

Dispersion Report

Workspace: 72341-1RiempimFSRU

Study: Riempimento FSRU-ME4-Water

Equipment Item: 1R Manichette GNL riempimento FSRU

72341-1RiempimFSRU\Riempimento FSRU-ME4-Water\1R Manichette GNL
riempimento FSRU

Material	GAS NATURALE	
East	0	m
North	0	m

Scenario (User defined source) : 60mm-Q36,6 Disp F2

72341-1RiempimFSRU\Riempimento FSRU-ME4-Water\1R Manichette GNL
riempimento FSRU\60mm-Q36,6 Disp F2

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	33,6	0	33,6

2 Continuous 3600 0 kg/s 33,6 0 33,6

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/m ³]
1	0	0	0	999.99 9,41	1,7413 8	0,8438 56	-160,955	0	11,965 5	1,9109 5
1	0,01	0,11881 5	0	996.01 4,48	1,7808 8	0,8457 16	-160,169	0	11,811 5	1,9015 1
1	0,02	0,23617 8	0	992.11 2,01	1,8202 9	0,8476 47	-159,398	0	11,661 8	1,8924
1	0,03	0,35207 5	0	988.29 0,52	1,8596 1	0,8496 35	-158,641	0	11,516 1	1,8835 9
1	0,04	0,46653 8	0	984.54 7,21	1,8988 4	0,8516 7	-157,898	0	11,374 3	1,8750 8
1	0,05	0,57963 5	0	980.87 7,83	1,9379 9	0,8537 54	-157,169	0	11,236 2	1,8668 4
1	0,06	0,69136 8	0	977.28 1,00	1,9770 6	0,8558 76	-156,452	0	11,101 7	1,8588 7
1	0,07	0,80178 9	0	973.75 3,39	2,0160 5	0,8580 33	-155,748	0	10,970 7	1,8511 4
1	0,08	0,91090 9	0	970.29 3,35	2,0549 7	0,8602 18	-155,055	0	10,843	1,8436 5
1	0,09	1,01876	0	966.89 8,61	2,0938 2	0,8624 27	-154,375	0	10,718 5	1,8363 8
1	0,1	1,1254	0	963.56 5,91	2,1326	0,8646 62	-153,706	0	10,597	1,8293 2
1	0,11	1,23081	0	960.29 4,75	2,1713 2	0,8669 12	-153,048	0	10,478 6	1,8224 7
1	0,12	1,33508	0	957.08	2,2099	0,8691	-152,401	0	10,363	1,8158

				1,02	7	83				1
1	0,13	1,43817	0	953.92 5,13	2,2485 6	0,8714 63	-151,764	0	10,250 2	1,8093 3
1	0,14	1,54015	0	950.82 3,82	2,2870 9	0,8737 56	-151,137	0	10,14	1,8030 3
1	0,15	1,64104	0	947.77 5,88	2,3255 7	0,8760 58	-150,52	0	10,032 4	1,7969
1	0,16	1,74085	0	944.77 9,70	2,3639 8	0,8783 66	-149,912	0	9,9273 4	1,7909 3
1	0,17	1,83961	0	941.83 3,68	2,4023 5	0,8806 79	-149,313	0	9,8246 5	1,7851 2
1	0,18	1,93734	0	938.93 6,19	2,4406 6	0,8829 96	-148,724	0	9,7242 7	1,7794 5
1	0,19	2,03407	0	936.08 5,66	2,4789 2	0,8853 15	-148,143	0	9,6261 3	1,7739 2
1	0,2	2,12984	0	933.28 0,60	2,5171 4	0,8876 37	-147,57	0	9,5301 5	1,7685 3
1	0,212	2,2435	0	929.97 2,51	2,5629 3	0,8904 25	-146,894	0	9,4177 2	1,7622 2
1	0,226 4	2,37813	0	926.08 3,99	2,6177 9	0,8937 69	-146,098	0	9,2866 1	1,7549
1	0,243 68	2,53718	0	921.53 1,49	2,6835	0,8977 69	-145,163	0	9,1345 5	1,7464 3
1	0,264 416	2,7246	0	916.22 2,86	2,7621 8	0,9025 54	-144,07	0	8,9592 2	1,7366 9
1	0,289 299	2,94479	0	910.06 1,65	2,8563 6	0,9082 69	-142,798	0	8,7584 1	1,7255 8
1	0,319 159	3,2026	0	902.94 9,36	2,9690 6	0,9150 82	-141,324	0	8,5302 1	1,7129 9
1	0,354 991	3,50315	0	894.79 1,83	3,1038 5	0,9231 64	-139,627	0	8,2733	1,6988 7
1	0,397 989	3,85233	0	885.48 9,46	3,2650 2	0,9327 69	-137,682	0	7,9866 1	1,6831 4
1	0,449 587	4,25562	0	874.97 3,93	3,4576 1	0,9440 57	-135,472	0	7,6706 2	1,6658 4
1	0,511 504	4,71935	0	863.17 2,70	3,6876 4	0,9573 25	-132,976	0	7,3261 4	1,6469 8
1	0,585	5,24931	0	850.05	3,9621	0,9727	-130,183	0	6,9557	1,6266

