

VÝPOČET SMEROVÉHO VEDENIA

Údaje o hlavných bodoch smerového vedenia trasy											
CB IND	STA	YH	XH	sigmah	R	YS	XS				
CV TP	DIF	YP	XP	sigp	A	YT	XT	T1	T2(VZP)	alfat	
1 OT	.000000	537465.833	1256382.957	64.63617	.000	.000	.000				
0 tečna	148.419	.000	.000	.00000	.000	.000	.000	.000	.000	.00000	
2 TP	.148419	537591.935	1256461.227	64.63617	.000	.000	.000				
1 klotoida	80.000	537591.935	1256461.227	64.63617	200.000	537637.265	1256489.363	53.351	26.683	-5.09296	
3 PK	.228419	537658.739	1256505.201	59.54321	-500.000	537361.951	1256907.591				
1 kružnice	205.975	.000	.000	.00000	.000	537742.813	1256567.211	104.469	-10.797	-26.22552	
4 KP	.434393	537795.025	1256657.697	33.31769	-500.000	537361.951	1256907.591				
1 klotoida	80.000	537831.247	1256729.002	28.22474	-200.000	537808.361	1256680.808	26.683	53.351	-5.09296	
5 PT	.514393	537831.247	1256729.002	28.22474	.000	.000	.000				
0 tečna	713.003	.000	.000	.00000	.000	.000	.000	.000	.000	.00000	
6 TP	1.227397	538137.105	1257373.070	28.22474	.000	.000	.000				
2 klotoida	80.000	538137.105	1257373.070	28.22474	200.000	538159.991	1257421.264	53.351	26.683	-5.09296	
7 PK	1.307397	538169.474	1257446.204	23.13178	-500.000	537702.119	1257623.910				
2 kružnice	127.200	.000	.000	.00000	.000	538192.201	1257505.975	63.945	-4.072	-16.19564	
8 KP	1.434597	538199.154	1257569.541	6.93614	-500.000	537702.119	1257623.910				
2 klotoida	80.000	538203.600	1257649.395	1.84318	-200.000	538202.056	1257596.066	26.683	53.351	-5.09296	
9 PT	1.514597	538203.600	1257649.395	1.84318	.000	.000	.000				
0 tečna	410.408	.000	.000	.00000	.000	.000	.000	.000	.000	.00000	
10 TP	1.925004	538215.481	1258059.630	1.84318	.000	.000	.000				
3 klotoida	80.000	538215.481	1258059.630	1.84318	200.000	538217.025	1258112.959	53.351	26.683	-5.09296	
11 PK	2.005004	538215.664	1258139.607	396.75022	-500.000	537716.315	1258114.095				
3 kružnice	174.036	.000	.000	.00000	.000	538211.178	1258227.400	87.907	-7.669	-22.15891	
12 KP	2.179040	538177.017	1258308.398	374.59132	-500.000	537716.315	1258114.095				
3 klotoida	80.000	538142.053	1258380.328	369.49836	-200.000	538166.648	1258332.984	26.683	53.351	-5.09296	

13	PT	2.259040	538142.053	1258380.328	369.49836	.000	.000	.000			
	0 tečna	1012.499	.000	.000	.00000	.000	.000	.000	.000	.000	.00000
14	TP	3.271540	537675.294	1259278.821	369.49836	.000	.000	.000			
	4 klotoida	60.000	537675.294	1259278.821	369.49836	154.919	537656.848	1259314.328	40.012	20.011	4.77465
15	PK	3.331540	537648.980	1259332.726	374.27301	400.000	538016.760	1259490.010			
	4 kružnice	127.001	.000	.000	.00000	.000	537623.799	1259391.607	64.039	5.094	20.21283
16	KP	3.458540	537618.259	1259455.407	394.48583	400.000	538016.760	1259490.010			
	4 klotoida	60.000	537616.063	1259515.351	399.26048	-154.919	537616.528	1259475.342	20.011	40.012	4.77465
17	PT	3.518540	537616.063	1259515.351	399.26048	.000	.000	.000			
	0 tečna	157.845	.000	.000	.00000	.000	.000	.000	.000	.000	.00000
18	TP	3.676386	537614.230	1259673.186	399.26048	.000	.000	.000			
	5 klotoida	60.000	537614.230	1259673.186	399.26048	173.205	537613.765	1259713.191	40.008	20.007	-3.81972
19	PK	3.736386	537612.334	1259733.147	395.44076	-500.000	537113.615	1259697.369			
	5 kružnice	198.084	.000	.000	.00000	.000	537605.152	1259833.248	100.358	-9.972	-25.22084
20	KP	3.934470	537559.900	1259922.824	370.21992	-500.000	537113.615	1259697.369			
	5 klotoida	60.000	537530.730	1259975.245	366.40020	-173.205	537550.879	1259940.682	20.007	40.008	-3.81972
21	PT	3.994470	537530.730	1259975.245	366.40021	.000	.000	.000			
	0 tečna	394.373	.000	.000	.00000	.000	.000	.000	.000	.000	.00000
22	TK	4.388843	537332.116	1260315.953	366.40021	-600.000	536813.761	1260013.781			
	6 kružnice	52.726	.000	.000	.00000	.000	537318.830	1260338.744	26.380	-.580	-5.59443
23	KK	4.441569	537303.596	1260360.280	360.80578	600.000	537793.431	1260706.780			
	7 kružnice	52.554	.000	.000	.00000	.000	537288.411	1260381.747	26.294	.576	5.57620
24	KT	4.494123	537275.163	1260404.459	366.38198	.000	.000	.000			
	0 tečna	201.551	.000	.000	.00000	.000	.000	.000	.000	.000	.00000
25	TK	4.695674	537173.607	1260578.555	366.38198	-600.000	536655.339	1260276.234			
	8 kružnice	61.401	.000	.000	.00000	.000	537158.125	1260605.096	30.727	-.786	-6.51486
26	KK	4.757075	537140.012	1260629.918	359.86712	600.000	537624.685	1260983.601			
	9 kružnice	55.351	.000	.000	.00000	.000	537123.687	1260652.289	27.695	.639	5.87288

