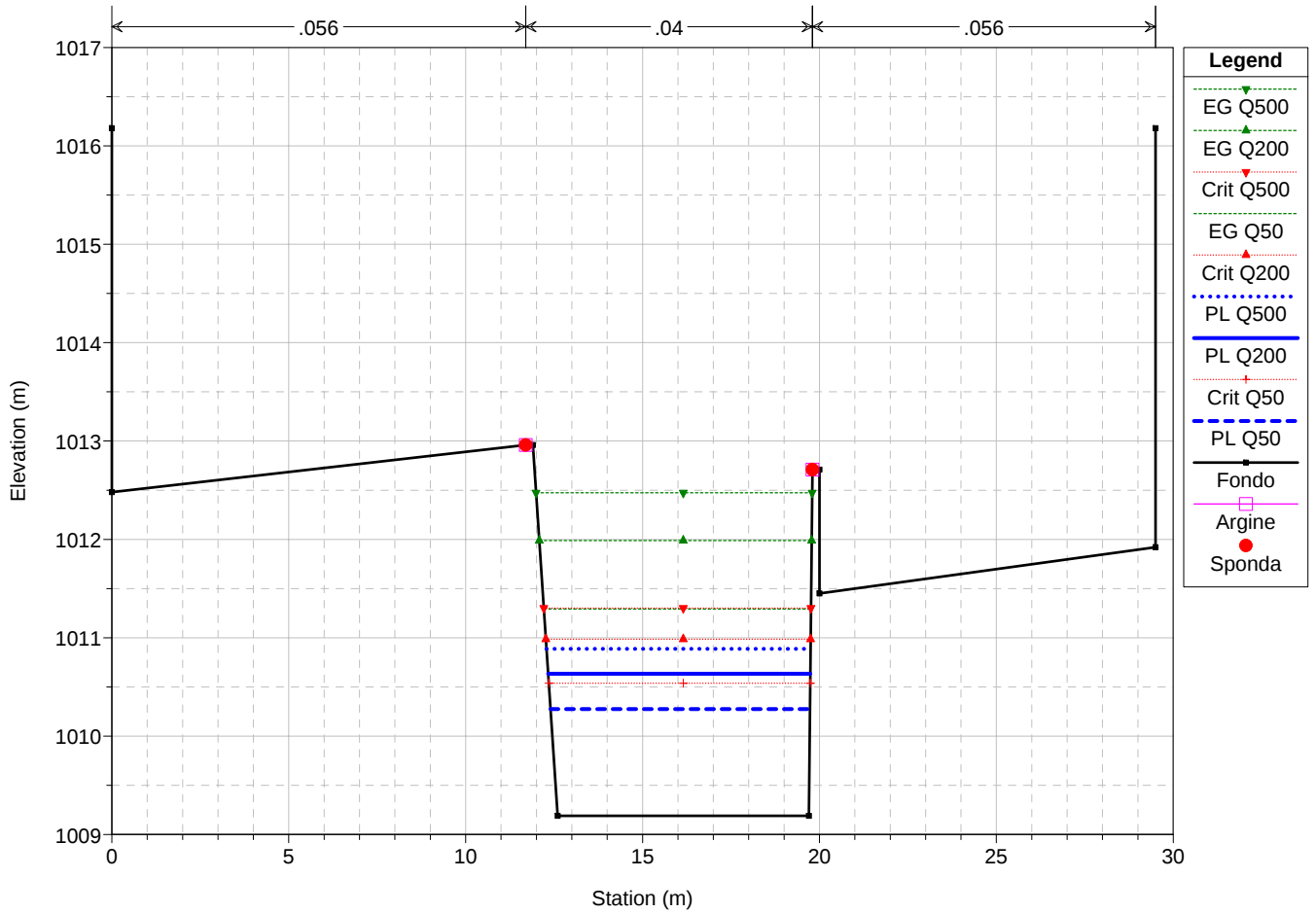
Santo Stefano

River = Rio Freddo Reach = unico RS = 160 RF 30



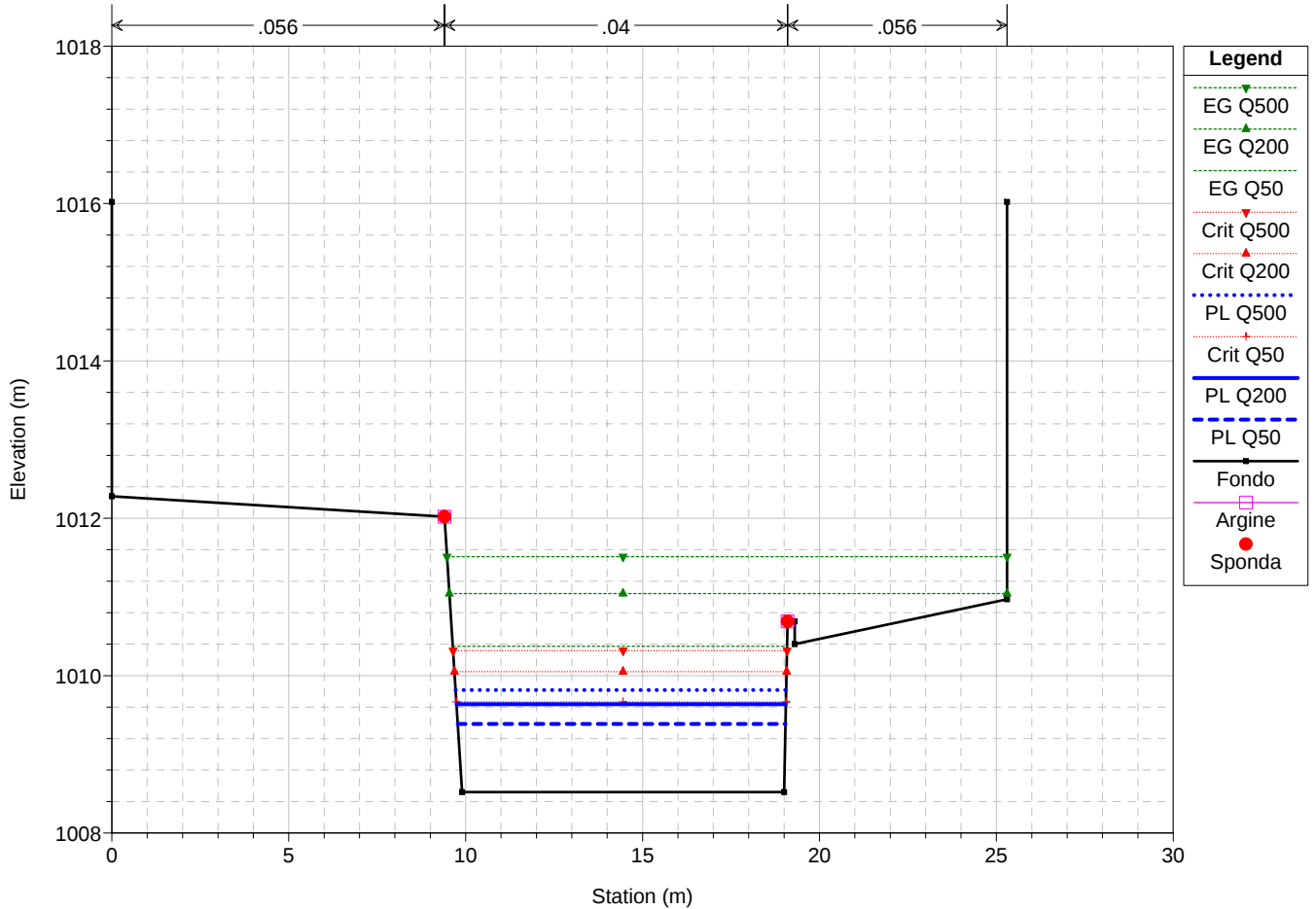
Santo Stefano

River = Rio Freddo Reach = unico RS = 130 RF 27



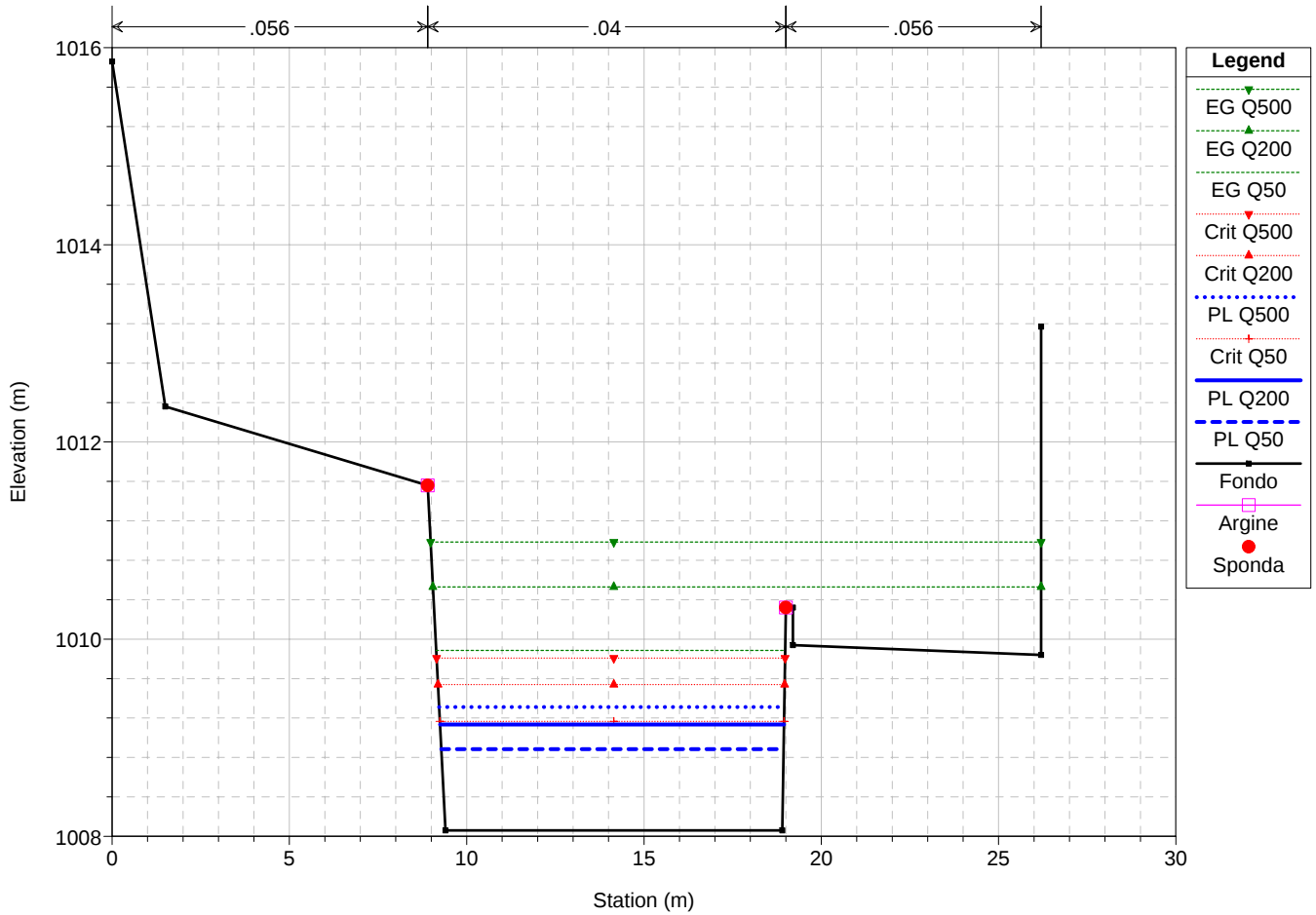
Santo Stefano

River = Rio Freddo Reach = unico RS = 120 RF 26



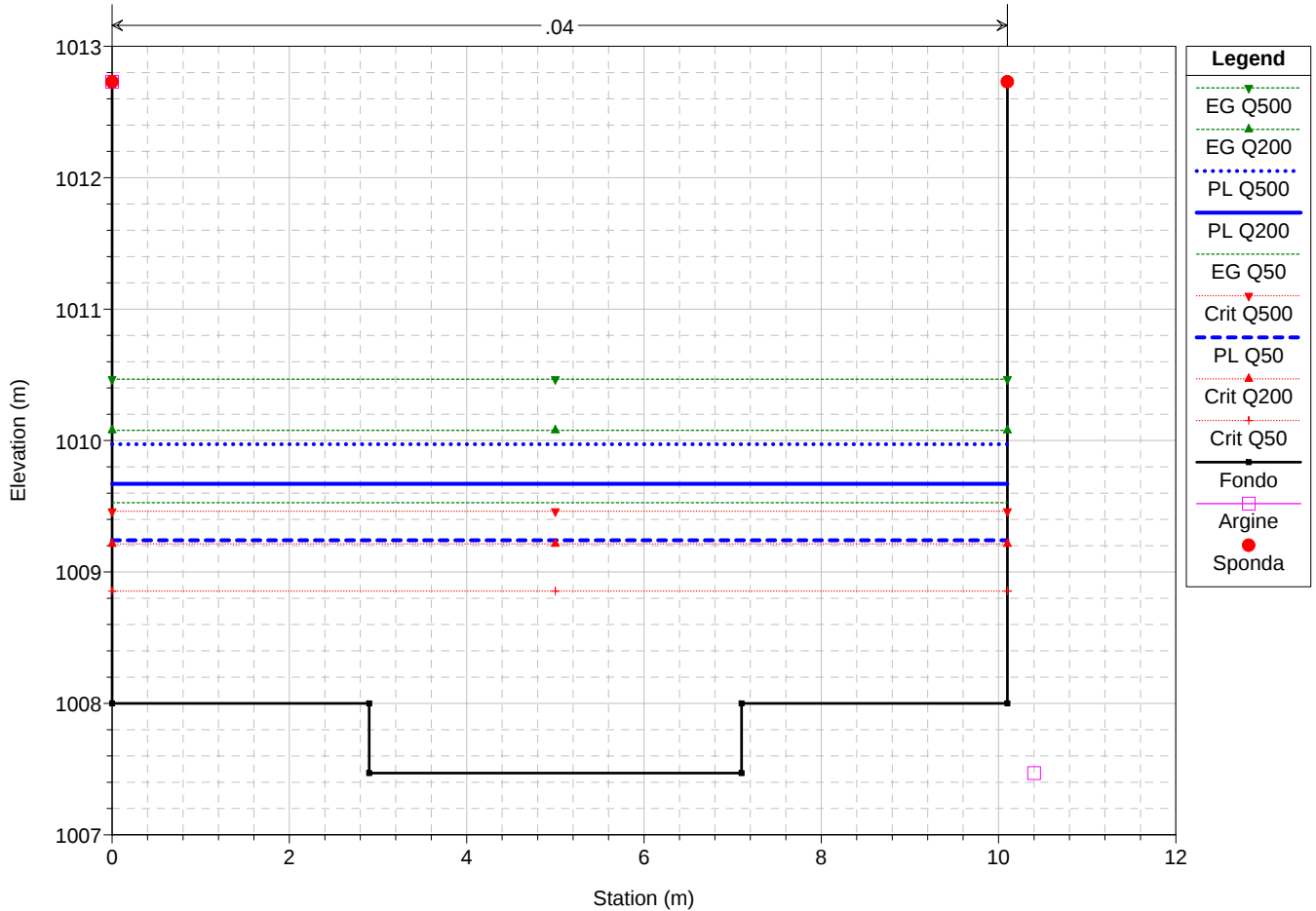
Santo Stefano

River = Rio Freddo Reach = unico RS = 110 RF 25



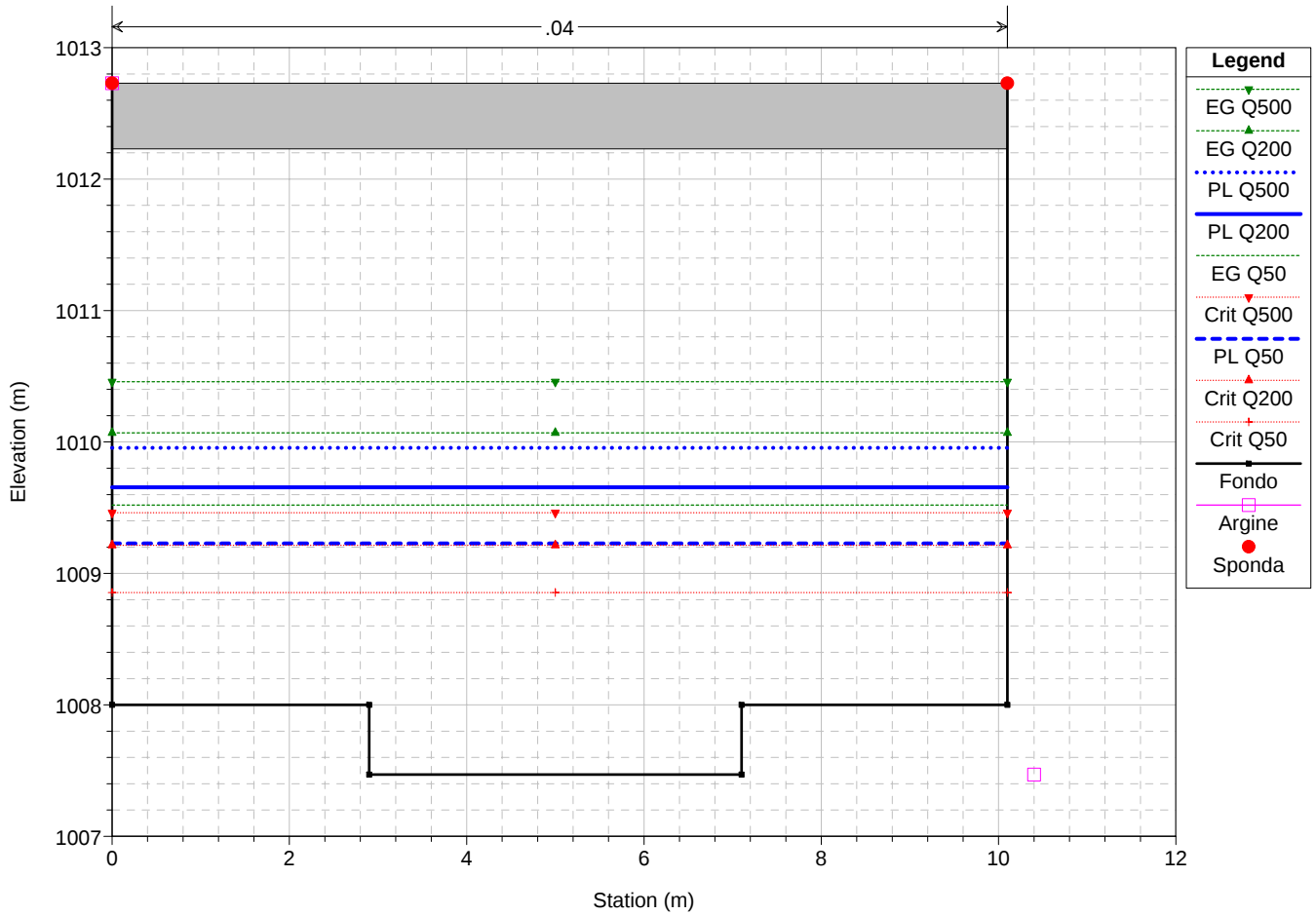
Santo Stefano

River = Rio Freddo Reach = unico RS = 101 RF 24



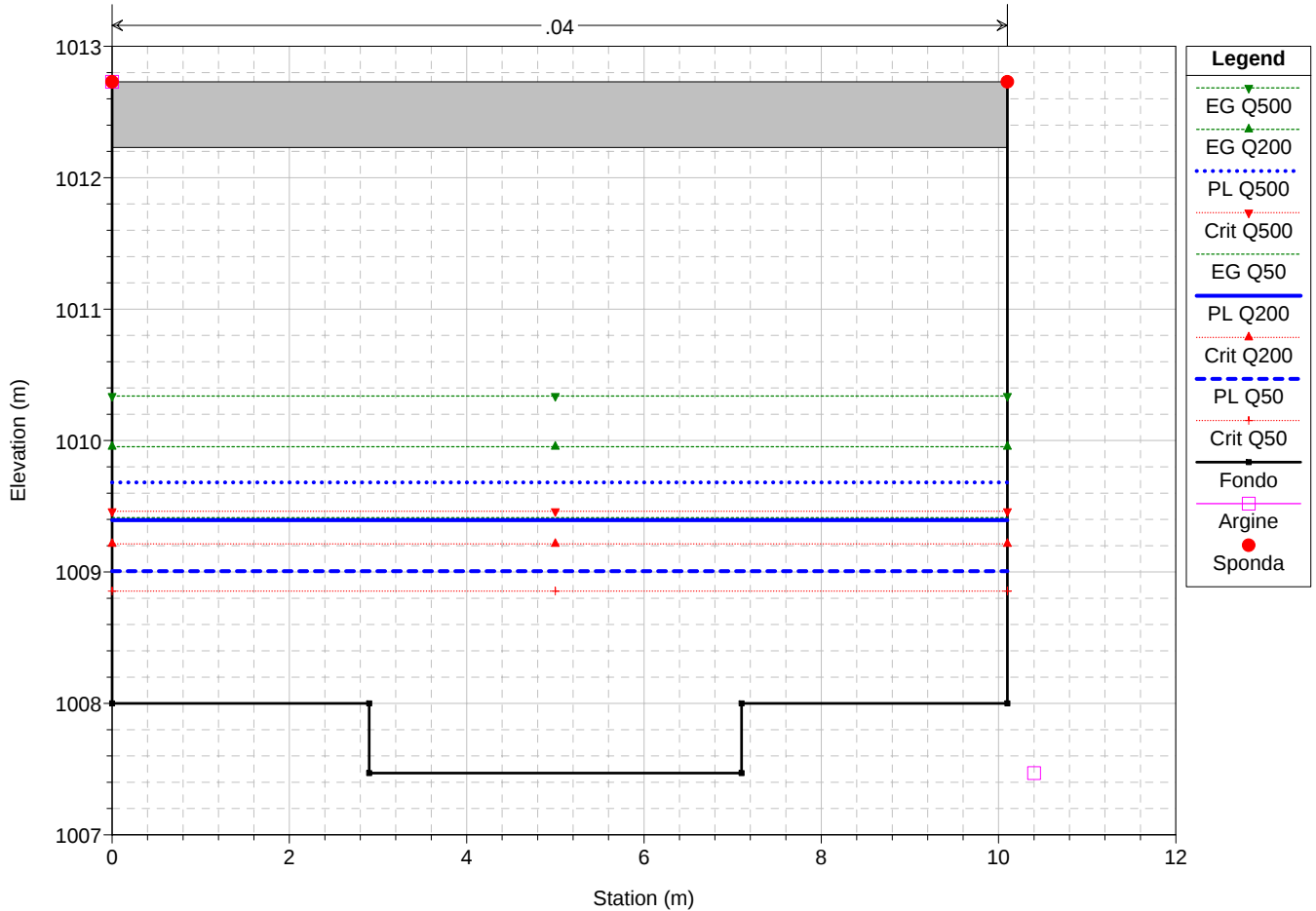
Santo Stefano

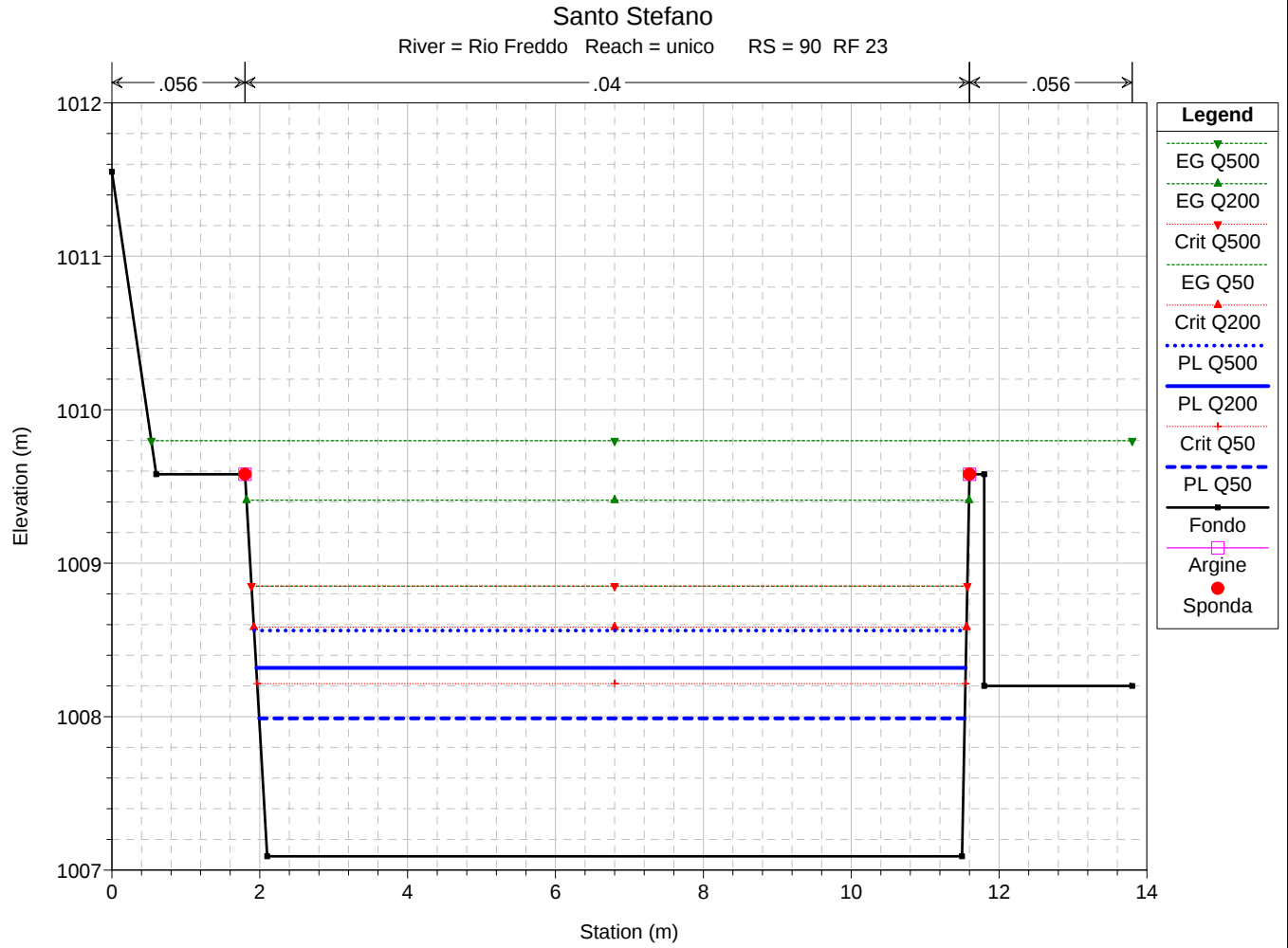
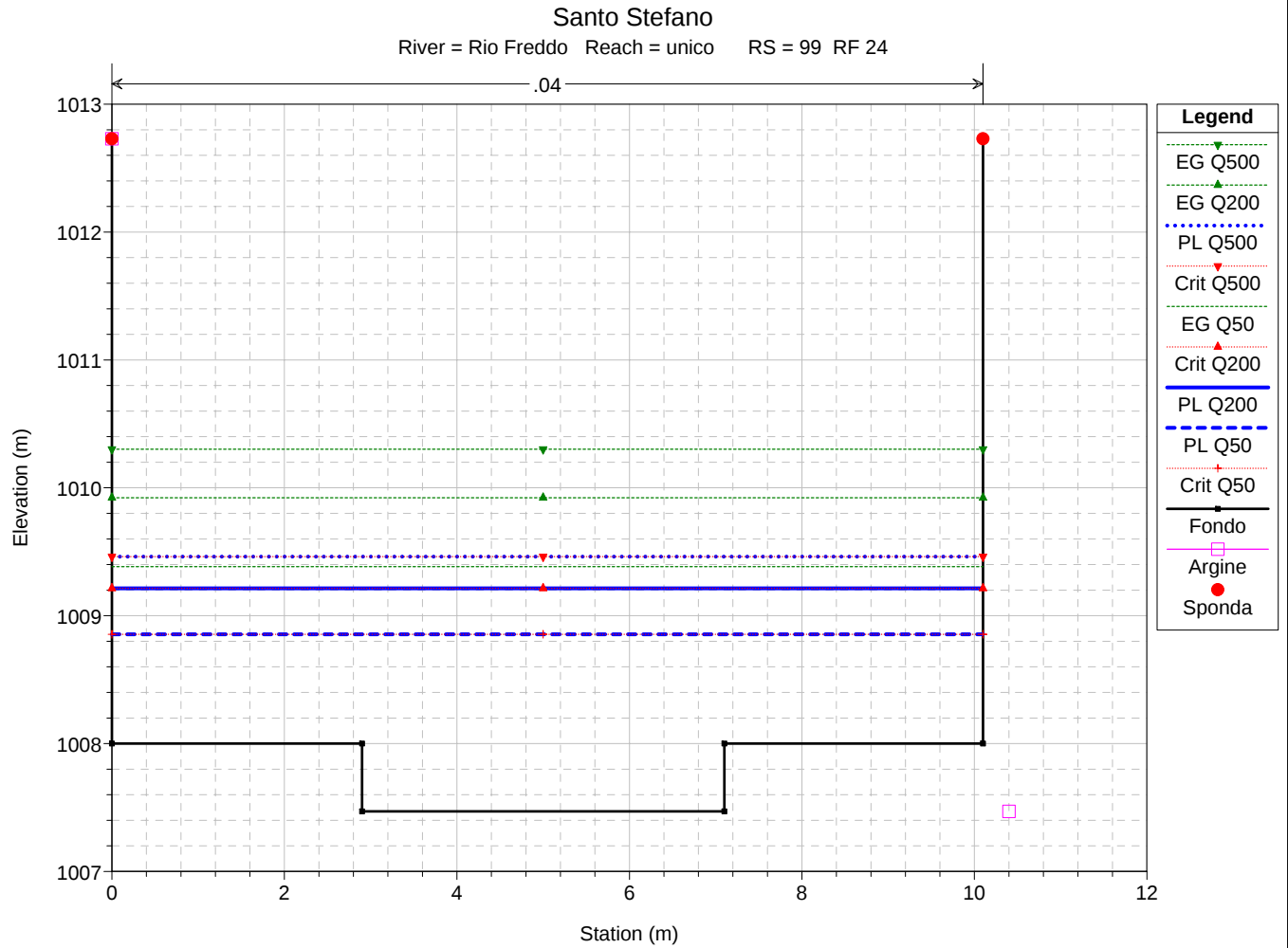
River = Rio Freddo Reach = unico RS = 100 BR RF 24

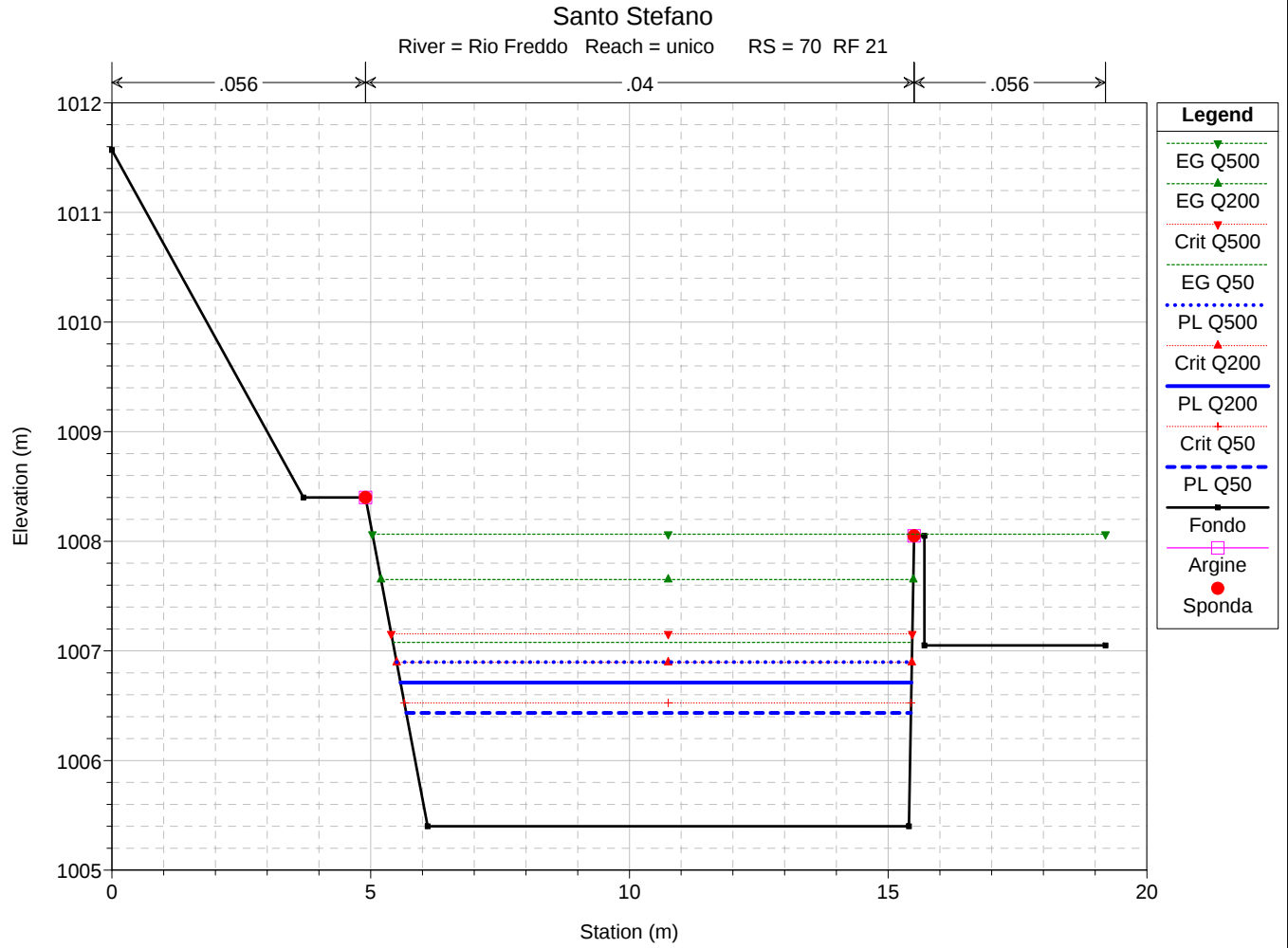
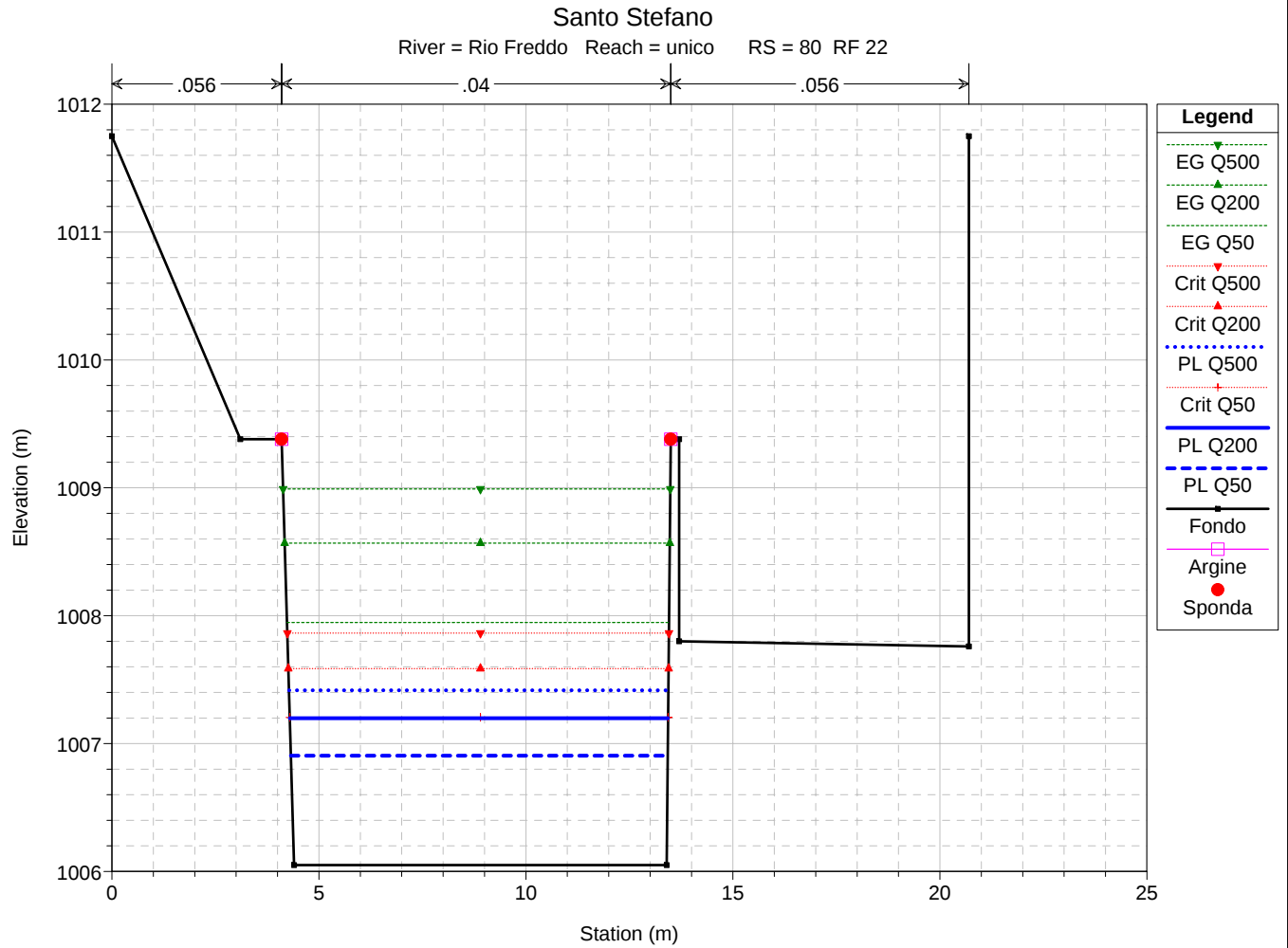


Santo Stefano

River = Rio Freddo Reach = unico RS = 100 BR RF 24

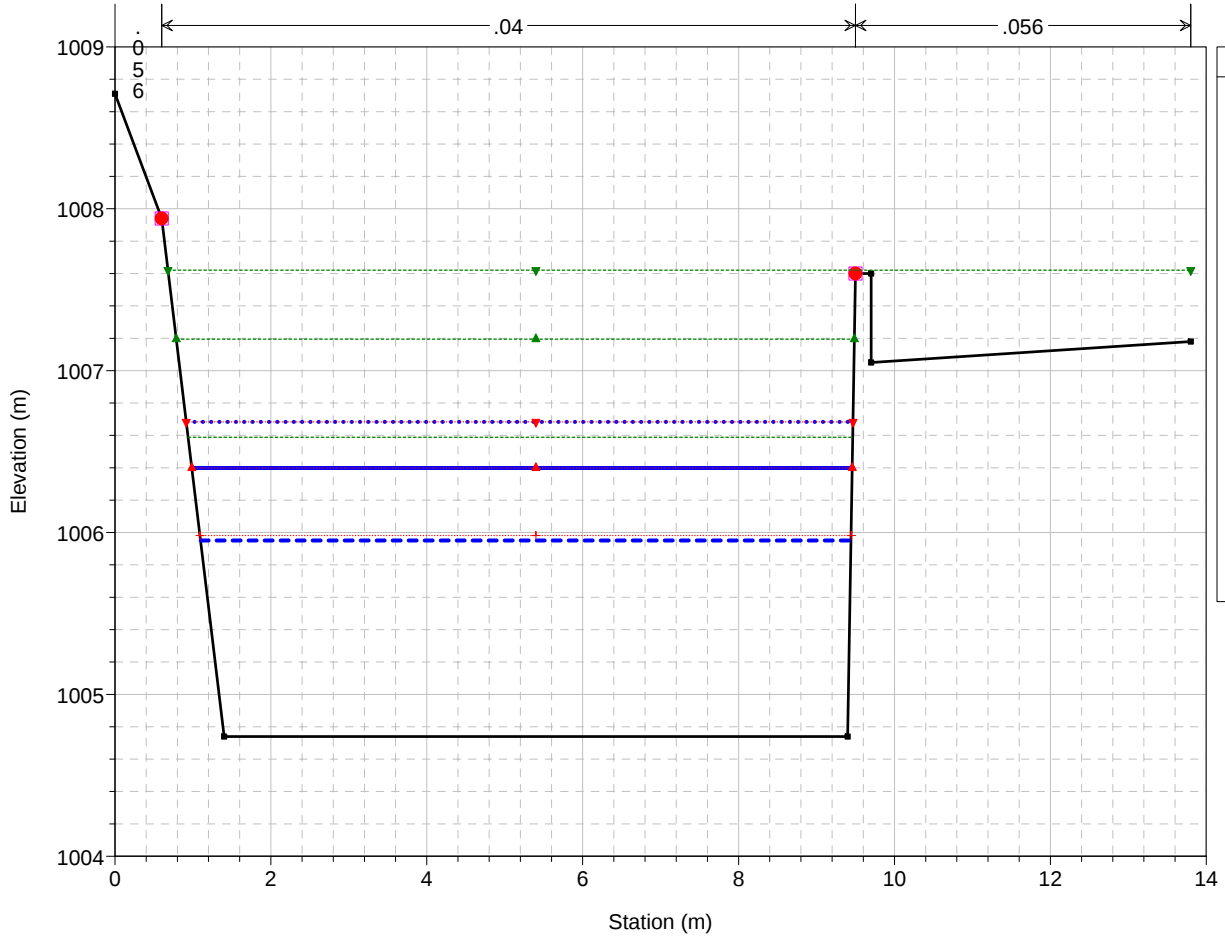






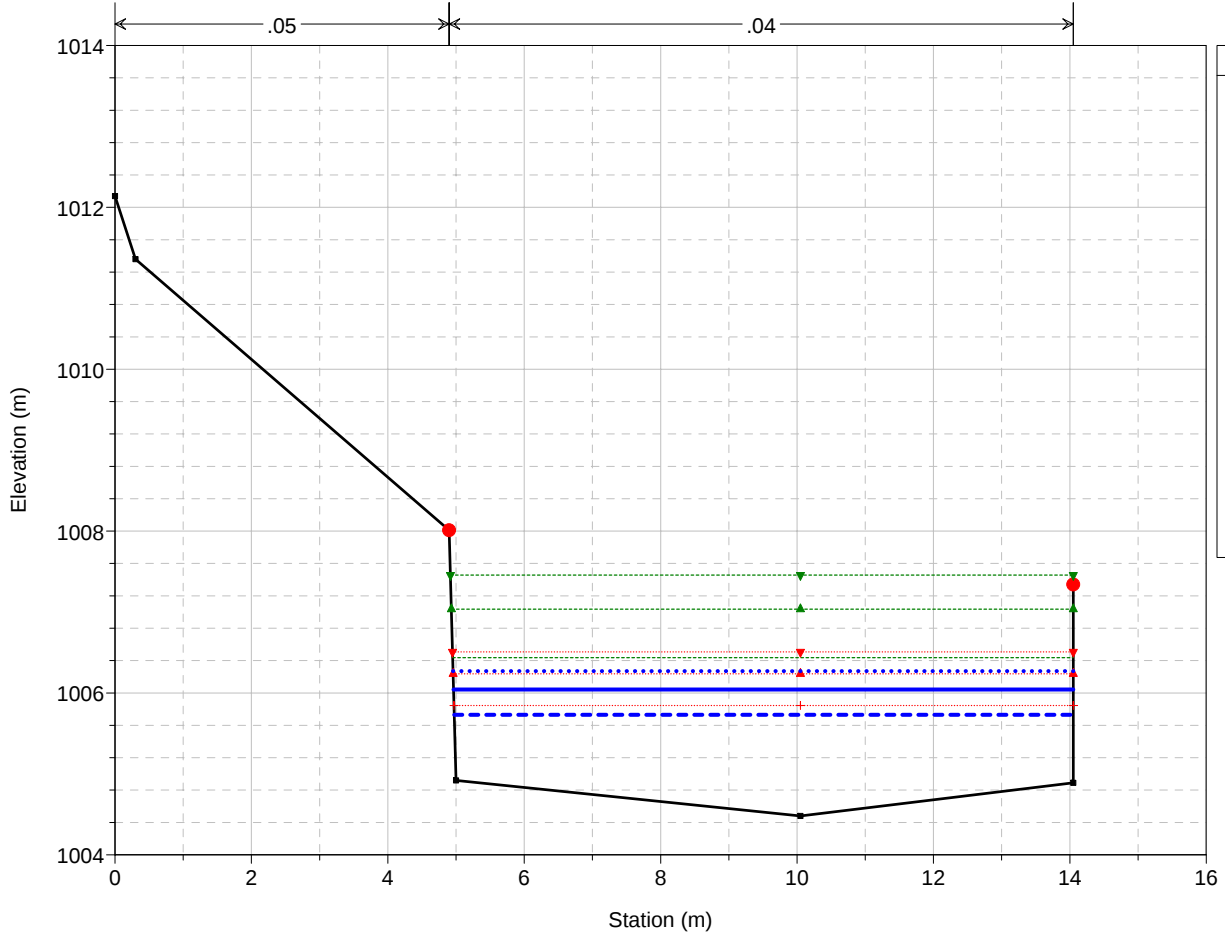
Santo Stefano

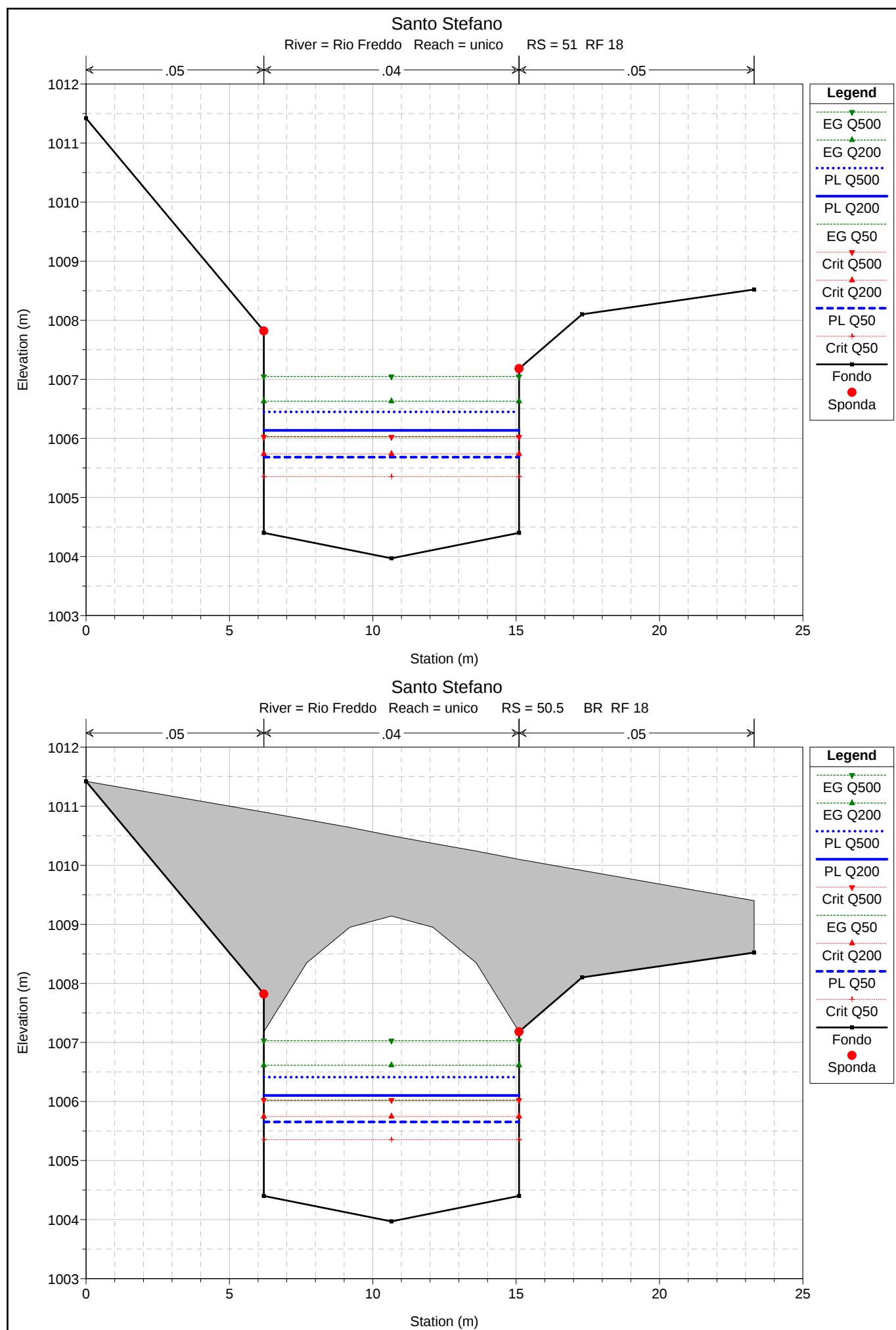
River = Rio Freddo Reach = unico RS = 60 RF 20