	805			2,94	9	73			5	9
1	0,674 966	5,8513	0	835.60 5,31	4,2896 4	0,9906 23	-127,083	0	6,5630 7	1,6051
1	0,781 959	6,53094	0	819.85 0,46	4,6798 5	1,0111	-123,674	0	6,1527 8	1,5824
1	0,910 351	7,29341	0	802.84 5,59	5,1443 6	1,0344 2	-119,96	0	5,7305 2	1,5588 2
1	1,064 42	8,14314	0	784.68 7,72	5,6966 3	1,0606 8	-115,954	0	5,3027 6	1,5346 1
1	1,249 31	9,08373	0	765.51 0,64	6,3522 3	1,0899 5	-111,669	0	4,8764 5	1,5099 8
1	1,471 17	10,1178	0	745.47 6,37	7,1289 5	1,1223 4	-107,101	0	4,4585 3	1,4849 4
1	1,737 4	11,2485	0	724.74 5,72	8,0468 7	1,1581 5	-102,25	0	4,0544 8	1,4594 9
1	2,056 88	12,4793	0	703.48 8,84	9,1283 6	1,1977 8	-97,1194	0	3,6687 2	1,4337 1
1	2,440 26	13,8121	0	681.91 4,36	10,397 6	1,2412 2	-91,7202	0	3,3058 8	1,4076 7
1	2,900 31	15,2507	0	660.21 2,01	11,866 1	1,2888 5	-86,0518	0	2,9686 6	1,3813 7
1	3,452 37	16,8022	0	638.55 1,46	13,529 1	1,3416 8	-80,1044	0	2,6578 8	1,3547 4
1	4,114 84	18,4715	0	617.13 2,40	15,395 1	1,4004 1	-73,87	0	2,3746 8	1,3277 4
1	4,909 81	20,2652	0	596.14 3,86	17,467 5	1,4663 3	-67,3382	0	2,1191 6	1,3003 1
1	5,863 77	22,1883	0	575.80 6,45	19,739 2	1,5401 8	-60,5685	0	1,8917 4	1,2728 3
1	7,008 53	24,2509	0	556.29 8,46	22,192 5	1,6233 2	-53,782	0	1,6908 4	1,2464 9
1	8,382 23	26,4709	0	537.73 4,17	24,787 4	1,7059	-47,1122	0	1,5270 9	1,2218 3
1	10,03 07	28,8816	0	520.12 5,89	27,404 8	1,7980 4	-40,5844	0	1,3937 6	1,1987 7
1	11,61 47	31,0172	0	505.15 9,21	29,188 3	1,9024 9	-35,2011	0	1,3055 6	1,1809 9
1	11,61	31,0172	0	505.15	29,188	1,9023	-35,2011	0	1,3056	1,1809

	47			9,21	3	8			3	9
1	12,00 88	31,5287	0	500.45 9,37	29,214 2	1,9525 2	-33,7784	0	1,2905 2	1,1768 6
1	14,38 26	34,4979	0	424.19 9,53	29,677 1	2,5553 4	-18,7247	0	1,2182 9	1,1504 7
1	17,23 11	37,9391	0	310.80 7,11	30,803 4	3,6094 9	-2,57533	0	1,2104 6	1,1405
1	20,64 93	42,15	0	222.15 0,48	32,384 1	4,7976 3	6,49005	0	1,2584 9	1,1464 3
1	24,75 12	47,4662	0	161.66 6,92	34,246 2	6,0171 5	11,5977	0	1,3335 2	1,1539 4
1	24,75 12	47,4662	0	161.66 6,92	34,246 2	6,0171 5	11,5977	0	1,3335 2	1,1539 4
1	24,75 12	47,4662	0,02	161.66 6,58	34,246 2	5,9996 8	11,603	0	1,3329 9	1,1539 1
1	29,67 34	54,0309	1,576 95	121.13 4,89	36,179 2	5,5337 7	14,6217	0	1,4250 7	1,1598 9
1	35,02 95	61,3771	5,290 21	85.593, 66	38,059 7	4,2591 2	16,9899	0	1,7037 8	1,1656 9
1	35,02 95	61,3771	5,290 21	85.593, 66	38,059 7	4,2587 2	16,9899	0	1,7039 2	1,1656 9
1	35,58 01	62,2356	5,693 7	81.788, 50	38,277	4,3064 1	17,2274	0	1,7419 7	1,1663 6
1	42,66 81	75,2531	10,07 8	49.192, 06	40,894	5,4807 2	19,1903	0	2,1063 5	1,1721 6
1	50,93 33	93,39	12,67 22	34.343, 72	43,186 8	6,8658 3	20,0443	0	2,2963 3	1,1748 1
1	50,93 33	93,39	12,67 22	34.343, 72	43,186 8	6,8663 6	20,0443	0	2,2961 6	1,1748 1
1	51,17 37	93,9416	12,70 43	34.104, 18	43,236 9	6,9011 5	20,0577	0	2,2985 5	1,1748 5
1	61,38 05	117,398	11,81 83	26.876, 15	45,065 6	8,8134 4	20,6816	0	2,2741 7	1,1757
1	64,27 73	123,866	10,81 38	25.035, 82	45,677 1	9,8270 8	20,9838	0	2,2464 2	1,1755 2
1	64,27 73	123,866	10,81 38	25.035, 82	45,677 1	9,8270 8	20,9838	0	2,2464 2	1,1755 2
1	66,51	128,745	9,893	23.921,	49,236	10,004	21,1665	0	2,2018	1,1754

