

PIANO DI BACINO STRALCIO
per la difesa idraulica ed idrogeologica



TORRENTE ARMEA E RIO FONTI
(Ambito di Bacino n° 4 – Argentina)



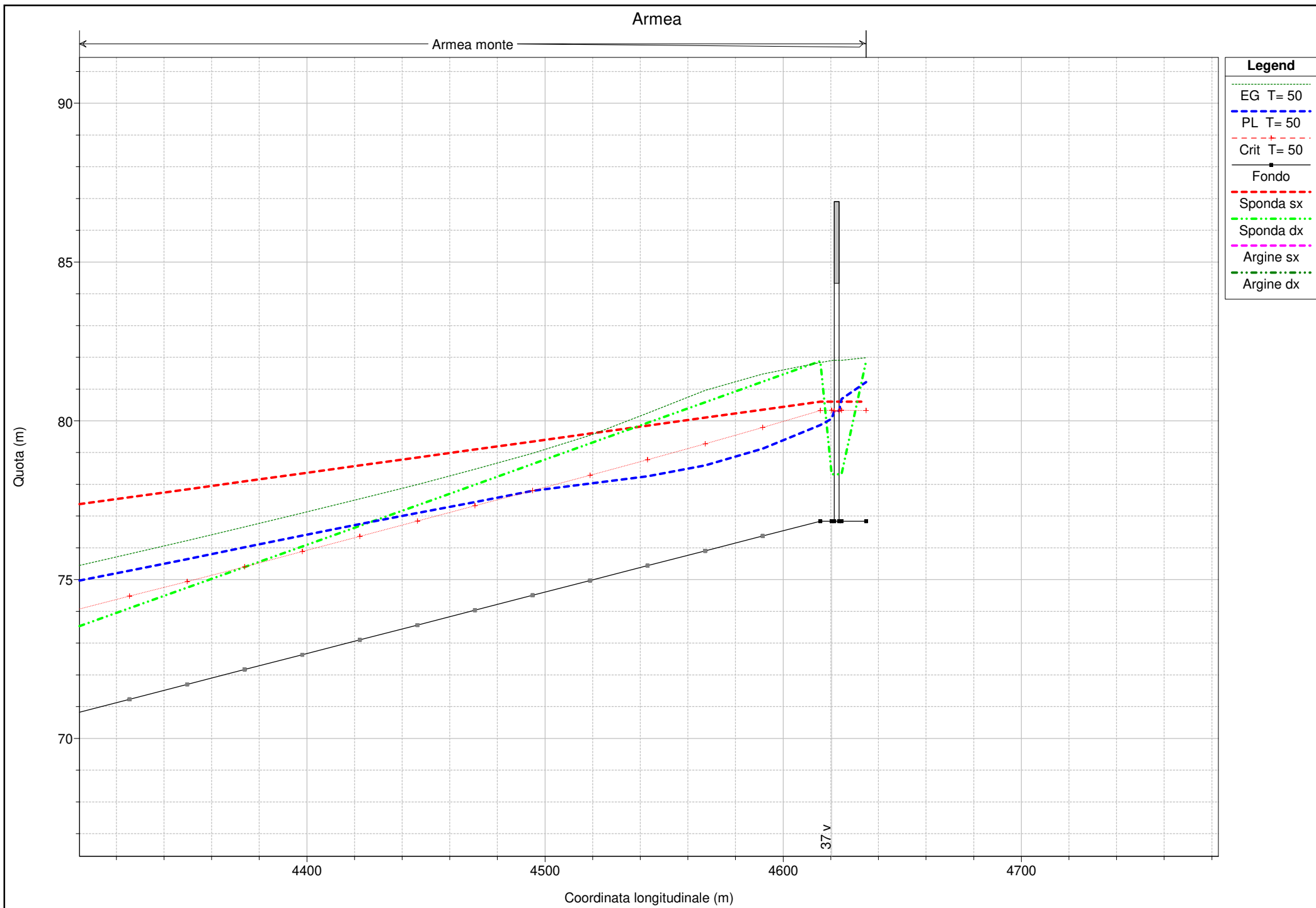
**PROVINCIA DI
IMPERIA**

RELAZIONE

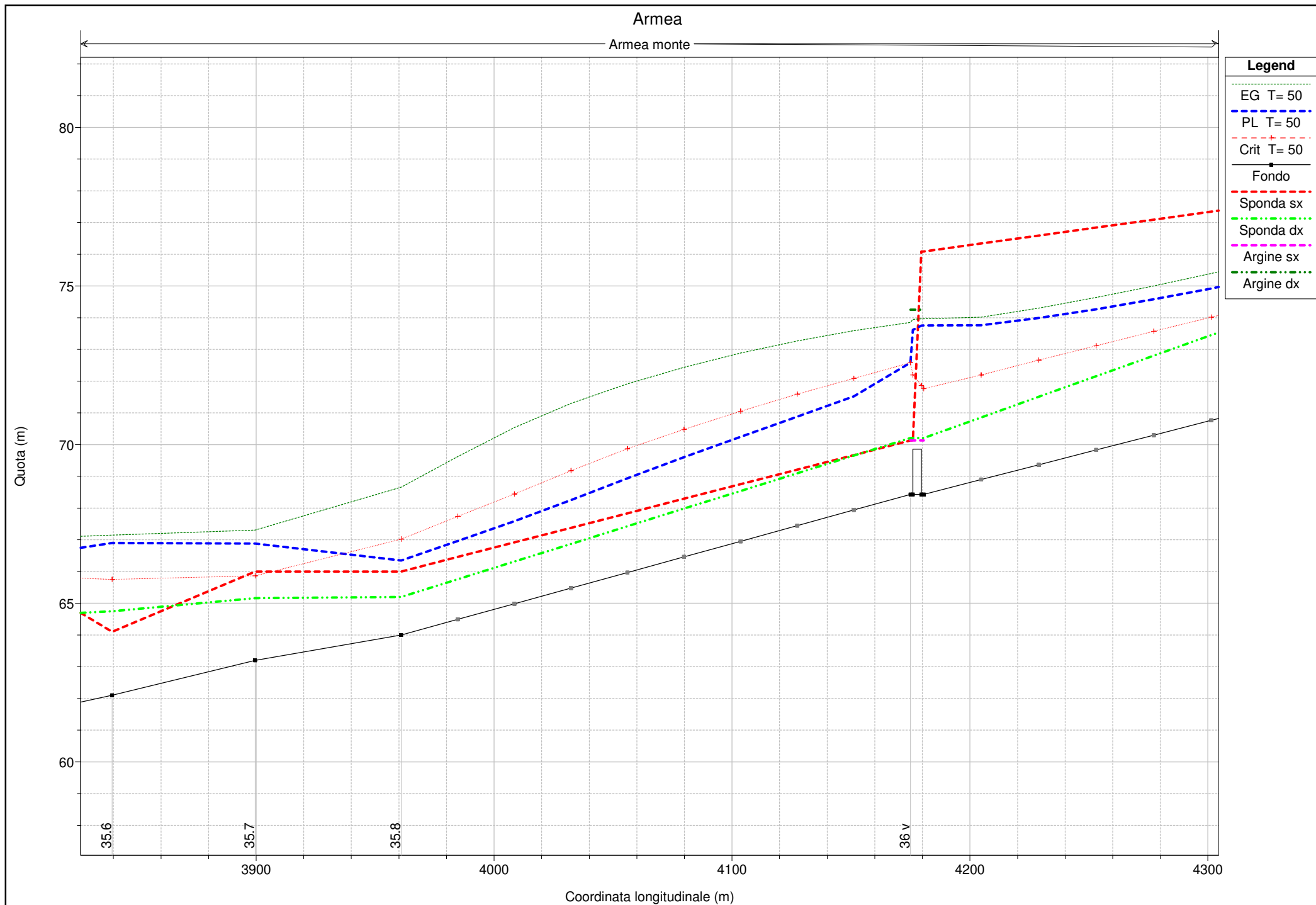


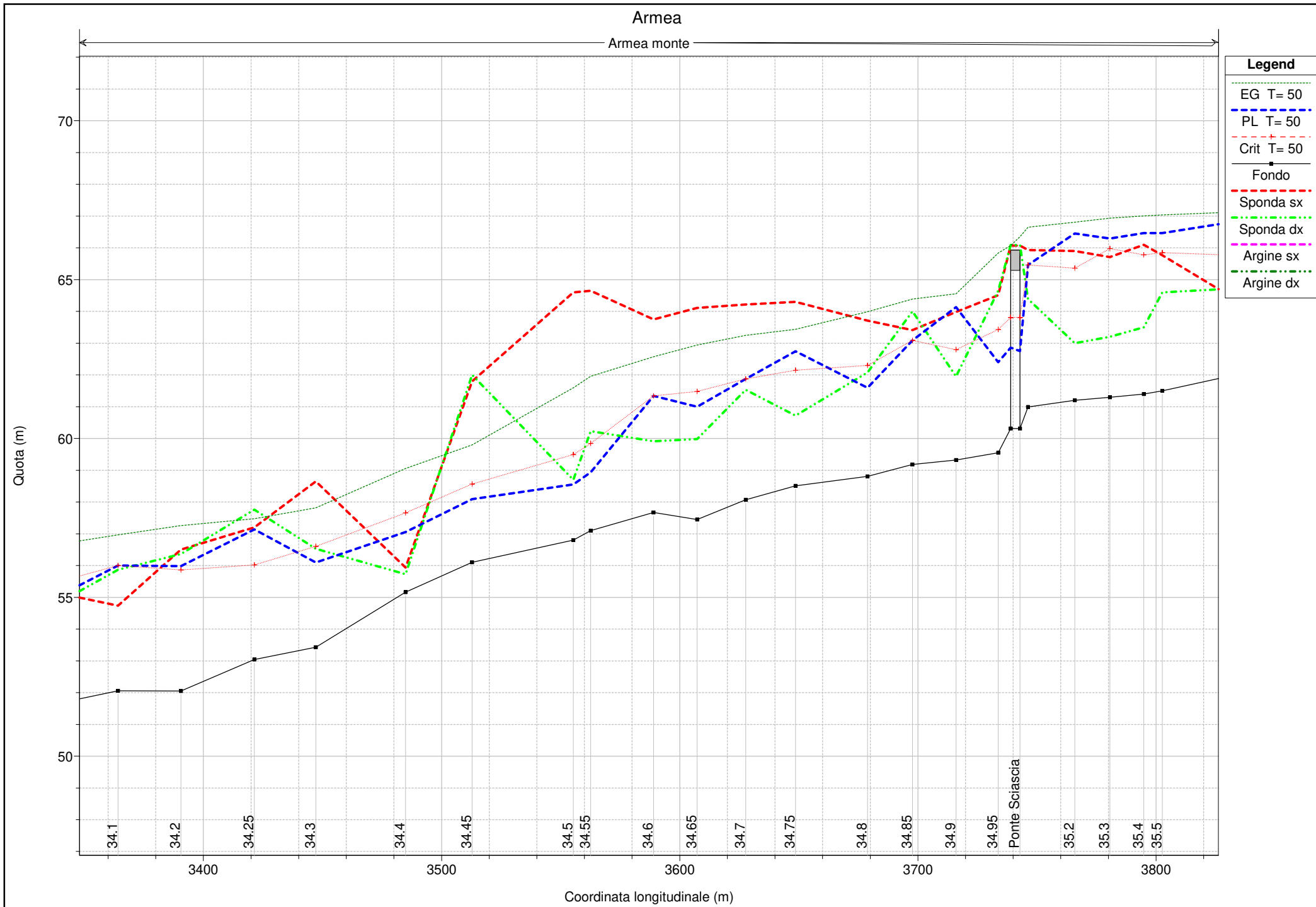
VERIFICHE IDRAULICHE
Torrente Armea

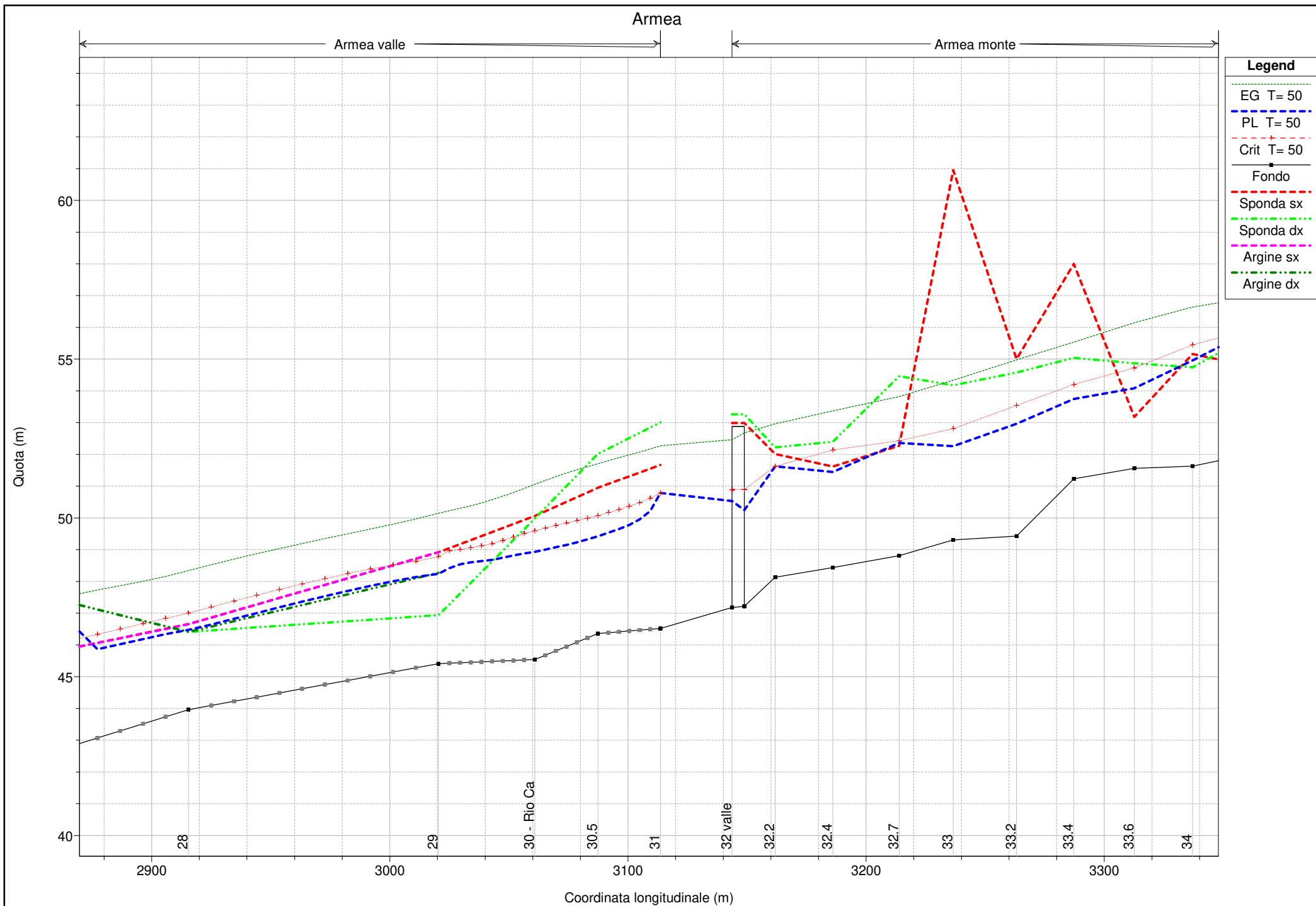
**AUTORITA' DI
BACINO
REGIONALE**
Regione Liguria