Santo Stefano

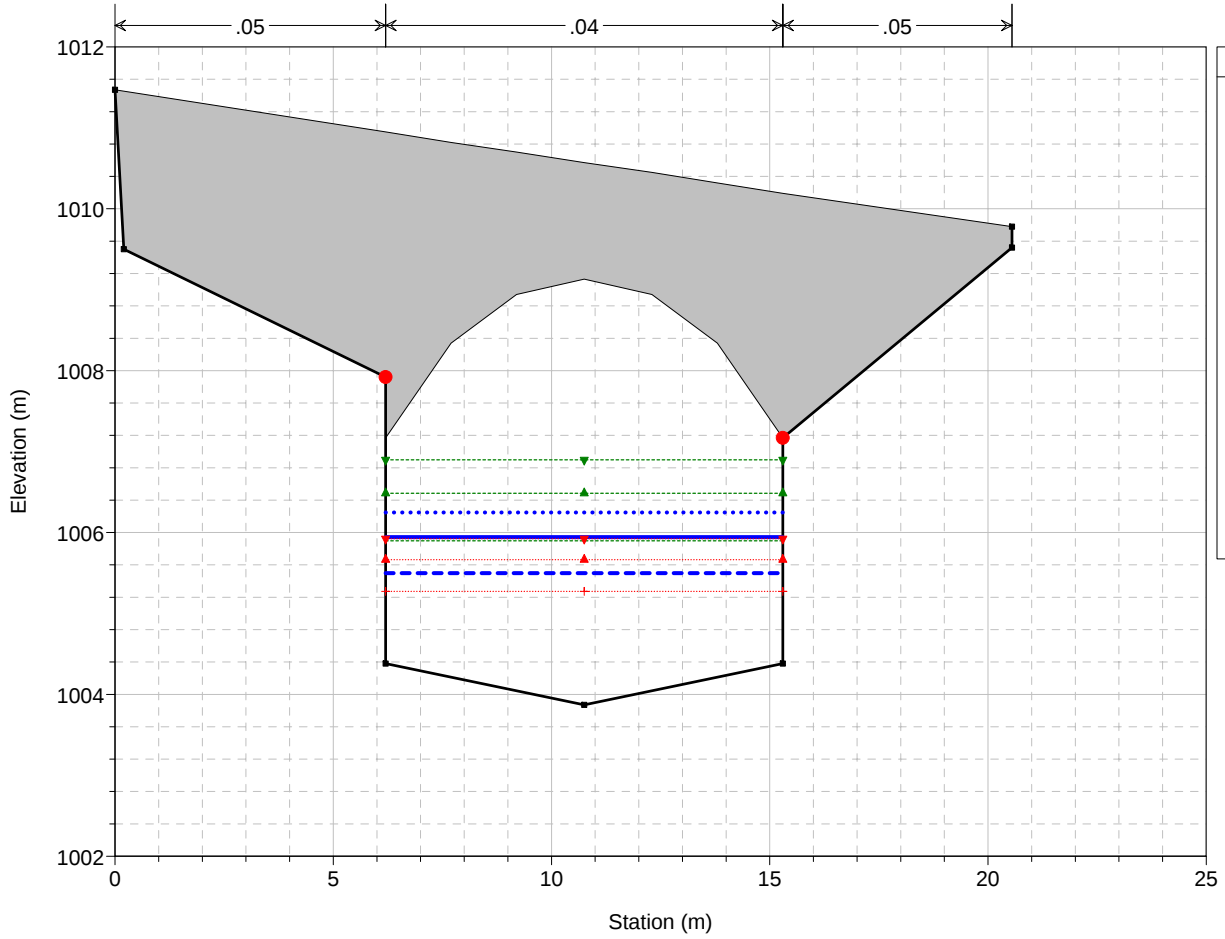
River = Rio Freddo Reach = unico RS = 52 RF 19





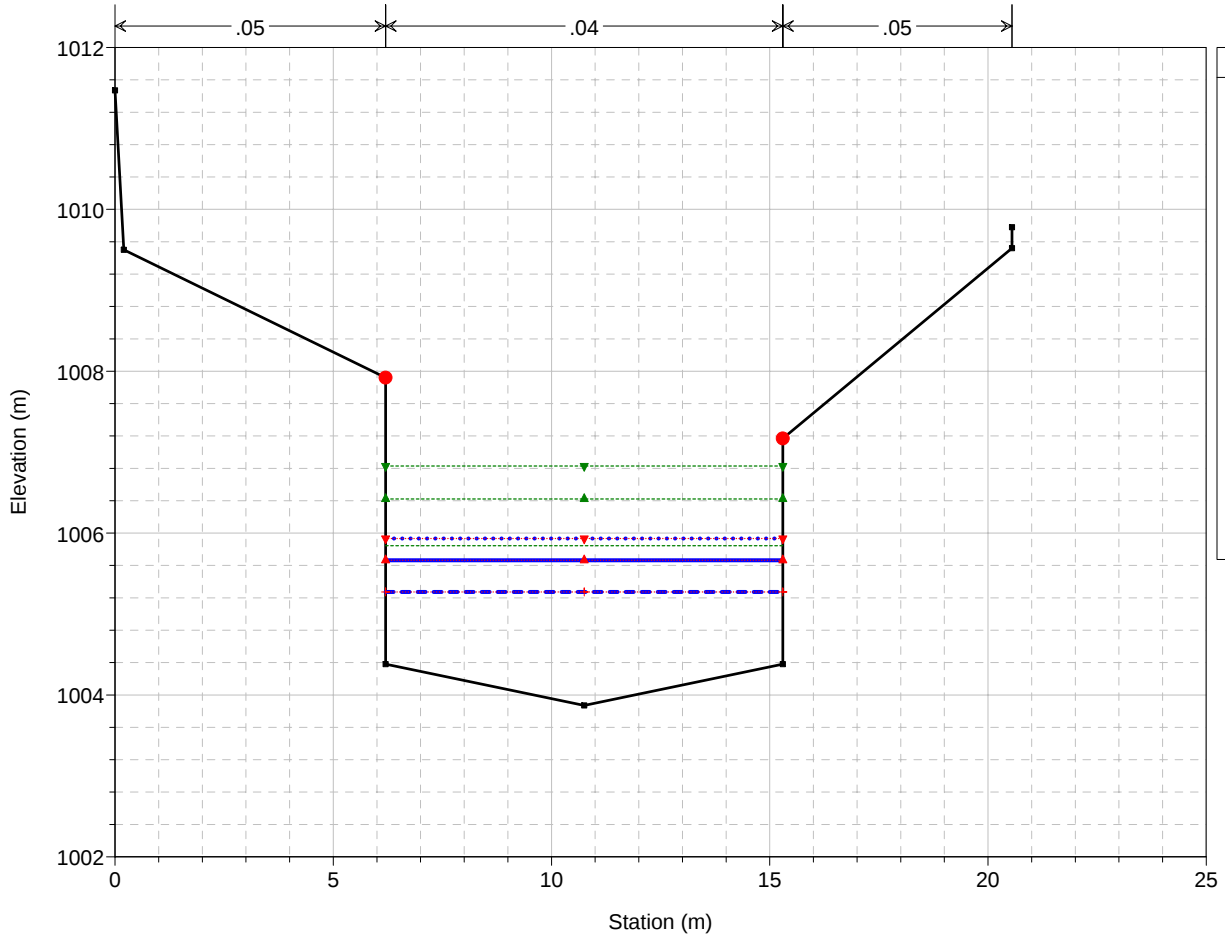
Santo Stefano

River = Rio Freddo Reach = unico RS = 50.5 BR RF 18



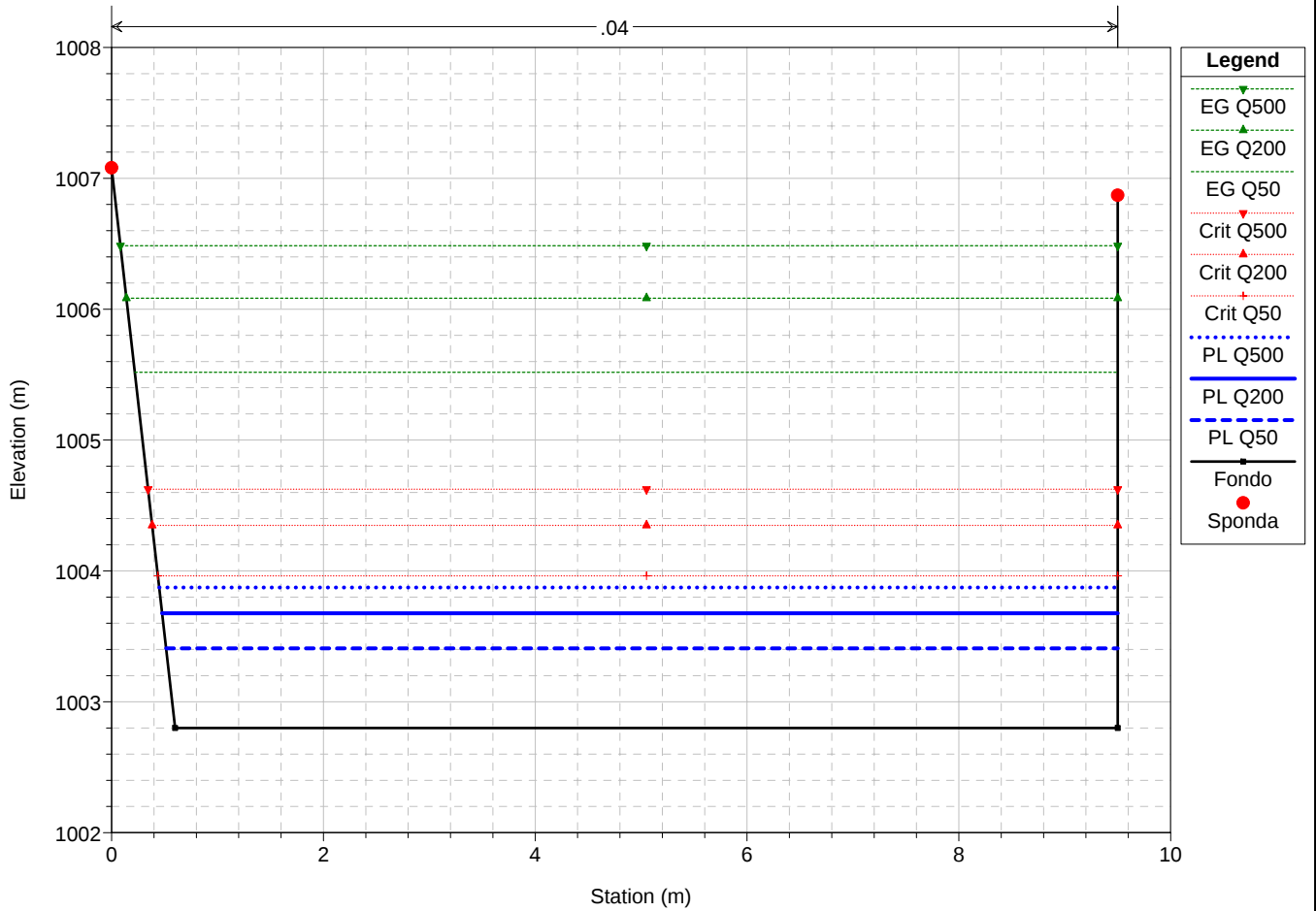
Santo Stefano

River = Rio Freddo Reach = unico RS = 50 RF 18



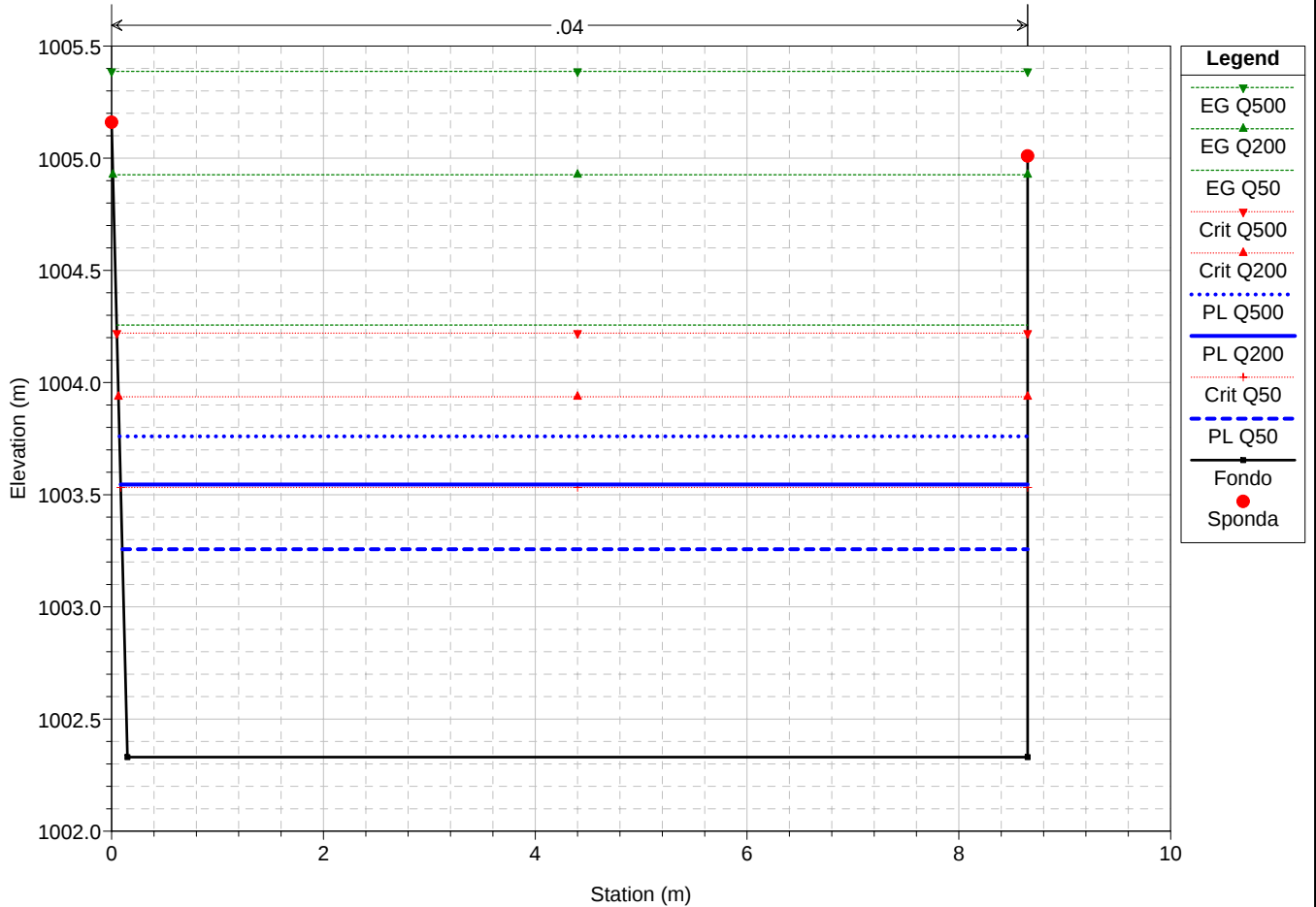
Santo Stefano

River = Rio Freddo Reach = unico RS = 48 RF 17



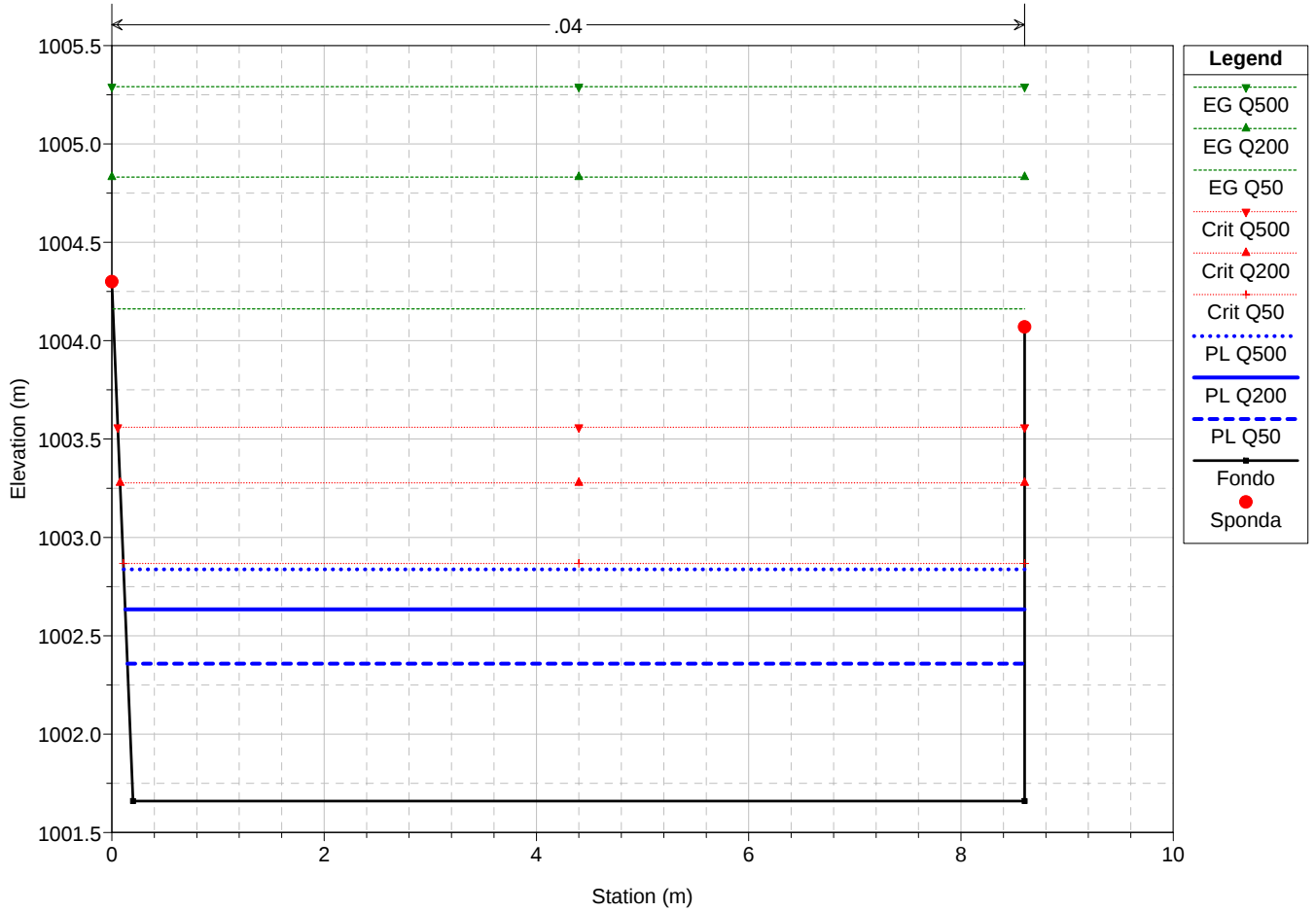
Santo Stefano

River = Rio Freddo Reach = unico RS = 47 RF 16



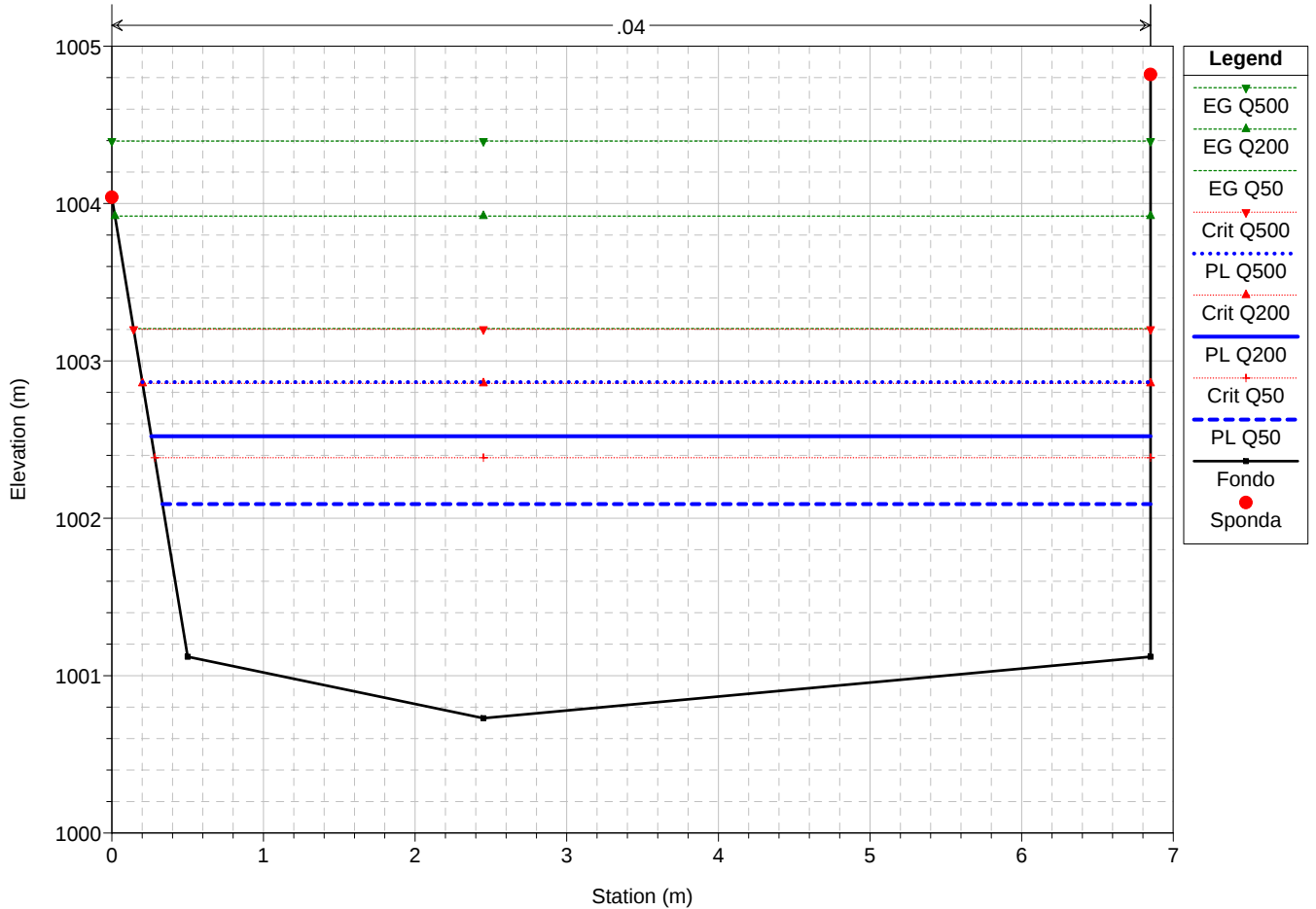
Santo Stefano

River = Rio Freddo Reach = unico RS = 46 RF 16



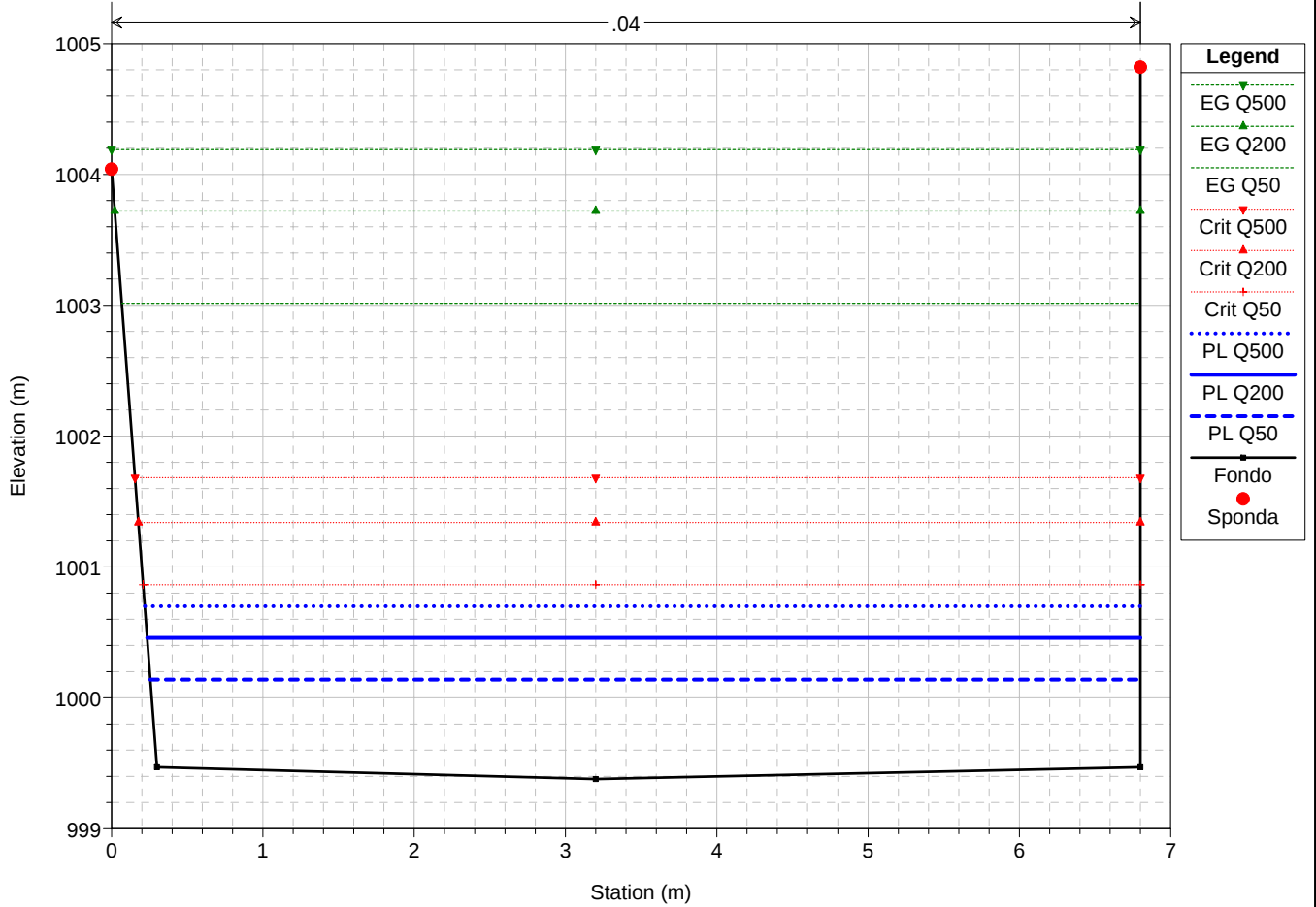
Santo Stefano

River = Rio Freddo Reach = unico RS = 45 RF 15



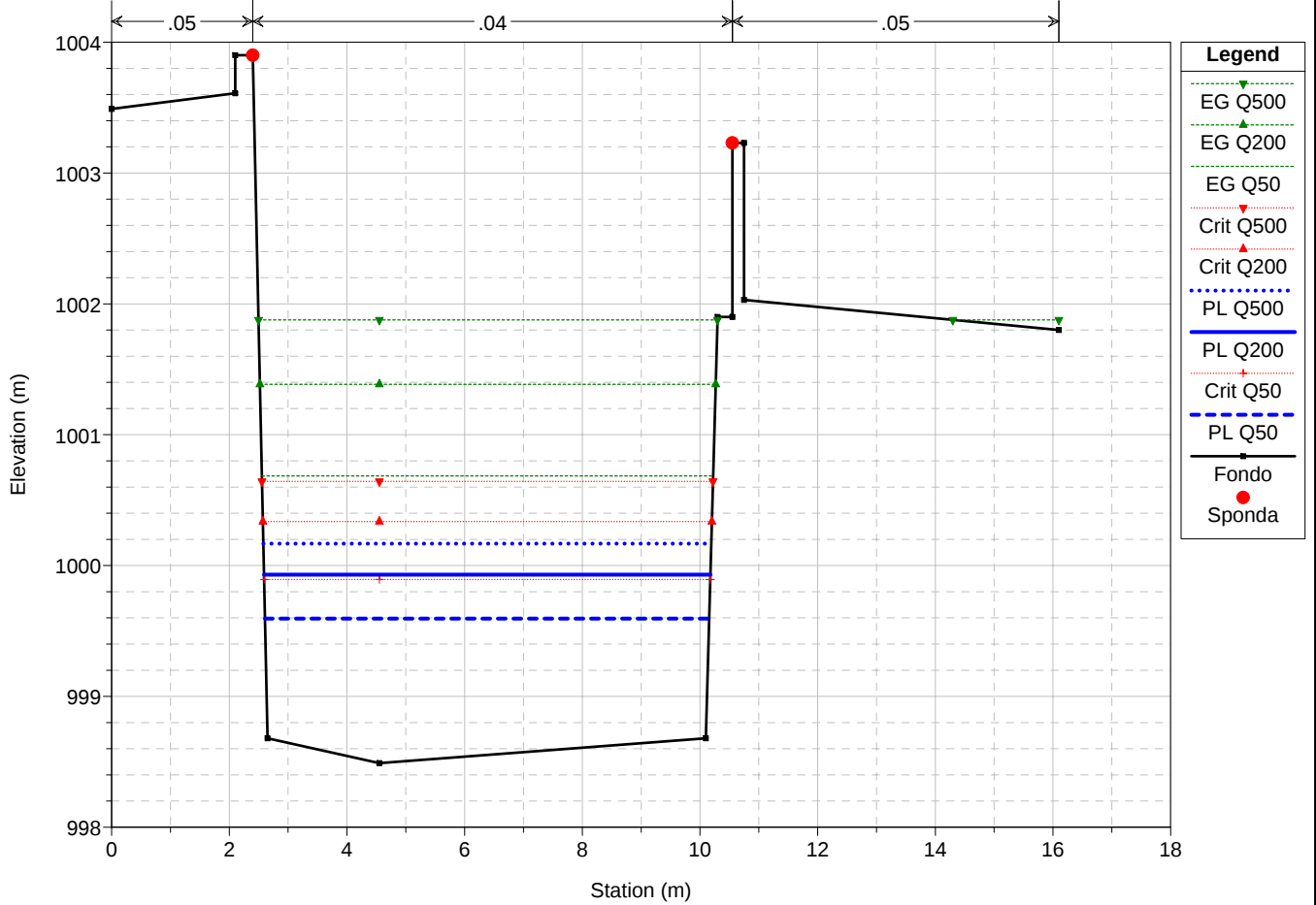
Santo Stefano

River = Rio Freddo Reach = unico RS = 44 RF 15



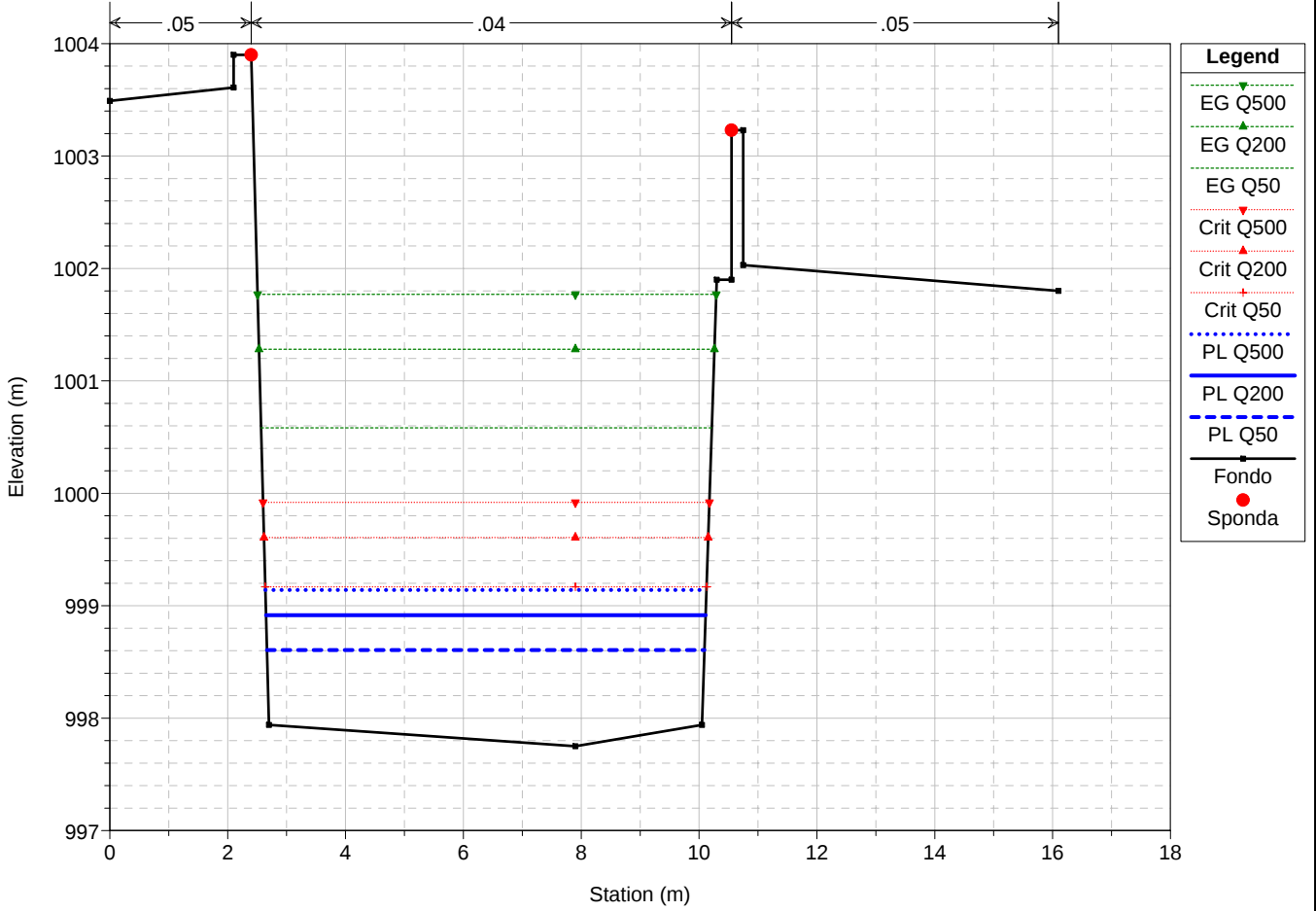
Santo Stefano

River = Rio Freddo Reach = unico RS = 41 RF 14



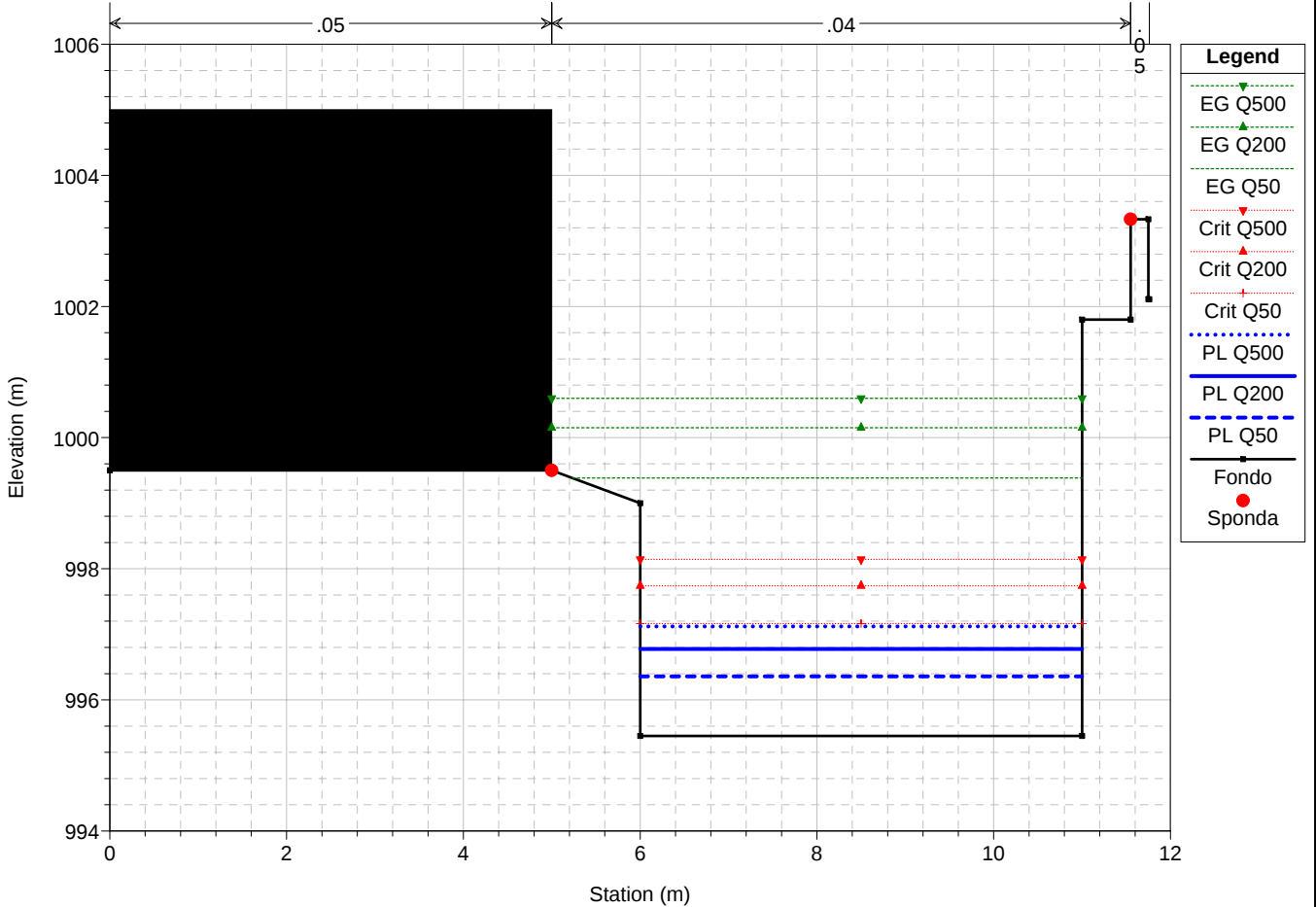
Santo Stefano

River = Rio Freddo Reach = unico RS = 40 RF 14



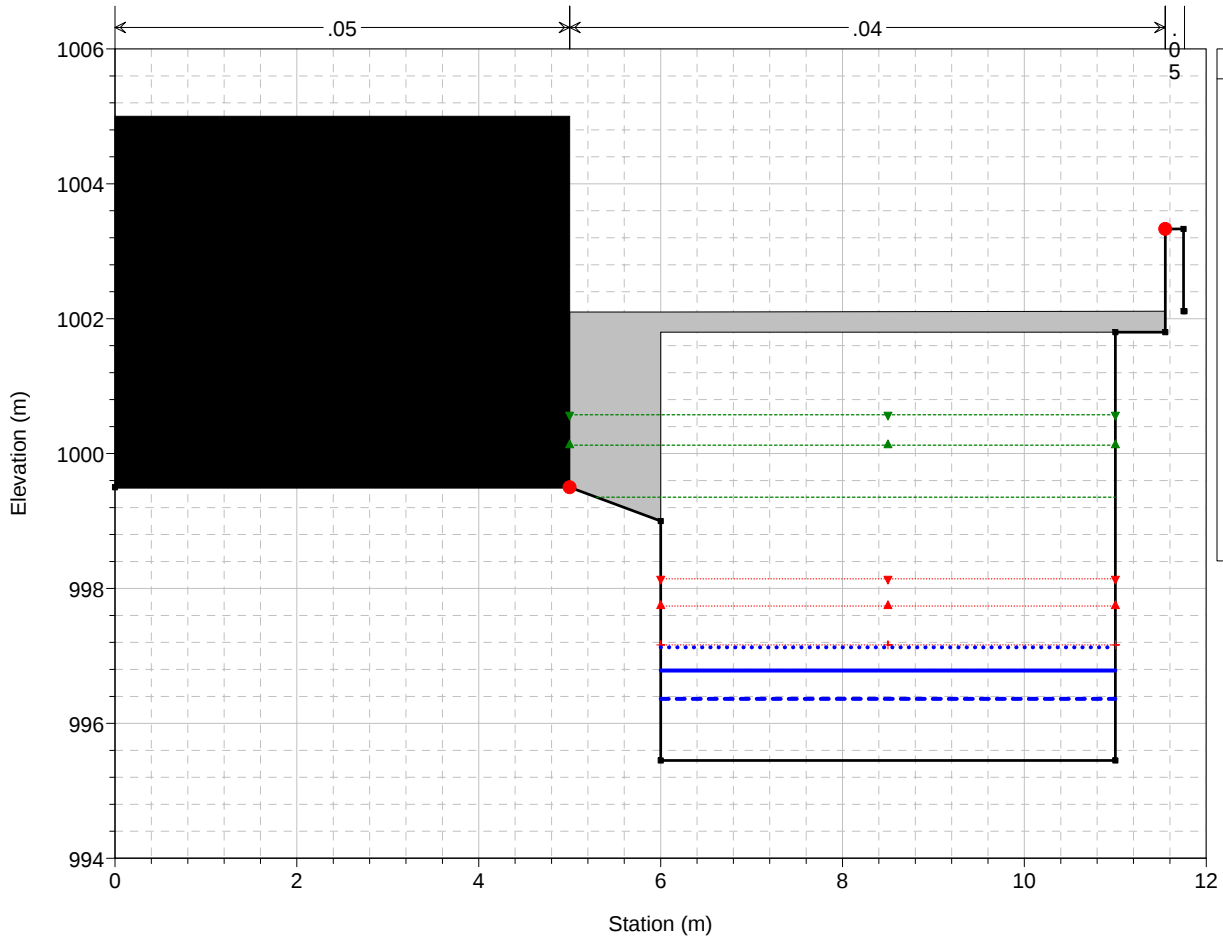
Santo Stefano

River = Rio Freddo Reach = unico RS = 35 RF 13



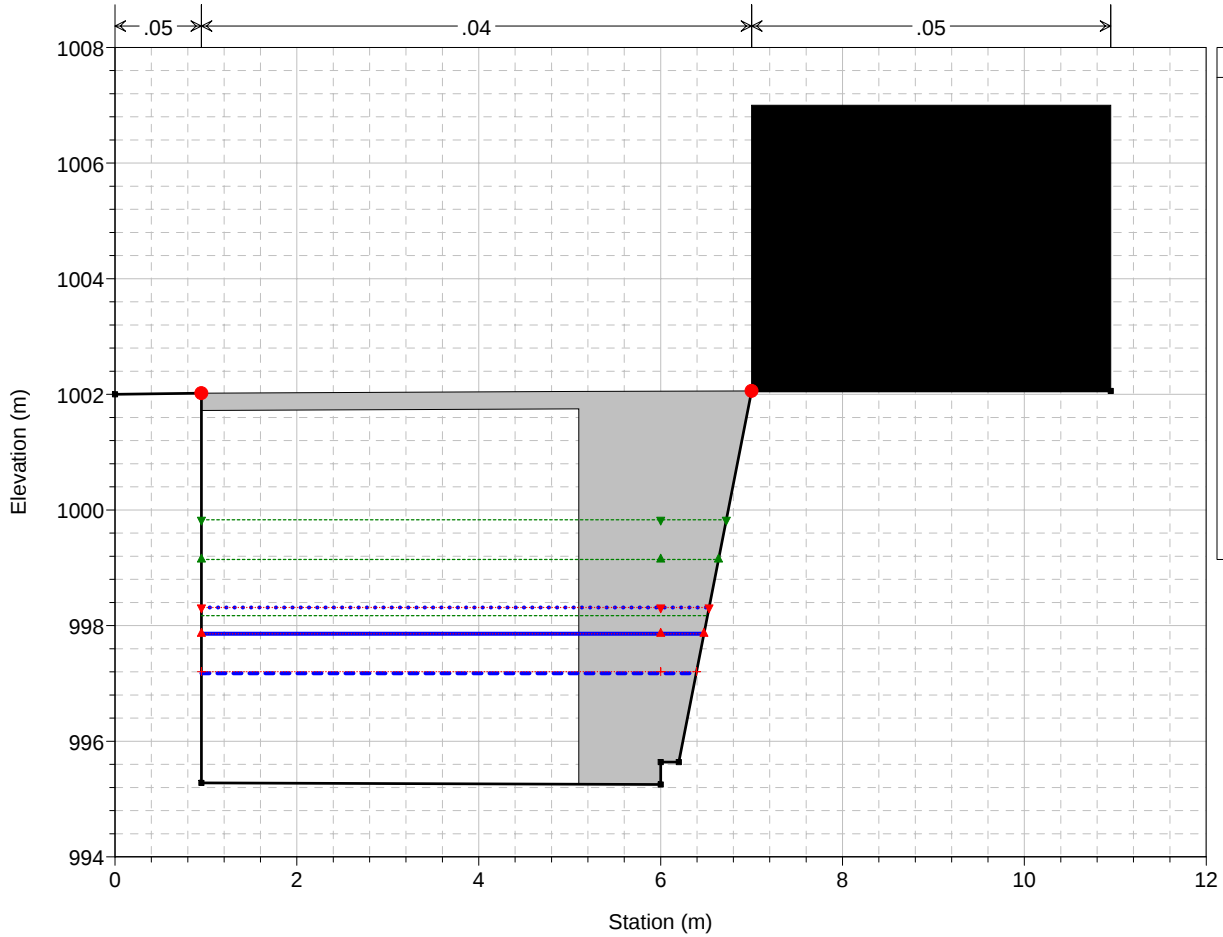
Santo Stefano

River = Rio Freddo Reach = unico RS = 34.5 BR RF 13



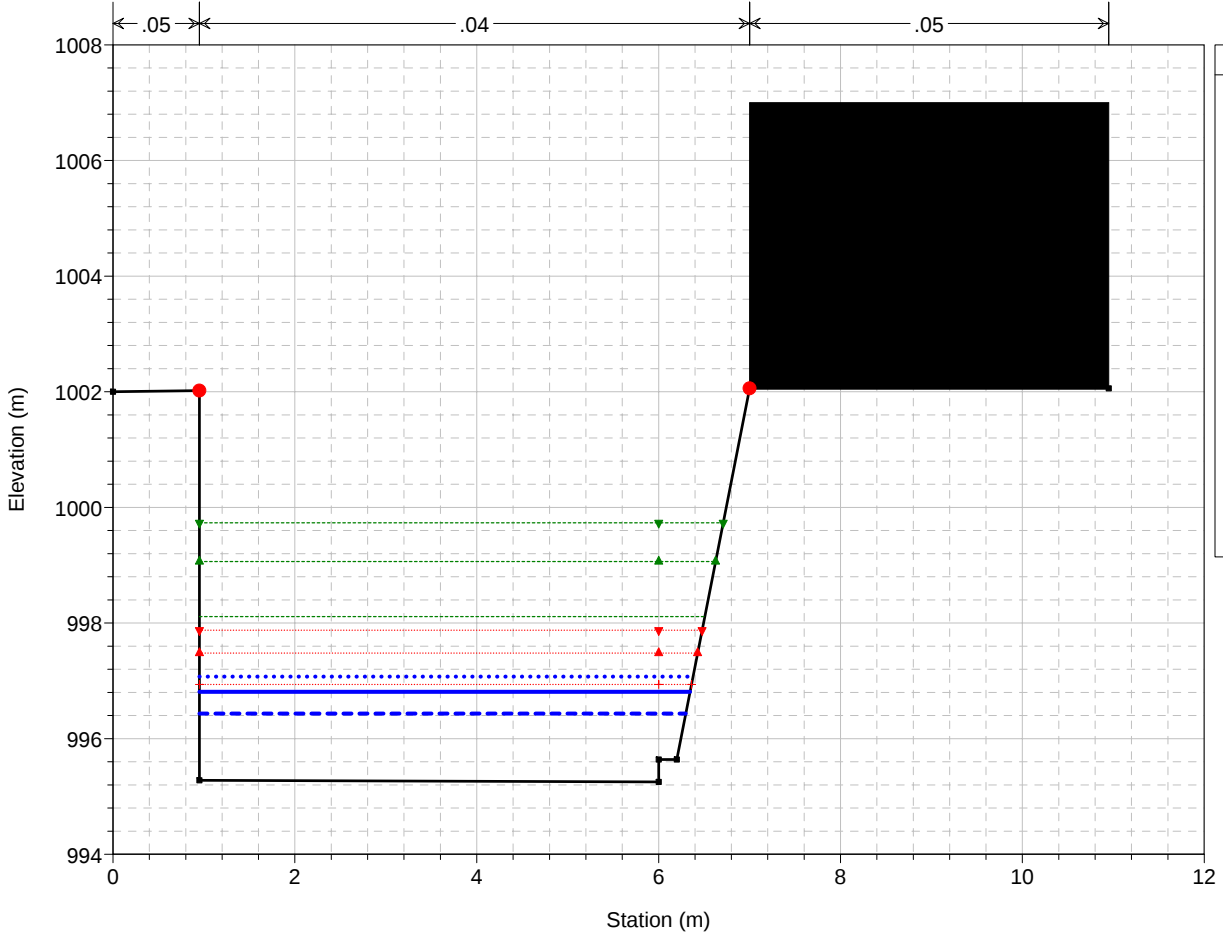
Santo Stefano

River = Rio Freddo Reach = unico RS = 34.5 BR RF 13



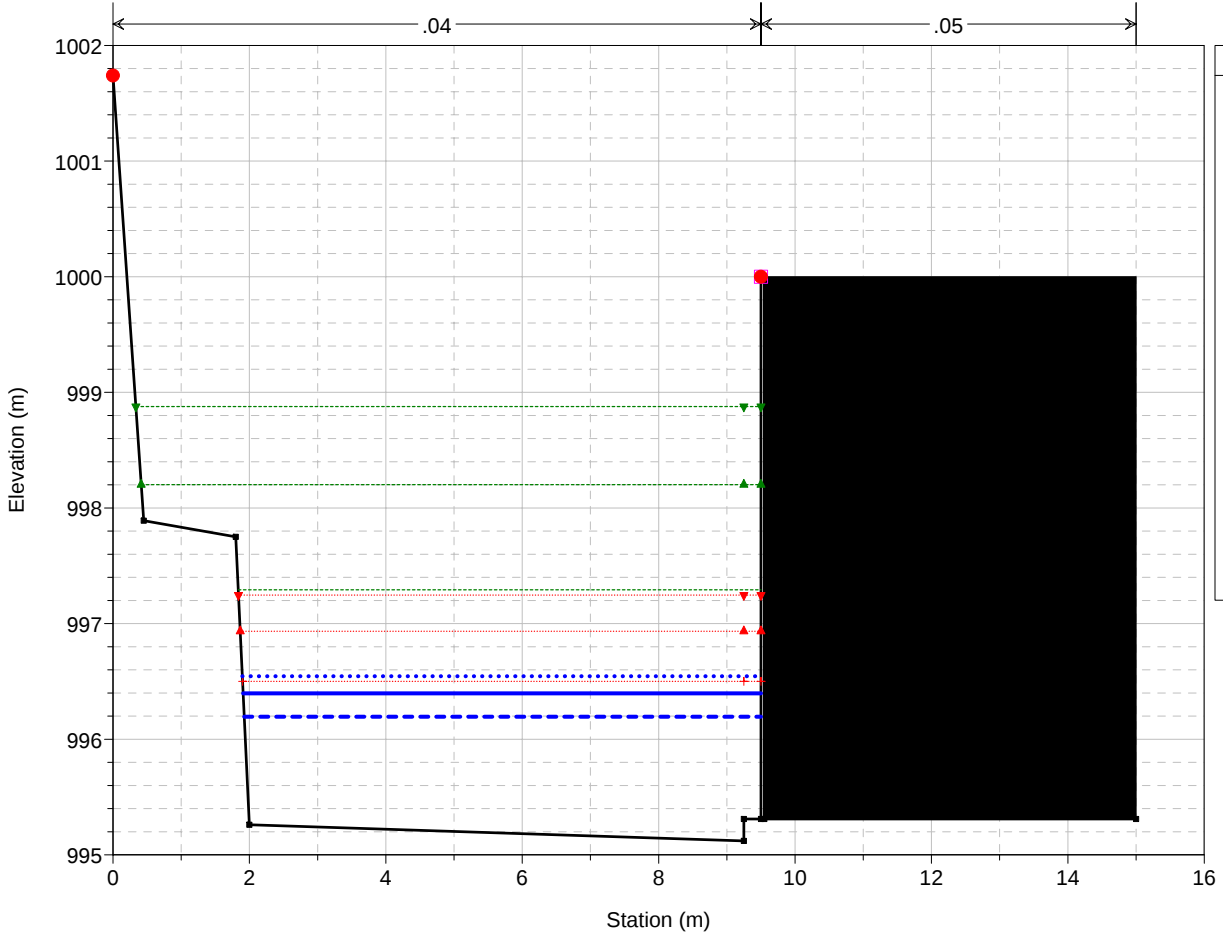
Santo Stefano

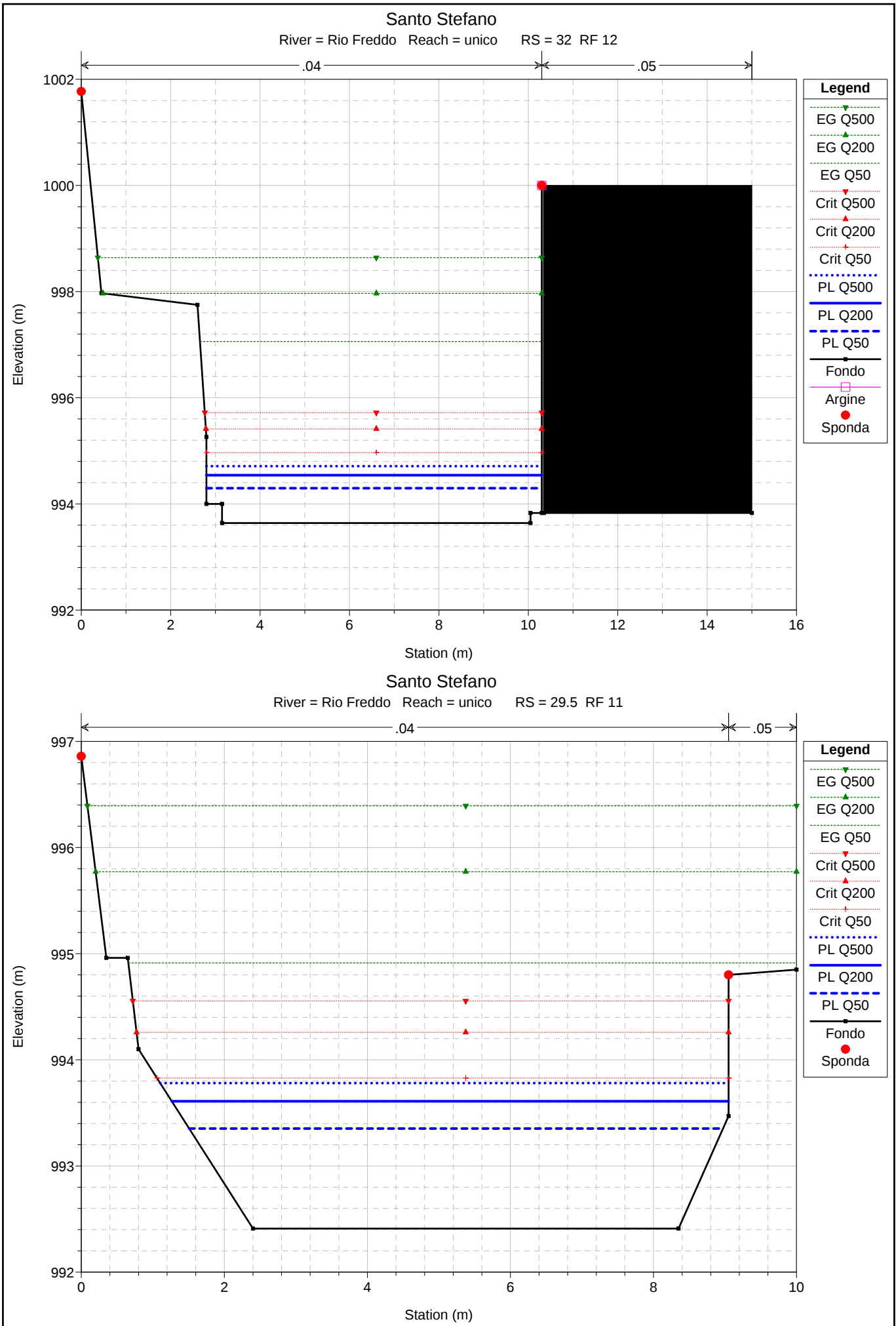
River = Rio Freddo Reach = unico RS = 34 RF 13



