

Dispersion Report

Workspace: 72341-3InvioGN

Study: Invio GN a metanodotto

Equipment Item: 10R Bracci scarico GN

72341-3InvioGN\Invio GN a metanodotto\10R Bracci scarico GN

Material	GAS NATURALE	
East	0	m
North	0	m

Scenario (Leak) : 60mm

72341-3InvioGN\Invio GN a metanodotto\10R Bracci scarico GN\60mm

Material to track	GAS NATURALE
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Weather: Category 2/F

Wind speed [m/s]	2
Pasquill stability	F stable - night with moderate clouds and light/moderate wind
Atmospheric temperature [degC]	25
Relative humidity [fraction]	0,75
Solar radiation flux [kW/m2]	0,5
Mixing layer height [m]	100

Observer Release Data and Observer Mass Data

Observer number	Release type	Start time [s]	Start downwind distance [m]	Unit	Masses or mass rates		
					Release	Rainout	Final
1	Continuous	0	0	kg/s	25,5506	0	25,5506
2	Continuous	6,63703	0	kg/s	25,5506	0	25,5506

Time-varying Observer Dispersion Data (before along-wind-diffusion effects)

Dispersion data correspond to an averaging time of: 18,75 s

Observer number	Time [s]	Down wind distance [m]	C/Li ne height [m]	C/Lin e conc [ppm]	Effect ive width [m]	Effect ive depth [m]	C/Line vapour temperature [degC]	C/Li ne liquid fraction	Centr oid velocity [m/s]	C/Lin e cloud density [kg/m3]
1	0	0	10	999.99 9,41	0,3316 97	0,1659 87	-5,13685	0	300	0,7734 57
1	0,01	1,80829	10,00 01	563.01 1,82	0,6849 65	0,3426 68	7,18804	0	130,90 2	0,9612 59
1	0,02	2,93099	10,00 04	447.21 9,29	0,8919 03	0,4461 31	10,7329	0	98,468 2	1,0072 3
1	0,03	3,82629	10,00 08	384.87 6,22	1,0537 5	0,5270 33	12,5148	0	82,512 9	1,0318 8
1	0,04	4,59734	10,00 12	343.81 2,44	1,1917 4	0,5960 04	13,6429	0	72,519 8	1,0480 8
1	0,05	5,28575	10,00 17	313.97 6,39	1,3141 6	0,6571 88	14,4409	0	65,500 2	1,0598 3
1	0,06	5,91394	10,00 22	290.95 9,32	1,4253 9	0,7127 73	15,0443	0	60,217 5	1,0688 8
1	0,07	6,49509	10,00 28	272.48 3,66	1,5281 8	0,7641 41	15,6167	0	56,058	1,0758 3
1	0,08	7,03843	10,00 35	257.20 6,59	1,6241 8	0,8121 08	16,1244	0	52,671 6	1,0814 4
1	0,09	7,55069	10,00 41	244.28 2,63	1,7145 6	0,8572 67	16,5567	0	49,843 5	1,0861 6
1	0,1	8,03708	10,00 49	233.14 5,60	1,8002 9	0,9001 04	16,9313	0	47,432 9	1,0902 1
1	0,11	8,50136	10,00 56	223.40 9,25	1,8820 8	0,9409 67	17,2604	0	45,345 2	1,0937 3
1	0,12	8,94603	10,00 64	214.80 5,13	1,9603 7	0,9800 84	17,5526	0	43,515 5	1,0968 3
1	0,13	9,37356	10,00 72	207.12 3,41	2,0356 3	1,0176 8	17,8144	0	41,893 8	1,0995 9