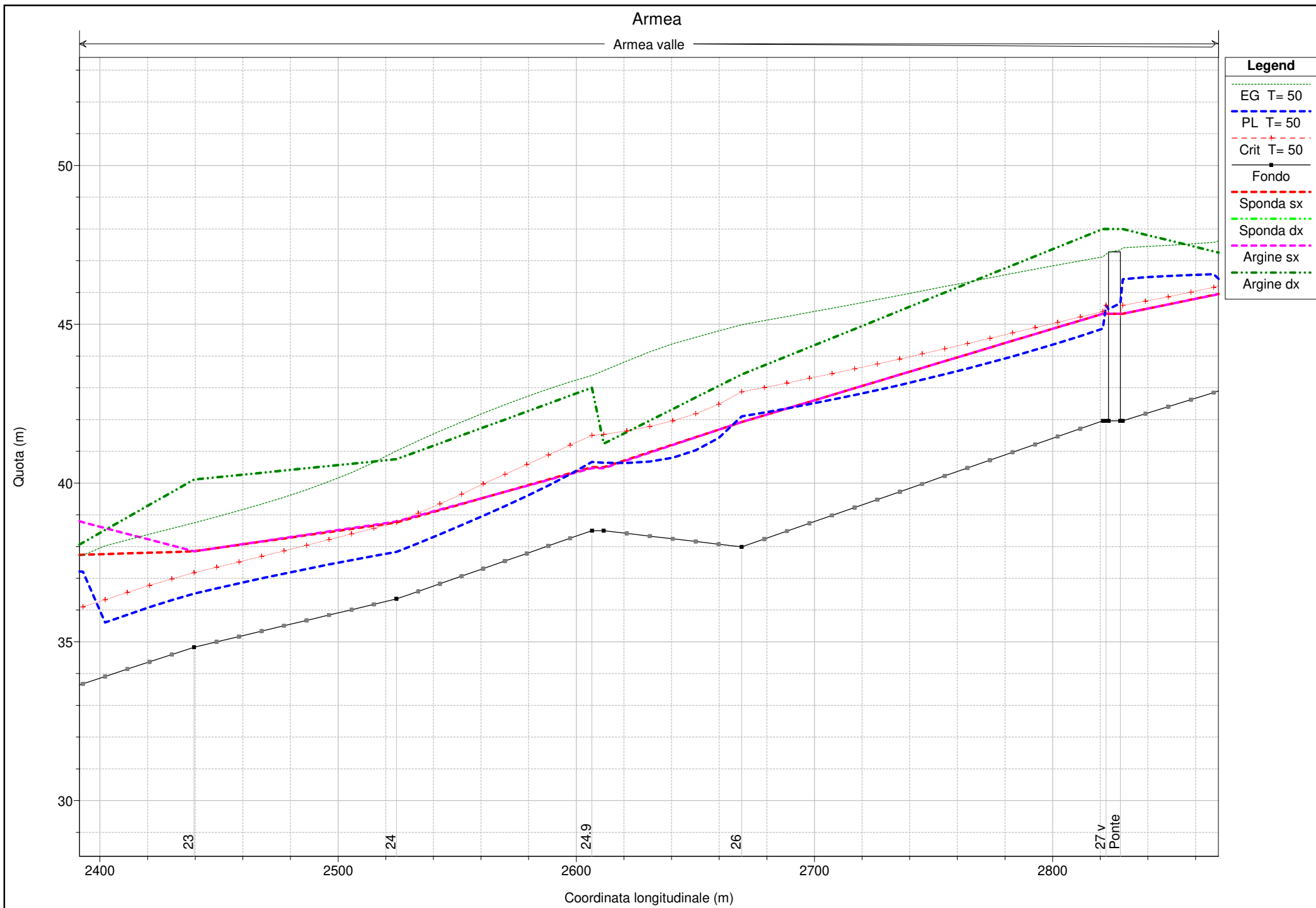
1 cm Horiz. = 20 m 1 cm Vert. = 1.5 m

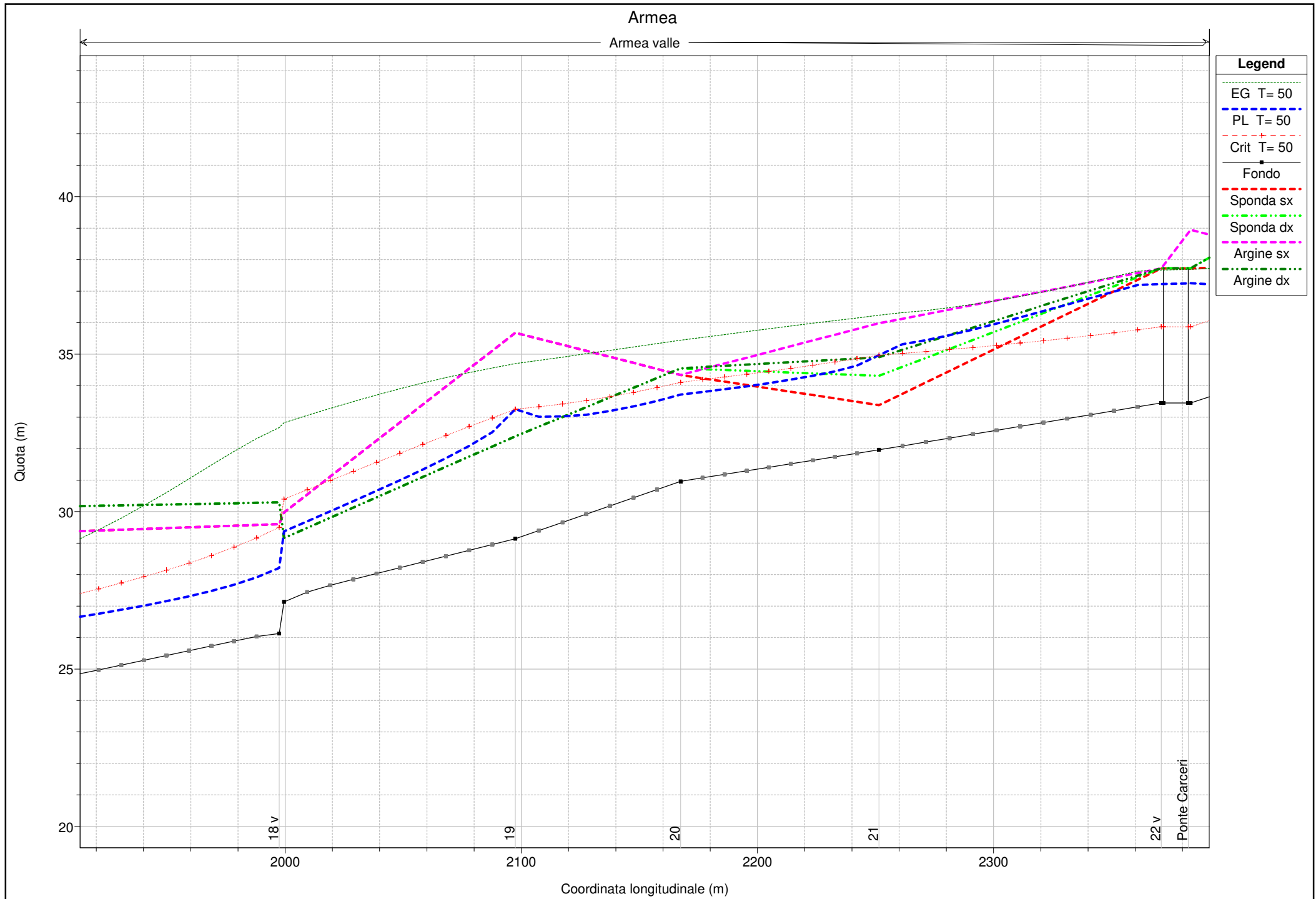




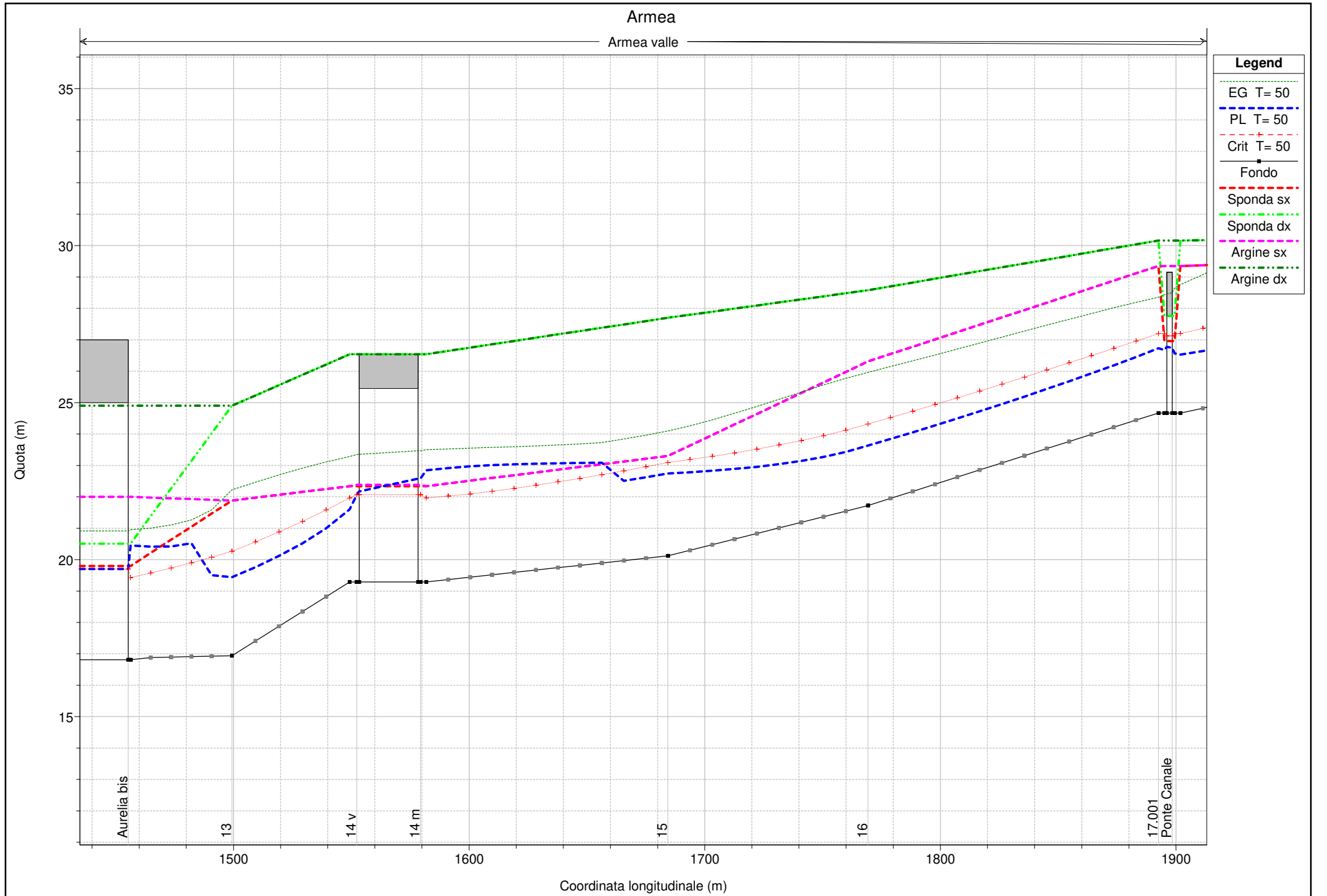


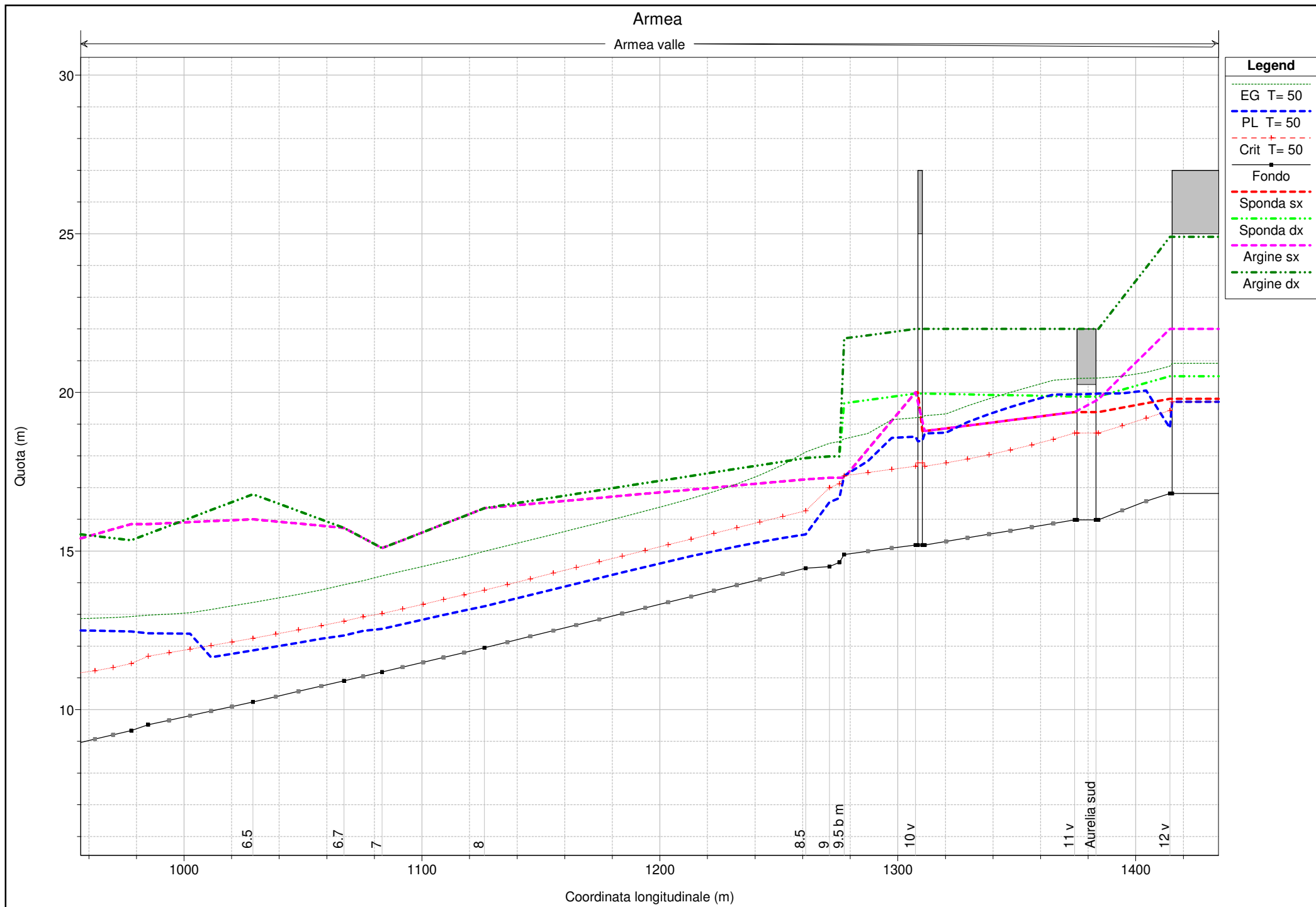
1 cm Horiz. = 20 m 1 cm Vert. = 1.5 m

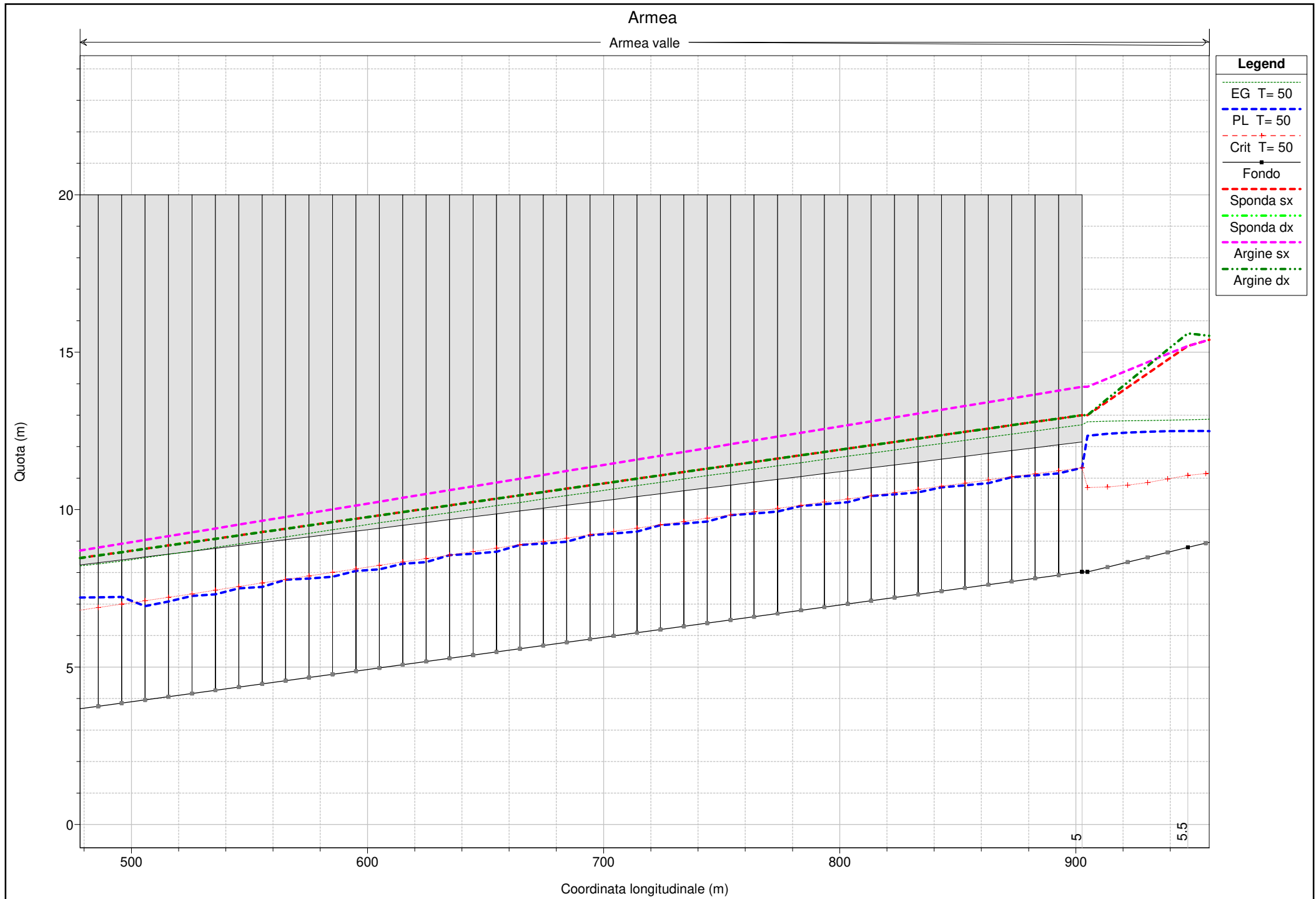


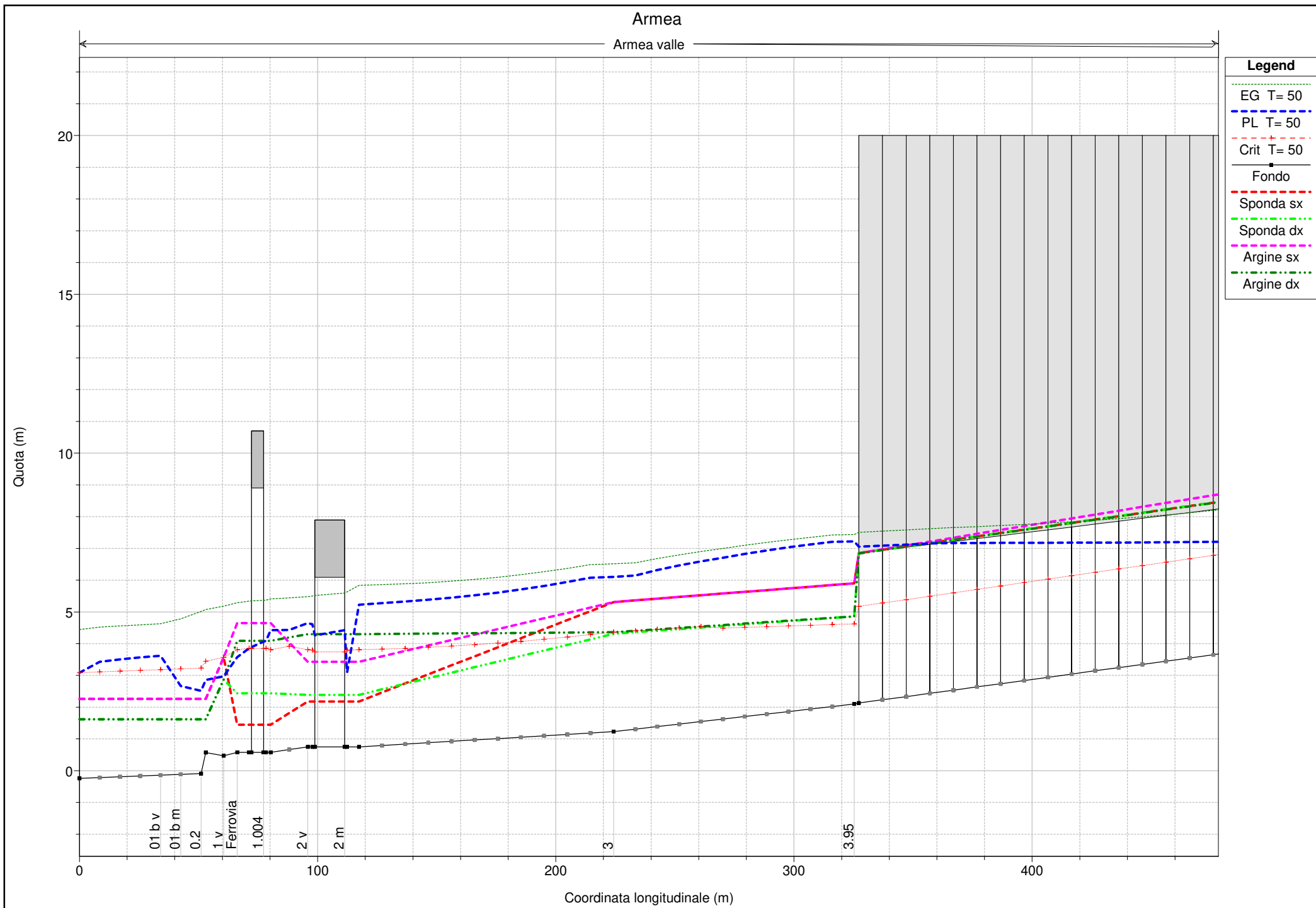


1 cm Horiz. = 20 m 1 cm Vert. = 1.5 m

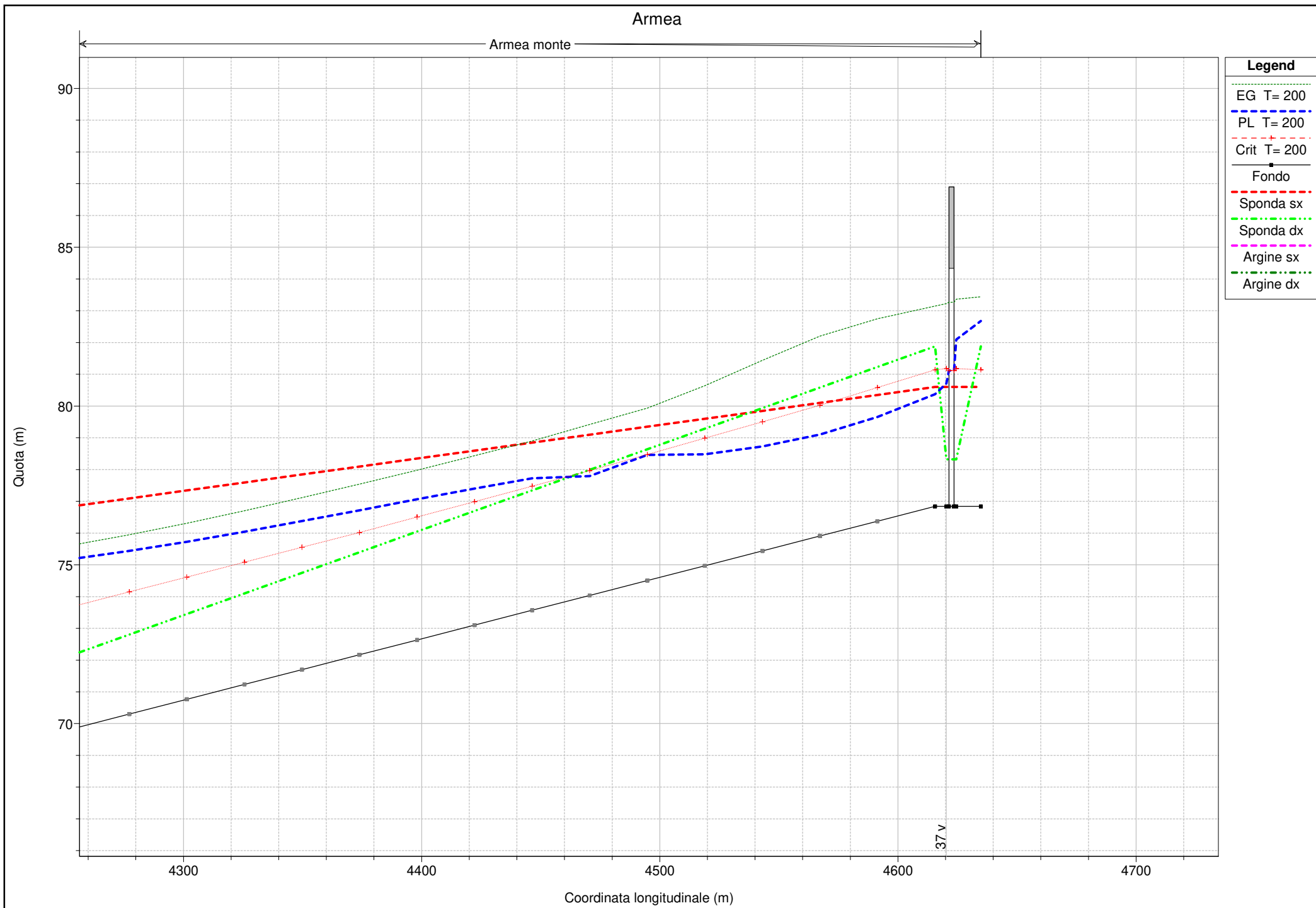




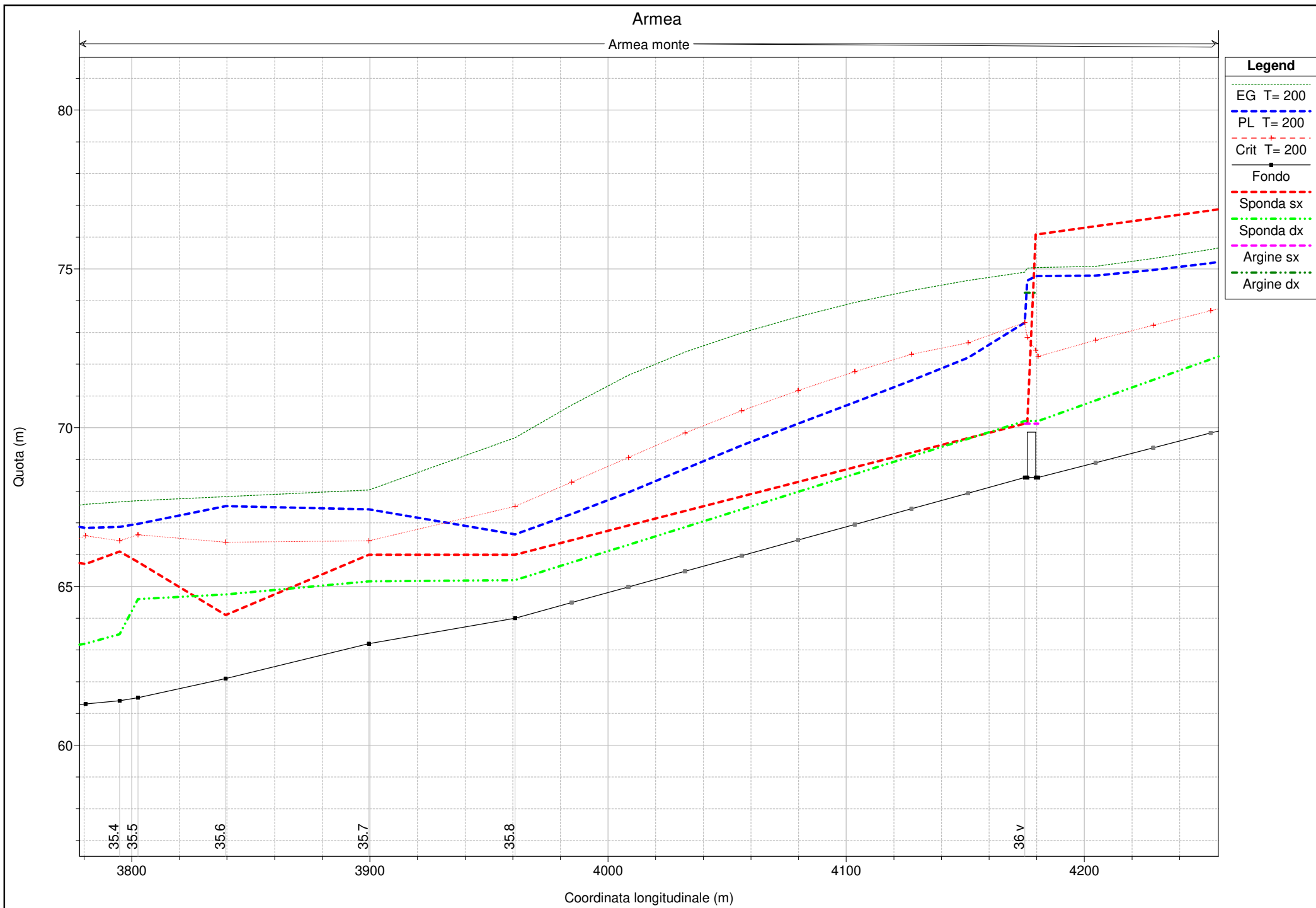


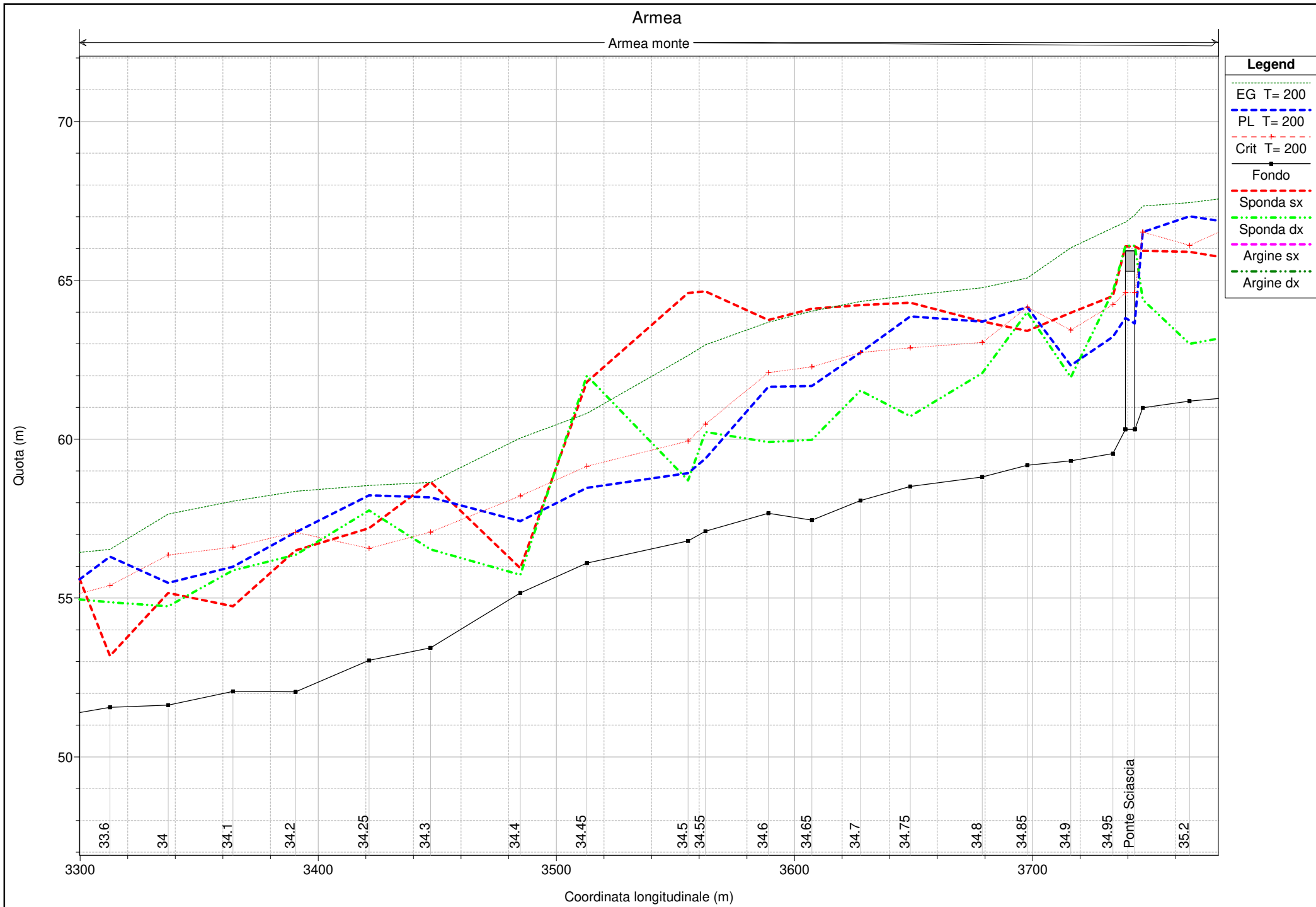


1 cm Horiz. = 20 m 1 cm Vert. = 1.5 m

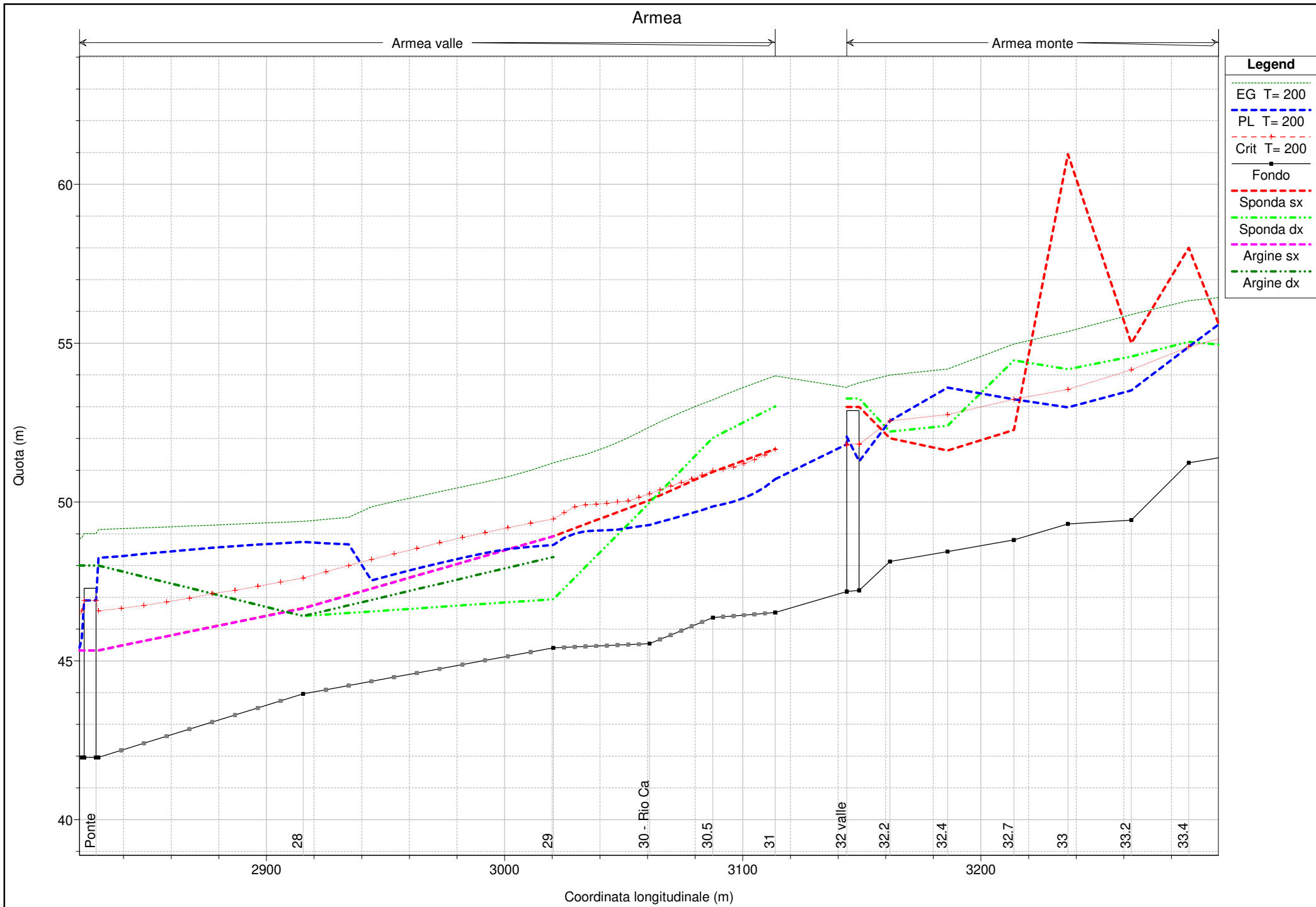


1 cm Horiz. = 20 m 1 cm Vert. = 1.5 m

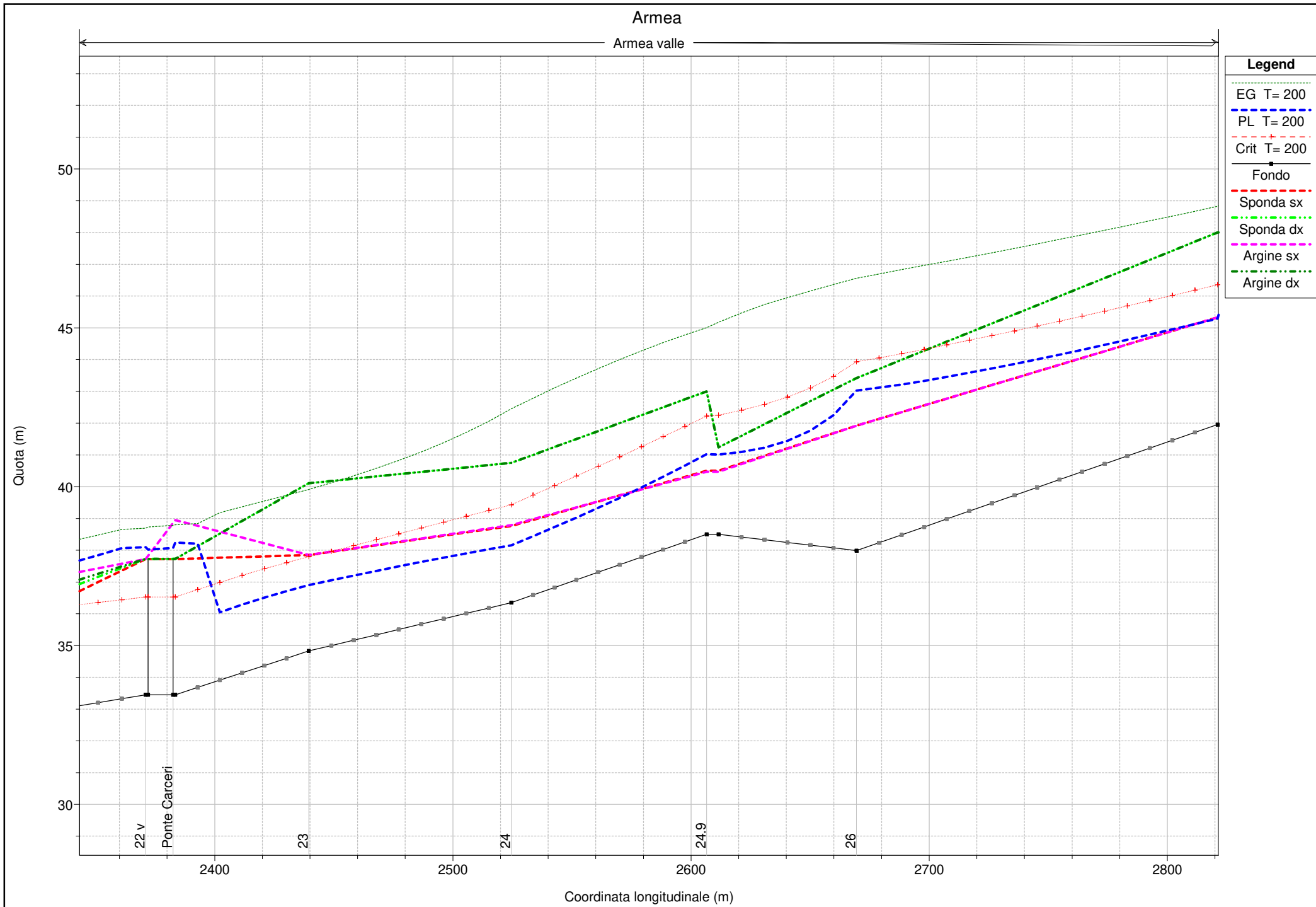




1 cm Horiz. = 20 m 1 cm Vert. = 1.5 m



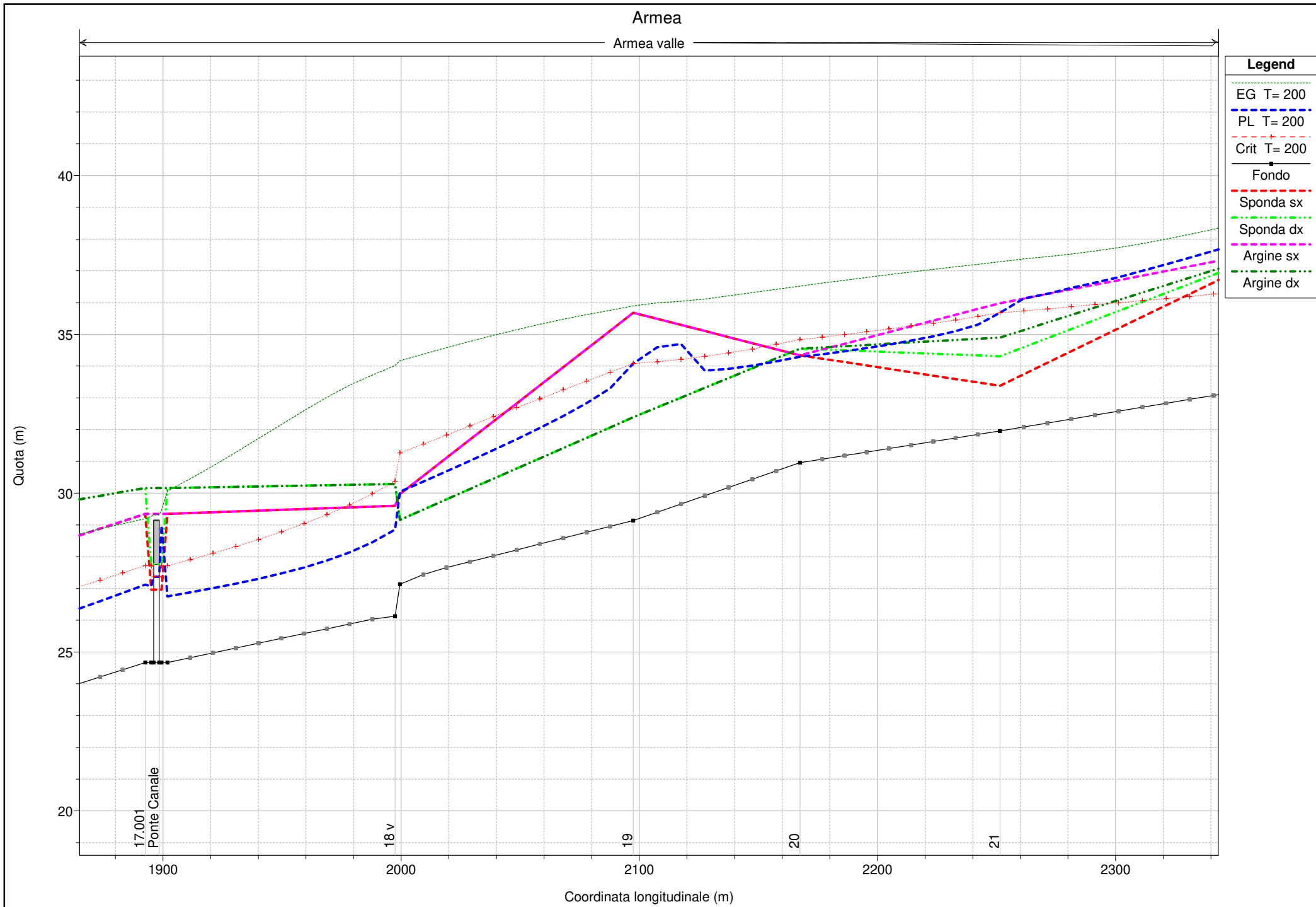
1 cm Horiz. = 20 m 1 cm Vert. = 1.5 m



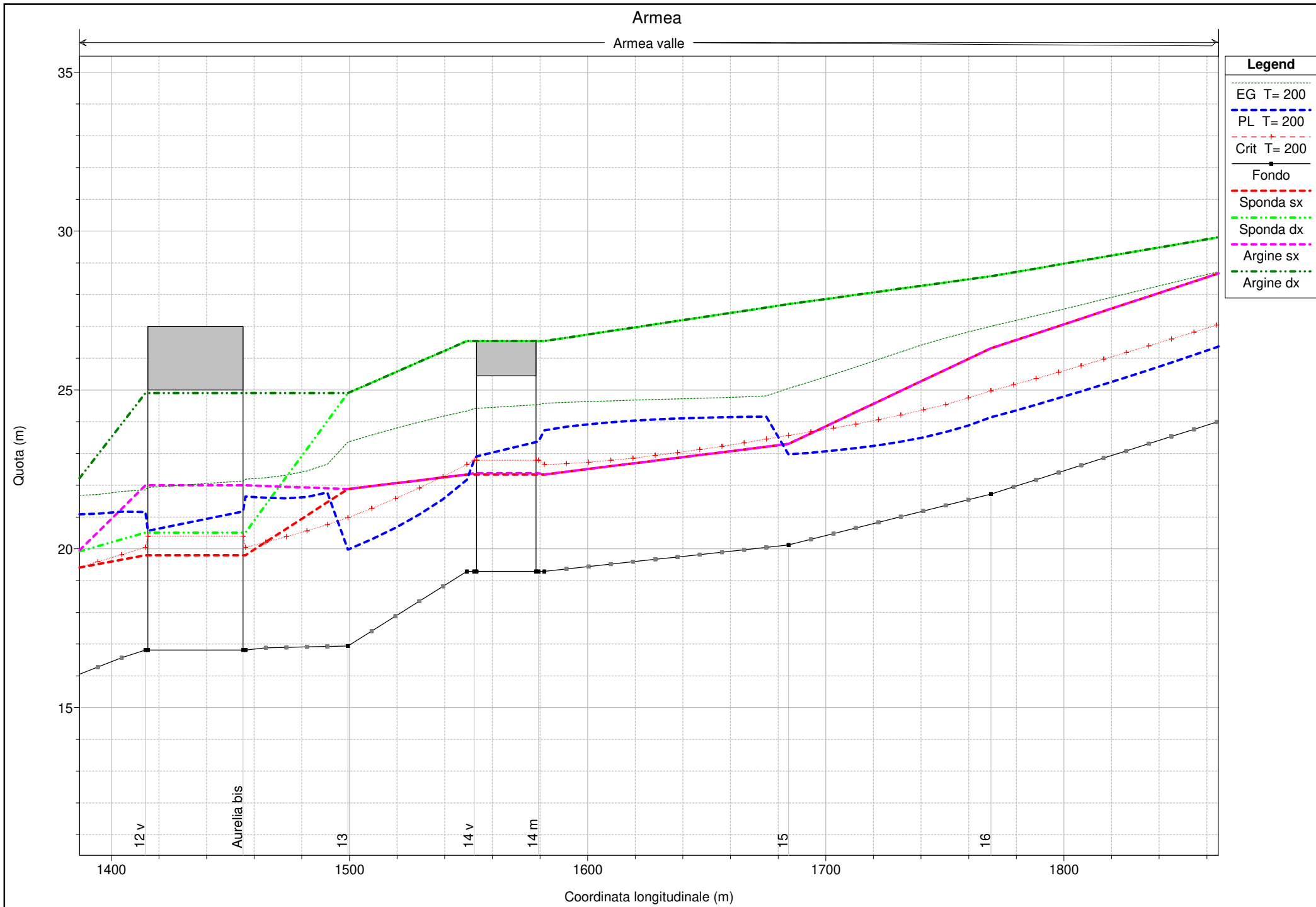
Legend

- EG T= 200
- PL T= 200
- Crit T= 200
- Fondo
- Sponda sx
- Sponda dx
- Argine sx
- Argine dx