	02		81	22	7	7			8	6
1	73,62 86	143,824	6,991 94	21.649, 43	56,977 1	11,372 8	21,5377	0	2,1303 3	1,1754 9
1	88,32 63	174,948	2,569 25	19.583, 36	64,511 4	14,611 8	21,8646	0	2,1685 3	1,1758 2
1	100,0 69	200,708	0,01	18.670, 27	66,11	17,023 3	21,9187	0	2,2393 2	1,1764 8
1	100,0 69	200,708	0	18.670, 29	66,11	17,031	21,9164	0	2,2396 2	1,1764 9
1	105,9 64	213,933	0	18.262, 09	66,705 8	17,215 8	22,0067	0	2,2459 1	1,1763 2
1	127,1 28	261,772	0	16.917, 76	68,836 3	17,855 7	22,2985	0	2,2685 9	1,1758 1
1	152,5 26	319,74	0	15.520, 03	71,382 7	18,578 9	22,5943	0	2,2955 3	1,1753 1
1	155,7 81	327,219	0	15.355, 01	71,708 6	18,668 7	22,6286	0	2,2989 8	1,1752 5
2	3600	0	0	999.99 9,41	1,7413 8	0,8438 56	-160,955	0	11,965 5	1,9109 5
2	3600, 01	0,11881 5	0	996.01 4,48	1,7808 8	0,8457 16	-160,169	0	11,811 5	1,9015 1
2	3600, 02	0,23617 8	0	992.11 2,01	1,8202 9	0,8476 47	-159,398	0	11,661 8	1,8924
2	3600, 03	0,35207 5	0	988.29 0,52	1,8596 1	0,8496 35	-158,641	0	11,516 1	1,8835 9
2	3600, 04	0,46653 8	0	984.54 7,21	1,8988 4	0,8516 7	-157,898	0	11,374 3	1,8750 8
2	3600, 05	0,57963 5	0	980.87 7,83	1,9379 9	0,8537 54	-157,169	0	11,236 2	1,8668 4
2	3600, 06	0,69136 8	0	977.28 1,00	1,9770 6	0,8558 76	-156,452	0	11,101 7	1,8588 7
2	3600, 07	0,80178 9	0	973.75 3,39	2,0160 5	0,8580 33	-155,748	0	10,970 7	1,8511 4
2	3600, 08	0,91090 9	0	970.29 3,35	2,0549 7	0,8602 18	-155,055	0	10,843	1,8436 5
2	3600, 09	1,01876	0	966.89 8,61	2,0938 2	0,8624 27	-154,375	0	10,718 5	1,8363 8

2	3600,1	1,1254	0	963.56 5,91	2,1326	0,8646 62	-153,706	0	10,597	1,8293 2
2	3600,11	1,23081	0	960.29 4,75	2,1713 2	0,8669 12	-153,048	0	10,478 6	1,8224 7
2	3600,12	1,33508	0	957.08 1,02	2,2099 7	0,8691 83	-152,401	0	10,363	1,8158 1
2	3600,13	1,43817	0	953.92 5,13	2,2485 6	0,8714 63	-151,764	0	10,250 2	1,8093 3
2	3600,14	1,54015	0	950.82 3,82	2,2870 9	0,8737 56	-151,137	0	10,14	1,8030 3
2	3600,15	1,64104	0	947.77 5,88	2,3255 7	0,8760 58	-150,52	0	10,032 4	1,7969
2	3600,16	1,74085	0	944.77 9,70	2,3639 8	0,8783 66	-149,912	0	9,9273 4	1,7909 3
2	3600,17	1,83961	0	941.83 3,68	2,4023 5	0,8806 79	-149,313	0	9,8246 5	1,7851 2
2	3600,18	1,93734	0	938.93 6,19	2,4406 6	0,8829 96	-148,724	0	9,7242 7	1,7794 5
2	3600,19	2,03407	0	936.08 5,66	2,4789 2	0,8853 15	-148,143	0	9,6261 3	1,7739 2
2	3600,2	2,12984	0	933.28 0,60	2,5171 4	0,8876 37	-147,57	0	9,5301 5	1,7685 3
2	3600,21	2,2435	0	929.97 2,51	2,5629 3	0,8904 25	-146,894	0	9,4177 2	1,7622 2
2	3600,23	2,37813	0	926.08 3,99	2,6177 9	0,8937 69	-146,098	0	9,2866 1	1,7549
2	3600,24	2,53718	0	921.53 1,49	2,6835	0,8977 69	-145,163	0	9,1345 5	1,7464 3
2	3600,26	2,7246	0	916.22 2,86	2,7621 8	0,9025 54	-144,07	0	8,9592 2	1,7366 9
2	3600,29	2,94479	0	910.06 1,65	2,8563 6	0,9082 69	-142,798	0	8,7584 1	1,7255 8
2	3600,32	3,2026	0	902.94 9,36	2,9690 6	0,9150 82	-141,324	0	8,5302 1	1,7129 9
2	3600,35	3,50315	0	894.79 1,83	3,1038 5	0,9231 64	-139,627	0	8,2733	1,6988 7
2	3600,4	3,85233	0	885.48 9,46	3,2650 2	0,9327 69	-137,682	0	7,9866 1	1,6831 4