Santo Stefano

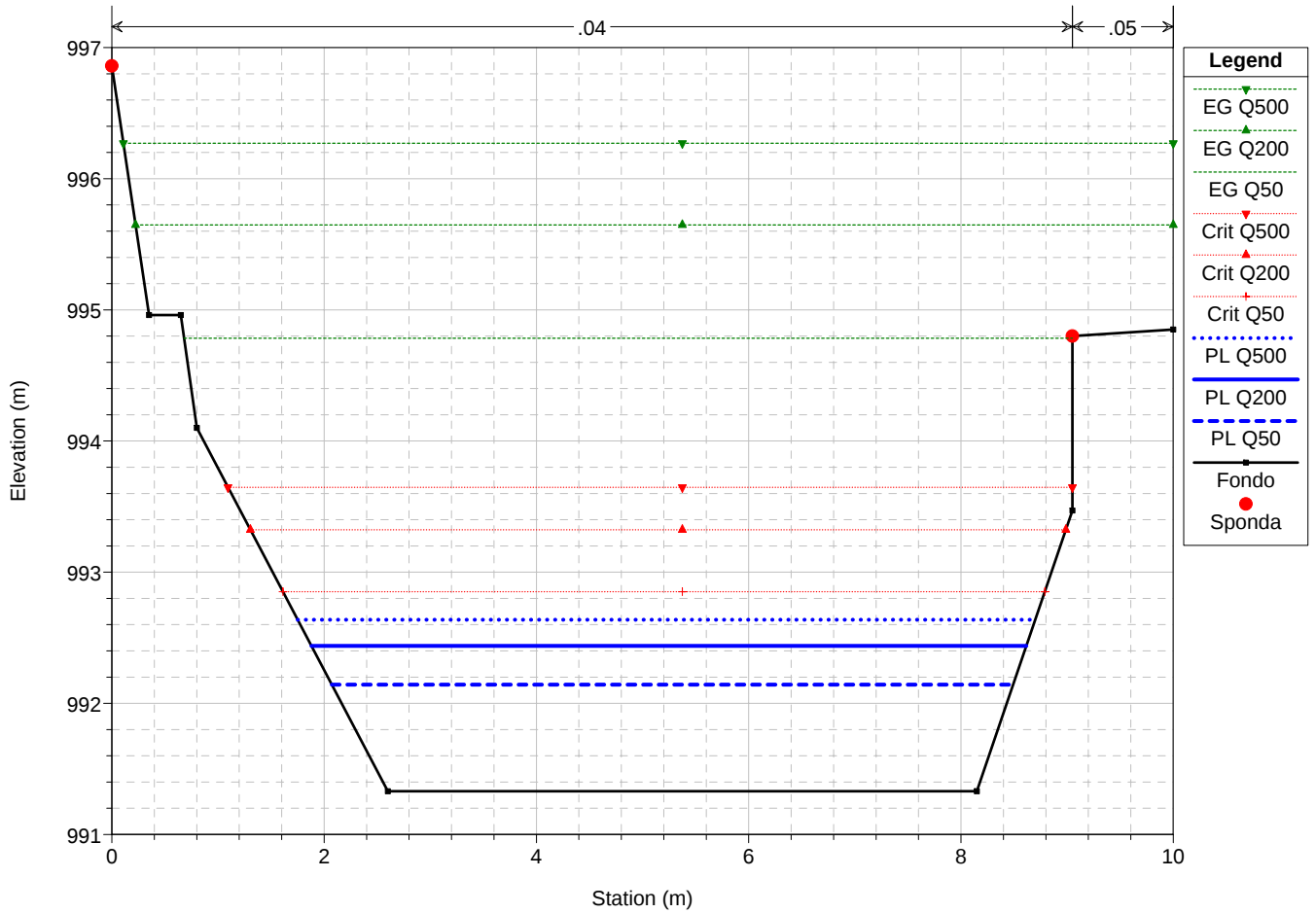
River = Rio Freddo Reach = unico RS = 33 RF 12