27 KT	4.812426	537109.492	1260676.070	365.73999	.000	.000	.000			
0 tečna	83.131	.000	.000	.00000	.000	.000	.000	.000	.000	.00000
28 TO	4.895556	537066.883	1260747.450	365.73999	.000	.000	.000			

Údaje o vrcholoch dotyčnicového polygonu trasy

čís.vrch.	YT	XT	T1	T2	alfat
0	537465.833	1256382.957	.000	.000	.00000
1	537750.959	1256559.932	187.165	187.165	-36.41143
2	538199.397	1257504.243	145.212	145.212	-26.38155
3	538220.401	1258229.511	169.952	169.952	-32.34483
4	537617.519	1259390.035	125.325	125.325	29.76212
5	537612.347	1259835.236	162.061	162.061	-32.86027
6	537318.830	1260338.744	26.380	26.380	-5.59443
7	537288.411	1260381.747	26.294	26.294	5.57620
8	537158.125	1260605.096	30.727	30.727	-6.51486
9	537123.687	1260652.289	27.695	27.695	5.87288
10	537066.883	1260747.450	.000	.000	.00000

Údaje o podrobných bodoch trasy

WB	STA	Y	X	sig	R
** ZU	.000000	537465.833	1256382.957	64.63617	.000
**	.025000	537487.074	1256396.141	64.63617	.000
**	.050000	537508.315	1256409.325	64.63617	.000
**	.075000	537529.556	1256422.509	64.63617	.000
**	.100000	537550.797	1256435.693	64.63617	.000
**	.125000	537572.038	1256448.877	64.63617	.000
TP	.148419	537591.935	1256461.227	64.63617	.000
**	.150000	537593.279	1256462.061	64.63418	-25294.402
**	.175000	537614.479	1256475.312	64.07390	-1504.813
**	.200000	537635.455	1256488.912	62.51890	-775.474
**	.225000	537655.981	1256503.181	59.96918	-522.320
PK	.228419	537658.739	1256505.201	59.54321	-500.000
**	.250000	537675.825	1256518.382	56.79539	-500.000
**	.275000	537694.885	1256534.556	53.61229	-500.000
**	.300000	537713.113	1256551.662	50.42919	-500.000
**	.325000	537730.463	1256569.657	47.24609	-500.000
**	.350000	537746.892	1256588.498	44.06299	-500.000
**	.375000	537762.359	1256608.135	40.87989	-500.000
**	.400000	537776.825	1256628.522	37.69679	-500.000

**		.425000	537790.254	1256649.606	34.51369	-500.000
	KP	.434393	537795.025	1256657.697	33.31774	-500.000
**		.450000	537802.627	1256671.327	31.52442	-621.182
**		.475000	537814.119	1256693.527	29.45965	-1015.400
**		.500000	537825.062	1256716.005	28.38960	-2779.060
	PT	.514393	537831.247	1256729.002	28.22474	.000
**		.525000	537835.797	1256738.583	28.22474	.000
**		.550000	537846.521	1256761.166	28.22474	.000
**		.575000	537857.246	1256783.749	28.22474	.000
**		.600000	537867.970	1256806.332	28.22474	.000
**		.625000	537878.694	1256828.915	28.22474	.000
**		.650000	537889.418	1256851.497	28.22474	.000
**		.675000	537900.143	1256874.080	28.22474	.000
**		.700000	537910.867	1256896.663	28.22474	.000
**		.725000	537921.591	1256919.246	28.22474	.000
**		.750000	537932.316	1256941.829	28.22474	.000
**		.775000	537943.040	1256964.412	28.22474	.000
**		.800000	537953.764	1256986.995	28.22474	.000
**		.825000	537964.488	1257009.578	28.22474	.000
**		.850000	537975.213	1257032.161	28.22474	.000
**		.875000	537985.937	1257054.744	28.22474	.000
**		.900000	537996.661	1257077.327	28.22474	.000
**		.925000	538007.385	1257099.910	28.22474	.000
**		.950000	538018.110	1257122.493	28.22474	.000
**		.975000	538028.834	1257145.076	28.22474	.000
**		1.000000	538039.558	1257167.659	28.22474	.000
**		1.025000	538050.283	1257190.242	28.22474	.000
**		1.050000	538061.007	1257212.825	28.22474	.000
**		1.075000	538071.731	1257235.408	28.22474	.000
**		1.100000	538082.455	1257257.991	28.22474	.000
**		1.125000	538093.180	1257280.574	28.22474	.000
**		1.150000	538103.904	1257303.157	28.22474	.000
**		1.175000	538114.628	1257325.740	28.22474	.000
**		1.200000	538125.352	1257348.323	28.22474	.000
**		1.225000	538136.077	1257370.906	28.22474	.000
	TP	1.227397	538137.105	1257373.070	28.22474	.000
**		1.250000	538146.757	1257393.509	27.81817	-1769.651
**		1.275000	538157.118	1257416.261	26.42145	-840.277
**		1.300000	538166.796	1257439.310	24.03002	-550.939
	PK	1.307397	538169.474	1257446.204	23.13178	-500.000
**		1.325000	538175.440	1257462.765	20.89045	-500.000
**		1.350000	538182.902	1257486.623	17.70735	-500.000

