

Dispersion Report

Workspace: 72341-1RiempimFSRU

Study: Riempimento FSRU-ME4

Equipment Item: 6R Linee ricircolo GNL durante riempimento FSRU

72341-1RiempimFSRU\Riempimento FSRU-ME4\6R Linee ricircolo GNL durante riempimento FSRU

Material	GAS NATURALE	
East	0	m
North	0	m

Scenario (User defined source) : 80mm-Q25,4

72341-1RiempimFSRU\Riempimento FSRU-ME4\6R Linee ricircolo GNL durante riempimento FSRU\80mm-Q25,4

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	25,4	0	25,4
2	Continuous	3600	0	kg/s	25,4	0	25,4

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/Line height [m]	C/Line conc [ppm]	Effective width [m]	Effective depth [m]	C/Line vapour temperature [degC]	C/Line liquid fraction	Centroid velocity [m/s]	C/Line cloud density [kg/m ³]
1	0	0	12,5	999.99	0,4504	0,2183	-160,955	0	67,657	1,9081
				9,41	35	98			2	4
1	0,01	0,631726	12,4998	918.701,48	0,535749	0,263582	-145,232	0	59,1463	1,74797
1	0,02	1,19162	12,4994	854.299,55	0,614662	0,304816	-132,442	0	53,0203	1,64698
1	0,03	1,69753	12,4987	801.804,53	0,688396	0,342845	-121,806	0	48,3812	1,57689
1	0,04	2,16144	12,4978	757.988,49	0,757774	0,378277	-112,787	0	44,7296	1,52502
1	0,05	2,592	12,4968	720.689,01	0,823448	0,411585	-105,01	0	41,7669	1,48485
1	0,06	2,99605	12,4956	688.410,24	0,885955	0,443136	-98,2069	0	39,3044	1,45264
1	0,07	3,3776	12,4944	660.108,92	0,945695	0,47319	-92,1865	0	37,2184	1,42614
1	0,08	3,74007	12,493	635.016,37	1,00301	0,501956	-86,8057	0	35,4233	1,40387
1	0,09	4,08595	12,4915	612.559,26	1,05816	0,529597	-81,956	0	33,8584	1,38485
1	0,1	4,41727	12,49	592.298,65	1,1114	0,556245	-77,5535	0	32,4789	1,36836
1	0,11	4,73576	12,4883	573.888,99	1,16291	0,58201	-73,5309	0	31,2514	1,35391

1	0,12	5,04288	12,48 66	557.05 6,88	1,2128 8	0,6069 86	-69,835	0	30,149 9	1,3411 1
1	0,13	5,3397	12,48 49	541.58 5,62	1,2614 2	0,6312 45	-66,423	0	29,154 6	1,3296 9
1	0,14	5,627	12,48 31	527.30 2,40	1,3086 6	0,6548 43	-63,2608	0	28,249 9	1,3194 1
1	0,15	5,90529	12,48 12	514.07 0,05	1,3546 6	0,6778 15	-60,3213	0	27,423 7	1,3101 2
1	0,16	6,17528	12,47 93	501.76 5,34	1,3995 1	0,7002 09	-57,58	0	26,665 5	1,3016 8
1	0,17	6,43769	12,47 74	490.28 0,25	1,4432 9	0,7220 71	-55,0151	0	25,966 4	1,2939 6
1	0,18	6,69322	12,47 54	479.52 2,32	1,4861 1	0,7434 47	-52,6078	0	25,318 9	1,2868 7
1	0,19	6,94232	12,47 34	469.42 0,49	1,528	0,7643 61	-50,3439	0	24,717 3	1,2803 5
1	0,2	7,18575	12,47 13	459.90 0,78	1,5690 6	0,7848 61	-48,2082	0	24,155 9	1,2743 1
1	0,212	7,47128	12,46 88	449.15 9,55	1,6173 5	0,8089 72	-45,797	0	23,528 9	1,2676 3
1	0,226 4	7,80379	12,46 58	437.18 0,19	1,6738 3	0,8371 69	-43,1079	0	22,837 6	1,2603 5
1	0,243 68	8,19064	12,46 21	423.92 7,63	1,7397 8	0,8700 94	-40,1365	0	22,082 2	1,2525 2
1	0,264 416	8,63858	12,45 75	409.42 9,03	1,8164 7	0,9083 79	-36,8951	0	21,267 2	1,2442 2
1	0,289 299	9,15569	12,45 2	393.73 3,51	1,9053 4	0,9527 52	-33,4063	0	20,397 4	1,2356
1	0,319 159	9,74987	12,44 53	376.94 5,05	2,0078 8	1,0039 6	-29,7112	0	19,481 8	1,2268 2
1	0,354 991	10,4299	12,43 71	359.19 9,36	2,1257 1	1,0627 9	-25,8669	0	18,529 8	1,2181
1	0,397 989	11,2053	12,42 73	340.66 0,31	2,2605 7	1,1301 4	-21,9448	0	17,552 2	1,2096 9
1	0,449 587	12,086	12,41 54	321.52 4,56	2,4142 6	1,2069	-18,0301	0	16,560 9	1,2018 5
1	0,511 504	13,0806	12,40 13	302.02 8,22	2,5885	1,2939 2	-14,2157	0	15,568 9	1,1948 2