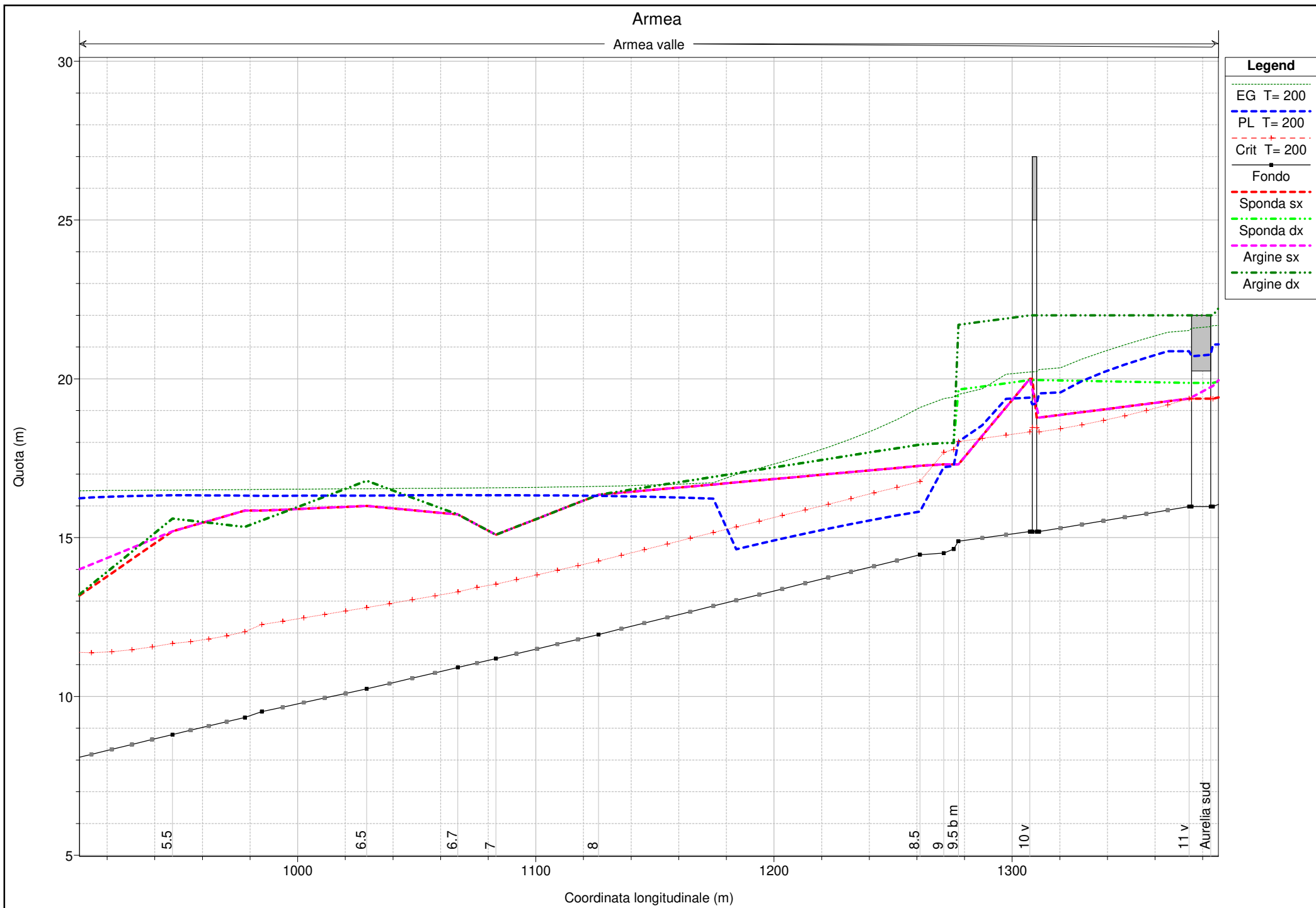
1 cm Horiz. = 20 m 1 cm Vert. = 1.5 m



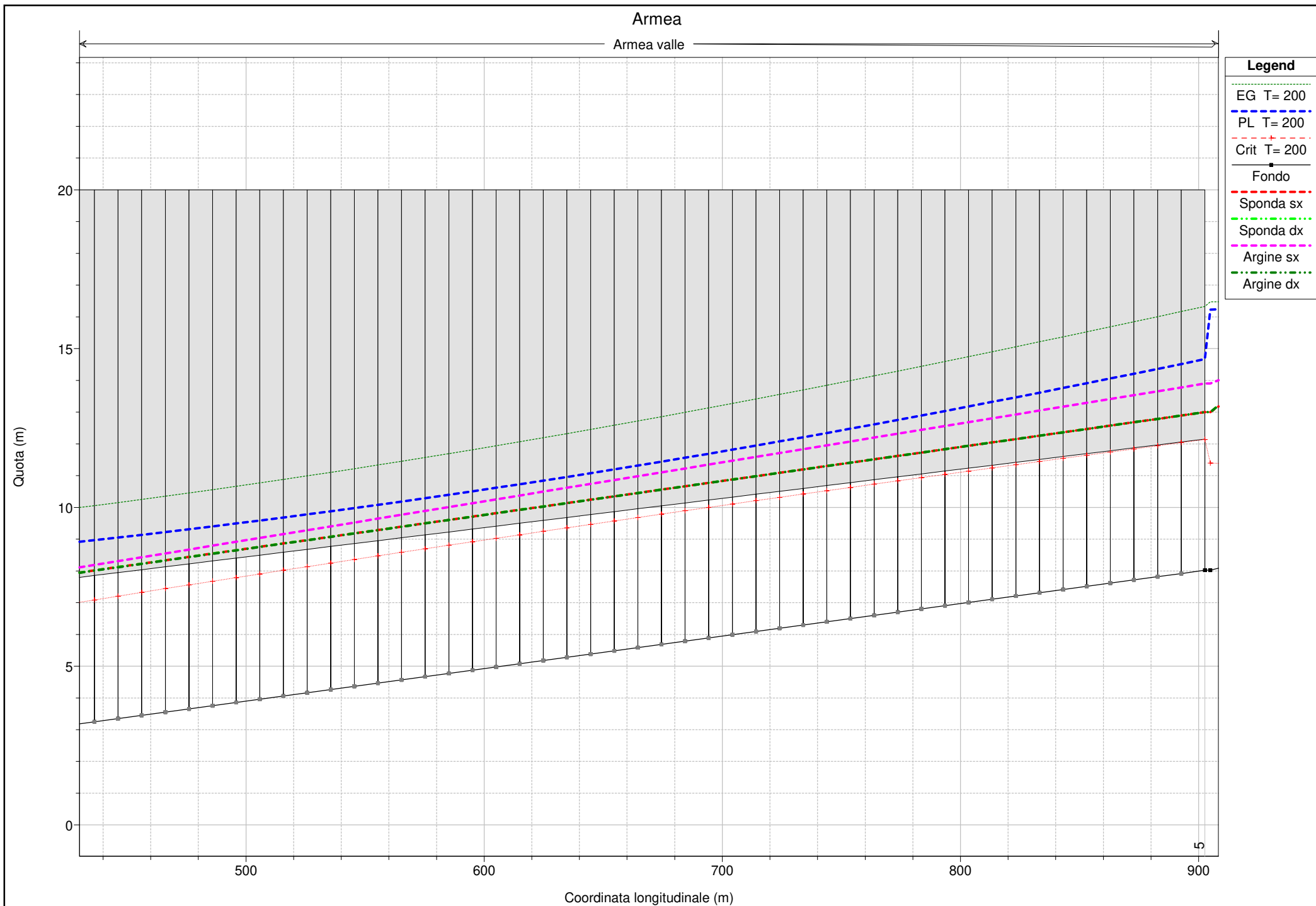
1 cm Horiz. = 20 m 1 cm Vert. = 1.5 m



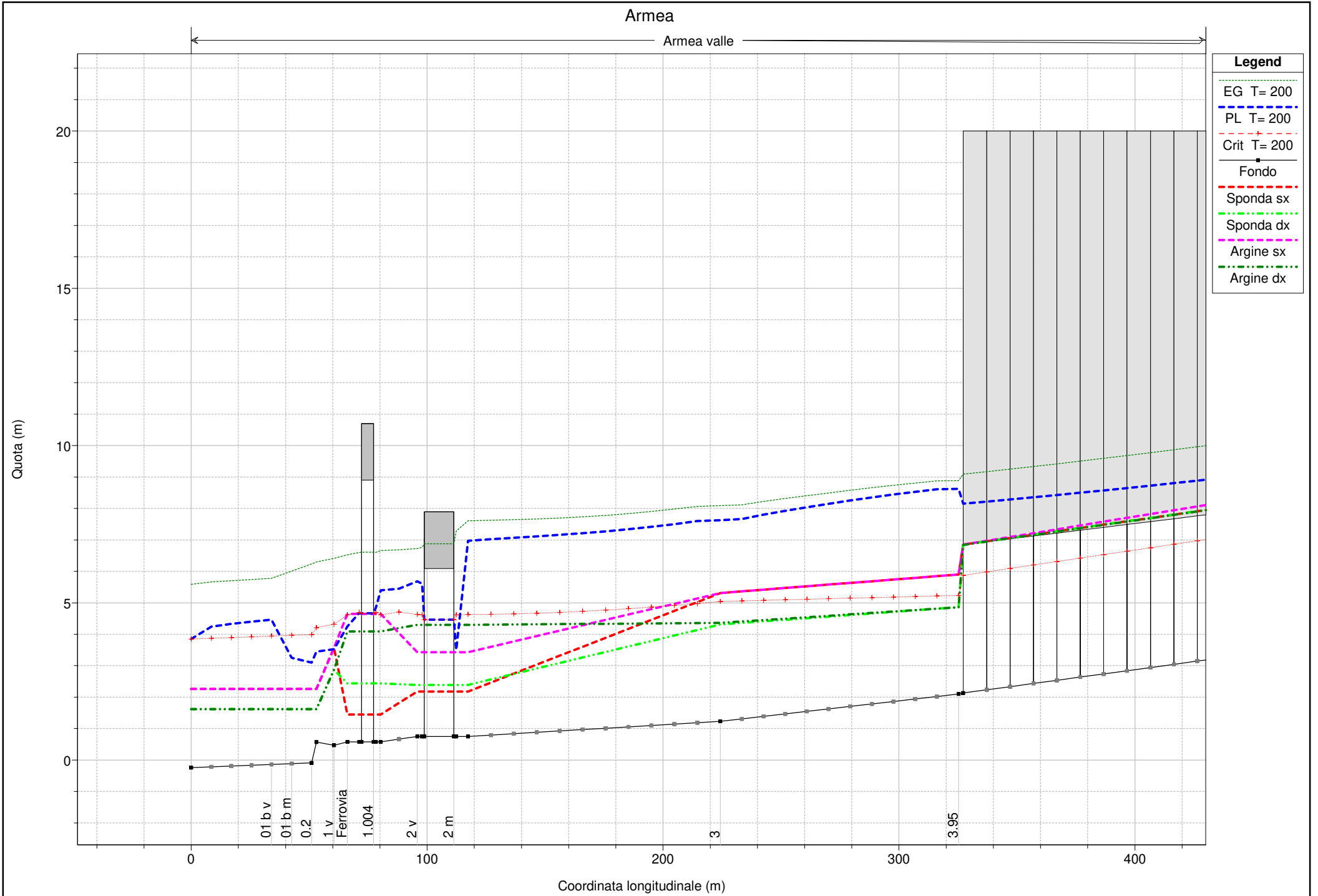
1 cm Horiz. = 20 m 1 cm Vert. = 1.5 m

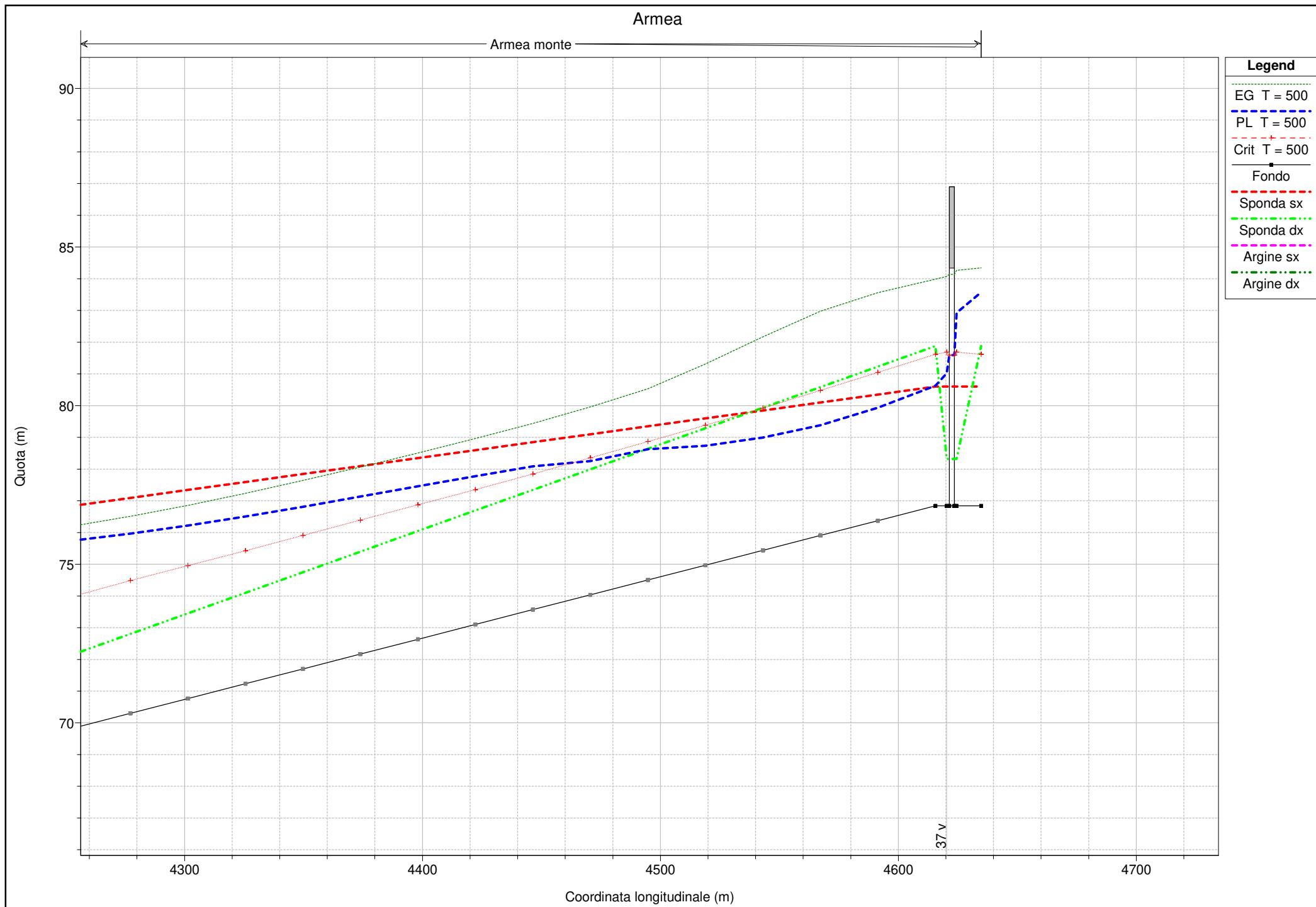


1 cm Horiz. = 20 m 1 cm Vert. = 1.5 m

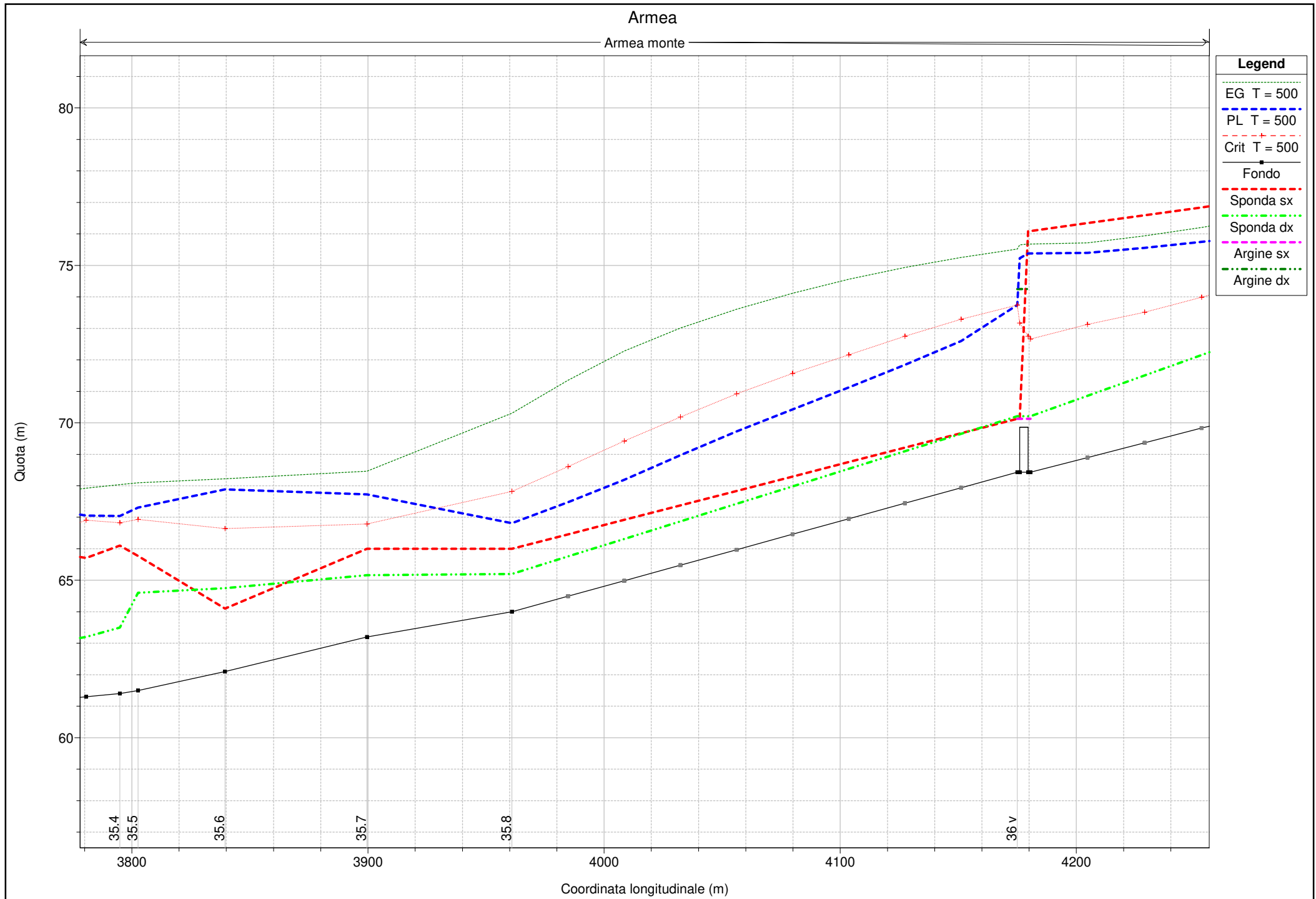


1 cm Horiz. = 20 m 1 cm Vert. = 1.5 m





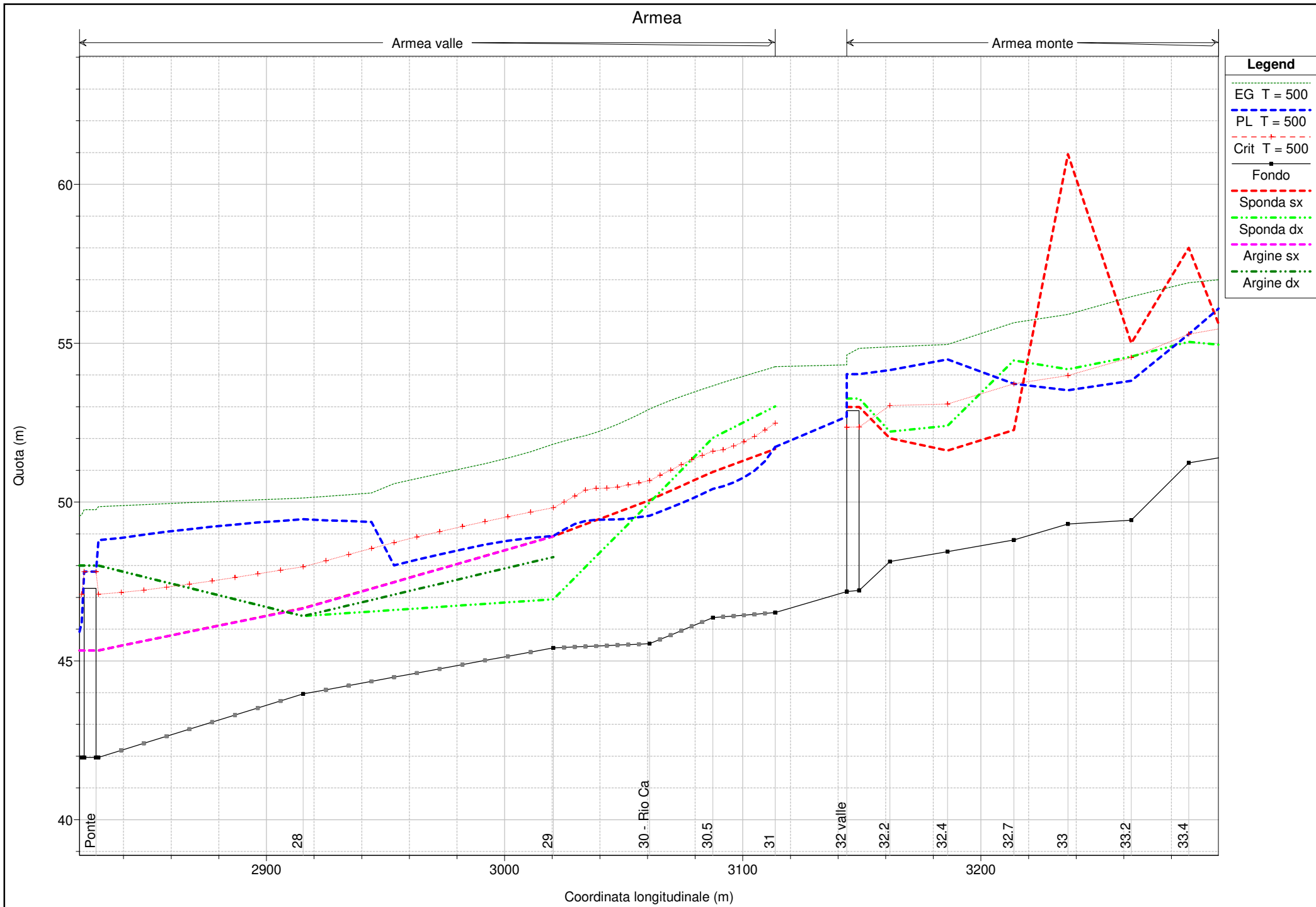
1 cm Horiz. = 20 m 1 cm Vert. = 1.5 m



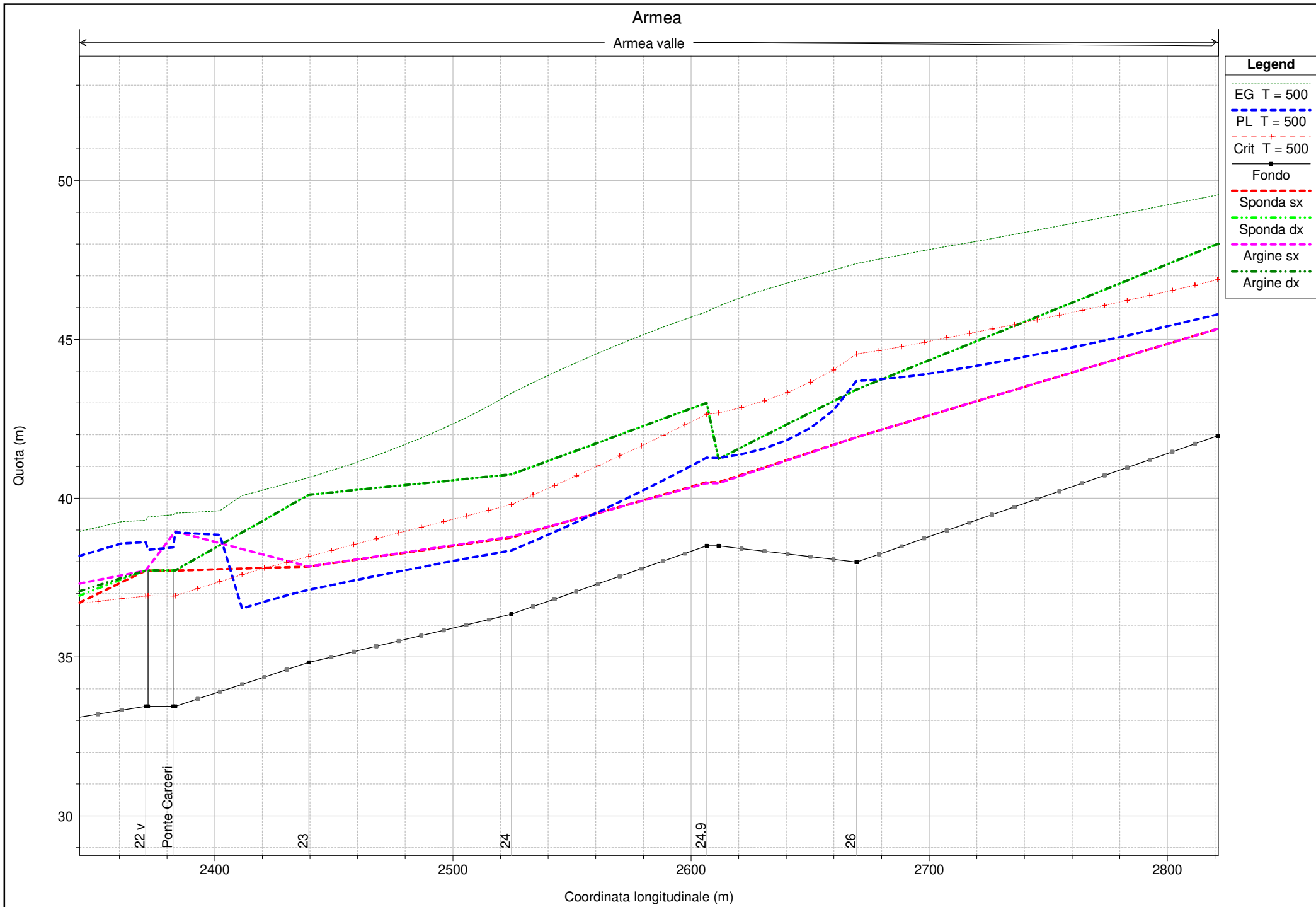
1 cm Horiz. = 20 m 1 cm Vert. = 1.5 m

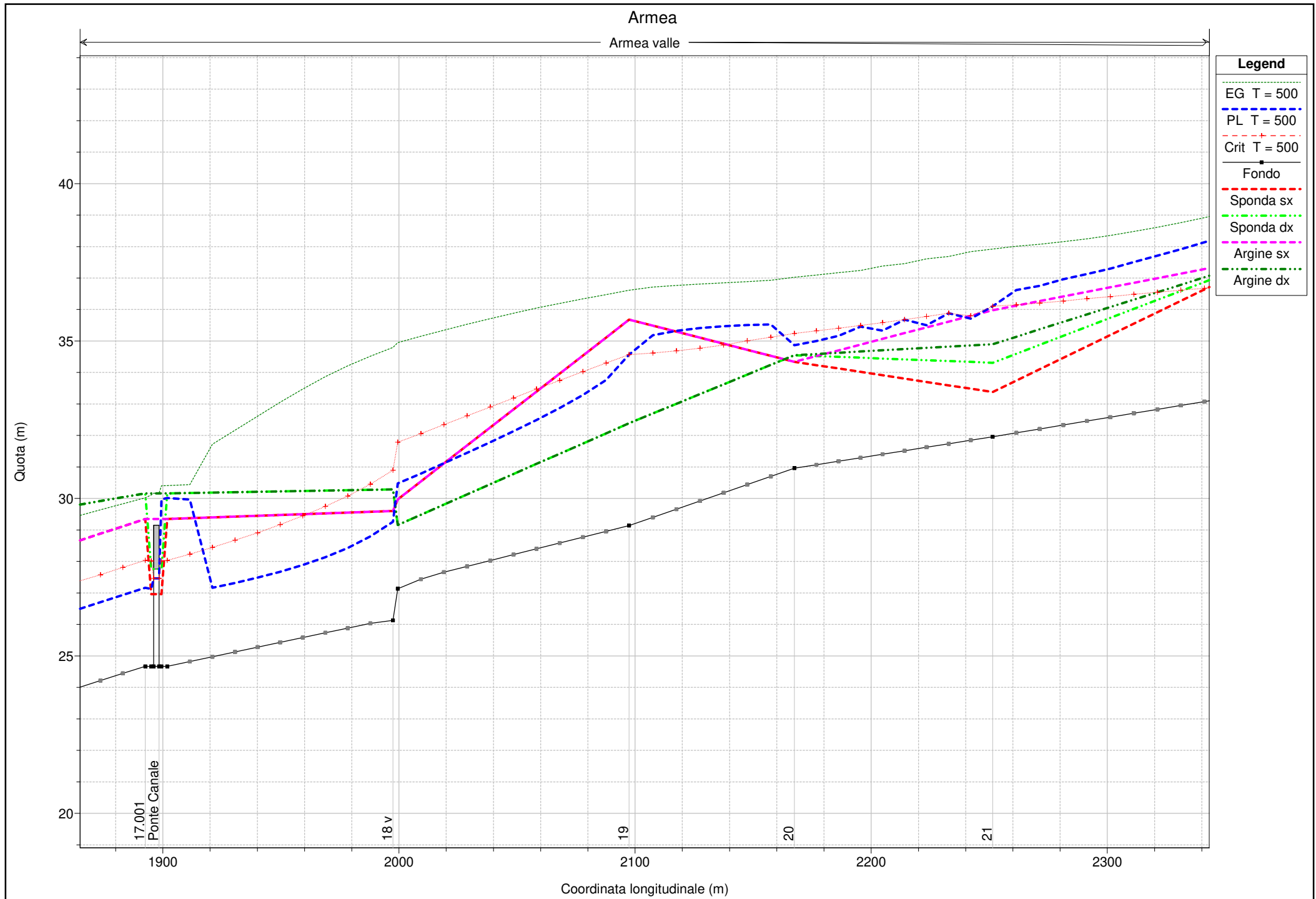


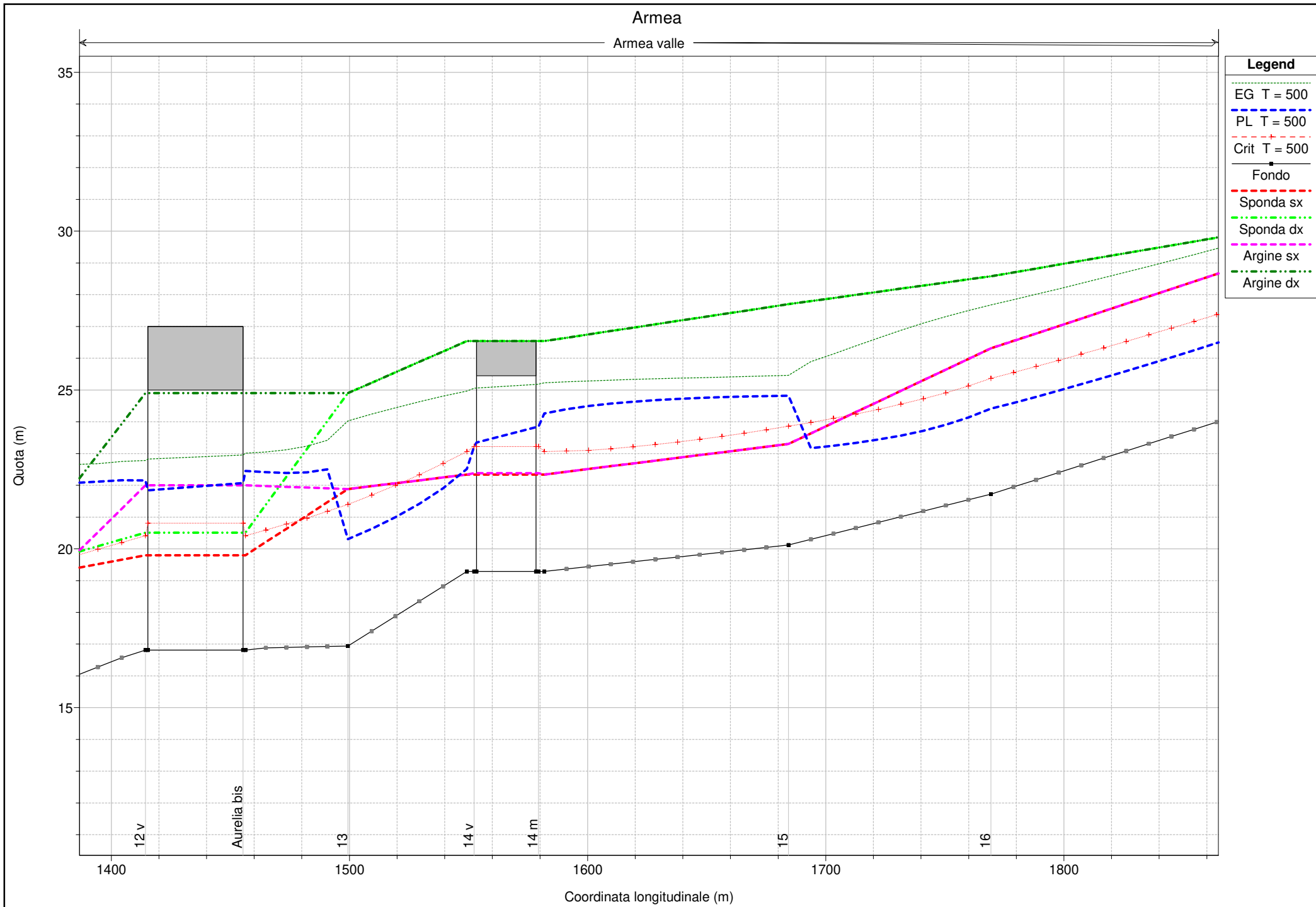
1 cm Horiz. = 20 m 1 cm Vert. = 1.5 m



1 cm Horiz. = 20 m 1 cm Vert. = 1.5 m



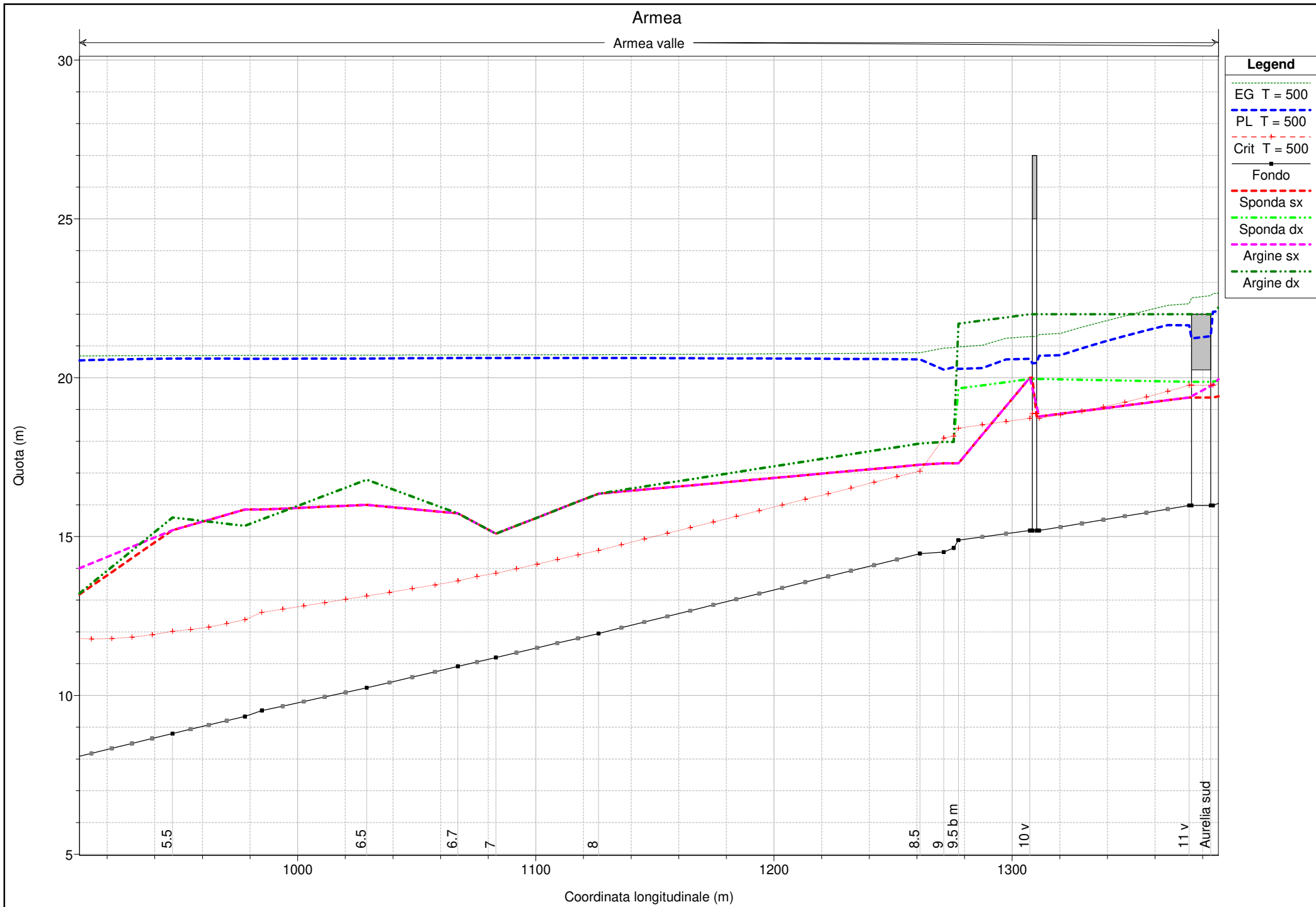




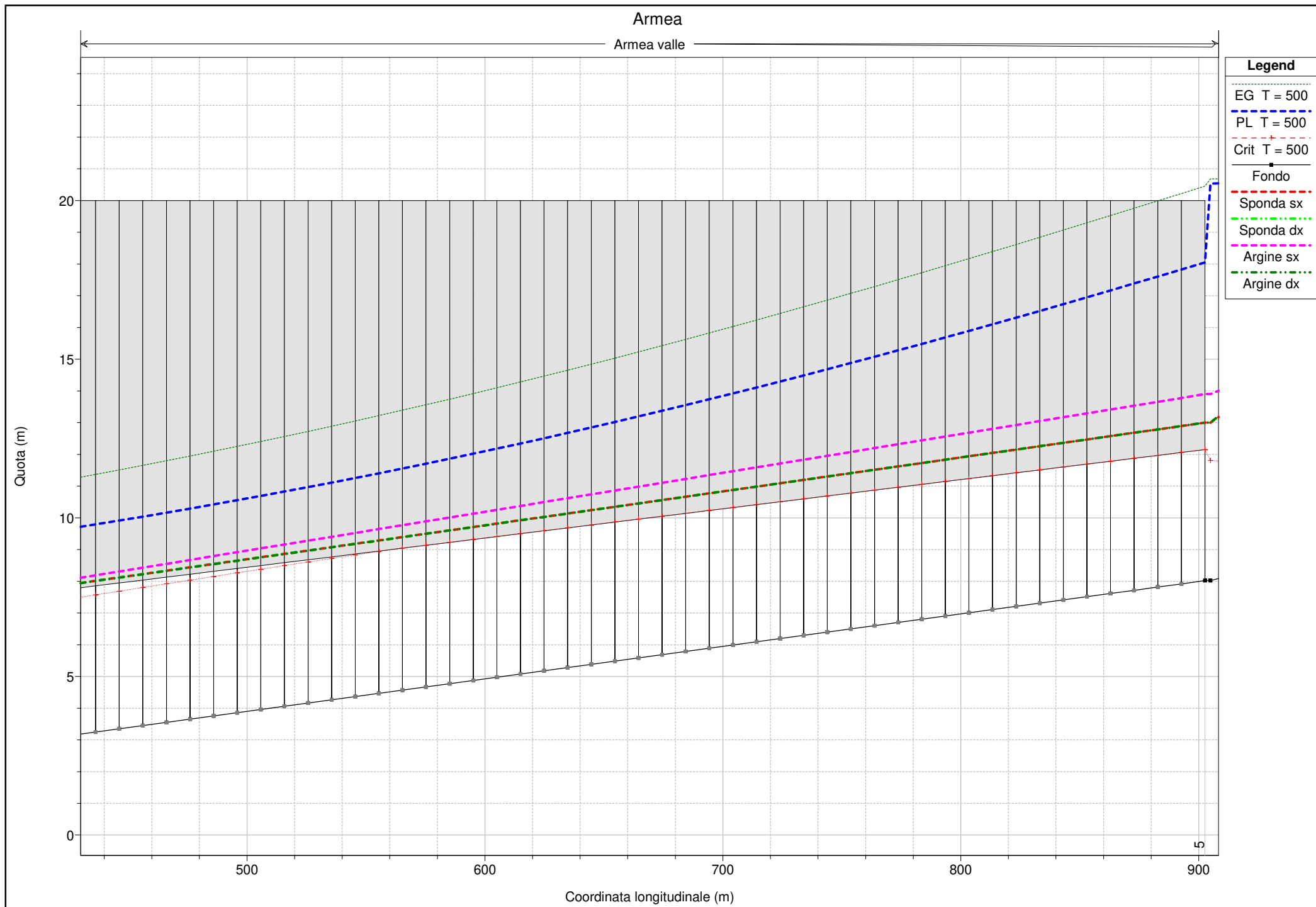
Legend

- EG T = 500
- PL T = 500
- Crit T = 500
- Fondo
- Sponda sx
- Sponda dx
- Argine sx
- Argine dx

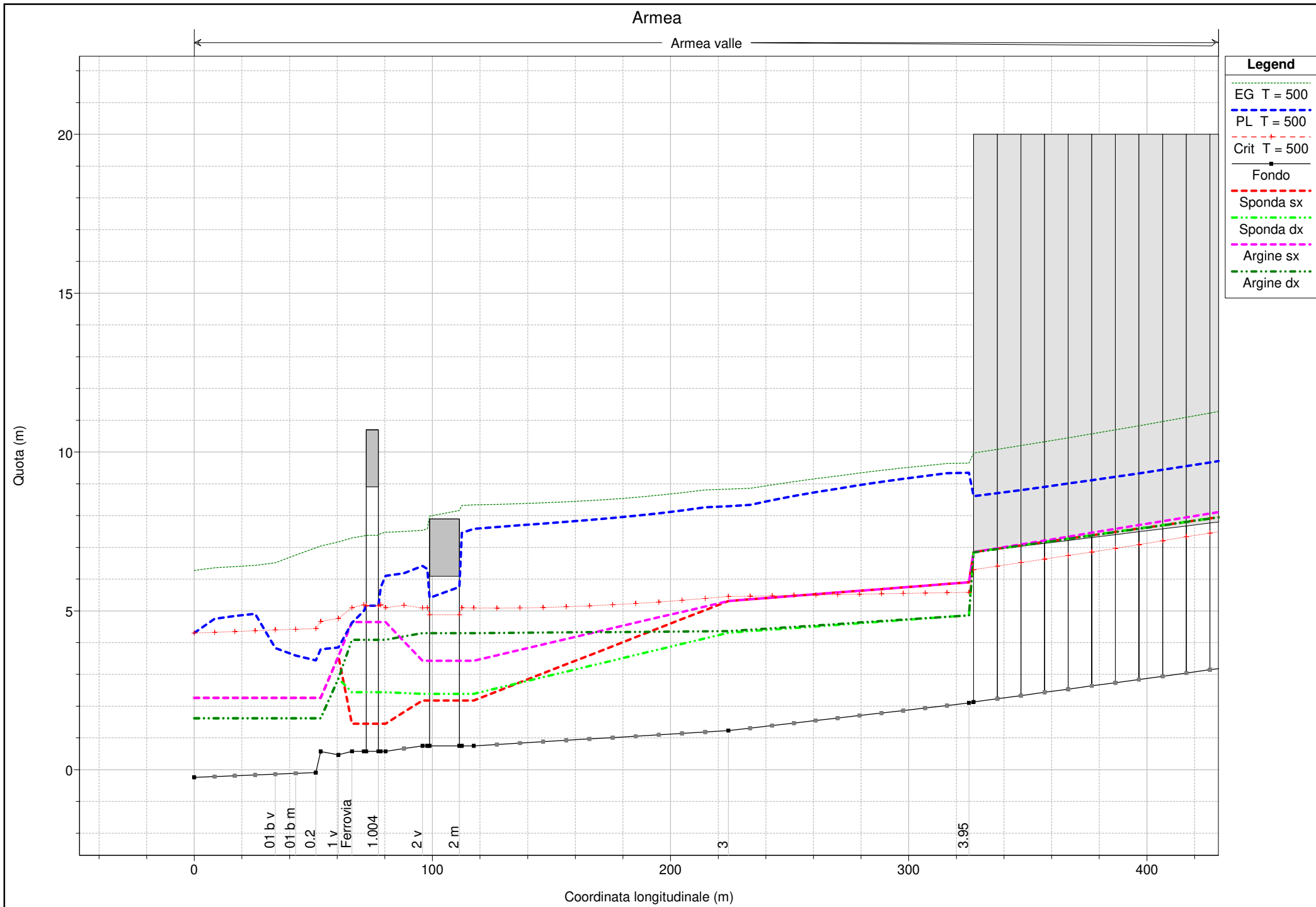
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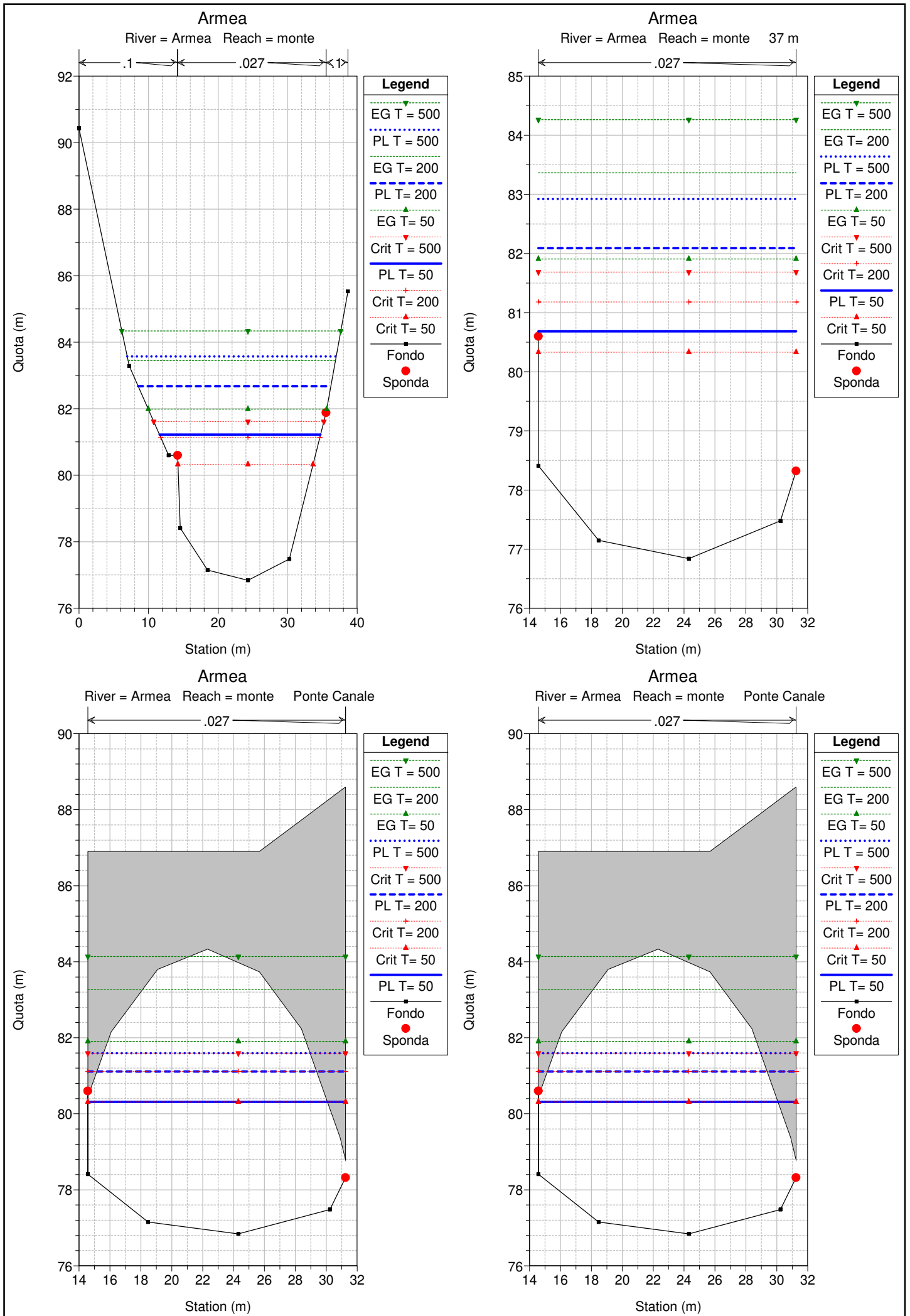


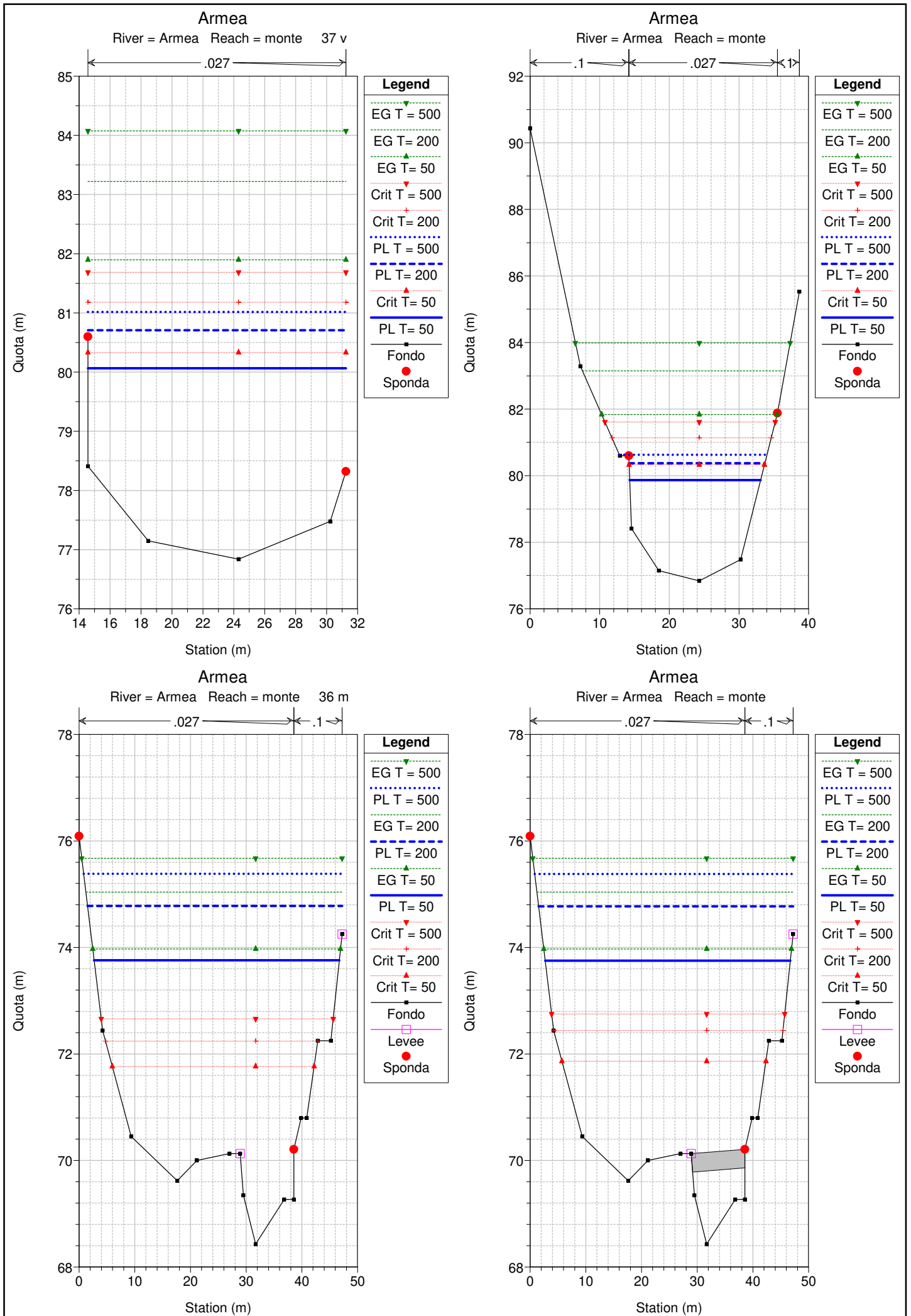
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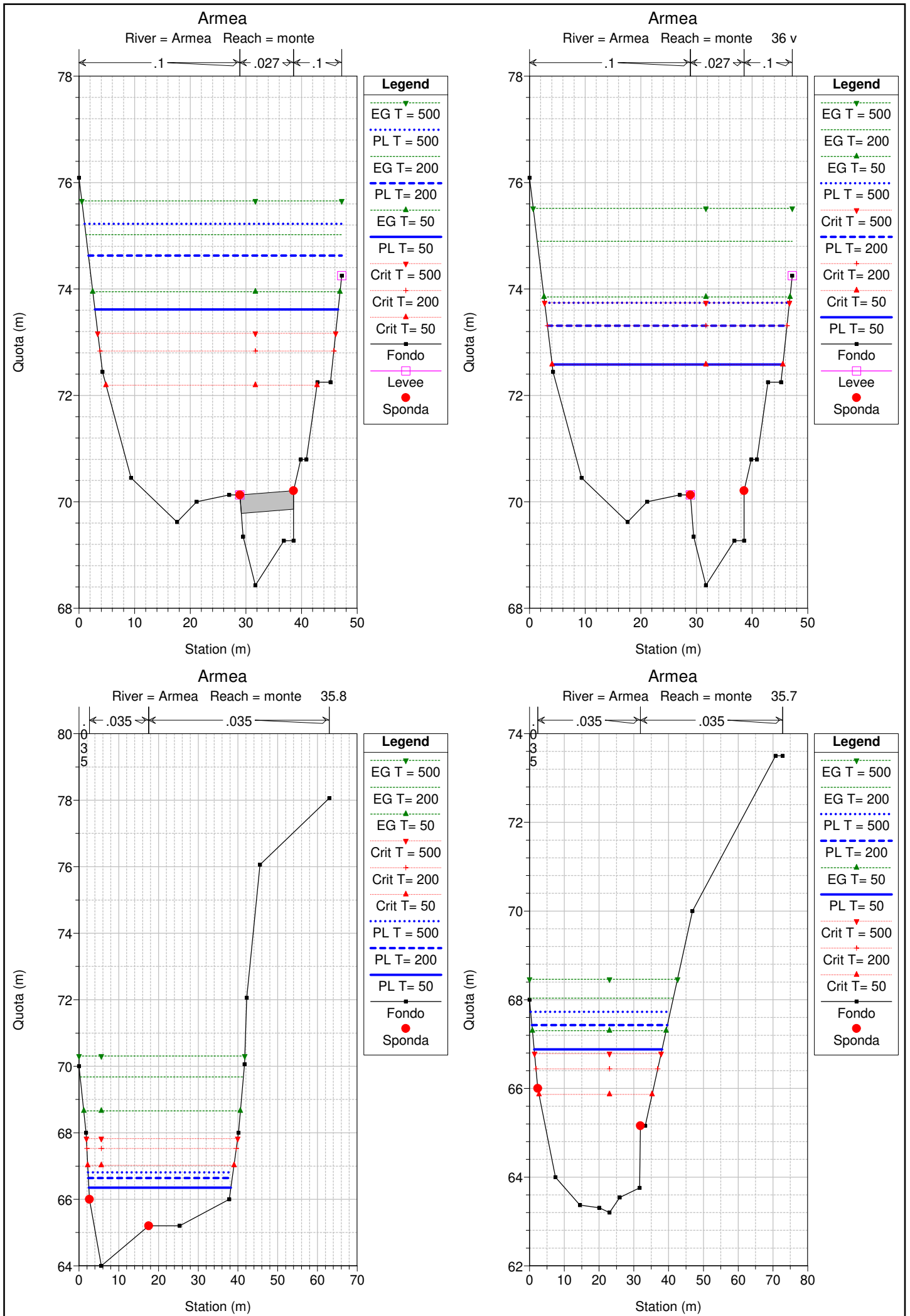


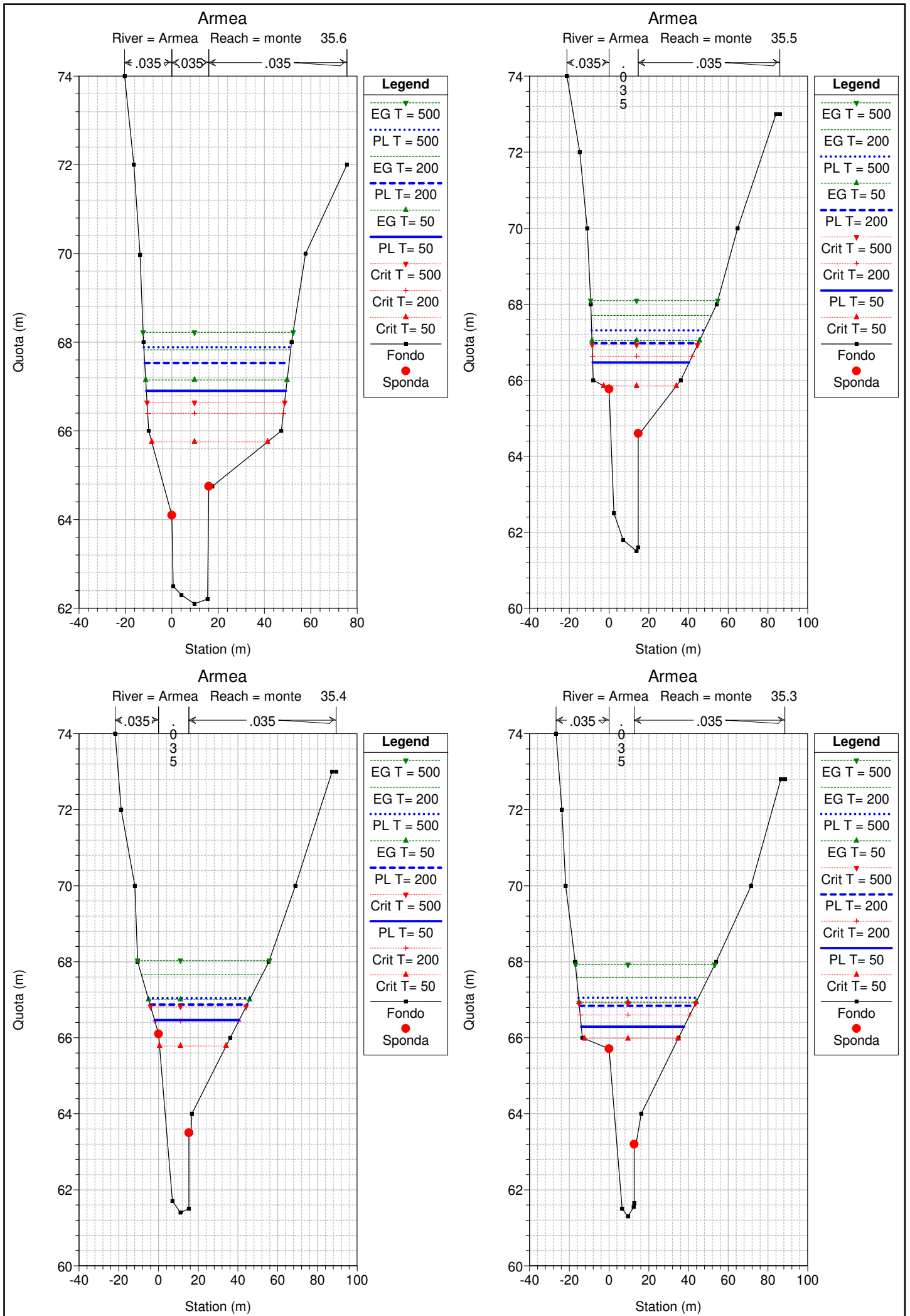
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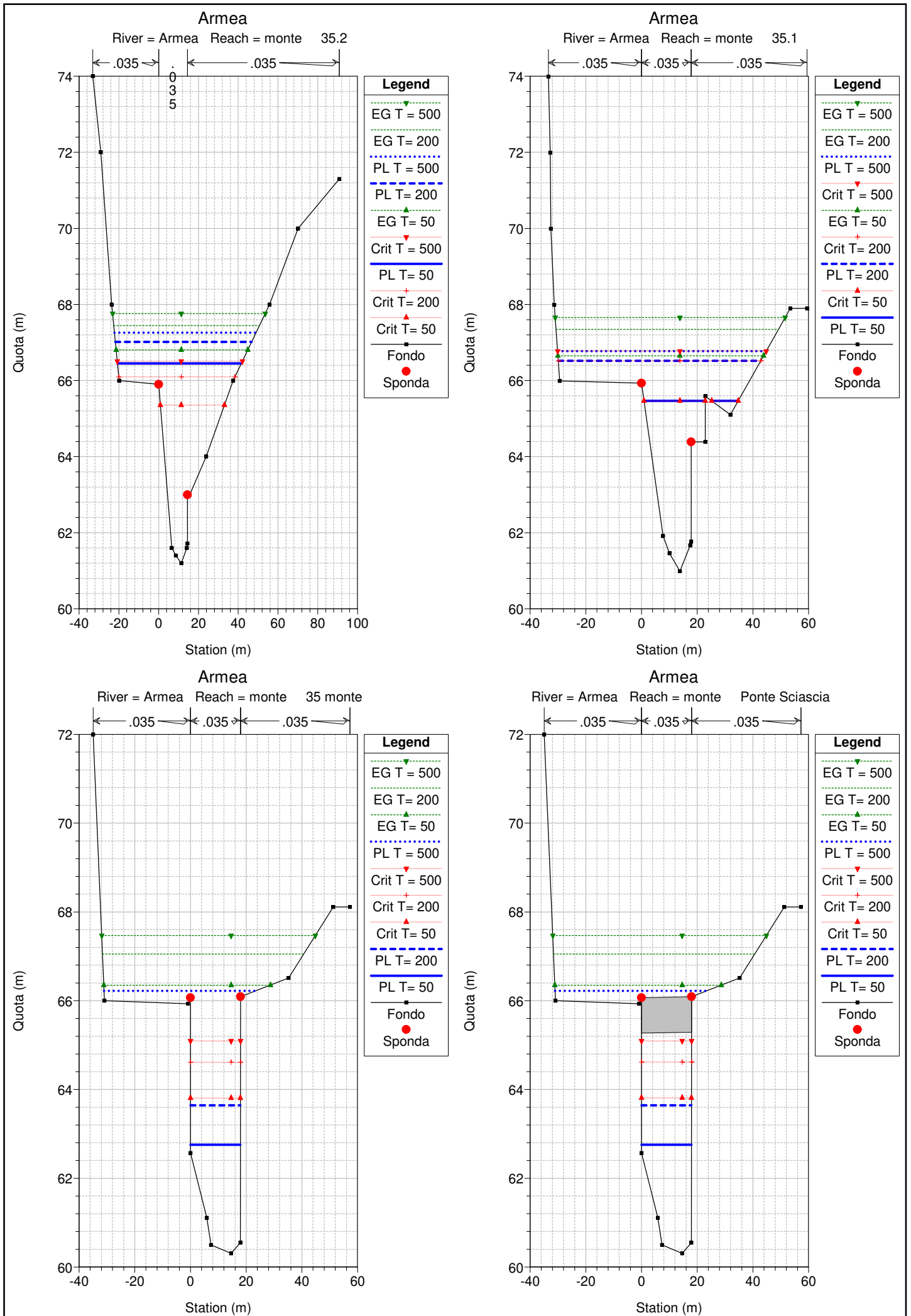