2	3600,45	4,25562	0	874.973,93	3,45761	0,944057	-135,472	0	7,67062	1,66584
2	3600,51	4,71935	0	863.172,70	3,68764	0,957325	-132,976	0	7,32614	1,64698
2	3600,59	5,24931	0	850.052,94	3,96219	0,972773	-130,183	0	6,95575	1,62669
2	3600,67	5,8513	0	835.605,31	4,28964	0,990623	-127,083	0	6,56307	1,6051
2	3600,78	6,53094	0	819.850,46	4,67985	1,0111	-123,674	0	6,15278	1,5824
2	3600,91	7,29341	0	802.845,59	5,14436	1,03442	-119,96	0	5,73052	1,55882
2	3601,06	8,14314	0	784.687,72	5,69663	1,06068	-115,954	0	5,30276	1,53461
2	3601,25	9,08373	0	765.510,64	6,35223	1,08995	-111,669	0	4,87645	1,50998
2	3601,47	10,1178	0	745.476,37	7,12895	1,12234	-107,101	0	4,45853	1,48494
2	3601,74	11,2485	0	724.745,72	8,04687	1,15815	-102,25	0	4,05448	1,45949
2	3602,06	12,4793	0	703.488,84	9,12836	1,19778	-97,1194	0	3,66872	1,43371
2	3602,44	13,8121	0	681.914,36	10,3976	1,24122	-91,7202	0	3,30588	1,40767
2	3602,9	15,2507	0	660.212,01	11,8661	1,28885	-86,0518	0	2,96866	1,38137
2	3603,45	16,8022	0	638.551,46	13,5291	1,34168	-80,1044	0	2,65788	1,35474
2	3604,11	18,4715	0	617.132,40	15,3951	1,40041	-73,87	0	2,37468	1,32774
2	3604,91	20,2652	0	596.143,86	17,4675	1,46633	-67,3382	0	2,11916	1,30031
2	3605,86	22,1883	0	575.806,45	19,7392	1,54018	-60,5685	0	1,8917	1,27283
2	3607,01	24,2509	0	556.298,46	22,1925	1,62332	-53,782	0	1,69084	1,24649
2	3608,38	26,4709	0	537.734,17	24,7874	1,7059	-47,1122	0	1,52709	1,22183

2	3610,03	28,8816	0	520.125,89	27,4048	1,79804	-40,5844	0	1,39376	1,19877
2	3611,61	31,0172	0	505.159,21	29,1883	1,90249	-35,2011	0	1,30556	1,18099
2	3611,61	31,0172	0	505.159,21	29,1883	1,90238	-35,2011	0	1,30563	1,18099
2	3612,01	31,5287	0	500.459,37	29,2142	1,95252	-33,7784	0	1,29052	1,17686
2	3614,38	34,4979	0	424.199,53	29,6771	2,55534	-18,7247	0	1,21829	1,15047
2	3617,23	37,9391	0	310.807,11	30,8034	3,60949	-2,57533	0	1,21046	1,14056
2	3620,65	42,15	0	222.150,48	32,3841	4,79763	6,49005	0	1,25849	1,14643
2	3624,75	47,4662	0	161.666,92	34,2462	6,01715	11,5977	0	1,33352	1,15394
2	3624,75	47,4662	0	161.666,92	34,2462	6,01715	11,5977	0	1,33352	1,15394
2	3624,75	47,4662	0,02	161.666,58	34,2462	5,99968	11,603	0	1,33299	1,15391
2	3629,67	54,0309	1,57695	121.134,89	36,1792	5,53377	14,6217	0	1,42507	1,15989
2	3635,03	61,3771	5,29021	85.593,66	38,0597	4,25912	16,9899	0	1,70378	1,16569
2	3635,03	61,3771	5,29021	85.593,66	38,0597	4,25872	16,9899	0	1,70392	1,16569
2	3635,58	62,2356	5,6937	81.788,50	38,277	4,30641	17,2274	0	1,74197	1,16636
2	3642,67	75,2531	10,078	49.192,06	40,894	5,48072	19,1903	0	2,10635	1,17216
2	3650,93	93,39	12,6722	34.343,72	43,1868	6,86583	20,0443	0	2,29633	1,17481
2	3650,93	93,39	12,6722	34.343,72	43,1868	6,86636	20,0443	0	2,29616	1,17481
2	3651,17	93,9416	12,7043	34.104,18	43,2369	6,90115	20,0577	0	2,29855	1,17485
2	3661,38	117,398	11,8183	26.876,15	45,0656	8,81344	20,6816	0	2,27417	1,17577