**		1.375000	538189.163	1257510.823	14.52426	-500.000
**		1.400000	538194.206	1257535.307	11.34116	-500.000
**		1.425000	538198.019	1257560.012	8.15806	-500.000
	KP	1.434597	538199.154	1257569.541	6.93614	-500.000
**		1.450000	538200.608	1257584.875	5.16376	-619.225
**		1.475000	538202.195	1257609.823	3.09089	-1010.180
**		1.500000	538203.165	1257634.804	2.01274	-2740.305
	PT	1.514597	538203.600	1257649.395	1.84318	.000
**		1.525000	538203.901	1257659.793	1.84318	.000
**		1.550000	538204.625	1257684.783	1.84318	.000
**		1.575000	538205.349	1257709.772	1.84318	.000
**		1.600000	538206.073	1257734.762	1.84318	.000
**		1.625000	538206.796	1257759.751	1.84318	.000
**		1.650000	538207.520	1257784.741	1.84318	.000
**		1.675000	538208.244	1257809.730	1.84318	.000
**		1.700000	538208.967	1257834.720	1.84318	.000
**		1.725000	538209.691	1257859.710	1.84318	.000
**		1.750000	538210.415	1257884.699	1.84318	.000
**		1.775000	538211.139	1257909.689	1.84318	.000
**		1.800000	538211.862	1257934.678	1.84318	.000
**		1.825000	538212.586	1257959.668	1.84318	.000
**		1.850000	538213.310	1257984.657	1.84318	.000
**		1.875000	538214.033	1258009.647	1.84318	.000
**		1.900000	538214.757	1258034.636	1.84318	.000
**		1.925000	538215.481	1258059.626	1.84318	.000
	TP	1.925004	538215.481	1258059.630	1.84318	.000
**		1.950000	538216.140	1258084.617	1.34600	-1600.283
**		1.975000	538216.408	1258109.615	399.85410	-800.071
**		2.000000	538215.895	1258134.608	397.36748	-533.365
	PK	2.005004	538215.664	1258139.607	396.75028	-500.003
**		2.025000	538214.245	1258159.551	394.20431	-500.000
**		2.050000	538211.351	1258184.380	391.02121	-500.000
**		2.075000	538207.219	1258209.034	387.83811	-500.000
**		2.100000	538201.861	1258233.450	384.65501	-500.000
**		2.125000	538195.288	1258257.568	381.47191	-500.000
**		2.150000	538187.519	1258281.328	378.28881	-500.000
**		2.175000	538178.572	1258304.669	375.10571	-500.000
	KP	2.179040	538177.017	1258308.398	374.59133	-500.000
**		2.200000	538168.505	1258327.550	372.27221	-677.506
**		2.225000	538157.599	1258350.045	370.42044	-1175.085
**		2.250000	538146.218	1258372.304	369.56339	-4424.736
	PT	2.259040	538142.053	1258380.328	369.49836	.000

**	2.275000	538134.696	1258394.490	369.49836	.000	
**	2.300000	538123.171	1258416.675	369.49836	.000	
**	2.325000	538111.646	1258438.860	369.49836	.000	
**	2.350000	538100.121	1258461.045	369.49836	.000	
**	2.375000	538088.596	1258483.231	369.49836	.000	
**	2.400000	538077.071	1258505.416	369.49836	.000	
**	2.425000	538065.546	1258527.601	369.49836	.000	
**	2.450000	538054.021	1258549.786	369.49836	.000	
**	2.475000	538042.496	1258571.971	369.49836	.000	
**	2.500000	538030.971	1258594.156	369.49836	.000	
**	2.525000	538019.446	1258616.341	369.49836	.000	
**	2.550000	538007.922	1258638.526	369.49836	.000	
**	2.575000	537996.397	1258660.711	369.49836	.000	
**	2.600000	537984.872	1258682.896	369.49836	.000	
**	2.625000	537973.347	1258705.081	369.49836	.000	
**	2.650000	537961.822	1258727.266	369.49836	.000	
**	2.675000	537950.297	1258749.451	369.49836	.000	
**	2.700000	537938.772	1258771.636	369.49836	.000	
**	2.725000	537927.247	1258793.821	369.49836	.000	
**	2.750000	537915.722	1258816.006	369.49836	.000	
**	2.775000	537904.197	1258838.191	369.49836	.000	
**	2.800000	537892.672	1258860.376	369.49836	.000	
**	2.825000	537881.147	1258882.561	369.49836	.000	
**	2.850000	537869.622	1258904.746	369.49836	.000	
**	2.875000	537858.097	1258926.931	369.49836	.000	
**	2.900000	537846.572	1258949.116	369.49836	.000	
**	2.925000	537835.048	1258971.301	369.49836	.000	
**	2.950000	537823.523	1258993.486	369.49836	.000	
**	2.975000	537811.998	1259015.671	369.49836	.000	
**	3.000000	537800.473	1259037.856	369.49836	.000	
**	3.025000	537788.948	1259060.042	369.49836	.000	
**	3.050000	537777.423	1259082.227	369.49836	.000	
**	3.075000	537765.898	1259104.412	369.49836	.000	
**	3.100000	537754.373	1259126.597	369.49836	.000	
**	3.125000	537742.848	1259148.782	369.49836	.000	
**	3.150000	537731.323	1259170.967	369.49836	.000	
**	3.175000	537719.798	1259193.152	369.49836	.000	
**	3.200000	537708.273	1259215.337	369.49836	.000	
**	3.225000	537696.748	1259237.522	369.49836	.000	
**	3.250000	537685.223	1259259.707	369.49836	.000	
**	TP	3.271540	537675.294	1259278.821	369.49836	.000
**		3.275000	537673.699	1259281.892	369.51424	6935.517

**		3.300000	537662.316	1259304.150	370.57265	843.276
**		3.325000	537651.599	1259326.734	373.28892	448.930
	PK	3.331540	537648.980	1259332.726	374.27300	400.000
**		3.350000	537642.115	1259349.861	377.21108	400.000
**		3.375000	537634.093	1259373.535	381.18995	400.000
**		3.400000	537627.566	1259397.664	385.16882	400.000
**		3.425000	537622.558	1259422.153	389.14770	400.000
**		3.450000	537619.089	1259446.907	393.12657	400.000
	KP	3.458540	537618.259	1259455.406	394.48575	400.000
**		3.475000	537617.142	1259471.827	396.74613	551.211
**		3.500000	537616.323	1259496.813	398.80457	1294.465
	PT	3.518540	537616.063	1259515.351	399.26048	.000
**		3.525000	537615.988	1259521.811	399.26048	.000
**		3.550000	537615.698	1259546.809	399.26048	.000
**		3.575000	537615.408	1259571.807	399.26048	.000
**		3.600000	537615.117	1259596.805	399.26048	.000
**		3.625000	537614.827	1259621.804	399.26048	.000
**		3.650000	537614.536	1259646.802	399.26048	.000
**		3.675000	537614.246	1259671.800	399.26048	.000
	TP	3.676386	537614.230	1259673.186	399.26048	.000
**		3.700000	537613.882	1259696.798	398.66882	-1270.431
**		3.725000	537613.027	1259721.782	396.75291	-617.106
	PK	3.736386	537612.334	1259733.147	395.44076	-500.000
**		3.750000	537611.175	1259746.711	393.70737	-500.000
**		3.775000	537608.087	1259771.517	390.52427	-500.000
**		3.800000	537603.763	1259796.137	387.34117	-500.000
**		3.825000	537598.214	1259820.511	384.15807	-500.000
**		3.850000	537591.454	1259844.577	380.97497	-500.000
**		3.875000	537583.499	1259868.275	377.79187	-500.000
**		3.900000	537574.370	1259891.546	374.60877	-500.000
**		3.925000	537564.090	1259914.332	371.42568	-500.000
	KP	3.934470	537559.900	1259922.824	370.21992	-500.000
**		3.950000	537552.702	1259936.584	368.49848	-674.613
**		3.975000	537540.500	1259958.404	366.80242	-1540.835
	PT	3.994470	537530.730	1259975.245	366.40020	.000
**		4.000000	537527.945	1259980.023	366.40020	.000
**		4.025000	537515.355	1260001.621	366.40020	.000
**		4.050000	537502.764	1260023.219	366.40020	.000
**		4.075000	537490.174	1260044.817	366.40020	.000
**		4.100000	537477.583	1260066.415	366.40020	.000
**		4.125000	537464.993	1260088.013	366.40020	.000
**		4.150000	537452.402	1260109.611	366.40020	.000