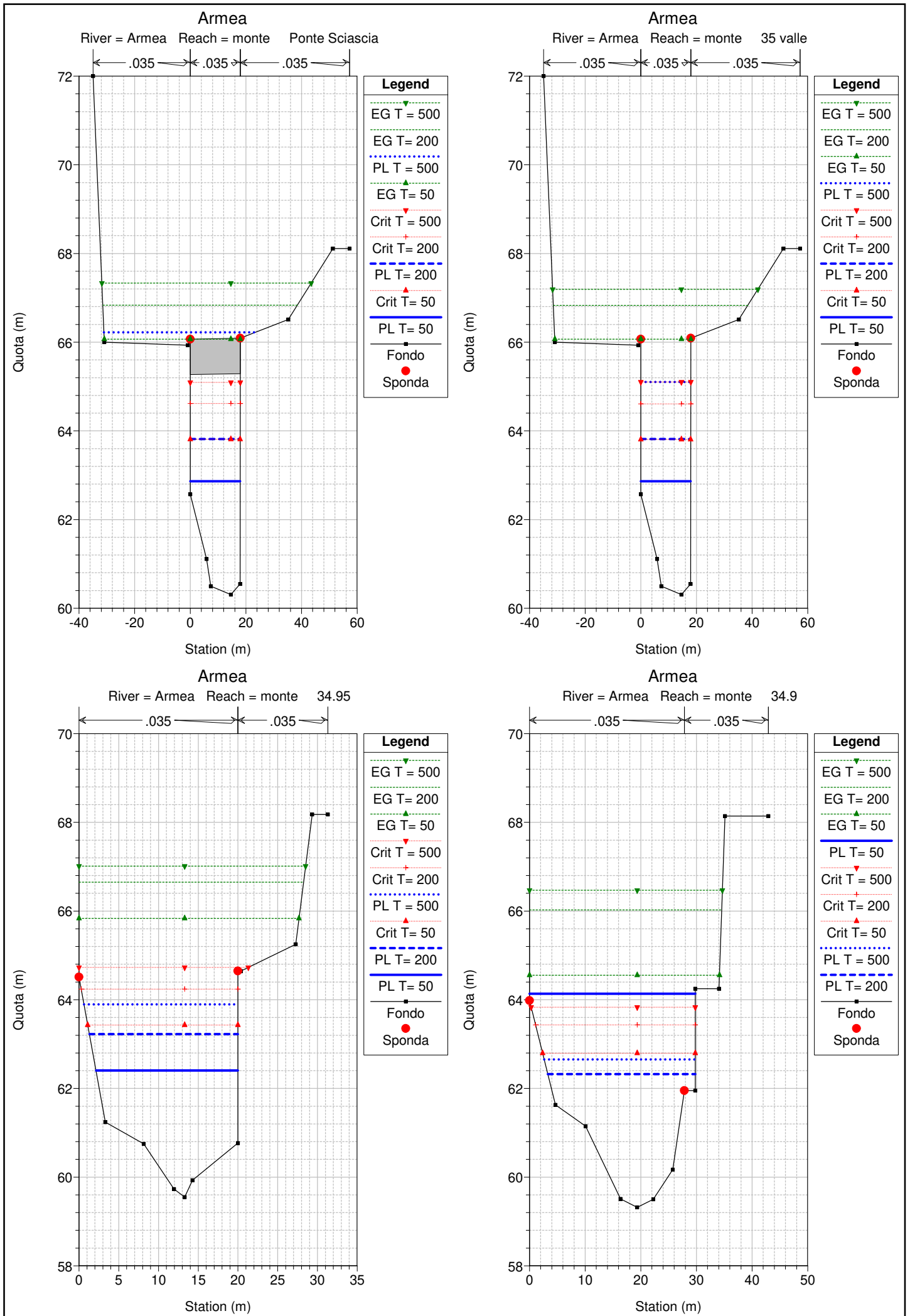


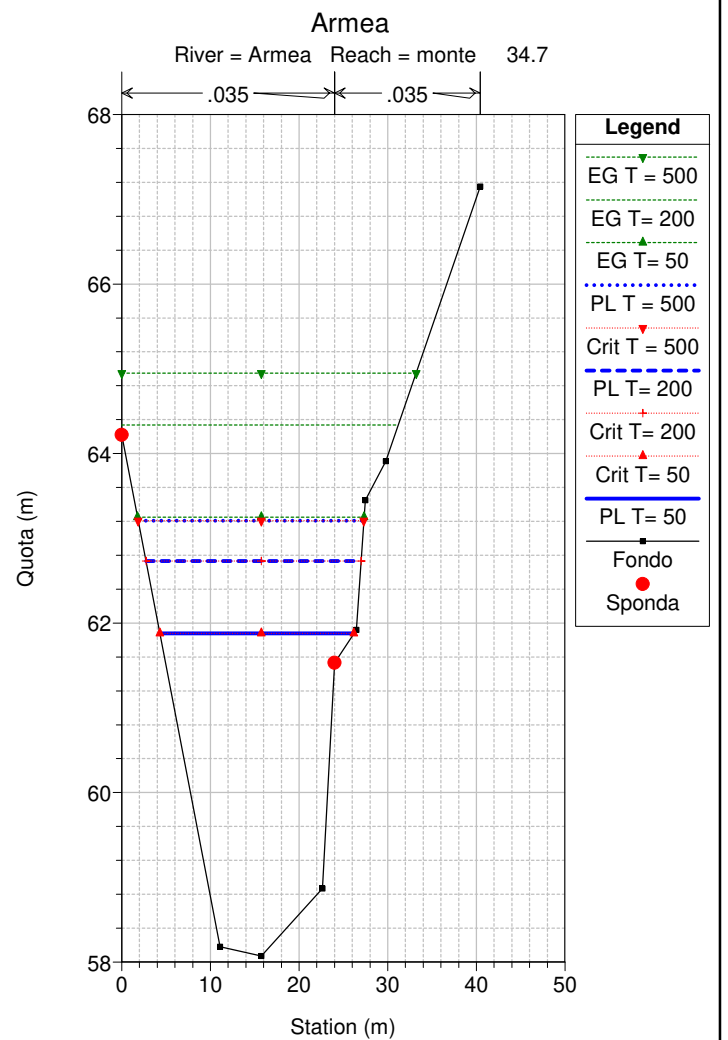
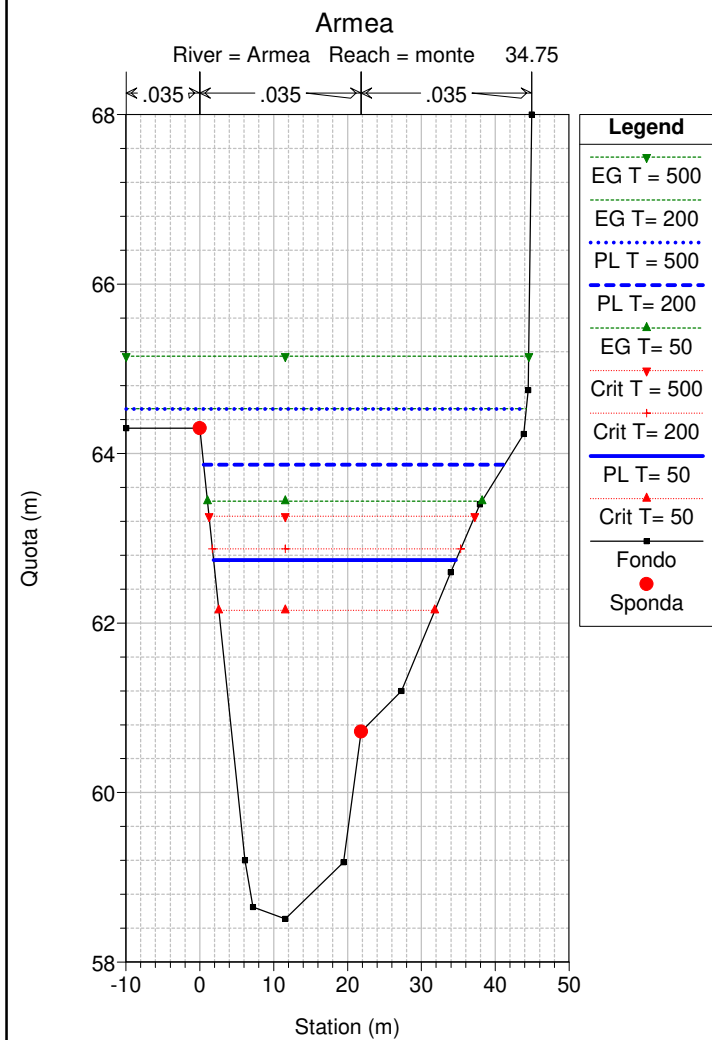
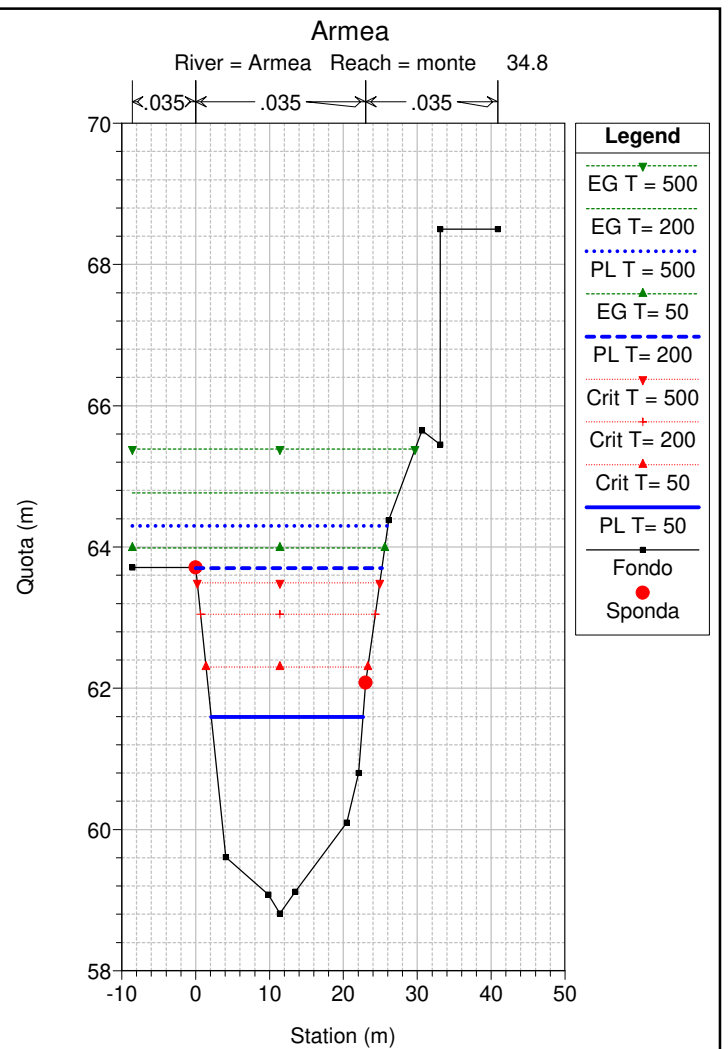
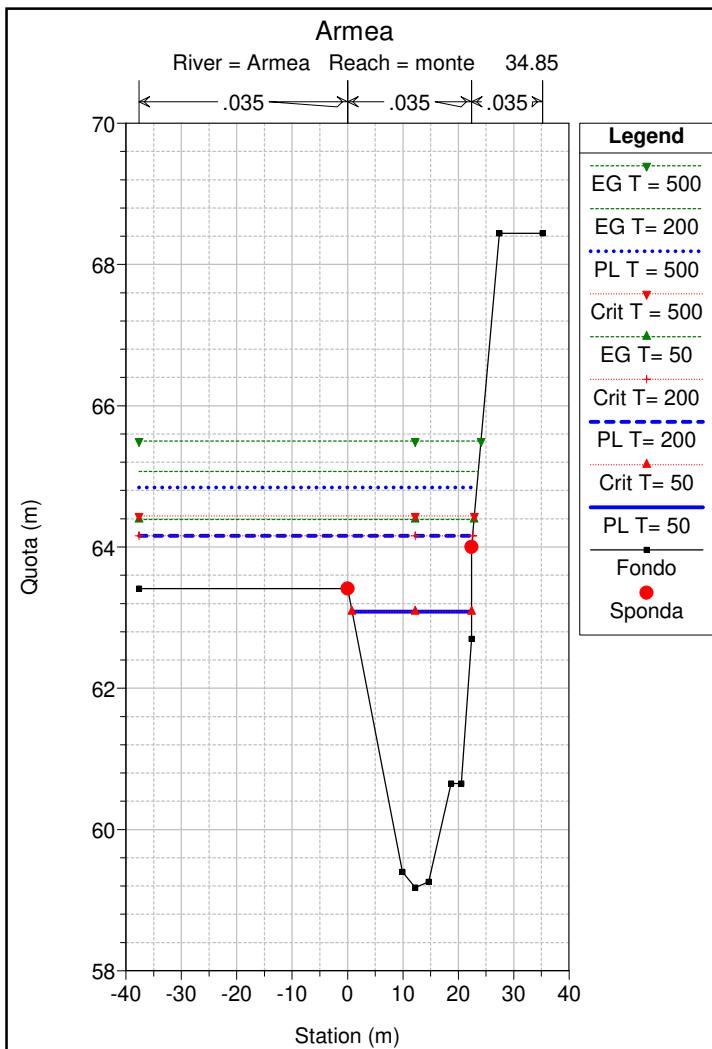


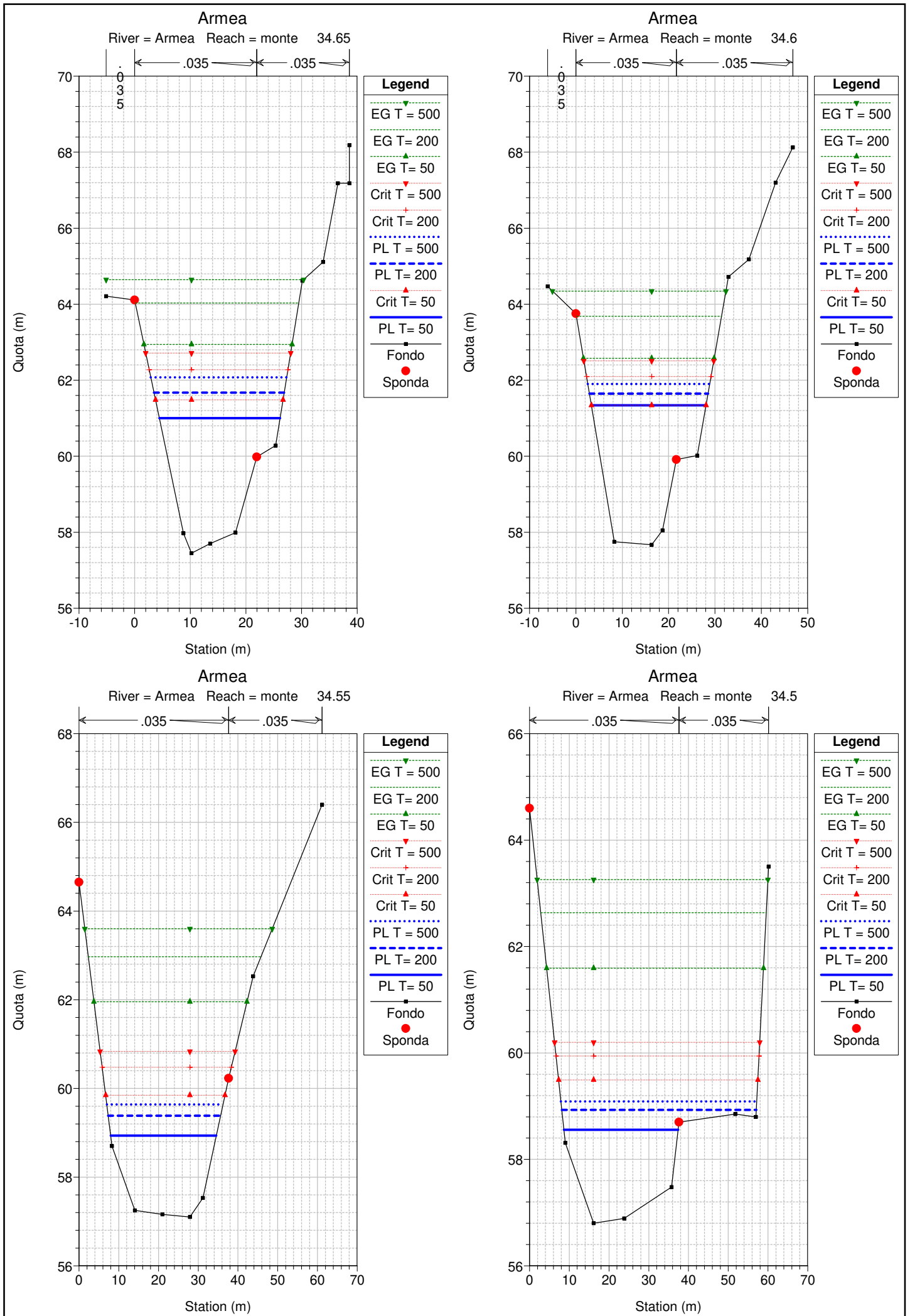


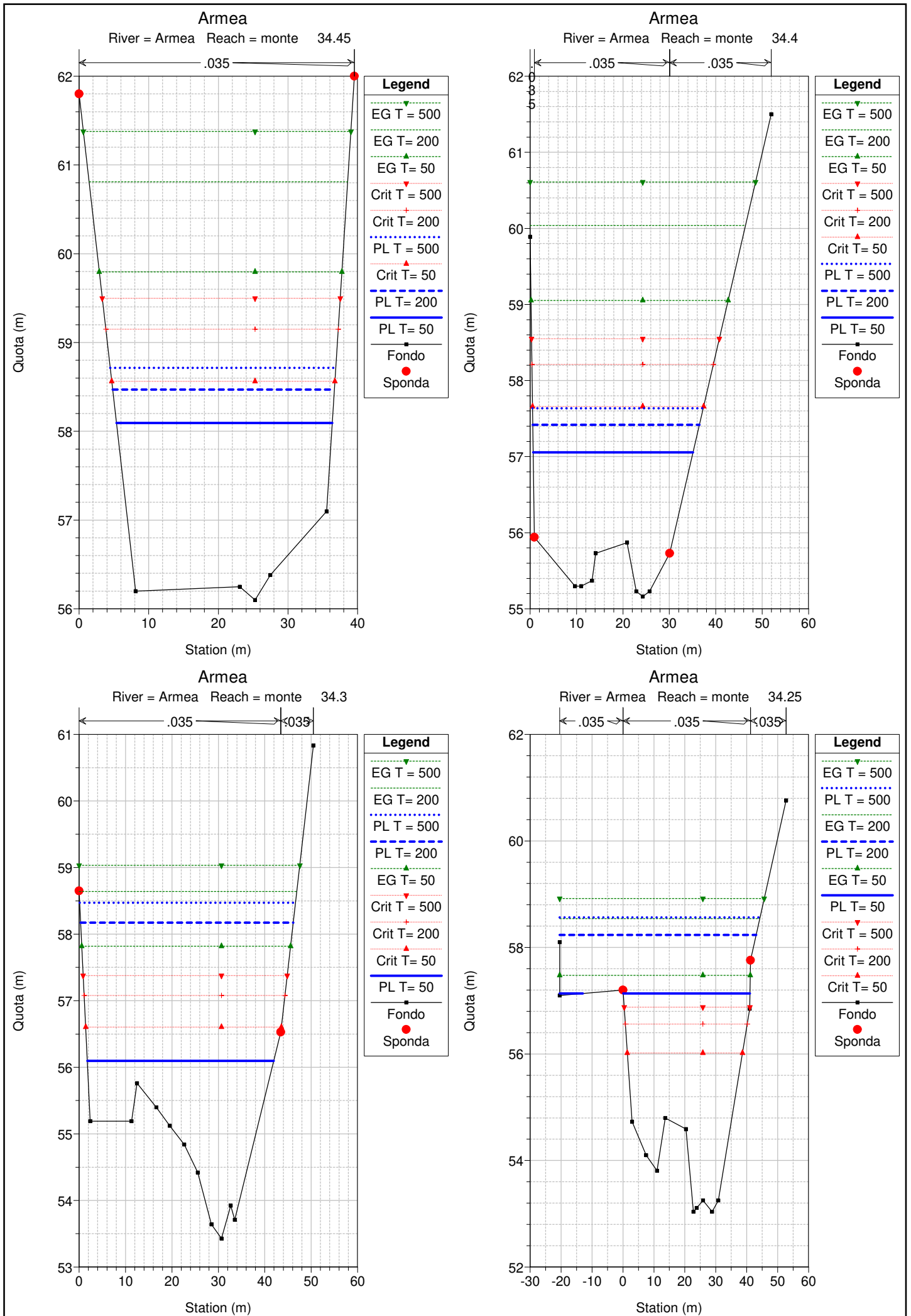


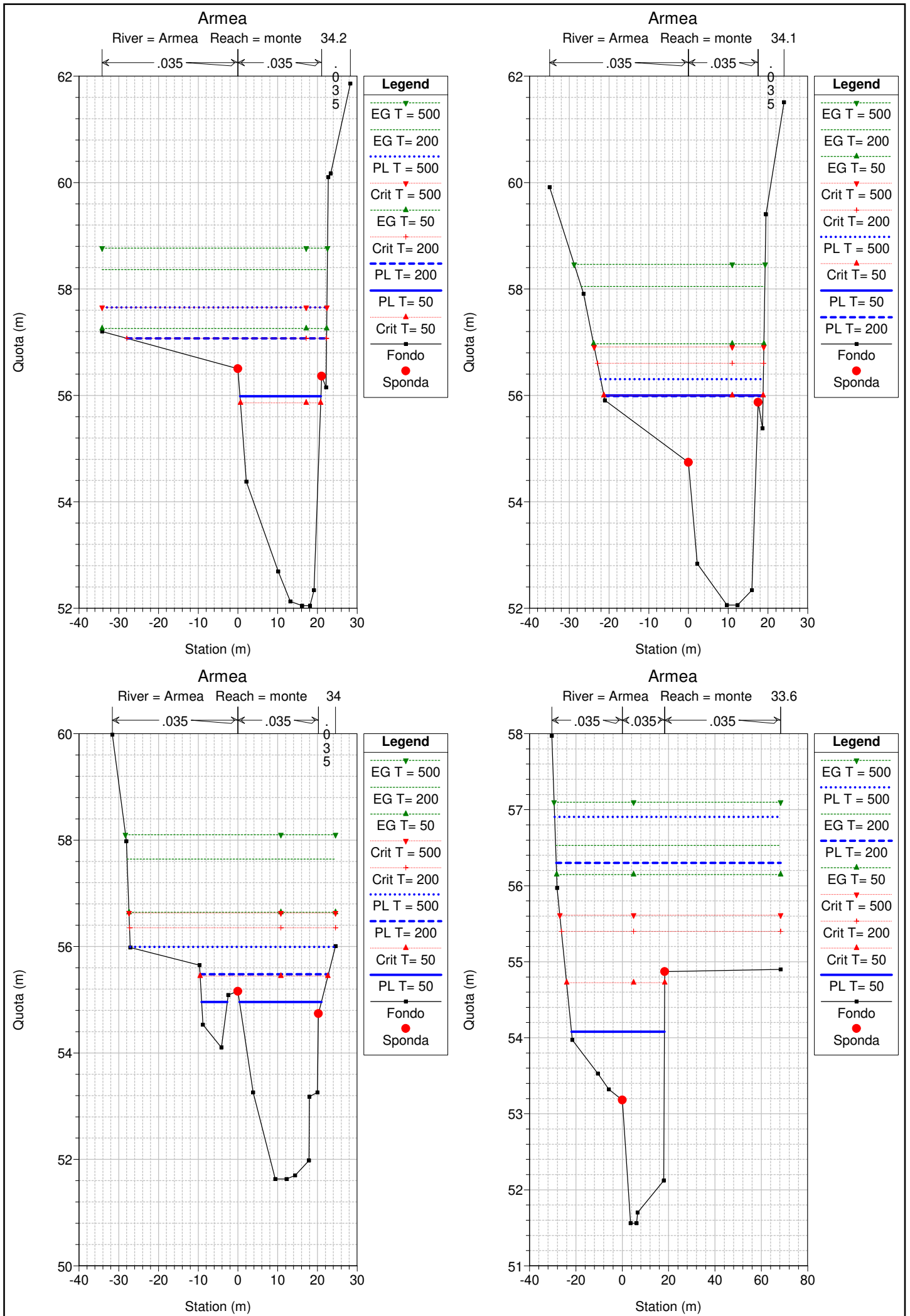


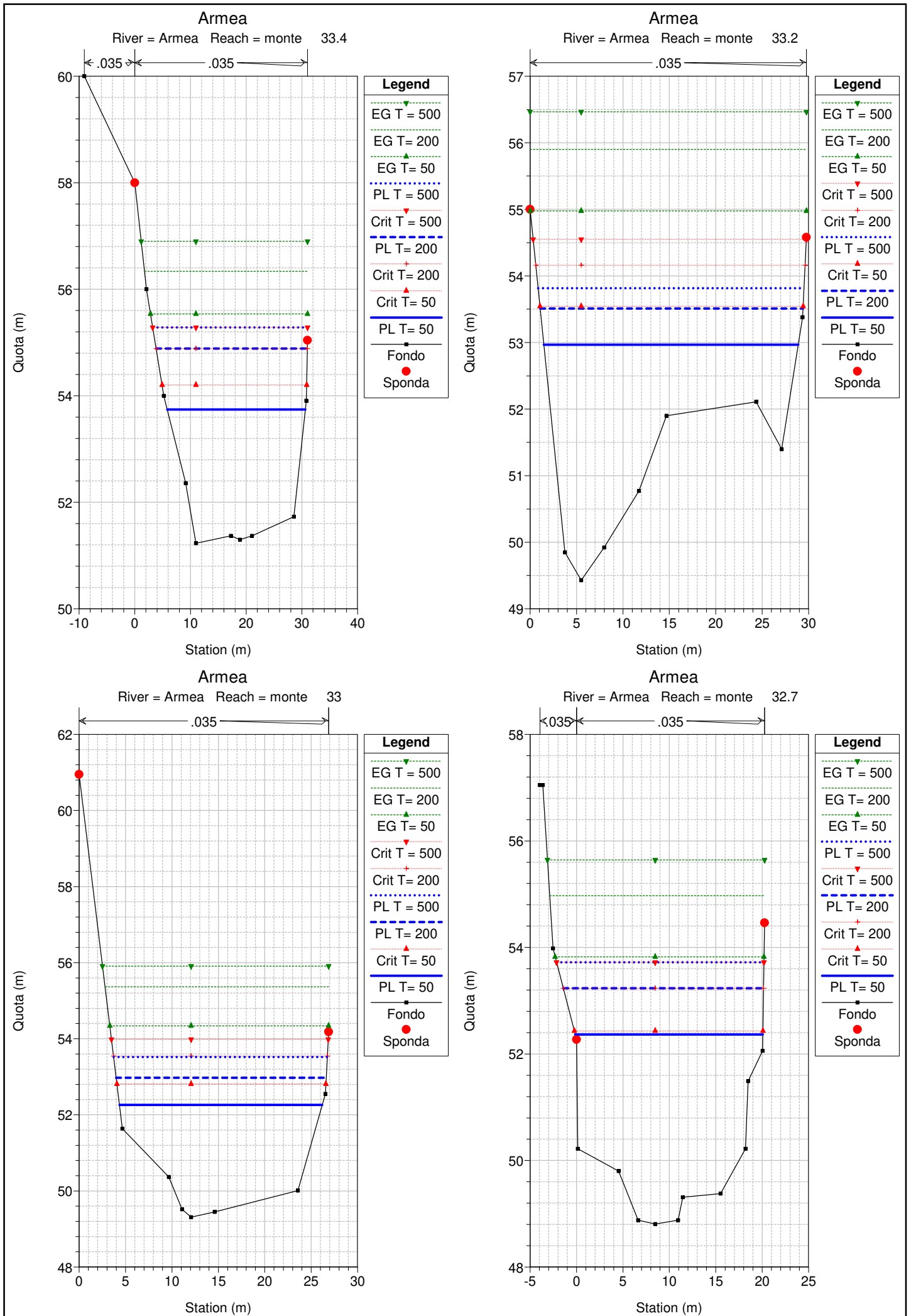


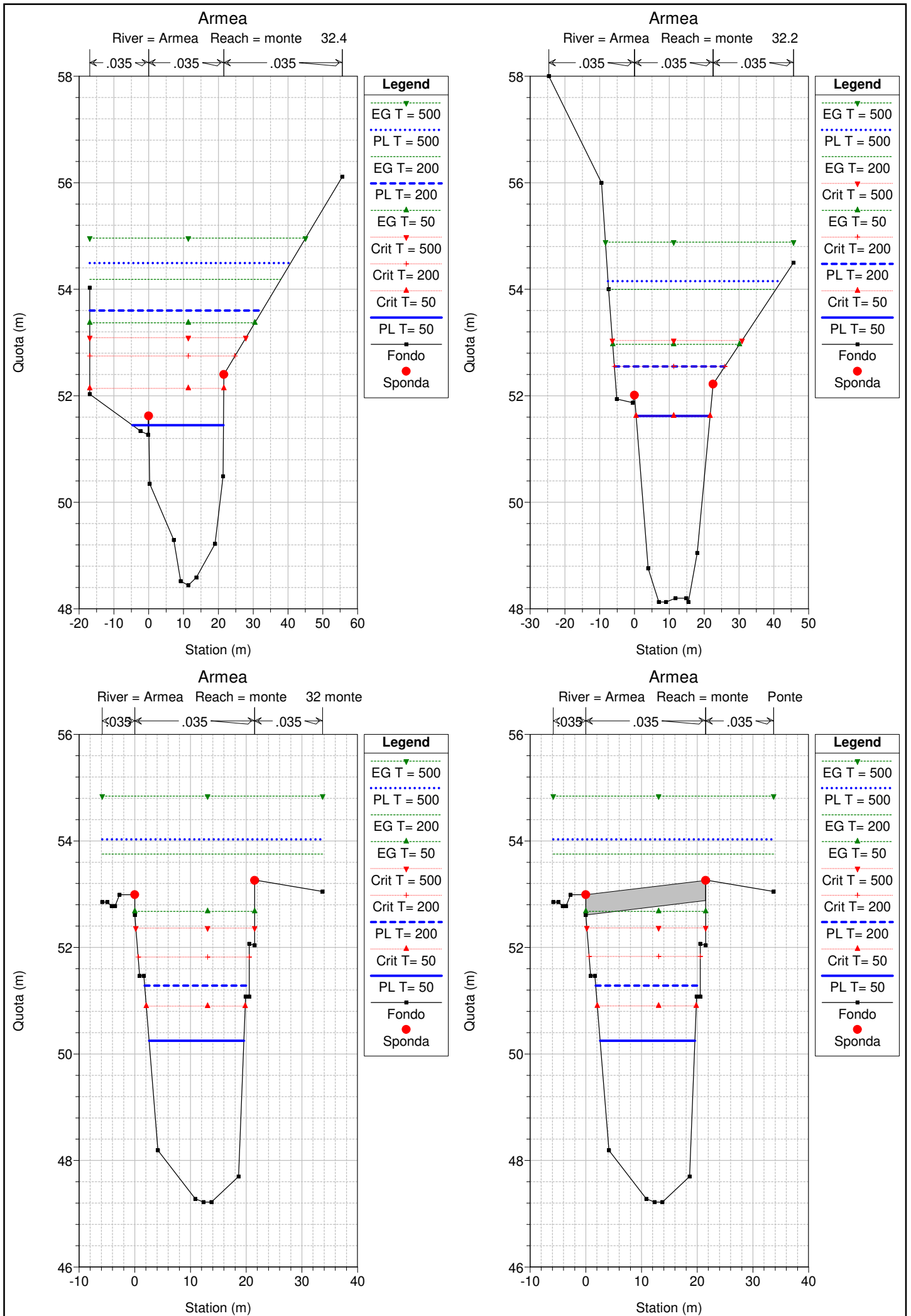


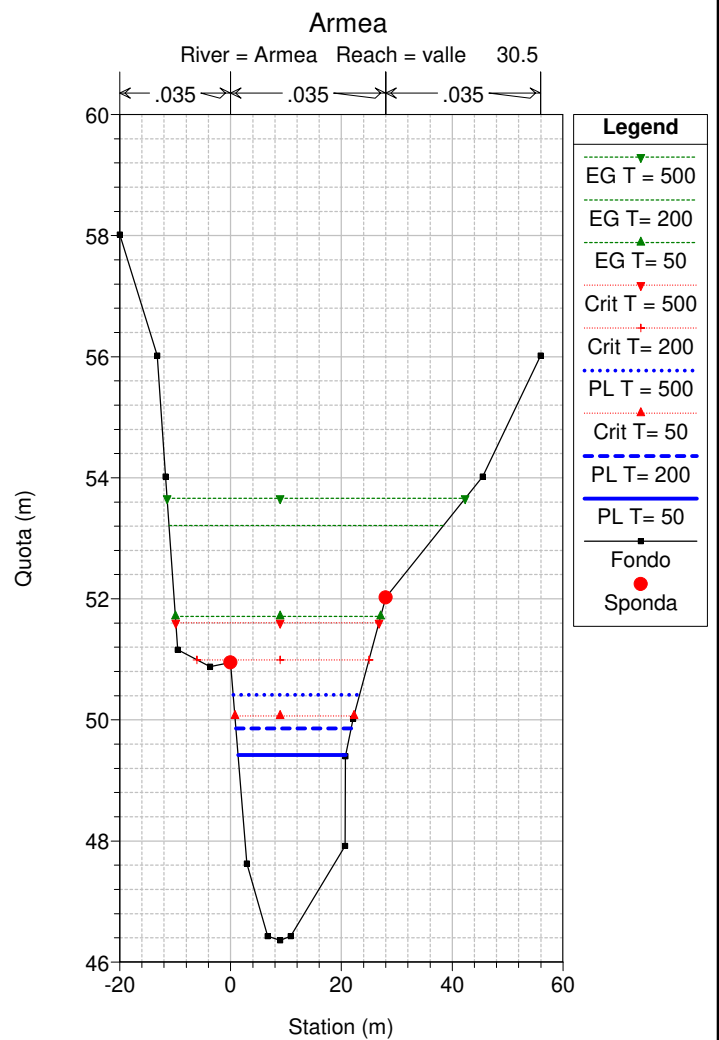
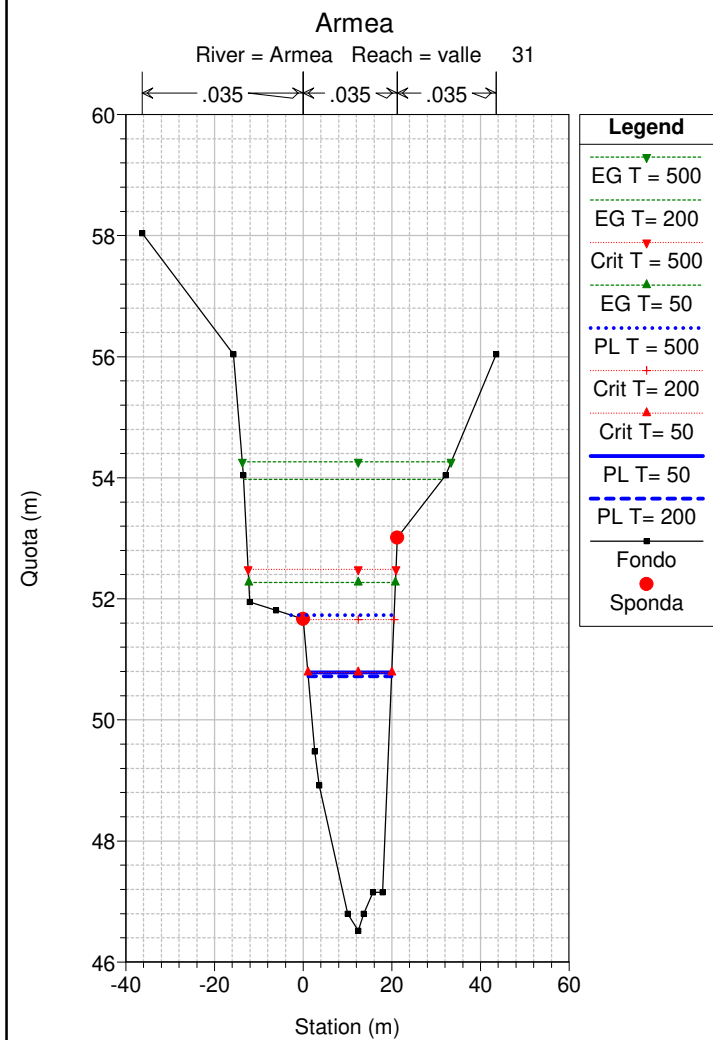
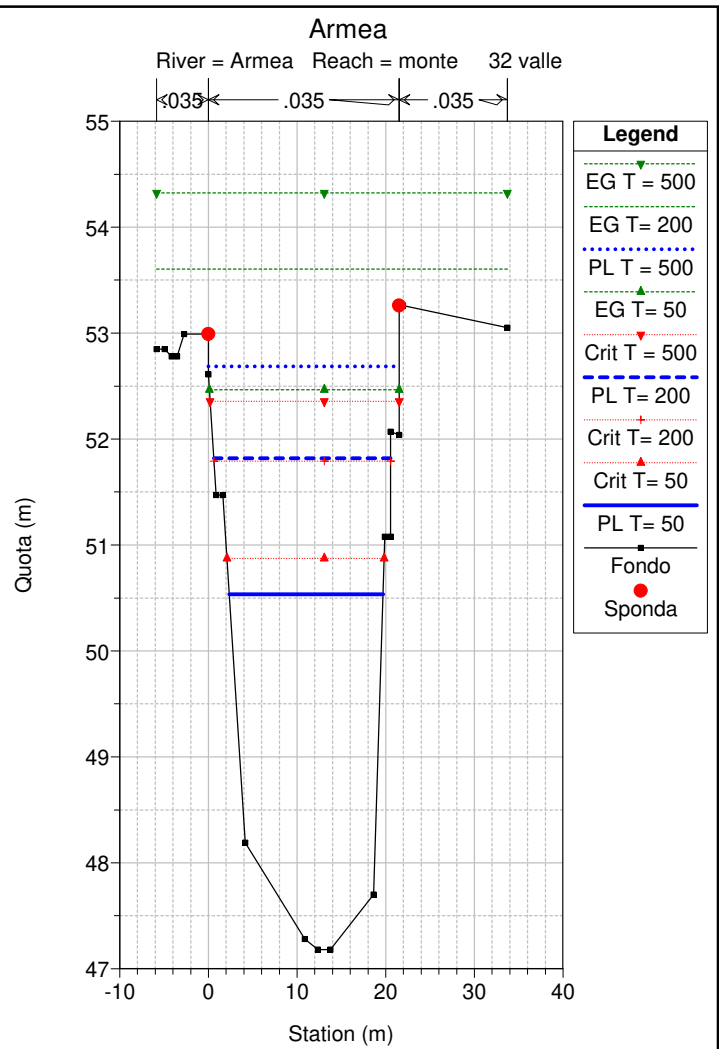
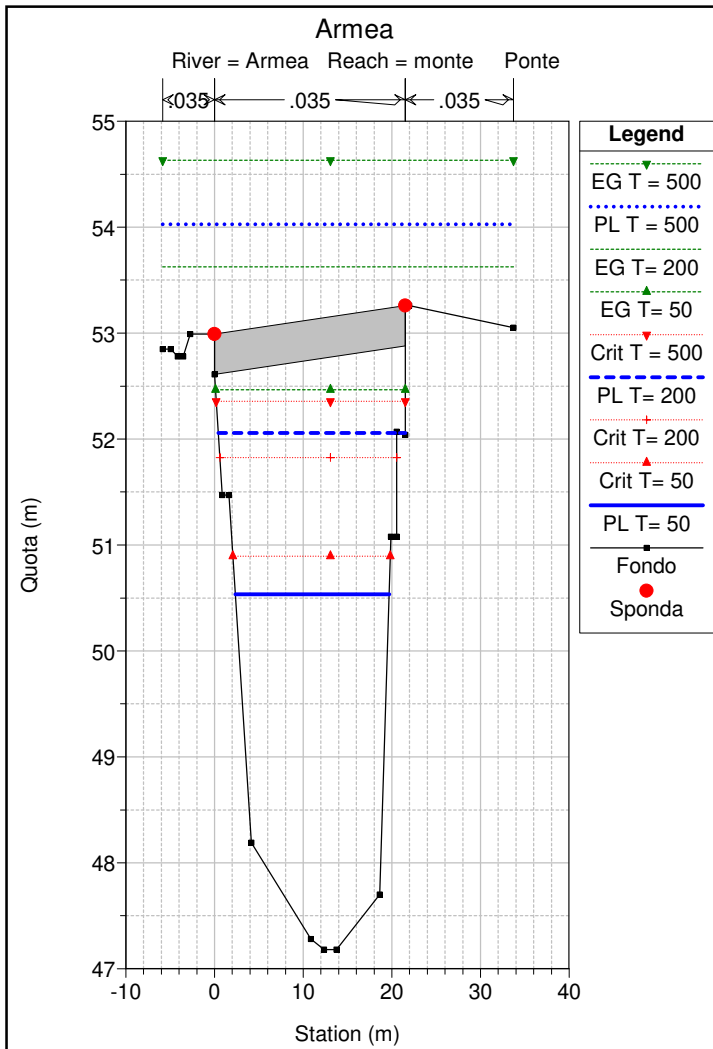