2	3664,28	123,866	10,8138	25.035,82	45,6771	9,82708	20,9838	0	2,24642	1,17552
2	3664,28	123,866	10,8138	25.035,82	45,6771	9,82708	20,9838	0	2,24642	1,17552
2	3666,51	128,745	9,89381	23.921,22	49,2367	10,0047	21,1665	0	2,20188	1,17546
2	3673,63	143,824	6,99194	21.649,43	56,9771	11,3728	21,5377	0	2,13033	1,17549
2	3688,33	174,948	2,56925	19.583,36	64,5114	14,6118	21,8646	0	2,16853	1,17582
2	3700,07	200,708	0,01	18.670,27	66,11	17,0233	21,9187	0	2,23932	1,17648
2	3700,07	200,708	0	18.670,29	66,11	17,031	21,9164	0	2,23962	1,17649
2	3705,96	213,933	0	18.262,09	66,7058	17,2158	22,0067	0	2,24591	1,17632
2	3727,13	261,772	0	16.917,76	68,8363	17,8557	22,2985	0	2,26859	1,17581
2	3752,53	319,74	0	15.520,03	71,3827	18,5789	22,5943	0	2,29553	1,17531
2	3755,78	327,219	0	15.355,01	71,7086	18,6687	22,6286	0	2,29898	1,17525

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	33,6	0	33,6
2	Continuous	3600	0	kg/s	33,6	0	33,6

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/Li ne vapour temperature [degC]	C/Li ne liquid fraction	Centr oid velocity [m/s]	C/Li ne cloud density [kg/m3]
1	0	0	0	999.99 9,41	1,7413 8	0,8438 53	-160,955	0	11,965 5	1,9109 5
1	0,01	0,11925 8	0	996.87 7,47	1,7808 3	0,8386 75	-160,239	0	11,892 3	1,9017 1
1	0,02	0,23781 7	0	993.79 1,08	1,82	0,8339 21	-159,528	0	11,82	1,8926 6

1	0,03	0,35566 1	0	990.73 9,46	1,8589 1	0,8295 61	-158,822	0	11,748 6	1,8837 9
1	0,04	0,4728	0	987.72 1,18	1,8975 6	0,8255 64	-158,12	0	11,678 1	1,8751
1	0,05	0,58924 2	0	984.73 5,20	1,9359 6	0,8219 03	-157,422	0	11,608 5	1,8665 7
1	0,06	0,70499 3	0	981.78 0,81	1,9741 3	0,8185 54	-156,729	0	11,539 7	1,8582
1	0,07	0,82006 4	0	978.85 6,89	2,0120 8	0,8154 94	-156,04	0	11,471 7	1,8499 8
1	0,08	0,93445 4	0	975.96 3,16	2,0498	0,8127 06	-155,355	0	11,404 6	1,8419 2
1	0,09	1,04818	0	973.09 8,09	2,0873 2	0,8101 66	-154,675	0	11,338 3	1,834
1	0,1	1,16125	0	970.26 1,79	2,1246 3	0,8078 63	-153,998	0	11,272 7	1,8262 2
1	0,11	1,27367	0	967.45 2,77	2,1617 5	0,8057 75	-153,325	0	11,208	1,8185 8
1	0,12	1,38543	0	964.67 1,13	2,1986 8	0,8038 93	-152,656	0	11,144	1,8110 7
1	0,13	1,49657	0	961.91 6,10	2,2354 3	0,8022 03	-151,991	0	11,080 8	1,8036 9
1	0,14	1,60707	0	959.18 7,13	2,272	0,8006 91	-151,329	0	11,018 4	1,7964 3
1	0,15	1,71695	0	956.48 3,77	2,3084	0,7993 47	-150,672	0	10,956 7	1,7892 9
1	0,16	1,82621	0	953.80 5,51	2,3446 4	0,7981 61	-150,018	0	10,895 7	1,7822 8
1	0,17	1,93487	0	951.15 1,90	2,3807 2	0,7971 22	-149,367	0	10,835 4	1,7753 7
1	0,18	2,04292	0	948.52 2,51	2,4166 4	0,7962 22	-148,72	0	10,775 9	1,7685 8
1	0,19	2,15038	0	945.91 6,84	2,4524 2	0,7954 53	-148,077	0	10,717	1,7619
1	0,2	2,25726	0	943.33 4,45	2,4880 6	0,7948 06	-147,437	0	10,658 9	1,7553 2
1	0,212	2,38475	0	940.26 5,78	2,5306 4	0,7941 8	-146,674	0	10,590 1	1,7475 7