1	0,14	9,78549	10,00	200.21	2,1081	1,0539	18,0508	0	40,444	1,1020
			81	3,46	2				5	7
1	0,15	10,1836	10,00	193.94	2,1781	1,0889	18,2657	0	39,138	1,1043
			9	9,20	9	1			3	1
1	0,16	10,5691	10,00	188.23	2,2460	1,1228	18,4623	0	37,953	1,1063
			99	6,72	3				5	5
1	0,17	10,9432	10,01	182.99	2,3118	1,1557	18,6431	0	36,871	1,1082
			08	6,35	9				9	1
1	0,18	11,3069	10,01	178.16	2,3759	1,1876	18,8102	0	35,879	1,1099
			18	4,61	4	9			1	2
1	0,19	11,6613	10,01	173.68	2,4383	1,2188	18,9654	0	34,963	1,1115
			28	9,17	5	7			2	1
1	0,2	12,0069	10,01	169.52	2,4992	1,2493	19,11	0	34,114	1,1129
			38	7,26	5				8	8
1	0,212	12,4111	10,01	164.89	2,5705	1,2848	19,2712	0	33,174	1,1146
			51	6,97		9			5	1
1	0,226	12,8821	10,01	159.79	2,6535	1,3263	19,4491	0	32,143	1,1164
	4		66	8,91	7	9			6	1
1	0,243	13,4284	10,01	154.25	2,7500	1,3745	19,6432	0	31,026	1,1183
	68		85	0,55	1	6			9	6
1	0,264	14,06	10,02	148.27	2,8616	1,4303	19,8529	0	29,830	1,1204
	416		09	5,41	5	3			4	5
1	0,289	14,7869	10,02	141.92	2,9902	1,4945	20,0765	0	28,565	1,1226
	299		39	1,85	9	9				8
1	0,319	15,62	10,02	135.24	3,138	1,5683	20,3123	0	27,242	1,125
	159		77	5,01		7			7	
1	0,354	16,5712	10,03	128.30	3,3070	1,6528	20,558	0	25,877	1,1274
	991		24	9,61	5	1			4	1
1	0,397	17,6539	10,03	121.18	3,5000	1,7492	20,8114	0	24,483	1,1298
	989		83	4,55	1				3	8
1	0,449	18,8818	10,04	113.94	3,7196	1,8589	21,0697	0	23,075	1,1323
	587		59	6,07	3				9	8
1	0,511	20,2655	10,05	106.68	3,9682	1,9831	21,3297	0	21,674	1,1348
	504		55	9,49	6					8
1	0,585	21,8171	10,06	99.495,	4,2487	2,1231	21,5884	0	20,293	1,1373
	805		78	49	1	8				4
1	0,674	23,557	10,08	92.409,	4,5652	2,2813	21,8441	0	18,941	1,1397
	966		34	03	8	1			4	7

1	0,781 959	25,5019	10,10 35	85.489, 49	4,9220 2	2,4595 1	22,0948	0	17,629 9	1,1421 2
1	0,910 351	27,674	10,12 92	78.791, 14	5,3231 9	2,6599 1	22,3384	0	16,368 3	1,1444
1	1,064 42	30,0968	10,16 21	72.381, 87	5,7716 9	2,8839 6	22,5723	0	15,168 8	1,1465 6
1	1,249 31	32,7909	10,20 44	66.312, 70	6,2702	3,1329 9	22,7947	0	14,040 1	1,1486 1
1	1,471 17	35,7794	10,25 89	60.599, 30	6,8231 3	3,4092 2	23,0048	0	12,984 4	1,1505 2
1	1,737 4	39,0901	10,32 9	55.238, 89	7,4364 5	3,7156 4	23,2027	0	12,000 6	1,1523 1
1	2,056 88	42,7639	10,41 92	50.215, 57	8,1184 2	4,0563 6	23,3889	0	11,085 5	1,1539 8
1	2,440 26	46,838	10,53 54	45.520, 45	8,8776 9	4,4357 2	23,5638	0	10,237 4	1,1555 3
1	2,900 31	51,3594	10,68 48	41.138, 22	9,7253 8	4,8592 8	23,7277	0	9,4537 4	1,1569 7
1	3,452 37	56,3707	10,87 67	37.059, 73	10,673	5,3327 8	23,8813	0	8,7335 1	1,1582 9
1	4,114 84	61,9163	11,12 28	33.273, 89	11,733	5,8625 2	24,0248	0	8,0755 9	1,1595 1
1	4,909 81	68,0474	11,43 8	29.764, 68	12,920 1	6,4557 2	24,1589	0	7,4781 2	1,1606 1
1	5,863 77	74,861	11,84 01	26.503, 81	14,254 7	7,1227 5	24,2849	0	6,9371 1	1,1616 2
1	6,819 49	81,2459	12,26 48	23.921, 22	15,516 5	7,7533 7	24,3859	0	6,5212 1	1,1624
1	7,008 53	82,4665	12,35 1	23.470, 68	15,758 8	7,8745	24,4037	0	6,4499 7	1,1625 3
1	8,382 23	90,8724	13,00 25	20.651, 57	17,453 1	8,7213 1	24,5159	0	6,0156 9	1,1633 5
1	10,03 07	100,283	13,82 06	18.035, 25	19,362 2	9,6755 4	24,6222	0	5,6327 9	1,1640 7
1	12,00 88	111,005	14,83 27	15.621, 10	21,506 6	10,747 5	24,7228	0	5,3013 2	1,1646 8
1	14,38 26	123,195	16,08 13	13.404, 29	23,911	11,949 4	24,8181	0	5,0212	1,1651 9