1	0,585 805	14,1977	12,38 47	282.40 8,04	2,7851 3	1,3921 4	-10,5849	0	14,588 3	1,1888
1	0,674 966	15,4504	12,36 51	262.84 8,17	3,0066 7	1,5027 9	-7,19464	0	13,627 9	1,1838 6
1	0,781 959	16,8563	12,34 23	243.50 1,89	3,2563 2	1,6274 9	-4,07701	0	12,694 3	1,1800 1
1	0,910 351	18,426	12,31 62	224.57 3,25	3,5368 5	1,7676 2	-1,2534	0	11,796 3	1,1772
1	1,064 42	20,1744	12,28 63	206.21 1,90	3,8510 5	1,9245 6	1,17734	0	10,939 1	1,1757 7
1	1,249 31	22,1235	12,25 24	188.49 9,11	4,2061 5	2,1019 4	3,56048	0	10,124 9	1,1741 9
1	1,471 17	24,2858	12,21 42	171.56 3,85	4,6052 4	2,3012 9	5,70613	0	9,3576 5	1,1732
1	1,737 4	26,6799	12,17 14	155.47 2,91	5,0540 1	2,5254 6	7,63152	0	8,6384 8	1,1726 7
1	2,056 88	29,3249	12,12 35	140.29 1,98	5,5583 7	2,7774 1	9,35309	0	7,9684 3	1,1725 1
1	2,440 26	32,2571	12,06 99	126.15 1,13	6,1211 2	3,0585 3	10,879	0	7,3512 7	1,1726 4
1	2,900 31	35,5115	12,00 87	113.20 5,92	6,7403 7	3,3678 8	12,2141	0	6,7917 7	1,1729 7
1	3,452 37	39,1152	11,93 75	101.35 5,02	7,4233 9	3,7091 2	13,3877	0	6,2834 1	1,1734 4
1	4,114 84	43,1104	11,85 18	90.477, 05	8,1812 3	4,0877 4	14,4259	0	5,8195 1	1,174
1	4,909 81	47,5524	11,74 41	80.465, 87	9,0285 1	4,5110 8	15,3502	0	5,3938 8	1,1746 3
1	5,863 77	52,4974	11,60 2	71.241, 44	9,9843 8	4,9887	16,1762	0	5,0016 8	1,1752 9
1	7,008 53	58,0055	11,40 6	62.724, 34	11,078 3	5,5353 4	16,9178	0	4,6383 7	1,1759 8
1	8,382 23	64,1364	11,12 54	54.839, 73	12,357 5	6,1746	17,5865	0	4,3002 8	1,1766 9
1	10,03 07	70,9462	10,71 34	47.518, 44	13,900 4	6,9456 7	18,192	0	3,9851 7	1,1774 2
1	12,00 88	78,5035	10,09 91	40.692, 01	15,842 3	7,9162 1	18,7425	0	3,6933 8	1,1781 8