**		4.175000	537439.811	1260131.209	366.40020	.000
**		4.200000	537427.221	1260152.808	366.40020	.000
**		4.225000	537414.630	1260174.406	366.40020	.000
**		4.250000	537402.040	1260196.004	366.40020	.000
**		4.275000	537389.449	1260217.602	366.40020	.000
**		4.300000	537376.859	1260239.200	366.40020	.000
**		4.325000	537364.268	1260260.798	366.40020	.000
**		4.350000	537351.678	1260282.396	366.40020	.000
**		4.375000	537339.087	1260303.994	366.40020	.000
	TK	4.388843	537332.116	1260315.953	366.40020	-600.000
**		4.400000	537326.408	1260325.540	365.21636	-600.000
**		4.425000	537312.976	1260346.623	362.56378	-600.000
	KK	4.441569	537303.596	1260360.280	360.80578	600.000
**		4.450000	537298.775	1260367.197	361.70036	600.000
**		4.475000	537285.060	1260388.097	364.35294	600.000
	KT	4.494123	537275.163	1260404.459	366.38195	600.000
**		4.500000	537272.201	1260409.535	366.38198	.000
**		4.525000	537259.605	1260431.130	366.38198	.000
**		4.550000	537247.008	1260452.724	366.38198	.000
**		4.575000	537234.411	1260474.319	366.38198	.000
**		4.600000	537221.815	1260495.913	366.38198	.000
**		4.625000	537209.218	1260517.508	366.38198	.000
**		4.650000	537196.621	1260539.102	366.38198	.000
**		4.675000	537184.025	1260560.697	366.38198	.000
	TK	4.695674	537173.608	1260578.555	366.38198	.000
**		4.700000	537171.414	1260582.283	365.92299	-600.000
**		4.725000	537158.218	1260603.515	363.27041	-600.000
**		4.750000	537144.149	1260624.178	360.61782	-600.000
	KK	4.757075	537140.012	1260629.917	359.86714	-600.000
**		4.775000	537129.664	1260644.553	361.76899	600.000
**		4.800000	537115.970	1260665.467	364.42157	600.000
	KT	4.812426	537109.492	1260676.070	365.73999	.000
**		4.825000	537103.047	1260686.867	365.73999	.000
**		4.850000	537090.233	1260708.333	365.73999	.000
**		4.875000	537077.419	1260729.799	365.73999	.000
**	KU	4.895556	537066.883	1260747.450	365.73999	.000

VÝPOČET VÝŠKOVÉHO VEDENIA

H L A V N É B O D Y N I V E L E T Y

Číslo	Staničenie	Výška vrcholu	Polomr	Tyčnica	Vzopetie	Spád	Dĺžka	Mezipriama
1.	-0.400000	151.900	0.000	0.000	0.000	5.360%	300.000	129.600
2.	-0.100000	167.980	3 000.000	170.400	4.839	-6.000%	250.000	3.045
3.	0.150000	152.980	-2 100.000	76.555	-1.395	1.291%	110.000	10.501
4.	0.260000	154.400	6 000.000	22.945	0.044	0.526%	230.000	94.186
5.	0.490000	155.610	22 000.000	112.870	0.290	-0.500%	182.000	69.130
6.	0.672000	154.700	0.000	0.000	0.000	-0.500%	178.000	138.800
7.	0.850000	153.810	-8 000.000	39.200	-0.096	0.480%	200.000	43.179
8.	1.050000	154.770	22 000.000	117.621	0.314	-0.589%	280.000	71.175
9.	1.330000	153.120	-15 000.000	91.203	-0.277	0.627%	284.000	153.031
10.	1.614000	154.900	5 000.000	39.765	0.158	-0.964%	166.000	103.042
11.	1.780000	153.300	-10 000.000	23.193	-0.027	-0.500%	370.000	197.248
12.	2.150000	151.450	-30 000.000	149.559	-0.373	0.497%	340.000	144.755
13.	2.490000	153.140	9 000.000	45.686	0.116	-0.518%	110.000	33.665
14.	2.600000	152.570	-6 000.000	30.649	-0.078	0.503%	145.000	114.351
15.	2.745000	153.300	0.000	0.000	0.000	0.500%	160.000	117.465
16.	2.905000	154.100	8 000.000	42.535	0.113	-0.563%	355.000	263.239
17.	3.260000	152.100	-1 500.000	49.225	-0.808	6.000%	115.000	29.775
18.	3.375000	159.000	600.000	36.000	1.080	-6.000%	130.000	53.325
19.	3.505000	151.200	-1 500.000	40.675	-0.551	-0.577%	300.000	225.179
20.	3.805000	149.470	-6 000.000	34.146	-0.097	0.562%	130.000	55.065
21.	3.935000	150.200	-1 500.000	40.788	-0.555	6.000%	105.000	46.212
22.	4.040000	156.500	600.000	18.000	0.270	0.000%	625.000	584.429
23.	4.665000	156.500	600.000	22.571	0.425	-7.524%	105.000	64.117
24.	4.770000	148.600	-500.000	18.312	-0.335	-0.199%	125.556	107.244
25.	4.895556	148.350	0.000	0.000	0.000	0.000%	0.000	0.000