1	0,226 4	2,53665	0	936.62 6,47	2,5814 9	0,7936 34	-145,764	0	10,508 7	1,7384 5
1	0,243 68	2,71741	0	932.31 9,48	2,6421 5	0,7932 46	-144,682	0	10,412 9	1,7277 7
1	0,264 416	2,93215	0	927.23 6,29	2,7144 7	0,7931 31	-143,397	0	10,300 6	1,7153 3
1	0,289 299	3,1868	0	921.25 7,16	2,8005 7	0,7934 49	-141,873	0	10,169 3	1,7008 9
1	0,319 159	3,48812	0	914.25 0,16	2,9029 6	0,7943 97	-140,072	0	10,016 7	1,6842 6
1	0,354 991	3,84381	0	906.07 4,39	3,0246 1	0,7962 29	-137,949	0	9,8406	1,6652
1	0,397 989	4,2625	0	896.58 1,63	3,1689 6	0,7992 43	-135,453	0	9,6387 5	1,6435 6
1	0,449 587	4,7538	0	885.62 7,37	3,3399 9	0,8038 03	-132,534	0	9,4094 4	1,6192
1	0,511 504	5,32823	0	873.07 7,54	3,5422 2	0,8103 33	-129,134	0	9,1515 2	1,5920 3
1	0,585 805	5,9972	0	858.81 8,61	3,7807 8	0,8192 97	-125,199	0	8,8647 6	1,5620 8
1	0,674 966	6,77303	0	842.77 1,99	4,0613 9	0,8311 84	-120,675	0	8,5501 6	1,5294 5
1	0,781 959	7,66896	0	824.90 6,04	4,3901 6	0,8465 07	-115,514	0	8,2101 2	1,4943 7
1	0,910 351	8,69892	0	805.25 5,75	4,7731 6	0,8658 3	-109,678	0	7,8484 5	1,4571 4
1	1,064 42	9,8776	0	783.92 6,96	5,2157 9	0,8897 72	-103,143	0	7,4703 8	1,4182 1
1	1,249 31	11,2207	0	761.10 9,33	5,7216 3	0,9190 58	-95,9053	0	7,0822 5	1,3780 7
1	1,471 17	12,7465	0	737.07 1,28	6,2906 3	0,9545 82	-87,9884	0	6,6913	1,3373 2
1	1,737 4	14,4749	0	712.14 0,82	6,9157 1	0,9977 38	-79,4436	0	6,3048 5	1,2965 8
1	2,056 88	16,4255	0	685.20 9,03	7,5766 3	1,0558 7	-70,1034	0	5,9227 2	1,2559 8
1	2,440 26	18,6191	0	652.54 1,92	8,2223 5	1,1498 4	-59,4707	0	5,5358 5	1,2156 5

1	2,900 31	21,0778	0	616.18 1,28	8,7140 5	1,2941 5	-48,2277	0	5,1708 2	1,1785 1
1	3,452 37	23,8268	0	564.59 7,44	8,9986 9	1,5593 3	-35,1838	0	4,7966 6	1,1455 6
1	4,114 84	26,9193	0	495.38 3,77	9,3124 8	1,9126 2	-21,3223	0	4,5584 7	1,1223
1	4,909 81	30,4702	0	421.55 0,40	9,7335 1	2,3403 3	-9,5853	0	4,3880 9	1,1121 7
1	5,863 77	34,5916	0	350.88 6,30	10,294 3	2,8207	-1,04039	0	4,2775 8	1,1132 7
1	7,008 53	39,4491	0	288.52 8,18	10,986 9	3,3381 7	4,87926	0	4,2168 7	1,1201 3
1	8,382 23	45,2237	0	234.97 3,17	11,818 5	3,8982 6	9,24622	0	4,1954 8	1,1282 6
1	10,03 07	52,1447	0	190.05 5,57	12,794 1	4,5018 6	12,3973	0	4,2034 3	1,1366 6
1	12,00 88	60,4867	0	152.99 8,94	13,919 9	5,1532 9	14,7014	0	4,2334 8	1,1444 8
1	14,38 26	70,5907	0	122.83 3,75	15,200 2	5,8571 8	16,4076	0	4,2798 9	1,1513 4
1	16,38 26	79,1932	0	104.78 6,32	16,221 3	6,3990 4	17,363	0	4,3210 5	1,1556 2
1	16,38 26	79,1932	0	104.78 6,32	16,221 3	6,399	17,363	0	4,3210 8	1,1556 2
1	17,23 11	82,8698	0	98.508, 79	16,636 8	6,6191 8	17,6839	0	4,3386 8	1,1571 5
1	20,64 93	97,8497	0	78.746, 15	18,223 1	7,4704 7	18,6563	0	4,4093 8	1,1620 6
1	24,75 12	116,097	0	62.962, 56	20,014 8	8,3892 3	19,3971	0	4,4860 2	1,1660 9
1	29,67 34	138,394	0	49.686, 15	22,127	9,4575 1	19,9882	0	4,5734 6	1,1695 8
1	35,58 01	165,727	0	38.068, 25	24,665 9	10,847 4	20,7366	0	4,6828 1	1,1718 2
1	42,66 81	199,384	0	28.449, 14	27,737 1	12,614 9	21,9987	0	4,8126 7	1,1714 5
1	47,34 41	222,074	0	23.921, 22	29,787 2	13,772 3	22,5597	0	4,8913 5	1,1714