1	13,39 62	83,4857	9,585 51	36.873, 22	17,269 3	8,6294 1	19,0439	0	3,5331 2	1,1786 5
1	13,39 62	83,4857	9,585 51	36.873, 22	17,269 3	8,6294 1	19,0439	0	3,5331 2	1,1786 5
1	14,38 26	86,8871	9,184 72	34.781, 11	19,577 7	8,3785 8	19,2066	0	3,4139 8	1,1789 3
1	17,23 11	96,1197	7,937 43	30.389, 29	26,203 5	7,9702 4	19,5407	0	3,1426 3	1,1796 1
1	20,64 93	106,333	6,432 52	26.998, 23	34,062 2	7,8658 6	19,7903	0	2,9120 9	1,1802 4
1	24,75 12	117,755	4,795 09	24.294, 39	43,334 4	8,0740 9	19,9822	0	2,7278 2	1,1808 3
1	25,45 74	119,655	4,534 1	23.921, 22	44,911 4	8,1350 5	20,008	0	2,7036 9	1,1809 2
1	29,67 34	130,693	3,094 44	22.068, 57	54,055 5	8,6159 2	20,3226	0	2,594 1	1,1807 2
1	35,58 01	145,624	1,374 46	20.188, 72	65,898 5	9,455	20,7231	0	2,5036 1	1,1802 8
1	41,14 18	159,319	0,01 63	18.879, 63	76,189 3	10,244 5	20,9383	0	2,4471 9	1,1803
1	41,14 18	159,319	0 66	18.879, 66	76,189 3	10,261 8	20,936	0	2,4454 5	1,1803 1
1	42,66 81	163,025	0 43	18.742, 43	78,890 8	10,091 4	20,9757	0	2,4194 9	1,1802 2
1	51,17 37	182,972	0 36	18.007, 36	93,233 3	9,3798 1	21,1926	0	2,2942 1	1,1797
1	61,38 05	205,762	0 58	17.199, 58	109,28 8	8,8470 6	21,4377	0	2,1743 1	1,1791 1
1	73,62 86	231,692	0 04	16.340, 04	127,09 6	8,4584	21,7078	0	2,0603 3	1,1784 5
1	88,32 63	261,169	0 28	15.410, 28	146,68 3	8,2042 5	22,0052	0	1,9535 2	1,1777 1
1	105,9 64	294,737	0 30	14.273, 30	167,99 1	8,1391 8	22,3474	0	1,8584 9	1,1768 9
1	111,1 11	304,244	0 19	13.937, 19	173,80 5	8,1558 2	22,4434	0	1,8365 7	1,1766 7
2	3600	0	12,5	999.99	0,4504	0,2183	-160,955	0	67,657	1,9081

				9,41	35	98			2	4
2	3600,01	0,631726	12,4998	918.701,48	0,535749	0,263582	-145,232	0	59,1463	1,74797
2	3600,02	1,19162	12,4994	854.299,55	0,614662	0,304816	-132,442	0	53,0203	1,64698
2	3600,03	1,69753	12,4987	801.804,53	0,688396	0,342845	-121,806	0	48,3812	1,57689
2	3600,04	2,16144	12,4978	757.988,49	0,757774	0,378277	-112,787	0	44,7296	1,52502
2	3600,05	2,592	12,4968	720.689,01	0,823448	0,411585	-105,01	0	41,7669	1,48485
2	3600,06	2,99605	12,4956	688.410,24	0,885955	0,443136	-98,2069	0	39,3044	1,45264
2	3600,07	3,3776	12,4944	660.108,92	0,945695	0,47319	-92,1865	0	37,2184	1,42614
2	3600,08	3,74007	12,493	635.016,37	1,00301	0,501956	-86,8057	0	35,4233	1,40387
2	3600,09	4,08595	12,4915	612.559,26	1,05816	0,529597	-81,956	0	33,8584	1,38485
2	3600,1	4,41727	12,49	592.298,65	1,1114	0,556245	-77,5535	0	32,4789	1,36836
2	3600,11	4,73576	12,4883	573.888,99	1,16291	0,58201	-73,5309	0	31,2514	1,35391
2	3600,12	5,04288	12,4866	557.056,88	1,21288	0,606986	-69,835	0	30,1499	1,34111
2	3600,13	5,3397	12,4849	541.585,62	1,26142	0,631245	-66,423	0	29,1546	1,32969
2	3600,14	5,627	12,4831	527.302,40	1,30866	0,654843	-63,2608	0	28,2499	1,31941
2	3600,15	5,90529	12,4812	514.070,05	1,35466	0,677815	-60,3213	0	27,4237	1,31012
2	3600,16	6,17528	12,4793	501.765,34	1,39951	0,700209	-57,58	0	26,6655	1,30168
2	3600,17	6,43769	12,4774	490.280,25	1,44329	0,722071	-55,0151	0	25,9664	1,29396
2	3600,18	6,69322	12,4754	479.522,32	1,48611	0,743447	-52,6078	0	25,3189	1,28687
2	3600,	6,94232	12,47	469.42	1,528	0,7643	-50,3439	0	24,717	1,2803