V Ý P O Č E T V Ý Š O K V P O D R O B N Ý C H B O D O C H

Staničenie	Označení	Výška nivelety	Výška terénu	Spád nivelety
-0.400000	V	151.900	0.000	5.360%
-0.380000		152.972	0.000	5.360%
-0.360000		154.044	0.000	5.360%
-0.340000		155.116	0.000	5.360%
-0.320000		156.188	0.000	5.360%
-0.300000		157.260	0.000	5.360%

-0.280000		158.332	0.000	5.360%
-0.270400	ZZ	158.847	0.000	5.360%
-0.260000		159.386	0.000	5.013%
-0.240000		160.322	0.000	4.347%
-0.220000		161.125	0.000	3.680%
-0.200000		161.794	0.000	3.013%
-0.180000		162.330	0.000	2.347%
-0.160000		162.733	0.000	1.680%
-0.140000		163.002	0.000	1.013%
-0.120000		163.138	0.000	0.347%
-0.109600	VZ	163.156	0.000	0.000%
-0.100000	V	163.141	0.000	-0.320%
-0.080000		163.010	0.000	-0.987%
-0.060000		162.746	0.000	-1.653%
-0.040000		162.349	0.000	-2.320%
-0.020000		161.818	0.000	-2.987%
0.000000		161.154	154.470	-3.653%
0.020000		160.357	154.459	-4.320%
0.025000		160.136	154.457	-4.487%
0.040000		159.426	154.449	-4.987%
0.050000		158.911	154.443	-5.320%
0.060000		158.362	154.438	-5.653%
0.070400	KZ	157.756	154.433	-6.000%
0.073445	ZZ	157.573	154.431	-6.000%
0.075000		157.481	154.430	-5.926%
0.080000		157.190	154.427	-5.688%
0.100000		156.148	154.415	-4.736%
0.120000		155.296	154.400	-3.783%
0.125000		155.113	154.396	-3.545%
0.140000		154.635	154.385	-2.831%
0.148419		154.413	154.378	-2.430%
0.150000	V	154.375	154.377	-2.355%
0.160000		154.164	154.380	-1.878%
0.175000		153.936	154.408	-1.164%
0.180000		153.883	154.417	-0.926%
0.199445	VZ	153.793	154.455	0.000%
0.200000		153.793	154.456	0.026%
0.220000		153.894	154.495	0.979%
0.225000		153.949	154.515	1.217%
0.226555	KZ	153.968	154.525	1.291%
0.228419		153.992	154.535	1.291%
0.237055	ZZ	154.104	154.577	1.291%

0.240000		154.141	154.588	1.242%
0.250000		154.257	154.626	1.075%
0.260000	V	154.356	154.664	0.909%
0.275000		154.474	154.721	0.659%
0.280000		154.504	154.740	0.575%
0.282945	KZ	154.521	154.751	0.526%
0.300000		154.610	154.816	0.526%
0.320000		154.716	154.892	0.526%
0.325000		154.742	154.911	0.526%
0.340000		154.821	154.968	0.526%
0.350000		154.873	155.000	0.526%
0.360000		154.926	155.000	0.526%
0.375000		155.005	155.000	0.526%
0.377130	ZZ	155.016	155.000	0.526%
0.380000		155.031	155.000	0.513%
0.400000		155.125	155.000	0.422%
0.420000		155.200	155.000	0.331%
0.425000		155.216	155.000	0.309%
0.434393		155.243	155.000	0.266%
0.440000		155.257	155.000	0.240%
0.450000		155.279	155.000	0.195%
0.460000		155.296	155.000	0.149%
0.475000		155.313	155.000	0.081%
0.480000		155.317	155.000	0.059%
0.490000	V	155.320	155.000	0.013%
0.492870	VZ	155.321	155.000	0.000%
0.500000		155.319	155.000	-0.032%
0.514393		155.310	155.000	-0.098%
0.520000		155.304	155.000	-0.123%
0.525000		155.297	155.000	-0.146%
0.540000		155.270	155.000	-0.214%
0.550000		155.246	155.000	-0.260%
0.560000		155.218	155.016	-0.305%
0.575000		155.167	155.031	-0.373%
0.580000		155.148	154.984	-0.396%
0.600000		155.060	154.820	-0.487%
0.602870	KZ	155.046	154.801	-0.500%
0.620000		154.960	154.688	-0.500%
0.625000		154.935	154.655	-0.500%
0.640000		154.860	154.557	-0.500%
0.650000		154.810	154.491	-0.500%
0.660000		154.760	154.425	-0.500%

0.672000	KZ ZZ V	154.700	154.346	-0.500%
0.675000		154.685	154.326	-0.500%
0.680000		154.660	154.294	-0.500%
0.700000		154.560	154.162	-0.500%
0.720000		154.460	154.030	-0.500%
0.725000		154.435	153.997	-0.500%
0.740000		154.360	153.893	-0.500%
0.750000		154.310	153.823	-0.500%
0.760000		154.260	153.754	-0.500%
0.775000		154.185	153.650	-0.500%
0.780000		154.160	153.615	-0.500%
0.800000		154.060	153.467	-0.500%
0.810800	ZZ	154.006	153.443	-0.500%
0.820000		153.965	153.427	-0.385%
0.825000		153.948	153.418	-0.323%
0.840000		153.913	153.392	-0.135%
0.850000	V	153.906	153.375	-0.010%
0.850800	VZ	153.906	153.373	0.000%
0.860000		153.911	153.381	0.115%
0.875000		153.943	153.483	0.303%
0.880000		153.959	153.514	0.365%
0.889200	KZ	153.998	153.565	0.480%
0.900000		154.050	153.653	0.480%
0.920000		154.146	153.880	0.480%
0.925000		154.170	153.937	0.480%
0.932379	ZZ	154.205	154.000	0.480%
0.940000		154.241	154.000	0.445%
0.950000		154.283	154.000	0.400%
0.960000		154.321	154.000	0.354%
0.975000		154.369	154.000	0.286%
0.980000		154.382	154.000	0.264%
1.000000		154.426	154.000	0.173%
1.020000		154.452	154.000	0.082%
1.025000		154.455	154.000	0.059%
1.037979	VZ	154.459	154.000	0.000%
1.040000		154.459	154.000	-0.009%
1.050000	V	154.456	153.945	-0.055%
1.060000		154.448	153.871	-0.100%
1.075000		154.428	153.760	-0.168%
1.080000		154.419	153.723	-0.191%
1.100000		154.371	153.545	-0.282%
1.120000		154.306	153.500	-0.373%