1	17,23 11	137,067	17,61 25	11.380, 00	26,606 7	13,297	24,9086	0	4,7923	1,1655 9
1	20,64 93	152,988	19,47 06	9.551,3 9	29,620 9	14,803 8	24,9943	0	4,6153 9	1,1658 6
1	24,75 12	171,472	21,69 74	7.920,0 8	32,988	16,487	25,0754	0	4,4904 7	1,1660 1
1	29,67 34	193,189	24,33 22	6.483,7 4	36,755 1	18,370 4	25,1522	0	4,4169 9	1,1660 2
1	32,62 19	206,084	25,88 14	5.809,9 0	38,900 8	19,443 1	25,1906	0	4,3986 9	1,1659 8
2	6,637 03	0	10	999.99 9,41	0,3316 97	0,1659 87	-5,13685	0	300	0,7734 57
2	6,647 03	1,80829	10,00 01	563.01 1,82	0,6849 65	0,3426 68	7,18804	0	130,90 2	0,9612 59
2	6,657 03	2,93099	10,00 04	447.21 9,29	0,8919 03	0,4461 31	10,7329	0	98,468 2	1,0072 3
2	6,667 03	3,82629	10,00 08	384.87 6,22	1,0537 5	0,5270 33	12,5148	0	82,512 9	1,0318 8
2	6,677 03	4,59734	10,00 12	343.81 2,44	1,1917 4	0,5960 04	13,6429	0	72,519 8	1,0480 8
2	6,687 03	5,28575	10,00 17	313.97 6,39	1,3141 6	0,6571 88	14,4409	0	65,500 2	1,0598 3
2	6,697 03	5,91394	10,00 22	290.95 9,32	1,4253 9	0,7127 73	15,0443	0	60,217 5	1,0688 8
2	6,707 03	6,49509	10,00 28	272.48 3,66	1,5281 8	0,7641 41	15,6167	0	56,058 5	1,0758 3
2	6,717 03	7,03843	10,00 35	257.20 6,59	1,6241 8	0,8121 08	16,1244	0	52,671 6	1,0814 4
2	6,727 03	7,55069	10,00 41	244.28 2,63	1,7145 6	0,8572 67	16,5567	0	49,843 5	1,0861 6
2	6,737 03	8,03708	10,00 49	233.14 5,60	1,8002 9	0,9001 04	16,9313	0	47,432 9	1,0902 1
2	6,747 03	8,50136	10,00 56	223.40 9,25	1,8820 8	0,9409 67	17,2604	0	45,345 2	1,0937 3
2	6,757 03	8,94603	10,00 64	214.80 5,13	1,9603 7	0,9800 84	17,5526	0	43,515 5	1,0968 3
2	6,767	9,37356	10,00	207.12	2,0356	1,0176	17,8144	0	41,893	1,0995