1	51,17 37	240,951	0	20.930, 80	31,480 7	14,726 2	22,9166	0	4,9530 1	1,1714 3
1	61,38 05	292,282	0	15.215, 33	36,042 4	17,217 1	23,57	0	5,1018	1,1715 9
1	71,47 82	344,455	0	11.547, 99	40,618 2	19,652 3	23,9647	0	5,2328 1	1,1717 8
2	3600	0	0	999.99 9,41	1,7413 8	0,8438 53	-160,955	0	11,965 5	1,9109 5
2	3600, 01	0,11925 8	0	996.87 7,47	1,7808 3	0,8386 75	-160,239	0	11,892 3	1,9017 1
2	3600, 02	0,23781 7	0	993.79 1,08	1,82	0,8339 21	-159,528	0	11,82	1,8926 6
2	3600, 03	0,35566 1	0	990.73 9,46	1,8589 1	0,8295 61	-158,822	0	11,748 6	1,8837 9
2	3600, 04	0,4728	0	987.72 1,18	1,8975 6	0,8255 64	-158,12	0	11,678 1	1,8751
2	3600, 05	0,58924 2	0	984.73 5,20	1,9359 6	0,8219 03	-157,422	0	11,608 5	1,8665 7
2	3600, 06	0,70499 3	0	981.78 0,81	1,9741 3	0,8185 54	-156,729	0	11,539 7	1,8582
2	3600, 07	0,82006 4	0	978.85 6,89	2,0120 8	0,8154 94	-156,04	0	11,471 7	1,8499 8
2	3600, 08	0,93445 4	0	975.96 3,16	2,0498	0,8127 06	-155,355	0	11,404 6	1,8419 2
2	3600, 09	1,04818	0	973.09 8,09	2,0873 2	0,8101 66	-154,675	0	11,338 3	1,834
2	3600, 1	1,16125	0	970.26 1,79	2,1246 3	0,8078 63	-153,998	0	11,272 7	1,8262 2
2	3600, 11	1,27367	0	967.45 2,77	2,1617 5	0,8057 75	-153,325	0	11,208	1,8185 8
2	3600, 12	1,38543	0	964.67 1,13	2,1986 8	0,8038 93	-152,656	0	11,144	1,8110 7
2	3600, 13	1,49657	0	961.91 6,10	2,2354 3	0,8022 03	-151,991	0	11,080 8	1,8036 9
2	3600, 14	1,60707	0	959.18 7,13	2,272	0,8006 91	-151,329	0	11,018 4	1,7964 3
2	3600,	1,71695	0	956.48	2,3084	0,7993	-150,672	0	10,956	1,7892