1.125000		154.287	153.491	-0.396%
1.140000		154.222	153.431	-0.464%
1.150000		154.174	153.391	-0.509%
1.160000		154.120	153.351	-0.555%
1.167621	KZ	154.077	153.320	-0.589%
1.175000		154.033	153.290	-0.589%
1.180000		154.004	153.270	-0.589%
1.200000		153.886	153.190	-0.589%
1.220000		153.768	153.217	-0.589%
1.225000		153.739	153.225	-0.589%
1.227397		153.725	153.229	-0.589%
1.238797	ZZ	153.657	153.249	-0.589%
1.240000		153.650	153.251	-0.581%
1.250000		153.596	153.268	-0.515%
1.260000		153.547	153.285	-0.448%
1.275000		153.488	153.311	-0.348%
1.280000		153.471	153.319	-0.315%
1.300000		153.422	153.354	-0.181%
1.307397		153.410	153.366	-0.132%
1.320000		153.399	153.388	-0.048%
1.325000		153.397	153.396	-0.015%
1.327189	VZ	153.397	153.400	0.000%
1.330000	V	153.397	153.405	0.019%
1.340000		153.402	153.422	0.085%
1.350000		153.414	153.439	0.152%
1.360000		153.433	153.456	0.219%
1.375000		153.473	153.482	0.319%
1.380000		153.490	153.491	0.352%
1.400000		153.574	153.442	0.485%
1.420000		153.684	153.500	0.619%
1.421203	KZ	153.692	153.500	0.627%
1.425000		153.715	153.500	0.627%
1.434597		153.776	153.500	0.627%
1.440000		153.809	153.500	0.627%
1.450000		153.872	153.500	0.627%
1.460000		153.935	153.500	0.627%
1.475000		154.029	153.500	0.627%
1.480000		154.060	153.500	0.627%
1.500000		154.185	153.500	0.627%
1.514597		154.277	153.500	0.627%
1.520000		154.311	153.500	0.627%
1.525000		154.342	153.500	0.627%

1.540000		154.436	153.500	0.627%
1.550000		154.499	153.500	0.627%
1.560000		154.562	153.500	0.627%
1.574235	ZZ	154.651	153.500	0.627%
1.575000		154.656	153.500	0.612%
1.580000		154.684	153.500	0.512%
1.600000		154.746	153.430	0.112%
1.605573	VZ	154.749	153.400	0.000%
1.614000	V	154.742	153.356	-0.169%
1.620000		154.728	153.324	-0.289%
1.625000		154.711	153.297	-0.389%
1.640000		154.630	153.217	-0.689%
1.650000		154.552	153.164	-0.889%
1.653765	KZ	154.517	153.144	-0.964%
1.660000		154.457	153.111	-0.964%
1.675000		154.312	153.034	-0.964%
1.680000		154.264	153.015	-0.964%
1.700000		154.071	153.000	-0.964%
1.720000		153.878	153.000	-0.964%
1.725000		153.830	152.981	-0.964%
1.740000		153.686	152.907	-0.964%
1.750000		153.589	152.859	-0.964%
1.756807	ZZ	153.524	152.847	-0.964%
1.760000		153.493	152.841	-0.932%
1.775000		153.365	152.814	-0.782%
1.780000	V	153.327	152.805	-0.732%
1.800000		153.201	152.768	-0.532%
1.803193	KZ	153.184	152.754	-0.500%
1.820000		153.100	152.684	-0.500%
1.825000		153.075	152.663	-0.500%
1.840000		153.000	152.600	-0.500%
1.850000		152.950	152.558	-0.500%
1.860000		152.900	152.516	-0.500%
1.875000		152.825	152.500	-0.500%
1.880000		152.800	152.500	-0.500%
1.900000		152.700	152.500	-0.500%
1.920000		152.600	152.500	-0.500%
1.925000		152.575	152.500	-0.500%
1.925004		152.575	152.500	-0.500%
1.940000		152.500	152.500	-0.500%
1.950000		152.450	152.455	-0.500%
1.960000		152.400	152.388	-0.500%

1.975000		152.325	152.259	-0.500%
1.980000		152.300	152.227	-0.500%
2.000000		152.200	152.109	-0.500%
2.000441	ZZ	152.198	152.107	-0.500%
2.005004		152.175	152.082	-0.485%
2.020000		152.106	151.994	-0.435%
2.025000		152.085	151.968	-0.418%
2.040000		152.026	151.889	-0.368%
2.050000		151.991	151.836	-0.335%
2.060000		151.959	151.805	-0.302%
2.075000		151.918	151.774	-0.252%
2.080000		151.905	151.763	-0.235%
2.100000		151.865	151.715	-0.168%
2.120000		151.838	151.664	-0.102%
2.125000		151.834	151.668	-0.085%
2.140000		151.825	151.681	-0.035%
2.150000	V	151.823	151.690	-0.002%
2.150441	VZ	151.823	151.690	0.000%
2.160000		151.824	151.663	0.032%
2.175000		151.833	151.650	0.082%
2.179040		151.836	151.673	0.095%
2.180000		151.837	151.678	0.099%
2.200000		151.864	151.790	0.165%
2.220000		151.903	151.903	0.232%
2.225000		151.915	151.931	0.249%
2.240000		151.956	152.000	0.299%
2.250000		151.988	152.000	0.332%
2.259040		152.019	152.000	0.362%
2.260000		152.023	152.000	0.365%
2.275000		152.081	152.000	0.415%
2.280000		152.103	152.000	0.432%
2.299559	KZ	152.193	152.000	0.497%
2.300000		152.196	152.000	0.497%
2.320000		152.295	152.000	0.497%
2.325000		152.320	152.000	0.497%
2.340000		152.394	152.000	0.497%
2.350000		152.444	152.000	0.497%
2.360000		152.494	152.000	0.497%
2.375000		152.568	152.000	0.497%
2.380000		152.593	152.000	0.497%
2.400000		152.693	152.000	0.497%
2.420000		152.792	152.000	0.497%