	03		72	3,41	3	8			8	9
2	6,777 03	9,78549	10,00 81	200.21 3,46	2,1081 2	1,0539	18,0508	0	40,444 5	1,1020 7
2	6,787 03	10,1836	10,00 9	193.94 9,20	2,1781 9	1,0889 1	18,2657	0	39,138 3	1,1043 1
2	6,797 03	10,5691	10,00 99	188.23 6,72	2,2460 3	1,1228	18,4623	0	37,953 5	1,1063 5
2	6,807 03	10,9432	10,01 08	182.99 6,35	2,3118 9	1,1557	18,6431	0	36,871 9	1,1082 1
2	6,817 03	11,3069	10,01 18	178.16 4,61	2,3759 4	1,1876 9	18,8102	0	35,879 1	1,1099 2
2	6,827 03	11,6613	10,01 28	173.68 9,17	2,4383 5	1,2188 7	18,9654	0	34,963 2	1,1115 1
2	6,837 03	12,0069	10,01 38	169.52 7,26	2,4992 5	1,2493	19,11	0	34,114 8	1,1129 8
2	6,849 03	12,4111	10,01 51	164.89 6,97	2,5705	1,2848 9	19,2712	0	33,174 5	1,1146 1
2	6,863 43	12,8821	10,01 66	159.79 8,91	2,6535 7	1,3263 9	19,4491	0	32,143 6	1,1164 1
2	6,880 71	13,4284	10,01 85	154.25 0,55	2,7500 1	1,3745 6	19,6432	0	31,026 9	1,1183 6
2	6,901 44	14,06	10,02 09	148.27 5,41	2,8616 5	1,4303 3	19,8529	0	29,830 4	1,1204 5
2	6,926 33	14,7869	10,02 39	141.92 1,85	2,9902 9	1,4945 9	20,0765	0	28,565	1,1226 8
2	6,956 19	15,62	10,02 77	135.24 5,01	3,138	1,5683 7	20,3123	0	27,242 7	1,125
2	6,992 02	16,5712	10,03 24	128.30 9,61	3,3070 5	1,6528 1	20,558	0	25,877 4	1,1274 1
2	7,035 02	17,6539	10,03 83	121.18 4,55	3,5000 1	1,7492	20,8114	0	24,483 3	1,1298 8
2	7,086 61	18,8818	10,04 59	113.94 6,07	3,7196 3	1,8589	21,0697	0	23,075 9	1,1323 8
2	7,148 53	20,2655	10,05 55	106.68 9,49	3,9682 6	1,9831	21,3297	0	21,674	1,1348 8
2	7,222 83	21,8171	10,06 78	99.495, 49	4,2487 1	2,1231 8	21,5884	0	20,293	1,1373 4
2	7,311	23,557	10,08	92.409,	4,5652	2,2813	21,8441	0	18,941	1,1397

	99		34	03	8	1			4	7
2	7,418 99	25,5019	10,10 35	85.489, 49	4,9220 2	2,4595 1	22,0948	0	17,629 9	1,1421 2
2	7,547 38	27,674	10,12 92	78.791, 14	5,3231 9	2,6599 1	22,3384	0	16,368 3	1,1444
2	7,701 45	30,0968	10,16 21	72.381, 87	5,7716 9	2,8839 6	22,5723	0	15,168 8	1,1465 6
2	7,886 33	32,7909	10,20 44	66.312, 70	6,2702	3,1329 9	22,7947	0	14,040 1	1,1486 1
2	8,108 19	35,7794	10,25 89	60.599, 30	6,8231 3	3,4092 2	23,0048	0	12,984 4	1,1505 2
2	8,374 43	39,0901	10,32 9	55.238, 89	7,4364 5	3,7156 4	23,2027	0	12,000 6	1,1523 1
2	8,693 91	42,7639	10,41 92	50.215, 57	8,1184 2	4,0563 6	23,3889	0	11,085 5	1,1539 8
2	9,077 28	46,838	10,53 54	45.520, 45	8,8776 9	4,4357 2	23,5638	0	10,237 4	1,1555 3
2	9,537 33	51,3594	10,68 48	41.138, 22	9,7253 8	4,8592 8	23,7277	0	9,4537 4	1,1569 7
2	10,08 94	56,3707	10,87 67	37.059, 73	10,673	5,3327 8	23,8813	0	8,7335 1	1,1582 9
2	10,75 19	61,9163	11,12 28	33.273, 89	11,733	5,8625 2	24,0248	0	8,0755 9	1,1595 1
2	11,54 68	68,0474	11,43 8	29.764, 68	12,920 1	6,4557 2	24,1589	0	7,4781 2	1,1606 1
2	12,50 08	74,861	11,84 01	26.503, 81	14,254 7	7,1227 5	24,2849	0	6,9371 1	1,1616 2
2	13,45 65	81,2459	12,26 48	23.921, 22	15,516 5	7,7533 7	24,3859	0	6,5212 1	1,1624
2	13,64 56	82,4665	12,35 1	23.470, 68	15,758 8	7,8745	24,4037	0	6,4499 7	1,1625 3
2	15,01 93	90,8724	13,00 25	20.651, 57	17,453 1	8,7213 1	24,5159	0	6,0156 9	1,1633 5
2	16,66 77	100,283	13,82 06	18.035, 25	19,362 2	9,6755 4	24,6222	0	5,6327 9	1,1640 7
2	18,64 58	111,005	14,83 27	15.621, 10	21,506 6	10,747 5	24,7228	0	5,3013 2	1,1646 8
2	21,01	123,195	16,08	13.404,	23,911	11,949	24,8181	0	5,0212	1,1651