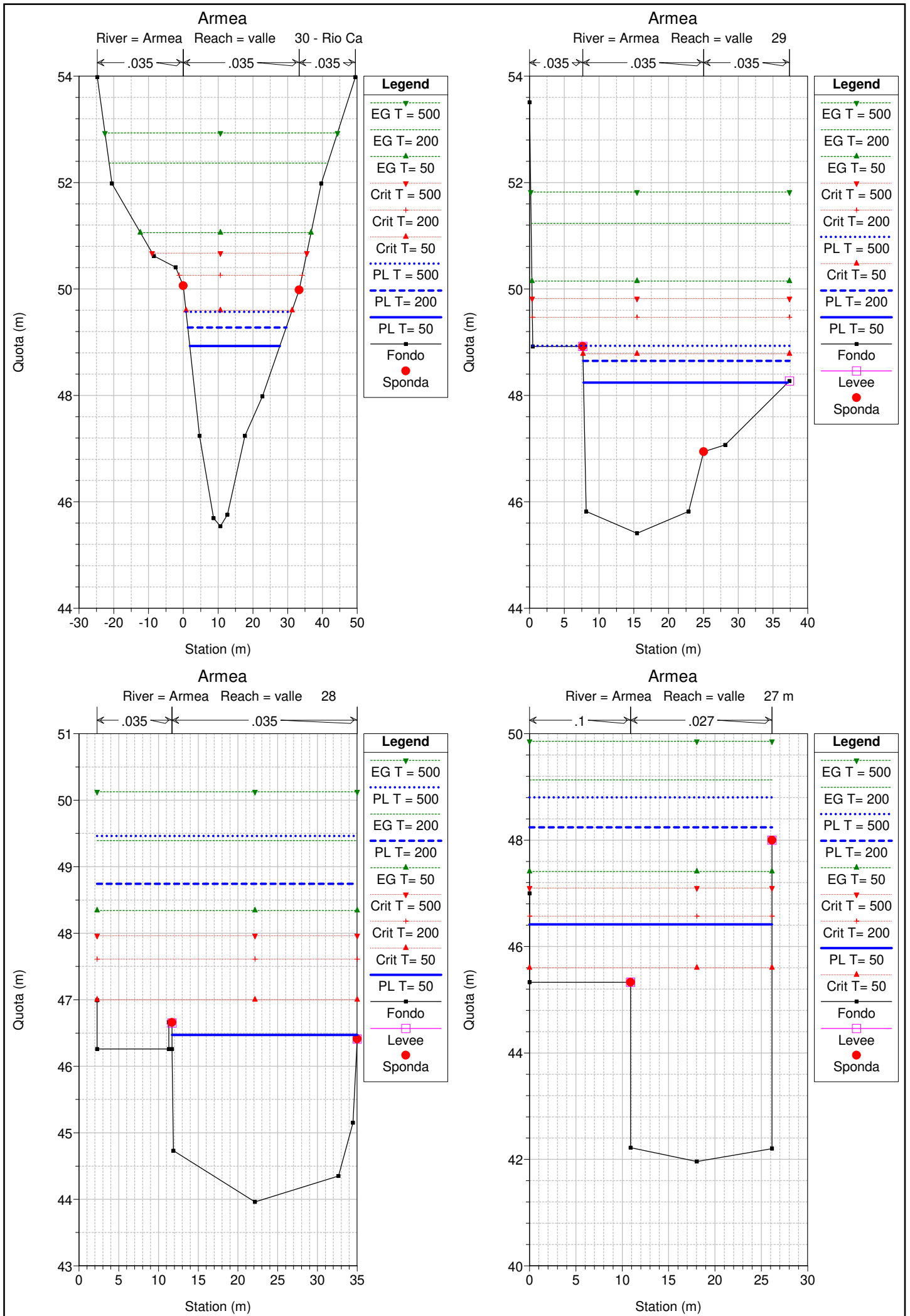


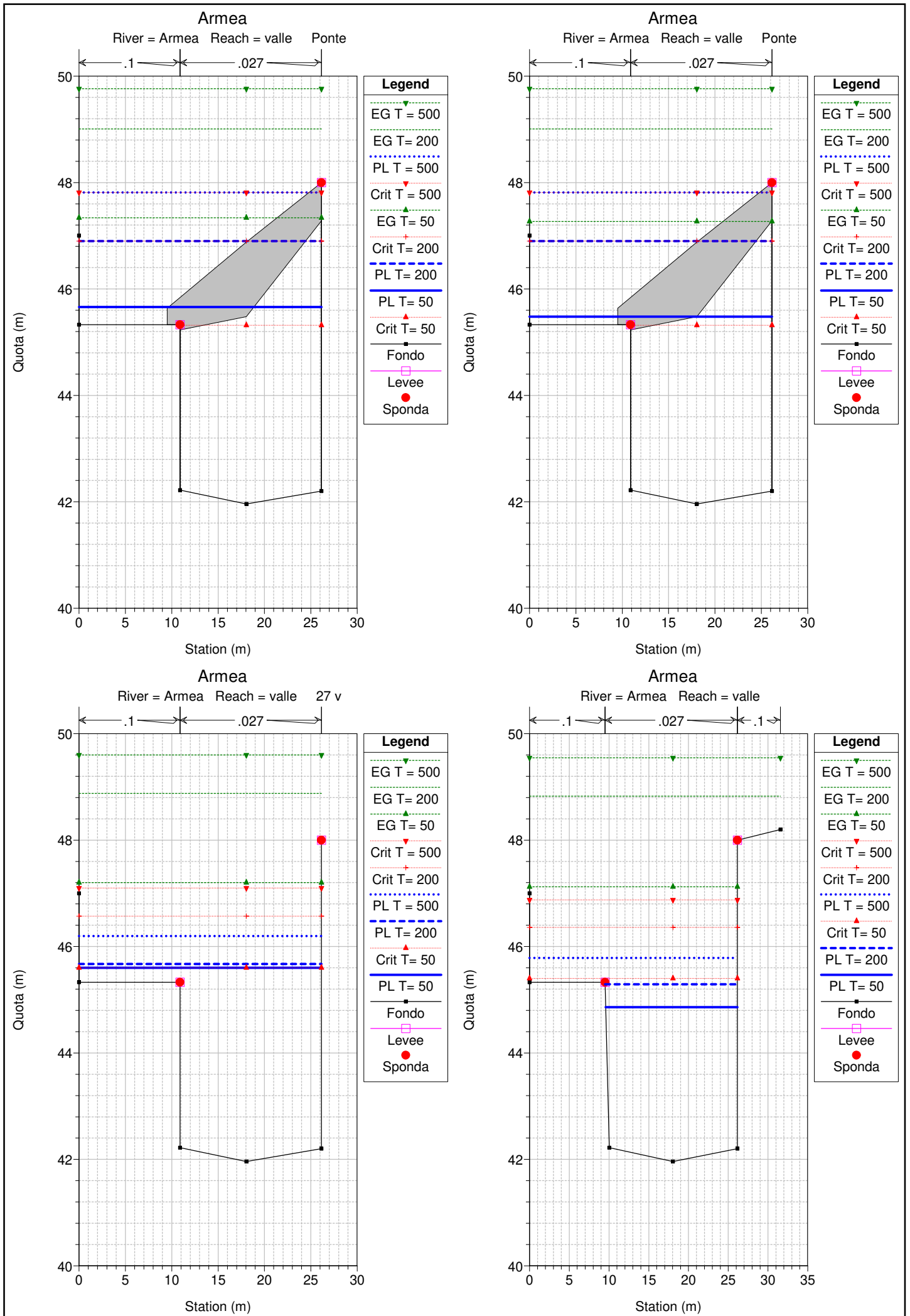


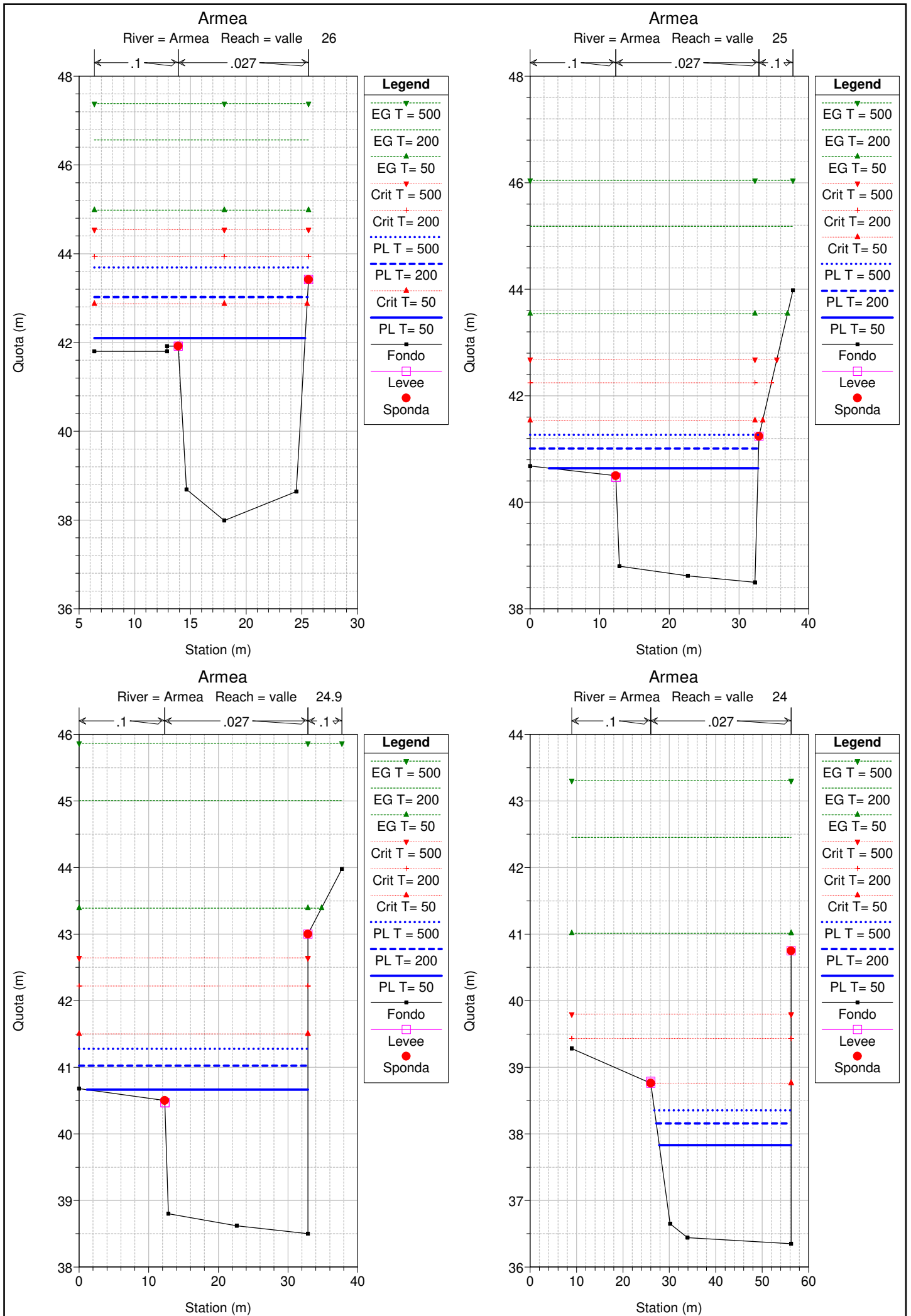


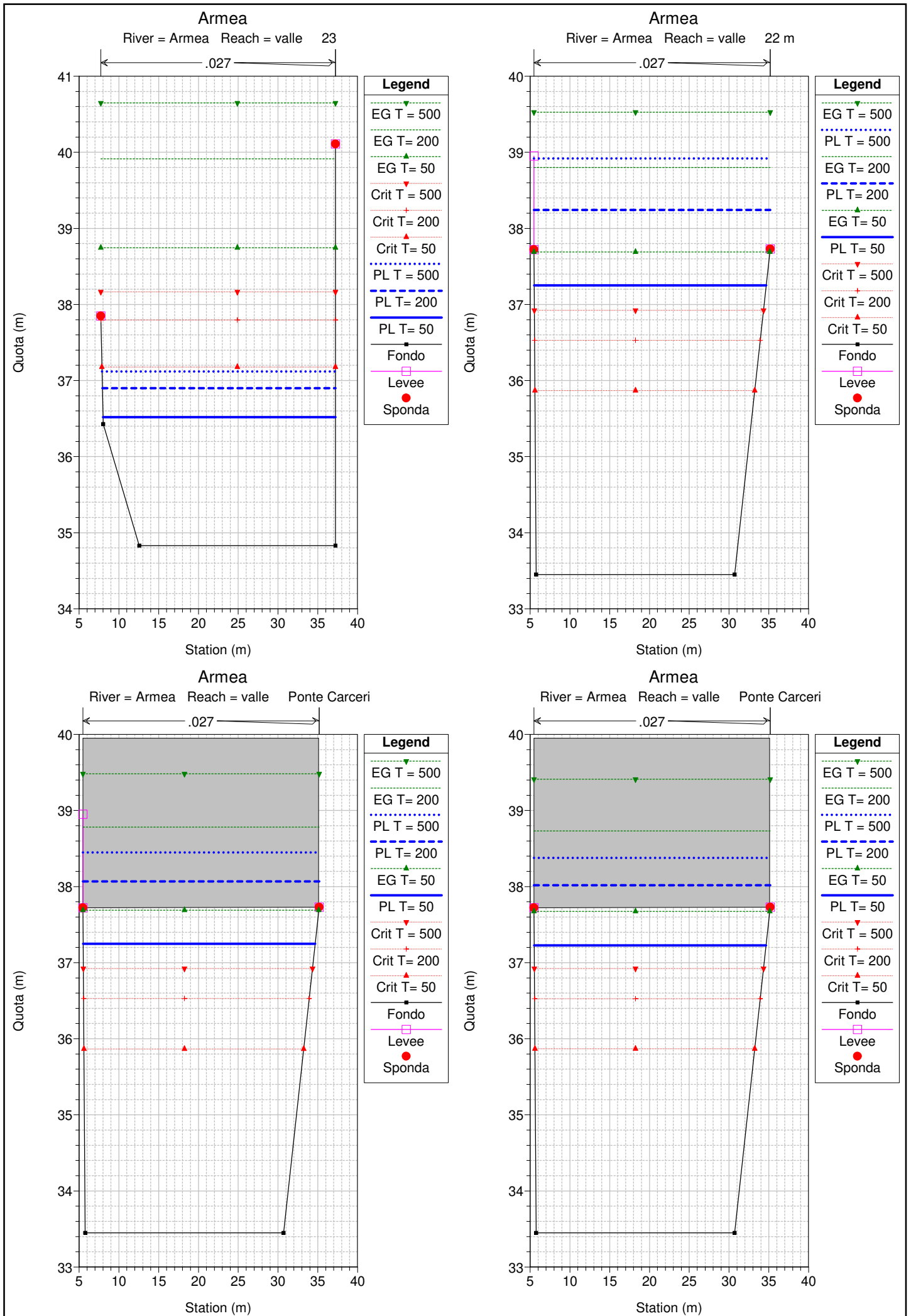


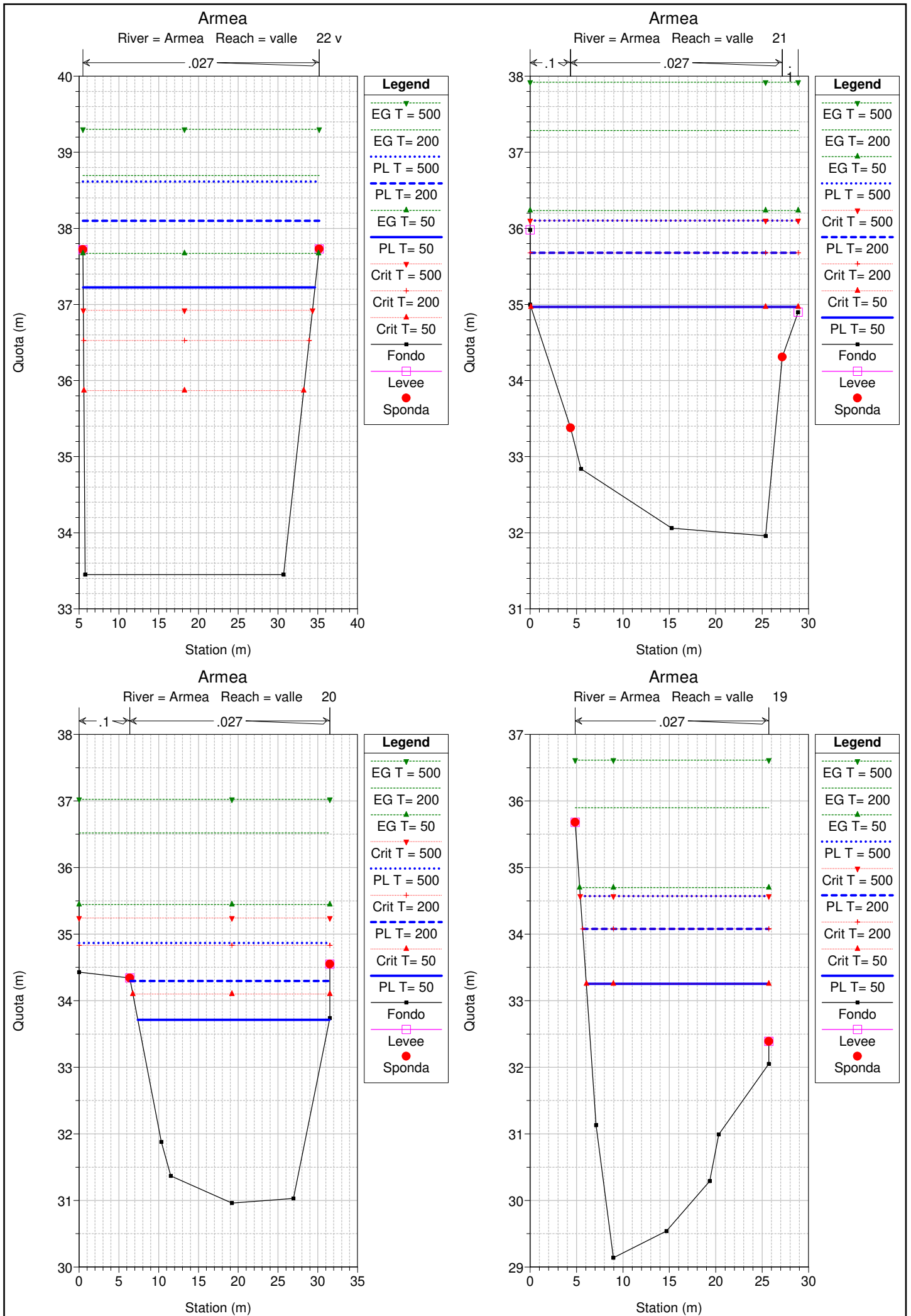


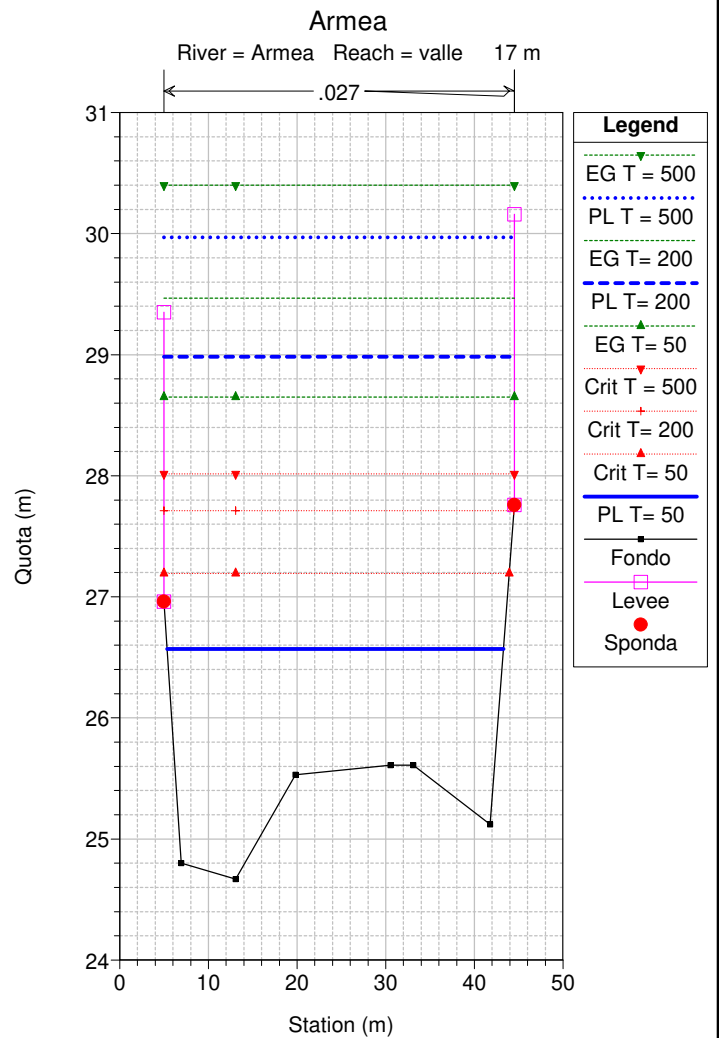
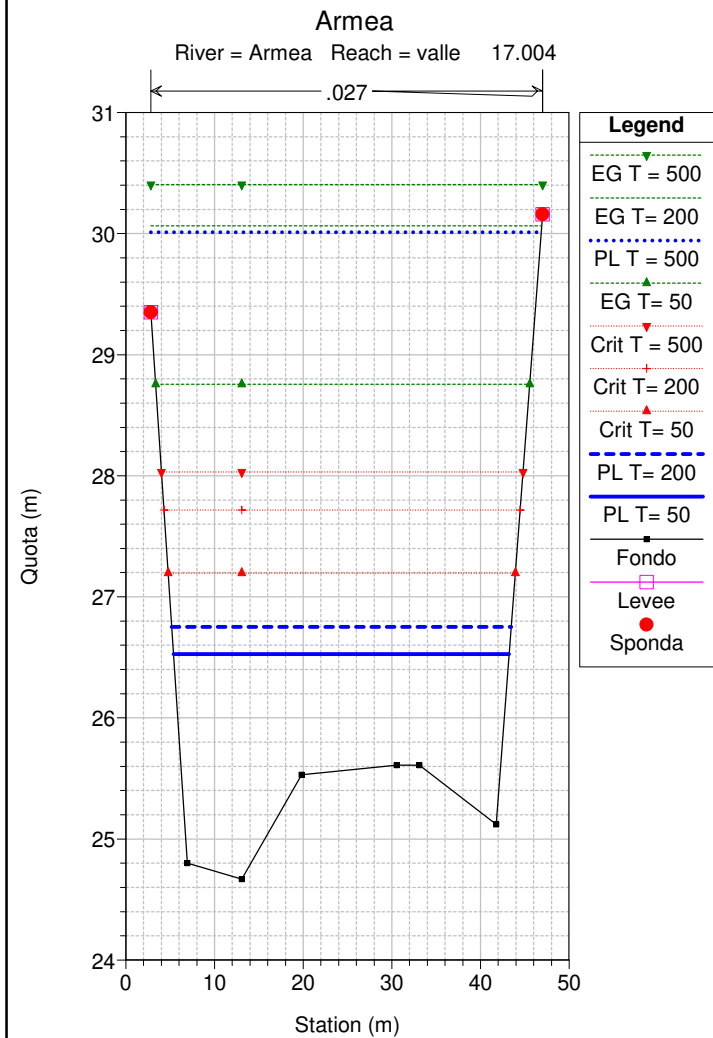
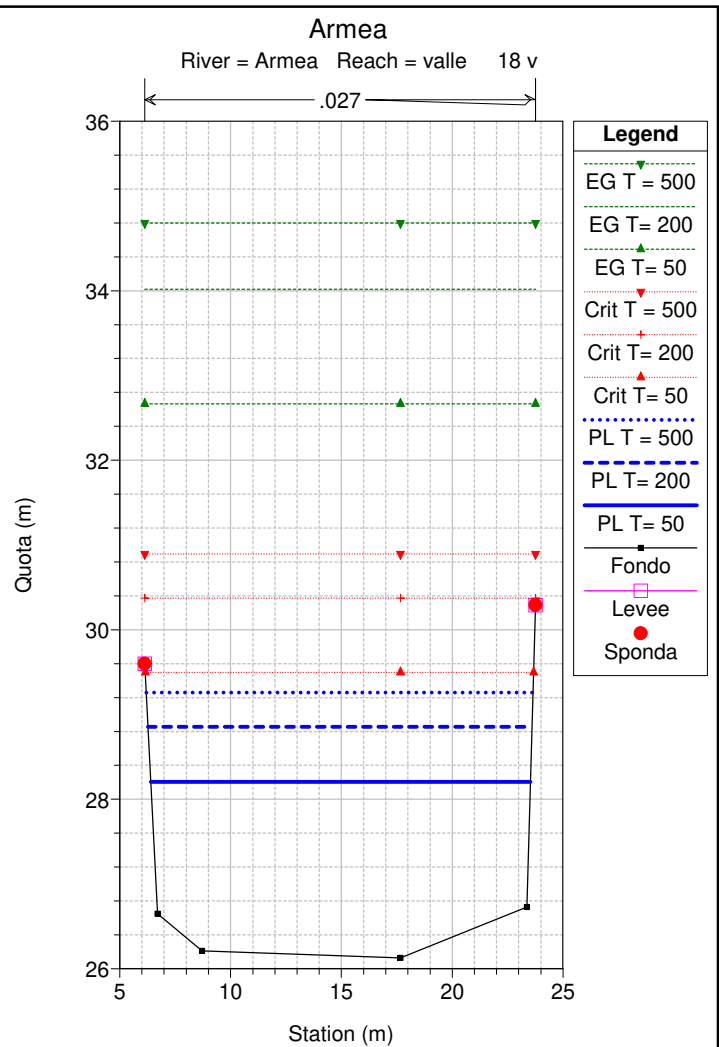
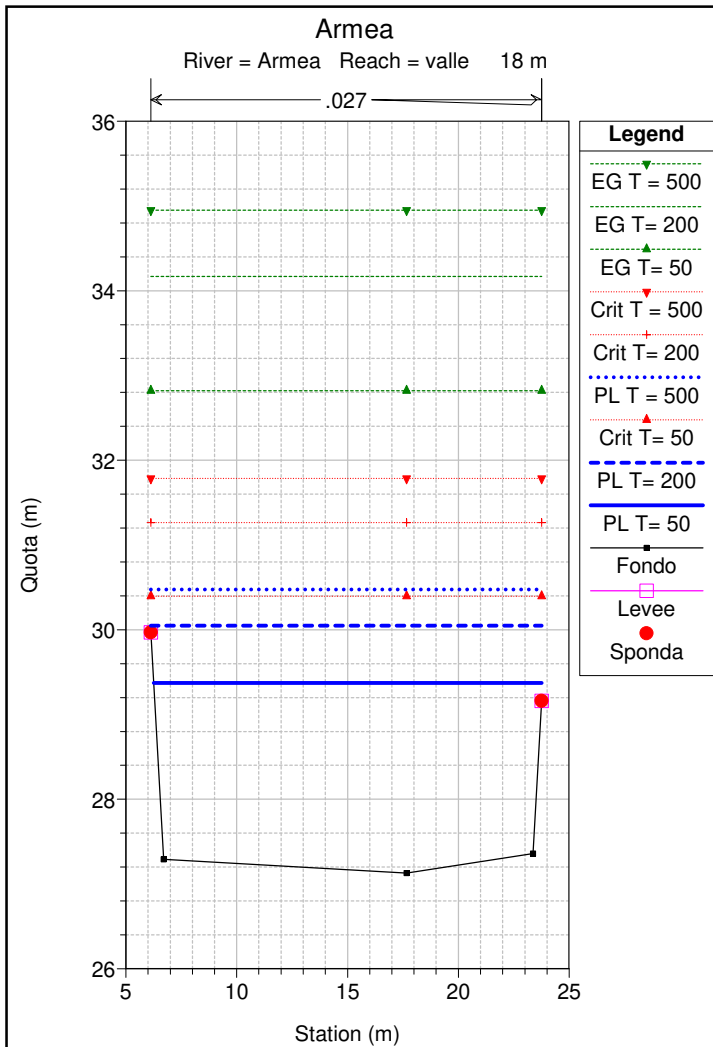


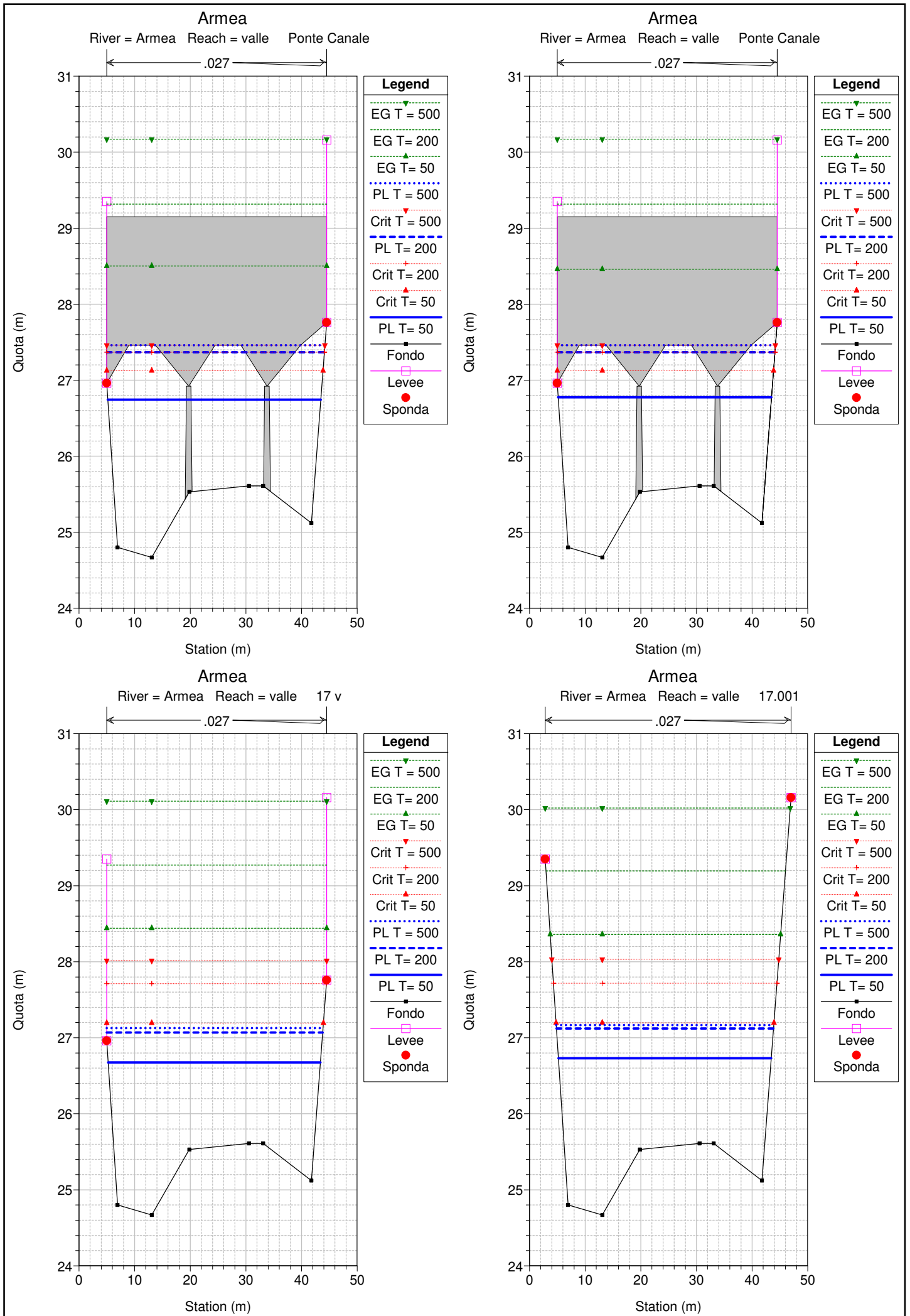


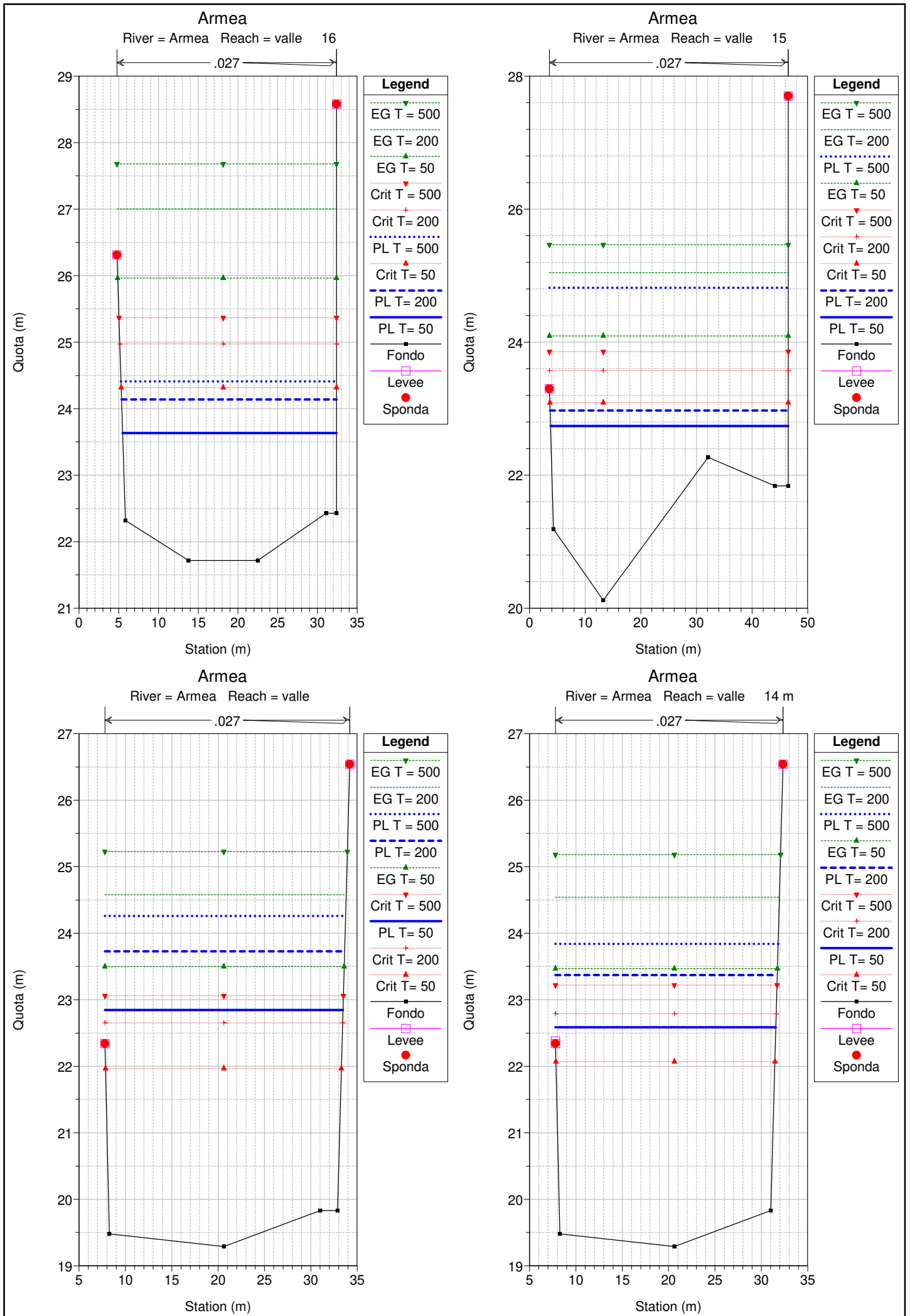


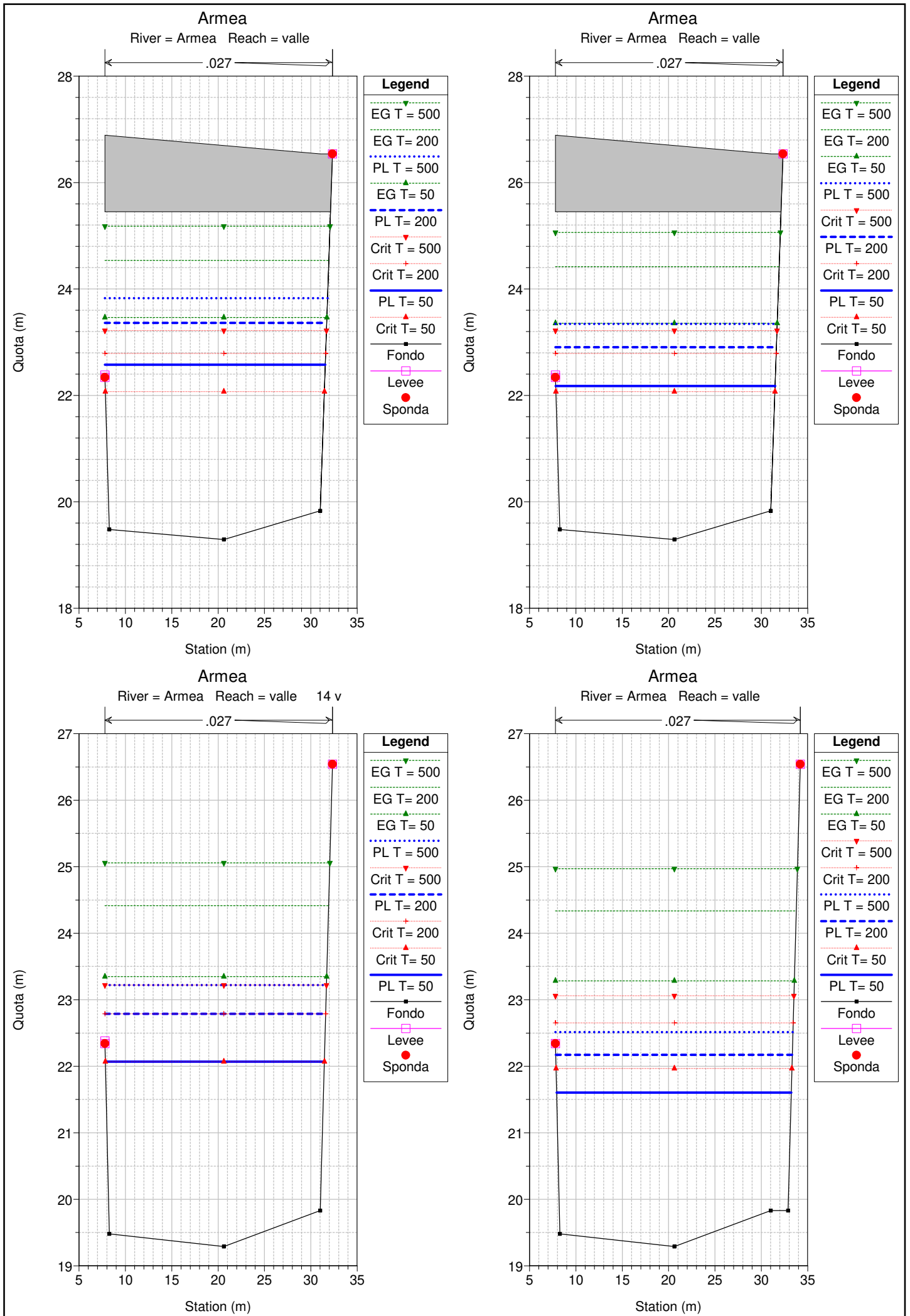


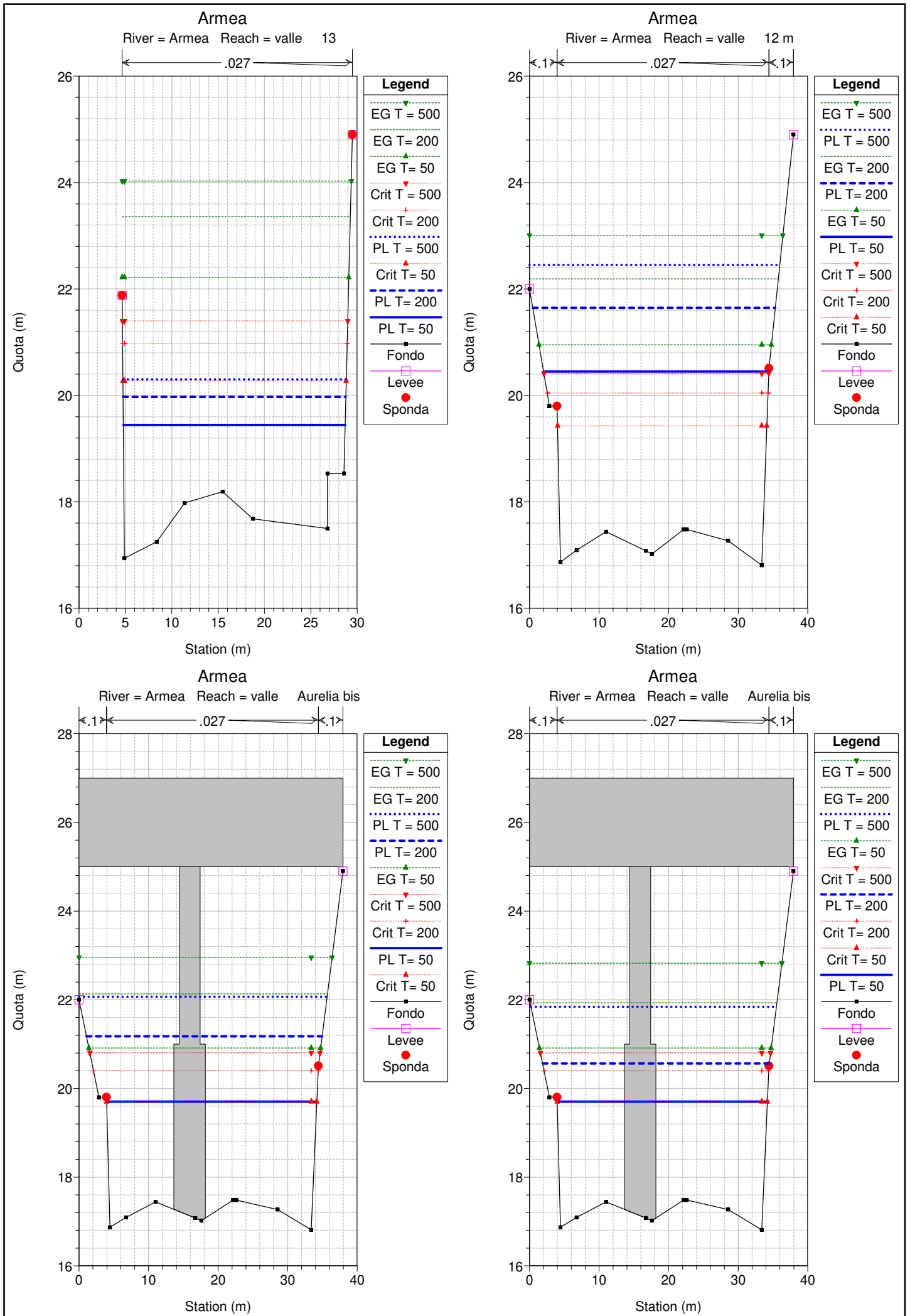


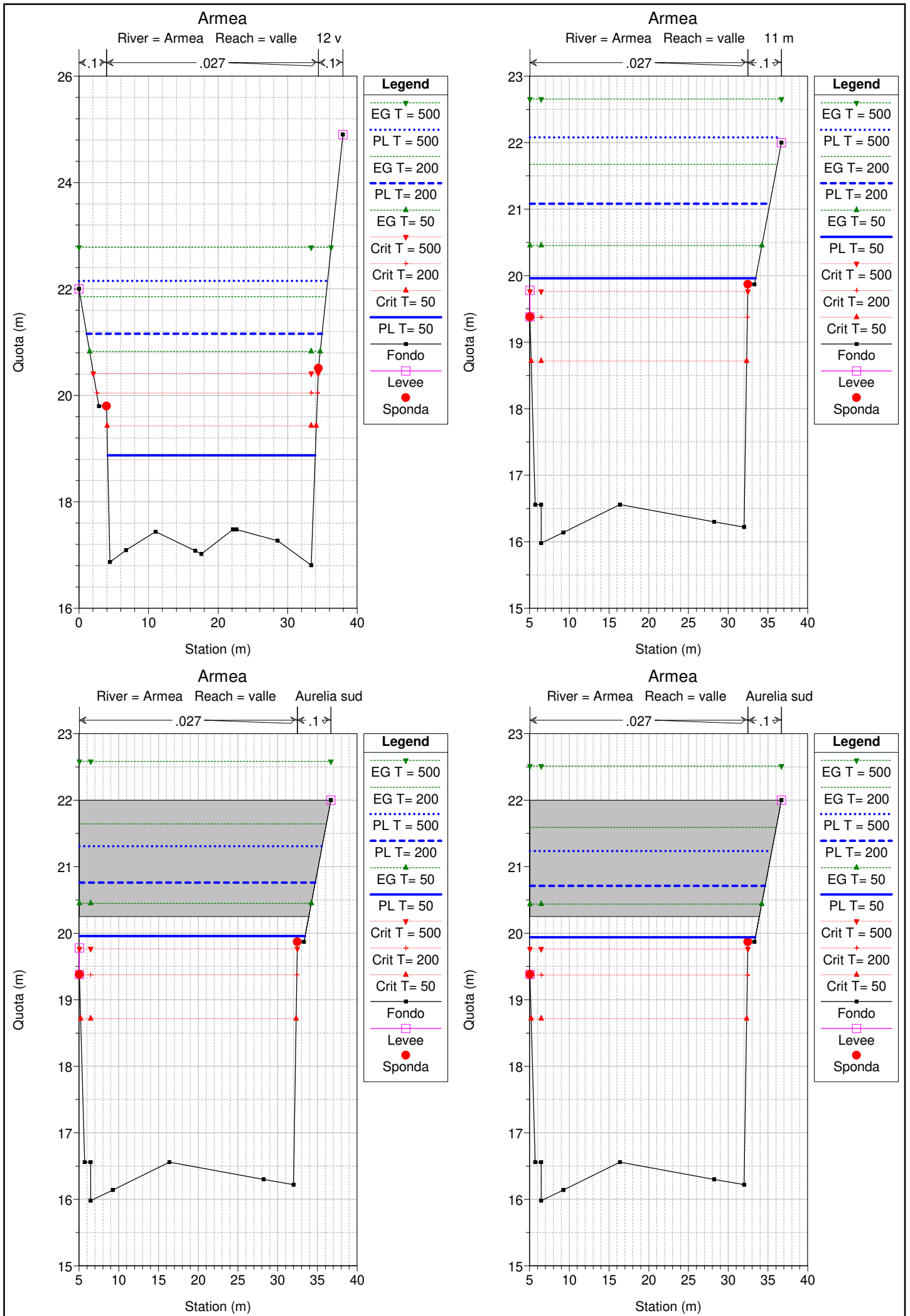


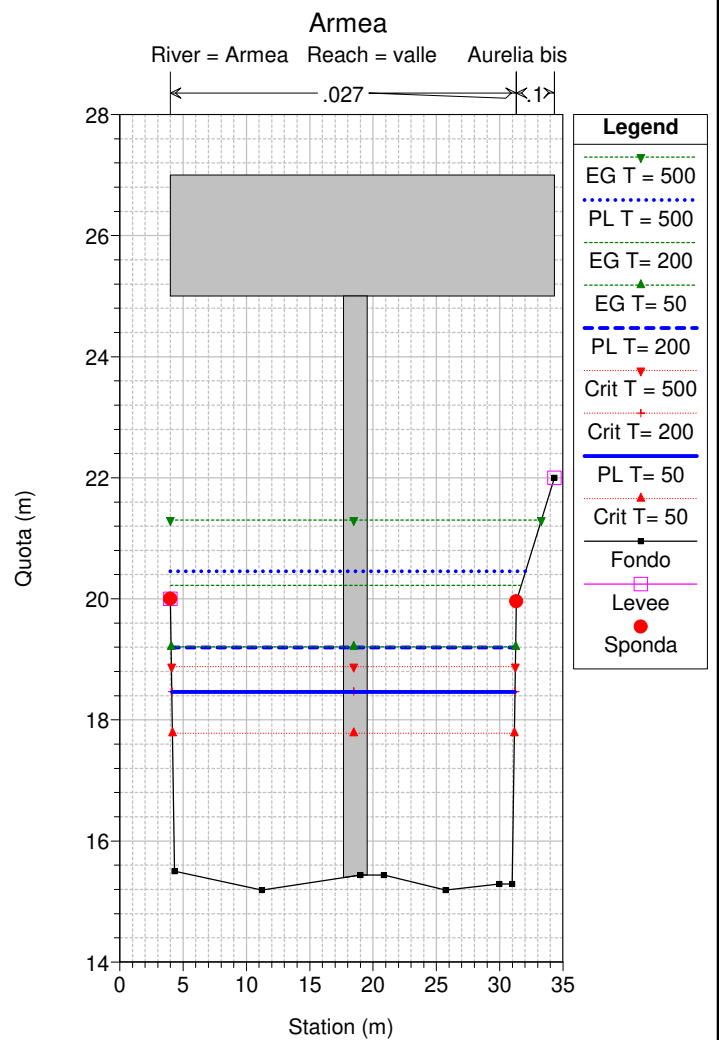
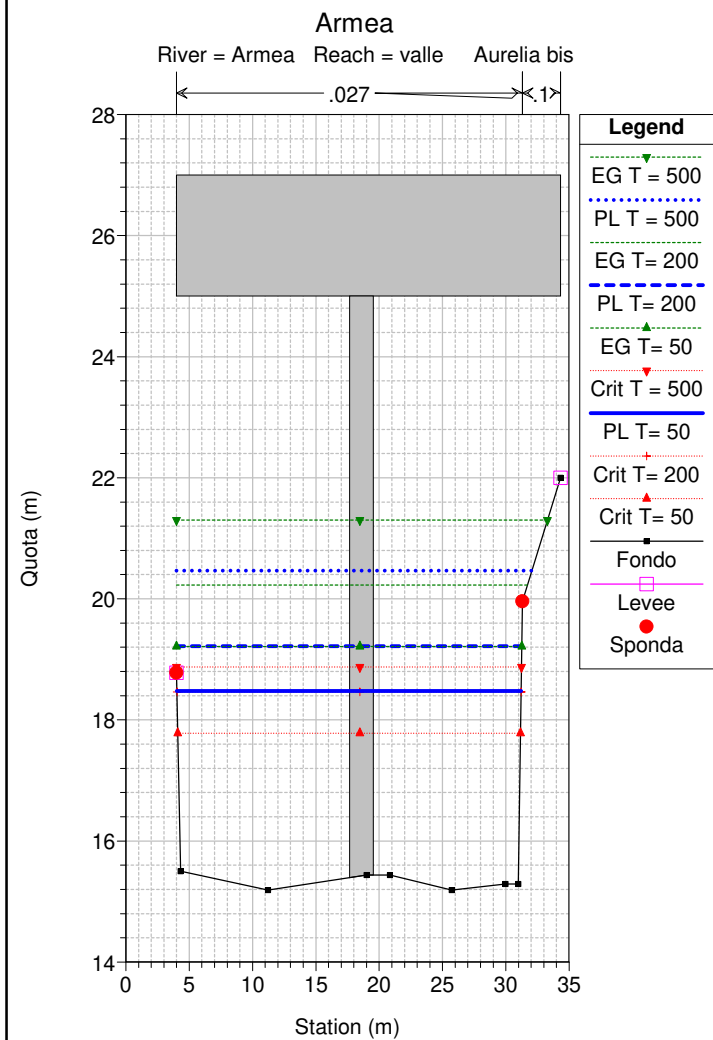
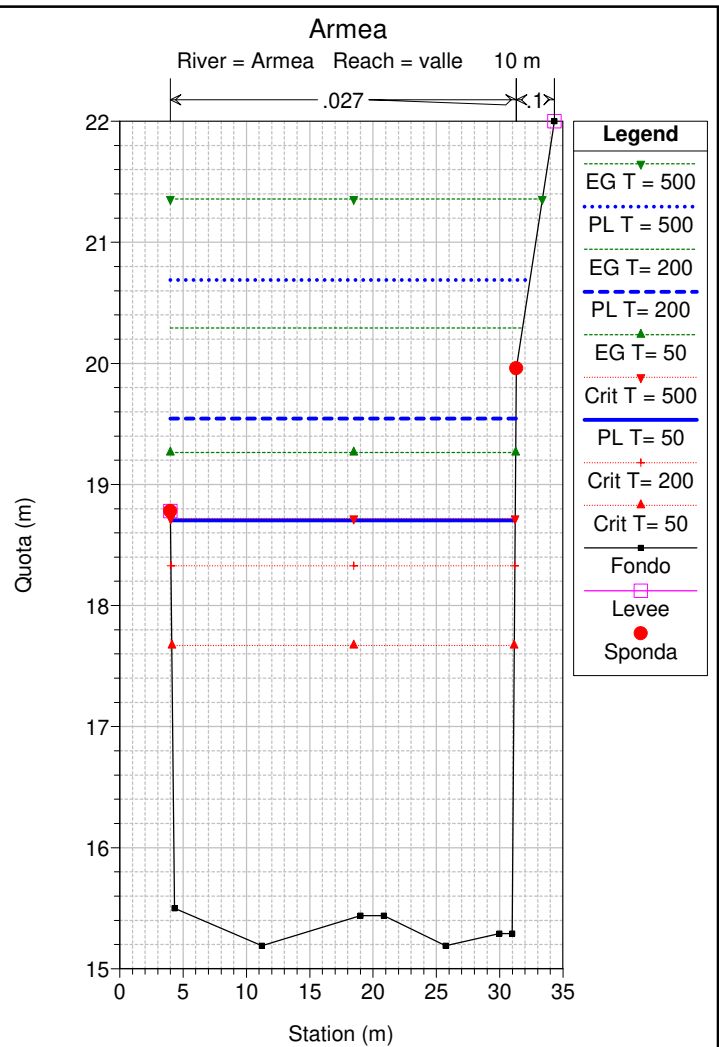
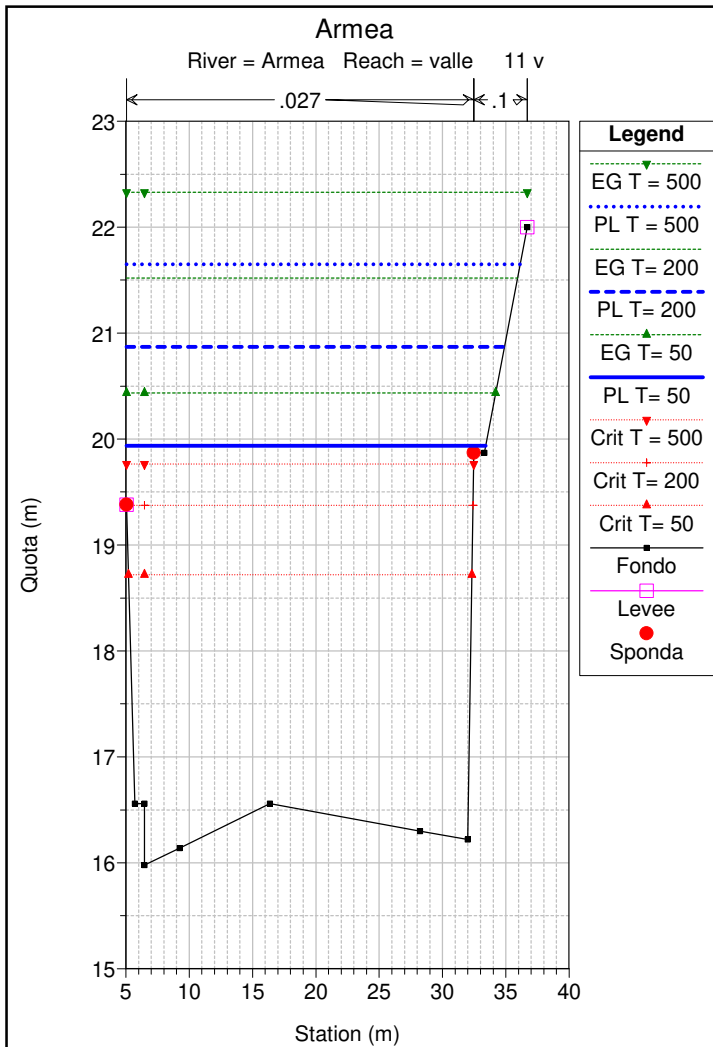