	19		34	0,49		61			3	5
2	3600,2	7,18575	12,4713	459.900,78	1,56906	0,784861	-48,2082	0	24,1559	1,27431
2	3600,21	7,47128	12,4688	449.159,55	1,61735	0,808972	-45,797	0	23,5289	1,26763
2	3600,23	7,80379	12,4658	437.180,19	1,67383	0,837169	-43,1079	0	22,8376	1,26035
2	3600,24	8,19064	12,4621	423.927,63	1,73978	0,870094	-40,1365	0	22,0822	1,25252
2	3600,26	8,63858	12,4575	409.429,03	1,81647	0,908379	-36,8951	0	21,267	1,24422
2	3600,29	9,15569	12,452	393.733,51	1,90534	0,952752	-33,4063	0	20,3974	1,23564
2	3600,32	9,74987	12,4453	376.945,05	2,00788	1,00396	-29,7112	0	19,4818	1,22682
2	3600,35	10,4299	12,4371	359.199,36	2,12571	1,06279	-25,8669	0	18,5298	1,21818
2	3600,4	11,2053	12,4273	340.660,31	2,26057	1,13014	-21,9448	0	17,5522	1,20969
2	3600,45	12,086	12,4154	321.524,56	2,41426	1,2069	-18,0301	0	16,5609	1,20185
2	3600,51	13,0806	12,4013	302.028,22	2,5885	1,29392	-14,2157	0	15,5689	1,19482
2	3600,59	14,1977	12,3847	282.408,04	2,78513	1,39214	-10,5849	0	14,5883	1,18883
2	3600,67	15,4504	12,3651	262.848,17	3,00667	1,50279	-7,19464	0	13,6279	1,18386
2	3600,78	16,8563	12,3423	243.501,89	3,25632	1,62749	-4,07701	0	12,6943	1,18001
2	3600,91	18,426	12,3162	224.573,25	3,53685	1,76762	-1,2534	0	11,7963	1,17723
2	3601,06	20,1744	12,2863	206.211,90	3,85105	1,92456	1,17734	0	10,9391	1,17577
2	3601,25	22,1235	12,2524	188.499,11	4,20615	2,10194	3,56048	0	10,1249	1,17419
2	3601,47	24,2858	12,2142	171.563,85	4,60524	2,30129	5,70613	0	9,35765	1,17325
2	3601,	26,6799	12,17	155.47	5,0540	2,5254	7,63152	0	8,6384	1,1726

	74		14	2,91	1	6			8	7
2	3602,06	29,3249	12,1235	140.291,98	5,55837	2,77741	9,35309	0	7,96843	1,17251
2	3602,44	32,2571	12,0699	126.151,13	6,12112	3,05853	10,879	0	7,35127	1,17264
2	3602,9	35,5115	12,0087	113.205,92	6,74037	3,36788	12,2141	0	6,7917	1,17297
2	3603,45	39,1152	11,9375	101.355,02	7,42339	3,70912	13,3877	0	6,28341	1,17344
2	3604,11	43,1104	11,8518	90.477,05	8,18123	4,08774	14,4259	0	5,81951	1,174
2	3604,91	47,5524	11,7441	80.465,87	9,02851	4,51108	15,3502	0	5,39388	1,17463
2	3605,86	52,4974	11,602	71.241,44	9,98438	4,9887	16,1762	0	5,00168	1,17529
2	3607,01	58,0055	11,406	62.724,34	11,0783	5,53534	16,9178	0	4,63837	1,17598
2	3608,38	64,1364	11,1254	54.839,73	12,3575	6,1746	17,5865	0	4,30028	1,17669
2	3610,03	70,9462	10,7134	47.518,44	13,9004	6,94567	18,192	0	3,98517	1,17742
2	3612,01	78,5035	10,0991	40.692,01	15,8423	7,91621	18,7425	0	3,69338	1,17818
2	3613,4	83,4857	9,58551	36.873,22	17,2693	8,62941	19,0439	0	3,53312	1,17865
2	3613,4	83,4857	9,58551	36.873,22	17,2693	8,62941	19,0439	0	3,53312	1,17865
2	3614,38	86,8871	9,18472	34.781,11	19,5777	8,37858	19,2066	0	3,41398	1,17893
2	3617,23	96,1197	7,93743	30.389,29	26,2035	7,97024	19,5407	0	3,14263	1,17961
2	3620,65	106,333	6,43252	26.998,23	34,0622	7,86586	19,7903	0	2,91209	1,18024
2	3624,75	117,755	4,79509	24.294,39	43,3344	8,07409	19,9822	0	2,72782	1,18083
2	3625,46	119,655	4,5341	23.921,22	44,9114	8,13505	20,008	0	2,70369	1,18092
2	3629,	130,693	3,094	22.068,	54,055	8,6159	20,3226	0	2,594	1,1807