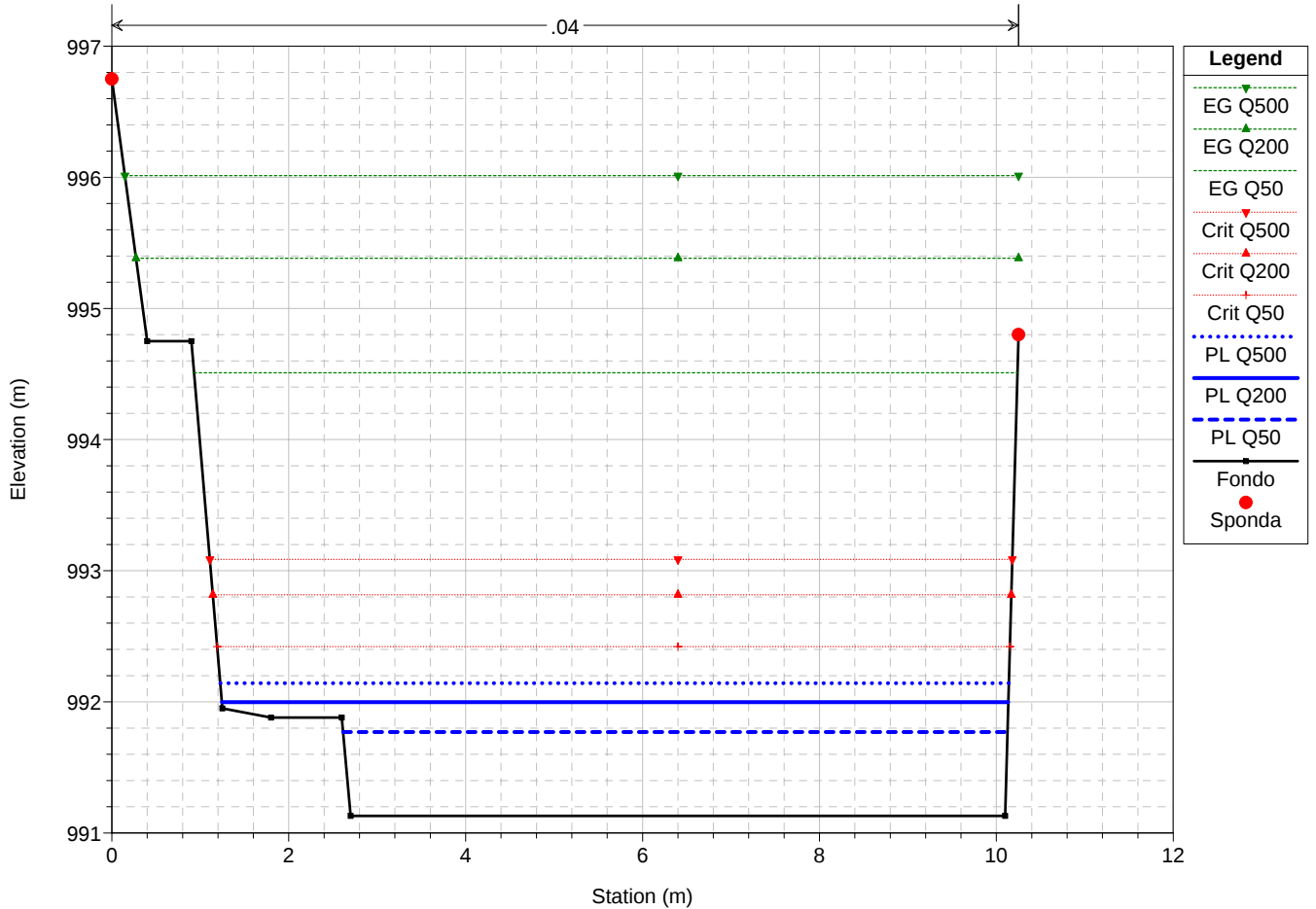
Santo Stefano

River = Rio Freddo Reach = unico RS = 29.4 RF 11



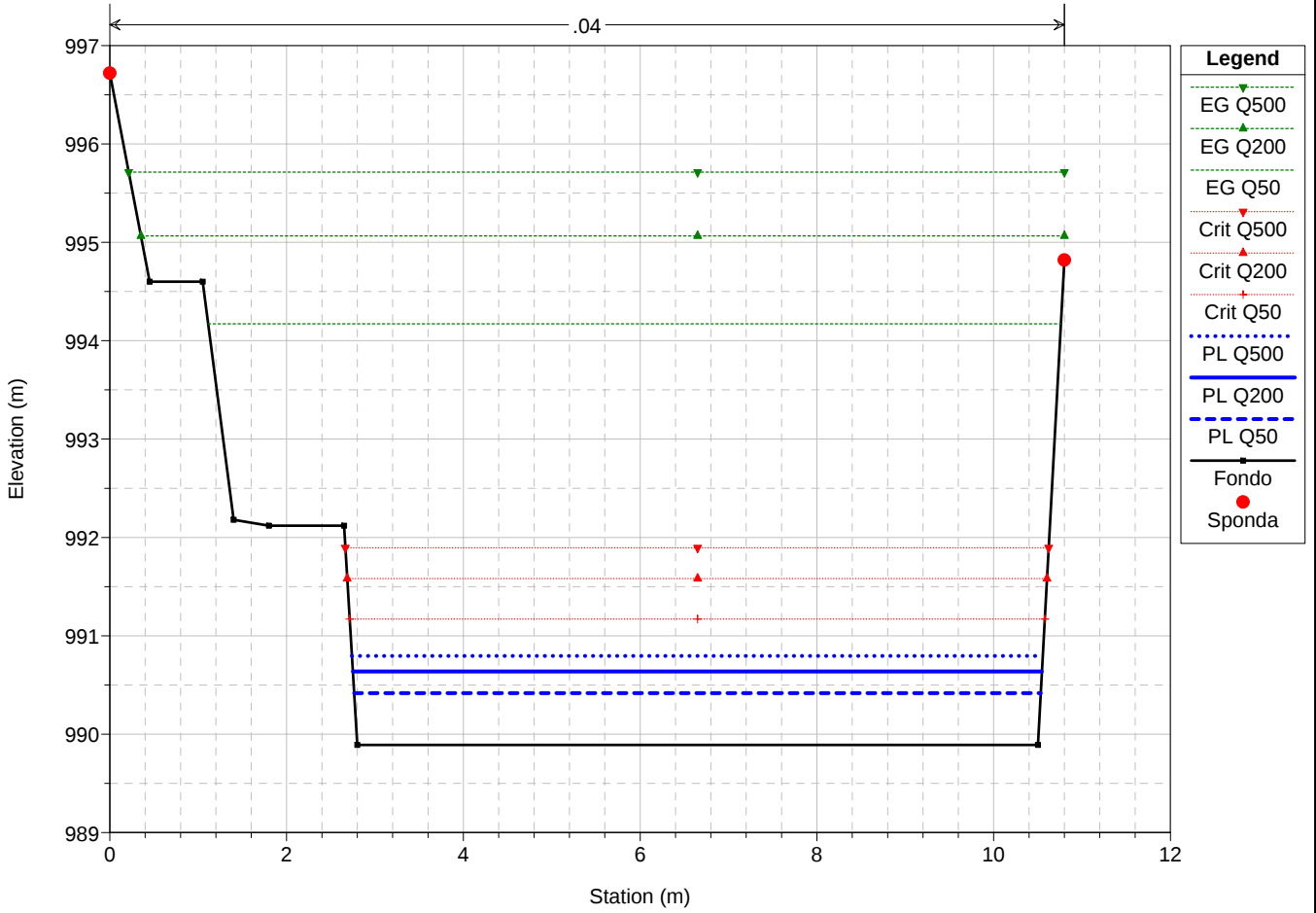
Santo Stefano

River = Rio Freddo Reach = unico RS = 29 RF 10



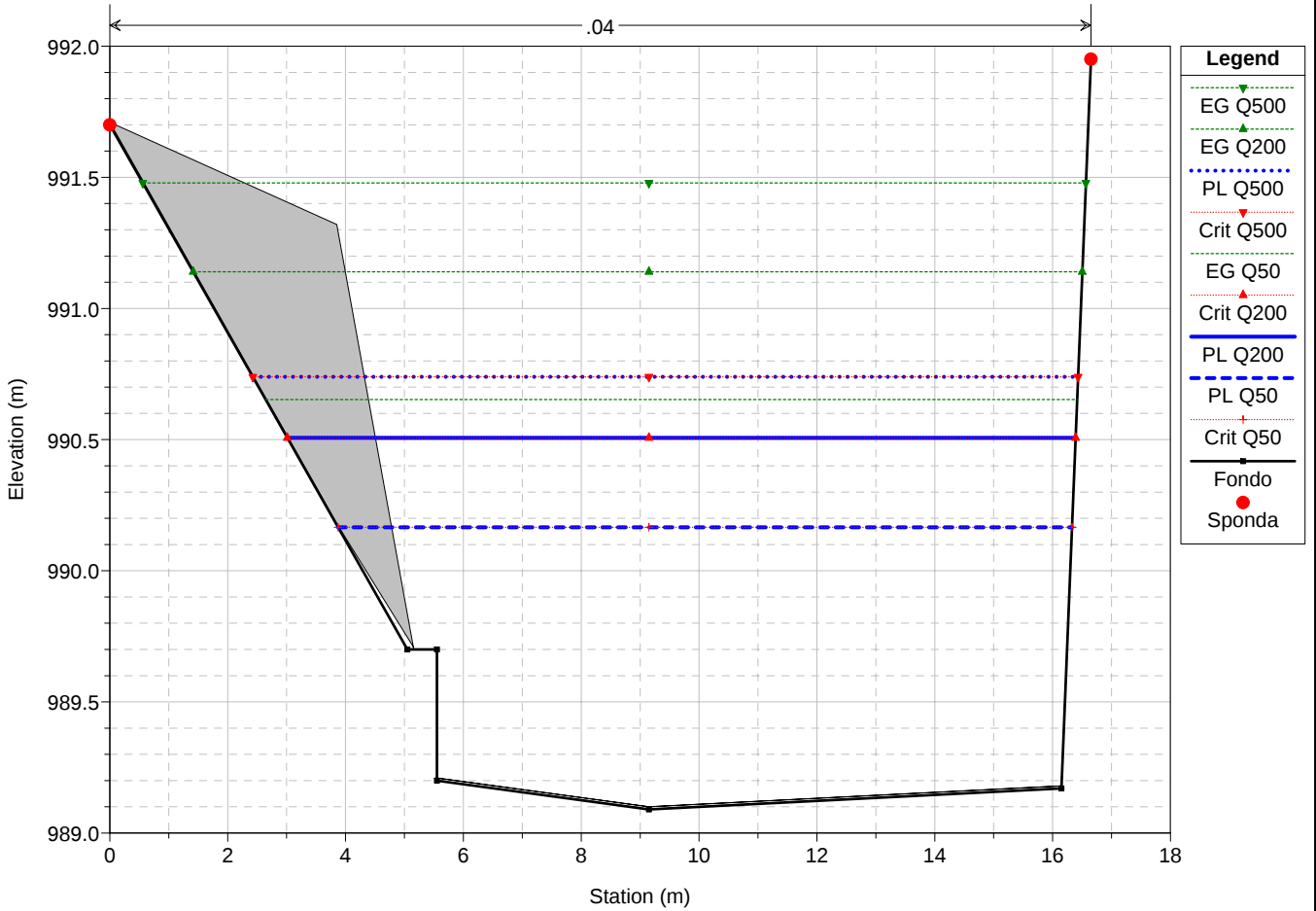
Santo Stefano

River = Rio Freddo Reach = unico RS = 27.5 RF 10



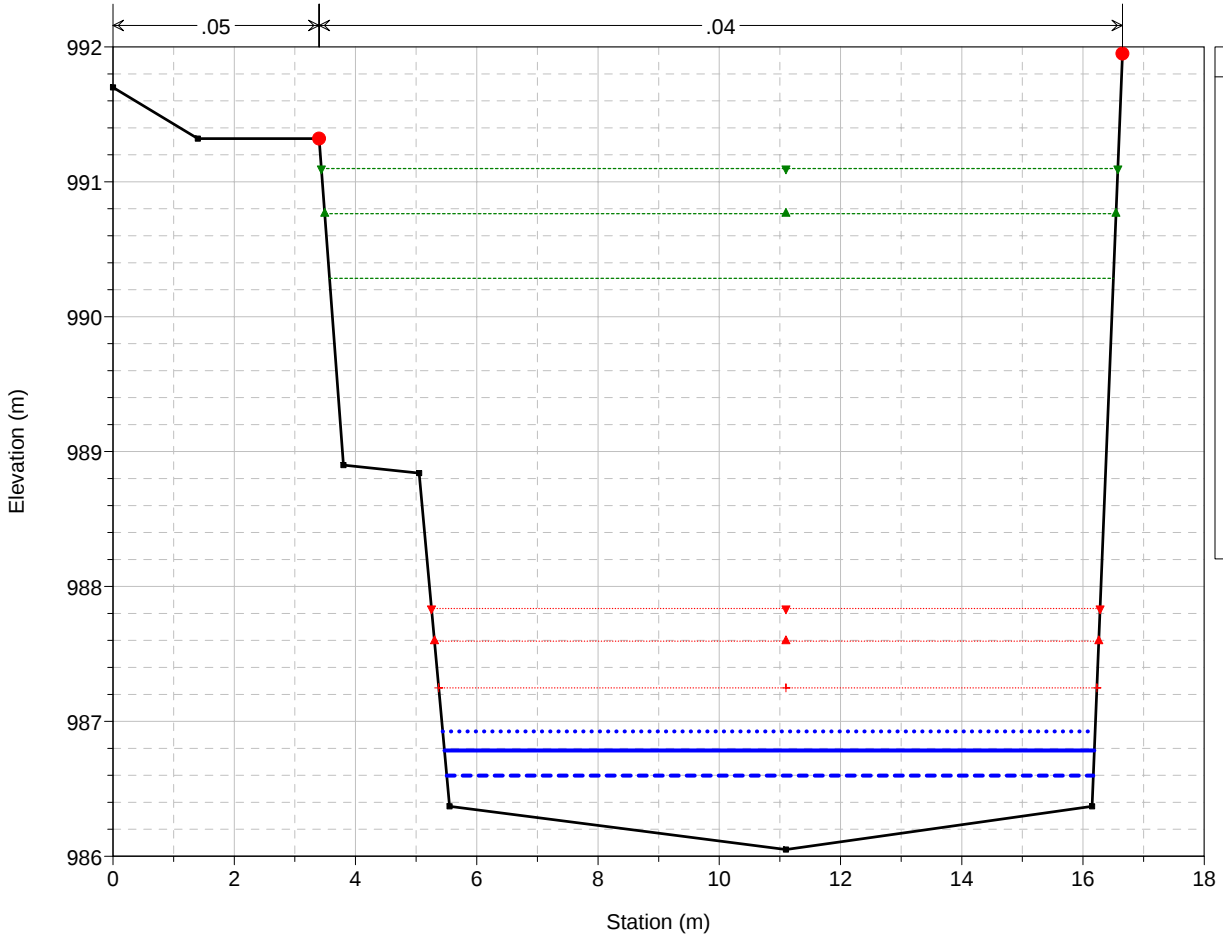
Santo Stefano

River = Rio Freddo Reach = unico RS = 25 RF 9



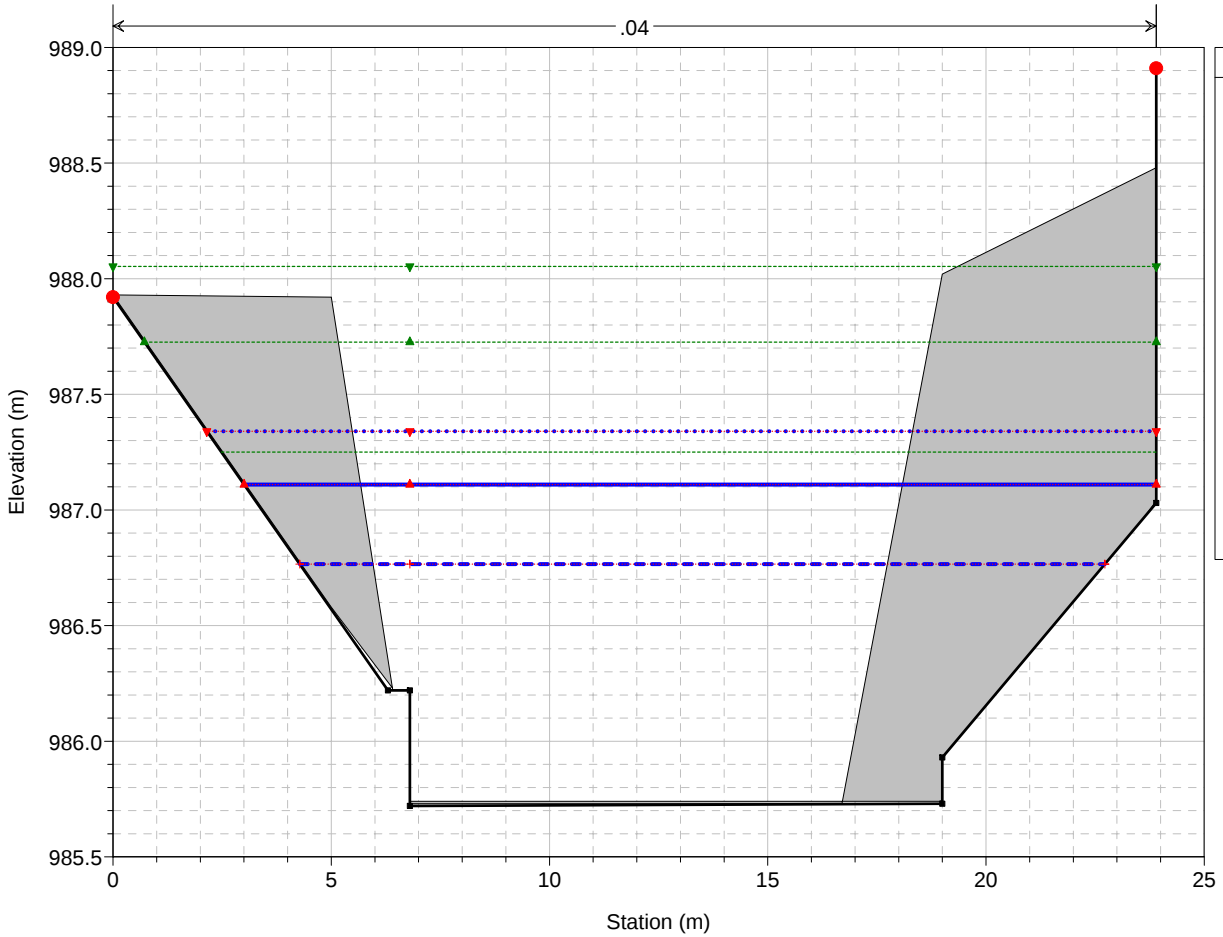
Santo Stefano

River = Rio Freddo Reach = unico RS = 24 RF 9



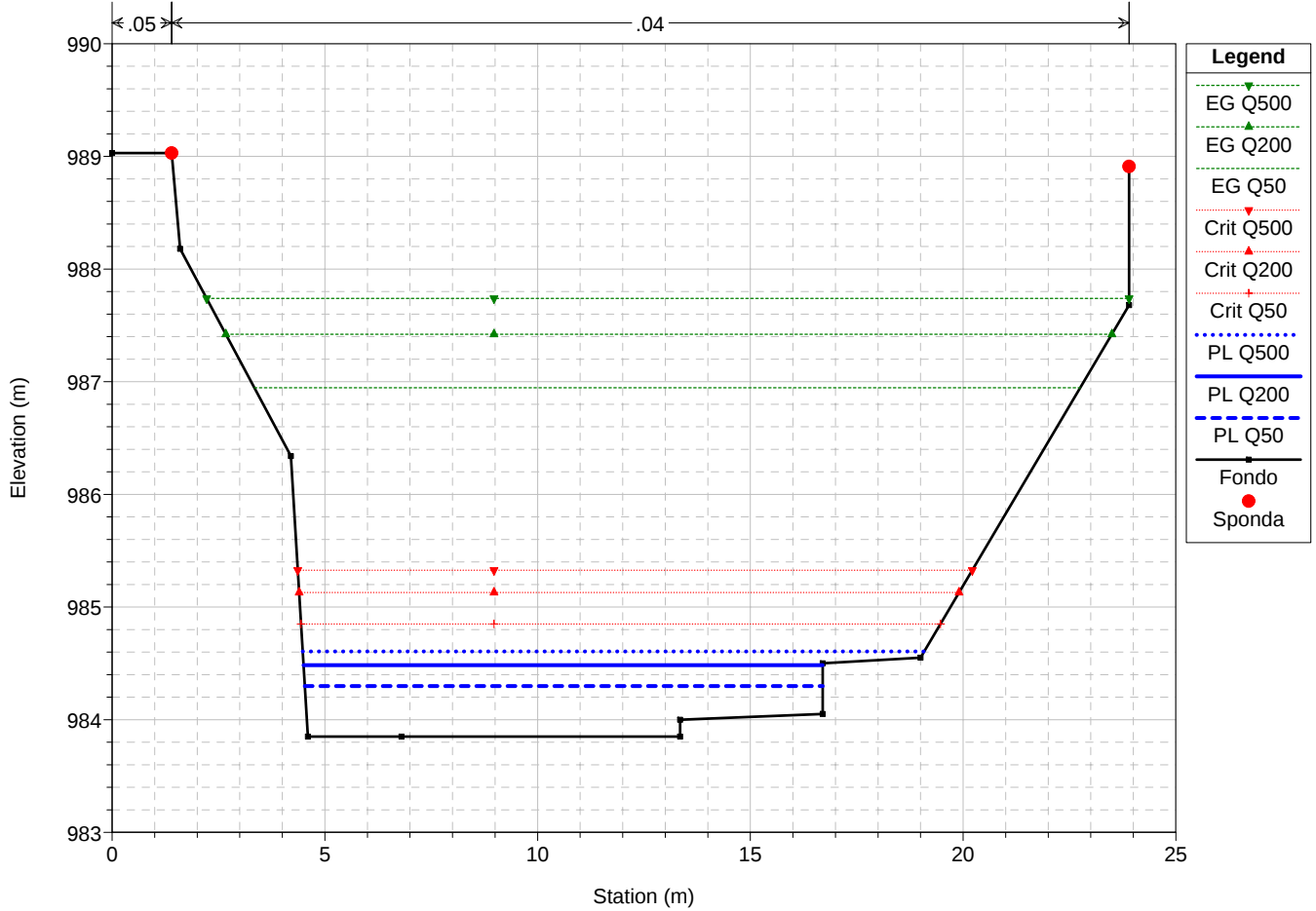
Santo Stefano

River = Rio Freddo Reach = unico RS = 21 RF 8



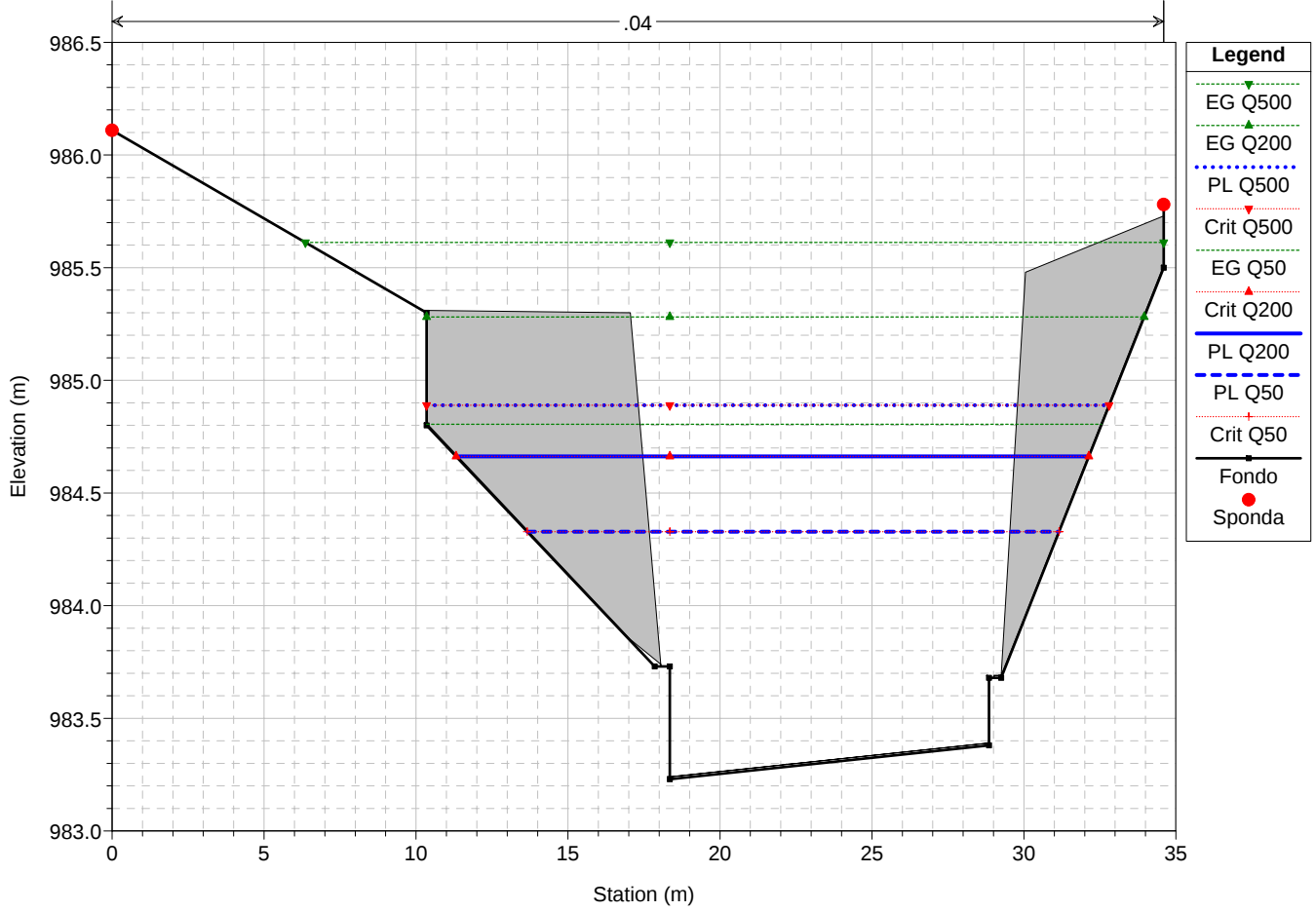
Santo Stefano

River = Rio Freddo Reach = unico RS = 20 RF 8



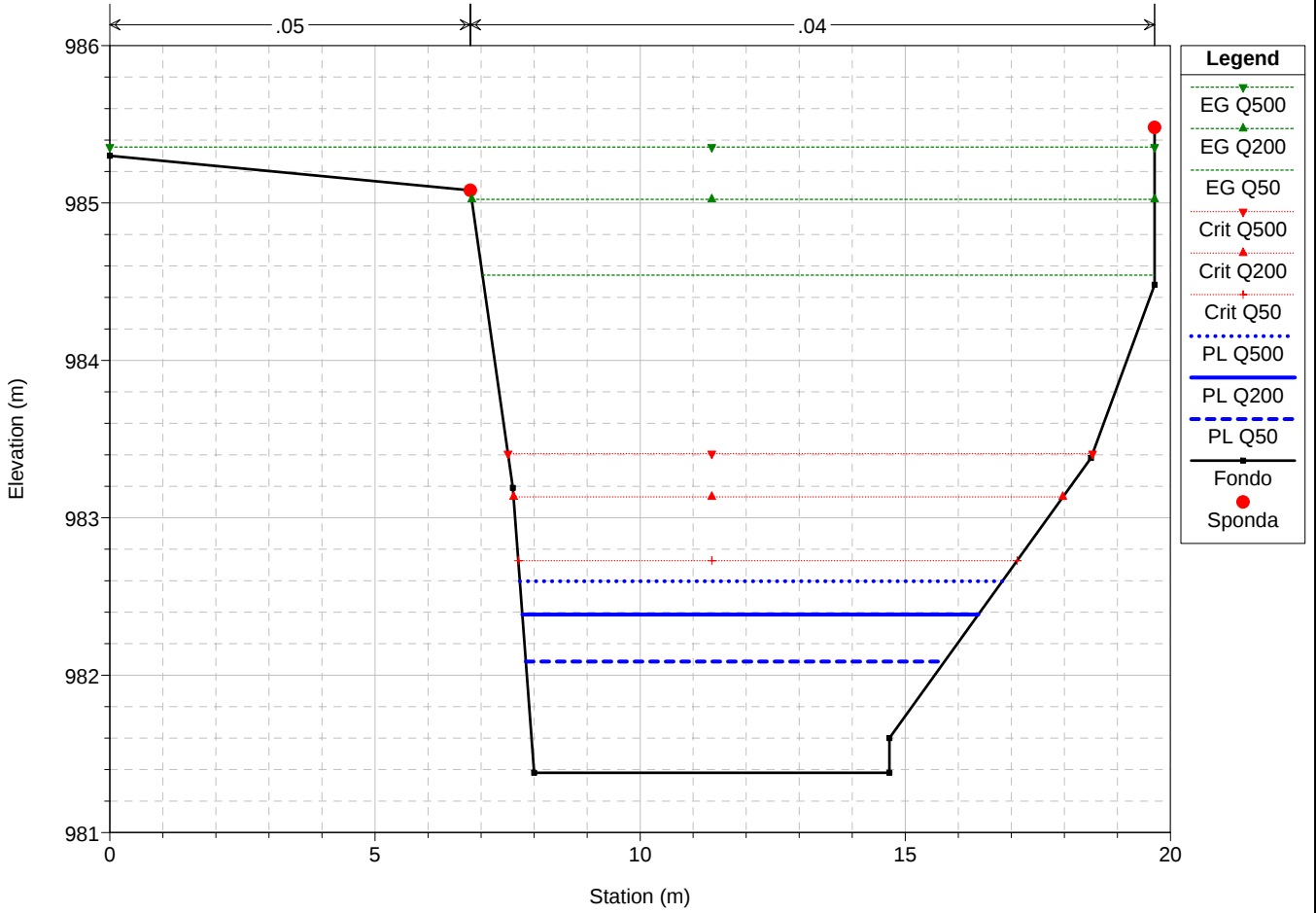
Santo Stefano

River = Rio Freddo Reach = unico RS = 18 RF 7



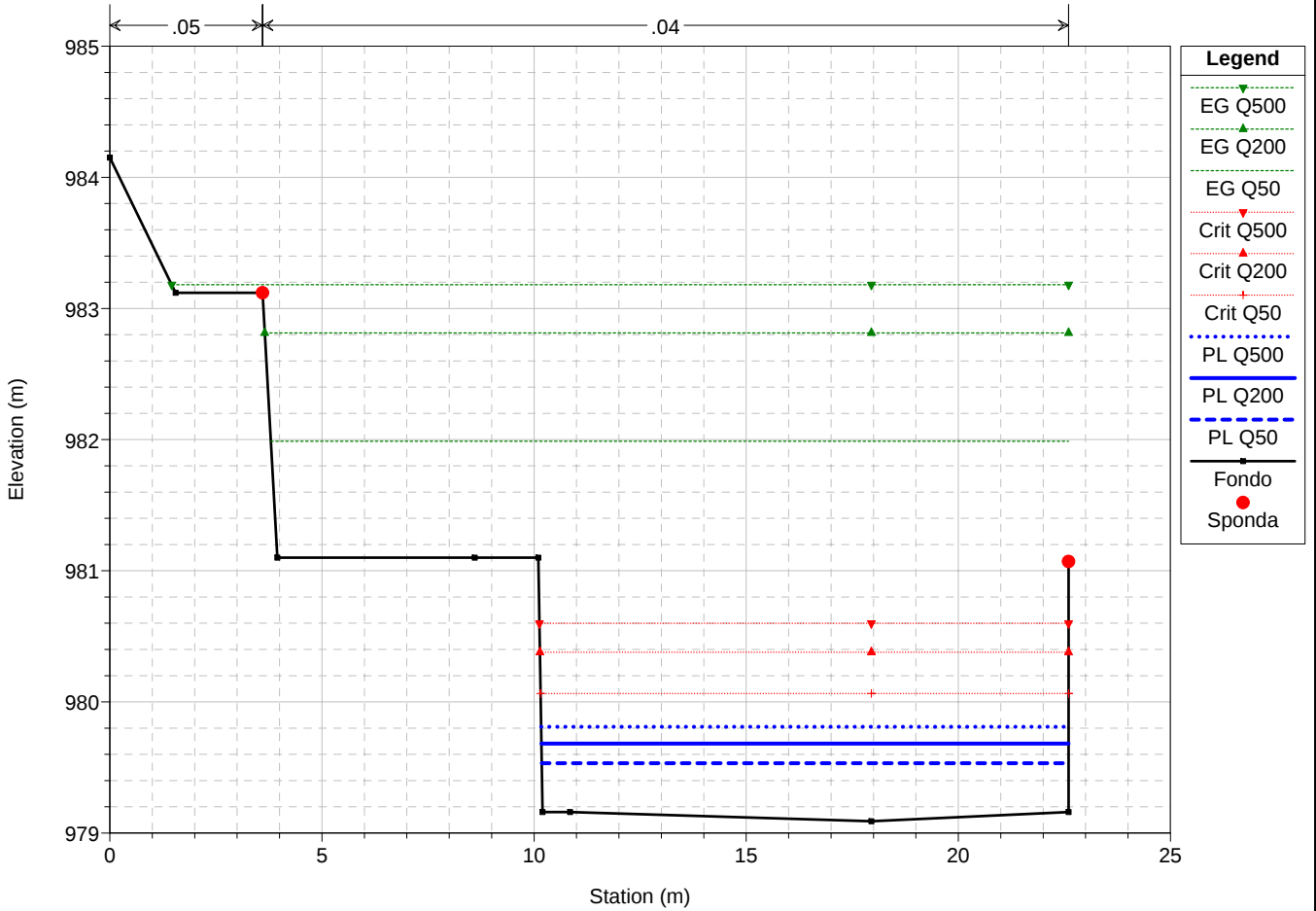
Santo Stefano

River = Rio Freddo Reach = unico RS = 17 RF 7



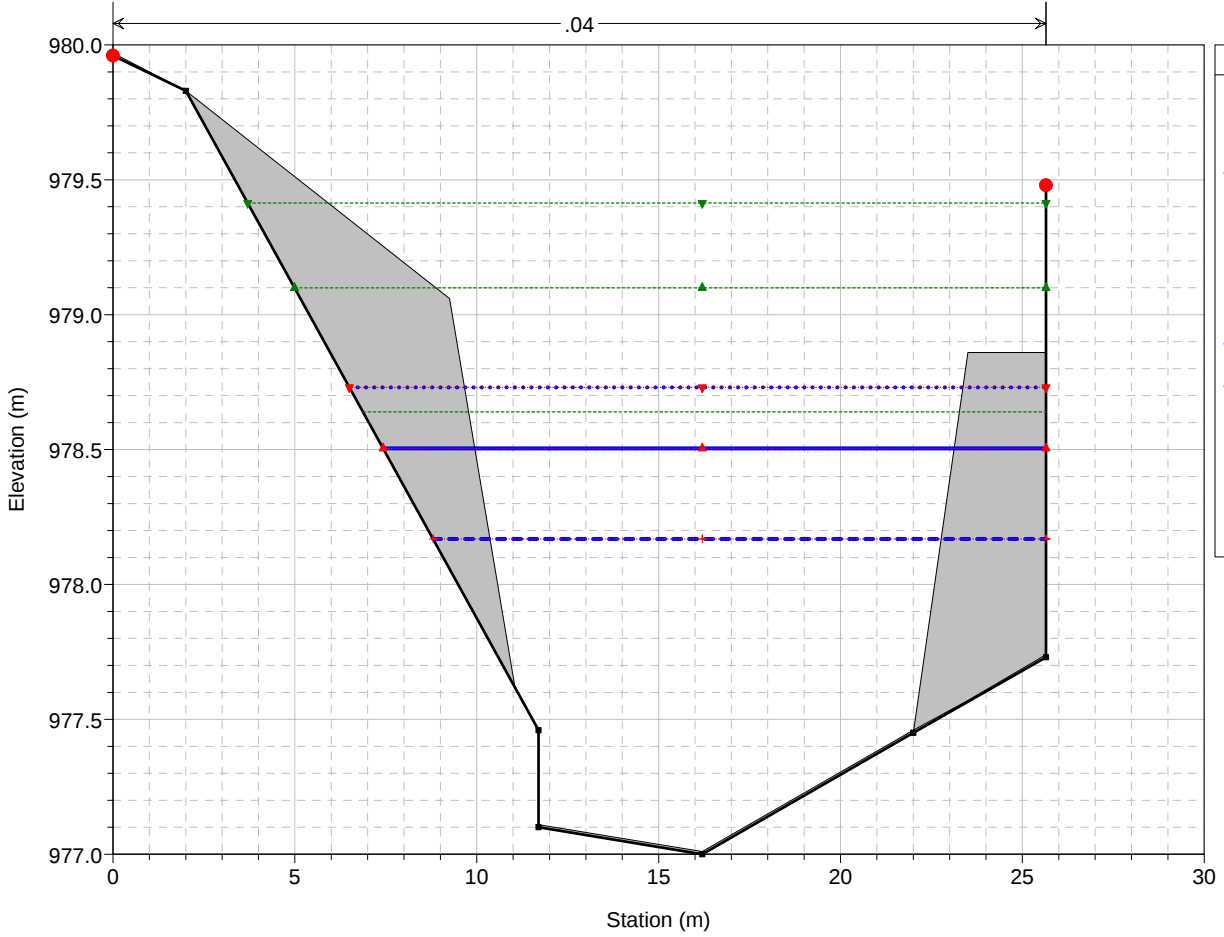
Santo Stefano

River = Rio Freddo Reach = unico RS = 15 RF 6



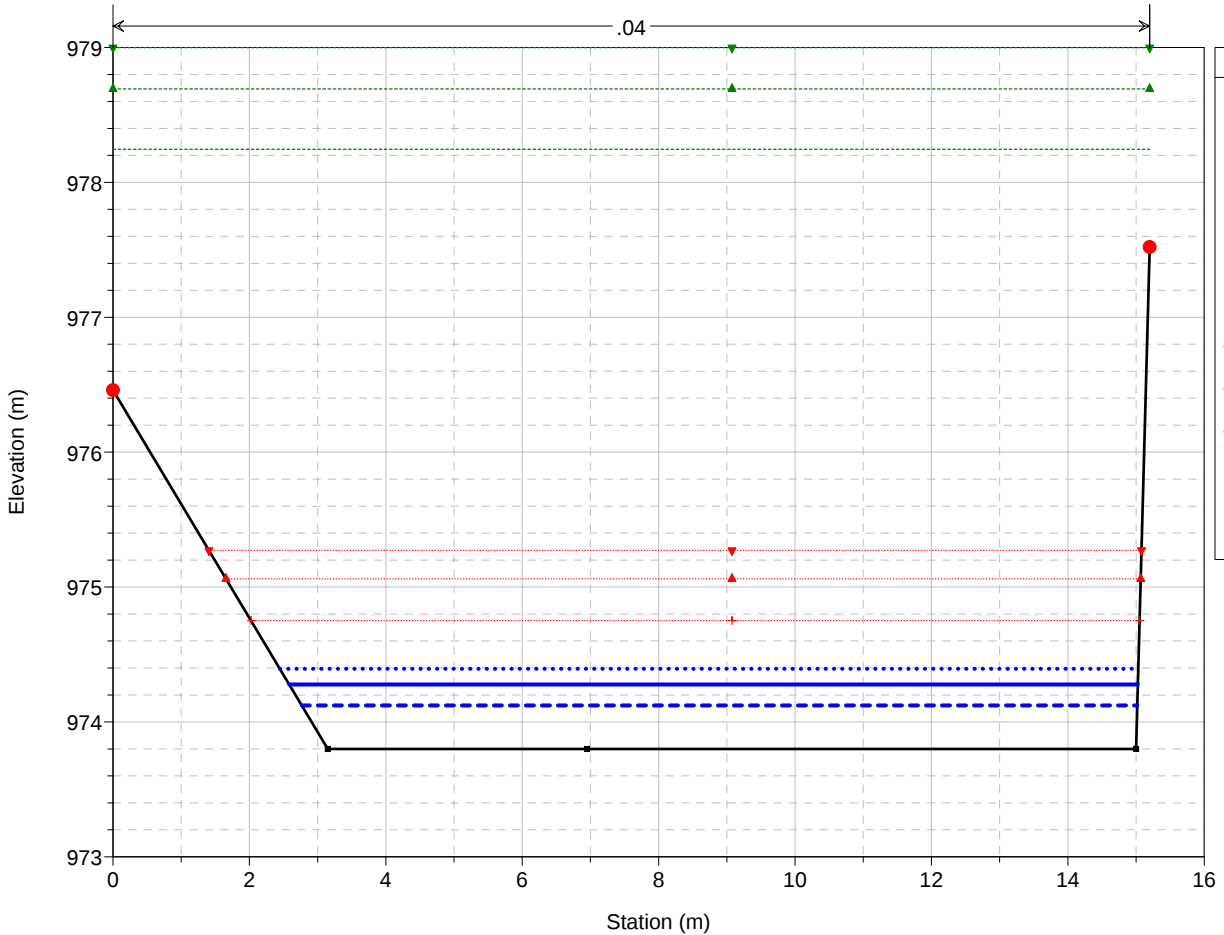
Santo Stefano

River = Rio Freddo Reach = unico RS = 12 RF 5



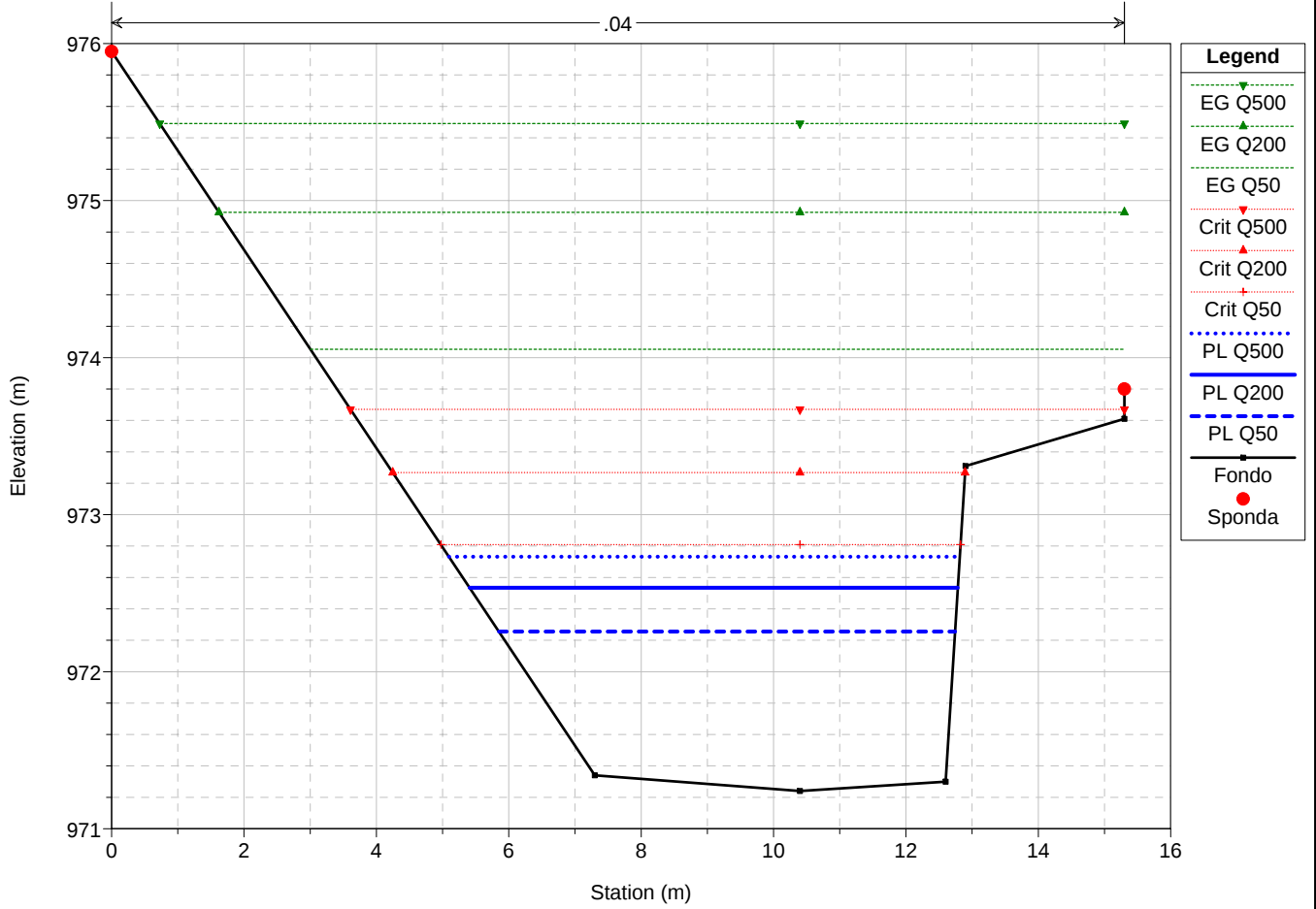
Santo Stefano

River = Rio Freddo Reach = unico RS = 11 RF 5



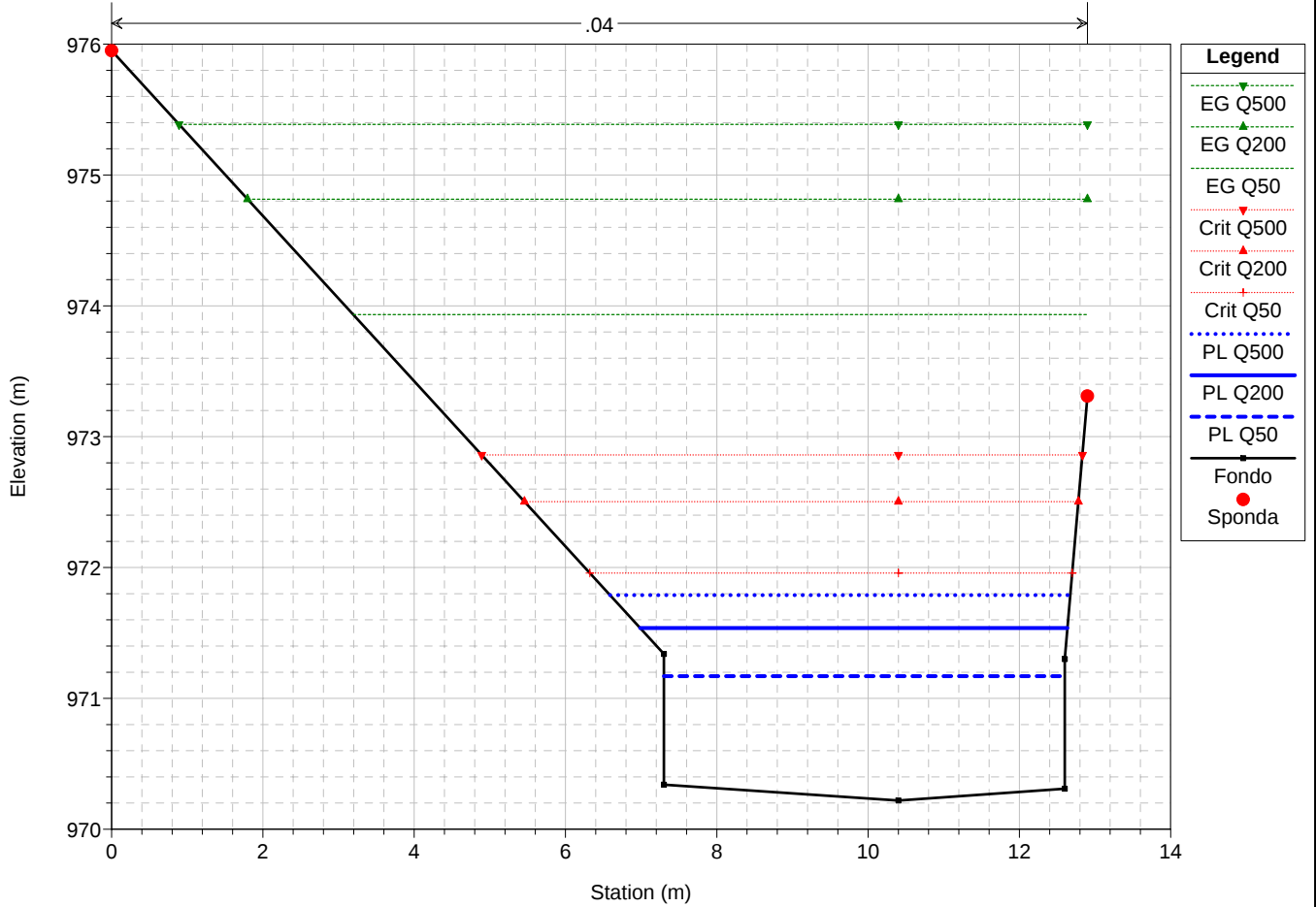
Santo Stefano

River = Rio Freddo Reach = unico RS = 9 RF 4



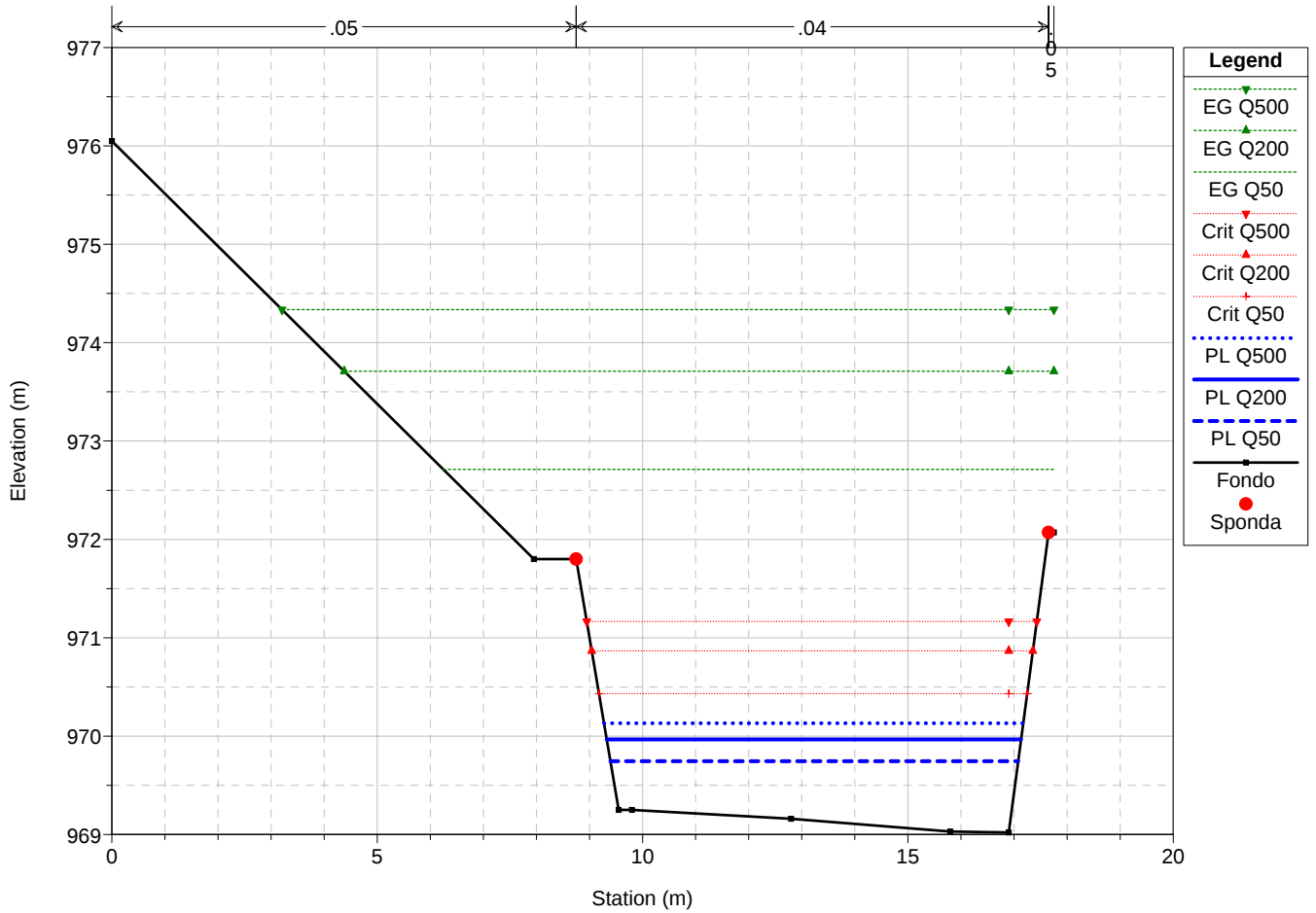
Santo Stefano

River = Rio Freddo Reach = unico RS = 8 RF 4



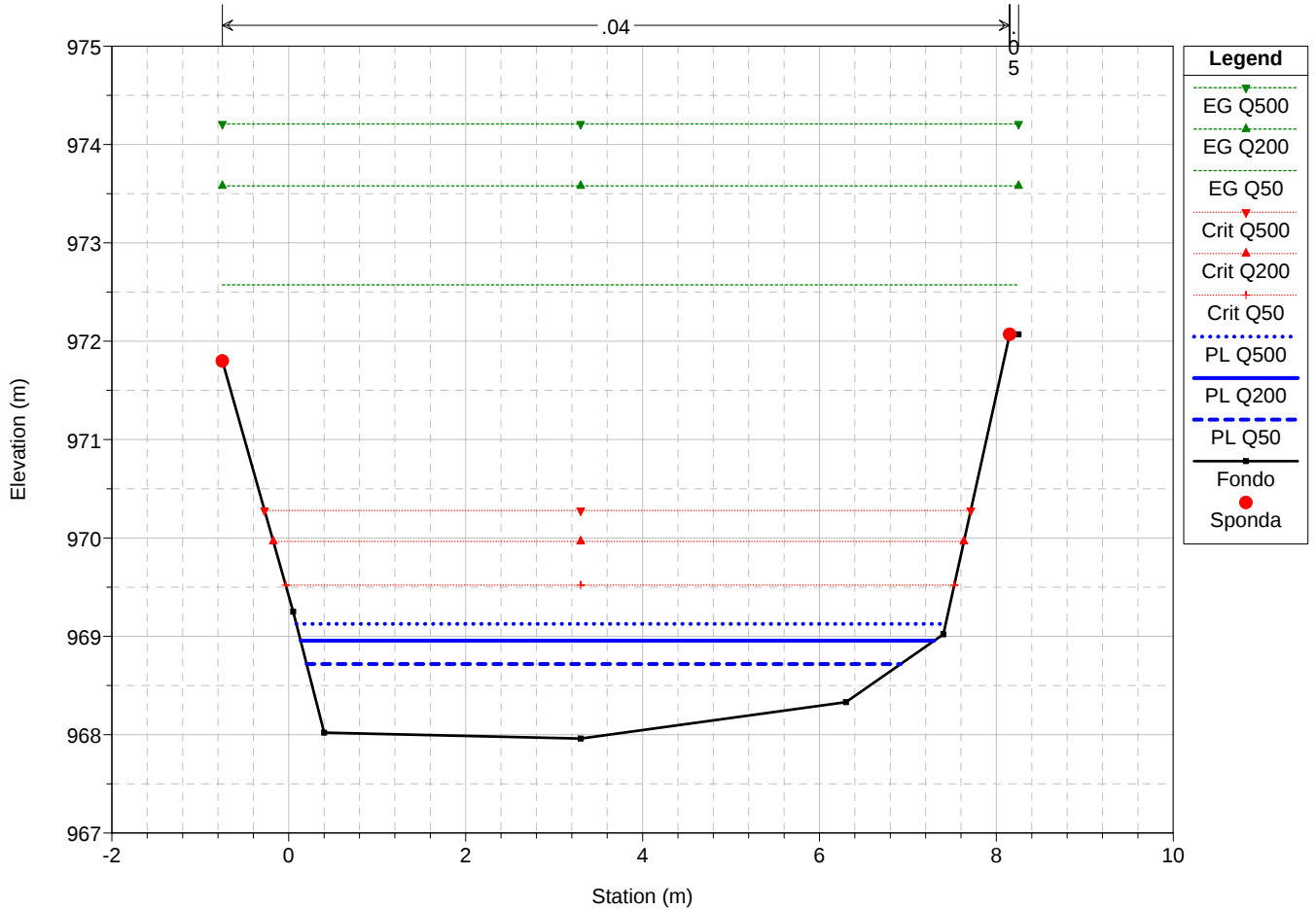
Santo Stefano

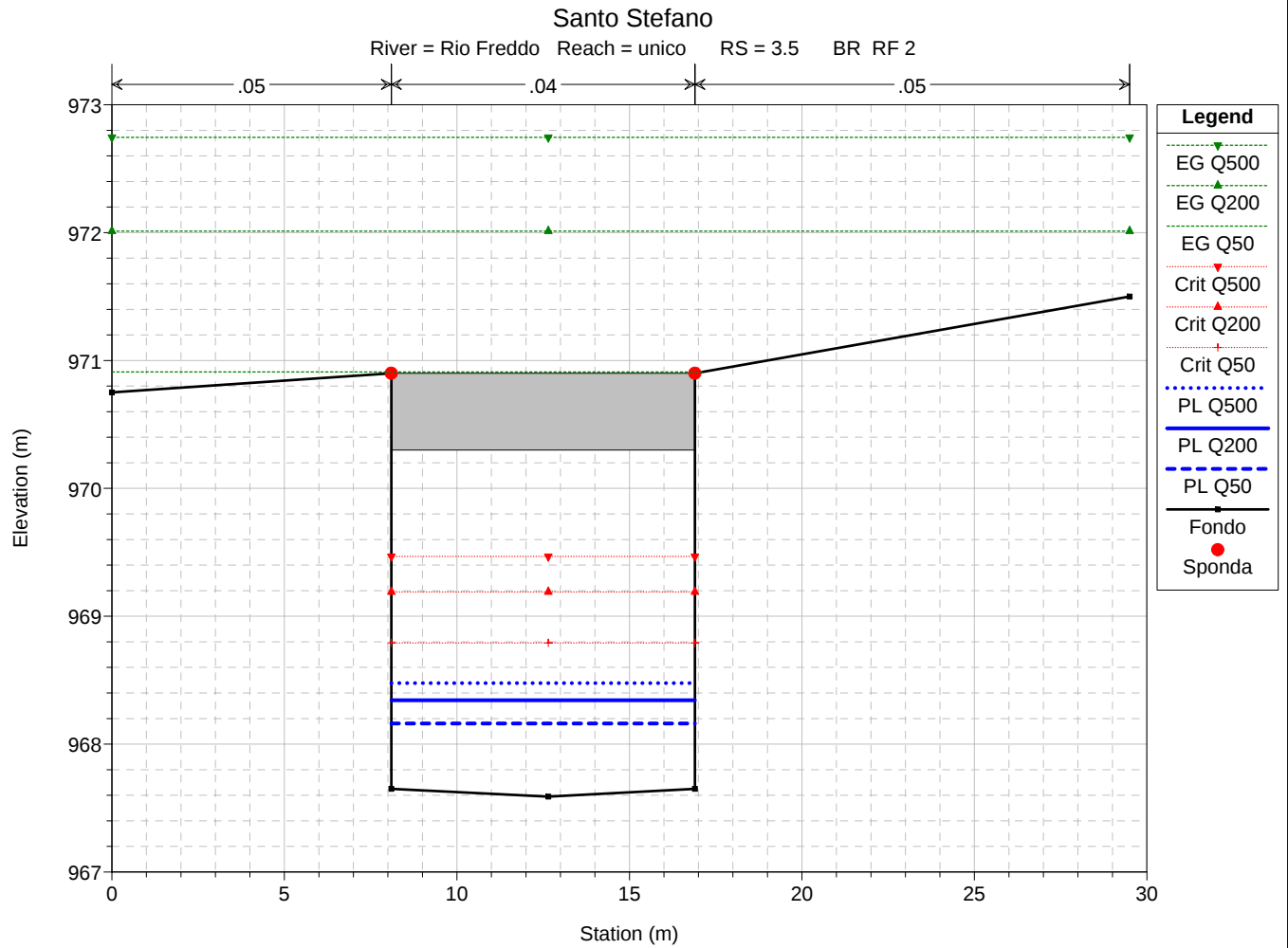
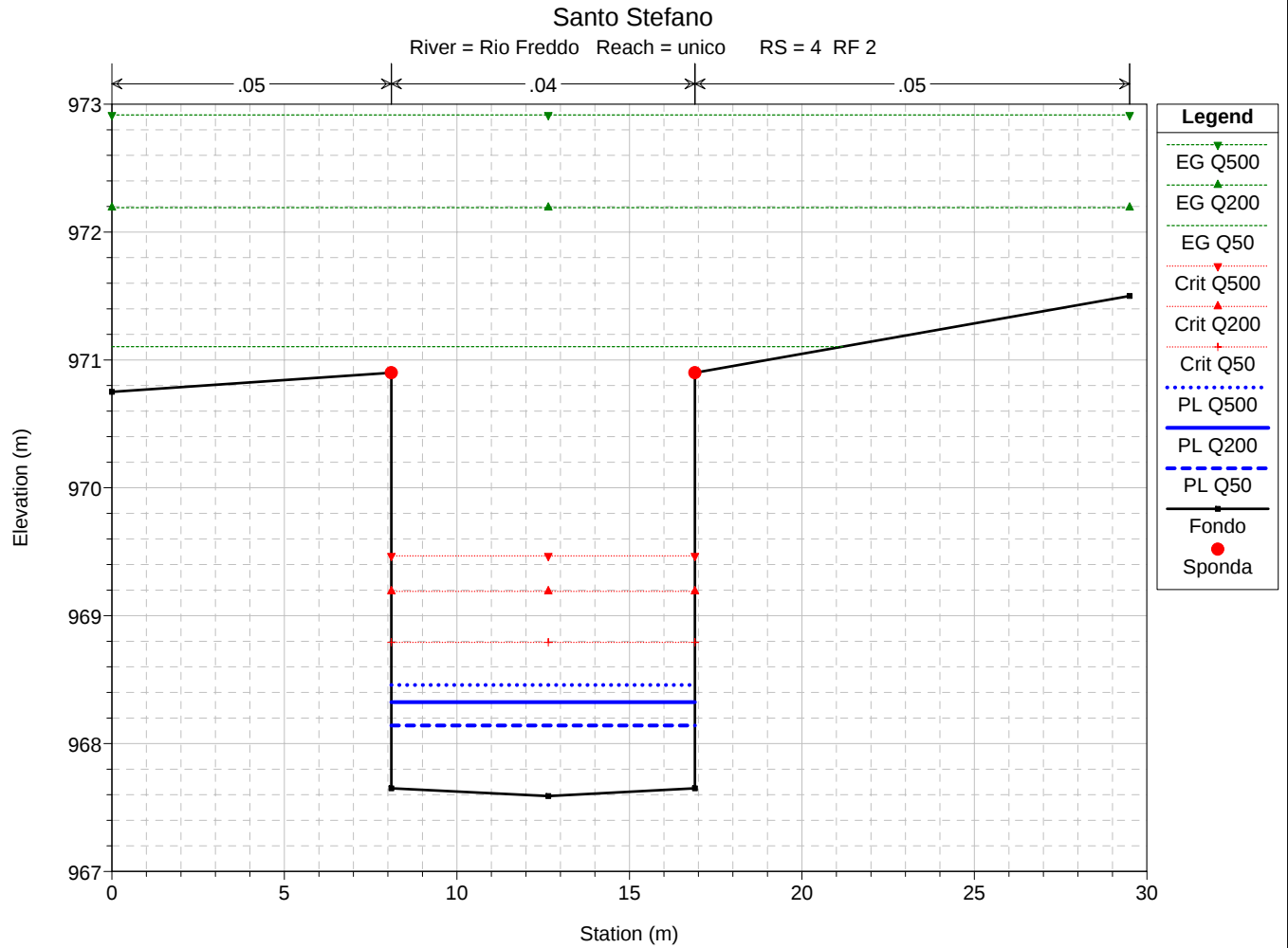
River = Rio Freddo Reach = unico RS = 7 RF 3



Santo Stefano

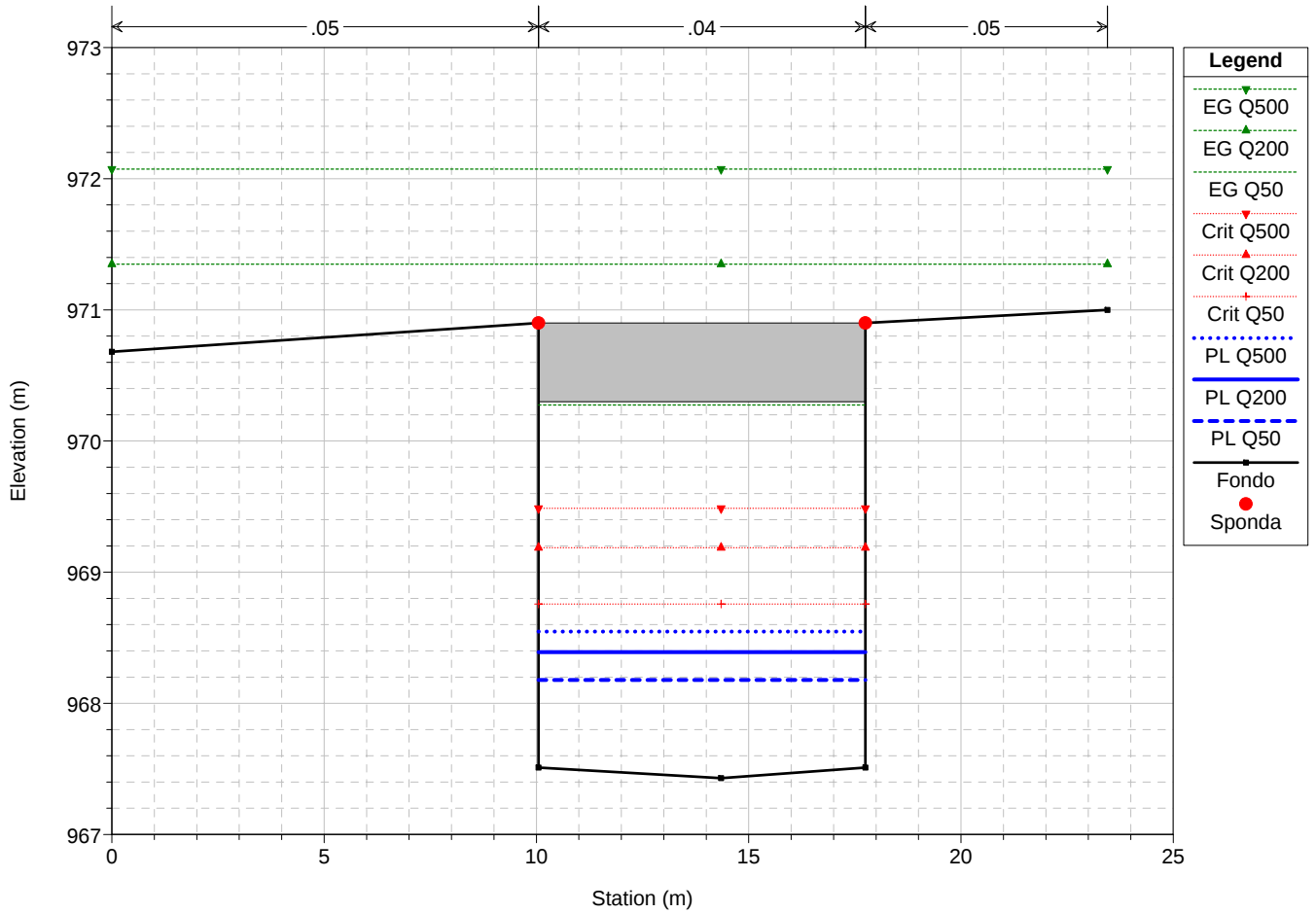
River = Rio Freddo Reach = unico RS = 6 RF 3





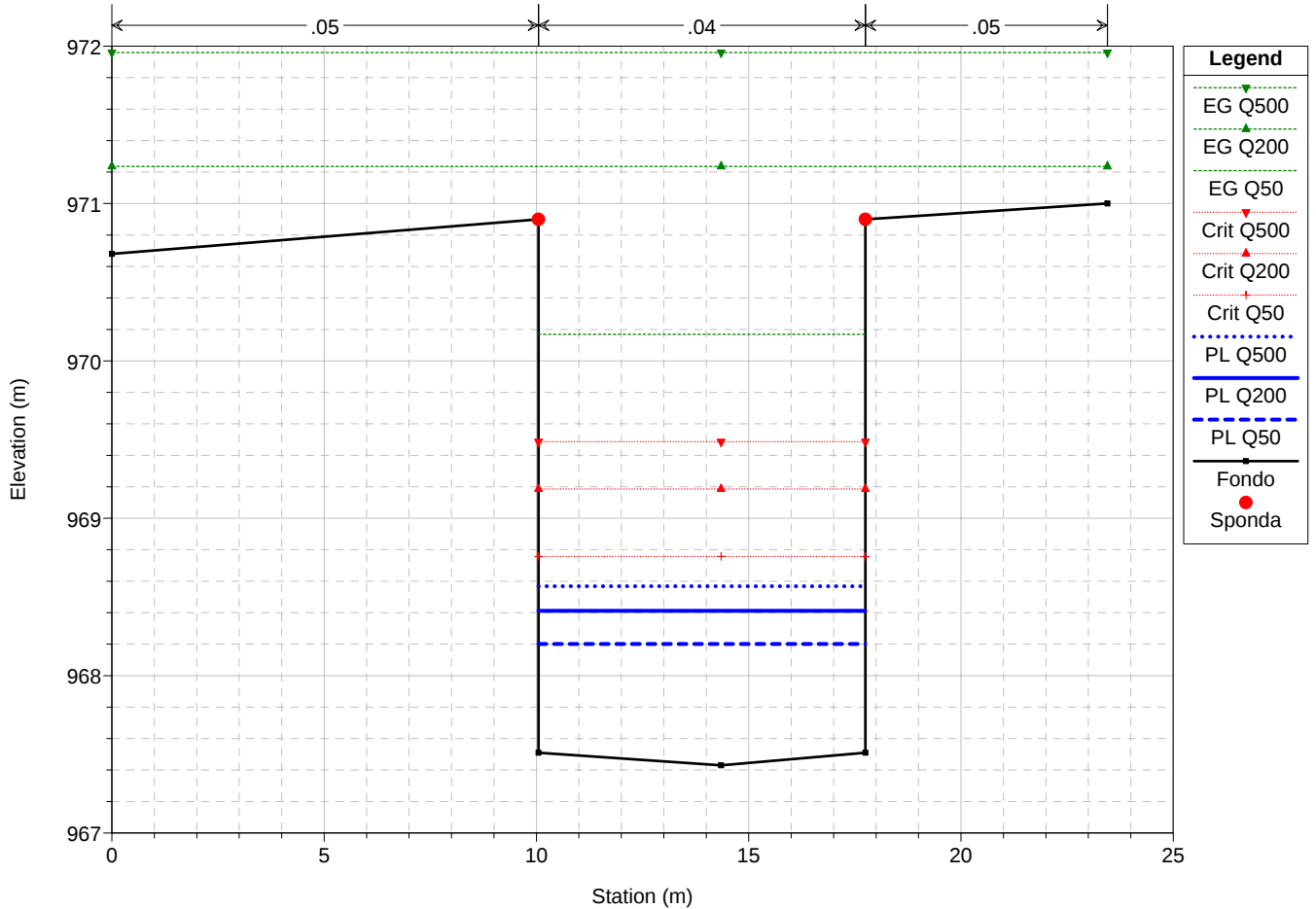
Santo Stefano

River = Rio Freddo Reach = unico RS = 3.5 BR RF 2



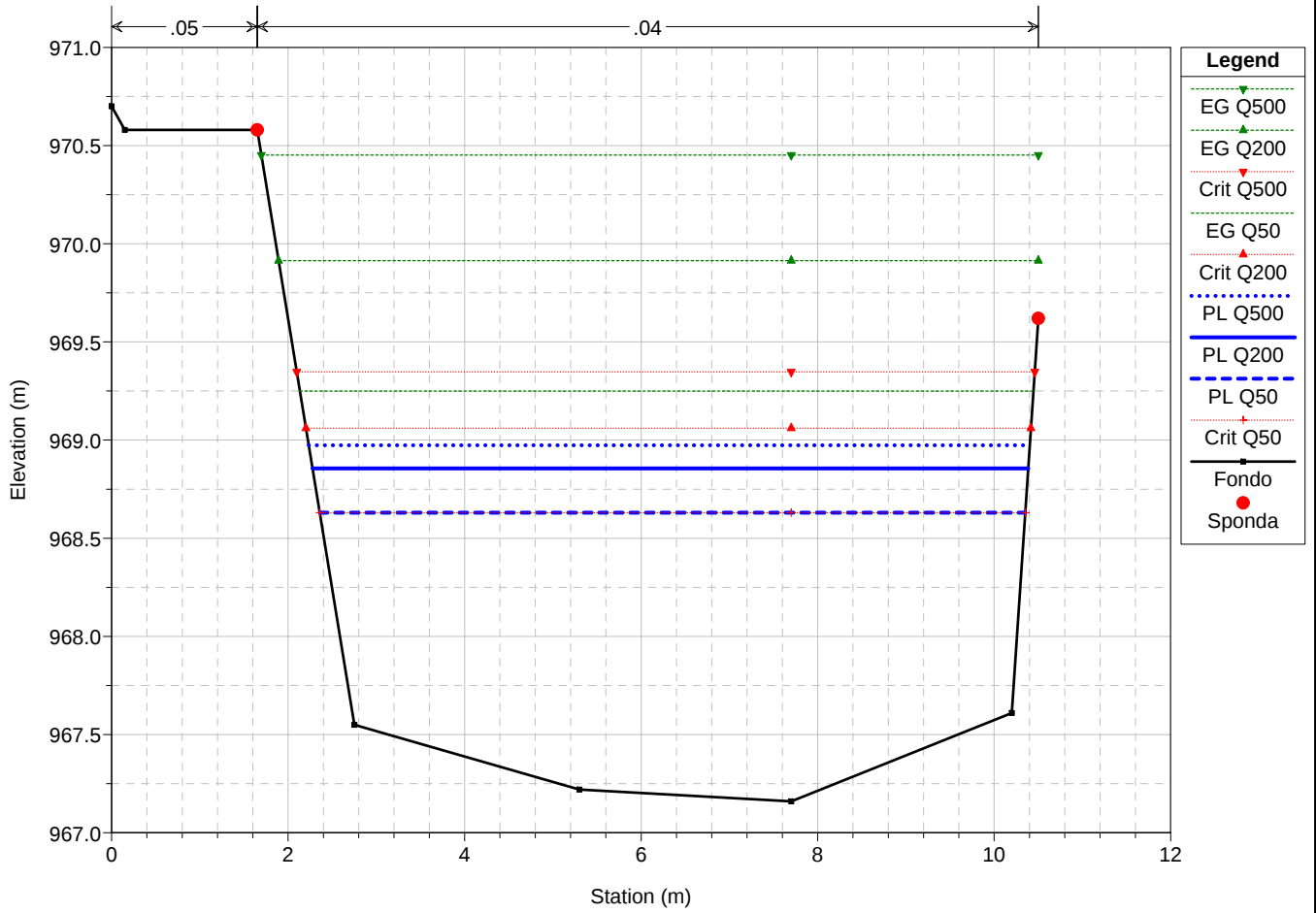
Santo Stefano

River = Rio Freddo Reach = unico RS = 3 RF 2



Santo Stefano

River = Rio Freddo Reach = unico RS = 2 RF 1



HEC-RAS Plan: 01_Feb_08 River: Rio Freddo Reach: unico

Reach	River Sta		Profile	Q Total	Min Ch El	W.S. Elev	LOB Elev	L. Freeboard	ROB Elev	R. Freeboard	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
unico	1000	fittizia	Q50	35.00	1045.28	1046.53	1053.36	6.83	1053.36	6.83	1046.53	1047.15	0.020834	3.50	10.01	8.00	1.00
unico	1000	fittizia	Q200	54.00	1045.28	1046.95	1053.36	6.41	1053.36	6.41	1046.95	1047.78	0.020952	4.04	13.37	8.00	1.00
unico	1000	fittizia	Q500	69.00	1045.28	1047.25	1053.36	6.11	1053.36	6.11	1047.25	1048.23	0.021153	4.38	15.77	8.00	0.99
unico	321	RF 46	Q50	35.00	1036.28	1036.75	1044.36	7.61	1044.36	7.61	1037.53	1041.16	0.439063	9.30	3.76	8.00	4.33
unico	321	RF 46	Q200	54.00	1036.28	1036.96	1044.36	7.40	1044.36	7.40	1037.95	1042.02	0.329099	9.97	5.42	8.00	3.87
unico	321	RF 46	Q500	69.00	1036.28	1037.11	1044.36	7.25	1044.36	7.25	1038.25	1042.57	0.281099	10.35	6.67	8.00	3.62
unico	320	RF 46		Bridge													
unico	319	RF 46	Q50	35.00	1036.28	1037.13	1044.36	7.23	1044.36	7.23	1037.53	1038.48	0.068092	5.15	6.80	8.00	1.78
unico	319	RF 46	Q200	54.00	1036.28	1037.34	1044.36	7.02	1044.36	7.02	1037.95	1039.41	0.082243	6.37	8.48	8.00	1.98
unico	319	RF 46	Q500	69.00	1036.28	1037.50	1044.36	6.86	1044.36	6.86	1038.25	1040.05	0.087573	7.07	9.76	8.00	2.04
unico	310	RF 45	Q50	35.00	1036.28	1037.61	1044.36	6.75	1044.20	6.59	1037.61	1038.12	0.017714	3.15	11.11	11.09	1.00
unico	310	RF 45	Q200	54.00	1036.28	1037.62	1044.36	6.74	1044.20	6.58	1037.97	1038.81	0.041368	4.83	11.18	11.10	1.54
unico	310	RF 45	Q500	69.00	1036.28	1037.69	1044.36	6.67	1044.20	6.51	1038.21	1039.38	0.054872	5.76	11.98	11.26	1.78
unico	300	RF 44	Q50	35.00	1032.55	1033.40	1034.90	1.50	1034.45	1.05	1034.16	1036.39	0.182520	7.65	4.57	6.16	2.83
unico	300	RF 44	Q200	54.00	1032.55	1033.89	1034.90	1.02	1034.45	0.57	1034.69	1036.49	0.096079	7.15	7.55	6.22	2.07
unico	300	RF 44	Q500	69.00	1032.55	1034.19	1034.90	0.71	1034.45	0.26	1035.17	1036.90	0.080967	7.29	9.47	6.25	1.89
unico	290	RF 43	Q50	35.00	1029.85	1030.99	1030.80	-0.19	1030.65	-0.34	1031.38	1032.46	0.065111	5.70	8.33	22.32	1.74
unico	290	RF 43	Q200	54.00	1029.85	1031.11	1030.80	-0.31	1030.65	-0.46	1031.57	1033.21	0.088124	7.12	11.48	28.34	2.07
unico	290	RF 43	Q500	69.00	1029.85	1031.17	1030.80	-0.37	1030.65	-0.52	1031.71	1033.72	0.105632	8.06	13.26	28.39	2.28
unico	280	RF 42	Q50	35.00	1025.95	1027.34	1028.00	0.66	1027.15	-0.19	1027.85	1029.24	0.118966	6.97	6.85	12.00	2.00
unico	280	RF 42	Q200	54.00	1025.95	1027.60	1028.00	0.41	1027.15	-0.44	1028.15	1029.52	0.110825	7.36	10.14	14.16	1.95
unico	280	RF 42	Q500	69.00	1025.95	1027.77	1028.00	0.23	1027.15	-0.62	1028.34	1029.67	0.102796	7.47	12.74	15.66	1.88
unico	270	RF 41	Q50	35.00	1024.55	1025.37	1027.15	1.78	1026.20	0.83	1025.97	1027.47	0.113368	6.43	5.45	6.78	2.29
unico	270	RF 41	Q200	54.00	1024.55	1025.75	1027.15	1.40	1026.20	0.45	1026.73	1028.05	0.083072	6.72	8.04	6.91	1.99
unico	270	RF 41	Q500	69.00	1024.55	1026.06	1027.15	1.09	1026.20	0.14	1026.90	1028.39	0.067404	6.77	10.19	7.02	1.79
unico	260	RF 40	Q50	35.00	1021.85	1023.46	1022.95	-0.51	1023.30	-0.16	1024.05	1025.14	0.082086	5.91	6.46	8.25	1.87
unico	260	RF 40	Q200	54.00	1021.85	1023.70	1022.95	-0.75	1023.30	-0.40	1024.44	1026.06	0.089620	7.10	8.87	12.24	2.02
unico	260	RF 40	Q500	69.00	1021.85	1023.86	1022.95	-0.91	1023.30	-0.56	1024.65	1026.57	0.090914	7.75	11.05	15.18	2.07
unico	250	RF 39	Q50	35.00	1019.75	1020.71	1022.41	1.70	1022.09	1.38	1021.47	1023.33	0.127610	7.17	4.88	5.79	2.49
unico	250	RF 39	Q200	54.00	1019.75	1021.03	1022.41	1.38	1022.09	1.06	1021.84	1024.24	0.116538	7.95	6.80	6.25	2.43
unico	250	RF 39	Q500	69.00	1019.75	1021.23	1022.41	1.18	1022.09	0.86	1022.10	1024.57	0.146378	8.10	8.52	9.41	2.72
unico	240	RF 38	Q50	35.00	1019.09	1020.18	1020.26	0.08	1020.09	-0.09	1020.66	1021.60	0.061157	5.30	6.65	7.82	1.73
unico	240	RF 38	Q200	54.00	1019.09	1020.41	1020.26	-0.15	1020.09	-0.32	1021.05	1022.50	0.068296	6.45	8.85	10.79	1.88
unico	240	RF 38	Q500	69.00	1019.09	1020.64	1020.26	-0.38	1020.09	-0.55	1021.31	1022.82	0.058194	6.68	11.41	11.61	1.79
unico	230	RF 37	Q50	35.00	1017.27	1018.44	1021.11	2.67	1021.11	2.67	1018.98	1019.99	0.062464	5.51	6.35	6.47	1.77
unico	230	RF 37	Q200	54.00	1017.27	1018.77	1021.11	2.34	1021.11	2.34	1019.40	1020.79	0.061809	6.29	8.58	6.79	1.79
unico	230	RF 37	Q500	69.00	1017.27	1019.03	1021.11	2.08	1021.11	2.08	1019.69	1021.19	0.067192	6.52	10.58	8.48	1.86
unico	220	RF 36	Q50	35.00	1015.91	1016.63	1020.95	4.32	1020.95	4.32	1017.35	1019.46	0.179065	7.45	4.70	6.51	2.80
unico	220	RF 36	Q200	54.00	1015.91	1016.93	1020.95	4.02	1020.95	4.02	1017.83	1020.29	0.147497	8.12	6.65	6.52	2.57
unico	220	RF 36	Q500	69.00	1015.91	1017.19	1020.95	3.76	1020.95	3.76	1018.19	1020.70	0.123879	8.31	8.31	6.56	2.36

HEC-RAS Plan: 01_Feb_08 River: Rio Freddo Reach: unico (Continued)

Reach	River Sta		Profile	Q Total	Min Ch El	W.S. Elev	LOB Elev	L. Freeboard	ROB Elev	R. Freeboard	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
unico	210	RF 35	Q50	35.00	1015.47	1016.31	1018.88	2.57	1018.88	2.57	1016.83	1018.03	0.088419	5.81	6.03	7.32	2.04
unico	210	RF 35	Q200	54.00	1015.47	1016.56	1018.88	2.32	1018.88	2.32	1017.27	1018.96	0.093497	6.86	7.87	7.42	2.13
unico	210	RF 35	Q500	69.00	1015.47	1016.76	1018.88	2.12	1018.88	2.12	1017.58	1019.53	0.090598	7.37	9.36	7.49	2.10
unico	200	RF 34	Q50	35.00	1014.97	1016.03	1018.42	2.39	1018.39	2.36	1016.35	1017.17	0.046537	4.74	7.39	7.20	1.49
unico	200	RF 34	Q200	54.00	1014.97	1016.31	1018.42	2.11	1018.39	2.08	1016.81	1017.98	0.053572	5.73	9.42	7.30	1.61
unico	200	RF 34	Q500	69.00	1014.97	1016.52	1018.42	1.90	1018.39	1.87	1017.12	1018.53	0.055950	6.29	10.96	7.38	1.65
unico	190	RF 33	Q50	35.00	1014.33	1015.34	1018.00	2.66	1017.76	2.42	1015.68	1016.50	0.048664	4.77	7.34	7.53	1.54
unico	190	RF 33	Q200	54.00	1014.33	1015.65	1018.00	2.35	1017.76	2.11	1016.12	1017.23	0.049968	5.56	9.72	7.69	1.58
unico	190	RF 33	Q500	69.00	1014.33	1015.87	1018.00	2.13	1017.76	1.89	1016.43	1017.74	0.051260	6.07	11.37	7.80	1.60
unico	180	RF 32	Q50	35.00	1013.55	1014.59	1018.33	3.75	1016.26	1.68	1014.88	1015.65	0.043336	4.56	7.67	7.62	1.45
unico	180	RF 32	Q200	54.00	1013.55	1014.91	1018.33	3.42	1016.26	1.35	1015.32	1016.34	0.043786	5.29	10.20	7.75	1.47
unico	180	RF 32	Q500	69.00	1013.55	1015.15	1018.33	3.19	1016.26	1.11	1015.62	1016.83	0.044242	5.75	12.00	7.85	1.48
unico	170	RF 31	Q50	35.00	1012.97	1014.06	1016.37	2.31	1015.70	1.64	1014.33	1015.10	0.040487	4.51	7.76	7.34	1.40
unico	170	RF 31	Q200	54.00	1012.97	1014.43	1016.37	1.94	1015.70	1.27	1014.79	1015.78	0.039560	5.16	10.47	7.49	1.39
unico	170	RF 31	Q500	69.00	1012.97	1014.68	1016.37	1.69	1015.70	1.02	1015.10	1016.26	0.039217	5.56	12.42	7.59	1.39
unico	160	RF 30	Q50	35.00	1011.99	1013.00	1014.81	1.81	1014.75	1.75	1013.34	1014.18	0.050003	4.82	7.26	7.39	1.55
unico	160	RF 30	Q200	54.00	1011.99	1013.34	1014.81	1.47	1014.75	1.41	1013.79	1014.89	0.048532	5.51	9.79	7.53	1.54
unico	160	RF 30	Q500	69.00	1011.99	1013.58	1014.81	1.23	1014.75	1.17	1014.10	1015.37	0.047663	5.93	11.64	7.62	1.53
unico	150	RF 29	Q50	35.00	1010.84	1011.94	1014.67	2.73	1014.42	2.48	1012.21	1012.97	0.040487	4.50	7.78	7.17	1.38
unico	150	RF 29	Q200	54.00	1010.84	1012.30	1014.67	2.37	1014.42	2.12	1012.65	1013.68	0.041094	5.21	10.36	7.23	1.39
unico	150	RF 29	Q500	69.00	1010.84	1012.56	1014.67	2.11	1014.42	1.86	1012.98	1014.17	0.041062	5.63	12.25	7.27	1.39
unico	140	RF 28	Q50	35.00	1009.89	1010.99	1013.70	2.71	1013.45	2.46	1011.25	1012.01	0.039444	4.46	7.85	7.23	1.37
unico	140	RF 28	Q200	54.00	1009.89	1011.36	1013.70	2.34	1013.45	2.09	1011.71	1012.70	0.039370	5.14	10.51	7.31	1.37
unico	140	RF 28	Q500	69.00	1009.89	1011.62	1013.70	2.08	1013.45	1.83	1012.01	1013.19	0.039612	5.57	12.40	7.37	1.37
unico	130	RF 27	Q50	35.00	1009.19	1010.28	1012.96	2.68	1012.71	2.43	1010.54	1011.29	0.040086	4.47	7.83	7.33	1.38
unico	130	RF 27	Q200	54.00	1009.19	1010.63	1012.96	2.33	1012.71	2.08	1010.99	1011.99	0.040069	5.16	10.47	7.41	1.38
unico	130	RF 27	Q500	69.00	1009.19	1010.89	1012.96	2.07	1012.71	1.82	1011.30	1012.48	0.040208	5.58	12.36	7.46	1.38
unico	120	RF 26	Q50	35.00	1008.52	1009.39	1012.02	2.63	1010.69	1.30	1009.67	1010.37	0.046801	4.40	7.96	9.26	1.52
unico	120	RF 26	Q200	54.00	1008.52	1009.64	1012.02	2.38	1010.69	1.05	1010.05	1011.04	0.050385	5.25	10.28	9.31	1.60
unico	120	RF 26	Q500	69.00	1008.52	1009.82	1012.02	2.20	1010.69	0.87	1010.32	1011.51	0.051647	5.76	11.97	9.35	1.63
unico	110	RF 25	Q50	35.00	1008.06	1008.88	1011.56	2.68	1010.32	1.44	1009.17	1009.89	0.049972	4.44	7.89	9.65	1.57
unico	110	RF 25	Q200	54.00	1008.06	1009.14	1011.56	2.43	1010.32	1.19	1009.54	1010.53	0.051577	5.23	10.32	9.70	1.62
unico	110	RF 25	Q500	69.00	1008.06	1009.31	1011.56	2.25	1010.32	1.01	1009.81	1010.98	0.052380	5.73	12.04	9.73	1.64
unico	101	RF 24	Q50	35.00	1007.47	1009.24	1012.73	3.49	1012.73	3.49	1008.85	1009.53	0.008096	2.37	14.76	10.10	0.63
unico	101	RF 24	Q200	54.00	1007.47	1009.67	1012.73	3.06	1012.73	3.06	1009.21	1010.08	0.008852	2.83	19.10	10.10	0.66
unico	101	RF 24	Q500	69.00	1007.47	1009.97	1012.73	2.76	1012.73	2.76	1009.46	1010.47	0.009322	3.12	22.15	10.10	0.67
unico	100	RF 24	Bridge														
unico	99	RF 24	Q50	35.00	1007.47	1008.85	1012.73	3.88	1012.73	3.88	1008.85	1009.38	0.020902	3.23	10.85	10.10	0.99
unico	99	RF 24	Q200	54.00	1007.47	1009.21	1012.73	3.52	1012.73	3.52	1009.21	1009.92	0.020428	3.73	14.48	10.10	0.99

HEC-RAS Plan: 01_Feb_08 River: Rio Freddo Reach: unico (Continued)