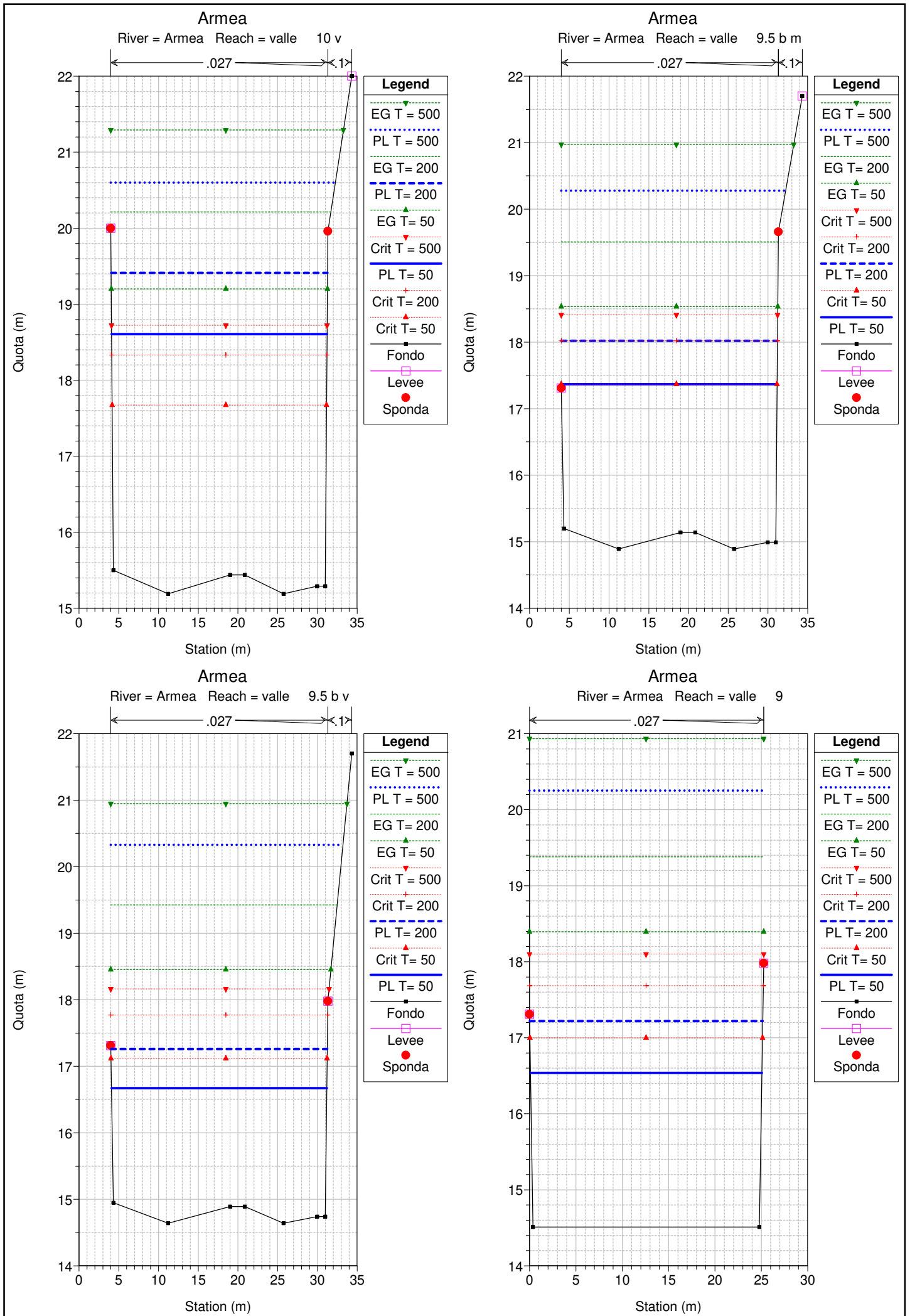


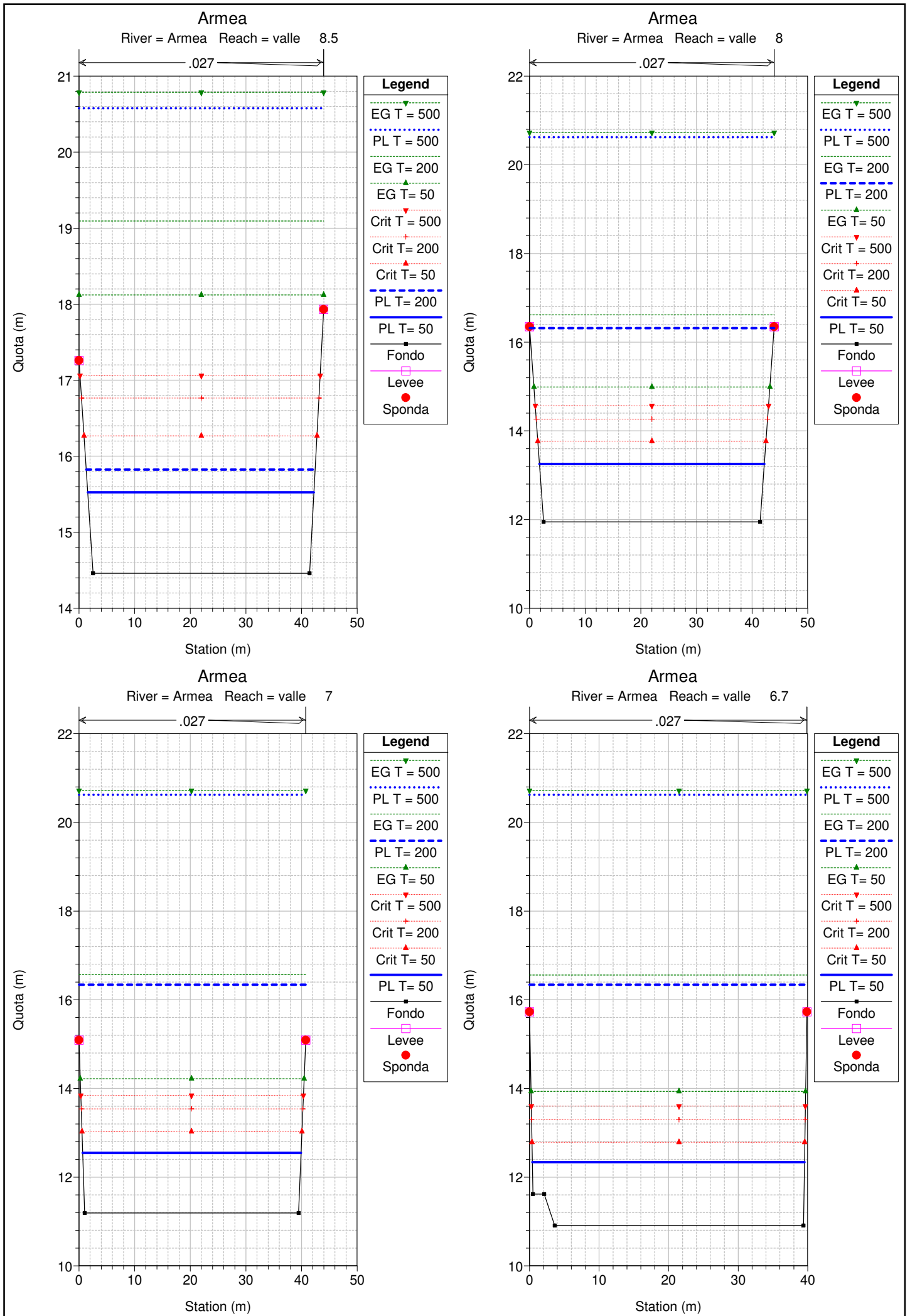


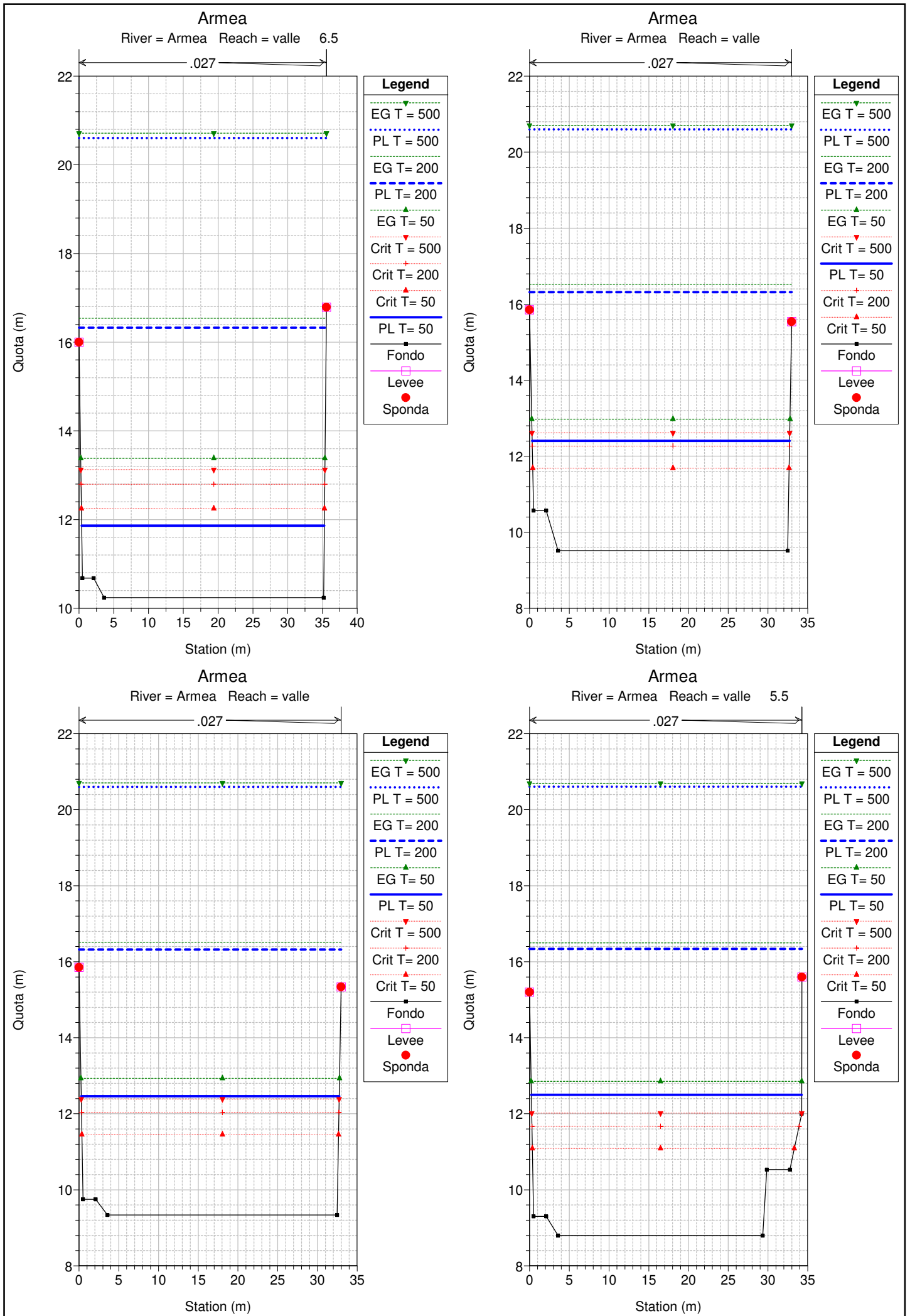


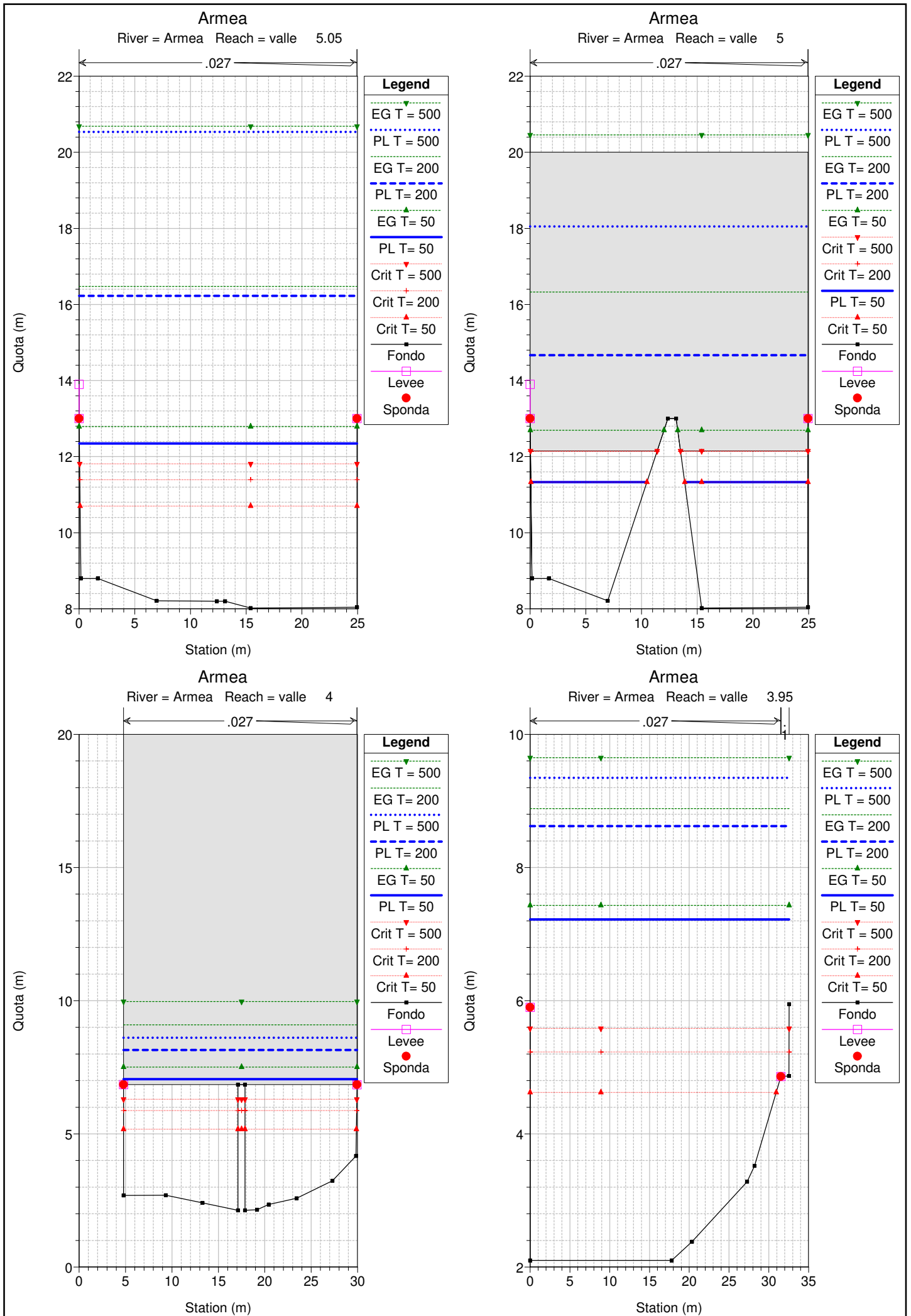


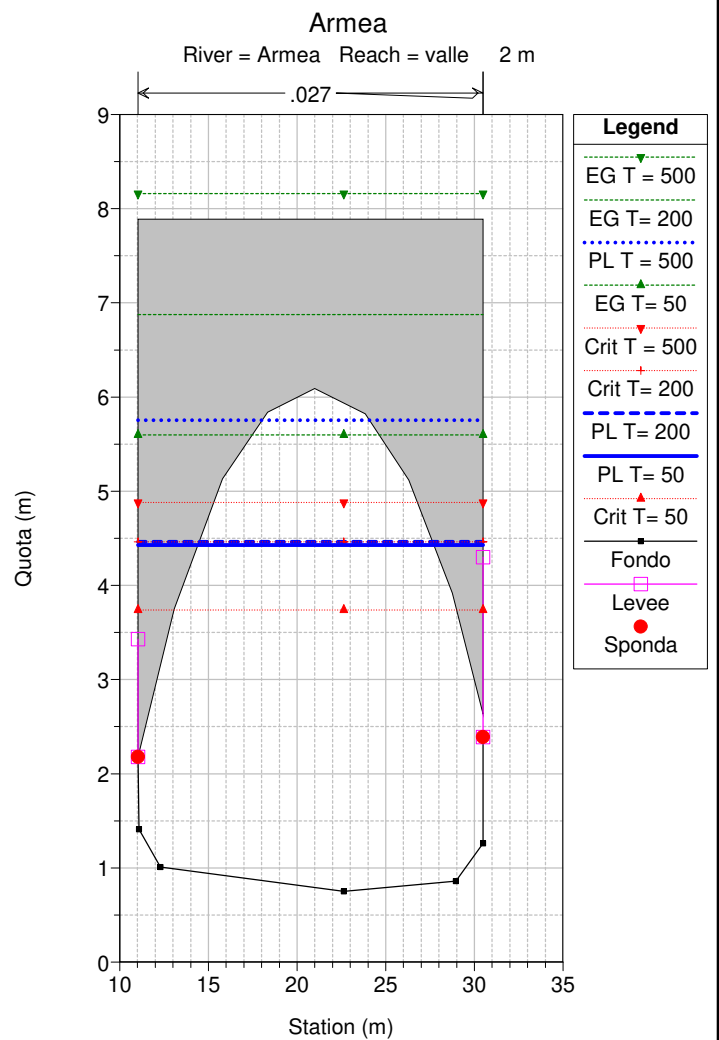
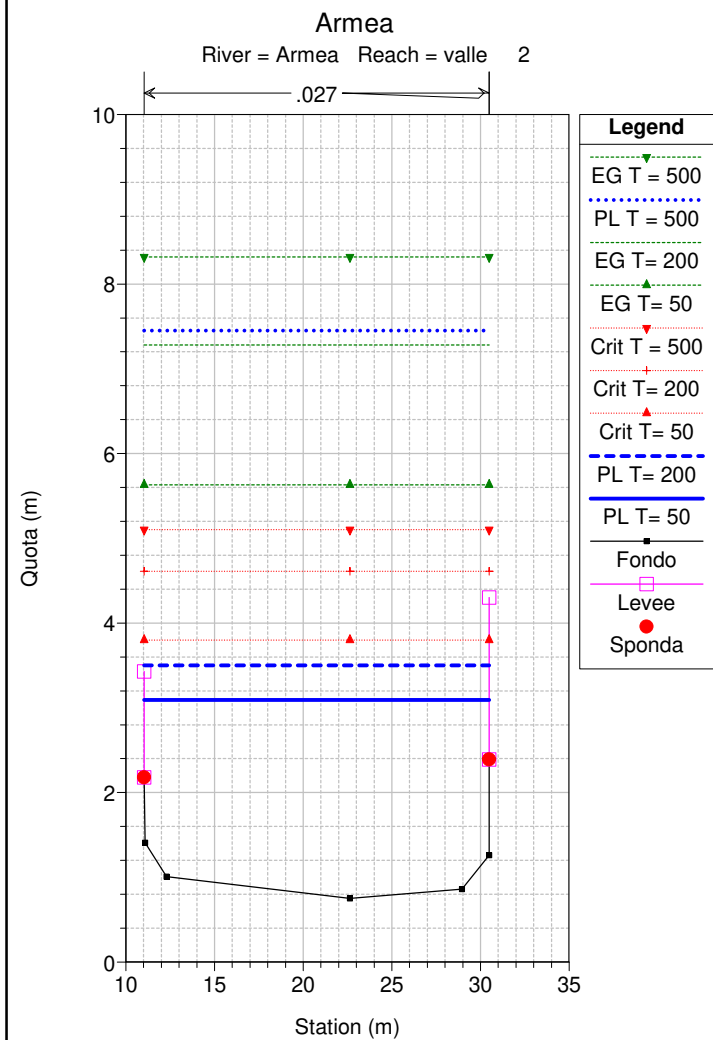
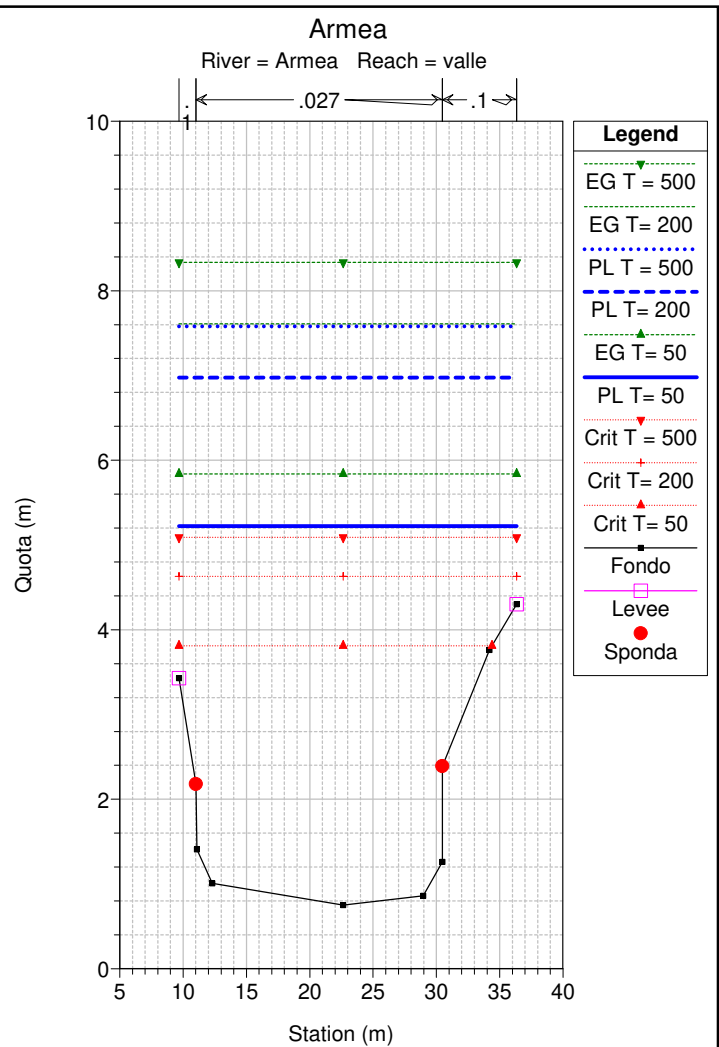
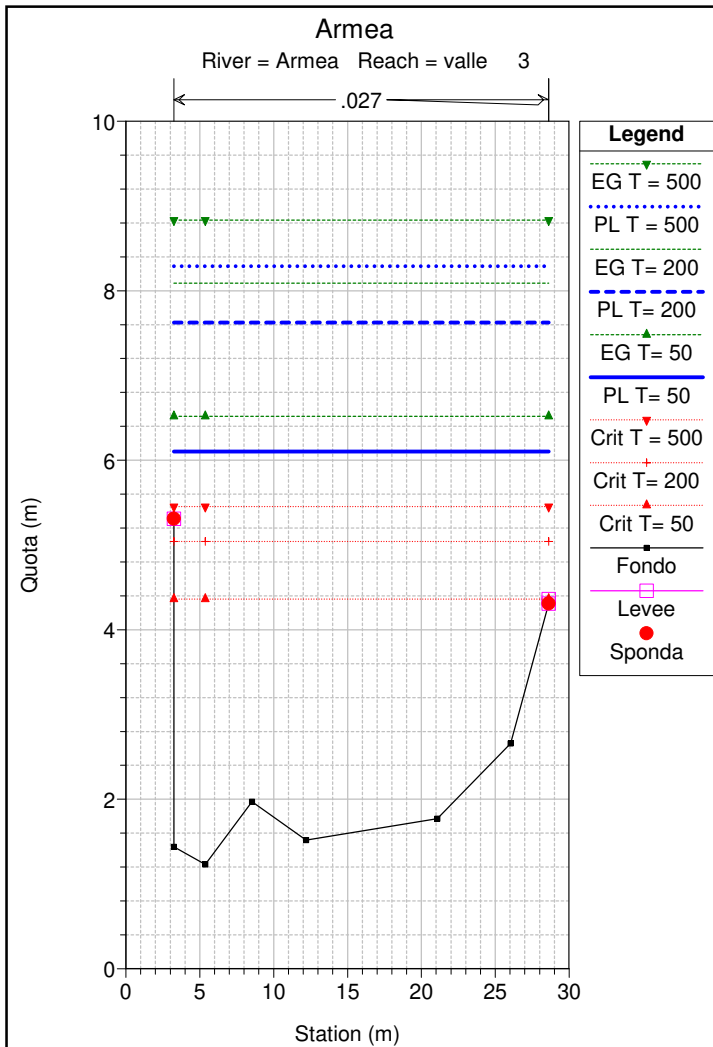


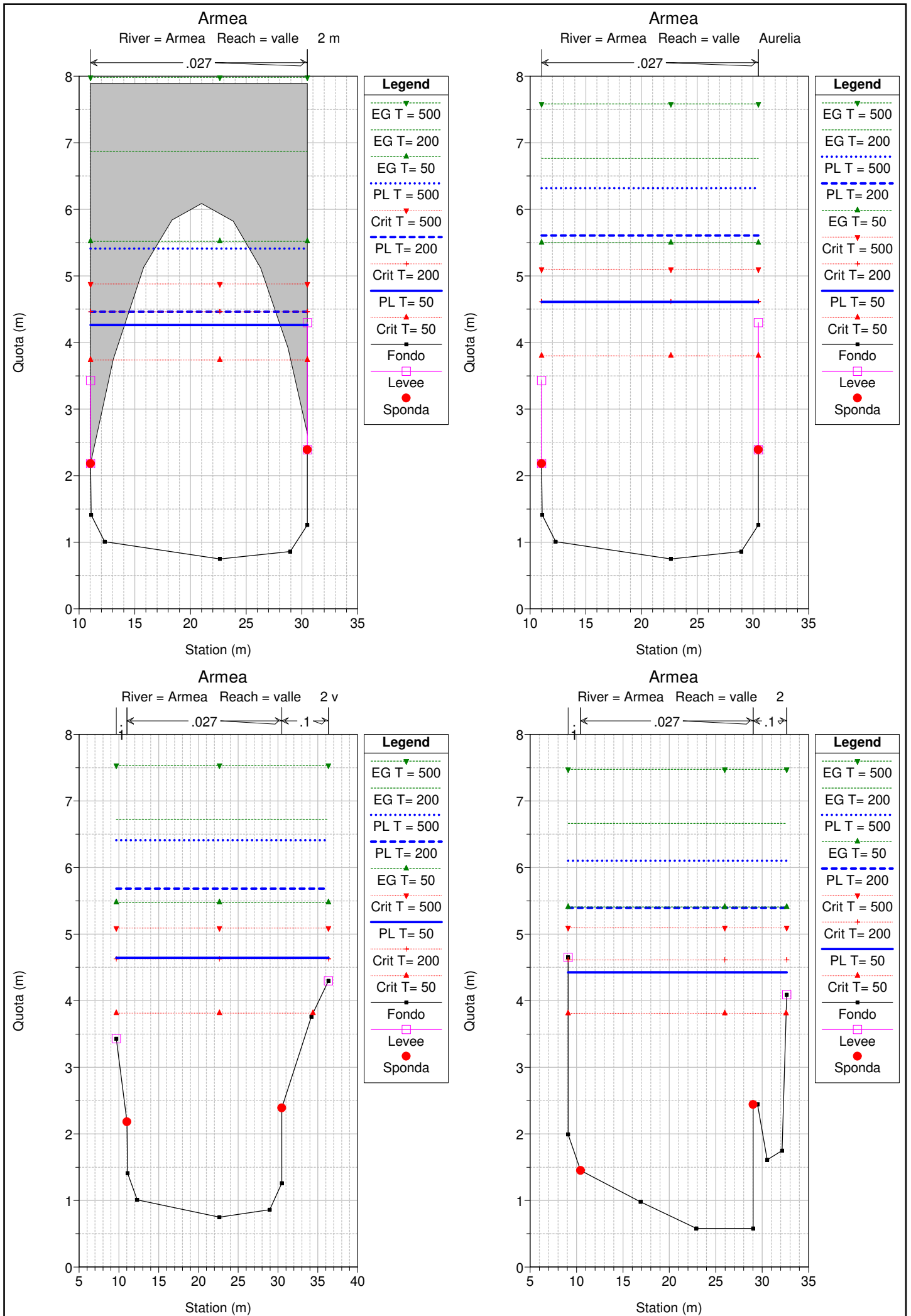


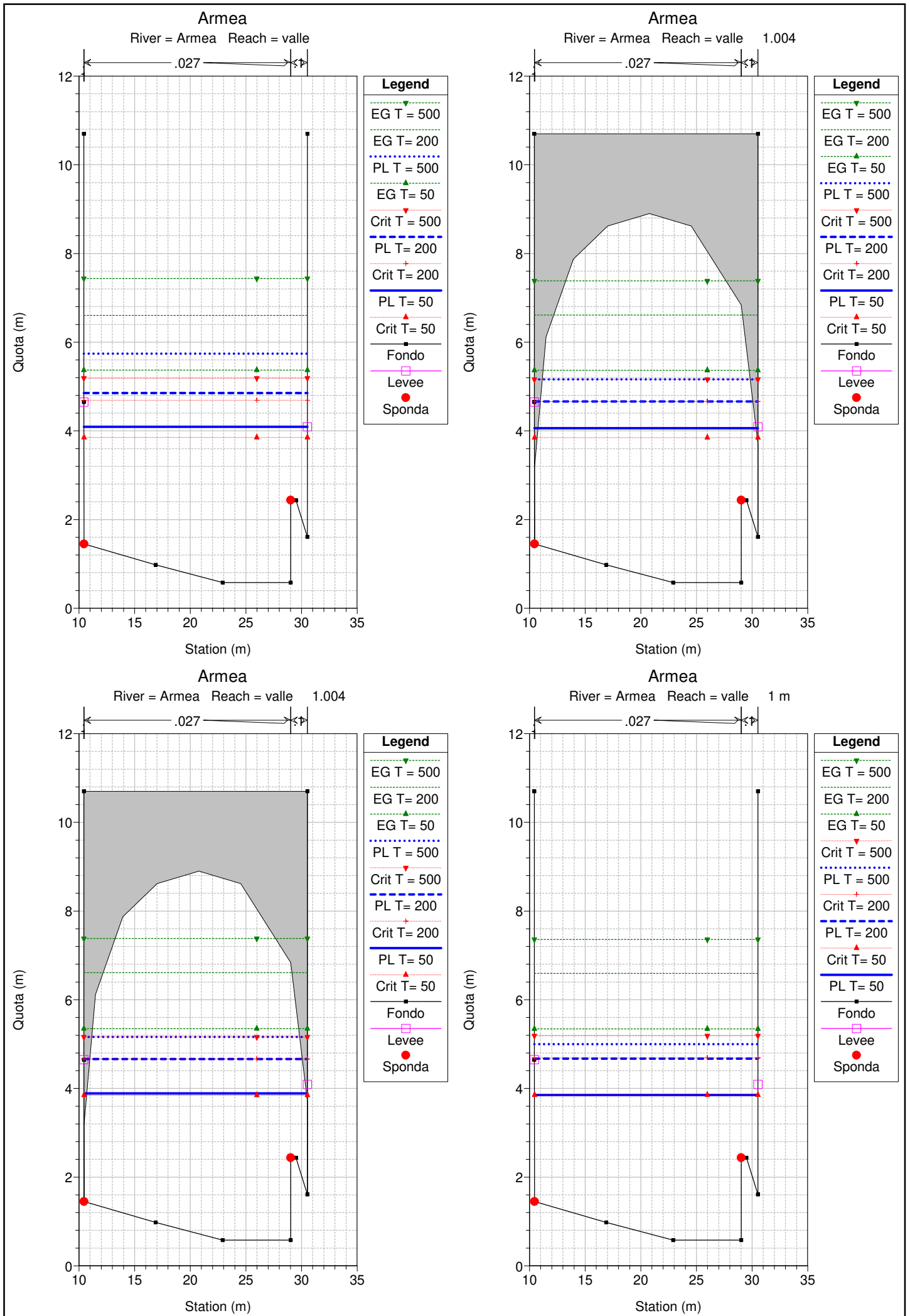


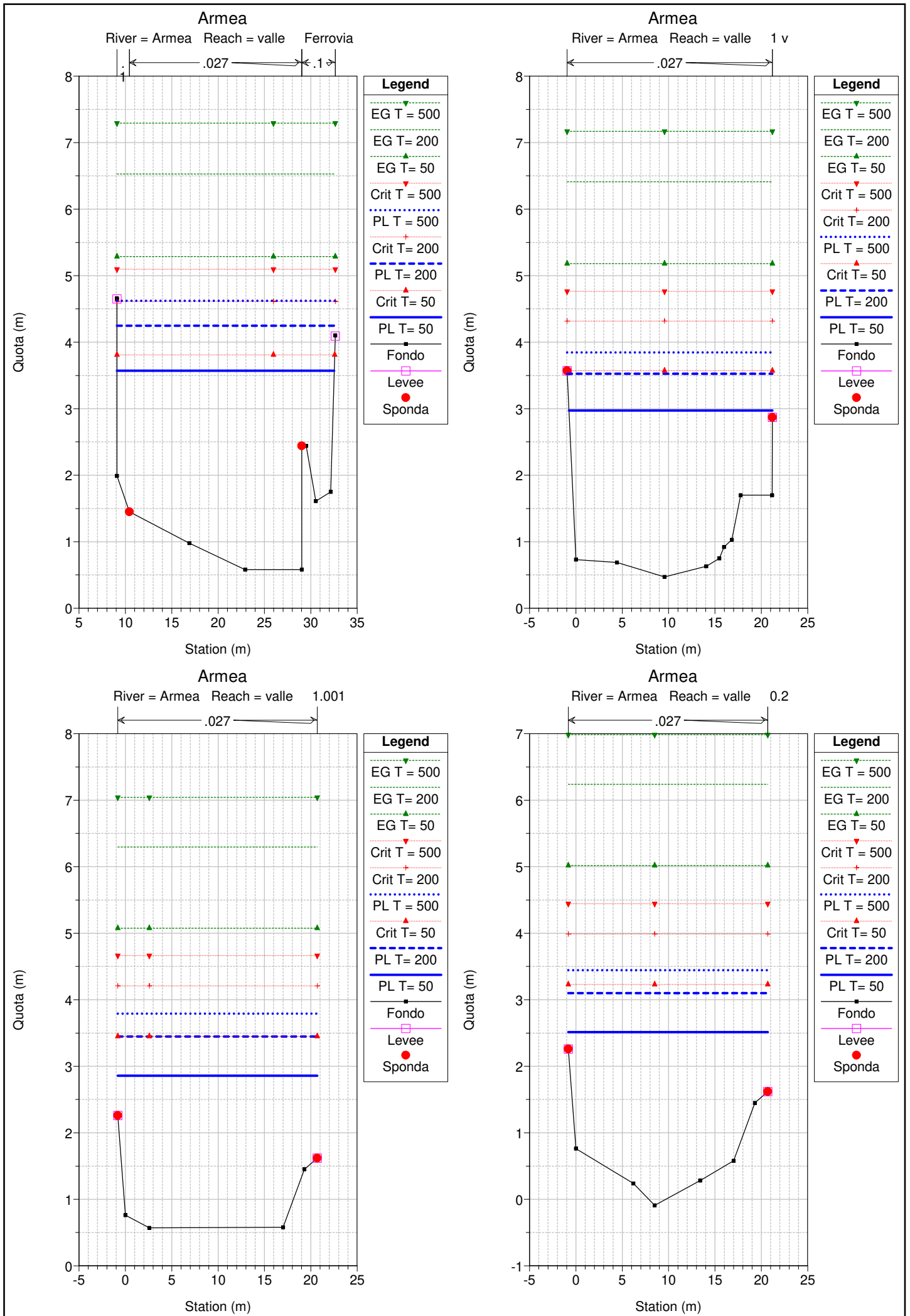


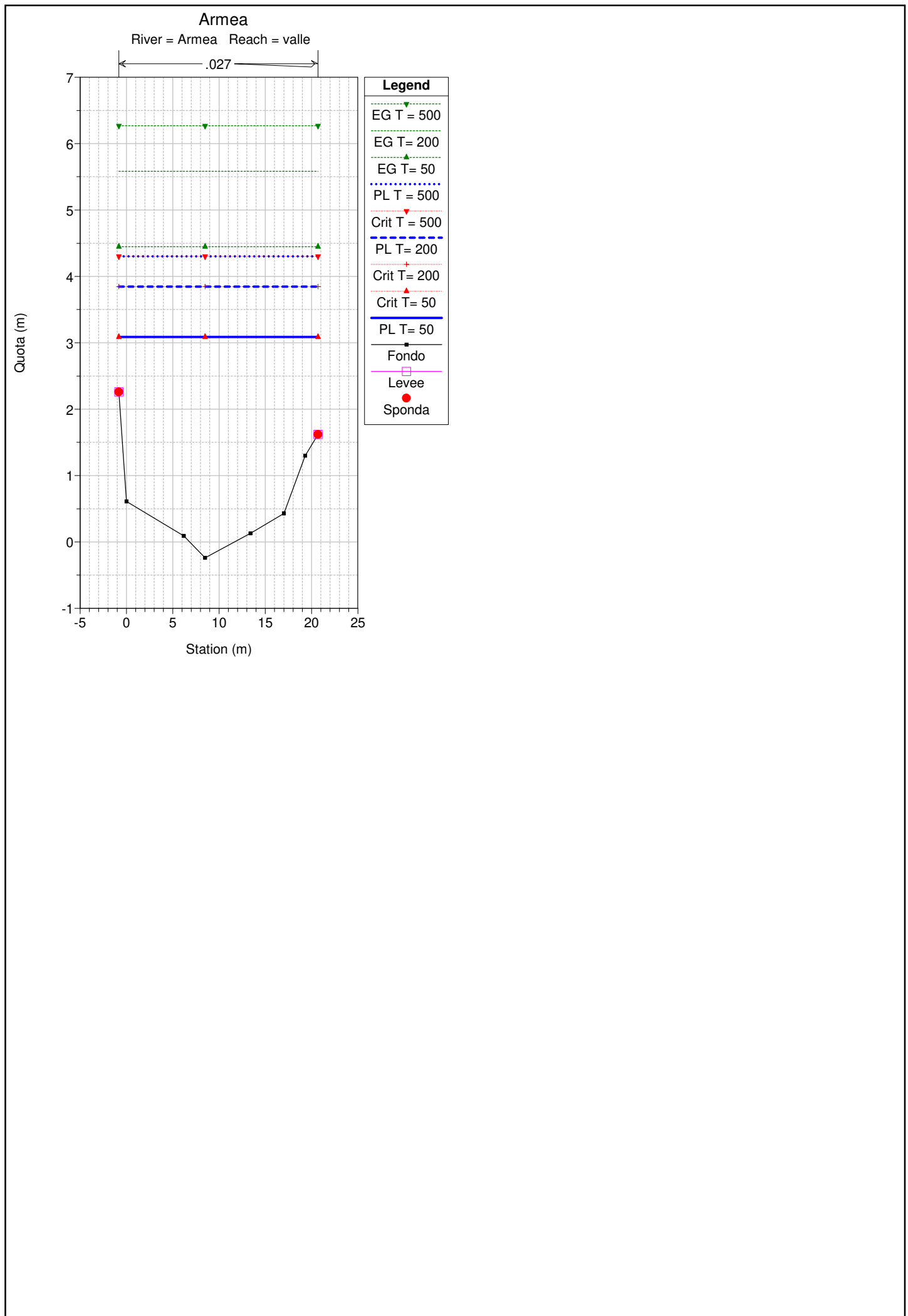












HEC-RAS Plan: 2_PdB

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
monte	854.004	T= 200	400.00	76.84	82.68	80.60	-2.08	81.88	-0.80	81.14	83.44	0.001686	3.88	109.61	27.71	0.57
monte	854.004	T= 50	277.00	76.84	81.22	80.60	-0.62	81.88	0.66	80.33	81.99	0.002573	3.88	72.45	23.16	0.67
monte	854.004	T = 500	481.00	76.84	83.57	80.60	-2.97	81.88	-1.69	81.62	84.34	0.001361	3.91	135.47	30.05	0.52
monte	854.003 37 m	T= 200	400.00	76.84	82.09	80.60	-1.49	78.32	-3.77	81.18	83.37	0.003795	5.00	80.01	16.67	0.73
monte	854.003 37 m	T= 50	277.00	76.84	80.68	80.60	-0.08	78.32	-2.36	80.33	81.91	0.004924	4.90	56.55	16.67	0.85
monte	854.003 37 m	T = 500	481.00	76.84	82.92	80.60	-2.32	78.32	-4.60	81.69	84.26	0.003515	5.12	93.87	16.67	0.69
monte	854.0025 Ponte Canale		Bridge													
monte	854.002 37 v	T= 200	400.00	76.84	80.71	80.60	-0.11	78.32	-2.39	81.18	83.22	0.010062	7.02	56.94	16.67	1.21
monte	854.002 37 v	T= 50	277.00	76.84	80.07	80.60	0.54	78.32	-1.75	80.33	81.90	0.008921	5.99	46.22	16.67	1.15
monte	854.002 37 v	T = 500	481.00	76.84	81.02	80.60	-0.42	78.32	-2.70	81.69	84.08	0.011307	7.74	62.11	16.67	1.28
monte	854.001	T= 200	400.00	76.84	80.37	80.60	0.23	81.88	1.51	81.14	83.15	0.012206	7.37	54.24	19.50	1.41
monte	854.001	T= 50	277.00	76.84	79.87	80.60	0.73	81.88	2.01	80.33	81.84	0.010385	6.21	44.59	18.80	1.29
monte	854.001	T = 500	481.00	76.84	80.63	80.60	-0.03	81.88	1.25	81.62	83.99	0.013640	8.12	59.29	21.19	1.50
monte	853.003 36 m	T= 200	400.00	68.43	74.78	76.09	1.31	70.21	-4.57	72.24	75.04	0.000562	2.30	194.42	45.70	0.34
monte	853.003 36 m	T= 50	277.00	68.43	73.76	76.09	2.33	70.21	-3.55	71.77	73.97	0.000590	2.05	148.62	44.03	0.34
monte	853.003 36 m	T = 500	481.00	68.43	75.38	76.09	0.71	70.21	-5.17	72.66	75.68	0.000550	2.43	222.21	46.39	0.34
monte	853.0025		Bridge													
monte	853.002 36 v	T= 200	400.00	68.43	73.31	70.13	-3.18	70.21	-3.10	73.31	74.90	0.005598	6.64	129.05	43.06	1.02
monte	853.002 36 v	T= 50	277.00	68.43	72.58	70.13	-2.45	70.21	-2.37	72.58	73.85	0.005486	5.81	98.20	41.49	0.98
monte	853.002 36 v	T = 500	481.00	68.43	73.74	70.13	-3.61	70.21	-3.53	73.74	75.52	0.005646	7.10	147.69	43.99	1.04
monte	817 35.8	T= 200	400.00	64.00	66.64	66.00	-0.64	65.20	-1.44	67.53	69.68	0.038581	8.53	53.76	36.21	1.95
monte	817 35.8	T= 50	277.00	64.00	66.35	66.00	-0.35	65.20	-1.15	67.02	68.66	0.036333	7.44	43.27	35.76	1.84
monte	817 35.8	T = 500	481.00	64.00	66.81	66.00	-0.81	65.20	-1.61	67.82	70.31	0.039488	9.13	60.03	36.48	2.00
monte	756 35.7	T= 200	400.00	63.20	67.43	66.00	-1.43	65.16	-2.27	66.44	68.04	0.002897	3.52	119.50	38.97	0.59
monte	756 35.7	T= 50	277.00	63.20	66.88	66.00	-0.88	65.16	-1.72	65.86	67.30	0.002459	2.91	98.82	36.80	0.53
monte	756 35.7	T = 500	481.00	63.20	67.73	66.00	-1.73	65.16	-2.57	66.79	68.46	0.003159	3.88	131.43	40.18	0.62
monte	696 35.6	T= 200	400.00	62.10	67.53	64.10	-3.43	64.75	-2.78	66.39	67.83	0.001375	2.82	180.14	62.28	0.39
monte	696 35.6	T= 50	277.00	62.10	66.90	64.10	-2.80	64.75	-2.15	65.75	67.15	0.001293	2.51	141.70	60.21	0.37
monte	696 35.6	T = 500	481.00	62.10	67.89	64.10	-3.79	64.75	-3.14	66.64	68.22	0.001418	2.99	202.61	63.46	0.40
monte	659 35.5	T= 200	400.00	61.50	66.97	65.77	-1.20	64.60	-2.37	66.63	67.70	0.003953	4.22	119.47	53.42	0.62
monte	659 35.5	T= 50	277.00	61.50	66.46	65.77	-0.69	64.60	-1.86	65.85	67.04	0.003397	3.63	93.58	48.53	0.56
monte	659 35.5	T = 500	481.00	61.50	67.31	65.77	-1.54	64.60	-2.71	66.93	68.09	0.003990	4.44	138.07	56.68	0.63
monte	651 35.4	T= 200	400.00	61.40	66.87	66.10	-0.77	63.50	-3.37	66.44	67.67	0.004404	4.39	111.78	48.86	0.68
monte	651 35.4	T= 50	277.00	61.40	66.46	66.10	-0.36	63.50	-2.96	65.78	67.00	0.003327	3.56	93.03	42.61	0.58
monte	651 35.4	T = 500	481.00	61.40	67.04	66.10	-0.94	63.50	-3.54	66.83	68.04	0.005329	4.95	120.20	51.43	0.75
monte	637 35.3	T= 200	400.00	61.30	66.84	65.71	-1.13	63.20	-3.64	66.60	67.59	0.004562	4.45	117.98	57.93	0.69
monte	637 35.3	T= 50	277.00	61.30	66.29	65.71	-0.58	63.20	-3.09	65.98	66.94	0.004447	4.01	87.79	51.72	0.66
monte	637 35.3	T = 500	481.00	61.30	67.05	65.71	-1.34	63.20	-3.85	66.91	67.92	0.005148	4.88	130.22	60.26	0.74