	15			3,77		47			7	9
2	3600, 16	1,82621	0	953.80 5,51	2,3446 4	0,7981 61	-150,018	0	10,895 7	1,7822 8
2	3600, 17	1,93487	0	951.15 1,90	2,3807 2	0,7971 22	-149,367	0	10,835 4	1,7753 7
2	3600, 18	2,04292	0	948.52 2,51	2,4166 4	0,7962 22	-148,72	0	10,775 9	1,7685 8
2	3600, 19	2,15038	0	945.91 6,84	2,4524 2	0,7954 53	-148,077	0	10,717	1,7619
2	3600, 2	2,25726	0	943.33 4,45	2,4880 6	0,7948 06	-147,437	0	10,658 9	1,7553 2
2	3600, 21	2,38475	0	940.26 5,78	2,5306 4	0,7941 8	-146,674	0	10,590 1	1,7475 7
2	3600, 23	2,53665	0	936.62 6,47	2,5814 9	0,7936 34	-145,764	0	10,508 7	1,7384 5
2	3600, 24	2,71741	0	932.31 9,48	2,6421 5	0,7932 46	-144,682	0	10,412 9	1,7277 7
2	3600, 26	2,93215	0	927.23 6,29	2,7144 7	0,7931 31	-143,397	0	10,300 6	1,7153 3
2	3600, 29	3,1868	0	921.25 7,16	2,8005 7	0,7934 49	-141,873	0	10,169 3	1,7008 9
2	3600, 32	3,48812	0	914.25 0,16	2,9029 6	0,7943 97	-140,072	0	10,016 7	1,6842 6
2	3600, 35	3,84381	0	906.07 4,39	3,0246 1	0,7962 29	-137,949	0	9,8406	1,6652
2	3600, 4	4,2625	0	896.58 1,63	3,1689 6	0,7992 43	-135,453	0	9,6387 5	1,6435 6
2	3600, 45	4,7538	0	885.62 7,37	3,3399 9	0,8038 03	-132,534	0	9,4094 4	1,6192
2	3600, 51	5,32823	0	873.07 7,54	3,5422 2	0,8103 33	-129,134	0	9,1515 2	1,5920 3
2	3600, 59	5,9972	0	858.81 8,61	3,7807 8	0,8192 97	-125,199	0	8,8647 6	1,5620 8
2	3600, 67	6,77303	0	842.77 1,99	4,0613 9	0,8311 84	-120,675	0	8,5501 6	1,5294 5
2	3600, 78	7,66896	0	824.90 6,04	4,3901 6	0,8465 07	-115,514	0	8,2101 2	1,4943 7
2	3600,	8,69892	0	805.25	4,7731	0,8658	-109,678	0	7,8484	1,4571

	91			5,75	6	3			5	4
2	3601,06	9,8776	0	783.926,96	5,21579	0,889772	-103,143	0	7,47038	1,41821
2	3601,25	11,2207	0	761.109,33	5,72163	0,919058	-95,9053	0	7,08225	1,37807
2	3601,47	12,7465	0	737.071,28	6,29063	0,954582	-87,9884	0	6,6913	1,33732
2	3601,74	14,4749	0	712.140,82	6,91571	0,997738	-79,4436	0	6,30485	1,29658
2	3602,06	16,4255	0	685.209,03	7,57663	1,05587	-70,1034	0	5,92272	1,25598
2	3602,44	18,6191	0	652.541,92	8,22235	1,14984	-59,4707	0	5,53585	1,21565
2	3602,9	21,0778	0	616.181,28	8,71405	1,29415	-48,2277	0	5,17082	1,17851
2	3603,45	23,8268	0	564.597,44	8,99869	1,55933	-35,1838	0	4,79666	1,14556
2	3604,11	26,9193	0	495.383,77	9,31248	1,91262	-21,3223	0	4,55847	1,1223
2	3604,91	30,4702	0	421.550,40	9,73351	2,34033	-9,5853	0	4,38809	1,11217
2	3605,86	34,5916	0	350.886,30	10,2943	2,8207	-1,04039	0	4,27758	1,11327
2	3607,01	39,4491	0	288.528,18	10,9869	3,33817	4,87926	0	4,21687	1,12013
2	3608,38	45,2237	0	234.973,17	11,8185	3,89826	9,24622	0	4,19548	1,12826
2	3610,03	52,1447	0	190.055,57	12,7941	4,50186	12,3973	0	4,20343	1,13666
2	3612,01	60,4867	0	152.998,94	13,9199	5,15329	14,7014	0	4,23348	1,14448
2	3614,38	70,5907	0	122.833,75	15,2002	5,85718	16,4076	0	4,27989	1,15134
2	3616,38	79,1932	0	104.786,32	16,2213	6,39904	17,363	0	4,32105	1,15562
2	3616,38	79,1932	0	104.786,32	16,2213	6,399	17,363	0	4,32108	1,15562
2	3617,	82,8698	0	98.508,	16,636	6,6191	17,6839	0	4,3386	1,1571

	23			79	8	8			8	5
2	3620,65	97,8497	0	78.746,15	18,2231	7,47047	18,6563	0	4,40938	1,16206
2	3624,75	116,097	0	62.962,56	20,0148	8,38923	19,3971	0	4,48602	1,16609
2	3629,67	138,394	0	49.686,15	22,127	9,45751	19,9882	0	4,57346	1,16958
2	3635,58	165,727	0	38.068,25	24,6659	10,8474	20,7366	0	4,68281	1,17182
2	3642,67	199,384	0	28.449,14	27,7371	12,6149	21,9987	0	4,81267	1,17145
2	3647,34	222,074	0	23.921,22	29,7872	13,7723	22,5597	0	4,89135	1,1714
2	3651,17	240,951	0	20.930,80	31,4807	14,7262	22,9166	0	4,95301	1,17143
2	3661,38	292,282	0	15.215,33	36,0424	17,2171	23,57	0	5,1018	1,17159
2	3671,48	344,455	0	11.547,99	40,6182	19,6523	23,9647	0	5,23281	1,17178