Reach	River Sta		Profile	Q Total	Min Ch El	W.S. Elev	LOB Elev	L. Freeboard	ROB Elev	R. Freeboard	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
unico	99	RF 24	Q500	69.00	1007.47	1009.46	1012.73	3.27	1012.73	3.27	1009.46	1010.30	0.020548	4.06	16.99	10.10	1.00
unico	90	RF 23	Q50	35.00	1007.09	1007.99	1009.58	1.59	1009.58	1.59	1008.22	1008.85	0.039066	4.11	8.51	9.54	1.39
unico	90	RF 23	Q200	54.00	1007.09	1008.32	1009.58	1.26	1009.58	1.26	1008.58	1009.41	0.035125	4.63	11.66	9.60	1.34
unico	90	RF 23	Q500	69.00	1007.09	1008.56	1009.58	1.02	1009.58	1.02	1008.85	1009.80	0.032900	4.93	14.00	9.64	1.31
unico	80	RF 22	Q50	35.00	1006.05	1006.91	1009.38	2.48	1009.38	2.48	1007.20	1007.95	0.050521	4.52	7.74	9.10	1.57
unico	80	RF 22	Q200	54.00	1006.05	1007.20	1009.38	2.18	1009.38	2.18	1007.59	1008.57	0.047926	5.18	10.42	9.14	1.55
unico	80	RF 22	Q500	69.00	1006.05	1007.42	1009.38	1.96	1009.38	1.96	1007.86	1008.99	0.045911	5.56	12.41	9.16	1.52
unico	70	RF 21	Q50	35.00	1005.40	1006.43	1008.40	1.97	1008.05	1.62	1006.53	1007.08	0.024703	3.55	9.85	9.75	1.13
unico	70	RF 21	Q200	54.00	1005.40	1006.71	1008.40	1.69	1008.05	1.34	1006.90	1007.65	0.027815	4.30	12.57	9.87	1.21
unico	70	RF 21	Q500	69.00	1005.40	1006.90	1008.40	1.50	1008.05	1.15	1007.16	1008.06	0.029991	4.78	14.42	9.96	1.27
unico	60	RF 20	Q50	35.00	1004.74	1005.95	1007.94	1.99	1007.60	1.65	1005.98	1006.59	0.021578	3.54	9.89	8.34	1.04
unico	60	RF 20	Q200	54.00	1004.74	1006.40	1007.94	1.54	1007.60	1.20	1006.40	1007.20	0.019571	3.95	13.66	8.47	0.99
unico	60	RF 20	Q500	69.00	1004.74	1006.68	1007.94	1.26	1007.60	0.92	1006.68	1007.62	0.019814	4.29	16.08	8.55	1.00
unico	52	RF 19	Q50	35.00	1004.48	1005.73	1008.01	2.28	1007.34	1.61	1005.84	1006.44	0.026506	3.72	9.40	9.08	1.17
unico	52	RF 19	Q200	54.00	1004.48	1006.04	1008.01	1.97	1007.34	1.30	1006.24	1007.04	0.028300	4.42	12.23	9.09	1.22
unico	52	RF 19	Q500	69.00	1004.48	1006.27	1008.01	1.74	1007.34	1.07	1006.51	1007.46	0.028899	4.83	14.30	9.09	1.23
unico	51	RF 18	Q50	35.00	1003.97	1005.68	1007.82	2.14	1007.18	1.50	1005.35	1006.03	0.009089	2.63	13.32	8.90	0.69
unico	51	RF 18	Q200	54.00	1003.97	1006.14	1007.82	1.68	1007.18	1.04	1005.74	1006.63	0.009896	3.11	17.36	8.90	0.71
unico	51	RF 18	Q500	69.00	1003.97	1006.45	1007.82	1.37	1007.18	0.73	1006.02	1007.05	0.010499	3.42	20.15	8.90	0.73
unico	50.5	RF 18		Bridge													
unico	50	RF 18	Q50	35.00	1003.87	1005.27	1007.92	2.65	1007.17	1.90	1005.27	1005.85	0.019125	3.35	10.44	9.10	1.00
unico	50	RF 18	Q200	54.00	1003.87	1005.66	1007.92	2.26	1007.17	1.51	1005.66	1006.42	0.018787	3.86	14.00	9.10	0.99
unico	50	RF 18	Q500	69.00	1003.87	1005.93	1007.92	1.99	1007.17	1.24	1005.93	1006.83	0.018990	4.19	16.46	9.10	0.99
unico	49		Q50	35.00	1003.60	1004.90	1007.08	2.18	1006.87	1.97	1005.06	1005.66	0.029493	3.88	9.03	9.17	1.25
unico	49		Q200	54.00	1003.60	1005.25	1007.08	1.83	1006.87	1.62	1005.44	1006.24	0.027610	4.40	12.26	9.22	1.22
unico	49		Q500	69.00	1003.60	1005.50	1007.08	1.58	1006.87	1.37	1005.71	1006.64	0.026924	4.74	14.56	9.26	1.21
unico	48	RF 17	Q50	35.00	1002.80	1003.41	1007.08	3.67	1006.87	3.46	1003.96	1005.52	0.151754	6.44	5.44	8.99	2.64
unico	48	RF 17	Q200	54.00	1002.80	1003.68	1007.08	3.40	1006.87	3.19	1004.35	1006.08	0.113614	6.87	7.86	9.02	2.35
unico	48	RF 17	Q500	69.00	1002.80	1003.87	1007.08	3.21	1006.87	3.00	1004.62	1006.49	0.098538	7.16	9.64	9.05	2.21
unico	47	RF 16	Q50	35.00	1002.33	1003.26	1005.16	1.90	1005.01	1.75	1003.53	1004.26	0.045047	4.43	7.90	8.55	1.47
unico	47	RF 16	Q200	54.00	1002.33	1003.55	1005.16	1.61	1005.01	1.46	1003.94	1004.93	0.046499	5.21	10.37	8.56	1.51
unico	47	RF 16	Q500	69.00	1002.33	1003.76	1005.16	1.40	1005.01	1.25	1004.22	1005.39	0.046415	5.65	12.21	8.58	1.51
unico	46	RF 16	Q50	35.00	1001.66	1002.36	1004.30	1.94	1004.07	1.71	1002.87	1004.16	0.111847	5.95	5.88	8.45	2.28
unico	46	RF 16	Q200	54.00	1001.66	1002.64	1004.30	1.67	1004.07	1.44	1003.28	1004.83	0.093786	6.57	8.22	8.47	2.13
unico	46	RF 16	Q500	69.00	1001.66	1002.84	1004.30	1.46	1004.07	1.23	1003.56	1005.29	0.085636	6.94	9.94	8.49	2.05
unico	45	RF 15	Q50	35.00	1000.73	1002.09	1004.04	1.95	1004.82	2.73	1002.39	1003.21	0.040641	4.68	7.48	6.52	1.39
unico	45	RF 15	Q200	54.00	1000.73	1002.52	1004.04	1.52	1004.82	2.30	1002.86	1003.92	0.037953	5.24	10.30	6.59	1.34
unico	45	RF 15	Q500	69.00	1000.73	1002.87	1004.04	1.17	1004.82	1.95	1003.20	1004.40	0.035044	5.48	12.58	6.65	1.27
unico	44	RF 15	Q50	35.00	999.38	1000.14	1004.04	3.90	1004.82	4.68	1000.86	1003.02	0.180829	7.51	4.66	6.54	2.84

HEC-RAS Plan: 01_Feb_08 River: Rio Freddo Reach: unico (Continued)

Reach	River Sta		Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	LOB Elev (m)	L. Freeboard (m)	ROB Elev (m)	R. Freeboard (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
unico	44	RF 15	Q200	54.00	999.38	1000.46	1004.04	3.58	1004.82	4.36	1001.34	1003.72	0.139003	8.00	6.75	6.57	2.52
unico	44	RF 15	Q500	69.00	999.38	1000.70	1004.04	3.34	1004.82	4.12	1001.68	1004.19	0.120716	8.28	8.34	6.58	2.35
unico	43		Q50	35.00	999.28	1000.20	1004.26	4.06	1002.83	2.63	1000.79	1002.24	0.101884	6.33	5.53	6.17	2.13
unico	43		Q200	54.00	999.28	1000.55	1004.26	3.71	1002.83	2.28	1001.30	1003.06	0.090429	7.02	7.70	6.22	2.01
unico	43		Q500	69.00	999.28	1000.82	1004.26	3.44	1002.83	2.01	1001.65	1003.58	0.082986	7.36	9.38	6.26	1.92
unico	42.5		Q50	35.00	999.05	1000.50	1004.13	3.63	1002.47	1.97	1000.65	1001.43	0.030979	4.28	8.17	6.04	1.18
unico	42.5		Q200	54.00	999.05	1000.91	1004.13	3.22	1002.47	1.56	1001.16	1002.21	0.034257	5.06	10.67	6.14	1.23
unico	42.5		Q500	69.00	999.05	1001.25	1004.13	2.88	1002.47	1.22	1001.51	1002.73	0.033549	5.39	12.80	6.23	1.20
unico	42		Q50	35.00	998.88	1000.41	1003.94	3.53	1003.03	2.63	1000.44	1001.16	0.023107	3.86	9.08	6.36	1.03
unico	42		Q200	54.00	998.88	1000.83	1003.94	3.11	1003.03	2.20	1000.93	1001.90	0.026142	4.59	11.77	6.45	1.08
unico	42		Q500	69.00	998.88	1001.14	1003.94	2.80	1003.03	1.89	1001.28	1002.41	0.027191	4.99	13.82	6.52	1.09
unico	41.5		Q50	35.00	998.63	999.94	1003.93	3.99	1003.12	3.18	1000.16	1000.89	0.034521	4.31	8.12	7.38	1.31
unico	41.5		Q200	54.00	998.63	1000.28	1003.93	3.65	1003.12	2.84	1000.61	1001.59	0.036877	5.08	10.63	7.45	1.36
unico	41.5		Q500	69.00	998.63	1000.52	1003.93	3.41	1003.12	2.60	1000.92	1002.09	0.038199	5.55	12.43	7.50	1.38
unico	41	RF 14	Q50	35.00	998.49	999.59	1003.90	4.31	1003.23	3.64	999.89	1000.69	0.045043	4.63	7.57	7.55	1.48
unico	41	RF 14	Q200	54.00	998.49	999.93	1003.90	3.97	1003.23	3.30	1000.34	1001.39	0.044846	5.34	10.11	7.59	1.48
unico	41	RF 14	Q500	69.00	998.49	1000.17	1003.90	3.73	1003.23	3.06	1000.64	1001.88	0.045081	5.79	11.91	7.61	1.48
unico	40	RF 14	Q50	35.00	997.75	998.61	1003.90	5.29	1003.23	4.62	999.17	1000.58	0.111113	6.23	5.62	7.43	2.29
unico	40	RF 14	Q200	54.00	997.75	998.92	1003.90	4.98	1003.23	4.31	999.61	1001.28	0.092150	6.81	7.93	7.46	2.11
unico	40	RF 14	Q500	69.00	997.75	999.14	1003.90	4.76	1003.23	4.09	999.92	1001.77	0.084489	7.19	9.60	7.49	2.03
unico	39		Q50	35.00	997.70	998.74	1000.47	1.73	1003.25	4.51	999.13	1000.04	0.054331	5.04	6.94	6.80	1.59
unico	39		Q200	54.00	997.70	999.12	1000.47	1.35	1003.25	4.13	999.59	1000.77	0.051008	5.69	9.49	6.90	1.55
unico	39		Q500	69.00	997.70	999.39	1000.47	1.08	1003.25	3.86	999.93	1001.26	0.049015	6.06	11.38	6.98	1.52
unico	38		Q50	35.00	997.04	998.33	1000.39	2.06	1003.15	4.82	998.72	999.71	0.051773	5.21	6.72	5.35	1.49
unico	38		Q200	54.00	997.04	998.87	1000.39	1.52	1003.15	4.28	999.27	1000.47	0.044172	5.60	9.63	5.48	1.35
unico	38		Q500	69.00	997.04	999.48	1000.39	0.91	1003.15	3.67	999.66	1000.91	0.031455	5.30	13.03	5.63	1.11
unico	37		Q50	35.00	996.93	998.23	1000.39	2.16	1003.15	4.92	998.65	999.69	0.054874	5.35	6.54	5.18	1.52
unico	37		Q200	54.00	996.93	998.79	1000.39	1.60	1003.15	4.36	999.21	1000.45	0.046004	5.71	9.46	5.31	1.37
unico	37		Q500	69.00	996.93	999.40	1000.39	0.99	1003.15	3.75	999.61	1000.90	0.033382	5.42	12.72	5.47	1.13
unico	36		Q50	35.00	996.00	997.00	999.50	2.50	1003.35	6.35	997.71	999.47	0.120381	6.96	5.03	5.04	2.22
unico	36		Q200	54.00	996.00	997.45	999.50	2.05	1003.35	5.90	998.28	1000.24	0.097074	7.39	7.31	5.06	1.96
unico	36		Q500	69.00	996.00	997.83	999.50	1.67	1003.35	5.52	998.68	1000.68	0.082342	7.48	9.22	5.08	1.77
unico	35	RF 13	Q50	35.00	995.45	996.36	1005.00	8.64	1003.33	6.97	997.16	999.38	0.163237	7.71	4.54	5.00	2.58
unico	35	RF 13	Q200	54.00	995.45	996.78	1005.00	8.22	1003.33	6.55	997.74	1000.15	0.128175	8.14	6.64	5.00	2.25
unico	35	RF 13	Q500	69.00	995.45	997.12	1005.00	7.88	1003.33	6.21	998.14	1000.60	0.109112	8.26	8.35	5.00	2.04
unico	34.5	RF 13		Bridge													
unico	34	RF 13	Q50	35.00	995.25	996.43	1002.02	5.59	1007.00	10.57	996.94	998.11	0.070540	5.74	6.10	5.35	1.72
unico	34	RF 13	Q200	54.00	995.25	996.81	1002.02	5.21	1007.00	10.19	997.48	999.06	0.073409	6.65	8.12	5.40	1.73
unico	34	RF 13	Q500	69.00	995.25	997.07	1002.02	4.95	1007.00	9.93	997.87	999.73	0.075872	7.23	9.55	5.43	1.74

HEC-RAS Plan: 01_Feb_08 River: Rio Freddo Reach: unico (Continued)

Reach	River Sta		Profile	Q Total	Min Ch El	W.S. Elev	LOB Elev	L. Freeboard	ROB Elev	R. Freeboard	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
unico	33	RF 12	Q50	35.00	995.12	996.20	1001.74	5.54	1000.00	3.80	996.50	997.29	0.046931	4.64	7.54	7.58	1.48
unico	33	RF 12	Q200	54.00	995.12	996.40	1001.74	5.34	1000.00	3.60	996.93	998.20	0.063884	5.95	9.07	7.59	1.74
unico	33	RF 12	Q500	69.00	995.12	996.55	1001.74	5.20	1000.00	3.46	997.25	998.88	0.073396	6.77	10.20	7.60	1.86
unico	32	RF 12	Q50	35.00	993.64	994.30	1001.77	7.47	1000.00	5.70	994.97	997.06	0.197883	7.37	4.75	7.50	2.95
unico	32	RF 12	Q200	54.00	993.64	994.54	1001.77	7.23	1000.00	5.46	995.41	997.97	0.170482	8.20	6.59	7.50	2.79
unico	32	RF 12	Q500	69.00	993.64	994.71	1001.77	7.06	1000.00	5.29	995.72	998.64	0.162102	8.78	7.86	7.50	2.74
unico	31		Q50	35.00	993.00	993.78	997.03	3.25	994.80	1.02	994.23	995.32	0.086576	5.51	6.36	8.31	2.01
unico	31		Q200	54.00	993.00	993.99	997.03	3.04	994.80	0.81	994.65	996.24	0.096184	6.65	8.12	8.33	2.15
unico	31		Q500	69.00	993.00	994.14	997.03	2.89	994.80	0.66	994.94	996.90	0.101422	7.36	9.37	8.34	2.22
unico	30		Q50	35.00	992.96	993.74	997.03	3.29	994.80	1.06	994.21	995.29	0.084614	5.51	6.35	8.19	2.00
unico	30		Q200	54.00	992.96	993.96	997.03	3.07	994.80	0.84	994.62	996.20	0.093525	6.64	8.14	8.23	2.13
unico	30		Q500	69.00	992.96	994.11	997.03	2.92	994.80	0.69	994.91	996.86	0.098557	7.35	9.39	8.26	2.20
unico	29.5	RF 11	Q50	35.00	992.41	993.35	996.86	3.51	994.80	1.45	993.83	994.91	0.071269	5.53	6.33	7.47	1.92
unico	29.5	RF 11	Q200	54.00	992.41	993.61	996.86	3.25	994.80	1.19	994.26	995.77	0.075936	6.52	8.29	7.79	2.02
unico	29.5	RF 11	Q500	69.00	992.41	993.78	996.86	3.08	994.80	1.02	994.56	996.39	0.079604	7.16	9.64	7.95	2.08
unico	29.4	RF 11	Q50	35.00	991.33	992.14	996.86	4.72	994.80	2.66	992.85	994.78	0.145341	7.20	4.86	6.42	2.64
unico	29.4	RF 11	Q200	54.00	991.33	992.44	996.86	4.42	994.80	2.36	993.32	995.65	0.126656	7.94	6.80	6.74	2.52
unico	29.4	RF 11	Q500	69.00	991.33	992.64	996.86	4.22	994.80	2.16	993.65	996.27	0.120811	8.45	8.17	6.95	2.49
unico	29	RF 10	Q50	35.00	991.13	991.77	996.75	4.98	994.80	3.03	992.42	994.51	0.191162	7.33	4.77	7.51	2.94
unico	29	RF 10	Q200	54.00	991.13	992.00	996.75	4.75	994.80	2.80	992.82	995.38	0.194646	8.15	6.62	8.89	3.01
unico	29	RF 10	Q500	69.00	991.13	992.14	996.75	4.61	994.80	2.66	993.09	996.01	0.182055	8.72	7.92	8.92	2.95
unico	27.5	RF 10	Q50	35.00	989.89	990.42	996.72	6.30	994.82	4.40	991.17	994.17	0.326783	8.58	4.08	7.77	3.78
unico	27.5	RF 10	Q200	54.00	989.89	990.64	996.72	6.08	994.82	4.18	991.58	995.06	0.257584	9.32	5.79	7.80	3.45
unico	27.5	RF 10	Q500	69.00	989.89	990.80	996.72	5.92	994.82	4.02	991.90	995.71	0.231573	9.83	7.02	7.82	3.31
unico	27		Q50	35.00	989.50	990.16	996.10	5.94	994.98	4.82	990.56	991.59	0.103141	5.30	6.60	11.59	2.24
unico	27		Q200	54.00	989.50	990.30	996.10	5.80	994.98	4.68	990.89	992.47	0.123206	6.52	8.28	12.04	2.51
unico	27		Q500	69.00	989.50	990.39	996.10	5.71	994.98	4.59	991.11	993.13	0.133929	7.33	9.41	12.05	2.65
unico	26		Q50	35.00	989.11	990.61	991.49	0.88	992.78	2.17	990.24	990.83	0.006181	2.09	16.73	13.26	0.59
unico	26		Q200	54.00	989.11	990.14	991.49	1.35	992.78	2.64	990.54	991.47	0.061925	5.10	10.60	13.13	1.81
unico	26		Q500	69.00	989.11	990.23	991.49	1.26	992.78	2.55	990.76	991.99	0.072816	5.87	11.75	13.16	1.98
unico	25.5		Q50	35.00	989.09	990.50	989.43	-1.06	991.96	1.46	990.16	990.76	0.031896	2.29	15.29	11.88	0.73
unico	25.5		Q200	54.00	989.09	990.88	989.43	-1.45	991.96	1.08	990.50	991.26	0.033099	2.71	19.92	12.25	0.73
unico	25.5		Q500	69.00	989.09	991.15	989.43	-1.72	991.96	0.81	990.72	991.60	0.033550	2.97	23.23	12.52	0.74
unico	25	RF 9	Q50	35.00	989.09	990.17	991.71	1.54	991.96	1.79	990.17	990.65	0.083149	3.09	11.32	11.56	1.39
unico	25	RF 9	Q200	54.00	989.09	990.51	991.71	1.20	991.96	1.45	990.51	991.14	0.080286	3.53	15.32	11.90	1.23
unico	25	RF 9	Q500	69.00	989.09	990.74	991.71	0.97	991.96	1.22	990.74	991.48	0.080221	3.81	18.11	12.13	1.17
unico	24	RF 9	Q50	35.00	986.05	986.60	991.32	4.72	991.95	5.35	987.25	990.28	0.433785	8.51	4.11	10.67	4.37
unico	24	RF 9	Q200	54.00	986.05	986.78	991.32	4.54	991.95	5.17	987.59	990.76	0.289090	8.84	6.11	10.72	3.74
unico	24	RF 9	Q500	69.00	986.05	986.93	991.32	4.39	991.95	5.02	987.84	991.10	0.233108	9.05	7.62	10.76	3.43
unico	23.5		Q50	35.00	985.97	986.48	990.74	4.26	990.00	3.52	986.99	988.56	0.187231	6.39	5.47	11.11	2.91

HEC-RAS Plan: 01_Feb_08 River: Rio Freddo Reach: unico (Continued)

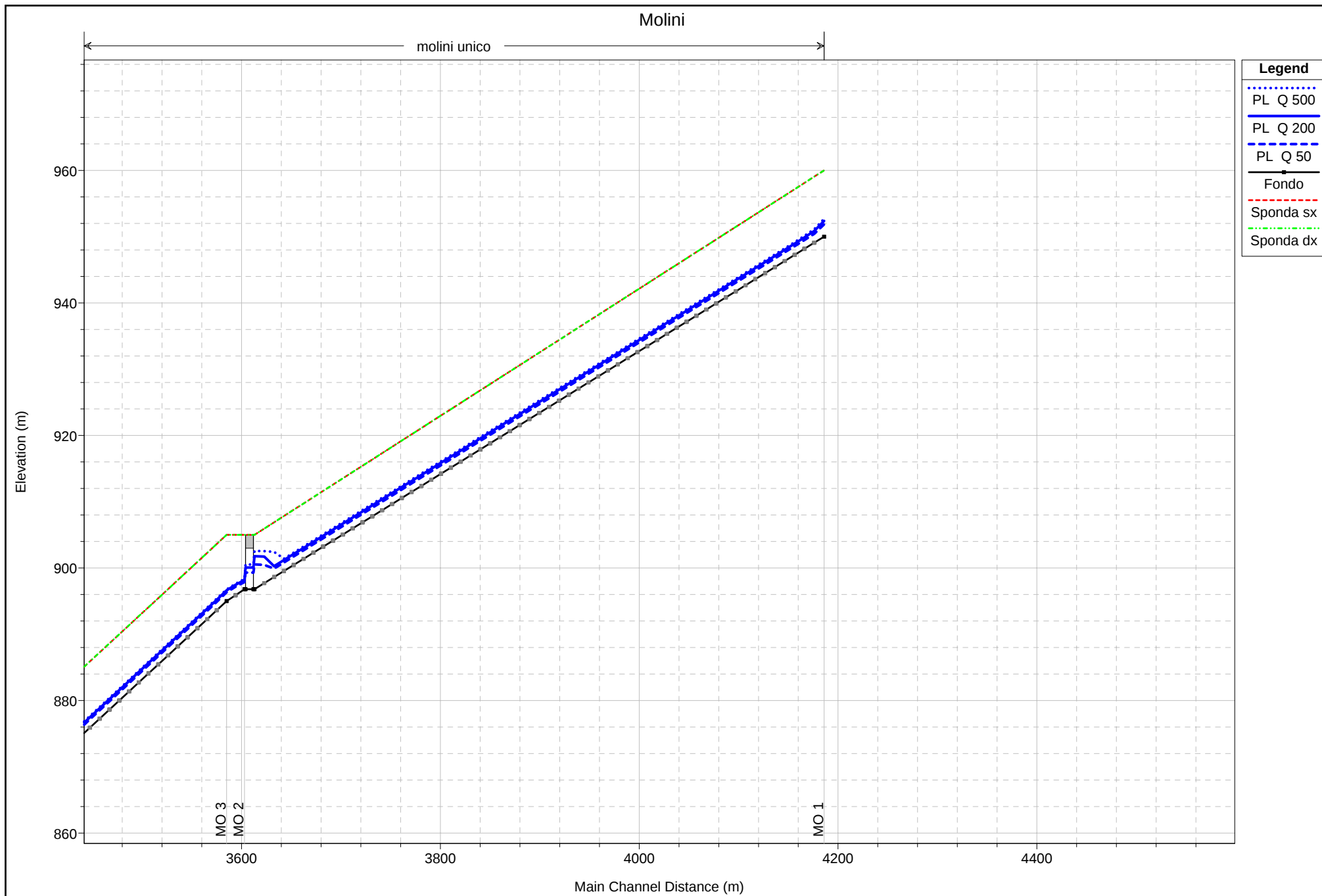
Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	LOB Elev	L. Freeboard	ROB Elev	R. Freeboard	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
unico	23.5	Q200	54.00	985.97	986.65	990.74	4.09	990.00	3.35	987.33	989.38	0.175502	7.32	7.37	11.47	2.92
unico	23.5	Q500	69.00	985.97	986.77	990.74	3.97	990.00	3.23	987.63	989.90	0.165229	7.83	8.81	11.73	2.88
unico	23	Q50	35.00	985.93	986.55	990.33	3.78	989.85	3.30	986.99	988.10	0.118708	5.52	6.35	11.51	2.37
unico	23	Q200	54.00	985.93	986.71	990.33	3.62	989.85	3.14	987.32	988.92	0.126697	6.58	8.20	11.82	2.52
unico	23	Q500	69.00	985.93	986.83	990.33	3.50	989.85	3.02	987.62	989.45	0.126460	7.17	9.62	12.06	2.56
unico	22	Q50	35.00	985.81	987.26	989.69	2.43	989.43	2.17	986.82	987.44	0.004994	1.90	18.38	14.66	0.54
unico	22	Q200	54.00	985.81	986.64	989.69	3.05	989.43	2.79	987.12	988.23	0.085456	5.58	9.67	13.49	2.10
unico	22	Q500	69.00	985.81	986.74	989.69	2.95	989.43	2.69	987.33	988.74	0.092795	6.26	11.02	13.68	2.23
unico	21.5	Q50	35.00	985.72	987.10	987.22	0.12	987.04	-0.06	986.76	987.36	0.047863	2.27	15.41	12.08	0.69
unico	21.5	Q200	54.00	985.72	987.48	987.22	-0.25	987.04	-0.44	987.10	987.84	0.048911	2.68	20.15	13.09	0.71
unico	21.5	Q500	69.00	985.72	987.73	987.22	-0.51	987.04	-0.69	987.35	988.17	0.048033	2.93	23.58	13.56	0.71
unico	21 RF 8	Q50	35.00	985.72	986.77	987.93	1.16	987.04	0.27	986.77	987.25	0.112820	3.08	11.35	11.82	1.34
unico	21 RF 8	Q200	54.00	985.72	987.11	987.93	0.82	987.04	-0.07	987.11	987.73	0.108798	3.48	15.53	12.45	1.18
unico	21 RF 8	Q500	69.00	985.72	987.34	987.93	0.59	987.04	-0.30	987.34	988.05	0.105751	3.74	18.45	12.87	1.13
unico	20 RF 8	Q50	35.00	983.85	984.30	989.03	4.73	988.91	4.61	984.85	986.95	0.307871	7.21	4.85	12.17	3.64
unico	20 RF 8	Q200	54.00	983.85	984.48	989.03	4.55	988.91	4.43	985.13	987.42	0.213221	7.59	7.11	12.20	3.18
unico	20 RF 8	Q500	69.00	983.85	984.61	989.03	4.42	988.91	4.30	985.33	987.74	0.216057	7.84	8.80	14.61	3.23
unico	19	Q50	35.00	983.50	984.38	987.56	3.18	986.90	2.52	984.64	985.22	0.072910	4.06	8.61	17.33	1.84
unico	19	Q200	54.00	983.50	984.50	987.56	3.06	986.90	2.40	984.88	985.75	0.086889	4.95	10.91	18.67	2.07
unico	19	Q500	69.00	983.50	984.60	987.56	2.95	986.90	2.30	985.04	986.07	0.086699	5.36	12.87	19.47	2.11
unico	18.5	Q50	35.00	983.23	984.59	983.75	-0.83	985.51	0.92	984.32	984.88	0.038359	2.39	14.67	12.17	0.82
unico	18.5	Q200	54.00	983.23	984.96	983.75	-1.20	985.51	0.55	984.64	985.36	0.040476	2.80	19.26	12.57	0.81
unico	18.5	Q500	69.00	983.23	985.22	983.75	-1.47	985.51	0.29	984.88	985.70	0.041303	3.05	22.60	12.86	0.80
unico	18 RF 7	Q50	35.00	983.23	984.33	984.81	0.48	985.51	1.18	984.33	984.80	0.105688	3.06	11.44	11.94	1.49
unico	18 RF 7	Q200	54.00	983.23	984.66	984.81	0.15	985.51	0.85	984.66	985.28	0.110577	3.49	15.49	12.32	1.27
unico	18 RF 7	Q500	69.00	983.23	984.89	984.81	-0.08	985.51	0.62	984.89	985.61	0.113001	3.77	18.32	12.50	1.21
unico	17 RF 7	Q50	35.00	981.38	982.09	985.08	2.99	985.48	3.39	982.73	984.54	0.161848	6.94	5.04	7.90	2.77
unico	17 RF 7	Q200	54.00	981.38	982.39	985.08	2.69	985.48	3.09	983.13	985.02	0.118247	7.20	7.50	8.60	2.46
unico	17 RF 7	Q500	69.00	981.38	982.60	985.08	2.48	985.48	2.88	983.41	985.36	0.100955	7.36	9.38	9.10	2.31
unico	16	Q50	35.00	980.10	981.27	984.35	3.08	982.93	1.66	981.90	982.89	0.082643	5.63	6.21	7.67	2.00
unico	16	Q200	54.00	980.10	981.55	984.35	2.80	982.93	1.38	982.31	983.67	0.079604	6.46	8.36	7.88	2.00
unico	16	Q500	69.00	980.10	981.79	984.35	2.56	982.93	1.14	982.49	984.04	0.086079	6.64	10.39	10.10	2.09
unico	15 RF 6	Q50	35.00	979.09	979.53	983.12	3.59	981.07	1.54	980.06	981.99	0.276713	6.94	5.04	12.42	3.48
unico	15 RF 6	Q200	54.00	979.09	979.68	983.12	3.44	981.07	1.39	980.38	982.81	0.239872	7.84	6.89	12.43	3.36
unico	15 RF 6	Q500	69.00	979.09	979.81	983.12	3.31	981.07	1.26	980.60	983.18	0.200626	8.13	8.48	12.43	3.14
unico	14 RF 6	Q50	35.00	978.05	978.40	983.12	4.72	981.07	2.67	978.98	981.79	0.471119	8.16	4.29	12.41	4.43
unico	14 RF 6	Q200	54.00	978.05	978.54	983.12	4.58	981.07	2.53	979.30	982.63	0.372131	8.96	6.02	12.42	4.11
unico	14 RF 6	Q500	69.00	978.05	978.65	983.12	4.47	981.07	2.42	979.52	983.01	0.304832	9.25	7.46	12.42	3.81
unico	13	Q50	35.00	977.48	978.01	981.25	3.24	980.24	2.23	978.32	979.11	0.110727	4.65	7.53	17.45	2.26
unico	13	Q200	54.00	977.48	978.11	981.25	3.14	980.24	2.13	978.57	979.84	0.134596	5.83	9.26	17.45	2.56

HEC-RAS Plan: 01_Feb_08 River: Rio Freddo Reach: unico (Continued)

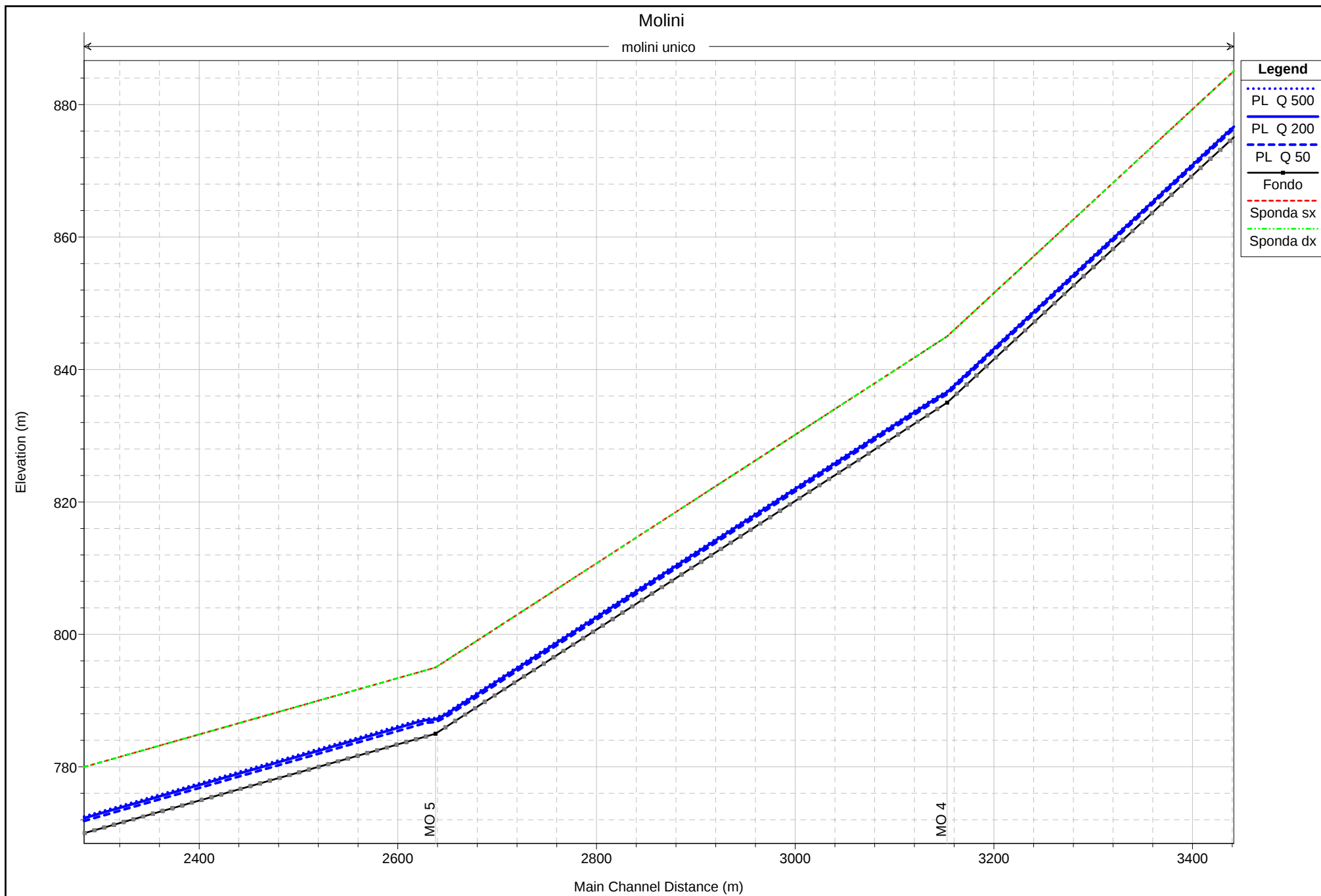
Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	LOB Elev	L. Freeboard	ROB Elev	R. Freeboard	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
			(m3/s)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
unico	13	Q500	69.00	977.48	978.18	981.25	3.07	980.24	2.06	978.74	980.36	0.143193	6.53	10.56	17.45	2.68
unico	12.5	Q50	35.00	977.00	978.50	979.97	1.47	977.74	-0.76	978.17	978.75	0.040049	2.22	15.74	13.16	0.93
unico	12.5	Q200	54.00	977.00	978.87	979.97	1.10	977.74	-1.13	978.50	979.21	0.043899	2.59	20.85	16.16	0.85
unico	12.5	Q500	69.00	977.00	979.16	979.97	0.81	977.74	-1.42	978.73	979.53	0.039729	2.70	25.57	17.32	0.77
unico	12 RF 5	Q50	35.00	977.00	978.17	979.97	1.80	977.74	-0.43	978.17	978.64	0.101341	3.04	11.51	12.40	1.96
unico	12 RF 5	Q200	54.00	977.00	978.50	979.97	1.47	977.74	-0.76	978.50	979.10	0.093727	3.42	15.80	13.18	1.43
unico	12 RF 5	Q500	69.00	977.00	978.73	979.97	1.24	977.74	-0.99	978.73	979.41	0.091345	3.66	18.84	13.70	1.30
unico	11 RF 5	Q50	35.00	973.80	974.12	976.46	2.34	977.52	3.40	974.75	978.25	0.625232	9.00	3.89	12.25	5.10
unico	11 RF 5	Q200	54.00	973.80	974.28	976.46	2.18	977.52	3.24	975.06	978.69	0.409537	9.31	5.80	12.44	4.35
unico	11 RF 5	Q500	69.00	973.80	974.39	976.46	2.07	977.52	3.13	975.27	979.00	0.326413	9.51	7.26	12.59	4.00
unico	10	Q50	35.00	972.53	972.82	976.46	3.64	977.52	4.70	973.45	977.52	0.810198	9.60	3.65	12.65	5.71
unico	10	Q200	54.00	972.53	972.95	976.46	3.51	977.52	4.57	973.76	978.16	0.556358	10.11	5.34	12.74	4.99
unico	10	Q500	69.00	972.53	973.06	976.46	3.40	977.52	4.46	973.97	978.55	0.448017	10.38	6.65	12.81	4.60
unico	9 RF 4	Q50	35.00	971.24	972.26	975.95	3.69	973.80	1.54	972.81	974.05	0.084681	5.94	5.89	6.89	2.05
unico	9 RF 4	Q200	54.00	971.24	972.53	975.95	3.42	973.80	1.27	973.27	974.93	0.086822	6.85	7.88	7.38	2.12
unico	9 RF 4	Q500	69.00	971.24	972.73	975.95	3.22	973.80	1.07	973.67	975.49	0.086428	7.36	9.38	7.72	2.13
unico	8 RF 4	Q50	35.00	970.22	971.17	975.95	4.78	973.31	2.14	971.96	973.93	0.145266	7.36	4.75	5.30	2.48
unico	8 RF 4	Q200	54.00	970.22	971.54	975.95	4.41	973.31	1.77	972.50	974.82	0.127494	8.02	6.73	5.65	2.35
unico	8 RF 4	Q500	69.00	970.22	971.79	975.95	4.16	973.31	1.52	972.86	975.39	0.120761	8.40	8.21	6.08	2.31
unico	7 RF 3	Q50	35.00	969.02	969.74	971.80	2.06	972.07	2.33	970.43	972.71	0.216030	7.63	4.59	7.68	3.15
unico	7 RF 3	Q200	54.00	969.02	969.97	971.80	1.83	972.07	2.10	970.87	973.71	0.191366	8.57	6.30	7.81	3.05
unico	7 RF 3	Q500	69.00	969.02	970.13	971.80	1.67	972.07	1.94	971.17	974.34	0.176030	9.09	7.59	7.90	2.96
unico	6 RF 3	Q50	35.00	967.96	968.72	971.80	3.08	972.07	3.35	969.52	972.57	0.271845	8.70	4.02	6.72	3.59
unico	6 RF 3	Q200	54.00	967.96	968.96	971.80	2.84	972.07	3.11	969.97	973.58	0.232705	9.53	5.67	7.16	3.42
unico	6 RF 3	Q500	69.00	967.96	969.13	971.80	2.67	972.07	2.94	970.28	974.21	0.209867	9.99	6.91	7.34	3.29
unico	5	Q50	35.00	967.81	968.96	971.80	2.84	971.54	2.58	969.61	971.78	0.194384	7.44	4.70	8.16	3.13
unico	5	Q200	54.00	967.81	969.15	971.80	2.65	971.54	2.39	969.99	972.85	0.197385	8.53	6.33	8.94	3.23
unico	5	Q500	69.00	967.81	969.29	971.80	2.51	971.54	2.25	970.27	973.54	0.186821	9.14	7.55	9.02	3.19
unico	4 RF 2	Q50	35.00	967.59	968.14	970.90	2.76	970.90	2.76	968.79	971.10	0.255312	7.63	4.59	8.80	3.37
unico	4 RF 2	Q200	54.00	967.59	968.32	970.90	2.58	970.90	2.58	969.19	972.19	0.234296	8.71	6.20	8.80	3.31
unico	4 RF 2	Q500	69.00	967.59	968.46	970.90	2.44	970.90	2.44	969.47	972.92	0.221821	9.35	7.38	8.80	3.26
unico	3.5 RF 2		Bridge													
unico	3 RF 2	Q50	35.00	967.43	968.20	970.90	2.70	970.90	2.70	968.76	970.17	0.116894	6.21	5.63	7.70	2.32
unico	3 RF 2	Q200	54.00	967.43	968.41	970.90	2.49	970.90	2.49	969.19	971.24	0.127232	7.45	7.25	7.70	2.45
unico	3 RF 2	Q500	69.00	967.43	968.57	970.90	2.33	970.90	2.33	969.49	971.96	0.129942	8.16	8.46	7.70	2.48
unico	2 RF 1	Q50	35.00	967.16	968.63	970.58	1.95	969.62	0.99	968.63	969.25	0.018583	3.49	10.04	7.99	0.99
unico	2 RF 1	Q200	54.00	967.16	968.86	970.58	1.72	969.62	0.76	969.06	969.91	0.027071	4.56	11.85	8.11	1.20
unico	2 RF 1	Q500	69.00	967.16	968.97	970.58	1.61	969.62	0.65	969.35	970.45	0.035194	5.39	12.81	8.17	1.37

Rio Molini

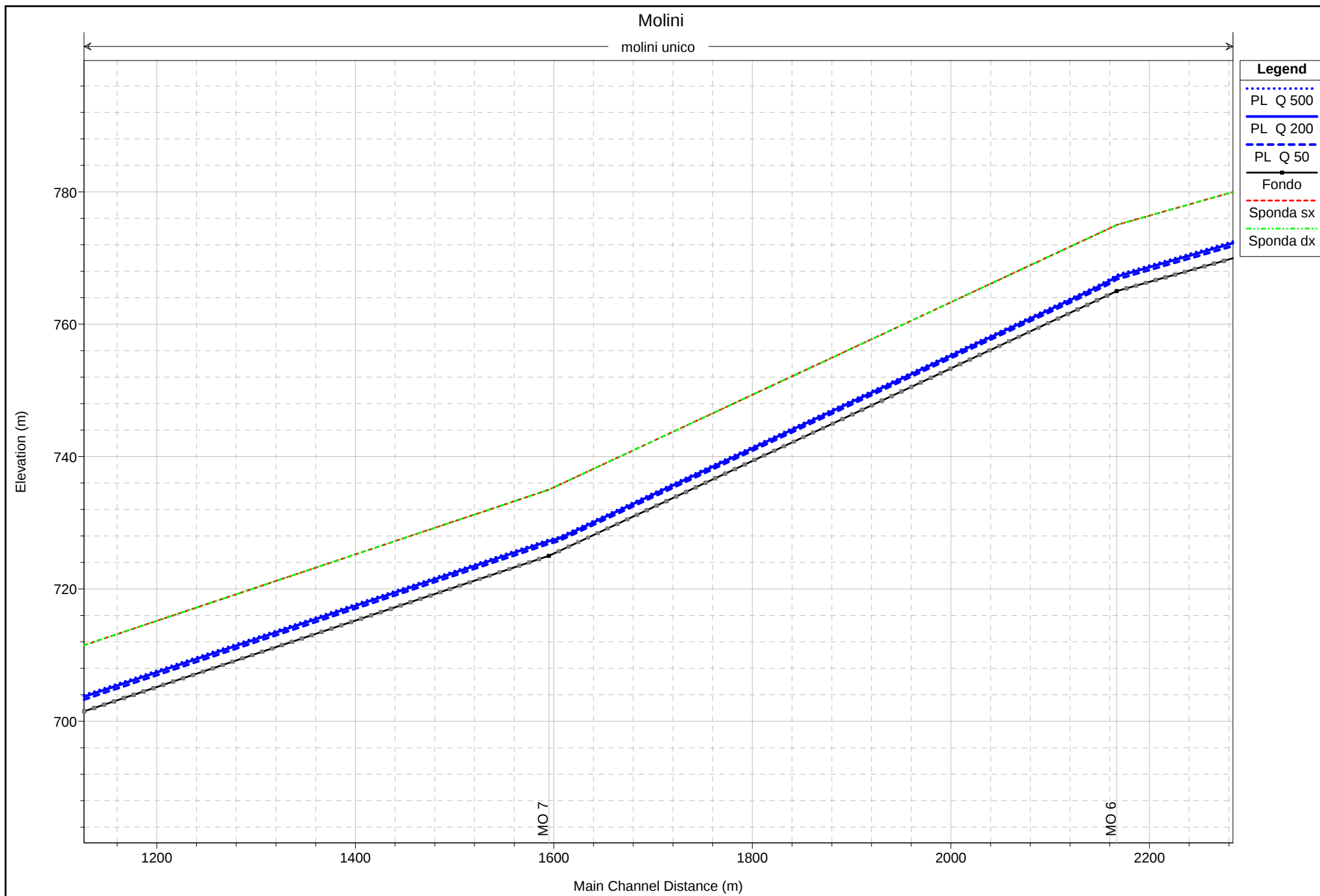
- Profili di corrente
- Sezioni idrauliche
- Tabelle dei risultati