	67		44	57	5	2				2
2	3635,58	145,624	1,37446	20.188,72	65,8985	9,455	20,7231	0	2,50361	1,18028
2	3641,14	159,319	0,01	18.879,63	76,1893	10,2445	20,9383	0	2,44719	1,1803
2	3641,14	159,319	0	18.879,66	76,1893	10,2618	20,936	0	2,44545	1,18031
2	3642,67	163,025	0	18.742,43	78,8908	10,0914	20,9757	0	2,41949	1,18022
2	3651,17	182,972	0	18.007,36	93,2333	9,37981	21,1926	0	2,29421	1,1797
2	3661,38	205,762	0	17.199,58	109,288	8,84706	21,4377	0	2,17431	1,17911
2	3673,63	231,692	0	16.340,04	127,096	8,4584	21,7078	0	2,06033	1,17845
2	3688,33	261,169	0	15.410,28	146,683	8,20425	22,0052	0	1,95352	1,17771
2	3705,96	294,737	0	14.273,30	167,991	8,13918	22,3474	0	1,85849	1,17689
2	3711,11	304,244	0	13.937,19	173,805	8,15582	22,4434	0	1,83657	1,17667

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	25,4	0	25,4
2	Continuous	3600	0	kg/s	25,4	0	25,4

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	12,5	999.99	0,4505	0,2183	-160,955	0	67,657	1,9081
				9,41	41	46			2	4
1	0,01	0,63420	12,49	919.29	0,5332	0,2622	-145,441	0	59,589	1,7503
		5	98	4,89	99	08				2
1	0,02	1,19987	12,49	854.73	0,6101	0,3023	-132,697	0	53,722	1,6496
			94	2,67		67			9	5

1	0,03	1,71367	12,49	801.70	0,6820	0,3395	-122,017	0	49,248	1,5792
			87	2,77	67	08			8	5
1	0,04	2,18681	12,49	757.17	0,7499	0,3741	-112,904	0	45,708	1,5268
			78	1,22	53	93			4	8
1	0,05	2,62761	12,49	719.07	0,8143	0,4068	-105,004	0	42,824	1,4861
			68	3,02	62	69			2	7
1	0,06	3,04256	12,49	685.96	0,8757	0,4378	-98,0629	0	40,419	1,4534
			56	5,33	91	81			1	2
1	0,07	3,43551	12,49	656.83	0,9346	0,4674	-91,8965	0	38,376	1,4264
			44	1,18	17	81			2	2
1	0,08	3,80974	12,49	630.91	0,9911	0,4958	-86,3662	0	36,614	1,4036
			3	7,48	61	66			1	8
1	0,09	4,16767	12,49	607.65	1,0456	0,5231	-81,3662	0	35,074	1,3842
			16	8,70	8	93			7	1
1	0,1	4,51126	12,49	586.61	1,0984	0,5495	-76,8142	0	33,715	1,3673
				9,85		88			5	2
1	0,11	4,8422	12,48	567.45	1,1495	0,5751	-72,6443	0	32,503	1,3524
			84	7,35	1	57			8	9
1	0,12	5,16189	12,48	549.89	1,1991	0,5999	-68,8038	0	31,415	1,3393
			68	8,32	8	88			1	5
1	0,13	5,47141	12,48	533.72	1,2475	0,6241	-65,251	0	30,430	1,3275
			5	7,75	2	5			1	9
1	0,14	5,77152	12,48	518.77	1,2946	0,6476	-61,9523	0	29,533	1,3170
			33	3,81	3	91			8	2
1	0,15	6,06272	12,48	504.89	1,3405	0,6706	-58,8811	0	28,714	1,3074
			15	8,85	7	45			6	5
1	0,16	6,34568	12,47	491.98	1,3854	0,6930	-56,0133	0	27,962	1,2987
			96	0,46	2	5			3	5
1	0,17	6,6211	12,47	479.91	1,4292	0,7149	-53,3275	0	27,268	1,2908
			77	1,01	6	48			3	
1	0,18	6,88966	12,47	468.59	1,4721	0,7363	-50,8055	0	26,625	1,2835
			58	8,30	6	79			5	1
1	0,19	7,15184	12,47	457.96	1,5141	0,7573	-48,4314	0	26,027	1,2767
			38	2,43	9	76			8	9
1	0,2	7,40831	12,47	447.93	1,5554	0,7779	-46,1909	0	25,47	1,2705
			18	2,97	4	78				7
1	0,212	7,70946	12,46	436.61	1,6039	0,8022	-43,6616	0	24,847	1,2637
			94	1,45	8	27				1