	96		13	29		4				9
2	23,86 81	137,067	17,61 25	11.380, 00	26,606 7	13,297	24,9086	0	4,7923	1,1655 9
2	27,28 63	152,988	19,47 06	9.551,3 9	29,620 9	14,803 8	24,9943	0	4,6153 9	1,1658 6
2	31,38 82	171,472	21,69 74	7.920,0 8	32,988	16,487	25,0754	0	4,4904 7	1,1660 1
2	36,31 04	193,189	24,33 22	6.483,7 4	36,755 1	18,370 4	25,1522	0	4,4169 9	1,1660 2
2	39,25 9	206,084	25,88 14	5.809,9 0	38,900 8	19,443 1	25,1906	0	4,3986 9	1,1659 8

Weather: Category 5/D

Wind speed [m/s]	5
Pasquill stability	D neutral - little sun and high wind or overcast/windy night
Atmospheric temperature [degC]	25
Relative humidity [fraction]	0,75
Solar radiation flux [kW/m2]	0,5
Mixing layer height [m]	800

Observer Release Data and Observer Mass Data

Observer number	Release type	Start time [s]	Start downwind distance [m]	Unit	Masses or mass rates		
					Release	Rainout	Final
1	Continuous	0	0	kg/s	25,5506	0	25,5506
2	Continuous	6,63703	0	kg/s	25,5506	0	25,5506

Time-varying Observer Dispersion Data (before along-wind-diffusion effects)

Dispersion data correspond to an averaging time of: 18,75 s

Observer number	Time [s]	Down wind distance [m]	C/Li ne height [m]	C/Li ne conc [ppm]	Effect ive width [m]	Effect ive depth [m]	C/Line vapour temperature [degC]	C/Li ne liquid fraction	Centr oid velocity [m/s]	C/Li ne cloud density [kg/m3]
1	0	0	10	999.99 9,41	0,3318 35	0,1659 18	-5,13685	0	300	0,7734 57
1	0,01	1,81772	10,00 01	561.57 7,33	0,6825 16	0,3412 58	7,00116	0	132,16 8	0,9627
1	0,02	2,95341	10,00 04	444.71 1,32	0,8881 87	0,4440 94	10,5399	0	99,830 2	1,0092 7
1	0,03	3,86304	10,00	381.59	1,0494	0,5247	12,3253	0	83,885	1,0343

			08	1,97	1	05			5	1
1	0,04	4,6466	10,00	340.07	1,1866	0,5933	13,4545	0	73,917	1,0507
			12	0,61	6	32			3	4
1	0,05	5,34638	10,00	309.91	1,3083	0,6541	14,2529	0	66,921	1,0626
			17	7,37	3	64				5
1	0,06	5,9862	10,00	286.61	1,4191	0,7095	14,9092	0	61,648	1,0716
			22	8,67	3	67			8	8
1	0,07	6,57987	10,00	267.86	1,5218	0,7609	15,5213	0	57,487	1,0786
			28	8,29	1	06			7	3
1	0,08	7,13648	10,00	252.33	1,6178	0,8089	16,0326	0	54,093	1,0843
			34	0,83	7	36			4	5
1	0,09	7,66216	10,00	239.17	1,7084	0,8542	16,4685	0	51,256	1,0891
			41	3,65	6	29			5	7
1	0,1	8,16107	10,00	227.84	1,7943	0,8971	16,8458	0	48,841	1,0933
			48	9,36	4	7			7	
1	0,11	8,63723	10,00	217.95	1,8762	0,9381	17,1771	0	46,752	1,0969
			55	6,24	5	27			2	
1	0,12	9,09446	10,00	209.19	1,9548	0,9774	17,4718	0	44,917	1,1000
			63	5,20	8	4			2	6
1	0,13	9,53418	10,00	201.37	2,0304	1,0152	17,7359	0	43,291	1,1028
			71	5,18	8	4			4	8
1	0,14	9,95913	10,00	194.32	2,1035	1,0517	17,9749	0	41,835	1,1054
			79	3,51	5	7			1	2
1	0,15	10,3702	10,00	187.92	2,1742	1,0871	18,1923	0	40,522	1,1077
			88	8,35	4	2			2	1
1	0,16	10,7691	10,00	182.08	2,2428	1,1214	18,3915	0	39,329	1,1098
			97	8,03	6	3			7	
1	0,17	11,1566	10,01	176.72	2,3095	1,1547	18,5748	0	38,240	1,1117
			06	7,78	5	7			6	1
1	0,18	11,5339	10,01	171.78	2,3745	1,1872	18,7443	0	37,240	1,1134
			15	3,20		5			5	7
1	0,19	11,9016	10,01	167.20	2,4378	1,2189	18,9017	0	36,318	1,1151
			25	3,00	5	2				
1	0,2	12,2606	10,01	162.94	2,4997	1,2498	19,0483	0	35,463	1,1166
			35	2,86	3	7			3	1
1	0,212	12,6807	10,01	158.20	2,5722	1,2861	19,2119	0	34,516	1,1182
			47	2,99	1				1	9
1	0,226	13,1706	10,01	152.98	2,6568	1,3284	19,3925	0	33,477	1,1201