HEC-RAS Plan: 2_PdB (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
monte	622	35.2	T= 200	400.00	61.20	67.02	65.90	-1.12	63.00	-4.02	66.10	67.44	0.002350	3.40	153.61	68.51	0.51
monte	622	35.2	T= 50	277.00	61.20	66.45	65.90	-0.55	63.00	-3.45	65.36	66.81	0.002171	2.99	116.73	62.29	0.48
monte	622	35.2	T = 500	481.00	61.20	67.26	65.90	-1.36	63.00	-4.26	66.51	67.76	0.002606	3.71	170.68	71.21	0.54
monte	603	35.1	T= 200	400.00	60.99	66.52	65.93	-0.59	64.39	-2.13	66.52	67.34	0.004784	4.41	117.48	72.71	0.70
monte	603	35.1	T= 50	277.00	60.99	65.47	65.93	0.46	64.39	-1.08	65.47	66.65	0.008352	4.93	60.47	31.53	0.89
monte	603	35.1	T = 500	481.00	60.99	66.77	65.93	-0.84	64.39	-2.38	66.77	67.65	0.004920	4.66	136.34	74.92	0.72
monte	599	35 monte	T= 200	400.00	60.31	63.64	66.07	2.43	66.09	2.45	64.61	67.05	0.028827	8.18	48.93	17.93	1.58
monte	599	35 monte	T= 50	277.00	60.31	62.75	66.07	3.32	66.09	3.34	63.81	66.35	0.046110	8.40	32.98	17.92	1.98
monte	599	35 monte	T = 500	481.00	60.31	66.22	66.07	-0.15	66.09	-0.13	65.09	67.47	0.005720	4.98	103.51	54.44	0.69
monte	597	Ponte Sciascia	Bridge														
monte	595	35 valle	T= 200	400.00	60.31	63.81	66.07	2.26	66.09	2.28	64.61	66.83	0.024014	7.69	52.00	17.94	1.44
monte	595	35 valle	T= 50	277.00	60.31	62.86	66.07	3.21	66.09	3.23	63.81	66.07	0.038621	7.93	34.92	17.92	1.81
monte	595	35 valle	T = 500	481.00	60.31	65.10	66.07	0.97	66.09	0.99	65.10	67.19	0.011759	6.40	75.12	17.96	1.00
monte	590	34.95	T= 200	400.00	59.55	63.23	64.51	1.28	64.65	1.42	64.24	66.65	0.028877	8.20	48.80	18.68	1.62
monte	590	34.95	T= 50	277.00	59.55	62.40	64.51	2.11	64.65	2.25	63.43	65.84	0.041754	8.21	33.75	17.84	1.91
monte	590	34.95	T = 500	481.00	59.55	63.90	64.51	0.61	64.65	0.75	64.73	67.01	0.021181	7.82	61.53	19.36	1.40
monte	572	34.9	T= 200	400.00	59.32	62.32	63.98	1.66	61.95	-0.37	63.43	66.03	0.040340	8.54	47.35	26.50	1.98
monte	572	34.9	T= 50	277.00	59.32	64.14	63.98	-0.16	61.95	-2.19	62.79	64.55	0.002149	2.87	98.63	29.79	0.50
monte	572	34.9	T = 500	481.00	59.32	62.65	63.98	1.33	61.95	-0.70	63.83	66.47	0.034913	8.69	56.20	27.16	1.88
monte	554	34.85	T= 200	400.00	59.18	64.16	63.41	-0.75	64.00	-0.16	64.16	65.07	0.005468	4.46	106.98	60.23	0.76
monte	554	34.85	T= 50	277.00	59.18	63.08	63.41	0.33	64.00	0.92	63.08	64.39	0.010353	5.06	54.76	21.61	1.01
monte	554	34.85	T = 500	481.00	59.18	64.84	63.41	-1.43	64.00	-0.84	64.44	65.50	0.003355	3.94	148.36	61.00	0.61
monte	535	34.8	T= 200	400.00	58.81	63.70	63.71	0.01	62.08	-1.62	63.05	64.77	0.005095	4.59	88.32	25.21	0.76
monte	535	34.8	T= 50	277.00	58.81	61.60	63.71	2.11	62.08	0.48	62.30	63.99	0.025624	6.85	40.43	20.55	1.56
monte	535	34.8	T = 500	481.00	58.81	64.30	63.71	-0.59	62.08	-2.22	63.49	65.39	0.004342	4.67	108.67	34.59	0.71
monte	505	34.75	T= 200	420.00	58.51	63.87	64.30	0.43	60.72	-3.15	62.88	64.53	0.003000	3.83	123.68	40.77	0.59
monte	505	34.75	T= 50	290.00	58.51	62.74	64.30	1.56	60.72	-2.02	62.15	63.44	0.004056	3.85	82.64	32.80	0.67
monte	505	34.75	T = 500	505.00	58.51	64.52	64.30	-0.22	60.72	-3.80	63.26	65.15	0.002483	3.77	154.16	54.15	0.55
monte	484	34.7	T= 200	420.00	58.07	62.73	64.22	1.49	61.53	-1.20	62.73	64.34	0.008846	5.64	76.03	24.26	0.97
monte	484	34.7	T= 50	290.00	58.07	61.88	64.22	2.34	61.53	-0.35	61.88	63.25	0.009712	5.19	56.21	21.88	0.98
monte	484	34.7	T = 500	505.00	58.07	63.21	64.22	1.01	61.53	-1.68	63.21	64.95	0.008557	5.90	87.87	25.45	0.97
monte	464	34.65	T= 200	420.00	57.45	61.68	64.11	2.43	59.98	-1.70	62.28	64.03	0.014803	6.94	63.39	23.42	1.26
monte	464	34.65	T= 50	290.00	57.45	61.00	64.11	3.11	59.98	-1.02	61.48	62.94	0.015274	6.25	48.16	21.71	1.25
monte	464	34.65	T = 500	505.00	57.45	62.07	64.11	2.04	59.98	-2.09	62.71	64.64	0.014434	7.27	72.94	24.43	1.26
monte	445	34.6	T= 200	420.00	57.67	61.65	63.75	2.10	59.91	-1.74	62.09	63.68	0.012727	6.50	68.50	25.60	1.17
monte	445	34.6	T= 50	290.00	57.67	61.34	63.75	2.41	59.91	-1.43	61.34	62.58	0.008501	5.05	60.73	24.74	0.95
monte	445	34.6	T = 500	505.00	57.67	61.90	63.75	1.85	59.91	-1.99	62.51	64.34	0.014237	7.15	75.06	26.31	1.25
monte	419	34.55	T= 200	420.00	57.10	59.39	64.65	5.26	60.23	0.84	60.48	62.97	0.041682	8.38	50.10	28.28	2.01
monte	419	34.55	T= 50	290.00	57.10	58.93	64.65	5.72	60.23	1.30	59.85	61.95	0.046822	7.70	37.68	26.56	2.06

HEC-RAS Plan: 2_PdB (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
monte	419	34.55	T = 500	505.00	57.10	59.64	64.65	5.01	60.23	0.59	60.84	63.60	0.040466	8.82	57.29	29.23	2.01
monte	412	34.5	T= 200	420.00	56.80	58.93	64.60	5.67	58.70	-0.23	59.94	62.63	0.047912	8.57	51.22	48.95	2.13
monte	412	34.5	T= 50	290.00	56.80	58.56	64.60	6.04	58.70	0.14	59.49	61.59	0.052391	7.72	37.58	28.74	2.16
monte	412	34.5	T = 500	505.00	56.80	59.09	64.60	5.51	58.70	-0.39	60.20	63.26	0.049123	9.18	59.09	49.28	2.19
monte	369	34.45	T= 200	420.00	56.10	58.47	61.80	3.33	62.00	3.53	59.15	60.81	0.024508	6.77	61.99	31.84	1.55
monte	369	34.45	T= 50	290.00	56.10	58.09	61.80	3.71	62.00	3.91	58.56	59.80	0.022562	5.78	50.18	30.99	1.45
monte	369	34.45	T = 500	505.00	56.10	58.71	61.80	3.09	62.00	3.29	59.50	61.38	0.024489	7.23	69.88	32.40	1.57
monte	341	34.4	T= 200	420.00	55.16	57.42	55.94	-1.48	55.73	-1.69	58.21	60.04	0.028820	7.31	59.97	35.89	1.71
monte	341	34.4	T= 50	290.00	55.16	57.06	55.94	-1.12	55.73	-1.33	57.66	59.05	0.029046	6.35	47.23	34.43	1.65
monte	341	34.4	T = 500	505.00	55.16	57.64	55.94	-1.70	55.73	-1.91	58.55	60.61	0.028382	7.80	67.86	36.77	1.73
monte	304	34.3	T= 200	420.00	53.43	58.17	58.65	0.48	56.53	-1.64	57.08	58.64	0.002582	3.04	139.72	45.81	0.54
monte	304	34.3	T= 50	290.00	53.43	56.10	58.65	2.55	56.53	0.43	56.60	57.82	0.032187	5.81	49.92	40.17	1.66
monte	304	34.3	T = 500	505.00	53.43	58.47	58.65	0.18	56.53	-1.94	57.38	59.03	0.002782	3.33	153.57	46.51	0.57
monte	278	34.25	T= 200	420.00	53.04	58.24	57.20	-1.04	57.76	-0.48	56.56	58.54	0.001418	2.51	180.09	63.46	0.41
monte	278	34.25	T= 50	290.00	53.04	57.14	57.20	0.06	57.76	0.62	56.02	57.48	0.002306	2.58	112.36	48.45	0.50
monte	278	34.25	T = 500	505.00	53.04	58.56	57.20	-1.36	57.76	-0.80	56.88	58.92	0.001496	2.73	201.08	64.72	0.43
monte	247	34.2	T= 200	420.00	52.05	57.07	56.50	-0.57	56.36	-0.71	57.07	58.36	0.006536	5.09	89.72	50.24	0.83
monte	247	34.2	T= 50	290.00	52.05	55.99	56.50	0.51	56.36	0.37	55.86	57.26	0.009194	5.00	58.05	20.34	0.94
monte	247	34.2	T = 500	505.00	52.05	57.66	56.50	-1.16	56.36	-1.30	57.66	58.77	0.005003	4.89	122.27	56.57	0.74
monte	221	34.1	T= 200	420.00	52.06	55.99	54.74	-1.25	55.87	-0.12	56.60	58.05	0.013282	6.60	72.71	40.00	1.15
monte	221	34.1	T= 50	290.00	52.06	56.00	54.74	-1.26	55.87	-0.13	56.00	56.97	0.006213	4.53	73.28	40.04	0.79
monte	221	34.1	T = 500	505.00	52.06	56.30	54.74	-1.56	55.87	-0.43	56.91	58.46	0.012774	6.87	85.54	40.92	1.15
monte	193	34	T= 200	420.00	51.63	55.48	55.16	-0.32	54.74	-0.74	56.35	57.64	0.015881	6.69	67.87	32.29	1.25
monte	193	34	T= 50	290.00	51.63	54.96	55.16	0.20	54.74	-0.22	55.44	56.64	0.015233	5.82	52.11	27.04	1.19
monte	193	34	T = 500	505.00	51.63	55.99	55.16	-0.83	54.74	-1.25	56.63	58.10	0.012781	6.69	88.02	51.59	1.15
monte	169	33.6	T= 200	420.00	51.56	56.30	53.18	-3.12	54.87	-1.43	55.40	56.53	0.001351	2.54	218.13	96.83	0.39
monte	169	33.6	T= 50	290.00	51.56	54.08	53.18	-0.90	54.87	0.79	54.72	56.15	0.023206	6.68	50.05	40.09	1.47
monte	169	33.6	T = 500	505.00	51.56	56.90	53.18	-3.72	54.87	-2.03	55.61	57.10	0.000968	2.35	276.75	97.52	0.34
monte	144	33.4	T= 200	420.00	51.23	54.89	58.00	3.11	55.04	0.15	54.89	56.34	0.009537	5.34	78.72	27.16	1.00
monte	144	33.4	T= 50	290.00	51.23	53.74	58.00	4.26	55.04	1.30	54.20	55.54	0.018803	5.93	48.88	24.80	1.35
monte	144	33.4	T = 500	505.00	51.23	55.28	58.00	2.72	55.04	-0.24	55.28	56.90	0.009389	5.63	89.67	27.81	1.00
monte	119	33.2	T= 200	420.00	49.43	53.51	55.00	1.49	54.58	1.07	54.16	55.90	0.023606	6.85	61.36	28.31	1.48
monte	119	33.2	T= 50	290.00	49.43	52.97	55.00	2.03	54.58	1.61	53.54	54.98	0.027233	6.28	46.20	27.40	1.54
monte	119	33.2	T = 500	505.00	49.43	53.82	55.00	1.18	54.58	0.76	54.55	56.46	0.022555	7.20	70.09	28.64	1.47
monte	93	33	T= 200	420.00	49.31	52.98	60.95	7.97	54.18	1.20	53.55	55.36	0.017484	6.84	61.38	22.63	1.33
monte	93	33	T= 50	290.00	49.31	52.26	60.95	8.69	54.18	1.92	52.81	54.34	0.020730	6.38	45.43	21.84	1.41
monte	93	33	T = 500	505.00	49.31	53.52	60.95	7.43	54.18	0.66	53.98	55.91	0.014553	6.85	73.75	23.02	1.22
monte	70	32.7	T= 200	420.00	48.81	53.23	52.27	-0.96	54.46	1.23	53.23	54.97	0.010132	5.84	72.38	21.58	0.99
monte	70	32.7	T= 50	290.00	48.81	52.36	52.27	-0.09	54.46	2.10	52.43	53.82	0.011761	5.35	54.20	20.21	1.04

HEC-RAS Plan: 2_PdB (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
monte	70	32.7	T = 500	505.00	48.81	53.72	52.27	-1.45	54.46	0.74	53.72	55.64	0.009740	6.16	83.05	22.34	0.98
monte	42	32.4	T= 200	420.00	48.44	53.60	51.62	-1.98	52.40	-1.20	52.75	54.19	0.002771	3.63	133.42	49.53	0.56
monte	42	32.4	T= 50	290.00	48.44	51.45	51.62	0.17	52.40	0.95	52.14	53.37	0.018583	6.15	47.57	25.95	1.32
monte	42	32.4	T = 500	505.00	48.44	54.49	51.62	-2.87	52.40	-2.09	53.09	54.96	0.001792	3.31	181.29	57.71	0.46
monte	18	32.2	T= 200	420.00	48.13	52.55	52.01	-0.54	52.22	-0.33	52.55	54.00	0.007835	5.36	81.15	31.73	0.93
monte	18	32.2	T= 50	290.00	48.13	51.62	52.01	0.39	52.22	0.60	51.62	52.97	0.009929	5.13	56.49	21.25	1.01
monte	18	32.2	T = 500	505.00	48.13	54.15	52.01	-2.14	52.22	-1.93	53.04	54.88	0.002567	3.97	146.40	49.76	0.57
monte	5	32 monte	T= 200	420.00	47.22	51.28	52.99	1.71	53.26	1.98	51.82	53.75	0.016315	6.96	60.34	18.76	1.24
monte	5	32 monte	T= 50	290.00	47.22	50.25	52.99	2.74	53.26	3.01	50.90	52.68	0.021488	6.90	42.04	17.02	1.40
monte	5	32 monte	T = 500	505.00	47.22	54.03	52.99	-1.04	53.26	-0.77	52.36	54.84	0.003098	4.08	135.02	39.59	0.56
monte	3	Ponte		Bridge													
monte	0	32 valle	T= 200	420.00	47.18	51.82	52.99	1.17	53.26	1.44	51.79	53.60	0.010606	5.92	70.97	19.93	1.00
monte	0	32 valle	T= 50	290.00	47.18	50.54	52.99	2.45	53.26	2.72	50.87	52.47	0.015341	6.15	47.13	17.35	1.19
monte	0	32 valle	T = 500	505.00	47.18	52.69	52.99	0.30	53.26	0.57	52.36	54.32	0.008319	5.66	89.18	21.52	0.89
valle	31	31	T= 200	437.00	46.52	50.72	51.67	0.95	53.01	2.29	51.66	53.97	0.023046	7.99	54.73	18.81	1.49
valle	31	31	T= 50	302.00	46.52	50.78	51.67	0.89	53.01	2.23	50.78	52.27	0.010346	5.40	55.93	18.92	1.00
valle	31	31	T = 500	526.00	46.52	51.73	51.67	-0.06	53.01	1.28	52.49	54.26	0.013793	7.04	74.75	23.25	1.18
valle	30.5	30.5	T= 200	437.00	46.36	49.86	50.95	1.09	52.02	2.16	50.99	53.21	0.026799	8.11	53.90	20.80	1.61
valle	30.5	30.5	T= 50	302.00	46.36	49.42	50.95	1.53	52.02	2.60	50.07	51.71	0.021043	6.70	45.09	19.43	1.40
valle	30.5	30.5	T = 500	526.00	46.36	50.41	50.95	0.54	52.02	1.61	51.60	53.66	0.022535	7.98	65.90	22.80	1.50
valle	30	30 - Rio Ca	T= 200	437.00	45.54	49.28	50.06	0.78	49.98	0.70	50.26	52.37	0.031576	7.78	56.15	28.32	1.77
valle	30	30 - Rio Ca	T= 50	302.00	45.54	48.93	50.06	1.13	49.98	1.05	49.60	51.06	0.024666	6.46	46.74	25.91	1.54
valle	30	30 - Rio Ca	T = 500	526.00	45.54	49.57	50.06	0.49	49.98	0.41	50.67	52.93	0.031148	8.12	64.81	30.37	1.77
valle	29	29	T= 200	437.00	45.41	48.65	48.92	0.27	46.94	-1.71	49.47	51.23	0.020106	7.47	64.42	29.68	1.40
valle	29	29	T= 50	302.00	45.41	48.24	48.92	0.68	46.94	-1.30	48.78	50.15	0.017259	6.34	52.27	29.38	1.28
valle	29	29	T = 500	526.00	45.41	48.93	48.92	-0.01	46.94	-1.99	49.82	51.82	0.020424	7.94	72.88	36.91	1.42
valle	28	28	T= 200	437.00	43.96	48.74	46.66	-2.08	46.41	-2.33	47.61	49.39	0.003037	3.71	126.03	32.73	0.56
valle	28	28	T= 50	302.00	43.96	46.47	46.66	0.19	46.41	-0.06	47.00	48.34	0.018834	6.06	49.87	23.30	1.32
valle	28	28	T = 500	526.00	43.96	49.46	46.66	-2.80	46.41	-3.05	47.96	50.13	0.002637	3.76	149.55	32.73	0.53
valle	27.003	27 m	T= 200	437.00	41.96	48.24	45.33	-2.91	48.00	-0.24	46.57	49.13	0.003019	4.33	125.56	26.15	0.56
valle	27.003	27 m	T= 50	302.00	41.96	46.42	45.33	-1.09	48.00	1.58	45.60	47.41	0.003478	4.47	77.89	26.15	0.69
valle	27.003	27 m	T = 500	526.00	41.96	48.80	45.33	-3.47	48.00	-0.80	47.10	49.86	0.003284	4.73	140.27	26.15	0.58
valle	27.0025	Ponte		Bridge													
valle	27.002	27 v	T= 200	437.00	41.96	45.67	45.33	-0.34	48.00	2.33	46.57	48.88	0.013533	7.95	58.46	26.15	1.34
valle	27.002	27 v	T= 50	302.00	41.96	45.60	45.33	-0.27	48.00	2.40	45.60	47.20	0.006908	5.61	56.56	26.15	0.96
valle	27.002	27 v	T = 500	526.00	41.96	46.20	45.33	-0.87	48.00	1.80	47.10	49.60	0.012523	8.24	72.17	26.15	1.30
valle	27.001		T= 200	437.00	41.96	45.29	45.33	0.04	48.00	2.71	46.36	48.82	0.016168	8.32	52.49	16.64	1.50
valle	27.001		T= 50	302.00	41.96	44.86	45.33	0.47	48.00	3.14	45.40	47.12	0.011949	6.66	45.32	16.57	1.29

HEC-RAS Plan: 2_PdB (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
valle	27.001	T = 500	526.00	41.96	45.78	45.33	-0.46	48.00	2.21	46.88	49.55	0.014717	8.61	65.03	26.15	1.44
valle	26 26	T= 200	437.00	37.99	43.02	41.92	-1.10	43.42	0.40	43.93	46.56	0.012850	8.43	59.67	19.13	1.29
valle	26 26	T= 50	302.00	37.99	42.10	41.92	-0.18	43.42	1.32	42.87	44.98	0.013053	7.53	42.10	18.91	1.28
valle	26 26	T = 500	526.00	37.99	43.69	41.92	-1.77	43.42	-0.27	44.54	47.38	0.011807	8.67	72.44	19.22	1.24
valle	25 25	T= 200	437.00	38.50	41.01	40.50	-0.51	41.24	0.23	42.25	45.18	0.023910	9.09	52.78	32.83	1.91
valle	25 25	T= 50	302.00	38.50	40.64	40.50	-0.14	41.24	0.60	41.54	43.54	0.020323	7.54	40.69	30.02	1.72
valle	25 25	T = 500	526.00	38.50	41.27	40.50	-0.77	41.24	-0.03	42.68	46.04	0.024347	9.77	61.18	32.93	1.95
valle	24.9 24.9	T= 200	437.00	38.50	41.03	40.50	-0.53	43.00	1.97	42.22	45.01	0.022869	8.88	54.03	32.88	1.84
valle	24.9 24.9	T= 50	302.00	38.50	40.66	40.50	-0.16	43.00	2.34	41.50	43.39	0.018971	7.32	42.15	31.74	1.65
valle	24.9 24.9	T = 500	526.00	38.50	41.28	40.50	-0.78	43.00	1.72	42.64	45.87	0.023512	9.58	62.39	32.88	1.89
valle	24 24	T= 200	437.00	36.35	38.16	38.76	0.60	40.75	2.59	39.43	42.45	0.035048	9.18	47.59	29.06	2.29
valle	24 24	T= 50	302.00	36.35	37.83	38.76	0.93	40.75	2.92	38.76	41.01	0.033215	7.90	38.22	28.42	2.18
valle	24 24	T = 500	526.00	36.35	38.35	38.76	0.41	40.75	2.40	39.80	43.31	0.035604	9.86	53.37	29.45	2.34
valle	23 23	T= 200	437.00	34.83	36.90	37.85	0.95	40.11	3.21	37.80	39.91	0.020045	7.69	56.84	29.29	1.76
valle	23 23	T= 50	302.00	34.83	36.52	37.85	1.33	40.11	3.59	37.18	38.75	0.019166	6.61	45.71	29.21	1.69
valle	23 23	T = 500	526.00	34.83	37.12	37.85	0.73	40.11	2.99	38.17	40.65	0.020742	8.32	63.22	29.34	1.81
valle	22.003 22 m	T= 200	437.00	33.45	38.24	37.72	-0.52	37.73	-0.51	36.53	38.80	0.001431	3.31	132.14	29.69	0.50
valle	22.003 22 m	T= 50	302.00	33.45	37.25	37.72	0.47	37.73	0.48	35.87	37.69	0.001452	2.94	102.82	29.16	0.50
valle	22.003 22 m	T = 500	526.00	33.45	38.92	37.72	-1.20	37.73	-1.19	36.92	39.53	0.001358	3.46	152.23	29.69	0.49
valle	22.0025 Ponte Carceri	Bridge														
valle	22.002 22 v	T= 200	437.00	33.45	38.10	37.72	-0.38	37.73	-0.37	36.53	38.69	0.001581	3.42	127.86	29.69	0.53
valle	22.002 22 v	T= 50	302.00	33.45	37.23	37.72	0.49	37.73	0.50	35.87	37.67	0.001483	2.96	102.09	29.13	0.50
valle	22.002 22 v	T = 500	526.00	33.45	38.61	37.72	-0.89	37.73	-0.88	36.92	39.30	0.001630	3.67	143.20	29.69	0.53
valle	21 21	T= 200	437.00	31.96	35.68	33.38	-2.30	34.31	-1.37	35.68	37.29	0.005032	5.65	84.50	28.87	0.99
valle	21 21	T= 50	302.00	31.96	34.97	33.38	-1.59	34.31	-0.66	34.97	36.23	0.005427	5.00	63.91	28.78	0.99
valle	21 21	T = 500	526.00	31.96	36.10	33.38	-2.72	34.31	-1.79	36.10	37.92	0.004878	6.03	96.66	28.87	0.99
valle	20 20	T= 200	437.00	30.96	34.30	34.34	0.04	34.55	0.25	34.83	36.52	0.009698	6.60	66.18	25.07	1.30
valle	20 20	T= 50	302.00	30.96	33.71	34.34	0.63	34.55	0.84	34.10	35.44	0.009595	5.83	51.82	24.08	1.27
valle	20 20	T = 500	526.00	30.96	34.87	34.34	-0.53	34.55	-0.32	35.24	37.02	0.007792	6.51	83.58	31.51	1.16
valle	19 19	T= 200	437.00	29.14	34.08	35.68	1.60	32.39	-1.69	34.08	35.90	0.006403	5.98	73.12	20.07	1.00
valle	19 19	T= 50	302.00	29.14	33.25	35.68	2.43	32.39	-0.86	33.25	34.70	0.006478	5.32	56.75	19.66	1.00
valle	19 19	T = 500	526.00	29.14	34.57	35.68	1.11	32.39	-2.18	34.57	36.61	0.006391	6.33	83.10	20.32	1.00
valle	18 18 m	T= 200	437.00	27.13	30.05	29.97	-0.08	29.16	-0.89	31.26	34.17	0.020751	8.99	48.60	17.63	1.73
valle	18 18 m	T= 50	302.00	27.13	29.37	29.97	0.60	29.16	-0.21	30.40	32.82	0.023203	8.23	36.71	17.50	1.81
valle	18 18 m	T = 500	526.00	27.13	30.48	29.97	-0.51	29.16	-1.32	31.79	34.95	0.019552	9.37	56.14	17.63	1.68
valle	17.9 18 v	T= 200	437.00	26.13	28.85	29.60	0.75	30.29	1.44	30.37	34.02	0.028244	10.06	43.42	17.33	2.03
valle	17.9 18 v	T= 50	302.00	26.13	28.21	29.60	1.39	30.29	2.08	29.50	32.67	0.033232	9.35	32.29	17.13	2.17
valle	17.9 18 v	T = 500	526.00	26.13	29.26	29.60	0.34	30.29	1.03	30.90	34.80	0.026104	10.43	50.45	17.45	1.96

HEC-RAS Plan: 2_PdB (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
valle	17.004 17.004	T= 200	437.00	24.67	26.75	29.35	2.60	30.16	3.41	27.72	30.07	0.031483	8.06	54.20	38.30	2.16
valle	17.004 17.004	T= 50	302.00	24.67	26.53	29.35	2.82	30.16	3.63	27.19	28.76	0.026041	6.61	45.68	37.86	1.92
valle	17.004 17.004	T = 500	526.00	24.67	30.01	29.35	-0.66	30.16	0.15	28.03	30.41	0.000924	2.78	189.24	44.05	0.43
valle	17.003 17 m	T= 200	437.00	24.67	28.98	26.96	-2.02	27.76	-1.22	27.71	29.47	0.001489	3.08	141.91	39.54	0.52
valle	17.003 17 m	T= 50	302.00	24.67	26.57	26.96	0.39	27.76	1.19	27.19	28.65	0.023347	6.39	47.26	37.94	1.83
valle	17.003 17 m	T = 500	526.00	24.67	29.97	26.96	-3.01	27.76	-2.21	28.02	30.40	0.001018	2.91	180.88	39.54	0.43
valle	17.0025 Ponte Canale		Bridge													
valle	17.002 17 v	T= 200	437.00	24.67	27.07	26.96	-0.11	27.76	0.69	27.71	29.27	0.016370	6.57	66.51	38.82	1.60
valle	17.002 17 v	T= 50	302.00	24.67	26.67	26.96	0.29	27.76	1.09	27.19	28.44	0.017951	5.89	51.29	38.15	1.62
valle	17.002 17 v	T = 500	526.00	24.67	27.13	26.96	-0.17	27.76	0.63	28.02	30.11	0.021343	7.65	68.75	38.88	1.84
valle	17.001 17.001	T= 200	437.00	24.67	27.12	29.35	2.23	30.16	3.04	27.72	29.19	0.014877	6.37	68.57	39.02	1.54
valle	17.001 17.001	T= 50	302.00	24.67	26.73	29.35	2.62	30.16	3.43	27.19	28.36	0.015752	5.65	53.42	38.26	1.53
valle	17.001 17.001	T = 500	526.00	24.67	27.17	29.35	2.18	30.16	2.99	28.03	30.02	0.019935	7.48	70.28	39.10	1.78
valle	16 16	T= 200	437.00	21.72	24.14	26.31	2.17	28.58	4.44	24.97	27.00	0.017050	7.50	58.28	27.04	1.63
valle	16 16	T= 50	302.00	21.72	23.63	26.31	2.68	28.58	4.95	24.32	25.96	0.018862	6.76	44.68	26.91	1.68
valle	16 16	T = 500	526.00	21.72	24.41	26.31	1.90	28.58	4.17	25.37	27.68	0.016978	8.01	65.70	27.12	1.64
valle	15 15	T= 200	437.00	20.12	22.97	23.30	0.33	27.70	4.73	23.57	25.05	0.017133	6.38	68.53	42.80	1.61
valle	15 15	T= 50	302.00	20.12	22.74	23.30	0.56	27.70	4.96	23.09	24.09	0.013578	5.15	58.62	42.73	1.40
valle	15 15	T = 500	526.00	20.12	24.82	23.30	-1.52	27.70	2.88	23.86	25.46	0.002131	3.56	147.69	42.91	0.61
valle	14.004	T= 200	437.00	19.29	23.73	22.34	-1.39	26.54	2.81	22.65	24.58	0.002517	4.08	107.06	25.84	0.64
valle	14.004	T= 50	302.00	19.29	22.85	22.34	-0.51	26.54	3.69	21.97	23.50	0.002476	3.58	84.29	25.66	0.63
valle	14.004	T = 500	526.00	19.29	24.26	22.34	-1.92	26.54	2.28	23.06	25.23	0.002545	4.35	120.80	25.94	0.64
valle	14.003 14 m	T= 200	437.00	19.29	23.37	22.34	-1.03	26.54	3.17	22.79	24.54	0.003845	4.79	91.26	23.92	0.78
valle	14.003 14 m	T= 50	302.00	19.29	22.59	22.34	-0.25	26.54	3.95	22.07	23.47	0.003671	4.16	72.56	23.76	0.76
valle	14.003 14 m	T = 500	526.00	19.29	23.84	22.34	-1.50	26.54	2.70	23.22	25.18	0.003943	5.13	102.48	24.01	0.79
valle	14.0025		Bridge													
valle	14.002 14 v	T= 200	437.00	19.29	22.79	22.34	-0.45	26.54	3.75	22.79	24.42	0.006318	5.65	77.40	23.80	1.00
valle	14.002 14 v	T= 50	302.00	19.29	22.07	22.34	0.27	26.54	4.47	22.07	23.35	0.006466	5.01	60.33	23.62	1.00
valle	14.002 14 v	T = 500	526.00	19.29	23.22	22.34	-0.88	26.54	3.32	23.22	25.06	0.006289	6.00	87.65	23.89	1.00
valle	14.001	T= 200	437.00	19.29	22.17	22.34	0.17	26.54	4.37	22.65	24.34	0.010460	6.51	67.08	25.50	1.28
valle	14.001	T= 50	302.00	19.29	21.60	22.34	0.74	26.54	4.94	21.97	23.28	0.010649	5.74	52.61	25.30	1.27
valle	14.001	T = 500	526.00	19.29	22.51	22.34	-0.17	26.54	4.03	23.06	24.97	0.010396	6.94	75.80	25.60	1.29
valle	13 13	T= 200	437.00	16.94	19.97	21.88	1.91	24.90	4.93	20.98	23.36	0.021641	8.15	53.64	24.02	1.74
valle	13 13	T= 50	302.00	16.94	19.44	21.88	2.44	24.90	5.46	20.27	22.22	0.024222	7.38	40.93	23.92	1.80
valle	13 13	T = 500	526.00	16.94	20.30	21.88	1.58	24.90	4.60	21.40	24.03	0.020446	8.55	61.53	24.08	1.71
valle	12.003 12 m	T= 200	437.00	16.81	21.64	19.80	-1.84	20.51	-1.13	20.04	22.19	0.001370	3.28	137.47	34.87	0.50
valle	12.003 12 m	T= 50	302.00	16.81	20.45	19.80	-0.65	20.51	0.06	19.43	20.95	0.001910	3.13	97.32	32.39	0.56
valle	12.003 12 m	T = 500	526.00	16.81	22.45	19.80	-2.65	20.51	-1.94	20.41	23.01	0.001121	3.32	166.12	35.98	0.47

HEC-RAS Plan: 2_PdB (Continued)

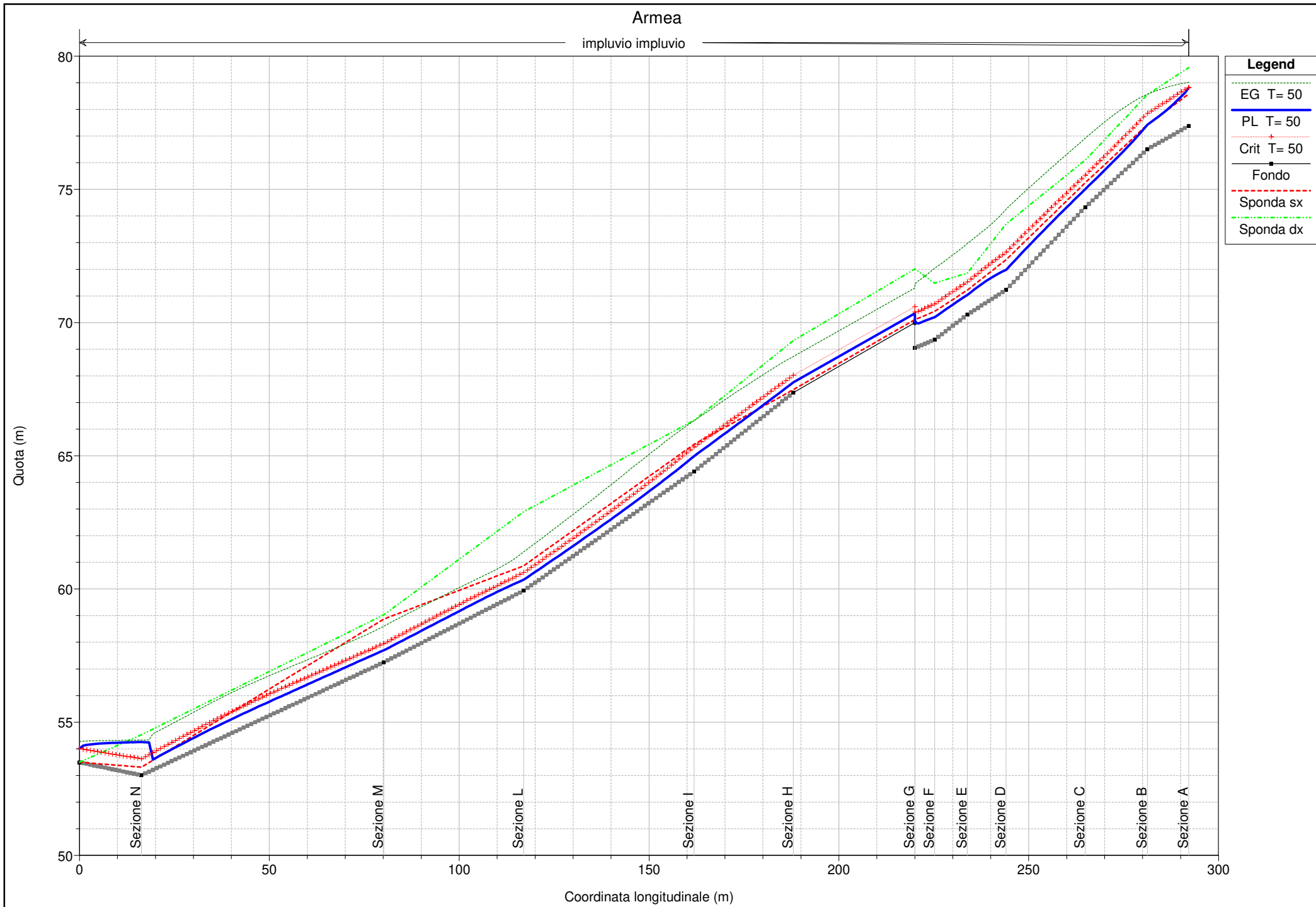
Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	LOB Elev (m)	L. Freeboard (m)	ROB Elev (m)	R. Freeboard (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
valle	12.0025 Aurelia bis		Bridge													
valle	12.002 12 v	T= 200	437.00	16.81	21.16	19.80	-1.36	20.51	-0.65	20.04	21.85	0.002037	3.70	120.77	33.85	0.60
valle	12.002 12 v	T= 50	302.00	16.81	18.88	19.80	0.92	20.51	1.63	19.43	20.83	0.016696	6.19	48.81	29.84	1.54
valle	12.002 12 v	T= 500	526.00	16.81	22.15	19.80	-2.35	20.51	-1.64	20.41	22.78	0.001371	3.53	155.38	35.74	0.51
valle	11.003 11 m	T= 200	437.00	15.98	21.08	19.38	-1.70	19.87	-1.21	19.37	21.67	0.001516	3.41	130.07	30.18	0.50
valle	11.003 11 m	T= 50	302.00	15.98	19.96	19.38	-0.58	19.87	-0.09	18.72	20.45	0.001739	3.11	97.25	28.39	0.53
valle	11.003 11 m	T= 500	526.00	15.98	22.08	19.38	-2.70	19.87	-2.21	19.76	22.66	0.001189	3.37	160.93	31.64	0.45
valle	11.0025 Aurelia sud		Bridge													
valle	11.002 11 v	T= 200	437.00	15.98	20.87	19.38	-1.49	19.87	-1.00	19.37	21.52	0.001757	3.58	123.72	29.84	0.54
valle	11.002 11 v	T= 50	302.00	15.98	19.94	19.38	-0.56	19.87	-0.07	18.72	20.44	0.001778	3.13	96.54	28.36	0.53
valle	11.002 11 v	T= 500	526.00	15.98	21.65	19.38	-2.27	19.87	-1.78	19.76	22.33	0.001524	3.65	147.51	31.08	0.51
valle	10.003 10 m	T= 200	437.00	15.19	19.54	18.78	-0.76	19.96	0.42	18.33	20.29	0.002218	3.83	113.99	27.28	0.60
valle	10.003 10 m	T= 50	302.00	15.19	18.70	18.78	0.08	19.96	1.26	17.67	19.26	0.002095	3.32	91.09	27.21	0.58
valle	10.003 10 m	T= 500	526.00	15.19	20.69	18.78	-1.91	19.96	-0.73	18.72	21.36	0.001516	3.62	145.70	28.38	0.50
valle	10.0025 Aurelia bis		Bridge													
valle	10.002 10 v	T= 200	437.00	15.19	19.41	20.00	0.59	19.96	0.55	18.33	20.21	0.002455	3.96	110.22	27.23	0.63
valle	10.002 10 v	T= 50	302.00	15.19	18.61	20.00	1.39	19.96	1.35	17.67	19.20	0.002303	3.42	88.32	27.11	0.60
valle	10.002 10 v	T= 500	526.00	15.19	20.60	20.00	-0.60	19.96	-0.64	18.72	21.29	0.001608	3.69	142.91	28.25	0.52
valle	9.55 9.5 b m	T= 200	437.00	14.89	18.02	17.31	-0.71	19.66	1.64	18.02	19.51	0.006310	5.40	80.93	27.19	1.00
valle	9.55 9.5 b m	T= 50	302.00	14.89	17.37	17.31	-0.06	19.66	2.29	17.37	18.53	0.006505	4.78	63.20	27.14	1.00
valle	9.55 9.5 b m	T= 500	526.00	14.89	20.28	17.31	-2.97	19.66	-0.62	18.41	20.97	0.001613	3.69	142.76	28.22	0.52
valle	9.45 9.5 b v	T= 200	437.00	14.64	17.26	17.31	0.05	17.98	0.72	17.77	19.42	0.011319	6.52	67.05	27.23	1.33
valle	9.45 9.5 b v	T= 50	302.00	14.64	16.67	17.31	0.64	17.98	1.31	17.12	18.45	0.012740	5.92	51.06	27.08	1.38
valle	9.45 9.5 b v	T= 500	526.00	14.64	20.33	17.31	-3.02	17.98	-2.35	18.16	20.95	0.001274	3.48	153.13	29.21	0.47
valle	9 9	T= 200	437.00	14.51	17.22	17.31	0.09	17.98	0.76	17.69	19.38	0.010503	6.51	67.13	25.14	1.27
valle	9 9	T= 50	302.00	14.51	16.54	17.31	0.77	17.98	1.44	17.00	18.39	0.012543	6.04	50.04	24.96	1.36
valle	9 9	T= 500	526.00	14.51	20.25	17.31	-2.94	17.98	-2.27	18.10	20.94	0.001542	3.66	143.65	25.25	0.49
valle	8.5 8.5	T= 200	437.00	14.46	15.82	17.26	1.44	17.93	2.11	16.76	19.10	0.033464	8.01	54.55	41.13	2.22
valle	8.5 8.5	T= 50	302.00	14.46	15.52	17.26	1.74	17.93	2.41	16.27	18.12	0.036340	7.14	42.32	40.64	2.23
valle	8.5 8.5	T= 500	526.00	14.46	20.58	17.26	-3.32	17.93	-2.65	17.06	20.79	0.000352	2.01	261.12	43.98	0.26
valle	8 8	T= 200	437.00	11.95	16.32	16.35	0.03	16.35	0.03	14.27	16.61	0.000746	2.42	180.86	43.94	0.38
valle	8 8	T= 50	302.00	11.95	13.26	16.35	3.09	16.35	3.09	13.77	14.99	0.018708	5.83	51.78	40.41	1.65
valle	8 8	T= 500	526.00	11.95	20.62	16.35	-4.27	16.35	-4.27	14.57	20.73	0.000123	1.42	370.25	43.98	0.16
valle	7 7	T= 200	437.00	11.19	16.34	15.09	-1.25	15.09	-1.25	13.54	16.57	0.000490	2.13	205.28	40.75	0.30
valle	7 7	T= 50	302.00	11.19	12.55	15.09	2.54	15.09	2.54	13.03	14.22	0.017214	5.72	52.77	39.25	1.58
valle	7 7	T= 500	526.00	11.19	20.62	15.09	-5.53	15.09	-5.53	13.84	20.72	0.000113	1.38	379.83	40.75	0.14
valle	6.7 6.7	T= 200	437.00	10.91	16.34	15.73	-0.61	15.73	-0.61	13.29	16.56	0.000440	2.06	212.33	39.88	0.28
valle	6.7 6.7	T= 50	302.00	10.91	12.34	15.73	3.39	15.73	3.39	12.79	13.94	0.015965	5.60	53.93	39.12	1.52