2.425000		152.817	152.000	0.497%
2.440000		152.891	152.009	0.497%
2.444314	ZZ	152.913	152.031	0.497%
2.450000		152.939	152.059	0.434%
2.460000		152.977	152.110	0.323%
2.475000		153.013	152.185	0.156%
2.480000		153.020	152.210	0.101%
2.489049	VZ	153.024	152.242	0.000%
2.490000	V	153.024	152.243	-0.011%
2.500000		153.017	152.251	-0.122%
2.520000		152.971	152.267	-0.344%
2.525000		152.952	152.271	-0.400%
2.535686	KZ	152.903	152.280	-0.518%
2.540000		152.881	152.283	-0.518%
2.550000		152.829	152.295	-0.518%
2.560000		152.777	152.334	-0.518%
2.569351	ZZ	152.729	152.372	-0.518%
2.575000		152.702	152.394	-0.424%
2.580000		152.683	152.414	-0.341%
2.600000	V	152.648	152.497	-0.007%
2.600442	VZ	152.648	152.499	0.000%
2.620000		152.680	152.577	0.326%
2.625000		152.699	152.597	0.409%
2.630649	KZ	152.724	152.620	0.503%
2.640000		152.771	152.657	0.503%
2.650000		152.822	152.697	0.503%
2.660000		152.872	152.737	0.503%
2.675000		152.948	152.797	0.503%
2.680000		152.973	152.817	0.503%
2.700000		153.073	152.900	0.503%
2.720000		153.174	153.106	0.503%
2.725000		153.199	153.161	0.503%
2.740000		153.275	153.326	0.503%
2.745000	KZ ZZ V	153.300	153.381	0.500%
2.750000		153.325	153.410	0.500%
2.760000		153.375	153.379	0.500%
2.775000		153.450	153.191	0.500%
2.780000		153.475	153.160	0.500%
2.800000		153.575	153.159	0.500%
2.820000		153.675	153.132	0.500%
2.825000		153.700	153.140	0.500%
2.840000		153.775	153.120	0.500%

2.850000		153.825	153.198	0.500%
2.860000		153.875	153.314	0.500%
2.862465	ZZ	153.887	153.325	0.500%
2.875000		153.940	153.398	0.343%
2.880000		153.956	153.435	0.281%
2.900000		153.987	153.602	0.031%
2.902465	VZ	153.987	153.616	0.000%
2.905000	V	153.987	153.630	-0.032%
2.920000		153.968	153.604	-0.219%
2.925000		153.956	153.620	-0.282%
2.940000		153.899	153.665	-0.469%
2.947535	KZ	153.860	153.670	-0.563%
2.950000		153.846	153.659	-0.563%
2.960000		153.790	153.563	-0.563%
2.975000		153.706	153.370	-0.563%
2.980000		153.677	153.345	-0.563%
3.000000		153.565	153.271	-0.563%
3.020000		153.452	153.303	-0.563%
3.025000		153.424	153.314	-0.563%
3.040000		153.339	153.192	-0.563%
3.050000		153.283	153.085	-0.563%
3.060000		153.227	153.004	-0.563%
3.075000		153.142	152.925	-0.563%
3.080000		153.114	152.900	-0.563%
3.100000		153.001	152.785	-0.563%
3.120000		152.889	152.688	-0.563%
3.125000		152.861	152.665	-0.563%
3.140000		152.776	152.509	-0.563%
3.150000		152.720	152.346	-0.563%
3.160000		152.663	152.194	-0.563%
3.175000		152.579	152.333	-0.563%
3.180000		152.551	152.379	-0.563%
3.200000		152.438	152.209	-0.563%
3.210775	ZZ	152.377	152.054	-0.563%
3.219225	VZ	152.354	152.070	0.000%
3.220000		152.354	152.071	0.052%
3.225000		152.365	152.079	0.385%
3.240000		152.497	152.100	1.385%
3.250000		152.669	152.117	2.052%
3.260000	V	152.908	152.134	2.718%
3.271540		153.266	152.081	3.488%
3.275000		153.390	152.049	3.718%

3.280000		153.585	152.003	4.052%
3.300000		154.528	151.936	5.385%
3.309225	KZ	155.054	151.944	6.000%
3.320000		155.700	151.941	6.000%
3.325000		156.000	151.929	6.000%
3.331540		156.392	151.914	6.000%
3.339000	ZZ	156.840	151.896	6.000%
3.340000		156.899	151.894	5.833%
3.350000		157.399	151.788	4.167%
3.360000		157.732	151.759	2.500%
3.375000	VZ V	157.920	151.807	0.000%
3.380000		157.899	151.825	-0.833%
3.400000		157.399	151.742	-4.167%
3.411000	KZ	156.840	151.681	-6.000%
3.420000		156.300	151.646	-6.000%
3.425000		156.000	151.616	-6.000%
3.440000		155.100	151.562	-6.000%
3.450000		154.500	151.489	-6.000%
3.458540		153.988	151.422	-6.000%
3.460000		153.900	151.410	-6.000%
3.464325	ZZ	153.640	151.346	-6.000%
3.475000		153.038	151.157	-5.288%
3.480000		152.782	151.062	-4.955%
3.500000		151.924	150.688	-3.622%
3.505000	V	151.751	150.636	-3.288%
3.518540		151.367	150.520	-2.386%
3.520000		151.333	150.509	-2.288%
3.525000		151.227	150.467	-1.955%
3.540000		151.009	150.370	-0.955%
3.545675	KZ	150.965	150.357	-0.577%
3.550000		150.940	150.345	-0.577%
3.560000		150.883	150.300	-0.577%
3.575000		150.796	150.248	-0.577%
3.580000		150.767	150.234	-0.577%
3.600000		150.652	150.070	-0.577%
3.620000		150.537	149.918	-0.577%
3.625000		150.508	149.897	-0.577%
3.640000		150.422	149.814	-0.577%
3.650000		150.364	149.739	-0.577%
3.660000		150.306	149.634	-0.577%
3.675000		150.220	149.479	-0.577%
3.676386		150.212	149.465	-0.577%