	4		62	3,55	1	1			6	3
1	0,243 68	13,74	10,01 8	147.29 6,95	2,7552 8	1,3776 4	19,5897	0	32,351 6	1,1221 4
1	0,264 416	14,3988	10,02 03	141.17 5,79	2,8694 1	1,4347	19,8026	0	31,145 7	1,1242 9
1	0,289 299	15,1584	10,02 31	134.66 1,79	3,0012 8	1,5006 4	20,0299	0	29,869 5	1,1265 7
1	0,319 159	16,0304	10,02 67	127.81 3,97	3,1531 2	1,5765 6	20,2697	0	28,535 7	1,1289 6
1	0,354 991	17,0277	10,03 11	120.69 9,70	3,3274 2	1,6637 1	20,5196	0	27,158 4	1,1314 4
1	0,397 989	18,1647	10,03 67	113.39 1,52	3,5270 2	1,7635 1	20,7773	0	25,752 4	1,1339 8
1	0,449 587	19,4572	10,04 38	105.96 5,99	3,7551 2	1,8775 6	21,04	0	24,332 9	1,1365 5
1	0,511 504	20,9205	10,05 27	98.507, 29	4,0151	2,0075 5	21,3049	0	22,916 3	1,1391 3
1	0,585 805	22,5714	10,06 4	91.094, 17	4,3108 2	2,1554 1	21,5692	0	21,517 5	1,1416 8
1	0,674 966	24,4276	10,07 82	83.799, 42	4,6466 5	2,3233 3	21,8302	0	20,15	1,1441 8
1	0,781 959	26,5106	10,09 63	76.682, 03	5,0278 7	2,5139 4	22,0857	0	18,824 2	1,1466 1
1	0,910 351	28,8453	10,11 92	69.789, 50	5,4608 7	2,7304 4	22,334	0	17,548 4	1,1489 5
1	1,064 42	31,4514	10,14 81	63.174, 79	5,9520 8	2,9760 4	22,573	0	16,331 7	1,1512
1	1,249 31	34,348	10,18 48	56.878, 88	6,5089 6	3,2544 8	22,8012	0	15,180 9	1,1533 3
1	1,471 17	37,5822	10,23 1	50.904, 53	7,1433 9	3,5717	23,0183	0	14,095 6	1,1553 4
1	1,737 4	41,2091	10,28 9	45.259, 62	7,8695 6	3,9347 9	23,224	0	13,076 8	1,1572 4
1	2,056 88	45,2484	10,36 16	39.978, 08	8,7006	4,3503 1	23,4167	0	12,130 3	1,1590 1
1	2,440 26	49,7468	10,45 23	35.066, 35	9,6557 7	4,8279	23,5963	0	11,257 2	1,1606 4
1	2,900	54,769	10,56	30.523,	10,760	5,3800	23,7624	0	10,457	1,1621