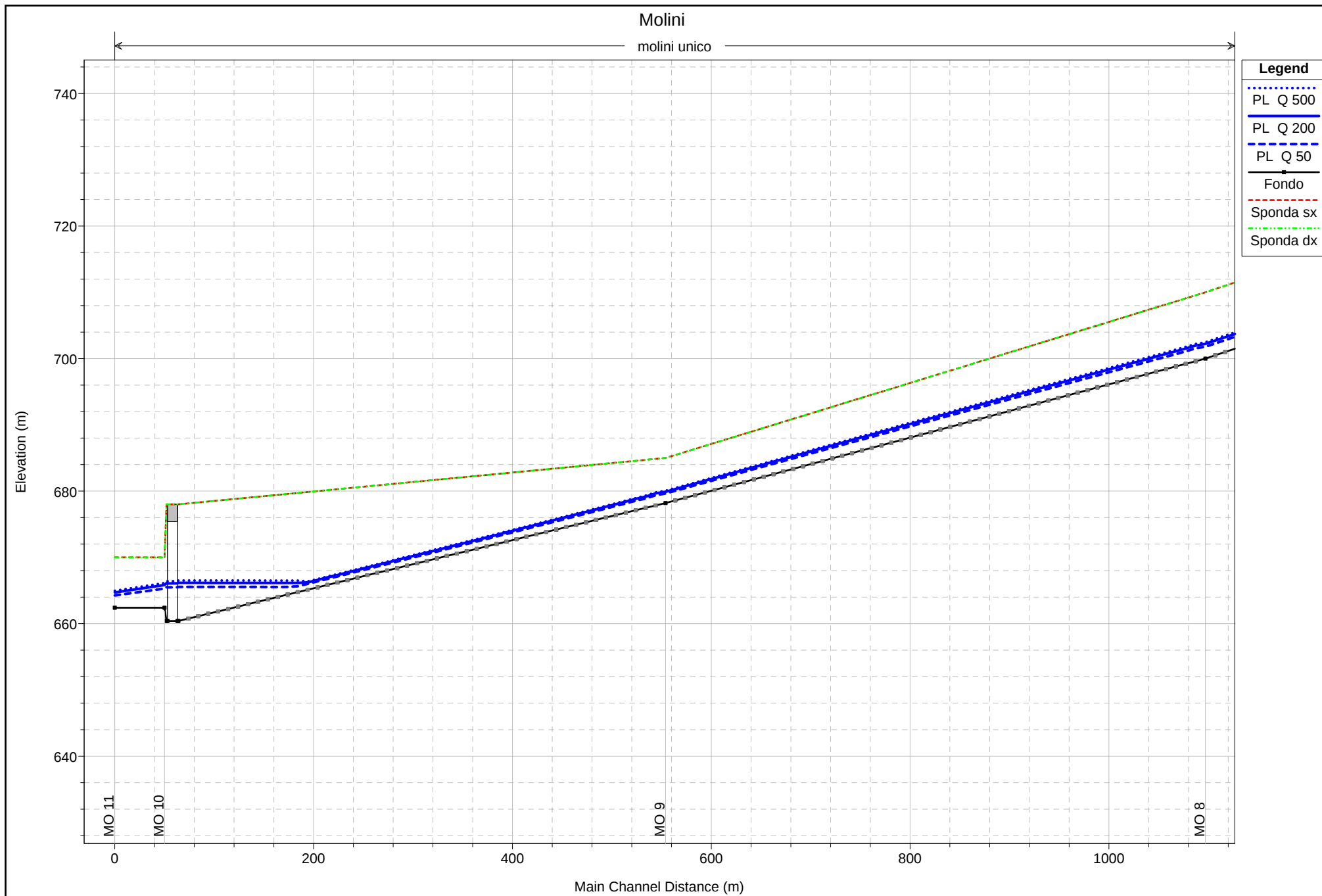
1 cm Horiz. = 50 m 1 cm Vert. = 7.5 m



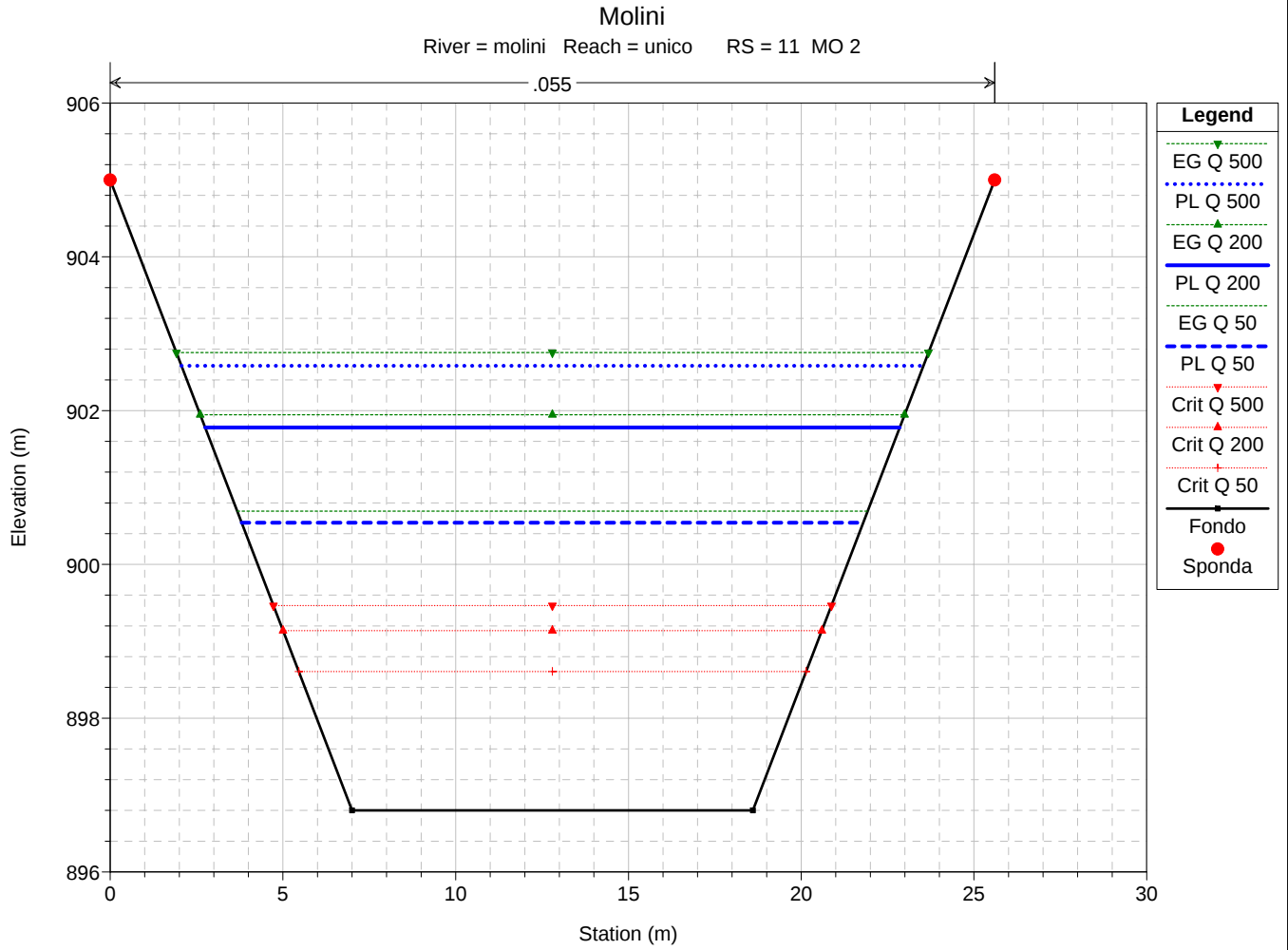
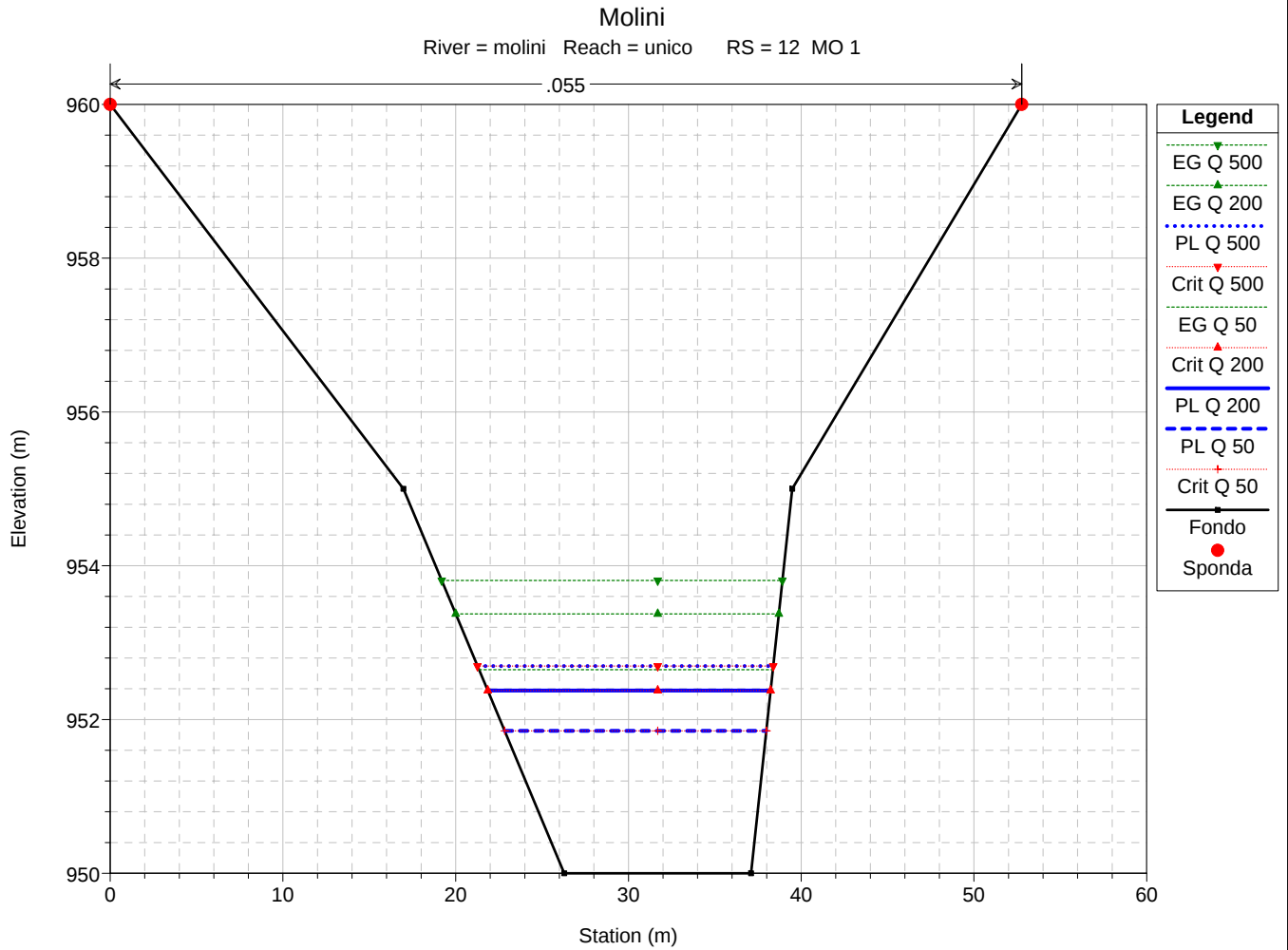
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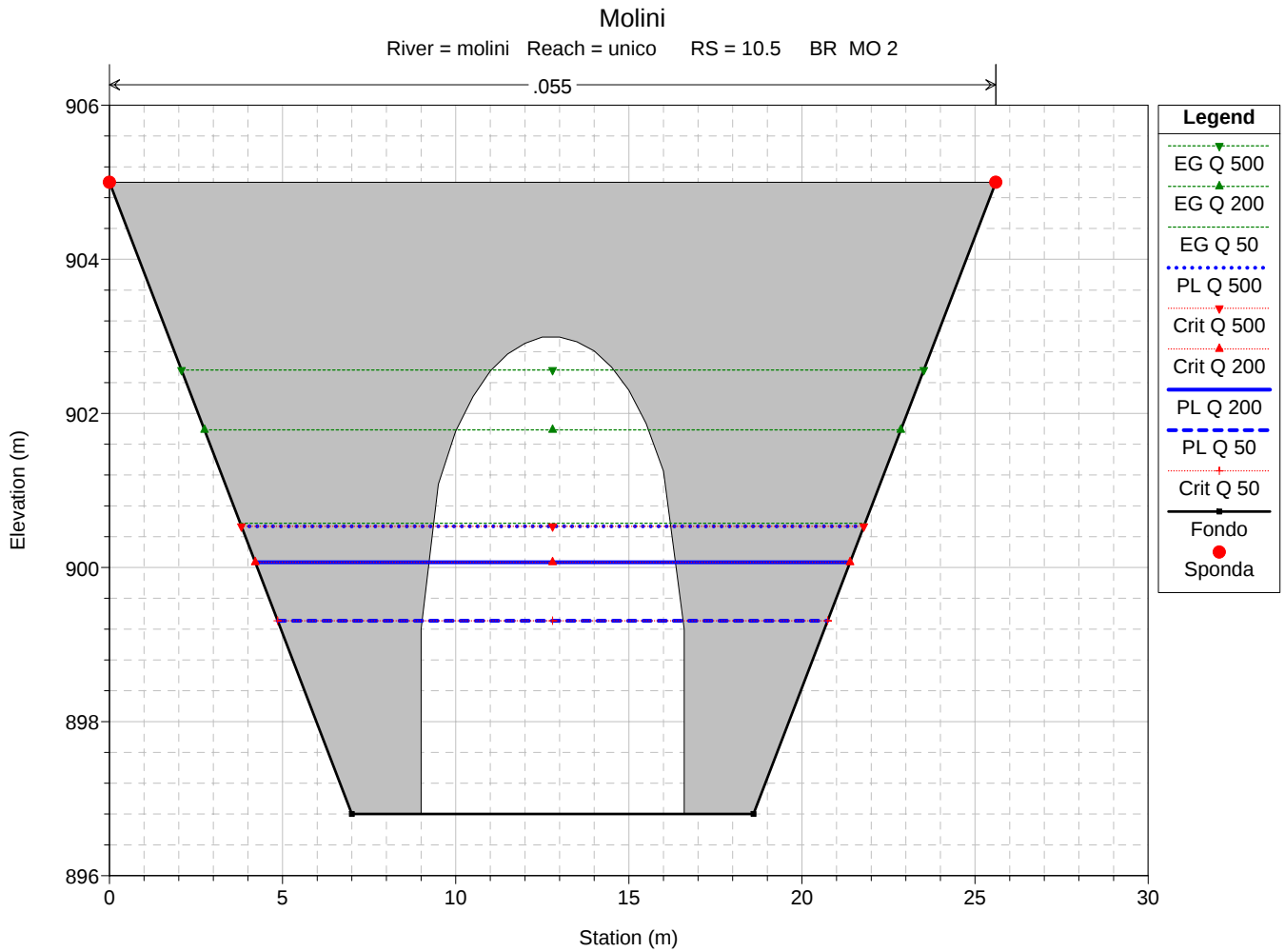
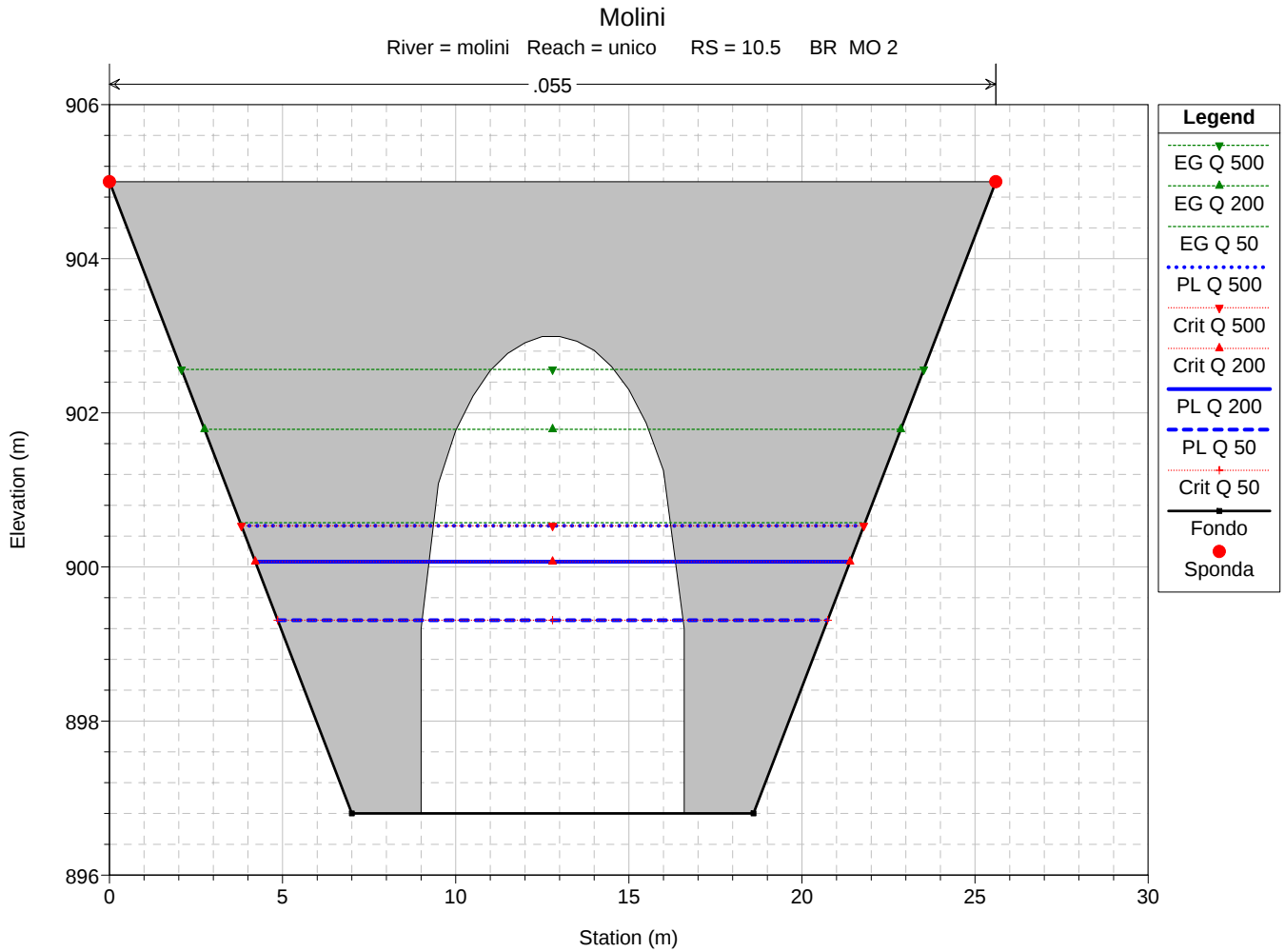


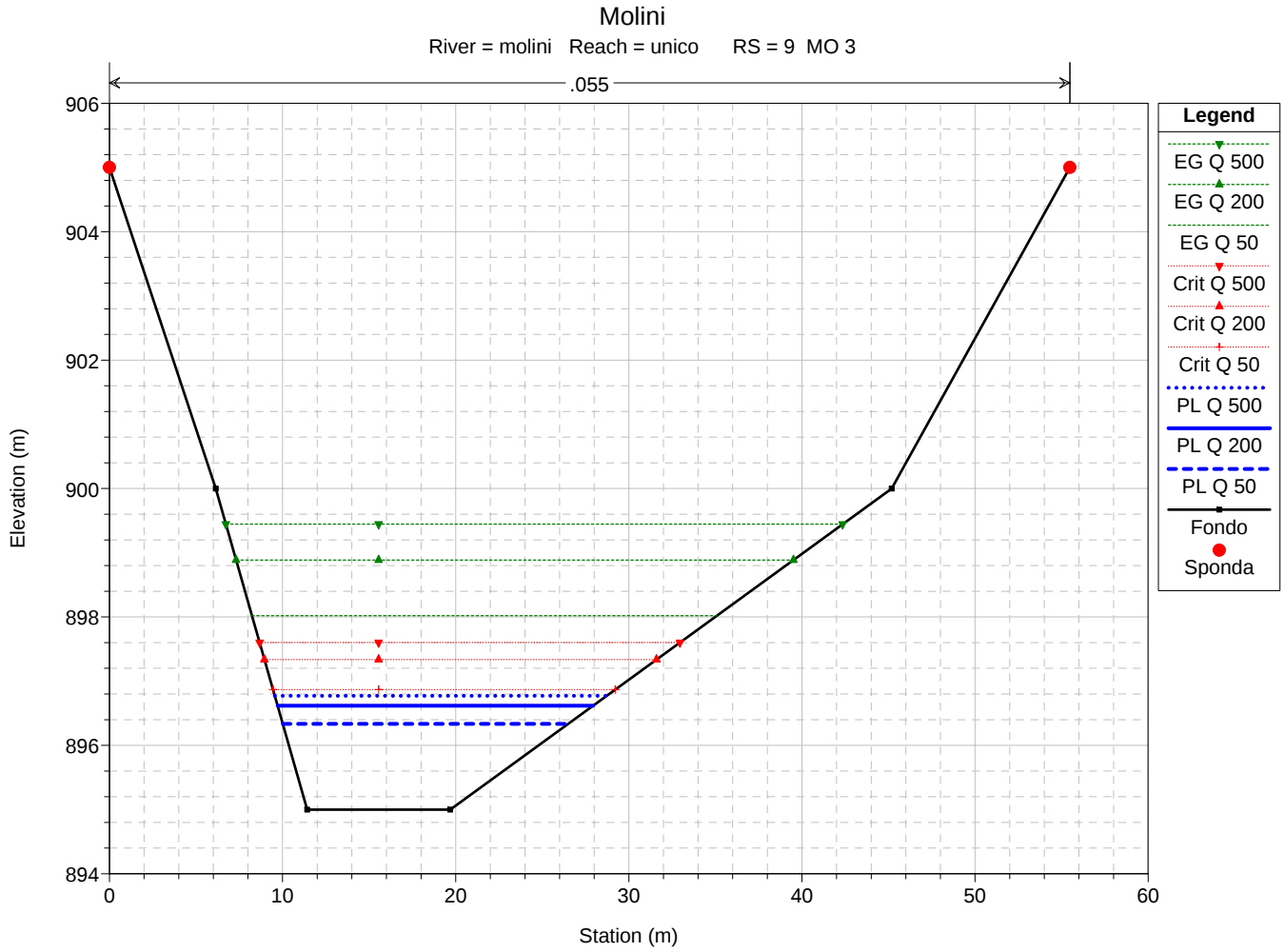
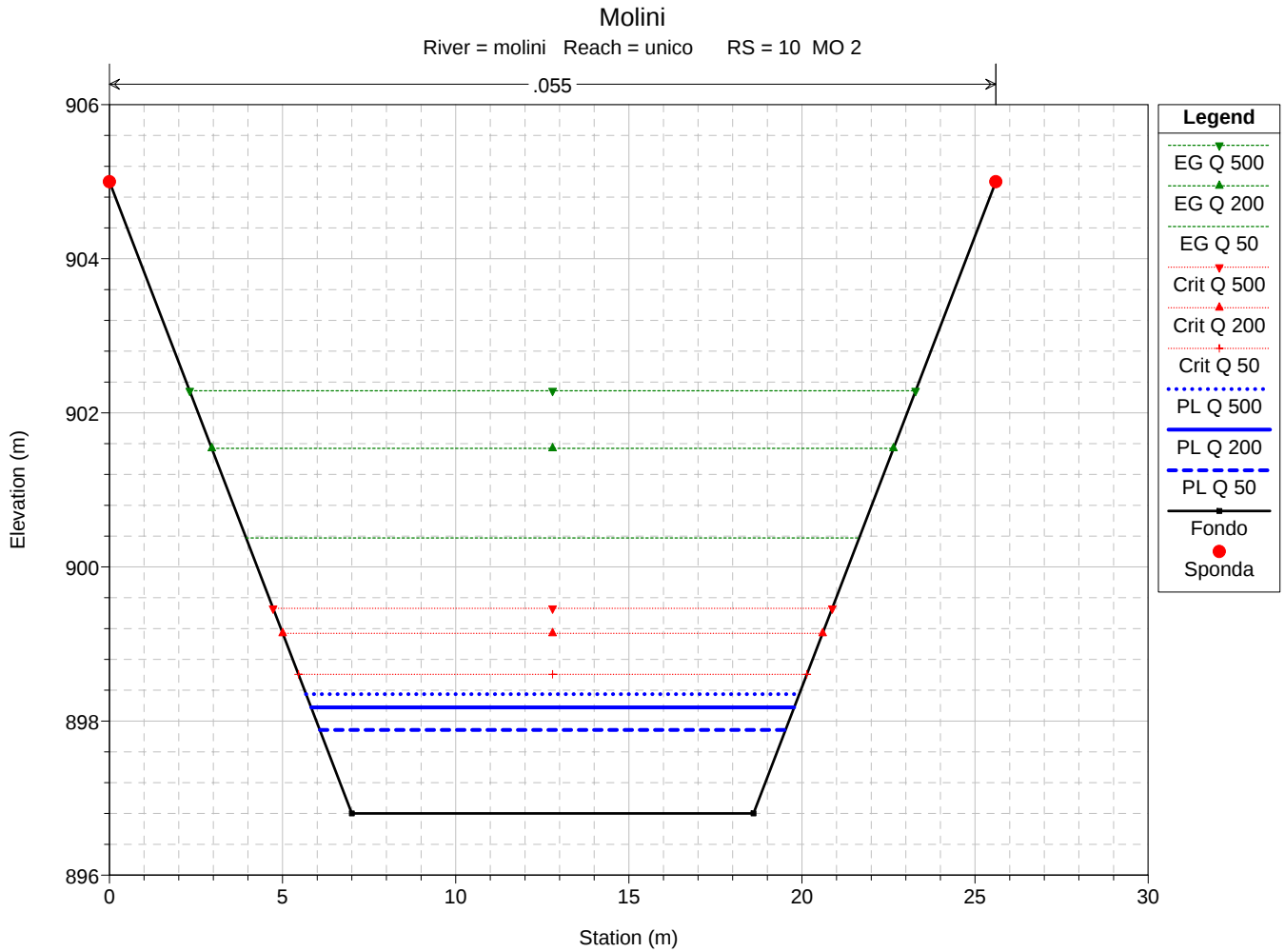
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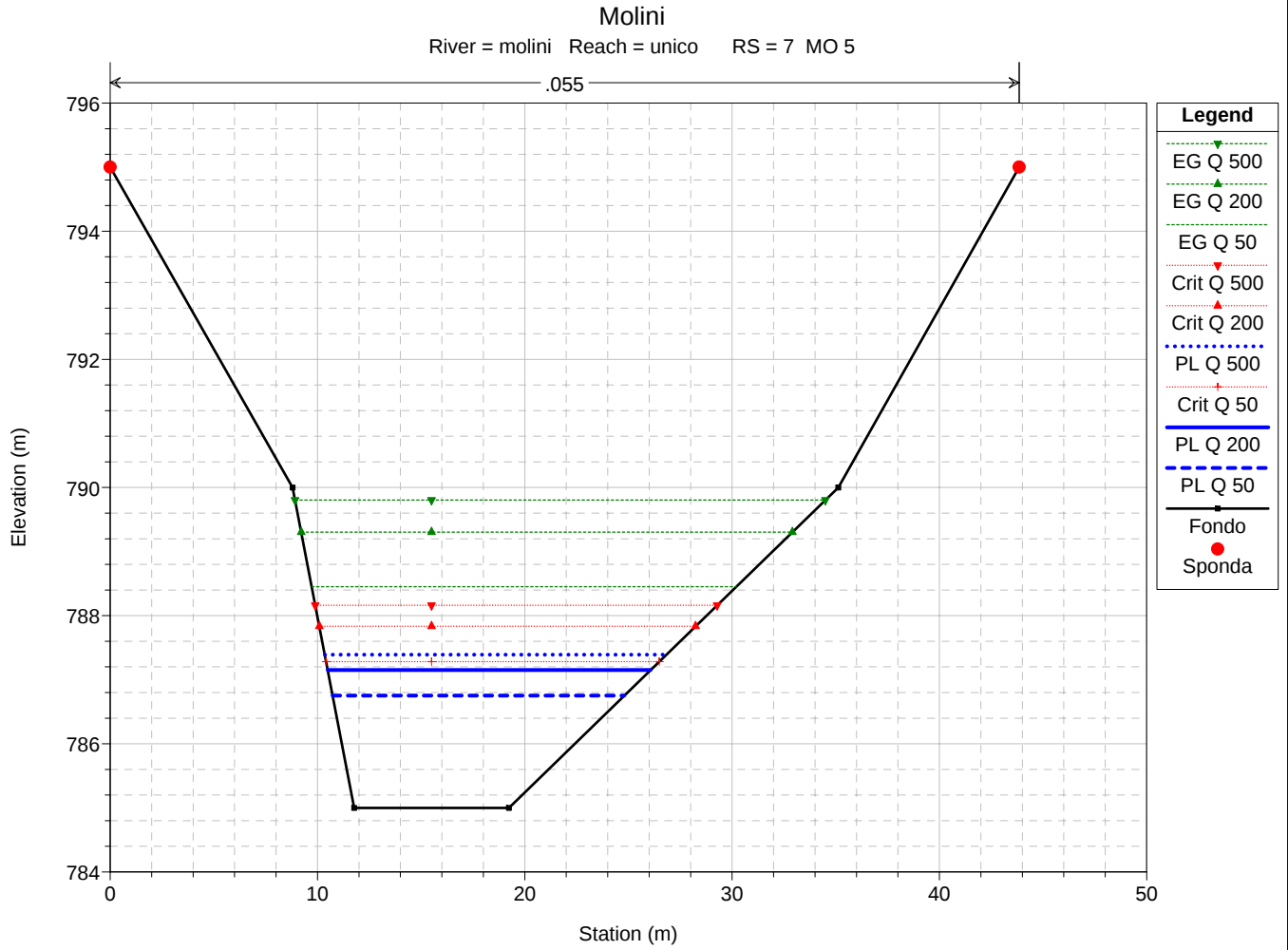
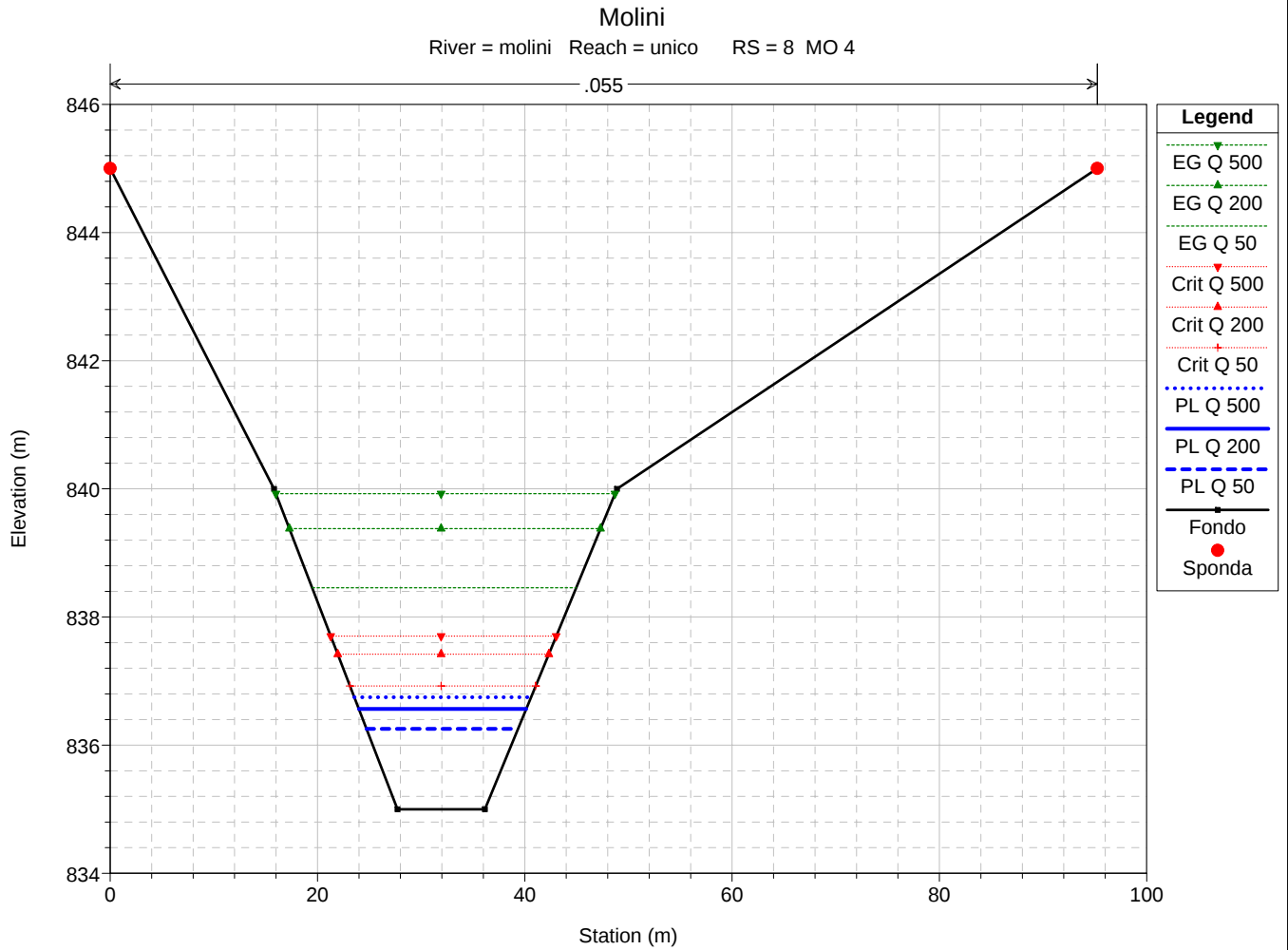


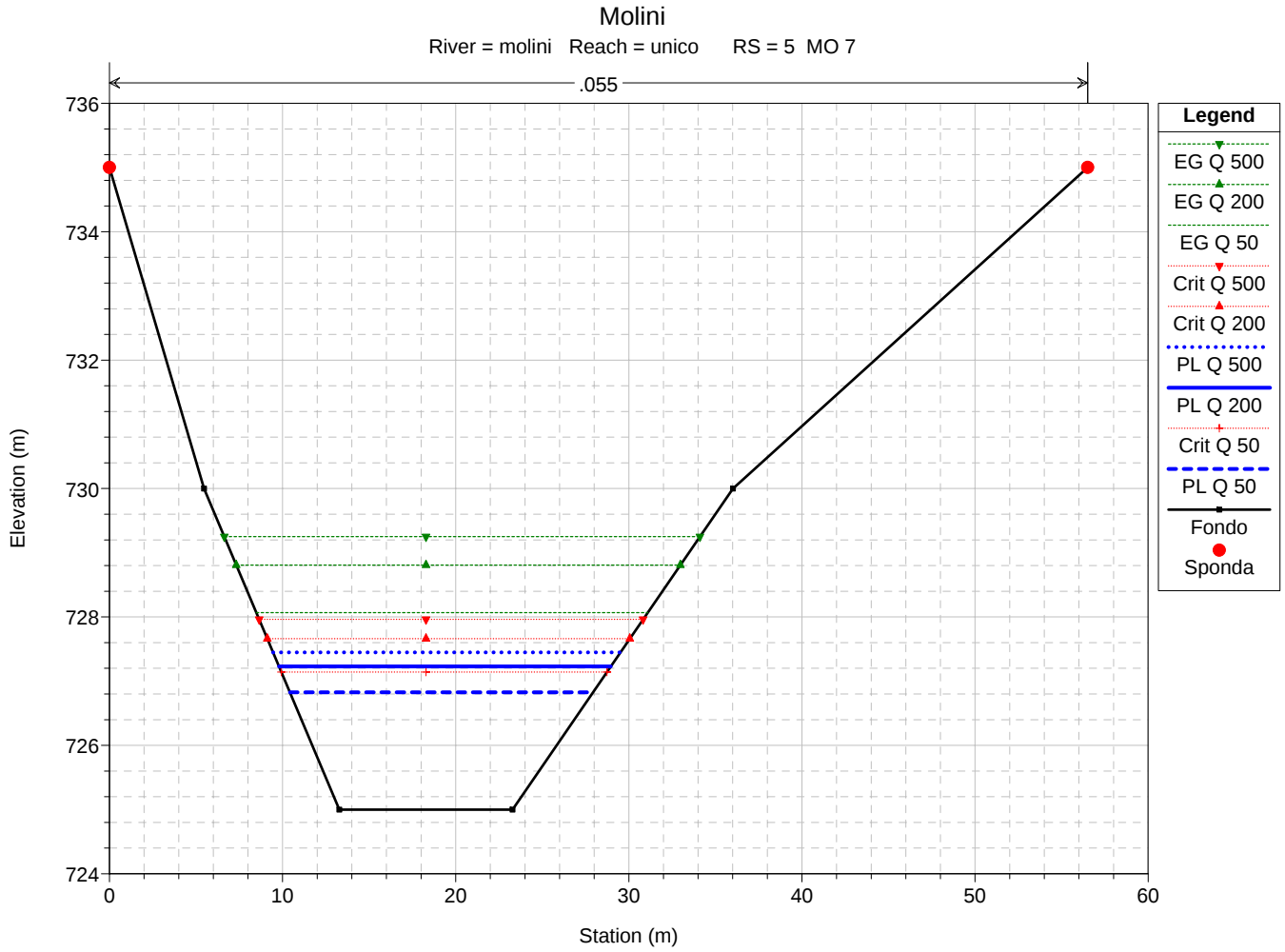
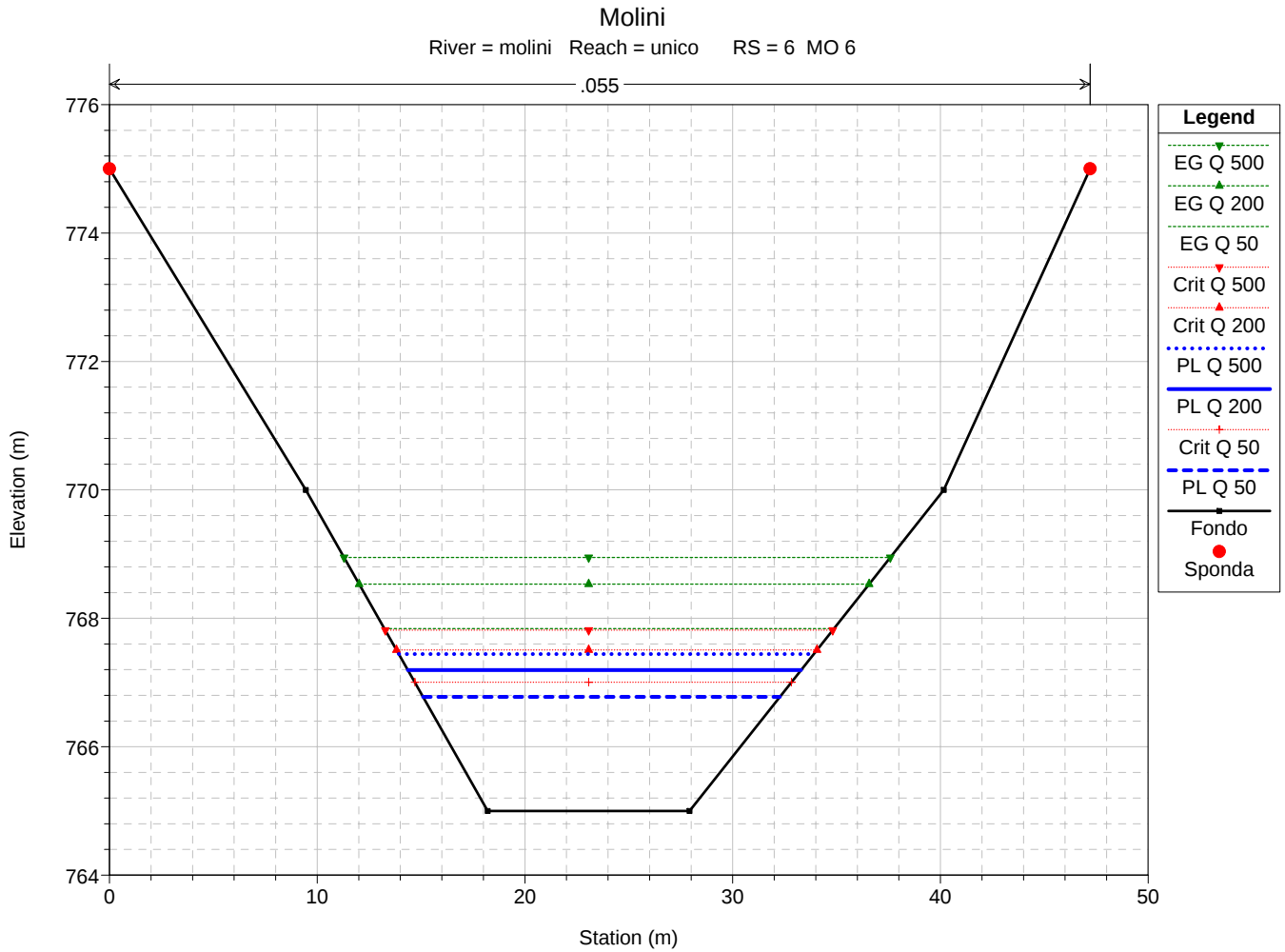
1 cm Horiz. = 50 m 1 cm Vert. = 7.5 m

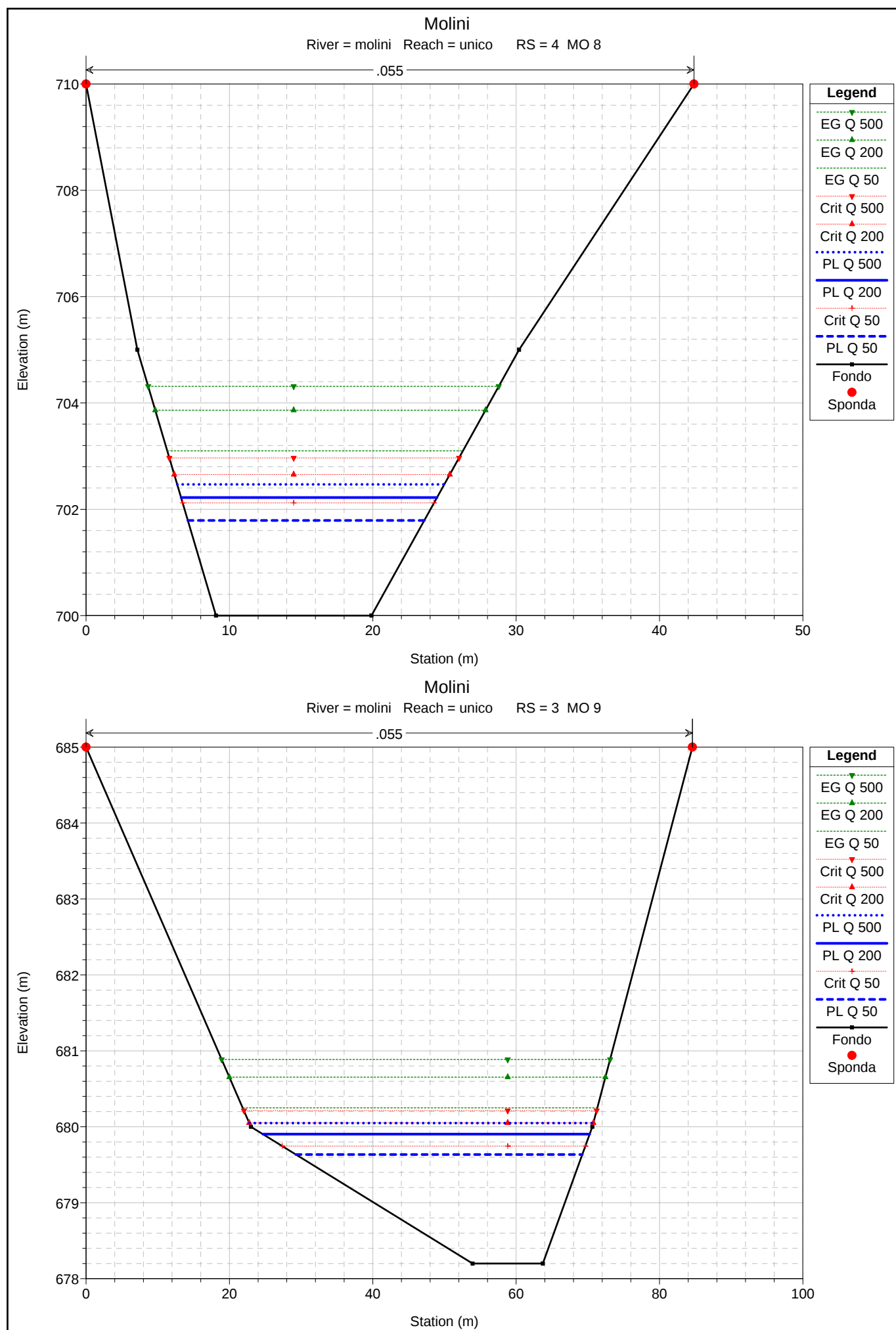


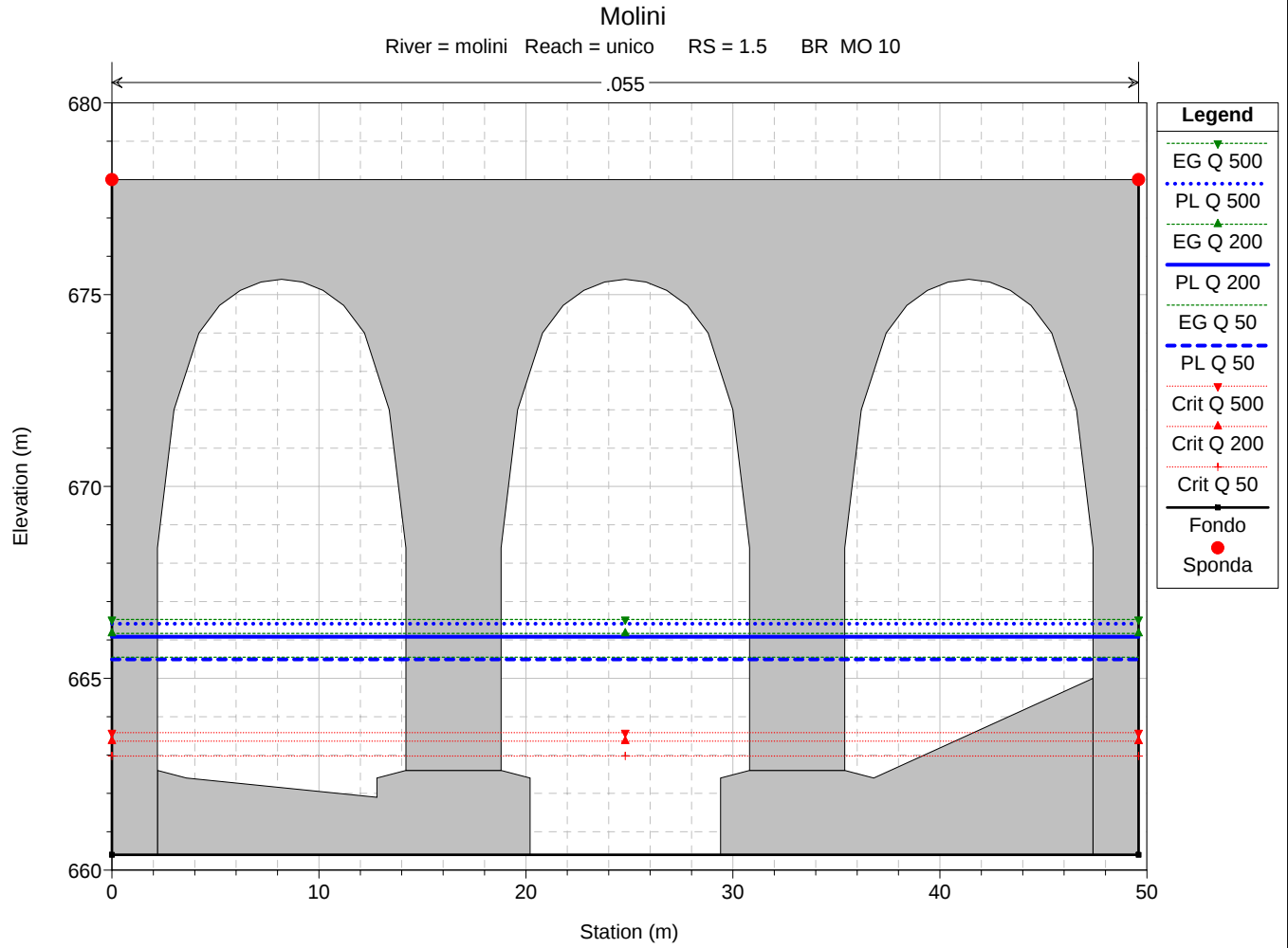
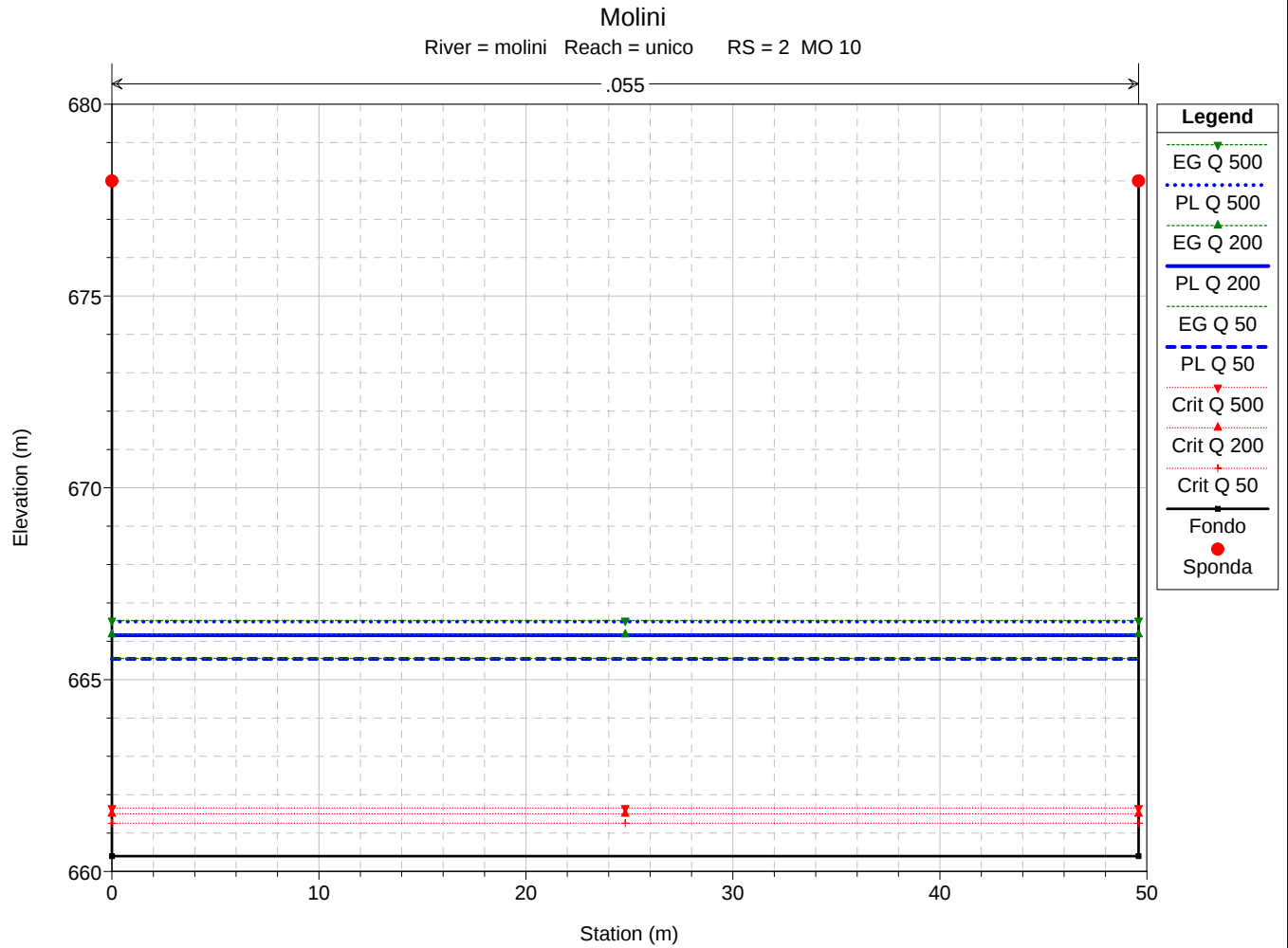


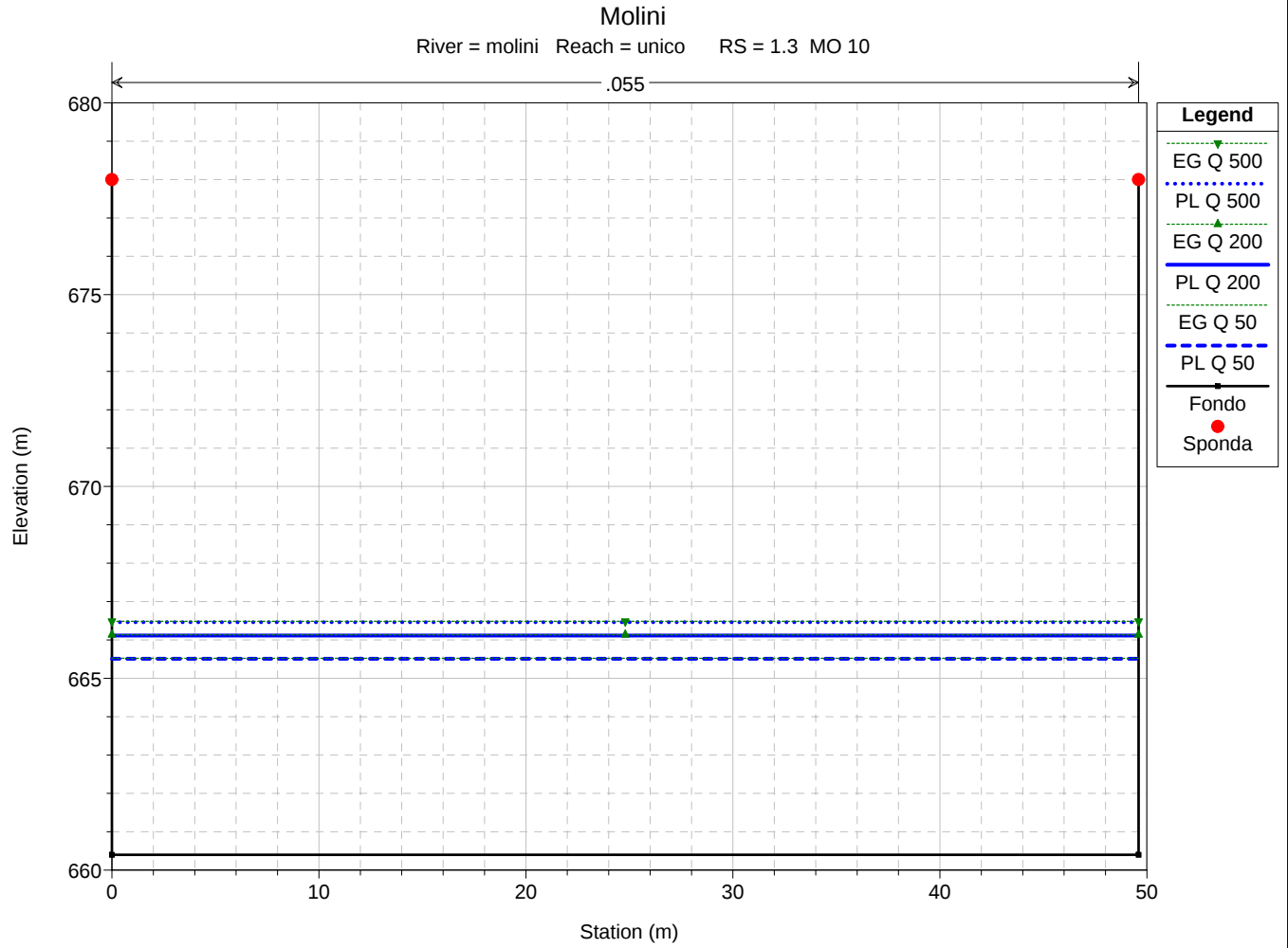
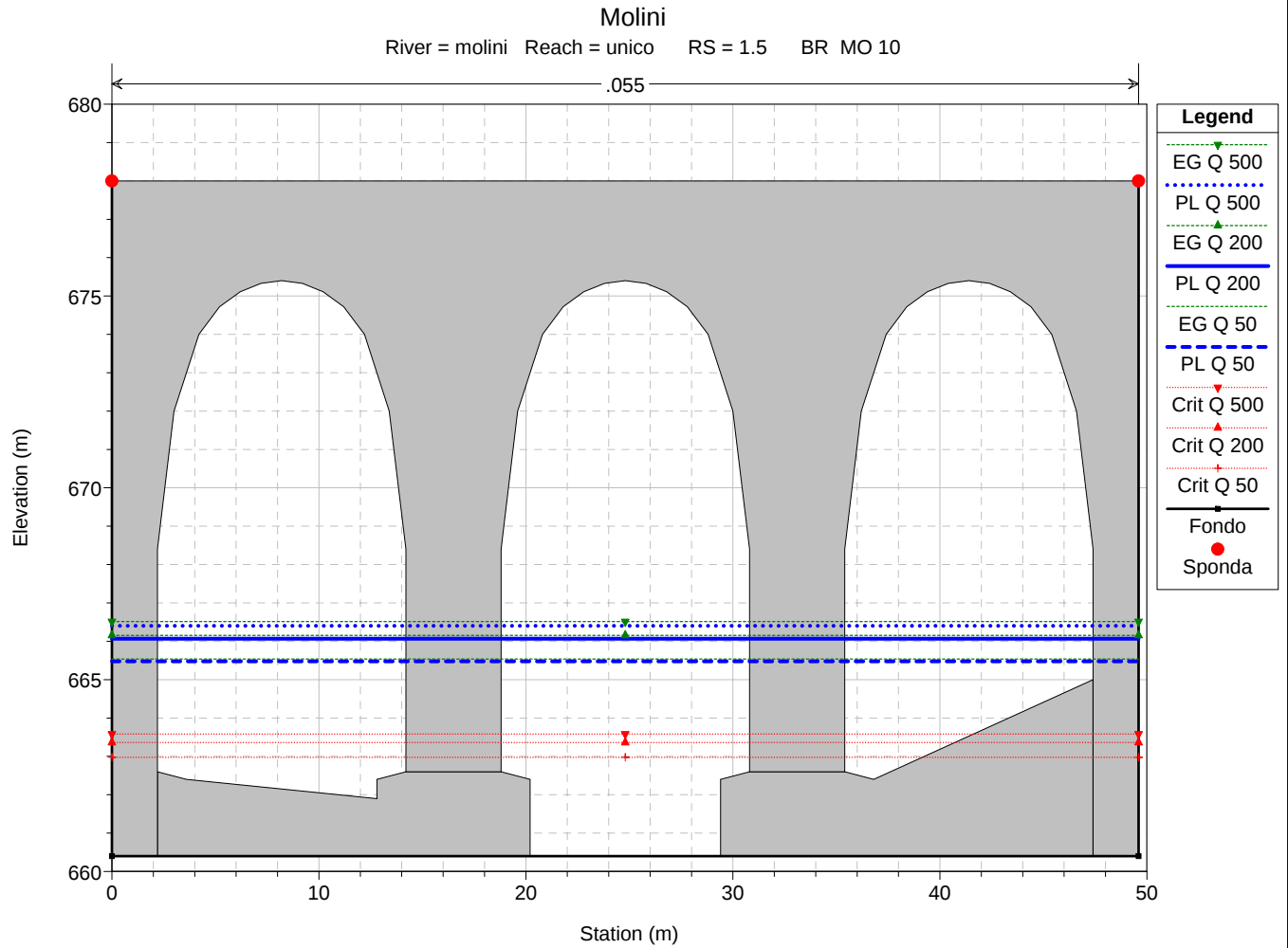