3.680000		150.191	149.427	-0.577%
3.700000		150.076	149.346	-0.577%
3.720000		149.960	149.329	-0.577%
3.725000		149.931	149.324	-0.577%
3.736386		149.866	149.310	-0.577%
3.740000		149.845	149.310	-0.577%
3.750000		149.787	149.285	-0.577%
3.760000		149.730	149.223	-0.577%
3.770854	ZZ	149.667	149.135	-0.577%
3.775000		149.644	149.100	-0.508%
3.780000		149.621	149.093	-0.424%
3.800000		149.570	149.065	-0.091%
3.805000	V	149.567	149.060	-0.008%
3.805454	VZ	149.567	149.063	0.000%
3.820000		149.585	149.127	0.242%
3.825000		149.599	149.147	0.326%
3.839146	KZ	149.662	149.202	0.562%
3.840000		149.667	149.206	0.562%
3.850000		149.723	149.200	0.562%
3.860000		149.779	149.199	0.562%
3.875000		149.863	149.167	0.562%
3.880000		149.891	149.161	0.562%
3.894212	ZZ	149.971	149.168	0.562%
3.900000		150.015	149.185	0.947%
3.920000		150.337	149.303	2.281%
3.925000		150.460	149.312	2.614%
3.934470		150.737	149.317	3.245%
3.935000	V	150.755	149.318	3.281%
3.940000		150.927	149.316	3.614%
3.950000		151.322	149.279	4.281%
3.960000		151.783	149.270	4.947%
3.975000		152.600	149.266	5.947%
3.975788	KZ	152.647	149.268	6.000%
3.980000		152.900	149.277	6.000%
3.994470		153.768	149.309	6.000%
4.000000		154.100	149.320	6.000%
4.020000		155.300	149.330	6.000%
4.022000	ZZ	155.420	149.332	6.000%
4.025000		155.592	149.337	5.500%
4.040000	V	156.230	149.396	3.000%
4.050000		156.447	149.482	1.333%
4.058000	KZ	156.500	149.568	0.000%

4.060000	156.500	149.590	0.000%
4.075000	156.500	149.722	0.000%
4.080000	156.500	149.699	0.000%
4.100000	156.500	149.393	0.000%
4.120000	156.500	148.193	0.000%
4.125000	156.500	148.195	0.000%
4.140000	156.500	148.259	0.000%
4.150000	156.500	148.556	0.000%
4.160000	156.500	148.461	0.000%
4.175000	156.500	148.360	0.000%
4.180000	156.500	148.376	0.000%
4.200000	156.500	148.442	0.000%
4.220000	156.500	148.500	0.000%
4.225000	156.500	148.500	0.000%
4.240000	156.500	148.500	0.000%
4.250000	156.500	148.500	0.000%
4.260000	156.500	148.500	0.000%
4.275000	156.500	148.500	0.000%
4.280000	156.500	148.500	0.000%
4.300000	156.500	148.500	0.000%
4.320000	156.500	148.500	0.000%
4.325000	156.500	148.500	0.000%
4.340000	156.500	148.500	0.000%
4.350000	156.500	148.500	0.000%
4.360000	156.500	148.500	0.000%
4.375000	156.500	148.500	0.000%
4.380000	156.500	148.500	0.000%
4.388843	156.500	148.500	0.000%
4.400000	156.500	148.500	0.000%
4.420000	156.500	148.500	0.000%
4.425000	156.500	148.500	0.000%
4.440000	156.500	148.500	0.000%
4.441569	156.500	148.500	0.000%
4.450000	156.500	148.500	0.000%
4.460000	156.500	148.500	0.000%
4.475000	156.500	148.500	0.000%
4.480000	156.500	148.500	0.000%
4.494123	156.500	148.500	0.000%
4.500000	156.500	148.500	0.000%
4.520000	156.500	148.500	0.000%
4.525000	156.500	148.500	0.000%
4.540000	156.500	148.500	0.000%

4.550000		156.500	148.500	0.000%
4.560000		156.500	148.500	0.000%
4.575000		156.500	148.498	0.000%
4.580000		156.500	148.497	0.000%
4.600000		156.500	148.492	0.000%
4.620000		156.500	148.487	0.000%
4.625000		156.500	148.486	0.000%
4.640000		156.500	148.482	0.000%
4.642429	ZZ	156.500	148.482	0.000%
4.650000		156.452	148.480	-1.262%
4.660000		156.243	148.480	-2.929%
4.665000	V	156.075	148.492	-3.762%
4.675000		155.616	148.520	-5.429%
4.680000		155.324	148.520	-6.262%
4.687571	KZ	154.802	148.565	-7.524%
4.695674		154.192	148.570	-7.524%
4.700000		153.867	148.574	-7.524%
4.720000		152.362	148.549	-7.524%
4.725000		151.986	148.484	-7.524%
4.740000		150.857	148.548	-7.524%
4.750000		150.105	148.543	-7.524%
4.751688	ZZ	149.978	148.556	-7.524%
4.757075		149.601	148.537	-6.447%
4.760000		149.421	148.548	-5.862%
4.770000	V	148.935	148.568	-3.862%
4.775000		148.767	148.505	-2.862%
4.780000		148.649	148.474	-1.862%
4.788312	KZ	148.564	148.462	-0.199%
4.800000		148.540	148.431	-0.199%
4.812426		148.516	148.445	-0.199%
4.820000		148.500	148.454	-0.199%
4.825000		148.490	148.460	-0.199%
4.840000		148.461	148.370	-0.199%
4.850000		148.441	148.378	-0.199%
4.860000		148.421	148.395	-0.199%
4.875000		148.391	148.381	-0.199%
4.880000		148.381	148.373	-0.199%
4.895556	V	148.350	148.290	-0.199%