1	0,226 4	8,06111	12,46 65	423.96 2,93	1,6608 7	0,8306 48	-40,8381	0	24,159 2	1,2562 4
1	0,243 68	8,47059	12,46 29	409.96 4,01	1,7273 6	0,8638 66	-37,7204	0	23,408	1,2482 1
1	0,264 416	8,94627	12,45 86	394.62 2,34	1,8048 6	0,9025 87	-34,3202	0	22,596 3	1,2397 4
1	0,289 299	9,49497	12,45 34	378.02 6,12	1,8946 9	0,9474 71	-30,6735	0	21,731 8	1,231
1	0,319 159	10,1271	12,44 71	360.25 4,17	1,9985 5	0,9993 74	-26,8234	0	20,821 2	1,2221 8
1	0,354 991	10,8537	12,43 95	341.43 4,04	2,1182 7	1,0592 1	-22,8346	0	19,873 6	1,2135 2
1	0,397 989	11,684	12,43 04	321.77 3,05	2,2555 1	1,1278	-18,7987	0	18,901 4	1,2053 2
1	0,449 587	12,6302	12,41 96	301.47 0,84	2,4123 2	1,2061 9	-14,8098	0	17,916 1	1,1978 7
1	0,511 504	13,7061	12,40 69	280.75 1,92	2,5909 6	1,2955	-10,9625	0	16,929 3	1,1914 1
1	0,585 805	14,9251	12,39 22	259.86 2,32	2,7938 5	1,3969 3	-7,33905	0	15,953 2	1,1860 9
1	0,674 966	16,3026	12,37 53	239.04 0,83	3,0237 9	1,5119	-3,99647	0	14,998 4	1,1819 8
1	0,781 959	17,8568	12,35 6	218.50 2,31	3,2842	1,6421	-0,962485	0	14,073 8	1,1790 2
1	0,910 351	19,6066	12,33 43	198.45 2,47	3,5783 9	1,7892	1,6813	0	13,187 2	1,1774 8
1	1,064 42	21,5689	12,31	179.07 9,67	3,9126 4	1,9563 2	4,23762	0	12,345	1,1759 3
1	1,249 31	23,7677	12,28 3	160.51 2,42	4,2915 2	2,1457 6	6,5323	0	11,550 9	1,1750 4
1	1,471 17	26,2349	12,25 33	142.84 8,04	4,7219 8	2,3609 9	8,58369	0	10,807	1,1746 7
1	1,737 4	29,0065	12,22 06	126.16 6,29	5,2123 1	2,6061 6	10,4113	0	10,114 4	1,1747 1
1	2,056 88	32,1246	12,18 45	110.52 5,15	5,7727 1	2,8863 6	12,0351	0	9,4734 5	1,1750 6
1	2,440 26	35,6354	12,14 39	95.969, 35	6,4155 5	3,2077 8	13,4736	0	8,8840 7	1,1756 3