	31		47	96	1	9			8	5
1	3,452 37	60,3605	10,70 37	26.355, 89	12,042 6	6,0213 3	23,9149	0	9,7334 1	1,1635 3
1	3,855 45	64,2032	10,80 71	23.921, 22	12,958	6,479	24,0039	0	9,3157 5	1,1643 3
1	4,114 84	66,5778	10,87 43	22.554, 97	13,541 3	6,7706 5	24,0538	0	9,0837 1	1,1647 8
1	4,909 81	73,4782	11,08 21	19.095, 07	15,313 1	7,6565 9	24,18	0	8,5049 9	1,1659 1
1	5,863 77	81,3287	11,33 18	16.009, 67	17,391	8,6955 1	24,292	0	8,0036 8	1,1669 1
1	7,008 53	90,1992	11,62 95	13.260, 43	19,855 7	9,9278 8	24,3913	0	7,5738 6	1,1678
1	7,668 17	95,0998	11,79 97	12.105, 28	21,138 5	10,569 3	24,4327	0	7,3996 2	1,1681 7
1	7,668 17	95,0998	11,79 97	12.105, 28	21,138 5	10,569 3	24,4327	0	7,3996 2	1,1681 7
1	8,213 18	99,0994	11,94 06	11.370, 61	22,050 5	11,025 3	24,4588	0	7,2914 7	1,1684
2	6,637 03	0	10	999.99 9,41	0,3318 35	0,1659 18	-5,13685	0	300	0,7734 57
2	6,647 03	1,81772	10,00 01	561.57 7,33	0,6825 16	0,3412 58	7,00116	0	132,16 8	0,9627
2	6,657 03	2,95341	10,00 04	444.71 1,32	0,8881 87	0,4440 94	10,5399	0	99,830 2	1,0092 7
2	6,667 03	3,86304	10,00 08	381.59 1,97	1,0494 1	0,5247 05	12,3253	0	83,885 5	1,0343 1
2	6,677 03	4,6466	10,00 12	340.07 0,61	1,1866 6	0,5933 32	13,4545	0	73,917 3	1,0507 4
2	6,687 03	5,34638	10,00 17	309.91 7,37	1,3083 3	0,6541 64	14,2529	0	66,921 5	1,0626 5
2	6,697 03	5,9862	10,00 22	286.61 8,67	1,4191 3	0,7095 67	14,9092	0	61,648 8	1,0716 8
2	6,707 03	6,57987	10,00 28	267.86 8,29	1,5218 1	0,7609 06	15,5213	0	57,487 7	1,0786 3
2	6,717 03	7,13648	10,00 34	252.33 0,83	1,6178 7	0,8089 36	16,0326	0	54,093 4	1,0843 5

2	6,727 03	7,66216	10,00 41	239.17 3,65	1,7084 6	0,8542 29	16,4685	0	51,256 5	1,0891 7
2	6,737 03	8,16107	10,00 48	227.84 9,36	1,7943 4	0,8971 7	16,8458	0	48,841 7	1,0933
2	6,747 03	8,63723	10,00 55	217.95 6,24	1,8762 5	0,9381 27	17,1771	0	46,752 2	1,0969
2	6,757 03	9,09446	10,00 63	209.19 5,20	1,9548 8	0,9774 4	17,4718	0	44,917 2	1,1000 6
2	6,767 03	9,53418	10,00 71	201.37 5,18	2,0304 8	1,0152 4	17,7359	0	43,291 4	1,1028 8
2	6,777 03	9,95913	10,00 79	194.32 3,51	2,1035 5	1,0517 7	17,9749	0	41,835 1	1,1054 2
2	6,787 03	10,3702	10,00 88	187.92 8,35	2,1742 4	1,0871 2	18,1923	0	40,522 2	1,1077 1
2	6,797 03	10,7691	10,00 97	182.08 8,03	2,2428 6	1,1214 3	18,3915	0	39,329 7	1,1098
2	6,807 03	11,1566	10,01 06	176.72 7,78	2,3095 5	1,1547 7	18,5748	0	38,240 6	1,1117 1
2	6,817 03	11,5339	10,01 15	171.78 3,20	2,3745	1,1872 5	18,7443	0	37,240 5	1,1134 7
2	6,827 03	11,9016	10,01 25	167.20 3,00	2,4378 5	1,2189 2	18,9017	0	36,318	1,1151
2	6,837 03	12,2606	10,01 35	162.94 2,86	2,4997 3	1,2498 7	19,0483	0	35,463 3	1,1166 1
2	6,849 03	12,6807	10,01 47	158.20 2,99	2,5722 1	1,2861	19,2119	0	34,516 1	1,1182 9
2	6,863 43	13,1706	10,01 62	152.98 3,55	2,6568 1	1,3284 1	19,3925	0	33,477 6	1,1201 3
2	6,880 71	13,74	10,01 8	147.29 6,95	2,7552 8	1,3776 4	19,5897	0	32,351 6	1,1221 4
2	6,901 44	14,3988	10,02 03	141.17 5,79	2,8694 1	1,4347	19,8026	0	31,145 7	1,1242 9
2	6,926 33	15,1584	10,02 31	134.66 1,79	3,0012 8	1,5006 4	20,0299	0	29,869 5	1,1265 7
2	6,956 19	16,0304	10,02 67	127.81 3,97	3,1531 2	1,5765 6	20,2697	0	28,535 7	1,1289 6
2	6,992 02	17,0277	10,03 11	120.69 9,70	3,3274 2	1,6637 1	20,5196	0	27,158 4	1,1314 4