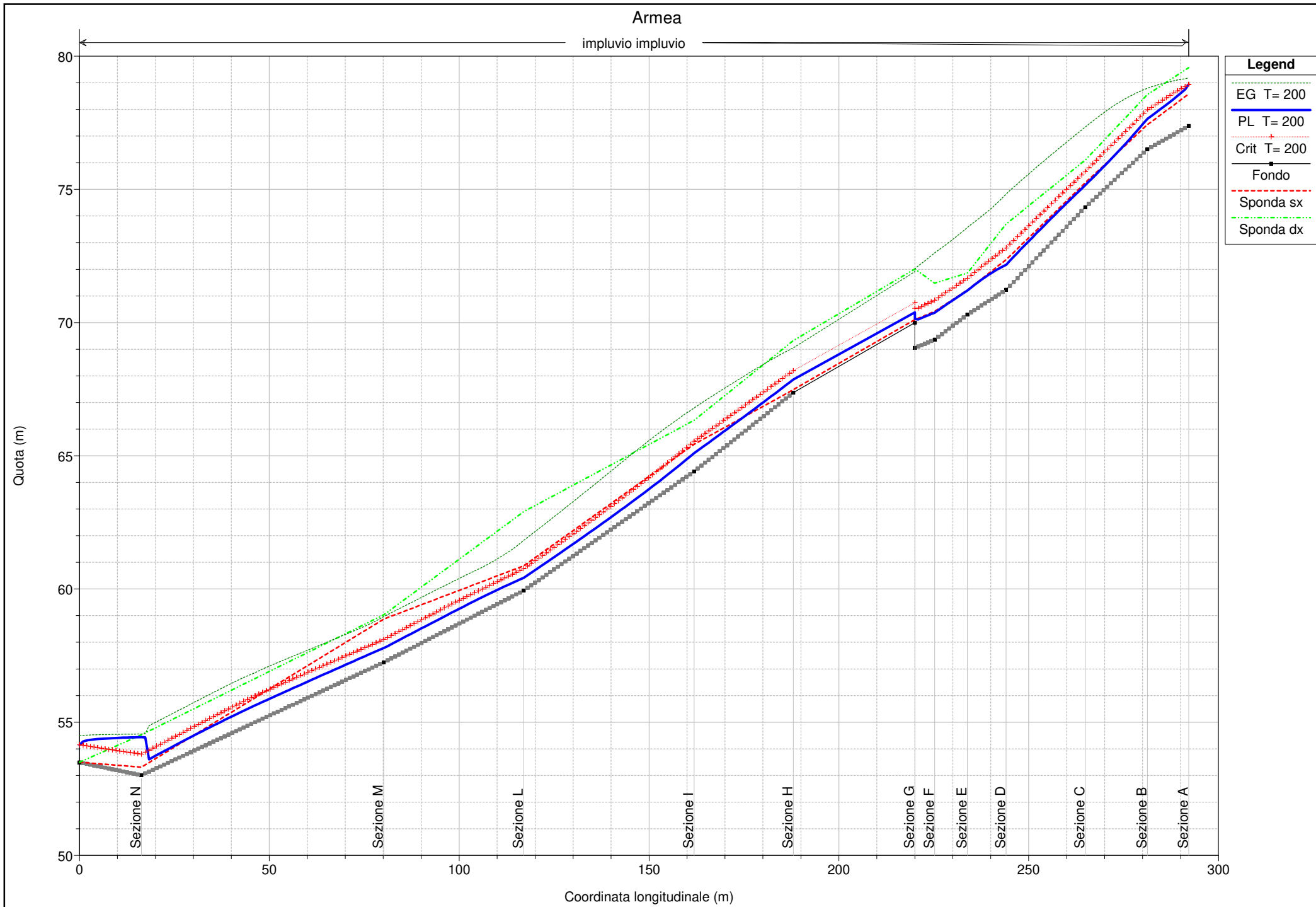
HEC-RAS Plan: 2_PdB (Continued)

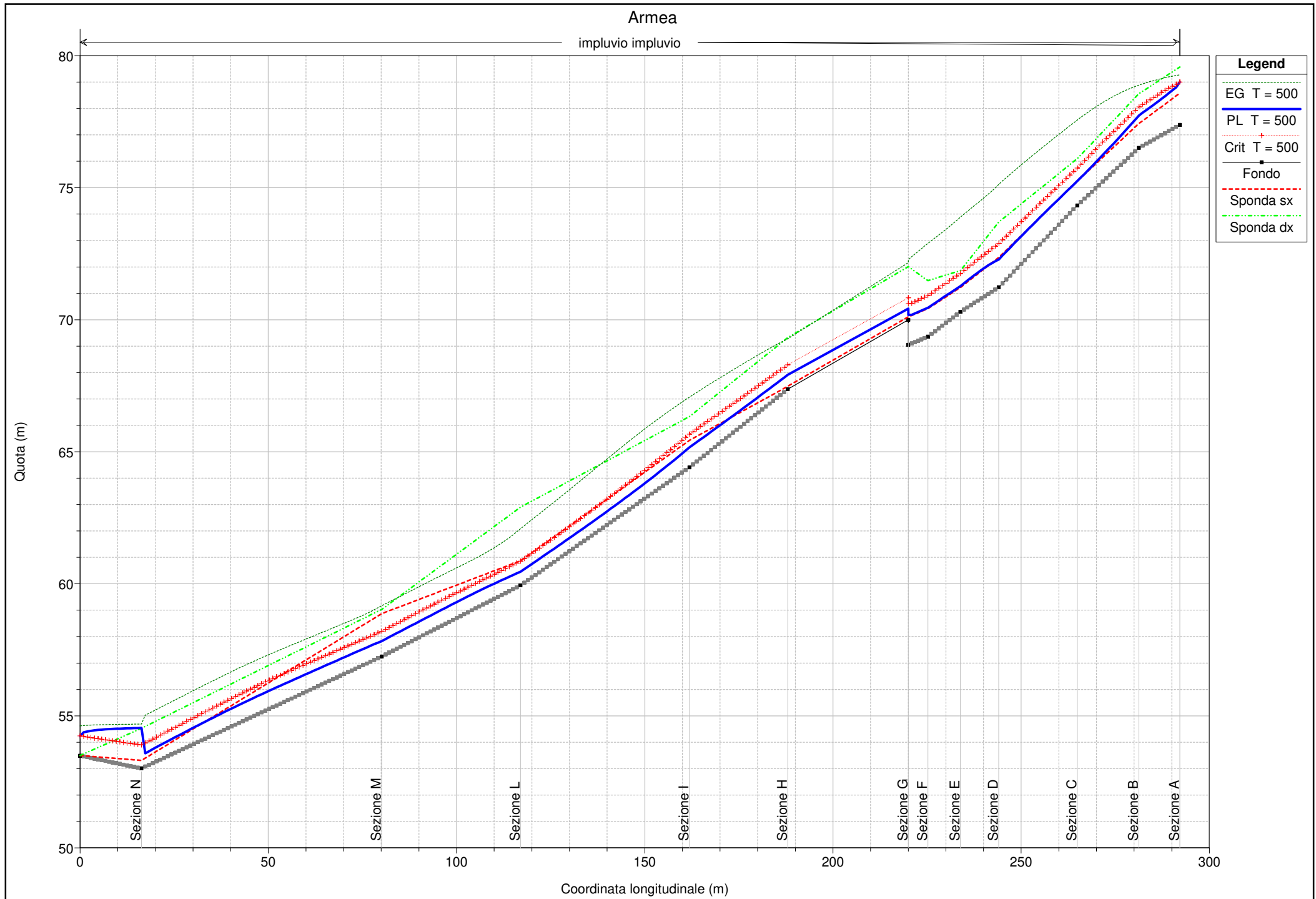
Reach	River Sta		Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	LOB Elev (m)	L. Freeboard (m)	ROB Elev (m)	R. Freeboard (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
valle	6.7	6.7	T = 500	526.00	10.91	20.62	15.73	-4.89	15.73	-4.89	13.60	20.72	0.000110	1.37	383.00	39.88	0.14
valle	6.5	6.5	T= 200	437.00	10.24	16.32	16.00	-0.32	16.79	0.47	12.80	16.54	0.000406	2.06	212.54	35.54	0.27
valle	6.5	6.5	T= 50	302.00	10.24	11.86	16.00	4.14	16.79	4.93	12.25	13.38	0.012896	5.45	55.40	34.88	1.38
valle	6.5	6.5	T = 500	526.00	10.24	20.61	16.00	-4.61	16.79	-3.82	13.13	20.71	0.000122	1.44	364.80	35.57	0.14
valle	6		T= 200	437.00	9.52	16.32	15.85	-0.47	15.54	-0.78	12.26	16.52	0.000355	2.00	218.31	32.98	0.25
valle	6		T= 50	302.00	9.52	12.41	15.85	3.44	15.54	3.13	11.68	12.98	0.002483	3.34	90.34	32.39	0.64
valle	6		T = 500	526.00	9.52	20.60	15.85	-4.75	15.54	-5.06	12.61	20.71	0.000123	1.46	359.48	32.98	0.14
valle	5.8		T= 200	437.00	9.34	16.32	15.85	-0.47	15.34	-0.98	12.04	16.51	0.000322	1.93	226.12	32.98	0.24
valle	5.8		T= 50	302.00	9.34	12.46	15.85	3.39	15.34	2.88	11.45	12.93	0.001849	3.03	99.58	32.46	0.55
valle	5.8		T = 500	526.00	9.34	20.60	15.85	-4.75	15.34	-5.26	12.39	20.70	0.000117	1.43	367.12	32.98	0.14
valle	5.5	5.5	T= 200	437.00	8.80	16.34	15.20	-1.14	15.60	-0.74	11.67	16.50	0.000254	1.78	246.07	34.26	0.21
valle	5.5	5.5	T= 50	302.00	8.80	12.50	15.20	2.70	15.60	3.10	11.09	12.85	0.001207	2.63	115.00	34.02	0.46
valle	5.5	5.5	T = 500	526.00	8.80	20.60	15.20	-5.40	15.60	-5.00	12.02	20.70	0.000097	1.34	392.34	34.26	0.13
valle	5.05	5.05	T= 200	437.00	8.02	16.23	13.00	-3.23	13.00	-3.23	11.39	16.47	0.000489	2.19	199.15	24.95	0.25
valle	5.05	5.05	T= 50	302.00	8.02	12.35	13.00	0.65	13.00	0.65	10.70	12.79	0.001387	2.95	102.30	24.92	0.47
valle	5.05	5.05	T = 500	526.00	8.02	20.53	13.00	-7.53	13.00	-7.53	11.81	20.68	0.000212	1.72	306.58	24.95	0.16
valle	5	5	T= 200	437.00	8.02	14.67	12.15	-2.52	12.15	-2.52	12.13	16.33	0.016070	5.71	76.58		0.71
valle	5	5	T= 50	302.00	8.02	11.33	12.15	0.82	12.15	0.82	11.33	12.69	0.008193	5.17	58.46	21.49	1.00
valle	5	5	T = 500	526.00	8.02	18.05	12.15	-5.90	12.15	-5.90	12.15	20.46	0.023282	6.87	76.58		0.69
valle	4	4	T= 200	437.00	2.13	8.15	6.85	-1.30	6.85	-1.30	5.87	9.09	0.007430	4.30	101.75		0.56
valle	4	4	T= 50	302.00	2.13	7.06	6.85	-0.21	6.85	-0.21	5.17	7.51	0.003548	2.97	101.75		0.43
valle	4	4	T = 500	526.00	2.13	8.61	6.85	-1.76	6.85	-1.76	6.30	9.97	0.010764	5.17	101.75		0.65
valle	3.95	3.95	T= 200	437.00	2.10	8.62	5.90	-2.72	4.86	-3.76	5.23	8.89	0.000440	2.27	195.89	32.55	0.29
valle	3.95	3.95	T= 50	302.00	2.10	7.22	5.90	-1.32	4.86	-2.36	4.62	7.43	0.000479	2.04	150.24	32.55	0.30
valle	3.95	3.95	T = 500	526.00	2.10	9.35	5.90	-3.45	4.86	-4.49	5.58	9.65	0.000450	2.44	219.45	32.55	0.30
valle	3	3	T= 200	437.00	1.23	7.62	5.31	-2.31	4.31	-3.31	5.04	8.09	0.001030	3.02	144.51	25.37	0.40
valle	3	3	T= 50	302.00	1.23	6.10	5.31	-0.79	4.31	-1.79	4.36	6.52	0.001229	2.85	105.93	25.37	0.45
valle	3	3	T = 500	526.00	1.23	8.29	5.31	-2.98	4.31	-3.98	5.45	8.83	0.001083	3.26	161.44	25.37	0.41
valle	2.004		T= 200	437.00	0.75	6.97	2.18	-4.79	2.39	-4.58	4.63	7.61	0.000957	3.58	144.76	26.67	0.46
valle	2.004		T= 50	302.00	0.75	5.22	2.18	-3.04	2.39	-2.83	3.81	5.84	0.001446	3.51	98.02	26.67	0.54
valle	2.004		T = 500	526.00	0.75	7.58	2.18	-5.40	2.39	-5.19	5.09	8.34	0.001008	3.92	160.87	26.67	0.48
valle	2.003	2	T= 200	437.00	0.75	3.50	2.18	-1.32	2.39	-1.11	4.61	7.28	0.019748	8.61	50.75	19.46	1.70
valle	2.003	2	T= 50	302.00	0.75	3.09	2.18	-0.91	2.39	-0.70	3.80	5.63	0.015848	7.05	42.83	19.46	1.52
valle	2.003	2	T = 500	526.00	0.75	7.45	2.18	-5.27	2.39	-5.06	5.10	8.32	0.002188	4.12	127.63	19.46	0.51
valle	2.0025	2 m		Bridge													
valle	2.002	Aurelia	T= 200	437.00	0.75	5.61	2.18	-3.43	2.39	-3.22	4.61	6.76	0.003911	4.76	91.73	19.46	0.70
valle	2.002	Aurelia	T= 50	302.00	0.75	4.61	2.18	-2.43	2.39	-2.22	3.80	5.50	0.003771	4.17	72.36	19.46	0.69
valle	2.002	Aurelia	T = 500	526.00	0.75	6.32	2.18	-4.14	2.39	-3.93	5.10	7.58	0.003766	4.98	105.56	19.46	0.68

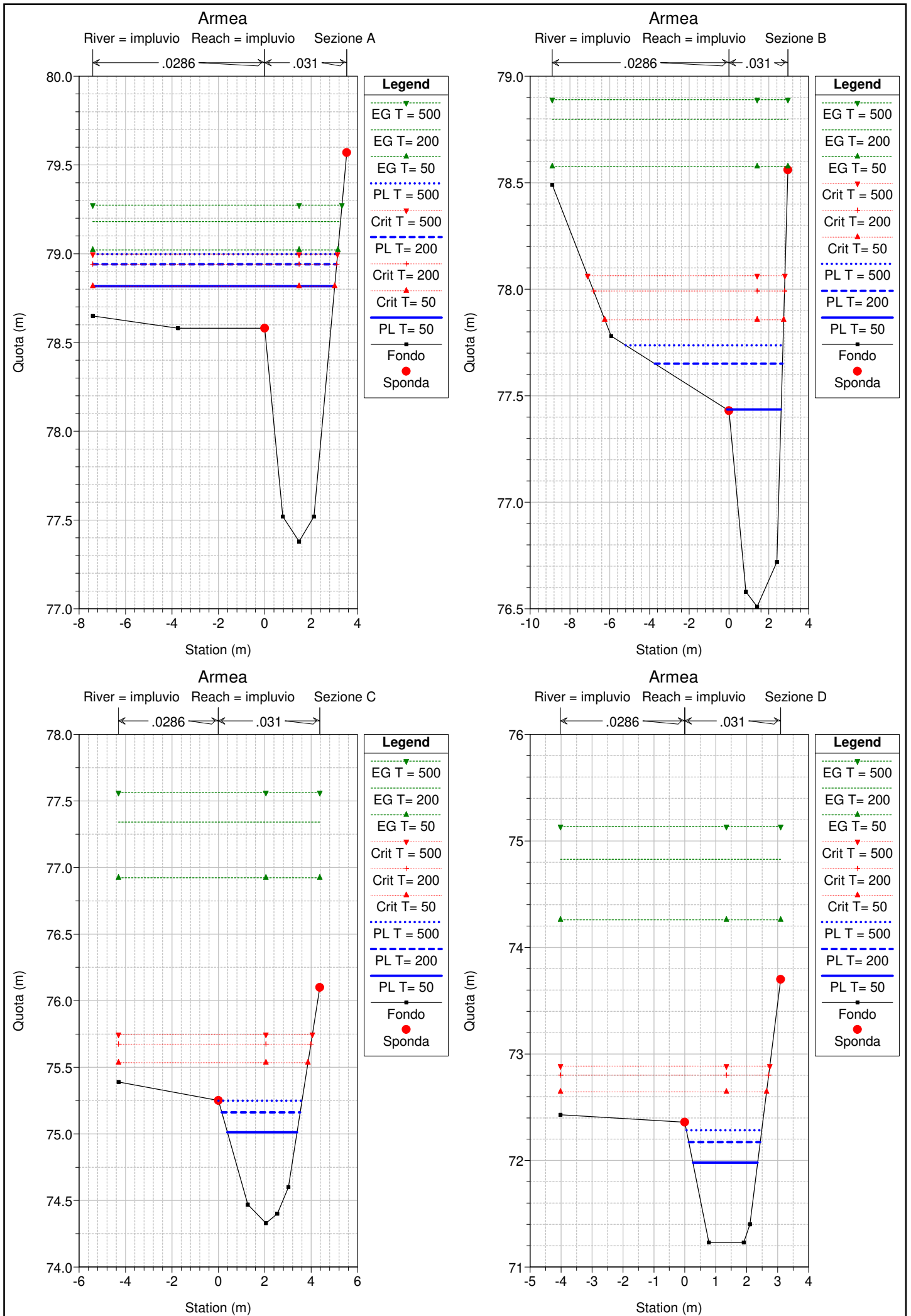
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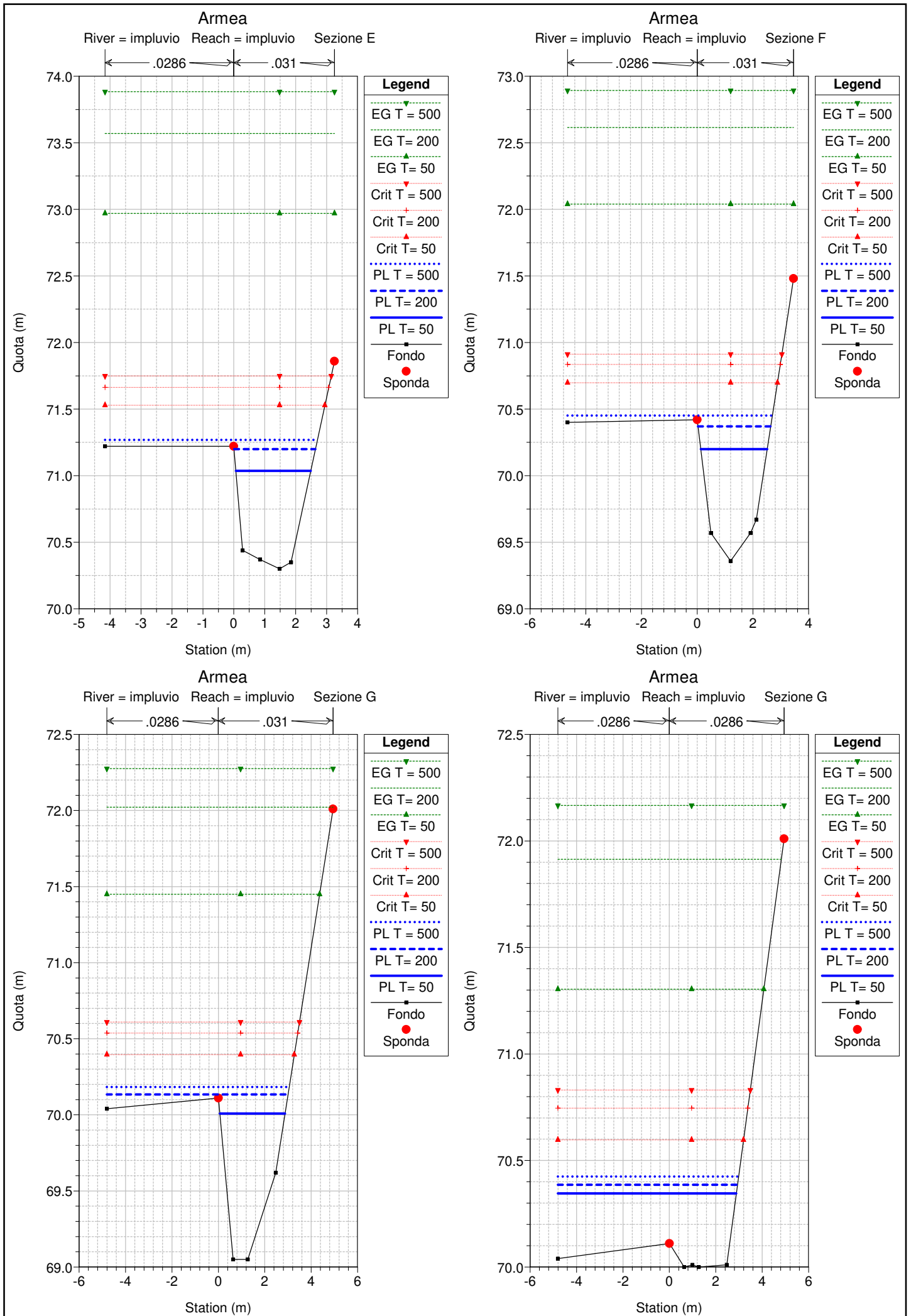
Reach	River Sta	Profile	Q Total (m3/s)	Min Ch El (m)	W.S. Elev (m)	LOB Elev (m)	L. Freeboard (m)	ROB Elev (m)	R. Freeboard (m)	Crit W.S. (m)	E.G. Elev (m)	E.G. Slope (m/m)	Vel Chnl (m/s)	Flow Area (m2)	Top Width (m)	Froude # Chl
valle	2.001 2 v	T= 200	437.00	0.75	5.68	2.18	-3.50	2.39	-3.29	4.63	6.72	0.002148	4.58	110.29	26.67	0.67
valle	2.001 2 v	T= 50	302.00	0.75	4.64	2.18	-2.46	2.39	-2.25	3.81	5.48	0.002356	4.07	82.62	26.67	0.67
valle	2.001 2 v	T = 500	526.00	0.75	6.41	2.18	-4.23	2.39	-4.02	5.09	7.54	0.001924	4.76	129.76	26.67	0.65
valle	1.004 2	T= 200	437.00	0.58	5.39	1.45	-3.94	2.44	-2.95	4.61	6.66	0.002823	5.05	101.20	23.54	0.76
valle	1.004 2	T= 50	302.00	0.58	4.43	1.45	-2.98	2.44	-1.99	3.81	5.41	0.003012	4.44	78.41	23.54	0.75
valle	1.004 2	T = 500	526.00	0.58	6.10	1.45	-4.65	2.44	-3.66	5.10	7.47	0.002518	5.26	117.89	23.54	0.73
valle	1.003	T= 200	437.00	0.58	4.85	1.45	-3.40	2.44	-2.41	4.69	6.60	0.004528	5.87	78.14	20.09	0.94
valle	1.003	T= 50	302.00	0.58	4.09	1.45	-2.64	2.44	-1.65	3.85	5.37	0.004381	5.02	62.88	20.09	0.89
valle	1.003	T = 500	526.00	0.58	5.74	1.45	-4.29	2.44	-3.30	5.19	7.44	0.003346	5.78	96.06	20.09	0.84
valle	1.0025 1.004	Bridge														
valle	1.002 1 m	T= 200	437.00	0.58	4.67	1.45	-3.22	2.44	-2.23	4.69	6.59	0.005281	6.15	74.53	20.09	1.01
valle	1.002 1 m	T= 50	302.00	0.58	3.85	1.45	-2.40	2.44	-1.41	3.85	5.34	0.005646	5.41	58.09	20.09	1.00
valle	1.002 1 m	T = 500	526.00	0.58	5.00	1.45	-3.55	2.44	-2.56	5.19	7.36	0.005815	6.82	81.09	20.09	1.07
valle	1.001 Ferrovìa	T= 200	437.00	0.58	4.25	1.45	-2.80	2.44	-1.81	4.61	6.53	0.007495	6.77	74.20	23.54	1.18
valle	1.001 Ferrovìa	T= 50	302.00	0.58	3.57	1.45	-2.12	2.44	-1.13	3.81	5.29	0.007563	5.87	58.33	23.43	1.14
valle	1.001 Ferrovìa	T = 500	526.00	0.58	4.62	1.45	-3.17	2.44	-2.18	5.10	7.29	0.007628	7.33	83.05	23.54	1.21
valle	0.2 1 v	T= 200	437.00	0.47	3.53	3.57	0.04	2.87	-0.66	4.32	6.41	0.014273	7.52	58.09	22.13	1.48
valle	0.2 1 v	T= 50	302.00	0.47	2.97	3.57	0.60	2.87	-0.10	3.57	5.18	0.014126	6.58	45.86	21.94	1.45
valle	0.2 1 v	T = 500	526.00	0.47	3.85	3.57	-0.28	2.87	-0.98	4.76	7.17	0.014559	8.07	65.17	22.14	1.50
valle	0.155 1.001	T= 200	437.00	0.57	3.45	2.26	-1.19	1.62	-1.83	4.21	6.30	0.013551	7.48	58.46	21.53	1.45
valle	0.155 1.001	T= 50	302.00	0.57	2.86	2.26	-0.60	1.62	-1.24	3.45	5.08	0.013712	6.59	45.80	21.53	1.44
valle	0.155 1.001	T = 500	526.00	0.57	3.79	2.26	-1.53	1.62	-2.17	4.67	7.04	0.013656	7.98	65.88	21.53	1.46
valle	0.145 0.2	T= 200	437.00	-0.09	3.10	2.26	-0.84	1.62	-1.48	3.99	6.24	0.015405	7.85	55.69	21.53	1.56
valle	0.145 0.2	T= 50	302.00	-0.09	2.51	2.26	-0.25	1.62	-0.89	3.23	5.02	0.016221	7.01	43.10	21.53	1.58
valle	0.145 0.2	T = 500	526.00	-0.09	3.44	2.26	-1.18	1.62	-1.82	4.44	6.98	0.015254	8.33	63.11	21.53	1.55
valle	0	T= 200	437.00	-0.24	3.85	2.26	-1.59	1.62	-2.23	3.85	5.58	0.006266	5.84	74.84	21.53	1.00
valle	0	T= 50	302.00	-0.24	3.09	2.26	-0.83	1.62	-1.47	3.09	4.45	0.006292	5.16	58.49	21.53	1.00
valle	0	T = 500	526.00	-0.24	4.30	2.26	-2.04	1.62	-2.68	4.30	6.27	0.006291	6.21	84.68	21.53	1.00

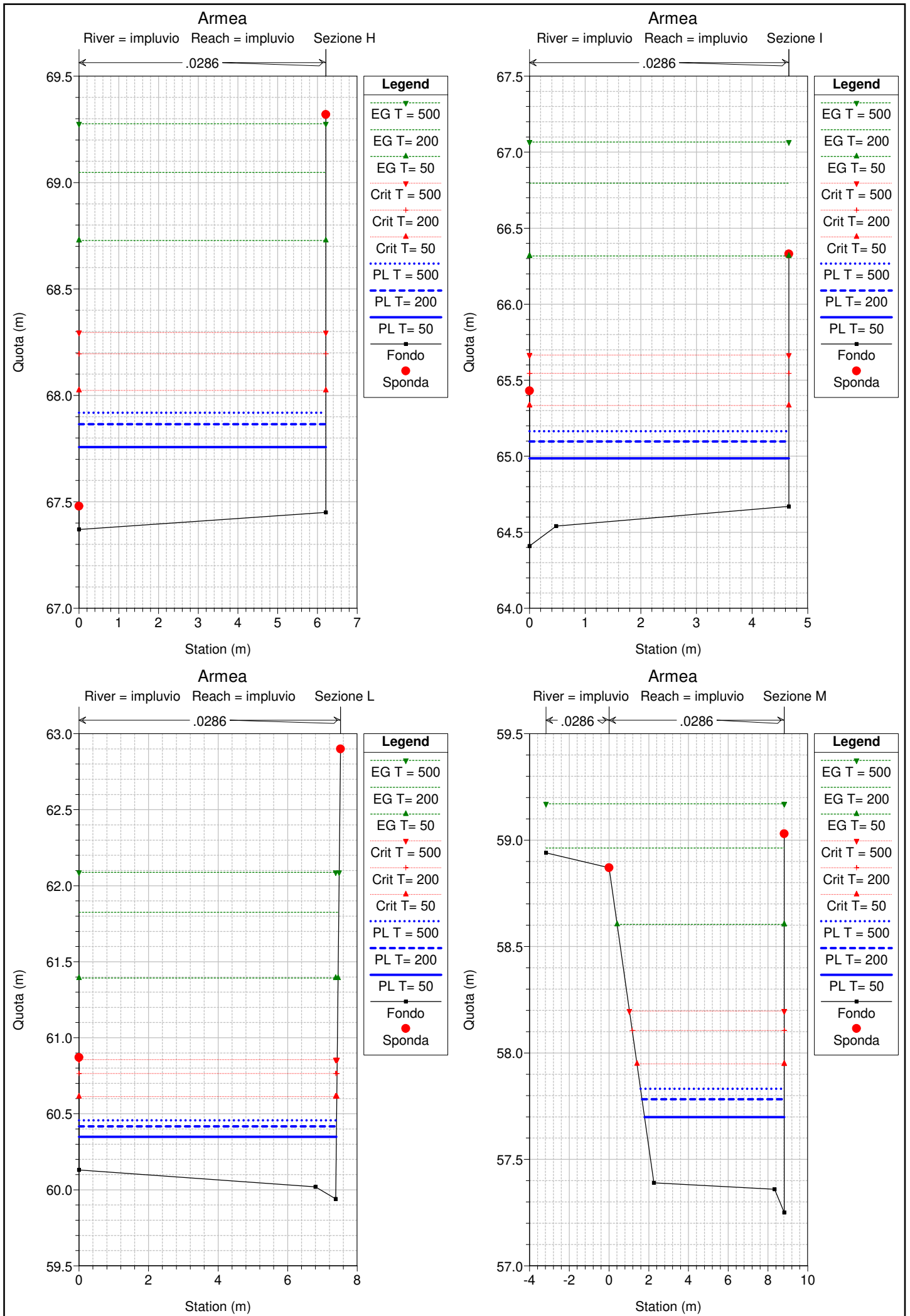


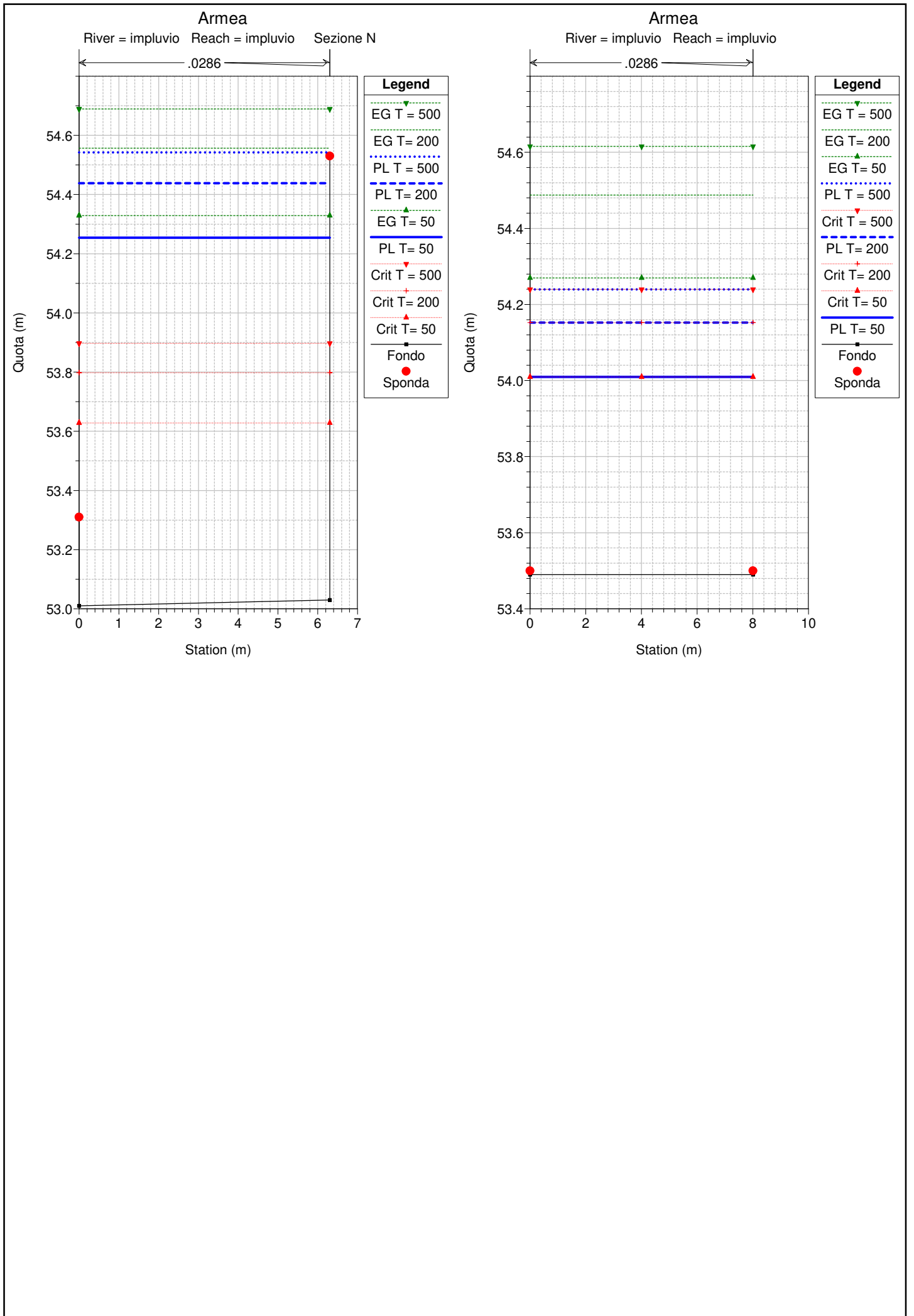












HEC-RAS Plan: 2_PdB River: impluvio Reach: impluvio

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)	
impluvio	100	Sezione A	T= 200	12.00	77.38	78.94	78.58	-0.36	79.57	0.63	78.94	79.18	0.008011	2.42	5.93	10.51	0.74
impluvio	100	Sezione A	T= 50	8.30	77.38	78.82	78.58	-0.24	79.57	0.75	78.82	79.02	0.007268	2.18	4.64	10.42	0.70
impluvio	100	Sezione A	T = 500	14.40	77.38	79.00	78.58	-0.42	79.57	0.57	79.00	79.27	0.008816	2.60	6.53	10.55	0.78
impluvio	90	Sezione B	T= 200	12.00	76.51	77.65	77.43	-0.22	78.56	0.91	77.99	78.80	0.043055	4.87	2.74	6.42	1.67
impluvio	90	Sezione B	T= 50	8.30	76.51	77.44	77.43	-0.01	78.56	1.12	77.86	78.58	0.054517	4.73	1.76	2.71	1.84
impluvio	90	Sezione B	T = 500	14.40	76.51	77.74	77.43	-0.31	78.56	0.82	78.06	78.89	0.041237	4.99	3.36	7.91	1.64
impluvio	80	Sezione C	T= 200	12.00	74.33	75.16	75.25	0.09	76.10	0.94	75.67	77.34	0.111636	6.54	1.84	3.38	2.83
impluvio	80	Sezione C	T= 50	8.30	74.33	75.01	75.25	0.24	76.10	1.09	75.53	76.92	0.122635	6.12	1.36	3.00	2.91
impluvio	80	Sezione C	T = 500	14.40	74.33	75.25	75.25	0.00	76.10	0.85	75.75	77.56	0.106232	6.74	2.14	3.60	2.79
impluvio	70	Sezione D	T= 200	12.00	71.23	72.17	72.36	0.19	73.70	1.53	72.80	74.83	0.128268	7.22	1.66	2.31	2.71
impluvio	70	Sezione D	T= 50	8.30	71.23	71.98	72.36	0.38	73.70	1.72	72.64	74.26	0.134868	6.69	1.24	2.09	2.77
impluvio	70	Sezione D	T = 500	14.40	71.23	72.28	72.36	0.08	73.70	1.42	72.89	75.13	0.124823	7.48	1.93	2.43	2.68
impluvio	60	Sezione E	T= 200	12.00	70.30	71.20	71.22	0.02	71.86	0.66	71.66	73.57	0.113757	6.82	1.76	2.63	2.66
impluvio	60	Sezione E	T= 50	8.30	70.30	71.04	71.22	0.18	71.86	0.82	71.53	72.97	0.113105	6.16	1.35	2.42	2.64
impluvio	60	Sezione E	T = 500	14.40	70.30	71.27	71.22	-0.05	71.86	0.59	71.75	73.88	0.117211	7.24	2.15	6.86	2.73
impluvio	50	Sezione F	T= 200	12.00	69.36	70.37	70.42	0.05	71.48	1.11	70.84	72.62	0.102366	6.64	1.81	2.61	2.55
impluvio	50	Sezione F	T= 50	8.30	69.36	70.20	70.42	0.22	71.48	1.28	70.70	72.04	0.101748	6.01	1.38	2.38	2.52
impluvio	50	Sezione F	T = 500	14.40	69.36	70.45	70.42	-0.03	71.48	1.03	70.91	72.89	0.103313	6.98	2.22	7.36	2.57
impluvio	40	Sezione G	T= 200	13.60	69.05	70.13	70.11	-0.02	72.01	1.88	70.54	72.02	0.082995	6.18	2.42	7.80	2.34
impluvio	40	Sezione G	T= 50	9.40	69.05	70.01	70.11	0.10	72.01	2.00	70.40	71.45	0.071042	5.32	1.77	2.81	2.14
impluvio	40	Sezione G	T = 500	16.30	69.05	70.18	70.11	-0.07	72.01	1.83	70.61	72.28	0.089408	6.62	2.80	7.85	2.45
impluvio	39	Sezione G	T= 200	13.60	70.00	70.39	70.11	-0.28	72.01	1.62	70.75	71.91	0.119668	5.70	2.49	7.73	3.13
impluvio	39	Sezione G	T= 50	9.40	70.00	70.35	70.11	-0.24	72.01	1.66	70.60	71.30	0.088000	4.56	2.18	7.68	2.64
impluvio	39	Sezione G	T = 500	16.30	70.00	70.43	70.11	-0.32	72.01	1.58	70.83	72.17	0.119294	6.05	2.79	7.78	3.16
impluvio	35		Lat Struct														
impluvio	30	Sezione H	T= 200	13.60	67.37	67.86	67.48	-0.38	69.32	1.46	68.19	69.05	0.065139	4.82	2.82	6.21	2.28
impluvio	30	Sezione H	T= 50	9.40	67.37	67.76	67.48	-0.28	69.32	1.56	68.02	68.73	0.073605	4.36	2.15	6.21	2.37
impluvio	30	Sezione H	T = 500	16.30	67.37	67.92	67.48	-0.44	69.32	1.40	68.30	69.28	0.065691	5.16	3.16	6.21	2.31
impluvio	25		Lat Struct														
impluvio	20	Sezione I	T= 200	13.60	64.41	65.10	65.43	0.33	66.33	1.23	65.55	66.80	0.090373	5.77	2.36	4.66	2.59
impluvio	20	Sezione I	T= 50	9.40	64.41	64.99	65.43	0.44	66.33	1.34	65.33	66.32	0.093471	5.11	1.84	4.66	2.60
impluvio	20	Sezione I	T = 500	16.30	64.41	65.16	65.43	0.27	66.33	1.17	65.66	67.07	0.088453	6.11	2.67	4.66	2.58
impluvio	10	Sezione L	T= 200	13.60	59.94	60.42	60.87	0.45	62.90	2.48	60.77	61.82	0.104188	5.25	2.59	7.40	2.84
impluvio	10	Sezione L	T= 50	9.40	59.94	60.35	60.87	0.52	62.90	2.55	60.61	61.39	0.101359	4.53	2.08	7.40	2.73
impluvio	10	Sezione L	T = 500	16.30	59.94	60.46	60.87	0.41	62.90	2.44	60.86	62.09	0.105950	5.65	2.88	7.40	2.89
impluvio	0	Sezione M	T= 200	13.60	57.25	57.78	58.87	1.09	59.03	1.25	58.11	58.96	0.073554	4.81	2.83	7.16	2.45
impluvio	0	Sezione M	T= 50	9.40	57.25	57.70	58.87	1.17	59.03	1.33	57.95	58.60	0.074329	4.22	2.23	7.03	2.39
impluvio	0	Sezione M	T = 500	16.30	57.25	57.83	58.87	1.04	59.03	1.20	58.20	59.17	0.072980	5.12	3.18	7.23	2.47

HEC-RAS Plan: 2_PdB River: impluvio Reach: impluvio (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)	
impluvio	-10	Sezione N	T= 200	13.60	53.01	54.44	53.31	-1.13	54.53	0.09	53.80	54.56	0.001951	1.52	8.94	6.30	0.41
impluvio	-10	Sezione N	T= 50	9.40	53.01	54.25	53.31	-0.94	54.53	0.28	53.63	54.33	0.001402	1.21	7.78	6.30	0.35
impluvio	-10	Sezione N	T = 500	16.30	53.01	54.54	53.31	-1.23	54.53	-0.01	53.90	54.69	0.002283	1.70	9.59	6.30	0.44
impluvio	-20		T= 200	13.60	53.49	54.15	53.50	-0.65	53.50	-0.65	54.15	54.49	0.011411	2.56	5.31	8.01	1.01
impluvio	-20		T= 50	9.40	53.49	54.01	53.50	-0.51	53.50	-0.51	54.01	54.27	0.011745	2.26	4.16	8.01	1.00
impluvio	-20		T = 500	16.30	53.49	54.24	53.50	-0.74	53.50	-0.74	54.24	54.62	0.011130	2.71	6.00	8.01	1.00