1	2,900 31	39,5922	12,09 68	82.524, 87	7,1564 7	3,5782 4	14,7441	0	8,3453 2	1,1763 5
1	3,452 37	44,0596	12,03 93	70.200, 36	8,0157 6	4,0078 9	15,8628	0	7,8556 9	1,1771 6
1	4,114 84	49,1001	11,96 61	58.999, 08	9,0200 3	4,5100 3	16,8438	0	7,4136 6	1,1780 2
1	4,909 81	54,8133	11,86 72	48.902, 09	10,208 2	5,1041 3	17,7004	0	7,0171 9	1,1788 8
1	5,863 77	61,3119	11,72 75	39.890, 00	11,638 1	5,8191	18,4442	0	6,6651 9	1,1797 2
1	7,008 53	68,7287	11,52 47	31.940, 36	13,399 8	6,6999 5	19,0851	0	6,3580 5	1,1805 2
1	8,382 23	77,2498	11,22 51	25.025, 46	15,637 1	7,8186 2	19,632	0	6,0983 6	1,1812 6
1	8,649 09	78,8681	11,15 96	23.921, 22	16,092 2	8,0461 5	19,7185	0	6,0581 9	1,1813 8
1	10,03 07	87,0835	10,78 17	19.054, 86	18,632 7	9,3164 2	20,6776	0	5,8897 3	1,1798 7
1	10,32 7	88,8203	10,69 6	18.236, 75	19,173	9,5865 6	20,8586	0	5,8631	1,1795 5
1	10,32 7	88,8203	10,69 6	18.236, 75	19,173	9,5865 7	20,8586	0	5,8631	1,1795 5
1	12,00 88	98,5557	10,21 37	15.371, 84	23,006 7	9,8870 5	21,5021	0	5,7368 1	1,1784 2
1	13,69 57	108,142	9,763 34	13.635, 62	26,578 3	9,9435	21,8984	0	5,6459 4	1,1777 3
1	13,69 57	108,142	9,763 34	13.635, 62	26,578 3	9,9435	21,8984	0	5,6459 4	1,1777 3
1	14,38 26	112,006	9,592 6	13.094, 91	27,951	9,9510 4	22,0231	0	5,6152 8	1,1775 1
1	16,26 15	122,482	9,163 81	11.919, 09	31,384 2	10,001 6	22,297	0	5,5462 8	1,1770 4
2	3600	0	12,5	999.99 9,41	0,4505 41	0,2183 46	-160,955	0	67,657 2	1,9081 4
2	3600, 01	0,63420 5	12,49 98	919.29 4,89	0,5332 99	0,2622 08	-145,441	0	59,589	1,7503 2
2	3600,	1,19987	12,49	854.73	0,6101	0,3023	-132,697	0	53,722	1,6496

	02		94	2,67		67		9	5	
2	3600,03	1,71367	12,4987	801.702,77	0,682067	0,339508	-122,017	0	49,2488	1,57925
2	3600,04	2,18681	12,4978	757.171,22	0,749953	0,374193	-112,904	0	45,7084	1,52688
2	3600,05	2,62761	12,4968	719.073,02	0,814362	0,406869	-105,004	0	42,8242	1,48617
2	3600,06	3,04256	12,4956	685.965,33	0,875791	0,437881	-98,0629	0	40,4191	1,45342
2	3600,07	3,43551	12,4944	656.831,18	0,934617	0,467481	-91,8965	0	38,3762	1,42642
2	3600,08	3,80974	12,493	630.917,48	0,991161	0,495866	-86,3662	0	36,6141	1,40368
2	3600,09	4,16767	12,4916	607.658,70	1,04568	0,523193	-81,3662	0	35,0747	1,38421
2	3600,1	4,51126	12,49	586.619,85	1,0984	0,549588	-76,8142	0	33,7155	1,36732
2	3600,11	4,8422	12,4884	567.457,35	1,14951	0,575157	-72,6443	0	32,5038	1,35249
2	3600,12	5,16189	12,4868	549.898,32	1,19918	0,599988	-68,8038	0	31,4151	1,33935
2	3600,13	5,47141	12,485	533.727,75	1,24752	0,62415	-65,251	0	30,4301	1,32759
2	3600,14	5,77152	12,4833	518.773,81	1,29463	0,647691	-61,9523	0	29,5338	1,31702
2	3600,15	6,06272	12,4815	504.898,85	1,34057	0,670645	-58,8811	0	28,7146	1,30745
2	3600,16	6,34568	12,4796	491.980,46	1,38542	0,69305	-56,0133	0	27,9623	1,29875
2	3600,17	6,6211	12,4777	479.911,01	1,42926	0,714948	-53,3275	0	27,2683	1,2908
2	3600,18	6,88966	12,4758	468.598,30	1,47216	0,736379	-50,8055	0	26,6255	1,28351
2	3600,19	7,15184	12,4738	457.962,43	1,51419	0,757376	-48,4314	0	26,0278	1,27679
2	3600,2	7,40831	12,4718	447.932,97	1,55544	0,777978	-46,1909	0	25,47	1,27057
2	3600,	7,70946	12,46	436.61	1,6039	0,8022	-43,6616	0	24,847	1,2637