2	7,035 02	18,1647	10,03 67	113.39 1,52	3,5270 2	1,7635 1	20,7773	0	25,752 4	1,1339 8
2	7,086 61	19,4572	10,04 38	105.96 5,99	3,7551 2	1,8775 6	21,04	0	24,332 9	1,1365 5
2	7,148 53	20,9205	10,05 27	98.507, 29	4,0151	2,0075 5	21,3049	0	22,916 3	1,1391 3
2	7,222 83	22,5714	10,06 4	91.094, 17	4,3108 2	2,1554 1	21,5692	0	21,517 5	1,1416 8
2	7,311 99	24,4276	10,07 82	83.799, 42	4,6466 5	2,3233 3	21,8302	0	20,15	1,1441 8
2	7,418 99	26,5106	10,09 63	76.682, 03	5,0278 7	2,5139 4	22,0857	0	18,824 2	1,1466 1
2	7,547 38	28,8453	10,11 92	69.789, 50	5,4608 7	2,7304 4	22,334	0	17,548 4	1,1489 5
2	7,701 45	31,4514	10,14 81	63.174, 79	5,9520 8	2,9760 4	22,573	0	16,331 7	1,1512
2	7,886 33	34,348	10,18 48	56.878, 88	6,5089 6	3,2544 8	22,8012	0	15,180 9	1,1533 3
2	8,108 19	37,5822	10,23 1	50.904, 53	7,1433 9	3,5717	23,0183	0	14,095 6	1,1553 4
2	8,374 43	41,2091	10,28 9	45.259, 62	7,8695 6	3,9347 9	23,224	0	13,076 8	1,1572 4
2	8,693 91	45,2484	10,36 16	39.978, 08	8,7006	4,3503 1	23,4167	0	12,130 3	1,1590 1
2	9,077 28	49,7468	10,45 23	35.066, 35	9,6557 7	4,8279	23,5963	0	11,257 2	1,1606 4
2	9,537 33	54,769	10,56 47	30.523, 96	10,760 1	5,3800 9	23,7624	0	10,457 8	1,1621 5
2	10,08 94	60,3605	10,70 37	26.355, 89	12,042 6	6,0213 3	23,9149	0	9,7334 1	1,1635 3
2	10,49 25	64,2032	10,80 71	23.921, 22	12,958	6,479	24,0039	0	9,3157 5	1,1643 3
2	10,75 19	66,5778	10,87 43	22.554, 97	13,541 3	6,7706 5	24,0538	0	9,0837 1	1,1647 8
2	11,54 68	73,4782	11,08 21	19.095, 07	15,313 1	7,6565 9	24,18	0	8,5049 9	1,1659 1
2	12,50 08	81,3287	11,33 18	16.009, 67	17,391	8,6955 1	24,292	0	8,0036 8	1,1669 1

2	13,64 56	90,1992	11,62 95	13.260, 43	19,855 7	9,9278 8	24,3913	0	7,5738 6	1,1678
2	14,30 52	95,0998	11,79 97	12.105, 28	21,138 5	10,569 3	24,4327	0	7,3996 2	1,1681 7
2	14,30 52	95,0998	11,79 97	12.105, 28	21,138 5	10,569 3	24,4327	0	7,3996 2	1,1681 7
2	14,85 02	99,0994	11,94 06	11.370, 61	22,050 5	11,025 3	24,4588	0	7,2914 7	1,1684