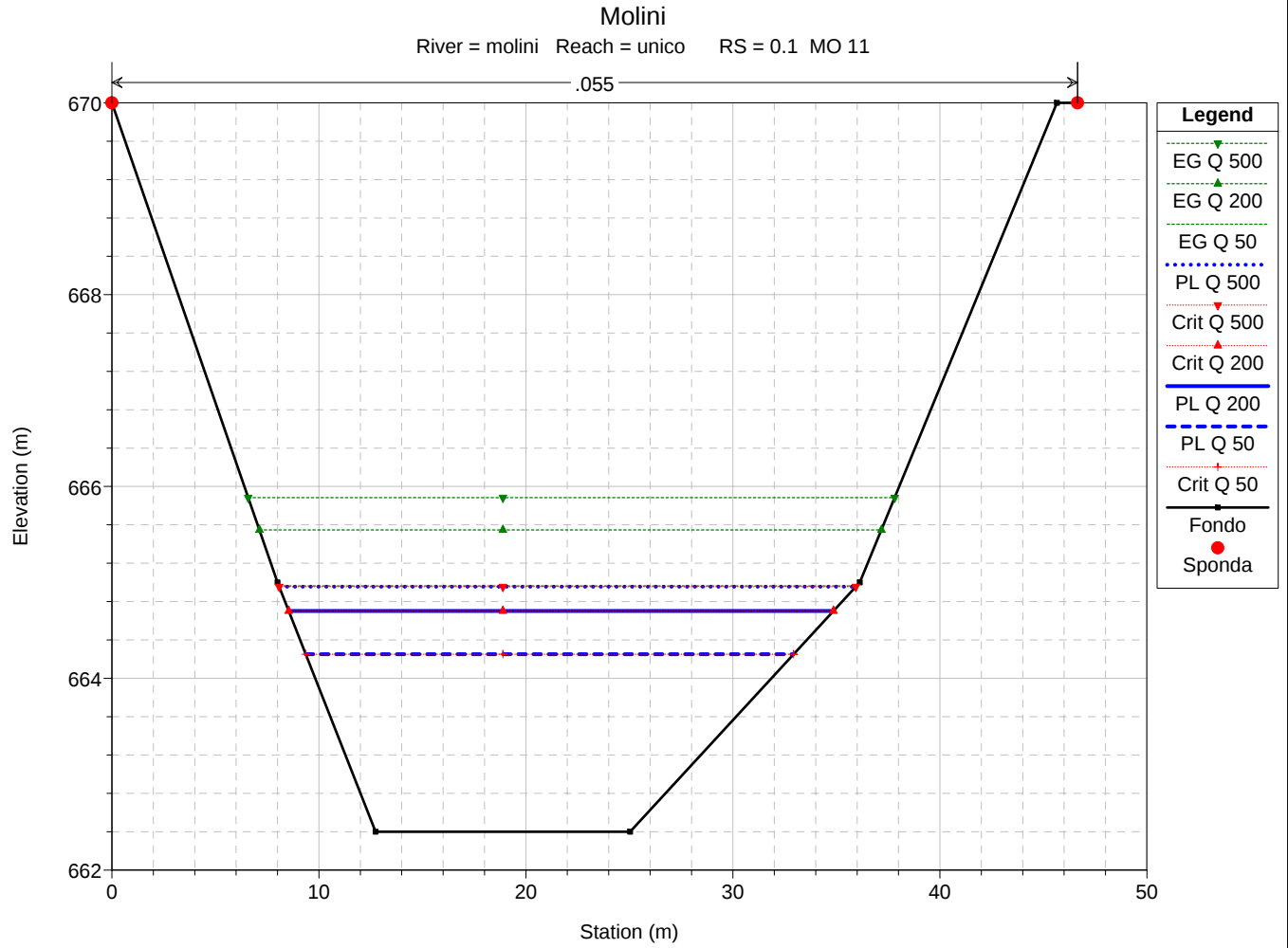
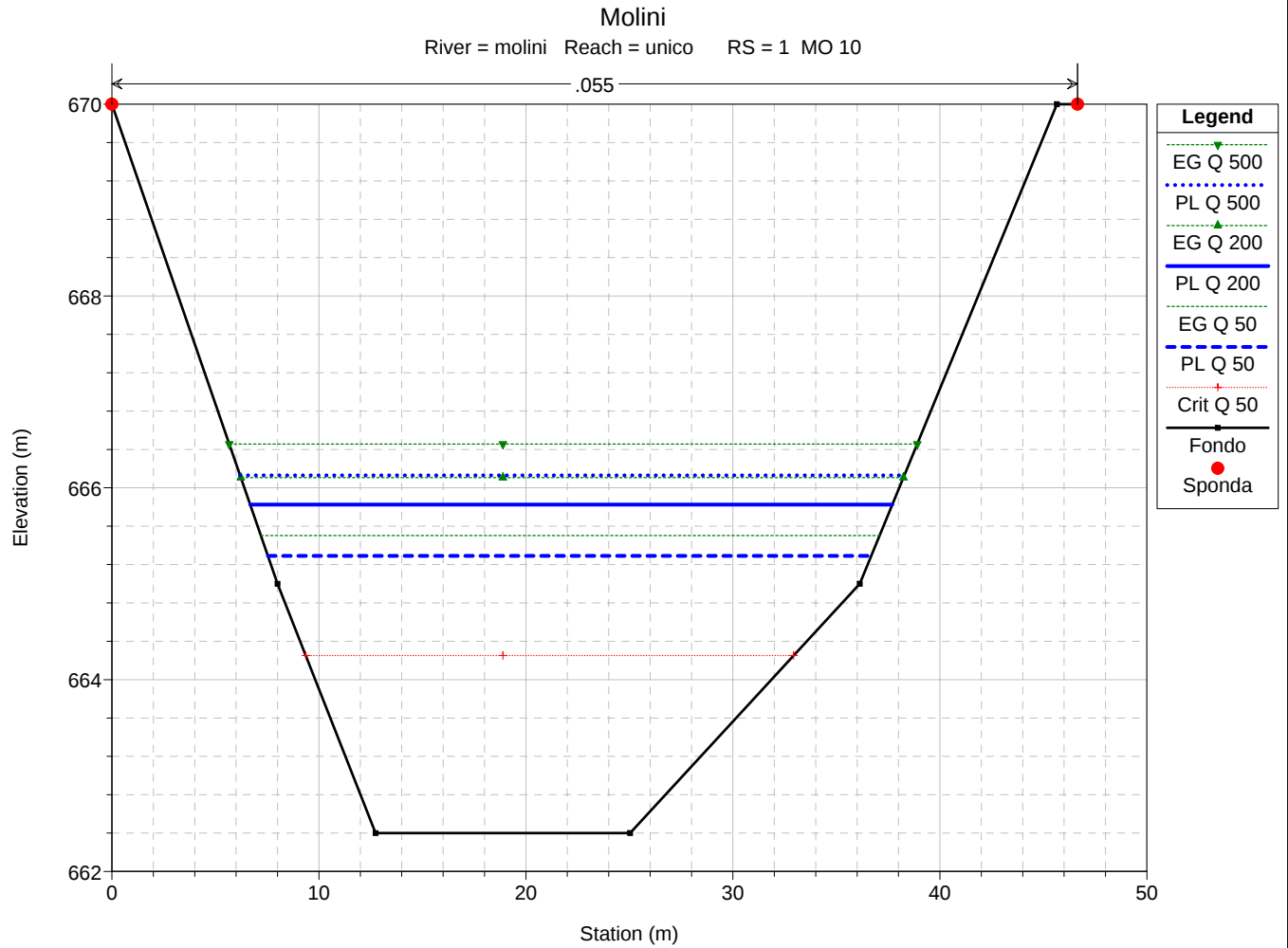












HEC-RAS Plan: 01_Molini River: molini Reach: unico

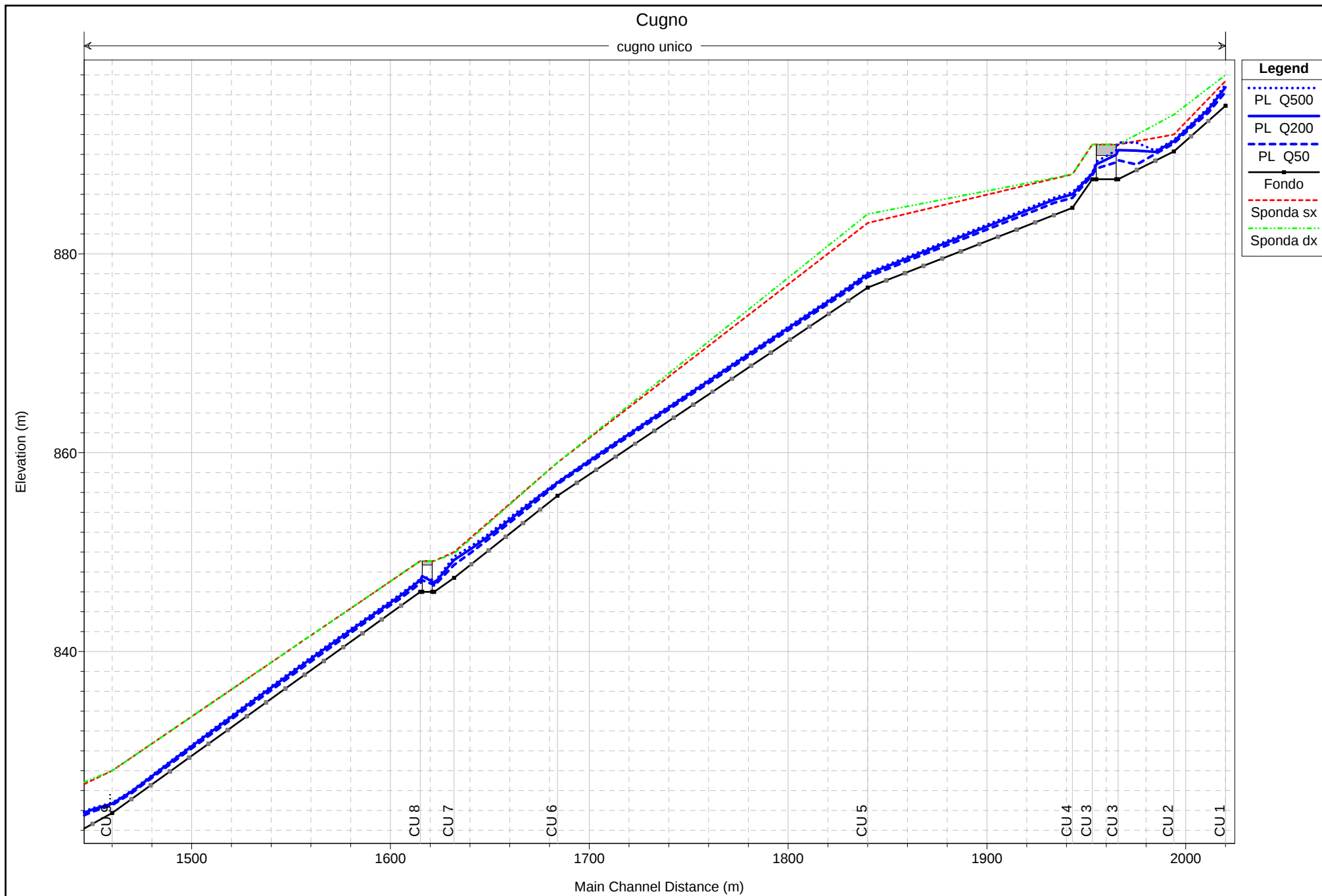
Reach	River Sta		Profile	Q Total	Min Ch El	W.S. Elev	LOB Elev	L. Freeboard	ROB Elev	R. Freeboard	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
unico	12	MO 1	Q 50	95.00	950.00	951.85	960.00	8.15	960.00	8.15	951.85	952.65	0.029187	3.95	24.06	15.15	1.00
unico	12	MO 1	Q 200	143.00	950.00	952.38	960.00	7.62	960.00	7.62	952.38	953.37	0.028095	4.42	32.32	16.38	1.01
unico	12	MO 1	Q 500	176.00	950.00	952.70	960.00	7.30	960.00	7.30	952.70	953.81	0.027460	4.67	37.67	17.12	1.01
unico	11	MO 2	Q 50	95.00	896.80	900.54	905.00	4.46	905.00	4.46	898.61	900.69	0.002515	1.72	55.36	17.99	0.31
unico	11	MO 2	Q 200	143.00	896.80	901.78	905.00	3.22	905.00	3.22	899.14	901.95	0.002109	1.81	78.93	20.10	0.29
unico	11	MO 2	Q 500	176.00	896.80	902.58	905.00	2.42	905.00	2.42	899.46	902.76	0.001880	1.84	95.62	21.47	0.28
unico	10.5	MO 2		Bridge													
unico	10	MO 2	Q 50	95.00	896.80	897.88	905.00	7.12	905.00	7.12	898.61	900.38	0.160596	6.99	13.59	13.45	2.22
unico	10	MO 2	Q 200	143.00	896.80	898.18	905.00	6.82	905.00	6.82	899.14	901.54	0.164398	8.12	17.61	13.95	2.31
unico	10	MO 2	Q 500	176.00	896.80	898.35	905.00	6.65	905.00	6.65	899.46	902.29	0.168643	8.79	20.02	14.25	2.37
unico	9	MO 3	Q 50	95.00	895.00	896.34	905.00	8.66	905.00	8.66	896.87	898.02	0.105070	5.75	16.52	16.48	1.83
unico	9	MO 3	Q 200	143.00	895.00	896.62	905.00	8.38	905.00	8.38	897.34	898.89	0.114936	6.67	21.43	18.22	1.96
unico	9	MO 3	Q 500	176.00	895.00	896.77	905.00	8.23	905.00	8.23	897.60	899.44	0.122800	7.24	24.30	19.17	2.05
unico	8	MO 4	Q 50	95.00	835.00	836.25	845.00	8.75	845.00	8.75	836.92	838.46	0.138792	6.58	14.45	14.62	2.11
unico	8	MO 4	Q 200	143.00	835.00	836.56	845.00	8.44	845.00	8.44	837.42	839.38	0.139107	7.43	19.24	16.15	2.17
unico	8	MO 4	Q 500	176.00	835.00	836.75	845.00	8.25	845.00	8.25	837.70	839.93	0.139136	7.90	22.29	17.06	2.21
unico	7	MO 5	Q 50	109.00	785.00	786.75	795.00	8.25	795.00	8.25	787.28	788.45	0.076510	5.77	18.87	14.07	1.59
unico	7	MO 5	Q 200	161.00	785.00	787.15	795.00	7.85	795.00	7.85	787.83	789.30	0.078135	6.50	24.77	15.57	1.65
unico	7	MO 5	Q 500	197.00	785.00	787.39	795.00	7.61	795.00	7.61	788.16	789.81	0.078435	6.88	28.62	16.48	1.67
unico	6	MO 6	Q 50	109.00	765.00	766.78	775.00	8.22	775.00	8.22	767.00	767.84	0.043244	4.57	23.87	17.17	1.24
unico	6	MO 6	Q 200	161.00	765.00	767.19	775.00	7.81	775.00	7.81	767.51	768.53	0.043376	5.13	31.40	18.92	1.27
unico	6	MO 6	Q 500	197.00	765.00	767.44	775.00	7.56	775.00	7.56	767.82	768.95	0.043468	5.44	36.23	19.97	1.29
unico	5	MO 7	Q 50	124.00	725.00	726.83	735.00	8.17	735.00	8.17	727.14	728.07	0.048699	4.94	25.11	17.50	1.32
unico	5	MO 7	Q 200	181.00	725.00	727.23	735.00	7.77	735.00	7.77	727.66	728.81	0.049807	5.57	32.52	19.16	1.36
unico	5	MO 7	Q 500	219.00	725.00	727.45	735.00	7.55	735.00	7.55	727.96	729.25	0.051432	5.95	36.81	20.07	1.40
unico	4	MO 8	Q 50	124.00	700.00	701.79	710.00	8.21	710.00	8.21	702.12	703.10	0.050101	5.07	24.46	16.49	1.33
unico	4	MO 8	Q 200	181.00	700.00	702.22	710.00	7.78	710.00	7.78	702.65	703.86	0.049745	5.68	31.87	17.85	1.36
unico	4	MO 8	Q 500	219.00	700.00	702.47	710.00	7.53	710.00	7.53	702.97	704.31	0.049851	6.02	36.39	18.64	1.37
unico	3	MO 9	Q 50	124.00	678.20	679.63	685.00	5.37	685.00	5.37	679.75	680.25	0.042778	3.47	35.69	39.95	1.17
unico	3	MO 9	Q 200	181.00	678.20	679.90	685.00	5.10	685.00	5.10	680.05	680.65	0.042918	3.84	47.16	45.59	1.20
unico	3	MO 9	Q 500	219.00	678.20	680.05	685.00	4.95	685.00	4.95	680.21	680.89	0.042766	4.05	54.04	47.99	1.22
unico	2	MO 10	Q 50	124.00	660.40	665.54	678.00	12.46	678.00	12.46	661.26	665.55	0.000104	0.49	255.02	49.60	0.07
unico	2	MO 10	Q 200	181.00	660.40	666.16	678.00	11.84	678.00	11.84	661.50	666.18	0.000156	0.63	285.55	49.60	0.08
unico	2	MO 10	Q 500	219.00	660.40	666.51	678.00	11.49	678.00	11.49	661.65	666.54	0.000189	0.72	303.22	49.60	0.09
unico	1.5	MO 10		Bridge													
unico	1.3	MO 10	Q 50	124.00	660.40	665.51	678.00	12.49	678.00	12.49		665.52	0.000106	0.49	253.48	49.60	0.07
unico	1.3	MO 10	Q 200	181.00	660.40	666.11	678.00	11.89	678.00	11.89		666.13	0.000159	0.64	283.37	49.60	0.09
unico	1.3	MO 10	Q 500	219.00	660.40	666.46	678.00	11.54	678.00	11.54		666.49	0.000194	0.73	300.62	49.60	0.09
unico	1	MO 10	Q 50	124.00	662.40	665.29	670.00	4.71	670.00	4.71	664.25	665.50	0.004947	2.04	60.87	29.15	0.45

HEC-RAS Plan: 01_Molini River: molini Reach: unico (Continued)

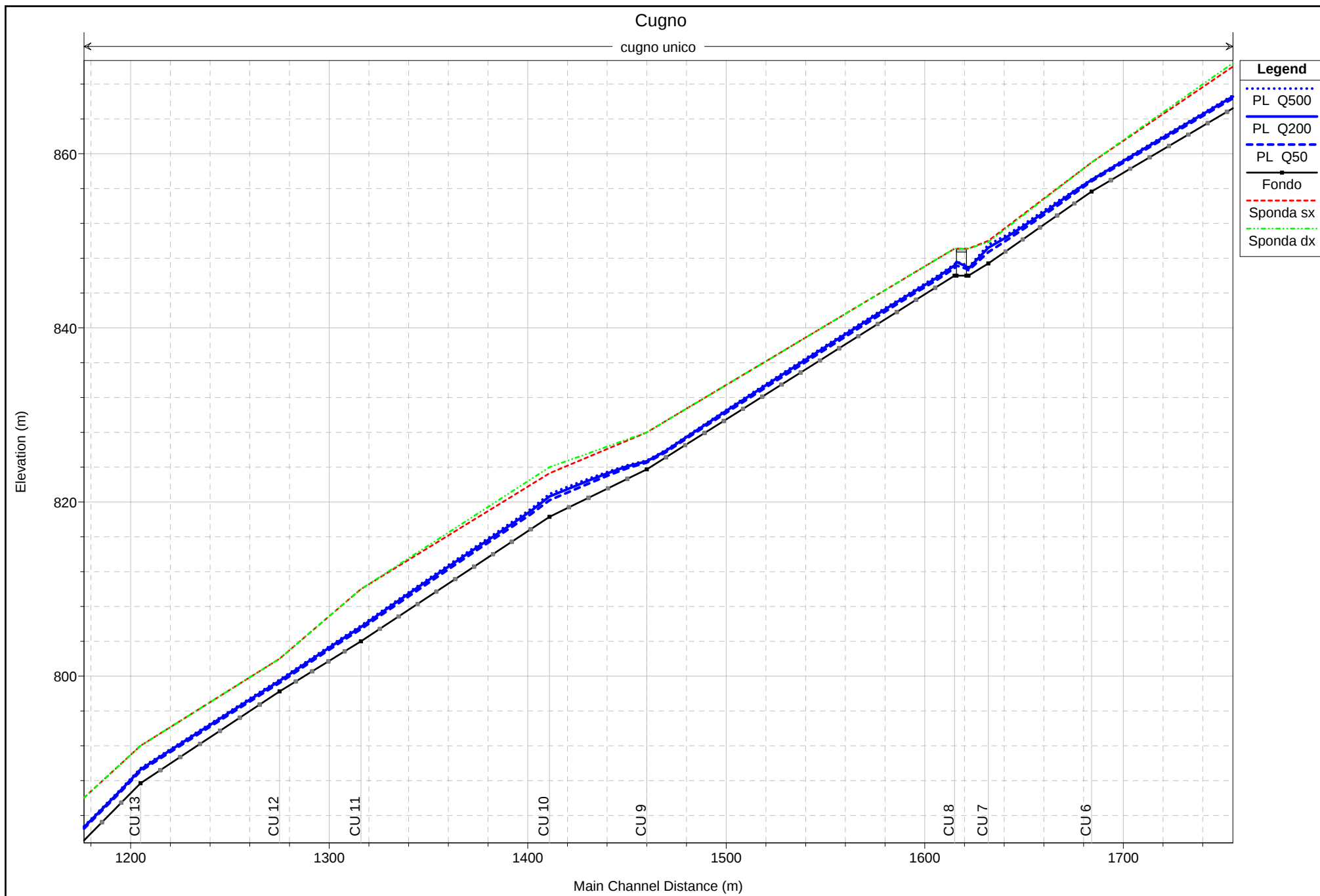
Reach	River Sta		Profile	Q Total	Min Ch El	W.S. Elev	LOB Elev	L. Freeboard	ROB Elev	R. Freeboard	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
unico	1	MO 10	Q 200	181.00	662.40	665.83	670.00	4.18	670.00	4.18		666.11	0.005290	2.35	76.94	31.02	0.48
unico	1	MO 10	Q 500	219.00	662.40	666.13	670.00	3.87	670.00	3.87		666.46	0.005487	2.53	86.60	32.09	0.49
unico	0.1	MO 11	Q 50	124.00	662.40	664.25	670.00	5.75	670.00	5.75	664.25	664.96	0.027804	3.74	33.19	23.57	1.01
unico	0.1	MO 11	Q 200	181.00	662.40	664.70	670.00	5.30	670.00	5.30	664.70	665.55	0.026087	4.08	44.41	26.31	1.00
unico	0.1	MO 11	Q 500	219.00	662.40	664.96	670.00	5.04	670.00	5.04	664.96	665.88	0.025564	4.27	51.28	27.86	1.00

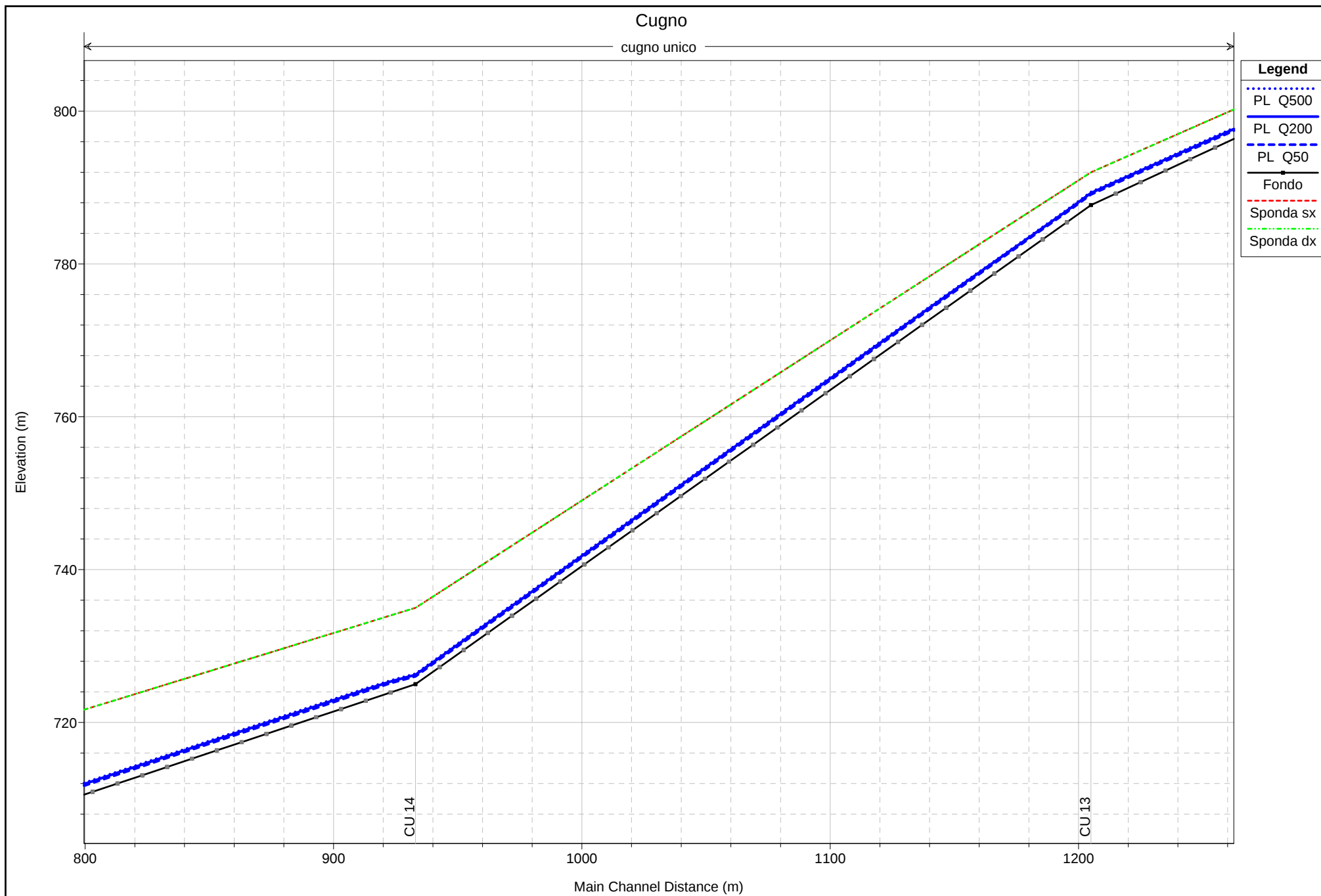
Rio Cugno

- Profili di corrente
- Sezioni idrauliche
- Tabelle dei risultati

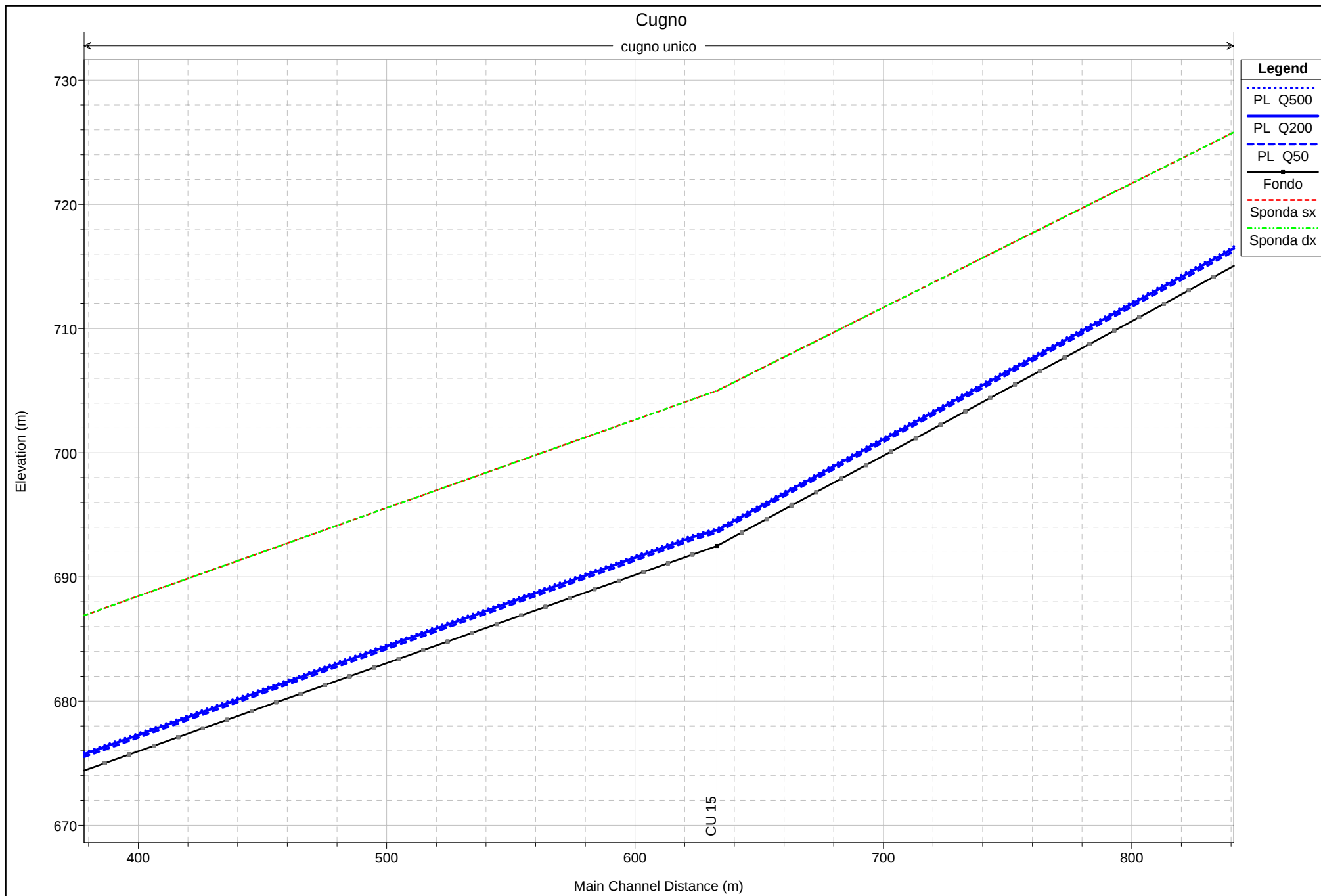


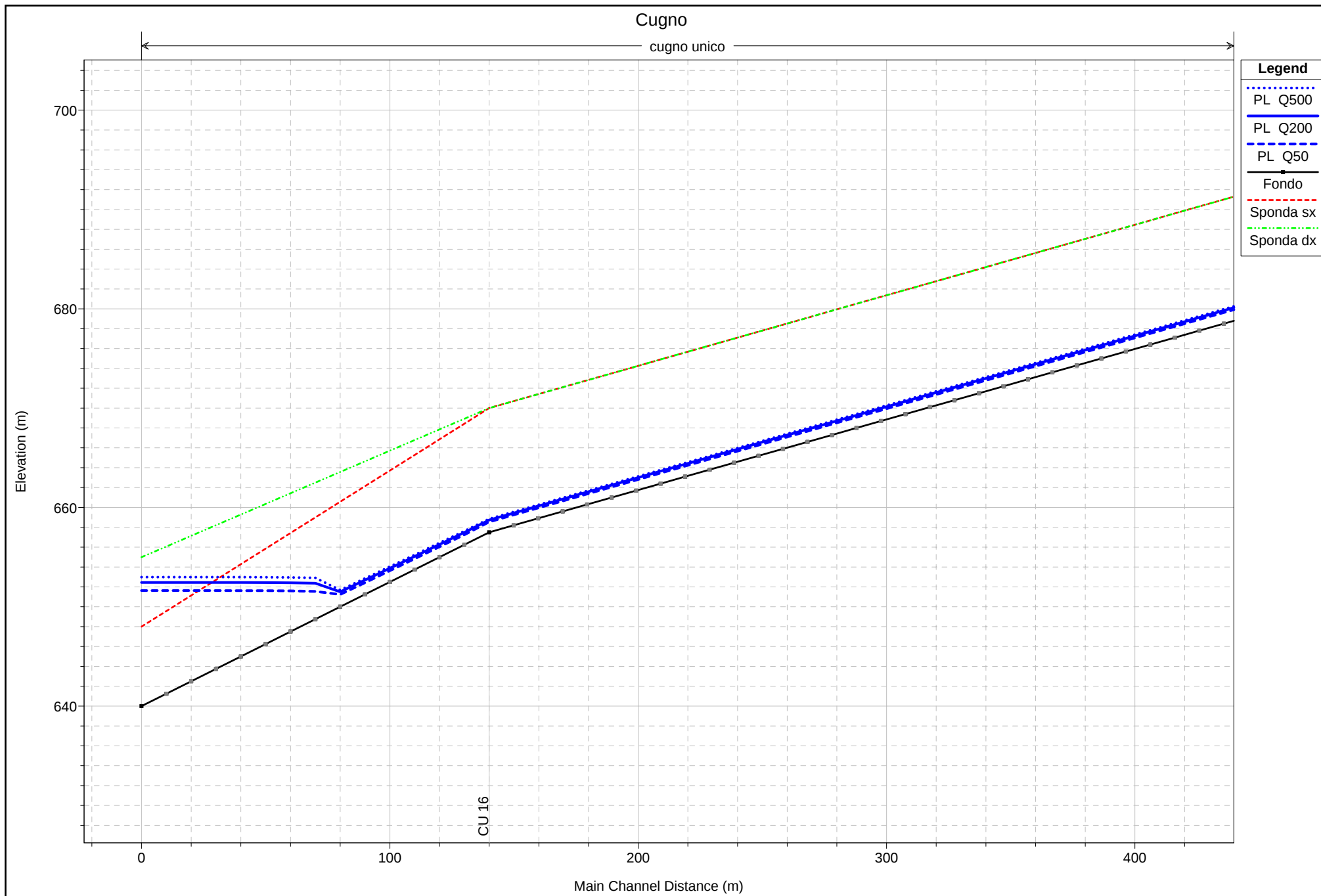
1 cm Horiz. = 25 m 1 cm Vert. = 5 m



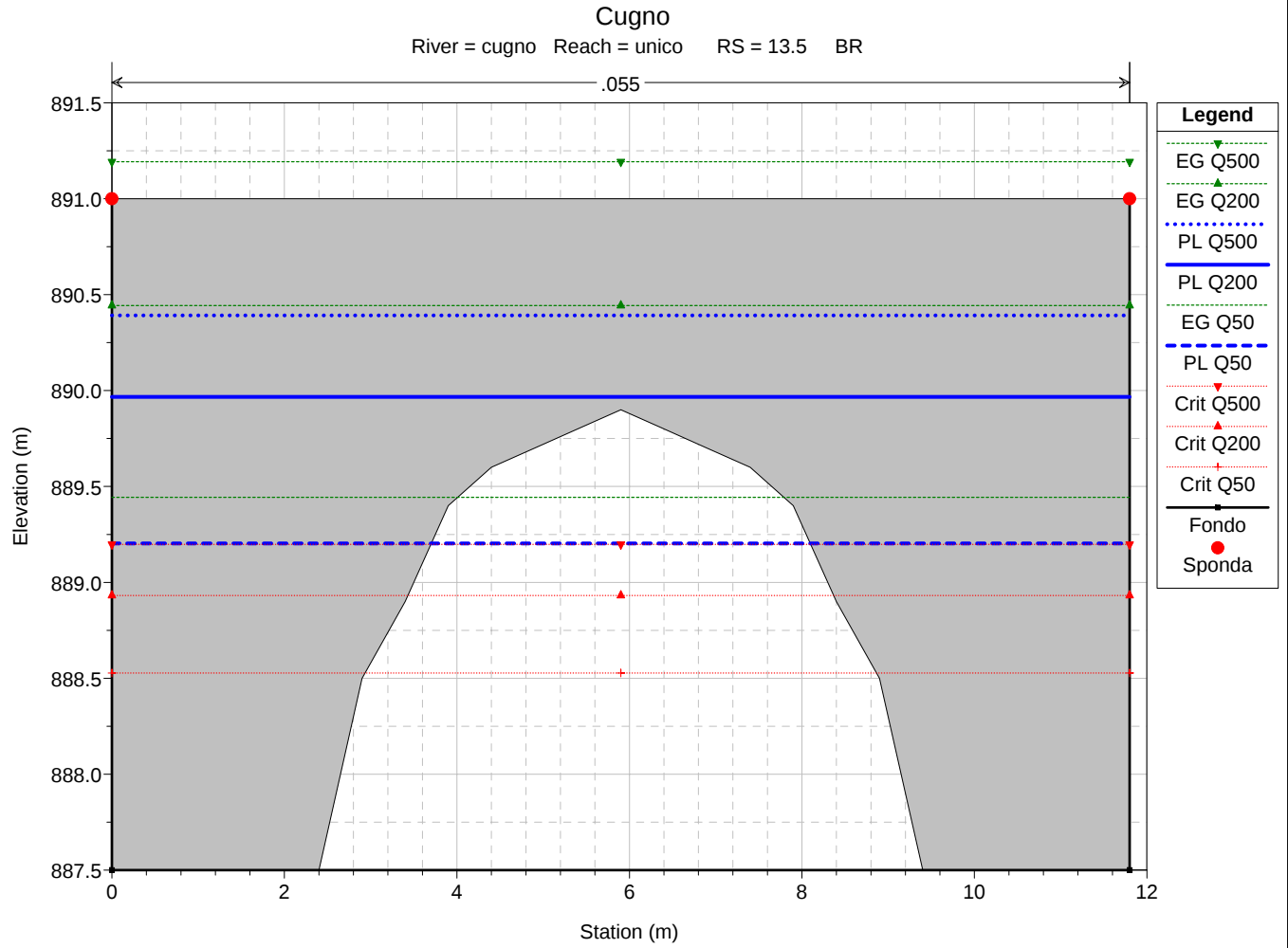
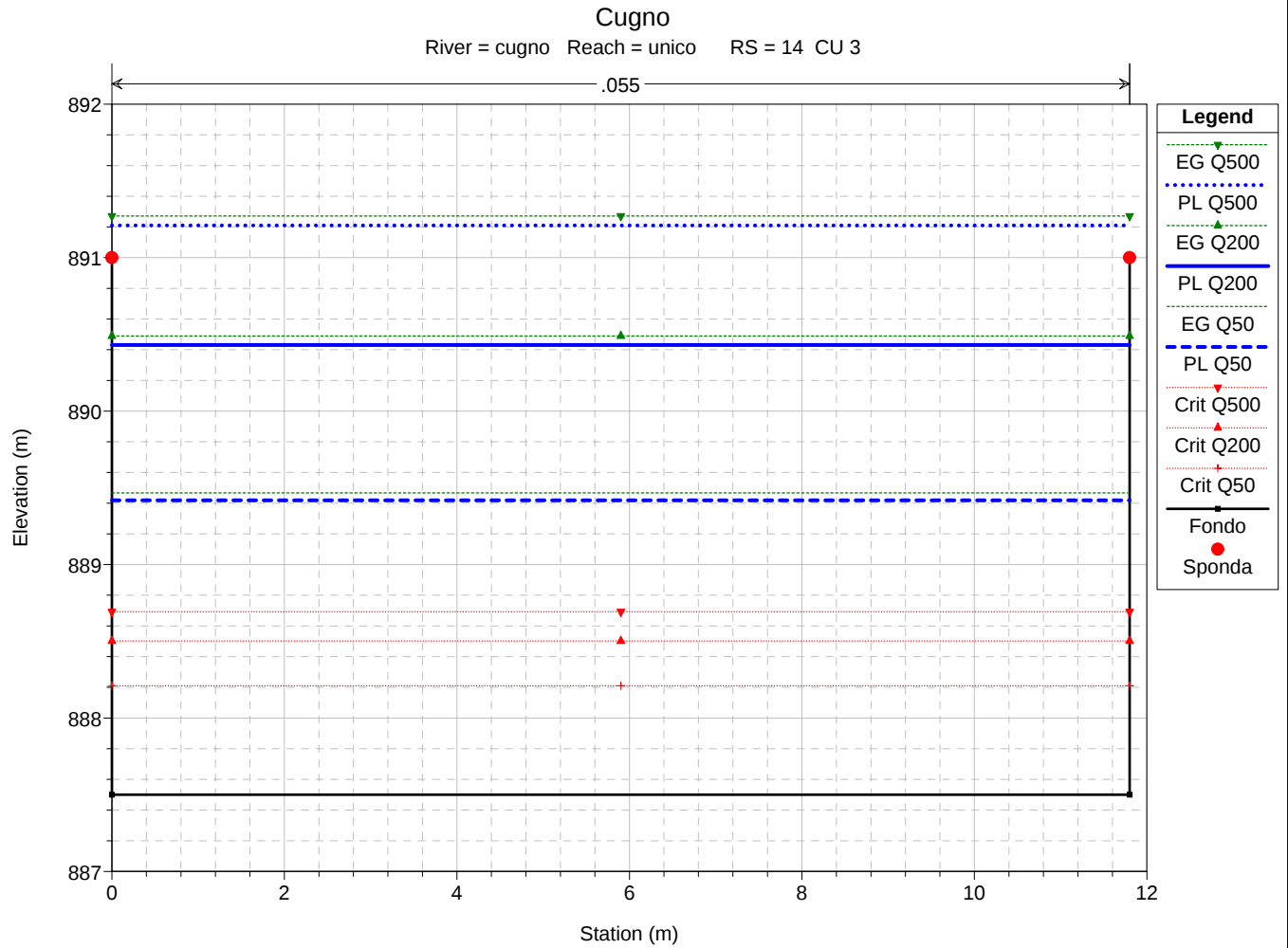