	21		94	1,45	8	27				1
2	3600, 23	8,06111	12,46 65	423.96 2,93	1,6608 7	0,8306 48	-40,8381	0	24,159 2	1,2562 4
2	3600, 24	8,47059	12,46 29	409.96 4,01	1,7273 6	0,8638 66	-37,7204	0	23,408	1,2482 1
2	3600, 26	8,94627	12,45 86	394.62 2,34	1,8048 6	0,9025 87	-34,3202	0	22,596 3	1,2397 4
2	3600, 29	9,49497	12,45 34	378.02 6,12	1,8946 9	0,9474 71	-30,6735	0	21,731 8	1,231
2	3600, 32	10,1271	12,44 71	360.25 4,17	1,9985 5	0,9993 74	-26,8234	0	20,821 2	1,2221 8
2	3600, 35	10,8537	12,43 95	341.43 4,04	2,1182 7	1,0592 1	-22,8346	0	19,873 6	1,2135 2
2	3600, 4	11,684	12,43 04	321.77 3,05	2,2555 1	1,1278	-18,7987	0	18,901 4	1,2053 2
2	3600, 45	12,6302	12,41 96	301.47 0,84	2,4123 2	1,2061 9	-14,8098	0	17,916 1	1,1978 7
2	3600, 51	13,7061	12,40 69	280.75 1,92	2,5909 6	1,2955	-10,9625	0	16,929 3	1,1914 1
2	3600, 59	14,9251	12,39 22	259.86 2,32	2,7938 5	1,3969 3	-7,33905	0	15,953 2	1,1860 9
2	3600, 67	16,3026	12,37 53	239.04 0,83	3,0237 9	1,5119	-3,99647	0	14,998 4	1,1819 8
2	3600, 78	17,8568	12,35 6	218.50 2,31	3,2842	1,6421	-0,962485	0	14,073 8	1,1790 2
2	3600, 91	19,6066	12,33 43	198.45 2,47	3,5783 9	1,7892	1,6813	0	13,187 2	1,1774 8
2	3601, 06	21,5689	12,31	179.07 9,67	3,9126 4	1,9563 2	4,23762	0	12,345	1,1759 3
2	3601, 25	23,7677	12,28 3	160.51 2,42	4,2915 2	2,1457 6	6,5323	0	11,550 9	1,1750 4
2	3601, 47	26,2349	12,25 33	142.84 8,04	4,7219 8	2,3609 9	8,58369	0	10,807	1,1746 7
2	3601, 74	29,0065	12,22 06	126.16 6,29	5,2123 1	2,6061 6	10,4113	0	10,114 4	1,1747 1
2	3602, 06	32,1246	12,18 45	110.52 5,15	5,7727 1	2,8863 6	12,0351	0	9,4734 5	1,1750 6
2	3602, 35,6354		12,14	95.969,	6,4155	3,2077	13,4736	0	8,8840	1,1756

	44		39	35	5	8			7	3
2	3602,9	39,5922	12,0968	82.524,87	7,15647	3,57824	14,7441	0	8,34532	1,17635
2	3603,45	44,0596	12,0393	70.200,36	8,01576	4,00789	15,8628	0	7,85569	1,17716
2	3604,11	49,1001	11,9661	58.999,08	9,02003	4,51003	16,8438	0	7,41366	1,17802
2	3604,91	54,8133	11,8672	48.902,09	10,2082	5,10413	17,7004	0	7,01719	1,17888
2	3605,86	61,3119	11,7275	39.890,00	11,6381	5,8191	18,4442	0	6,66519	1,17972
2	3607,01	68,7287	11,5247	31.940,36	13,3998	6,69995	19,0851	0	6,35805	1,18052
2	3608,38	77,2498	11,2251	25.025,46	15,6371	7,81862	19,632	0	6,09836	1,18126
2	3608,65	78,8681	11,1596	23.921,22	16,0922	8,04615	19,7185	0	6,05819	1,18138
2	3610,03	87,0835	10,7817	19.054,86	18,6327	9,31642	20,6776	0	5,88973	1,17987
2	3610,33	88,8203	10,696	18.236,75	19,173	9,58656	20,8586	0	5,8631	1,17955
2	3610,33	88,8203	10,696	18.236,75	19,173	9,58657	20,8586	0	5,8631	1,17955
2	3612,01	98,5557	10,2137	15.371,84	23,0067	9,88705	21,5021	0	5,73681	1,17842
2	3613,7	108,142	9,76334	13.635,62	26,5783	9,9435	21,8984	0	5,64594	1,17773
2	3613,7	108,142	9,76334	13.635,62	26,5783	9,9435	21,8984	0	5,64594	1,17773
2	3614,38	112,006	9,5926	13.094,91	27,951	9,95104	22,0231	0	5,61528	1,17751
2	3616,26	122,482	9,16381	11.919,09	31,3842	10,0016	22,297	0	5,54628	1,17704