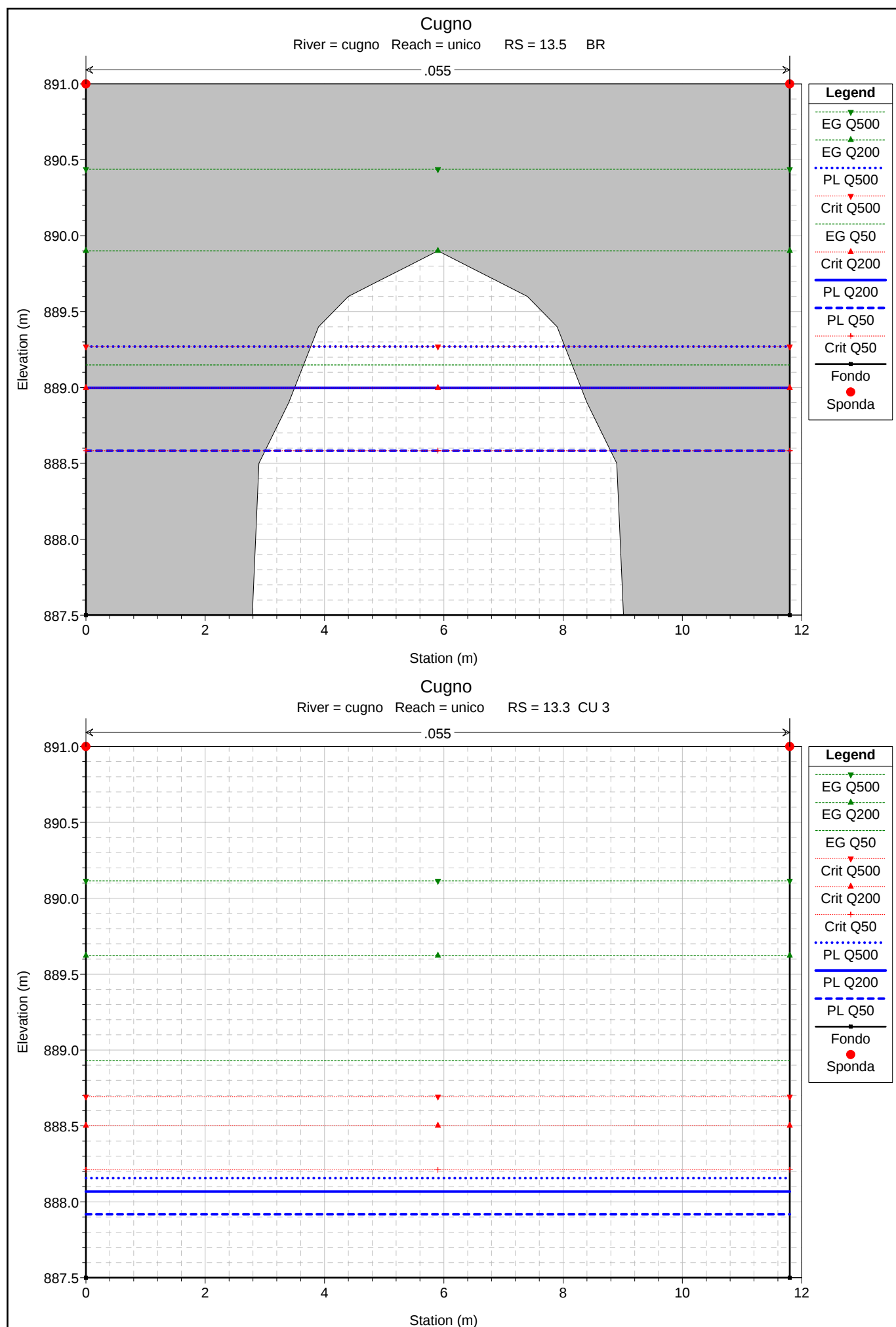
1 cm Horiz. = 20 m 1 cm Vert. = 6.5 m

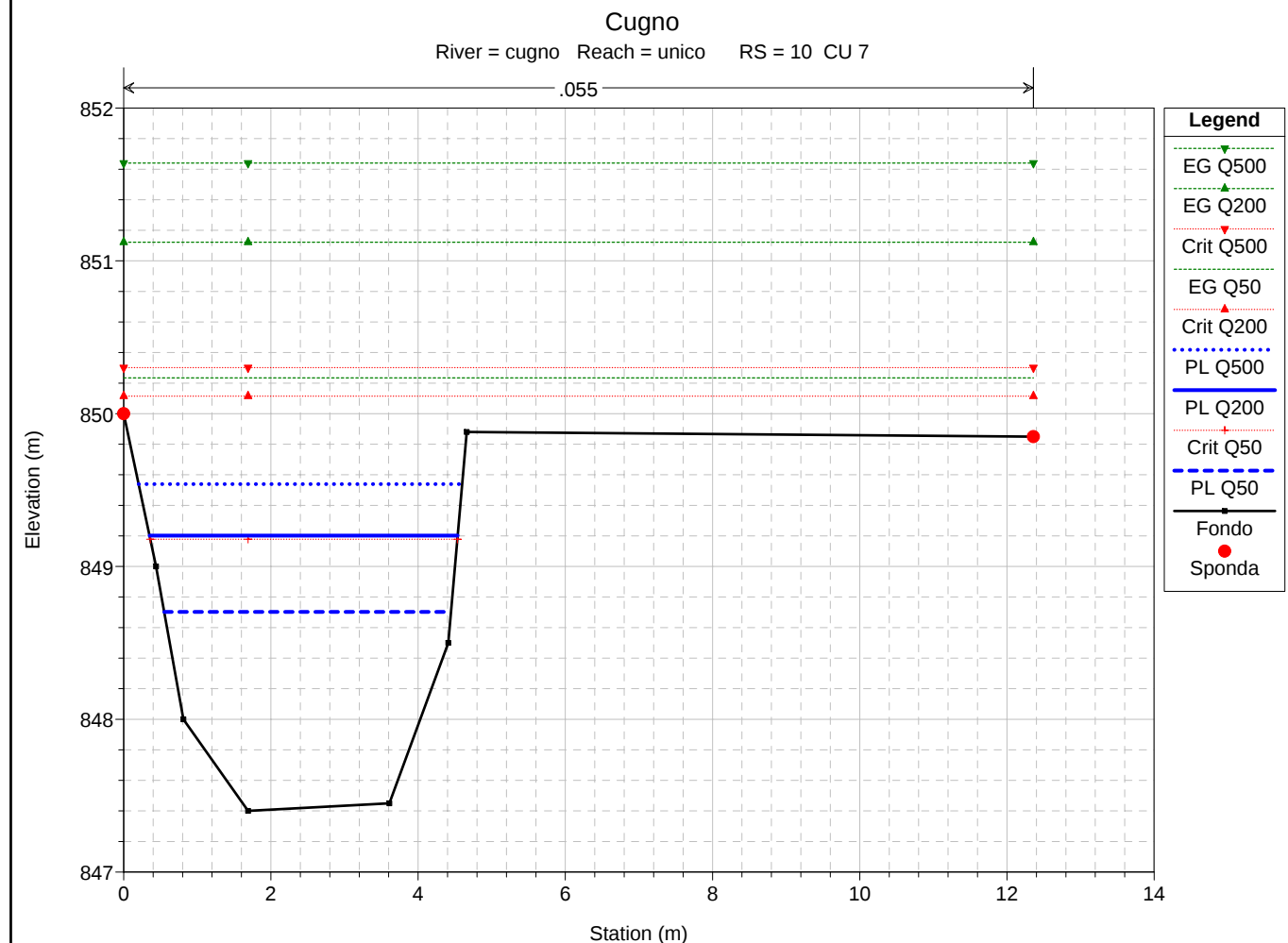
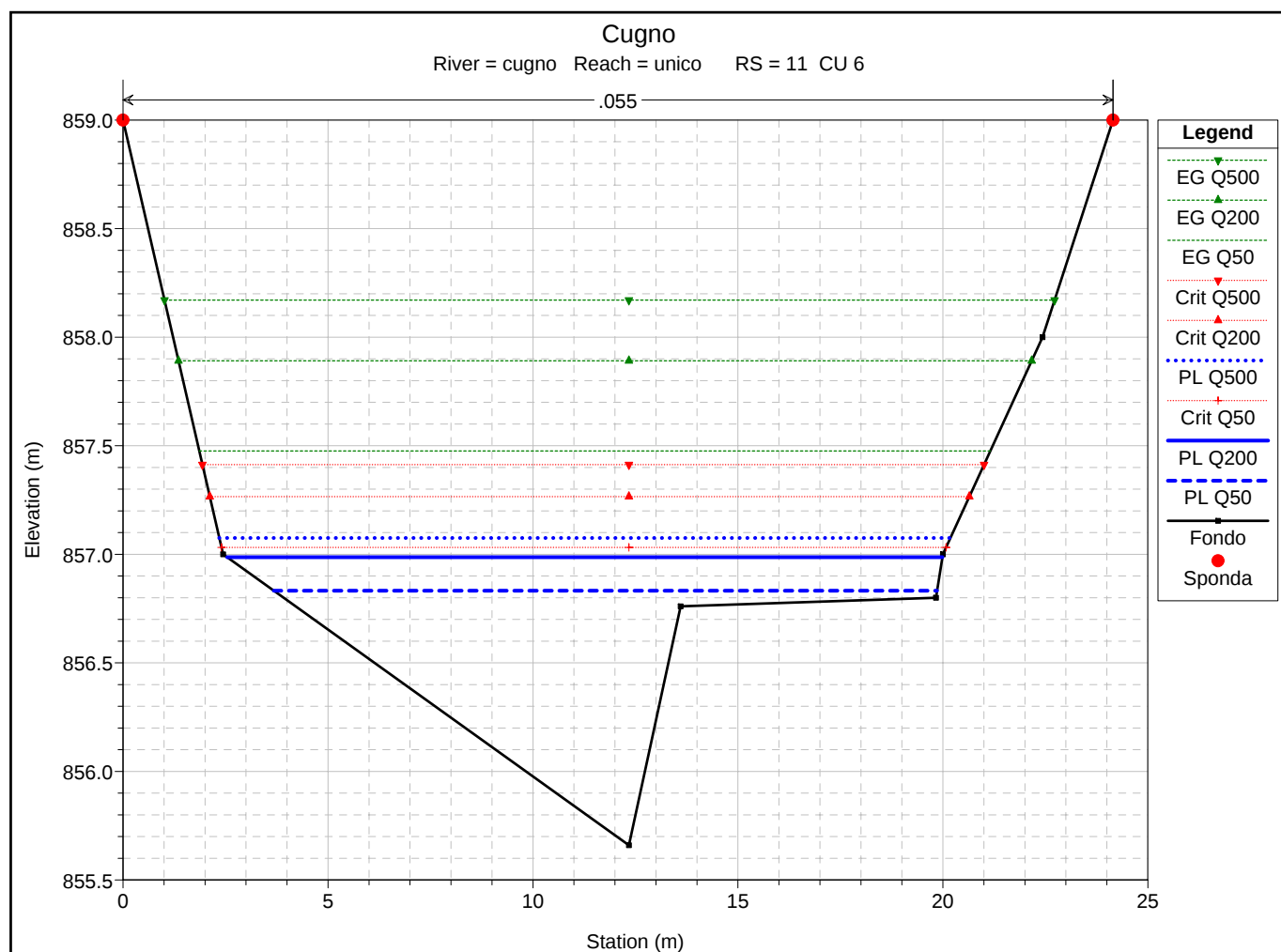


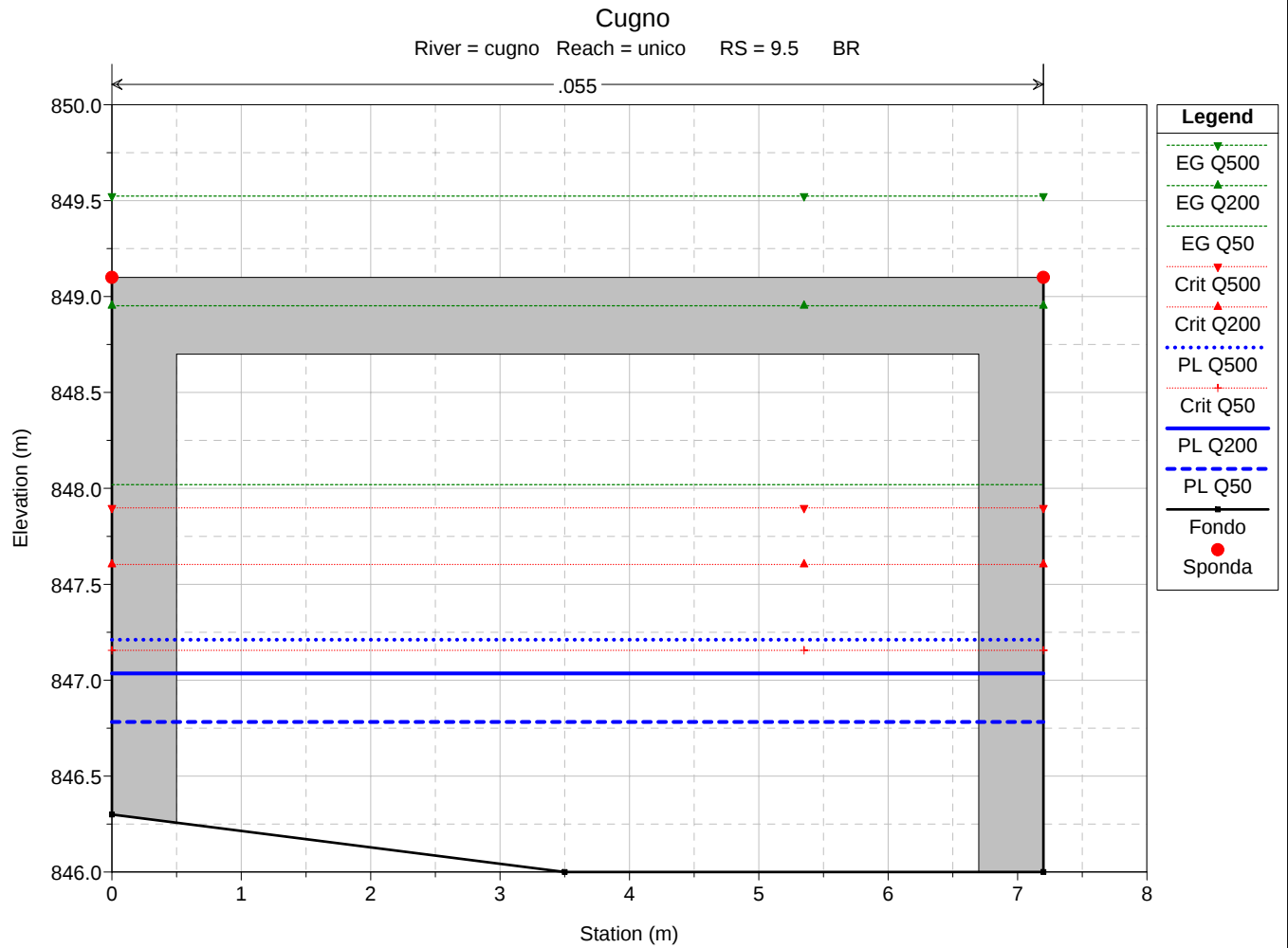
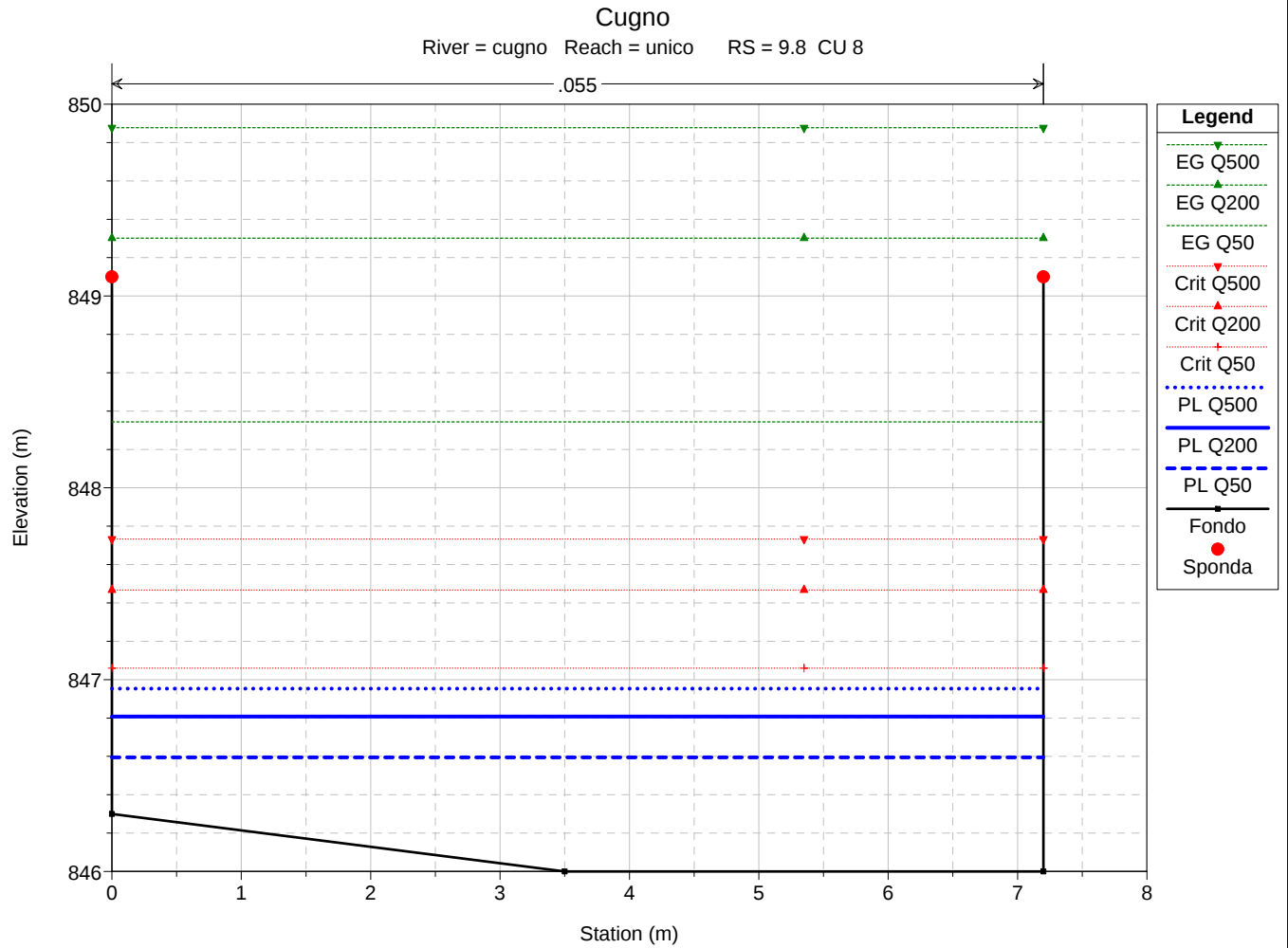


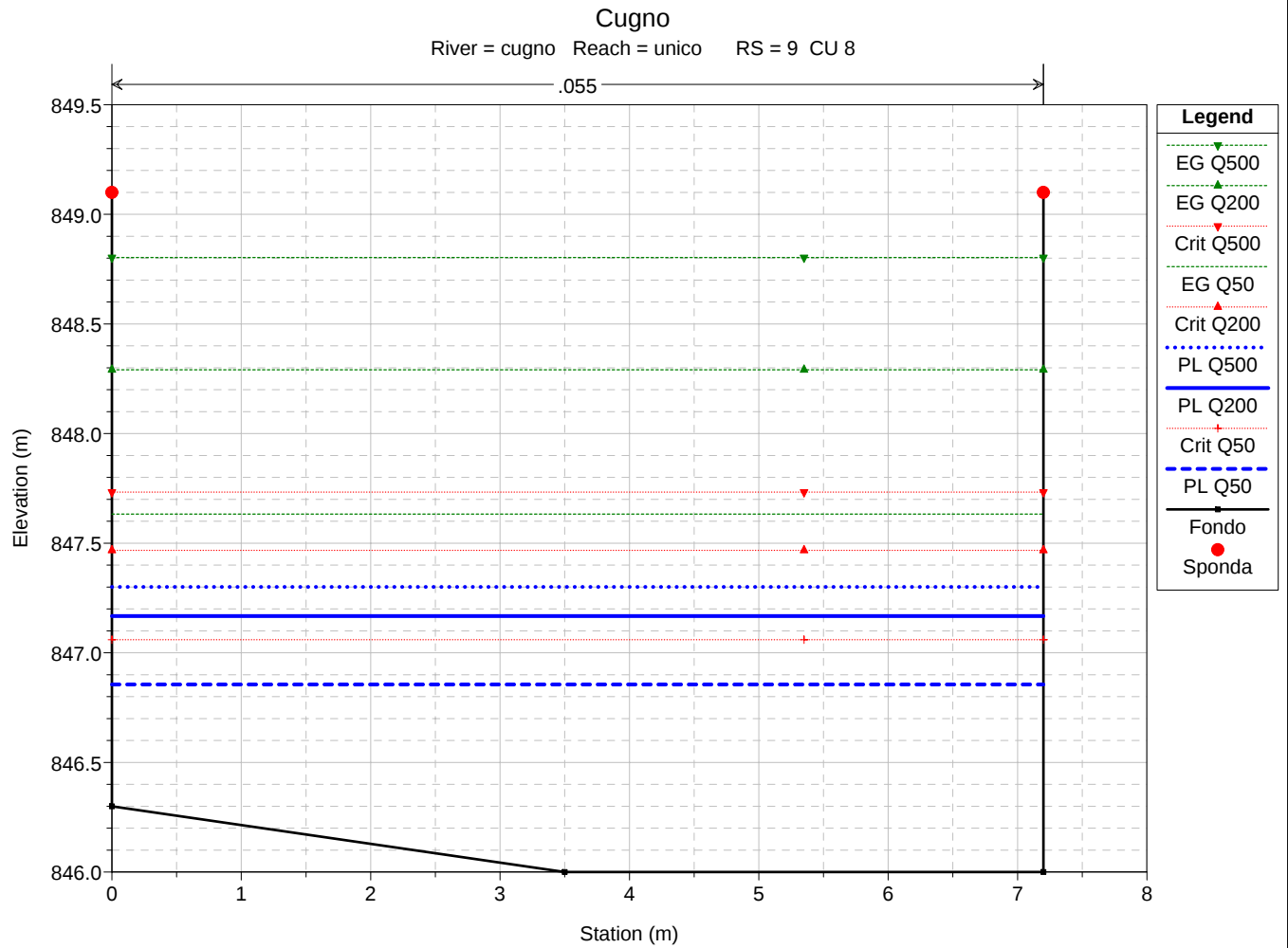
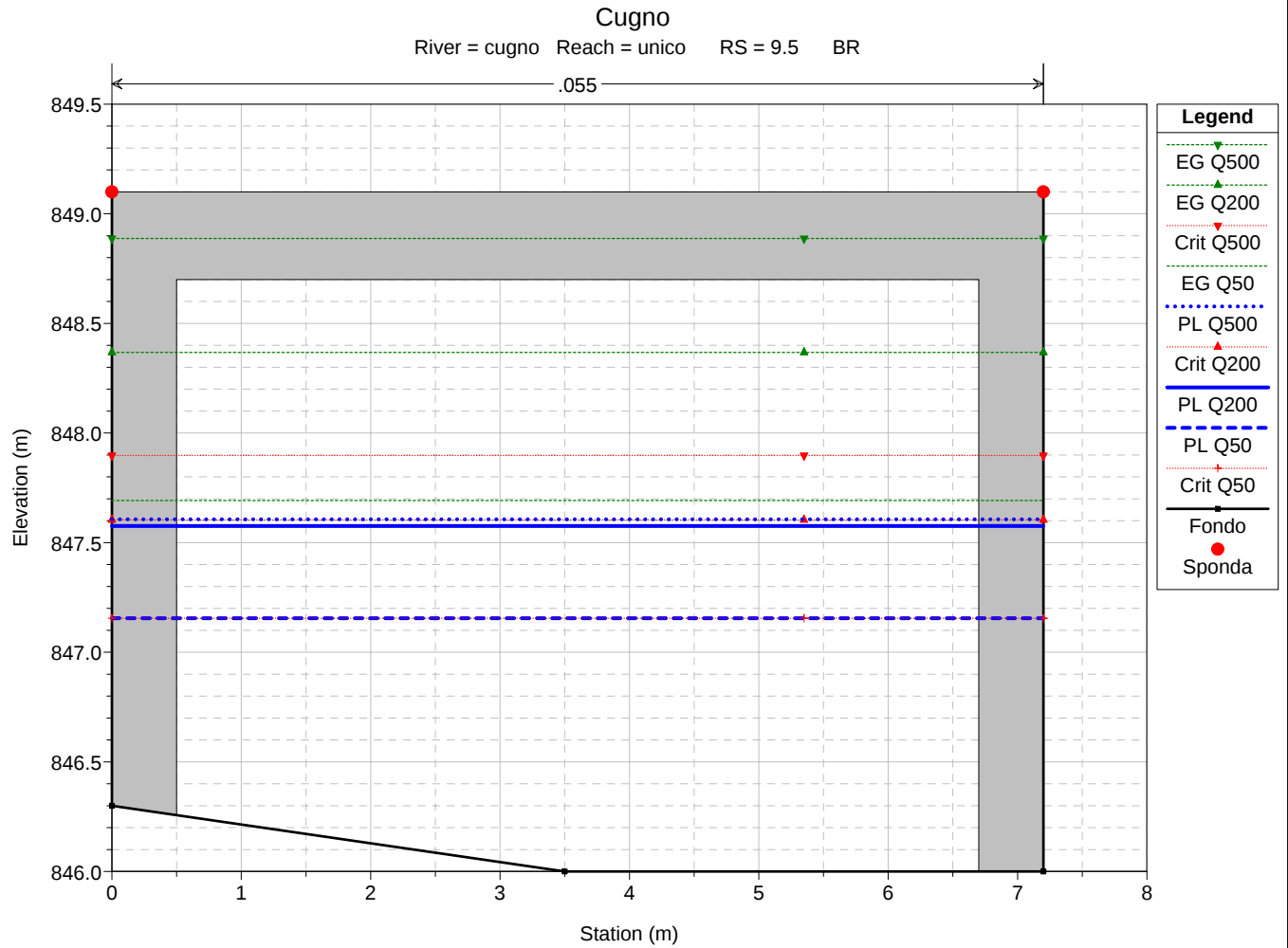
1 cm Horiz. = 20 m 1 cm Vert. = 5 m

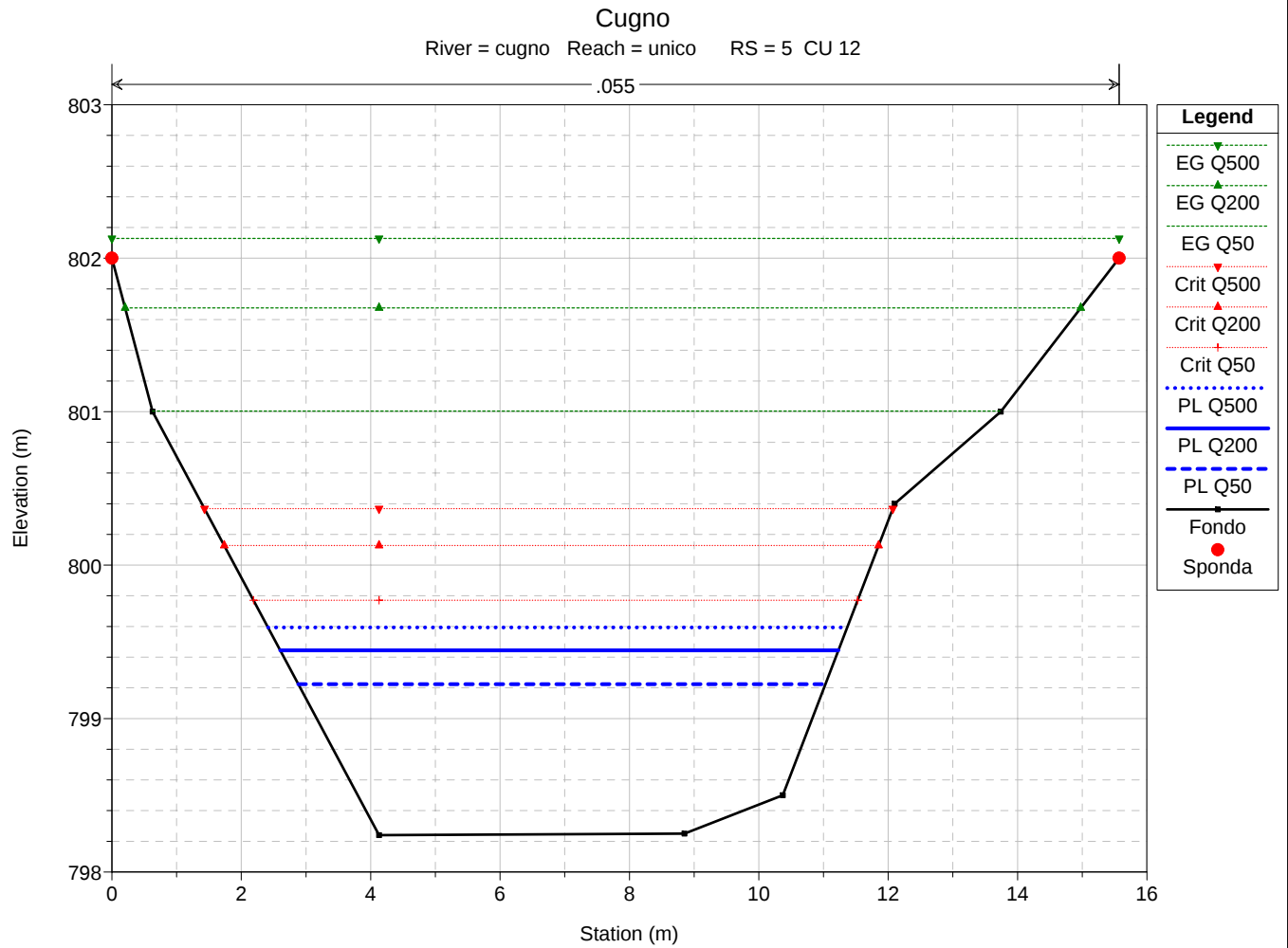
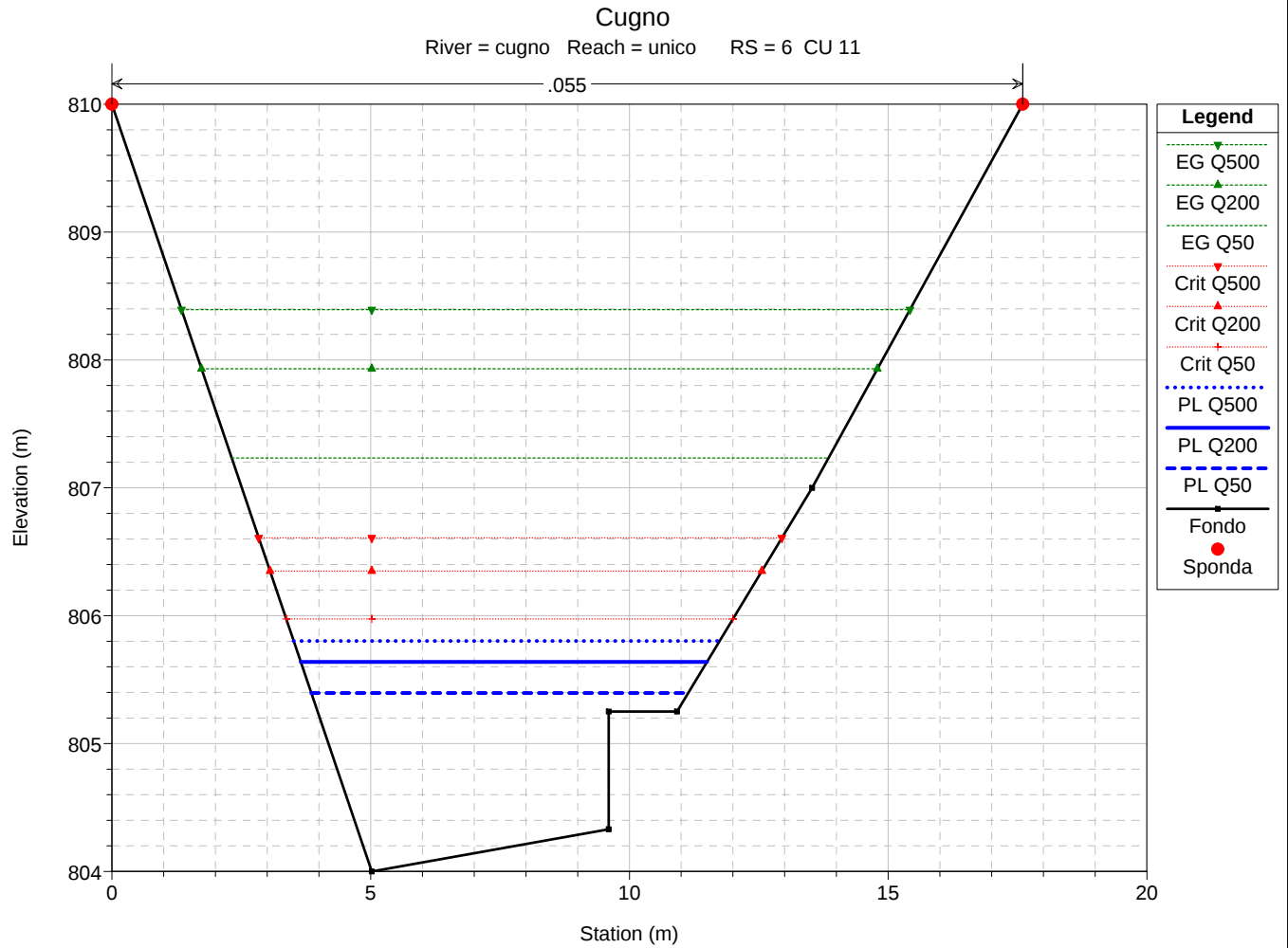


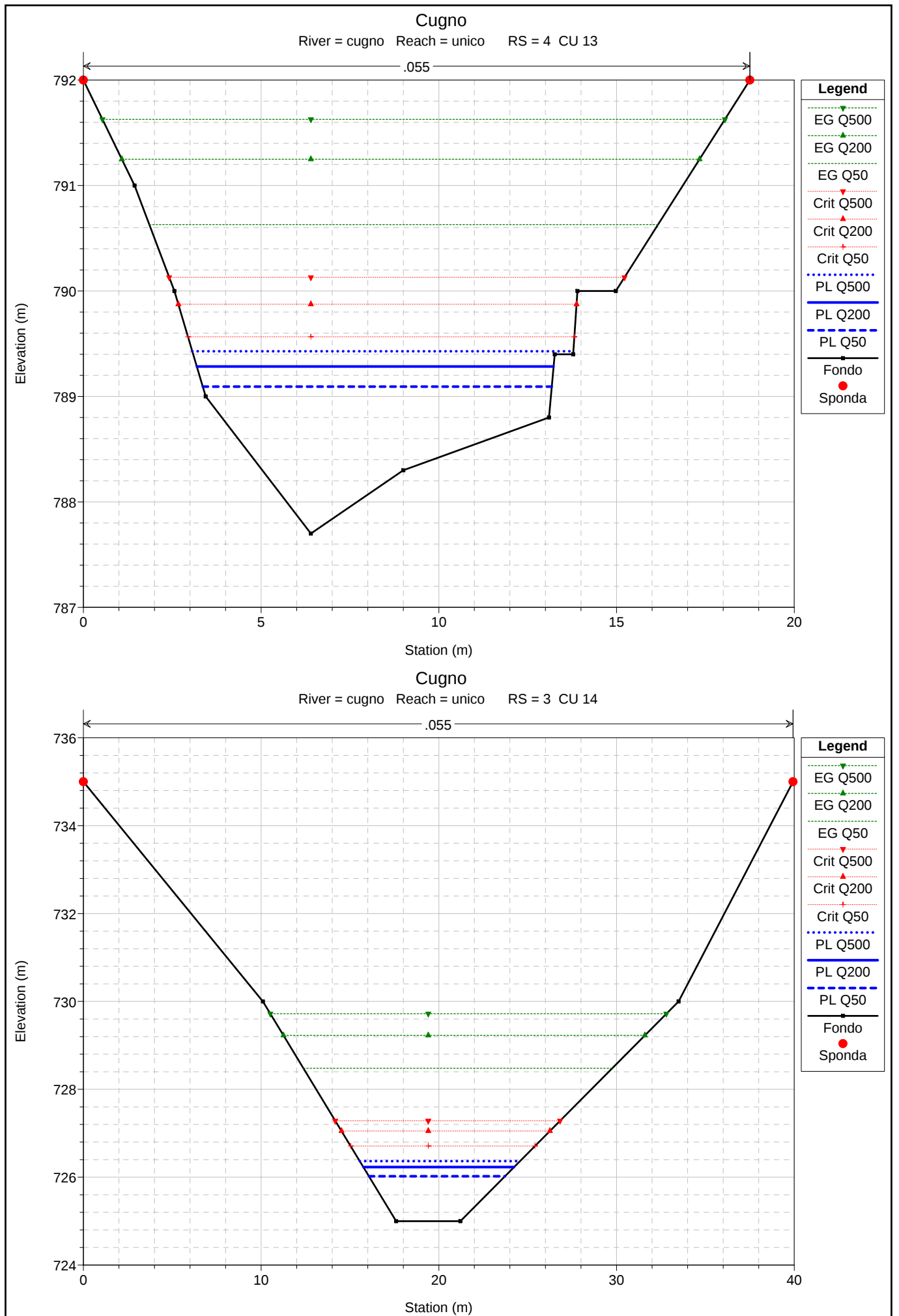


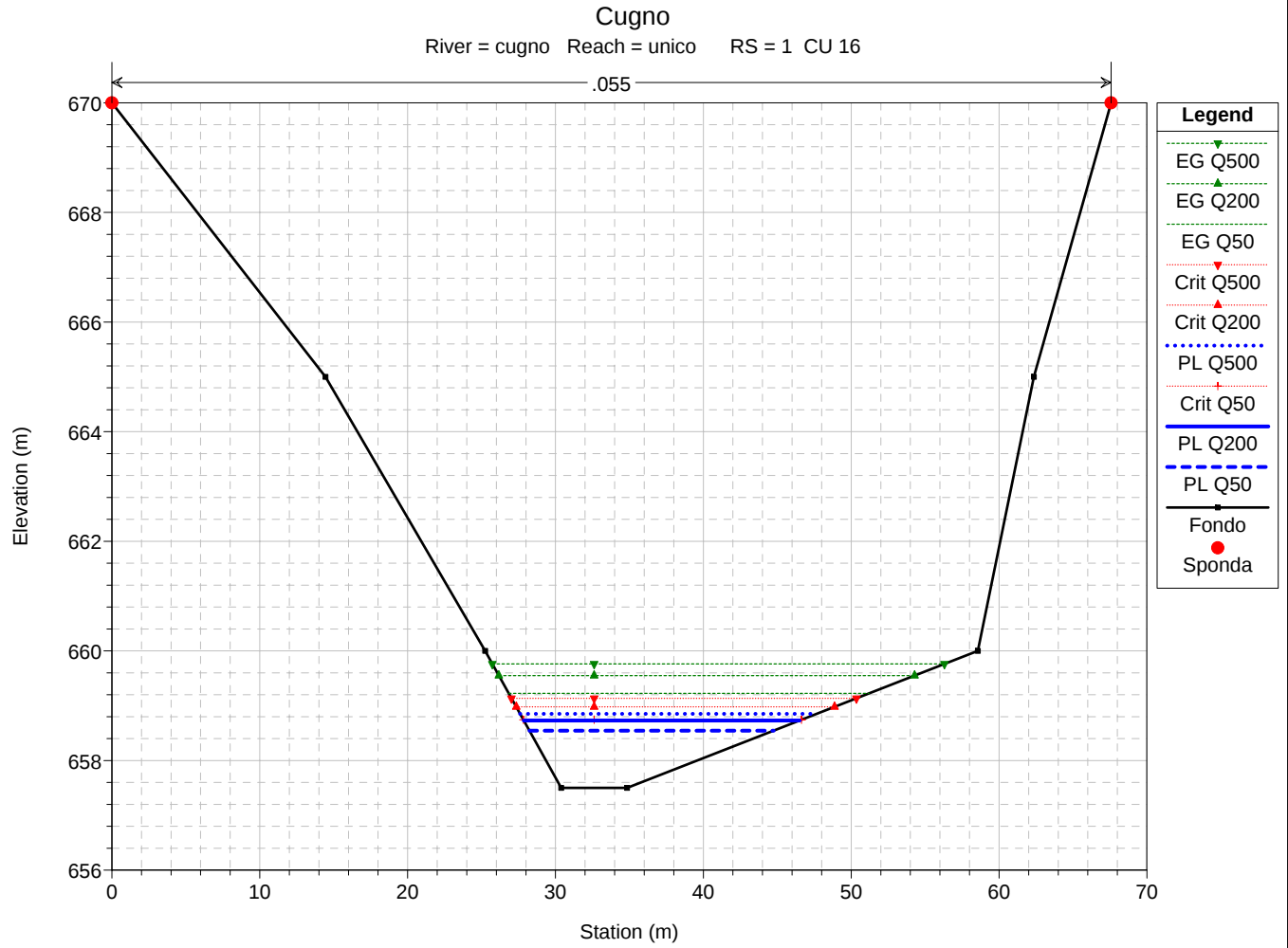
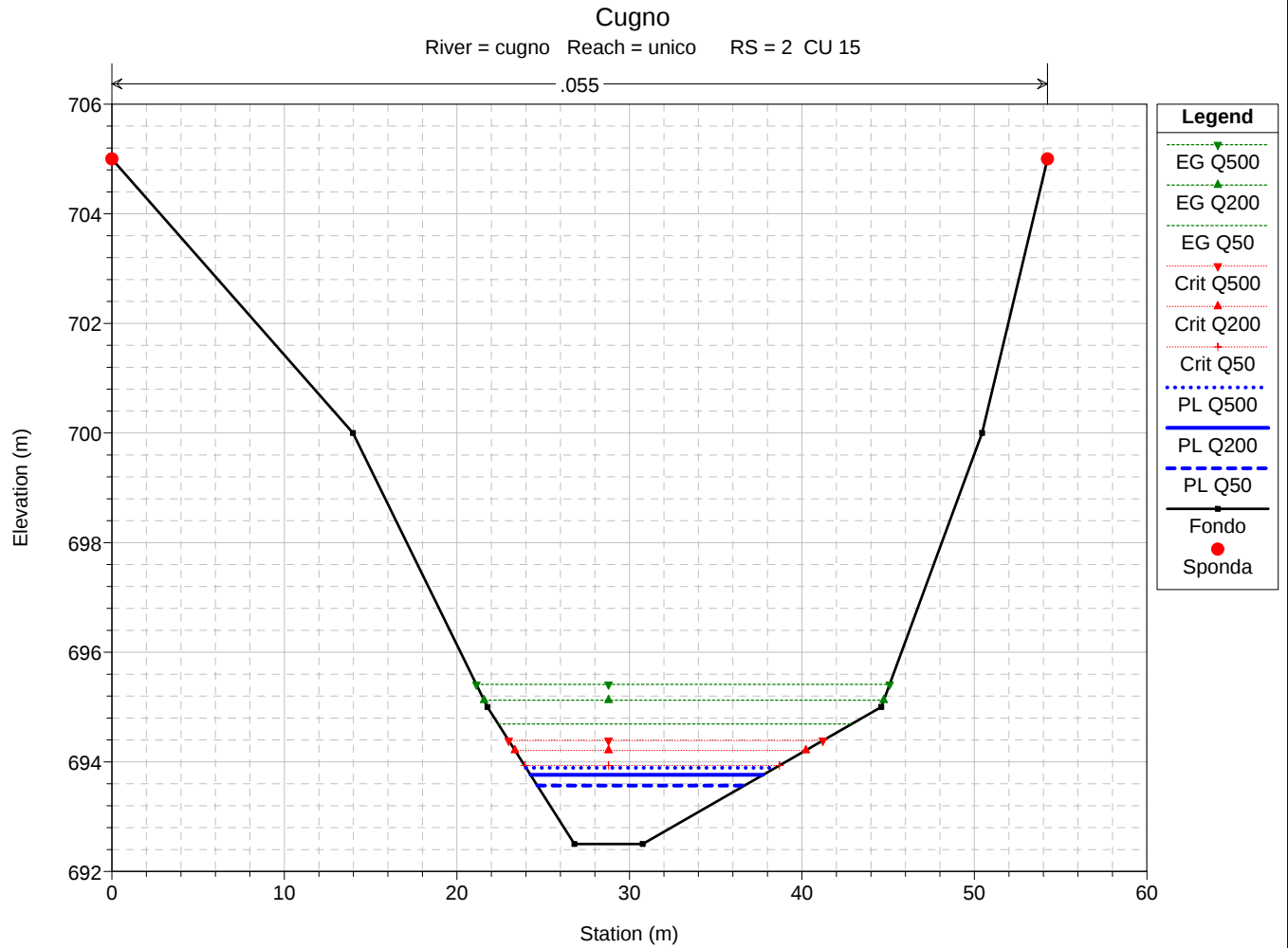












HEC-RAS Plan: 01_Cugno River: cugno Reach: unico

Reach	River Sta		Profile	Q Total	Min Ch El	W.S. Elev	LOB Elev	L. Freeboard	ROB Elev	R. Freeboard	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
unico	16	CU 1	Q50	22.00	894.90	896.28	897.40	1.12	898.00	1.72	896.28	896.79	0.036463	3.16	6.96	6.84	1.00
unico	16	CU 1	Q200	37.00	894.90	896.75	897.40	0.65	898.00	1.25	896.75	897.39	0.033764	3.56	10.41	7.96	0.99
unico	16	CU 1	Q500	48.00	894.90	897.03	897.40	0.37	898.00	0.97	897.03	897.76	0.033051	3.78	12.71	8.67	1.00
unico	15	CU 2	Q50	22.00	890.30	891.10	892.00	0.90	894.00	2.90	891.49	892.47	0.190953	5.18	4.25	7.44	2.19
unico	15	CU 2	Q200	37.00	890.30	891.32	892.00	0.68	894.00	2.68	891.91	893.28	0.191081	6.20	5.97	7.82	2.26
unico	15	CU 2	Q500	48.00	890.30	891.47	892.00	0.53	894.00	2.53	892.18	893.80	0.191496	6.77	7.09	8.06	2.30
unico	14	CU 3	Q50	22.00	887.50	889.42	891.00	1.58	891.00	1.58	888.21	889.47	0.001743	0.97	22.64	11.80	0.22
unico	14	CU 3	Q200	37.00	887.50	890.43	891.00	0.57	891.00	0.57	888.50	890.49	0.001413	1.07	34.58	11.80	0.20
unico	14	CU 3	Q500	48.00	887.50	891.21	891.00	-0.21	891.00	-0.21	888.69	891.27	0.001214	1.10	43.78	11.80	0.18
unico	13.5			Bridge													
unico	13.3	CU 3	Q50	22.00	887.50	887.92	891.00	3.08	891.00	3.08	888.21	888.93	0.210251	4.46	4.94	11.80	2.20
unico	13.3	CU 3	Q200	37.00	887.50	888.07	891.00	2.93	891.00	2.93	888.50	889.62	0.221991	5.52	6.70	11.80	2.34
unico	13.3	CU 3	Q500	48.00	887.50	888.16	891.00	2.84	891.00	2.84	888.69	890.12	0.234907	6.20	7.74	11.80	2.44
unico	13	CU 4	Q50	22.00	884.63	885.63	888.00	2.37	888.00	2.37	886.08	887.10	0.153745	5.37	4.10	5.38	1.96
unico	13	CU 4	Q200	37.00	884.63	885.99	888.00	2.01	888.00	2.01	886.57	887.87	0.137688	6.07	6.09	5.80	1.89
unico	13	CU 4	Q500	48.00	884.63	886.20	888.00	1.80	888.00	1.80	887.03	888.36	0.134070	6.50	7.38	6.06	1.88
unico	12	CU 5	Q50	22.00	876.60	877.68	883.10	5.43	884.00	6.32	877.89	878.42	0.080694	3.82	5.76	8.64	1.49
unico	12	CU 5	Q200	37.00	876.60	877.95	883.10	5.15	884.00	6.05	878.26	878.97	0.081226	4.49	8.23	9.63	1.55
unico	12	CU 5	Q500	48.00	876.60	878.11	883.10	4.99	884.00	5.89	878.48	879.32	0.081848	4.88	9.83	10.14	1.58
unico	11	CU 6	Q50	22.00	855.66	856.83	859.00	2.17	859.00	2.17	857.03	857.48	0.143417	3.55	6.19	16.18	1.83
unico	11	CU 6	Q200	37.00	855.66	856.99	859.00	2.01	859.00	2.01	857.27	857.89	0.140398	4.22	8.78	17.45	1.90
unico	11	CU 6	Q500	48.00	855.66	857.08	859.00	1.92	859.00	1.92	857.41	858.17	0.140790	4.64	10.35	17.84	1.94
unico	10	CU 7	Q50	22.00	847.40	848.70	850.00	1.30	849.85	1.15	849.18	850.23	0.130466	5.48	4.01	3.90	1.72
unico	10	CU 7	Q200	37.00	847.40	849.20	850.00	0.80	849.85	0.65	850.11	851.12	0.121072	6.14	6.03	4.19	1.63
unico	10	CU 7	Q500	48.00	847.40	849.54	850.00	0.46	849.85	0.31	850.30	851.64	0.114686	6.42	7.47	4.40	1.57
unico	9.8	CU 8	Q50	22.00	846.00	846.59	849.10	2.51	849.10	2.51	847.06	848.34	0.289626	5.86	3.75	7.20	2.59
unico	9.8	CU 8	Q200	37.00	846.00	846.81	849.10	2.29	849.10	2.29	847.47	849.30	0.280087	7.00	5.29	7.20	2.61
unico	9.8	CU 8	Q500	48.00	846.00	846.95	849.10	2.15	849.10	2.15	847.73	849.88	0.269811	7.58	6.34	7.20	2.58
unico	9.5			Bridge													
unico	9	CU 8	Q50	22.00	846.00	846.86	849.10	2.24	849.10	2.24	847.06	847.63	0.081366	3.90	5.63	7.20	1.41
unico	9	CU 8	Q200	37.00	846.00	847.17	849.10	1.93	849.10	1.93	847.47	848.29	0.082590	4.70	7.88	7.20	1.43
unico	9	CU 8	Q500	48.00	846.00	847.30	849.10	1.80	849.10	1.80	847.73	848.80	0.098403	5.43	8.84	7.20	1.56
unico	8	CU 9	Q50	40.00	823.75	824.53	828.00	3.47	828.00	3.47	824.80	825.41	0.096372	4.16	9.63	14.68	1.64
unico	8	CU 9	Q200	57.00	823.75	824.68	828.00	3.32	828.00	3.32	825.05	825.87	0.104379	4.85	11.75	14.99	1.75
unico	8	CU 9	Q500	70.00	823.75	824.78	828.00	3.22	828.00	3.22	825.21	826.19	0.107608	5.27	13.28	15.20	1.80
unico	7	CU 10	Q50	40.00	818.30	820.20	823.30	3.10	824.00	3.80	820.65	821.64	0.084766	5.33	7.51	5.60	1.47
unico	7	CU 10	Q200	57.00	818.30	820.63	823.30	2.67	824.00	3.37	821.12	822.25	0.077994	5.65	10.10	6.38	1.43
unico	7	CU 10	Q500	70.00	818.30	820.92	823.30	2.38	824.00	3.08	821.43	822.65	0.073658	5.82	12.03	6.90	1.41
unico	6	CU 11	Q50	40.00	804.00	805.40	810.00	4.60	810.00	4.60	805.97	807.23	0.160979	6.01	6.66	7.29	2.01

HEC-RAS Plan: 01_Cugno River: cugno Reach: unico (Continued)

Reach	River Sta		Profile	Q Total	Min Ch El	W.S. Elev	LOB Elev	L. Freeboard	ROB Elev	R. Freeboard	Crit W.S.	E.G. Elev	E.G. Slope	Vel Chnl	Flow Area	Top Width	Froude # Chl
				(m3/s)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m/m)	(m/s)	(m2)	(m)	
unico	6	CU 11	Q200	57.00	804.00	805.64	810.00	4.36	810.00	4.36	806.35	807.93	0.161556	6.71	8.50	7.85	2.06
unico	6	CU 11	Q500	70.00	804.00	805.80	810.00	4.20	810.00	4.20	806.61	808.39	0.161374	7.13	9.82	8.23	2.08
unico	5	CU 12	Q50	40.00	798.24	799.22	802.00	2.78	802.00	2.78	799.77	801.00	0.150668	5.91	6.77	8.15	2.07
unico	5	CU 12	Q200	57.00	798.24	799.44	802.00	2.56	802.00	2.56	800.13	801.68	0.150611	6.62	8.61	8.63	2.11
unico	5	CU 12	Q500	70.00	798.24	799.59	802.00	2.41	802.00	2.41	800.37	802.13	0.150596	7.05	9.92	8.95	2.14
unico	4	CU 13	Q50	40.00	787.70	789.09	792.00	2.91	792.00	2.91	789.57	790.63	0.147868	5.49	7.28	9.82	2.04
unico	4	CU 13	Q200	57.00	787.70	789.28	792.00	2.72	792.00	2.72	789.87	791.25	0.146977	6.21	9.18	10.04	2.07
unico	4	CU 13	Q500	70.00	787.70	789.43	792.00	2.57	792.00	2.57	790.13	791.63	0.149182	6.57	10.65	10.72	2.10
unico	3	CU 14	Q50	40.00	725.00	726.02	735.00	8.98	735.00	8.98	726.71	728.48	0.232558	6.95	5.76	7.65	2.56
unico	3	CU 14	Q200	57.00	725.00	726.23	735.00	8.77	735.00	8.77	727.05	729.23	0.232791	7.67	7.43	8.48	2.61
unico	3	CU 14	Q500	70.00	725.00	726.37	735.00	8.63	735.00	8.63	727.28	729.72	0.232714	8.11	8.63	9.02	2.65
unico	2	CU 15	Q50	40.00	692.50	693.57	705.00	11.43	705.00	11.43	693.93	694.69	0.109871	4.70	8.51	12.01	1.78
unico	2	CU 15	Q200	57.00	692.50	693.76	705.00	11.24	705.00	11.24	694.21	695.13	0.110284	5.17	11.02	13.49	1.83
unico	2	CU 15	Q500	70.00	692.50	693.89	705.00	11.11	705.00	11.11	694.39	695.41	0.110571	5.46	12.81	14.46	1.85
unico	1	CU 16	Q50	40.00	657.50	658.54	670.00	11.46	670.00	11.46	658.74	659.22	0.071426	3.65	10.95	16.52	1.43
unico	1	CU 16	Q200	57.00	657.50	658.73	670.00	11.27	670.00	11.27	658.98	659.55	0.071554	4.01	14.22	18.66	1.47
unico	1	CU 16	Q500	70.00	657.50	658.85	670.00	11.15	670.00	11.15	659.13	659.76	0.071617	4.23	16.55	20.05	1.49
unico	0.1		Q50	40.00	640.00	651.63	648.00	-3.63	655.00	3.37	642.73	651.63	0.000013	0.17	228.75	42.36	0.02
unico	0.1		Q200	57.00	640.00	652.45	648.00	-4.45	655.00	2.55	643.26	652.45	0.000018	0.22	264.44	44.71	0.03
unico	0.1		Q500	70.00	640.00	652.99	648.00	-4.99	655.00	2.01	643.61	652.99	0.000021	0.24	289.00	46.25	0.03